Compounds other than ethylene oxide were not quantitated.

SOP ERG-MOR-005
Air Toxics TO-15 Quality Control Review Checklist 2018-1

Sequence ID:	LPAP 1901053	**Instrument:**	MS1	**Batch:**	19A1607
Cal Curve (Method):	9010202	**Analyst:**	MAH	**Date Analyzed:**	1-16-19
10% Review Sample IDs:		**Reviewer:**		**Date:**	
Optional Additional Review Sample IDs:		**Reviewer:**		**Date:**	

Parameter	Acceptance Criteria	Analyst Check (Initials and Date)	Task Lead/Data (Initials and Date)	10% QA Review (Initials and Date)	Optional Additional QA Review (Initials and Date)	Comments
BFB Instrument Tune Performance Check – one per analysis sequence	Evaluation criteria presented in Section 16.1.1	1-24-19	RMB 1/31/19			
Initial calibration with a minimum of 5 points - quarterly	1)RSD of response factors < ±30% with two exceptions of up to ±40% (non-Tier I compounds) 2) IS response < ±40% of mean 3) RRTs for target peaks ±0.06 units from mean RRT 4) IS RTs within 20sec of mean 5) Each calibration standard within ±30% of nominal conc (for Tier I compounds)	1-24-19	RMB 1/31/19			LPAE
ICV(LCS) Second source calibration verification check - immediately following ICAL	The response factor ≤ ±30% DEV from calibration curve average response factor	1-24-19	RMB 1/31/19			LPAE
Continuing calibration verification (CCV), approximately mid-point of the calibration curve – one per analysis sequence	The response factor ≤ ±30% DEV from calibration curve average response factor	1-24-19	RMB 1/31/19			
Method Blank Analysis – one per analysis sequence	1) < 3xMDL or 0.2ppbv, whichever is lower 2) Internal Standard (IS) area response within < ±40% and IS Retention Time (RT) within ±0.33 min. of most recent initial calibration	1-24-19	RMB 1/31/19			

ED_002475_00000276-00001

Compounds other than ethylene oxide were not quantitated.

Air Toxics TO-15 Quality Control Review Checklist 2018-1 (Continued)

Parameter	Acceptance Criteria	Analyst Check (Initials and Date)	Task Lead/Data (Initials and Date)	10% QA Review (Initials and Date)	Optional Additional QA Review (Initials and Date)	Comments
Replicate Analysis – one per analysis sequence /Duplicate Sample	< 25% RPD for compounds greater than 5 times the MDL	1-24-19	RMB 1/31/19			
Canister Cleaning Certification	<3xMDL or 0.2ppbv per VOC targeted compound, whichever is lower	—	RMB 1/31/19			
Preconcentrator Leak Check	≤ ± 0.2 psi/min	1-24-19	RMB 1/31/19			
Samples/Internal Standard Check	IS area within ±40% and IS RT within ±0.33 min. of most recent initial calibration	1-24-19	RMB 1/30/19			
COC Included and filled out	Lab receipt acknowledged, LIMS number added to COC	1-24-19	RMB 1/30/19			
Manual Integration and peak deletion	Conforms with ERG-SOP-097 "Procedure for Manual Integration of Chromatographic Peaks"	1-24-19	RMB 1/31/19			
Manual Calculation Check	One compound manual check must agree with software generated result		RMB 1/31/19			
Qualifiers Check	Check to make sure LIMS data flags are correct	1-24-19	RMB 1/31/19			

This review check sheet must be completed by primary data reviewer/TL/QA.

L19A002 ethylene oxide $\frac{7571 \times 4.77}{61498 \times 0.2464} = 2.38$ ppbv

Compounds other than ethylene oxide were not quantitated.

ANALYSIS SEQUENCE

Instrument: ERGMS#1

Calibration ID: 9010002

1901053

Printed: 1/31/2019 9:08:49AM

Lab Number	Sample Name	Analysis	Container	Order	Position	STD ID	ISTD ID	Comments
1901053-CCV1	Calibration Check	QC		1		9A10002	8L13002	
B9A1607-BLK1	Blank	QC		2			8L13002	
9011118-01	TO-15 2019 MDL #1	TO-15 2019	A	3			8L13002	
9011118-02	TO-15 2019 MDL #2	TO-15 2019	A	4			8L13002	
9011118-03	TO-15 2019 MDL #3	TO-15 2019	A	5			8L13002	
9011118-04	TO-15 2019 MDL #4	TO-15 2019	A	6			8L13002	
9010808-05	WB Village Hall C1	TO-15 2019	A	7			8L13002	
9010716-05	WB Village Hall C2	TO-15 2019	A	8			8L13002	Ethylene Oxide only
B9A1607-DUP1	Duplicate	QC		9			8L13002	
B9A1607-DUP2	Duplicate	QC		10			8L13002	
9010808-01	WB Warehouse	TO-15 2019	A	11			8L13002	
9010808-02	Hinsdale South HS	TO-15 2019	A	12			8L13002	
9010808-03	Gower MS	TO-15 2019	A	13			8L13002	
9010808-04	Willow Pond Park	TO-15 2019	A	14			8L13002	
9010808-08	Gower ES	TO-15 2019	A	15			8L13002	
9010716-08	Hinsdale South HS	TO-15 2019	A	16			8L13002	Ethylene Oxide only

Samples Loaded By Date

Randy Bower Data Processed By

1/31/19 Date

Compounds other than ethylene oxide were not quantitated.

Sequence Name: C:\msdchem\1\sequence\L19AP.s
Comment: ANALYZE 1/16/19,8120004 exp 4/5/19, L19AP
Operator: MAH
Data Path: C:\MSDCHEM\1\DATA\L19AP\
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

Line			Sample Name/Misc Info		
1)	Sample	1	L19AP001	BFB	BFB
2)	Sample	2	L19AP002	9010002	1901053-CCV1
3)	Sample	4	L19AP003	9010002	SNMOC-CCV1
4)	Sample	5	L19AP004	9010002	FLUSH
5)	Sample	6	L19AP005	9010002	B9A1607-BLK1
6)	Sample	7	L19AP006	9010002	B-H2-541
7)	Sample	8	L19AP007	9010002	T-H1-542
8)	Sample	9	L19AP008	9010002	T-H2-542
9)	Sample	10	L19AP009	9010002	9011118-01
10)	Sample	11	L19AP010	9010002	9011118-02
11)	Sample	12	L19AP011	9010002	9011118-03
12)	Sample	13	L19AP012	9010002	9011118-04
13)	Sample	14	L19AP013	9010002	9010808-05
14)	Sample	15	L19AP014	9010002	9010716-05
15)	Sample	16	L19AP015	9010002	B9A1607-DUP1
16)	Sample	17	L19AP016	9010002	B9A1607-DUP2
17)	Sample	18	L19AP017	9010002	9010808-01
18)	Sample	19	L19AP018	9010002	9010808-02
19)	Sample	20	L19AP019	9010002	9010808-03
20)	Sample	21	L19AP020	9010002	9010808-04
21)	Sample	22	L19AP021	9010002	9010808-08
22)	Sample	23	L19AP022	9010002	9010716-08
23)	Sample	100	OFF	FIDOFF	OFF

1-24-19

Compounds other than ethylene oxide were not quantitated.

Sample	1	BFB	BFB	L19AP001	80 ML 8L13001	1
Sample	2	1901053-CCV1	9010002	L19AP002	80 ML 8L13001,9A10002	1
Sample	4	SNMOC-CCV1	9010002	L19AP003	80 ML 8L13001,8L27003	1
Sample	5	FLUSH	9010002	L19AP004	80 ML 8L13001	1
Sample	6	B9A1607-BLK1	9010002	L19AP005	80 ML 8L13001,B-H1-541,A21013	1
Sample	7	B-H2-541	9010002	L19AP006	CAN SAT 049 BATCH BLANK	1
Sample	8	T-H1-542	9010002	L19AP007	CAN 5057 BATCH BLANK	1
Sample	9	T-H2-542	9010002	L19AP008	CAN 5028 BATCH BLANK	1
Sample	10	9011118-01	9010002	L19AP009	TO-15 2019 MDL #1,9A11004,RERUN	1
Sample	11	9011118-02	9010002	L19AP010	TO-15 2019 MDL #2,9A11005,RERUN	1
Sample	12	9011118-03	9010002	L19AP011	TO-15 2019 MDL #3,9A11006,RERUN	1
Sample	13	9011118-04	9010002	L19AP012	TO-15 2019 MDL #4,9A11007,RERUN	1
Sample	14	9010808-05	9010002	L19AP013	WILLOWBROOK VILLAGE HALL C1 1/4/19	1
Sample	15	9010716-05	9010002	L19AP014	WILLOWBROOK VILLAGE HALL C2 1/4/19	1
Sample	16	B9A1607-DUP1	9010002	L19AP015	WILLOWBROOK VILLAGE HALL R1 1/4/19	1
Sample	17	B9A1607-DUP2	9010002	L19AP016	WILLOWBROOK VILLAGE HALL R2 1/4/19	1
Sample	18	9010808-01	9010002	L19AP017	WILLOWBROOK WAREHOUSE 1/7/18	1
Sample	19	9010808-02	9010002	L19AP018	HINSDALE HS 1/7/19	1
Sample	20	9010808-03	9010002	L19AP019	GOWER MS 1/7/18	1
Sample	21	9010808-04	9010002	L19AP020	POND PARK 1/7/19	1
Sample	22	9010808-08	9010002	L19AP021	GOWER ES 1/7/19	1
Sample	23	9010716-08	9010002	L19AP022	HINSDALE S. HS 1/4/18	1
Sample	100	OFF	FIDOFF	OFF	OFF	1

1-24-19

Compounds other than ethylene oxide were not quantitated.

----------SEQUENCE TABLE ----------

Sequence Name: C:\Smart\L19AP.SEQ
Date: 01-17-2019
Time: 10:46:48
Int. Std Volume: 80 cc

Sample Name	Inlet #	Auto Pos	Samp Vol.	Cal Std Vol.	Method	Time
BFB	1	1	0	0	C:\Smart\BFB.MPT	12:00
1901053-CCV1	2	1	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
SNMOC-CCV1	1	1	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
FLUSH	1	2	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
-BLK1 B-H1-541	1	2	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
B-H2-541	1	3	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
T-H1-542	1	4	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
T-H2-542	1	5	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
9011118-01 RERUN	1	6	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
9011118-02 RERUN	1	7	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
9011118-03 RERUN	1	8	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
9011118-04 RERUN	1	9	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
9010808-05	1	10	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
9010716-05	1	11	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
B9A1607-DUP1	1	10	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
B9A1607-DUP2	1	11	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
9010808-01	1	12	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
9010808-02	1	13	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
9010808-03	1	14	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
9010808-04	1	15	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
9010808-08	1	16	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
9010716-08	1	2	250	0	C:\Smart\TO-15A_MS1.MPT	12:00

1-24-19

Compounds other than ethylene oxide were not quantitated.

---------- Leak Check Report ----------

1/17/2019 11:08:17 AM
Leak Check for C:\Smart\L19AP.SEQ
Report File: C:\Smart\L19AP.LCR
Leak Check Method: Evacuation
Pressurize/Evacuate time(sec) 20
Equilibration time(sec) 20
Maintanance time(sec) 60

Sample Inlet	Auto1	Auto2	Auto3	Start	End	Rate(psi/min)
1	6	---	---	1.2	1.3	0.10
1	7	---	---	1.2	1.2	0.00
1	8	---	---	1.1	1.2	0.10
1	9	---	---	1.2	1.3	0.10
1	10	---	---	1.2	1.2	0.00
1	11	---	---	1.1	1.2	0.10
1	12	---	---	1.2	1.2	0.00
1	13	---	---	1.2	1.2	0.00
1	14	---	---	1.2	1.3	0.10
1	15	---	---	1.2	1.2	0.00
1	16	---	---	1.2	1.3	0.10
1	2	---	---	1.2	1.2	0.00

7-2475

Compounds other than ethylene oxide were not quantitated.

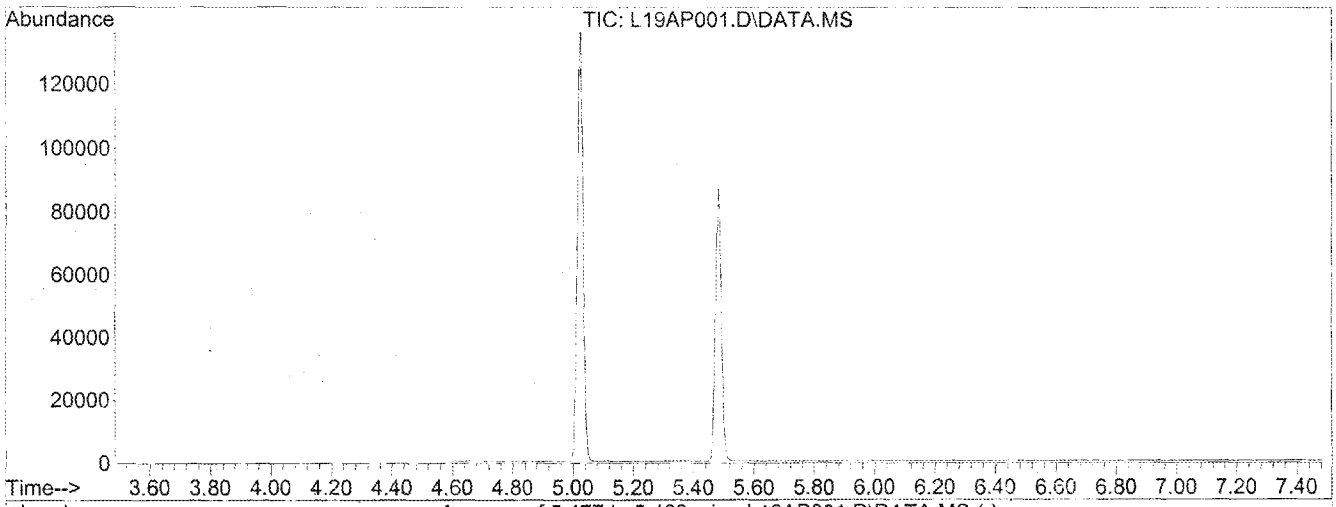
BFB

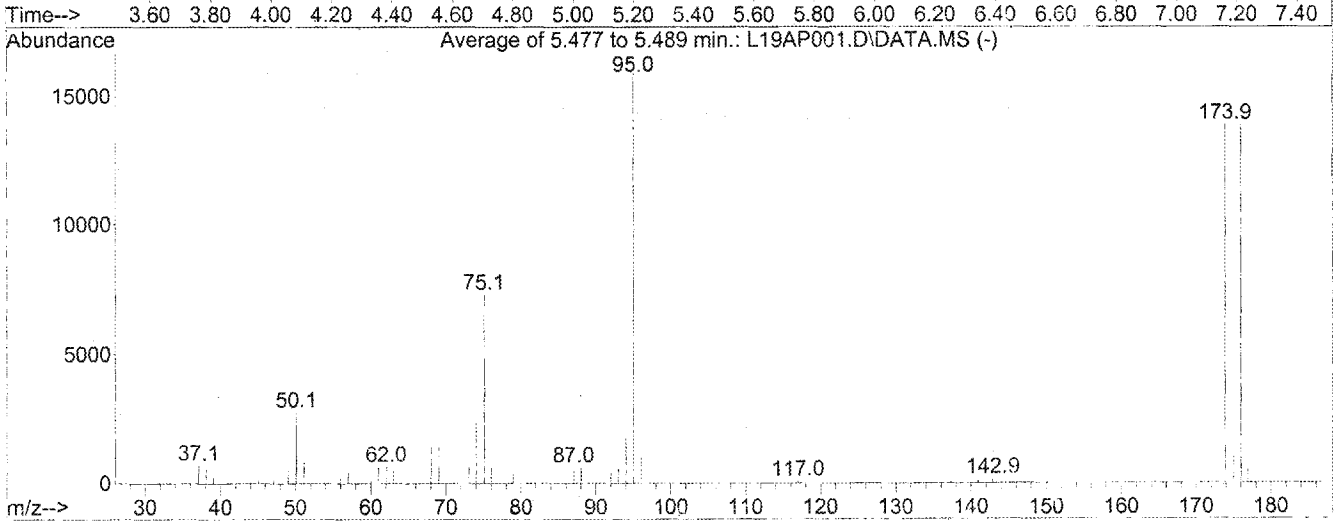
Data Path : C:\msdchem\1\DATA\L19AP\
Data File : L19AP001.D
Acq On : 16 Jan 2019 11:58 am
Operator : MAH
Sample : BFB
Misc : 80 ML 8L13001
ALS Vial : 1 Sample Multiplier: 1

Integration File: RTEINT.P

1-24-19

Method : C:\msdchem\1\METHODS\9010002.M
Title : TO-15 by Selective Ion Analysis
Last Update : Tue Jan 08 07:11:21 2019





AutoFind: Scans 146, 147, 148; Background Corrected with Scan 139

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	17.3	2758	PASS
75	95	30	66	45.9	7291	PASS
95	95	100	100	100.0	15898	PASS
96	95	5	9	6.5	1040	PASS
173	174	0.00	2	0.3	38	PASS
174	95	50	120	87.2	13856	PASS
175	174	4	9	7.5	1035	PASS
176	174	93	101	99.9	13849	PASS
177	176	5	9	6.3	879	PASS

Compounds other than ethylene oxide were not quantitated.

GC/MS QA-QC Check Report

Tune File : C:\msdchem\1\DATA\L19AP\L19AP001.D
Tune Time : 16 Jan 2019 11:58 am

9010002	IS Avg Area	61735	149820	118119
	+40%	86428	209748	165367
	-40%	37041	89892	70872

File	Sample		Surrogate Recovery %		Internal Standard Responses
L19AP002.D					
	1901053-CCV1		61498	151163	120262
L19AP005.D					
	B9A1607-BLK1		56179	138297	102223
L19AP006.D					
	B-H2-541		54084	135861	108817
L19AP007.D					
	T-H1-542		54485	134568	106202
L19AP008.D					
	T-H2-542		55100	136028	110269
L19AP009.D					
	9011118-01	RERUN	53418	127409	105332
L19AP010.D					
	9011118-02	RERUN	52952	128062	104578
L19AP011.D					
	9011118-03	RERUN	52691	130286	104521
L19AP012.D					
	9011118-04	RERUN	55436	137671	106591
L19AP013.D					
	9010808-05		52887	126198	102692
L19AP014.D					
	9010716-05		53770	130444	102872
L19AP015.D					
	B9A1607-DUP1		53673	131249	104000
L19AP016.D					
	B9A1607-DUP2		50726	122808	98850
L19AP017.D					
	9010808-01		54465	137300	107731
L19AP018.D					
	9010808-02		52127	130495	102416
L19AP019.D					
	9010808-03		51850	126019	99573
L19AP020.D					
	9010808-04		51890	126402	102883
L19AP021.D					
	9010808-08		52928	131669	103678
L19AP022.D					
	9010716-08		52947	128106	100509

(Fails) - fails 24hr time check * - fails criteria

Created: Wed Jan 23 06:45:55 2019 MS1

1-24-19

Compounds other than ethylene oxide were not quantitated.

Compound Name			IS-Hexane-d14	IS-Hexane-d14	IS-Difluorobenzene	IS-Difluorobenzene	IS-Chlorobenzene-d5	IS-Chlorobenzene-d5
Labels	Date Acquired	Data File Name	(# 1) Target Response	(# 1) Ret Time	(# 28) Target Response	(# 28) Ret Time	(# 42) Target Response	(# 42) Ret Time
	1/17/2019 10:08	L19AP022.D	52947	19.99	128106	23.15	100509	30.10
Format 1 (Yes/No)								
Format 1 Title								
Format 2 (Yes/No)			YES	YES	YES	YES	YES	YES
Format 2 Title								
Show X Axis Title			YES	YES	YES	YES	YES	YES
Show Y Axis Title								
Lines To Chart								

Start of Data	Format 1 X-axis	Format 2 X-axis	IS-Hexane-d14	% Rec	RT	DEV (min)	IS-Difluorobenzene	% Rec	RT	DEV (min)	IS-Chlorobenzene-d5	% Rec	RT	DEV (min)
		IS AVG / AVG RT	61735		19.99		149820		23.15		118119		30.12	
	1/16/2019 12:36	L19AP002.D	61498	100	19.99	0	151163	101	23.15	0	120262	102	30.11	-0.01
	1/16/2019 16:40	L19AP005.D	56179	91	19.99	0	138297	92	23.15	0	102223	87	30.12	0
	1/16/2019 17:41	L19AP006.D	54084	88	19.99	0	135861	91	23.15	0	108817	92	30.10	-0.02
	1/16/2019 18:41	L19AP007.D	54485	88	19.99	0	134568	90	23.15	0	106202	90	30.10	-0.02
	1/16/2019 19:44	L19AP008.D	55100	89	19.99	0	136028	91	23.15	0	110269	93	30.10	-0.02
	1/16/2019 20:46	L19AP009.D	53418	87	19.99	0	127409	85	23.15	0	105332	89	30.10	-0.02
	1/16/2019 21:48	L19AP010.D	52952	86	19.99	0	128062	85	23.15	0	104578	89	30.10	-0.02
	1/16/2019 22:50	L19AP011.D	52691	85	19.99	0	130286	87	23.15	0	104521	88	30.10	-0.02
	1/16/2019 23:52	L19AP012.D	55436	90	19.99	0	137671	92	23.15	0	106591	90	30.10	-0.02
	1/17/2019 12:55	L19AP013.D	52887	86	19.99	0	126198	84	23.15	0	102692	87	30.10	-0.02
	1/17/2019 1:57	L19AP014.D	53770	87	19.99	0	130444	87	23.15	0	102872	87	30.10	-0.02
	1/17/2019 2:59	L19AP015.D	53673	87	19.99	0	131249	88	23.15	0	104000	88	30.09	-0.03
	1/17/2019 4:02	L19AP016.D	50726	82	19.99	0	122808	82	23.15	0	98850	84	30.10	-0.02
	1/17/2019 5:02	L19AP017.D	54465	88	19.99	0	137300	92	23.15	0	107731	91	30.09	-0.03
	1/17/2019 6:02	L19AP018.D	52127	84	19.99	0	130495	87	23.15	0	102416	87	30.10	-0.02
	1/17/2019 7:04	L19AP019.D	51850	84	19.99	0	126019	84	23.15	0	99573	84	30.10	-0.02
	1/17/2019 8:06	L19AP020.D	51890	84	19.99	0	126402	84	23.15	0	102883	87	30.10	-0.02
	1/17/2019 9:06	L19AP021.D	52928	86	19.99	0	131669	88	23.15	0	103678	88	30.10	-0.02
	1/17/2019 10:08	L19AP022.D	52947	86	19.99	0	128106	86	23.15	0	100509	85	30.10	-0.02

T-24-15

Compounds other than ethylene oxide were not quantitated.

Analytical Standard Record
Eastern Research Group
9A10002

Description:	2.50 ppbv ICV/CCV	Expires:	02/09/19
Standard Type:	Calibration Stan	Prepared:	01/10/19
Solvent:	Scientific Air	Prepared By:	Mitch Howell
Final Volume (mls):	6000	Department:	Air Toxics
Vials:	1	Last Edit:	01/10/19 07:20 by MH

canister# 3224

Analyte	CAS Number	Concentration	Units
1,1,1-Trichloroethane	71-55-6	0.00247	ppmv
1,1,2,2-Tetrachloroethane	79-34-5	0.00253	ppmv
1,1,2-Trichloroethane	79-00-5	0.00248	ppmv
1,1-Dichloroethane	75-34-3	0.00243	ppmv
1,1-Dichloroethene	75-35-4	0.00244	ppmv
1,2,4-Trichlorobenzene	120-82-1	0.00248	ppmv
1,2,4-Trimethylbenzene	95-63-6	0.00238	ppmv
1,2-Dibromoethane	106-93-4	0.0025	ppmv
1,2-Dichloroethane	107-06-2	0.00249	ppmv
1,2-Dichloropropane	78-87-5	0.00253	ppmv
1,3,5-Trimethylbenzene	108-67-8	0.00252	ppmv
1,3-Butadiene	106-99-0	0.00247	ppmv
Acetonitrile	75-05-8	0.00253	ppmv
Acetylene	74-86-2	0.0024	ppmv
Acrolein	107-02-8	0.00242	ppmv
Acrylonitrile	107-13-1	0.0025	ppmv
Benzene	71-43-2	0.00251	ppmv
Bromochloromethane	74-97-5	0.00247	ppmv
Bromodichloromethane	75-27-4	0.00256	ppmv
Bromoform	75-25-2	0.00254	ppmv
Bromomethane	74-83-9	0.0025	ppmv
Carbon Disulfide	75-15-0	0.00248	ppmv
Carbon Tetrachloride	56-23-5	0.00252	ppmv
Chlorobenzene	108-90-7	0.00246	ppmv
Chloroethane	75-00-3	0.0025	ppmv
Chloroform	67-66-3	0.0025	ppmv
Chloromethane	74-87-3	0.00248	ppmv
Chloroprene	126-99-8	0.00248	ppmv
cis-1,2-Dichloroethylene	156-59-2	0.0025	ppmv
cis-1,3-Dichloropropene	10061-01-5	0.00254	ppmv

Reviewed By 1-14-19 Date

Compounds other than ethylene oxide were not quantitated.

Analytical Standard Record
Eastern Research Group
9A10002

Dibromochloromethane	124-48-1	0.00254	ppmv
Dichlorodifluoromethane	75-71-8	0.00238	ppmv
Dichloromethane	75-09-2	0.00248	ppmv
Dichlorotetrafluoroethane	76-14-2	0.00244	ppmv
Ethyl Acrylate	140-88-5	0.00254	ppmv
Ethyl tert-Butyl Ether	637-92-3	0.00257	ppmv
Ethylbenzene	100-41-4	0.0025	ppmv
Ethylene oxide	75-21-8	0.0025	ppmv
Hexachloro-1,3-butadiene	87-68-3	0.0025	ppmv
m,p-Xylene	108-38-3, 106-42-3	0.00498	ppmv
m-Dichlorobenzene	541-73-1	0.0024	ppmv
Methyl Isobutyl Ketone	108-10-1	0.00253	ppmv
Methyl Methacrylate	80-62-6	0.00254	ppmv
Methyl tert-Butyl Ether	1634-04-4	0.00254	ppmv
Naphthalene	91-20-3	0.00246	ppmv
n-Hexane	110-54-3	0.0025	ppmv
n-Octane	111-65-9	0.00252	ppmv
o-Dichlorobenzene	95-50-1	0.0025	ppmv
o-Xylene	95-47-6	0.00244	ppmv
p-Dichlorobenzene	106-46-7	0.00261	ppmv
Propylene	115-07-1	0.00245	ppmv
Styrene	100-42-5	0.0025	ppmv
tert-Amyl Methyl Ether	994-05-8	0.0026	ppmv
Tetrachloroethylene	127-18-4	0.00249	ppmv
Toluene	108-88-3	0.00244	ppmv
trans-1,2-Dichloroethylene	156-60-5	0.00246	ppmv
trans-1,3-Dichloropropene	10061-02-6	0.00246	ppmv
Trichloroethylene	79-01-6	0.00252	ppmv
Trichlorofluoromethane	75-69-4	0.0025	ppmv
Trichlorotrifluoroethane	76-13-1	0.00244	ppmv
Vinyl chloride	75-01-4	0.0025	ppmv

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
8J25001	TO-15 Secondary Stock Standard	10/25/18	** Vendor **	10/04/19	11/20/18 11:30 by RMB	30
8K20015	Ethylene Oxide Secondary Stock St	11/12/18	** Vendor **	11/12/19	11/20/18 12:14 by MH	15

Reviewed By 1-24-19 Date

Compounds other than ethylene oxide were not quantitated.

Evaluate Continuing Calibration Report

Data Path : C:\MSDCHEM\1\DATA\L19AP\
Data File : L19AP002.D
Acq On : 16 Jan 2019 12:36 pm
Operator : MAH
Sample : 1901053-CCV1
Misc : 80 ML 8L13001,9A10002
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 23 06:42:12 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration

1-24-19

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.30min
Max. RRF Dev : 30% Max. Rel. Area : 140%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	ISS	IS-Hexane-d14	1.000	1.000	0.0	100	0.00
2	CT	Acetylene	0.368	0.344	6.5	100	0.00
3	CT	Propylene	0.454	0.460	-1.3	100	0.00
4	CT	Dichlorodifluoromethane	1.966	1.913	2.7	100	0.00
5	CT	Chloromethane	0.586	0.552	5.8	100	0.00
6	CT	Dichlorotetrafluoroethane	1.864	2.008	-7.7	100	0.00
7	CT	Vinyl Chloride	0.630	0.611	3.0	100	0.00
8	CT	1,3-Butadiene	0.415	0.392	5.5	100	0.00
9	CT	Ethylene oxide	0.246	0.235	4.5	100	0.00
10	CT	Bromomethane	0.634	0.608	4.1	100	0.00
11	CT	Chloroethane	0.279	0.267	4.3	100	0.00
12	CT	Acetonitrile	0.479	0.446	6.9	100	0.00
13	CT	Acrolein	0.236	0.216	8.5	100	0.00
14	CT	Trichlorofluoromethane	1.865	1.598	14.3	100	0.00
15	CT	Acrylonitrile	0.385	0.365	5.2	100	0.00
16	CT	1,1-Dichloroethene	0.856	0.879	-2.7	100	0.00
17	CT	Methylene Chloride	0.612	0.615	-0.5	100	0.00
18	CT	Carbon Disulfide	1.862	1.794	3.7	100	0.00
19	CT	Trichlorotrifluoroethane	1.345	1.355	-0.7	100	0.00
20	CT	trans-1,2-Dichloroethylene	0.483	0.485	-0.4	100	0.00
21	CT	1,1-Dichloroethane	0.877	0.910	-3.8	100	0.00
22	CT	Methyl tert-Butyl Ether	1.298	1.238	4.6	100	0.00
23	CT	Chloroprene	0.602	0.636	-5.6	100	0.00
24	CT	cis-1,2-Dichloroethylene	0.670	0.668	0.3	100	0.00
25	CT	Bromochloromethane	0.368	0.355	3.5	100	0.00
26	CT	Chloroform	1.004	1.058	-5.4	100	0.00
27	CT	Ethyl tert-Butyl Ether	1.360	1.358	0.1	100	0.00
28	CT	1,2-Dichloroethane	0.596	0.609	-2.2	100	0.00
29	ISS	IS-1,4-Difluorobenzene	1.000	1.000	0.0	100	0.00
30	CT	1,1,1-Trichloroethane	0.417	0.393	5.8	100	0.00
31	CT	Benzene	0.574	0.634	-10.5	100	0.00
32	CT	Carbon Tetrachloride	0.452	0.484	-7.1	100	0.00
33	CT	tert-Amyl Methyl Ether	0.483	0.486	-0.6	100	0.00
34	CT	1,2-Dichloropropane	0.241	0.254	-5.4	100	0.00
35	CT	Ethyl Acrylate	0.323	0.337	-4.3	100	0.00
36	CT	Bromodichloromethane	0.440	0.397	9.8	100	0.00
37	CT	Trichloroethylene	0.276	0.263	4.7	100	0.00
38	CT	Methyl Methacrylate	0.850	0.862	-1.4	100	0.00
39	CT	cis-1,3-Dichloropropene	0.221	0.252	-14.0	100	0.00
40	CT	Methyl Isobutyl Ketone	0.465	0.459	1.3	100	0.00
41	CT	trans-1,3-Dichloropropene	0.172	0.183	-6.4	100	0.00
42	CT	1,1,2-Trichloroethane	0.214	0.226	-5.6	100	0.00
43	ISS	IS-Chlorobenzene-d5	1.000	1.000	0.0	100	0.00
44	CT	Toluene	0.762	0.835	-9.6	100	0.00
45	CT	Dibromochloromethane	1.910	1.851	3.1	100	0.00
46	CT	1,2-Dibromoethane	0.346	0.365	-5.5	100	0.00
47	CT	n-Octane	0.471	0.493	-4.7	100	0.00
48	CT	Tetrachloroethylene	0.387	0.415	-7.2	100	0.00

Compounds other than ethylene oxide were not quantitated.

Data Path : C:\MSDCHEM\1\DATA\L19AP\
Data File : L19AP002.D
Acq On : 16 Jan 2019 12:36 pm
Operator : MAH
Sample : 1901053-CCV1
Misc : 80 ML 8L13001,9A10002
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 23 06:42:12 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.30min
Max. RRF Dev : 30% Max. Rel. Area : 140%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
49	CT	Chlorobenzene	0.538	0.558	-3.7	100	0.00
50	CT	Ethylbenzene	0.814	0.863	-6.0	100	0.00
51	CT	m,p-Xylene	0.708	0.743	-4.9	100	0.00
52	CT	Bromoform	0.414	0.392	5.3	100	0.00
53	CT	Styrene	0.391	0.393	-0.5	100	0.00
54	CT	1,1,2,2-Tetrachloroethane	0.517	0.518	-0.2	100	0.00
55	CT	o-Xylene	0.683	0.753	-10.2	100	0.00
56	CT	1,3,5-Trimethylbenzene	0.669	0.673	-0.6	100	0.00
57	CT	1,2,4-Trimethylbenzene	0.583	0.591	-1.4	100	0.00
58	CT	m-Dichlorobenzene	0.401	0.329	18.0	100	0.00
59	CT	p-Dichlorobenzene	0.323	0.281	13.0	100	0.00
60	CT	o-Dichlorobenzene	0.349	0.320	8.3	100	0.00
61	CT	1,2,4-Trichlorobenzene	0.142	0.132	7.0	100	0.00
62	CT	Hexachloro-1,3-butadiene	0.360	0.393	-9.2	100	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\L19AP\
Data File : L19AP002.D
Acq On : 16 Jan 2019 12:36 pm
Operator : MAH
Sample : 1901053-CCV1
Misc : 80 ML 8L13001,9A10002
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 23 06:42:12 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) IS-Hexane-d14	19.990	66	61498	4.7700	ppbv	0.00
29) IS-1,4-Difluorobenzene	23.149	114	151163	4.9900	ppbv	0.00
43) IS-Chlorobenzene-d5	30.114	117	120262	4.7400	ppbv	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) Acetylene	5.406	26	10644	2.2417	ppbv	100
3) Propylene	7.823	41	14520	2.4784	ppbv	100
4) Dichlorodifluoromethane	8.685	85	58696	2.3161	ppbv	100
5) Chloromethane	9.740	50	17657	2.3355	ppbv	100
6) Dichlorotetrafluoroethane	10.864	85	63162	2.6279	ppbv	99
7) Vinyl Chloride	11.119	62	19709	2.4252	ppbv	99
8) 1,3-Butadiene	11.783	54	12489	2.3326	ppbv	99
9) Ethylene oxide	12.393	29	7571	2.3835	ppbv	97
10) Bromomethane	12.588	94	19602	2.3978	ppbv	100
11) Chloroethane	13.280	64	8596	2.3905	ppbv	99
12) Acetonitrile	14.356	41	14535	2.3534	ppbv	98
13) Acrolein	14.634	56	6726	2.2113	ppbv	95
14) Trichlorofluoromethane	15.191	101	51502	2.1420	ppbv	100
15) Acrylonitrile	15.933	53	11765	2.3711	ppbv	100
16) 1,1-Dichloroethene	16.443	61	27644	2.5048	ppbv	99
17) Methylene Chloride	16.744	49	19673	2.4933	ppbv	100
18) Carbon Disulfide	16.930	76	57367	2.3900	ppbv	100
19) Trichlorotrifluoroethane	17.301	101	42640	2.4583	ppbv	100
20) trans-1,2-Dichloroethy...	18.335	96	15371	2.4673	ppbv	100
21) 1,1-Dichloroethane	18.630	63	28521	2.5224	ppbv	100
22) Methyl tert-Butyl Ether	18.789	73	40532	2.4226	ppbv	100
23) Chloroprene	19.537	53	20338	2.6187	ppbv	99
24) cis-1,2-Dichloroethylene	19.945	61	21526	2.4935	ppbv	100
25) Bromochloromethane	20.172	128	11295	2.3775	ppbv	99
26) Chloroform	20.421	83	34092	2.6350	ppbv	99
27) Ethyl tert-Butyl Ether	21.182	59	45011	2.5676	ppbv	100
28) 1,2-Dichloroethane	21.476	62	19554	2.5464	ppbv	100
30) 1,1,1-Trichloroethane	21.867	97	29375	2.3254	ppbv	99
31) Benzene	22.553	78	48242	2.7763	ppbv	100
32) Carbon Tetrachloride	22.788	117	36914	2.6959	ppbv	99
33) tert-Amyl Methyl Ether	23.520	73	38317	2.6187	ppbv	100
34) 1,2-Dichloropropane	23.788	63	19447	2.6614	ppbv	96
35) Ethyl Acrylate	23.891	55	25962	2.6502	ppbv	100
36) Bromodichloromethane	24.076	83	30822	2.3138	ppbv	100
37) Trichloroethylene	24.179	130	20074	2.3987	ppbv	100
38) Methyl Methacrylate	24.530	41	66323	2.5761	ppbv	99
39) cis-1,3-Dichloropropene	25.528	75	19353	2.8873	ppbv	98
40) Methyl Isobutyl Ketone	25.605	43	35153	2.4942	ppbv	99
41) trans-1,3-Dichloropropene	26.367	75	13636	2.6131	ppbv	96
42) 1,1,2-Trichloroethane	26.615	97	16945	2.6144	ppbv	99
44) Toluene	27.092	91	51715	2.6765	ppbv	100
45) Dibromochloromethane	27.734	129	119267	2.4607	ppbv	100
46) 1,2-Dibromoethane	28.155	107	23129	2.6337	ppbv	100
47) n-Octane	28.874	43	31540	2.6393	ppbv	100
48) Tetrachloroethylene	28.997	166	26206	2.6663	ppbv	100
49) Chlorobenzene	30.190	112	34820	2.5527	ppbv	100
50) Ethylbenzene	30.915	91	54725	2.6493	ppbv	100

Compounds other than ethylene oxide were not quantitated

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\L19AP\
Data File : L19AP002.D
Acq On : 16 Jan 2019 12:36 pm
Operator : MAH
Sample : 1901053-CCV1
Misc : 80 ML 8L13001,9A10002
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 23 06:42:12 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	31.240	91	93936	5.2300 ppbv	100
52) Bromoform	31.278	173	25235	2.4018 ppbv	100
53) Styrene	31.908	104	24922	2.5141 ppbv #	99
54) 1,1,2,2-Tetrachloroethane	32.080	83	33272	2.5344 ppbv	100
55) o-Xylene	32.118	91	46643	2.6934 ppbv	100
56) 1,3,5-Trimethylbenzene	34.919	105	43038	2.5344 ppbv	100
57) 1,2,4-Trimethylbenzene	35.845	105	35711	2.4151 ppbv	100
58) m-Dichlorobenzene	36.112	146	20059	1.9730 ppbv	99
59) p-Dichlorobenzene	36.290	146	18599	2.2708 ppbv	100
60) o-Dichlorobenzene	37.092	146	20328	2.2986 ppbv	100
61) 1,2,4-Trichlorobenzene	40.841	180	8336	2.3125 ppbv	99
62) Hexachloro-1,3-butadiene	41.635	225	24917	2.7247 ppbv	100

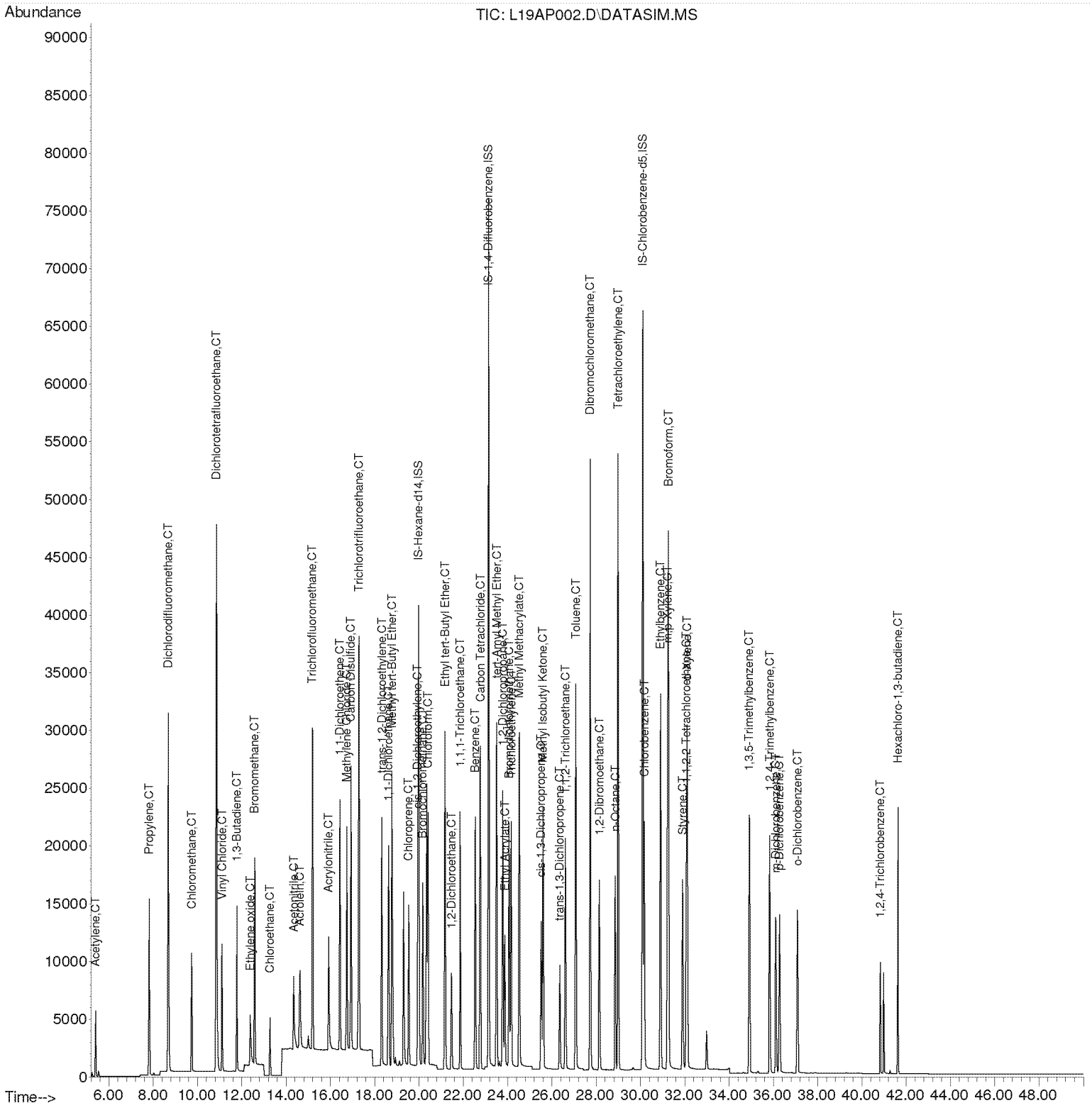
(#) = qualifier out of range (m) = manual integration (+) = signals summed

ED_002475_00000276-00016

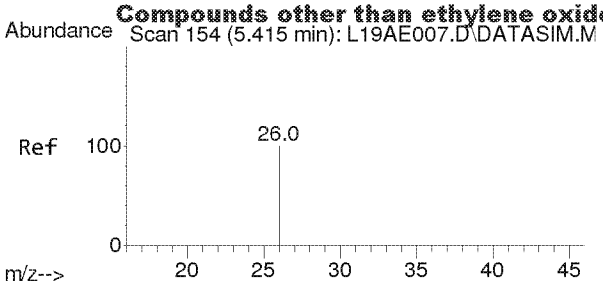
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L19AP\
Data File : L19AP002.D
Acq On : 16 Jan 2019 12:36 pm
Operator : MAH
Sample : 1901053-CCV1
Misc : 80 ML 8L13001,9A10002
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 23 06:42:12 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration

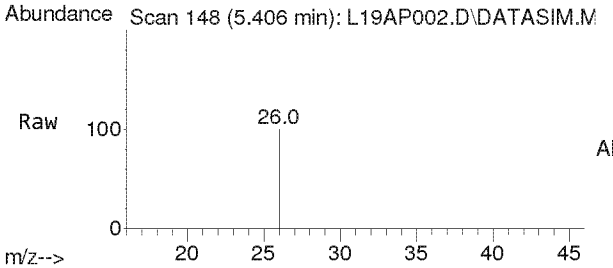


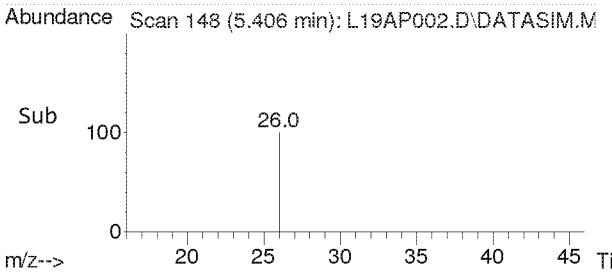
Compounds other than ethylene oxide were not quantitated.

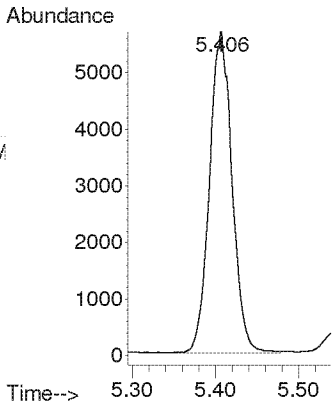


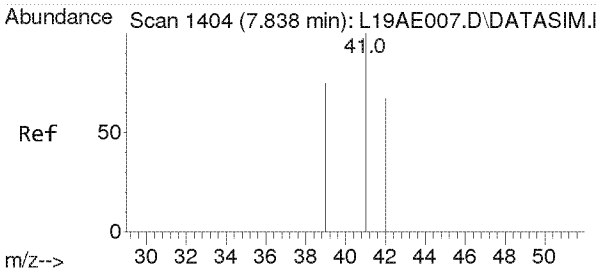
#2
Acetylene
Concen: 2.242 ppbv
RT: 5.406 min Scan# 148
Delta R.T. -0.009 min
Lab File: L19AP002.D
Acq: 16 Jan 2019 12:36 pm

Tgt Ion: 26 Resp: 10644





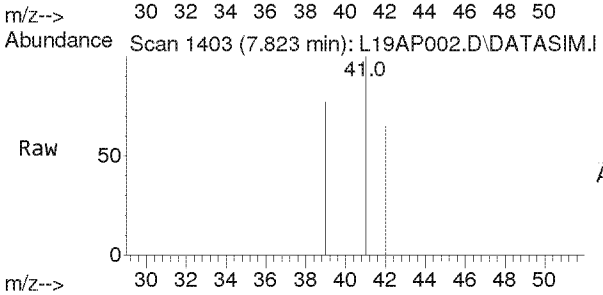


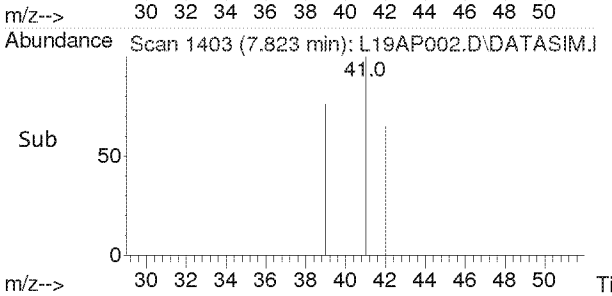


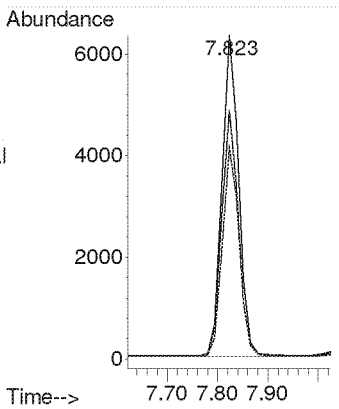
#3
Propylene
Concen: 2.478 ppbv
RT: 7.823 min Scan# 1403
Delta R.T. -0.015 min
Lab File: L19AP002.D
Acq: 16 Jan 2019 12:36 pm

Tgt Ion: 41 Resp: 14520

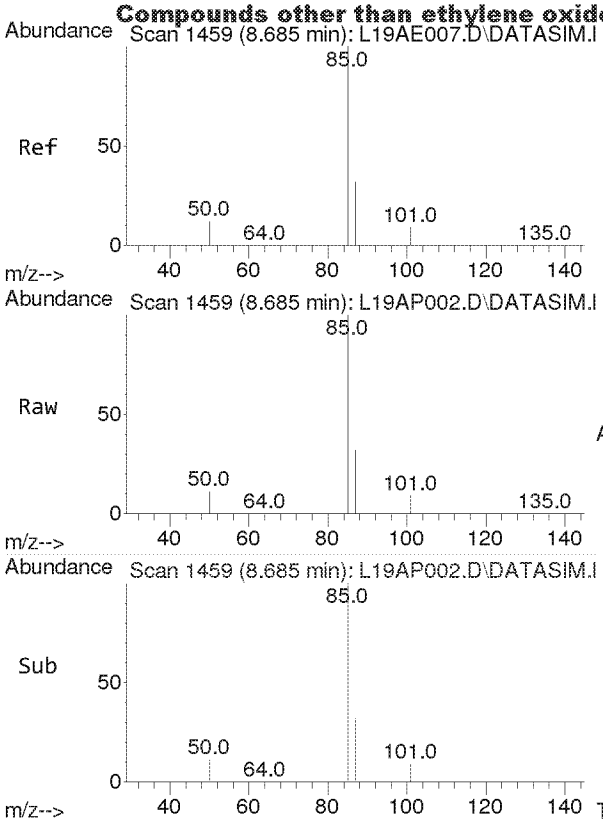
Ion	Ratio	Lower	Upper
41	100		
39	76.4	61.6	92.4
42	65.8	52.6	79.0







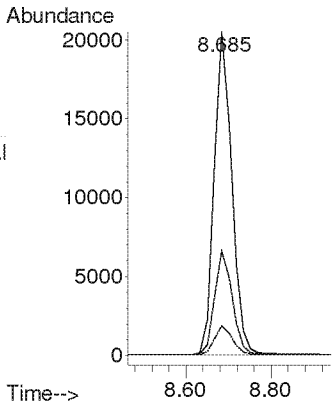
Compounds other than ethylene oxide were not quantitated.

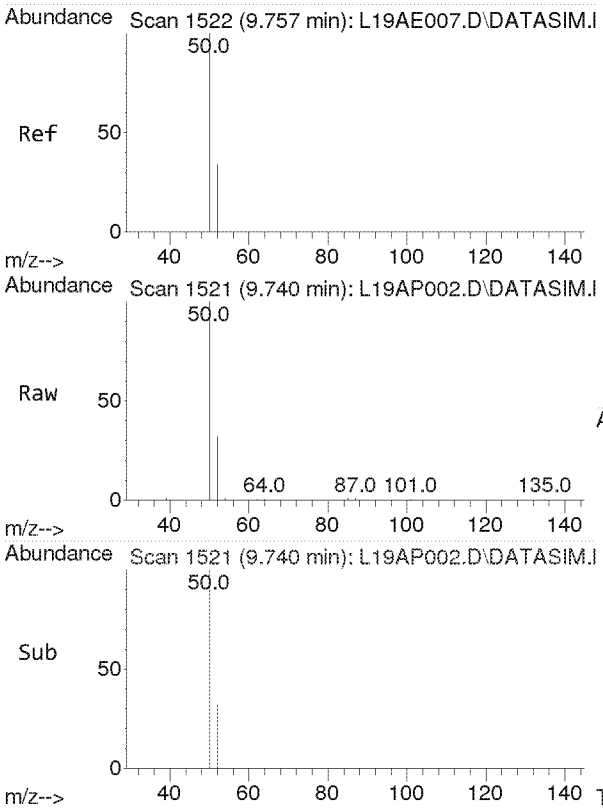


#4
Dichlorodifluoromethane
Concen: 2.316 ppbv
RT: 8.685 min Scan# 1459
Delta R.T. -0.000 min
Lab File: L19AP002.D
Acq: 16 Jan 2019 12:36 pm

Tgt Ion: 85 Resp: 58696

Ion	Ratio	Lower	Upper
85	100		
87	32.2	26.0	39.0
101	8.9	7.1	10.7

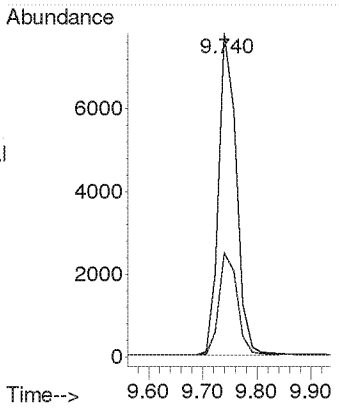




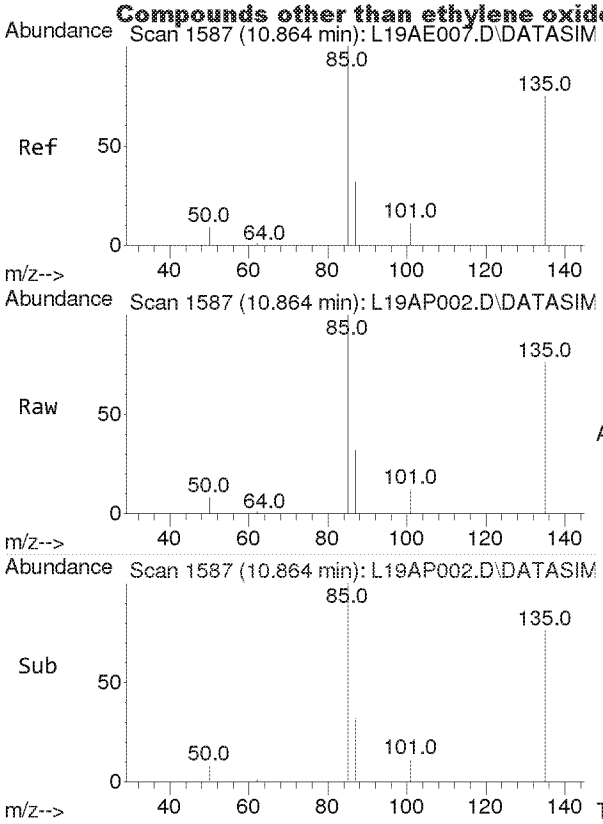
#5
Chloromethane
Concen: 2.336 ppbv
RT: 9.740 min Scan# 1521
Delta R.T. -0.017 min
Lab File: L19AP002.D
Acq: 16 Jan 2019 12:36 pm

Tgt Ion: 50 Resp: 17657

Ion	Ratio	Lower	Upper
50	100		
52	32.6	25.9	38.9



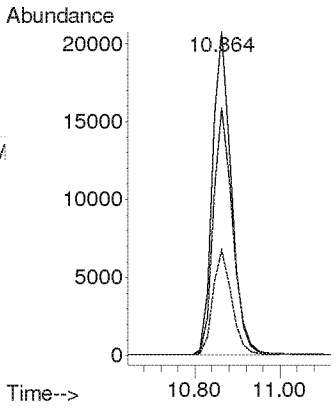
Compounds other than ethylene oxide were not quantitated.

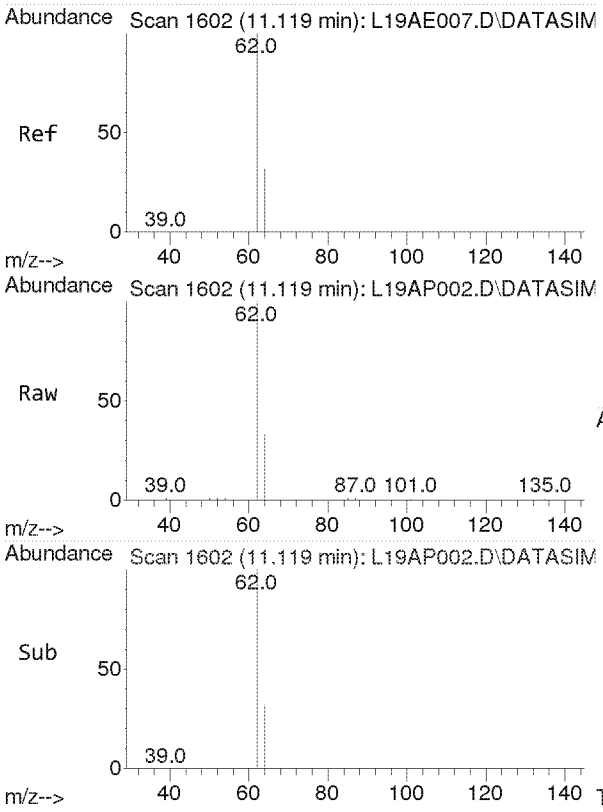


#6
Dichlorotetrafluoroethane
Concen: 2.628 ppbv
RT: 10.864 min Scan# 1587
Delta R.T. -0.000 min
Lab File: L19AP002.D
Acq: 16 Jan 2019 12:36 pm

Tgt Ion: 85 Resp: 63162

Ion	Ratio	Lower	Upper
85	100		
135	78.8	63.6	95.4
87	32.2	25.8	38.6

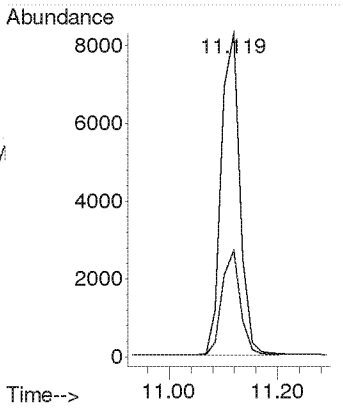




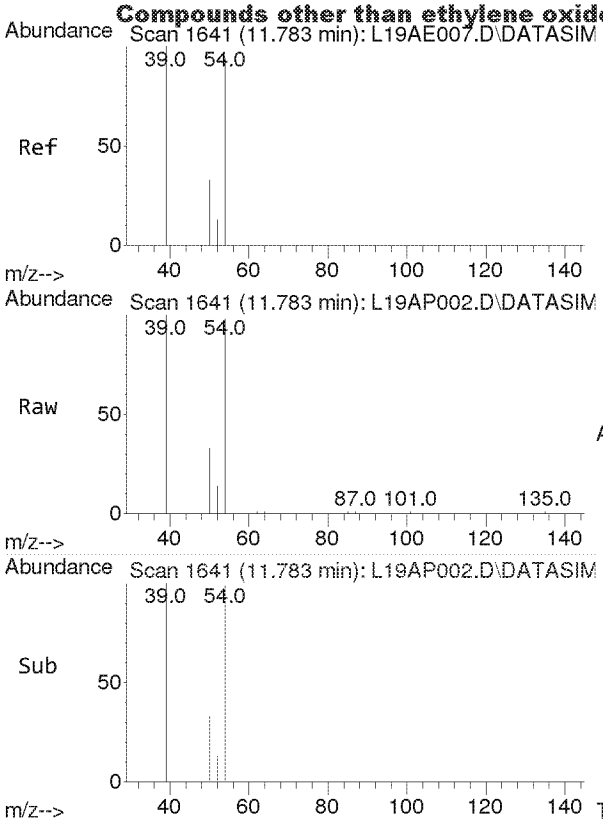
#7
Vinyl Chloride
Concen: 2.425 ppbv
RT: 11.119 min Scan# 1602
Delta R.T. -0.000 min
Lab File: L19AP002.D
Acq: 16 Jan 2019 12:36 pm

Tgt Ion: 62 Resp: 19709

Ion	Ratio	Lower	Upper
62	100		
64	31.6	25.7	38.5



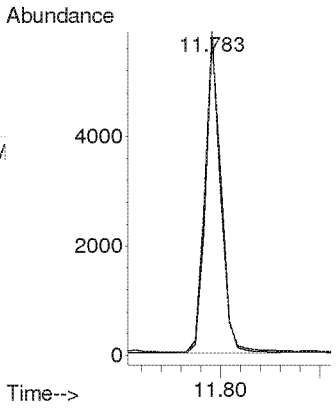
Compounds other than ethylene oxide were not quantitated.

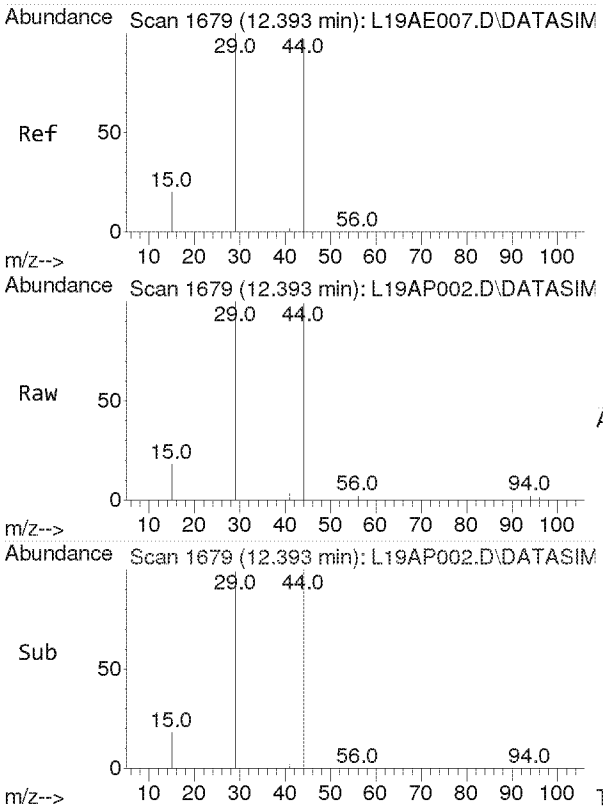


#8
1,3-Butadiene
Concen: 2.333 ppbv
RT: 11.783 min Scan# 1641
Delta R.T. -0.000 min
Lab File: L19AP002.D
Acq: 16 Jan 2019 12:36 pm

Tgt Ion: 54 Resp: 12489

Ion	Ratio	Lower	Upper
54	100		
39	101.8	82.6	124.0

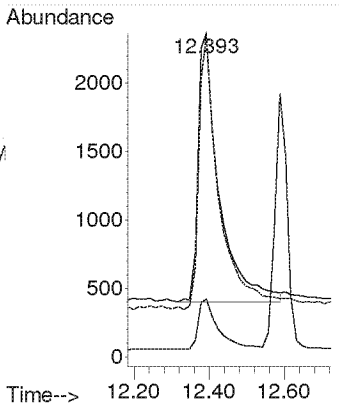




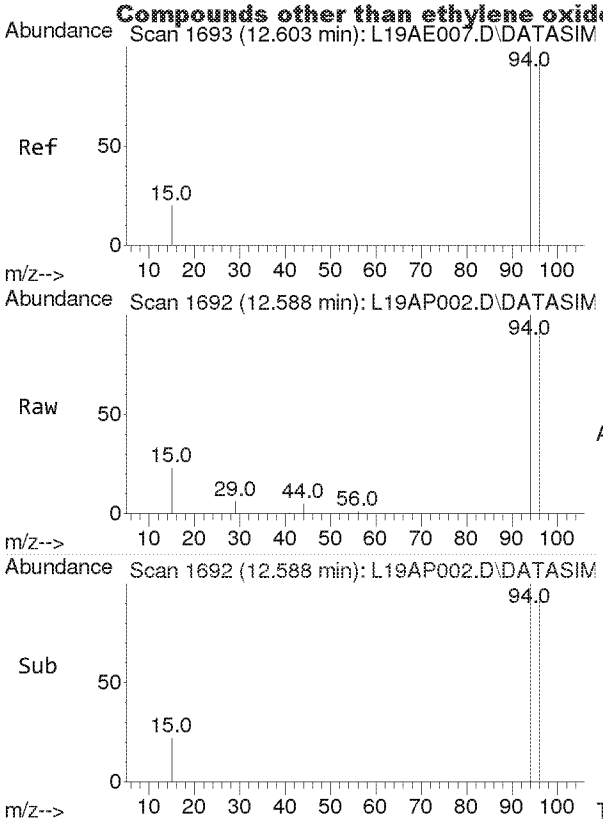
#9
Ethylene oxide
Concen: 2.384 ppbv
RT: 12.393 min Scan# 1679
Delta R.T. -0.000 min
Lab File: L19AP002.D
Acq: 16 Jan 2019 12:36 pm

Tgt Ion: 29 Resp: 7571

Ion	Ratio	Lower	Upper
29	100		
15	17.7	15.4	23.0
44	99.8	77.4	116.2



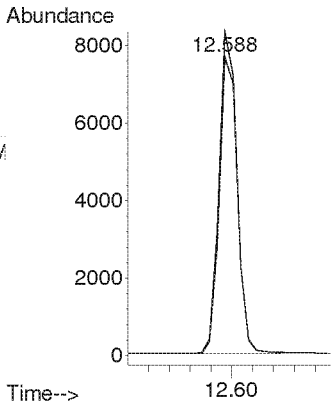
Compounds other than ethylene oxide were not quantitated.

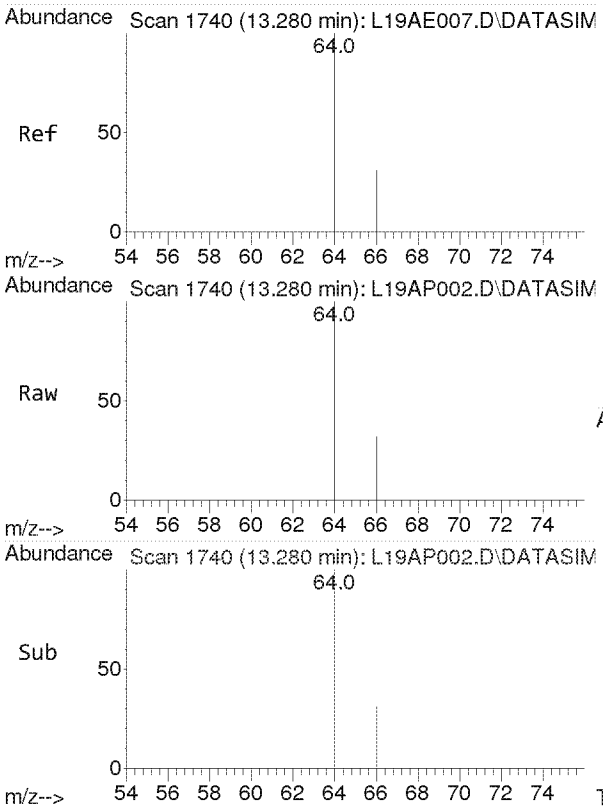


#10
Bromomethane
Concen: 2.398 ppbv
RT: 12.588 min Scan# 1692
Delta R.T. -0.015 min
Lab File: L19AP002.D
Acq: 16 Jan 2019 12:36 pm

Tgt Ion: 94 Resp: 19602

Ion	Ratio	Lower	Upper
94	100		
96	94.0	75.4	113.2

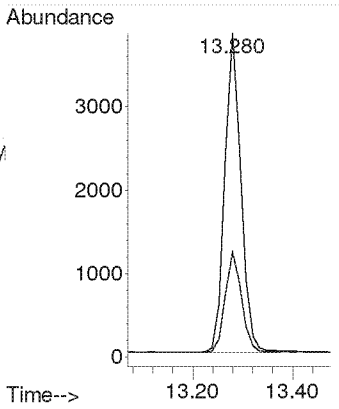




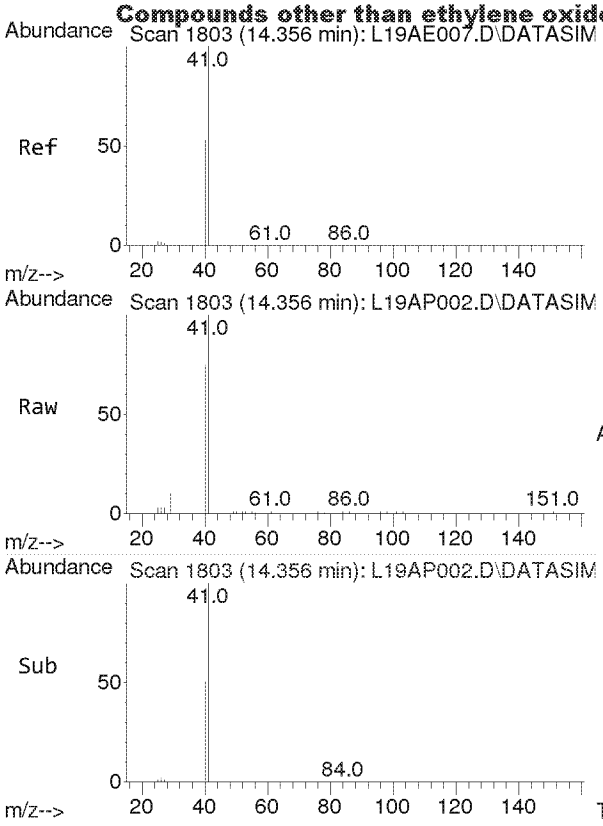
#11
Chloroethane
Concen: 2.391 ppbv
RT: 13.280 min Scan# 1740
Delta R.T. -0.000 min
Lab File: L19AP002.D
Acq: 16 Jan 2019 12:36 pm

Tgt Ion: 64 Resp: 8596

Ion	Ratio	Lower	Upper
64	100		
66	31.9	25.9	38.9



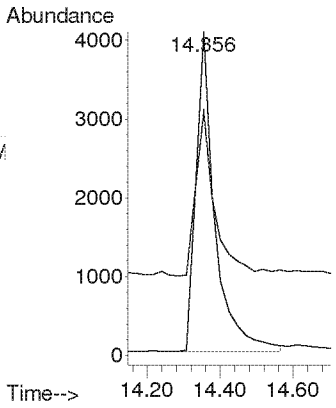
Compounds other than ethylene oxide were not quantitated.

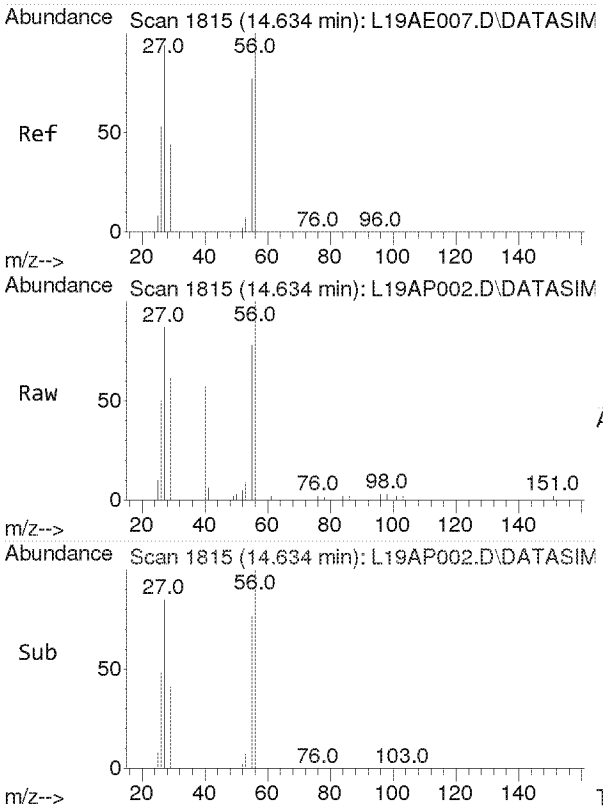


#12
Acetonitrile
Concen: 2.353 ppbv
RT: 14.356 min Scan# 1803
Delta R.T. -0.000 min
Lab File: L19AP002.D
Acq: 16 Jan 2019 12:36 pm

Tgt Ion: 41 Resp: 14535

Ion	Ratio	Lower	Upper
41	100		
40	52.0	42.6	63.8

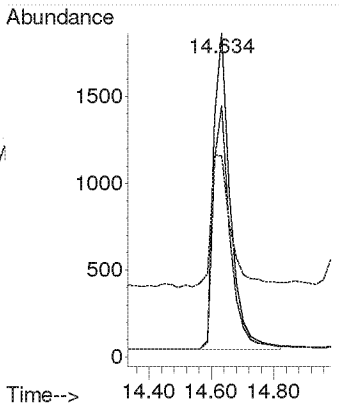




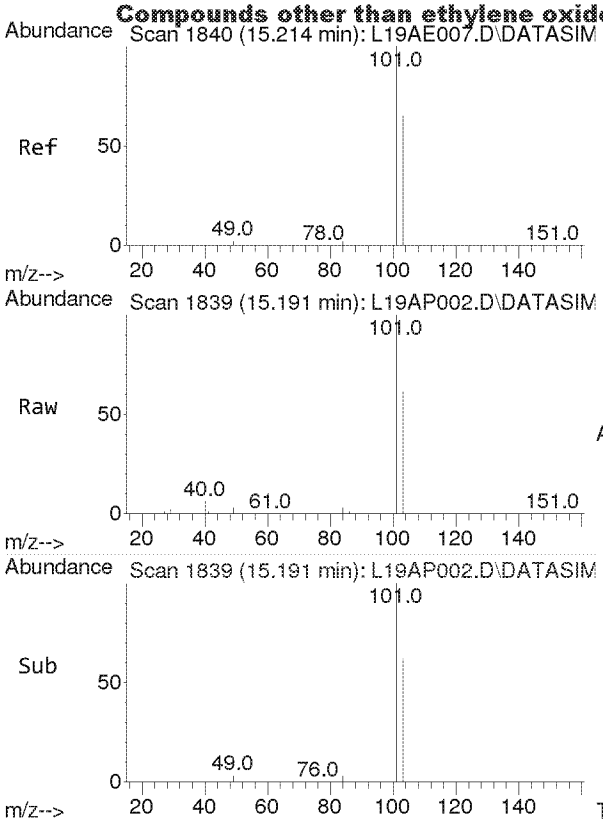
#13
Acrolein
Concen: 2.211 ppbv
RT: 14.634 min Scan# 1815
Delta R.T. -0.000 min
Lab File: L19AP002.D
Acq: 16 Jan 2019 12:36 pm

Tgt Ion: 56 Resp: 6726

Ion	Ratio	Lower	Upper
56	100		
55	78.4	61.2	91.8
29	50.8	35.9	53.9



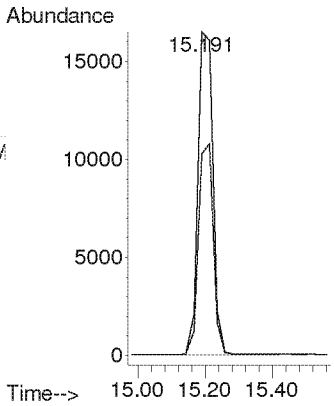
Compounds other than ethylene oxide were not quantitated.

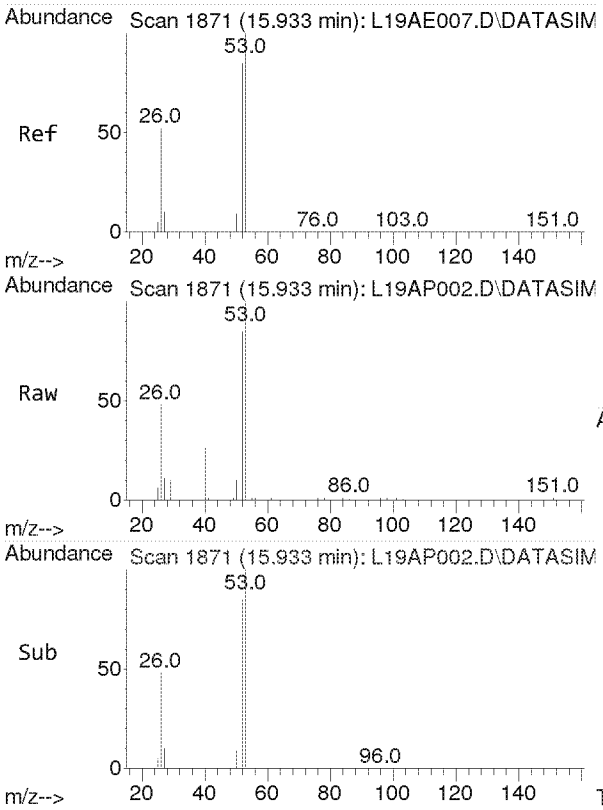


#14
Trichlorofluoromethane
Concen: 2.142 ppbv
RT: 15.191 min Scan# 1839
Delta R.T. -0.023 min
Lab File: L19AP002.D
Acq: 16 Jan 2019 12:36 pm

Tgt Ion:101 Resp: 51502

Ion	Ratio	Lower	Upper
101	100		
103	64.7	51.7	77.5

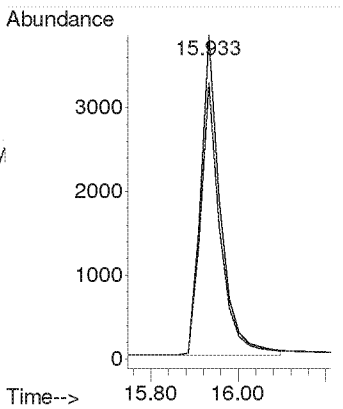




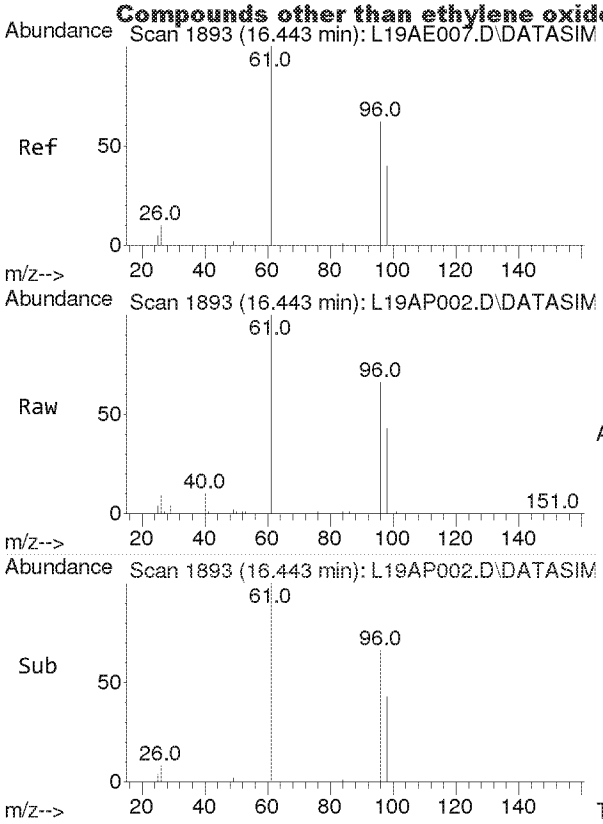
#15
Acrylonitrile
Concen: 2.371 ppbv
RT: 15.933 min Scan# 1871
Delta R.T. -0.000 min
Lab File: L19AP002.D
Acq: 16 Jan 2019 12:36 pm

Tgt Ion: 53 Resp: 11765

Ion	Ratio	Lower	Upper
53	100		
52	84.9	67.8	101.6



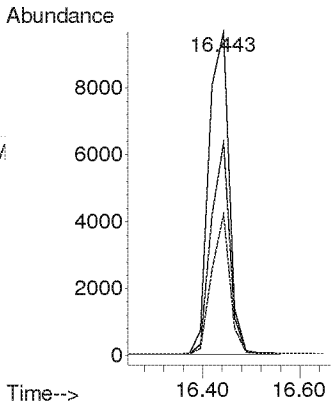
Compounds other than ethylene oxide were not quantitated.

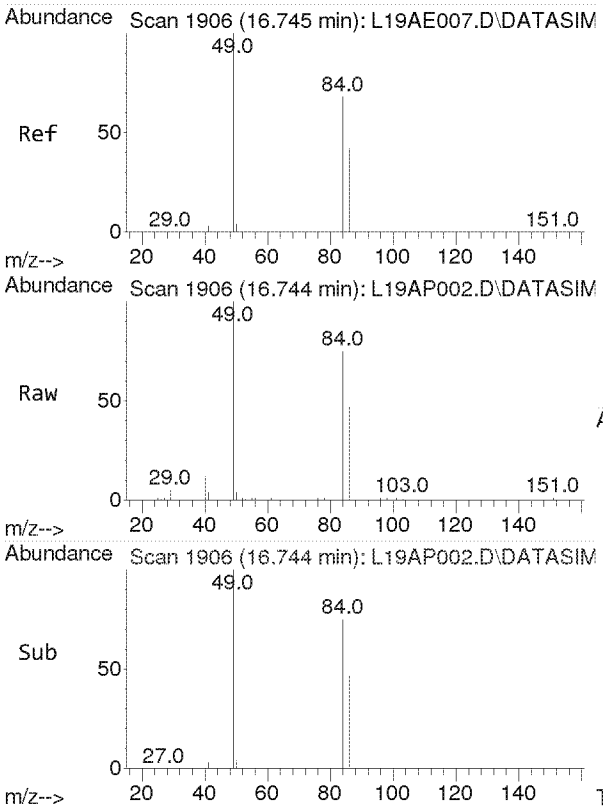


#16
1,1-Dichloroethene
Concen: 2.505 ppbv
RT: 16.443 min Scan# 1893
Delta R.T. -0.000 min
Lab File: L19AP002.D
Acq: 16 Jan 2019 12:36 pm

Tgt Ion: 61 Resp: 27644

Ion	Ratio	Lower	Upper
61	100		
96	60.1	47.6	71.4
98	38.7	30.5	45.7

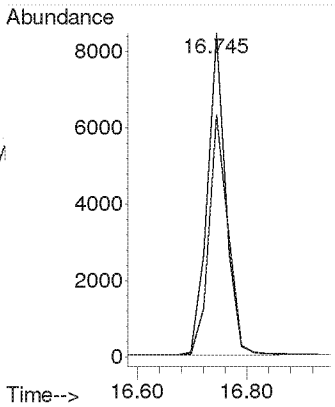




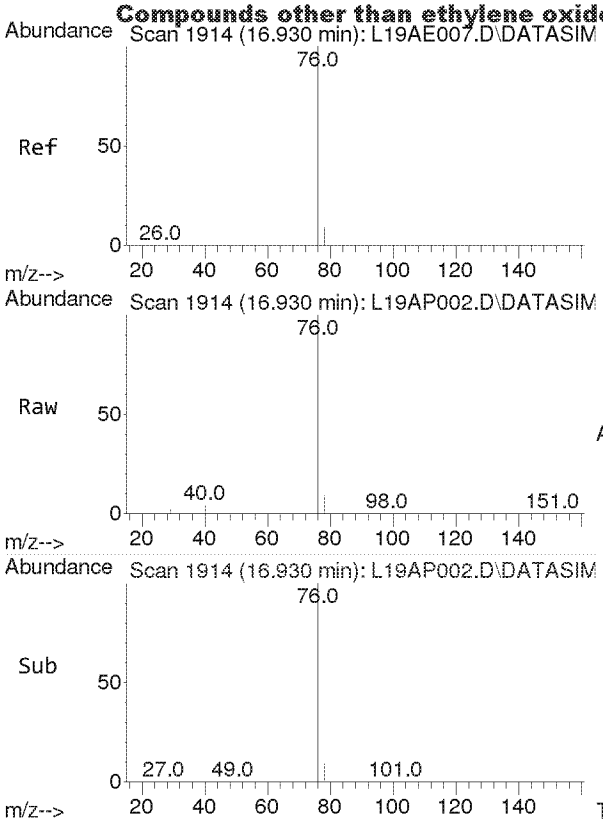
#17
Methylene Chloride
Concen: 2.493 ppbv
RT: 16.744 min Scan# 1906
Delta R.T. -0.000 min
Lab File: L19AP002.D
Acq: 16 Jan 2019 12:36 pm

Tgt Ion: 49 Resp: 19673

Ion	Ratio	Lower	Upper
49	100		
84	77.3	54.1	100.5



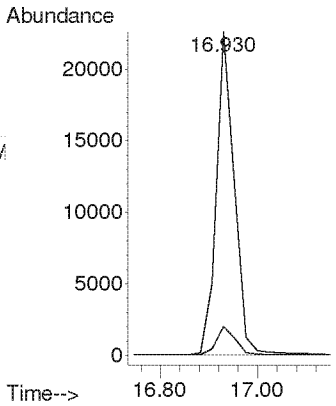
Compounds other than ethylene oxide were not quantitated.

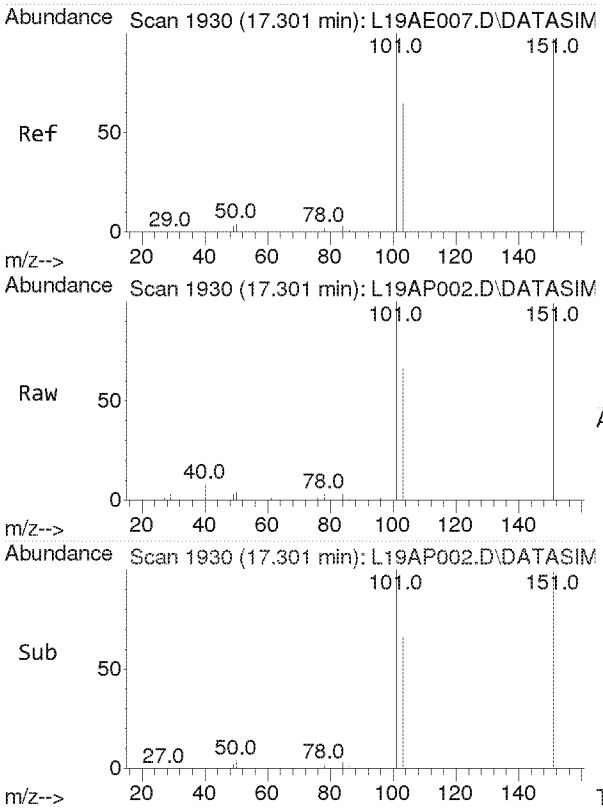


#18
Carbon Disulfide
Concen: 2.390 ppbv
RT: 16.930 min Scan# 1914
Delta R.T. -0.000 min
Lab File: L19AP002.D
Acq: 16 Jan 2019 12:36 pm

Tgt Ion: 76 Resp: 57367

Ion	Ratio	Lower	Upper
76	100		
78	9.0	7.2	10.8

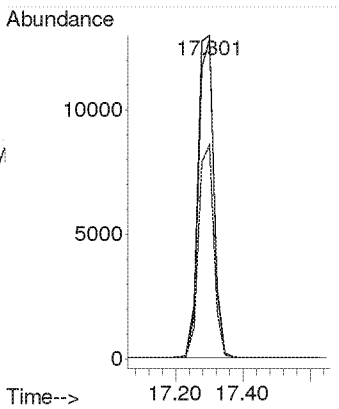




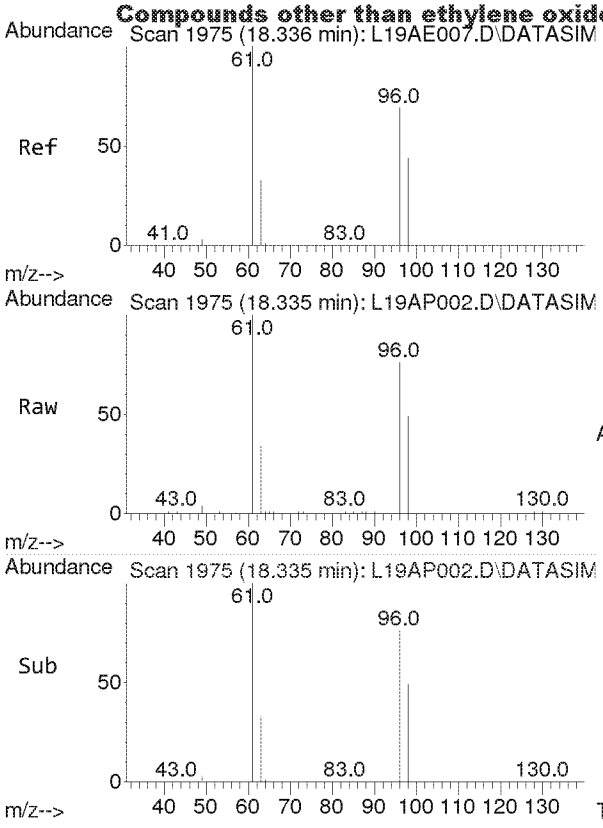
#19
Trichlorotrifluoroethane
Concen: 2.458 ppbv
RT: 17.301 min Scan# 1930
Delta R.T. -0.000 min
Lab File: L19AP002.D
Acq: 16 Jan 2019 12:36 pm

Tgt Ion:101 Resp: 42640

Ion	Ratio	Lower	Upper
101	100		
151	95.4	76.3	114.5
103	64.0	51.1	76.7



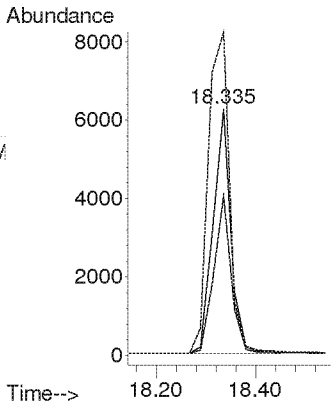
Compounds other than ethylene oxide were not quantitated.

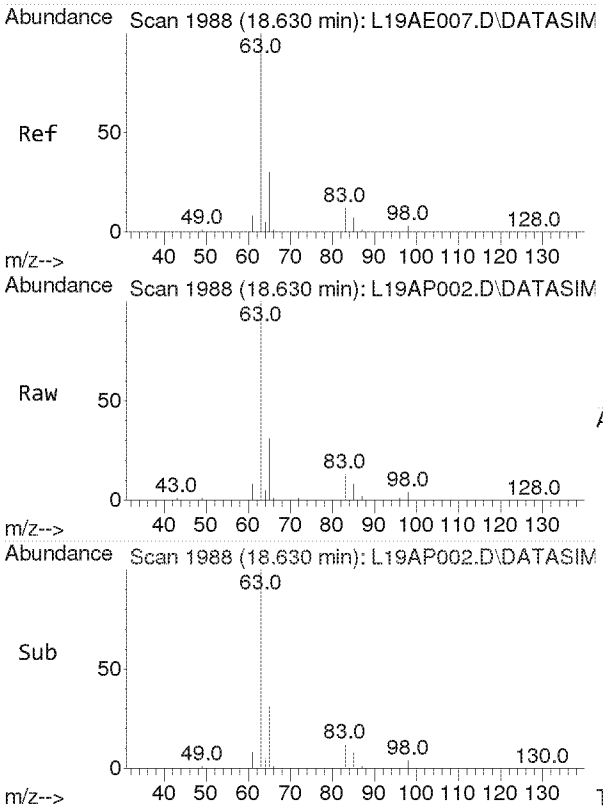


#20
trans-1,2-Dichloroethylene
Concen: 2.467 ppbv
RT: 18.335 min Scan# 1975
Delta R.T. -0.000 min
Lab File: L19AP002.D
Acq: 16 Jan 2019 12:36 pm

Tgt Ion: 96 Resp: 15371

Ion	Ratio	Lower	Upper
96	100		
98	63.6	50.9	76.3
61	157.0	125.2	187.8

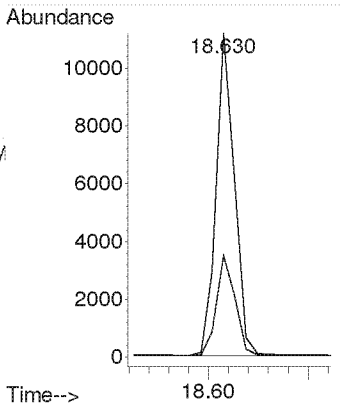




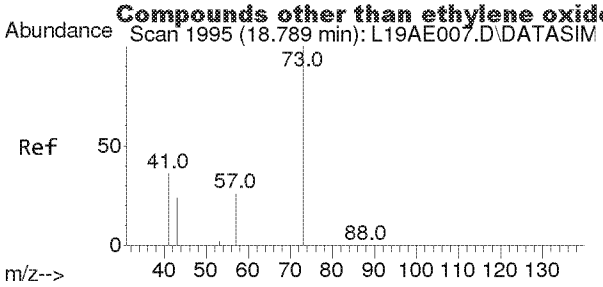
#21
1,1-Dichloroethane
Concen: 2.522 ppbv
RT: 18.630 min Scan# 1988
Delta R.T. -0.000 min
Lab File: L19AP002.D
Acq: 16 Jan 2019 12:36 pm

Tgt Ion: 63 Resp: 28521

Ion	Ratio	Lower	Upper
63	100		
65	31.6	25.4	38.0



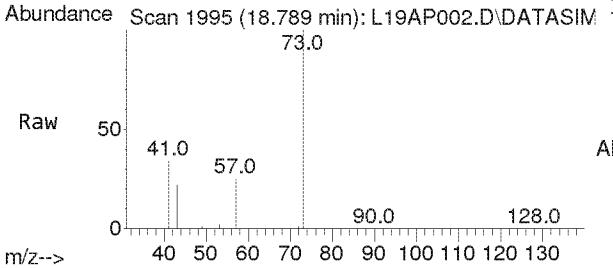
Compounds other than ethylene oxide were not quantitated.

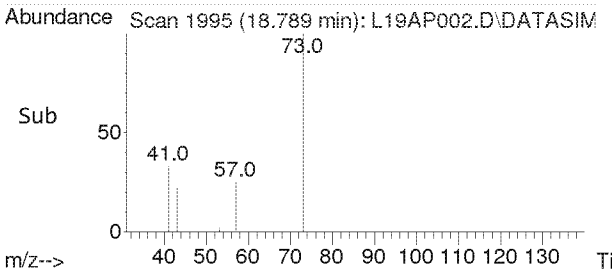


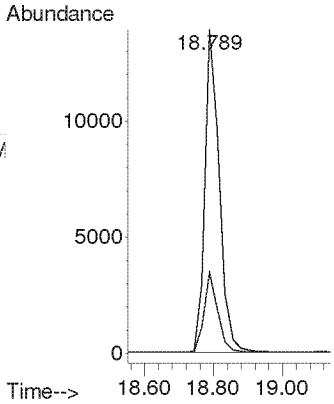
#22
Methyl tert-Butyl Ether
Concen: 2.423 ppbv
RT: 18.789 min Scan# 1995
Delta R.T. -0.000 min
Lab File: L19AP002.D
Acq: 16 Jan 2019 12:36 pm

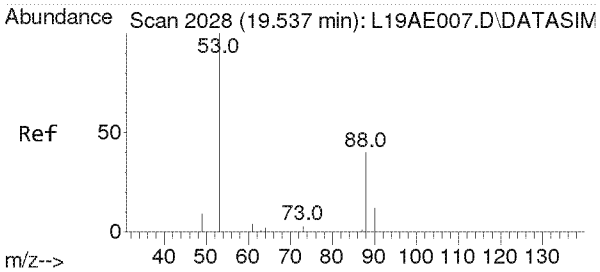
Tgt Ion: 73 Resp: 40532

Ion	Ratio	Lower	Upper
73	100		
57	23.6	18.9	28.3





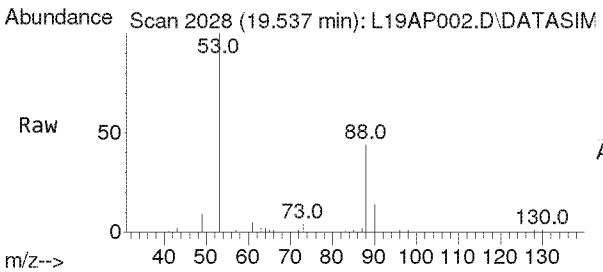


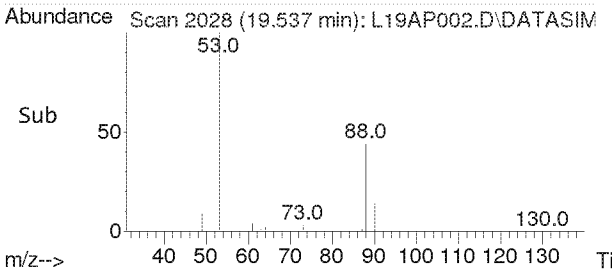


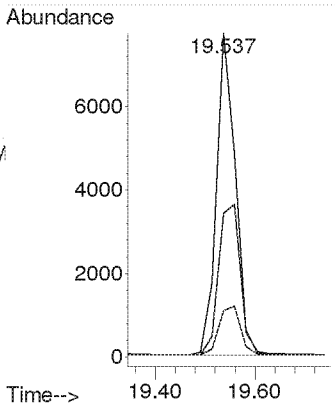
#23
Chloroprene
Concen: 2.619 ppbv
RT: 19.537 min Scan# 2028
Delta R.T. -0.000 min
Lab File: L19AP002.D
Acq: 16 Jan 2019 12:36 pm

Tgt Ion: 53 Resp: 20338

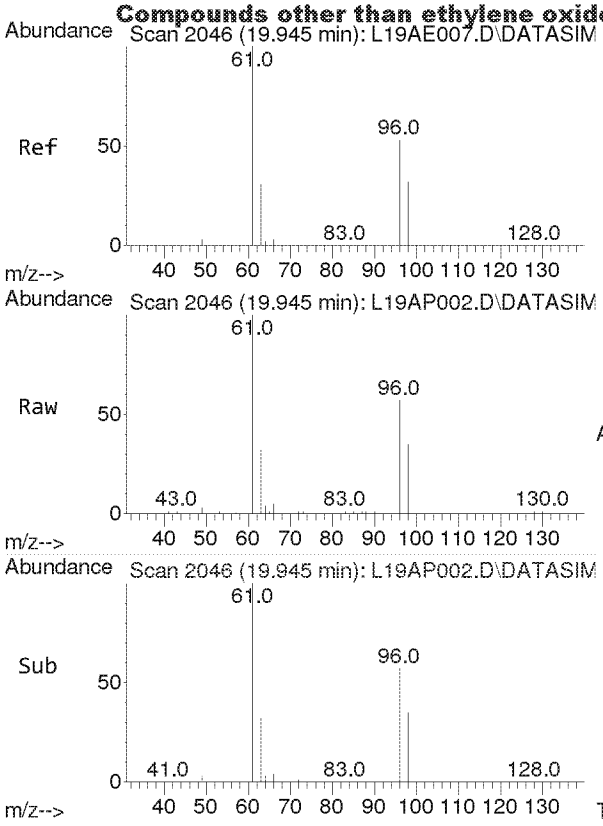
Ion	Ratio	Lower	Upper
53	100		
88	54.4	43.2	64.8
90	17.5	13.8	20.8







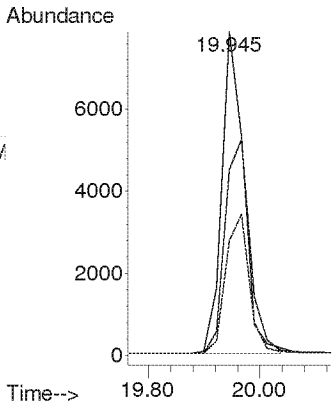
Compounds other than ethylene oxide were not quantitated.

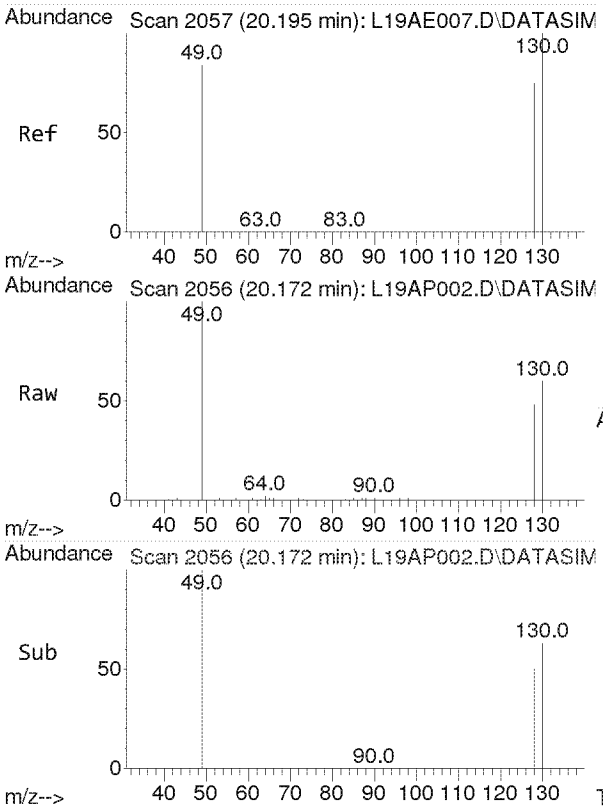


#24
cis-1,2-Dichloroethylene
Concen: 2.494 ppbv
RT: 19.945 min Scan# 2046
Delta R.T. -0.000 min
Lab File: L19AP002.D
Acq: 16 Jan 2019 12:36 pm

Tgt Ion: 61 Resp: 21526

Ion	Ratio	Lower	Upper
61	100		
96	75.9	60.6	90.8
98	46.5	37.1	55.7

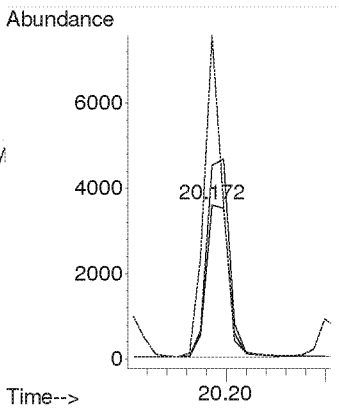




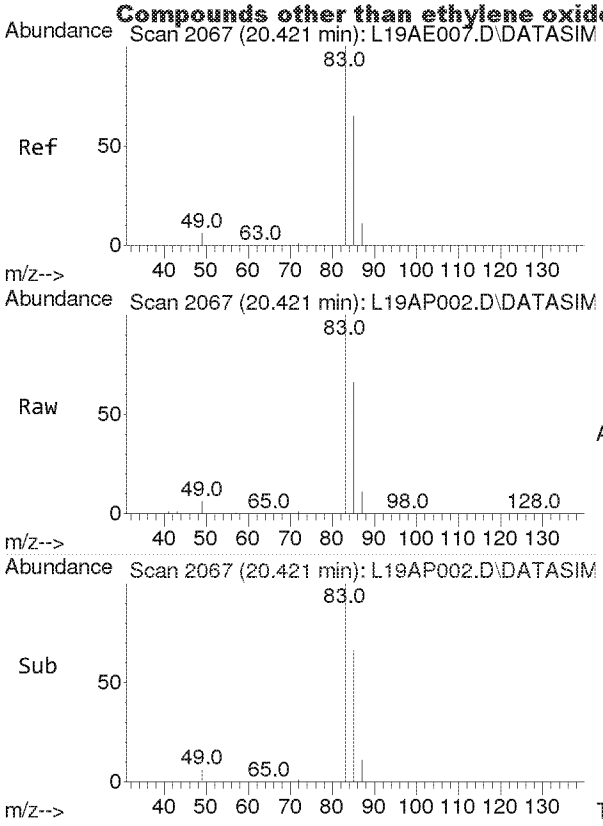
#25
Bromochloromethane
Concen: 2.377 ppbv
RT: 20.172 min Scan# 2056
Delta R.T. -0.023 min
Lab File: L19AP002.D
Acq: 16 Jan 2019 12:36 pm

Tgt Ion:128 Resp: 11295

Ion	Ratio	Lower	Upper
128	100		
130	129.5	104.3	156.5
49	169.6	136.6	205.0



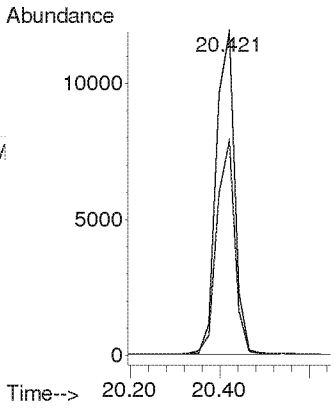
Compounds other than ethylene oxide were not quantitated.

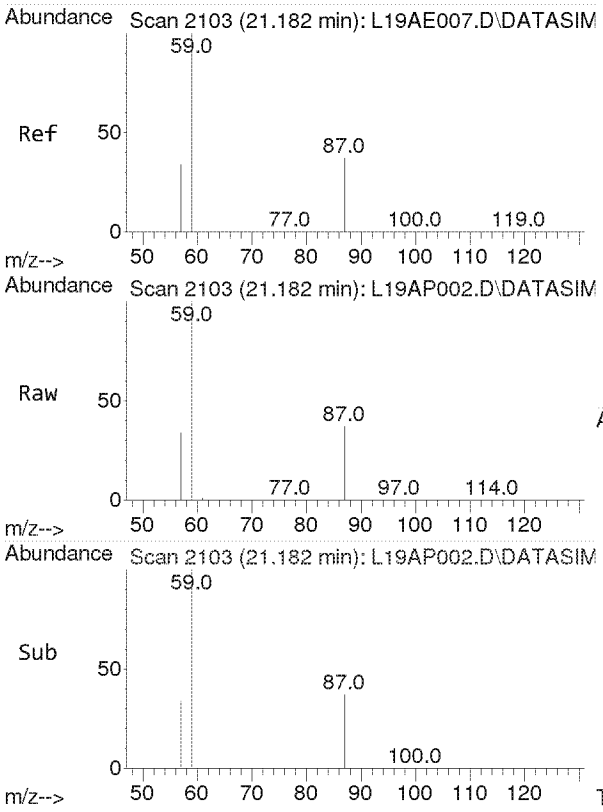


#26
Chloroform
Concen: 2.635 ppbv
RT: 20.421 min Scan# 2067
Delta R.T. -0.000 min
Lab File: L19AP002.D
Acq: 16 Jan 2019 12:36 pm

Tgt Ion: 83 Resp: 34092

Ion	Ratio	Lower	Upper
83	100		
85	65.2	51.6	77.4

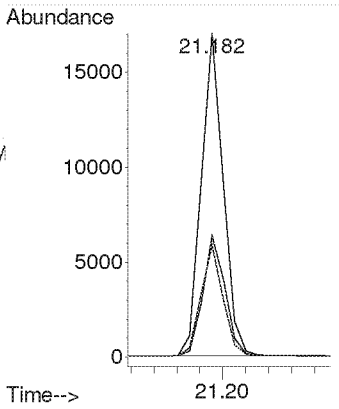




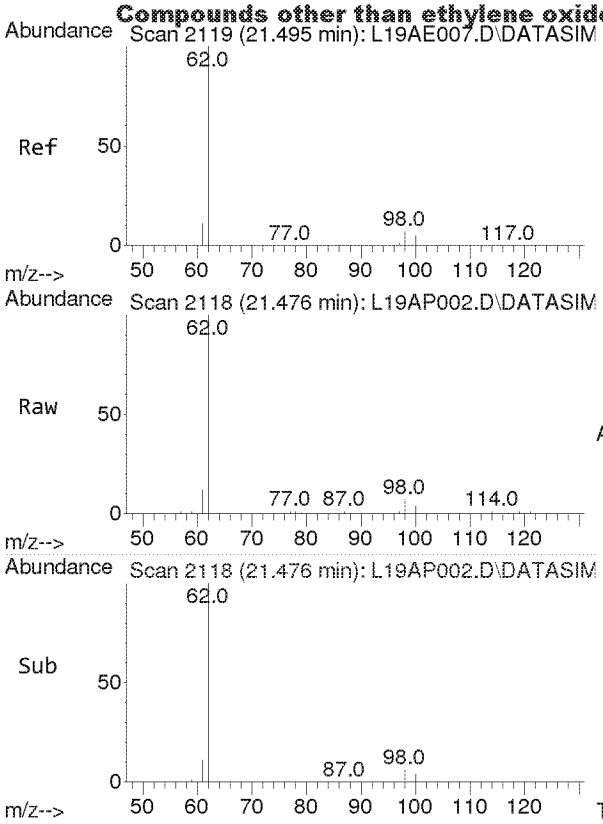
#27
Ethyl tert-Butyl Ether
Concen: 2.568 ppbv
RT: 21.182 min Scan# 2103
Delta R.T. -0.000 min
Lab File: L19AP002.D
Acq: 16 Jan 2019 12:36 pm

Tgt Ion: 59 Resp: 45011

Ion	Ratio	Lower	Upper
59	100		
87	37.7	30.2	45.4
57	34.2	27.4	41.2



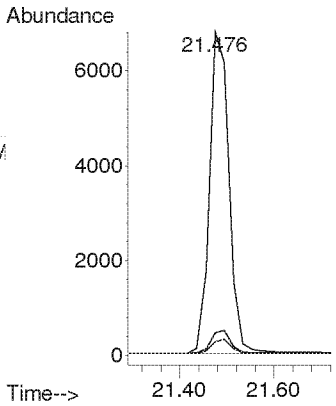
Compounds other than ethylene oxide were not quantitated.

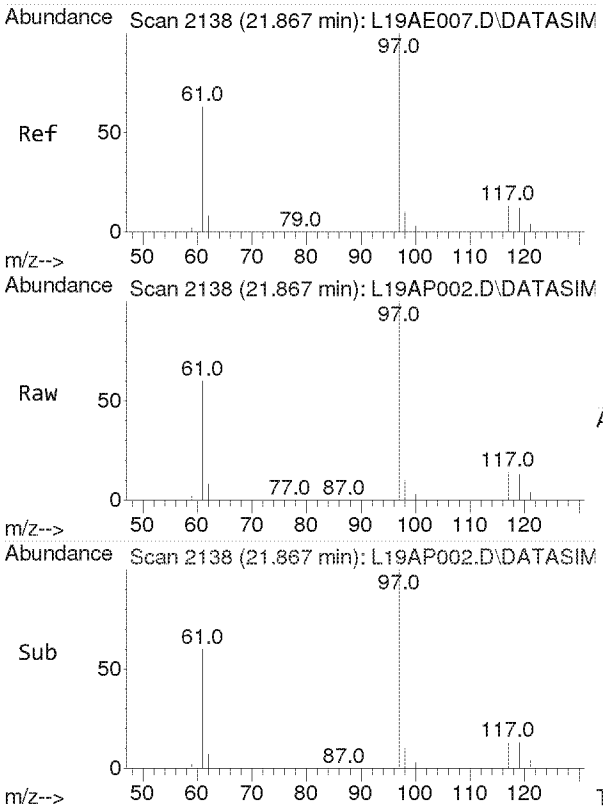


#28
1,2-Dichloroethane
Concen: 2.546 ppbv
RT: 21.476 min Scan# 2118
Delta R.T. -0.020 min
Lab File: L19AP002.D
Acq: 16 Jan 2019 12:36 pm

Tgt Ion: 62 Resp: 19554

Ion	Ratio	Lower	Upper
62	100		
98	7.0	5.4	8.2
100	4.2	3.4	5.0

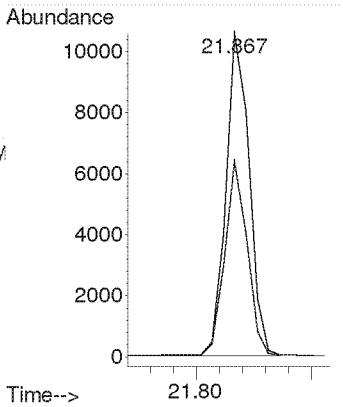




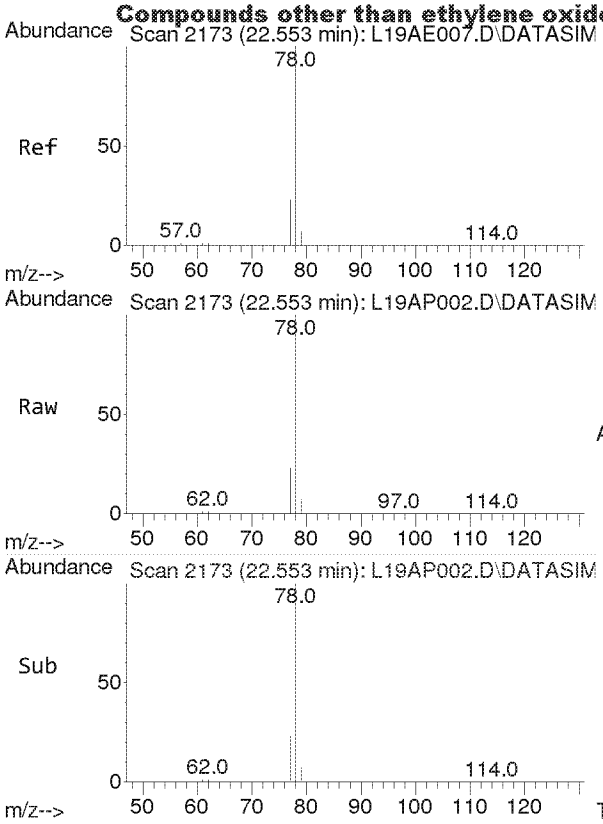
#30
1,1,1-Trichloroethane
Concen: 2.325 ppbv
RT: 21.867 min Scan# 2138
Delta R.T. -0.000 min
Lab File: L19AP002.D
Acq: 16 Jan 2019 12:36 pm

Tgt Ion: 97 Resp: 29375

Ion	Ratio	Lower	Upper
97	100		
61	58.0	46.9	70.3



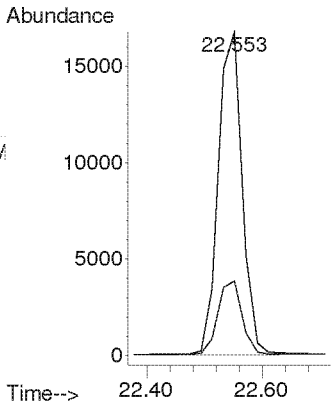
Compounds other than ethylene oxide were not quantitated.

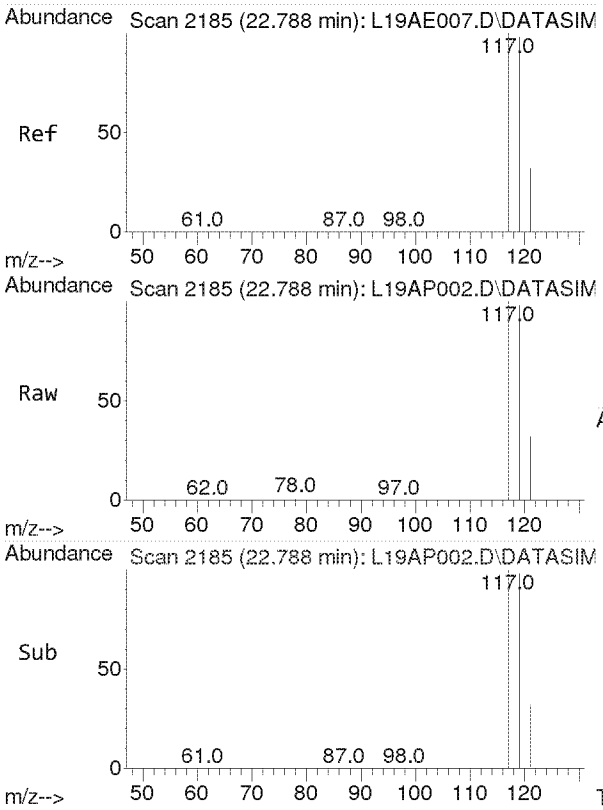


#31
Benzene
Concen: 2.776 ppbv
RT: 22.553 min Scan# 2173
Delta R.T. -0.000 min
Lab File: L19AP002.D
Acq: 16 Jan 2019 12:36 pm

Tgt Ion: 78 Resp: 48242

Ion	Ratio	Lower	Upper
78	100		
77	22.9	18.3	27.5

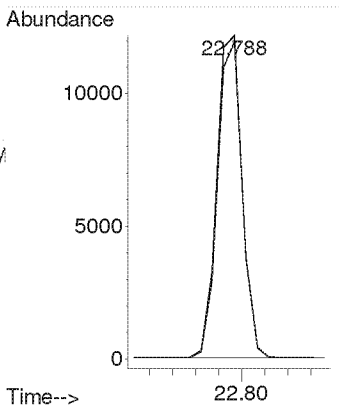




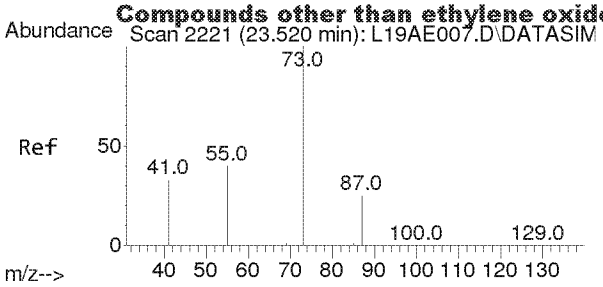
#32
Carbon Tetrachloride
Concen: 2.696 ppbv
RT: 22.788 min Scan# 2185
Delta R.T. -0.000 min
Lab File: L19AP002.D
Acq: 16 Jan 2019 12:36 pm

Tgt Ion:117 Resp: 36914

Ion	Ratio	Lower	Upper
117	100		
119	95.9	77.2	115.8



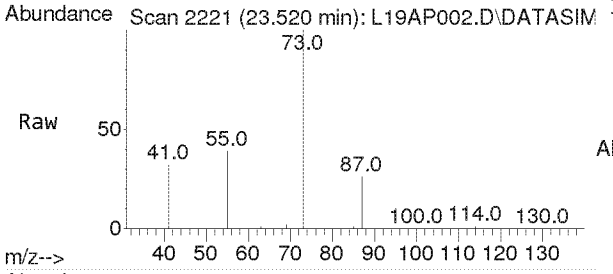
Compounds other than ethylene oxide were not quantitated.

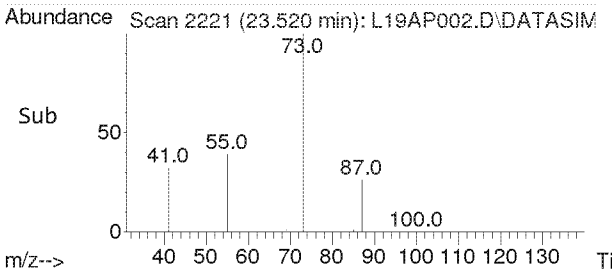


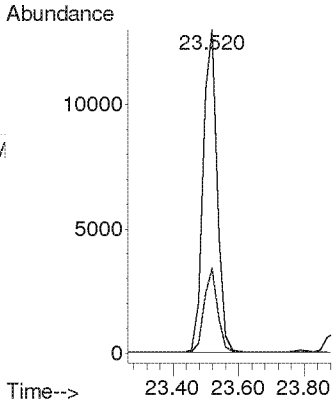
#33
tert-Amyl Methyl Ether
Concen: 2.619 ppbv
RT: 23.520 min Scan# 2221
Delta R.T. -0.000 min
Lab File: L19AP002.D
Acq: 16 Jan 2019 12:36 pm

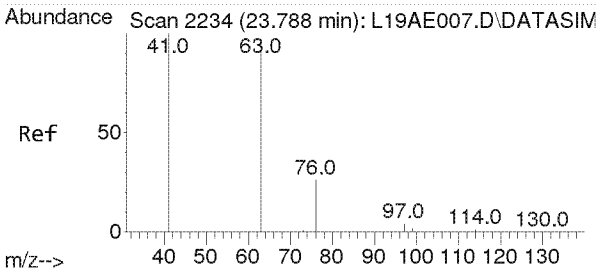
Tgt Ion: 73 Resp: 38317

Ion	Ratio	Lower	Upper
73	100		
87	24.7	19.8	29.8





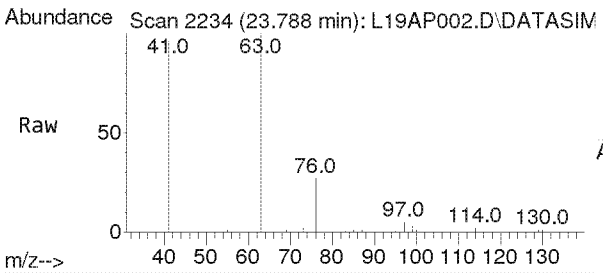


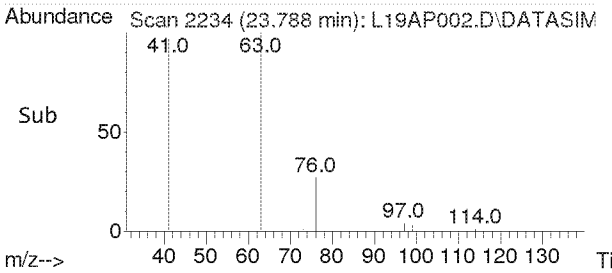


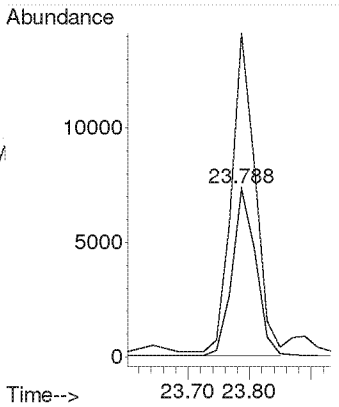
#34
1,2-Dichloropropane
Concen: 2.661 ppbv
RT: 23.788 min Scan# 2234
Delta R.T. -0.000 min
Lab File: L19AP002.D
Acq: 16 Jan 2019 12:36 pm

Tgt Ion: 63 Resp: 19447

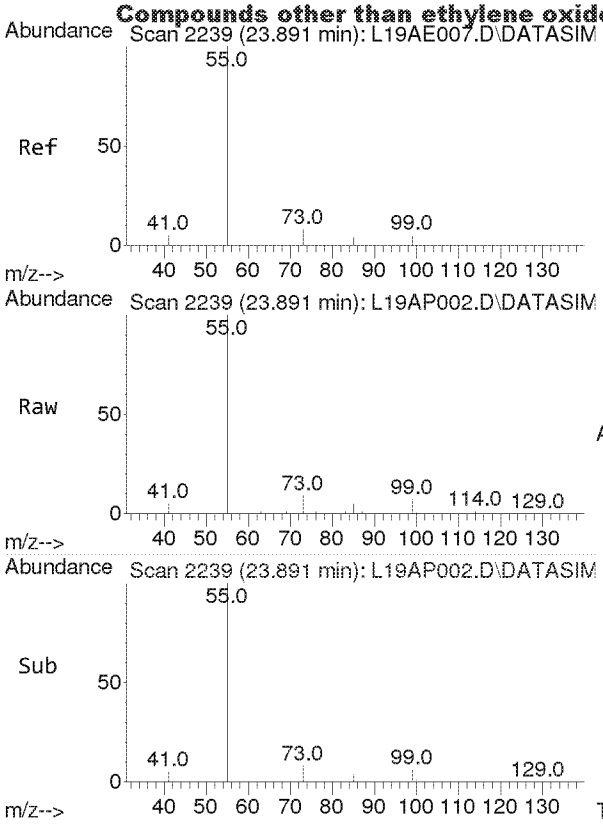
Ion	Ratio	Lower	Upper
63	100		
41	189.3	156.8	235.2







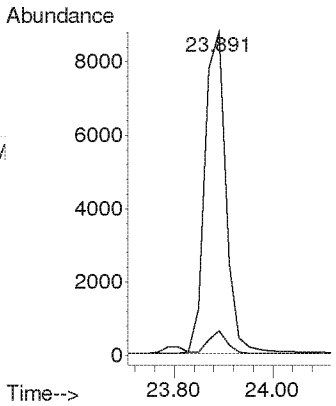
Compounds other than ethylene oxide were not quantitated.

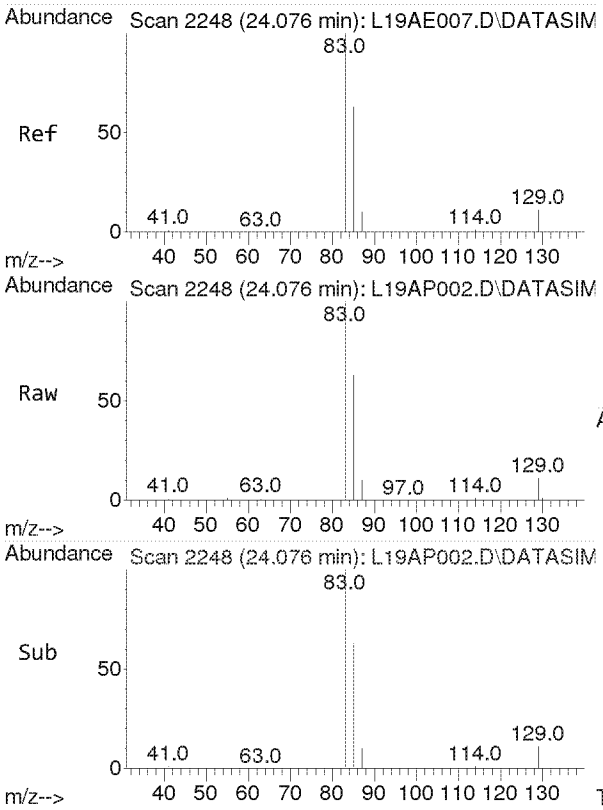


#35
Ethyl Acrylate
Concen: 2.650 ppbv
RT: 23.891 min Scan# 2239
Delta R.T. -0.000 min
Lab File: L19AP002.D
Acq: 16 Jan 2019 12:36 pm

Tgt Ion: 55 Resp: 25962

Ion	Ratio	Lower	Upper
55	100		
99	5.9	4.8	7.2

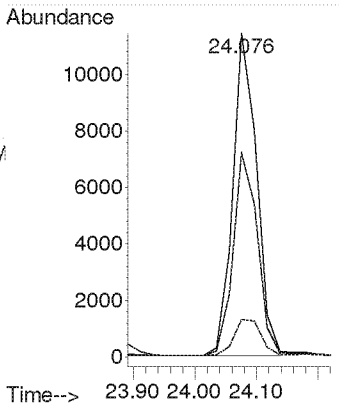




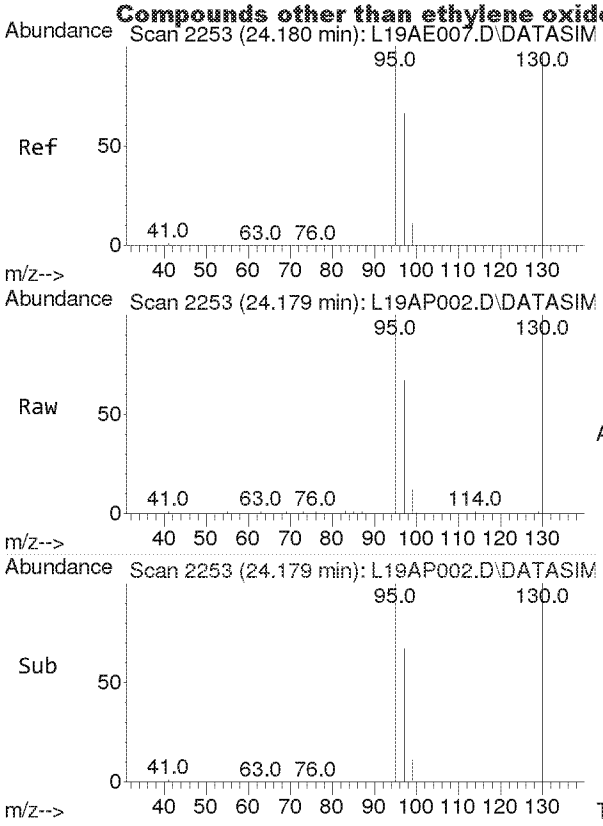
#36
Bromodichloromethane
Concen: 2.314 ppbv
RT: 24.076 min Scan# 2248
Delta R.T. -0.000 min
Lab File: L19AP002.D
Acq: 16 Jan 2019 12:36 pm

Tgt Ion: 83 Resp: 30822

Ion	Ratio	Lower	Upper
83	100		
85	64.0	51.1	76.7
129	12.6	10.0	15.0



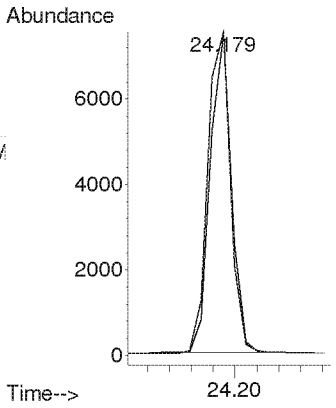
Compounds other than ethylene oxide were not quantitated.

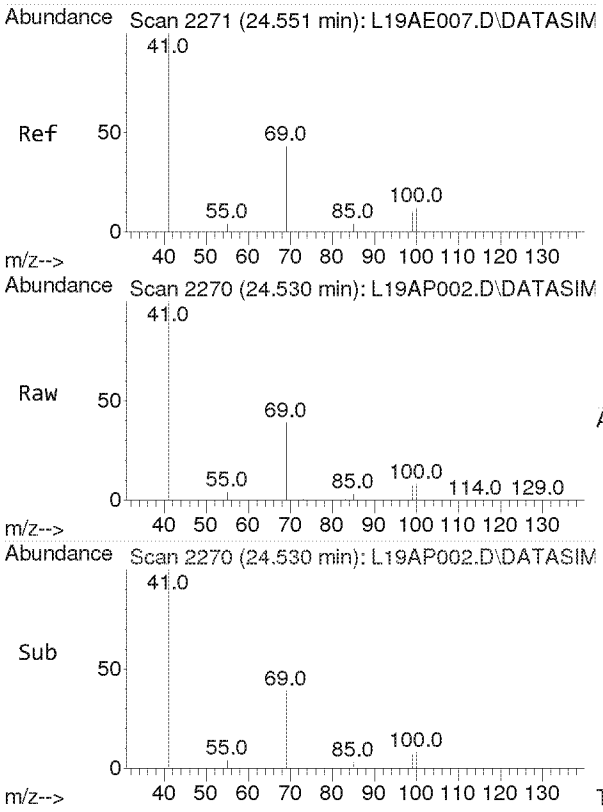


#37
Trichloroethylene
Concen: 2.399 ppbv
RT: 24.179 min Scan# 2253
Delta R.T. -0.000 min
Lab File: L19AP002.D
Acq: 16 Jan 2019 12:36 pm

Tgt Ion:130 Resp: 20074

Ion	Ratio	Lower	Upper
130	100		
95	108.7	86.9	130.3

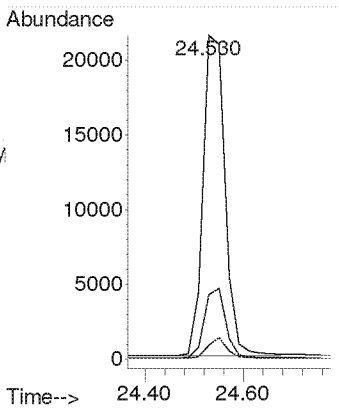




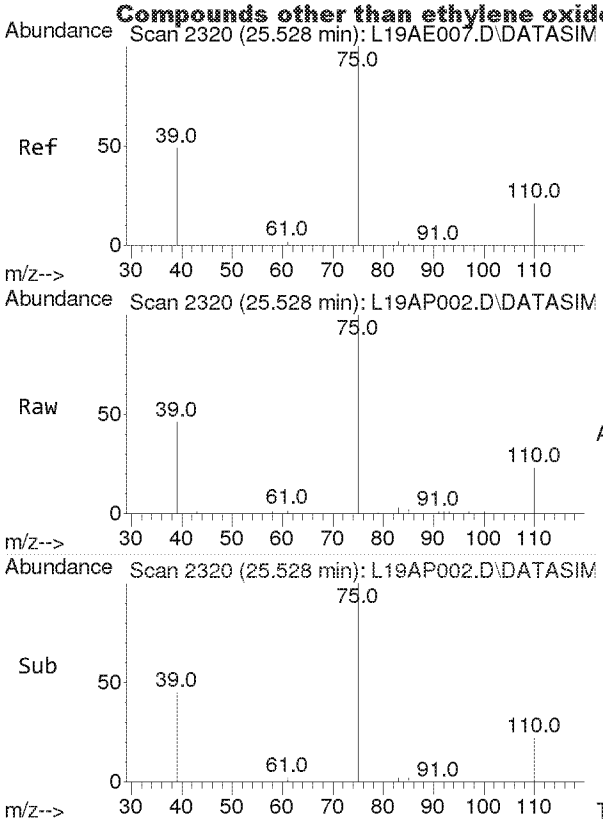
#38
Methyl Methacrylate
Concen: 2.576 ppbv
RT: 24.530 min Scan# 2270
Delta R.T. -0.021 min
Lab File: L19AP002.D
Acq: 16 Jan 2019 12:36 pm

Tgt Ion: 41 Resp: 66323

Ion	Ratio	Lower	Upper
41	100		
69	21.1	16.6	24.8
100	5.5	4.2	6.4



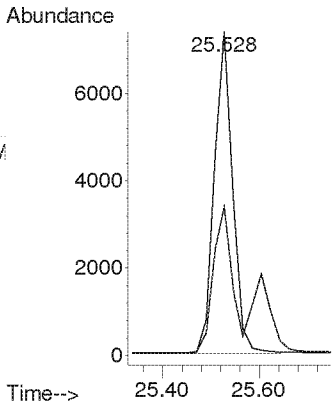
Compounds other than ethylene oxide were not quantitated.

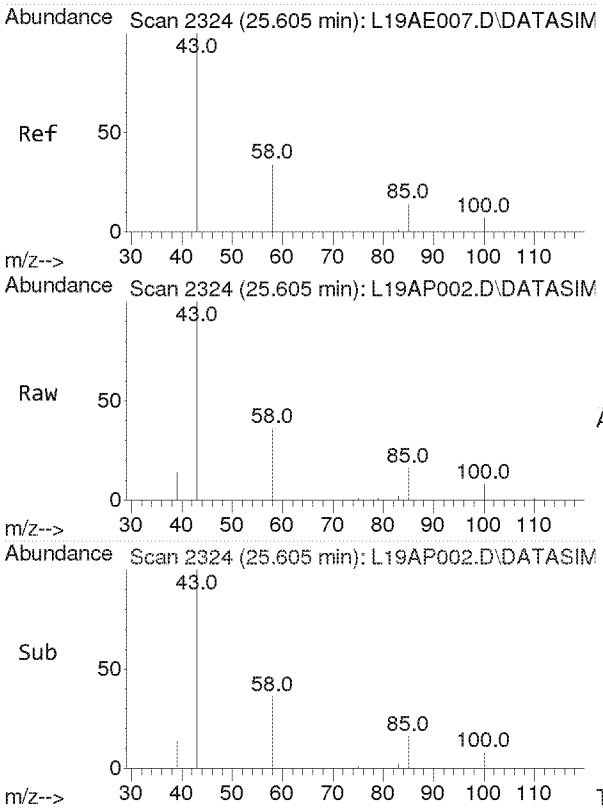


#39
cis-1,3-Dichloropropene
Concen: 2.887 ppbv
RT: 25.528 min Scan# 2320
Delta R.T. -0.000 min
Lab File: L19AP002.D
Acq: 16 Jan 2019 12:36 pm

Tgt Ion: 75 Resp: 19353

Ion	Ratio	Lower	Upper
75	100		
39	46.9	38.6	58.0

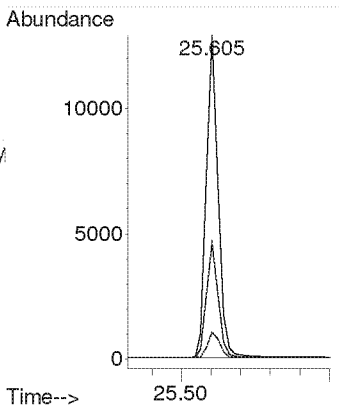




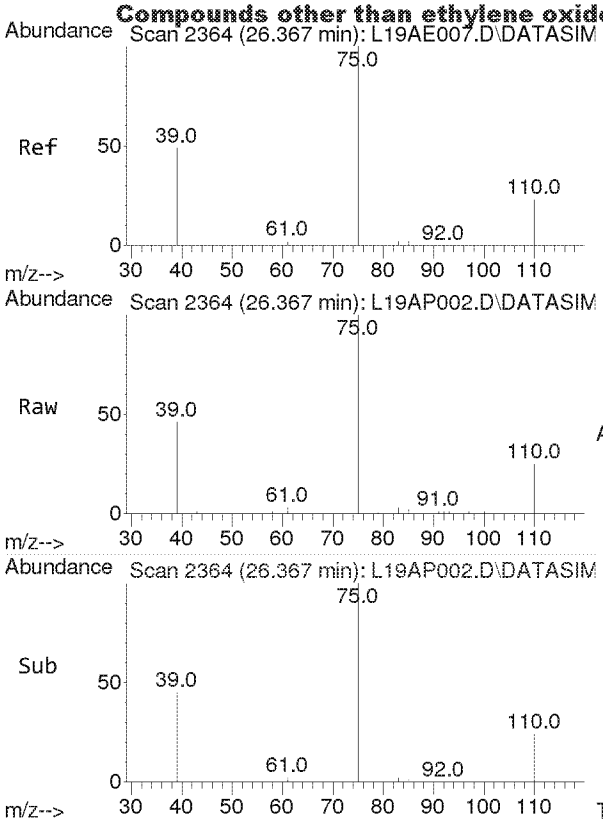
#40
Methyl Isobutyl Ketone
Concen: 2.494 ppbv
RT: 25.605 min Scan# 2324
Delta R.T. -0.000 min
Lab File: L19AP002.D
Acq: 16 Jan 2019 12:36 pm

Tgt Ion: 43 Resp: 35153

Ion	Ratio	Lower	Upper
43	100		
58	35.4	27.6	41.4
100	8.2	6.5	9.7



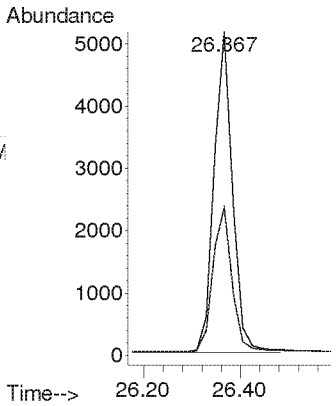
Compounds other than ethylene oxide were not quantitated.

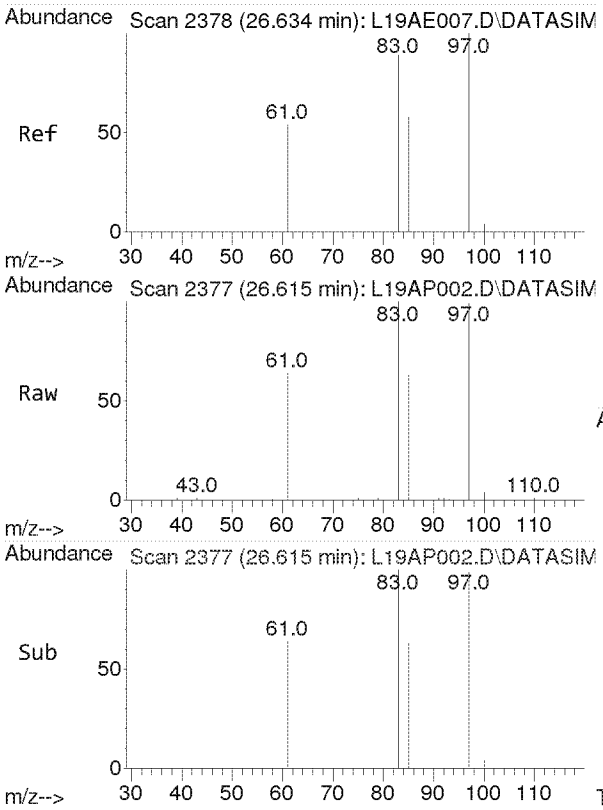


#41
trans-1,3-Dichloropropene
Concen: 2.613 ppbv
RT: 26.367 min Scan# 2364
Delta R.T. -0.000 min
Lab File: L19AP002.D
Acq: 16 Jan 2019 12:36 pm

Tgt Ion: 75 Resp: 13636

Ion	Ratio	Lower	Upper
75	100		
39	46.3	39.0	58.6

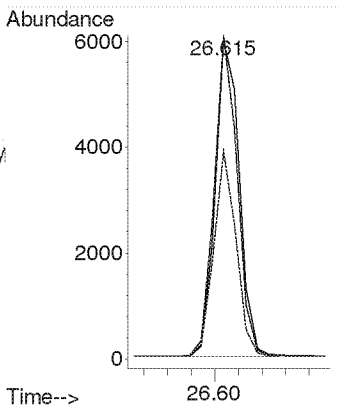




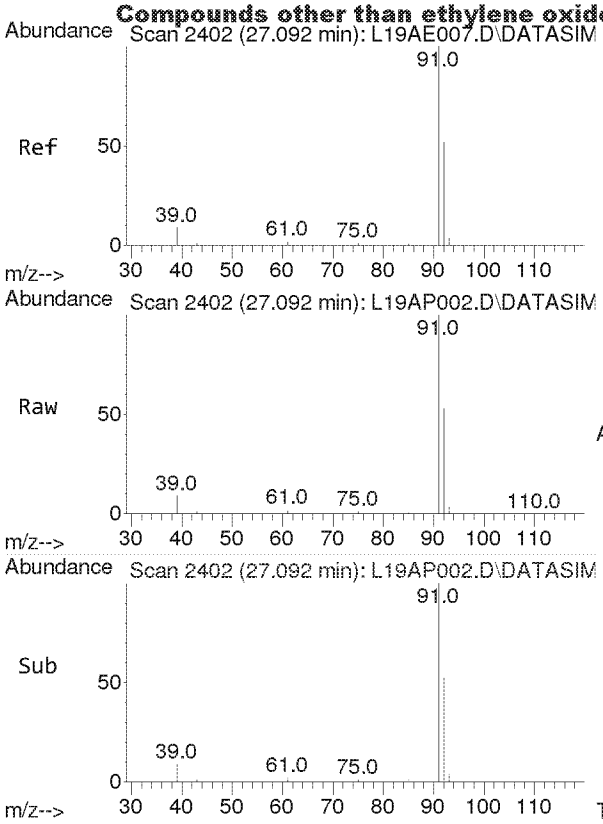
#42
1,1,2-Trichloroethane
Concen: 2.614 ppbv
RT: 26.615 min Scan# 2377
Delta R.T. -0.019 min
Lab File: L19AP002.D
Acq: 16 Jan 2019 12:36 pm

Tgt Ion: 97 Resp: 16945

Ion	Ratio	Lower	Upper
97	100		
83	96.5	77.3	115.9
61	60.4	49.1	73.7



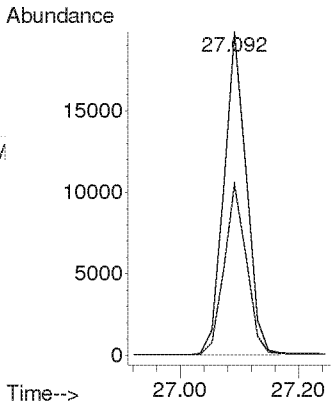
Compounds other than ethylene oxide were not quantitated.

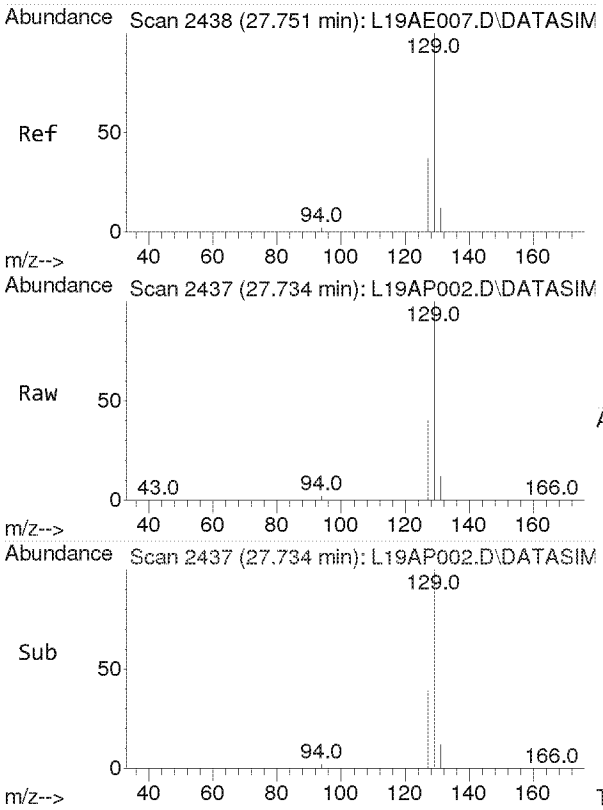


#44
Toluene
Concen: 2.676 ppbv
RT: 27.092 min Scan# 2402
Delta R.T. -0.000 min
Lab File: L19AP002.D
Acq: 16 Jan 2019 12:36 pm

Tgt Ion: 91 Resp: 51715

Ion	Ratio	Lower	Upper
91	100		
92	52.5	42.0	63.0

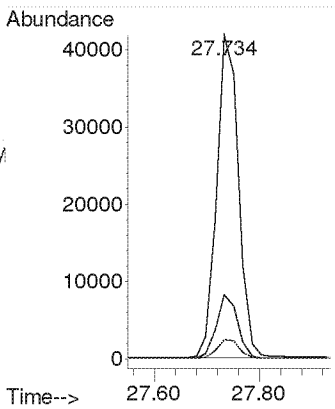




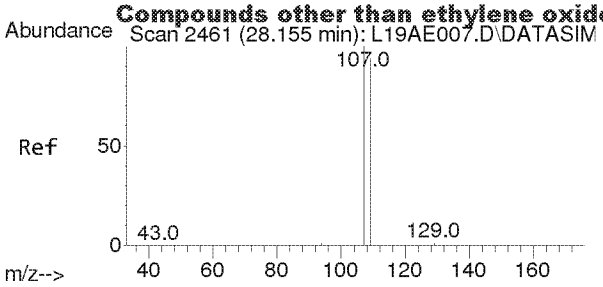
#45
Dibromochloromethane
Concen: 2.461 ppbv
RT: 27.734 min Scan# 2437
Delta R.T. -0.018 min
Lab File: L19AP002.D
Acq: 16 Jan 2019 12:36 pm

Tgt Ion:129 Resp: 119267

Ion	Ratio	Lower	Upper
129	100		
127	19.3	15.4	23.0
131	6.0	4.8	7.2



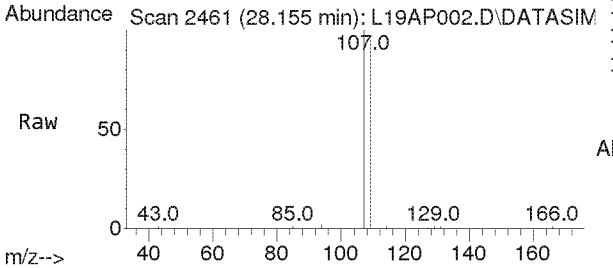
Compounds other than ethylene oxide were not quantitated.

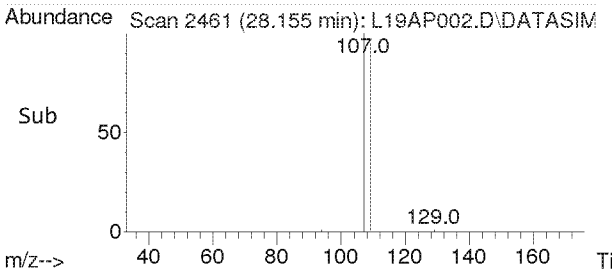


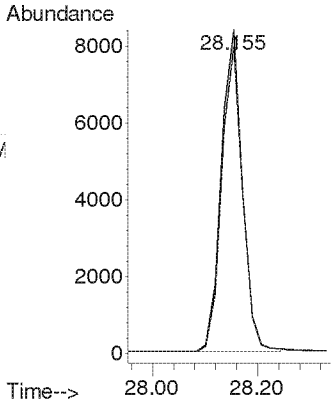
#46
1,2-Dibromoethane
Concen: 2.634 ppbv
RT: 28.155 min Scan# 2461
Delta R.T. -0.000 min
Lab File: L19AP002.D
Acq: 16 Jan 2019 12:36 pm

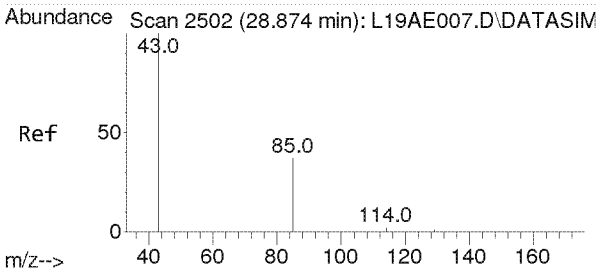
Tgt Ion:107 Resp: 23129

Ion	Ratio	Lower	Upper
107	100		
109	94.5	75.4	113.2





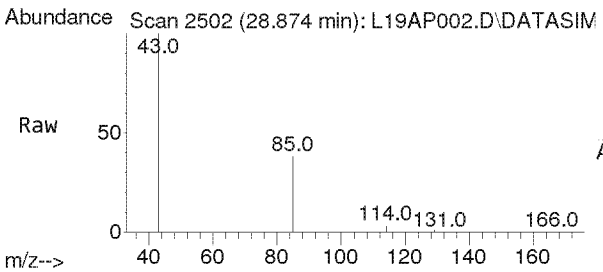


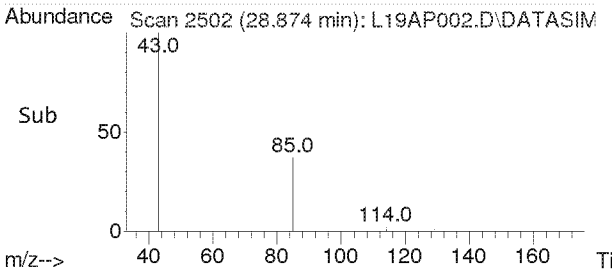


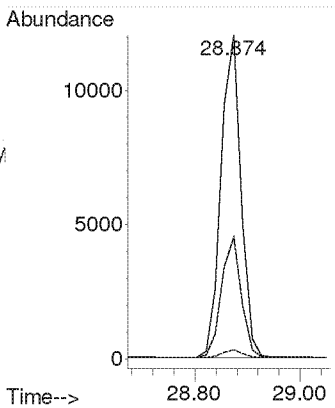
#47
n-Octane
Concen: 2.639 ppbv
RT: 28.874 min Scan# 2502
Delta R.T. -0.000 min
Lab File: L19AP002.D
Acq: 16 Jan 2019 12:36 pm

Tgt Ion: 43 Resp: 31540

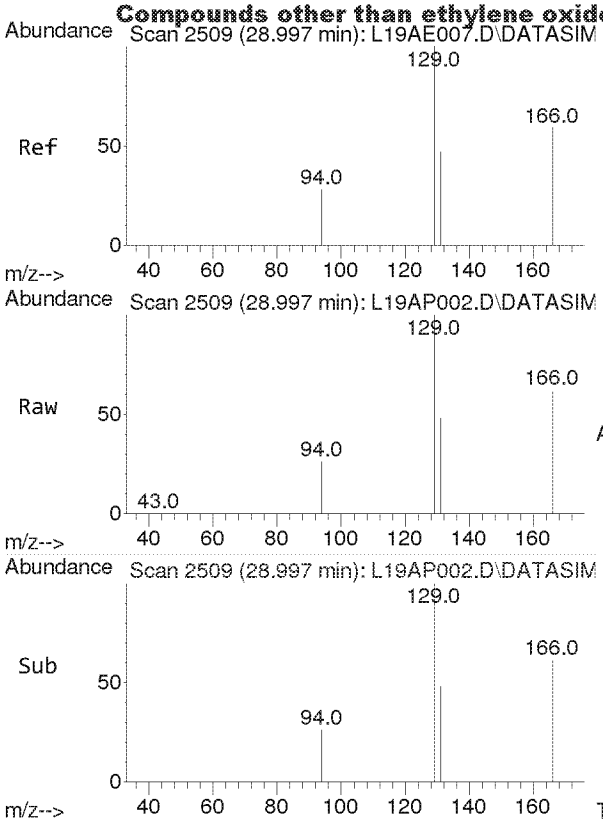
Ion	Ratio	Lower	Upper
43	100		
85	36.9	29.3	43.9
114	2.3	1.8	2.8







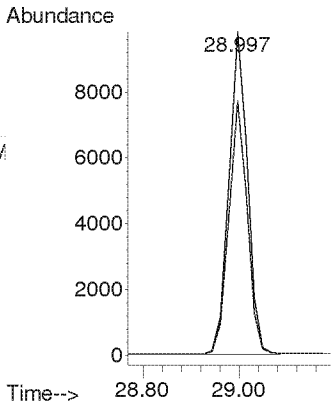
Compounds other than ethylene oxide were not quantitated.

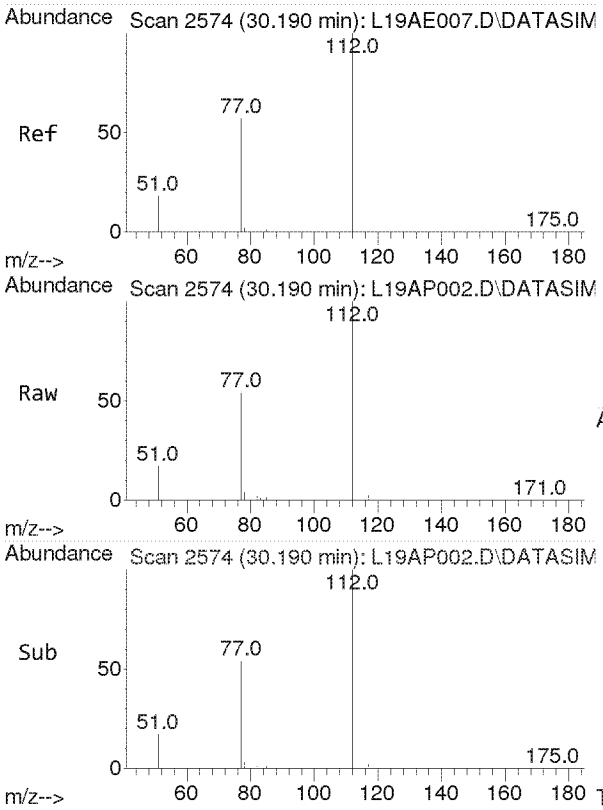


#48
Tetrachloroethylene
Concen: 2.666 ppbv
RT: 28.997 min Scan# 2509
Delta R.T. -0.000 min
Lab File: L19AP002.D
Acq: 16 Jan 2019 12:36 pm

Tgt Ion:166 Resp: 26206

Ion	Ratio	Lower	Upper
166	100		
131	78.0	62.6	93.8

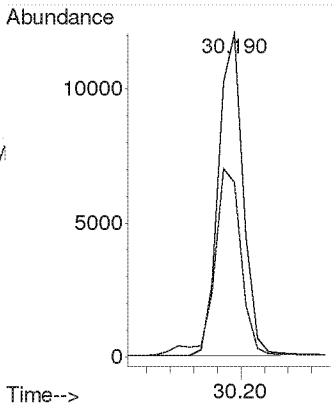




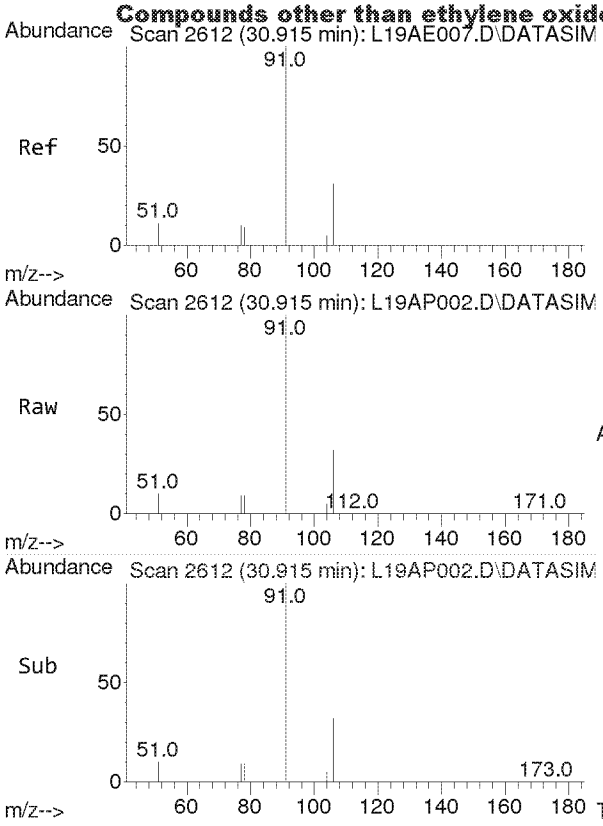
#49
Chlorobenzene
Concen: 2.553 ppbv
RT: 30.190 min Scan# 2574
Delta R.T. -0.000 min
Lab File: L19AP002.D
Acq: 16 Jan 2019 12:36 pm

Tgt Ion:112 Resp: 34820

Ion	Ratio	Lower	Upper
112	100		
77	60.9	49.0	73.4



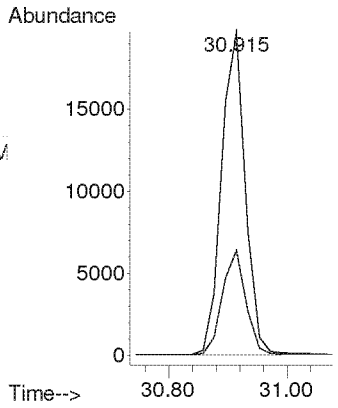
Compounds other than ethylene oxide were not quantitated.

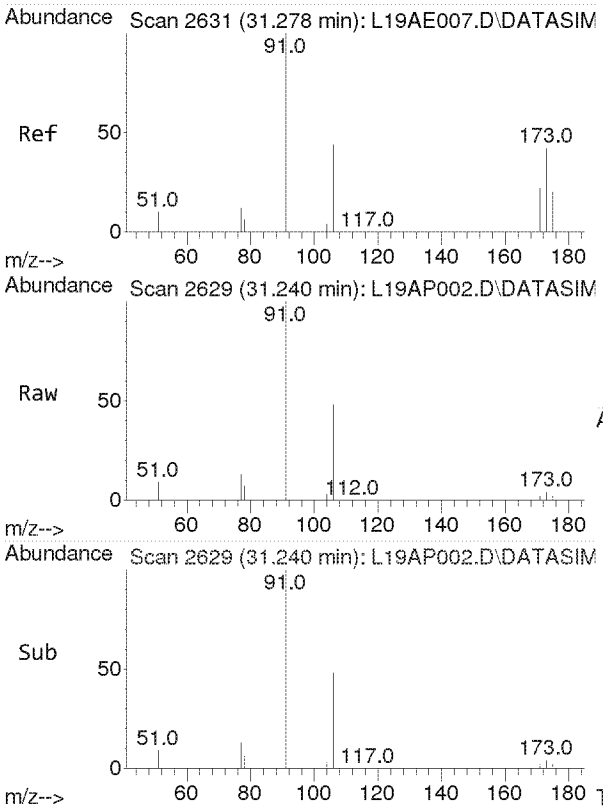


#50
Ethylbenzene
Concen: 2.649 ppbv
RT: 30.915 min Scan# 2612
Delta R.T. -0.000 min
Lab File: L19AP002.D
Acq: 16 Jan 2019 12:36 pm

Tgt Ion: 91 Resp: 54725

Ion	Ratio	Lower	Upper
91	100		
106	31.8	25.4	38.0

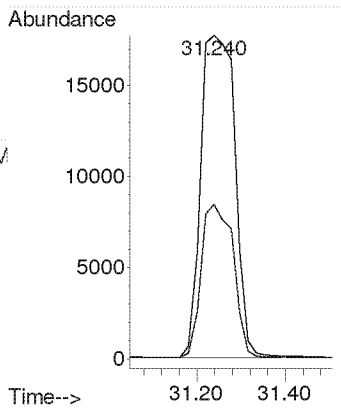




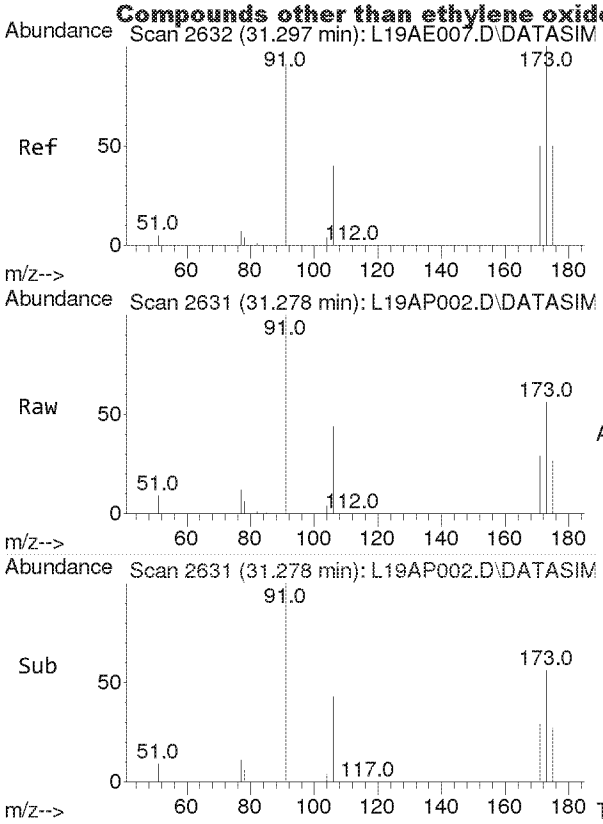
#51
m,p-Xylene
Concen: 5.230 ppbv
RT: 31.240 min Scan# 2629
Delta R.T. -0.038 min
Lab File: L19AP002.D
Acq: 16 Jan 2019 12:36 pm

Tgt Ion: 91 Resp: 93936

Ion	Ratio	Lower	Upper
91	100		
106	44.8	35.7	53.5



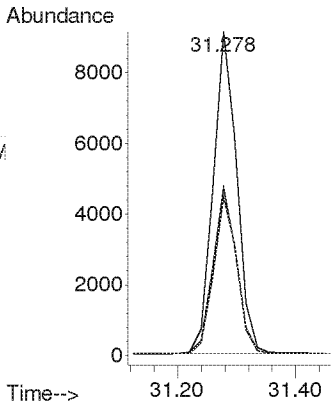
Compounds other than ethylene oxide were not quantitated.

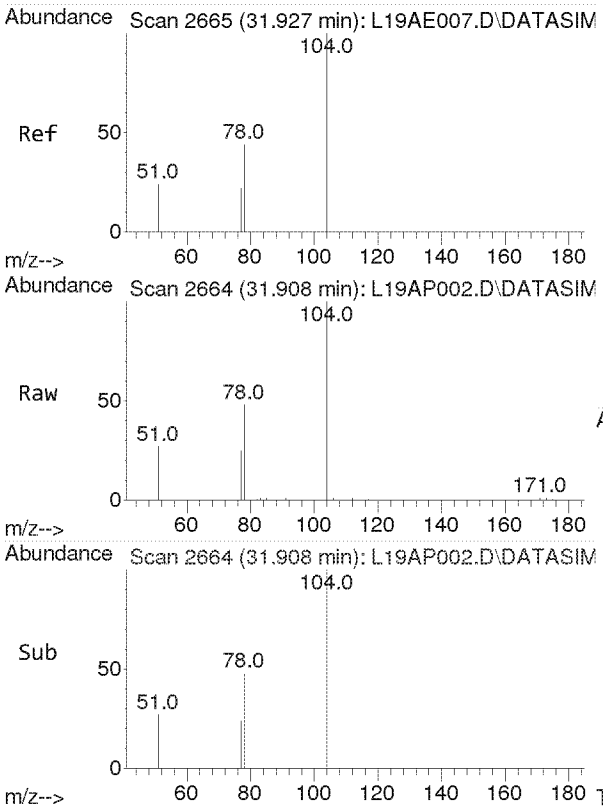


#52
Bromoform
Concen: 2.402 ppbv
RT: 31.278 min Scan# 2631
Delta R.T. -0.019 min
Lab File: L19AP002.D
Acq: 16 Jan 2019 12:36 pm

Tgt Ion:173 Resp: 25235

Ion	Ratio	Lower	Upper
173	100		
171	51.0	41.1	61.7
175	48.9	39.1	58.7

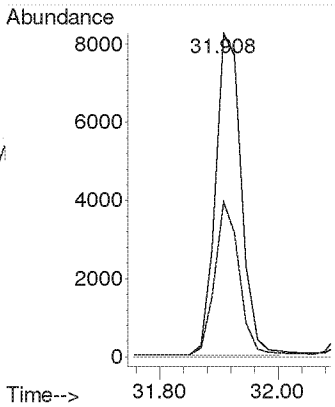




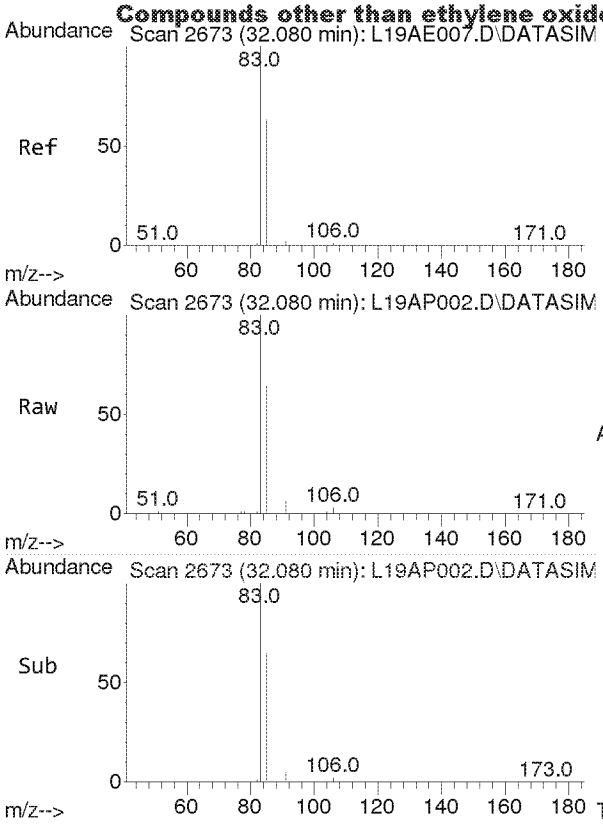
#53
Styrene
Concen: 2.514 ppbv
RT: 31.908 min Scan# 2664
Delta R.T. -0.019 min
Lab File: L19AP002.D
Acq: 16 Jan 2019 12:36 pm

Tgt Ion:104 Resp: 24922

Ion	Ratio	Lower	Upper
104	100		
78	44.9	36.6	55.0
103	0.0	0.0	0.0



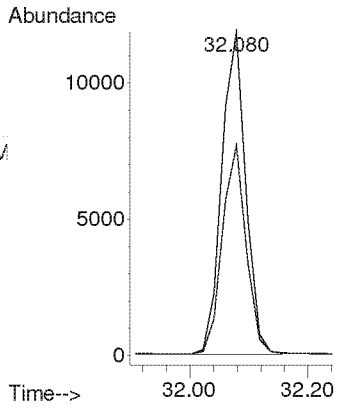
Compounds other than ethylene oxide were not quantitated.

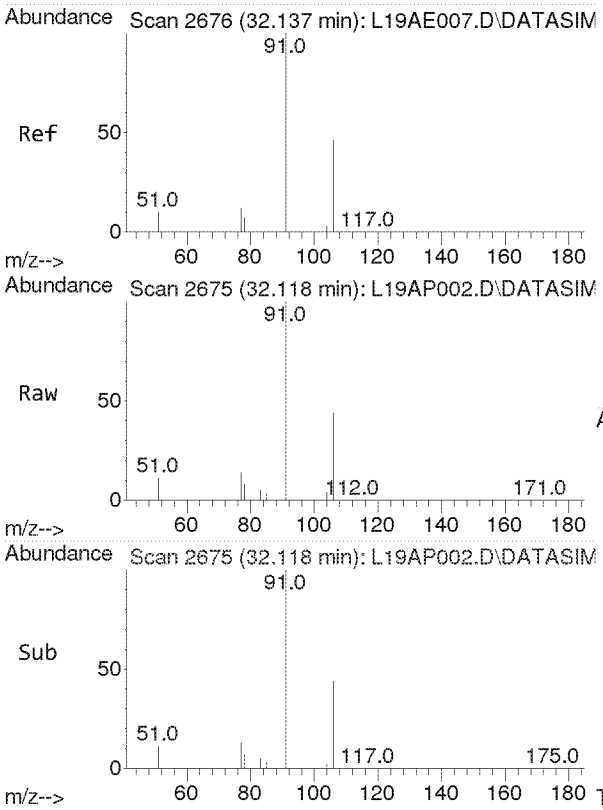


#54
1,1,2,2-Tetrachloroethane
Concen: 2.534 ppbv
RT: 32.080 min Scan# 2673
Delta R.T. -0.000 min
Lab File: L19AP002.D
Acq: 16 Jan 2019 12:36 pm

Tgt Ion: 83 Resp: 33272

Ion	Ratio	Lower	Upper
83	100		
85	64.3	51.2	76.8

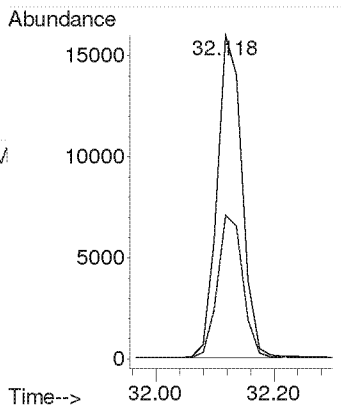




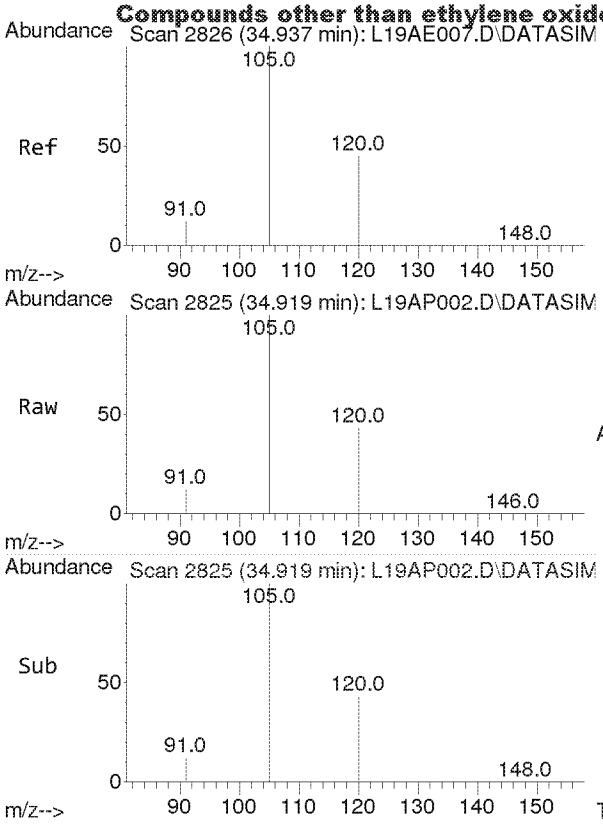
#55
o-Xylene
Concen: 2.693 ppbv
RT: 32.118 min Scan# 2675
Delta R.T. -0.019 min
Lab File: L19AP002.D
Acq: 16 Jan 2019 12:36 pm

Tgt Ion: 91 Resp: 46643

Ion	Ratio	Lower	Upper
91	100		
106	44.9	35.8	53.8



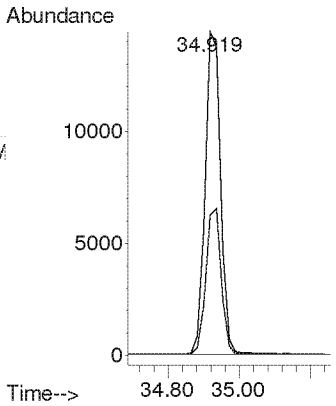
Compounds other than ethylene oxide were not quantitated.

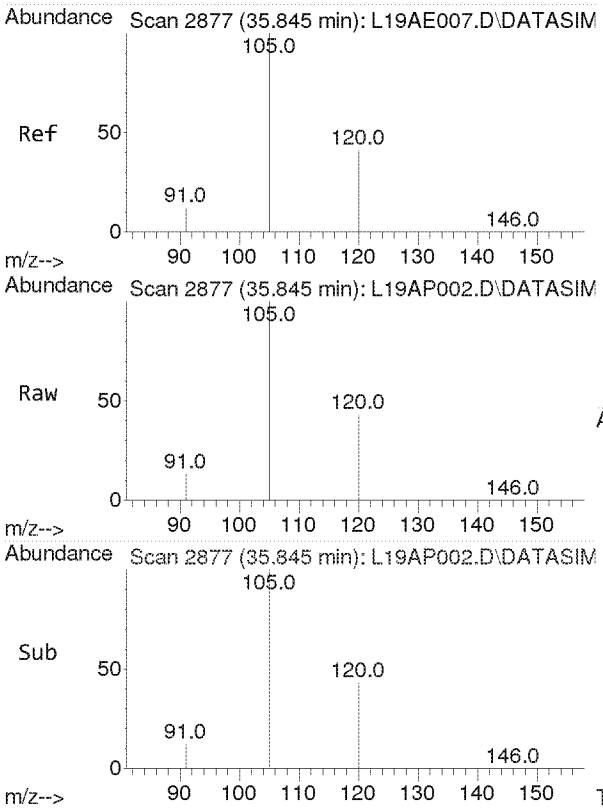


#56
1,3,5-Trimethylbenzene
Concen: 2.534 ppbv
RT: 34.919 min Scan# 2825
Delta R.T. -0.018 min
Lab File: L19AP002.D
Acq: 16 Jan 2019 12:36 pm

Tgt Ion:105 Resp: 43038

Ion	Ratio	Lower	Upper
105	100		
120	44.9	36.0	54.0

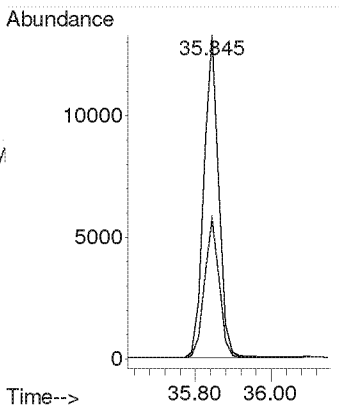




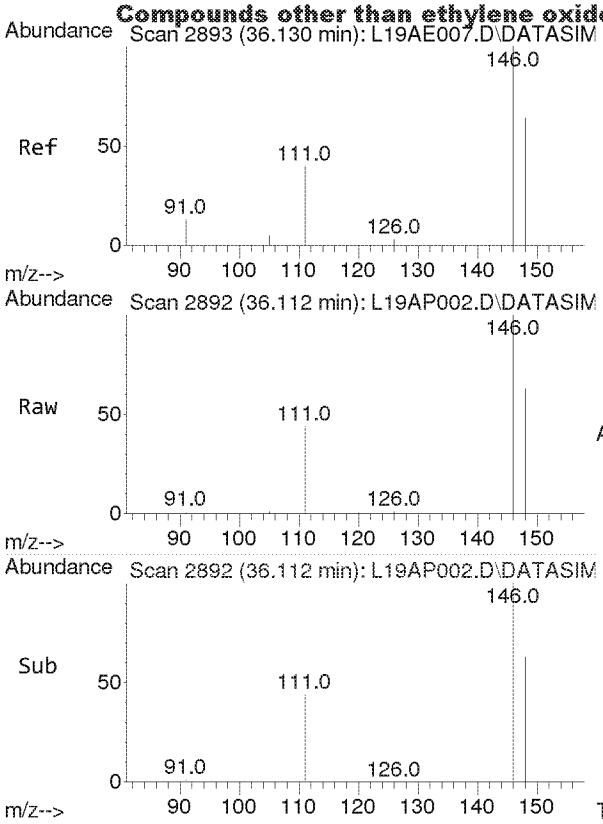
#57
1,2,4-Trimethylbenzene
Concen: 2.415 ppbv
RT: 35.845 min Scan# 2877
Delta R.T. -0.000 min
Lab File: L19AP002.D
Acq: 16 Jan 2019 12:36 pm

Tgt Ion:105 Resp: 35711

Ion	Ratio	Lower	Upper
105	100		
120	42.9	34.3	51.5



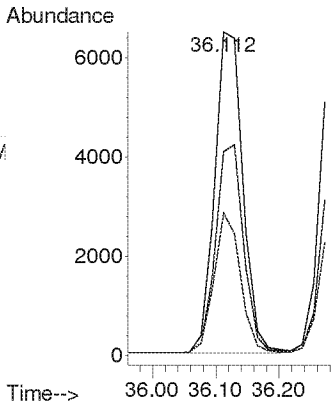
Compounds other than ethylene oxide were not quantitated.

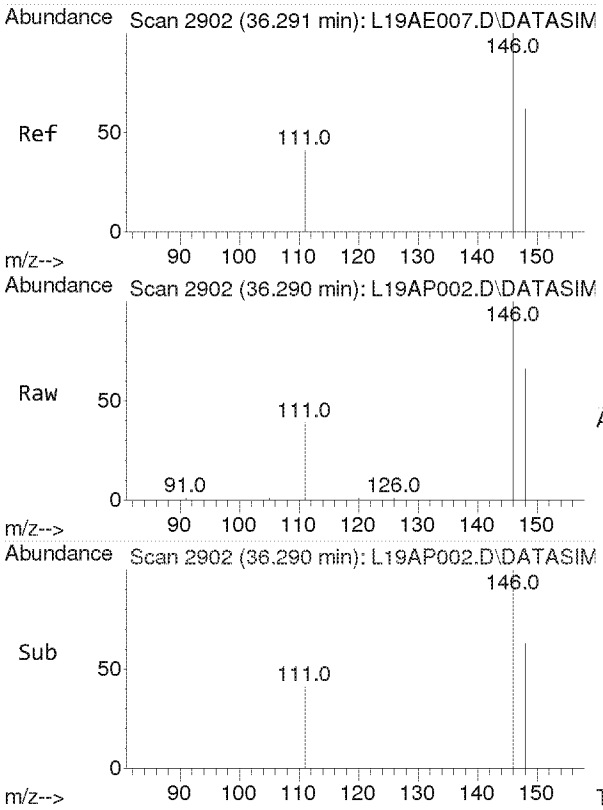


#58
m-Dichlorobenzene
Concen: 1.973 ppbv
RT: 36.112 min Scan# 2892
Delta R.T. -0.018 min
Lab File: L19AP002.D
Acq: 16 Jan 2019 12:36 pm

Tgt Ion:146 Resp: 20059

Ion	Ratio	Lower	Upper
146	100		
148	64.3	51.3	76.9
111	41.2	32.4	48.6

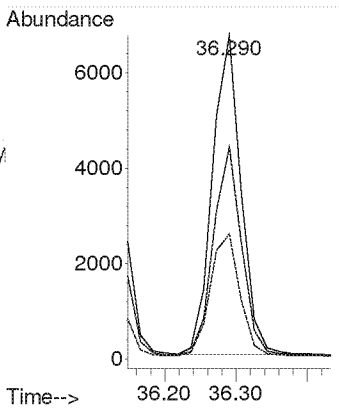




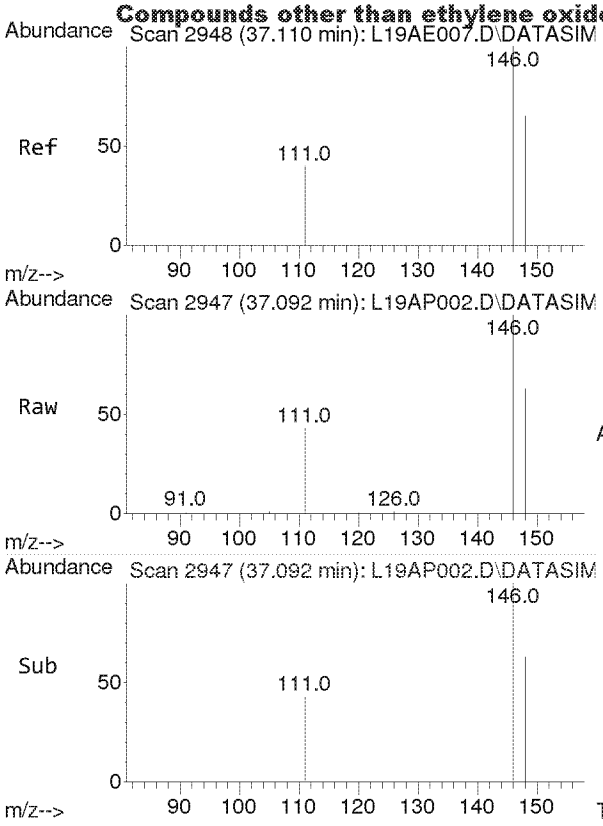
#59
p-Dichlorobenzene
Concen: 2.271 ppbv
RT: 36.290 min Scan# 2902
Delta R.T. -0.000 min
Lab File: L19AP002.D
Acq: 16 Jan 2019 12:36 pm

Tgt Ion:146 Resp: 18599

Ion	Ratio	Lower	Upper
146	100		
148	64.2	51.1	76.7
111	39.7	31.4	47.2



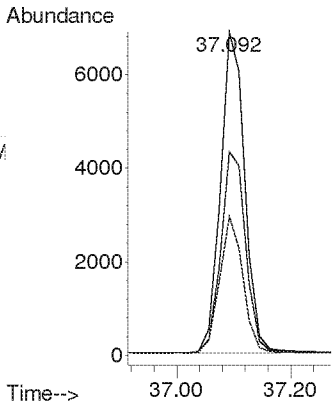
Compounds other than ethylene oxide were not quantitated.

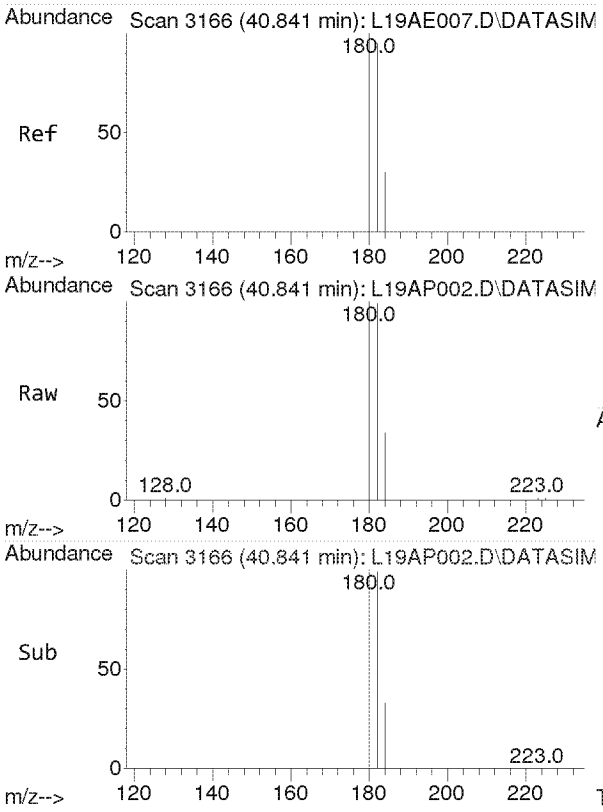


#60
o-Dichlorobenzene
Concen: 2.299 ppbv
RT: 37.092 min Scan# 2947
Delta R.T. -0.018 min
Lab File: L19AP002.D
Acq: 16 Jan 2019 12:36 pm

Tgt Ion:146 Resp: 20328

Ion	Ratio	Lower	Upper
146	100		
148	64.3	51.2	76.8
111	41.1	32.6	48.8

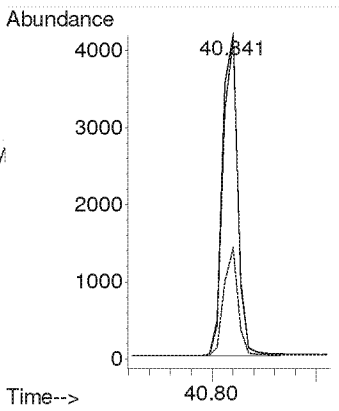




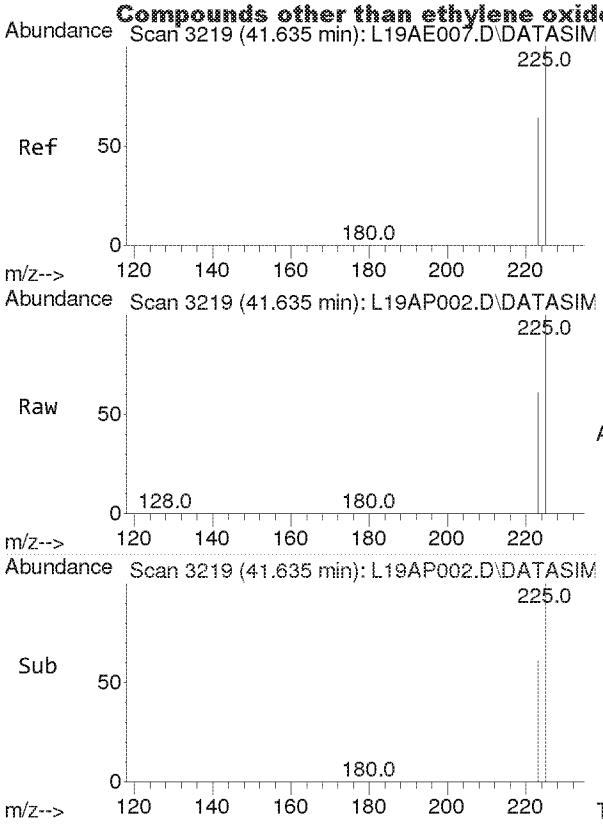
#61
1,2,4-Trichlorobenzene
Concen: 2.312 ppbv
RT: 40.841 min Scan# 3166
Delta R.T. -0.000 min
Lab File: L19AP002.D
Acq: 16 Jan 2019 12:36 pm

Tgt Ion:180 Resp: 8336

Ion	Ratio	Lower	Upper
180	100		
182	95.7	76.0	114.0
184	30.9	24.4	36.6



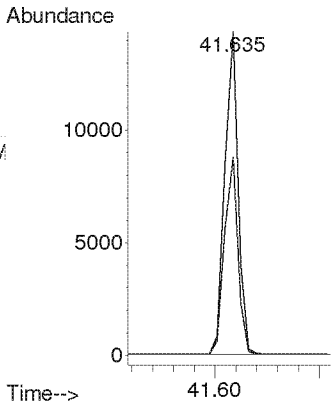
Compounds other than ethylene oxide were not quantitated.



#62
Hexachloro-1,3-butadiene
Concen: 2.725 ppbv
RT: 41.635 min Scan# 3219
Delta R.T. -0.000 min
Lab File: L19AP002.D
Acq: 16 Jan 2019 12:36 pm

Tgt Ion:225 Resp: 24917

Ion	Ratio	Lower	Upper
225	100		
223	62.3	49.9	74.9



Compounds other than ethylene oxide were not quantitated.

TO-15 Method Blank and
Annual Canister Certification Blank

Analyst: [illegible] Date: 1-24-19
Reviewer: RMB Date: 1/31/19

Data File Name	L19AP005.D
Operator	MAH
Acq. Method File	9010002.M
Sample Name	B9A1607-BLK1
Misc Info	ML 8L13001,B-H1-541,A21013

#	Name	Target Response	Amount (ppbv)	PASS*		Blank Criteria
1)	IS-Hexane-d14	56179		NA		NA
2)	Acetylene	0	0.000	Y		0.118
3)	Propylene	44	0.008	Y		0.192
4)	Dichlorodifluoromethane	0	0.000	Y		0.082
5)	Chloromethane	0	0.000	Y		0.139
6)	Dichlorotetrafluoroethane	0	0.000	Y		0.040
7)	Vinyl Chloride	0	0.000	Y		0.038
8)	1,3-Butadiene	0	0.000	Y		0.058
	Ethylene oxide	0	0.000	Y		0.136
9)	Bromomethane	0	0.000	Y		0.035
10)	Chloroethane	0	0.000	Y		0.075
11)	Acetonitrile	0	0.000	Y		0.049
12)	Acrolein	0	0.000	Y		0.200
13)	Trichlorofluoromethane	0	0.000	Y		0.035
14)	Acrylonitrile	0	0.000	Y		0.032
15)	1,1-Dichloroethene	0	0.000	Y		0.036
16)	Methylene Chloride	0	0.000	Y		0.043
17)	Carbon Disulfide	78	0.004	Y		0.200
18)	Trichlorotrifluoroethane	0	0.000	Y		0.029
19)	trans-1,2-Dichloroethylene	0	0.000	Y		0.040
20)	1,1-Dichloroethane	0	0.000	Y		0.043
21)	Methyl tert-Butyl Ether	0	0.000	Y		0.031
22)	Chloroprene	0	0.000	Y		0.039
23)	cis-1,2-Dichloroethylene	0	0.000	Y		0.056
24)	Bromochloromethane	0	0.000	Y		0.040
25)	Chloroform	0	0.000	Y		0.039
26)	Ethyl tert-Butyl Ether	0	0.000	Y		0.033
27)	1,2-Dichloroethane	0	0.000	Y		0.042
28)	IS-1,4-Difluorobenzene	138297		NA		NA
29)	1,1,1-Trichloroethane	0	0.000	Y		0.041
30)	Benzene	63	0.004	Y		0.043
31)	Carbon Tetrachloride	0	0.000	Y		0.040
32)	tert-Amyl Methyl Ether	0	0.000	Y		0.037
33)	1,2-Dichloropropane	0	0.000	Y		0.061
34)	Ethyl Acrylate	0	0.000	Y		0.070
35)	Bromodichloromethane	0	0.000	Y		0.049
36)	Trichloroethylene	0	0.000	Y		0.045
37)	Methyl Methacrylate	477	0.020	Y	MAX	0.200
38)	cis-1,3-dichloropropene	0	0.000	Y		0.059
39)	Methyl Isobutyl Ketone	0	0.000	Y		0.071
40)	trans-1,3-Dichloropropene	0	0.000	Y		0.059
41)	1,1,2-Trichloroethane	0	0.000	Y		0.057
42)	IS-Chlorobenzene-d5	102223		NA		NA
43)	Toluene	40	0.002	Y		0.200
44)	Dibromochloromethane	0	0.000	Y		0.046
45)	1,2-Dibromoethane	0	0.000	Y		0.057
46)	n-Octane	0	0.000	Y		0.097
47)	Tetrachloroethylene	0	0.000	Y		0.044
48)	Chlorobenzene	0	0.000	Y		0.058
49)	Ethylbenzene	87	0.005	Y		0.077
50)	m,p-Xylene	45	0.003	Y		0.108
51)	Bromoform	0	0.000	Y		0.053
52)	Styrene	0	0.000	Y		0.109
53)	1,1,2,2-Tetrachloroethane	0	0.000	Y		0.063
54)	o-Xylene	92	0.006	Y		0.080
55)	1,3,5-Trimethylbenzene	0	0.000	Y		0.102
56)	1,2,4-Trimethylbenzene	0	0.000	Y		0.080
57)	m-Dichlorobenzene	0	0.000	Y		0.055
58)	p-Dichlorobenzene	0	0.000	Y		0.060
59)	o-Dichlorobenzene	0	0.000	Y		0.062
60)	1,2,4-Trichlorobenzene	0	0.000	Y		0.200
61)	Hexachloro-1,3-butadiene	0	0.000	Y		0.082

*All Blanks must be below 0.2 ppb or 3 times the MDL whichever value is lower

TO-15_BLANK_TEMPLATES_3-19-18
2018 BLANK
Y:\AIR TOX\TO-15 BLANK TEST\TO-15_BLANK_TEMPLATES_8-29-18.xlsx

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19AP\
Data File : L19AP005.D
Acq On : 16 Jan 2019 4:40 pm (#1); 16-Jan-19, 16:35:29 (#2)
Operator : MAH
Sample : B9A1607-BLK1 (Sig #1); -BLK1 (Sig #2)
Misc : 80 ML 8L13001,B-H1-541,A21013
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 23 06:53:11 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.993	66	56179	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.151	114	138297	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.116	117	102223	4.7400 ppbv	0.00

System Monitoring Compounds

Target Compounds					Qvalue
2) Acetylene	0.000	26	0	N.D.	
3) Propylene	7.838	41	44	0.0082 ppbv #	14
4) Dichlorodifluoromethane	0.000	85	0	N.D.	
5) Chloromethane	0.000	50	0	N.D.	
6) Dichlorotetrafluoroethane	0.000	85	0	N.D.	
7) Vinyl Chloride	0.000	62	0	N.D.	
8) 1,3-Butadiene	0.000	54	0	N.D.	
9) Ethylene oxide	0.000	29	0	N.D. d	
10) Bromomethane	0.000	94	0	N.D.	
11) Chloroethane	0.000	64	0	N.D.	
12) Acetonitrile	0.000	41	0	N.D.	
13) Acrolein	0.000	56	0	N.D.	
14) Trichlorofluoromethane	0.000	101	0	N.D.	
15) Acrylonitrile	0.000	53	0	N.D.	
16) 1,1-Dichloroethene	0.000	61	0	N.D.	
17) Methylene Chloride	0.000	49	0	N.D.	
18) Carbon Disulfide	16.932	76	78	0.0036 ppbv #	75
19) Trichlorotrifluoroethane	0.000	101	0	N.D. d	
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.	
21) 1,1-Dichloroethane	0.000	63	0	N.D.	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D.	
23) Chloroprene	0.000	53	0	N.D.	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D. d	
25) Bromochloromethane	0.000	128	0	N.D.	
26) Chloroform	0.000	83	0	N.D.	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D.	
28) 1,2-Dichloroethane	0.000	62	0	N.D.	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D.	
31) Benzene	22.555	78	63	0.0040 ppbv #	53
32) Carbon Tetrachloride	0.000	117	0	N.D.	
33) tert-Amyl Methyl Ether	0.000	73	0	N.D.	
34) 1,2-Dichloropropane	0.000	63	0	N.D.	
35) Ethyl Acrylate	0.000	55	0	N.D.	
36) Bromodichloromethane	0.000	83	0	N.D.	
37) Trichloroethylene	0.000	130	0	N.D.	
38) Methyl Methacrylate	24.553	41	477	0.0203 ppbv #	95
39) cis-1,3-Dichloropropene	0.000	75	0	N.D.	
40) Methyl Isobutyl Ketone	0.000	43	0	N.D.	
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.	
44) Toluene	27.094	91	40	0.0024 ppbv #	26
45) Dibromochloromethane	0.000	129	0	N.D.	
46) 1,2-Dibromoethane	0.000	107	0	N.D.	
47) n-Octane	0.000	43	0	N.D.	
48) Tetrachloroethylene	0.000	166	0	N.D.	
49) Chlorobenzene	0.000	112	0	N.D.	
50) Ethylbenzene	30.917	91	87	0.0050 ppbv #	43

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19AP\
Data File : L19AP005.D
Acq On : 16 Jan 2019 4:40 pm (#1); 16-Jan-19, 16:35:29 (#2)
Operator : MAH
Sample : B9A1607-BLK1 (Sig #1); -BLK1 (Sig #2)
Misc : 80 ML 8L13001,B-H1-541,A21013
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 23 06:53:11 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	31.242	91	45	0.0029 ppbv #	31
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	32.120	91	92	0.0063 ppbv	92
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	
57) 1,2,4-Trimethylbenzene	0.000	105	0	N.D.	
58) m-Dichlorobenzene	0.000	146	0	N.D.	
59) p-Dichlorobenzene	0.000	146	0	N.D.	
60) o-Dichlorobenzene	0.000	146	0	N.D.	
61) 1,2,4-Trichlorobenzene	0.000	180	0	N.D.	
62) Hexachloro-1,3-butadiene	0.000	225	0	N.D.	

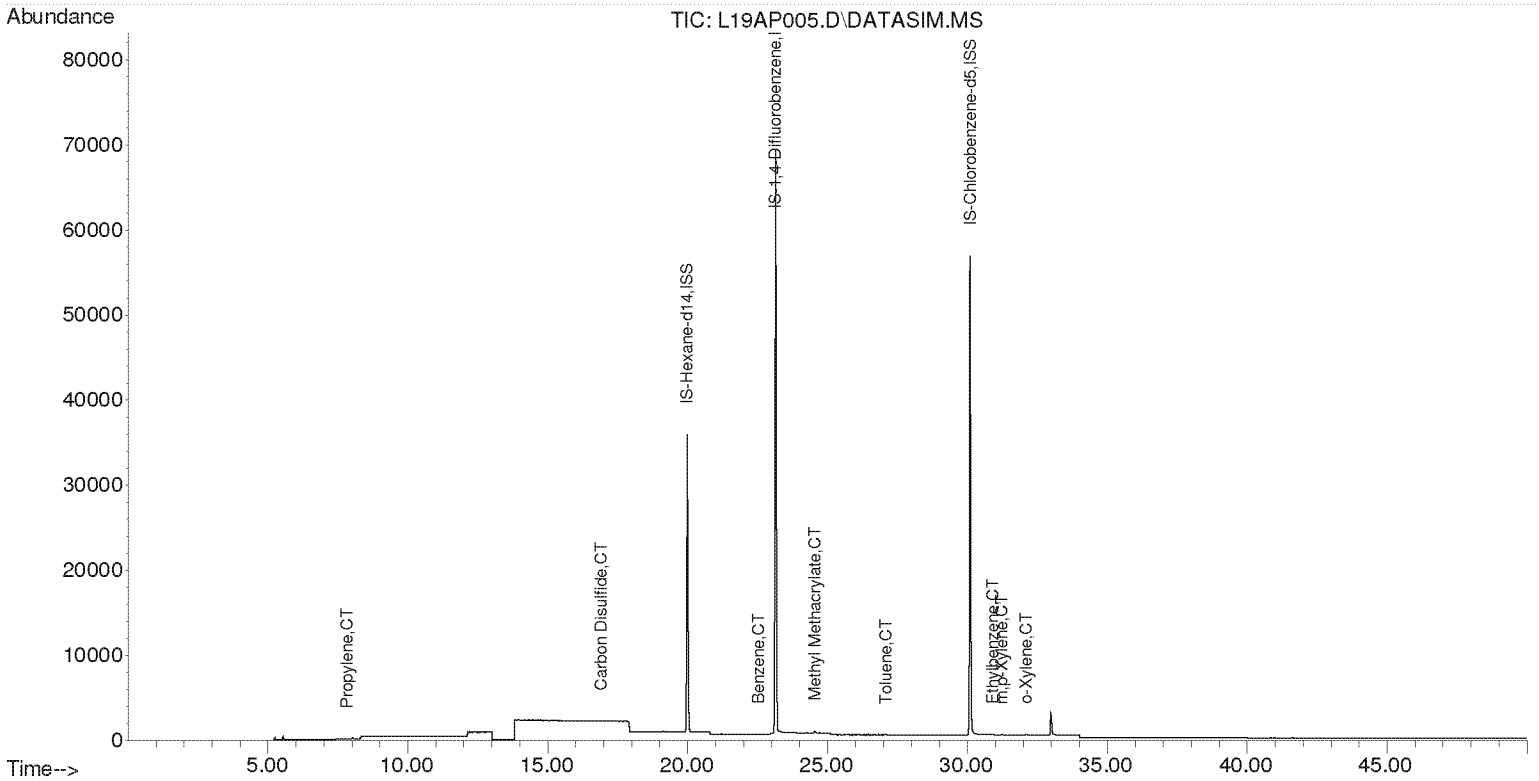
(#) = qualifier out of range (m) = manual integration (+) = signals summed

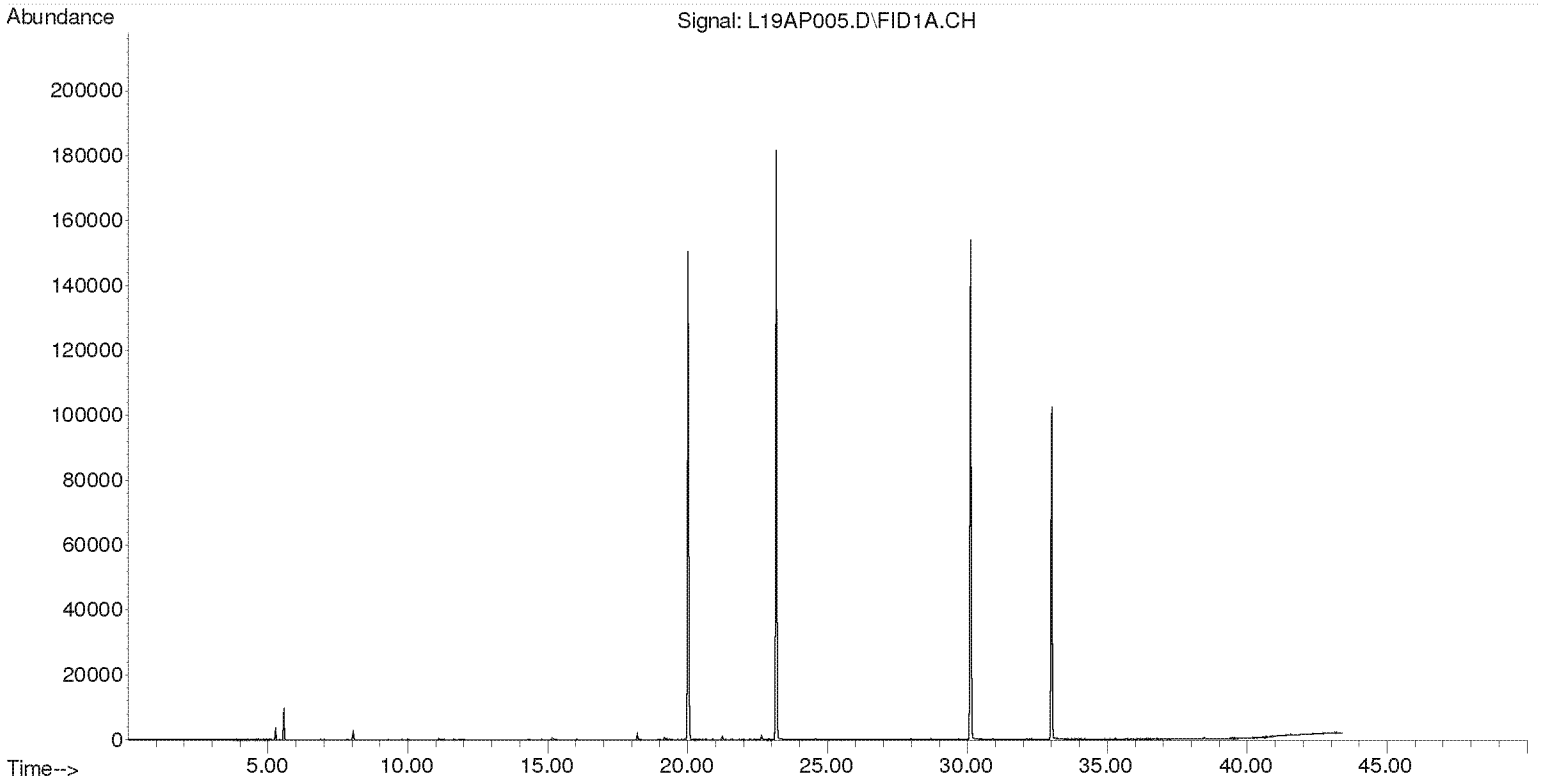
ED_002475_00000276-00050

Compounds other than ethylene oxide were not quantitated.

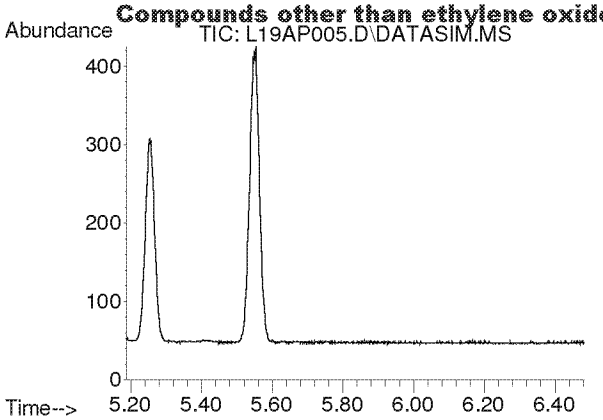
Data Path : Y:\MASS SPEC 1 DATA\L19AP\
Data File : L19AP005.D
Acq On : 16 Jan 2019 4:40 pm (#1); 16 Jan 2019 4:35 pm (#2)
Operator : MAH
Sample : B9A1607-BLK1 (Sig #1); -BLK1 (Sig #2)
Misc : 80 ML 8L13001,B-H1-541,A21013
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 23 06:43:16 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration





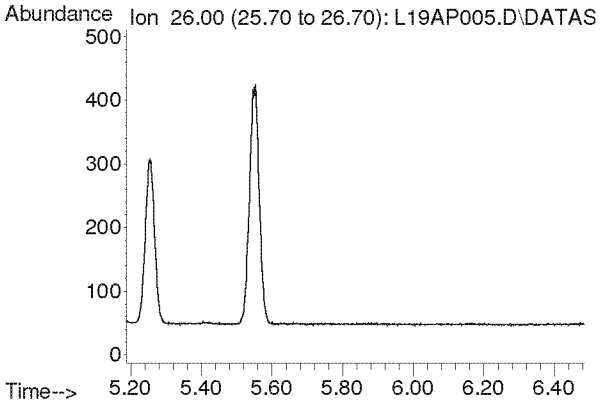
Compounds other than ethylene oxide were not quantitated.

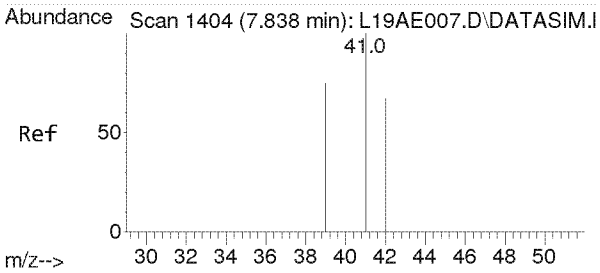


#2
Acetylene
Concen: N.D.
Expected RT: 5.42 min

Lab File: L19AP005.D
Acq: 16 Jan 2019 4:40 pm

Tgt Ion: 26

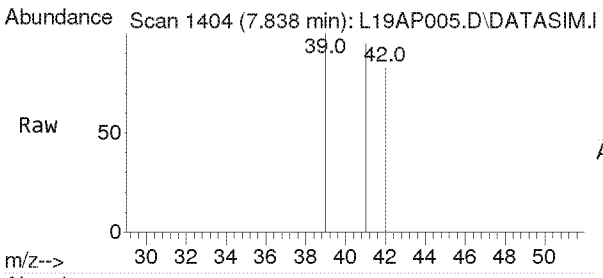


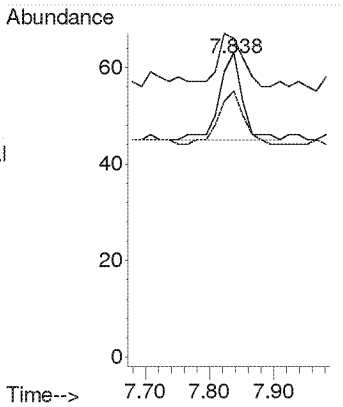


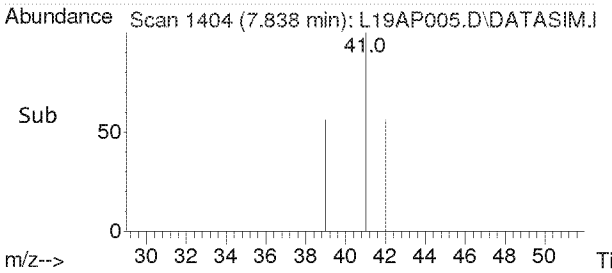
#3
Propylene
Concen: 0.008 ppbv
RT: 7.838 min Scan# 1404
Delta R.T. -0.000 min
Lab File: L19AP005.D
Acq: 16 Jan 2019 4:40 pm

Tgt Ion: 41 Resp: 44

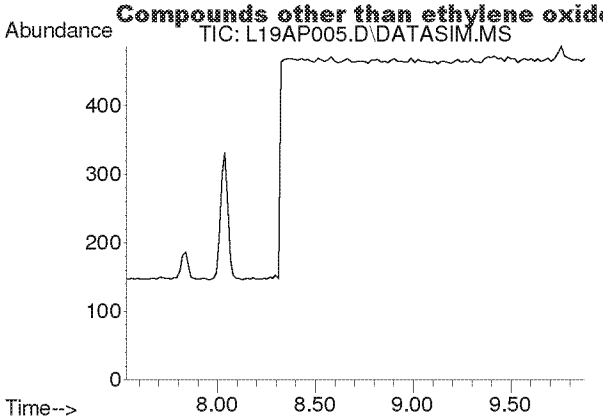
Ion	Ratio	Lower	Upper
41	100		
39	0.0	61.6	92.4#
42	0.0	52.6	79.0#







Compounds other than ethylene oxide were not quantitated.

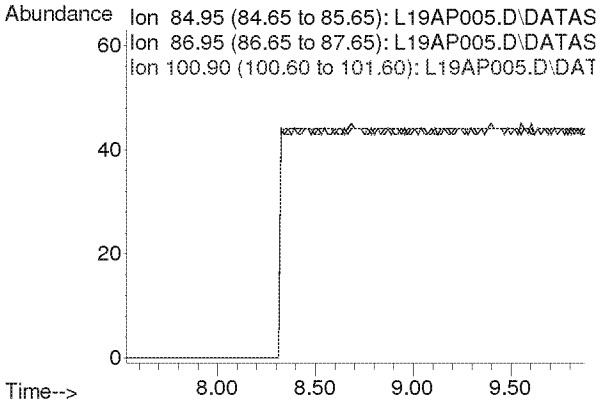


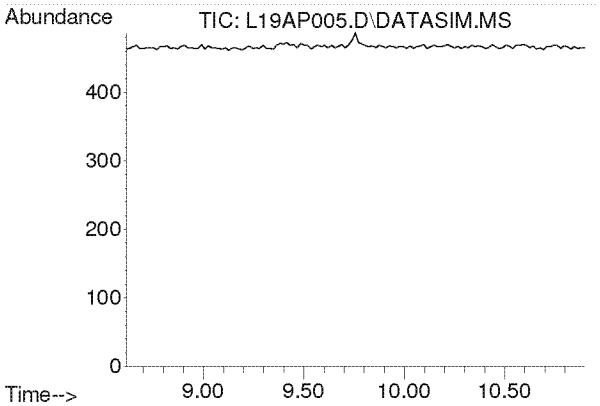
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19AP005.D
Acq: 16 Jan 2019 4:40 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	8.9



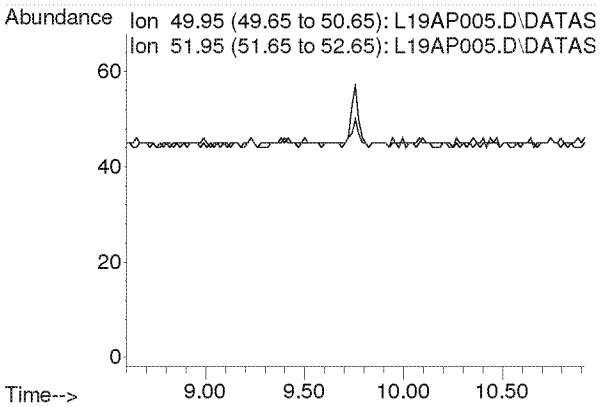


#5
Chloromethane
Concen: N.D.
Expected RT: 9.76 min

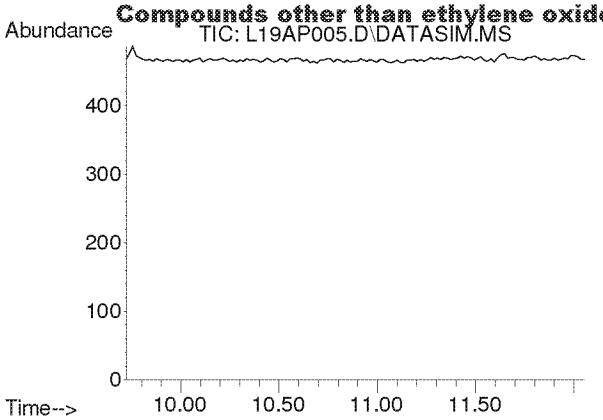
Lab File: L19AP005.D
Acq: 16 Jan 2019 4:40 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.4



Compounds other than ethylene oxide were not quantitated.

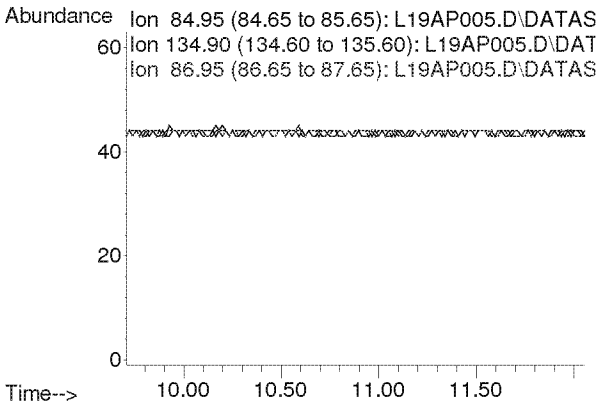


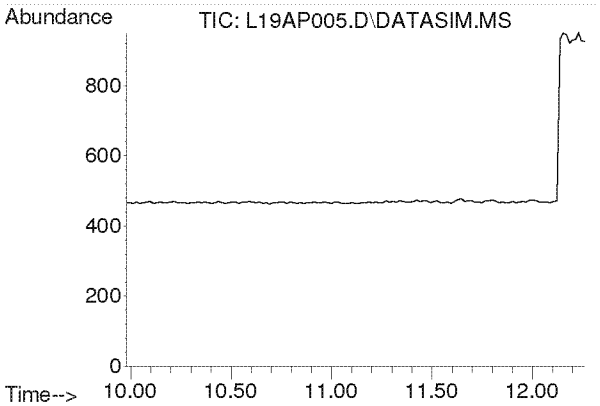
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19AP005.D
Acq: 16 Jan 2019 4:40 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.5
87	32.2



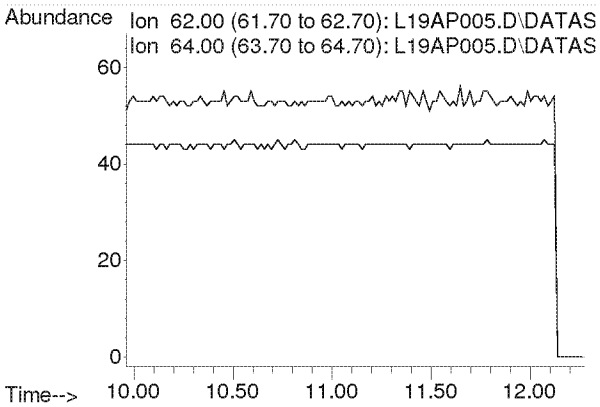


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

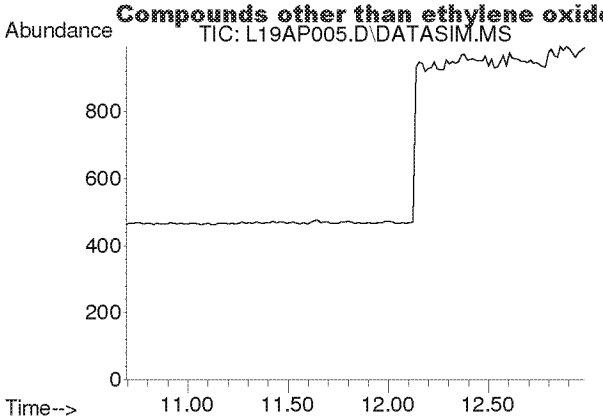
Lab File: L19AP005.D
Acq: 16 Jan 2019 4:40 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	32.1



Compounds other than ethylene oxide were not quantitated.

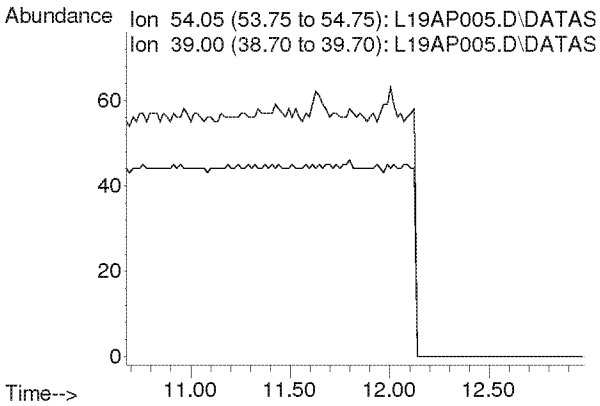


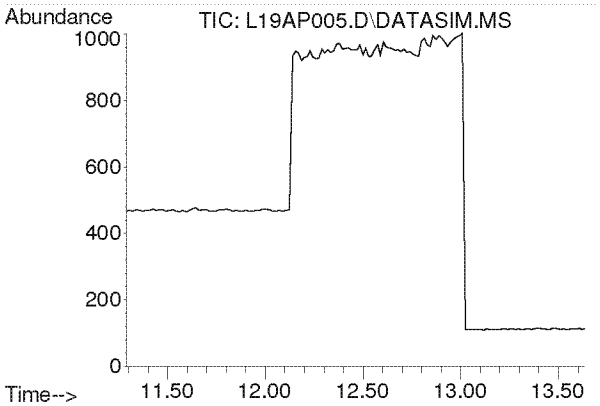
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19AP005.D
Acq: 16 Jan 2019 4:40 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	103.3



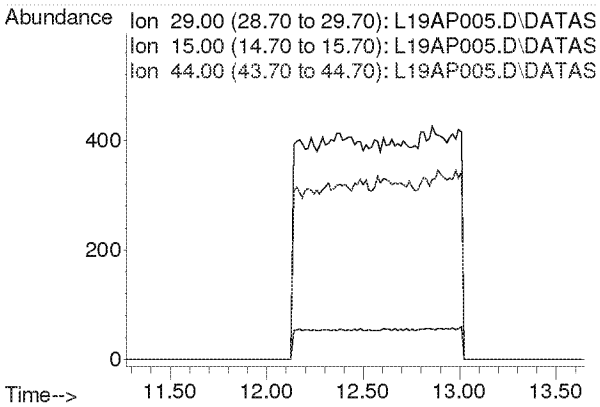


#9
Ethylene oxide
Concen: N.D.
Expected RT: 12.39 min

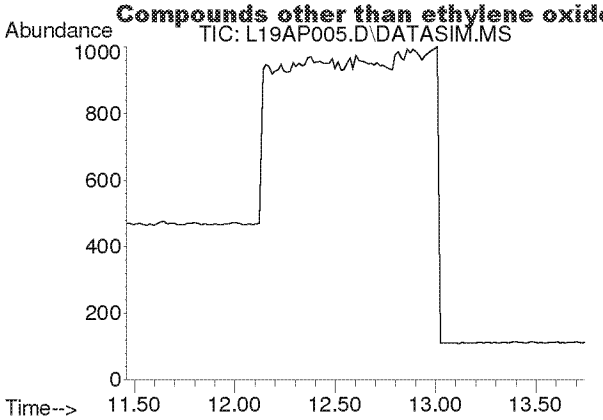
Lab File: L19AP005.D
Acq: 16 Jan 2019 4:40 pm

Tgt Ion: 29

Sig	Exp Ratio
29	100
15	19.2
44	96.8



Compounds other than ethylene oxide were not quantitated.

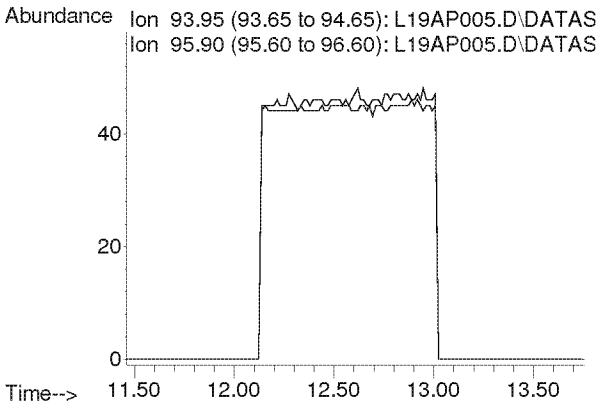


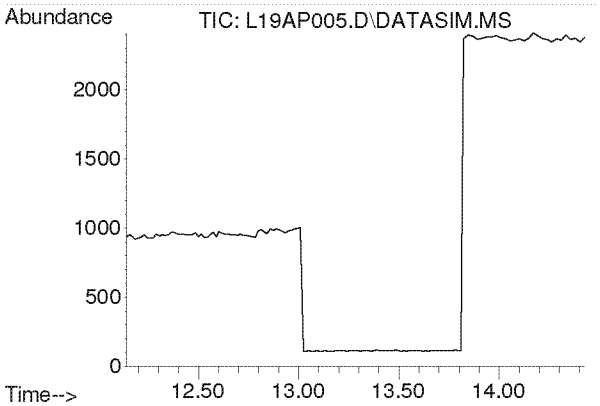
#10
Bromomethane
Concen: N.D.
Expected RT: 12.60 min

Lab File: L19AP005.D
Acq: 16 Jan 2019 4:40 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.3



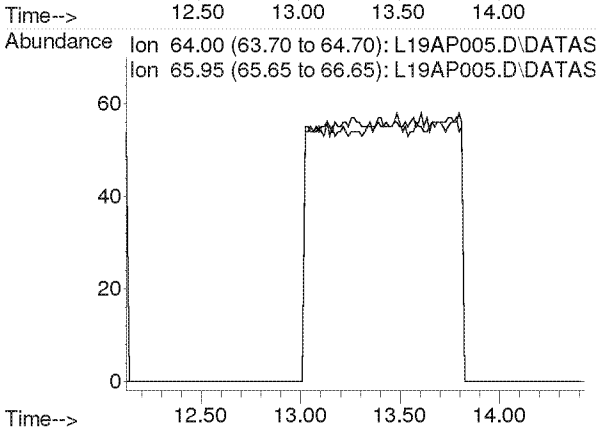


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

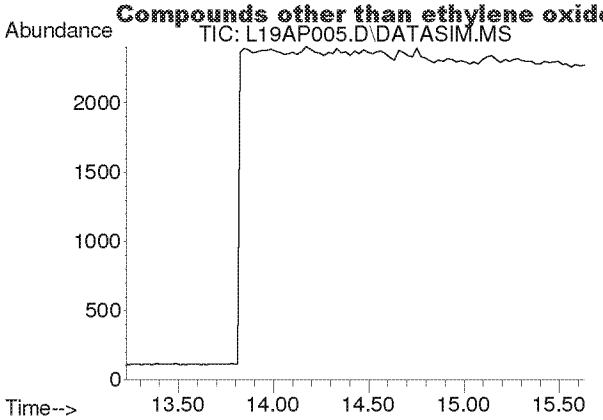
Lab File: L19AP005.D
Acq: 16 Jan 2019 4:40 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.4



Compounds other than ethylene oxide were not quantitated.

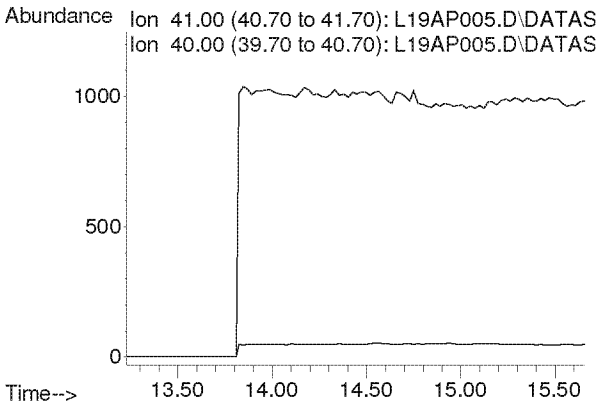


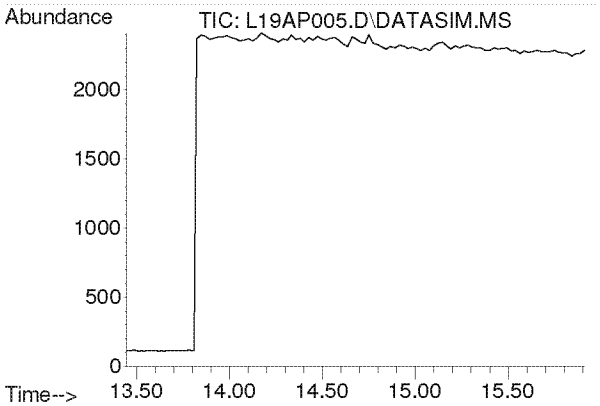
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19AP005.D
Acq: 16 Jan 2019 4:40 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	53.2



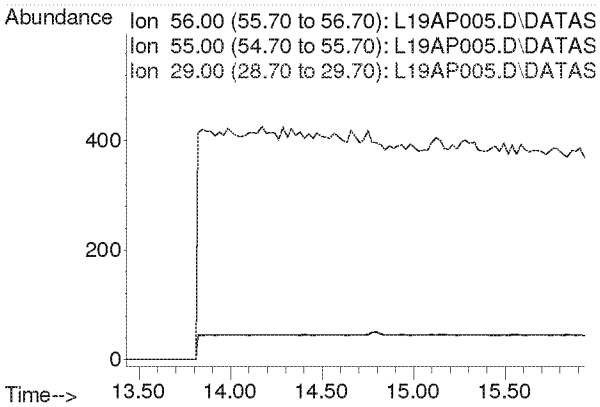


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

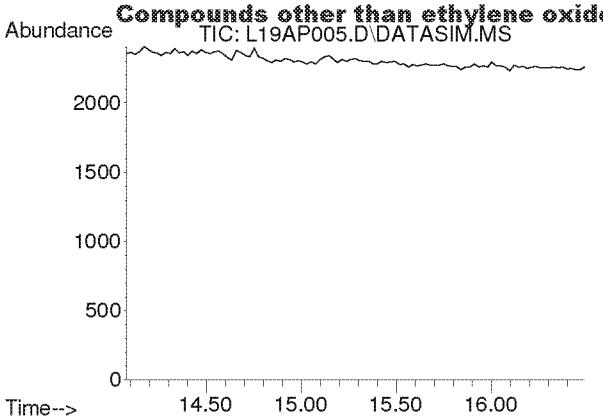
Lab File: L19AP005.D
Acq: 16 Jan 2019 4:40 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.5
29	44.9



Compounds other than ethylene oxide were not quantitated.

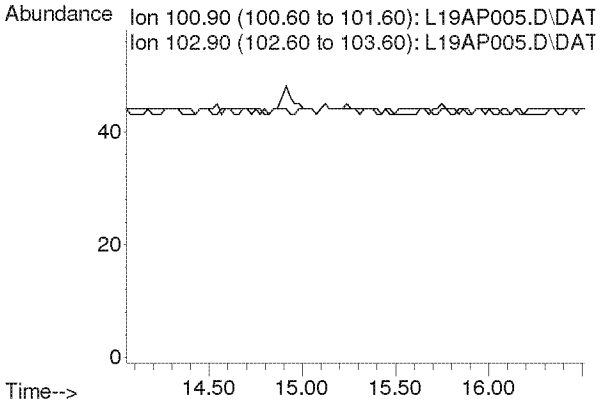


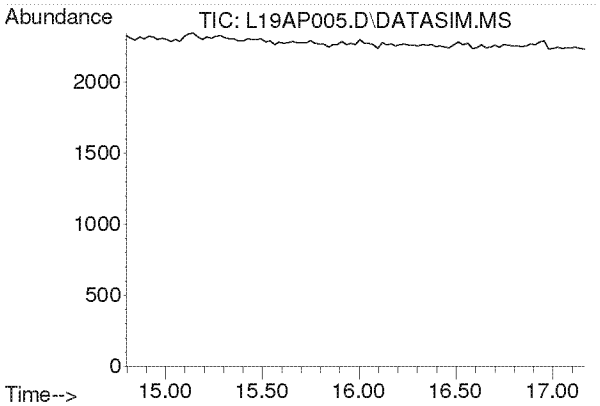
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.21 min

Lab File: L19AP005.D
Acq: 16 Jan 2019 4:40 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



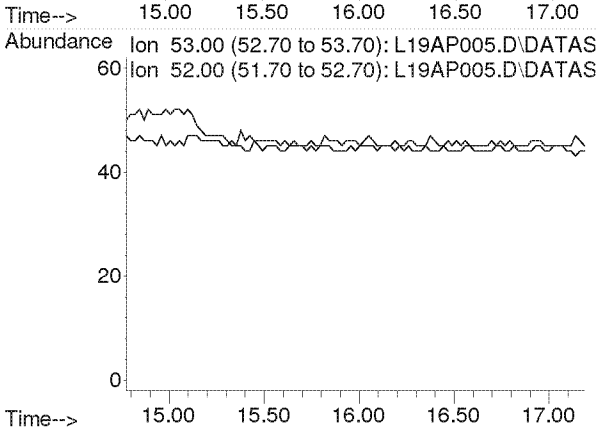


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

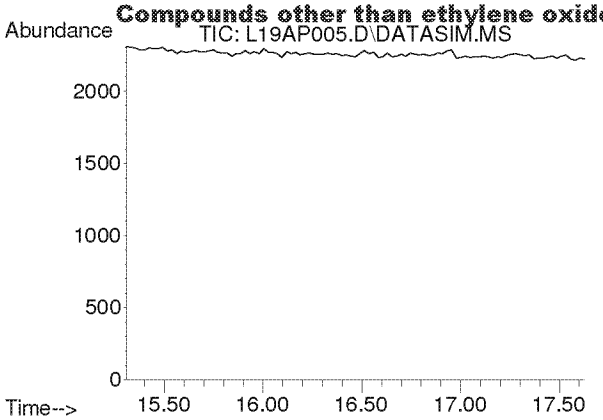
Lab File: L19AP005.D
Acq: 16 Jan 2019 4:40 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	84.7



Compounds other than ethylene oxide were not quantitated.

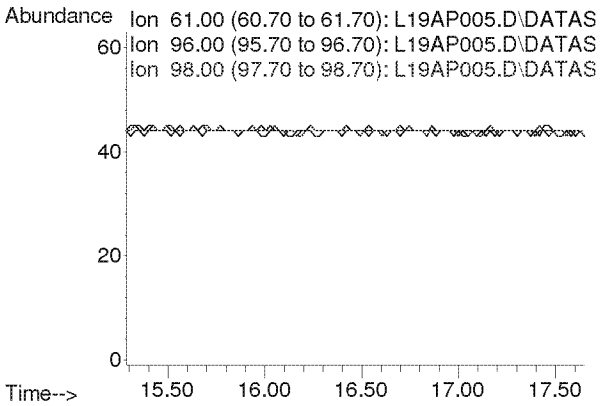


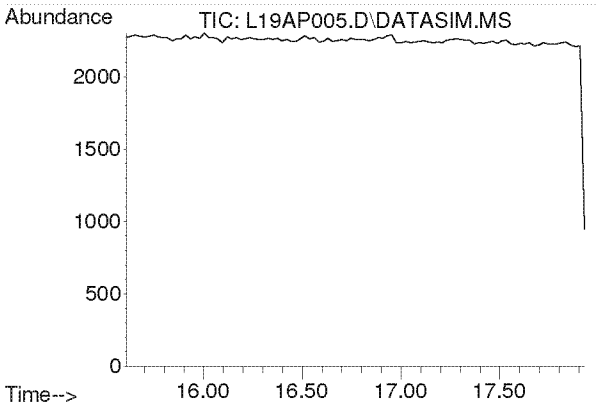
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.44 min

Lab File: L19AP005.D
Acq: 16 Jan 2019 4:40 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.5
98	38.1



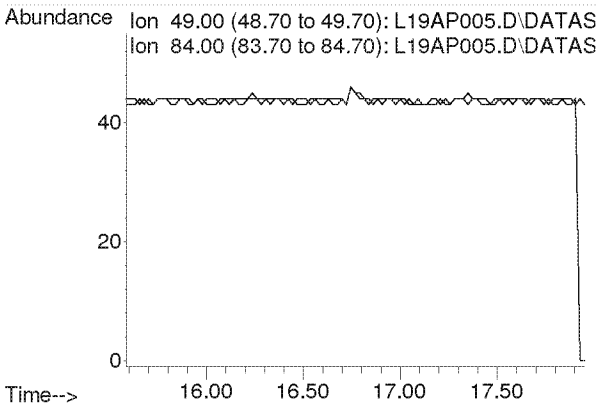


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

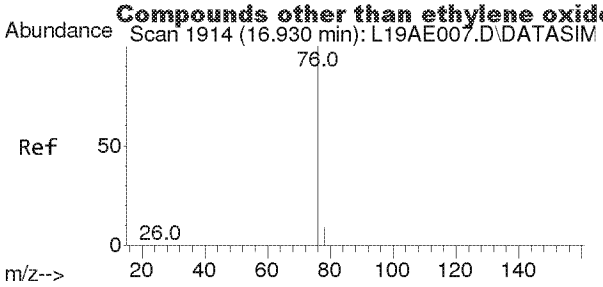
Lab File: L19AP005.D
Acq: 16 Jan 2019 4:40 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.3



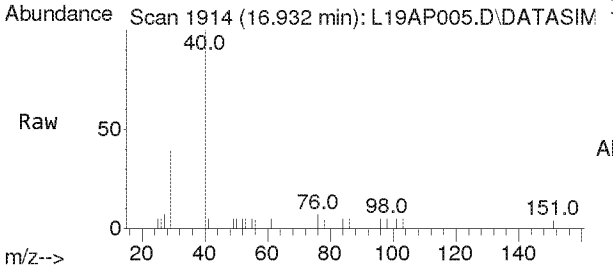
Compounds other than ethylene oxide were not quantitated.

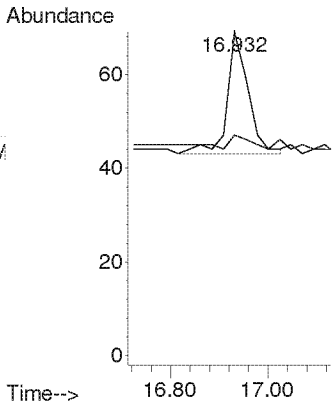


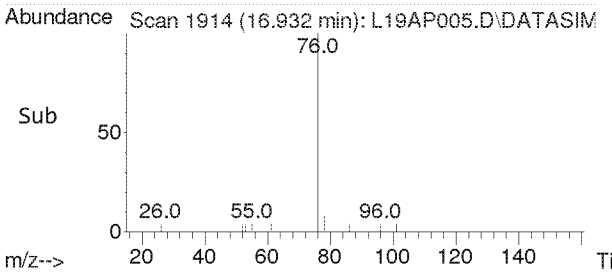
#18
Carbon Disulfide
Concen: 0.004 ppbv
RT: 16.932 min Scan# 1914
Delta R.T. 0.002 min
Lab File: L19AP005.D
Acq: 16 Jan 2019 4:40 pm

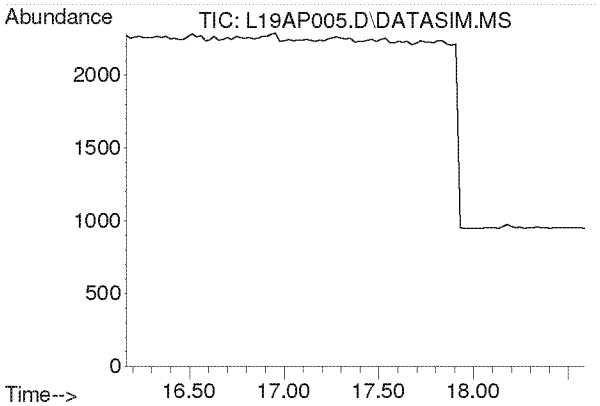
Tgt Ion: 76 Resp: 78

Ion	Ratio	Lower	Upper
76	100		
78	0.0	7.2	10.8#







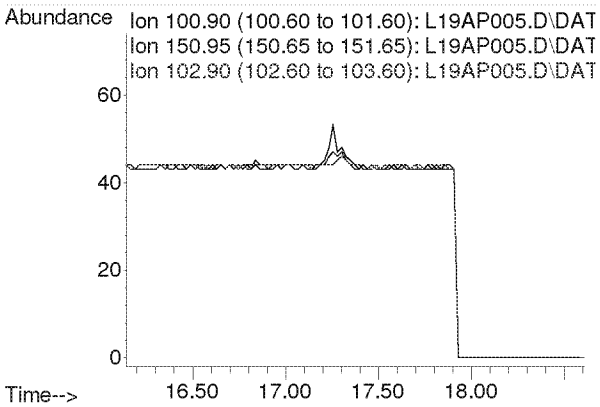


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.30 min

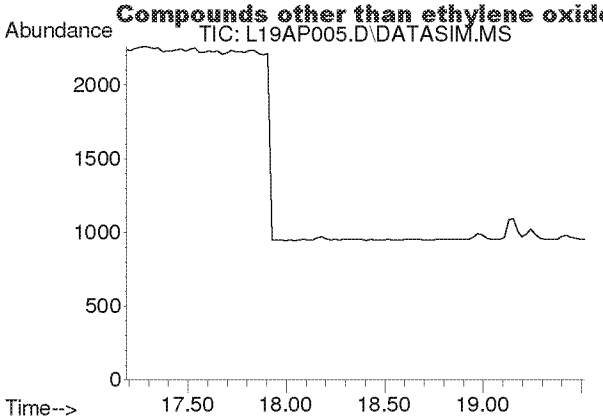
Lab File: L19AP005.D
Acq: 16 Jan 2019 4:40 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	95.4
103	63.9



Compounds other than ethylene oxide were not quantitated.

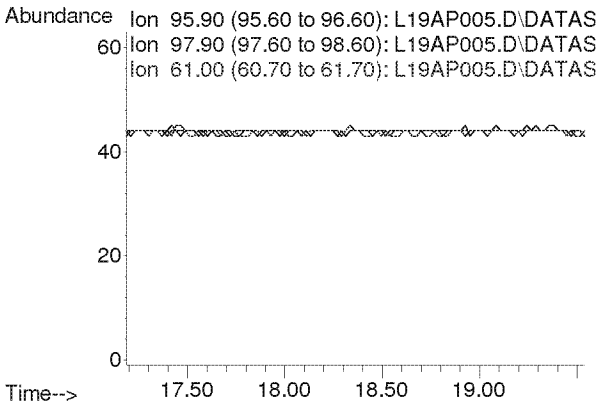


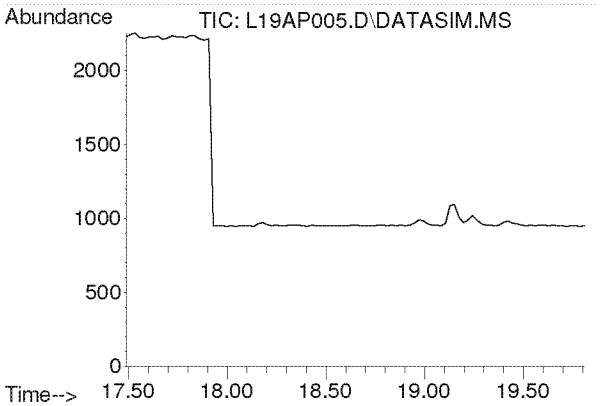
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19AP005.D
Acq: 16 Jan 2019 4:40 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	63.6
61	156.5



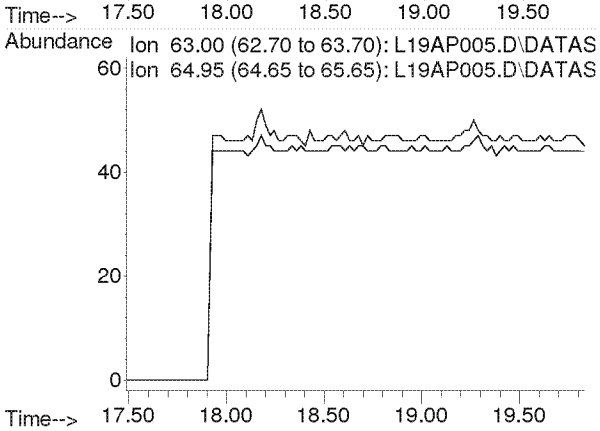


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

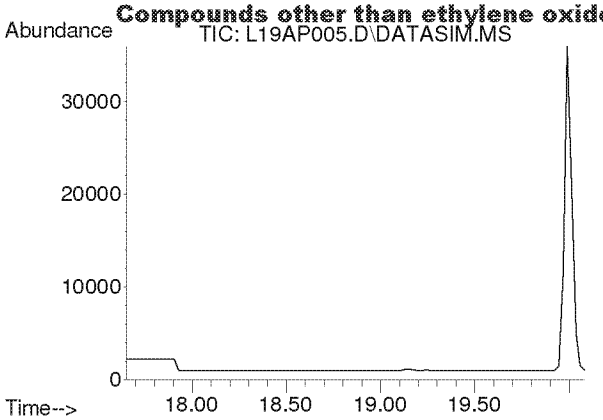
Lab File: L19AP005.D
Acq: 16 Jan 2019 4:40 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

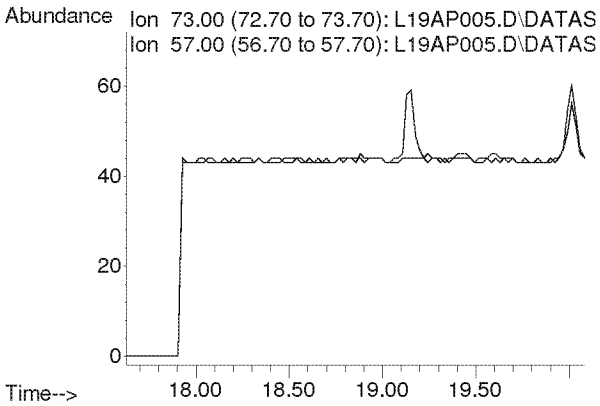


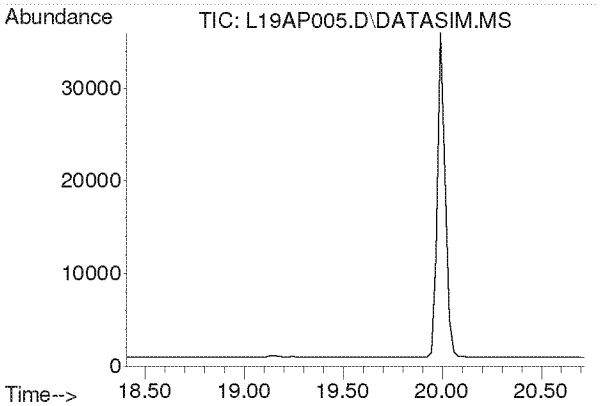
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19AP005.D
Acq: 16 Jan 2019 4:40 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.6



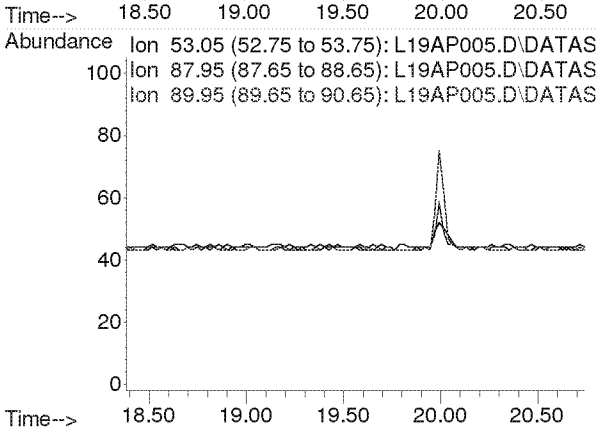


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

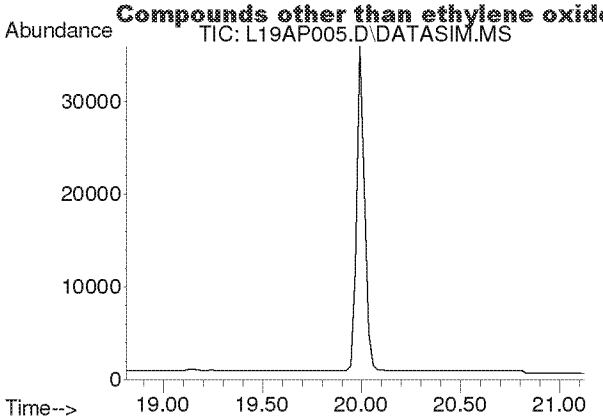
Lab File: L19AP005.D
Acq: 16 Jan 2019 4:40 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	54.0
90	17.3



Compounds other than ethylene oxide were not quantitated.

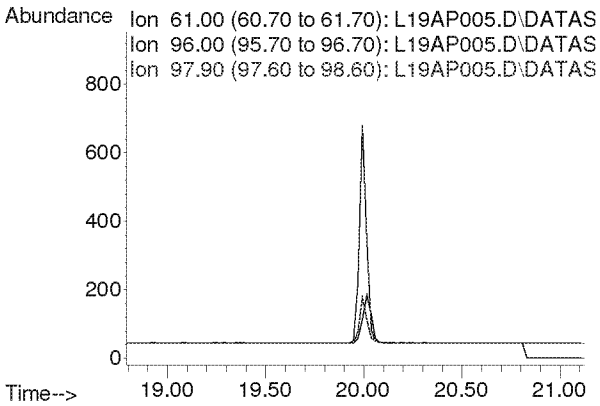


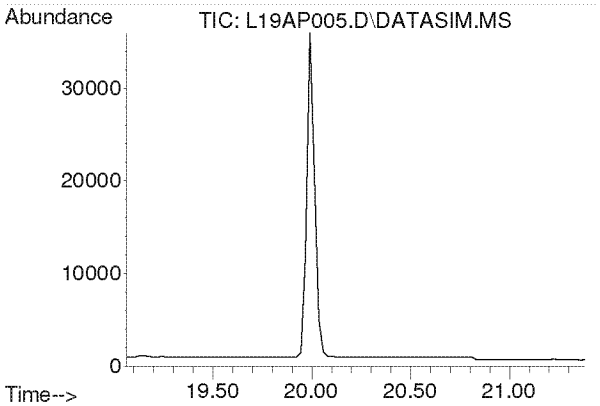
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19AP005.D
Acq: 16 Jan 2019 4:40 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	75.7
98	46.4



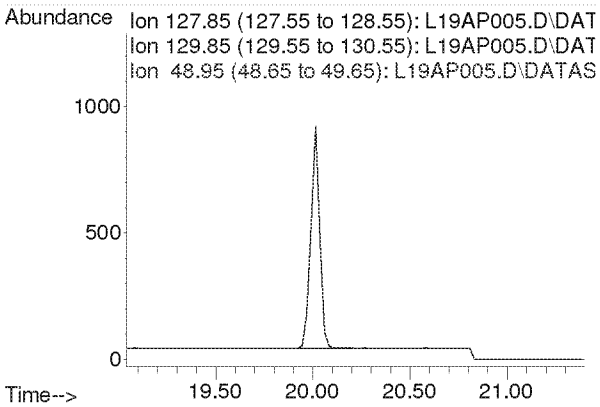


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.19 min

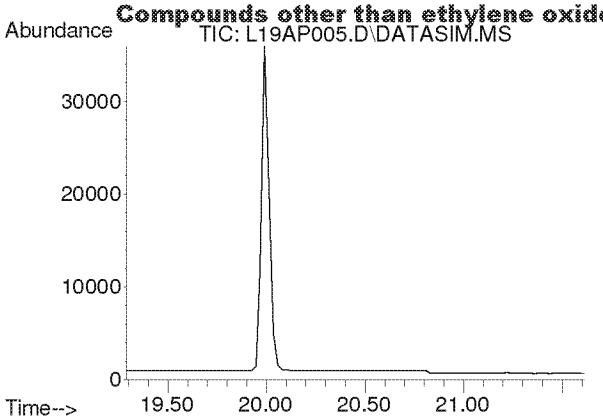
Lab File: L19AP005.D
Acq: 16 Jan 2019 4:40 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	130.4
49	170.8



Compounds other than ethylene oxide were not quantitated.

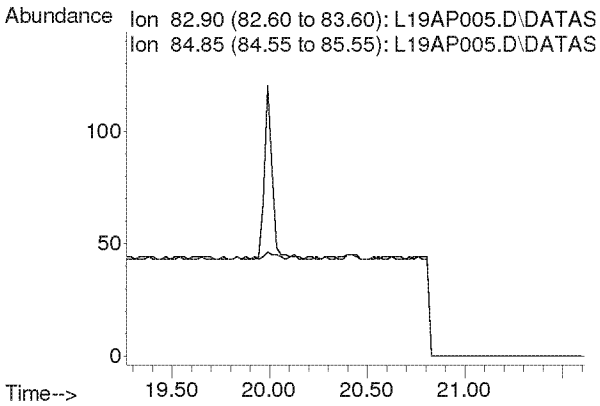


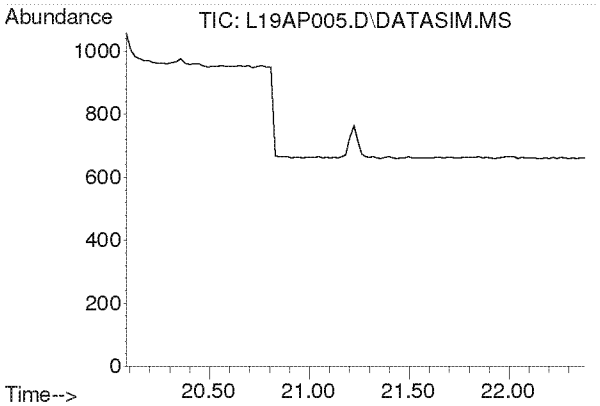
#26
Chloroform
Concen: N.D.
Expected RT: 20.42 min

Lab File: L19AP005.D
Acq: 16 Jan 2019 4:40 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



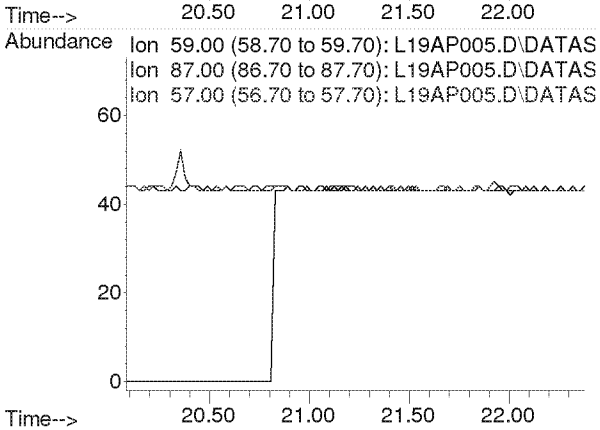


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

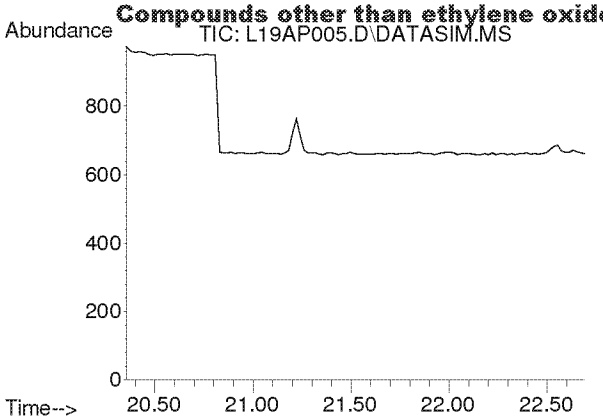
Lab File: L19AP005.D
Acq: 16 Jan 2019 4:40 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	37.8
57	34.3



Compounds other than ethylene oxide were not quantitated.

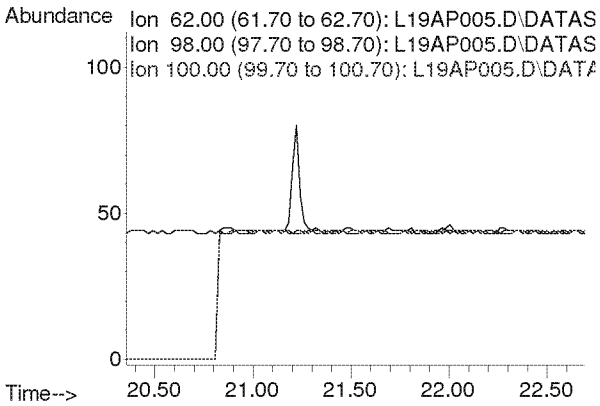


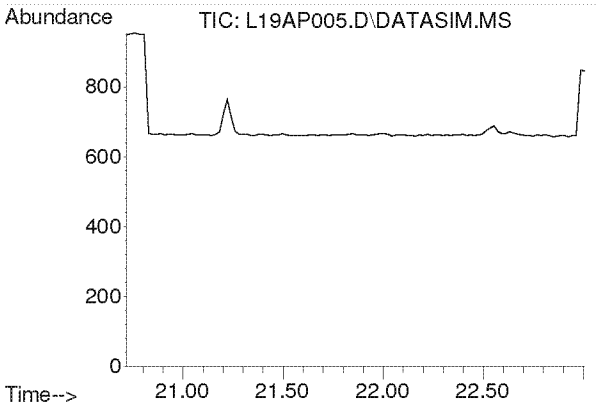
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.50 min

Lab File: L19AP005.D
Acq: 16 Jan 2019 4:40 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.8
100	4.2



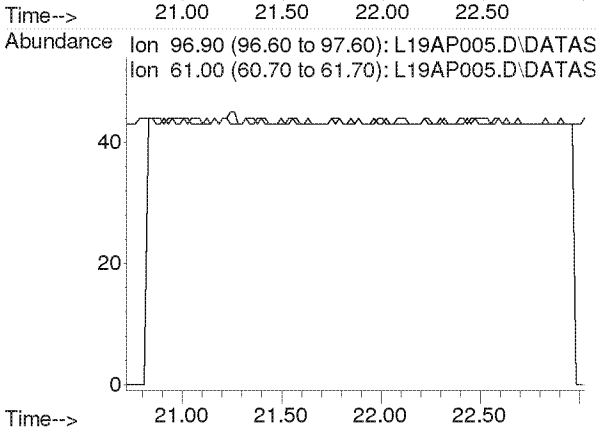


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

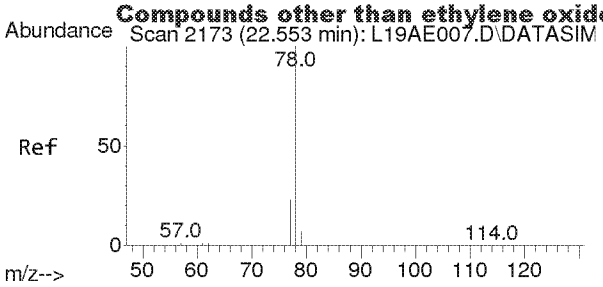
Lab File: L19AP005.D
Acq: 16 Jan 2019 4:40 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	58.6



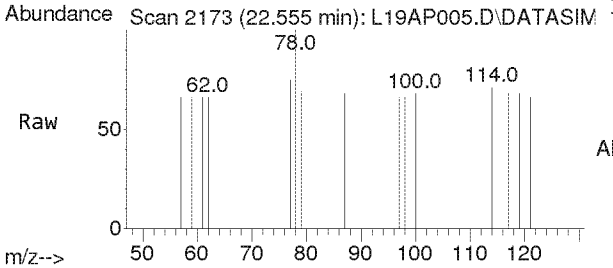
Compounds other than ethylene oxide were not quantitated.

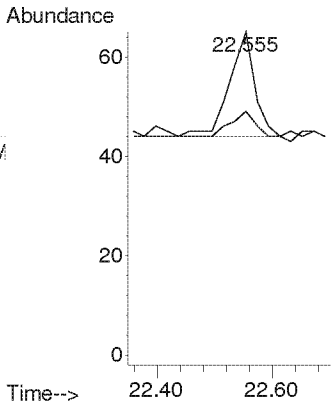


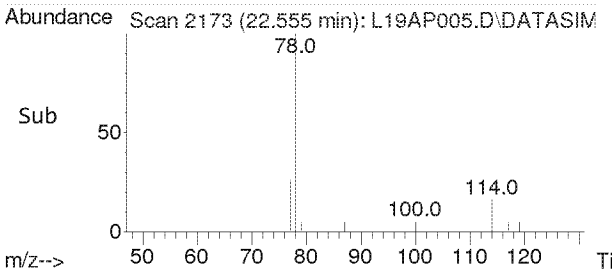
#31
Benzene
Concen: 0.004 ppbv
RT: 22.555 min Scan# 2173
Delta R.T. 0.002 min
Lab File: L19AP005.D
Acq: 16 Jan 2019 4:40 pm

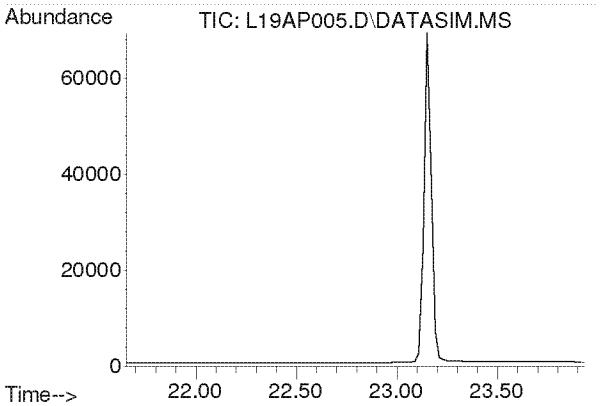
Tgt Ion: 78 Resp: 63

Ion	Ratio	Lower	Upper
78	100		
77	0.0	18.3	27.5#







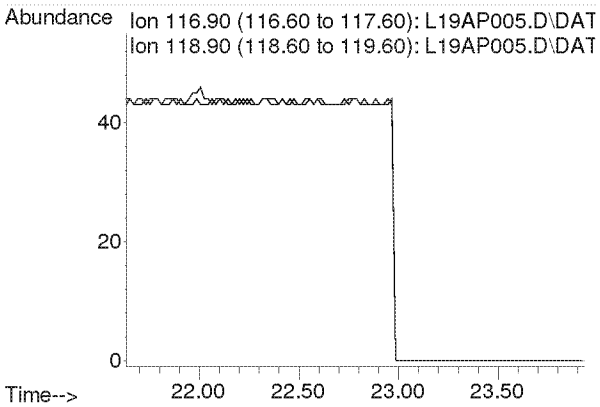


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.79 min

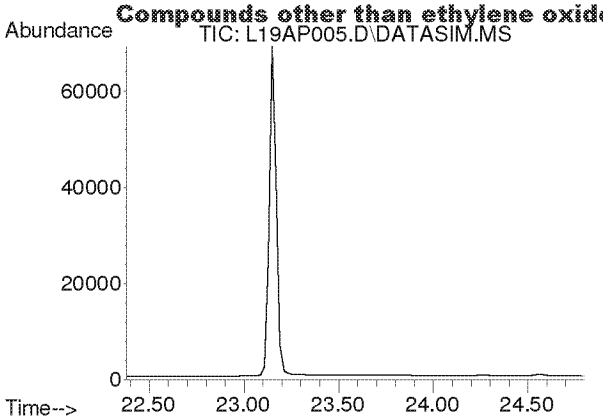
Lab File: L19AP005.D
Acq: 16 Jan 2019 4:40 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.5



Compounds other than ethylene oxide were not quantitated.

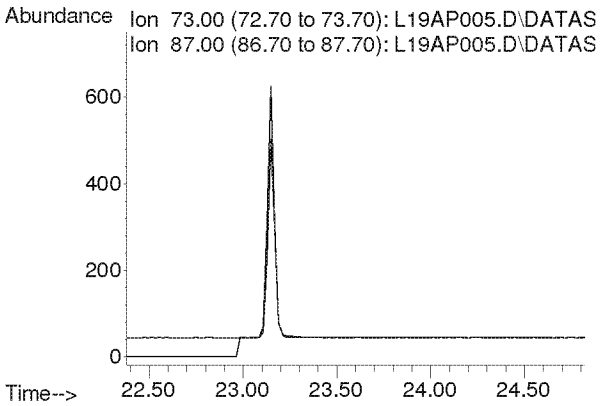


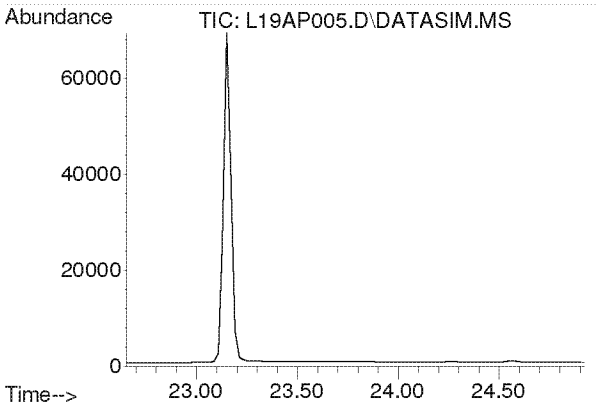
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19AP005.D
Acq: 16 Jan 2019 4:40 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	24.8



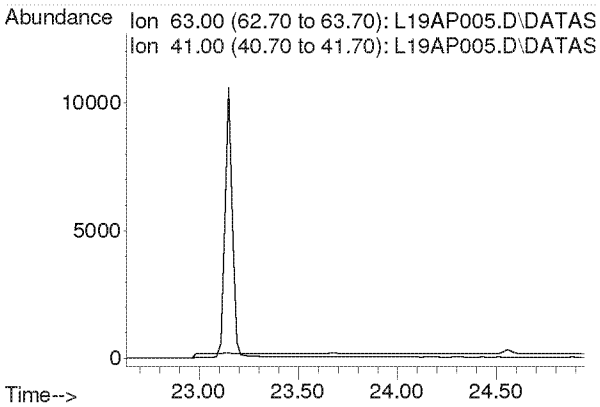


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

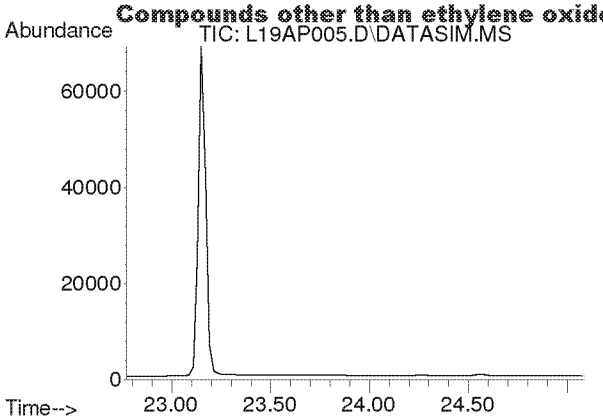
Lab File: L19AP005.D
Acq: 16 Jan 2019 4:40 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	196.0



Compounds other than ethylene oxide were not quantitated.

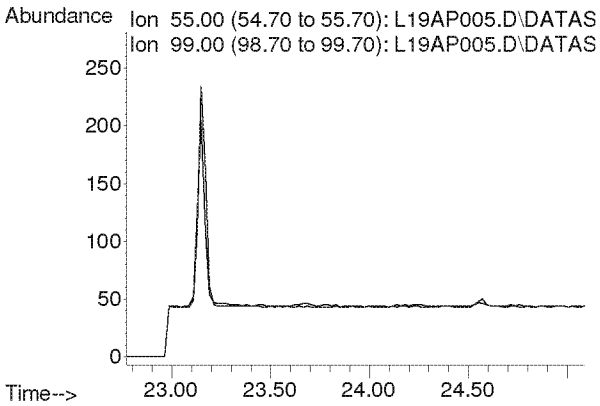


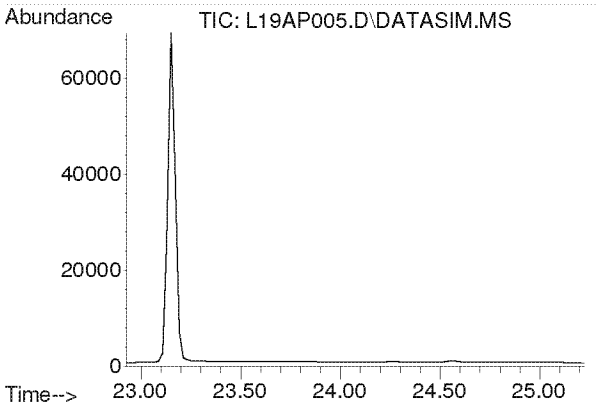
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19AP005.D
Acq: 16 Jan 2019 4:40 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.0



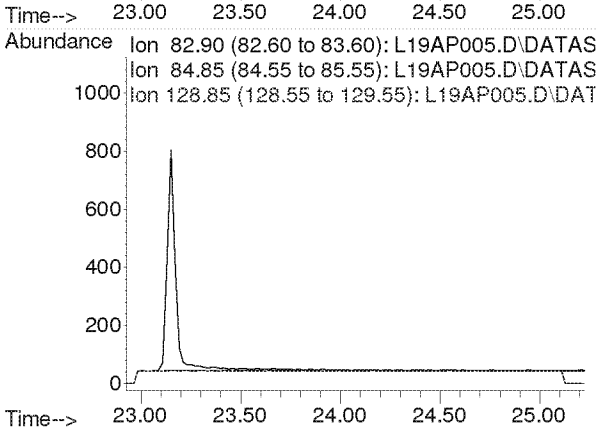


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

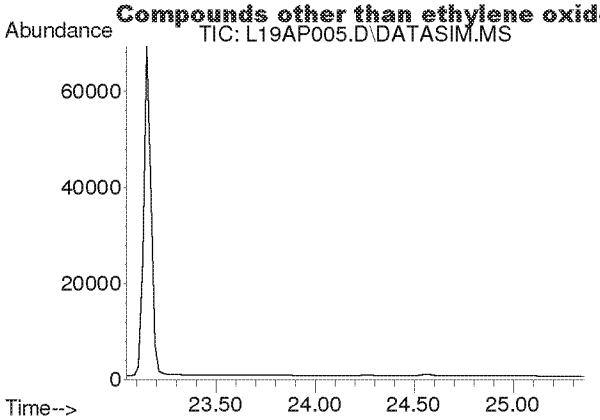
Lab File: L19AP005.D
Acq: 16 Jan 2019 4:40 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.9
129	12.5



Compounds other than ethylene oxide were not quantitated.

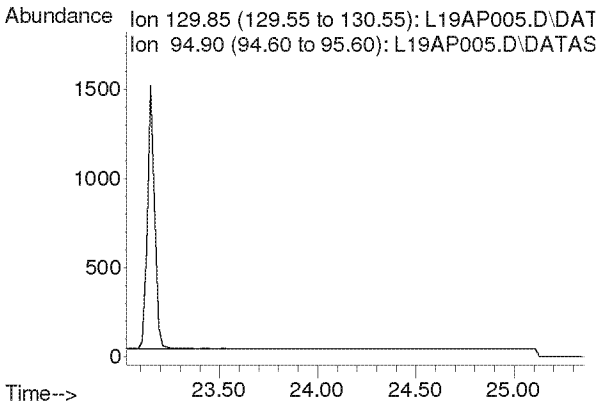


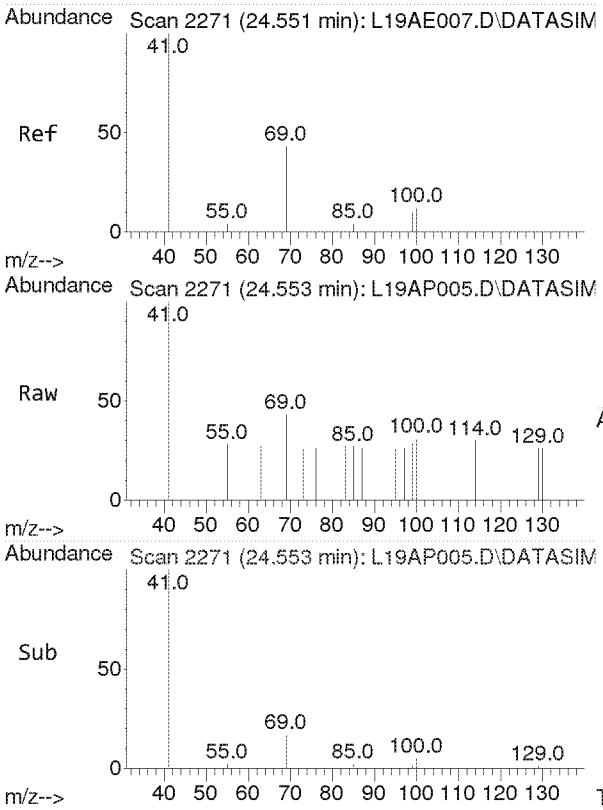
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19AP005.D
Acq: 16 Jan 2019 4:40 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	108.6

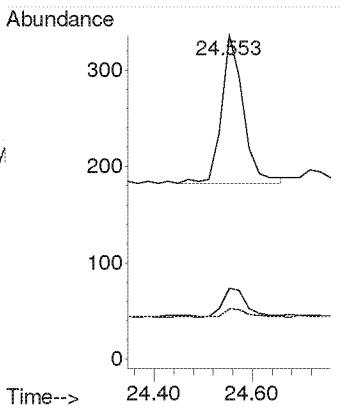




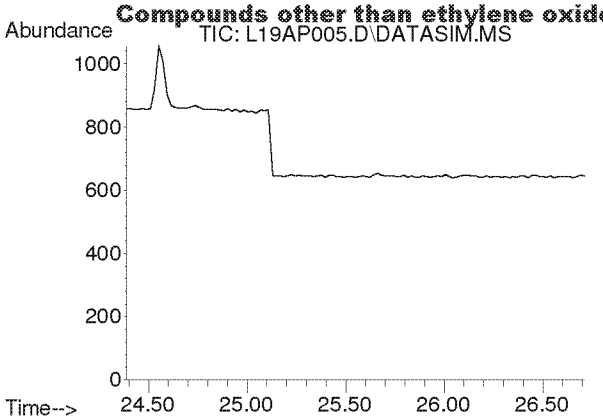
#38
Methyl Methacrylate
Concen: 0.020 ppbv
RT: 24.553 min Scan# 2271
Delta R.T. 0.002 min
Lab File: L19AP005.D
Acq: 16 Jan 2019 4:40 pm

Tgt Ion: 41 Resp: 477

Ion	Ratio	Lower	Upper
41	100		
69	19.9	16.6	24.8
100	0.0	4.2	6.4#



Compounds other than ethylene oxide were not quantitated.

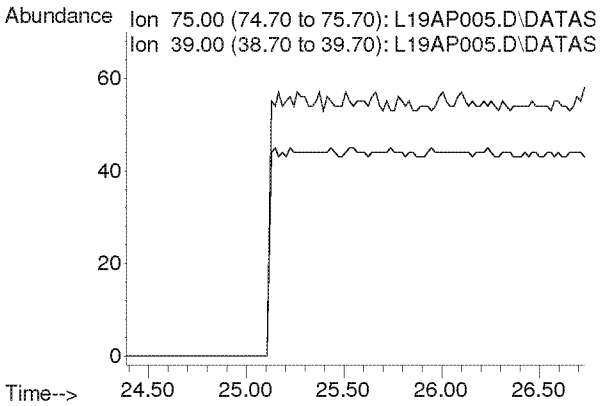


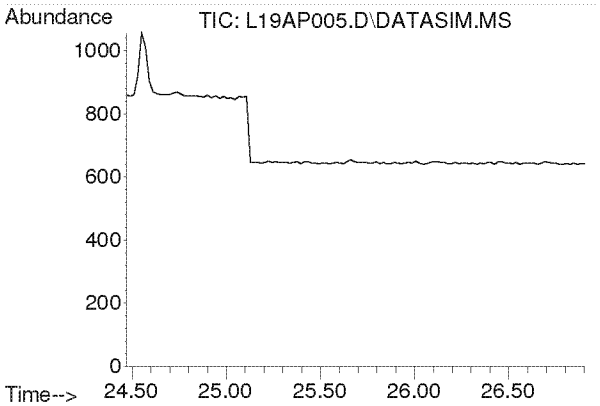
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19AP005.D
Acq: 16 Jan 2019 4:40 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	48.3



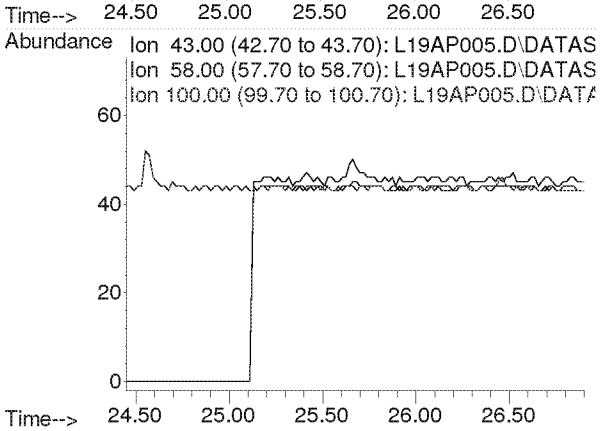


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

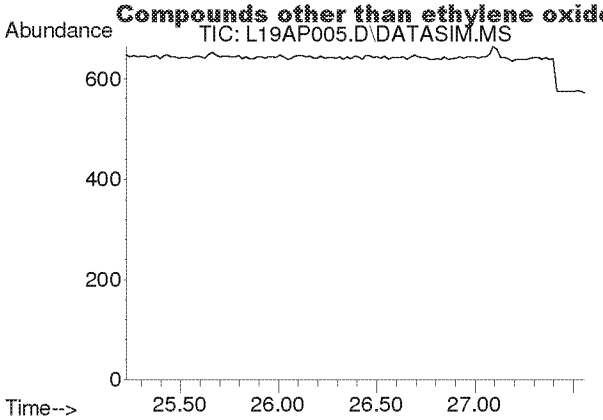
Lab File: L19AP005.D
Acq: 16 Jan 2019 4:40 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	34.5
100	8.1



Compounds other than ethylene oxide were not quantitated.

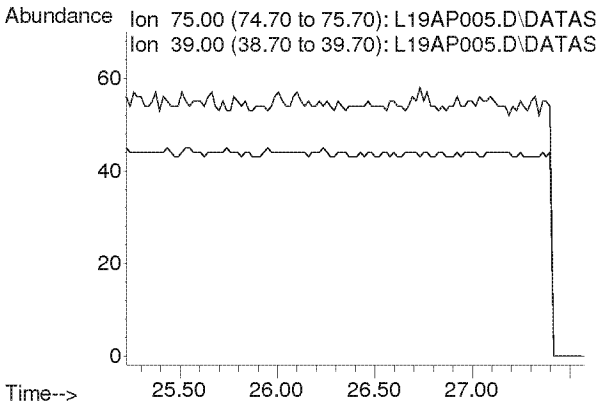


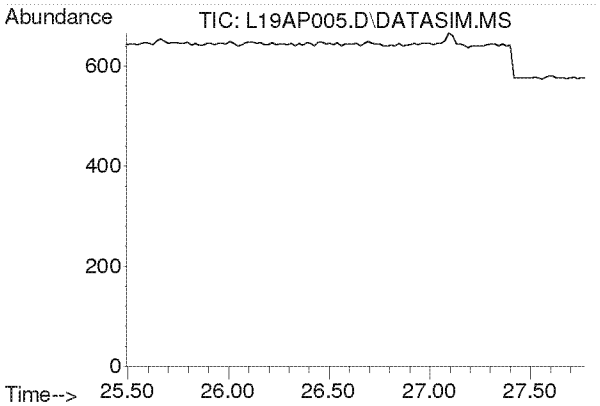
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19AP005.D
Acq: 16 Jan 2019 4:40 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	48.8



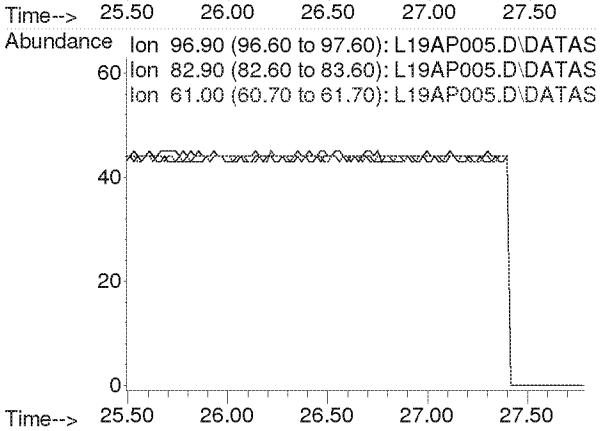


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.63 min

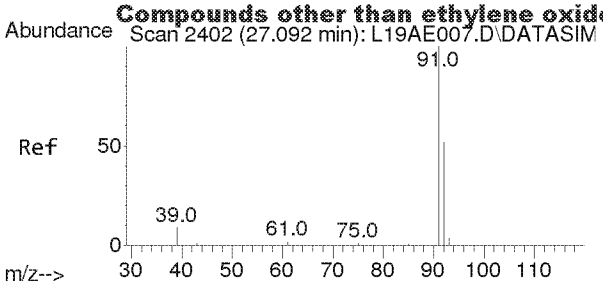
Lab File: L19AP005.D
Acq: 16 Jan 2019 4:40 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	96.6
61	61.4



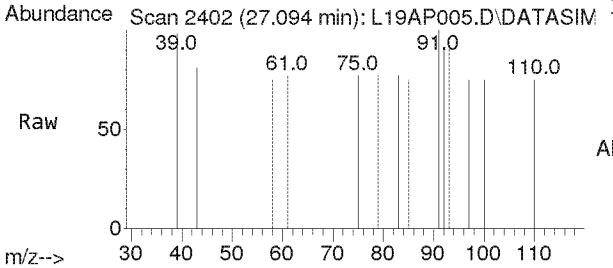
Compounds other than ethylene oxide were not quantitated.

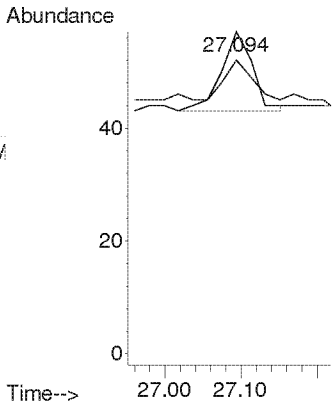


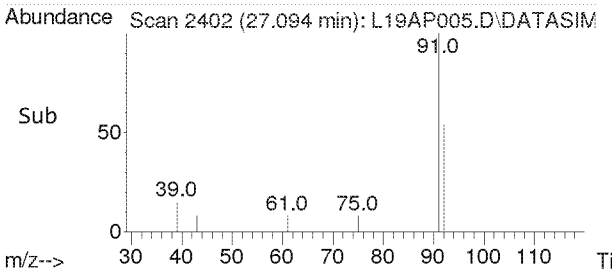
#44
Toluene
Concen: 0.002 ppbv
RT: 27.094 min Scan# 2402
Delta R.T. 0.002 min
Lab File: L19AP005.D
Acq: 16 Jan 2019 4:40 pm

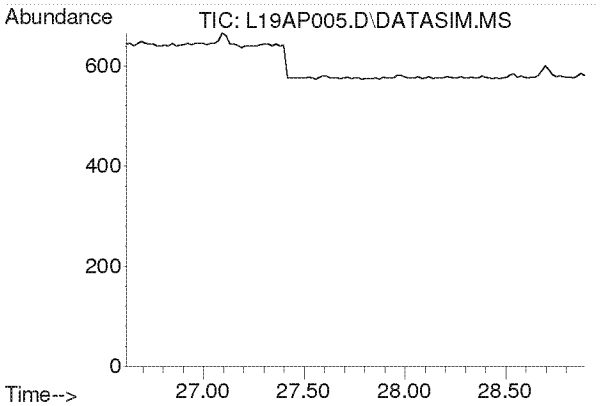
Tgt Ion: 91 Resp: 40

Ion	Ratio	Lower	Upper
91	100		
92	0.0	42.0	63.0#







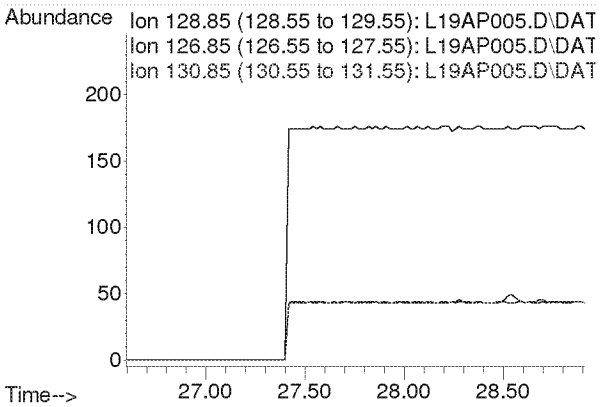


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

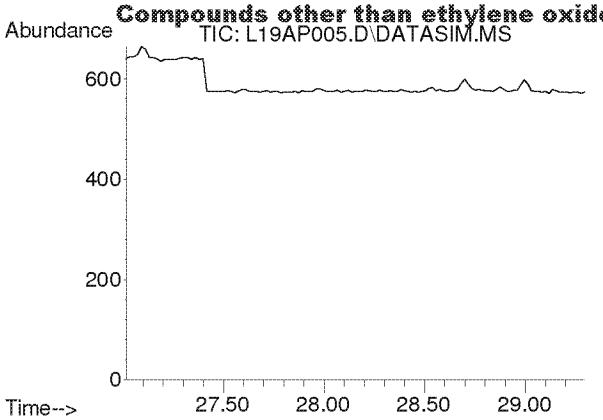
Lab File: L19AP005.D
Acq: 16 Jan 2019 4:40 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.2
131	6.0



Compounds other than ethylene oxide were not quantitated.

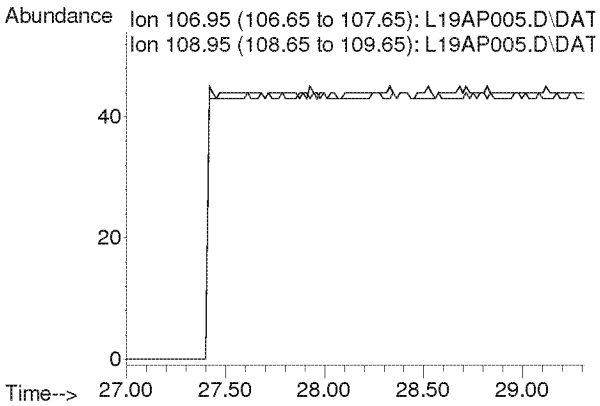


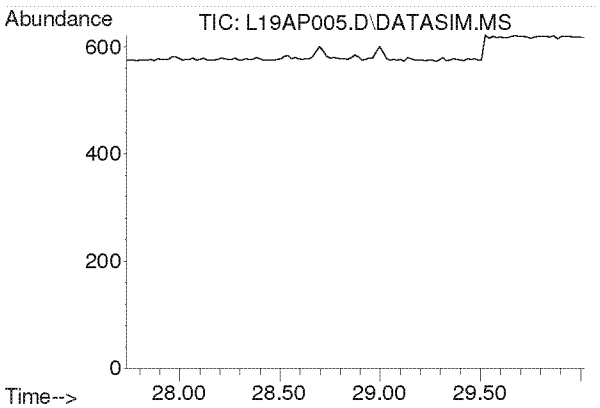
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19AP005.D
Acq: 16 Jan 2019 4:40 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.3



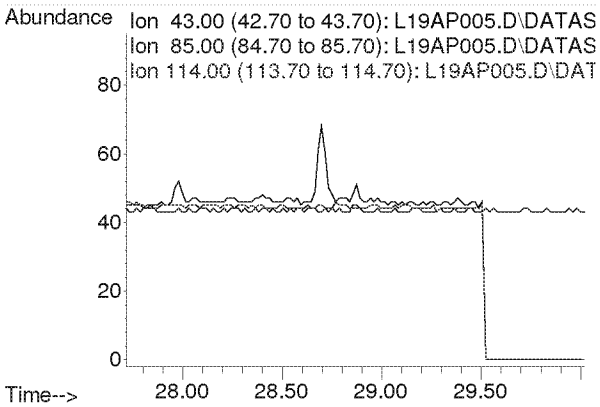


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

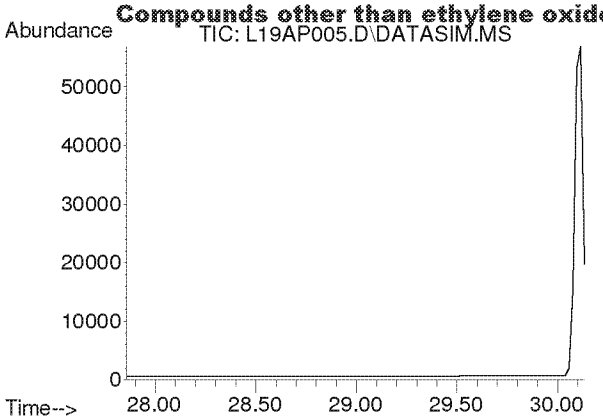
Lab File: L19AP005.D
Acq: 16 Jan 2019 4:40 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	36.6
114	2.3



Compounds other than ethylene oxide were not quantitated.

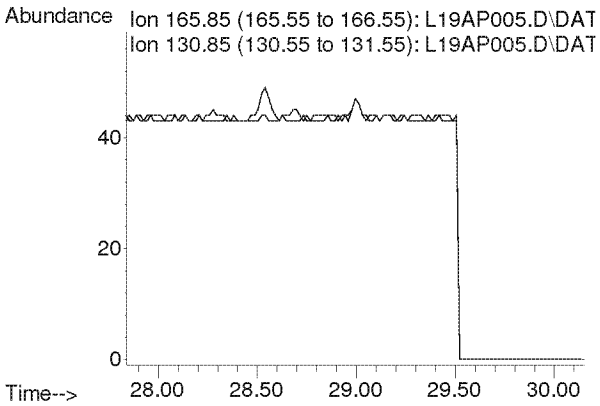


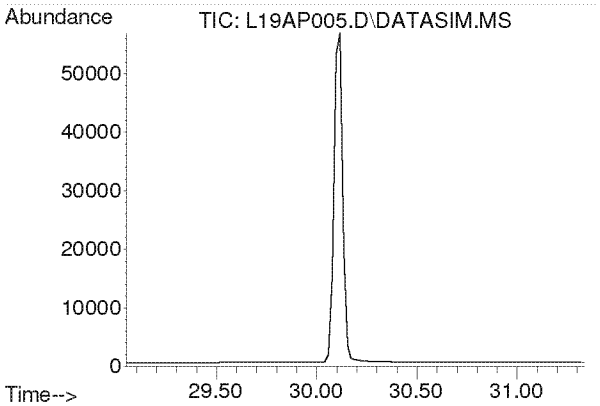
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19AP005.D
Acq: 16 Jan 2019 4:40 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	78.2



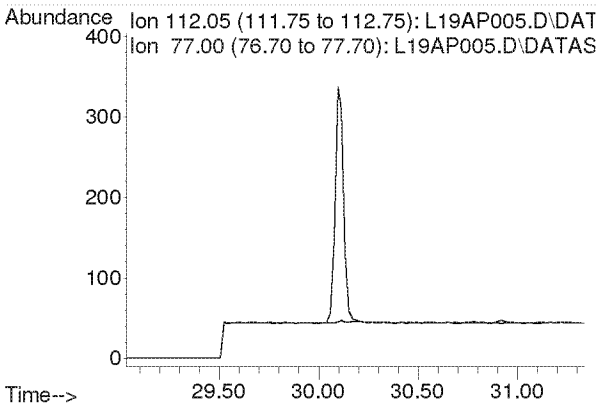


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

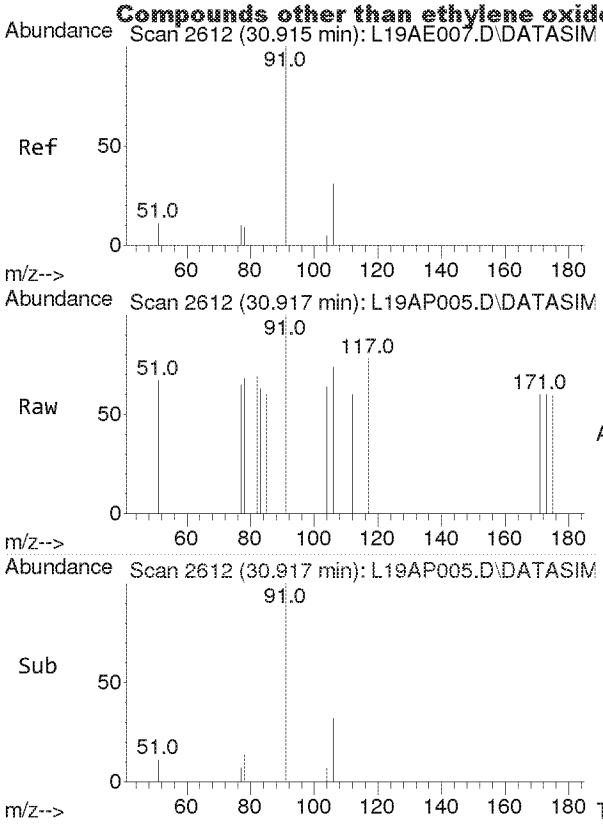
Lab File: L19AP005.D
Acq: 16 Jan 2019 4:40 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	61.2



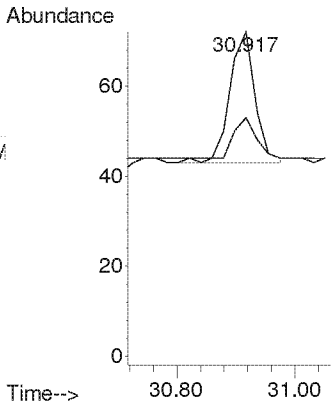
Compounds other than ethylene oxide were not quantitated.

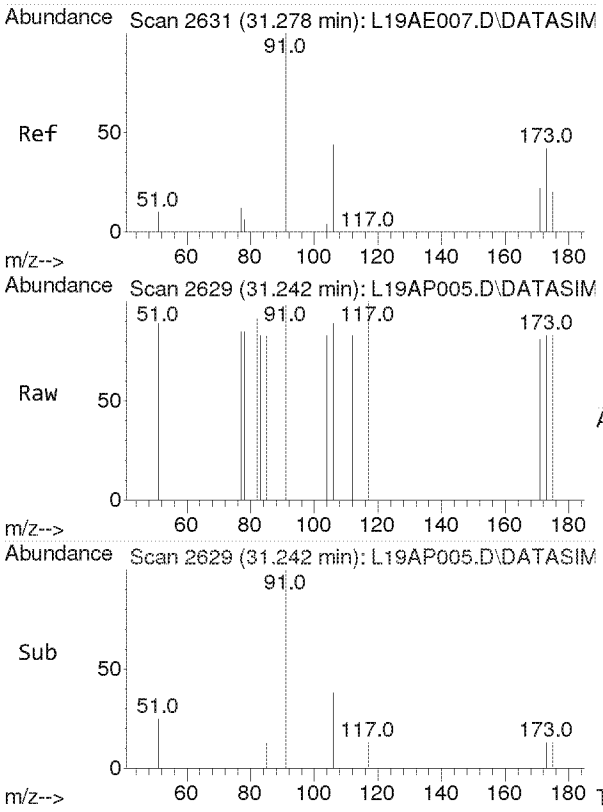


#50
Ethylbenzene
Concen: 0.005 ppbv
RT: 30.917 min Scan# 2612
Delta R.T. 0.002 min
Lab File: L19AP005.D
Acq: 16 Jan 2019 4:40 pm

Tgt Ion: 91 Resp: 87

Ion	Ratio	Lower	Upper
91	100		
106	0.0	25.4	38.0#

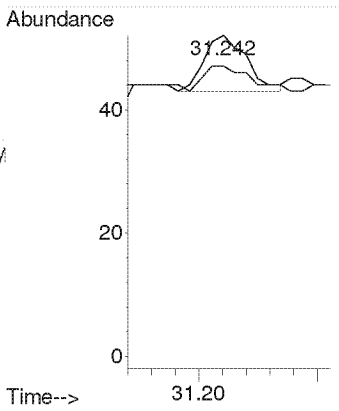




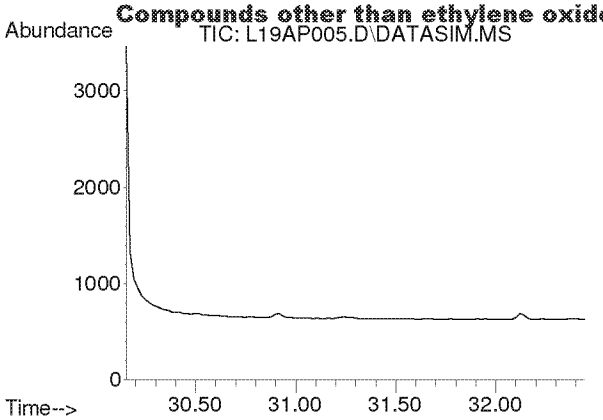
#51
m,p-Xylene
Concen: 0.003 ppbv
RT: 31.242 min Scan# 2629
Delta R.T. -0.036 min
Lab File: L19AP005.D
Acq: 16 Jan 2019 4:40 pm

Tgt Ion: 91 Resp: 45

Ion	Ratio	Lower	Upper
91	100		
106	0.0	35.7	53.5#



Compounds other than ethylene oxide were not quantitated.

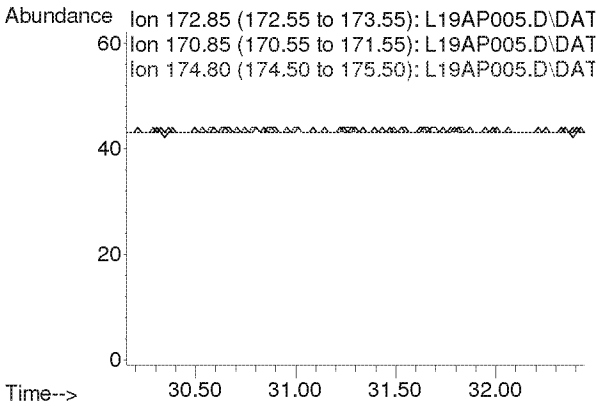


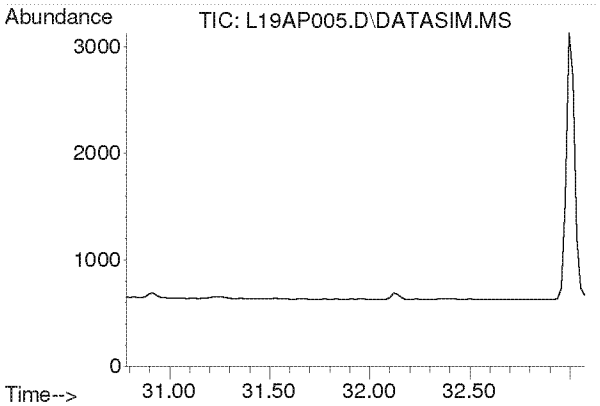
#52
Bromoform
Concen: N.D.
Expected RT: 31.30 min

Lab File: L19AP005.D
Acq: 16 Jan 2019 4:40 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.4
175	48.9



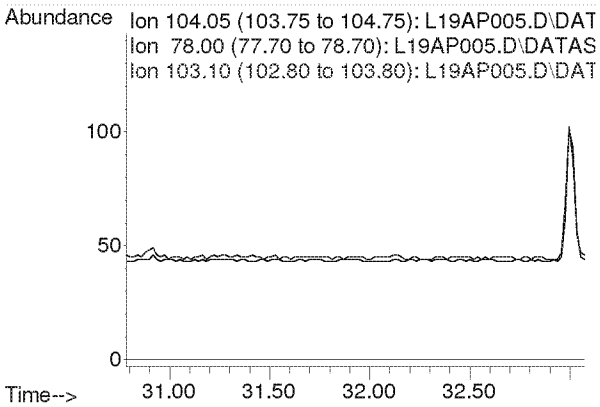


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

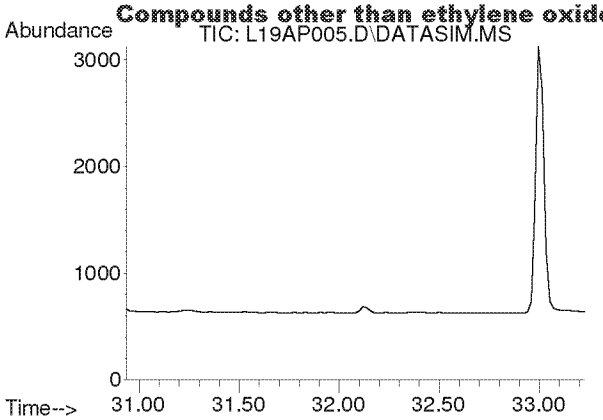
Lab File: L19AP005.D
Acq: 16 Jan 2019 4:40 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	45.8
103	0.0



Compounds other than ethylene oxide were not quantitated.

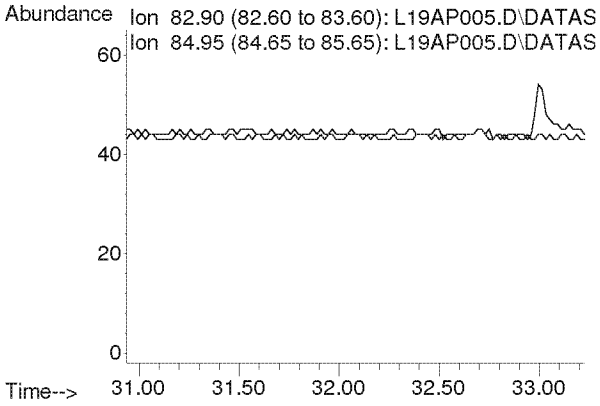


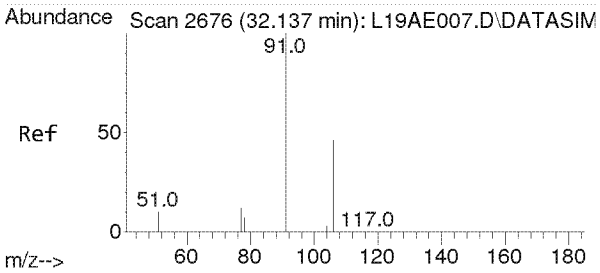
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19AP005.D
Acq: 16 Jan 2019 4:40 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.0

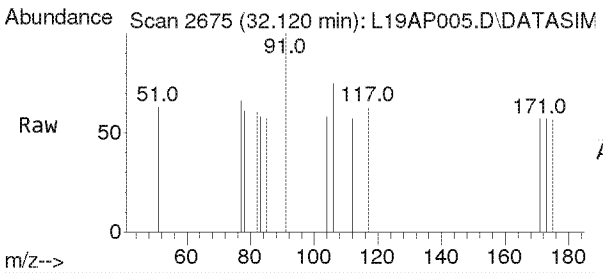


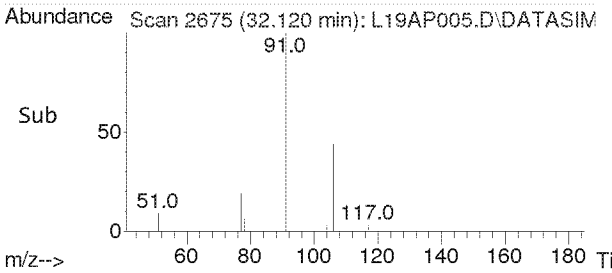


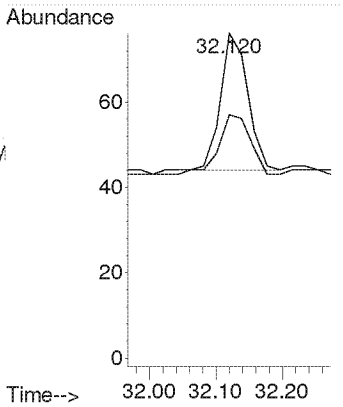
#55
o-Xylene
Concen: 0.006 ppbv
RT: 32.120 min Scan# 2675
Delta R.T. -0.017 min
Lab File: L19AP005.D
Acq: 16 Jan 2019 4:40 pm

Tgt Ion: 91 Resp: 92

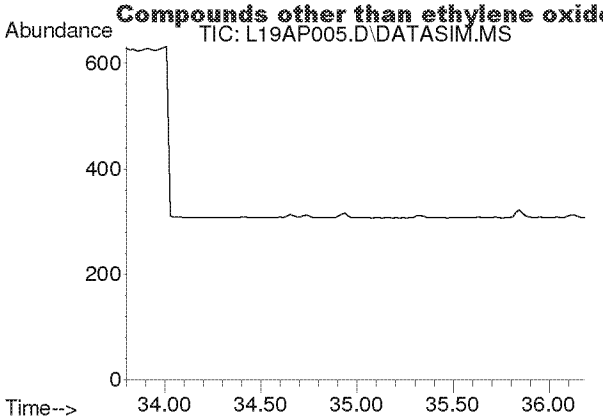
Ion	Ratio	Lower	Upper
91	100		
106	50.0	35.8	53.8







Compounds other than ethylene oxide were not quantitated.

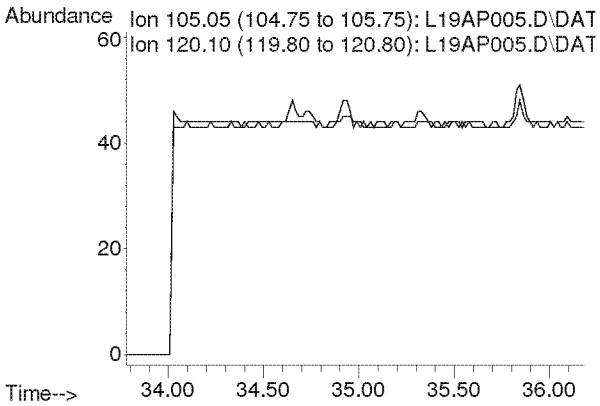


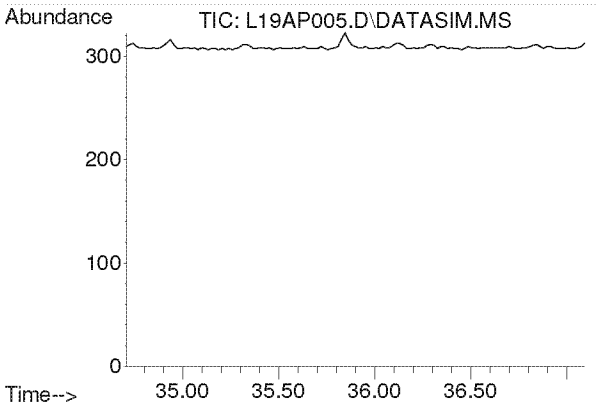
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19AP005.D
Acq: 16 Jan 2019 4:40 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	45.0



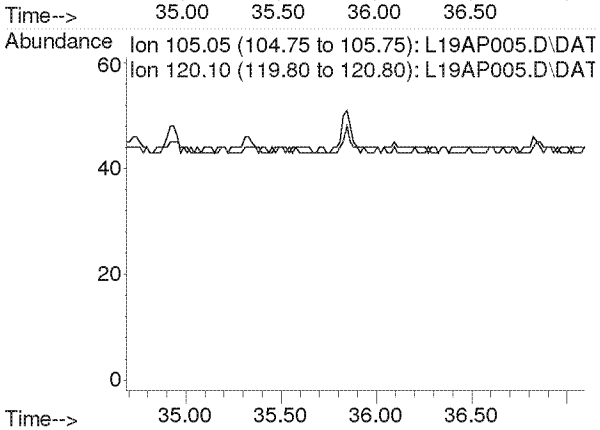


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

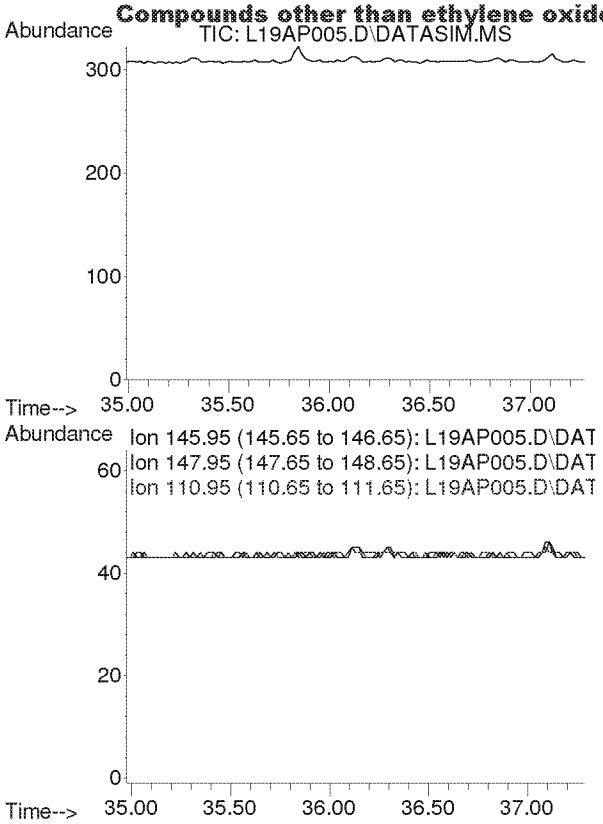
Lab File: L19AP005.D
Acq: 16 Jan 2019 4:40 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	42.9



Compounds other than ethylene oxide were not quantitated.

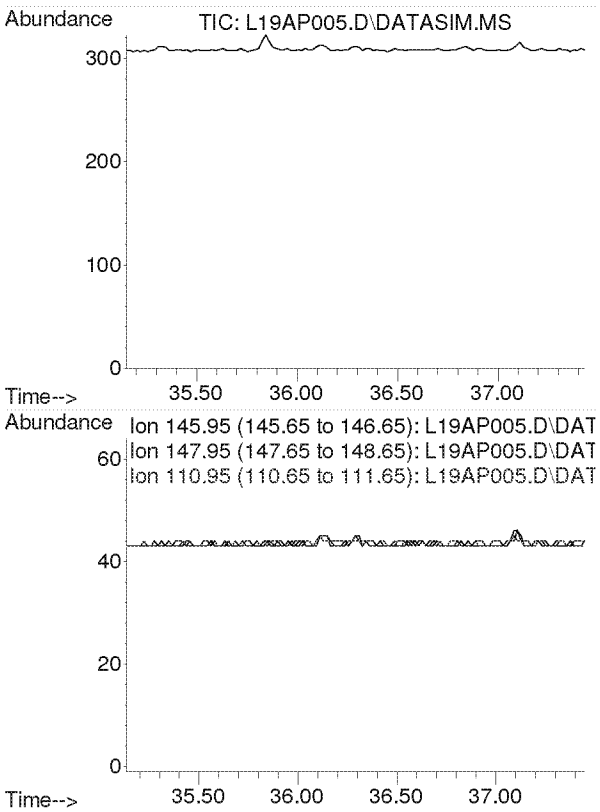


#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19AP005.D
Acq: 16 Jan 2019 4:40 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.5



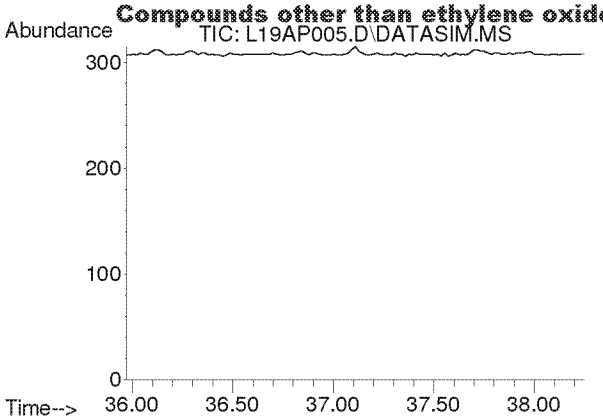
#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

Lab File: L19AP005.D
Acq: 16 Jan 2019 4:40 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	63.9
111	39.3

Compounds other than ethylene oxide were not quantitated.

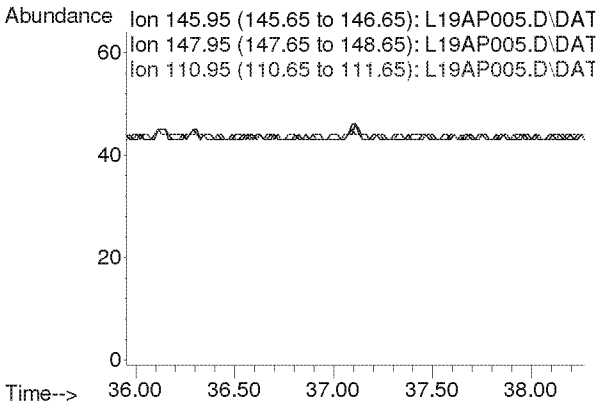


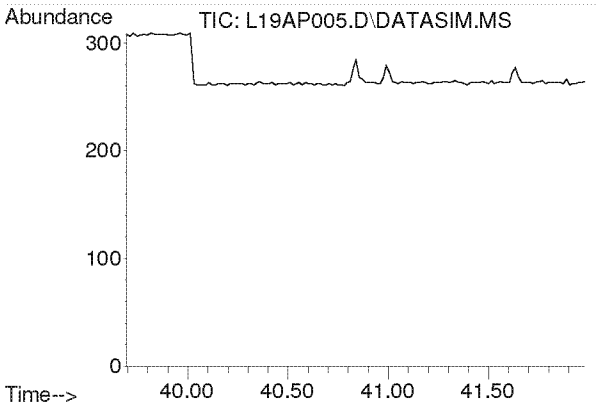
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19AP005.D
Acq: 16 Jan 2019 4:40 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.7



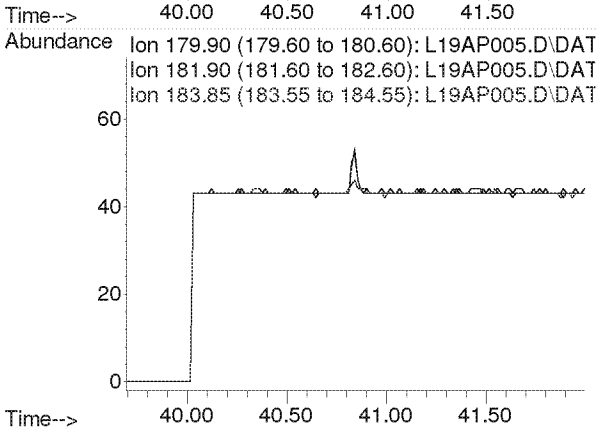


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

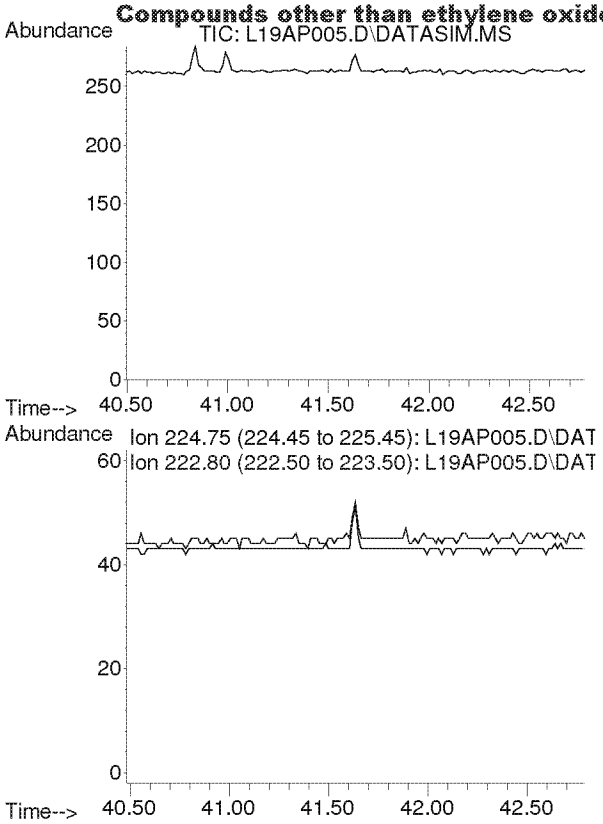
Lab File: L19AP005.D
Acq: 16 Jan 2019 4:40 pm

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	95.0
184	30.5



Compounds other than ethylene oxide were not quantitated.



#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.63 min

Lab File: L19AP005.D
Acq: 16 Jan 2019 4:40 pm

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.4

Compounds other than ethylene oxide were not quantitated.

Duplicate Comparison Check

Comparison of Duplicate Samples

		D1	D2		
File ID		L19AP013.D	L19AP014.D		
Analyst		MAH	MAH		
Method		9010002 M	9010002.M		
Sample ID		9010808-05	9010716-05		
Misc Comments		WILLOWBROOK V	WILLOWBROOK VILLAGE HALL C2 1/4		
Compound	MDL	Amount (ppbv)	Amount (ppbv)	RPD	Passed?
IS-Hexane-d14	NA			NA	
Acetylene	0.0394	0	0	NA	
Propylene	0.0639	0	0	NA	
Dichlorodifluoromethane	0.0273	0	0	NA	
Chloromethane	0.0465	0	0	NA	
Dichlorotetrafluoroethane	0.0134	0	0	NA	
Vinyl chloride	0.0128	0	0	NA	
1,3-Butadiene	0.0193	0	0	NA	
Ethylene Oxide	0.0453	0.206	0.142	NA	
Bromomethane	0.0115	0	0	NA	
Chloroethane	0.0249	0	0	NA	
Acetonitrile	0.0163	0	0	NA	
Acrolein	0.2250	0	0	NA	
Trichlorofluoromethane	0.0116	0	0	NA	
Acrylonitrile	0.0106	0	0	NA	
1,1-Dichloroethene	0.0119	0	0	NA	
Dichloromethane	0.0144	0	0	NA	
Carbon Disulfide	0.0768	0	0	NA	
Trichlorotrifluoroethane	0.0098	0	0	NA	
trans-1,2-Dichloroethylene	0.0134	0	0	NA	
1,1-Dichloroethane	0.0143	0	0	NA	
Methyl tert-Butyl Ether	0.0103	0	0	NA	
Chloroprene	0.0129	0	0	NA	
cis-1,2-Dichloroethylene	0.0186	0	0	NA	
Bromochloromethane	0.0133	0	0	NA	
Chloroform	0.0129	0	0	NA	
Ethyl tert-Butyl Ether	0.0109	0	0	NA	
1,2-Dichloroethane	0.0139	0	0	NA	
IS-1,4-Difluorobenzene	NA			NA	
1,1,1-Trichloroethane	0.0137	0	0	NA	
Benzene	0.0145	0	0	NA	
Carbon Tetrachloride	0.0133	0	0	NA	
tert-Amyl Methyl Ether	0.0124	0	0	NA	
1,2-Dichloropropane	0.0203	0	0	NA	
Ethyl Acrylate	0.0235	0	0	NA	
Bromodichloromethane	0.0165	0	0	NA	
Trichloroethylene	0.0150	0	0	NA	
Methyl Methacrylate	0.1000	0	0	NA	
cis-1,3-Dichloropropene	0.0197	0	0	NA	
Methyl Isobutyl Ketone	0.0237	0	0	NA	
trans-1,3-Dichloropropene	0.0195	0	0	NA	
1,1,2-Trichloroethane	0.0190	0	0	NA	
IS-Chlorobenzene-d5	NA			NA	
Toluene	0.1300	0	0	NA	
Dibromochloromethane	0.0154	0	0	NA	
1,2-Dibromoethane	0.0189	0	0	NA	
n-Octane	0.0323	0	0	NA	
Tetrachloroethylene	0.0146	0	0	NA	
Chlorobenzene	0.0192	0	0	NA	
Ethylbenzene	0.0258	0	0	NA	
m,p-Xylene	0.0360	0	0	NA	
Bromoform	0.0177	0	0	NA	
Styrene	0.0363	0	0	NA	
1,1,2,2-Tetrachloroethane	0.0209	0	0	NA	
o-Xylene	0.0268	0	0	NA	
1,3,5-Trimethylbenzene	0.0340	0	0	NA	
1,2,4-Trimethylbenzene	0.0268	0	0	NA	
m-Dichlorobenzene	0.0182	0	0	NA	
p-Dichlorobenzene	0.0200	0	0	NA	
o-Dichlorobenzene	0.0206	0	0	NA	
1,2,4-Trichlorobenzene	0.2490	0	0	NA	
Hexachloro-1,3-butadiene	0.0274	0	0	NA	

4-24-18

NA = Not Applicable. Precision can not be evaluated due to an average value less than 5 times the MDL.

Compounds other than ethylene oxide were not quantitated.

Duplicate Comparison Check

Comparison of Replicate Analyses

		D1	R1		
File ID		L19AP013.D	L19AP015.D		
Analyst		MAH	MAH		
Method		9010002.M	9010002.M		
Sample ID		9010808-05	B9A1607-DUP1		
Mics Comments		WILLOWBROO	WILLOWBROOK VILLAGE HALL R1 1/4/18		
Compound	MDL	Amount/ppbv	Amount (ppbv)	RPD	Passed?
IS-Hexane-d14	NA			NA	
Acetylene	0.0394	0	0	NA	
Propylene	0.0639	0	0	NA	
Dichlorodifluoromethane	0.0273	0	0	NA	
Chloromethane	0.0465	0	0	NA	
Dichlorotetrafluoroethane	0.0134	0	0	NA	
Vinyl chloride	0.0128	0	0	NA	
1,3-Butadiene	0.0193	0	0	NA	
Ethylene Oxide	0.0453	0.206	0.168	NA	
Bromomethane	0.0115	0	0	NA	
Chloroethane	0.0249	0	0	NA	
Acetonitrile	0.0163	0	0	NA	
Acrolein	0.2250	0	0	NA	
Trichlorofluoromethane	0.0116	0	0	NA	
Acrylonitrile	0.0106	0	0	NA	
1,1-Dichloroethene	0.0119	0	0	NA	
Dichloromethane	0.0144	0	0	NA	
Carbon Disulfide	0.0768	0	0	NA	
Trichlorotrifluoroethane	0.0098	0	0	NA	
trans-1,2-Dichloroethylene	0.0134	0	0	NA	
1,1-Dichloroethane	0.0143	0	0	NA	
Methyl tert-Butyl Ether	0.0103	0	0	NA	
Chloroprene	0.0129	0	0	NA	
cis-1,2-Dichloroethylene	0.0186	0	0	NA	
Bromochloromethane	0.0133	0	0	NA	
Chloroform	0.0129	0	0	NA	
Ethyl tert-Butyl Ether	0.0109	0	0	NA	
1,2-Dichloroethane	0.0139	0	0	NA	
IS-1,4-Difluorobenzene	NA			NA	
1,1,1-Trichloroethane	0.0137	0	0	NA	
Benzene	0.0145	0	0	NA	
Carbon Tetrachloride	0.0133	0	0	NA	
tert-Amyl Methyl Ether	0.0124	0	0	NA	
1,2-Dichloropropane	0.0203	0	0	NA	
Ethyl Acrylate	0.0235	0	0	NA	
Bromodichloromethane	0.0165	0	0	NA	
Trichloroethylene	0.0150	0	0	NA	
Methyl Methacrylate	0.1000	0	0	NA	
cis-1,3-Dichloropropene	0.0197	0	0	NA	
Methyl Isobutyl Ketone	0.0237	0	0	NA	
trans-1,3-Dichloropropene	0.0195	0	0	NA	
1,1,2-Trichloroethane	0.0190	0	0	NA	
IS-Chlorobenzene-d5	NA			NA	
Toluene	0.1300	0	0	NA	
Dibromochloromethane	0.0154	0	0	NA	
1,2-Dibromoethane	0.0189	0	0	NA	
n-Octane	0.0323	0	0	NA	
Tetrachloroethylene	0.0146	0	0	NA	
Chlorobenzene	0.0192	0	0	NA	
Ethylbenzene	0.0258	0	0	NA	
m,p-Xylene	0.0360	0	0	NA	
Bromoform	0.0177	0	0	NA	
Styrene	0.0363	0	0	NA	
1,1,2,2-Tetrachloroethane	0.0209	0	0	NA	
o-Xylene	0.0268	0	0	NA	
1,3,5-Trimethylbenzene	0.0340	0	0	NA	
1,2,4-Trimethylbenzene	0.0268	0	0	NA	
m-Dichlorobenzene	0.0182	0	0	NA	
p-Dichlorobenzene	0.0200	0	0	NA	
o-Dichlorobenzene	0.0206	0	0	NA	
1,2,4-Trichlorobenzene	0.2490	0	0	NA	
Hexachloro-1,3-butadiene	0.0274	0	0	NA	

Comparison of Replicate Analyses

		D2	R2		
File ID		L19AP014.D	L19AP016.D		
Analyst		MAH	MAH		
Method		9010002.M	9010002.M		
Sample ID		9010716-05	B9A1607-DUP2		
Mics Comments		WILLOWBROO	WILLOWBROOK VILLAGE HALL R2 1/		
Compound	MDL	Amount/ppbv	Amount (ppbv)	RPD	Passed?
IS-Hexane-d14	NA			NA	
Acetylene	0.0394	0	0	NA	
Propylene	0.0639	0	0	NA	
Dichlorodifluoromethane	0.0273	0	0	NA	
Chloromethane	0.0465	0	0	NA	
Dichlorotetrafluoroethane	0.0134	0	0	NA	
Vinyl chloride	0.0128	0	0	NA	
1,3-Butadiene	0.0193	0	0	NA	
Ethylene Oxide	0.0453	0.142	0.208	NA	
Bromomethane	0.0115	0	0	NA	
Chloroethane	0.0249	0	0	NA	
Acetonitrile	0.0163	0	0	NA	
Acrolein	0.2250	0	0	NA	
Trichlorofluoromethane	0.0116	0	0	NA	
Acrylonitrile	0.0106	0	0	NA	
1,1-Dichloroethene	0.0119	0	0	NA	
Dichloromethane	0.0144	0	0	NA	
Carbon Disulfide	0.0768	0	0	NA	
Trichlorotrifluoroethane	0.0098	0	0	NA	
trans-1,2-Dichloroethylene	0.0134	0	0	NA	
1,1-Dichloroethane	0.0143	0	0	NA	
Methyl tert-Butyl Ether	0.0103	0	0	NA	
Chloroprene	0.0129	0	0	NA	
cis-1,2-Dichloroethylene	0.0186	0	0	NA	
Bromochloromethane	0.0133	0	0	NA	
Chloroform	0.0129	0	0	NA	
Ethyl tert-Butyl Ether	0.0109	0	0	NA	
1,2-Dichloroethane	0.0139	0	0	NA	
IS-1,4-Difluorobenzene	NA			NA	
1,1,1-Trichloroethane	0.0137	0	0	NA	
Benzene	0.0145	0	0	NA	
Carbon Tetrachloride	0.0133	0	0	NA	
tert-Amyl Methyl Ether	0.0124	0	0	NA	
1,2-Dichloropropane	0.0203	0	0	NA	
Ethyl Acrylate	0.0235	0	0	NA	
Bromodichloromethane	0.0165	0	0	NA	
Trichloroethylene	0.0150	0	0	NA	
Methyl Methacrylate	0.1000	0	0	NA	
cis-1,3-Dichloropropene	0.0197	0	0	NA	
Methyl Isobutyl Ketone	0.0237	0	0	NA	
trans-1,3-Dichloropropene	0.0195	0	0	NA	
1,1,2-Trichloroethane	0.0190	0	0	NA	
IS-Chlorobenzene-d5	NA			NA	
Toluene	0.1300	0	0	NA	
Dibromochloromethane	0.0154	0	0	NA	
1,2-Dibromoethane	0.0189	0	0	NA	
n-Octane	0.0323	0	0	NA	
Tetrachloroethylene	0.0146	0	0	NA	
Chlorobenzene	0.0192	0	0	NA	
Ethylbenzene	0.0258	0	0	NA	
m,p-Xylene	0.0360	0	0	NA	
Bromoform	0.0177	0	0	NA	
Styrene	0.0363	0	0	NA	
1,1,2,2-Tetrachloroethane	0.0209	0	0	NA	
o-Xylene	0.0268	0	0	NA	
1,3,5-Trimethylbenzene	0.0340	0	0	NA	
1,2,4-Trimethylbenzene	0.0268	0	0	NA	
m-Dichlorobenzene	0.0182	0	0	NA	
p-Dichlorobenzene	0.0200	0	0	NA	
o-Dichlorobenzene	0.0206	0	0	NA	
1,2,4-Trichlorobenzene	0.2490	0	0	NA	
Hexachloro-1,3-butadiene	0.0274	0	0	NA	

NA = Not Applicable. Precision can not be evaluated due to an average value less than 5 times the MDL.

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19AP\
Data File : L19AP013.D
Acq On : 17 Jan 2019 12:55 am (#1); 17-Jan-19, 00:49:52 (#2)
Operator : MAH
Sample : 9010808-05
Misc : WILLOWBROOK VILLAGE HALL C1 1/4/19 (Sig #1); (Sig #2)
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jan 23 07:06:56 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.993	66	52887	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.151	114	126198	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.096	117	102692	4.7400 ppbv	-0.02

System Monitoring Compounds

Target Compounds					Qvalue
2) Acetylene	0.000	26	0	N.D. d	
3) Propylene	0.000	41	0	N.D. d	
4) Dichlorodifluoromethane	0.000	85	0	N.D. d	
5) Chloromethane	0.000	50	0	N.D. d	
6) Dichlorotetrafluoroethane	0.000	85	0	N.D. d	
7) Vinyl Chloride	0.000	62	0	N.D.	
8) 1,3-Butadiene	0.000	54	0	N.D. d	
9) Ethylene oxide	12.455	29	562	0.2057 ppbv #	1
10) Bromomethane	0.000	94	0	N.D. d	
11) Chloroethane	0.000	64	0	N.D.	
12) Acetonitrile	0.000	41	0	N.D. d	
13) Acrolein	0.000	56	0	N.D. d	
14) Trichlorofluoromethane	0.000	101	0	N.D. d	
15) Acrylonitrile	0.000	53	0	N.D. d	
16) 1,1-Dichloroethene	0.000	61	0	N.D.	
17) Methylene Chloride	0.000	49	0	N.D. d	
18) Carbon Disulfide	0.000	76	0	N.D. d	
19) Trichlorotrifluoroethane	0.000	101	0	N.D. d	
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.	
21) 1,1-Dichloroethane	0.000	63	0	N.D.	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D.	
23) Chloroprene	0.000	53	0	N.D. d	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D. d	
25) Bromochloromethane	0.000	128	0	N.D.	
26) Chloroform	0.000	83	0	N.D. d	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D.	
28) 1,2-Dichloroethane	0.000	62	0	N.D. d	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D.	
31) Benzene	0.000	78	0	N.D. d	
32) Carbon Tetrachloride	0.000	117	0	N.D. d	
33) tert-Amyl Methyl Ether	0.000	73	0	N.D.	
34) 1,2-Dichloropropane	0.000	63	0	N.D.	
35) Ethyl Acrylate	0.000	55	0	N.D. d	
36) Bromodichloromethane	0.000	83	0	N.D.	
37) Trichloroethylene	0.000	130	0	N.D.	
38) Methyl Methacrylate	0.000	41	0	N.D.	
39) cis-1,3-Dichloropropene	0.000	75	0	N.D.	
40) Methyl Isobutyl Ketone	0.000	43	0	N.D. d	
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.	
44) Toluene	0.000	91	0	N.D. d	
45) Dibromochloromethane	0.000	129	0	N.D.	
46) 1,2-Dibromoethane	0.000	107	0	N.D.	
47) n-Octane	0.000	43	0	N.D. d	
48) Tetrachloroethylene	0.000	166	0	N.D. d	
49) Chlorobenzene	0.000	112	0	N.D.	
50) Ethylbenzene	0.000	91	0	N.D. d	

Compounds other than ethylene oxide were not quantitated

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19AP\
Data File : L19AP013.D
Acq On : 17 Jan 2019 12:55 am (#1); 17-Jan-19, 00:49:52 (#2)
Operator : MAH
Sample : 9010808-05
Misc : WILLOWBROOK VILLAGE HALL C1 1/4/19 (Sig #1); (Sig #2)
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jan 23 07:06:56 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration

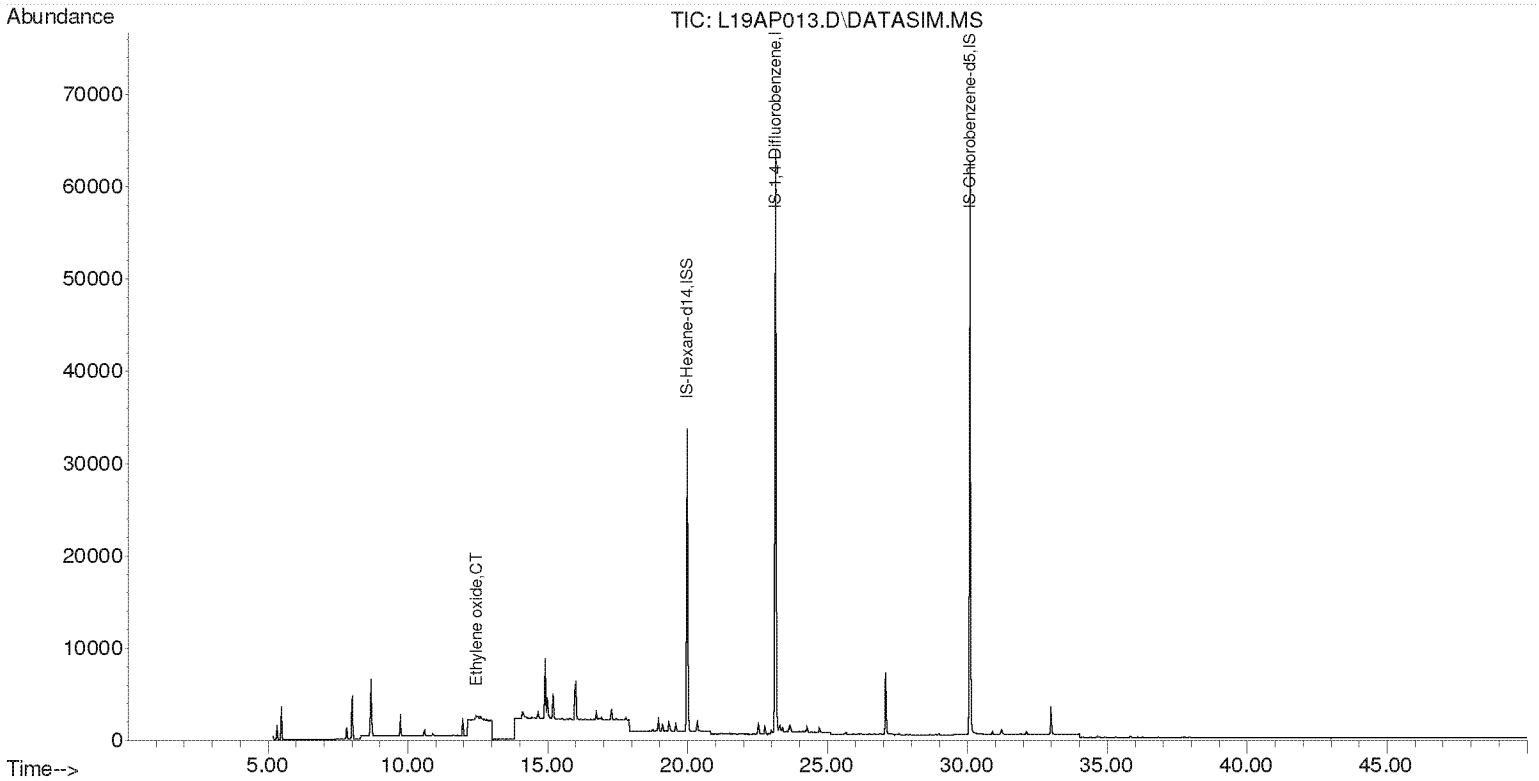
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D.	d
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	d
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D.	d
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	d
57) 1,2,4-Trimethylbenzene	0.000	105	0	N.D.	d
58) m-Dichlorobenzene	0.000	146	0	N.D.	
59) p-Dichlorobenzene	0.000	146	0	N.D.	
60) o-Dichlorobenzene	0.000	146	0	N.D.	
61) 1,2,4-Trichlorobenzene	0.000	180	0	N.D.	
62) Hexachloro-1,3-butadiene	0.000	225	0	N.D.	

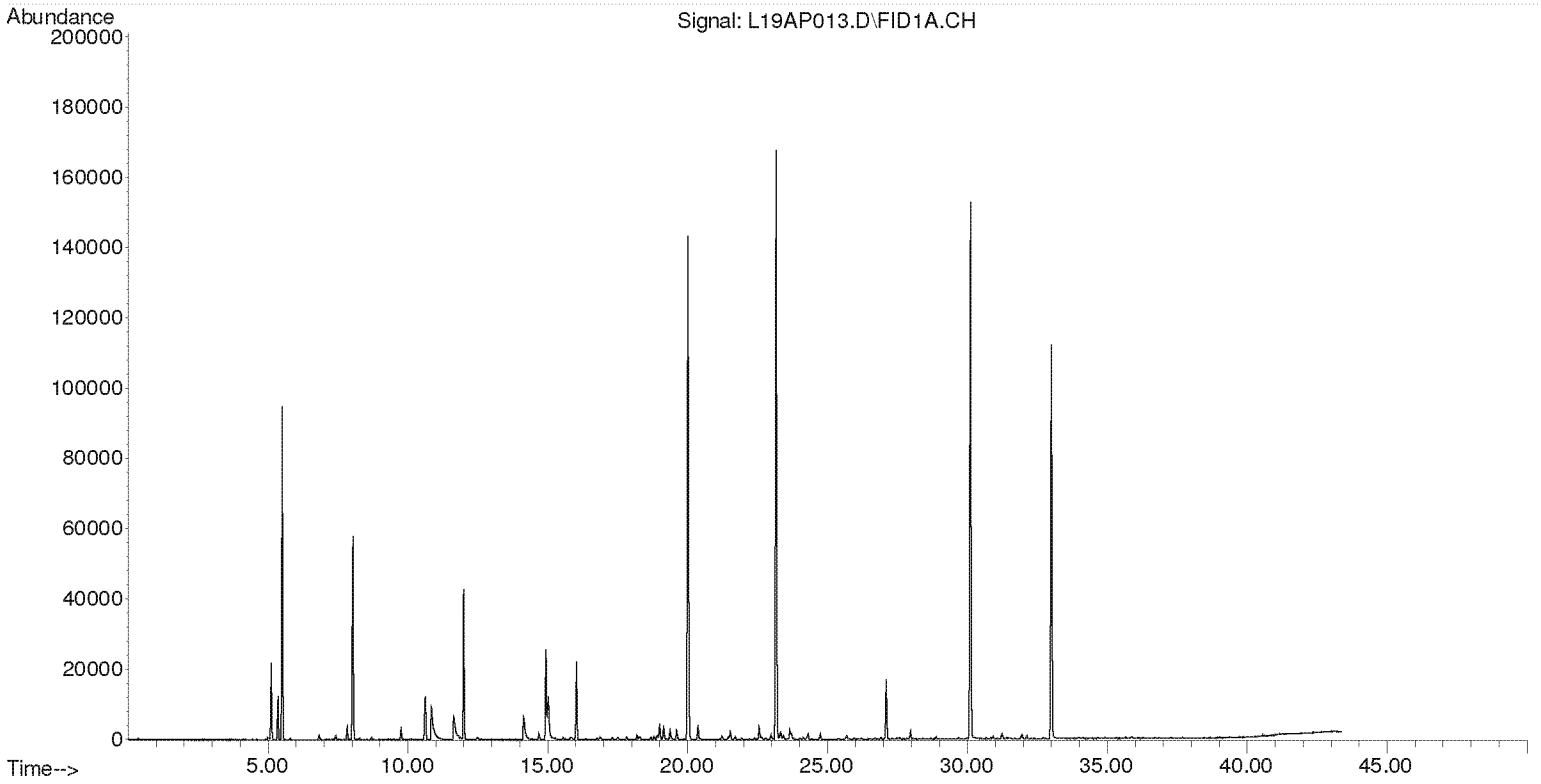
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Compounds other than ethylene oxide were not quantitated.

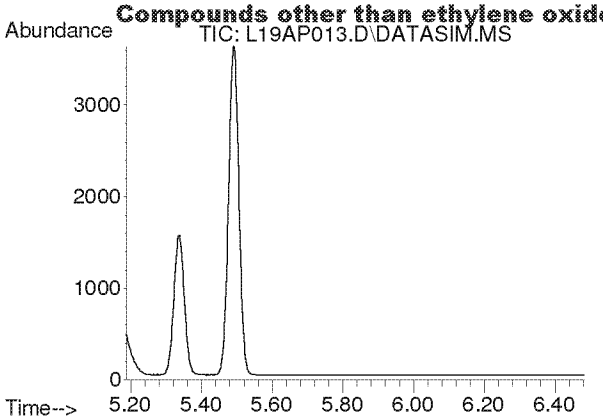
Data Path : Y:\MASS SPEC 1 DATA\L19AP\
Data File : L19AP013.D
Acq On : 17 Jan 2019 12:55 am (#1); 17 Jan 2019 0:49 am (#2)
Operator : MAH
Sample : 9010808-05
Misc : WILLOWBROOK VILLAGE HALL C1 1/4/19 (Sig #1); (Sig #2)
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jan 17 06:26:08 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration





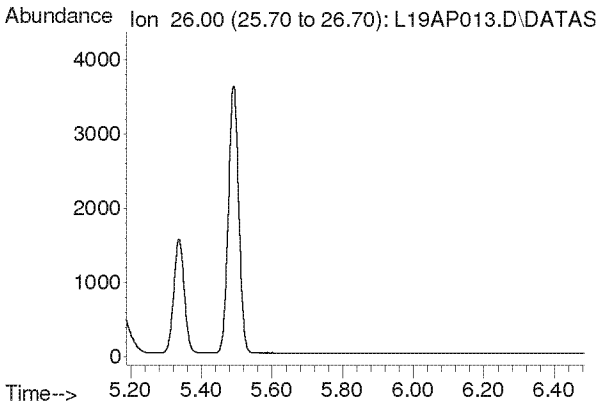
Compounds other than ethylene oxide were not quantitated.

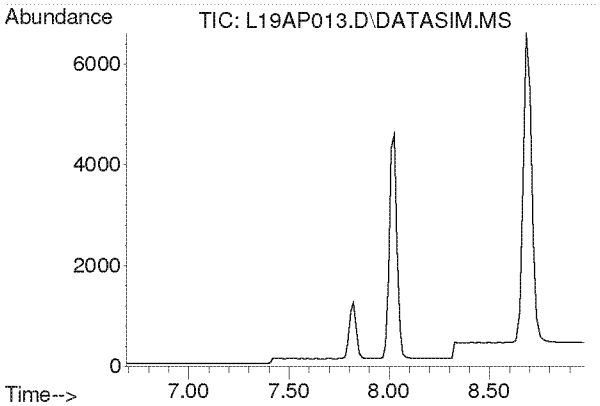


#2
Acetylene
Concen: N.D.
Expected RT: 5.42 min

Lab File: L19AP013.D
Acq: 17 Jan 2019 12:55 am

Tgt Ion: 26



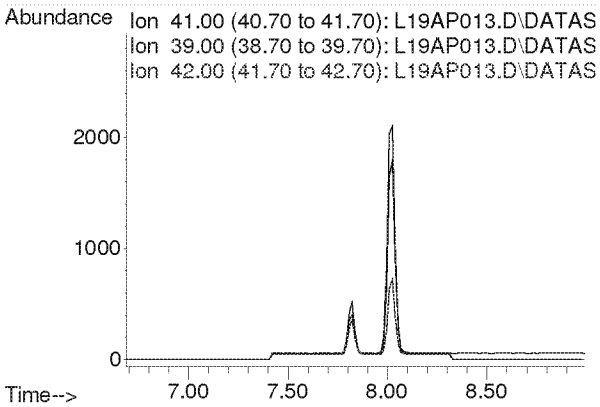


#3
Propylene
Concen: N.D.
Expected RT: 7.84 min

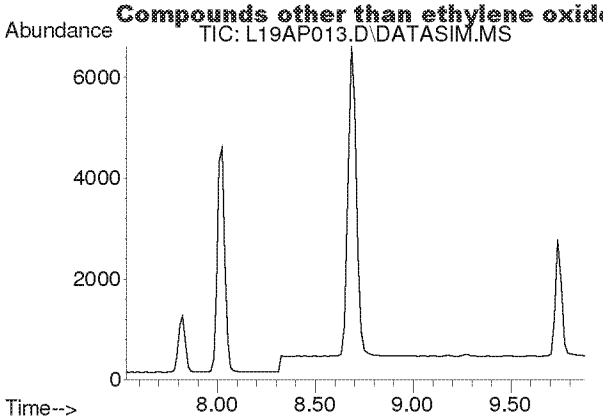
Lab File: L19AP013.D
Acq: 17 Jan 2019 12:55 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	77.0
42	65.8



Compounds other than ethylene oxide were not quantitated.

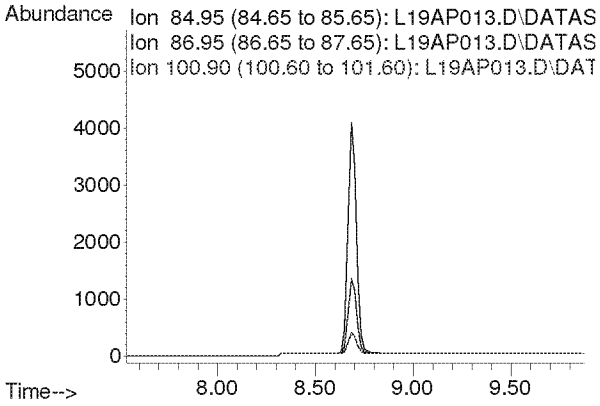


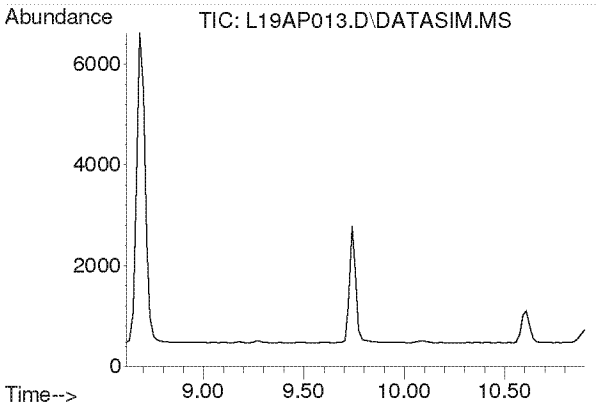
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19AP013.D
Acq: 17 Jan 2019 12:55 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	8.9



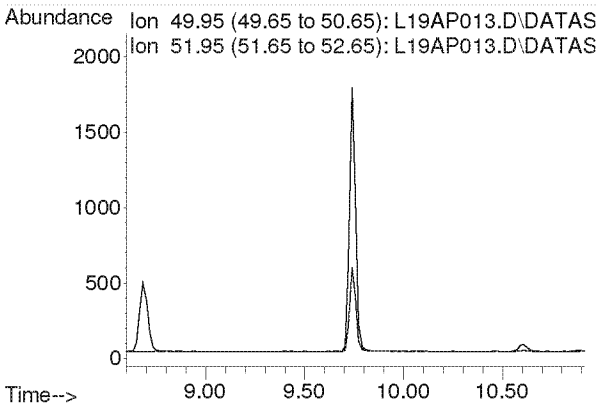


#5
Chloromethane
Concen: N.D.
Expected RT: 9.76 min

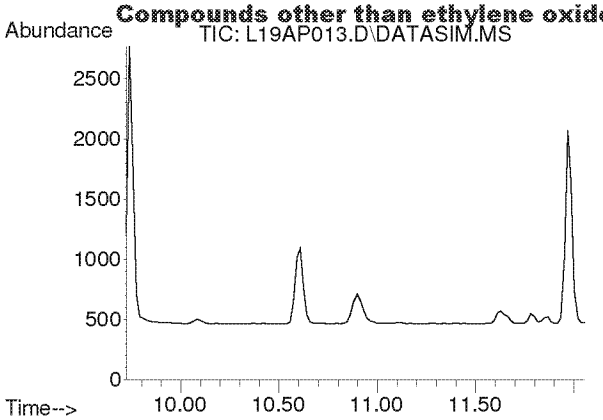
Lab File: L19AP013.D
Acq: 17 Jan 2019 12:55 am

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.4



Compounds other than ethylene oxide were not quantitated.

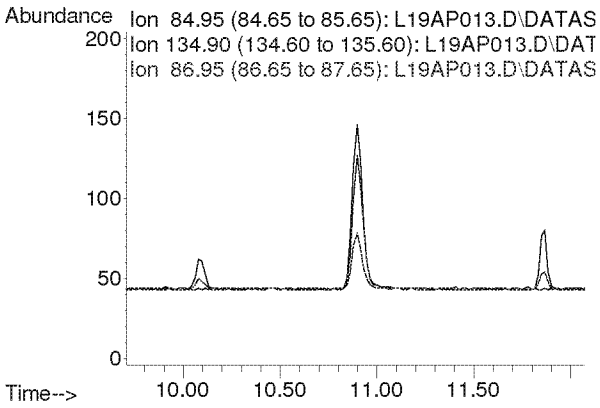


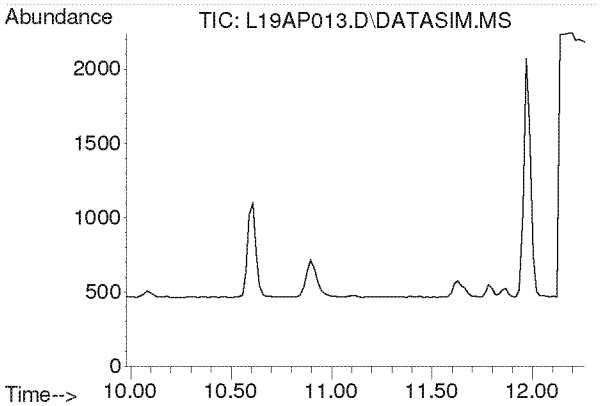
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19AP013.D
Acq: 17 Jan 2019 12:55 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.5
87	32.2



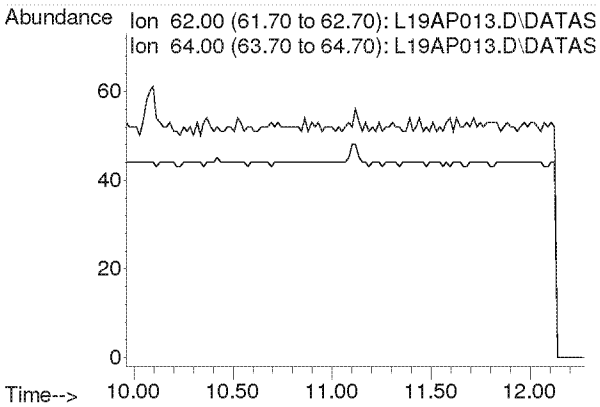


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

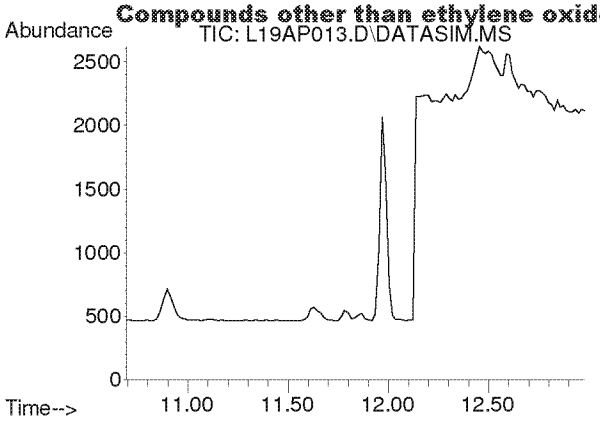
Lab File: L19AP013.D
Acq: 17 Jan 2019 12:55 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	32.1



Compounds other than ethylene oxide were not quantitated.

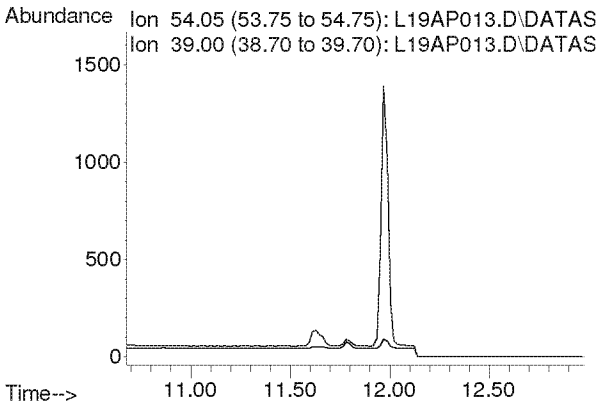


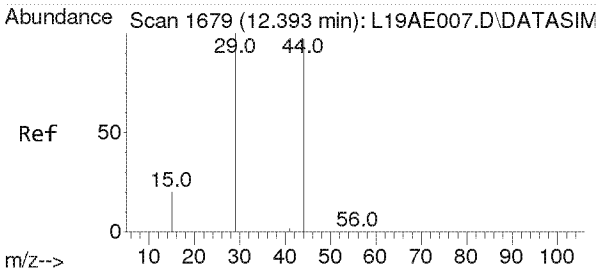
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19AP013.D
Acq: 17 Jan 2019 12:55 am

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	103.3

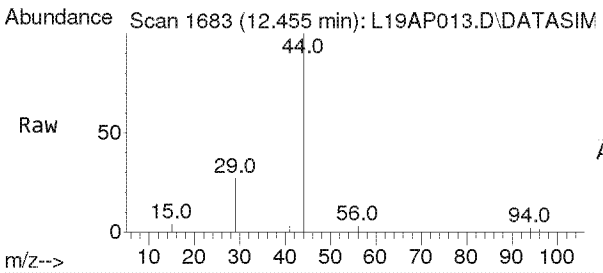


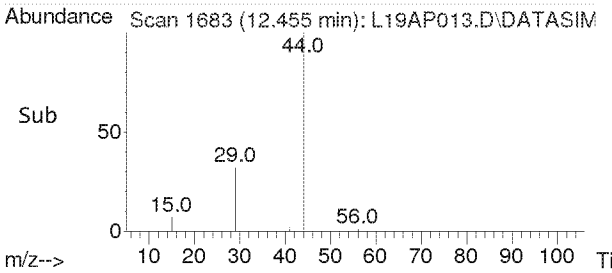


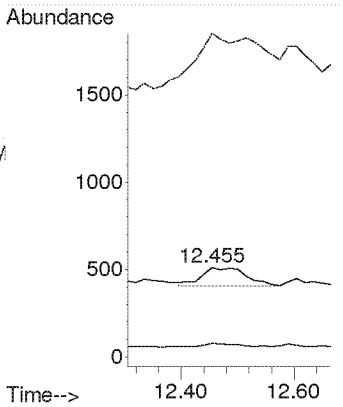
#9
Ethylene oxide
Concen: 0.206 ppbv
RT: 12.455 min Scan# 1683
Delta R.T. 0.062 min
Lab File: L19AP013.D
Acq: 17 Jan 2019 12:55 am

Tgt Ion: 29 Resp: 562

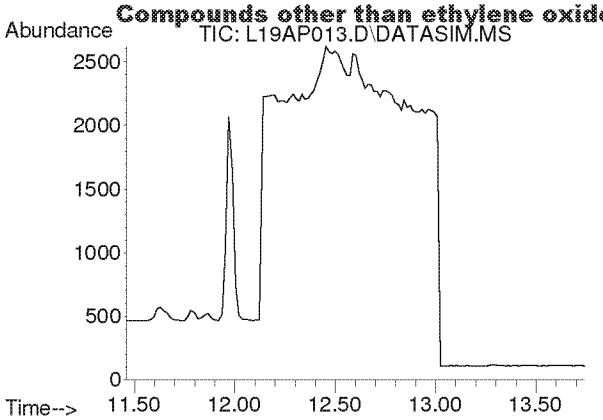
Ion	Ratio	Lower	Upper
29	100		
15	16.2	15.4	23.0
44	484.3	77.4	116.2#







Compounds other than ethylene oxide were not quantitated.

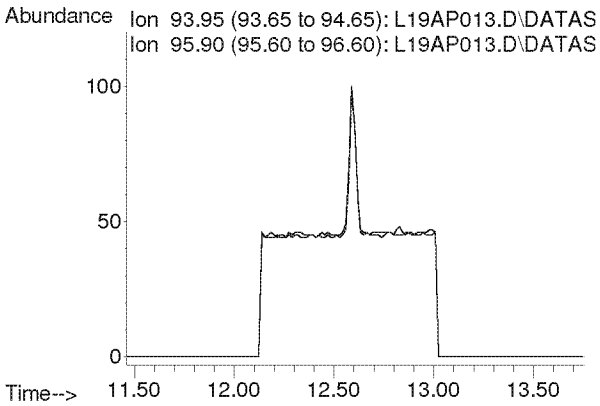


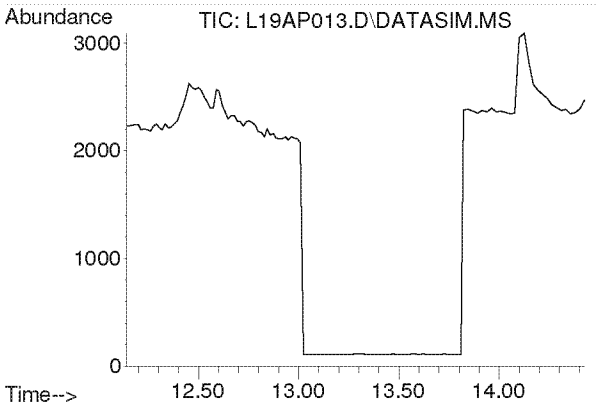
#10
Bromomethane
Concen: N.D.
Expected RT: 12.60 min

Lab File: L19AP013.D
Acq: 17 Jan 2019 12:55 am

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.3



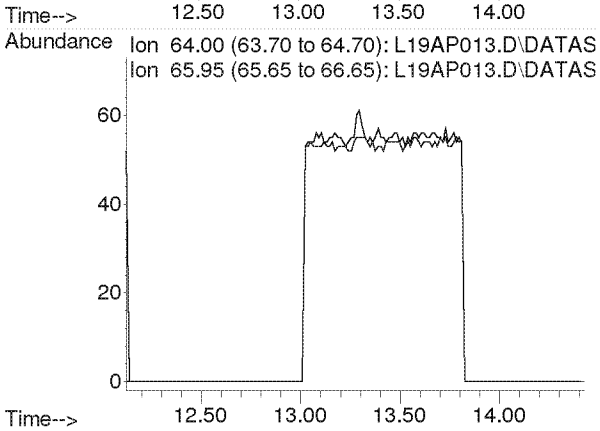


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

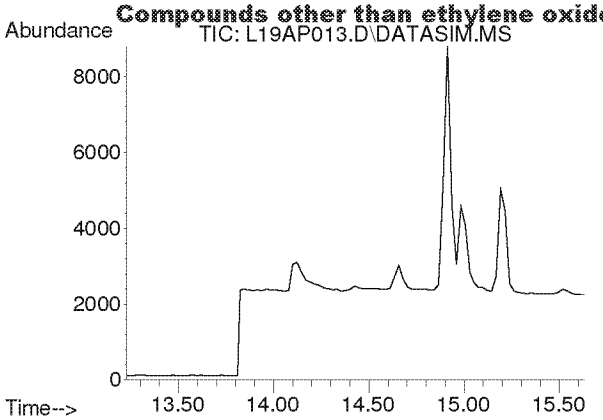
Lab File: L19AP013.D
Acq: 17 Jan 2019 12:55 am

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.4



Compounds other than ethylene oxide were not quantitated.

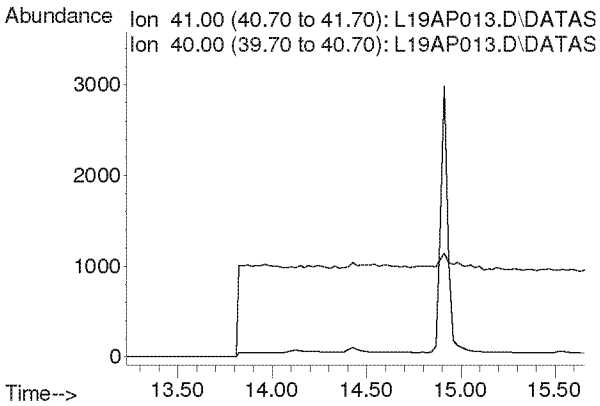


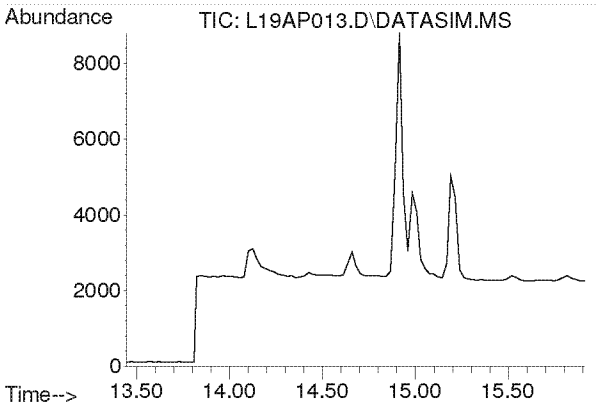
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19AP013.D
Acq: 17 Jan 2019 12:55 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	53.2



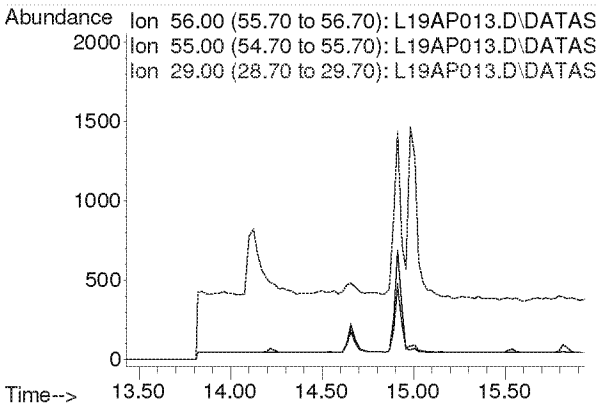


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

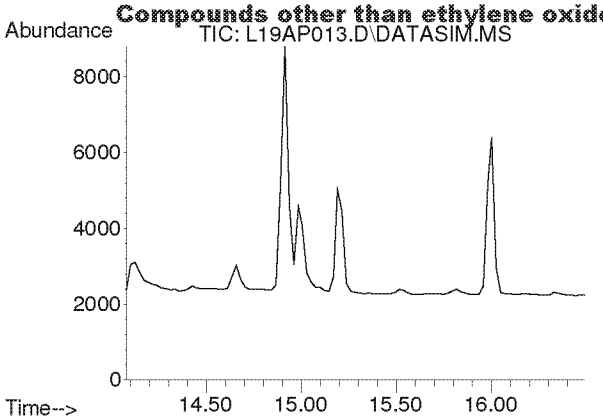
Lab File: L19AP013.D
Acq: 17 Jan 2019 12:55 am

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.5
29	44.9



Compounds other than ethylene oxide were not quantitated.

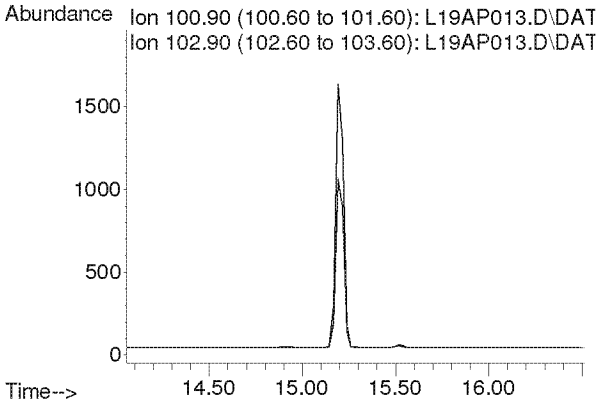


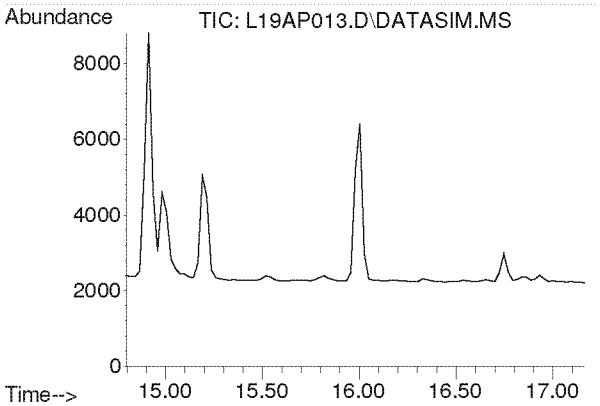
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.21 min

Lab File: L19AP013.D
Acq: 17 Jan 2019 12:55 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



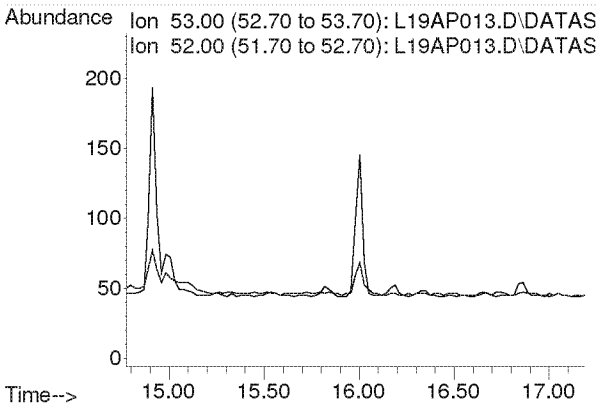


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

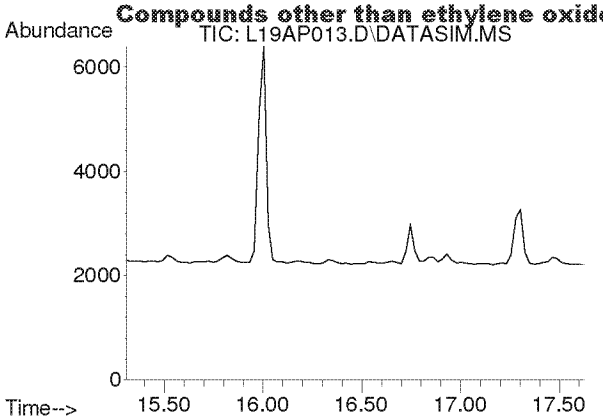
Lab File: L19AP013.D
Acq: 17 Jan 2019 12:55 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	84.7



Compounds other than ethylene oxide were not quantitated.

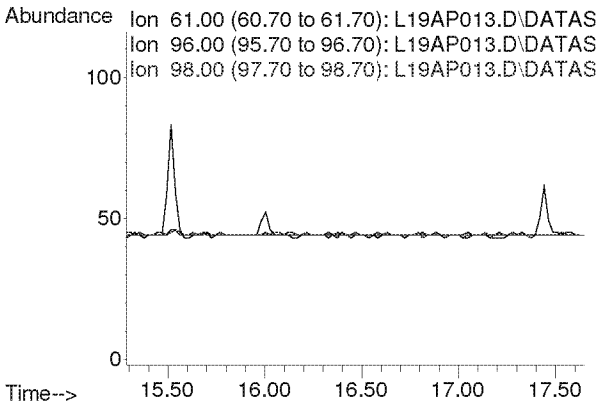


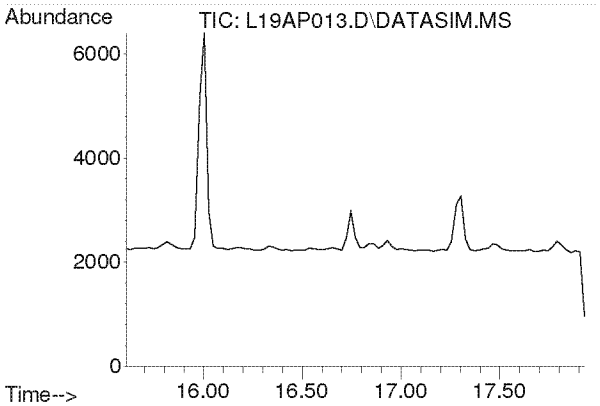
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.44 min

Lab File: L19AP013.D
Acq: 17 Jan 2019 12:55 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.5
98	38.1



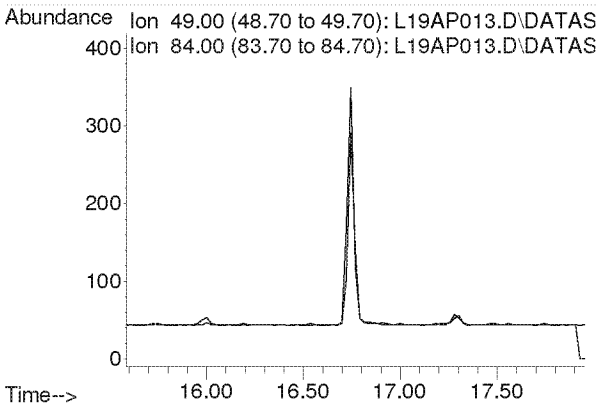


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

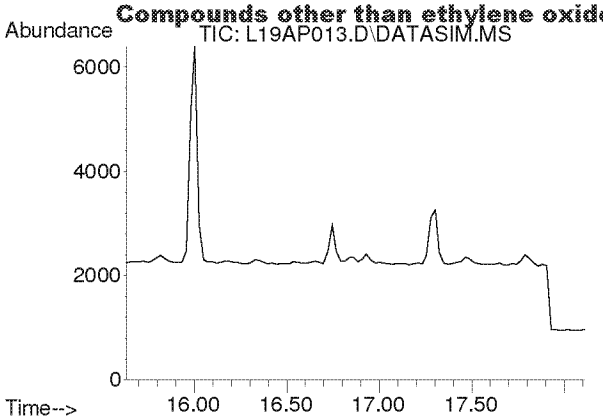
Lab File: L19AP013.D
Acq: 17 Jan 2019 12:55 am

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.3



Compounds other than ethylene oxide were not quantitated.

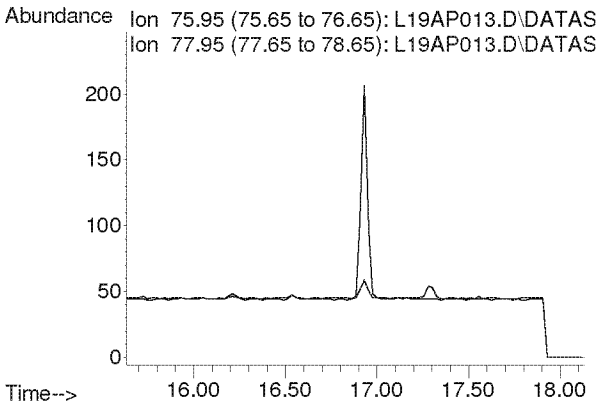


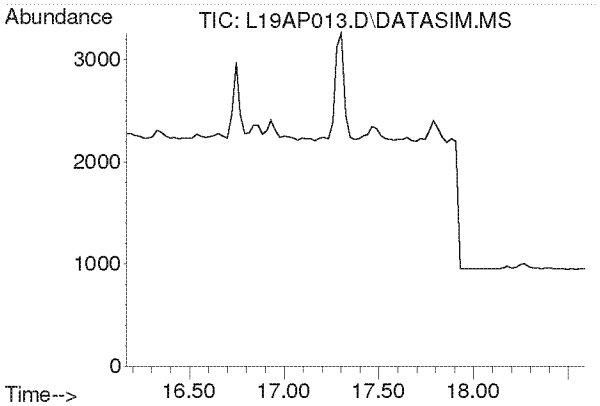
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19AP013.D
Acq: 17 Jan 2019 12:55 am

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.0



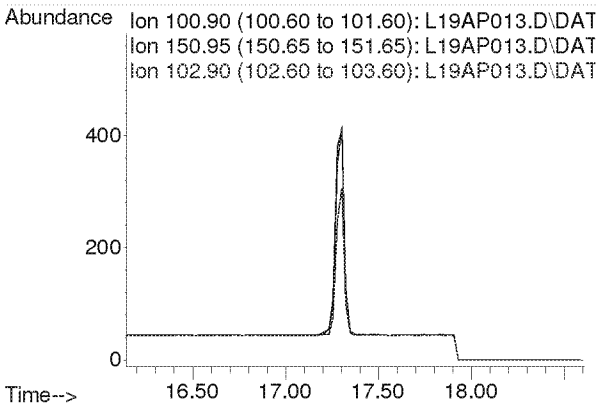


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.30 min

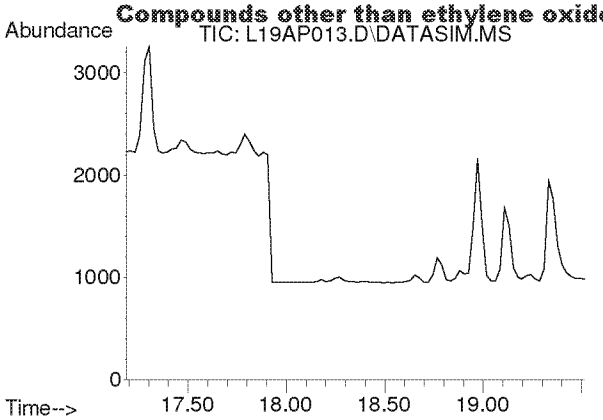
Lab File: L19AP013.D
Acq: 17 Jan 2019 12:55 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	95.4
103	63.9



Compounds other than ethylene oxide were not quantitated.

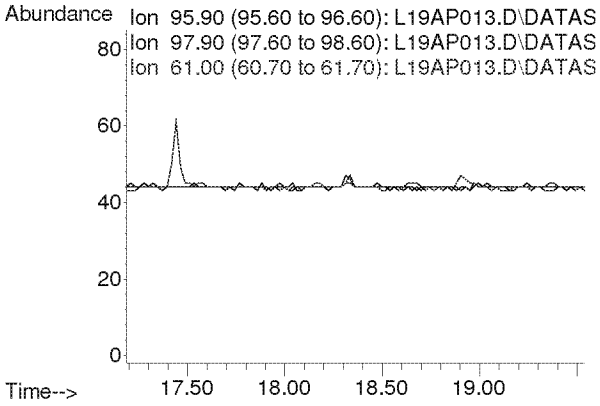


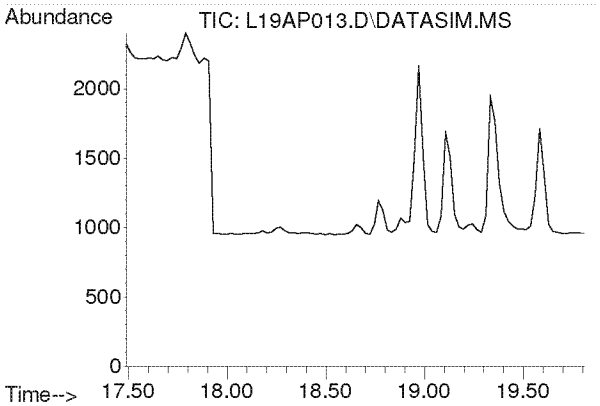
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19AP013.D
Acq: 17 Jan 2019 12:55 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	63.6
61	156.5



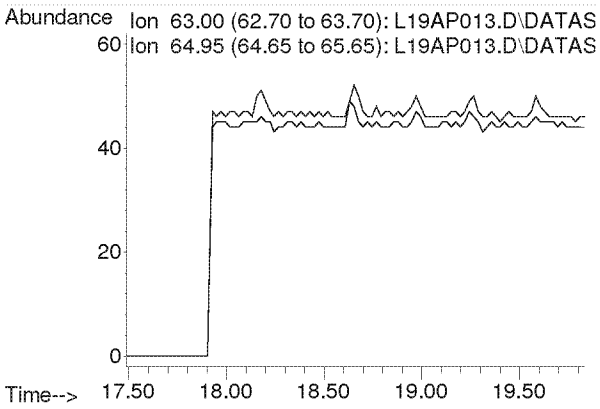


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

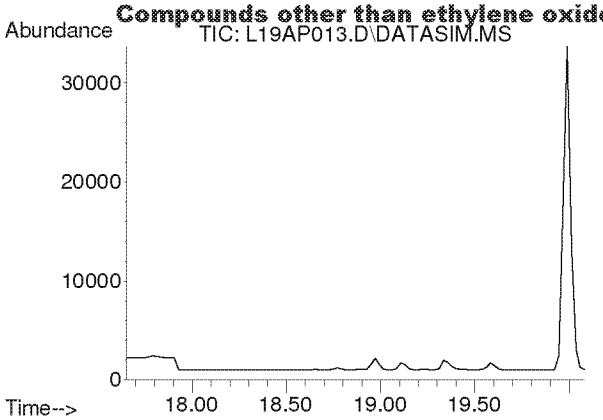
Lab File: L19AP013.D
Acq: 17 Jan 2019 12:55 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

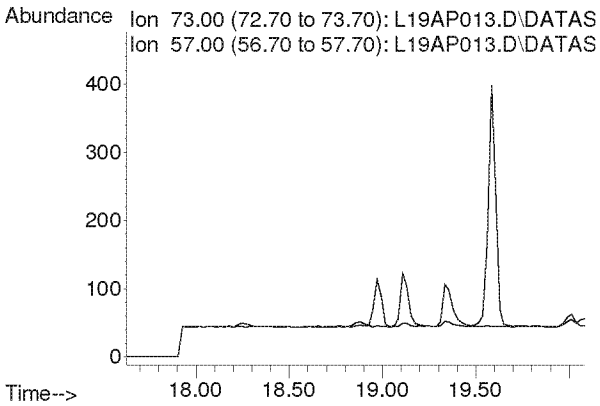


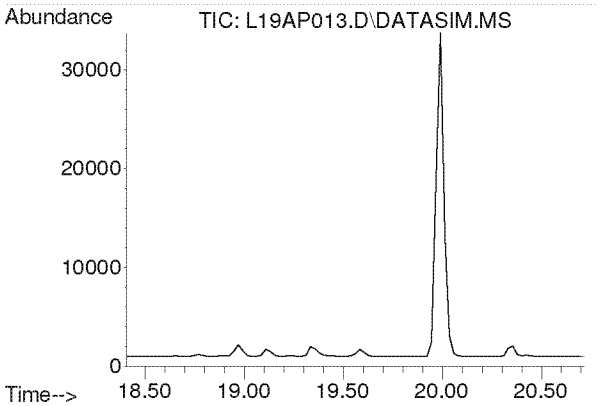
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19AP013.D
Acq: 17 Jan 2019 12:55 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.6



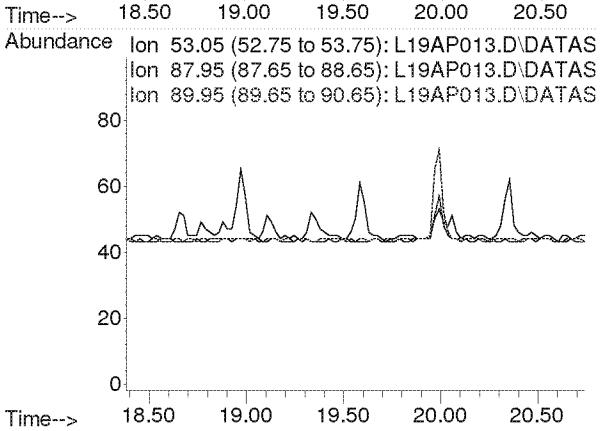


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

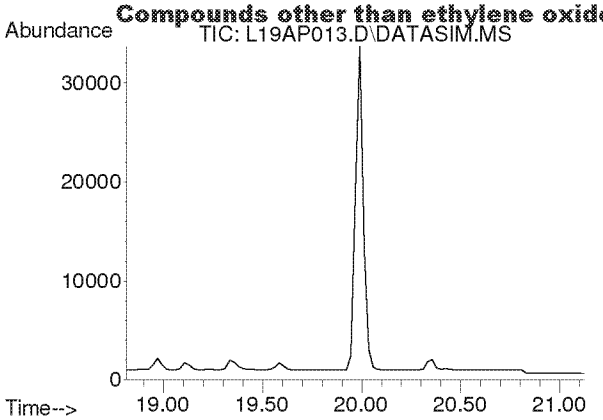
Lab File: L19AP013.D
Acq: 17 Jan 2019 12:55 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	54.0
90	17.3



Compounds other than ethylene oxide were not quantitated.

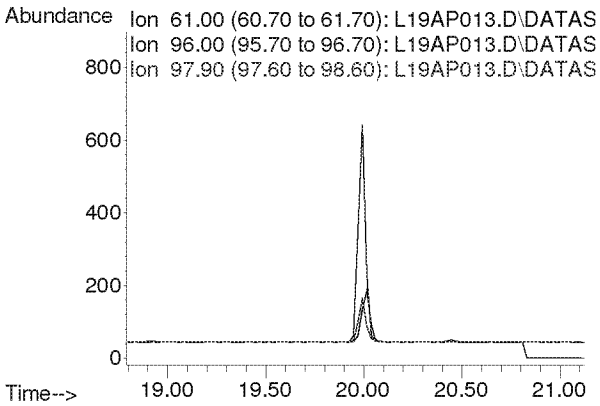


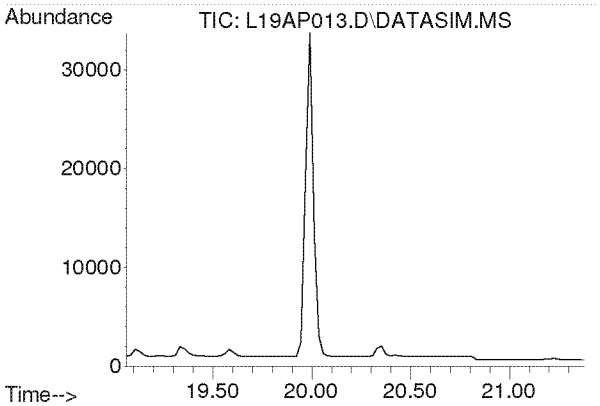
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19AP013.D
Acq: 17 Jan 2019 12:55 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	75.7
98	46.4



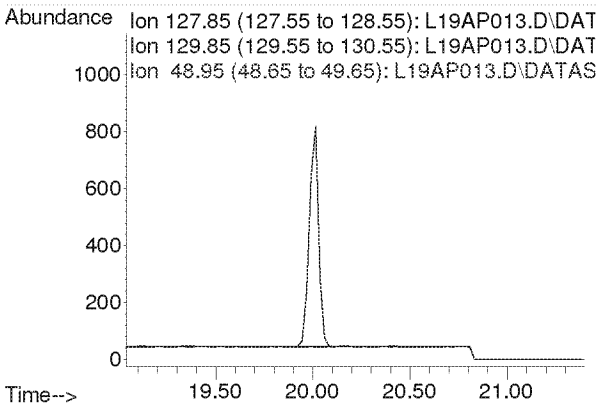


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.19 min

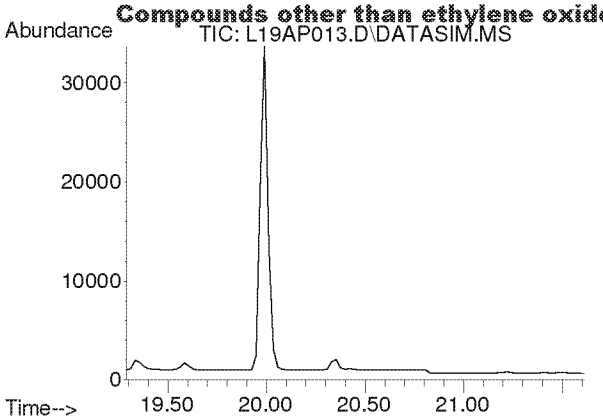
Lab File: L19AP013.D
Acq: 17 Jan 2019 12:55 am

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	130.4
49	170.8



Compounds other than ethylene oxide were not quantitated.

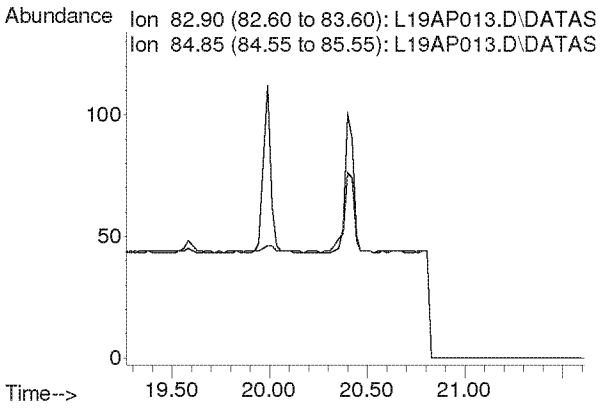


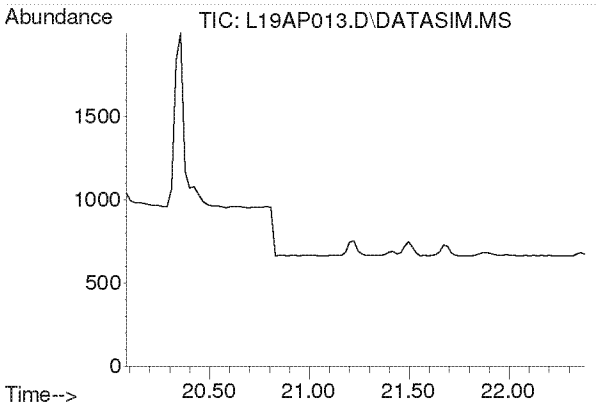
#26
Chloroform
Concen: N.D.
Expected RT: 20.42 min

Lab File: L19AP013.D
Acq: 17 Jan 2019 12:55 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



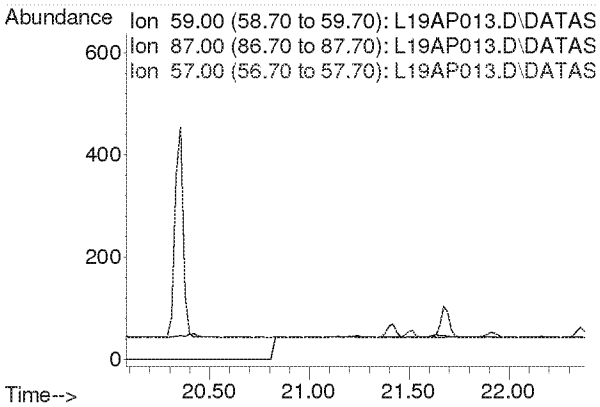


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

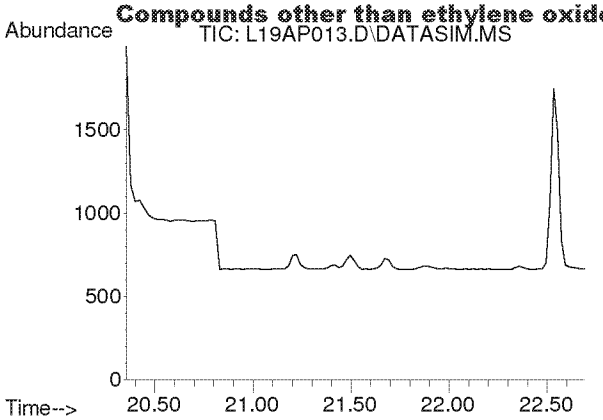
Lab File: L19AP013.D
Acq: 17 Jan 2019 12:55 am

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	37.8
57	34.3



Compounds other than ethylene oxide were not quantitated.

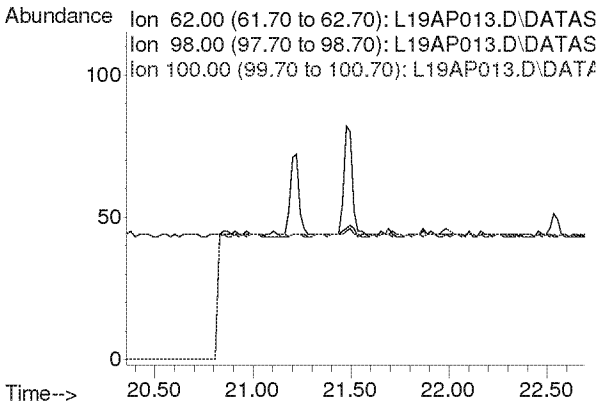


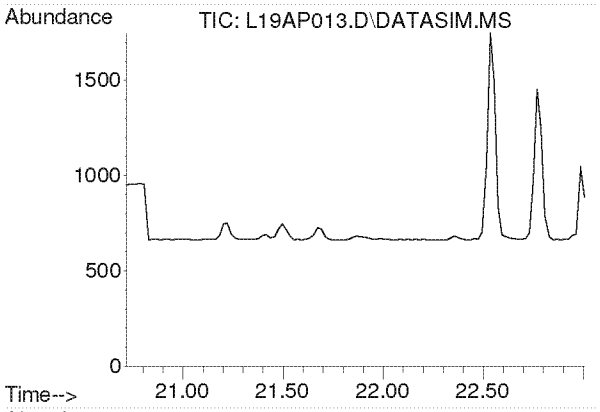
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.50 min

Lab File: L19AP013.D
Acq: 17 Jan 2019 12:55 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.8
100	4.2



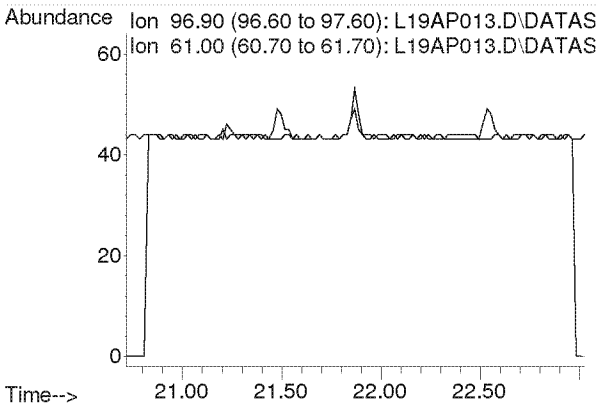


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

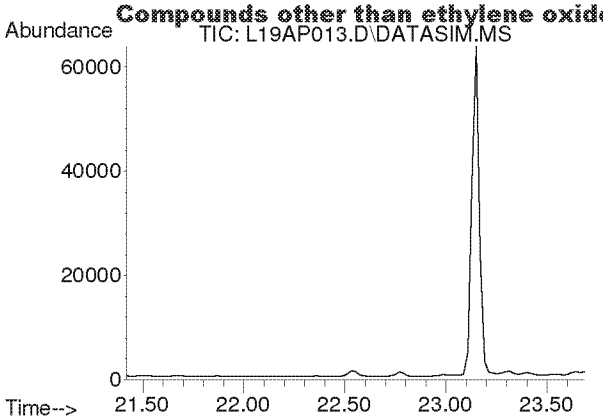
Lab File: L19AP013.D
Acq: 17 Jan 2019 12:55 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	58.6



Compounds other than ethylene oxide were not quantitated.

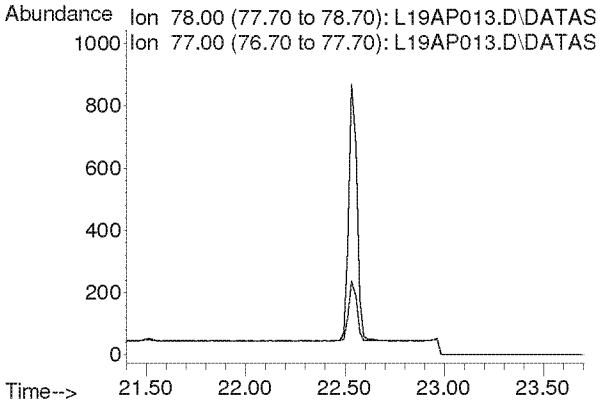


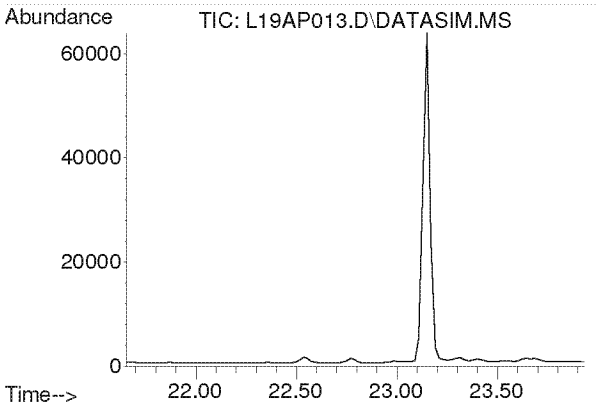
#31
Benzene
Concen: N.D.
Expected RT: 22.55 min

Lab File: L19AP013.D
Acq: 17 Jan 2019 12:55 am

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.9



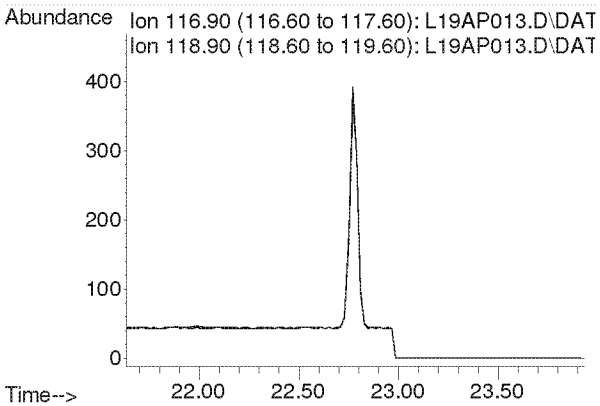


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.79 min

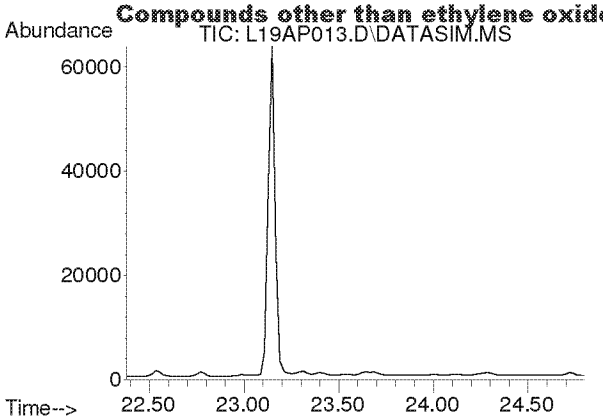
Lab File: L19AP013.D
Acq: 17 Jan 2019 12:55 am

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.5



Compounds other than ethylene oxide were not quantitated.

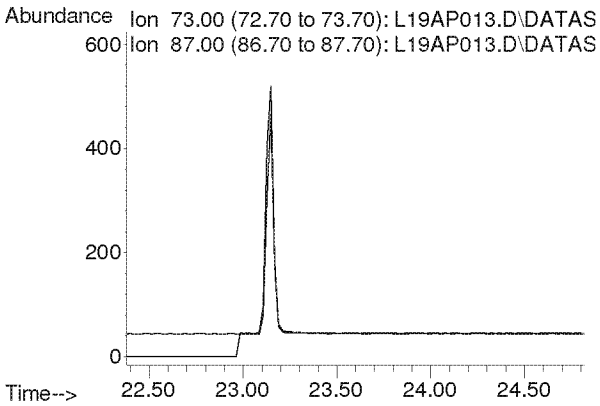


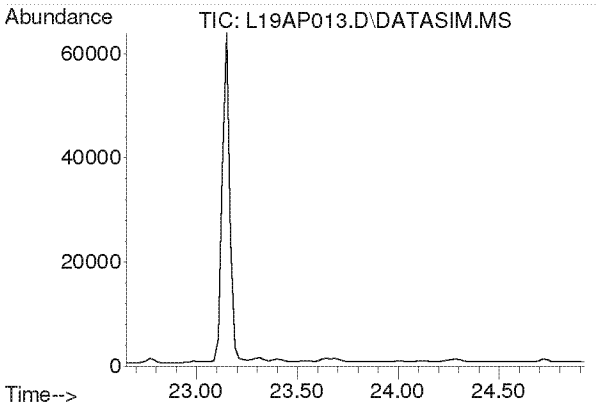
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19AP013.D
Acq: 17 Jan 2019 12:55 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	24.8



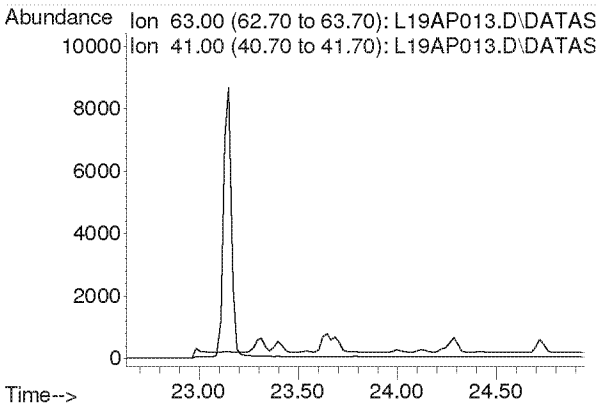


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

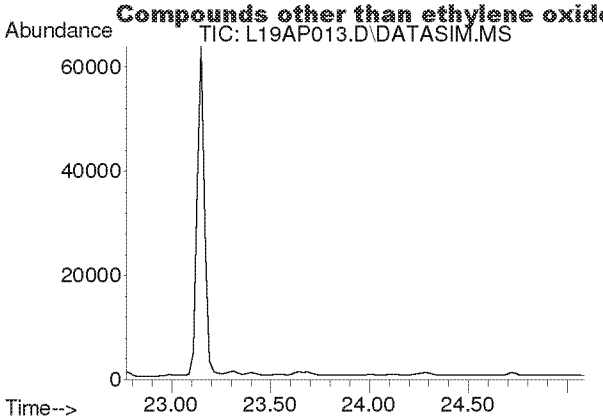
Lab File: L19AP013.D
Acq: 17 Jan 2019 12:55 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	196.0



Compounds other than ethylene oxide were not quantitated.

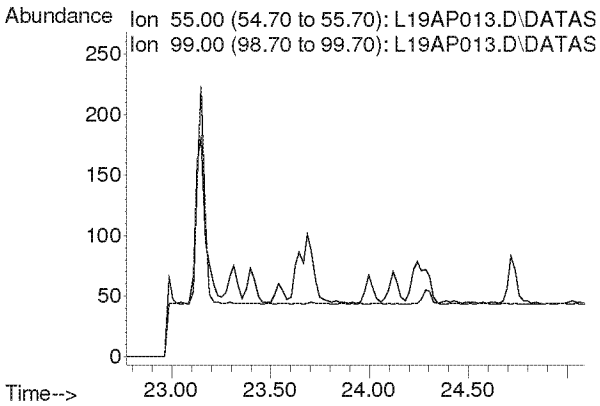


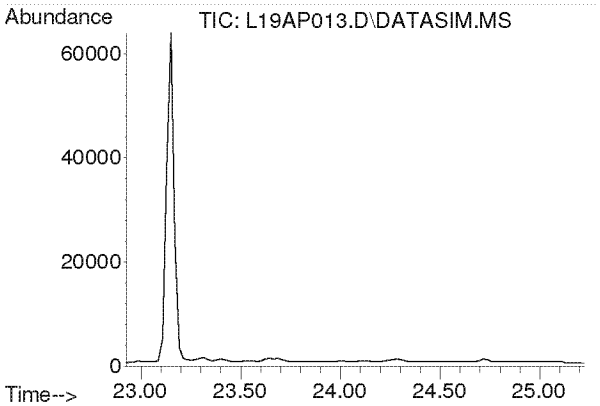
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19AP013.D
Acq: 17 Jan 2019 12:55 am

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.0



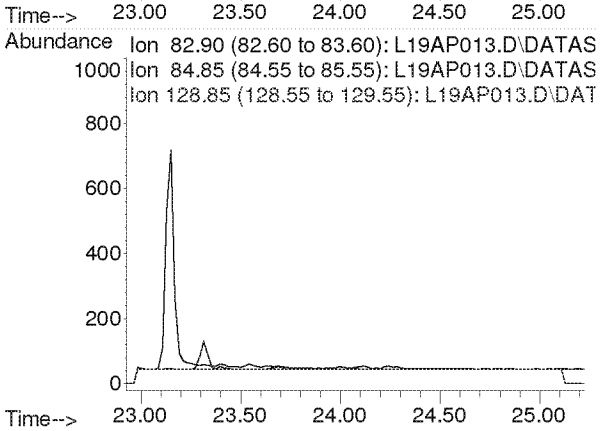


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

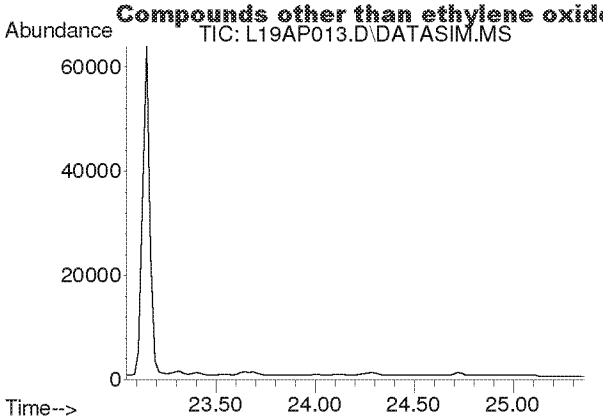
Lab File: L19AP013.D
Acq: 17 Jan 2019 12:55 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.9
129	12.5



Compounds other than ethylene oxide were not quantitated.

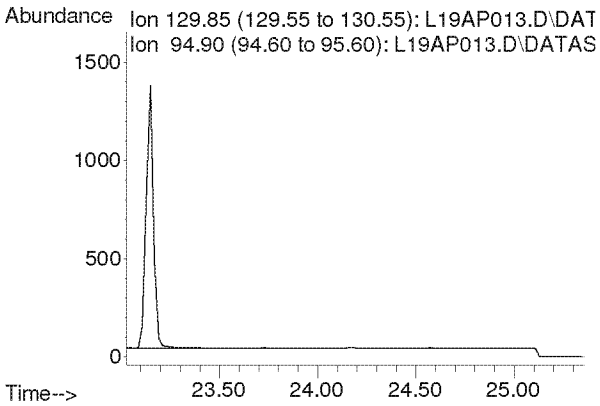


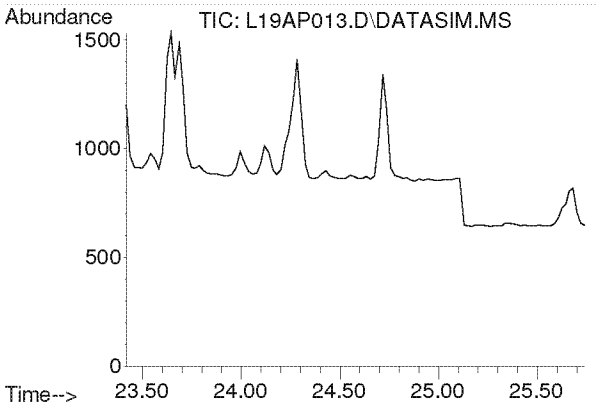
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19AP013.D
Acq: 17 Jan 2019 12:55 am

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	108.6



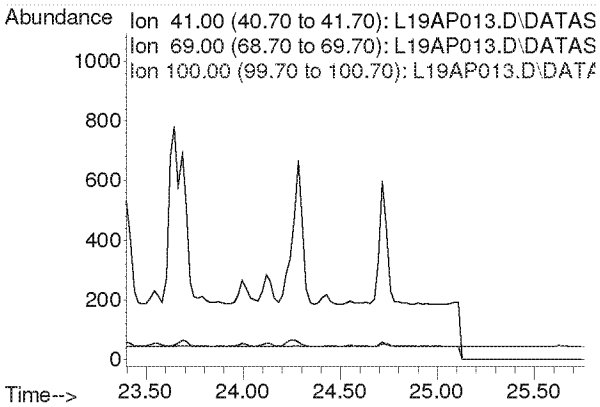


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.55 min

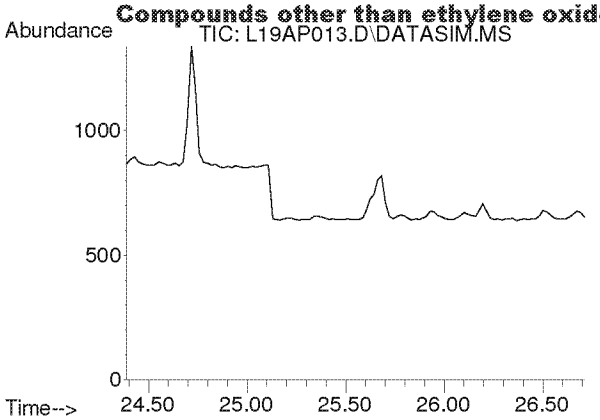
Lab File: L19AP013.D
Acq: 17 Jan 2019 12:55 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	20.7
100	5.3



Compounds other than ethylene oxide were not quantitated.

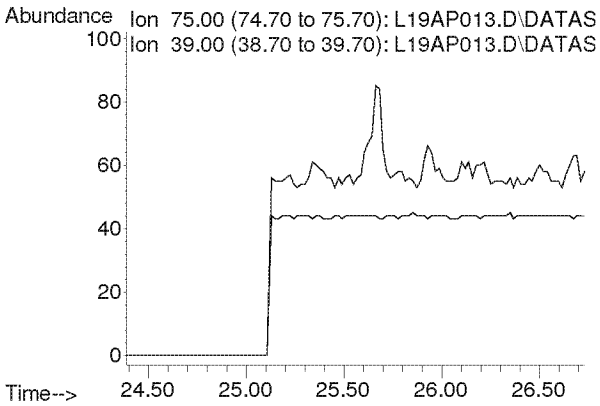


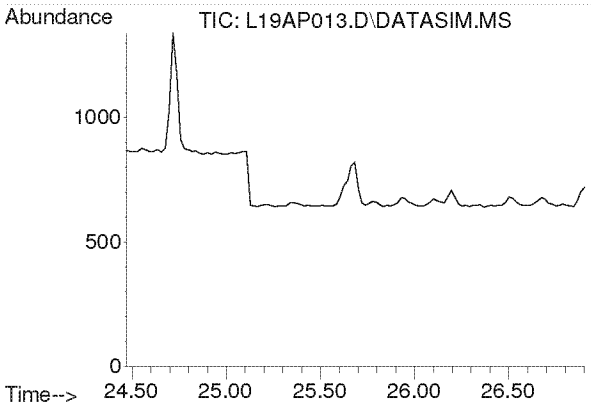
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19AP013.D
Acq: 17 Jan 2019 12:55 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	48.3



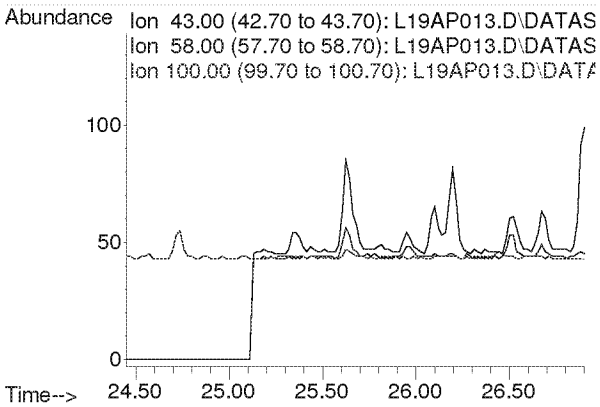


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

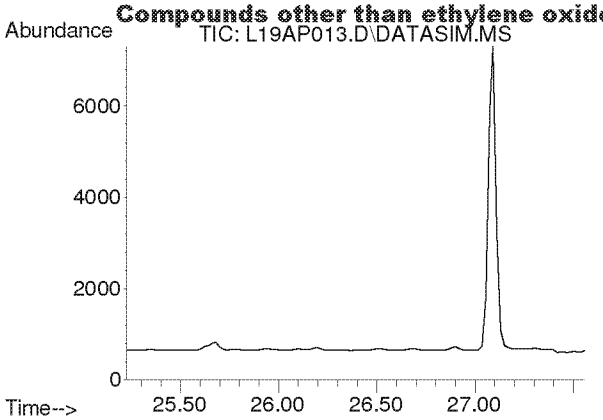
Lab File: L19AP013.D
Acq: 17 Jan 2019 12:55 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	34.5
100	8.1



Compounds other than ethylene oxide were not quantitated.

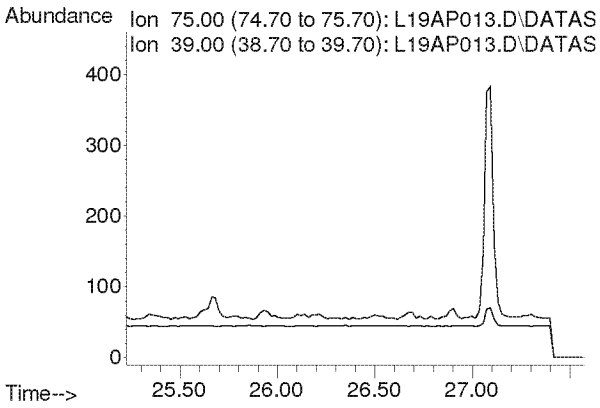


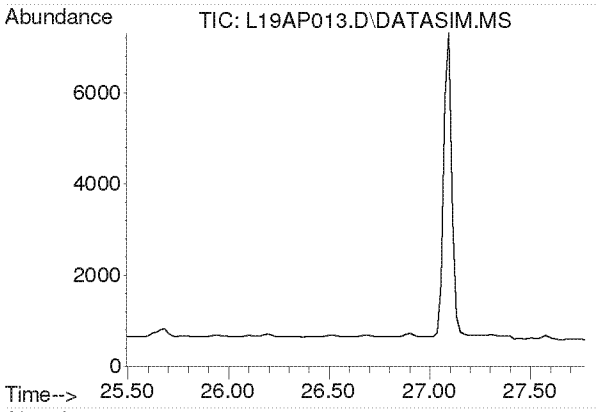
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19AP013.D
Acq: 17 Jan 2019 12:55 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	48.8



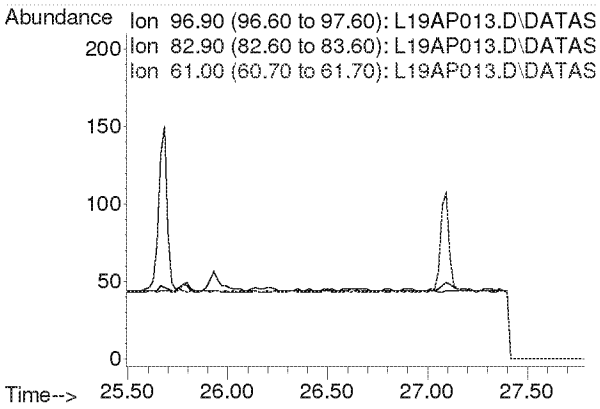


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.63 min

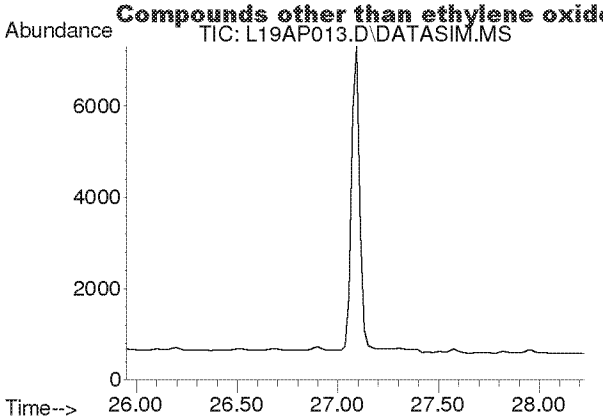
Lab File: L19AP013.D
Acq: 17 Jan 2019 12:55 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	96.6
61	61.4



Compounds other than ethylene oxide were not quantitated.

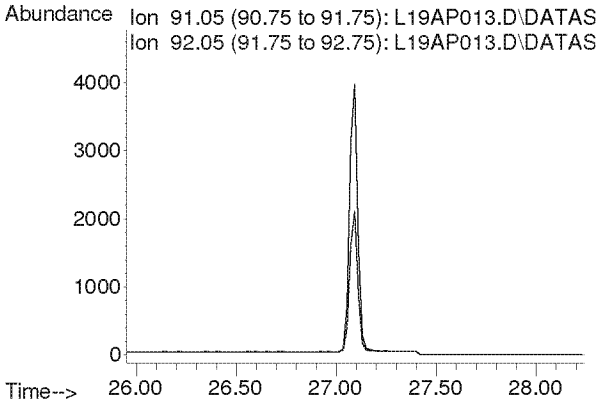


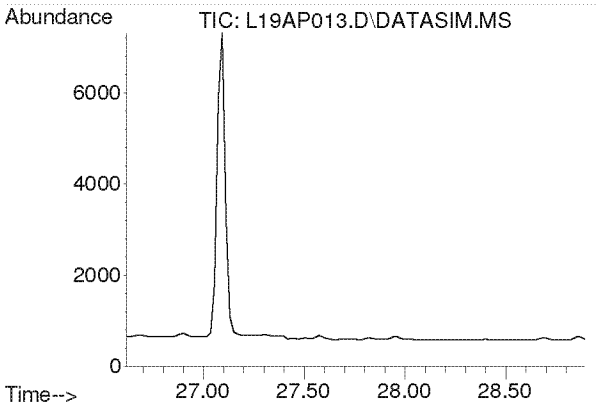
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19AP013.D
Acq: 17 Jan 2019 12:55 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



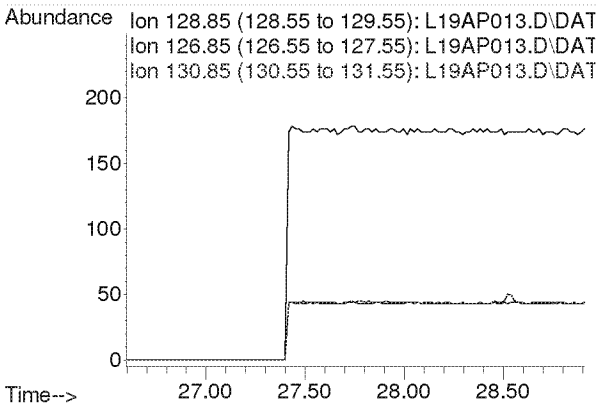


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

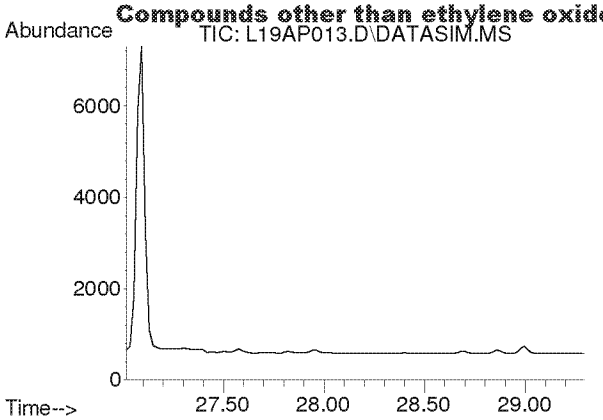
Lab File: L19AP013.D
Acq: 17 Jan 2019 12:55 am

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.2
131	6.0



Compounds other than ethylene oxide were not quantitated.

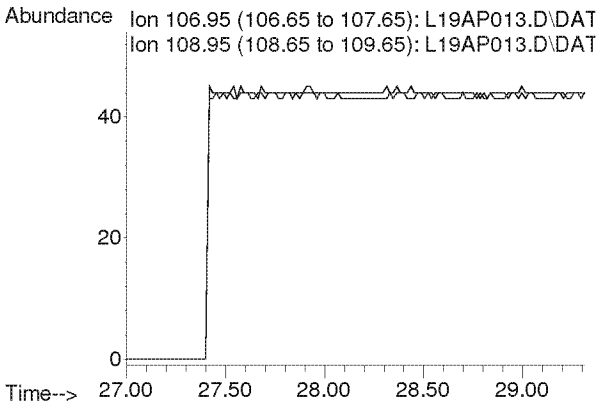


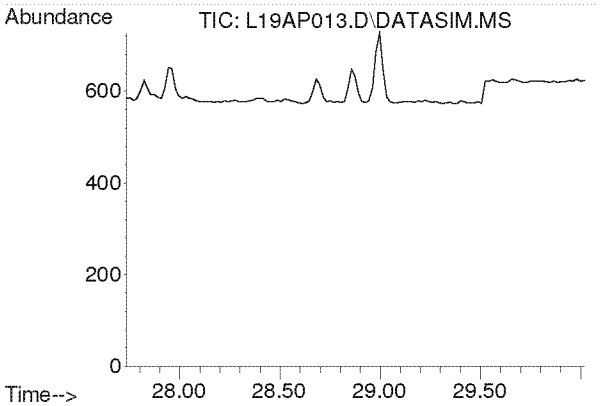
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19AP013.D
Acq: 17 Jan 2019 12:55 am

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.3



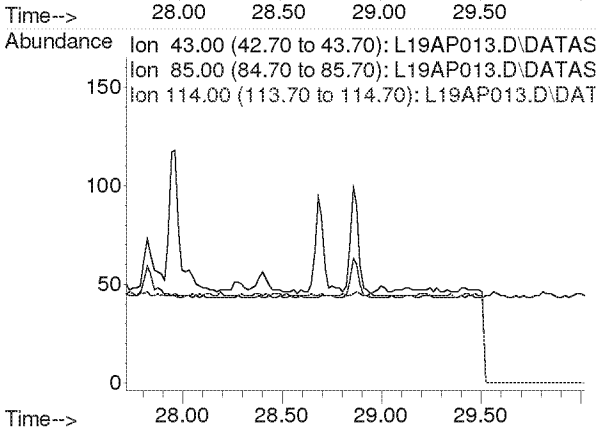


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

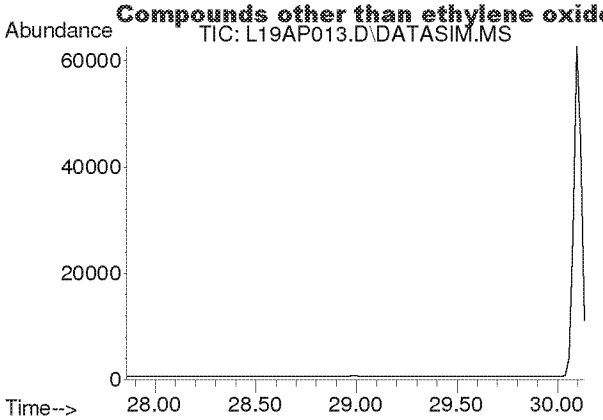
Lab File: L19AP013.D
Acq: 17 Jan 2019 12:55 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	36.6
114	2.3



Compounds other than ethylene oxide were not quantitated.

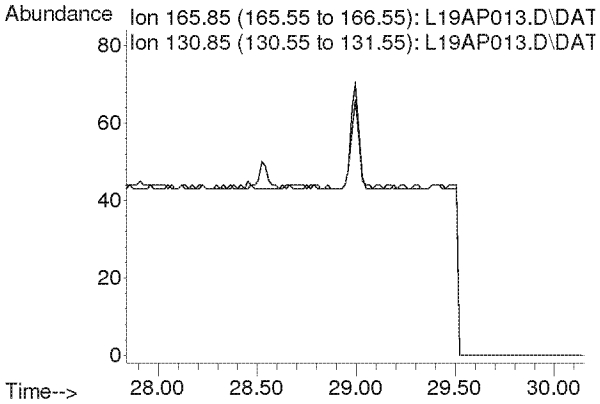


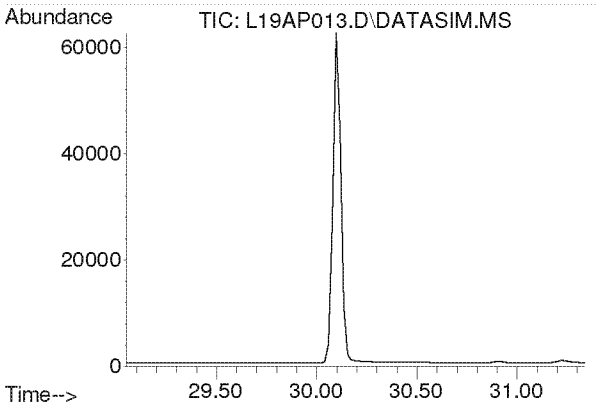
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19AP013.D
Acq: 17 Jan 2019 12:55 am

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	78.2



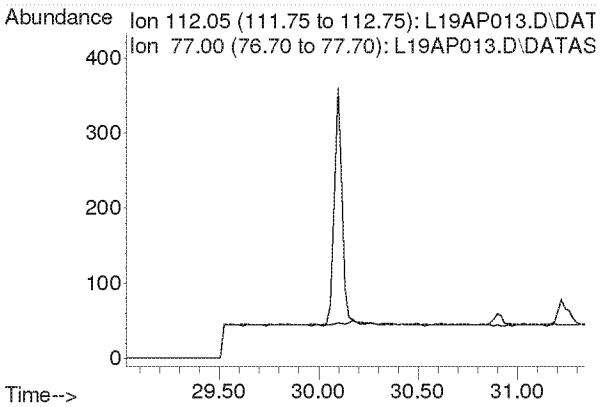


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

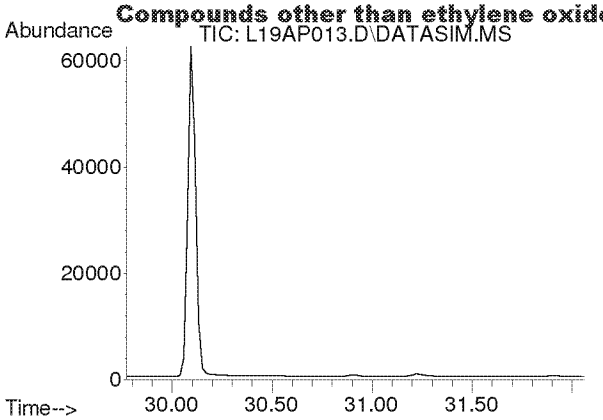
Lab File: L19AP013.D
Acq: 17 Jan 2019 12:55 am

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	61.2



Compounds other than ethylene oxide were not quantitated.

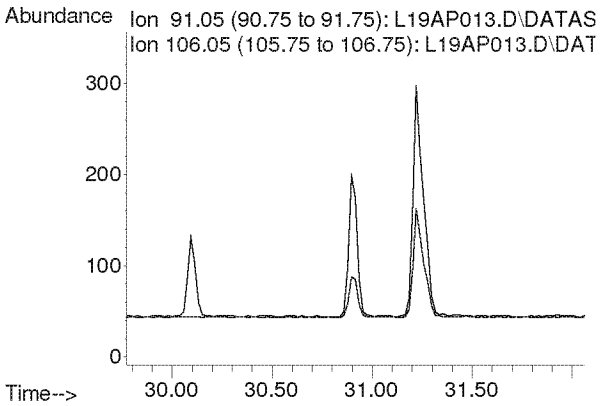


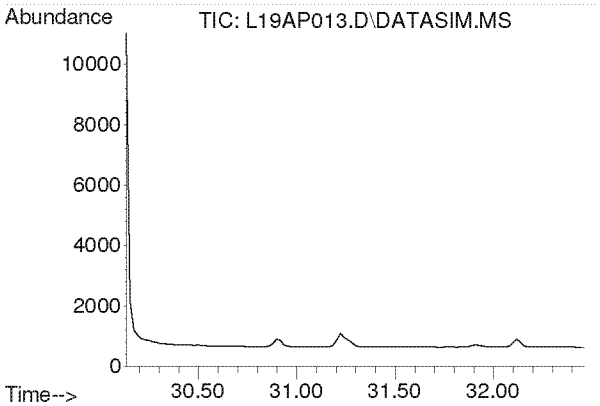
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19AP013.D
Acq: 17 Jan 2019 12:55 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	31.7



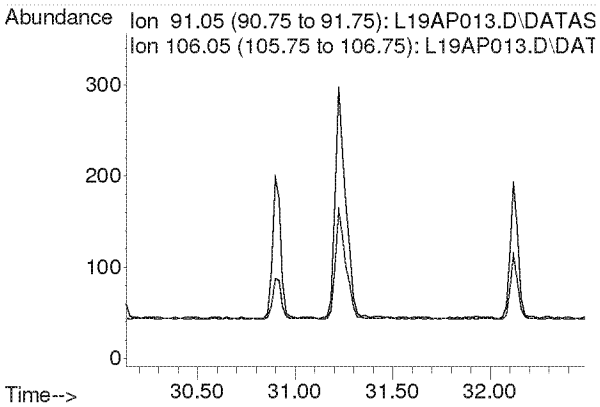


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

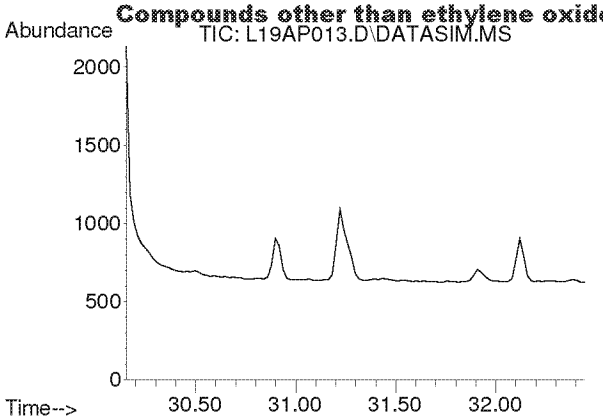
Lab File: L19AP013.D
Acq: 17 Jan 2019 12:55 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.6



Compounds other than ethylene oxide were not quantitated.

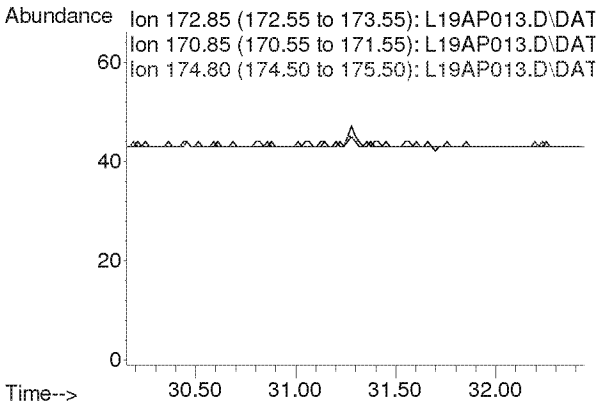


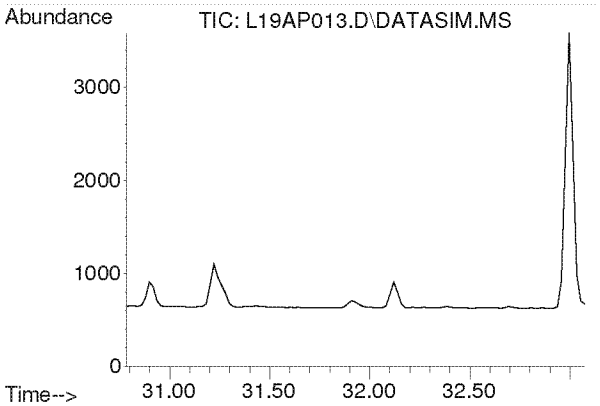
#52
Bromoform
Concen: N.D.
Expected RT: 31.30 min

Lab File: L19AP013.D
Acq: 17 Jan 2019 12:55 am

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.4
175	48.9



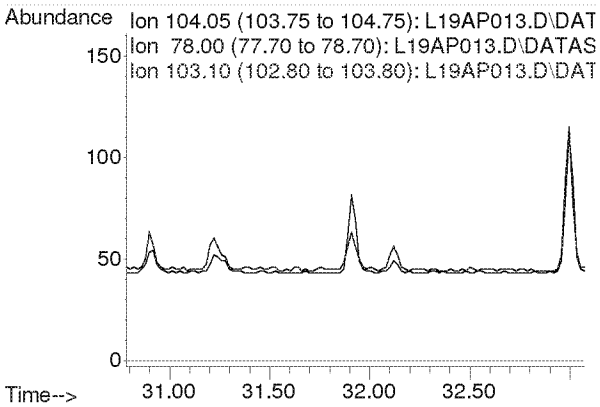


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

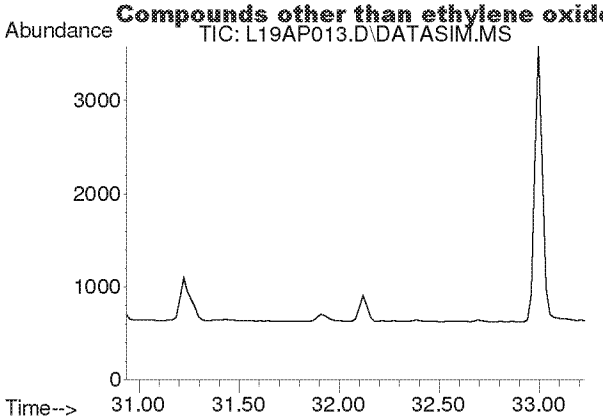
Lab File: L19AP013.D
Acq: 17 Jan 2019 12:55 am

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	45.8
103	0.0



Compounds other than ethylene oxide were not quantitated.

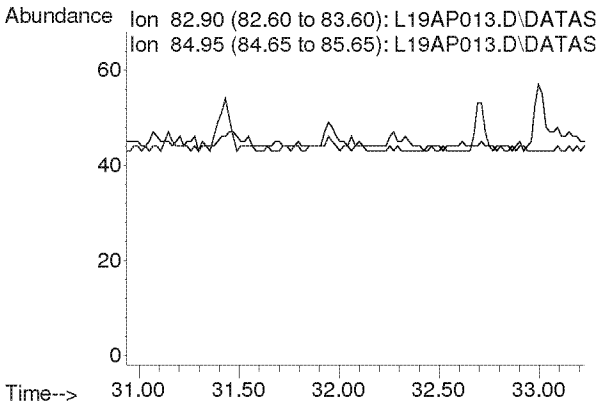


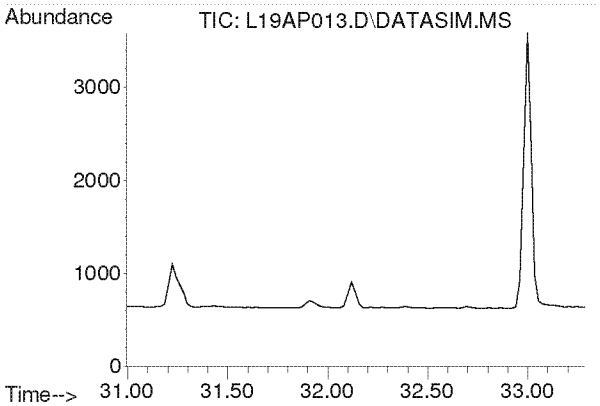
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19AP013.D
Acq: 17 Jan 2019 12:55 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.0



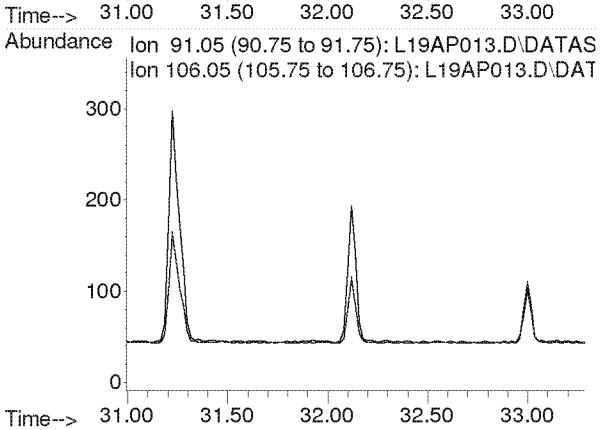


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

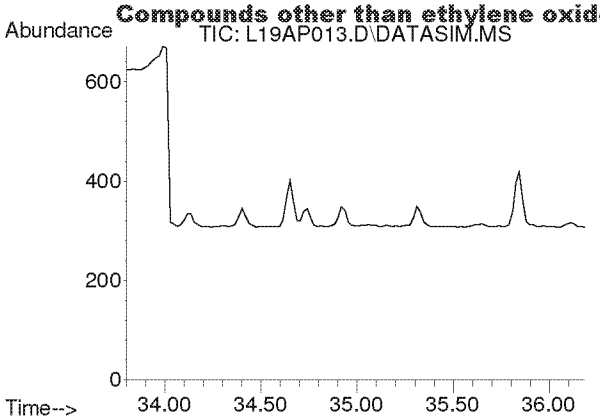
Lab File: L19AP013.D
Acq: 17 Jan 2019 12:55 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.8



Compounds other than ethylene oxide were not quantitated.

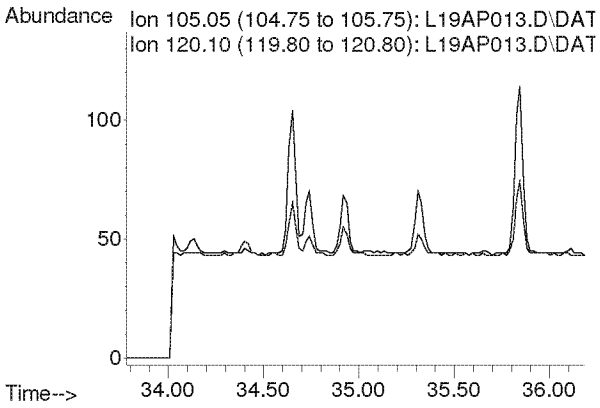


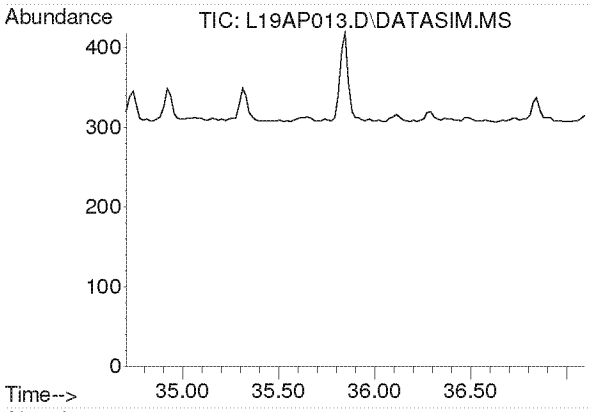
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19AP013.D
Acq: 17 Jan 2019 12:55 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	45.0



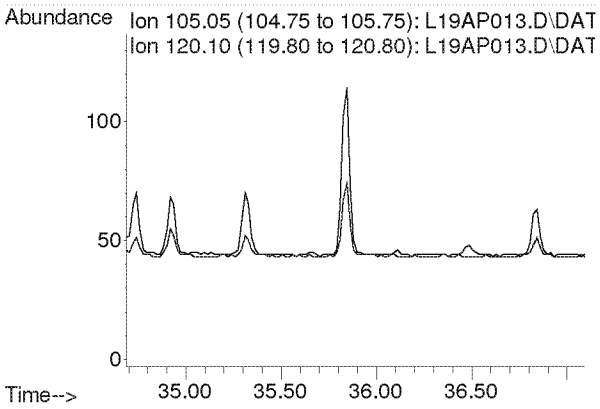


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

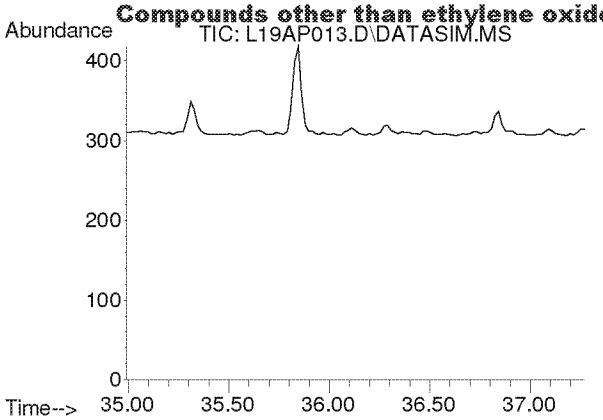
Lab File: L19AP013.D
Acq: 17 Jan 2019 12:55 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	42.9



Compounds other than ethylene oxide were not quantitated.

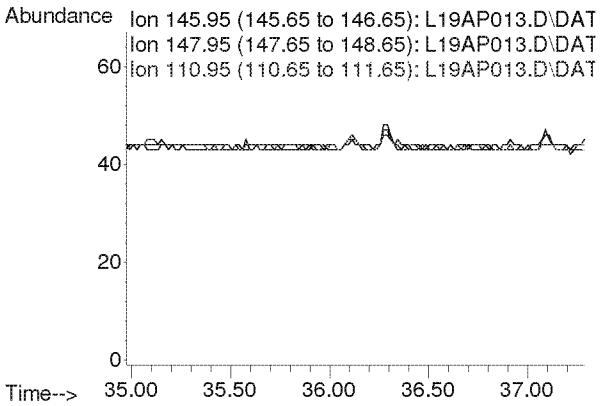


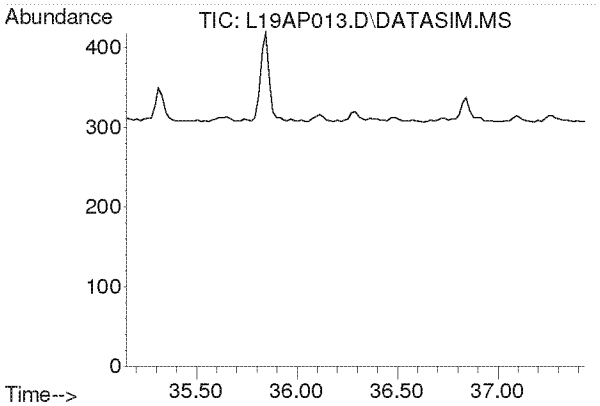
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19AP013.D
Acq: 17 Jan 2019 12:55 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.5



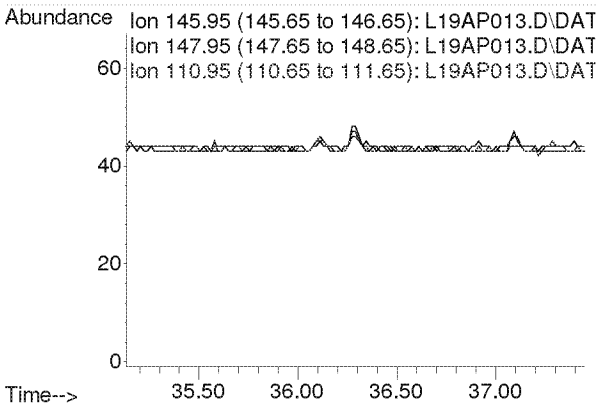


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

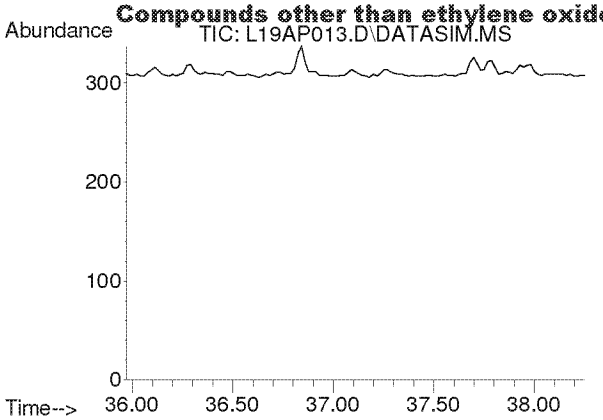
Lab File: L19AP013.D
Acq: 17 Jan 2019 12:55 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	63.9
111	39.3



Compounds other than ethylene oxide were not quantitated.

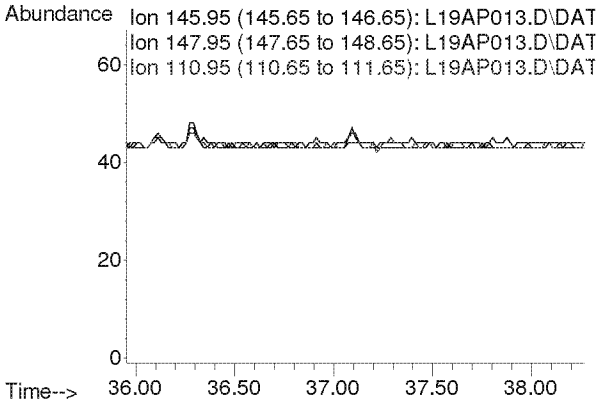


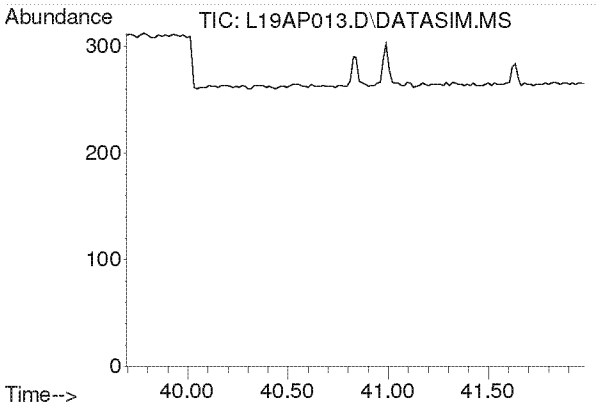
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19AP013.D
Acq: 17 Jan 2019 12:55 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.7



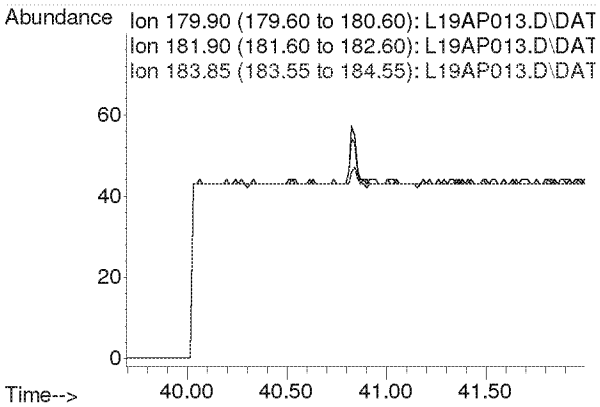


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

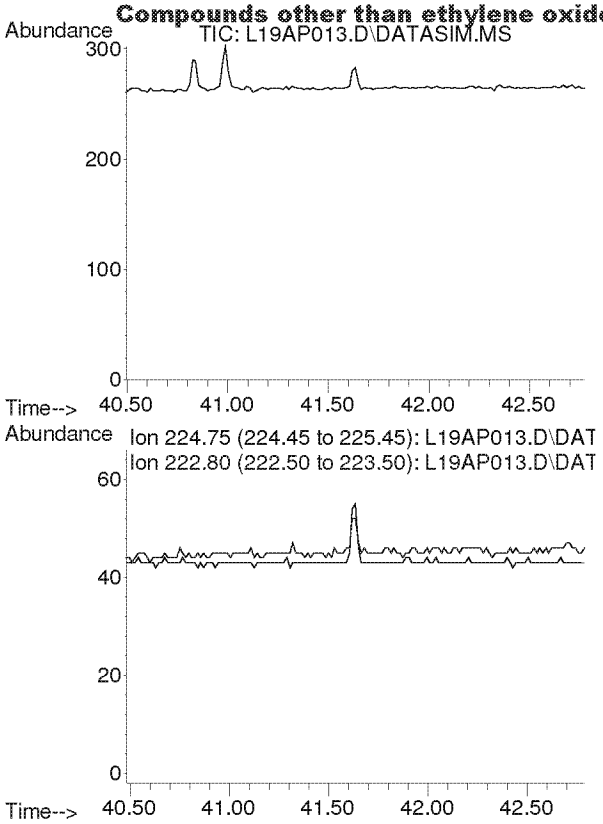
Lab File: L19AP013.D
Acq: 17 Jan 2019 12:55 am

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	95.0
184	30.5



Compounds other than ethylene oxide were not quantitated.



#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.63 min

Lab File: L19AP013.D
Acq: 17 Jan 2019 12:55 am

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.4

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19AP\
Data File : L19AP014.D
Acq On : 17 Jan 2019 1:57 am (#1); 17-Jan-19, 01:52:10 (#2)
Operator : MAH
Sample : 9010716-05
Misc : WILLOWBROOK VILLAGE HALL C2 1/4/19 (Sig #1); (Sig #2)
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jan 23 07:07:27 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.992	66	53770	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.150	114	130444	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.096	117	102872	4.7400 ppbv	-0.02

System Monitoring Compounds

Target Compounds					Qvalue
2) Acetylene	0.000	26	0	N.D. d	
3) Propylene	0.000	41	0	N.D. d	
4) Dichlorodifluoromethane	0.000	85	0	N.D. d	
5) Chloromethane	0.000	50	0	N.D. d	
6) Dichlorotetrafluoroethane	0.000	85	0	N.D. d	
7) Vinyl Chloride	0.000	62	0	N.D.	
8) 1,3-Butadiene	0.000	54	0	N.D. d	
9) Ethylene oxide	12.455	29	395	0.1422 ppbv #	1
10) Bromomethane	0.000	94	0	N.D. d	
11) Chloroethane	0.000	64	0	N.D.	
12) Acetonitrile	0.000	41	0	N.D. d	
13) Acrolein	0.000	56	0	N.D. d	
14) Trichlorofluoromethane	0.000	101	0	N.D. d	
15) Acrylonitrile	0.000	53	0	N.D. d	
16) 1,1-Dichloroethene	0.000	61	0	N.D.	
17) Methylene Chloride	0.000	49	0	N.D. d	
18) Carbon Disulfide	0.000	76	0	N.D. d	
19) Trichlorotrifluoroethane	0.000	101	0	N.D. d	
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.	
21) 1,1-Dichloroethane	0.000	63	0	N.D.	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D.	
23) Chloroprene	0.000	53	0	N.D. d	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D. d	
25) Bromochloromethane	0.000	128	0	N.D.	
26) Chloroform	0.000	83	0	N.D. d	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D.	
28) 1,2-Dichloroethane	0.000	62	0	N.D. d	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D.	
31) Benzene	0.000	78	0	N.D. d	
32) Carbon Tetrachloride	0.000	117	0	N.D. d	
33) tert-Amyl Methyl Ether	0.000	73	0	N.D.	
34) 1,2-Dichloropropane	0.000	63	0	N.D.	
35) Ethyl Acrylate	0.000	55	0	N.D. d	
36) Bromodichloromethane	0.000	83	0	N.D.	
37) Trichloroethylene	0.000	130	0	N.D.	
38) Methyl Methacrylate	0.000	41	0	N.D. d	
39) cis-1,3-Dichloropropene	0.000	75	0	N.D.	
40) Methyl Isobutyl Ketone	0.000	43	0	N.D. d	
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.	
44) Toluene	0.000	91	0	N.D. d	
45) Dibromochloromethane	0.000	129	0	N.D.	
46) 1,2-Dibromoethane	0.000	107	0	N.D.	
47) n-Octane	0.000	43	0	N.D. d	
48) Tetrachloroethylene	0.000	166	0	N.D. d	
49) Chlorobenzene	0.000	112	0	N.D.	
50) Ethylbenzene	0.000	91	0	N.D. d	

Compounds other than ethylene oxide were not quantitated

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19AP\
Data File : L19AP014.D
Acq On : 17 Jan 2019 1:57 am (#1); 17-Jan-19, 01:52:10 (#2)
Operator : MAH
Sample : 9010716-05
Misc : WILLOWBROOK VILLAGE HALL C2 1/4/19 (Sig #1); (Sig #2)
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jan 23 07:07:27 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D.	d
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	d
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D.	d
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	d
57) 1,2,4-Trimethylbenzene	0.000	105	0	N.D.	d
58) m-Dichlorobenzene	0.000	146	0	N.D.	
59) p-Dichlorobenzene	0.000	146	0	N.D.	
60) o-Dichlorobenzene	0.000	146	0	N.D.	
61) 1,2,4-Trichlorobenzene	0.000	180	0	N.D.	
62) Hexachloro-1,3-butadiene	0.000	225	0	N.D.	

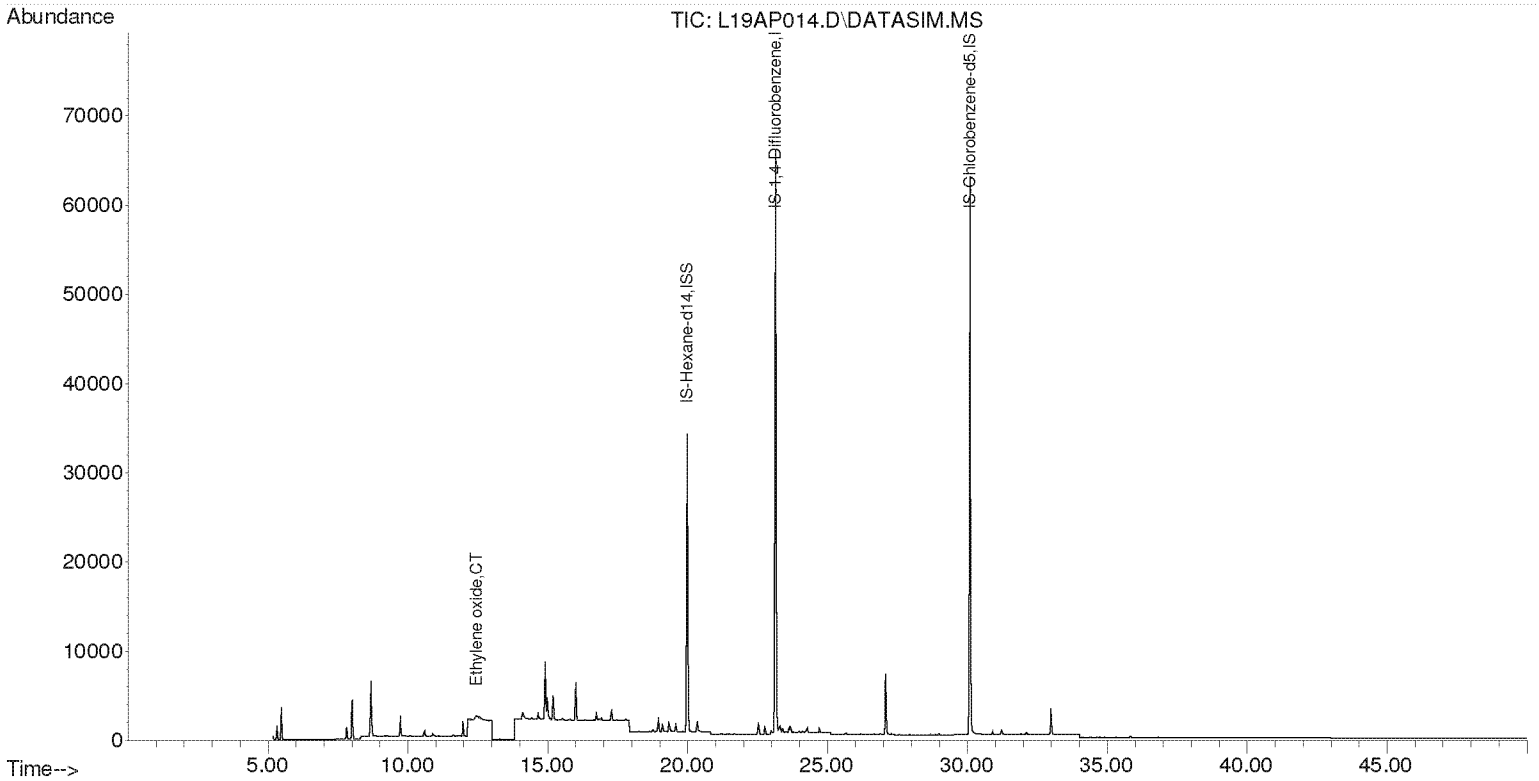
(#) = qualifier out of range (m) = manual integration (+) = signals summed

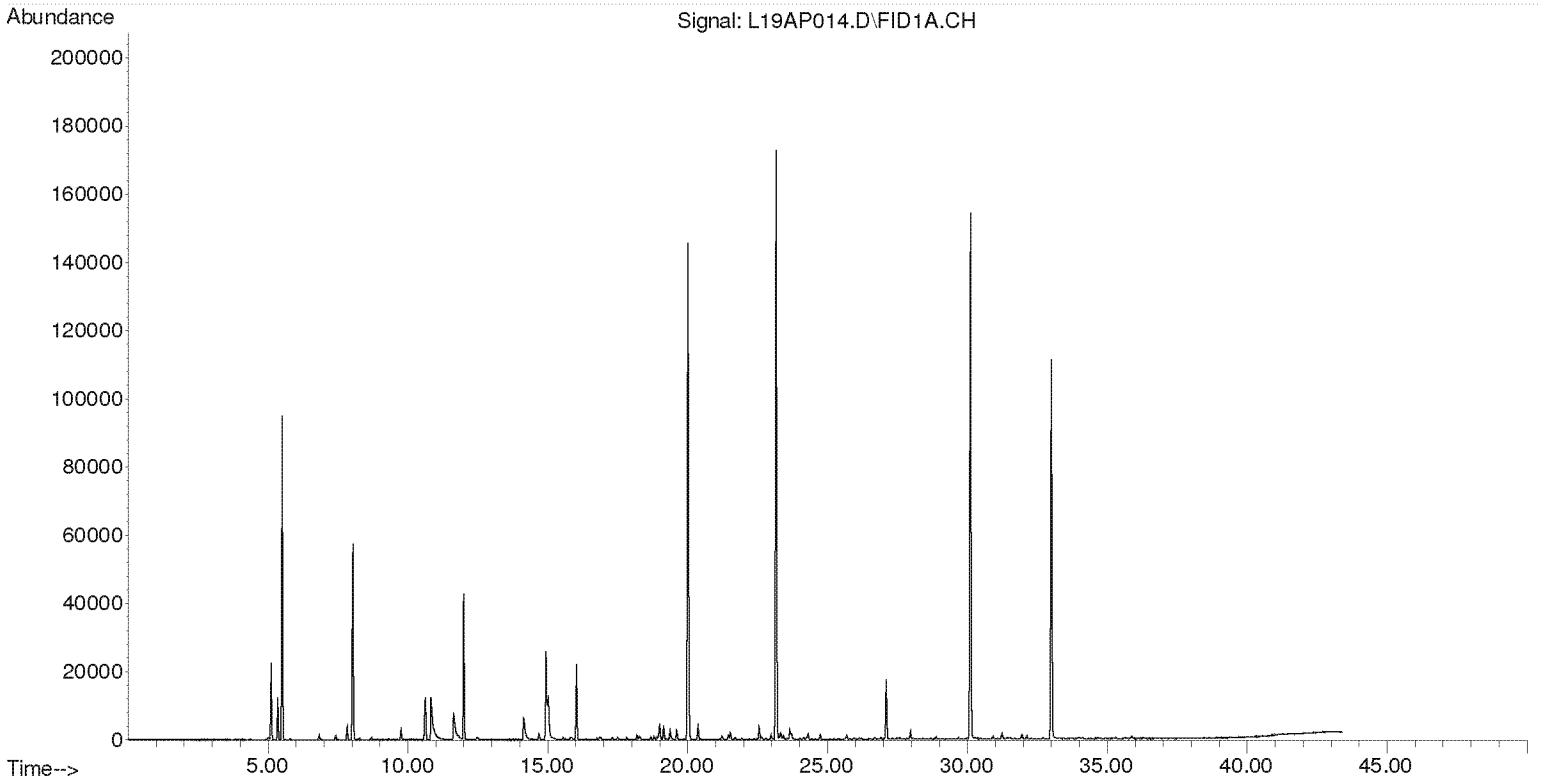
ED_002475_00000276-00118

Compounds other than ethylene oxide were not quantitated.

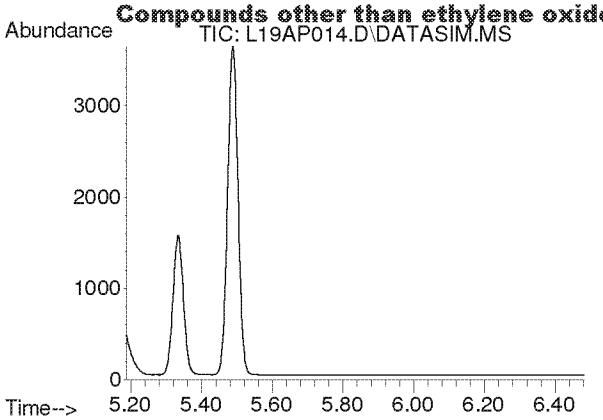
Data Path : Y:\MASS SPEC 1 DATA\L19AP\
Data File : L19AP014.D
Acq On : 17 Jan 2019 1:57 am (#1); 17 Jan 2019 1:52 am (#2)
Operator : MAH
Sample : 9010716-05
Misc : WILLOWBROOK VILLAGE HALL C2 1/4/19 (Sig #1); (Sig #2)
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jan 17 06:26:22 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration





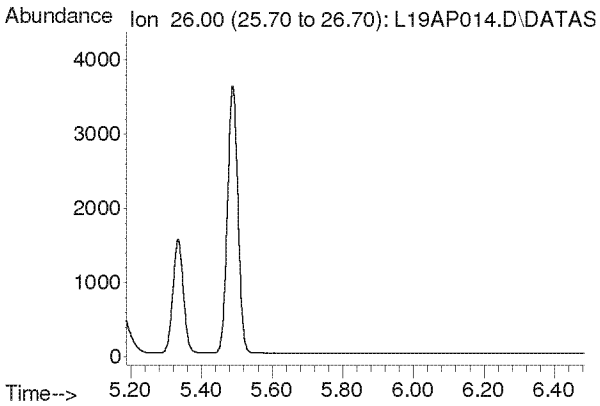
Compounds other than ethylene oxide were not quantitated.

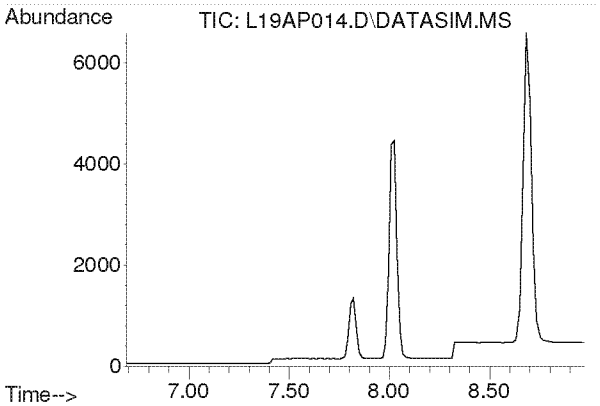


#2
Acetylene
Concen: N.D.
Expected RT: 5.42 min

Lab File: L19AP014.D
Acq: 17 Jan 2019 1:57 am

Tgt Ion: 26



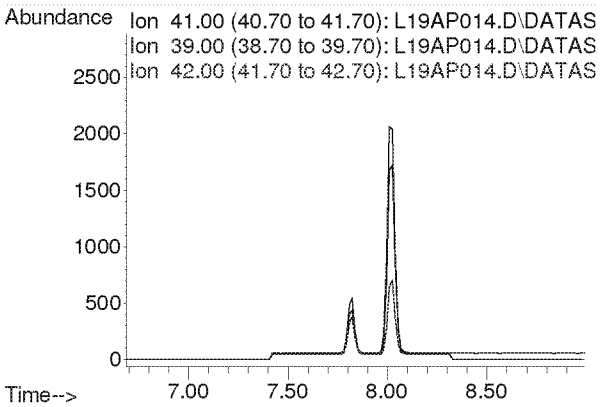


#3
Propylene
Concen: N.D.
Expected RT: 7.84 min

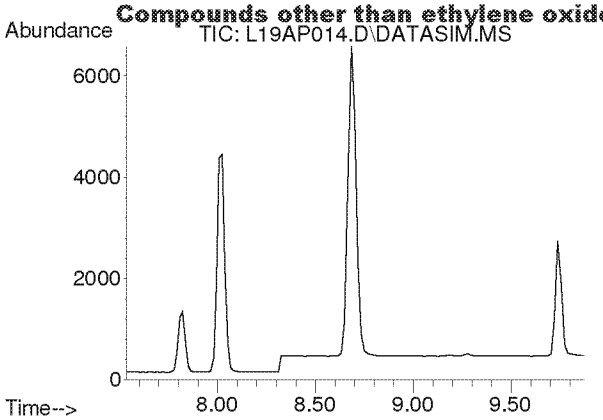
Lab File: L19AP014.D
Acq: 17 Jan 2019 1:57 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	77.0
42	65.8



Compounds other than ethylene oxide were not quantitated.

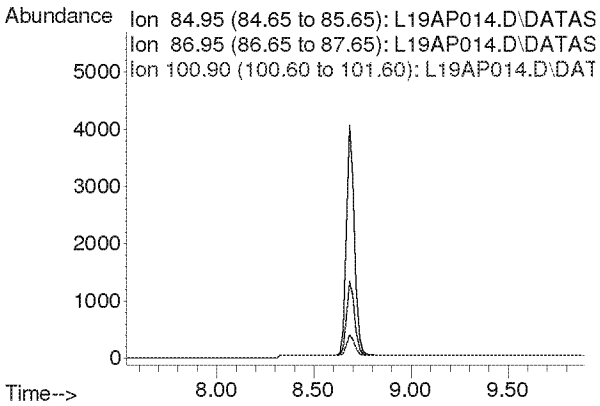


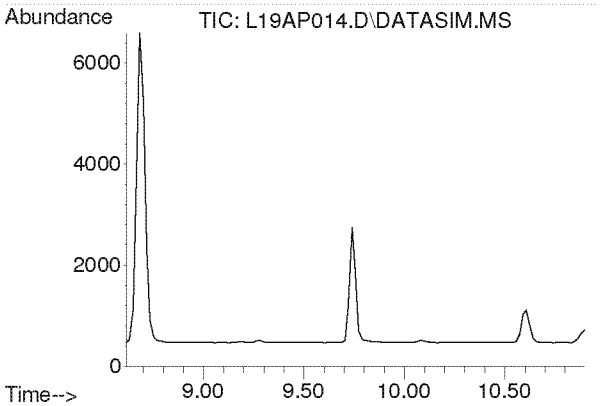
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19AP014.D
Acq: 17 Jan 2019 1:57 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	8.9



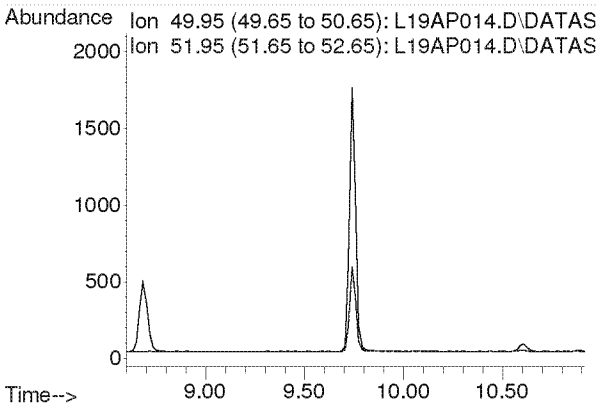


#5
Chloromethane
Concen: N.D.
Expected RT: 9.76 min

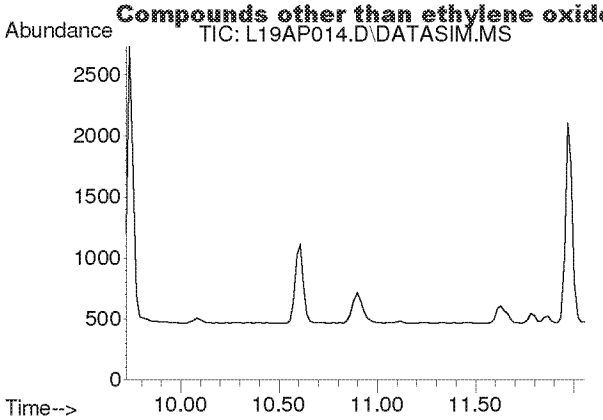
Lab File: L19AP014.D
Acq: 17 Jan 2019 1:57 am

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.4



Compounds other than ethylene oxide were not quantitated.

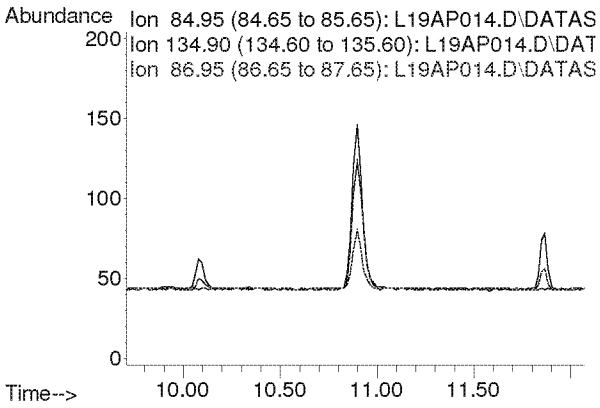


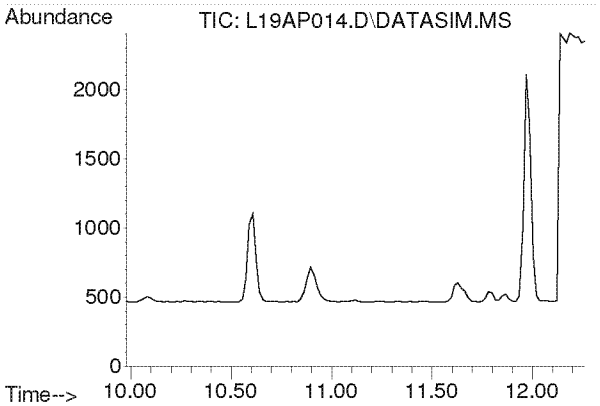
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19AP014.D
Acq: 17 Jan 2019 1:57 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.5
87	32.2



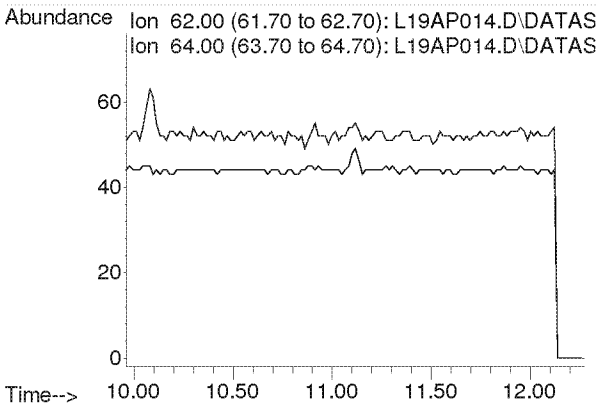


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

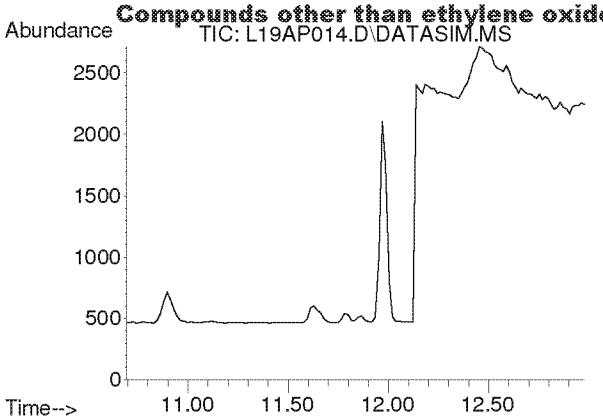
Lab File: L19AP014.D
Acq: 17 Jan 2019 1:57 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	32.1



Compounds other than ethylene oxide were not quantitated.

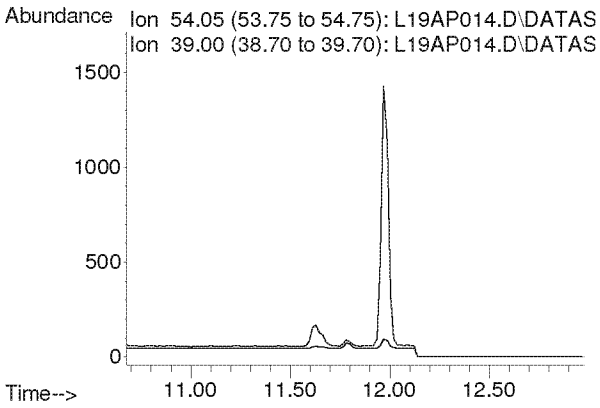


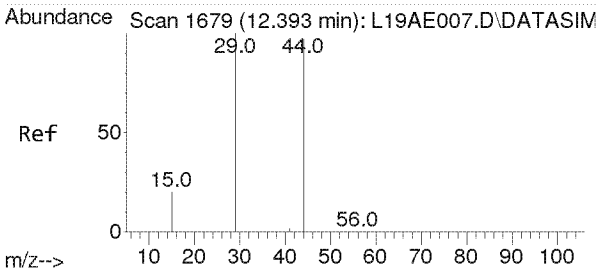
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19AP014.D
Acq: 17 Jan 2019 1:57 am

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	103.3

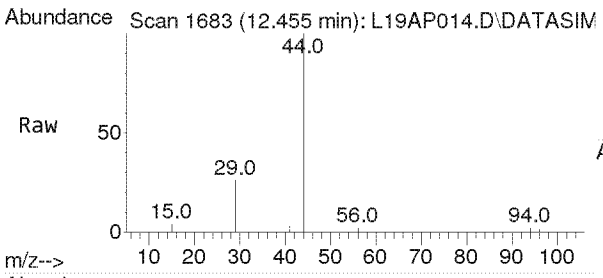


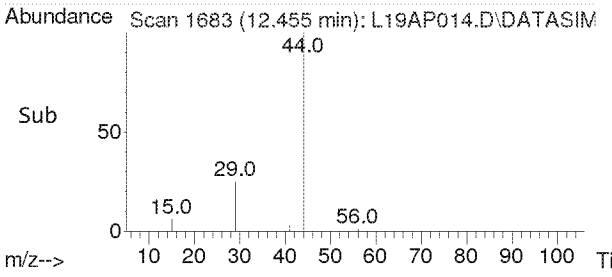


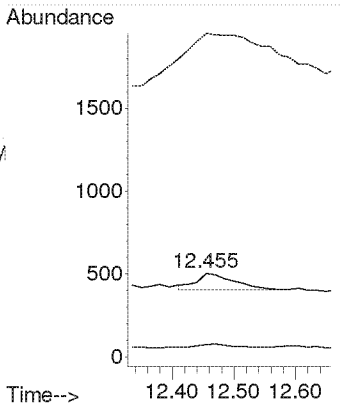
#9
Ethylene oxide
Concen: 0.142 ppbv
RT: 12.455 min Scan# 1683
Delta R.T. 0.062 min
Lab File: L19AP014.D
Acq: 17 Jan 2019 1:57 am

Tgt Ion: 29 Resp: 395

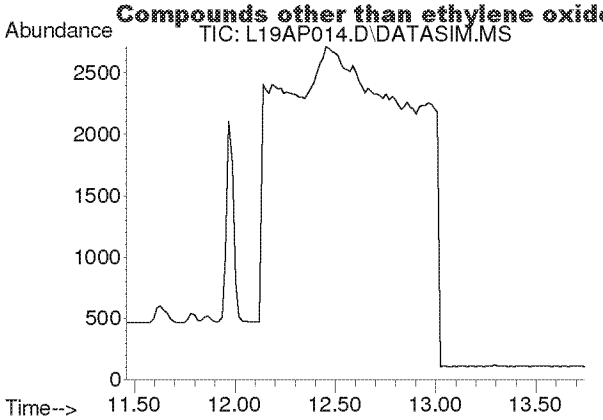
Ion	Ratio	Lower	Upper
29	100		
15	18.2	15.4	23.0
44	805.8	77.4	116.2#







Compounds other than ethylene oxide were not quantitated.

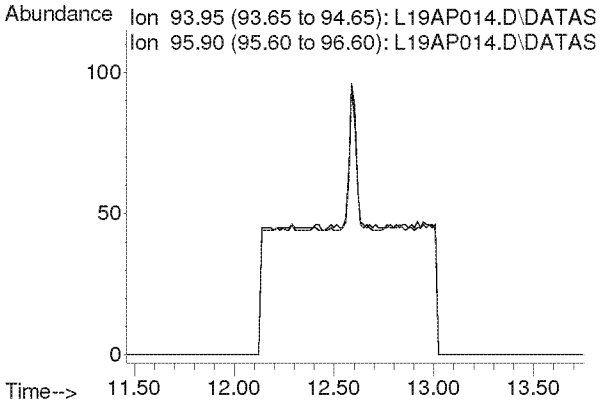


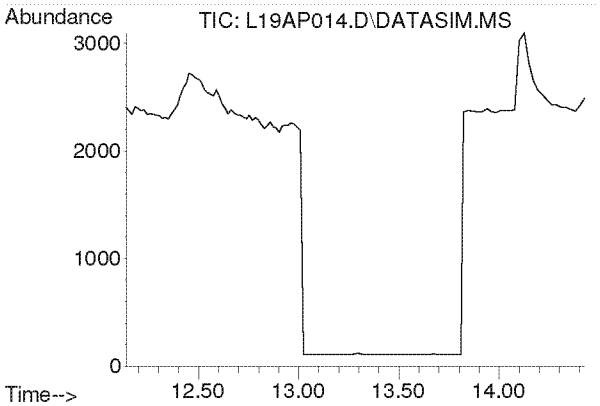
#10
Bromomethane
Concen: N.D.
Expected RT: 12.60 min

Lab File: L19AP014.D
Acq: 17 Jan 2019 1:57 am

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.3



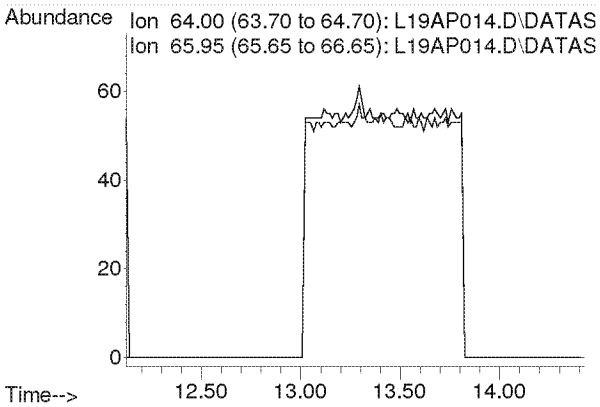


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

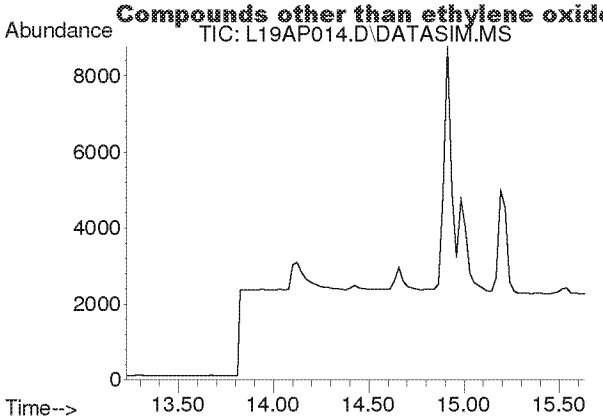
Lab File: L19AP014.D
Acq: 17 Jan 2019 1:57 am

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.4



Compounds other than ethylene oxide were not quantitated.

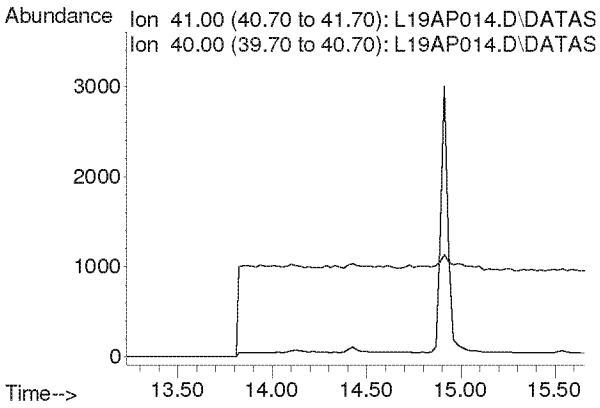


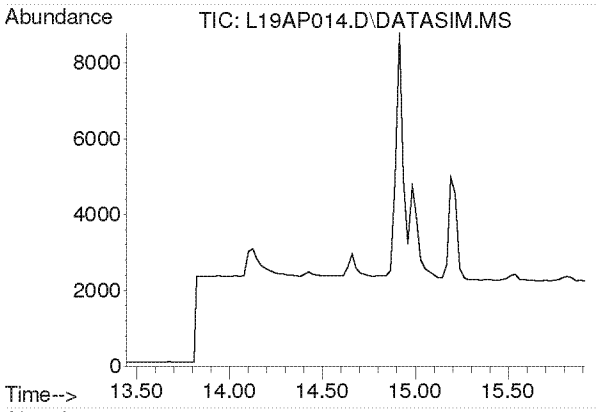
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19AP014.D
Acq: 17 Jan 2019 1:57 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	53.2



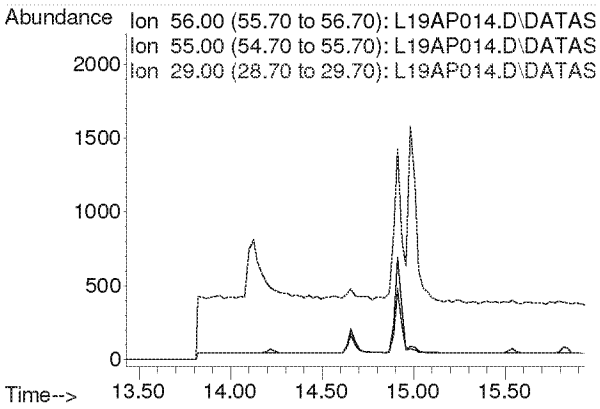


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

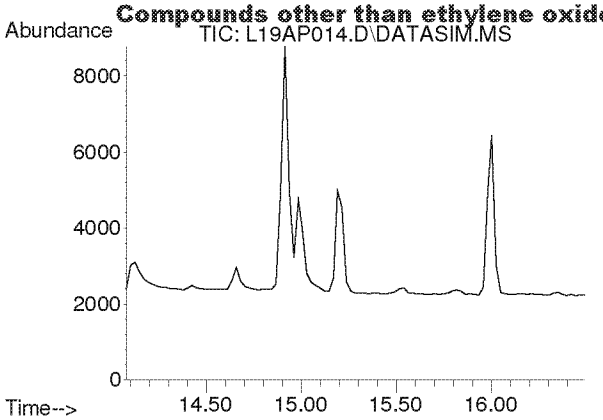
Lab File: L19AP014.D
Acq: 17 Jan 2019 1:57 am

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.5
29	44.9



Compounds other than ethylene oxide were not quantitated.

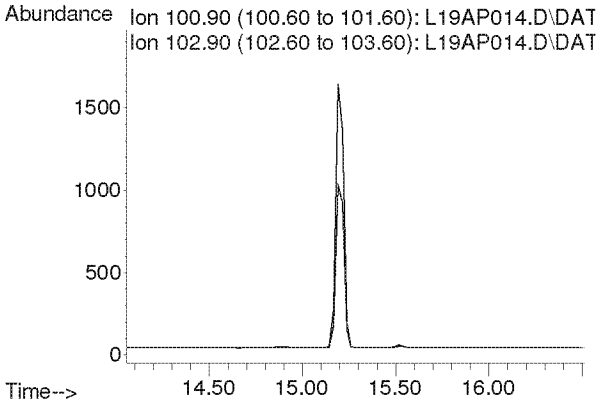


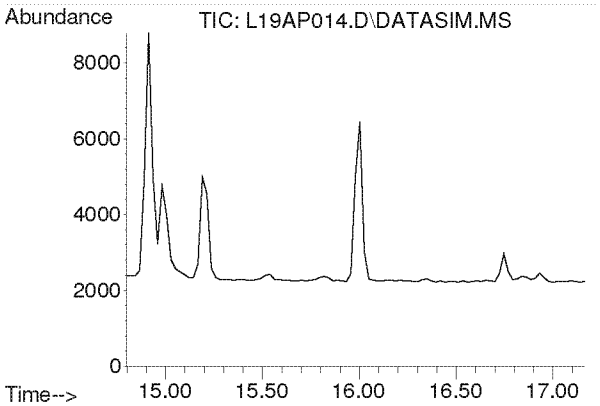
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.21 min

Lab File: L19AP014.D
Acq: 17 Jan 2019 1:57 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



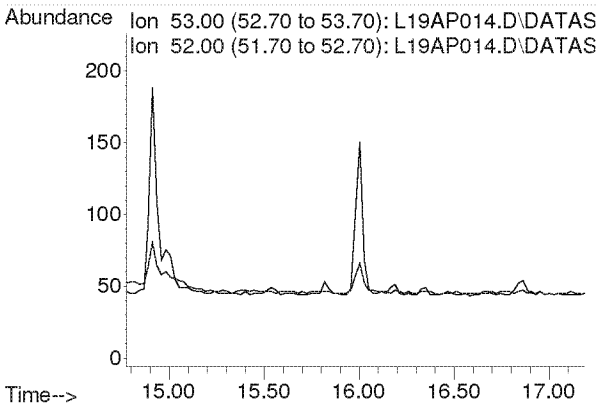


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

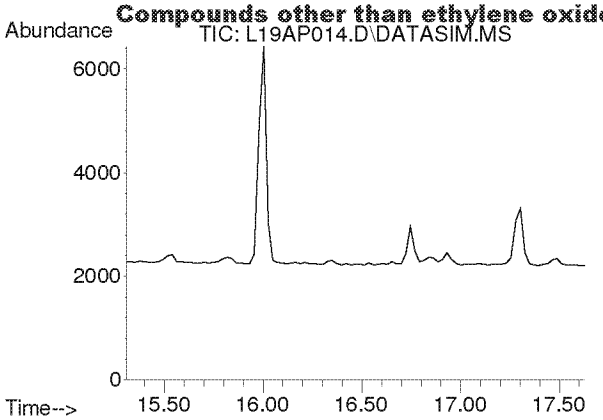
Lab File: L19AP014.D
Acq: 17 Jan 2019 1:57 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	84.7



Compounds other than ethylene oxide were not quantitated.

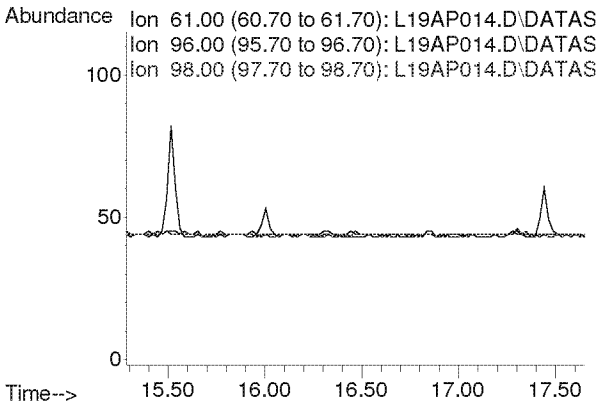


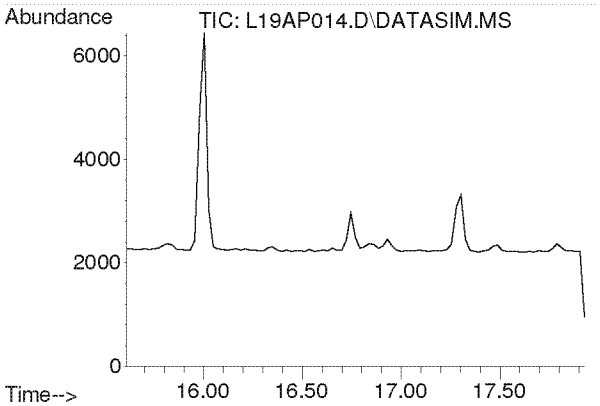
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.44 min

Lab File: L19AP014.D
Acq: 17 Jan 2019 1:57 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.5
98	38.1



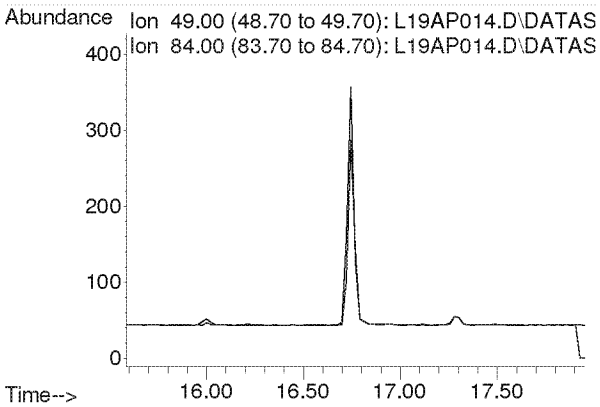


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

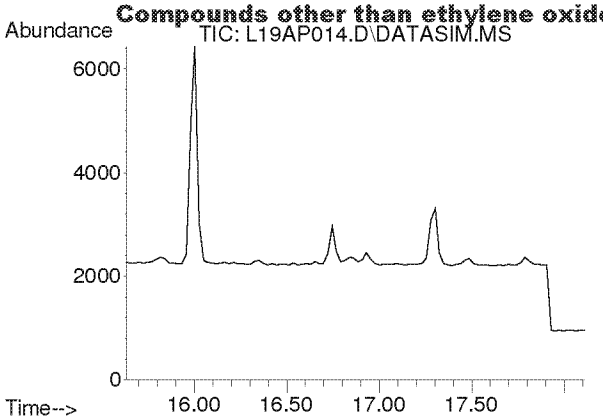
Lab File: L19AP014.D
Acq: 17 Jan 2019 1:57 am

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.3



Compounds other than ethylene oxide were not quantitated.

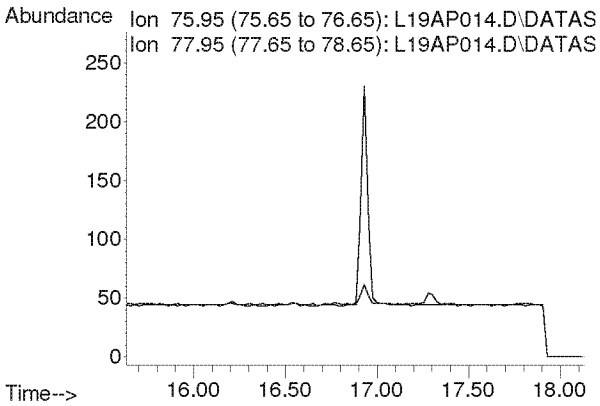


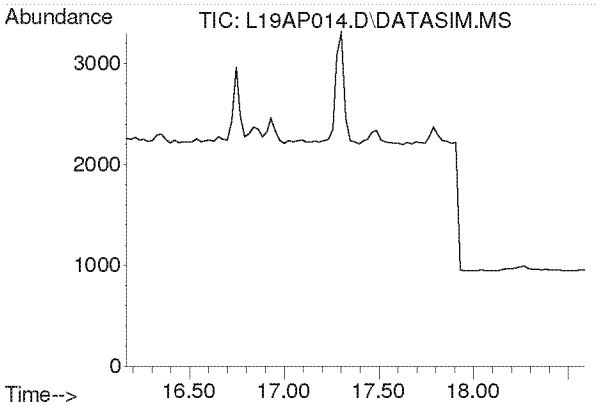
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19AP014.D
Acq: 17 Jan 2019 1:57 am

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.0



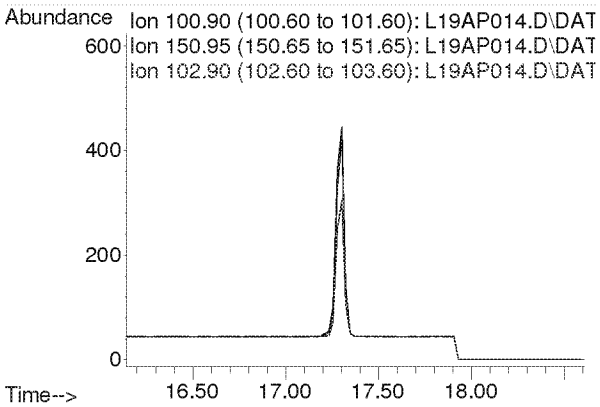


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.30 min

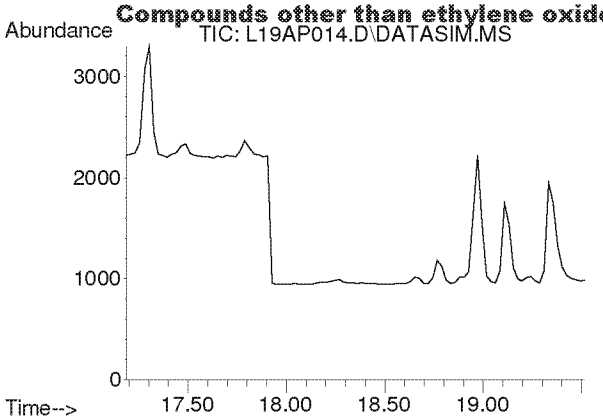
Lab File: L19AP014.D
Acq: 17 Jan 2019 1:57 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	95.4
103	63.9



Compounds other than ethylene oxide were not quantitated.

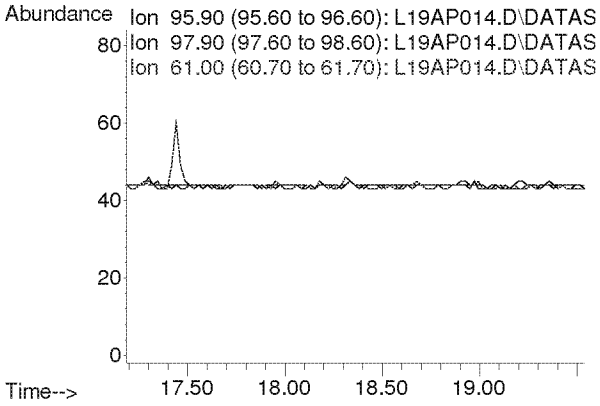


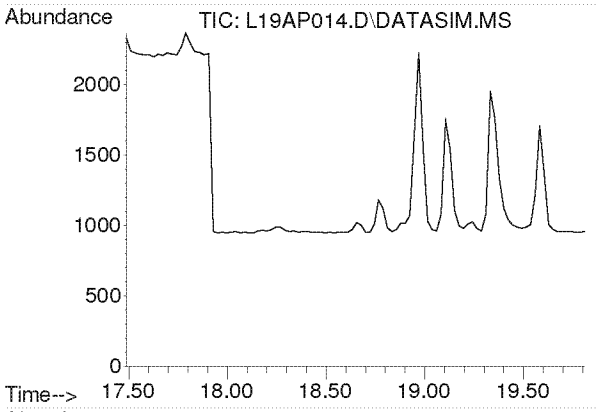
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19AP014.D
Acq: 17 Jan 2019 1:57 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	63.6
61	156.5



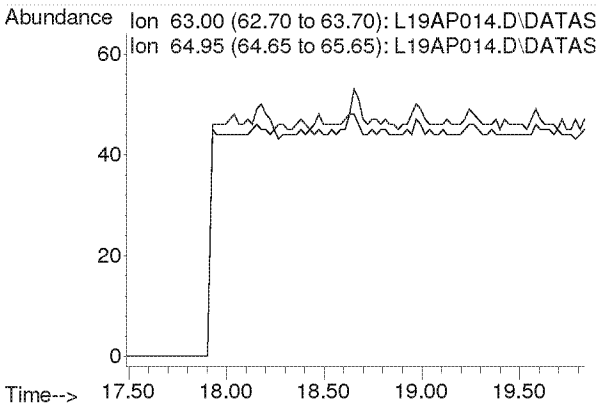


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

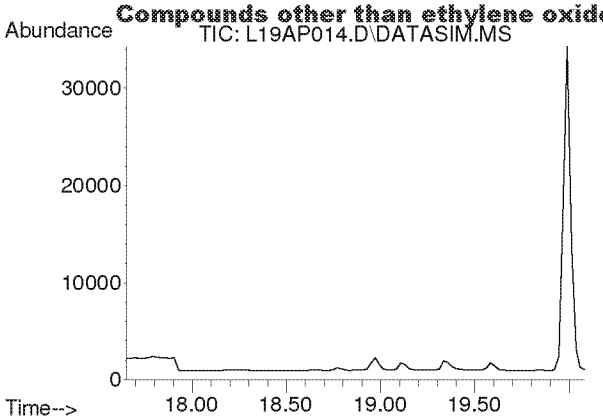
Lab File: L19AP014.D
Acq: 17 Jan 2019 1:57 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

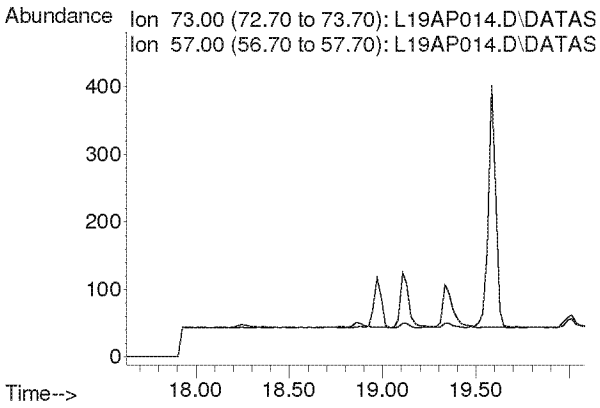


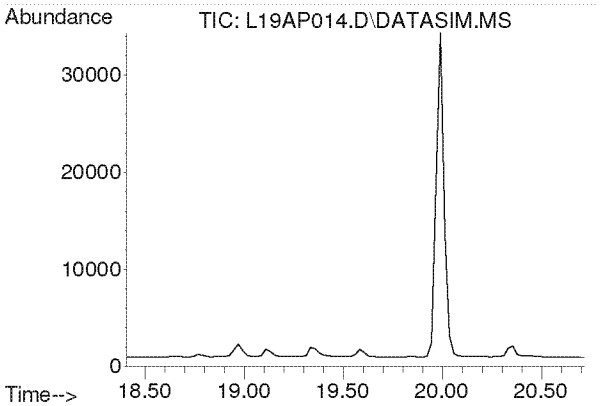
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19AP014.D
Acq: 17 Jan 2019 1:57 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.6



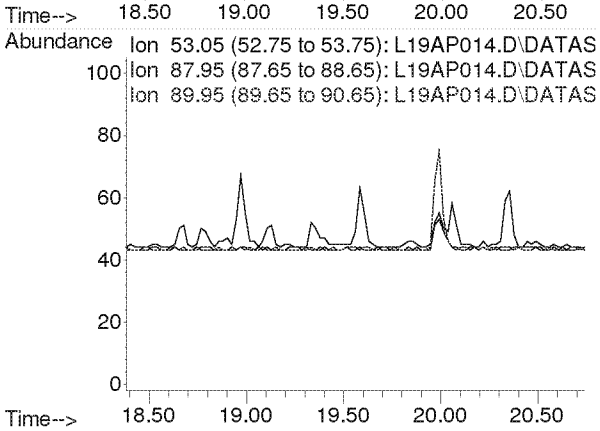


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

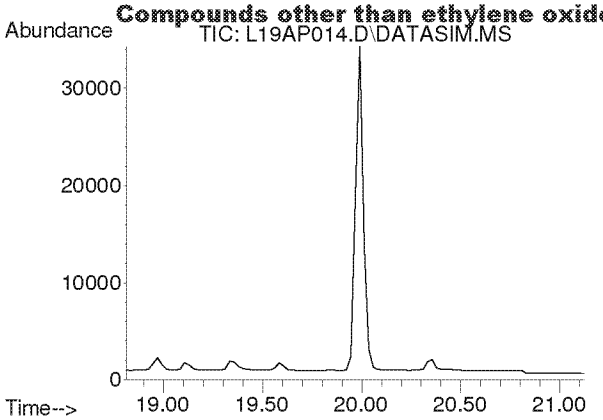
Lab File: L19AP014.D
Acq: 17 Jan 2019 1:57 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	54.0
90	17.3



Compounds other than ethylene oxide were not quantitated.

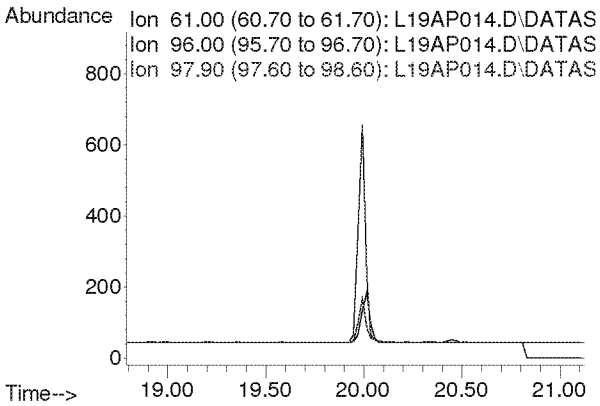


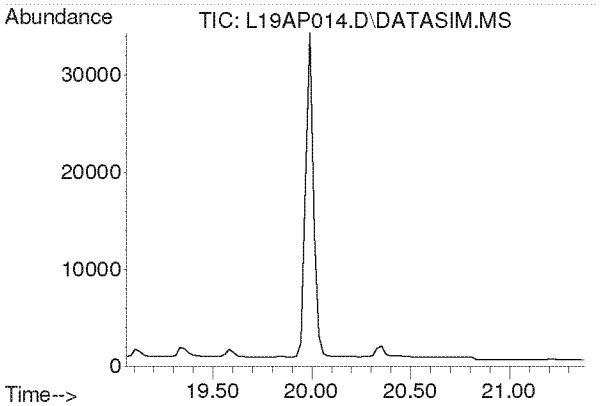
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19AP014.D
Acq: 17 Jan 2019 1:57 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	75.7
98	46.4



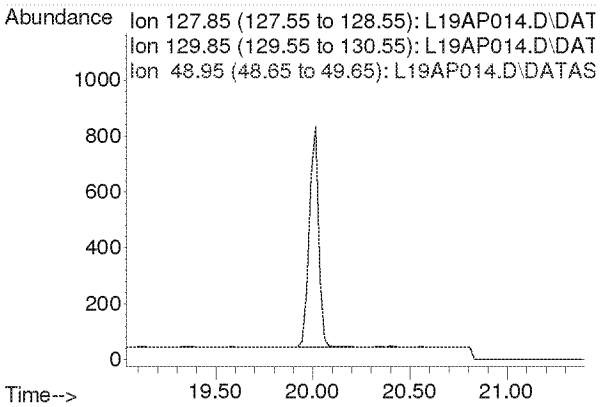


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.19 min

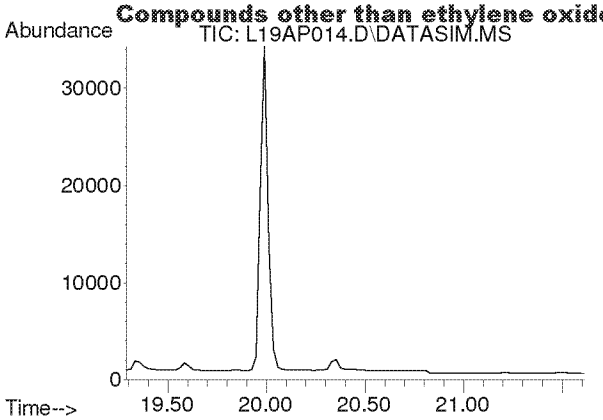
Lab File: L19AP014.D
Acq: 17 Jan 2019 1:57 am

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	130.4
49	170.8



Compounds other than ethylene oxide were not quantitated.

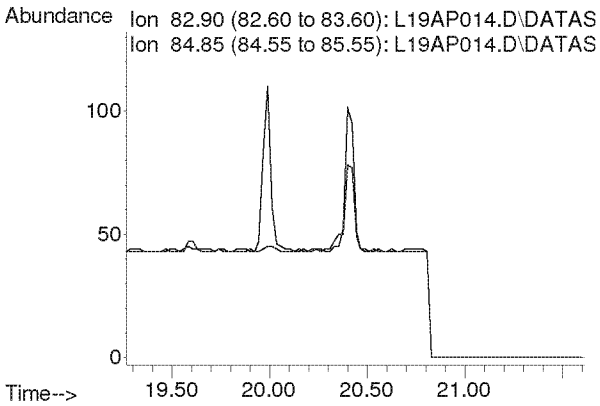


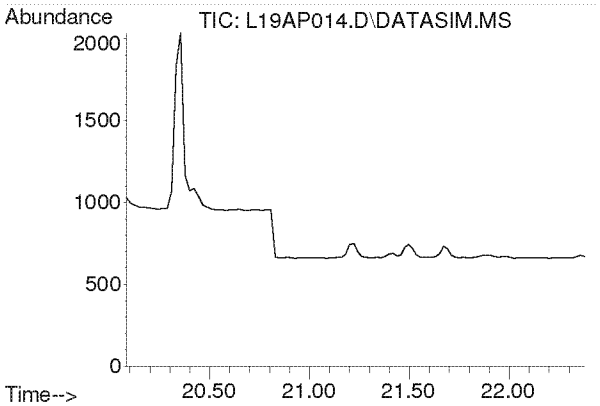
#26
Chloroform
Concen: N.D.
Expected RT: 20.42 min

Lab File: L19AP014.D
Acq: 17 Jan 2019 1:57 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



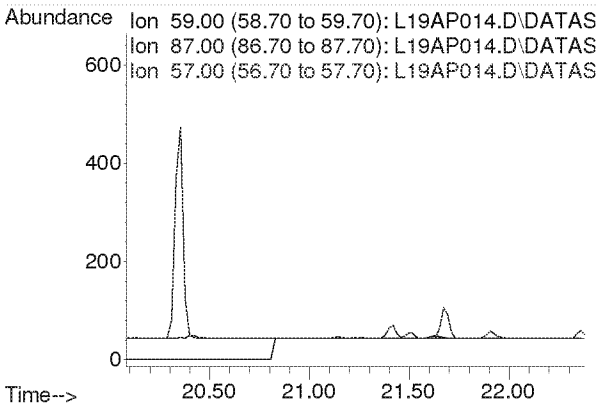


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

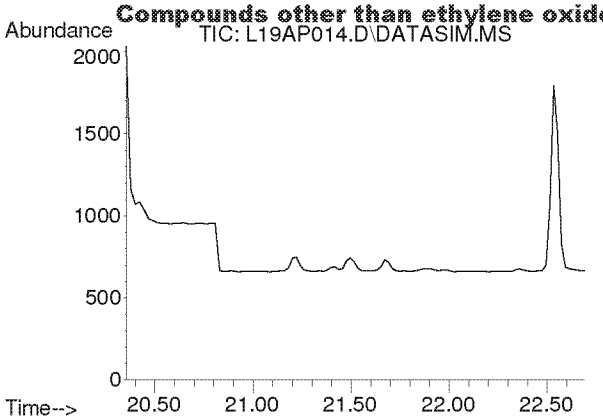
Lab File: L19AP014.D
Acq: 17 Jan 2019 1:57 am

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	37.8
57	34.3



Compounds other than ethylene oxide were not quantitated.

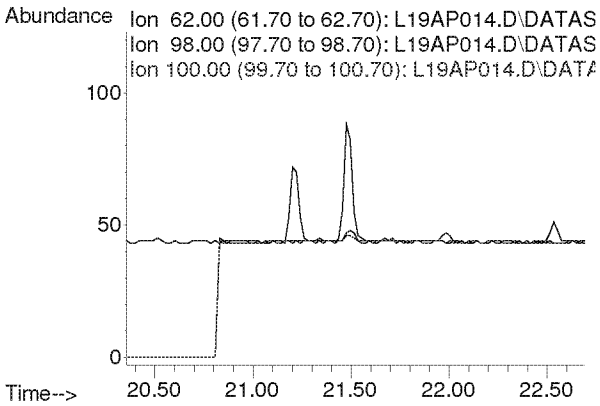


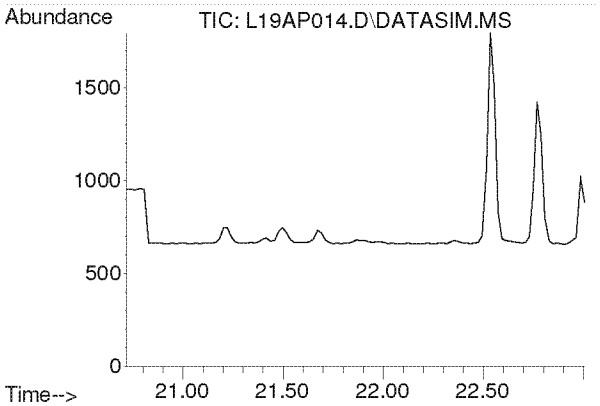
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.50 min

Lab File: L19AP014.D
Acq: 17 Jan 2019 1:57 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.8
100	4.2



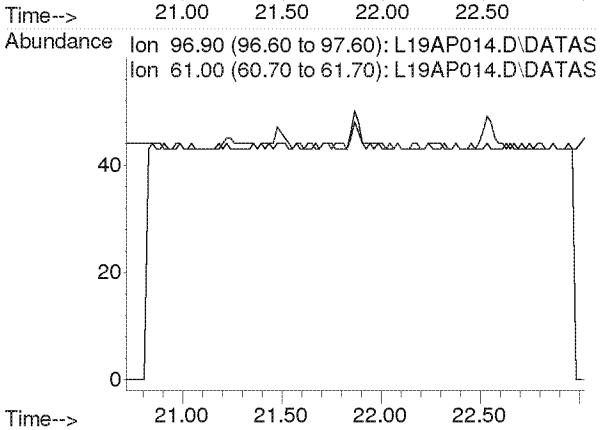


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

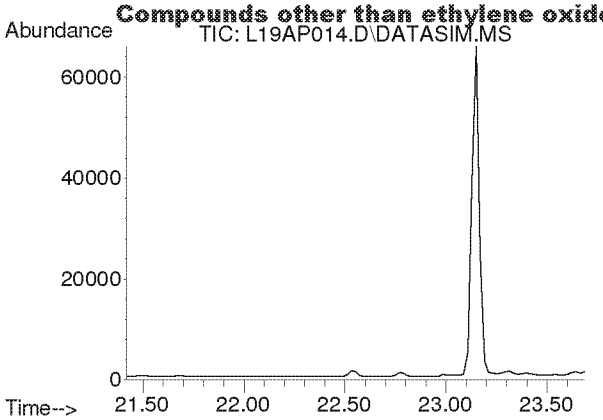
Lab File: L19AP014.D
Acq: 17 Jan 2019 1:57 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	58.6



Compounds other than ethylene oxide were not quantitated.

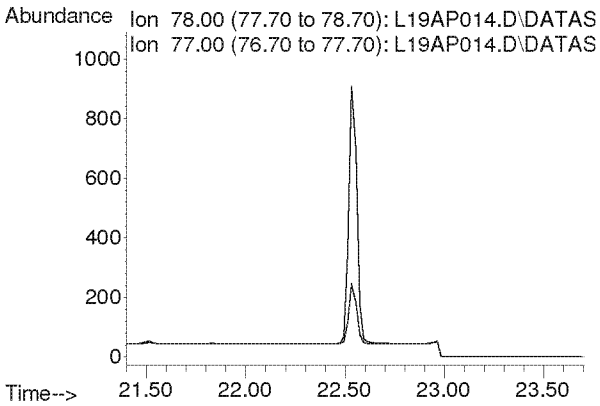


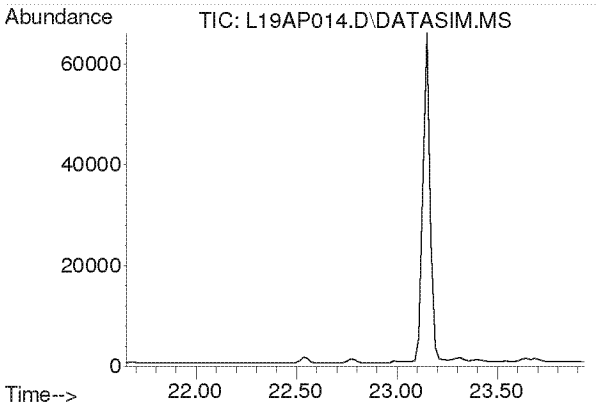
#31
Benzene
Concen: N.D.
Expected RT: 22.55 min

Lab File: L19AP014.D
Acq: 17 Jan 2019 1:57 am

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.9



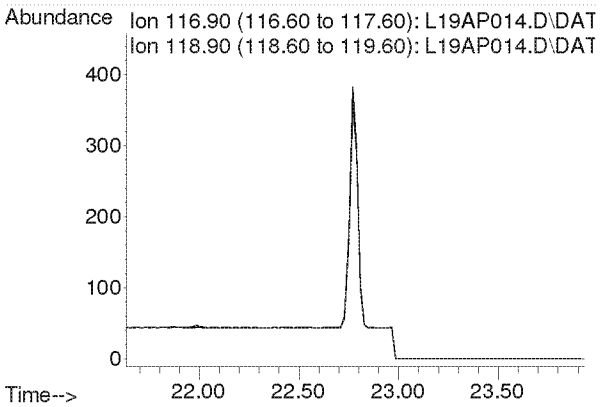


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.79 min

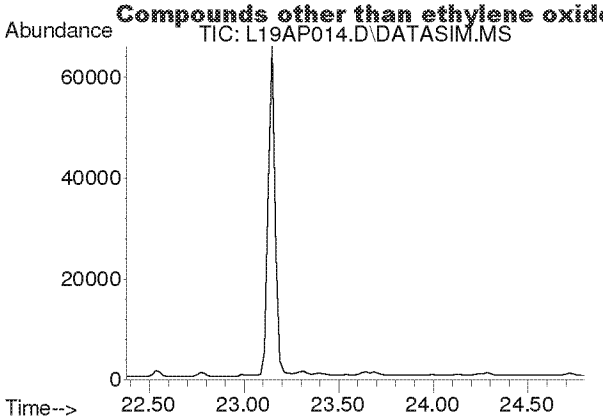
Lab File: L19AP014.D
Acq: 17 Jan 2019 1:57 am

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.5



Compounds other than ethylene oxide were not quantitated.

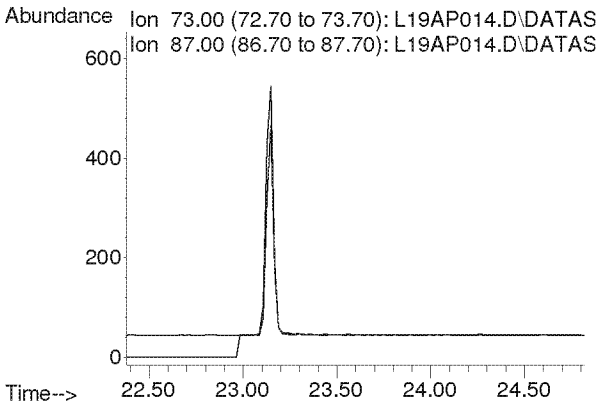


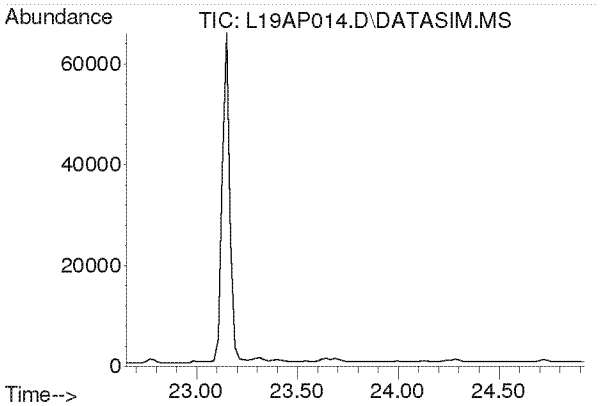
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19AP014.D
Acq: 17 Jan 2019 1:57 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	24.8



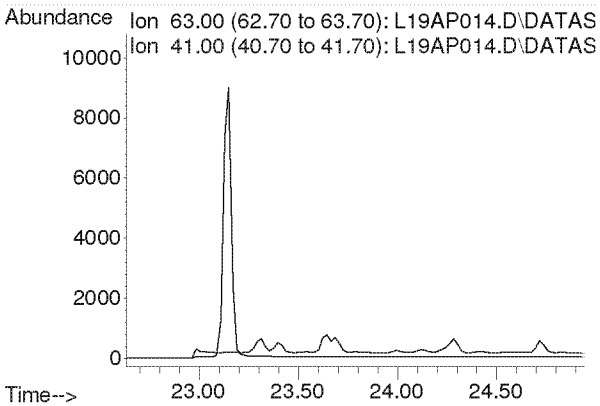


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

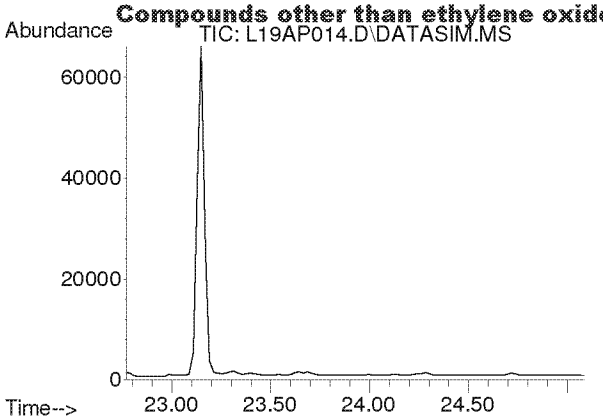
Lab File: L19AP014.D
Acq: 17 Jan 2019 1:57 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	196.0



Compounds other than ethylene oxide were not quantitated.

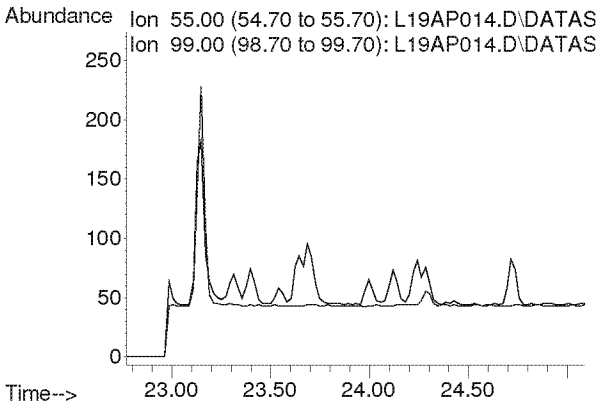


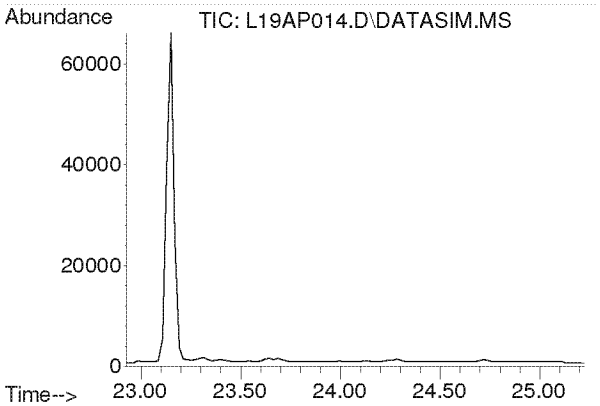
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19AP014.D
Acq: 17 Jan 2019 1:57 am

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.0



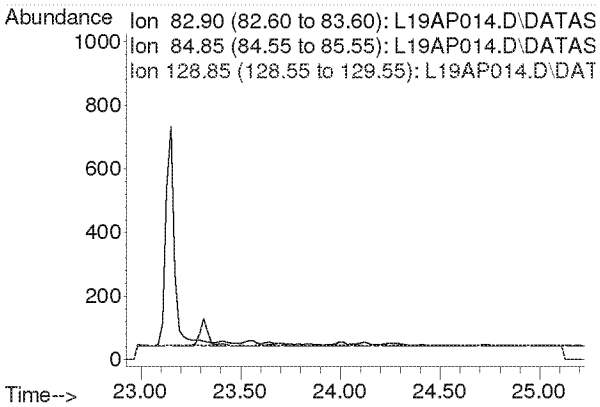


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

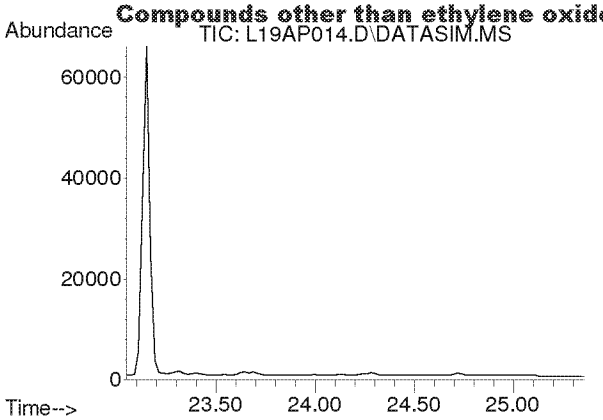
Lab File: L19AP014.D
Acq: 17 Jan 2019 1:57 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.9
129	12.5



Compounds other than ethylene oxide were not quantitated.

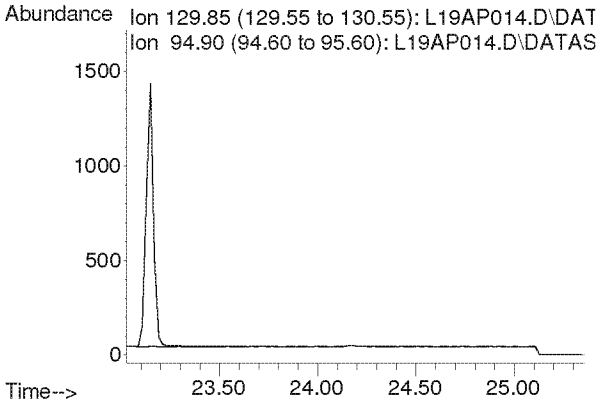


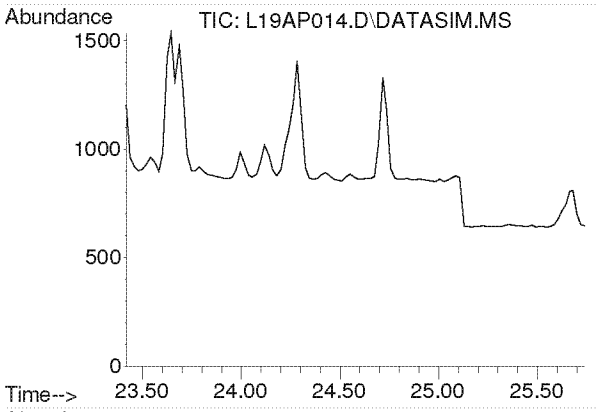
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19AP014.D
Acq: 17 Jan 2019 1:57 am

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	108.6



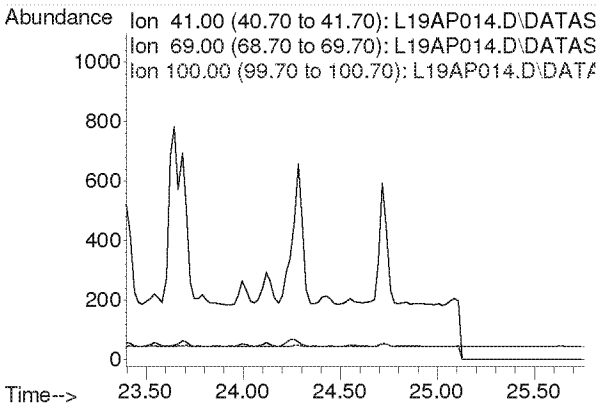


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.55 min

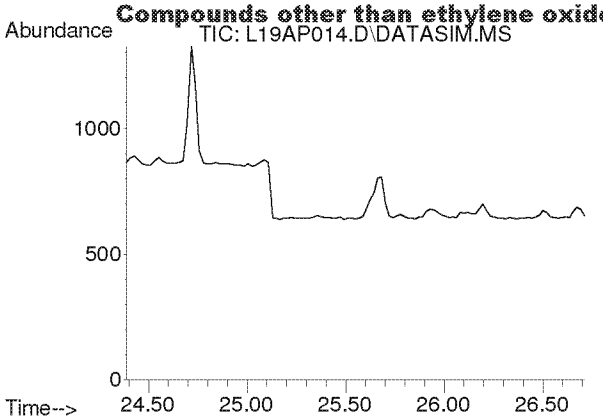
Lab File: L19AP014.D
Acq: 17 Jan 2019 1:57 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	20.7
100	5.3



Compounds other than ethylene oxide were not quantitated.

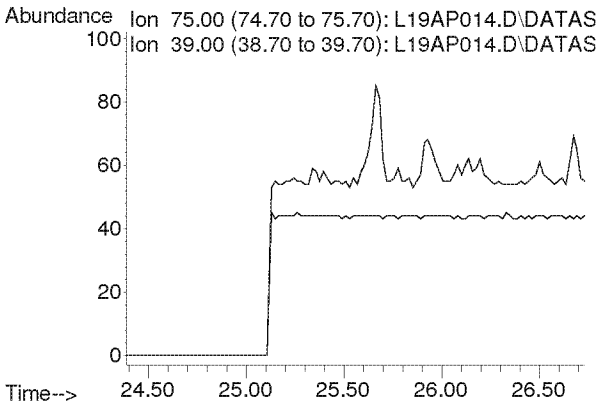


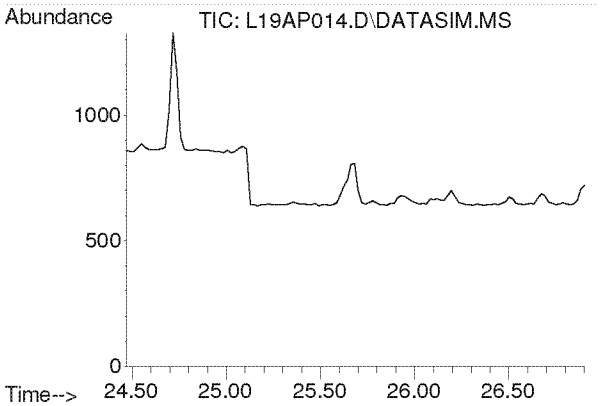
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19AP014.D
Acq: 17 Jan 2019 1:57 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	48.3



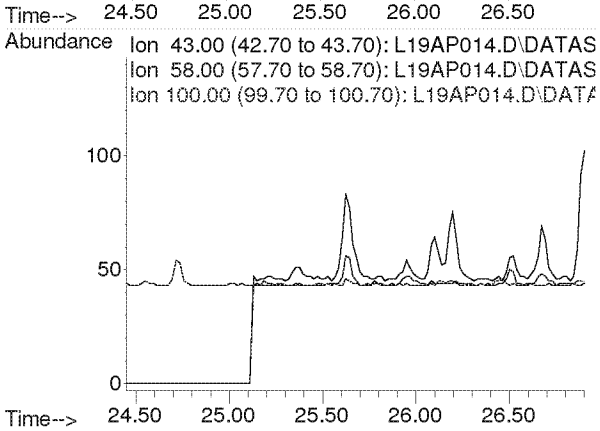


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

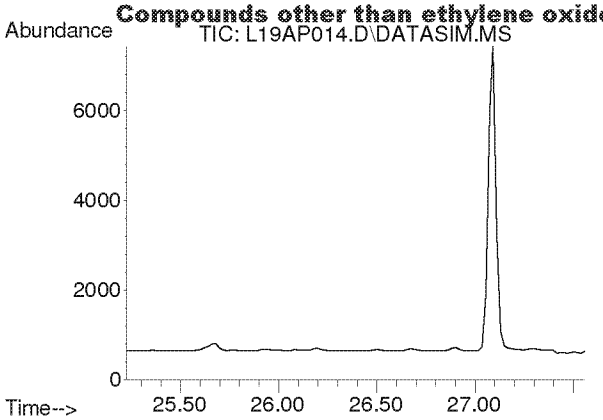
Lab File: L19AP014.D
Acq: 17 Jan 2019 1:57 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	34.5
100	8.1



Compounds other than ethylene oxide were not quantitated.

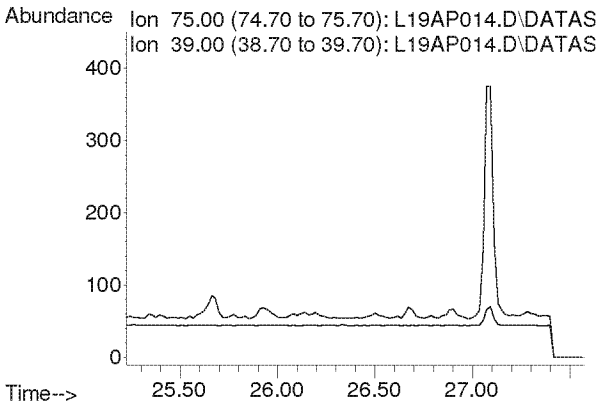


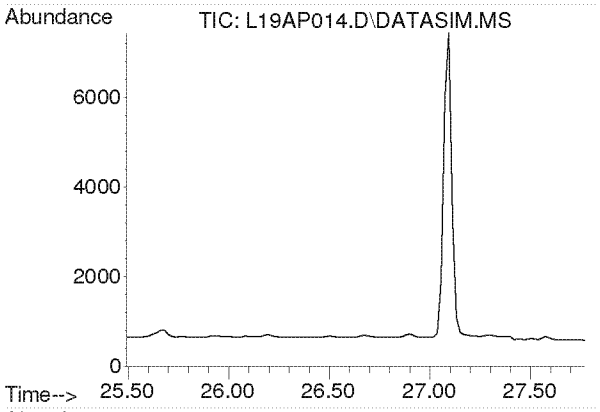
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19AP014.D
Acq: 17 Jan 2019 1:57 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	48.8



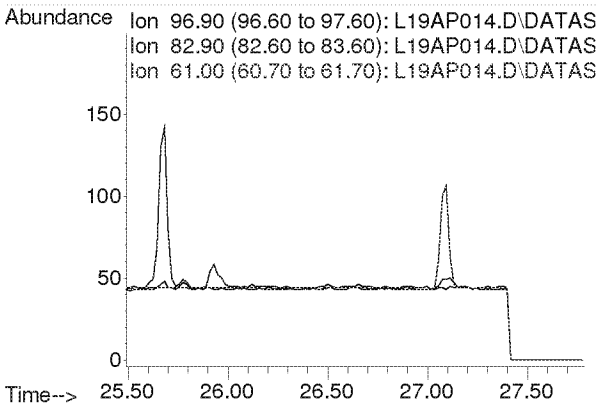


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.63 min

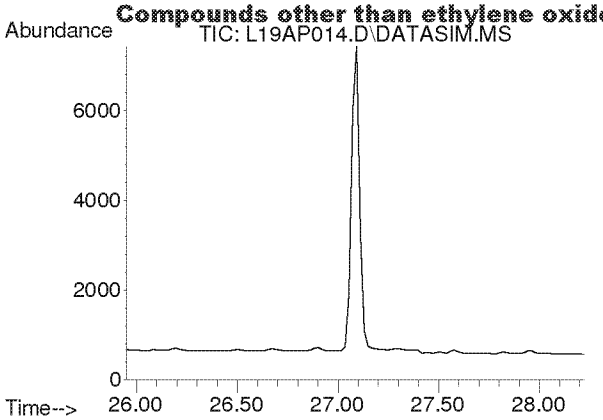
Lab File: L19AP014.D
Acq: 17 Jan 2019 1:57 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	96.6
61	61.4



Compounds other than ethylene oxide were not quantitated.

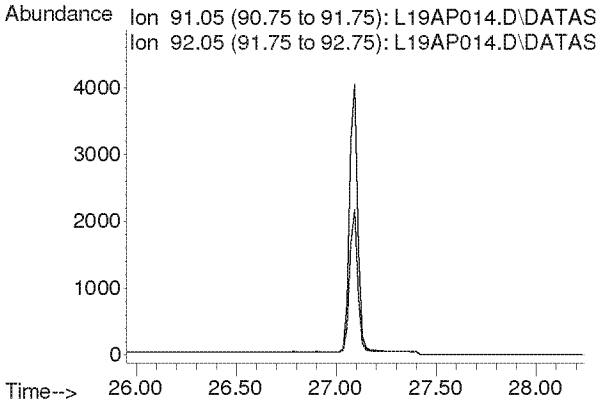


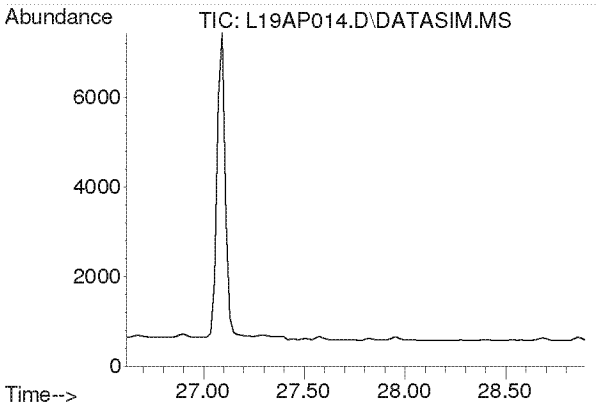
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19AP014.D
Acq: 17 Jan 2019 1:57 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



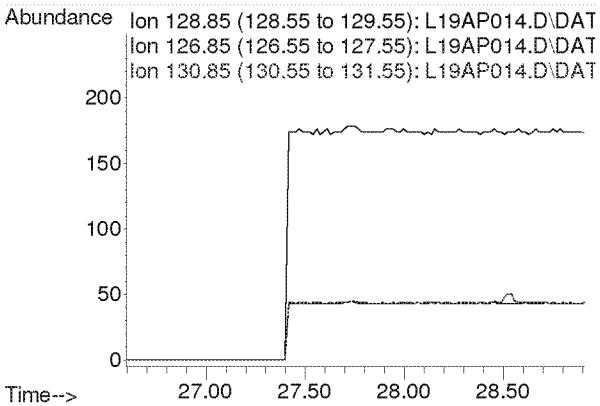


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

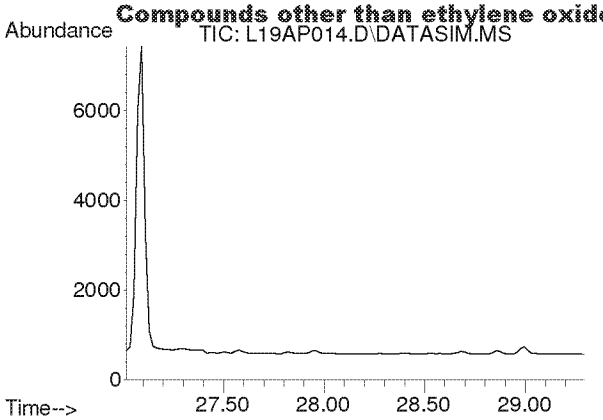
Lab File: L19AP014.D
Acq: 17 Jan 2019 1:57 am

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.2
131	6.0



Compounds other than ethylene oxide were not quantitated.

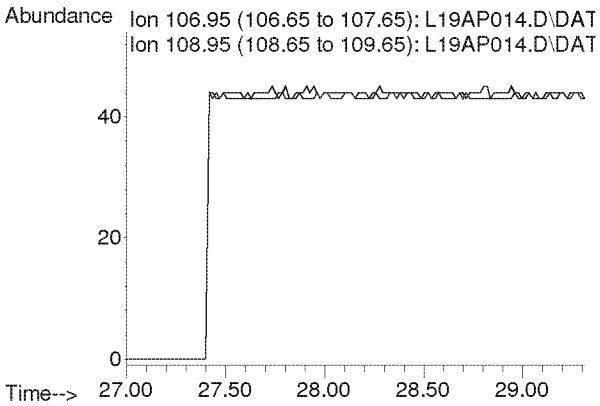


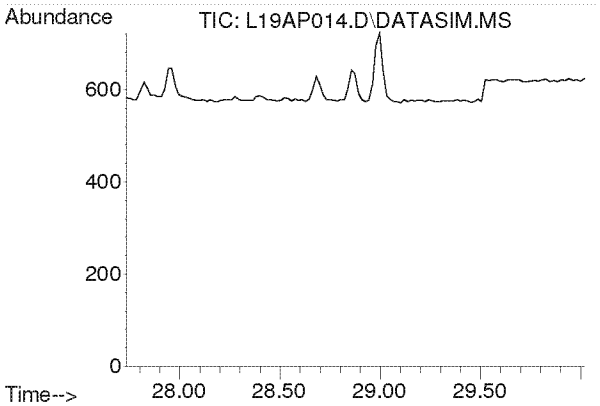
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19AP014.D
Acq: 17 Jan 2019 1:57 am

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.3



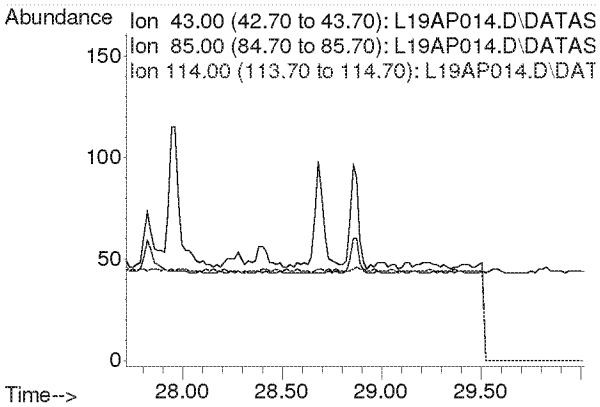


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

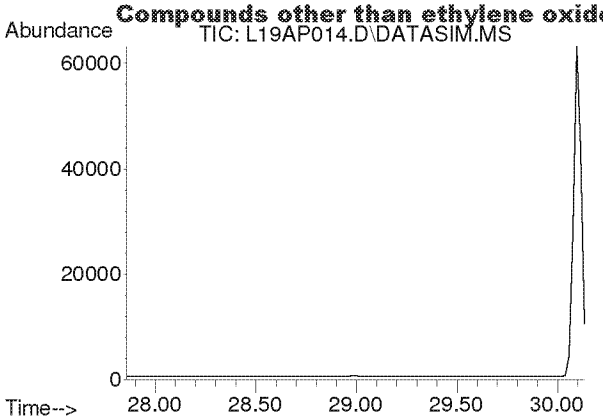
Lab File: L19AP014.D
Acq: 17 Jan 2019 1:57 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	36.6
114	2.3



Compounds other than ethylene oxide were not quantitated.

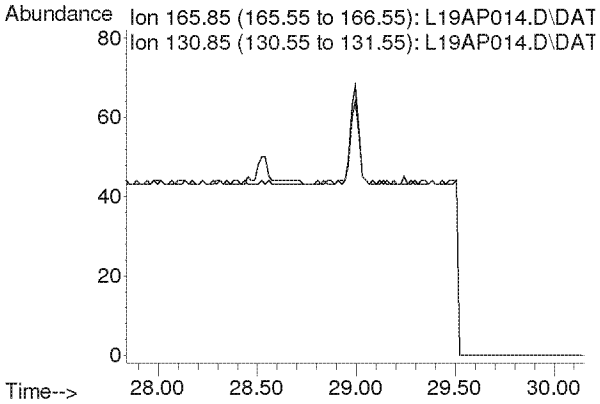


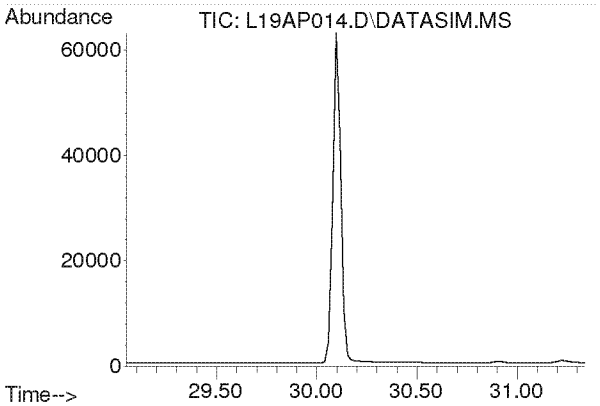
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19AP014.D
Acq: 17 Jan 2019 1:57 am

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	78.2



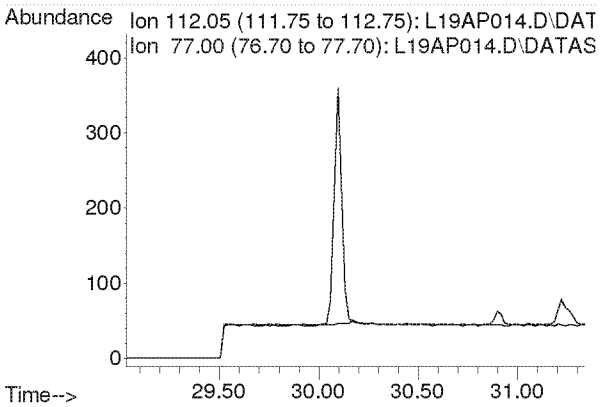


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

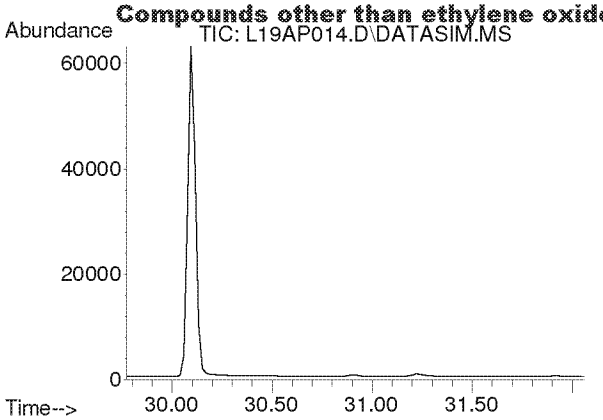
Lab File: L19AP014.D
Acq: 17 Jan 2019 1:57 am

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	61.2



Compounds other than ethylene oxide were not quantitated.

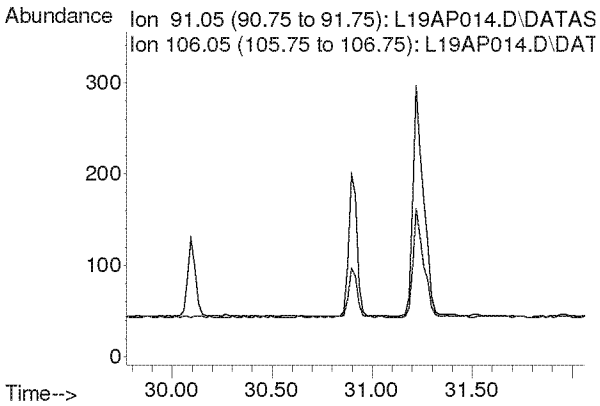


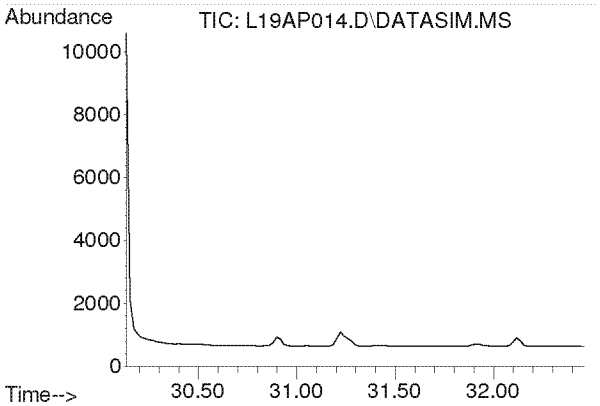
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19AP014.D
Acq: 17 Jan 2019 1:57 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	31.7



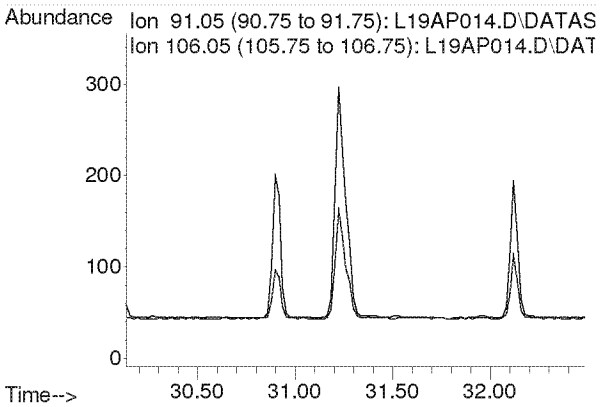


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

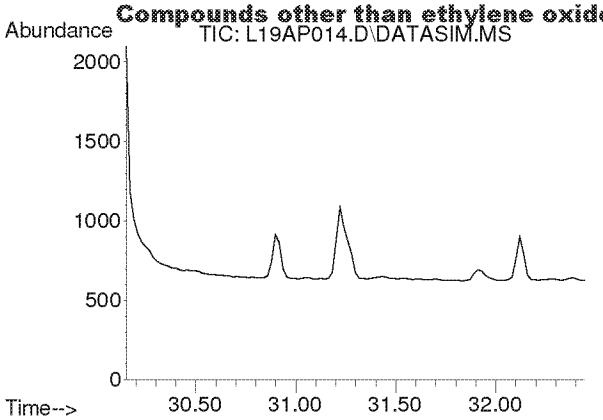
Lab File: L19AP014.D
Acq: 17 Jan 2019 1:57 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.6



Compounds other than ethylene oxide were not quantitated.

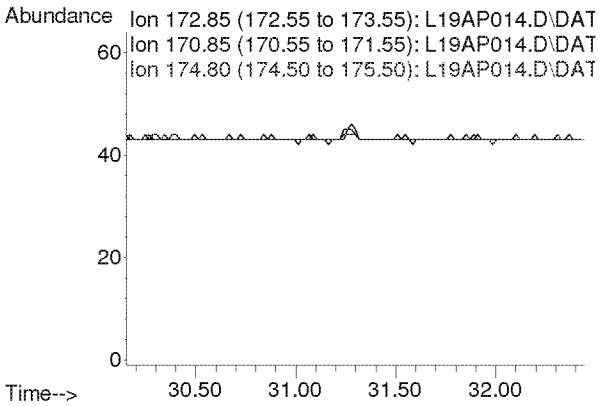


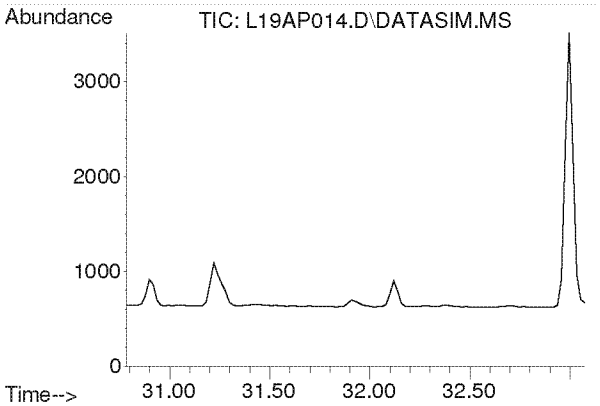
#52
Bromoform
Concen: N.D.
Expected RT: 31.30 min

Lab File: L19AP014.D
Acq: 17 Jan 2019 1:57 am

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.4
175	48.9



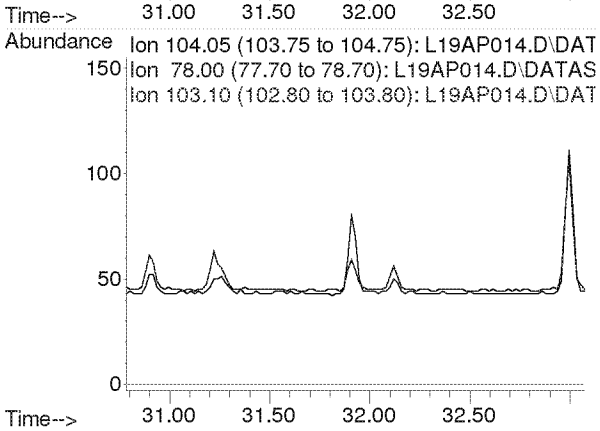


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

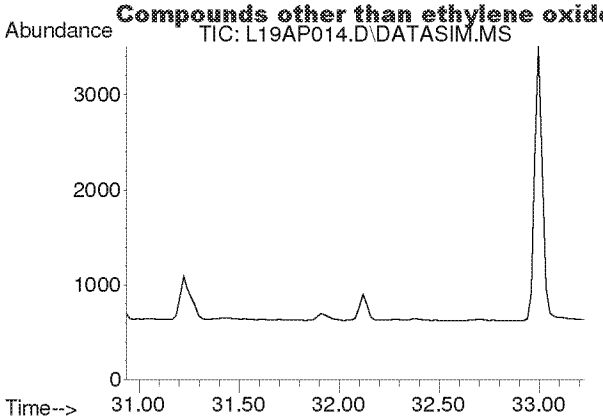
Lab File: L19AP014.D
Acq: 17 Jan 2019 1:57 am

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	45.8
103	0.0



Compounds other than ethylene oxide were not quantitated.

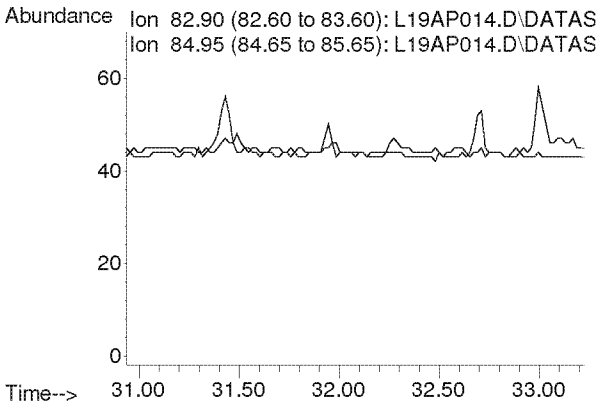


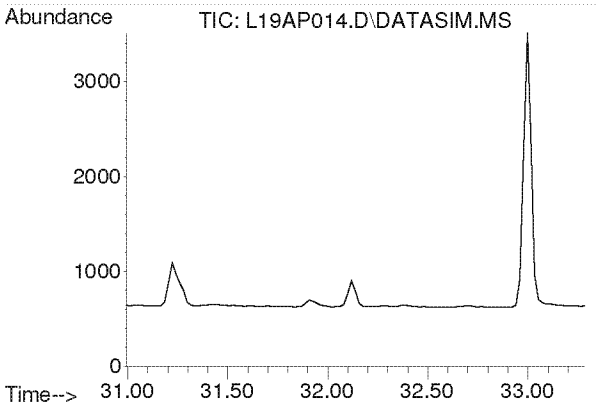
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19AP014.D
Acq: 17 Jan 2019 1:57 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.0



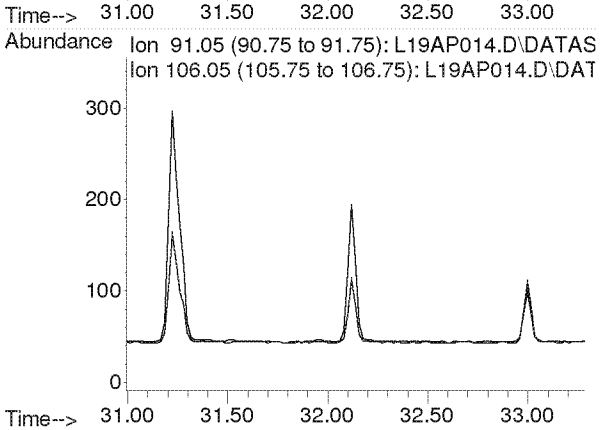


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

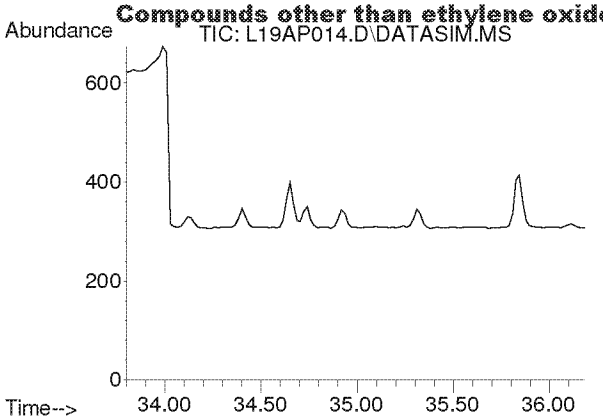
Lab File: L19AP014.D
Acq: 17 Jan 2019 1:57 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.8



Compounds other than ethylene oxide were not quantitated.

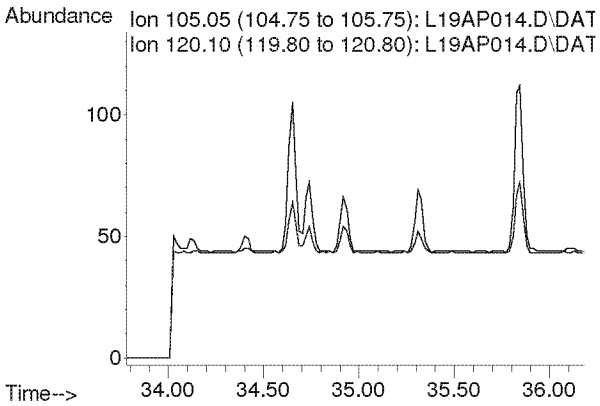


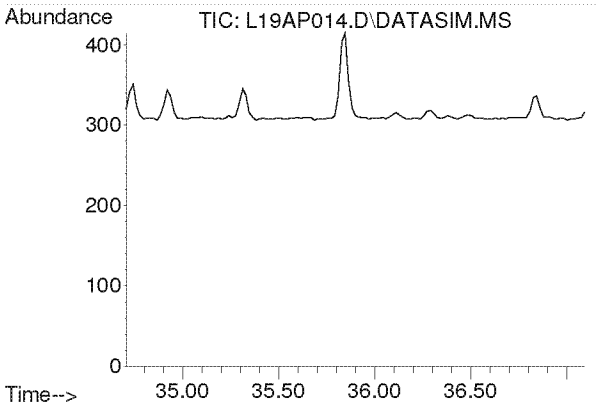
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19AP014.D
Acq: 17 Jan 2019 1:57 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	45.0



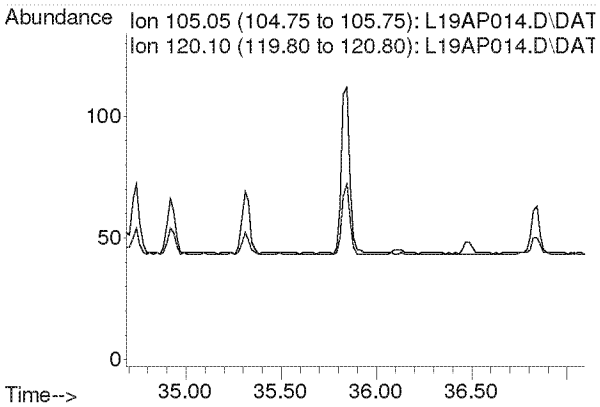


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

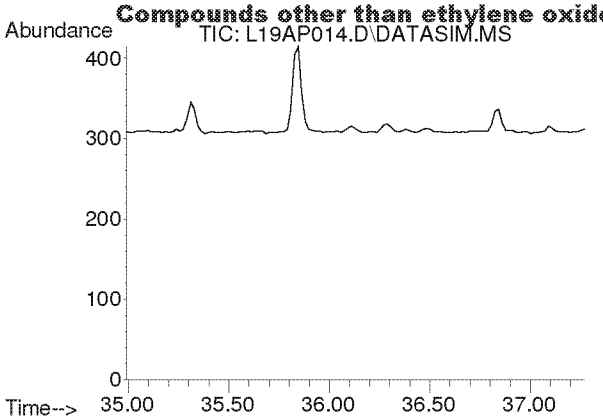
Lab File: L19AP014.D
Acq: 17 Jan 2019 1:57 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	42.9



Compounds other than ethylene oxide were not quantitated.

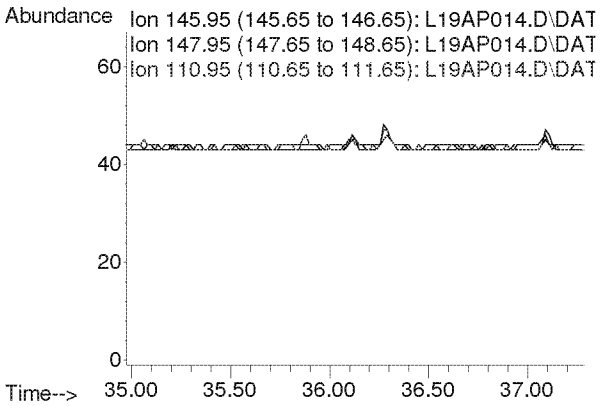


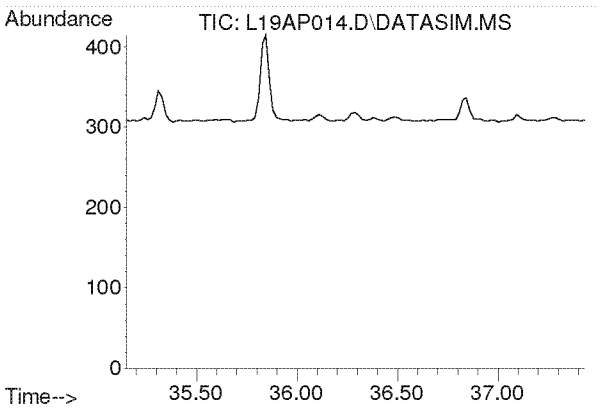
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19AP014.D
Acq: 17 Jan 2019 1:57 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.5



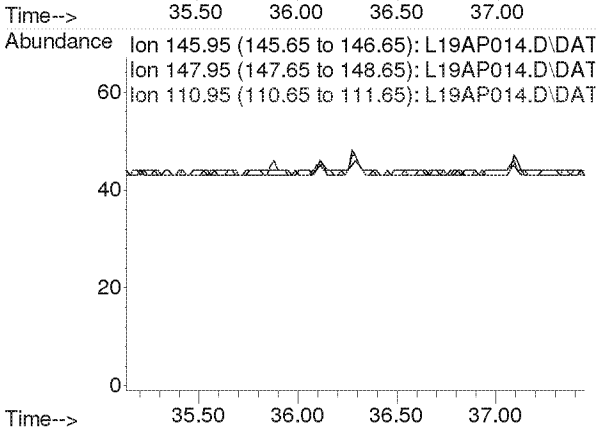


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

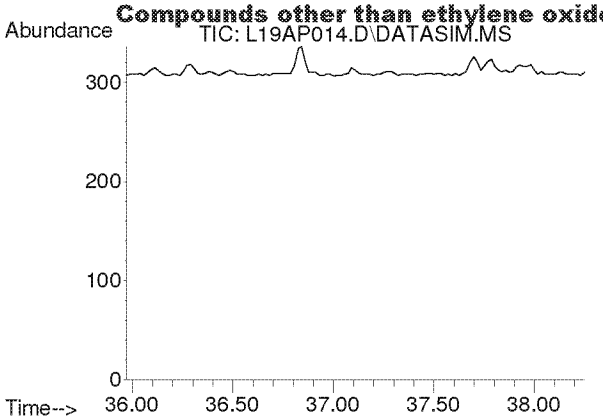
Lab File: L19AP014.D
Acq: 17 Jan 2019 1:57 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	63.9
111	39.3



Compounds other than ethylene oxide were not quantitated.

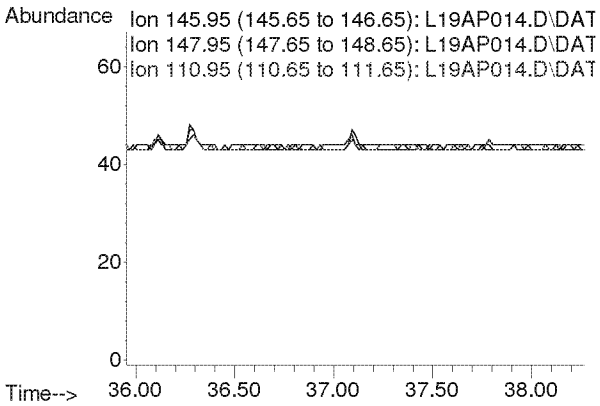


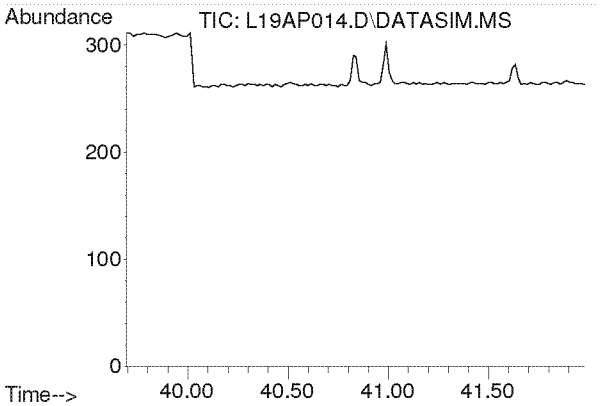
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19AP014.D
Acq: 17 Jan 2019 1:57 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.7



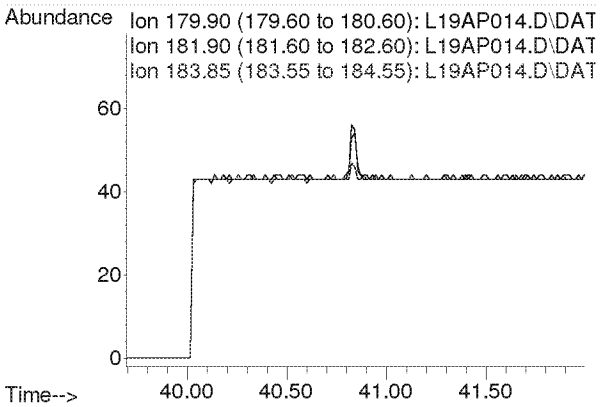


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

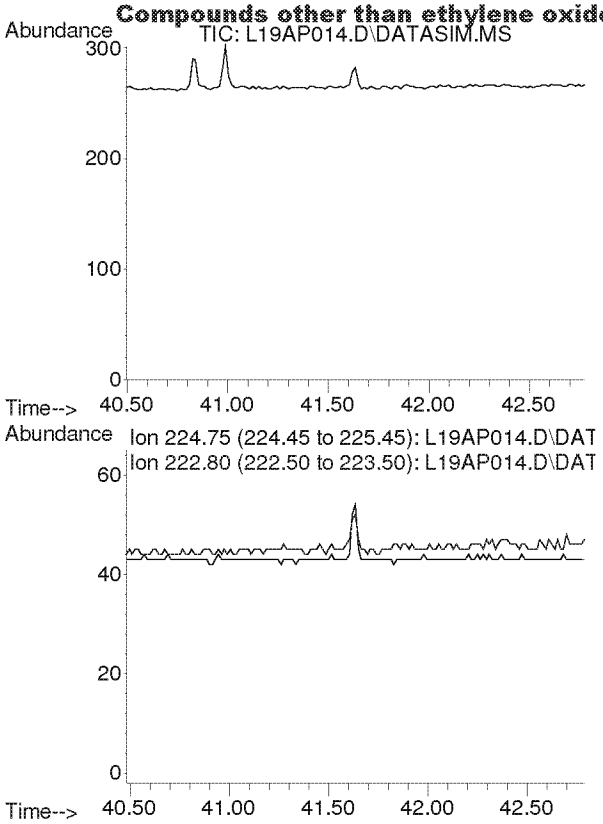
Lab File: L19AP014.D
Acq: 17 Jan 2019 1:57 am

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	95.0
184	30.5



Compounds other than ethylene oxide were not quantitated.



#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.63 min

Lab File: L19AP014.D
Acq: 17 Jan 2019 1:57 am

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.4

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19AP\
Data File : L19AP015.D
Acq On : 17 Jan 2019 2:59 am
Operator : MAH
Sample : B9A1607-DUP1
Misc : WILLOWBROOK VILLAGE HALL R1 1/4/19
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jan 23 07:08:24 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.991	66	53673	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.149	114	131249	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.095	117	104000	4.7400 ppbv	-0.02

System Monitoring Compounds

Target Compounds					Qvalue
2) Acetylene	0.000	26	0	N.D. d	
3) Propylene	0.000	41	0	N.D. d	
4) Dichlorodifluoromethane	0.000	85	0	N.D. d	
5) Chloromethane	0.000	50	0	N.D. d	
6) Dichlorotetrafluoroethane	0.000	85	0	N.D. d	
7) Vinyl Chloride	0.000	62	0	N.D.	
8) 1,3-Butadiene	0.000	54	0	N.D. d	
9) Ethylene oxide	12.468	29	465m	0.1677 ppbv	
10) Bromomethane	0.000	94	0	N.D. d	
11) Chloroethane	0.000	64	0	N.D.	
12) Acetonitrile	0.000	41	0	N.D. d	
13) Acrolein	0.000	56	0	N.D. d	
14) Trichlorofluoromethane	0.000	101	0	N.D. d	
15) Acrylonitrile	0.000	53	0	N.D. d	
16) 1,1-Dichloroethene	0.000	61	0	N.D.	
17) Methylene Chloride	0.000	49	0	N.D. d	
18) Carbon Disulfide	0.000	76	0	N.D. d	
19) Trichlorotrifluoroethane	0.000	101	0	N.D. d	
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.	
21) 1,1-Dichloroethane	0.000	63	0	N.D.	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D.	
23) Chloroprene	0.000	53	0	N.D. d	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D. d	
25) Bromochloromethane	0.000	128	0	N.D.	
26) Chloroform	0.000	83	0	N.D. d	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D.	
28) 1,2-Dichloroethane	0.000	62	0	N.D. d	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D.	
31) Benzene	0.000	78	0	N.D. d	
32) Carbon Tetrachloride	0.000	117	0	N.D. d	
33) tert-Amyl Methyl Ether	0.000	73	0	N.D.	
34) 1,2-Dichloropropane	0.000	63	0	N.D.	
35) Ethyl Acrylate	0.000	55	0	N.D. d	
36) Bromodichloromethane	0.000	83	0	N.D.	
37) Trichloroethylene	0.000	130	0	N.D.	
38) Methyl Methacrylate	0.000	41	0	N.D.	
39) cis-1,3-Dichloropropene	0.000	75	0	N.D.	
40) Methyl Isobutyl Ketone	0.000	43	0	N.D. d	
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.	
44) Toluene	0.000	91	0	N.D. d	
45) Dibromochloromethane	0.000	129	0	N.D.	
46) 1,2-Dibromoethane	0.000	107	0	N.D.	
47) n-Octane	0.000	43	0	N.D. d	
48) Tetrachloroethylene	0.000	166	0	N.D. d	
49) Chlorobenzene	0.000	112	0	N.D.	
50) Ethylbenzene	0.000	91	0	N.D. d	

Compounds other than ethylene oxide were not quantitated

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19AP\
Data File : L19AP015.D
Acq On : 17 Jan 2019 2:59 am
Operator : MAH
Sample : B9A1607-DUP1
Misc : WILLOWBROOK VILLAGE HALL R1 1/4/19
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jan 23 07:08:24 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration

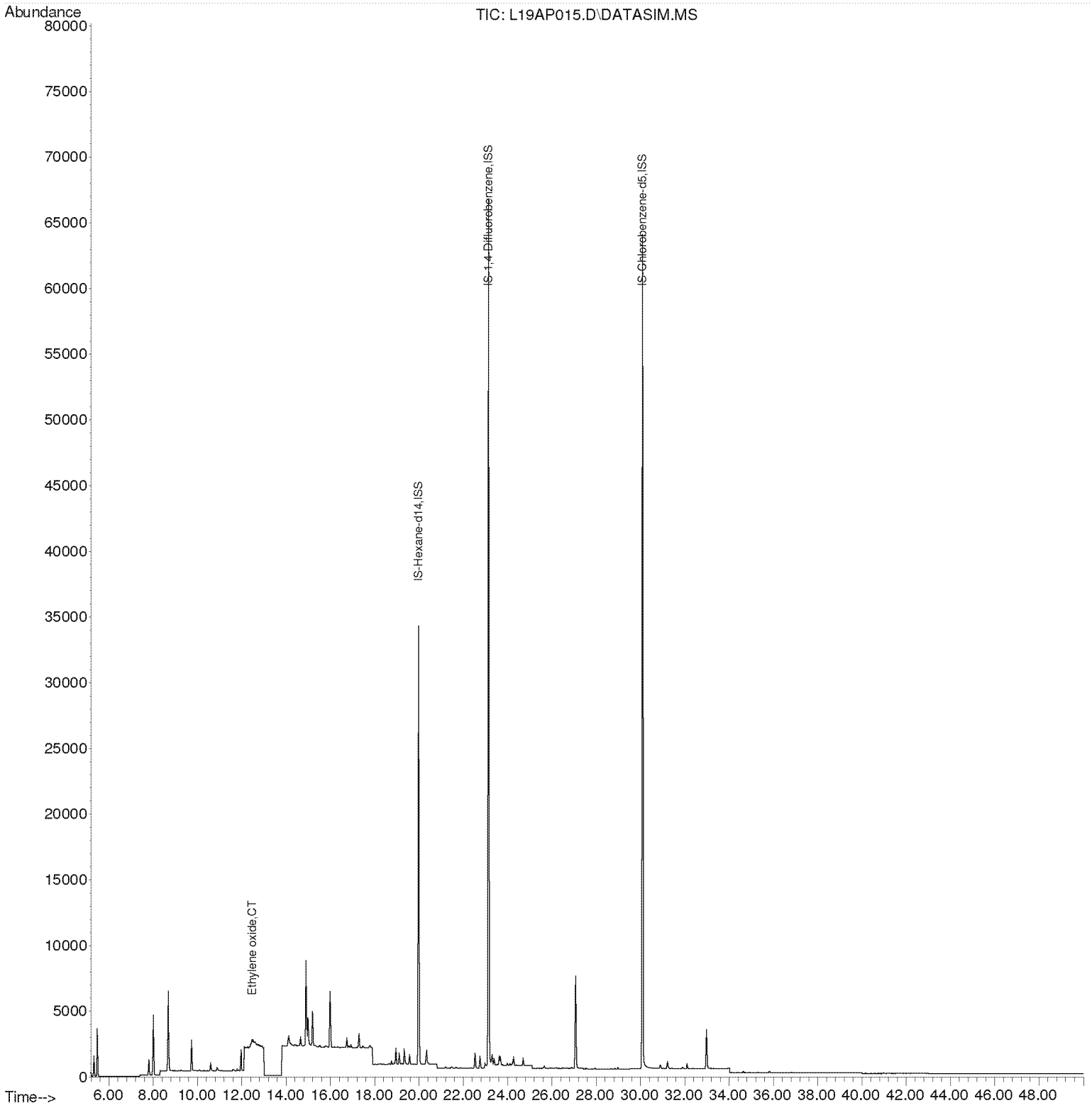
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D. d	
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D. d	
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D. d	
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D. d	
57) 1,2,4-Trimethylbenzene	0.000	105	0	N.D. d	
58) m-Dichlorobenzene	0.000	146	0	N.D.	
59) p-Dichlorobenzene	0.000	146	0	N.D.	
60) o-Dichlorobenzene	0.000	146	0	N.D.	
61) 1,2,4-Trichlorobenzene	0.000	180	0	N.D.	
62) Hexachloro-1,3-butadiene	0.000	225	0	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

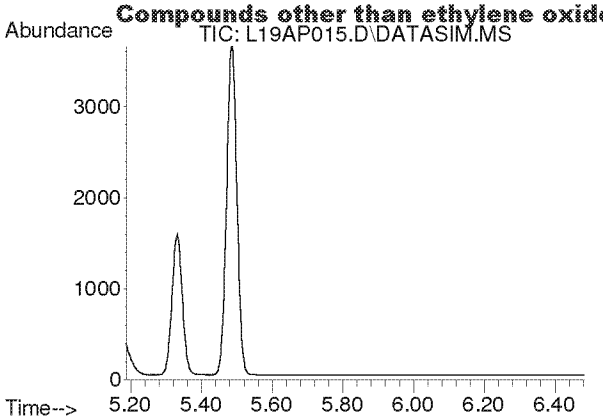
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L19AP\
Data File : L19AP015.D
Acq On : 17 Jan 2019 2:59 am
Operator : MAH
Sample : B9A1607-DUP1
Misc : WILLOWBROOK VILLAGE HALL R1 1/4/19
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jan 23 06:43:44 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration



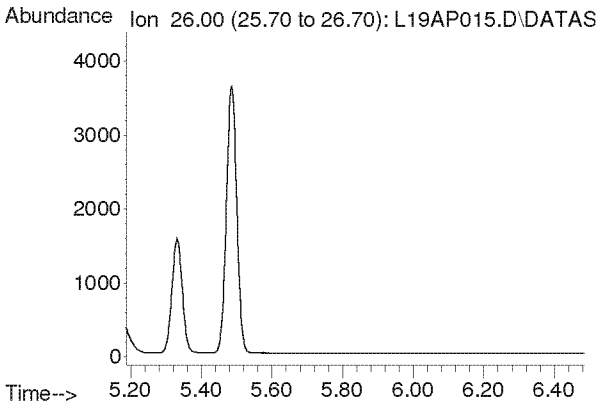
Compounds other than ethylene oxide were not quantitated.

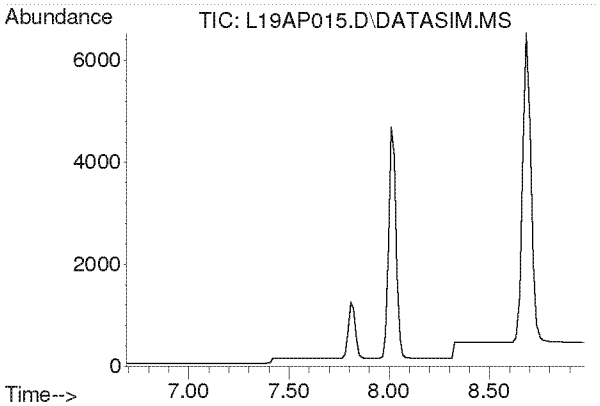


#2
Acetylene
Concen: N.D.
Expected RT: 5.42 min

Lab File: L19AP015.D
Acq: 17 Jan 2019 2:59 am

Tgt Ion: 26



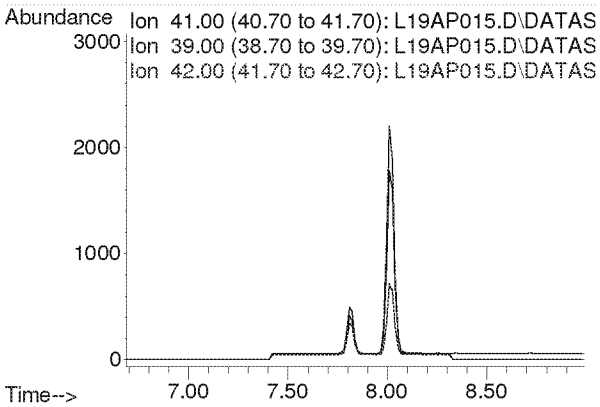


#3
Propylene
Concen: N.D.
Expected RT: 7.84 min

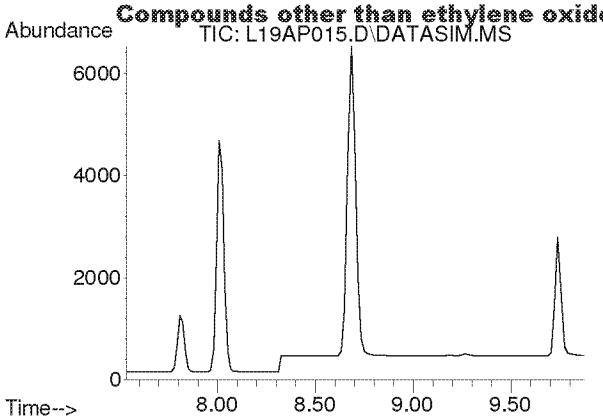
Lab File: L19AP015.D
Acq: 17 Jan 2019 2:59 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	77.0
42	65.8



Compounds other than ethylene oxide were not quantitated.

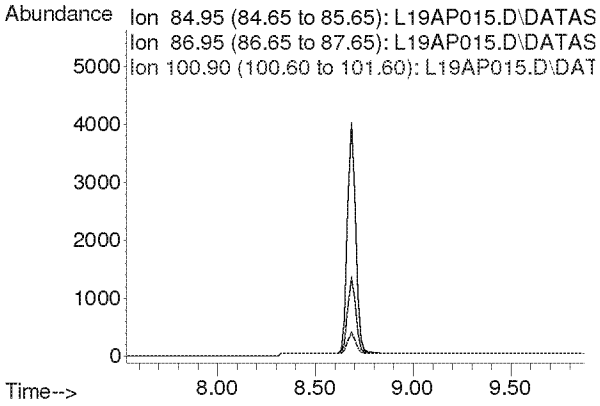


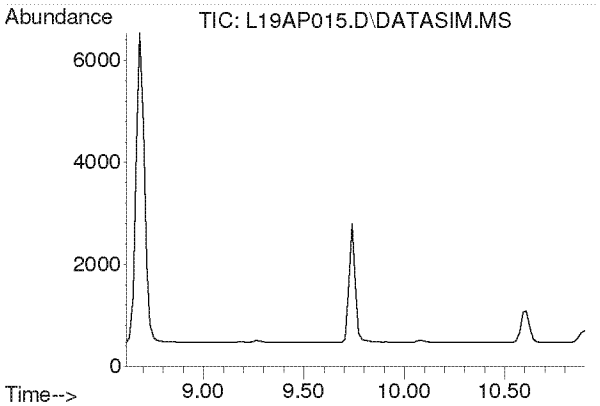
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19AP015.D
Acq: 17 Jan 2019 2:59 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	8.9



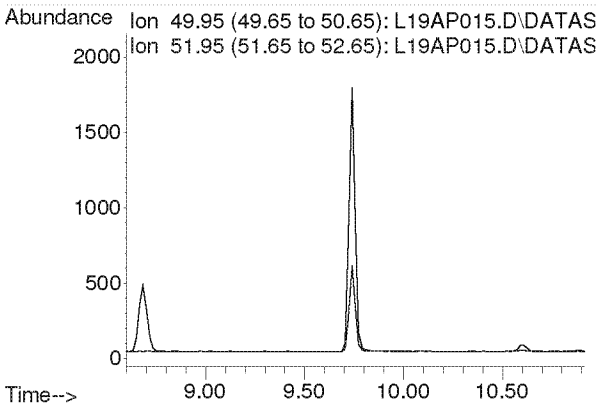


#5
Chloromethane
Concen: N.D.
Expected RT: 9.76 min

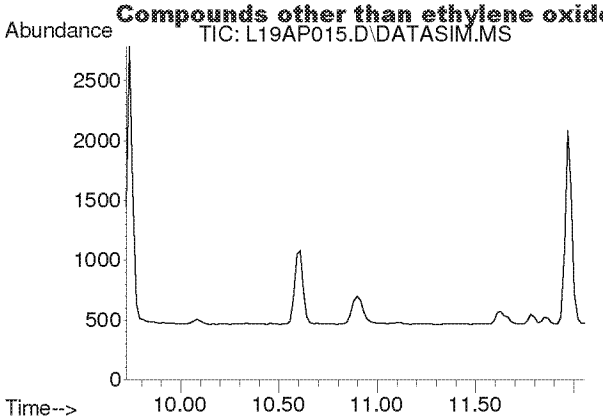
Lab File: L19AP015.D
Acq: 17 Jan 2019 2:59 am

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.4



Compounds other than ethylene oxide were not quantitated.

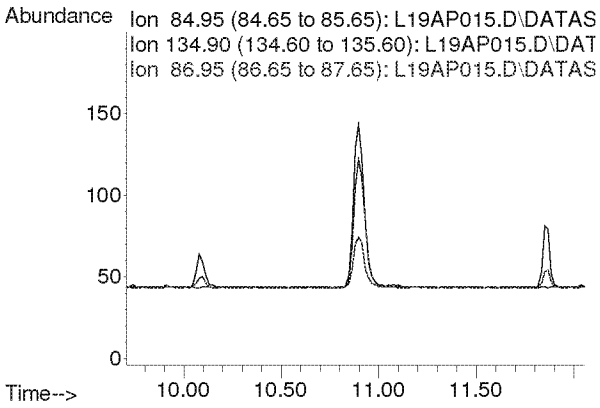


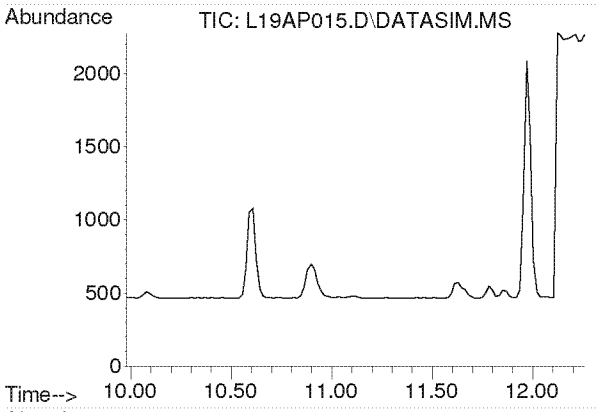
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19AP015.D
Acq: 17 Jan 2019 2:59 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.5
87	32.2



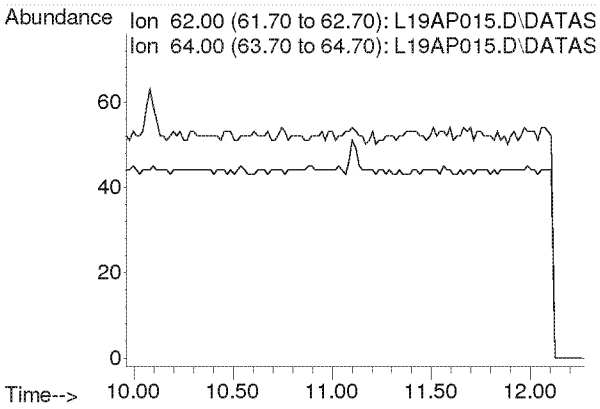


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

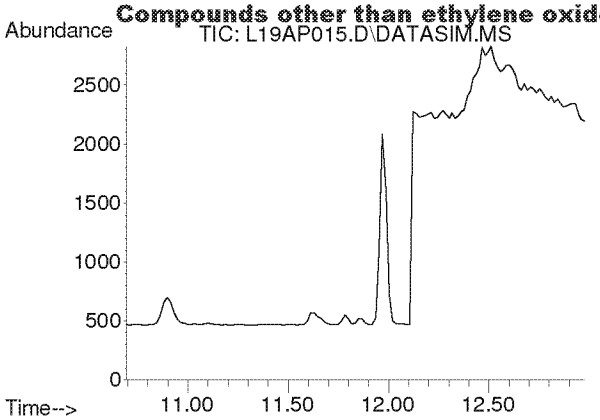
Lab File: L19AP015.D
Acq: 17 Jan 2019 2:59 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	32.1



Compounds other than ethylene oxide were not quantitated.

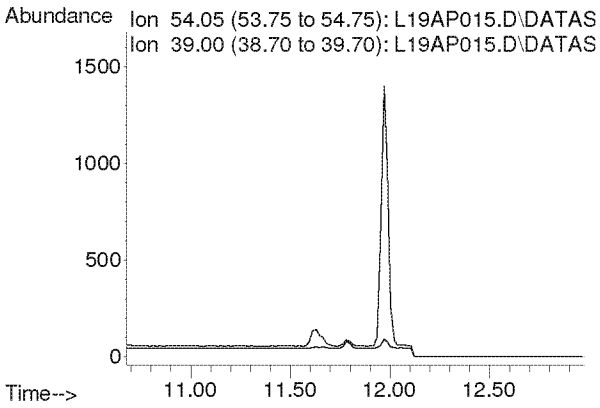


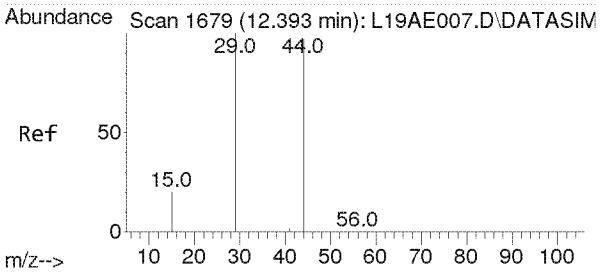
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19AP015.D
Acq: 17 Jan 2019 2:59 am

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	103.3

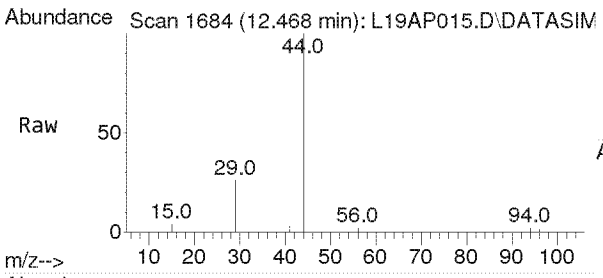


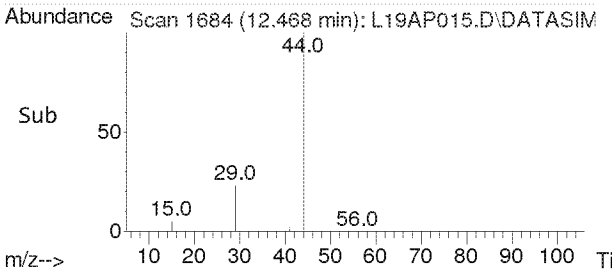


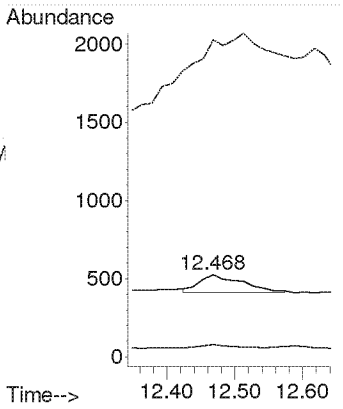
#9
Ethylene oxide
Concen: 0.168 ppbv m
RT: 12.468 min Scan# 1684
Delta R.T. 0.075 min
Lab File: L19AP015.D
Acq: 17 Jan 2019 2:59 am

Tgt Ion: 29 Resp: 465

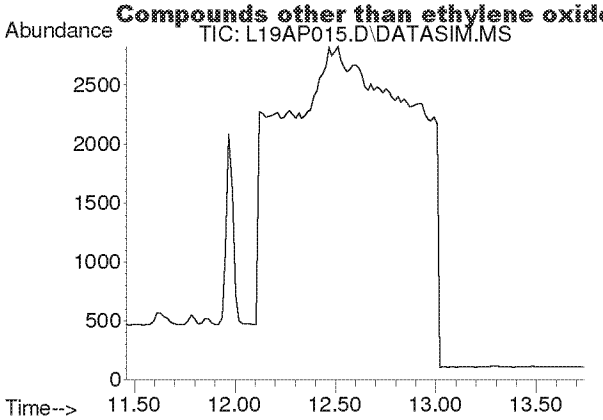
Ion	Ratio	Lower	Upper
29	100		
15	0.0	15.4	23.0#
44	0.0	77.4	116.2#







Compounds other than ethylene oxide were not quantitated.

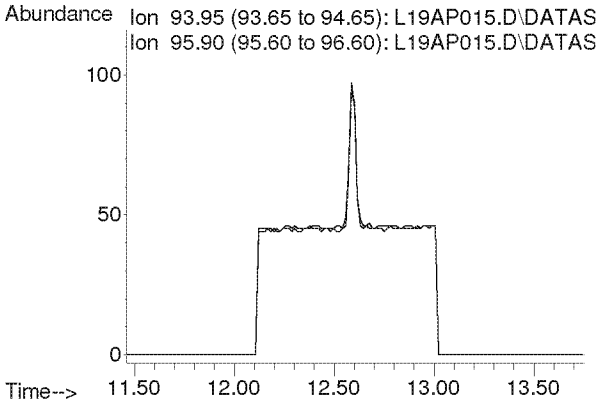


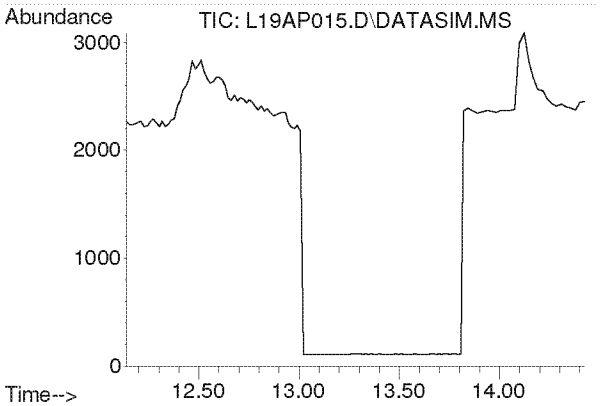
#10
Bromomethane
Concen: N.D.
Expected RT: 12.60 min

Lab File: L19AP015.D
Acq: 17 Jan 2019 2:59 am

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.3



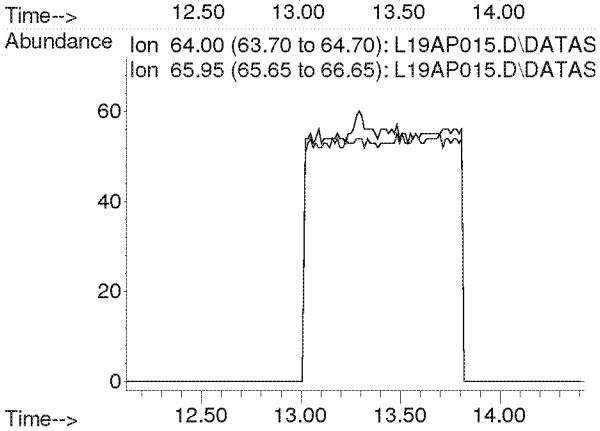


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

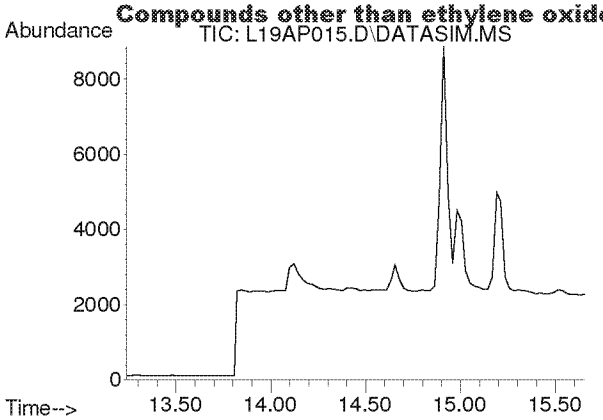
Lab File: L19AP015.D
Acq: 17 Jan 2019 2:59 am

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.4



Compounds other than ethylene oxide were not quantitated.

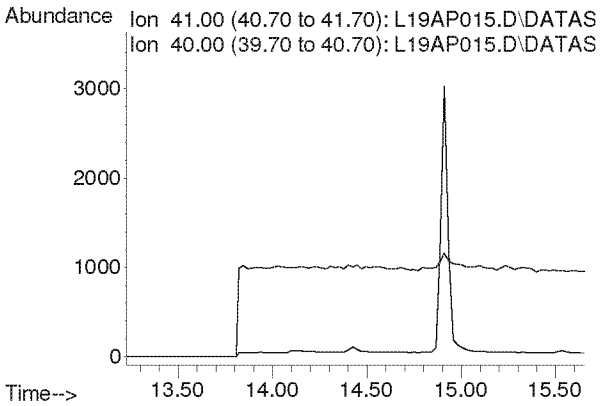


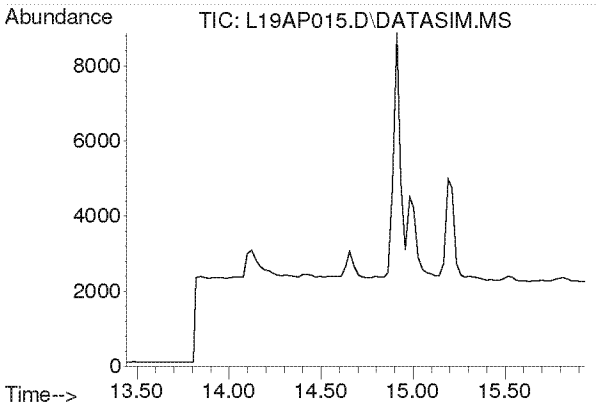
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19AP015.D
Acq: 17 Jan 2019 2:59 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	53.2



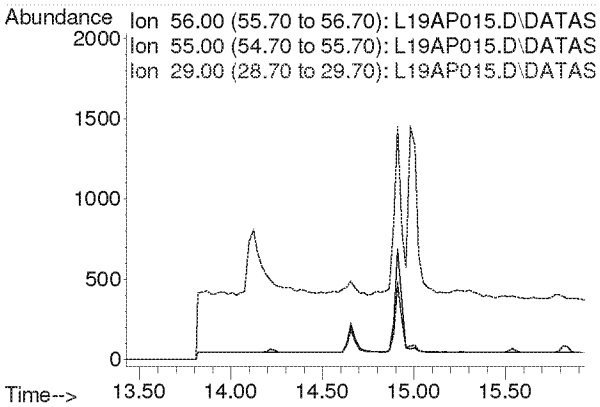


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

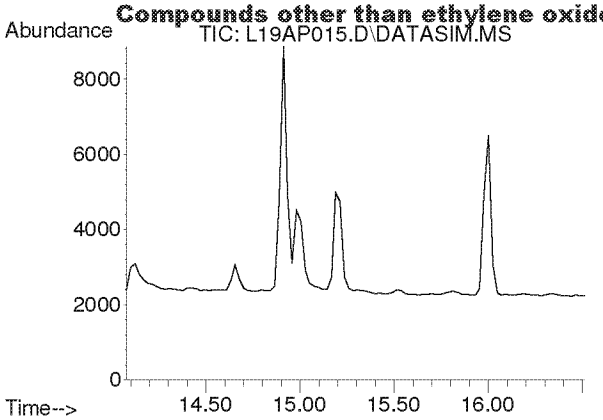
Lab File: L19AP015.D
Acq: 17 Jan 2019 2:59 am

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.5
29	44.9



Compounds other than ethylene oxide were not quantitated.

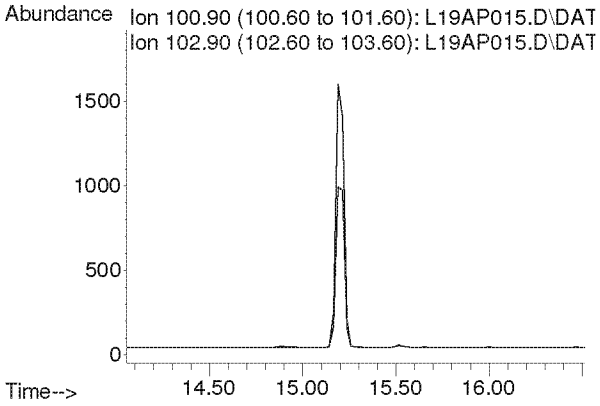


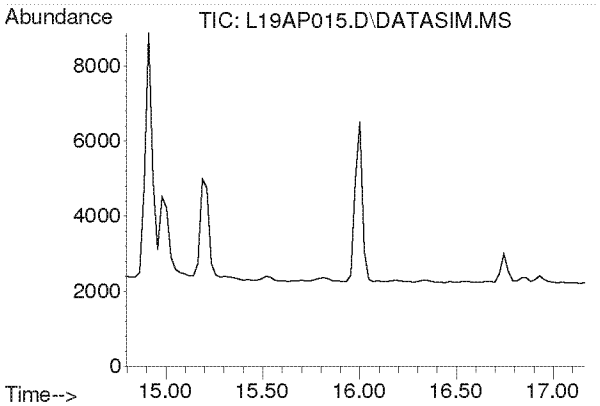
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.21 min

Lab File: L19AP015.D
Acq: 17 Jan 2019 2:59 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



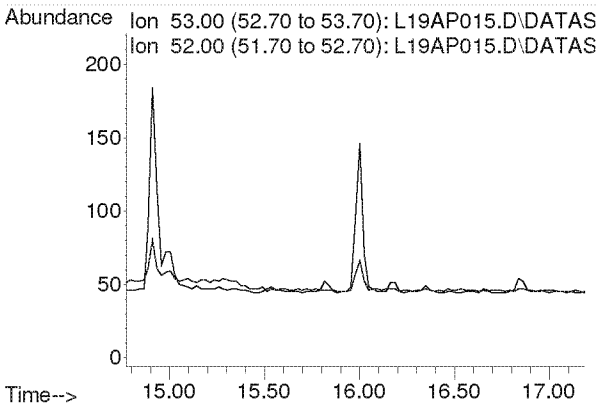


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

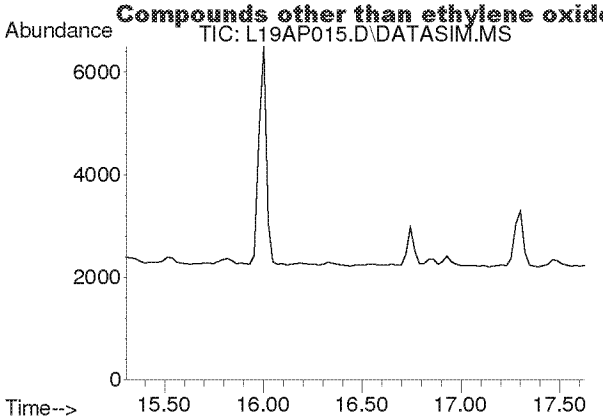
Lab File: L19AP015.D
Acq: 17 Jan 2019 2:59 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	84.7



Compounds other than ethylene oxide were not quantitated.

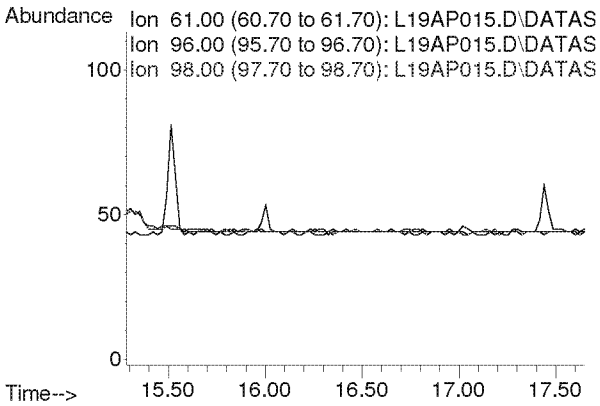


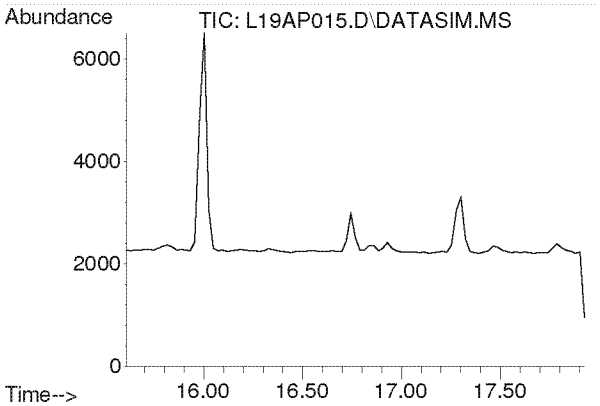
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.44 min

Lab File: L19AP015.D
Acq: 17 Jan 2019 2:59 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.5
98	38.1



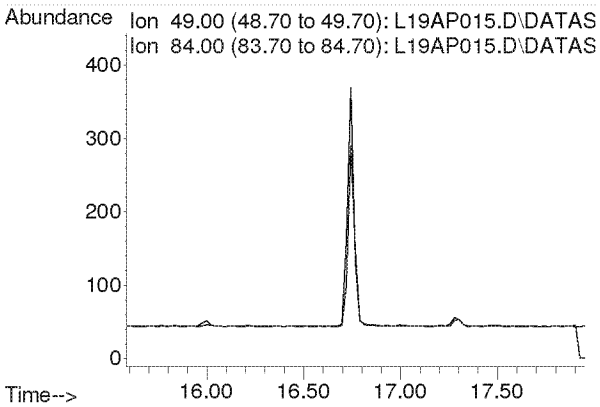


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

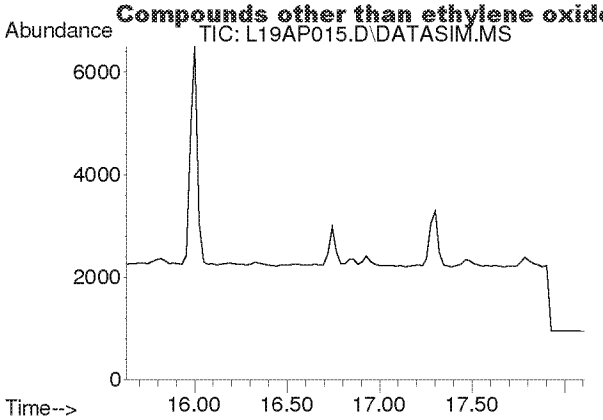
Lab File: L19AP015.D
Acq: 17 Jan 2019 2:59 am

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.3



Compounds other than ethylene oxide were not quantitated.

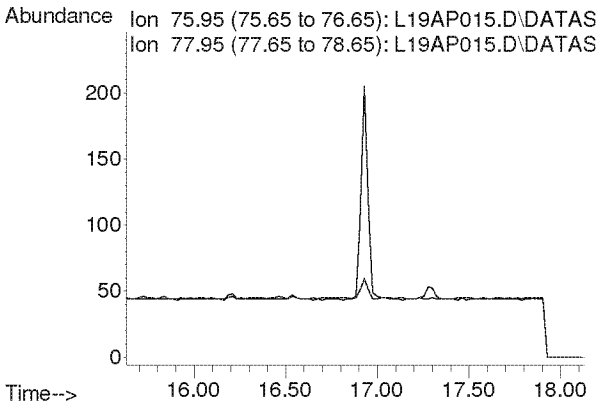


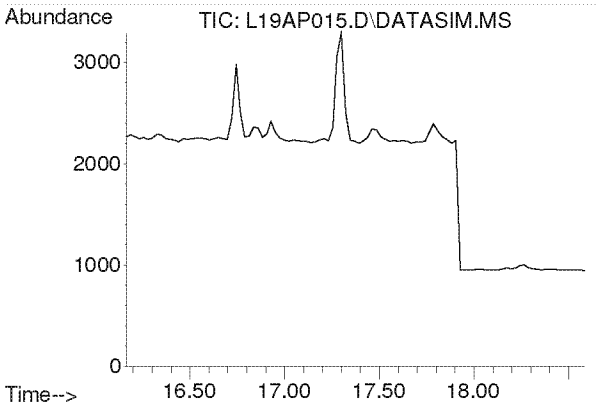
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19AP015.D
Acq: 17 Jan 2019 2:59 am

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.0



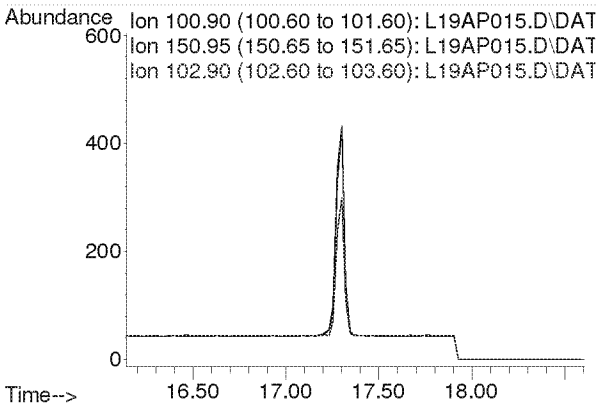


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.30 min

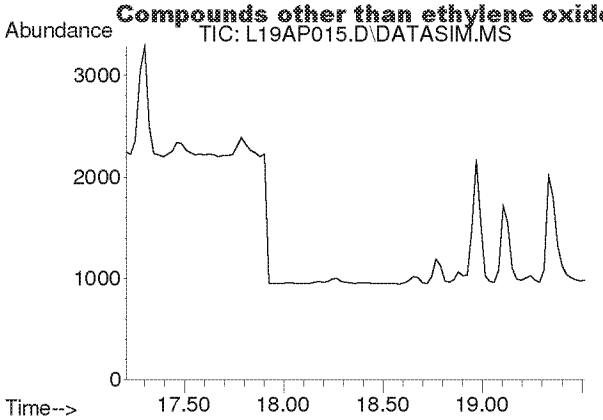
Lab File: L19AP015.D
Acq: 17 Jan 2019 2:59 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	95.4
103	63.9



Compounds other than ethylene oxide were not quantitated.

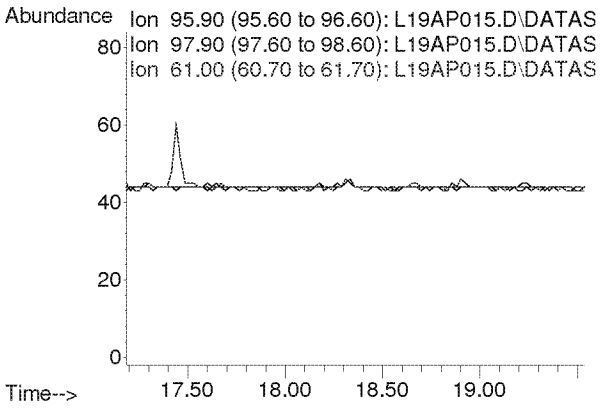


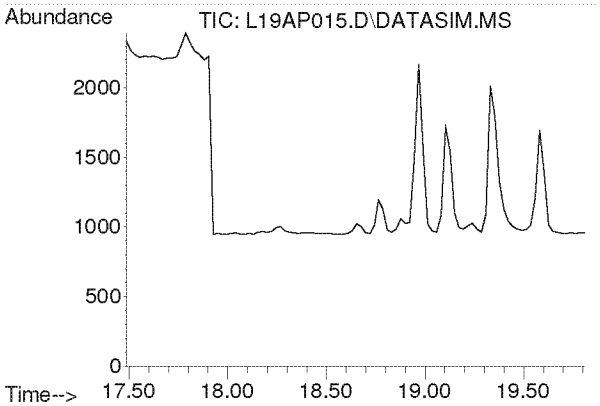
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19AP015.D
Acq: 17 Jan 2019 2:59 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	63.6
61	156.5



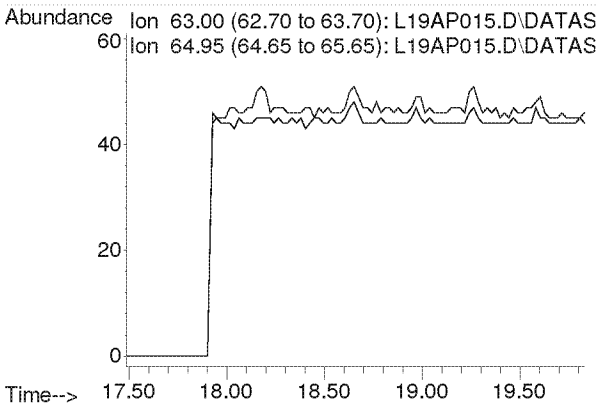


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

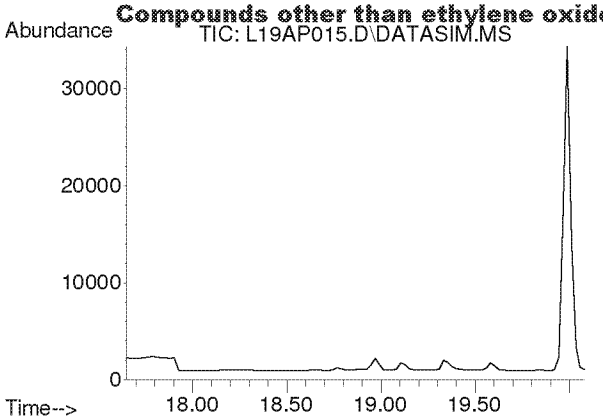
Lab File: L19AP015.D
Acq: 17 Jan 2019 2:59 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

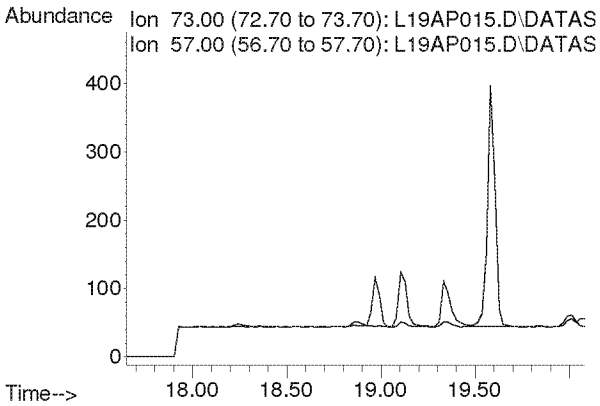


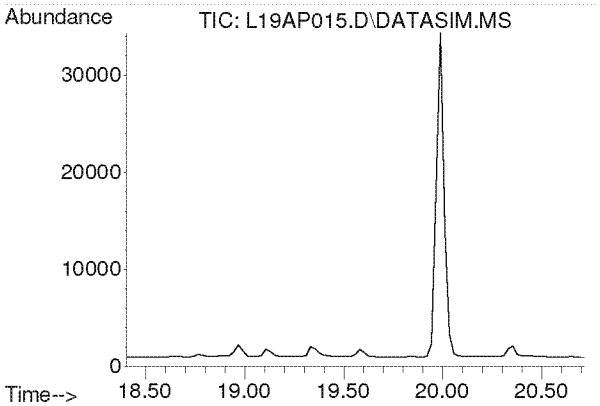
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19AP015.D
Acq: 17 Jan 2019 2:59 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.6



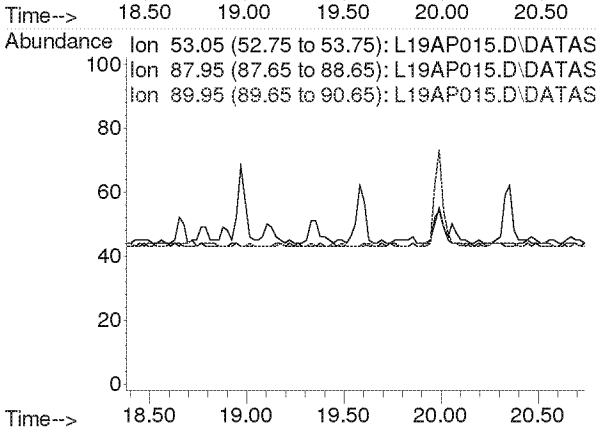


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

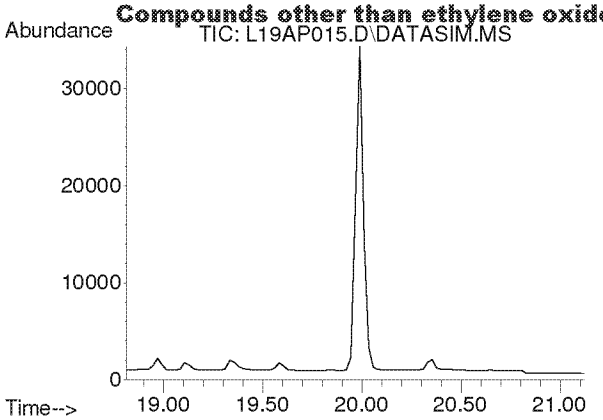
Lab File: L19AP015.D
Acq: 17 Jan 2019 2:59 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	54.0
90	17.3



Compounds other than ethylene oxide were not quantitated.

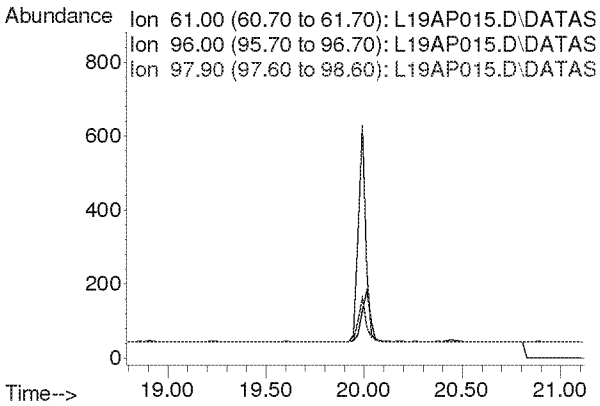


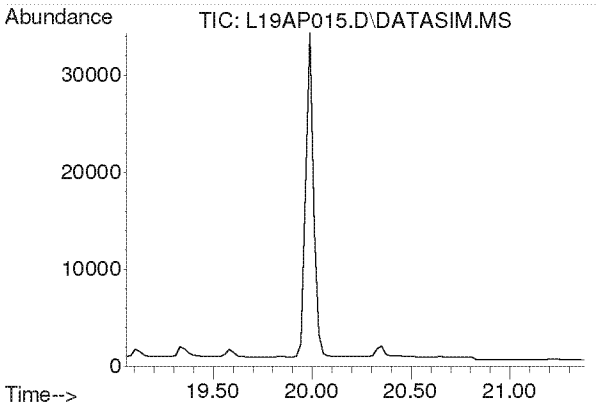
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19AP015.D
Acq: 17 Jan 2019 2:59 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	75.7
98	46.4



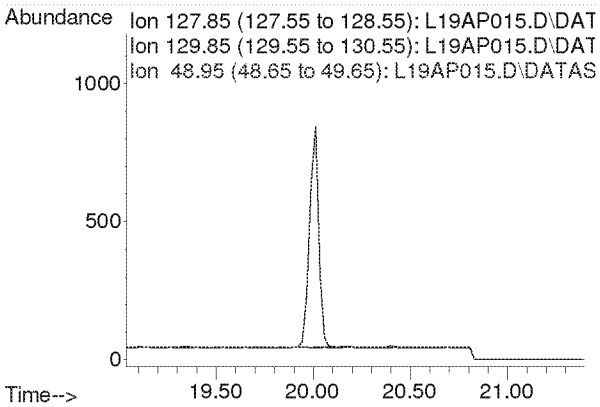


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.19 min

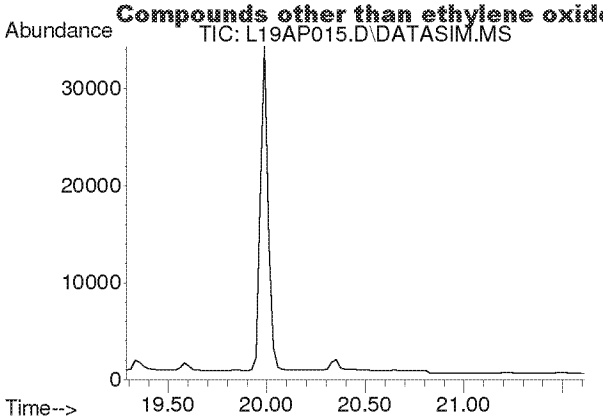
Lab File: L19AP015.D
Acq: 17 Jan 2019 2:59 am

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	130.4
49	170.8



Compounds other than ethylene oxide were not quantitated.

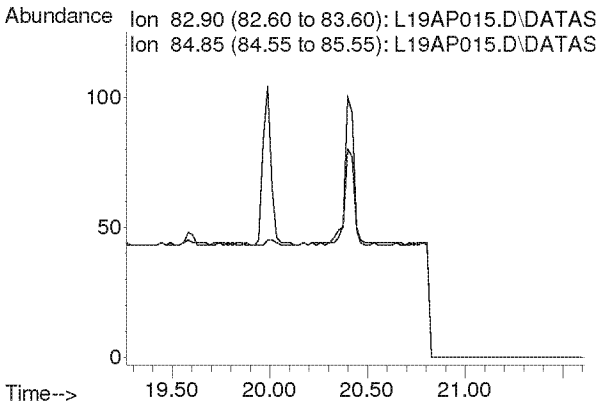


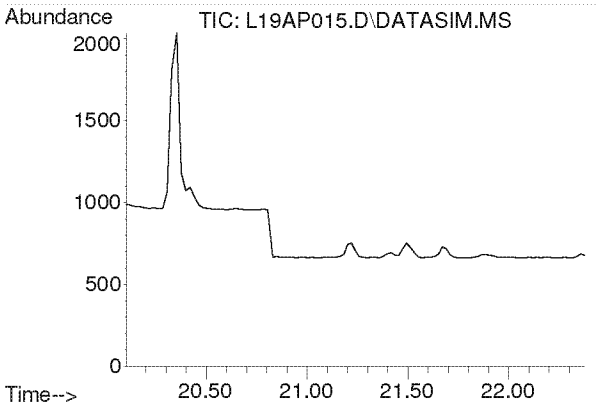
#26
Chloroform
Concen: N.D.
Expected RT: 20.42 min

Lab File: L19AP015.D
Acq: 17 Jan 2019 2:59 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



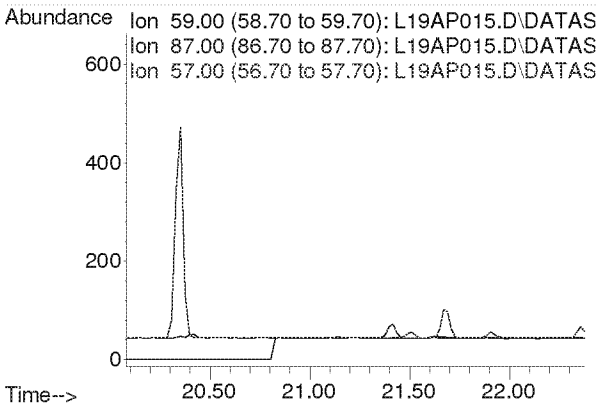


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

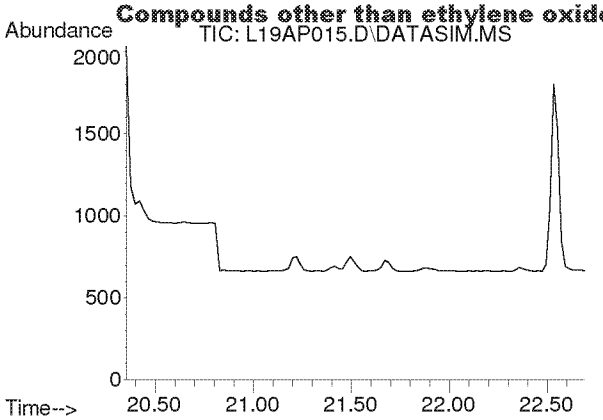
Lab File: L19AP015.D
Acq: 17 Jan 2019 2:59 am

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	37.8
57	34.3



Compounds other than ethylene oxide were not quantitated.

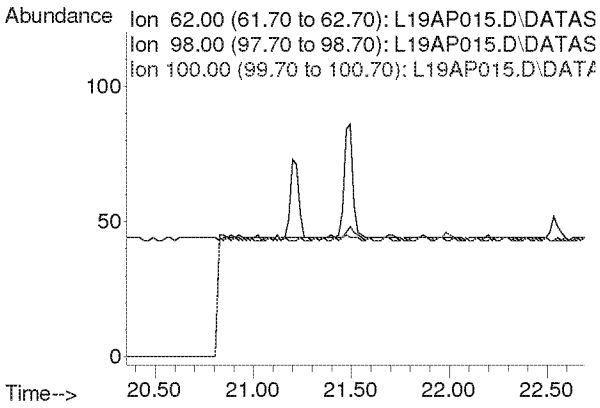


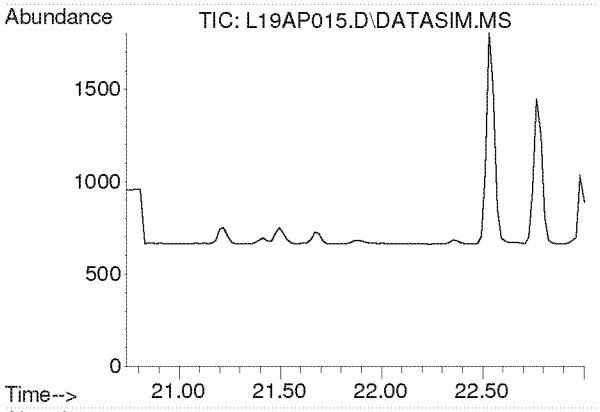
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.50 min

Lab File: L19AP015.D
Acq: 17 Jan 2019 2:59 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.8
100	4.2



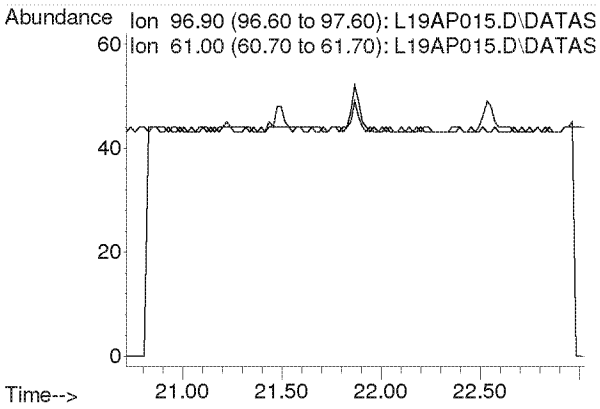


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

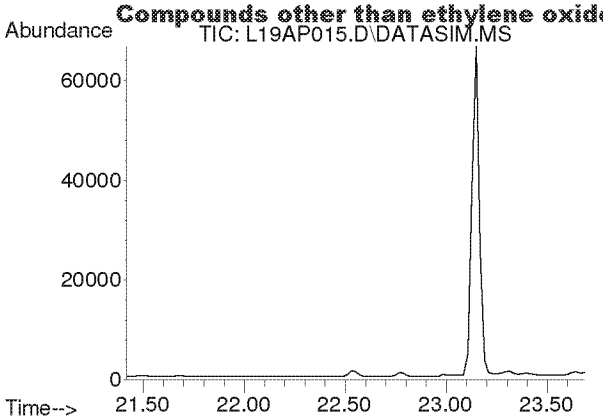
Lab File: L19AP015.D
Acq: 17 Jan 2019 2:59 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	58.6



Compounds other than ethylene oxide were not quantitated.

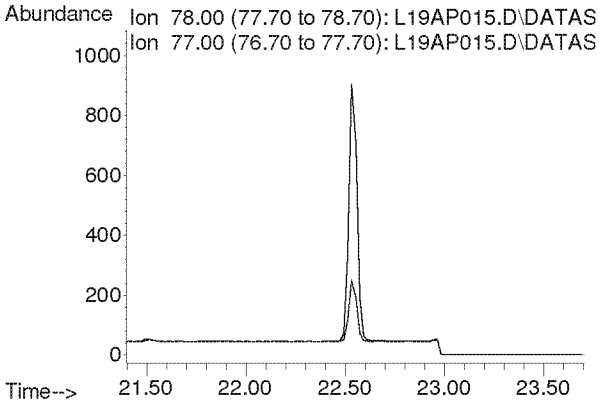


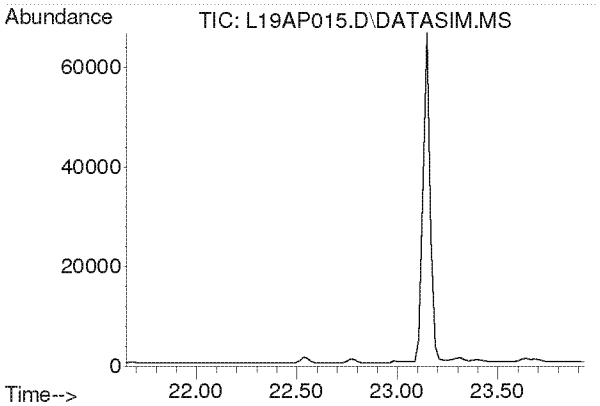
#31
Benzene
Concen: N.D.
Expected RT: 22.55 min

Lab File: L19AP015.D
Acq: 17 Jan 2019 2:59 am

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.9



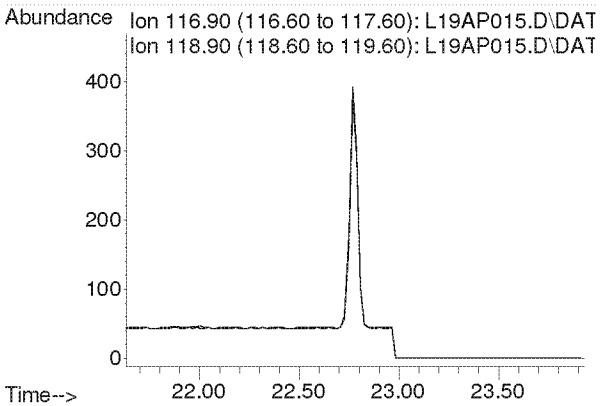


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.79 min

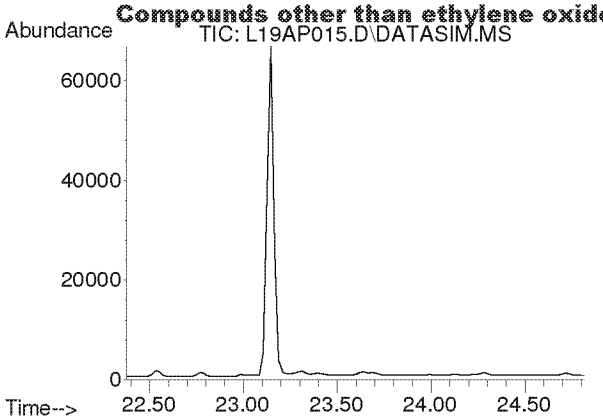
Lab File: L19AP015.D
Acq: 17 Jan 2019 2:59 am

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.5



Compounds other than ethylene oxide were not quantitated.

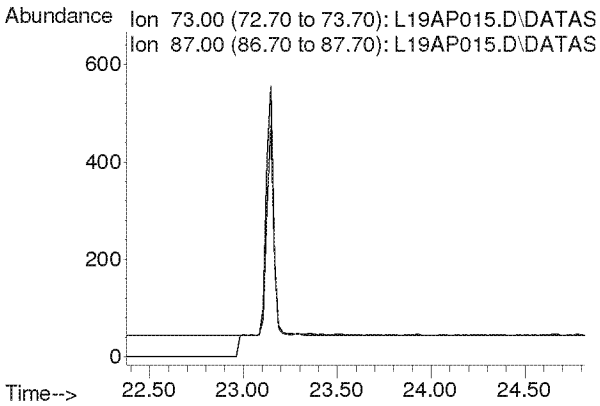


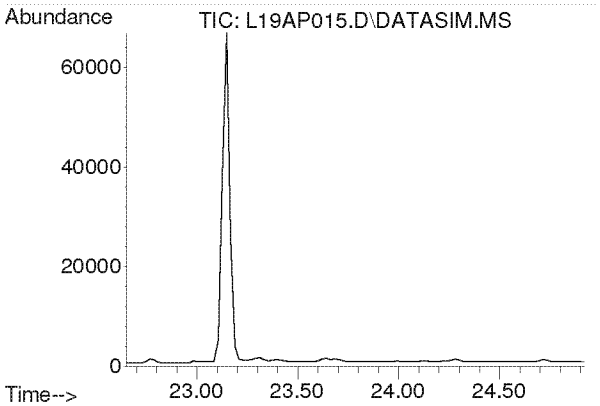
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19AP015.D
Acq: 17 Jan 2019 2:59 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	24.8



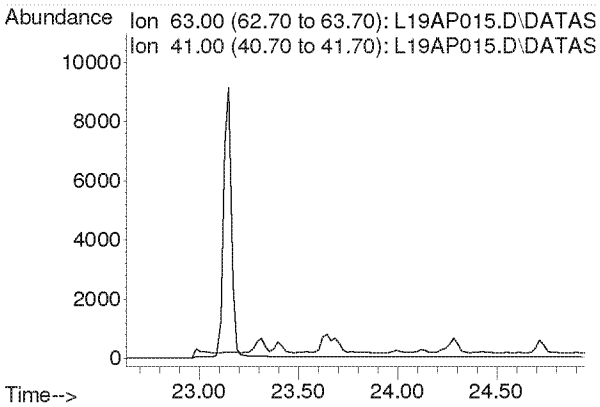


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

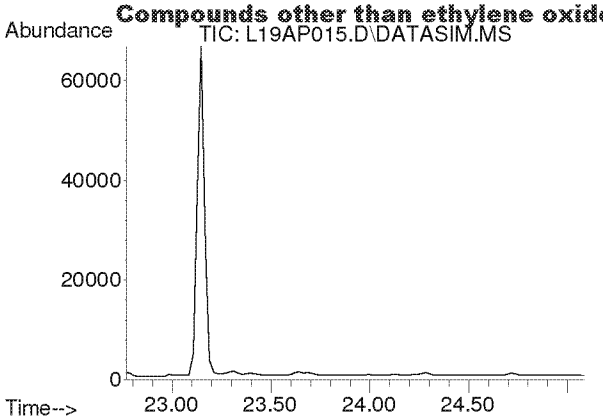
Lab File: L19AP015.D
Acq: 17 Jan 2019 2:59 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	196.0



Compounds other than ethylene oxide were not quantitated.

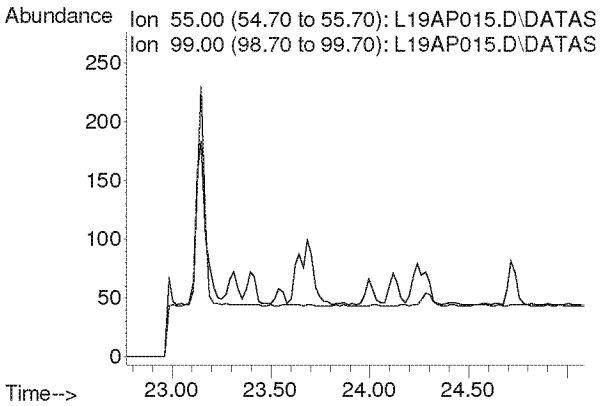


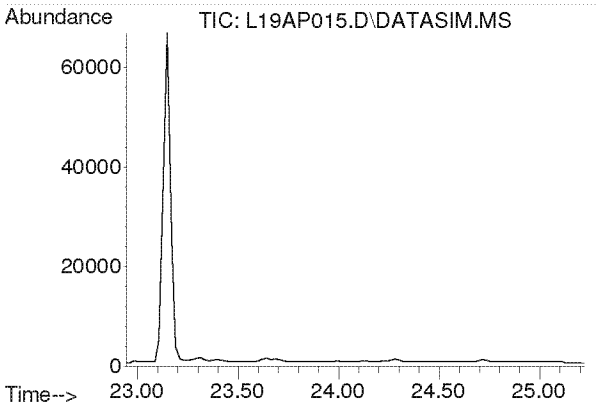
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19AP015.D
Acq: 17 Jan 2019 2:59 am

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.0



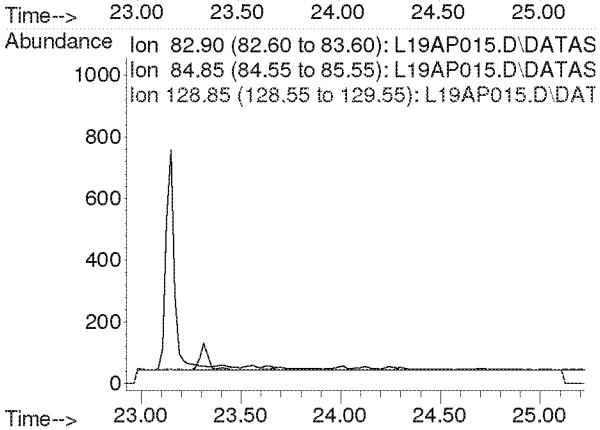


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

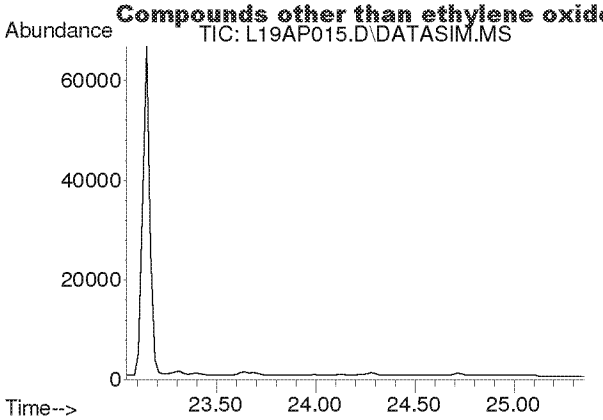
Lab File: L19AP015.D
Acq: 17 Jan 2019 2:59 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.9
129	12.5



Compounds other than ethylene oxide were not quantitated.

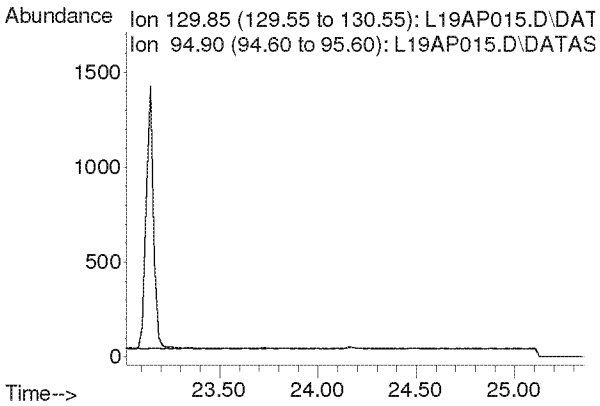


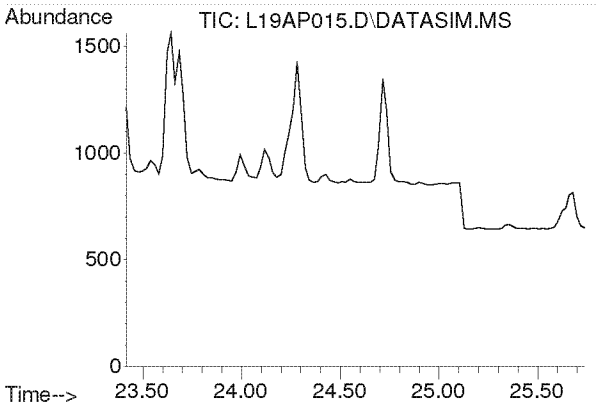
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19AP015.D
Acq: 17 Jan 2019 2:59 am

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	108.6



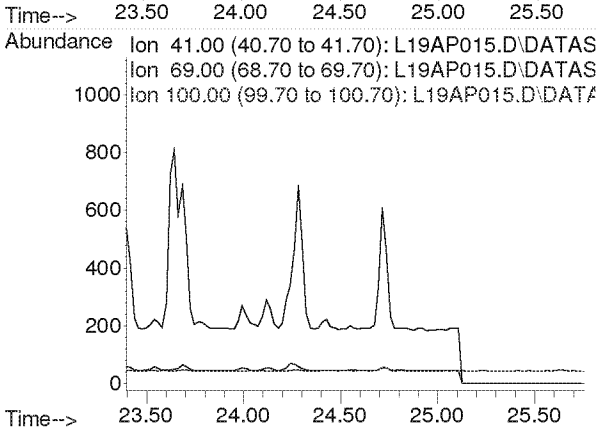


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.55 min

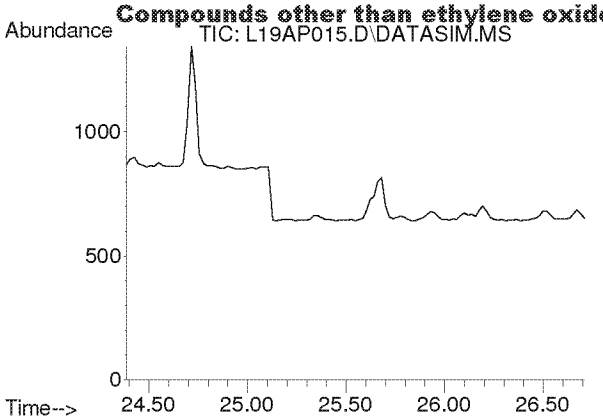
Lab File: L19AP015.D
Acq: 17 Jan 2019 2:59 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	20.7
100	5.3



Compounds other than ethylene oxide were not quantitated.

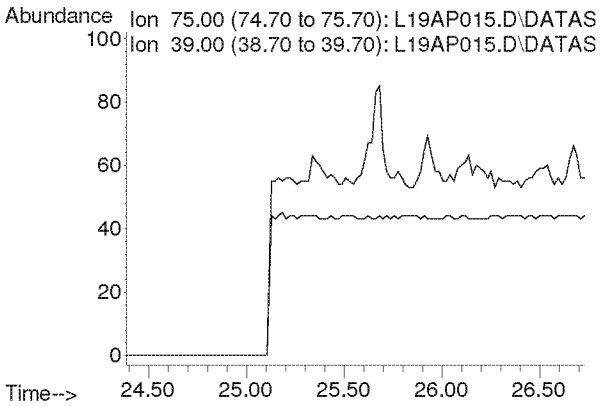


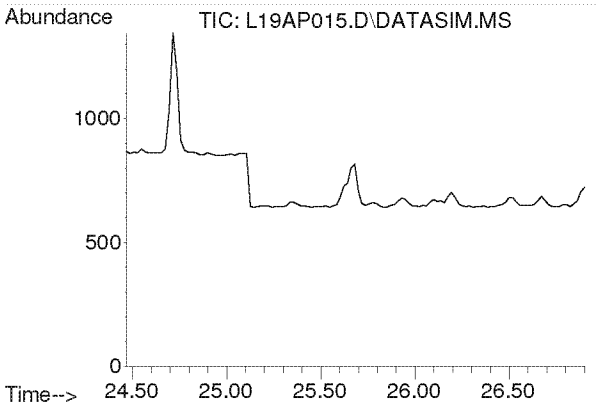
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19AP015.D
Acq: 17 Jan 2019 2:59 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	48.3



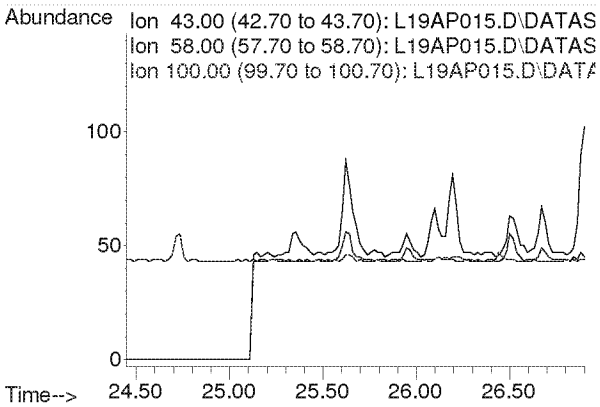


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

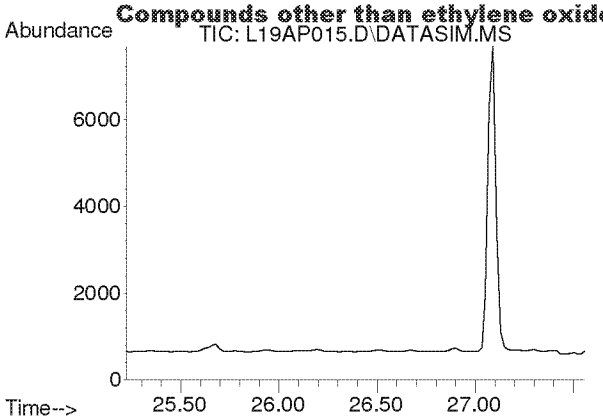
Lab File: L19AP015.D
Acq: 17 Jan 2019 2:59 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	34.5
100	8.1



Compounds other than ethylene oxide were not quantitated.

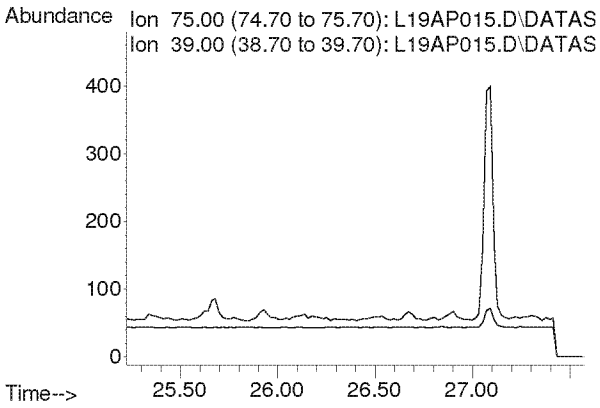


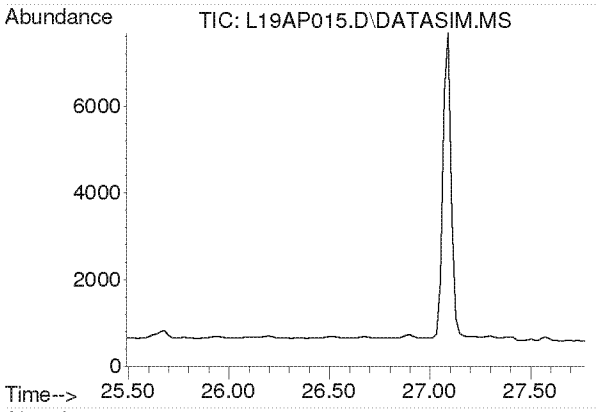
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19AP015.D
Acq: 17 Jan 2019 2:59 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	48.8



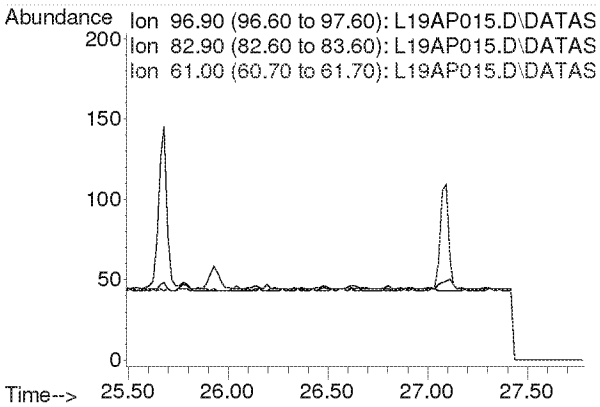


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.63 min

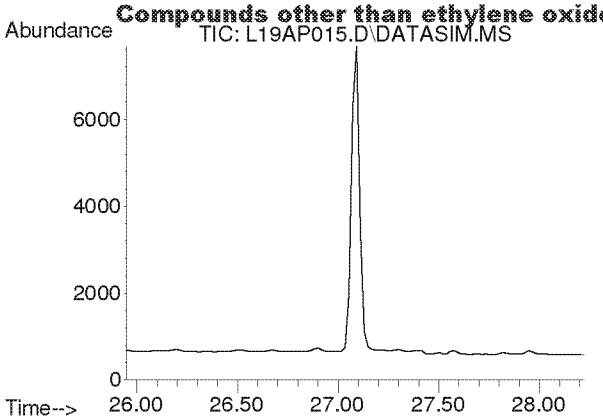
Lab File: L19AP015.D
Acq: 17 Jan 2019 2:59 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	96.6
61	61.4



Compounds other than ethylene oxide were not quantitated.

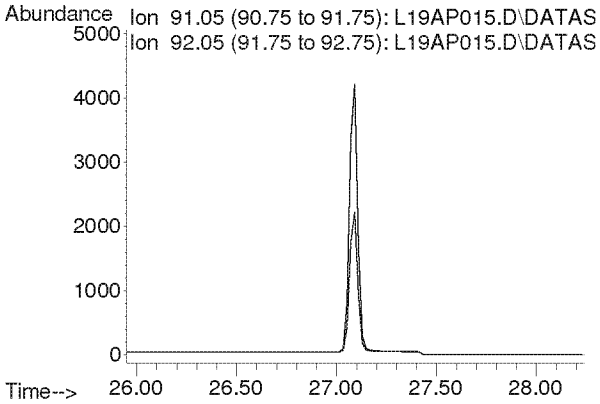


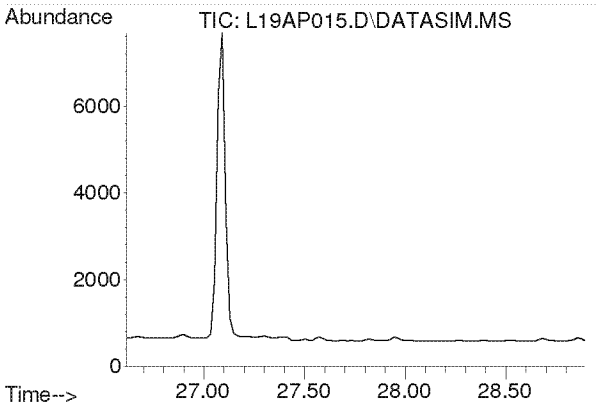
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19AP015.D
Acq: 17 Jan 2019 2:59 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



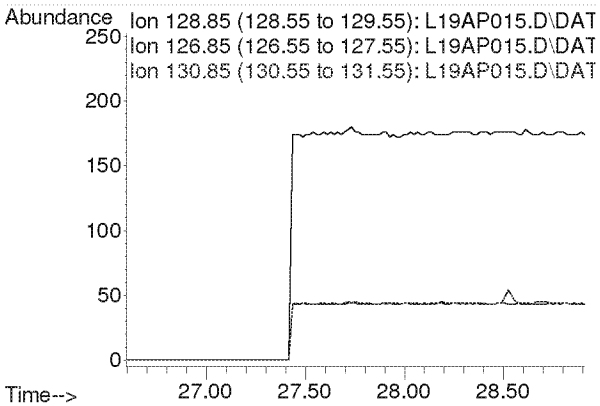


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

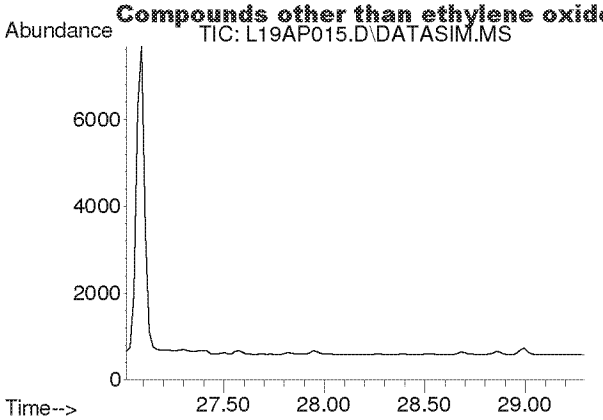
Lab File: L19AP015.D
Acq: 17 Jan 2019 2:59 am

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.2
131	6.0



Compounds other than ethylene oxide were not quantitated.

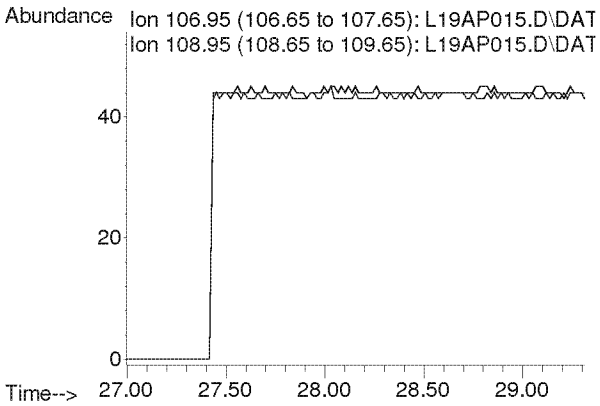


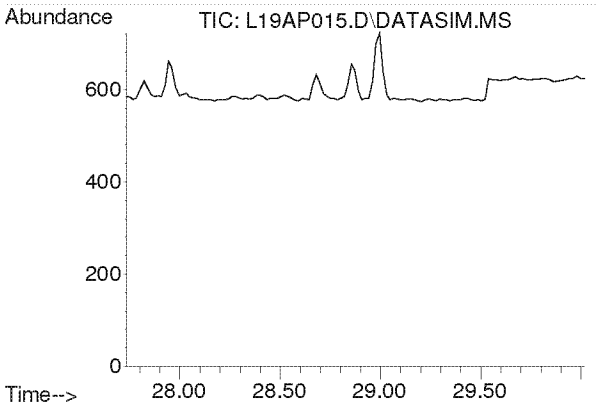
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19AP015.D
Acq: 17 Jan 2019 2:59 am

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.3



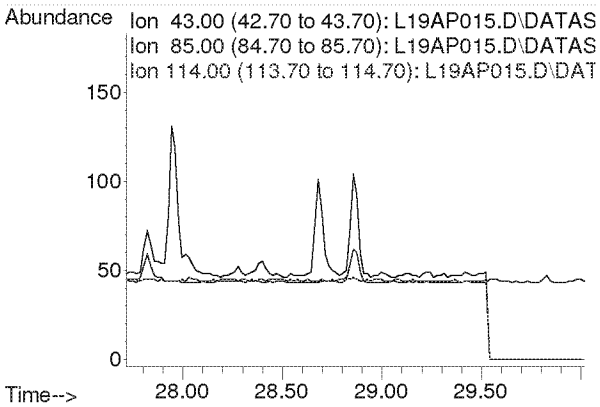


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

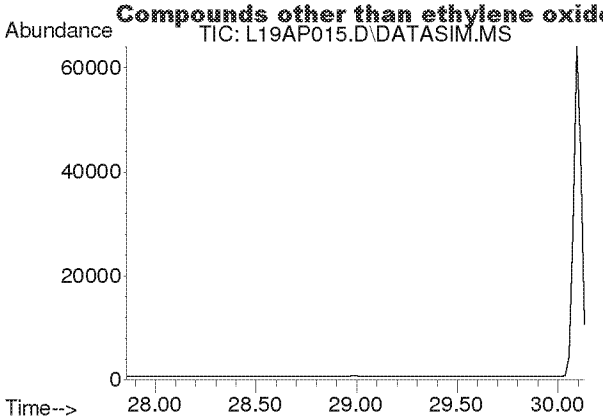
Lab File: L19AP015.D
Acq: 17 Jan 2019 2:59 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	36.6
114	2.3



Compounds other than ethylene oxide were not quantitated.

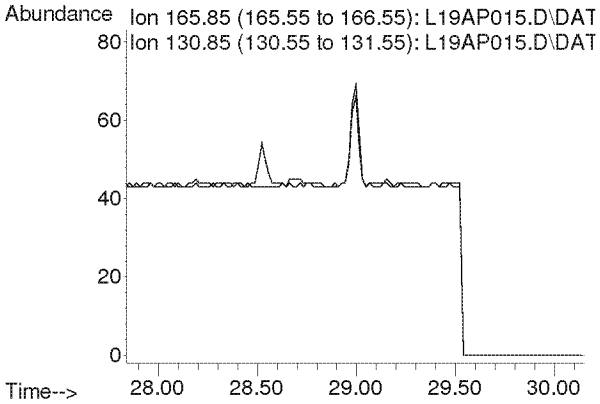


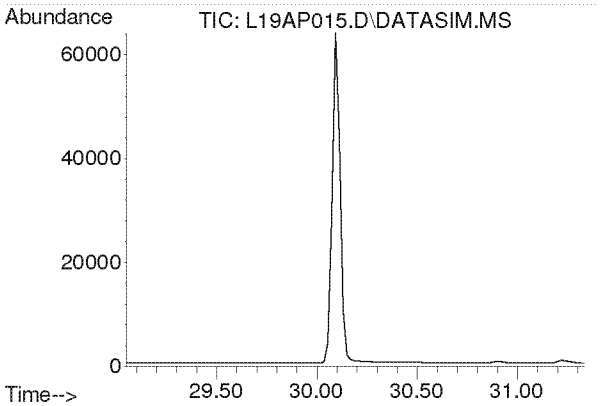
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19AP015.D
Acq: 17 Jan 2019 2:59 am

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	78.2



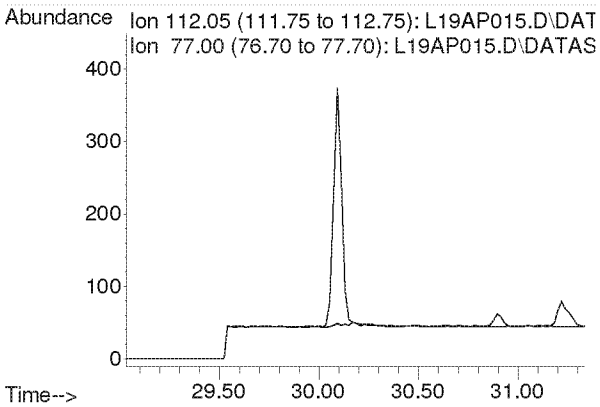


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

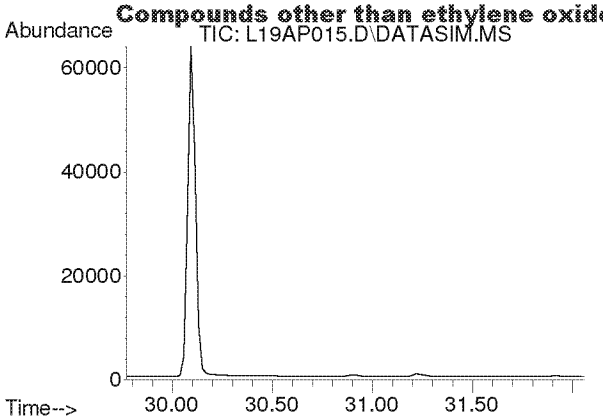
Lab File: L19AP015.D
Acq: 17 Jan 2019 2:59 am

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	61.2



Compounds other than ethylene oxide were not quantitated.

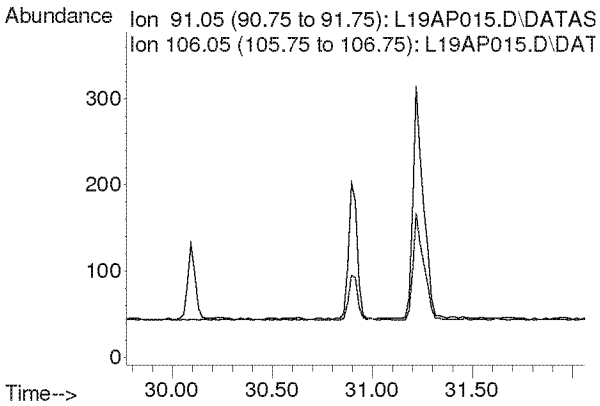


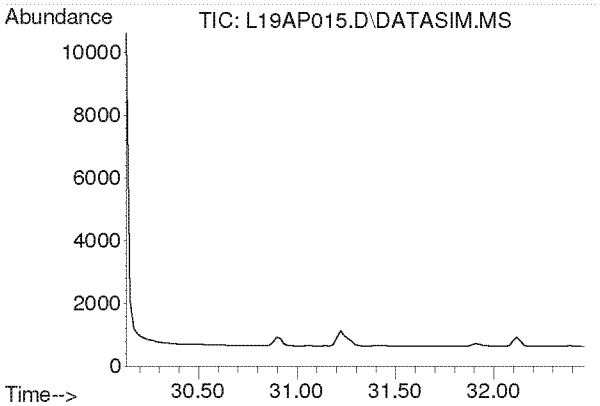
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19AP015.D
Acq: 17 Jan 2019 2:59 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	31.7



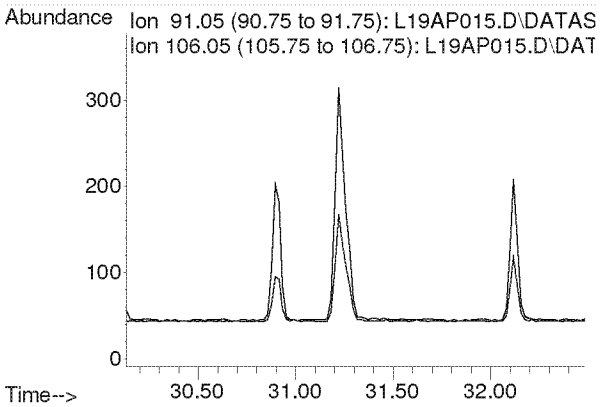


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

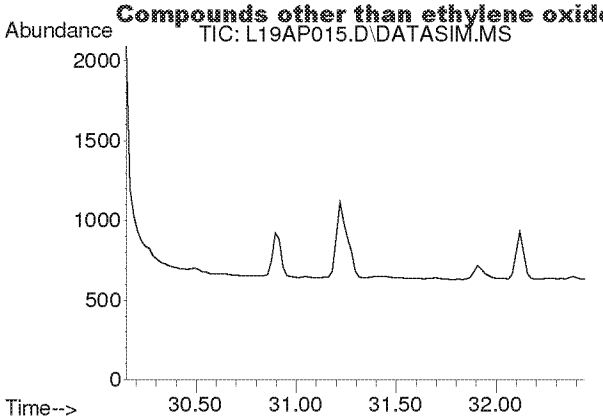
Lab File: L19AP015.D
Acq: 17 Jan 2019 2:59 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.6



Compounds other than ethylene oxide were not quantitated.

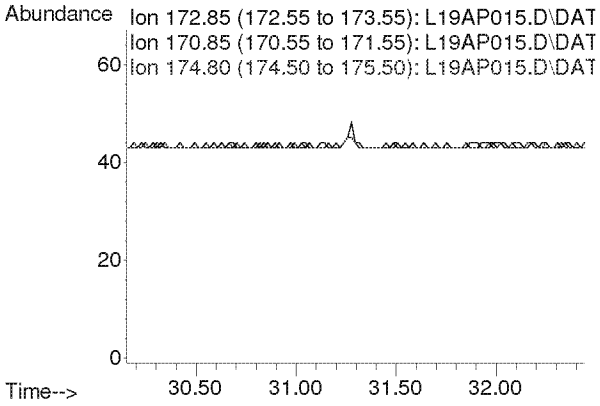


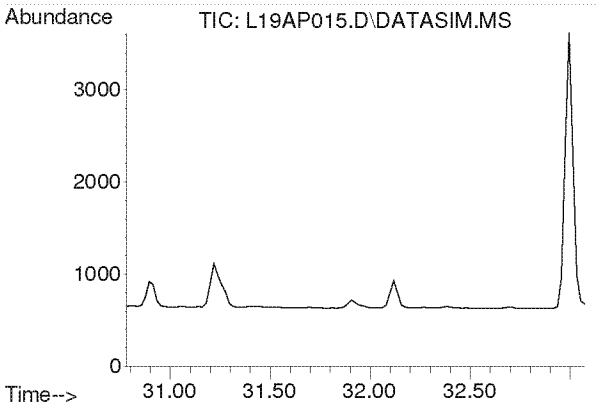
#52
Bromoform
Concen: N.D.
Expected RT: 31.30 min

Lab File: L19AP015.D
Acq: 17 Jan 2019 2:59 am

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.4
175	48.9



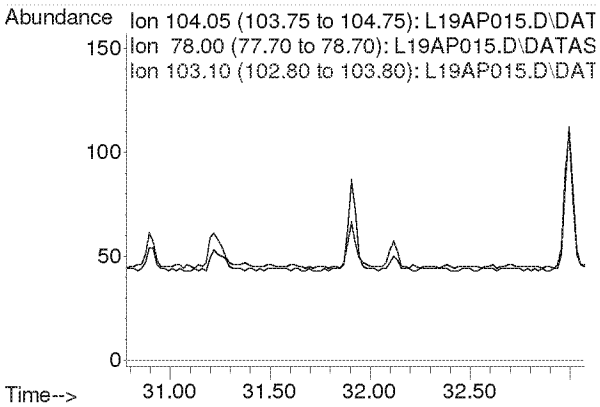


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

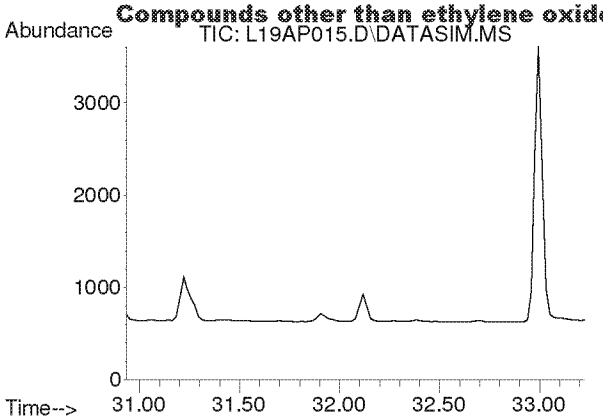
Lab File: L19AP015.D
Acq: 17 Jan 2019 2:59 am

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	45.8
103	0.0



Compounds other than ethylene oxide were not quantitated.

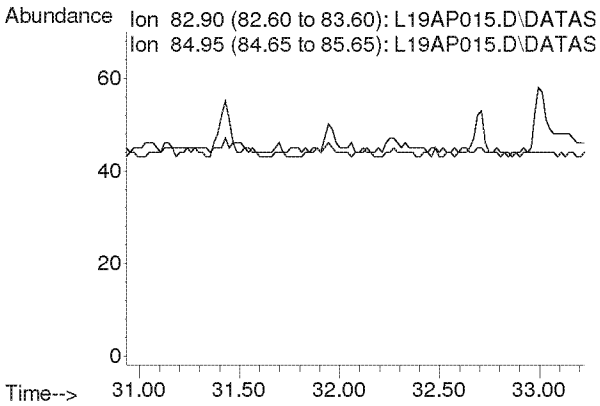


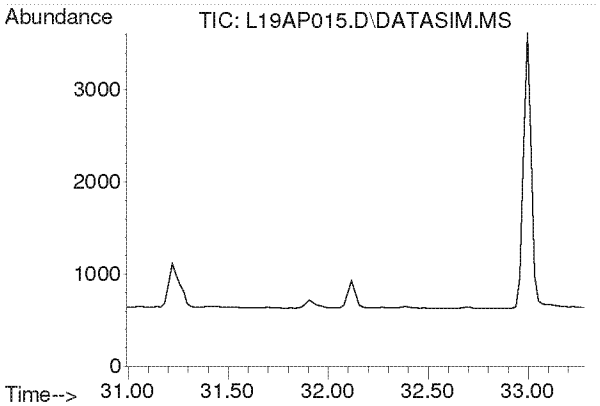
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19AP015.D
Acq: 17 Jan 2019 2:59 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.0



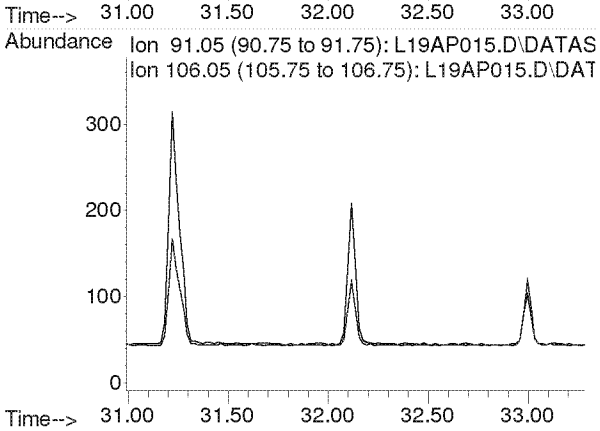


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

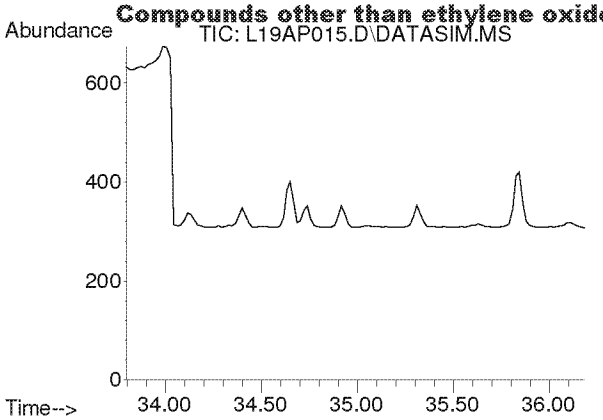
Lab File: L19AP015.D
Acq: 17 Jan 2019 2:59 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.8



Compounds other than ethylene oxide were not quantitated.

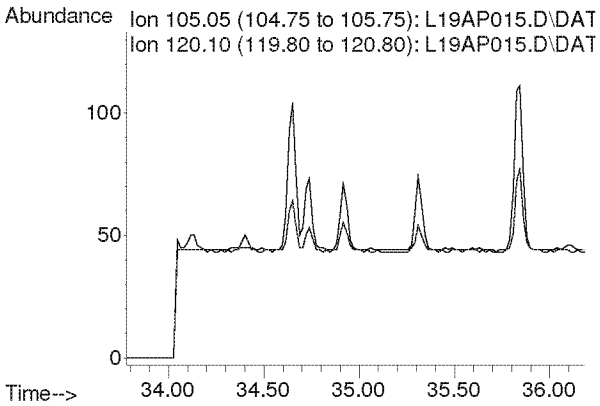


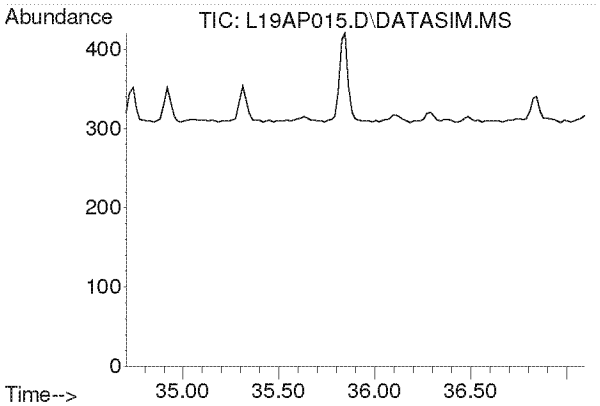
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19AP015.D
Acq: 17 Jan 2019 2:59 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	45.0



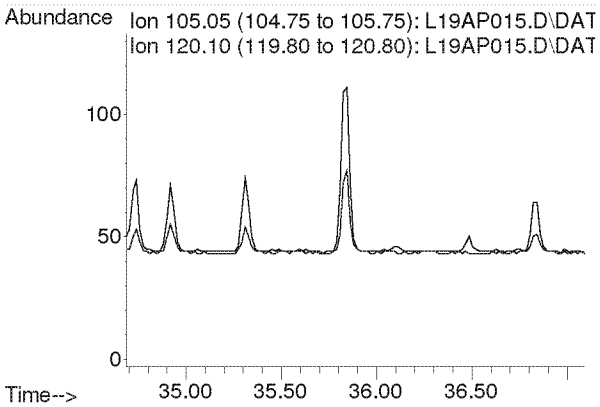


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

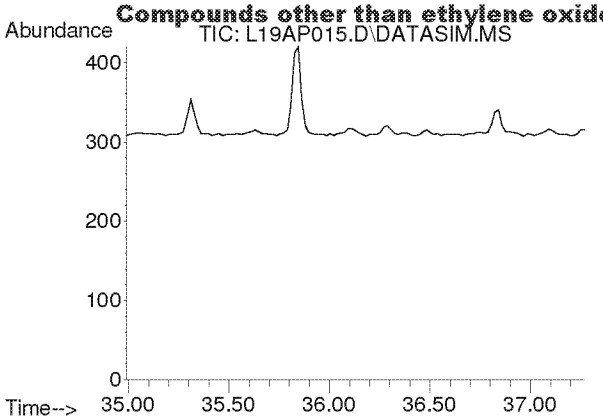
Lab File: L19AP015.D
Acq: 17 Jan 2019 2:59 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	42.9



Compounds other than ethylene oxide were not quantitated.

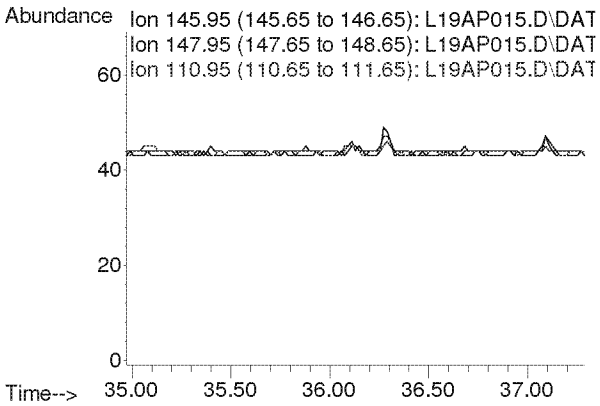


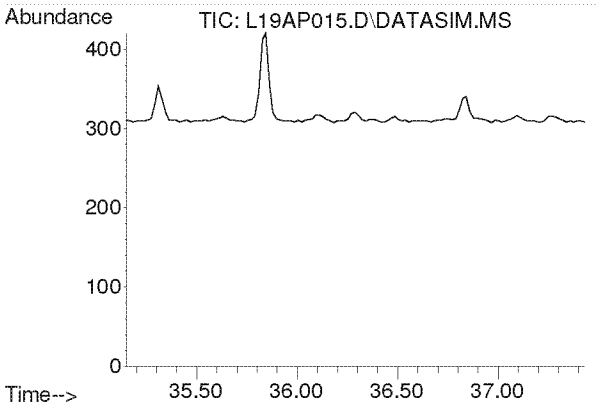
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19AP015.D
Acq: 17 Jan 2019 2:59 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.5



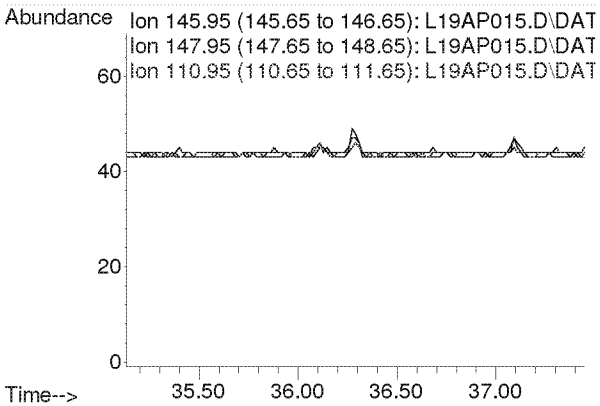


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

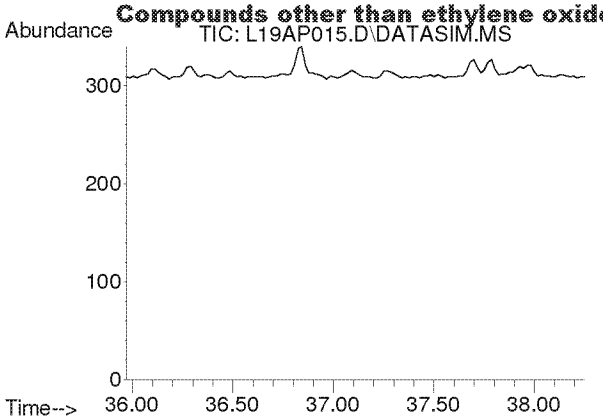
Lab File: L19AP015.D
Acq: 17 Jan 2019 2:59 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	63.9
111	39.3



Compounds other than ethylene oxide were not quantitated.

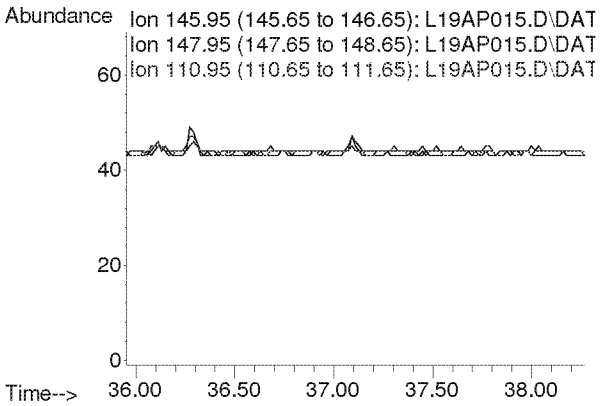


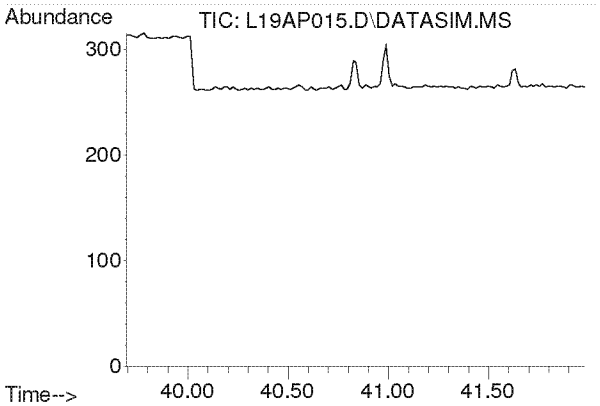
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19AP015.D
Acq: 17 Jan 2019 2:59 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.7



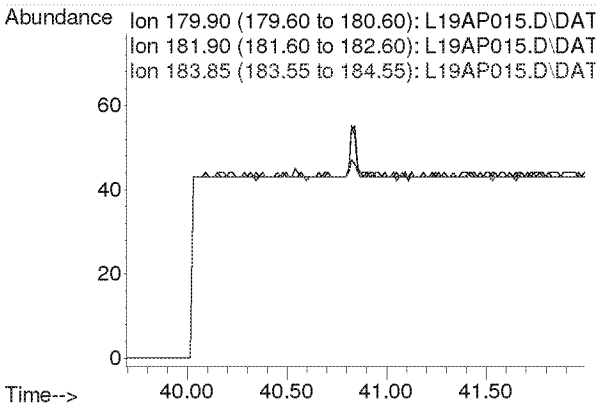


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

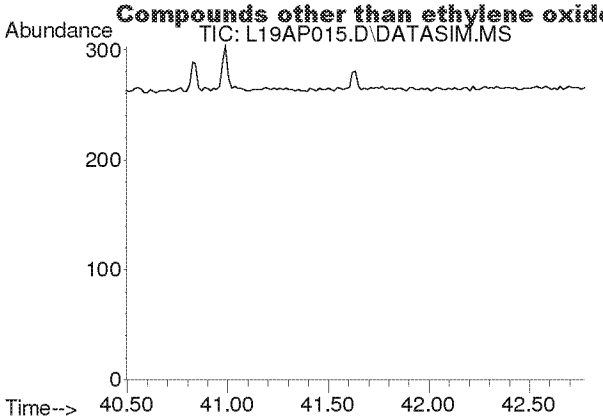
Lab File: L19AP015.D
Acq: 17 Jan 2019 2:59 am

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	95.0
184	30.5



Compounds other than ethylene oxide were not quantitated.

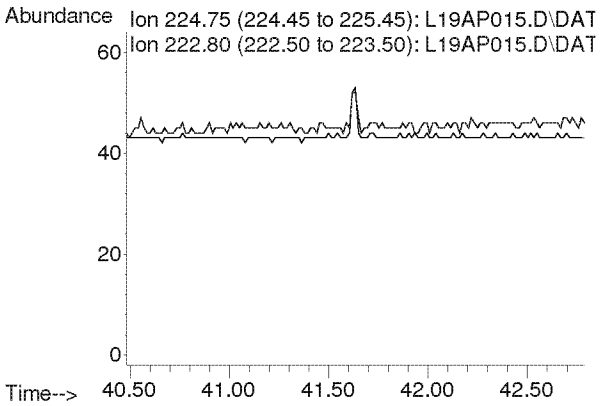


#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.63 min

Lab File: L19AP015.D
Acq: 17 Jan 2019 2:59 am

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.4



Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19AP\
Data File : L19AP016.D
Acq On : 17 Jan 2019 4:02 am
Operator : MAH
Sample : B9A1607-DUP2
Misc : WILLOWBROOK VILLAGE HALL R2 1/4/19
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jan 23 07:08:57 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) IS-Hexane-d14	19.993	66	50726	4.7700	ppbv	0.00
29) IS-1,4-Difluorobenzene	23.151	114	122808	4.9900	ppbv	0.00
43) IS-Chlorobenzene-d5	30.097	117	98850	4.7400	ppbv	-0.02

System Monitoring Compounds

Target Compounds						Qvalue
2) Acetylene	0.000	26	0	N.D.	d	
3) Propylene	0.000	41	0	N.D.	d	
4) Dichlorodifluoromethane	0.000	85	0	N.D.	d	
5) Chloromethane	0.000	50	0	N.D.	d	
6) Dichlorotetrafluoroethane	0.000	85	0	N.D.	d	
7) Vinyl Chloride	0.000	62	0	N.D.		
8) 1,3-Butadiene	0.000	54	0	N.D.	d	
9) Ethylene oxide	12.455	29	546m	0.2084	ppbv	
10) Bromomethane	0.000	94	0	N.D.	d	
11) Chloroethane	0.000	64	0	N.D.		
12) Acetonitrile	0.000	41	0	N.D.	d	
13) Acrolein	0.000	56	0	N.D.	d	
14) Trichlorofluoromethane	0.000	101	0	N.D.	d	
15) Acrylonitrile	0.000	53	0	N.D.	d	
16) 1,1-Dichloroethene	0.000	61	0	N.D.		
17) Methylene Chloride	0.000	49	0	N.D.	d	
18) Carbon Disulfide	0.000	76	0	N.D.	d	
19) Trichlorotrifluoroethane	0.000	101	0	N.D.	d	
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.		
21) 1,1-Dichloroethane	0.000	63	0	N.D.		
22) Methyl tert-Butyl Ether	0.000	73	0	N.D.		
23) Chloroprene	0.000	53	0	N.D.	d	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D.	d	
25) Bromochloromethane	0.000	128	0	N.D.		
26) Chloroform	0.000	83	0	N.D.	d	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D.		
28) 1,2-Dichloroethane	0.000	62	0	N.D.	d	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D.		
31) Benzene	0.000	78	0	N.D.	d	
32) Carbon Tetrachloride	0.000	117	0	N.D.	d	
33) tert-Amyl Methyl Ether	0.000	73	0	N.D.		
34) 1,2-Dichloropropane	0.000	63	0	N.D.		
35) Ethyl Acrylate	0.000	55	0	N.D.	d	
36) Bromodichloromethane	0.000	83	0	N.D.		
37) Trichloroethylene	0.000	130	0	N.D.		
38) Methyl Methacrylate	0.000	41	0	N.D.	d	
39) cis-1,3-Dichloropropene	0.000	75	0	N.D.		
40) Methyl Isobutyl Ketone	0.000	43	0	N.D.	d	
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.		
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.		
44) Toluene	0.000	91	0	N.D.	d	
45) Dibromochloromethane	0.000	129	0	N.D.		
46) 1,2-Dibromoethane	0.000	107	0	N.D.		
47) n-Octane	0.000	43	0	N.D.	d	
48) Tetrachloroethylene	0.000	166	0	N.D.	d	
49) Chlorobenzene	0.000	112	0	N.D.		
50) Ethylbenzene	0.000	91	0	N.D.	d	

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19AP\
Data File : L19AP016.D
Acq On : 17 Jan 2019 4:02 am
Operator : MAH
Sample : B9A1607-DUP2
Misc : WILLOWBROOK VILLAGE HALL R2 1/4/19
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jan 23 07:08:57 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D. d	
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D. d	
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D. d	
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D. d	
57) 1,2,4-Trimethylbenzene	0.000	105	0	N.D. d	
58) m-Dichlorobenzene	0.000	146	0	N.D.	
59) p-Dichlorobenzene	0.000	146	0	N.D.	
60) o-Dichlorobenzene	0.000	146	0	N.D.	
61) 1,2,4-Trichlorobenzene	0.000	180	0	N.D.	
62) Hexachloro-1,3-butadiene	0.000	225	0	N.D.	

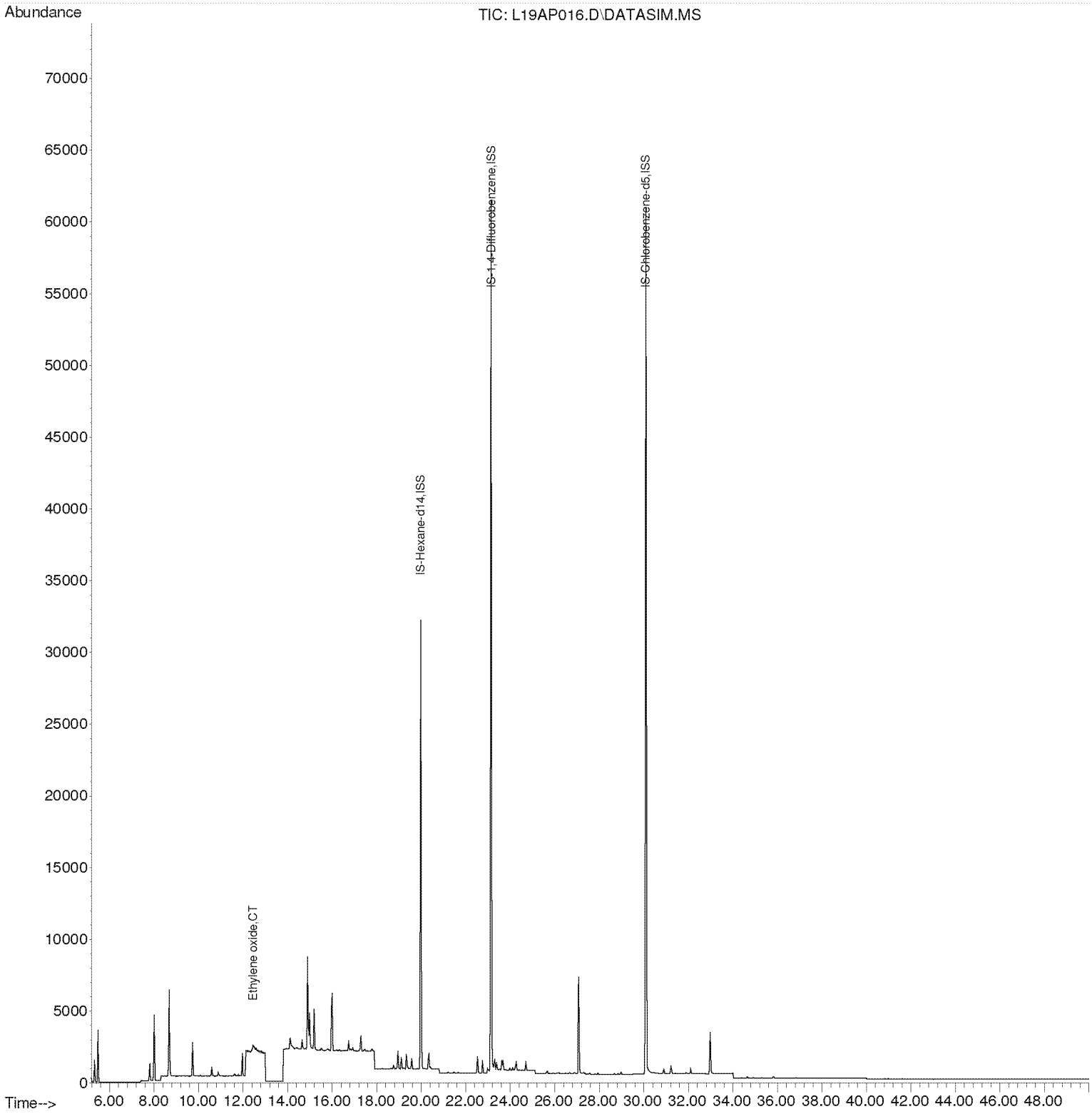
(#) = qualifier out of range (m) = manual integration (+) = signals summed

ED_002475_00000276-00184

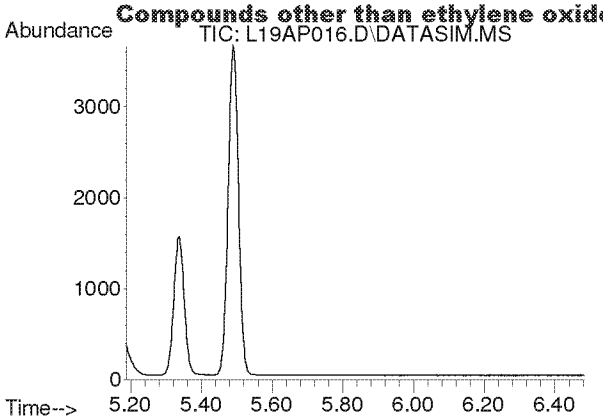
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L19AP\
Data File : L19AP016.D
Acq On : 17 Jan 2019 4:02 am
Operator : MAH
Sample : B9A1607-DUP2
Misc : WILLOWBROOK VILLAGE HALL R2 1/4/19
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jan 23 06:43:51 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration



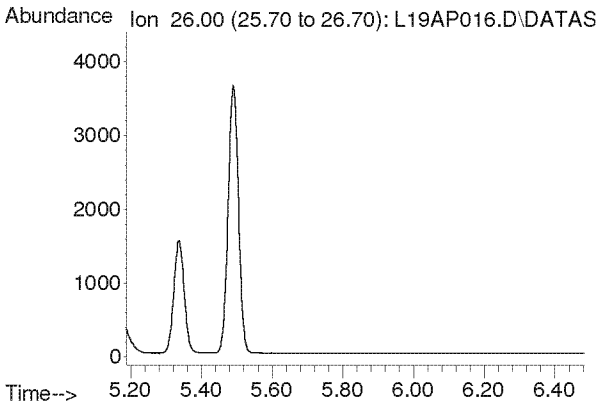
Compounds other than ethylene oxide were not quantitated.

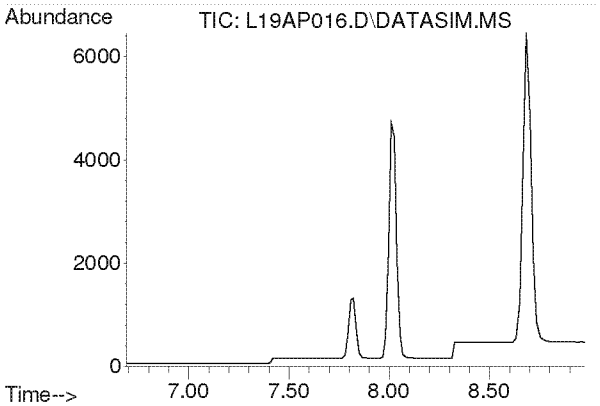


#2
Acetylene
Concen: N.D.
Expected RT: 5.42 min

Lab File: L19AP016.D
Acq: 17 Jan 2019 4:02 am

Tgt Ion: 26



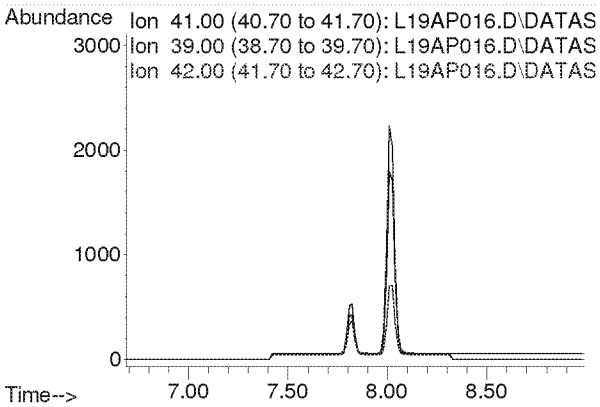


#3
Propylene
Concen: N.D.
Expected RT: 7.84 min

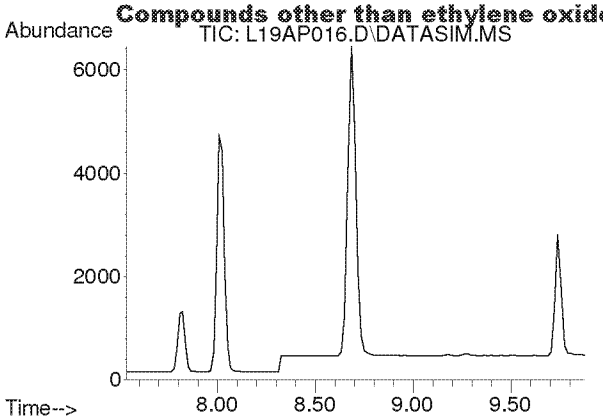
Lab File: L19AP016.D
Acq: 17 Jan 2019 4:02 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	77.0
42	65.8



Compounds other than ethylene oxide were not quantitated.

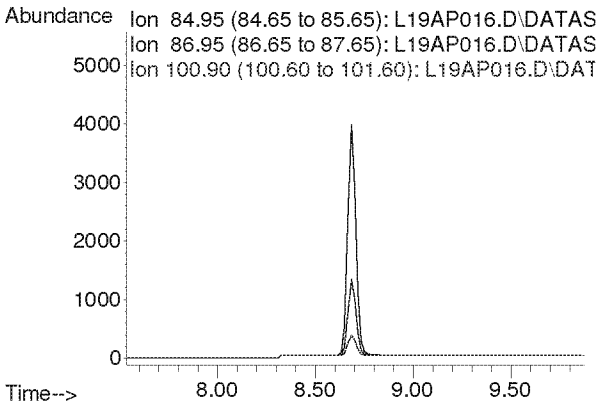


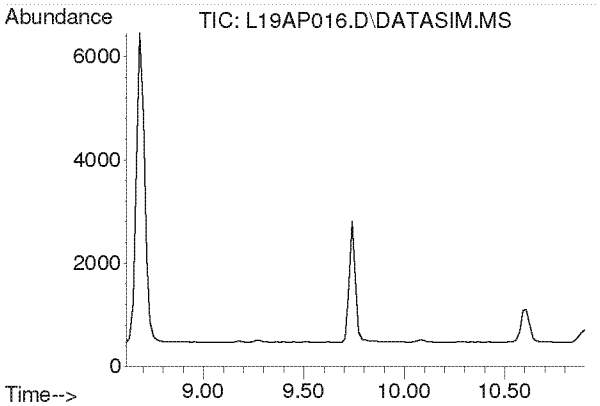
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19AP016.D
Acq: 17 Jan 2019 4:02 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	8.9



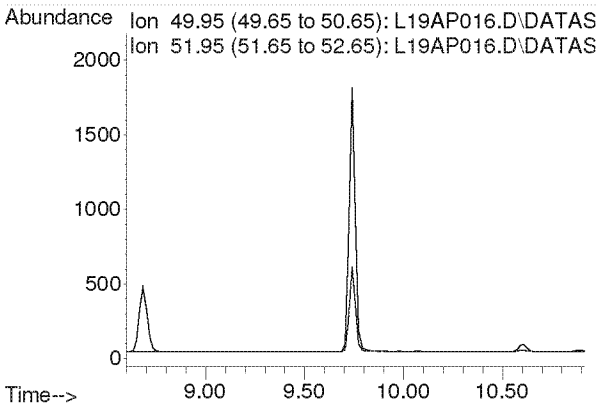


#5
Chloromethane
Concen: N.D.
Expected RT: 9.76 min

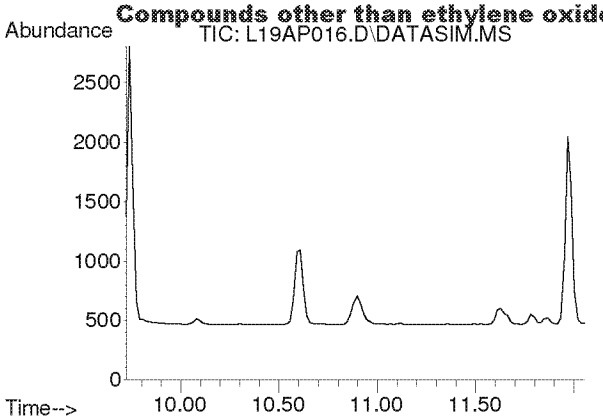
Lab File: L19AP016.D
Acq: 17 Jan 2019 4:02 am

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.4



Compounds other than ethylene oxide were not quantitated.

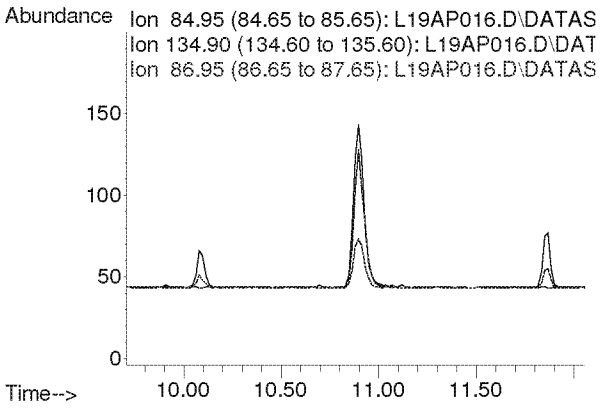


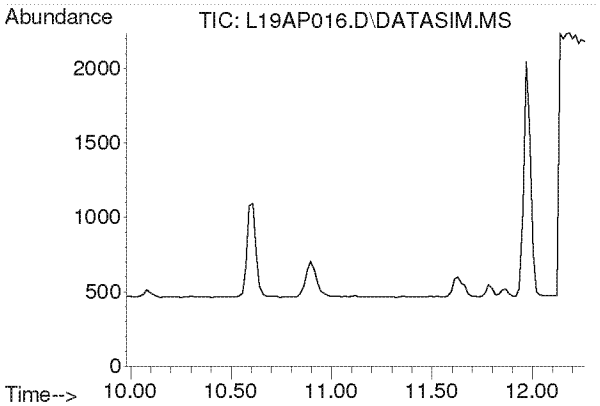
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19AP016.D
Acq: 17 Jan 2019 4:02 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.5
87	32.2



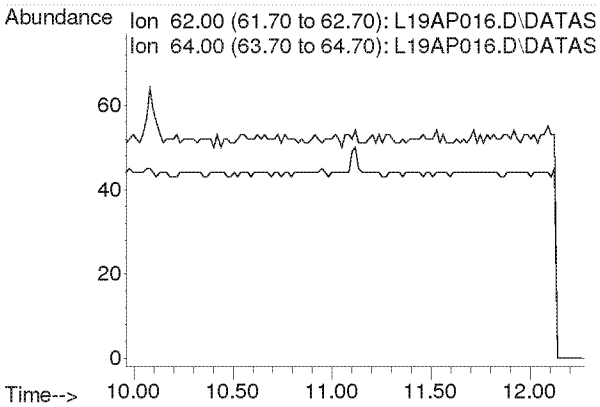


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

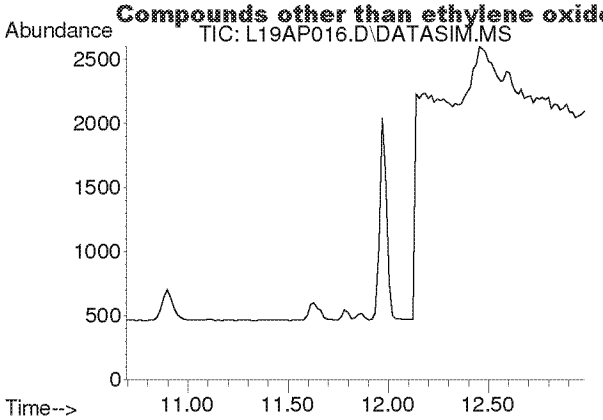
Lab File: L19AP016.D
Acq: 17 Jan 2019 4:02 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	32.1



Compounds other than ethylene oxide were not quantitated.

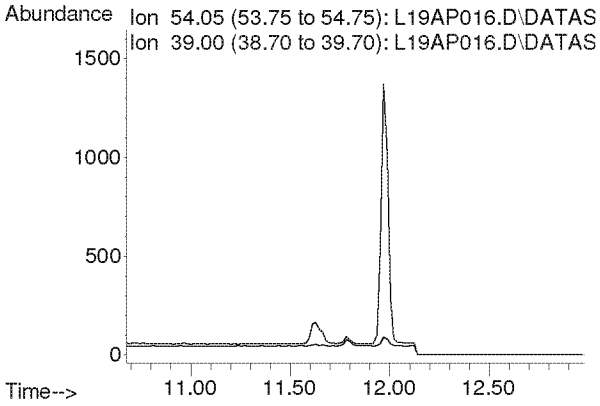


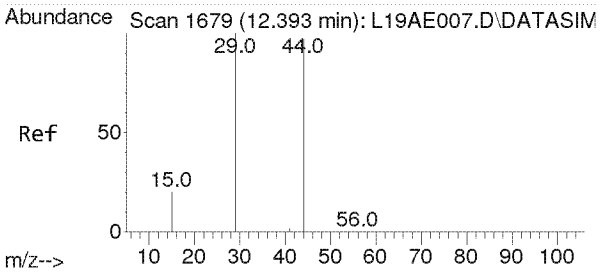
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19AP016.D
Acq: 17 Jan 2019 4:02 am

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	103.3

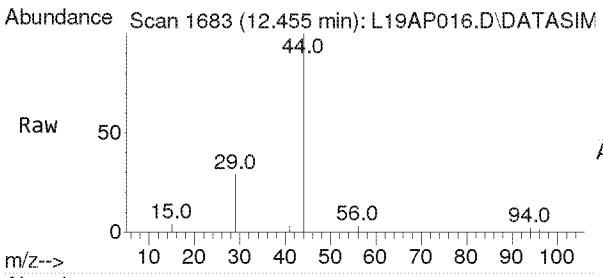


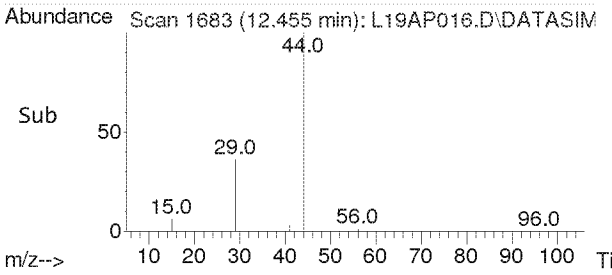


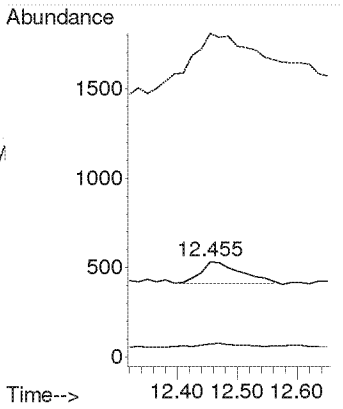
#9
Ethylene oxide
Concen: 0.208 ppbv m
RT: 12.455 min Scan# 1683
Delta R.T. 0.062 min
Lab File: L19AP016.D
Acq: 17 Jan 2019 4:02 am

Tgt Ion: 29 Resp: 546

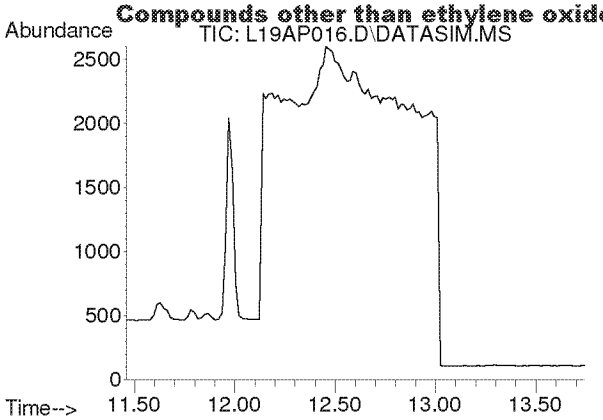
Ion	Ratio	Lower	Upper
29	100		
15	0.0	15.4	23.0#
44	0.0	77.4	116.2#







Compounds other than ethylene oxide were not quantitated.

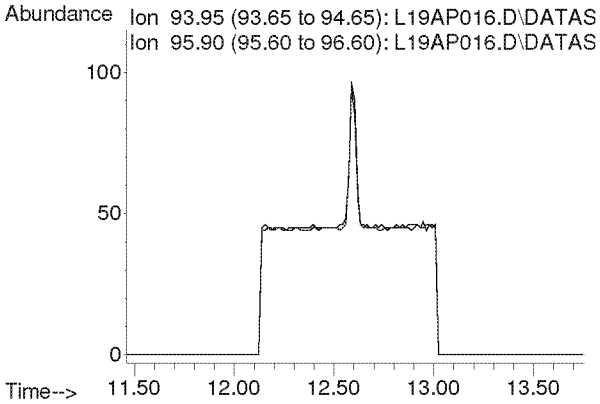


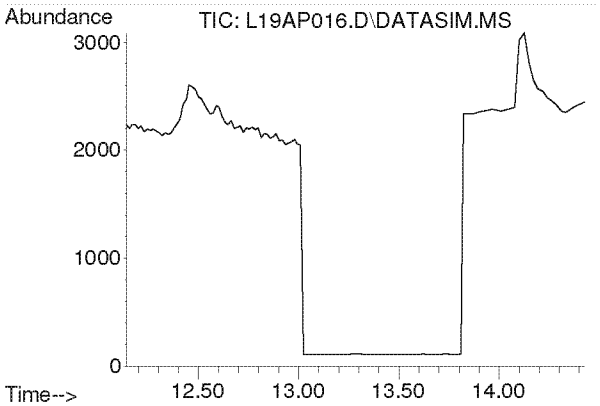
#10
Bromomethane
Concen: N.D.
Expected RT: 12.60 min

Lab File: L19AP016.D
Acq: 17 Jan 2019 4:02 am

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.3



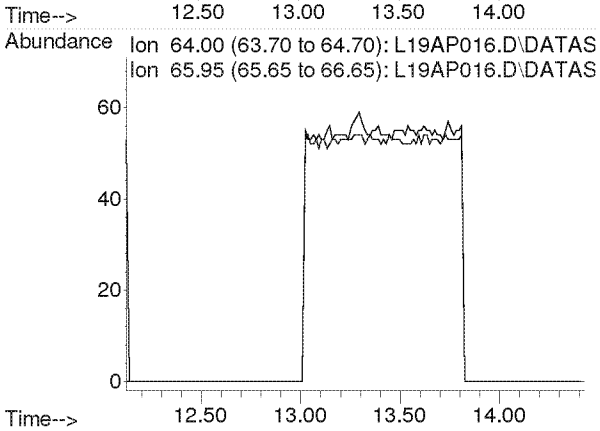


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

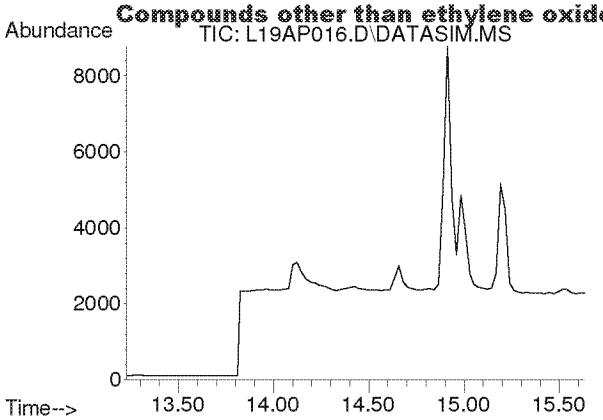
Lab File: L19AP016.D
Acq: 17 Jan 2019 4:02 am

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.4



Compounds other than ethylene oxide were not quantitated.

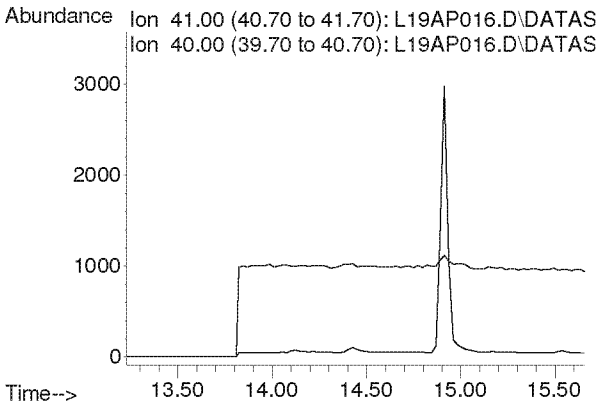


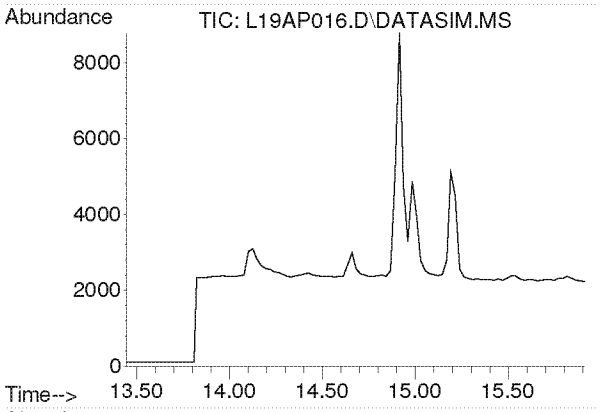
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19AP016.D
Acq: 17 Jan 2019 4:02 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	53.2



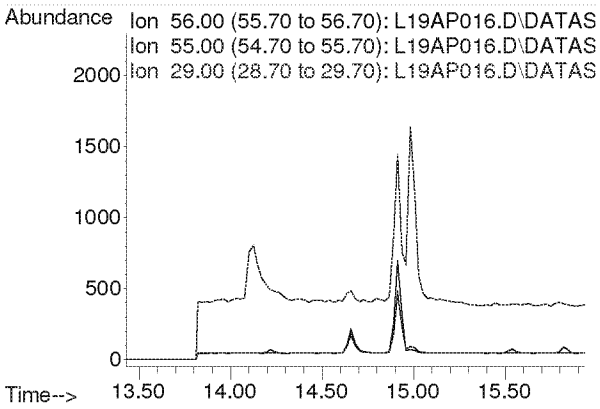


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

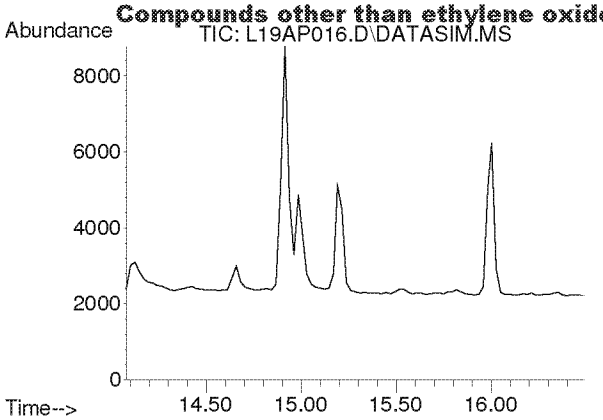
Lab File: L19AP016.D
Acq: 17 Jan 2019 4:02 am

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.5
29	44.9



Compounds other than ethylene oxide were not quantitated.

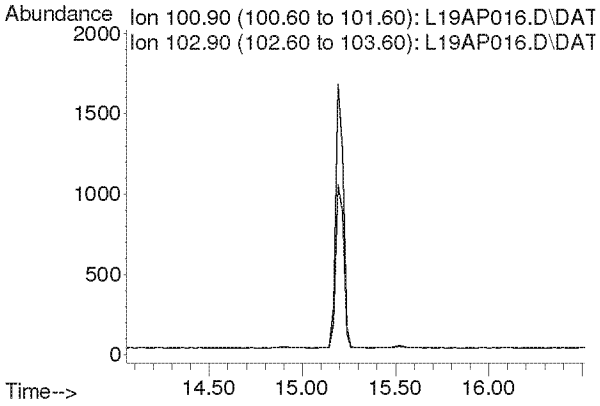


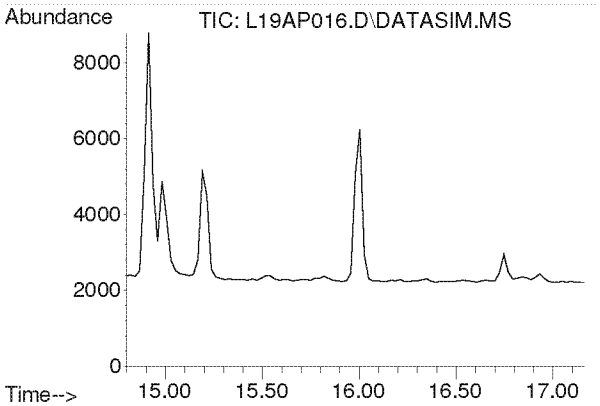
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.21 min

Lab File: L19AP016.D
Acq: 17 Jan 2019 4:02 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



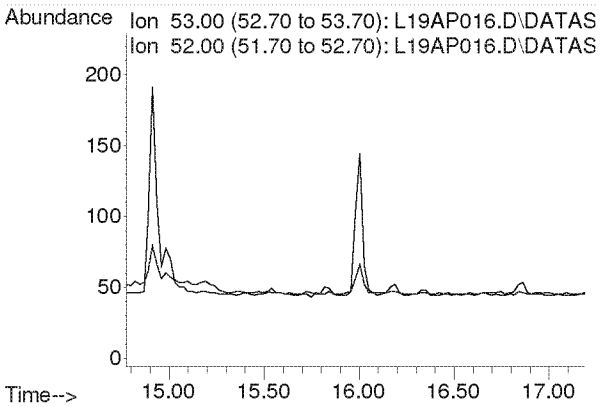


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

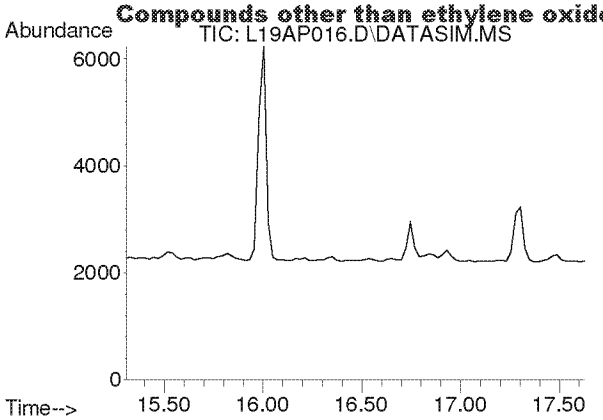
Lab File: L19AP016.D
Acq: 17 Jan 2019 4:02 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	84.7



Compounds other than ethylene oxide were not quantitated.

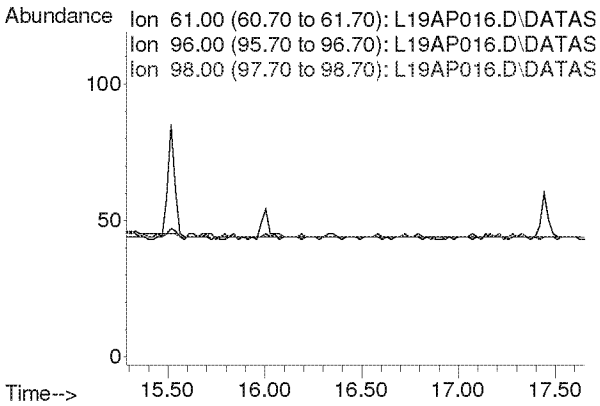


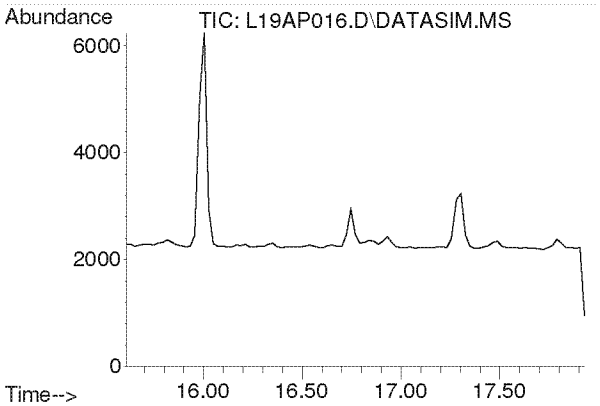
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.44 min

Lab File: L19AP016.D
Acq: 17 Jan 2019 4:02 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.5
98	38.1



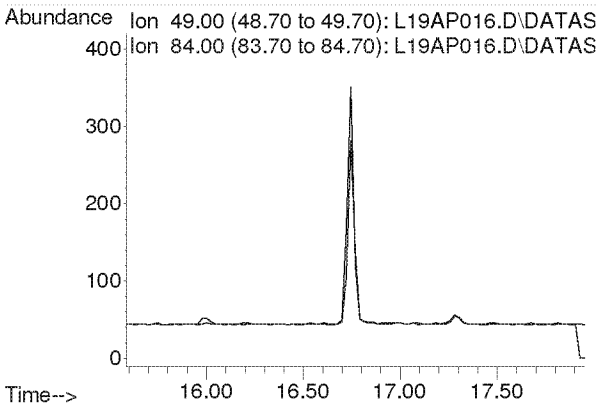


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

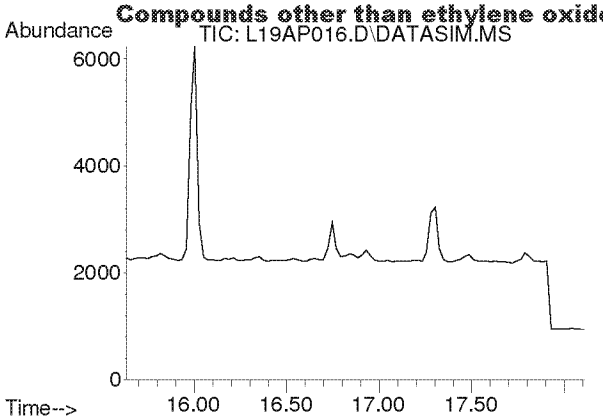
Lab File: L19AP016.D
Acq: 17 Jan 2019 4:02 am

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.3



Compounds other than ethylene oxide were not quantitated.

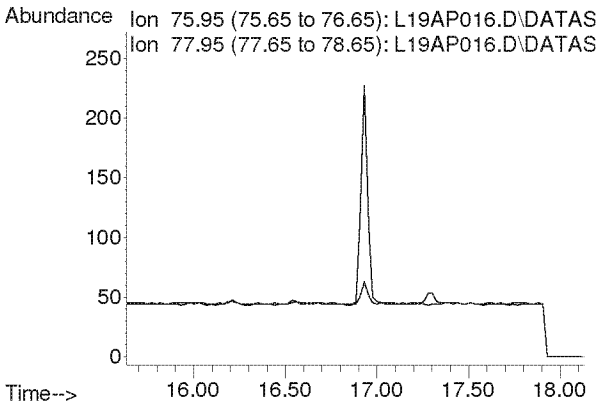


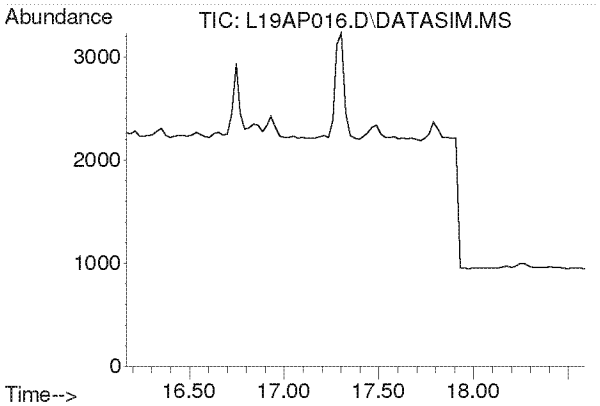
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19AP016.D
Acq: 17 Jan 2019 4:02 am

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.0



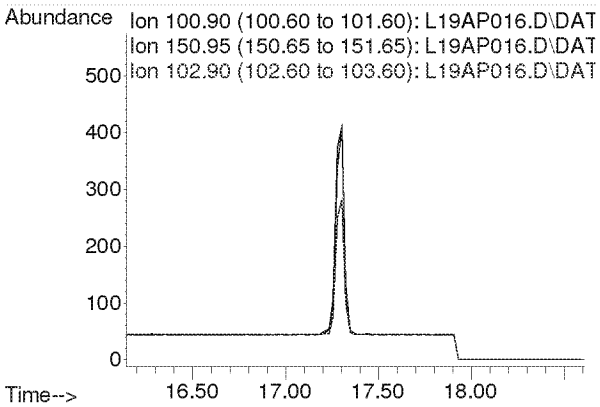


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.30 min

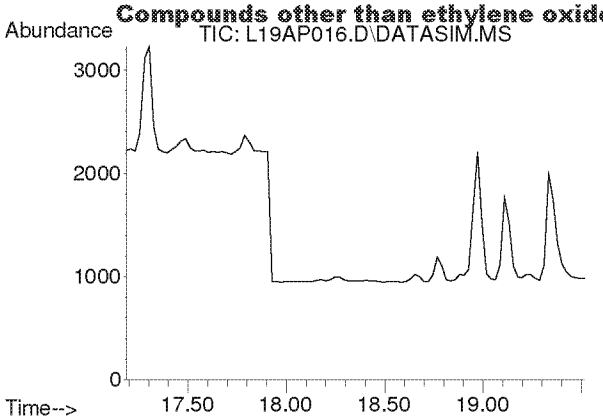
Lab File: L19AP016.D
Acq: 17 Jan 2019 4:02 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	95.4
103	63.9



Compounds other than ethylene oxide were not quantitated.

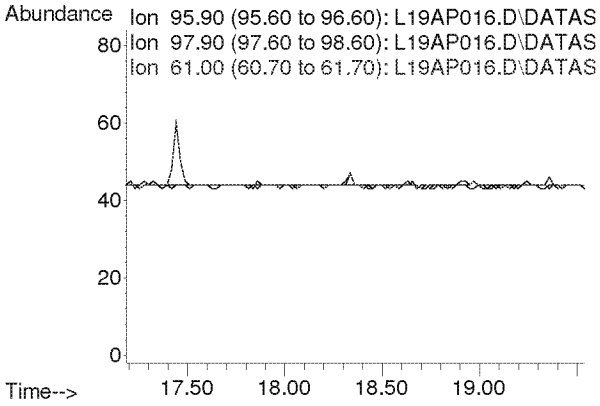


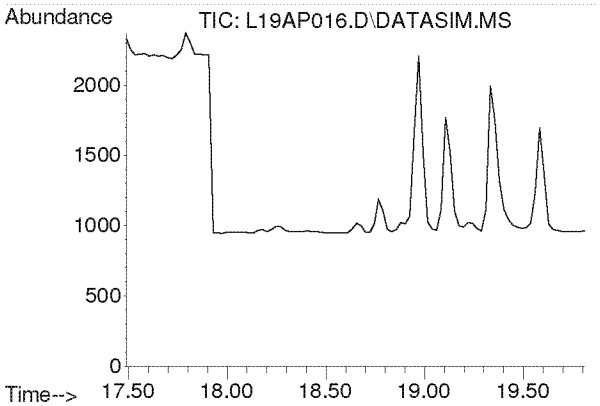
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19AP016.D
Acq: 17 Jan 2019 4:02 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	63.6
61	156.5



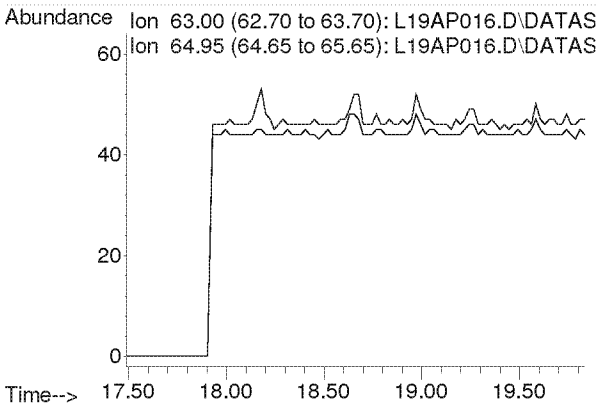


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

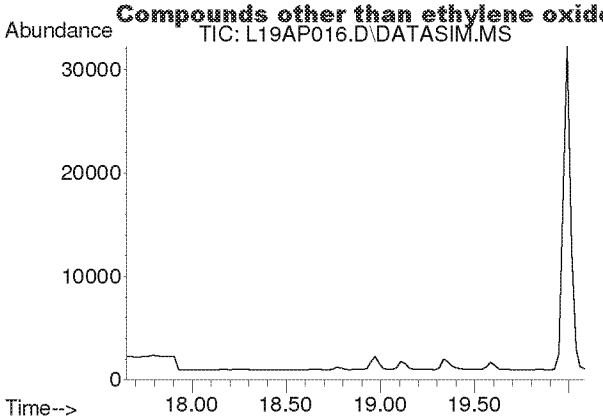
Lab File: L19AP016.D
Acq: 17 Jan 2019 4:02 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

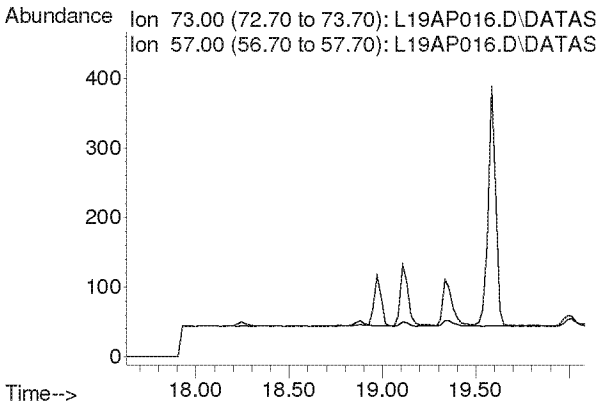


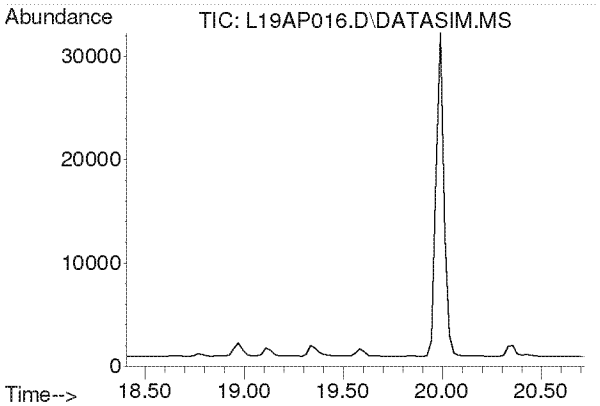
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19AP016.D
Acq: 17 Jan 2019 4:02 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.6



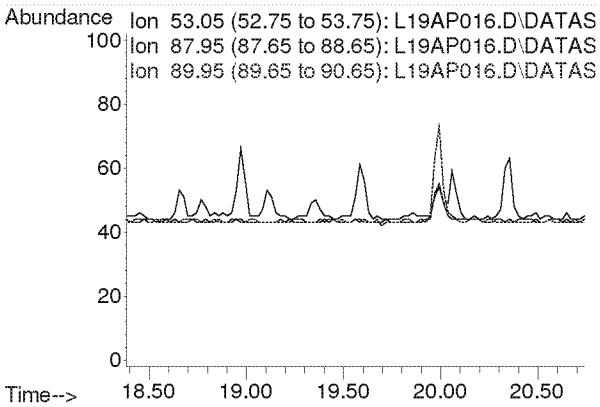


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

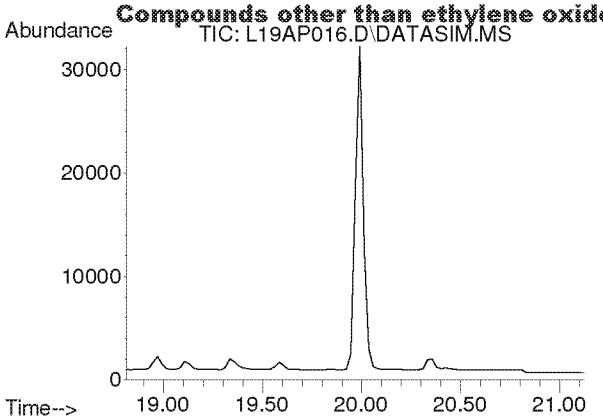
Lab File: L19AP016.D
Acq: 17 Jan 2019 4:02 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	54.0
90	17.3



Compounds other than ethylene oxide were not quantitated.

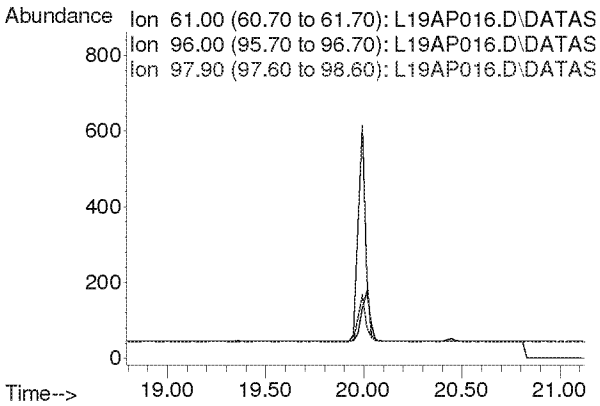


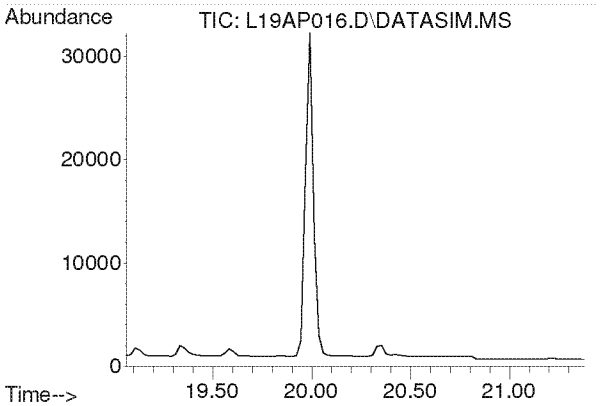
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19AP016.D
Acq: 17 Jan 2019 4:02 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	75.7
98	46.4



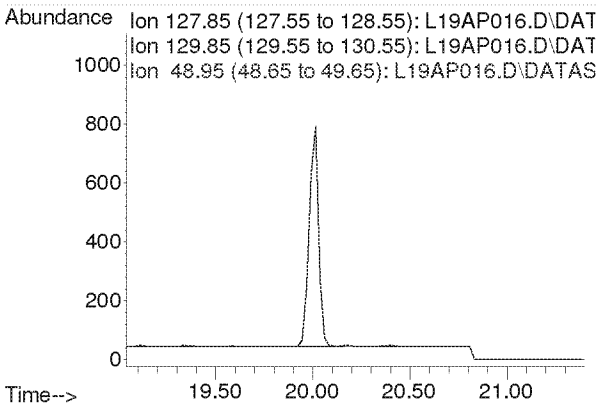


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.19 min

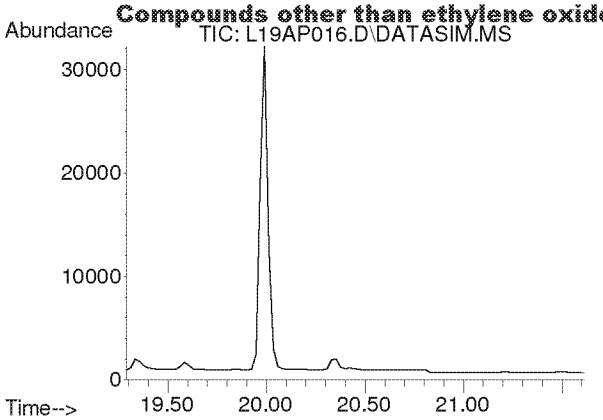
Lab File: L19AP016.D
Acq: 17 Jan 2019 4:02 am

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	130.4
49	170.8



Compounds other than ethylene oxide were not quantitated.

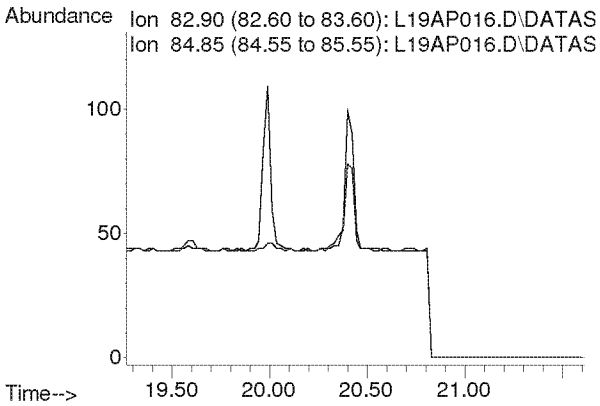


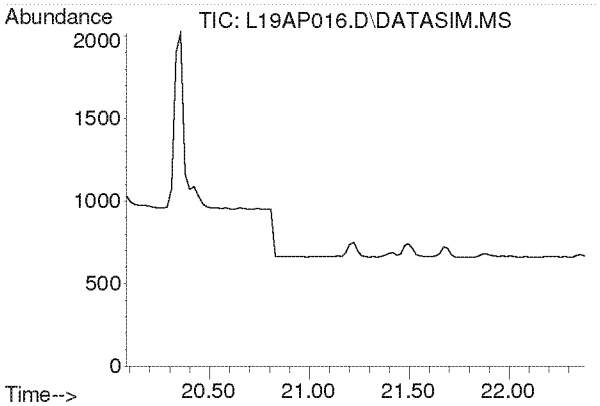
#26
Chloroform
Concen: N.D.
Expected RT: 20.42 min

Lab File: L19AP016.D
Acq: 17 Jan 2019 4:02 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



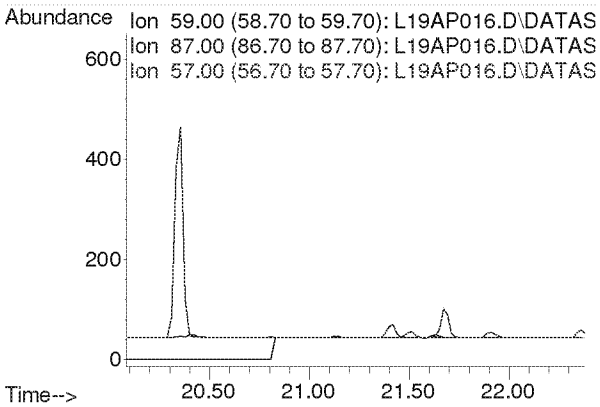


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

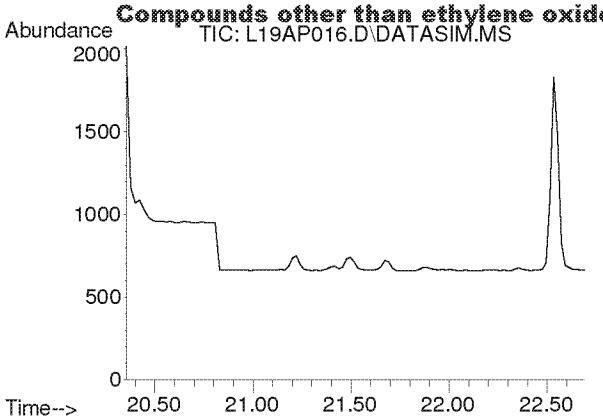
Lab File: L19AP016.D
Acq: 17 Jan 2019 4:02 am

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	37.8
57	34.3



Compounds other than ethylene oxide were not quantitated.

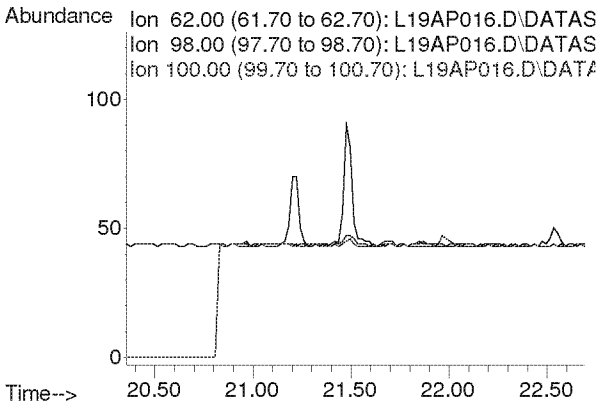


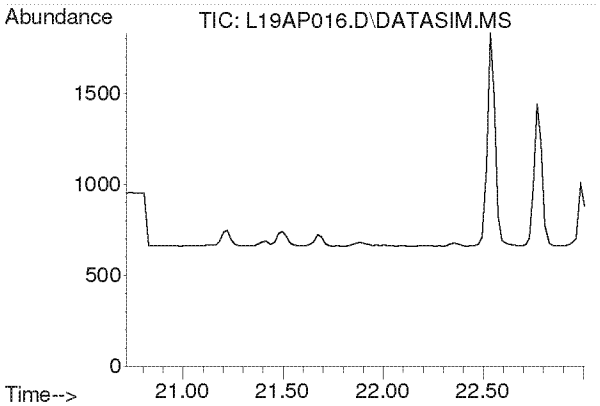
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.50 min

Lab File: L19AP016.D
Acq: 17 Jan 2019 4:02 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.8
100	4.2



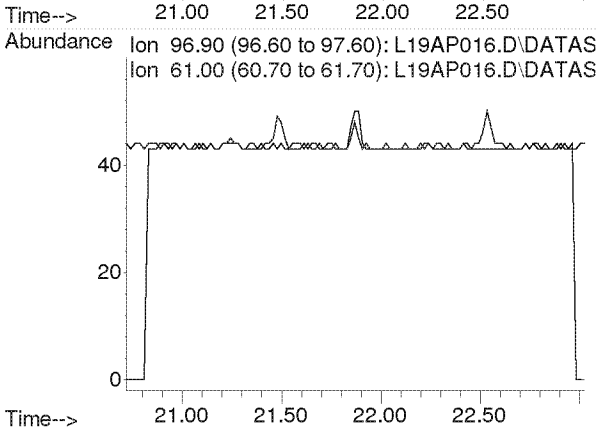


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

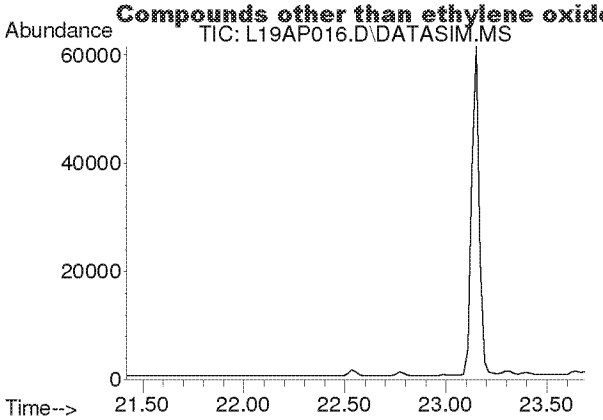
Lab File: L19AP016.D
Acq: 17 Jan 2019 4:02 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	58.6



Compounds other than ethylene oxide were not quantitated.

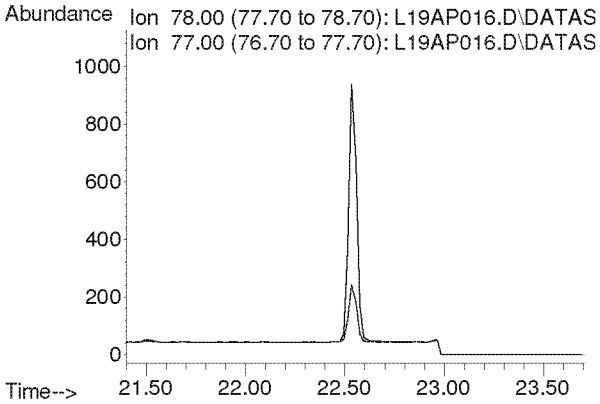


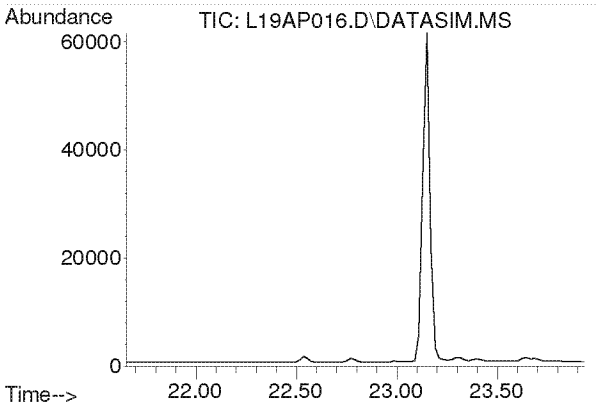
#31
Benzene
Concen: N.D.
Expected RT: 22.55 min

Lab File: L19AP016.D
Acq: 17 Jan 2019 4:02 am

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.9



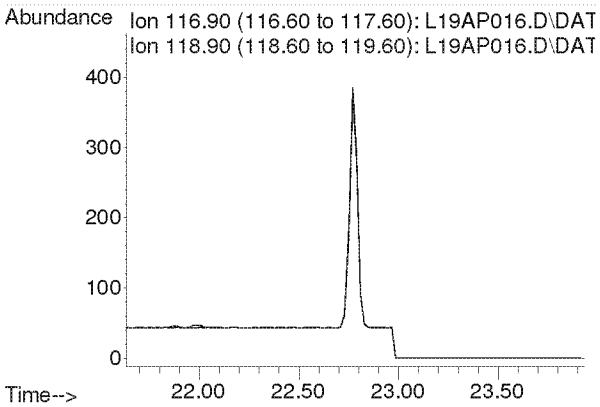


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.79 min

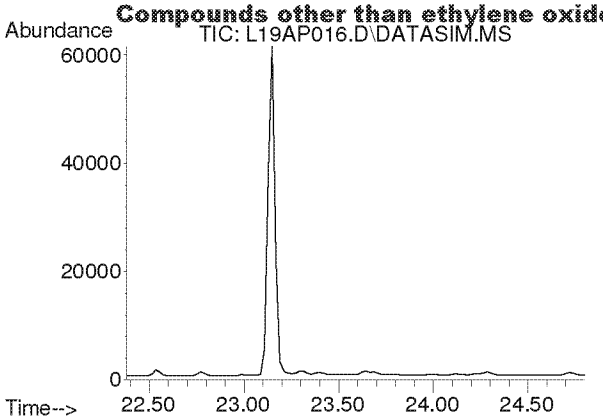
Lab File: L19AP016.D
Acq: 17 Jan 2019 4:02 am

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.5



Compounds other than ethylene oxide were not quantitated.

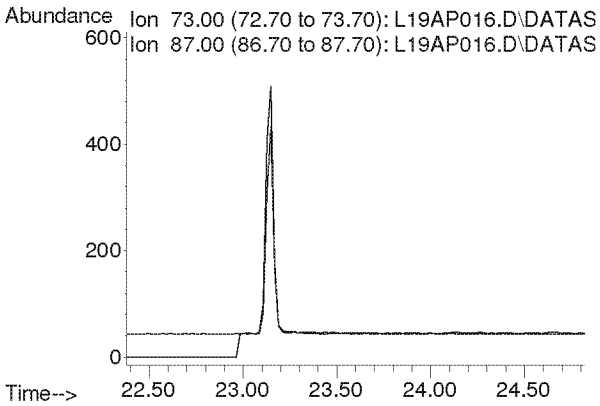


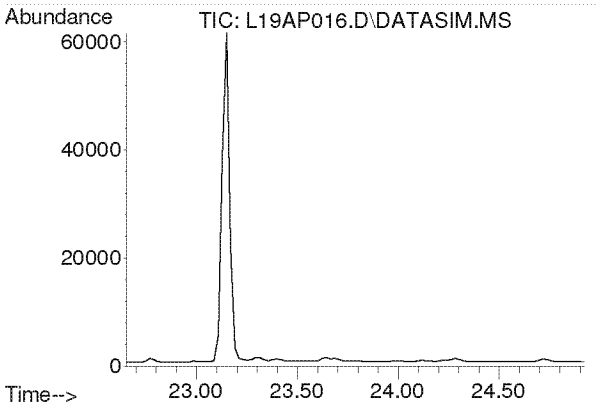
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19AP016.D
Acq: 17 Jan 2019 4:02 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	24.8



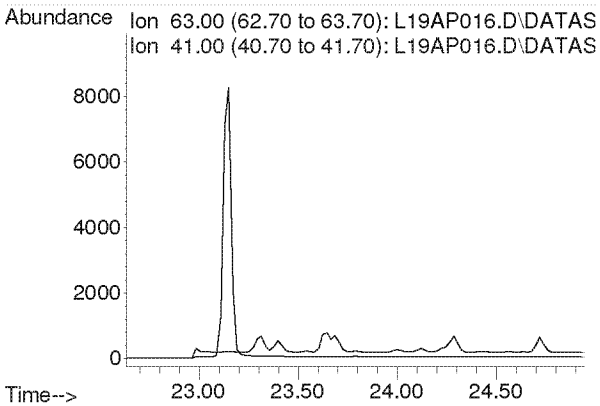


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

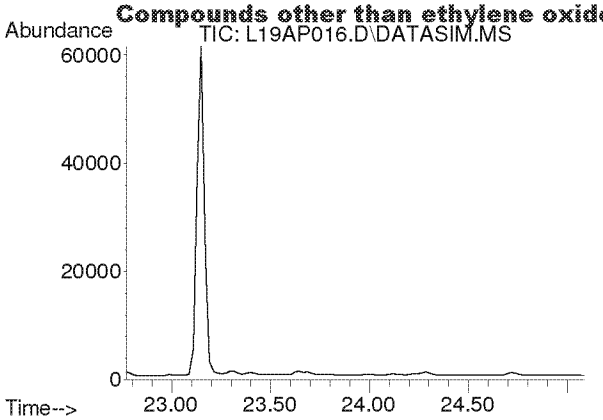
Lab File: L19AP016.D
Acq: 17 Jan 2019 4:02 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	196.0



Compounds other than ethylene oxide were not quantitated.

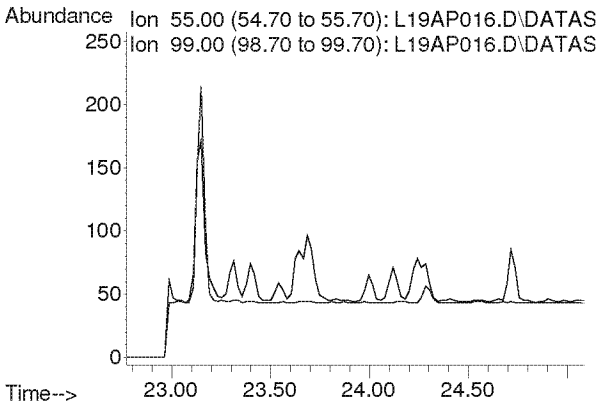


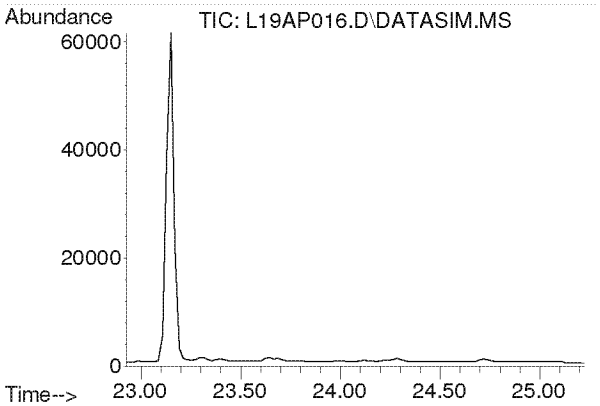
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19AP016.D
Acq: 17 Jan 2019 4:02 am

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.0



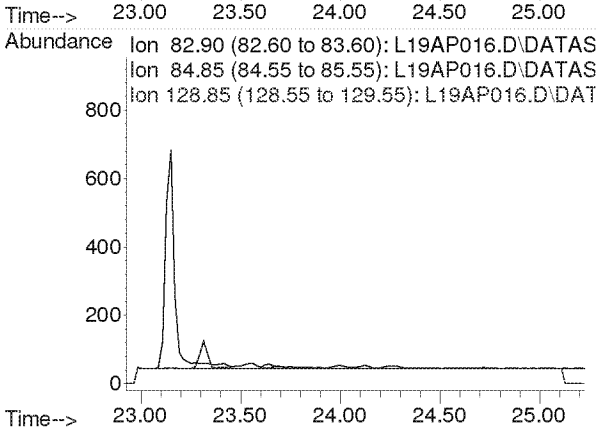


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

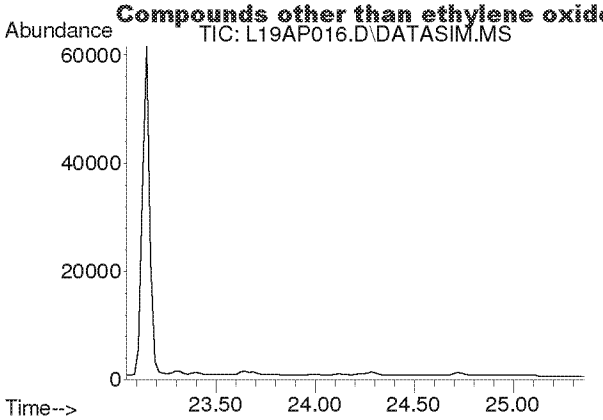
Lab File: L19AP016.D
Acq: 17 Jan 2019 4:02 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.9
129	12.5



Compounds other than ethylene oxide were not quantitated.

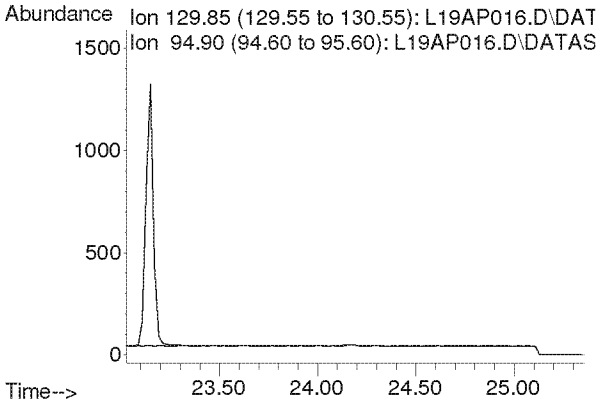


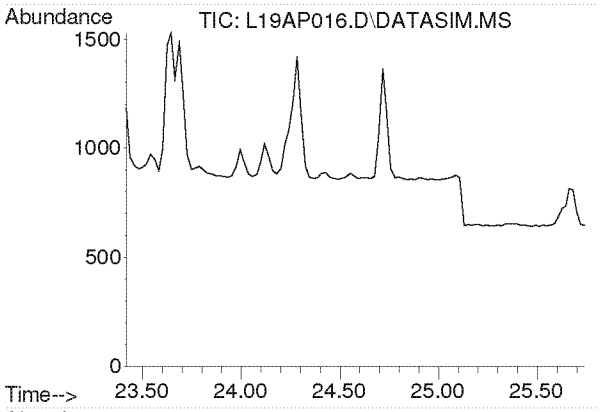
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19AP016.D
Acq: 17 Jan 2019 4:02 am

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	108.6



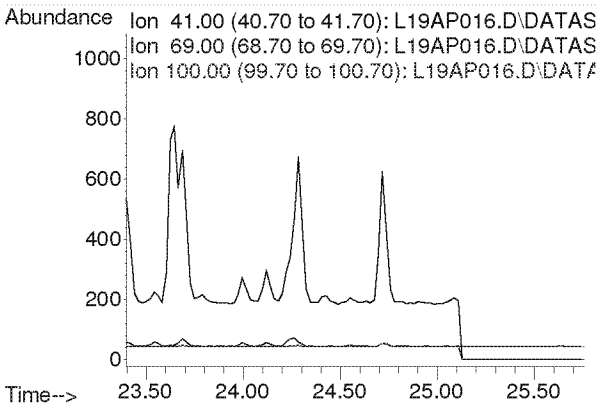


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.55 min

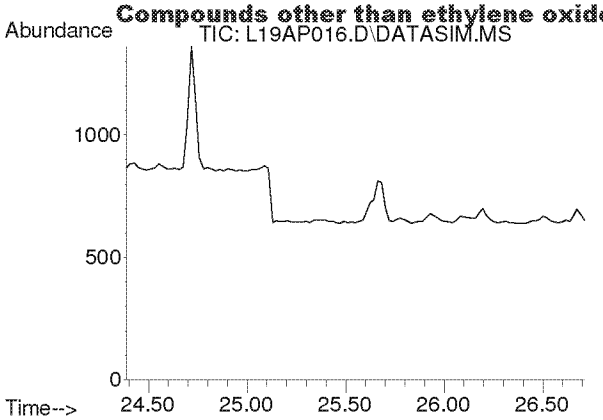
Lab File: L19AP016.D
Acq: 17 Jan 2019 4:02 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	20.7
100	5.3



Compounds other than ethylene oxide were not quantitated.

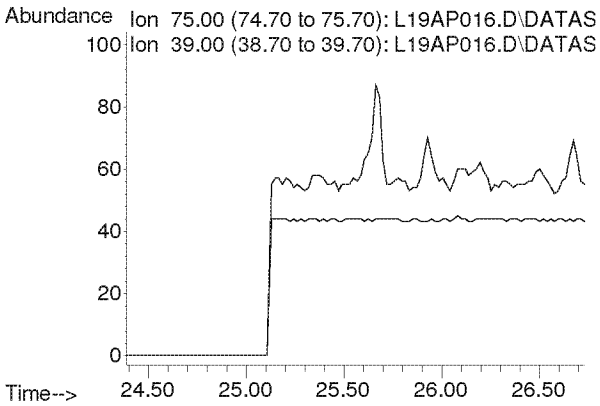


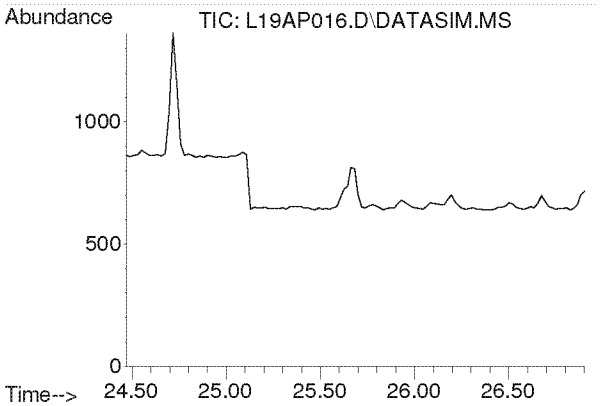
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19AP016.D
Acq: 17 Jan 2019 4:02 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	48.3



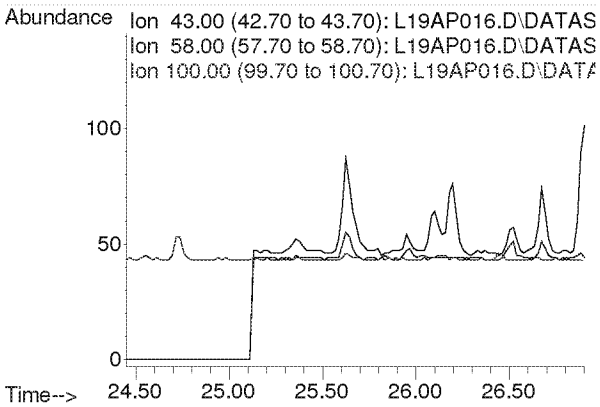


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

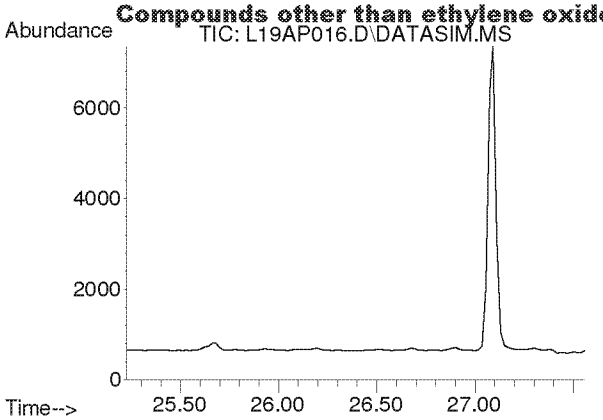
Lab File: L19AP016.D
Acq: 17 Jan 2019 4:02 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	34.5
100	8.1



Compounds other than ethylene oxide were not quantitated.

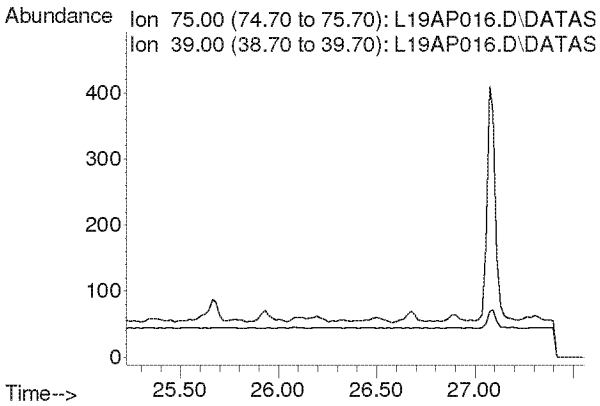


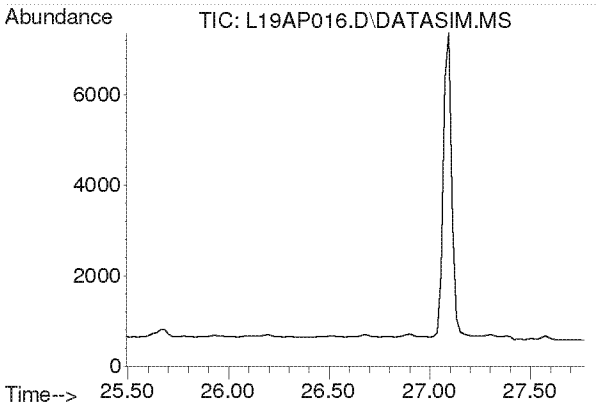
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19AP016.D
Acq: 17 Jan 2019 4:02 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	48.8



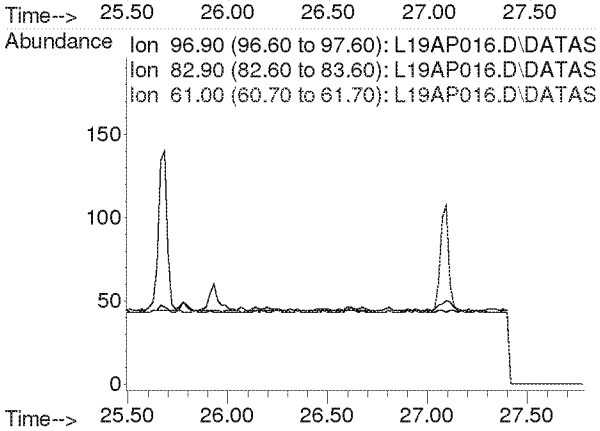


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.63 min

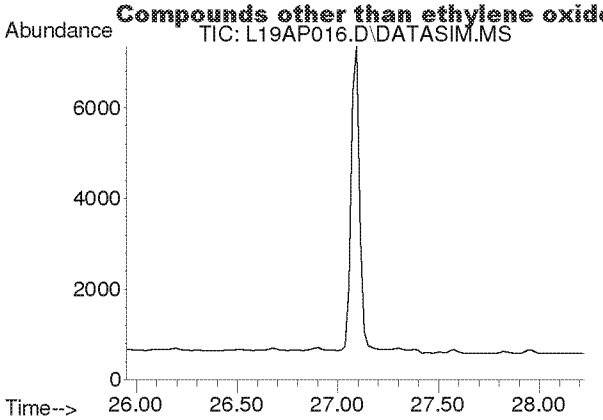
Lab File: L19AP016.D
Acq: 17 Jan 2019 4:02 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	96.6
61	61.4



Compounds other than ethylene oxide were not quantitated.

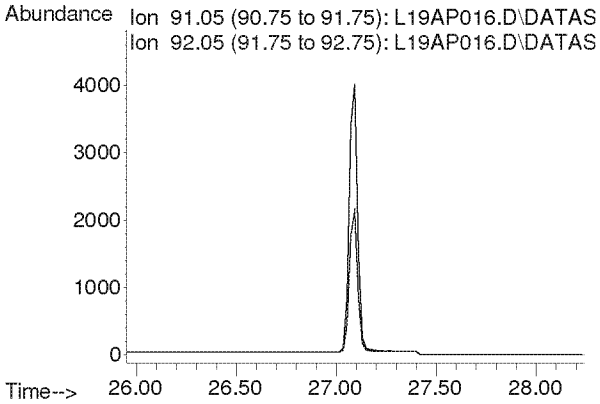


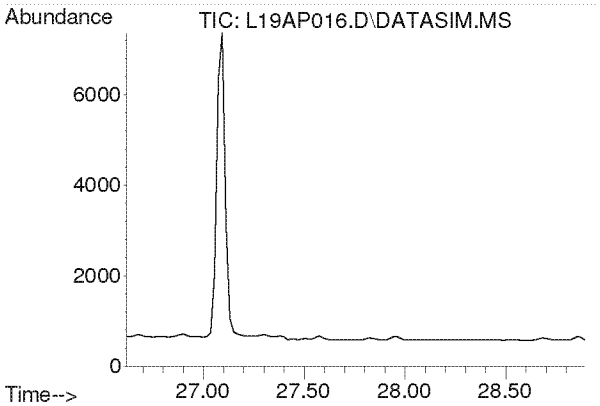
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19AP016.D
Acq: 17 Jan 2019 4:02 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



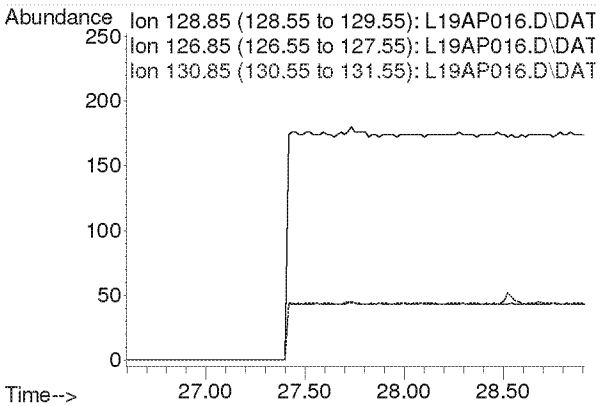


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

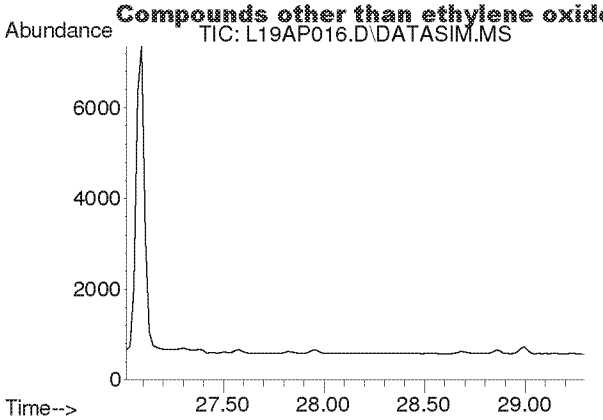
Lab File: L19AP016.D
Acq: 17 Jan 2019 4:02 am

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.2
131	6.0



Compounds other than ethylene oxide were not quantitated.

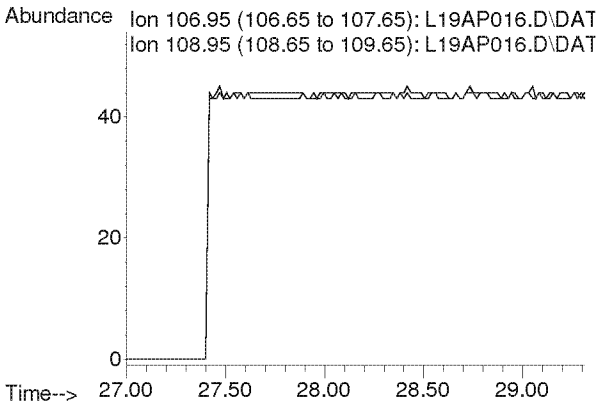


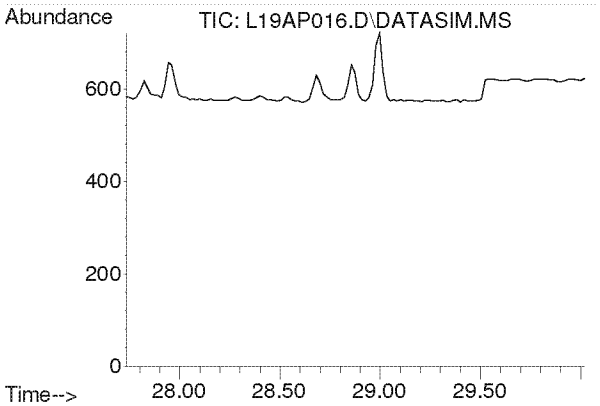
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19AP016.D
Acq: 17 Jan 2019 4:02 am

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.3



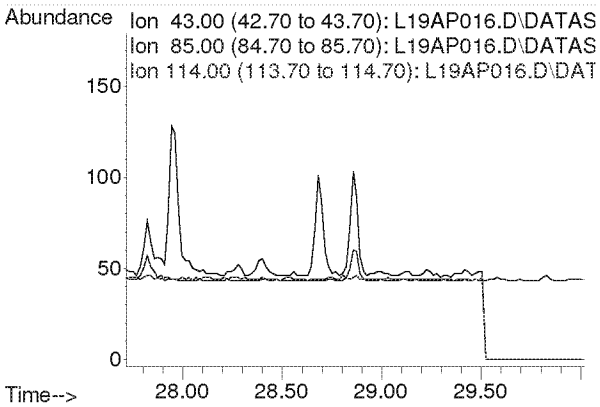


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

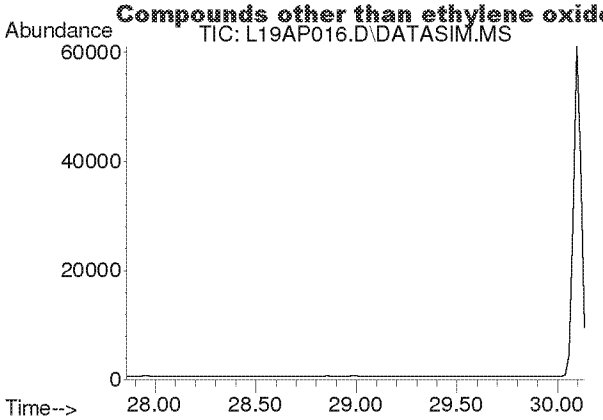
Lab File: L19AP016.D
Acq: 17 Jan 2019 4:02 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	36.6
114	2.3



Compounds other than ethylene oxide were not quantitated.

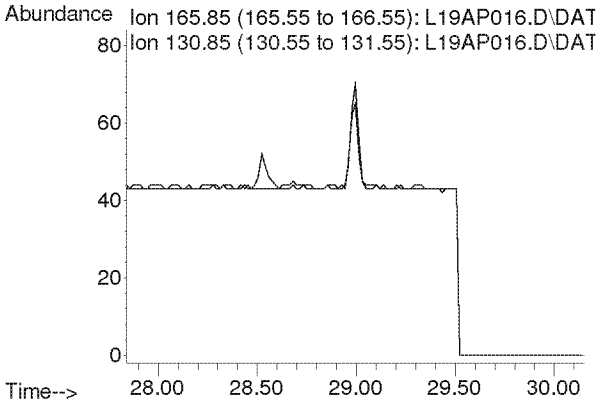


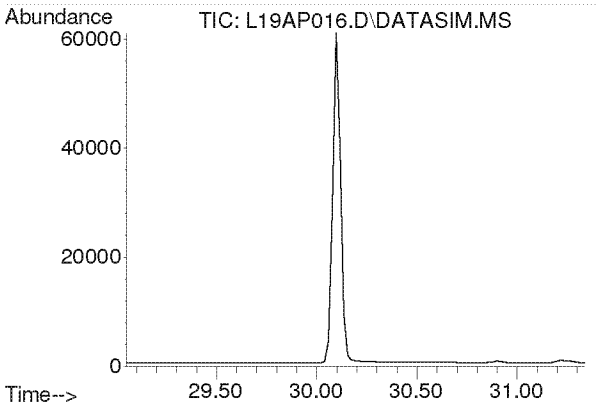
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19AP016.D
Acq: 17 Jan 2019 4:02 am

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	78.2



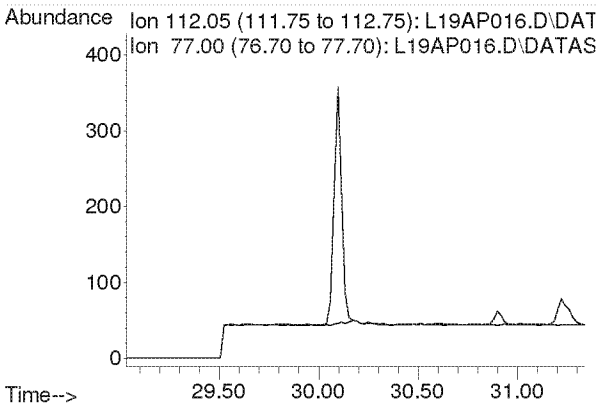


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

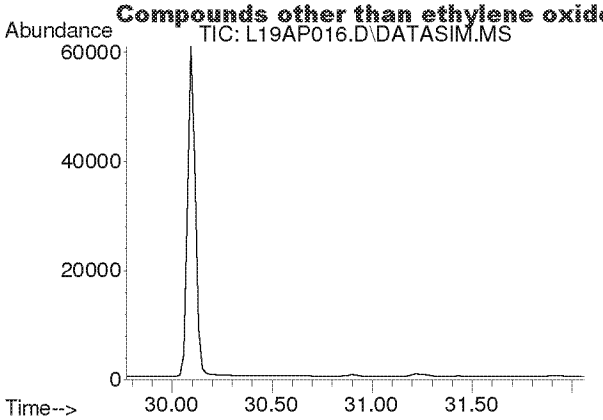
Lab File: L19AP016.D
Acq: 17 Jan 2019 4:02 am

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	61.2



Compounds other than ethylene oxide were not quantitated.

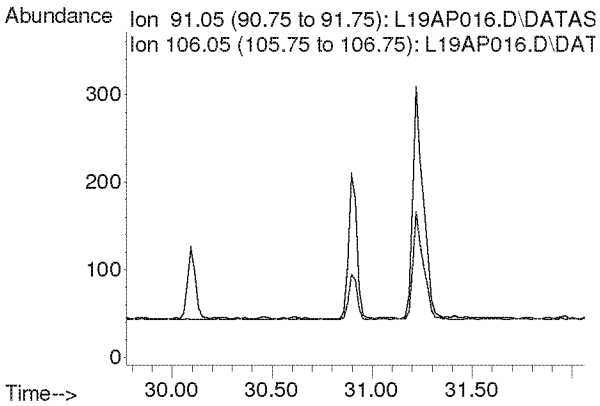


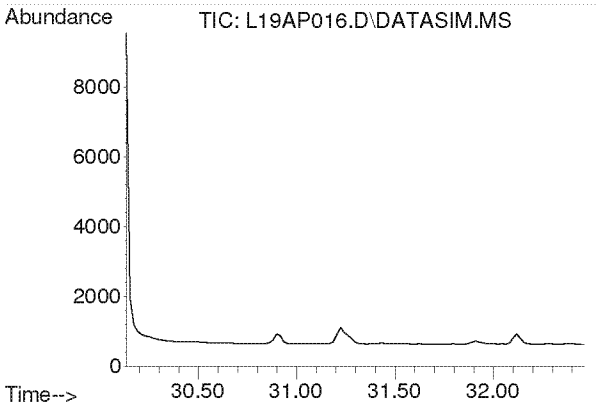
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19AP016.D
Acq: 17 Jan 2019 4:02 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	31.7



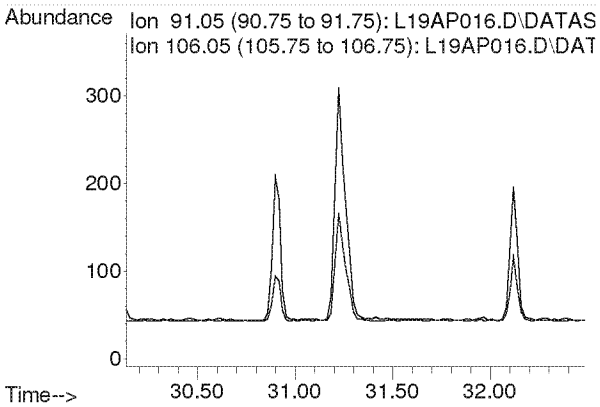


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

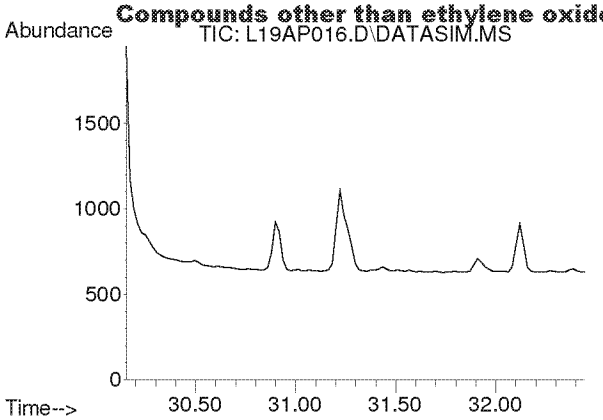
Lab File: L19AP016.D
Acq: 17 Jan 2019 4:02 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.6



Compounds other than ethylene oxide were not quantitated.

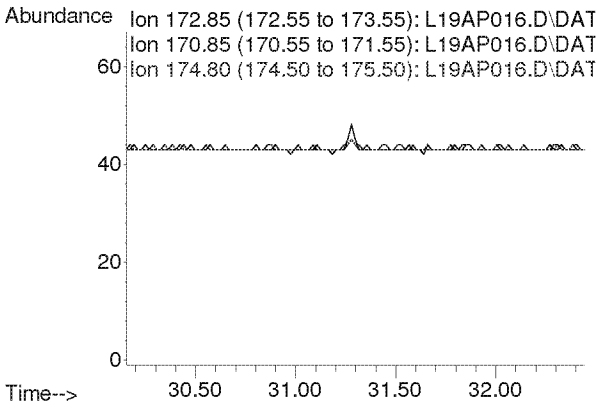


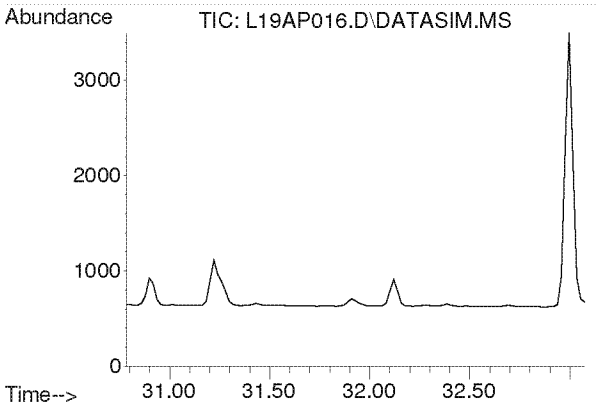
#52
Bromoform
Concen: N.D.
Expected RT: 31.30 min

Lab File: L19AP016.D
Acq: 17 Jan 2019 4:02 am

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.4
175	48.9



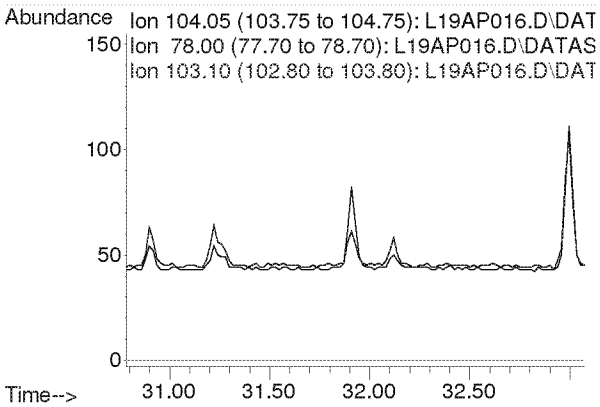


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

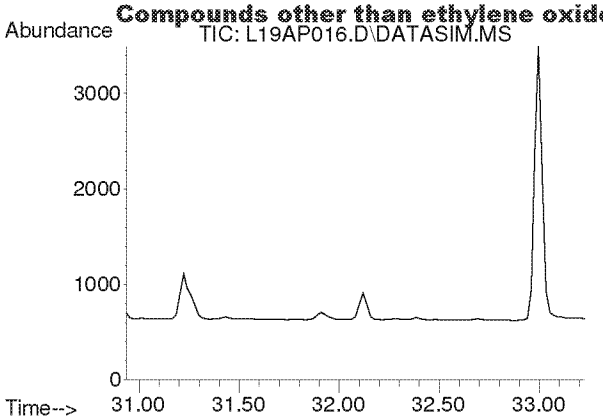
Lab File: L19AP016.D
Acq: 17 Jan 2019 4:02 am

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	45.8
103	0.0



Compounds other than ethylene oxide were not quantitated.

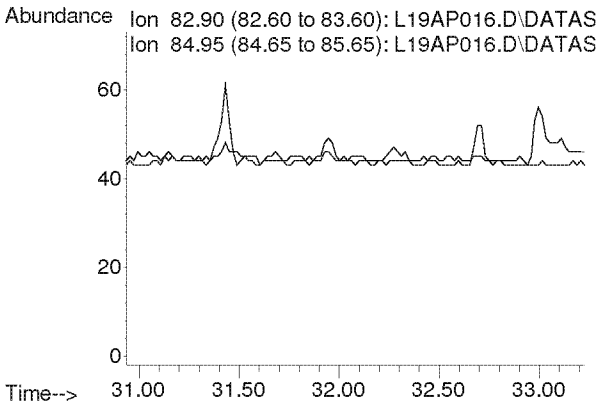


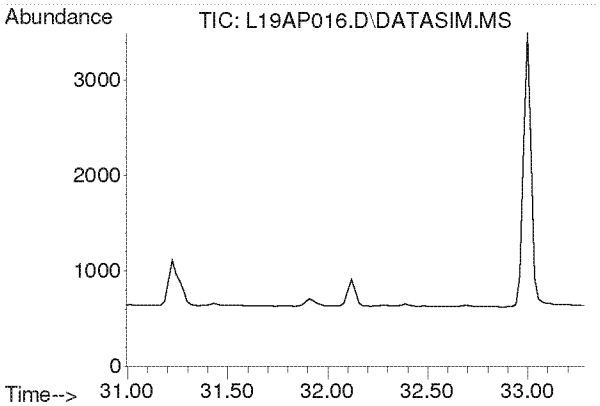
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19AP016.D
Acq: 17 Jan 2019 4:02 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.0



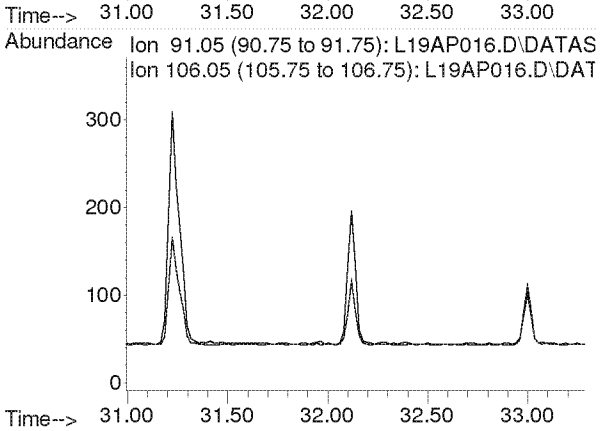


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

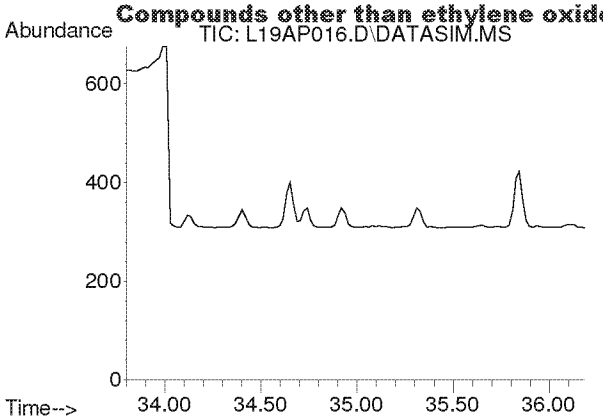
Lab File: L19AP016.D
Acq: 17 Jan 2019 4:02 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.8



Compounds other than ethylene oxide were not quantitated.

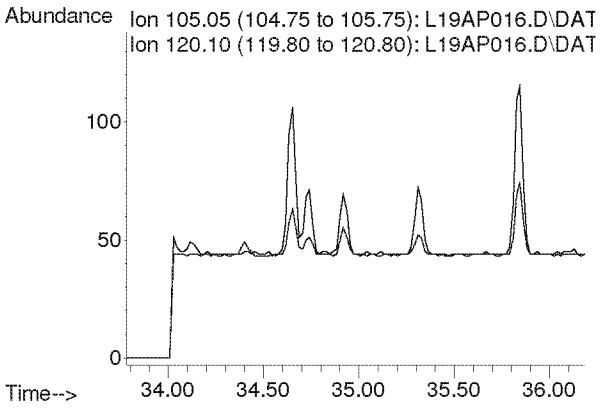


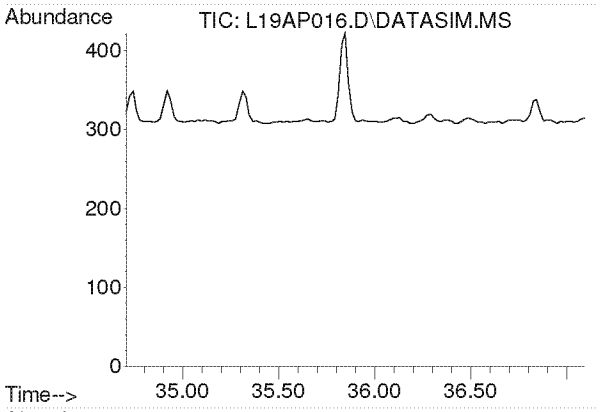
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19AP016.D
Acq: 17 Jan 2019 4:02 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	45.0



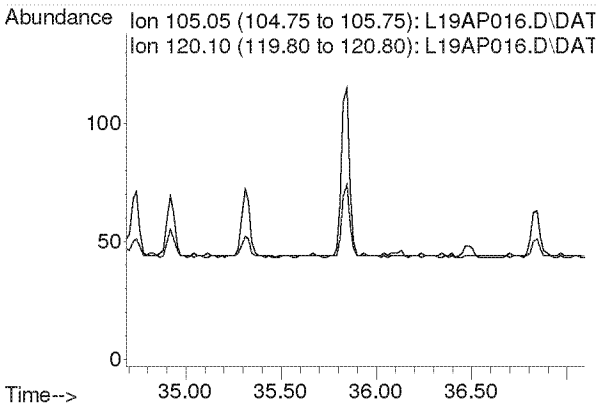


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

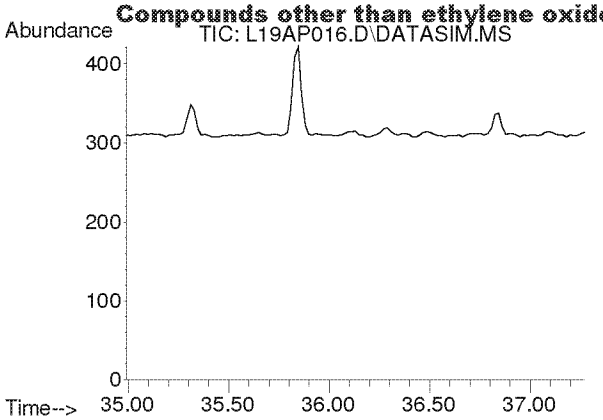
Lab File: L19AP016.D
Acq: 17 Jan 2019 4:02 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	42.9



Compounds other than ethylene oxide were not quantitated.

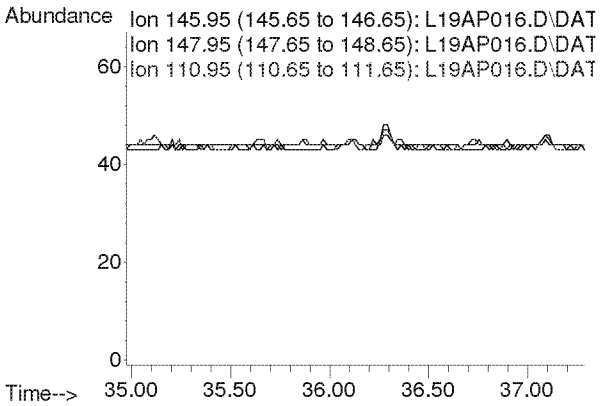


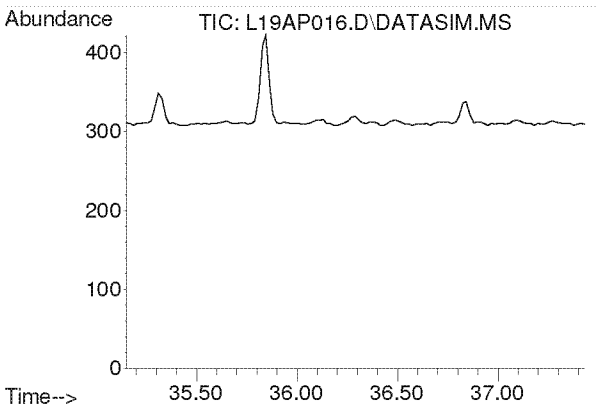
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19AP016.D
Acq: 17 Jan 2019 4:02 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.5



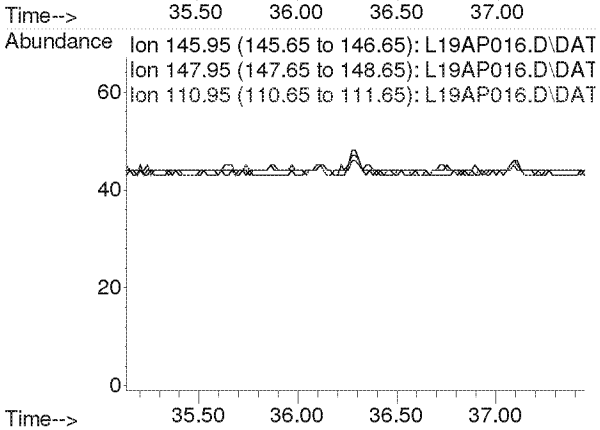


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

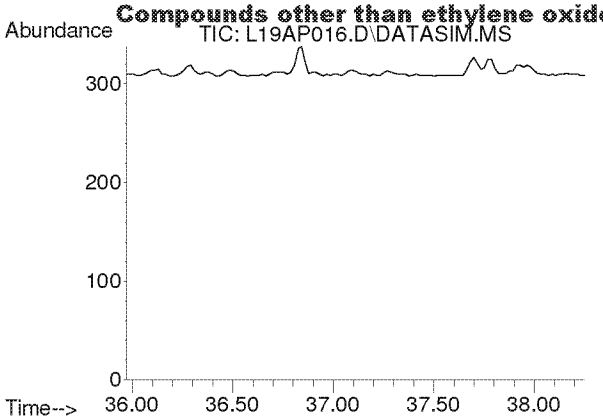
Lab File: L19AP016.D
Acq: 17 Jan 2019 4:02 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	63.9
111	39.3



Compounds other than ethylene oxide were not quantitated.

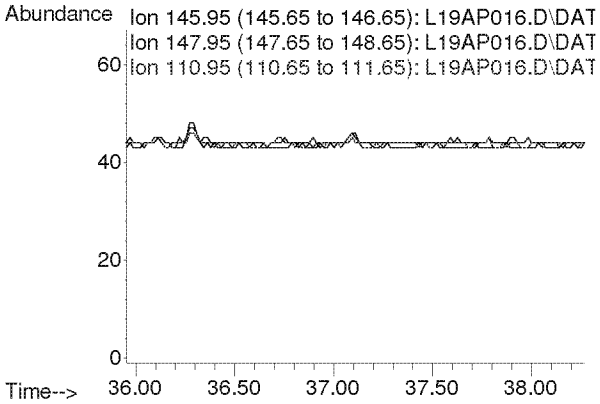


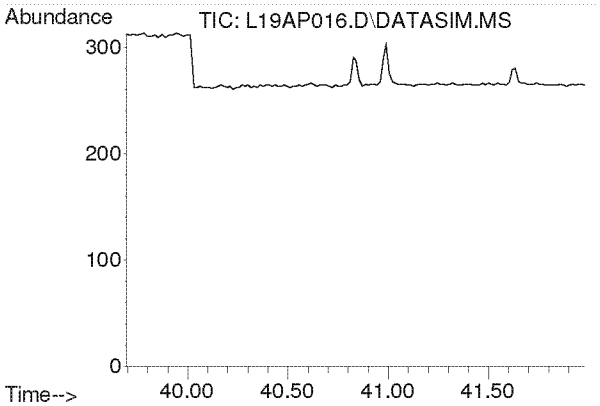
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19AP016.D
Acq: 17 Jan 2019 4:02 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.7



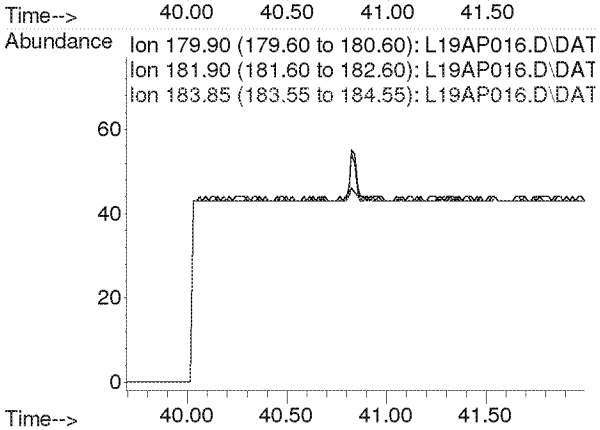


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

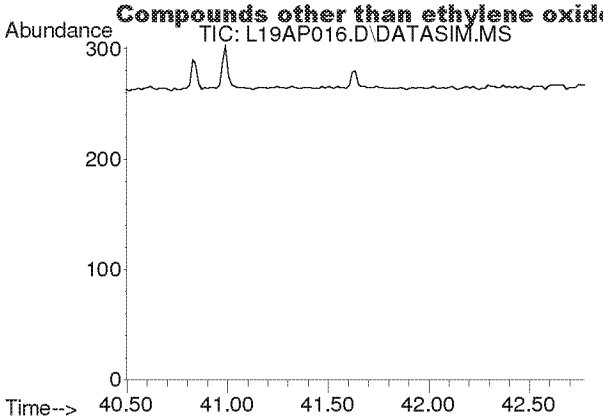
Lab File: L19AP016.D
Acq: 17 Jan 2019 4:02 am

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	95.0
184	30.5



Compounds other than ethylene oxide were not quantitated.

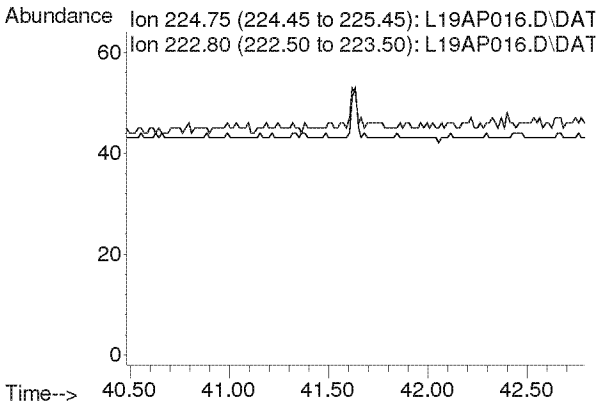


#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.63 min

Lab File: L19AP016.D
Acq: 17 Jan 2019 4:02 am

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.4



Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19AP\
Data File : L19AP017.D
Acq On : 17 Jan 2019 5:02 am
Operator : MAH
Sample : 9010808-01
Misc : WILLOWBROOK WAREHOUSE 1/7/18
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Jan 23 07:12:54 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07.11:21 2019
Response via : Initial Calibration

First ones

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.990	66	54465	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.149	114	137300	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.094	117	107731	4.7400 ppbv	-0.02

System Monitoring Compounds

Target Compounds					Qvalue
2) Acetylene	0.000	26	0	N.D. d	
3) Propylene	0.000	41	0	N.D. d	
4) Dichlorodifluoromethane	0.000	85	0	N.D. d	
5) Chloromethane	0.000	50	0	N.D. d	
6) Dichlorotetrafluoroethane	0.000	85	0	N.D. d	
7) Vinyl Chloride	0.000	62	0	N.D.	
8) 1,3-Butadiene	0.000	54	0	N.D. d	
9) Ethylene oxide	0.000	29	0	N.D. d	
10) Bromomethane	0.000	94	0	N.D. d	
11) Chloroethane	0.000	64	0	N.D.	
12) Acetonitrile	0.000	41	0	N.D. d	
13) Acrolein	0.000	56	0	N.D. d	
14) Trichlorofluoromethane	0.000	101	0	N.D. d	
15) Acrylonitrile	0.000	53	0	N.D. d	
16) 1,1-Dichloroethene	0.000	61	0	N.D.	
17) Methylene Chloride	0.000	49	0	N.D. d	
18) Carbon Disulfide	0.000	76	0	N.D. d	
19) Trichlorotrifluoroethane	0.000	101	0	N.D. d	
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.	
21) 1,1-Dichloroethane	0.000	63	0	N.D.	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D. d	
23) Chloroprene	0.000	53	0	N.D. d	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D. d	
25) Bromochloromethane	0.000	128	0	N.D.	
26) Chloroform	0.000	83	0	N.D. d	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D.	
28) 1,2-Dichloroethane	0.000	62	0	N.D. d	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D.	
31) Benzene	0.000	78	0	N.D. d	
32) Carbon Tetrachloride	0.000	117	0	N.D. d	
33) tert-Amyl Methyl Ether	0.000	73	0	N.D.	
34) 1,2-Dichloropropane	0.000	63	0	N.D.	
35) Ethyl Acrylate	0.000	55	0	N.D.	
36) Bromodichloromethane	0.000	83	0	N.D.	
37) Trichloroethylene	0.000	130	0	N.D.	
38) Methyl Methacrylate	0.000	41	0	N.D. d	
39) cis-1,3-Dichloropropene	0.000	75	0	N.D.	
40) Methyl Isobutyl Ketone	0.000	43	0	N.D. d	
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.	
44) Toluene	0.000	91	0	N.D. d	
45) Dibromochloromethane	0.000	129	0	N.D.	
46) 1,2-Dibromoethane	0.000	107	0	N.D.	
47) n-Octane	0.000	43	0	N.D. d	
48) Tetrachloroethylene	0.000	166	0	N.D. d	
49) Chlorobenzene	0.000	112	0	N.D.	
50) Ethylbenzene	0.000	91	0	N.D. d	

Compounds other than ethylene oxide were not quantitated.

Quantification Report 1 (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19AP\
Data File : L19AP017.D
Acq On : 17 Jan 2019 5:02 am
Operator : MAH
Sample : 9010808-01
Misc : WILLOWBROOK WAREHOUSE 1/7/18
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Jan 23 07:12:54 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration

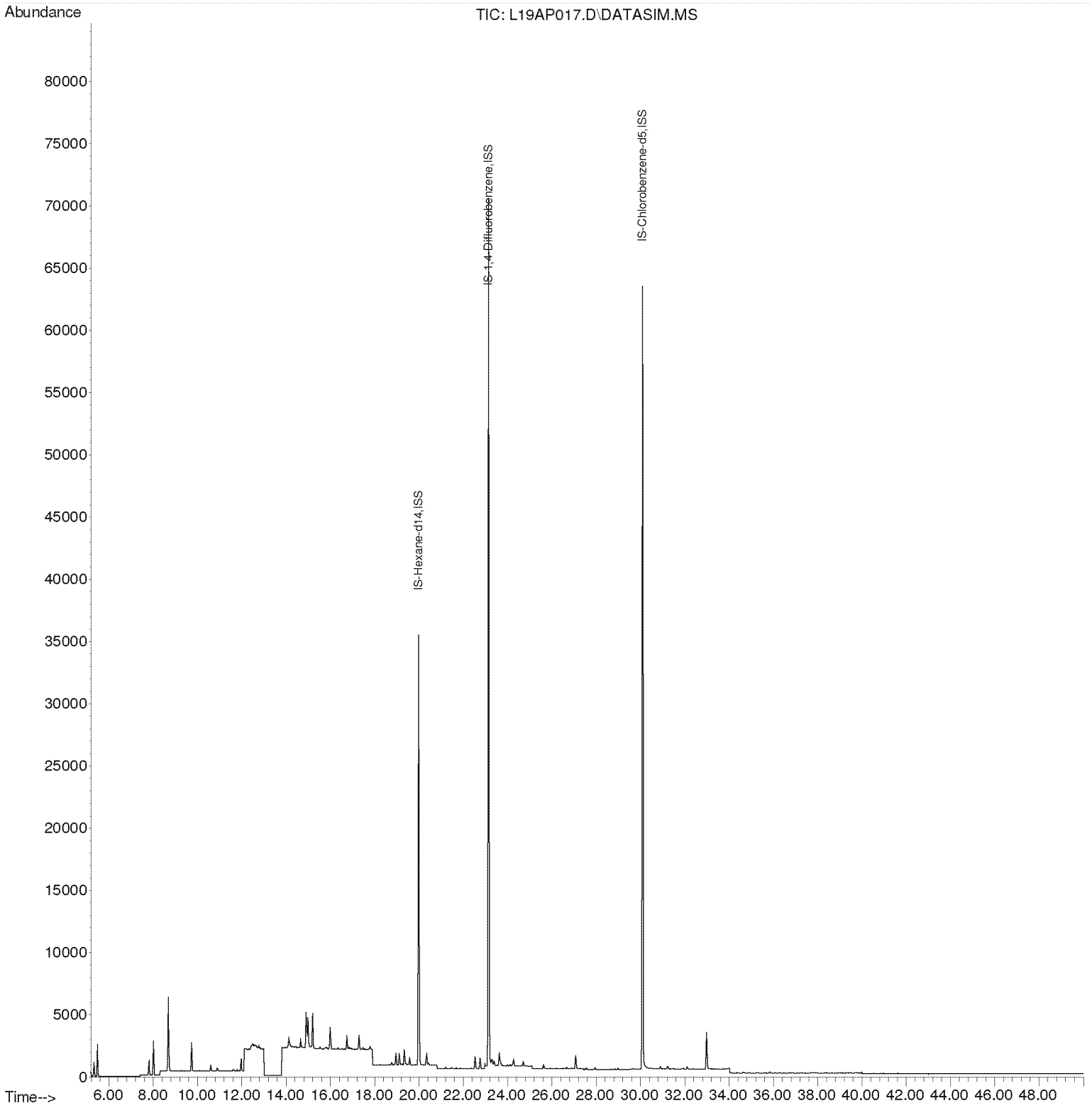
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D. d	
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D. d	
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D. d	
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D. d	
57) 1,2,4-Trimethylbenzene	0.000	105	0	N.D. d	
58) m-Dichlorobenzene	0.000	146	0	N.D.	
59) p-Dichlorobenzene	0.000	146	0	N.D.	
60) o-Dichlorobenzene	0.000	146	0	N.D.	
61) 1,2,4-Trichlorobenzene	0.000	180	0	N.D.	
62) Hexachloro-1,3-butadiene	0.000	225	0	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

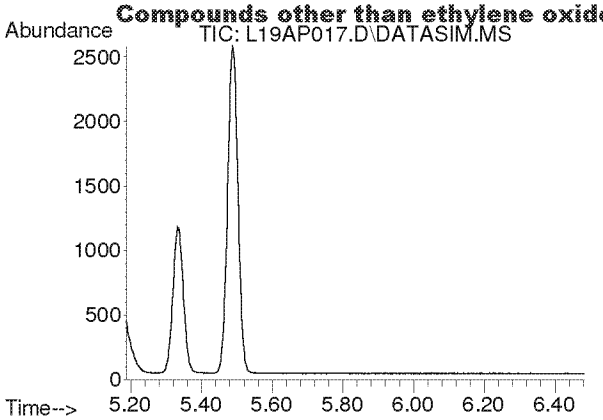
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L19AP\
Data File : L19AP017.D
Acq On : 17 Jan 2019 5:02 am
Operator : MAH
Sample : 9010808-01
Misc : WILLOWBROOK WAREHOUSE 1/7/18
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Jan 23 06:43:58 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration



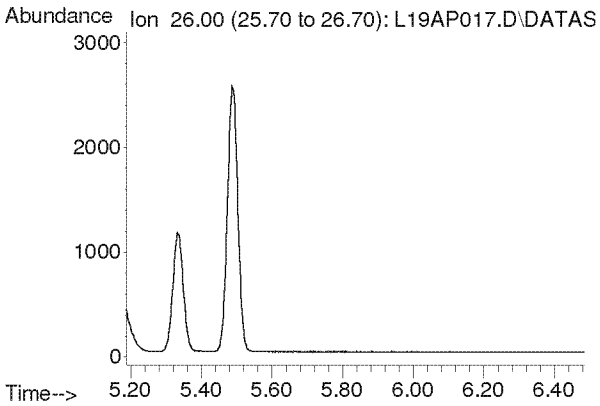
Compounds other than ethylene oxide were not quantitated.

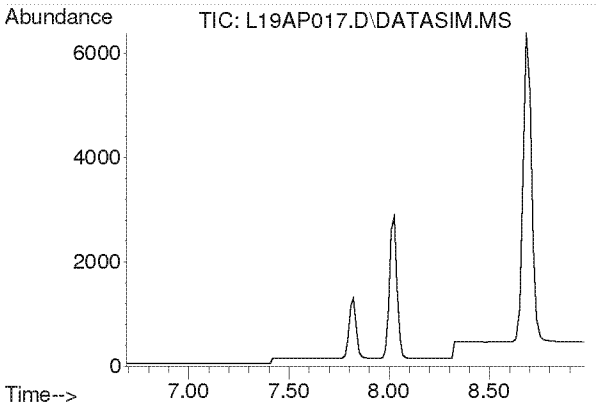


#2
Acetylene
Concen: N.D.
Expected RT: 5.42 min

Lab File: L19AP017.D
Acq: 17 Jan 2019 5:02 am

Tgt Ion: 26



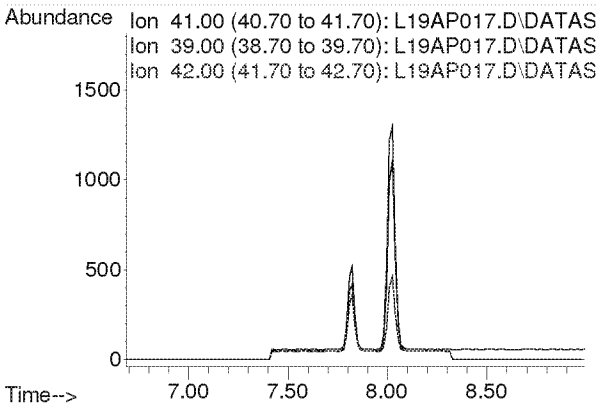


#3
Propylene
Concen: N.D.
Expected RT: 7.84 min

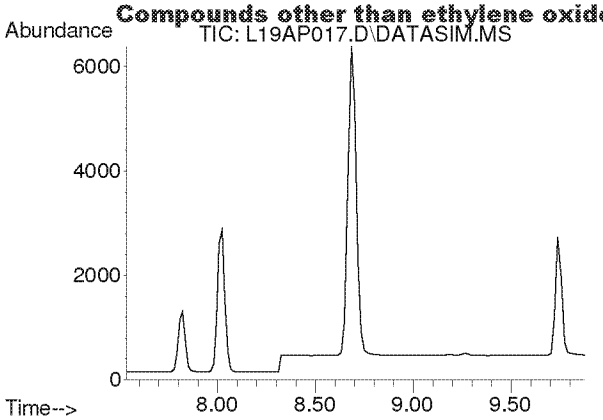
Lab File: L19AP017.D
Acq: 17 Jan 2019 5:02 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	77.0
42	65.8



Compounds other than ethylene oxide were not quantitated.

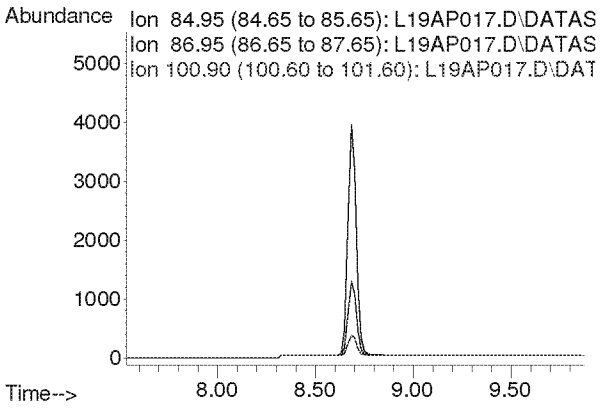


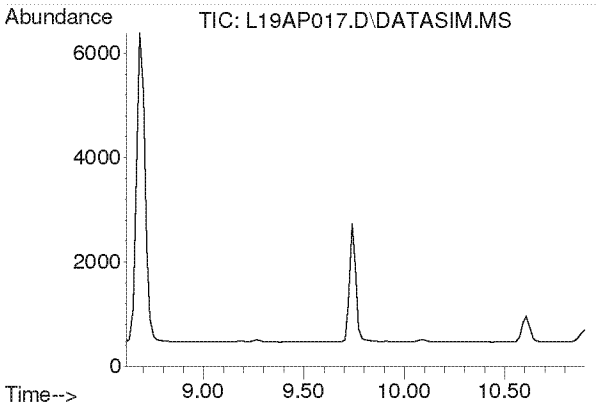
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19AP017.D
Acq: 17 Jan 2019 5:02 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	8.9



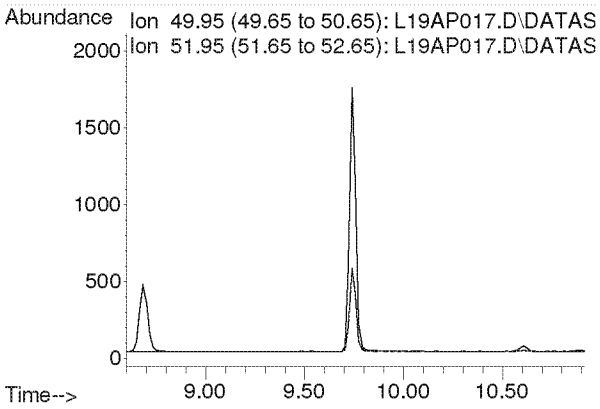


#5
Chloromethane
Concen: N.D.
Expected RT: 9.76 min

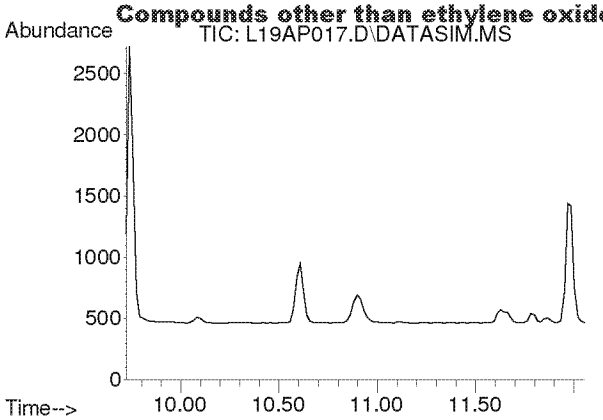
Lab File: L19AP017.D
Acq: 17 Jan 2019 5:02 am

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.4



Compounds other than ethylene oxide were not quantitated.

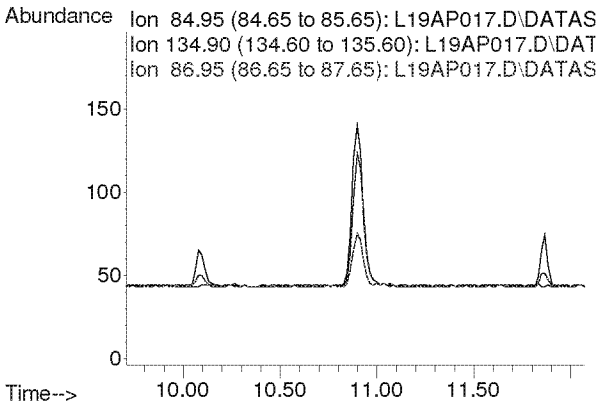


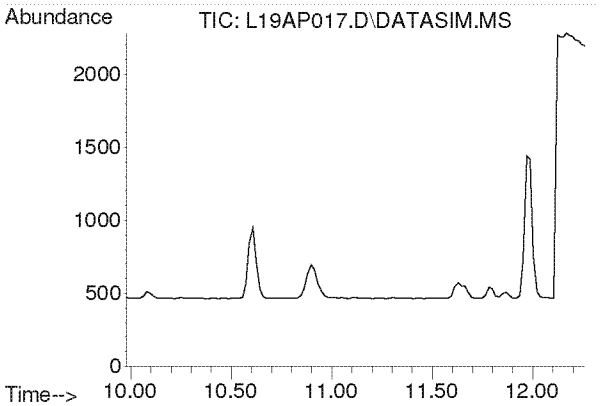
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19AP017.D
Acq: 17 Jan 2019 5:02 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.5
87	32.2



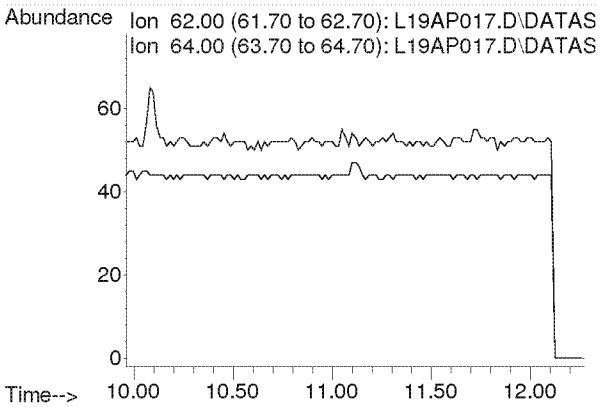


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

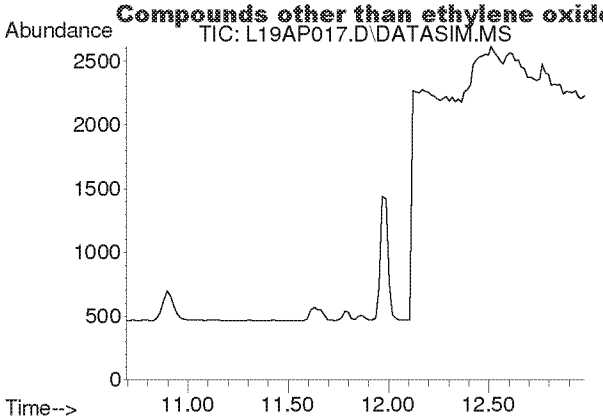
Lab File: L19AP017.D
Acq: 17 Jan 2019 5:02 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	32.1



Compounds other than ethylene oxide were not quantitated.

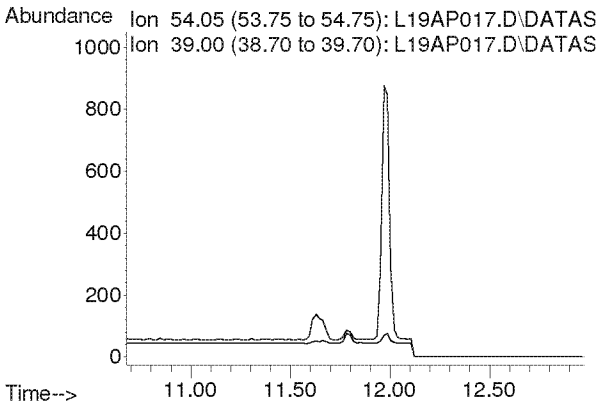


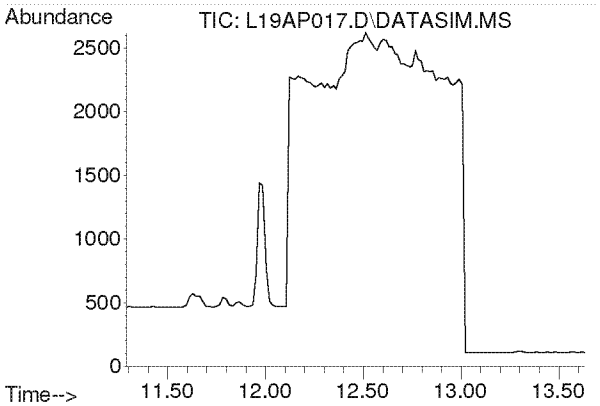
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19AP017.D
Acq: 17 Jan 2019 5:02 am

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	103.3



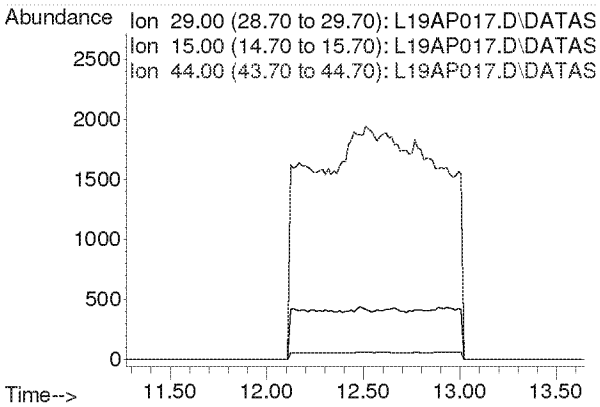


#9
Ethylene oxide
Concen: N.D.
Expected RT: 12.39 min

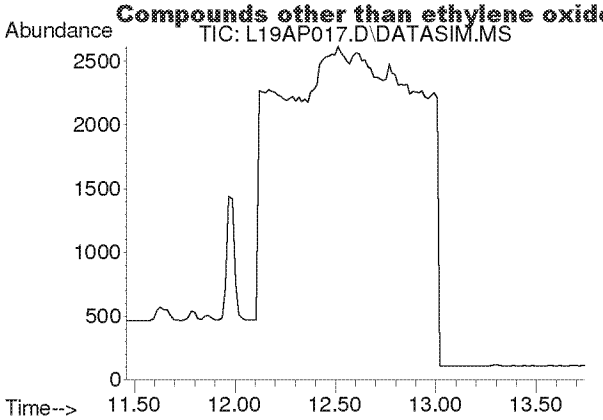
Lab File: L19AP017.D
Acq: 17 Jan 2019 5:02 am

Tgt Ion: 29

Sig	Exp Ratio
29	100
15	19.2
44	96.8



Compounds other than ethylene oxide were not quantitated.

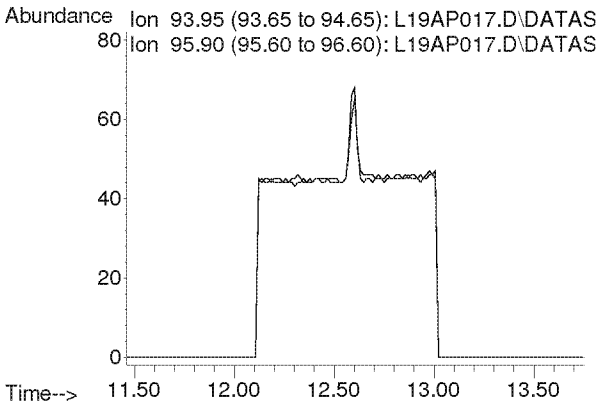


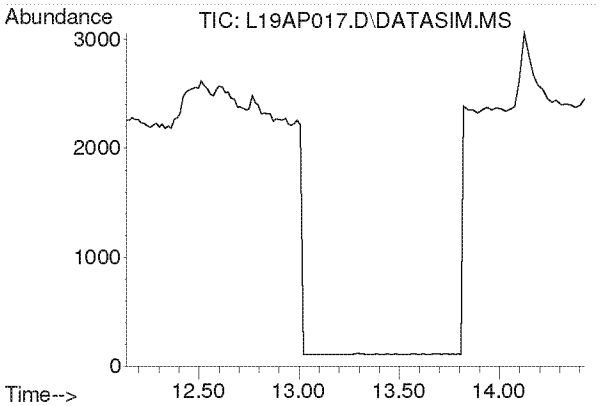
#10
Bromomethane
Concen: N.D.
Expected RT: 12.60 min

Lab File: L19AP017.D
Acq: 17 Jan 2019 5:02 am

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.3



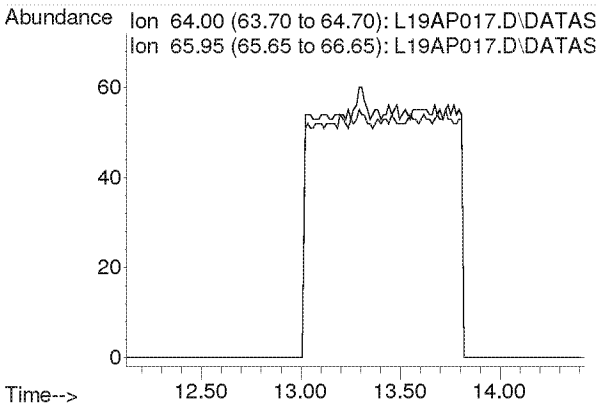


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

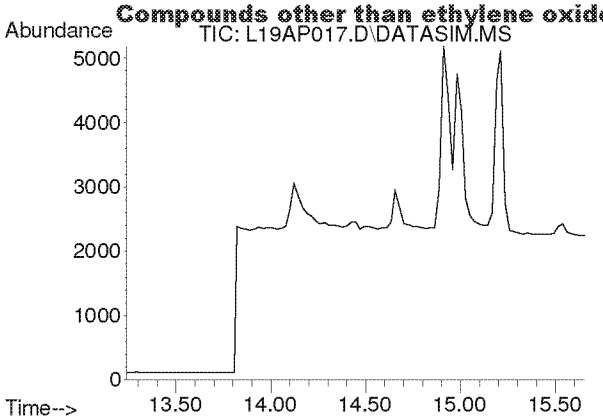
Lab File: L19AP017.D
Acq: 17 Jan 2019 5:02 am

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.4



Compounds other than ethylene oxide were not quantitated.

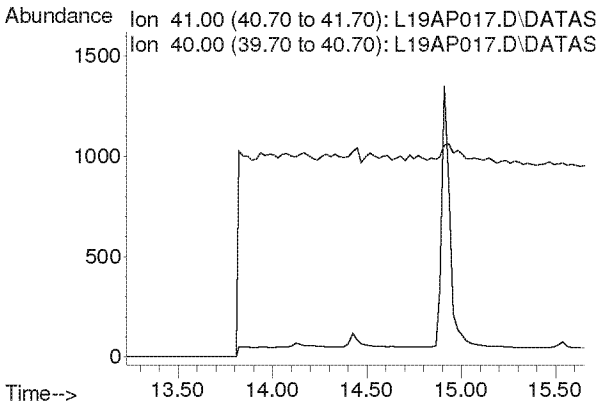


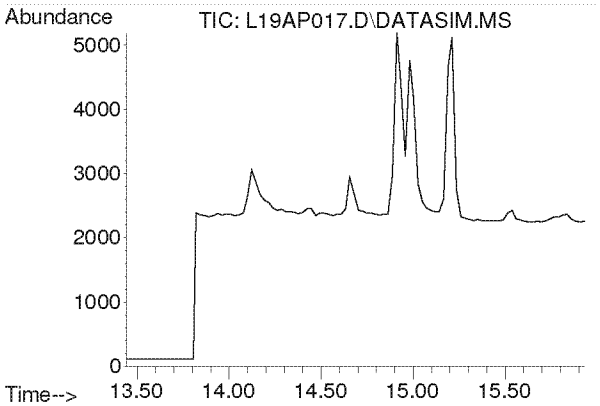
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19AP017.D
Acq: 17 Jan 2019 5:02 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	53.2



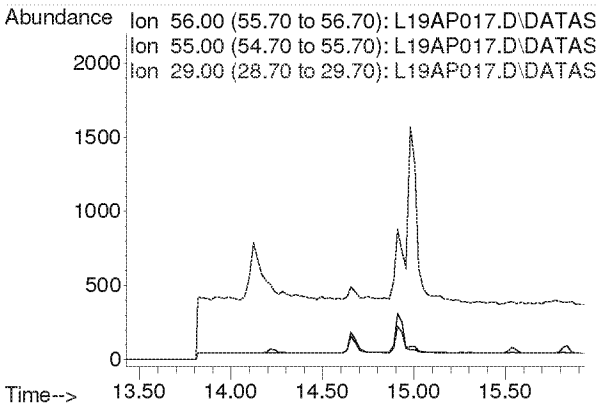


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

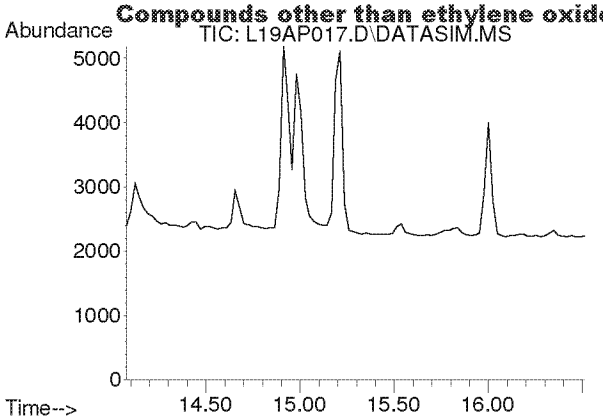
Lab File: L19AP017.D
Acq: 17 Jan 2019 5:02 am

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.5
29	44.9



Compounds other than ethylene oxide were not quantitated.

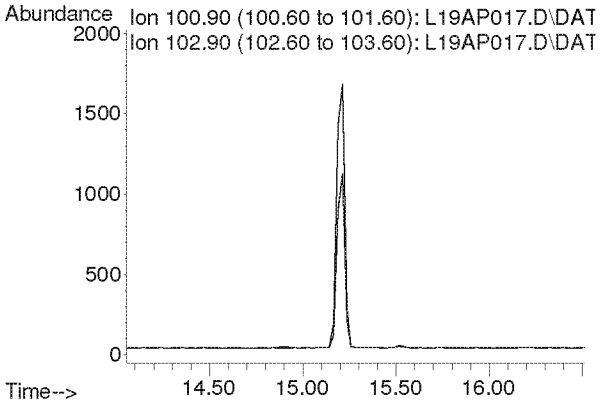


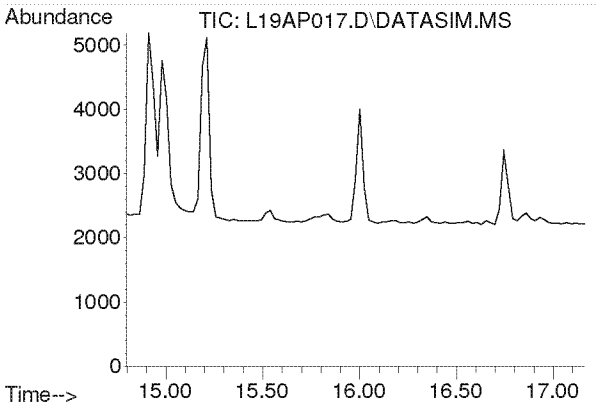
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.21 min

Lab File: L19AP017.D
Acq: 17 Jan 2019 5:02 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



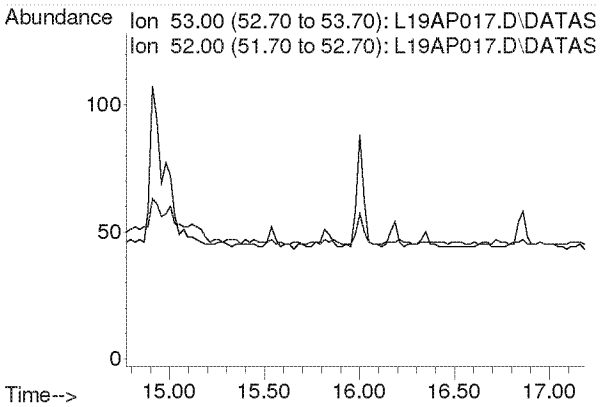


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

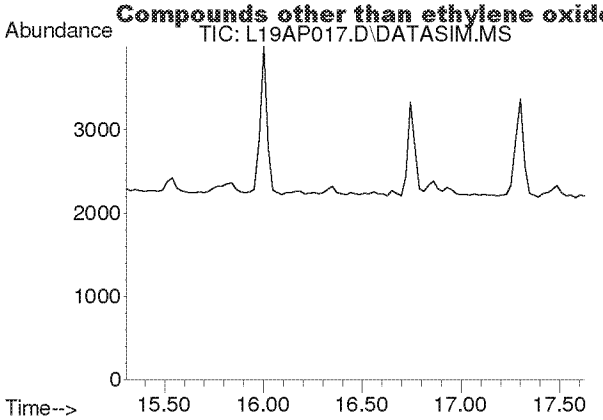
Lab File: L19AP017.D
Acq: 17 Jan 2019 5:02 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	84.7



Compounds other than ethylene oxide were not quantitated.

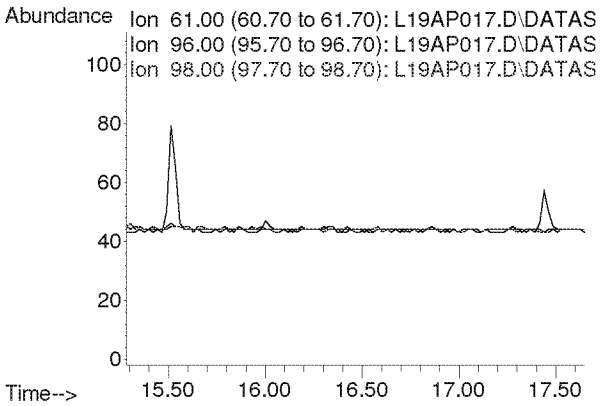


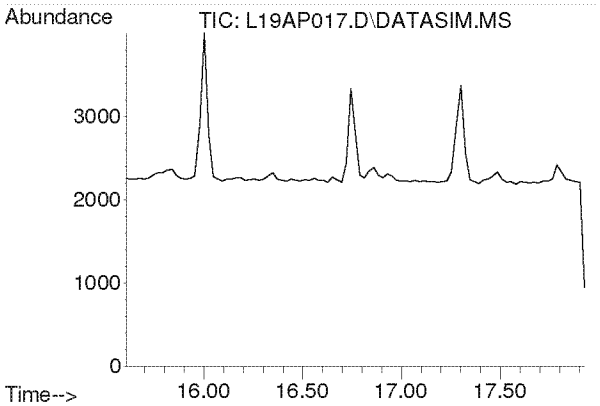
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.44 min

Lab File: L19AP017.D
Acq: 17 Jan 2019 5:02 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.5
98	38.1



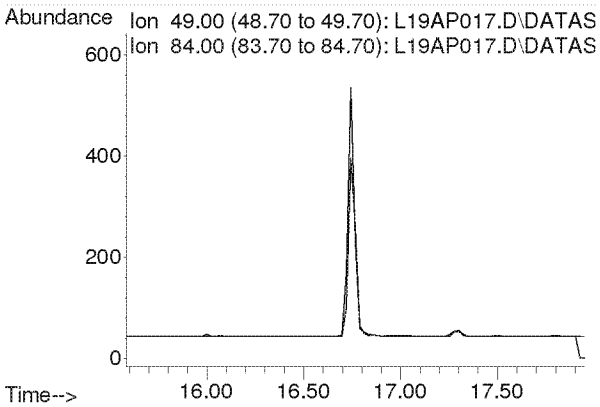


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

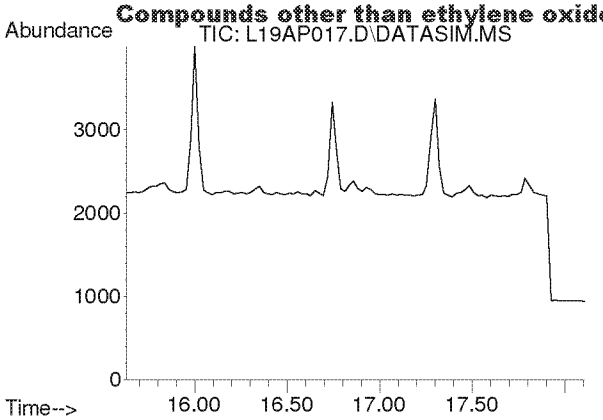
Lab File: L19AP017.D
Acq: 17 Jan 2019 5:02 am

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.3



Compounds other than ethylene oxide were not quantitated.

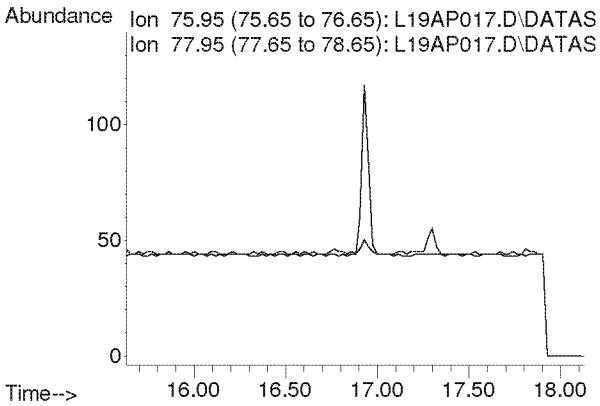


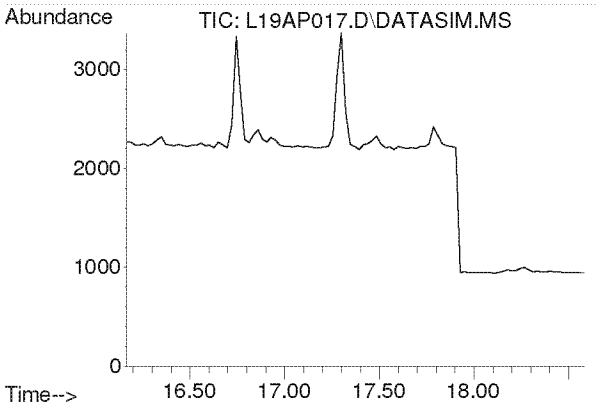
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19AP017.D
Acq: 17 Jan 2019 5:02 am

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.0



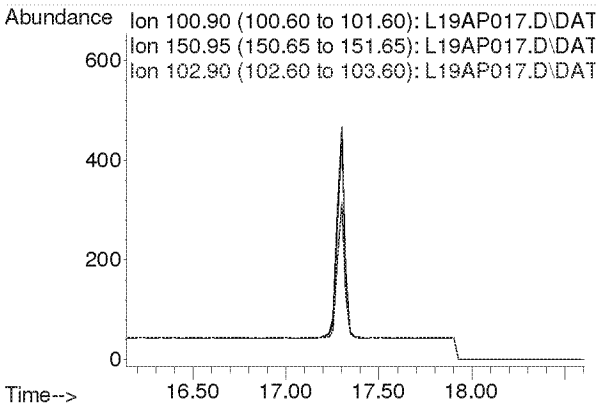


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.30 min

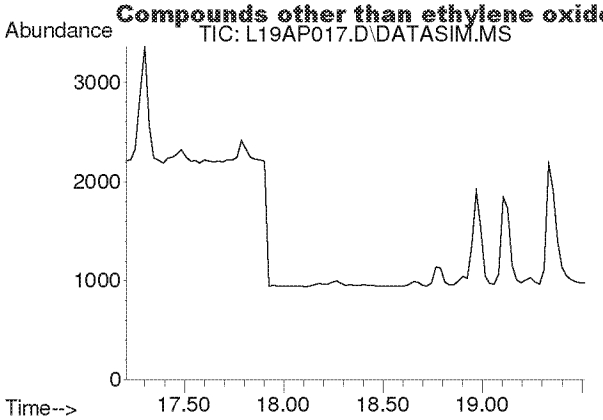
Lab File: L19AP017.D
Acq: 17 Jan 2019 5:02 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	95.4
103	63.9



Compounds other than ethylene oxide were not quantitated.

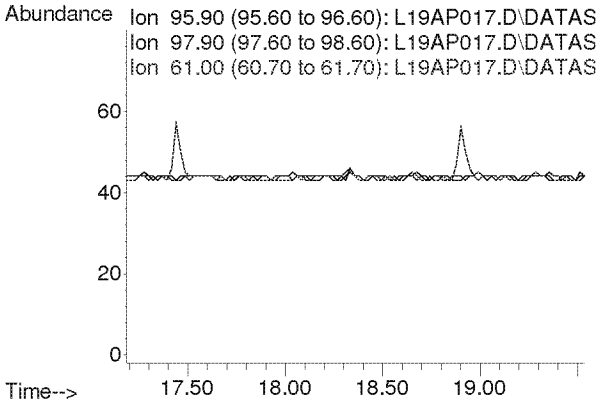


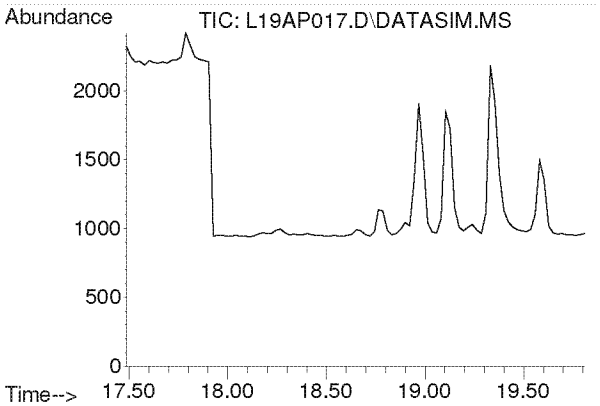
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19AP017.D
Acq: 17 Jan 2019 5:02 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	63.6
61	156.5



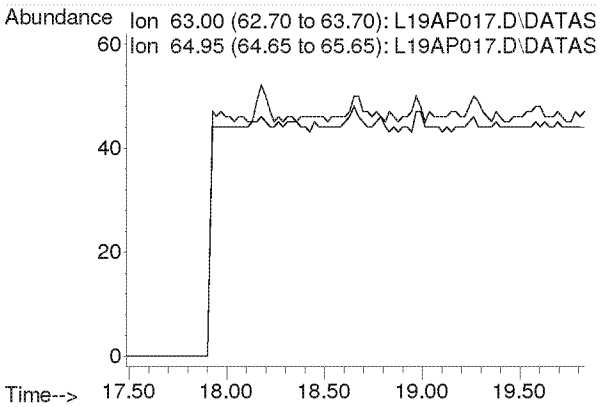


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

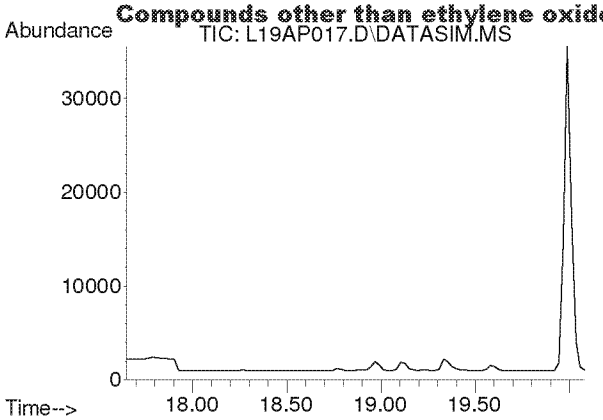
Lab File: L19AP017.D
Acq: 17 Jan 2019 5:02 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

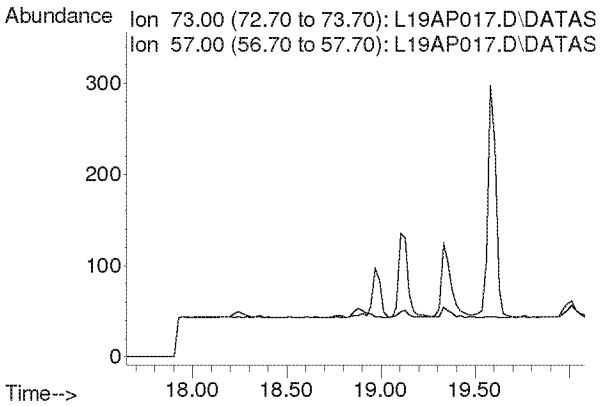


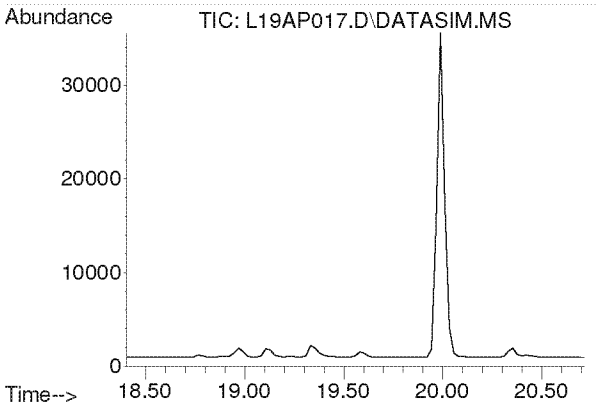
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19AP017.D
Acq: 17 Jan 2019 5:02 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.6



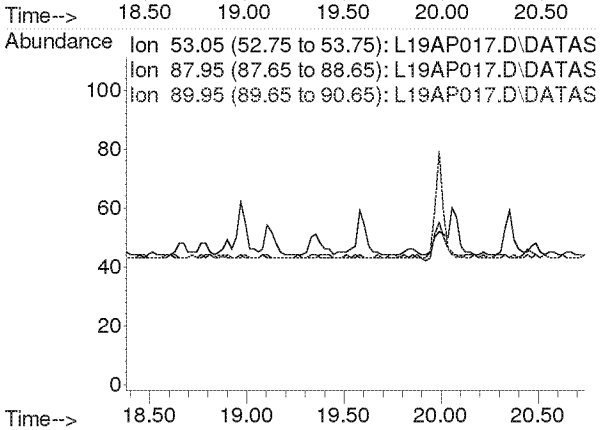


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

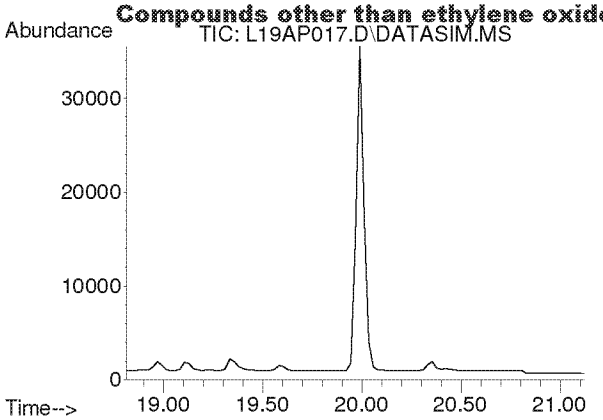
Lab File: L19AP017.D
Acq: 17 Jan 2019 5:02 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	54.0
90	17.3



Compounds other than ethylene oxide were not quantitated.

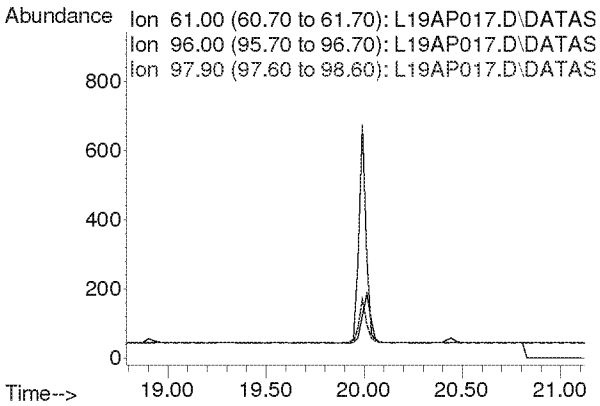


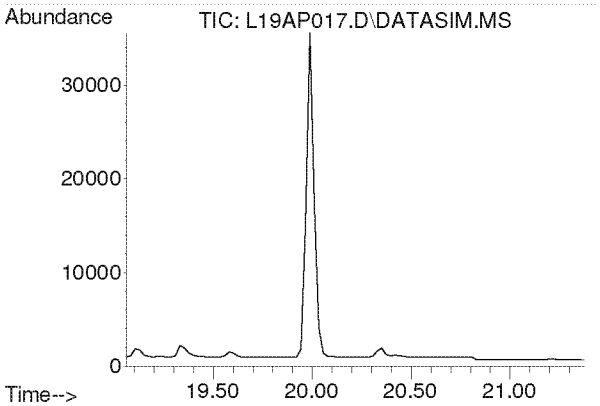
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19AP017.D
Acq: 17 Jan 2019 5:02 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	75.7
98	46.4



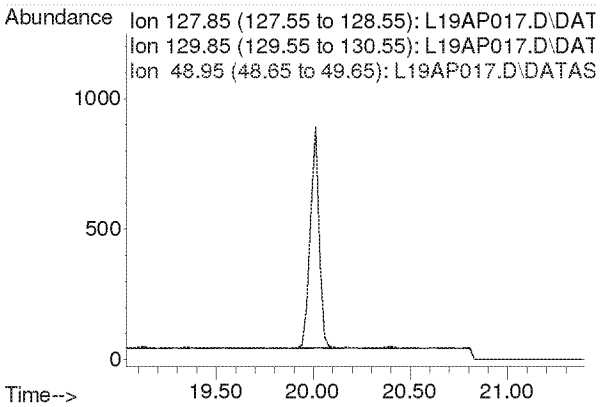


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.19 min

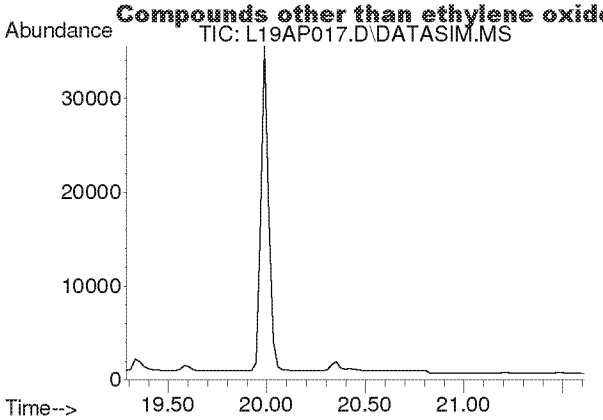
Lab File: L19AP017.D
Acq: 17 Jan 2019 5:02 am

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	130.4
49	170.8



Compounds other than ethylene oxide were not quantitated.

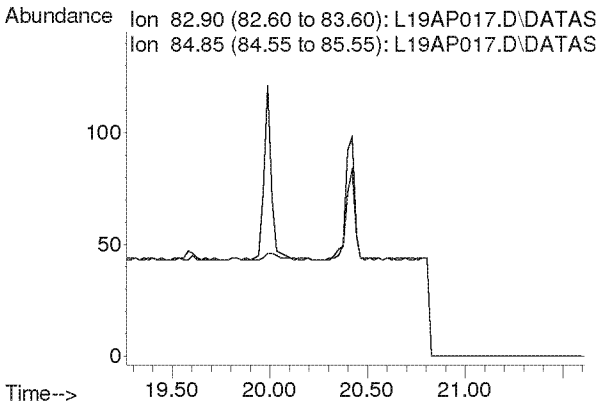


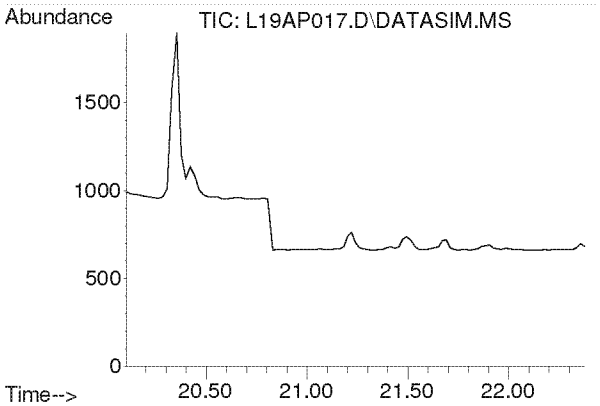
#26
Chloroform
Concen: N.D.
Expected RT: 20.42 min

Lab File: L19AP017.D
Acq: 17 Jan 2019 5:02 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



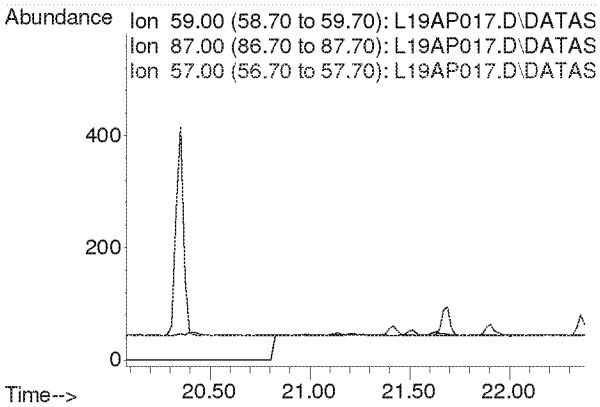


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

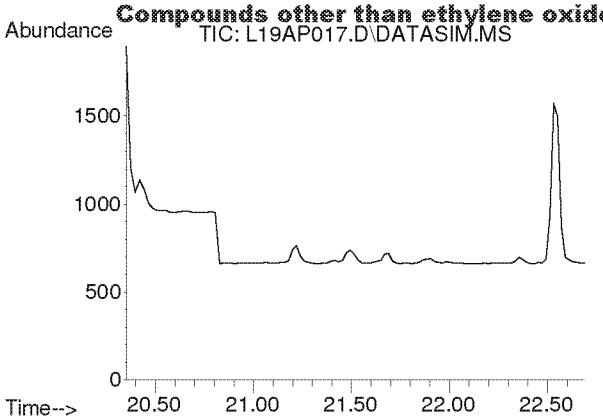
Lab File: L19AP017.D
Acq: 17 Jan 2019 5:02 am

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	37.8
57	34.3



Compounds other than ethylene oxide were not quantitated.

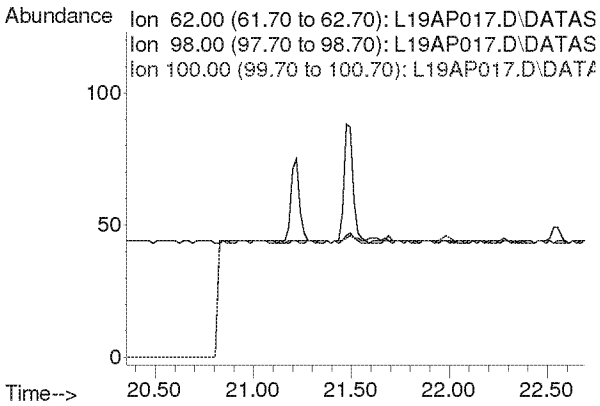


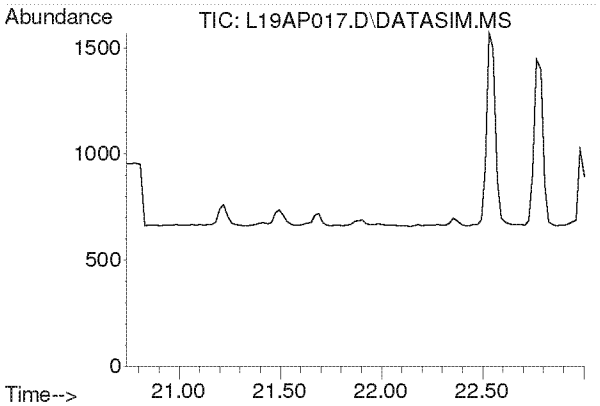
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.50 min

Lab File: L19AP017.D
Acq: 17 Jan 2019 5:02 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.8
100	4.2



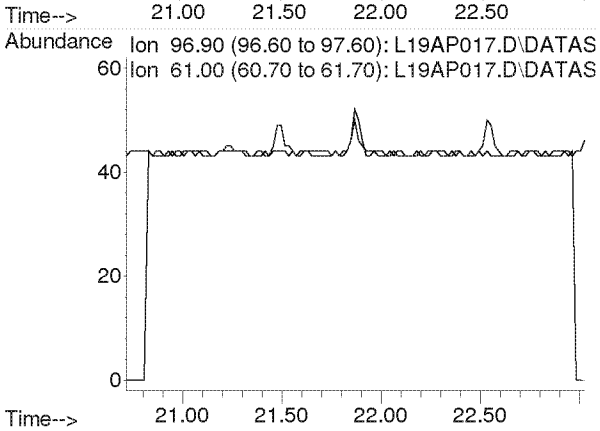


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

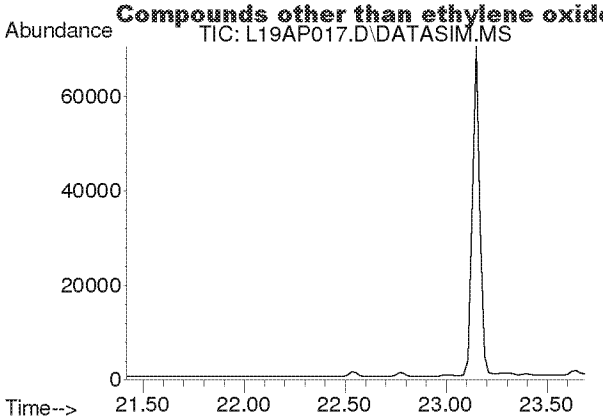
Lab File: L19AP017.D
Acq: 17 Jan 2019 5:02 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	58.6



Compounds other than ethylene oxide were not quantitated.

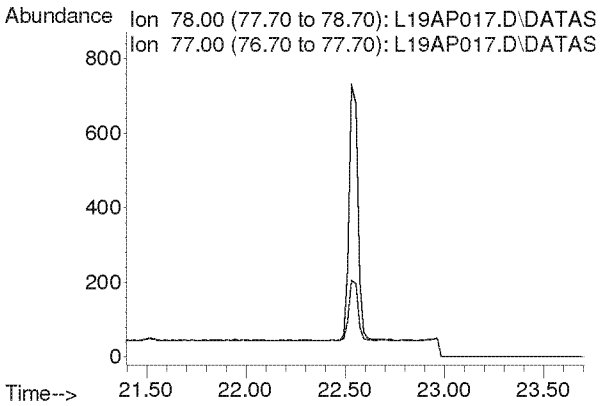


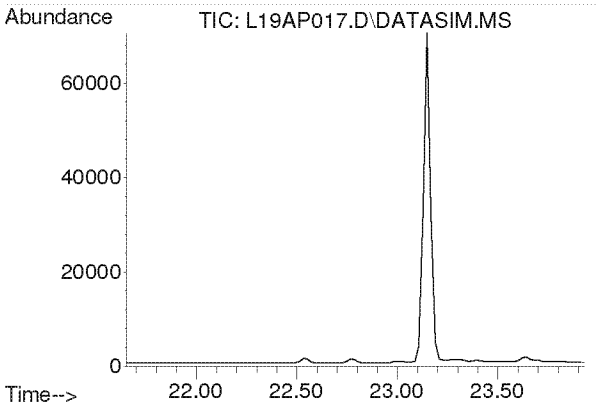
#31
Benzene
Concen: N.D.
Expected RT: 22.55 min

Lab File: L19AP017.D
Acq: 17 Jan 2019 5:02 am

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.9



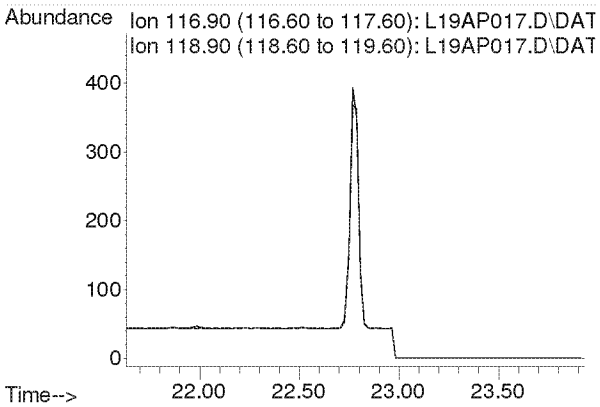


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.79 min

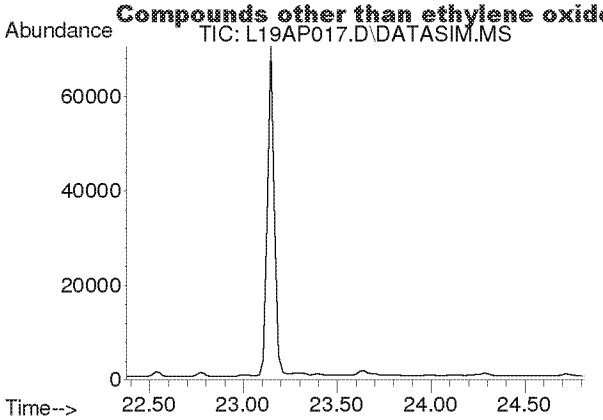
Lab File: L19AP017.D
Acq: 17 Jan 2019 5:02 am

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.5



Compounds other than ethylene oxide were not quantitated.

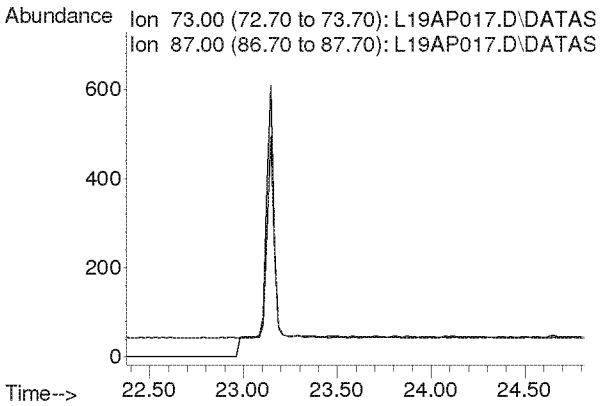


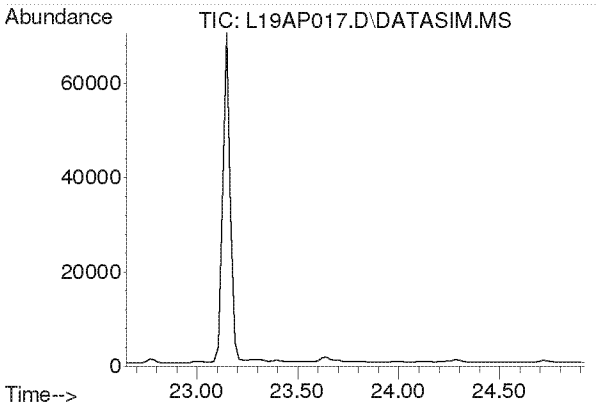
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19AP017.D
Acq: 17 Jan 2019 5:02 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	24.8



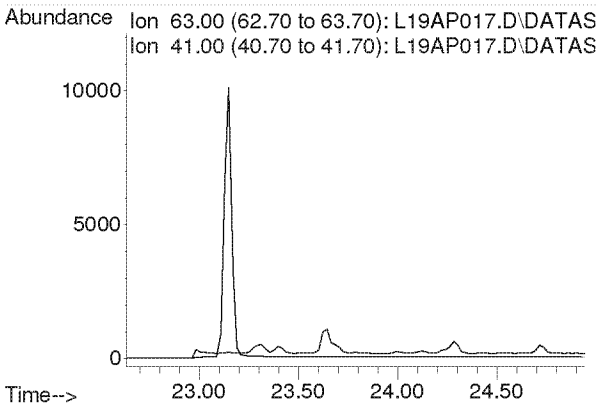


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

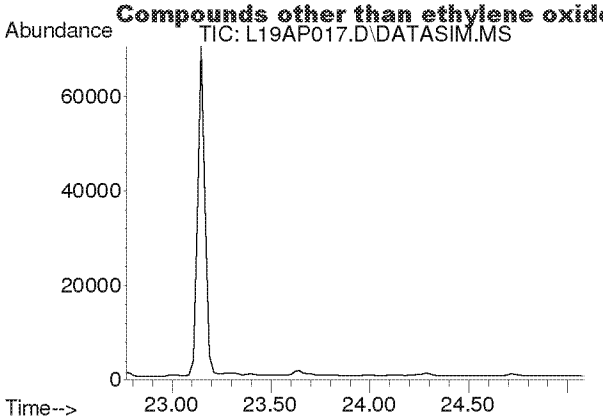
Lab File: L19AP017.D
Acq: 17 Jan 2019 5:02 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	196.0



Compounds other than ethylene oxide were not quantitated.

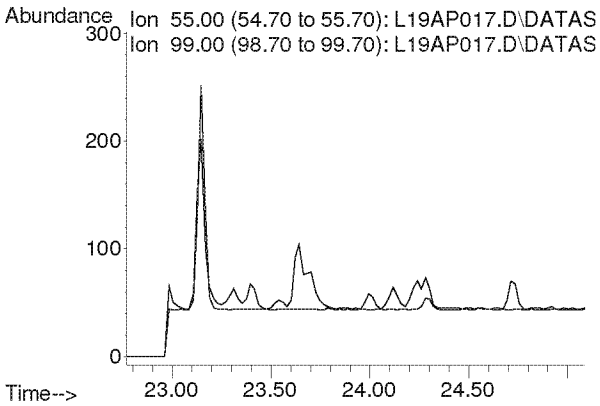


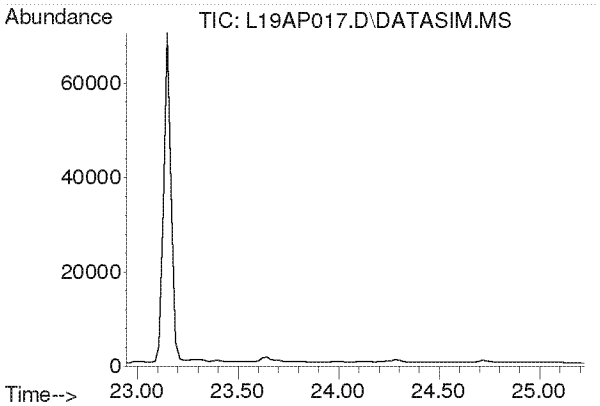
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19AP017.D
Acq: 17 Jan 2019 5:02 am

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.0



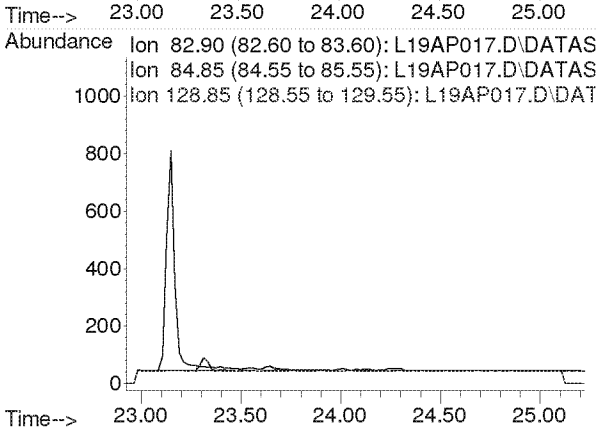


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

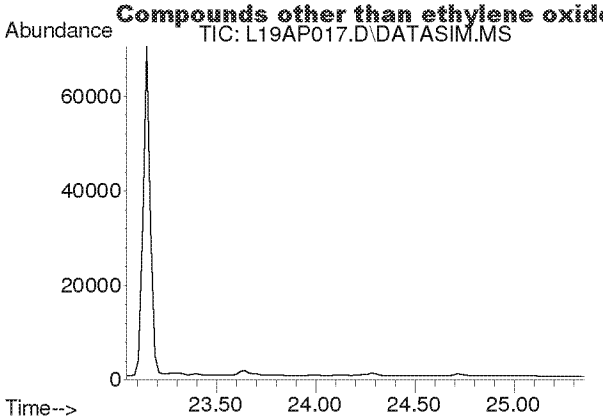
Lab File: L19AP017.D
Acq: 17 Jan 2019 5:02 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.9
129	12.5



Compounds other than ethylene oxide were not quantitated.

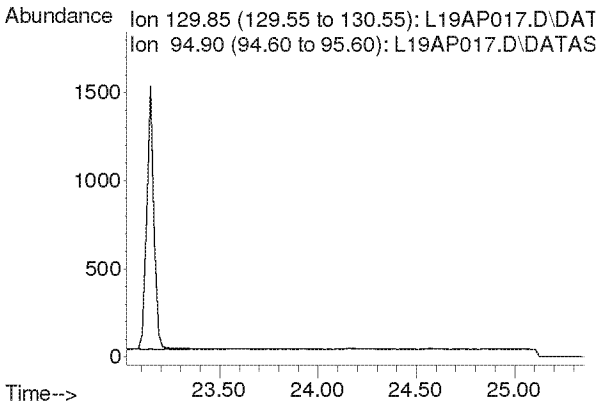


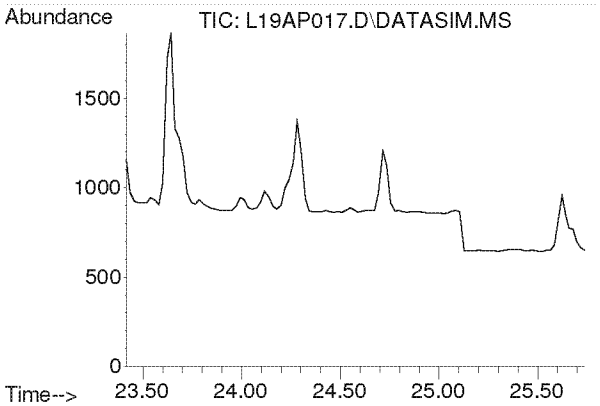
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19AP017.D
Acq: 17 Jan 2019 5:02 am

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	108.6



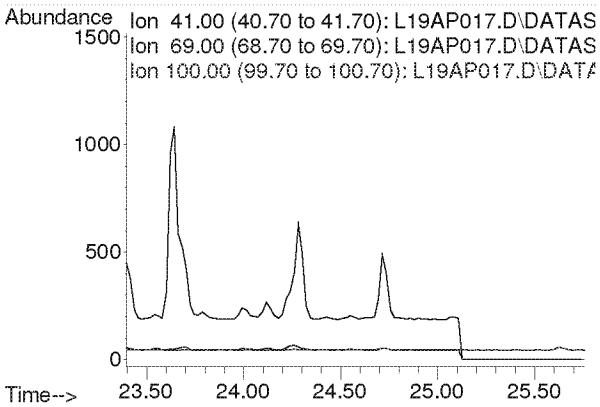


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.55 min

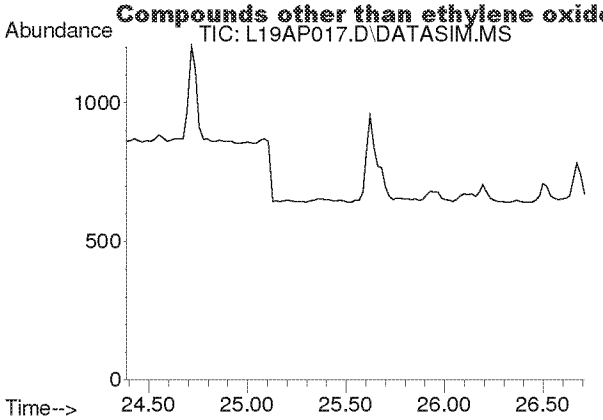
Lab File: L19AP017.D
Acq: 17 Jan 2019 5:02 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	20.7
100	5.3



Compounds other than ethylene oxide were not quantitated.

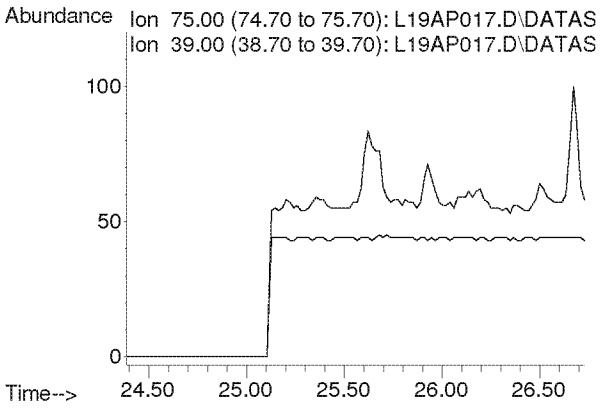


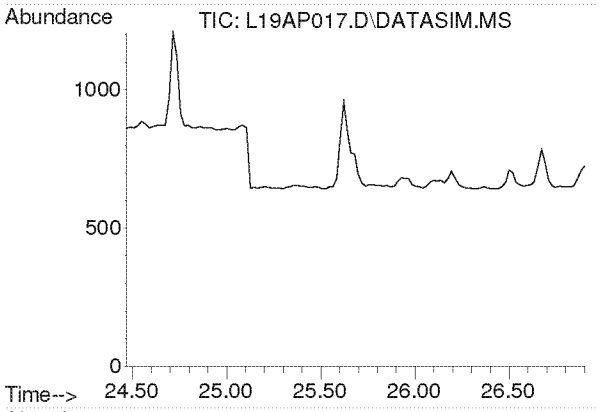
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19AP017.D
Acq: 17 Jan 2019 5:02 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	48.3



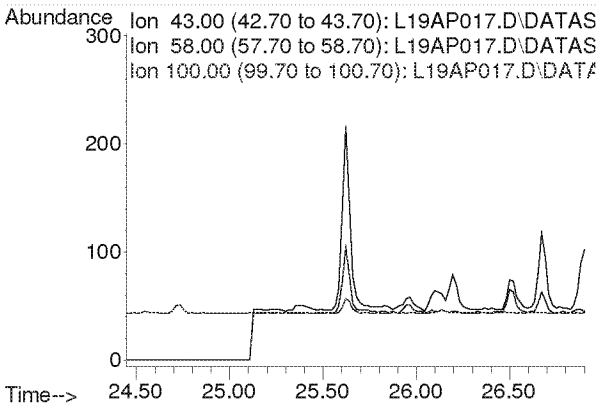


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

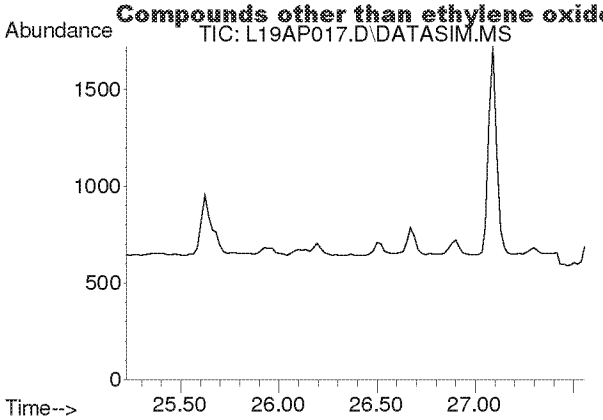
Lab File: L19AP017.D
Acq: 17 Jan 2019 5:02 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	34.5
100	8.1



Compounds other than ethylene oxide were not quantitated.

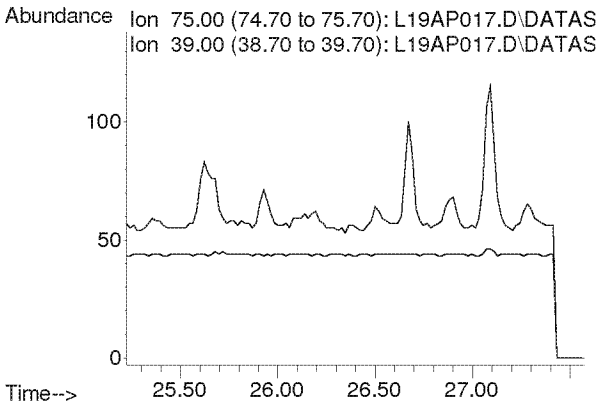


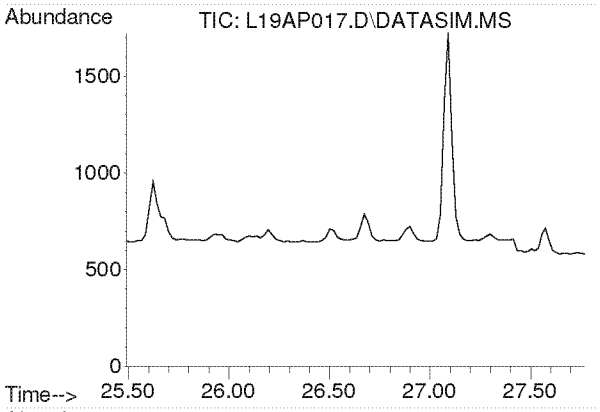
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19AP017.D
Acq: 17 Jan 2019 5:02 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	48.8



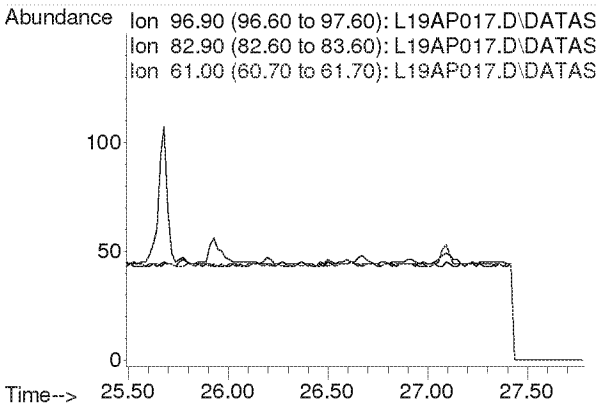


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.63 min

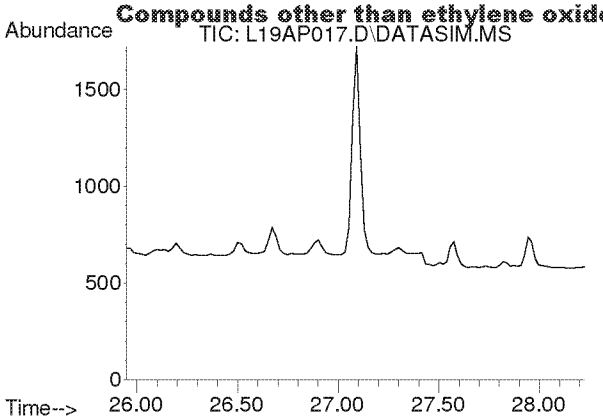
Lab File: L19AP017.D
Acq: 17 Jan 2019 5:02 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	96.6
61	61.4



Compounds other than ethylene oxide were not quantitated.

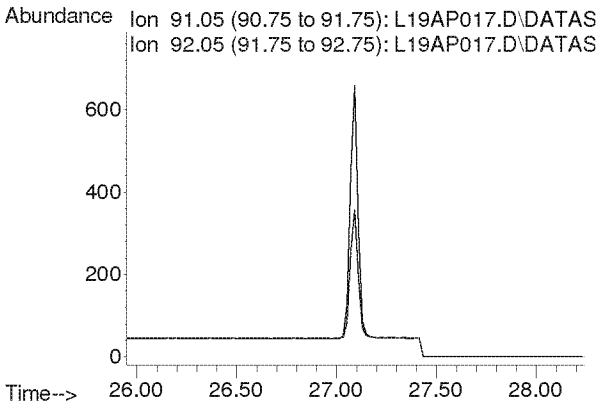


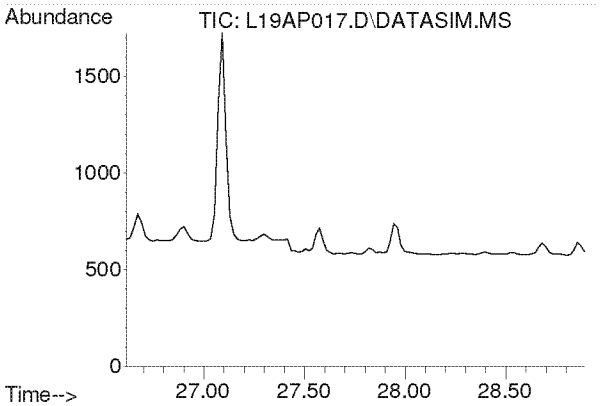
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19AP017.D
Acq: 17 Jan 2019 5:02 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



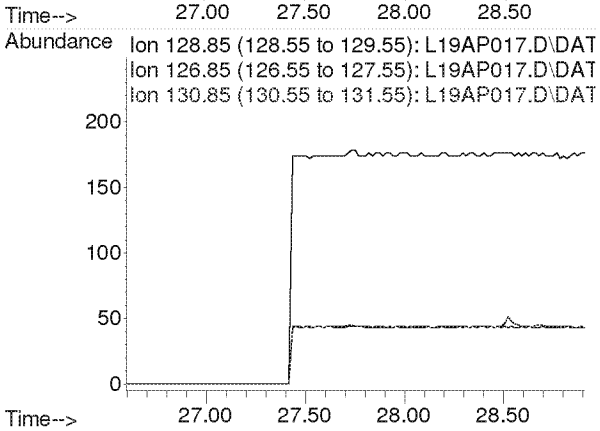


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

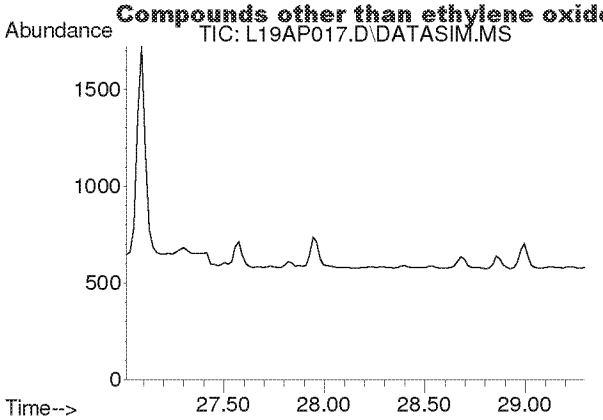
Lab File: L19AP017.D
Acq: 17 Jan 2019 5:02 am

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.2
131	6.0



Compounds other than ethylene oxide were not quantitated.

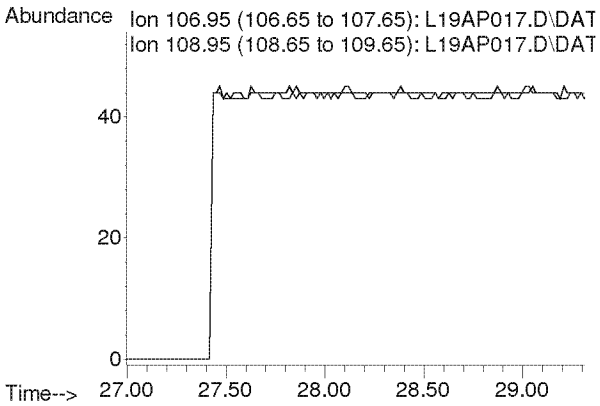


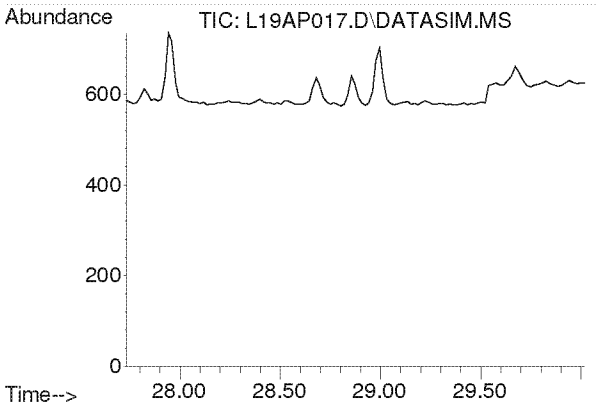
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19AP017.D
Acq: 17 Jan 2019 5:02 am

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.3



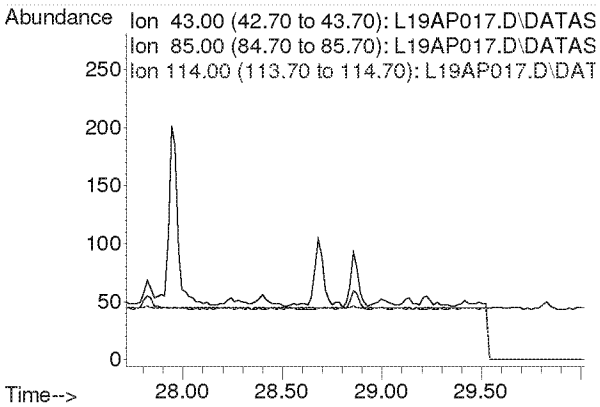


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

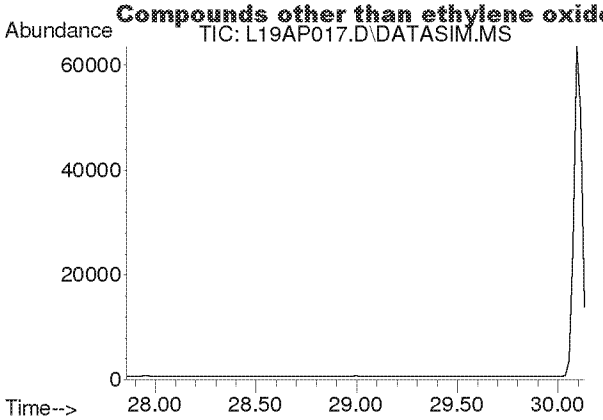
Lab File: L19AP017.D
Acq: 17 Jan 2019 5:02 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	36.6
114	2.3



Compounds other than ethylene oxide were not quantitated.

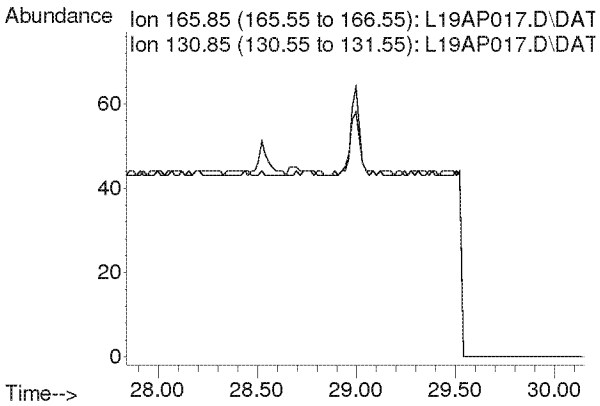


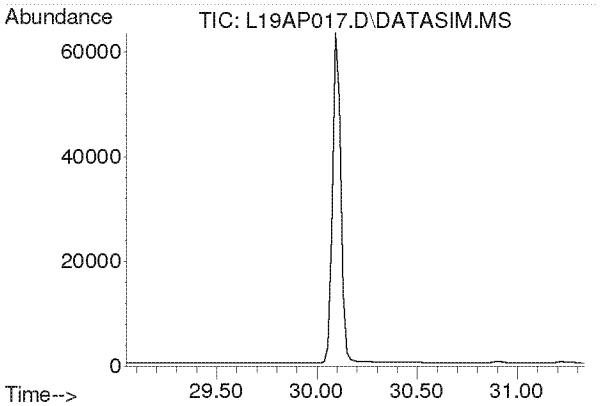
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19AP017.D
Acq: 17 Jan 2019 5:02 am

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	78.2



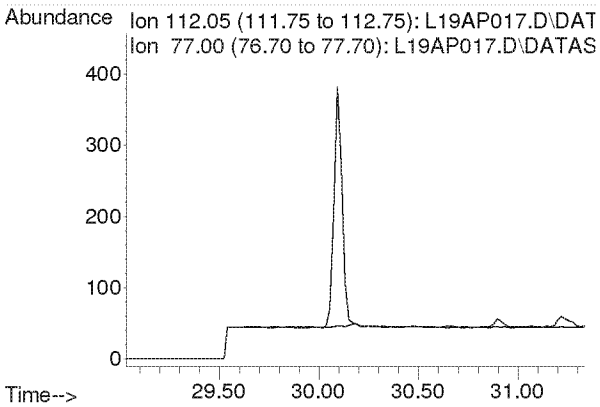


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

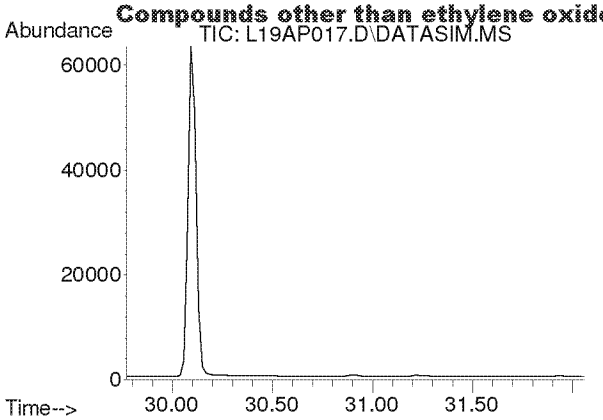
Lab File: L19AP017.D
Acq: 17 Jan 2019 5:02 am

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	61.2



Compounds other than ethylene oxide were not quantitated.

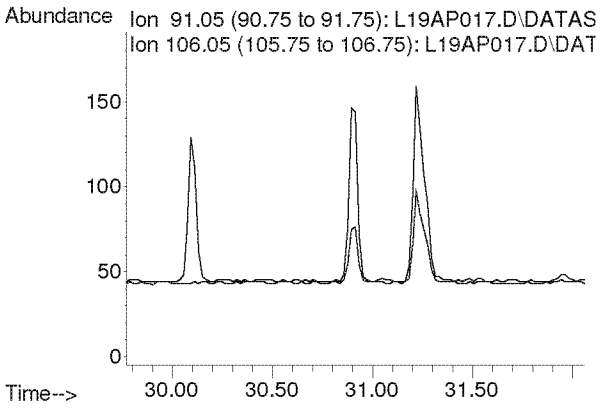


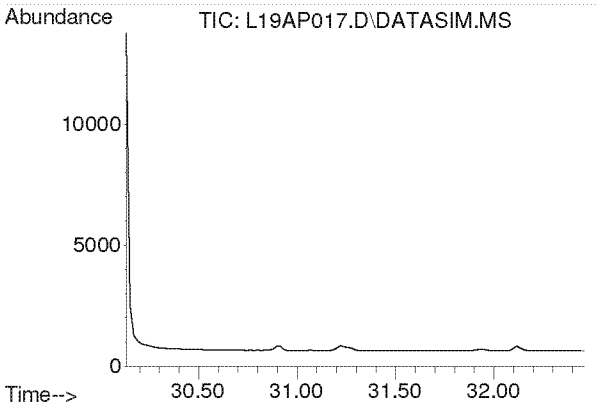
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19AP017.D
Acq: 17 Jan 2019 5:02 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	31.7



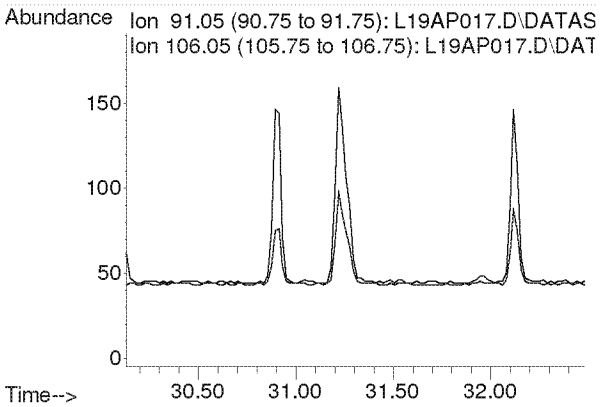


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

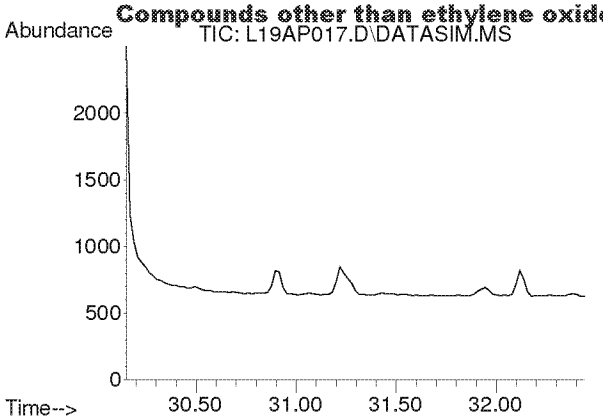
Lab File: L19AP017.D
Acq: 17 Jan 2019 5:02 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.6



Compounds other than ethylene oxide were not quantitated.

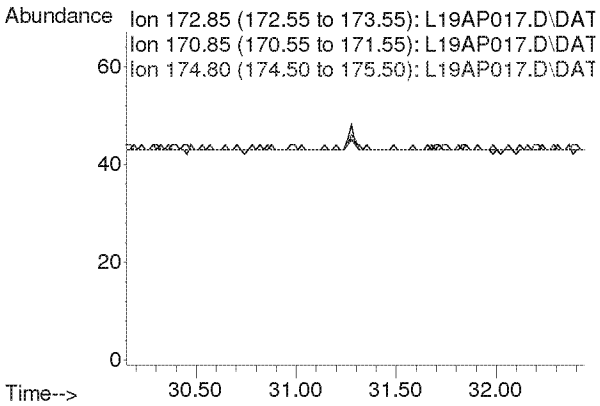


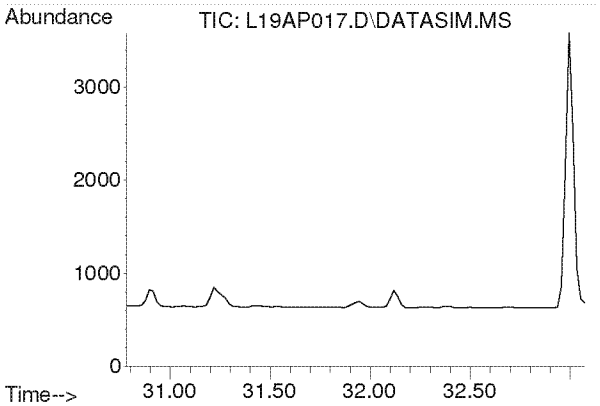
#52
Bromoform
Concen: N.D.
Expected RT: 31.30 min

Lab File: L19AP017.D
Acq: 17 Jan 2019 5:02 am

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.4
175	48.9



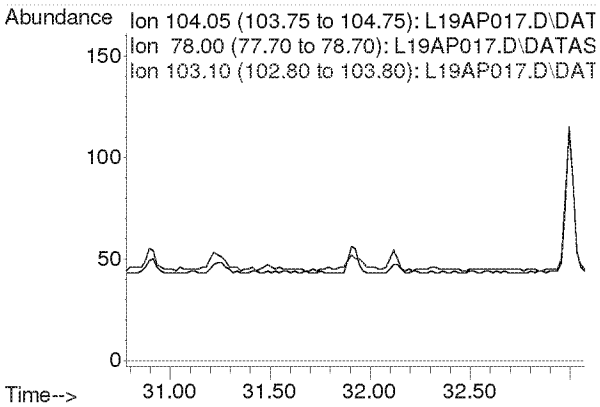


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

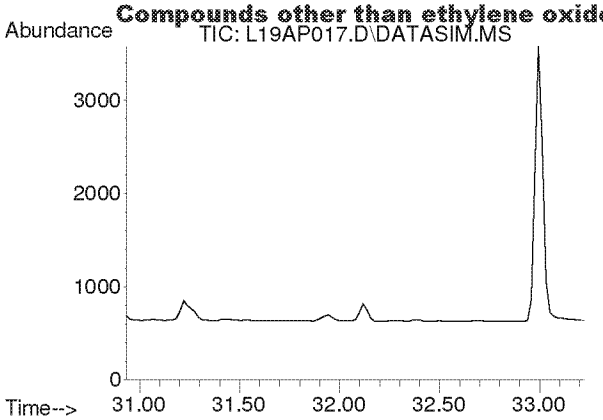
Lab File: L19AP017.D
Acq: 17 Jan 2019 5:02 am

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	45.8
103	0.0



Compounds other than ethylene oxide were not quantitated.

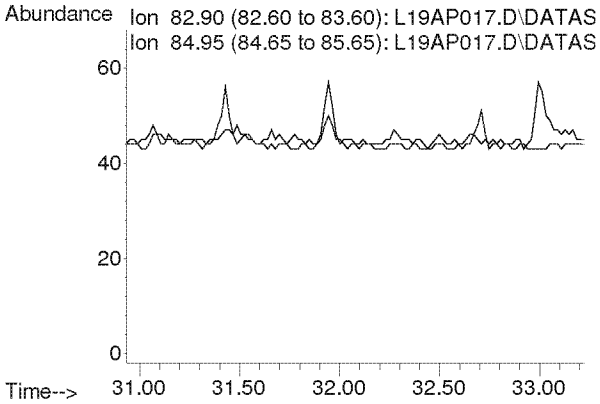


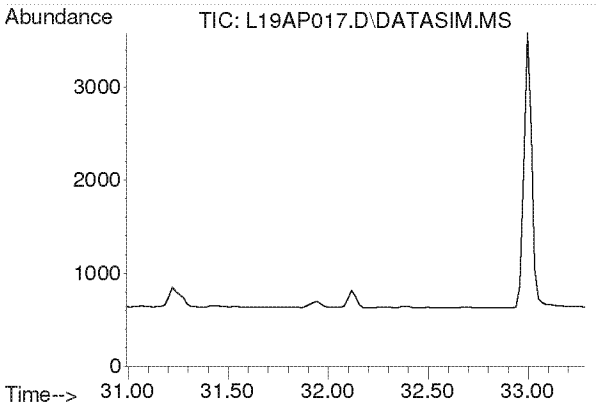
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19AP017.D
Acq: 17 Jan 2019 5:02 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.0



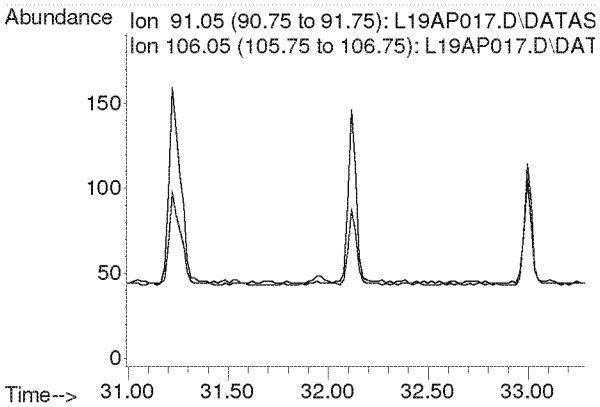


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

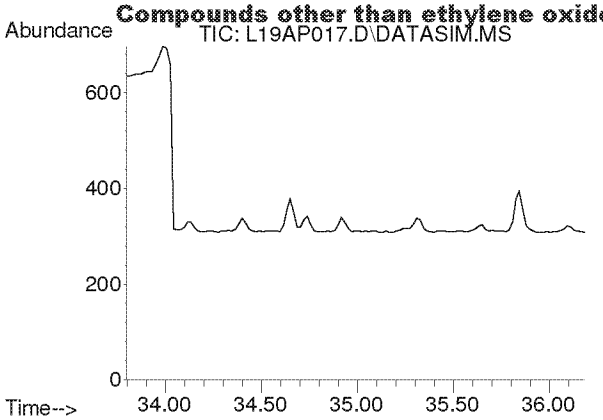
Lab File: L19AP017.D
Acq: 17 Jan 2019 5:02 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.8



Compounds other than ethylene oxide were not quantitated.

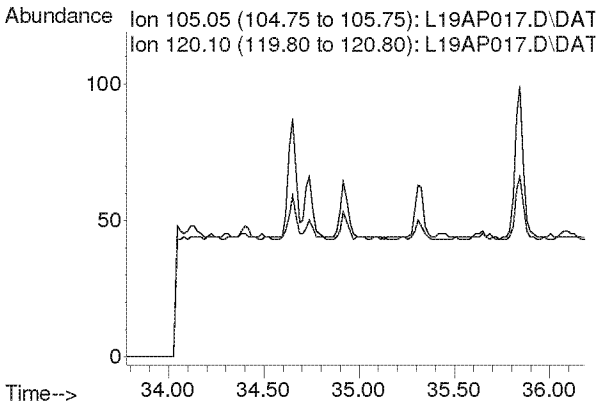


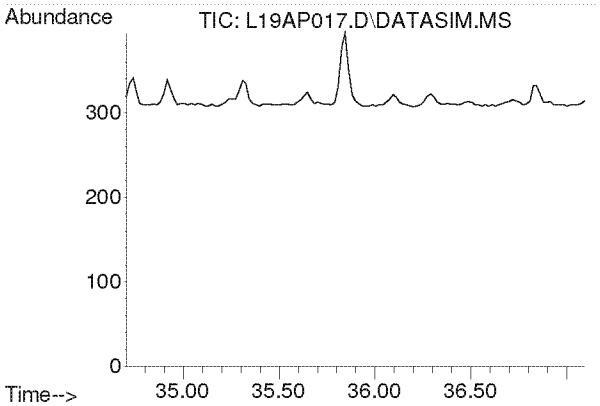
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19AP017.D
Acq: 17 Jan 2019 5:02 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	45.0



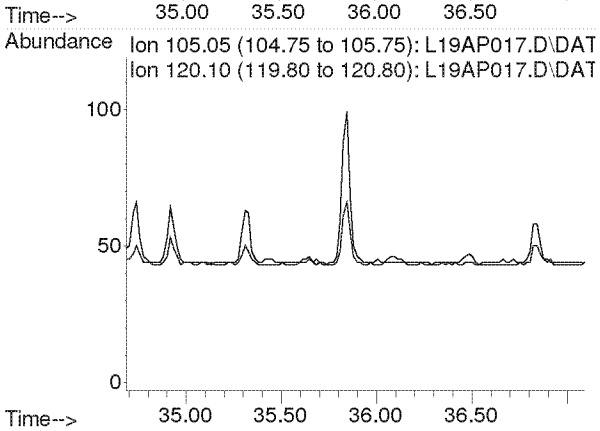


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

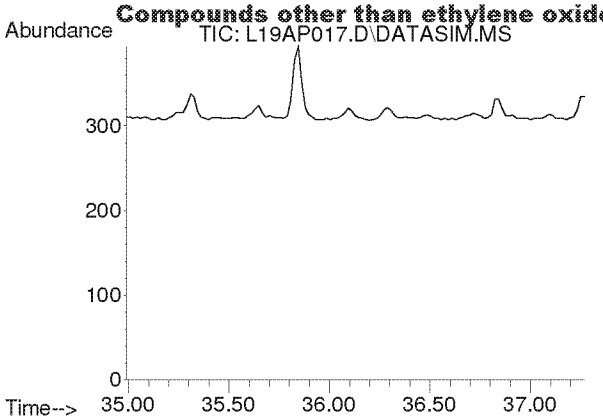
Lab File: L19AP017.D
Acq: 17 Jan 2019 5:02 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	42.9



Compounds other than ethylene oxide were not quantitated.

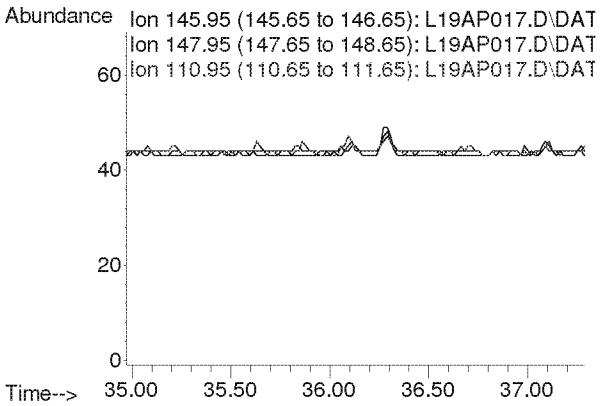


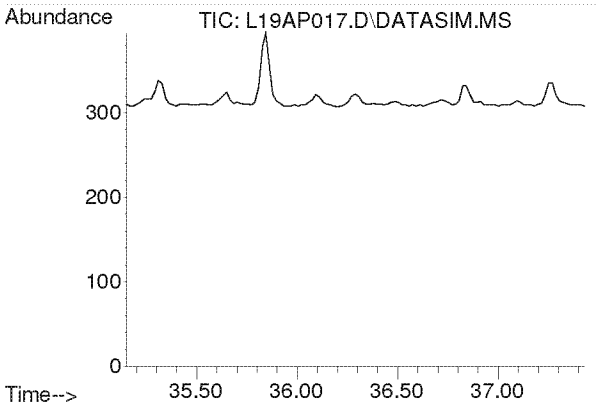
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19AP017.D
Acq: 17 Jan 2019 5:02 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.5



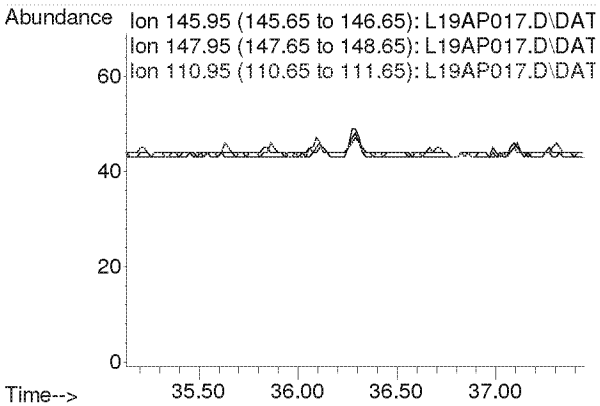


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

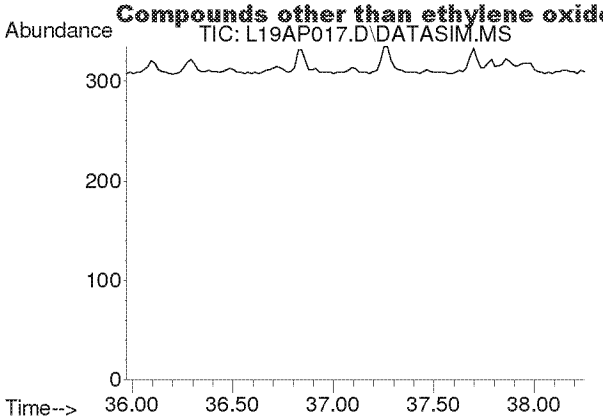
Lab File: L19AP017.D
Acq: 17 Jan 2019 5:02 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	63.9
111	39.3



Compounds other than ethylene oxide were not quantitated.

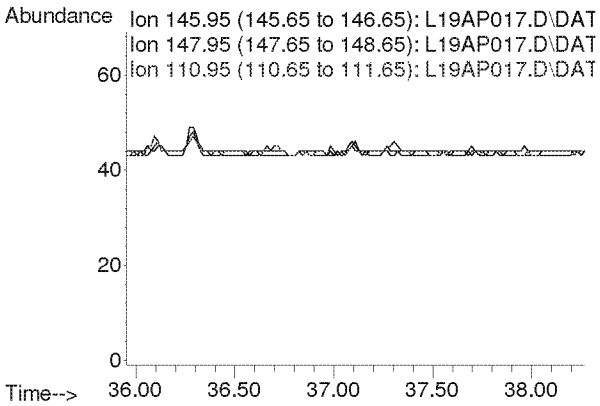


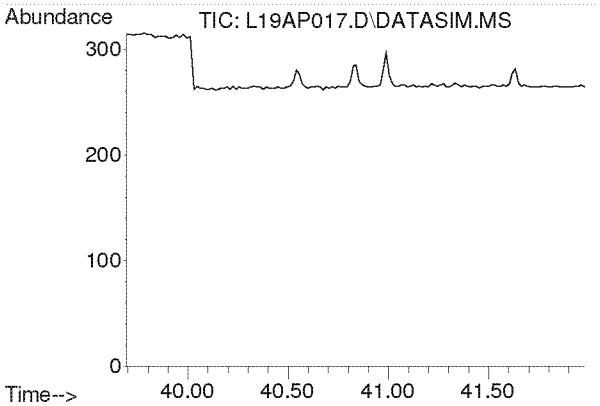
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19AP017.D
Acq: 17 Jan 2019 5:02 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.7



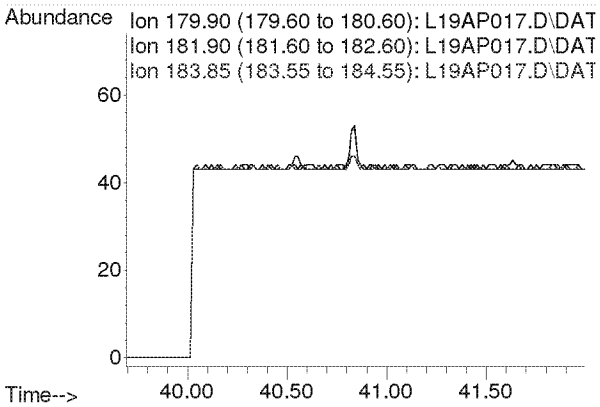


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

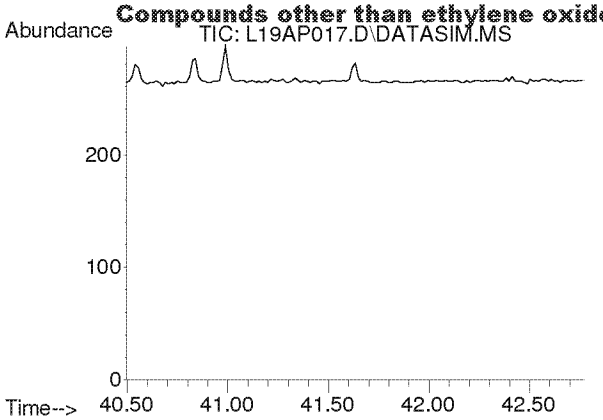
Lab File: L19AP017.D
Acq: 17 Jan 2019 5:02 am

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	95.0
184	30.5



Compounds other than ethylene oxide were not quantitated.

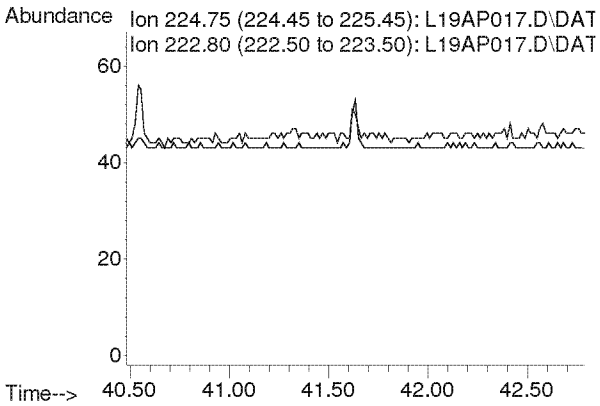


#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.63 min

Lab File: L19AP017.D
Acq: 17 Jan 2019 5:02 am

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.4



Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19AP\
Data File : L19AP018.D
Acq On : 17 Jan 2019 6:02 am
Operator : MAH
Sample : 9010808-02
Misc : HINSDALE HS 1/7/19
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Jan 23 07:13:28 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) IS-Hexane-d14	19.993	66	52127	4.7700	ppbv	0.00
29) IS-1,4-Difluorobenzene	23.151	114	130495	4.9900	ppbv	0.00
43) IS-Chlorobenzene-d5	30.097	117	102416	4.7400	ppbv	-0.02

System Monitoring Compounds

Target Compounds						Qvalue
2) Acetylene	0.000	26	0	N.D.	d	
3) Propylene	0.000	41	0	N.D.	d	
4) Dichlorodifluoromethane	0.000	85	0	N.D.	d	
5) Chloromethane	0.000	50	0	N.D.	d	
6) Dichlorotetrafluoroethane	0.000	85	0	N.D.	d	
7) Vinyl Chloride	0.000	62	0	N.D.		
8) 1,3-Butadiene	0.000	54	0	N.D.	d	
9) Ethylene oxide	12.470	29	373m	0.1385	ppbv	
10) Bromomethane	0.000	94	0	N.D.	d	
11) Chloroethane	0.000	64	0	N.D.		
12) Acetonitrile	0.000	41	0	N.D.	d	
13) Acrolein	0.000	56	0	N.D.	d	
14) Trichlorofluoromethane	0.000	101	0	N.D.	d	
15) Acrylonitrile	0.000	53	0	N.D.	d	
16) 1,1-Dichloroethene	0.000	61	0	N.D.		
17) Methylene Chloride	0.000	49	0	N.D.	d	
18) Carbon Disulfide	0.000	76	0	N.D.	d	
19) Trichlorotrifluoroethane	0.000	101	0	N.D.	d	
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.		
21) 1,1-Dichloroethane	0.000	63	0	N.D.		
22) Methyl tert-Butyl Ether	0.000	73	0	N.D.		
23) Chloroprene	0.000	53	0	N.D.	d	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D.	d	
25) Bromochloromethane	0.000	128	0	N.D.		
26) Chloroform	0.000	83	0	N.D.	d	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D.		
28) 1,2-Dichloroethane	0.000	62	0	N.D.	d	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D.		
31) Benzene	0.000	78	0	N.D.	d	
32) Carbon Tetrachloride	0.000	117	0	N.D.	d	
33) tert-Amyl Methyl Ether	0.000	73	0	N.D.		
34) 1,2-Dichloropropane	0.000	63	0	N.D.		
35) Ethyl Acrylate	0.000	55	0	N.D.		
36) Bromodichloromethane	0.000	83	0	N.D.		
37) Trichloroethylene	0.000	130	0	N.D.		
38) Methyl Methacrylate	0.000	41	0	N.D.		
39) cis-1,3-Dichloropropene	0.000	75	0	N.D.		
40) Methyl Isobutyl Ketone	0.000	43	0	N.D.	d	
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.		
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.		
44) Toluene	0.000	91	0	N.D.	d	
45) Dibromochloromethane	0.000	129	0	N.D.		
46) 1,2-Dibromoethane	0.000	107	0	N.D.		
47) n-Octane	0.000	43	0	N.D.	d	
48) Tetrachloroethylene	0.000	166	0	N.D.	d	
49) Chlorobenzene	0.000	112	0	N.D.		
50) Ethylbenzene	0.000	91	0	N.D.	d	

Compounds other than ethylene oxide were not quantitated (not Reviewed)

Data Path : C:\msdchem\1\DATA\L19AP\
Data File : L19AP018.D
Acq On : 17 Jan 2019 6:02 am
Operator : MAH
Sample : 9010808-02
Misc : HINSDALE HS 1/7/19
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Jan 23 07:13:28 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D. d	
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D. d	
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D. d	
57) 1,2,4-Trimethylbenzene	0.000	105	0	N.D. d	
58) m-Dichlorobenzene	0.000	146	0	N.D.	
59) p-Dichlorobenzene	0.000	146	0	N.D.	
60) o-Dichlorobenzene	0.000	146	0	N.D.	
61) 1,2,4-Trichlorobenzene	0.000	180	0	N.D.	
62) Hexachloro-1,3-butadiene	0.000	225	0	N.D.	

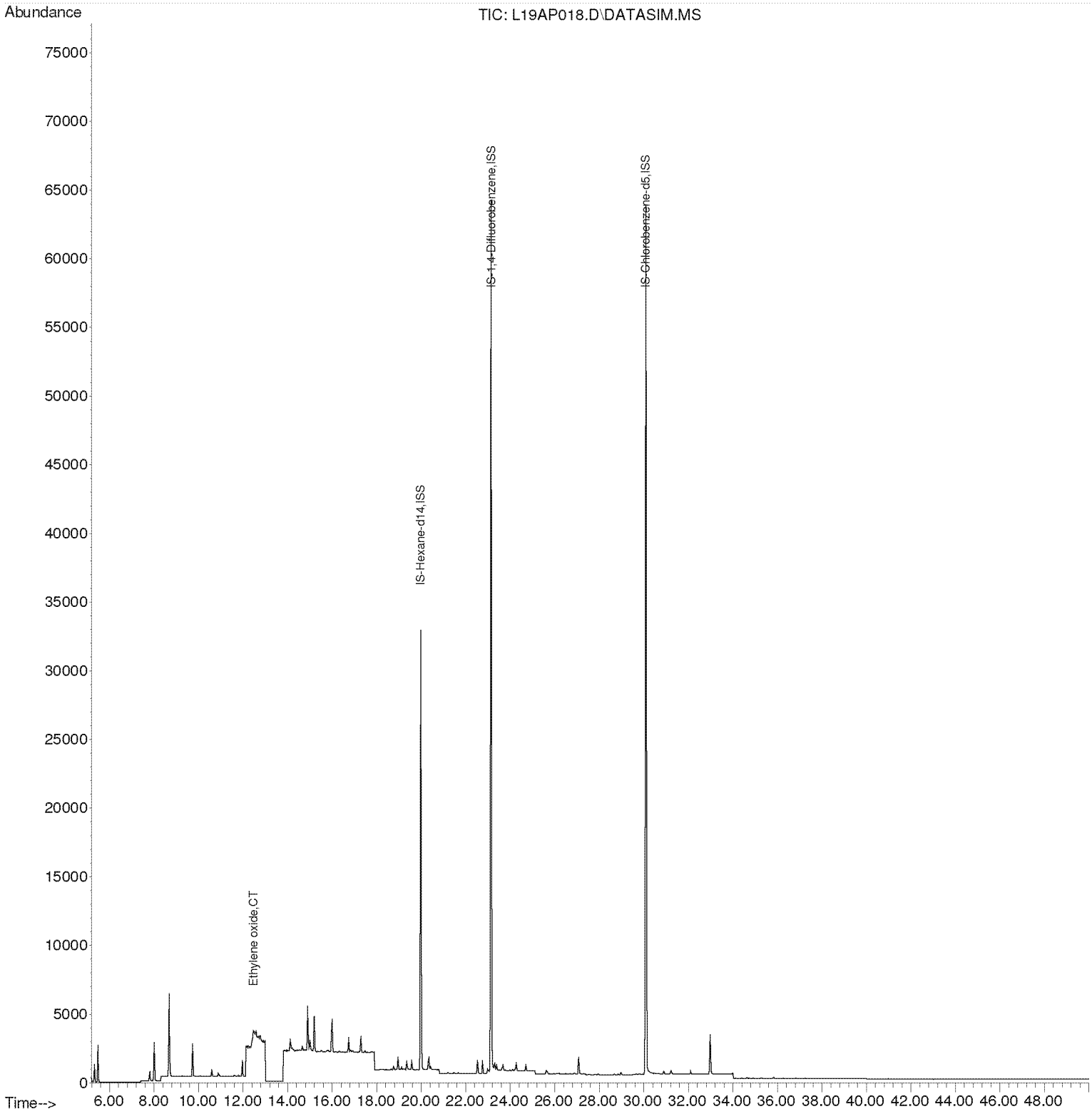
(#) = qualifier out of range (m) = manual integration (+) = signals summed

ED_002475_00000276-00250

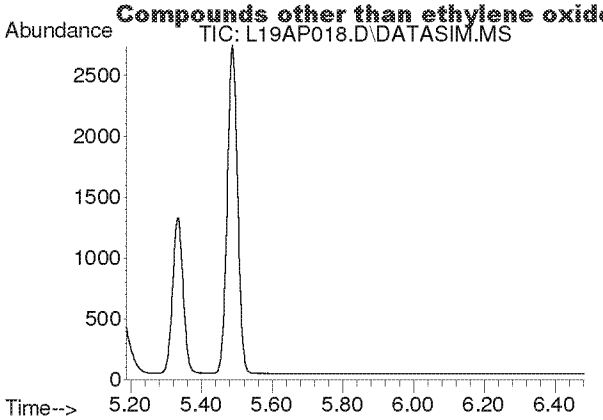
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L19AP\
Data File : L19AP018.D
Acq On : 17 Jan 2019 6:02 am
Operator : MAH
Sample : 9010808-02
Misc : HINSDALE HS 1/7/19
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Jan 23 06:44:05 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration



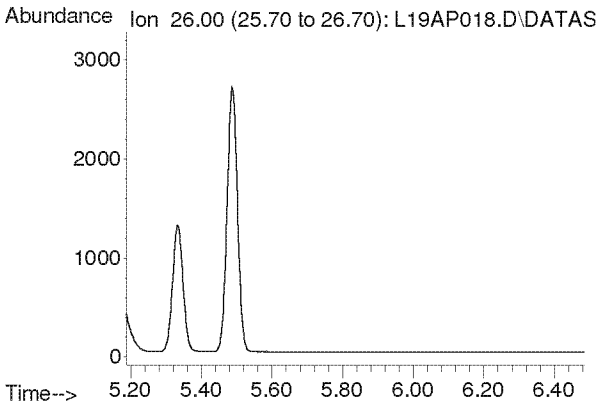
Compounds other than ethylene oxide were not quantitated.

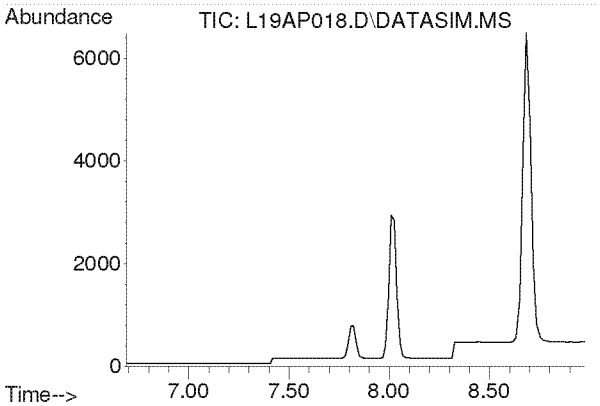


#2
Acetylene
Concen: N.D.
Expected RT: 5.42 min

Lab File: L19AP018.D
Acq: 17 Jan 2019 6:02 am

Tgt Ion: 26



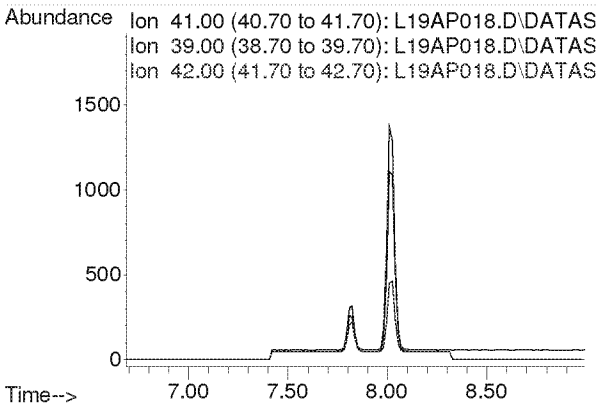


#3
Propylene
Concen: N.D.
Expected RT: 7.84 min

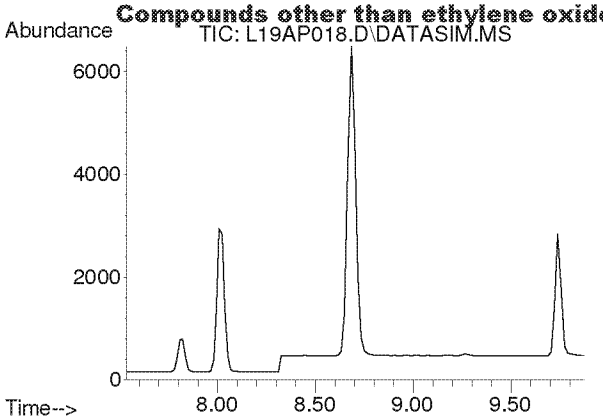
Lab File: L19AP018.D
Acq: 17 Jan 2019 6:02 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	77.0
42	65.8



Compounds other than ethylene oxide were not quantitated.

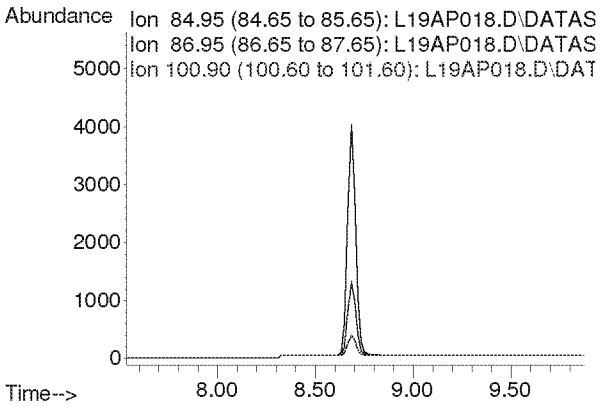


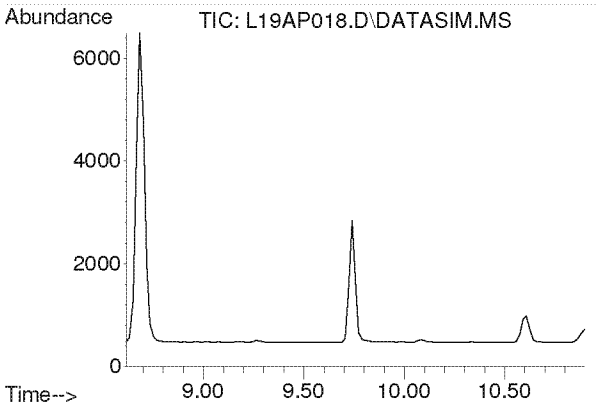
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19AP018.D
Acq: 17 Jan 2019 6:02 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	8.9



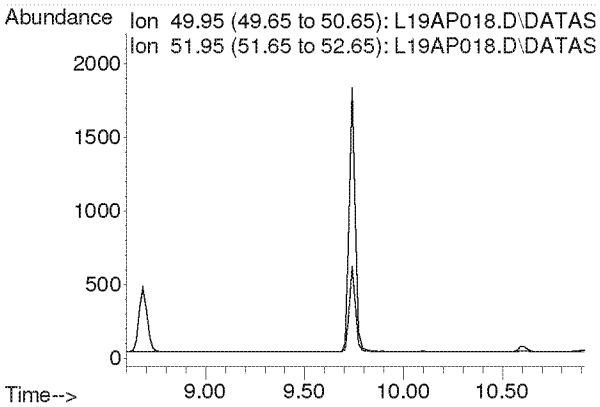


#5
Chloromethane
Concen: N.D.
Expected RT: 9.76 min

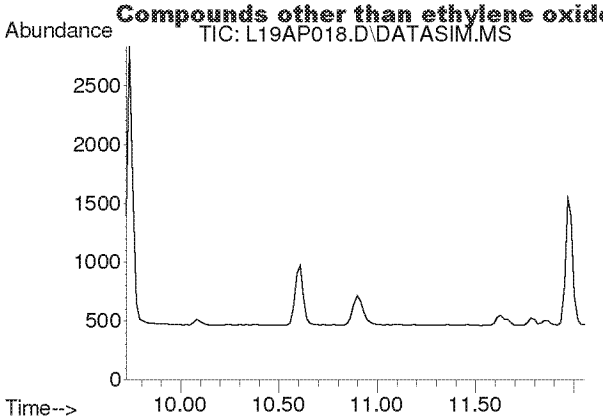
Lab File: L19AP018.D
Acq: 17 Jan 2019 6:02 am

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.4



Compounds other than ethylene oxide were not quantitated.

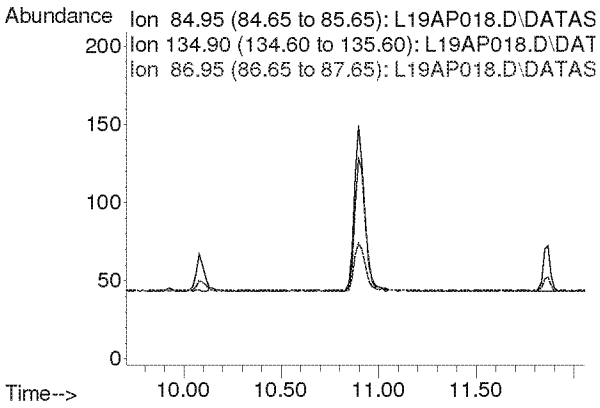


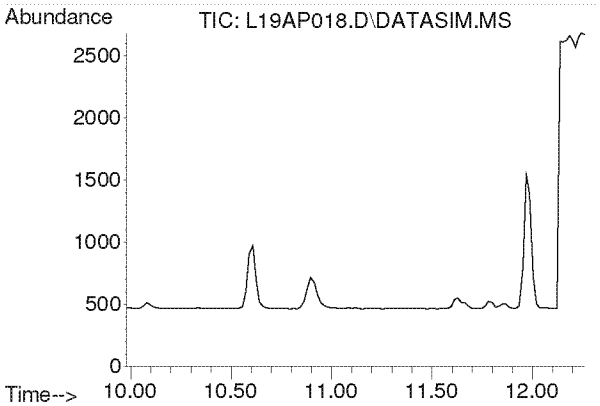
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19AP018.D
Acq: 17 Jan 2019 6:02 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.5
87	32.2



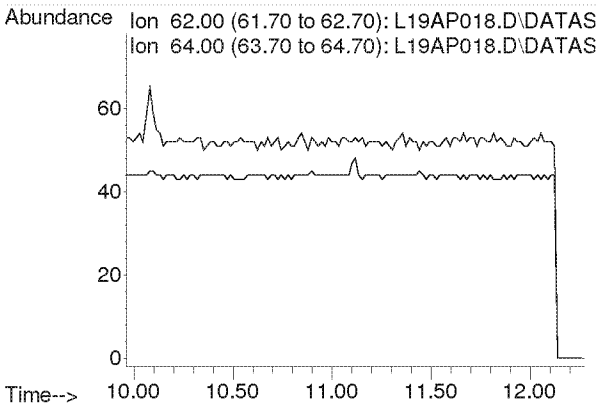


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

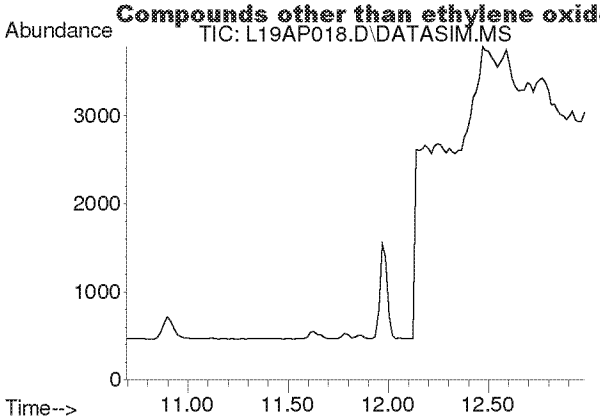
Lab File: L19AP018.D
Acq: 17 Jan 2019 6:02 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	32.1



Compounds other than ethylene oxide were not quantitated.

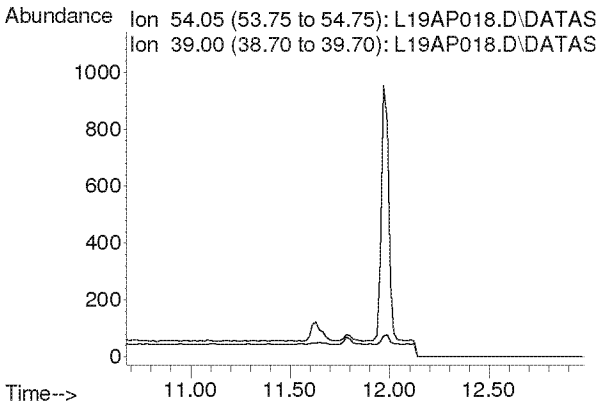


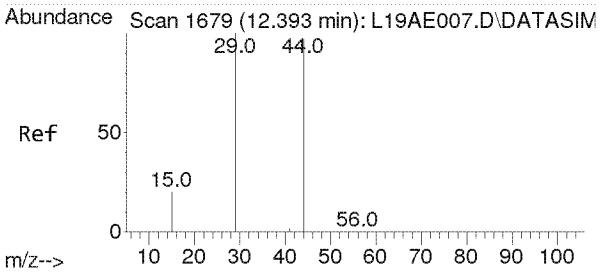
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19AP018.D
Acq: 17 Jan 2019 6:02 am

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	103.3

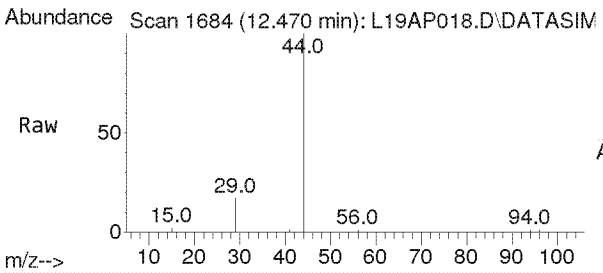


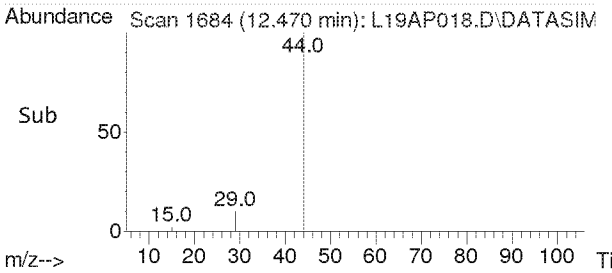


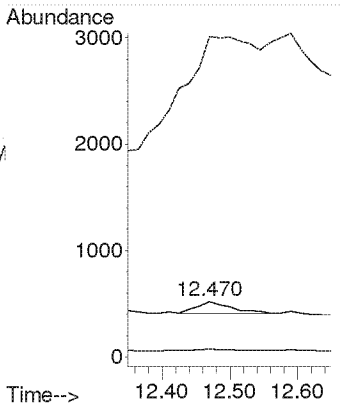
#9
Ethylene oxide
Concen: 0.139 ppbv m
RT: 12.470 min Scan# 1684
Delta R.T. 0.077 min
Lab File: L19AP018.D
Acq: 17 Jan 2019 6:02 am

Tgt Ion: 29 Resp: 373

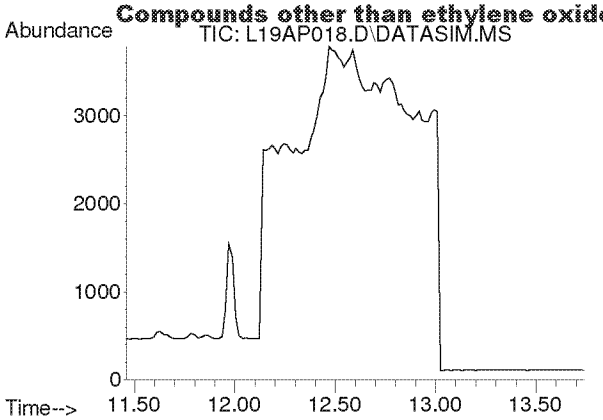
Ion	Ratio	Lower	Upper
29	100		
15	25.2	15.4	23.0#
44	2749.9	77.4	116.2#







Compounds other than ethylene oxide were not quantitated.

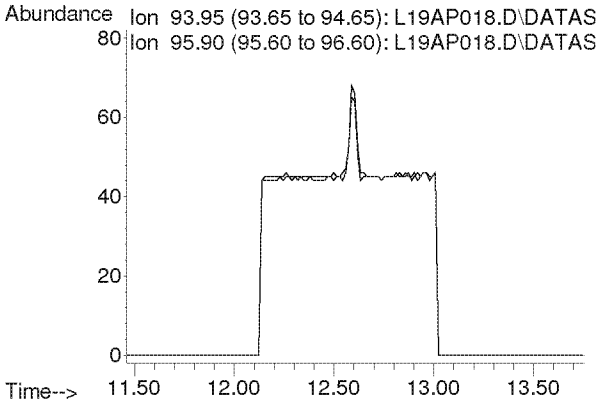


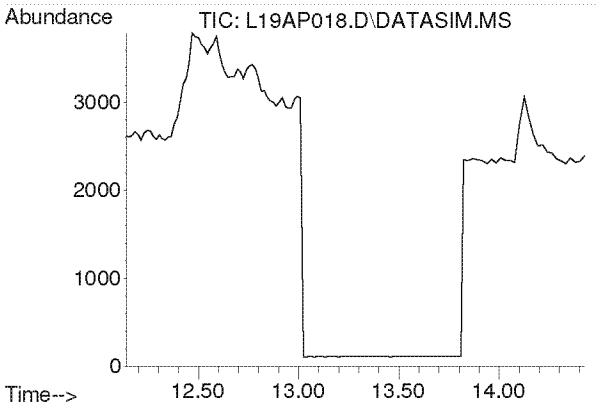
#10
Bromomethane
Concen: N.D.
Expected RT: 12.60 min

Lab File: L19AP018.D
Acq: 17 Jan 2019 6:02 am

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.3



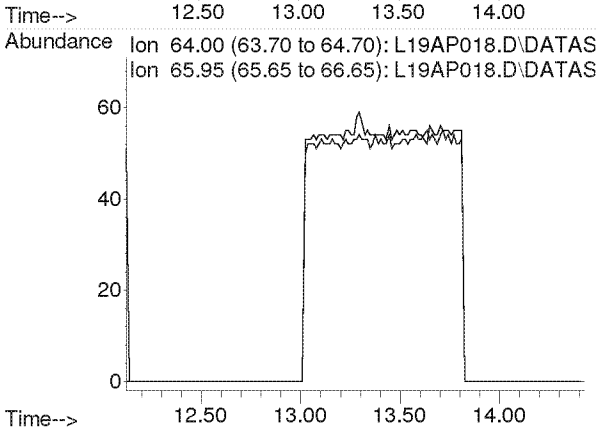


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

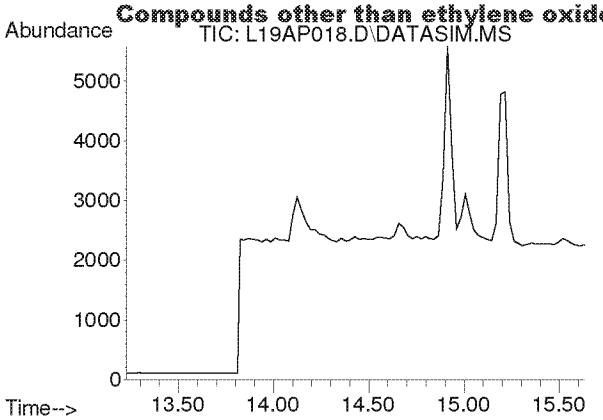
Lab File: L19AP018.D
Acq: 17 Jan 2019 6:02 am

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.4



Compounds other than ethylene oxide were not quantitated.

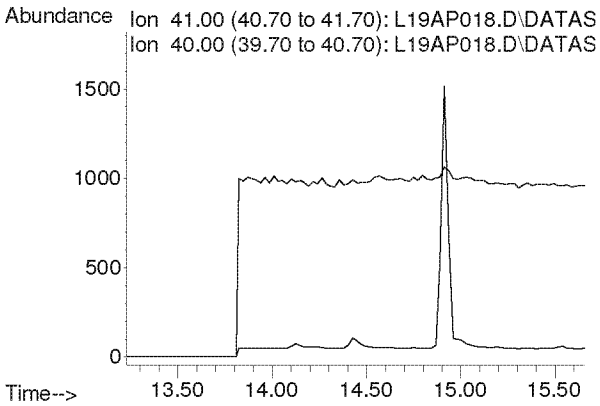


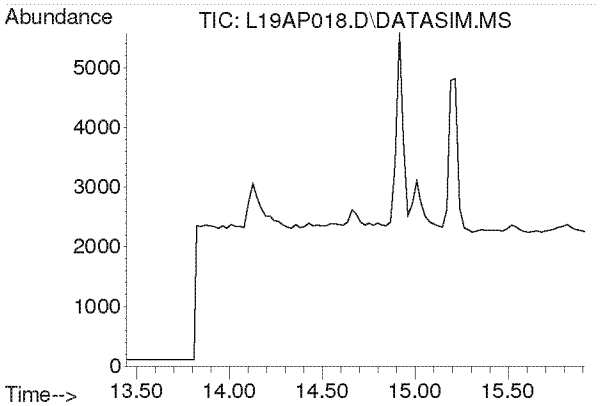
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19AP018.D
Acq: 17 Jan 2019 6:02 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	53.2



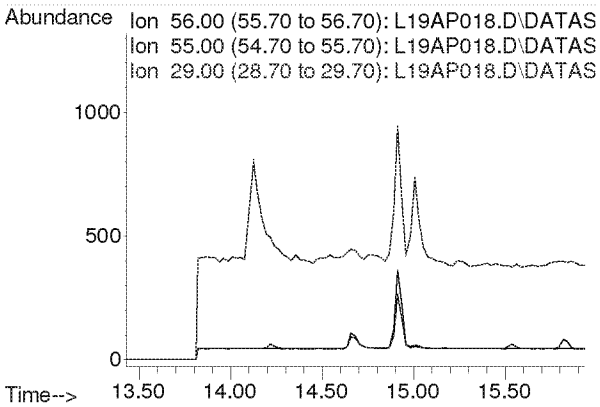


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

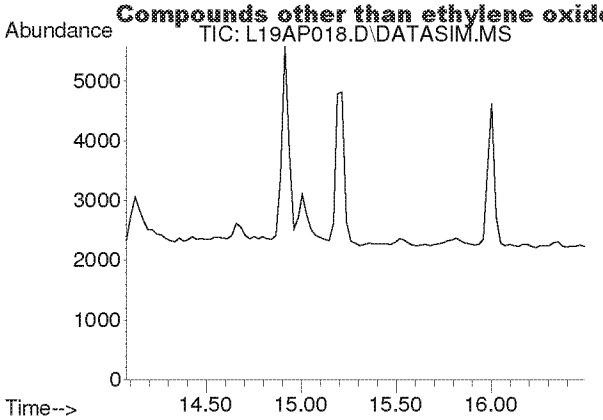
Lab File: L19AP018.D
Acq: 17 Jan 2019 6:02 am

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.5
29	44.9



Compounds other than ethylene oxide were not quantitated.

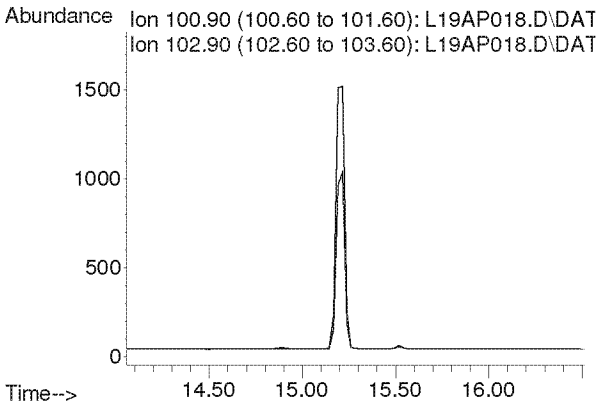


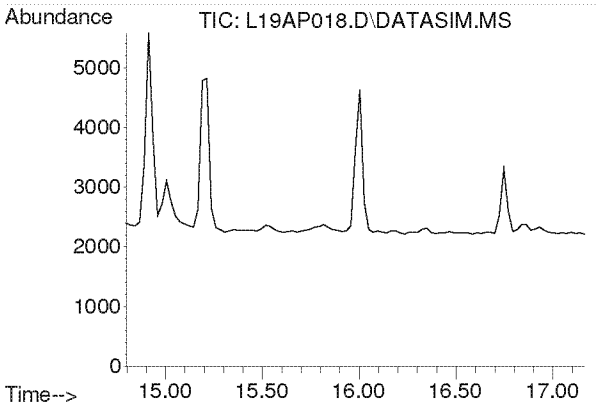
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.21 min

Lab File: L19AP018.D
Acq: 17 Jan 2019 6:02 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



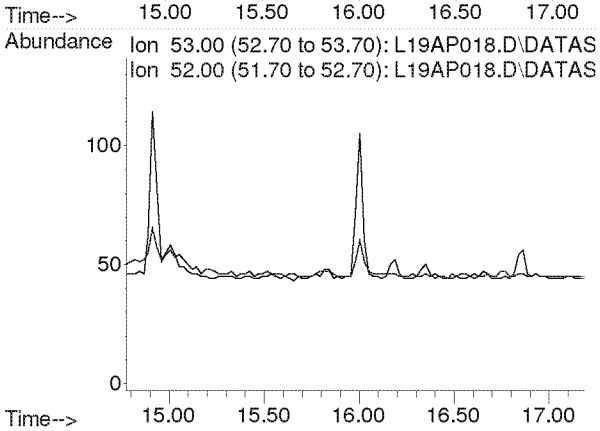


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

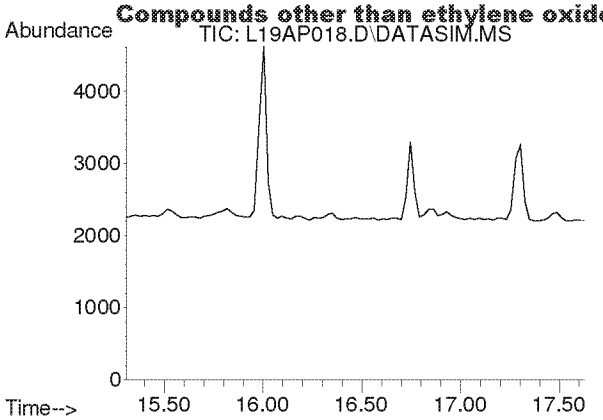
Lab File: L19AP018.D
Acq: 17 Jan 2019 6:02 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	84.7



Compounds other than ethylene oxide were not quantitated.

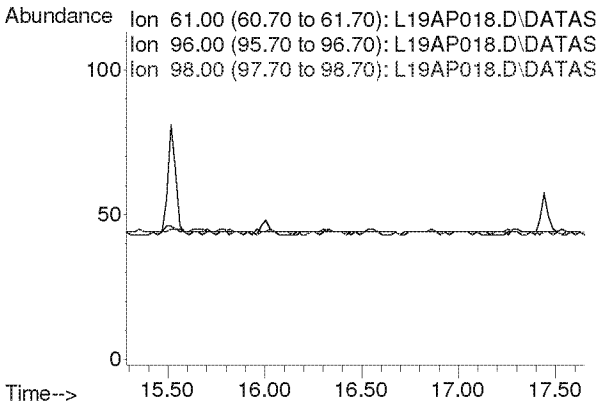


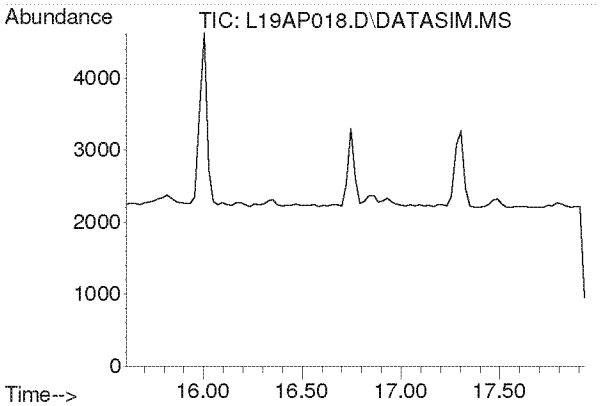
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.44 min

Lab File: L19AP018.D
Acq: 17 Jan 2019 6:02 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.5
98	38.1



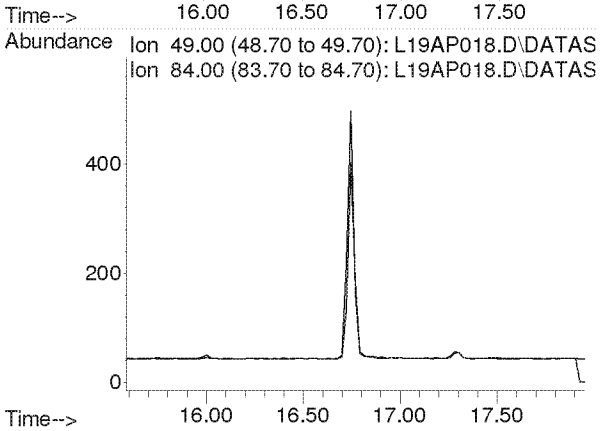


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

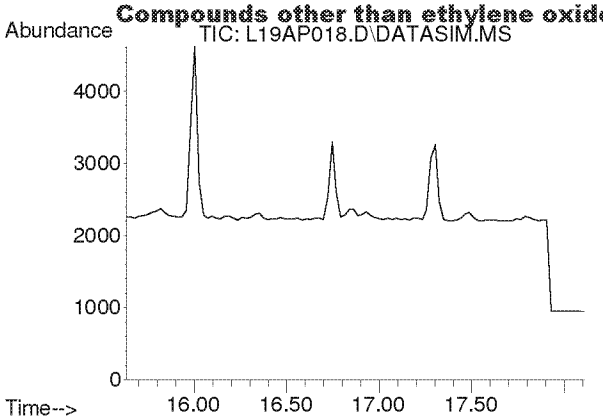
Lab File: L19AP018.D
Acq: 17 Jan 2019 6:02 am

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.3



Compounds other than ethylene oxide were not quantitated.

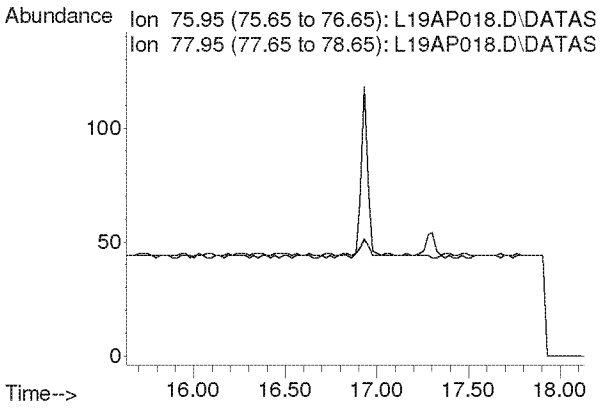


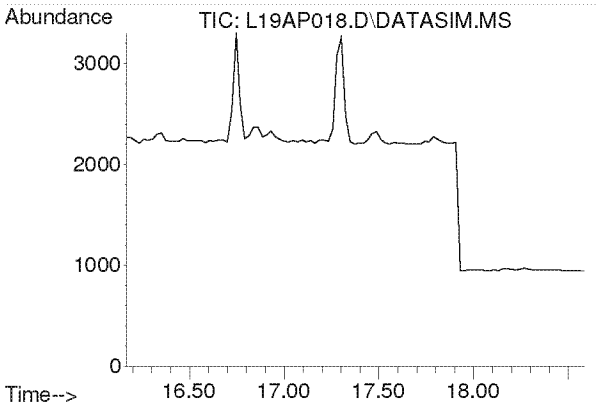
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19AP018.D
Acq: 17 Jan 2019 6:02 am

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.0



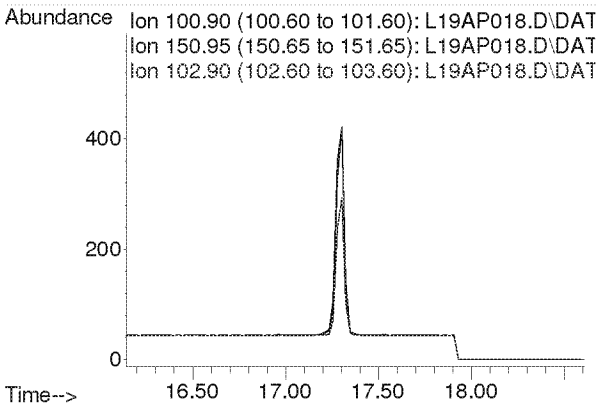


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.30 min

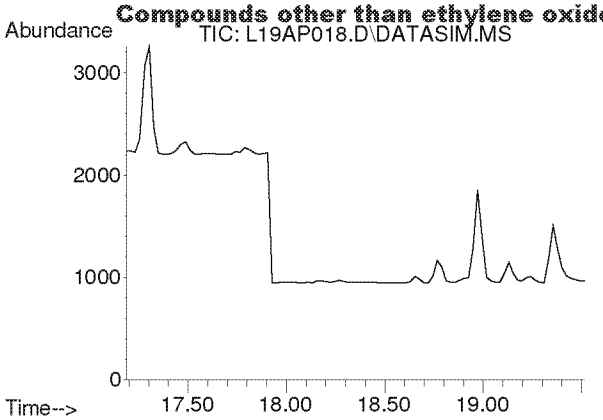
Lab File: L19AP018.D
Acq: 17 Jan 2019 6:02 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	95.4
103	63.9



Compounds other than ethylene oxide were not quantitated.

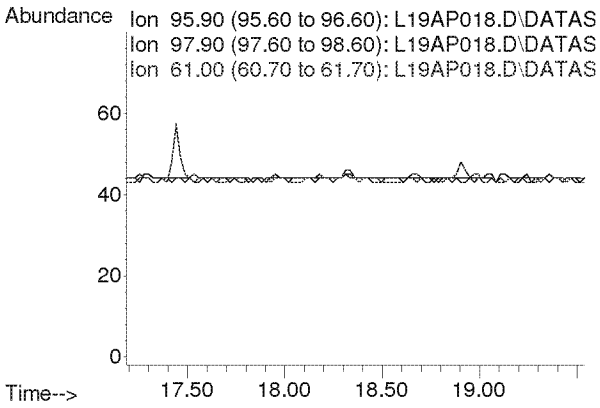


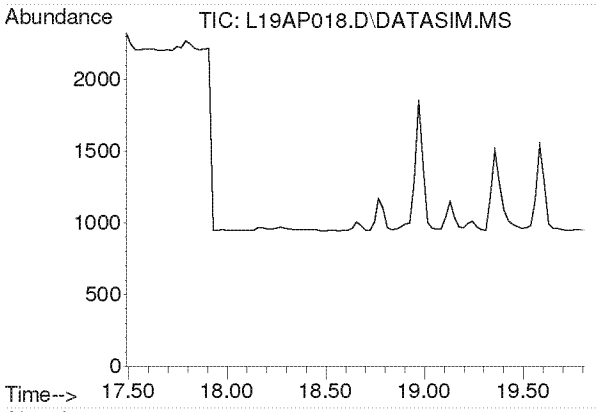
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19AP018.D
Acq: 17 Jan 2019 6:02 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	63.6
61	156.5



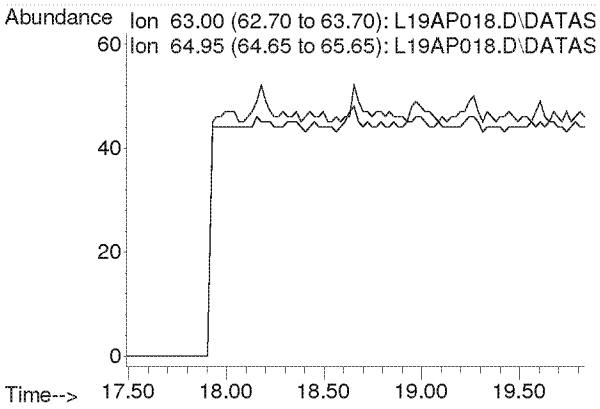


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

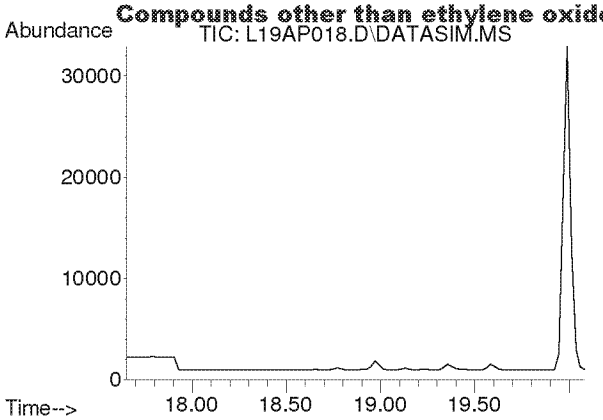
Lab File: L19AP018.D
Acq: 17 Jan 2019 6:02 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

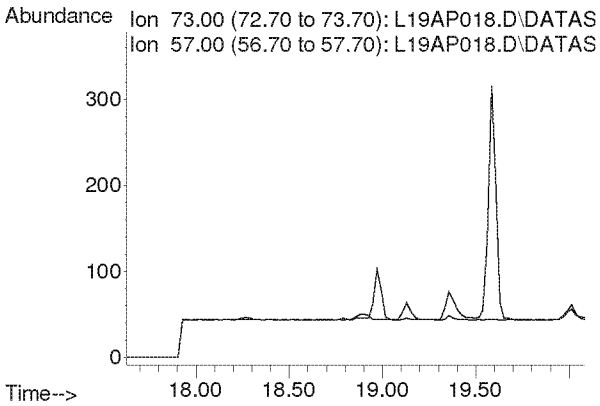


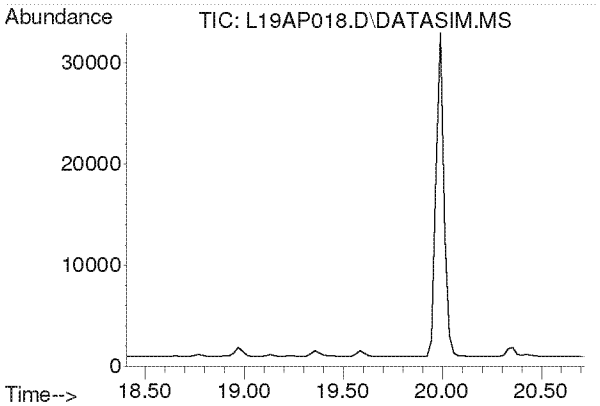
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19AP018.D
Acq: 17 Jan 2019 6:02 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.6



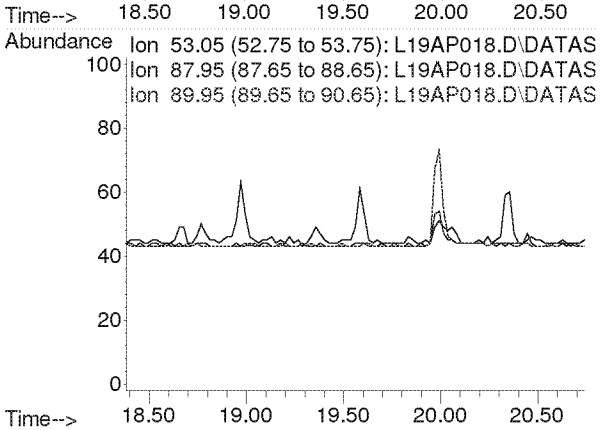


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

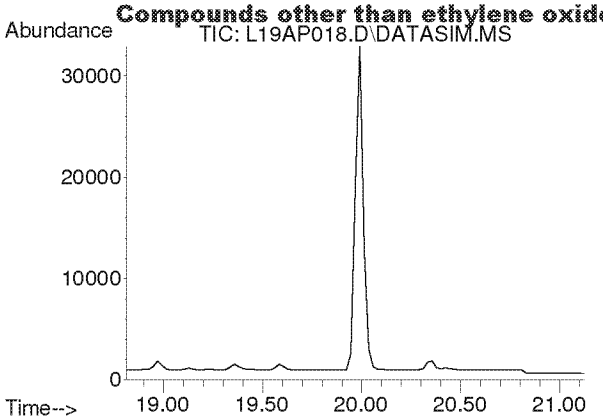
Lab File: L19AP018.D
Acq: 17 Jan 2019 6:02 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	54.0
90	17.3



Compounds other than ethylene oxide were not quantitated.

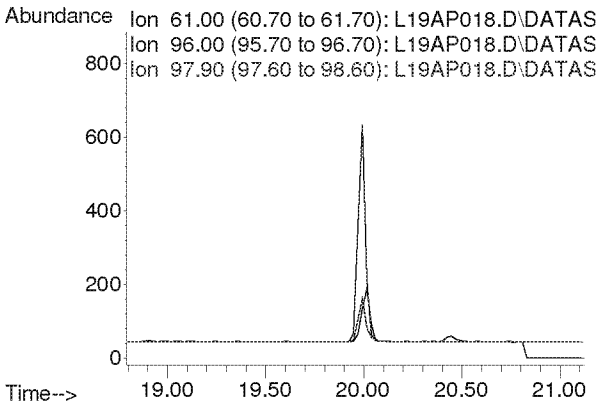


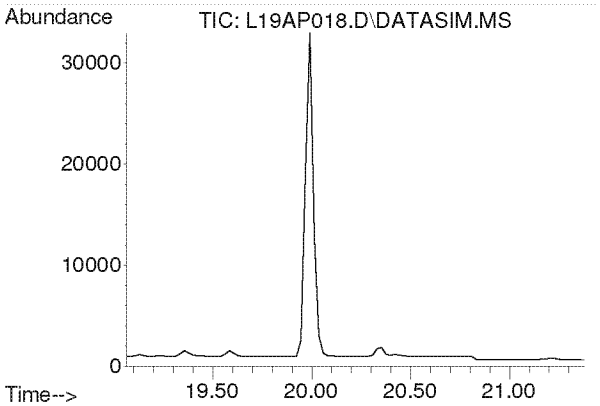
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19AP018.D
Acq: 17 Jan 2019 6:02 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	75.7
98	46.4



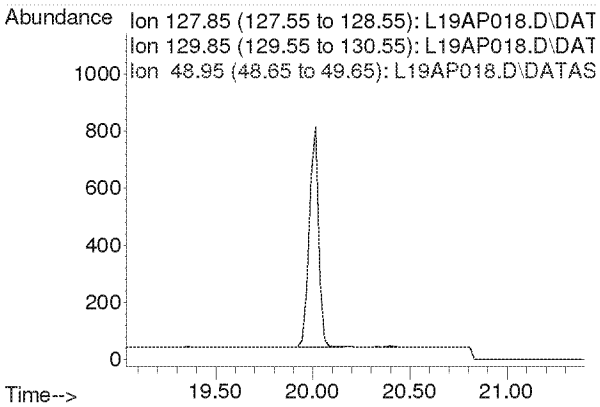


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.19 min

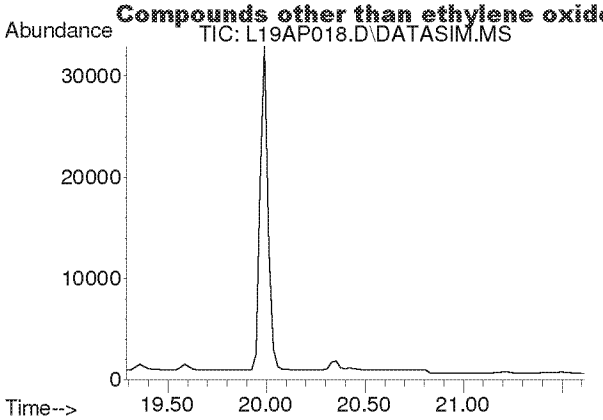
Lab File: L19AP018.D
Acq: 17 Jan 2019 6:02 am

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	130.4
49	170.8



Compounds other than ethylene oxide were not quantitated.

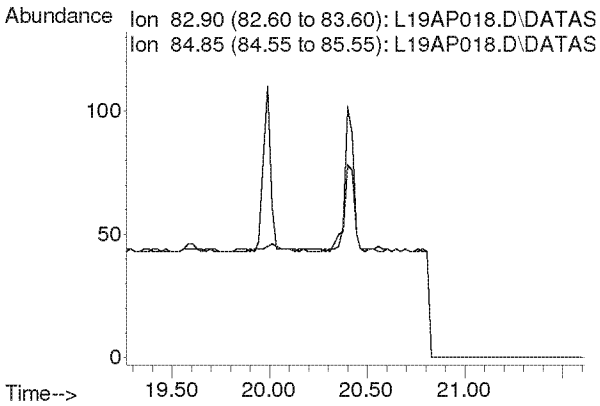


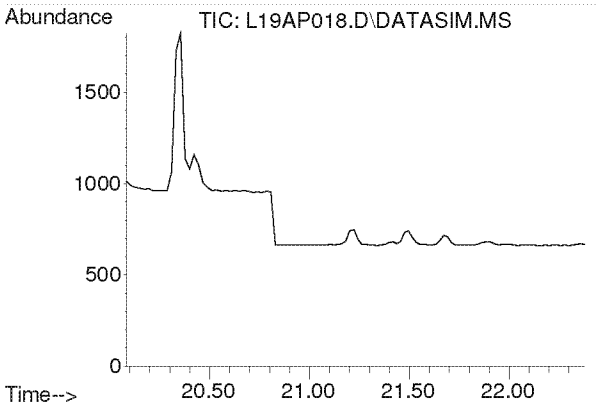
#26
Chloroform
Concen: N.D.
Expected RT: 20.42 min

Lab File: L19AP018.D
Acq: 17 Jan 2019 6:02 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



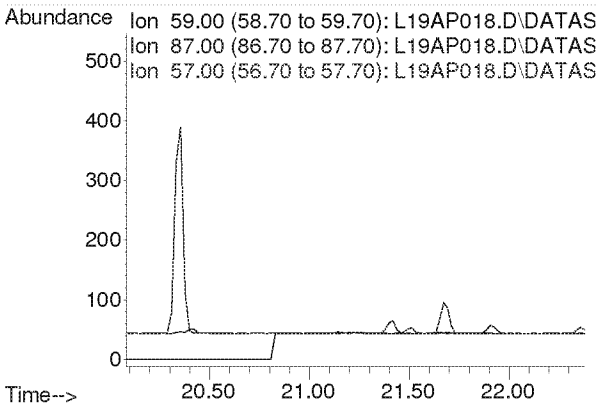


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

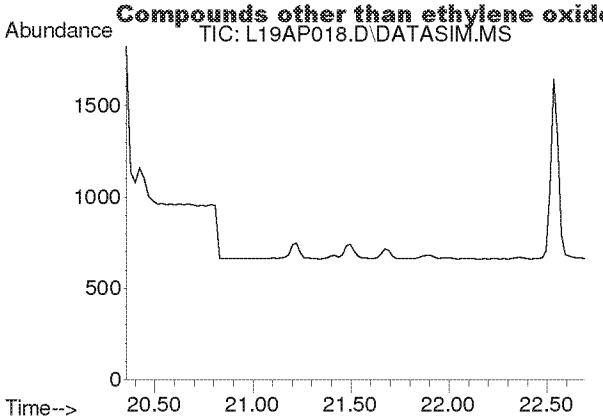
Lab File: L19AP018.D
Acq: 17 Jan 2019 6:02 am

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	37.8
57	34.3



Compounds other than ethylene oxide were not quantitated.

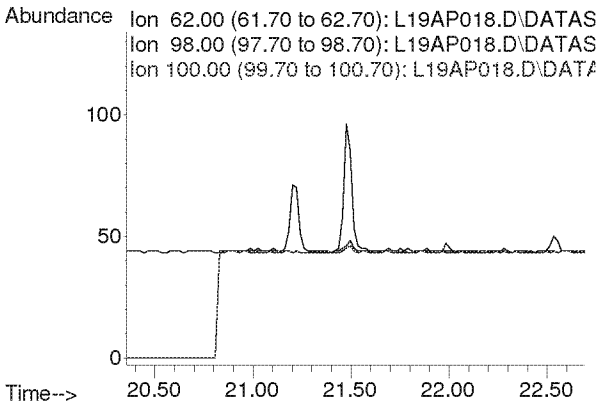


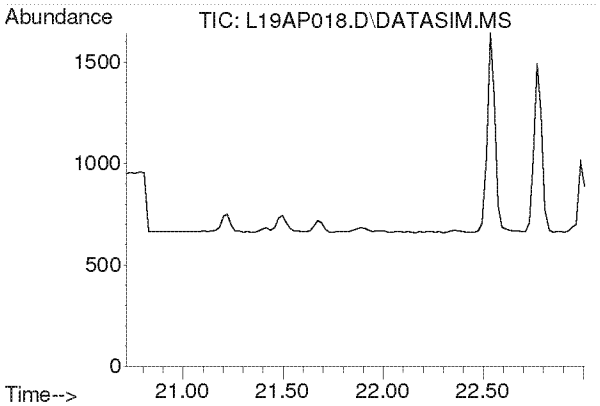
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.50 min

Lab File: L19AP018.D
Acq: 17 Jan 2019 6:02 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.8
100	4.2



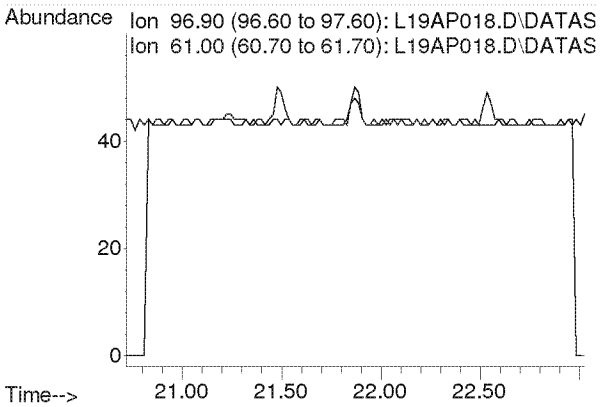


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

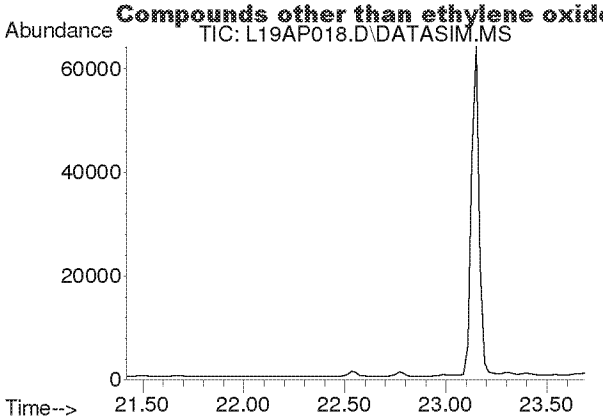
Lab File: L19AP018.D
Acq: 17 Jan 2019 6:02 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	58.6



Compounds other than ethylene oxide were not quantitated.

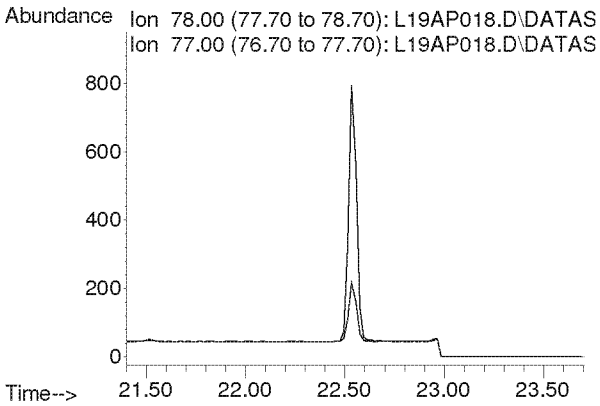


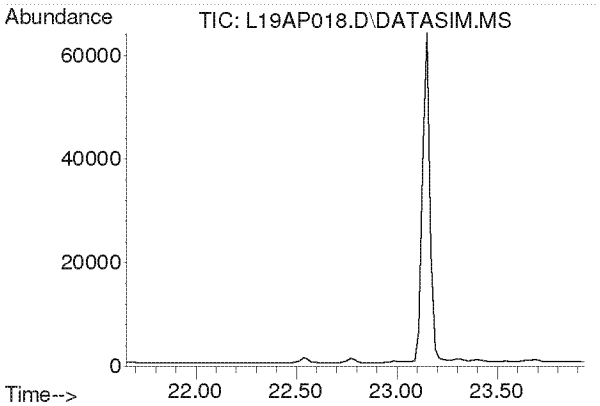
#31
Benzene
Concen: N.D.
Expected RT: 22.55 min

Lab File: L19AP018.D
Acq: 17 Jan 2019 6:02 am

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.9



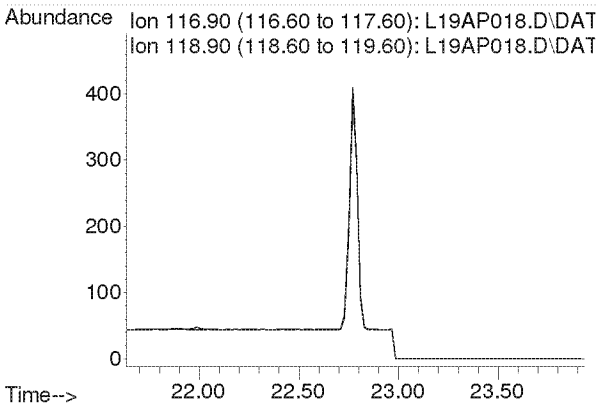


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.79 min

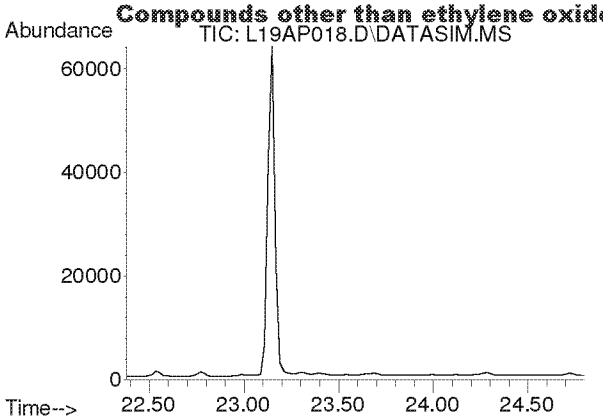
Lab File: L19AP018.D
Acq: 17 Jan 2019 6:02 am

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.5



Compounds other than ethylene oxide were not quantitated.

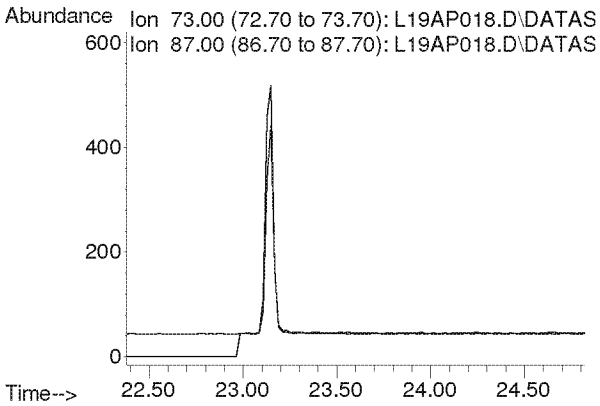


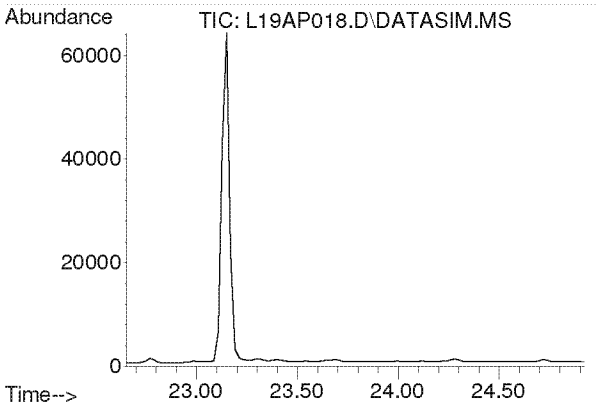
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19AP018.D
Acq: 17 Jan 2019 6:02 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	24.8



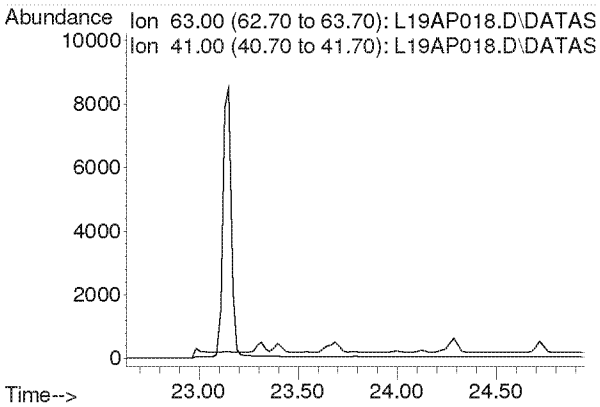


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

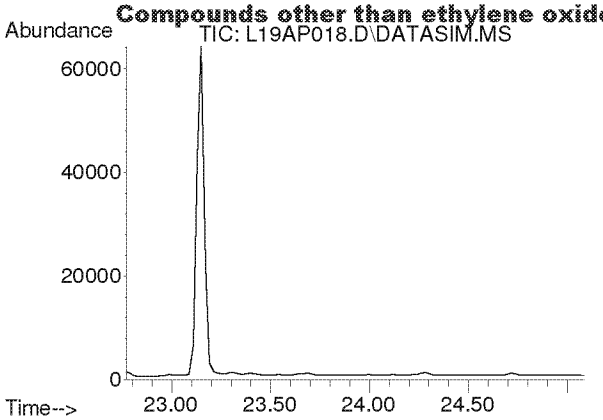
Lab File: L19AP018.D
Acq: 17 Jan 2019 6:02 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	196.0



Compounds other than ethylene oxide were not quantitated.

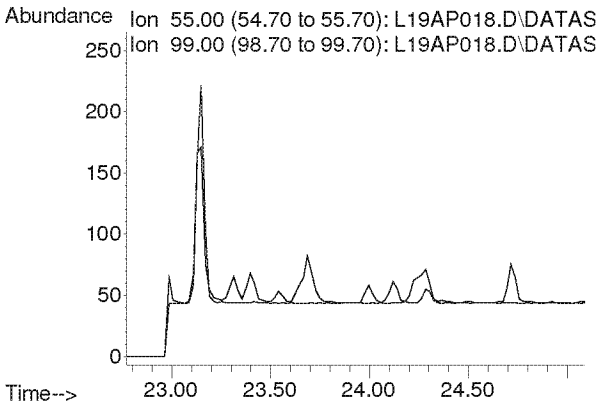


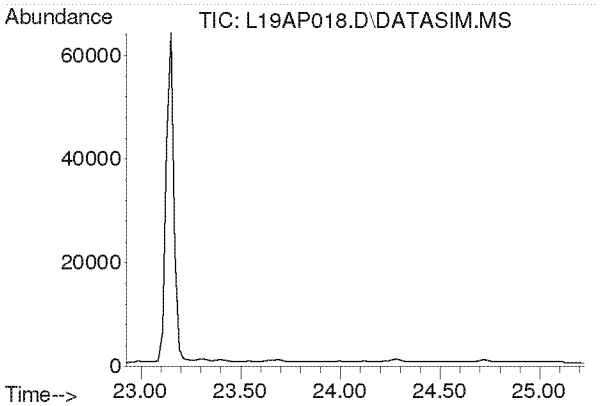
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19AP018.D
Acq: 17 Jan 2019 6:02 am

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.0



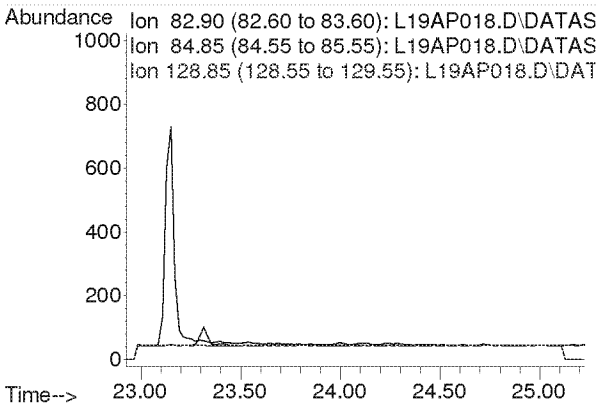


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

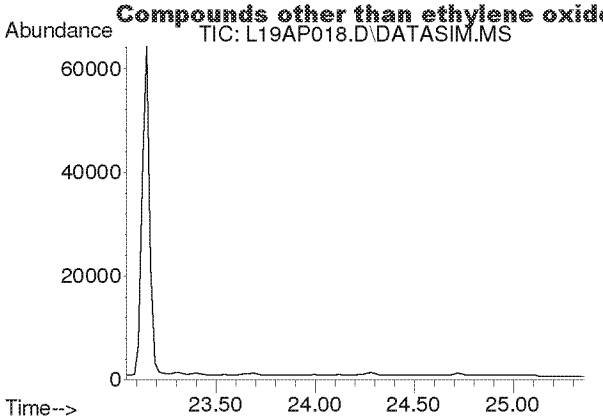
Lab File: L19AP018.D
Acq: 17 Jan 2019 6:02 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.9
129	12.5



Compounds other than ethylene oxide were not quantitated.

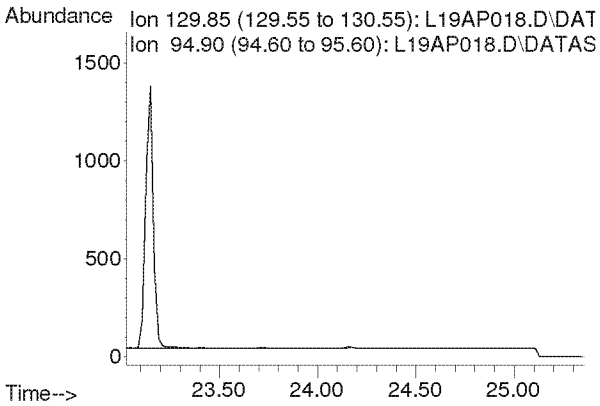


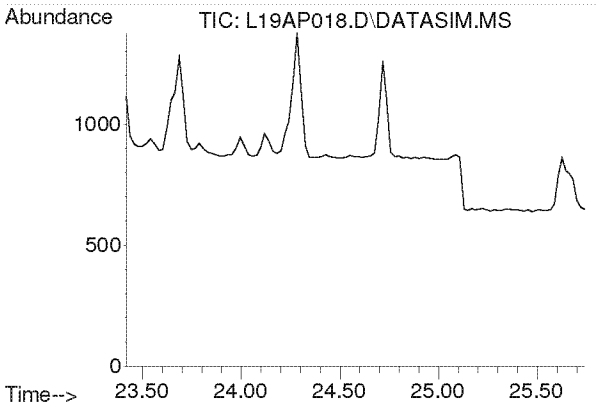
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19AP018.D
Acq: 17 Jan 2019 6:02 am

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	108.6



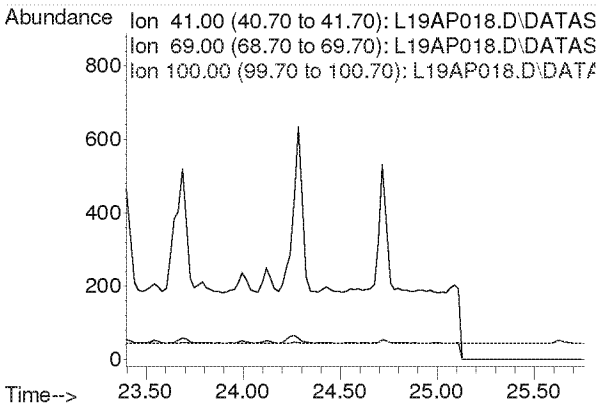


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.55 min

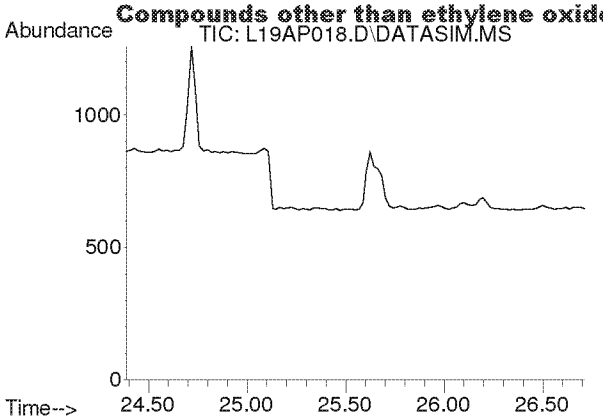
Lab File: L19AP018.D
Acq: 17 Jan 2019 6:02 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	20.7
100	5.3



Compounds other than ethylene oxide were not quantitated.

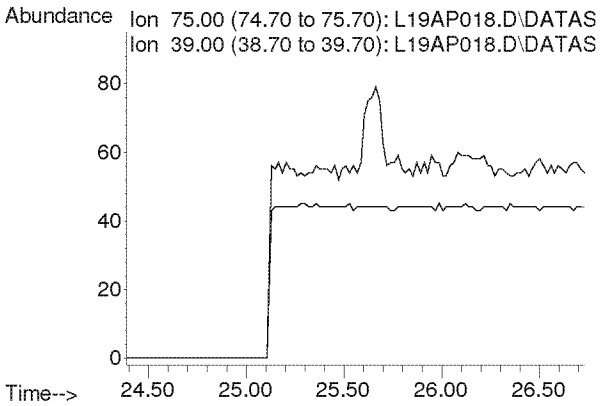


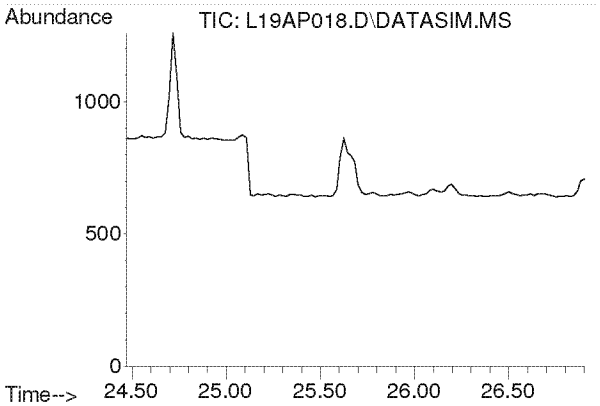
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19AP018.D
Acq: 17 Jan 2019 6:02 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	48.3



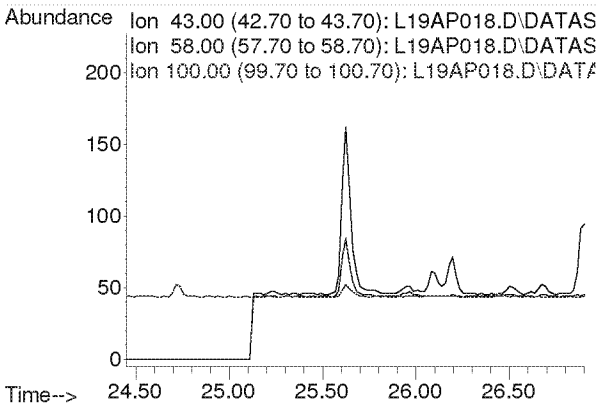


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

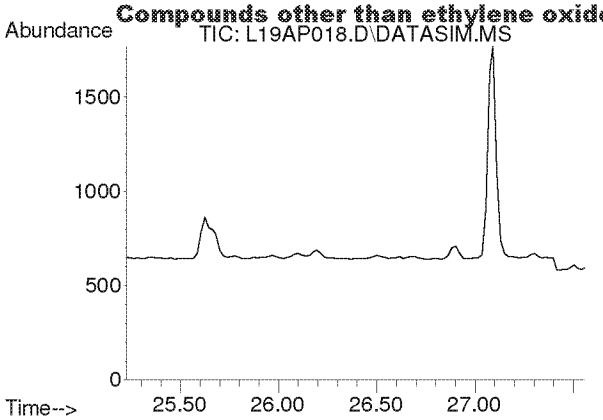
Lab File: L19AP018.D
Acq: 17 Jan 2019 6:02 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	34.5
100	8.1



Compounds other than ethylene oxide were not quantitated.

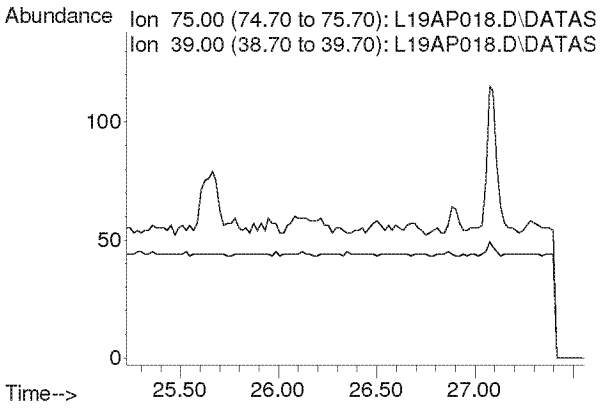


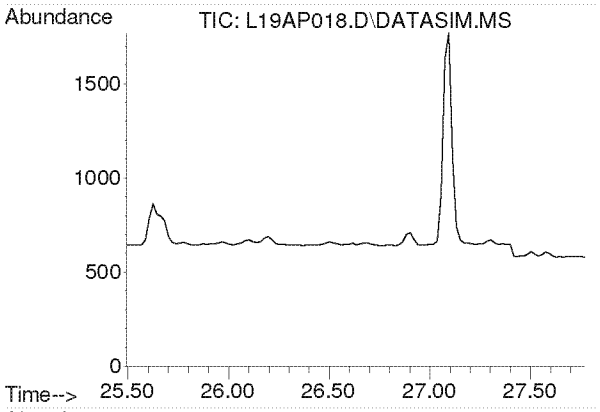
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19AP018.D
Acq: 17 Jan 2019 6:02 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	48.8



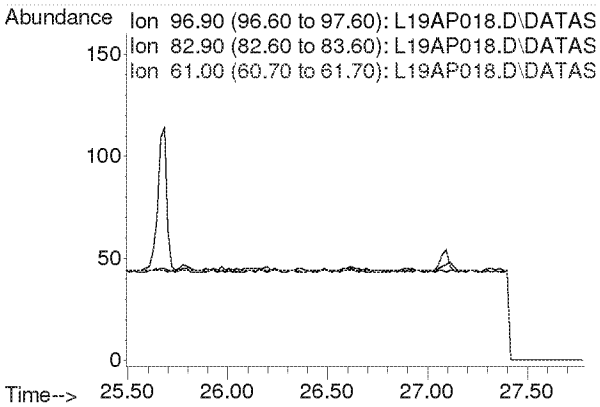


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.63 min

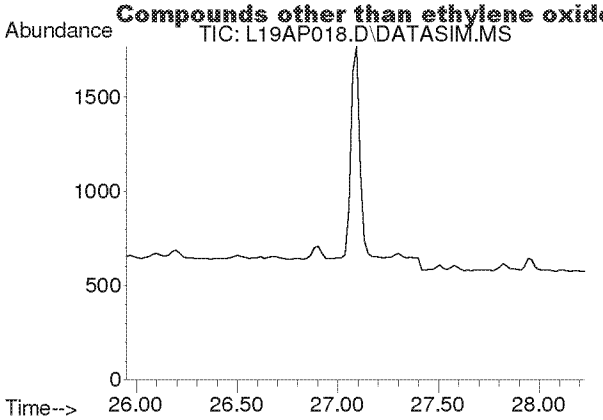
Lab File: L19AP018.D
Acq: 17 Jan 2019 6:02 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	96.6
61	61.4



Compounds other than ethylene oxide were not quantitated.

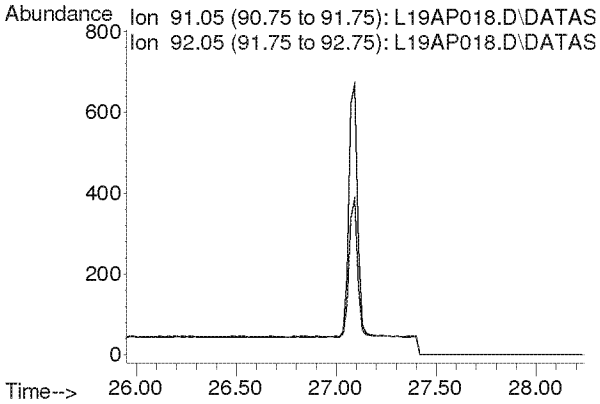


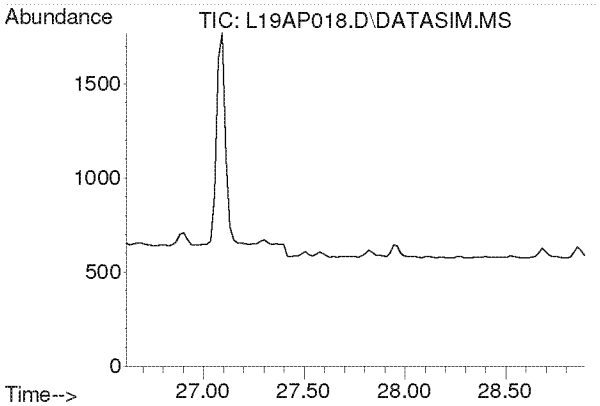
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19AP018.D
Acq: 17 Jan 2019 6:02 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



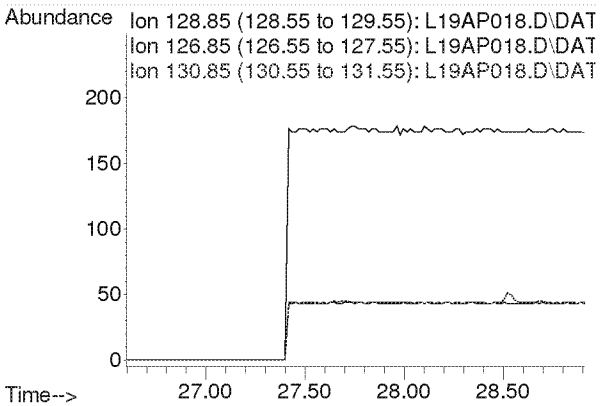


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

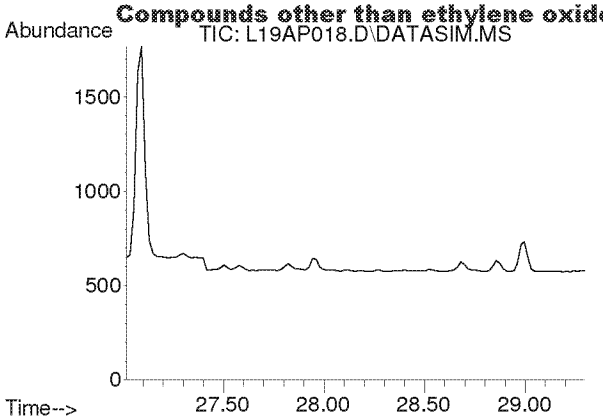
Lab File: L19AP018.D
Acq: 17 Jan 2019 6:02 am

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.2
131	6.0



Compounds other than ethylene oxide were not quantitated.

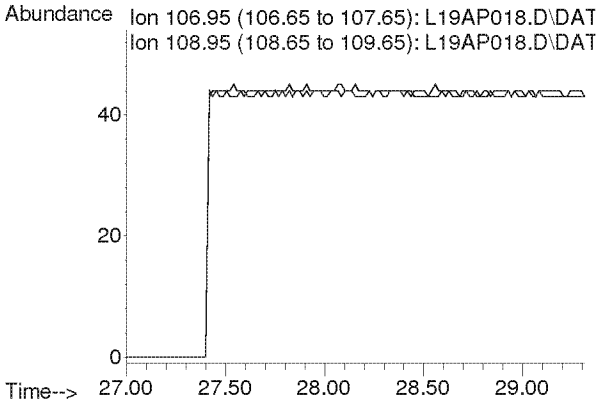


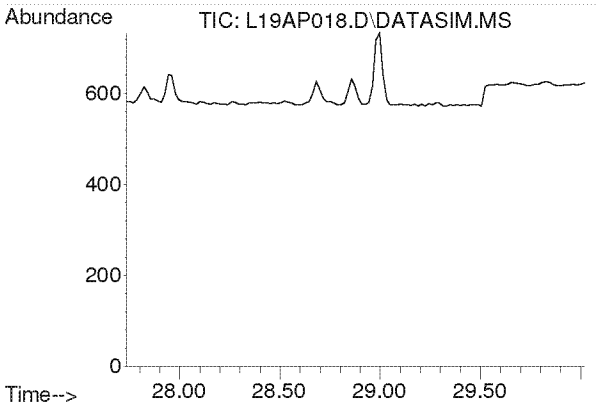
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19AP018.D
Acq: 17 Jan 2019 6:02 am

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.3



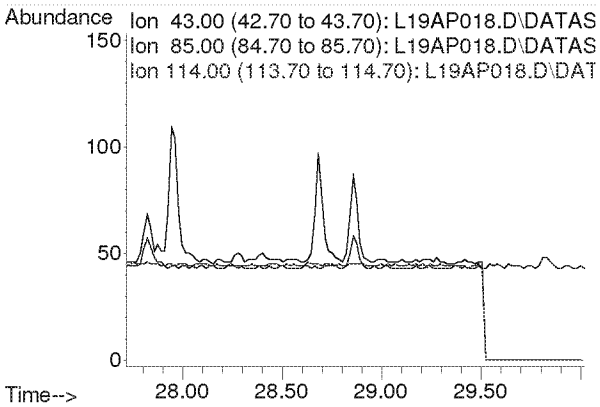


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

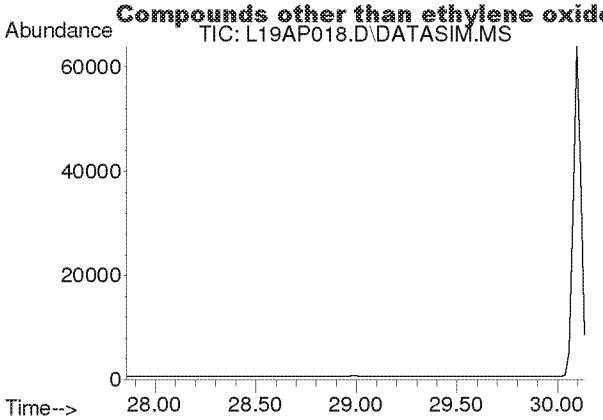
Lab File: L19AP018.D
Acq: 17 Jan 2019 6:02 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	36.6
114	2.3



Compounds other than ethylene oxide were not quantitated.

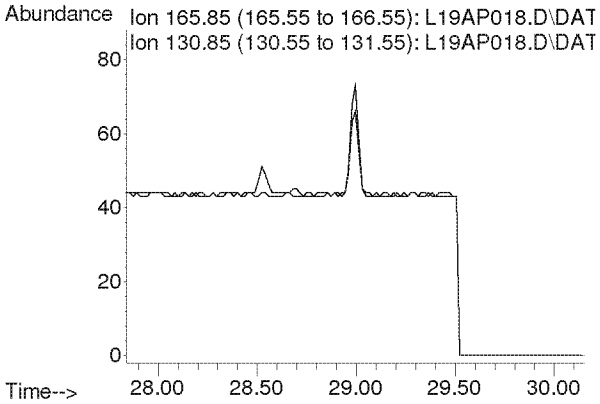


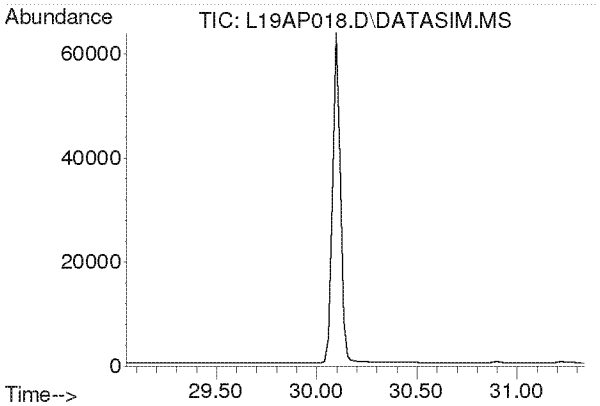
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19AP018.D
Acq: 17 Jan 2019 6:02 am

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	78.2



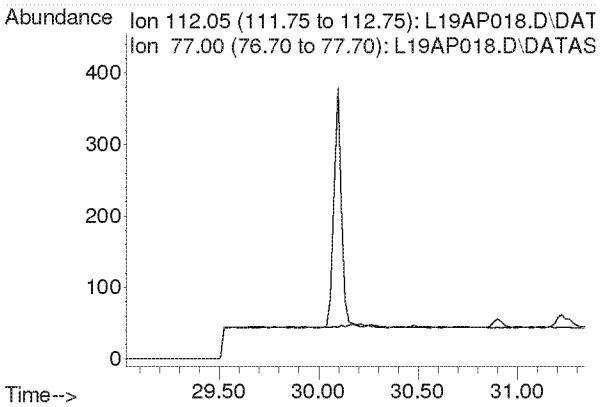


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

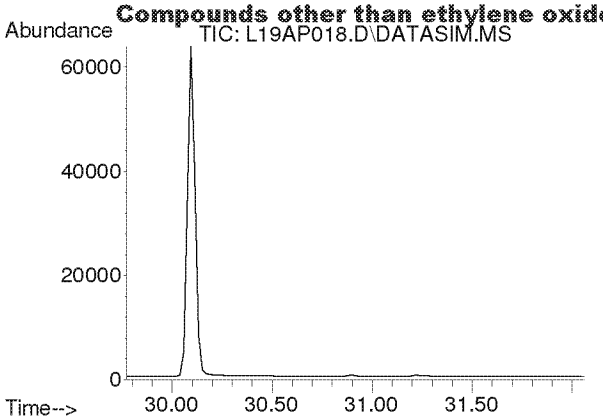
Lab File: L19AP018.D
Acq: 17 Jan 2019 6:02 am

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	61.2



Compounds other than ethylene oxide were not quantitated.

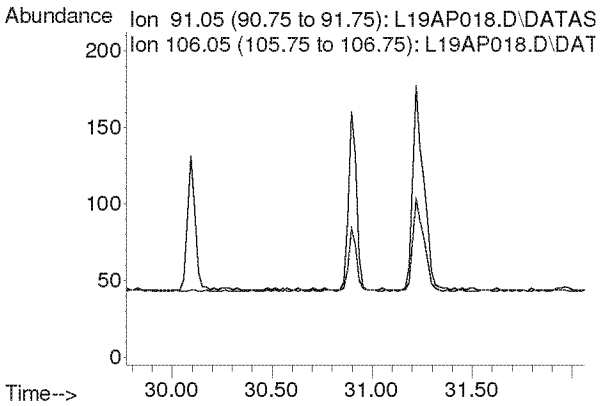


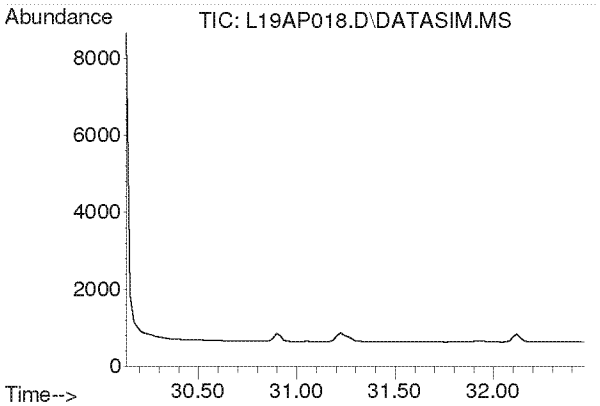
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19AP018.D
Acq: 17 Jan 2019 6:02 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	31.7



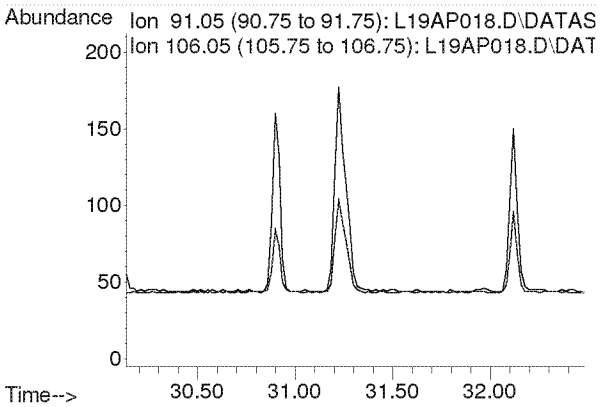


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

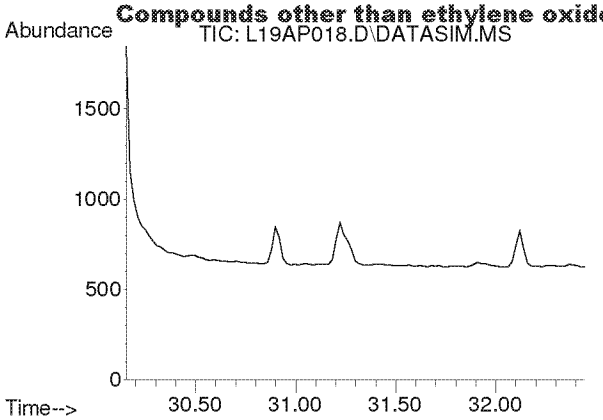
Lab File: L19AP018.D
Acq: 17 Jan 2019 6:02 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.6



Compounds other than ethylene oxide were not quantitated.

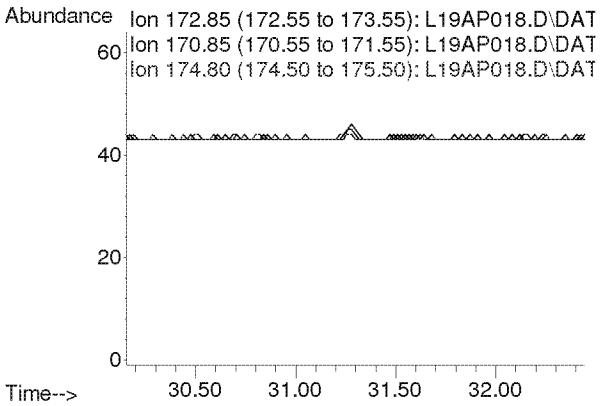


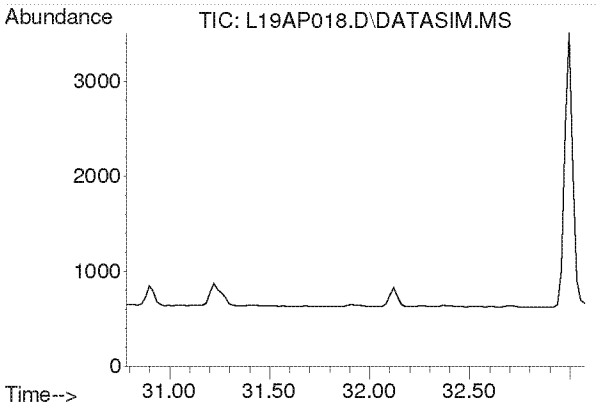
#52
Bromoform
Concen: N.D.
Expected RT: 31.30 min

Lab File: L19AP018.D
Acq: 17 Jan 2019 6:02 am

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.4
175	48.9



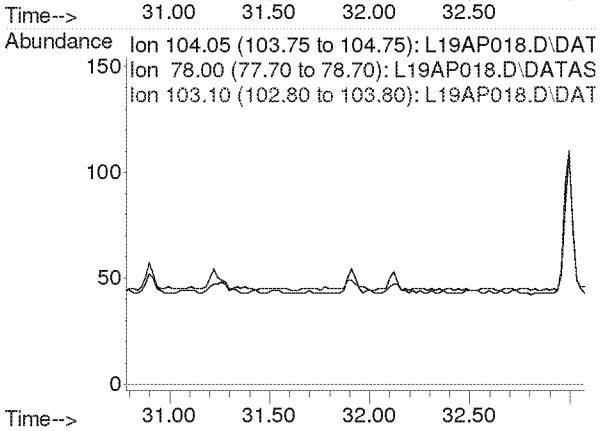


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

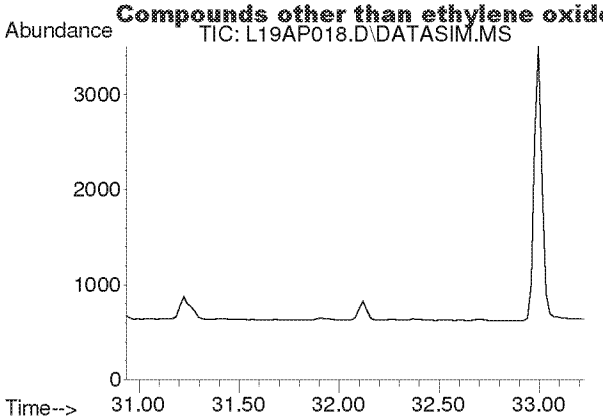
Lab File: L19AP018.D
Acq: 17 Jan 2019 6:02 am

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	45.8
103	0.0



Compounds other than ethylene oxide were not quantitated.

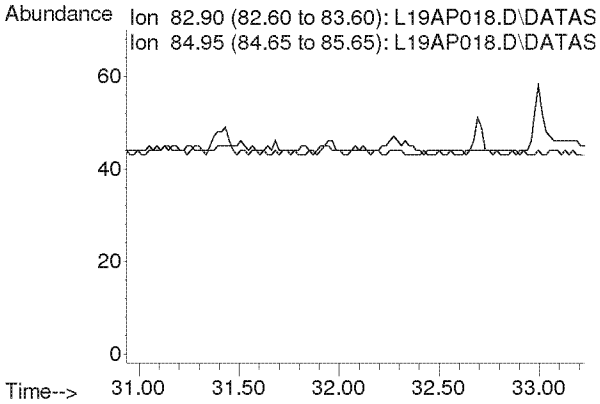


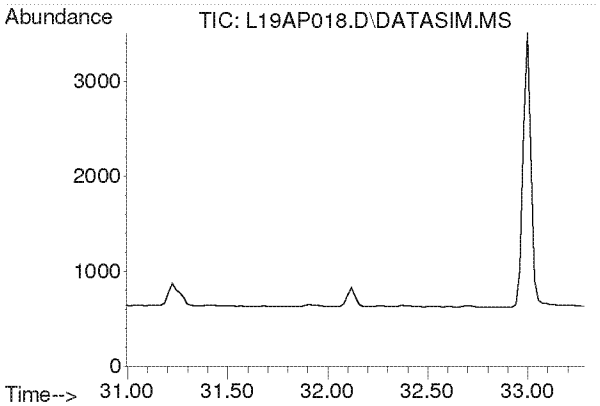
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19AP018.D
Acq: 17 Jan 2019 6:02 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.0



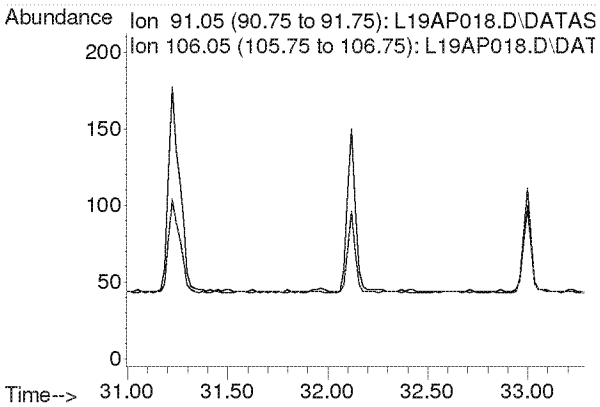


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

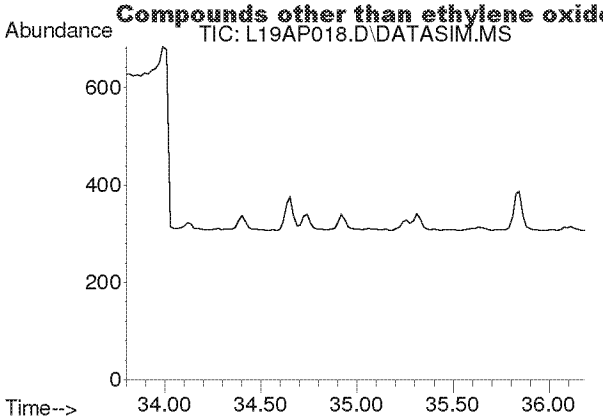
Lab File: L19AP018.D
Acq: 17 Jan 2019 6:02 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.8



Compounds other than ethylene oxide were not quantitated.

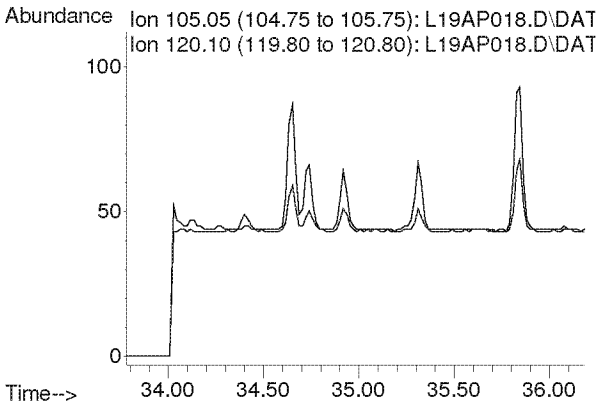


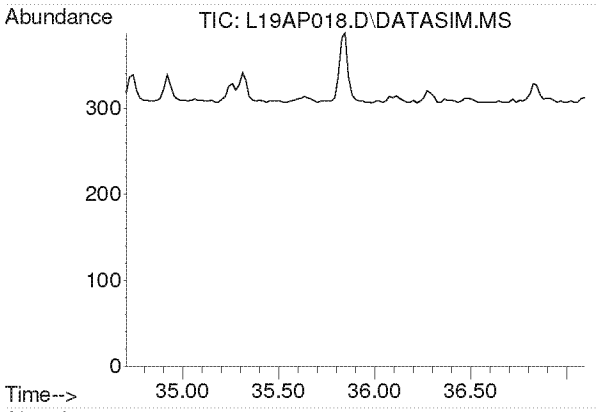
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19AP018.D
Acq: 17 Jan 2019 6:02 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	45.0



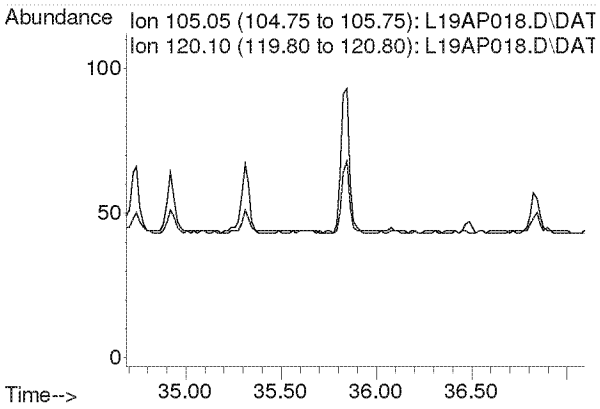


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

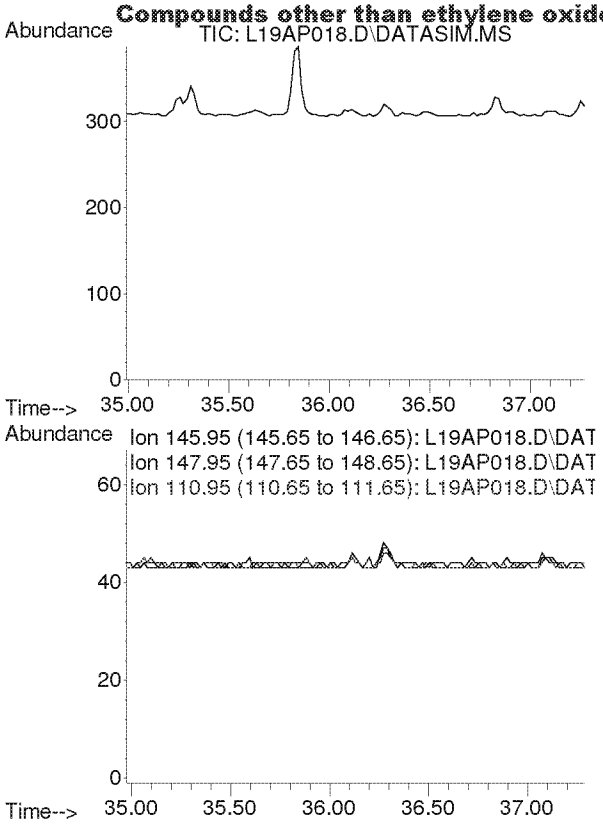
Lab File: L19AP018.D
Acq: 17 Jan 2019 6:02 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	42.9



Compounds other than ethylene oxide were not quantitated.

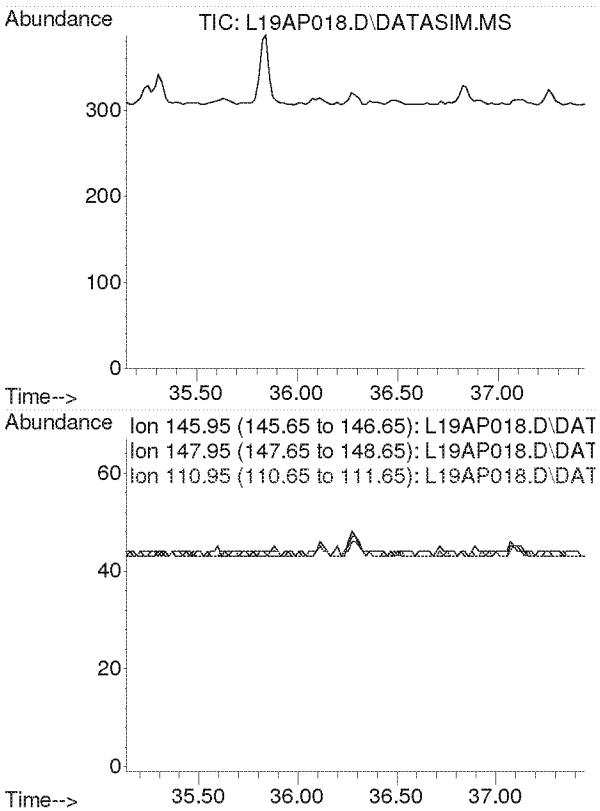


#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19AP018.D
Acq: 17 Jan 2019 6:02 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.5



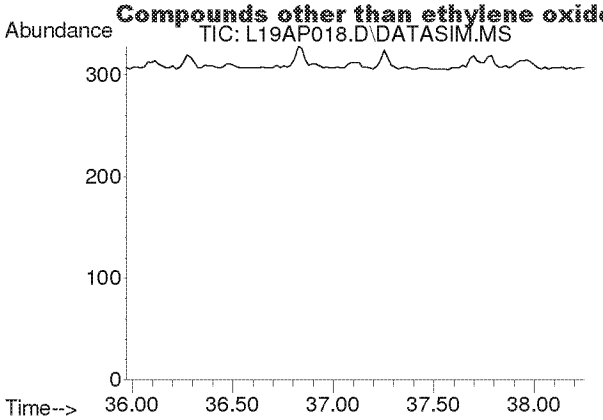
#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

Lab File: L19AP018.D
Acq: 17 Jan 2019 6:02 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	63.9
111	39.3

Compounds other than ethylene oxide were not quantitated.

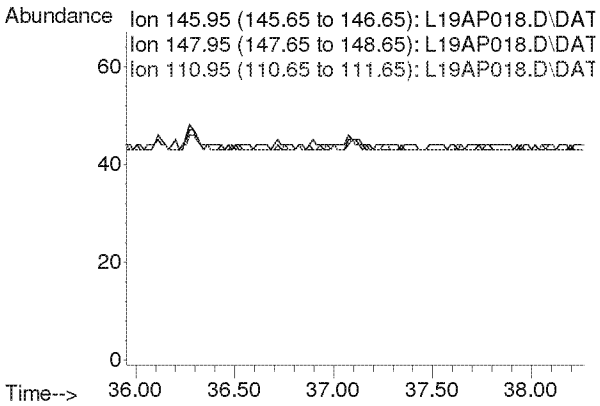


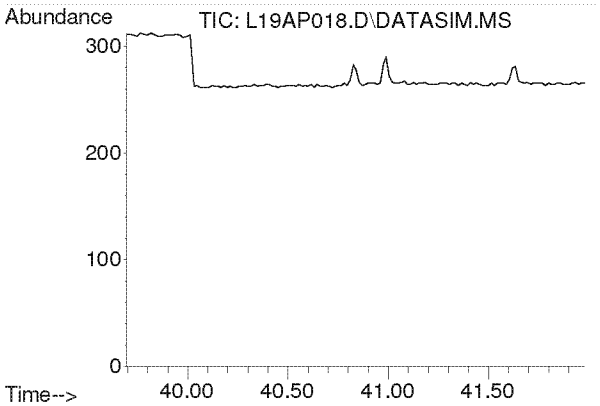
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19AP018.D
Acq: 17 Jan 2019 6:02 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.7



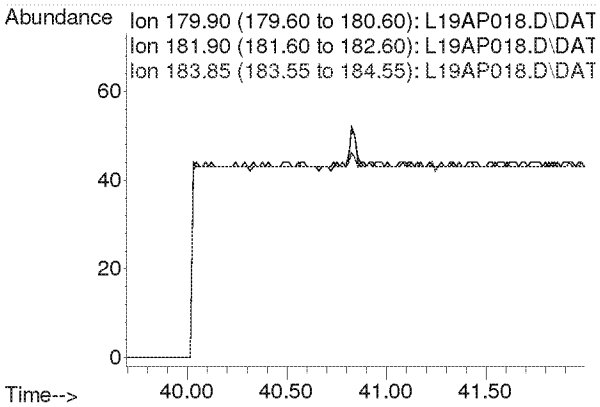


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

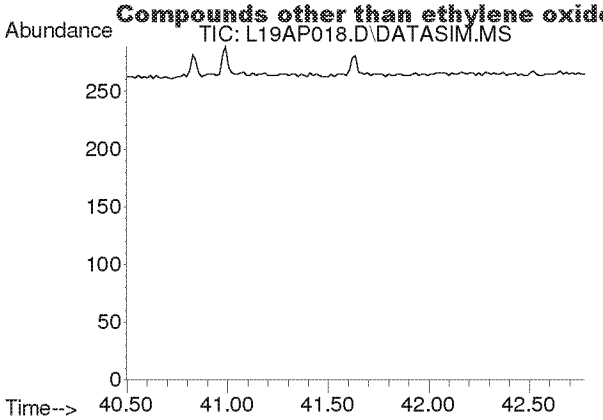
Lab File: L19AP018.D
Acq: 17 Jan 2019 6:02 am

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	95.0
184	30.5



Compounds other than ethylene oxide were not quantitated.

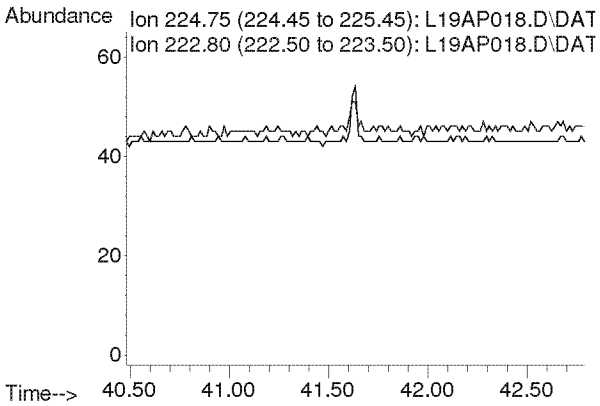


#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.63 min

Lab File: L19AP018.D
Acq: 17 Jan 2019 6:02 am

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.4



Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19AP\
Data File : L19AP019.D
Acq On : 17 Jan 2019 7:04 am
Operator : MAH
Sample : 9010808-03
Misc : GOWER MS 1/7/18
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Jan 23 07:13:54 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration

EPA ods

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.993	66	51850	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.151	114	126019	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.097	117	99573	4.7400 ppbv	-0.02

System Monitoring Compounds

Target Compounds					Qvalue
2) Acetylene	0.000	26	0	N.D. d	
3) Propylene	0.000	41	0	N.D. d	
4) Dichlorodifluoromethane	0.000	85	0	N.D. d	
5) Chloromethane	0.000	50	0	N.D. d	
6) Dichlorotetrafluoroethane	0.000	85	0	N.D. d	
7) Vinyl Chloride	0.000	62	0	N.D.	
8) 1,3-Butadiene	0.000	54	0	N.D. d	
9) Ethylene oxide	0.000	29	0	N.D. d	
10) Bromomethane	0.000	94	0	N.D. d	
11) Chloroethane	0.000	64	0	N.D.	
12) Acetonitrile	0.000	41	0	N.D. d	
13) Acrolein	0.000	56	0	N.D. d	
14) Trichlorofluoromethane	0.000	101	0	N.D. d	
15) Acrylonitrile	0.000	53	0	N.D. d	
16) 1,1-Dichloroethene	0.000	61	0	N.D.	
17) Methylene Chloride	0.000	49	0	N.D. d	
18) Carbon Disulfide	0.000	76	0	N.D. d	
19) Trichlorotrifluoroethane	0.000	101	0	N.D. d	
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.	
21) 1,1-Dichloroethane	0.000	63	0	N.D.	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D.	
23) Chloroprene	0.000	53	0	N.D.	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D. d	
25) Bromochloromethane	0.000	128	0	N.D.	
26) Chloroform	0.000	83	0	N.D. d	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D.	
28) 1,2-Dichloroethane	0.000	62	0	N.D. d	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D.	
31) Benzene	0.000	78	0	N.D. d	
32) Carbon Tetrachloride	0.000	117	0	N.D. d	
33) tert-Amyl Methyl Ether	0.000	73	0	N.D.	
34) 1,2-Dichloropropane	0.000	63	0	N.D. d	
35) Ethyl Acrylate	0.000	55	0	N.D.	
36) Bromodichloromethane	0.000	83	0	N.D.	
37) Trichloroethylene	0.000	130	0	N.D.	
38) Methyl Methacrylate	0.000	41	0	N.D.	
39) cis-1,3-Dichloropropene	0.000	75	0	N.D.	
40) Methyl Isobutyl Ketone	0.000	43	0	N.D. d	
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.	
44) Toluene	0.000	91	0	N.D. d	
45) Dibromochloromethane	0.000	129	0	N.D.	
46) 1,2-Dibromoethane	0.000	107	0	N.D.	
47) n-Octane	0.000	43	0	N.D. d	
48) Tetrachloroethylene	0.000	166	0	N.D. d	
49) Chlorobenzene	0.000	112	0	N.D.	
50) Ethylbenzene	0.000	91	0	N.D. d	

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19AP\
Data File : L19AP019.D
Acq On : 17 Jan 2019 7:04 am
Operator : MAH
Sample : 9010808-03
Misc : GOWER MS 1/7/18
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Jan 23 07:13:54 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D. d	
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D. d	
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D. d	
57) 1,2,4-Trimethylbenzene	0.000	105	0	N.D. d	
58) m-Dichlorobenzene	0.000	146	0	N.D.	
59) p-Dichlorobenzene	0.000	146	0	N.D.	
60) o-Dichlorobenzene	0.000	146	0	N.D.	
61) 1,2,4-Trichlorobenzene	0.000	180	0	N.D.	
62) Hexachloro-1,3-butadiene	0.000	225	0	N.D.	

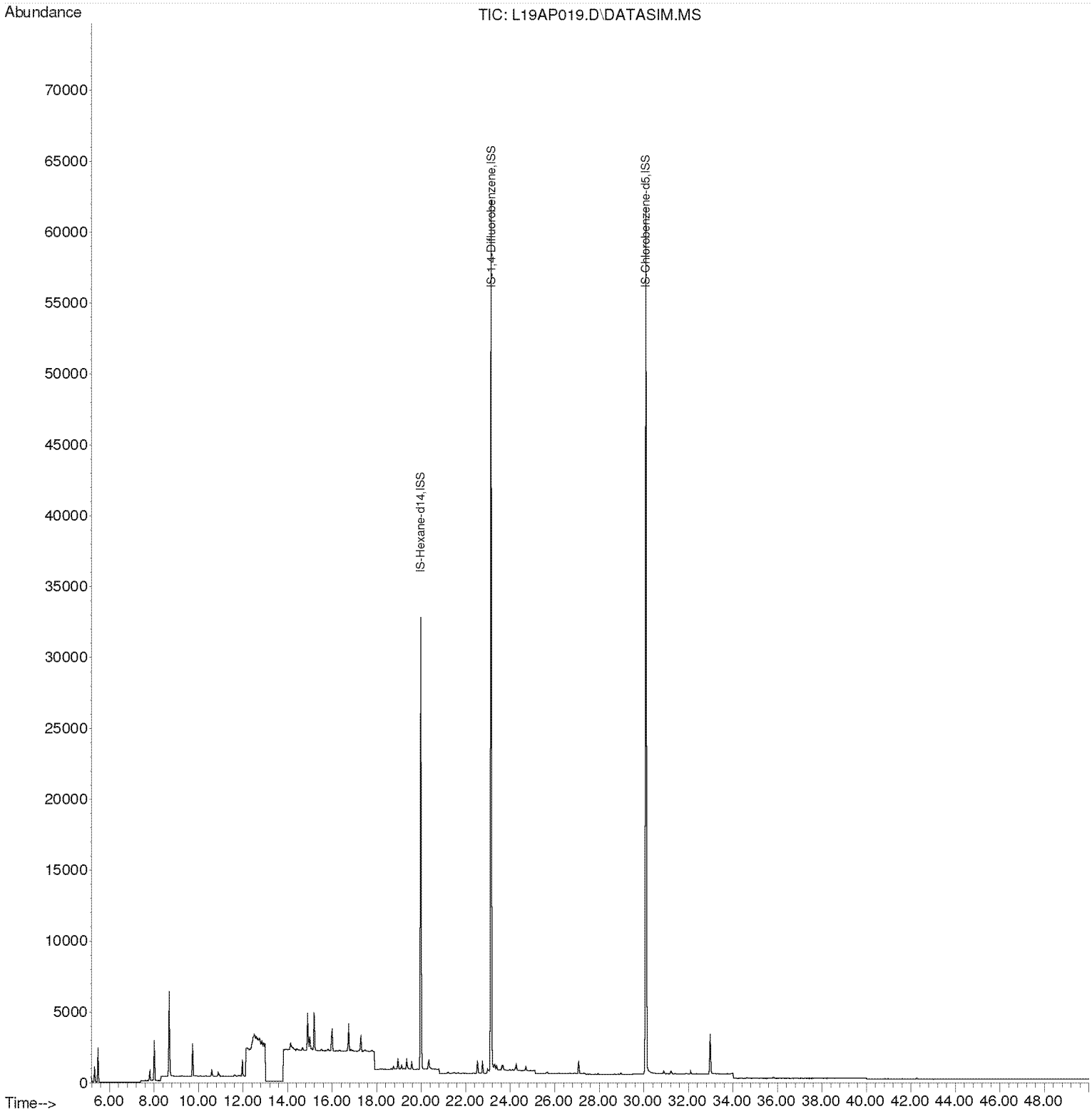
(#) = qualifier out of range (m) = manual integration (+) = signals summed

ED_002475_00000276-00283

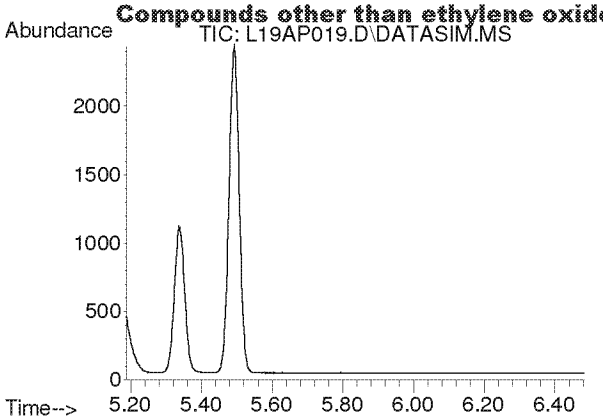
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L19AP\
Data File : L19AP019.D
Acq On : 17 Jan 2019 7:04 am
Operator : MAH
Sample : 9010808-03
Misc : GOWER MS 1/7/18
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Jan 23 06:44:11 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration



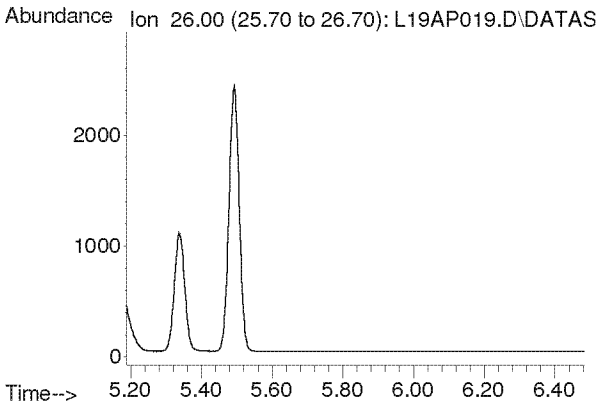
Compounds other than ethylene oxide were not quantitated.

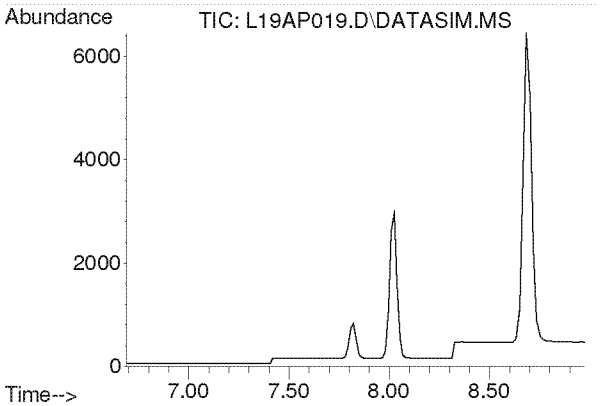


#2
Acetylene
Concen: N.D.
Expected RT: 5.42 min

Lab File: L19AP019.D
Acq: 17 Jan 2019 7:04 am

Tgt Ion: 26



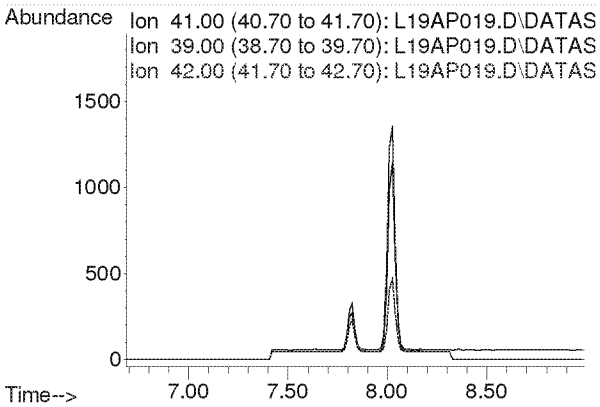


#3
Propylene
Concen: N.D.
Expected RT: 7.84 min

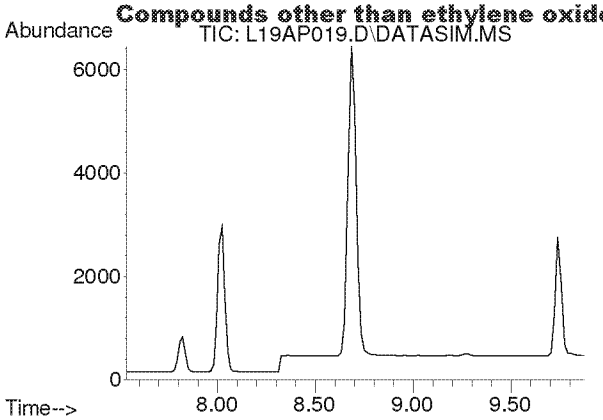
Lab File: L19AP019.D
Acq: 17 Jan 2019 7:04 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	77.0
42	65.8



Compounds other than ethylene oxide were not quantitated.

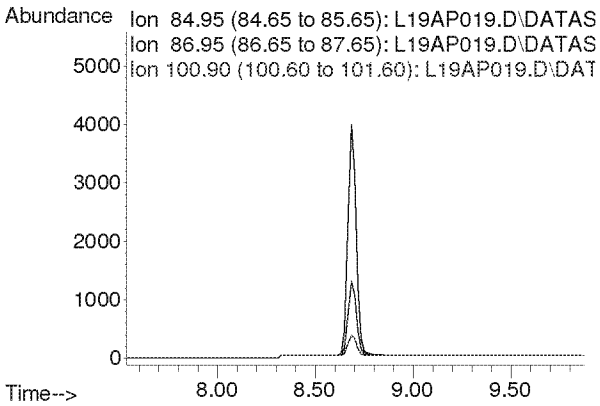


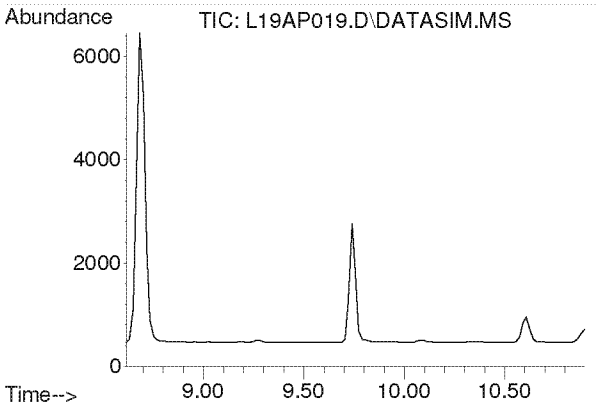
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19AP019.D
Acq: 17 Jan 2019 7:04 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	8.9



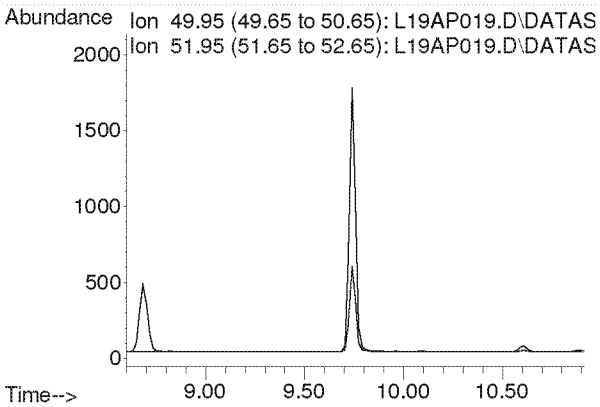


#5
Chloromethane
Concen: N.D.
Expected RT: 9.76 min

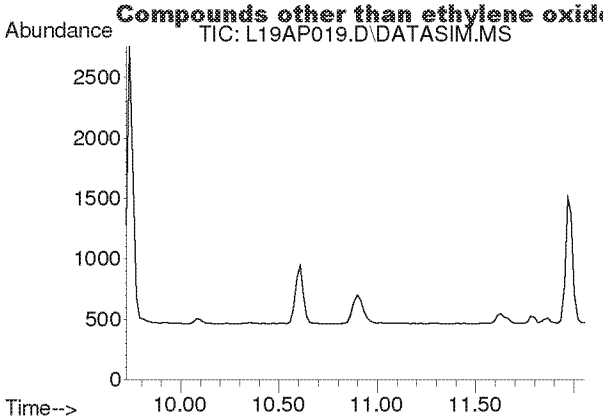
Lab File: L19AP019.D
Acq: 17 Jan 2019 7:04 am

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.4



Compounds other than ethylene oxide were not quantitated.

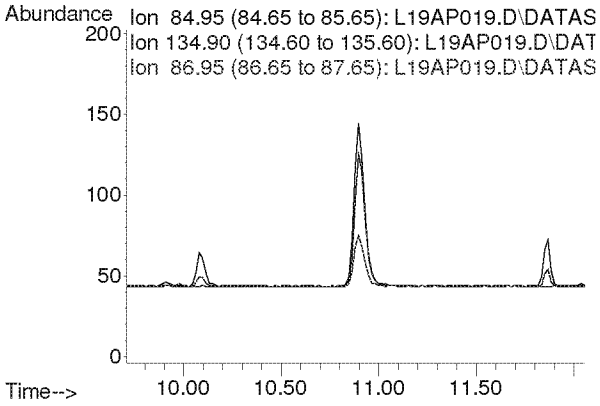


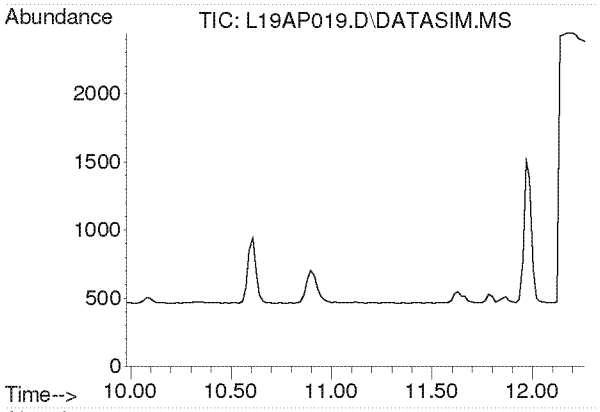
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19AP019.D
Acq: 17 Jan 2019 7:04 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.5
87	32.2



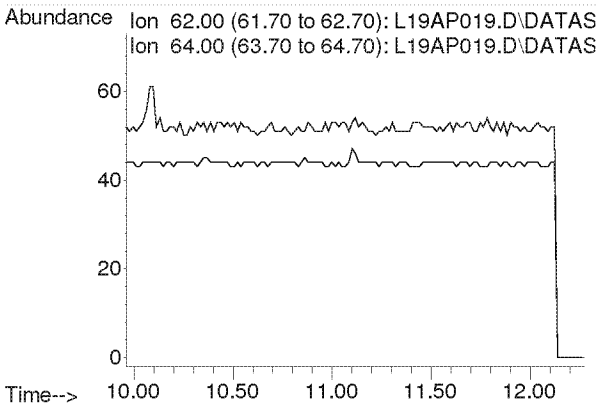


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

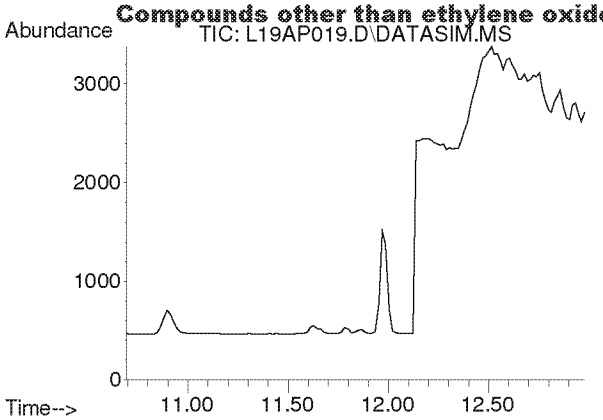
Lab File: L19AP019.D
Acq: 17 Jan 2019 7:04 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	32.1



Compounds other than ethylene oxide were not quantitated.

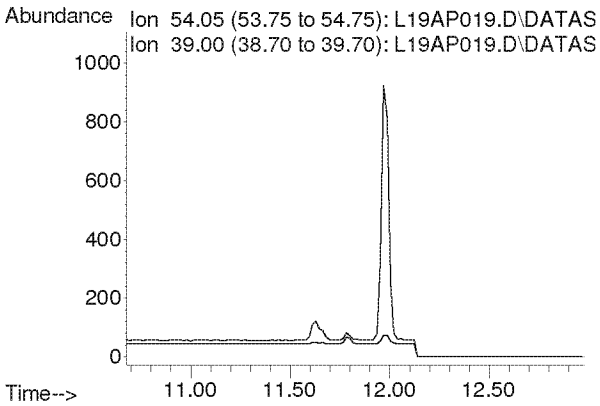


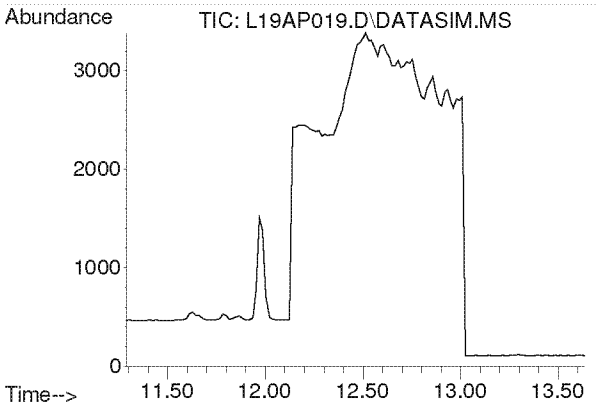
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19AP019.D
Acq: 17 Jan 2019 7:04 am

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	103.3



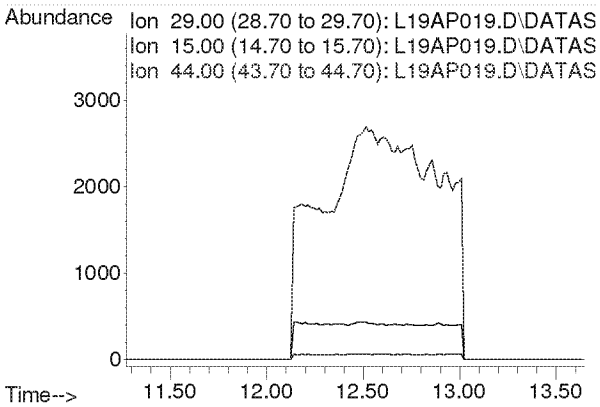


#9
Ethylene oxide
Concen: N.D.
Expected RT: 12.39 min

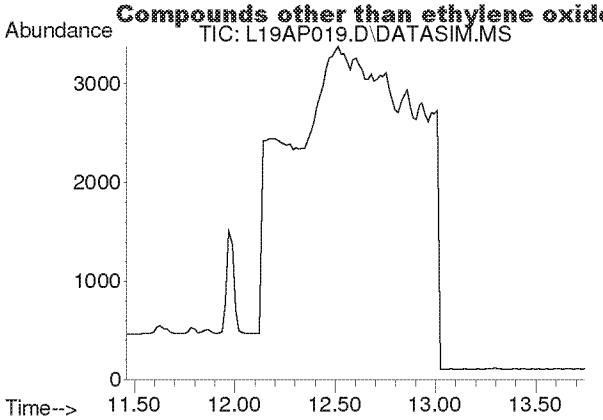
Lab File: L19AP019.D
Acq: 17 Jan 2019 7:04 am

Tgt Ion: 29

Sig	Exp Ratio
29	100
15	19.2
44	96.8



Compounds other than ethylene oxide were not quantitated.

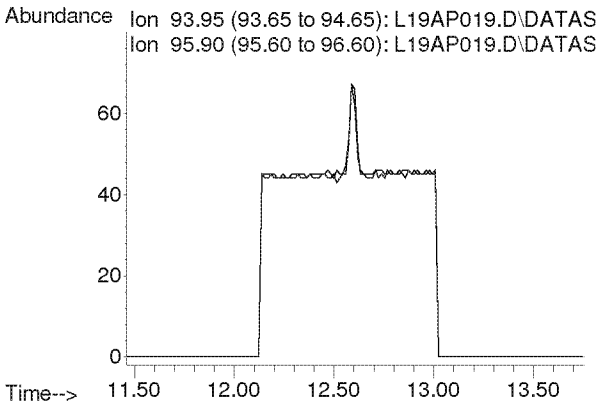


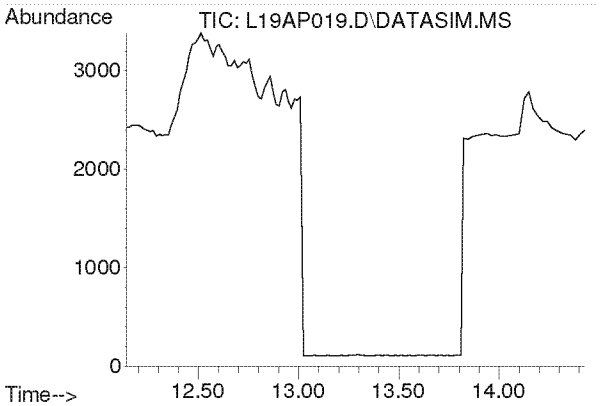
#10
Bromomethane
Concen: N.D.
Expected RT: 12.60 min

Lab File: L19AP019.D
Acq: 17 Jan 2019 7:04 am

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.3



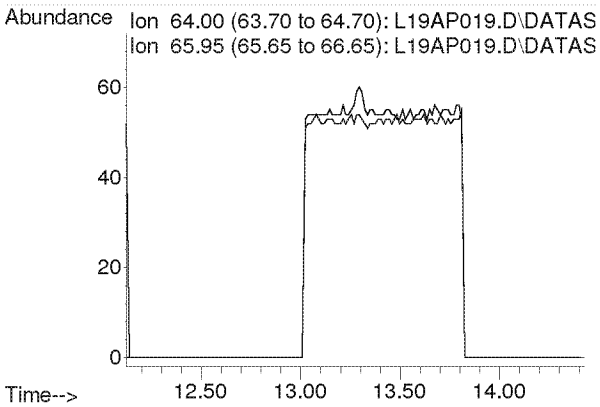


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

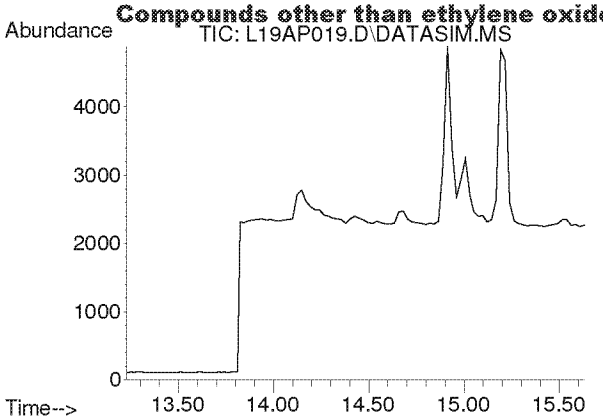
Lab File: L19AP019.D
Acq: 17 Jan 2019 7:04 am

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.4



Compounds other than ethylene oxide were not quantitated.

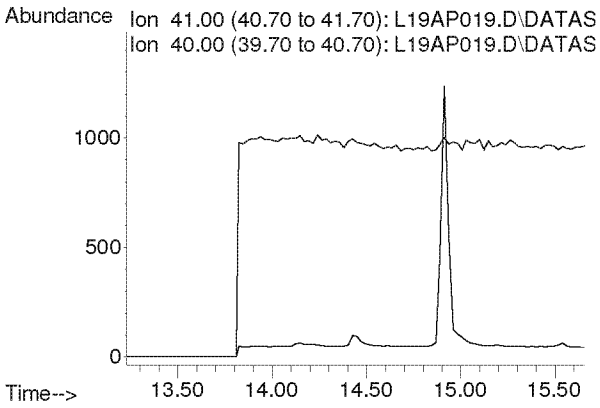


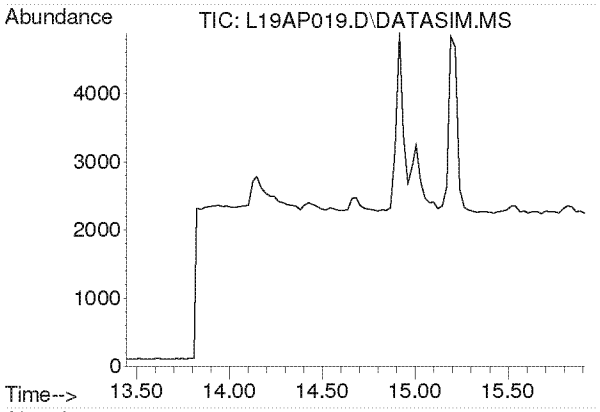
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19AP019.D
Acq: 17 Jan 2019 7:04 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	53.2



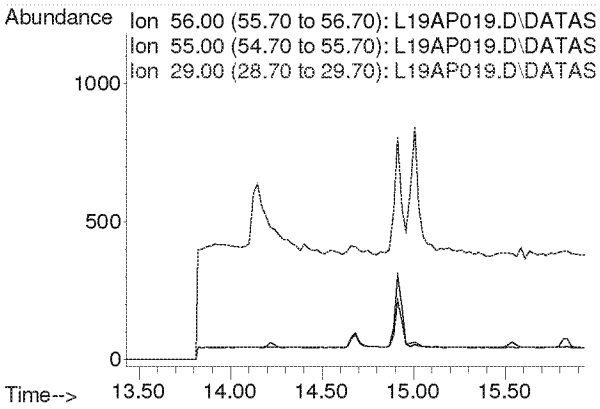


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

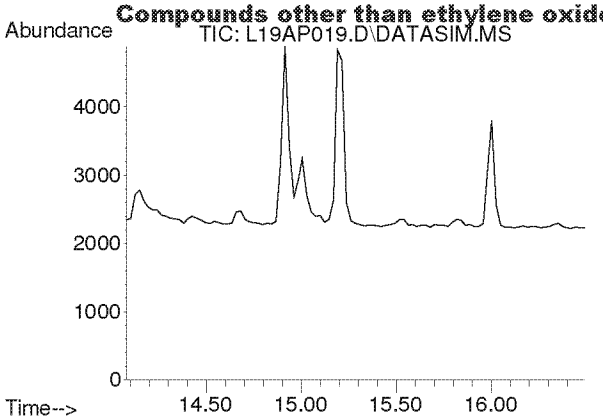
Lab File: L19AP019.D
Acq: 17 Jan 2019 7:04 am

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.5
29	44.9



Compounds other than ethylene oxide were not quantitated.

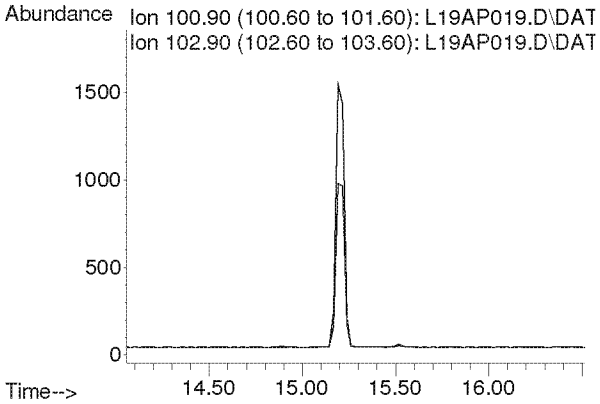


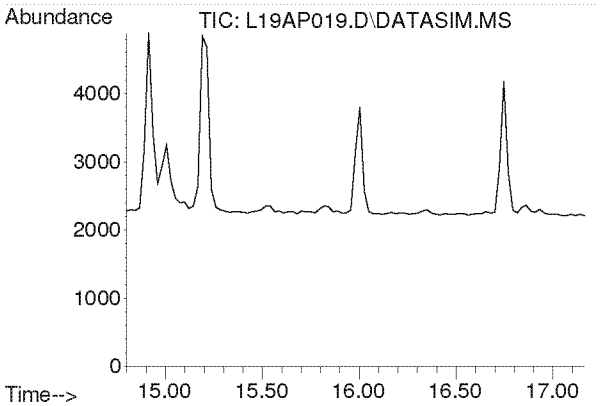
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.21 min

Lab File: L19AP019.D
Acq: 17 Jan 2019 7:04 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



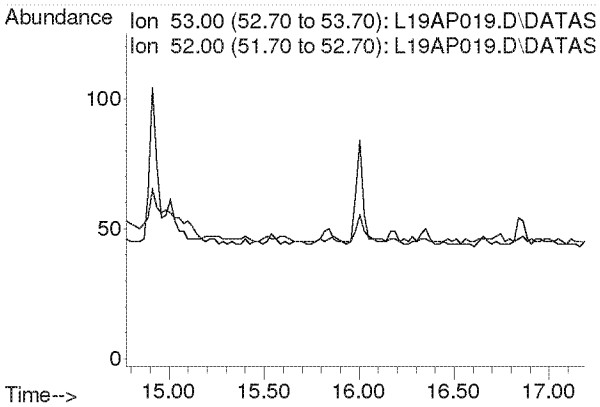


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

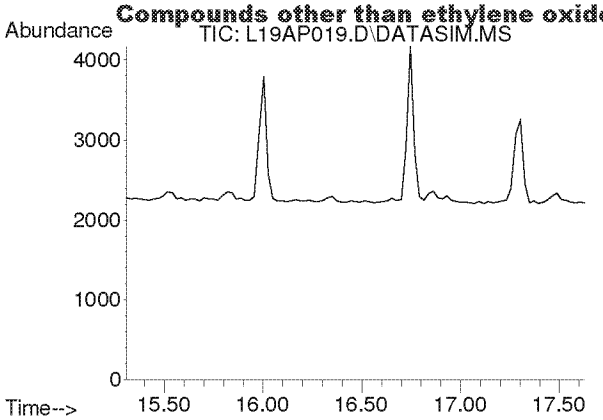
Lab File: L19AP019.D
Acq: 17 Jan 2019 7:04 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	84.7



Compounds other than ethylene oxide were not quantitated.

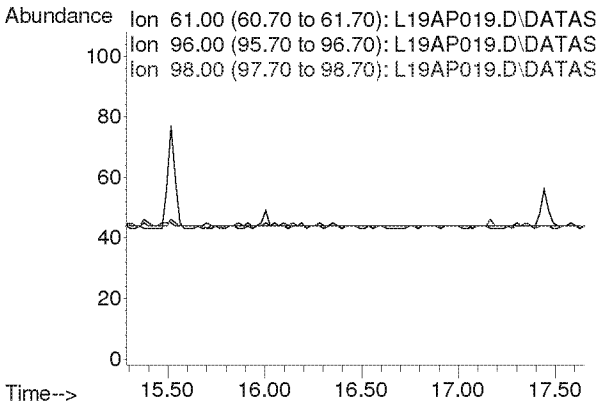


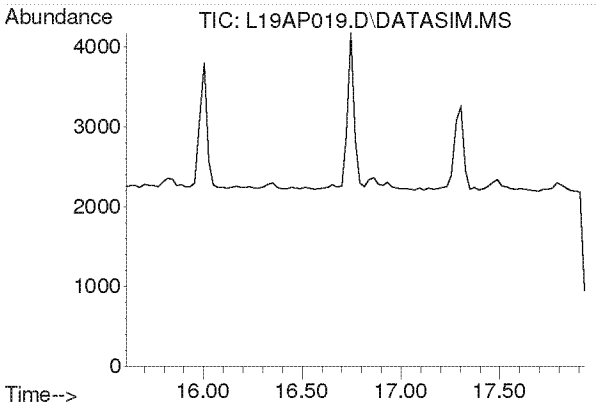
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.44 min

Lab File: L19AP019.D
Acq: 17 Jan 2019 7:04 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.5
98	38.1



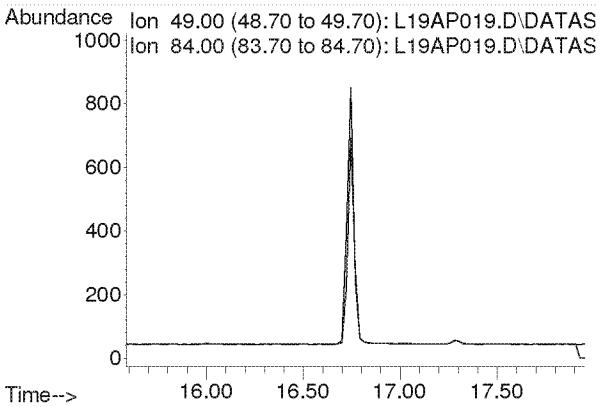


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

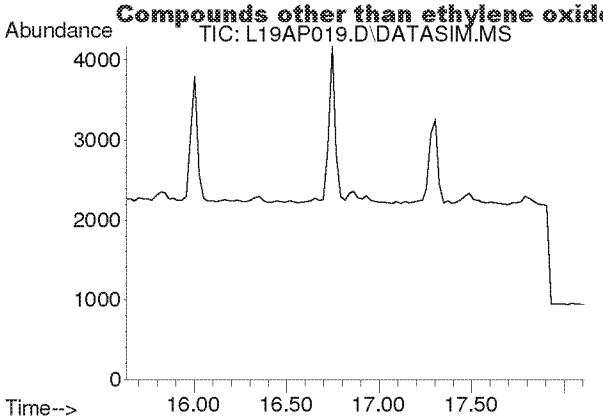
Lab File: L19AP019.D
Acq: 17 Jan 2019 7:04 am

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.3



Compounds other than ethylene oxide were not quantitated.

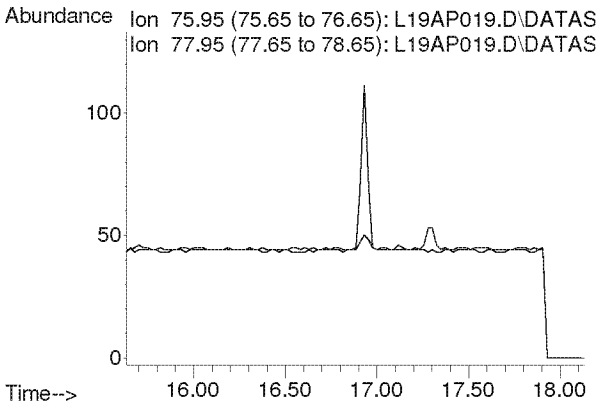


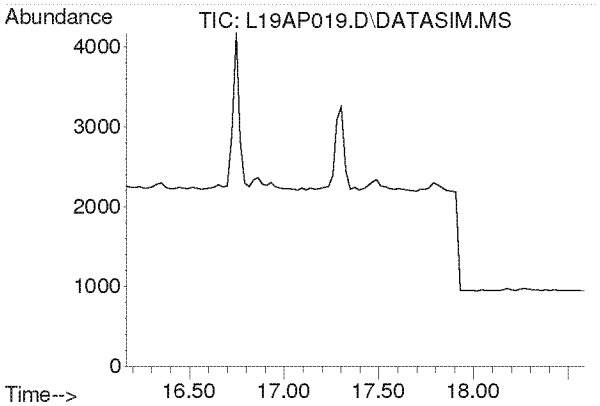
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19AP019.D
Acq: 17 Jan 2019 7:04 am

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.0



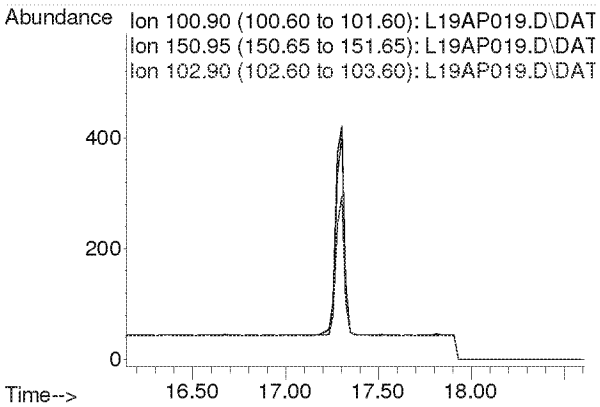


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.30 min

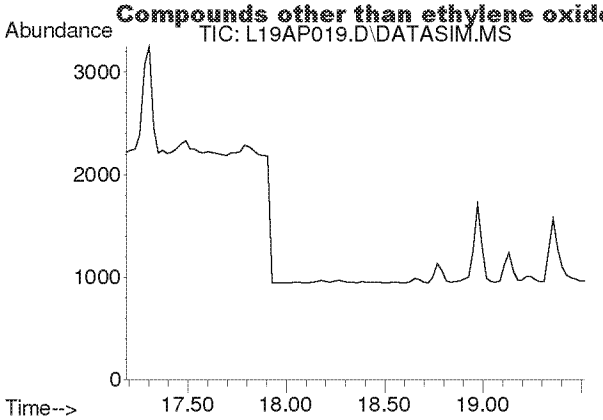
Lab File: L19AP019.D
Acq: 17 Jan 2019 7:04 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	95.4
103	63.9



Compounds other than ethylene oxide were not quantitated.

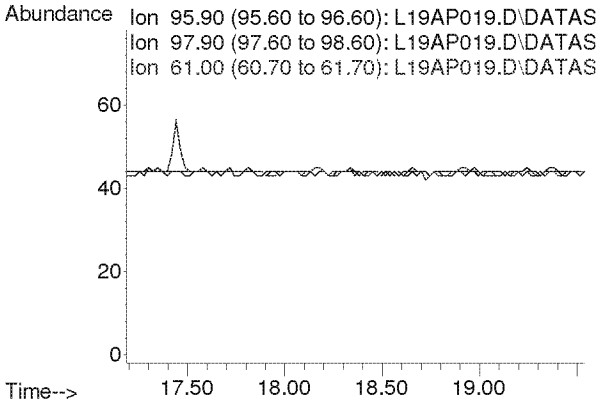


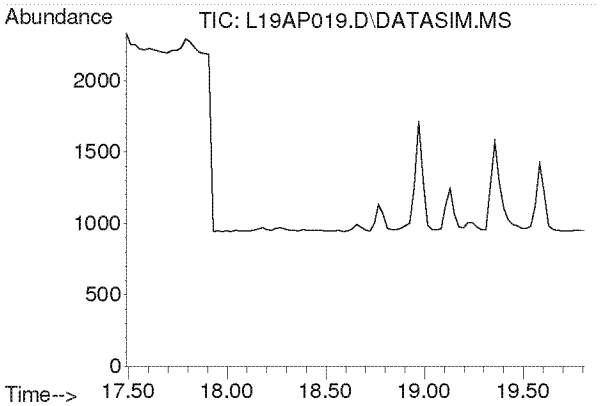
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19AP019.D
Acq: 17 Jan 2019 7:04 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	63.6
61	156.5



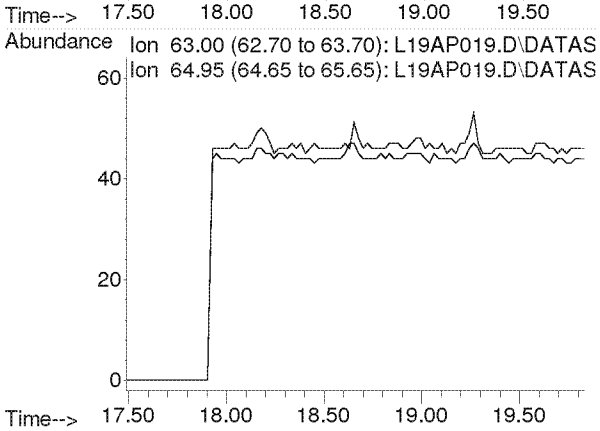


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

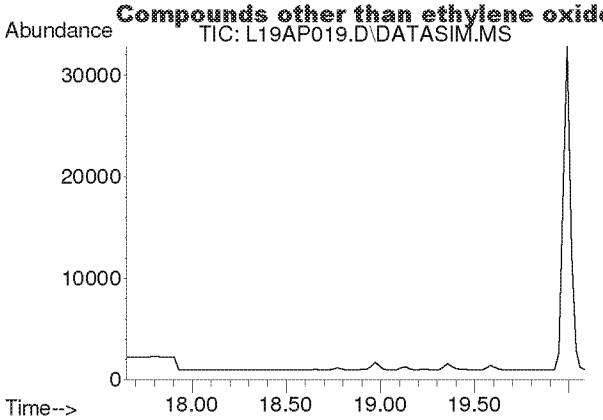
Lab File: L19AP019.D
Acq: 17 Jan 2019 7:04 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

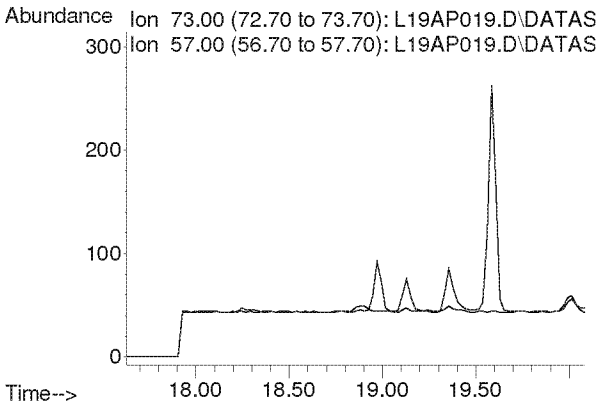


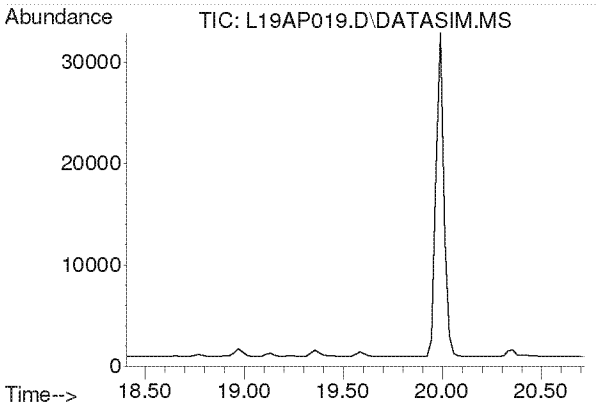
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19AP019.D
Acq: 17 Jan 2019 7:04 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.6



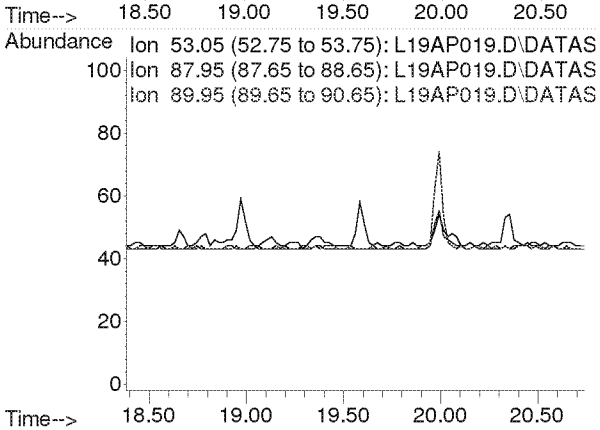


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

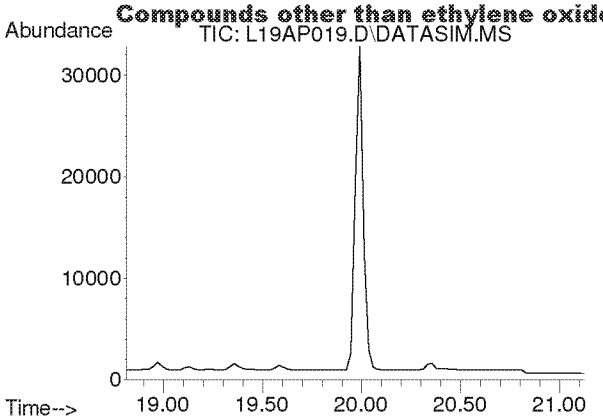
Lab File: L19AP019.D
Acq: 17 Jan 2019 7:04 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	54.0
90	17.3



Compounds other than ethylene oxide were not quantitated.

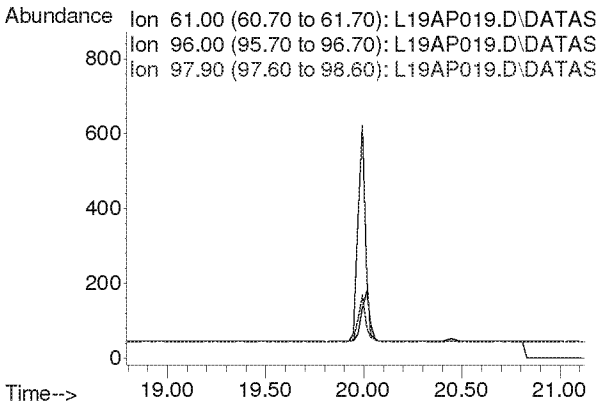


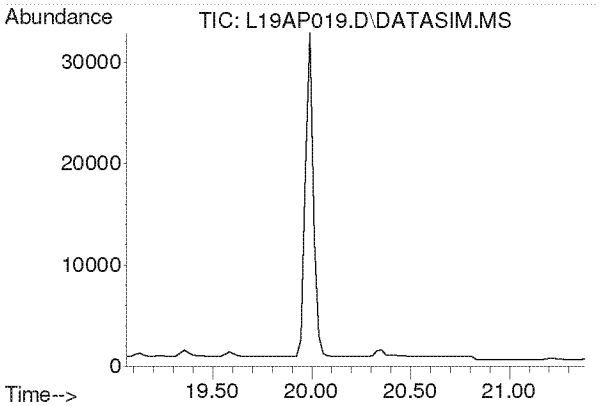
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19AP019.D
Acq: 17 Jan 2019 7:04 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	75.7
98	46.4



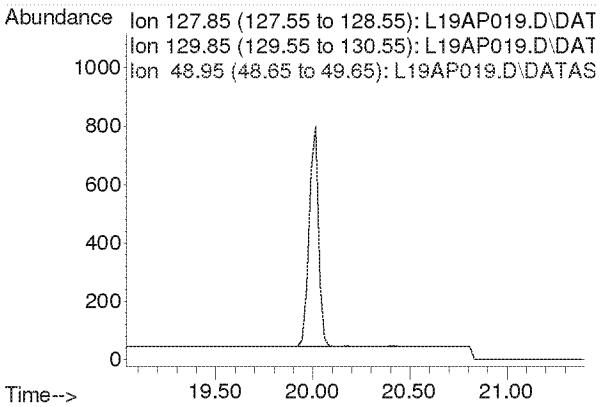


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.19 min

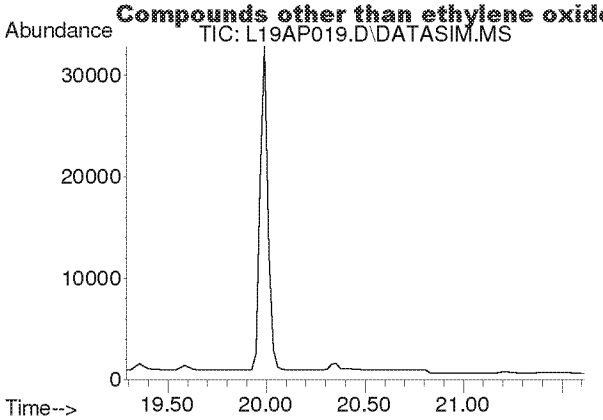
Lab File: L19AP019.D
Acq: 17 Jan 2019 7:04 am

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	130.4
49	170.8



Compounds other than ethylene oxide were not quantitated.

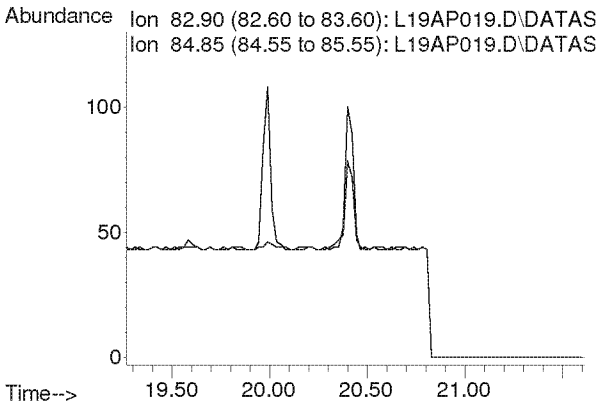


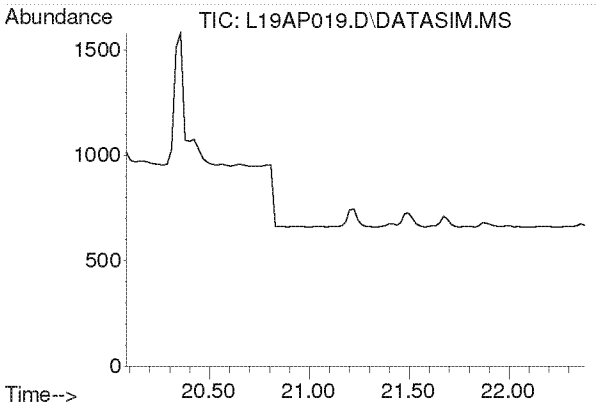
#26
Chloroform
Concen: N.D.
Expected RT: 20.42 min

Lab File: L19AP019.D
Acq: 17 Jan 2019 7:04 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



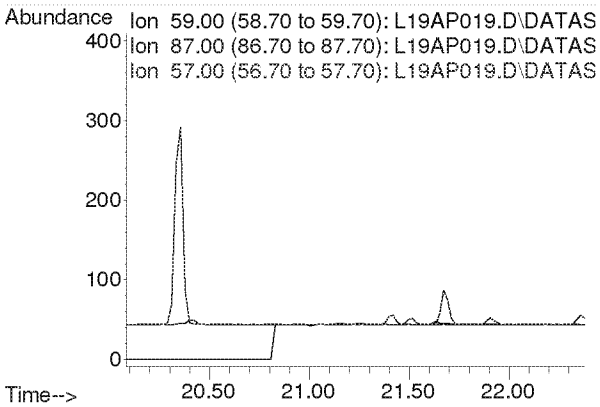


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

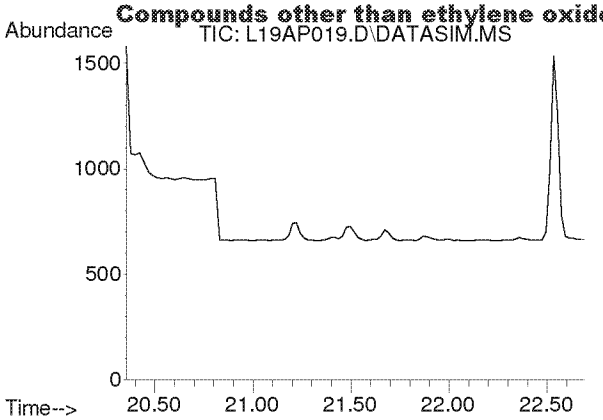
Lab File: L19AP019.D
Acq: 17 Jan 2019 7:04 am

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	37.8
57	34.3



Compounds other than ethylene oxide were not quantitated.

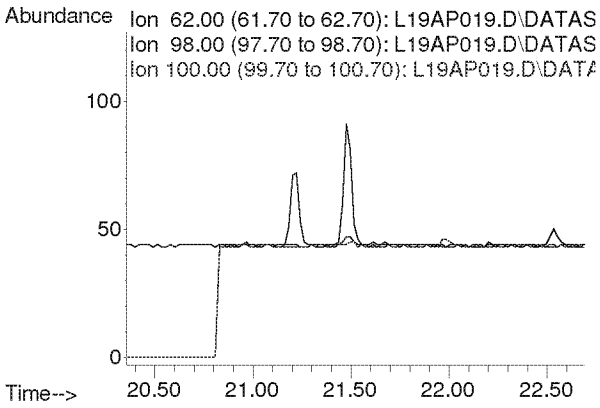


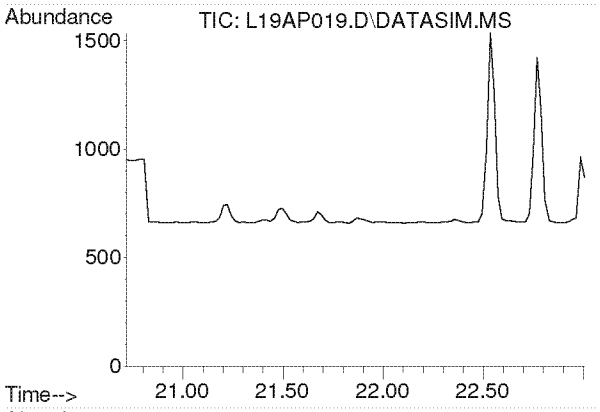
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.50 min

Lab File: L19AP019.D
Acq: 17 Jan 2019 7:04 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.8
100	4.2



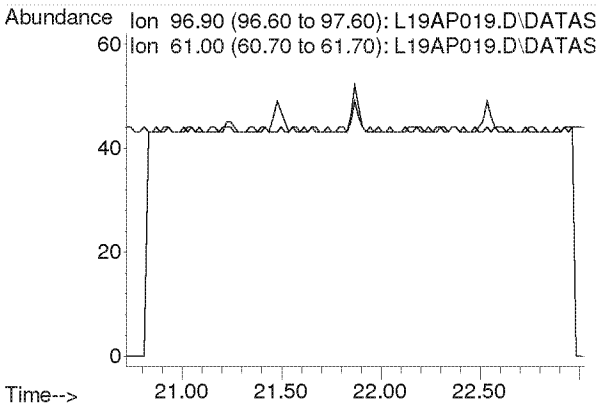


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

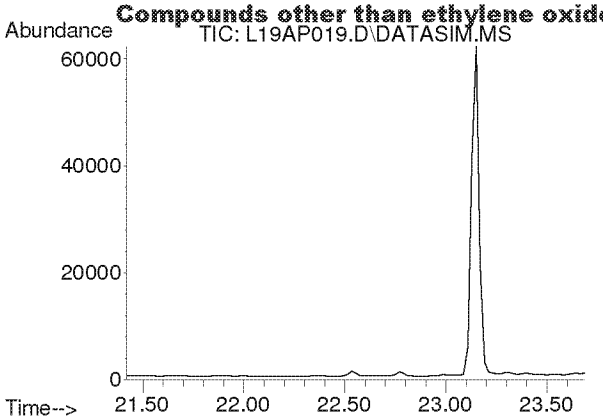
Lab File: L19AP019.D
Acq: 17 Jan 2019 7:04 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	58.6



Compounds other than ethylene oxide were not quantitated.

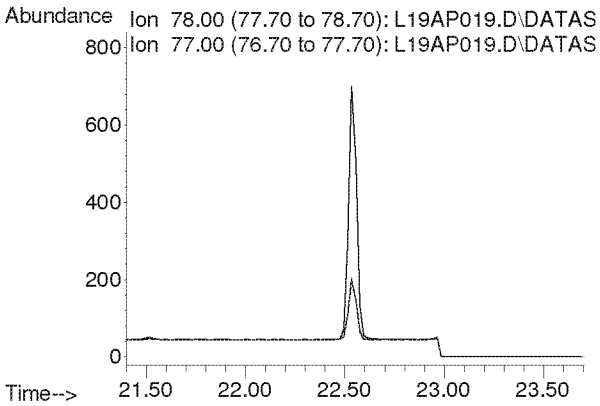


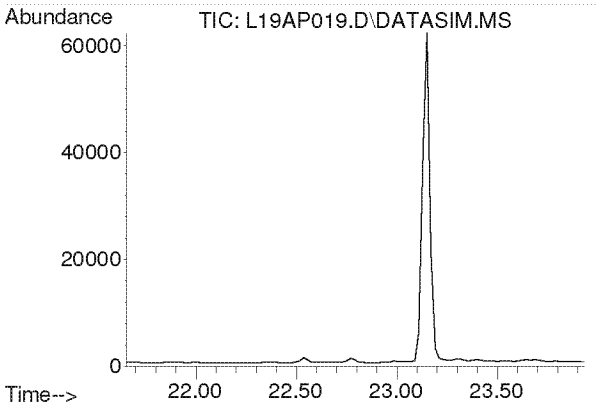
#31
Benzene
Concen: N.D.
Expected RT: 22.55 min

Lab File: L19AP019.D
Acq: 17 Jan 2019 7:04 am

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.9



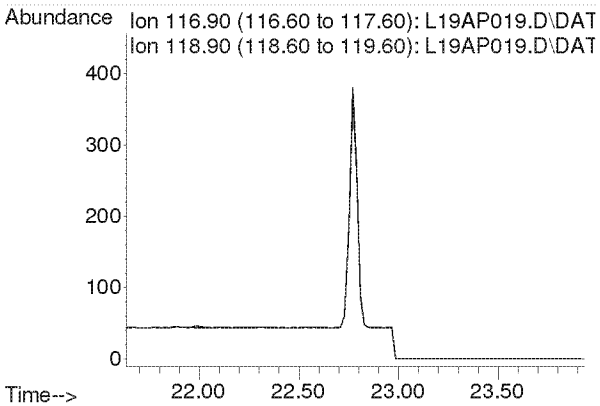


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.79 min

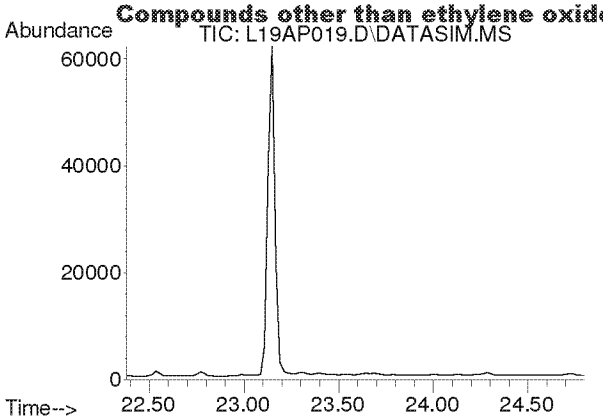
Lab File: L19AP019.D
Acq: 17 Jan 2019 7:04 am

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.5



Compounds other than ethylene oxide were not quantitated.

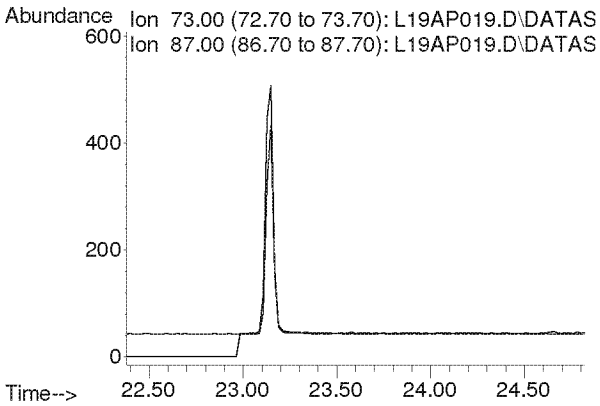


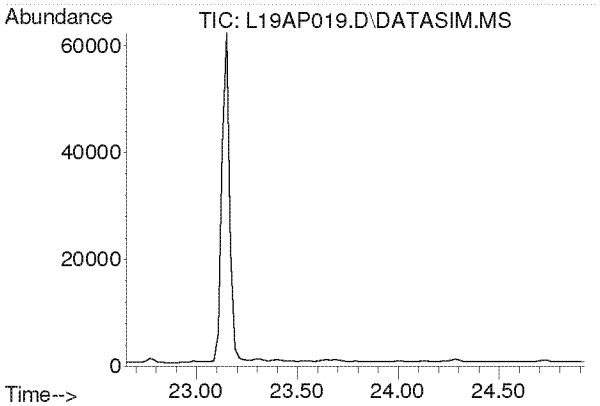
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19AP019.D
Acq: 17 Jan 2019 7:04 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	24.8



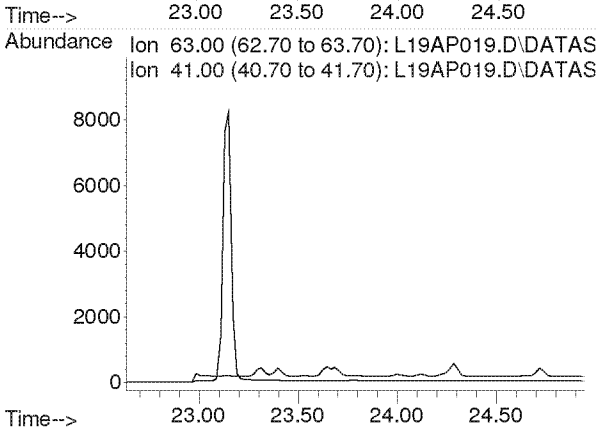


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

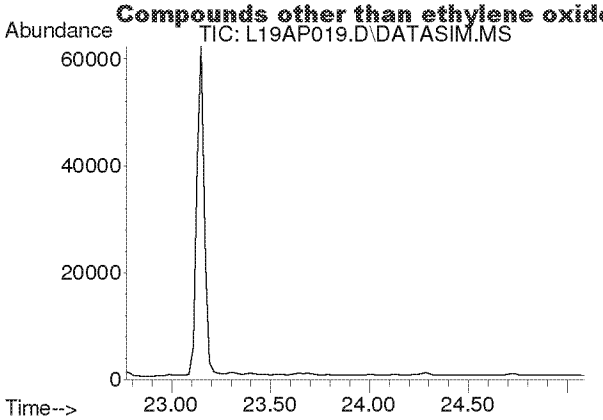
Lab File: L19AP019.D
Acq: 17 Jan 2019 7:04 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	196.0



Compounds other than ethylene oxide were not quantitated.

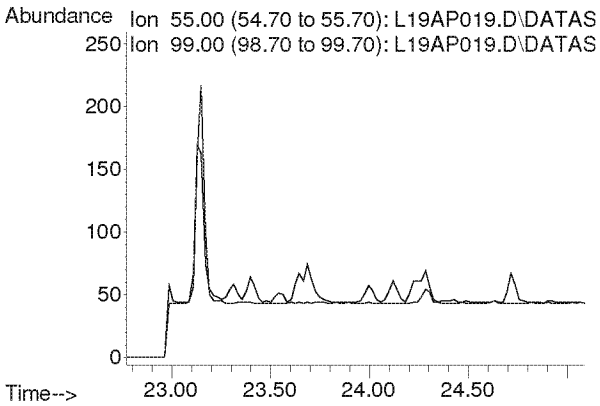


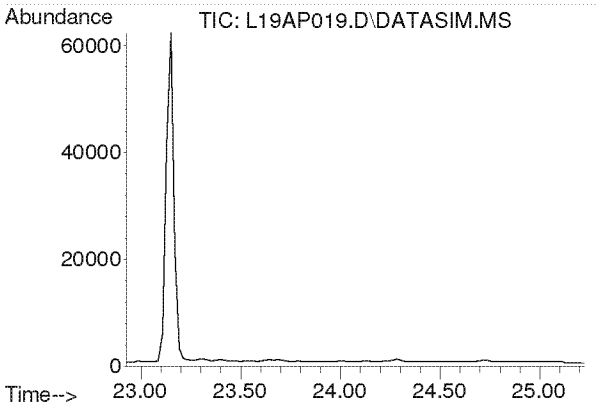
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19AP019.D
Acq: 17 Jan 2019 7:04 am

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.0



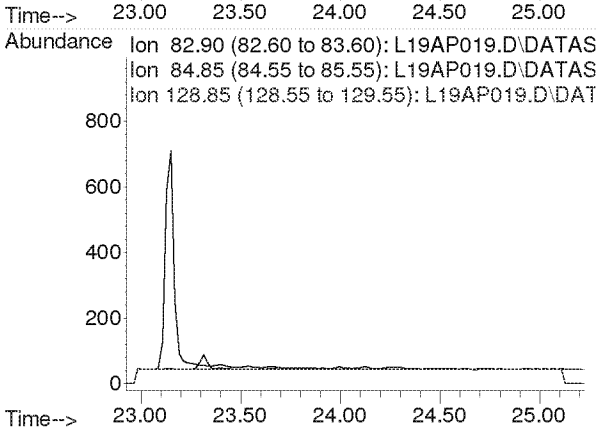


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

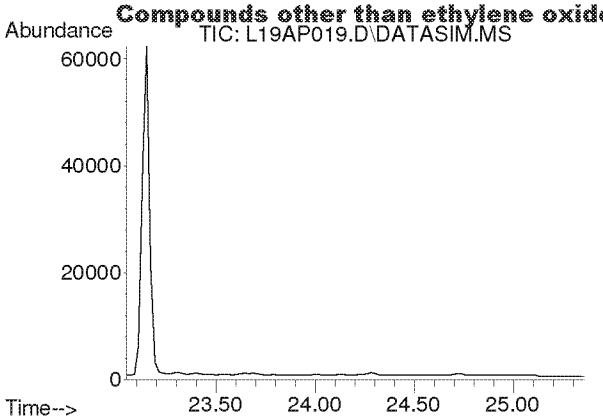
Lab File: L19AP019.D
Acq: 17 Jan 2019 7:04 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.9
129	12.5



Compounds other than ethylene oxide were not quantitated.

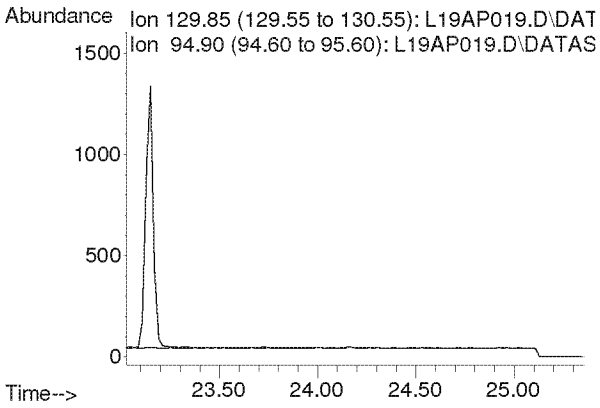


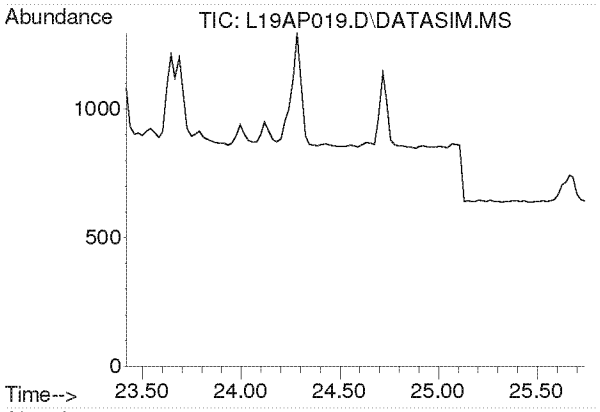
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19AP019.D
Acq: 17 Jan 2019 7:04 am

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	108.6



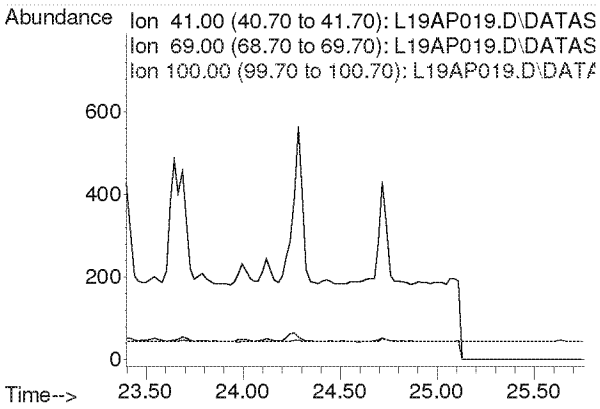


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.55 min

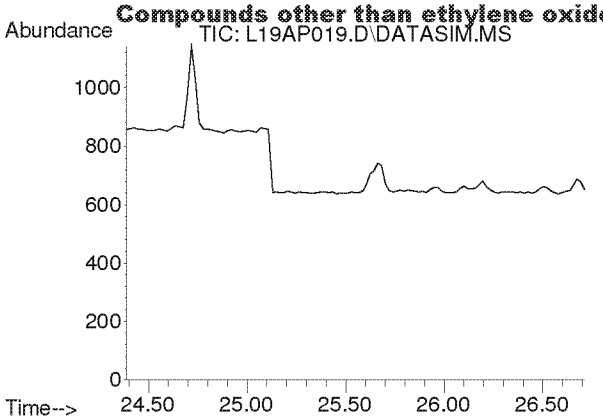
Lab File: L19AP019.D
Acq: 17 Jan 2019 7:04 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	20.7
100	5.3



Compounds other than ethylene oxide were not quantitated.

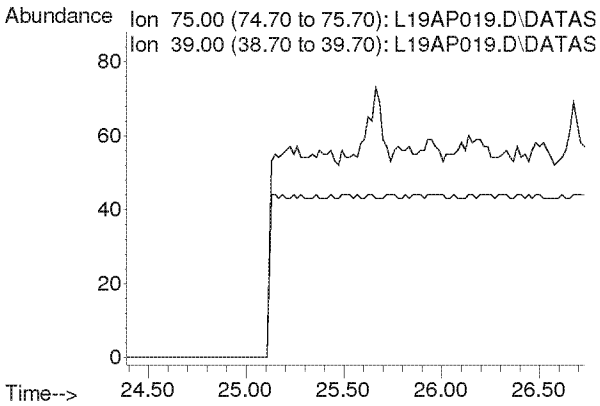


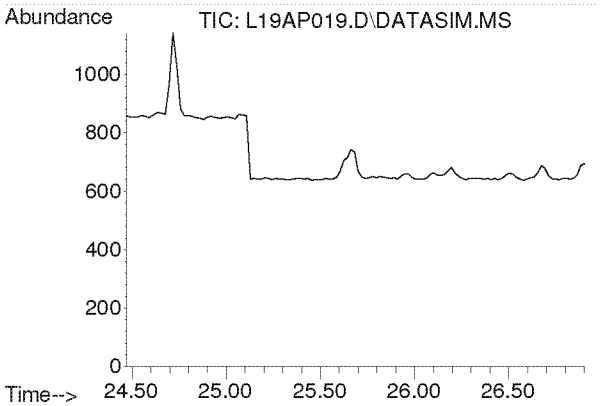
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19AP019.D
Acq: 17 Jan 2019 7:04 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	48.3



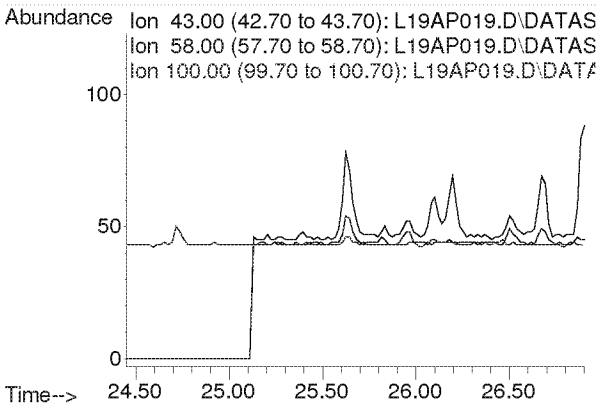


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

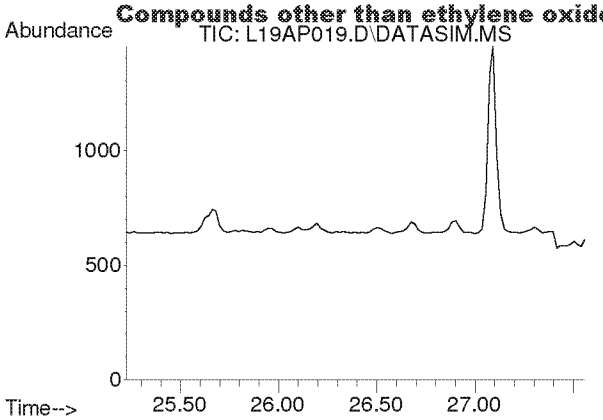
Lab File: L19AP019.D
Acq: 17 Jan 2019 7:04 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	34.5
100	8.1



Compounds other than ethylene oxide were not quantitated.

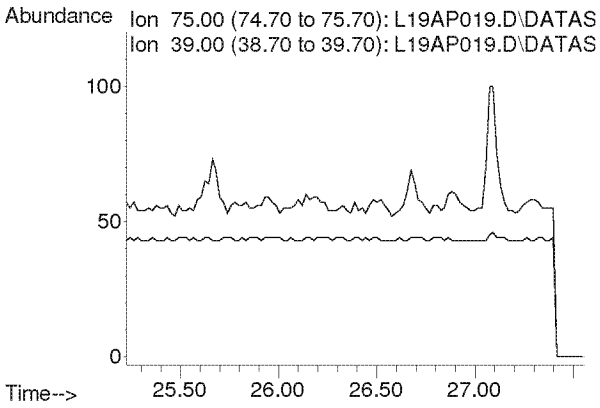


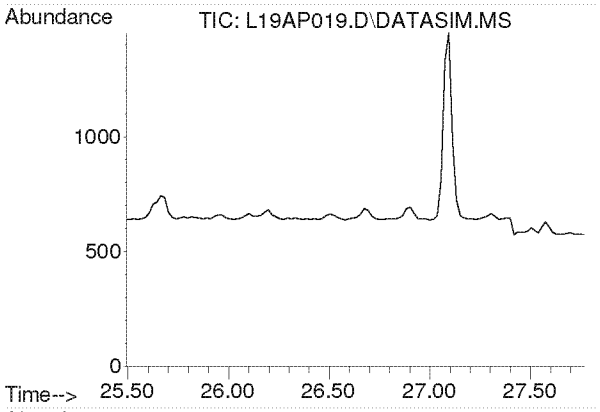
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19AP019.D
Acq: 17 Jan 2019 7:04 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	48.8



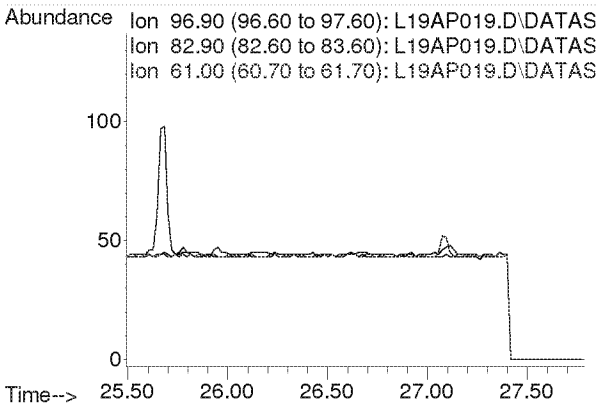


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.63 min

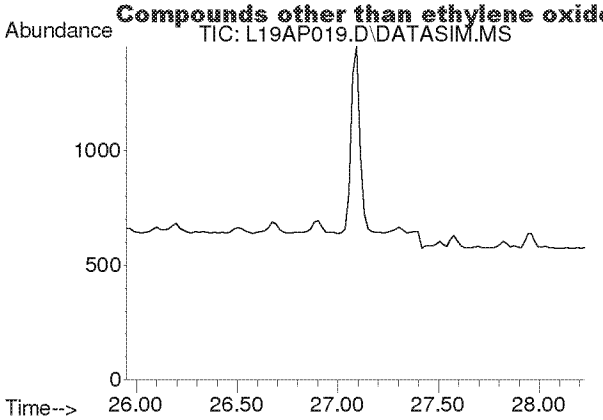
Lab File: L19AP019.D
Acq: 17 Jan 2019 7:04 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	96.6
61	61.4



Compounds other than ethylene oxide were not quantitated.

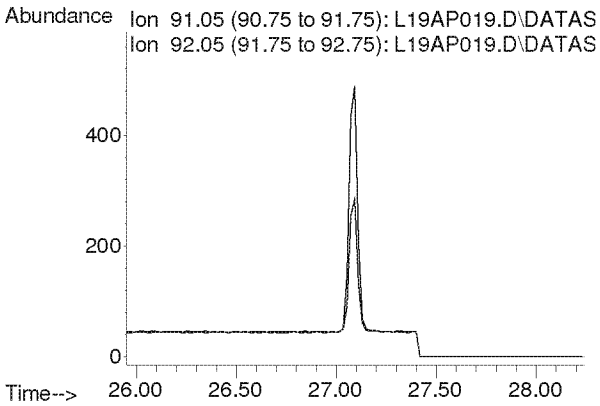


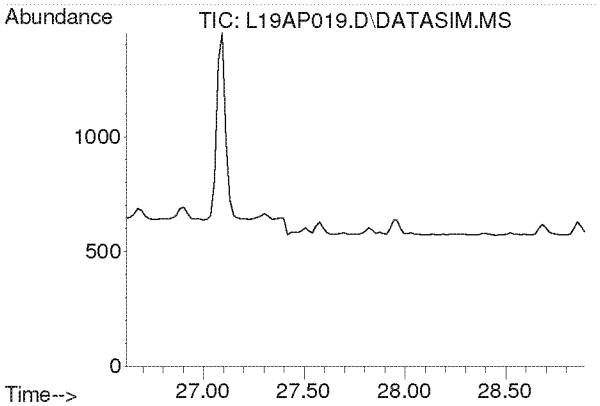
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19AP019.D
Acq: 17 Jan 2019 7:04 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



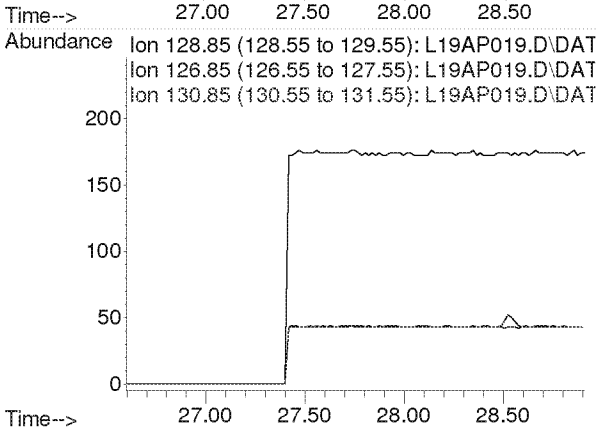


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

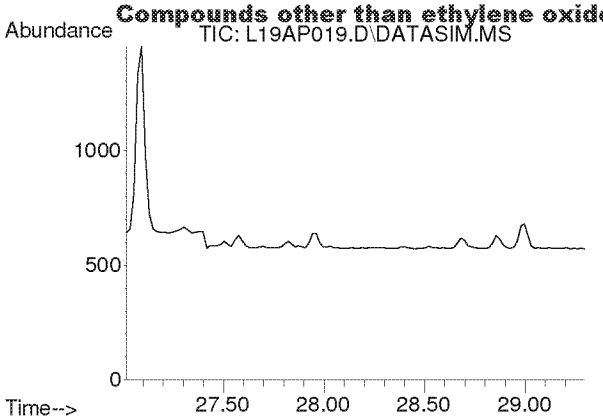
Lab File: L19AP019.D
Acq: 17 Jan 2019 7:04 am

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.2
131	6.0



Compounds other than ethylene oxide were not quantitated.

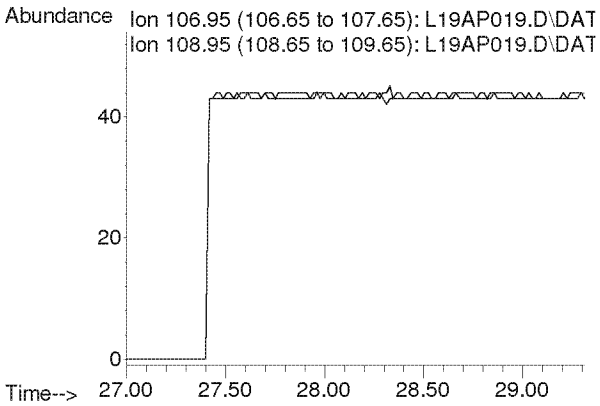


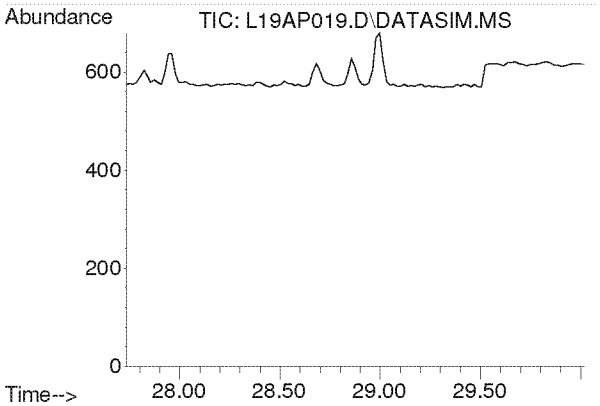
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19AP019.D
Acq: 17 Jan 2019 7:04 am

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.3



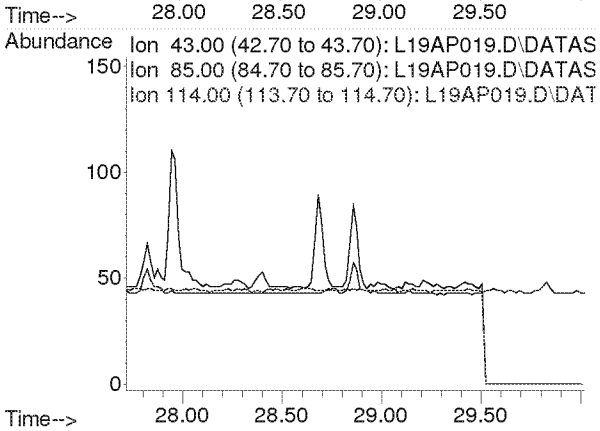


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

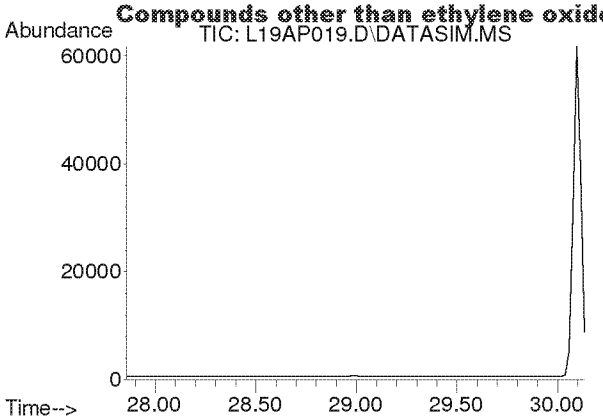
Lab File: L19AP019.D
Acq: 17 Jan 2019 7:04 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	36.6
114	2.3



Compounds other than ethylene oxide were not quantitated.

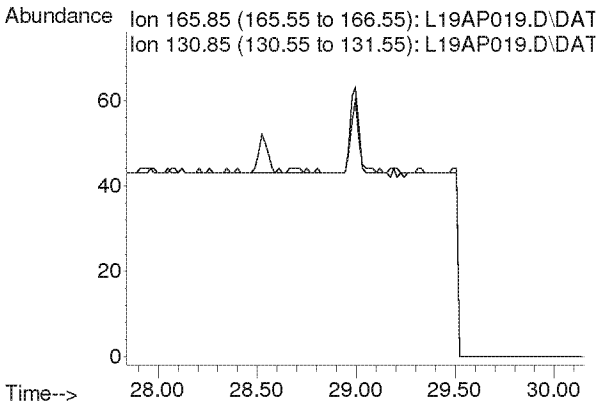


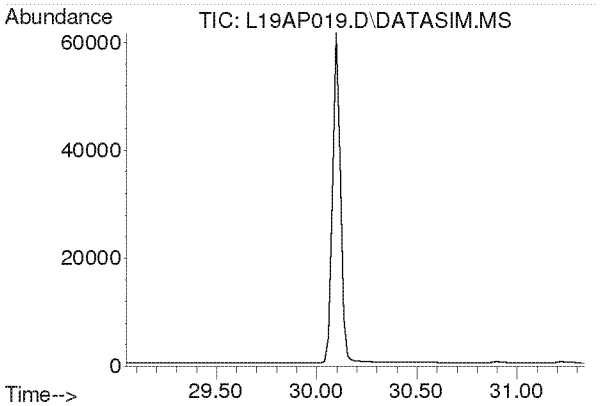
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19AP019.D
Acq: 17 Jan 2019 7:04 am

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	78.2



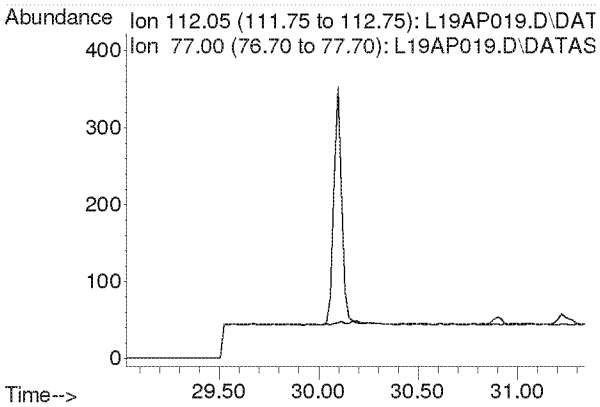


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

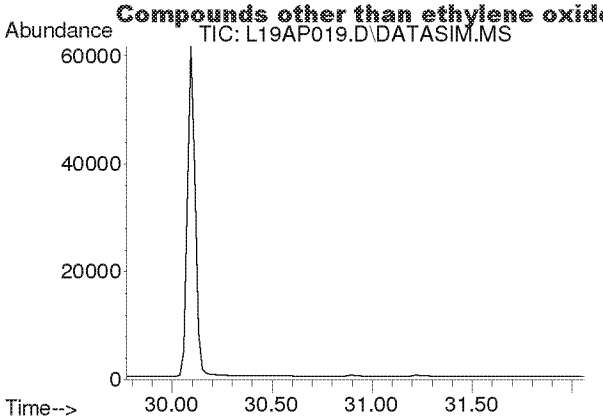
Lab File: L19AP019.D
Acq: 17 Jan 2019 7:04 am

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	61.2



Compounds other than ethylene oxide were not quantitated.

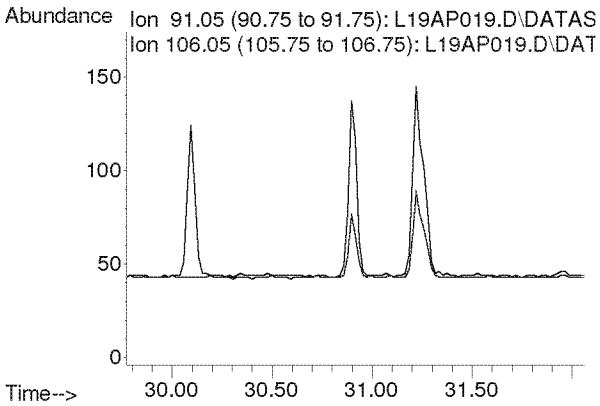


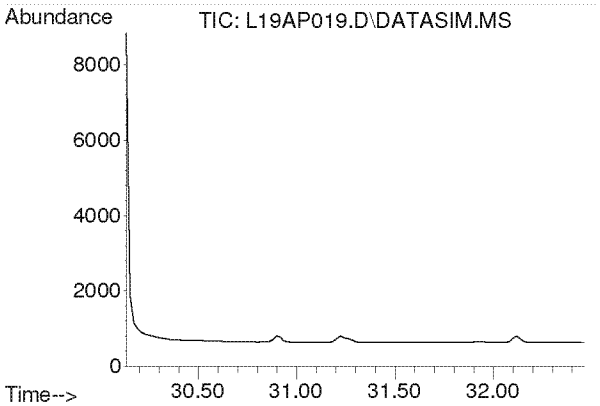
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19AP019.D
Acq: 17 Jan 2019 7:04 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	31.7



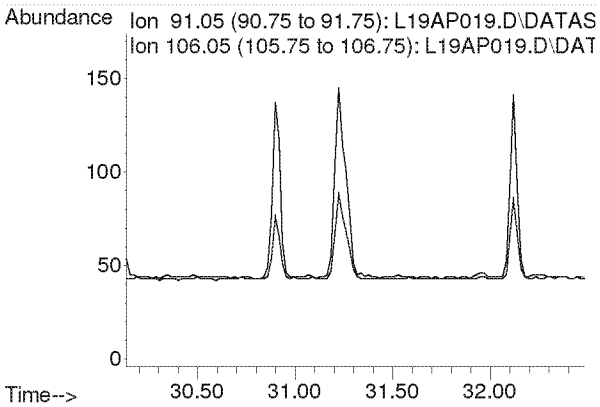


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

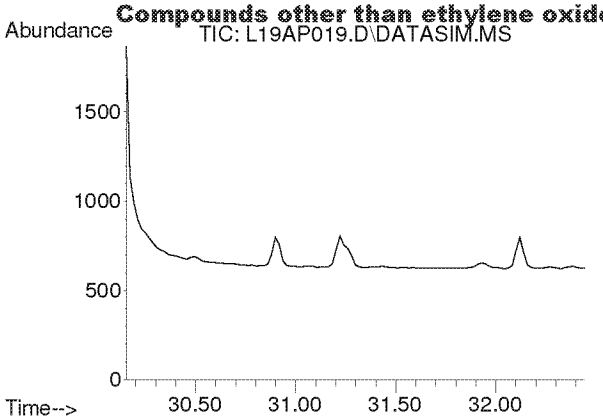
Lab File: L19AP019.D
Acq: 17 Jan 2019 7:04 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.6



Compounds other than ethylene oxide were not quantitated.

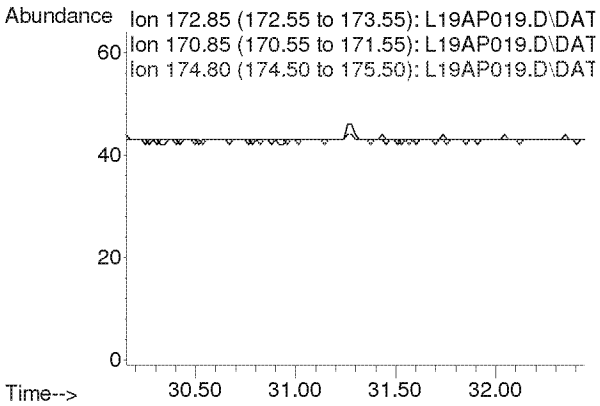


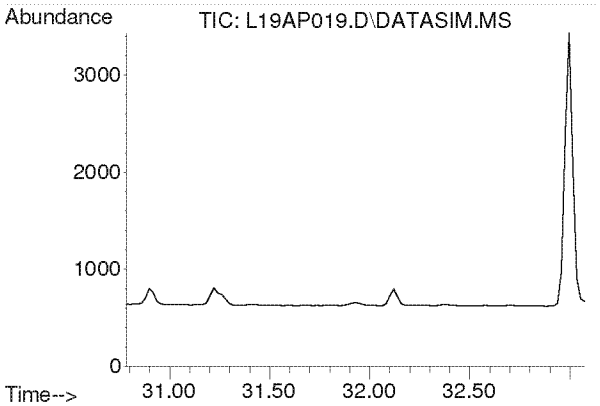
#52
Bromoform
Concen: N.D.
Expected RT: 31.30 min

Lab File: L19AP019.D
Acq: 17 Jan 2019 7:04 am

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.4
175	48.9



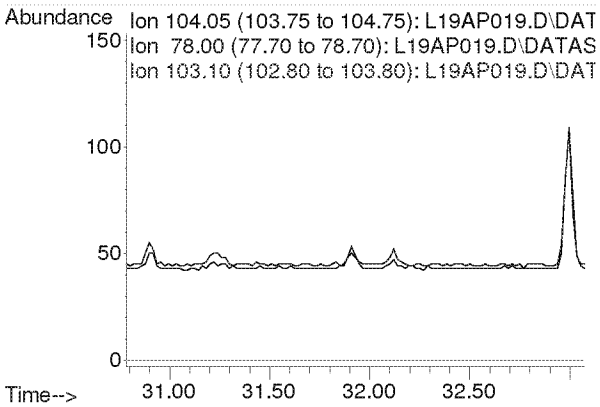


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

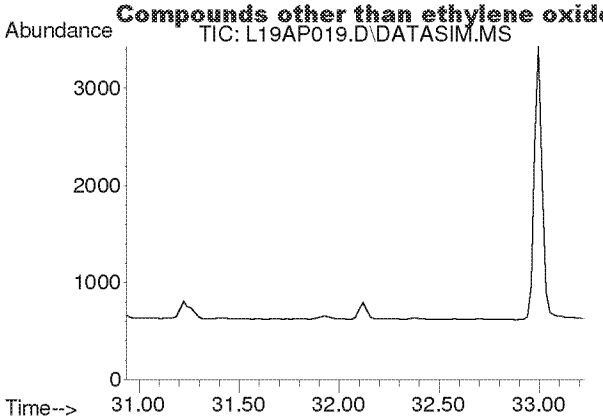
Lab File: L19AP019.D
Acq: 17 Jan 2019 7:04 am

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	45.8
103	0.0



Compounds other than ethylene oxide were not quantitated.

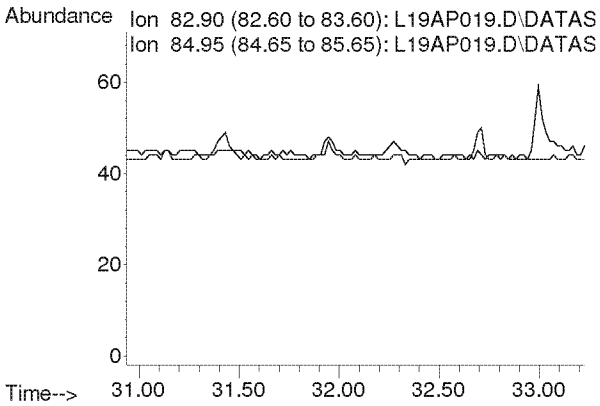


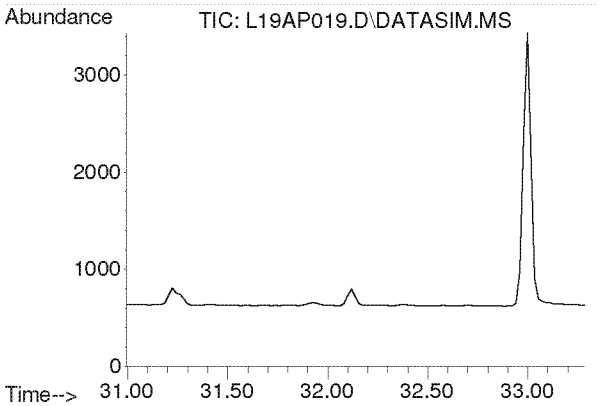
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19AP019.D
Acq: 17 Jan 2019 7:04 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.0



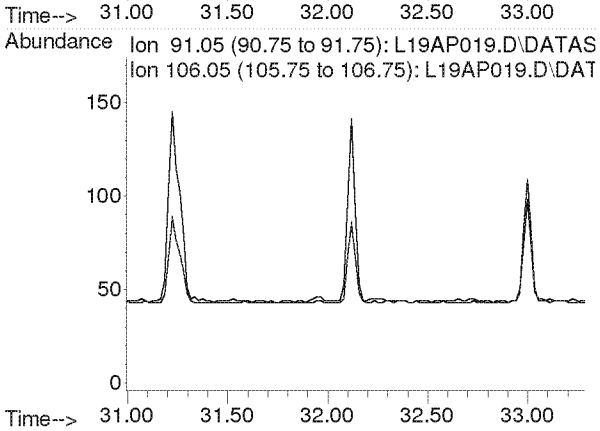


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

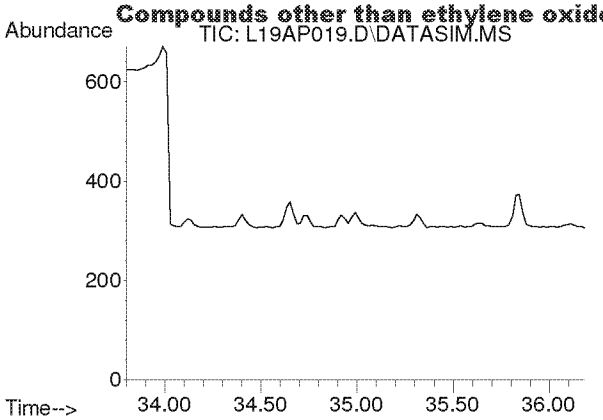
Lab File: L19AP019.D
Acq: 17 Jan 2019 7:04 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.8



Compounds other than ethylene oxide were not quantitated.

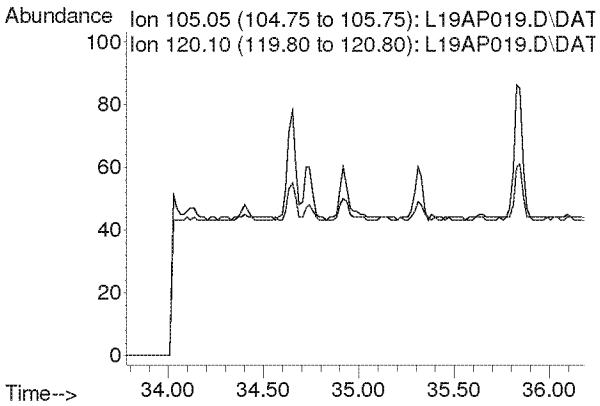


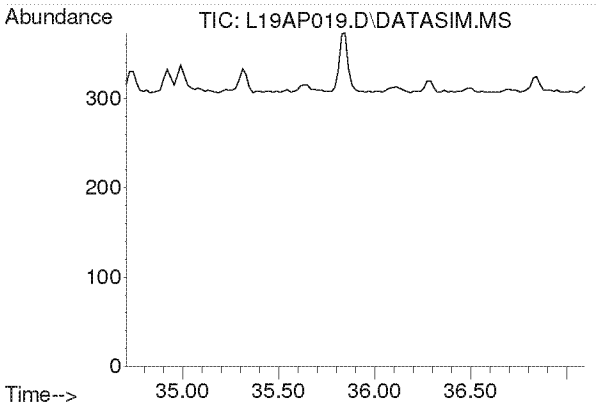
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19AP019.D
Acq: 17 Jan 2019 7:04 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	45.0



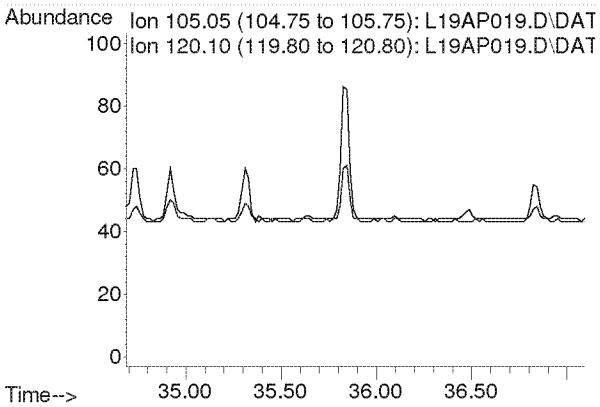


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

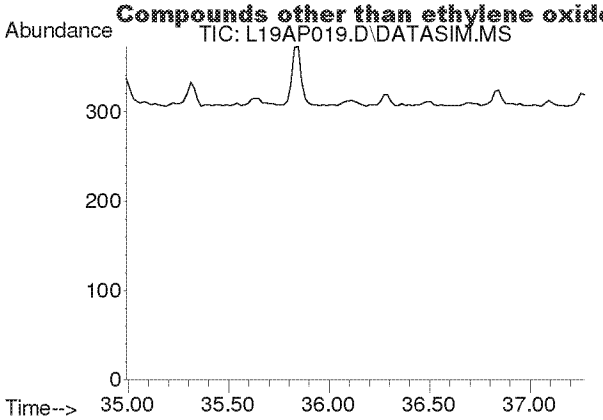
Lab File: L19AP019.D
Acq: 17 Jan 2019 7:04 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	42.9



Compounds other than ethylene oxide were not quantitated.

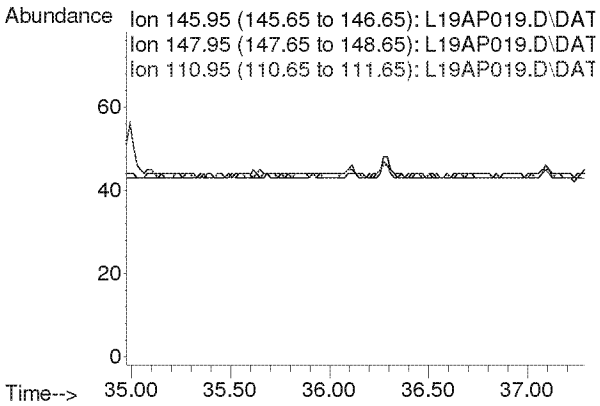


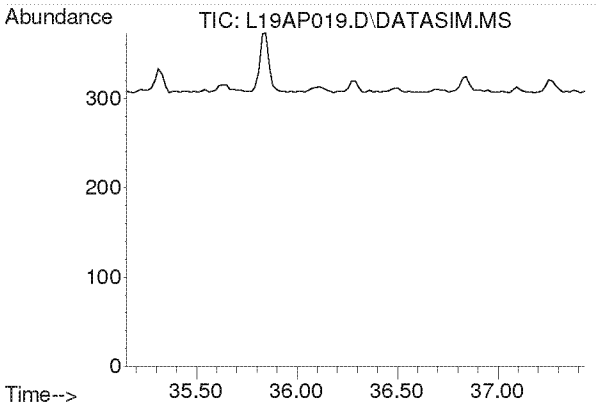
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19AP019.D
Acq: 17 Jan 2019 7:04 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.5



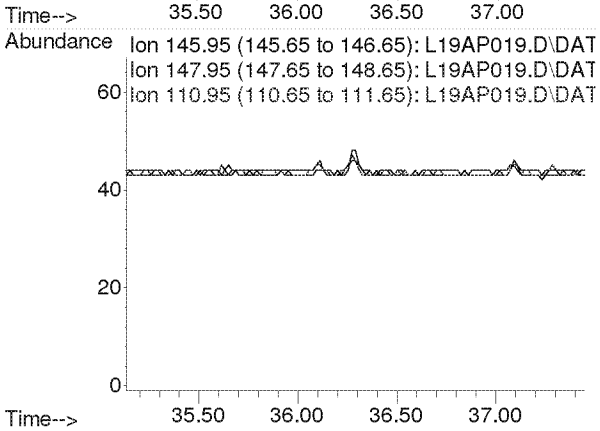


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

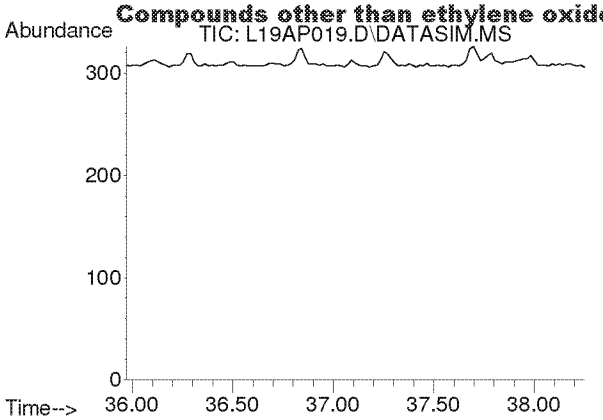
Lab File: L19AP019.D
Acq: 17 Jan 2019 7:04 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	63.9
111	39.3



Compounds other than ethylene oxide were not quantitated.

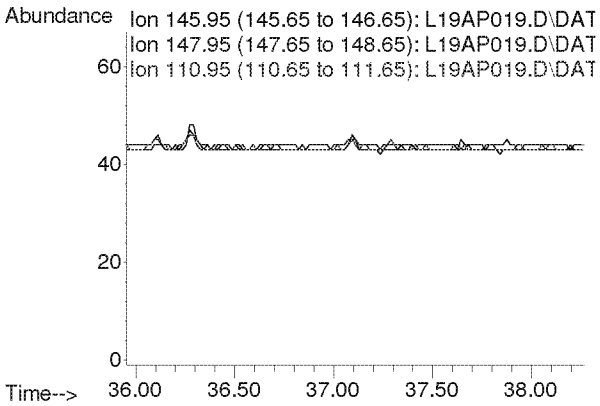


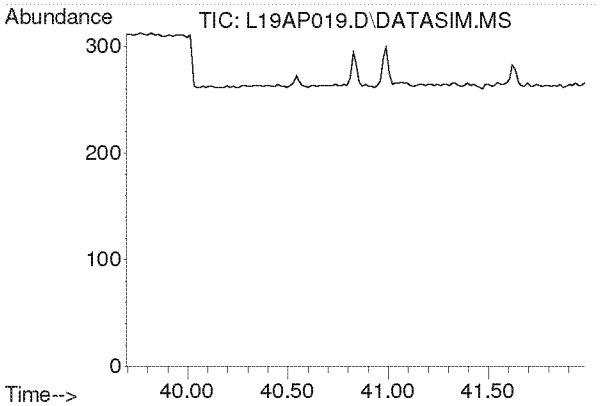
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19AP019.D
Acq: 17 Jan 2019 7:04 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.7



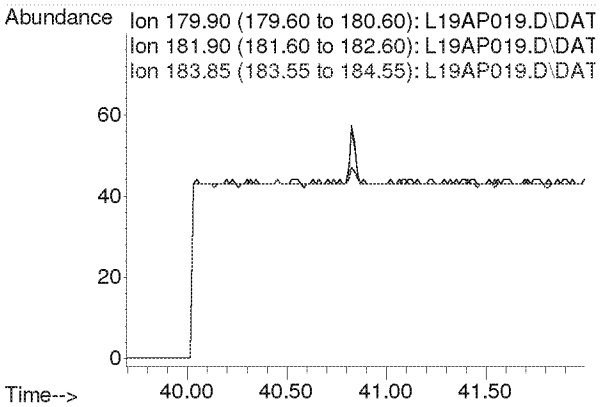


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

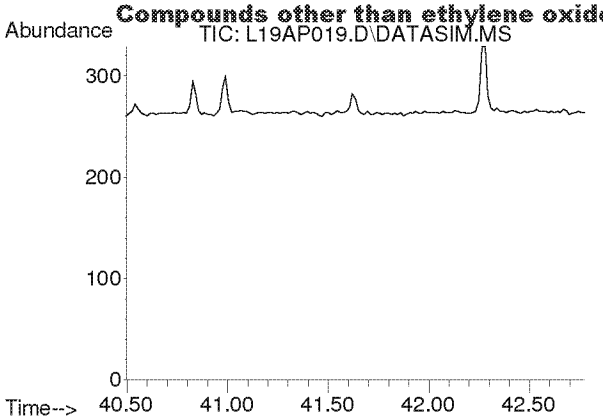
Lab File: L19AP019.D
Acq: 17 Jan 2019 7:04 am

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	95.0
184	30.5



Compounds other than ethylene oxide were not quantitated.

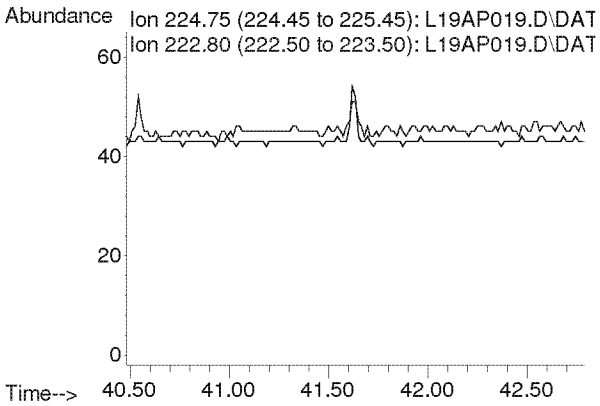


#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.63 min

Lab File: L19AP019.D
Acq: 17 Jan 2019 7:04 am

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.4



Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19AP\
Data File : L19AP020.D
Acq On : 17 Jan 2019 8:06 am
Operator : MAH
Sample : 9010808-04
Misc : POND PARK 1/7/19
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Jan 23 07:14:16 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) IS-Hexane-d14	19.993	66	51890	4.7700	ppbv	0.00
29) IS-1,4-Difluorobenzene	23.151	114	126402	4.9900	ppbv	0.00
43) IS-Chlorobenzene-d5	30.097	117	102883	4.7400	ppbv	-0.02

System Monitoring Compounds

Target Compounds					Qvalue
2) Acetylene	0.000	26	0	N.D. d	
3) Propylene	0.000	41	0	N.D. d	
4) Dichlorodifluoromethane	0.000	85	0	N.D. d	
5) Chloromethane	0.000	50	0	N.D. d	
6) Dichlorotetrafluoroethane	0.000	85	0	N.D. d	
7) Vinyl Chloride	0.000	62	0	N.D.	
8) 1,3-Butadiene	0.000	54	0	N.D. d	
9) Ethylene oxide	0.000	29	0	N.D. d	
10) Bromomethane	0.000	94	0	N.D. d	
11) Chloroethane	0.000	64	0	N.D.	
12) Acetonitrile	0.000	41	0	N.D. d	
13) Acrolein	0.000	56	0	N.D. d	
14) Trichlorofluoromethane	0.000	101	0	N.D. d	
15) Acrylonitrile	0.000	53	0	N.D. d	
16) 1,1-Dichloroethene	0.000	61	0	N.D.	
17) Methylene Chloride	0.000	49	0	N.D. d	
18) Carbon Disulfide	0.000	76	0	N.D. d	
19) Trichlorotrifluoroethane	0.000	101	0	N.D. d	
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.	
21) 1,1-Dichloroethane	0.000	63	0	N.D.	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D. d	
23) Chloroprene	0.000	53	0	N.D.	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D. d	
25) Bromochloromethane	0.000	128	0	N.D.	
26) Chloroform	0.000	83	0	N.D. d	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D.	
28) 1,2-Dichloroethane	0.000	62	0	N.D. d	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D.	
31) Benzene	0.000	78	0	N.D. d	
32) Carbon Tetrachloride	0.000	117	0	N.D. d	
33) tert-Amyl Methyl Ether	0.000	73	0	N.D.	
34) 1,2-Dichloropropane	0.000	63	0	N.D.	
35) Ethyl Acrylate	0.000	55	0	N.D.	
36) Bromodichloromethane	0.000	83	0	N.D.	
37) Trichloroethylene	0.000	130	0	N.D.	
38) Methyl Methacrylate	0.000	41	0	N.D.	
39) cis-1,3-Dichloropropene	0.000	75	0	N.D.	
40) Methyl Isobutyl Ketone	0.000	43	0	N.D. d	
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.	
44) Toluene	0.000	91	0	N.D. d	
45) Dibromochloromethane	0.000	129	0	N.D.	
46) 1,2-Dibromoethane	0.000	107	0	N.D.	
47) n-Octane	0.000	43	0	N.D. d	
48) Tetrachloroethylene	0.000	166	0	N.D. d	
49) Chlorobenzene	0.000	112	0	N.D.	
50) Ethylbenzene	0.000	91	0	N.D. d	

Compounds other than ethylene oxide were not quantitated. (reviewed)

Data Path : C:\msdchem\1\DATA\L19AP\
Data File : L19AP020.D
Acq On : 17 Jan 2019 8:06 am
Operator : MAH
Sample : 9010808-04
Misc : POND PARK 1/7/19
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Jan 23 07:14:16 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration

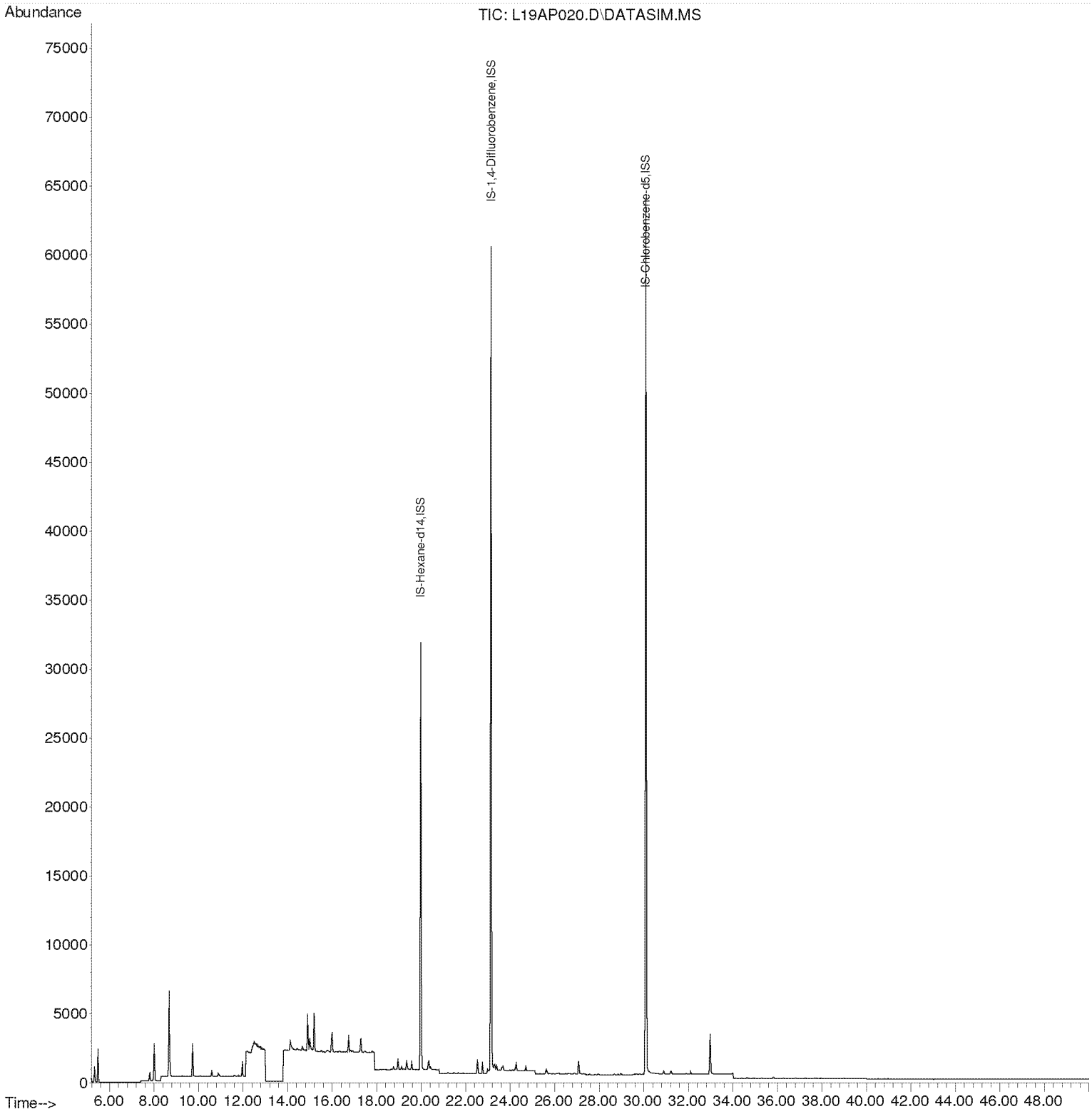
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D.	d
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D.	d
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	d
57) 1,2,4-Trimethylbenzene	0.000	105	0	N.D.	d
58) m-Dichlorobenzene	0.000	146	0	N.D.	
59) p-Dichlorobenzene	0.000	146	0	N.D.	
60) o-Dichlorobenzene	0.000	146	0	N.D.	
61) 1,2,4-Trichlorobenzene	0.000	180	0	N.D.	
62) Hexachloro-1,3-butadiene	0.000	225	0	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

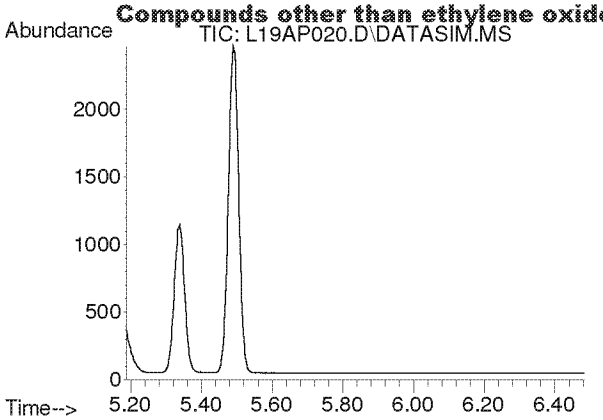
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L19AP\
Data File : L19AP020.D
Acq On : 17 Jan 2019 8:06 am
Operator : MAH
Sample : 9010808-04
Misc : POND PARK 1/7/19
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Jan 23 06:44:18 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration



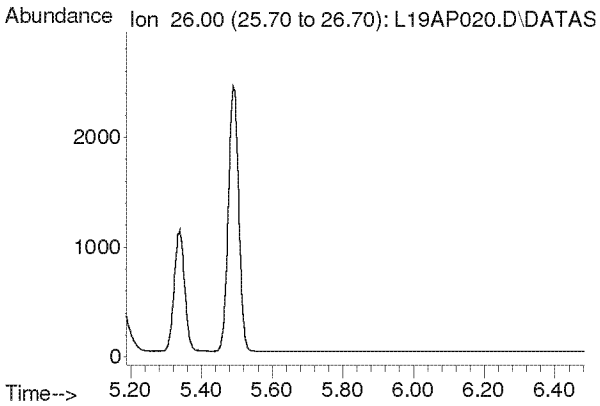
Compounds other than ethylene oxide were not quantitated.

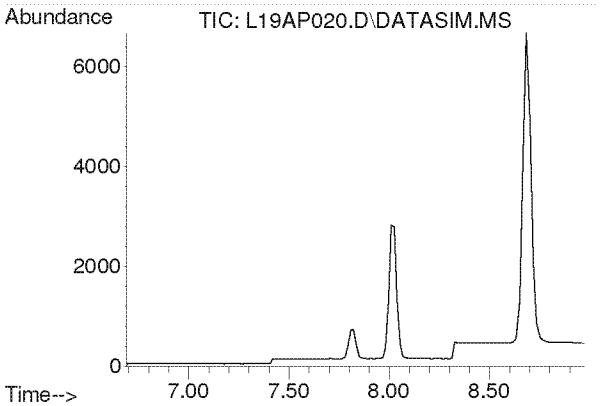


#2
Acetylene
Concen: N.D.
Expected RT: 5.42 min

Lab File: L19AP020.D
Acq: 17 Jan 2019 8:06 am

Tgt Ion: 26



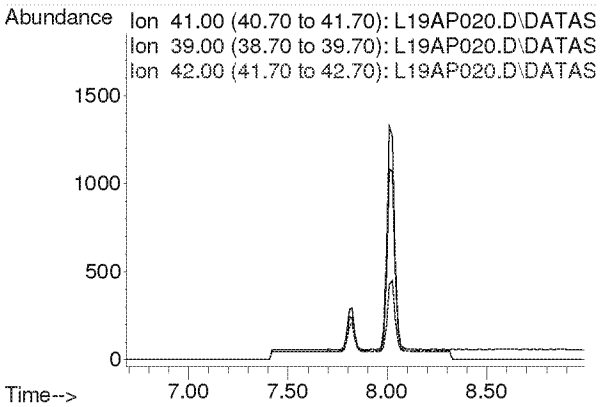


#3
Propylene
Concen: N.D.
Expected RT: 7.84 min

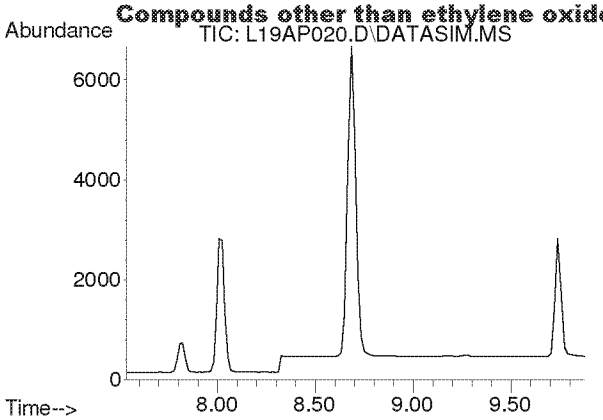
Lab File: L19AP020.D
Acq: 17 Jan 2019 8:06 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	77.0
42	65.8



Compounds other than ethylene oxide were not quantitated.

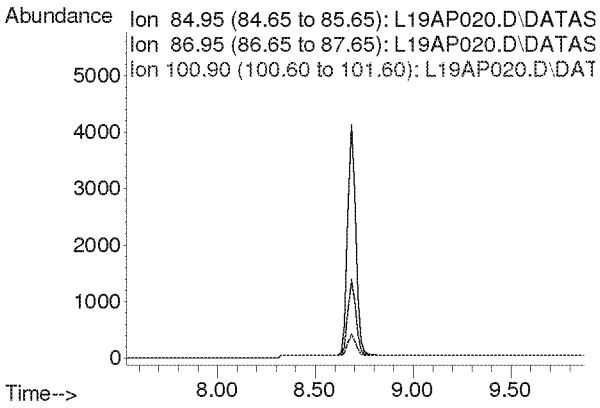


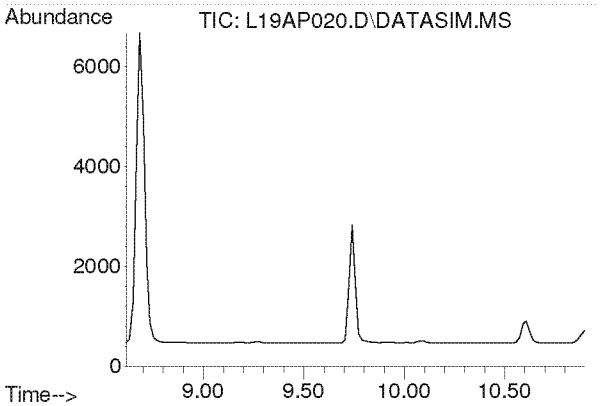
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19AP020.D
Acq: 17 Jan 2019 8:06 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	8.9



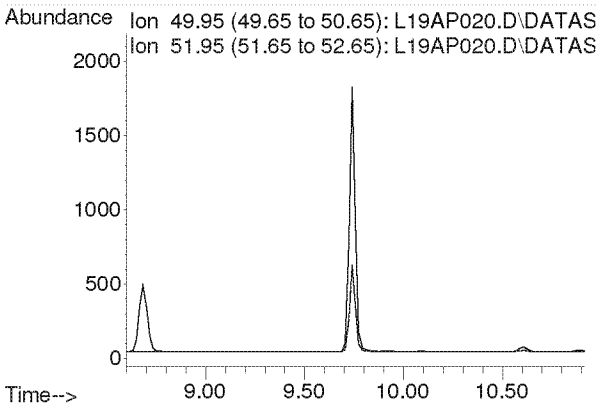


#5
Chloromethane
Concen: N.D.
Expected RT: 9.76 min

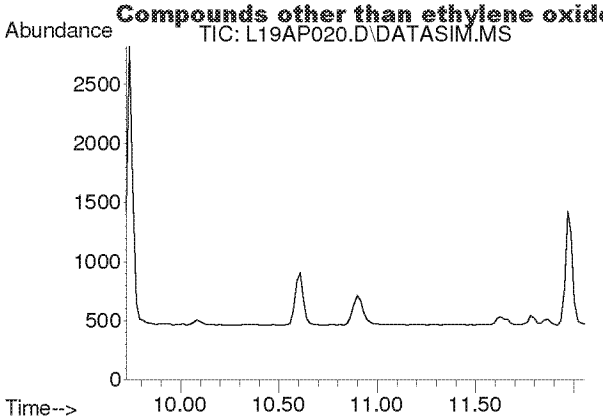
Lab File: L19AP020.D
Acq: 17 Jan 2019 8:06 am

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.4



Compounds other than ethylene oxide were not quantitated.

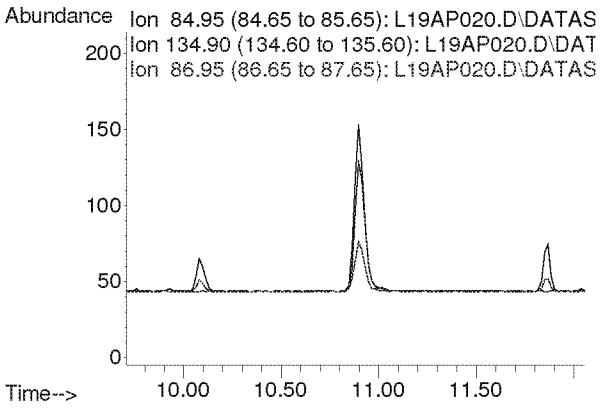


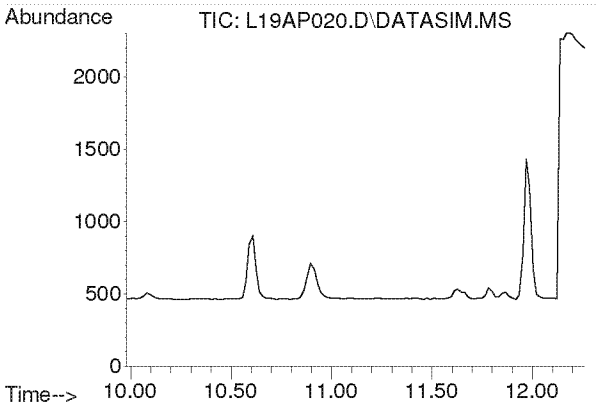
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19AP020.D
Acq: 17 Jan 2019 8:06 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.5
87	32.2



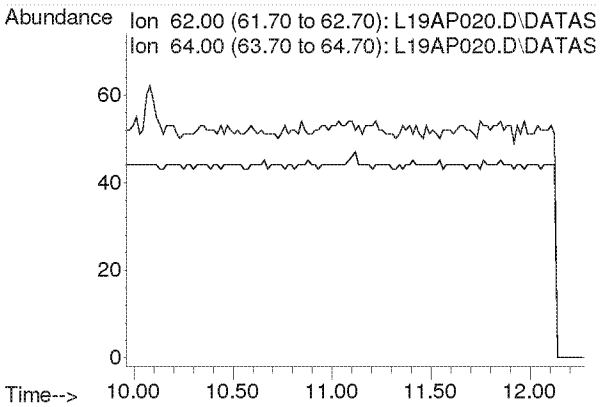


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

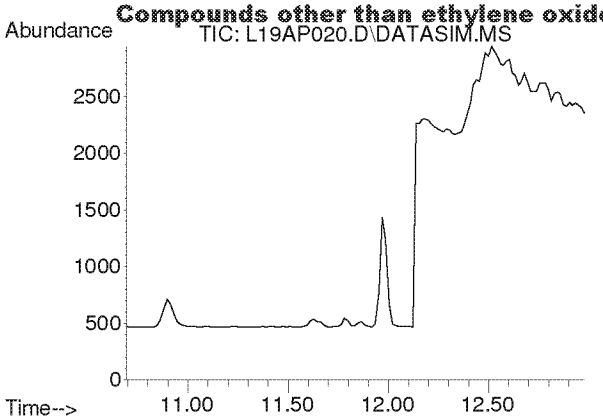
Lab File: L19AP020.D
Acq: 17 Jan 2019 8:06 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	32.1



Compounds other than ethylene oxide were not quantitated.

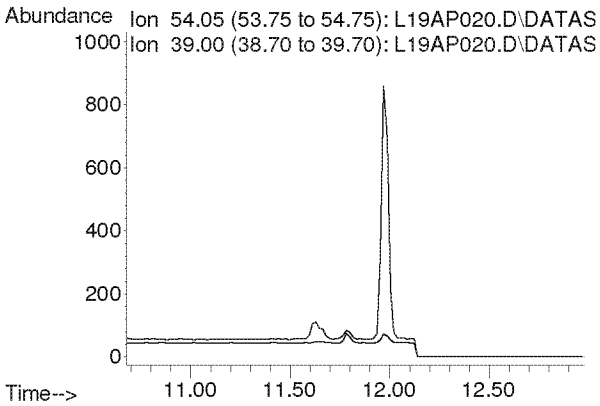


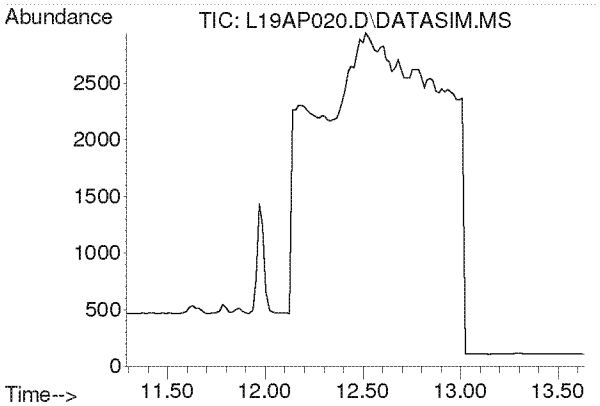
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19AP020.D
Acq: 17 Jan 2019 8:06 am

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	103.3



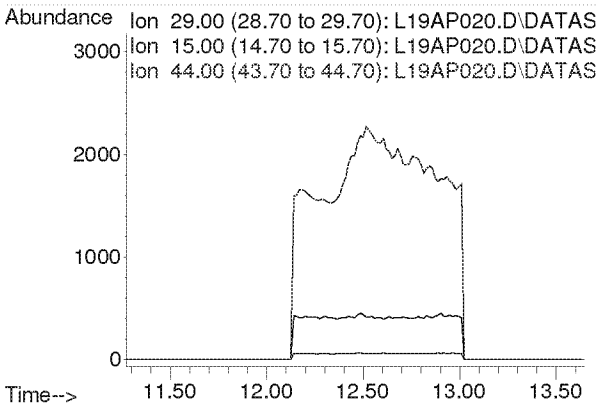


#9
Ethylene oxide
Concen: N.D.
Expected RT: 12.39 min

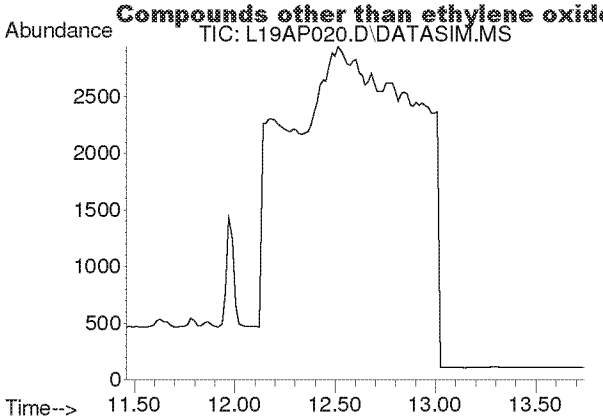
Lab File: L19AP020.D
Acq: 17 Jan 2019 8:06 am

Tgt Ion: 29

Sig	Exp Ratio
29	100
15	19.2
44	96.8



Compounds other than ethylene oxide were not quantitated.

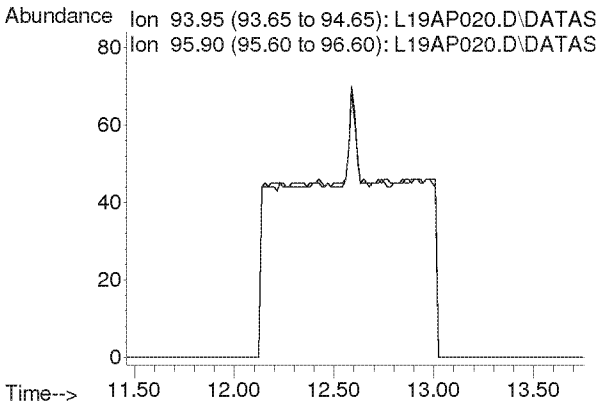


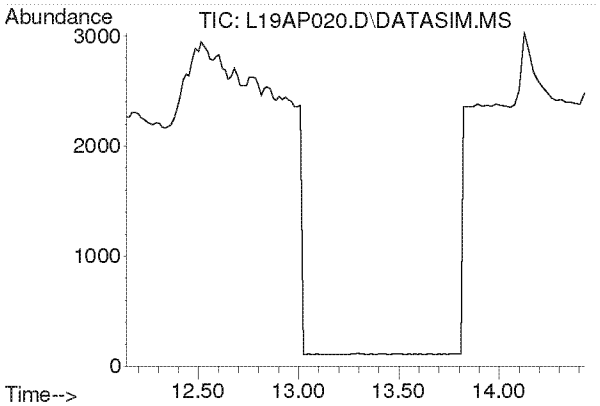
#10
Bromomethane
Concen: N.D.
Expected RT: 12.60 min

Lab File: L19AP020.D
Acq: 17 Jan 2019 8:06 am

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.3



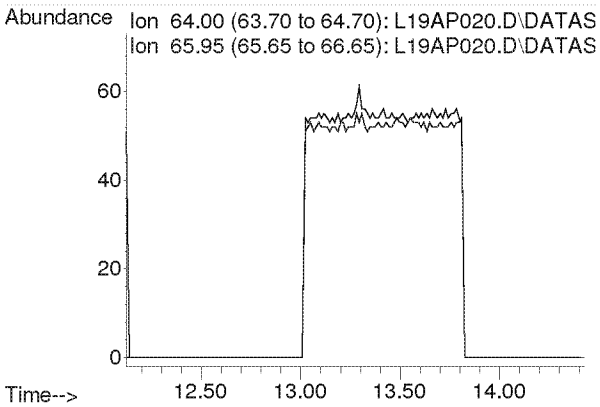


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

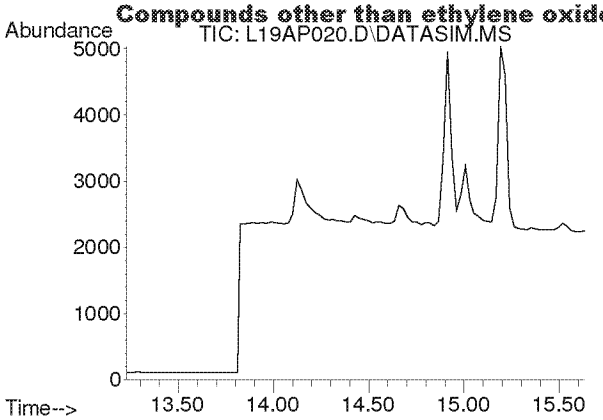
Lab File: L19AP020.D
Acq: 17 Jan 2019 8:06 am

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.4



Compounds other than ethylene oxide were not quantitated.

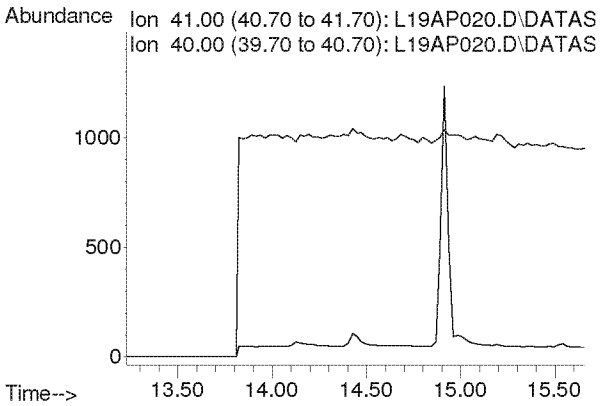


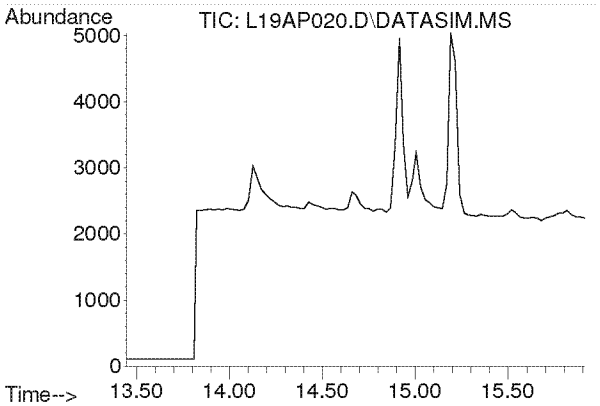
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19AP020.D
Acq: 17 Jan 2019 8:06 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	53.2



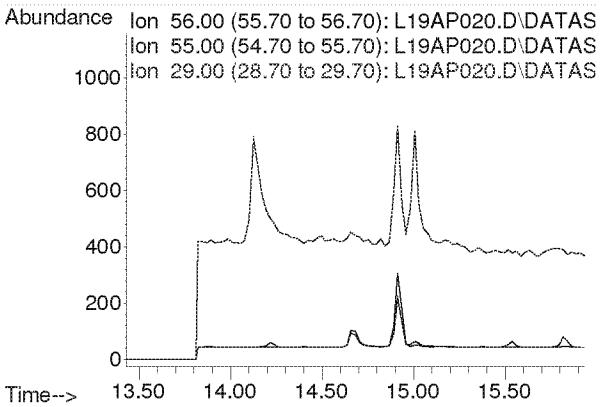


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

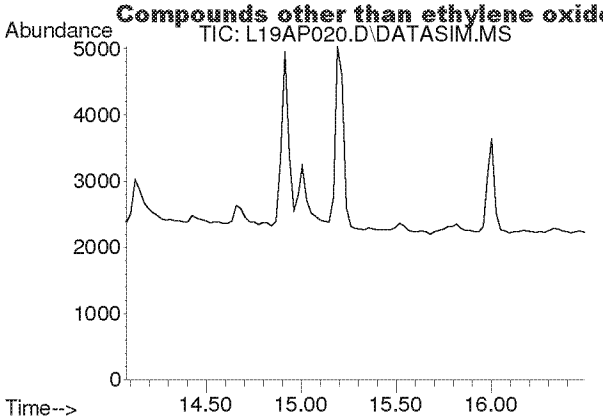
Lab File: L19AP020.D
Acq: 17 Jan 2019 8:06 am

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.5
29	44.9



Compounds other than ethylene oxide were not quantitated.

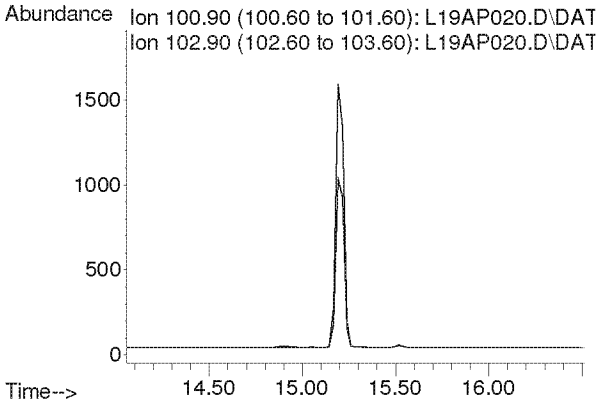


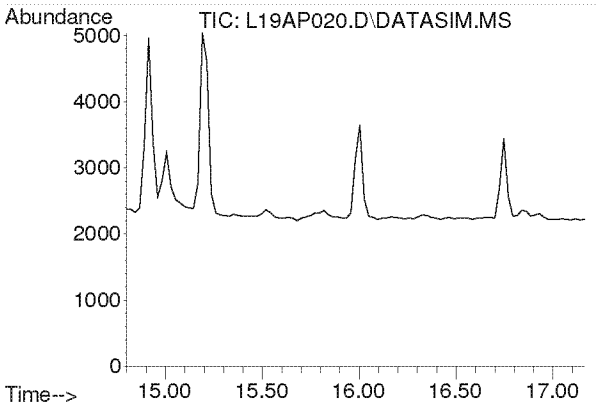
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.21 min

Lab File: L19AP020.D
Acq: 17 Jan 2019 8:06 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



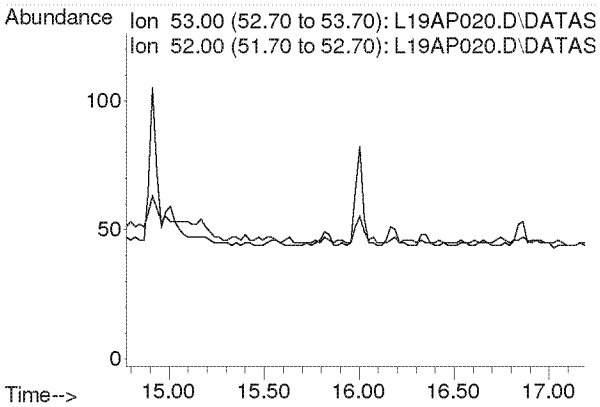


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

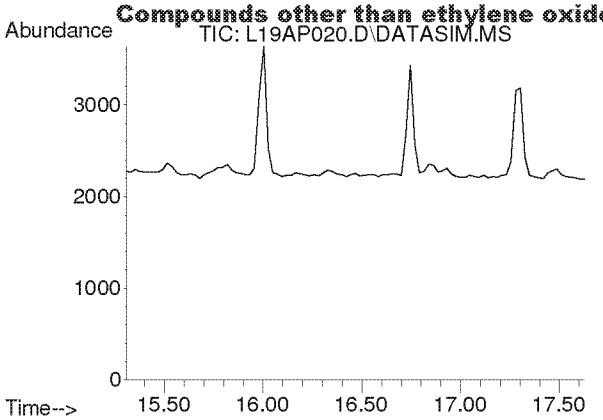
Lab File: L19AP020.D
Acq: 17 Jan 2019 8:06 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	84.7



Compounds other than ethylene oxide were not quantitated.

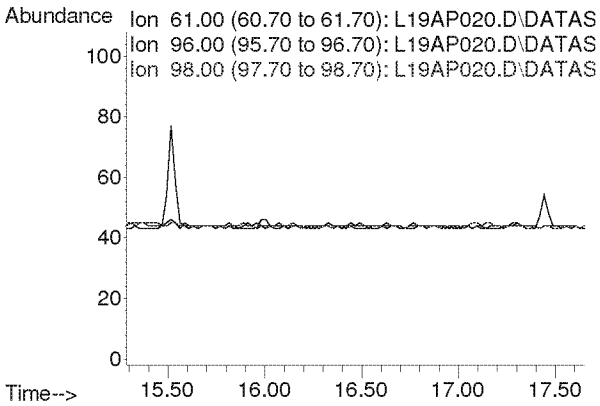


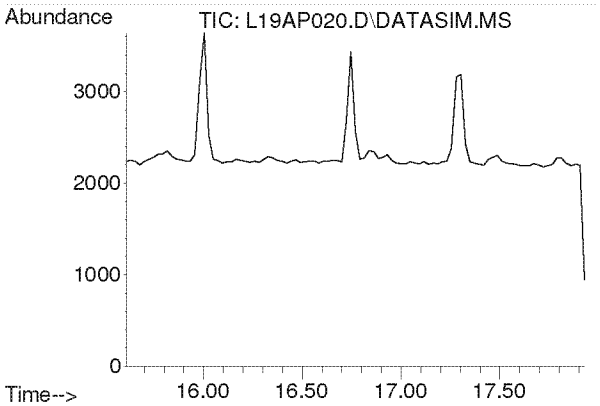
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.44 min

Lab File: L19AP020.D
Acq: 17 Jan 2019 8:06 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.5
98	38.1



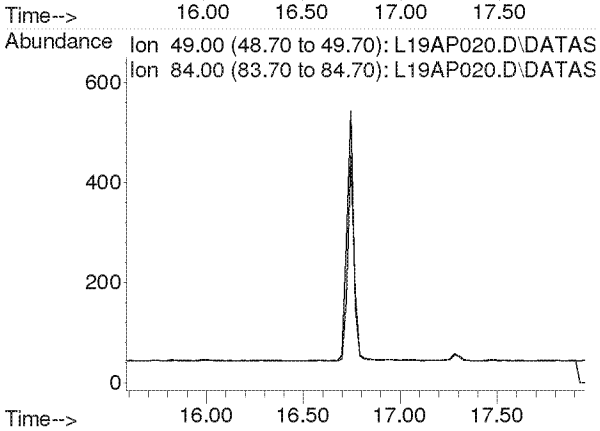


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

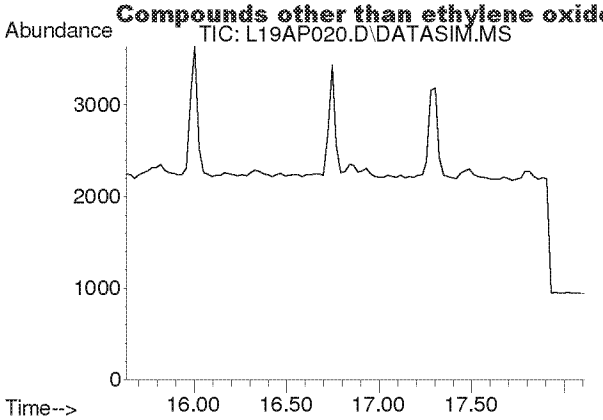
Lab File: L19AP020.D
Acq: 17 Jan 2019 8:06 am

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.3



Compounds other than ethylene oxide were not quantitated.

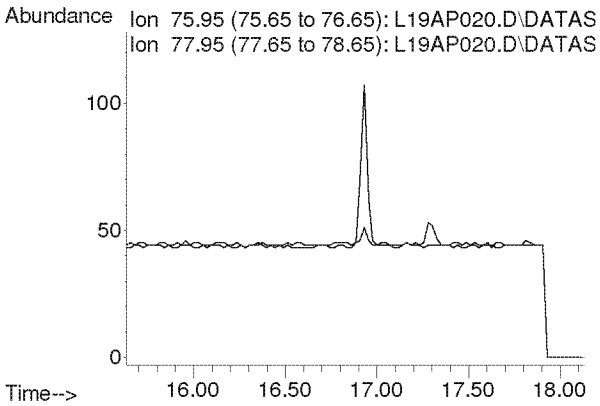


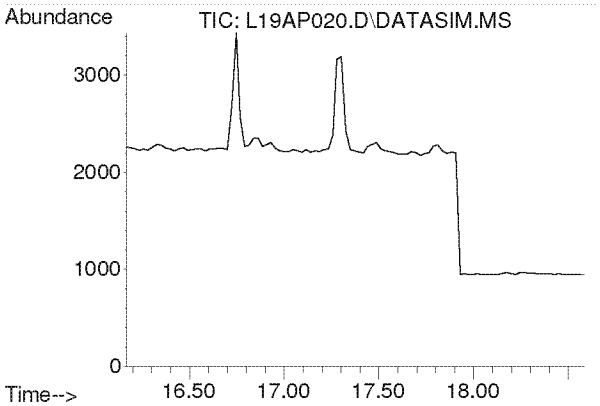
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19AP020.D
Acq: 17 Jan 2019 8:06 am

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.0



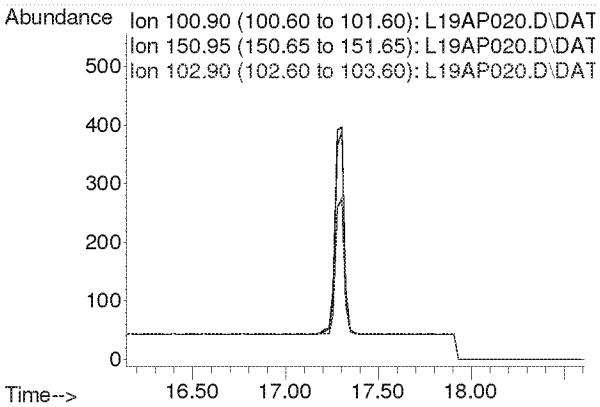


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.30 min

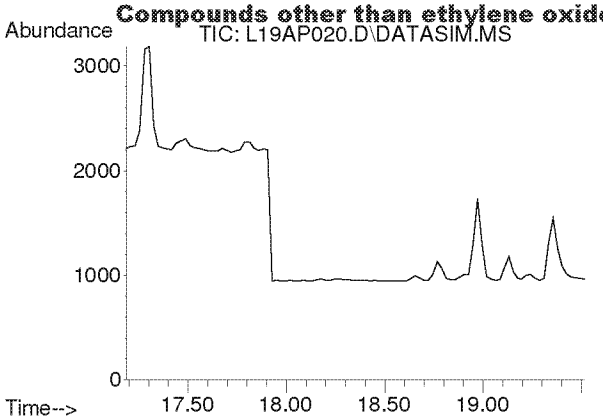
Lab File: L19AP020.D
Acq: 17 Jan 2019 8:06 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	95.4
103	63.9



Compounds other than ethylene oxide were not quantitated.

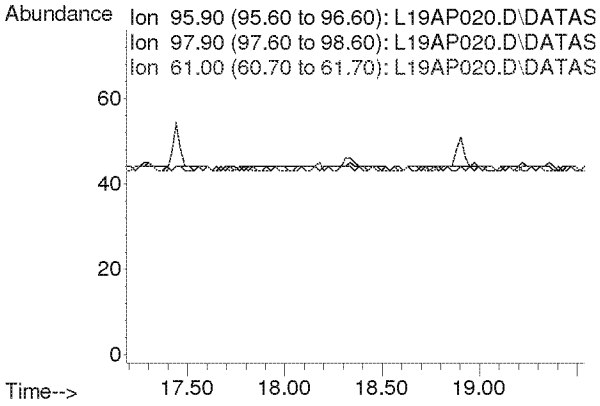


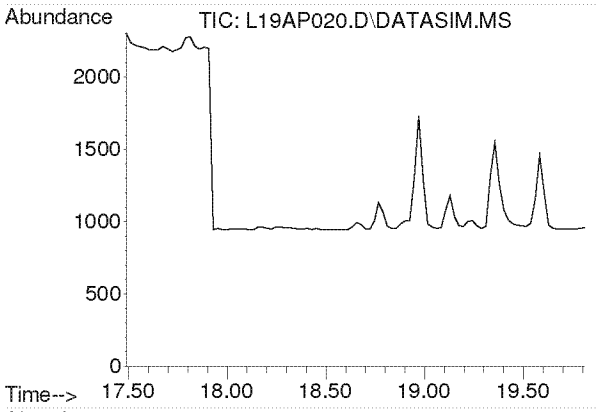
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19AP020.D
Acq: 17 Jan 2019 8:06 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	63.6
61	156.5



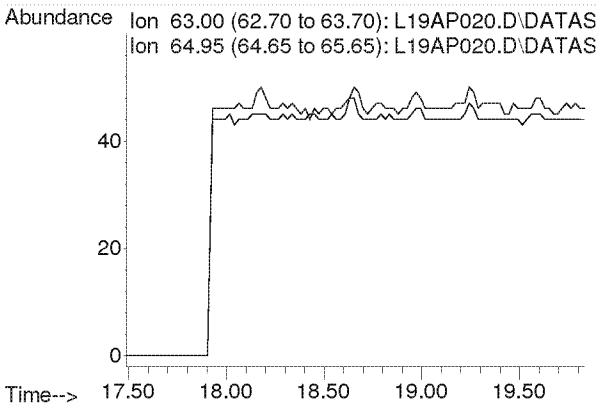


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

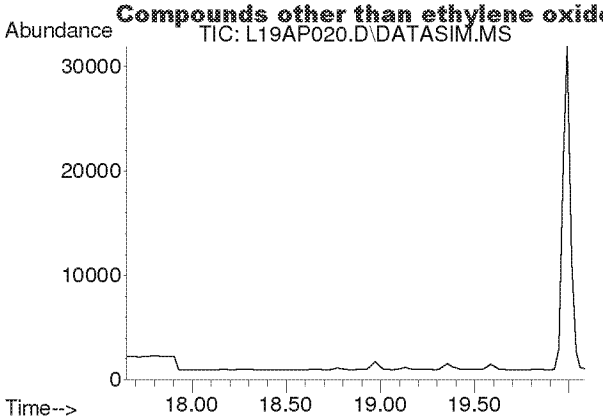
Lab File: L19AP020.D
Acq: 17 Jan 2019 8:06 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

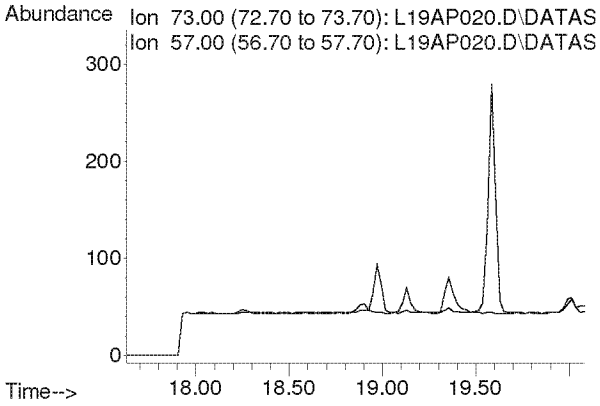


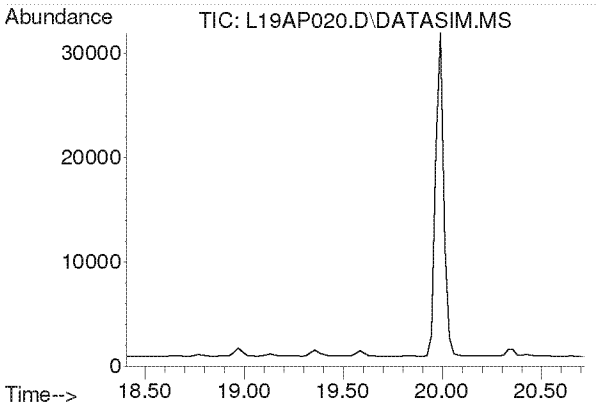
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19AP020.D
Acq: 17 Jan 2019 8:06 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.6



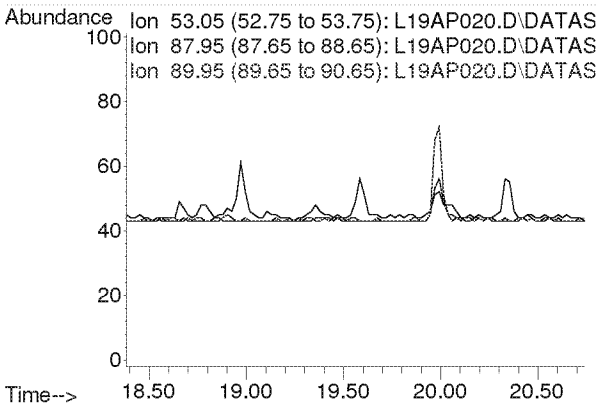


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

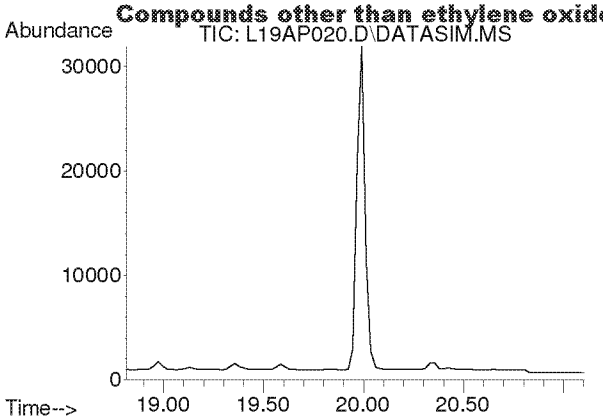
Lab File: L19AP020.D
Acq: 17 Jan 2019 8:06 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	54.0
90	17.3



Compounds other than ethylene oxide were not quantitated.

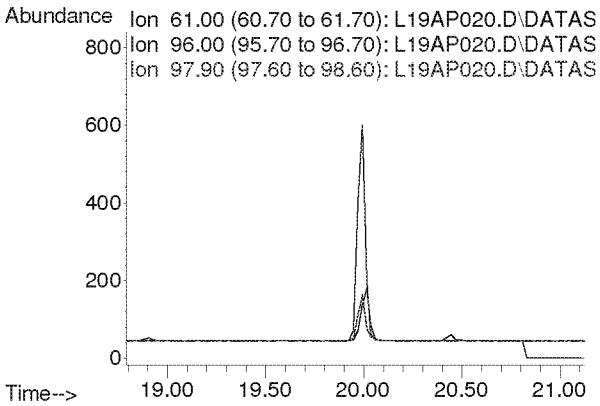


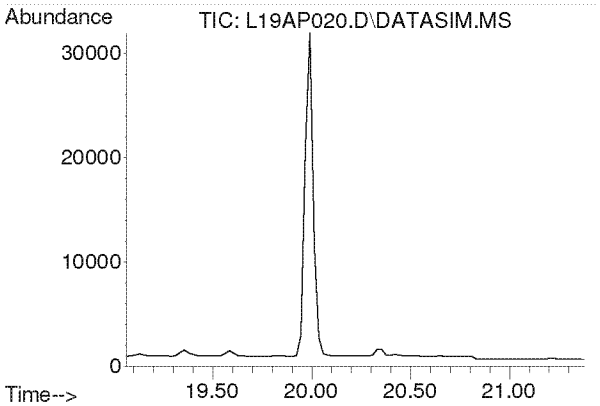
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19AP020.D
Acq: 17 Jan 2019 8:06 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	75.7
98	46.4



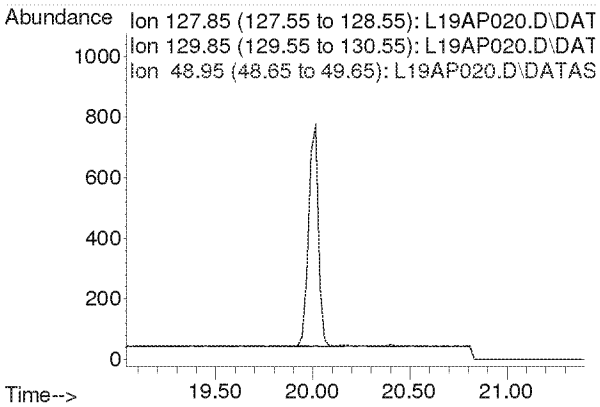


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.19 min

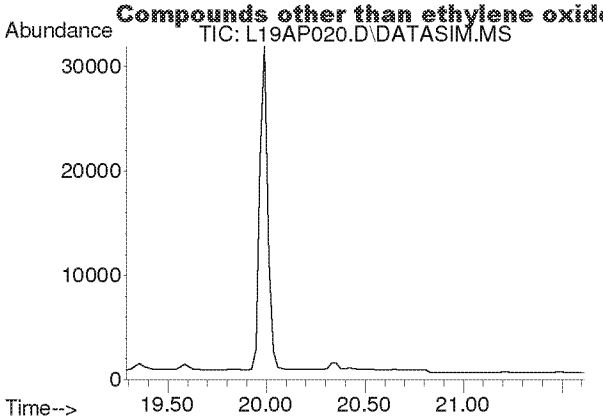
Lab File: L19AP020.D
Acq: 17 Jan 2019 8:06 am

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	130.4
49	170.8



Compounds other than ethylene oxide were not quantitated.

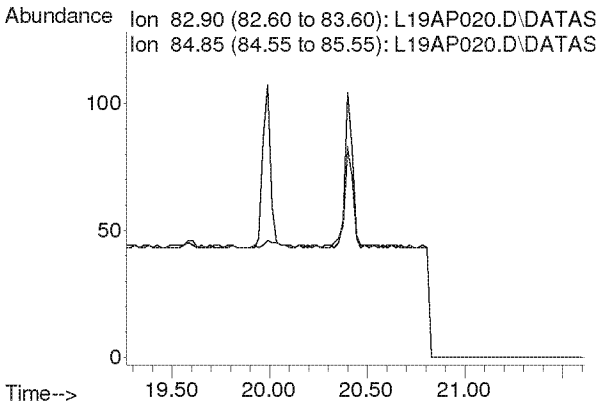


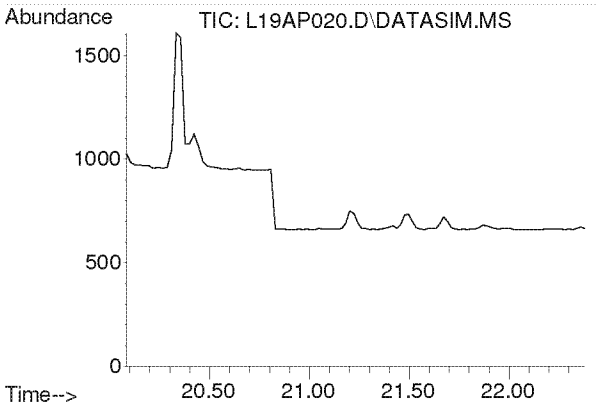
#26
Chloroform
Concen: N.D.
Expected RT: 20.42 min

Lab File: L19AP020.D
Acq: 17 Jan 2019 8:06 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



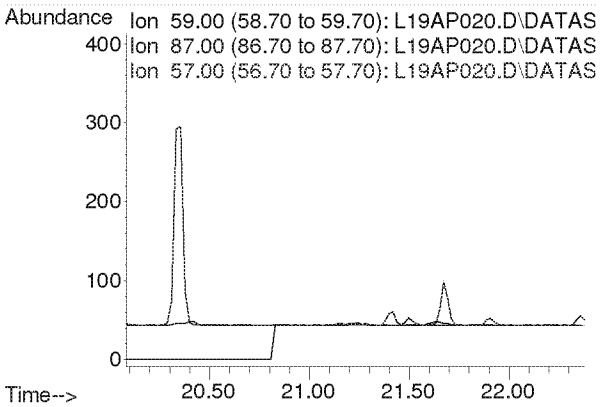


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

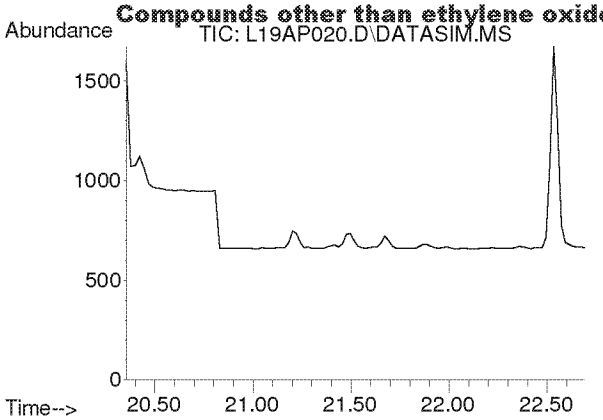
Lab File: L19AP020.D
Acq: 17 Jan 2019 8:06 am

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	37.8
57	34.3



Compounds other than ethylene oxide were not quantitated.

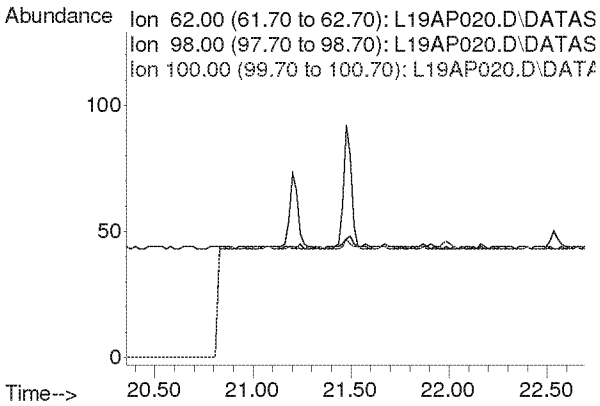


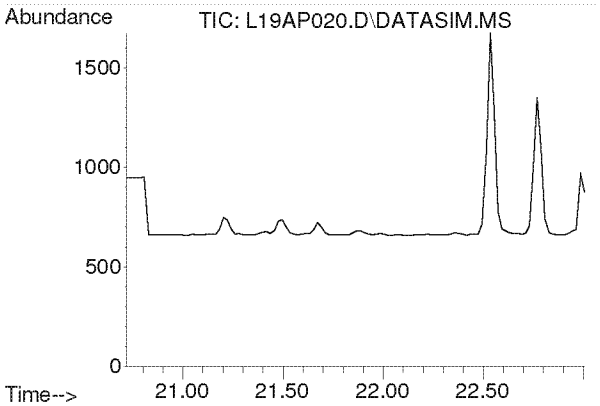
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.50 min

Lab File: L19AP020.D
Acq: 17 Jan 2019 8:06 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.8
100	4.2



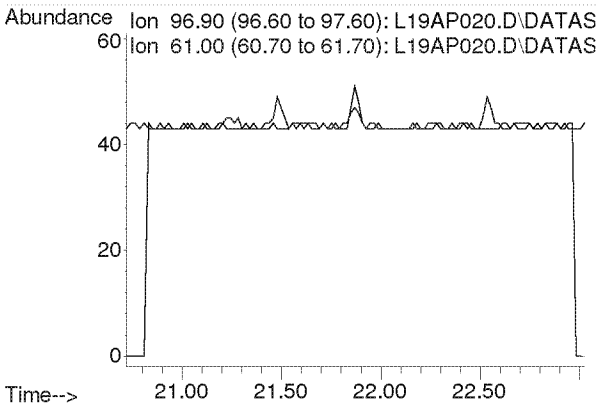


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

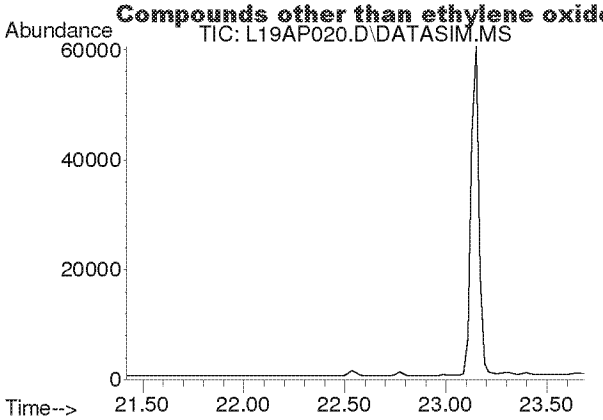
Lab File: L19AP020.D
Acq: 17 Jan 2019 8:06 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	58.6



Compounds other than ethylene oxide were not quantitated.

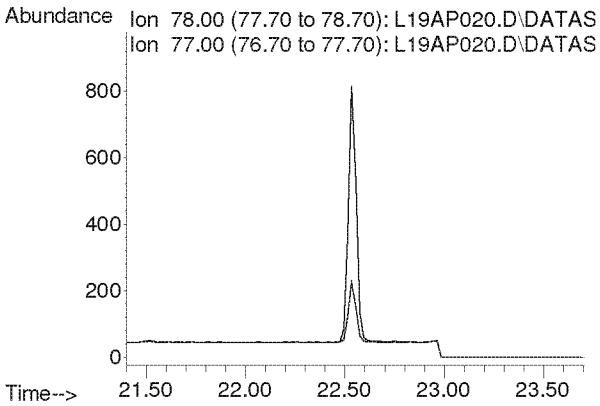


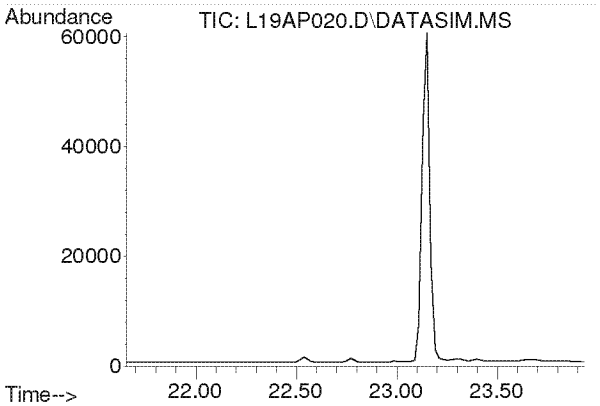
#31
Benzene
Concen: N.D.
Expected RT: 22.55 min

Lab File: L19AP020.D
Acq: 17 Jan 2019 8:06 am

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.9



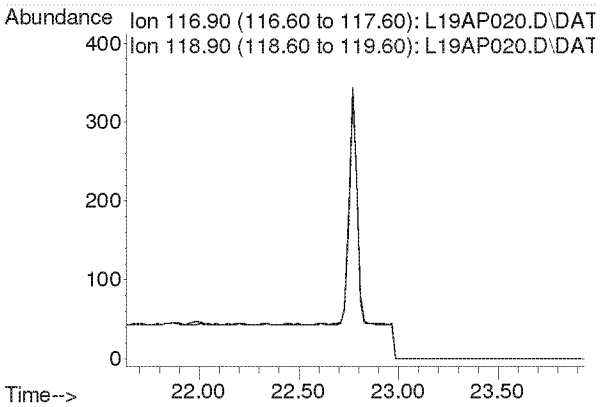


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.79 min

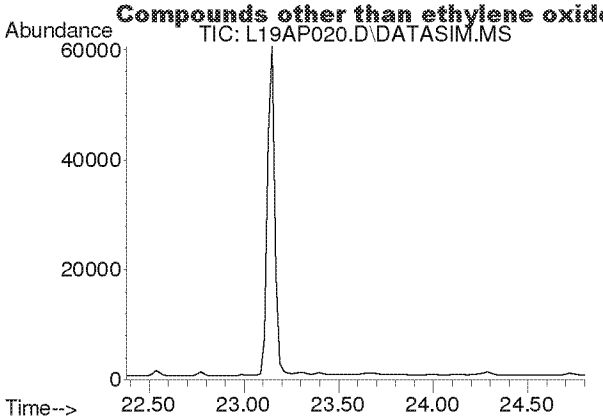
Lab File: L19AP020.D
Acq: 17 Jan 2019 8:06 am

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.5



Compounds other than ethylene oxide were not quantitated.

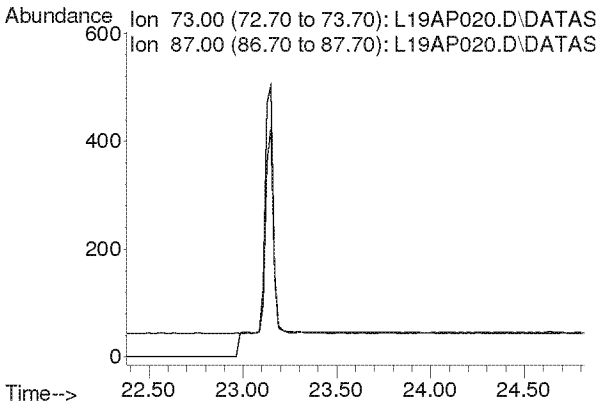


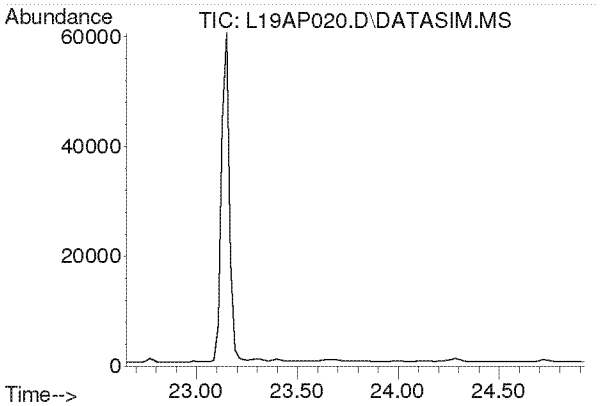
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19AP020.D
Acq: 17 Jan 2019 8:06 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	24.8



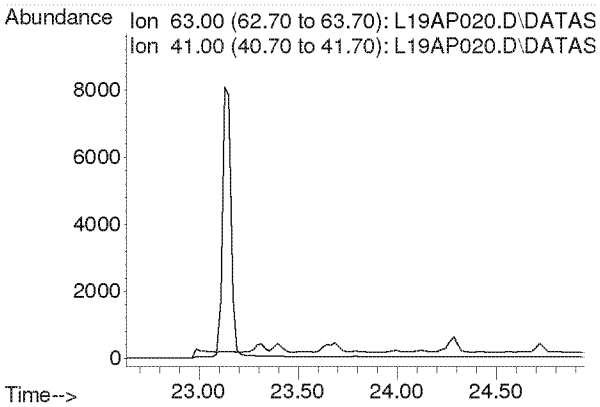


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

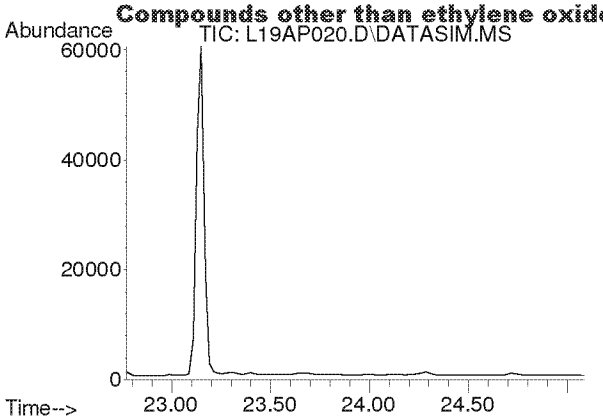
Lab File: L19AP020.D
Acq: 17 Jan 2019 8:06 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	196.0



Compounds other than ethylene oxide were not quantitated.

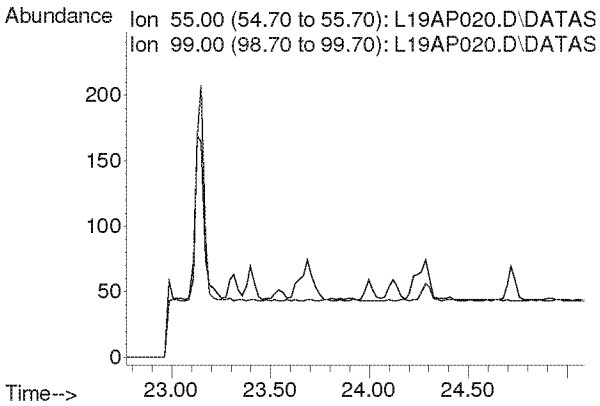


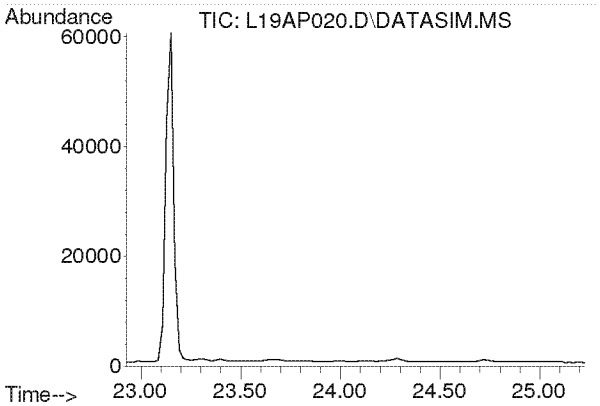
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19AP020.D
Acq: 17 Jan 2019 8:06 am

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.0



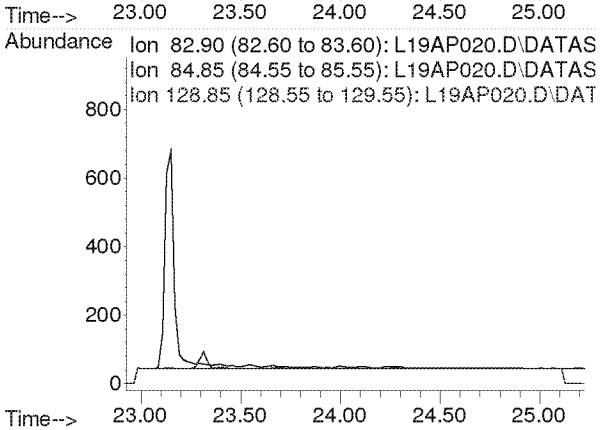


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

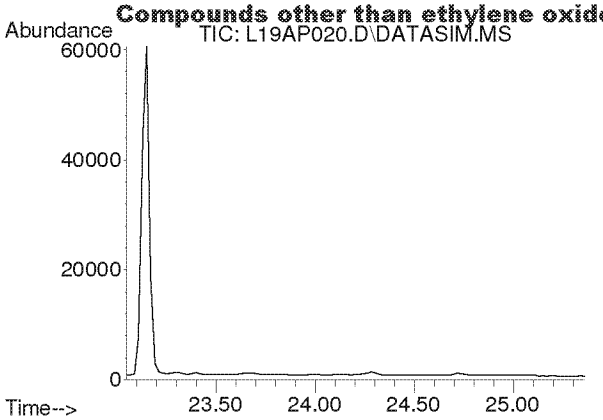
Lab File: L19AP020.D
Acq: 17 Jan 2019 8:06 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.9
129	12.5



Compounds other than ethylene oxide were not quantitated.

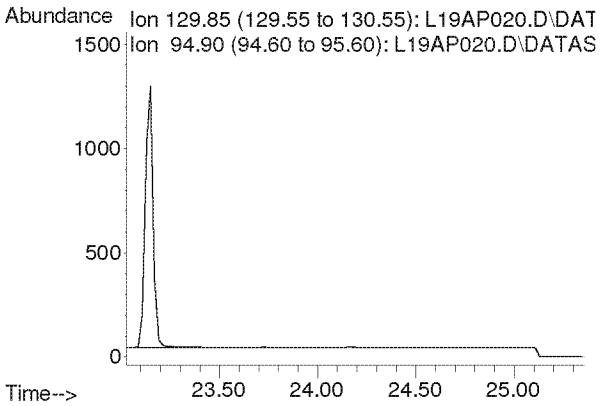


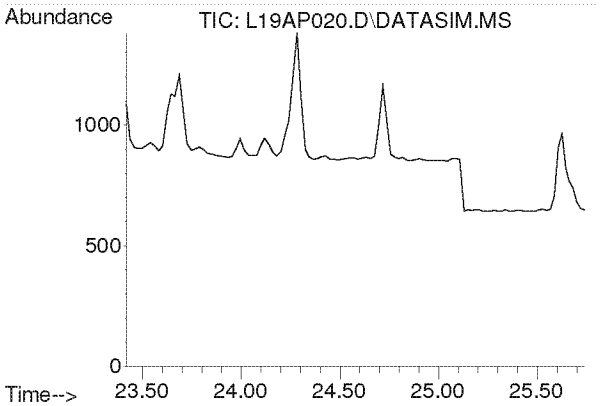
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19AP020.D
Acq: 17 Jan 2019 8:06 am

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	108.6



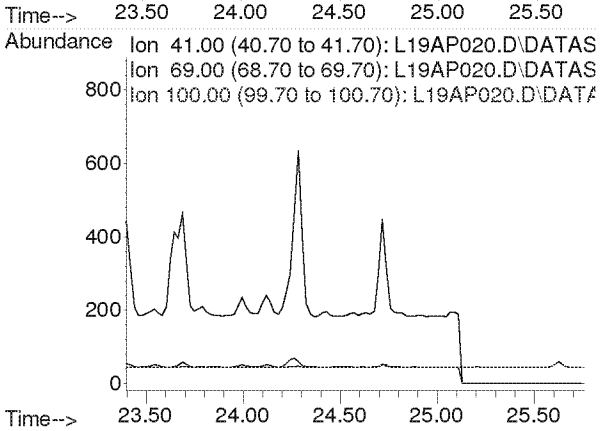


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.55 min

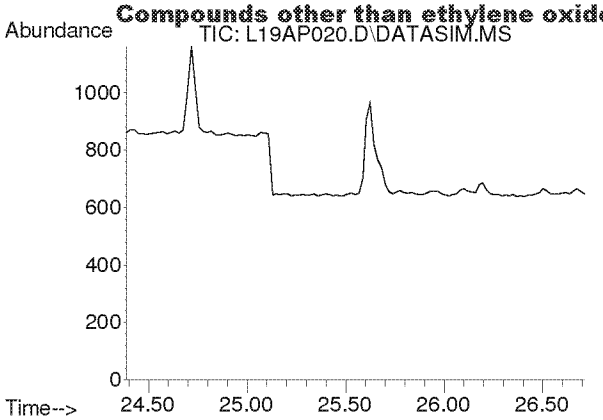
Lab File: L19AP020.D
Acq: 17 Jan 2019 8:06 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	20.7
100	5.3



Compounds other than ethylene oxide were not quantitated.

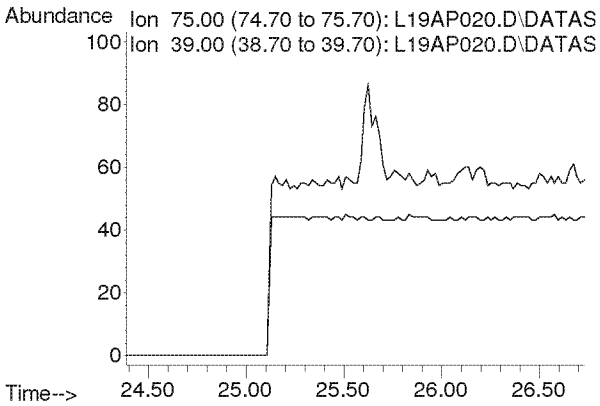


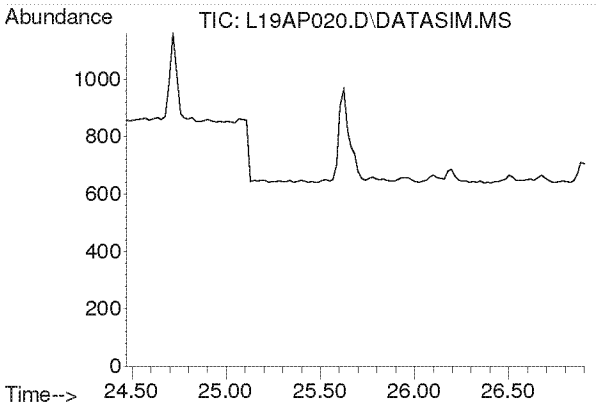
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19AP020.D
Acq: 17 Jan 2019 8:06 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	48.3



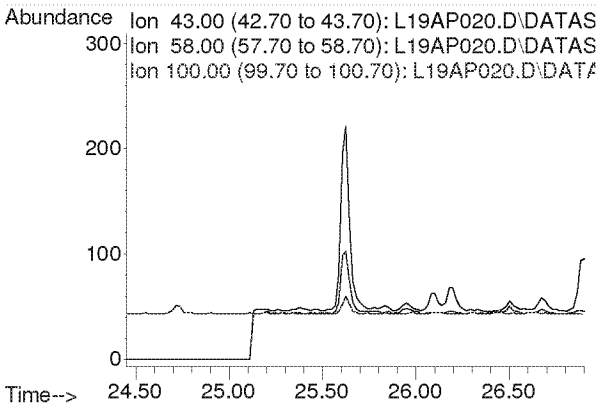


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

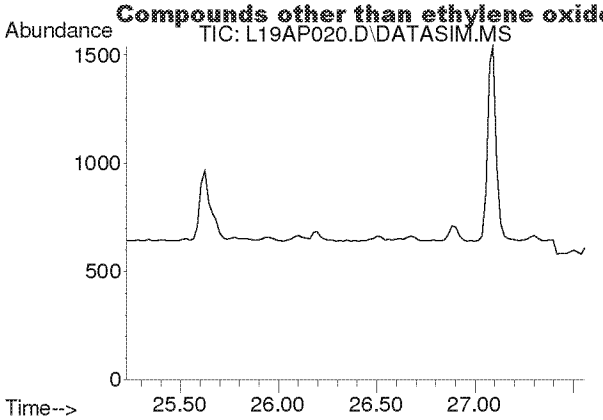
Lab File: L19AP020.D
Acq: 17 Jan 2019 8:06 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	34.5
100	8.1



Compounds other than ethylene oxide were not quantitated.

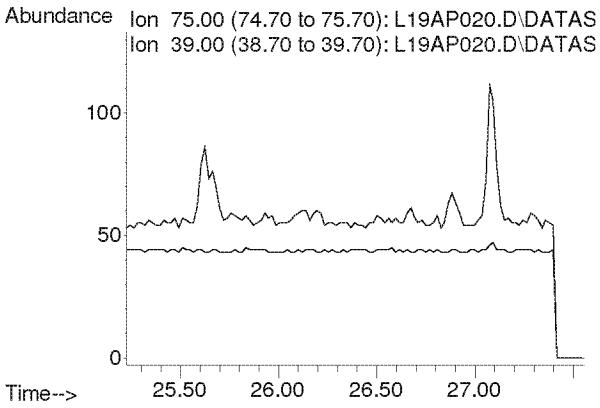


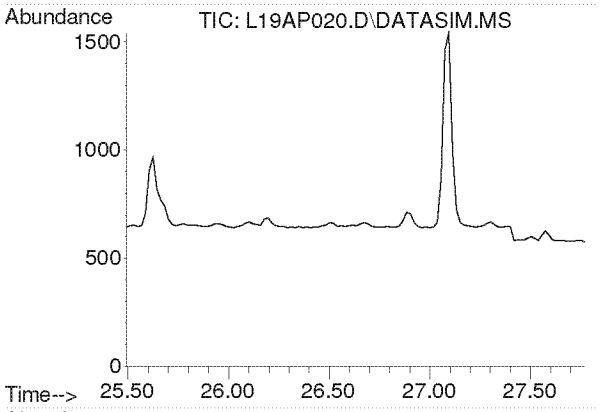
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19AP020.D
Acq: 17 Jan 2019 8:06 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	48.8



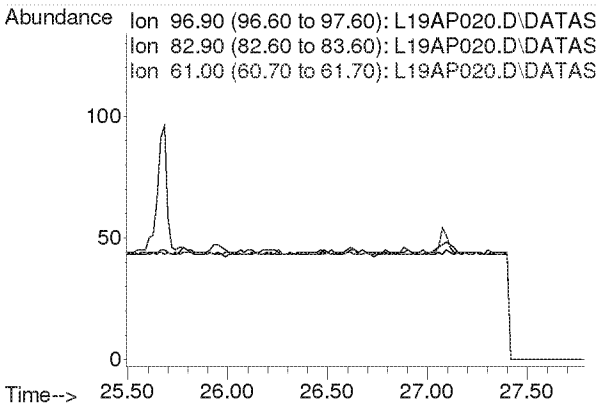


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.63 min

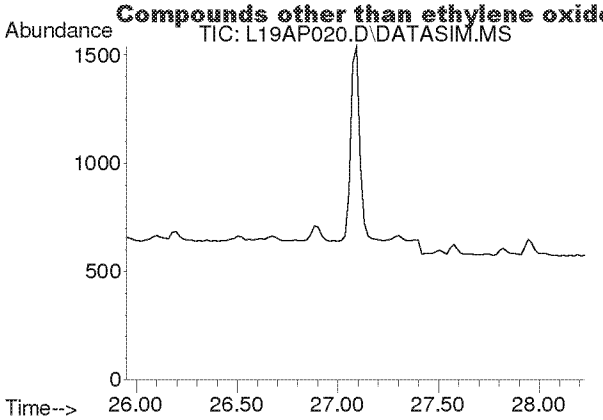
Lab File: L19AP020.D
Acq: 17 Jan 2019 8:06 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	96.6
61	61.4



Compounds other than ethylene oxide were not quantitated.

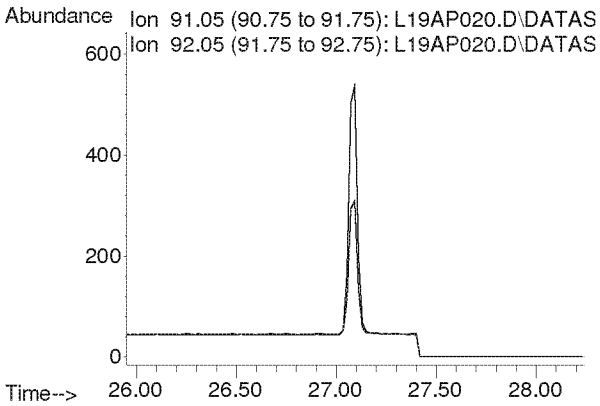


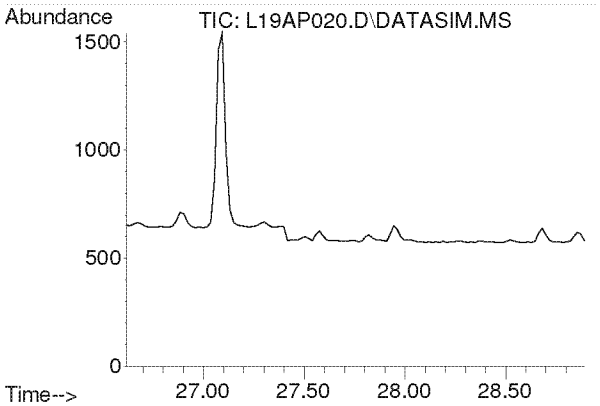
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19AP020.D
Acq: 17 Jan 2019 8:06 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



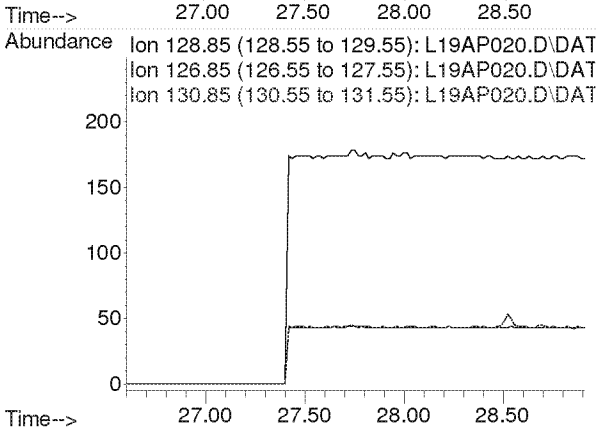


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

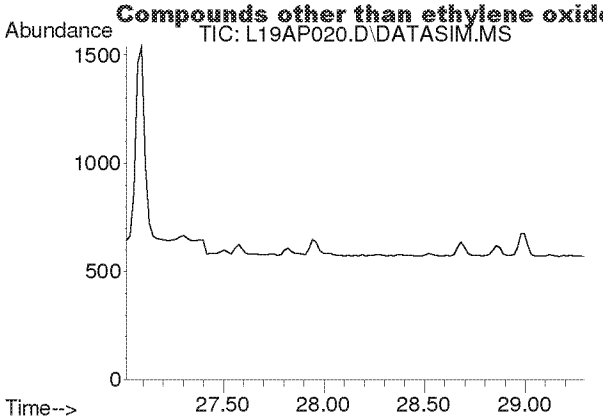
Lab File: L19AP020.D
Acq: 17 Jan 2019 8:06 am

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.2
131	6.0



Compounds other than ethylene oxide were not quantitated.

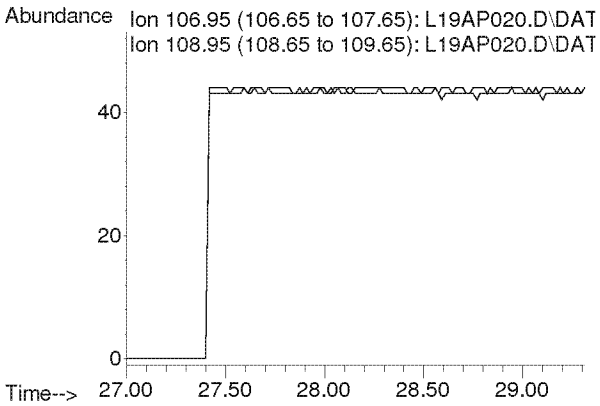


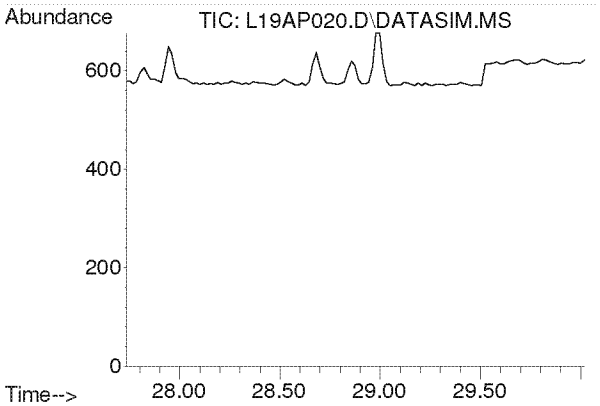
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19AP020.D
Acq: 17 Jan 2019 8:06 am

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.3



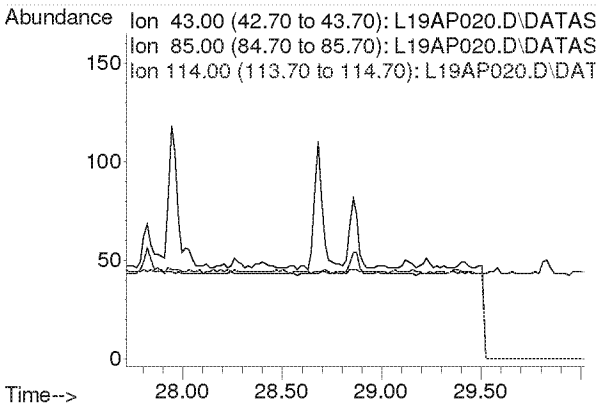


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

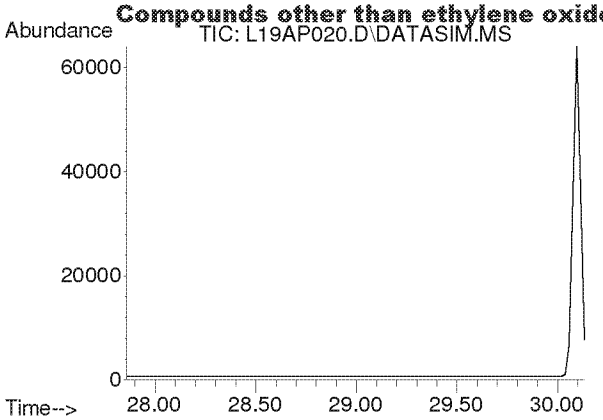
Lab File: L19AP020.D
Acq: 17 Jan 2019 8:06 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	36.6
114	2.3



Compounds other than ethylene oxide were not quantitated.

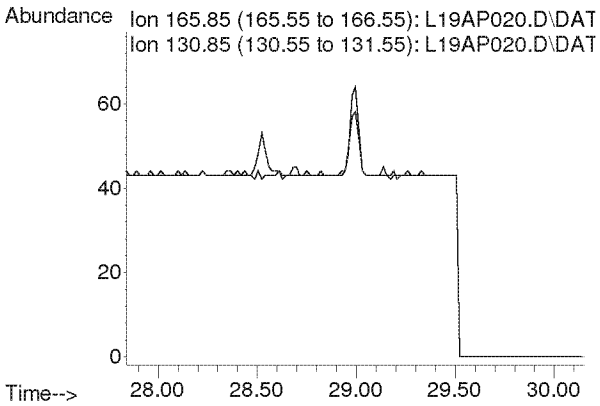


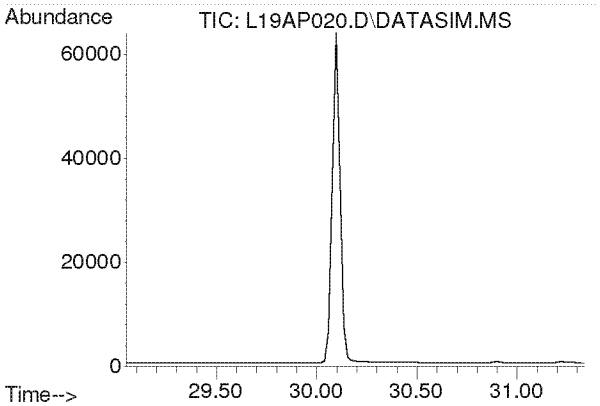
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19AP020.D
Acq: 17 Jan 2019 8:06 am

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	78.2



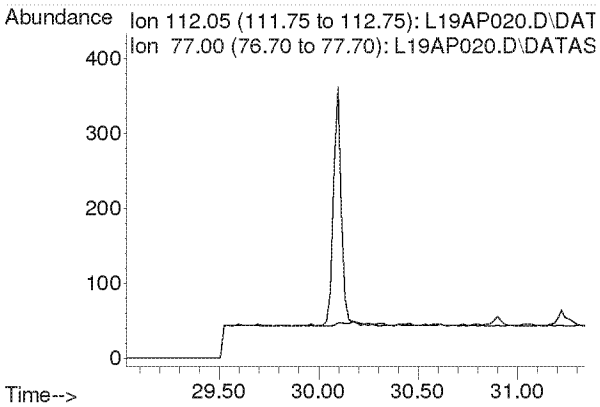


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

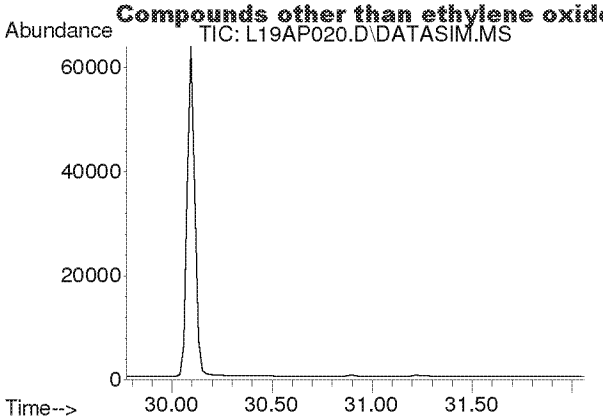
Lab File: L19AP020.D
Acq: 17 Jan 2019 8:06 am

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	61.2



Compounds other than ethylene oxide were not quantitated.

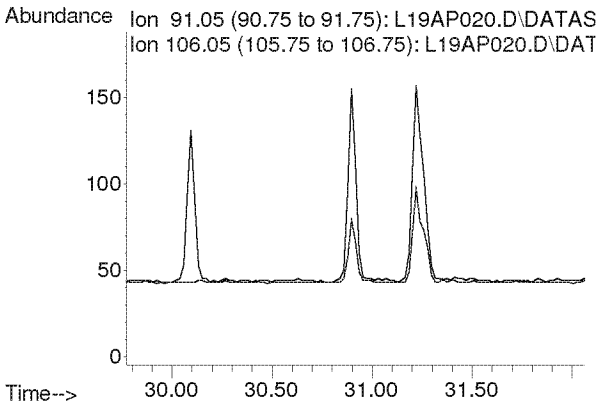


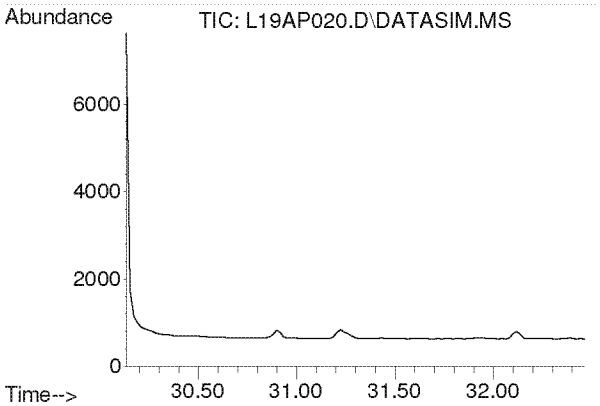
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19AP020.D
Acq: 17 Jan 2019 8:06 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	31.7



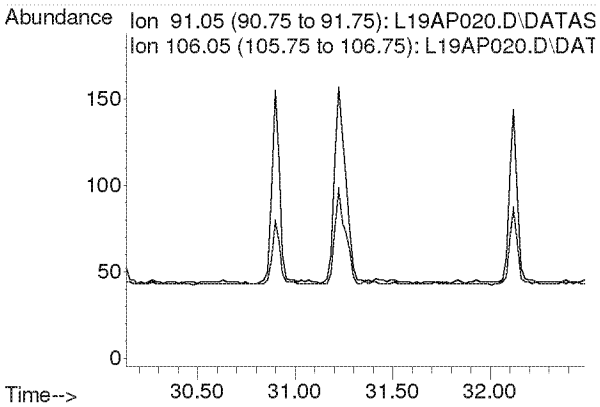


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

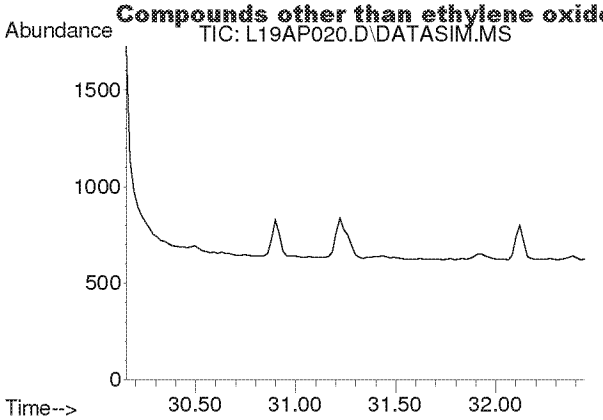
Lab File: L19AP020.D
Acq: 17 Jan 2019 8:06 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.6



Compounds other than ethylene oxide were not quantitated.

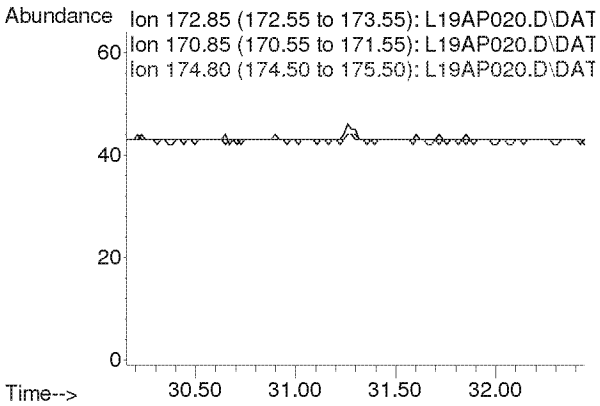


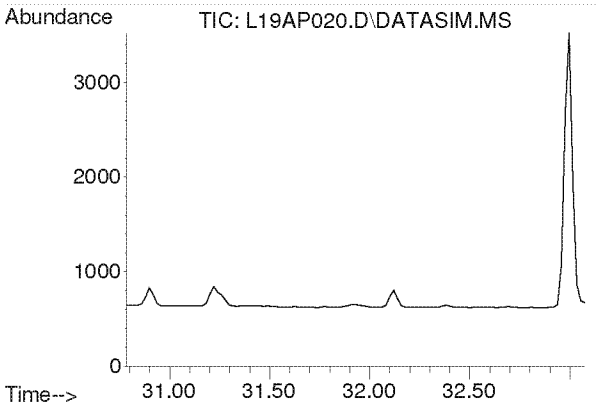
#52
Bromoform
Concen: N.D.
Expected RT: 31.30 min

Lab File: L19AP020.D
Acq: 17 Jan 2019 8:06 am

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.4
175	48.9



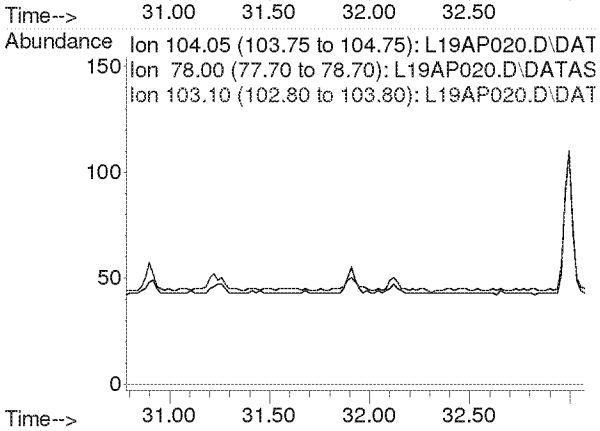


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

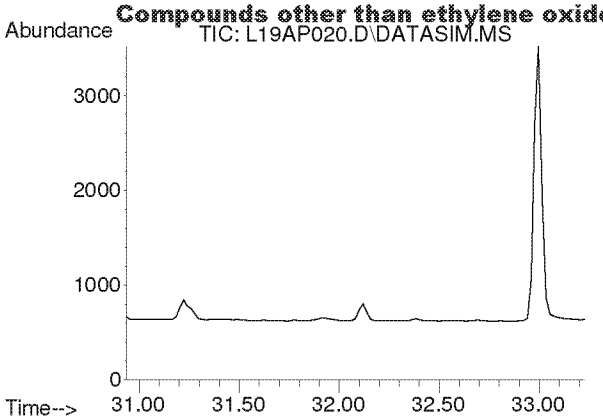
Lab File: L19AP020.D
Acq: 17 Jan 2019 8:06 am

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	45.8
103	0.0



Compounds other than ethylene oxide were not quantitated.

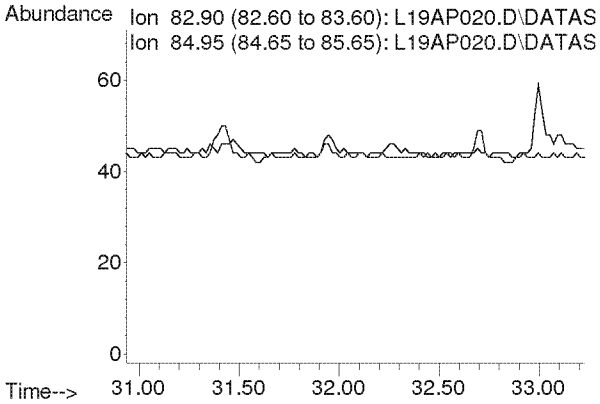


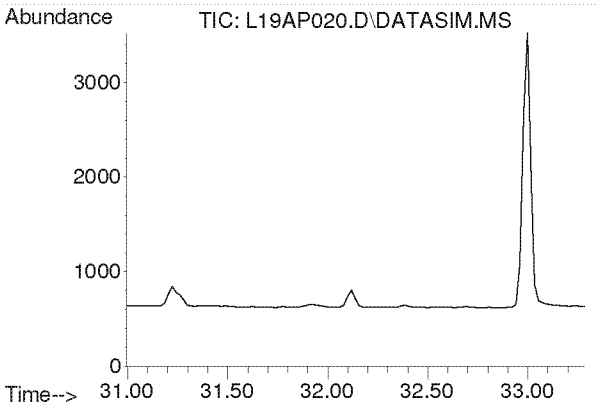
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19AP020.D
Acq: 17 Jan 2019 8:06 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.0



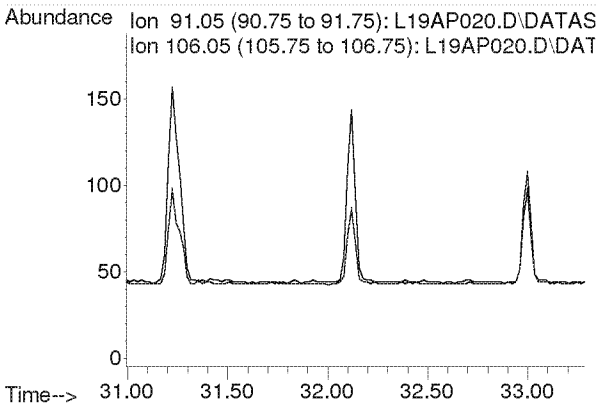


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

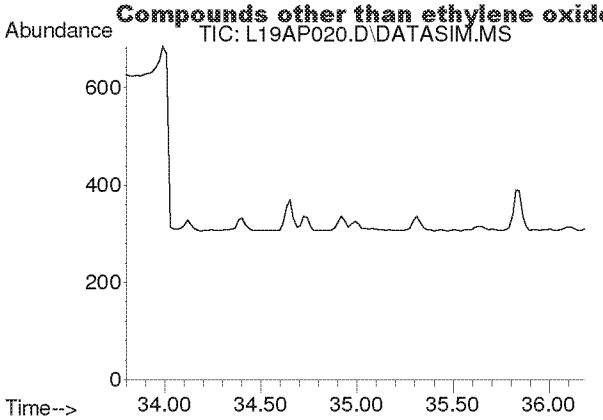
Lab File: L19AP020.D
Acq: 17 Jan 2019 8:06 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.8



Compounds other than ethylene oxide were not quantitated.

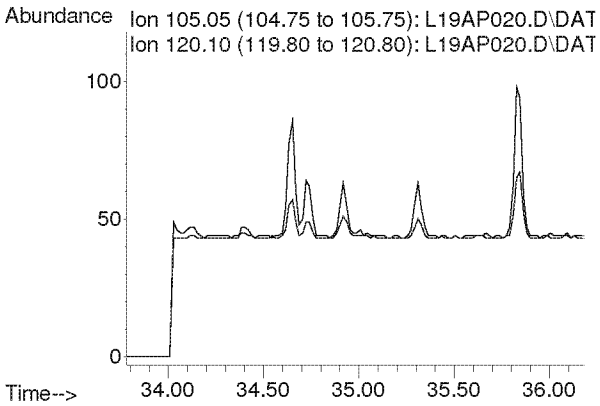


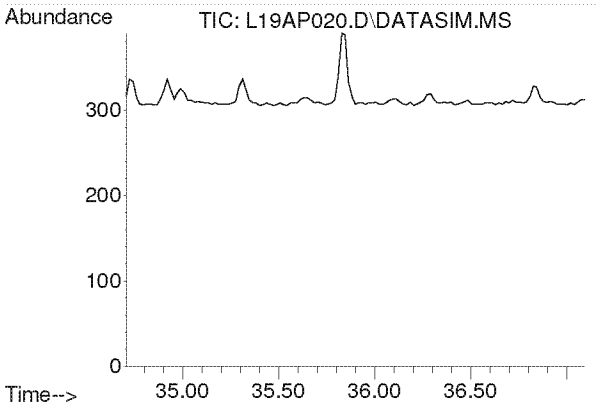
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19AP020.D
Acq: 17 Jan 2019 8:06 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	45.0



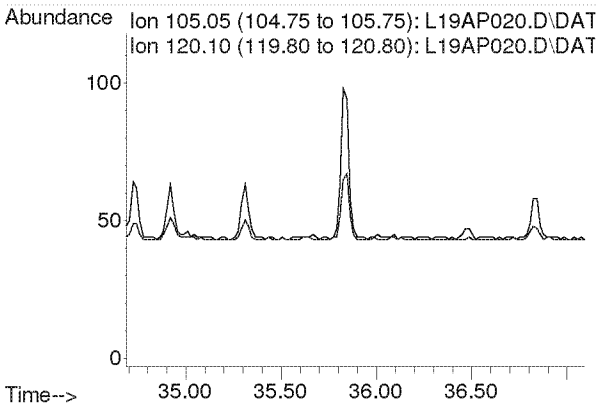


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

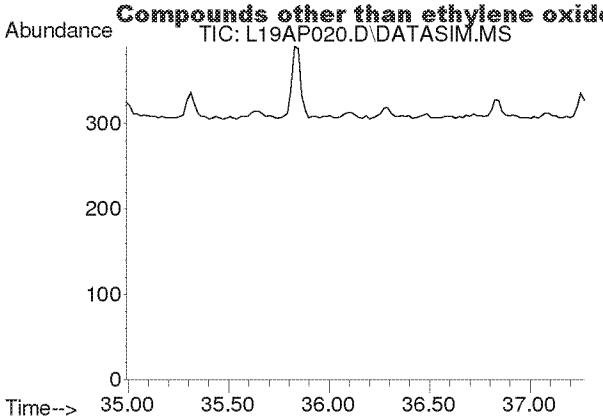
Lab File: L19AP020.D
Acq: 17 Jan 2019 8:06 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	42.9



Compounds other than ethylene oxide were not quantitated.

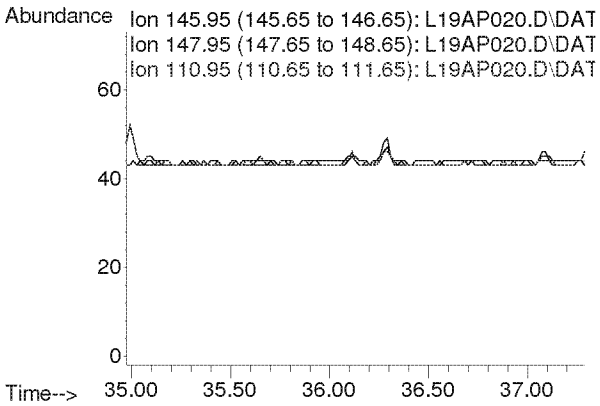


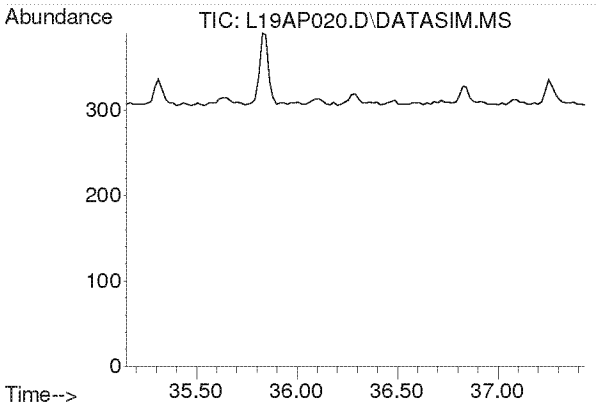
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19AP020.D
Acq: 17 Jan 2019 8:06 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.5



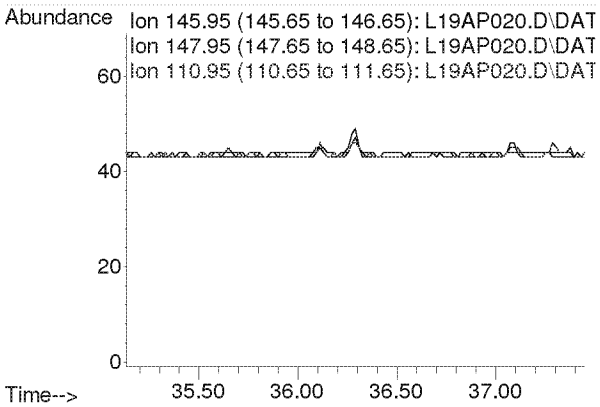


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

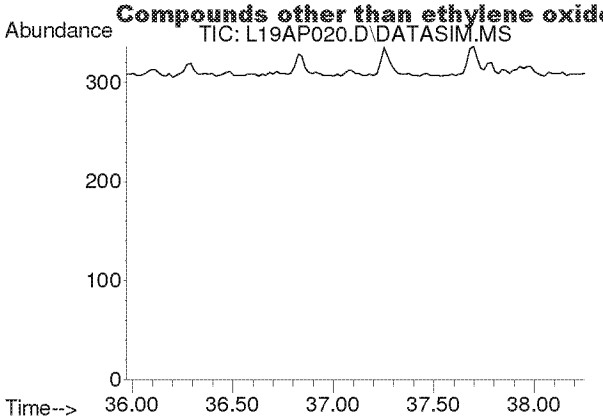
Lab File: L19AP020.D
Acq: 17 Jan 2019 8:06 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	63.9
111	39.3



Compounds other than ethylene oxide were not quantitated.

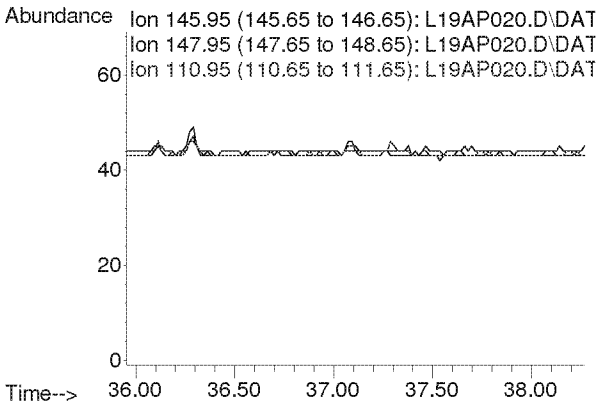


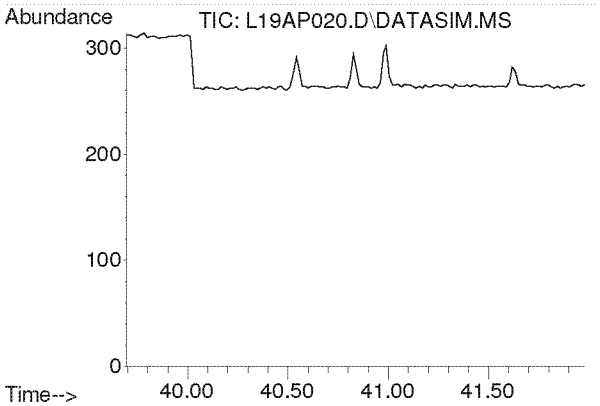
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19AP020.D
Acq: 17 Jan 2019 8:06 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.7



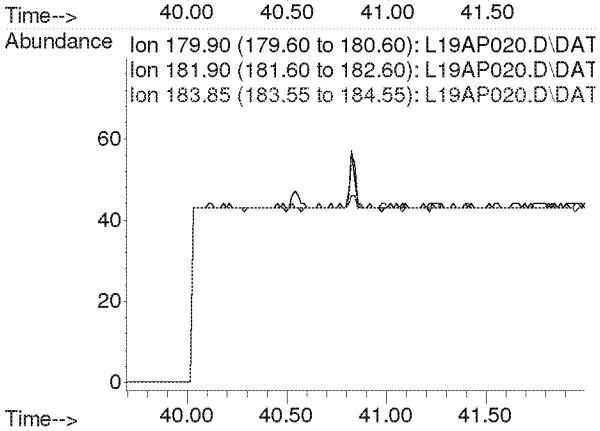


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

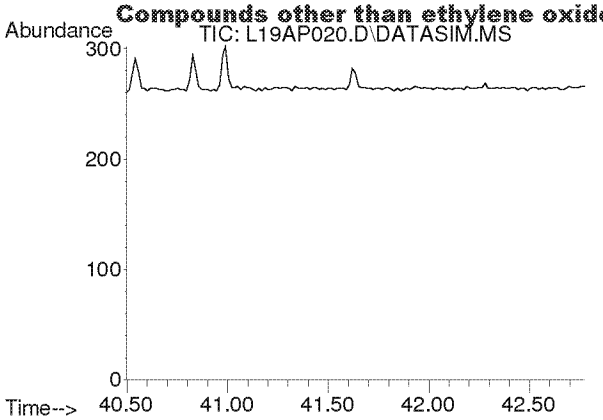
Lab File: L19AP020.D
Acq: 17 Jan 2019 8:06 am

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	95.0
184	30.5



Compounds other than ethylene oxide were not quantitated.

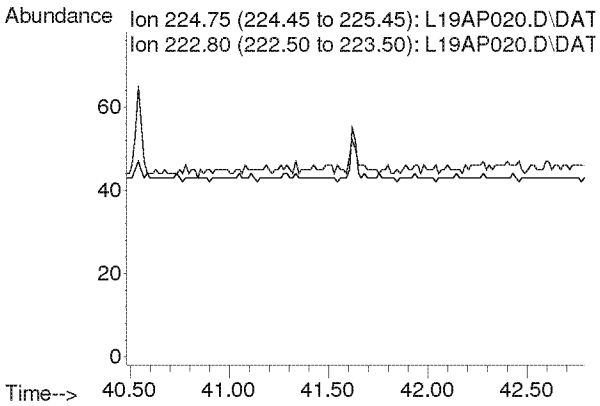


#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.63 min

Lab File: L19AP020.D
Acq: 17 Jan 2019 8:06 am

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.4



Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19AP\
Data File : L19AP021.D
Acq On : 17 Jan 2019 9:06 am
Operator : MAH
Sample : 9010808-08
Misc : GOWER ES 1/7/19
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Jan 23 07:14:55 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) IS-Hexane-d14	19.993	66	52928	4.7700	ppbv	0.00
29) IS-1,4-Difluorobenzene	23.151	114	131669	4.9900	ppbv	0.00
43) IS-Chlorobenzene-d5	30.097	117	103678	4.7400	ppbv	-0.02

System Monitoring Compounds

Target Compounds						Qvalue
2) Acetylene	0.000	26	0	N.D.	d	
3) Propylene	0.000	41	0	N.D.	d	
4) Dichlorodifluoromethane	0.000	85	0	N.D.	d	
5) Chloromethane	0.000	50	0	N.D.	d	
6) Dichlorotetrafluoroethane	0.000	85	0	N.D.	d	
7) Vinyl Chloride	0.000	62	0	N.D.		
8) 1,3-Butadiene	0.000	54	0	N.D.	d	
9) Ethylene oxide	12.455	29	377m	0.1379	ppbv	
10) Bromomethane	0.000	94	0	N.D.	d	
11) Chloroethane	0.000	64	0	N.D.		
12) Acetonitrile	0.000	41	0	N.D.	d	
13) Acrolein	0.000	56	0	N.D.	d	
14) Trichlorofluoromethane	0.000	101	0	N.D.	d	
15) Acrylonitrile	0.000	53	0	N.D.	d	
16) 1,1-Dichloroethene	0.000	61	0	N.D.		
17) Methylene Chloride	0.000	49	0	N.D.	d	
18) Carbon Disulfide	0.000	76	0	N.D.	d	
19) Trichlorotrifluoroethane	0.000	101	0	N.D.	d	
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.		
21) 1,1-Dichloroethane	0.000	63	0	N.D.		
22) Methyl tert-Butyl Ether	0.000	73	0	N.D.	d	
23) Chloroprene	0.000	53	0	N.D.	d	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D.	d	
25) Bromochloromethane	0.000	128	0	N.D.		
26) Chloroform	0.000	83	0	N.D.	d	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D.		
28) 1,2-Dichloroethane	0.000	62	0	N.D.	d	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D.		
31) Benzene	0.000	78	0	N.D.	d	
32) Carbon Tetrachloride	0.000	117	0	N.D.	d	
33) tert-Amyl Methyl Ether	0.000	73	0	N.D.		
34) 1,2-Dichloropropane	0.000	63	0	N.D.	d	
35) Ethyl Acrylate	0.000	55	0	N.D.	d	
36) Bromodichloromethane	0.000	83	0	N.D.		
37) Trichloroethylene	0.000	130	0	N.D.		
38) Methyl Methacrylate	0.000	41	0	N.D.		
39) cis-1,3-Dichloropropene	0.000	75	0	N.D.		
40) Methyl Isobutyl Ketone	0.000	43	0	N.D.	d	
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.		
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.		
44) Toluene	0.000	91	0	N.D.	d	
45) Dibromochloromethane	0.000	129	0	N.D.		
46) 1,2-Dibromoethane	0.000	107	0	N.D.		
47) n-Octane	0.000	43	0	N.D.	d	
48) Tetrachloroethylene	0.000	166	0	N.D.	d	
49) Chlorobenzene	0.000	112	0	N.D.		
50) Ethylbenzene	0.000	91	0	N.D.	d	

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19AP\
Data File : L19AP021.D
Acq On : 17 Jan 2019 9:06 am
Operator : MAH
Sample : 9010808-08
Misc : GOWER ES 1/7/19
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Jan 23 07:14:55 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D. d	
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D. d	
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D. d	
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D. d	
57) 1,2,4-Trimethylbenzene	0.000	105	0	N.D. d	
58) m-Dichlorobenzene	0.000	146	0	N.D.	
59) p-Dichlorobenzene	0.000	146	0	N.D.	
60) o-Dichlorobenzene	0.000	146	0	N.D.	
61) 1,2,4-Trichlorobenzene	0.000	180	0	N.D.	
62) Hexachloro-1,3-butadiene	0.000	225	0	N.D.	

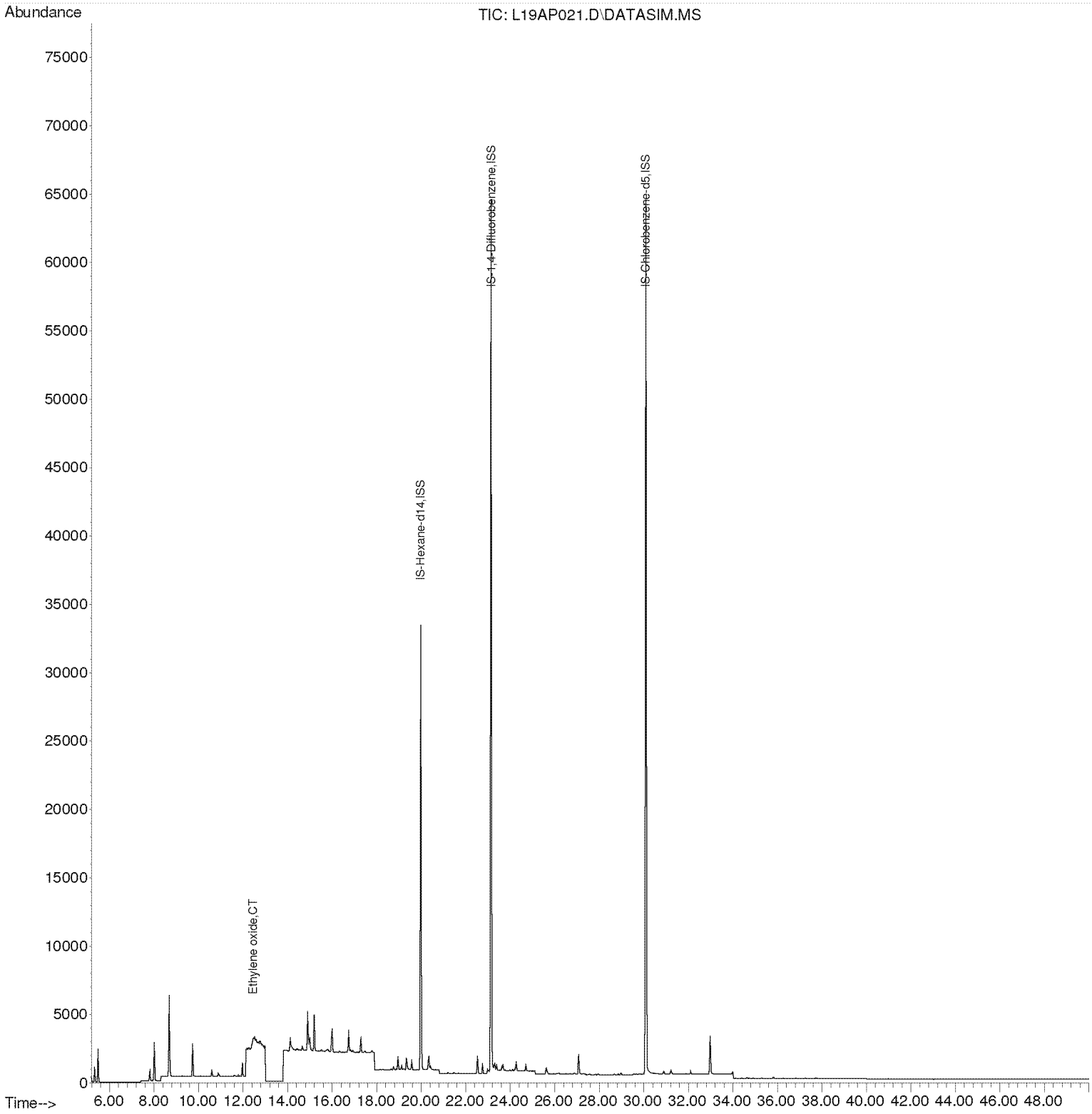
(#) = qualifier out of range (m) = manual integration (+) = signals summed

ED_002475_00000276-00349

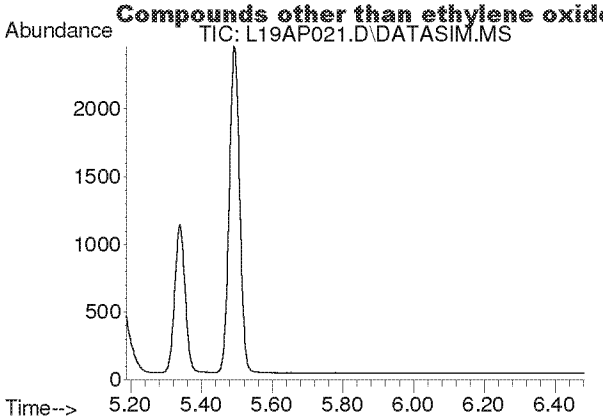
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L19AP\
Data File : L19AP021.D
Acq On : 17 Jan 2019 9:06 am
Operator : MAH
Sample : 9010808-08
Misc : GOWER ES 1/7/19
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Jan 23 06:44:26 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration



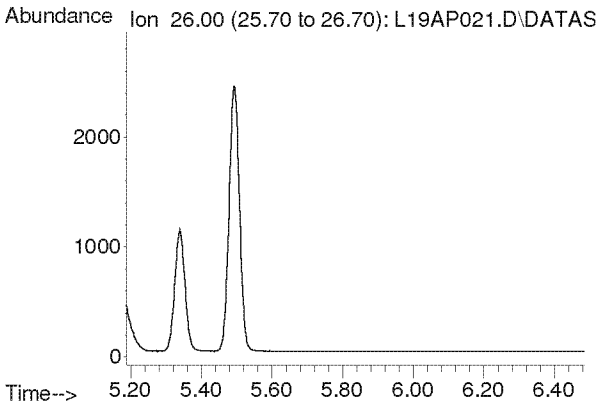
Compounds other than ethylene oxide were not quantitated.

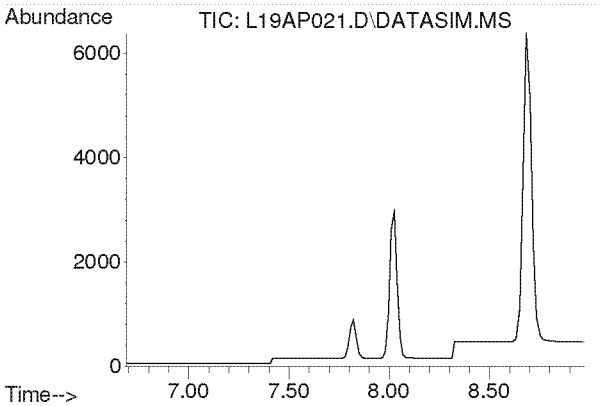


#2
Acetylene
Concen: N.D.
Expected RT: 5.42 min

Lab File: L19AP021.D
Acq: 17 Jan 2019 9:06 am

Tgt Ion: 26



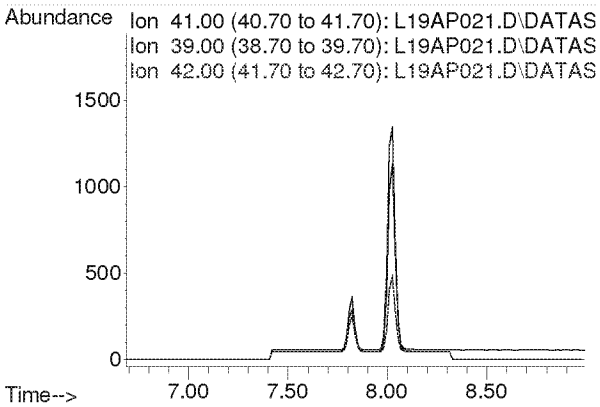


#3
Propylene
Concen: N.D.
Expected RT: 7.84 min

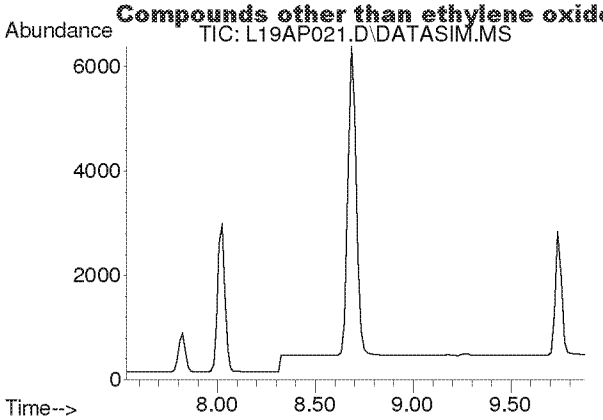
Lab File: L19AP021.D
Acq: 17 Jan 2019 9:06 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	77.0
42	65.8



Compounds other than ethylene oxide were not quantitated.

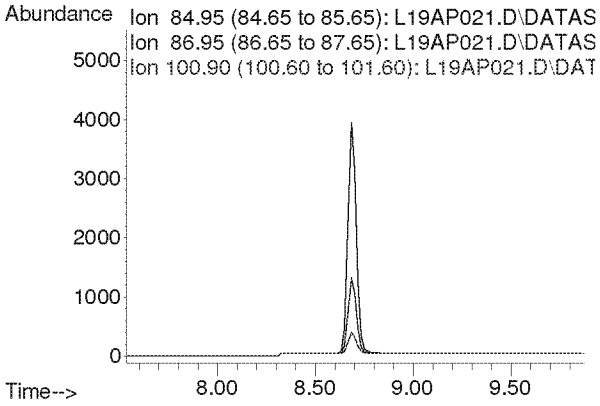


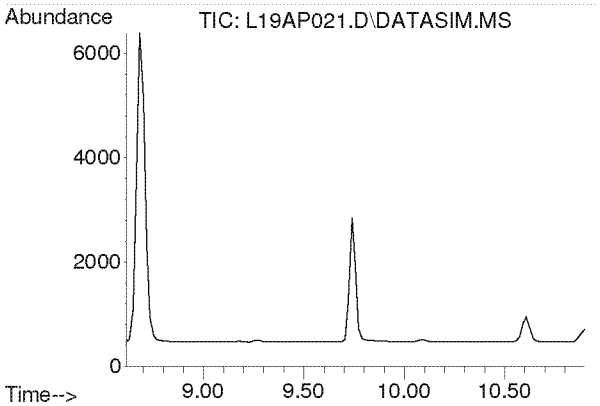
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19AP021.D
Acq: 17 Jan 2019 9:06 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	8.9



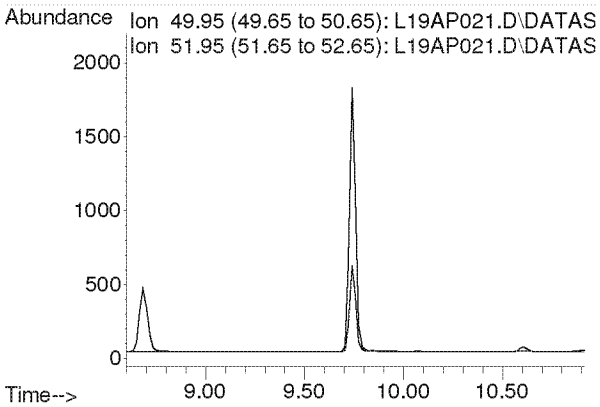


#5
Chloromethane
Concen: N.D.
Expected RT: 9.76 min

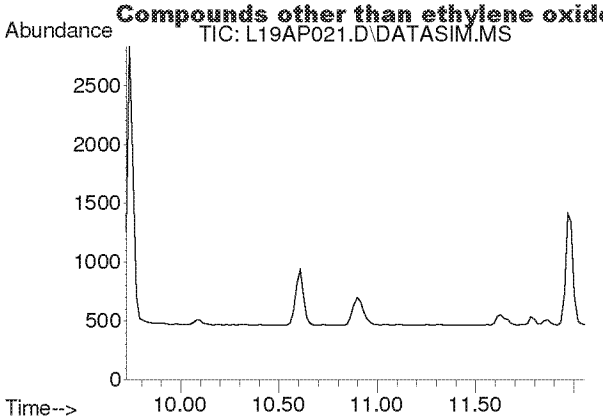
Lab File: L19AP021.D
Acq: 17 Jan 2019 9:06 am

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.4



Compounds other than ethylene oxide were not quantitated.

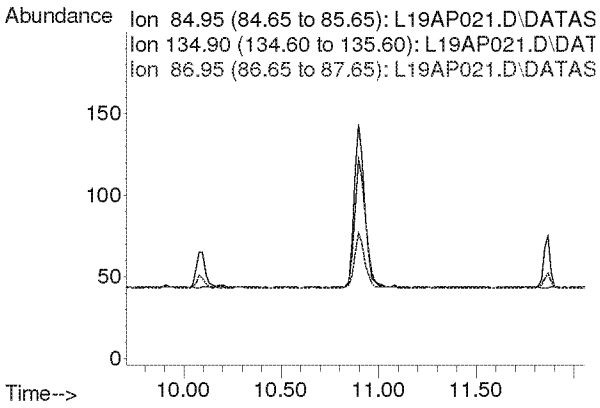


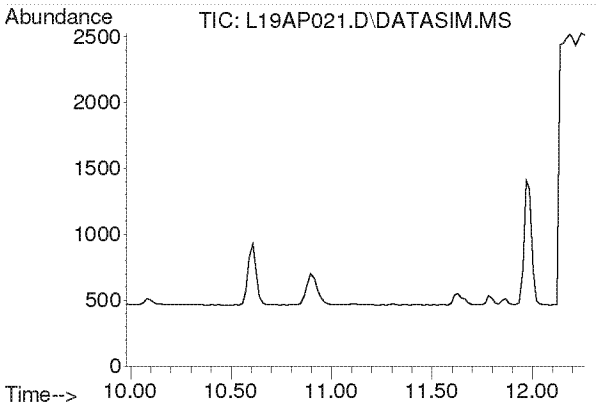
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19AP021.D
Acq: 17 Jan 2019 9:06 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.5
87	32.2



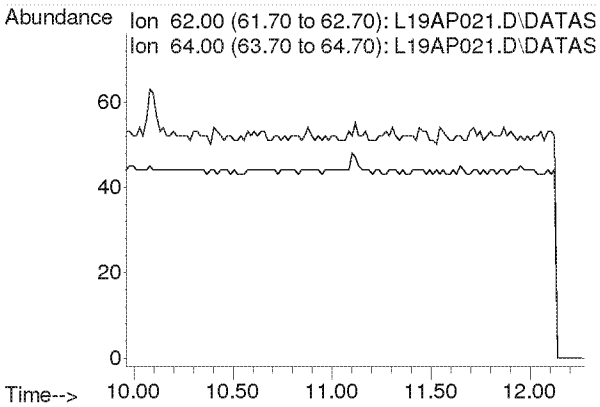


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

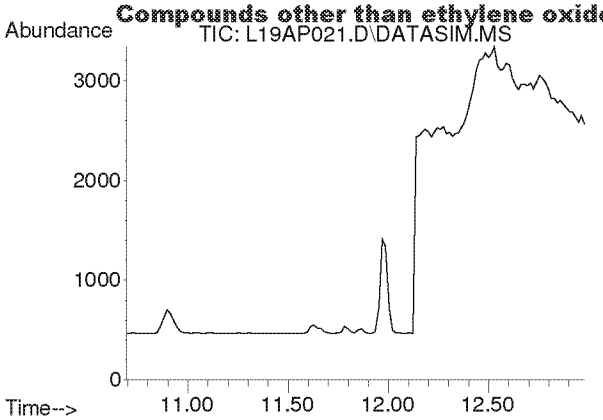
Lab File: L19AP021.D
Acq: 17 Jan 2019 9:06 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	32.1



Compounds other than ethylene oxide were not quantitated.

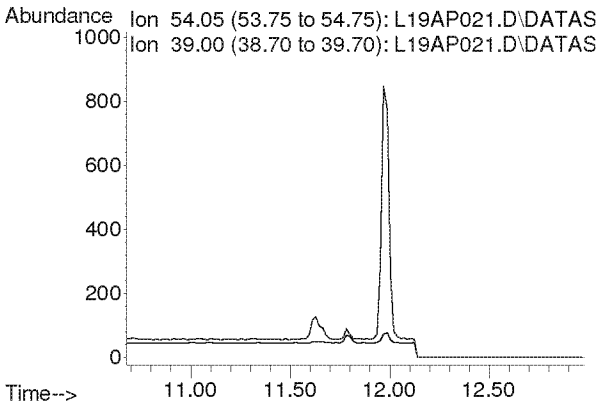


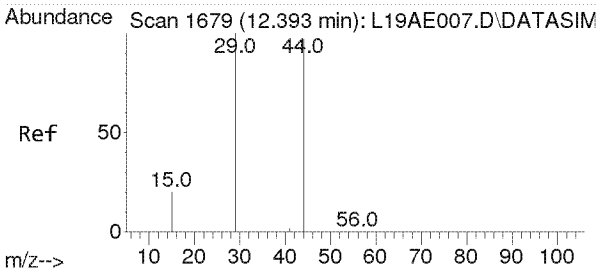
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19AP021.D
Acq: 17 Jan 2019 9:06 am

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	103.3

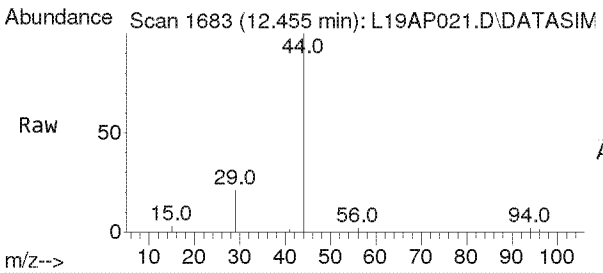


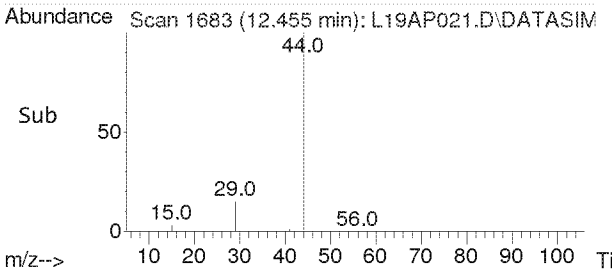


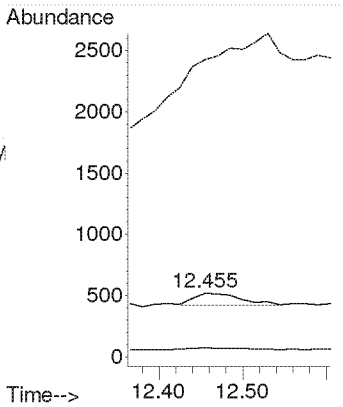
#9
Ethylene oxide
Concen: 0.138 ppbv m
RT: 12.455 min Scan# 1683
Delta R.T. 0.062 min
Lab File: L19AP021.D
Acq: 17 Jan 2019 9:06 am

Tgt Ion: 29 Resp: 377

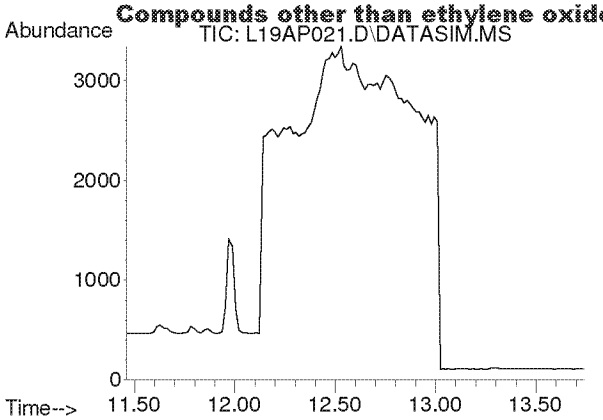
Ion	Ratio	Lower	Upper
29	100		
15	0.0	15.4	23.0#
44	0.0	77.4	116.2#







Compounds other than ethylene oxide were not quantitated.

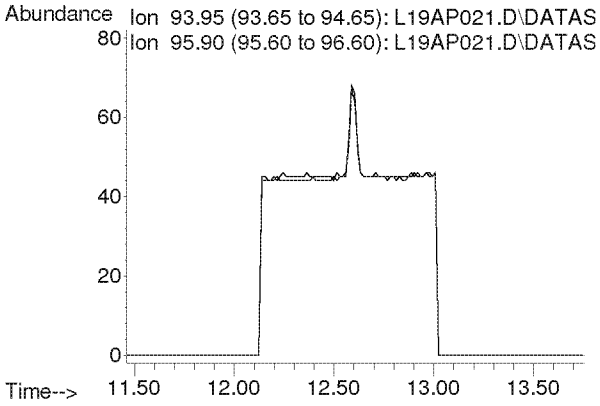


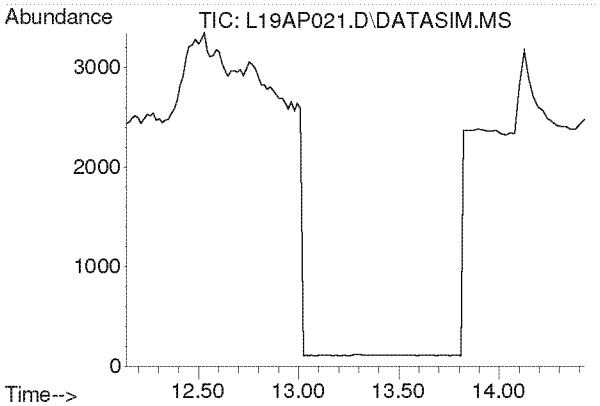
#10
Bromomethane
Concen: N.D.
Expected RT: 12.60 min

Lab File: L19AP021.D
Acq: 17 Jan 2019 9:06 am

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.3



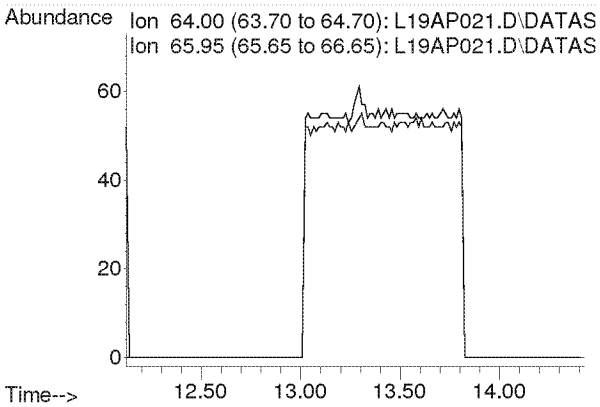


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

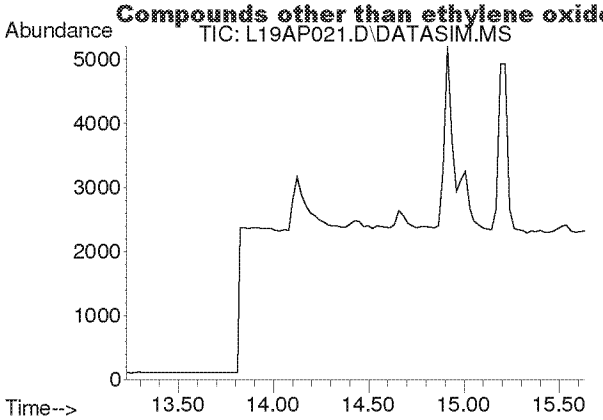
Lab File: L19AP021.D
Acq: 17 Jan 2019 9:06 am

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.4



Compounds other than ethylene oxide were not quantitated.

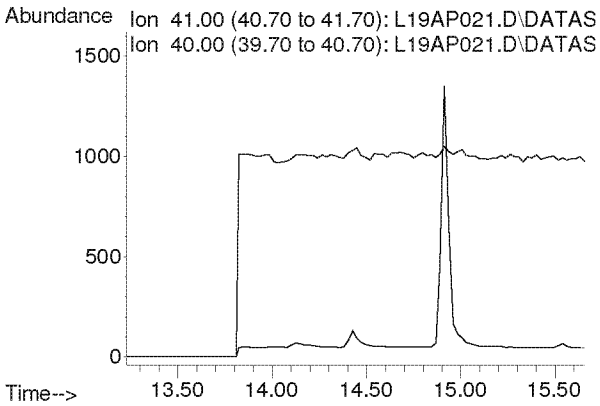


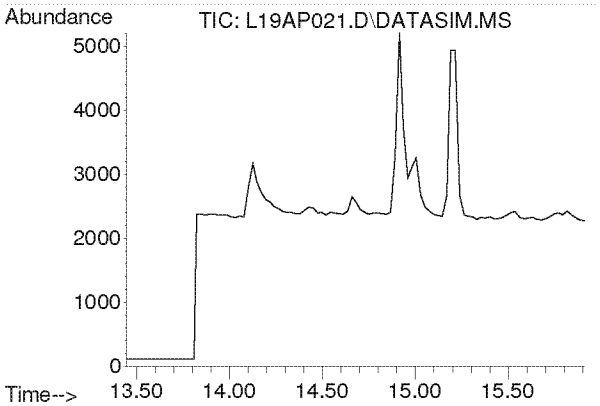
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19AP021.D
Acq: 17 Jan 2019 9:06 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	53.2



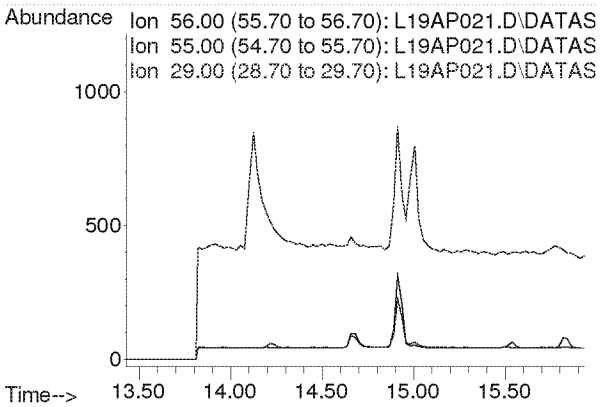


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

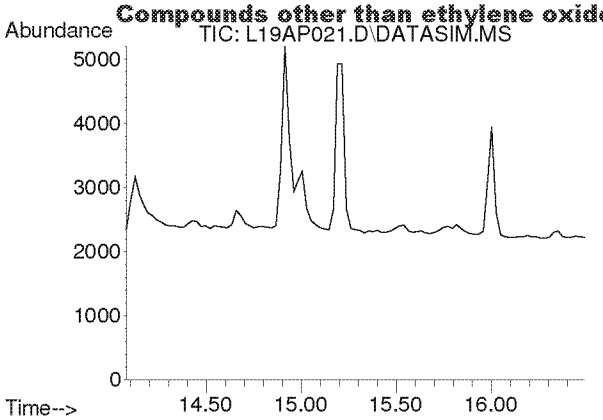
Lab File: L19AP021.D
Acq: 17 Jan 2019 9:06 am

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.5
29	44.9



Compounds other than ethylene oxide were not quantitated.

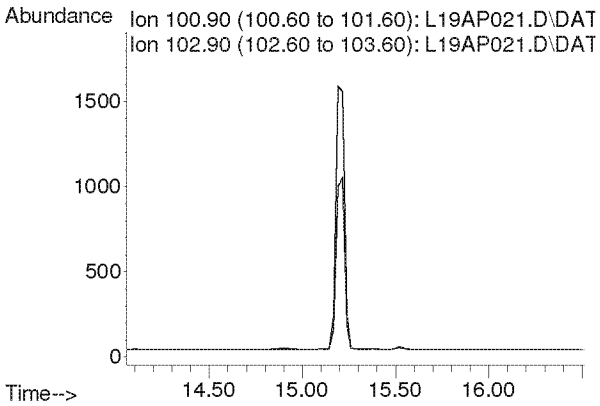


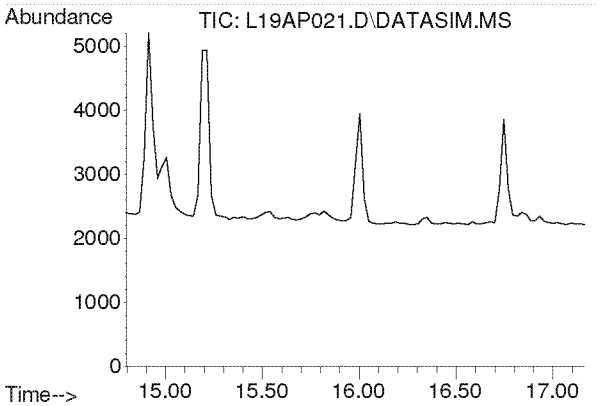
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.21 min

Lab File: L19AP021.D
Acq: 17 Jan 2019 9:06 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



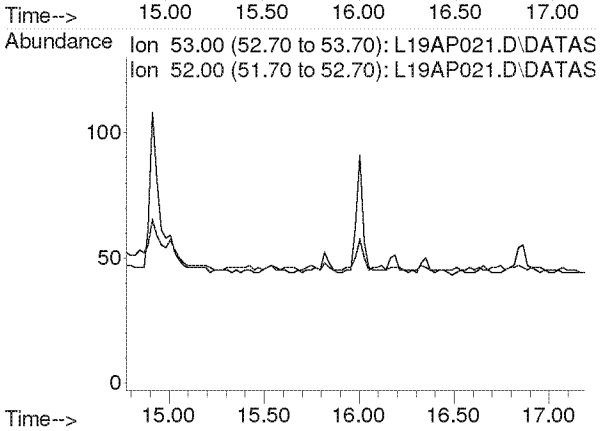


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

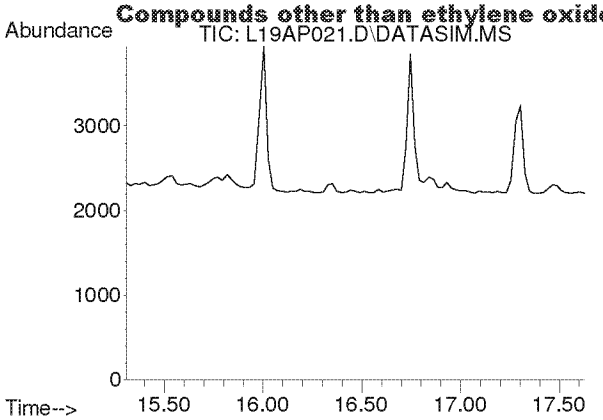
Lab File: L19AP021.D
Acq: 17 Jan 2019 9:06 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	84.7



Compounds other than ethylene oxide were not quantitated.

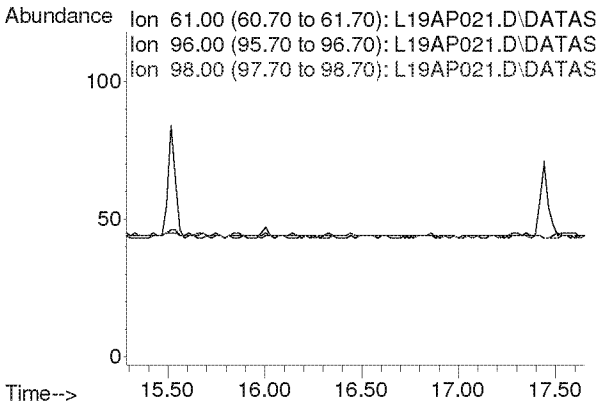


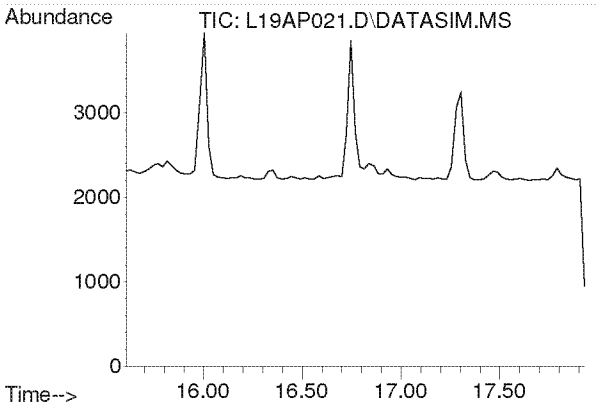
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.44 min

Lab File: L19AP021.D
Acq: 17 Jan 2019 9:06 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.5
98	38.1



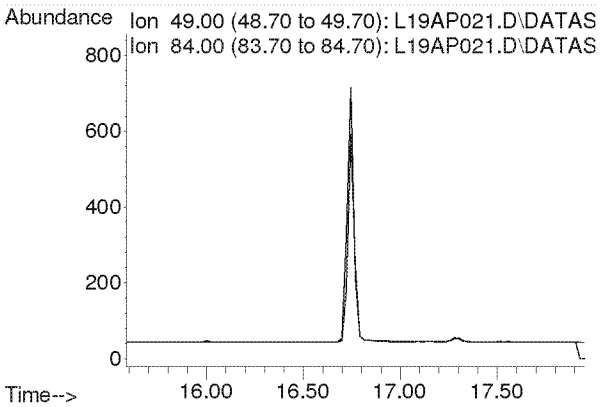


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

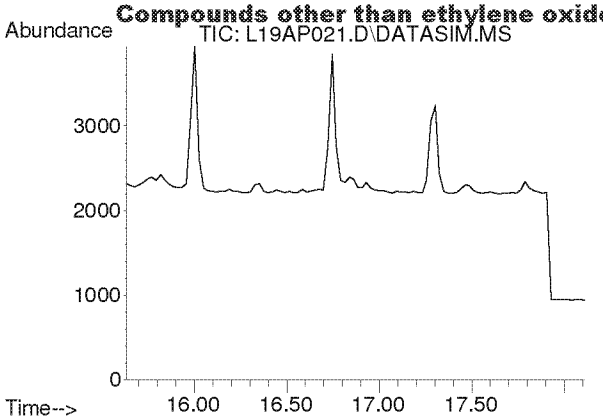
Lab File: L19AP021.D
Acq: 17 Jan 2019 9:06 am

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.3



Compounds other than ethylene oxide were not quantitated.

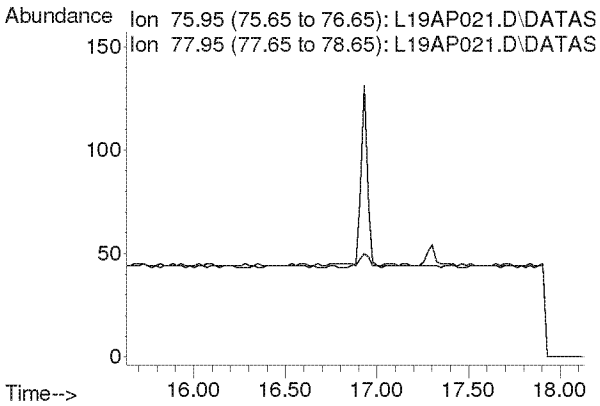


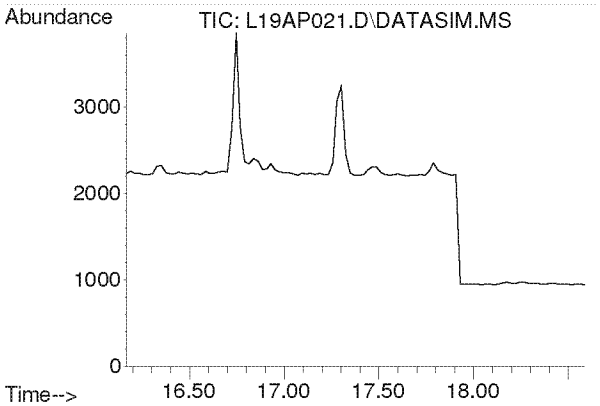
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19AP021.D
Acq: 17 Jan 2019 9:06 am

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.0



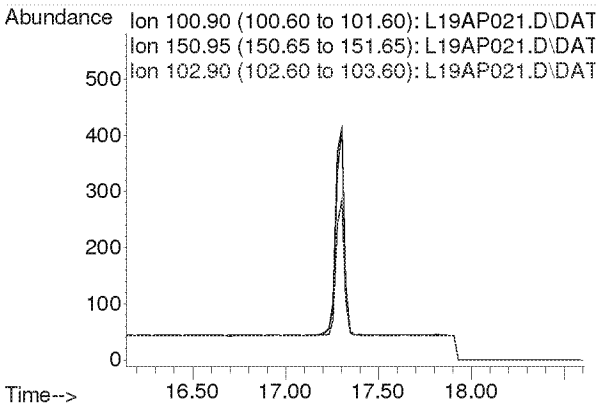


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.30 min

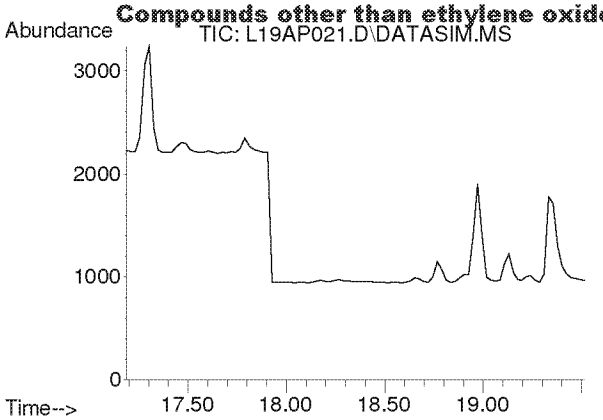
Lab File: L19AP021.D
Acq: 17 Jan 2019 9:06 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	95.4
103	63.9



Compounds other than ethylene oxide were not quantitated.

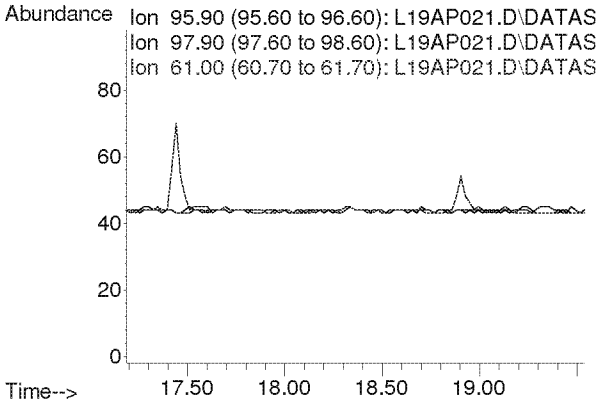


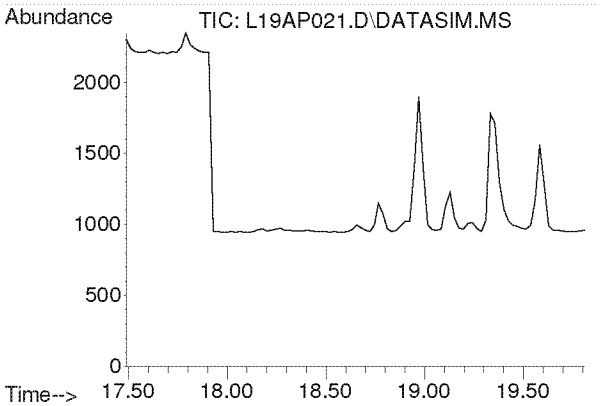
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19AP021.D
Acq: 17 Jan 2019 9:06 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	63.6
61	156.5



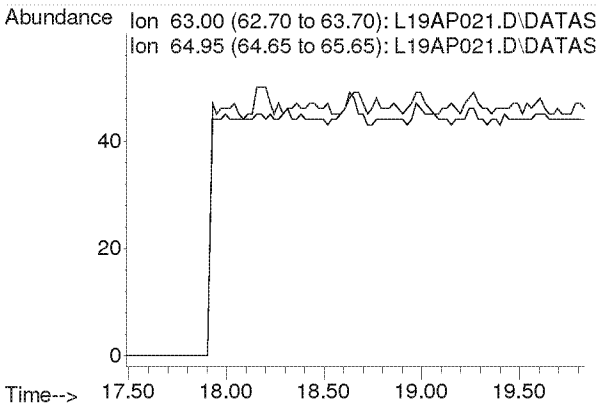


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

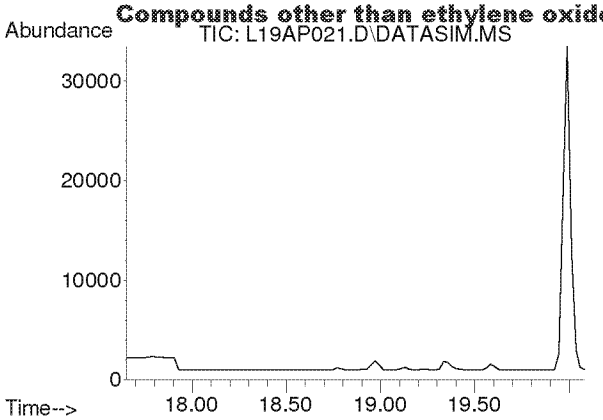
Lab File: L19AP021.D
Acq: 17 Jan 2019 9:06 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

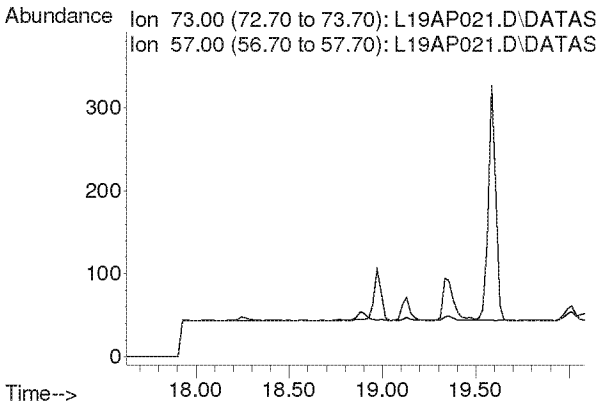


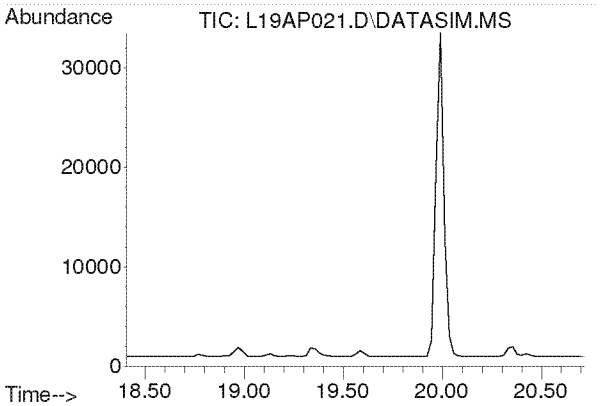
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19AP021.D
Acq: 17 Jan 2019 9:06 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.6



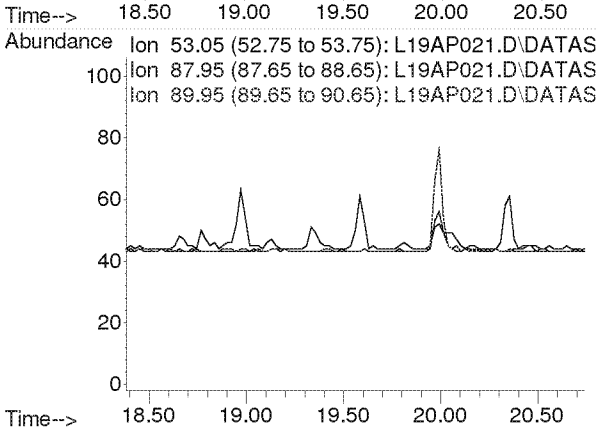


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

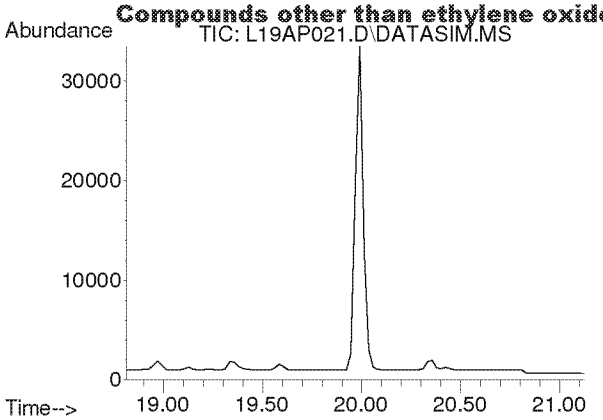
Lab File: L19AP021.D
Acq: 17 Jan 2019 9:06 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	54.0
90	17.3



Compounds other than ethylene oxide were not quantitated.

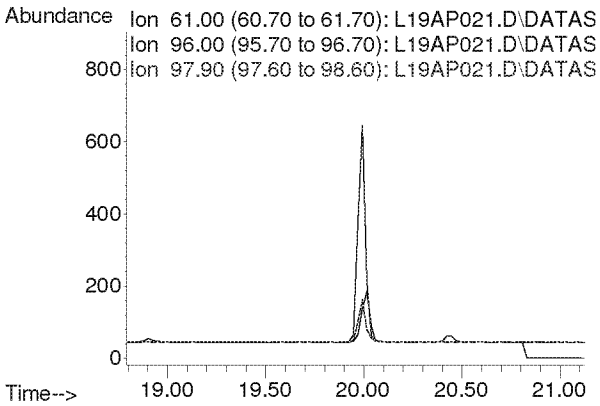


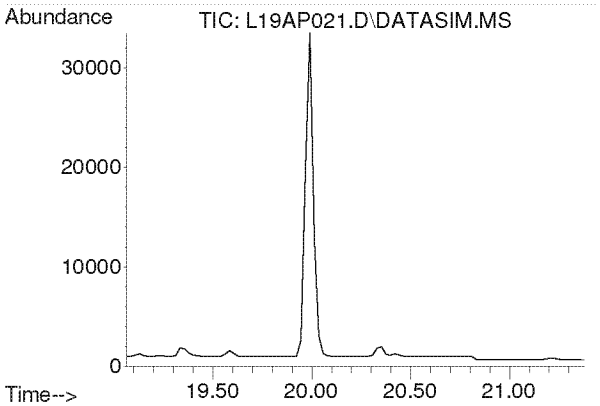
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19AP021.D
Acq: 17 Jan 2019 9:06 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	75.7
98	46.4



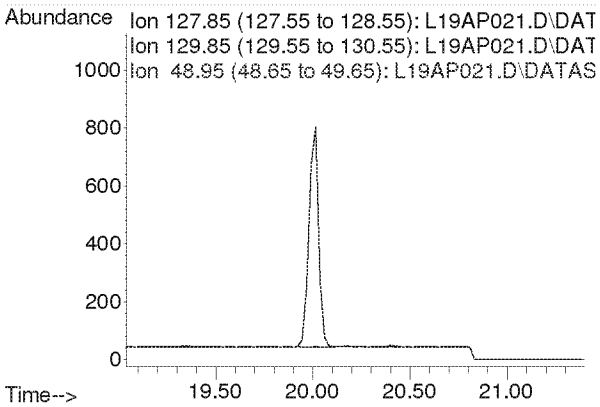


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.19 min

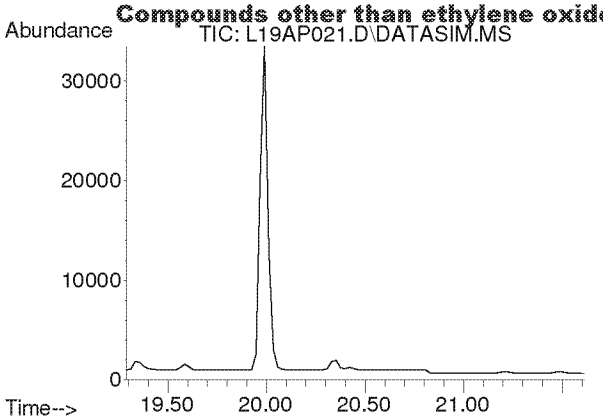
Lab File: L19AP021.D
Acq: 17 Jan 2019 9:06 am

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	130.4
49	170.8



Compounds other than ethylene oxide were not quantitated.

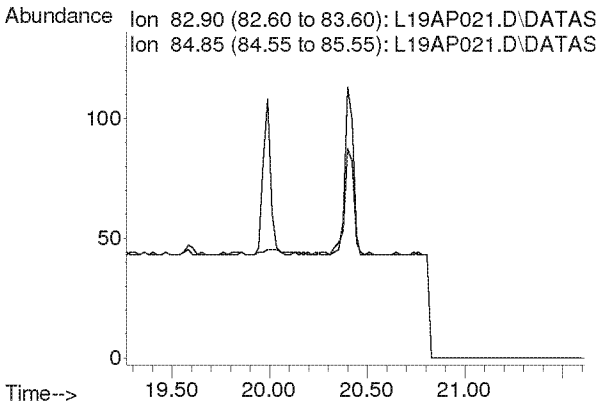


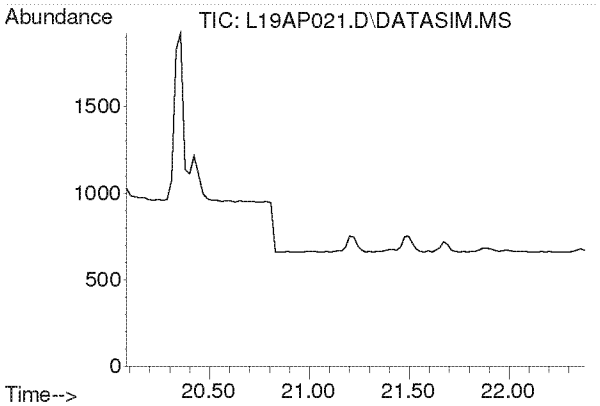
#26
Chloroform
Concen: N.D.
Expected RT: 20.42 min

Lab File: L19AP021.D
Acq: 17 Jan 2019 9:06 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



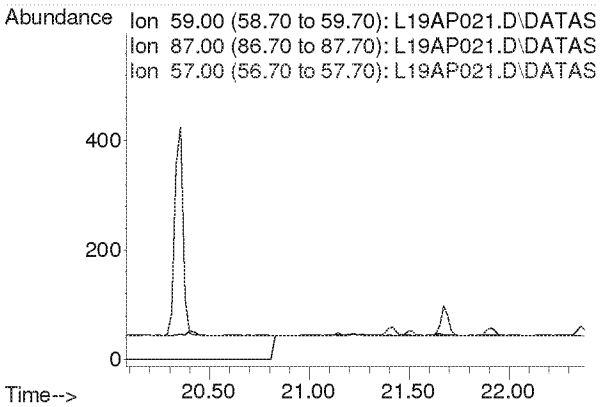


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

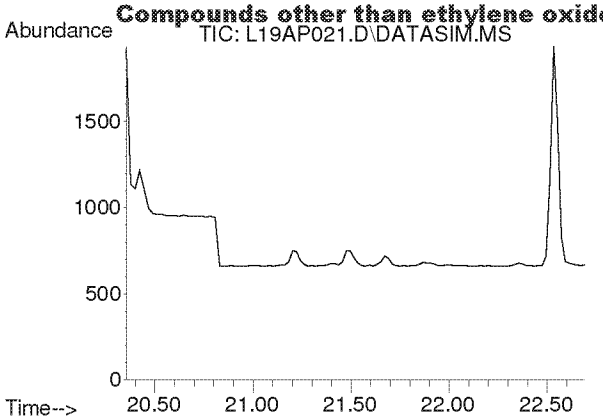
Lab File: L19AP021.D
Acq: 17 Jan 2019 9:06 am

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	37.8
57	34.3



Compounds other than ethylene oxide were not quantitated.

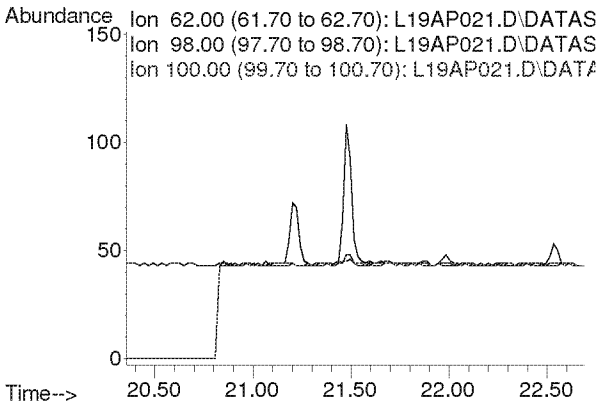


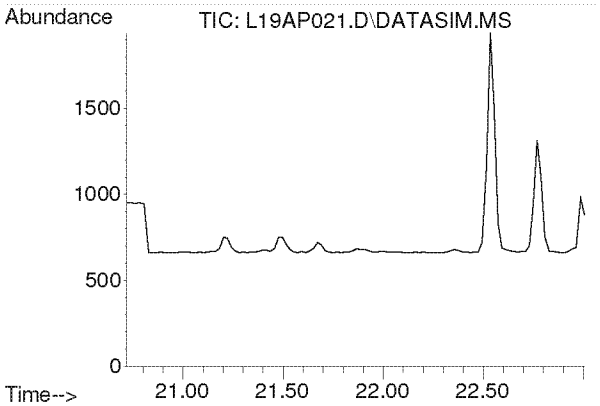
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.50 min

Lab File: L19AP021.D
Acq: 17 Jan 2019 9:06 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.8
100	4.2



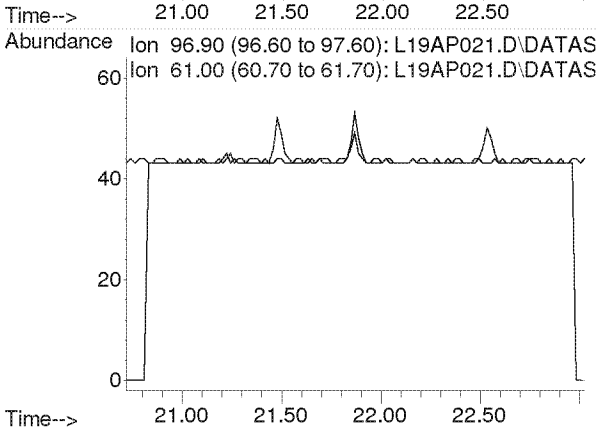


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

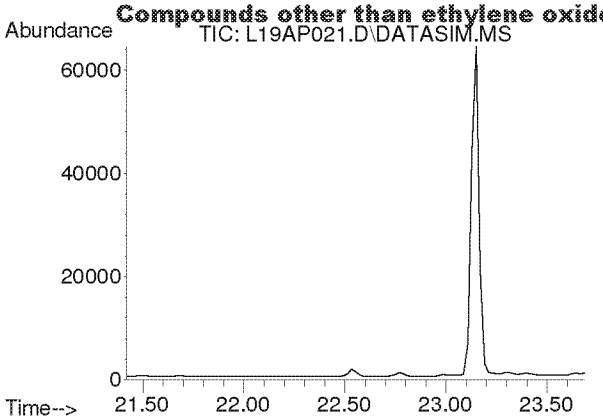
Lab File: L19AP021.D
Acq: 17 Jan 2019 9:06 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	58.6



Compounds other than ethylene oxide were not quantitated.

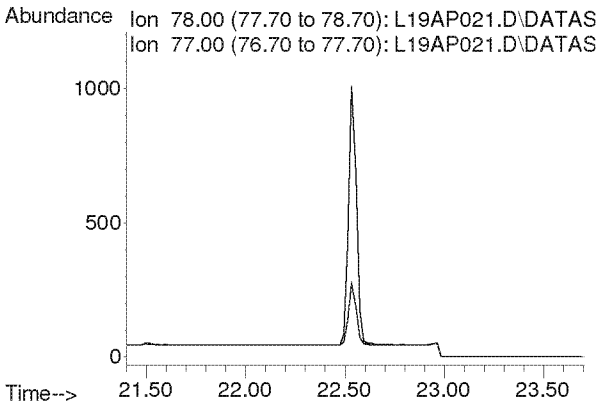


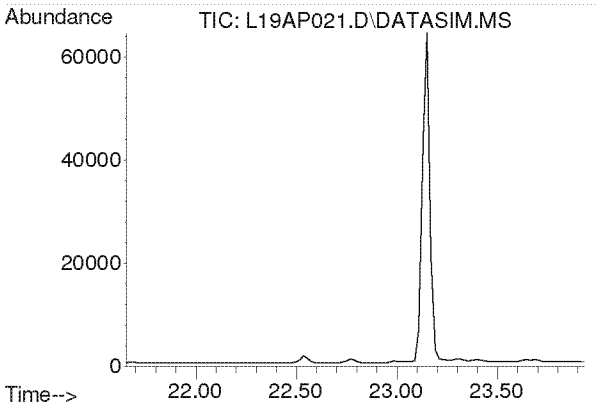
#31
Benzene
Concen: N.D.
Expected RT: 22.55 min

Lab File: L19AP021.D
Acq: 17 Jan 2019 9:06 am

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.9



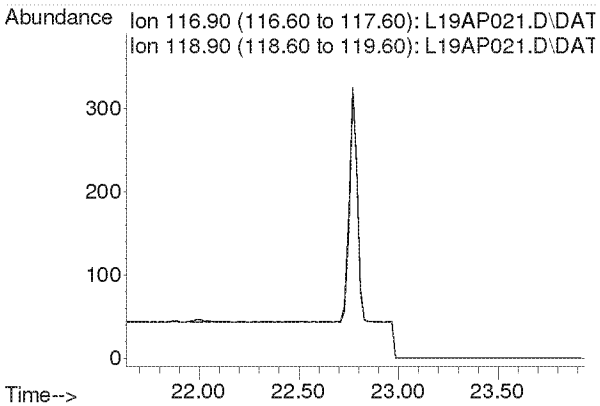


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.79 min

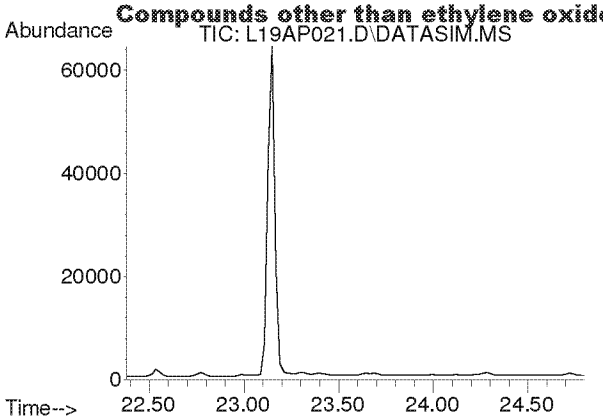
Lab File: L19AP021.D
Acq: 17 Jan 2019 9:06 am

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.5



Compounds other than ethylene oxide were not quantitated.

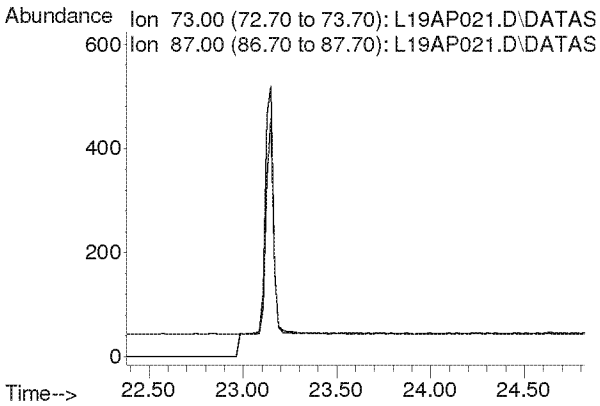


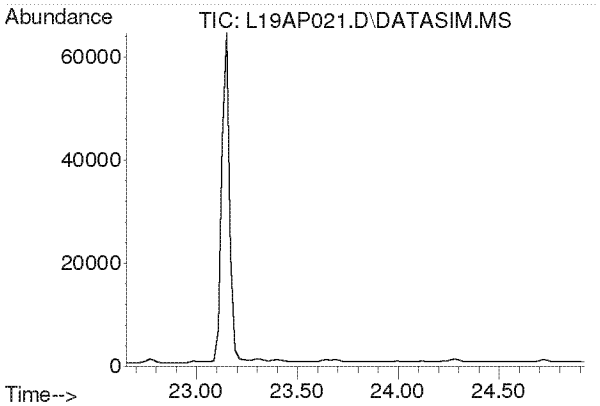
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19AP021.D
Acq: 17 Jan 2019 9:06 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	24.8



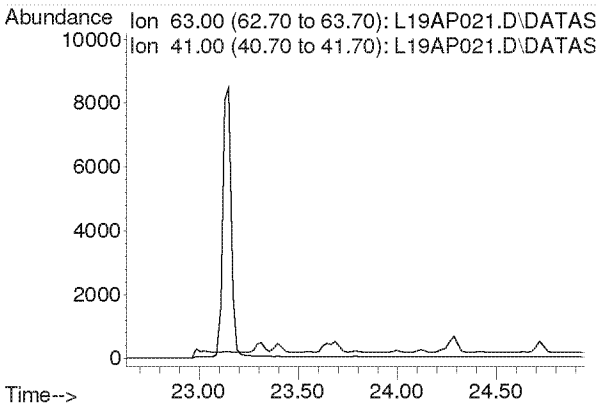


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

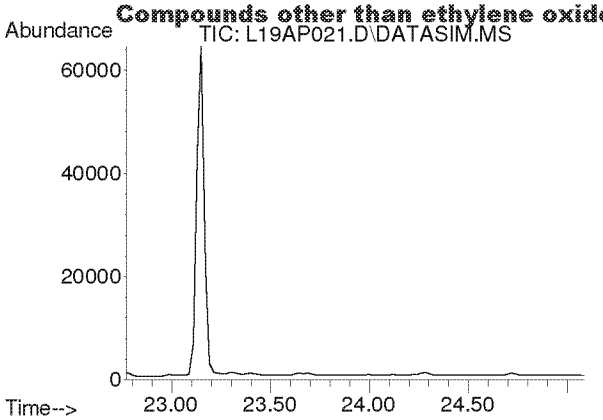
Lab File: L19AP021.D
Acq: 17 Jan 2019 9:06 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	196.0



Compounds other than ethylene oxide were not quantitated.

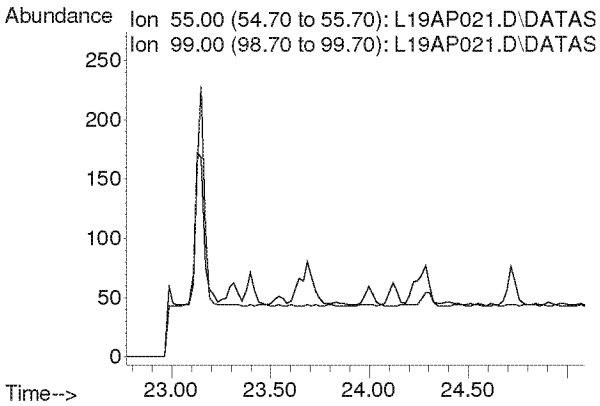


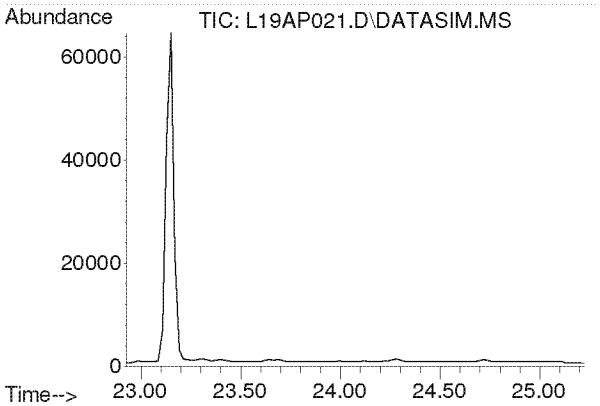
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19AP021.D
Acq: 17 Jan 2019 9:06 am

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.0



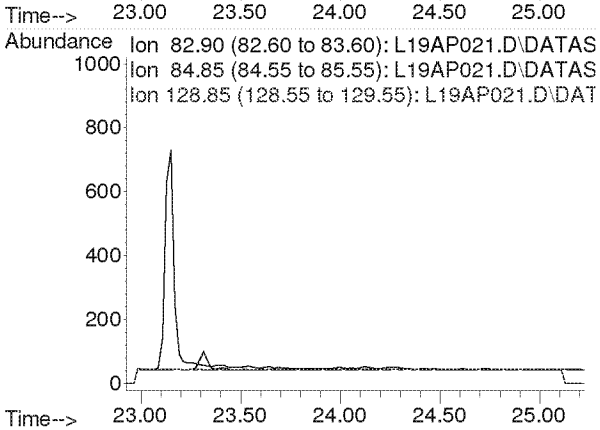


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

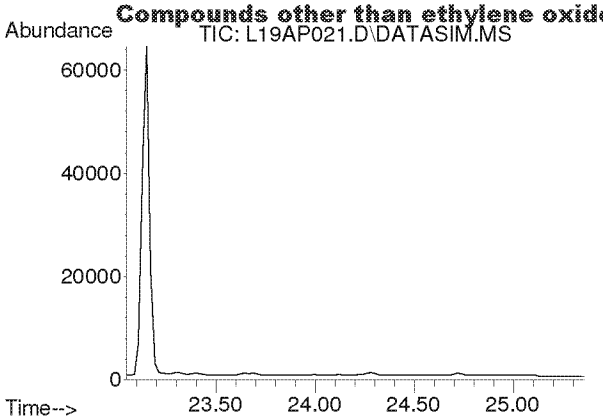
Lab File: L19AP021.D
Acq: 17 Jan 2019 9:06 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.9
129	12.5



Compounds other than ethylene oxide were not quantitated.

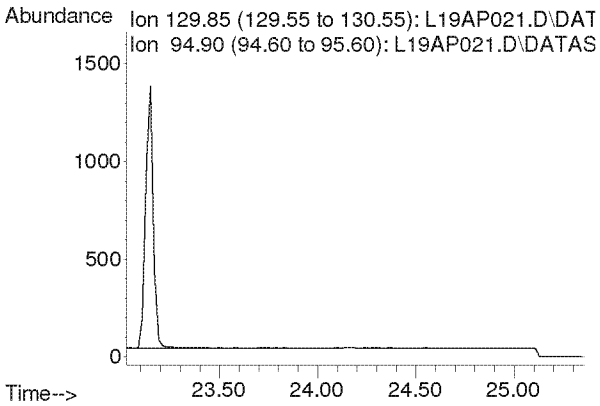


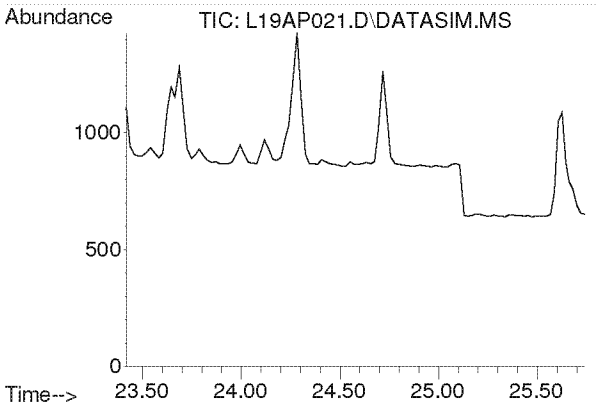
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19AP021.D
Acq: 17 Jan 2019 9:06 am

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	108.6



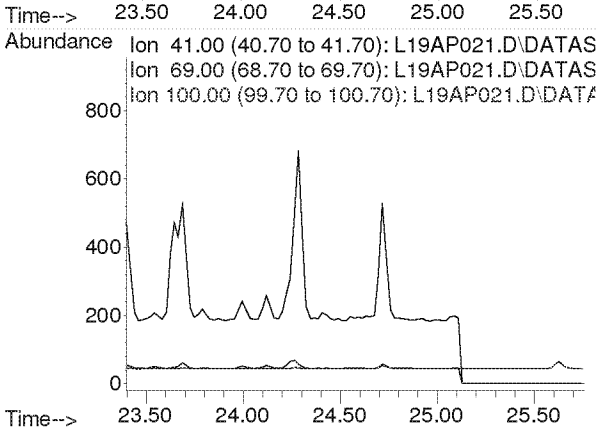


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.55 min

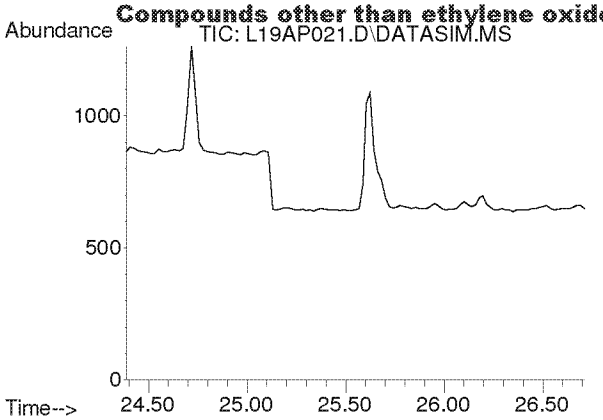
Lab File: L19AP021.D
Acq: 17 Jan 2019 9:06 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	20.7
100	5.3



Compounds other than ethylene oxide were not quantitated.

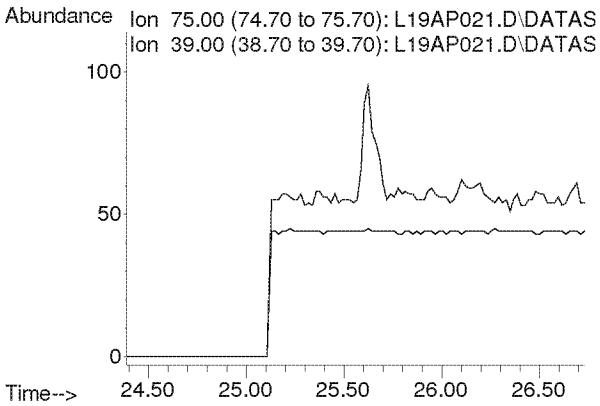


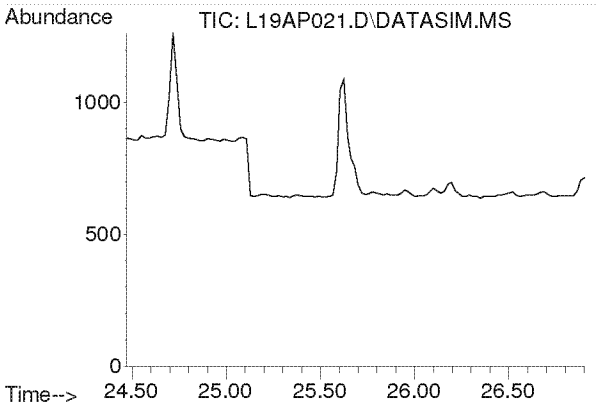
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19AP021.D
Acq: 17 Jan 2019 9:06 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	48.3



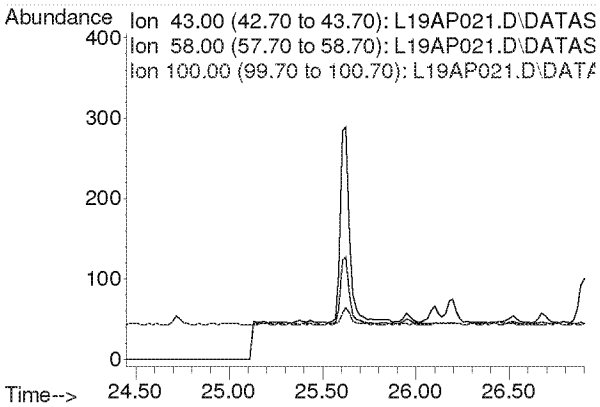


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

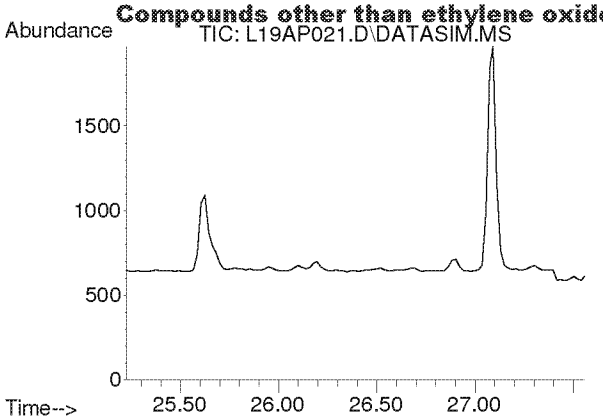
Lab File: L19AP021.D
Acq: 17 Jan 2019 9:06 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	34.5
100	8.1



Compounds other than ethylene oxide were not quantitated.

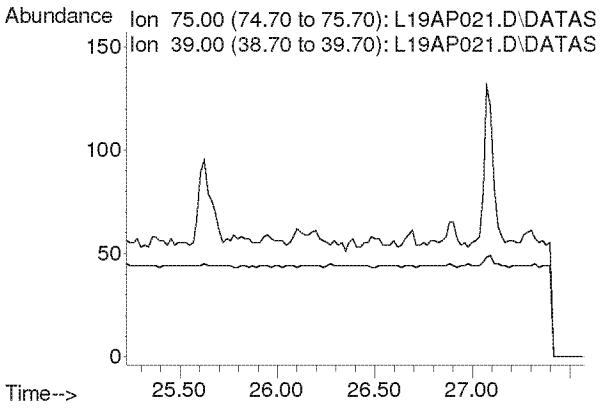


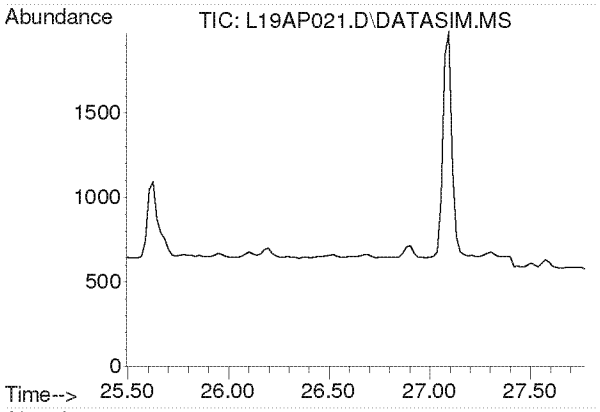
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19AP021.D
Acq: 17 Jan 2019 9:06 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	48.8



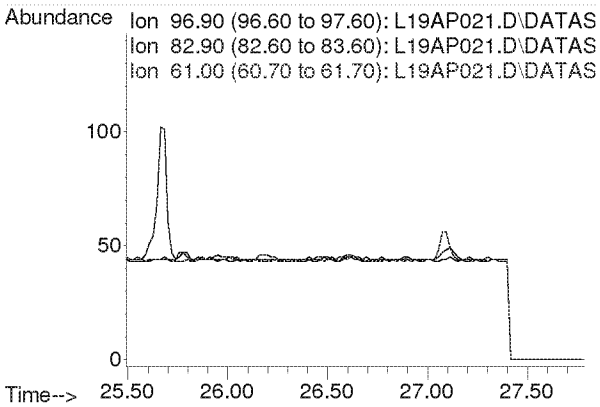


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.63 min

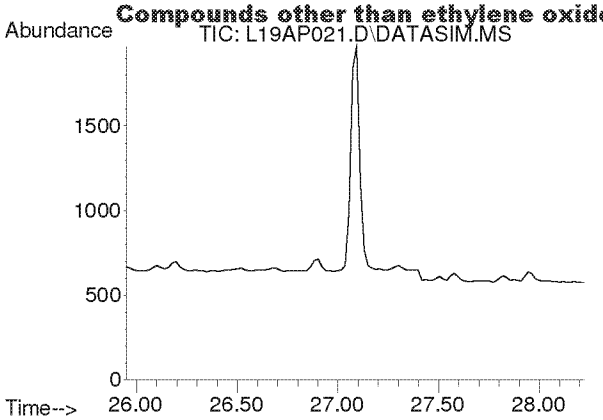
Lab File: L19AP021.D
Acq: 17 Jan 2019 9:06 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	96.6
61	61.4



Compounds other than ethylene oxide were not quantitated.

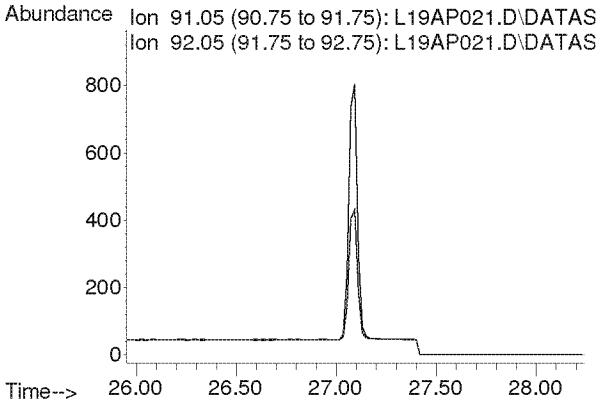


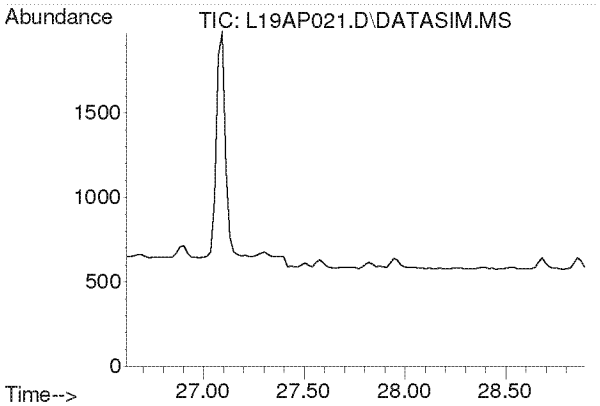
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19AP021.D
Acq: 17 Jan 2019 9:06 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



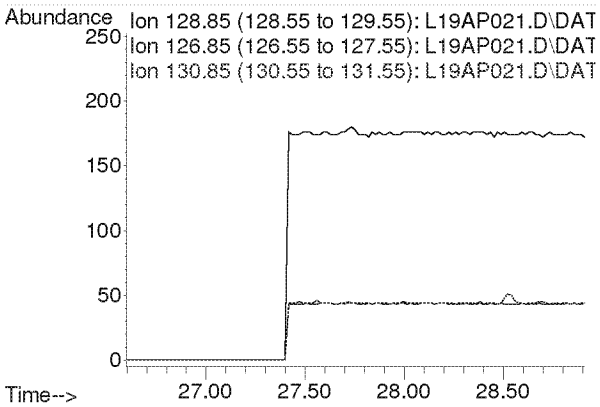


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

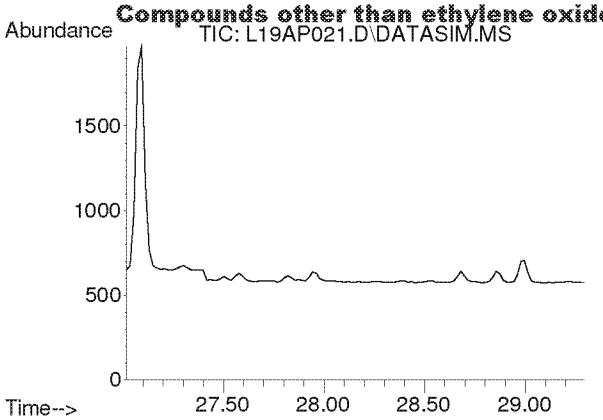
Lab File: L19AP021.D
Acq: 17 Jan 2019 9:06 am

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.2
131	6.0



Compounds other than ethylene oxide were not quantitated.

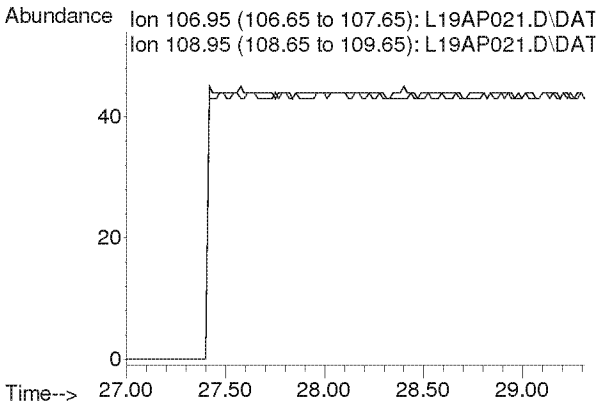


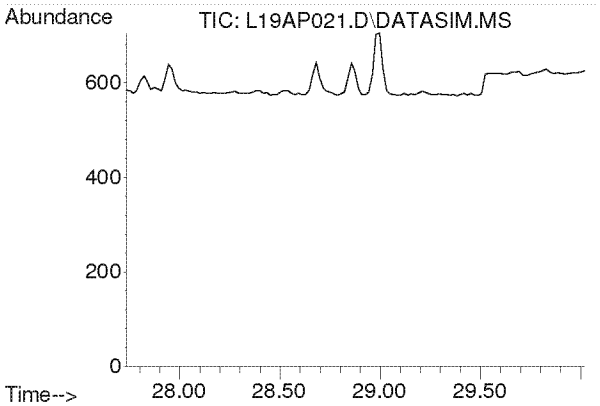
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19AP021.D
Acq: 17 Jan 2019 9:06 am

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.3



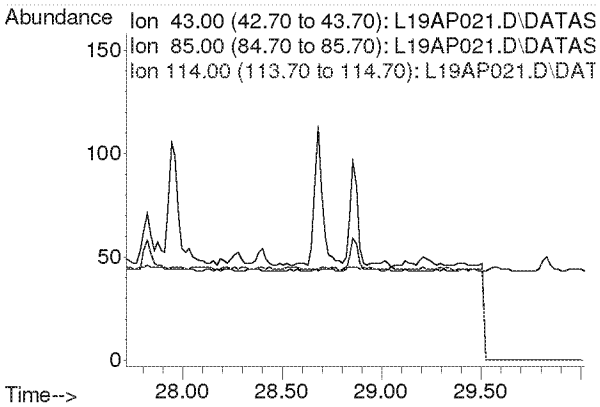


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

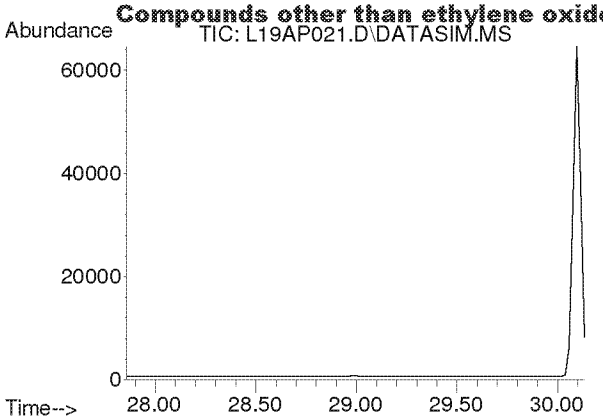
Lab File: L19AP021.D
Acq: 17 Jan 2019 9:06 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	36.6
114	2.3



Compounds other than ethylene oxide were not quantitated.

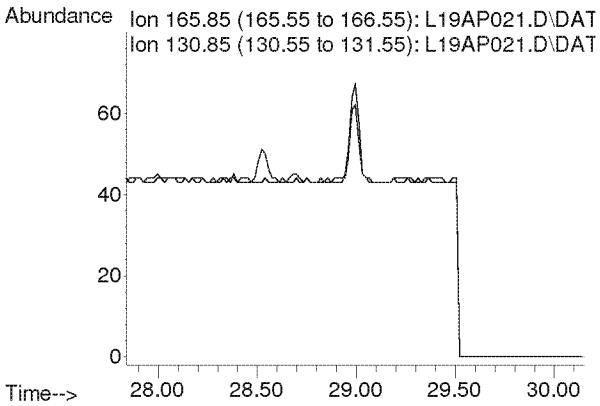


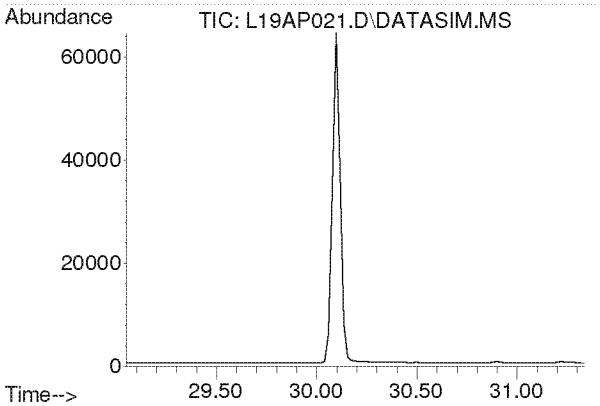
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19AP021.D
Acq: 17 Jan 2019 9:06 am

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	78.2



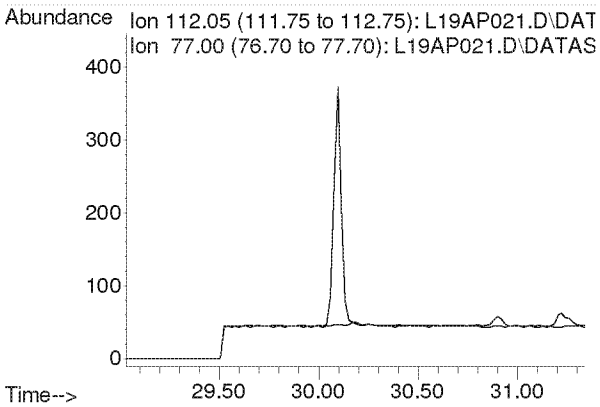


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

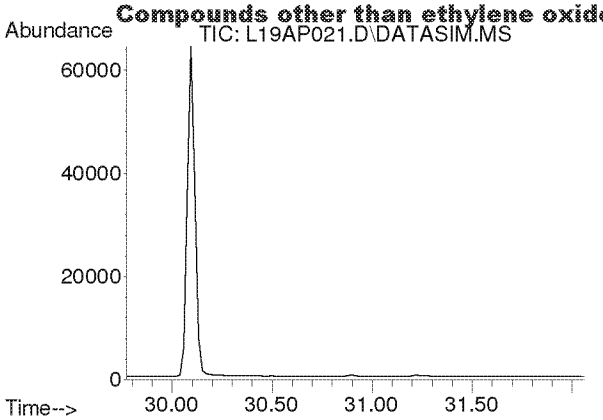
Lab File: L19AP021.D
Acq: 17 Jan 2019 9:06 am

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	61.2



Compounds other than ethylene oxide were not quantitated.

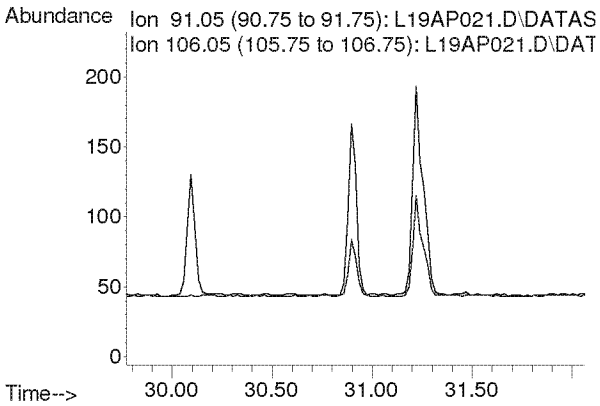


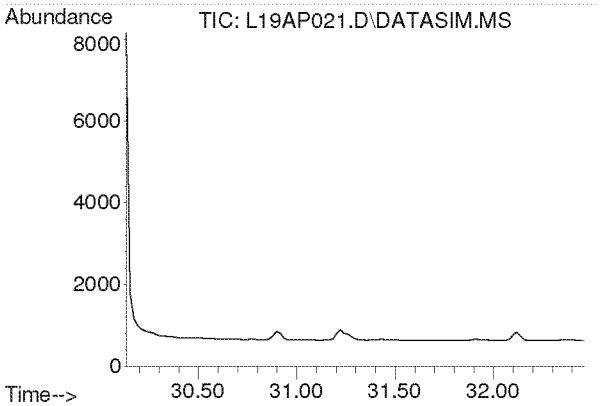
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19AP021.D
Acq: 17 Jan 2019 9:06 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	31.7



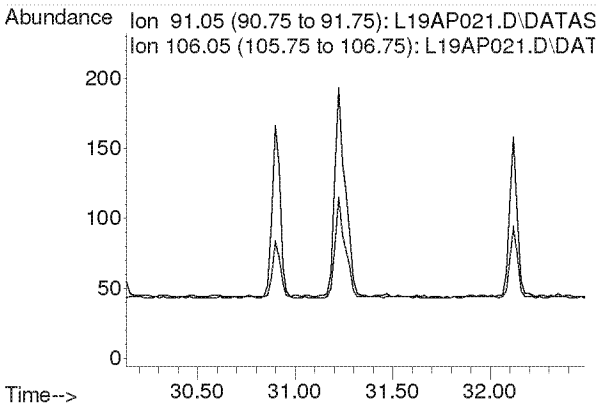


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

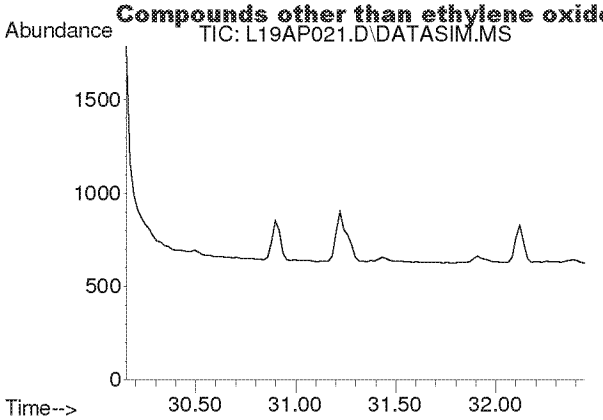
Lab File: L19AP021.D
Acq: 17 Jan 2019 9:06 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.6



Compounds other than ethylene oxide were not quantitated.

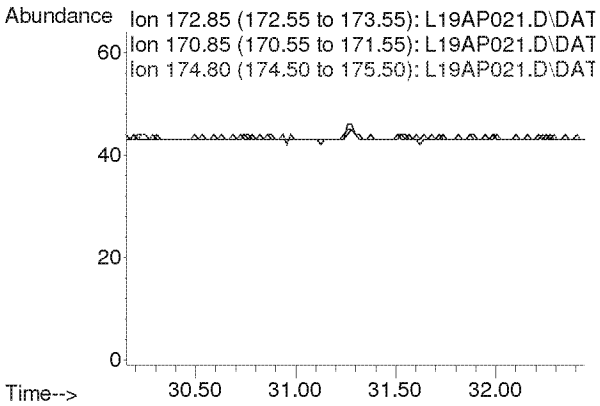


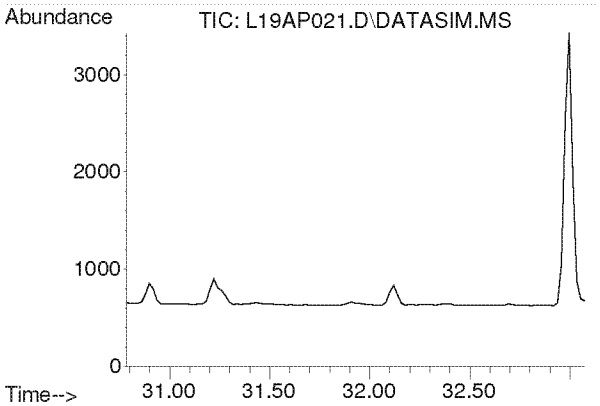
#52
Bromoform
Concen: N.D.
Expected RT: 31.30 min

Lab File: L19AP021.D
Acq: 17 Jan 2019 9:06 am

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.4
175	48.9



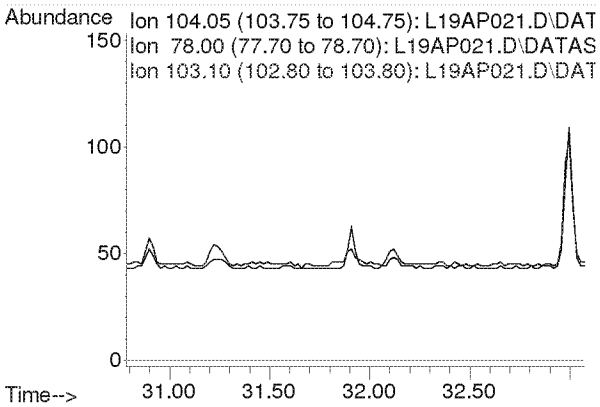


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

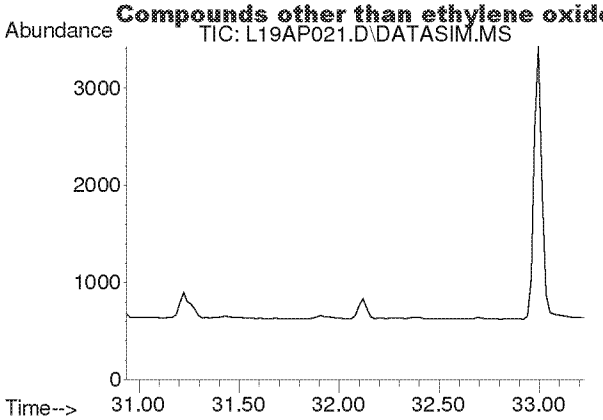
Lab File: L19AP021.D
Acq: 17 Jan 2019 9:06 am

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	45.8
103	0.0



Compounds other than ethylene oxide were not quantitated.

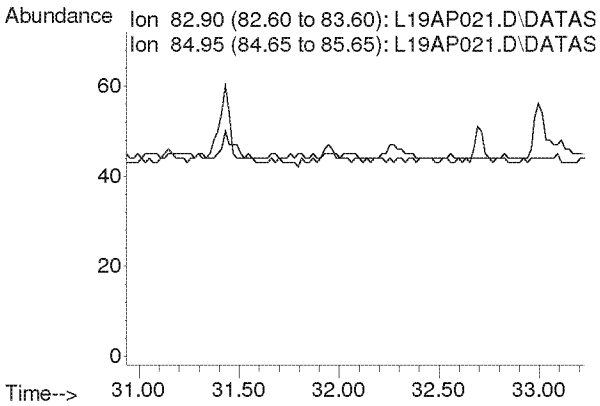


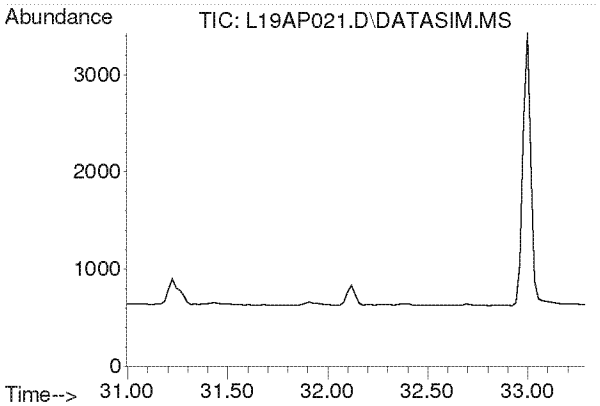
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19AP021.D
Acq: 17 Jan 2019 9:06 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.0



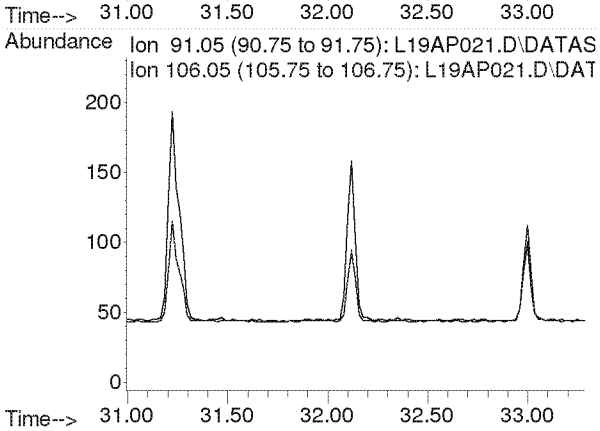


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

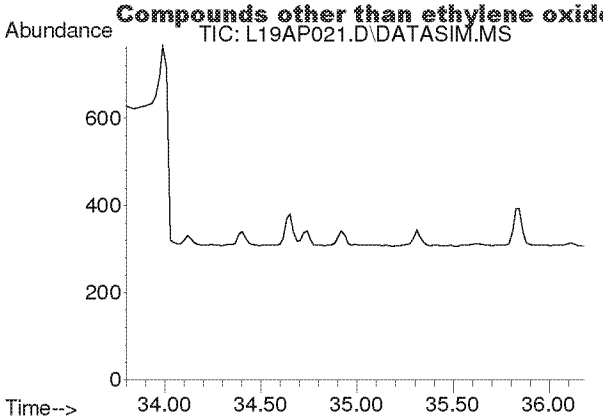
Lab File: L19AP021.D
Acq: 17 Jan 2019 9:06 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.8



Compounds other than ethylene oxide were not quantitated.

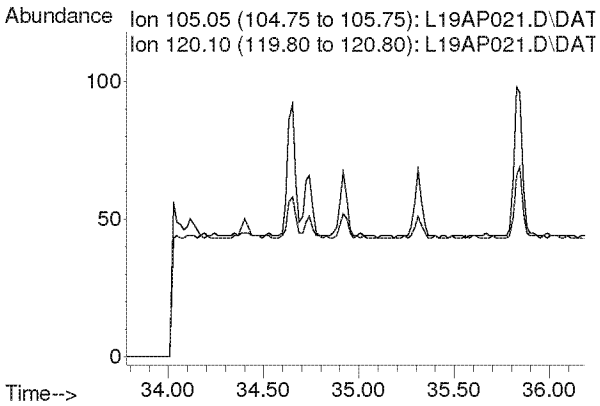


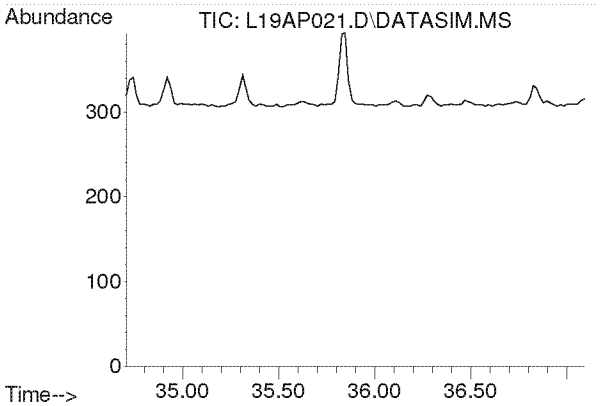
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19AP021.D
Acq: 17 Jan 2019 9:06 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	45.0



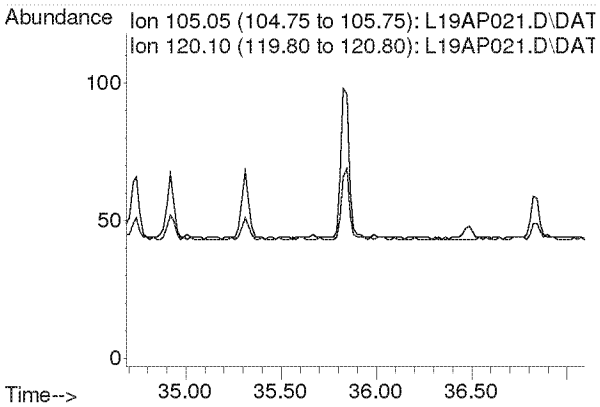


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

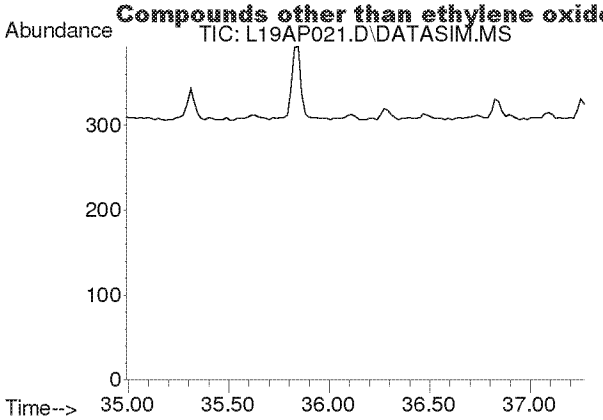
Lab File: L19AP021.D
Acq: 17 Jan 2019 9:06 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	42.9



Compounds other than ethylene oxide were not quantitated.

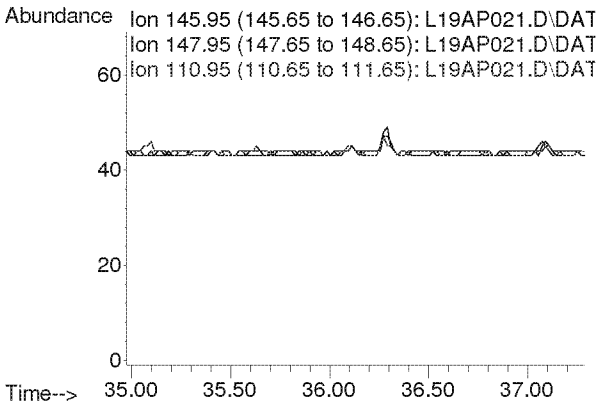


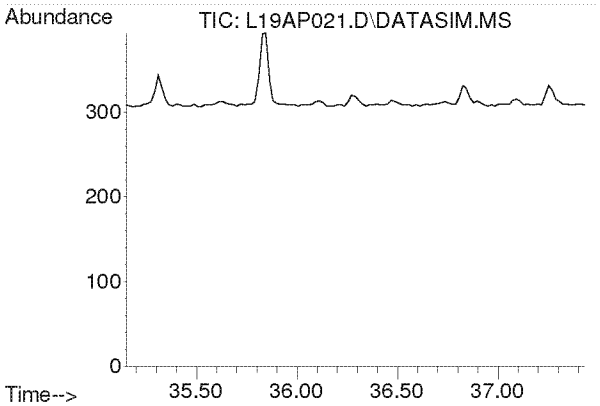
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19AP021.D
Acq: 17 Jan 2019 9:06 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.5



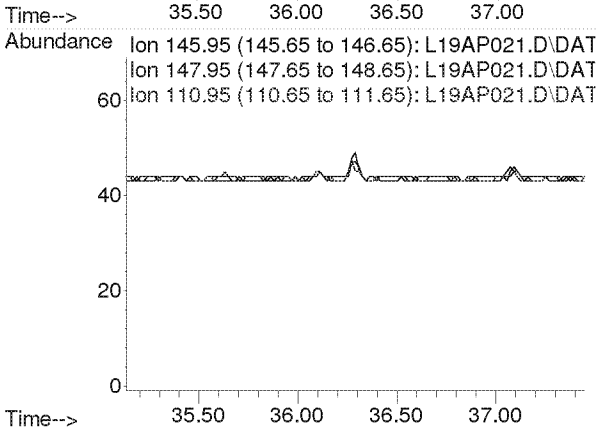


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

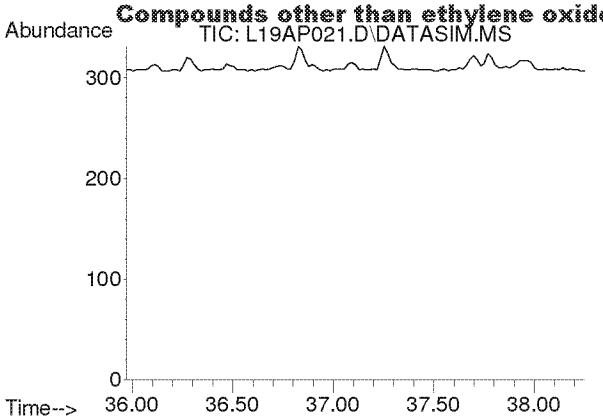
Lab File: L19AP021.D
Acq: 17 Jan 2019 9:06 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	63.9
111	39.3



Compounds other than ethylene oxide were not quantitated.

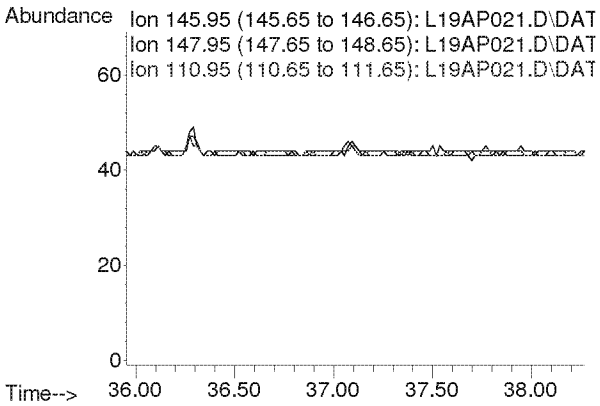


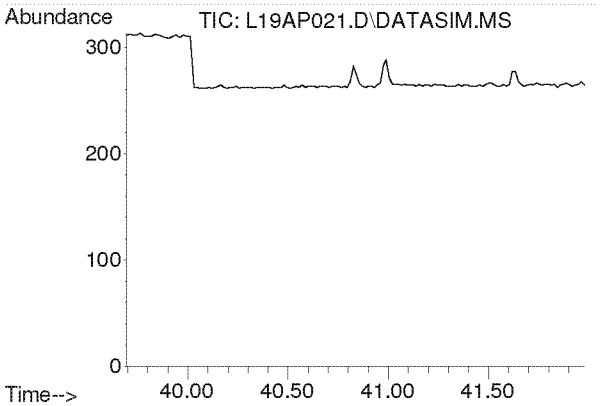
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19AP021.D
Acq: 17 Jan 2019 9:06 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.7



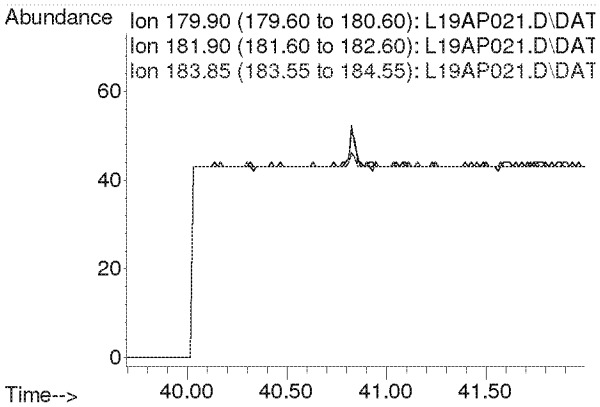


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

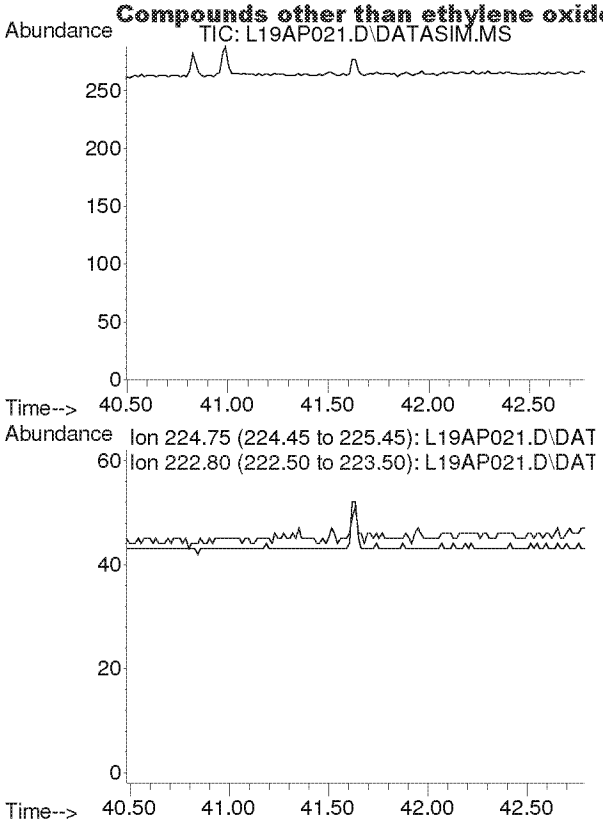
Lab File: L19AP021.D
Acq: 17 Jan 2019 9:06 am

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	95.0
184	30.5



Compounds other than ethylene oxide were not quantitated.



#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.63 min

Lab File: L19AP021.D
Acq: 17 Jan 2019 9:06 am

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.4

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19AP\
Data File : L19AP022.D
Acq On : 17 Jan 2019 10:08 am
Operator : MAH
Sample : 9010716-08
Misc : HINSDALE S. HS 1/4/18
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Jan 23 07:15:33 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.991	66	52947	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.149	114	128106	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.096	117	100509	4.7400 ppbv	-0.02

System Monitoring Compounds

Target Compounds					Qvalue
2) Acetylene	0.000	26	0	N.D. d	
3) Propylene	0.000	41	0	N.D. d	
4) Dichlorodifluoromethane	0.000	85	0	N.D. d	
5) Chloromethane	0.000	50	0	N.D. d	
6) Dichlorotetrafluoroethane	0.000	85	0	N.D. d	
7) Vinyl Chloride	0.000	62	0	N.D.	
8) 1,3-Butadiene	0.000	54	0	N.D. d	
9) Ethylene oxide	12.453	29	647m	0.2366 ppbv	
10) Bromomethane	0.000	94	0	N.D. d	
11) Chloroethane	0.000	64	0	N.D.	
12) Acetonitrile	0.000	41	0	N.D. d	
13) Acrolein	0.000	56	0	N.D. d	
14) Trichlorofluoromethane	0.000	101	0	N.D. d	
15) Acrylonitrile	0.000	53	0	N.D. d	
16) 1,1-Dichloroethene	0.000	61	0	N.D.	
17) Methylene Chloride	0.000	49	0	N.D. d	
18) Carbon Disulfide	0.000	76	0	N.D. d	
19) Trichlorotrifluoroethane	0.000	101	0	N.D. d	
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.	
21) 1,1-Dichloroethane	0.000	63	0	N.D.	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D.	
23) Chloroprene	0.000	53	0	N.D. d	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D. d	
25) Bromochloromethane	0.000	128	0	N.D.	
26) Chloroform	0.000	83	0	N.D. d	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D.	
28) 1,2-Dichloroethane	0.000	62	0	N.D. d	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D.	
31) Benzene	0.000	78	0	N.D. d	
32) Carbon Tetrachloride	0.000	117	0	N.D. d	
33) tert-Amyl Methyl Ether	0.000	73	0	N.D.	
34) 1,2-Dichloropropane	0.000	63	0	N.D.	
35) Ethyl Acrylate	0.000	55	0	N.D. d	
36) Bromodichloromethane	0.000	83	0	N.D.	
37) Trichloroethylene	0.000	130	0	N.D.	
38) Methyl Methacrylate	0.000	41	0	N.D. d	
39) cis-1,3-Dichloropropene	0.000	75	0	N.D.	
40) Methyl Isobutyl Ketone	0.000	43	0	N.D. d	
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.	
44) Toluene	0.000	91	0	N.D. d	
45) Dibromochloromethane	0.000	129	0	N.D.	
46) 1,2-Dibromoethane	0.000	107	0	N.D.	
47) n-Octane	0.000	43	0	N.D. d	
48) Tetrachloroethylene	0.000	166	0	N.D. d	
49) Chlorobenzene	0.000	112	0	N.D.	
50) Ethylbenzene	0.000	91	0	N.D. d	

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19AP\
Data File : L19AP022.D
Acq On : 17 Jan 2019 10:08 am
Operator : MAH
Sample : 9010716-08
Misc : HINSDALE S. HS 1/4/18
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Jan 23 07:15:33 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D.	d
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	d
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D.	d
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	d
57) 1,2,4-Trimethylbenzene	0.000	105	0	N.D.	d
58) m-Dichlorobenzene	0.000	146	0	N.D.	
59) p-Dichlorobenzene	0.000	146	0	N.D.	
60) o-Dichlorobenzene	0.000	146	0	N.D.	
61) 1,2,4-Trichlorobenzene	0.000	180	0	N.D.	
62) Hexachloro-1,3-butadiene	0.000	225	0	N.D.	

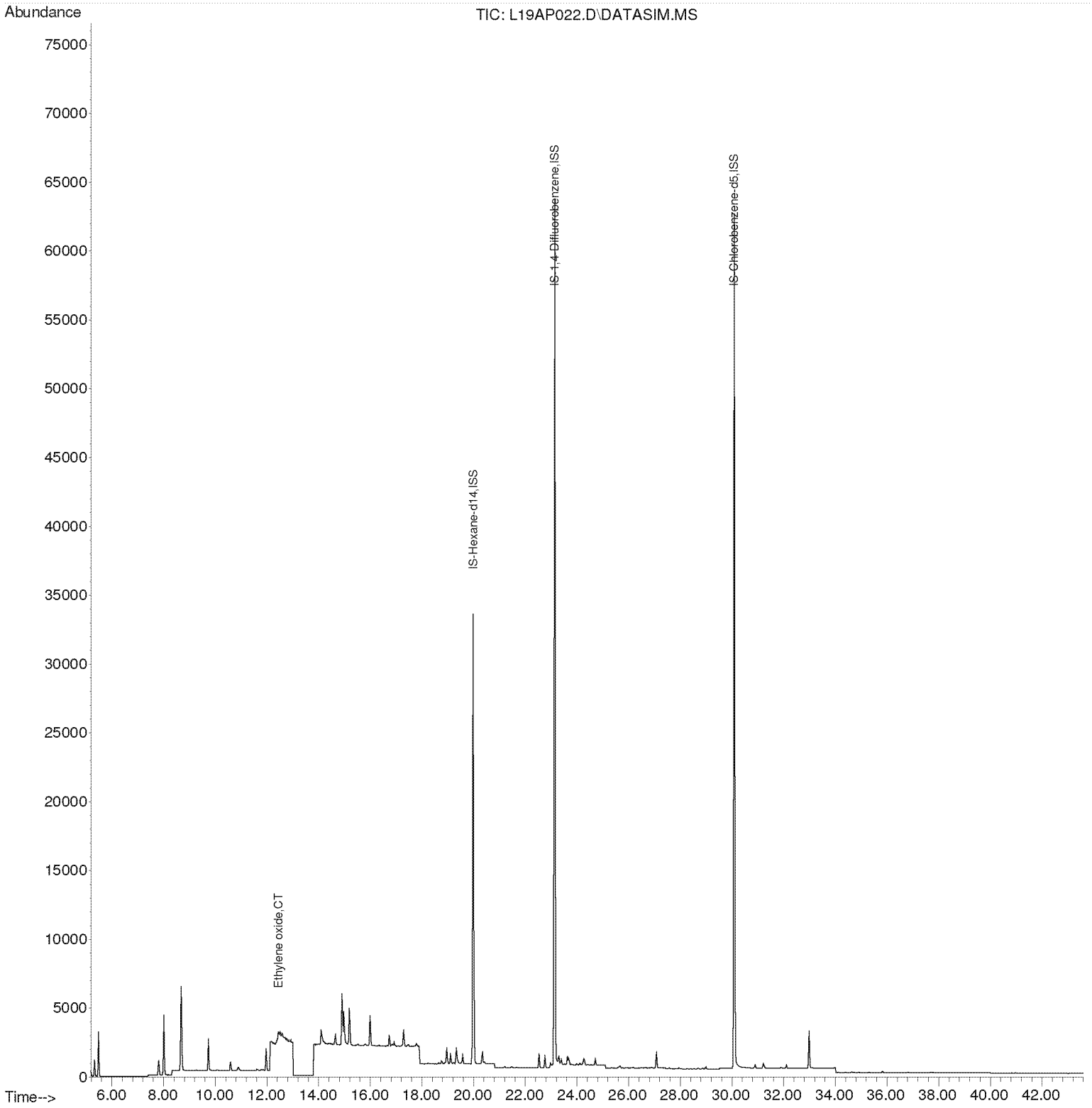
(#) = qualifier out of range (m) = manual integration (+) = signals summed

ED_002475_00000276-00382

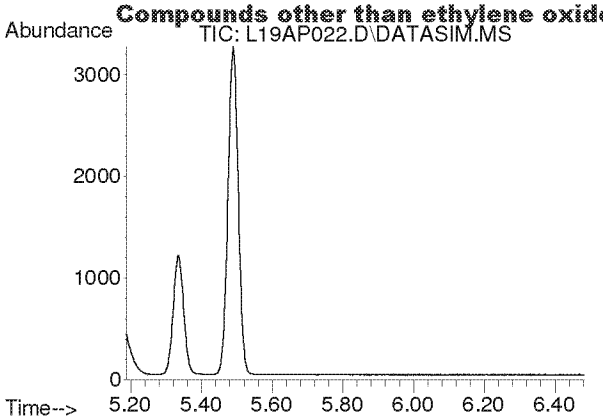
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L19AP\
Data File : L19AP022.D
Acq On : 17 Jan 2019 10:08 am
Operator : MAH
Sample : 9010716-08
Misc : HINSDALE S. HS 1/4/18
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Jan 23 06:44:32 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration



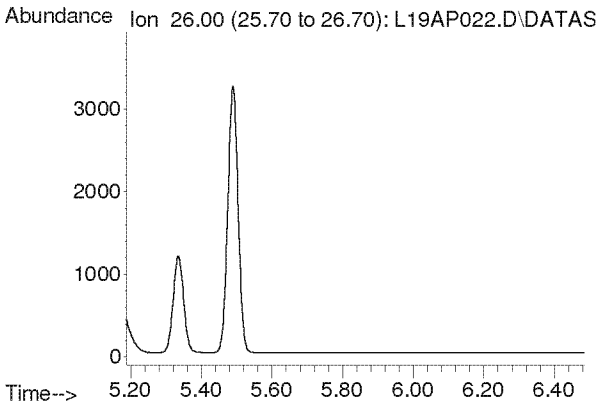
Compounds other than ethylene oxide were not quantitated.

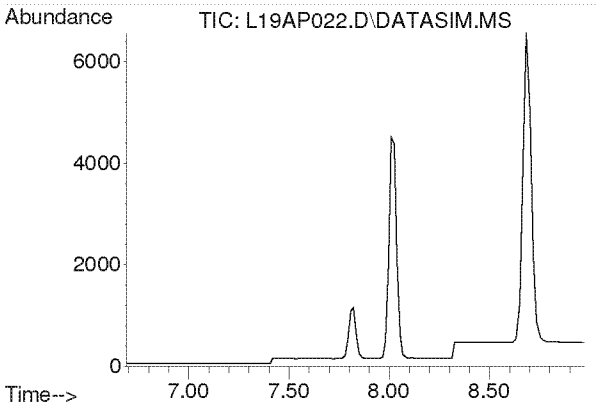


#2
Acetylene
Concen: N.D.
Expected RT: 5.42 min

Lab File: L19AP022.D
Acq: 17 Jan 2019 10:08 am

Tgt Ion: 26



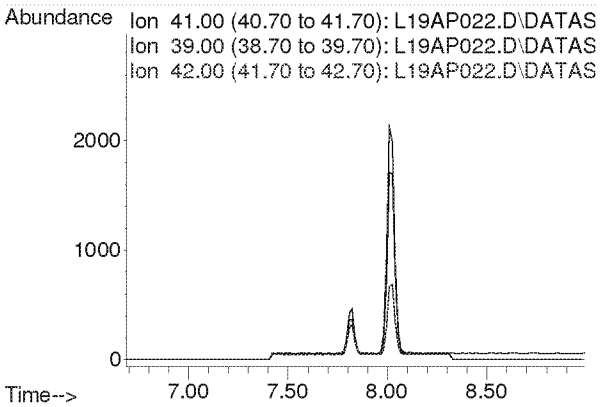


#3
Propylene
Concen: N.D.
Expected RT: 7.84 min

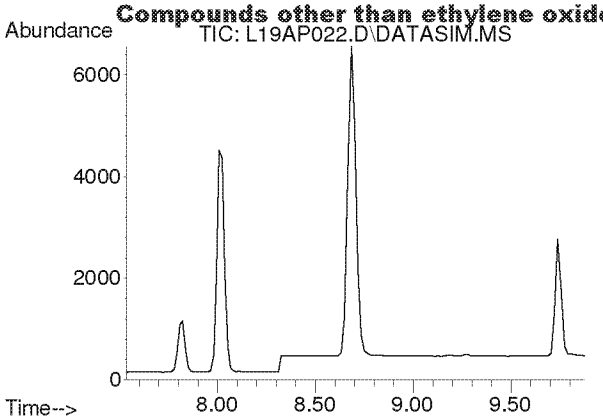
Lab File: L19AP022.D
Acq: 17 Jan 2019 10:08 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	77.0
42	65.8



Compounds other than ethylene oxide were not quantitated.

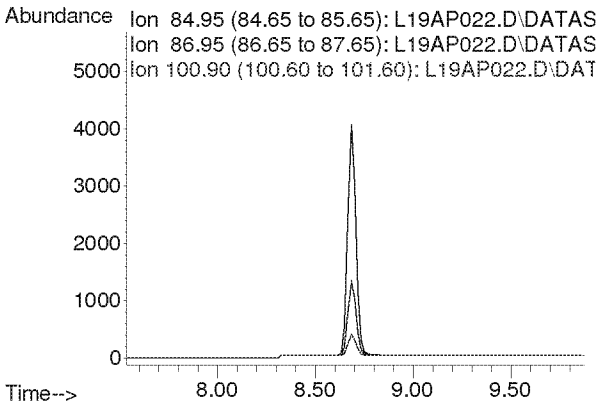


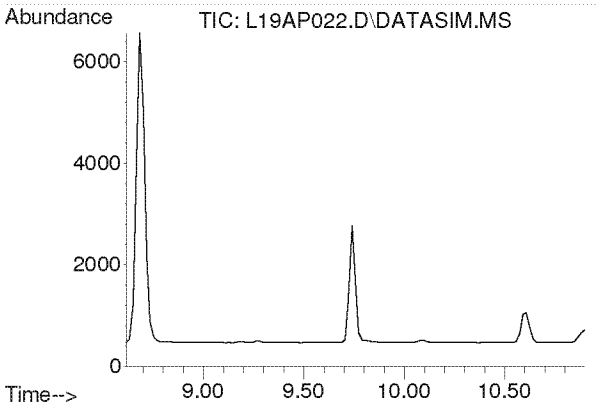
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19AP022.D
Acq: 17 Jan 2019 10:08 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	8.9



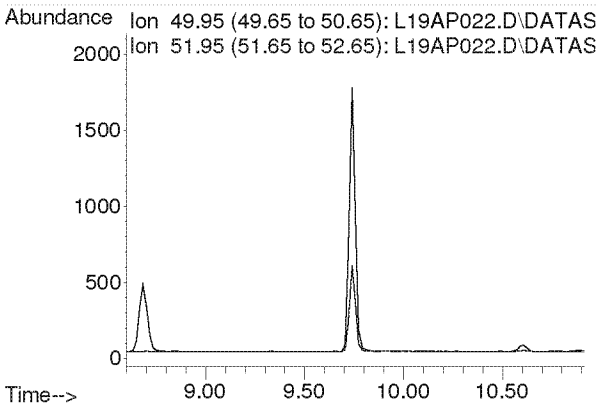


#5
Chloromethane
Concen: N.D.
Expected RT: 9.76 min

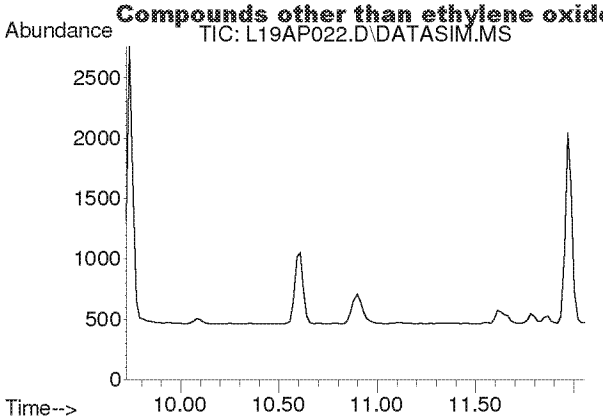
Lab File: L19AP022.D
Acq: 17 Jan 2019 10:08 am

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.4



Compounds other than ethylene oxide were not quantitated.

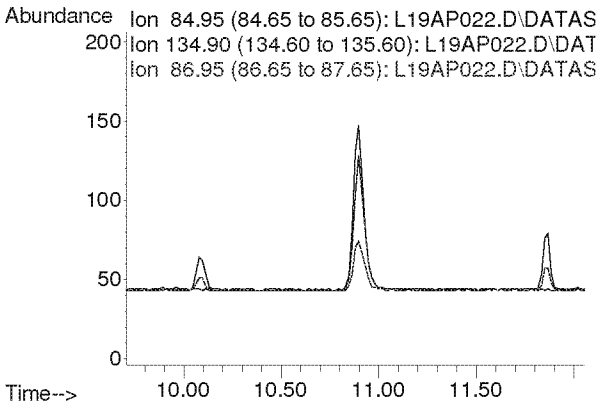


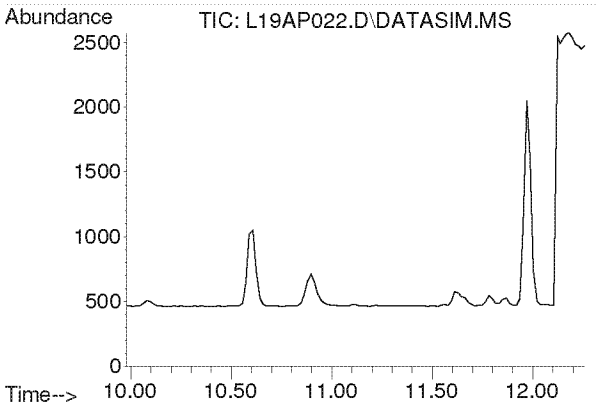
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19AP022.D
Acq: 17 Jan 2019 10:08 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.5
87	32.2



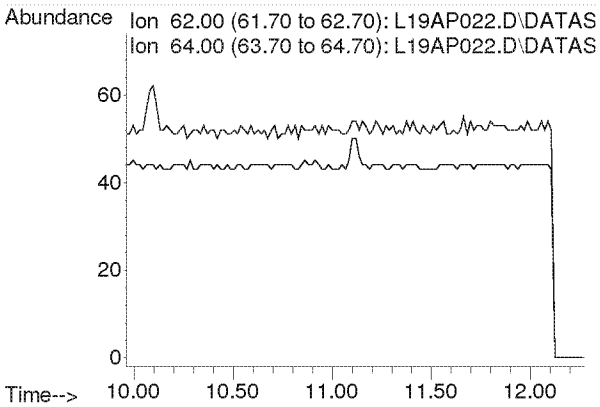


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

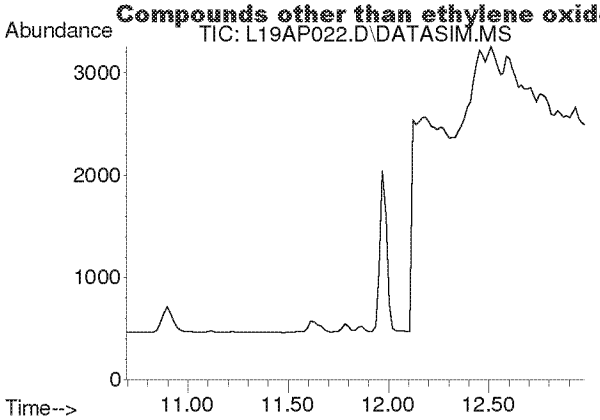
Lab File: L19AP022.D
Acq: 17 Jan 2019 10:08 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	32.1



Compounds other than ethylene oxide were not quantitated.

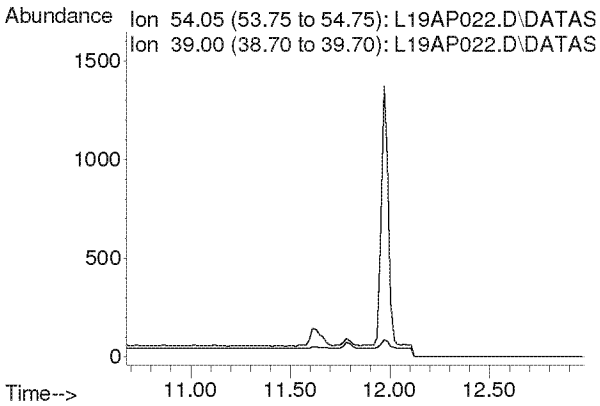


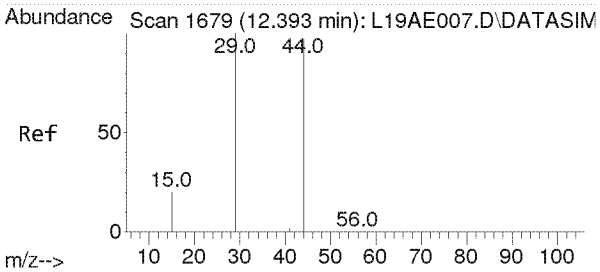
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19AP022.D
Acq: 17 Jan 2019 10:08 am

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	103.3

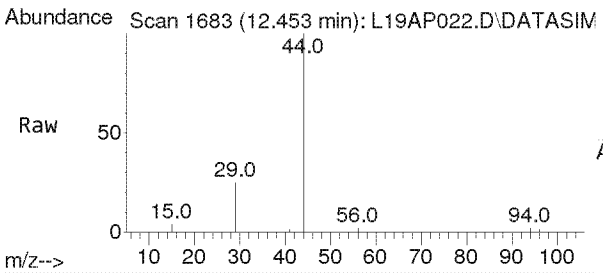


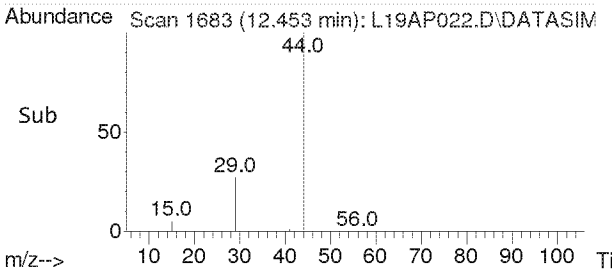


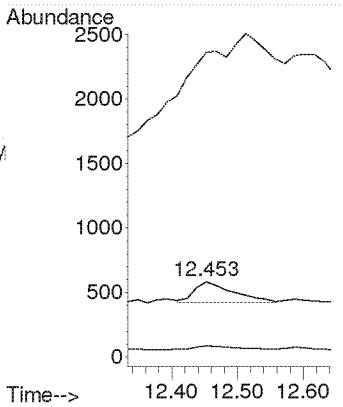
#9
Ethylene oxide
Concen: 0.237 ppbv m
RT: 12.453 min Scan# 1683
Delta R.T. 0.060 min
Lab File: L19AP022.D
Acq: 17 Jan 2019 10:08 am

Tgt Ion: 29 Resp: 647

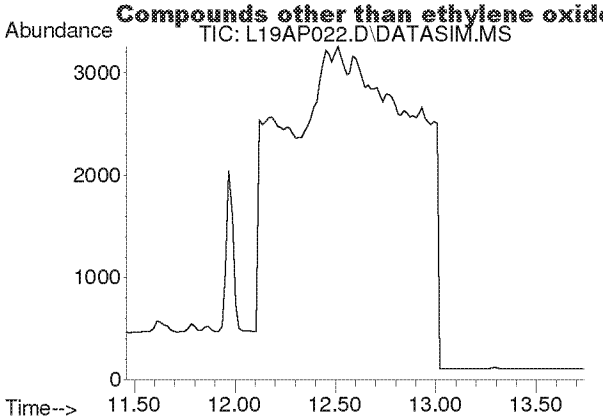
Ion	Ratio	Lower	Upper
29	100		
15	0.0	15.4	23.0#
44	0.0	77.4	116.2#







Compounds other than ethylene oxide were not quantitated.

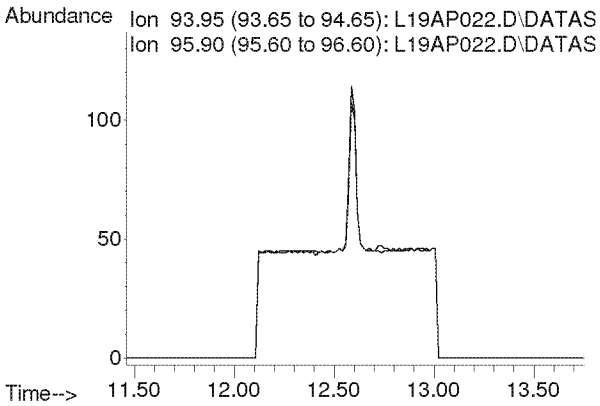


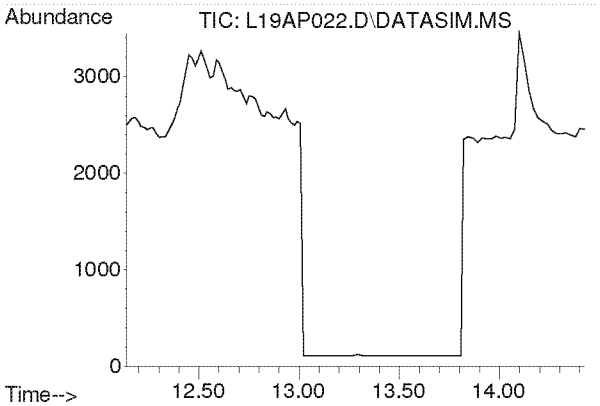
#10
Bromomethane
Concen: N.D.
Expected RT: 12.60 min

Lab File: L19AP022.D
Acq: 17 Jan 2019 10:08 am

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.3



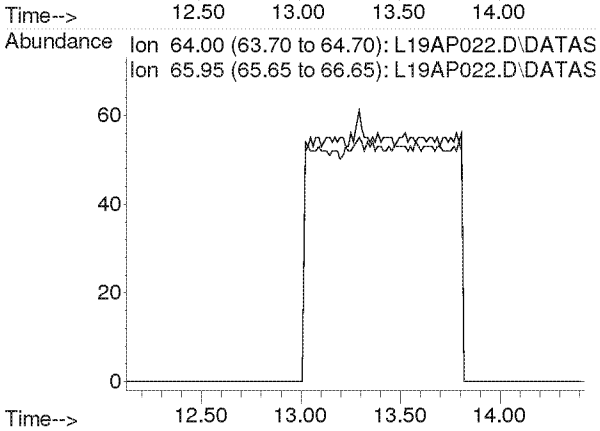


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

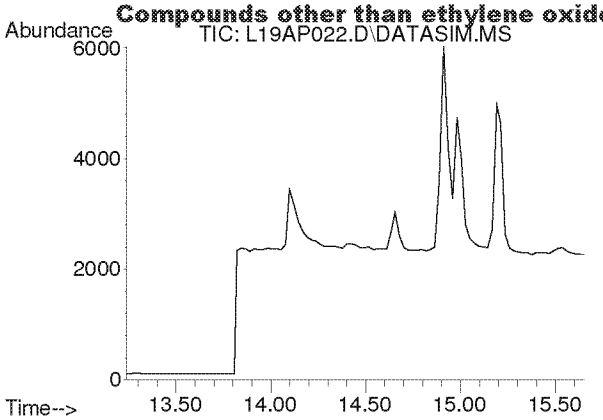
Lab File: L19AP022.D
Acq: 17 Jan 2019 10:08 am

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.4



Compounds other than ethylene oxide were not quantitated.

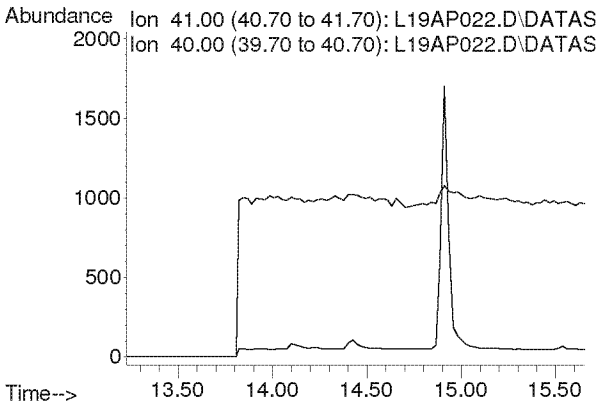


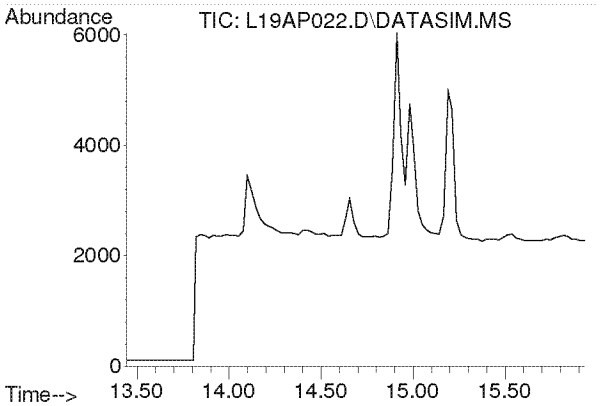
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19AP022.D
Acq: 17 Jan 2019 10:08 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	53.2



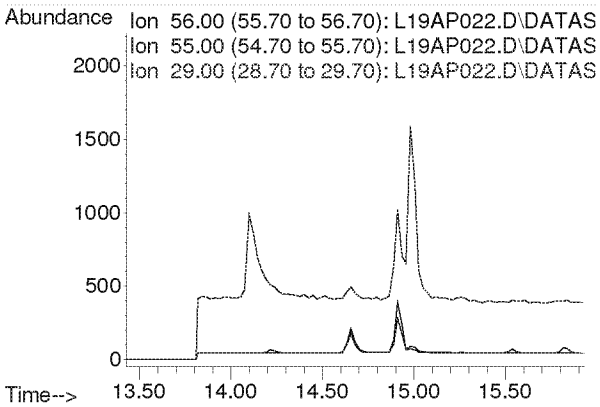


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

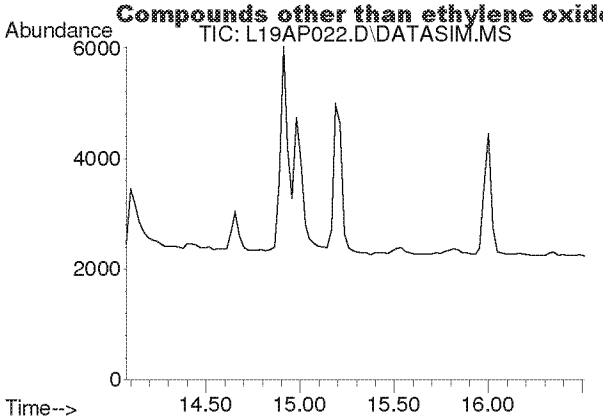
Lab File: L19AP022.D
Acq: 17 Jan 2019 10:08 am

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.5
29	44.9



Compounds other than ethylene oxide were not quantitated.

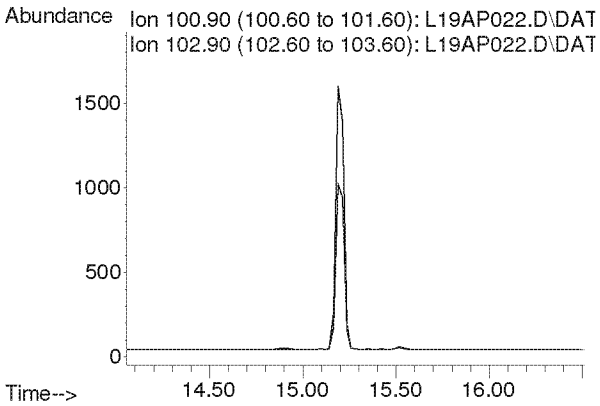


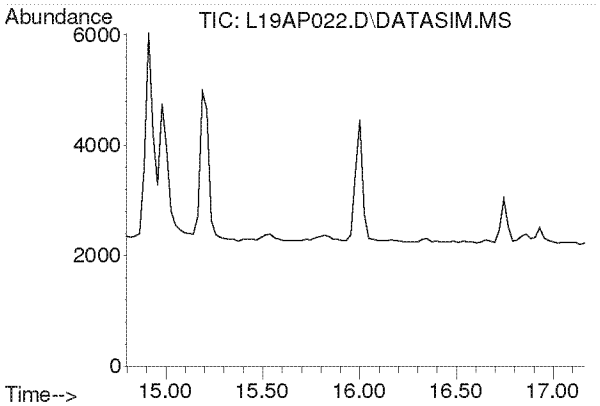
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.21 min

Lab File: L19AP022.D
Acq: 17 Jan 2019 10:08 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



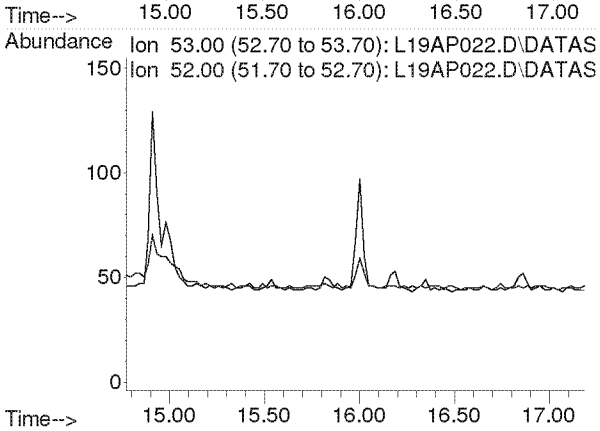


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

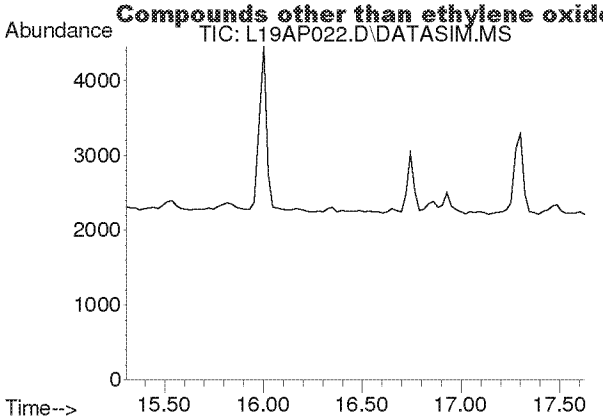
Lab File: L19AP022.D
Acq: 17 Jan 2019 10:08 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	84.7



Compounds other than ethylene oxide were not quantitated.

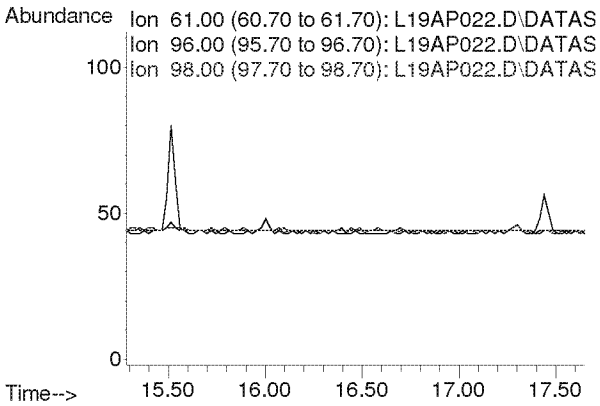


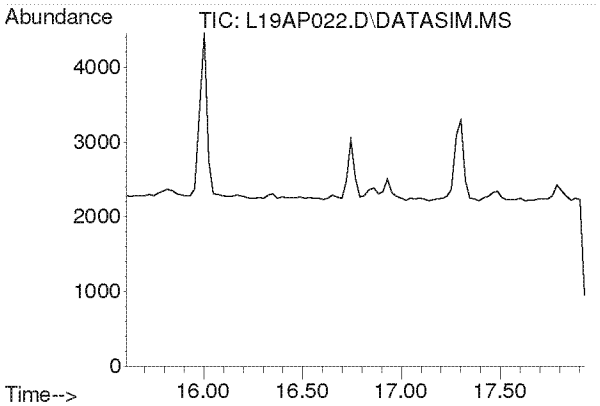
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.44 min

Lab File: L19AP022.D
Acq: 17 Jan 2019 10:08 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.5
98	38.1



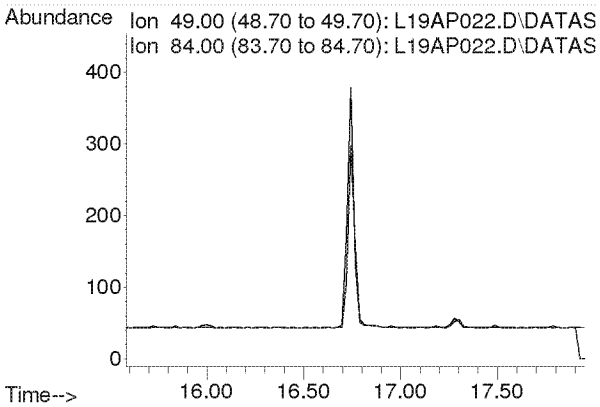


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

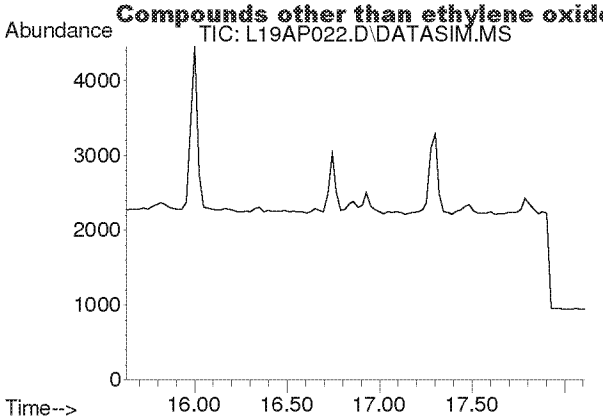
Lab File: L19AP022.D
Acq: 17 Jan 2019 10:08 am

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.3



Compounds other than ethylene oxide were not quantitated.

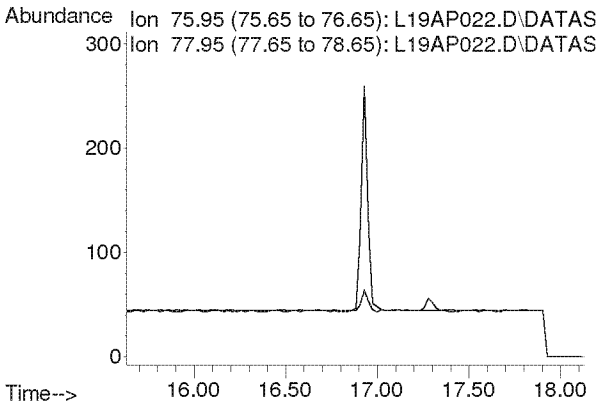


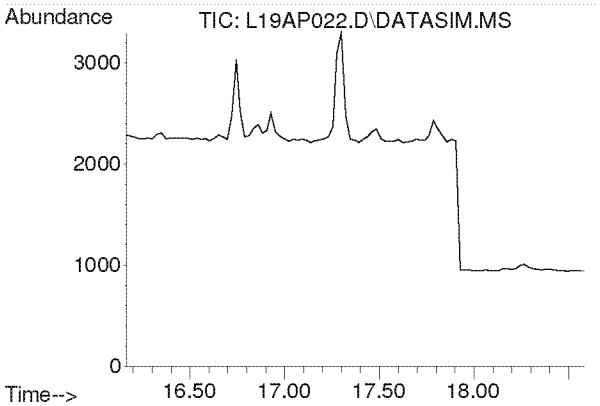
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19AP022.D
Acq: 17 Jan 2019 10:08 am

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.0



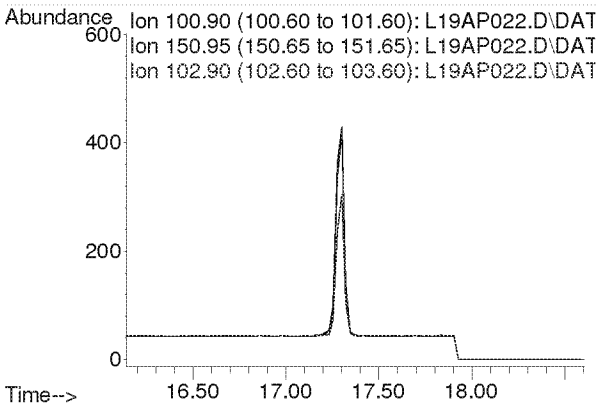


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.30 min

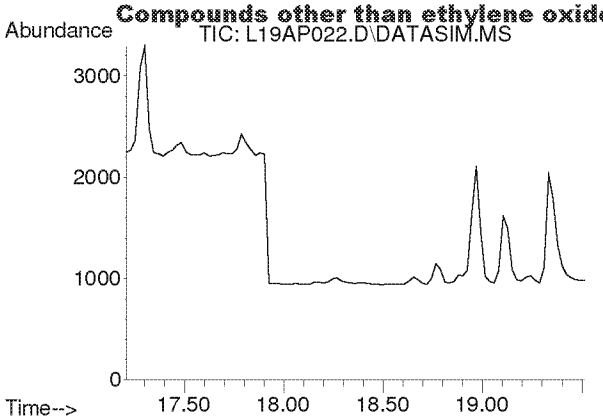
Lab File: L19AP022.D
Acq: 17 Jan 2019 10:08 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	95.4
103	63.9



Compounds other than ethylene oxide were not quantitated.

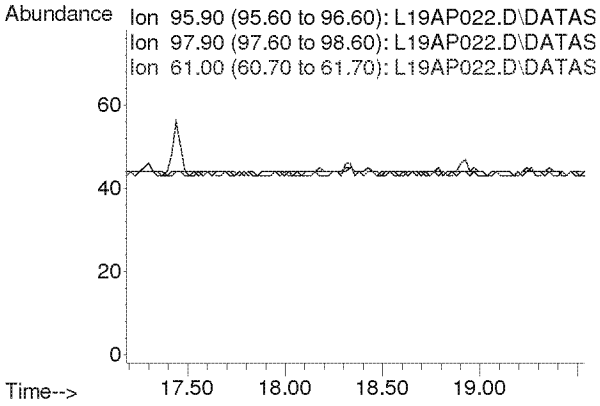


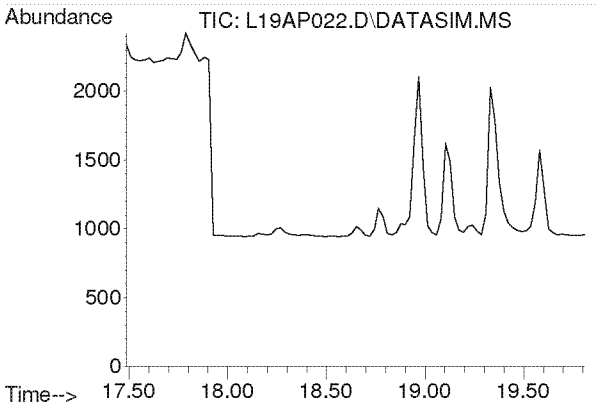
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19AP022.D
Acq: 17 Jan 2019 10:08 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	63.6
61	156.5



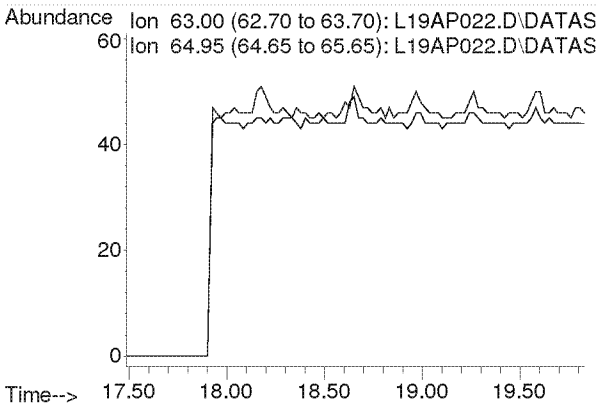


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

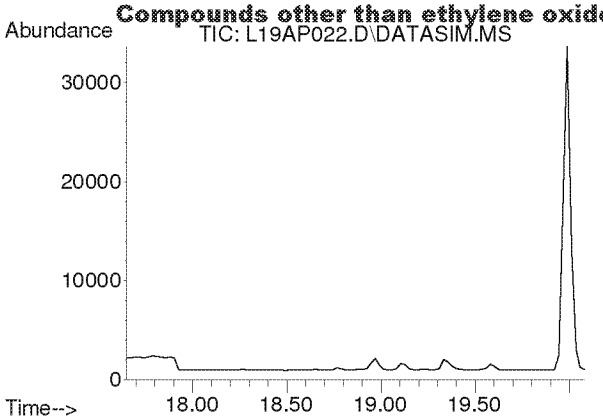
Lab File: L19AP022.D
Acq: 17 Jan 2019 10:08 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

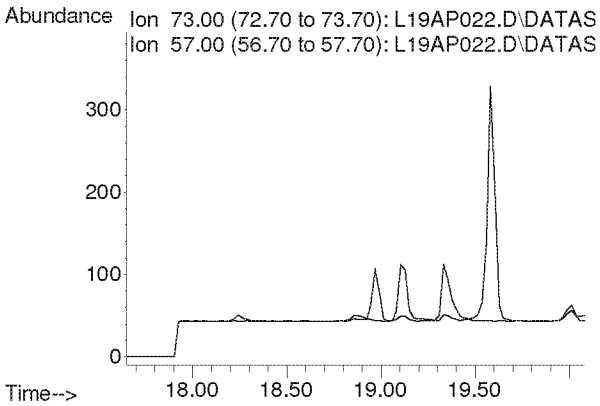


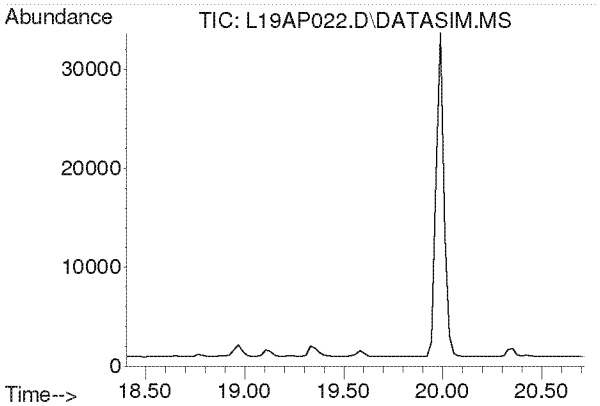
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19AP022.D
Acq: 17 Jan 2019 10:08 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.6



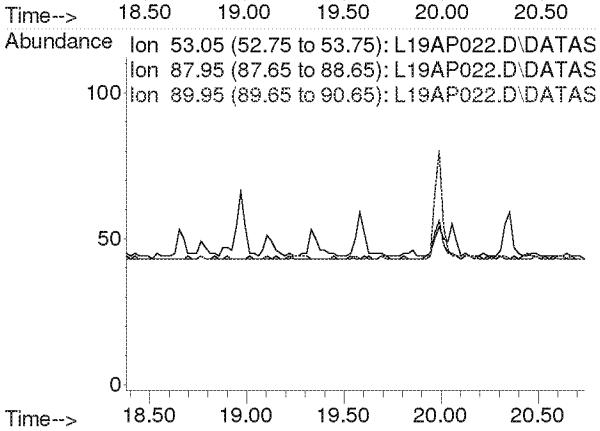


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

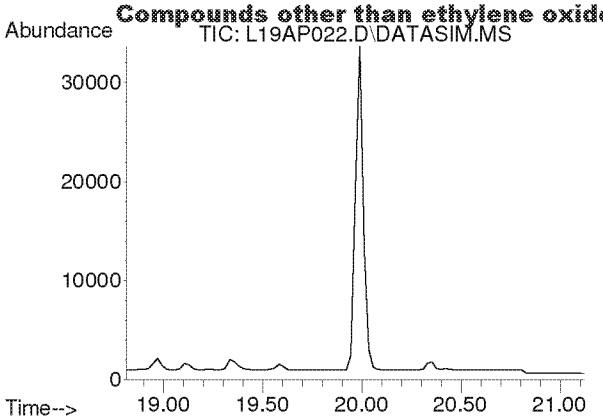
Lab File: L19AP022.D
Acq: 17 Jan 2019 10:08 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	54.0
90	17.3



Compounds other than ethylene oxide were not quantitated.

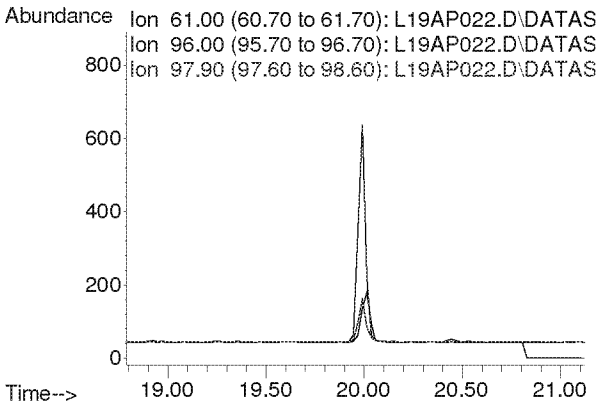


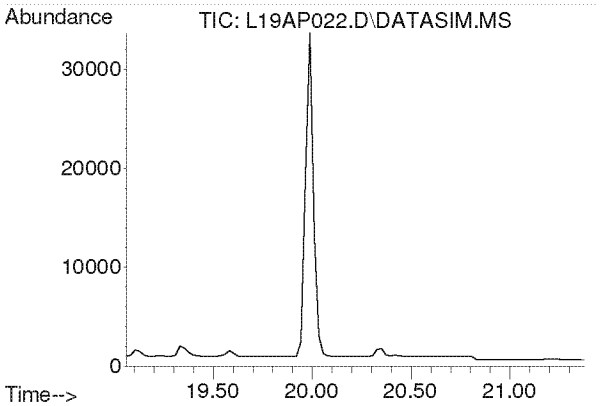
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19AP022.D
Acq: 17 Jan 2019 10:08 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	75.7
98	46.4



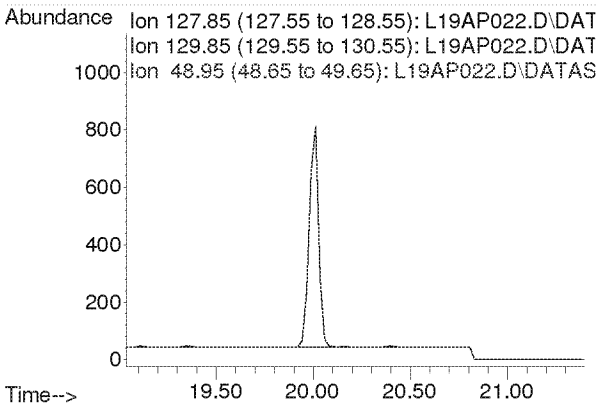


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.19 min

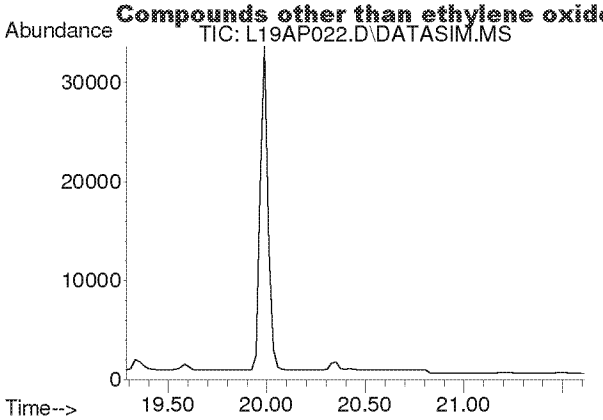
Lab File: L19AP022.D
Acq: 17 Jan 2019 10:08 am

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	130.4
49	170.8



Compounds other than ethylene oxide were not quantitated.

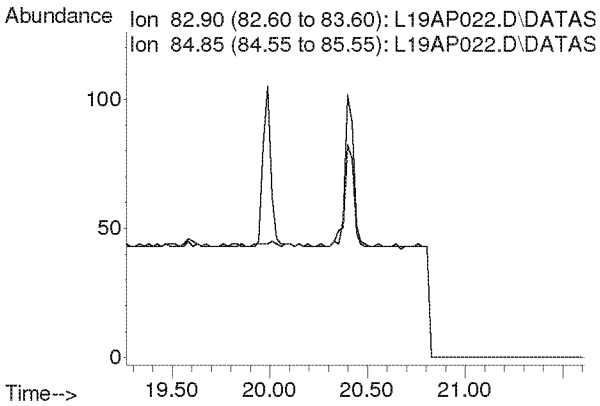


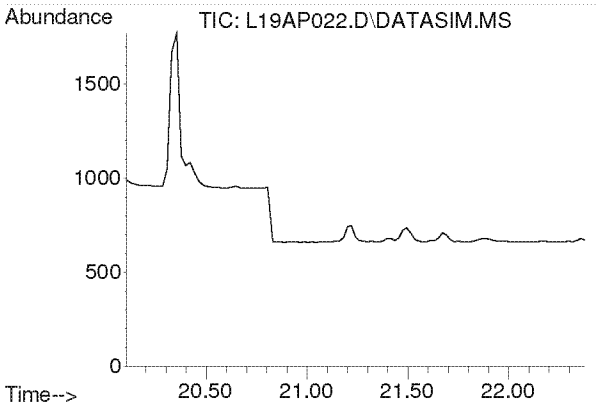
#26
Chloroform
Concen: N.D.
Expected RT: 20.42 min

Lab File: L19AP022.D
Acq: 17 Jan 2019 10:08 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



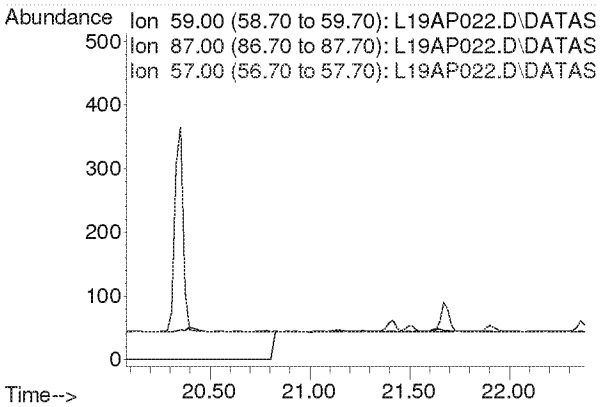


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

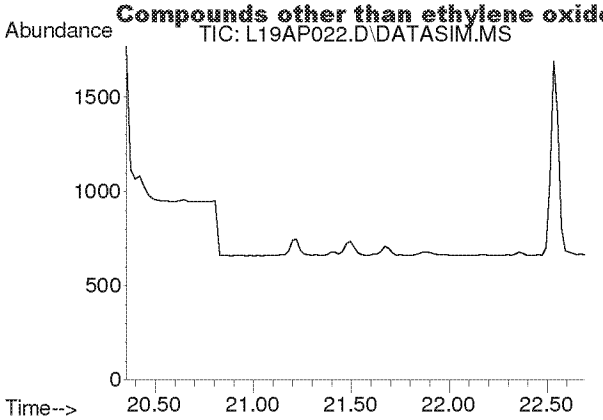
Lab File: L19AP022.D
Acq: 17 Jan 2019 10:08 am

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	37.8
57	34.3



Compounds other than ethylene oxide were not quantitated.

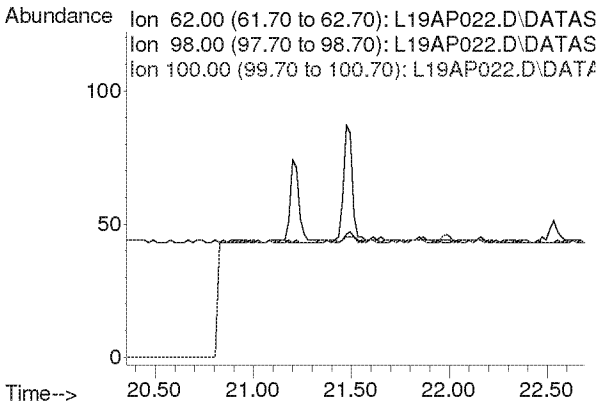


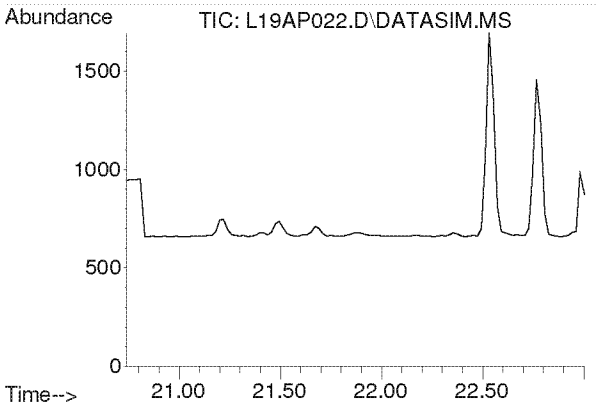
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.50 min

Lab File: L19AP022.D
Acq: 17 Jan 2019 10:08 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.8
100	4.2



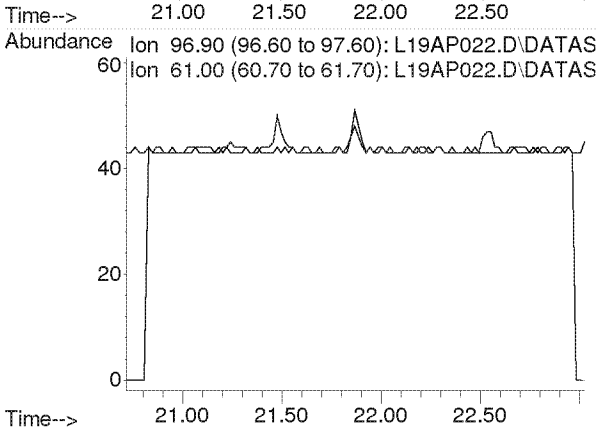


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

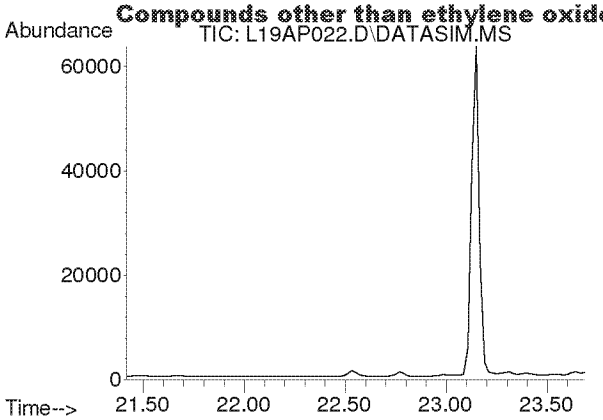
Lab File: L19AP022.D
Acq: 17 Jan 2019 10:08 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	58.6



Compounds other than ethylene oxide were not quantitated.

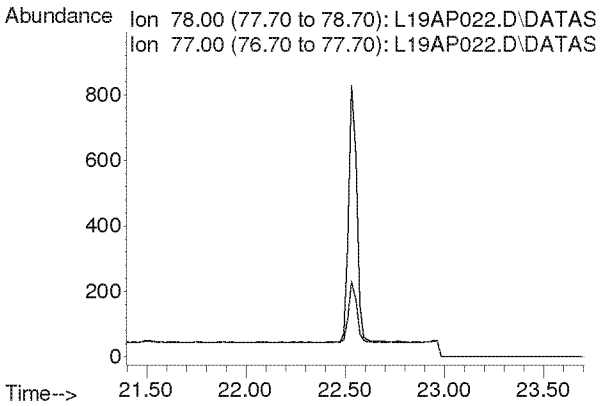


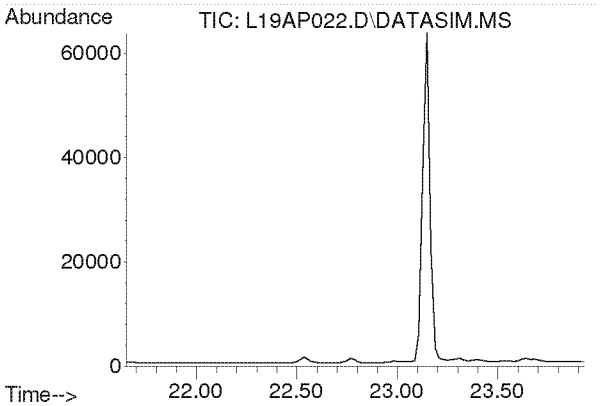
#31
Benzene
Concen: N.D.
Expected RT: 22.55 min

Lab File: L19AP022.D
Acq: 17 Jan 2019 10:08 am

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.9



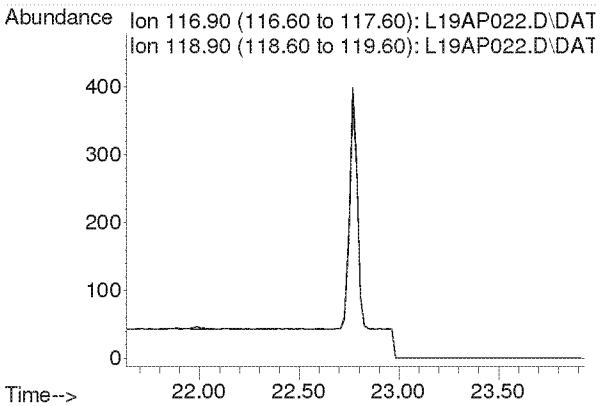


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.79 min

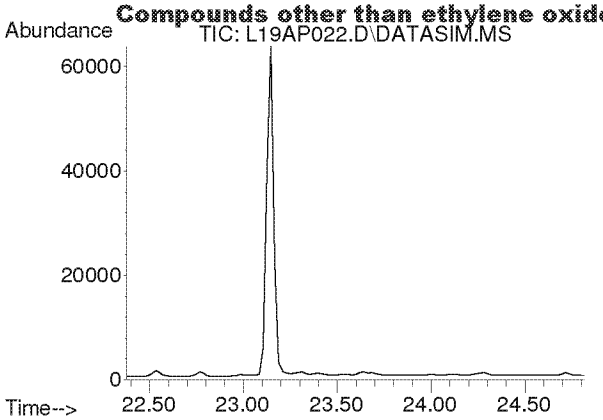
Lab File: L19AP022.D
Acq: 17 Jan 2019 10:08 am

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.5



Compounds other than ethylene oxide were not quantitated.

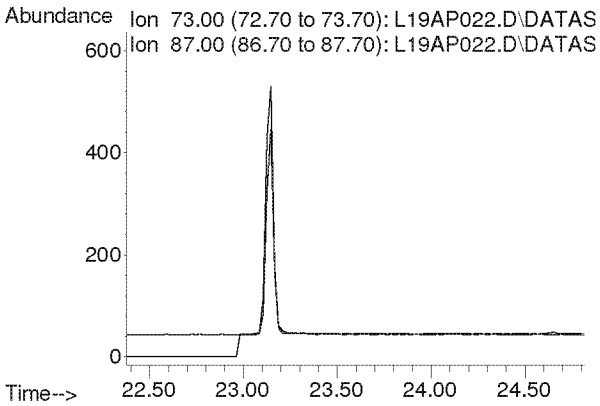


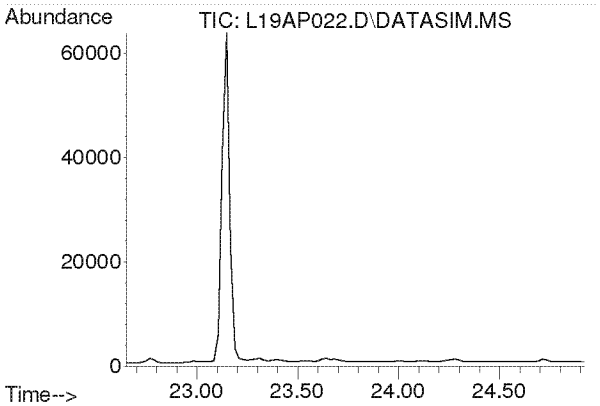
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19AP022.D
Acq: 17 Jan 2019 10:08 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	24.8



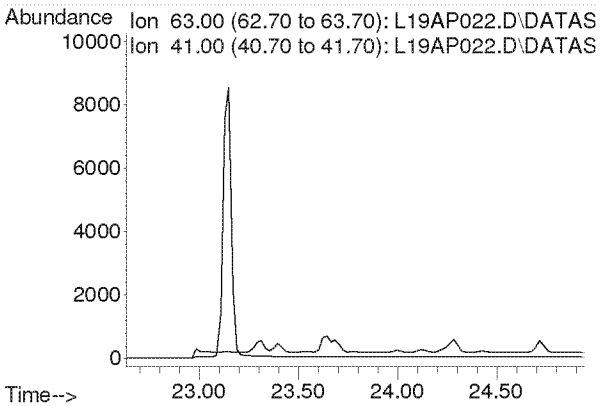


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

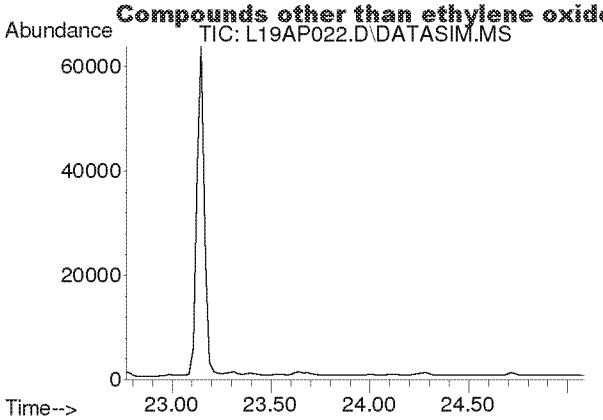
Lab File: L19AP022.D
Acq: 17 Jan 2019 10:08 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	196.0



Compounds other than ethylene oxide were not quantitated.

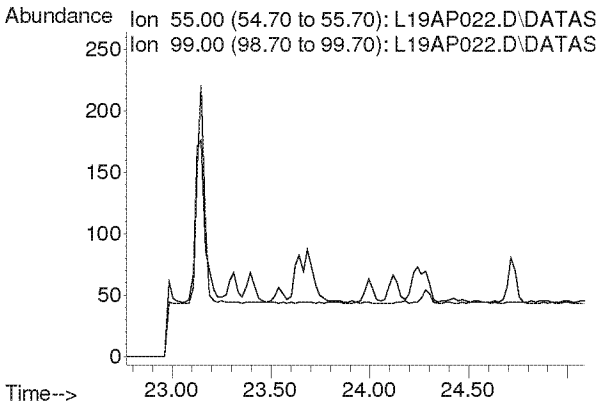


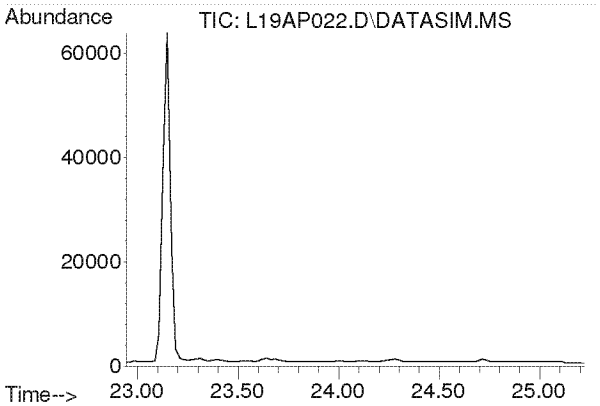
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19AP022.D
Acq: 17 Jan 2019 10:08 am

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.0



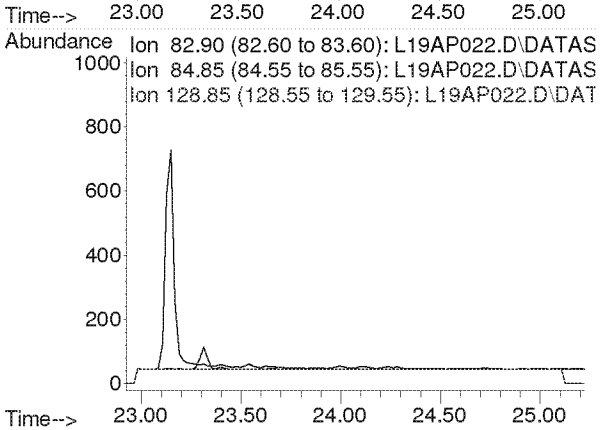


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

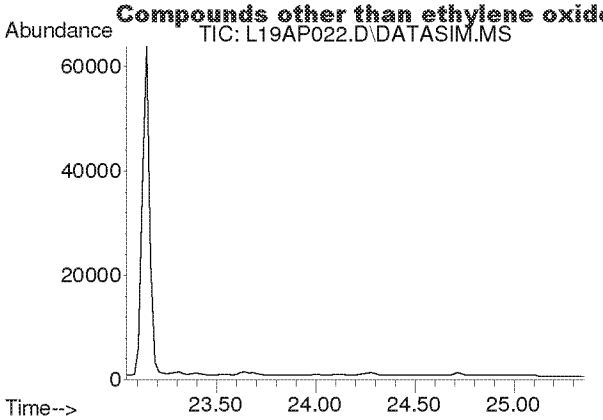
Lab File: L19AP022.D
Acq: 17 Jan 2019 10:08 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.9
129	12.5



Compounds other than ethylene oxide were not quantitated.

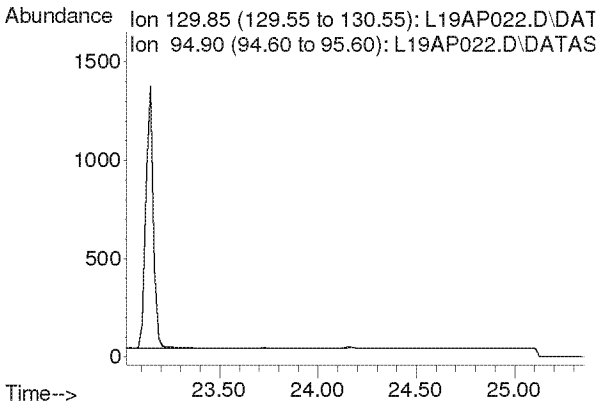


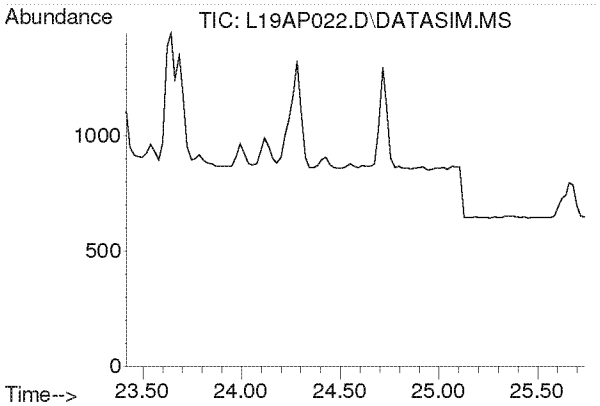
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19AP022.D
Acq: 17 Jan 2019 10:08 am

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	108.6



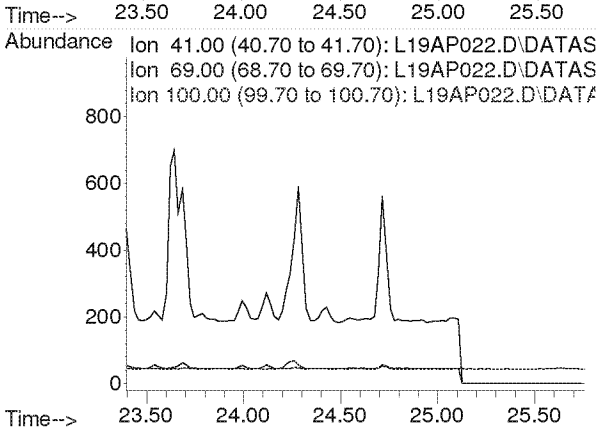


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.55 min

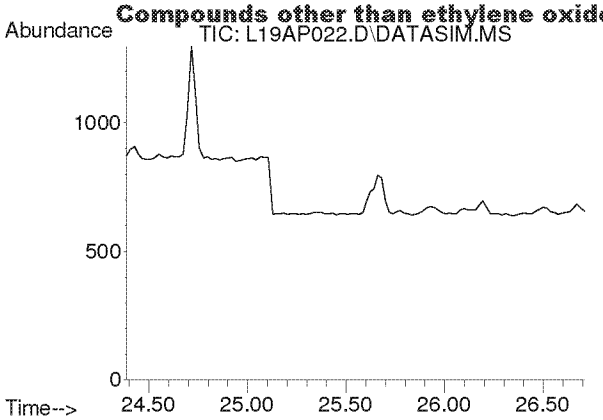
Lab File: L19AP022.D
Acq: 17 Jan 2019 10:08 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	20.7
100	5.3



Compounds other than ethylene oxide were not quantitated.

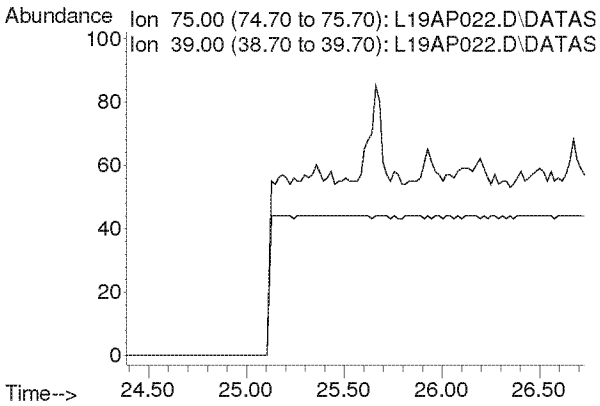


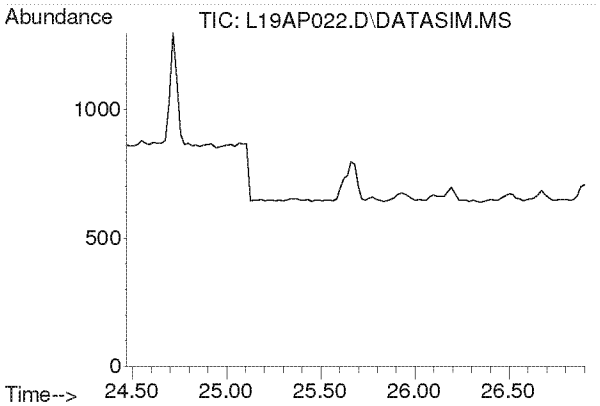
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19AP022.D
Acq: 17 Jan 2019 10:08 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	48.3



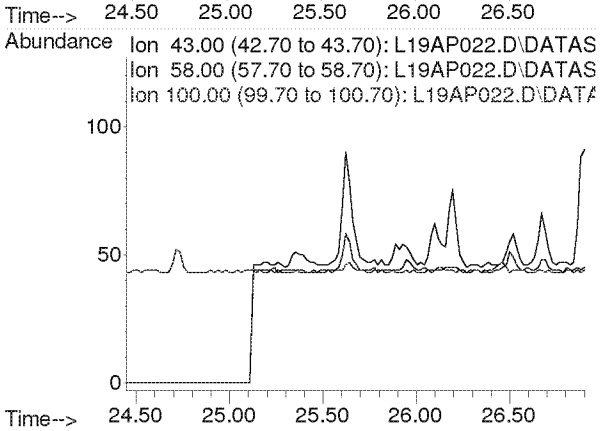


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

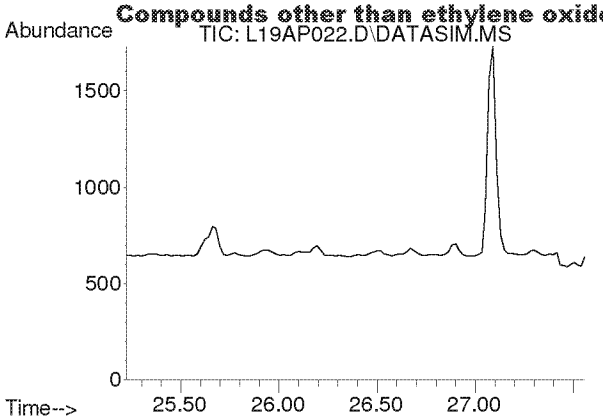
Lab File: L19AP022.D
Acq: 17 Jan 2019 10:08 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	34.5
100	8.1



Compounds other than ethylene oxide were not quantitated.

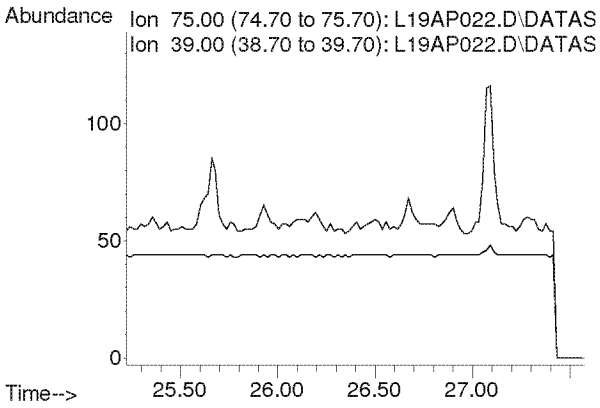


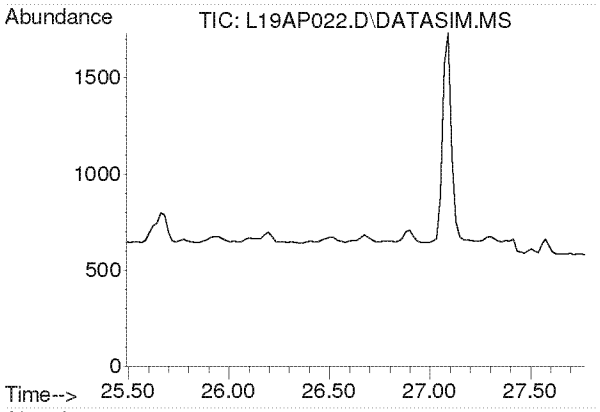
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19AP022.D
Acq: 17 Jan 2019 10:08 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	48.8



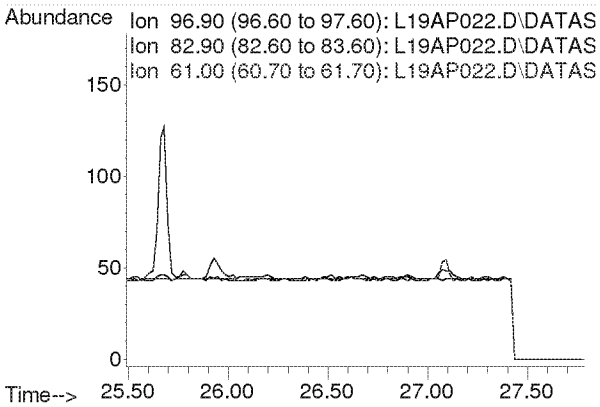


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.63 min

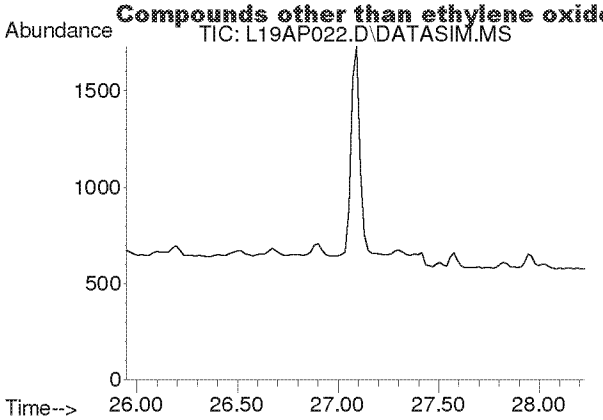
Lab File: L19AP022.D
Acq: 17 Jan 2019 10:08 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	96.6
61	61.4



Compounds other than ethylene oxide were not quantitated.

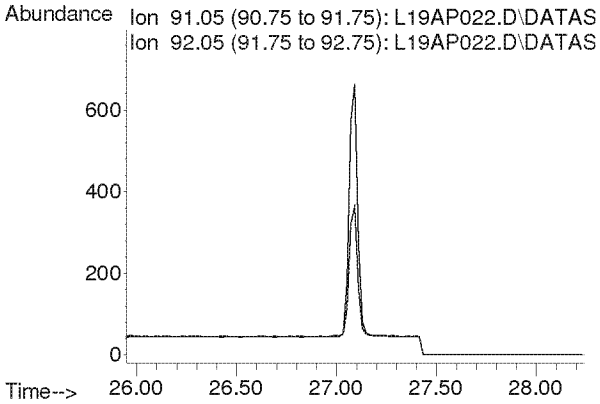


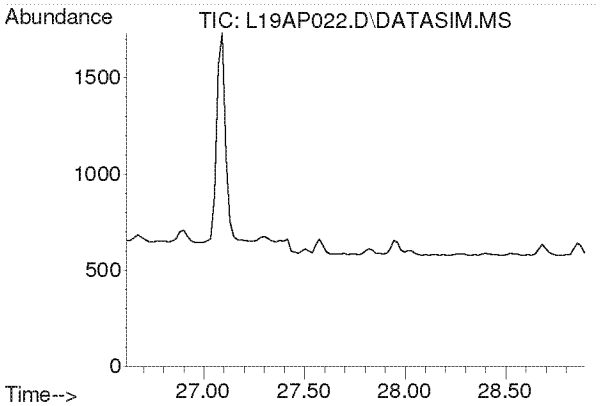
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19AP022.D
Acq: 17 Jan 2019 10:08 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



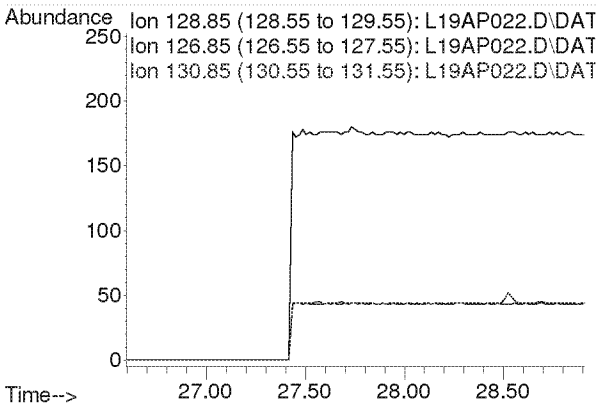


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

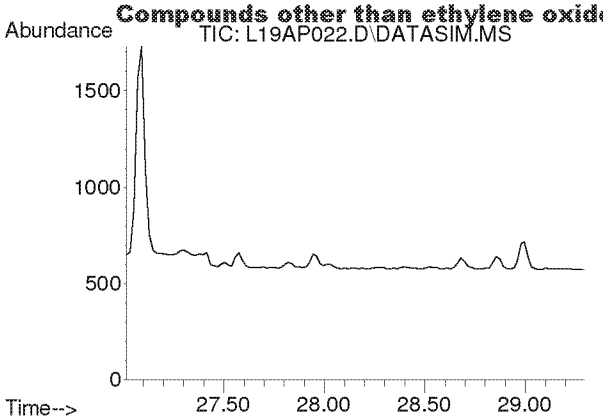
Lab File: L19AP022.D
Acq: 17 Jan 2019 10:08 am

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.2
131	6.0



Compounds other than ethylene oxide were not quantitated.

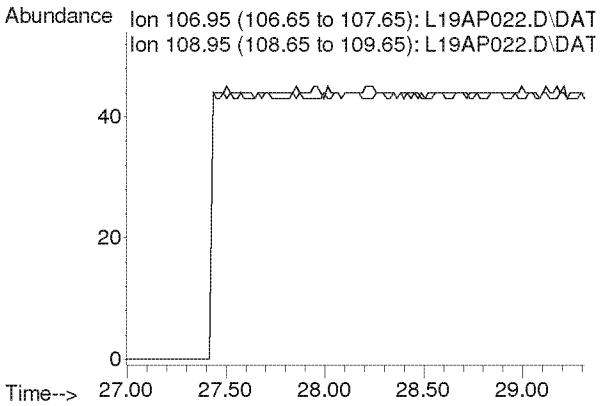


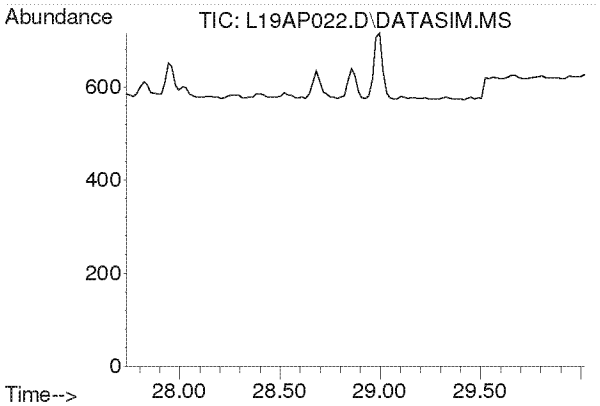
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19AP022.D
Acq: 17 Jan 2019 10:08 am

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.3



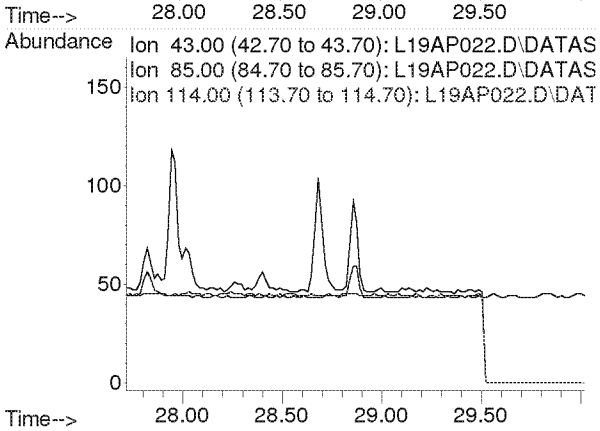


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

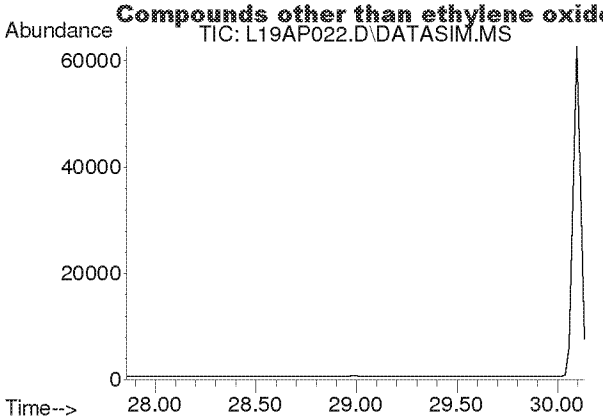
Lab File: L19AP022.D
Acq: 17 Jan 2019 10:08 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	36.6
114	2.3



Compounds other than ethylene oxide were not quantitated.

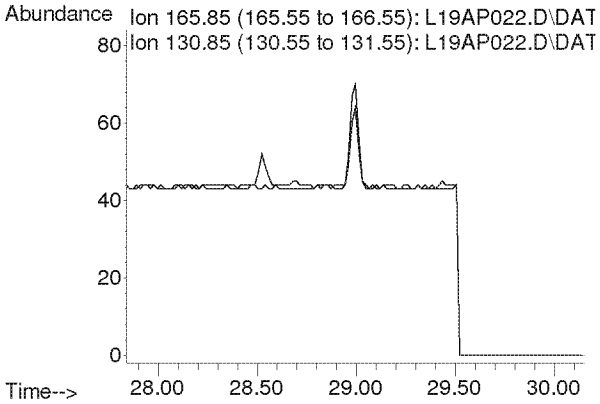


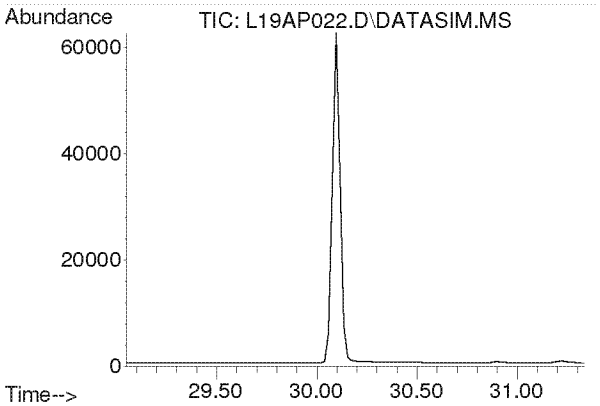
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19AP022.D
Acq: 17 Jan 2019 10:08 am

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	78.2



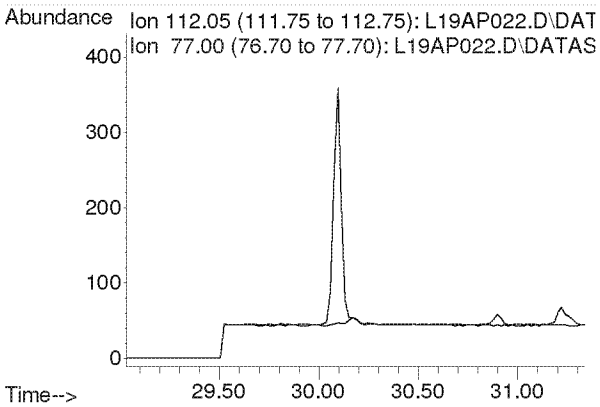


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

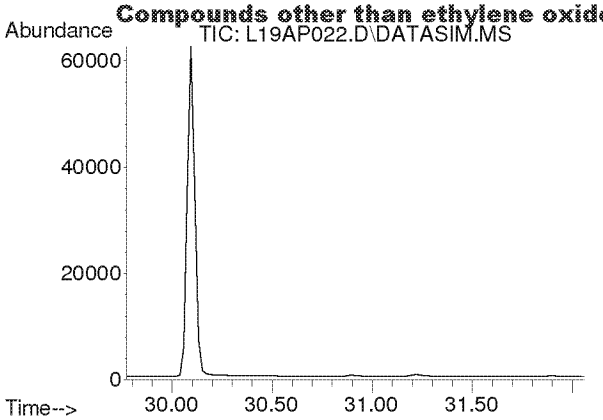
Lab File: L19AP022.D
Acq: 17 Jan 2019 10:08 am

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	61.2



Compounds other than ethylene oxide were not quantitated.

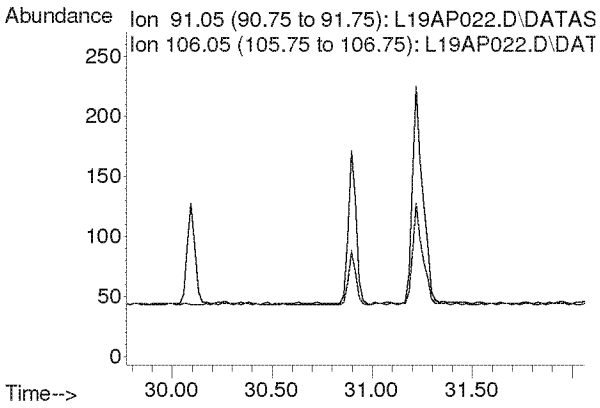


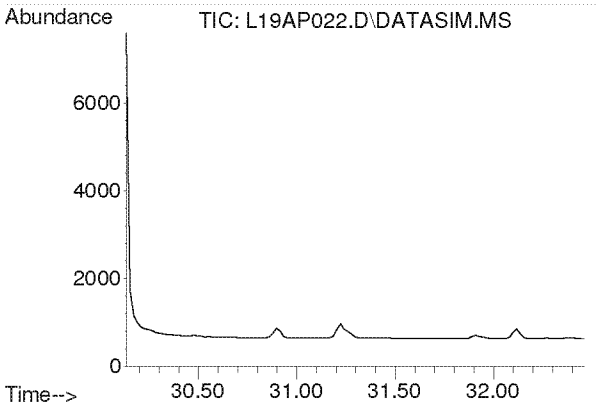
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19AP022.D
Acq: 17 Jan 2019 10:08 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	31.7



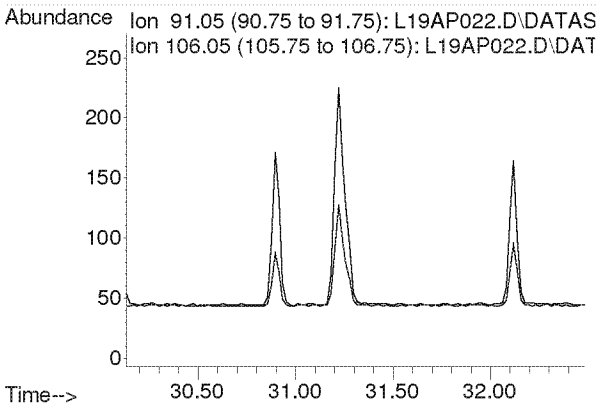


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

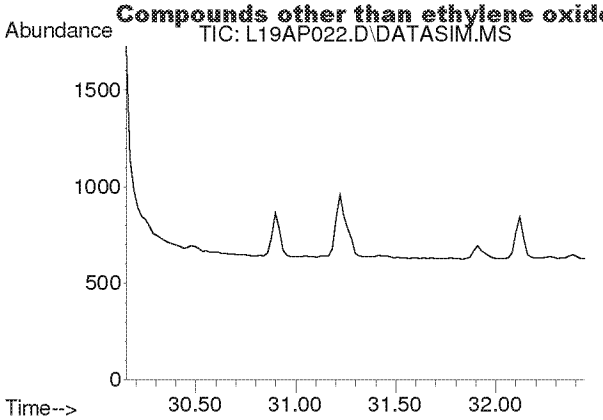
Lab File: L19AP022.D
Acq: 17 Jan 2019 10:08 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.6



Compounds other than ethylene oxide were not quantitated.

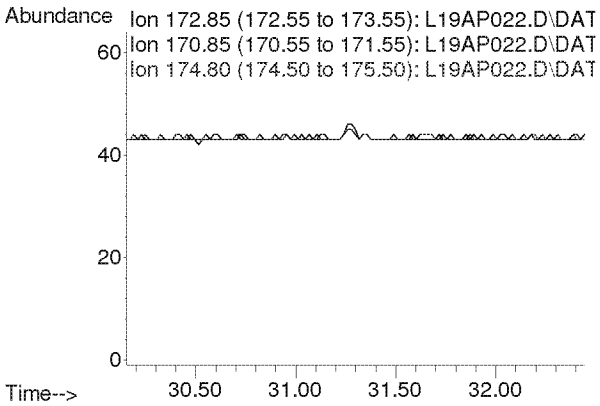


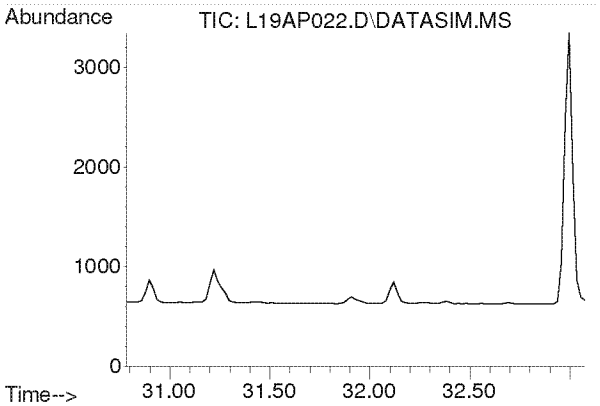
#52
Bromoform
Concen: N.D.
Expected RT: 31.30 min

Lab File: L19AP022.D
Acq: 17 Jan 2019 10:08 am

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.4
175	48.9



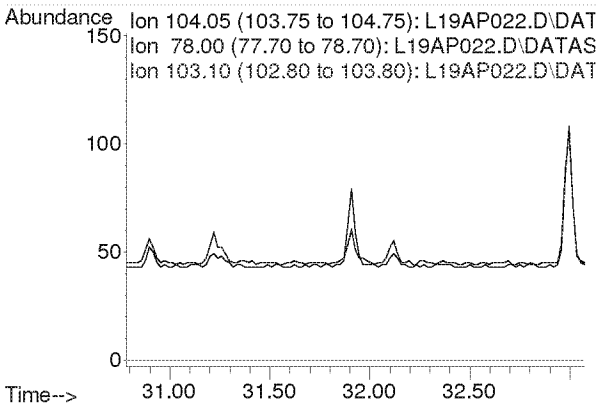


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

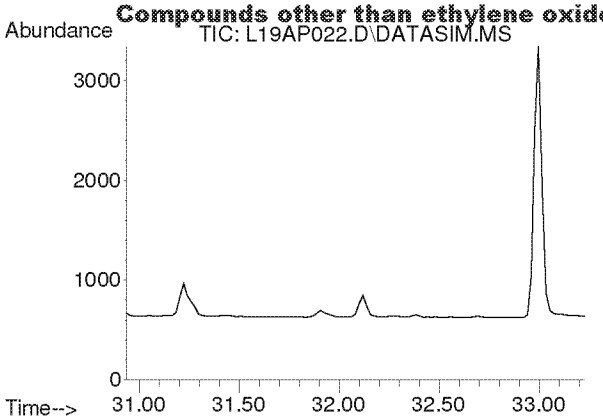
Lab File: L19AP022.D
Acq: 17 Jan 2019 10:08 am

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	45.8
103	0.0



Compounds other than ethylene oxide were not quantitated.

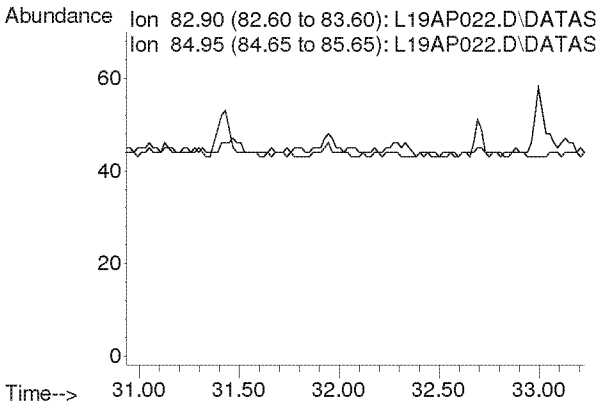


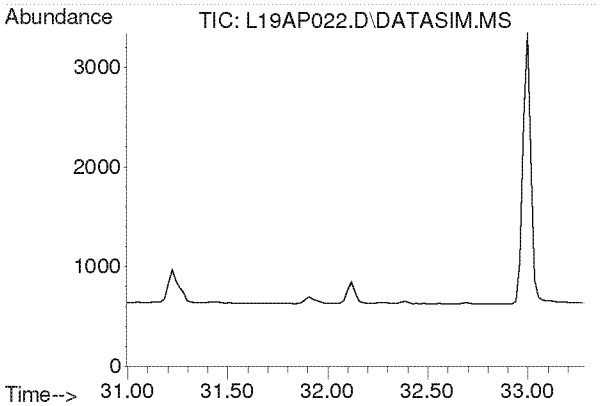
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19AP022.D
Acq: 17 Jan 2019 10:08 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.0



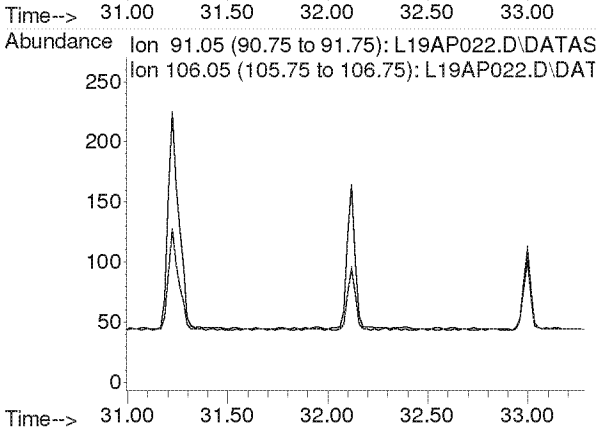


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

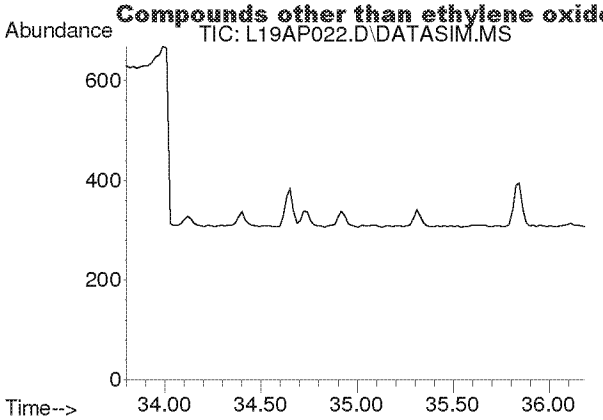
Lab File: L19AP022.D
Acq: 17 Jan 2019 10:08 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.8



Compounds other than ethylene oxide were not quantitated.

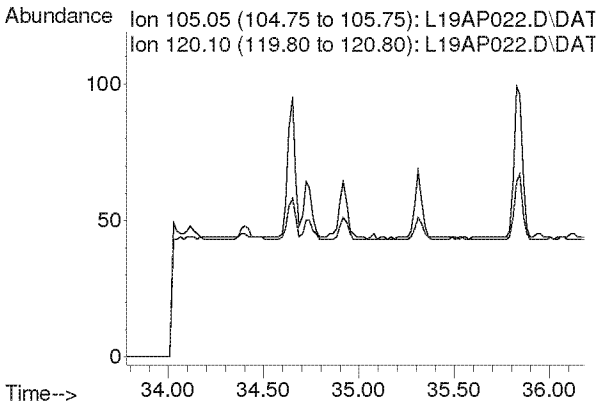


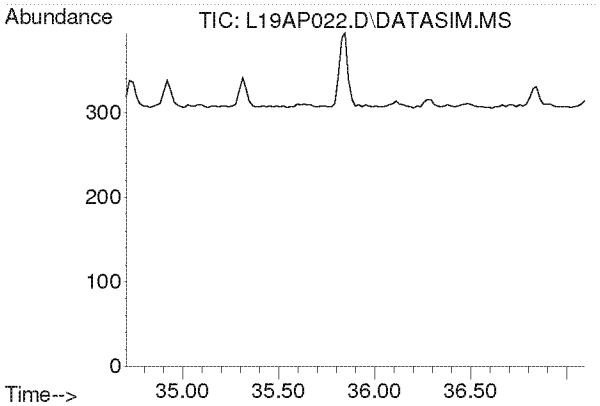
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19AP022.D
Acq: 17 Jan 2019 10:08 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	45.0



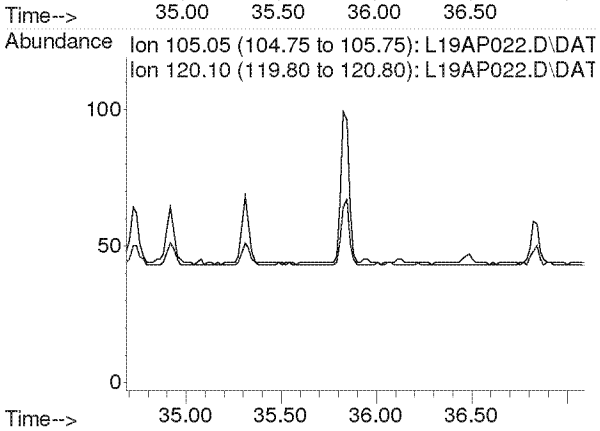


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

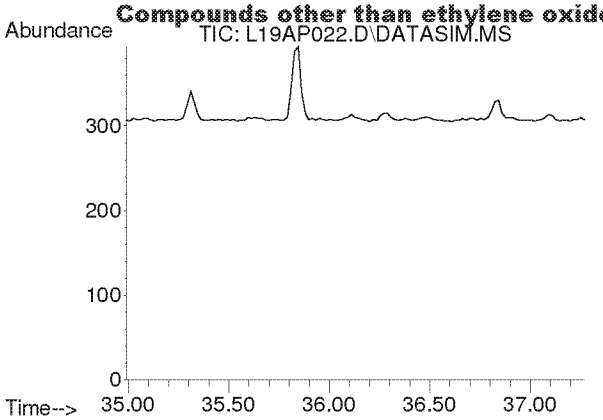
Lab File: L19AP022.D
Acq: 17 Jan 2019 10:08 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	42.9



Compounds other than ethylene oxide were not quantitated.

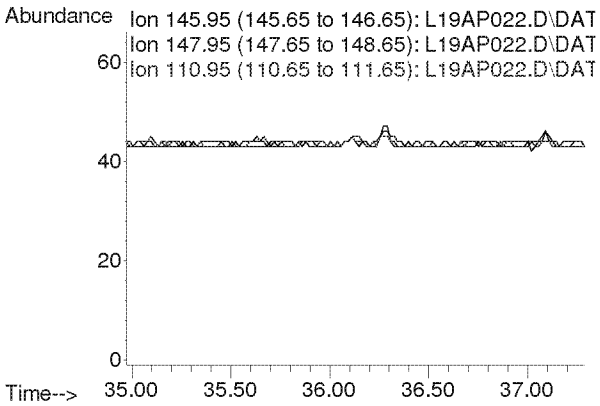


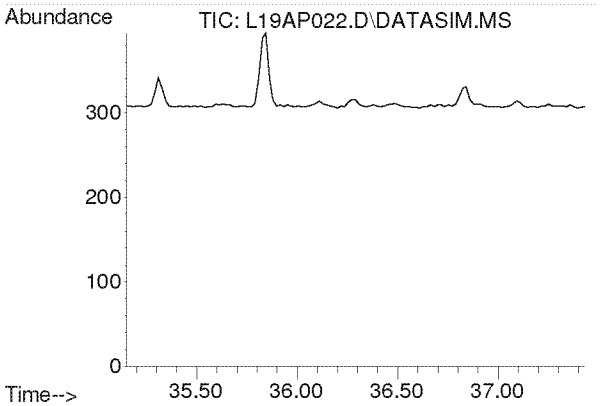
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19AP022.D
Acq: 17 Jan 2019 10:08 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.5



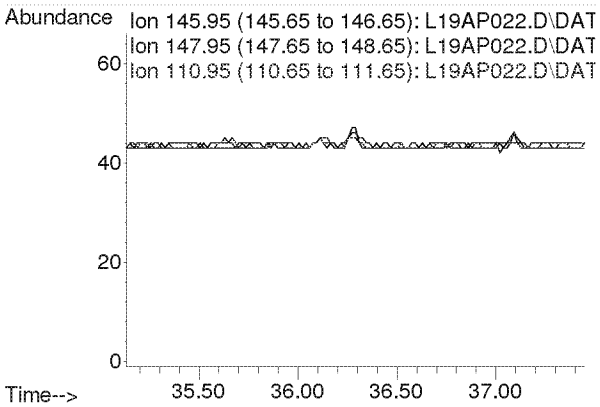


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

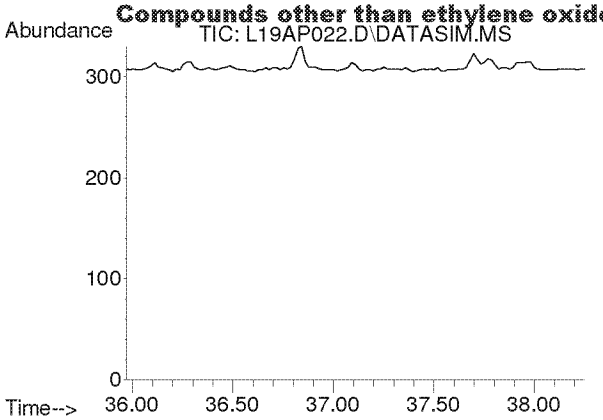
Lab File: L19AP022.D
Acq: 17 Jan 2019 10:08 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	63.9
111	39.3



Compounds other than ethylene oxide were not quantitated.

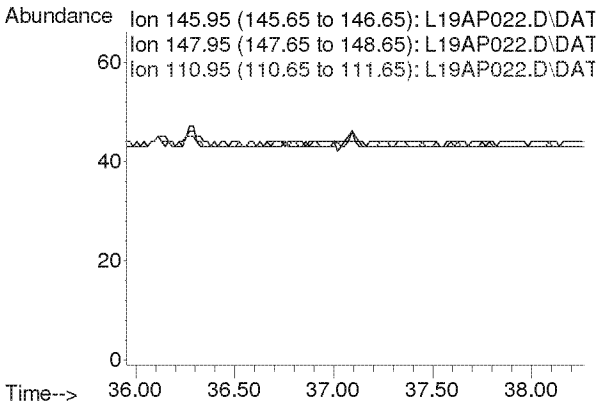


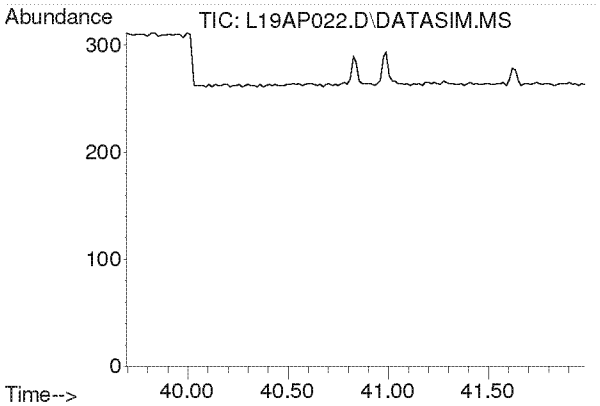
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19AP022.D
Acq: 17 Jan 2019 10:08 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.7



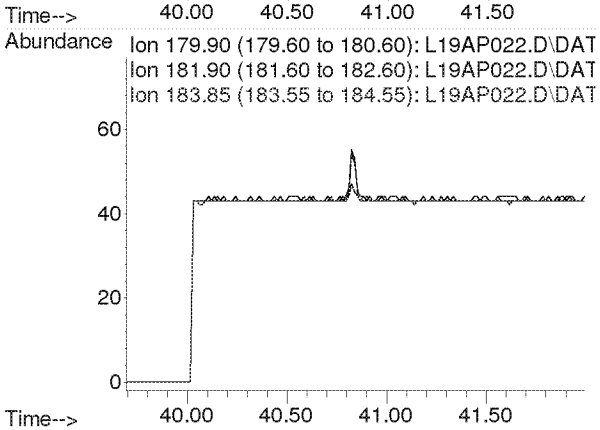


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

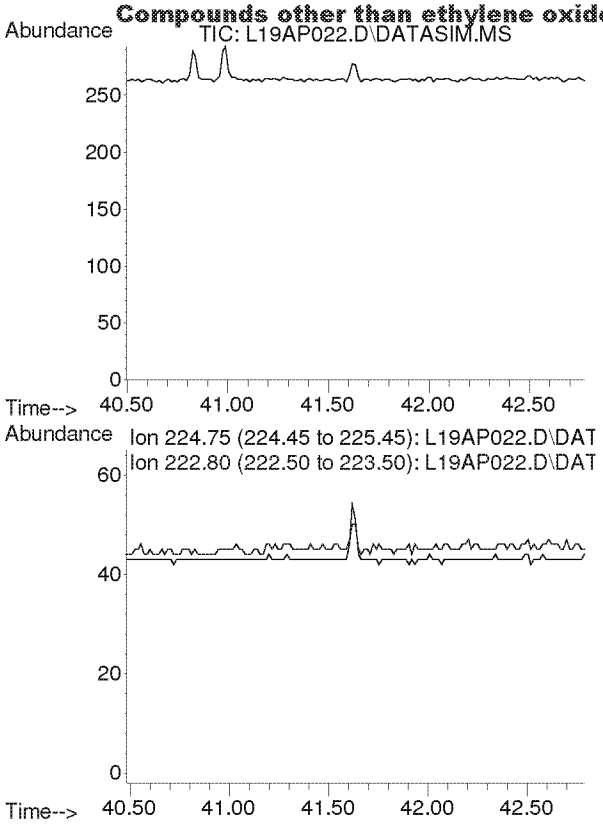
Lab File: L19AP022.D
Acq: 17 Jan 2019 10:08 am

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	95.0
184	30.5



Compounds other than ethylene oxide were not quantitated.



#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.63 min

Lab File: L19AP022.D
Acq: 17 Jan 2019 10:08 am

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.4

Compounds other than ethylene oxide were not quantitated.

PREPARATION BENCH SHEET

B9A1607

Eastern Research Group

Matrix: Air | **Prepared using: Air Toxics - Summa Canister Prep** | **rinted: 1/31/2019 9:07:11AM**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments	
9010716-05 *TO-15 2019*	01/04/19 09:33	250	250	U.S. Environmental Protection Agency - OAQPS		Ethylene Oxide only		Ethylene Oxide only
9010716-08 *TO-15 2019*	01/04/19 10:31	250	250	U.S. Environmental Protection Agency - OAQPS		Ethylene Oxide only		Ethylene Oxide only
9010808-01 *TO-15 2019*	01/07/19 09:29	250	250	U.S. Environmental Protection Agency - OAQPS				
9010808-02 *TO-15 2019*	01/07/19 10:03	250	250	U.S. Environmental Protection Agency - OAQPS				
9010808-03 *TO-15 2019*	01/07/19 09:40	250	250	U.S. Environmental Protection Agency - OAQPS				
9010808-04 *TO-15 2019*	01/07/19 09:58	250	250	U.S. Environmental Protection Agency - OAQPS				
9010808-05 *TO-15 2019*	01/04/19 09:32	250	250	U.S. Environmental Protection Agency - OAQPS				
9010808-08 *TO-15 2019*	01/07/19 10:08	250	250	U.S. Environmental Protection Agency - OAQPS				
9011118-01 *TO-15 2019*	01/11/19 08:00	250	250	ERG				
9011118-02 *TO-15 2019*	01/11/19 08:00	250	250	ERG				
9011118-03 *TO-15 2019*	01/11/19 08:00	250	250	ERG				
9011118-04 *TO-15 2019*	01/11/19 08:00	250	250	ERG				
B9A1607-BLK1	01/14/19 08:00	250	250				b-h1-541	
B9A1607-DUP1	01/04/19 09:33	250	250		9010808-05			
B9A1607-DUP2	01/04/19 09:32	250	250		9010716-05			

Spiking Witnessed By Date | Randy Bowe Preparation Reviewed By | 1/31/19 Date | Extracts Received By Date

Compounds other than ethylene oxide were not quantitated.

PREPARATION BENCH SHEET

B9A1607

Eastern Research Group

Matrix: Air | **Prepared using: Air Toxics - Summa Canister Prep** | **rinted: 1/31/2019 9:07:11AM**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments

Spiking Witnessed By Date

Preparation Reviewed By Date

Extracts Received By Date

Compounds other than ethylene oxide were not quantitated.

ERG Lab ID # 901C808-05

ERG
Eastern Research Group, Inc.
601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: Willowbrook Village Hall
Canister Number: SAT088
City/State: Willowbrook, IL
Lab Initial Can. Press. ("Hg): 29.8
AQS Code:
Cleaning Batch # : HI-529
Collection Date: 1/3/19
Date Can. Cleaned: 12/26/18
Options:
SNMOC (Y/N):
Duplicate Event (Y/N): N
TOXICS (Y/N): Y
Duplicate Can # : [illegible]
METHANE (Y/N):
Relinquished by: BHC
Date: 12-28-18

Field Setup

Received by: C. Cummings
Date: 1/3/19
Operator: C. Cummings
MFC Setting:
System #: 1313
Elapsed Timer Reset (Y/N):
Setup Date: 1/3/19
Canister Valve Opened (Y/N): Y @ 09:31
Field Initial Can. Press.: [illegible] psig psia "Hg (Circle one)

Field Recovery

Recovery Date: C. Cummings
Sample Duration (3 or 24 hr): 24
Operator: C. Cummings
Elapsed Time:
Field Final Can. Press.: -3 psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Canister Valve Closed (Y/N): Y @ 09:32
Relinquished by: C. Cummings
Date: 1/4/19

Lab Recovery

Received by: LR
Date: 1/8/19
Lab Final Can. Press.: 2 psig "Hg (Circle one)
Converted to psia:
Status: VALID VOID (Circle one)
Gauge: 1 2 (Circle one)
If void, why:

Samples stored in Air Tox Lab (Room 130)

5-2016

Comments: Leak Check -3.4 @ 09:33 - [illegible]
Setup Temp 25°F, Recovery 34°F

White: Sample Traveler
Canary: Lab Copy
Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

ERG Lab ID # 9016716C5

ERG
Eastern Research Group, Inc.
601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: [illegible] Canister Number: SAT077

City/State: [illegible] Lab Initial Can. Press. ("Hg): 29.8

AQS Code: Cleaning Batch # : H1-529

Collection Date: [illegible] Date Can. Cleaned: 12/26/18

Options:

SNMOC (Y/N): Duplicate Event (Y/N): [illegible]

TOXICS (Y/N): Duplicate Can # : SAT088

METHANE (Y/N):

Relinquished by: BHC Date: 12-28-18

Field Setup

Received by: [illegible] Date: [illegible]

Operator: [illegible] MFC Setting:

System #: [illegible] Elapsed Timer Reset (Y/N):

Setup Date: [illegible] Canister Valve Opened (Y/N): [illegible]

Field Initial Can. Press.: [illegible] psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 1/4/19 Sample Duration (3 or 24 hr): 24

Operator: C Cummings Elapsed Time:

Field Final Can. Press.: -5 psig psia "Hg (Circle one)

Status: **VALID** **VOID** (Circle one) Canister Valve Closed (Y/N): [illegible]

Relinquished by: Carrie Cummings Date: 1/4/19

Lab Recovery

Received by: KR Date: 1/7/19

Lab Final Can. Press.: 4.5 psig "Hg (Circle one) Converted to psia:

Status: **VALID** **VOID** (Circle one) Gauge: 1 2 (Circle one)

If void, why:

Samples stored in Air Tox Lab (Room 130)

5-2016

Comments: [illegible] @ 07:34
[illegible] °F, Recovery 34°F

MK

White: Sample Traveler Canary: Lab Copy Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

ERG Lab ID # 901ECE-01

ERG
Eastern Research Group, Inc.
601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: Wilmington Waste Service
Canister Number: SAT087
City/State: Willowbrook, IL
Lab Initial Can. Press. ("Hg): 29.7
AQS Code:
Cleaning Batch # : H-531
Collection Date: 1/6/19
Date Can. Cleaned: 12/28/18
Options:
SNMOC (Y/N):
Duplicate Event (Y/N): N
TOXICS (Y/N): Y
Duplicate Can # : —
METHANE (Y/N):
Relinquished by: RMB
Date: 1/3/19

Field Setup

Received by: M. Compher
Date: 1/6/19
Operator: M. Compher
MFC Setting:
System #: 10314
Elapsed Timer Reset (Y/N):
Setup Date: 1/6/19
Canister Valve Opened (Y/N): Y @ 09:06
Field Initial Can. Press.: -30 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 1/7/19
Sample Duration (3 or 24 hr): 24
Operator: C. Cummings
Elapsed Time: —
Field Final Can. Press.: -4 psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Canister Valve Closed (Y/N): Y @ 09:29
Relinquished by: C. Cummings
Date: 1/7/19

Lab Recovery

Received by: KC
Date: 1/8/19
Lab Final Can. Press.: 2.5 psig "Hg (Circle one)
Converted to psia:
Status: VALID VOID (Circle one)
Gauge: 1 2 (Circle one)
If void, why:

Samples stored in Air Tox Lab (Room 130)

5-2016

Comments: leak check -30" Hg @ 8:59 AM -30" Hg @ 9:05 AM
Ambient temperature @ deployment = 37°F, recovery 45°F

MSL

White: Sample Traveler
Canary: Lab Copy
Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

ERG Lab ID # 9010808-02

ERG
Eastern Research Group, Inc.
601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: [illegible]
City/State: [illegible]
AQS Code:
Collection Date: 1/6/19
Options:
SNMOC (Y/N):
TOXICS (Y/N): Y
METHANE (Y/N):
Relinquished by: RMB

Canister Number: 18869
Lab Initial Can. Press. ("Hg): 29.7
Cleaning Batch # : H1-531
Date Can. Cleaned: 12/28/18
Duplicate Event (Y/N): N
Duplicate Can # :
Date: 1/3/19

Field Setup

Received by: C. Cummings
Date: 1/6/19
Operator: C. Cummings
MFC Setting:
System #: 10076
Elapsed Timer Reset (Y/N):
Setup Date: 1/6/19
Canister Valve Opened (Y/N): Y @ 10:17
Field Initial Can. Press.: -29 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 1/7/19
Sample Duration (3 or 24 hr): 24
Operator: C. Cummings
Elapsed Time:
Field Final Can. Press.: -5.5 psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Canister Valve Closed (Y/N): Y @ 10:03
Relinquished by: C. Cummings
Date: 1/7/19

Lab Recovery

Received by: KC
Date: 1/8/19
Lab Final Can. Press.: 5 psig "Hg (Circle one)
Converted to psia:
Status: VALID VOID (Circle one)
Gauge: 1 2 (Circle one)
If void, why:

Samples stored in Air Tox Lab (Room 130)

5-2016

Comments: leak Check -29 @ [illegible] -29 @ 10:17
Field Setup: 37°F, Recovery 45°F rain

MSL

White: Sample Traveler
Canary: Lab Copy
Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

ERG
Eastern Research Group, Inc.
601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

ERG Lab ID # 7010808-03

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: [illegible] MS
Canister Number: 161
City/State: [illegible], IL
Lab Initial Can. Press. ("Hg): 29.7
AQS Code:
Cleaning Batch # : HZ-530
Collection Date: [illegible]
Date Can. Cleaned: 12/27/18
Options:
SNMOC (Y/N):
Duplicate Event (Y/N): N
TOXICS (Y/N): Y
Duplicate Can # :
METHANE (Y/N):
Relinquished by: RMB
Date: 1/3/19

Field Setup

Received by: [illegible]
Date: [illegible]
Operator: [illegible]
MFC Setting:
System #: [illegible]
Elapsed Timer Reset (Y/N):
Setup Date: [illegible]
Canister Valve Opened (Y/N): Y 09:30
Field Initial Can. Press.: _____ psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 1/7/19
Sample Duration (3 or 24 hr): 24
Operator: C. Cummings
Elapsed Time:
Field Final Can. Press.: -5 psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Canister Valve Closed (Y/N): Y 09:40
Relinquished by: C. Cummings
Date: 1/7/19

Lab Recovery

Received by: NC
Date:
Lab Final Can. Press.: 5.5 psig "Hg (Circle one)
Converted to psia:
Status: VALID VOID (Circle one)
Gauge: 1 2 (Circle one)
If void, why:

Samples stored in Air Tox Lab (Room 130)

5-2016

Comments: Leak Check -30 [illegible] -30 [illegible]
Field Setup 33°F Field Recovery 45°F rain
DSY

White: Sample Traveler
Canary: Lab Copy
Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

ERG
Eastern Research Group, Inc.
601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

ERG Lab ID # 9610808-04

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: Pond Park
Canister Number: 101
City/State: Willowbrook, IL
Lab Initial Can. Press. ("Hg): 29.7
AQS Code:
Cleaning Batch # : H1-530
Collection Date: 1/6/19
Date Can. Cleaned: 12/27/18
Options:
SNMOC (Y/N):
Duplicate Event (Y/N): N
TOXICS (Y/N): Y
Duplicate Can # :
METHANE (Y/N):
Relinquished by: RWB
Date: 1/3/19

Field Setup

Received by: C. Cummings
Date: 1/6/19
Operator: C. Cummings
MFC Setting:
System #: 102-4
Elapsed Timer Reset (Y/N):
Setup Date: 1/6/19
Canister Valve Opened (Y/N): Y
Field Initial Can. Press.: psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 1/7/19
Sample Duration (3 or 24 hr): 24
Operator: C. Cummings
Elapsed Time:
Field Final Can. Press.: -4 psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Canister Valve Closed (Y/N): Y ~~1055~~ 09:58
Relinquished by: C. Cummings
Date: 1/7/19

Lab Recovery

Received by: KC
Date: 1/8/19
Lab Final Can. Press.: 4 psig "Hg (Circle one)
Converted to psia:
Status: VALID VOID (Circle one)
Gauge: 1 2 (Circle one)
If void, why:

Samples stored in Air Tox Lab (Room 130)

5-2016

Comments: Leak Check: -29" Hg @ 09:55, [illegible]
Field Setup 37°F, Field Recovery 45°F [illegible]
MSL

White: Sample Traveler
Canary: Lab Copy
Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

ERG Eastern Research Group, Inc.

601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

ERG Lab ID # 9010808-08

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: [illegible]

City/State: [illegible] Hill [illegible]

AQS Code:

Collection Date: 1/6/19

Canister Number: A22244

Lab Initial Can. Press. ("Hg): 29.7

Cleaning Batch # : H2-530

Date Can. Cleaned: 12/27/18

Options:

SNMOC (Y/N): ~~Y~~ N

TOXICS (Y/N): Y

METHANE (Y/N):

Duplicate Event (Y/N):

Duplicate Can # :

Relinquished by: RMB Date: 1/3/19

Field Setup

Received by: C. Cummings Date: 1/6/19

Operator: C. Cummings

System #: H6/H4 10293

Setup Date: 1/6/19

MFC Setting:

Elapsed Timer Reset (Y/N):

Canister Valve Opened (Y/N): Y @ 1033

Field Initial Can. Press.: -29.5 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 1/7/19

Operator: C. Cummings

Sample Duration (3 or 24 hr): 24

Elapsed Time:

Field Final Can. Press.: -4 psig psia "Hg (Circle one)

Status: VALID VOID (Circle one)

Canister Valve Closed (Y/N): Y @ 1008

Relinquished by: C. Cummings Date: 1/7/19

Lab Recovery

Received by: LR Date: 1/8/19

Lab Final Can. Press.: 4 psig "Hg (Circle one)

Converted to psia:

Status: VALID VOID (Circle one)

Gauge: 1 2 (Circle one)

If void, why:

Samples stored in Air Tox Lab (Room 130)

5-2016

Comments: Leak Check: -28.5"Hg 10:25, -28.5"Hg 10:30

Field Setup 37°F, recovery 45°F rain

MSC

White: Sample Traveler Canary: Lab Copy Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

ERG
Eastern Research Group, Inc.
601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

ERG Lab ID # 901C716-08

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: Hinsdale South High School
Canister Number: SAT173
City/State: Darien, IL
Lab Initial Can. Press. ("Hg): 29.8
AQS Code:
Cleaning Batch # : H1-529
Collection Date: 1/3/19
Date Can. Cleaned: 12/26/18
Options:
SNMOC (Y/N):
Duplicate Event (Y/N): N
TOXICS (Y/N): Y
Duplicate Can # :
METHANE (Y/N):
Relinquished by: BHC
Date: 12-28-18

Field Setup

Received by: C. Cummings
Date: 1/3/19
Operator: C. Cummings
MFC Setting:
System #: 1007E
Elapsed Timer Reset (Y/N):
Setup Date: 1/3/19
Canister Valve Opened (Y/N): Y @ 10:41
Field Initial Can. Press.: -28.5" psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 1/4/19
Sample Duration (3 or 24 hr):
Operator: C. Cummings
Elapsed Time:
Field Final Can. Press.: -5.5 psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Canister Valve Closed (Y/N): Y @ 10:31
Relinquished by: C. Cummings
Date: 1/4/19

Lab Recovery

Received by: HC
Date: 1/7/19
Lab Final Can. Press.: 5.5 psig "Hg (Circle one)
Converted to psia:
Status: VALID VOID (Circle one)
Gauge: 1 2 (Circle one)
If void, why:

Samples stored in Air Tox Lab (Room 130)

5-2016

Comments: Leak Check -28.5" @ 10:35 am -28.0" Hg @ 10:41
Field Setup Temp: 25°F
Field Recovery Temp: 34°F
MGL

White: Sample Traveler
Canary: Lab Copy
Pink: Field Copy