Compounds other than ethylene oxide were not quantitated.

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

Sequence ID: UBL-181205b	**Instrument:** MS1	**Batch:** BBL2704
Cal Curve (Method): 8120004	**Analyst:** MAC	**Date Analyzed:** 12-27-18
10% Review Sample IDs: 8121130-10, 8121821-02	**Reviewer:** DST	**Date:** 1/7/19
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	1-3-19	RMB 1/7/19	DST 1/7/19		
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)	1-3-19	RMB 1/7/19	DST 1/7/19		UBLS
ICV(LCS) Second source calibration verification check - immediately following ICAL	The response factor ≤ ±30% DEV from calibration curve average response factor	1-3-19	RMB 1/7/19	DST 1/7/19		UBLS
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	1-3-19	RMB 1/7/19	DST 1/7/19		LAV Source
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	1-3-19	RMB 1/7/19	DST 1/7/19		

Checked 8121130-10 Spectra for t-2-butene. None found
8121821-02 was a non-detect. DST 1/7/19

Year 2019
RMB 1/7/19

Compounds other than ethylene oxide were not quantitated.

SOP ERG-MOR-005
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	1-3-19	RMB 1/7/19	DST 1/7/19		
Canister Cleaning Certification	<3xMDL or 0.2ppbv per VOC targeted compound, whichever is lower	—	RMB 1/7/19	NA		
Preconcentrator Leak Check	≤ ± 0.2 psi/min	1-3-19	RMB 1/7/19	DST 1/7/19		
Samples/Internal Standard Check	IS area within ±40% and IS RT within ±0.33 min. of most recent initial calibration	1-3-19	RMB 1/7/19	DST 1/7/19		
COC Included and filled out	Lab receipt acknowledged, LIMS number added to COC	1-3-19	RMB 1/7/19	DST 1/7/19		
Manual Integration and peak deletion	Conforms with ERG-SOP-097 "Procedure for Manual Integration of Chromatographic Peaks"	1-3-19	RMB 1/7/19	DST 1/7/19		
Manual Calculation Check	One compound manual check must agree with software generated result		RMB 1/7/19	DST 1/7/19		CCV CCRF 6886 (4.77ppbv) / 63235 (2.50ppbv) = 0.208
Qualifiers Check	Check to make sure LIMS data flags are correct	1-3-19	RMB 1/7/19	DST 1/7/19		

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

L18L~002 ethylene oxide $\frac{6886 \times 4.77}{63235 \times 0.2851} = 1.82$ ppbv

Year 2019 RMB 1/7/19

Compounds other than ethylene oxide were not quantitated.

ANALYSIS SEQUENCE

1812056

Instrument: ERGMS#1

Calibration ID: 8120004

Printed: 12/27/2018 5:58:44PM

Lab Number	Analysis	Container	Order	Position	STD ID	ISTD ID	Client	Comments
1812056-CCV1	QC		1		8L26002	8L13002		
B8L2704-BLK1	QC		2			8L13002		
8121130-05	TO-15 2018	A	3			8L13002	U.S. Environmental Protection Agency - OAQ	Ethylene Oxide only
8121130-06	TO-15 2018	A	4			8L13002	U.S. Environmental Protection Agency - OAQ	Ethylene Oxide only
8121130-07	TO-15 2018	A	5			8L13002	U.S. Environmental Protection Agency - OAQ	Ethylene Oxide only
8121130-08	TO-15 2018	A	6			8L13002	U.S. Environmental Protection Agency - OAQ	Ethylene Oxide only
8121130-09	TO-15 2018	A	7			8L13002	U.S. Environmental Protection Agency - OAQ	Ethylene Oxide only
8121130-10	TO-15 2018	A	8			8L13002	U.S. Environmental Protection Agency - OAQ	Ethylene Oxide only
8121130-12	TO-15 2018	A	9			8L13002	U.S. Environmental Protection Agency - OAQ	Ethylene Oxide only
8121130-11	TO-15 2018	A	10			8L13002	U.S. Environmental Protection Agency - OAQ	Ethylene Oxide only
8121130-13	TO-15 2018	A	11			8L13002	U.S. Environmental Protection Agency - OAQ	Ethylene Oxide only
B8L2704-DUP1	QC		12			8L13002		
B8L2704-DUP2	QC		13			8L13002		
8121821-01	TO-15 2018	A	14			8L13002	U.S. Environmental Protection Agency - OAQ	Ethylene Oxide only
8121821-02	TO-15 2018	A	15			8L13002	U.S. Environmental Protection Agency - OAQ	Ethylene Oxide only
8121219-01	TO-15 2018	A	16			8L13002	U.S. Environmental Protection Agency, Regio	

Samples Loaded By 11-27-18 Date

Data Processed By 1-3-19 Date

Compounds other than ethylene oxide were not quantitated.

Sequence Name: C:\msdchem\1\sequence\L18L~.s
Comment: ANALYZE 12/27/18,8120004 exp 3/19/19, L18L~
Operator: MAH
Data Path: C:\MSDCHEM\1\DATA\L18L~\
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	L18L~001	BFB	BFB
2)	Sample	2	L18L~002	8120004	1812056-CCV1
3)	Sample	3	L18L~003	BFB	FLUSH
4)	Sample	4	L18L~004	8120004	B8L2704-BLK1
5)	Sample	5	L18L~005	8120004	8121130-05
6)	Sample	6	L18L~006	8120004	8121130-06
7)	Sample	7	L18L~007	8120004	8121130-07
8)	Sample	8	L18L~008	8120004	8121130-08
9)	Sample	9	L18L~009	8120004	8121130-09
10)	Sample	10	L18L~010	8120004	8121130-10
11)	Sample	11	L18L~011	8120004	8121130-11
12)	Sample	12	L18L~012	8120004	8121130-12
13)	Sample	13	L18L~013	8120004	8121130-13
14)	Sample	14	L18L~014	8120004	B8L2704-DUP1
15)	Sample	15	L18L~015	8120004	B8L2704-DUP2
16)	Sample	16	L18L~016	8120004	8121821-01
17)	Sample	17	L18L~017	8120004	8121821-02
18)	Sample	18	L18L~018	8120004	8121219-01
19)	Sample	100	OFF	FIDOFF	OFF

1/5/19

Compounds other than ethylene oxide were not quantitated.

Sample	1	BFB	BFB	L18L~001	80 ML 8L13001	1
Sample	2	1812056-CCV1	8120004	L18L~002	80 ML 8L13001,8L26002	1
Sample	3	FLUSH	BFB	L18L~003	80 ML 8L13001	1
Sample	4	B8L2704-BLK1	8120004	L18L~004	80 ML 8L13001	1
Sample	5	8121130-05	8120004	L18L~005	WATER TOWER 12/7/18	1
Sample	6	8121130-06	8120004	L18L~006	WEST NEIGHBORHOOD 12/7/18	1
Sample	7	8121130-07	8120004	L18L~007	GOWER MS 12/7/18	1
Sample	8	8121130-08	8120004	L18L~008	HINSDALE S. HS 12/7/18	1
Sample	9	8121130-09	8120004	L18L~009	GOWER ES 12/7/18	1
Sample	10	8121130-10	8120004	L18L~010	TRIP BLANK 12/6/18	1
Sample	11	8121130-11	8120004	L18L~011	WB WAREHOUSE 12/8/18	1
Sample	12	8121130-12	8120004	L18L~012	VILLAGE HALL C1 12/8/18	1
Sample	13	8121130-13	8120004	L18L~013	VILLAGE HALL C2 12/8/18	1
Sample	14	B8L2704-DUP1	8120004	L18L~014	VILLAGE HALL R1 12/8/18	1
Sample	15	B8L2704-DUP2	8120004	L18L~015	VILLAGE HALL R2 12/8/18	1
Sample	16	8121821-01	8120004	L18L~016	WILLOW POND PARK 12/14/18	1
Sample	17	8121821-02	8120004	L18L~017	TRIP BLANK 12/14/18	1
Sample	18	8121219-01	8120004	L18L~018	ARISTEO 12/7/18	1
Sample	100	OFF	FIDOFF	OFF	OFF	1

Compounds other than ethylene oxide were not quantitated.

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

Sequence Name: C:\Smart\L18L~.SEQ
Date: 12-28-2018
Time: 09:32:47
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
1812056-CCV1	2	1	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
FLUSH	1	1	250	0	C:\Smart\BFB.MPT	12:00
B8L2704-BLK1	1	1	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
8121130-05	1	2	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
8121130-06	1	3	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
8121130-07	1	4	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
8121130-08	1	5	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
8121130-09	1	6	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
8121130-10	1	7	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
8121130-11	1	8	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
8121130-12	1	9	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
8121130-13	1	10	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
B8L2704-DUP1	1	9	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
B8L2704-DUP2	1	10	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
8121821-01	1	11	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
8121821-02	1	12	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
8121219-01	1	13	250	0	C:\Smart\TO-15A_MS1.MPT	12:00

1-28

Compounds other than ethylene oxide were not quantitated.

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

12/28/2018 9:54:58 AM
Leak Check for C:\Smart\N18L~.SEQ
Report File: C:\Smart\N18L~.LCR
Leak Check Method: Evacuation
Pressurize/Evacuate time(sec) 15
Equilibration time(sec) 30
Maintanance time(sec) 60

Sample Inlet	Auto1	Auto2	Auto3	Start	End	Rate(psi/min)
1	2	---	---	3.3	3.3	0.00
1	3	---	---	3.1	3.2	0.10
1	4	---	---	3.1	3.2	0.10
1	5	---	---	3.1	3.1	0.00
1	6	---	---	3.1	3.1	0.00
1	7	---	---	3.0	3.1	0.10
1	8	---	---	3.0	3.1	0.10
1	9	---	---	3.1	3.2	0.10
1	10	---	---	3.1	3.1	0.00
1	11	---	---	3.1	3.1	0.00
1	12	---	---	3.1	3.2	0.10
1	13	---	---	3.2	3.3	0.10

7-9-15

Compounds other than ethylene oxide were not quantitated.

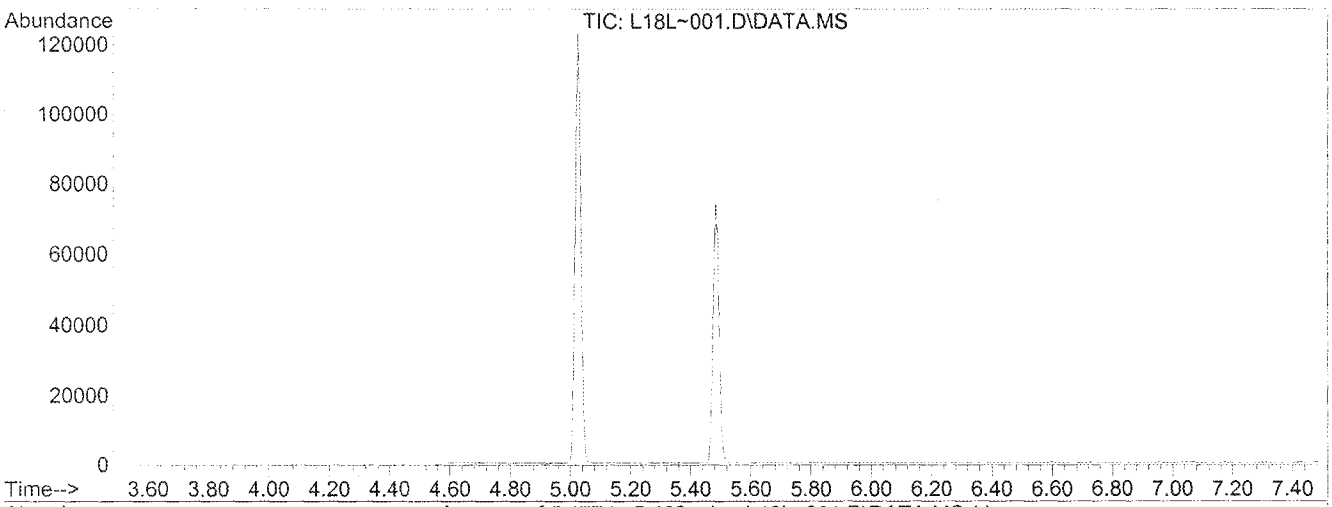
BFB

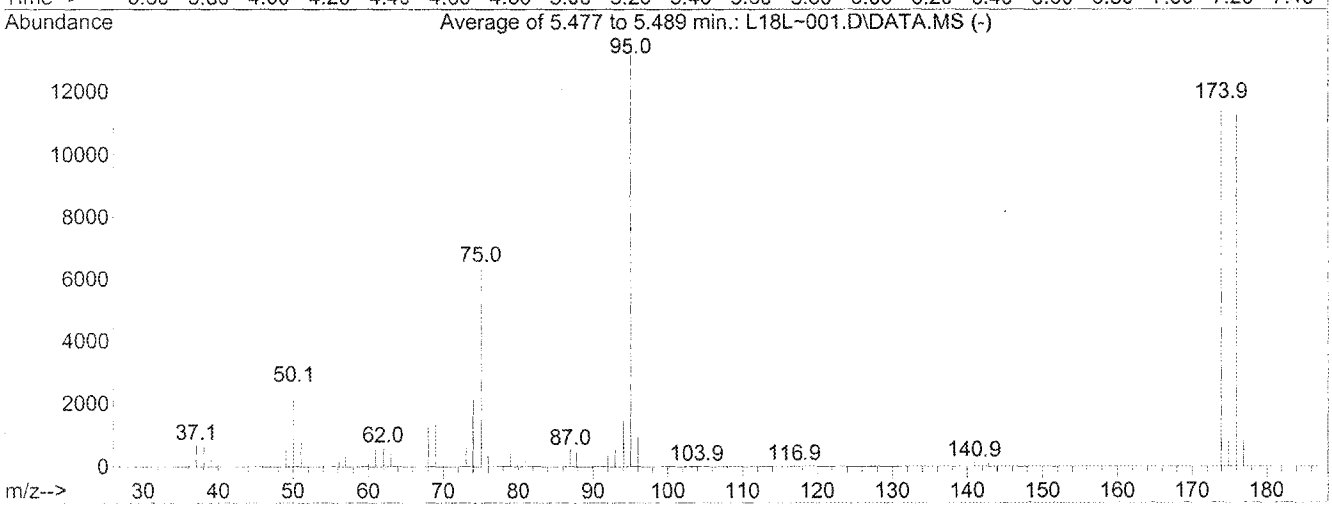
Data Path : C:\msdchem\1\DATA\L18L~\
Data File : L18L~001.D
Acq On : 27 Dec 2018 3:37 pm
Operator : MAH
Sample : BFB
Misc : 80 ML 8L13001
ALS Vial : 1 Sample Multiplier: 1

1-3-19

Integration File: RTEINT.P

Method : C:\msdchem\1\METHODS\8120004.M
Title : TO-15 by Selective Ion Analysis
Last Update : Thu Dec 20 06:20:47 2018





AutoFind: Scans 146, 147, 148; Background Corrected with Scan 140

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	19.3	2543	PASS
75	95	30	66	48.6	6409	PASS
95	95	100	100	100.0	13178	PASS
96	95	5	9	7.0	928	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	88.1	11613	PASS
175	174	4	9	6.8	785	PASS
176	174	93	101	97.1	11281	PASS
177	176	5	9	7.1	803	PASS

Compounds other than ethylene oxide were not quantitated.

GC/MS QA-QC Check Report

Tune File : C:\msdchem\1\DATA\L18L~\L18L~001.D
Tune Time : 27 Dec 2018 3:37 pm

8120004	IS Avg Area	61164	145160	104175
	+40%	85629	203224	145845
	-40%	36698	87096	62505

File	Sample	Internal Standard Responses		
L18L~002.D	1812056-CCV1	63235	148852	108230
L18L~004.D	B8L2704-BLK1	58532	140371	100624
L18L~005.D	8121130-05	56331	132776	92742
L18L~006.D	8121130-06	55918	133549	97089
L18L~007.D	8121130-07	53150	128517	95590
L18L~008.D	8121130-08	56038	133950	96366
L18L~009.D	8121130-09	53714	128935	95494
L18L~010.D	8121130-10	59776	145696	103124
L18L~011.D	8121130-11	51248	122516	93827
L18L~012.D	8121130-12	54548	134818	100581
L18L~013.D	8121130-13	55501	134145	100486
L18L~014.D	B8L2704-DUP1	53724	129620	98968
L18L~015.D	B8L2704-DUP2	58437	139975	101887
L18L~016.D	8121821-01	53535	125363	96106
L18L~017.D	8121821-02	58277	141573	103700
L18L~018.D	8121219-01	54107	130278	96894

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

Created: Thu Jan 03 12:24:25 2019 MS1

Compounds other than ethylene oxide were not quantitated.

Analytical Standard Record
Eastern Research Group
8L26002

Description:	2.50 ppbv ICV/CCV	Expires:	01/25/19
Standard Type:	Calibration Stan	Prepared:	12/26/18
Solvent:	Scientific Air	Prepared By:	Mitch Howell
Final Volume (mls):	6000	Department:	Air Toxics
Vials:	1	Last Edit:	12/26/18 13:29 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

1-2-19

Reviewed By Date

Compounds other than ethylene oxide were not quantitated.

Analytical Standard Record
Eastern Research Group
8L26002

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 S	11/12/18	** Vendor **	11/12/19	11/20/18 12:14 by MH	15

Reviewed By 1-7-19 Date

Compounds other than ethylene oxide were not quantitated.

Evaluate Continuing Calibration Report

Data Path : C:\MSDCHEM\1\DATA\L18L~\
Data File : L18L~002.D
Acq On : 27 Dec 2018 4:48 pm
Operator : MAH
Sample : 1812056-CCV1
Misc : 80 ML 8L13001,8L26002
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 03 12:18:09 2019
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
Response via : Initial Calibration

1/3/19

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	0.402	0.399	0.7	100	0.00
3	CT	Propylene	0.478	0.516	-7.9	100	0.00
4	CT	Dichlorodifluoromethane	2.036	2.091	-2.7	100	0.00
5	CT	Chloromethane	0.595	0.599	-0.7	100	0.00
6	CT	Dichlorotetrafluoroethane	1.881	2.150	-14.3	100	0.00
7	CT	Vinyl Chloride	0.638	0.655	-2.7	100	0.00
8	CT	1,3-Butadiene	0.422	0.440	-4.3	100	0.00
9	CT	Ethylene oxide	0.285	0.208	27.0	100	0.00
10	CT	Bromomethane	0.628	0.648	-3.2	100	0.00
11	CT	Chloroethane	0.277	0.288	-4.0	100	0.00
12	CT	Acetonitrile	0.489	0.444	9.2	100	0.00
13	CT	Acrolein	0.274	0.203	25.9	100	0.00
14	CT	Trichlorofluoromethane	1.866	1.712	8.3	100	0.00
15	CT	Acrylonitrile	0.384	0.349	9.1	100	0.00
16	CT	1,1-Dichloroethene	0.862	0.949	-10.1	100	0.00
17	CT	Methylene Chloride	0.618	0.645	-4.4	100	0.00
18	CT	Carbon Disulfide	1.810	1.874	-3.5	100	0.00
19	CT	Trichlorotrifluoroethane	1.338	1.441	-7.7	100	0.00
20	CT	trans-1,2-Dichloroethylene	0.485	0.485	0.0	100	0.00
21	CT	1,1-Dichloroethane	0.881	0.876	0.6	100	0.00
22	CT	Methyl tert-Butyl Ether	1.284	1.314	-2.3	100	0.00
23	CT	Chloroprene	0.631	0.630	0.2	100	0.00
24	CT	cis-1,2-Dichloroethylene	0.682	0.658	3.5	100	0.00
25	CT	Bromochloromethane	0.367	0.347	5.4	100	0.00
26	CT	Chloroform	1.010	1.016	-0.6	100	0.00
27	CT	Ethyl tert-Butyl Ether	1.351	1.387	-2.7	100	0.00
28	CT	1,2-Dichloroethane	0.612	0.596	2.6	100	0.00
29	ISS	IS-1,4-Difluorobenzene	1.000	1.000	0.0	100	0.00
30	CT	1,1,1-Trichloroethane	0.426	0.427	-0.2	100	0.00
31	CT	Benzene	0.583	0.611	-4.8	100	0.00
32	CT	Carbon Tetrachloride	0.464	0.519	-11.9	100	0.00
33	CT	tert-Amyl Methyl Ether	0.493	0.500	-1.4	100	0.00
34	CT	1,2-Dichloropropane	0.243	0.239	1.6	100	0.00
35	CT	Ethyl Acrylate	0.325	0.316	2.8	100	0.00
36	CT	Bromodichloromethane	0.449	0.386	14.0	100	0.00
37	CT	Trichloroethylene	0.275	0.252	8.4	100	0.00
38	CT	Methyl Methacrylate	0.903	0.849	6.0	100	0.00
39	CT	cis-1,3-Dichloropropene	0.216	0.227	-5.1	100	0.00
40	CT	Methyl Isobutyl Ketone	0.482	0.460	4.6	100	0.00
41	CT	trans-1,3-Dichloropropene	0.160	0.157	1.9	100	0.00
42	CT	1,1,2-Trichloroethane	0.209	0.206	1.4	100	0.00
43	ISS	IS-Chlorobenzene-d5	1.000	1.000	0.0	100	0.00
44	CT	Toluene	0.844	0.852	-0.9	100	0.00
45	CT	Dibromochloromethane	2.000	1.843	7.9	100	0.00
46	CT	1,2-Dibromoethane	0.335	0.330	1.5	100	0.00
47	CT	n-Octane	0.542	0.531	2.0	100	0.00
48	CT	Tetrachloroethylene	0.421	0.454	-7.8	100	0.00

ED_002475_00000321-00012

Compounds other than ethylene oxide were not quantitated.

Evaluate Continuing Calibration Report

Data Path : C:\MSDCHEM\1\DATA\L18L~\
Data File : L18L~002.D
Acq On : 27 Dec 2018 4:48 pm
Operator : MAH
Sample : 1812056-CCV1
Misc : 80 ML 8L13001,8L26002
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 03 12:18:09 2019
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
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	0.543	0.525	3.3	100	0.00
50	CT	Ethylbenzene	0.873	0.855	2.1	100	0.00
51	CT	m,p-Xylene	0.750	0.722	3.7	100	0.00
52	CT	Bromoform	0.379	0.359	5.3	100	0.00
53	CT	Styrene	0.381	0.358	6.0	100	0.00
54	CT	1,1,2,2-Tetrachloroethane	0.531	0.517	2.6	100	0.00
55	CT	o-Xylene	0.737	0.750	-1.8	100	0.00
56	CT	1,3,5-Trimethylbenzene	0.720	0.687	4.6	100	0.00
57	CT	1,2,4-Trimethylbenzene	0.607	0.574	5.4	100	0.00
58	CT	m-Dichlorobenzene	0.320	0.269	15.9	100	0.00
59	CT	p-Dichlorobenzene	0.244	0.223	8.6	100	0.00
60	CT	o-Dichlorobenzene	0.299	0.273	8.7	100	0.00
61	CT	1,2,4-Trichlorobenzene	0.117	0.124	-6.0	100	0.00
62	CT	Hexachloro-1,3-butadiene	0.425	0.393	7.5	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 : Y:\MASS SPEC 1 DATA\L18L~\
Data File : L18L~002.D
Acq On : 27 Dec 2018 4:48 pm
Operator : MAH
Sample : 1812056-CCV1
Misc : 80 ML 8L13001,8L26002
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 03 12:18:09 2019
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
Response via : Initial Calibration

RWB 1/7/19

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.993	66	63235	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.151	114	148852	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.097	117	108230	4.7400 ppbv	0.00

System Monitoring Compounds

Target Compounds					Qvalue
2) Acetylene	5.406	26	12710	2.3831 ppbv	100
3) Propylene	7.823	41	16747	2.6427 ppbv	100
4) Dichlorodifluoromethane	8.685	85	65985	2.4450 ppbv	100
5) Chloromethane	9.740	50	19705	2.4999 ppbv	100
6) Dichlorotetrafluoroethane	10.864	85	69534	2.7883 ppbv	99
7) Vinyl Chloride	11.119	62	21721	2.5690 ppbv	100
8) 1,3-Butadiene	11.783	54	14408	2.5753 ppbv	99
9) Ethylene oxide	12.395	29	6886	1.8219 ppbv	94
10) Bromomethane	12.590	94	21464	2.5771 ppbv	99
11) Chloroethane	13.282	64	9538	2.5991 ppbv	100
12) Acetonitrile	14.358	41	14885	2.2971 ppbv	96
13) Acrolein	14.636	56	6503	1.7872 ppbv	96
14) Trichlorofluoromethane	15.193	101	56740	2.2934 ppbv	100
15) Acrylonitrile	15.935	53	11552	2.2719 ppbv	99
16) 1,1-Dichloroethene	16.422	61	30685	2.6867 ppbv	100
17) Methylene Chloride	16.747	49	21201	2.5880 ppbv	100
18) Carbon Disulfide	16.932	76	61606	2.5671 ppbv	100
19) Trichlorotrifluoroethane	17.280	101	46610	2.6287 ppbv	100
20) trans-1,2-Dichloroethy...	18.315	96	15803	2.4595 ppbv	100
21) 1,1-Dichloroethane	18.632	63	28205	2.4153 ppbv	100
22) Methyl tert-Butyl Ether	18.791	73	44245	2.5996 ppbv	100
23) Chloroprene	19.539	53	20724	2.4757 ppbv	99
24) cis-1,2-Dichloroethylene	19.947	61	21801	2.4105 ppbv	99
25) Bromochloromethane	20.174	128	11369	2.3372 ppbv	100
26) Chloroform	20.401	83	33682	2.5153 ppbv	99
27) Ethyl tert-Butyl Ether	21.164	59	47239	2.6372 ppbv	100
28) 1,2-Dichloroethane	21.478	62	19658	2.4229 ppbv	100
30) 1,1,1-Trichloroethane	21.869	97	31448	2.4759 ppbv	98
31) Benzene	22.535	78	45767	2.6336 ppbv	100
32) Carbon Tetrachloride	22.770	117	39005	2.8195 ppbv	100
33) tert-Amyl Methyl Ether	23.501	73	38766	2.6357 ppbv	100
34) 1,2-Dichloropropane	23.790	63	18003	2.4881 ppbv	95
35) Ethyl Acrylate	23.872	55	23936	2.4665 ppbv	100
36) Bromodichloromethane	24.078	83	29468	2.2023 ppbv	100
37) Trichloroethylene	24.161	130	18925	2.3092 ppbv	99
38) Methyl Methacrylate	24.532	41	64364	2.3901 ppbv	100
39) cis-1,3-Dichloropropene	25.511	75	17223	2.6706 ppbv	100
40) Methyl Isobutyl Ketone	25.588	43	34699	2.4140 ppbv	100
41) trans-1,3-Dichloropropene	26.350	75	11507	2.4081 ppbv	98
42) 1,1,2-Trichloroethane	26.617	97	15257	2.4455 ppbv	99
44) Toluene	27.075	91	47486	2.4639 ppbv	100
45) Dibromochloromethane	27.734	129	106894	2.3409 ppbv	100
46) 1,2-Dibromoethane	28.138	107	18855	2.4633 ppbv	99
47) n-Octane	28.857	43	30540	2.4664 ppbv	100
48) Tetrachloroethylene	28.997	166	25787	2.6811 ppbv	99

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : Y:\MASS SPEC 1 DATA\L18L~\
Data File : L18L~002.D
Acq On : 27 Dec 2018 4:48 pm
Operator : MAH
Sample : 1812056-CCV1
Misc : 80 ML 8L13001,8L26002
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 03 12:18:09 2019
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
Response via : Initial Calibration

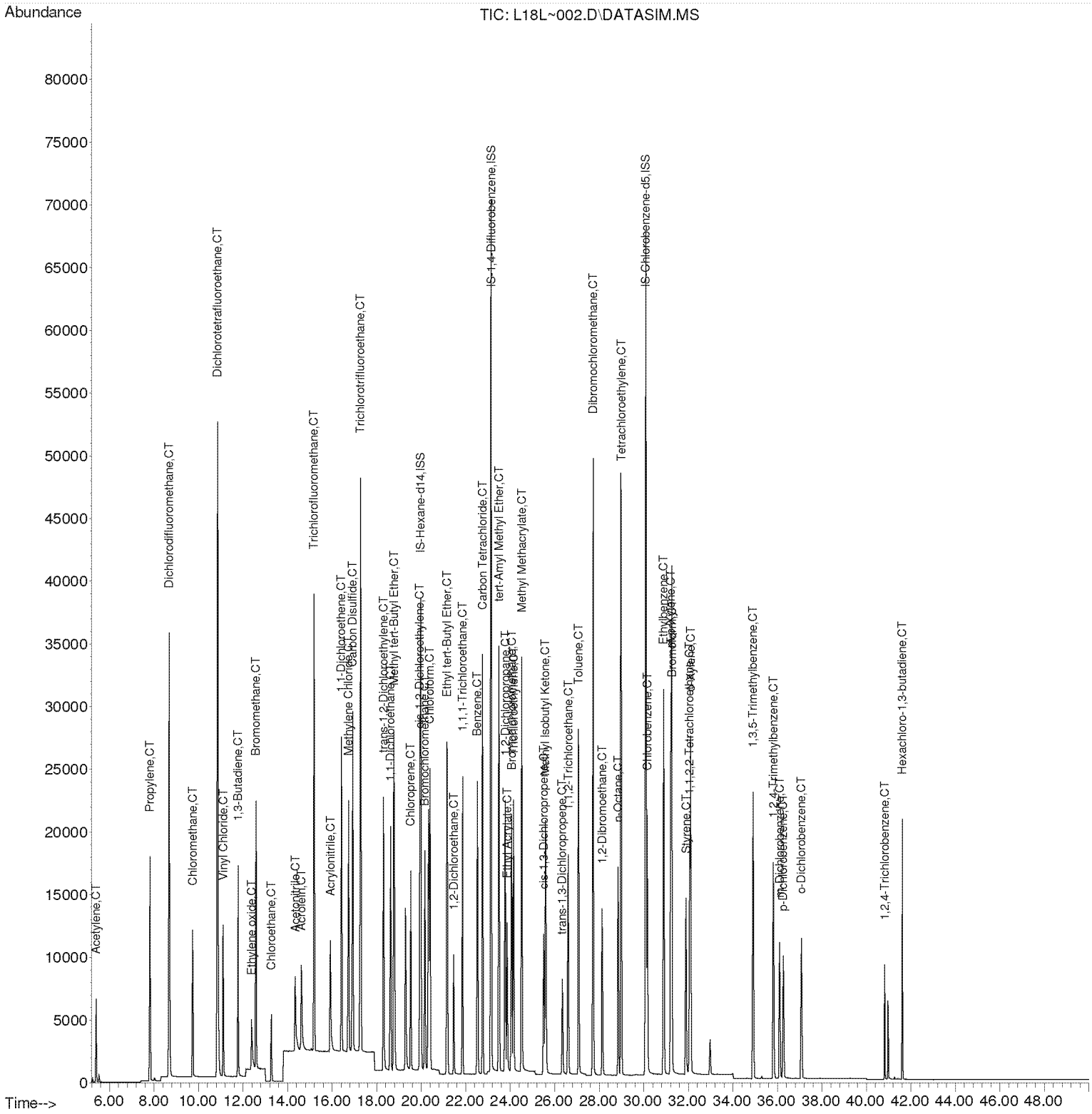
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
49) Chlorobenzene	30.173	112	29472	2.3784 ppbv	99
50) Ethylbenzene	30.898	91	48791	2.4491 ppbv	100
51) m,p-Xylene	31.223	91	82130	4.7977 ppbv	100
52) Bromoform	31.280	173	20811	2.4044 ppbv	100
53) Styrene	31.910	104	20438	2.3474 ppbv #	100
54) 1,1,2,2-Tetrachloroethane	32.063	83	29869	2.4658 ppbv	100
55) o-Xylene	32.120	91	41759	2.4831 ppbv	100
56) 1,3,5-Trimethylbenzene	34.919	105	39507	2.4044 ppbv	100
57) 1,2,4-Trimethylbenzene	35.828	105	31196	2.2497 ppbv	99
58) m-Dichlorobenzene	36.113	146	14759	2.0212 ppbv	100
59) p-Dichlorobenzene	36.273	146	13269	2.3830 ppbv	100
60) o-Dichlorobenzene	37.093	146	15587	2.2794 ppbv	100
61) 1,2,4-Trichlorobenzene	40.826	180	7018	2.6369 ppbv	100
62) Hexachloro-1,3-butadiene	41.621	225	22445	2.3123 ppbv	100

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

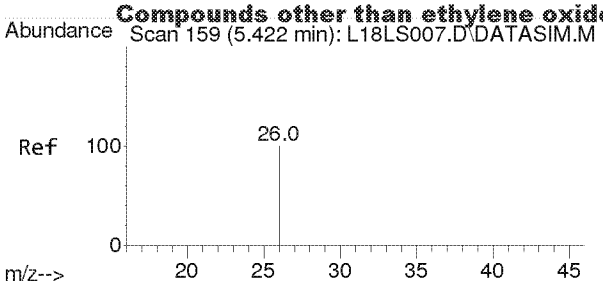
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L18L~\
Data File : L18L~002.D
Acq On : 27 Dec 2018 4:48 pm
Operator : MAH
Sample : 1812056-CCV1
Misc : 80 ML 8L13001,8L26002
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 03 12:18:09 2019
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
Response via : Initial Calibration

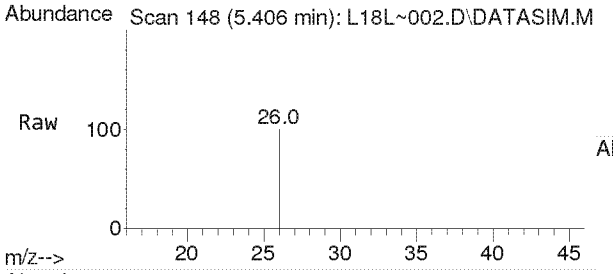


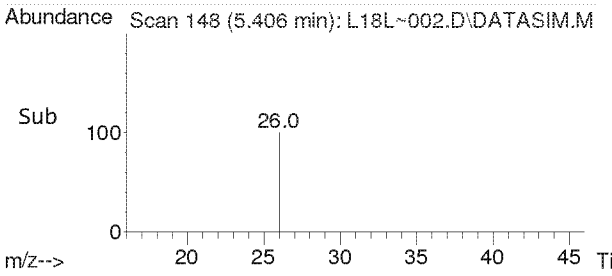
Compounds other than ethylene oxide were not quantitated.

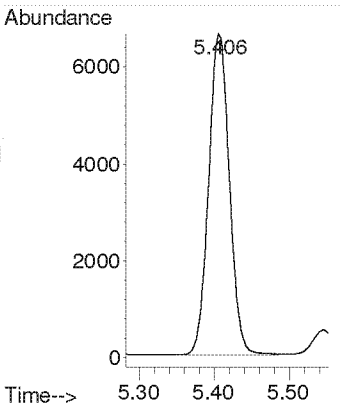


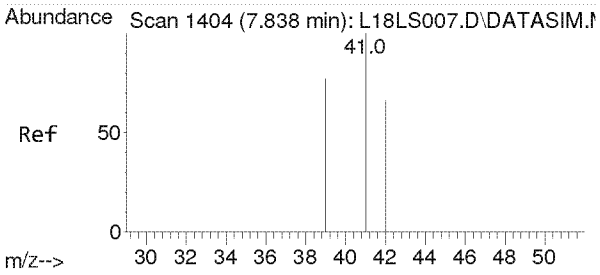
#2
Acetylene
Concen: 2.383 ppbv
RT: 5.406 min Scan# 148
Delta R.T. -0.016 min
Lab File: L18L~002.D
Acq: 27 Dec 2018 4:48 pm

Tgt Ion: 26 Resp: 12710





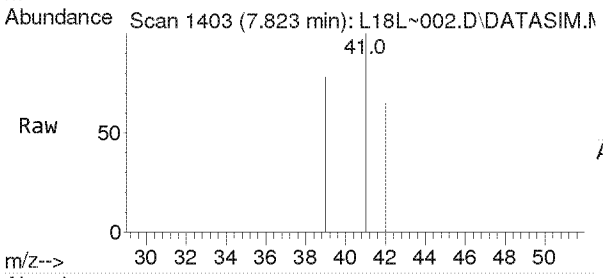


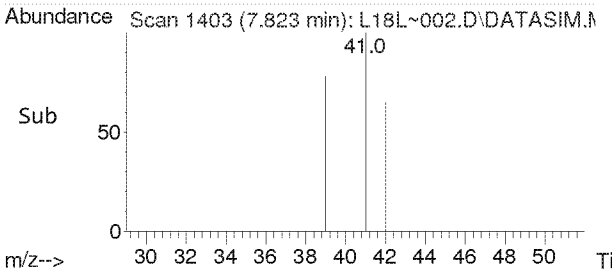


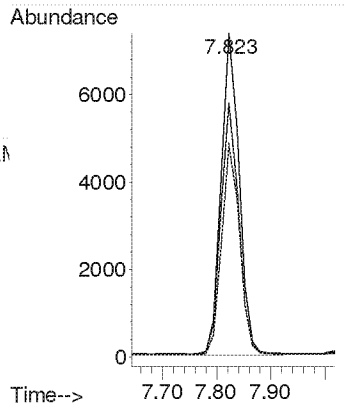
#3
Propylene
Concen: 2.643 ppbv
RT: 7.823 min Scan# 1403
Delta R.T. -0.014 min
Lab File: L18L~002.D
Acq: 27 Dec 2018 4:48 pm

Tgt Ion: 41 Resp: 16747

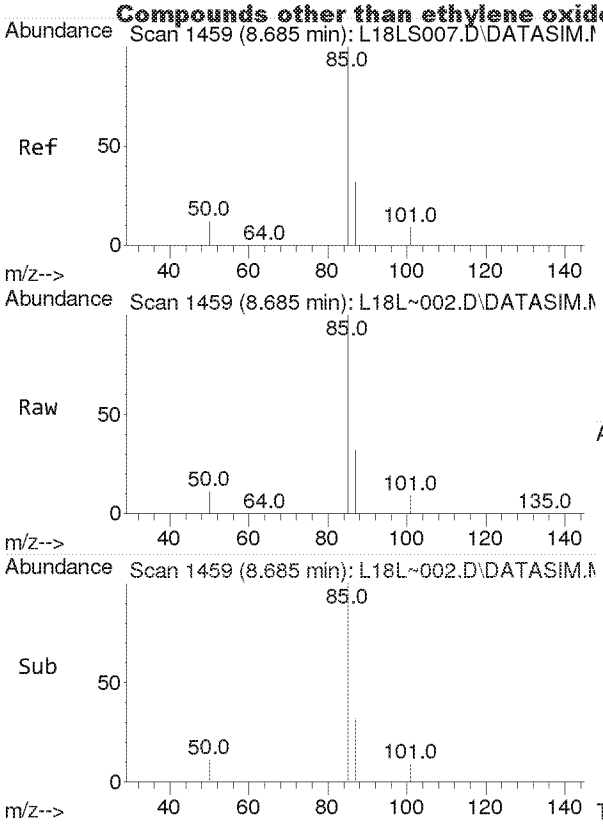
Ion	Ratio	Lower	Upper
41	100		
39	77.6	62.6	93.8
42	65.8	52.6	79.0







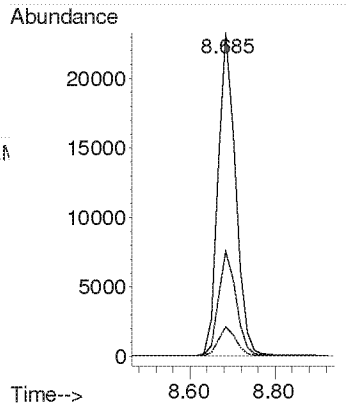
Compounds other than ethylene oxide were not quantitated.

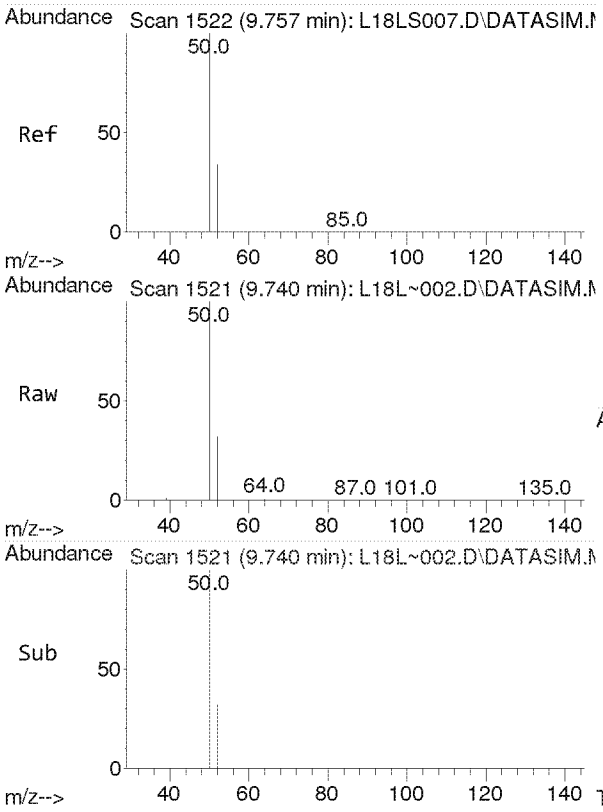


#4
Dichlorodifluoromethane
Concen: 2.445 ppbv
RT: 8.685 min Scan# 1459
Delta R.T. 0.000 min
Lab File: L18L~002.D
Acq: 27 Dec 2018 4:48 pm

Tgt Ion: 85 Resp: 65985

Ion	Ratio	Lower	Upper
85	100		
87	32.4	26.0	39.0
101	8.8	7.1	10.7

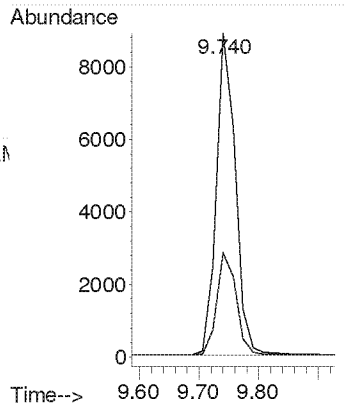




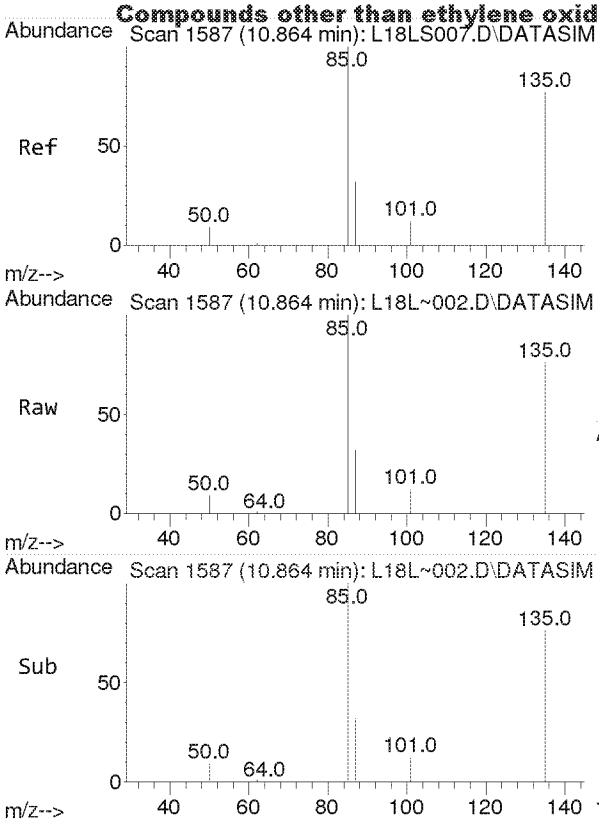
#5
Chloromethane
Concen: 2.500 ppbv
RT: 9.740 min Scan# 1521
Delta R.T. -0.017 min
Lab File: L18L~002.D
Acq: 27 Dec 2018 4:48 pm

Tgt Ion: 50 Resp: 19705

Ion	Ratio	Lower	Upper
50	100		
52	32.5	26.1	39.1



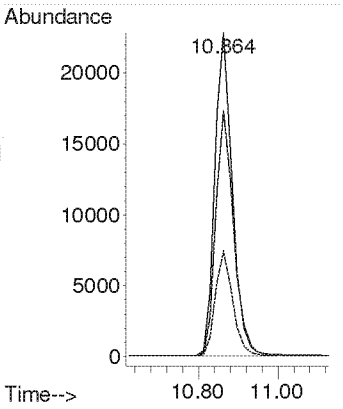
Compounds other than ethylene oxide were not quantitated.

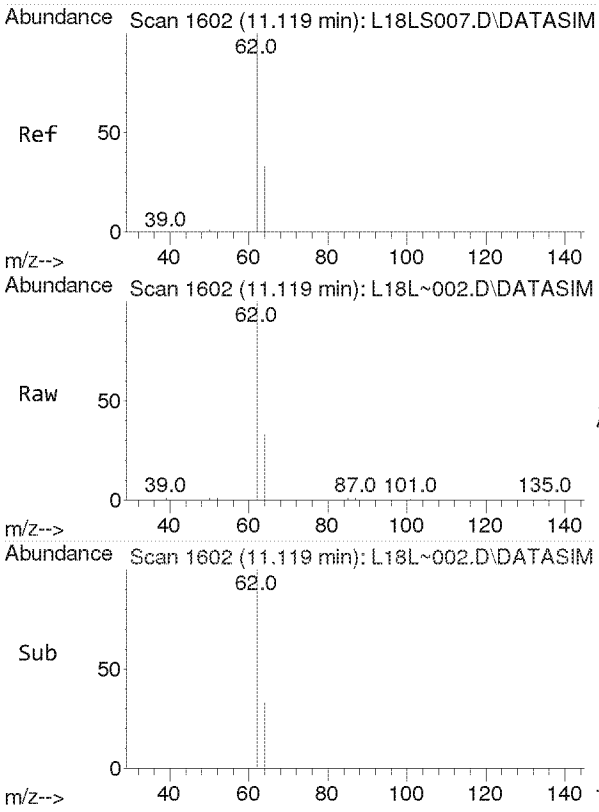


#6
Dichlorotetrafluoroethane
Concen: 2.788 ppbv
RT: 10.864 min Scan# 1587
Delta R.T. 0.000 min
Lab File: L18L~002.D
Acq: 27 Dec 2018 4:48 pm

Tgt Ion: 85 Resp: 69534

Ion	Ratio	Lower	Upper
85	100		
135	78.1	63.3	94.9
87	32.2	25.7	38.5

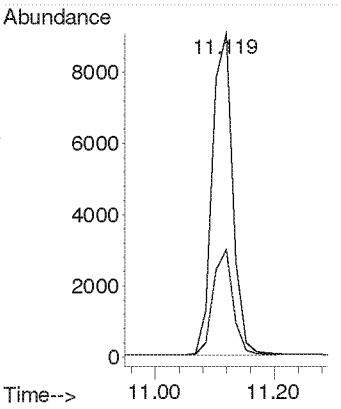




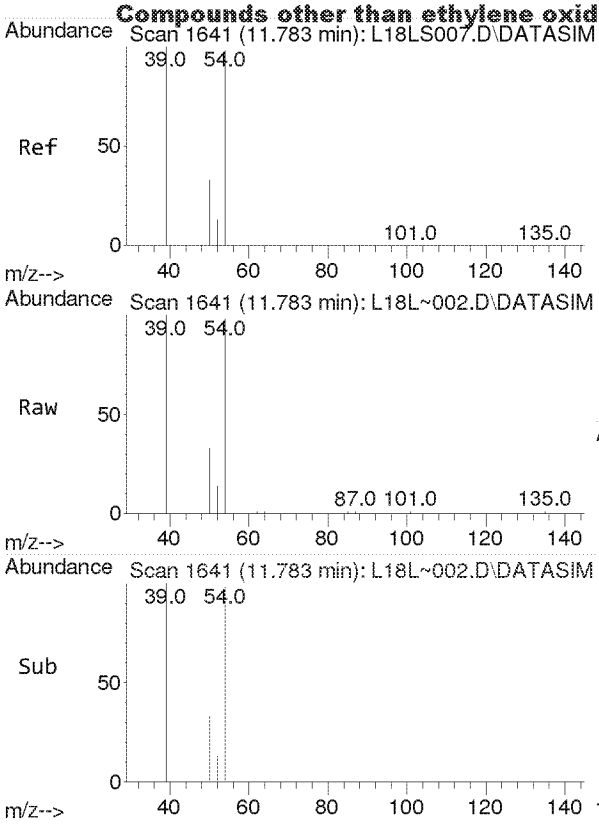
#7
Vinyl Chloride
Concen: 2.569 ppbv
RT: 11.119 min Scan# 1602
Delta R.T. 0.000 min
Lab File: L18L~002.D
Acq: 27 Dec 2018 4:48 pm

Tgt Ion: 62 Resp: 21721

Ion	Ratio	Lower	Upper
62	100		
64	31.9	25.4	38.2



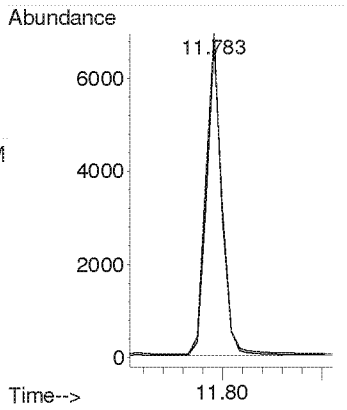
Compounds other than ethylene oxide were not quantitated.

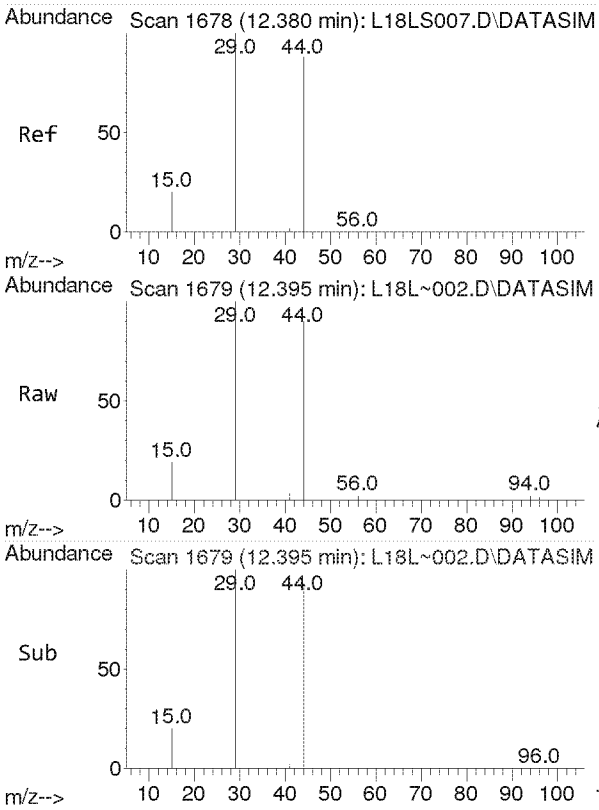


#8
1,3-Butadiene
Concen: 2.575 ppbv
RT: 11.783 min Scan# 1641
Delta R.T. 0.000 min
Lab File: L18L~002.D
Acq: 27 Dec 2018 4:48 pm

Tgt Ion: 54 Resp: 14408

Ion	Ratio	Lower	Upper
54	100		
39	104.7	84.3	126.5

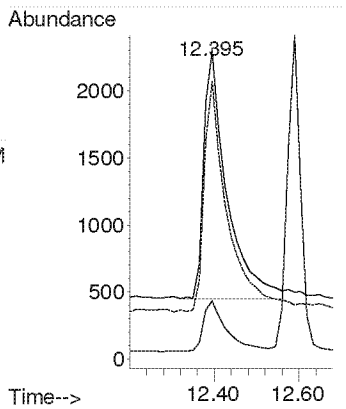




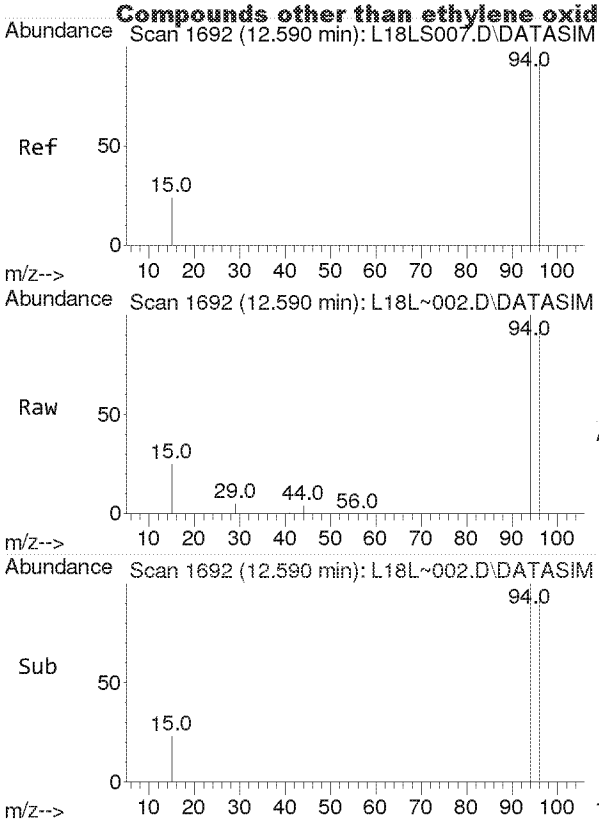
#9
Ethylene oxide
Concen: 1.822 ppbv
RT: 12.395 min Scan# 1679
Delta R.T. 0.015 min
Lab File: L18L~002.D
Acq: 27 Dec 2018 4:48 pm

Tgt Ion: 29 Resp: 6886

Ion	Ratio	Lower	Upper
29	100		
15	20.2	16.2	24.4
44	96.7	72.0	108.0



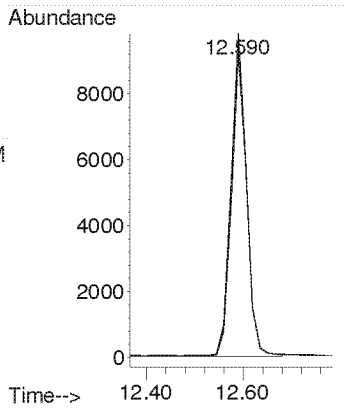
Compounds other than ethylene oxide were not quantitated.

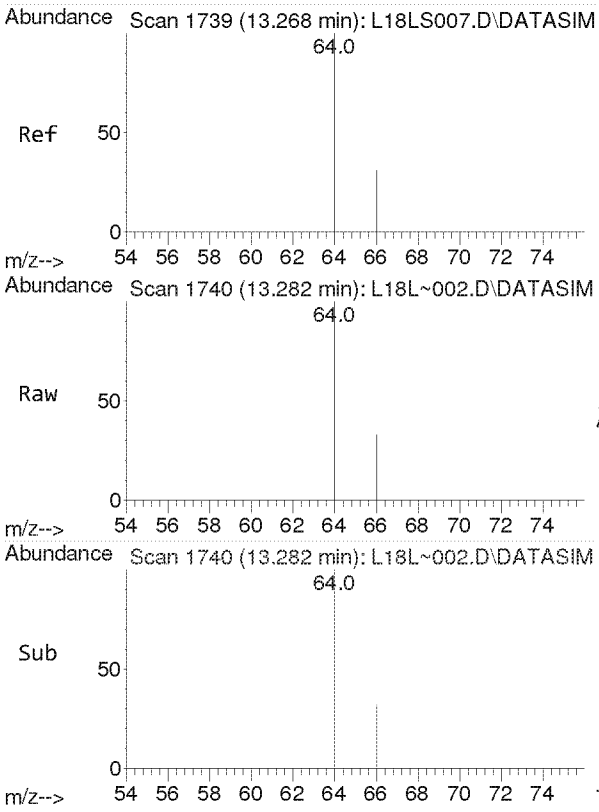


#10
Bromomethane
Concen: 2.577 ppbv
RT: 12.590 min Scan# 1692
Delta R.T. 0.000 min
Lab File: L18L~002.D
Acq: 27 Dec 2018 4:48 pm

Tgt Ion: 94 Resp: 21464

Ion	Ratio	Lower	Upper
94	100		
96	94.5	75.1	112.7

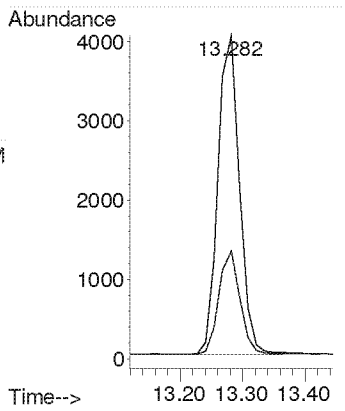




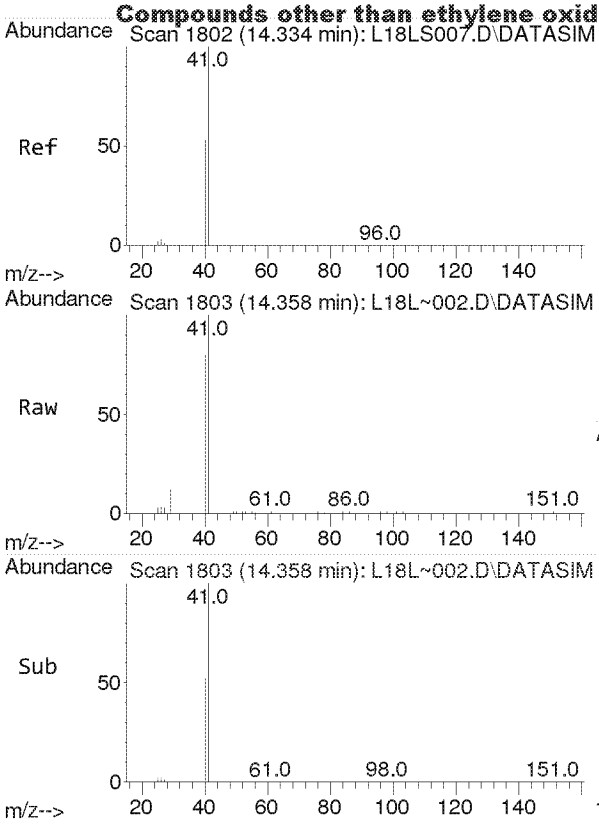
#11
Chloroethane
Concen: 2.599 ppbv
RT: 13.282 min Scan# 1740
Delta R.T. 0.014 min
Lab File: L18L~002.D
Acq: 27 Dec 2018 4:48 pm

Tgt Ion: 64 Resp: 9538

Ion	Ratio	Lower	Upper
64	100		
66	31.8	25.6	38.4



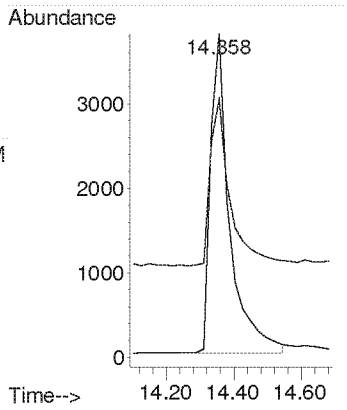
Compounds other than ethylene oxide were not quantitated.

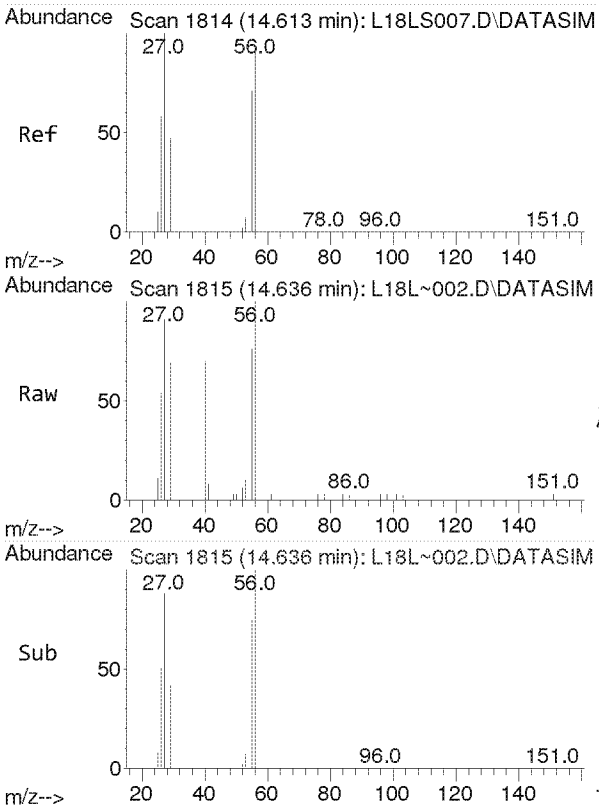


#12
Acetonitrile
Concen: 2.297 ppbv
RT: 14.358 min Scan# 1803
Delta R.T. 0.023 min
Lab File: L18L~002.D
Acq: 27 Dec 2018 4:48 pm

Tgt Ion: 41 Resp: 14885

Ion	Ratio	Lower	Upper
41	100		
40	53.4	40.7	61.1

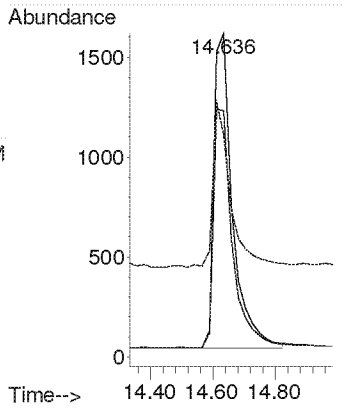




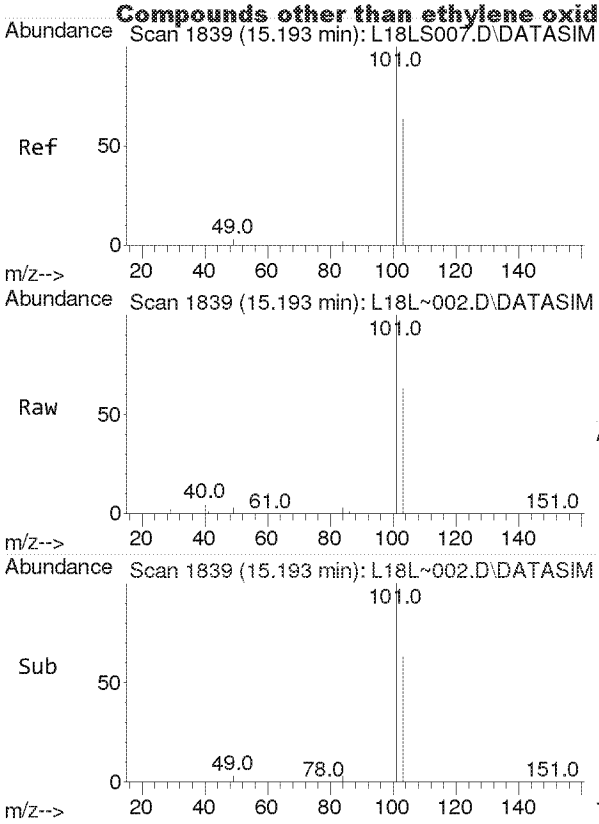
#13
Acrolein
Concen: 1.787 ppbv
RT: 14.636 min Scan# 1815
Delta R.T. 0.023 min
Lab File: L18L~002.D
Acq: 27 Dec 2018 4:48 pm

Tgt Ion: 56 Resp: 6503

Ion	Ratio	Lower	Upper
56	100		
55	77.5	60.3	90.5
29	49.0	42.3	63.5



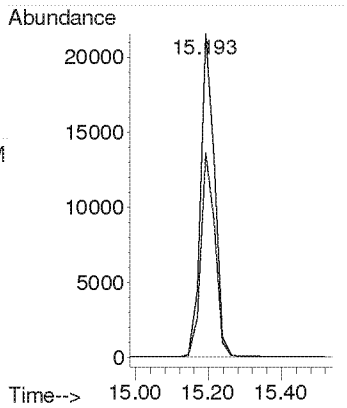
Compounds other than ethylene oxide were not quantitated.

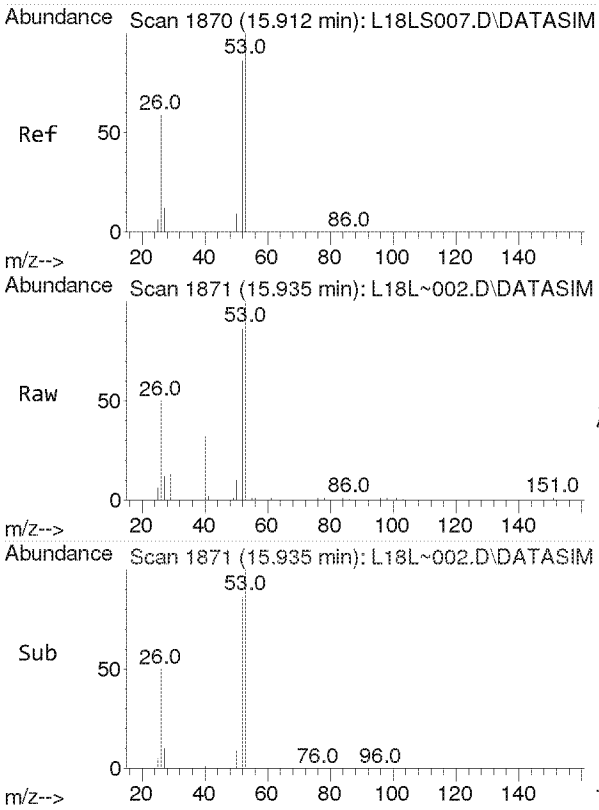


#14
Trichlorofluoromethane
Concen: 2.293 ppbv
RT: 15.193 min Scan# 1839
Delta R.T. 0.000 min
Lab File: L18L~002.D
Acq: 27 Dec 2018 4:48 pm

Tgt Ion:101 Resp: 56740

Ion	Ratio	Lower	Upper
101	100		
103	64.6	51.7	77.5

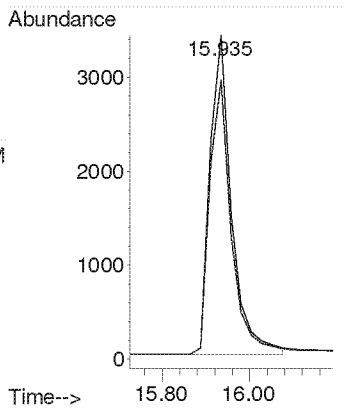




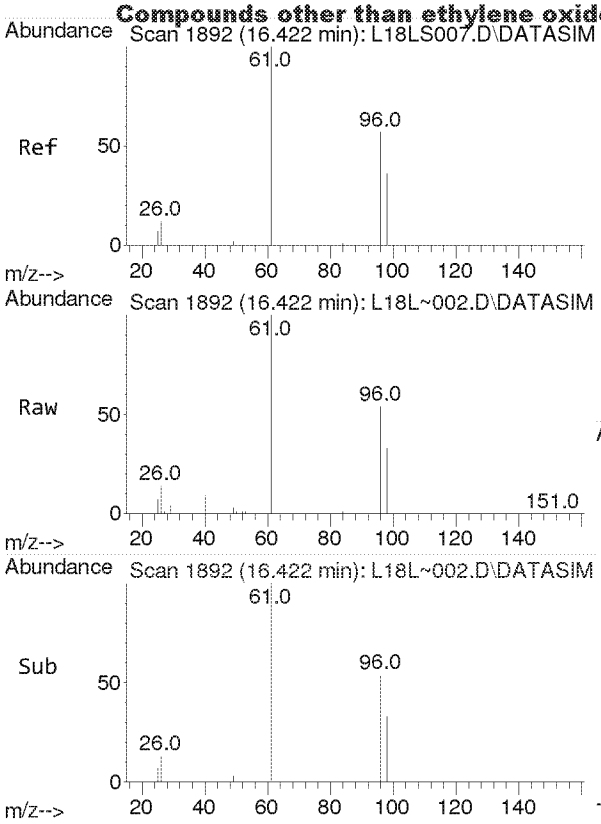
#15
Acrylonitrile
Concen: 2.272 ppbv
RT: 15.935 min Scan# 1871
Delta R.T. 0.023 min
Lab File: L18L~002.D
Acq: 27 Dec 2018 4:48 pm

Tgt Ion: 53 Resp: 11552

Ion	Ratio	Lower	Upper
53	100		
52	86.5	68.3	102.5



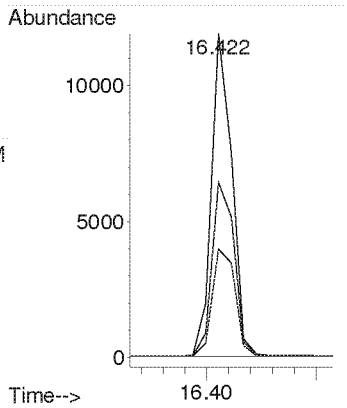
Compounds other than ethylene oxide were not quantitated.

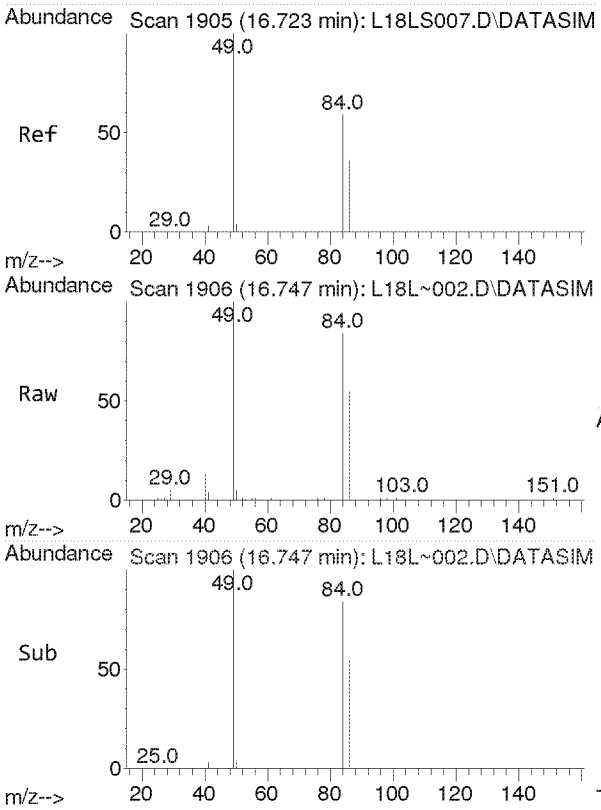


#16
1,1-Dichloroethene
Concen: 2.687 ppbv
RT: 16.422 min Scan# 1892
Delta R.T. 0.000 min
Lab File: L18L~002.D
Acq: 27 Dec 2018 4:48 pm

Tgt Ion: 61 Resp: 30685

Ion	Ratio	Lower	Upper
61	100		
96	58.8	46.6	70.0
98	37.4	29.9	44.9

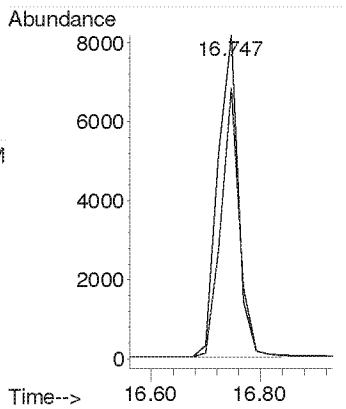




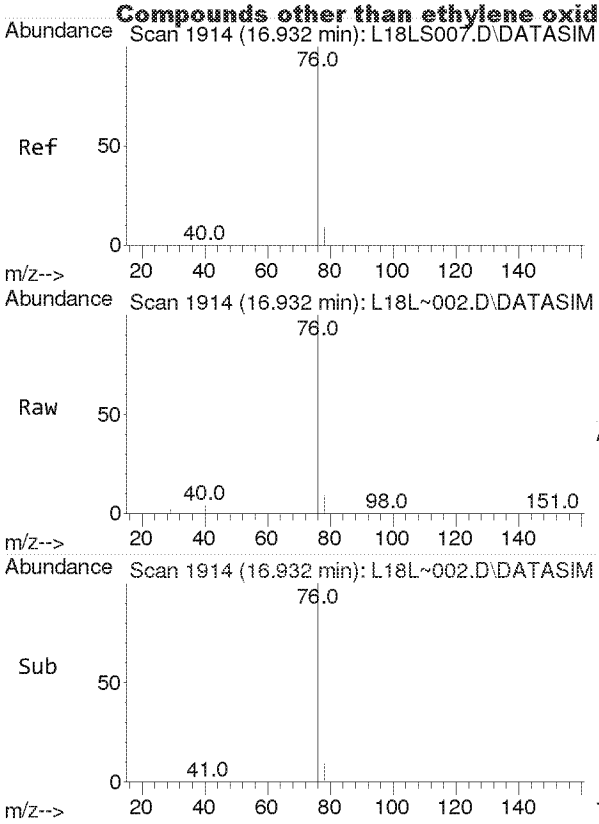
#17
Methylene Chloride
Concen: 2.588 ppbv
RT: 16.747 min Scan# 1906
Delta R.T. 0.023 min
Lab File: L18L~002.D
Acq: 27 Dec 2018 4:48 pm

Tgt Ion: 49 Resp: 21201

Ion	Ratio	Lower	Upper
49	100		
84	76.1	53.5	99.3



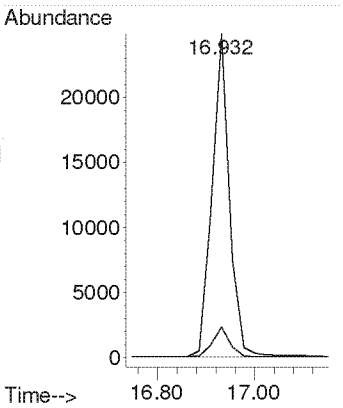
Compounds other than ethylene oxide were not quantitated.

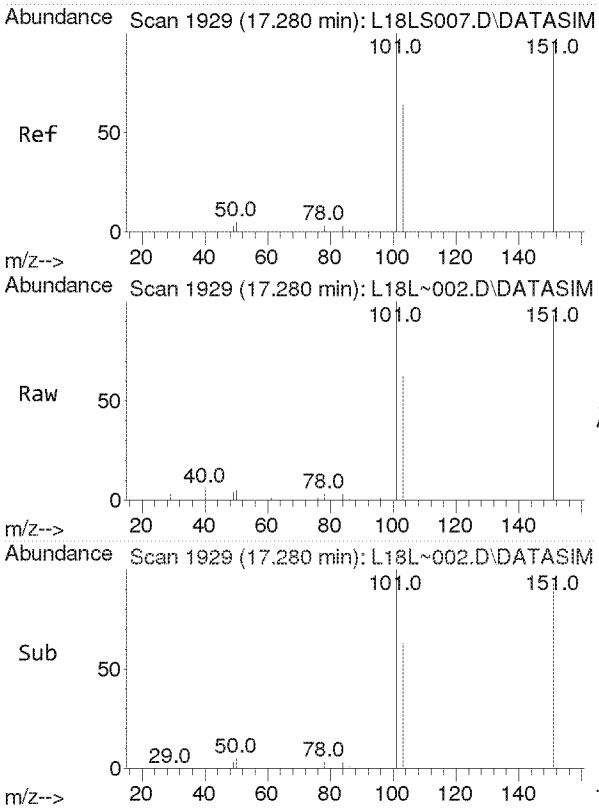


#18
Carbon Disulfide
Concen: 2.567 ppbv
RT: 16.932 min Scan# 1914
Delta R.T. 0.000 min
Lab File: L18L~002.D
Acq: 27 Dec 2018 4:48 pm

Tgt Ion: 76 Resp: 61606

Ion	Ratio	Lower	Upper
76	100		
78	9.1	7.3	10.9

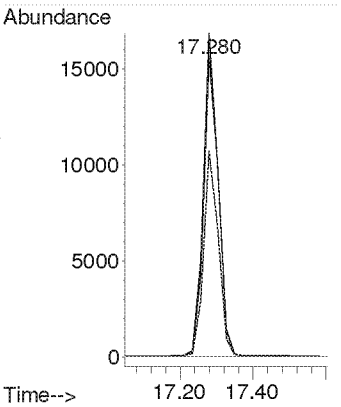




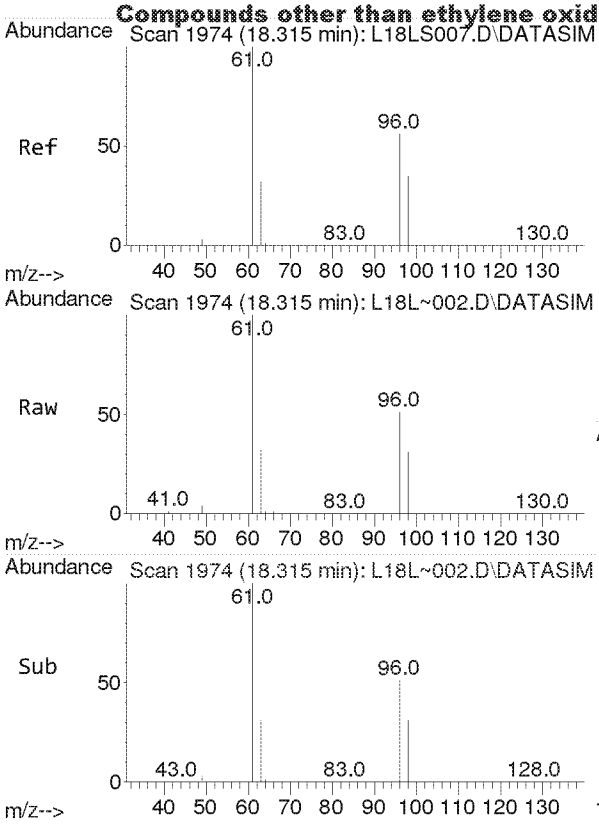
#19
Trichlorotrifluoroethane
Concen: 2.629 ppbv
RT: 17.280 min Scan# 1929
Delta R.T. 0.000 min
Lab File: L18L~002.D
Acq: 27 Dec 2018 4:48 pm

Tgt Ion:101 Resp: 46610

Ion	Ratio	Lower	Upper
101	100		
151	94.7	76.2	114.4
103	64.0	51.3	76.9



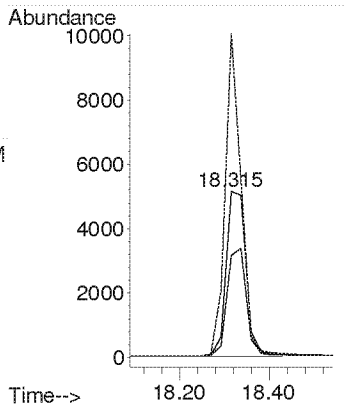
Compounds other than ethylene oxide were not quantitated.

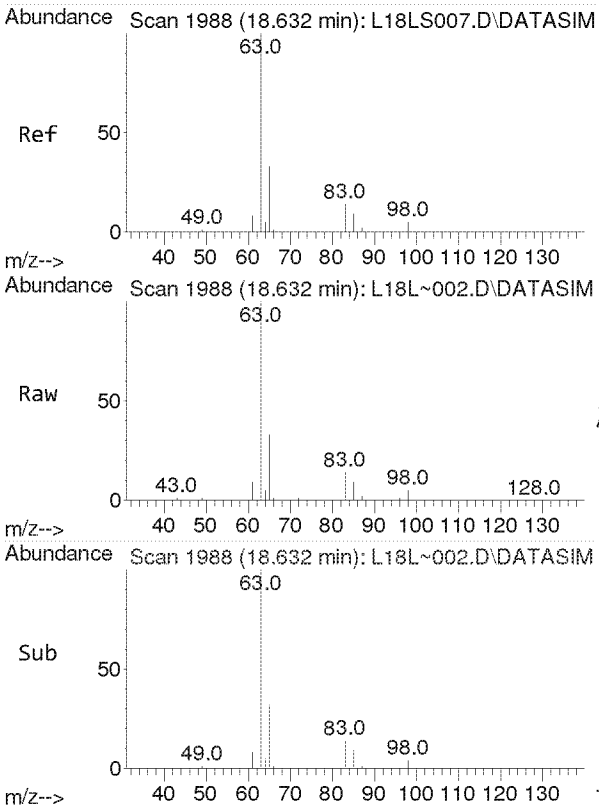


#20
trans-1,2-Dichloroethylene
Concen: 2.459 ppbv
RT: 18.315 min Scan# 1974
Delta R.T. 0.000 min
Lab File: L18L~002.D
Acq: 27 Dec 2018 4:48 pm

Tgt Ion: 96 Resp: 15803

Ion	Ratio	Lower	Upper
96	100		
98	63.9	51.0	76.4
61	158.9	127.4	191.0

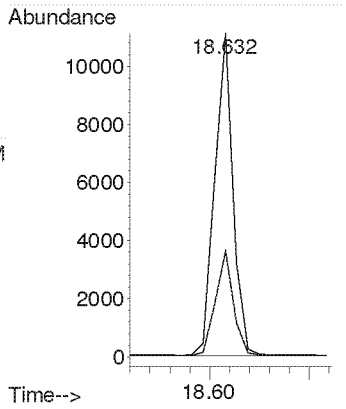




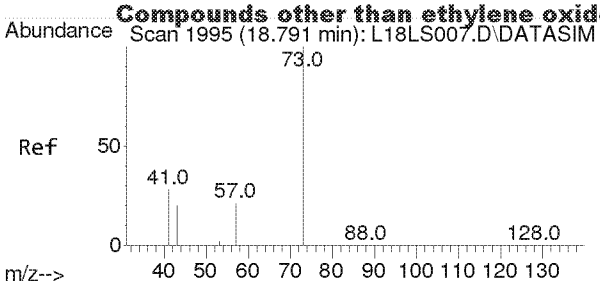
#21
1,1-Dichloroethane
Concen: 2.415 ppbv
RT: 18.632 min Scan# 1988
Delta R.T. 0.000 min
Lab File: L18L~002.D
Acq: 27 Dec 2018 4:48 pm

Tgt Ion: 63 Resp: 28205

Ion	Ratio	Lower	Upper
63	100		
65	31.8	25.4	38.0



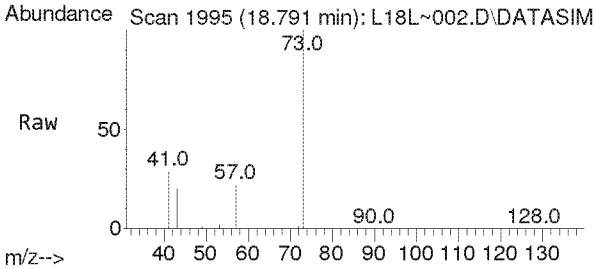
Compounds other than ethylene oxide were not quantitated.

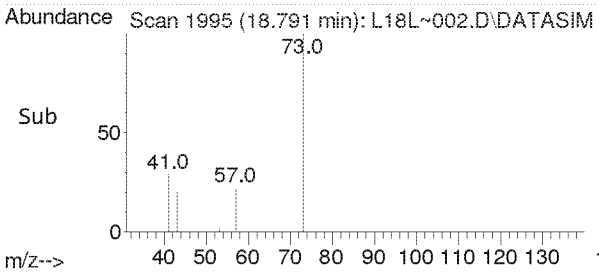


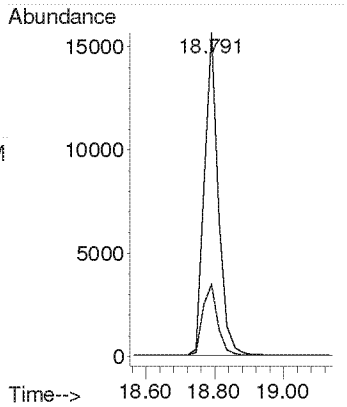
#22
Methyl tert-Butyl Ether
Concen: 2.600 ppbv
RT: 18.791 min Scan# 1995
Delta R.T. 0.000 min
Lab File: L18L~002.D
Acq: 27 Dec 2018 4:48 pm

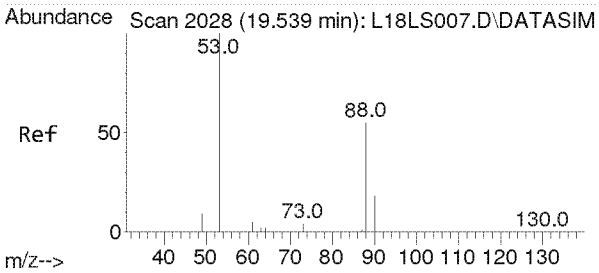
Tgt Ion: 73 Resp: 44245

Ion	Ratio	Lower	Upper
73	100		
57	23.6	18.7	28.1





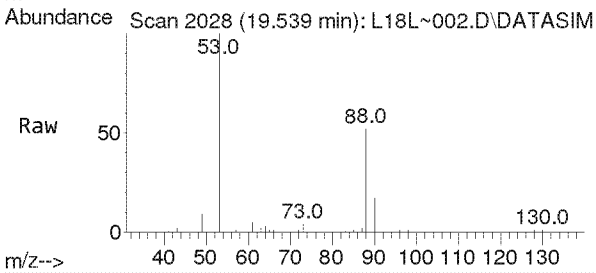


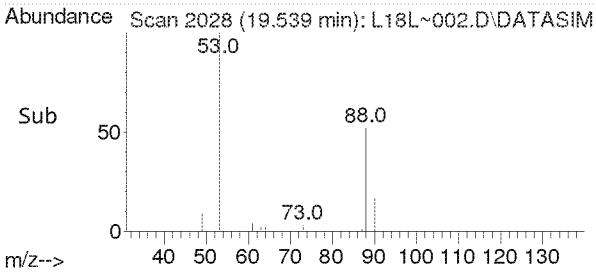


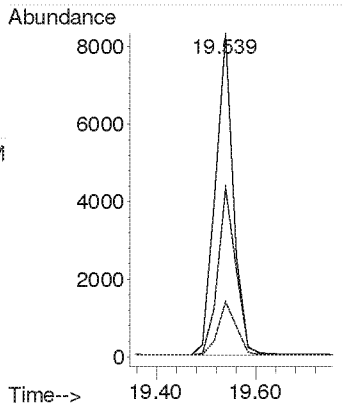
#23
Chloroprene
Concen: 2.476 ppbv
RT: 19.539 min Scan# 2028
Delta R.T. 0.000 min
Lab File: L18L~002.D
Acq: 27 Dec 2018 4:48 pm

Tgt Ion: 53 Resp: 20724

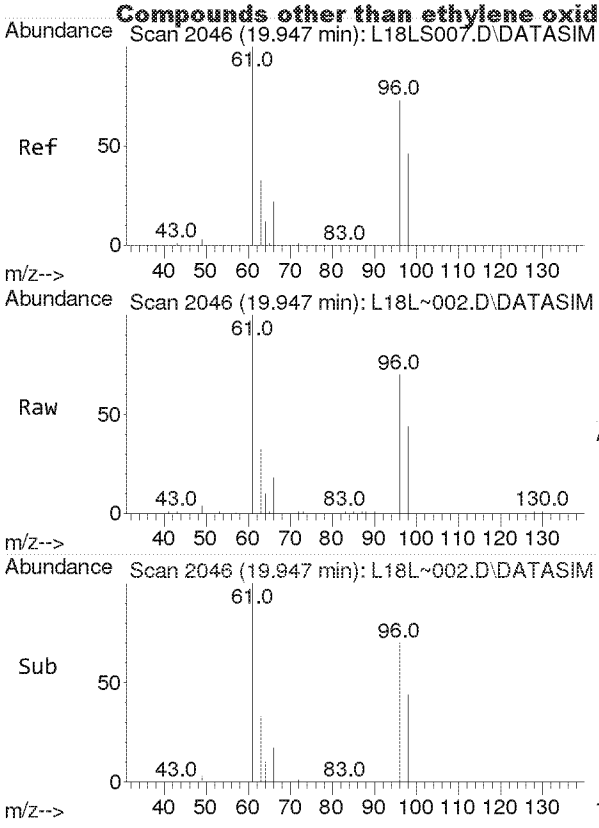
Ion	Ratio	Lower	Upper
53	100		
88	52.5	41.4	62.2
90	16.8	13.4	20.2







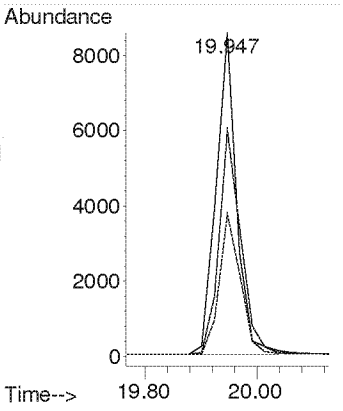
Compounds other than ethylene oxide were not quantitated.

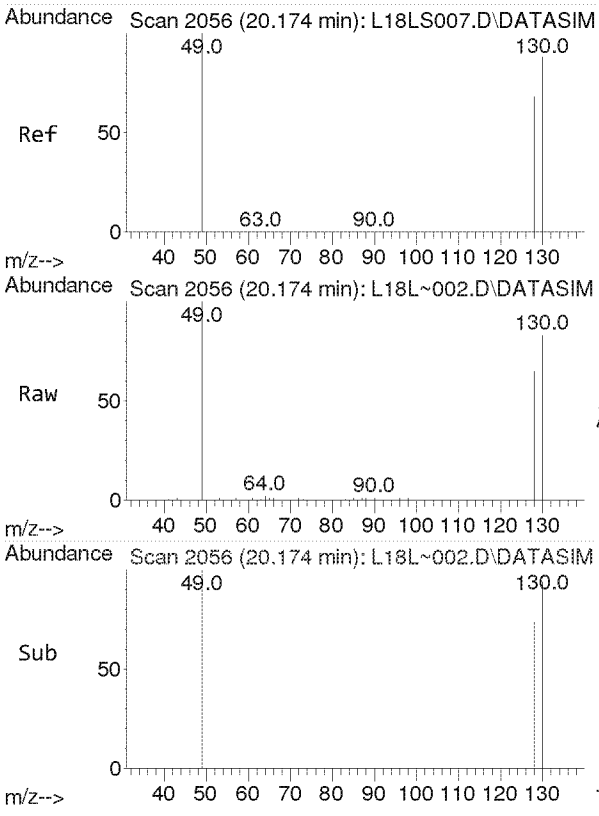


#24
cis-1,2-Dichloroethylene
Concen: 2.411 ppbv
RT: 19.947 min Scan# 2046
Delta R.T. 0.000 min
Lab File: L18L~002.D
Acq: 27 Dec 2018 4:48 pm

Tgt Ion: 61 Resp: 21801

Ion	Ratio	Lower	Upper
61	100		
96	74.5	59.0	88.4
98	45.5	36.2	54.2

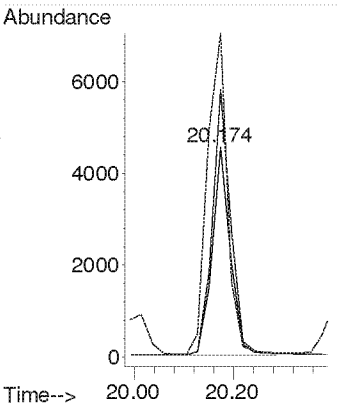




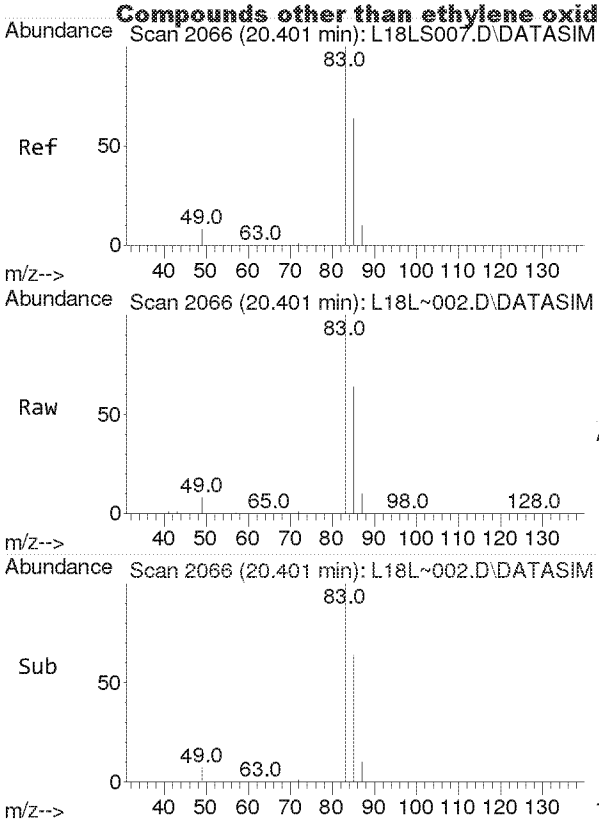
#25
Bromochloromethane
Concen: 2.337 ppbv
RT: 20.174 min Scan# 2056
Delta R.T. 0.000 min
Lab File: L18L~002.D
Acq: 27 Dec 2018 4:48 pm

Tgt Ion:128 Resp: 11369

Ion	Ratio	Lower	Upper
128	100		
130	129.1	103.3	154.9
49	170.6	137.0	205.4



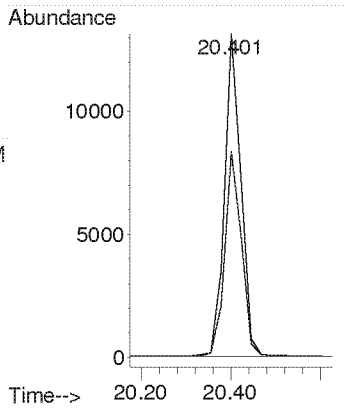
Compounds other than ethylene oxide were not quantitated.

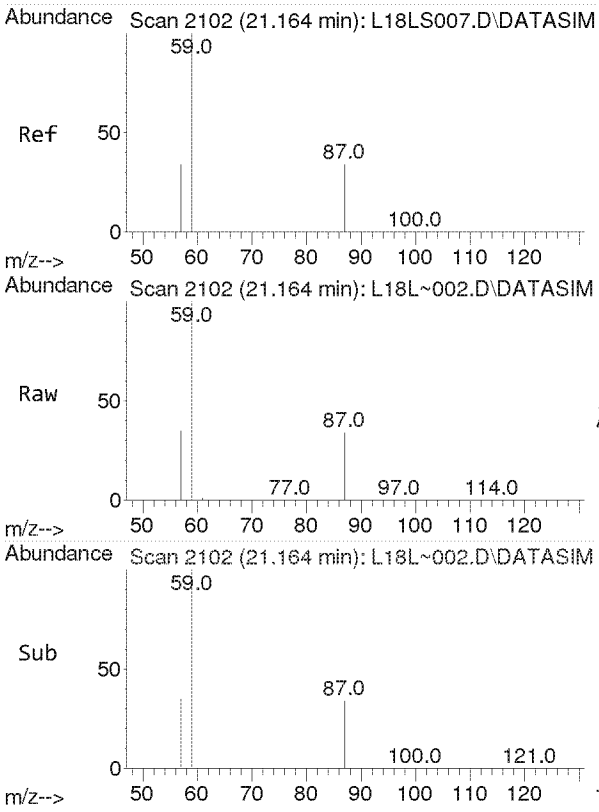


#26
Chloroform
Concen: 2.515 ppbv
RT: 20.401 min Scan# 2066
Delta R.T. 0.000 min
Lab File: L18L~002.D
Acq: 27 Dec 2018 4:48 pm

Tgt Ion: 83 Resp: 33682

Ion	Ratio	Lower	Upper
83	100		
85	65.0	51.5	77.3

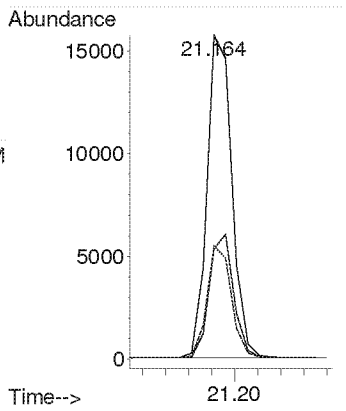




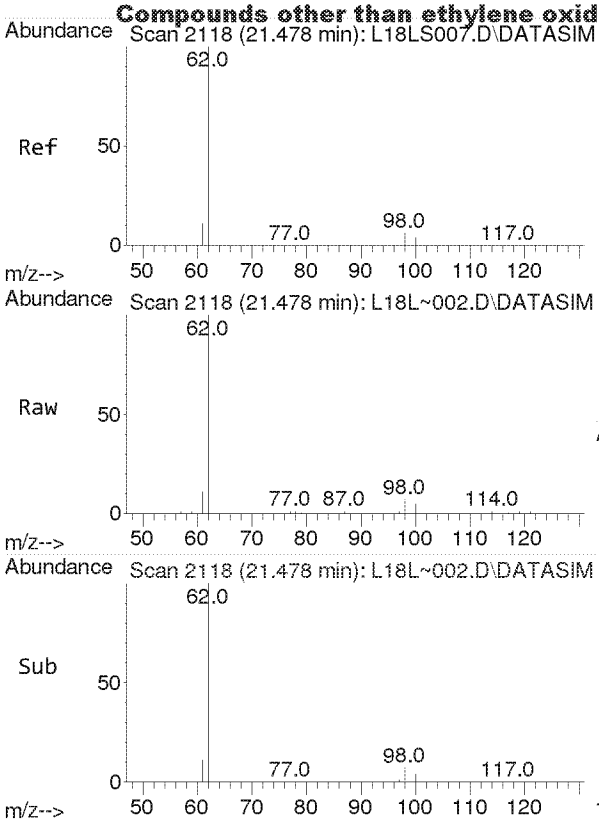
#27
Ethyl tert-Butyl Ether
Concen: 2.637 ppbv
RT: 21.164 min Scan# 2102
Delta R.T. 0.000 min
Lab File: L18L~002.D
Acq: 27 Dec 2018 4:48 pm

Tgt Ion: 59 Resp: 47239

Ion	Ratio	Lower	Upper
59	100		
87	37.6	30.0	45.0
57	34.0	27.0	40.6



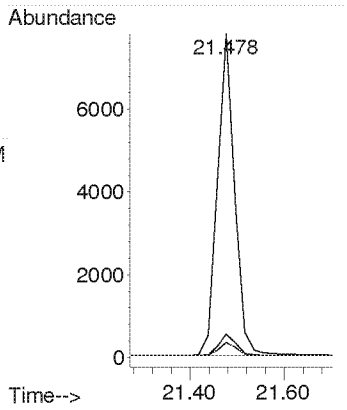
Compounds other than ethylene oxide were not quantitated.

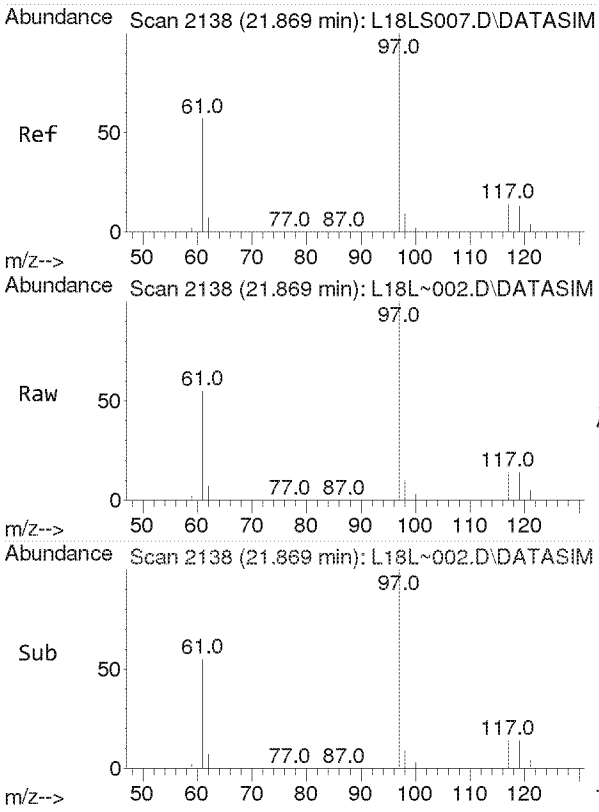


#28
1,2-Dichloroethane
Concen: 2.423 ppbv
RT: 21.478 min Scan# 2118
Delta R.T. 0.000 min
Lab File: L18L~002.D
Acq: 27 Dec 2018 4:48 pm

Tgt Ion: 62 Resp: 19658

Ion	Ratio	Lower	Upper
62	100		
98	6.6	5.1	7.7
100	4.1	3.2	4.8

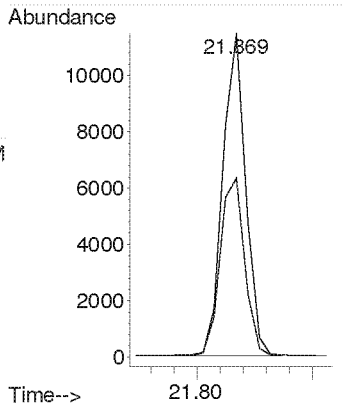




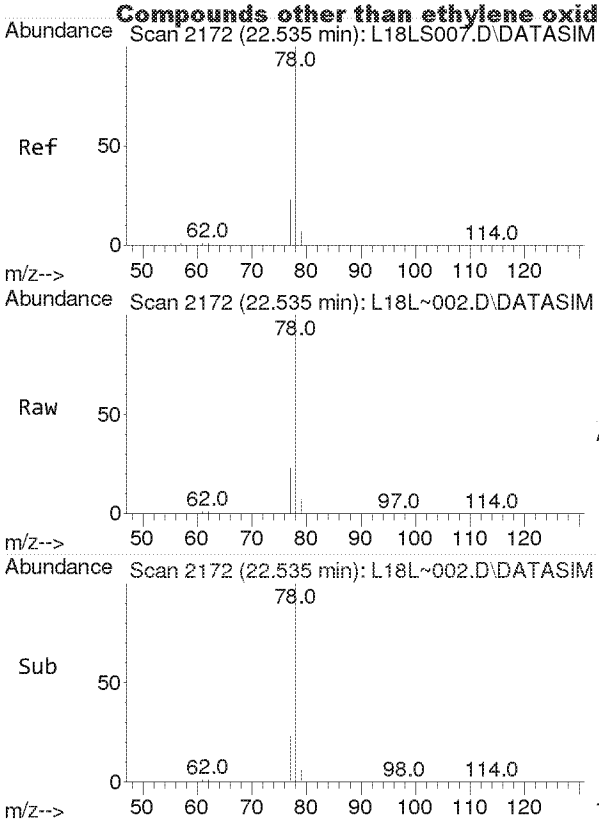
#30
1,1,1-Trichloroethane
Concen: 2.476 ppbv
RT: 21.869 min Scan# 2138
Delta R.T. 0.000 min
Lab File: L18L~002.D
Acq: 27 Dec 2018 4:48 pm

Tgt Ion: 97 Resp: 31448

Ion	Ratio	Lower	Upper
97	100		
61	59.0	48.4	72.6



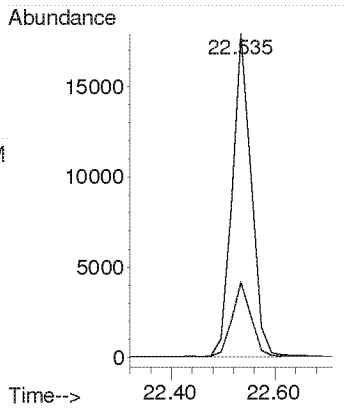
Compounds other than ethylene oxide were not quantitated.

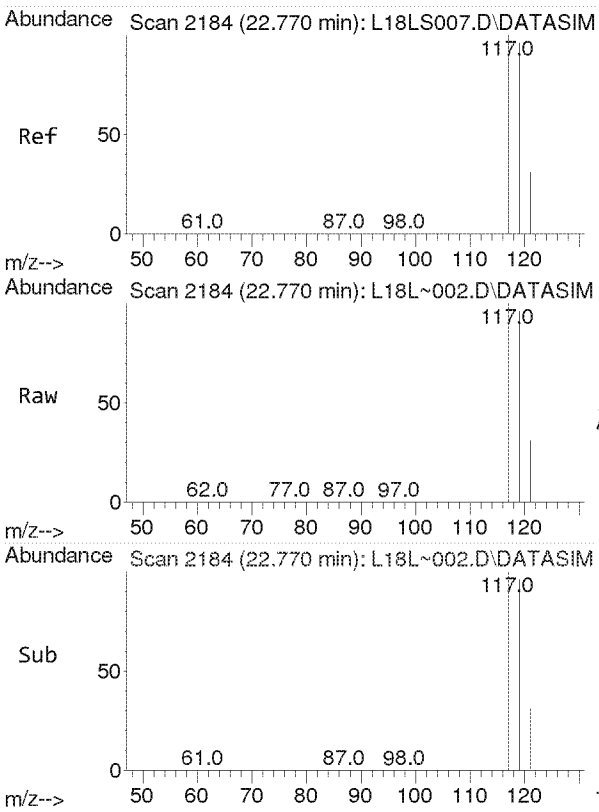


#31
Benzene
Concen: 2.634 ppbv
RT: 22.535 min Scan# 2172
Delta R.T. 0.000 min
Lab File: L18L~002.D
Acq: 27 Dec 2018 4:48 pm

Tgt Ion: 78 Resp: 45767

Ion	Ratio	Lower	Upper
78	100		
77	22.8	18.2	27.2

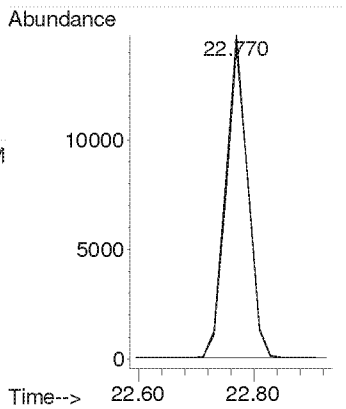




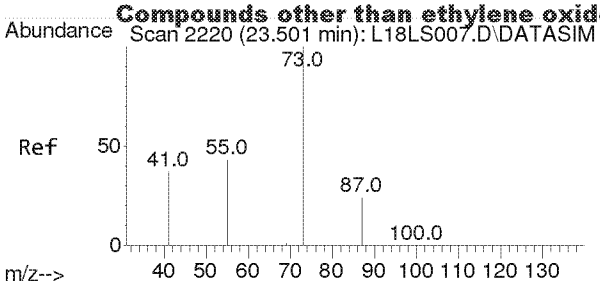
#32
Carbon Tetrachloride
Concen: 2.820 ppbv
RT: 22.770 min Scan# 2184
Delta R.T. 0.000 min
Lab File: L18L~002.D
Acq: 27 Dec 2018 4:48 pm

Tgt Ion:117 Resp: 39005

Ion	Ratio	Lower	Upper
117	100		
119	96.4	77.2	115.8



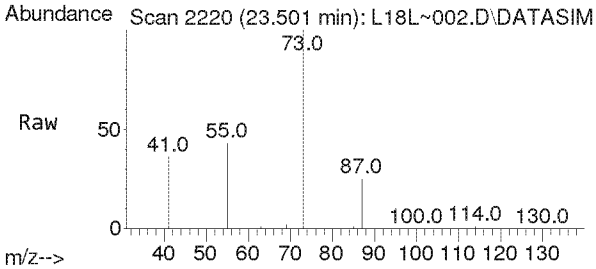
Compounds other than ethylene oxide were not quantitated.

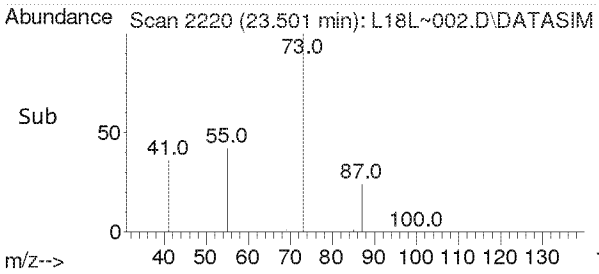


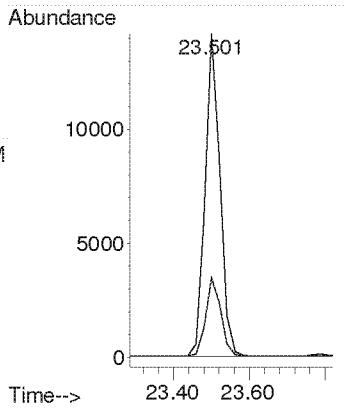
#33
tert-Amyl Methyl Ether
Concen: 2.636 ppbv
RT: 23.501 min Scan# 2220
Delta R.T. 0.000 min
Lab File: L18L~002.D
Acq: 27 Dec 2018 4:48 pm

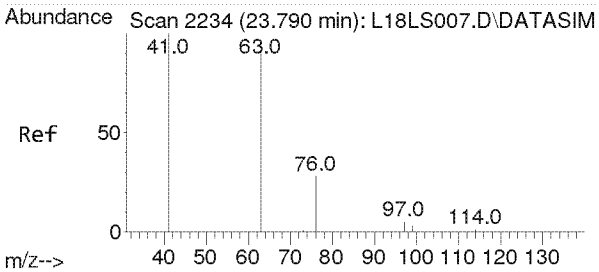
Tgt Ion: 73 Resp: 38766

Ion	Ratio	Lower	Upper
73	100		
87	24.7	19.9	29.9





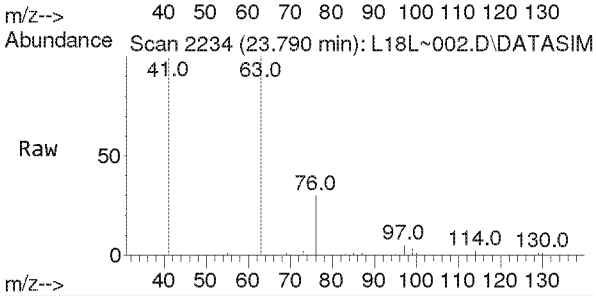


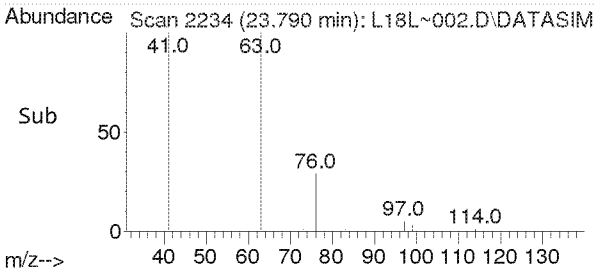


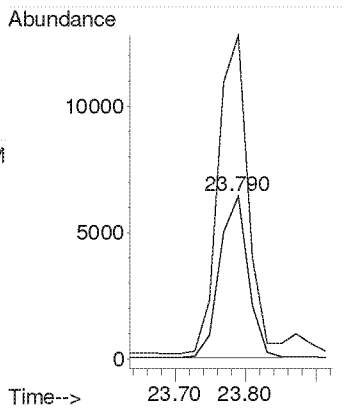
#34
1,2-Dichloropropane
Concen: 2.488 ppbv
RT: 23.790 min Scan# 2234
Delta R.T. 0.000 min
Lab File: L18L~002.D
Acq: 27 Dec 2018 4:48 pm

Tgt Ion: 63 Resp: 18003

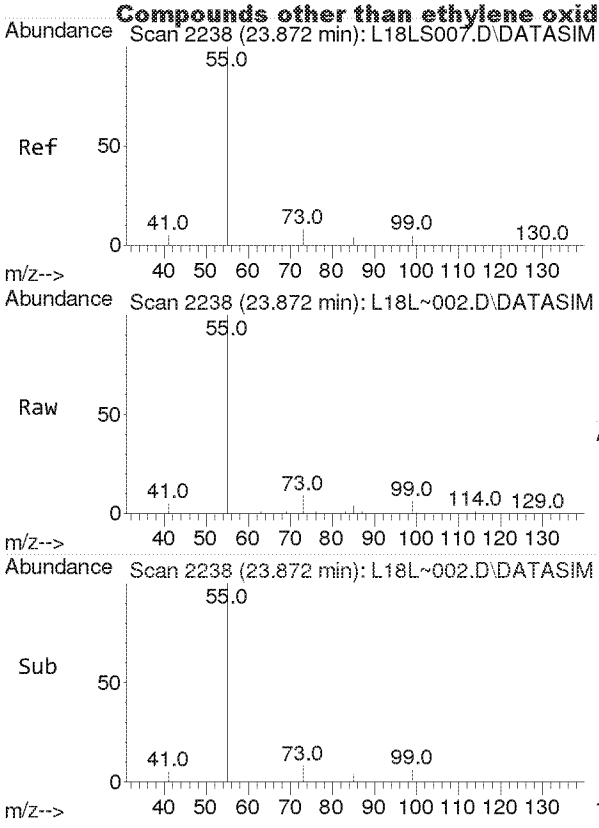
Ion	Ratio	Lower	Upper
63	100		
41	204.2	170.2	255.4







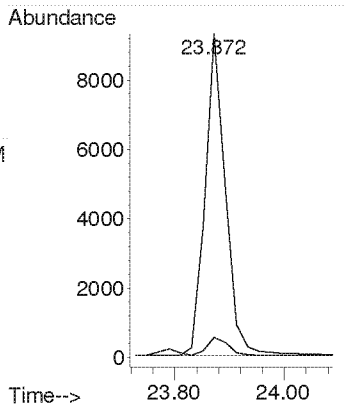
Compounds other than ethylene oxide were not quantitated.

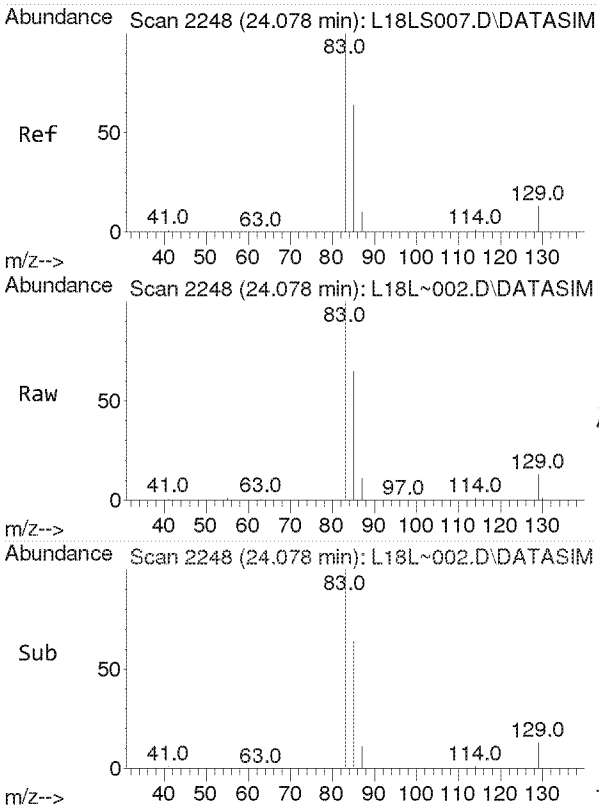


#35
Ethyl Acrylate
Concen: 2.467 ppbv
RT: 23.872 min Scan# 2238
Delta R.T. 0.000 min
Lab File: L18L~002.D
Acq: 27 Dec 2018 4:48 pm

Tgt Ion: 55 Resp: 23936

Ion	Ratio	Lower	Upper
55	100		
99	5.9	4.9	7.3

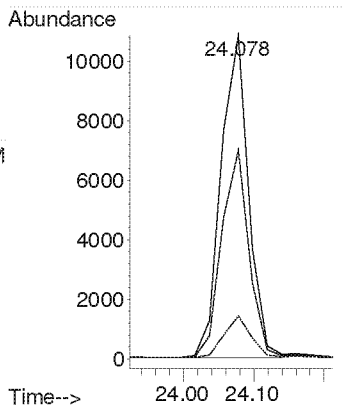




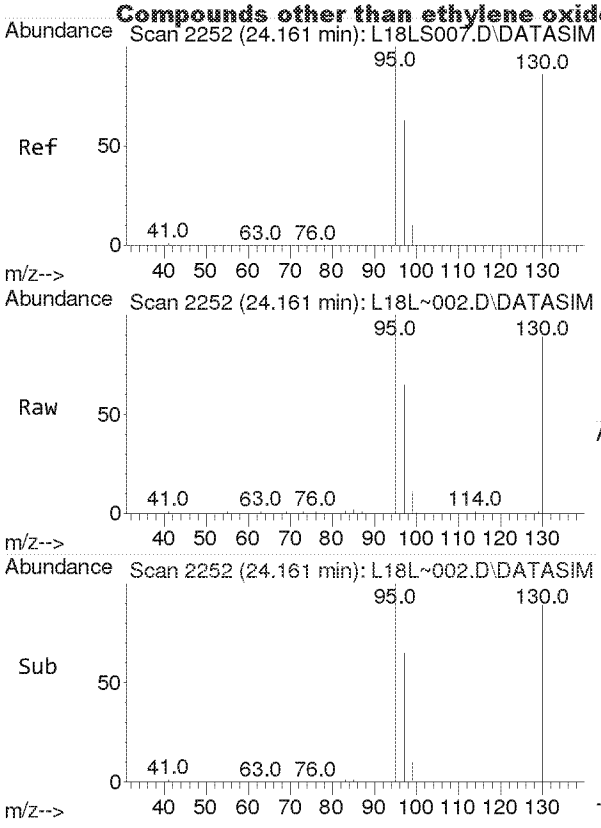
#36
Bromodichloromethane
Concen: 2.202 ppbv
RT: 24.078 min Scan# 2248
Delta R.T. 0.000 min
Lab File: L18L~002.D
Acq: 27 Dec 2018 4:48 pm

Tgt Ion: 83 Resp: 29468

Ion	Ratio	Lower	Upper
83	100		
85	63.8	51.2	76.8
129	12.5	9.9	14.9



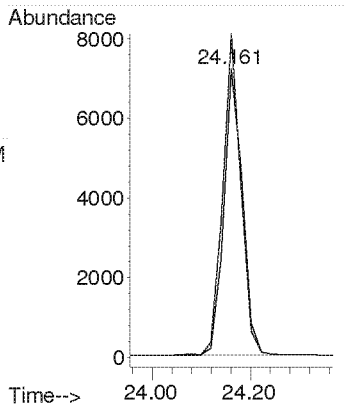
Compounds other than ethylene oxide were not quantitated.

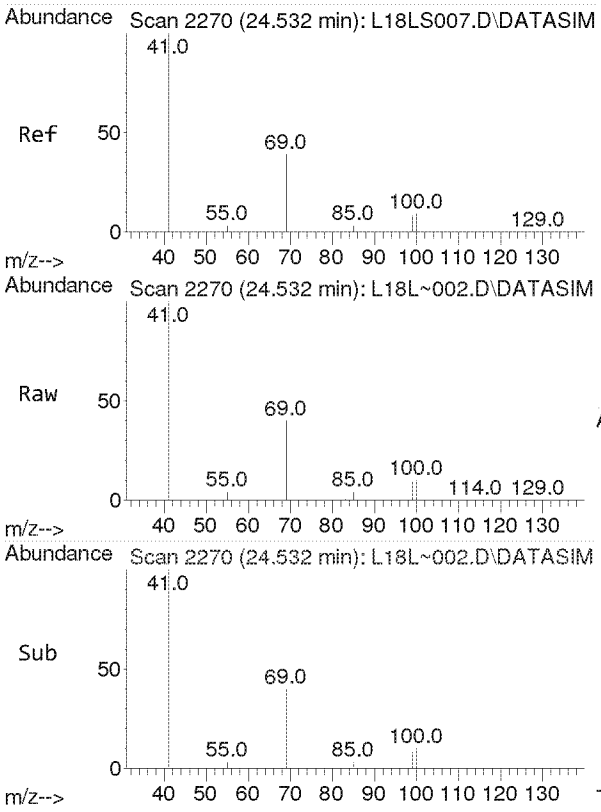


#37
Trichloroethylene
Concen: 2.309 ppbv
RT: 24.161 min Scan# 2252
Delta R.T. 0.000 min
Lab File: L18L~002.D
Acq: 27 Dec 2018 4:48 pm

Tgt Ion:130 Resp: 18925

Ion	Ratio	Lower	Upper
130	100		
95	109.5	88.2	132.4

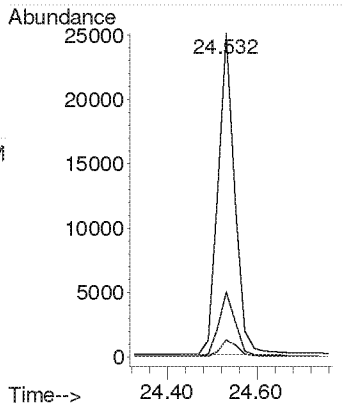




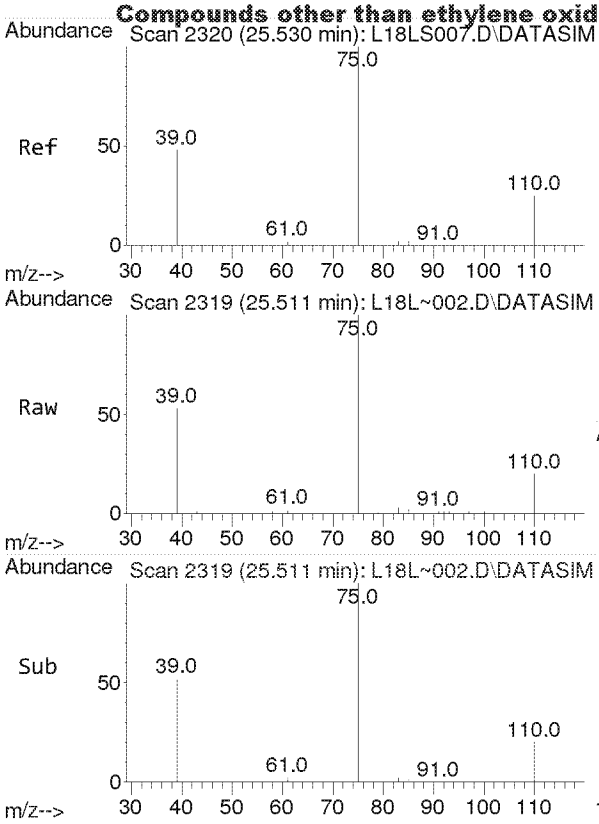
#38
Methyl Methacrylate
Concen: 2.390 ppbv
RT: 24.532 min Scan# 2270
Delta R.T. 0.000 min
Lab File: L18L~002.D
Acq: 27 Dec 2018 4:48 pm

Tgt Ion: 41 Resp: 64364

Ion	Ratio	Lower	Upper
41	100		
69	20.0	15.9	23.9
100	5.2	4.2	6.2



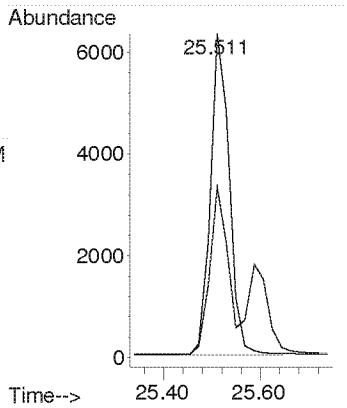
Compounds other than ethylene oxide were not quantitated.

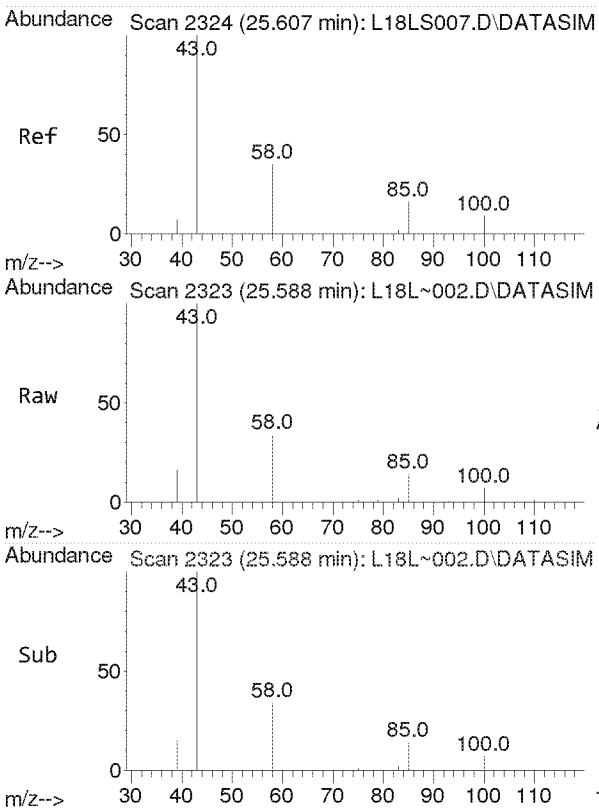


#39
cis-1,3-Dichloropropene
Concen: 2.671 ppbv
RT: 25.511 min Scan# 2319
Delta R.T. -0.019 min
Lab File: L18L~002.D
Acq: 27 Dec 2018 4:48 pm

Tgt Ion: 75 Resp: 17223

Ion	Ratio	Lower	Upper
75	100		
39	54.1	43.5	65.3

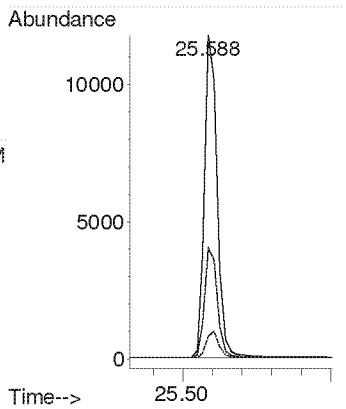




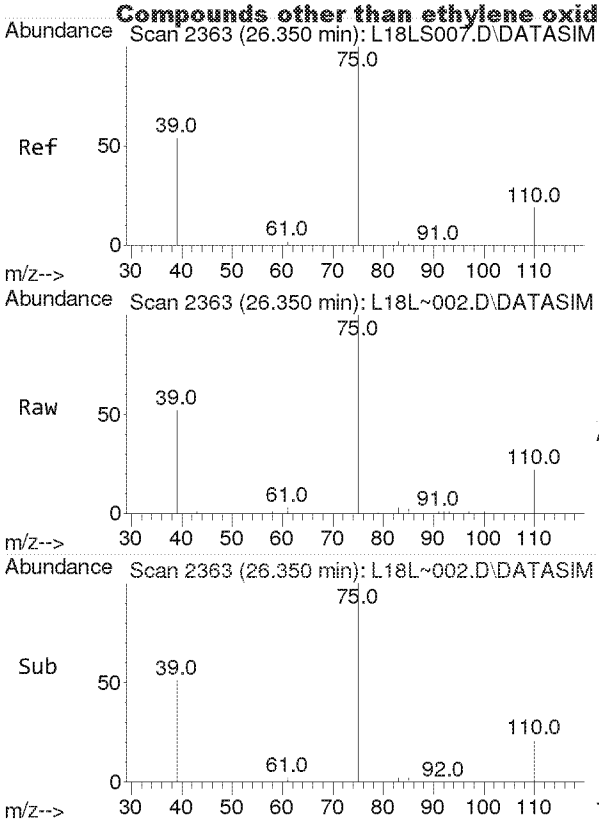
#40
Methyl Isobutyl Ketone
Concen: 2.414 ppbv
RT: 25.588 min Scan# 2323
Delta R.T. -0.019 min
Lab File: L18L~002.D
Acq: 27 Dec 2018 4:48 pm

Tgt Ion: 43 Resp: 34699

Ion	Ratio	Lower	Upper
43	100		
58	34.4	27.4	41.0
100	8.0	6.3	9.5



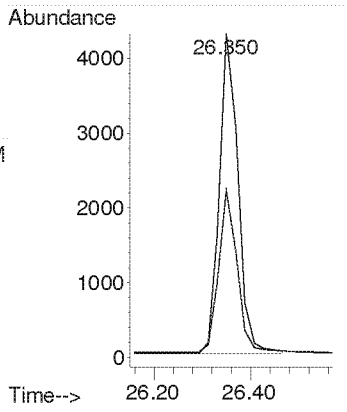
Compounds other than ethylene oxide were not quantitated.

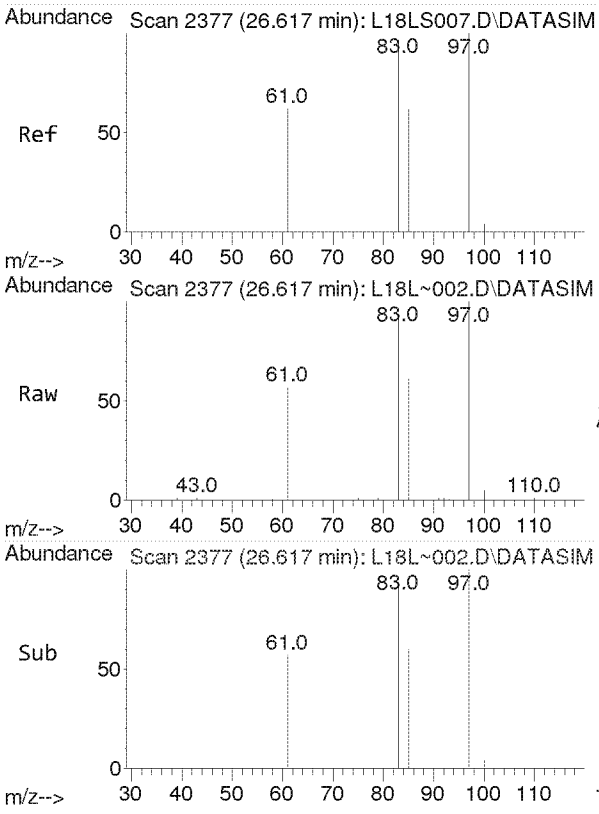


#41
trans-1,3-Dichloropropene
Concen: 2.408 ppbv
RT: 26.350 min Scan# 2363
Delta R.T. 0.000 min
Lab File: L18L~002.D
Acq: 27 Dec 2018 4:48 pm

Tgt Ion: 75 Resp: 11507

Ion	Ratio	Lower	Upper
75	100		
39	49.6	40.7	61.1

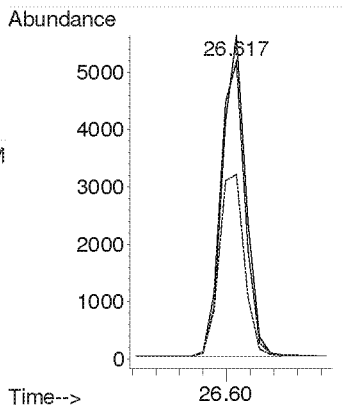




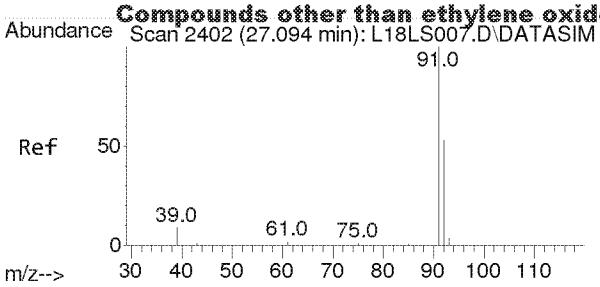
#42
1,1,2-Trichloroethane
Concen: 2.446 ppbv
RT: 26.617 min Scan# 2377
Delta R.T. 0.000 min
Lab File: L18L~002.D
Acq: 27 Dec 2018 4:48 pm

Tgt Ion: 97 Resp: 15257

Ion	Ratio	Lower	Upper
97	100		
83	96.7	76.9	115.3
61	62.1	50.8	76.2



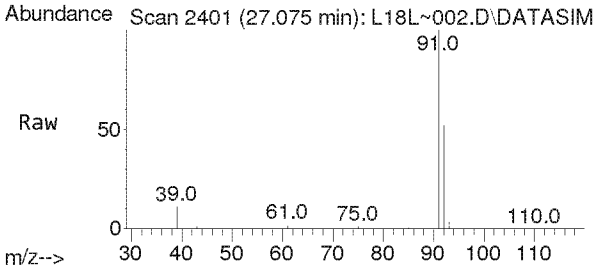
Compounds other than ethylene oxide were not quantitated.

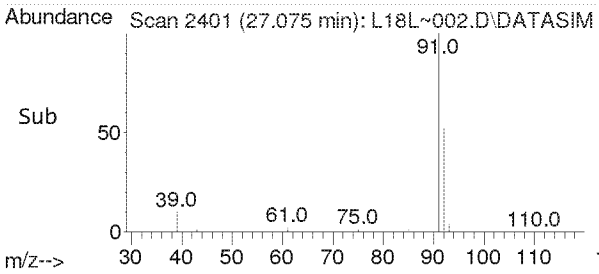


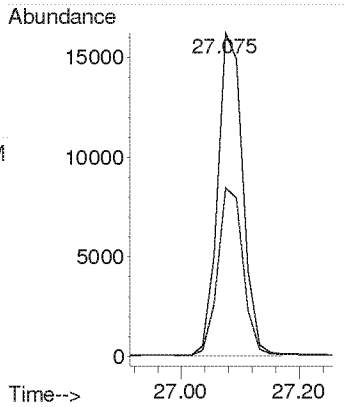
#44
Toluene
Concen: 2.464 ppbv
RT: 27.075 min Scan# 2401
Delta R.T. -0.019 min
Lab File: L18L~002.D
Acq: 27 Dec 2018 4:48 pm

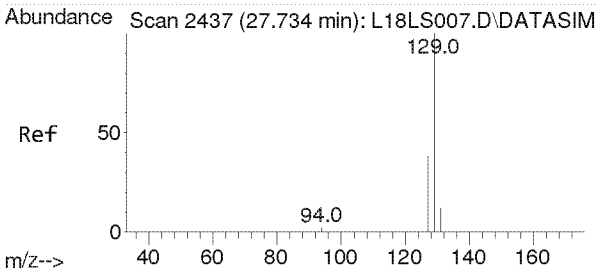
Tgt Ion: 91 Resp: 47486

Ion	Ratio	Lower	Upper
91	100		
92	52.4	42.1	63.1





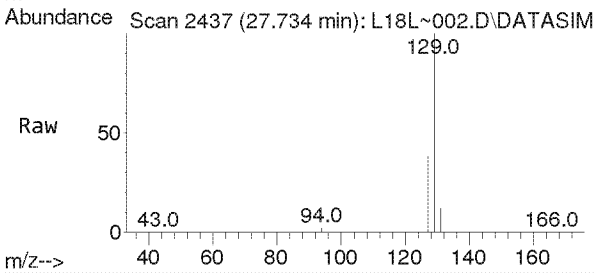


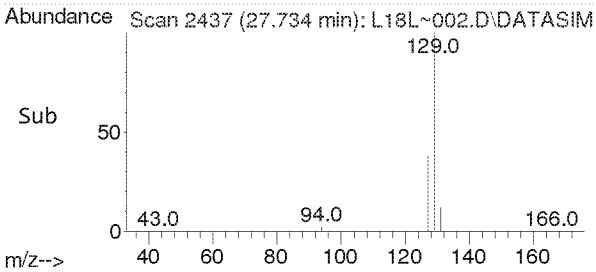


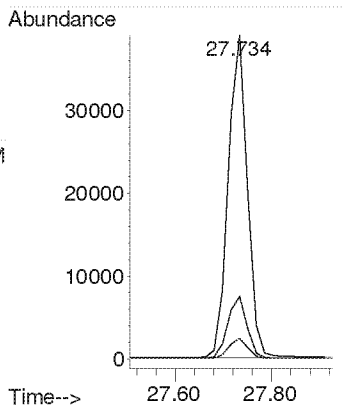
#45
Dibromochloromethane
Concen: 2.341 ppbv
RT: 27.734 min Scan# 2437
Delta R.T. 0.000 min
Lab File: L18L~002.D
Acq: 27 Dec 2018 4:48 pm

Tgt Ion:129 Resp: 106894

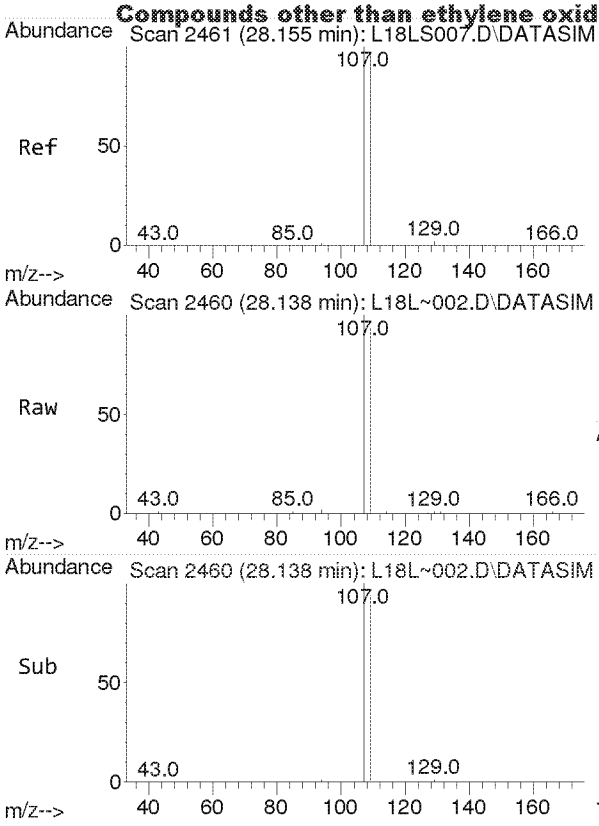
Ion	Ratio	Lower	Upper
129	100		
127	19.3	15.4	23.0
131	6.0	4.8	7.2







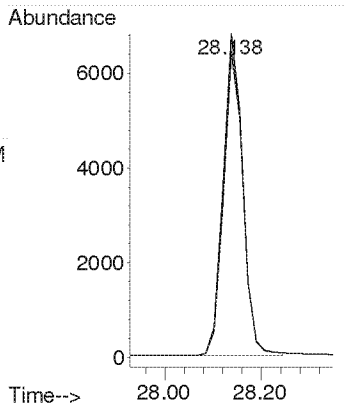
Compounds other than ethylene oxide were not quantitated.

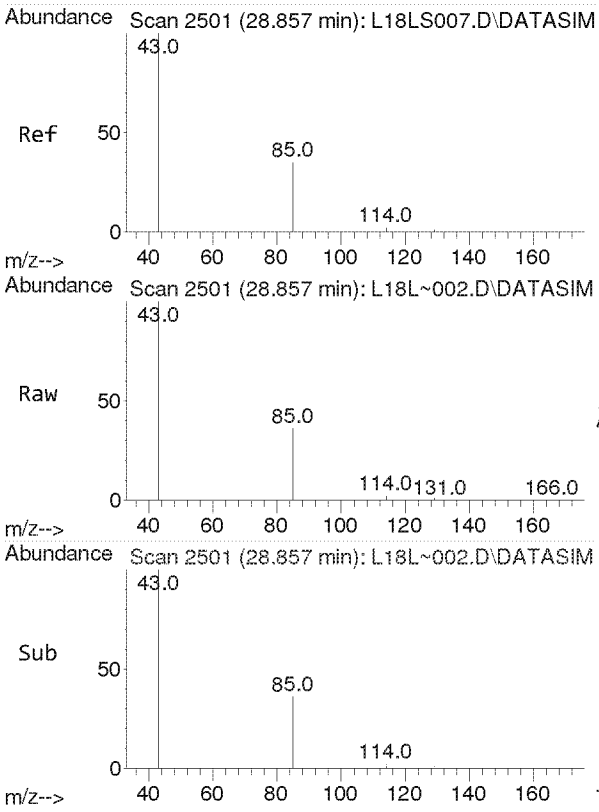


#46
1,2-Dibromoethane
Concen: 2.463 ppbv
RT: 28.138 min Scan# 2460
Delta R.T. -0.017 min
Lab File: L18L~002.D
Acq: 27 Dec 2018 4:48 pm

Tgt Ion:107 Resp: 18855

Ion	Ratio	Lower	Upper
107	100		
109	95.0	75.6	113.4

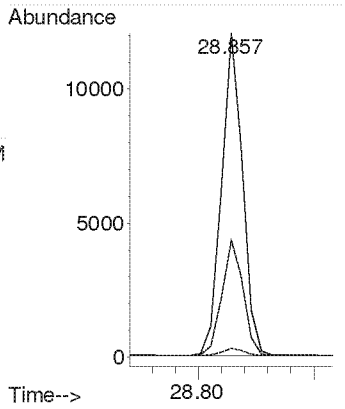




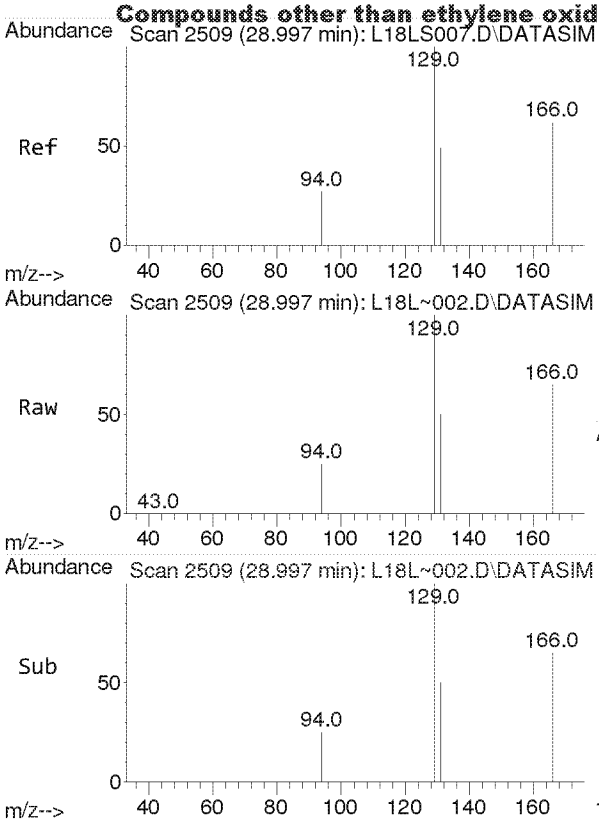
#47
n-Octane
Concen: 2.466 ppbv
RT: 28.857 min Scan# 2501
Delta R.T. 0.000 min
Lab File: L18L~002.D
Acq: 27 Dec 2018 4:48 pm

Tgt Ion: 43 Resp: 30540

Ion	Ratio	Lower	Upper
43	100		
85	36.2	28.8	43.2
114	2.2	1.8	2.6



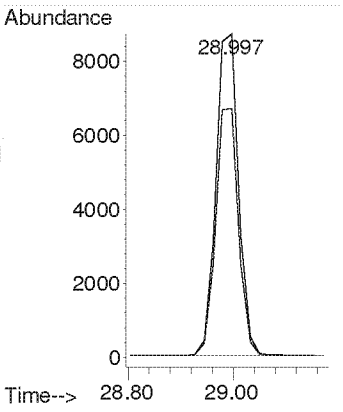
Compounds other than ethylene oxide were not quantitated.

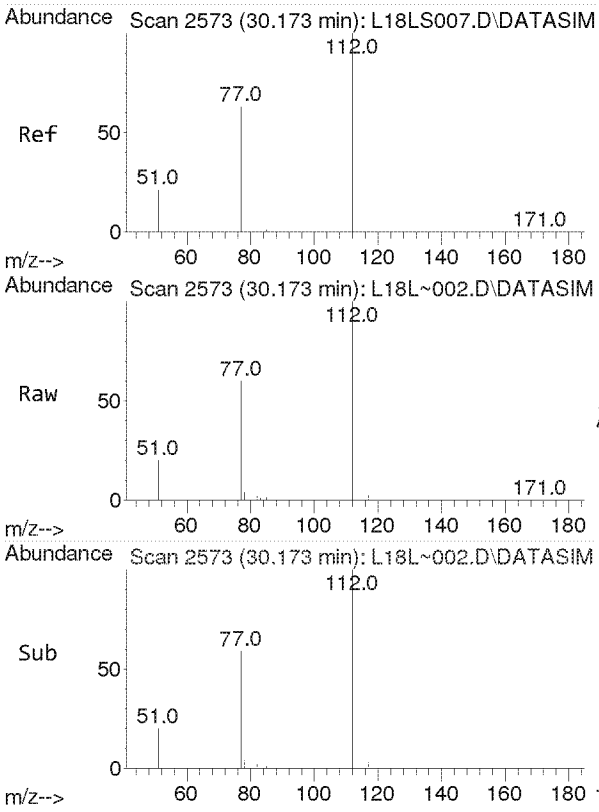


#48
Tetrachloroethylene
Concen: 2.681 ppbv
RT: 28.997 min Scan# 2509
Delta R.T. 0.000 min
Lab File: L18L~002.D
Acq: 27 Dec 2018 4:48 pm

Tgt Ion:166 Resp: 25787

Ion	Ratio	Lower	Upper
166	100		
131	77.8	62.6	93.8

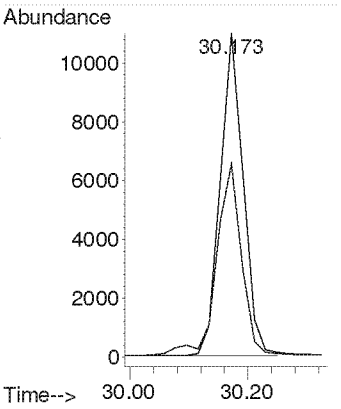




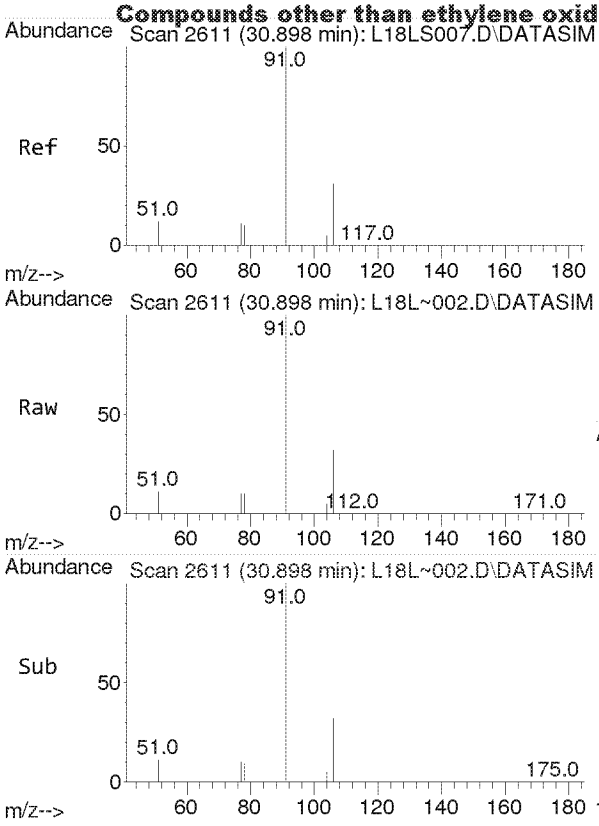
#49
Chlorobenzene
Concen: 2.378 ppbv
RT: 30.173 min Scan# 2573
Delta R.T. 0.000 min
Lab File: L18L~002.D
Acq: 27 Dec 2018 4:48 pm

Tgt Ion:112 Resp: 29472

Ion	Ratio	Lower	Upper
112	100		
77	62.1	50.4	75.6



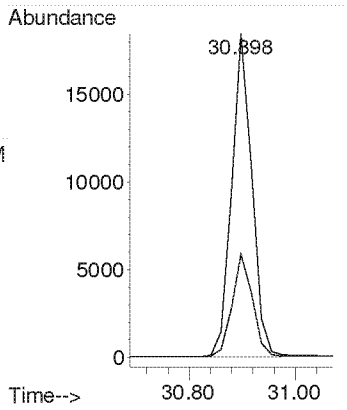
Compounds other than ethylene oxide were not quantitated.

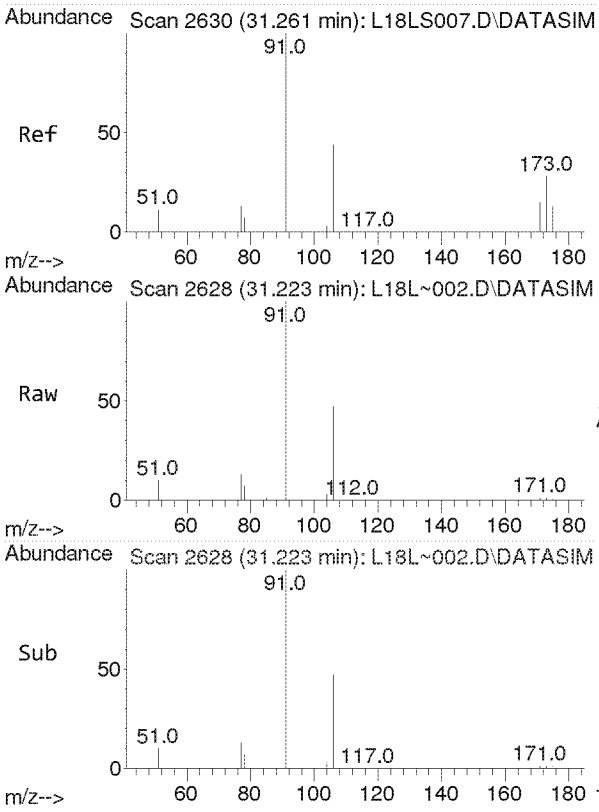


#50
Ethylbenzene
Concen: 2.449 ppbv
RT: 30.898 min Scan# 2611
Delta R.T. 0.000 min
Lab File: L18L~002.D
Acq: 27 Dec 2018 4:48 pm

Tgt Ion: 91 Resp: 48791

Ion	Ratio	Lower	Upper
91	100		
106	31.8	25.4	38.2

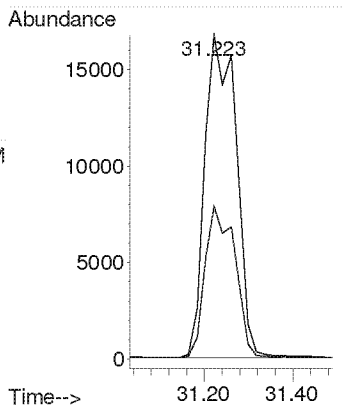




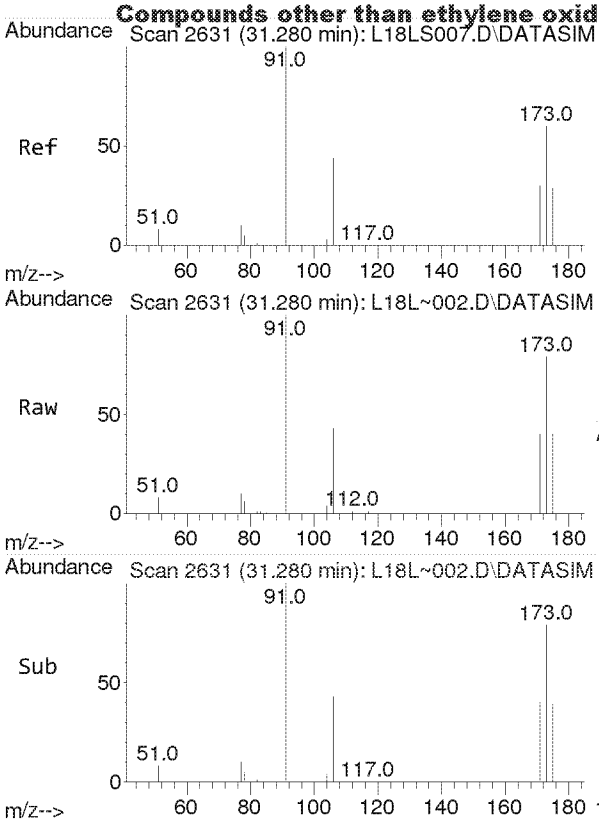
#51
m,p-Xylene
Concen: 4.798 ppbv
RT: 31.223 min Scan# 2628
Delta R.T. -0.038 min
Lab File: L18L~002.D
Acq: 27 Dec 2018 4:48 pm

Tgt Ion: 91 Resp: 82130

Ion	Ratio	Lower	Upper
91	100		
106	44.7	35.5	53.3



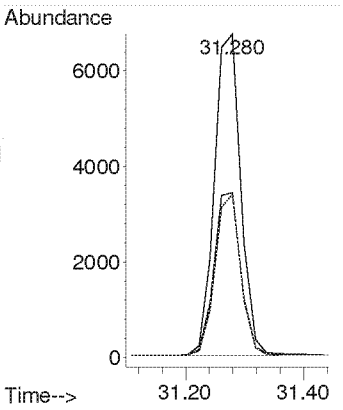
Compounds other than ethylene oxide were not quantitated.

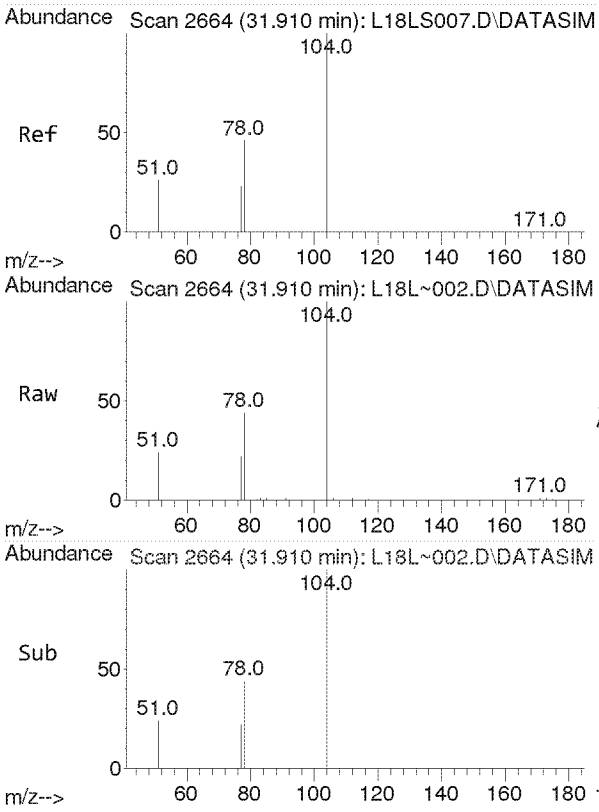


#52
Bromoform
Concen: 2.404 ppbv
RT: 31.280 min Scan# 2631
Delta R.T. 0.000 min
Lab File: L18L~002.D
Acq: 27 Dec 2018 4:48 pm

Tgt Ion:173 Resp: 20811

Ion	Ratio	Lower	Upper
173	100		
171	51.2	41.0	61.6
175	49.1	39.2	58.8

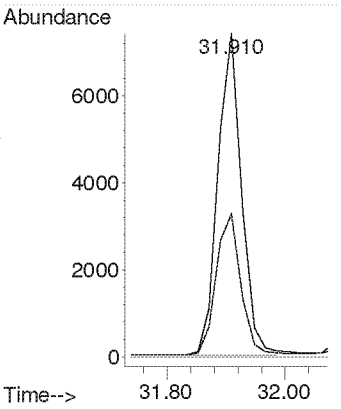




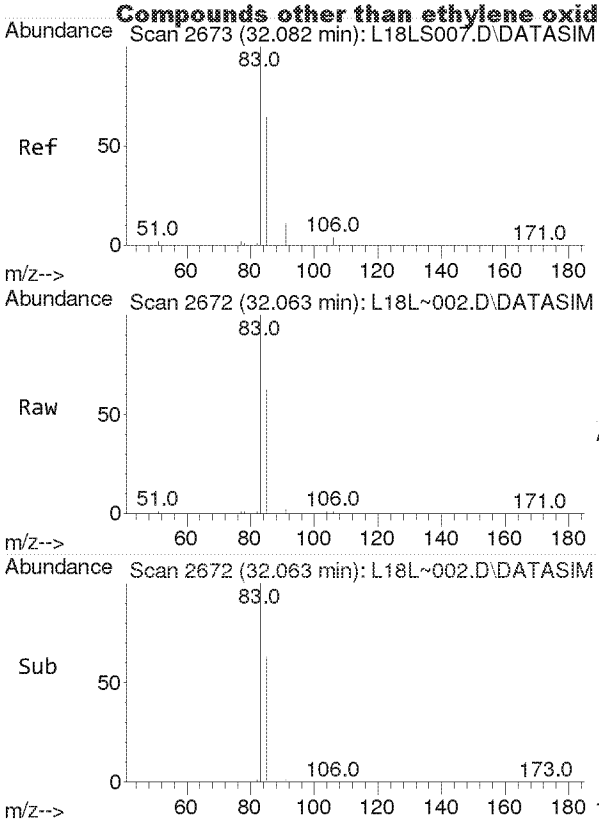
#53
Styrene
Concen: 2.347 ppbv
RT: 31.910 min Scan# 2664
Delta R.T. 0.000 min
Lab File: L18L~002.D
Acq: 27 Dec 2018 4:48 pm

Tgt Ion:104 Resp: 20438

Ion	Ratio	Lower	Upper
104	100		
78	45.6	36.5	54.7
103	0.0	0.0	0.0



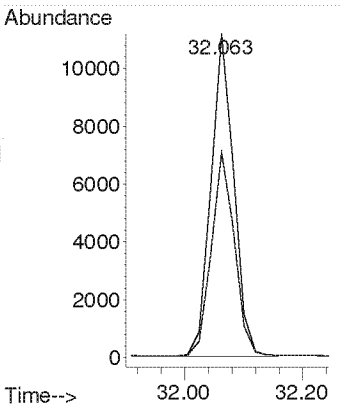
Compounds other than ethylene oxide were not quantitated.

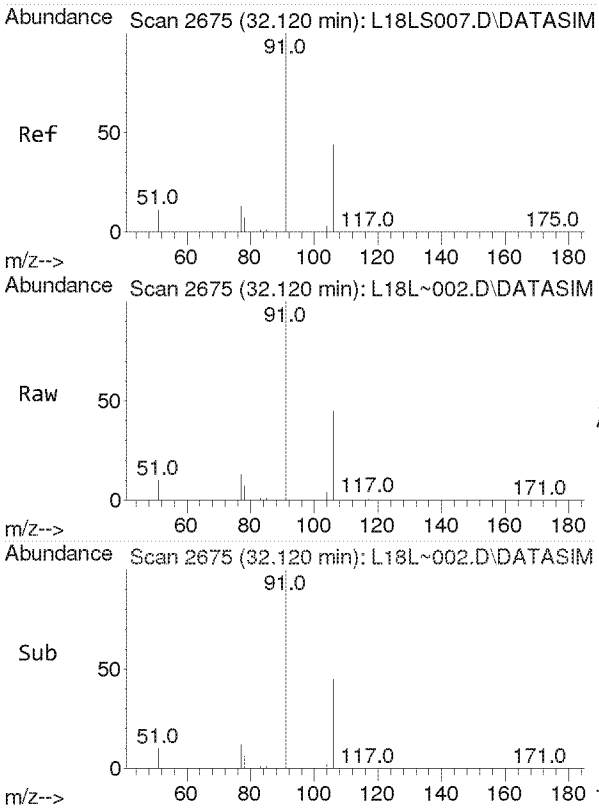


#54
1,1,2,2-Tetrachloroethane
Concen: 2.466 ppbv
RT: 32.063 min Scan# 2672
Delta R.T. -0.019 min
Lab File: L18L~002.D
Acq: 27 Dec 2018 4:48 pm

Tgt Ion: 83 Resp: 29869

Ion	Ratio	Lower	Upper
83	100		
85	64.2	51.1	76.7

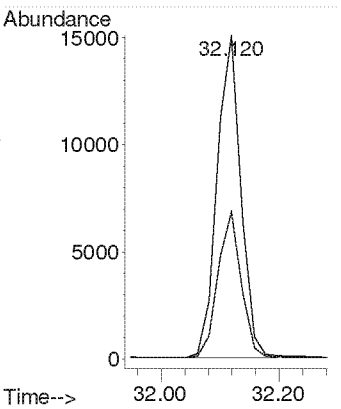




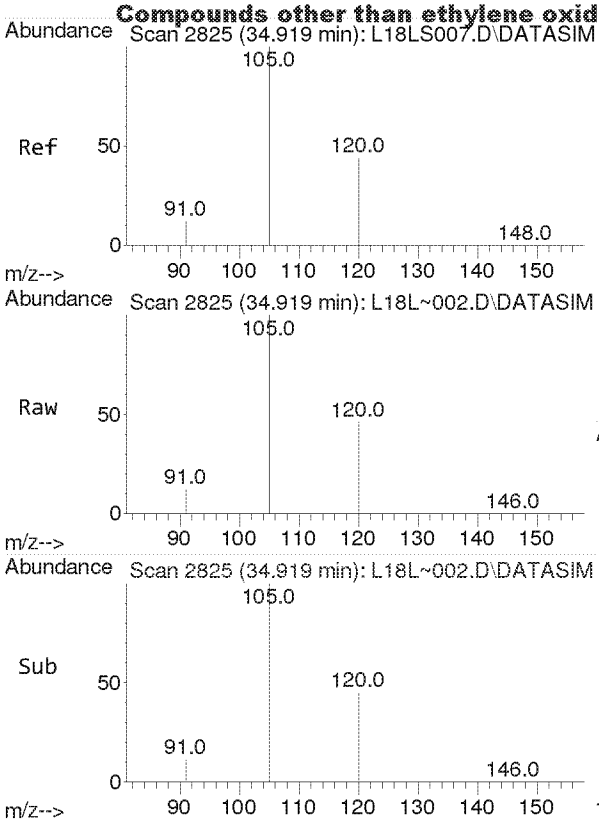
#55
o-Xylene
Concen: 2.483 ppbv
RT: 32.120 min Scan# 2675
Delta R.T. 0.000 min
Lab File: L18L~002.D
Acq: 27 Dec 2018 4:48 pm

Tgt Ion: 91 Resp: 41759

Ion	Ratio	Lower	Upper
91	100		
106	44.3	35.4	53.0



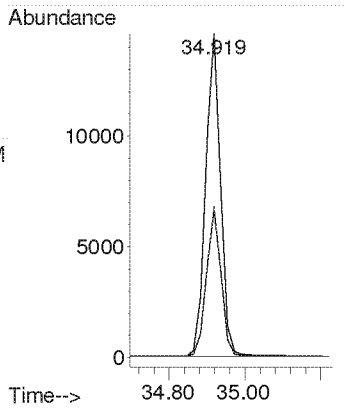
Compounds other than ethylene oxide were not quantitated.

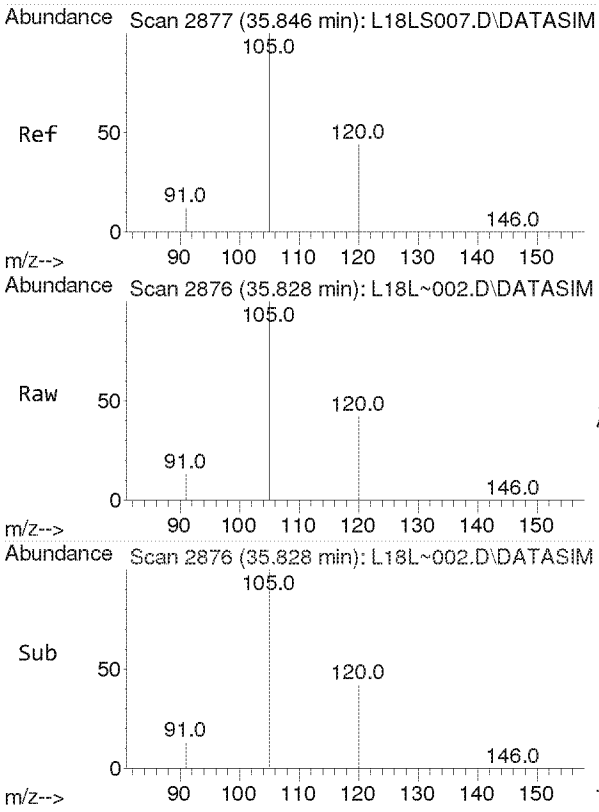


#56
1,3,5-Trimethylbenzene
Concen: 2.404 ppbv
RT: 34.919 min Scan# 2825
Delta R.T. 0.000 min
Lab File: L18L~002.D
Acq: 27 Dec 2018 4:48 pm

Tgt Ion:105 Resp: 39507

Ion	Ratio	Lower	Upper
105	100		
120	45.0	36.0	54.0

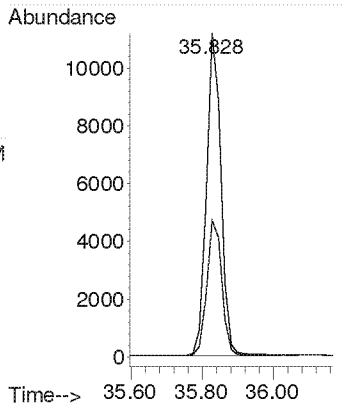




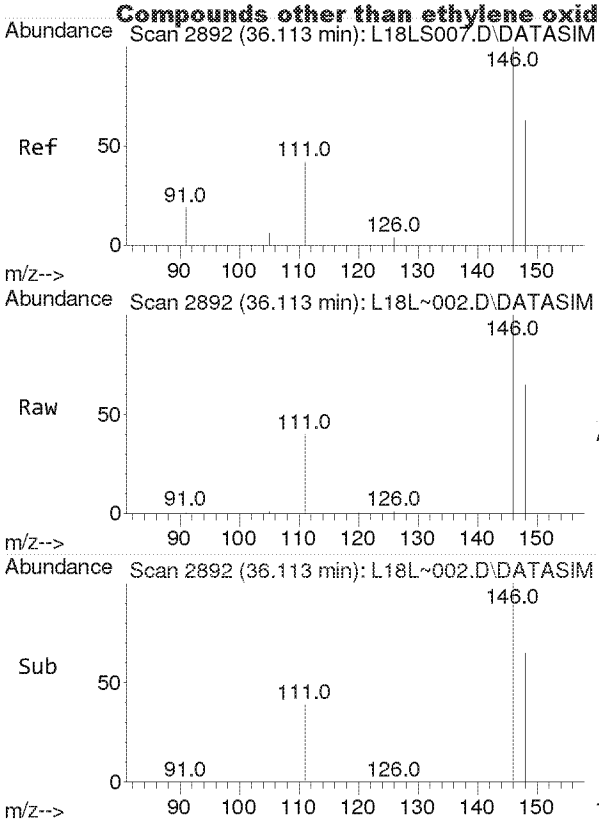
#57
1,2,4-Trimethylbenzene
Concen: 2.250 ppbv
RT: 35.828 min Scan# 2876
Delta R.T. -0.018 min
Lab File: L18L~002.D
Acq: 27 Dec 2018 4:48 pm

Tgt Ion:105 Resp: 31196

Ion	Ratio	Lower	Upper
105	100		
120	43.2	34.2	51.4



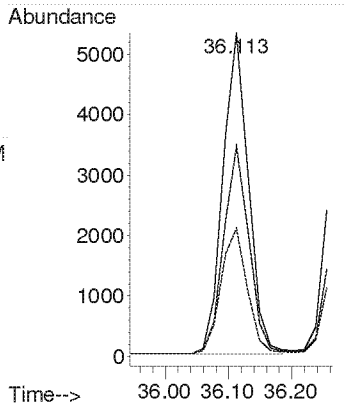
Compounds other than ethylene oxide were not quantitated.

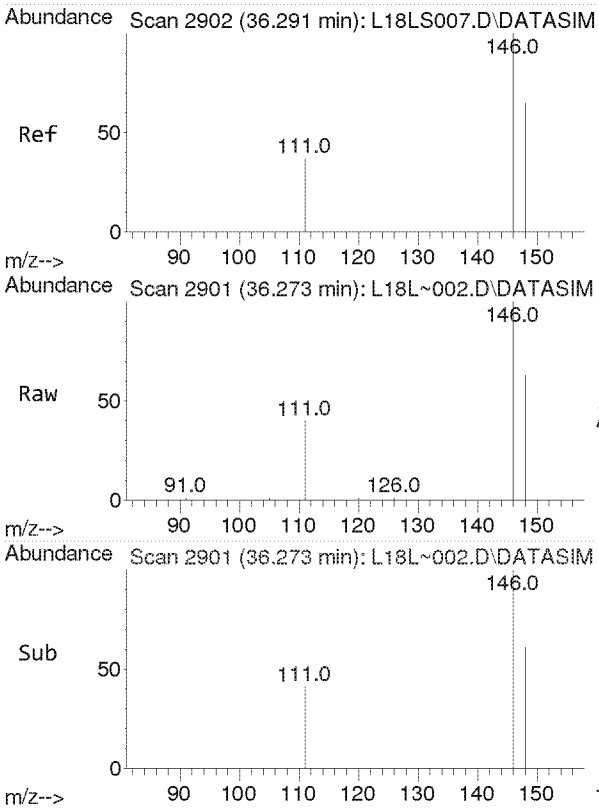


#58
m-Dichlorobenzene
Concen: 2.021 ppbv
RT: 36.113 min Scan# 2892
Delta R.T. 0.000 min
Lab File: L18L~002.D
Acq: 27 Dec 2018 4:48 pm

Tgt Ion:146 Resp: 14759

Ion	Ratio	Lower	Upper
146	100		
148	64.2	51.2	76.8
111	40.5	32.4	48.6

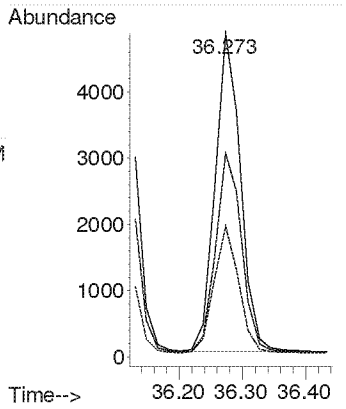




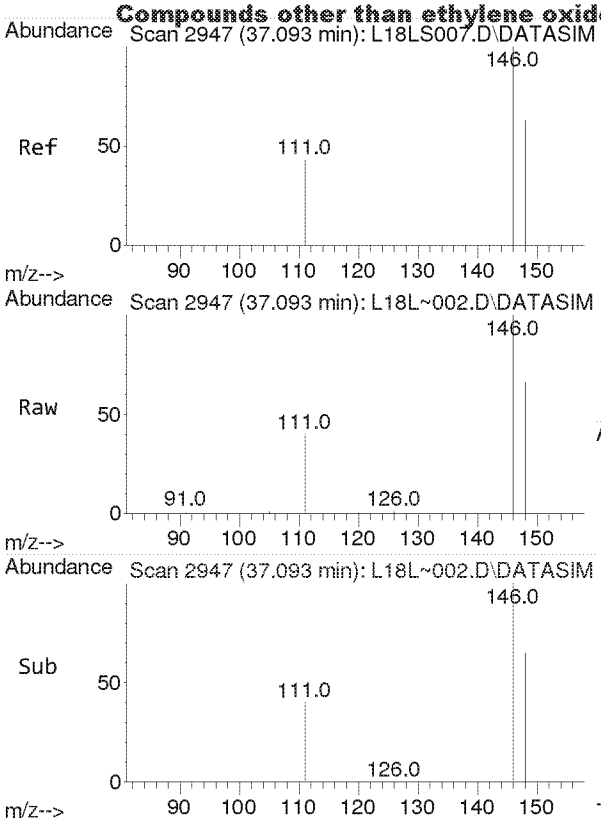
#59
p-Dichlorobenzene
Concen: 2.383 ppbv
RT: 36.273 min Scan# 2901
Delta R.T. -0.018 min
Lab File: L18L~002.D
Acq: 27 Dec 2018 4:48 pm

Tgt Ion:146 Resp: 13269

Ion	Ratio	Lower	Upper
146	100		
148	63.8	51.2	76.8
111	39.2	31.6	47.4



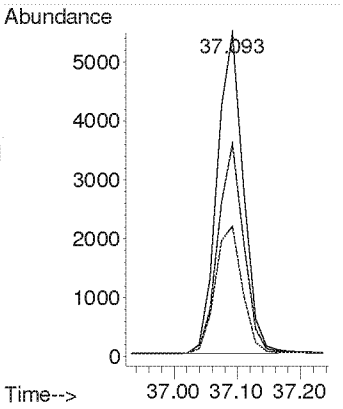
Compounds other than ethylene oxide were not quantitated.

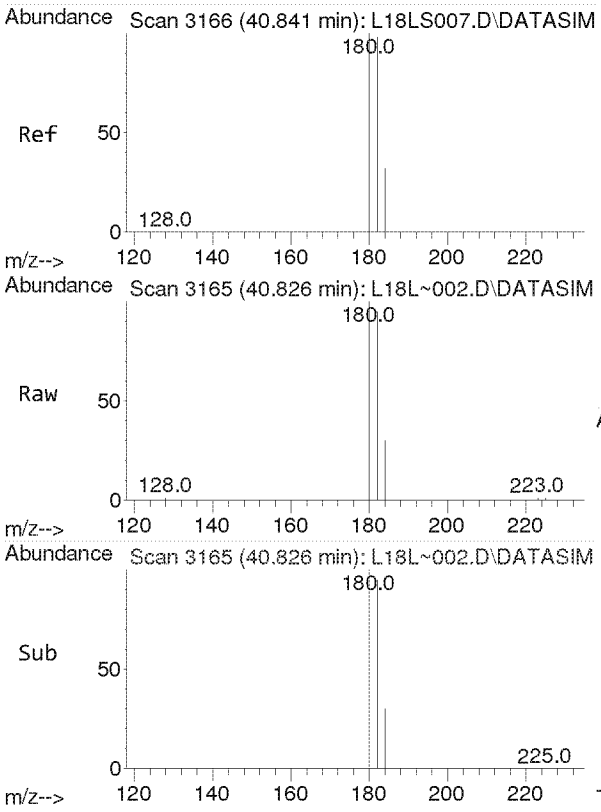


#60
o-Dichlorobenzene
Concen: 2.279 ppbv
RT: 37.093 min Scan# 2947
Delta R.T. 0.000 min
Lab File: L18L~002.D
Acq: 27 Dec 2018 4:48 pm

Tgt Ion:146 Resp: 15587

Ion	Ratio	Lower	Upper
146	100		
148	64.1	51.3	76.9
111	41.4	33.1	49.7

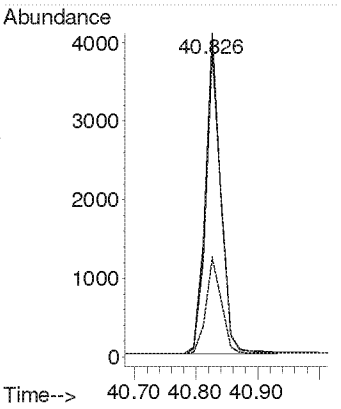




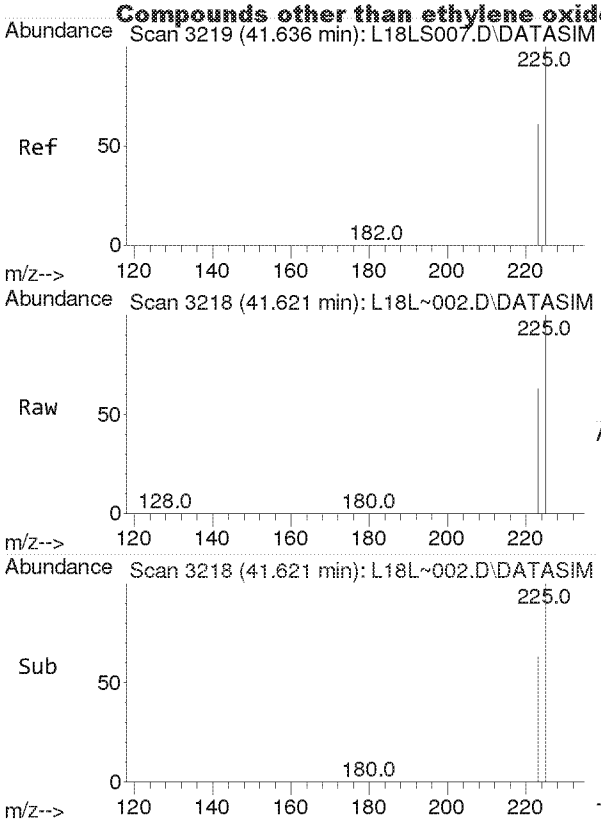
#61
1,2,4-Trichlorobenzene
Concen: 2.637 ppbv
RT: 40.826 min Scan# 3165
Delta R.T. -0.015 min
Lab File: L18L~002.D
Acq: 27 Dec 2018 4:48 pm

Tgt Ion:180 Resp: 7018

Ion	Ratio	Lower	Upper
180	100		
182	95.1	76.1	114.1
184	30.3	24.6	36.8



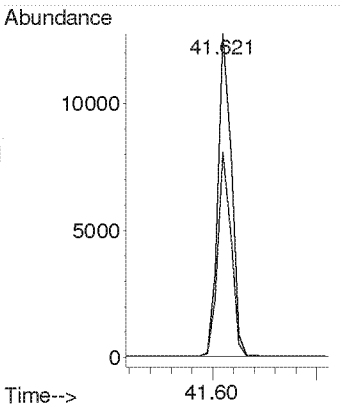
Compounds other than ethylene oxide were not quantitated.



#62
Hexachloro-1,3-butadiene
Concen: 2.312 ppbv
RT: 41.621 min Scan# 3218
Delta R.T. -0.015 min
Lab File: L18L~002.D
Acq: 27 Dec 2018 4:48 pm

Tgt Ion:225 Resp: 22445

Ion	Ratio	Lower	Upper
225	100		
223	62.4	49.9	74.9



Compounds other than ethylene oxide were not quantitated.

TO-15 Method Blank and
Annual Canister Certification Blank

Analyst: ✓ Date: 1-3-19
Reviewer: KMB Date: 1/7/19

Data File Name	L18L~004.D
Operator	MAH
Acq. Method File	8120004.M
Sample Name	B8L2704-BLK1
Misc Info	80 ML 8L13001

#	Name	Target Response	Amount (ppbv)	PASS*		Blank Criteria
1)	IS-Hexane-d14	58532		NA		NA
2)	Acetylene	0	0.000	Y		0.118
3)	Propylene	86	0.015	Y		0.192
4)	Dichlorodifluoromethane	0	0.000	Y		0.082
5)	Chloromethane	41	0.006	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	93	0.028	Y	MAX	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	483	0.022	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	140371		NA		NA
29)	1,1,1-Trichloroethane	0	0.000	Y		0.041
30)	Benzene	74	0.005	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	0	0.000	Y		0.200
38)	cis-1,3-dichloropropene	0	0.000	Y		0.059
39)	Methyl Isobutyl Ketone	72	0.005	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	100624		NA		NA
43)	Toluene	55	0.003	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	56	0.004	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	108	0.007	Y		0.080
55)	1,3,5-Trimethylbenzene	0	0.000	Y		0.102
56)	1,2,4-Trimethylbenzene	40	0.003	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	36	0.015	Y		0.200
61)	Hexachloro-1,3-butadiene	35	0.004	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\L18L~\
Data File : L18L~004.D
Acq On : 27 Dec 2018 6:33 pm
Operator : MAH
Sample : B8L2704-BLK1
Misc : 80 ML 8L13001
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jan 03 12:31:00 2019
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.994	66	58532	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.133	114	140371	4.9900 ppbv	-0.02
43) IS-Chlorobenzene-d5	30.099	117	100624	4.7400 ppbv	0.00

System Monitoring Compounds

Target Compounds					Qvalue
2) Acetylene	0.000	26	0	N.D.	
3) Propylene	7.825	41	86	0.0147 ppbv	94
4) Dichlorodifluoromethane	0.000	85	0	N.D.	
5) Chloromethane	9.759	50	41	0.0056 ppbv #	42
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. d	
13) Acrolein	14.730	56	93	0.0276 ppbv #	68
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	16.934	76	483	0.0217 ppbv #	93
19) Trichlorotrifluoroethane	0.000	101	0	N.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	22.537	78	74	0.0045 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	0.000	41	0	N.D. d	
39) cis-1,3-Dichloropropene	0.000	75	0	N.D.	
40) Methyl Isobutyl Ketone	25.628	43	72	0.0053 ppbv #	85
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.	
44) Toluene	27.078	91	55	0.0031 ppbv	92
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	30.901	91	87	0.0047 ppbv #	43

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\L18L~\
Data File : L18L~004.D
Acq On : 27 Dec 2018 6:33 pm
Operator : MAH
Sample : B8L2704-BLK1
Misc : 80 ML 8L13001
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jan 03 12:31:00 2019
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	31.206	91	56	0.0035 ppbv #	32
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	32.103	91	108	0.0069 ppbv #	85
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	
57) 1,2,4-Trimethylbenzene	35.831	105	40	0.0031 ppbv #	33
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	40.826	180	36	0.0145 ppbv #	80
62) Hexachloro-1,3-butadiene	41.620	225	35	0.0039 ppbv #	70

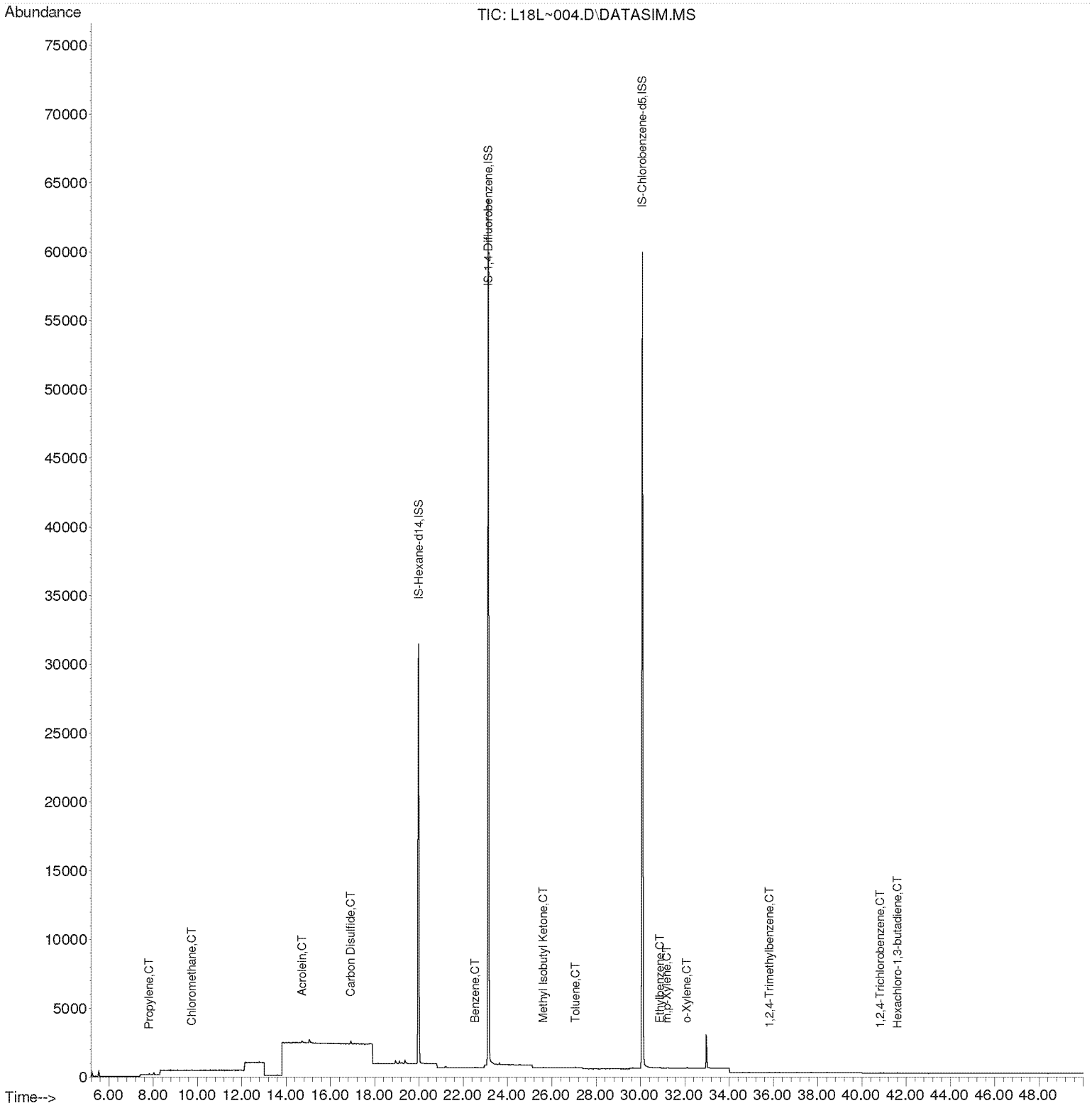
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

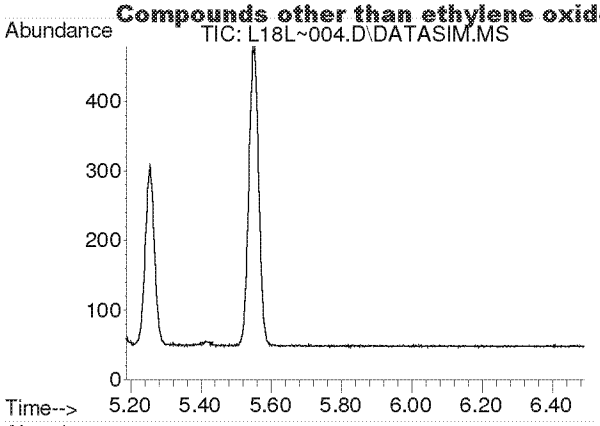
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L18L~\
Data File : L18L~004.D
Acq On : 27 Dec 2018 6:33 pm
Operator : MAH
Sample : B8L2704-BLK1
Misc : 80 ML 8L13001
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jan 03 12:18:37 2019
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
Response via : Initial Calibration



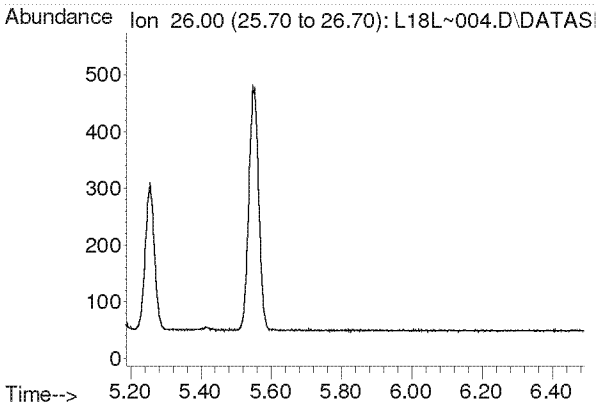
Compounds other than ethylene oxide were not quantitated.

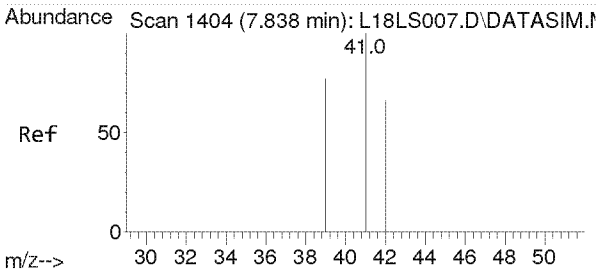


#2
Acetylene
Concen: N.D.
Expected RT: 5.42 min

Lab File: L18L~004.D
Acq: 27 Dec 2018 6:33 pm

Tgt Ion: 26

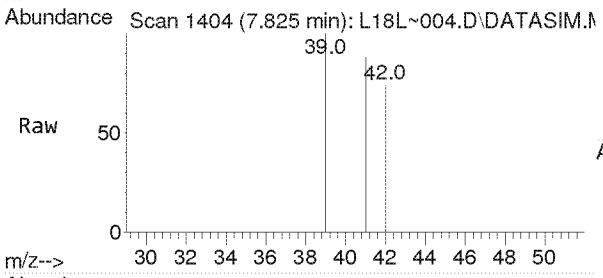


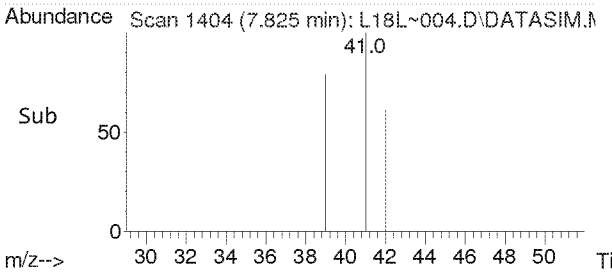


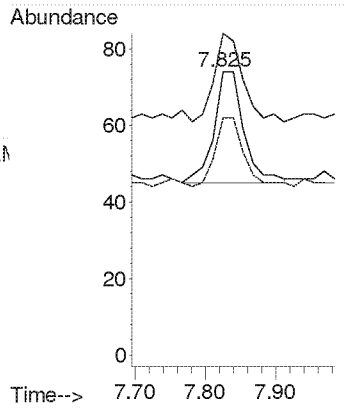
#3
Propylene
Concen: 0.015 ppbv
RT: 7.825 min Scan# 1404
Delta R.T. -0.013 min
Lab File: L18L~004.D
Acq: 27 Dec 2018 6:33 pm

Tgt Ion: 41 Resp: 86

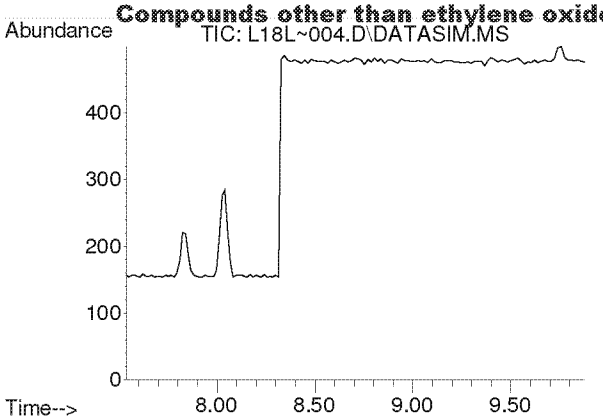
Ion	Ratio	Lower	Upper
41	100		
39	74.4	62.6	93.8
42	59.3	52.6	79.0







Compounds other than ethylene oxide were not quantitated.

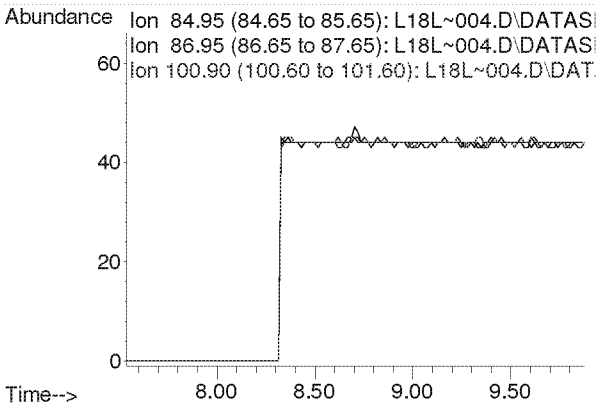


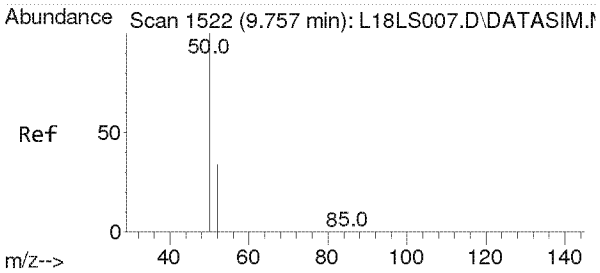
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L18L~004.D
Acq: 27 Dec 2018 6:33 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	8.9

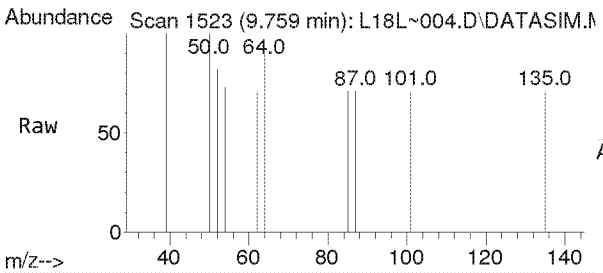


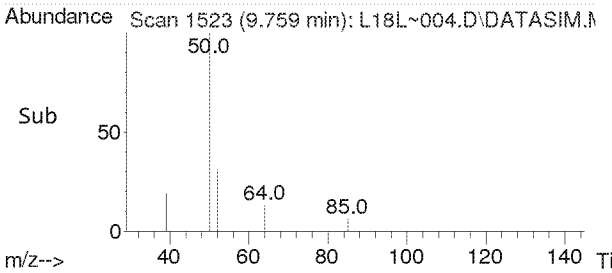


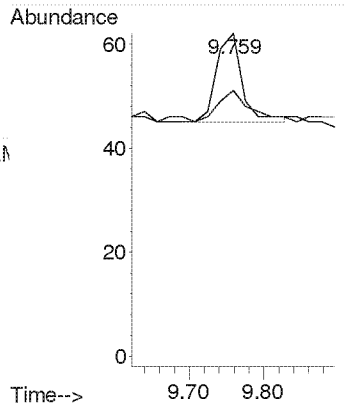
#5
Chloromethane
Concen: 0.006 ppbv
RT: 9.759 min Scan# 1523
Delta R.T. 0.002 min
Lab File: L18L~004.D
Acq: 27 Dec 2018 6:33 pm

Tgt Ion: 50 Resp: 41

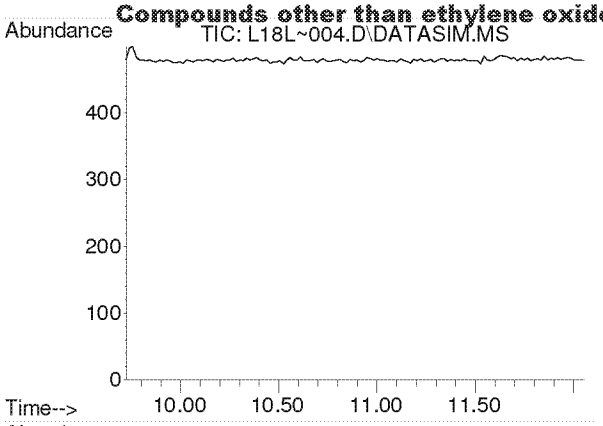
Ion	Ratio	Lower	Upper
50	100		
52	0.0	26.1	39.1#







Compounds other than ethylene oxide were not quantitated.

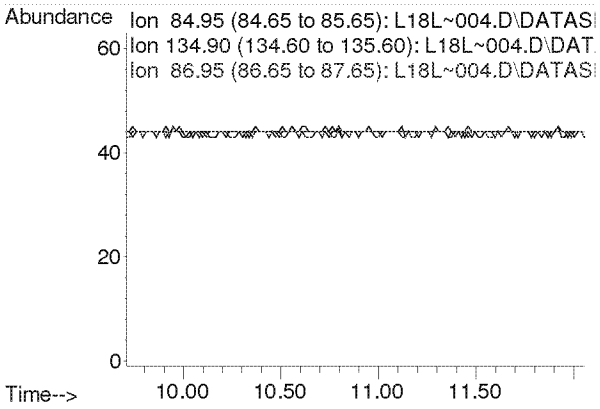


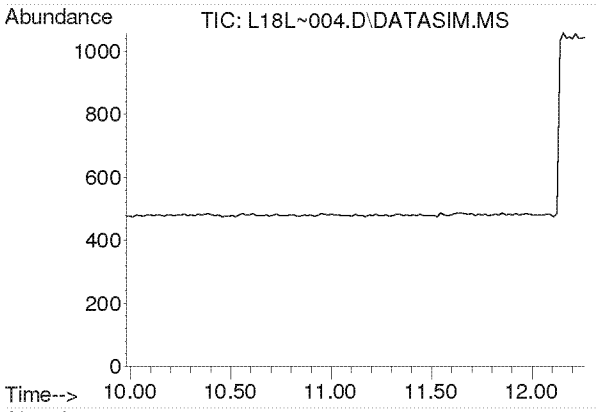
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L18L~004.D
Acq: 27 Dec 2018 6:33 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.1
87	32.1



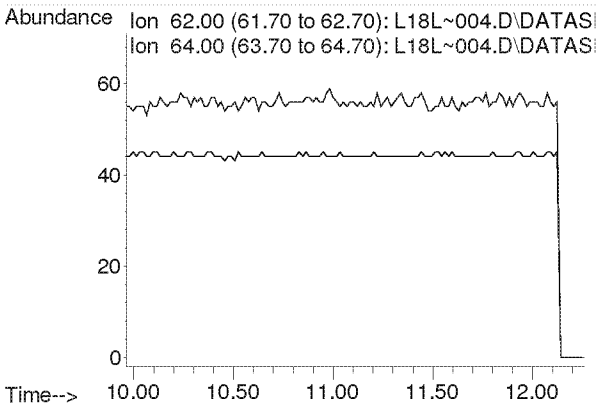


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

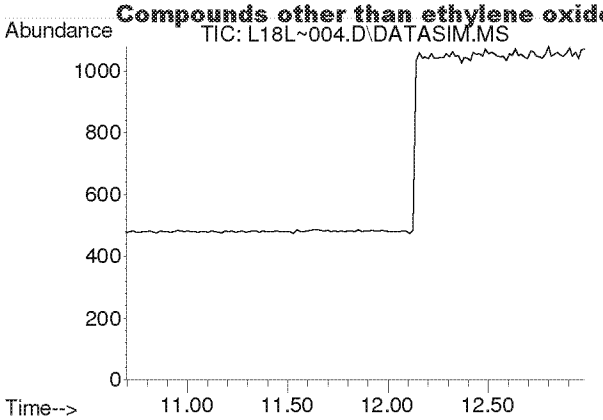
Lab File: L18L~004.D
Acq: 27 Dec 2018 6:33 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.8



Compounds other than ethylene oxide were not quantitated.

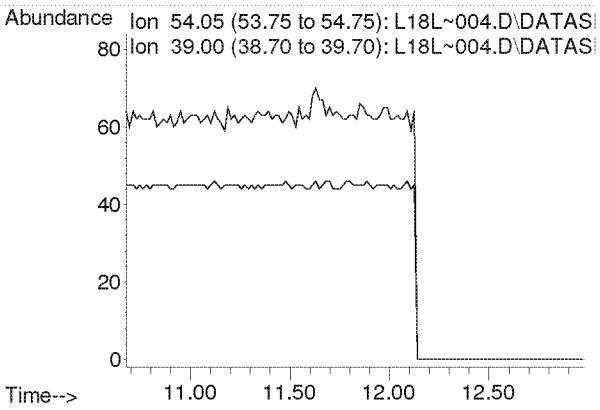


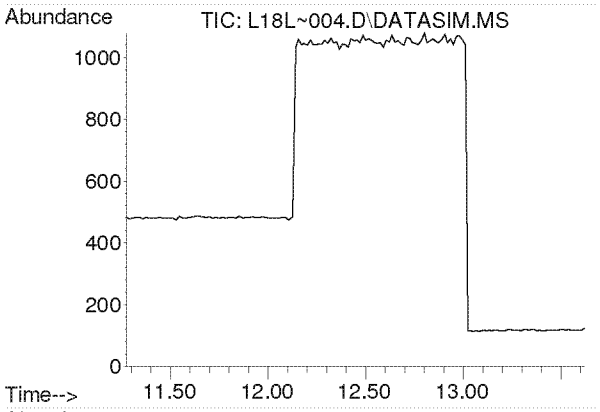
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L18L~004.D
Acq: 27 Dec 2018 6:33 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	105.4



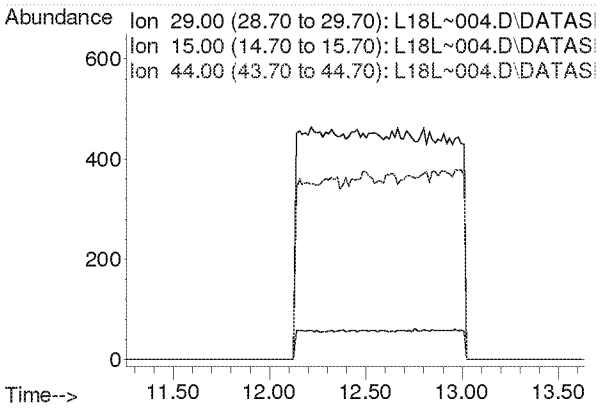


#9
Ethylene oxide
Concen: N.D.
Expected RT: 12.38 min

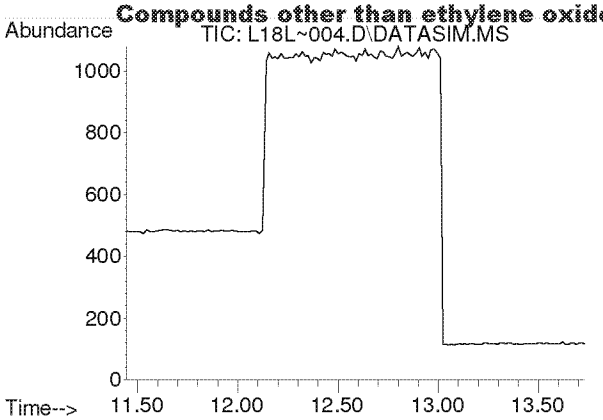
Lab File: L18L~004.D
Acq: 27 Dec 2018 6:33 pm

Tgt Ion: 29

Sig	Exp Ratio
29	100
15	20.3
44	90.0



Compounds other than ethylene oxide were not quantitated.

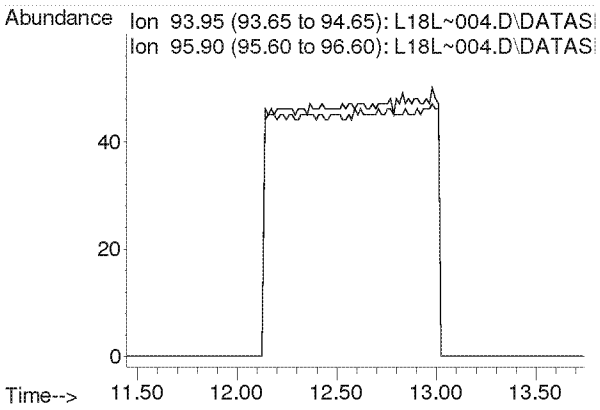


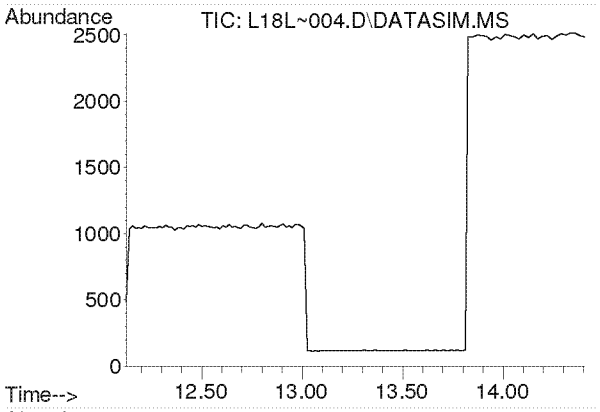
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L18L~004.D
Acq: 27 Dec 2018 6:33 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	93.9



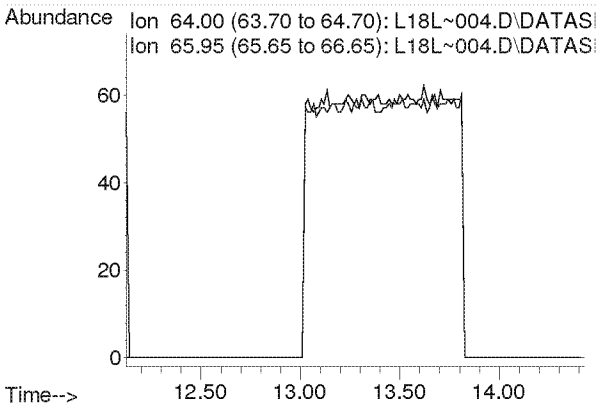


#11
Chloroethane
Concen: N.D.
Expected RT: 13.27 min

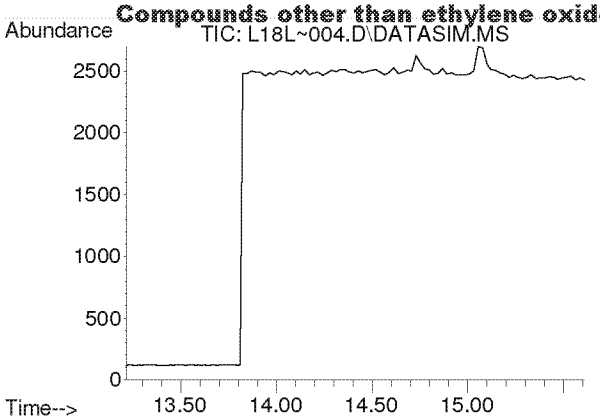
Lab File: L18L~004.D
Acq: 27 Dec 2018 6:33 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.0



Compounds other than ethylene oxide were not quantitated.

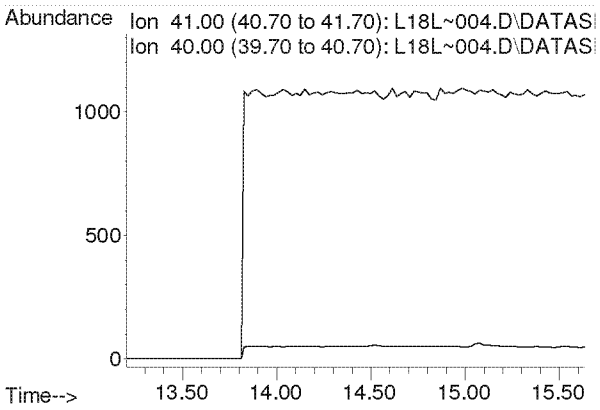


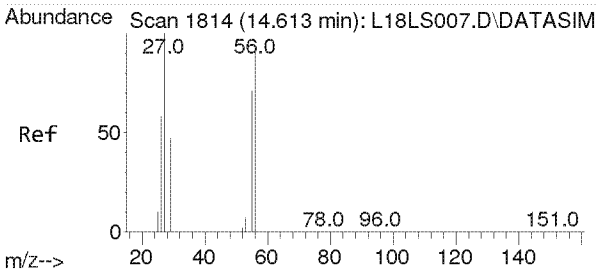
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.33 min

Lab File: L18L~004.D
Acq: 27 Dec 2018 6:33 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	50.9

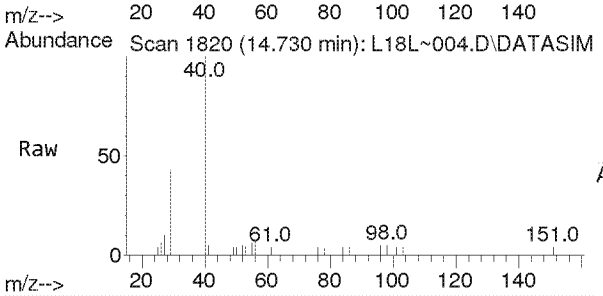


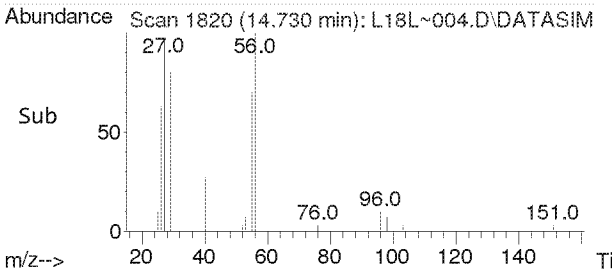


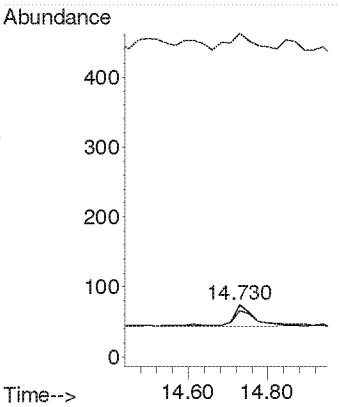
#13
Acrolein
Concen: 0.028 ppbv
RT: 14.730 min Scan# 1820
Delta R.T. 0.118 min
Lab File: L18L~004.D
Acq: 27 Dec 2018 6:33 pm

Tgt Ion: 56 Resp: 93

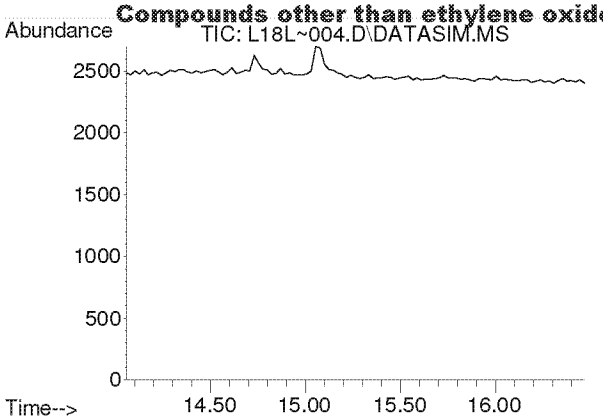
Ion	Ratio	Lower	Upper
56	100		
55	76.3	60.3	90.5
29	107.5	42.3	63.5#







Compounds other than ethylene oxide were not quantitated.

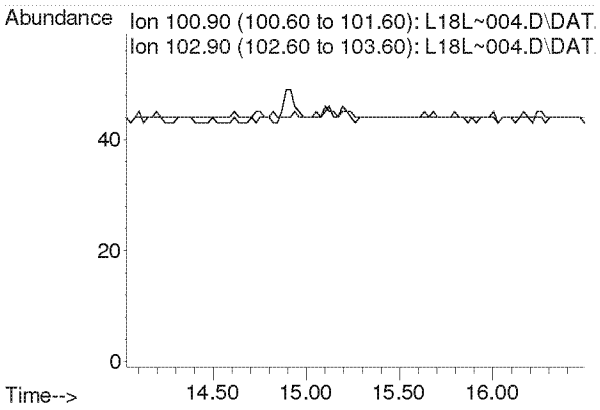


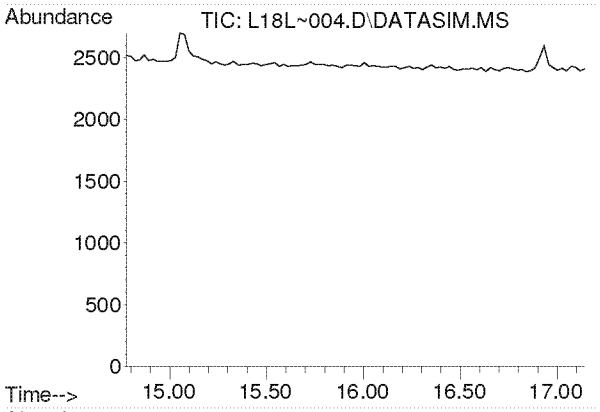
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L18L~004.D
Acq: 27 Dec 2018 6:33 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



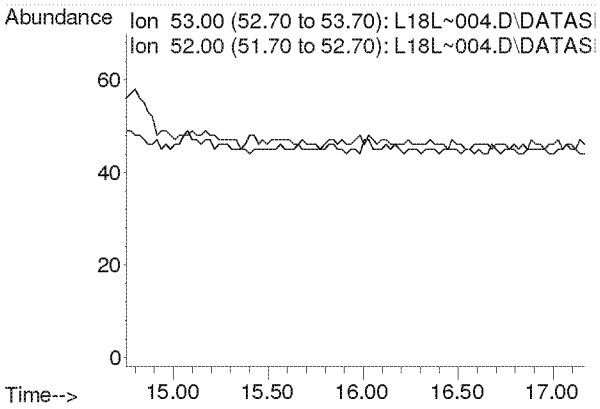


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.91 min

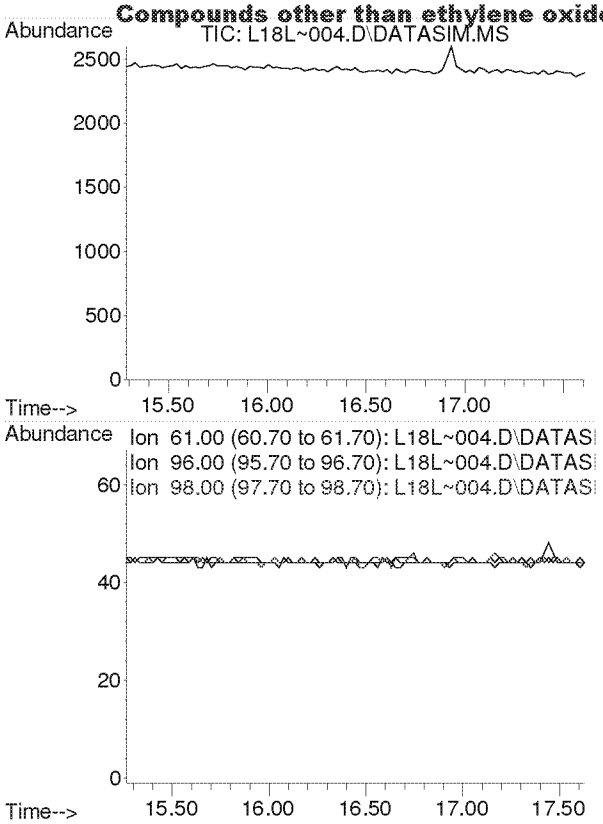
Lab File: L18L~004.D
Acq: 27 Dec 2018 6:33 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	85.4



Compounds other than ethylene oxide were not quantitated.

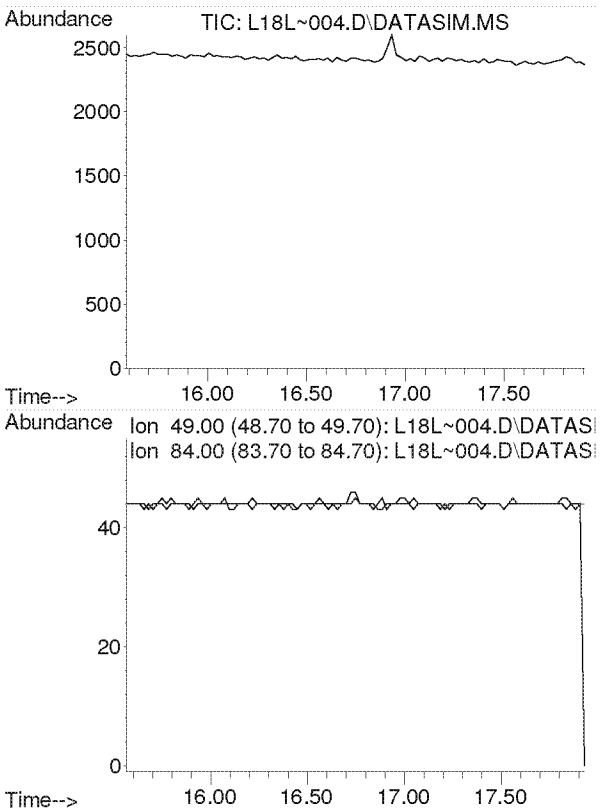


#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L18L~004.D
Acq: 27 Dec 2018 6:33 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	58.3
98	37.4



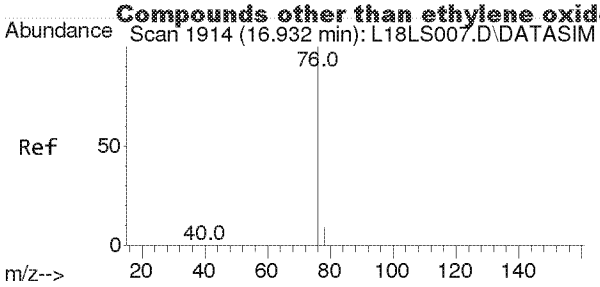
#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.72 min

Lab File: L18L~004.D
Acq: 27 Dec 2018 6:33 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	76.4

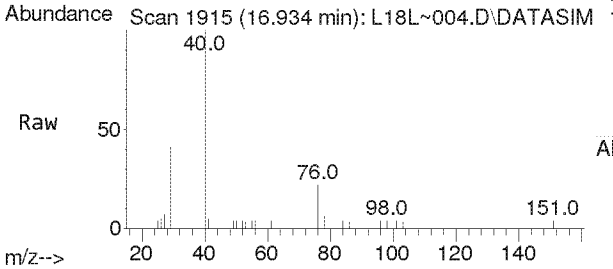
Compounds other than ethylene oxide were not quantitated.

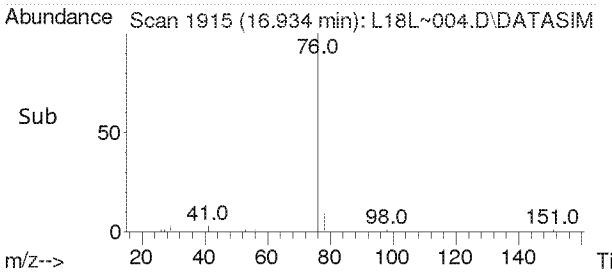


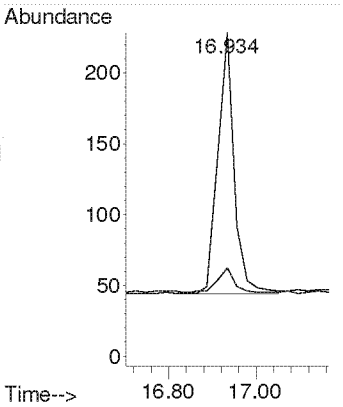
#18
Carbon Disulfide
Concen: 0.022 ppbv
RT: 16.934 min Scan# 1915
Delta R.T. 0.002 min
Lab File: L18L~004.D
Acq: 27 Dec 2018 6:33 pm

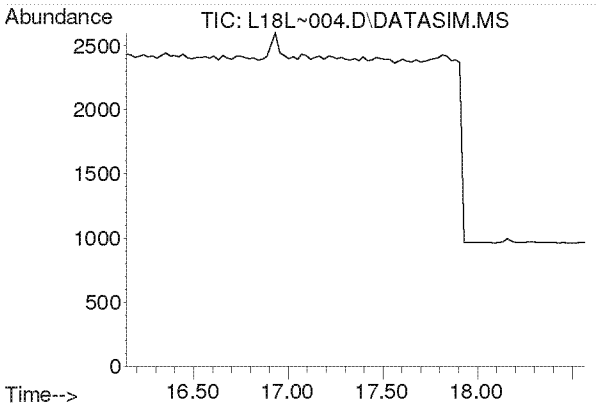
Tgt Ion: 76 Resp: 483

Ion	Ratio	Lower	Upper
76	100		
78	11.6	7.3	10.9#







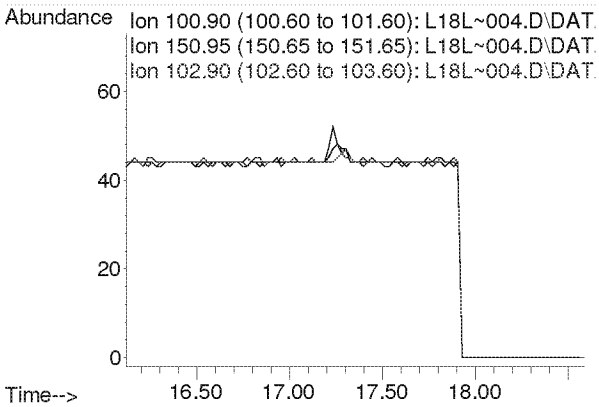


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

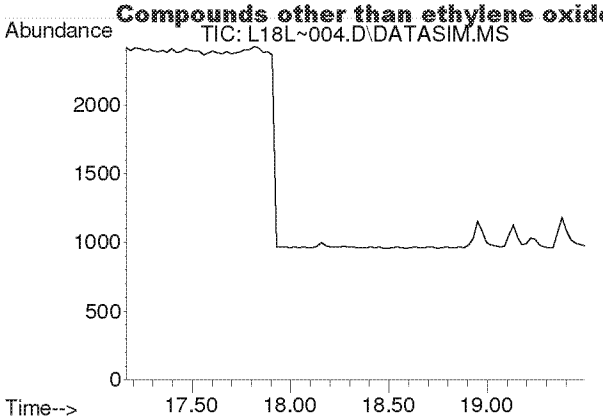
Lab File: L18L~004.D
Acq: 27 Dec 2018 6:33 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	95.3
103	64.1



Compounds other than ethylene oxide were not quantitated.

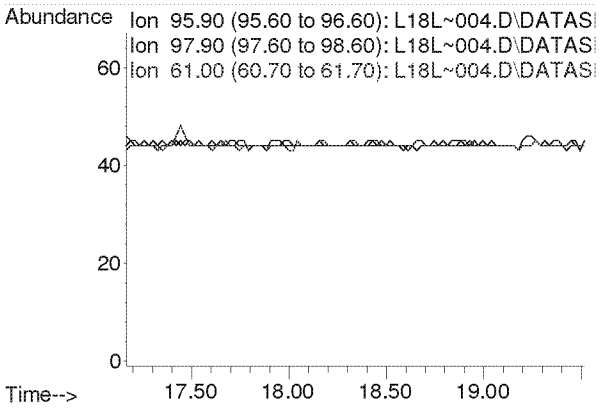


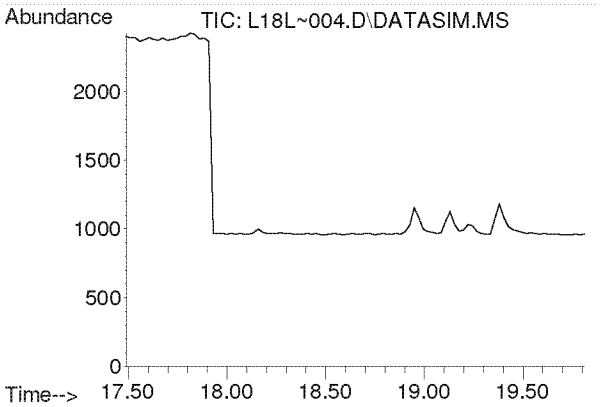
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.31 min

Lab File: L18L~004.D
Acq: 27 Dec 2018 6:33 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	63.7
61	159.2



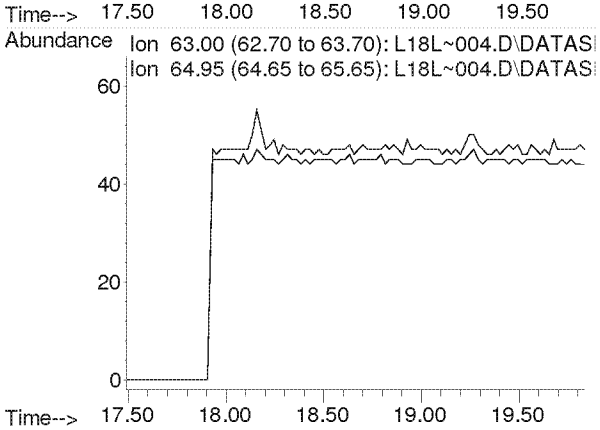


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

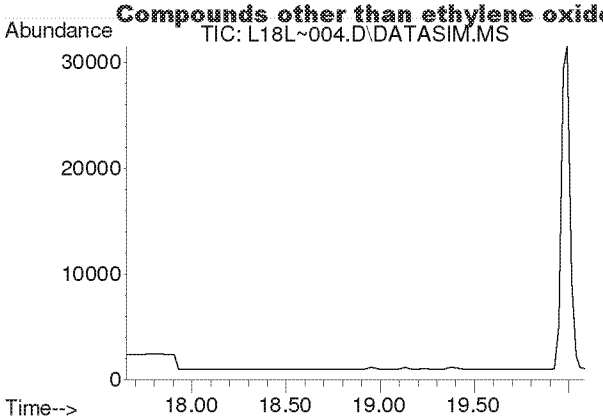
Lab File: L18L~004.D
Acq: 27 Dec 2018 6:33 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

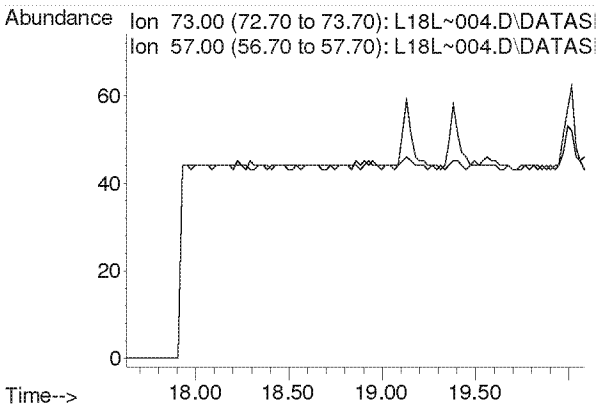


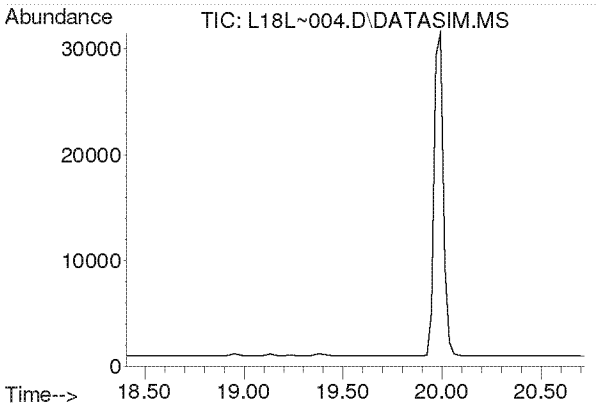
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L18L~004.D
Acq: 27 Dec 2018 6:33 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.4



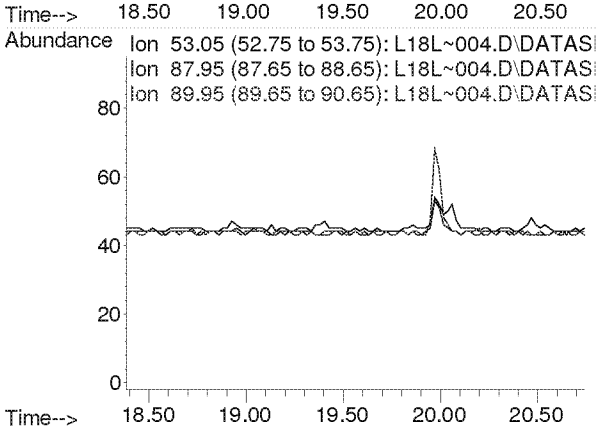


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

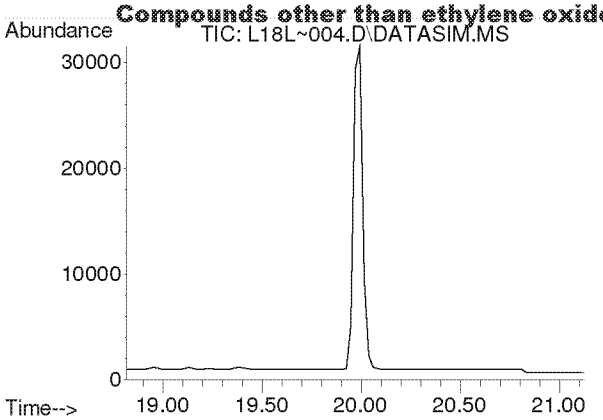
Lab File: L18L~004.D
Acq: 27 Dec 2018 6:33 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	51.8
90	16.8



Compounds other than ethylene oxide were not quantitated.

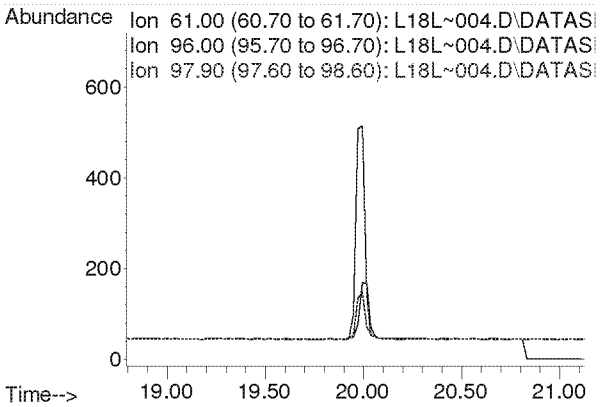


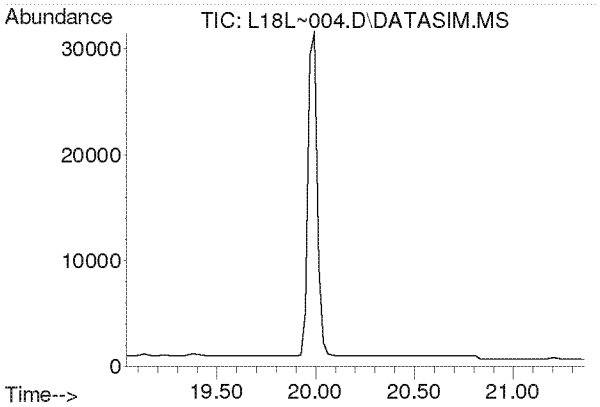
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L18L~004.D
Acq: 27 Dec 2018 6:33 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.7
98	45.2



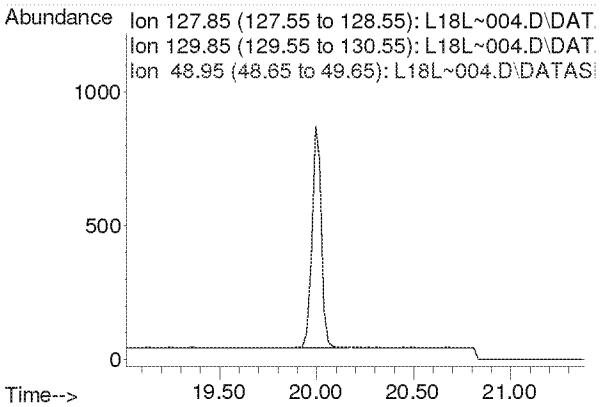


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

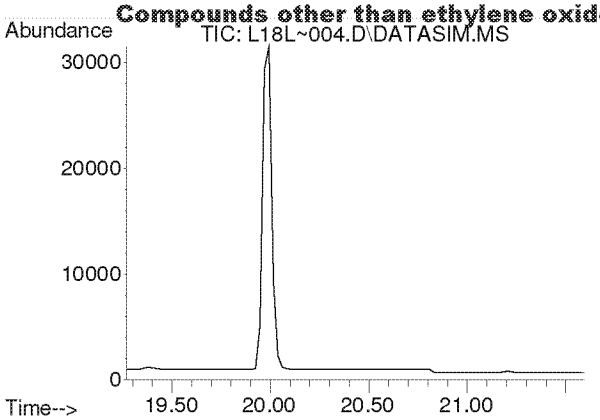
Lab File: L18L~004.D
Acq: 27 Dec 2018 6:33 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	171.2



Compounds other than ethylene oxide were not quantitated.

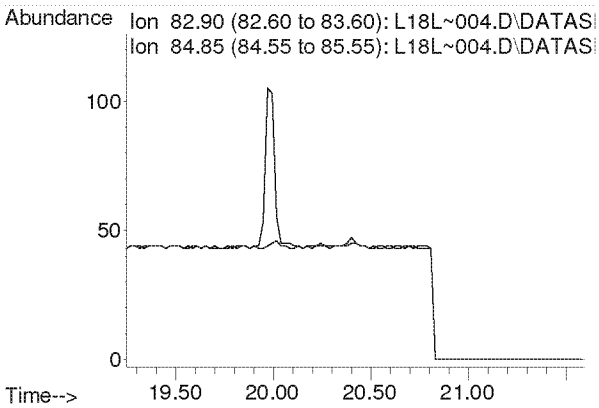


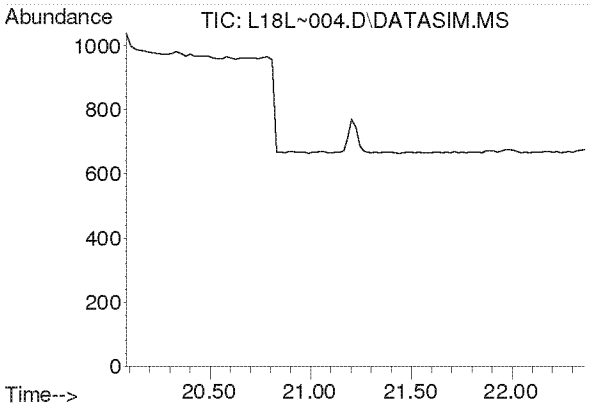
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L18L~004.D
Acq: 27 Dec 2018 6:33 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



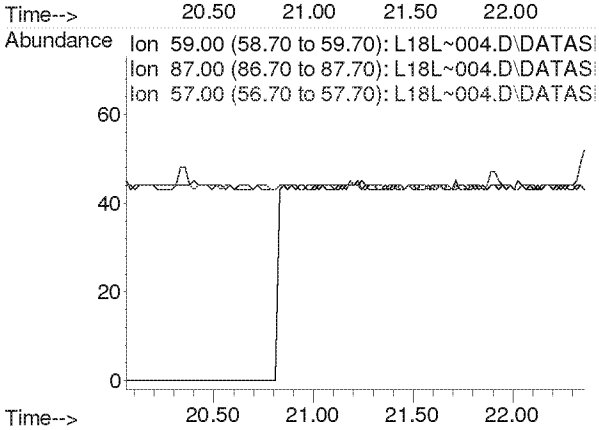


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.16 min

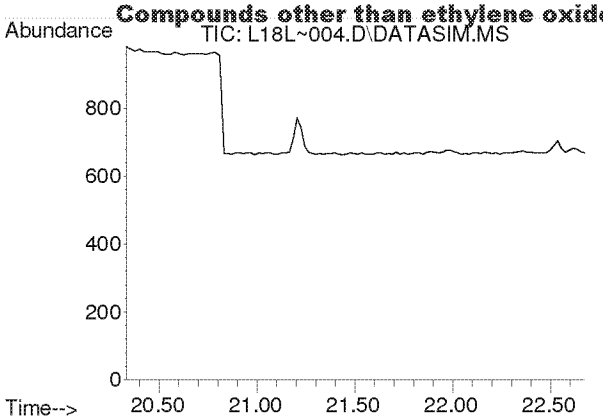
Lab File: L18L~004.D
Acq: 27 Dec 2018 6:33 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	37.5
57	33.8



Compounds other than ethylene oxide were not quantitated.

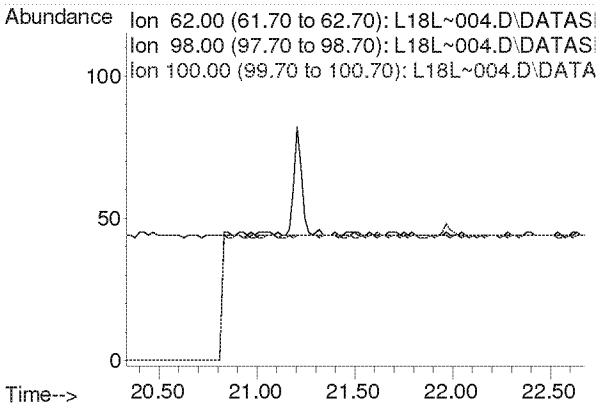


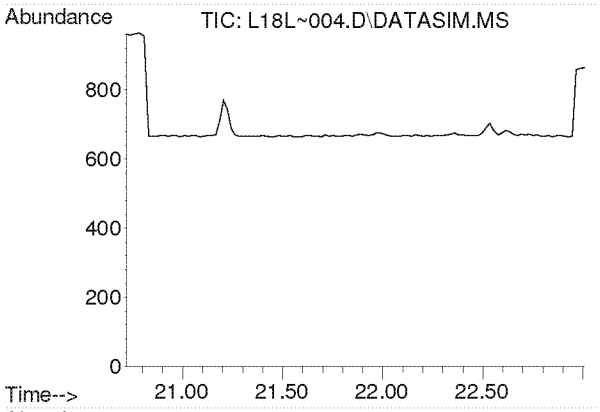
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L18L~004.D
Acq: 27 Dec 2018 6:33 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.4
100	4.0



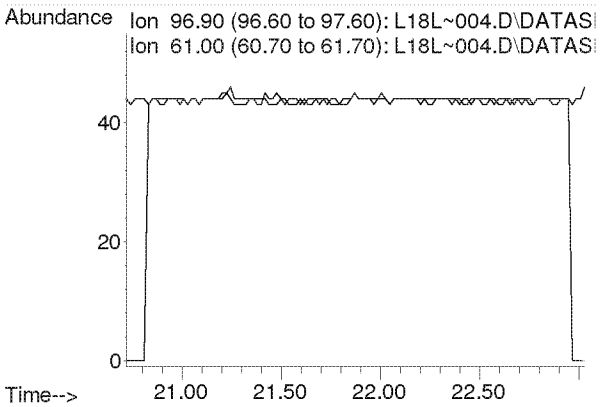


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

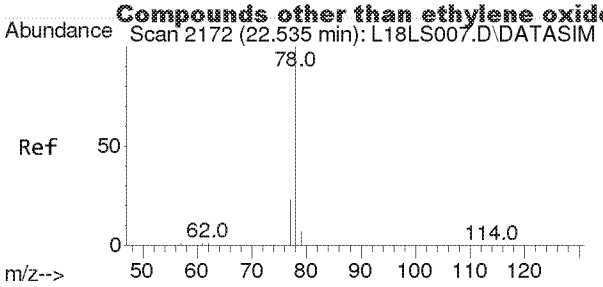
Lab File: L18L~004.D
Acq: 27 Dec 2018 6:33 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	60.5



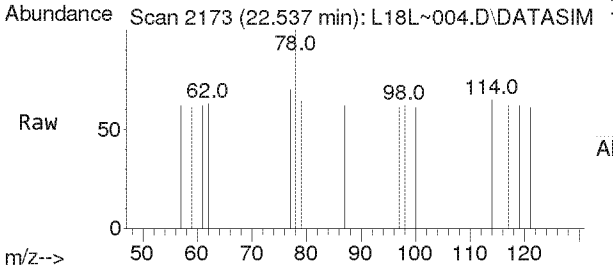
Compounds other than ethylene oxide were not quantitated.

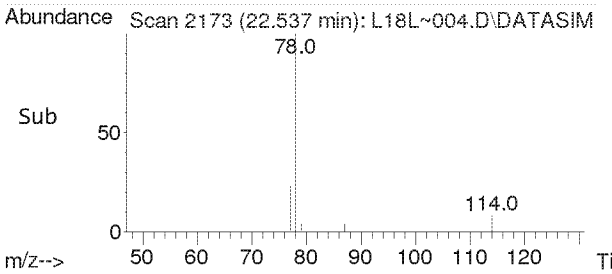


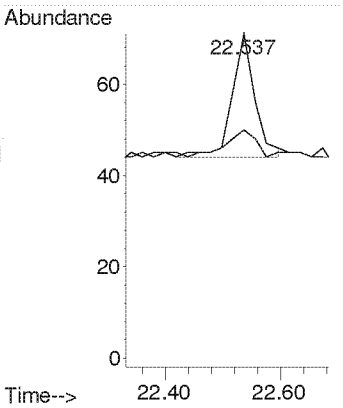
#31
Benzene
Concen: 0.005 ppbv
RT: 22.537 min Scan# 2173
Delta R.T. 0.002 min
Lab File: L18L~004.D
Acq: 27 Dec 2018 6:33 pm

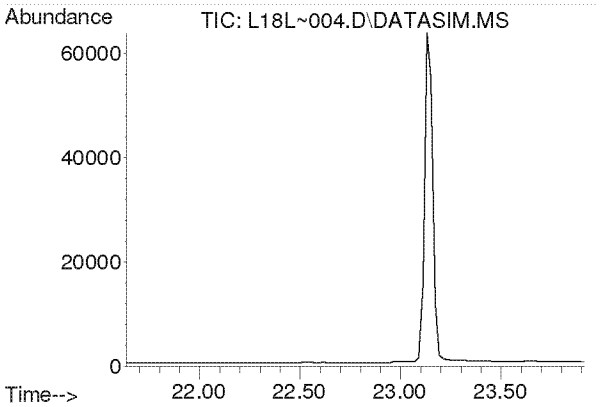
Tgt Ion: 78 Resp: 74

Ion	Ratio	Lower	Upper
78	100		
77	0.0	18.2	27.2#







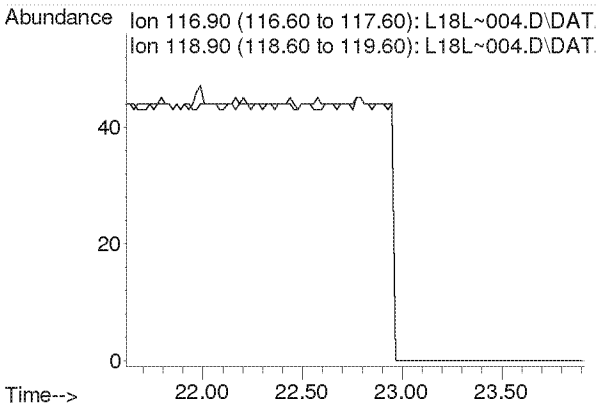


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

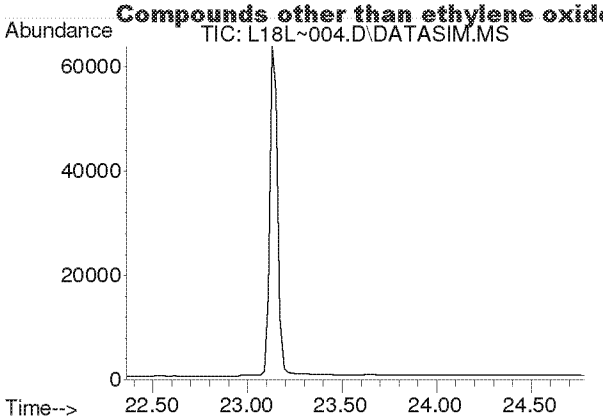
Lab File: L18L~004.D
Acq: 27 Dec 2018 6:33 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.5



Compounds other than ethylene oxide were not quantitated.

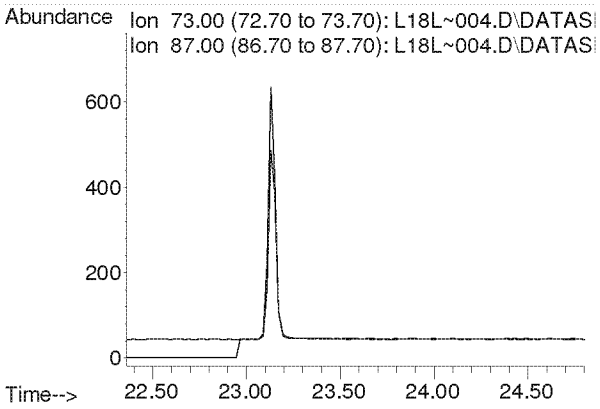


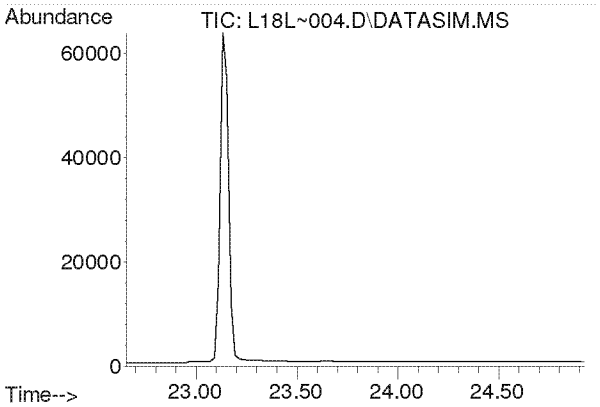
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.50 min

Lab File: L18L~004.D
Acq: 27 Dec 2018 6:33 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	24.9



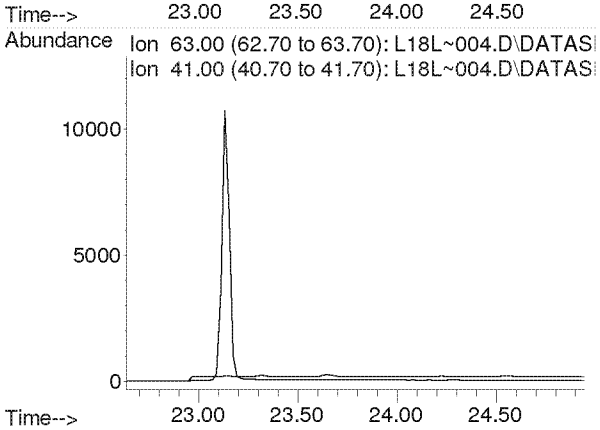


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

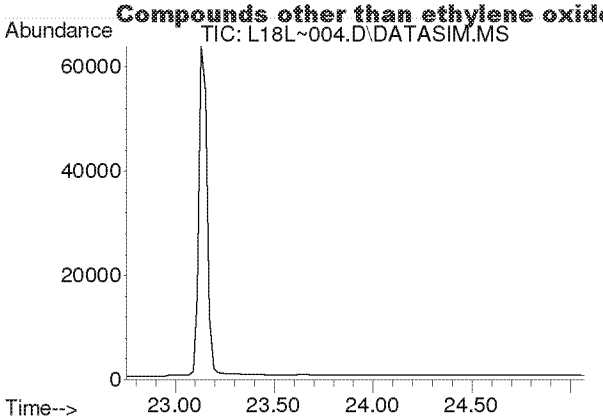
Lab File: L18L~004.D
Acq: 27 Dec 2018 6:33 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	212.8



Compounds other than ethylene oxide were not quantitated.

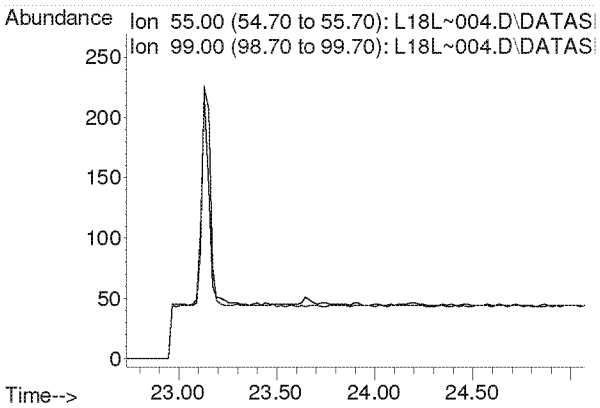


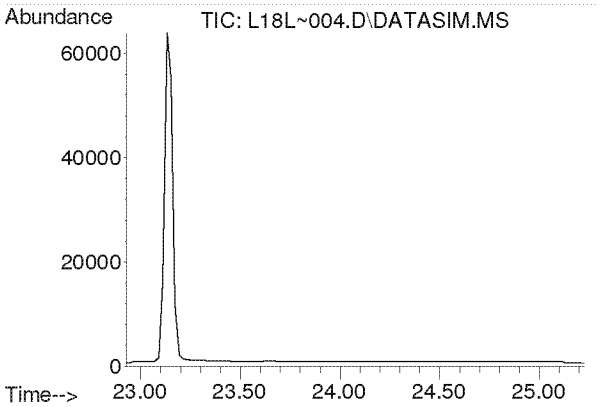
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.87 min

Lab File: L18L~004.D
Acq: 27 Dec 2018 6:33 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.1



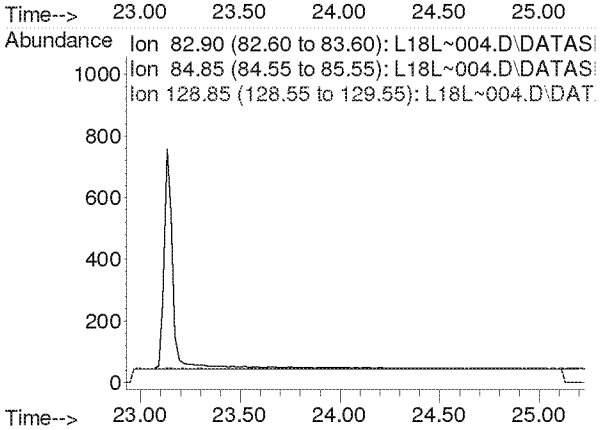


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

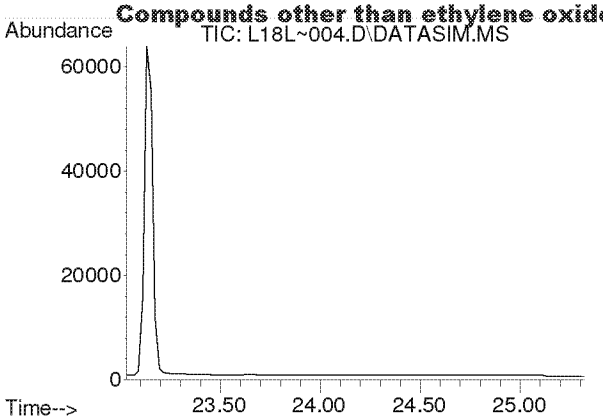
Lab File: L18L~004.D
Acq: 27 Dec 2018 6:33 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.0
129	12.4



Compounds other than ethylene oxide were not quantitated.

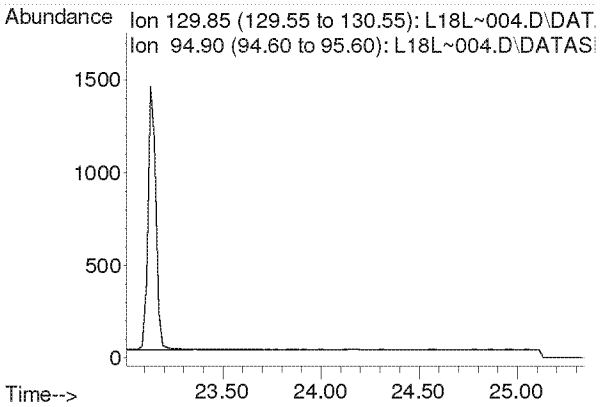


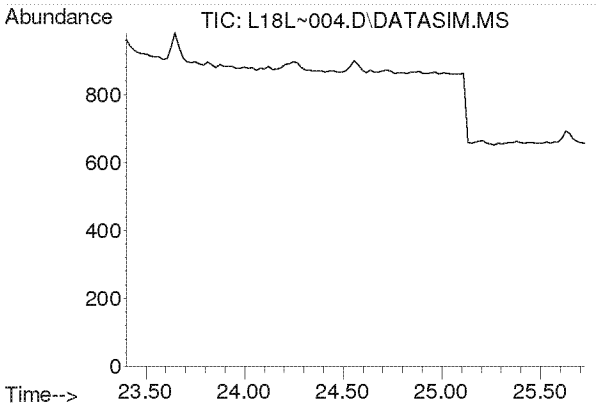
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.16 min

Lab File: L18L~004.D
Acq: 27 Dec 2018 6:33 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	110.3



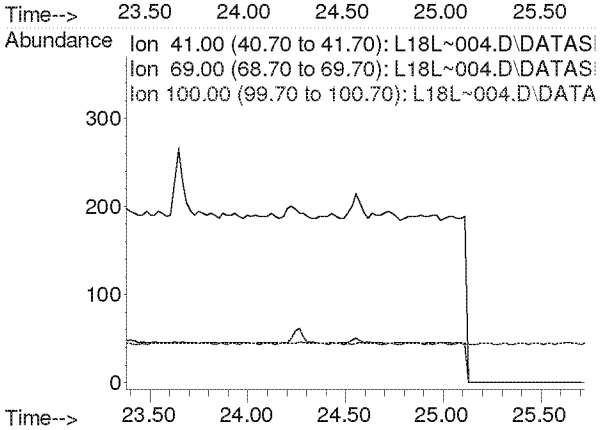


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

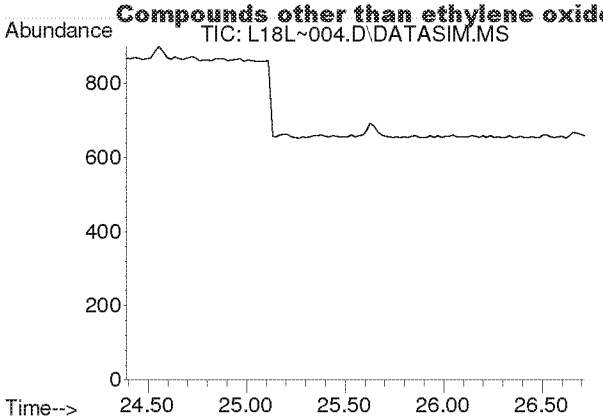
Lab File: L18L~004.D
Acq: 27 Dec 2018 6:33 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	19.9
100	5.2



Compounds other than ethylene oxide were not quantitated.

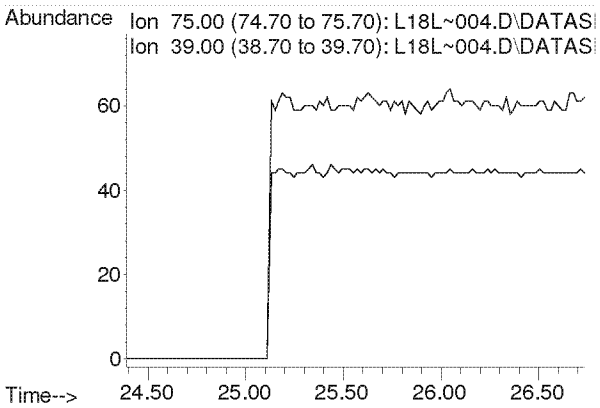


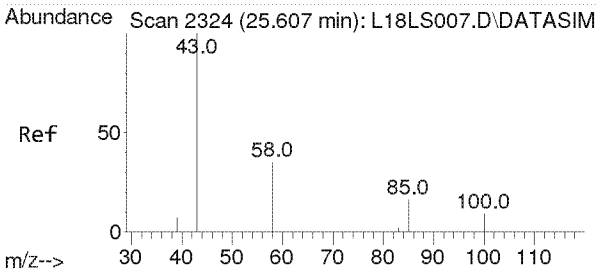
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L18L~004.D
Acq: 27 Dec 2018 6:33 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.4

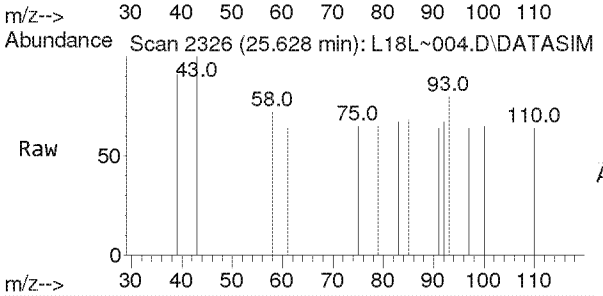


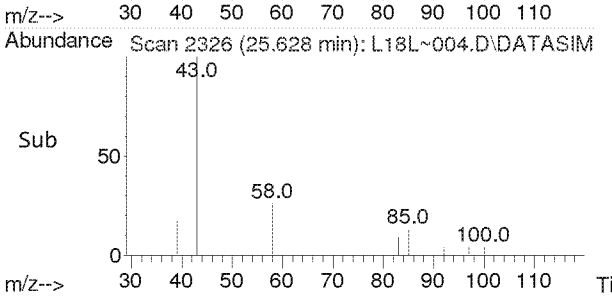


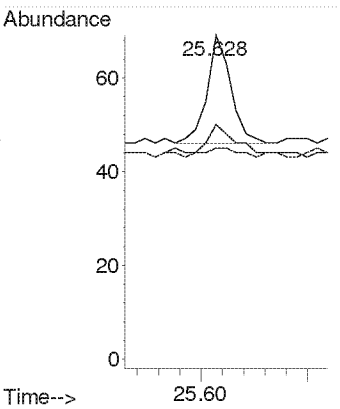
#40
Methyl Isobutyl Ketone
Concen: 0.005 ppbv
RT: 25.628 min Scan# 2326
Delta R.T. 0.022 min
Lab File: L18L~004.D
Acq: 27 Dec 2018 6:33 pm

Tgt Ion: 43 Resp: 72

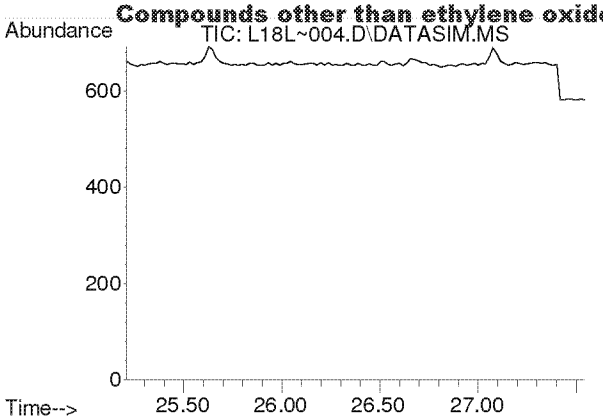
Ion	Ratio	Lower	Upper
43	100		
58	41.7	27.4	41.0#
100	0.0	6.3	9.5#







Compounds other than ethylene oxide were not quantitated.

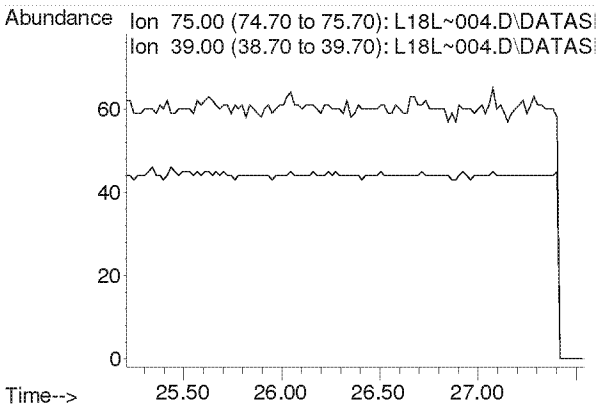


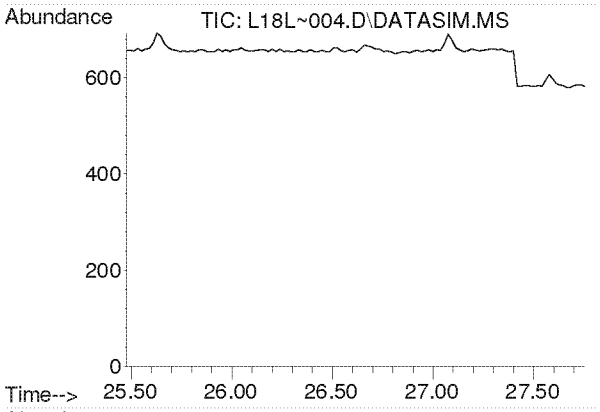
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.35 min

Lab File: L18L~004.D
Acq: 27 Dec 2018 6:33 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	50.9



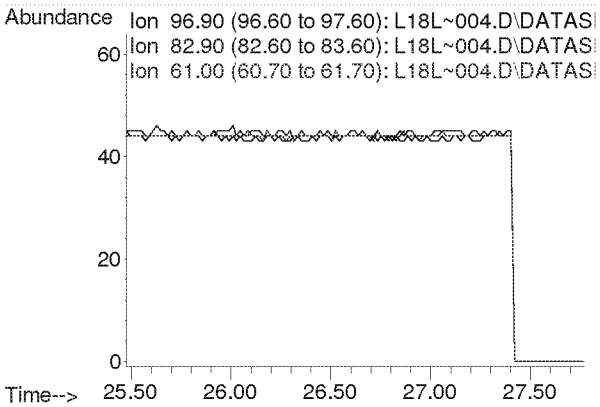


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

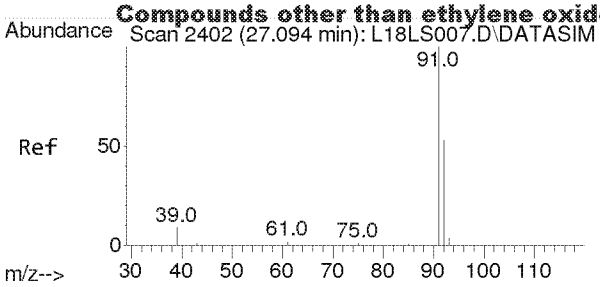
Lab File: L18L~004.D
Acq: 27 Dec 2018 6:33 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	96.1
61	63.5



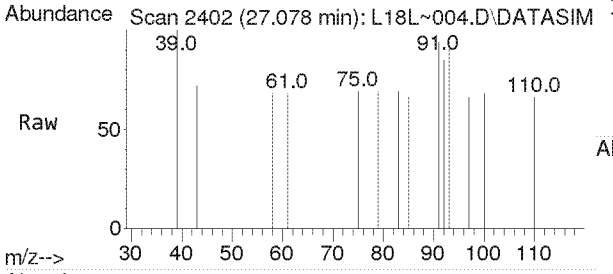
Compounds other than ethylene oxide were not quantitated.

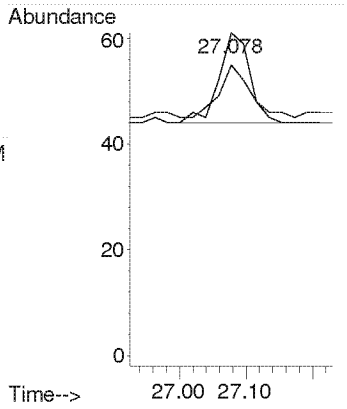


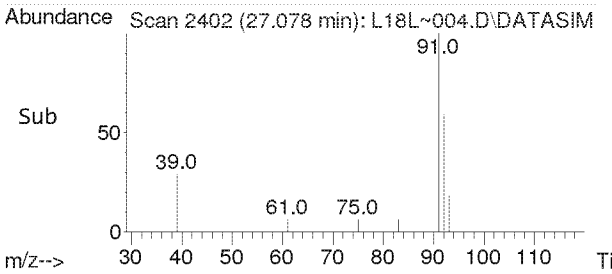
#44
Toluene
Concen: 0.003 ppbv
RT: 27.078 min Scan# 2402
Delta R.T. -0.016 min
Lab File: L18L~004.D
Acq: 27 Dec 2018 6:33 pm

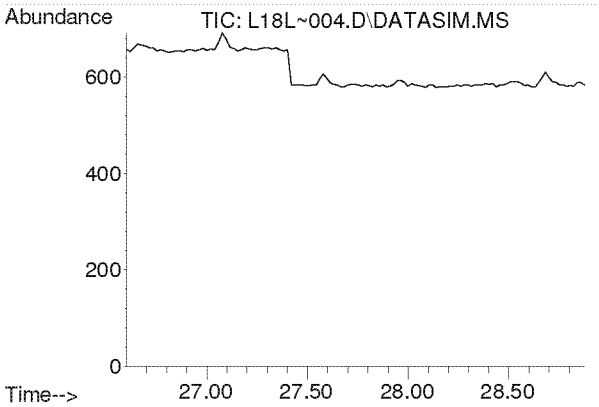
Tgt Ion: 91 Resp: 55

Ion	Ratio	Lower	Upper
91	100		
92	58.2	42.1	63.1







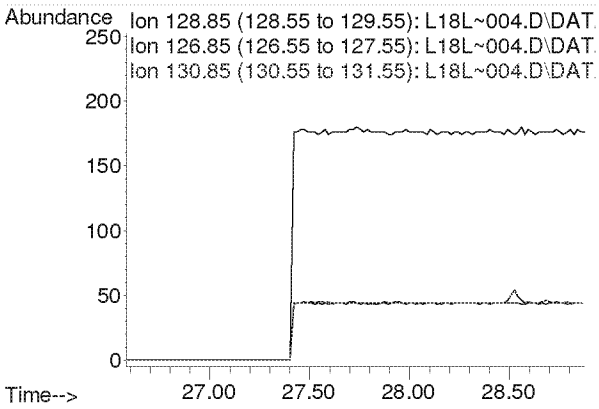


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.73 min

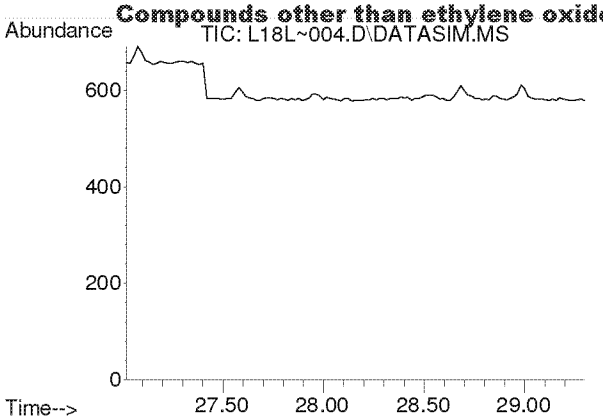
Lab File: L18L~004.D
Acq: 27 Dec 2018 6:33 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.2
131	6.0



Compounds other than ethylene oxide were not quantitated.

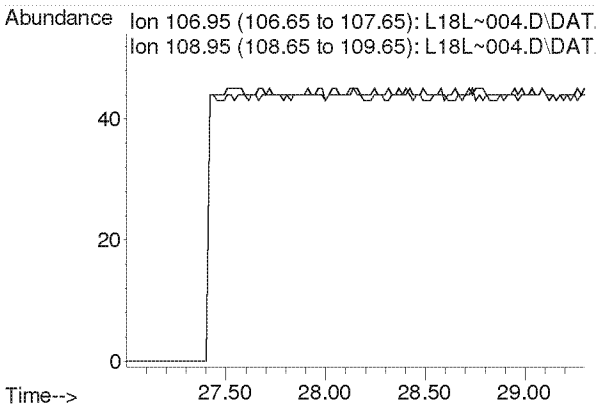


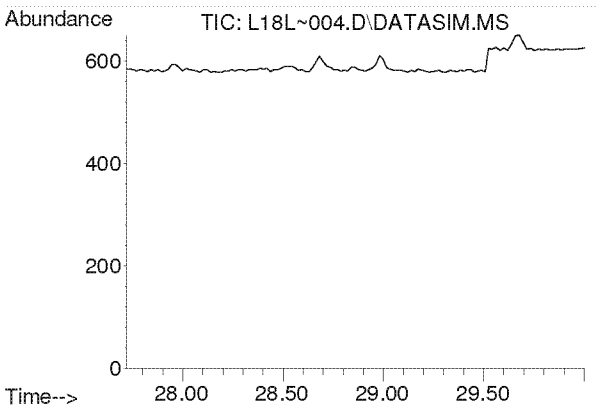
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.16 min

Lab File: L18L~004.D
Acq: 27 Dec 2018 6:33 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.5



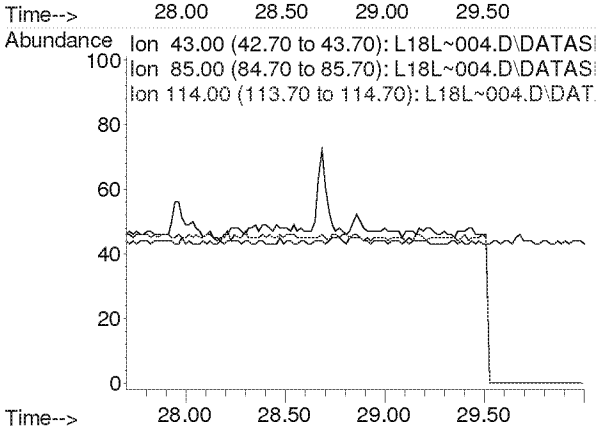


#47
n-Octane
Concen: N.D.
Expected RT: 28.86 min

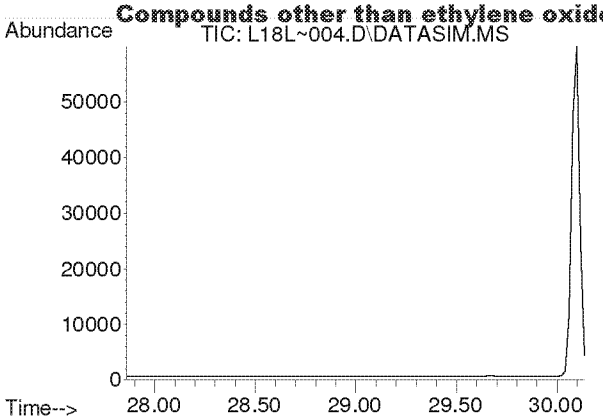
Lab File: L18L~004.D
Acq: 27 Dec 2018 6:33 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	36.0
114	2.2



Compounds other than ethylene oxide were not quantitated.

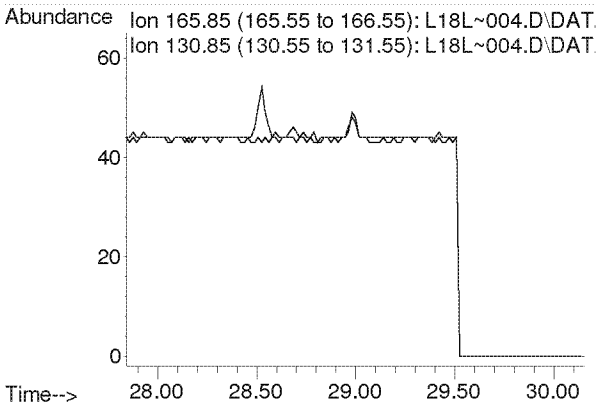


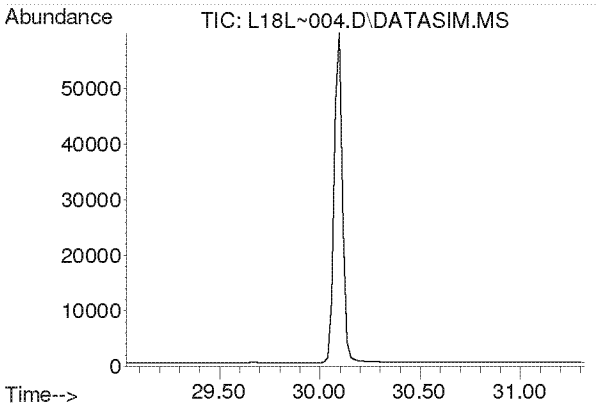
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L18L~004.D
Acq: 27 Dec 2018 6:33 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	78.2



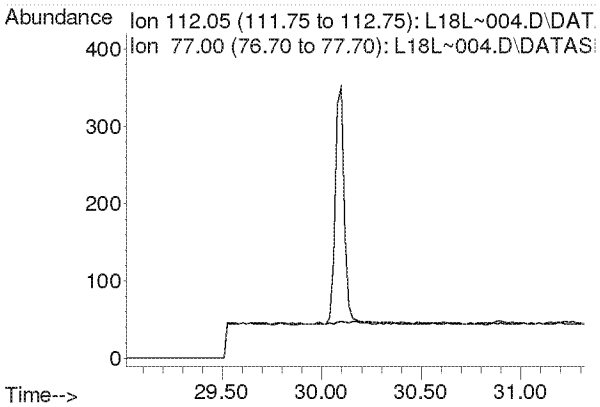


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.17 min

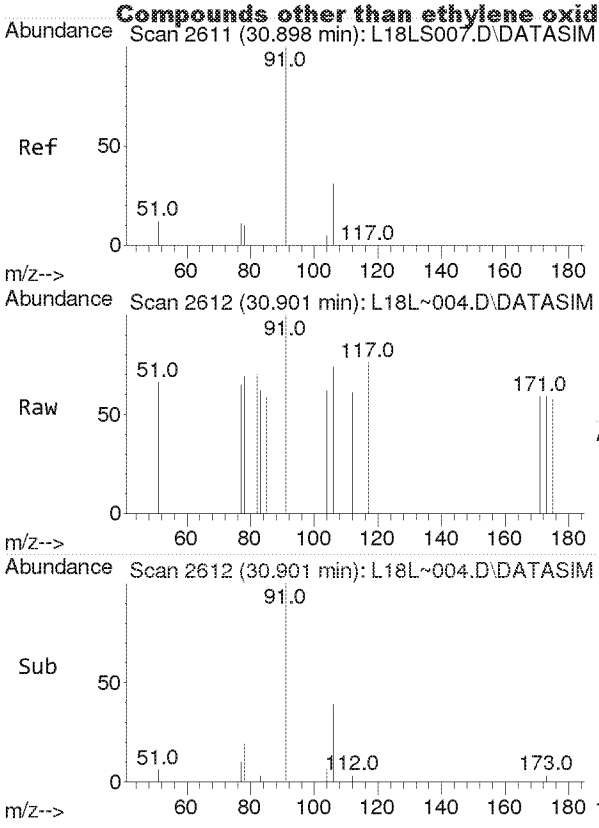
Lab File: L18L~004.D
Acq: 27 Dec 2018 6:33 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	63.0



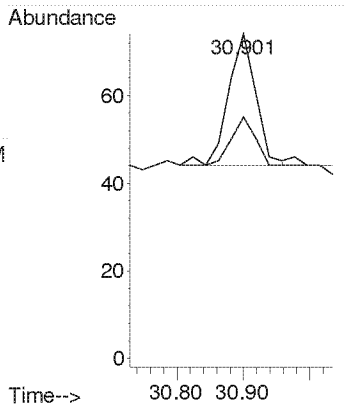
Compounds other than ethylene oxide were not quantitated.

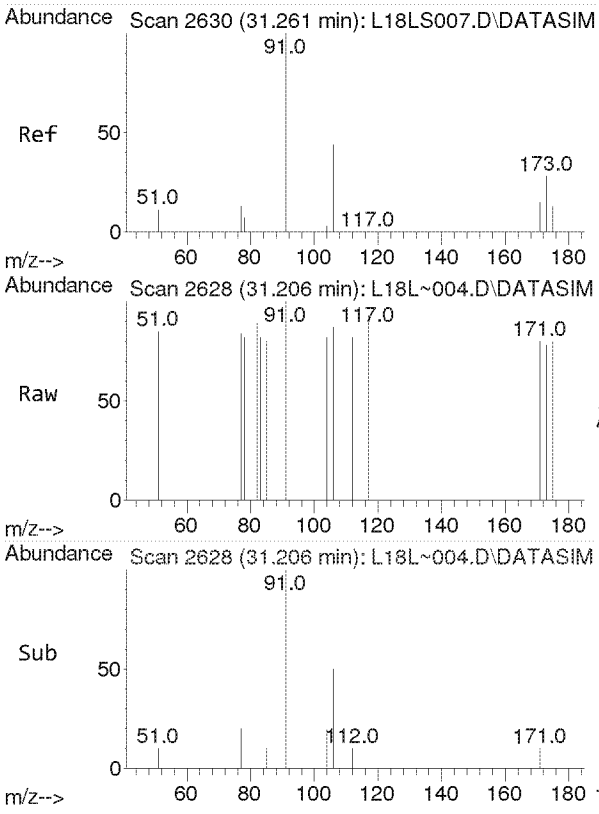


#50
Ethylbenzene
Concen: 0.005 ppbv
RT: 30.901 min Scan# 2612
Delta R.T. 0.003 min
Lab File: L18L~004.D
Acq: 27 Dec 2018 6:33 pm

Tgt Ion: 91 Resp: 87

Ion	Ratio	Lower	Upper
91	100		
106	0.0	25.4	38.2#

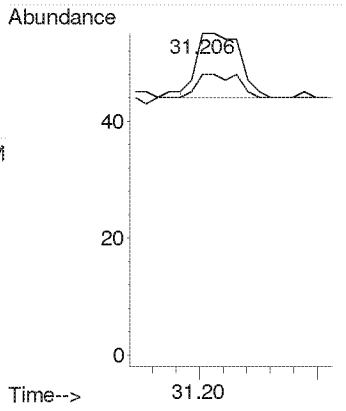




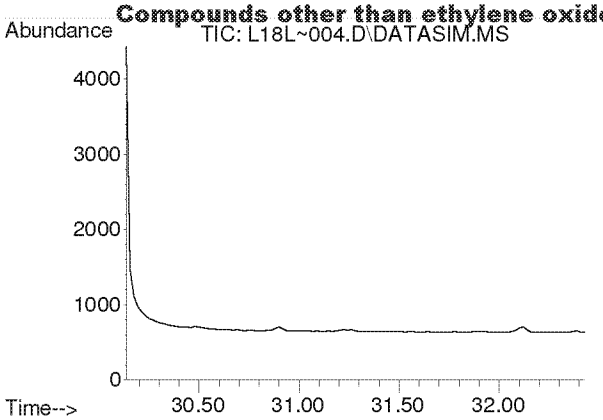
#51
m,p-Xylene
Concen: 0.004 ppbv
RT: 31.206 min Scan# 2628
Delta R.T. -0.055 min
Lab File: L18L~004.D
Acq: 27 Dec 2018 6:33 pm

Tgt Ion: 91 Resp: 56

Ion	Ratio	Lower	Upper
91	100		
106	0.0	35.5	53.3#



Compounds other than ethylene oxide were not quantitated.

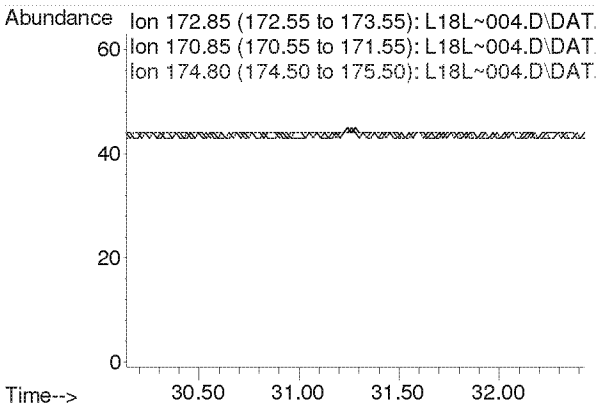


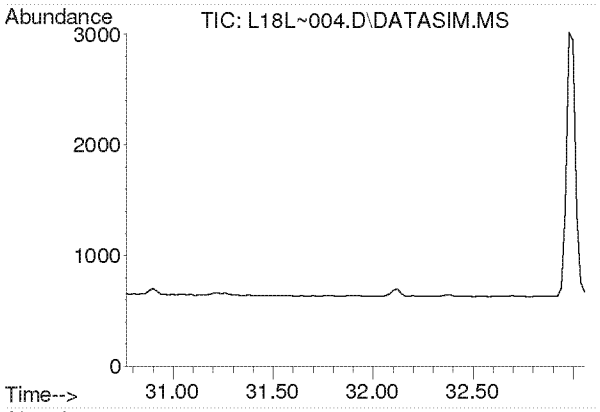
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L18L~004.D
Acq: 27 Dec 2018 6:33 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	49.0



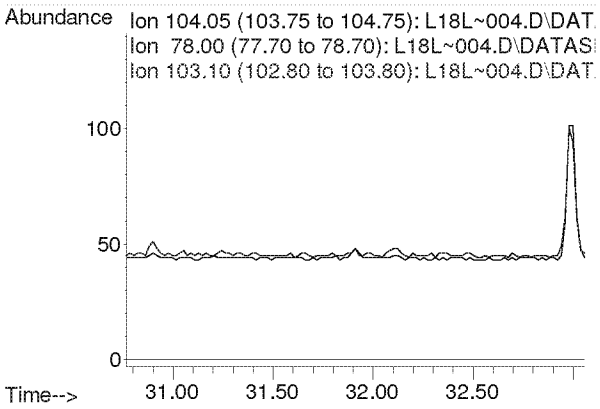


#53
Styrene
Concen: N.D.
Expected RT: 31.91 min

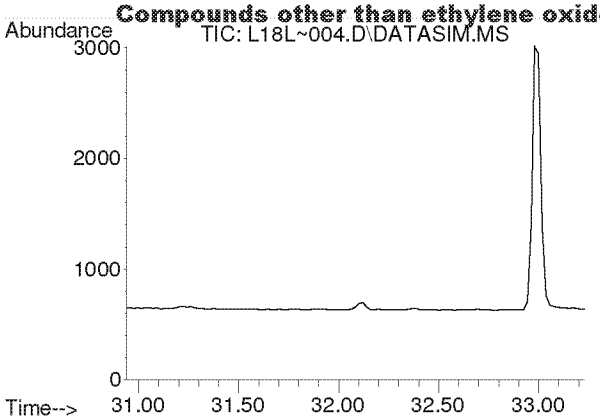
Lab File: L18L~004.D
Acq: 27 Dec 2018 6:33 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	45.6
103	0.0



Compounds other than ethylene oxide were not quantitated.

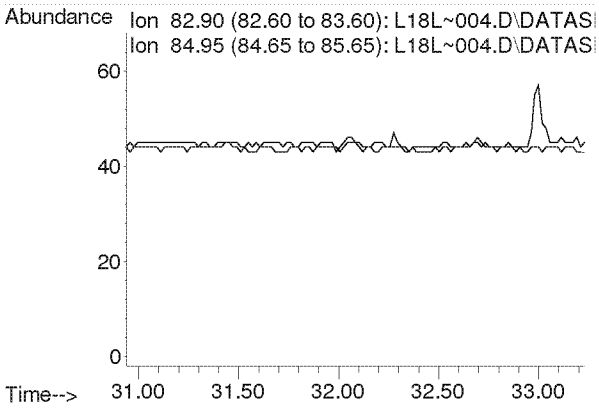


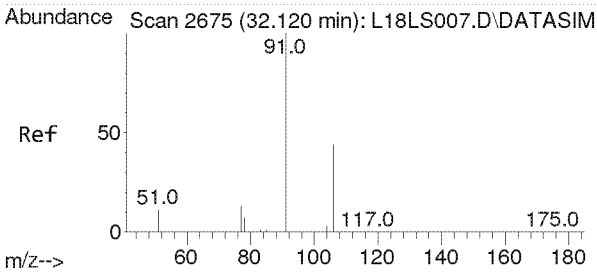
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L18L~004.D
Acq: 27 Dec 2018 6:33 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.9

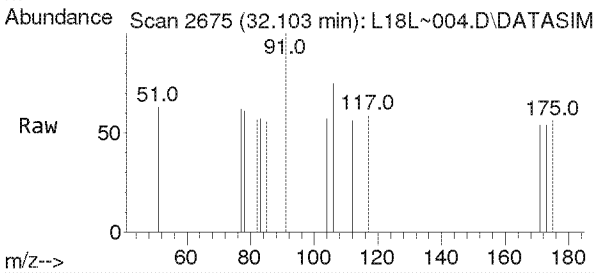


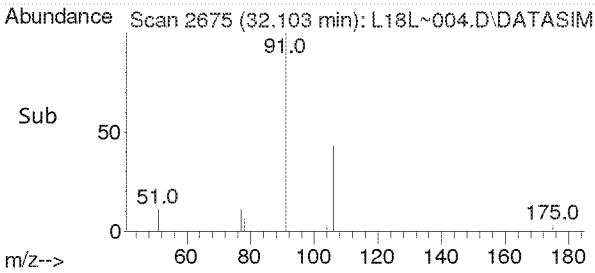


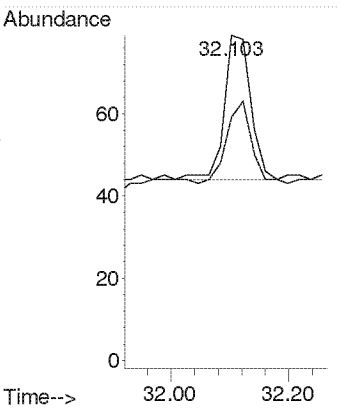
#55
o-Xylene
Concen: 0.007 ppbv
RT: 32.103 min Scan# 2675
Delta R.T. -0.016 min
Lab File: L18L~004.D
Acq: 27 Dec 2018 6:33 pm

Tgt Ion: 91 Resp: 108

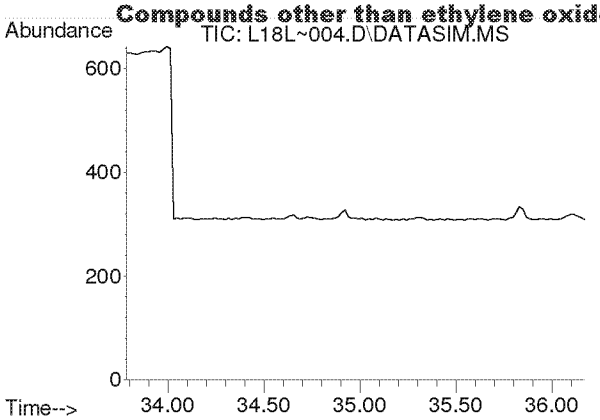
Ion	Ratio	Lower	Upper
91	100		
106	53.7	35.4	53.0#







Compounds other than ethylene oxide were not quantitated.

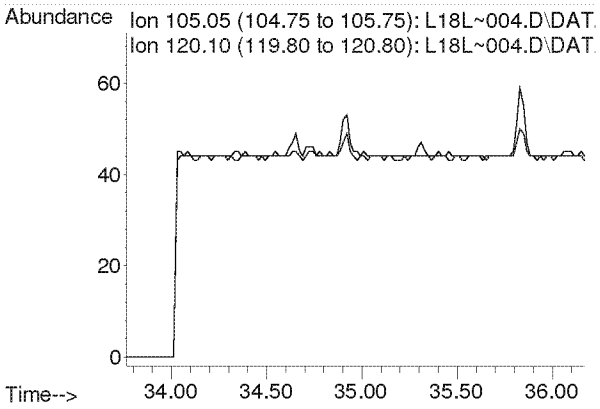


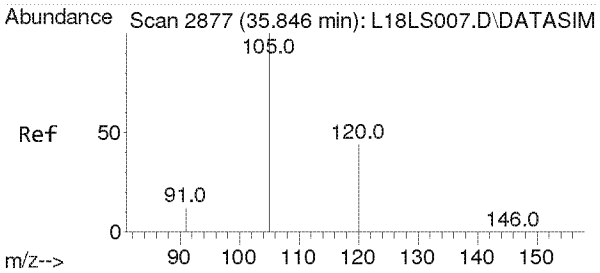
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.92 min

Lab File: L18L~004.D
Acq: 27 Dec 2018 6:33 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	45.0

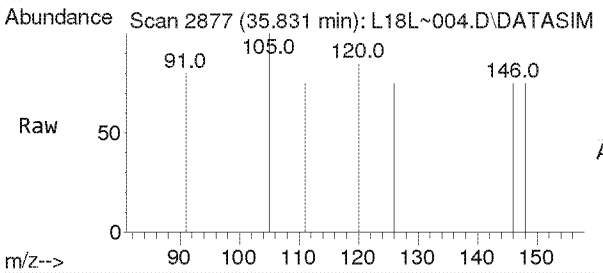


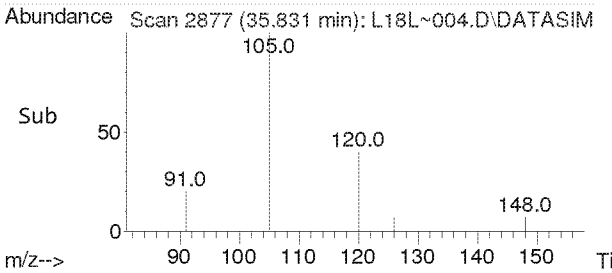


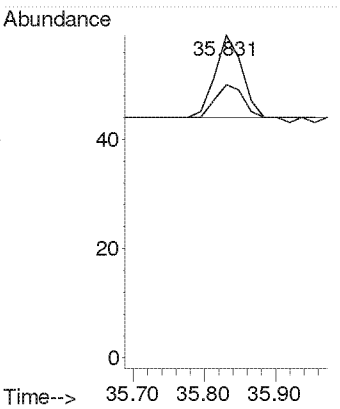
#57
1,2,4-Trimethylbenzene
Concen: 0.003 ppbv
RT: 35.831 min Scan# 2877
Delta R.T. -0.015 min
Lab File: L18L~004.D
Acq: 27 Dec 2018 6:33 pm

Tgt Ion:105 Resp: 40

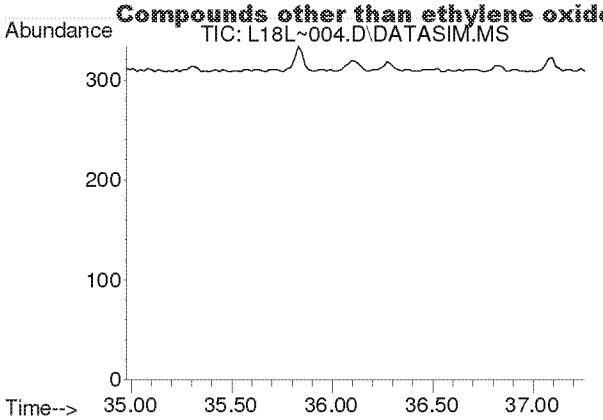
Ion	Ratio	Lower	Upper
105	100		
120	0.0	34.2	51.4#







Compounds other than ethylene oxide were not quantitated.

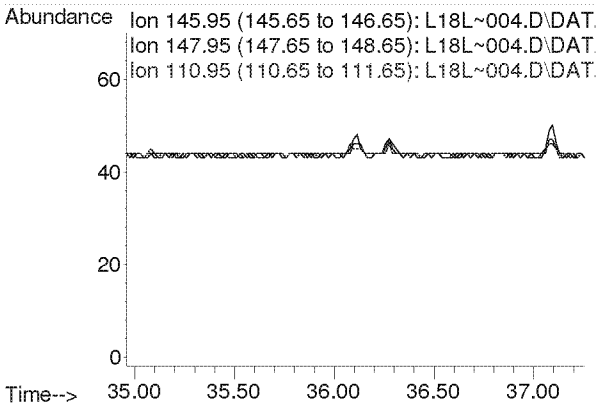


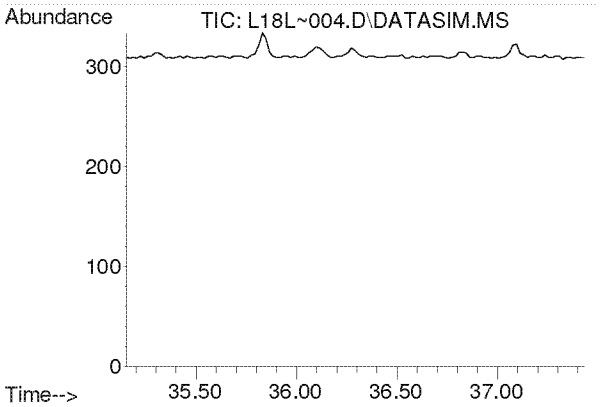
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.11 min

Lab File: L18L~004.D
Acq: 27 Dec 2018 6:33 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.5



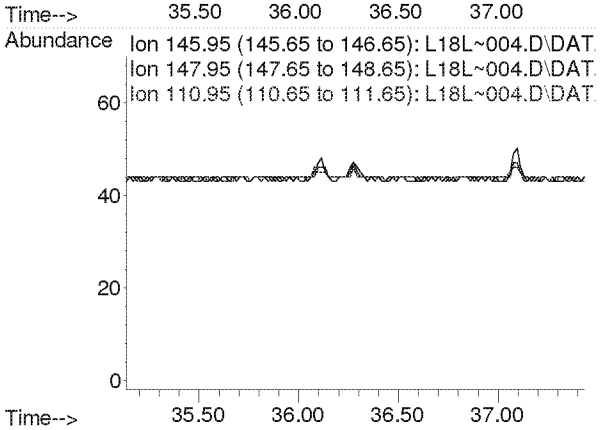


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

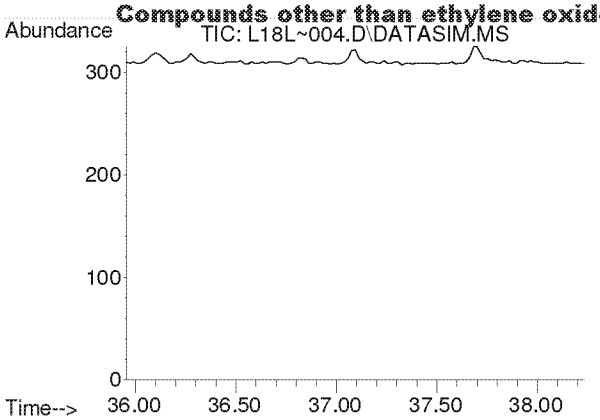
Lab File: L18L~004.D
Acq: 27 Dec 2018 6:33 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	39.5



Compounds other than ethylene oxide were not quantitated.

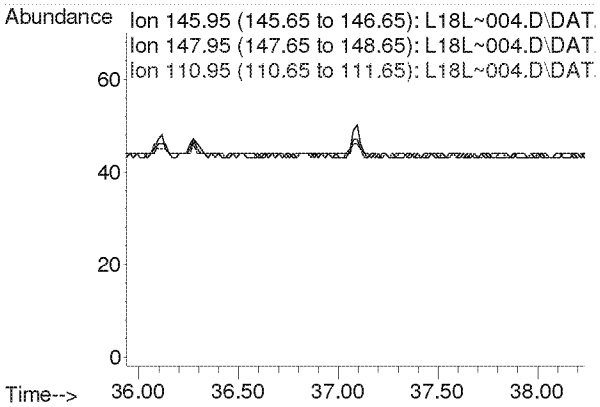


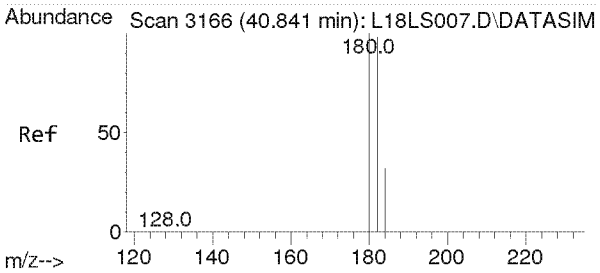
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.09 min

Lab File: L18L~004.D
Acq: 27 Dec 2018 6:33 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	41.4

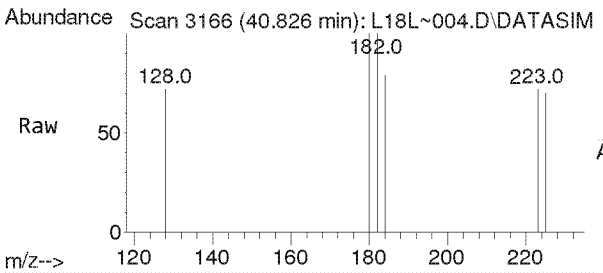


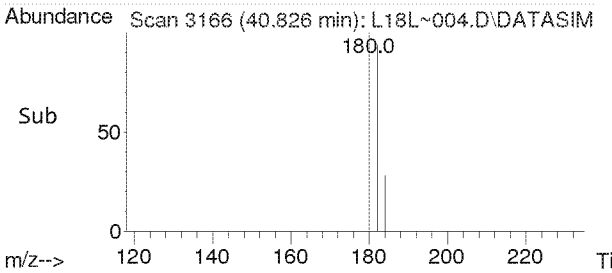


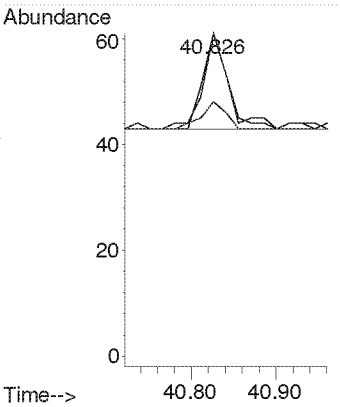
#61
1,2,4-Trichlorobenzene
Concen: 0.015 ppbv
RT: 40.826 min Scan# 3166
Delta R.T. -0.015 min
Lab File: L18L~004.D
Acq: 27 Dec 2018 6:33 pm

Tgt Ion:180 Resp: 36

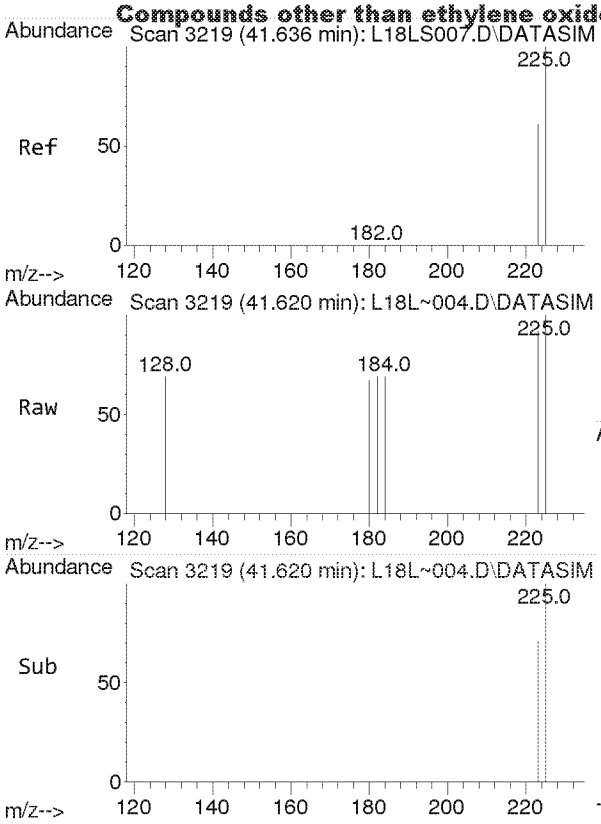
Ion	Ratio	Lower	Upper
180	100		
182	102.8	76.1	114.1
184	0.0	24.6	36.8#







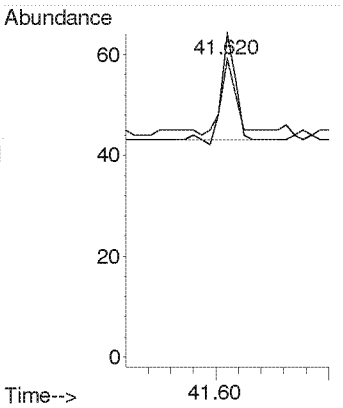
Compounds other than ethylene oxide were not quantitated.



#62
Hexachloro-1,3-butadiene
Concen: 0.004 ppbv
RT: 41.620 min Scan# 3219
Delta R.T. -0.015 min
Lab File: L18L~004.D
Acq: 27 Dec 2018 6:33 pm

Tgt Ion:225 Resp: 35

Ion	Ratio	Lower	Upper
225	100		
223	85.7	49.9	74.9#



Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\L18L~\
Data File : L18L~005.D
Acq On : 27 Dec 2018 7:35 pm
Operator : MAH
Sample : 8121130-05
Misc : WATER TOWER 12/7/18
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jan 03 12:32:23 2019
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.970	66	56331	4.7700 ppbv	-0.02
29) IS-1,4-Difluorobenzene	23.130	114	132776	4.9900 ppbv	-0.02
43) IS-Chlorobenzene-d5	30.096	117	92742	4.7400 ppbv	0.00

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. d	
8) 1,3-Butadiene	0.000	54	0	N.D. d	
9) Ethylene oxide	12.440	29	724m	0.2150 ppbv	
10) Bromomethane	0.000	94	0	N.D. d	
11) Chloroethane	0.000	64	0	N.D. 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. 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. d	
21) 1,1-Dichloroethane	0.000	63	0	N.D. 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. d	
26) Chloroform	0.000	83	0	N.D. d	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D. d	
28) 1,2-Dichloroethane	0.000	62	0	N.D. d	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D. 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. 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. d	
37) Trichloroethylene	0.000	130	0	N.D. d	
38) Methyl Methacrylate	0.000	41	0	N.D. d	
39) cis-1,3-Dichloropropene	0.000	75	0	N.D. 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. d	
44) Toluene	0.000	91	0	N.D. d	
45) Dibromochloromethane	0.000	129	0	N.D. d	
46) 1,2-Dibromoethane	0.000	107	0	N.D. 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. d	
50) Ethylbenzene	0.000	91	0	N.D. d	

ED_002475_00000321-00081

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\L18L~\
Data File : L18L~005.D
Acq On : 27 Dec 2018 7:35 pm
Operator : MAH
Sample : 8121130-05
Misc : WATER TOWER 12/7/18
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jan 03 12:32:23 2019
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
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.	d	
53) Styrene	0.000	104	0	N.D.	d	
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	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.	d	
59) p-Dichlorobenzene	0.000	146	0	N.D.	d	
60) o-Dichlorobenzene	0.000	146	0	N.D.	d	
61) 1,2,4-Trichlorobenzene	0.000	180	0	N.D.	d	
62) Hexachloro-1,3-butadiene	0.000	225	0	N.D.	d	

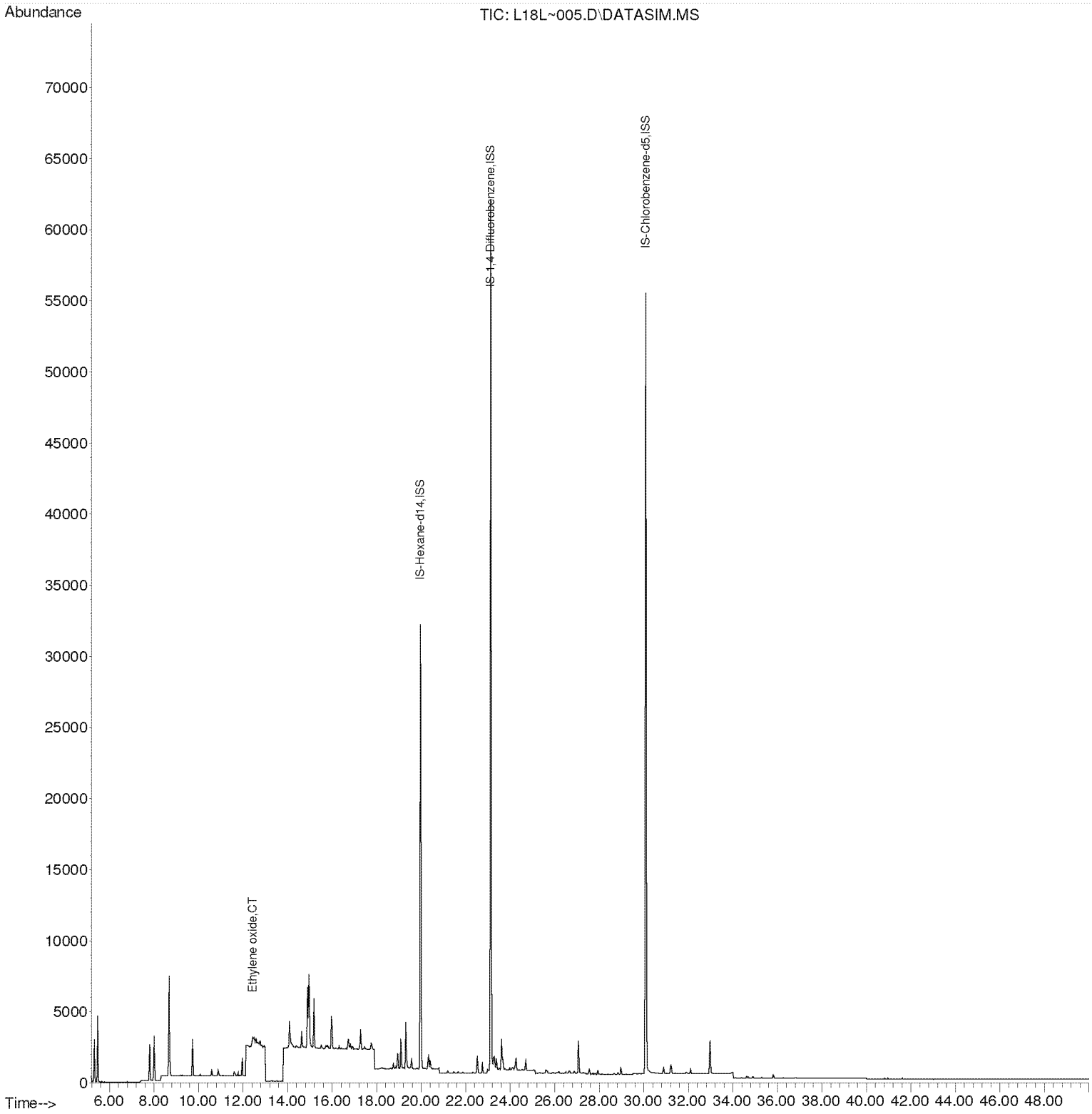
(#) = qualifier out of range (m) = manual integration (+) = signals summed

ED_002475_00000321-00082

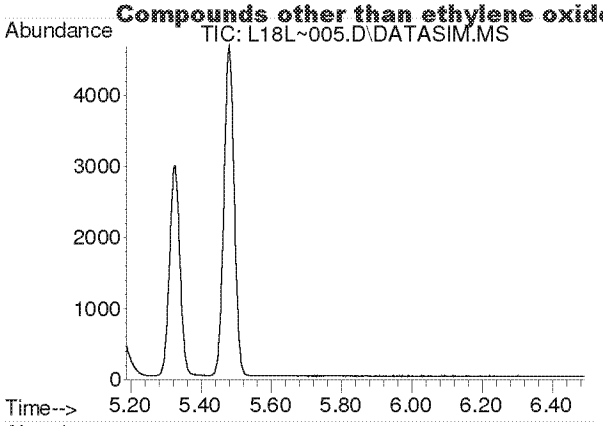
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L18L~\
Data File : L18L~005.D
Acq On : 27 Dec 2018 7:35 pm
Operator : MAH
Sample : 8121130-05
Misc : WATER TOWER 12/7/18
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jan 03 12:18:44 2019
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
Response via : Initial Calibration



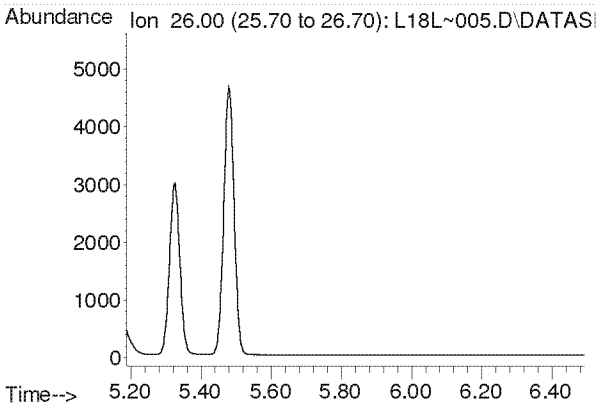
Compounds other than ethylene oxide were not quantitated.

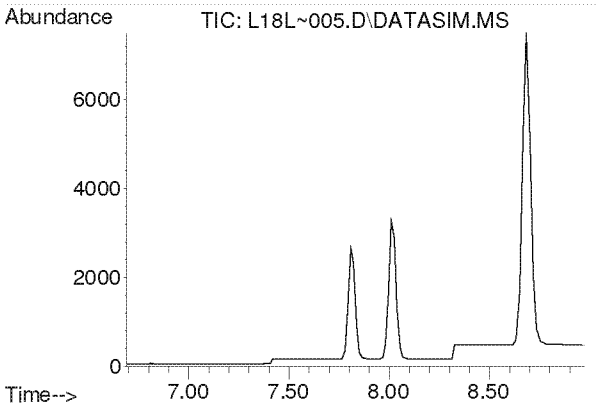


#2
Acetylene
Concen: N.D.
Expected RT: 5.42 min

Lab File: L18L~005.D
Acq: 27 Dec 2018 7:35 pm

Tgt Ion: 26



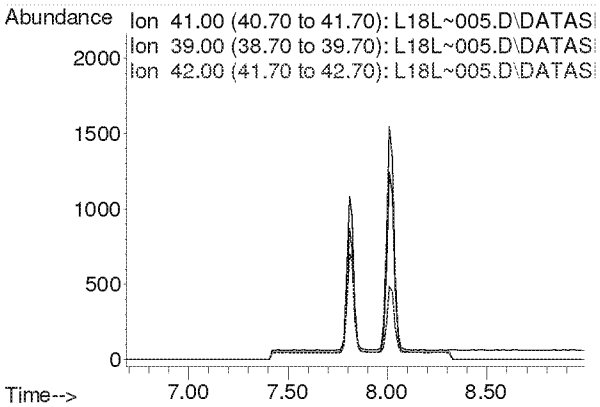


#3
Propylene
Concen: N.D.
Expected RT: 7.84 min

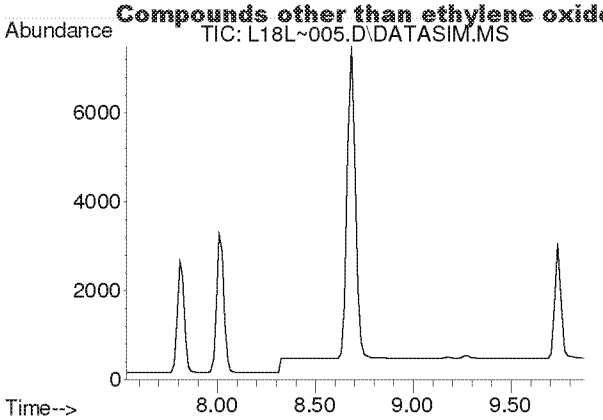
Lab File: L18L~005.D
Acq: 27 Dec 2018 7:35 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	78.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

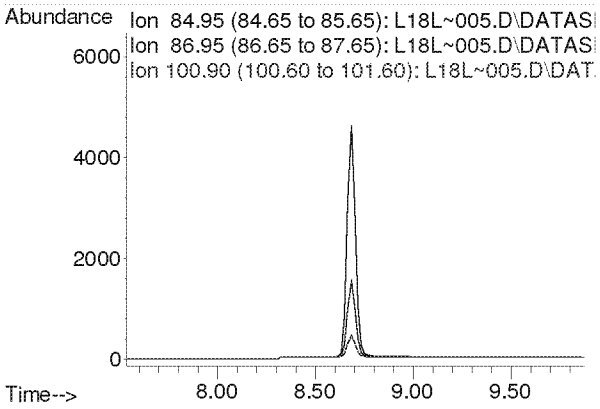


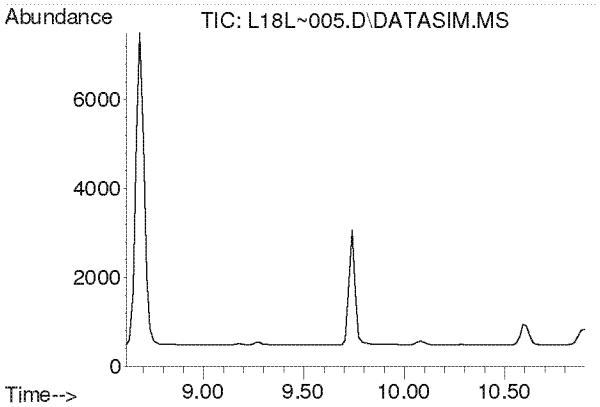
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L18L~005.D
Acq: 27 Dec 2018 7:35 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	8.9



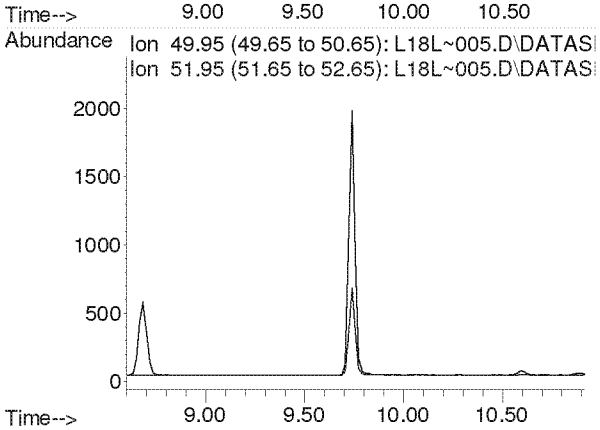


#5
Chloromethane
Concen: N.D.
Expected RT: 9.76 min

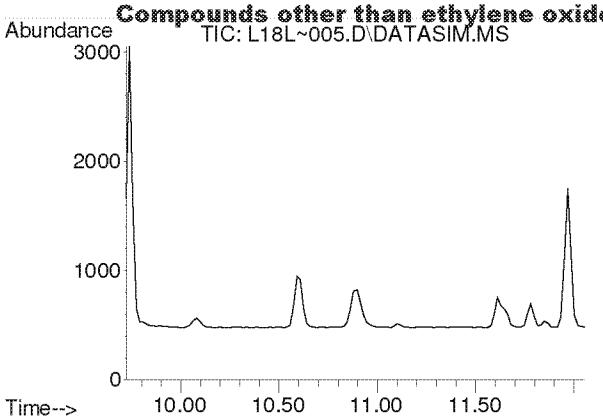
Lab File: L18L~005.D
Acq: 27 Dec 2018 7:35 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

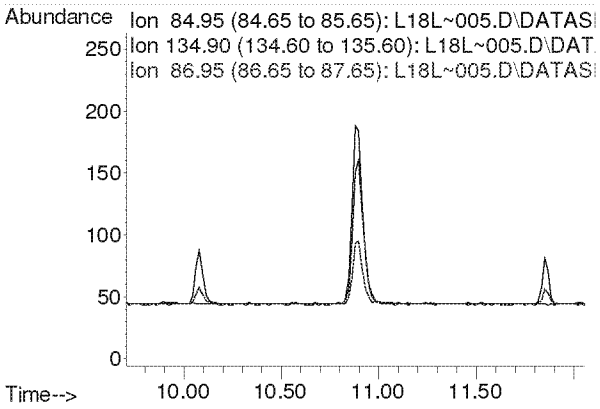


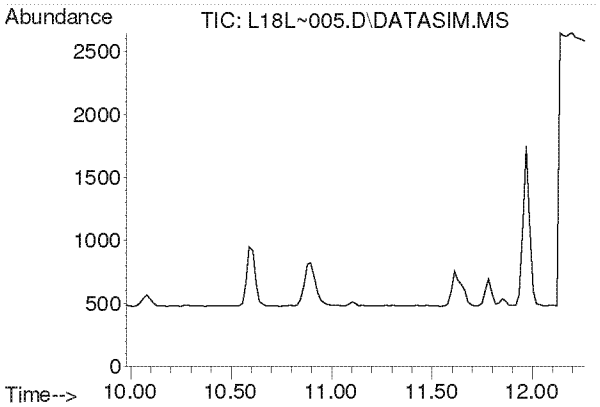
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L18L~005.D
Acq: 27 Dec 2018 7:35 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.1
87	32.1



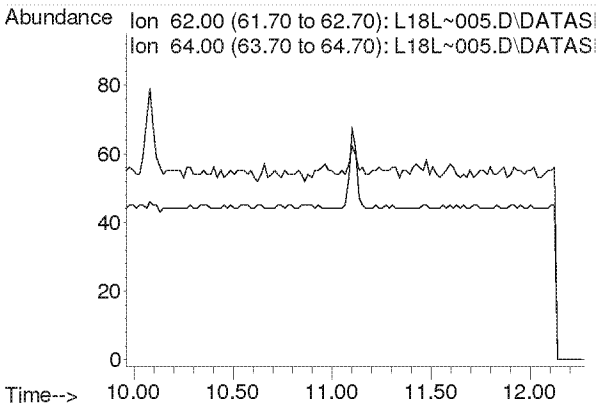


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

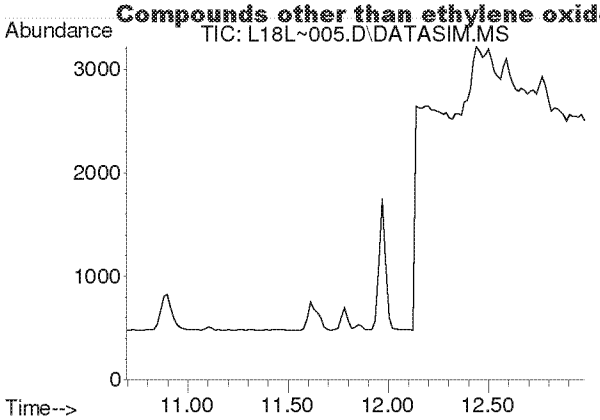
Lab File: L18L~005.D
Acq: 27 Dec 2018 7:35 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.8



Compounds other than ethylene oxide were not quantitated.

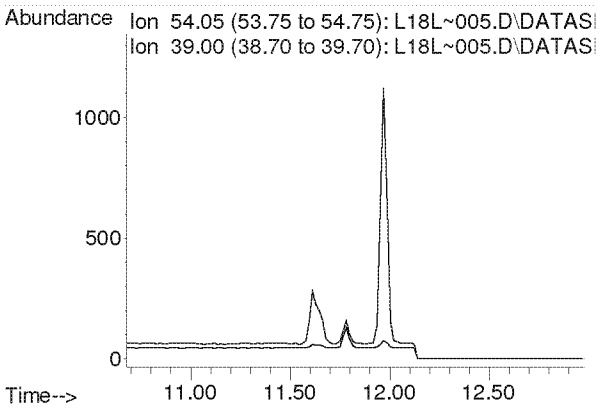


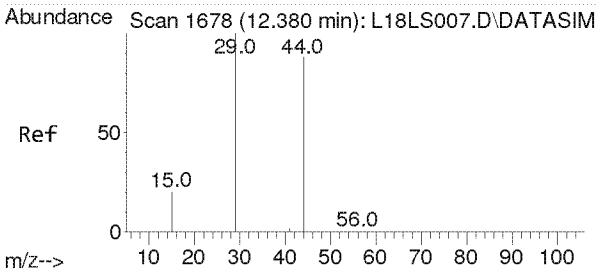
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L18L~005.D
Acq: 27 Dec 2018 7:35 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	105.4

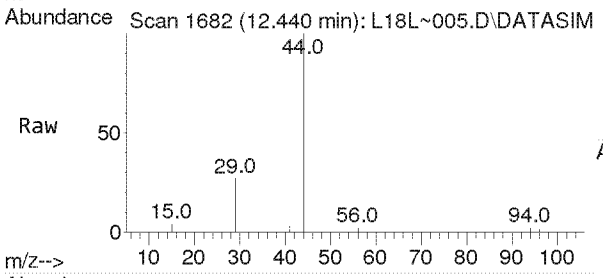


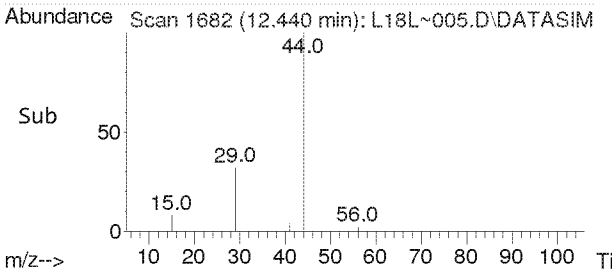


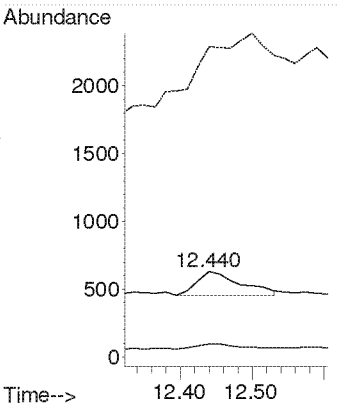
#9
Ethylene oxide
Concen: 0.215 ppbv m
RT: 12.440 min Scan# 1682
Delta R.T. 0.060 min
Lab File: L18L~005.D
Acq: 27 Dec 2018 7:35 pm

Tgt Ion: 29 Resp: 724

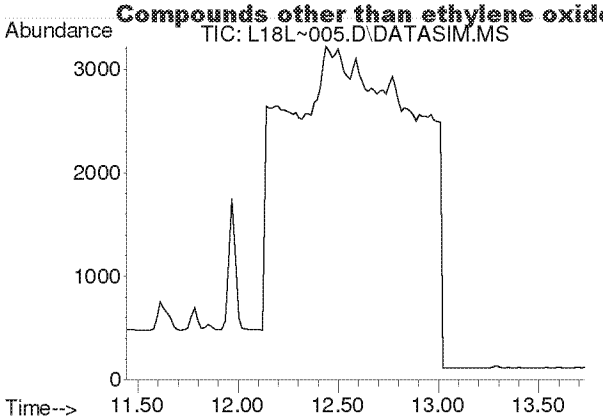
Ion	Ratio	Lower	Upper
29	100		
15	0.0	16.2	24.4#
44	0.0	72.0	108.0#







Compounds other than ethylene oxide were not quantitated.

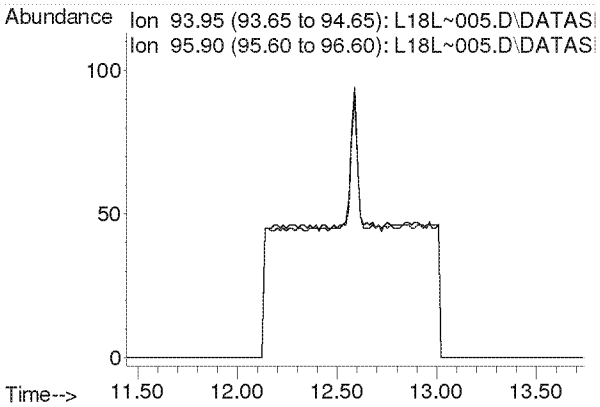


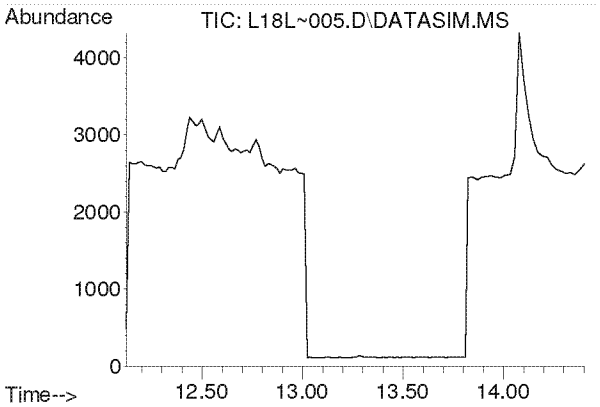
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L18L~005.D
Acq: 27 Dec 2018 7:35 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	93.9



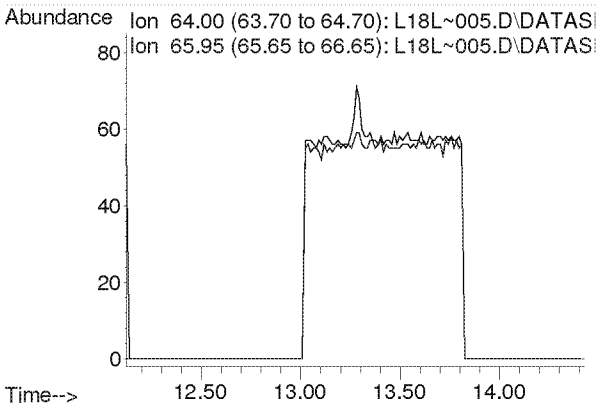


#11
Chloroethane
Concen: N.D.
Expected RT: 13.27 min

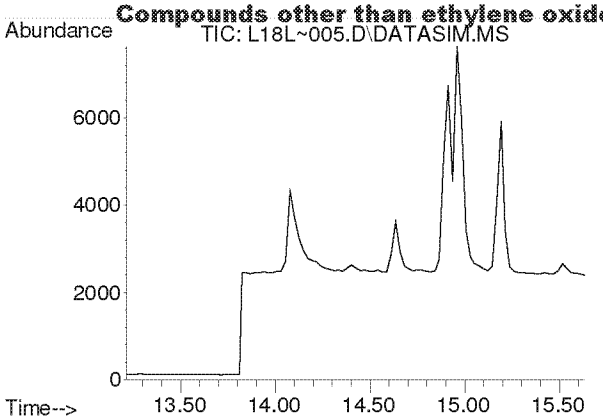
Lab File: L18L~005.D
Acq: 27 Dec 2018 7:35 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.0



Compounds other than ethylene oxide were not quantitated.

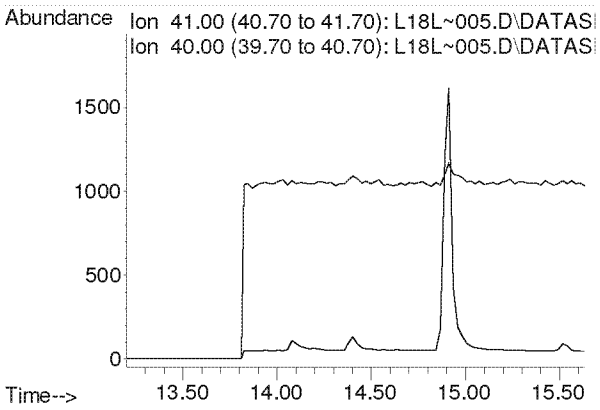


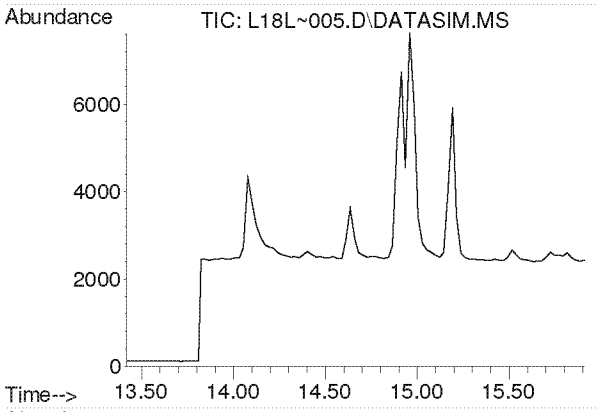
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.33 min

Lab File: L18L~005.D
Acq: 27 Dec 2018 7:35 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	50.9



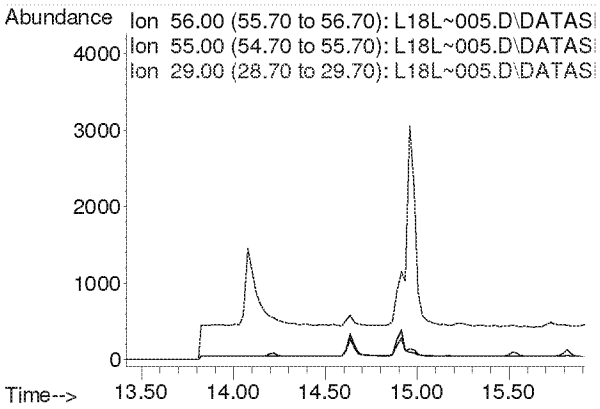


#13
Acrolein
Concen: N.D.
Expected RT: 14.61 min

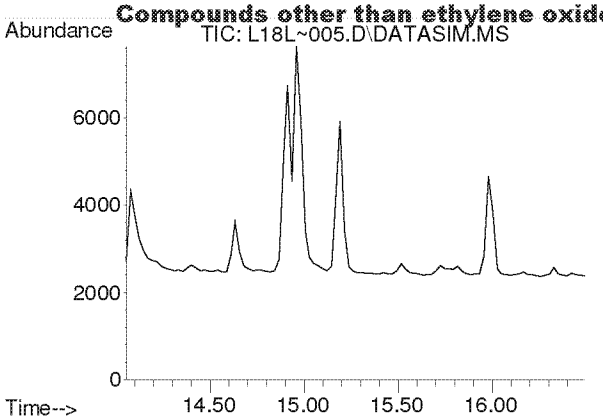
Lab File: L18L~005.D
Acq: 27 Dec 2018 7:35 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	75.4
29	52.9



Compounds other than ethylene oxide were not quantitated.

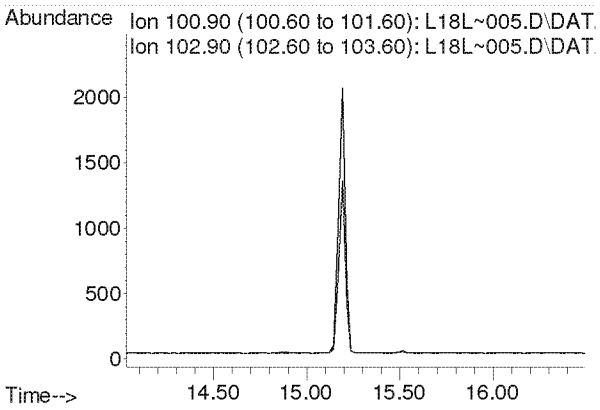


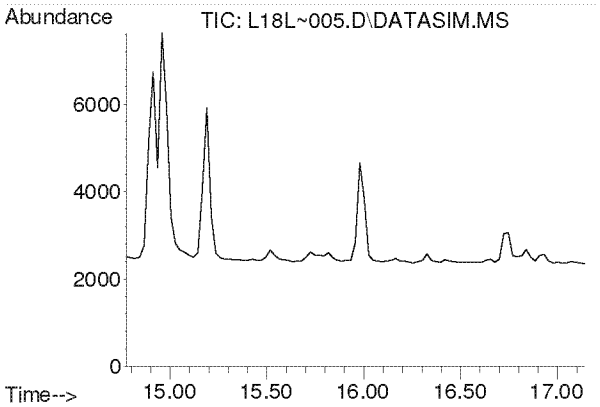
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L18L~005.D
Acq: 27 Dec 2018 7:35 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



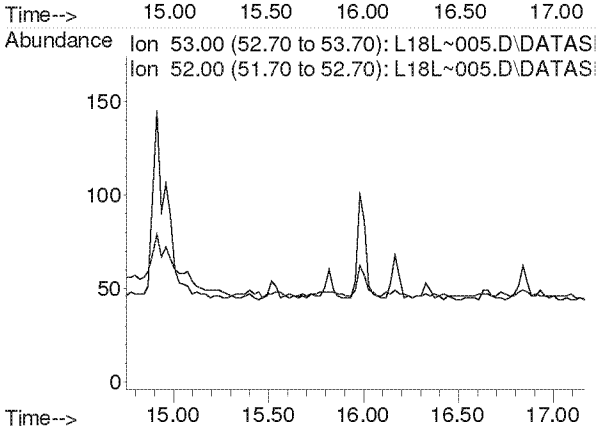


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.91 min

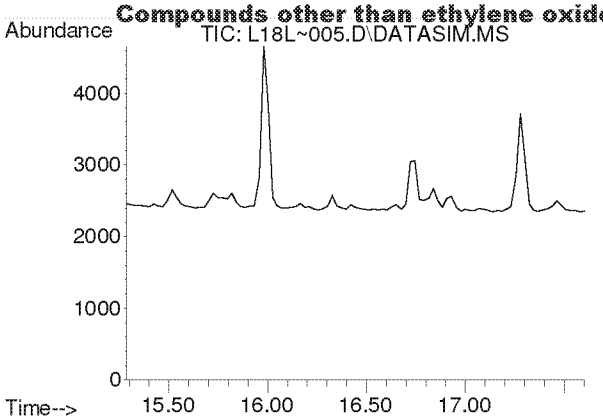
Lab File: L18L~005.D
Acq: 27 Dec 2018 7:35 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	85.4



Compounds other than ethylene oxide were not quantitated.

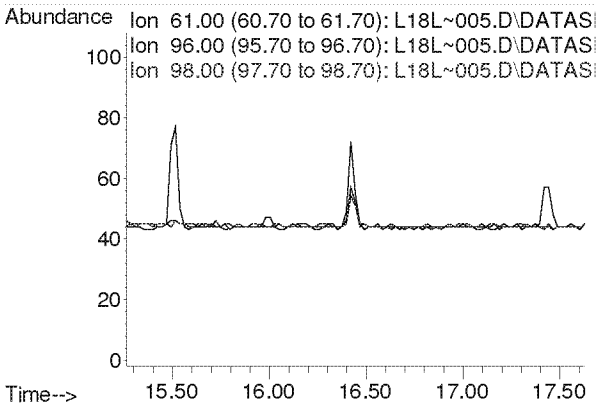


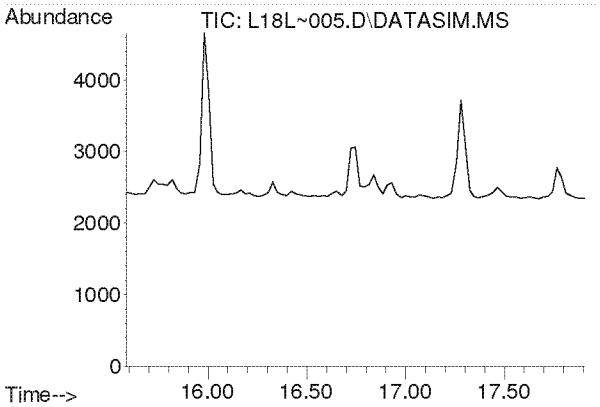
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L18L~005.D
Acq: 27 Dec 2018 7:35 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	58.3
98	37.4



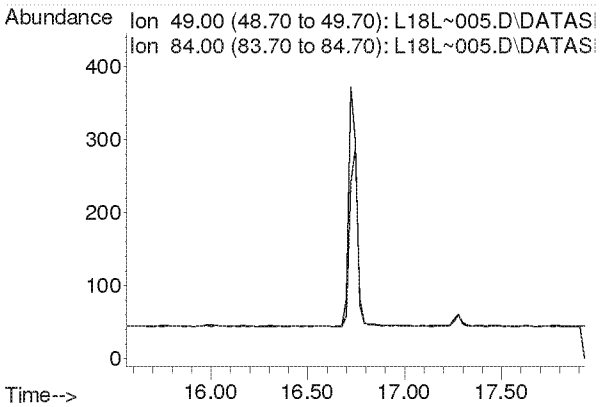


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.72 min

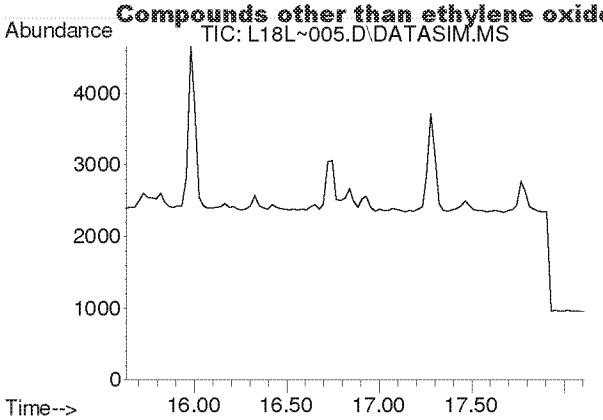
Lab File: L18L~005.D
Acq: 27 Dec 2018 7:35 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	76.4



Compounds other than ethylene oxide were not quantitated.

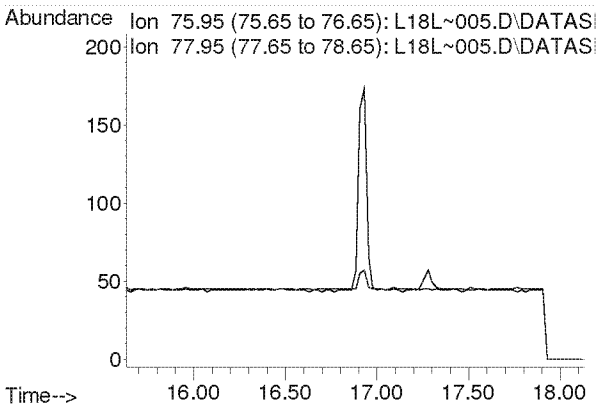


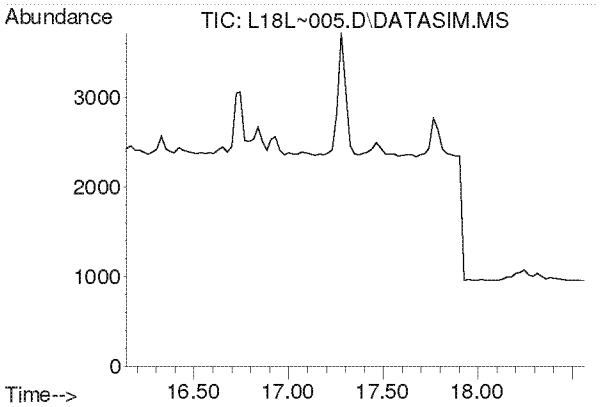
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L18L~005.D
Acq: 27 Dec 2018 7:35 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.1



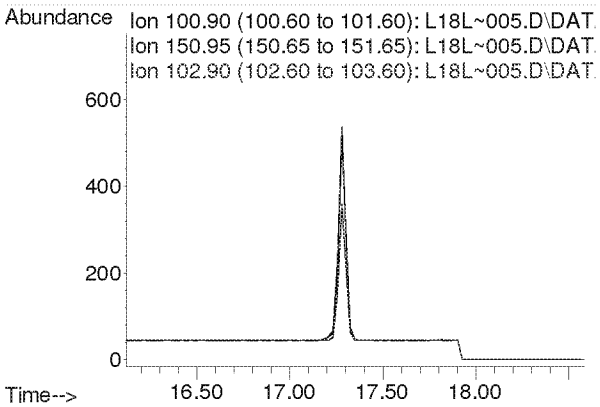


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

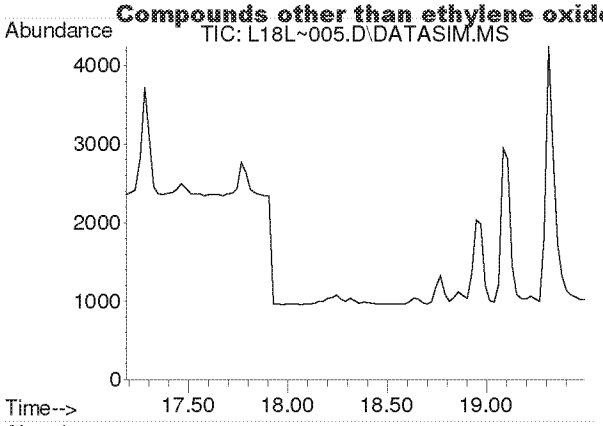
Lab File: L18L~005.D
Acq: 27 Dec 2018 7:35 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	95.3
103	64.1



Compounds other than ethylene oxide were not quantitated.

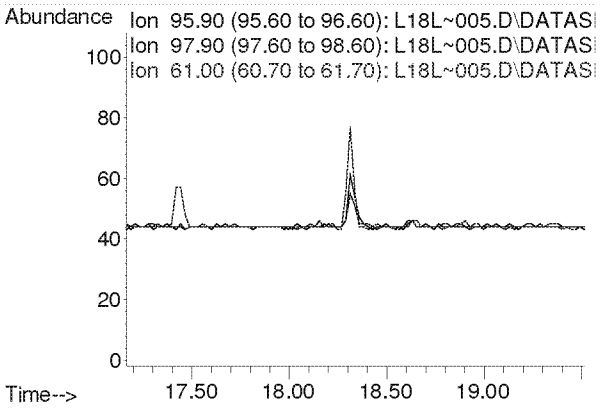


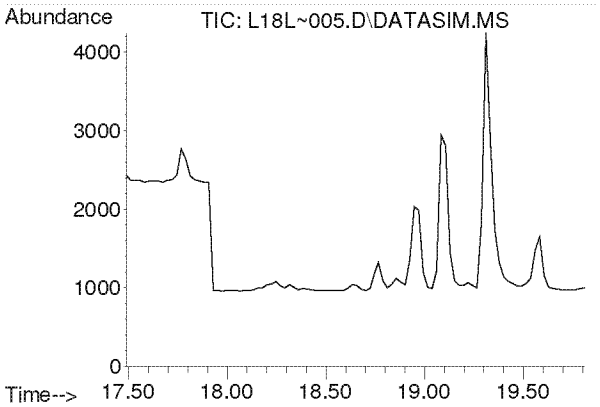
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.31 min

Lab File: L18L~005.D
Acq: 27 Dec 2018 7:35 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	63.7
61	159.2



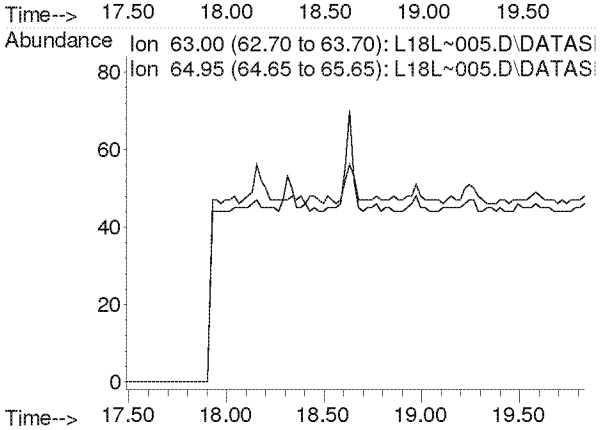


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

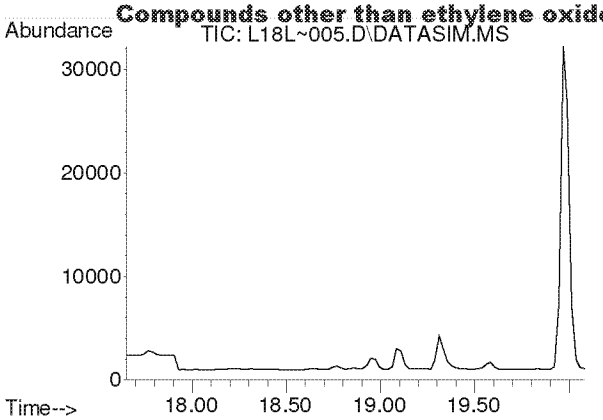
Lab File: L18L~005.D
Acq: 27 Dec 2018 7:35 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

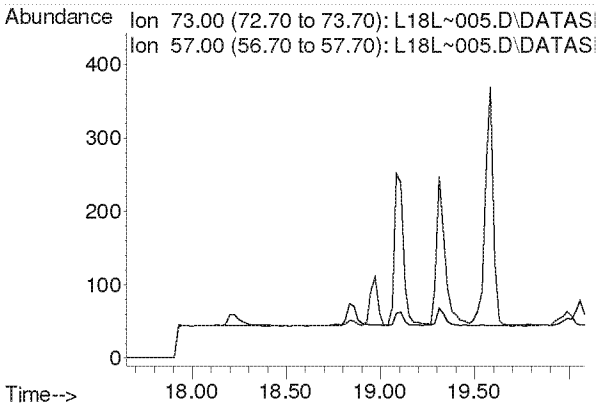


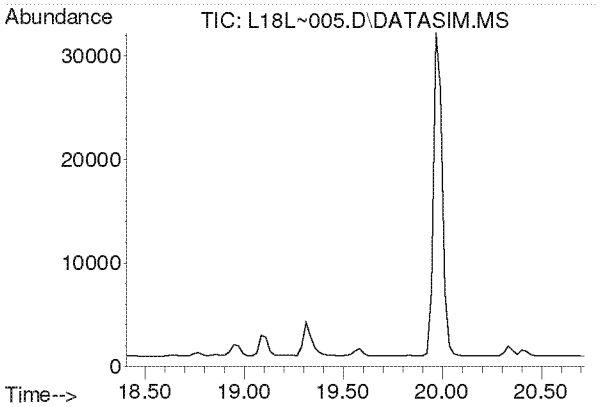
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L18L~005.D
Acq: 27 Dec 2018 7:35 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.4



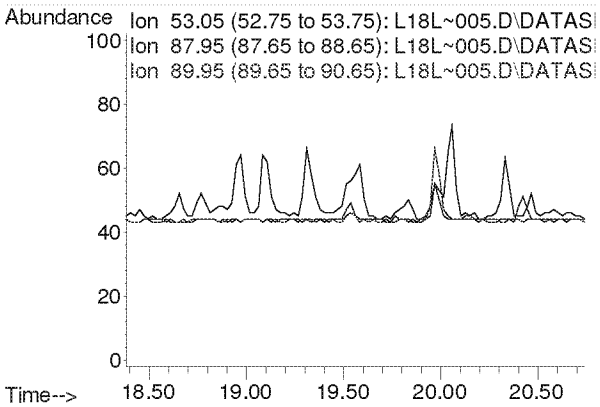


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

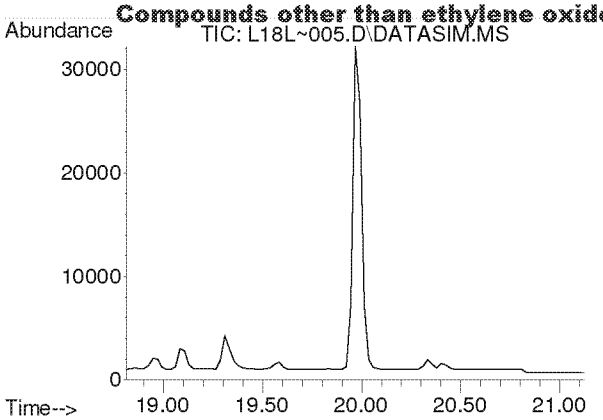
Lab File: L18L~005.D
Acq: 27 Dec 2018 7:35 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	51.8
90	16.8



Compounds other than ethylene oxide were not quantitated.

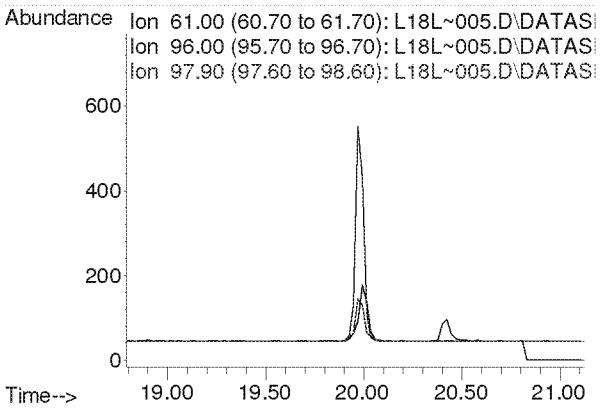


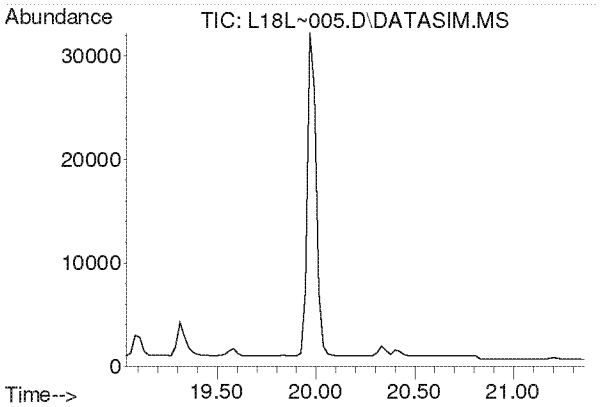
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L18L~005.D
Acq: 27 Dec 2018 7:35 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.7
98	45.2



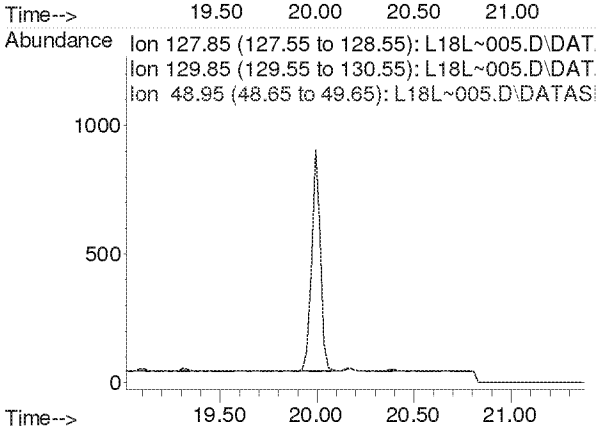


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

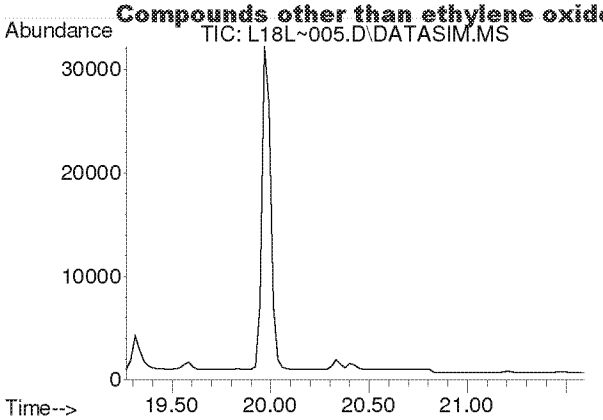
Lab File: L18L~005.D
Acq: 27 Dec 2018 7:35 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	171.2



Compounds other than ethylene oxide were not quantitated.

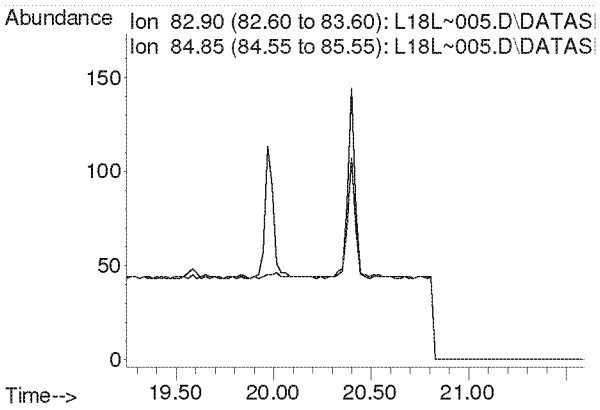


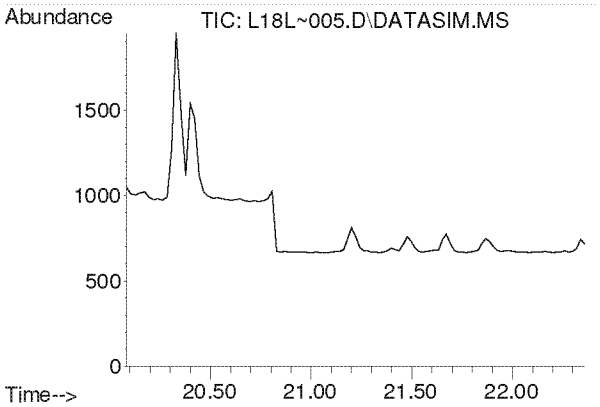
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L18L~005.D
Acq: 27 Dec 2018 7:35 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



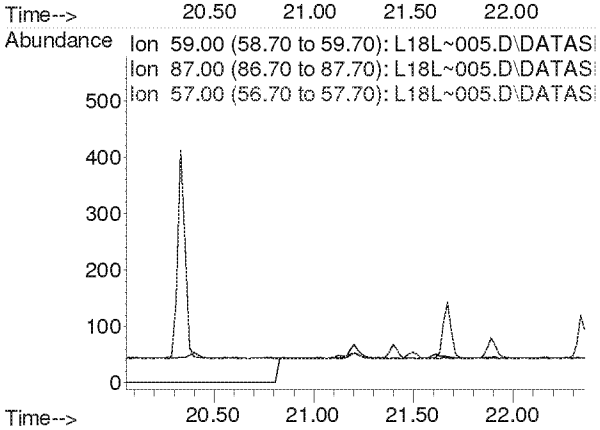


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.16 min

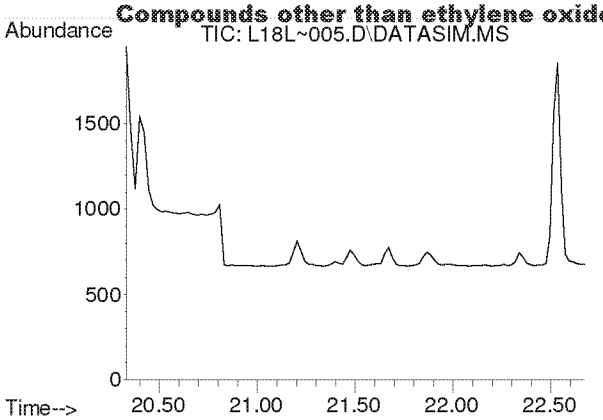
Lab File: L18L~005.D
Acq: 27 Dec 2018 7:35 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	37.5
57	33.8



Compounds other than ethylene oxide were not quantitated.

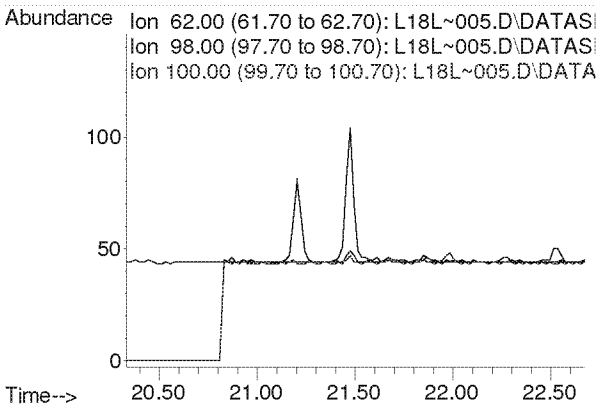


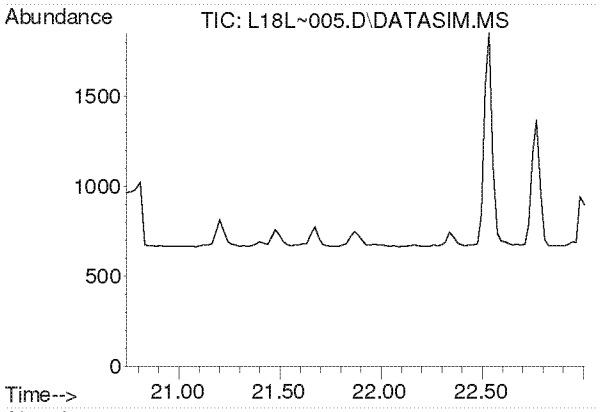
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L18L~005.D
Acq: 27 Dec 2018 7:35 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.4
100	4.0



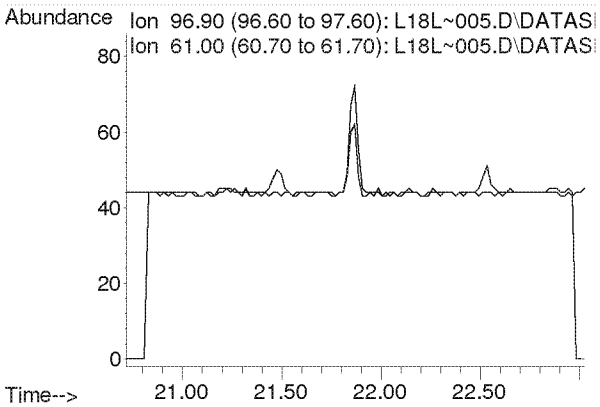


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

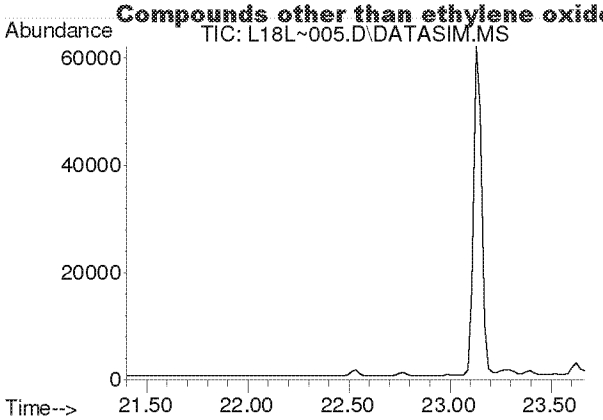
Lab File: L18L~005.D
Acq: 27 Dec 2018 7:35 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	60.5



Compounds other than ethylene oxide were not quantitated.

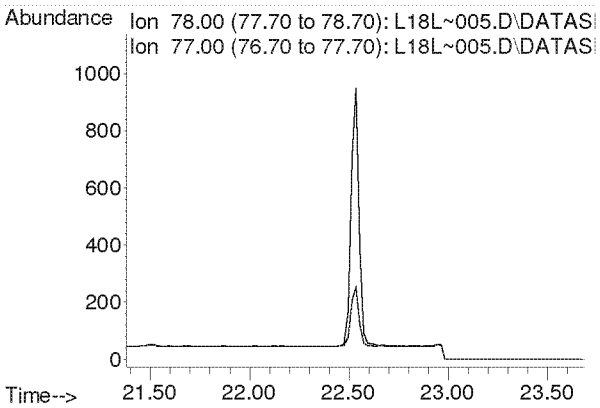


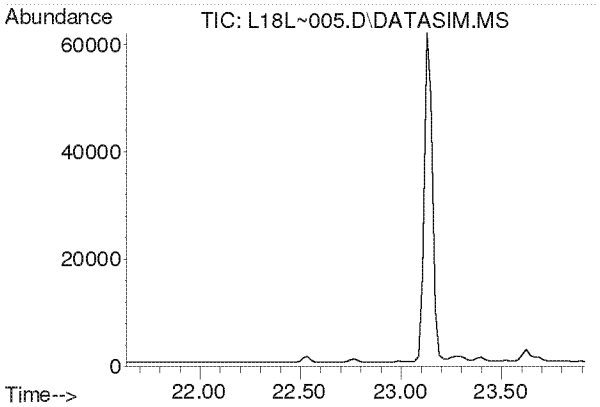
#31
Benzene
Concen: N.D.
Expected RT: 22.54 min

Lab File: L18L~005.D
Acq: 27 Dec 2018 7:35 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.7



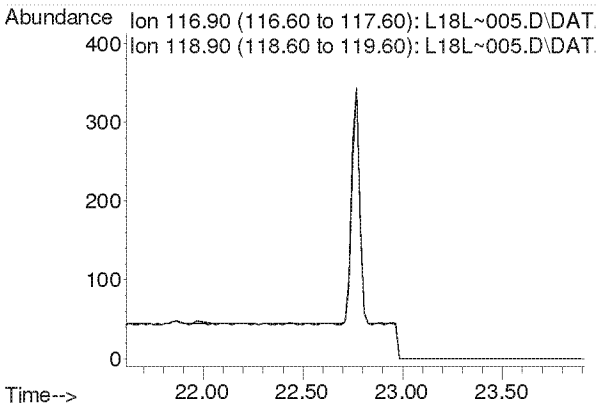


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

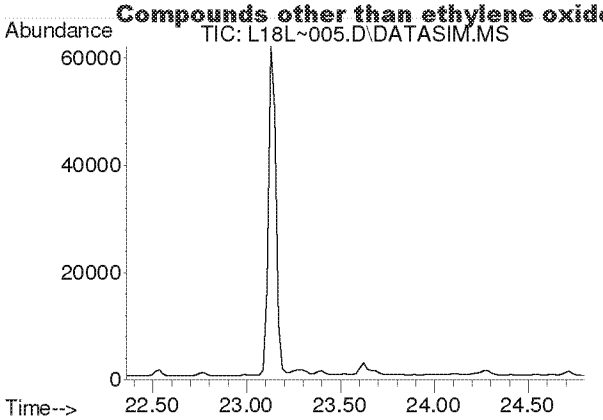
Lab File: L18L~005.D
Acq: 27 Dec 2018 7:35 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.5



Compounds other than ethylene oxide were not quantitated.

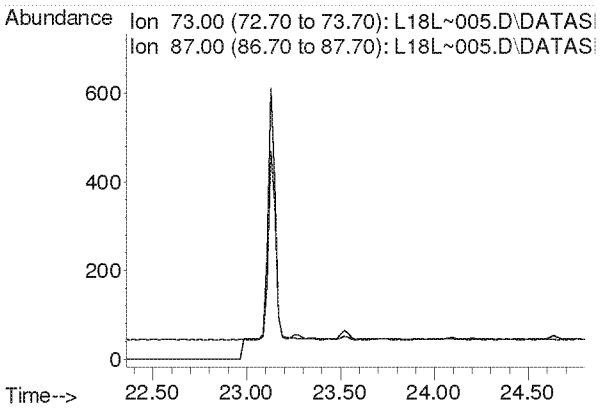


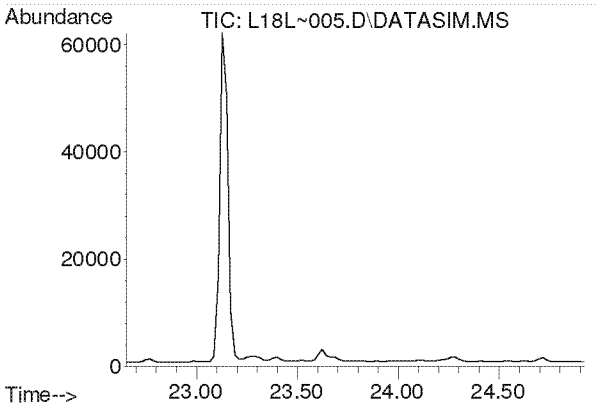
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.50 min

Lab File: L18L~005.D
Acq: 27 Dec 2018 7:35 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	24.9



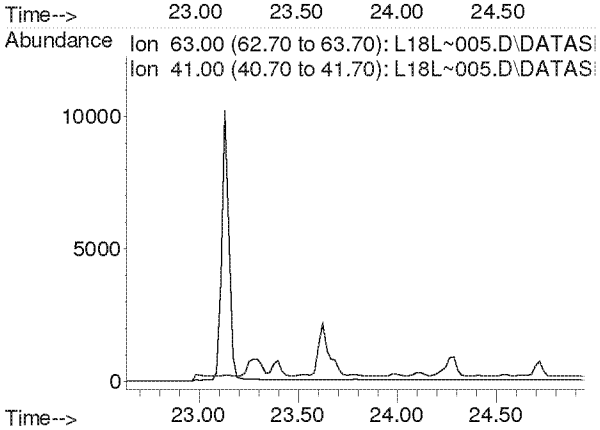


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

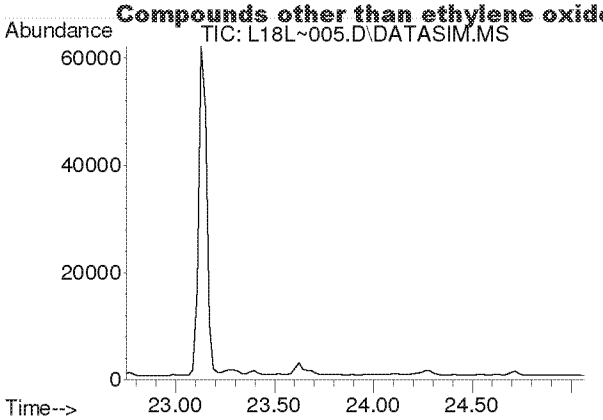
Lab File: L18L~005.D
Acq: 27 Dec 2018 7:35 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	212.8



Compounds other than ethylene oxide were not quantitated.

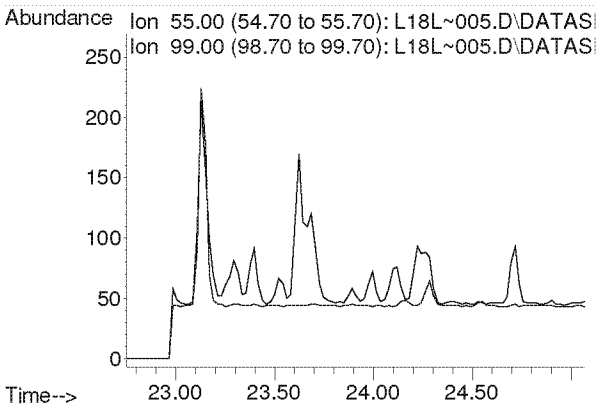


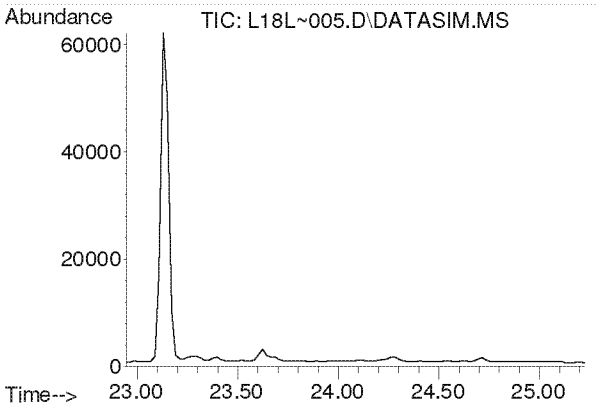
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.87 min

Lab File: L18L~005.D
Acq: 27 Dec 2018 7:35 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.1



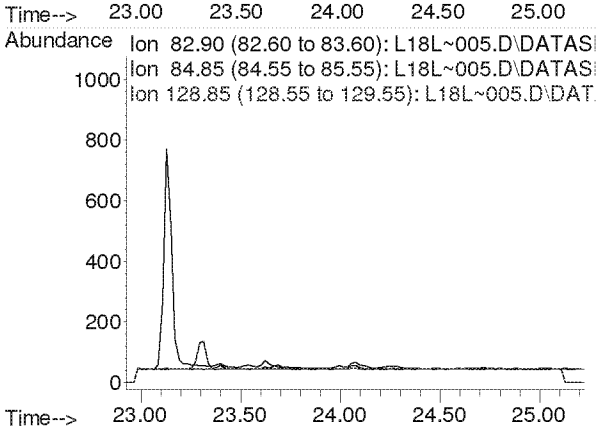


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

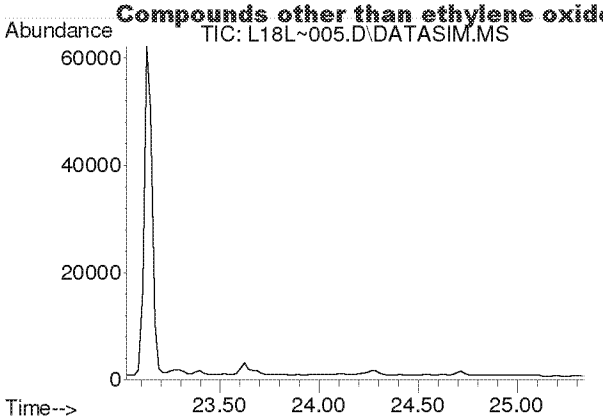
Lab File: L18L~005.D
Acq: 27 Dec 2018 7:35 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.0
129	12.4



Compounds other than ethylene oxide were not quantitated.

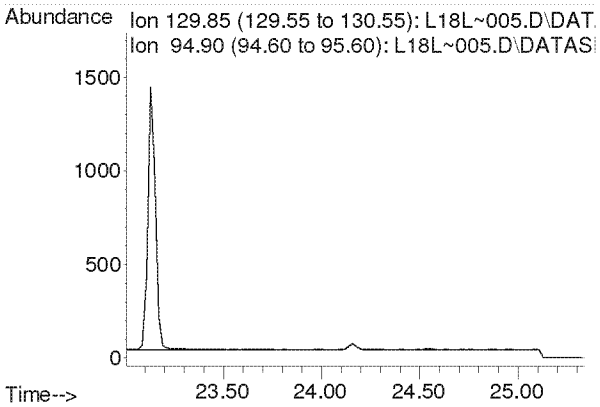


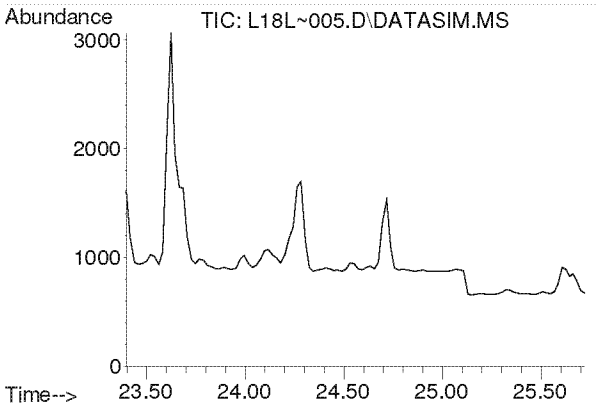
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.16 min

Lab File: L18L~005.D
Acq: 27 Dec 2018 7:35 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	110.3



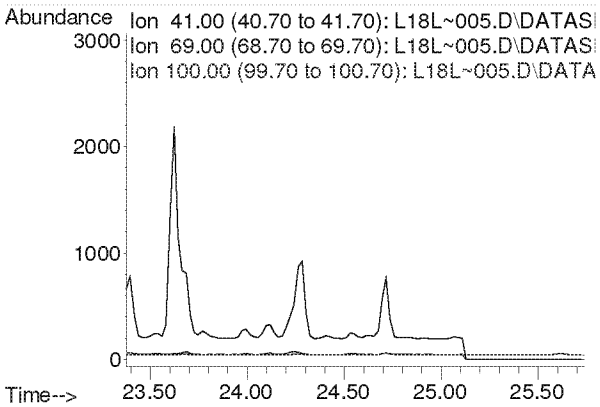


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

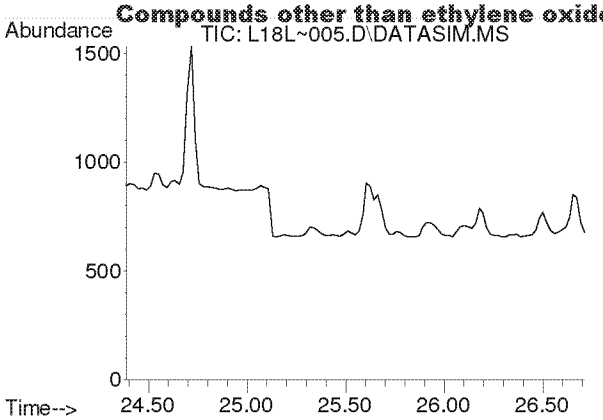
Lab File: L18L~005.D
Acq: 27 Dec 2018 7:35 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	19.9
100	5.2



Compounds other than ethylene oxide were not quantitated.

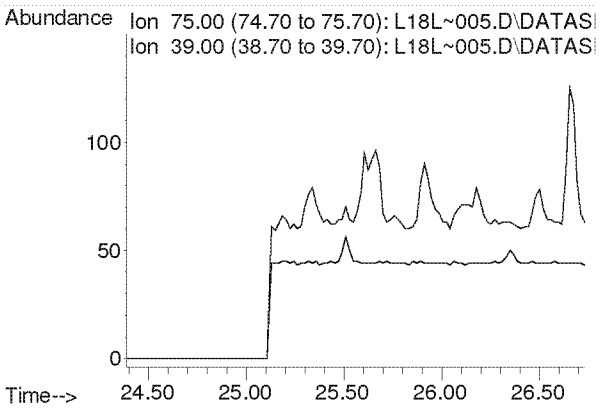


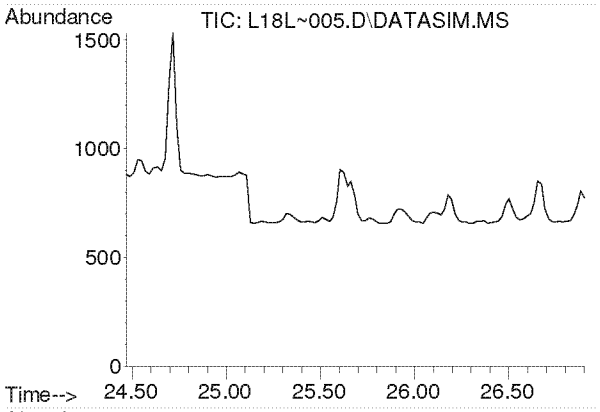
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L18L~005.D
Acq: 27 Dec 2018 7:35 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.4



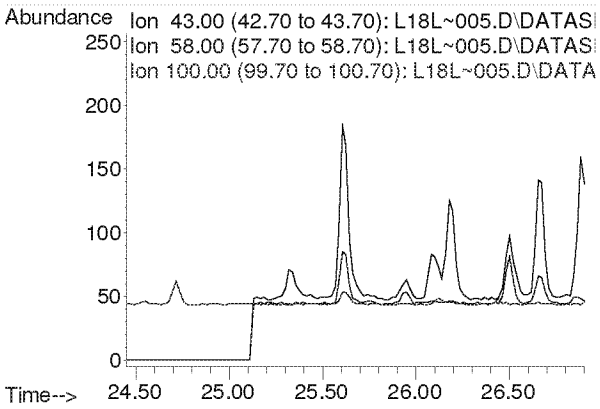


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.61 min

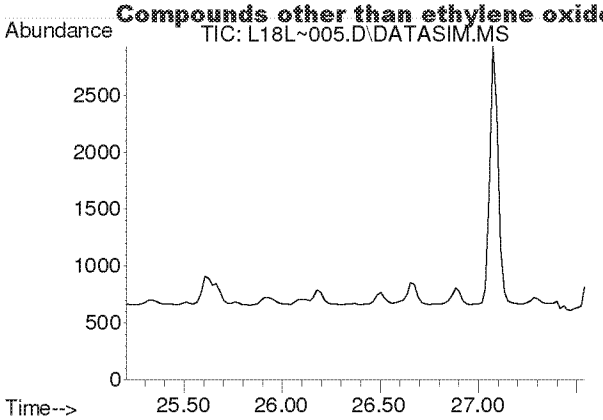
Lab File: L18L~005.D
Acq: 27 Dec 2018 7:35 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	34.2
100	7.9



Compounds other than ethylene oxide were not quantitated.

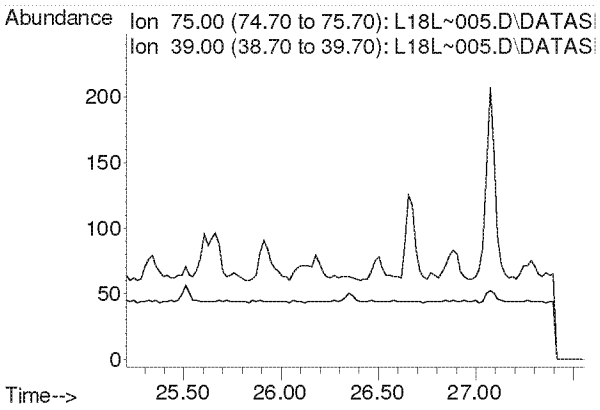


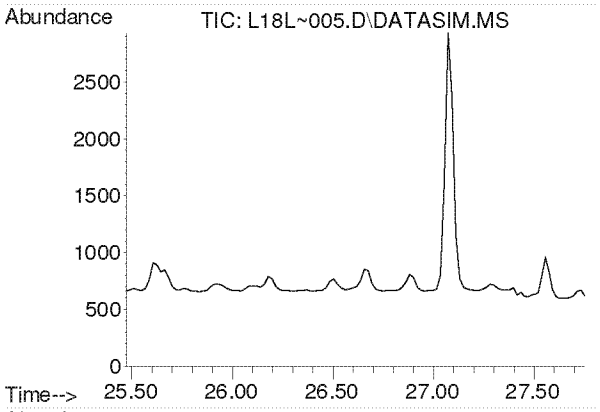
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.35 min

Lab File: L18L~005.D
Acq: 27 Dec 2018 7:35 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	50.9



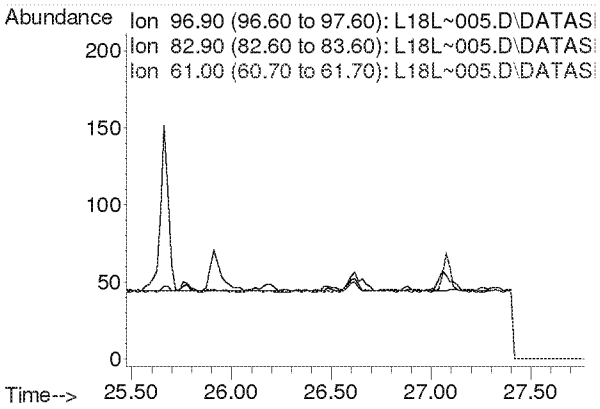


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

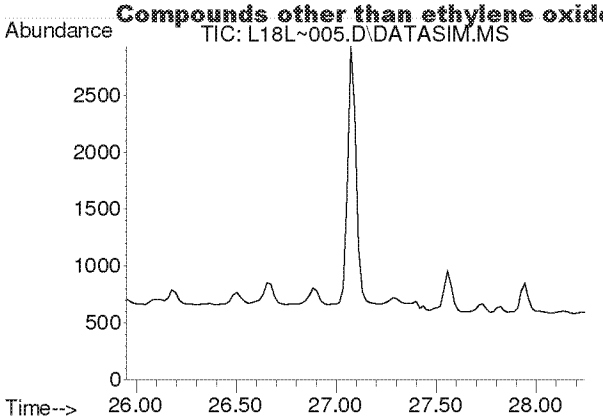
Lab File: L18L~005.D
Acq: 27 Dec 2018 7:35 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	96.1
61	63.5



Compounds other than ethylene oxide were not quantitated.

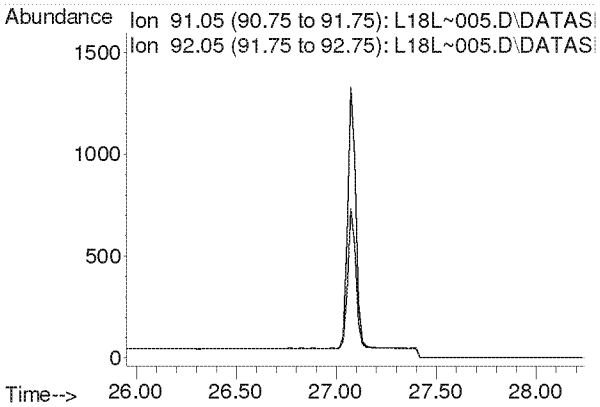


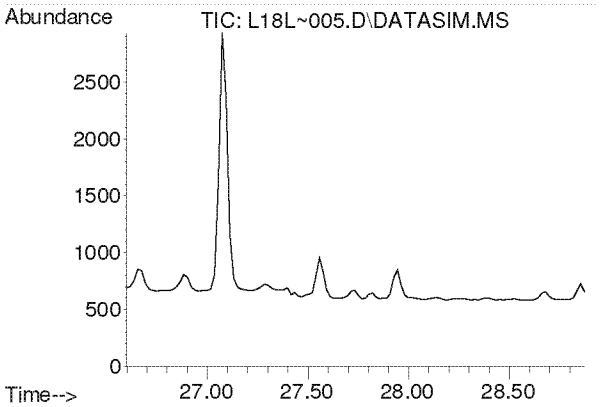
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L18L~005.D
Acq: 27 Dec 2018 7:35 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.6



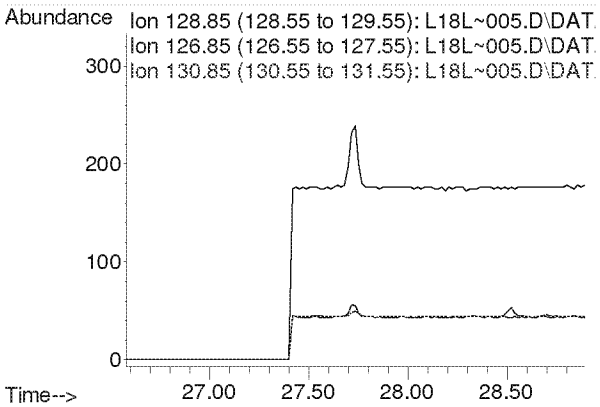


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.73 min

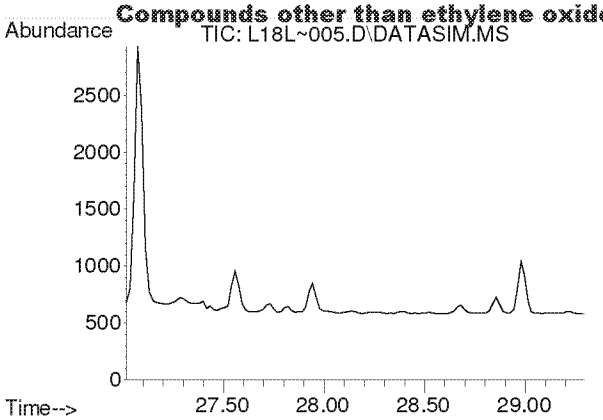
Lab File: L18L~005.D
Acq: 27 Dec 2018 7:35 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.2
131	6.0



Compounds other than ethylene oxide were not quantitated.

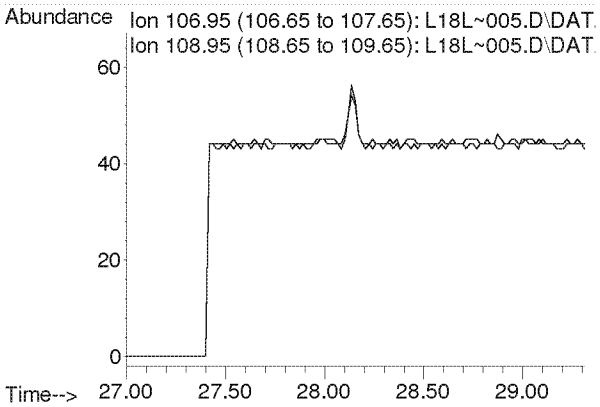


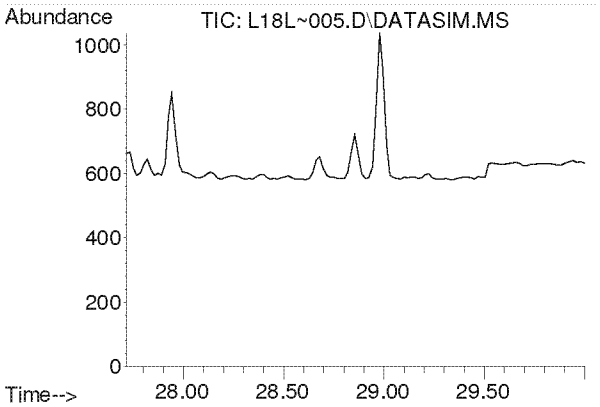
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.16 min

Lab File: L18L~005.D
Acq: 27 Dec 2018 7:35 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.5



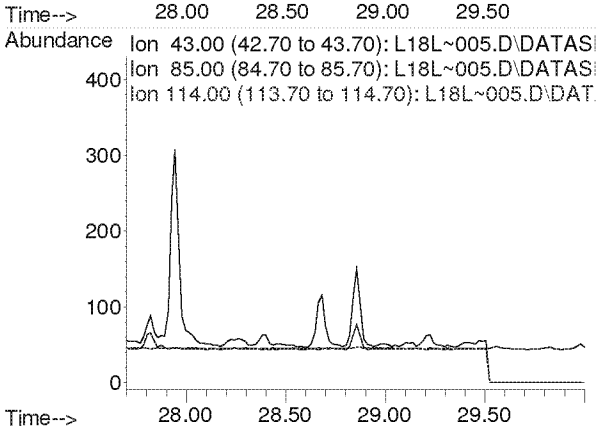


#47
n-Octane
Concen: N.D.
Expected RT: 28.86 min

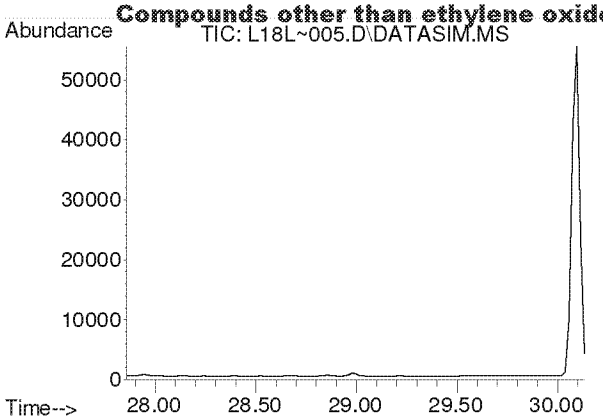
Lab File: L18L~005.D
Acq: 27 Dec 2018 7:35 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	36.0
114	2.2



Compounds other than ethylene oxide were not quantitated.

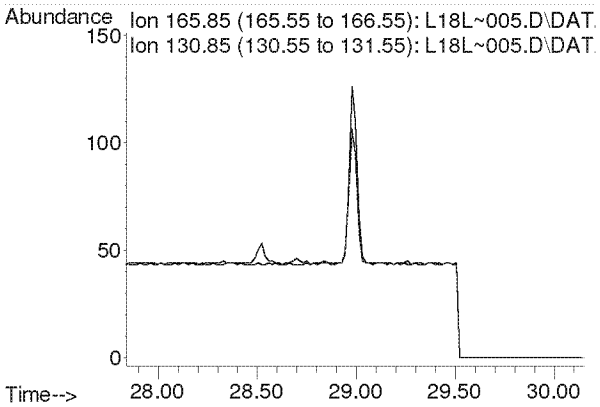


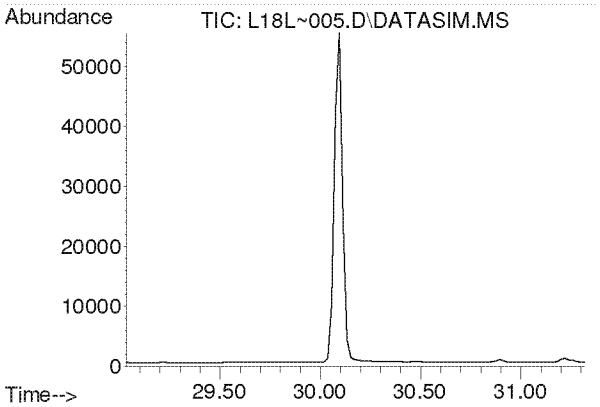
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L18L~005.D
Acq: 27 Dec 2018 7:35 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	78.2



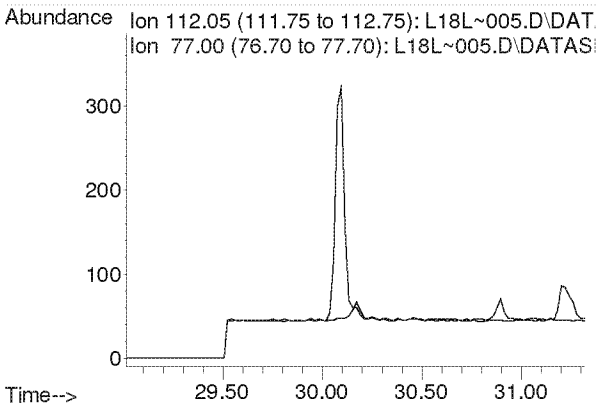


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.17 min

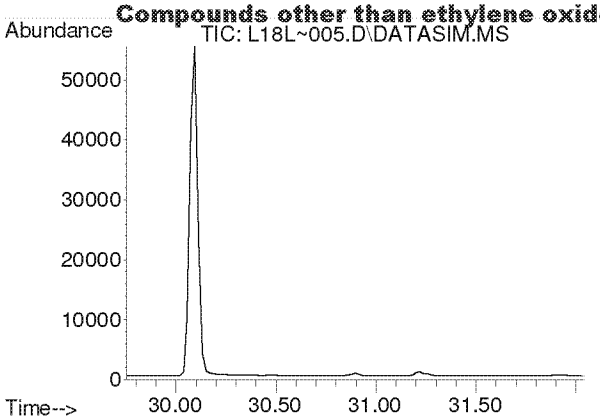
Lab File: L18L~005.D
Acq: 27 Dec 2018 7:35 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	63.0



Compounds other than ethylene oxide were not quantitated.

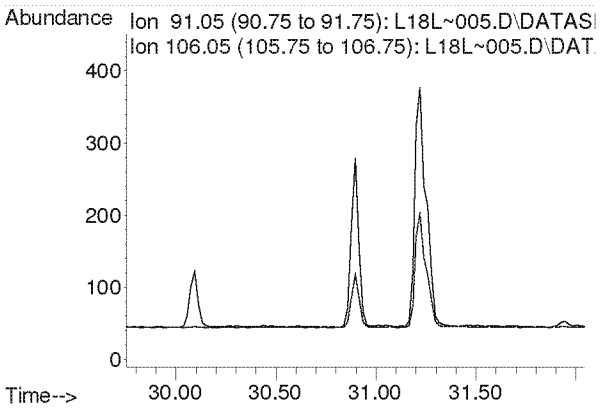


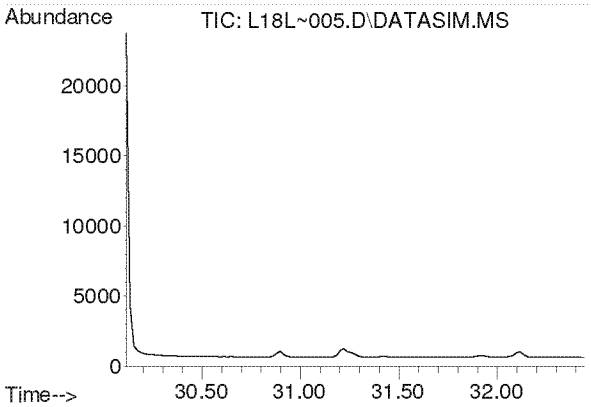
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.90 min

Lab File: L18L~005.D
Acq: 27 Dec 2018 7:35 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	31.8



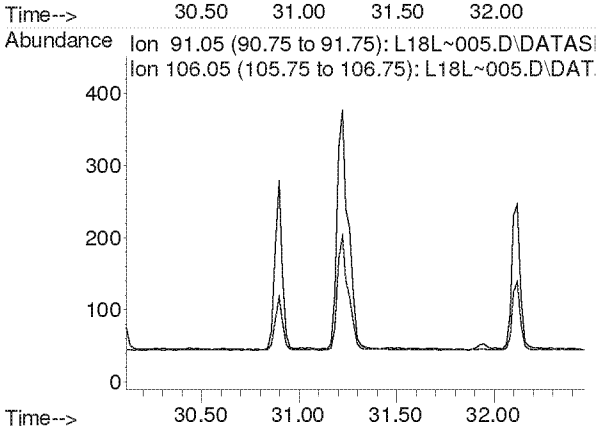


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.26 min

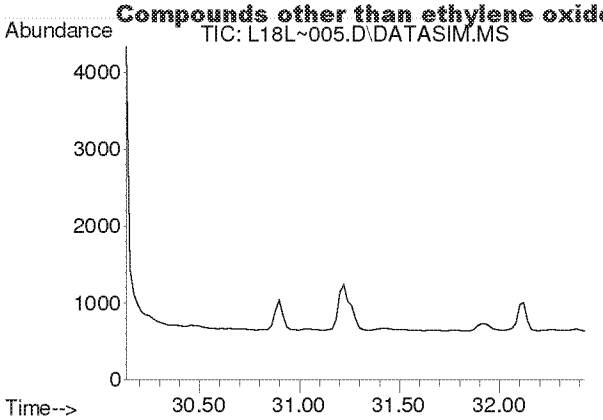
Lab File: L18L~005.D
Acq: 27 Dec 2018 7:35 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.4



Compounds other than ethylene oxide were not quantitated.

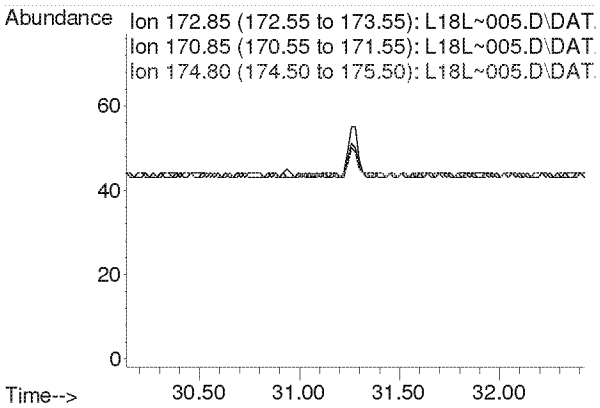


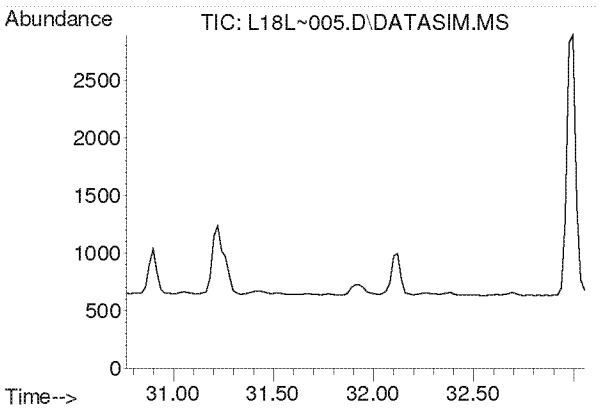
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L18L~005.D
Acq: 27 Dec 2018 7:35 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	49.0



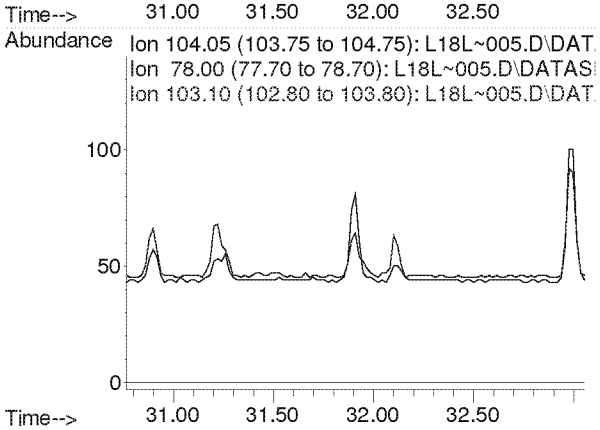


#53
Styrene
Concen: N.D.
Expected RT: 31.91 min

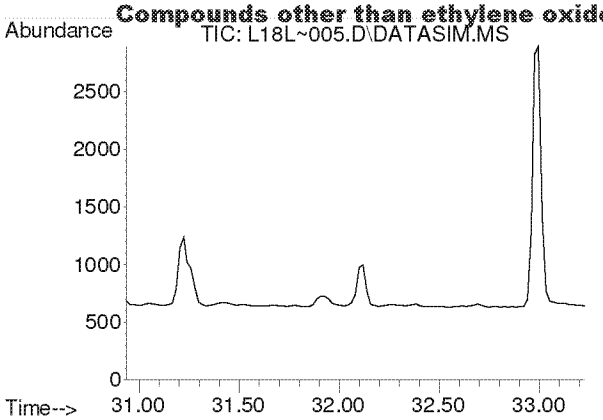
Lab File: L18L~005.D
Acq: 27 Dec 2018 7:35 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	45.6
103	0.0



Compounds other than ethylene oxide were not quantitated.

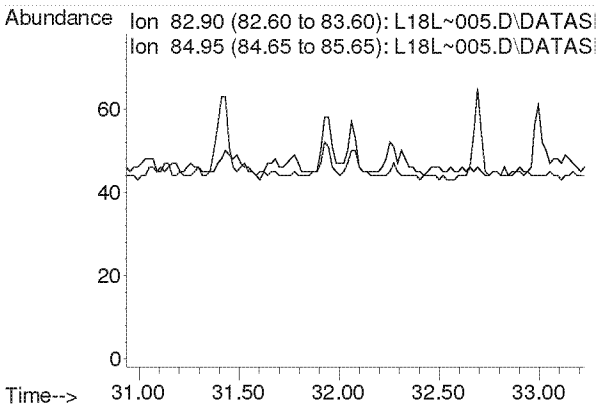


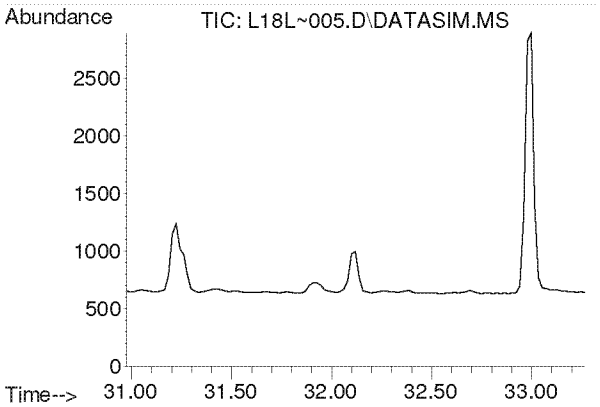
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L18L~005.D
Acq: 27 Dec 2018 7:35 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.9



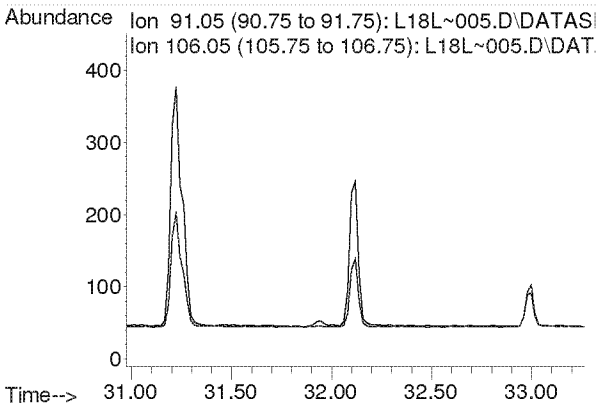


#55
o-Xylene
Concen: N.D.
Expected RT: 32.12 min

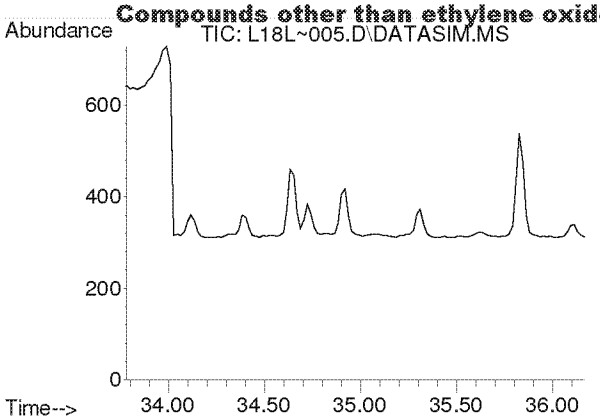
Lab File: L18L~005.D
Acq: 27 Dec 2018 7:35 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.2



Compounds other than ethylene oxide were not quantitated.

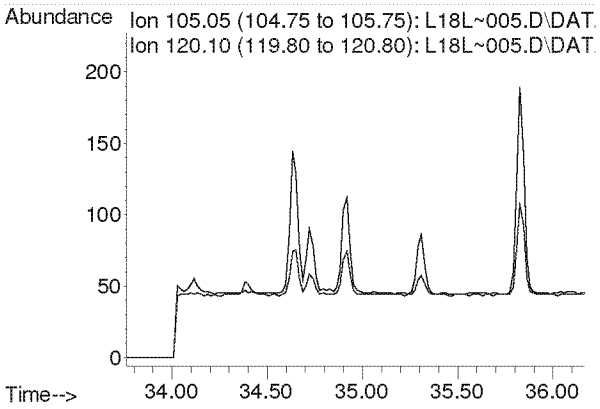


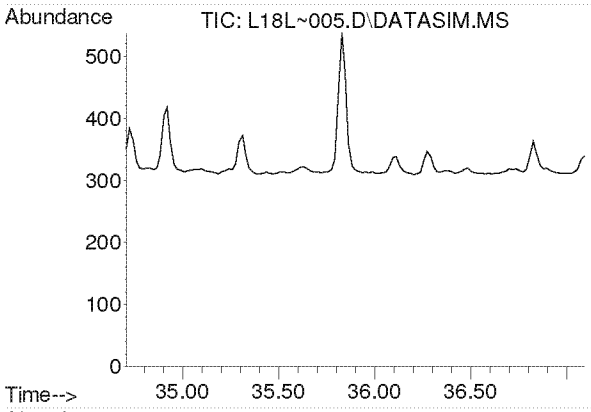
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.92 min

Lab File: L18L~005.D
Acq: 27 Dec 2018 7:35 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	45.0



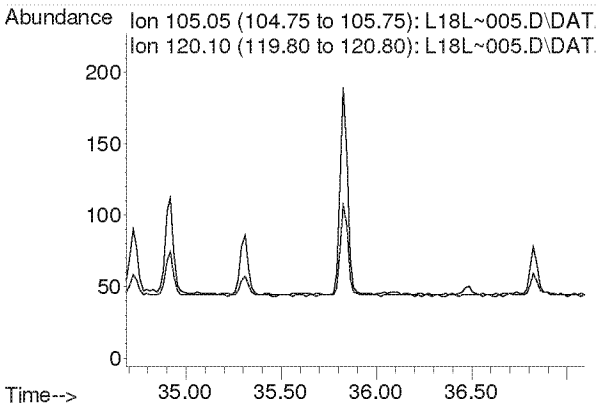


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

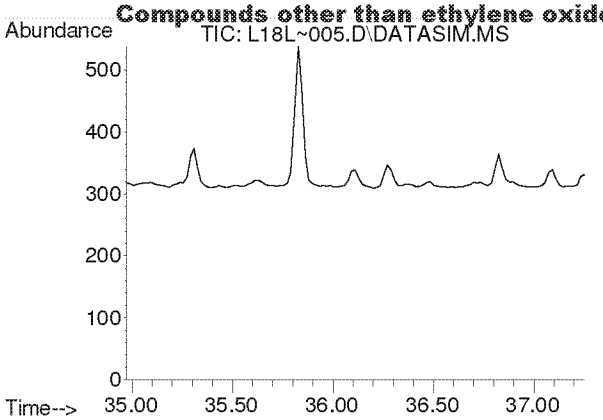
Lab File: L18L~005.D
Acq: 27 Dec 2018 7:35 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	42.8



Compounds other than ethylene oxide were not quantitated.

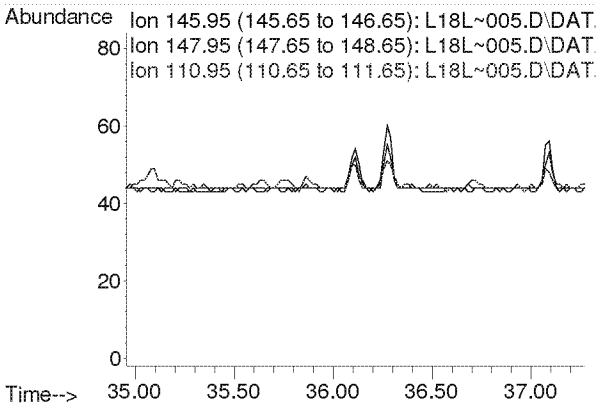


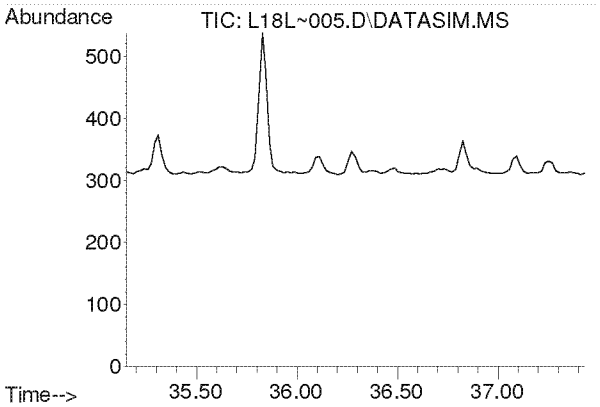
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.11 min

Lab File: L18L~005.D
Acq: 27 Dec 2018 7:35 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.5



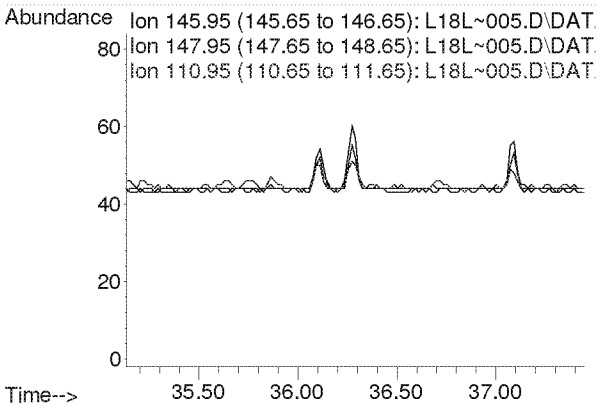


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

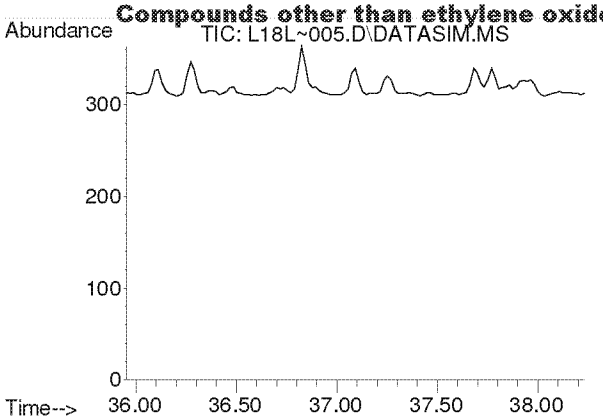
Lab File: L18L~005.D
Acq: 27 Dec 2018 7:35 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	39.5



Compounds other than ethylene oxide were not quantitated.

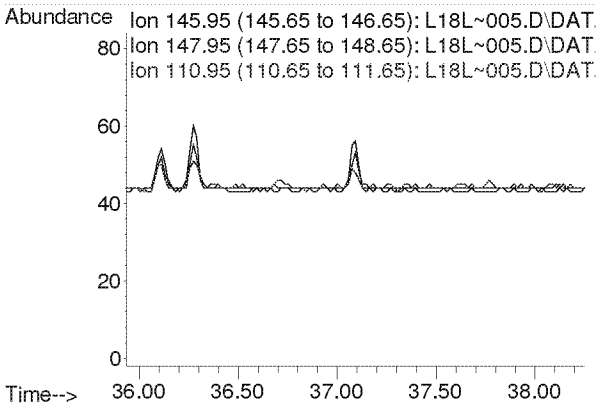


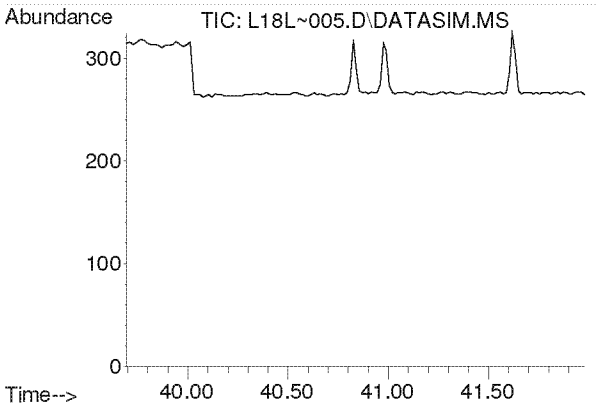
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.09 min

Lab File: L18L~005.D
Acq: 27 Dec 2018 7:35 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	41.4



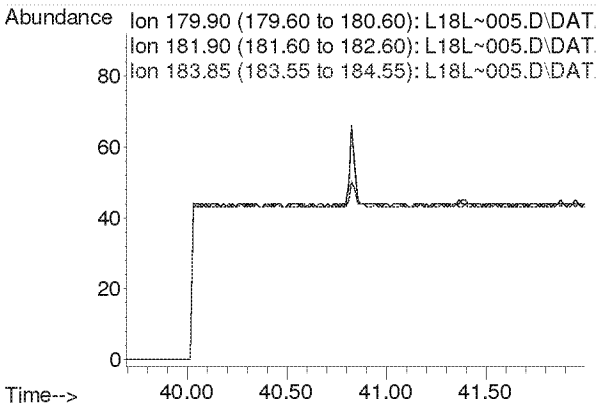


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

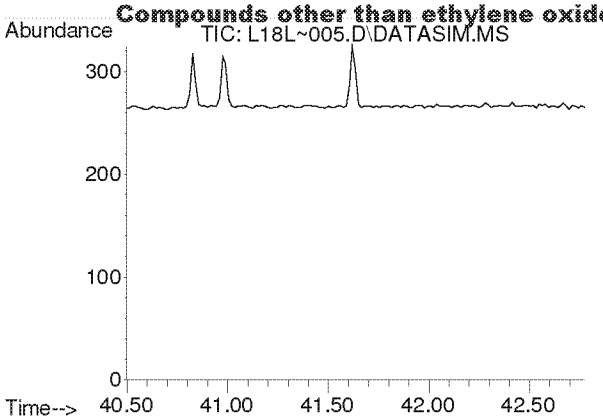
Lab File: L18L~005.D
Acq: 27 Dec 2018 7:35 pm

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	95.1
184	30.7



Compounds other than ethylene oxide were not quantitated.

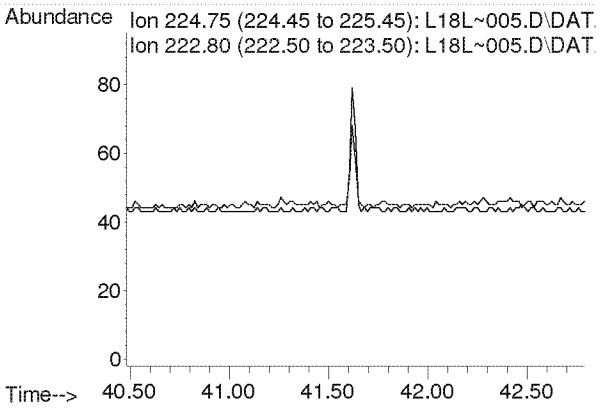


#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.64 min

Lab File: L18L~005.D
Acq: 27 Dec 2018 7:35 pm

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 : Y:\MASS SPEC 1 DATA\L18L~\
Data File : L18L~006.D
Acq On : 27 Dec 2018 8:36 pm
Operator : MAH
Sample : 8121130-06
Misc : WEST NEIGHBORHOOD 12/7/18
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 23 14:40:55 2019
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.971	66	55918	4.7700 ppbv	-0.02
29) IS-1,4-Difluorobenzene	23.133	114	133549	4.9900 ppbv	-0.02
43) IS-Chlorobenzene-d5	30.099	117	97089	4.7400 ppbv	0.00

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. d	
8) 1,3-Butadiene	0.000	54	0	N.D. d	
9) Ethylene oxide	12.442	29	469m	0.1403 ppbv	
10) Bromomethane	0.000	94	0	N.D. d	
11) Chloroethane	0.000	64	0	N.D. 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. 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. d	
21) 1,1-Dichloroethane	0.000	63	0	N.D. 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. d	
26) Chloroform	0.000	83	0	N.D. d	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D. d	
28) 1,2-Dichloroethane	0.000	62	0	N.D. d	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D. 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. 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. d	
37) Trichloroethylene	0.000	130	0	N.D. d	
38) Methyl Methacrylate	0.000	41	0	N.D. d	
39) cis-1,3-Dichloropropene	0.000	75	0	N.D. d	
40) Methyl Isobutyl Ketone	0.000	43	0	N.D. d	
41) trans-1,3-Dichloropropene	0.000	75	0	N.D. d	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D. d	
44) Toluene	0.000	91	0	N.D. d	
45) Dibromochloromethane	0.000	129	0	N.D. d	
46) 1,2-Dibromoethane	0.000	107	0	N.D. 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. d	
50) Ethylbenzene	0.000	91	0	N.D. d	

RMB 1/25/19

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : Y:\MASS SPEC 1 DATA\L18L~\
Data File : L18L~006.D
Acq On : 27 Dec 2018 8:36 pm
Operator : MAH
Sample : 8121130-06
Misc : WEST NEIGHBORHOOD 12/7/18
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 23 14:40:55 2019
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
Response via : Initial Calibration

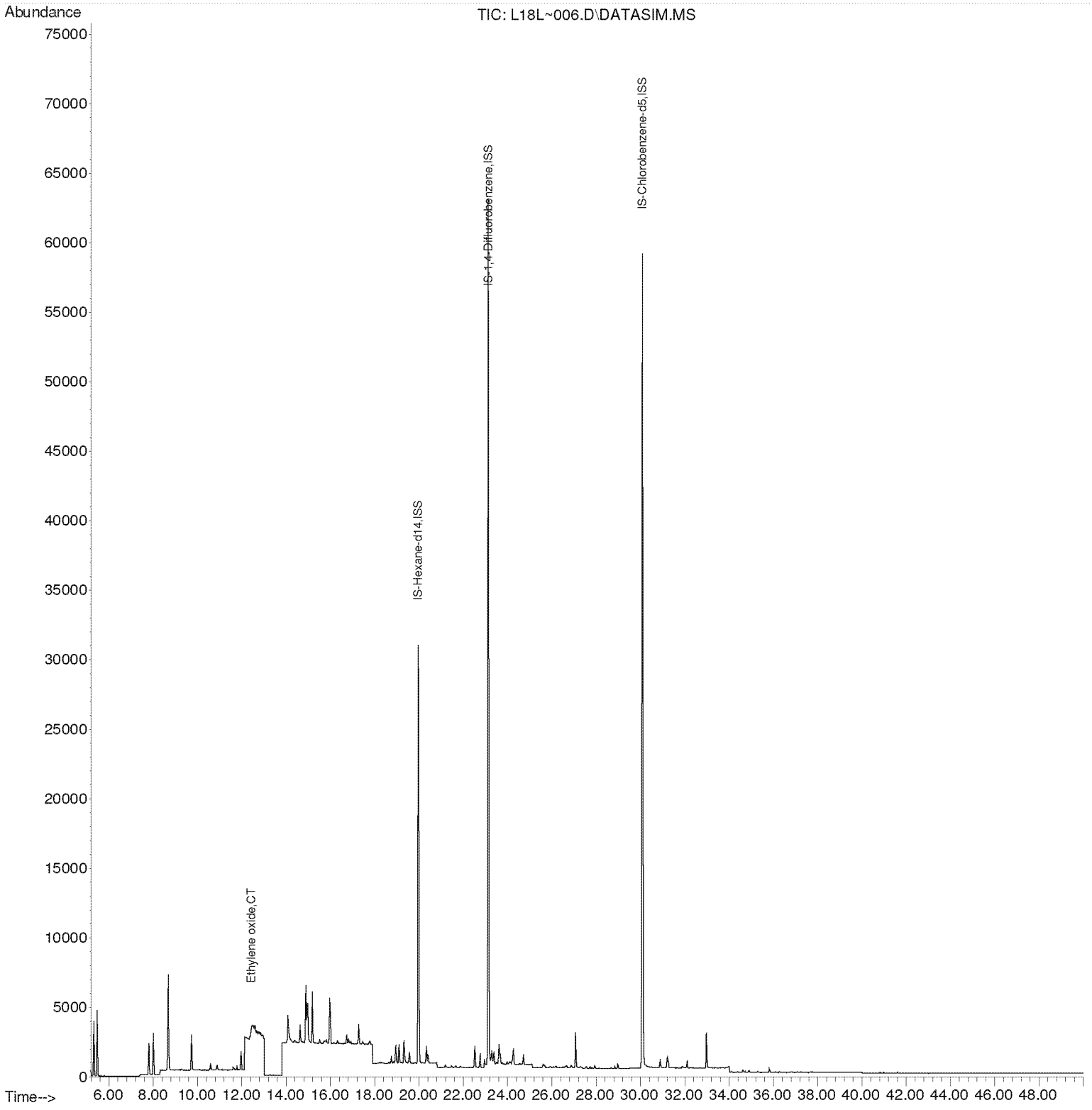
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D.	d	
52) Bromoform	0.000	173	0	N.D.	d	
53) Styrene	0.000	104	0	N.D.	d	
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	d	
55) o-Xylene	0.000	91	0	N.D.	d	
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	d	
57) 1,2,4-Trimethylbenzene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

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

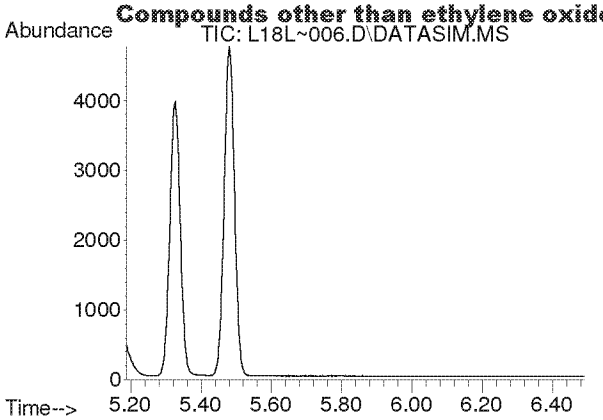
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L18L~\
Data File : L18L~006.D
Acq On : 27 Dec 2018 8:36 pm
Operator : MAH
Sample : 8121130-06
Misc : WEST NEIGHBORHOOD 12/7/18
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 03 12:18:50 2019
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
Response via : Initial Calibration



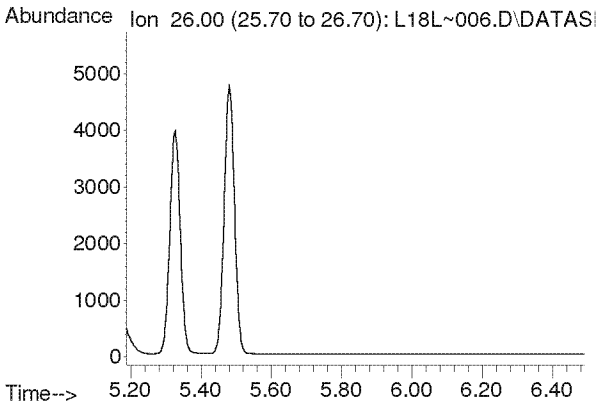
Compounds other than ethylene oxide were not quantitated.

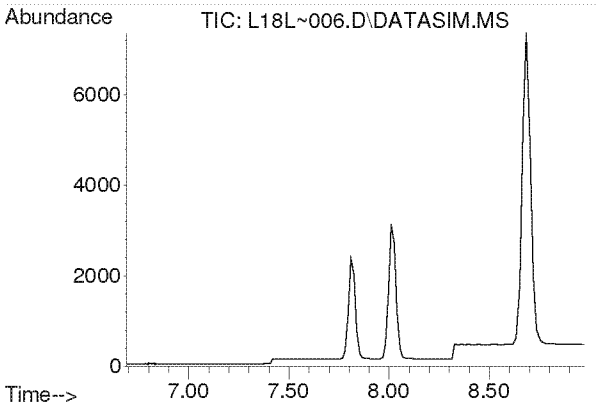


#2
Acetylene
Concen: N.D.
Expected RT: 5.42 min

Lab File: L18L~006.D
Acq: 27 Dec 2018 8:36 pm

Tgt Ion: 26



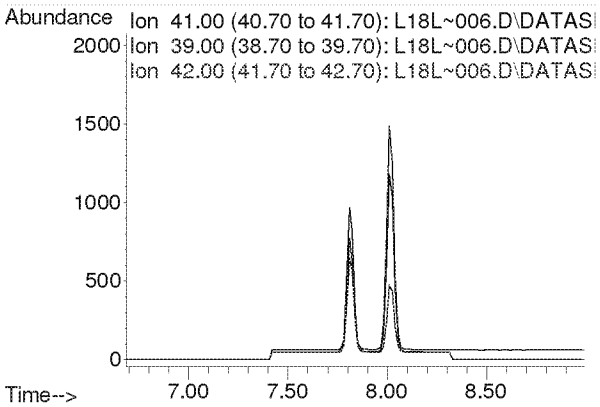


#3
Propylene
Concen: N.D.
Expected RT: 7.84 min

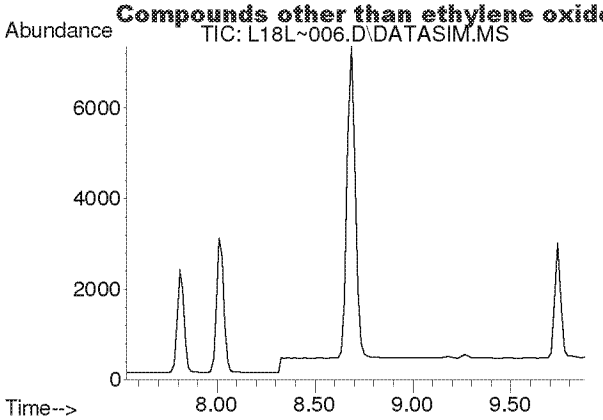
Lab File: L18L~006.D
Acq: 27 Dec 2018 8:36 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	78.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

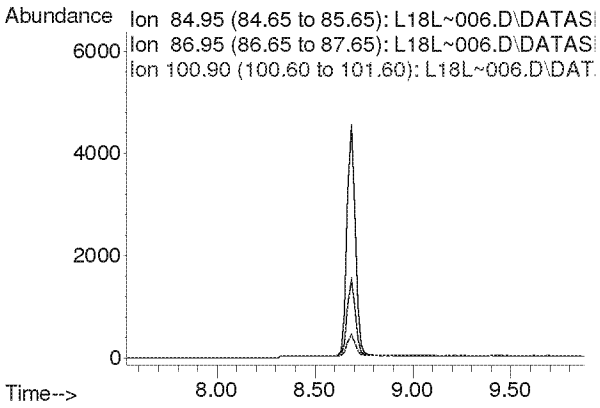


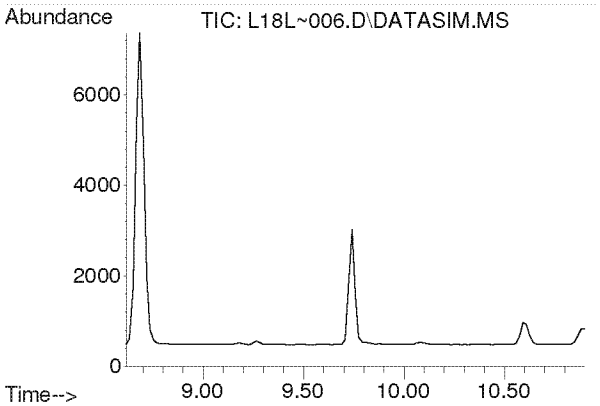
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L18L~006.D
Acq: 27 Dec 2018 8:36 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	8.9



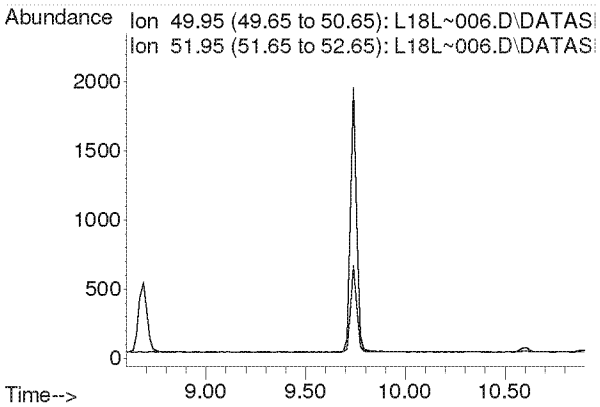


#5
Chloromethane
Concen: N.D.
Expected RT: 9.76 min

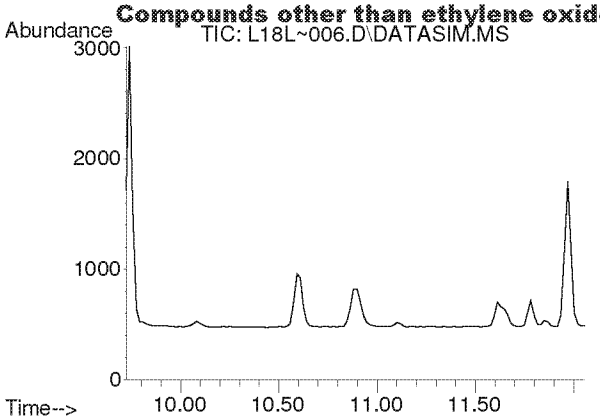
Lab File: L18L~006.D
Acq: 27 Dec 2018 8:36 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

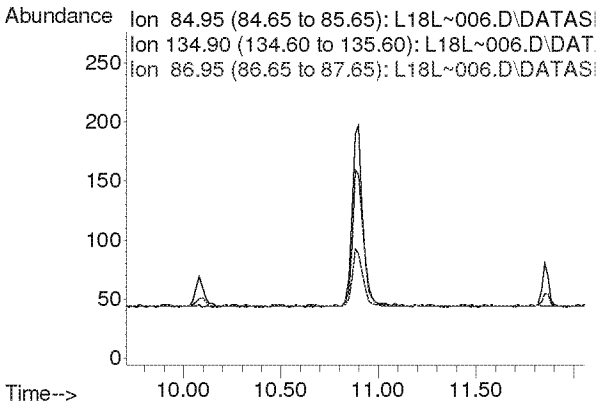


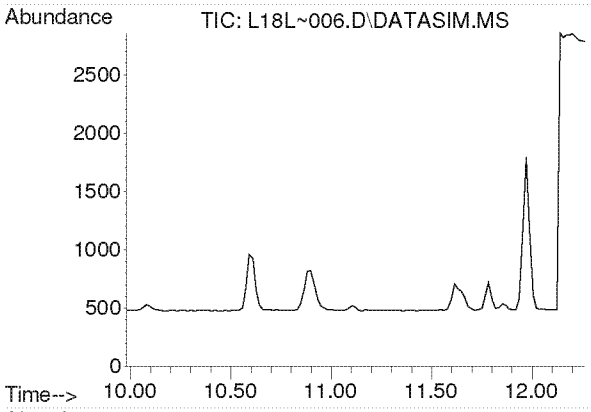
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L18L~006.D
Acq: 27 Dec 2018 8:36 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.1
87	32.1



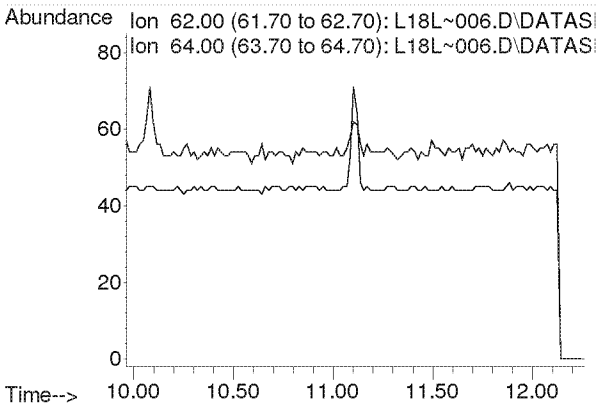


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

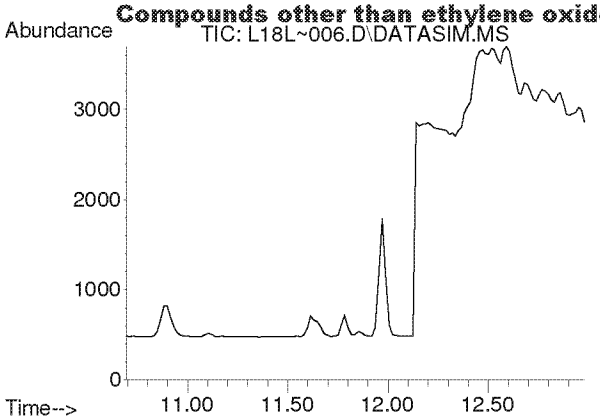
Lab File: L18L~006.D
Acq: 27 Dec 2018 8:36 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.8



Compounds other than ethylene oxide were not quantitated.

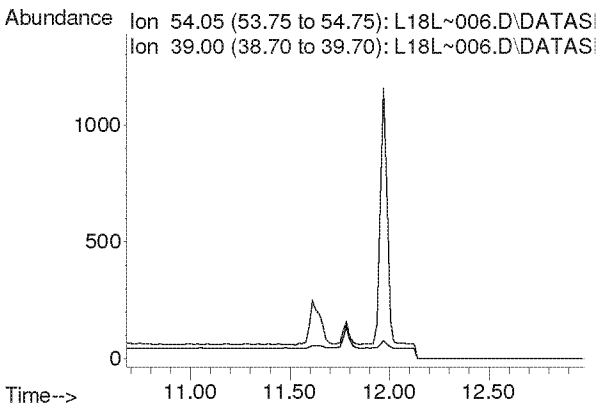


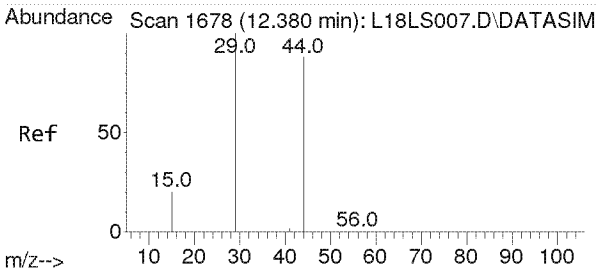
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L18L~006.D
Acq: 27 Dec 2018 8:36 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	105.4

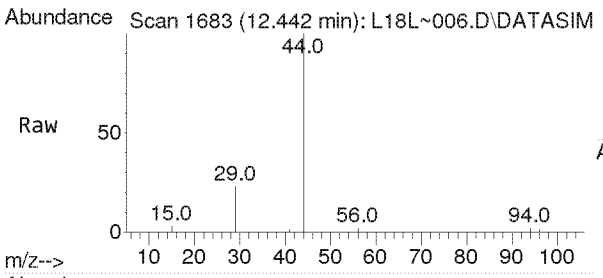


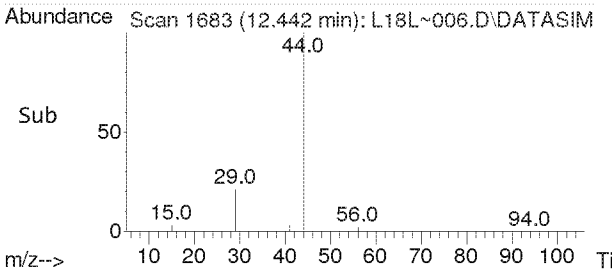


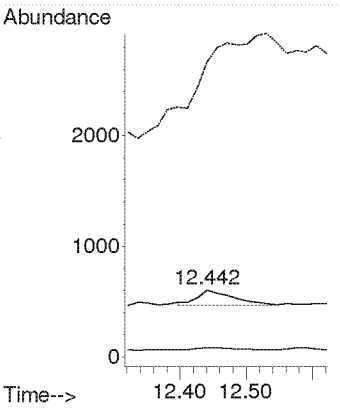
#9
Ethylene oxide
Concen: 0.140 ppbv m
RT: 12.442 min Scan# 1683
Delta R.T. 0.061 min
Lab File: L18L~006.D
Acq: 27 Dec 2018 8:36 pm

Tgt Ion: 29 Resp: 469

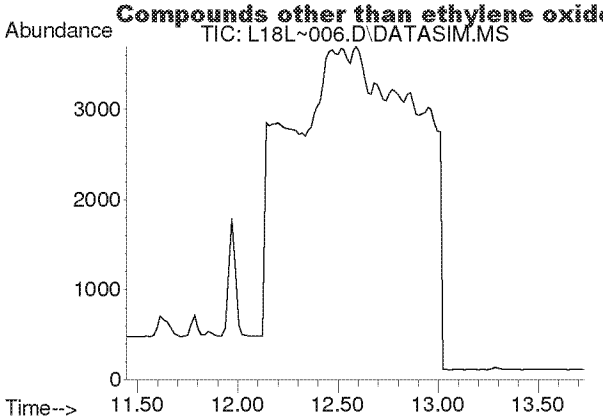
Ion	Ratio	Lower	Upper
29	100		
15	0.0	16.2	24.4#
44	0.0	72.0	108.0#







Compounds other than ethylene oxide were not quantitated.

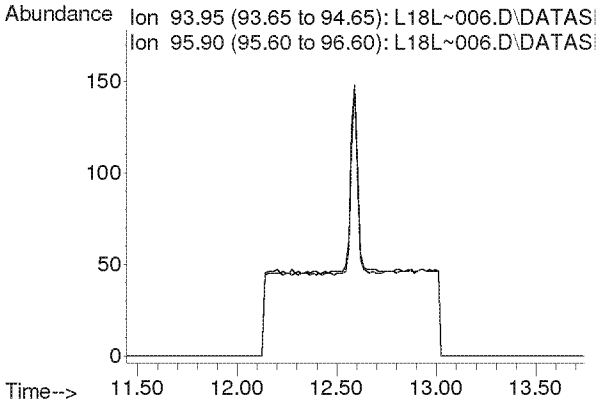


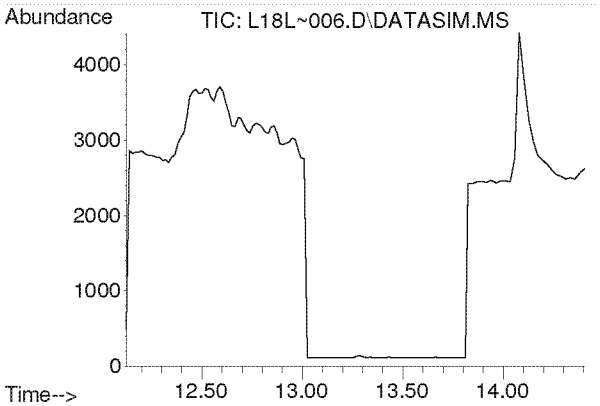
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L18L~006.D
Acq: 27 Dec 2018 8:36 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	93.9



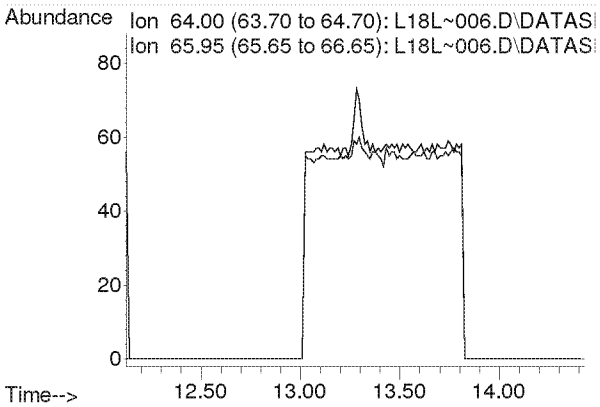


#11
Chloroethane
Concen: N.D.
Expected RT: 13.27 min

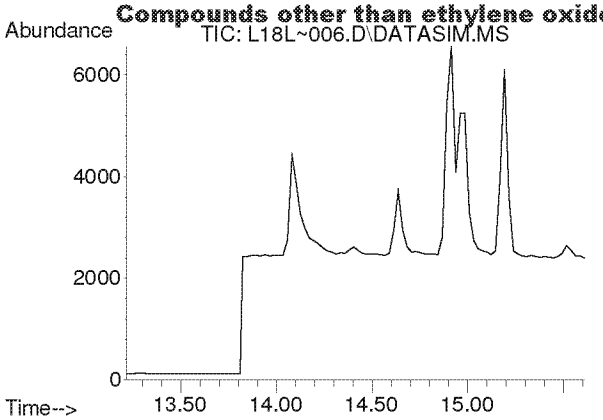
Lab File: L18L~006.D
Acq: 27 Dec 2018 8:36 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.0



Compounds other than ethylene oxide were not quantitated.

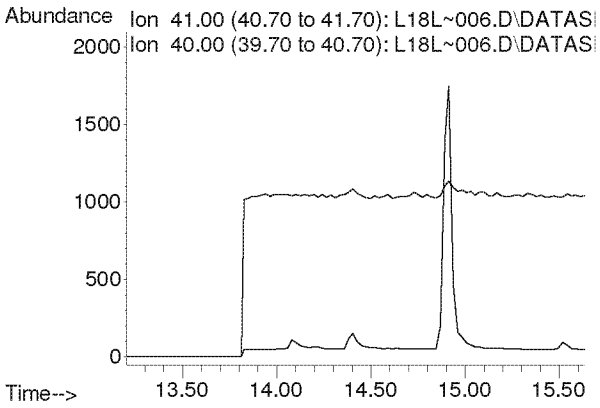


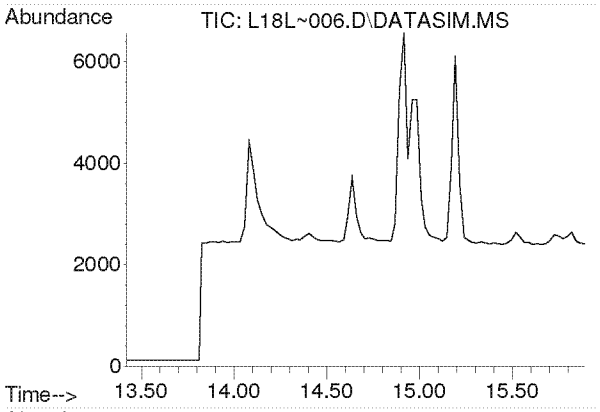
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.33 min

Lab File: L18L~006.D
Acq: 27 Dec 2018 8:36 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	50.9



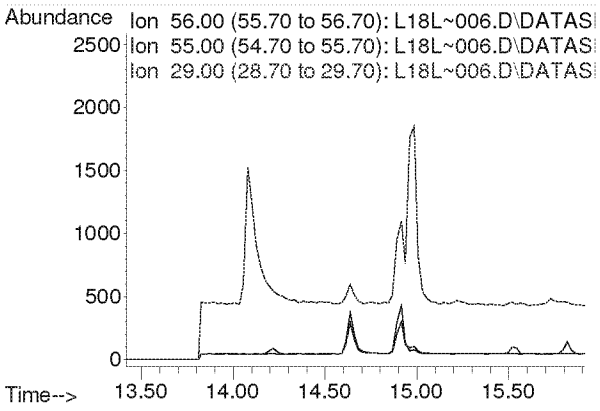


#13
Acrolein
Concen: N.D.
Expected RT: 14.61 min

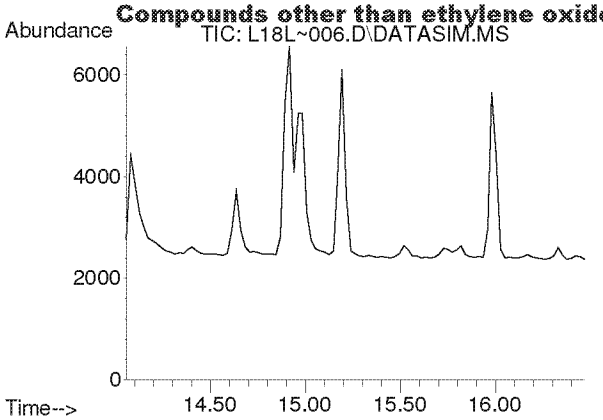
Lab File: L18L~006.D
Acq: 27 Dec 2018 8:36 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	75.4
29	52.9



Compounds other than ethylene oxide were not quantitated.

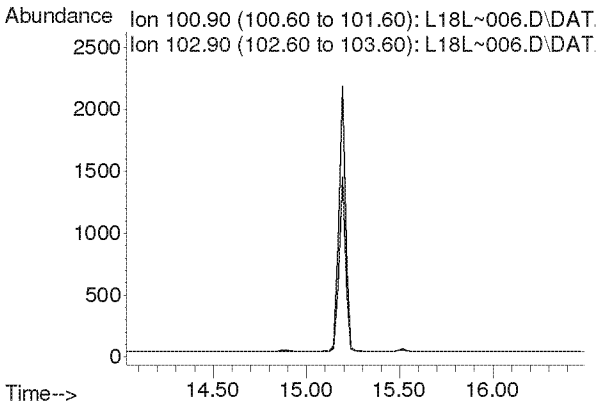


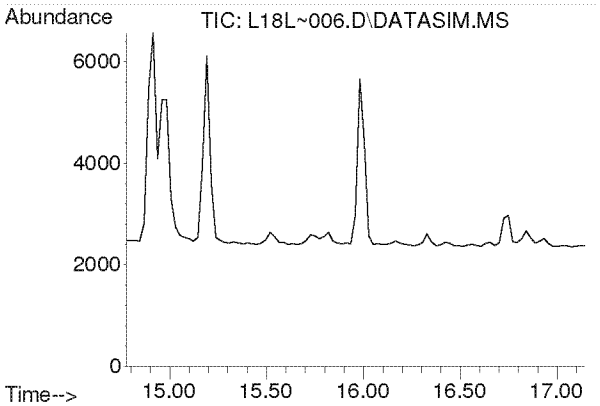
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L18L~006.D
Acq: 27 Dec 2018 8:36 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



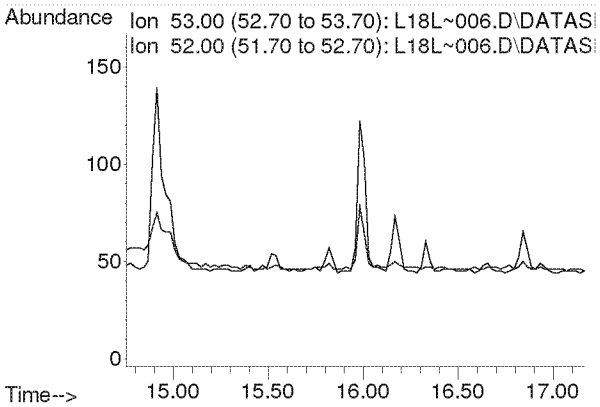


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.91 min

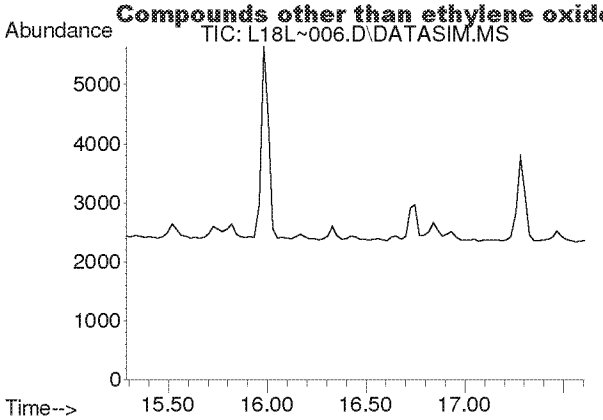
Lab File: L18L~006.D
Acq: 27 Dec 2018 8:36 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	85.4



Compounds other than ethylene oxide were not quantitated.

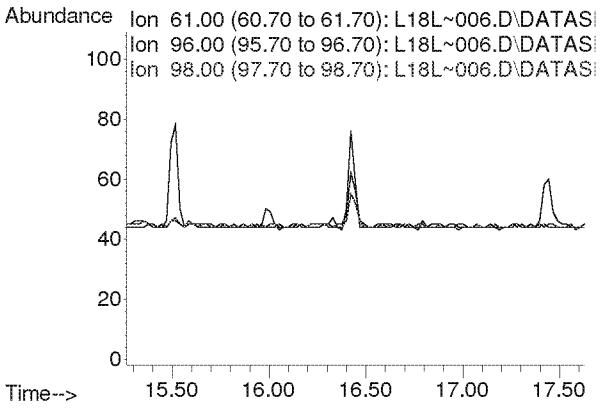


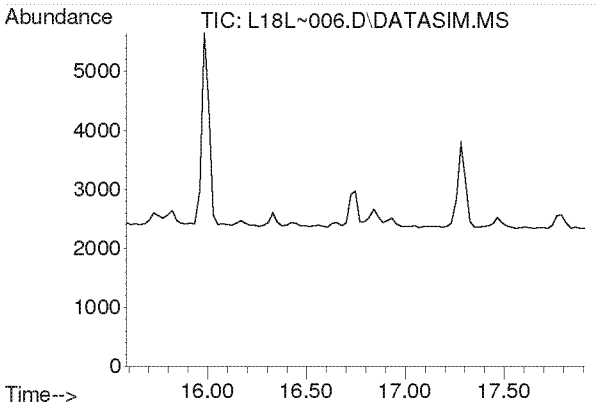
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L18L~006.D
Acq: 27 Dec 2018 8:36 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	58.3
98	37.4



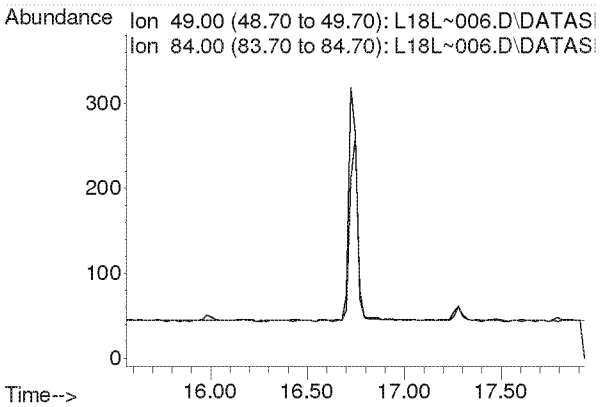


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.72 min

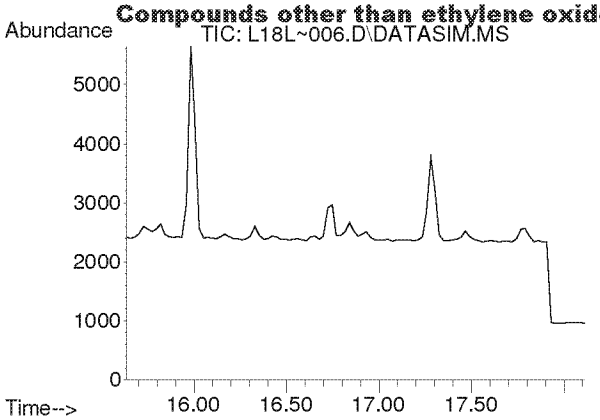
Lab File: L18L~006.D
Acq: 27 Dec 2018 8:36 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	76.4



Compounds other than ethylene oxide were not quantitated.

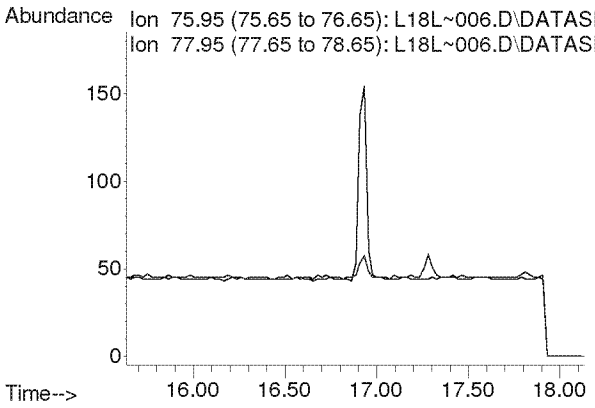


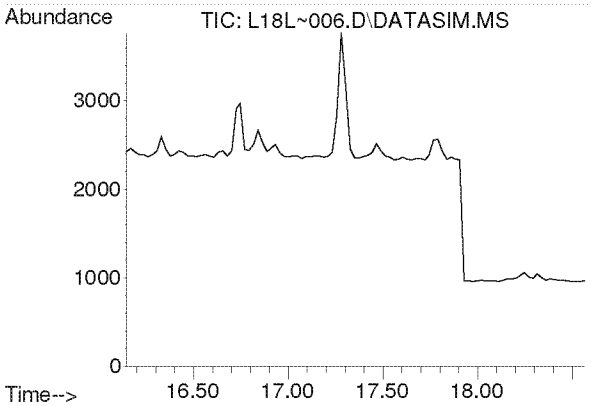
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L18L~006.D
Acq: 27 Dec 2018 8:36 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.1



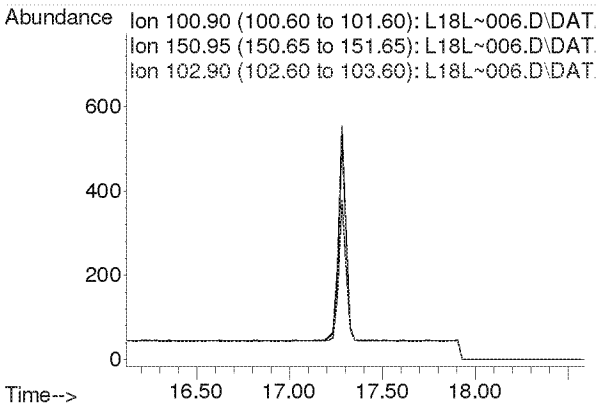


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

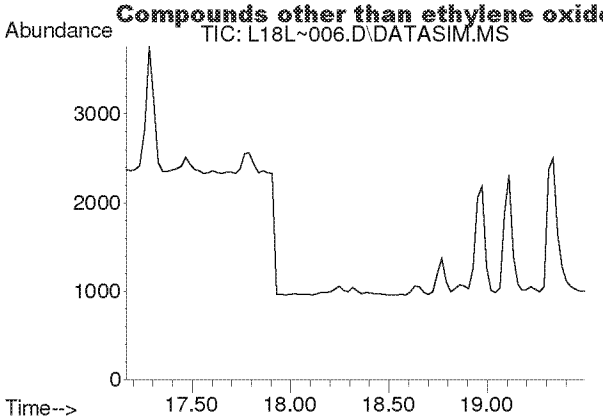
Lab File: L18L~006.D
Acq: 27 Dec 2018 8:36 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	95.3
103	64.1



Compounds other than ethylene oxide were not quantitated.

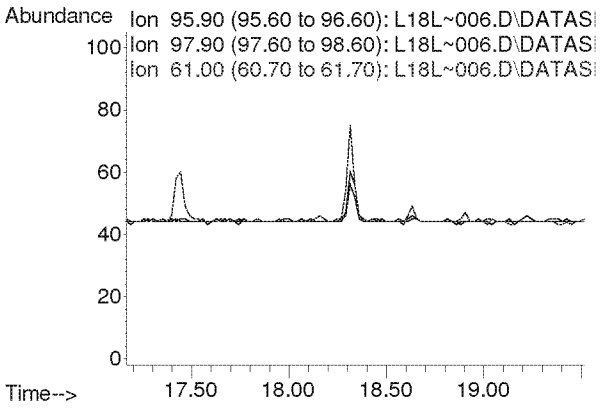


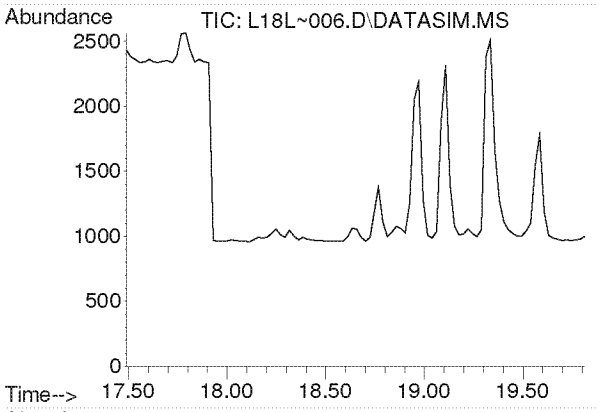
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.31 min

Lab File: L18L~006.D
Acq: 27 Dec 2018 8:36 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	63.7
61	159.2



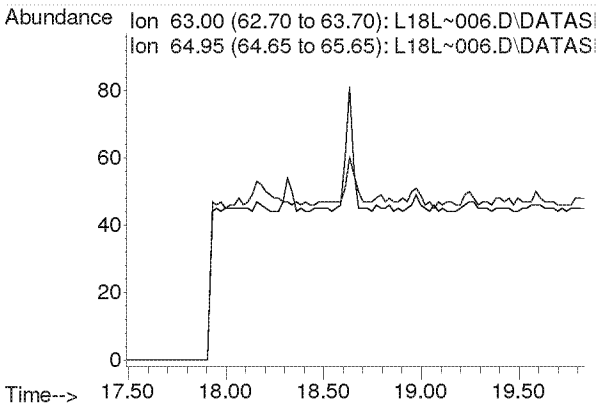


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

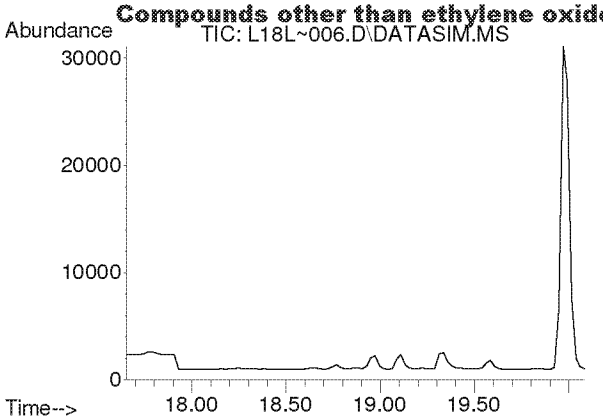
Lab File: L18L~006.D
Acq: 27 Dec 2018 8:36 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

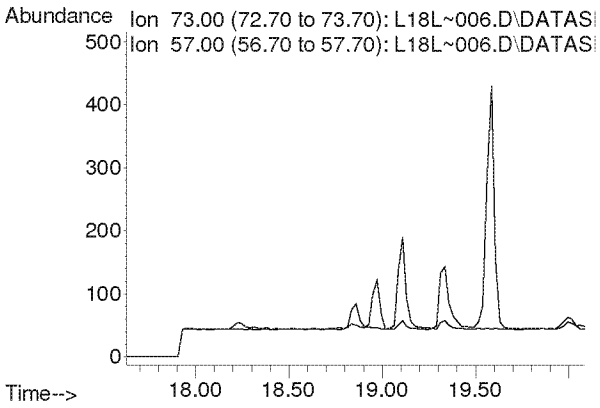


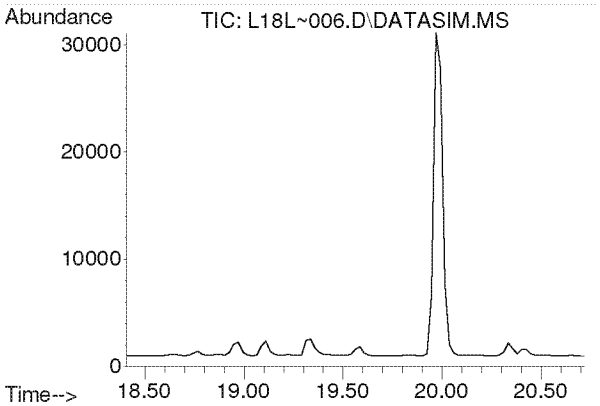
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L18L~006.D
Acq: 27 Dec 2018 8:36 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.4



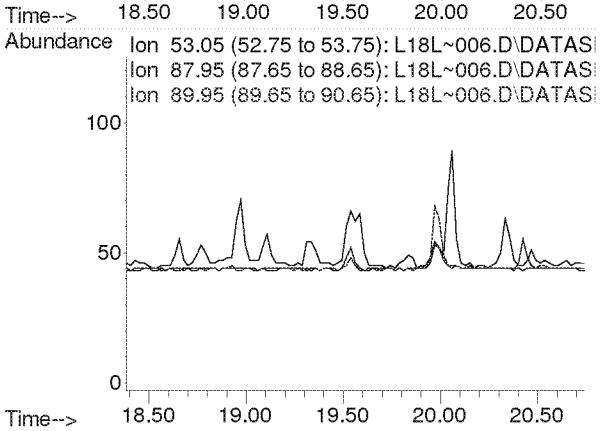


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

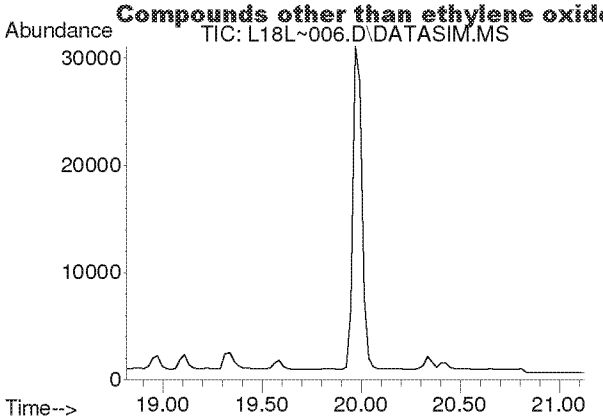
Lab File: L18L~006.D
Acq: 27 Dec 2018 8:36 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	51.8
90	16.8



Compounds other than ethylene oxide were not quantitated.

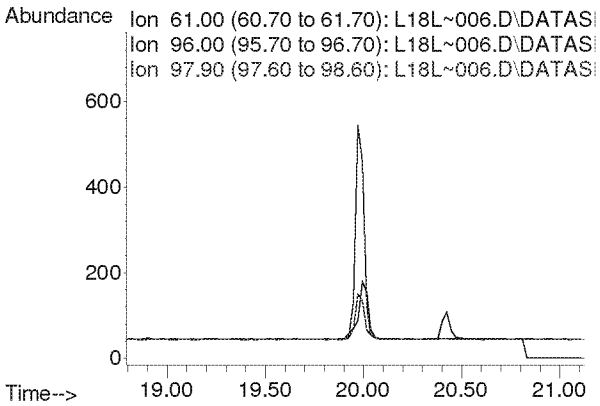


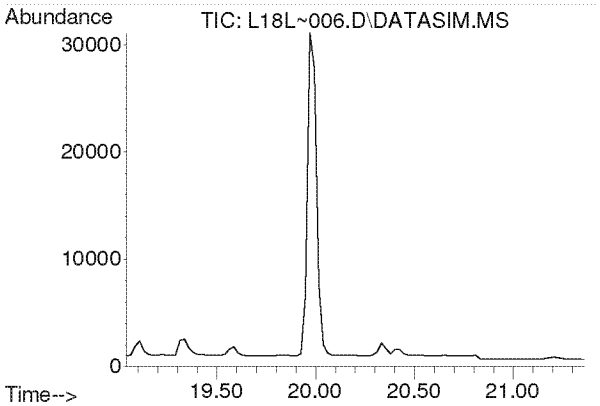
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L18L~006.D
Acq: 27 Dec 2018 8:36 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.7
98	45.2



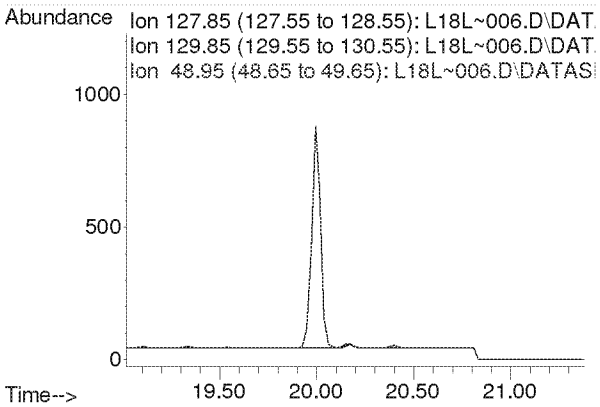


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

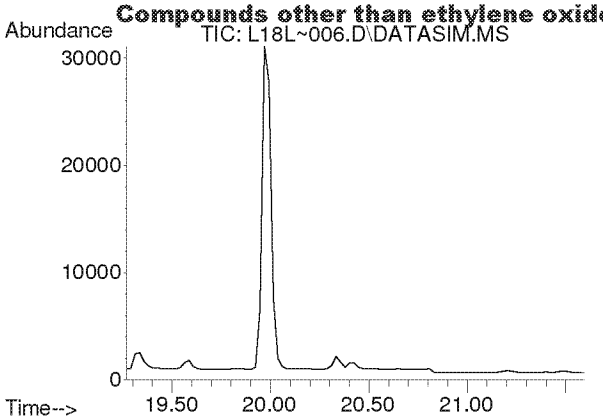
Lab File: L18L~006.D
Acq: 27 Dec 2018 8:36 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	171.2



Compounds other than ethylene oxide were not quantitated.

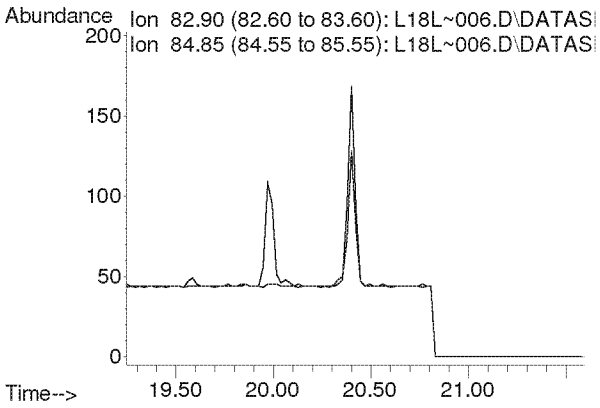


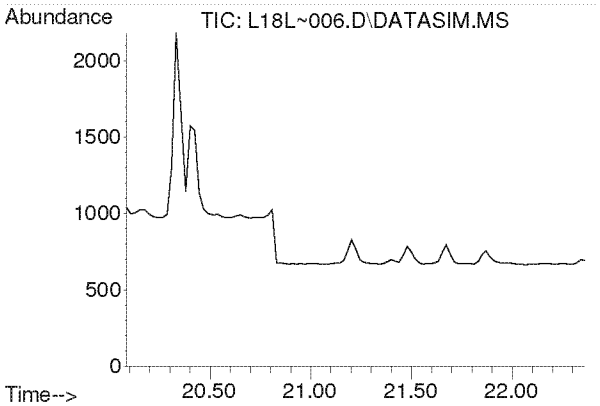
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L18L~006.D
Acq: 27 Dec 2018 8:36 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



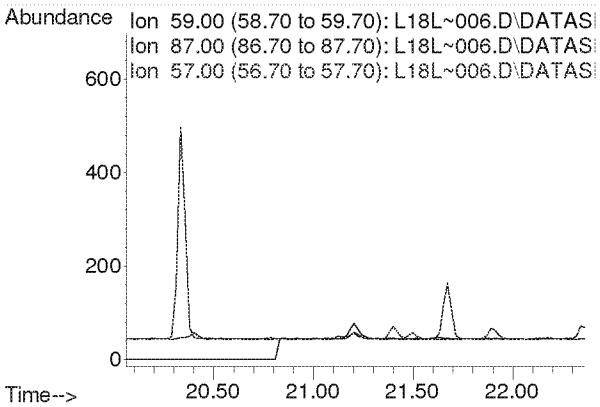


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.16 min

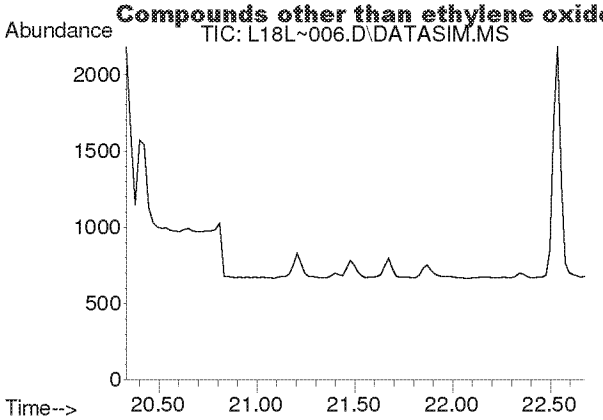
Lab File: L18L~006.D
Acq: 27 Dec 2018 8:36 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	37.5
57	33.8



Compounds other than ethylene oxide were not quantitated.

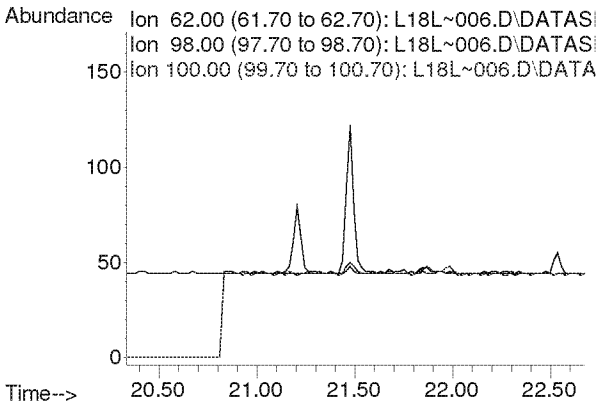


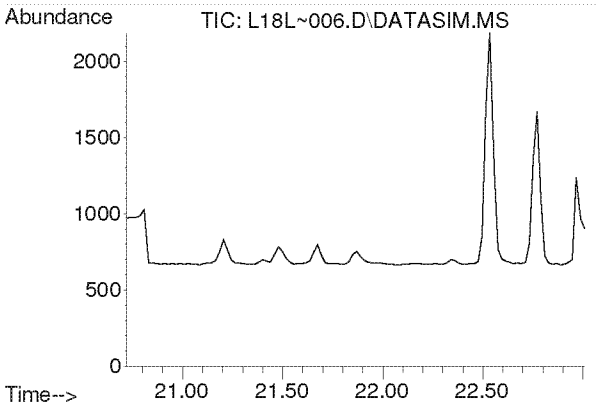
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L18L~006.D
Acq: 27 Dec 2018 8:36 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.4
100	4.0



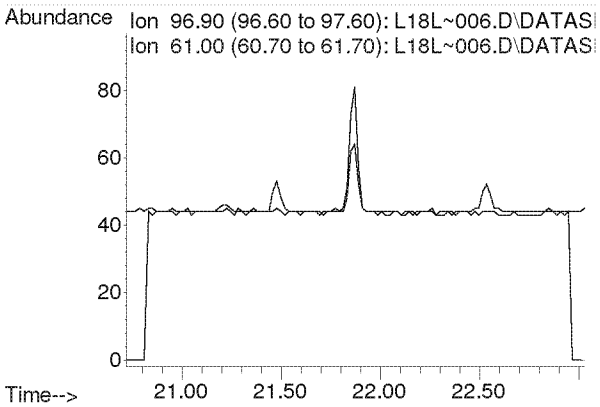


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

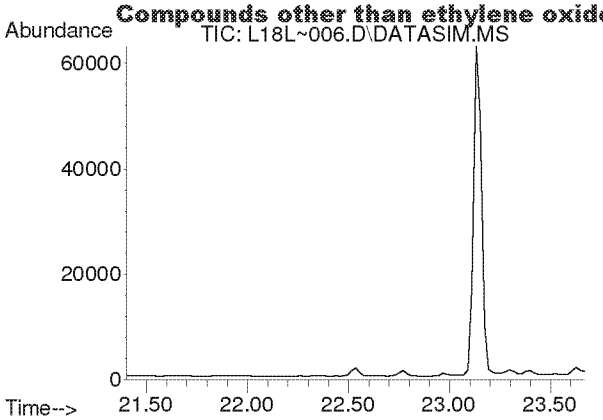
Lab File: L18L~006.D
Acq: 27 Dec 2018 8:36 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	60.5



Compounds other than ethylene oxide were not quantitated.

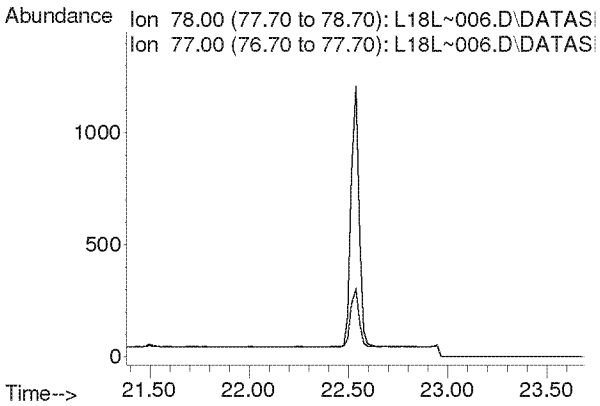


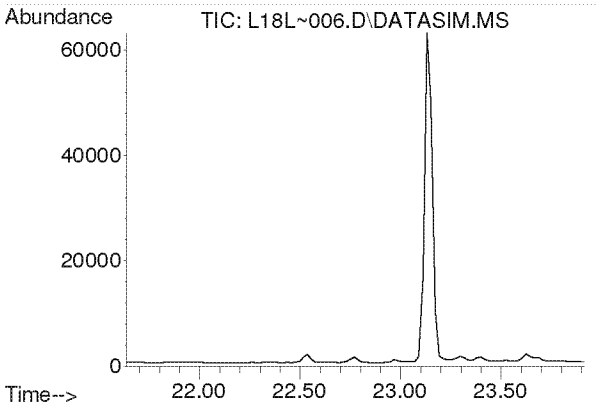
#31
Benzene
Concen: N.D.
Expected RT: 22.54 min

Lab File: L18L~006.D
Acq: 27 Dec 2018 8:36 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.7



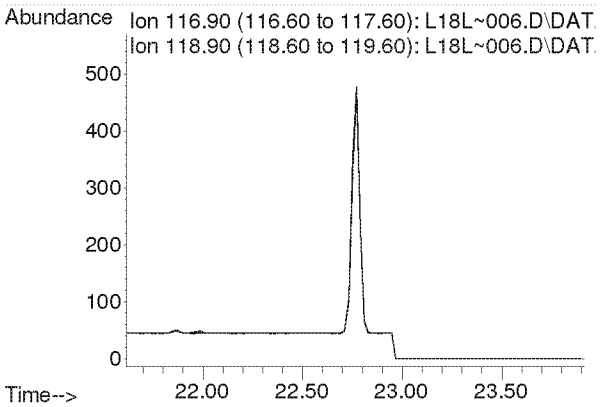


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

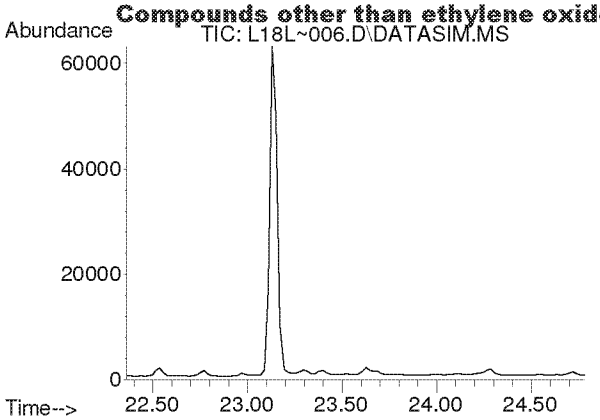
Lab File: L18L~006.D
Acq: 27 Dec 2018 8:36 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.5



Compounds other than ethylene oxide were not quantitated.

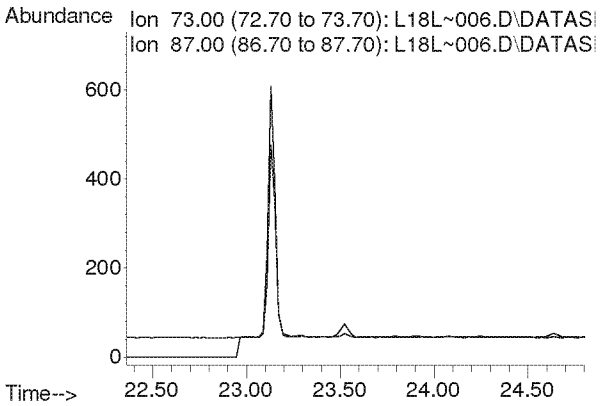


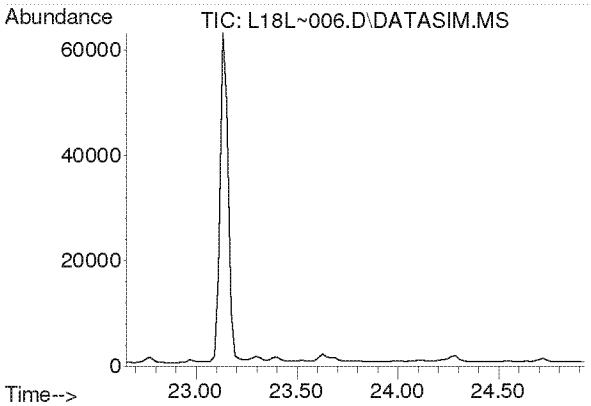
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.50 min

Lab File: L18L~006.D
Acq: 27 Dec 2018 8:36 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	24.9



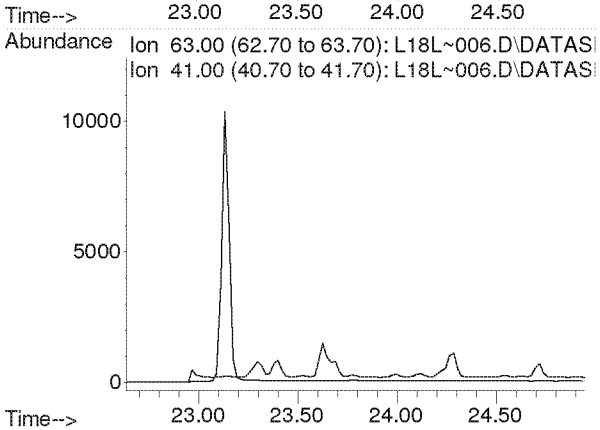


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

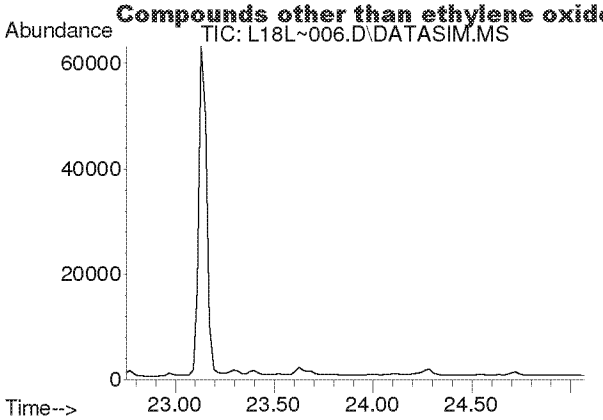
Lab File: L18L~006.D
Acq: 27 Dec 2018 8:36 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	212.8



Compounds other than ethylene oxide were not quantitated.

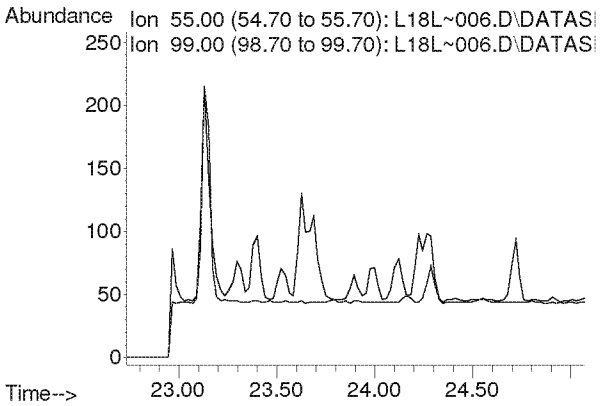


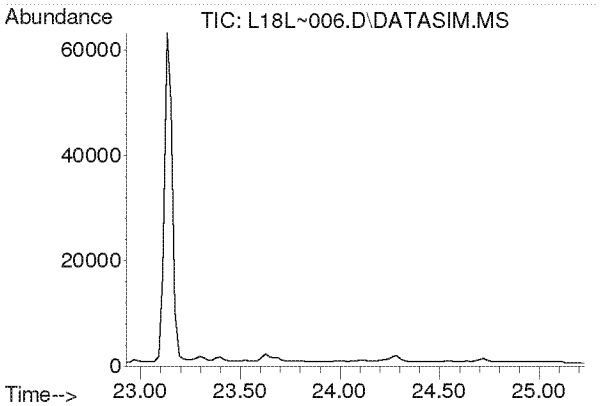
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.87 min

Lab File: L18L~006.D
Acq: 27 Dec 2018 8:36 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.1



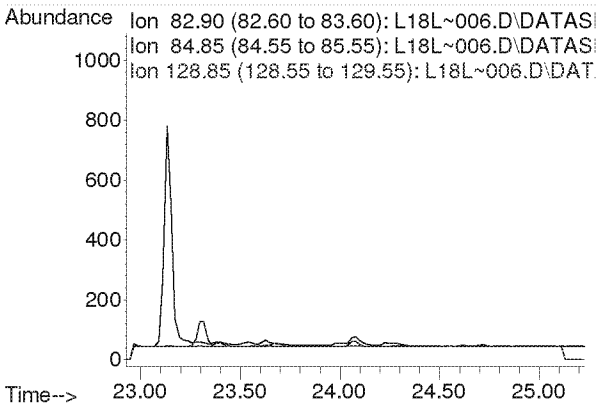


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

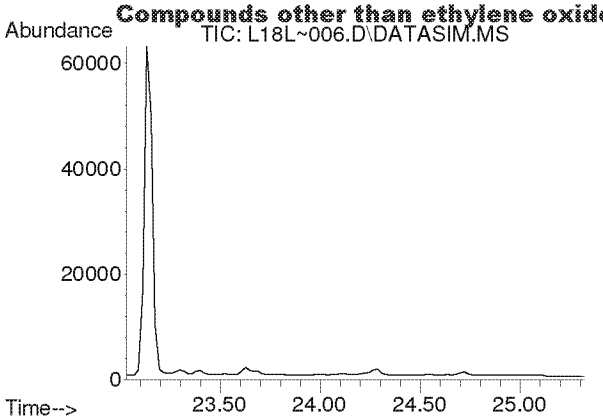
Lab File: L18L~006.D
Acq: 27 Dec 2018 8:36 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.0
129	12.4



Compounds other than ethylene oxide were not quantitated.

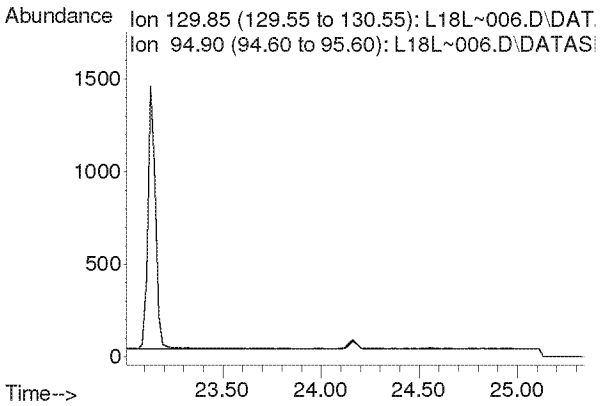


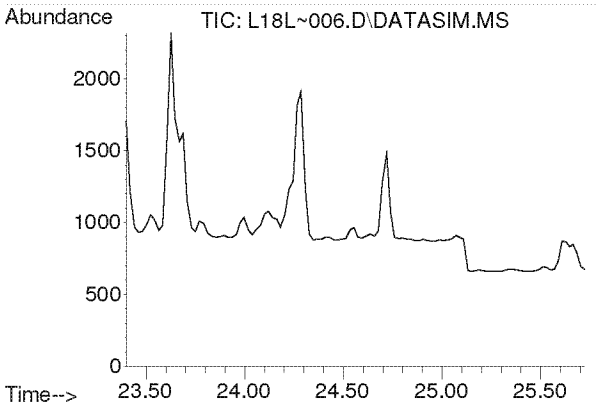
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.16 min

Lab File: L18L~006.D
Acq: 27 Dec 2018 8:36 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	110.3



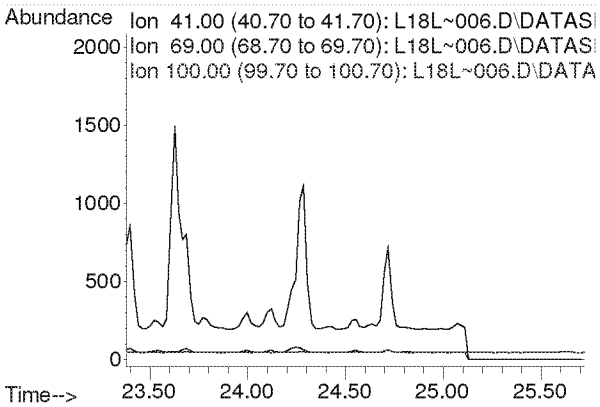


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

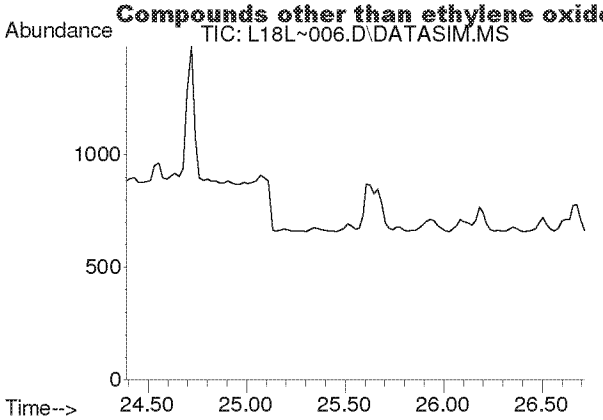
Lab File: L18L~006.D
Acq: 27 Dec 2018 8:36 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	19.9
100	5.2



Compounds other than ethylene oxide were not quantitated.

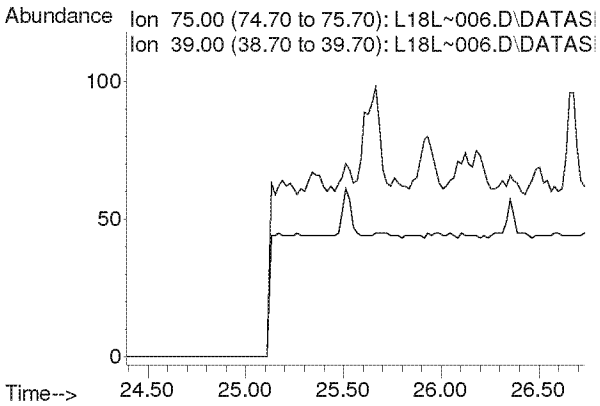


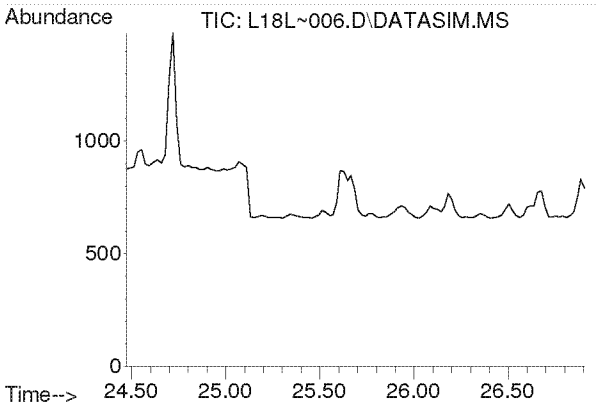
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L18L~006.D
Acq: 27 Dec 2018 8:36 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.4



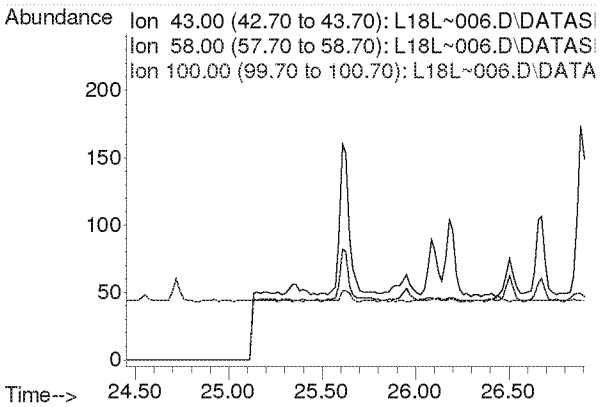


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.61 min

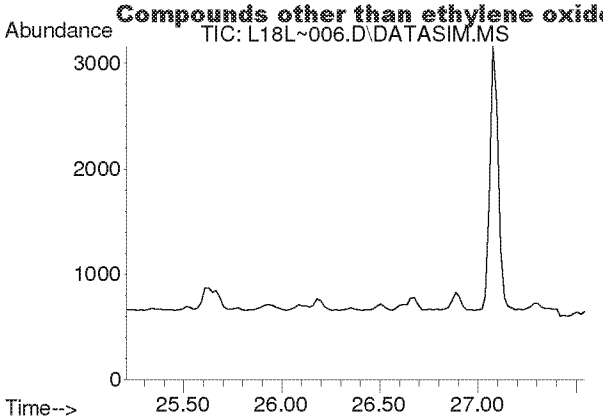
Lab File: L18L~006.D
Acq: 27 Dec 2018 8:36 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	34.2
100	7.9



Compounds other than ethylene oxide were not quantitated.

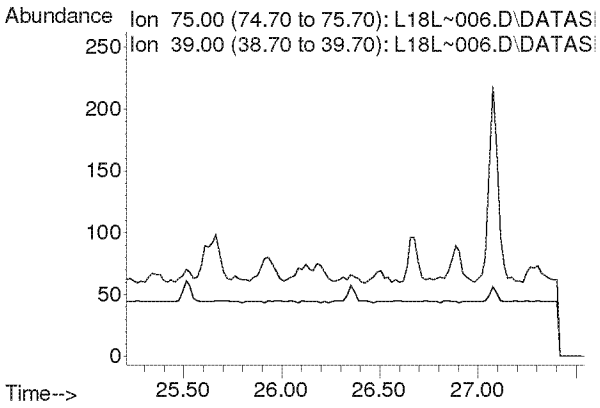


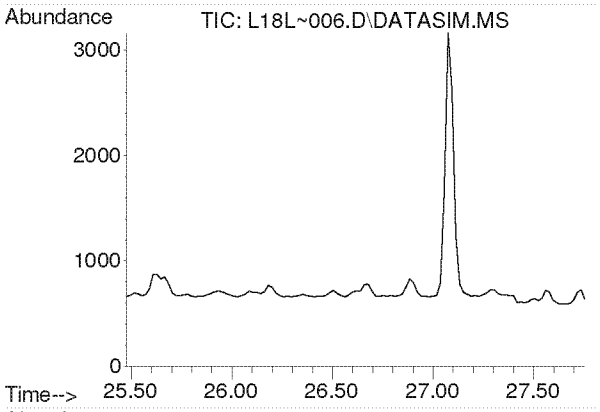
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.35 min

Lab File: L18L~006.D
Acq: 27 Dec 2018 8:36 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	50.9



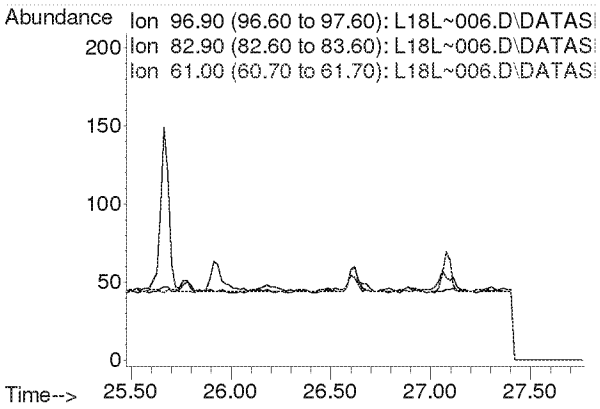


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

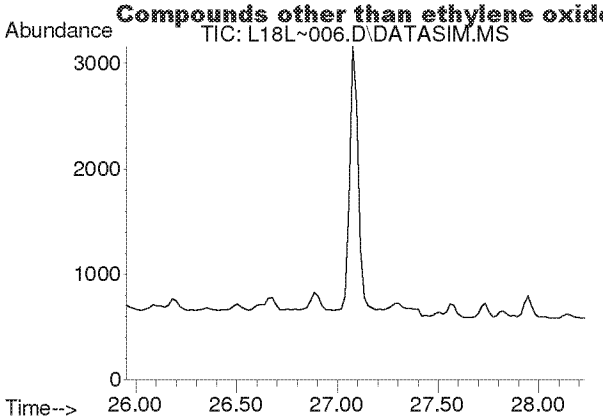
Lab File: L18L~006.D
Acq: 27 Dec 2018 8:36 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	96.1
61	63.5



Compounds other than ethylene oxide were not quantitated.

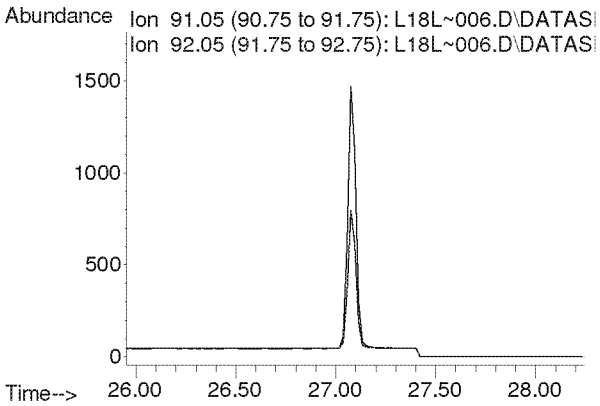


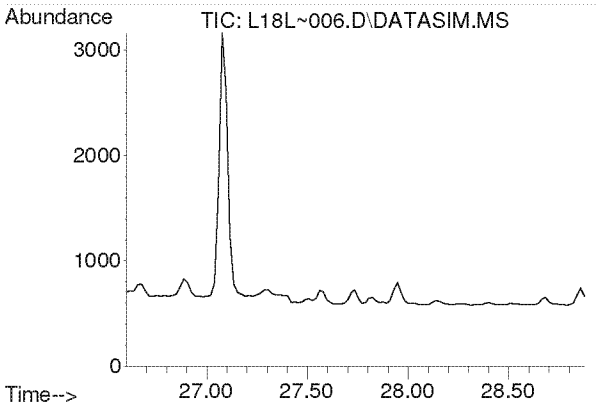
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L18L~006.D
Acq: 27 Dec 2018 8:36 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.6



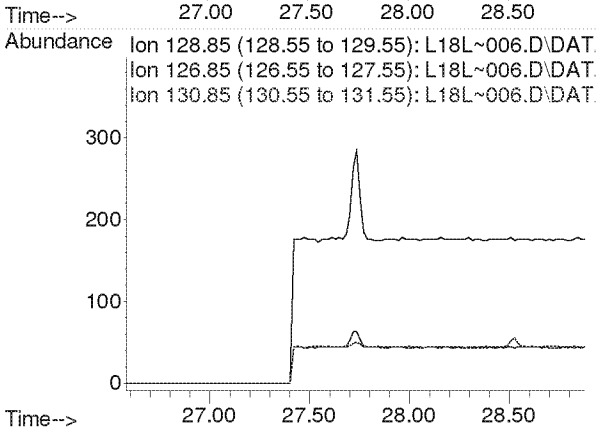


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.73 min

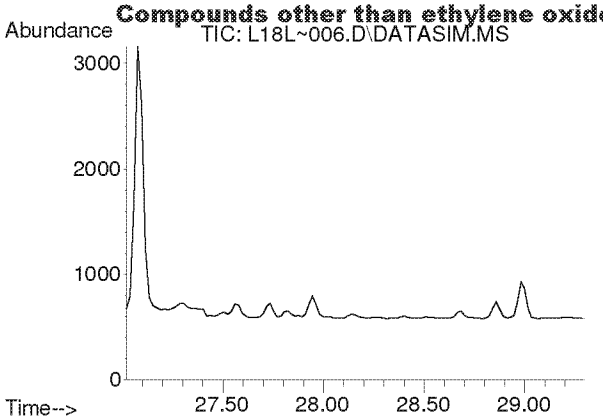
Lab File: L18L~006.D
Acq: 27 Dec 2018 8:36 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.2
131	6.0



Compounds other than ethylene oxide were not quantitated.

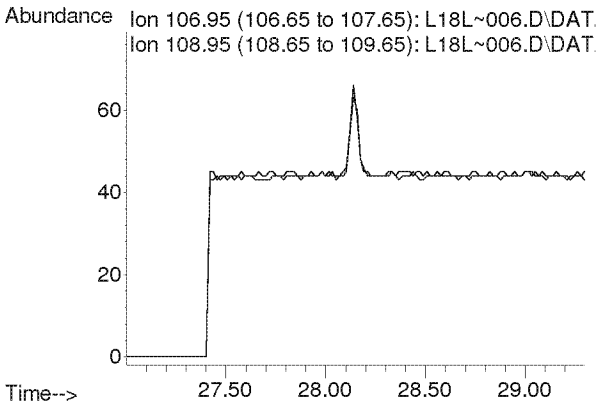


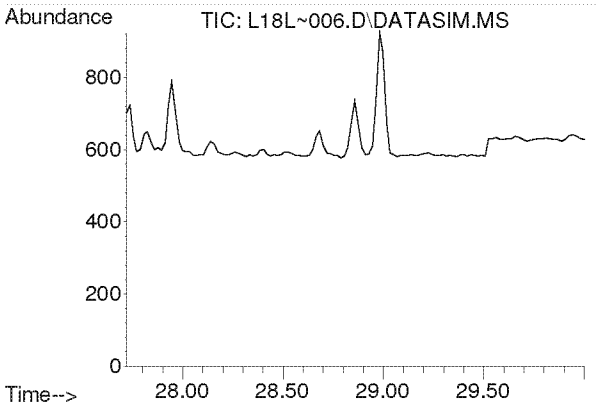
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.16 min

Lab File: L18L~006.D
Acq: 27 Dec 2018 8:36 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.5



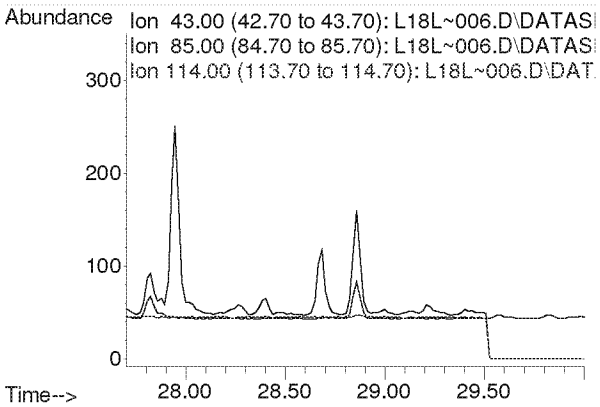


#47
n-Octane
Concen: N.D.
Expected RT: 28.86 min

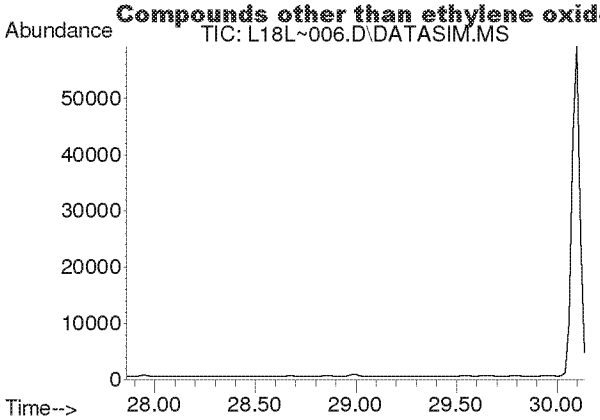
Lab File: L18L~006.D
Acq: 27 Dec 2018 8:36 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	36.0
114	2.2



Compounds other than ethylene oxide were not quantitated.

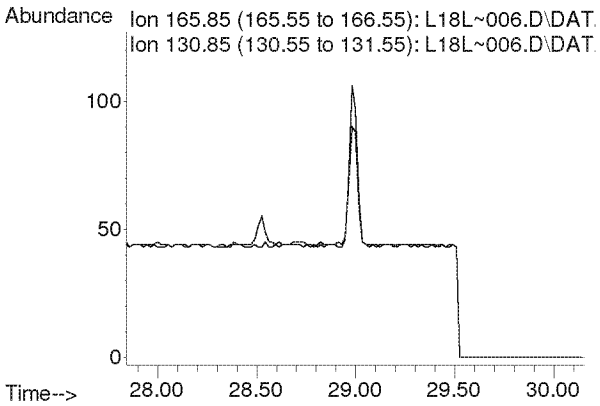


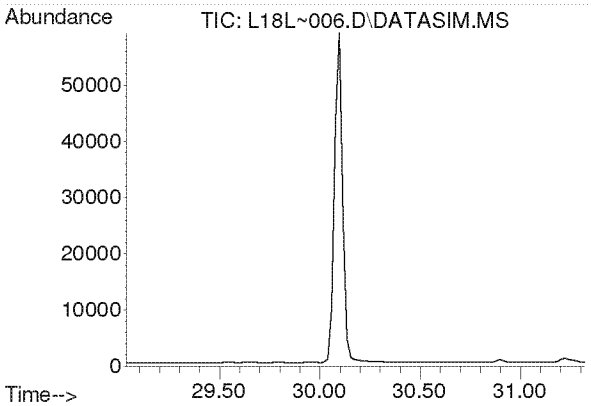
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L18L~006.D
Acq: 27 Dec 2018 8:36 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	78.2



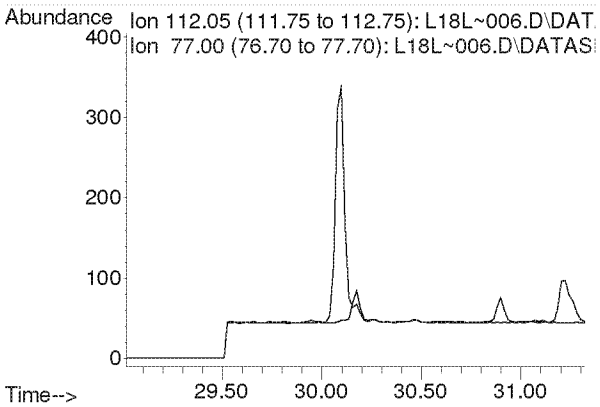


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.17 min

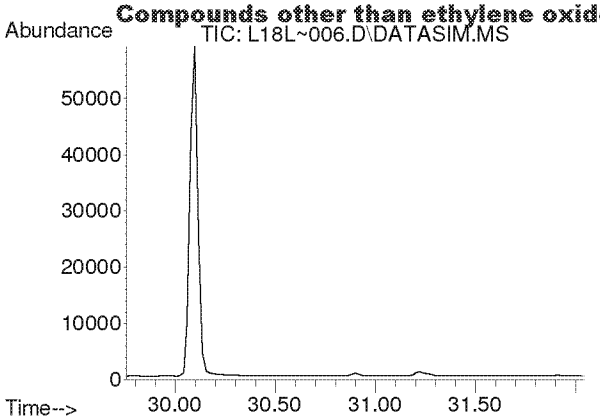
Lab File: L18L~006.D
Acq: 27 Dec 2018 8:36 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	63.0



Compounds other than ethylene oxide were not quantitated.

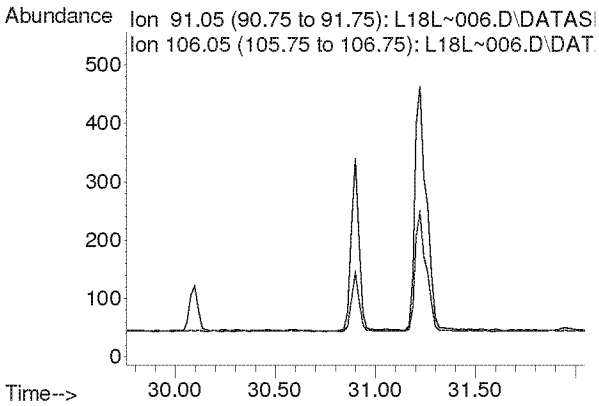


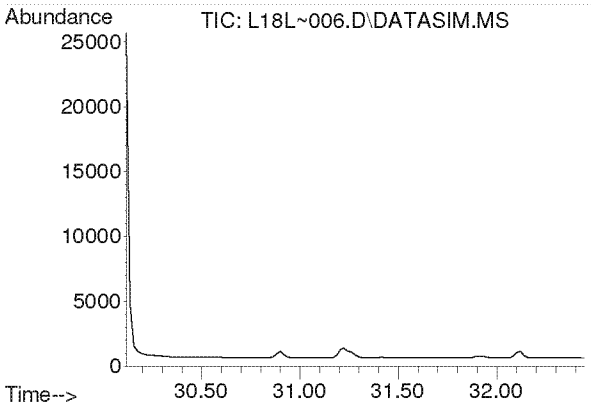
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.90 min

Lab File: L18L~006.D
Acq: 27 Dec 2018 8:36 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	31.8



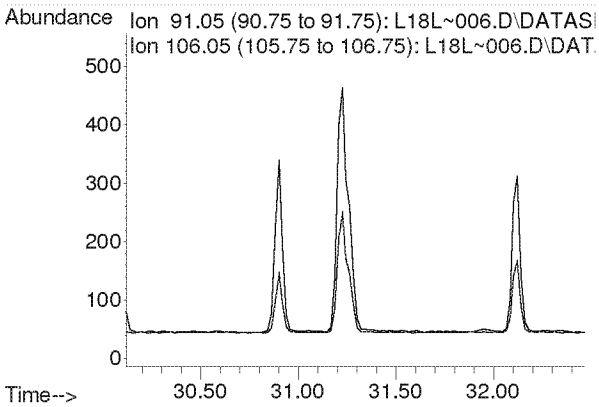


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.26 min

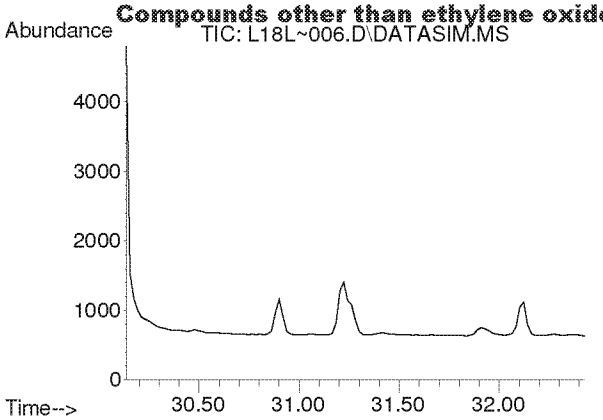
Lab File: L18L~006.D
Acq: 27 Dec 2018 8:36 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.4



Compounds other than ethylene oxide were not quantitated.

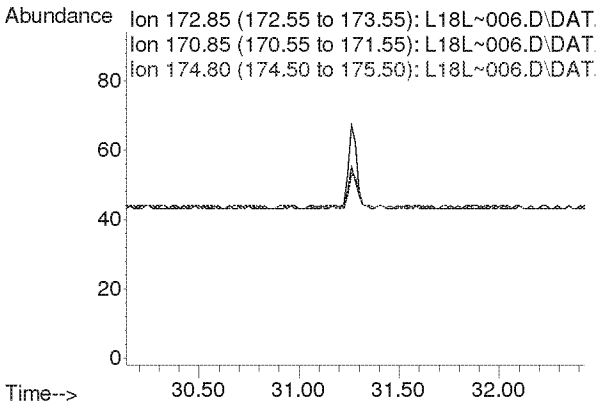


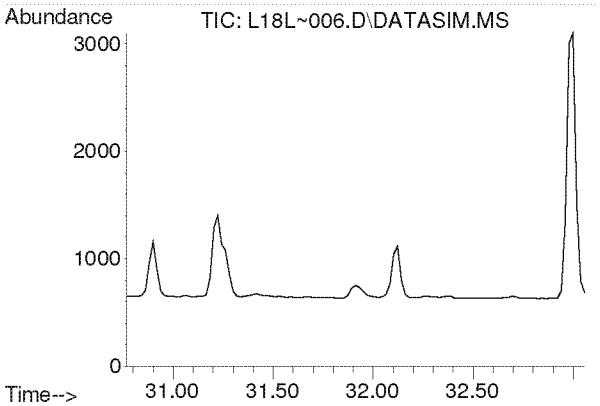
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L18L~006.D
Acq: 27 Dec 2018 8:36 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	49.0



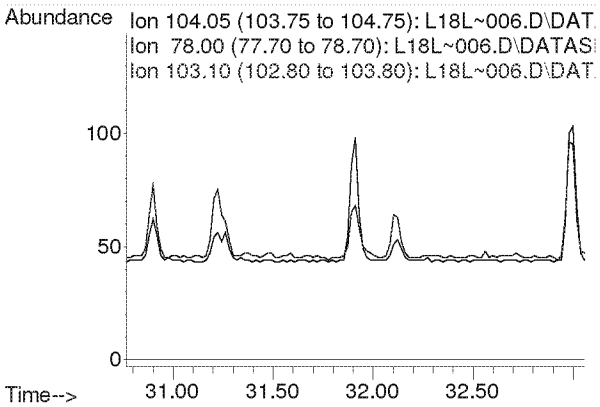


#53
Styrene
Concen: N.D.
Expected RT: 31.91 min

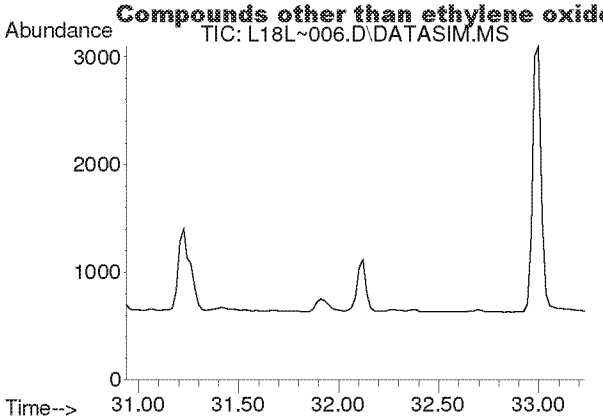
Lab File: L18L~006.D
Acq: 27 Dec 2018 8:36 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	45.6
103	0.0



Compounds other than ethylene oxide were not quantitated.

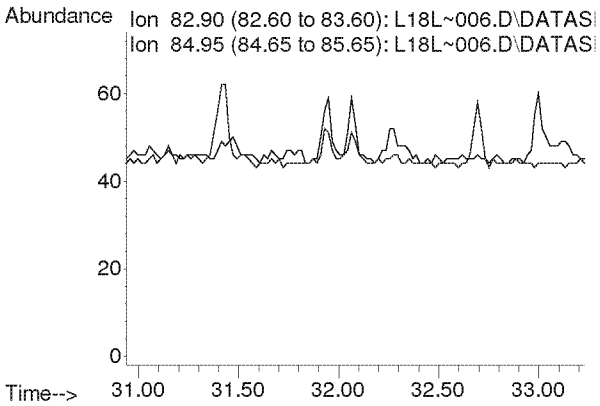


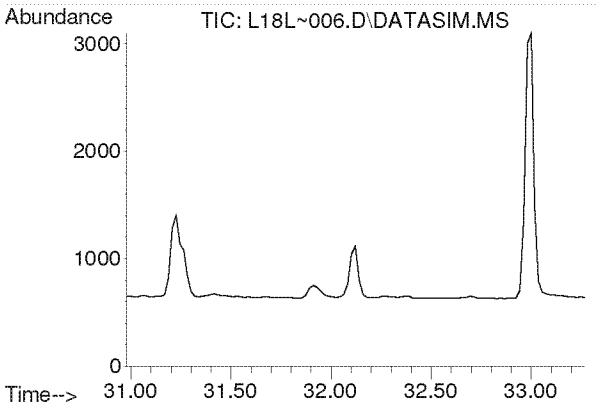
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L18L~006.D
Acq: 27 Dec 2018 8:36 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.9



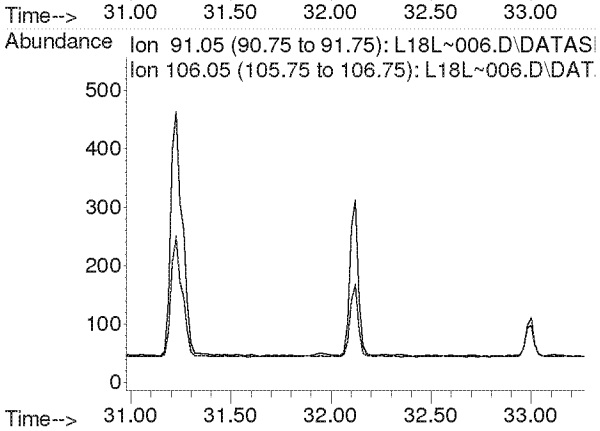


#55
o-Xylene
Concen: N.D.
Expected RT: 32.12 min

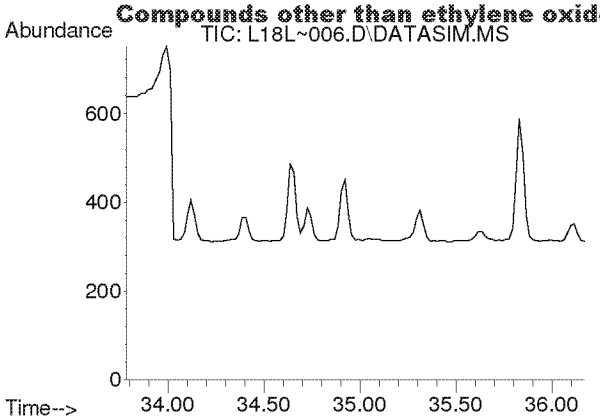
Lab File: L18L~006.D
Acq: 27 Dec 2018 8:36 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.2



Compounds other than ethylene oxide were not quantitated.

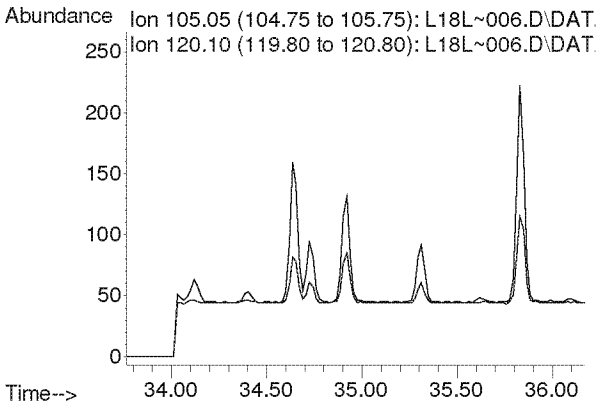


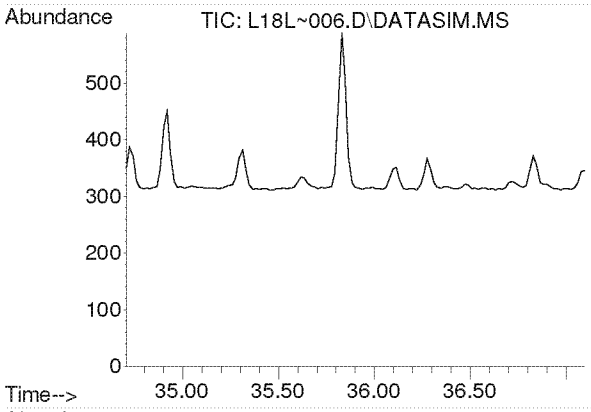
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.92 min

Lab File: L18L~006.D
Acq: 27 Dec 2018 8:36 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	45.0



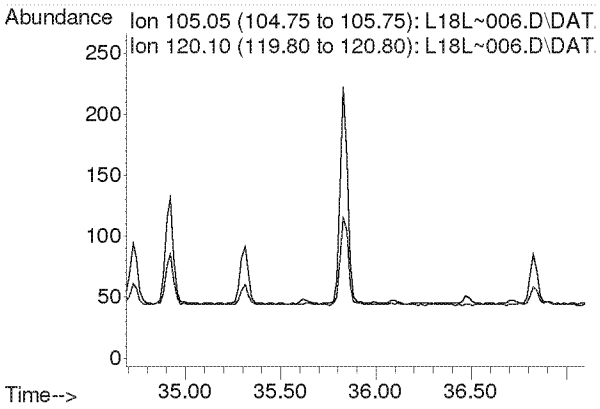


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

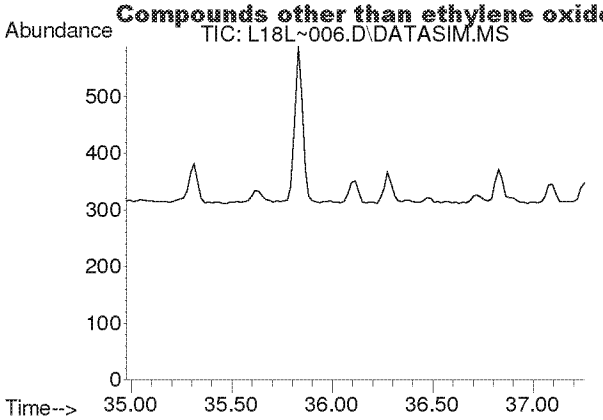
Lab File: L18L~006.D
Acq: 27 Dec 2018 8:36 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	42.8



Compounds other than ethylene oxide were not quantitated.

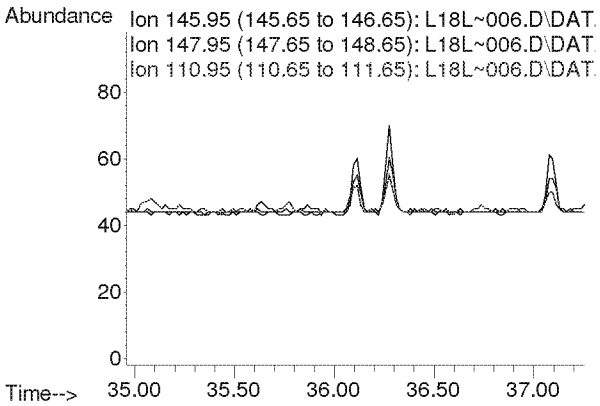


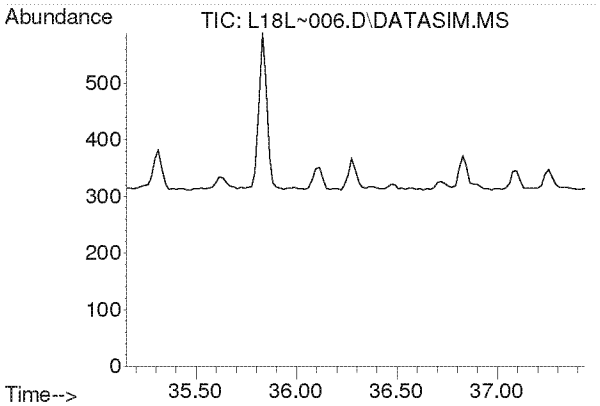
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.11 min

Lab File: L18L~006.D
Acq: 27 Dec 2018 8:36 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.5



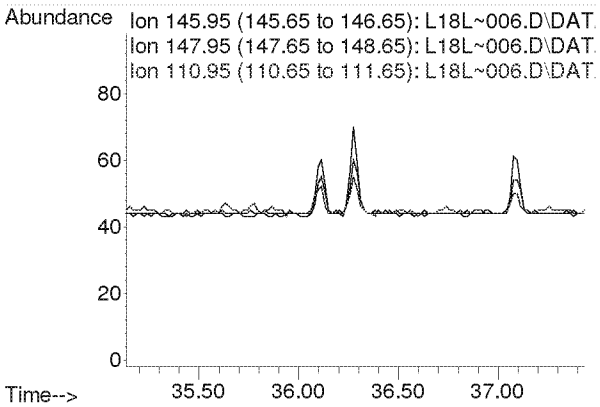


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

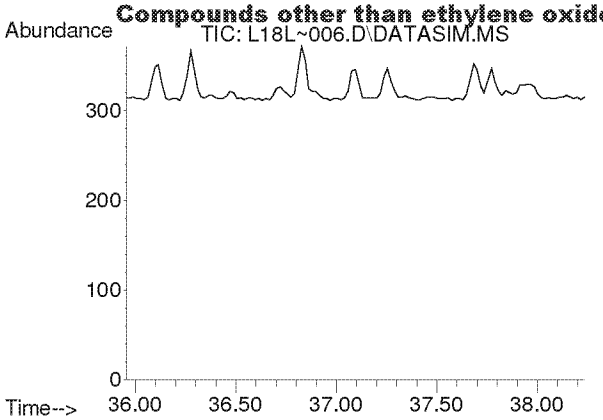
Lab File: L18L~006.D
Acq: 27 Dec 2018 8:36 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	39.5



Compounds other than ethylene oxide were not quantitated.

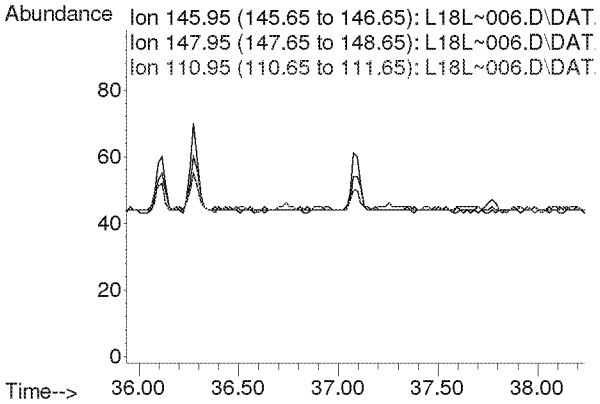


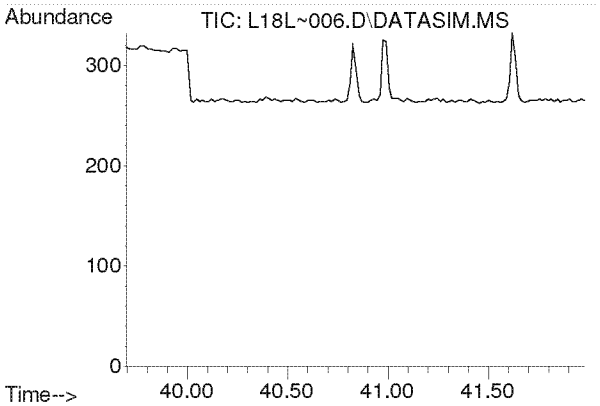
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.09 min

Lab File: L18L~006.D
Acq: 27 Dec 2018 8:36 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	41.4



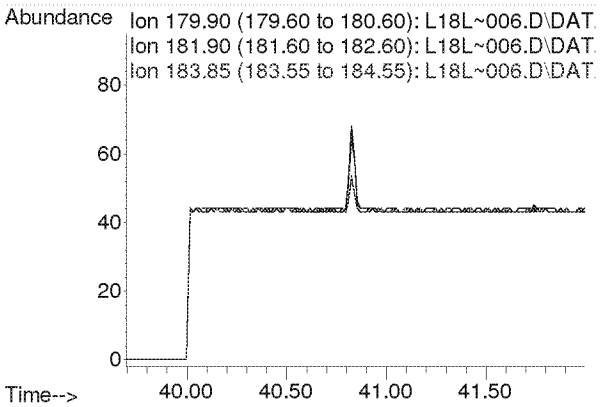


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

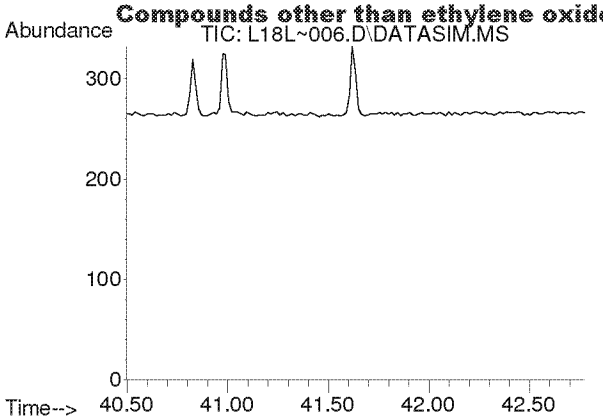
Lab File: L18L~006.D
Acq: 27 Dec 2018 8:36 pm

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	95.1
184	30.7



Compounds other than ethylene oxide were not quantitated.

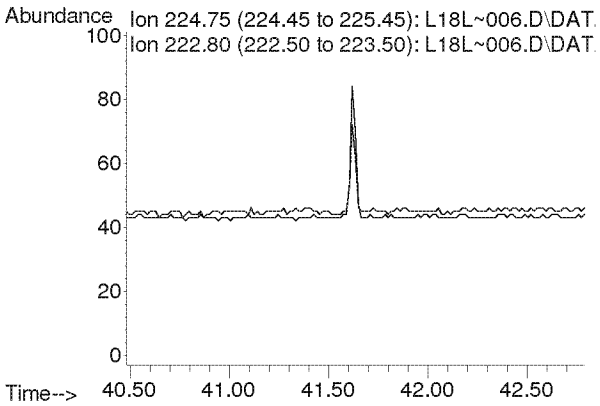


#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.64 min

Lab File: L18L~006.D
Acq: 27 Dec 2018 8:36 pm

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\L18L~\
Data File : L18L~007.D
Acq On : 27 Dec 2018 9:38 pm
Operator : MAH
Sample : 8121130-07
Misc : GOWER MS 12/7/18
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jan 03 12:33:29 2019
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.970	66	53150	4.7700 ppbv	-0.02
29) IS-1,4-Difluorobenzene	23.130	114	128517	4.9900 ppbv	-0.02
43) IS-Chlorobenzene-d5	30.097	117	95590	4.7400 ppbv	0.00

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. d	
8) 1,3-Butadiene	0.000	54	0	N.D. d	
9) Ethylene oxide	12.425	29	1063m	0.3346 ppbv	
10) Bromomethane	0.000	94	0	N.D. d	
11) Chloroethane	0.000	64	0	N.D. 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. 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. d	
21) 1,1-Dichloroethane	0.000	63	0	N.D. 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. d	
28) 1,2-Dichloroethane	0.000	62	0	N.D. d	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D. 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. 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. d	
37) Trichloroethylene	0.000	130	0	N.D. d	
38) Methyl Methacrylate	0.000	41	0	N.D. d	
39) cis-1,3-Dichloropropene	0.000	75	0	N.D. 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. d	
44) Toluene	0.000	91	0	N.D. d	
45) Dibromochloromethane	0.000	129	0	N.D. d	
46) 1,2-Dibromoethane	0.000	107	0	N.D. 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. 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\L18L~\
Data File : L18L~007.D
Acq On : 27 Dec 2018 9:38 pm
Operator : MAH
Sample : 8121130-07
Misc : GOWER MS 12/7/18
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jan 03 12:33:29 2019
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
Response via : Initial Calibration

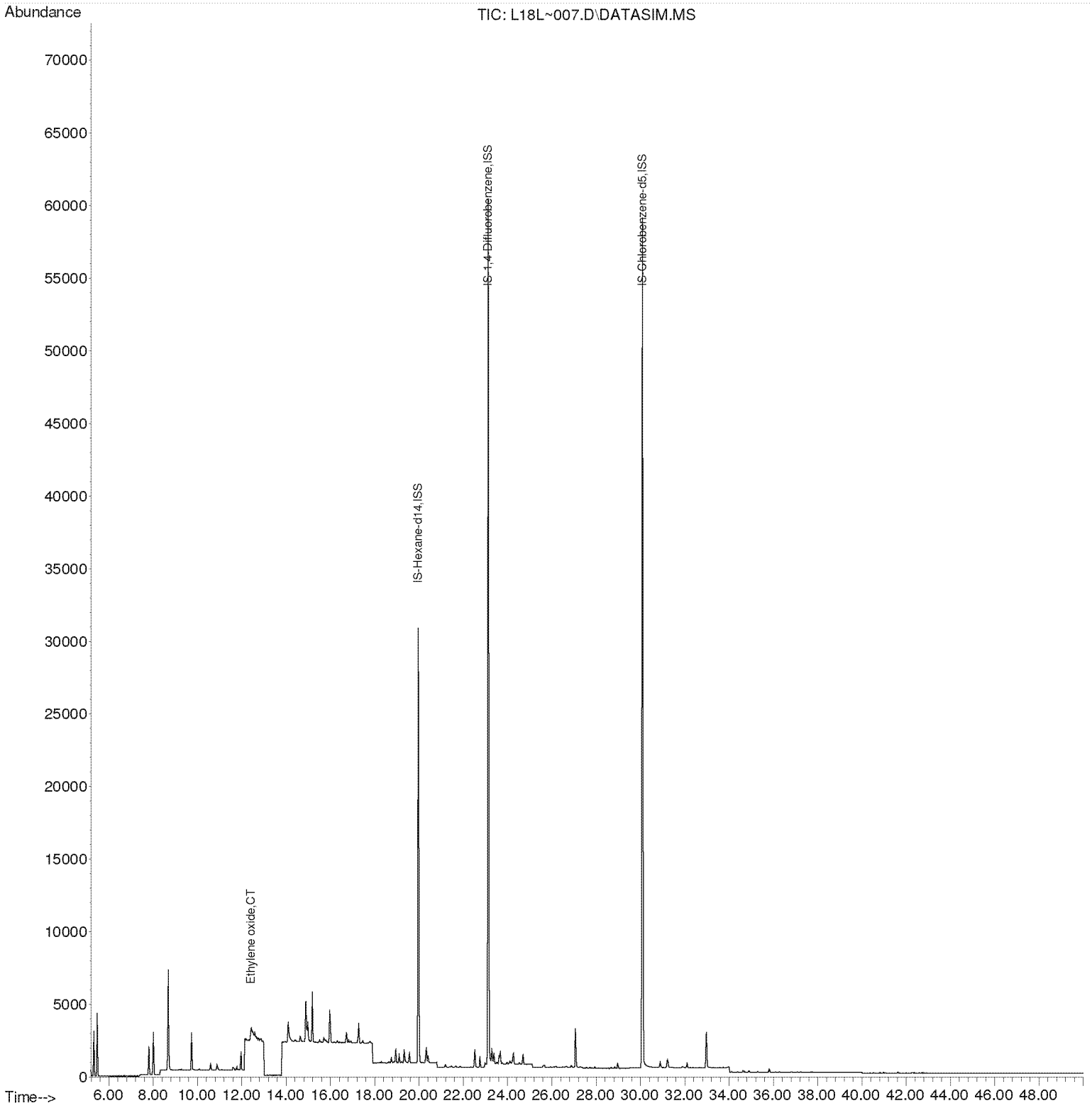
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D. d	
52) Bromoform	0.000	173	0	N.D. d	
53) Styrene	0.000	104	0	N.D. d	
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D. d	
55) o-Xylene	0.000	91	0	N.D. d	
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D. d	
57) 1,2,4-Trimethylbenzene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

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

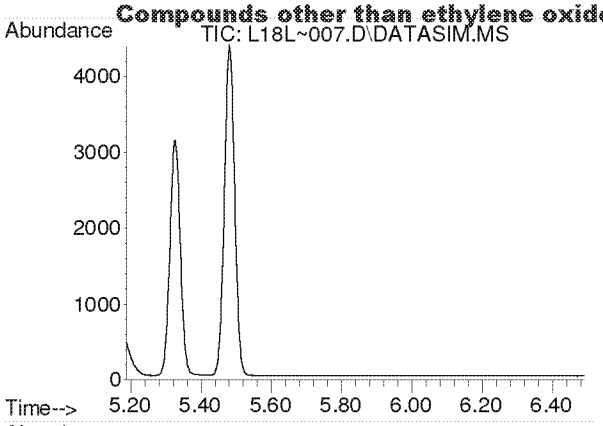
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L18L~\
Data File : L18L~007.D
Acq On : 27 Dec 2018 9:38 pm
Operator : MAH
Sample : 8121130-07
Misc : GOWER MS 12/7/18
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jan 03 12:18:57 2019
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
Response via : Initial Calibration



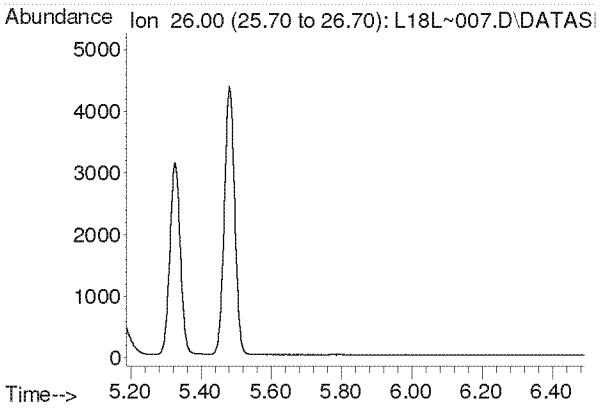
Compounds other than ethylene oxide were not quantitated.

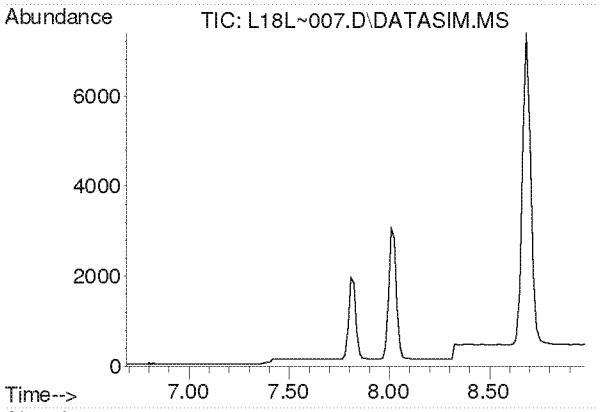


#2
Acetylene
Concen: N.D.
Expected RT: 5.42 min

Lab File: L18L~007.D
Acq: 27 Dec 2018 9:38 pm

Tgt Ion: 26



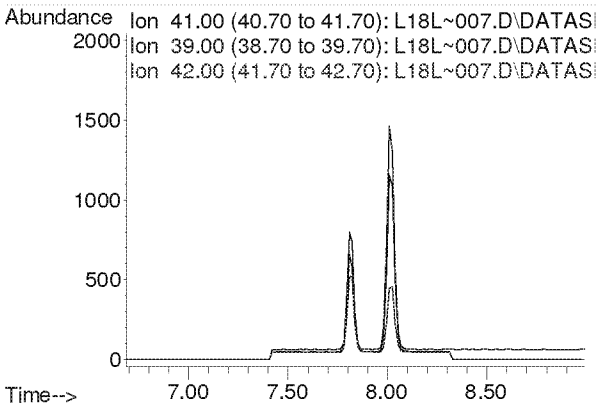


#3
Propylene
Concen: N.D.
Expected RT: 7.84 min

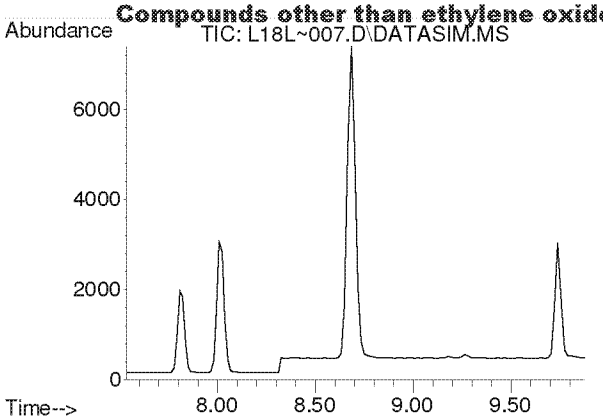
Lab File: L18L~007.D
Acq: 27 Dec 2018 9:38 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	78.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

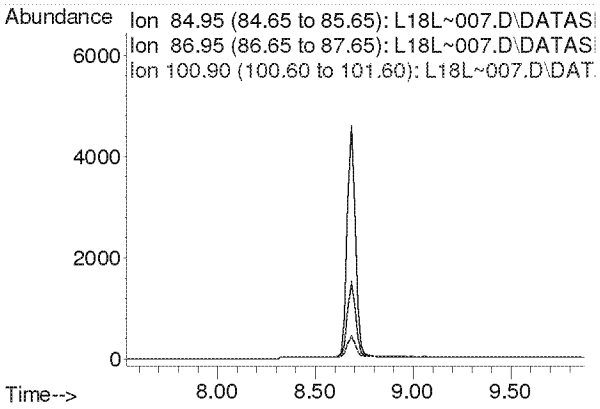


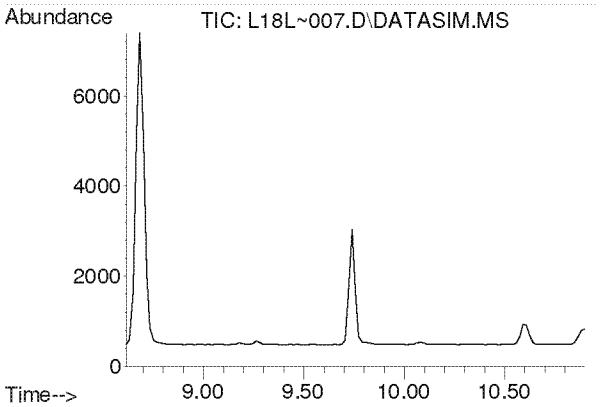
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L18L~007.D
Acq: 27 Dec 2018 9:38 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	8.9



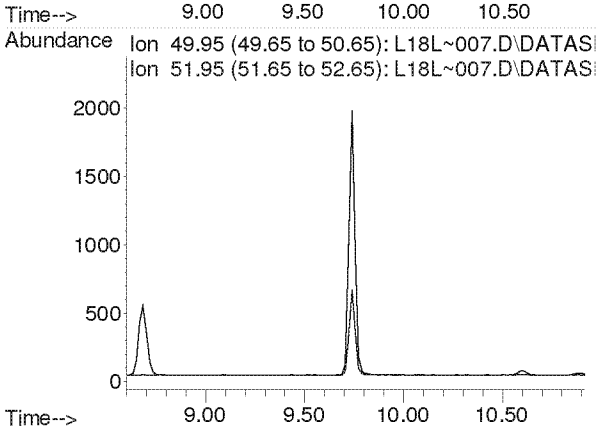


#5
Chloromethane
Concen: N.D.
Expected RT: 9.76 min

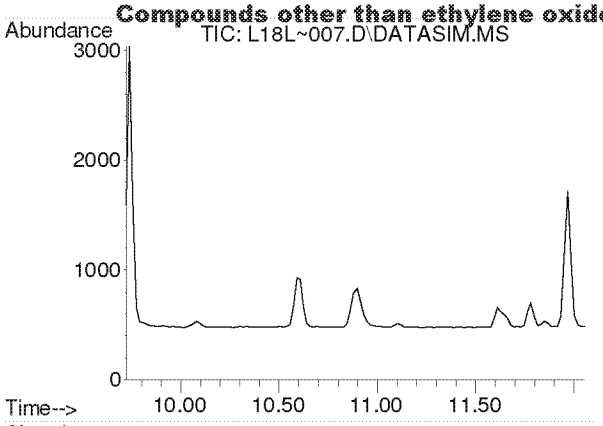
Lab File: L18L~007.D
Acq: 27 Dec 2018 9:38 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

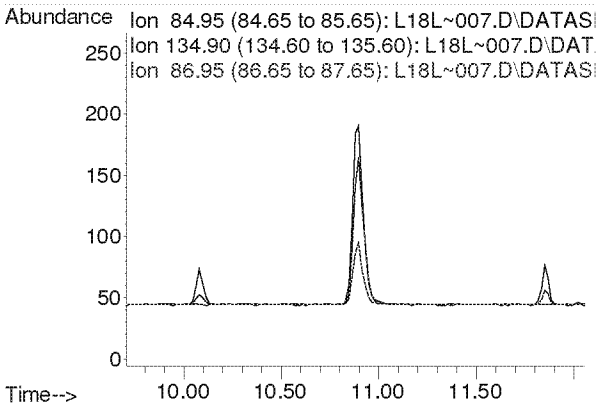


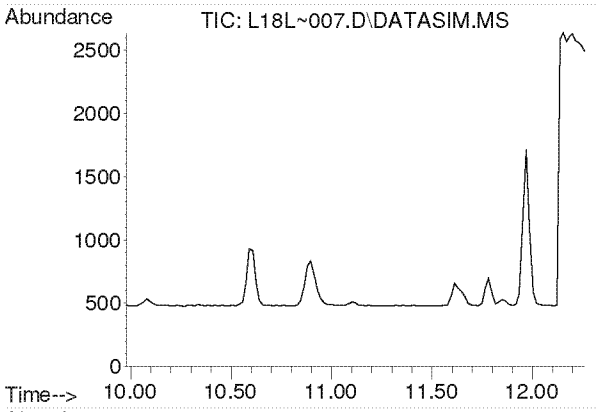
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L18L~007.D
Acq: 27 Dec 2018 9:38 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.1
87	32.1



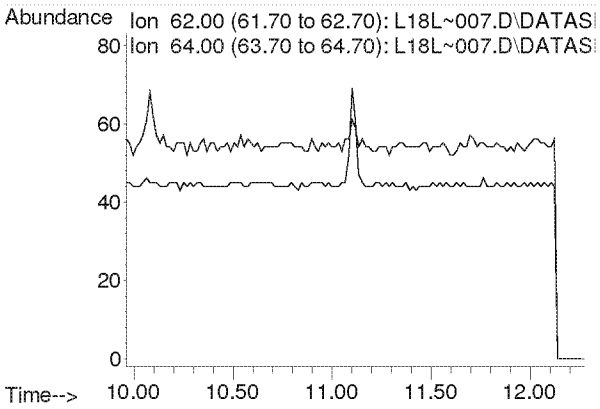


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

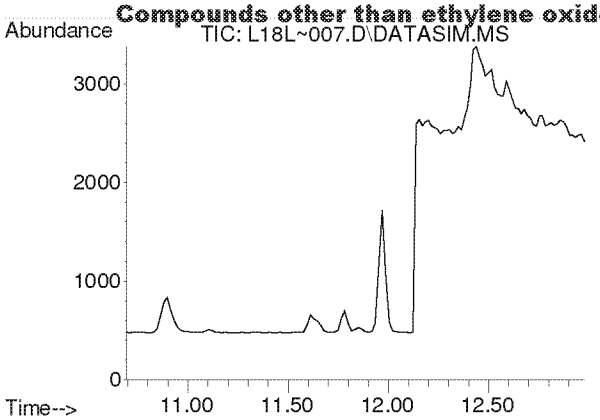
Lab File: L18L~007.D
Acq: 27 Dec 2018 9:38 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.8



Compounds other than ethylene oxide were not quantitated.

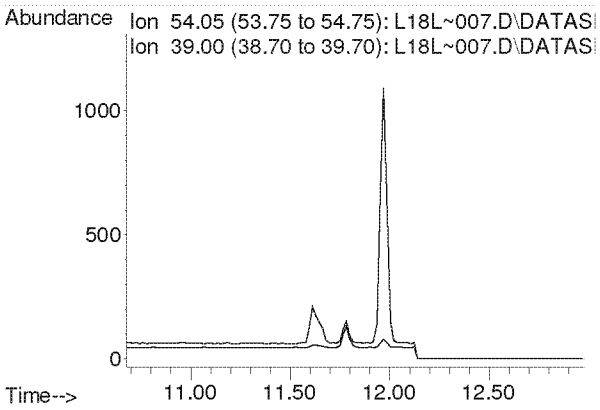


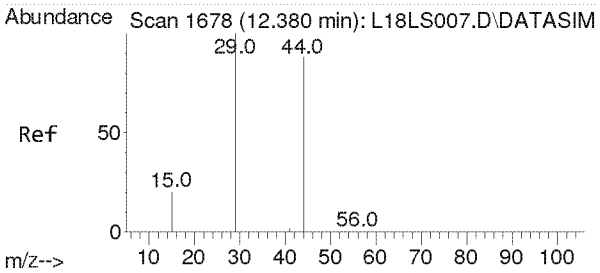
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L18L~007.D
Acq: 27 Dec 2018 9:38 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	105.4

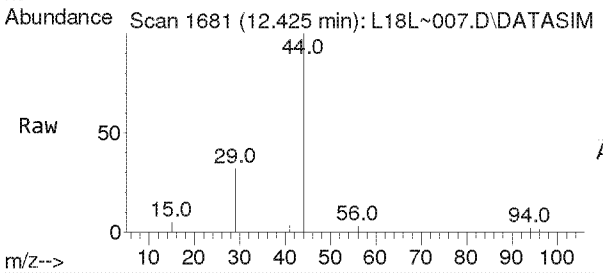


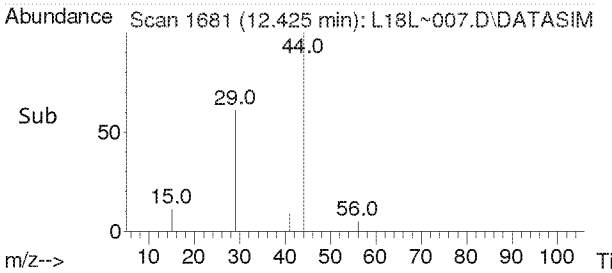


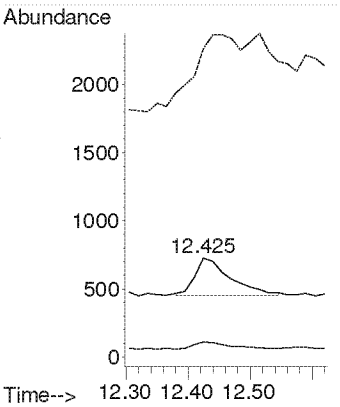
#9
Ethylene oxide
Concen: 0.335 ppbv m
RT: 12.425 min Scan# 1681
Delta R.T. 0.045 min
Lab File: L18L~007.D
Acq: 27 Dec 2018 9:38 pm

Tgt Ion: 29 Resp: 1063

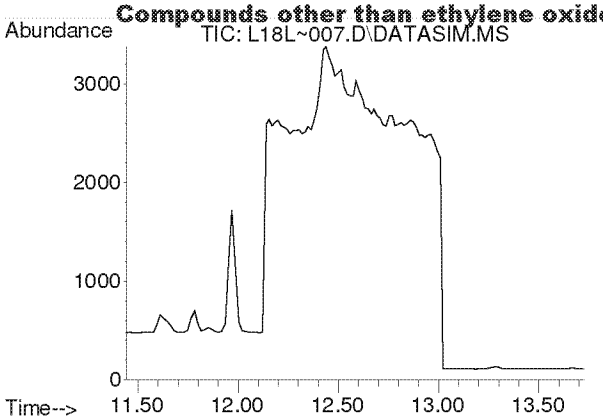
Ion	Ratio	Lower	Upper
29	100		
15	0.0	16.2	24.4#
44	3.7	72.0	108.0#







Compounds other than ethylene oxide were not quantitated.

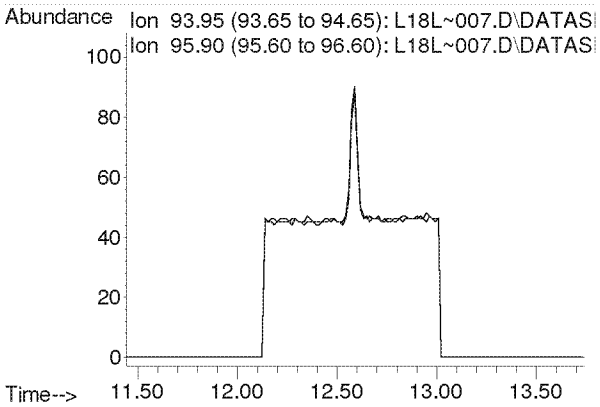


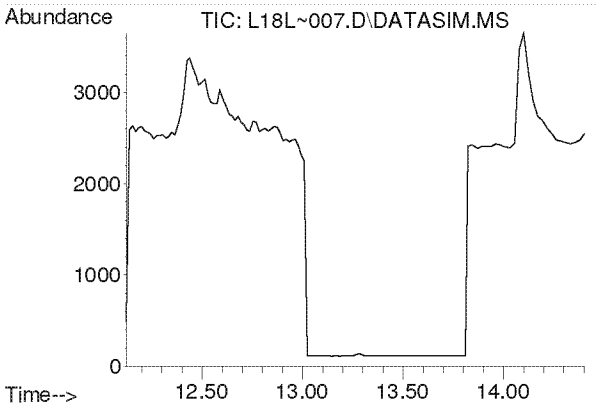
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L18L~007.D
Acq: 27 Dec 2018 9:38 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	93.9



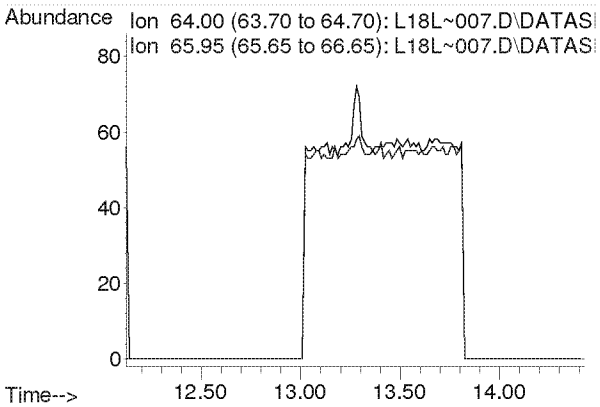


#11
Chloroethane
Concen: N.D.
Expected RT: 13.27 min

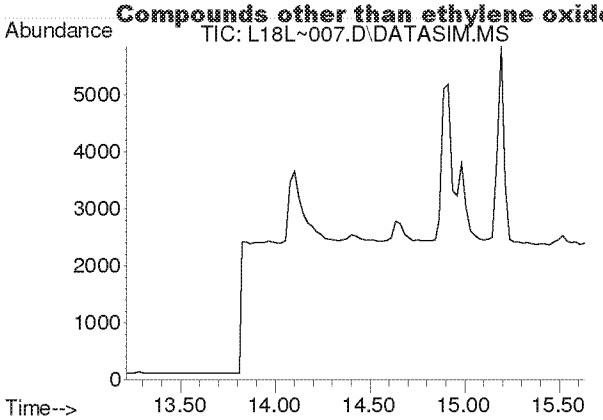
Lab File: L18L~007.D
Acq: 27 Dec 2018 9:38 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.0



Compounds other than ethylene oxide were not quantitated.

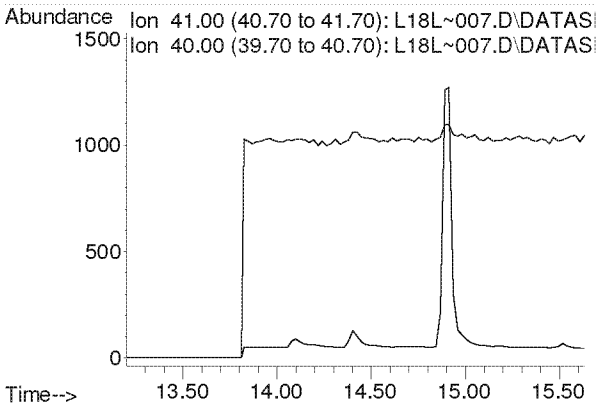


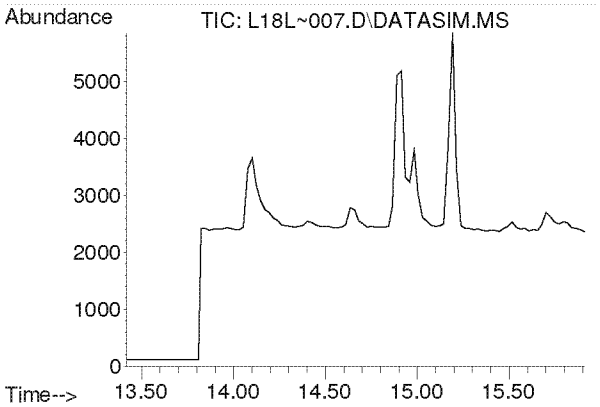
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.33 min

Lab File: L18L~007.D
Acq: 27 Dec 2018 9:38 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	50.9



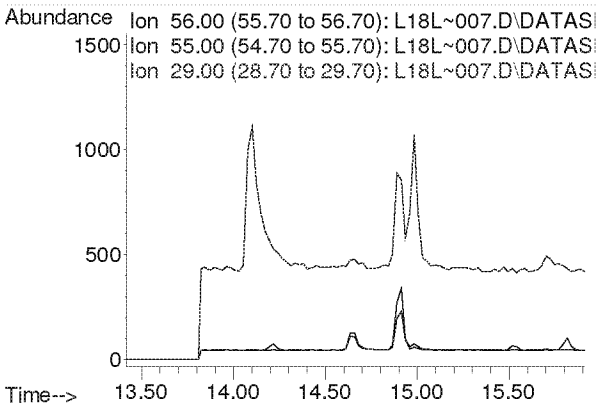


#13
Acrolein
Concen: N.D.
Expected RT: 14.61 min

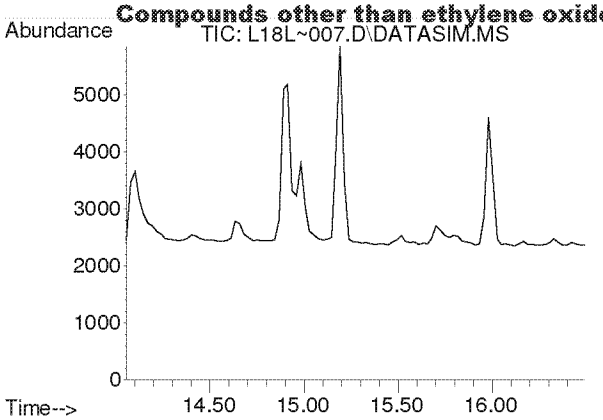
Lab File: L18L~007.D
Acq: 27 Dec 2018 9:38 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	75.4
29	52.9



Compounds other than ethylene oxide were not quantitated.

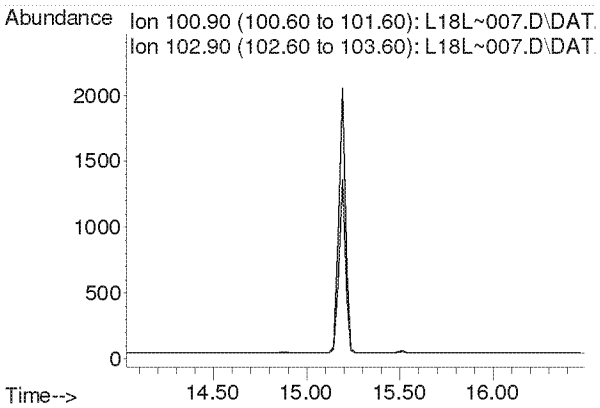


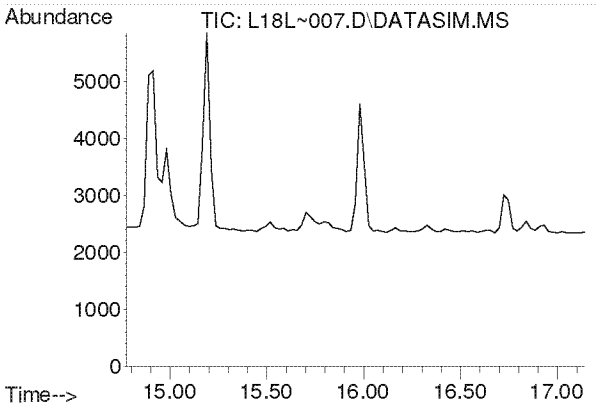
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L18L~007.D
Acq: 27 Dec 2018 9:38 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



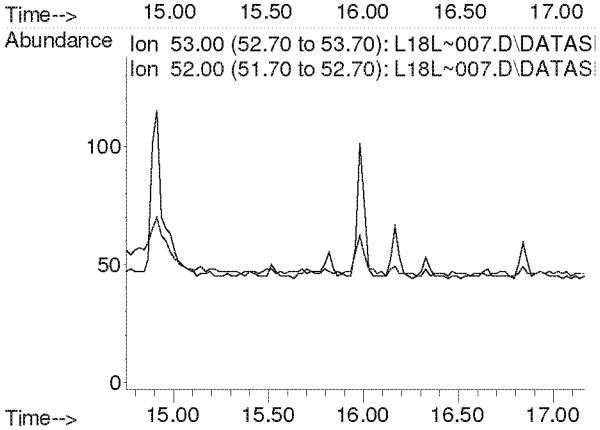


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.91 min

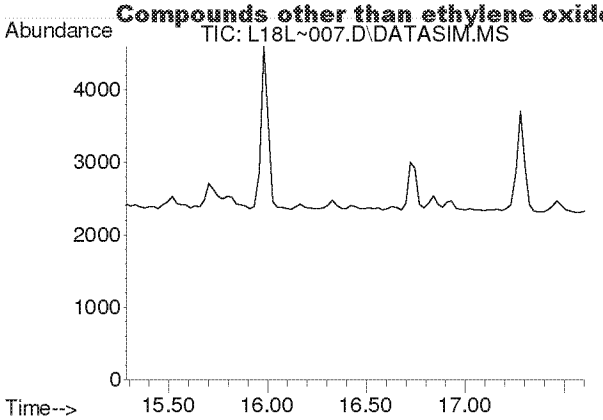
Lab File: L18L~007.D
Acq: 27 Dec 2018 9:38 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	85.4



Compounds other than ethylene oxide were not quantitated.

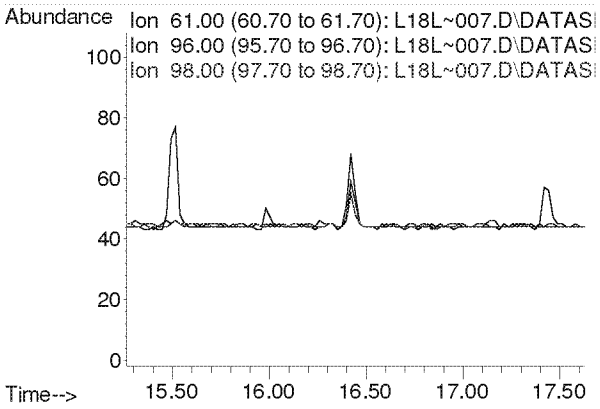


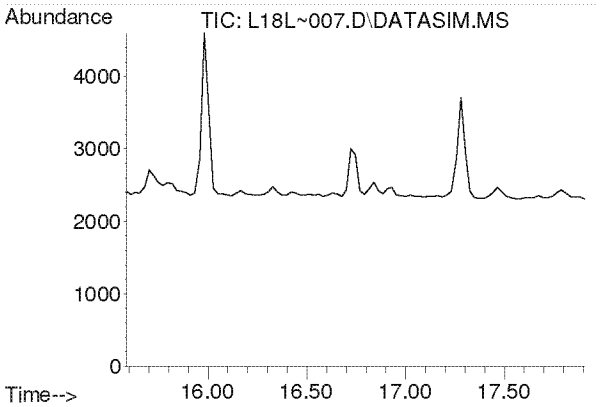
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L18L~007.D
Acq: 27 Dec 2018 9:38 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	58.3
98	37.4



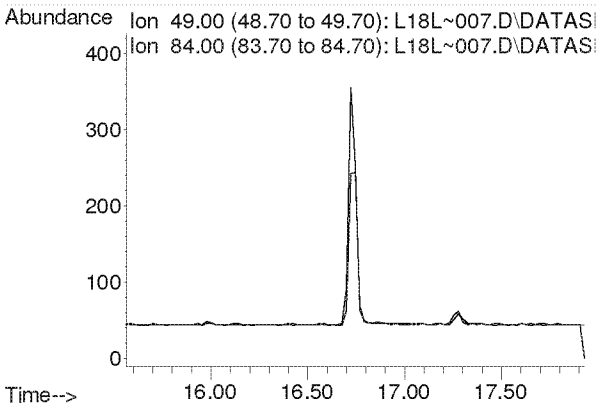


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.72 min

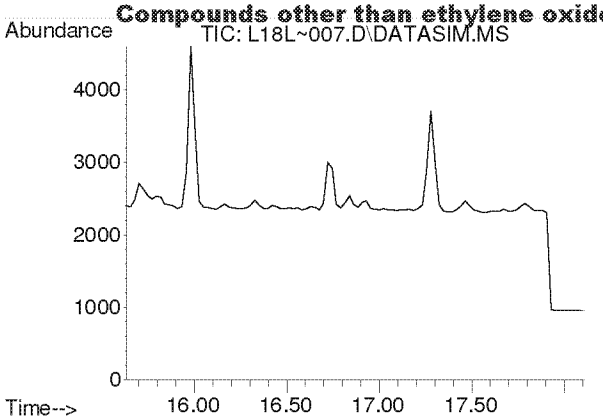
Lab File: L18L~007.D
Acq: 27 Dec 2018 9:38 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	76.4



Compounds other than ethylene oxide were not quantitated.

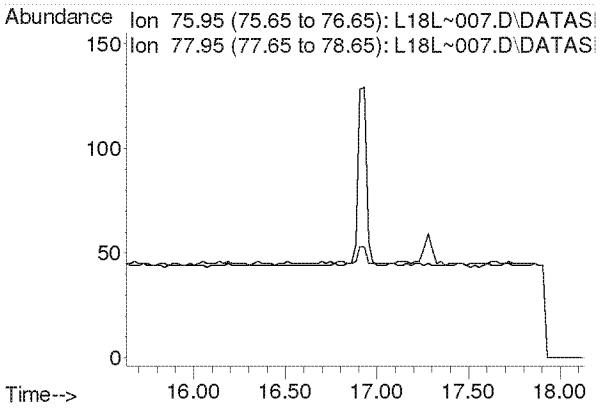


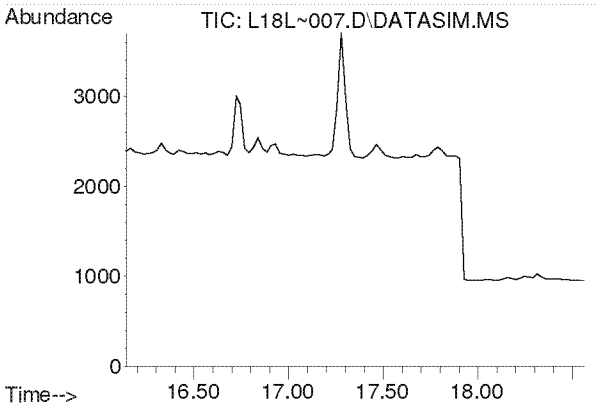
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L18L~007.D
Acq: 27 Dec 2018 9:38 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.1



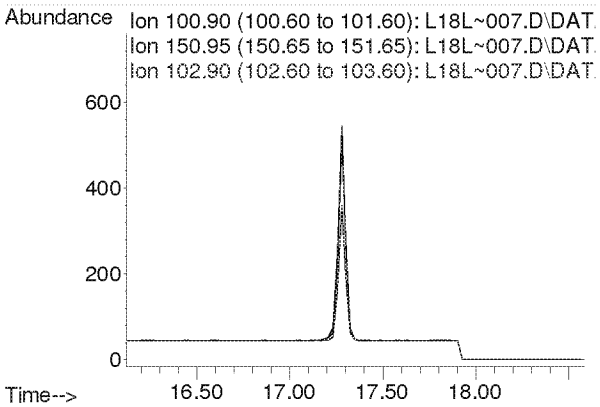


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

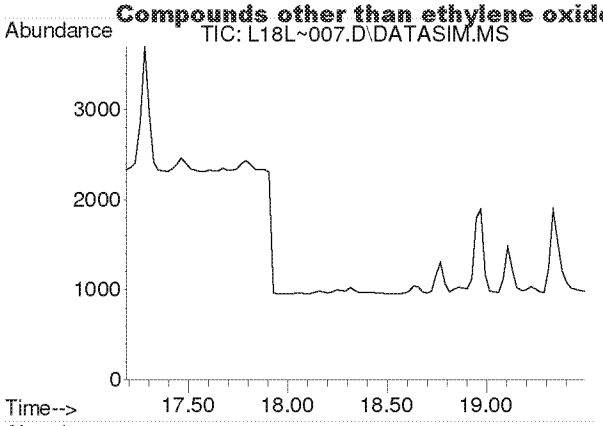
Lab File: L18L~007.D
Acq: 27 Dec 2018 9:38 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	95.3
103	64.1



Compounds other than ethylene oxide were not quantitated.

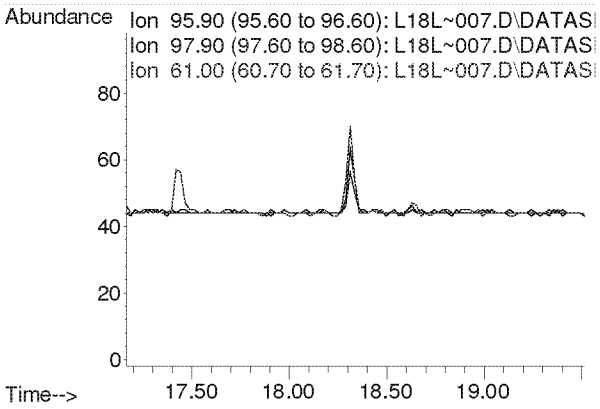


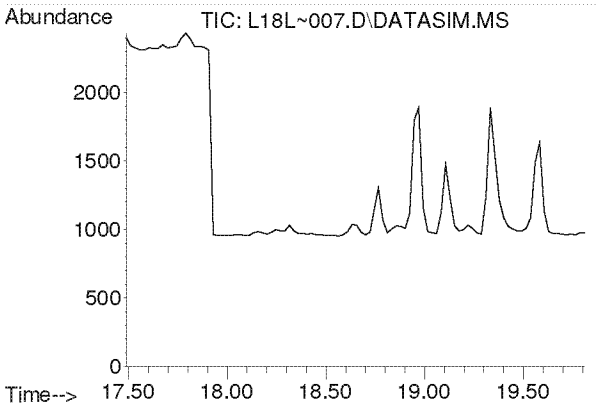
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.31 min

Lab File: L18L~007.D
Acq: 27 Dec 2018 9:38 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	63.7
61	159.2



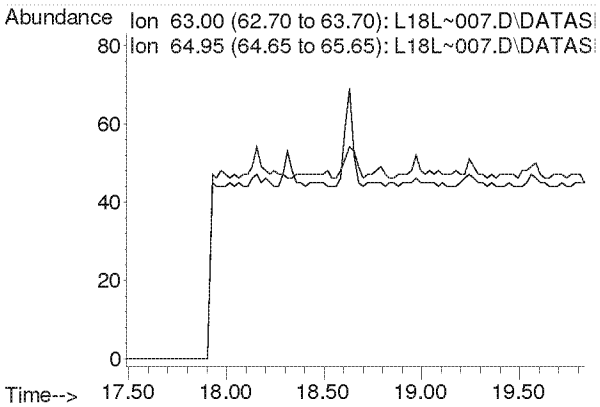


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

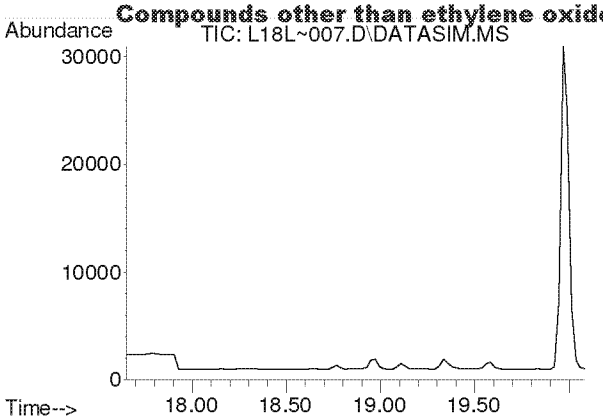
Lab File: L18L~007.D
Acq: 27 Dec 2018 9:38 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

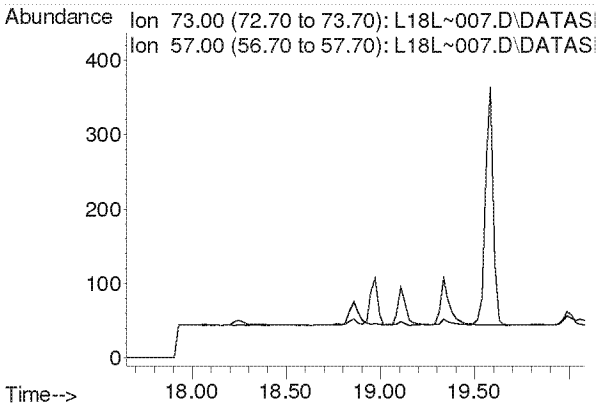


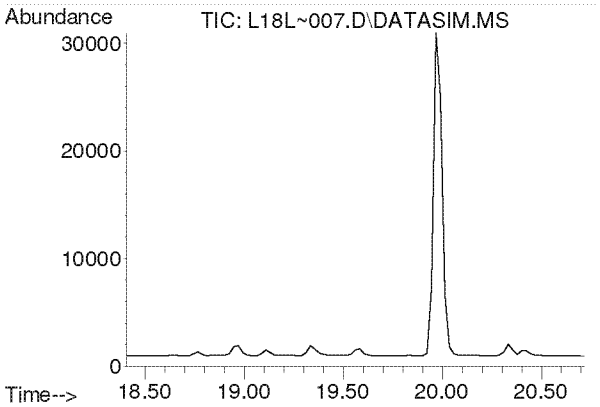
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L18L~007.D
Acq: 27 Dec 2018 9:38 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.4



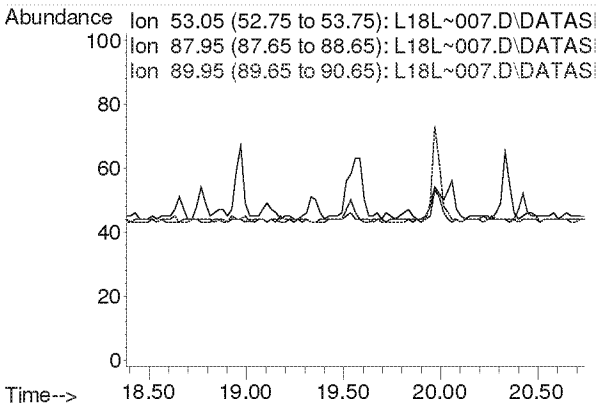


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

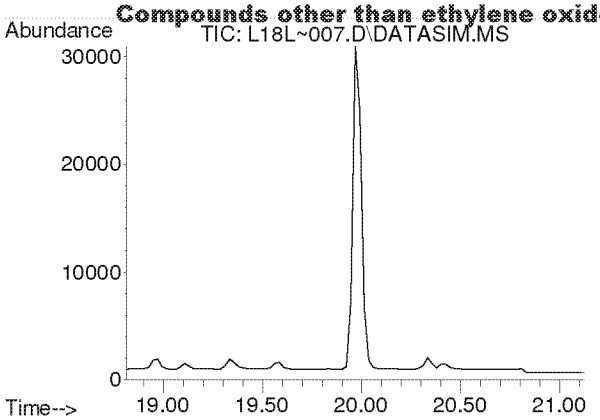
Lab File: L18L~007.D
Acq: 27 Dec 2018 9:38 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	51.8
90	16.8



Compounds other than ethylene oxide were not quantitated.

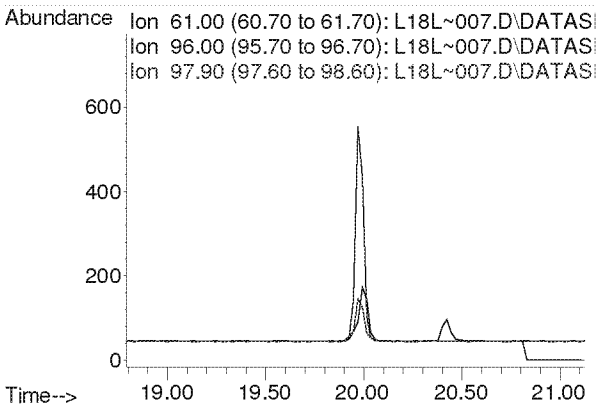


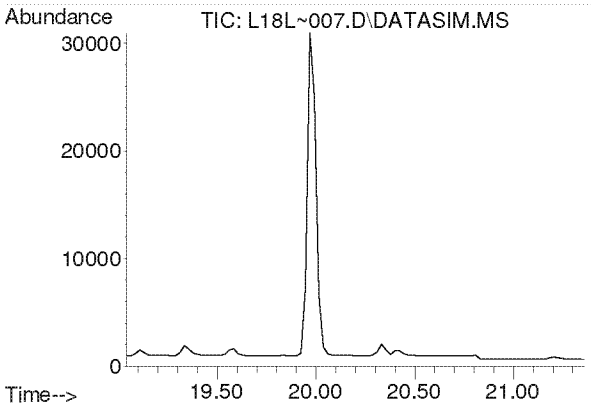
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L18L~007.D
Acq: 27 Dec 2018 9:38 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.7
98	45.2



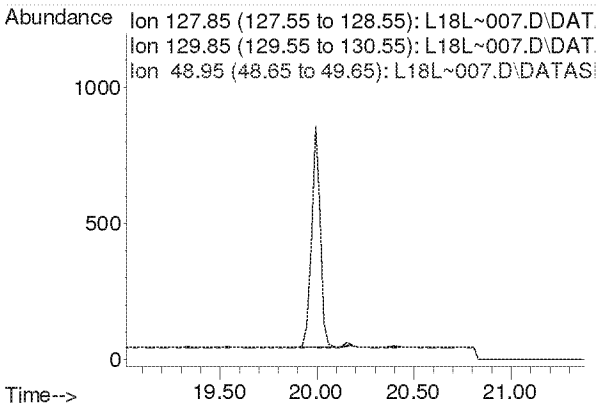


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

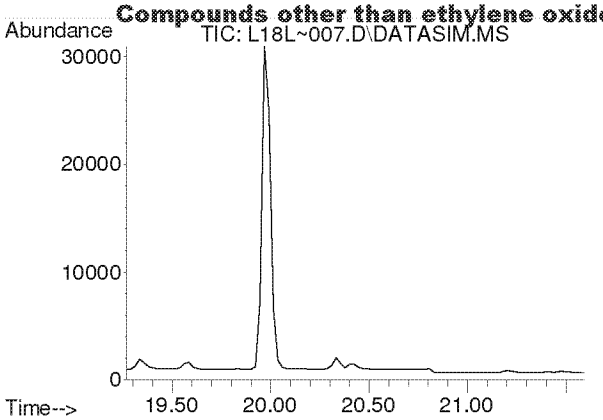
Lab File: L18L~007.D
Acq: 27 Dec 2018 9:38 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	171.2



Compounds other than ethylene oxide were not quantitated.

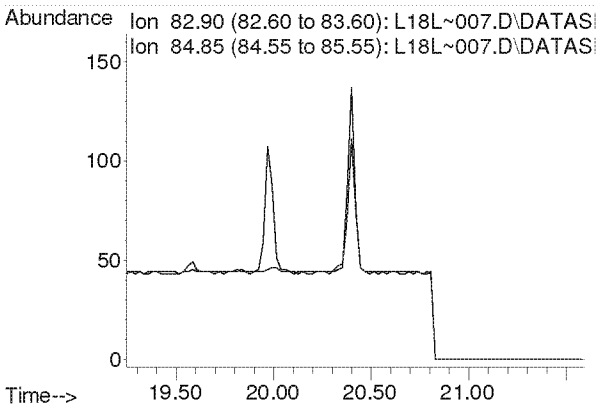


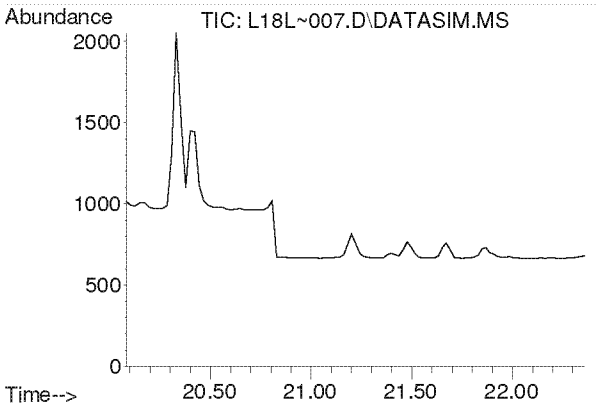
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L18L~007.D
Acq: 27 Dec 2018 9:38 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



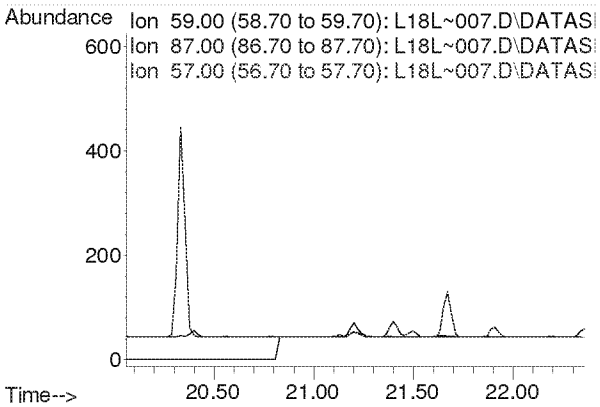


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.16 min

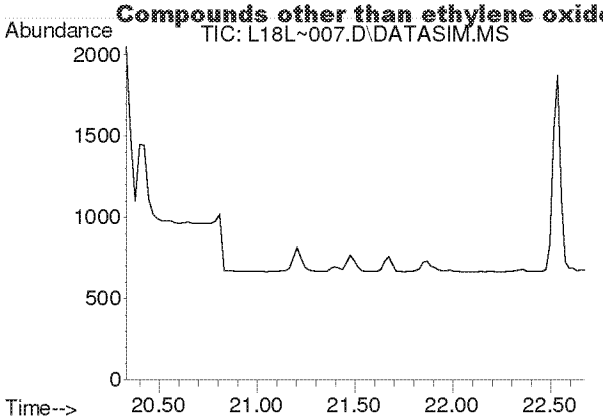
Lab File: L18L~007.D
Acq: 27 Dec 2018 9:38 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	37.5
57	33.8



Compounds other than ethylene oxide were not quantitated.

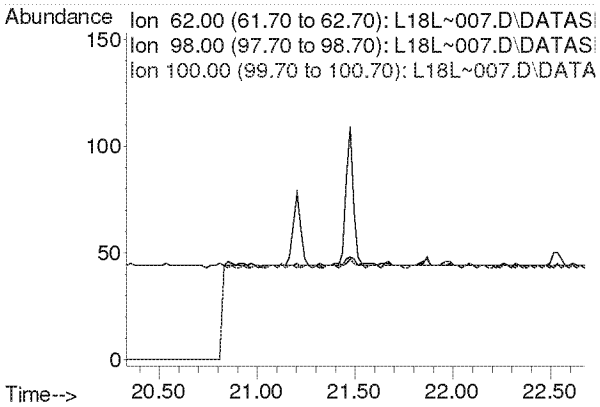


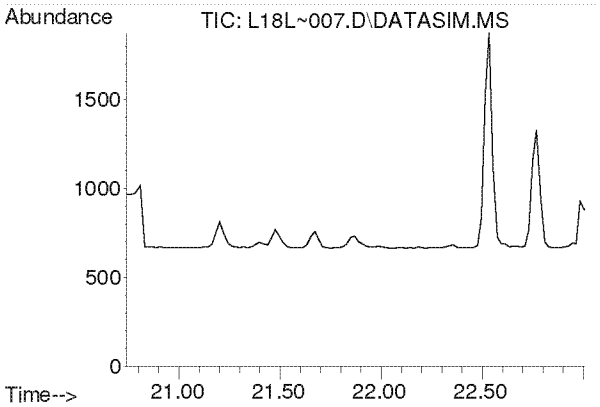
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L18L~007.D
Acq: 27 Dec 2018 9:38 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.4
100	4.0



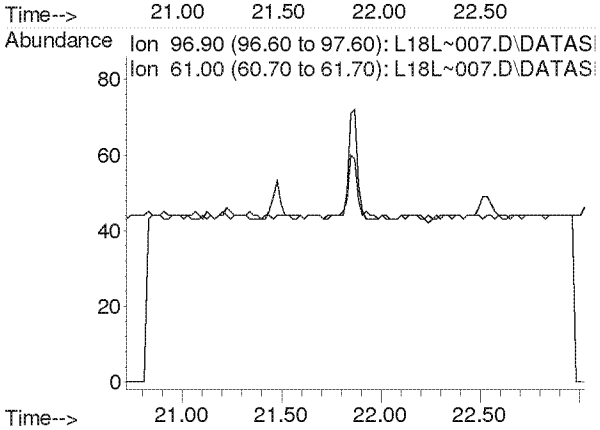


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

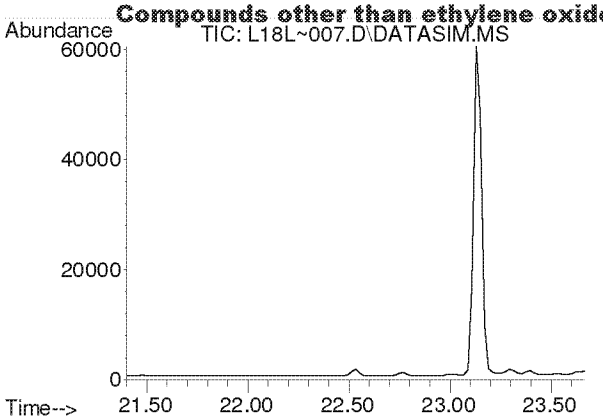
Lab File: L18L~007.D
Acq: 27 Dec 2018 9:38 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	60.5



Compounds other than ethylene oxide were not quantitated.

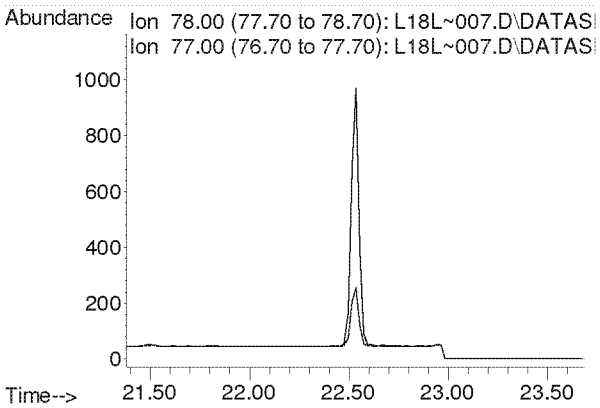


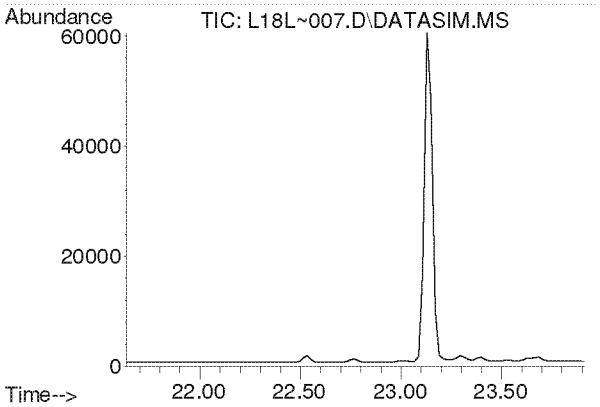
#31
Benzene
Concen: N.D.
Expected RT: 22.54 min

Lab File: L18L~007.D
Acq: 27 Dec 2018 9:38 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.7



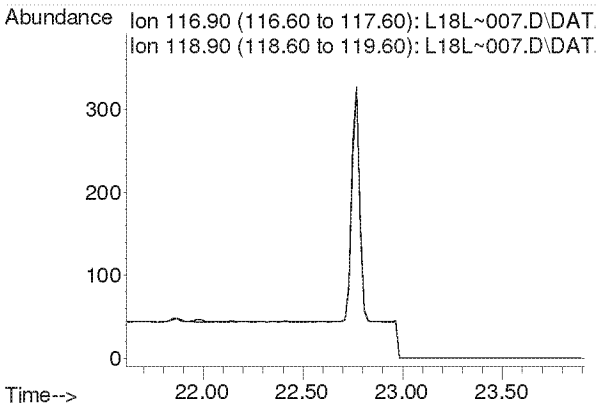


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

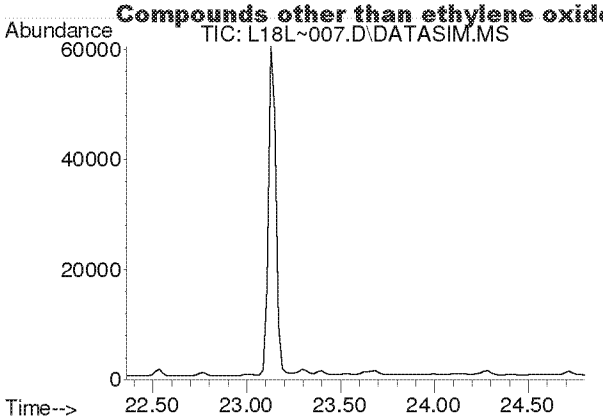
Lab File: L18L~007.D
Acq: 27 Dec 2018 9:38 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.5



Compounds other than ethylene oxide were not quantitated.

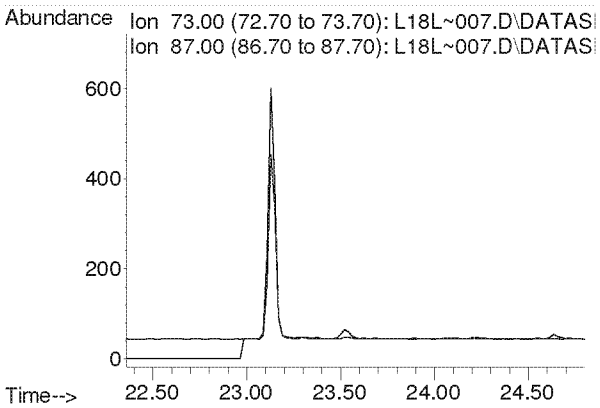


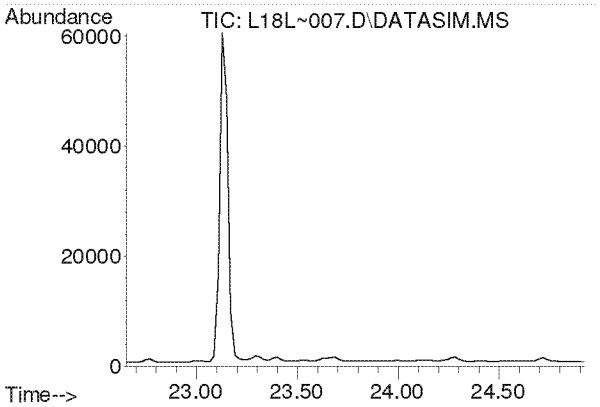
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.50 min

Lab File: L18L~007.D
Acq: 27 Dec 2018 9:38 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	24.9



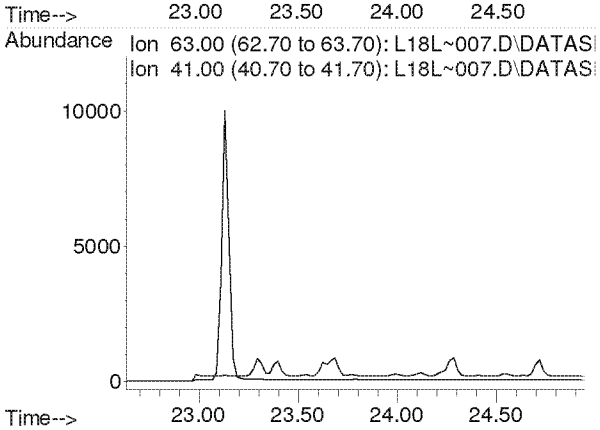


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

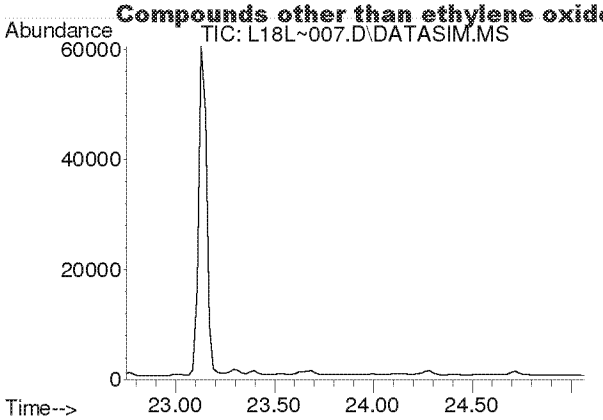
Lab File: L18L~007.D
Acq: 27 Dec 2018 9:38 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	212.8



Compounds other than ethylene oxide were not quantitated.

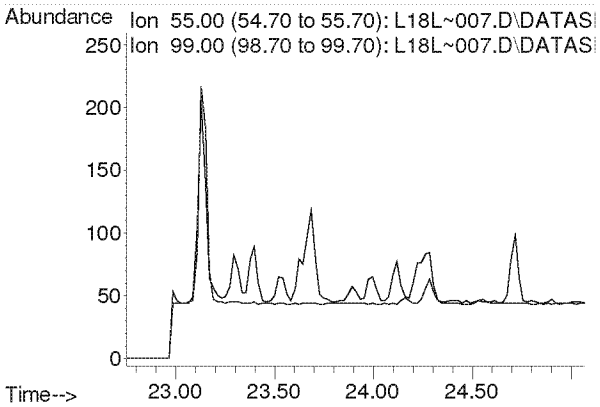


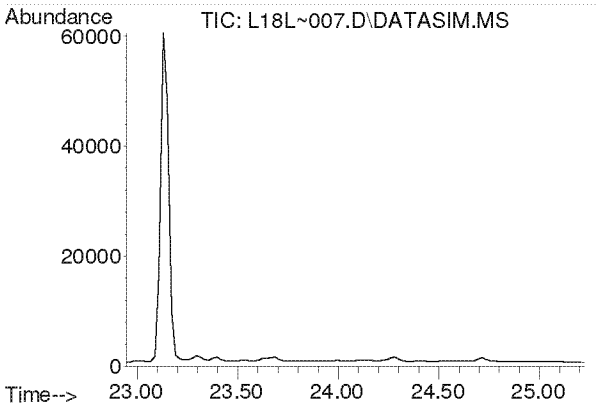
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.87 min

Lab File: L18L~007.D
Acq: 27 Dec 2018 9:38 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.1



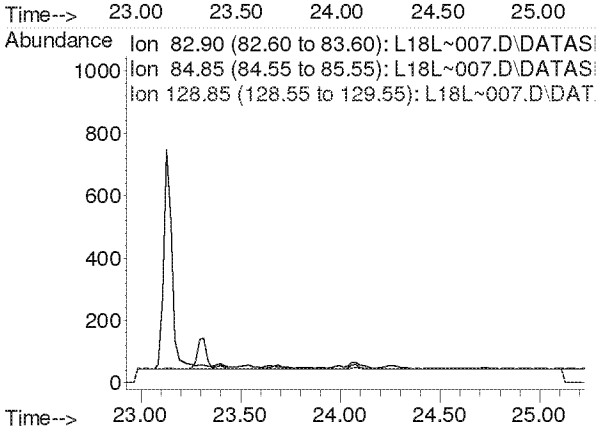


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

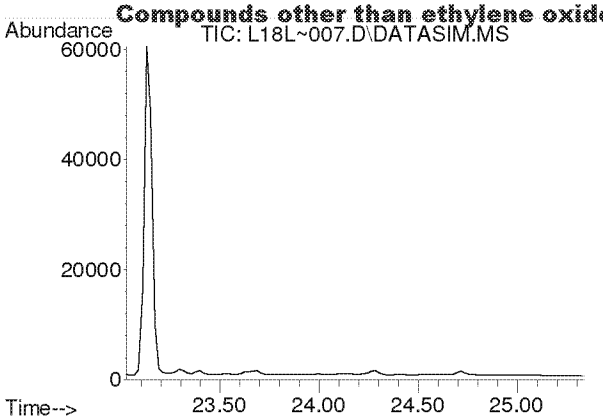
Lab File: L18L~007.D
Acq: 27 Dec 2018 9:38 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.0
129	12.4



Compounds other than ethylene oxide were not quantitated.

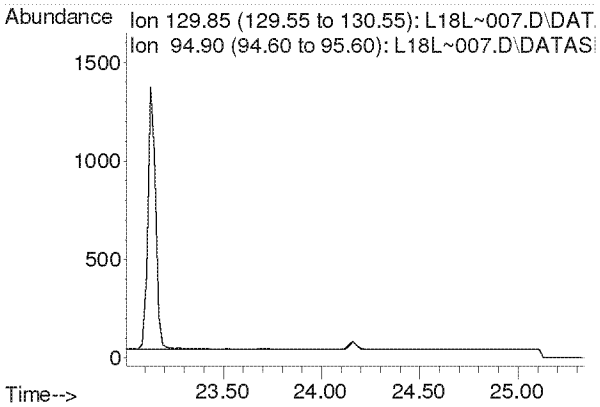


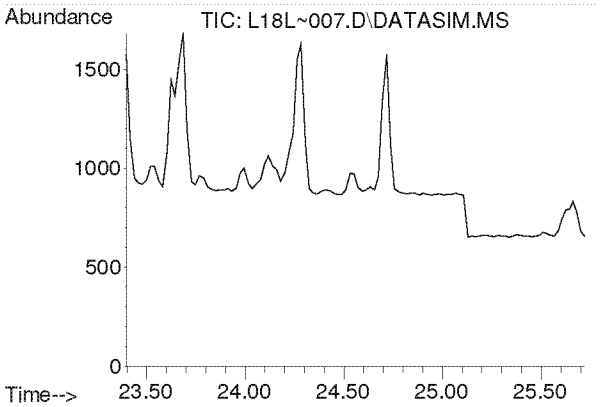
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.16 min

Lab File: L18L~007.D
Acq: 27 Dec 2018 9:38 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	110.3



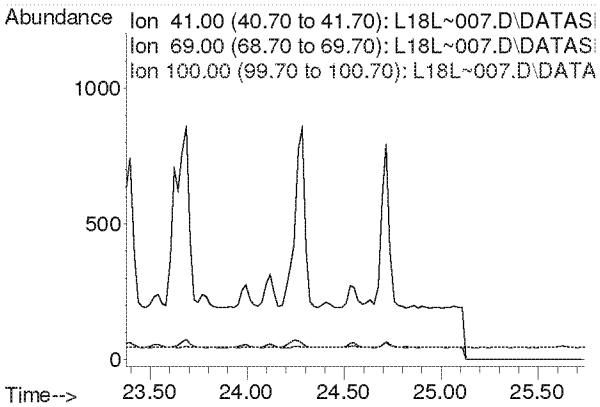


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

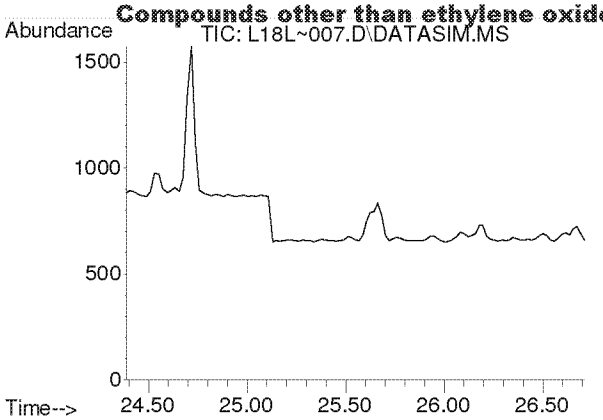
Lab File: L18L~007.D
Acq: 27 Dec 2018 9:38 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	19.9
100	5.2



Compounds other than ethylene oxide were not quantitated.

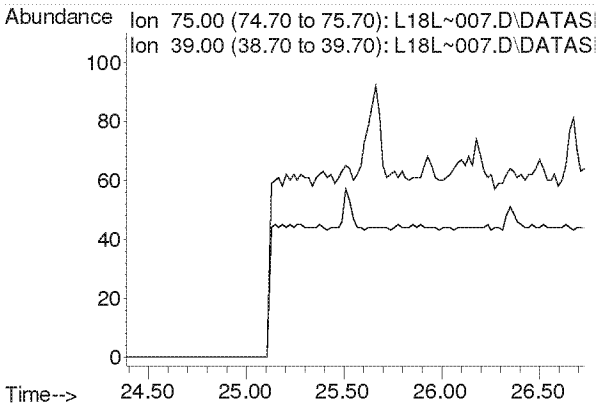


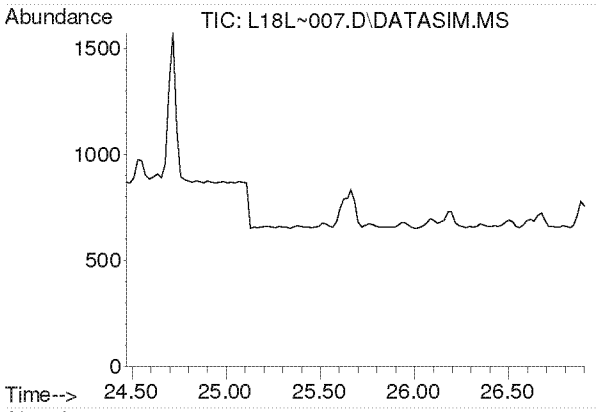
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L18L~007.D
Acq: 27 Dec 2018 9:38 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.4



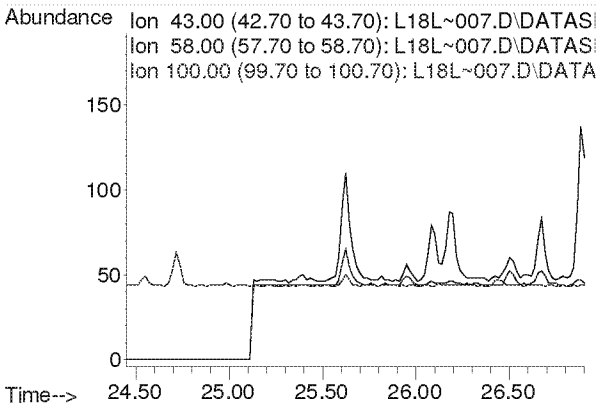


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.61 min

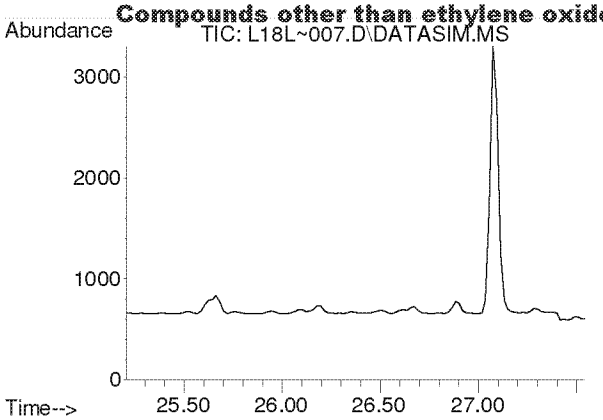
Lab File: L18L~007.D
Acq: 27 Dec 2018 9:38 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	34.2
100	7.9



Compounds other than ethylene oxide were not quantitated.

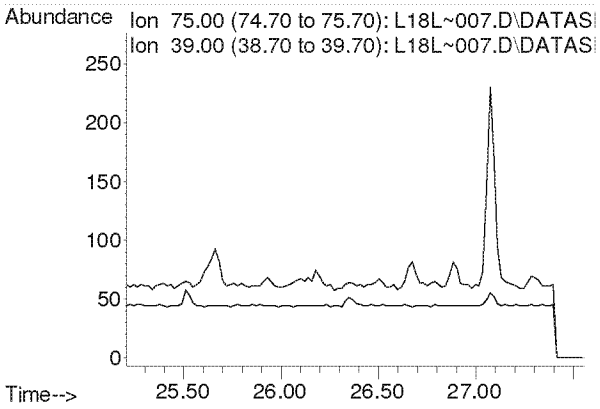


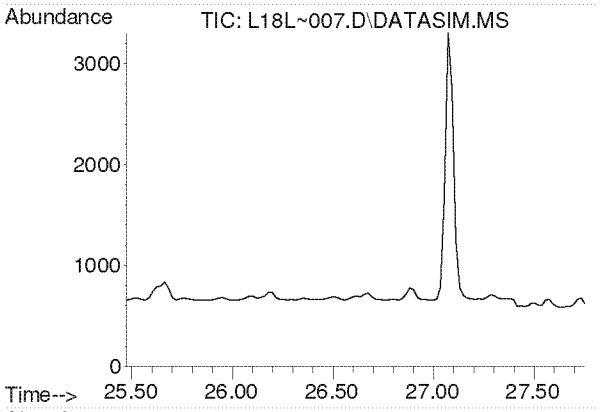
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.35 min

Lab File: L18L~007.D
Acq: 27 Dec 2018 9:38 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	50.9



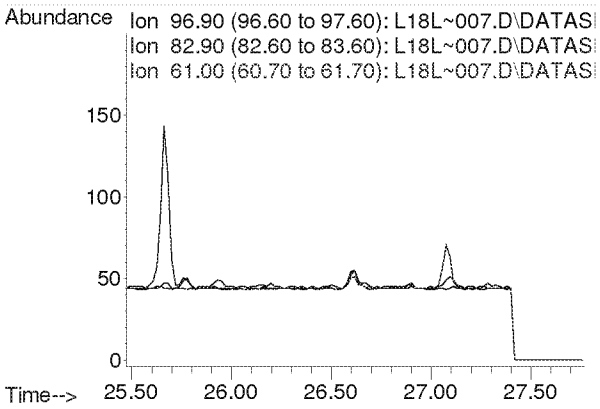


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

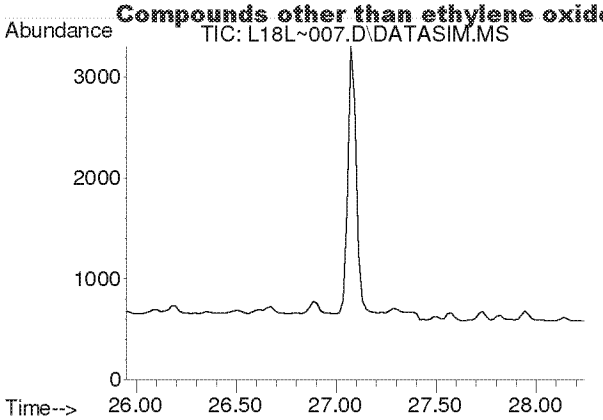
Lab File: L18L~007.D
Acq: 27 Dec 2018 9:38 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	96.1
61	63.5



Compounds other than ethylene oxide were not quantitated.

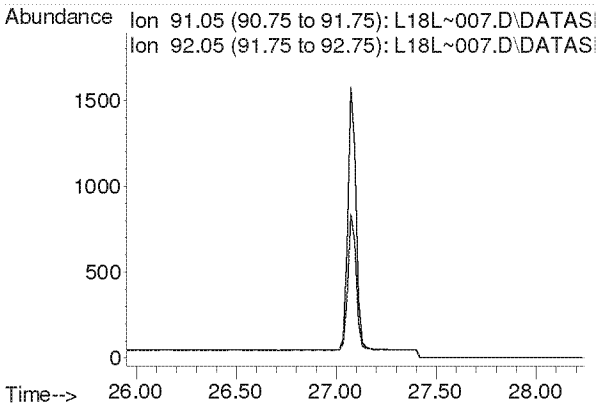


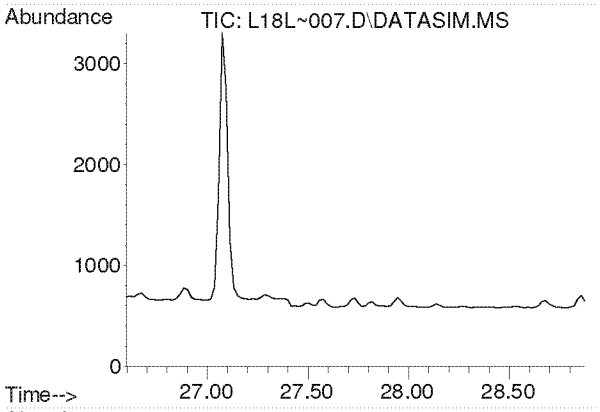
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L18L~007.D
Acq: 27 Dec 2018 9:38 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.6



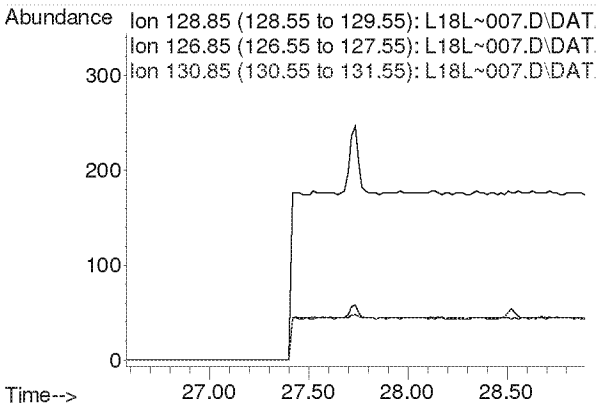


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.73 min

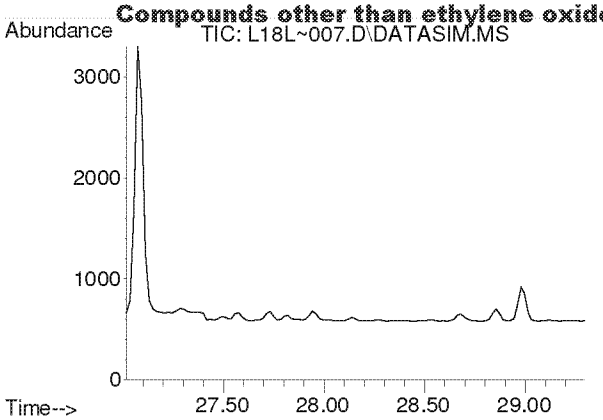
Lab File: L18L~007.D
Acq: 27 Dec 2018 9:38 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.2
131	6.0



Compounds other than ethylene oxide were not quantitated.

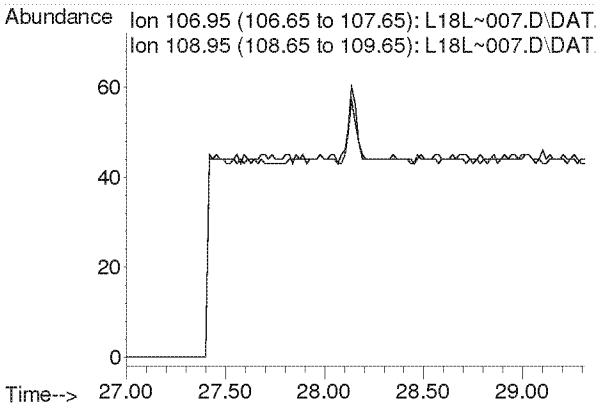


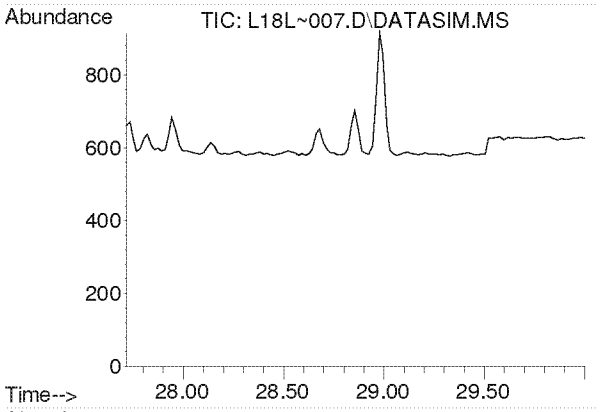
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.16 min

Lab File: L18L~007.D
Acq: 27 Dec 2018 9:38 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.5



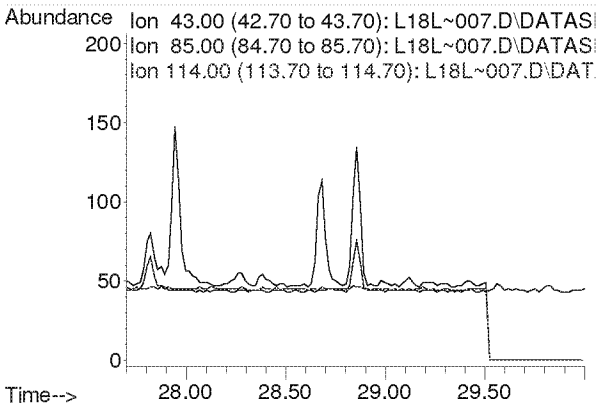


#47
n-Octane
Concen: N.D.
Expected RT: 28.86 min

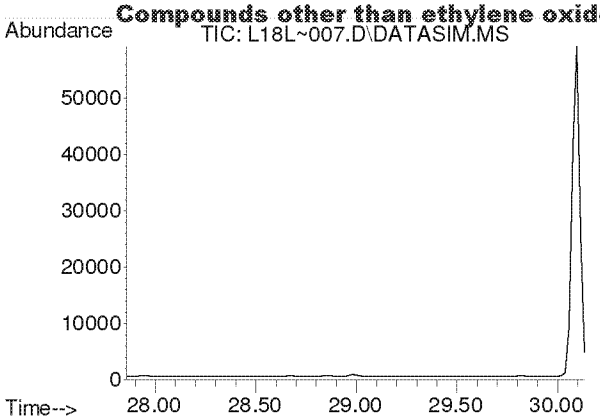
Lab File: L18L~007.D
Acq: 27 Dec 2018 9:38 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	36.0
114	2.2



Compounds other than ethylene oxide were not quantitated.

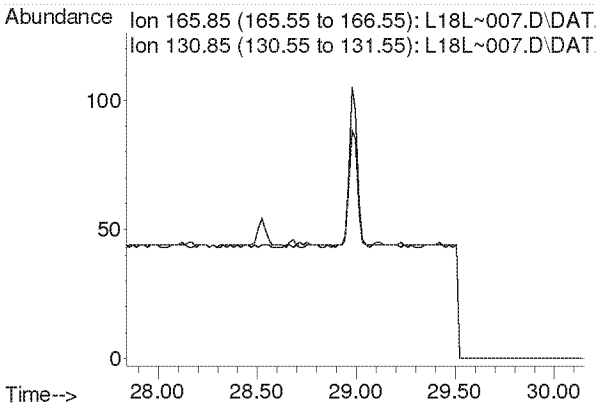


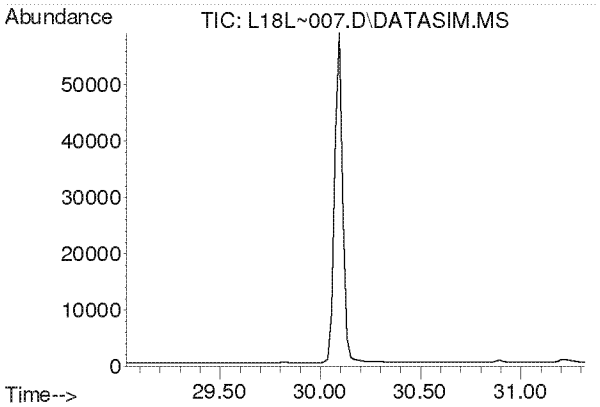
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L18L~007.D
Acq: 27 Dec 2018 9:38 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	78.2



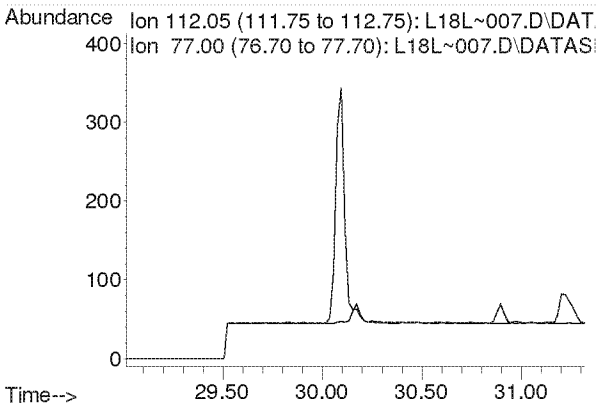


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.17 min

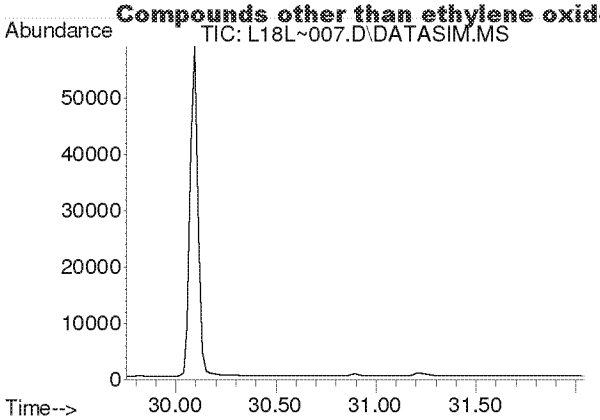
Lab File: L18L~007.D
Acq: 27 Dec 2018 9:38 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	63.0



Compounds other than ethylene oxide were not quantitated.

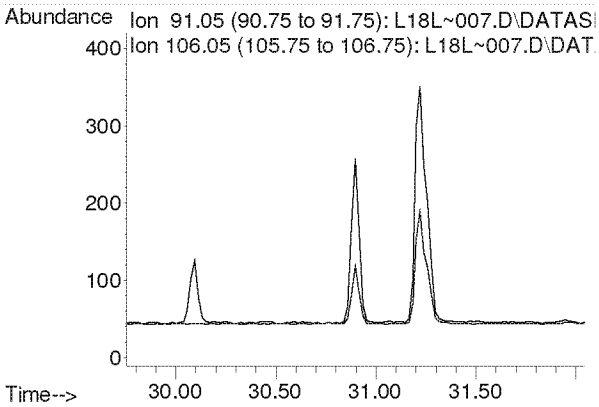


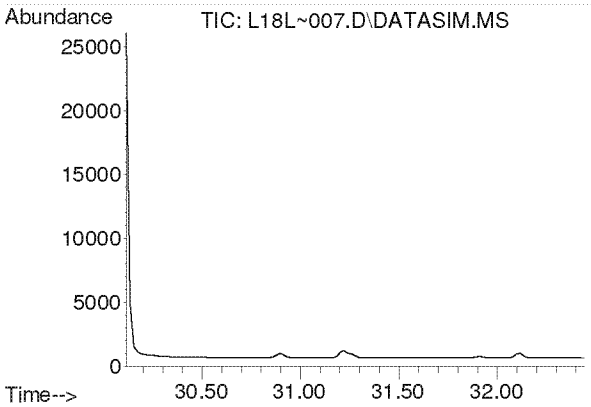
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.90 min

Lab File: L18L~007.D
Acq: 27 Dec 2018 9:38 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	31.8



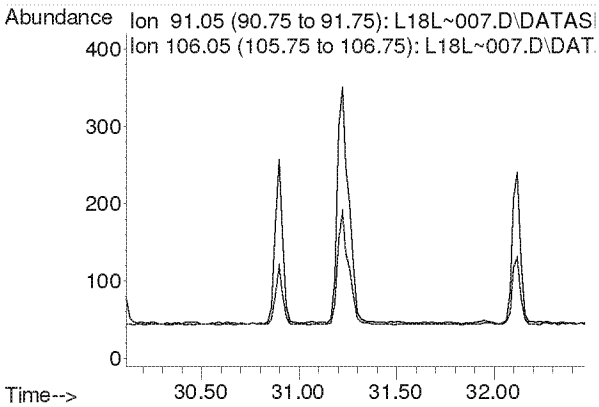


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.26 min

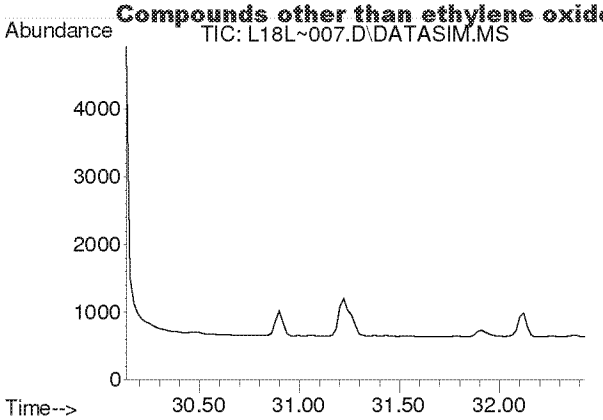
Lab File: L18L~007.D
Acq: 27 Dec 2018 9:38 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.4



Compounds other than ethylene oxide were not quantitated.

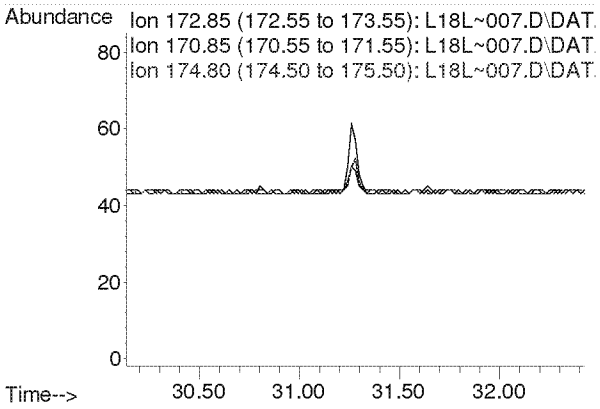


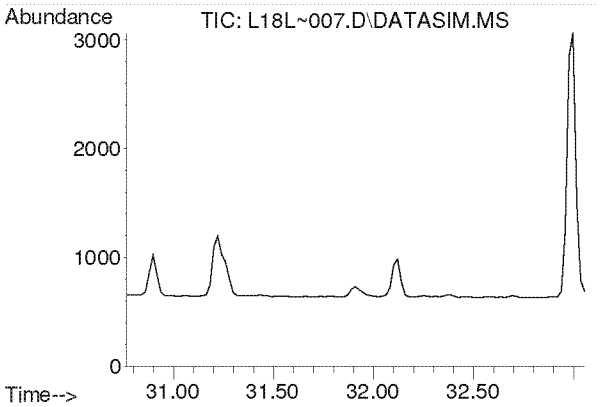
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L18L~007.D
Acq: 27 Dec 2018 9:38 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	49.0



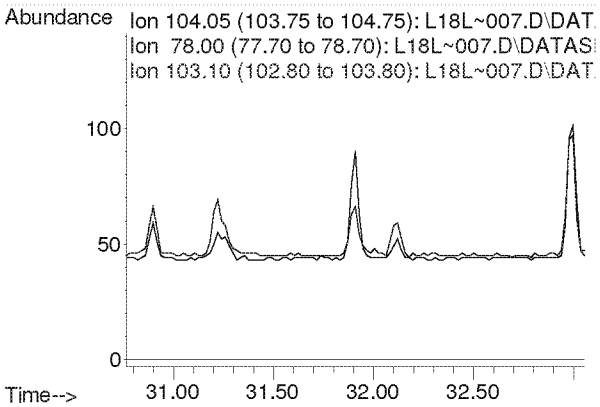


#53
Styrene
Concen: N.D.
Expected RT: 31.91 min

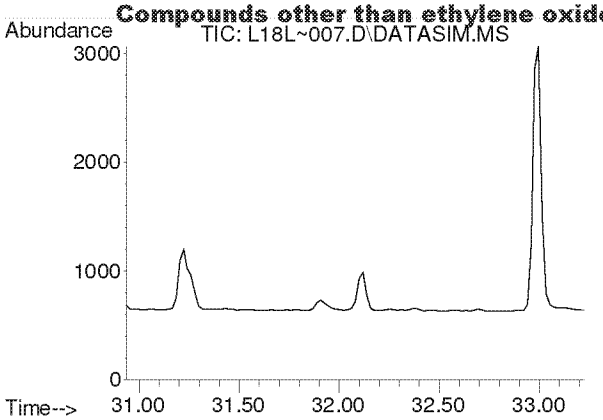
Lab File: L18L~007.D
Acq: 27 Dec 2018 9:38 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	45.6
103	0.0



Compounds other than ethylene oxide were not quantitated.

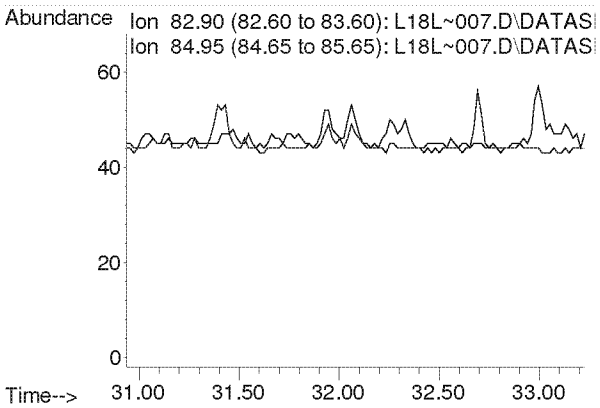


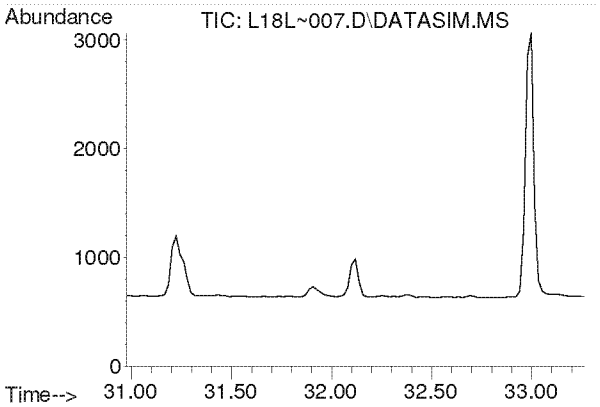
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L18L~007.D
Acq: 27 Dec 2018 9:38 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.9



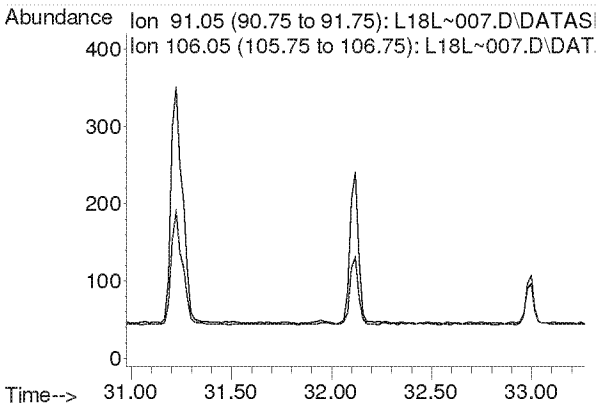


#55
o-Xylene
Concen: N.D.
Expected RT: 32.12 min

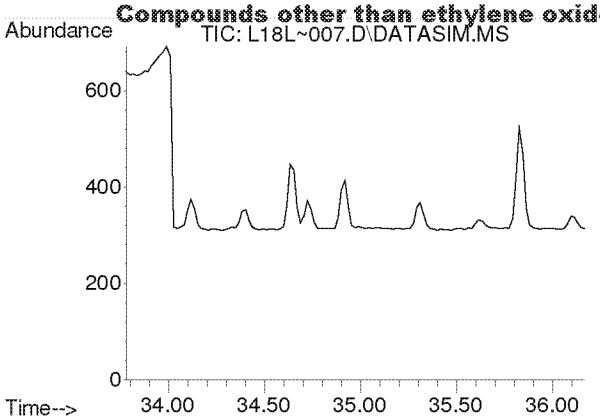
Lab File: L18L~007.D
Acq: 27 Dec 2018 9:38 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.2



Compounds other than ethylene oxide were not quantitated.

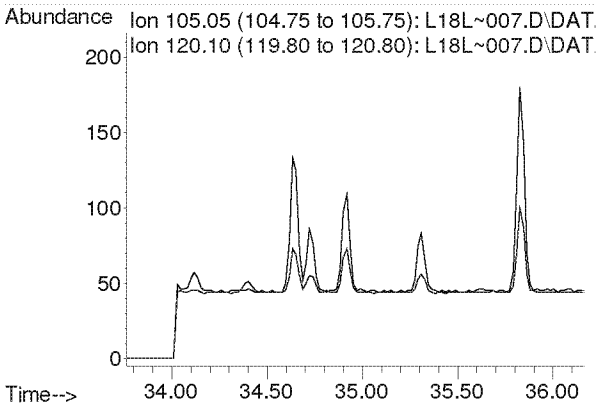


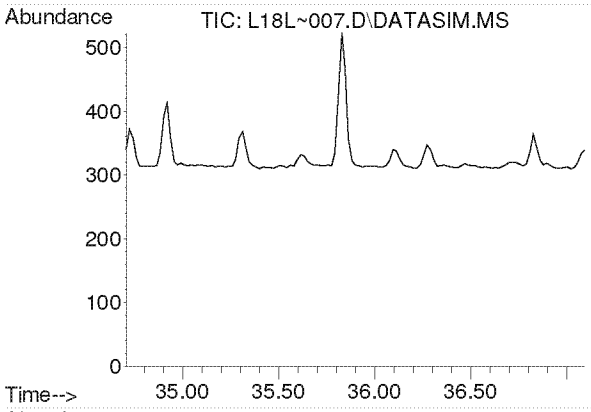
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.92 min

Lab File: L18L~007.D
Acq: 27 Dec 2018 9:38 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	45.0



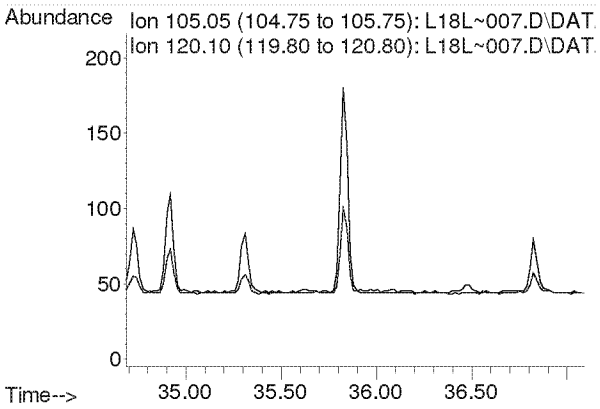


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

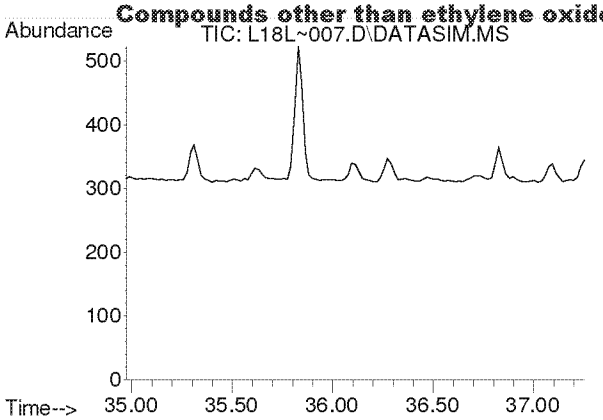
Lab File: L18L~007.D
Acq: 27 Dec 2018 9:38 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	42.8



Compounds other than ethylene oxide were not quantitated.

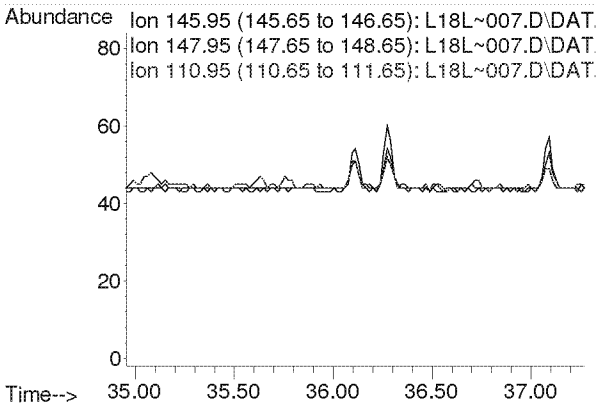


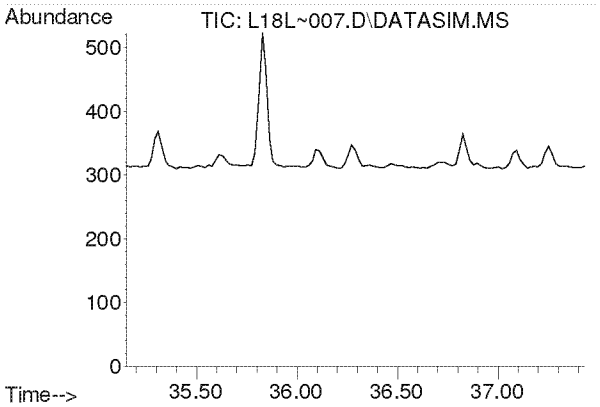
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.11 min

Lab File: L18L~007.D
Acq: 27 Dec 2018 9:38 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.5



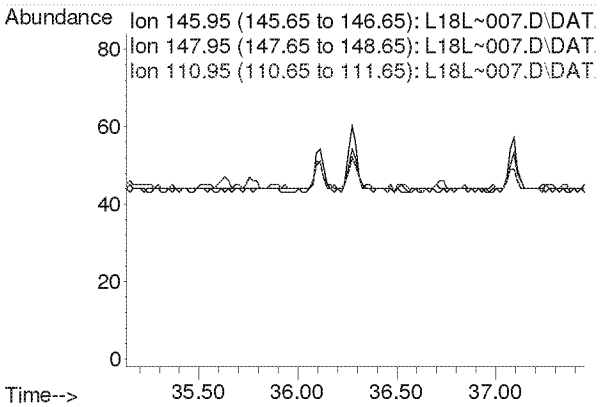


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

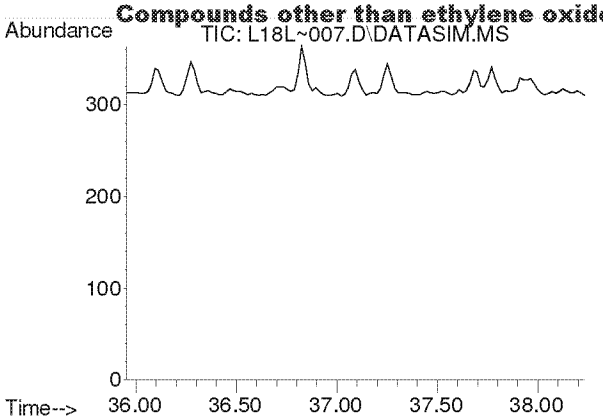
Lab File: L18L~007.D
Acq: 27 Dec 2018 9:38 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	39.5



Compounds other than ethylene oxide were not quantitated.

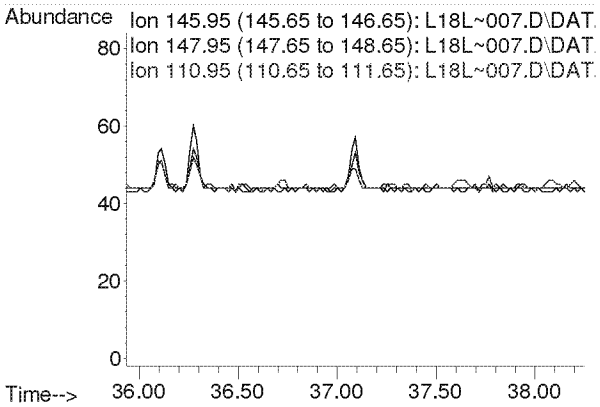


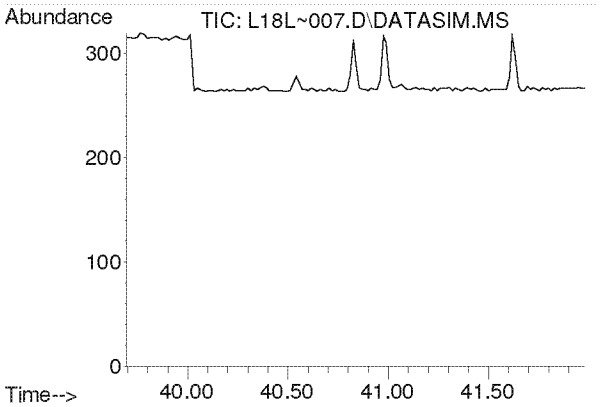
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.09 min

Lab File: L18L~007.D
Acq: 27 Dec 2018 9:38 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	41.4



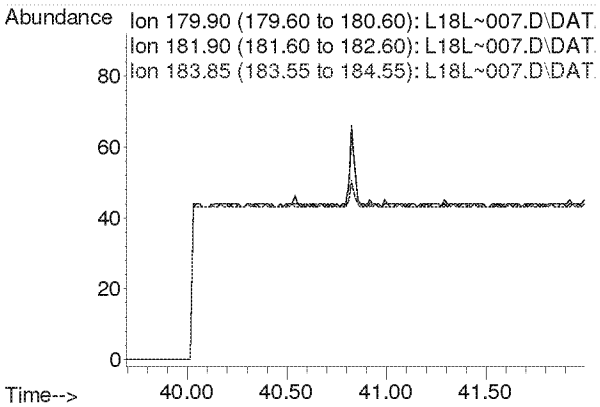


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

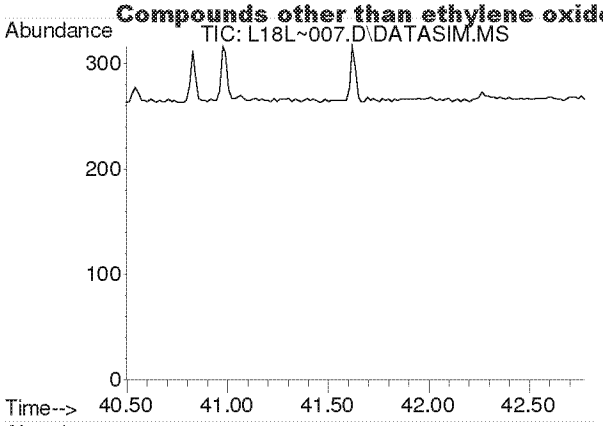
Lab File: L18L~007.D
Acq: 27 Dec 2018 9:38 pm

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	95.1
184	30.7



Compounds other than ethylene oxide were not quantitated.

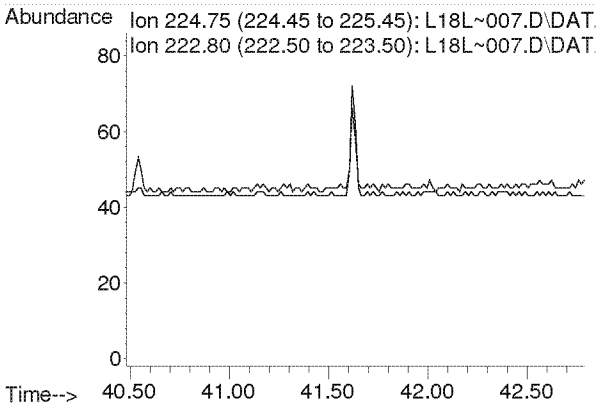


#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.64 min

Lab File: L18L~007.D
Acq: 27 Dec 2018 9:38 pm

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\L18L~\
Data File : L18L~008.D
Acq On : 27 Dec 2018 10:39 pm
Operator : MAH
Sample : 8121130-08
Misc : HINSDALE S. HS 12/7/18
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jan 03 12:34:08 2019
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.993	66	56038	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.151	114	133950	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.097	117	96366	4.7400 ppbv	0.00

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. d	
8) 1,3-Butadiene	0.000	54	0	N.D. d	
9) Ethylene oxide	12.440	29	900	0.2687 ppbv #	1
10) Bromomethane	0.000	94	0	N.D. d	
11) Chloroethane	0.000	64	0	N.D. 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. 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. d	
21) 1,1-Dichloroethane	0.000	63	0	N.D. 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. d	
26) Chloroform	0.000	83	0	N.D. d	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D. d	
28) 1,2-Dichloroethane	0.000	62	0	N.D. d	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D. 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. 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. d	
37) Trichloroethylene	0.000	130	0	N.D. d	
38) Methyl Methacrylate	0.000	41	0	N.D. d	
39) cis-1,3-Dichloropropene	0.000	75	0	N.D. 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. d	
44) Toluene	0.000	91	0	N.D. d	
45) Dibromochloromethane	0.000	129	0	N.D. d	
46) 1,2-Dibromoethane	0.000	107	0	N.D. 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. 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\L18L~\
Data File : L18L~008.D
Acq On : 27 Dec 2018 10:39 pm
Operator : MAH
Sample : 8121130-08
Misc : HINSDALE S. HS 12/7/18
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jan 03 12:34:08 2019
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
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. 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. d	
59) p-Dichlorobenzene	0.000	146	0	N.D. d	
60) o-Dichlorobenzene	0.000	146	0	N.D. d	
61) 1,2,4-Trichlorobenzene	0.000	180	0	N.D. d	
62) Hexachloro-1,3-butadiene	0.000	225	0	N.D. d	

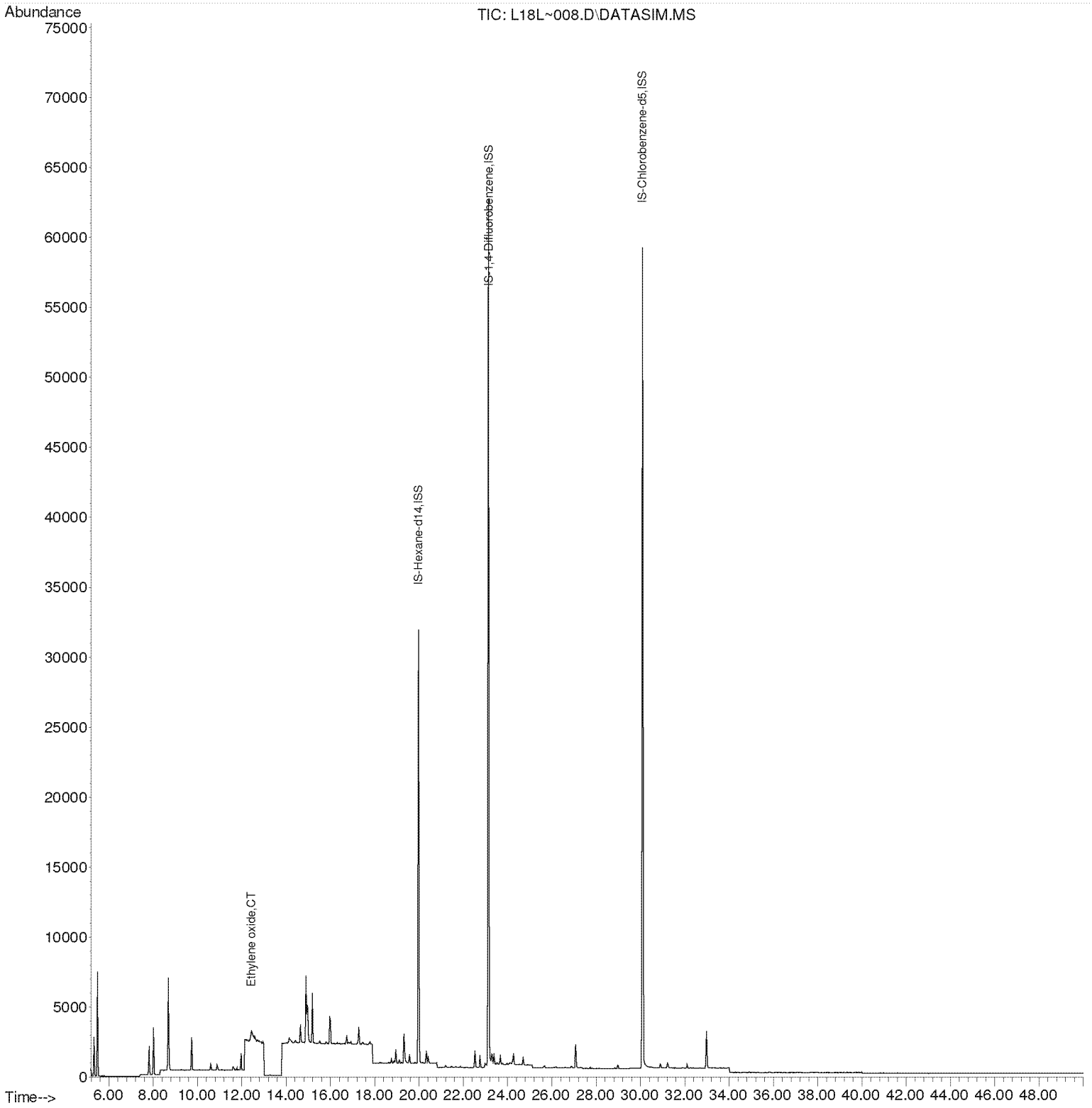
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

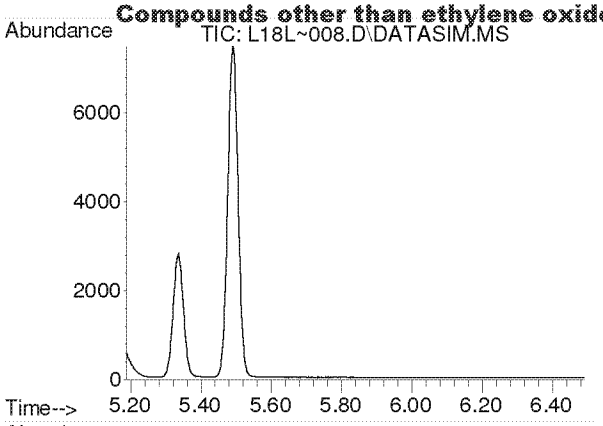
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L18L~\
Data File : L18L~008.D
Acq On : 27 Dec 2018 10:39 pm
Operator : MAH
Sample : 8121130-08
Misc : HINSDALE S. HS 12/7/18
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jan 03 12:19:03 2019
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
Response via : Initial Calibration



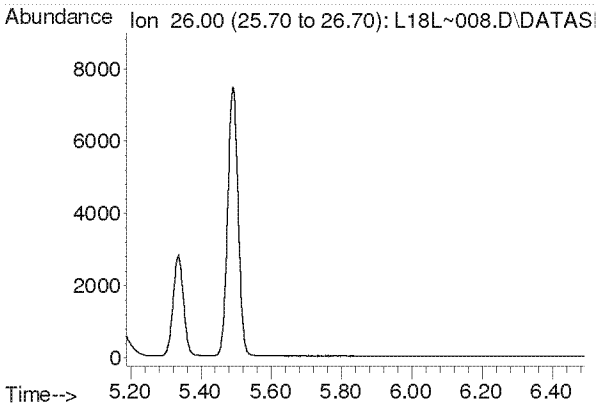
Compounds other than ethylene oxide were not quantitated.

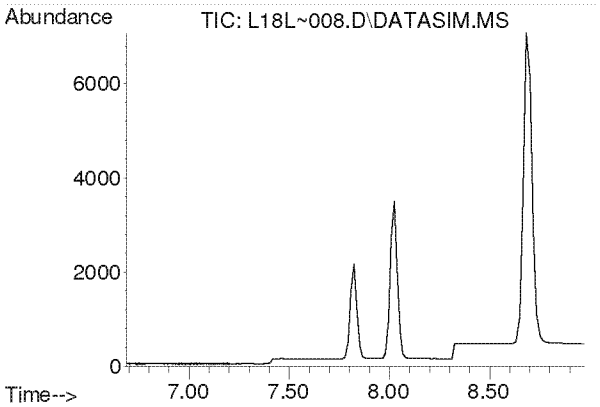


#2
Acetylene
Concen: N.D.
Expected RT: 5.42 min

Lab File: L18L~008.D
Acq: 27 Dec 2018 10:39 pm

Tgt Ion: 26



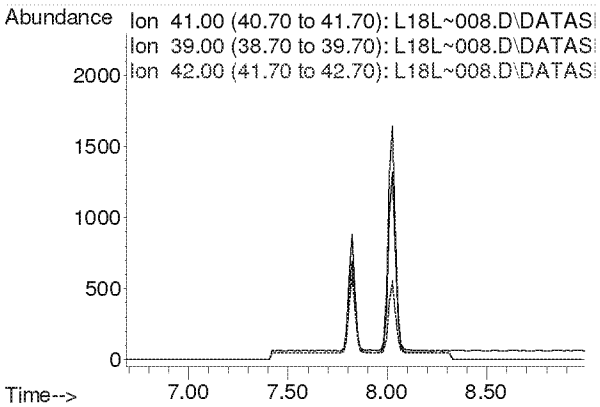


#3
Propylene
Concen: N.D.
Expected RT: 7.84 min

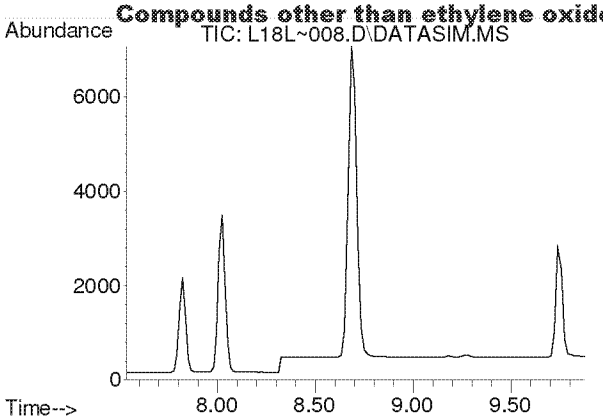
Lab File: L18L~008.D
Acq: 27 Dec 2018 10:39 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	78.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

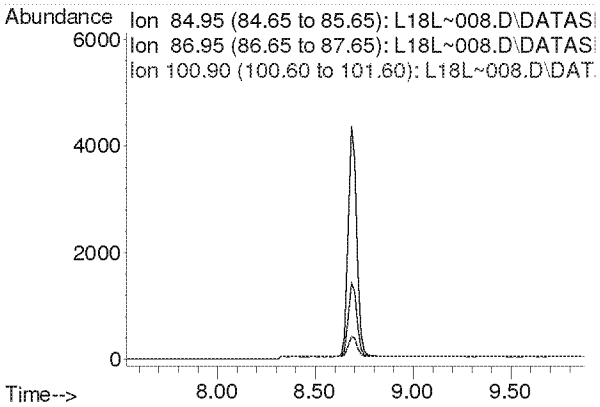


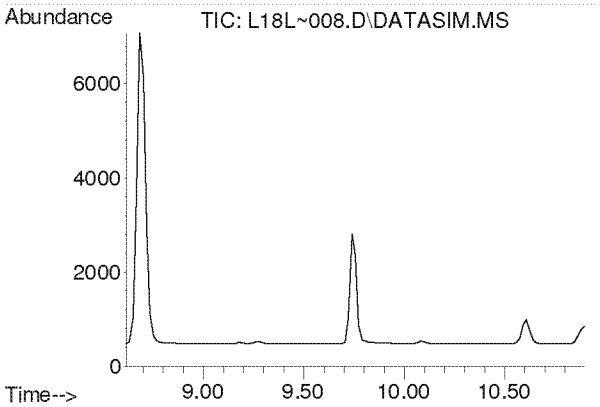
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L18L~008.D
Acq: 27 Dec 2018 10:39 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	8.9



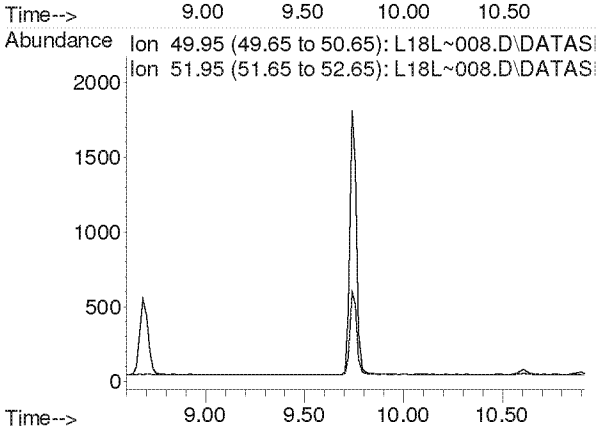


#5
Chloromethane
Concen: N.D.
Expected RT: 9.76 min

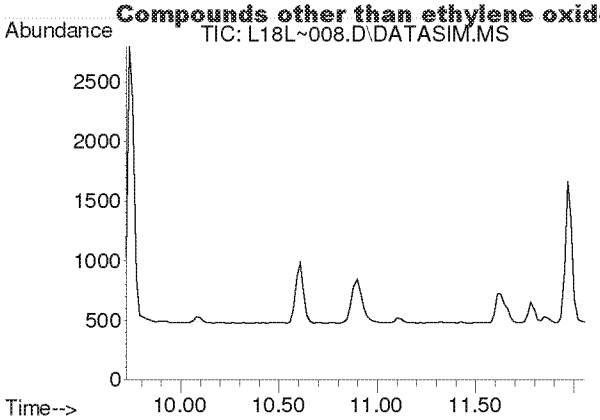
Lab File: L18L~008.D
Acq: 27 Dec 2018 10:39 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

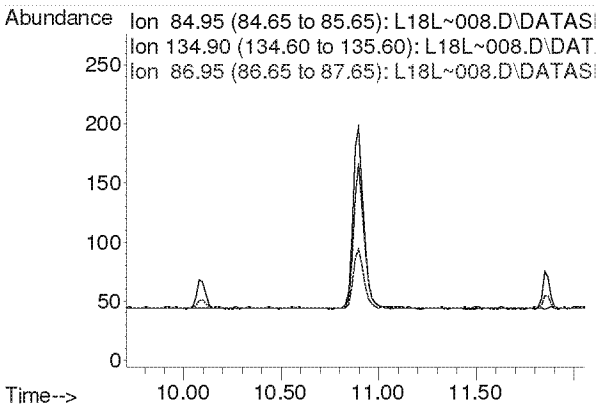


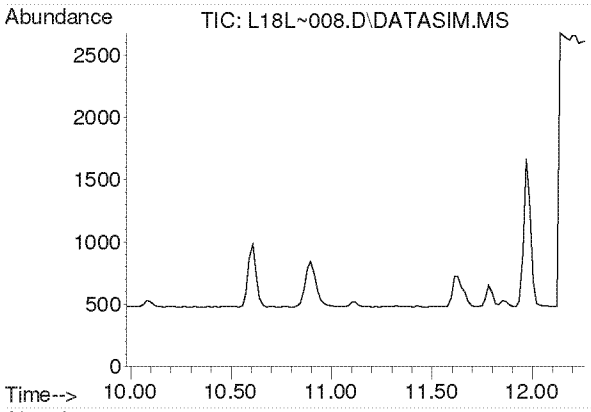
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L18L~008.D
Acq: 27 Dec 2018 10:39 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.1
87	32.1



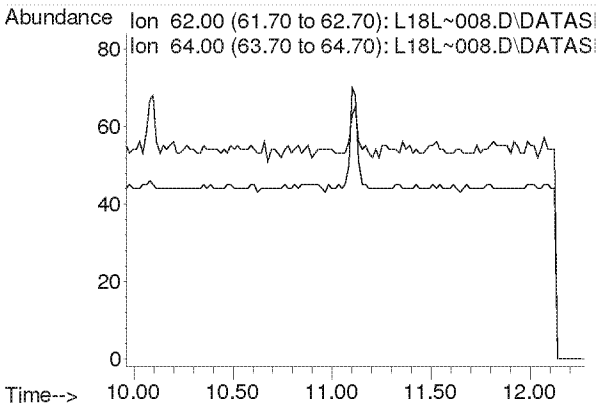


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

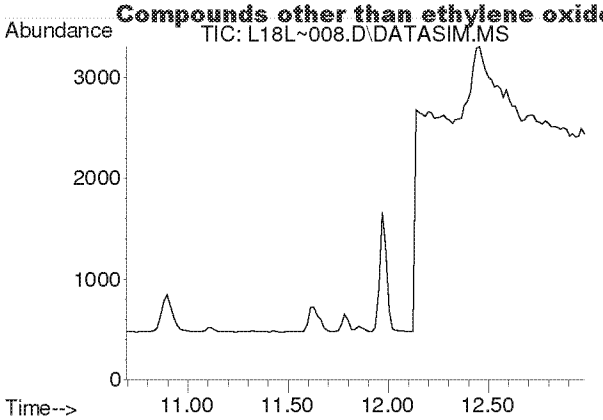
Lab File: L18L~008.D
Acq: 27 Dec 2018 10:39 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.8



Compounds other than ethylene oxide were not quantitated.

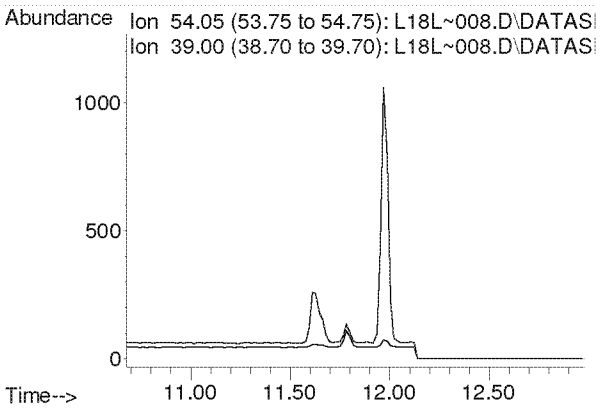


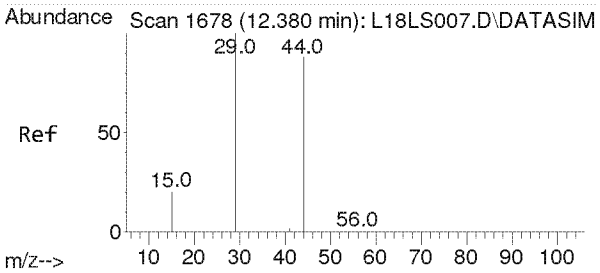
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L18L~008.D
Acq: 27 Dec 2018 10:39 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	105.4

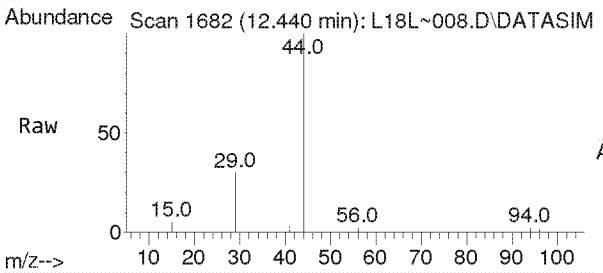


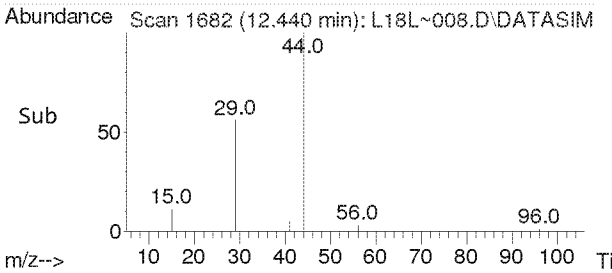


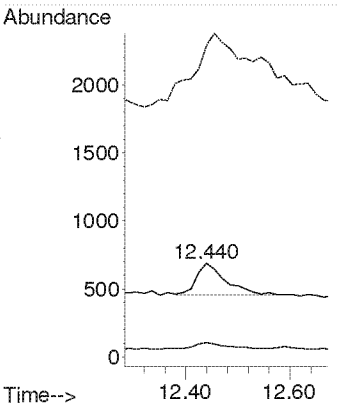
#9
Ethylene oxide
Concen: 0.269 ppbv
RT: 12.440 min Scan# 1682
Delta R.T. 0.060 min
Lab File: L18L~008.D
Acq: 27 Dec 2018 10:39 pm

Tgt Ion: 29 Resp: 900

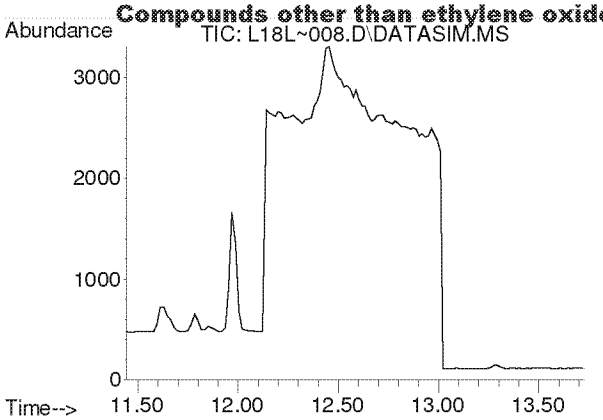
Ion	Ratio	Lower	Upper
29	100		
15	21.1	16.2	24.4
44	480.6	72.0	108.0#







Compounds other than ethylene oxide were not quantitated.

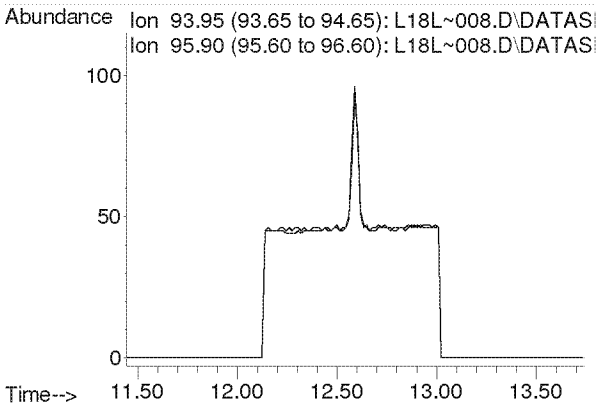


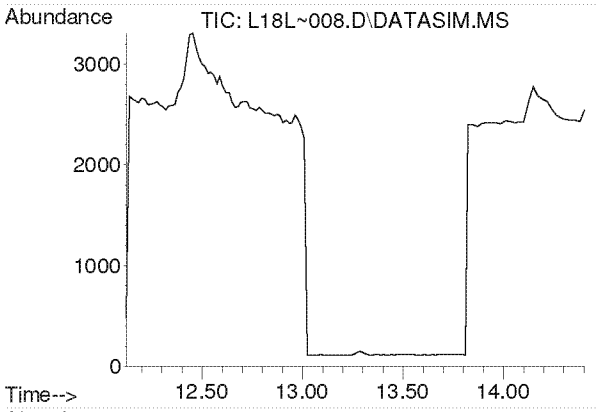
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L18L~008.D
Acq: 27 Dec 2018 10:39 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	93.9



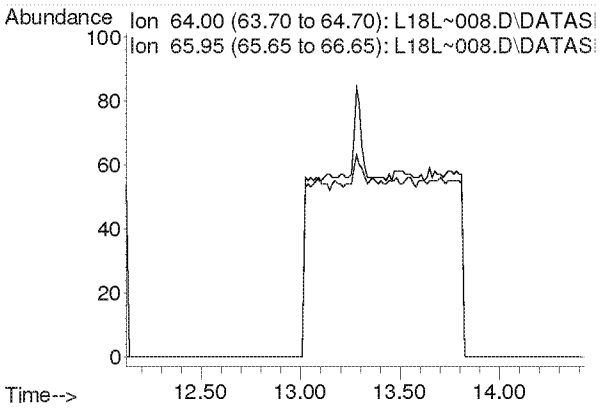


#11
Chloroethane
Concen: N.D.
Expected RT: 13.27 min

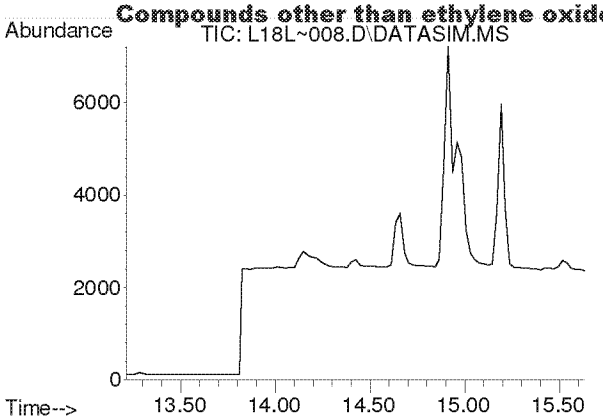
Lab File: L18L~008.D
Acq: 27 Dec 2018 10:39 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.0



Compounds other than ethylene oxide were not quantitated.

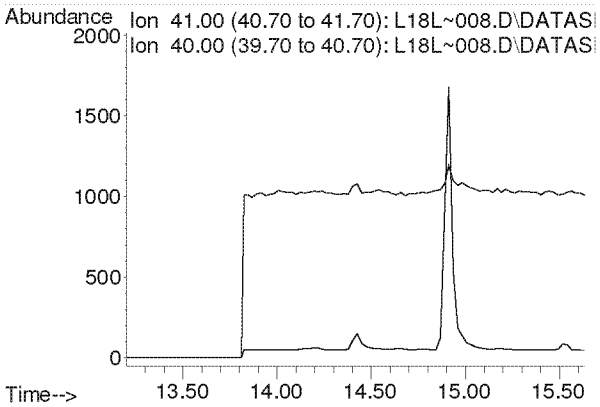


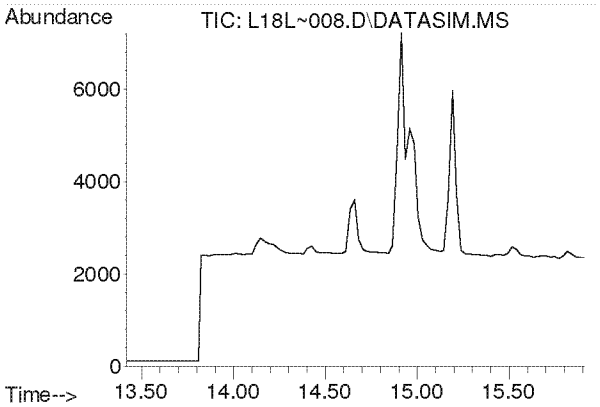
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.33 min

Lab File: L18L~008.D
Acq: 27 Dec 2018 10:39 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	50.9



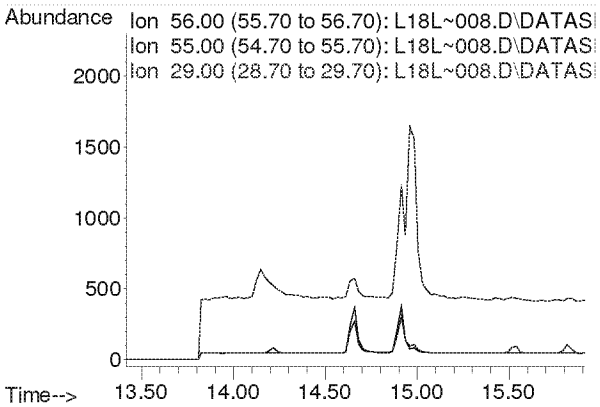


#13
Acrolein
Concen: N.D.
Expected RT: 14.61 min

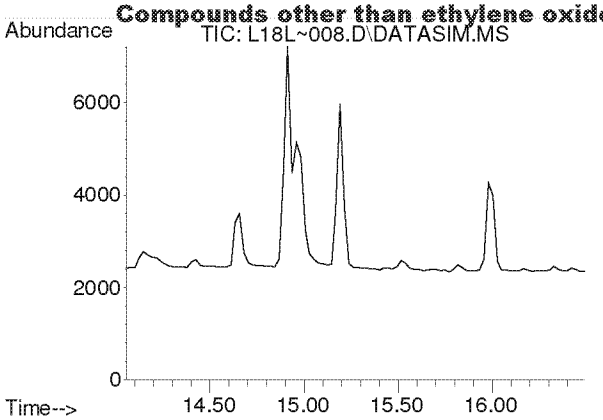
Lab File: L18L~008.D
Acq: 27 Dec 2018 10:39 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	75.4
29	52.9



Compounds other than ethylene oxide were not quantitated.

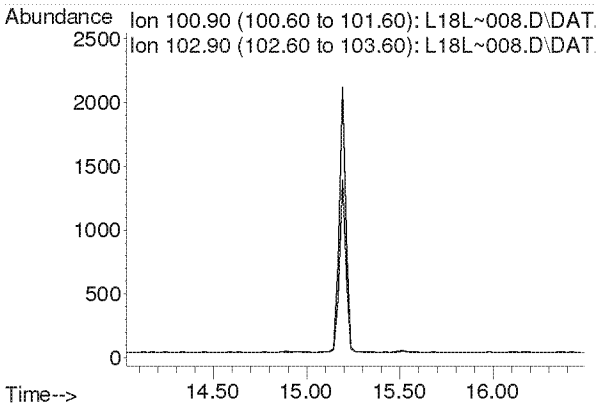


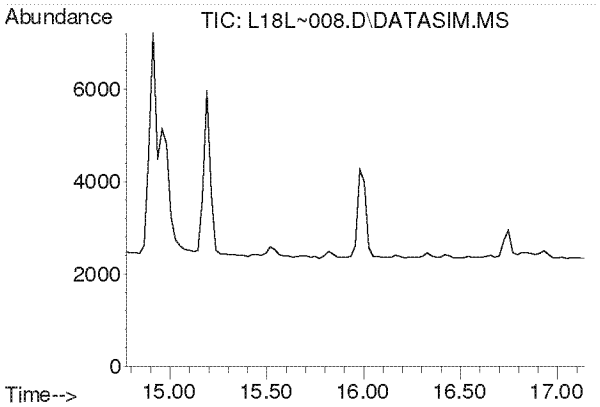
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L18L~008.D
Acq: 27 Dec 2018 10:39 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



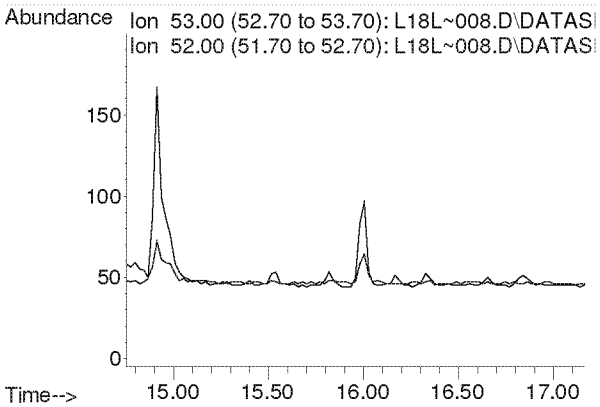


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.91 min

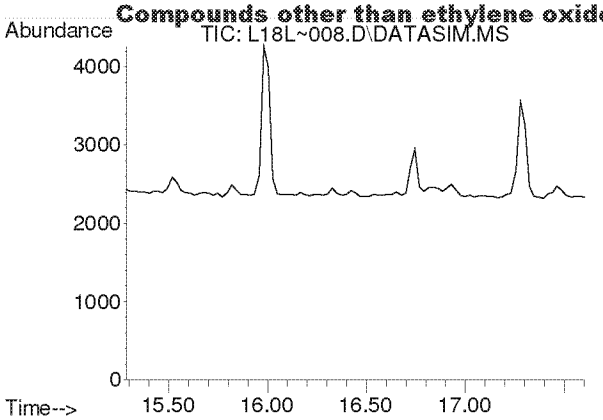
Lab File: L18L~008.D
Acq: 27 Dec 2018 10:39 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	85.4



Compounds other than ethylene oxide were not quantitated.

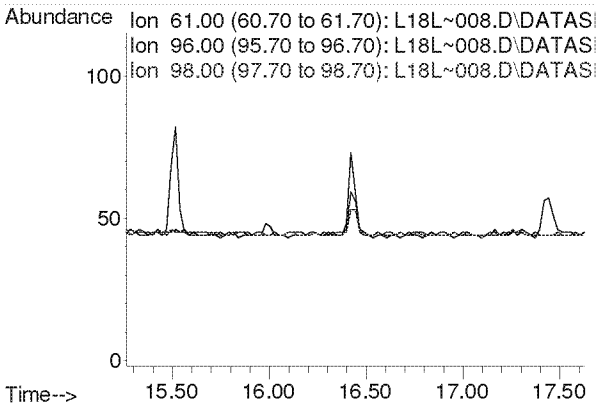


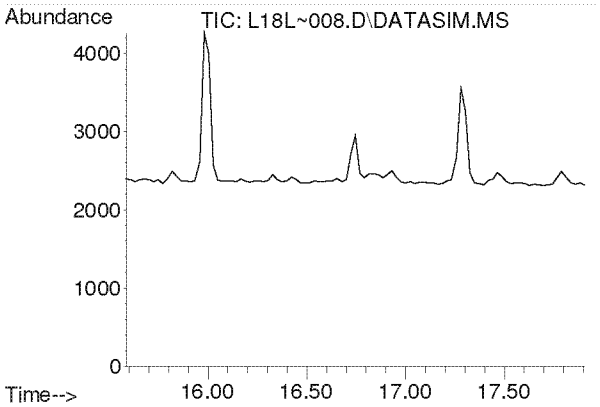
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L18L~008.D
Acq: 27 Dec 2018 10:39 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	58.3
98	37.4



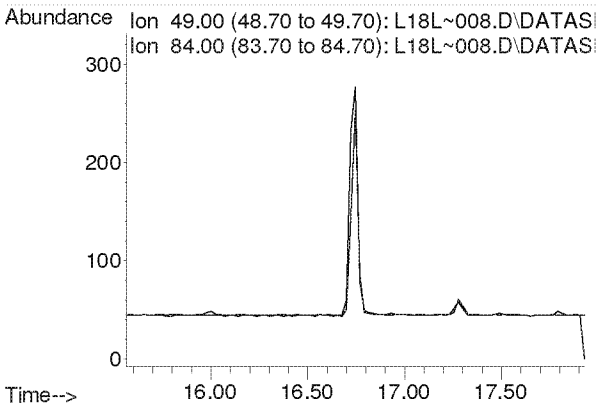


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.72 min

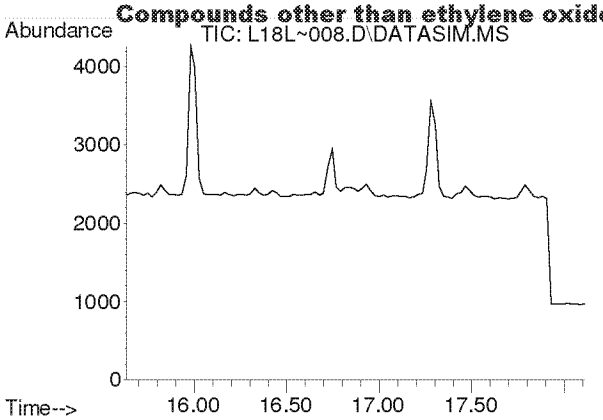
Lab File: L18L~008.D
Acq: 27 Dec 2018 10:39 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	76.4



Compounds other than ethylene oxide were not quantitated.

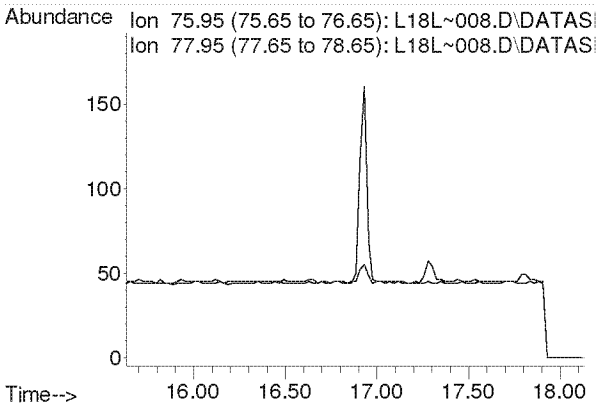


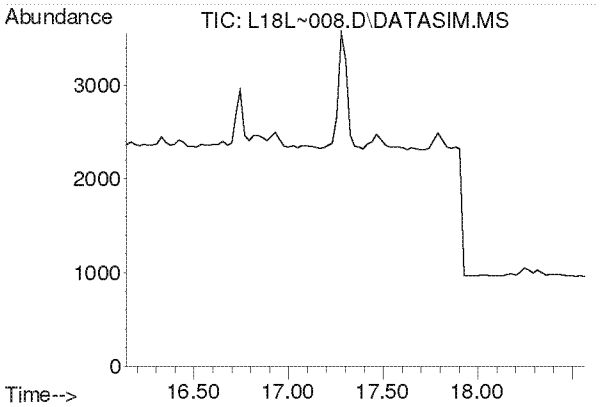
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L18L~008.D
Acq: 27 Dec 2018 10:39 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.1



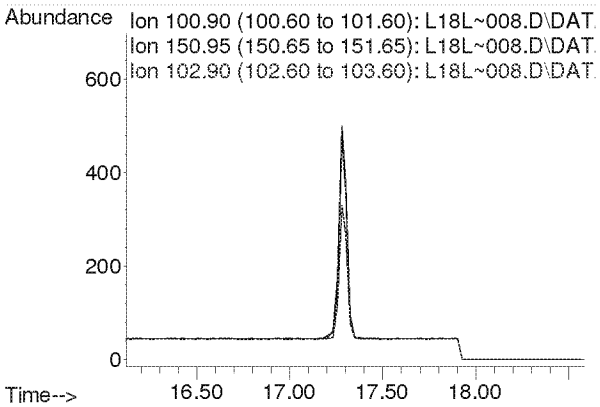


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

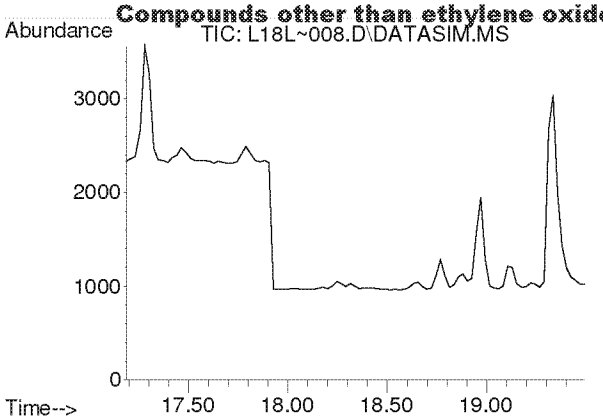
Lab File: L18L~008.D
Acq: 27 Dec 2018 10:39 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	95.3
103	64.1



Compounds other than ethylene oxide were not quantitated.

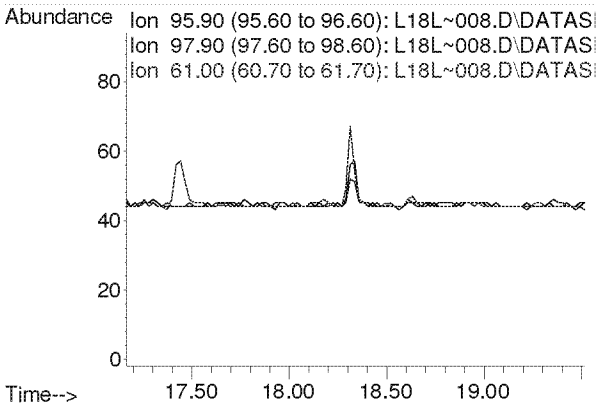


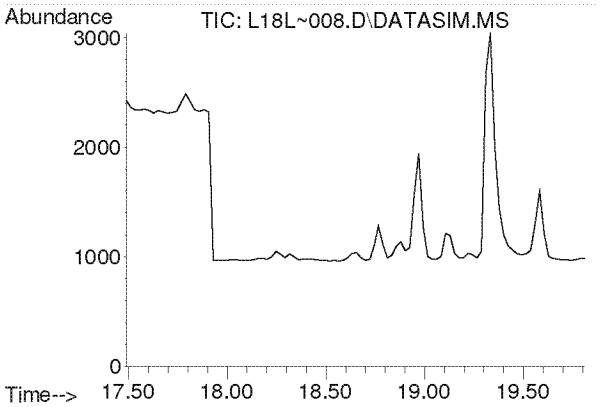
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.31 min

Lab File: L18L~008.D
Acq: 27 Dec 2018 10:39 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	63.7
61	159.2



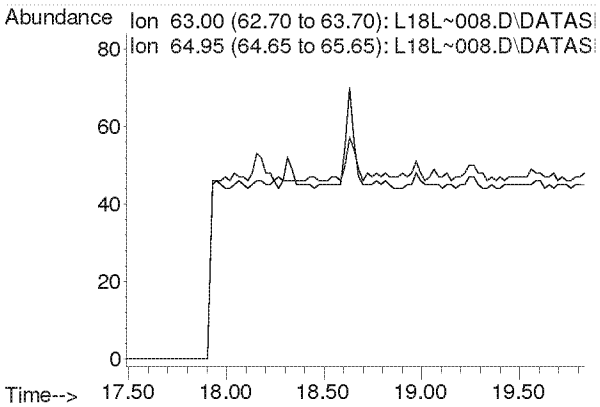


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

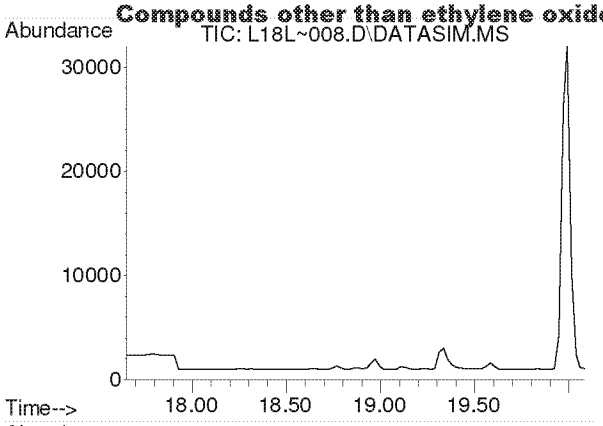
Lab File: L18L~008.D
Acq: 27 Dec 2018 10:39 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

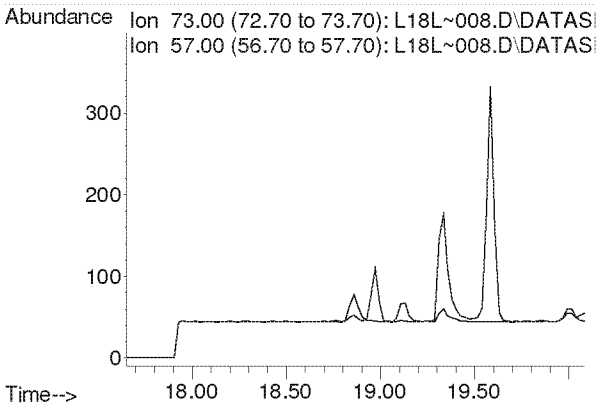


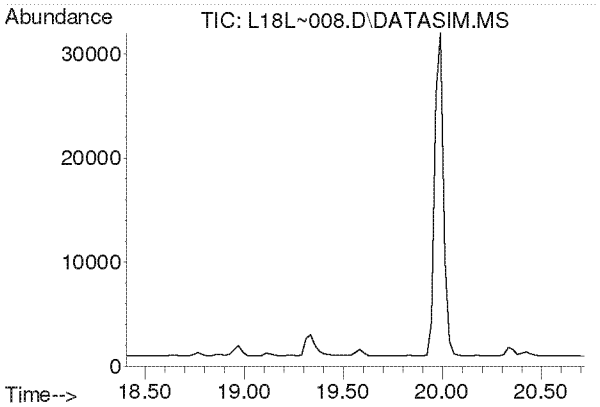
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L18L~008.D
Acq: 27 Dec 2018 10:39 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.4



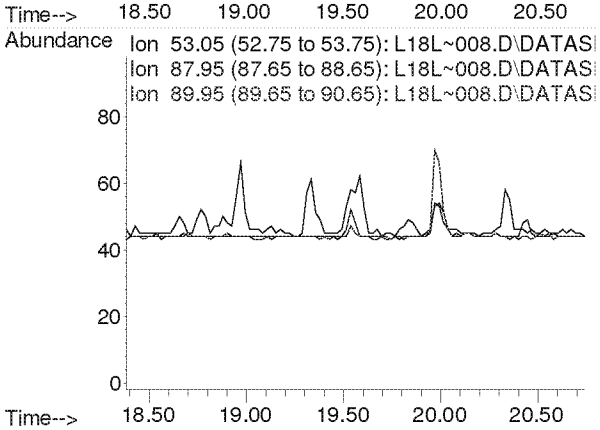


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

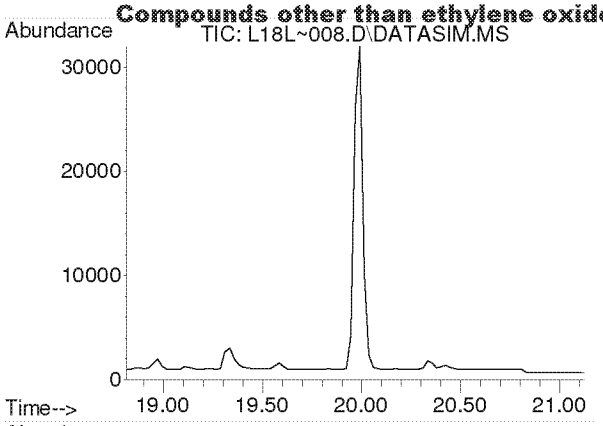
Lab File: L18L~008.D
Acq: 27 Dec 2018 10:39 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	51.8
90	16.8



Compounds other than ethylene oxide were not quantitated.

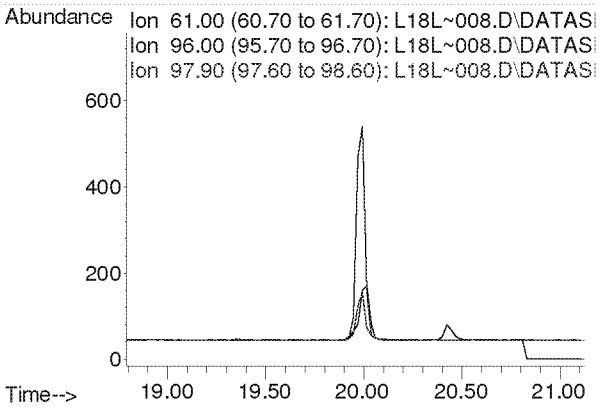


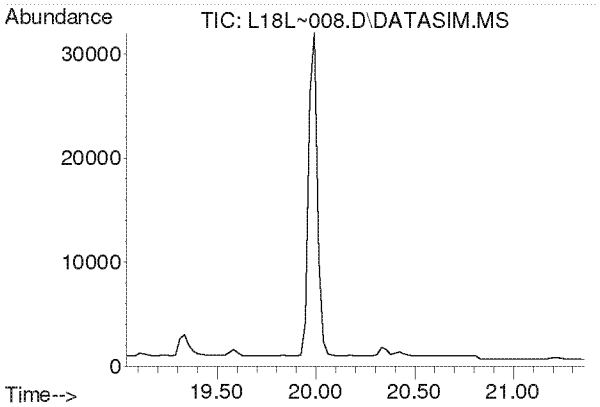
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L18L~008.D
Acq: 27 Dec 2018 10:39 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.7
98	45.2



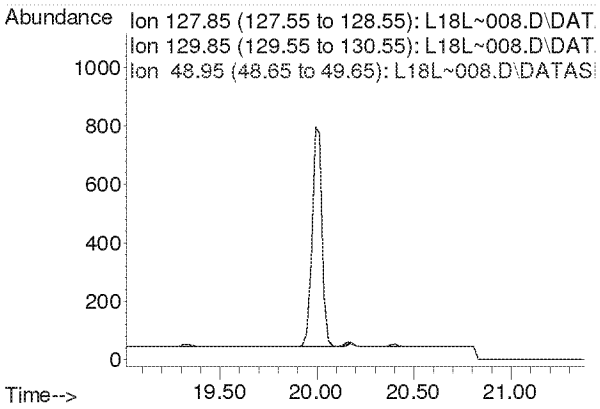


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

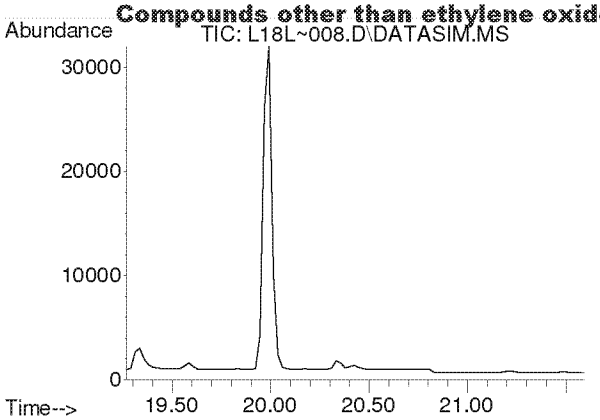
Lab File: L18L~008.D
Acq: 27 Dec 2018 10:39 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	171.2



Compounds other than ethylene oxide were not quantitated.

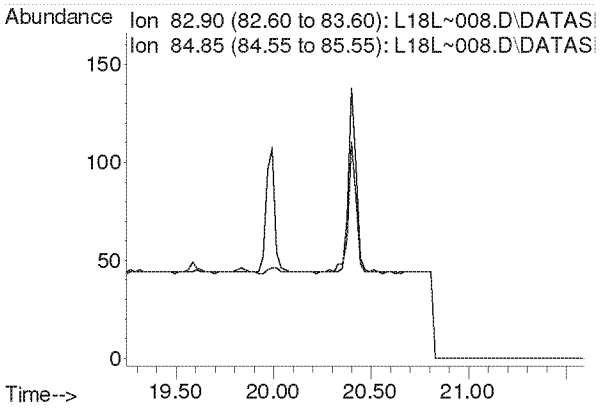


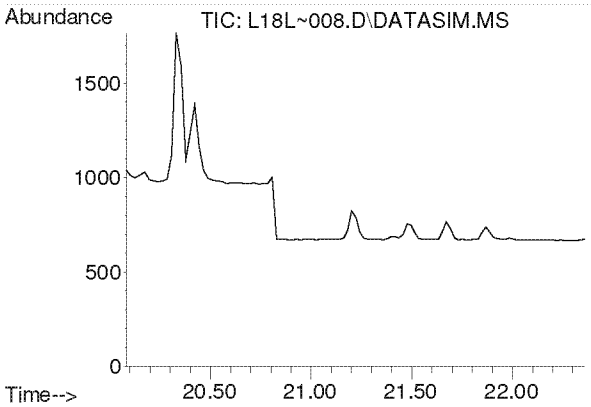
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L18L~008.D
Acq: 27 Dec 2018 10:39 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



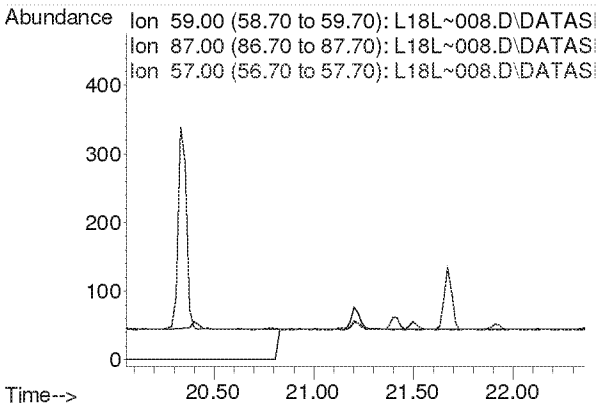


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.16 min

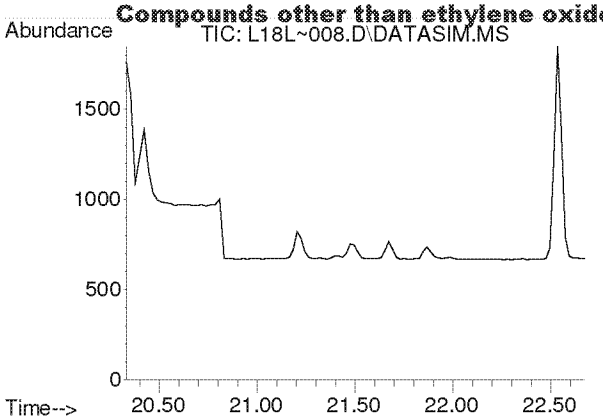
Lab File: L18L~008.D
Acq: 27 Dec 2018 10:39 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	37.5
57	33.8



Compounds other than ethylene oxide were not quantitated.

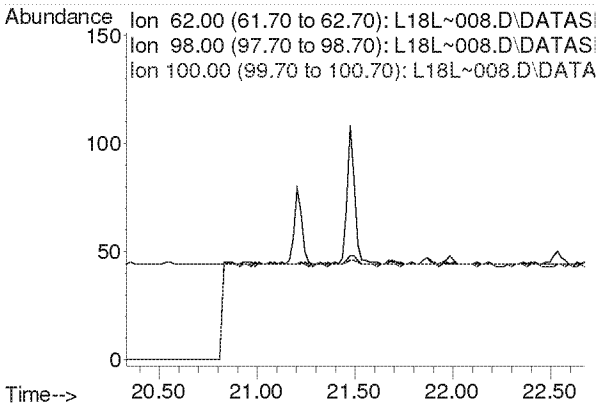


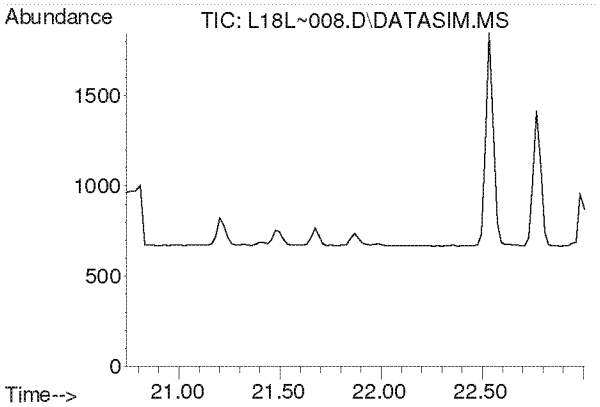
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L18L~008.D
Acq: 27 Dec 2018 10:39 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.4
100	4.0



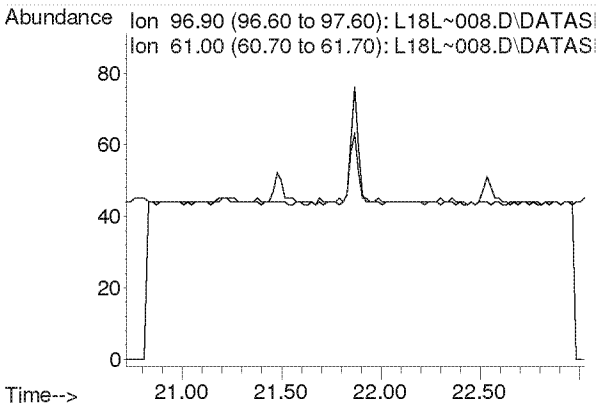


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

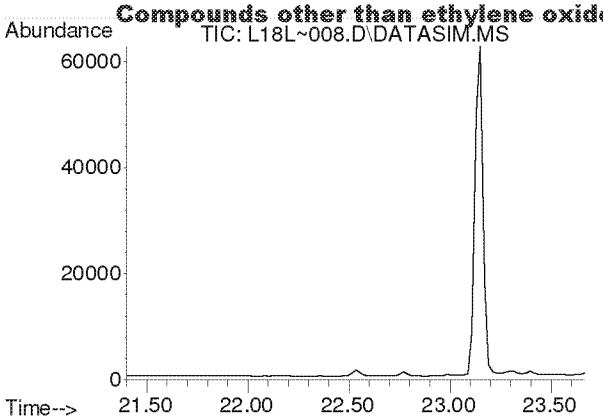
Lab File: L18L~008.D
Acq: 27 Dec 2018 10:39 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	60.5



Compounds other than ethylene oxide were not quantitated.

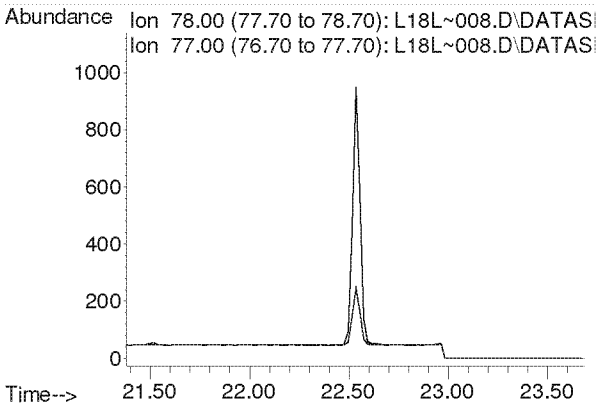


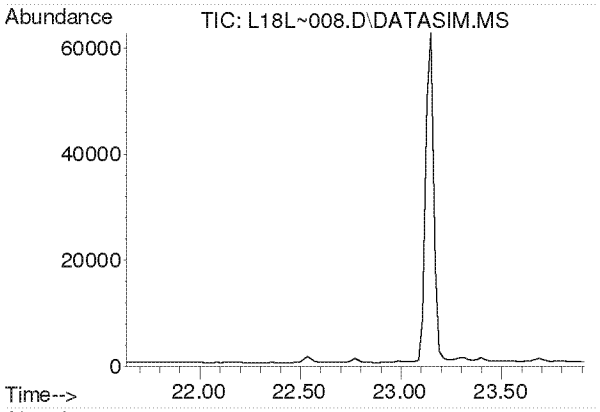
#31
Benzene
Concen: N.D.
Expected RT: 22.54 min

Lab File: L18L~008.D
Acq: 27 Dec 2018 10:39 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.7



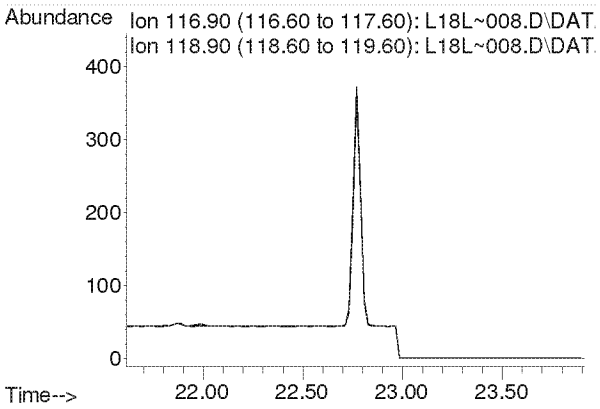


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

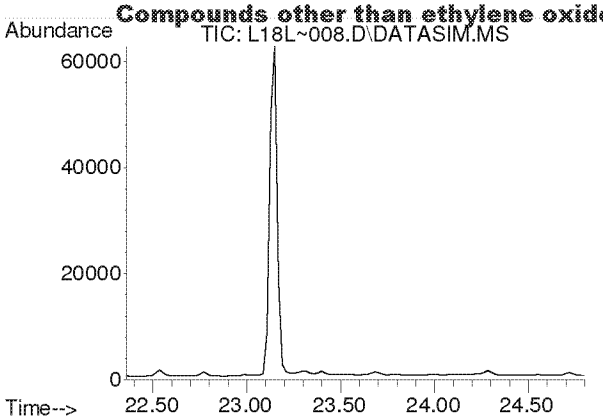
Lab File: L18L~008.D
Acq: 27 Dec 2018 10:39 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.5



Compounds other than ethylene oxide were not quantitated.

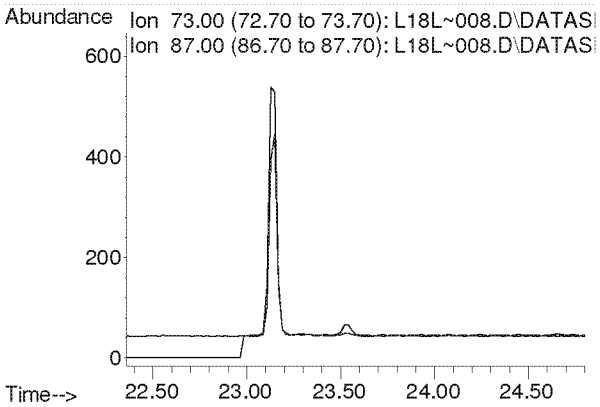


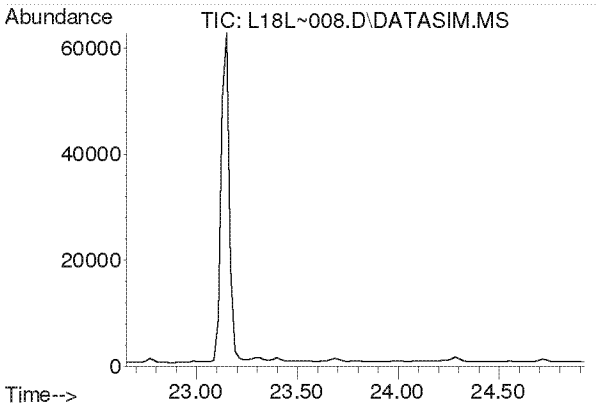
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.50 min

Lab File: L18L~008.D
Acq: 27 Dec 2018 10:39 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	24.9



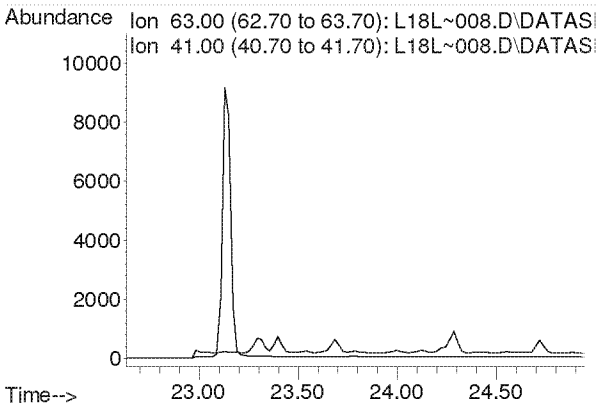


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

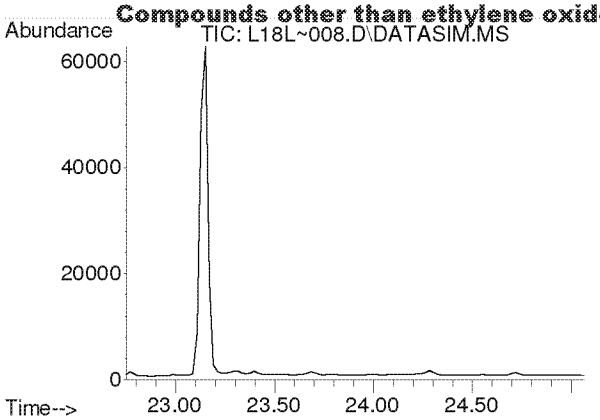
Lab File: L18L~008.D
Acq: 27 Dec 2018 10:39 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	212.8



Compounds other than ethylene oxide were not quantitated.

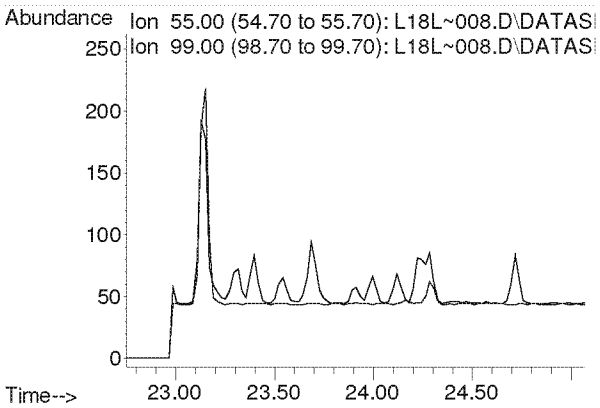


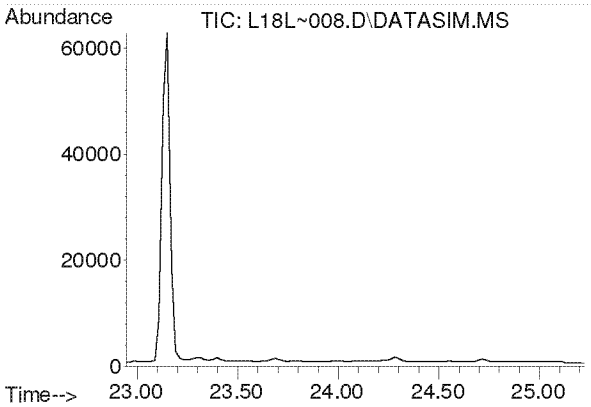
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.87 min

Lab File: L18L~008.D
Acq: 27 Dec 2018 10:39 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.1



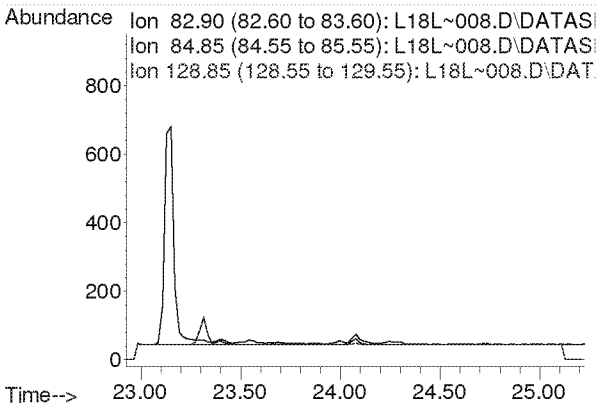


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

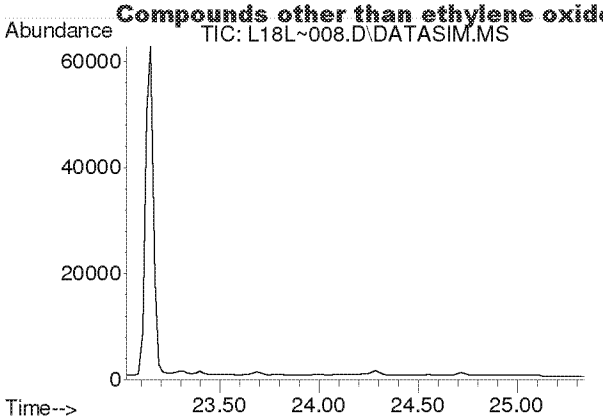
Lab File: L18L~008.D
Acq: 27 Dec 2018 10:39 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.0
129	12.4



Compounds other than ethylene oxide were not quantitated.

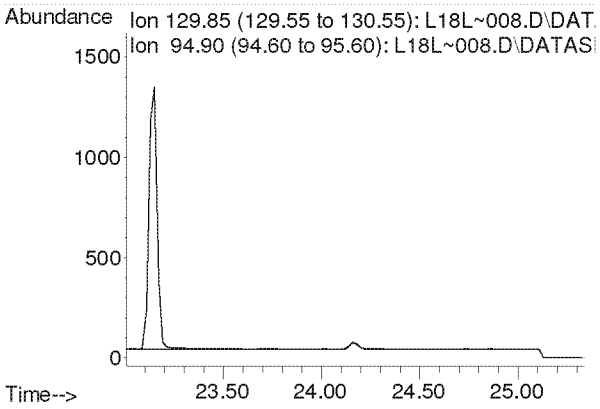


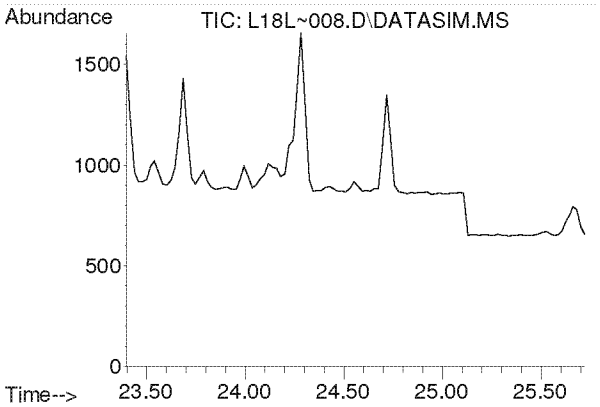
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.16 min

Lab File: L18L~008.D
Acq: 27 Dec 2018 10:39 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	110.3



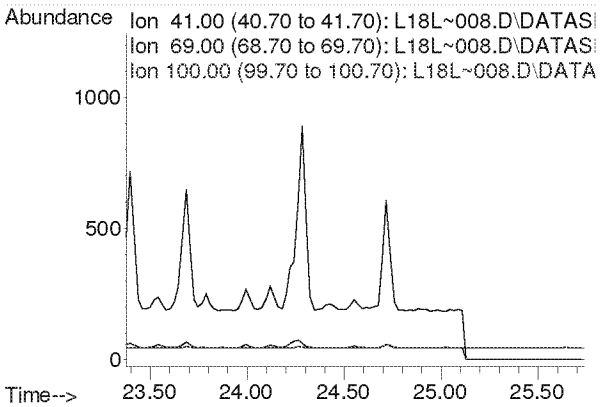


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

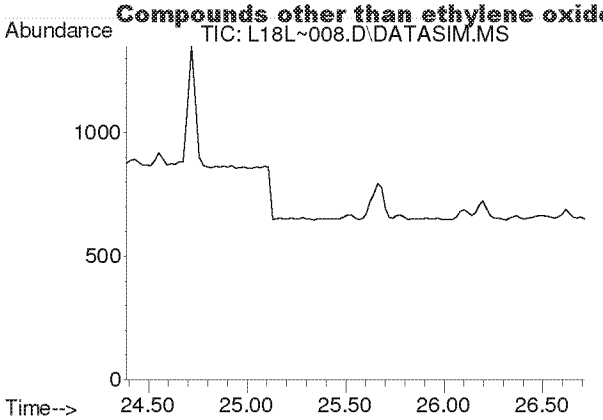
Lab File: L18L~008.D
Acq: 27 Dec 2018 10:39 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	19.9
100	5.2



Compounds other than ethylene oxide were not quantitated.

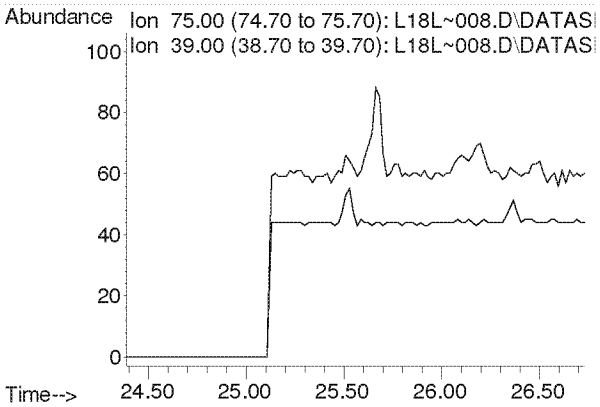


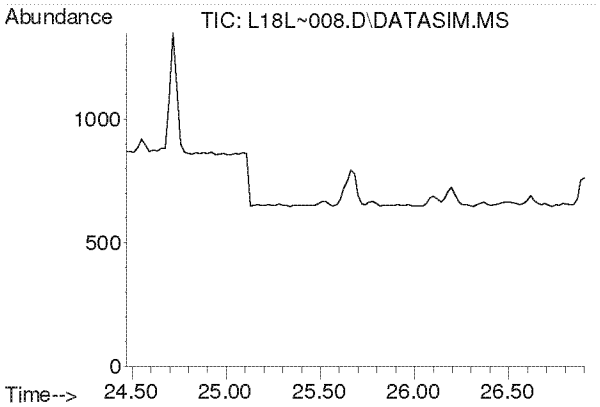
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L18L~008.D
Acq: 27 Dec 2018 10:39 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.4



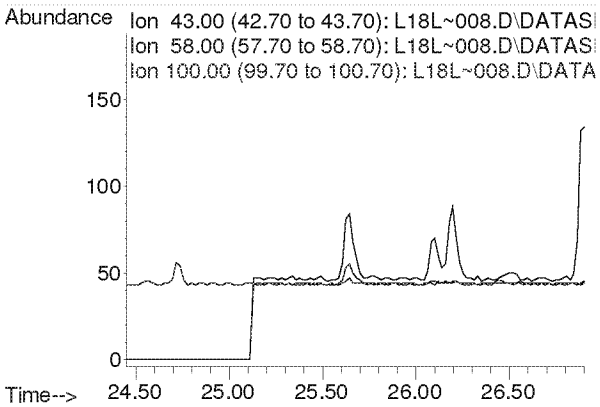


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.61 min

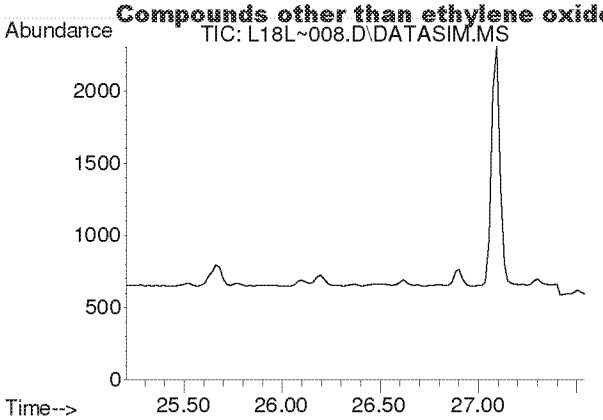
Lab File: L18L~008.D
Acq: 27 Dec 2018 10:39 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	34.2
100	7.9



Compounds other than ethylene oxide were not quantitated.

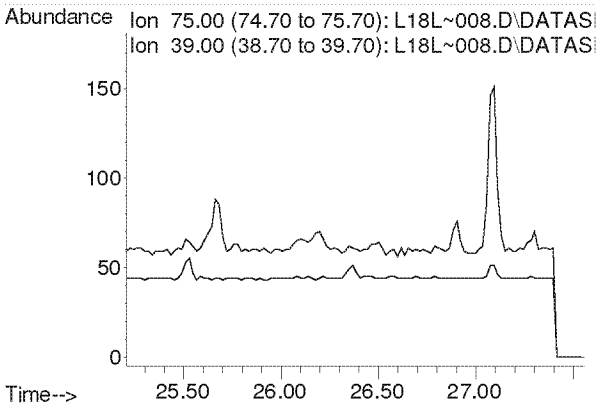


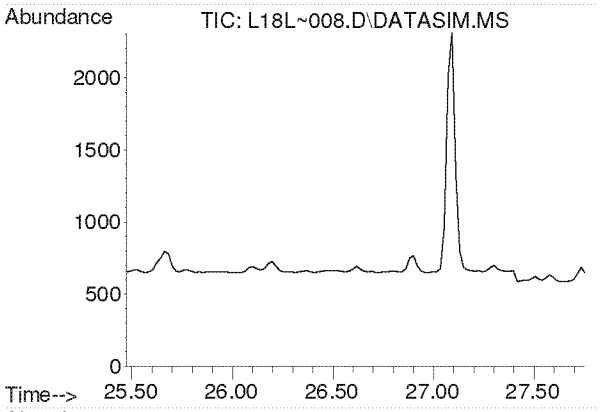
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.35 min

Lab File: L18L~008.D
Acq: 27 Dec 2018 10:39 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	50.9



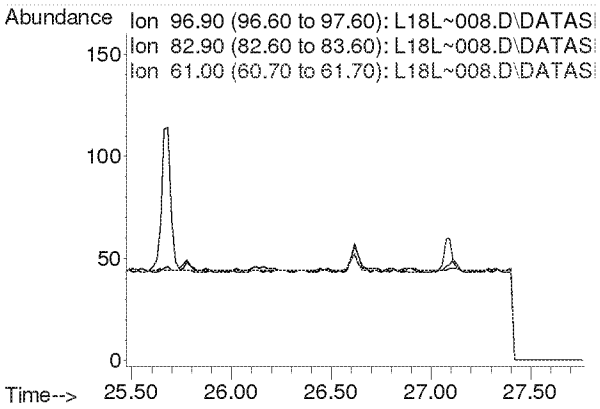


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

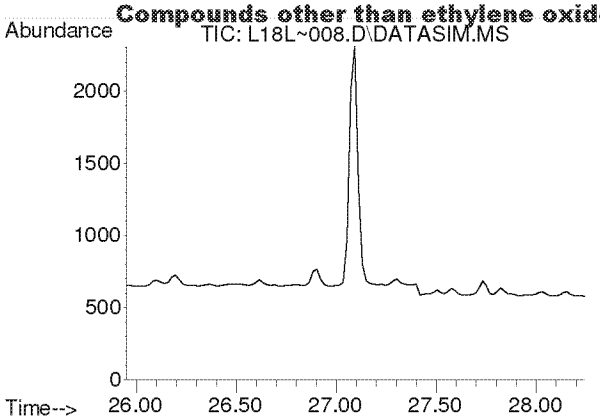
Lab File: L18L~008.D
Acq: 27 Dec 2018 10:39 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	96.1
61	63.5



Compounds other than ethylene oxide were not quantitated.

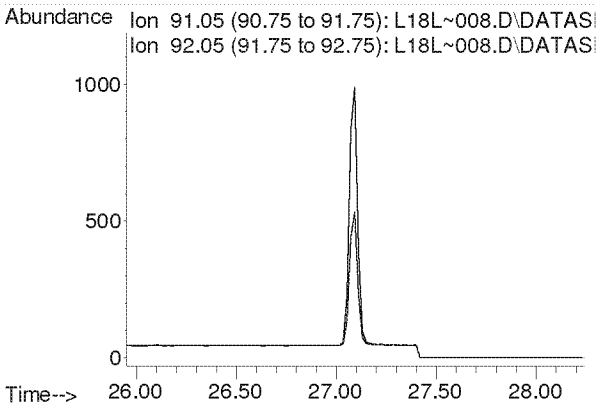


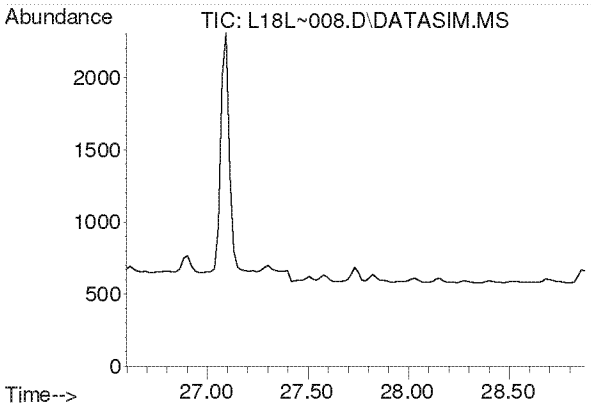
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L18L~008.D
Acq: 27 Dec 2018 10:39 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.6



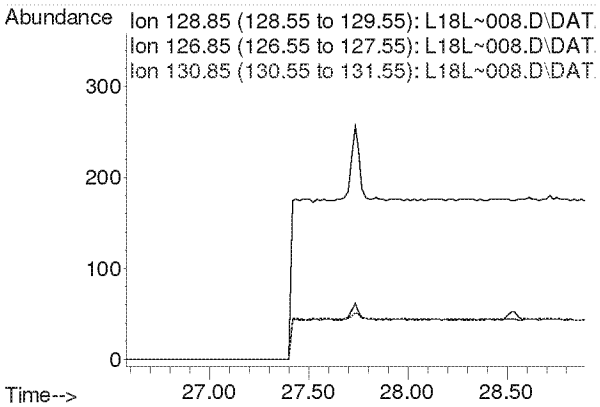


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.73 min

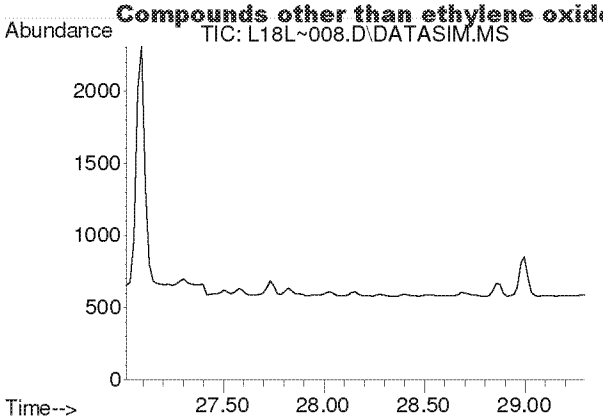
Lab File: L18L~008.D
Acq: 27 Dec 2018 10:39 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.2
131	6.0



Compounds other than ethylene oxide were not quantitated.

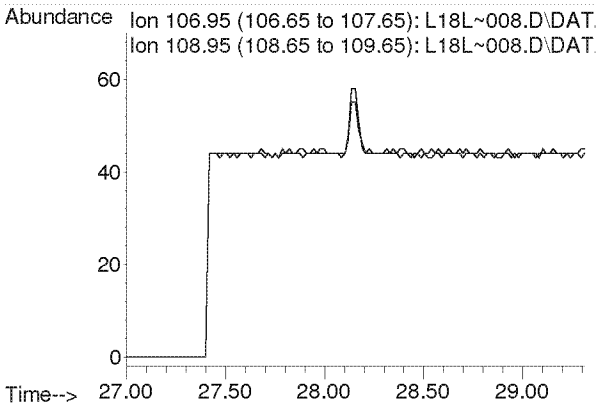


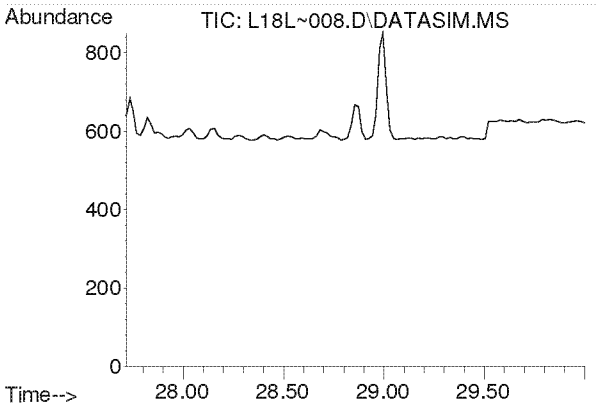
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.16 min

Lab File: L18L~008.D
Acq: 27 Dec 2018 10:39 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.5



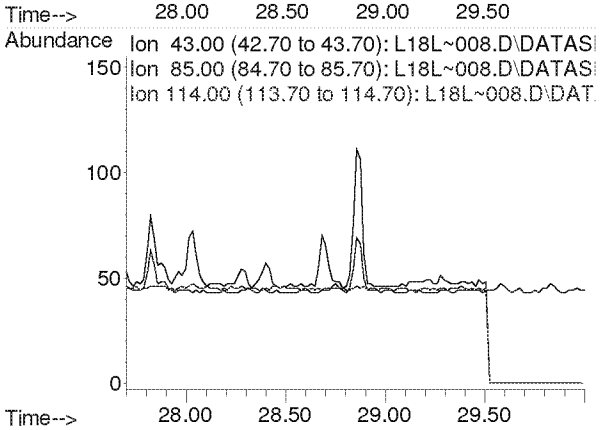


#47
n-Octane
Concen: N.D.
Expected RT: 28.86 min

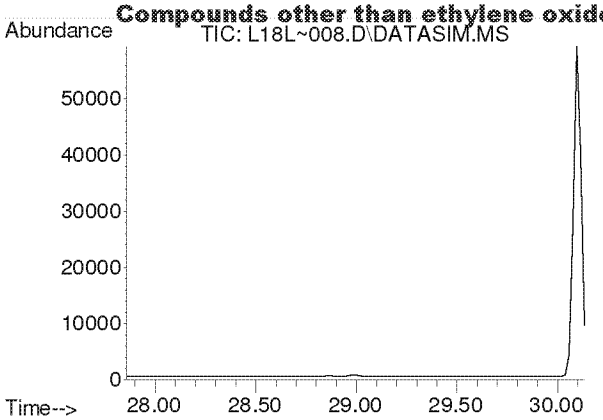
Lab File: L18L~008.D
Acq: 27 Dec 2018 10:39 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	36.0
114	2.2



Compounds other than ethylene oxide were not quantitated.

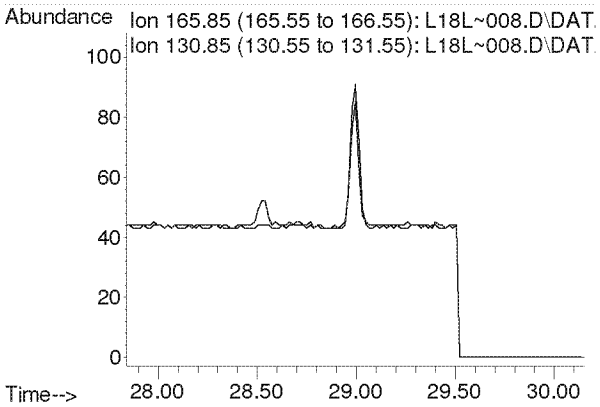


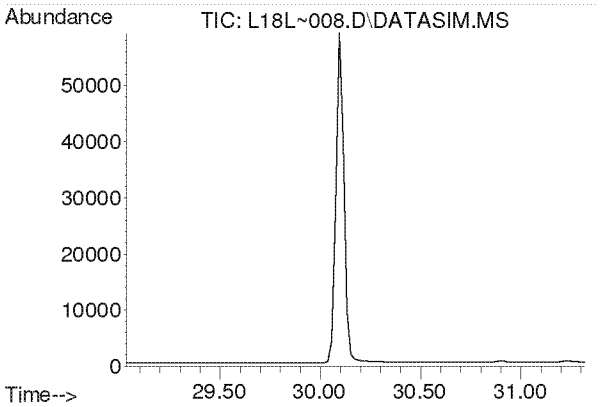
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L18L~008.D
Acq: 27 Dec 2018 10:39 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	78.2



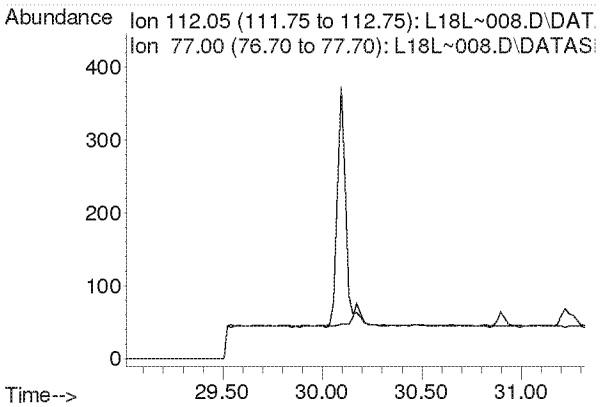


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.17 min

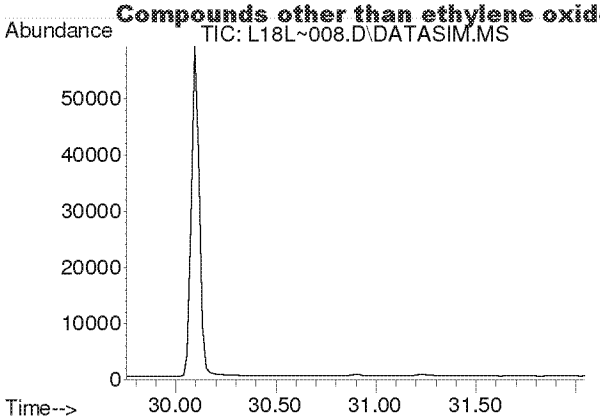
Lab File: L18L~008.D
Acq: 27 Dec 2018 10:39 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	63.0



Compounds other than ethylene oxide were not quantitated.

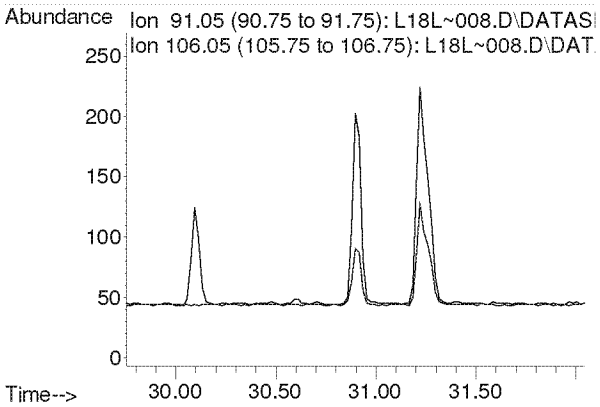


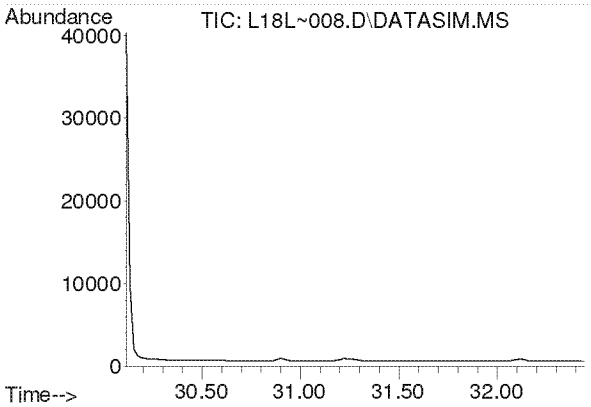
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.90 min

Lab File: L18L~008.D
Acq: 27 Dec 2018 10:39 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	31.8



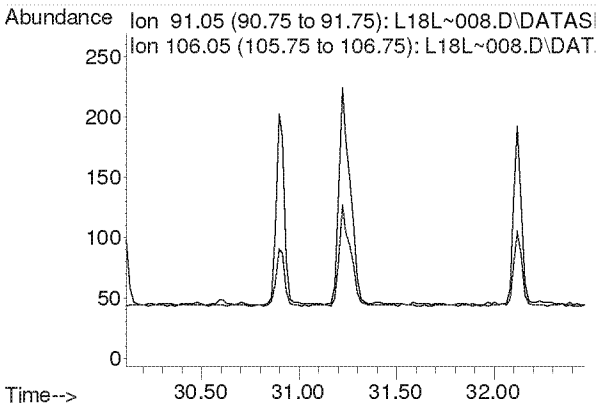


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.26 min

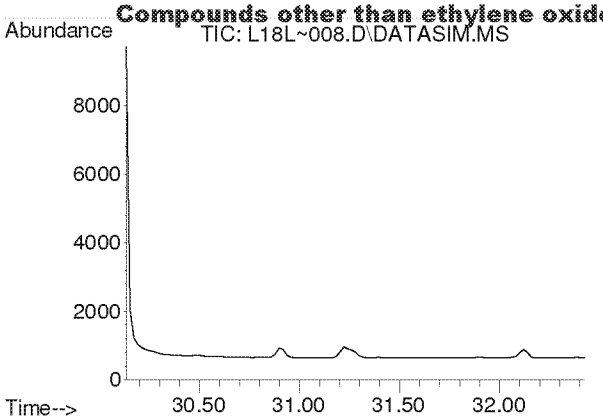
Lab File: L18L~008.D
Acq: 27 Dec 2018 10:39 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.4



Compounds other than ethylene oxide were not quantitated.

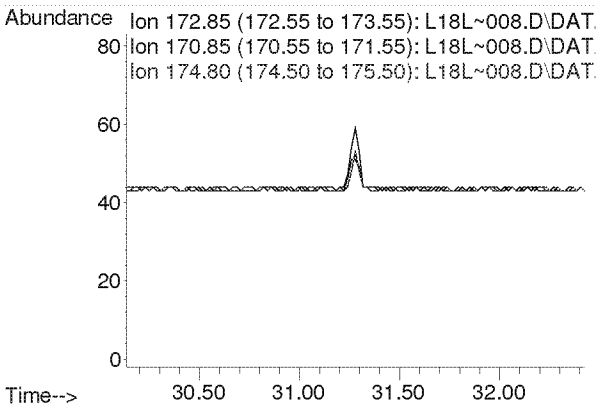


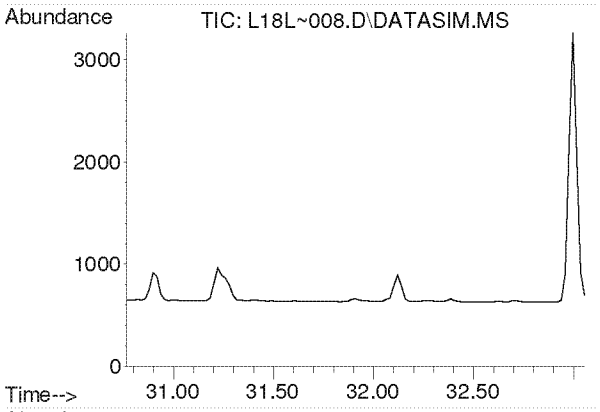
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L18L~008.D
Acq: 27 Dec 2018 10:39 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	49.0



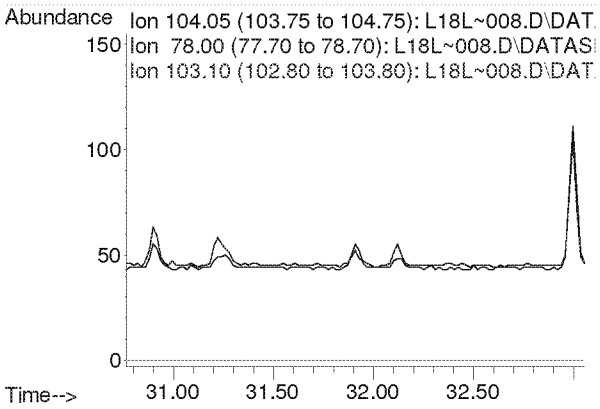


#53
Styrene
Concen: N.D.
Expected RT: 31.91 min

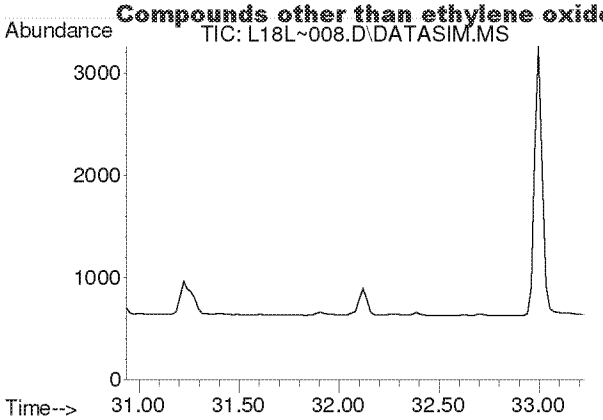
Lab File: L18L~008.D
Acq: 27 Dec 2018 10:39 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	45.6
103	0.0



Compounds other than ethylene oxide were not quantitated.

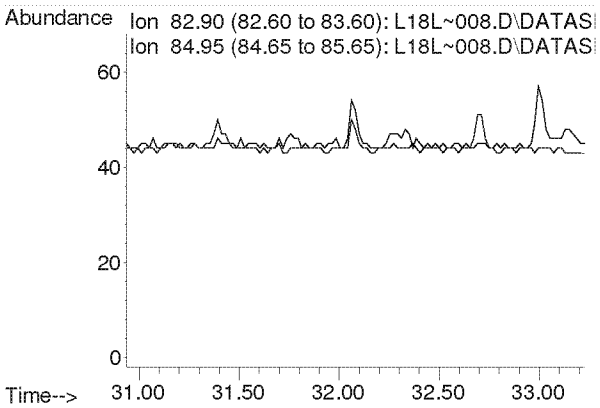


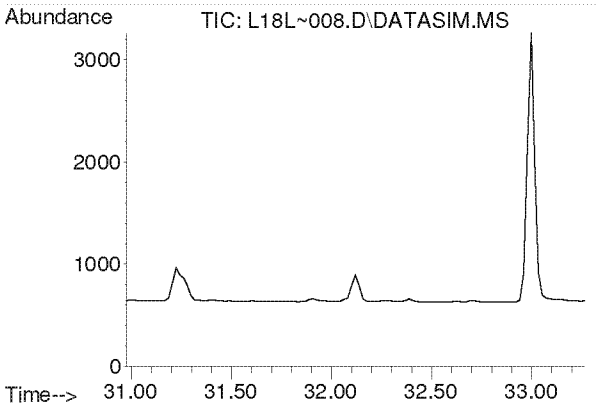
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L18L~008.D
Acq: 27 Dec 2018 10:39 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.9



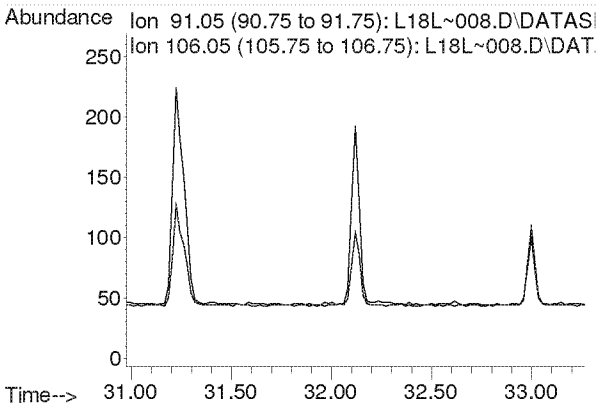


#55
o-Xylene
Concen: N.D.
Expected RT: 32.12 min

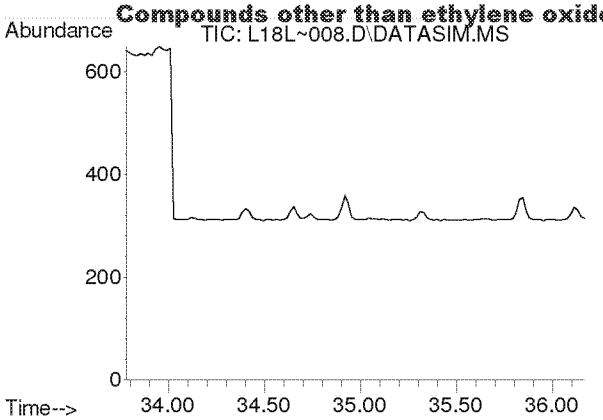
Lab File: L18L~008.D
Acq: 27 Dec 2018 10:39 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.2



Compounds other than ethylene oxide were not quantitated.

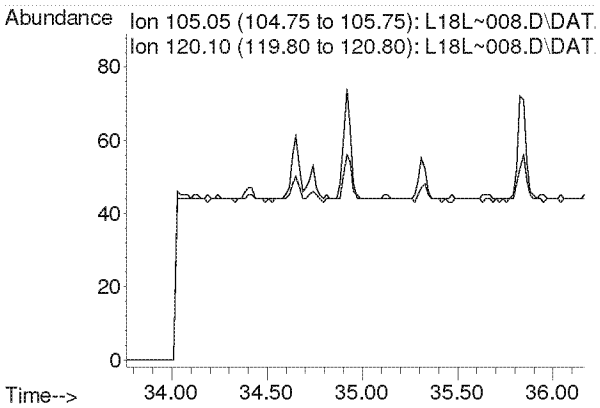


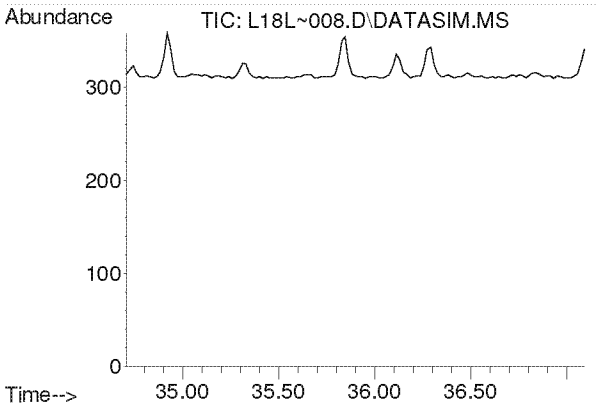
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.92 min

Lab File: L18L~008.D
Acq: 27 Dec 2018 10:39 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	45.0



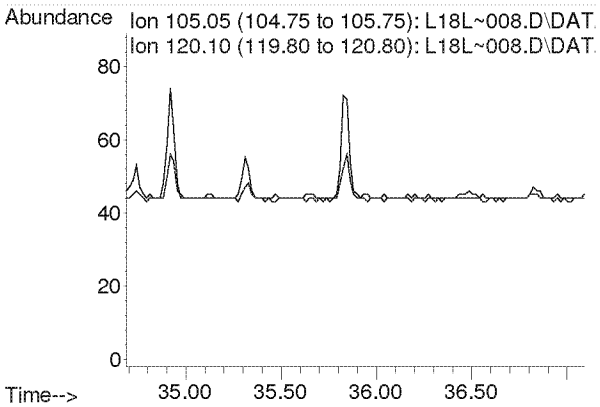


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

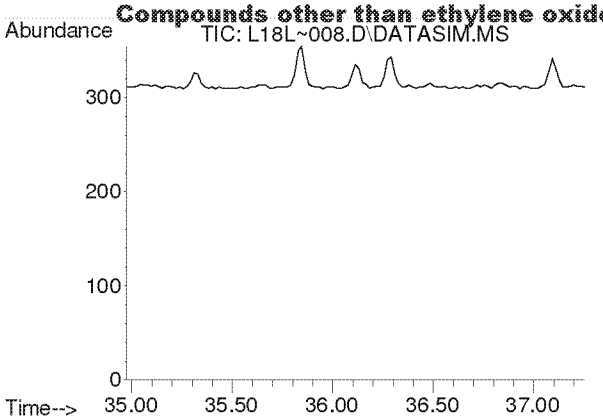
Lab File: L18L~008.D
Acq: 27 Dec 2018 10:39 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	42.8



Compounds other than ethylene oxide were not quantitated.

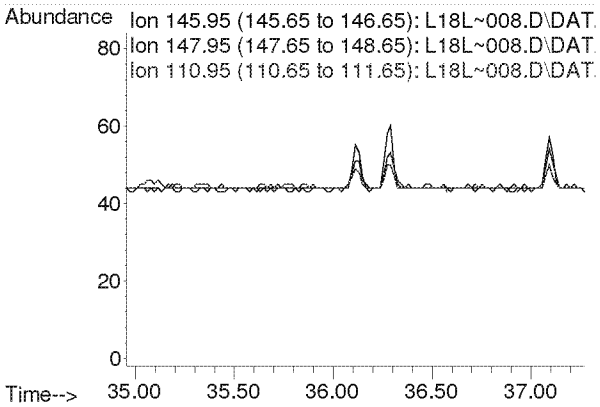


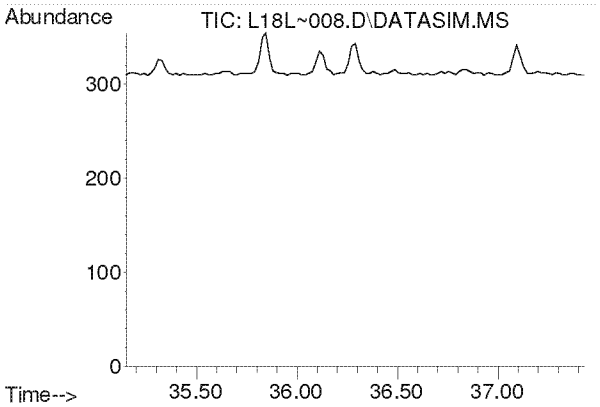
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.11 min

Lab File: L18L~008.D
Acq: 27 Dec 2018 10:39 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.5



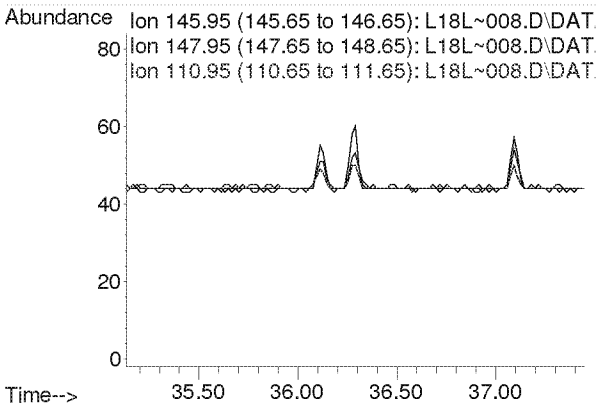


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

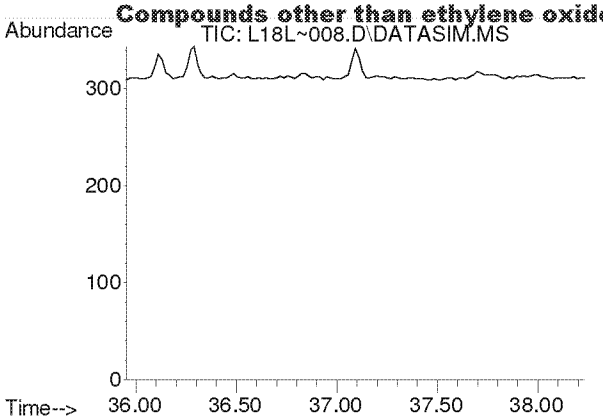
Lab File: L18L~008.D
Acq: 27 Dec 2018 10:39 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	39.5



Compounds other than ethylene oxide were not quantitated.

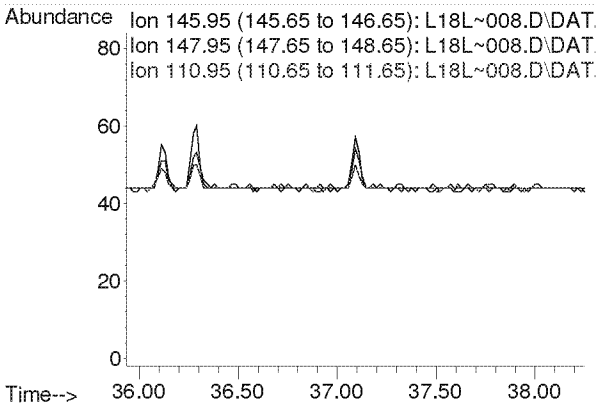


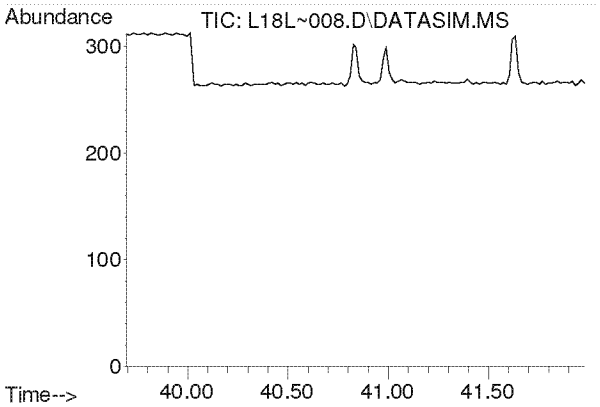
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.09 min

Lab File: L18L~008.D
Acq: 27 Dec 2018 10:39 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	41.4



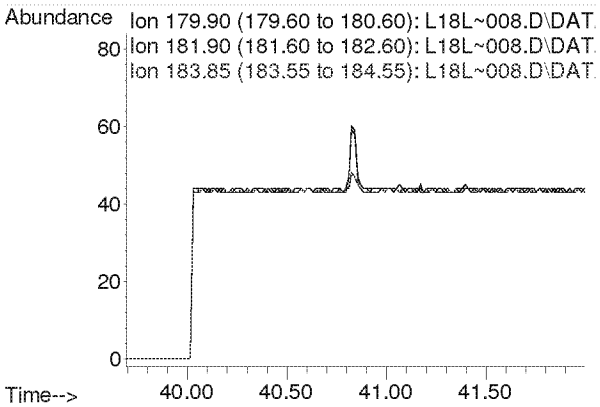


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

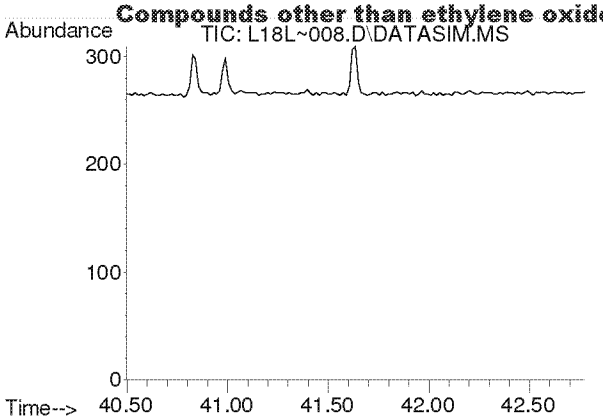
Lab File: L18L~008.D
Acq: 27 Dec 2018 10:39 pm

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	95.1
184	30.7



Compounds other than ethylene oxide were not quantitated.

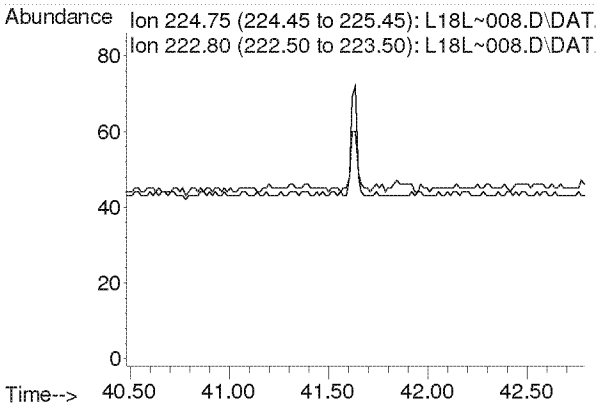


#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.64 min

Lab File: L18L~008.D
Acq: 27 Dec 2018 10:39 pm

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\L18L~\
Data File : L18L~009.D
Acq On : 27 Dec 2018 11:41 pm
Operator : MAH
Sample : 8121130-09
Misc : GOWER ES 12/7/18
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jan 03 12:34:28 2019
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
Response via : Initial Calibration

ETOX only

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.971	66	53714	4.7700 ppbv	-0.02
29) IS-1,4-Difluorobenzene	23.153	114	128935	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.099	117	95494	4.7400 ppbv	0.00

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. 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. 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. 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. d	
21) 1,1-Dichloroethane	0.000	63	0	N.D. 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. d	
28) 1,2-Dichloroethane	0.000	62	0	N.D. d	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D. 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. 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. d	
37) Trichloroethylene	0.000	130	0	N.D. d	
38) Methyl Methacrylate	0.000	41	0	N.D. d	
39) cis-1,3-Dichloropropene	0.000	75	0	N.D. 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. d	
44) Toluene	0.000	91	0	N.D. d	
45) Dibromochloromethane	0.000	129	0	N.D. d	
46) 1,2-Dibromoethane	0.000	107	0	N.D. 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. 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\L18L~\
Data File : L18L~009.D
Acq On : 27 Dec 2018 11:41 pm
Operator : MAH
Sample : 8121130-09
Misc : GOWER ES 12/7/18
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jan 03 12:34:28 2019
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
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. d	
53) Styrene	0.000	104	0	N.D. d	
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D. 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. d	
59) p-Dichlorobenzene	0.000	146	0	N.D. d	
60) o-Dichlorobenzene	0.000	146	0	N.D. d	
61) 1,2,4-Trichlorobenzene	0.000	180	0	N.D. d	
62) Hexachloro-1,3-butadiene	0.000	225	0	N.D. d	

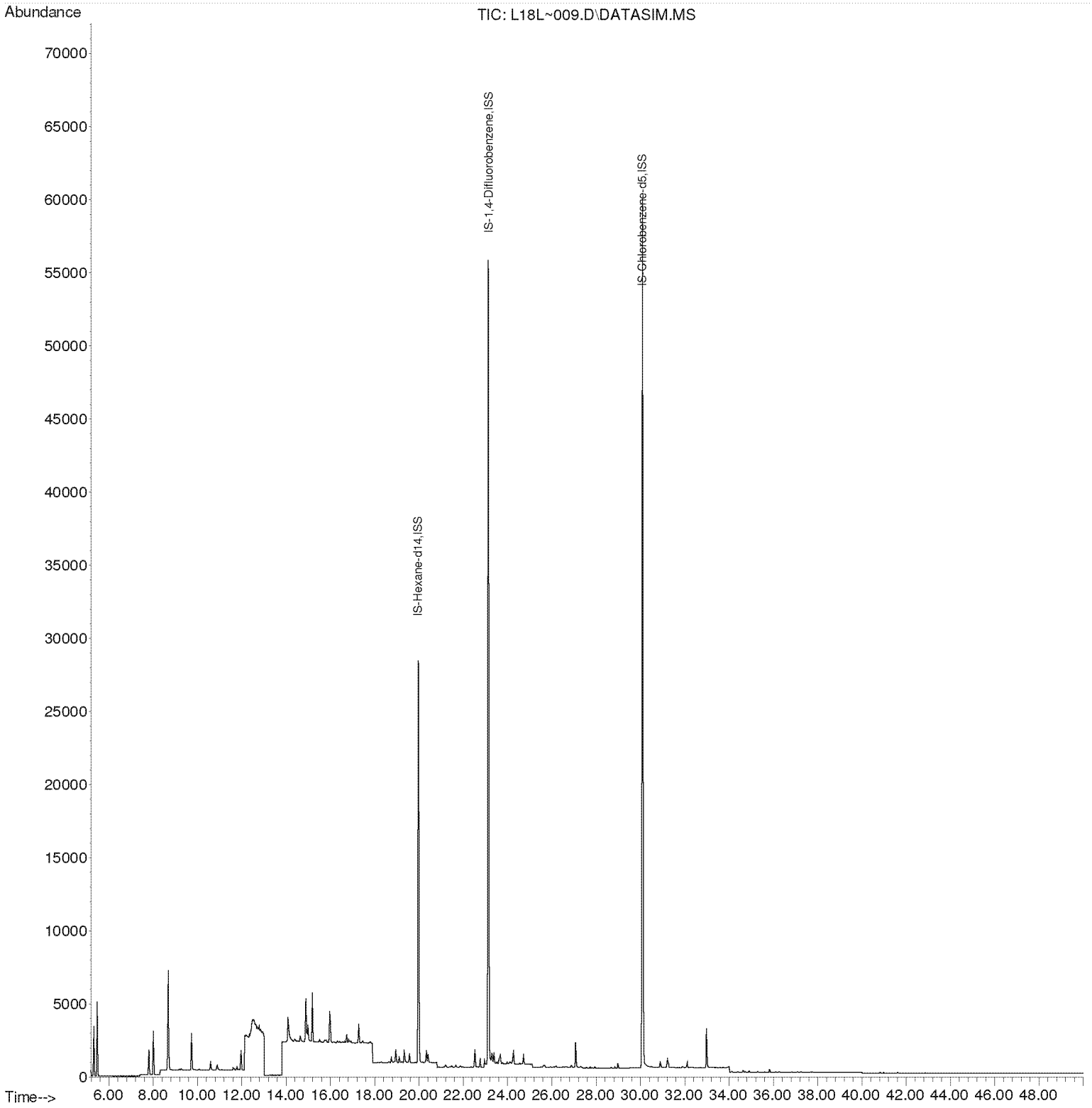
(#) = qualifier out of range (m) = manual integration (+) = signals summed

ED_002475_00000321-00214

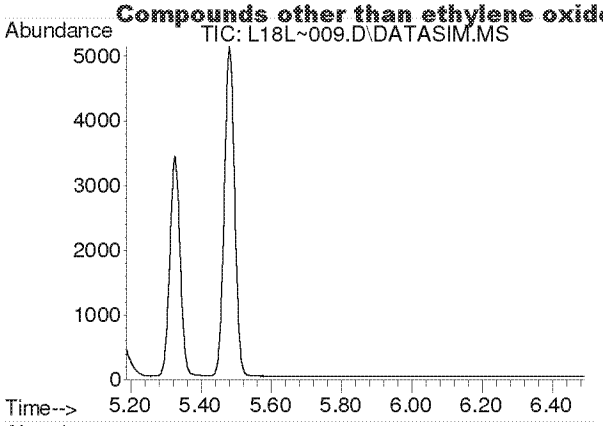
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L18L~\
Data File : L18L~009.D
Acq On : 27 Dec 2018 11:41 pm
Operator : MAH
Sample : 8121130-09
Misc : GOWER ES 12/7/18
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jan 03 12:23:30 2019
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
Response via : Initial Calibration



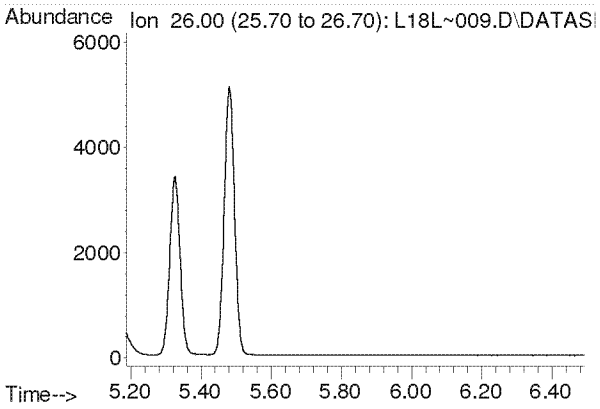
Compounds other than ethylene oxide were not quantitated.

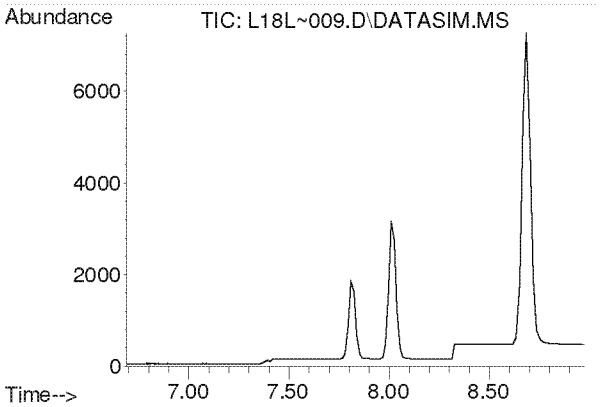


#2
Acetylene
Concen: N.D.
Expected RT: 5.42 min

Lab File: L18L~009.D
Acq: 27 Dec 2018 11:41 pm

Tgt Ion: 26



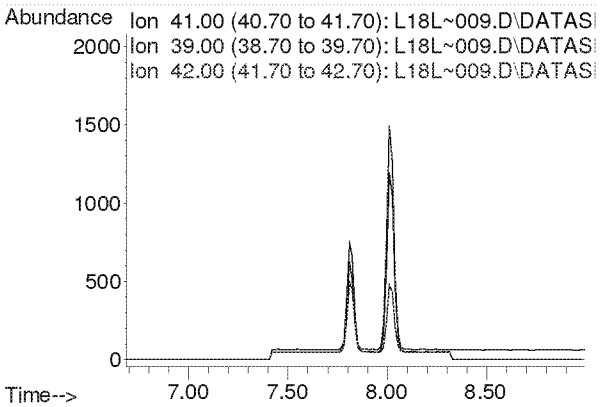


#3
Propylene
Concen: N.D.
Expected RT: 7.84 min

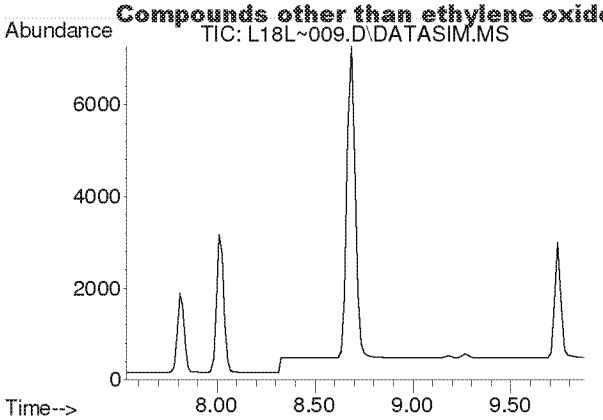
Lab File: L18L~009.D
Acq: 27 Dec 2018 11:41 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	78.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

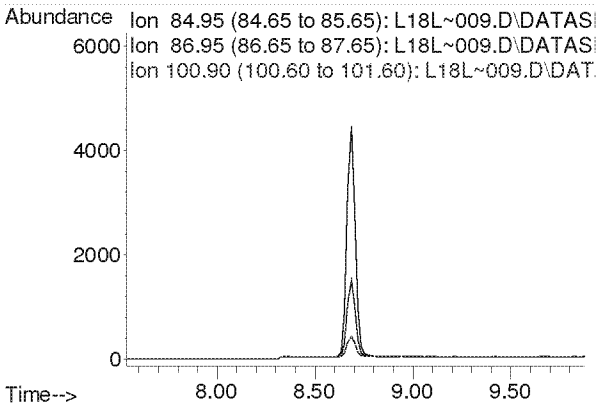


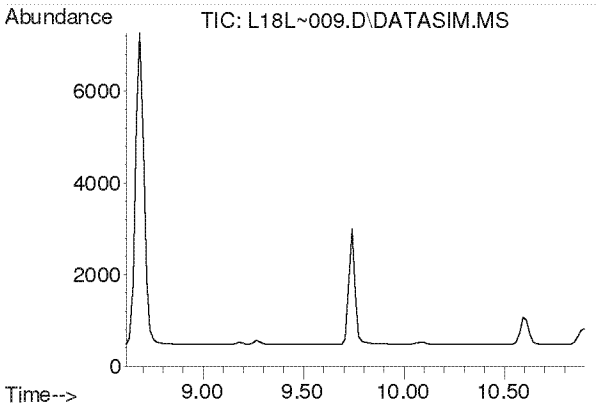
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L18L~009.D
Acq: 27 Dec 2018 11:41 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	8.9



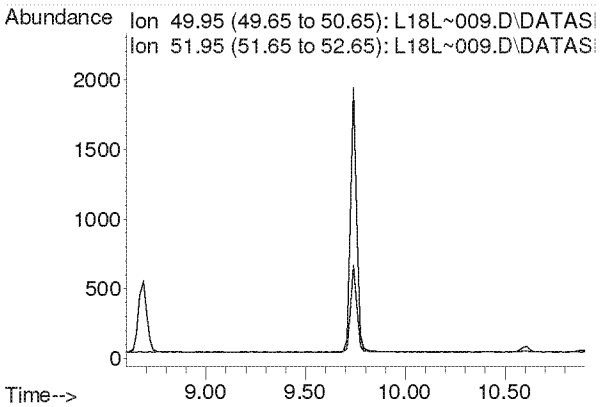


#5
Chloromethane
Concen: N.D.
Expected RT: 9.76 min

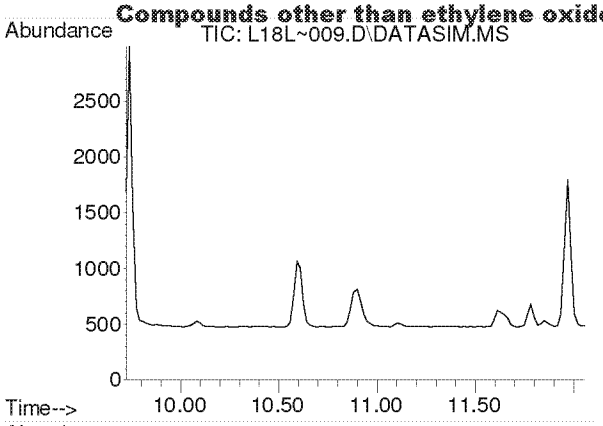
Lab File: L18L~009.D
Acq: 27 Dec 2018 11:41 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

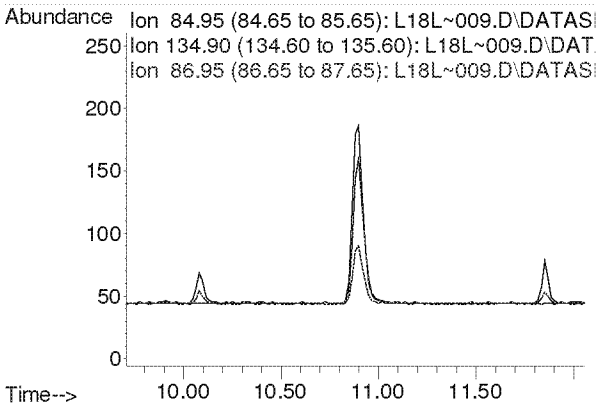


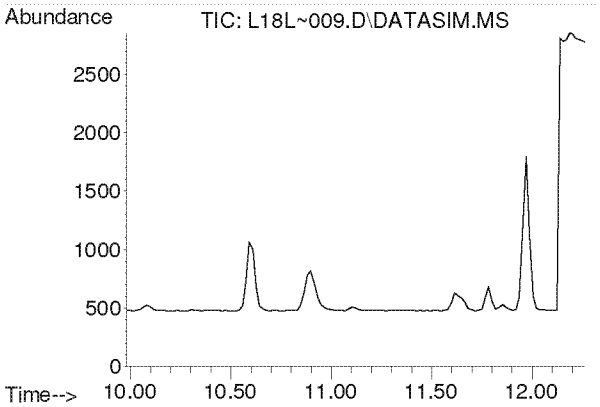
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L18L~009.D
Acq: 27 Dec 2018 11:41 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.1
87	32.1



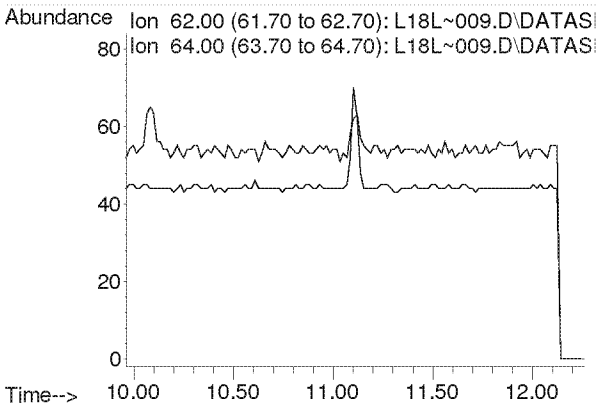


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

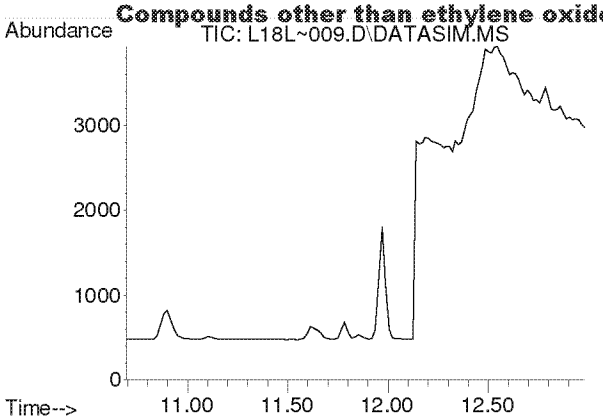
Lab File: L18L~009.D
Acq: 27 Dec 2018 11:41 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.8



Compounds other than ethylene oxide were not quantitated.

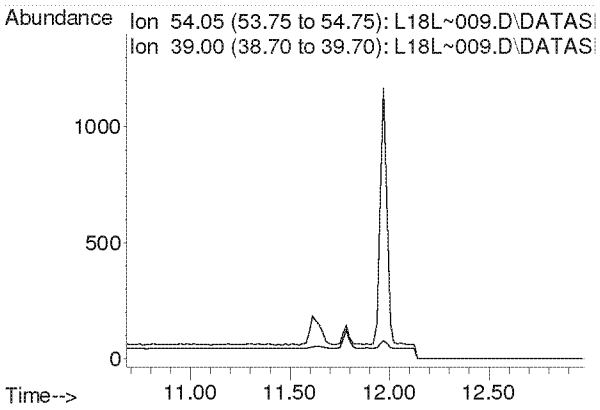


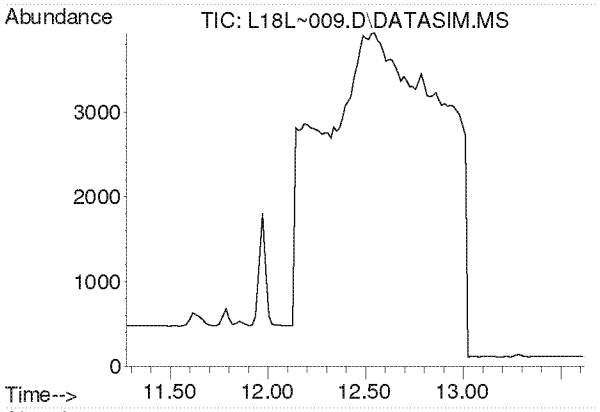
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L18L~009.D
Acq: 27 Dec 2018 11:41 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	105.4



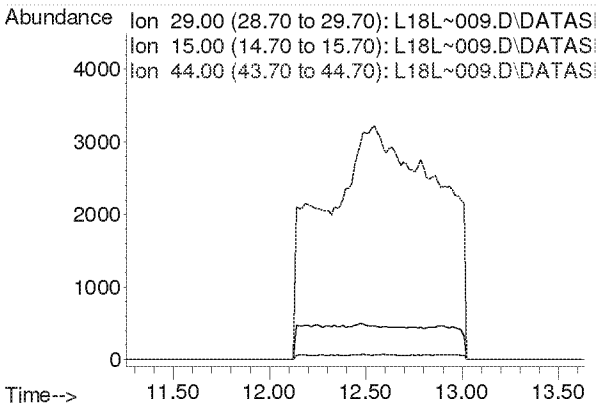


#9
Ethylene oxide
Concen: N.D.
Expected RT: 12.38 min

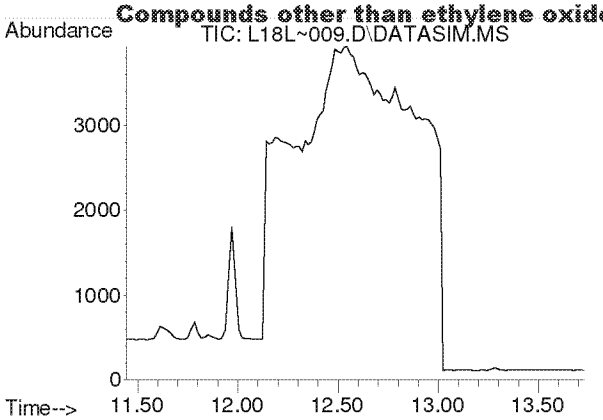
Lab File: L18L~009.D
Acq: 27 Dec 2018 11:41 pm

Tgt Ion: 29

Sig	Exp Ratio
29	100
15	20.3
44	90.0



Compounds other than ethylene oxide were not quantitated.

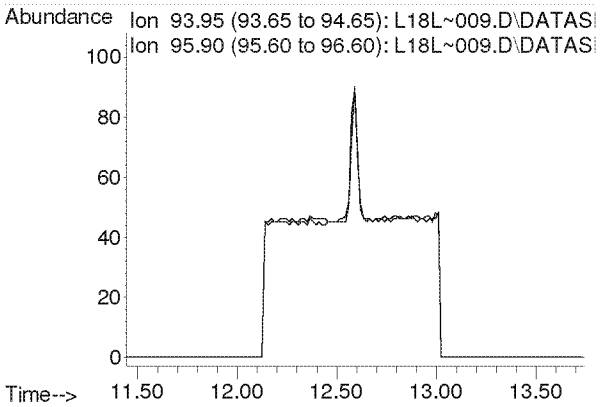


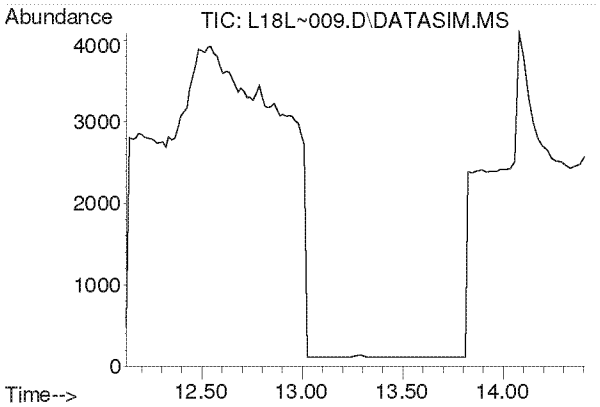
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L18L~009.D
Acq: 27 Dec 2018 11:41 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	93.9



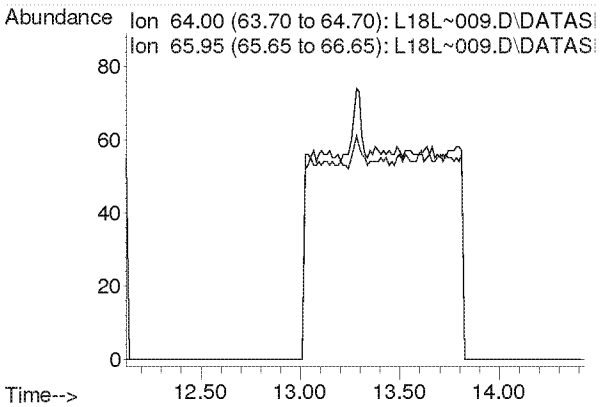


#11
Chloroethane
Concen: N.D.
Expected RT: 13.27 min

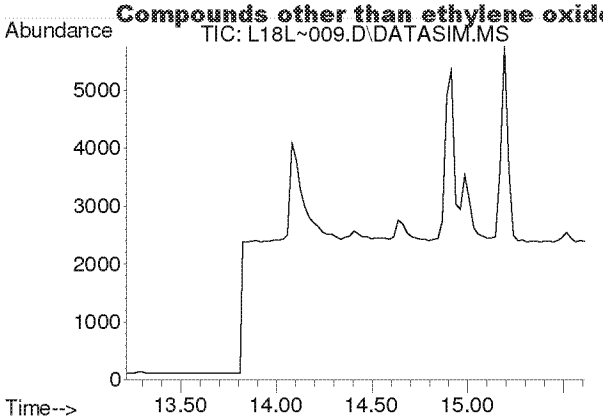
Lab File: L18L~009.D
Acq: 27 Dec 2018 11:41 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.0



Compounds other than ethylene oxide were not quantitated.

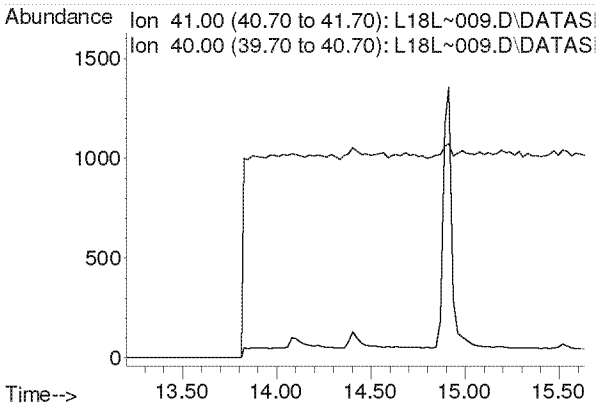


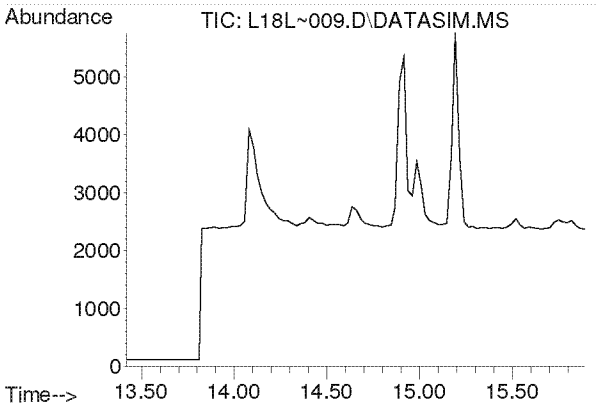
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.33 min

Lab File: L18L~009.D
Acq: 27 Dec 2018 11:41 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	50.9



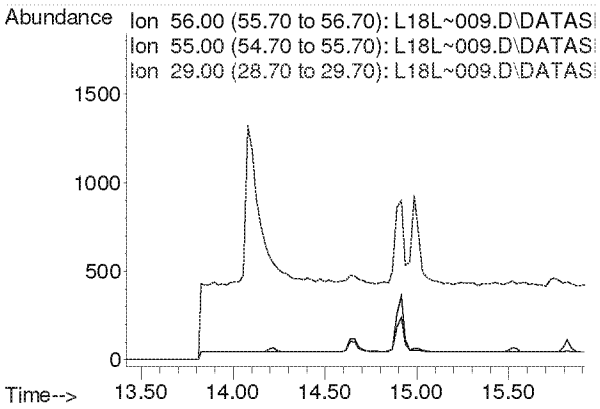


#13
Acrolein
Concen: N.D.
Expected RT: 14.61 min

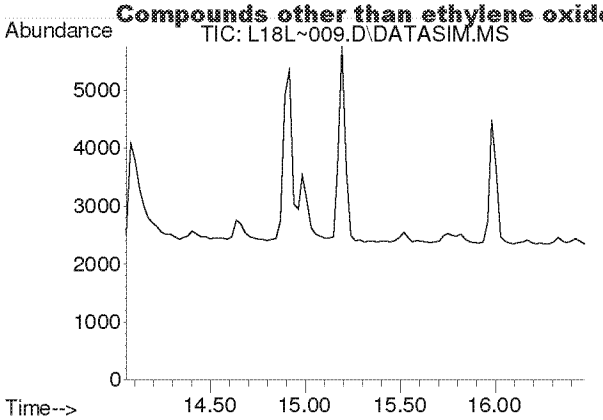
Lab File: L18L~009.D
Acq: 27 Dec 2018 11:41 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	75.4
29	52.9



Compounds other than ethylene oxide were not quantitated.

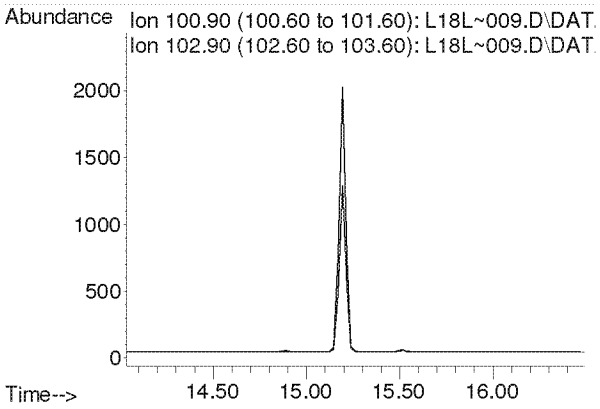


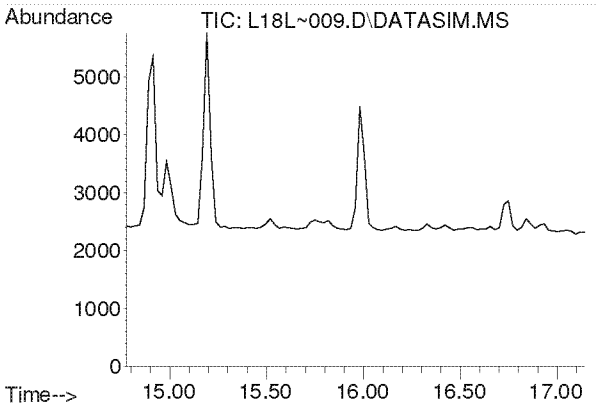
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L18L~009.D
Acq: 27 Dec 2018 11:41 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



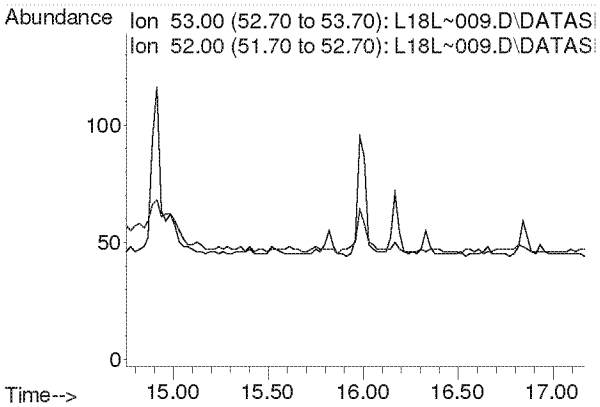


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.91 min

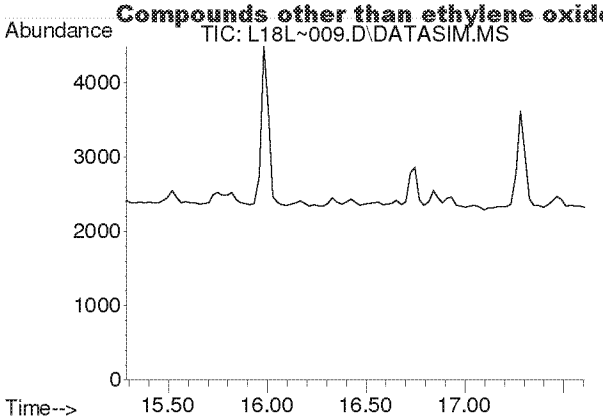
Lab File: L18L~009.D
Acq: 27 Dec 2018 11:41 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	85.4



Compounds other than ethylene oxide were not quantitated.

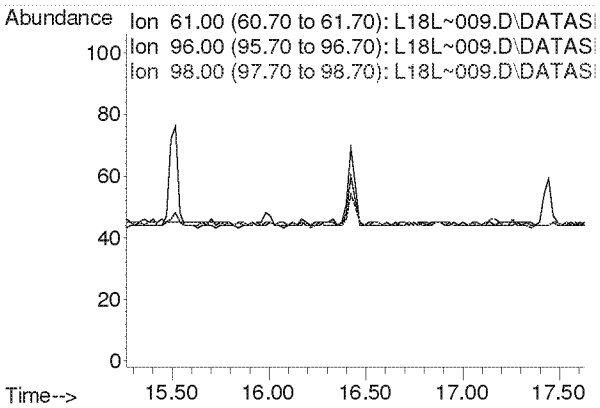


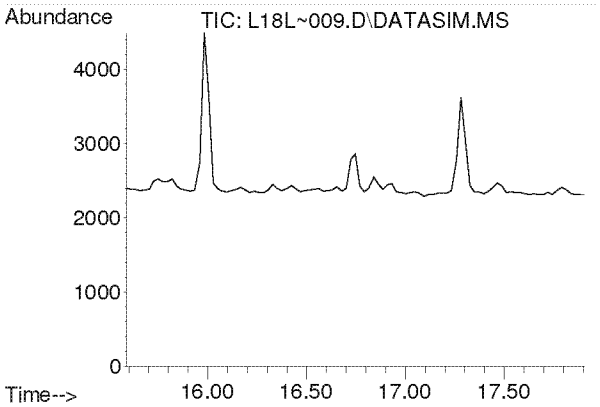
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L18L~009.D
Acq: 27 Dec 2018 11:41 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	58.3
98	37.4



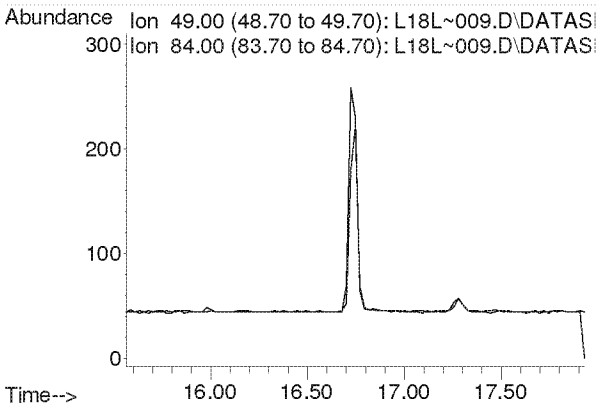


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.72 min

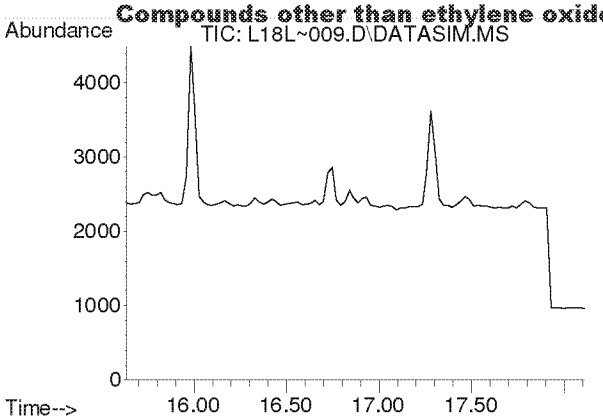
Lab File: L18L~009.D
Acq: 27 Dec 2018 11:41 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	76.4



Compounds other than ethylene oxide were not quantitated.

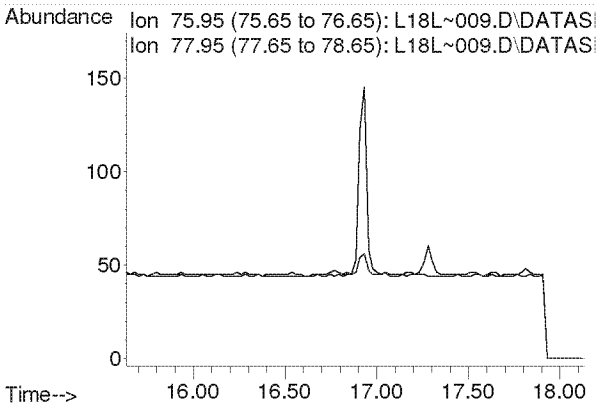


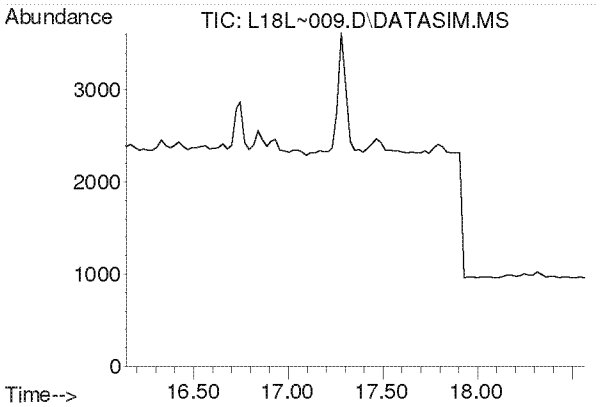
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L18L~009.D
Acq: 27 Dec 2018 11:41 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.1



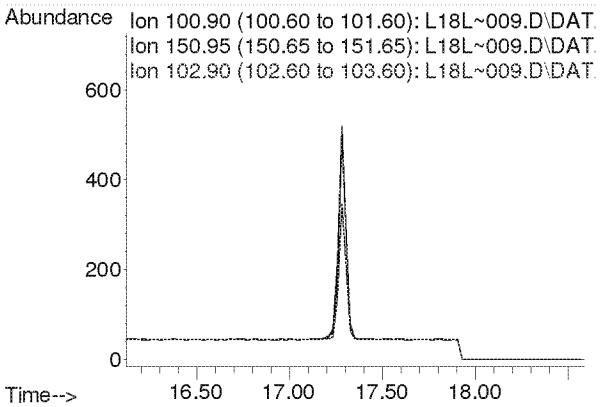


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

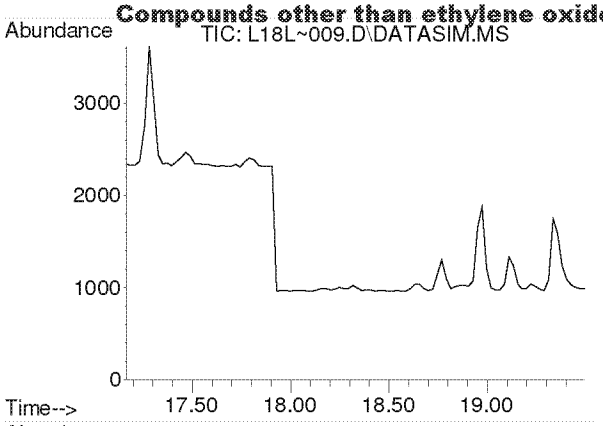
Lab File: L18L~009.D
Acq: 27 Dec 2018 11:41 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	95.3
103	64.1



Compounds other than ethylene oxide were not quantitated.

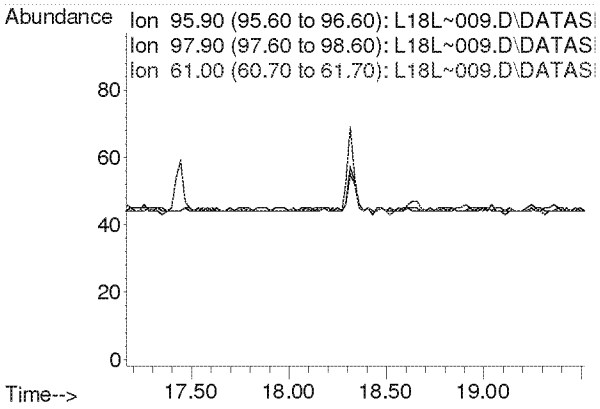


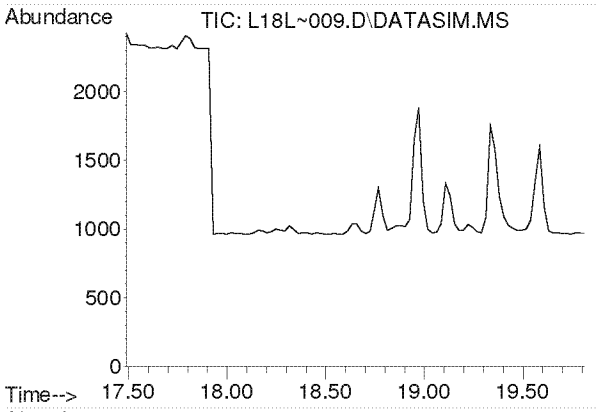
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.31 min

Lab File: L18L~009.D
Acq: 27 Dec 2018 11:41 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	63.7
61	159.2



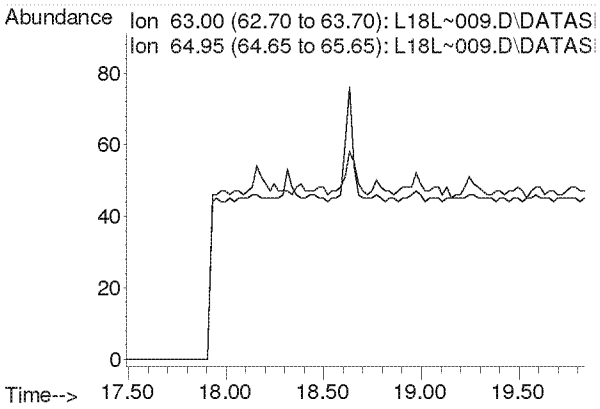


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

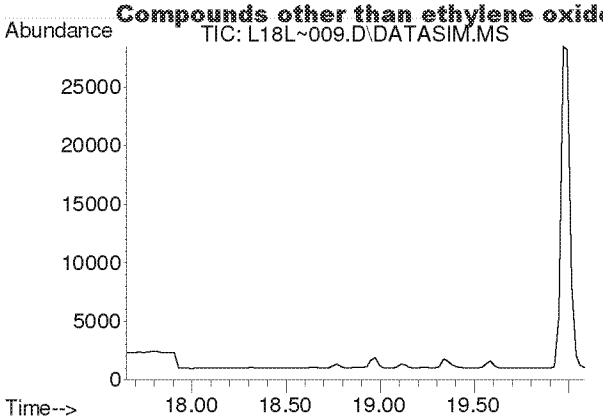
Lab File: L18L~009.D
Acq: 27 Dec 2018 11:41 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

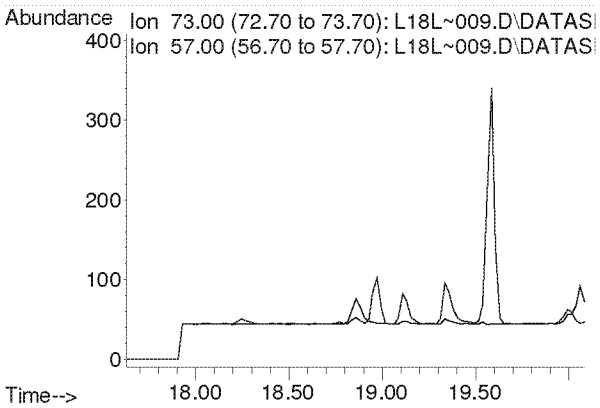


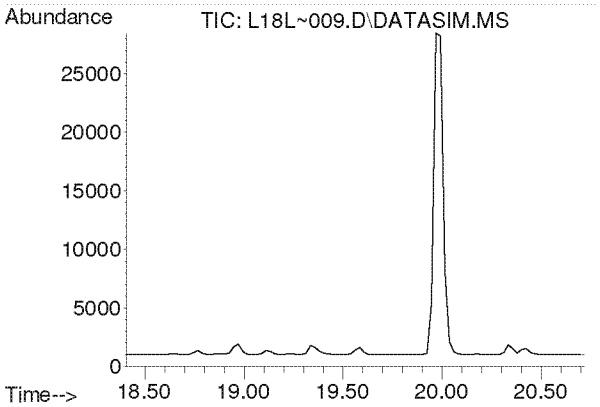
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L18L~009.D
Acq: 27 Dec 2018 11:41 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.4



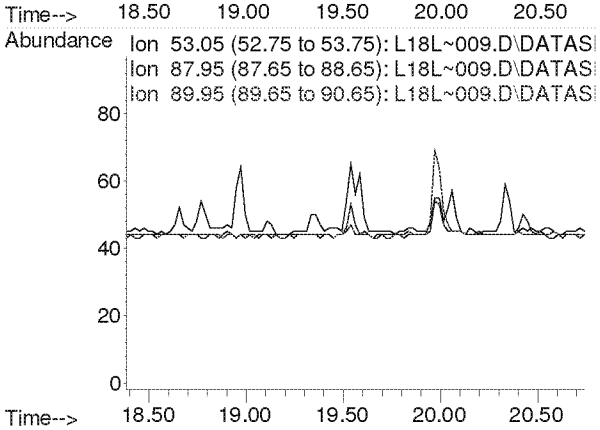


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

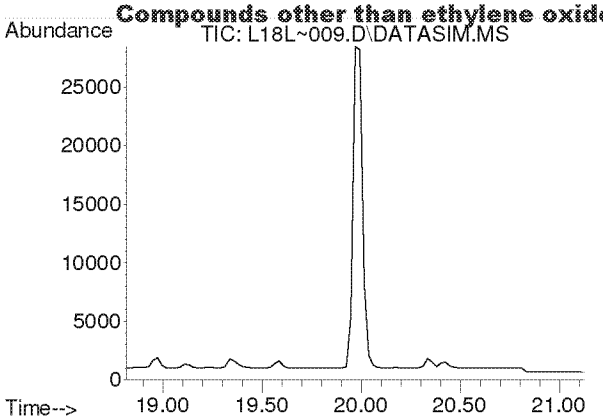
Lab File: L18L~009.D
Acq: 27 Dec 2018 11:41 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	51.8
90	16.8



Compounds other than ethylene oxide were not quantitated.

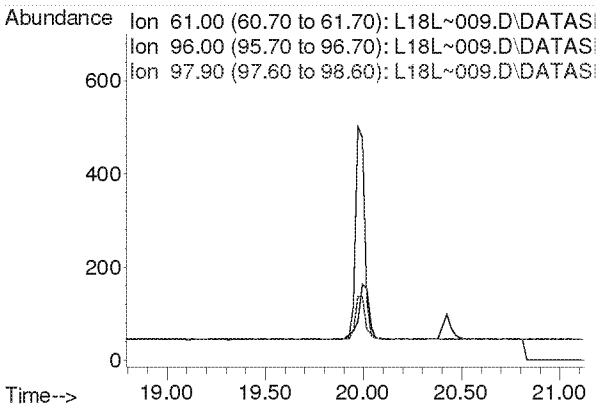


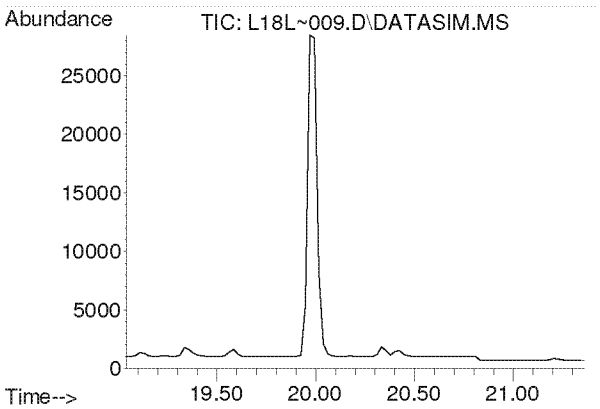
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L18L~009.D
Acq: 27 Dec 2018 11:41 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.7
98	45.2



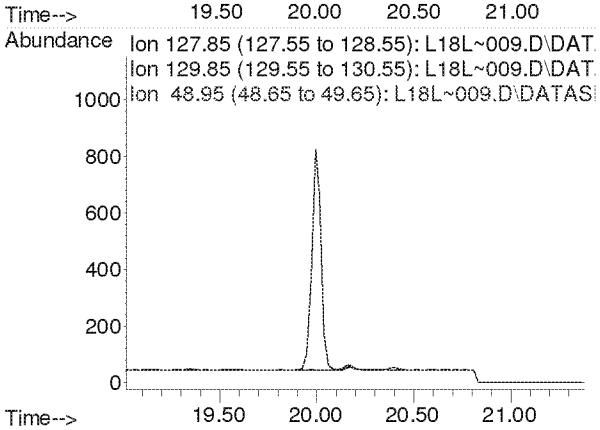


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

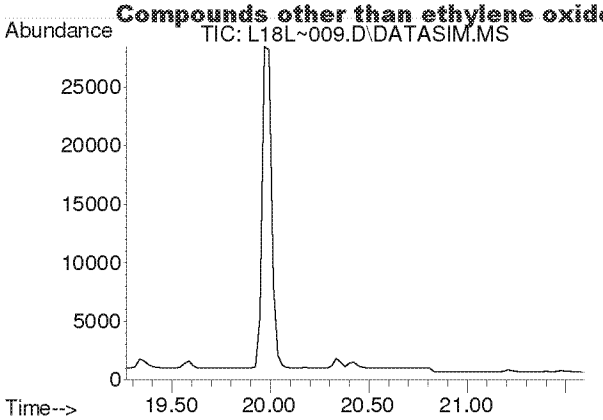
Lab File: L18L~009.D
Acq: 27 Dec 2018 11:41 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	171.2



Compounds other than ethylene oxide were not quantitated.

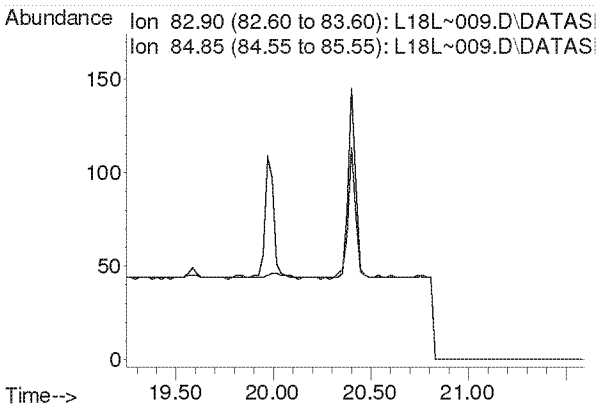


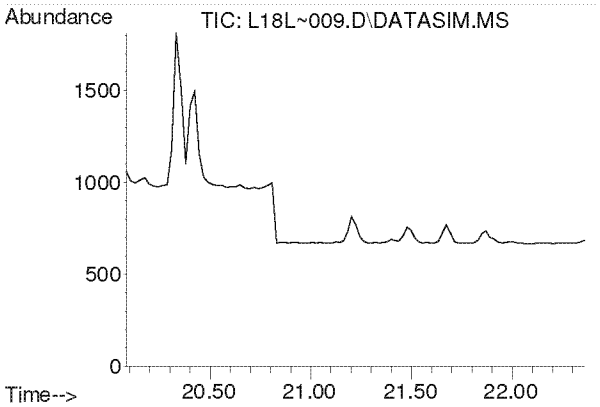
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L18L~009.D
Acq: 27 Dec 2018 11:41 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



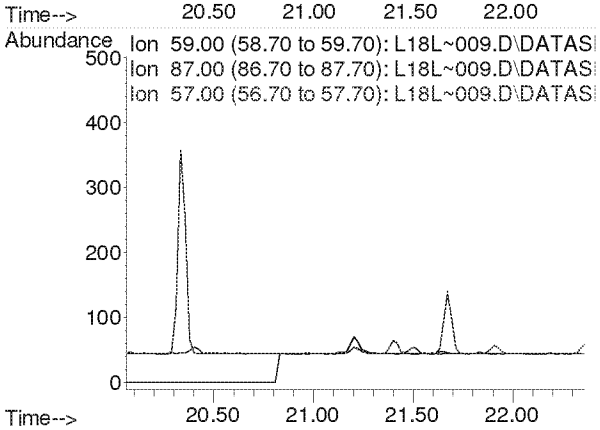


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.16 min

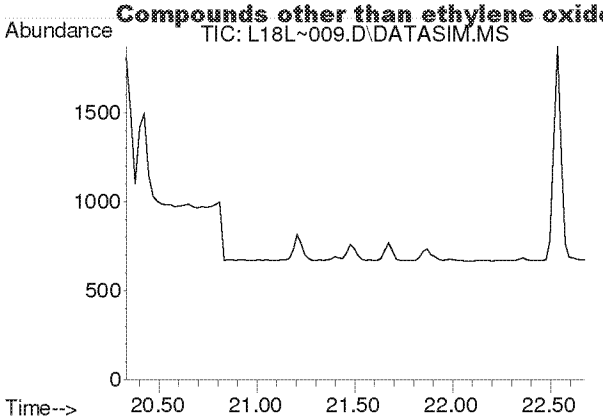
Lab File: L18L~009.D
Acq: 27 Dec 2018 11:41 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	37.5
57	33.8



Compounds other than ethylene oxide were not quantitated.

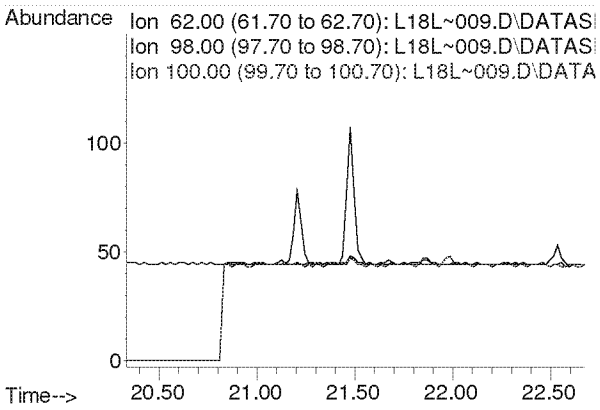


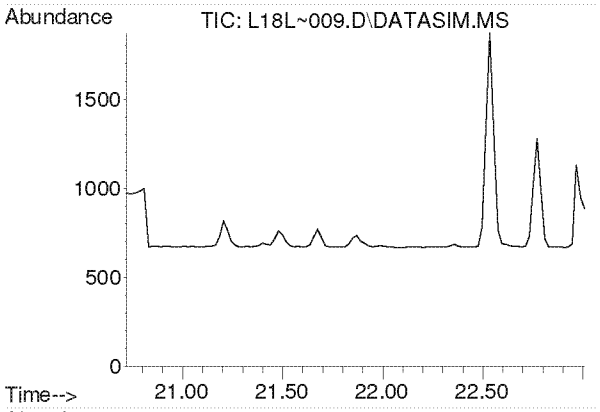
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L18L~009.D
Acq: 27 Dec 2018 11:41 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.4
100	4.0



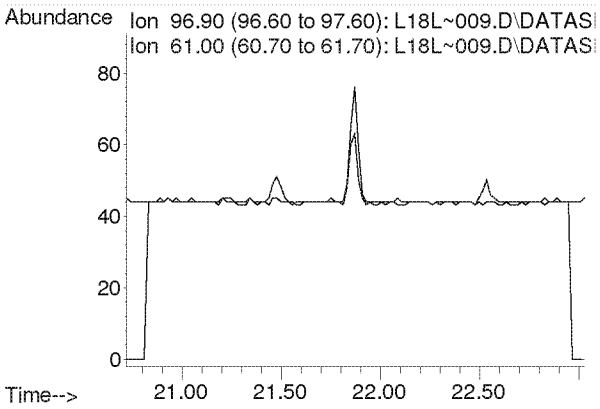


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

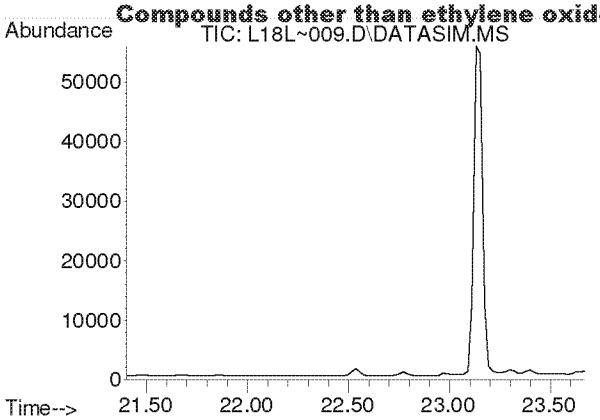
Lab File: L18L~009.D
Acq: 27 Dec 2018 11:41 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	60.5



Compounds other than ethylene oxide were not quantitated.

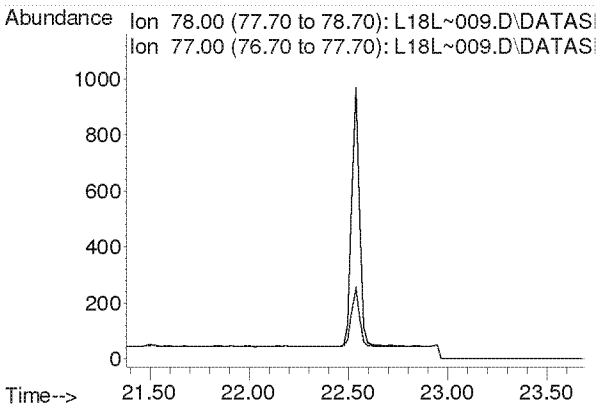


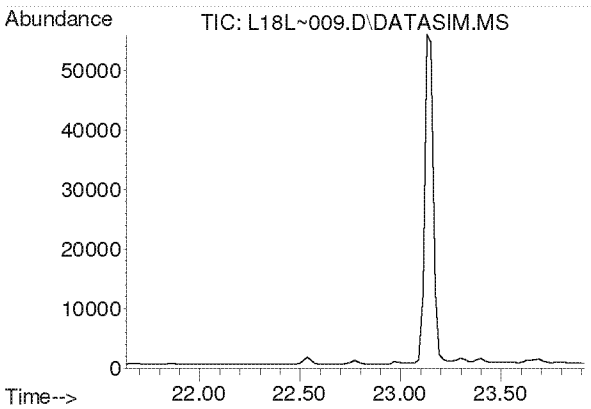
#31
Benzene
Concen: N.D.
Expected RT: 22.54 min

Lab File: L18L~009.D
Acq: 27 Dec 2018 11:41 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.7



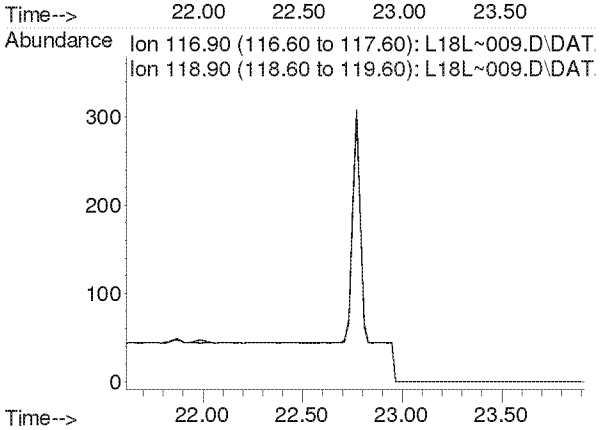


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

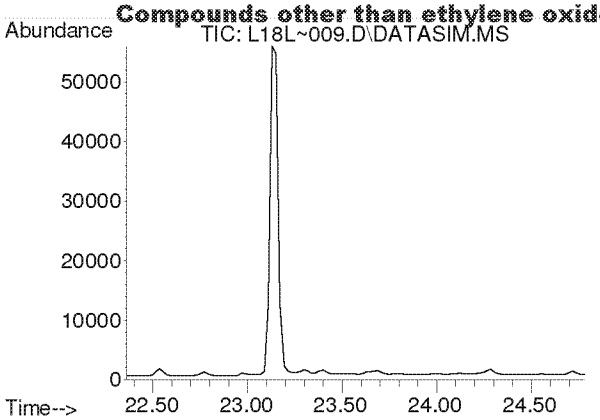
Lab File: L18L~009.D
Acq: 27 Dec 2018 11:41 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.5



Compounds other than ethylene oxide were not quantitated.

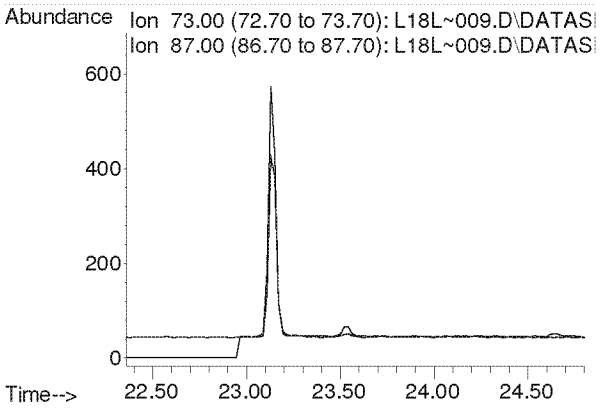


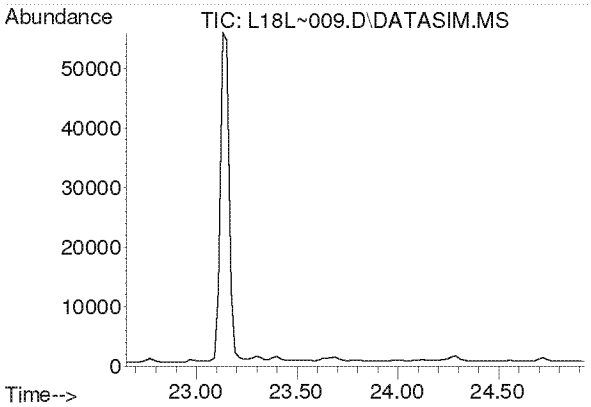
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.50 min

Lab File: L18L~009.D
Acq: 27 Dec 2018 11:41 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	24.9



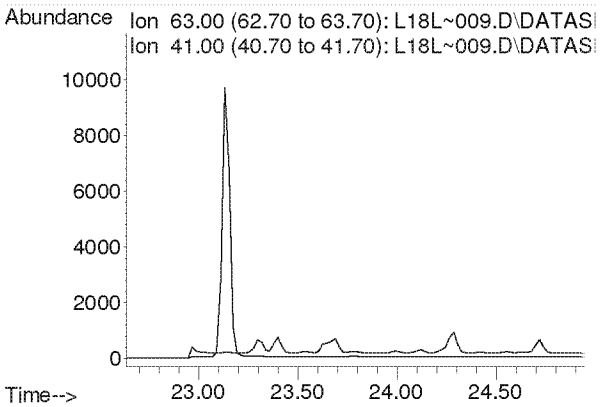


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

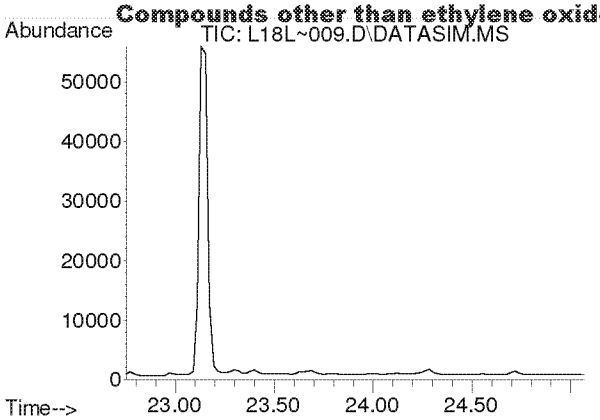
Lab File: L18L~009.D
Acq: 27 Dec 2018 11:41 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	212.8



Compounds other than ethylene oxide were not quantitated.

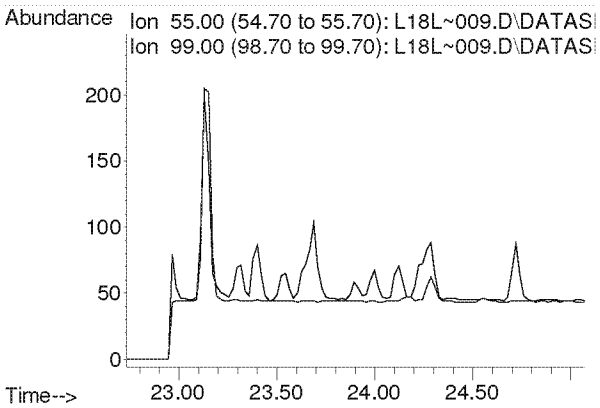


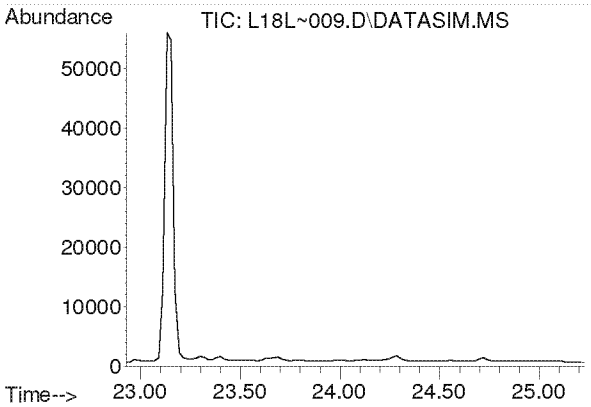
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.87 min

Lab File: L18L~009.D
Acq: 27 Dec 2018 11:41 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.1



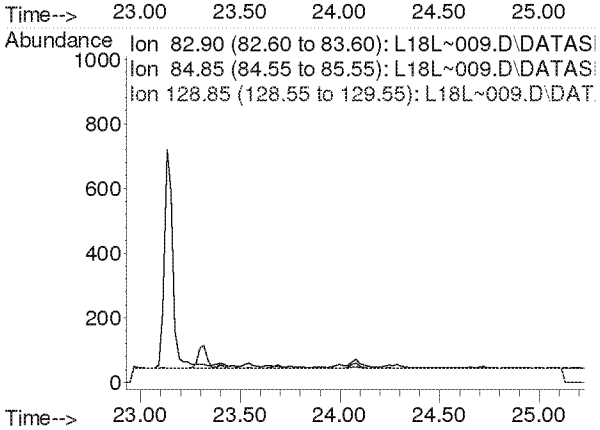


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

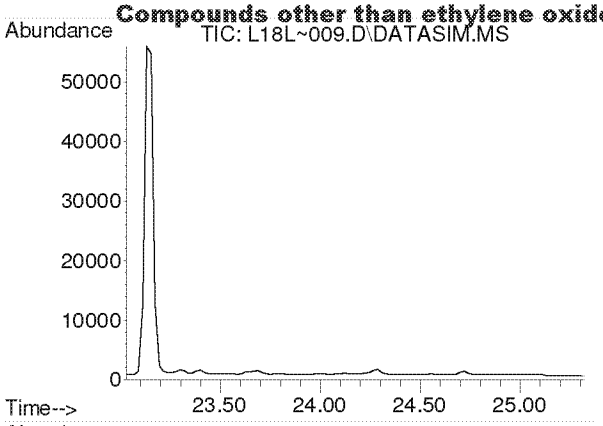
Lab File: L18L~009.D
Acq: 27 Dec 2018 11:41 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.0
129	12.4



Compounds other than ethylene oxide were not quantitated.

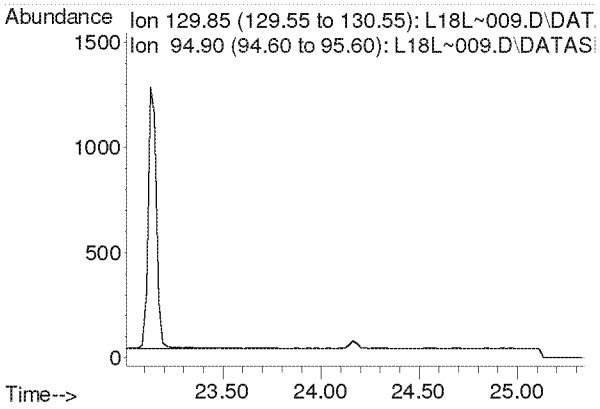


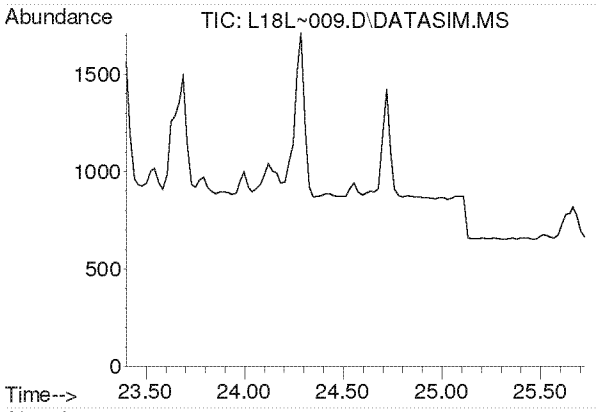
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.16 min

Lab File: L18L~009.D
Acq: 27 Dec 2018 11:41 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	110.3



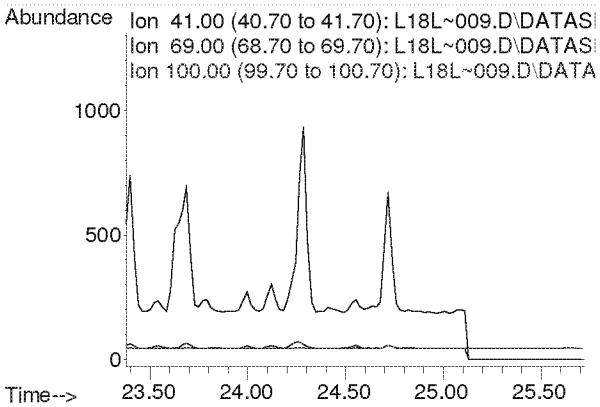


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

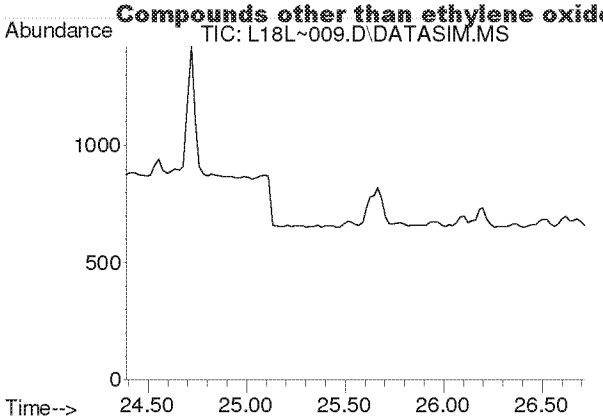
Lab File: L18L~009.D
Acq: 27 Dec 2018 11:41 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	19.9
100	5.2



Compounds other than ethylene oxide were not quantitated.

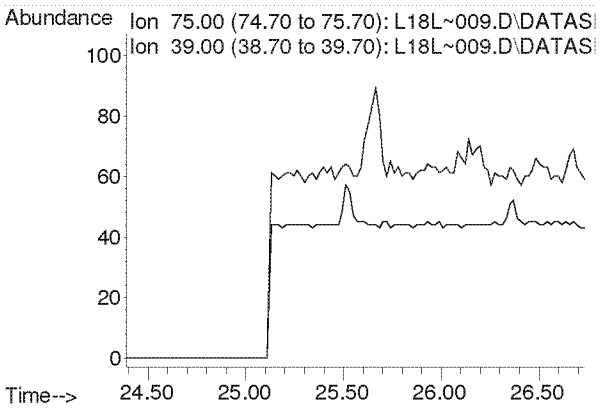


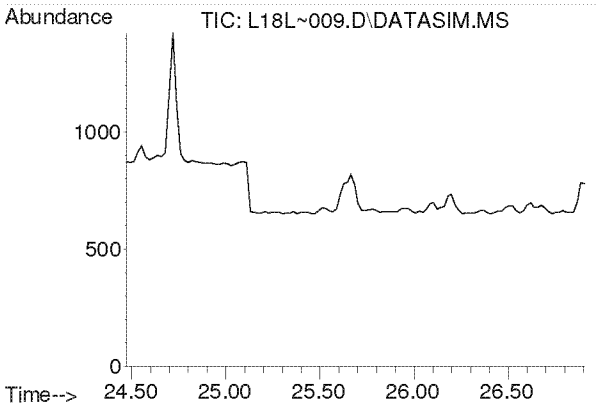
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L18L~009.D
Acq: 27 Dec 2018 11:41 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.4



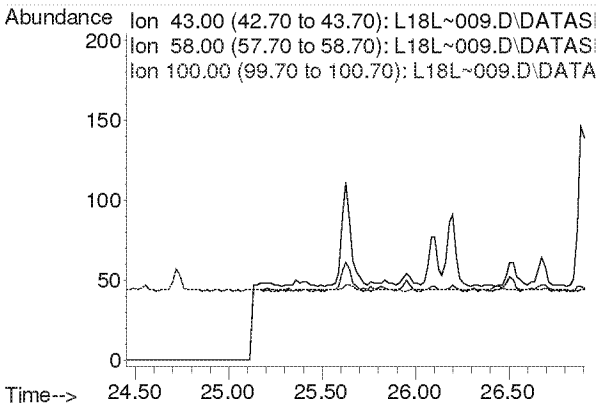


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.61 min

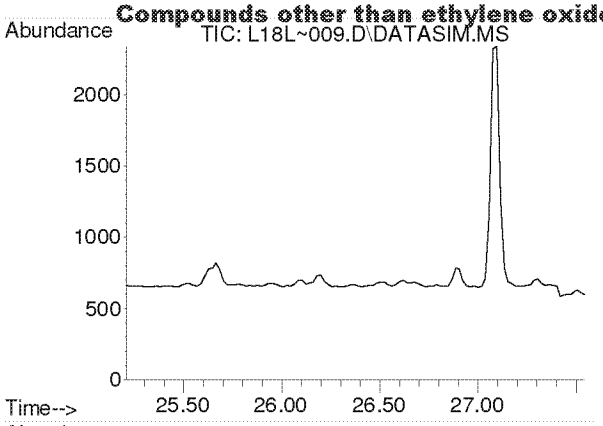
Lab File: L18L~009.D
Acq: 27 Dec 2018 11:41 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	34.2
100	7.9



Compounds other than ethylene oxide were not quantitated.

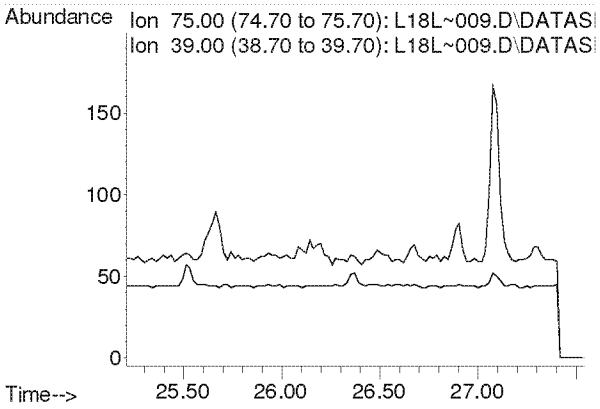


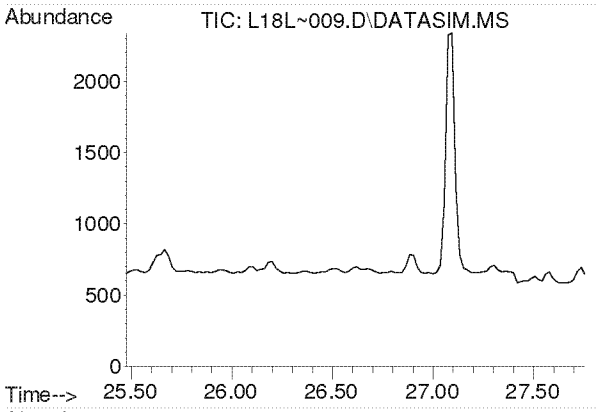
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.35 min

Lab File: L18L~009.D
Acq: 27 Dec 2018 11:41 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	50.9



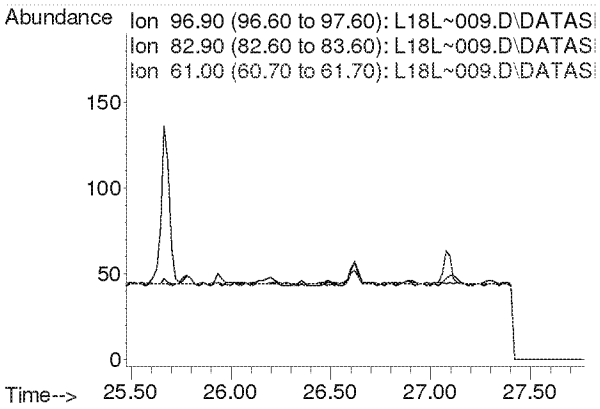


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

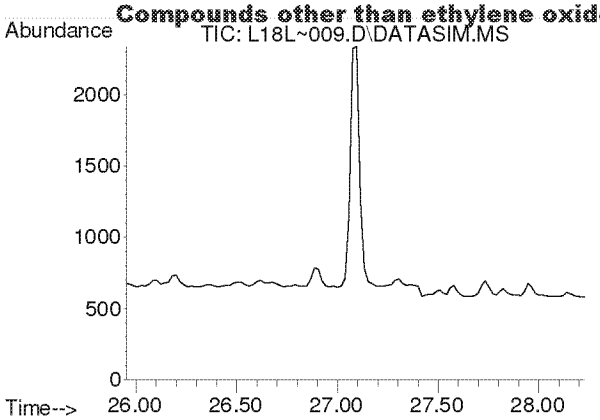
Lab File: L18L~009.D
Acq: 27 Dec 2018 11:41 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	96.1
61	63.5



Compounds other than ethylene oxide were not quantitated.

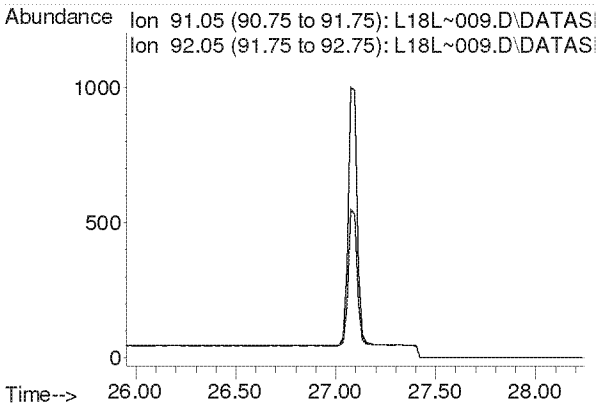


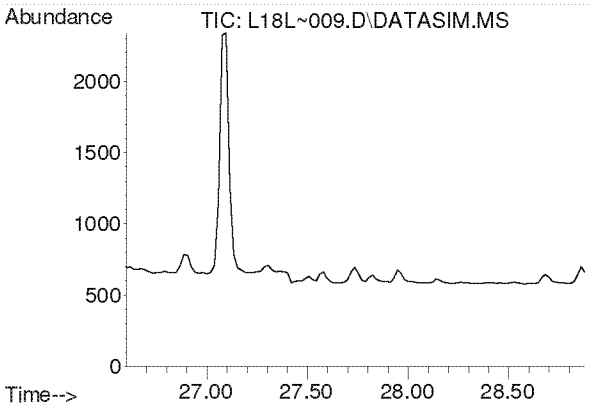
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L18L~009.D
Acq: 27 Dec 2018 11:41 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.6



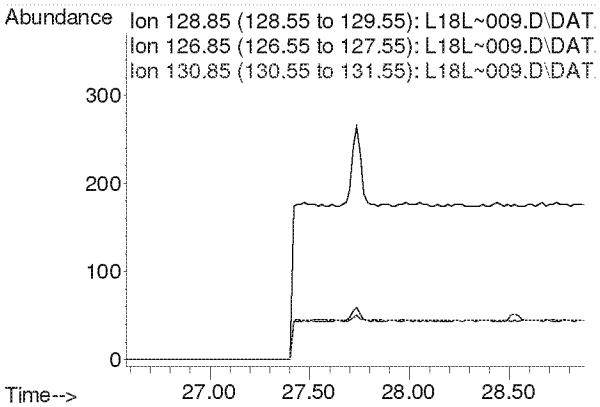


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.73 min

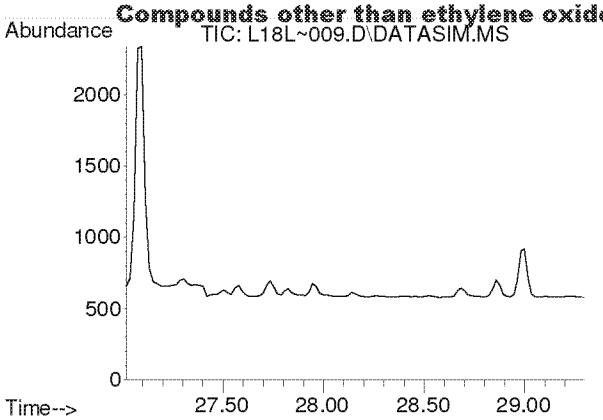
Lab File: L18L~009.D
Acq: 27 Dec 2018 11:41 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.2
131	6.0



Compounds other than ethylene oxide were not quantitated.

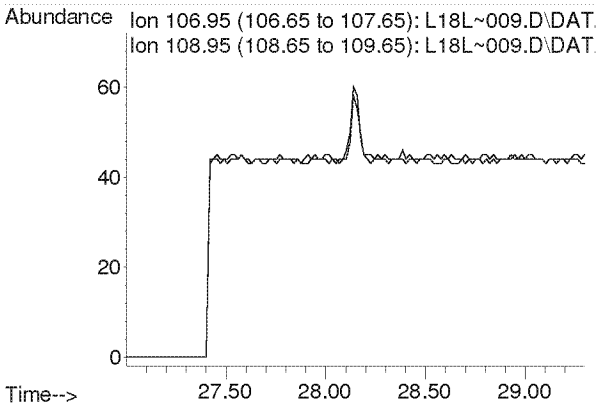


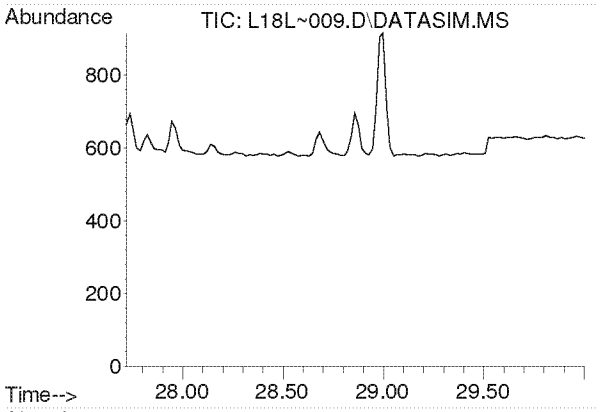
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.16 min

Lab File: L18L~009.D
Acq: 27 Dec 2018 11:41 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.5



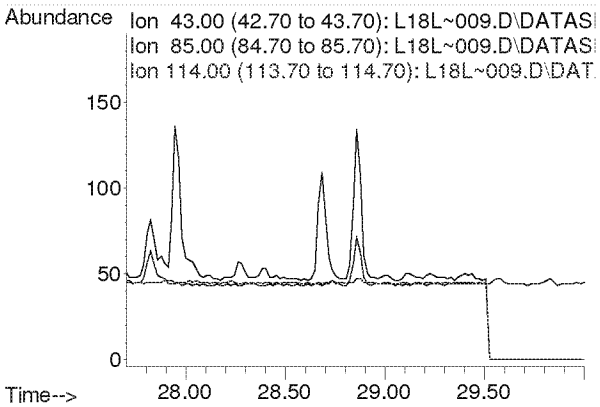


#47
n-Octane
Concen: N.D.
Expected RT: 28.86 min

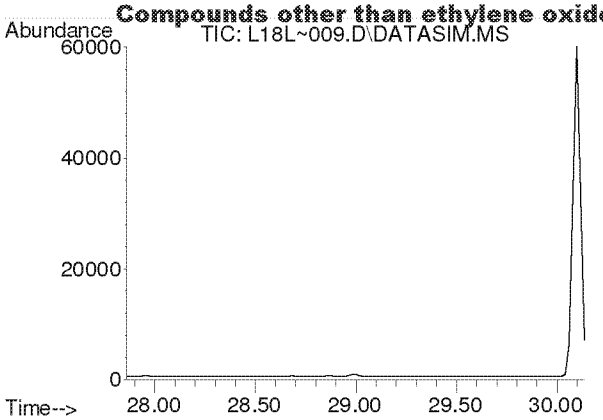
Lab File: L18L~009.D
Acq: 27 Dec 2018 11:41 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	36.0
114	2.2



Compounds other than ethylene oxide were not quantitated.

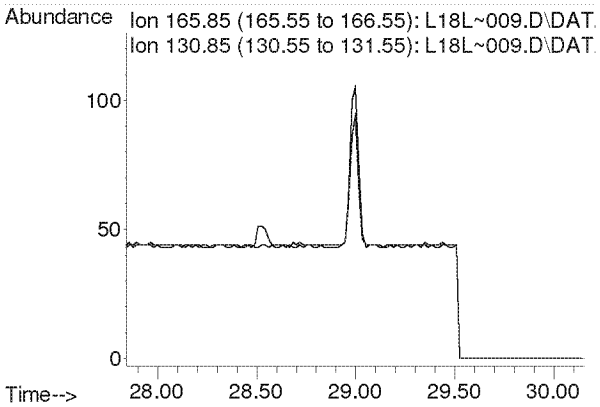


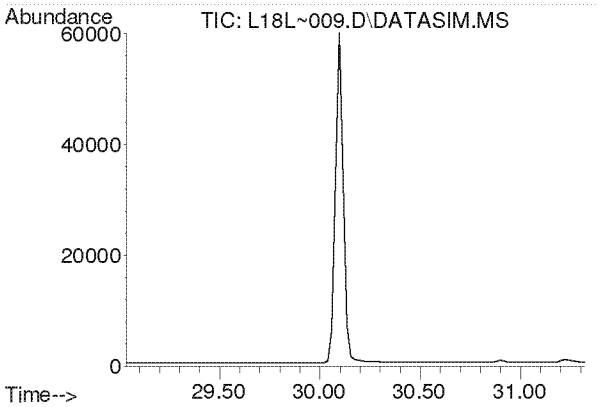
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L18L~009.D
Acq: 27 Dec 2018 11:41 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	78.2



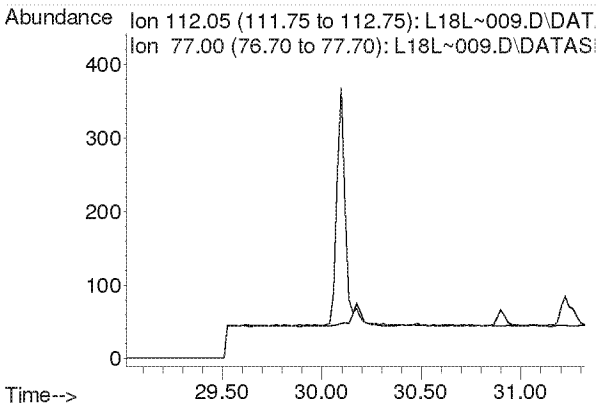


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.17 min

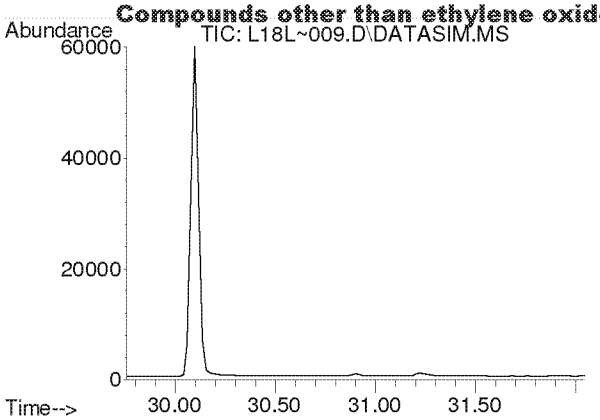
Lab File: L18L~009.D
Acq: 27 Dec 2018 11:41 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	63.0



Compounds other than ethylene oxide were not quantitated.

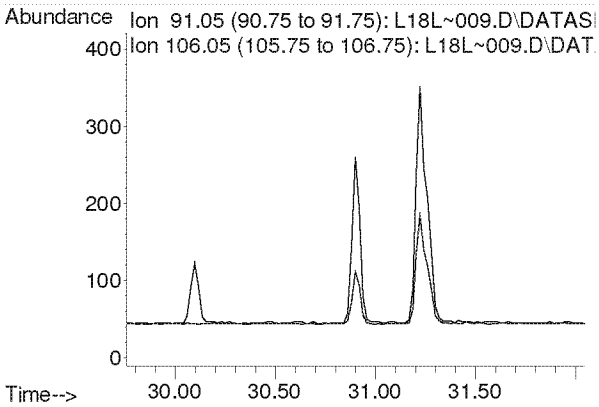


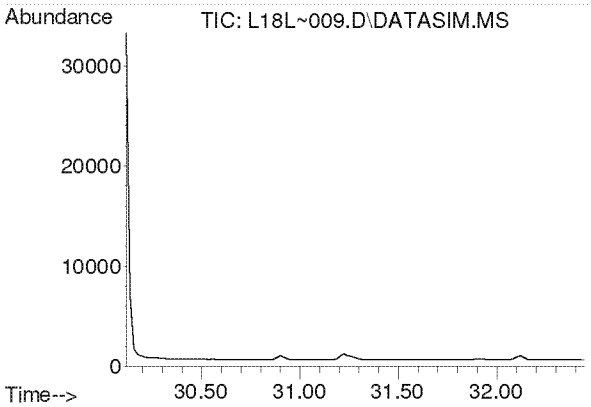
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.90 min

Lab File: L18L~009.D
Acq: 27 Dec 2018 11:41 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	31.8



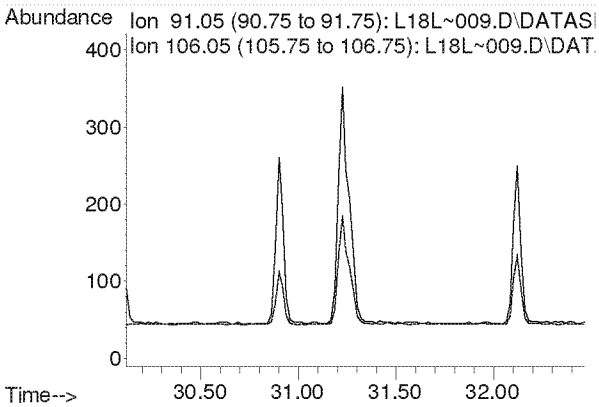


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.26 min

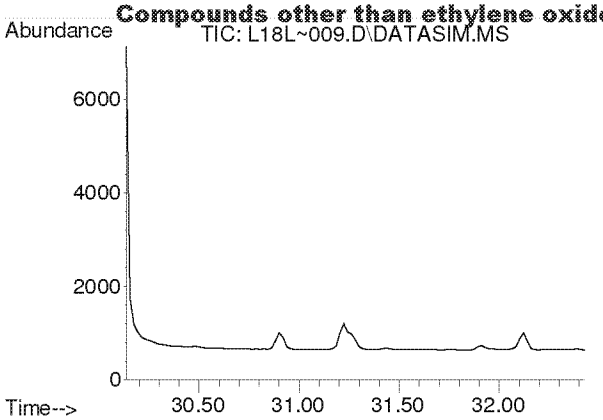
Lab File: L18L~009.D
Acq: 27 Dec 2018 11:41 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.4



Compounds other than ethylene oxide were not quantitated.

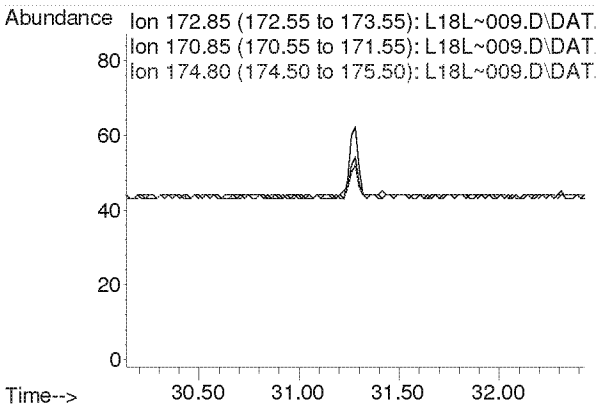


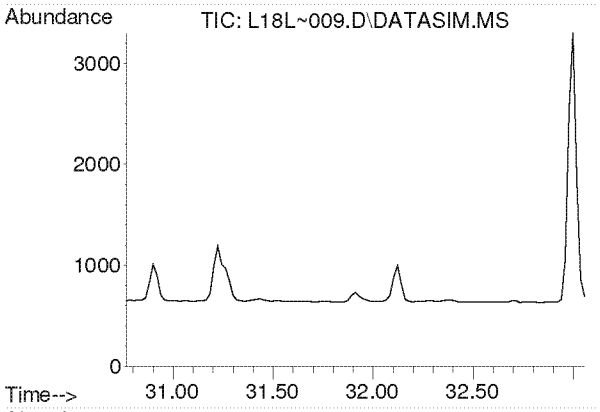
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L18L~009.D
Acq: 27 Dec 2018 11:41 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	49.0



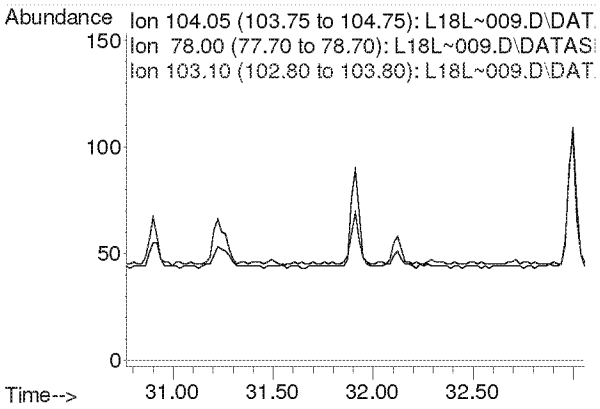


#53
Styrene
Concen: N.D.
Expected RT: 31.91 min

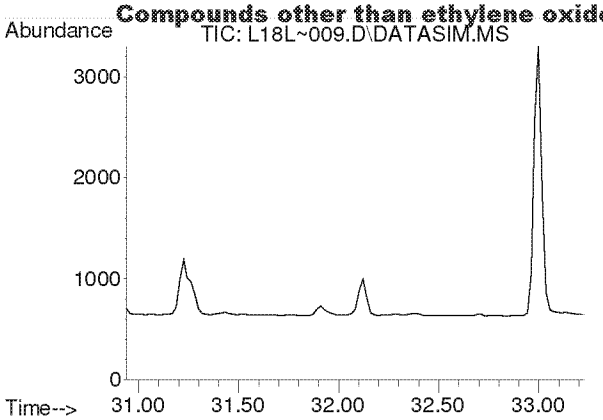
Lab File: L18L~009.D
Acq: 27 Dec 2018 11:41 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	45.6
103	0.0



Compounds other than ethylene oxide were not quantitated.

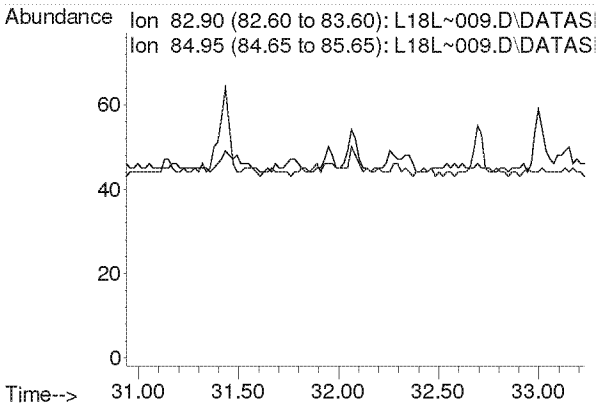


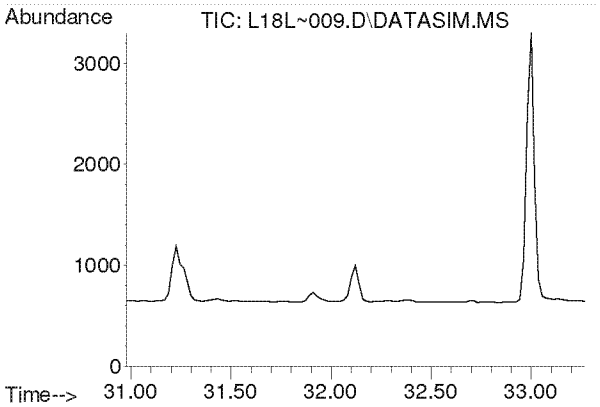
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L18L~009.D
Acq: 27 Dec 2018 11:41 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.9



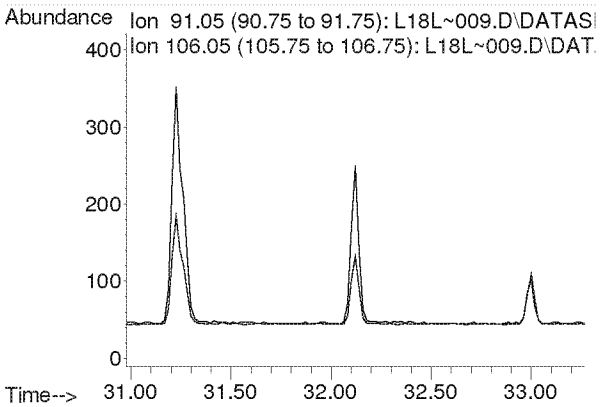


#55
o-Xylene
Concen: N.D.
Expected RT: 32.12 min

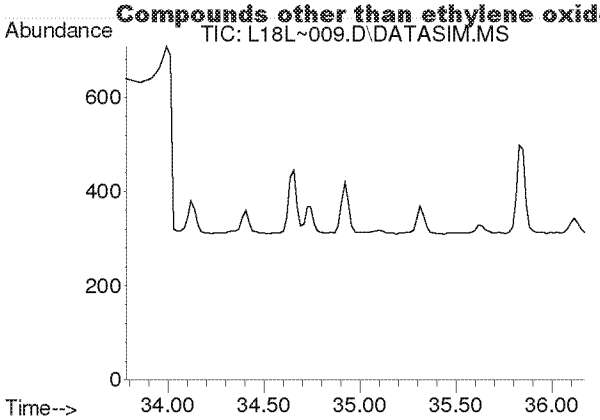
Lab File: L18L~009.D
Acq: 27 Dec 2018 11:41 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.2



Compounds other than ethylene oxide were not quantitated.

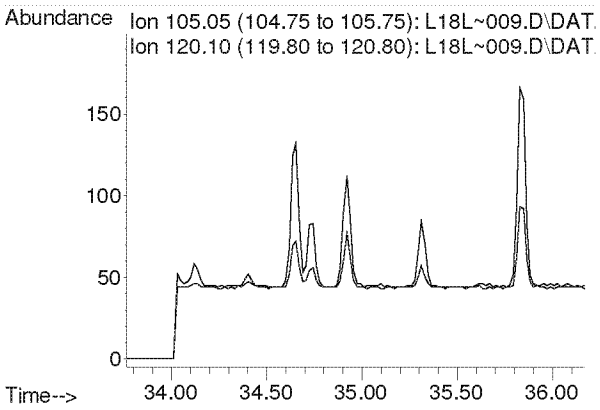


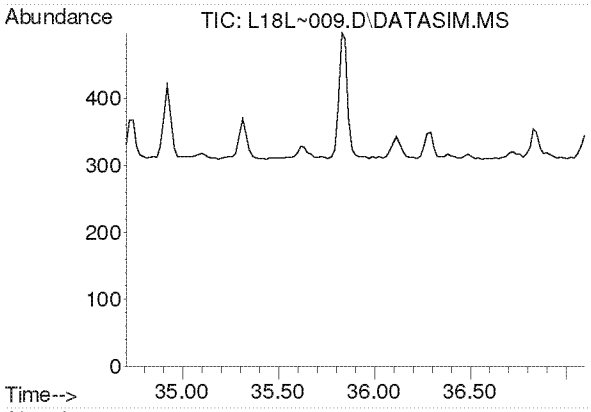
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.92 min

Lab File: L18L~009.D
Acq: 27 Dec 2018 11:41 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	45.0



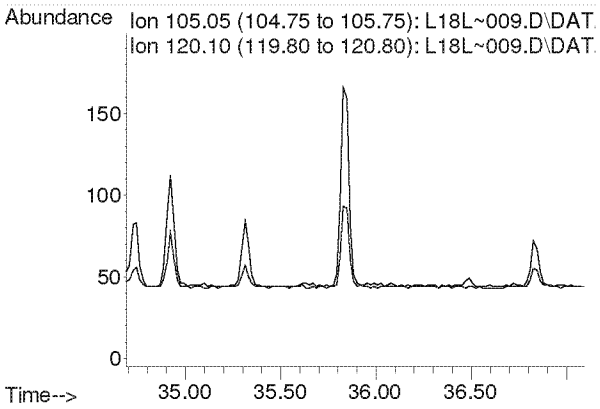


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

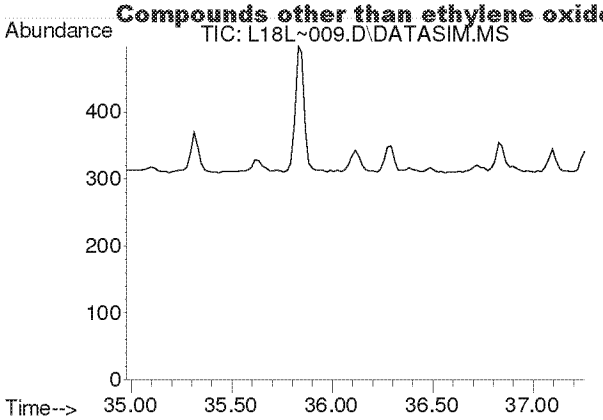
Lab File: L18L~009.D
Acq: 27 Dec 2018 11:41 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	42.8



Compounds other than ethylene oxide were not quantitated.

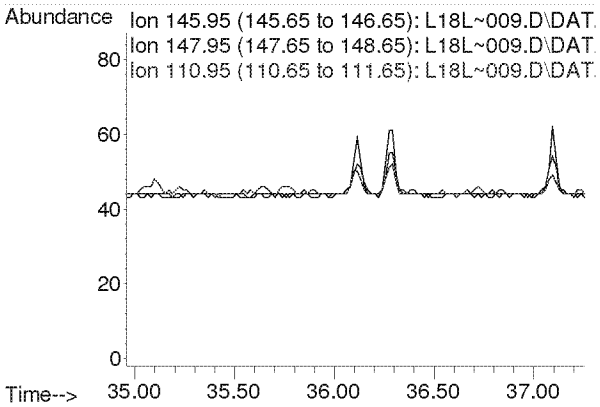


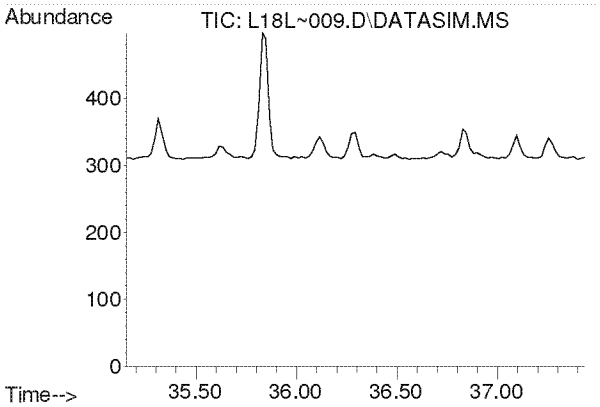
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.11 min

Lab File: L18L~009.D
Acq: 27 Dec 2018 11:41 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.5



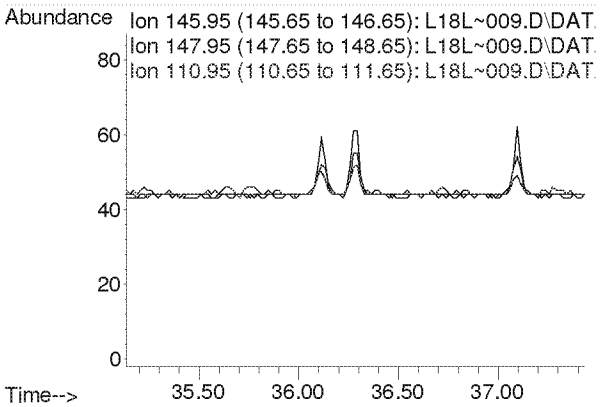


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

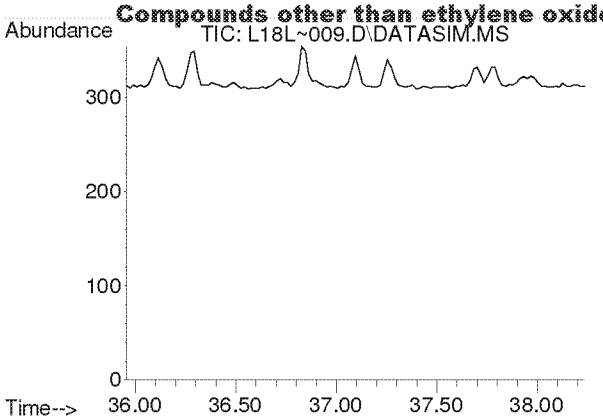
Lab File: L18L~009.D
Acq: 27 Dec 2018 11:41 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	39.5



Compounds other than ethylene oxide were not quantitated.

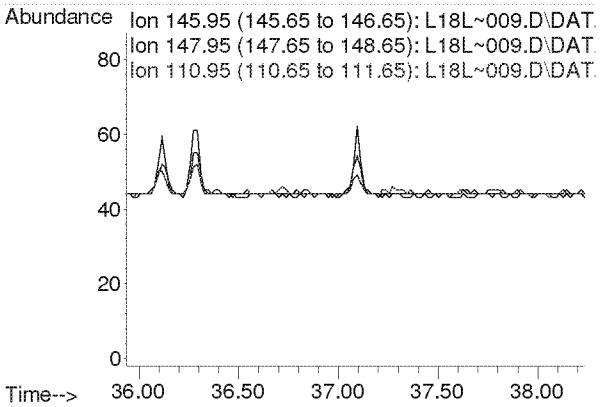


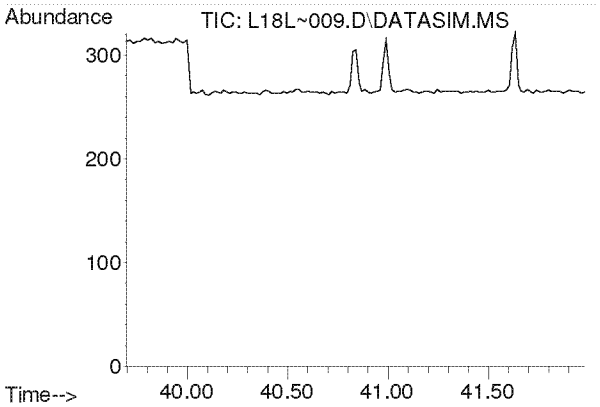
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.09 min

Lab File: L18L~009.D
Acq: 27 Dec 2018 11:41 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	41.4



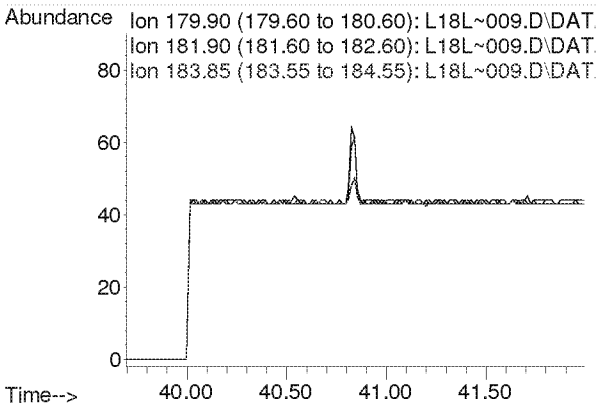


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

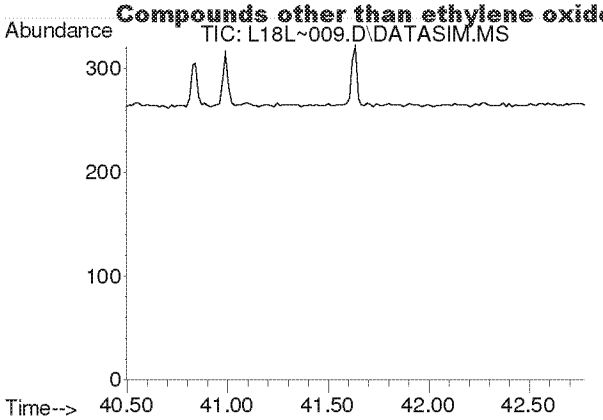
Lab File: L18L~009.D
Acq: 27 Dec 2018 11:41 pm

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	95.1
184	30.7



Compounds other than ethylene oxide were not quantitated.

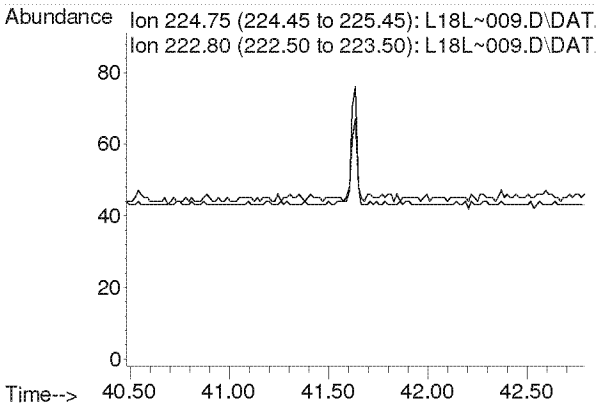


#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.64 min

Lab File: L18L~009.D
Acq: 27 Dec 2018 11:41 pm

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.4



Compounds other than ethylene oxide were not quantitated.

TO-15 Method Blank and
Annual Canister Certification Blank

Analyst: [illegible] Date: 1-3-19
Reviewer: RMB Date: 1/7/19

Data File Name	L18L~010.D
Operator	MAH
Acq. Method File	8120004.M
Sample Name	8121130-10
Misc Info	TRIP BLANK 12/6/18

#	Name	Target Response	Amount (ppbv)	PASS*		Blank Criteria
1)	IS-Hexane-d14	59776		NA		NA
2)	Acetylene	0	0.000	Y		0.118
3)	Propylene	0	0.000	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	277	0.078	Y	MAX	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	0	0.000	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	145696		NA		NA
29)	1,1,1-Trichloroethane	0	0.000	Y		0.041
30)	Benzene	0	0.000	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	0	0.000	Y		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	103124		NA		NA
43)	Toluene	0	0.000	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	0	0.000	Y		0.077
50)	m,p-Xylene	0	0.000	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	0	0.000	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\L18L~\
Data File : L18L~010.D
Acq On : 28 Dec 2018 12:42 am
Operator : MAH
Sample : 8121130-10
Misc : TRIP BLANK 12/6/18
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jan 03 12:35:06 2019
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
Response via : Initial Calibration

1-3-19

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.993	66	59776	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.151	114	145696	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.096	117	103124	4.7400 ppbv	0.00

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. d	
8) 1,3-Butadiene	0.000	54	0	N.D. d	
9) Ethylene oxide	12.470	29	277m	0.0775 ppbv	
10) Bromomethane	0.000	94	0	N.D. d	
11) Chloroethane	0.000	64	0	N.D. 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. 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. d	
21) 1,1-Dichloroethane	0.000	63	0	N.D. 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. d	
26) Chloroform	0.000	83	0	N.D. d	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D. d	
28) 1,2-Dichloroethane	0.000	62	0	N.D. d	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D. 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. 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. d	
37) Trichloroethylene	0.000	130	0	N.D. d	
38) Methyl Methacrylate	0.000	41	0	N.D. d	
39) cis-1,3-Dichloropropene	0.000	75	0	N.D. d	
40) Methyl Isobutyl Ketone	0.000	43	0	N.D. d	
41) trans-1,3-Dichloropropene	0.000	75	0	N.D. d	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D. d	
44) Toluene	0.000	91	0	N.D. d	
45) Dibromochloromethane	0.000	129	0	N.D. d	
46) 1,2-Dibromoethane	0.000	107	0	N.D. 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. d	
50) Ethylbenzene	0.000	91	0	N.D. d	

Compounds other than ethylene oxide were not quantitated.

Quantification Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L18L~\
Data File : L18L~010.D
Acq On : 28 Dec 2018 12:42 am
Operator : MAH
Sample : 8121130-10
Misc : TRIP BLANK 12/6/18
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jan 03 12:35:06 2019
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
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. d	
53) Styrene	0.000	104	0	N.D. d	
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D. 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. d	
59) p-Dichlorobenzene	0.000	146	0	N.D. d	
60) o-Dichlorobenzene	0.000	146	0	N.D. d	
61) 1,2,4-Trichlorobenzene	0.000	180	0	N.D. d	
62) Hexachloro-1,3-butadiene	0.000	225	0	N.D. d	

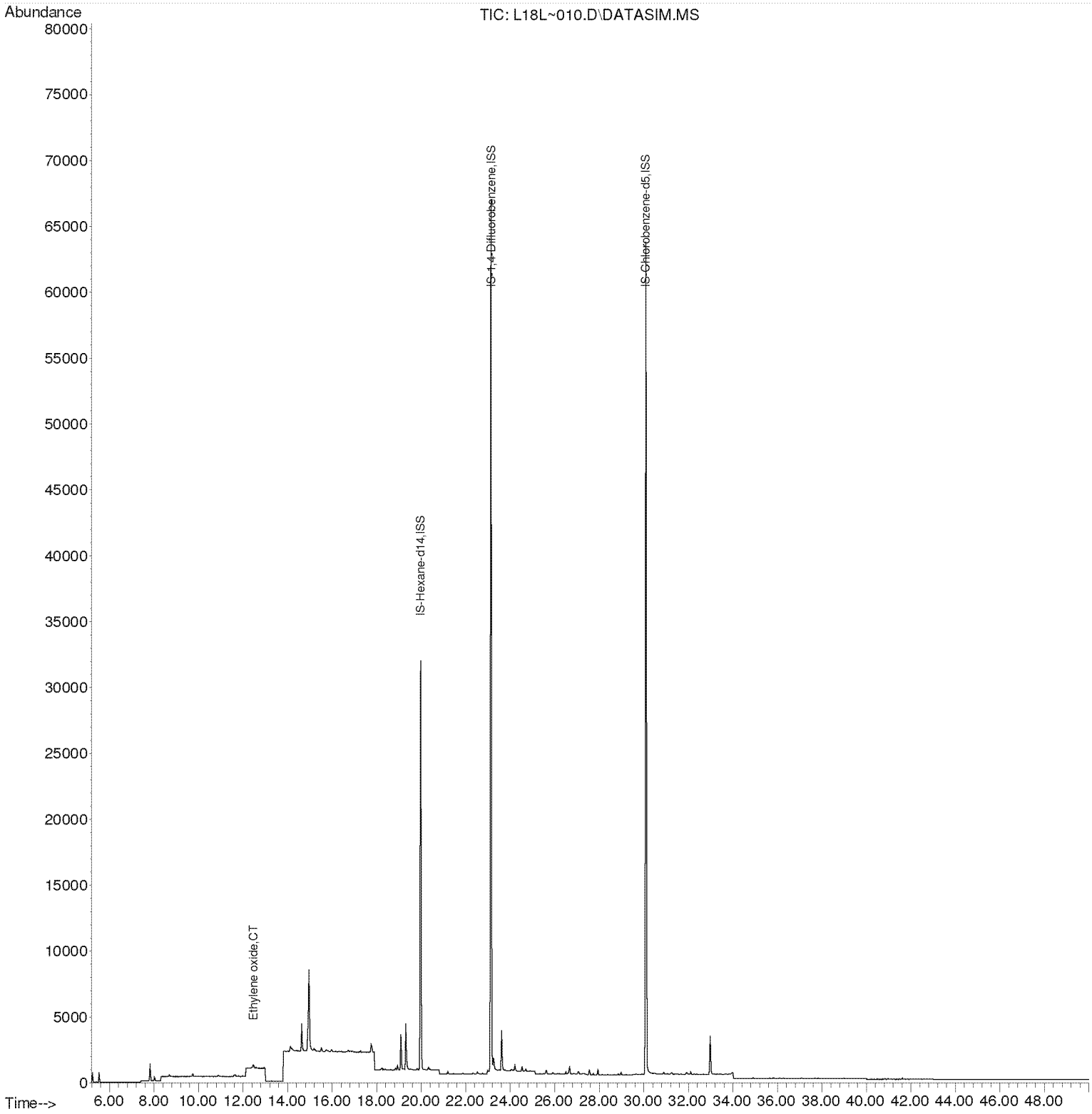
(#) = qualifier out of range (m) = manual integration (+) = signals summed

ED_002475_00000321-00248

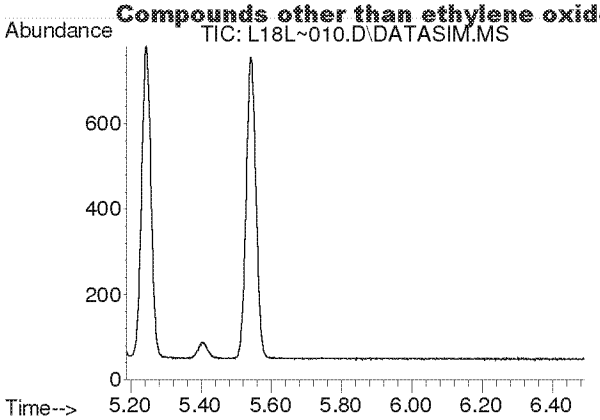
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L18L~\
Data File : L18L~010.D
Acq On : 28 Dec 2018 12:42 am
Operator : MAH
Sample : 8121130-10
Misc : TRIP BLANK 12/6/18
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jan 03 12:19:23 2019
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
Response via : Initial Calibration



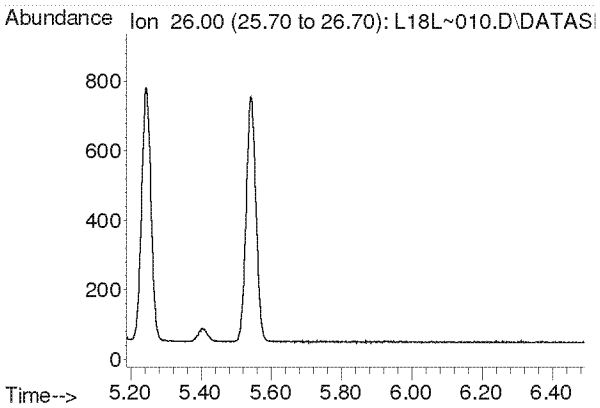
Compounds other than ethylene oxide were not quantitated.

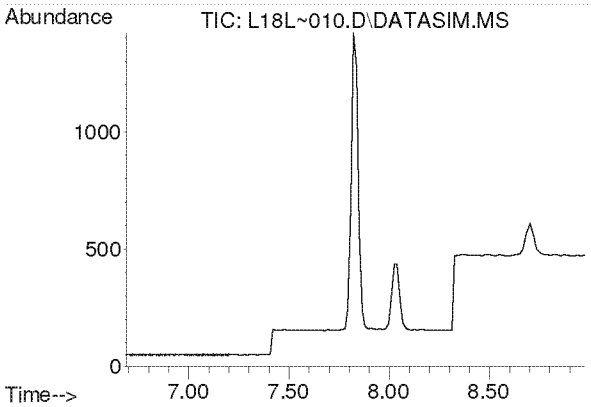


#2
Acetylene
Concen: N.D.
Expected RT: 5.42 min

Lab File: L18L~010.D
Acq: 28 Dec 2018 12:42 am

Tgt Ion: 26



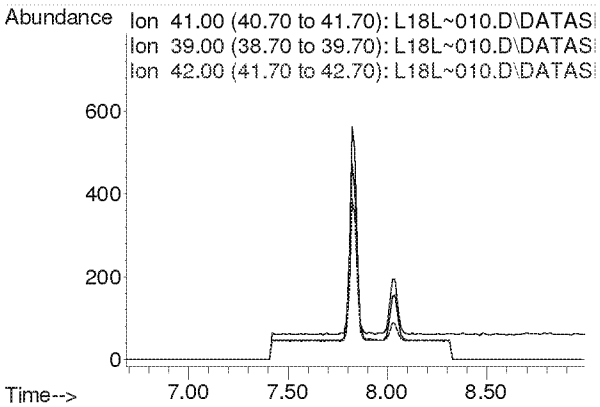


#3
Propylene
Concen: N.D.
Expected RT: 7.84 min

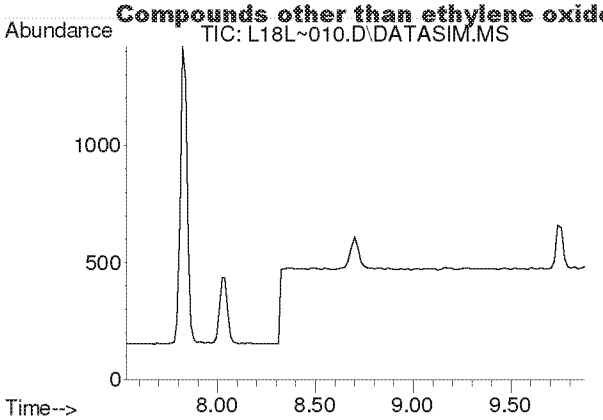
Lab File: L18L~010.D
Acq: 28 Dec 2018 12:42 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	78.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

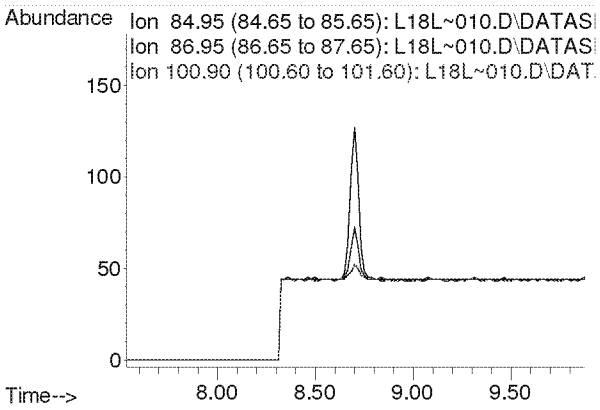


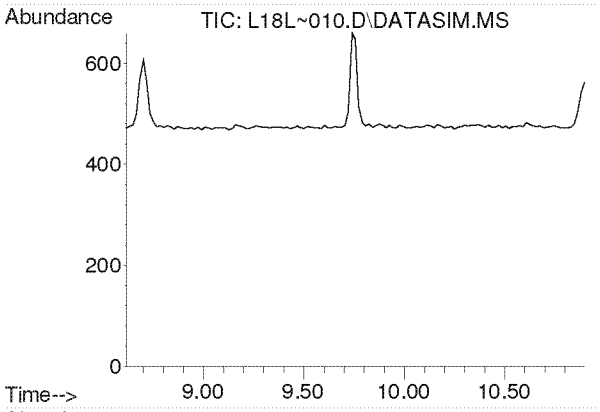
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L18L~010.D
Acq: 28 Dec 2018 12:42 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	8.9



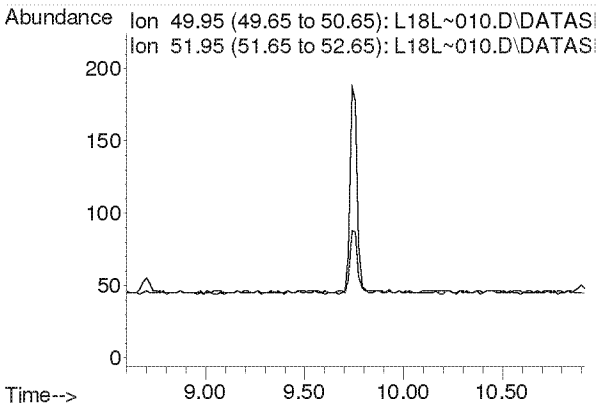


#5
Chloromethane
Concen: N.D.
Expected RT: 9.76 min

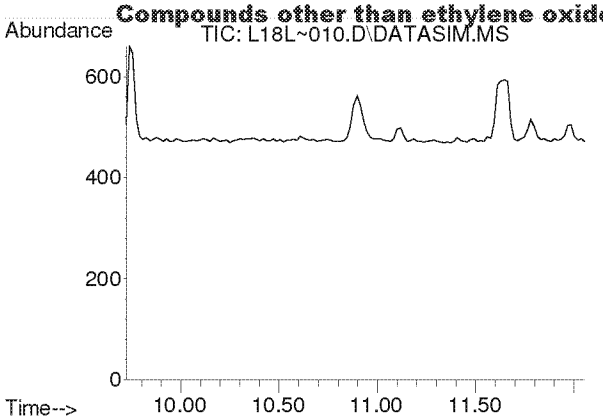
Lab File: L18L~010.D
Acq: 28 Dec 2018 12:42 am

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

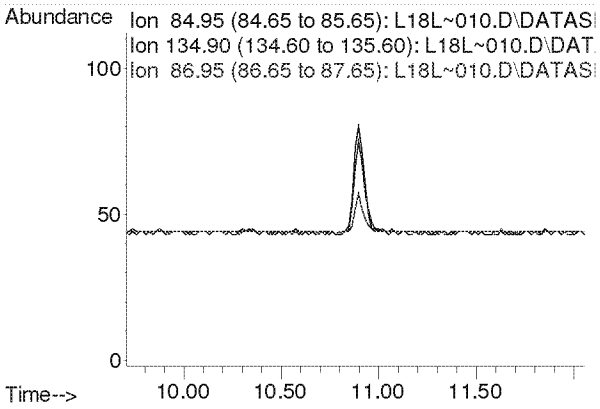


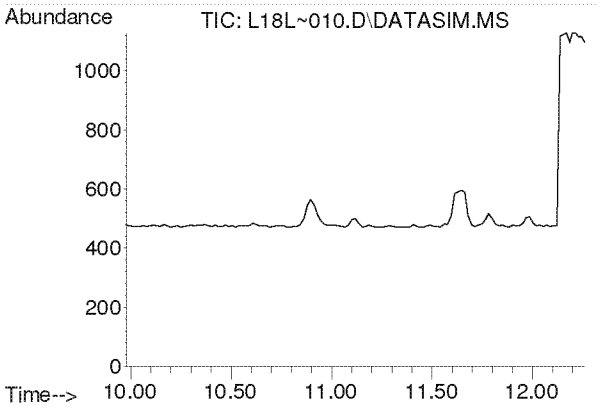
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L18L~010.D
Acq: 28 Dec 2018 12:42 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.1
87	32.1



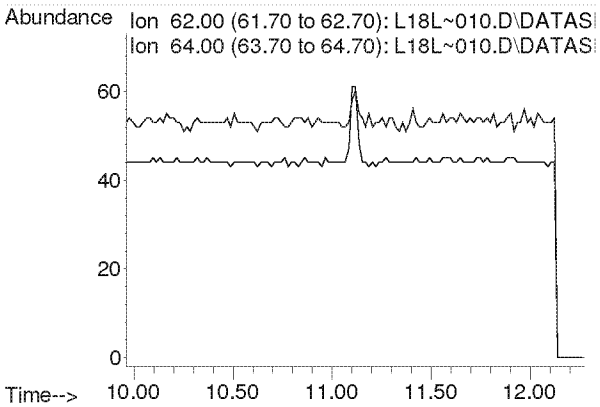


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

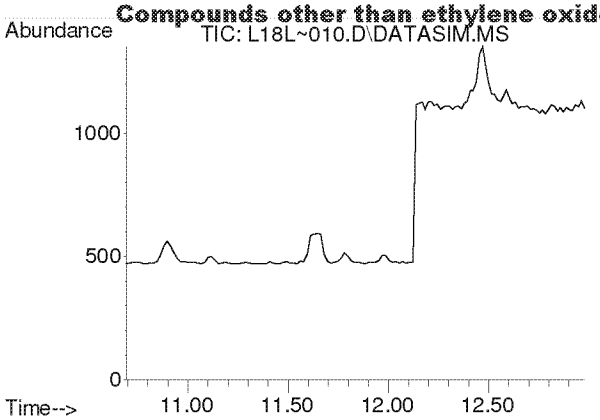
Lab File: L18L~010.D
Acq: 28 Dec 2018 12:42 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.8



Compounds other than ethylene oxide were not quantitated.

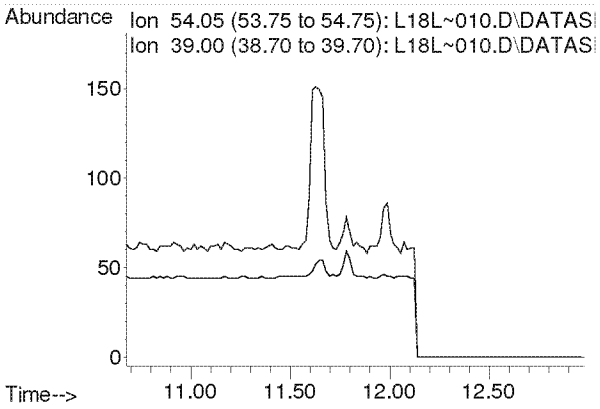


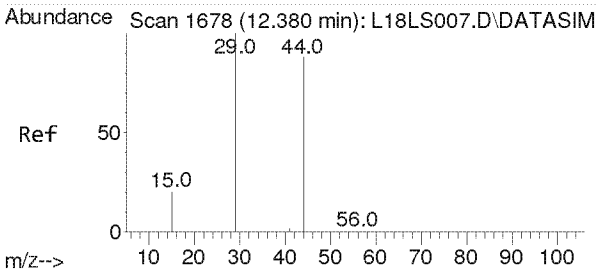
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L18L~010.D
Acq: 28 Dec 2018 12:42 am

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	105.4

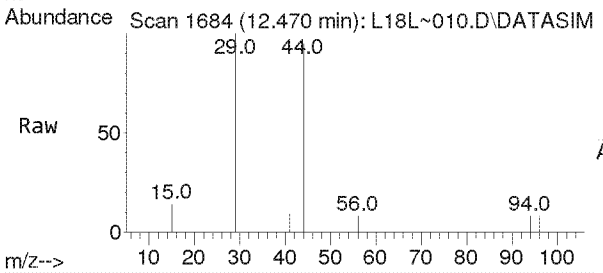


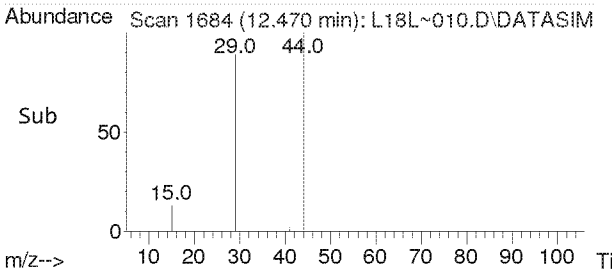


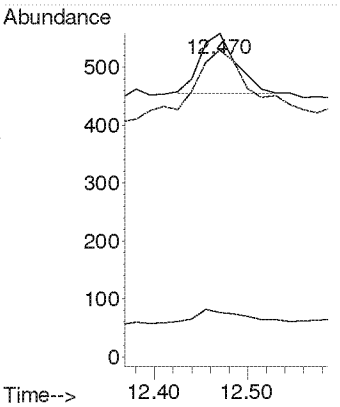
#9
Ethylene oxide
Concen: 0.078 ppbv m
RT: 12.470 min Scan# 1684
Delta R.T. 0.090 min
Lab File: L18L~010.D
Acq: 28 Dec 2018 12:42 am

Tgt Ion: 29 Resp: 277

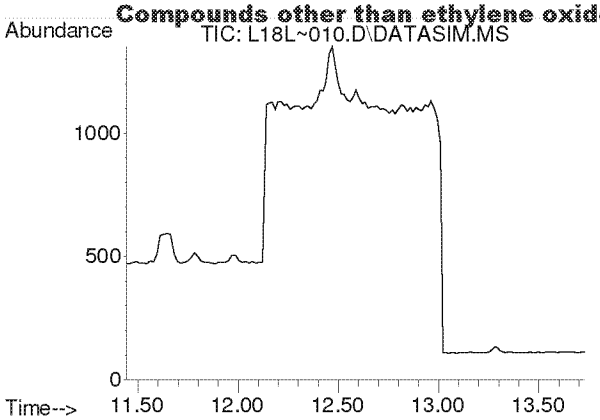
Ion	Ratio	Lower	Upper
29	100		
15	0.0	16.2	24.4#
44	0.0	72.0	108.0#







Compounds other than ethylene oxide were not quantitated.

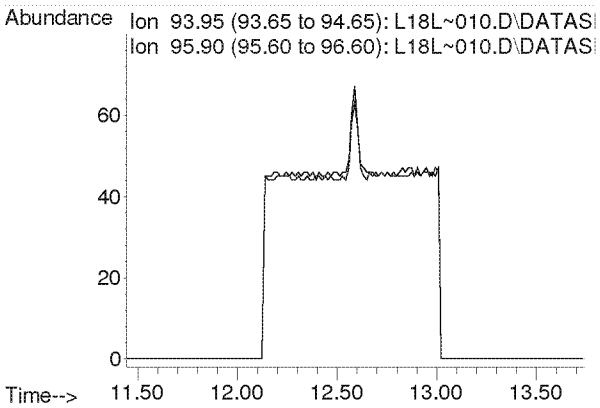


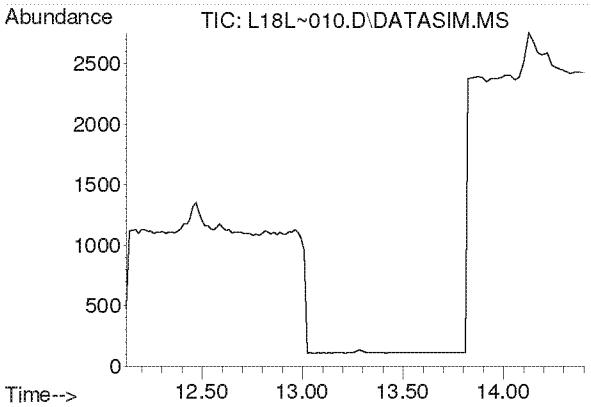
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L18L~010.D
Acq: 28 Dec 2018 12:42 am

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	93.9



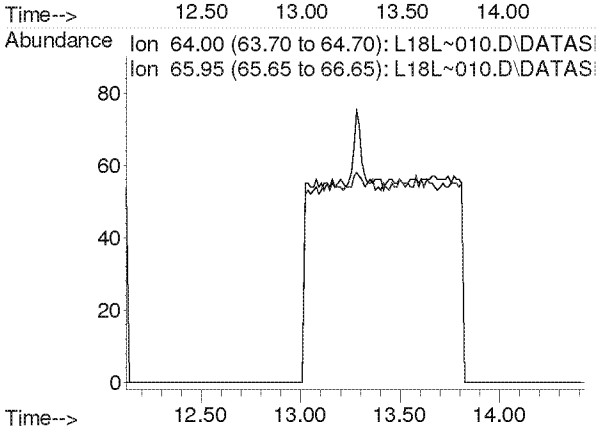


#11
Chloroethane
Concen: N.D.
Expected RT: 13.27 min

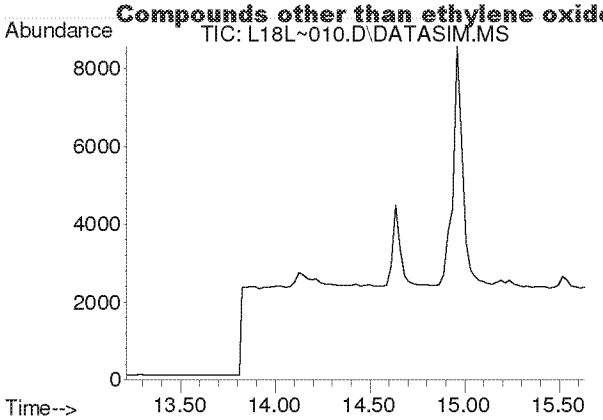
Lab File: L18L~010.D
Acq: 28 Dec 2018 12:42 am

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.0



Compounds other than ethylene oxide were not quantitated.

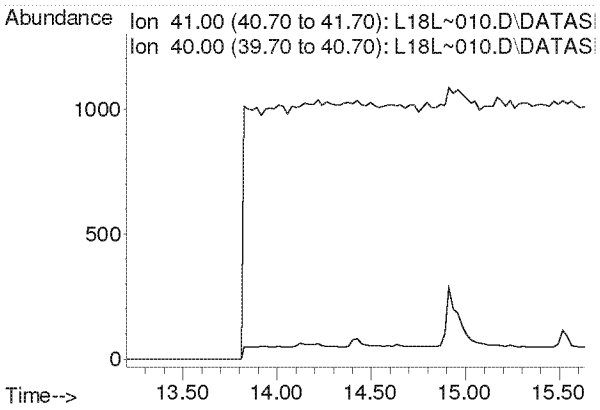


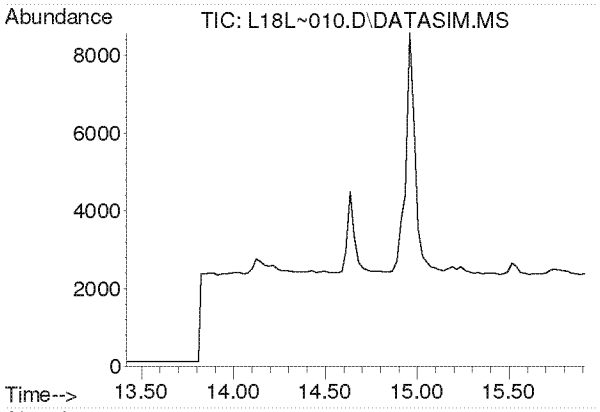
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.33 min

Lab File: L18L~010.D
Acq: 28 Dec 2018 12:42 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	50.9



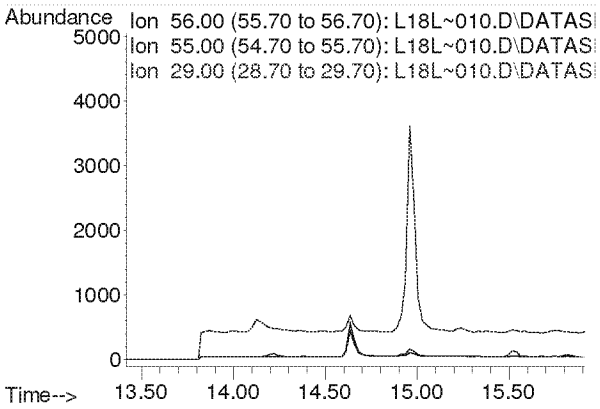


#13
Acrolein
Concen: N.D.
Expected RT: 14.61 min

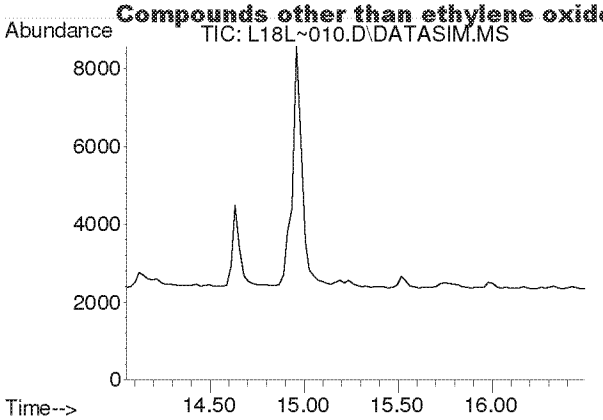
Lab File: L18L~010.D
Acq: 28 Dec 2018 12:42 am

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	75.4
29	52.9



Compounds other than ethylene oxide were not quantitated.

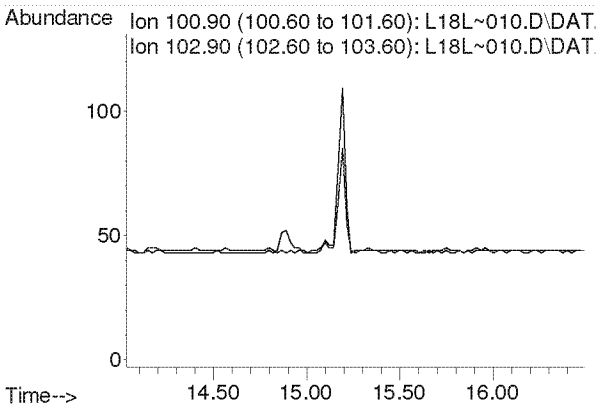


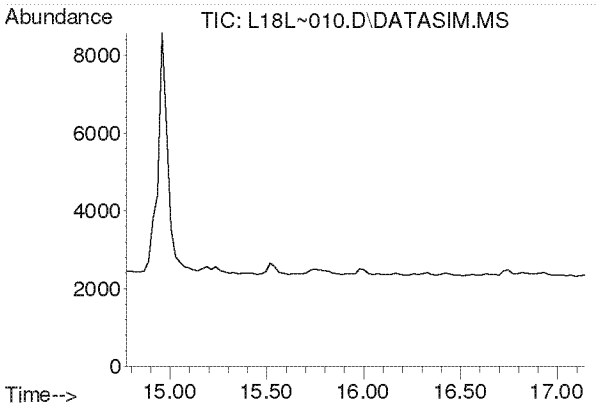
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L18L~010.D
Acq: 28 Dec 2018 12:42 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



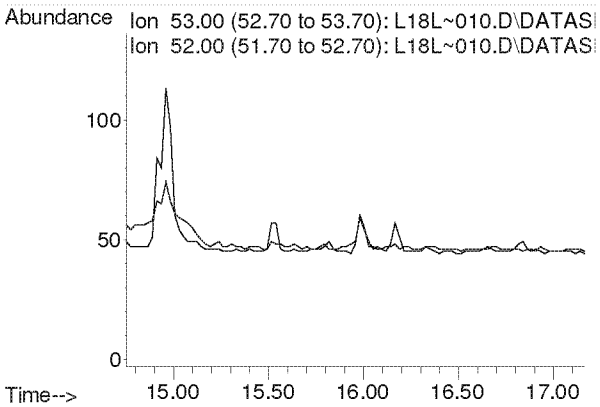


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.91 min

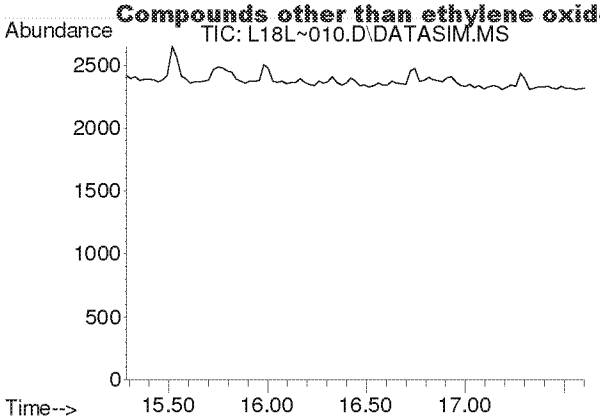
Lab File: L18L~010.D
Acq: 28 Dec 2018 12:42 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	85.4



Compounds other than ethylene oxide were not quantitated.

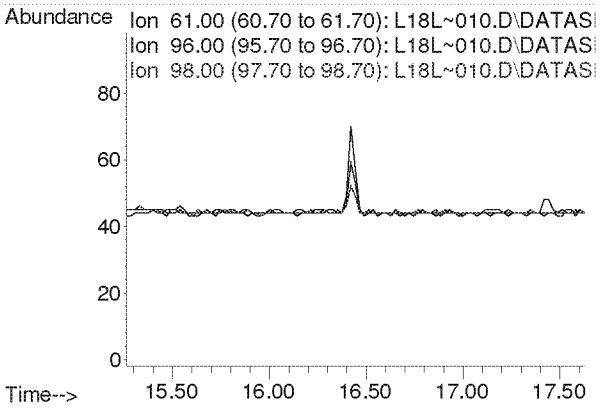


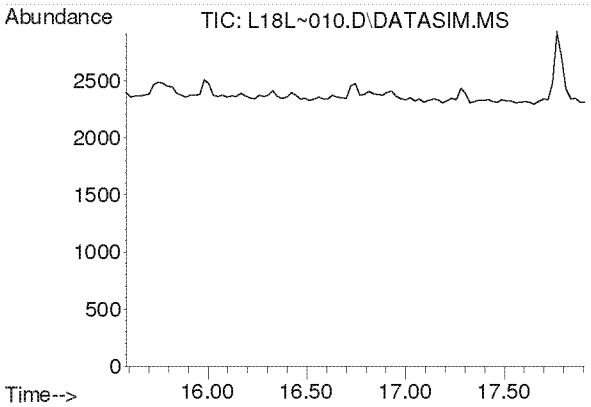
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L18L~010.D
Acq: 28 Dec 2018 12:42 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	58.3
98	37.4



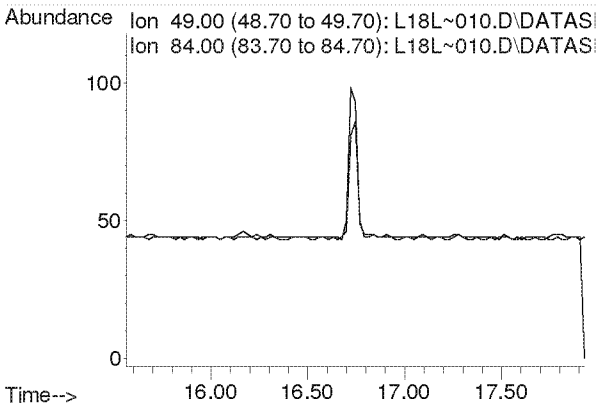


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.72 min

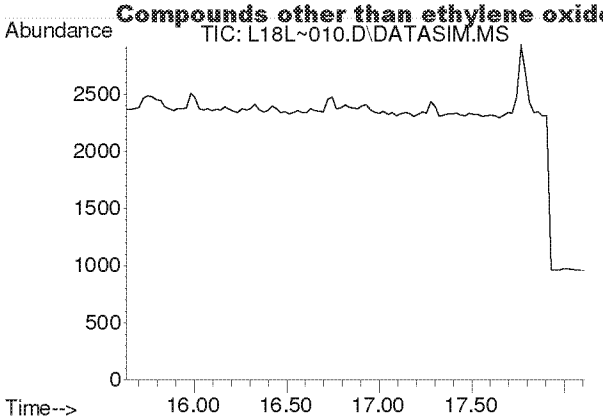
Lab File: L18L~010.D
Acq: 28 Dec 2018 12:42 am

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	76.4



Compounds other than ethylene oxide were not quantitated.

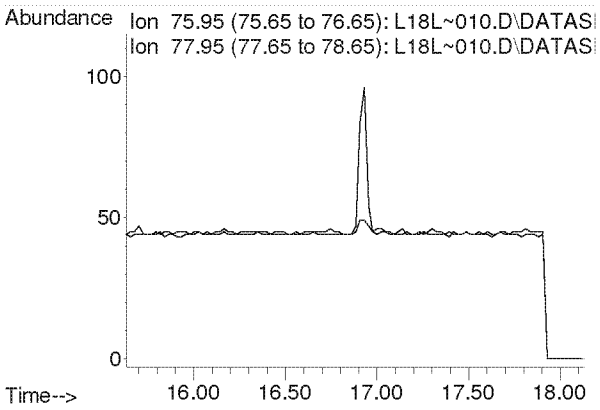


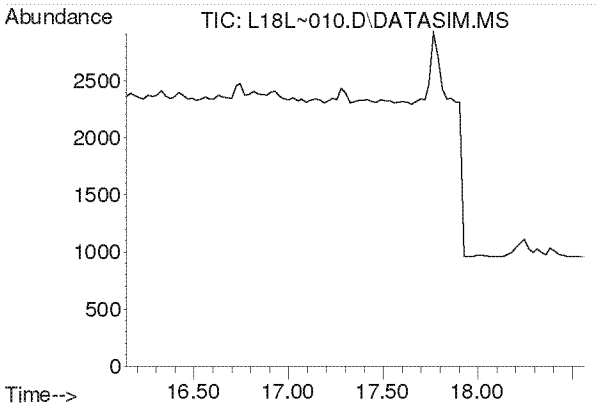
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L18L~010.D
Acq: 28 Dec 2018 12:42 am

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.1



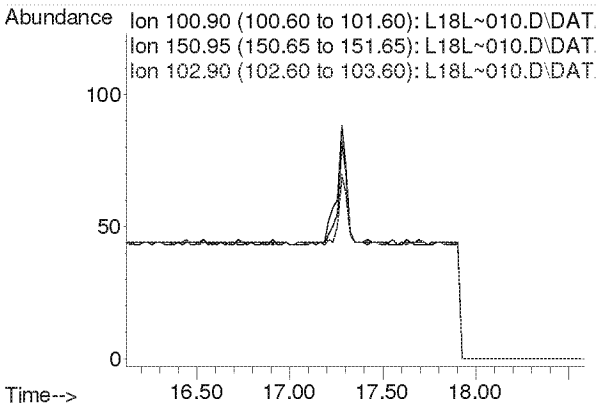


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

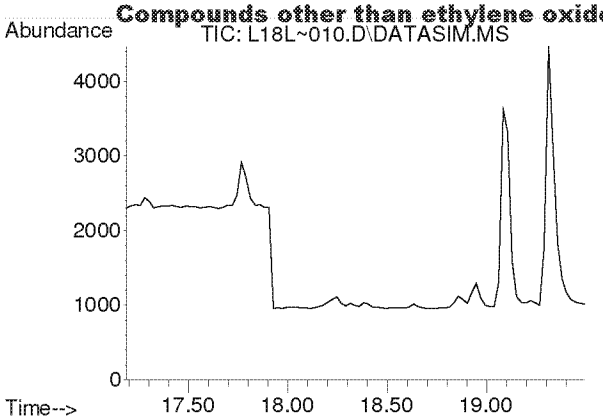
Lab File: L18L~010.D
Acq: 28 Dec 2018 12:42 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	95.3
103	64.1



Compounds other than ethylene oxide were not quantitated.

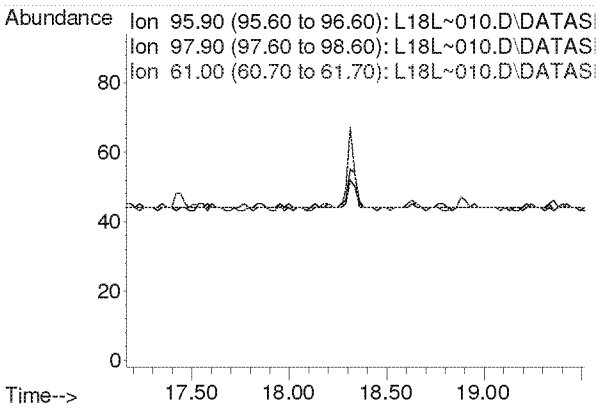


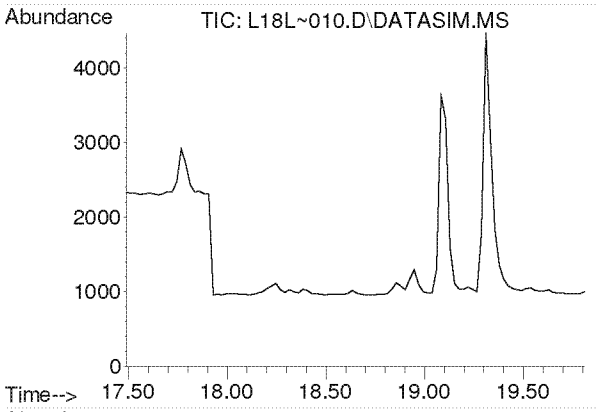
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.31 min

Lab File: L18L~010.D
Acq: 28 Dec 2018 12:42 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	63.7
61	159.2



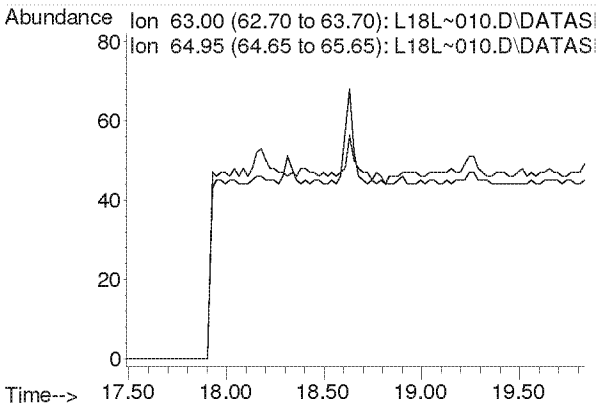


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

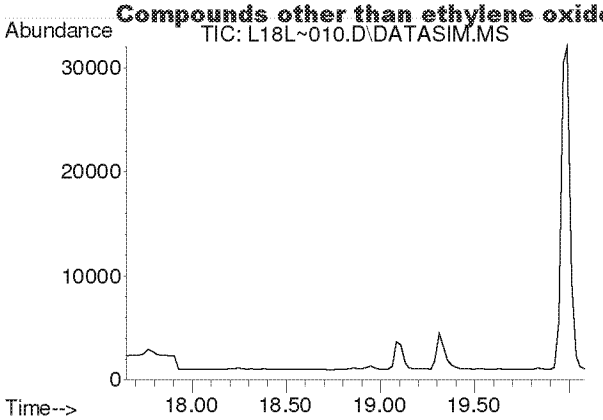
Lab File: L18L~010.D
Acq: 28 Dec 2018 12:42 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

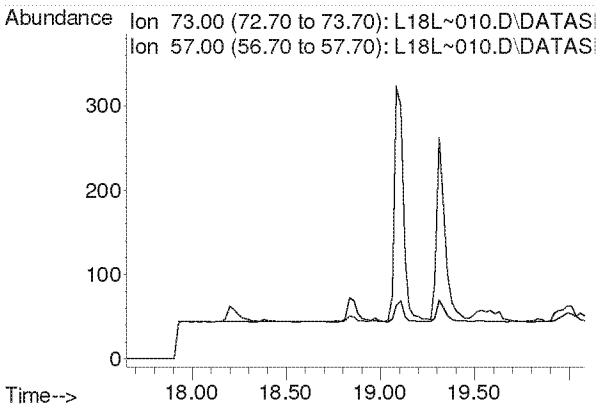


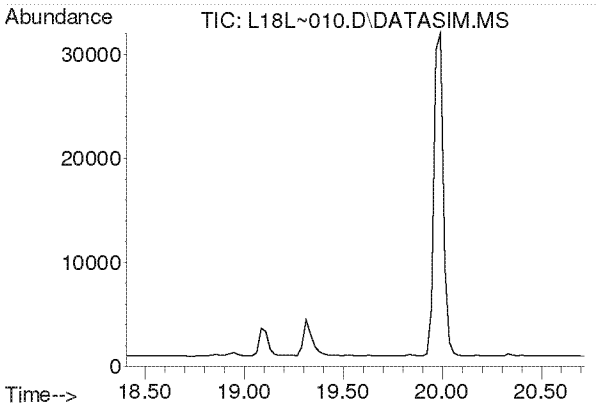
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L18L~010.D
Acq: 28 Dec 2018 12:42 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.4



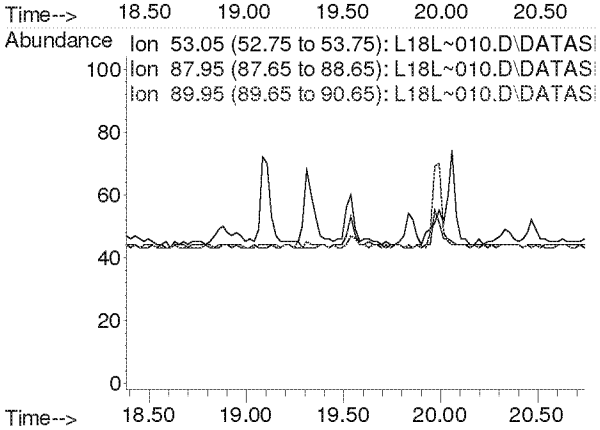


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

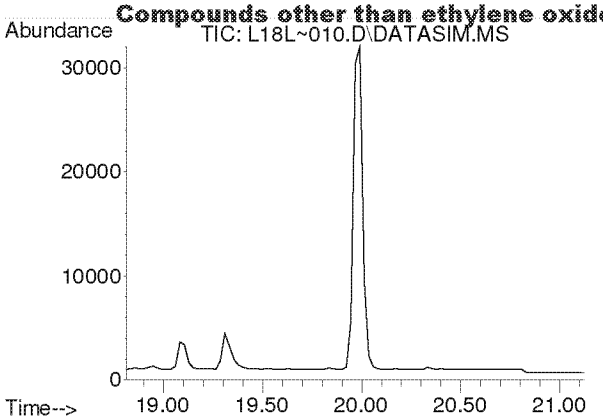
Lab File: L18L~010.D
Acq: 28 Dec 2018 12:42 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	51.8
90	16.8



Compounds other than ethylene oxide were not quantitated.

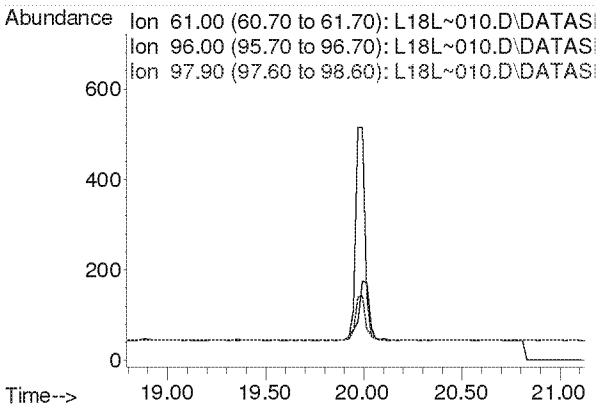


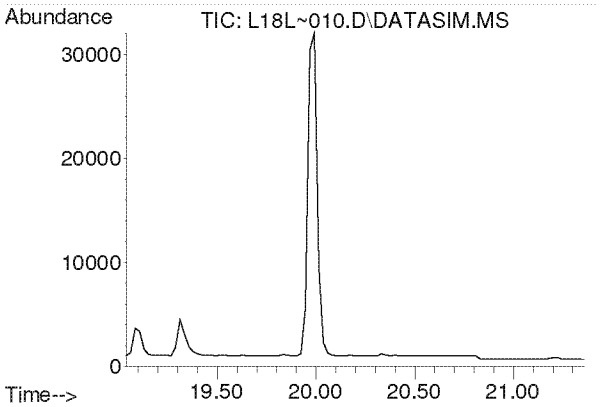
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L18L~010.D
Acq: 28 Dec 2018 12:42 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.7
98	45.2



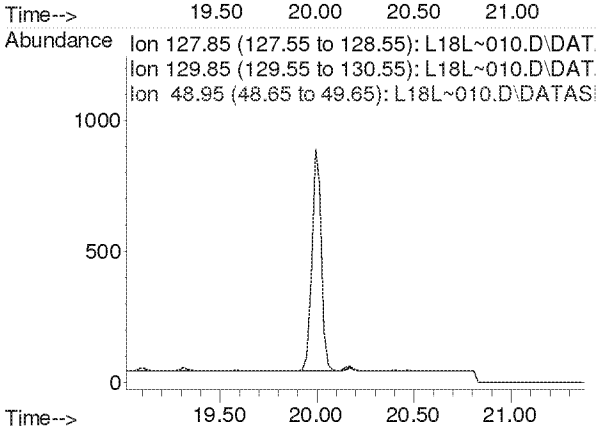


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

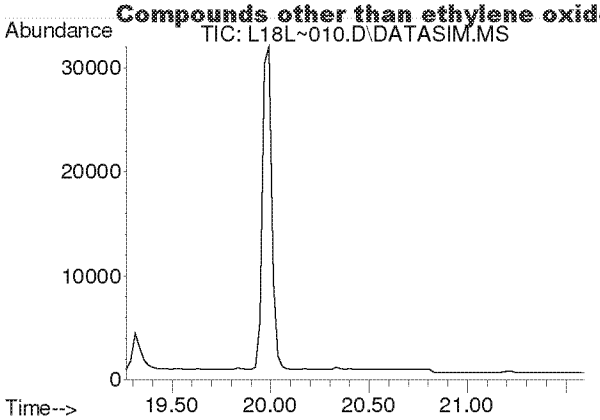
Lab File: L18L~010.D
Acq: 28 Dec 2018 12:42 am

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	171.2



Compounds other than ethylene oxide were not quantitated.

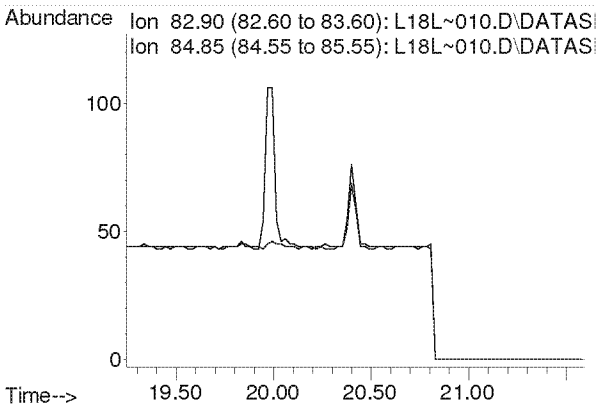


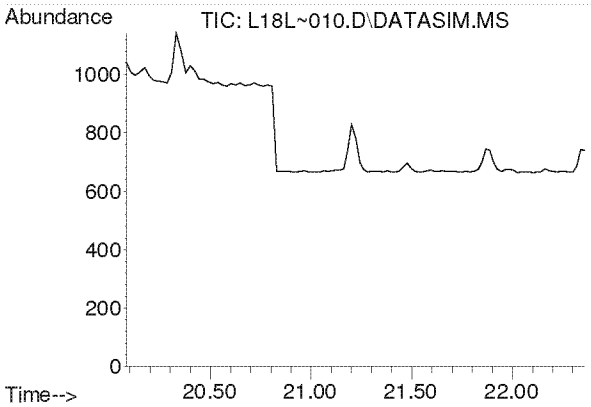
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L18L~010.D
Acq: 28 Dec 2018 12:42 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



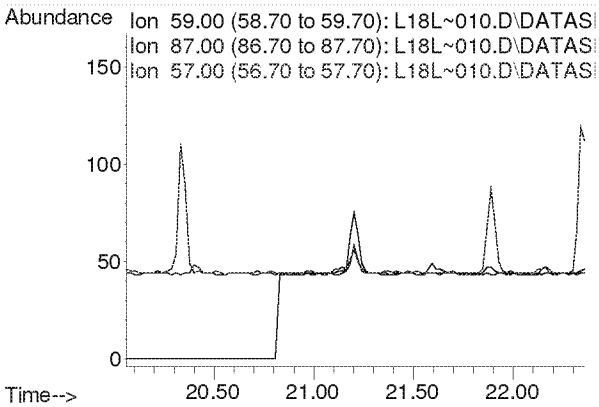


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.16 min

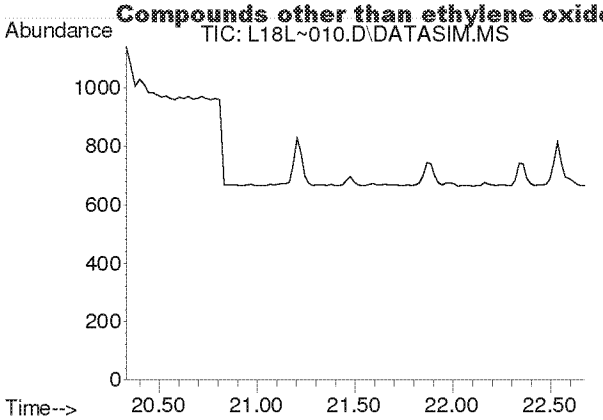
Lab File: L18L~010.D
Acq: 28 Dec 2018 12:42 am

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	37.5
57	33.8



Compounds other than ethylene oxide were not quantitated.

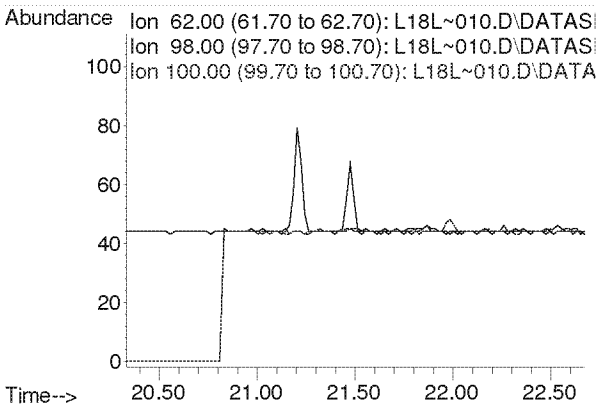


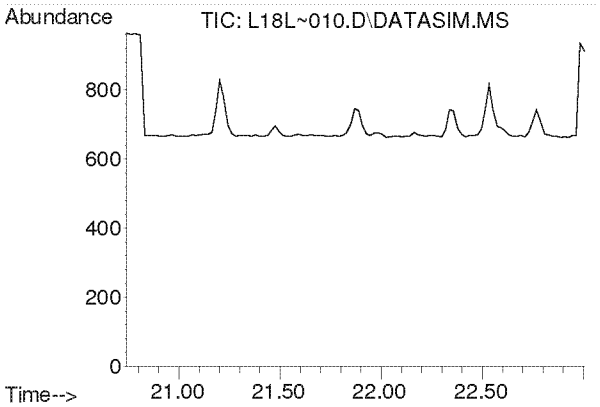
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L18L~010.D
Acq: 28 Dec 2018 12:42 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.4
100	4.0



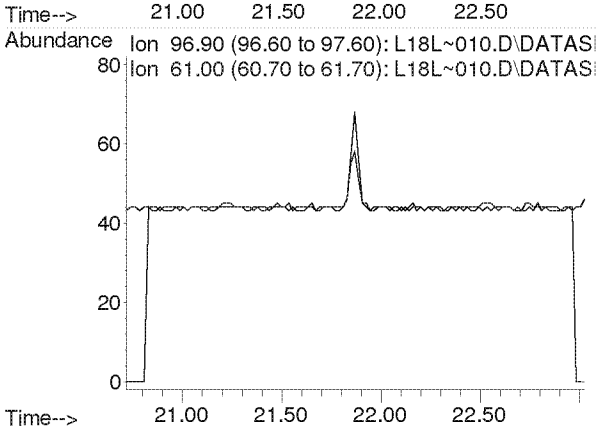


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

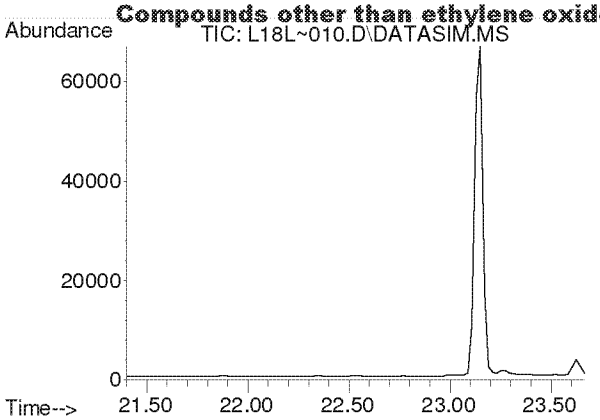
Lab File: L18L~010.D
Acq: 28 Dec 2018 12:42 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	60.5



Compounds other than ethylene oxide were not quantitated.

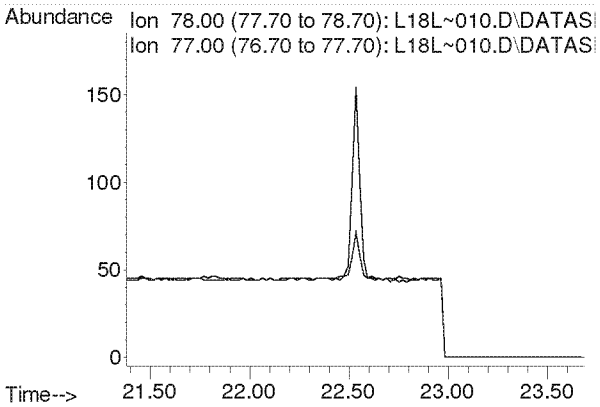


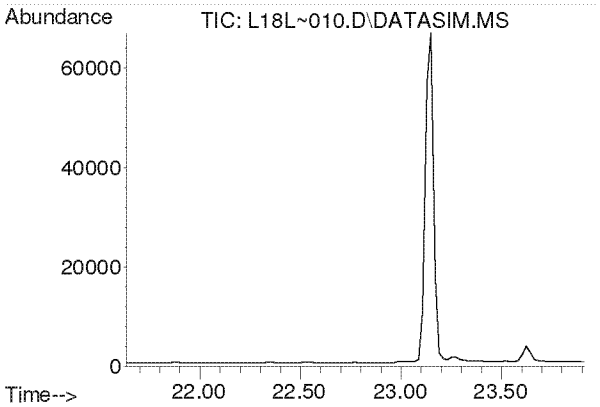
#31
Benzene
Concen: N.D.
Expected RT: 22.54 min

Lab File: L18L~010.D
Acq: 28 Dec 2018 12:42 am

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.7



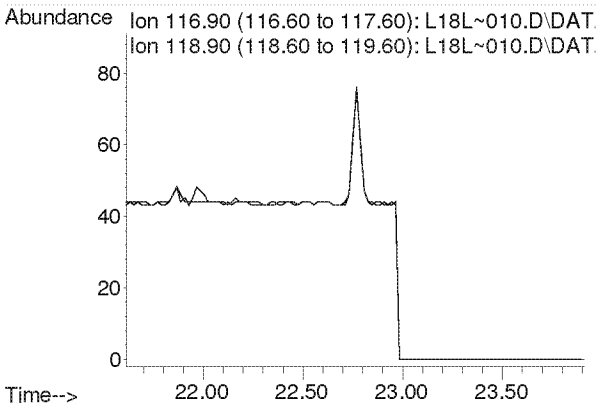


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

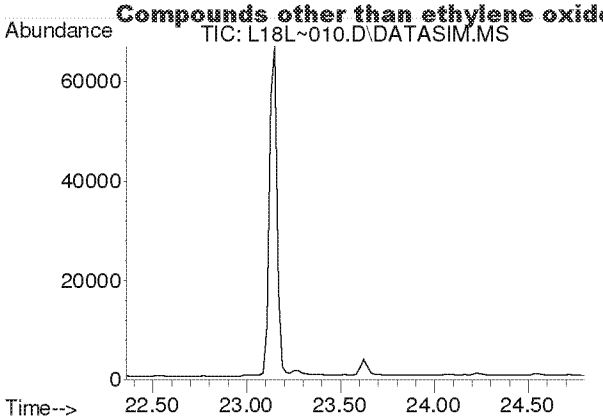
Lab File: L18L~010.D
Acq: 28 Dec 2018 12:42 am

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.5



Compounds other than ethylene oxide were not quantitated.

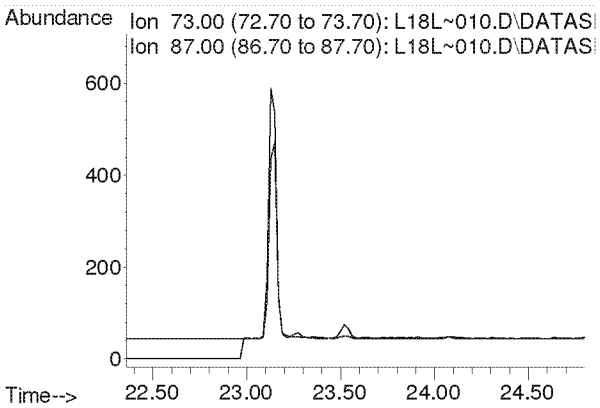


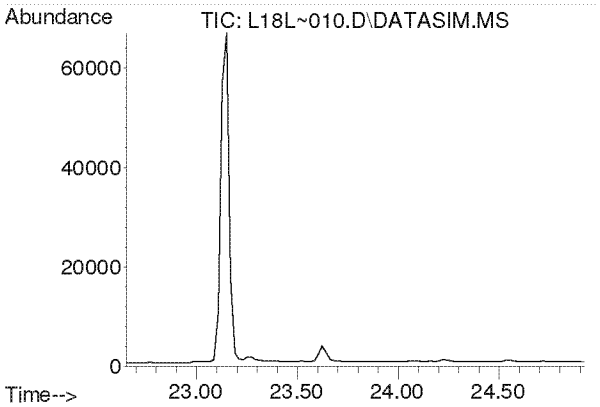
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.50 min

Lab File: L18L~010.D
Acq: 28 Dec 2018 12:42 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	24.9



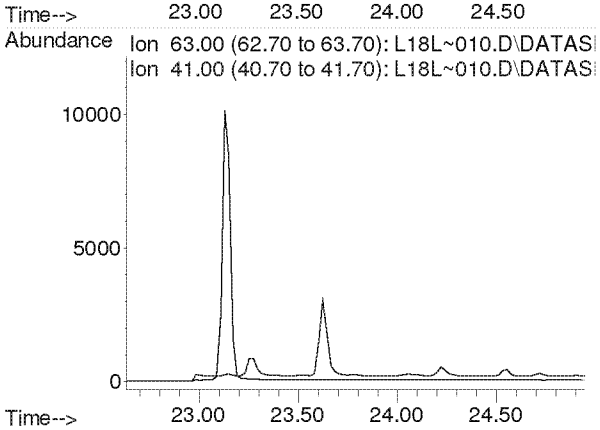


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

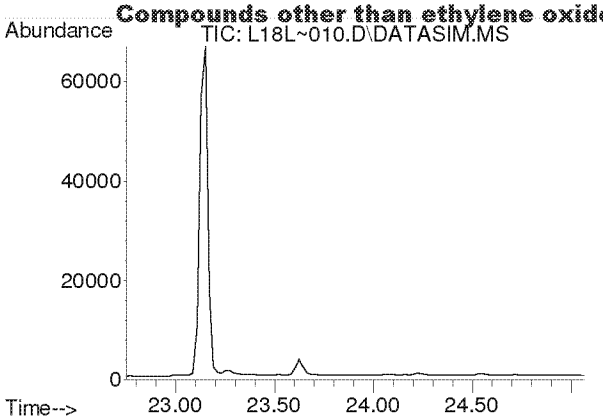
Lab File: L18L~010.D
Acq: 28 Dec 2018 12:42 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	212.8



Compounds other than ethylene oxide were not quantitated.

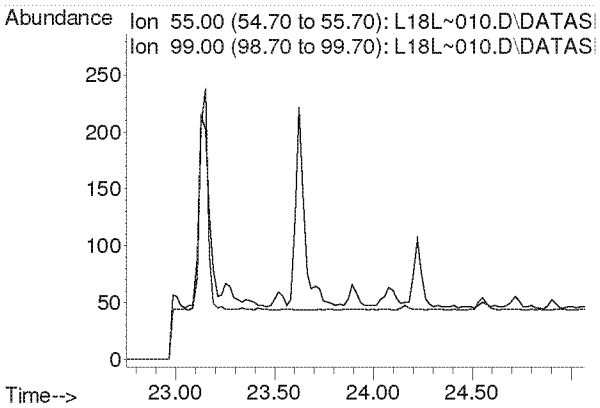


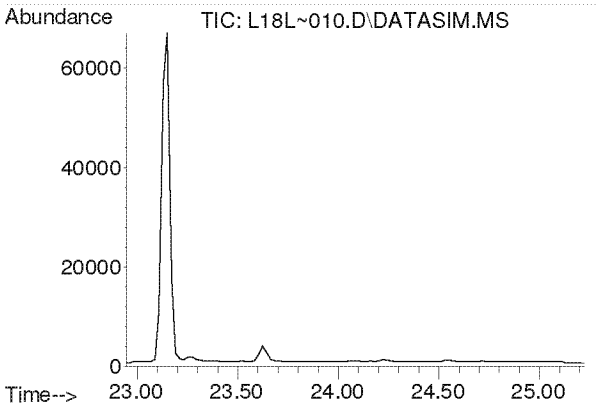
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.87 min

Lab File: L18L~010.D
Acq: 28 Dec 2018 12:42 am

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.1



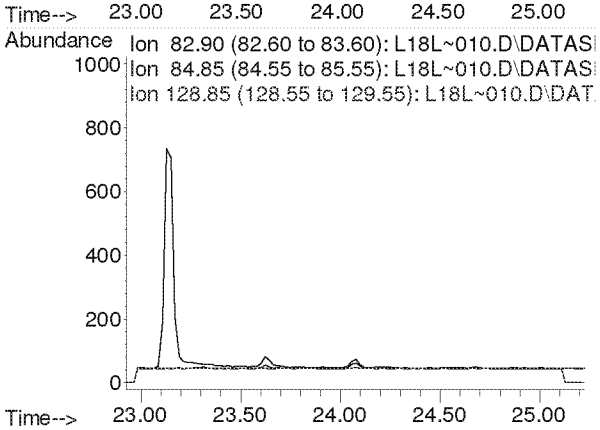


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

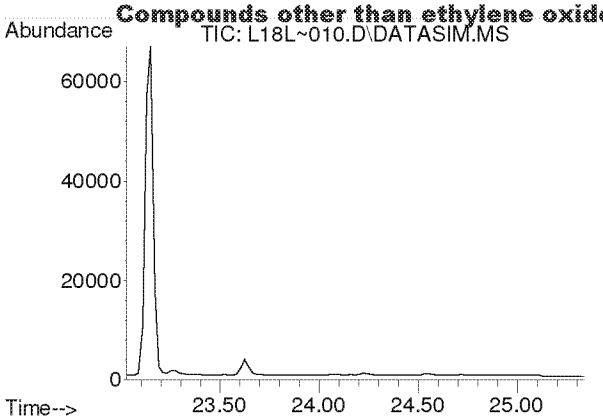
Lab File: L18L~010.D
Acq: 28 Dec 2018 12:42 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.0
129	12.4



Compounds other than ethylene oxide were not quantitated.

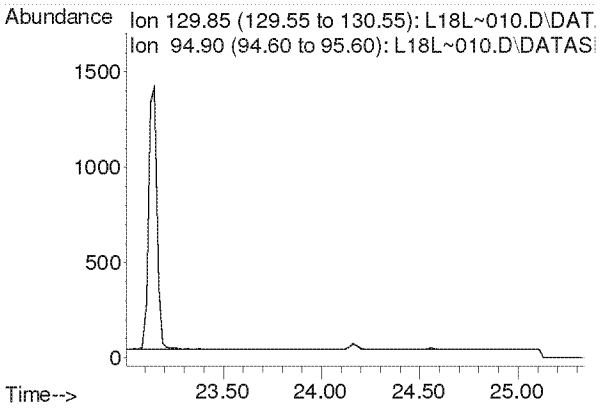


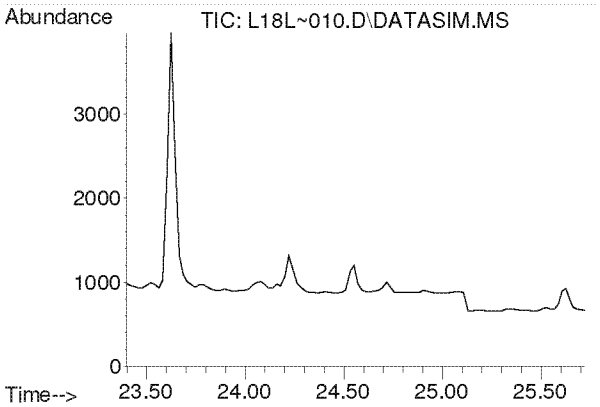
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.16 min

Lab File: L18L~010.D
Acq: 28 Dec 2018 12:42 am

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	110.3



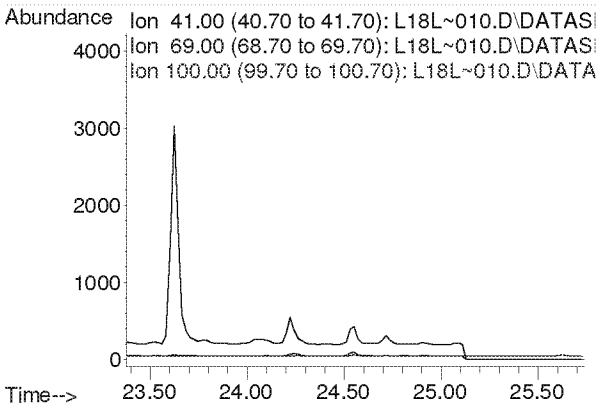


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

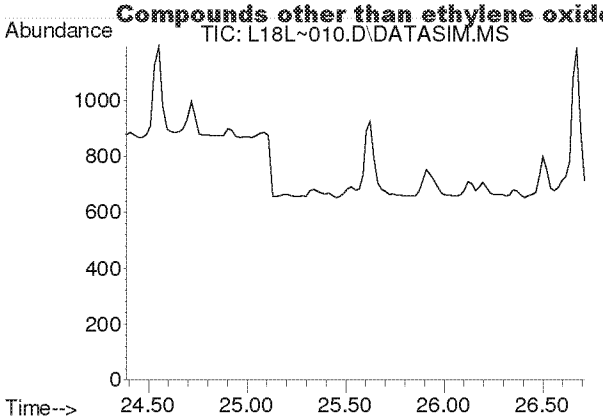
Lab File: L18L~010.D
Acq: 28 Dec 2018 12:42 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	19.9
100	5.2



Compounds other than ethylene oxide were not quantitated.

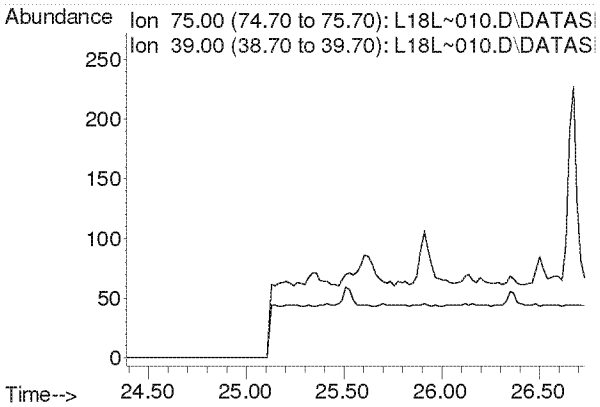


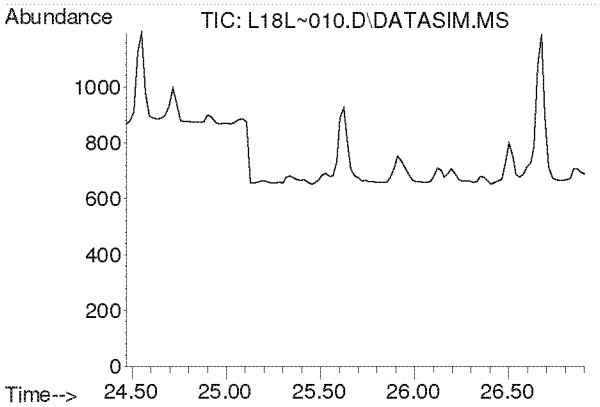
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L18L~010.D
Acq: 28 Dec 2018 12:42 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.4



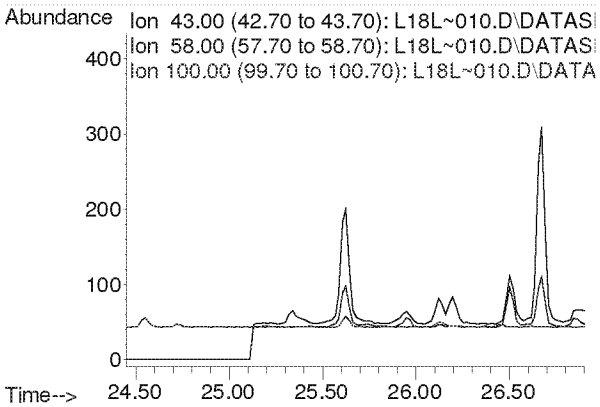


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.61 min

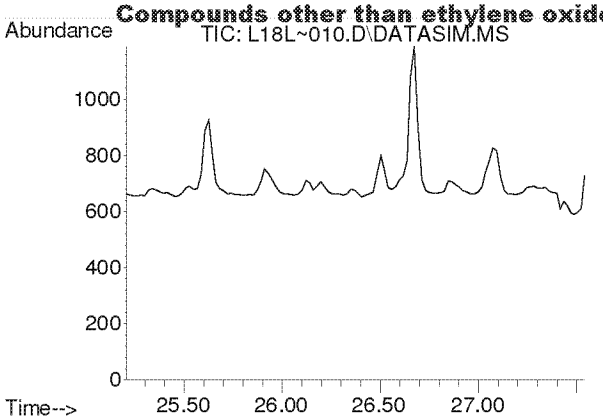
Lab File: L18L~010.D
Acq: 28 Dec 2018 12:42 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	34.2
100	7.9



Compounds other than ethylene oxide were not quantitated.

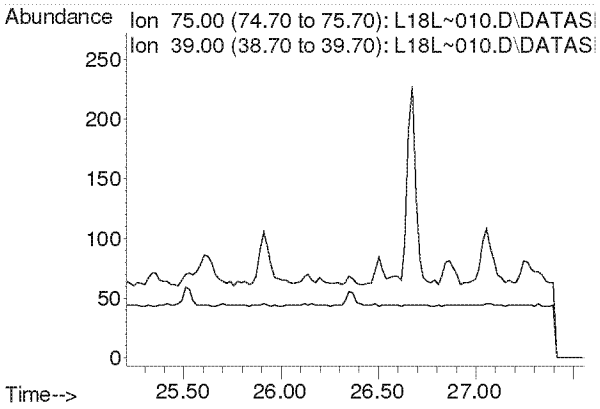


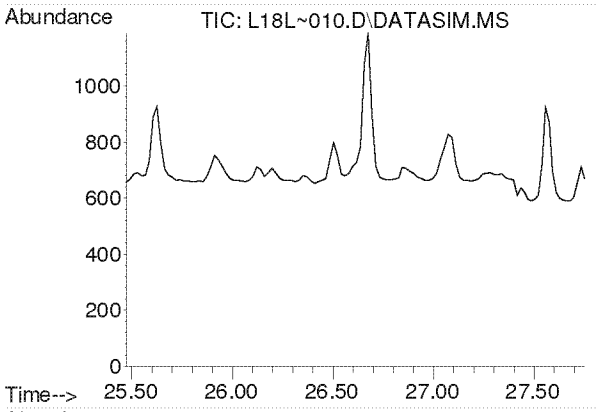
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.35 min

Lab File: L18L~010.D
Acq: 28 Dec 2018 12:42 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	50.9



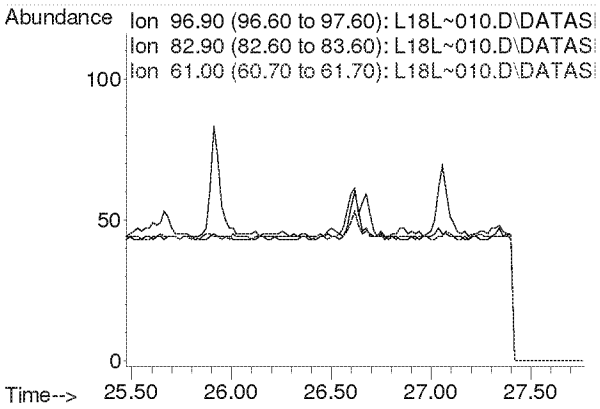


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

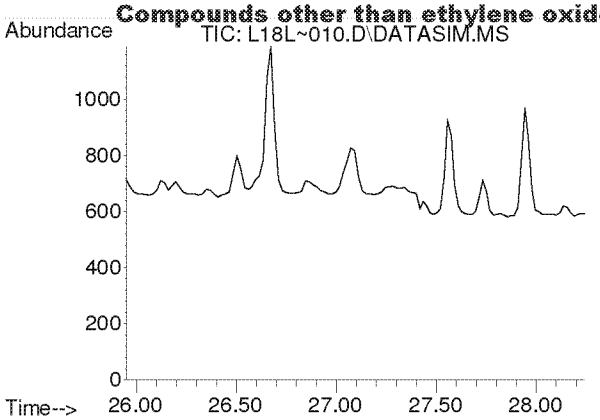
Lab File: L18L~010.D
Acq: 28 Dec 2018 12:42 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	96.1
61	63.5



Compounds other than ethylene oxide were not quantitated.

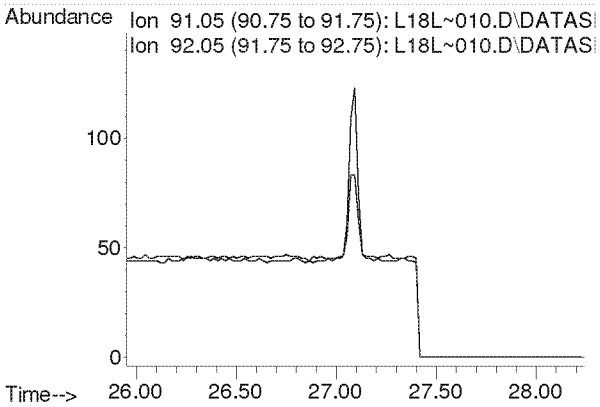


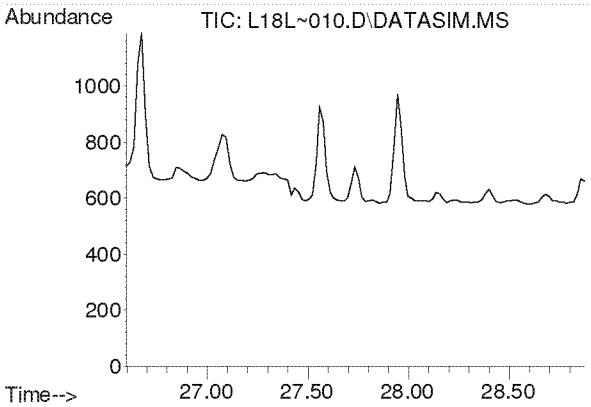
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L18L~010.D
Acq: 28 Dec 2018 12:42 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.6



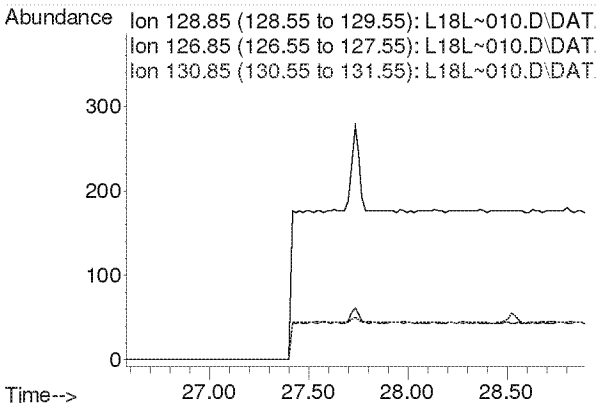


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.73 min

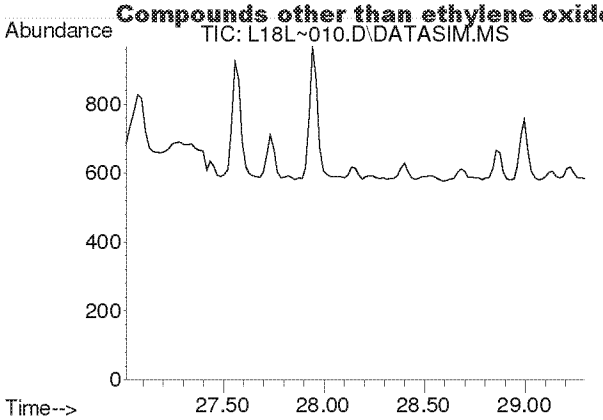
Lab File: L18L~010.D
Acq: 28 Dec 2018 12:42 am

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.2
131	6.0



Compounds other than ethylene oxide were not quantitated.

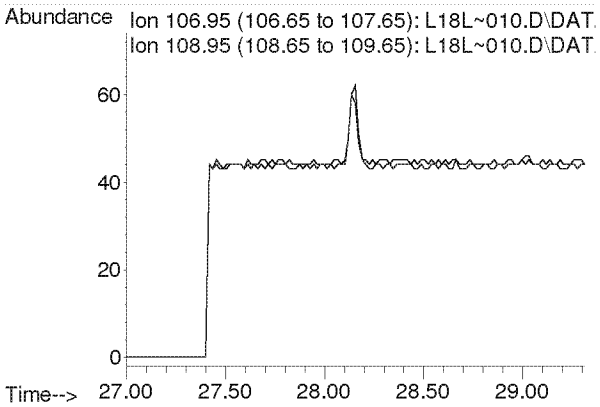


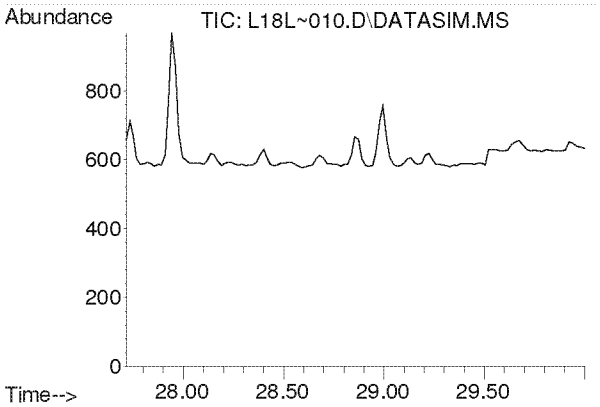
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.16 min

Lab File: L18L~010.D
Acq: 28 Dec 2018 12:42 am

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.5



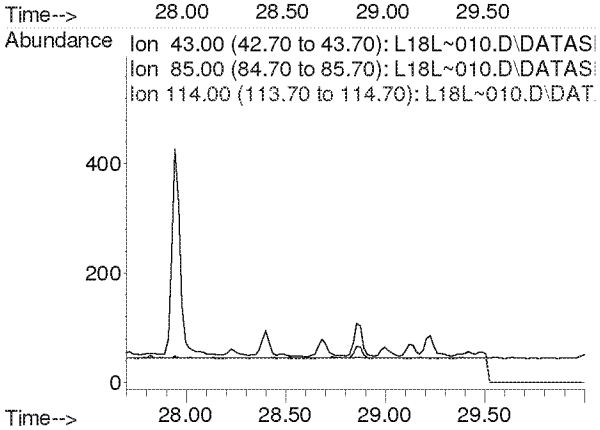


#47
n-Octane
Concen: N.D.
Expected RT: 28.86 min

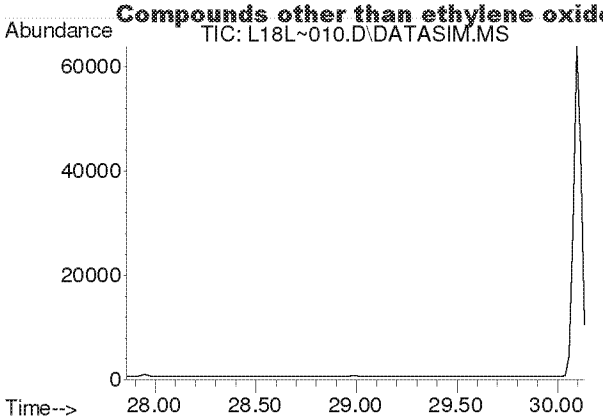
Lab File: L18L~010.D
Acq: 28 Dec 2018 12:42 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	36.0
114	2.2



Compounds other than ethylene oxide were not quantitated.

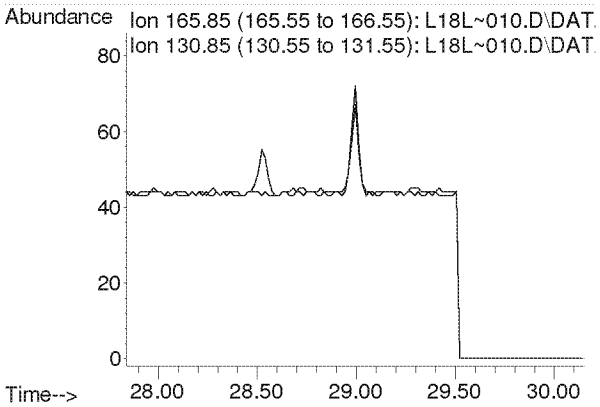


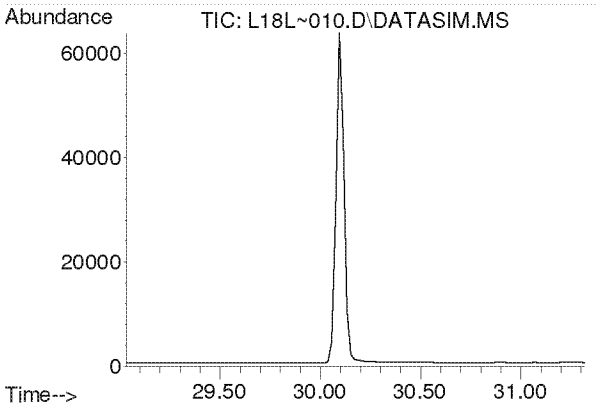
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L18L~010.D
Acq: 28 Dec 2018 12:42 am

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	78.2



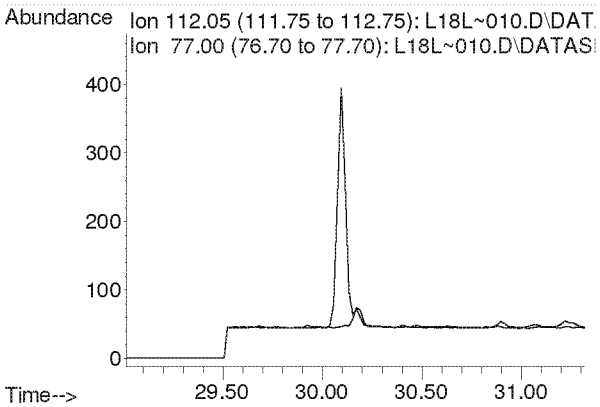


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.17 min

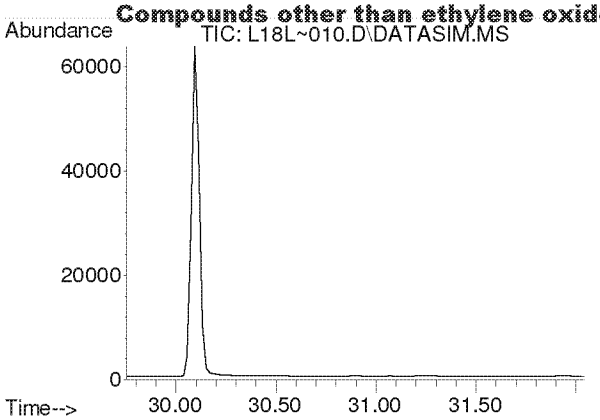
Lab File: L18L~010.D
Acq: 28 Dec 2018 12:42 am

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	63.0



Compounds other than ethylene oxide were not quantitated.

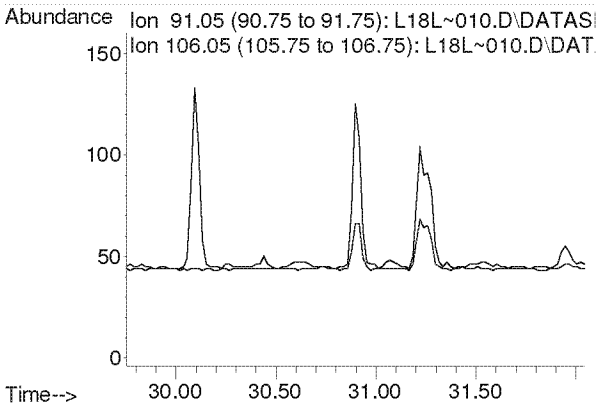


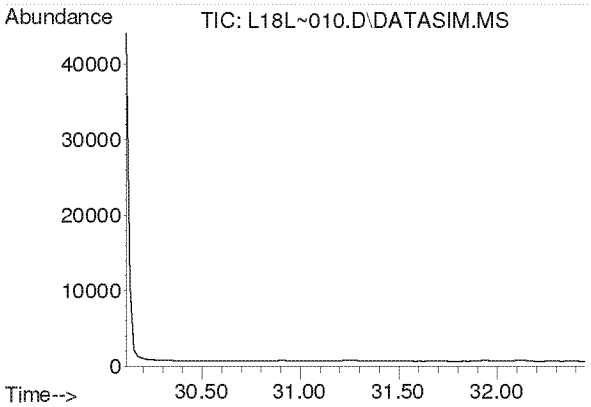
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.90 min

Lab File: L18L~010.D
Acq: 28 Dec 2018 12:42 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	31.8



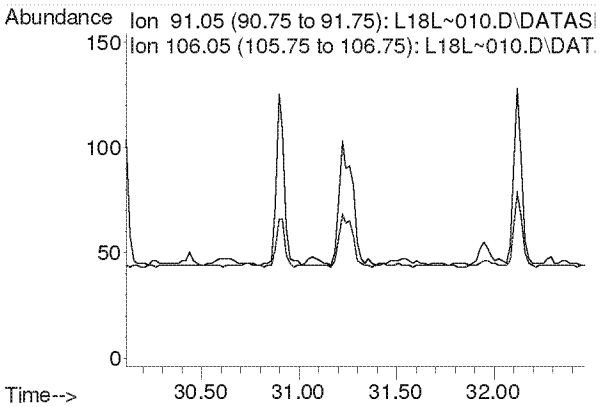


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.26 min

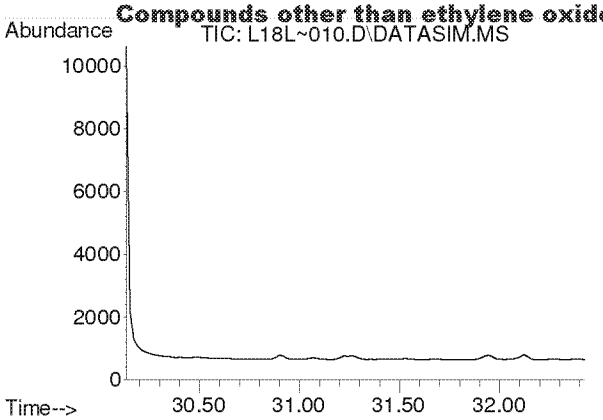
Lab File: L18L~010.D
Acq: 28 Dec 2018 12:42 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.4



Compounds other than ethylene oxide were not quantitated.

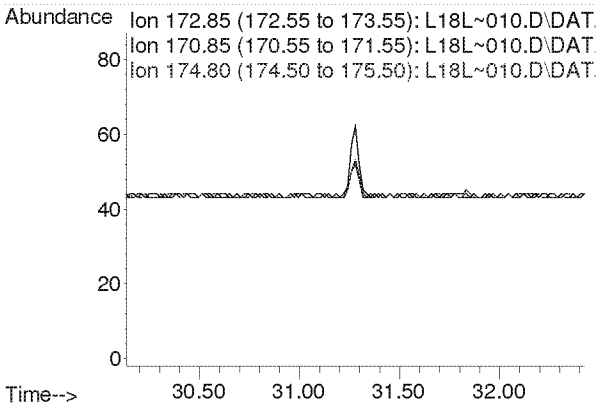


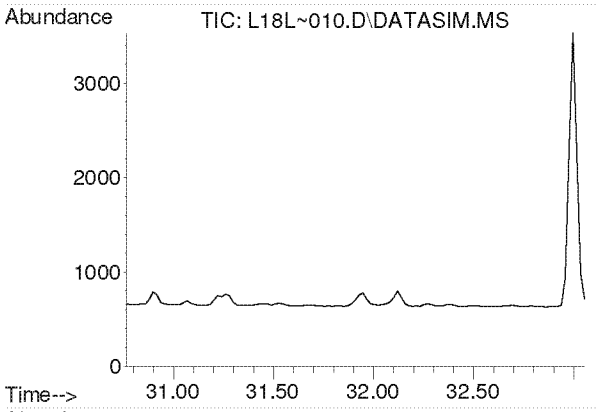
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L18L~010.D
Acq: 28 Dec 2018 12:42 am

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	49.0



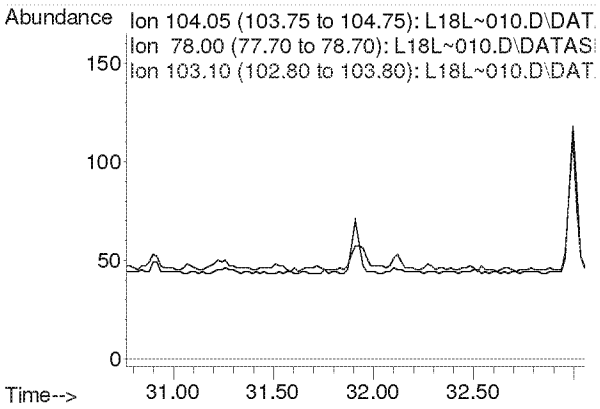


#53
Styrene
Concen: N.D.
Expected RT: 31.91 min

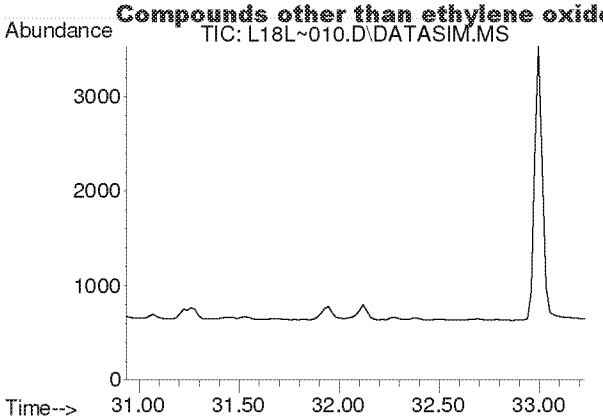
Lab File: L18L~010.D
Acq: 28 Dec 2018 12:42 am

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	45.6
103	0.0



Compounds other than ethylene oxide were not quantitated.

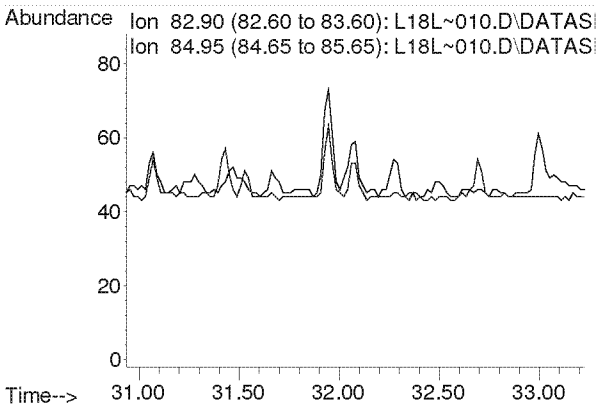


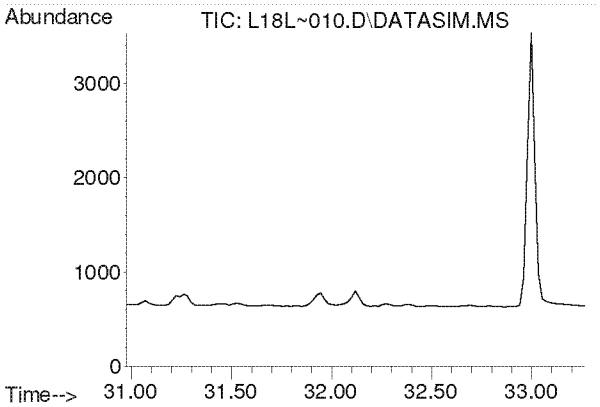
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L18L~010.D
Acq: 28 Dec 2018 12:42 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.9



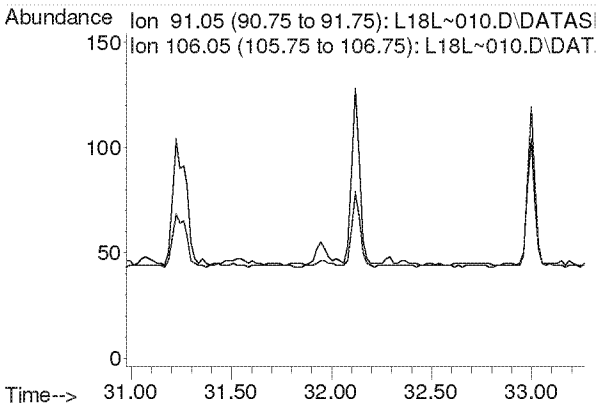


#55
o-Xylene
Concen: N.D.
Expected RT: 32.12 min

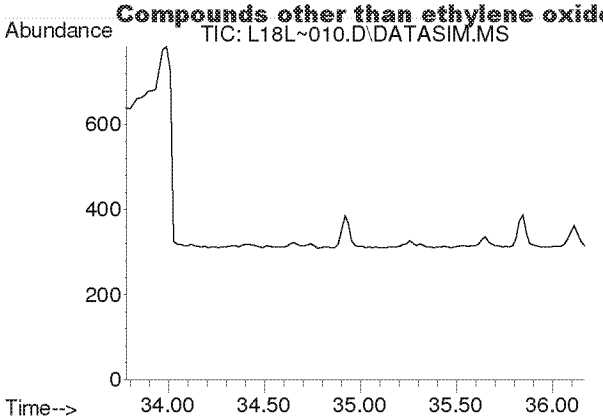
Lab File: L18L~010.D
Acq: 28 Dec 2018 12:42 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.2



Compounds other than ethylene oxide were not quantitated.

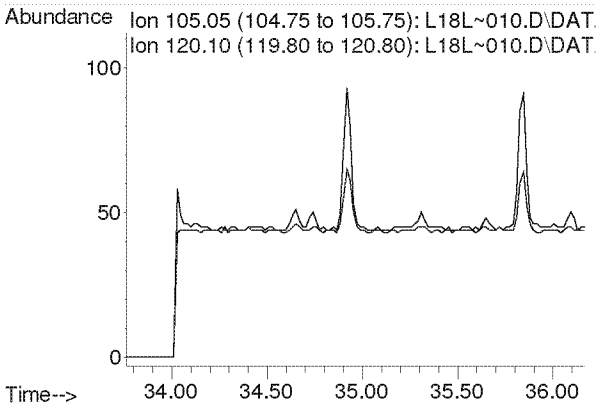


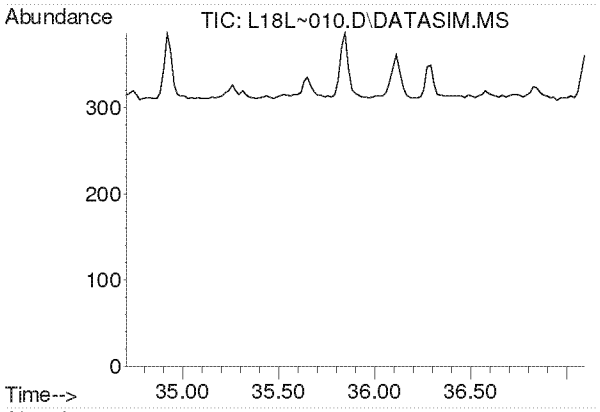
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.92 min

Lab File: L18L~010.D
Acq: 28 Dec 2018 12:42 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	45.0



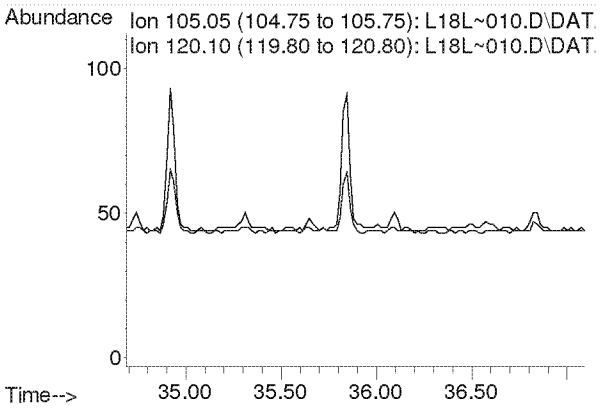


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

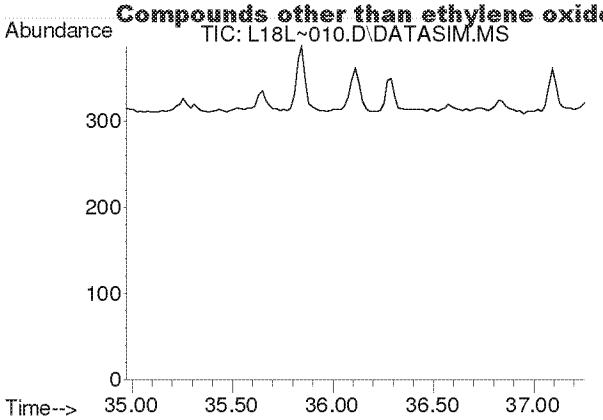
Lab File: L18L~010.D
Acq: 28 Dec 2018 12:42 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	42.8



Compounds other than ethylene oxide were not quantitated.

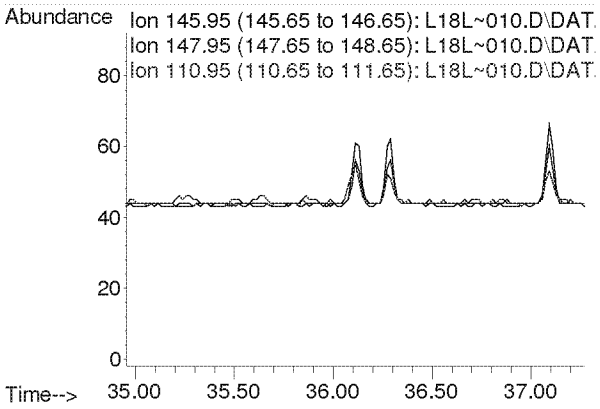


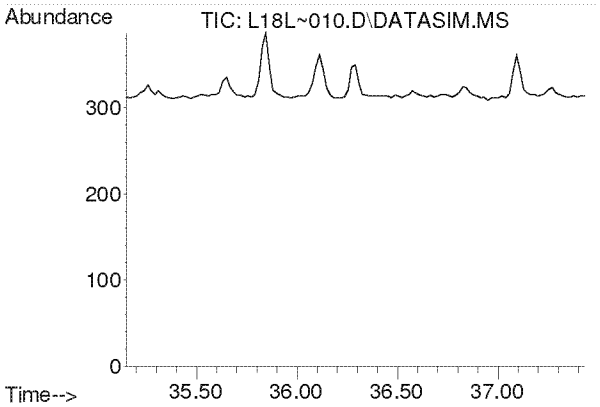
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.11 min

Lab File: L18L~010.D
Acq: 28 Dec 2018 12:42 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.5



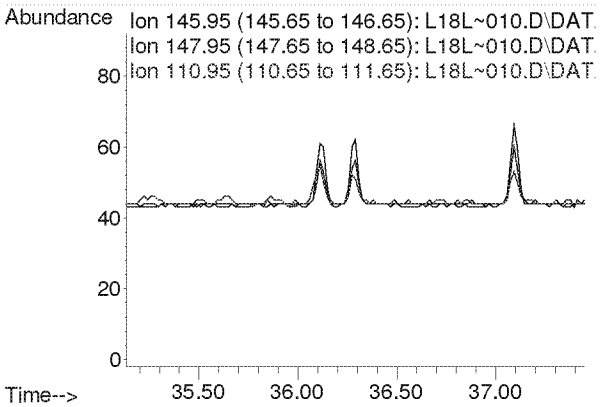


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

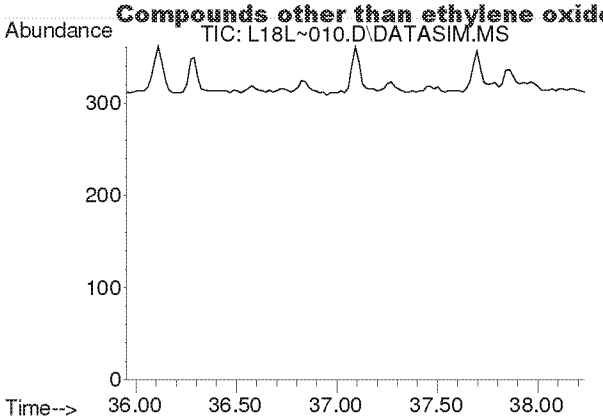
Lab File: L18L~010.D
Acq: 28 Dec 2018 12:42 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	39.5



Compounds other than ethylene oxide were not quantitated.

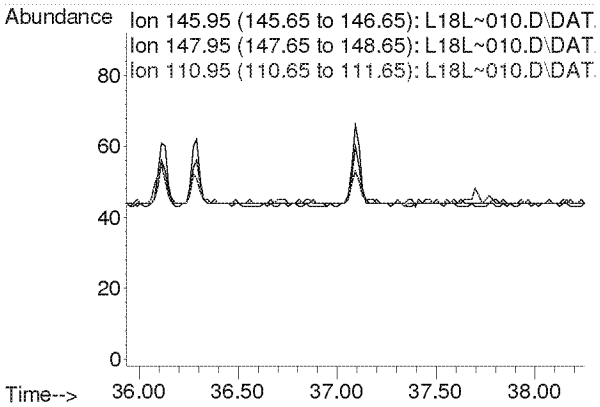


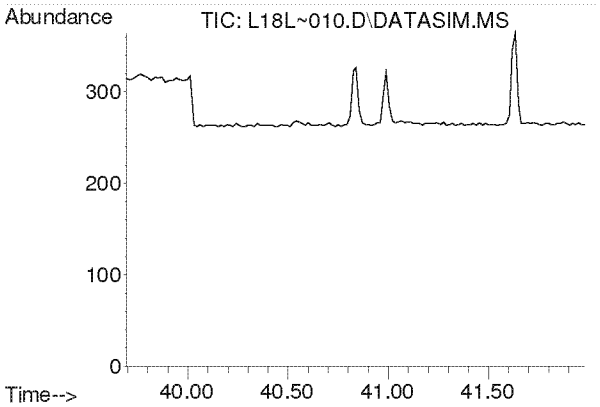
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.09 min

Lab File: L18L~010.D
Acq: 28 Dec 2018 12:42 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	41.4



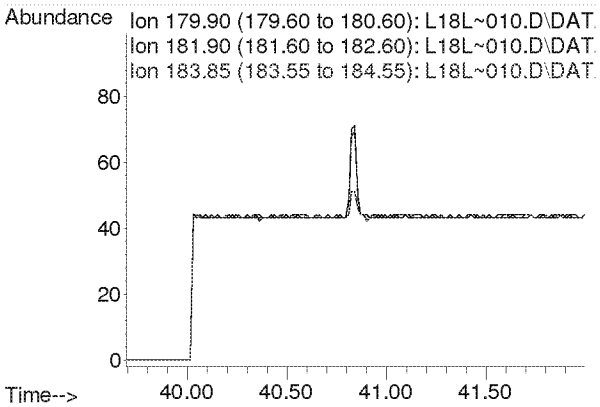


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

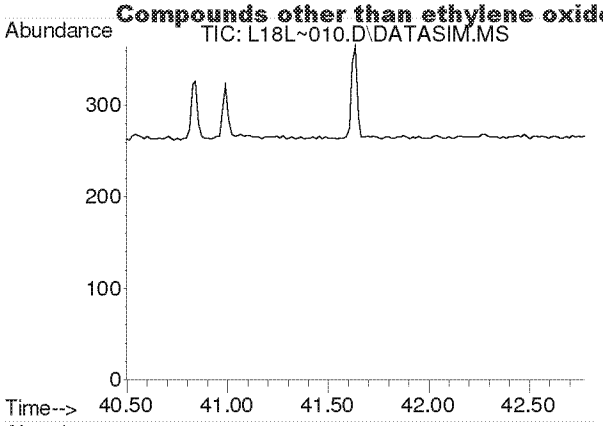
Lab File: L18L~010.D
Acq: 28 Dec 2018 12:42 am

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	95.1
184	30.7



Compounds other than ethylene oxide were not quantitated.

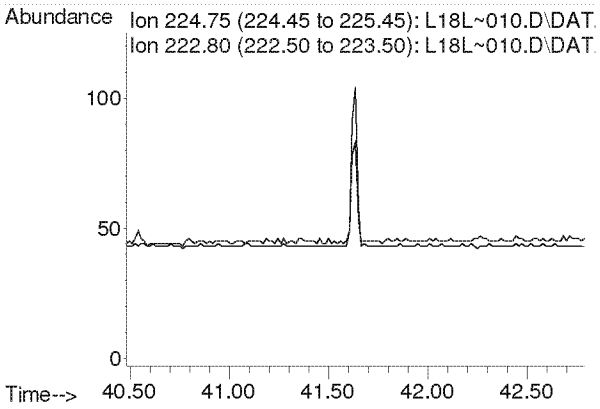


#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.64 min

Lab File: L18L~010.D
Acq: 28 Dec 2018 12:42 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\L18L~\
Data File : L18L~011.D
Acq On : 28 Dec 2018 1:44 am
Operator : MAH
Sample : 8121130-11
Misc : WB WAREHOUSE 12/8/18
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jan 03 12:36:28 2019
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
Response via : Initial Calibration

A-MR

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.993	66	51248	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.151	114	122516	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.097	117	93827	4.7400 ppbv	0.00

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. d	
8) 1,3-Butadiene	0.000	54	0	N.D. d	
9) Ethylene oxide	12.395	29	3824	1.2484 ppbv #	1
10) Bromomethane	0.000	94	0	N.D. d	
11) Chloroethane	0.000	64	0	N.D. 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. 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. 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. d	
28) 1,2-Dichloroethane	0.000	62	0	N.D. d	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D. 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. 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. d	
37) Trichloroethylene	0.000	130	0	N.D. 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. 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. 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\L18L~\
Data File : L18L~011.D
Acq On : 28 Dec 2018 1:44 am
Operator : MAH
Sample : 8121130-11
Misc : WB WAREHOUSE 12/8/18
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jan 03 12:36:28 2019
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
Response via : Initial Calibration

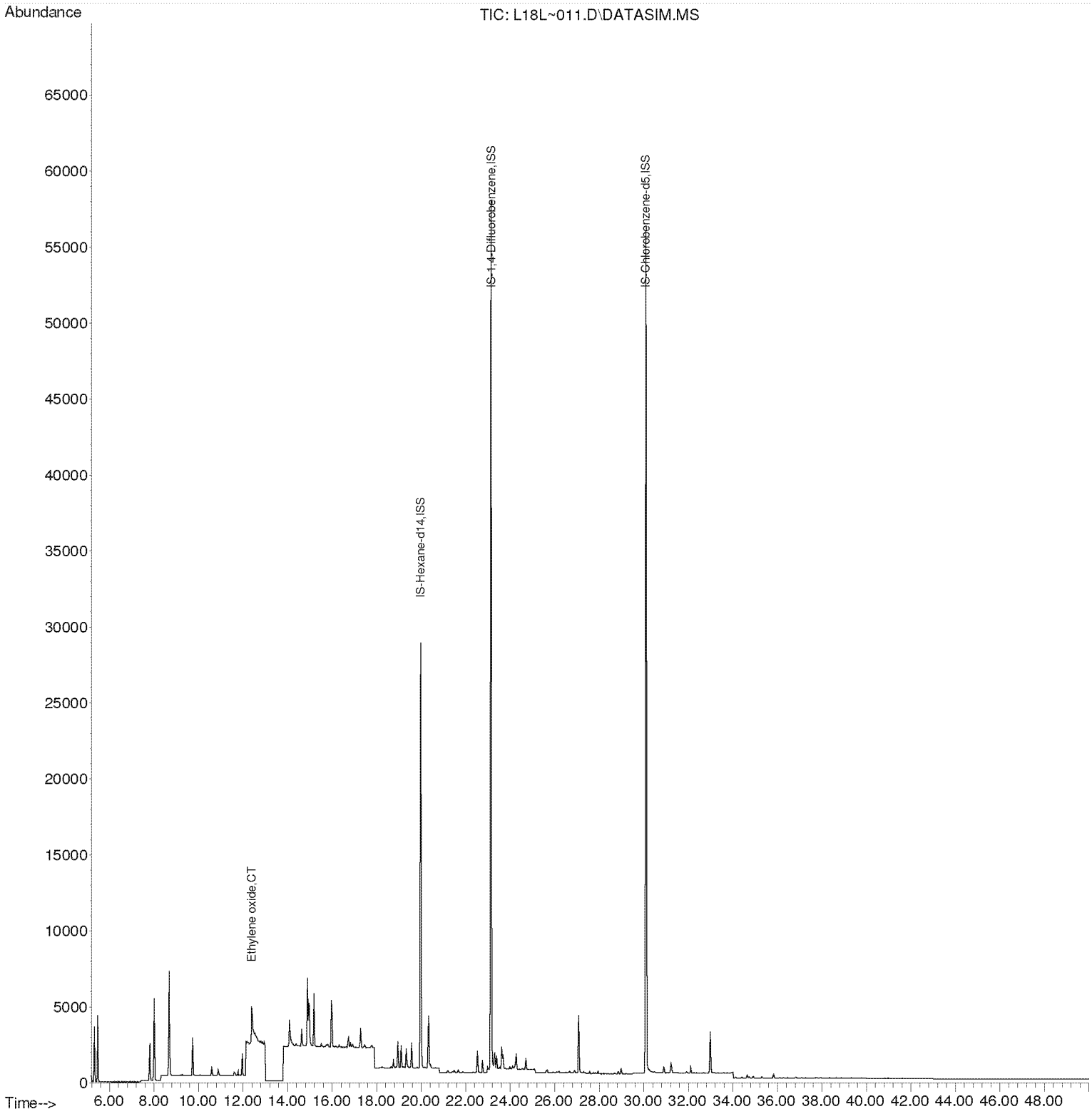
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D.	d
52) Bromoform	0.000	173	0	N.D.	d
53) Styrene	0.000	104	0	N.D.	d
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D.	d
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	d
57) 1,2,4-Trimethylbenzene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

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

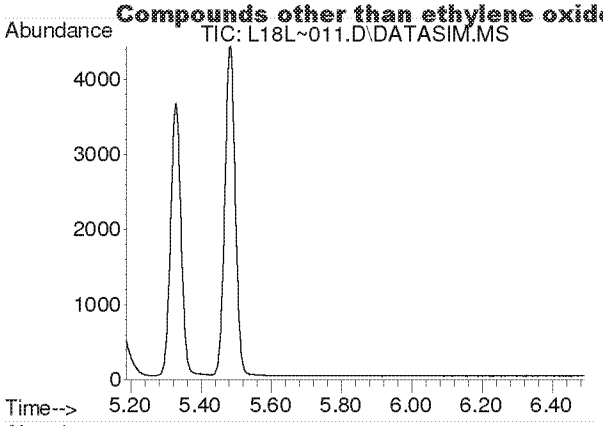
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L18L~\
Data File : L18L~011.D
Acq On : 28 Dec 2018 1:44 am
Operator : MAH
Sample : 8121130-11
Misc : WB WAREHOUSE 12/8/18
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jan 03 12:20:11 2019
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
Response via : Initial Calibration



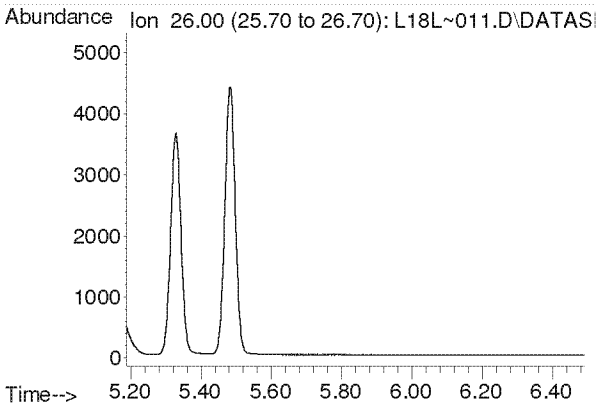
Compounds other than ethylene oxide were not quantitated.

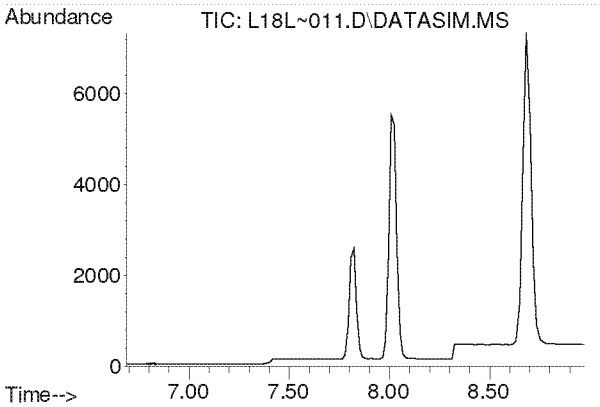


#2
Acetylene
Concen: N.D.
Expected RT: 5.42 min

Lab File: L18L~011.D
Acq: 28 Dec 2018 1:44 am

Tgt Ion: 26



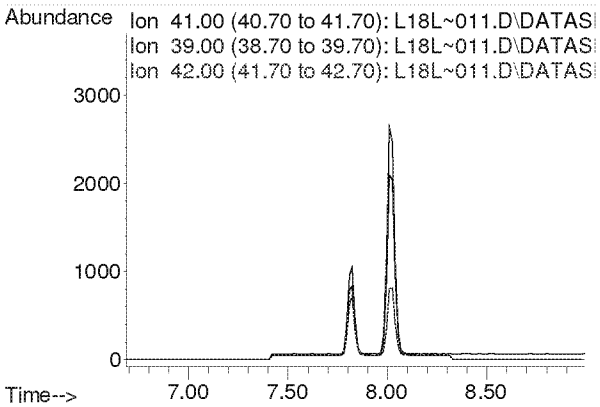


#3
Propylene
Concen: N.D.
Expected RT: 7.84 min

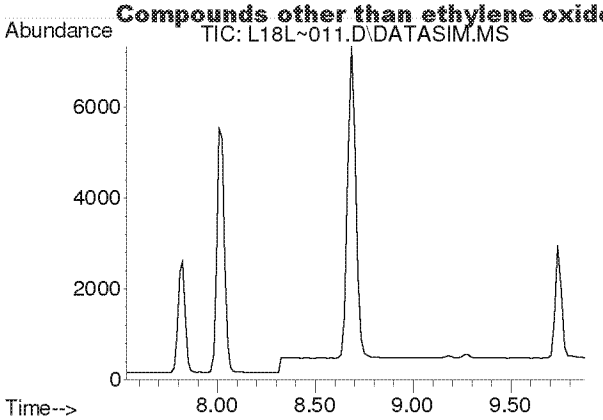
Lab File: L18L~011.D
Acq: 28 Dec 2018 1:44 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	78.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

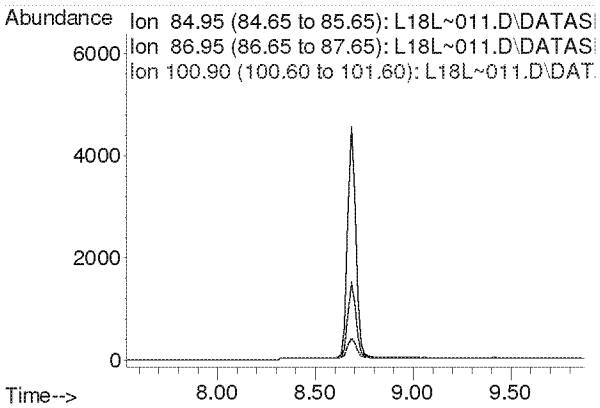


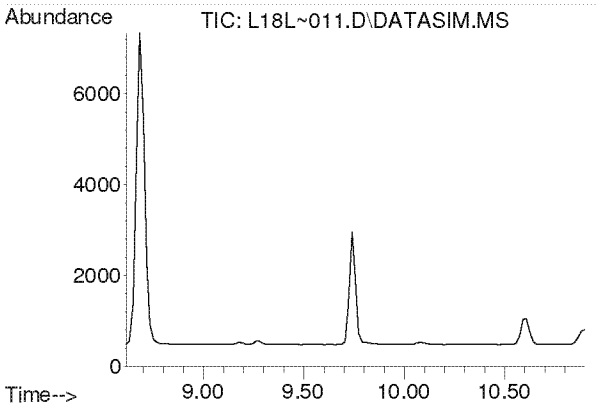
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L18L~011.D
Acq: 28 Dec 2018 1:44 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	8.9



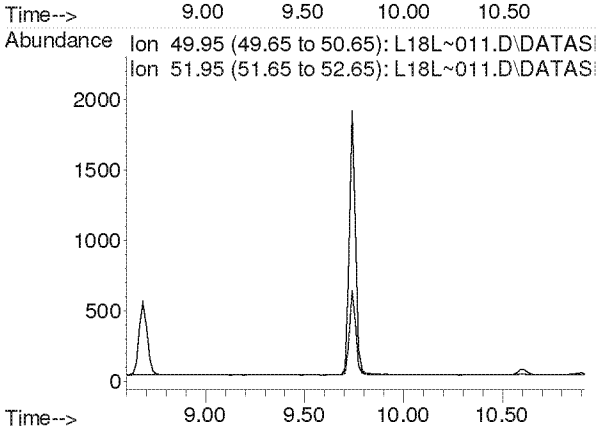


#5
Chloromethane
Concen: N.D.
Expected RT: 9.76 min

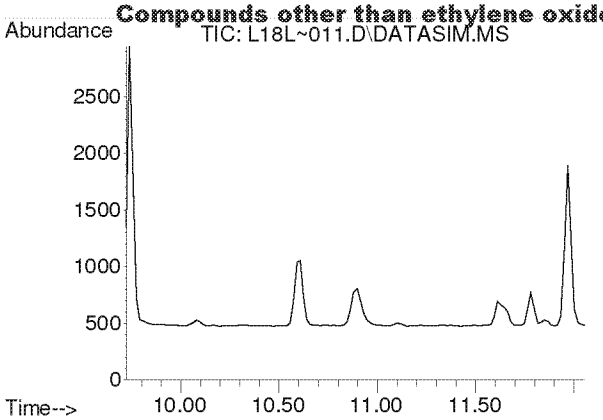
Lab File: L18L~011.D
Acq: 28 Dec 2018 1:44 am

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

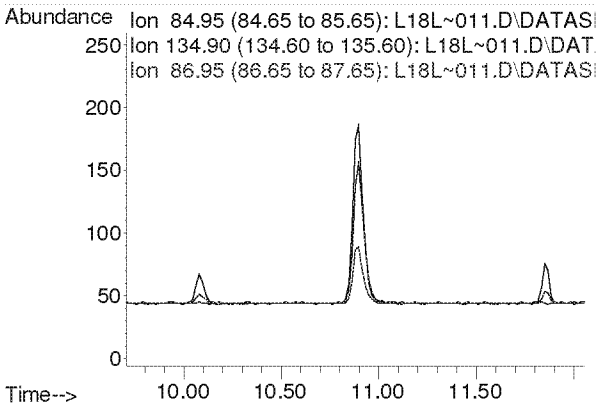


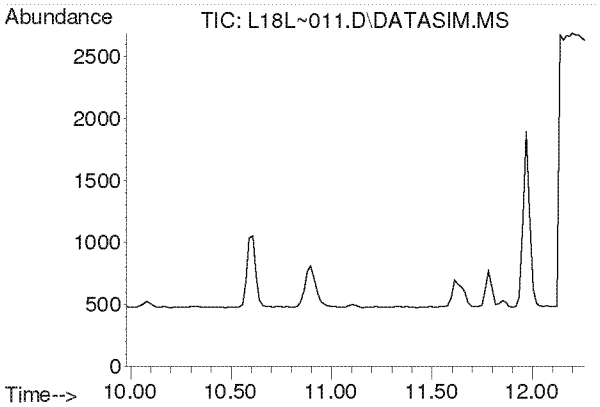
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L18L~011.D
Acq: 28 Dec 2018 1:44 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.1
87	32.1



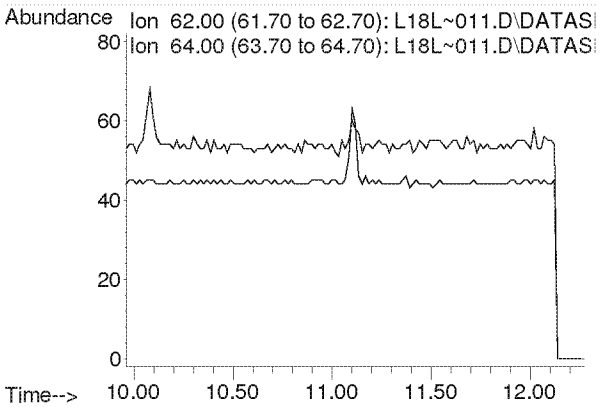


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

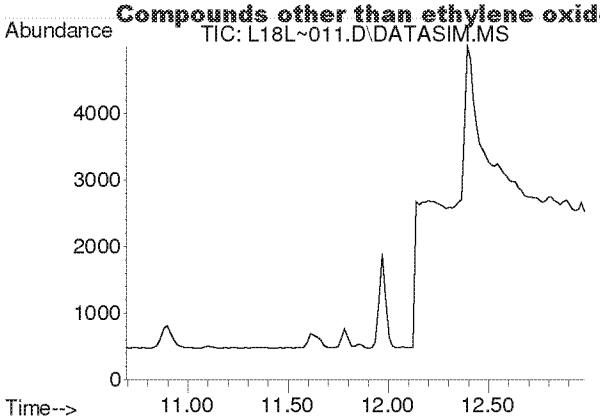
Lab File: L18L~011.D
Acq: 28 Dec 2018 1:44 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.8



Compounds other than ethylene oxide were not quantitated.

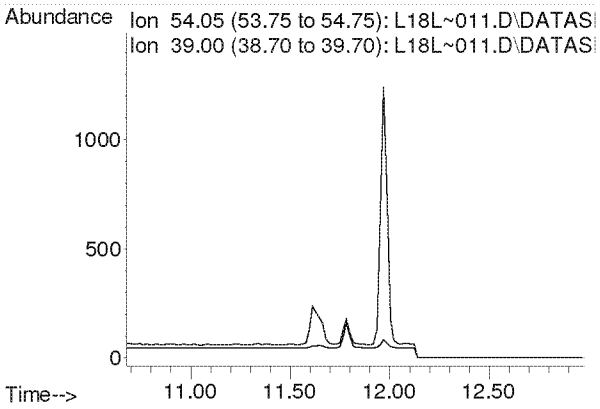


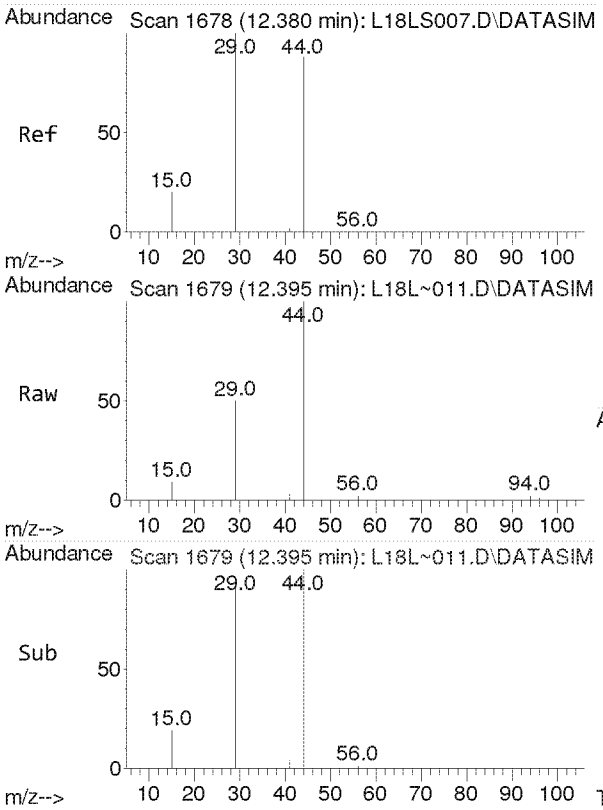
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L18L~011.D
Acq: 28 Dec 2018 1:44 am

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	105.4

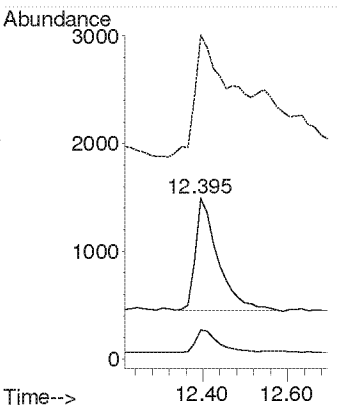




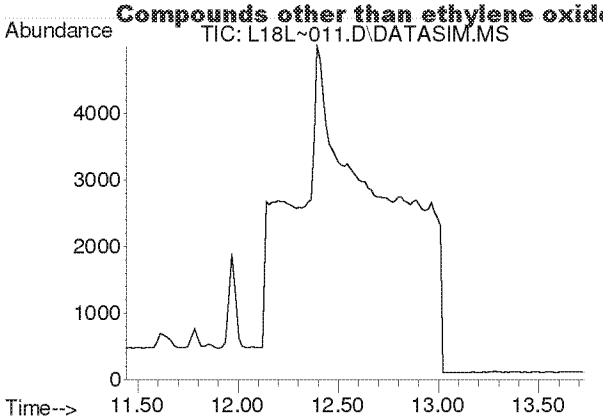
#9
Ethylene oxide
Concen: 1.248 ppbv
RT: 12.395 min Scan# 1679
Delta R.T. 0.015 min
Lab File: L18L~011.D
Acq: 28 Dec 2018 1:44 am

Tgt Ion: 29 Resp: 3824

Ion	Ratio	Lower	Upper
29	100		
15	20.8	16.2	24.4
44	229.1	72.0	108.0#



Compounds other than ethylene oxide were not quantitated.

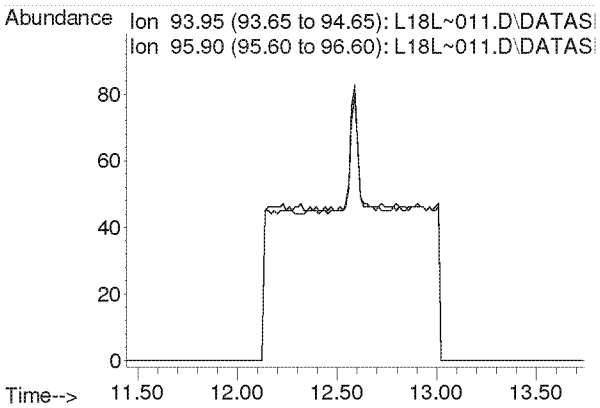


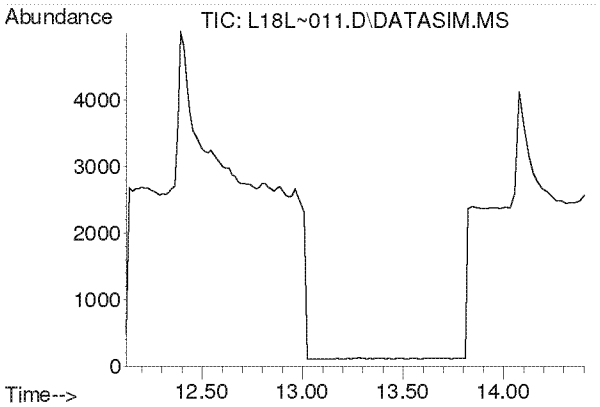
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L18L~011.D
Acq: 28 Dec 2018 1:44 am

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	93.9



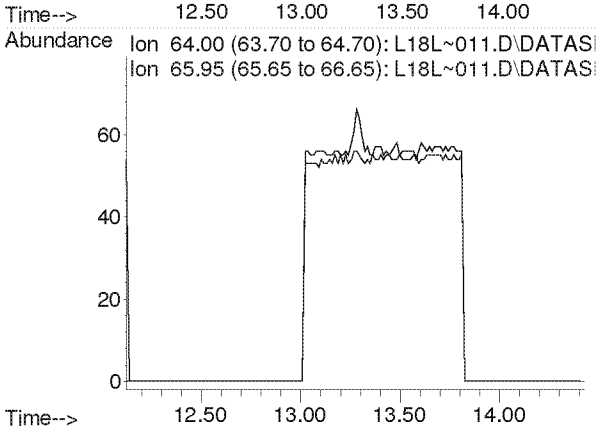


#11
Chloroethane
Concen: N.D.
Expected RT: 13.27 min

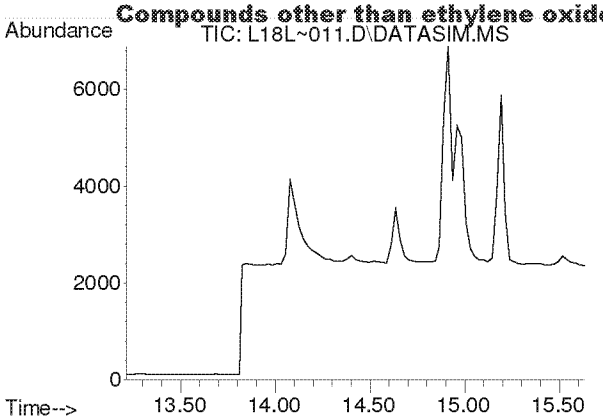
Lab File: L18L~011.D
Acq: 28 Dec 2018 1:44 am

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.0



Compounds other than ethylene oxide were not quantitated.

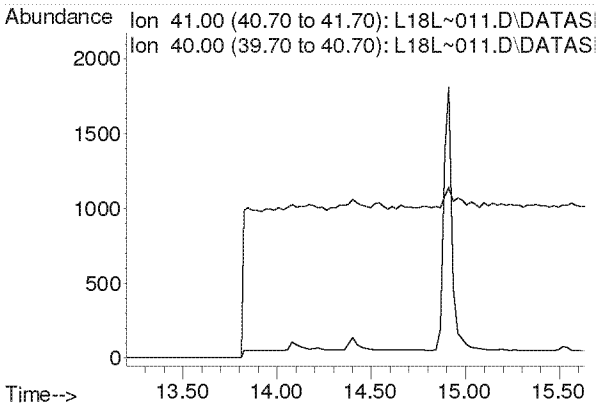


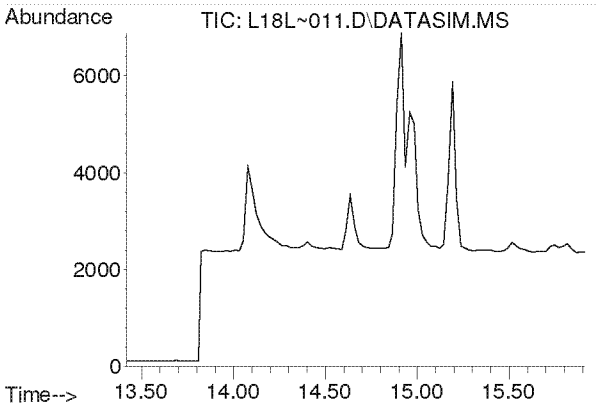
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.33 min

Lab File: L18L~011.D
Acq: 28 Dec 2018 1:44 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	50.9



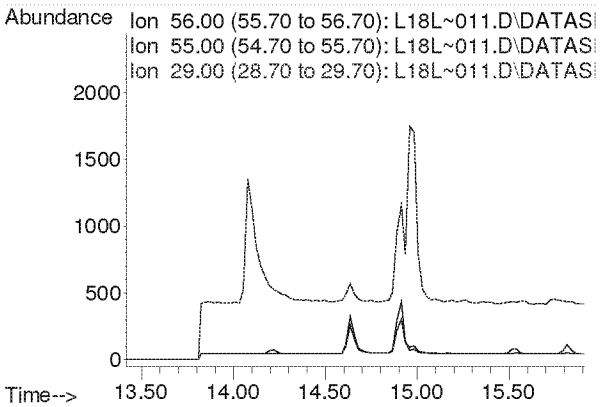


#13
Acrolein
Concen: N.D.
Expected RT: 14.61 min

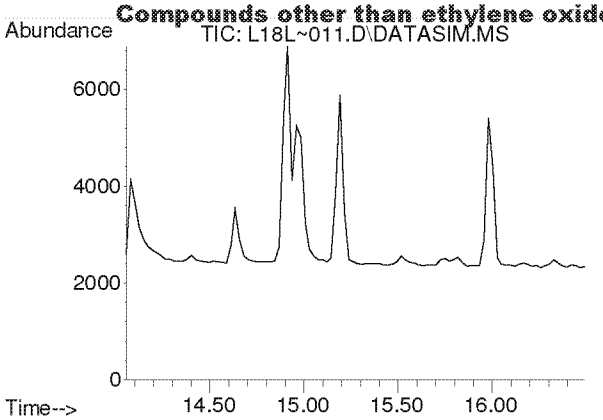
Lab File: L18L~011.D
Acq: 28 Dec 2018 1:44 am

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	75.4
29	52.9



Compounds other than ethylene oxide were not quantitated.

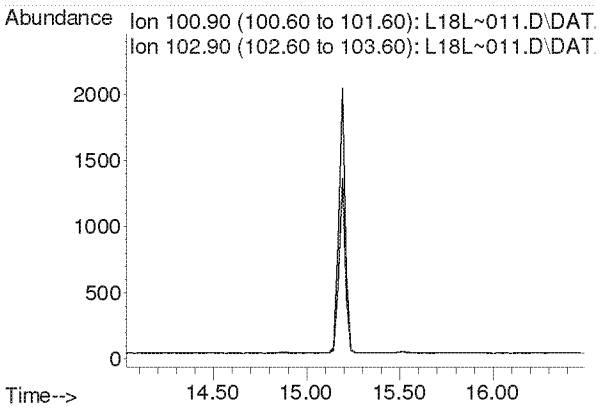


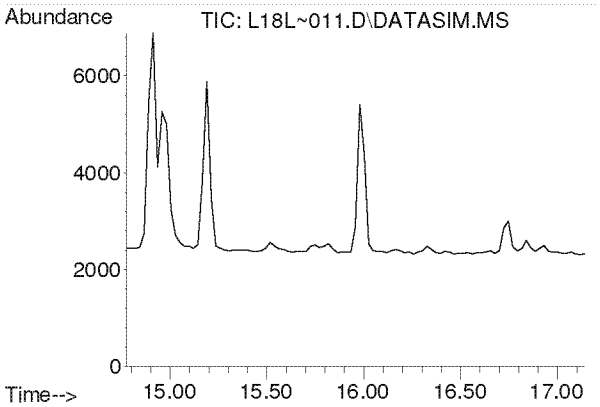
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L18L~011.D
Acq: 28 Dec 2018 1:44 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



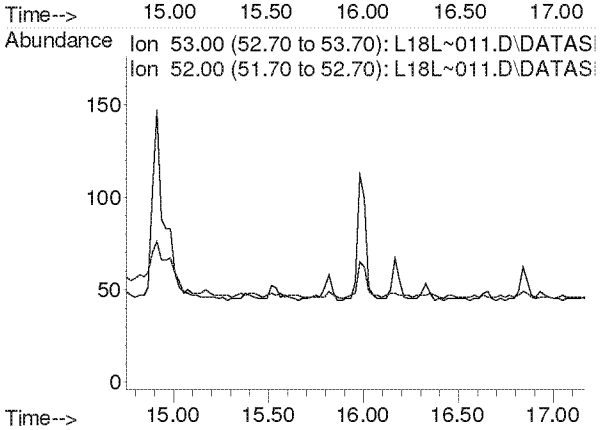


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.91 min

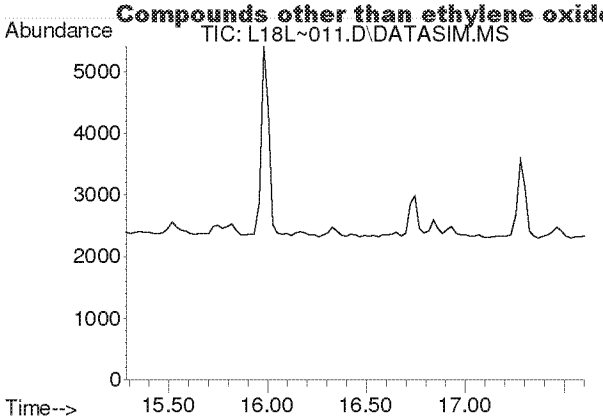
Lab File: L18L~011.D
Acq: 28 Dec 2018 1:44 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	85.4



Compounds other than ethylene oxide were not quantitated.

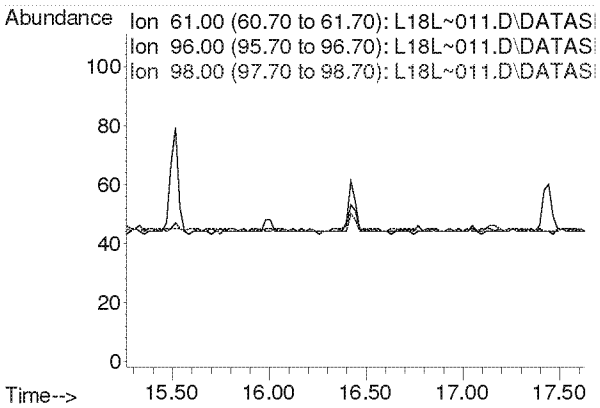


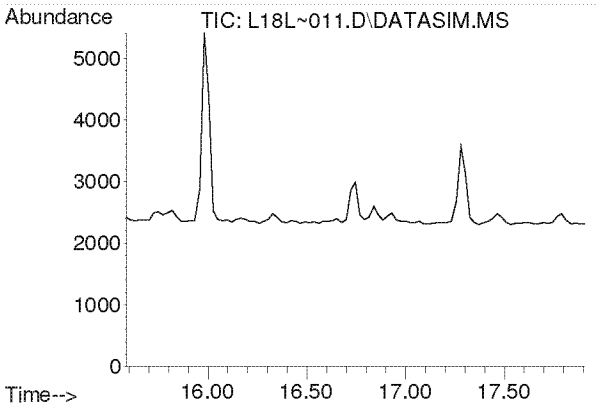
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L18L~011.D
Acq: 28 Dec 2018 1:44 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	58.3
98	37.4



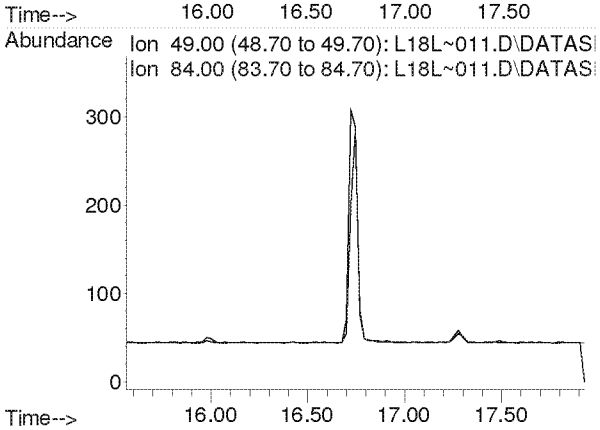


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.72 min

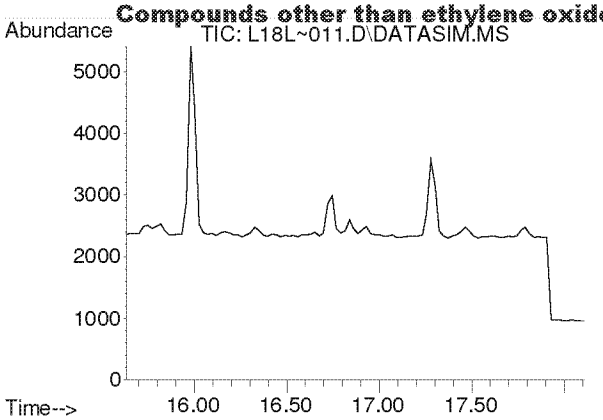
Lab File: L18L~011.D
Acq: 28 Dec 2018 1:44 am

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	76.4



Compounds other than ethylene oxide were not quantitated.

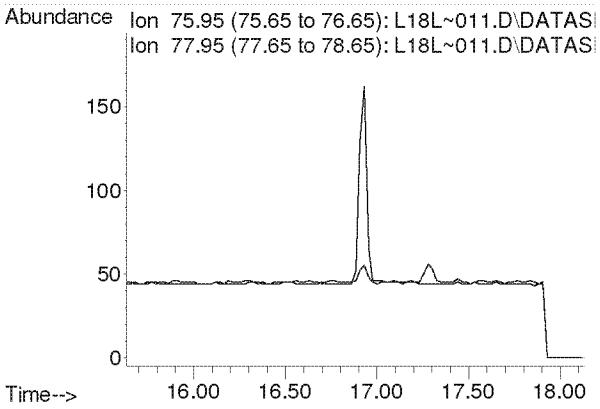


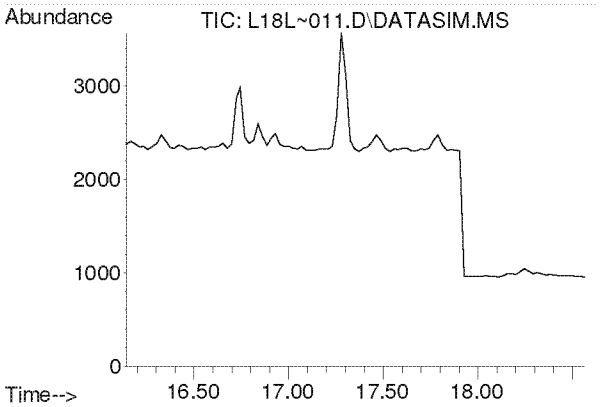
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L18L~011.D
Acq: 28 Dec 2018 1:44 am

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.1



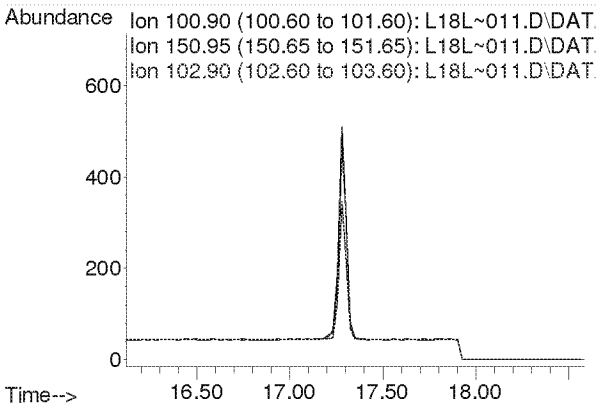


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

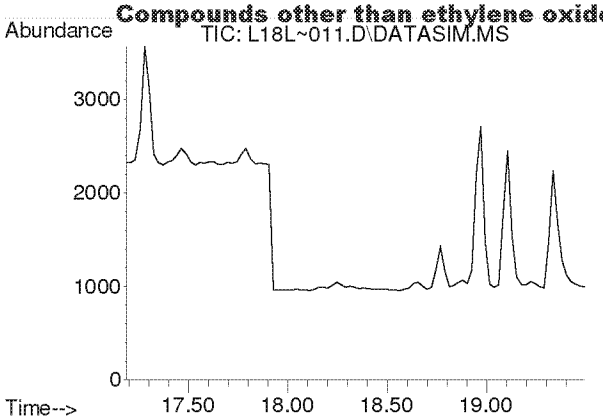
Lab File: L18L~011.D
Acq: 28 Dec 2018 1:44 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	95.3
103	64.1



Compounds other than ethylene oxide were not quantitated.

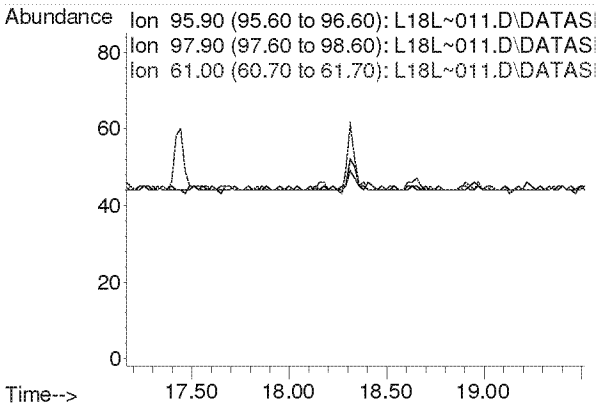


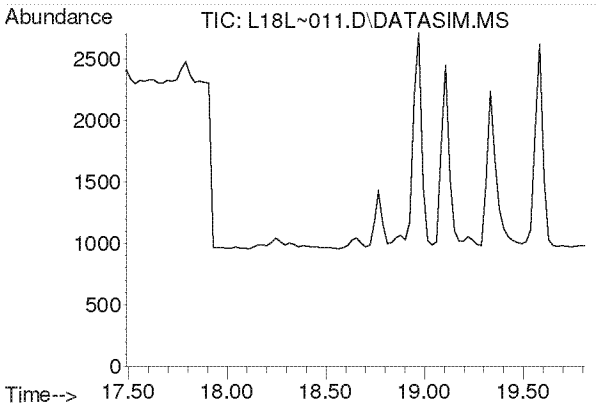
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.31 min

Lab File: L18L~011.D
Acq: 28 Dec 2018 1:44 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	63.7
61	159.2



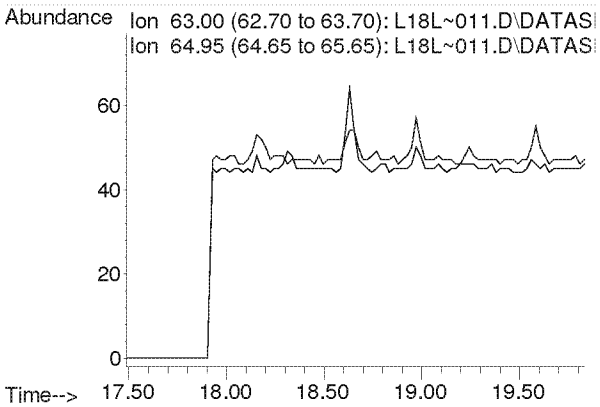


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

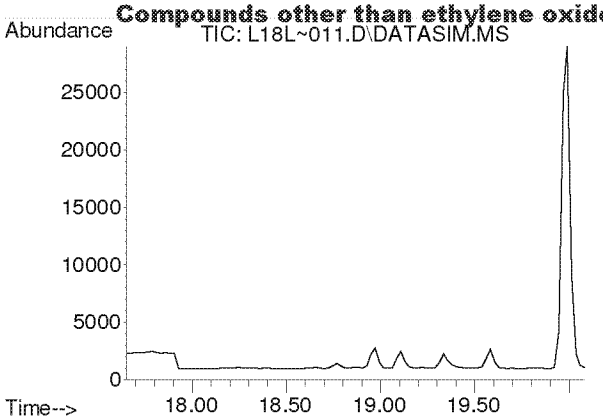
Lab File: L18L~011.D
Acq: 28 Dec 2018 1:44 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

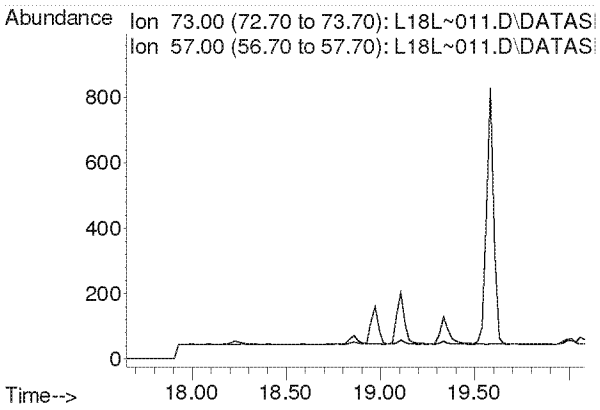


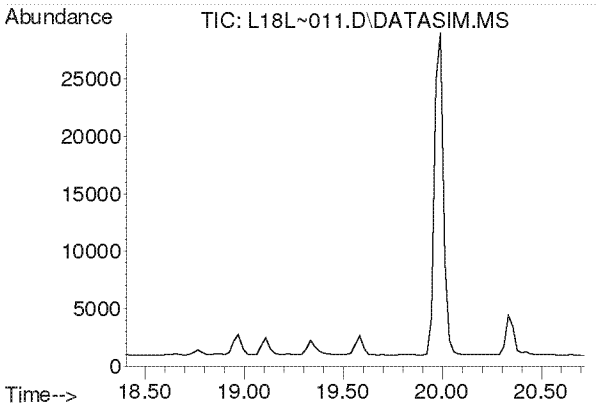
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L18L~011.D
Acq: 28 Dec 2018 1:44 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.4



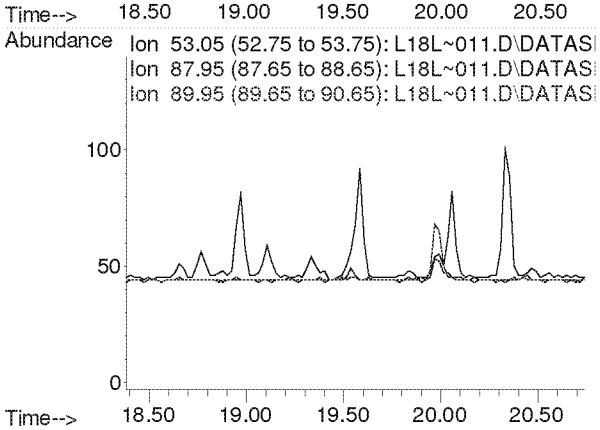


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

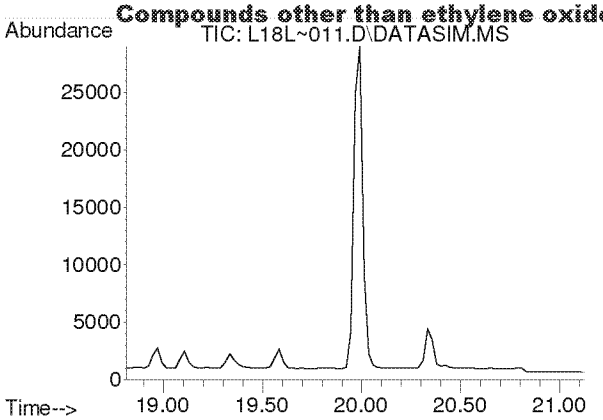
Lab File: L18L~011.D
Acq: 28 Dec 2018 1:44 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	51.8
90	16.8



Compounds other than ethylene oxide were not quantitated.

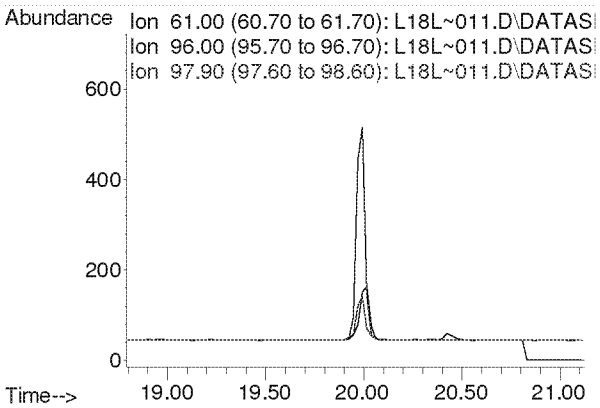


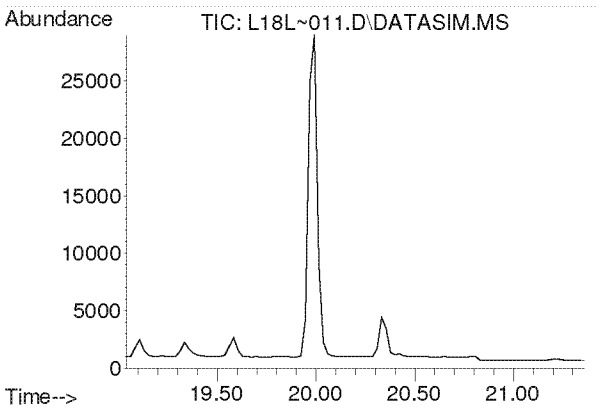
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L18L~011.D
Acq: 28 Dec 2018 1:44 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.7
98	45.2



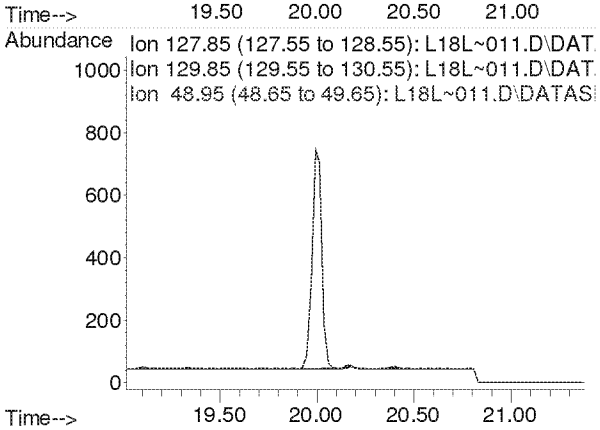


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

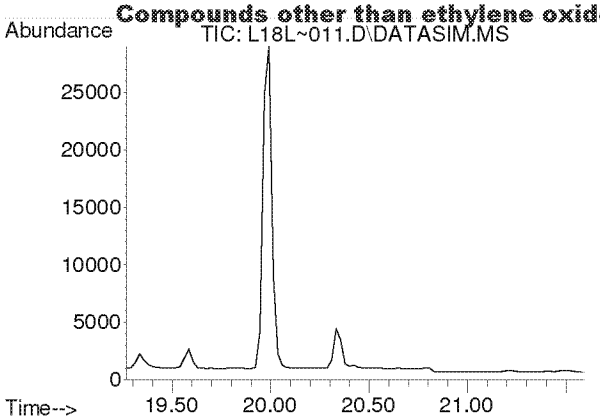
Lab File: L18L~011.D
Acq: 28 Dec 2018 1:44 am

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	171.2



Compounds other than ethylene oxide were not quantitated.

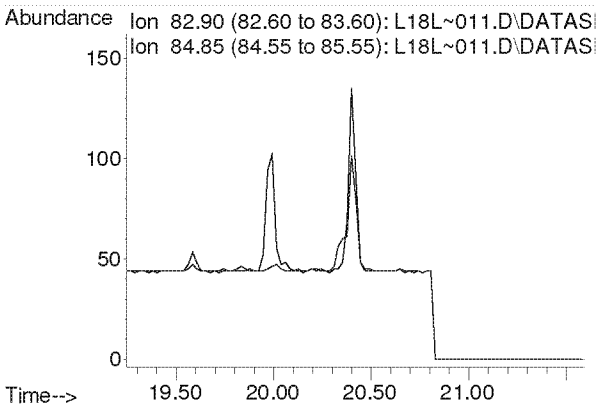


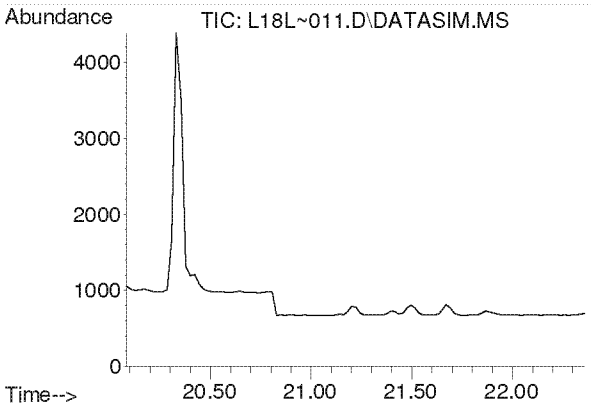
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L18L~011.D
Acq: 28 Dec 2018 1:44 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



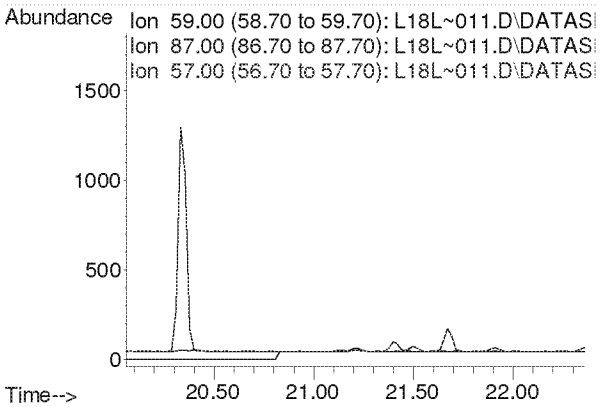


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.16 min

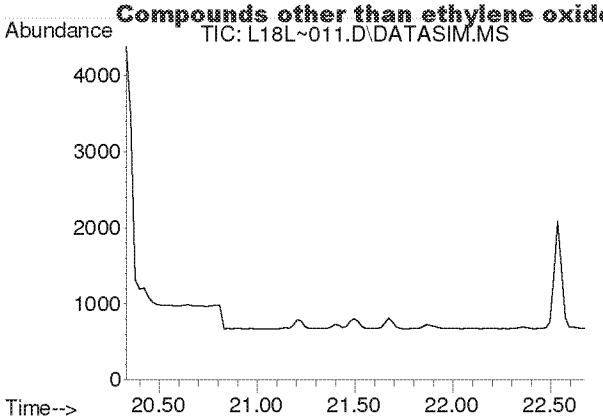
Lab File: L18L~011.D
Acq: 28 Dec 2018 1:44 am

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	37.5
57	33.8



Compounds other than ethylene oxide were not quantitated.

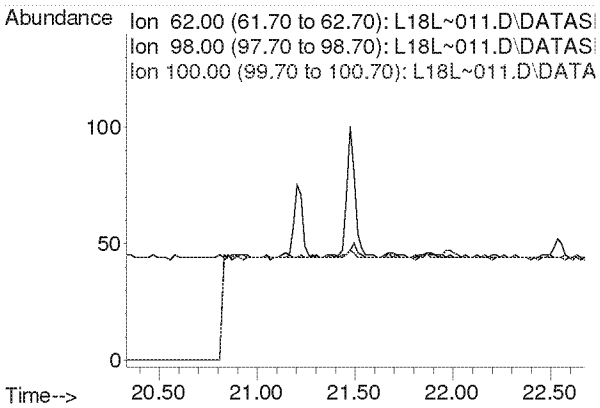


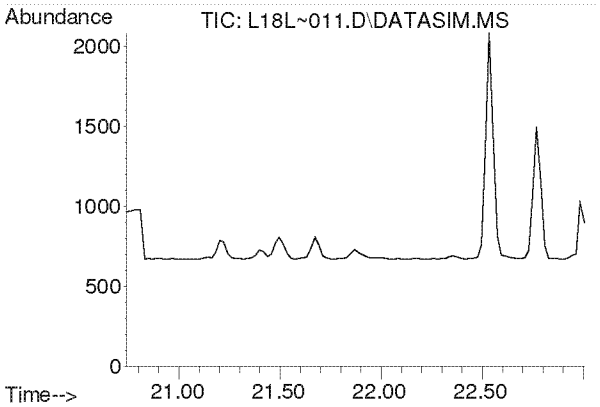
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L18L~011.D
Acq: 28 Dec 2018 1:44 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.4
100	4.0



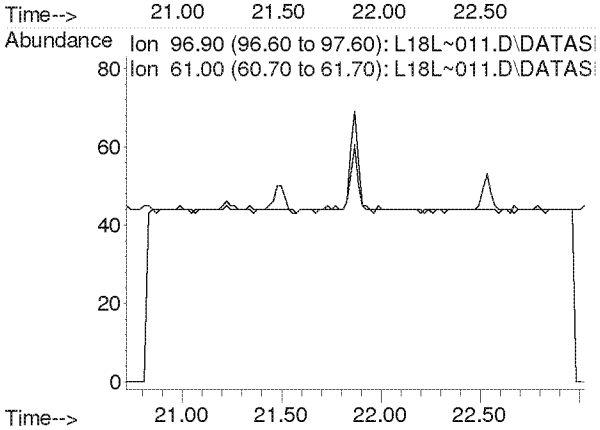


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

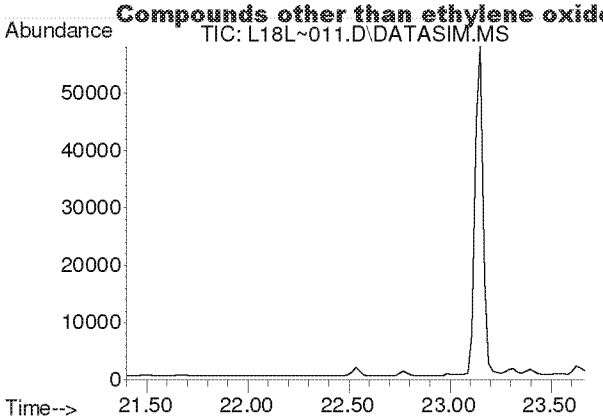
Lab File: L18L~011.D
Acq: 28 Dec 2018 1:44 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	60.5



Compounds other than ethylene oxide were not quantitated.

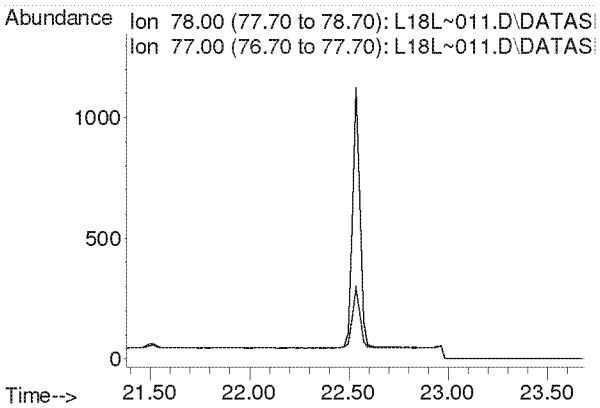


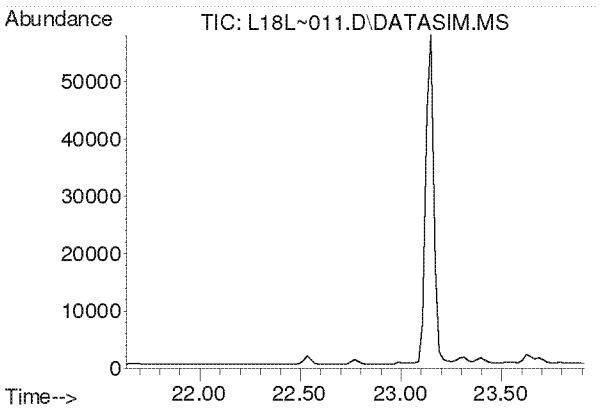
#31
Benzene
Concen: N.D.
Expected RT: 22.54 min

Lab File: L18L~011.D
Acq: 28 Dec 2018 1:44 am

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.7



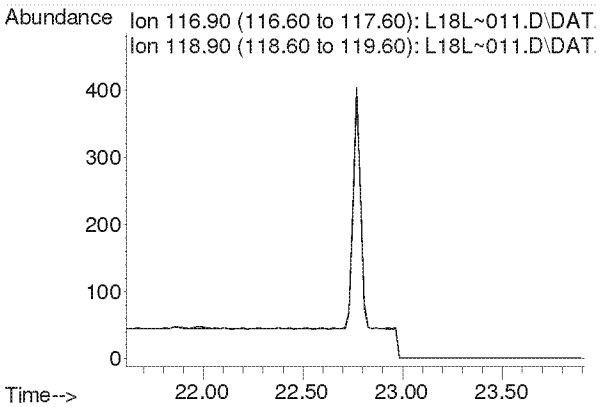


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

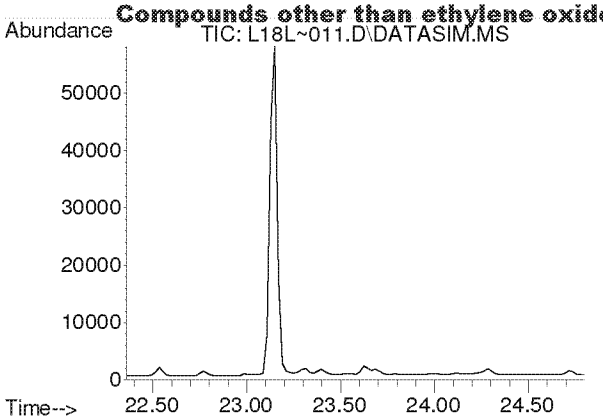
Lab File: L18L~011.D
Acq: 28 Dec 2018 1:44 am

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.5



Compounds other than ethylene oxide were not quantitated.

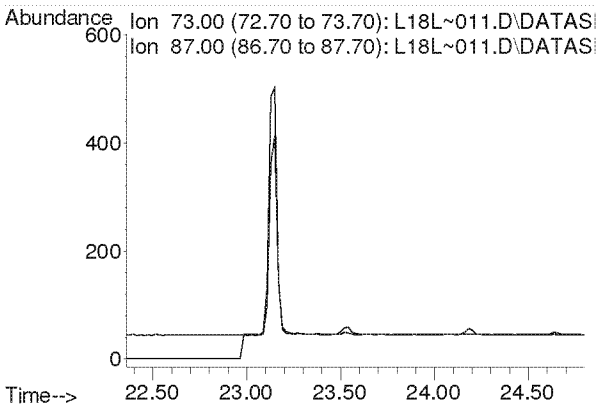


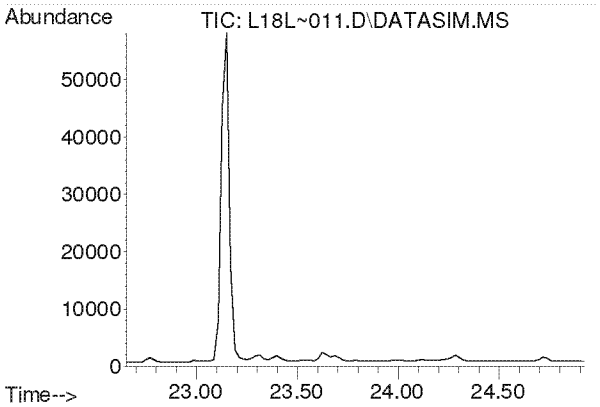
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.50 min

Lab File: L18L~011.D
Acq: 28 Dec 2018 1:44 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	24.9



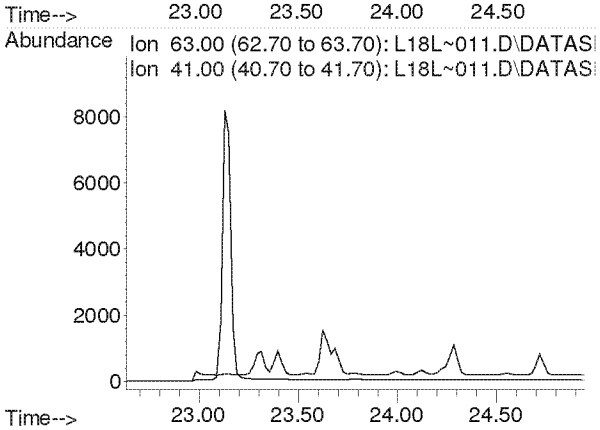


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

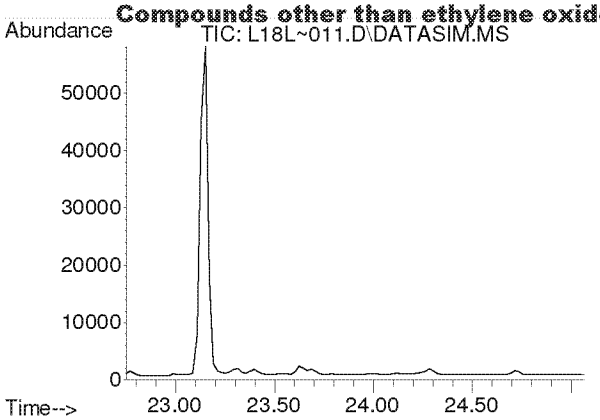
Lab File: L18L~011.D
Acq: 28 Dec 2018 1:44 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	212.8



Compounds other than ethylene oxide were not quantitated.

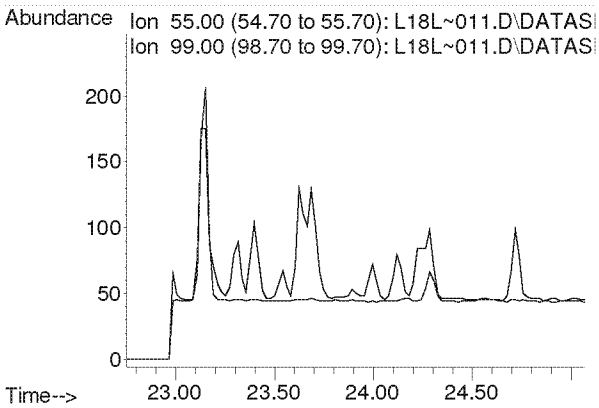


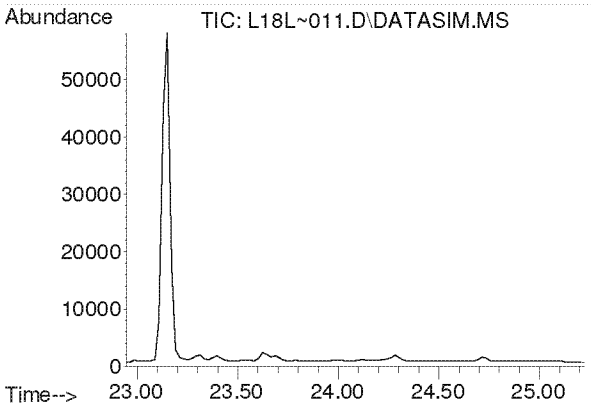
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.87 min

Lab File: L18L~011.D
Acq: 28 Dec 2018 1:44 am

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.1



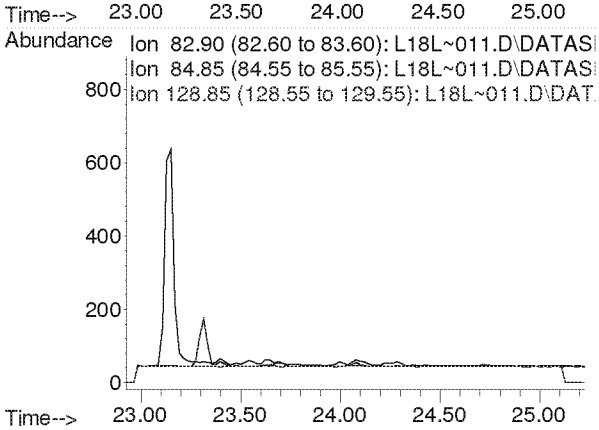


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

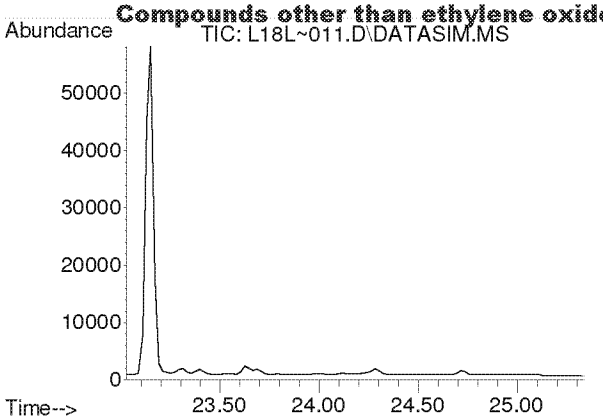
Lab File: L18L~011.D
Acq: 28 Dec 2018 1:44 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.0
129	12.4



Compounds other than ethylene oxide were not quantitated.

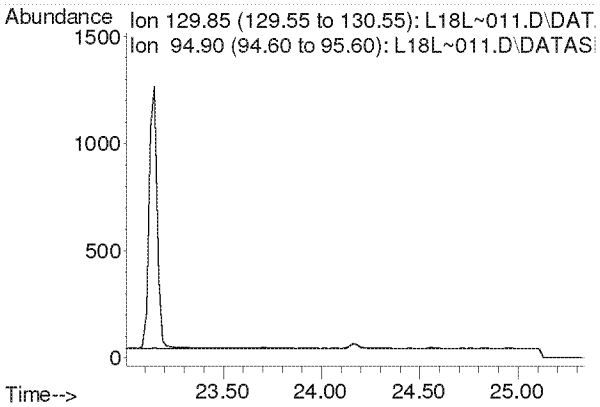


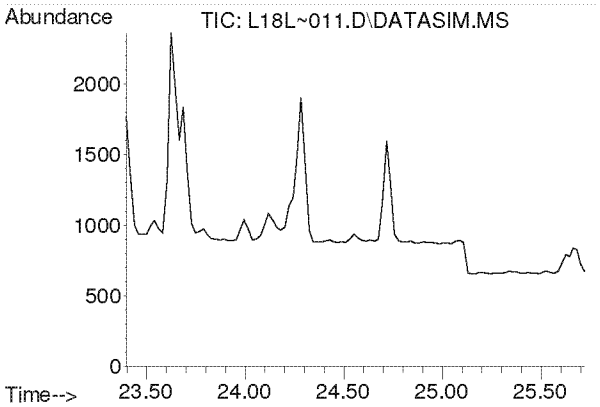
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.16 min

Lab File: L18L~011.D
Acq: 28 Dec 2018 1:44 am

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	110.3



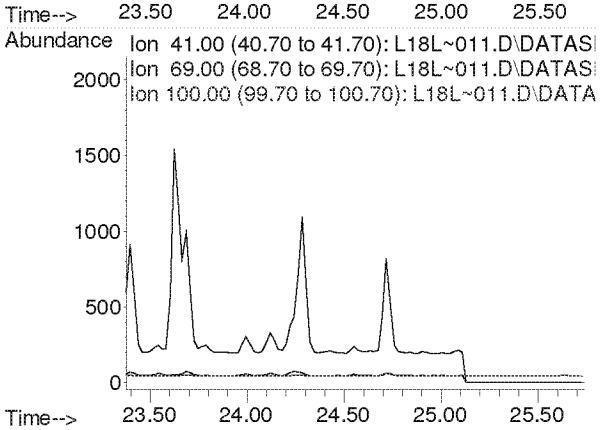


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

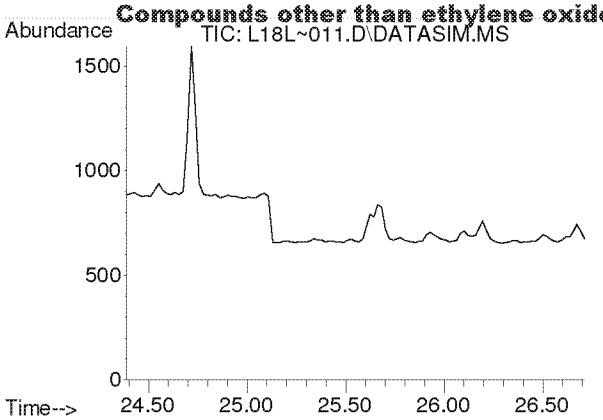
Lab File: L18L~011.D
Acq: 28 Dec 2018 1:44 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	19.9
100	5.2



Compounds other than ethylene oxide were not quantitated.

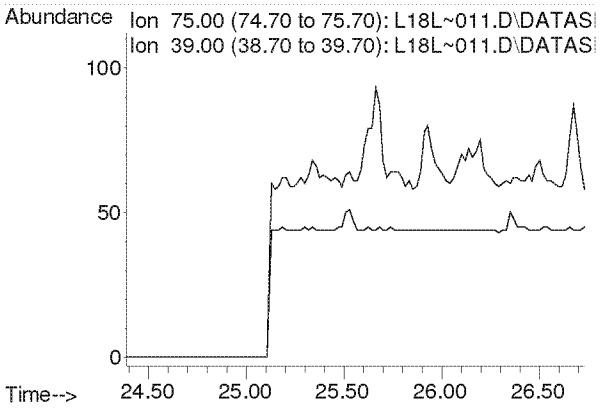


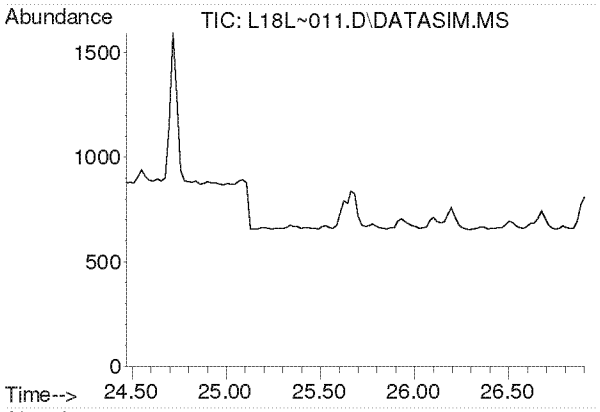
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L18L~011.D
Acq: 28 Dec 2018 1:44 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.4



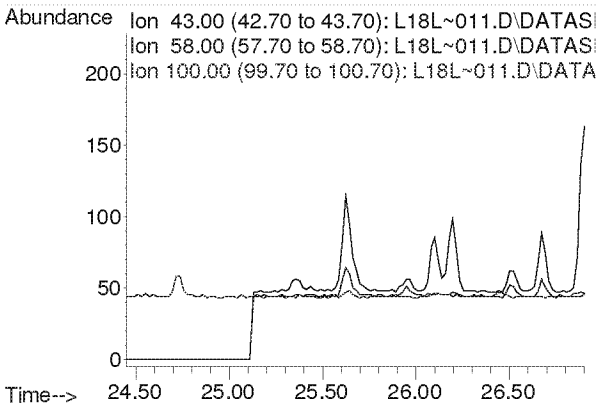


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.61 min

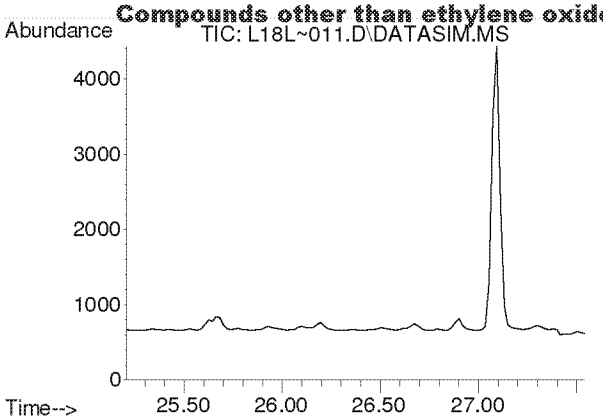
Lab File: L18L~011.D
Acq: 28 Dec 2018 1:44 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	34.2
100	7.9



Compounds other than ethylene oxide were not quantitated.

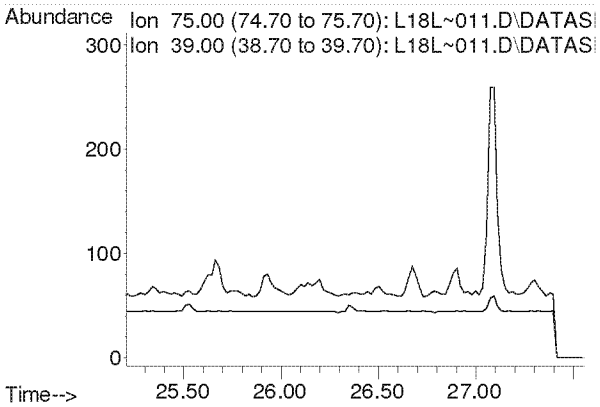


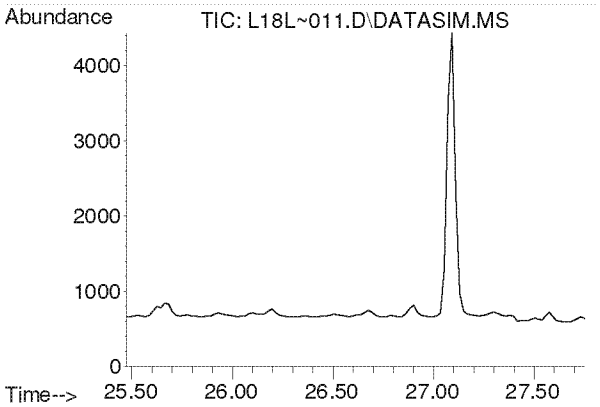
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.35 min

Lab File: L18L~011.D
Acq: 28 Dec 2018 1:44 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	50.9



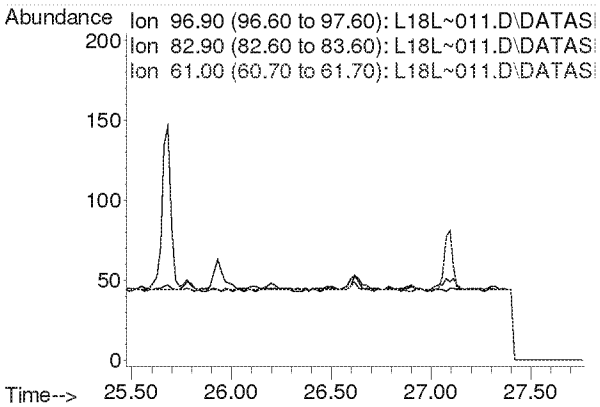


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

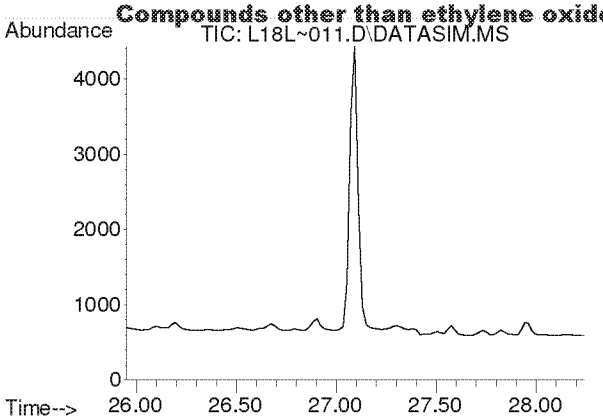
Lab File: L18L~011.D
Acq: 28 Dec 2018 1:44 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	96.1
61	63.5



Compounds other than ethylene oxide were not quantitated.

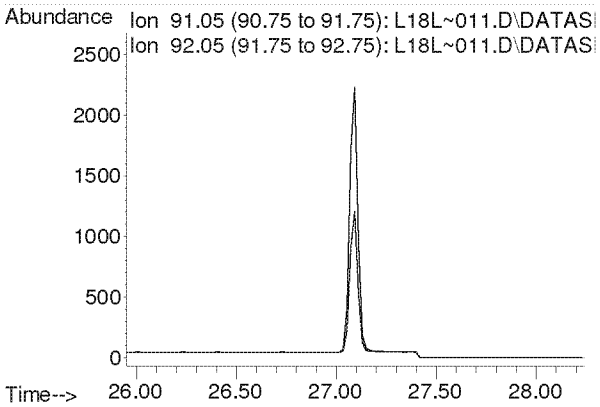


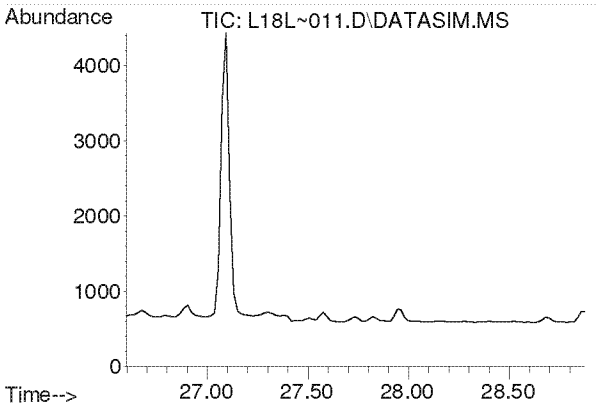
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L18L~011.D
Acq: 28 Dec 2018 1:44 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.6



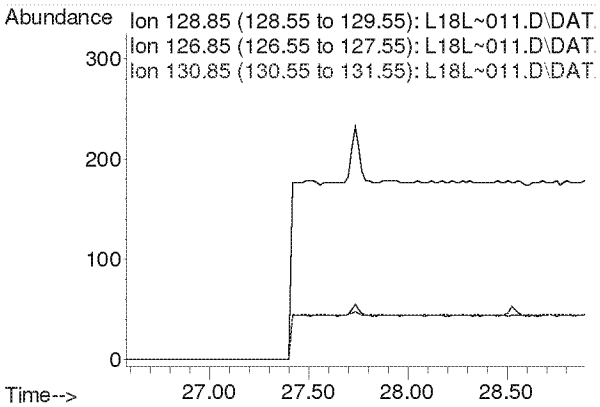


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.73 min

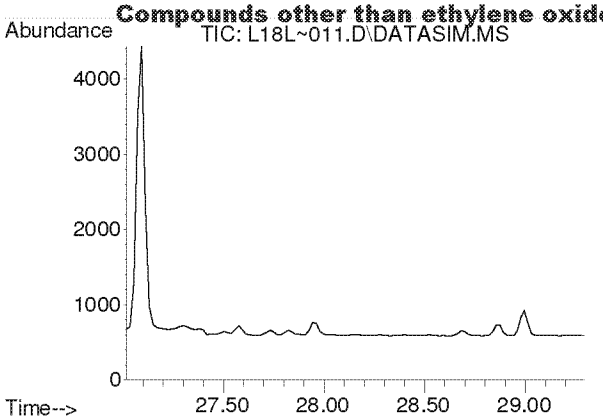
Lab File: L18L~011.D
Acq: 28 Dec 2018 1:44 am

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.2
131	6.0



Compounds other than ethylene oxide were not quantitated.

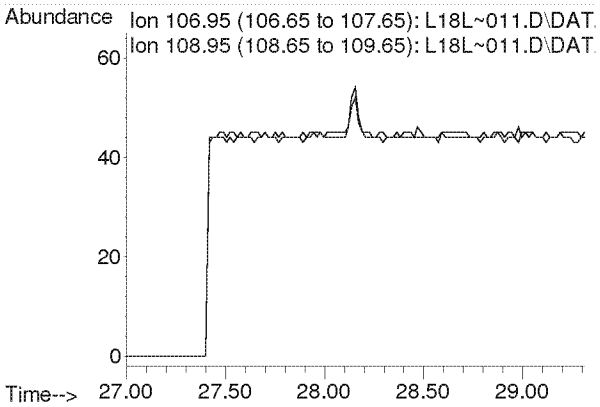


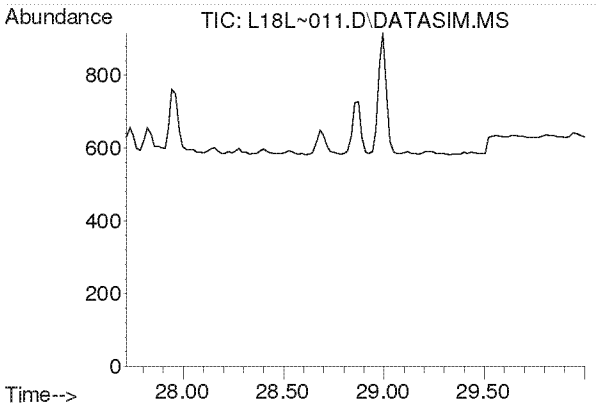
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.16 min

Lab File: L18L~011.D
Acq: 28 Dec 2018 1:44 am

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.5



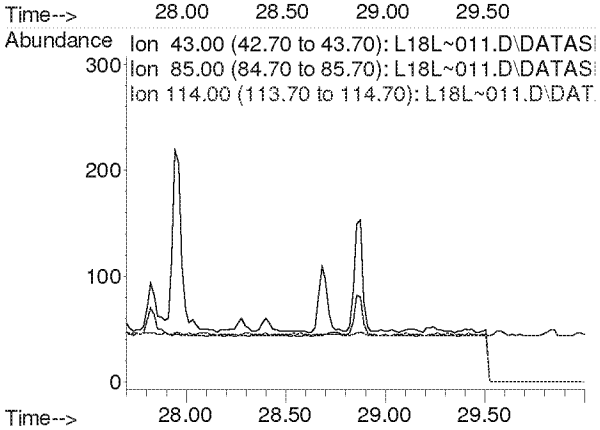


#47
n-Octane
Concen: N.D.
Expected RT: 28.86 min

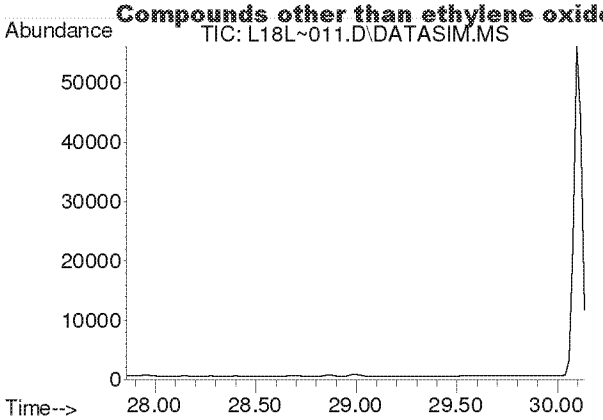
Lab File: L18L~011.D
Acq: 28 Dec 2018 1:44 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	36.0
114	2.2



Compounds other than ethylene oxide were not quantitated.

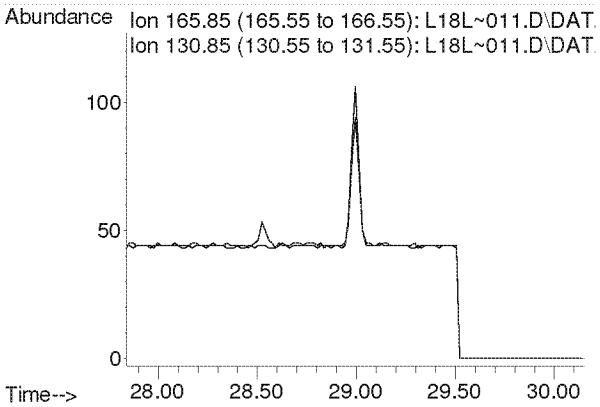


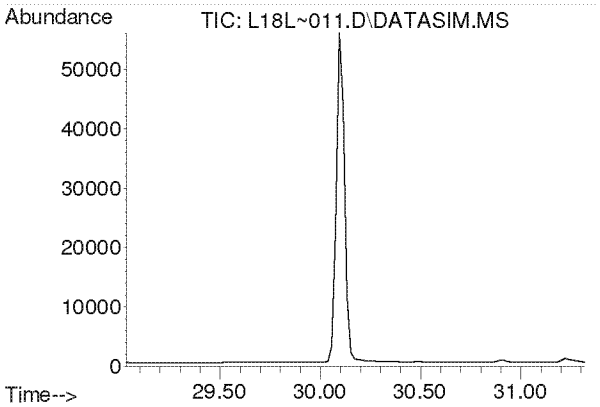
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L18L~011.D
Acq: 28 Dec 2018 1:44 am

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	78.2



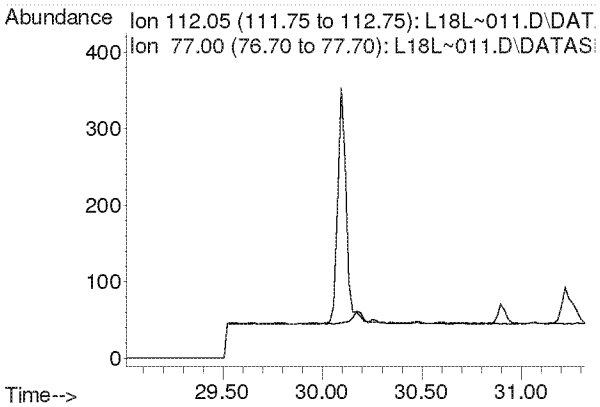


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.17 min

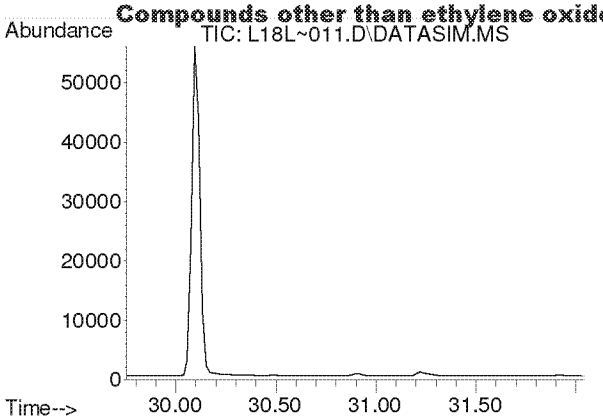
Lab File: L18L~011.D
Acq: 28 Dec 2018 1:44 am

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	63.0



Compounds other than ethylene oxide were not quantitated.

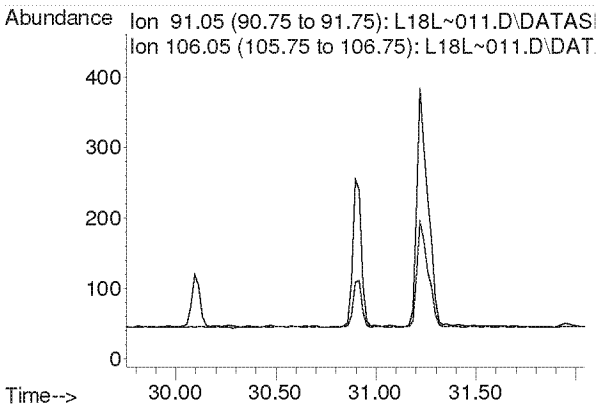


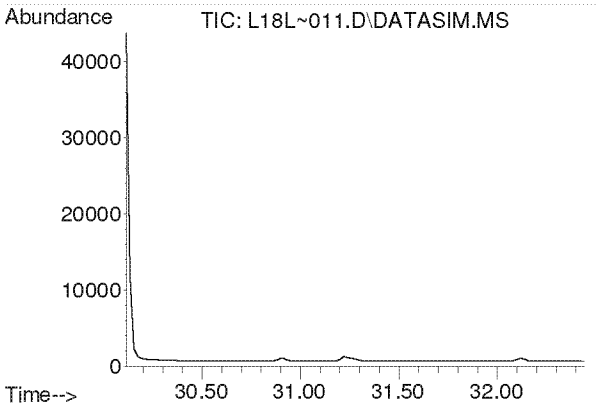
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.90 min

Lab File: L18L~011.D
Acq: 28 Dec 2018 1:44 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	31.8



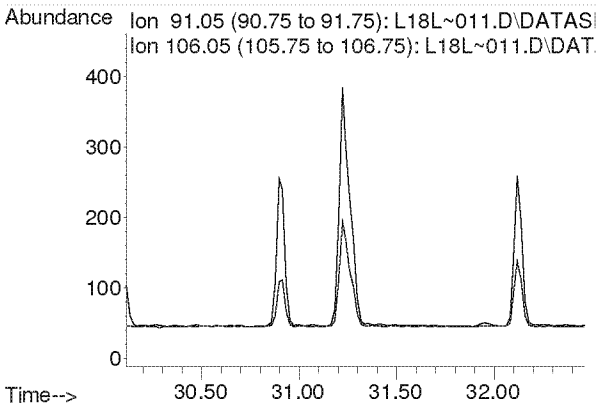


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.26 min

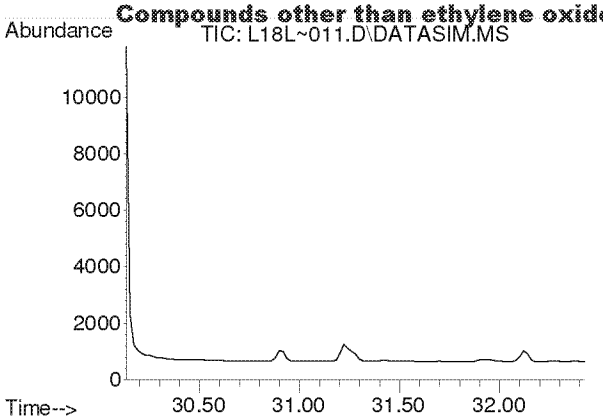
Lab File: L18L~011.D
Acq: 28 Dec 2018 1:44 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.4



Compounds other than ethylene oxide were not quantitated.

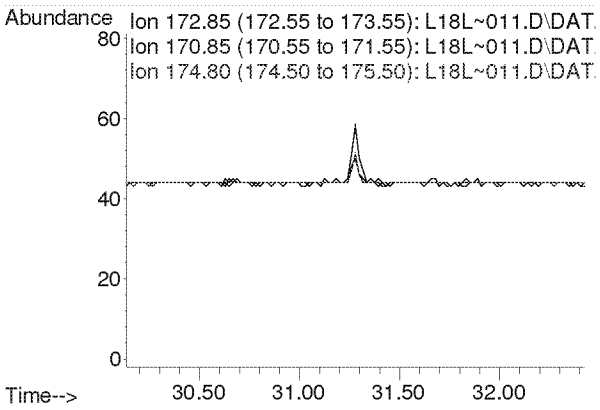


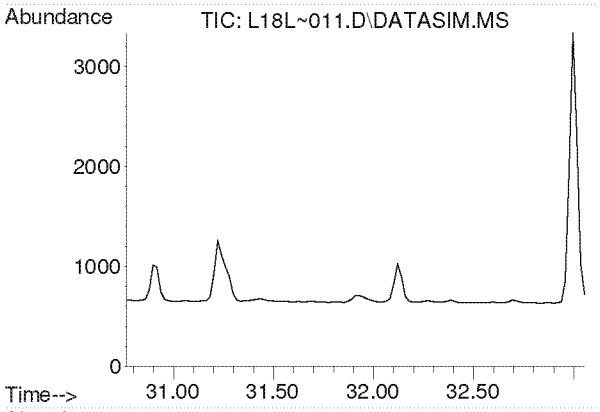
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L18L~011.D
Acq: 28 Dec 2018 1:44 am

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	49.0



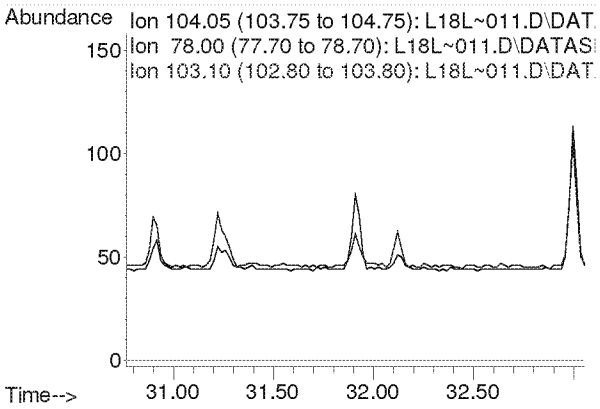


#53
Styrene
Concen: N.D.
Expected RT: 31.91 min

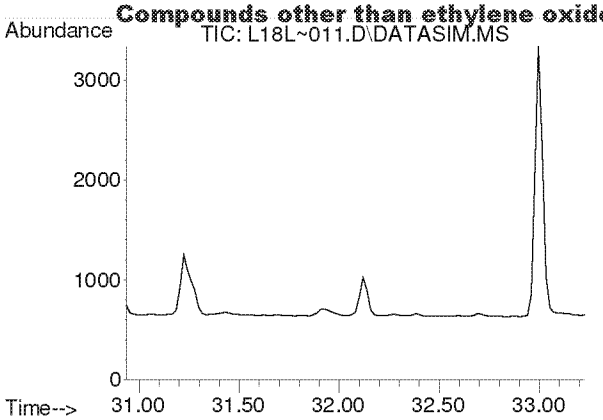
Lab File: L18L~011.D
Acq: 28 Dec 2018 1:44 am

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	45.6
103	0.0



Compounds other than ethylene oxide were not quantitated.

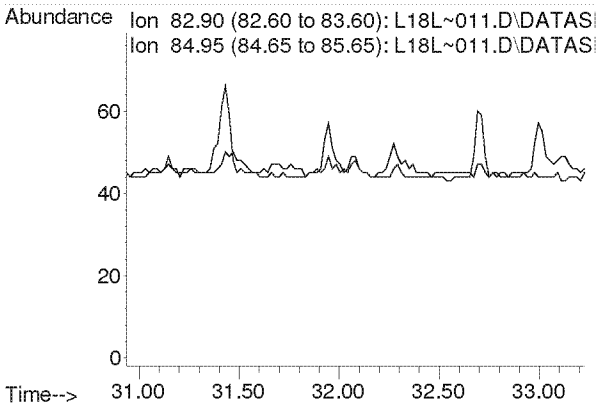


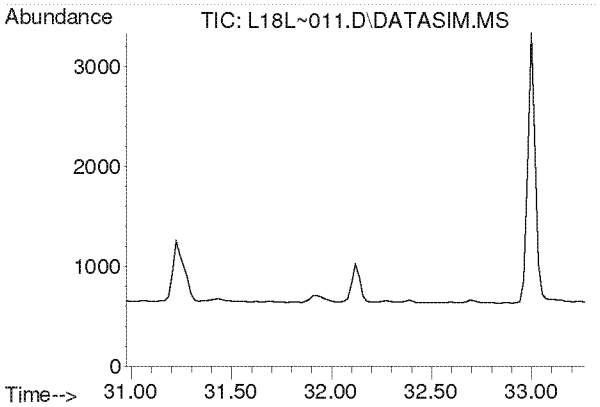
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L18L~011.D
Acq: 28 Dec 2018 1:44 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.9



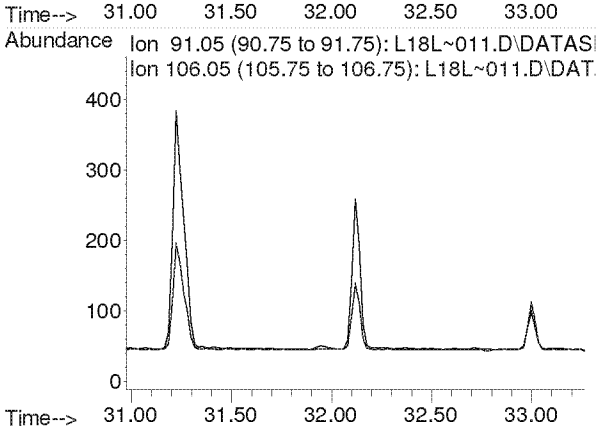


#55
o-Xylene
Concen: N.D.
Expected RT: 32.12 min

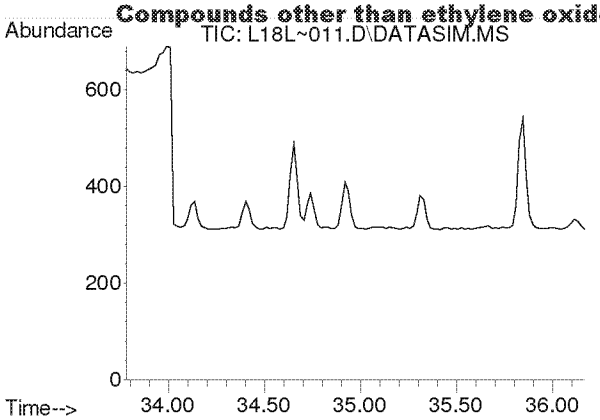
Lab File: L18L~011.D
Acq: 28 Dec 2018 1:44 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.2



Compounds other than ethylene oxide were not quantitated.

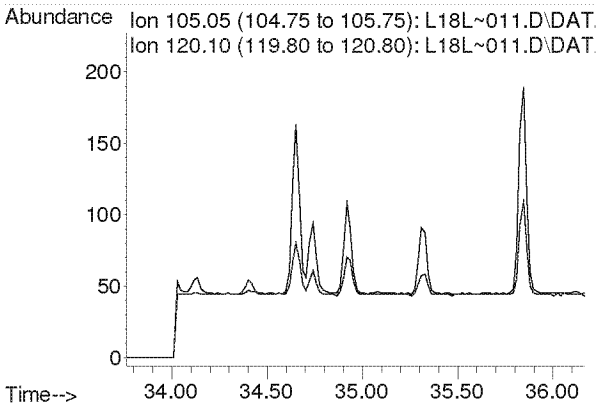


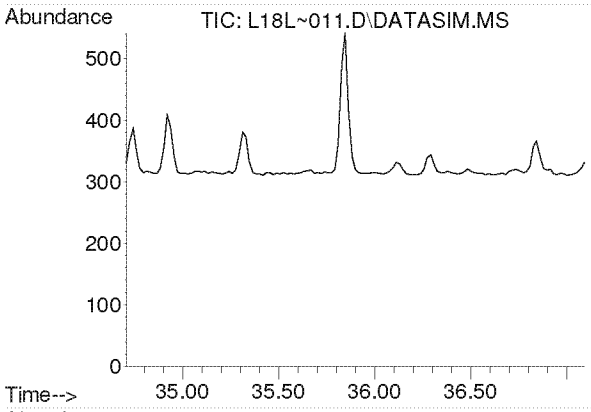
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.92 min

Lab File: L18L~011.D
Acq: 28 Dec 2018 1:44 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	45.0



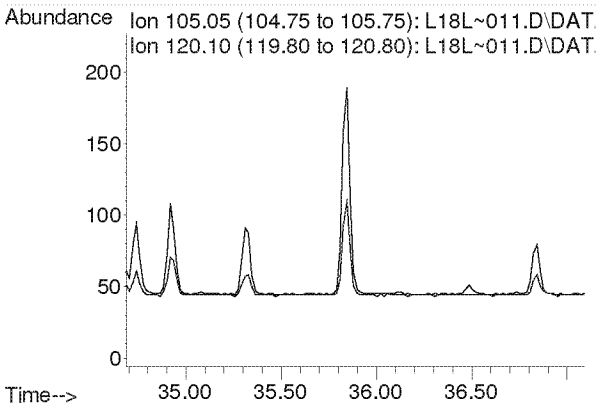


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

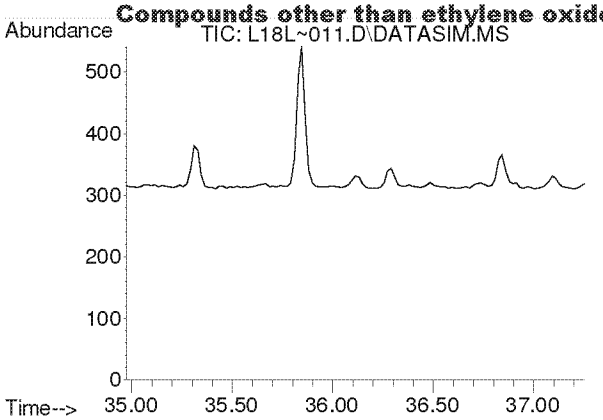
Lab File: L18L~011.D
Acq: 28 Dec 2018 1:44 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	42.8



Compounds other than ethylene oxide were not quantitated.

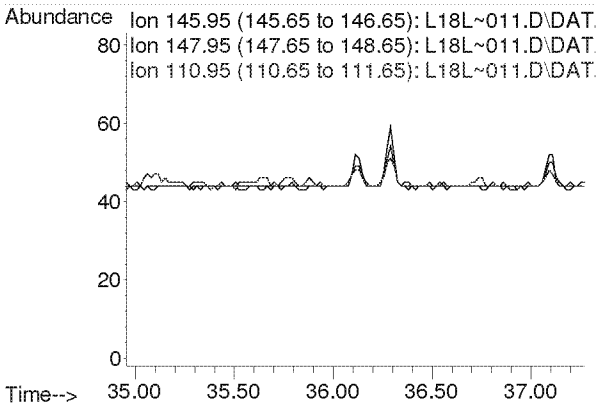


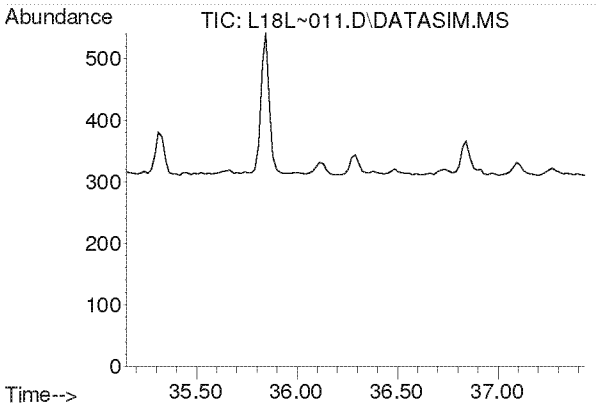
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.11 min

Lab File: L18L~011.D
Acq: 28 Dec 2018 1:44 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.5



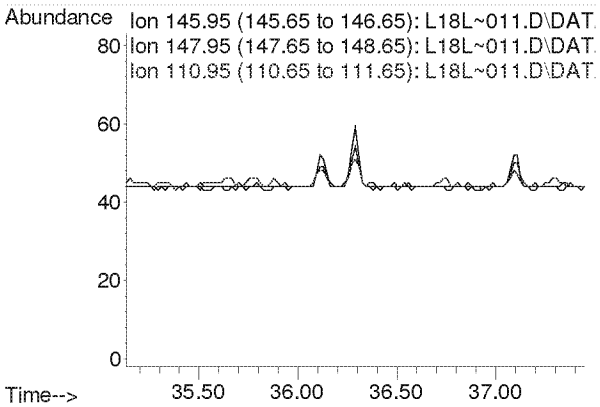


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

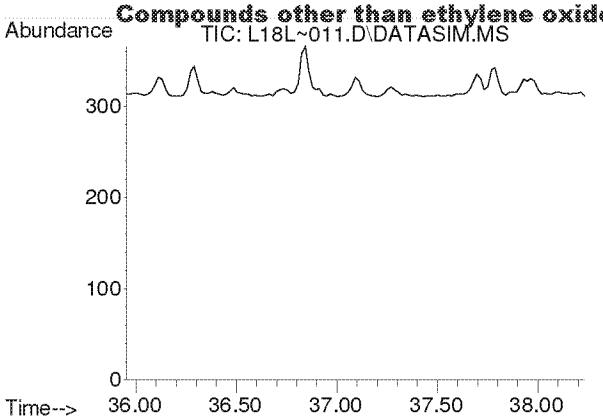
Lab File: L18L~011.D
Acq: 28 Dec 2018 1:44 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	39.5



Compounds other than ethylene oxide were not quantitated.

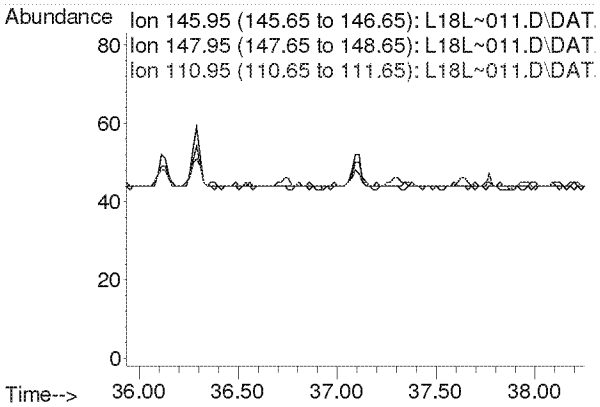


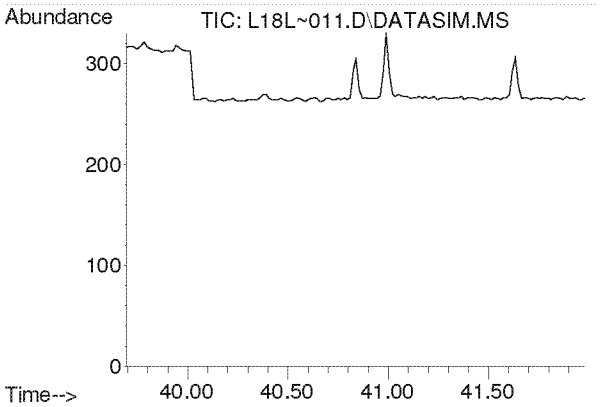
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.09 min

Lab File: L18L~011.D
Acq: 28 Dec 2018 1:44 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	41.4



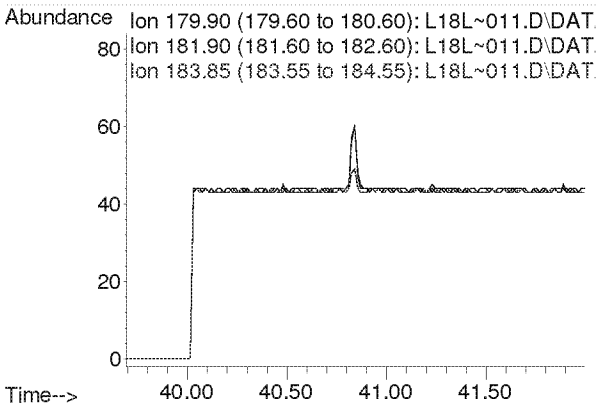


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

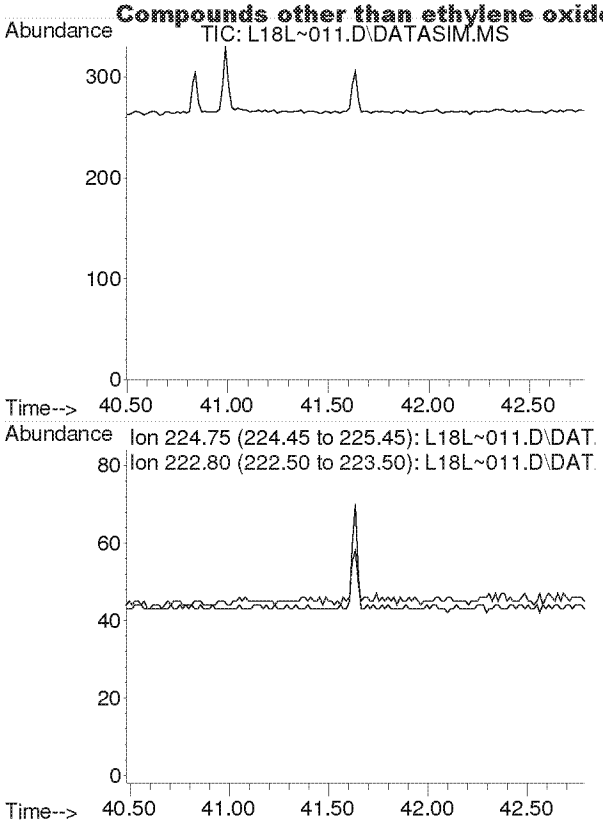
Lab File: L18L~011.D
Acq: 28 Dec 2018 1:44 am

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	95.1
184	30.7



Compounds other than ethylene oxide were not quantitated.



#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.64 min

Lab File: L18L~011.D
Acq: 28 Dec 2018 1:44 am

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		L18L~012.D	L18L~013.D		
Analyst		MAH	MAH		
Method		8120004.M	8120004.M		
Sample ID		8121130-12	8121130-13		
Mics Comments		VILLAGE HALL C1	VILLAGE HALL C2 12/8/18		
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	0.408	0.455	10.89	Y
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	

1-3-19

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

Y:\AIR TOX\TO-15 DUPTEST\DUPTEST_2018_NATTS\ETOX\WB VILLAGE HALL 12_8_18.xlsx
DUPTEST 2017 TEMPLATE 012517

Compounds other than ethylene oxide were not quantitated.

Duplicate Comparison Check

Comparison of Replicate Analyses

		D1	R1		
File ID		L18L~012.D	L18L~014.D		
Analyst		MAH	MAH		
Method		8120004.M	8120004 M		
Sample ID		8121130-12	B8L2704-DUP1		
Mics Comments		VILLAGE HALL	VILLAGE HALL R1 12/6/18		
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	0.408	0.413	1.22	Y
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		L18L~013.D	L18L~015.D		
Analyst		MAH	MAH		
Method		8120004.M	8120004.M		
Sample ID		8121130-13	B8L2704-DUP2		
Mics Comments		VILLAGE HALL	VILLAGE HALL R2 12/6/18		
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	0.455	0.465	2.17	Y
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\L18L~\
Data File : L18L~012.D
Acq On : 28 Dec 2018 2:46 am
Operator : MAH
Sample : 8121130-12
Misc : VILLAGE HALL C1 12/8/18
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jan 03 12:37:02 2019
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
Response via : Initial Calibration

d=nr

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.970	66	54548	4.7700 ppbv	-0.02
29) IS-1,4-Difluorobenzene	23.151	114	134818	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.097	117	100581	4.7400 ppbv	0.00

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. d	
8) 1,3-Butadiene	0.000	54	0	N.D. d	
9) Ethylene oxide	12.425	29	1331	0.4082 ppbv #	22
10) Bromomethane	0.000	94	0	N.D. d	
11) Chloroethane	0.000	64	0	N.D. 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. 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. d	
21) 1,1-Dichloroethane	0.000	63	0	N.D. 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. d	
26) Chloroform	0.000	83	0	N.D. d	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D. d	
28) 1,2-Dichloroethane	0.000	62	0	N.D. d	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D. 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. 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. d	
37) Trichloroethylene	0.000	130	0	N.D. d	
38) Methyl Methacrylate	0.000	41	0	N.D. d	
39) cis-1,3-Dichloropropene	0.000	75	0	N.D. d	
40) Methyl Isobutyl Ketone	0.000	43	0	N.D. d	
41) trans-1,3-Dichloropropene	0.000	75	0	N.D. d	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D. d	
44) Toluene	0.000	91	0	N.D. d	
45) Dibromochloromethane	0.000	129	0	N.D. d	
46) 1,2-Dibromoethane	0.000	107	0	N.D. 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. d	
50) Ethylbenzene	0.000	91	0	N.D. d	

Compounds other than ethylene oxide were not quantitated.

Quantification Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L18L~\
Data File : L18L~012.D
Acq On : 28 Dec 2018 2:46 am
Operator : MAH
Sample : 8121130-12
Misc : VILLAGE HALL C1 12/8/18
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jan 03 12:37:02 2019
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
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. d	
53) Styrene	0.000	104	0	N.D. d	
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D. 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. d	
59) p-Dichlorobenzene	0.000	146	0	N.D. d	
60) o-Dichlorobenzene	0.000	146	0	N.D. d	
61) 1,2,4-Trichlorobenzene	0.000	180	0	N.D. d	
62) Hexachloro-1,3-butadiene	0.000	225	0	N.D. d	

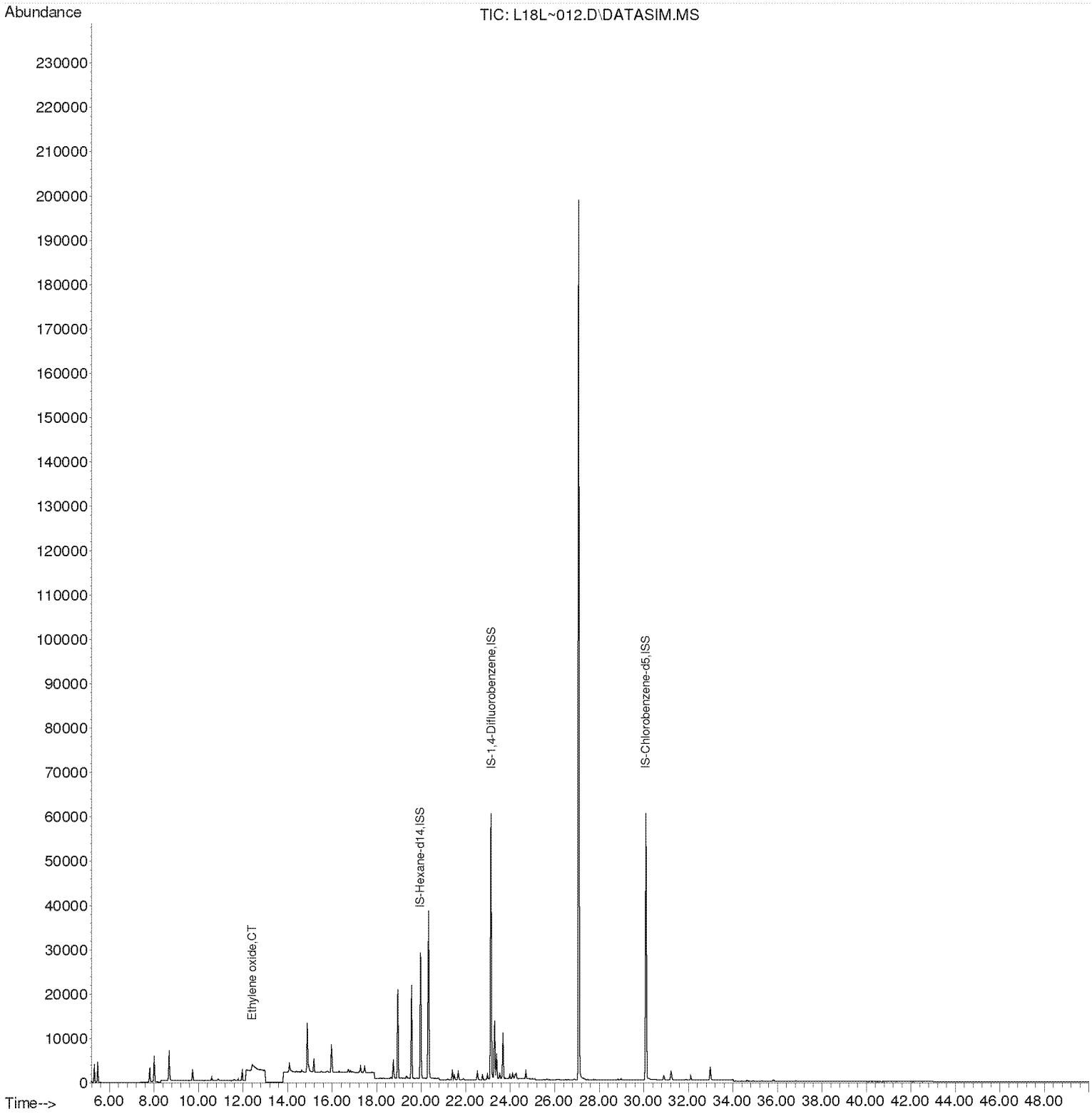
(#) = qualifier out of range (m) = manual integration (+) = signals summed

ED_002475_00000321-00316

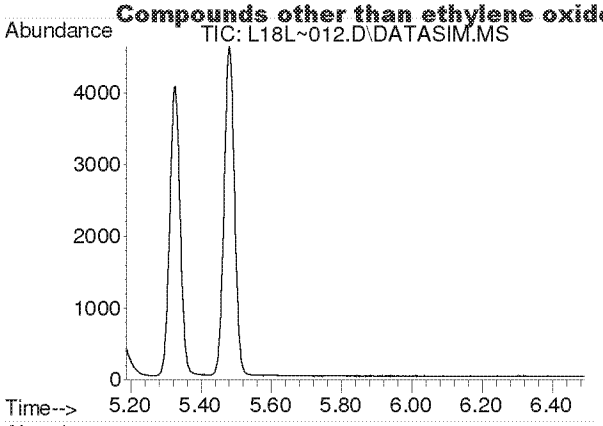
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L18L~\
Data File : L18L~012.D
Acq On : 28 Dec 2018 2:46 am
Operator : MAH
Sample : 8121130-12
Misc : VILLAGE HALL C1 12/8/18
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jan 03 12:20:18 2019
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
Response via : Initial Calibration



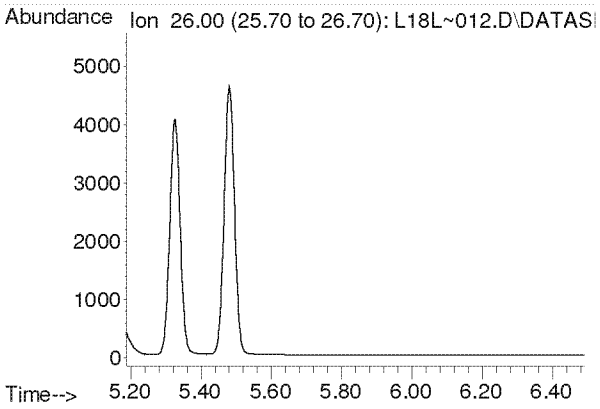
Compounds other than ethylene oxide were not quantitated.

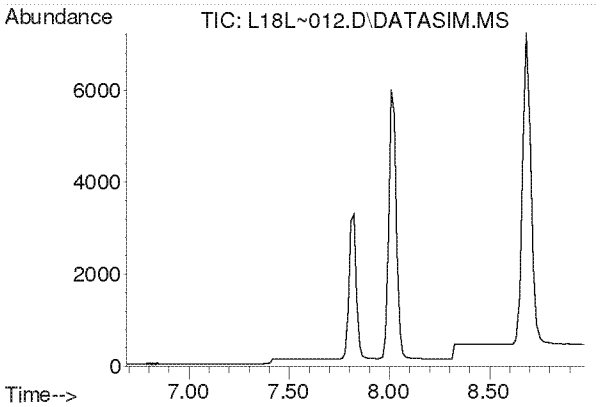


#2
Acetylene
Concen: N.D.
Expected RT: 5.42 min

Lab File: L18L~012.D
Acq: 28 Dec 2018 2:46 am

Tgt Ion: 26



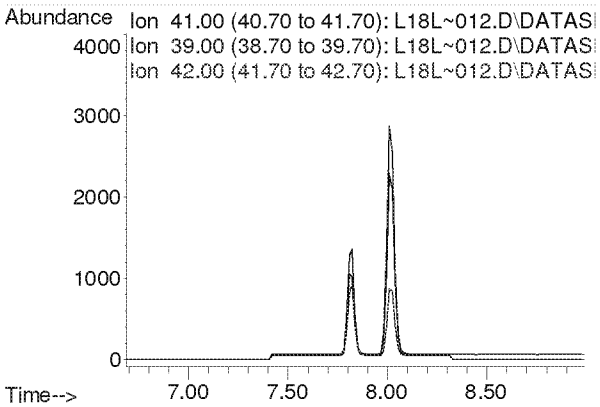


#3
Propylene
Concen: N.D.
Expected RT: 7.84 min

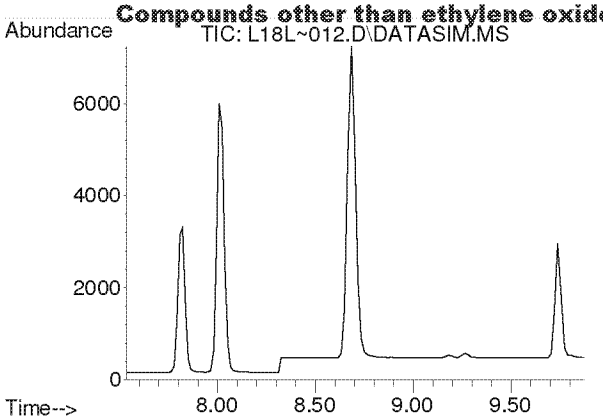
Lab File: L18L~012.D
Acq: 28 Dec 2018 2:46 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	78.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

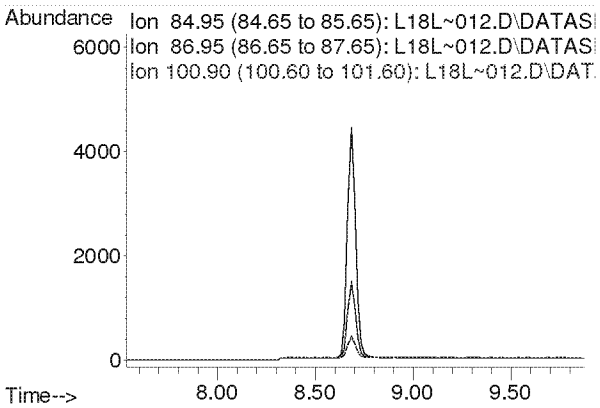


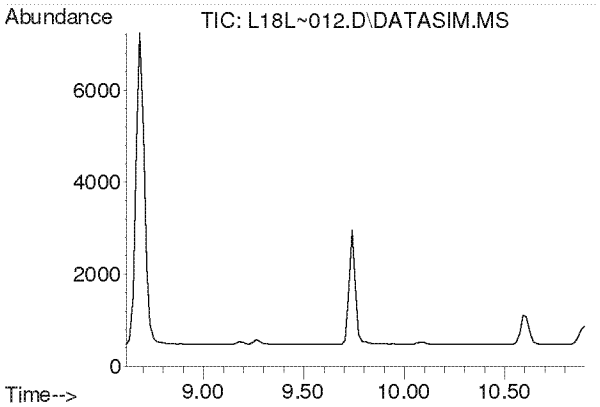
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L18L~012.D
Acq: 28 Dec 2018 2:46 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	8.9



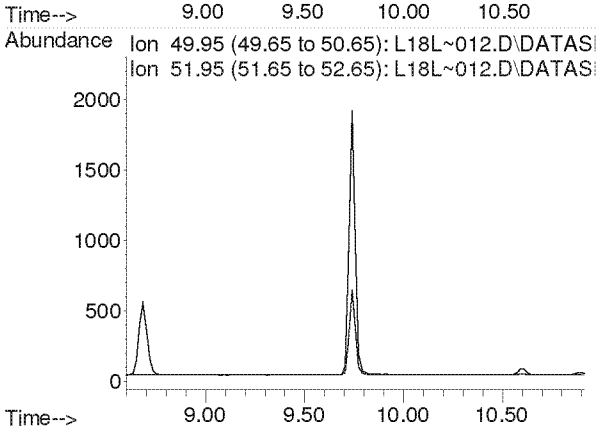


#5
Chloromethane
Concen: N.D.
Expected RT: 9.76 min

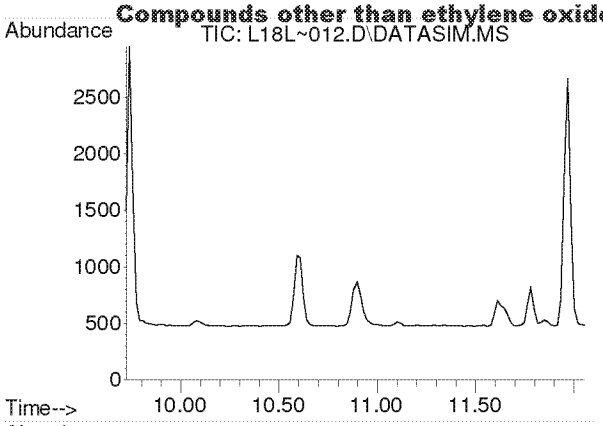
Lab File: L18L~012.D
Acq: 28 Dec 2018 2:46 am

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

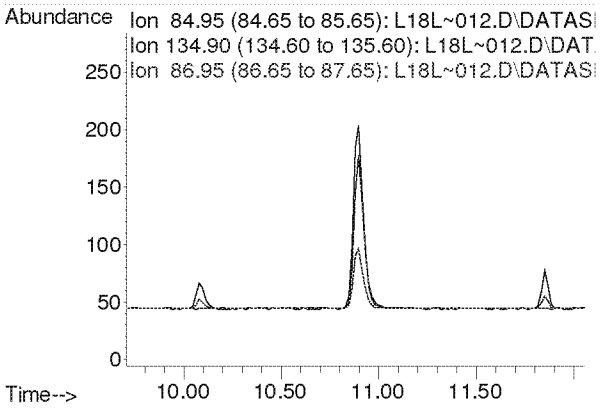


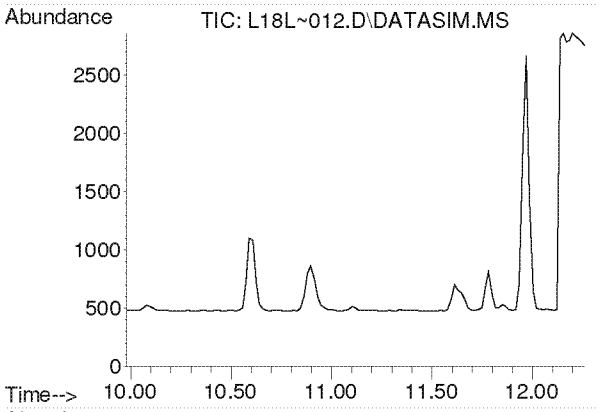
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L18L~012.D
Acq: 28 Dec 2018 2:46 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.1
87	32.1



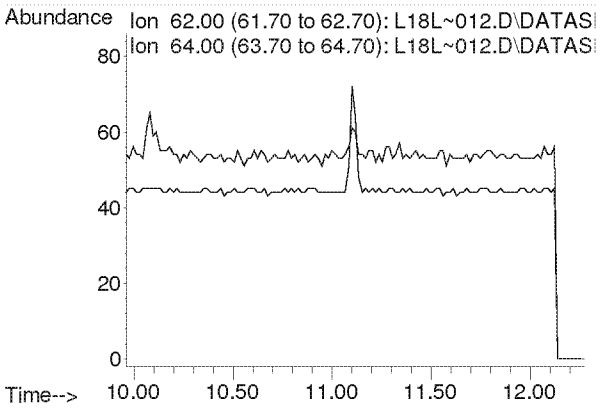


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

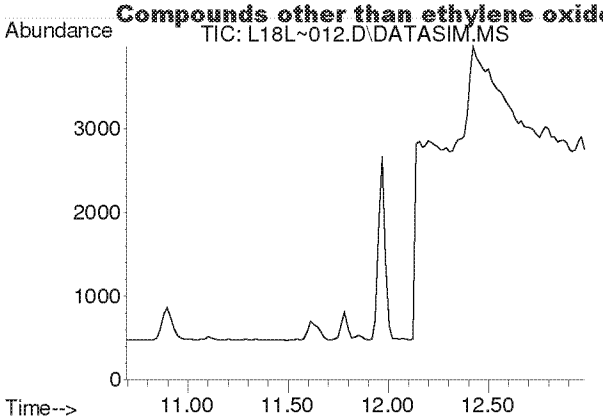
Lab File: L18L~012.D
Acq: 28 Dec 2018 2:46 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.8



Compounds other than ethylene oxide were not quantitated.

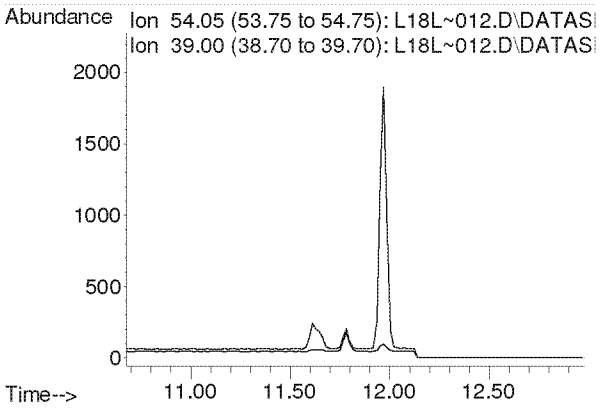


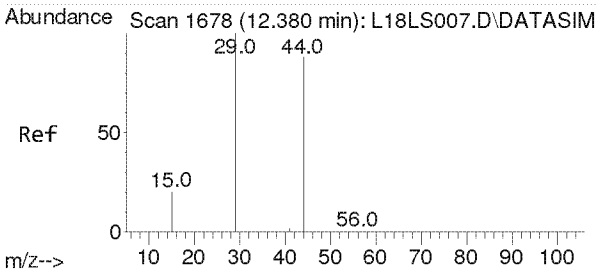
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L18L~012.D
Acq: 28 Dec 2018 2:46 am

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	105.4

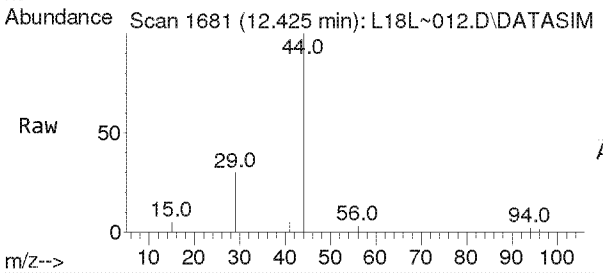


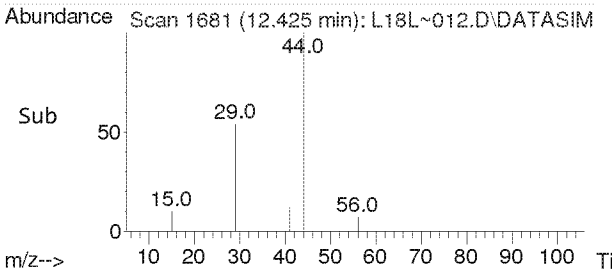


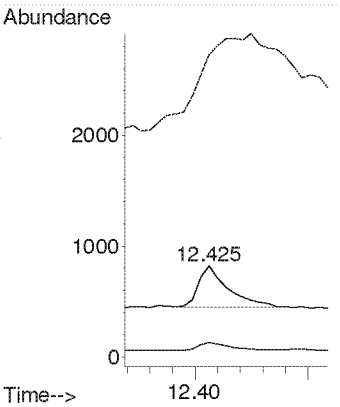
#9
Ethylene oxide
Concen: 0.408 ppbv
RT: 12.425 min Scan# 1681
Delta R.T. 0.045 min
Lab File: L18L~012.D
Acq: 28 Dec 2018 2:46 am

Tgt Ion: 29 Resp: 1331

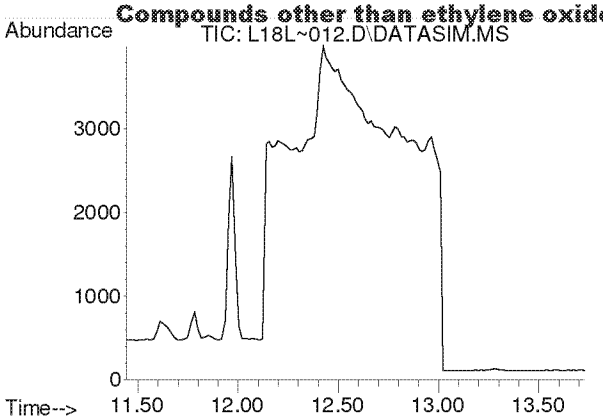
Ion	Ratio	Lower	Upper
29	100		
15	20.8	16.2	24.4
44	0.0	72.0	108.0#







Compounds other than ethylene oxide were not quantitated.

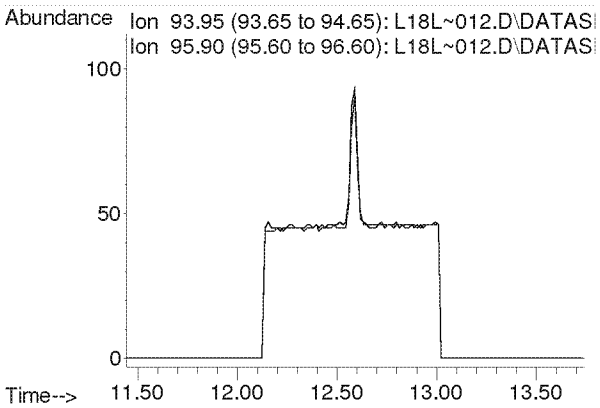


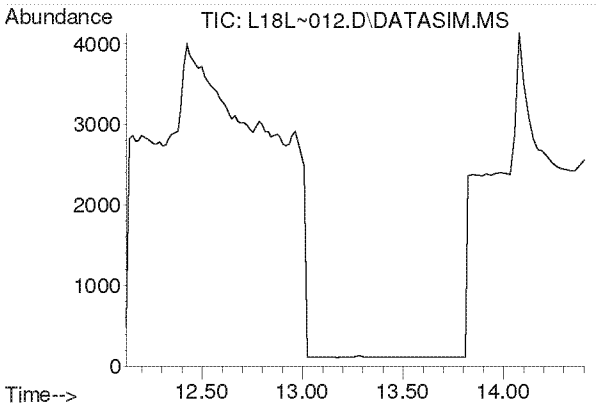
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L18L~012.D
Acq: 28 Dec 2018 2:46 am

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	93.9



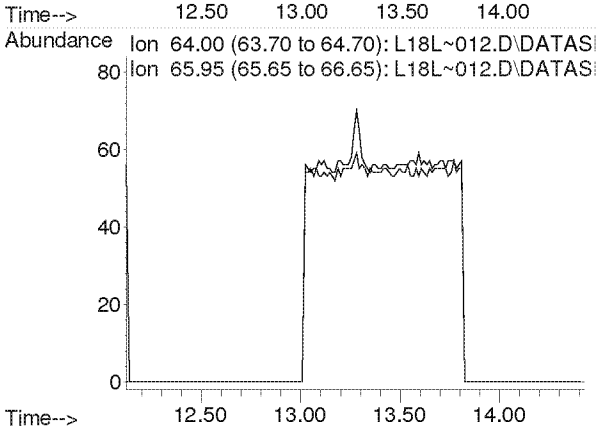


#11
Chloroethane
Concen: N.D.
Expected RT: 13.27 min

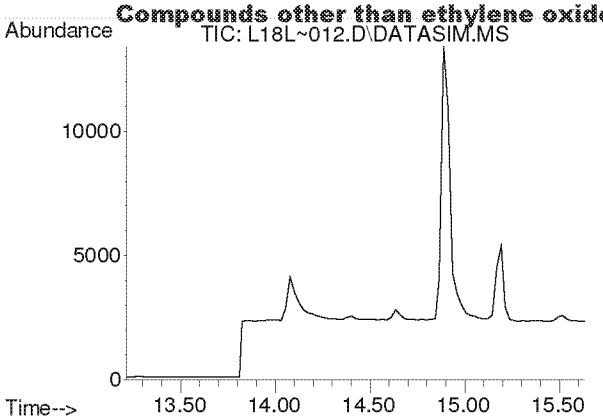
Lab File: L18L~012.D
Acq: 28 Dec 2018 2:46 am

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.0



Compounds other than ethylene oxide were not quantitated.

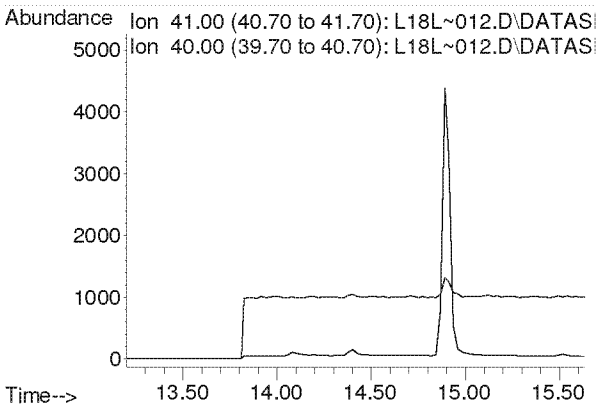


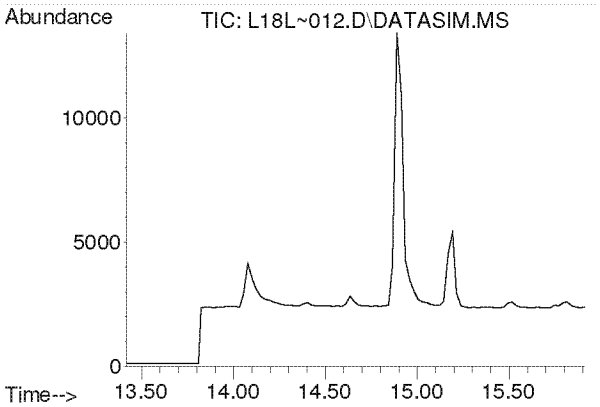
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.33 min

Lab File: L18L~012.D
Acq: 28 Dec 2018 2:46 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	50.9



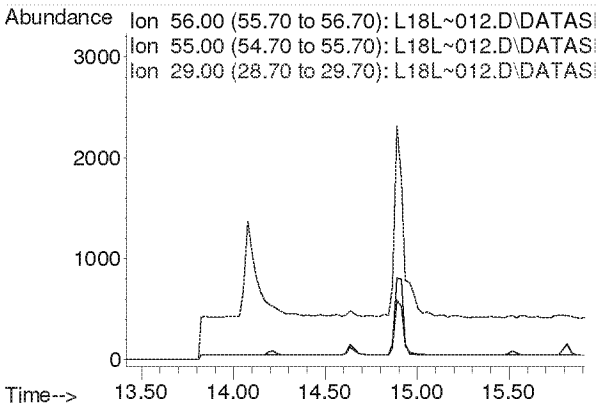


#13
Acrolein
Concen: N.D.
Expected RT: 14.61 min

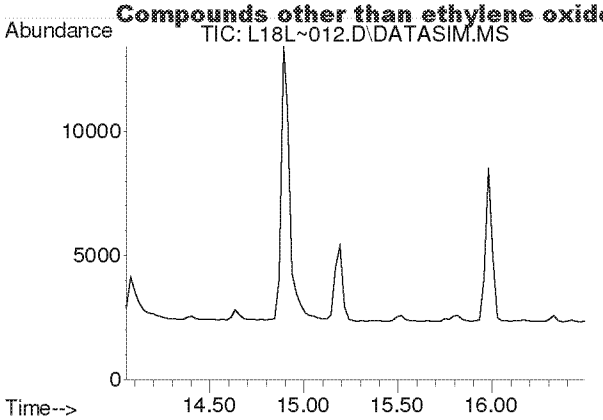
Lab File: L18L~012.D
Acq: 28 Dec 2018 2:46 am

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	75.4
29	52.9



Compounds other than ethylene oxide were not quantitated.

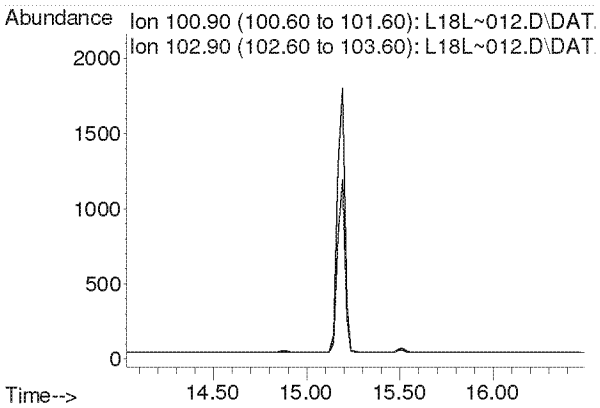


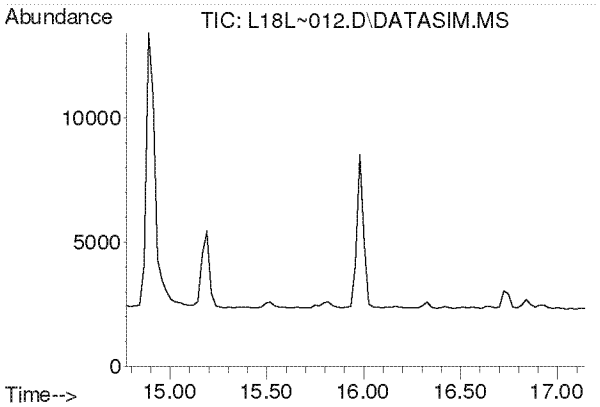
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L18L~012.D
Acq: 28 Dec 2018 2:46 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



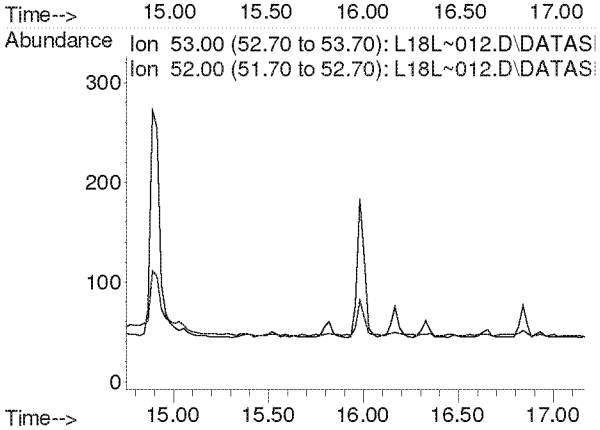


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.91 min

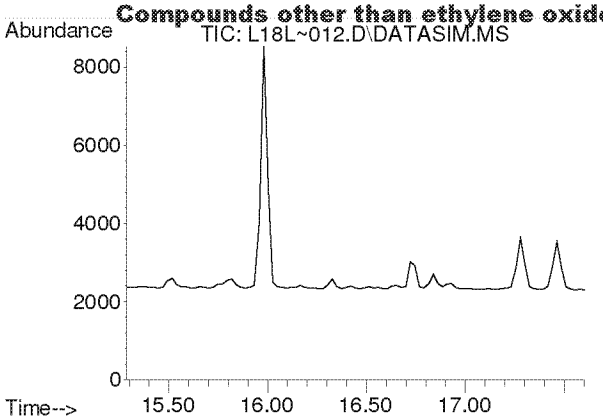
Lab File: L18L~012.D
Acq: 28 Dec 2018 2:46 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	85.4



Compounds other than ethylene oxide were not quantitated.

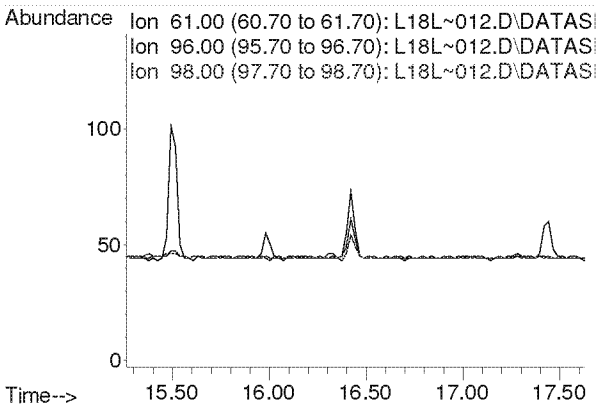


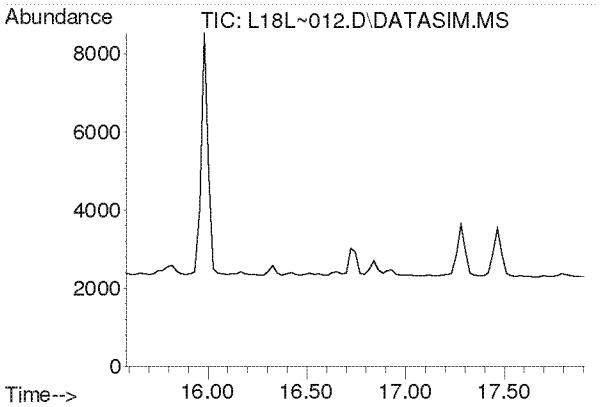
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L18L~012.D
Acq: 28 Dec 2018 2:46 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	58.3
98	37.4



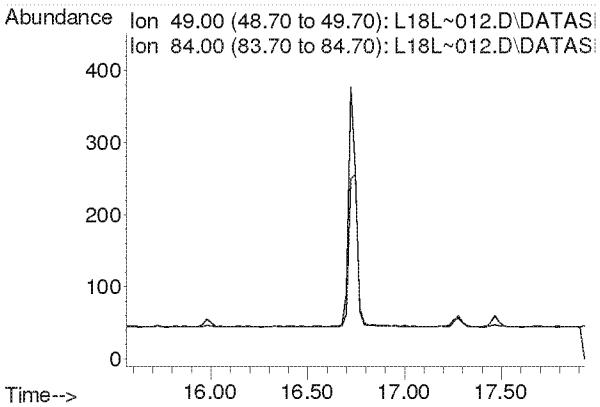


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.72 min

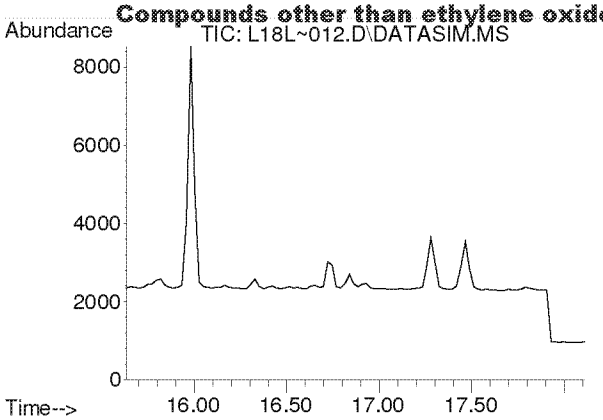
Lab File: L18L~012.D
Acq: 28 Dec 2018 2:46 am

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	76.4



Compounds other than ethylene oxide were not quantitated.

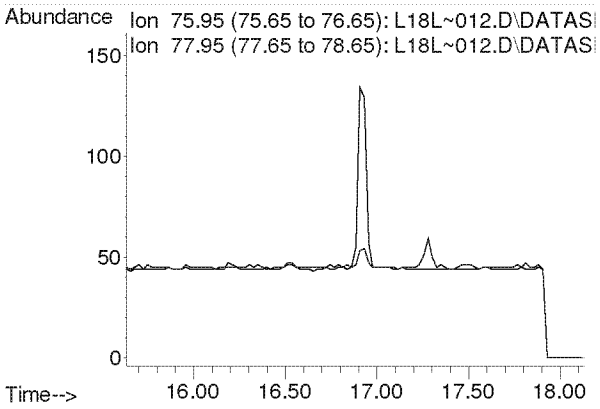


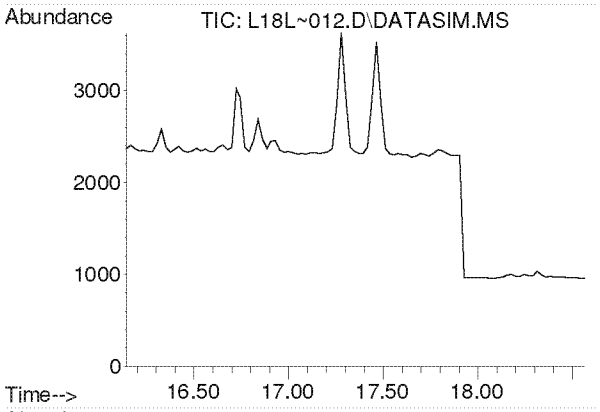
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L18L~012.D
Acq: 28 Dec 2018 2:46 am

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.1



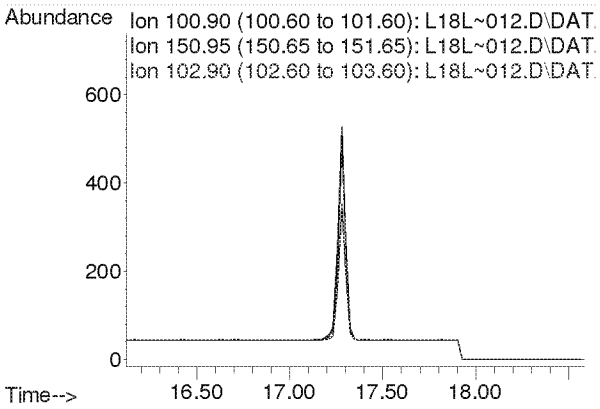


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

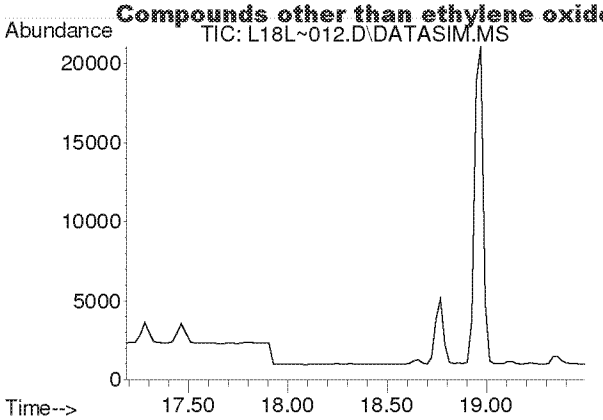
Lab File: L18L~012.D
Acq: 28 Dec 2018 2:46 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	95.3
103	64.1



Compounds other than ethylene oxide were not quantitated.

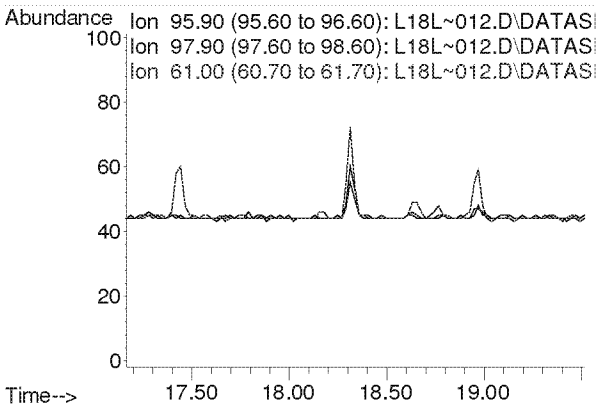


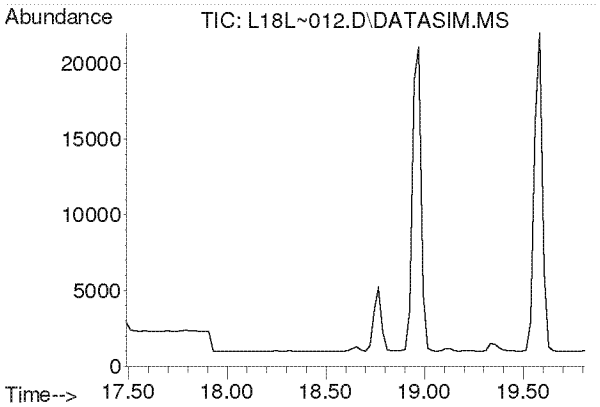
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.31 min

Lab File: L18L~012.D
Acq: 28 Dec 2018 2:46 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	63.7
61	159.2



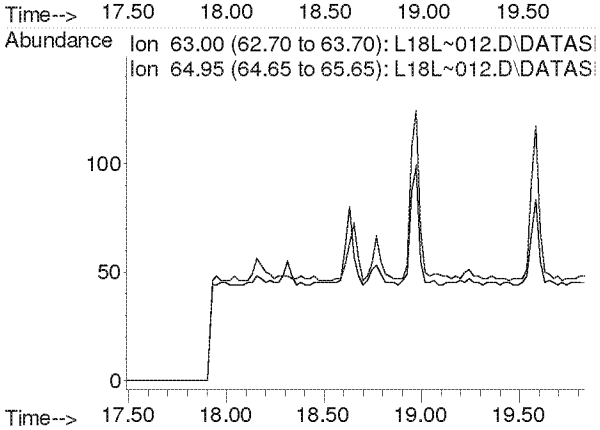


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

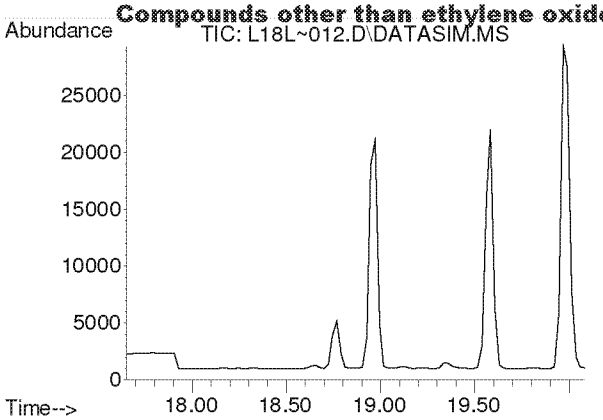
Lab File: L18L~012.D
Acq: 28 Dec 2018 2:46 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

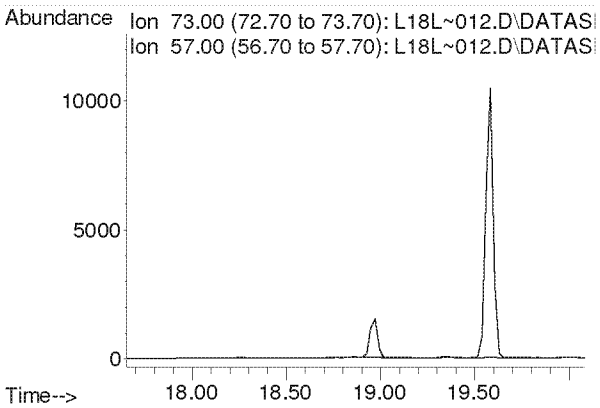


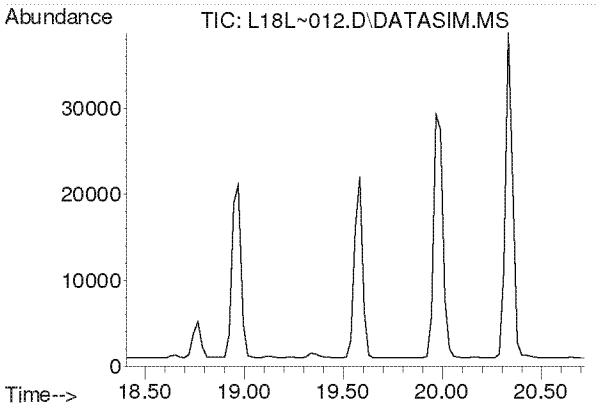
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L18L~012.D
Acq: 28 Dec 2018 2:46 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.4



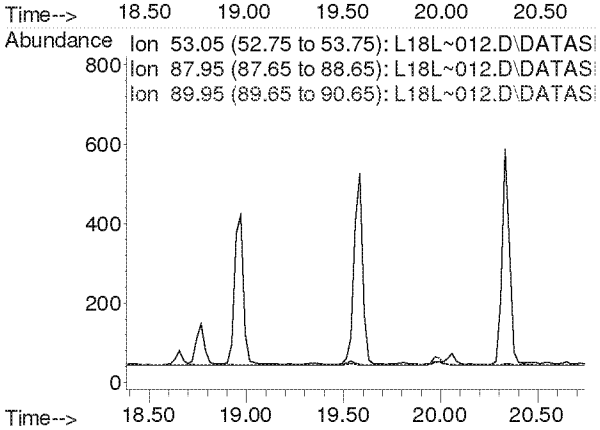


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

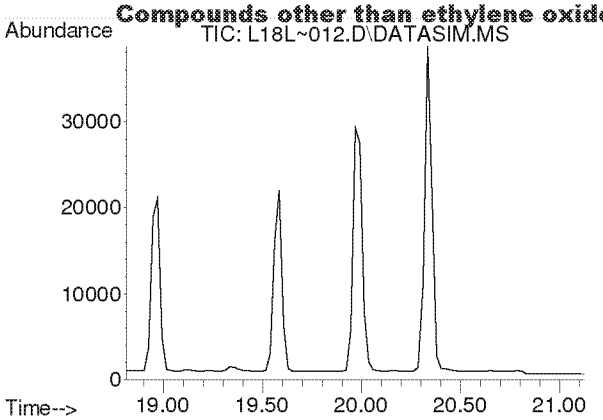
Lab File: L18L~012.D
Acq: 28 Dec 2018 2:46 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	51.8
90	16.8



Compounds other than ethylene oxide were not quantitated.

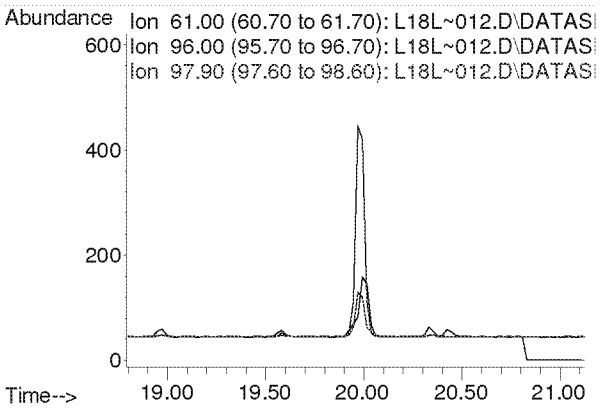


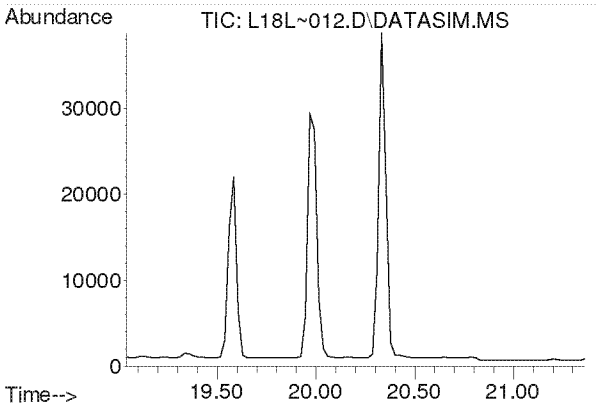
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L18L~012.D
Acq: 28 Dec 2018 2:46 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.7
98	45.2



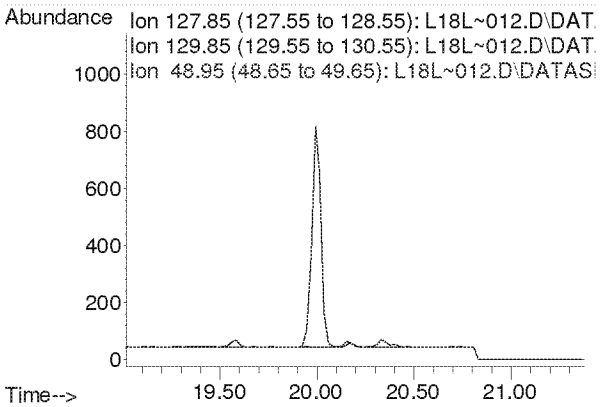


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

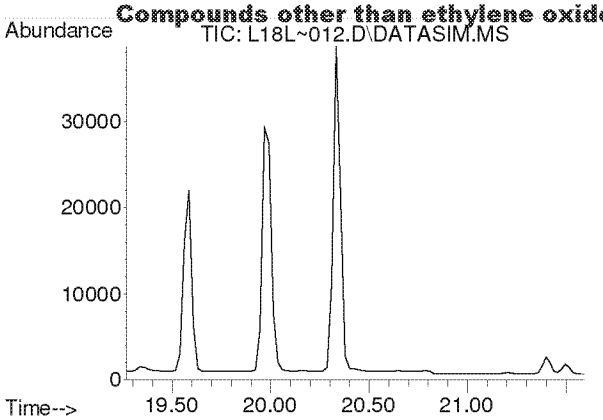
Lab File: L18L~012.D
Acq: 28 Dec 2018 2:46 am

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	171.2



Compounds other than ethylene oxide were not quantitated.

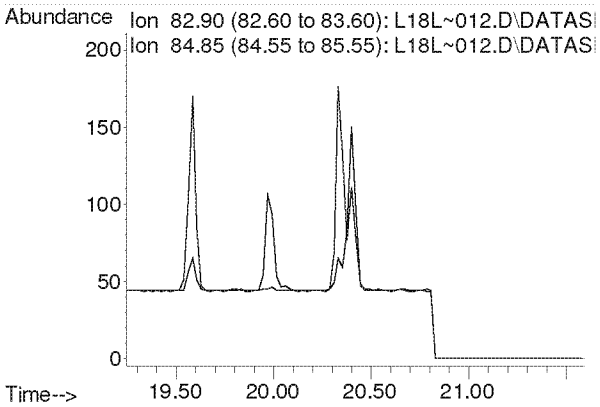


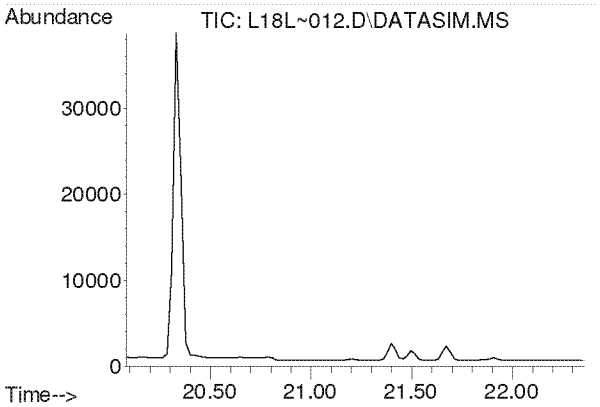
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L18L~012.D
Acq: 28 Dec 2018 2:46 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



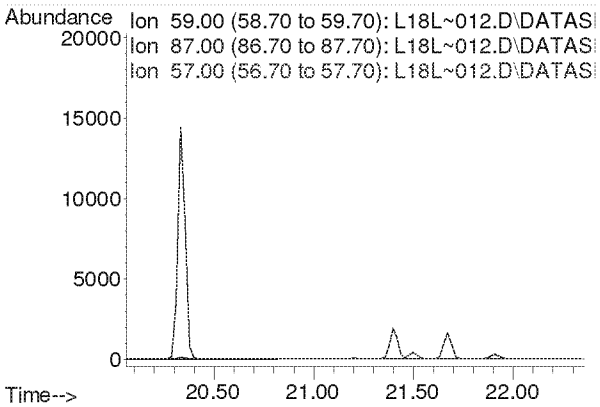


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.16 min

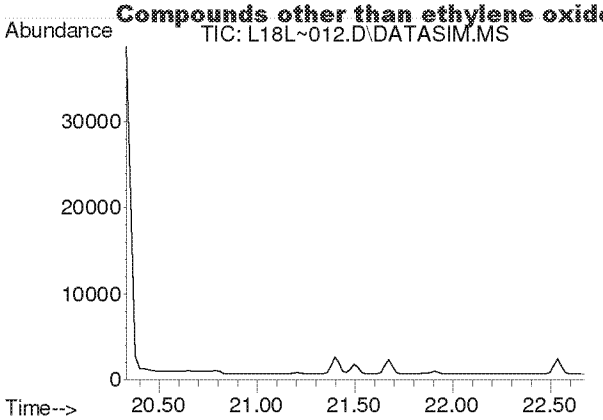
Lab File: L18L~012.D
Acq: 28 Dec 2018 2:46 am

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	37.5
57	33.8



Compounds other than ethylene oxide were not quantitated.

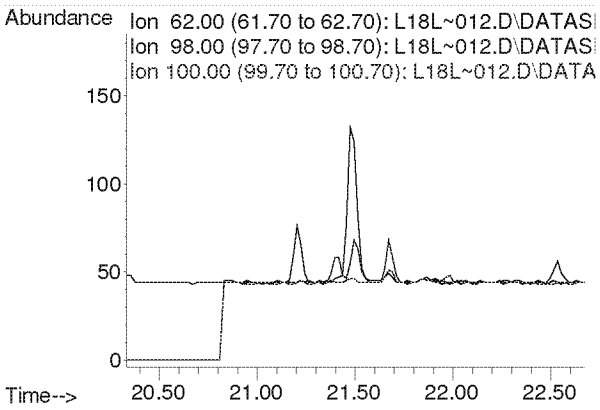


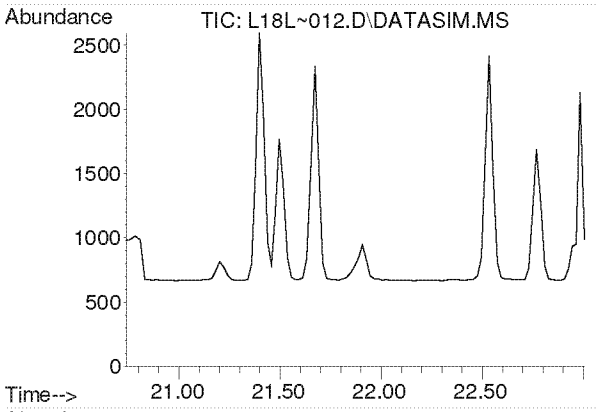
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L18L~012.D
Acq: 28 Dec 2018 2:46 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.4
100	4.0



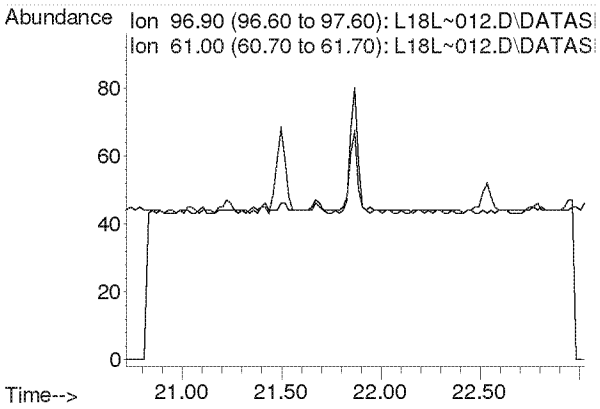


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

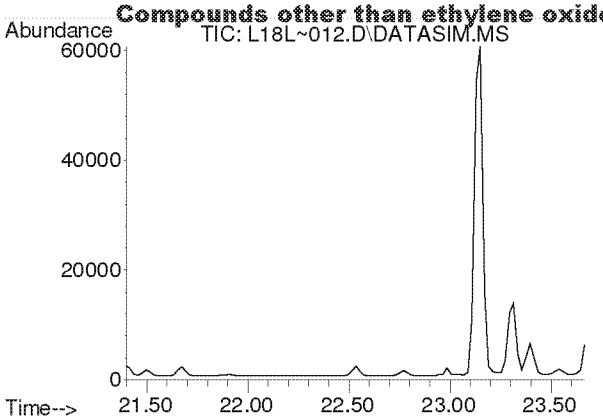
Lab File: L18L~012.D
Acq: 28 Dec 2018 2:46 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	60.5



Compounds other than ethylene oxide were not quantitated.

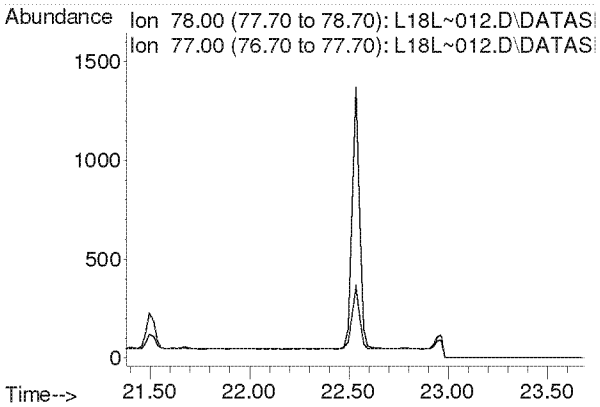


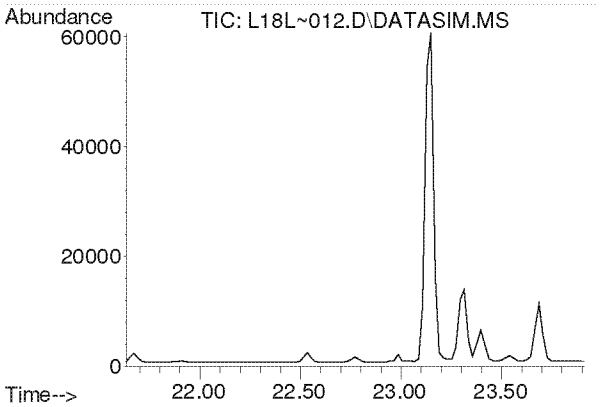
#31
Benzene
Concen: N.D.
Expected RT: 22.54 min

Lab File: L18L~012.D
Acq: 28 Dec 2018 2:46 am

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.7



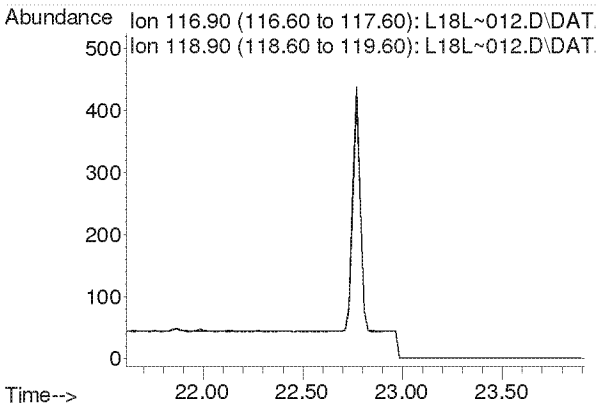


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

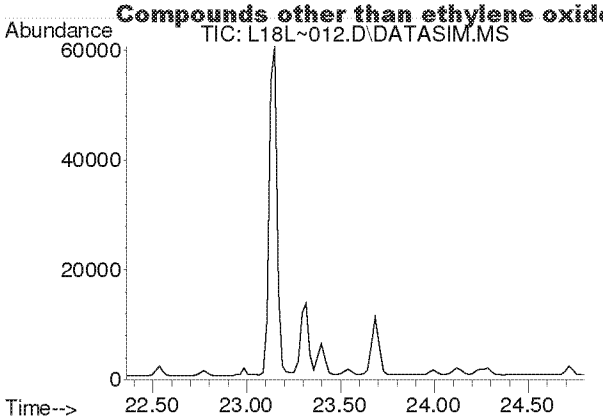
Lab File: L18L~012.D
Acq: 28 Dec 2018 2:46 am

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.5



Compounds other than ethylene oxide were not quantitated.

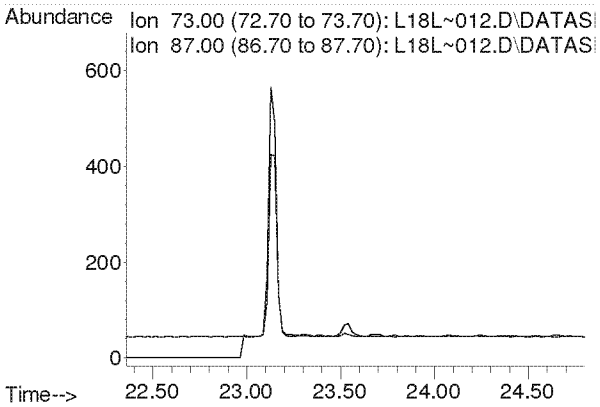


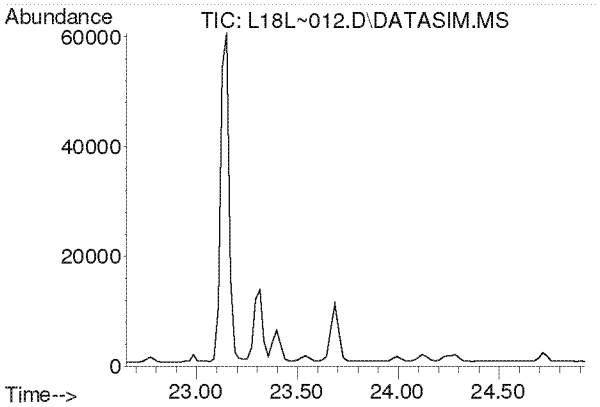
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.50 min

Lab File: L18L~012.D
Acq: 28 Dec 2018 2:46 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	24.9



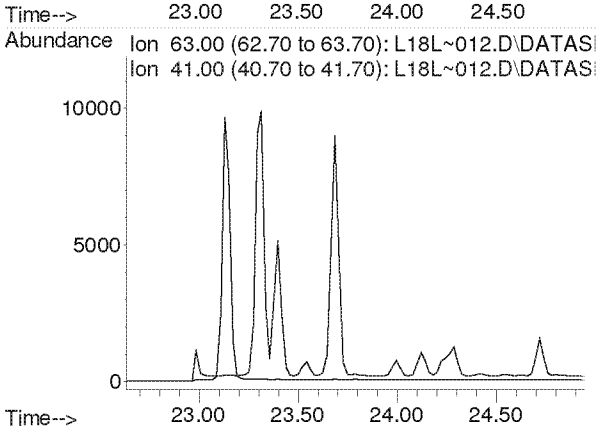


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

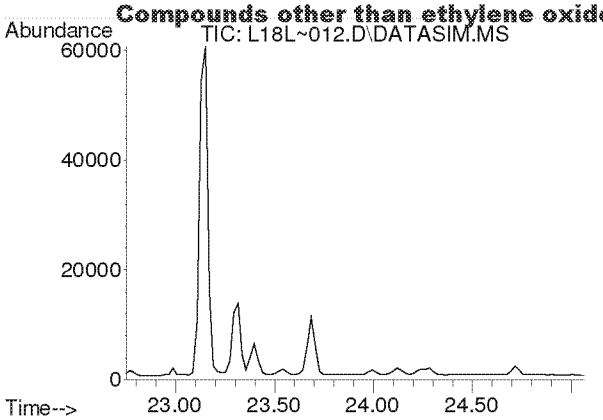
Lab File: L18L~012.D
Acq: 28 Dec 2018 2:46 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	212.8



Compounds other than ethylene oxide were not quantitated.

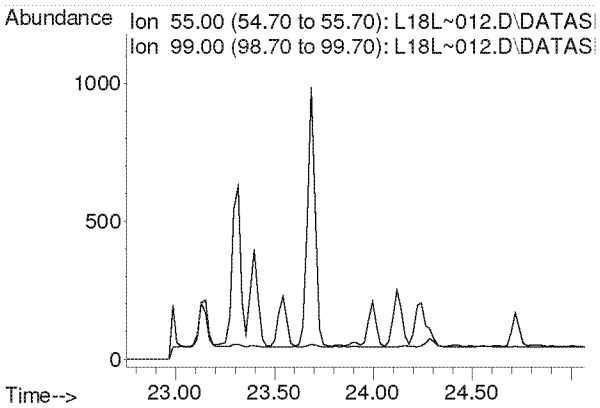


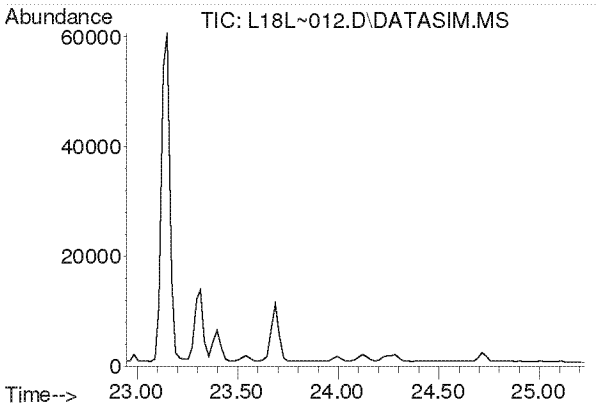
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.87 min

Lab File: L18L~012.D
Acq: 28 Dec 2018 2:46 am

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.1



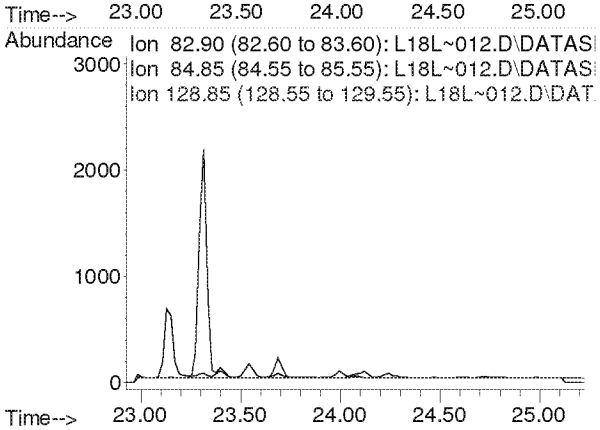


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

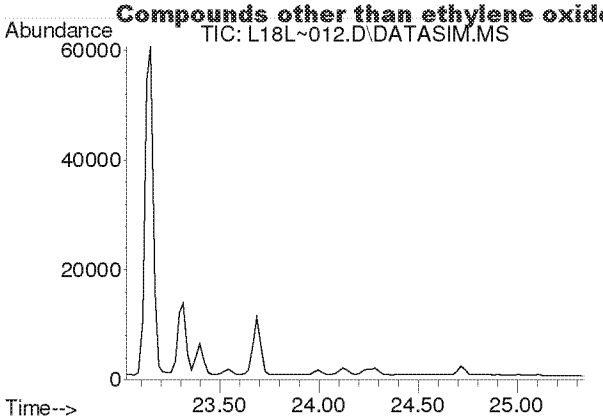
Lab File: L18L~012.D
Acq: 28 Dec 2018 2:46 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.0
129	12.4



Compounds other than ethylene oxide were not quantitated.

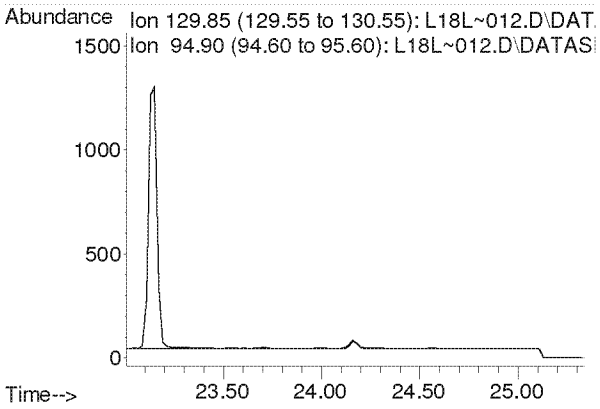


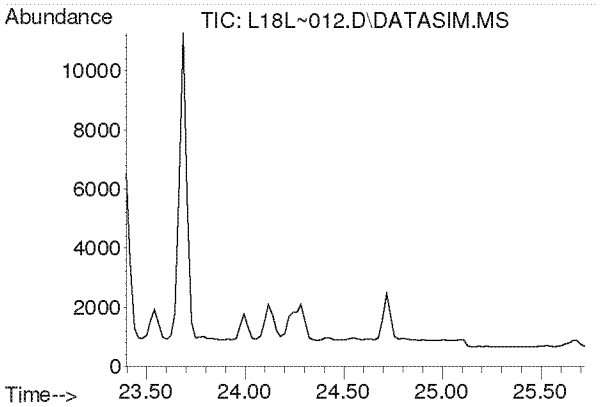
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.16 min

Lab File: L18L~012.D
Acq: 28 Dec 2018 2:46 am

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	110.3



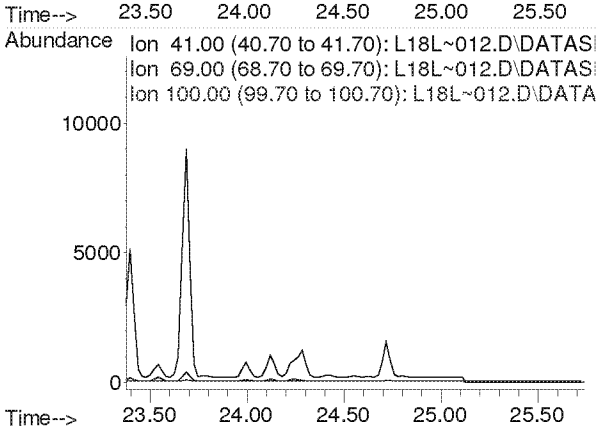


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

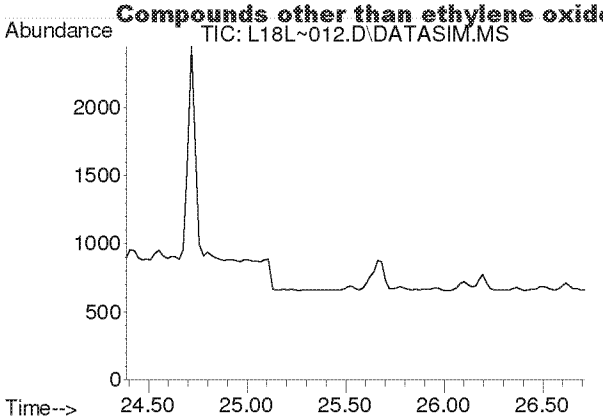
Lab File: L18L~012.D
Acq: 28 Dec 2018 2:46 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	19.9
100	5.2



Compounds other than ethylene oxide were not quantitated.

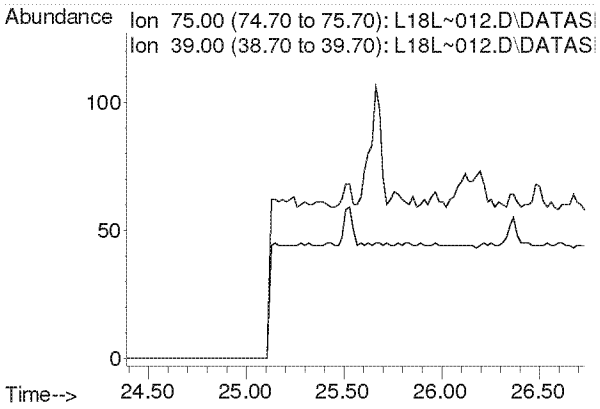


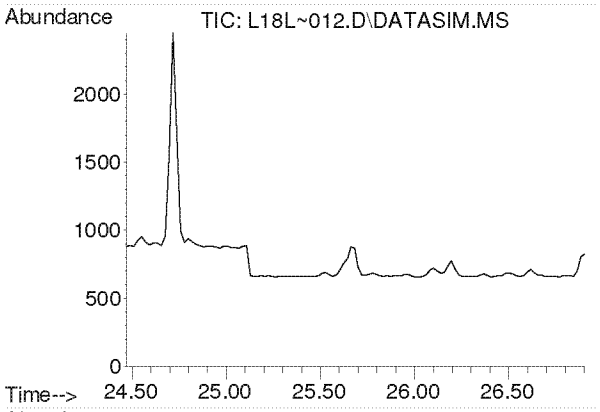
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L18L~012.D
Acq: 28 Dec 2018 2:46 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.4



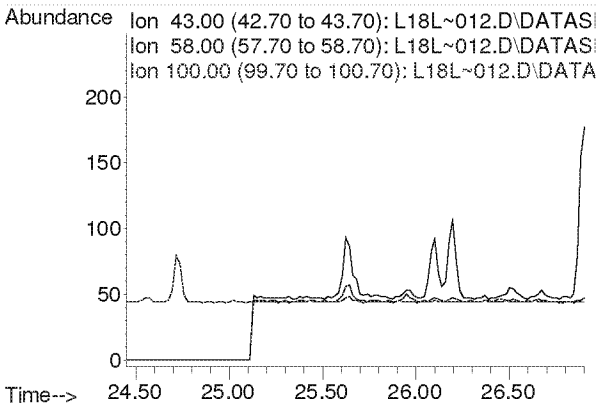


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.61 min

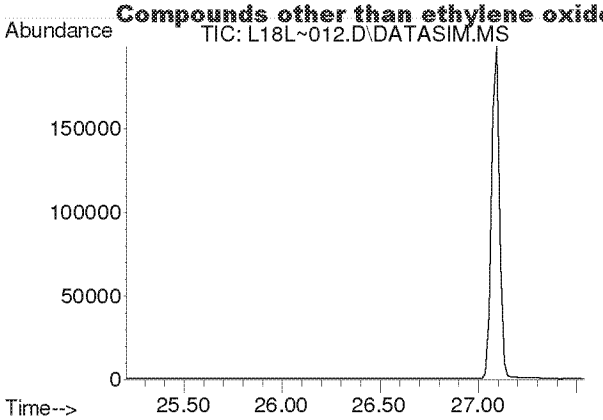
Lab File: L18L~012.D
Acq: 28 Dec 2018 2:46 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	34.2
100	7.9



Compounds other than ethylene oxide were not quantitated.

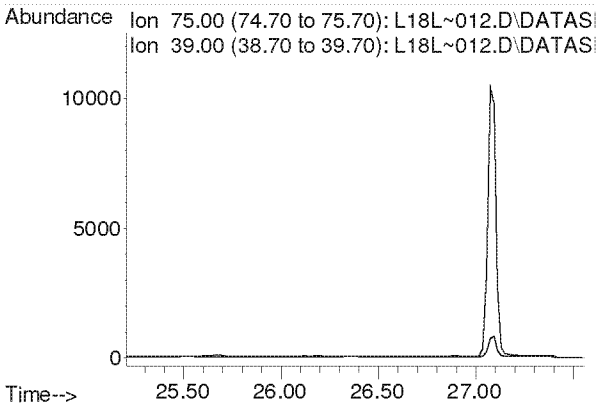


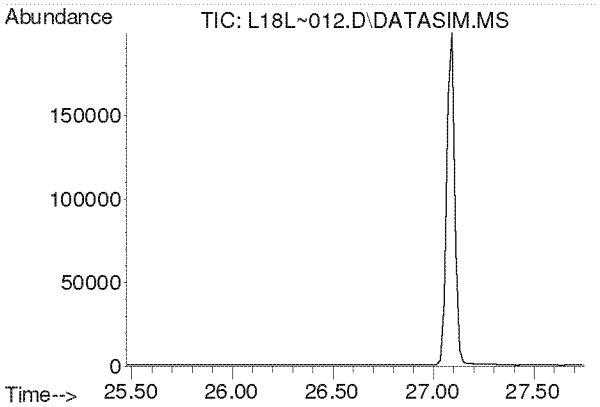
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.35 min

Lab File: L18L~012.D
Acq: 28 Dec 2018 2:46 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	50.9



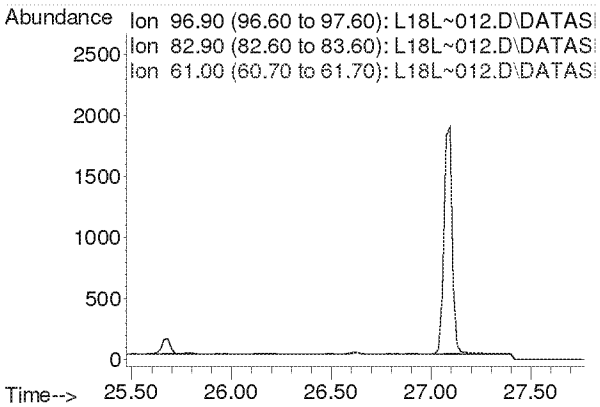


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

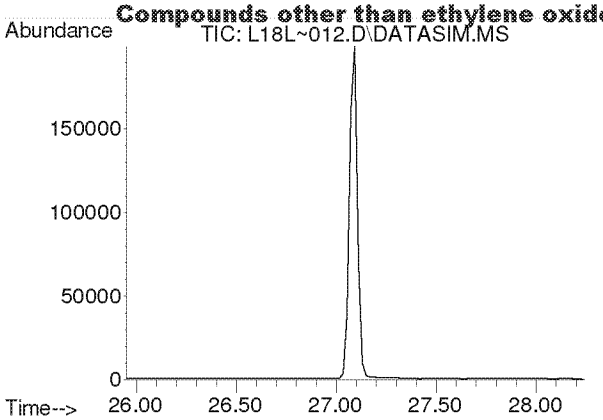
Lab File: L18L~012.D
Acq: 28 Dec 2018 2:46 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	96.1
61	63.5



Compounds other than ethylene oxide were not quantitated.

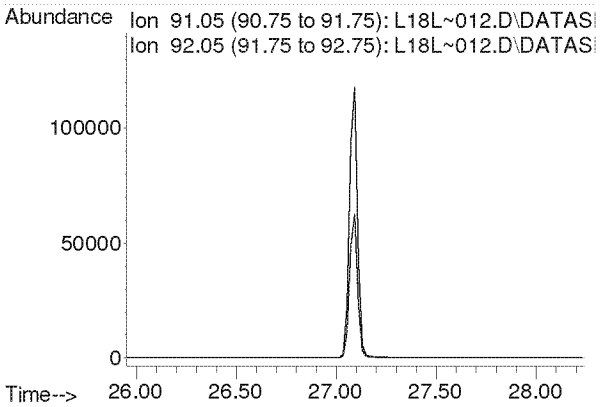


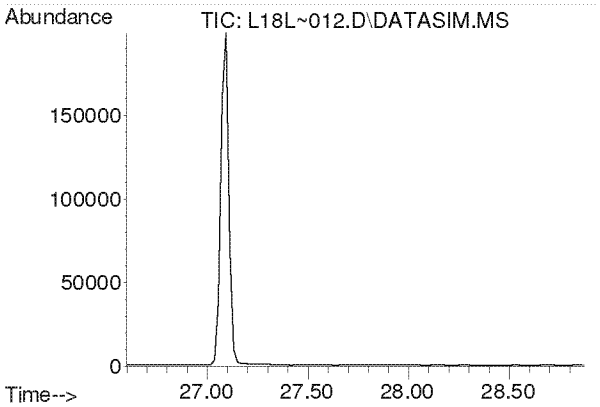
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L18L~012.D
Acq: 28 Dec 2018 2:46 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.6



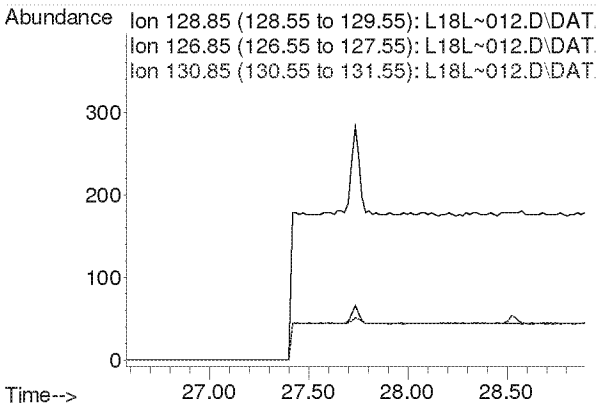


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.73 min

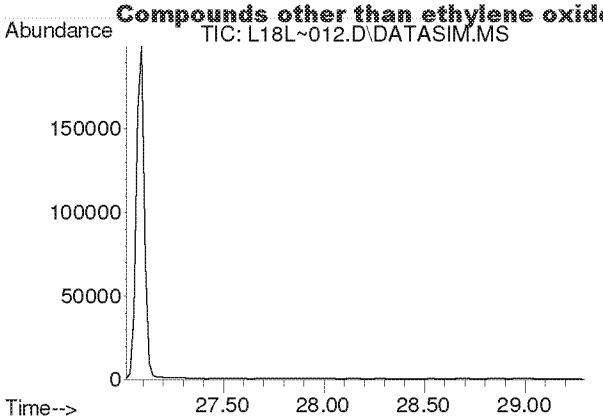
Lab File: L18L~012.D
Acq: 28 Dec 2018 2:46 am

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.2
131	6.0



Compounds other than ethylene oxide were not quantitated.

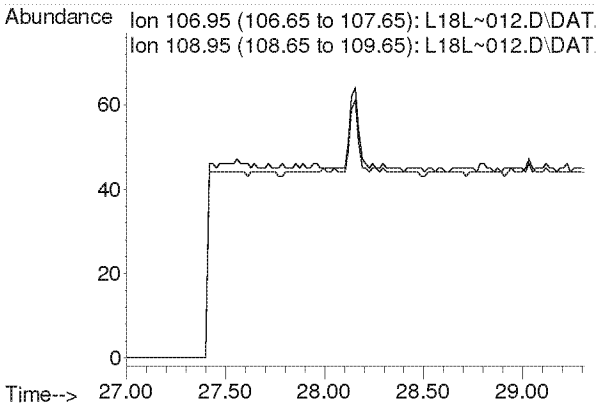


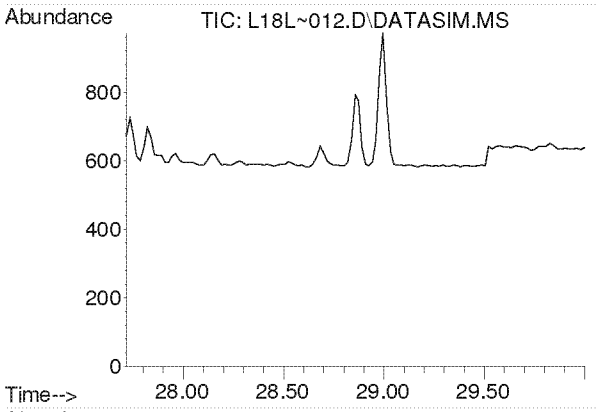
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.16 min

Lab File: L18L~012.D
Acq: 28 Dec 2018 2:46 am

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.5



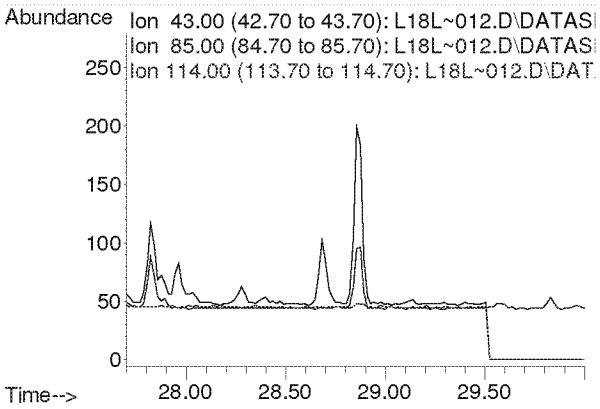


#47
n-Octane
Concen: N.D.
Expected RT: 28.86 min

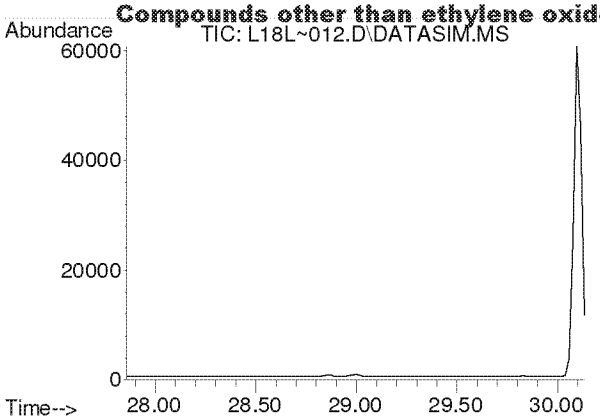
Lab File: L18L~012.D
Acq: 28 Dec 2018 2:46 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	36.0
114	2.2



Compounds other than ethylene oxide were not quantitated.

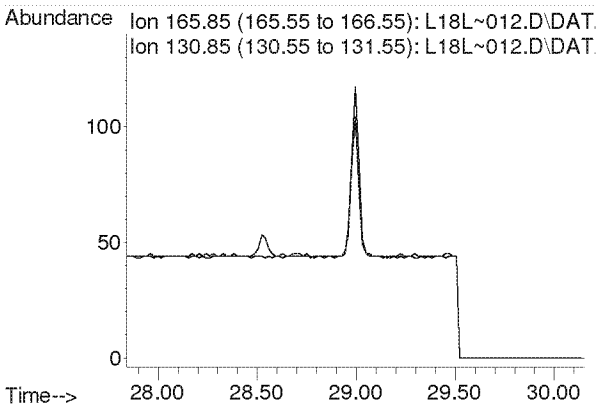


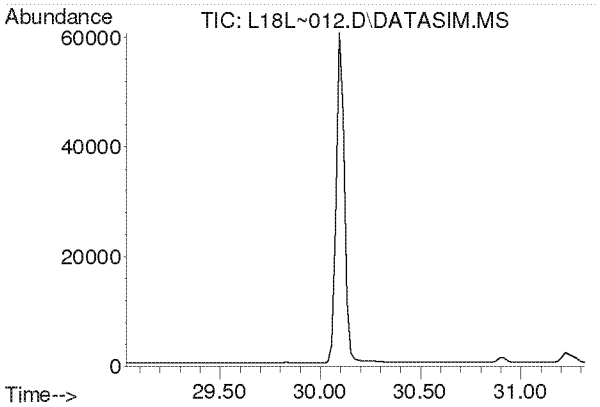
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L18L~012.D
Acq: 28 Dec 2018 2:46 am

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	78.2



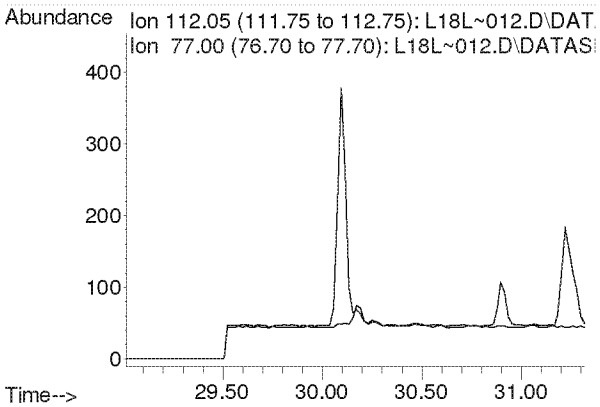


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.17 min

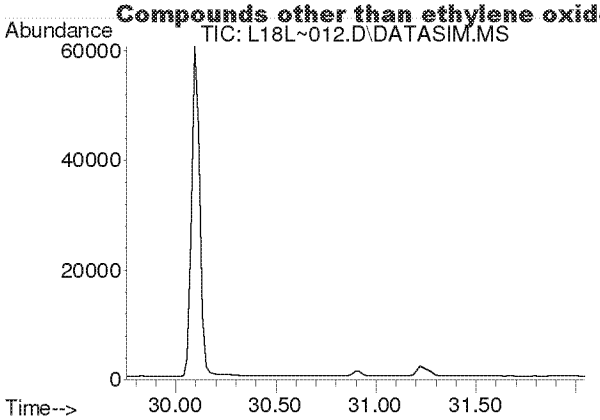
Lab File: L18L~012.D
Acq: 28 Dec 2018 2:46 am

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	63.0



Compounds other than ethylene oxide were not quantitated.

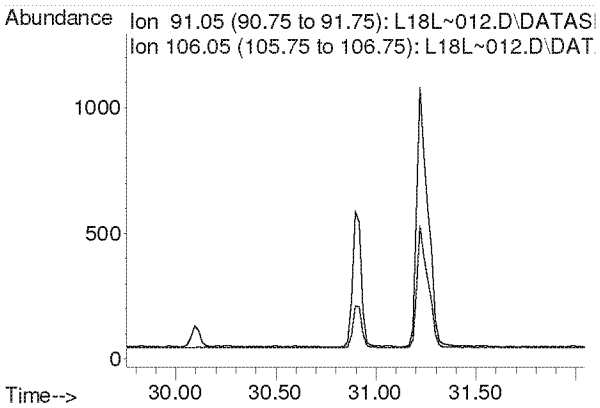


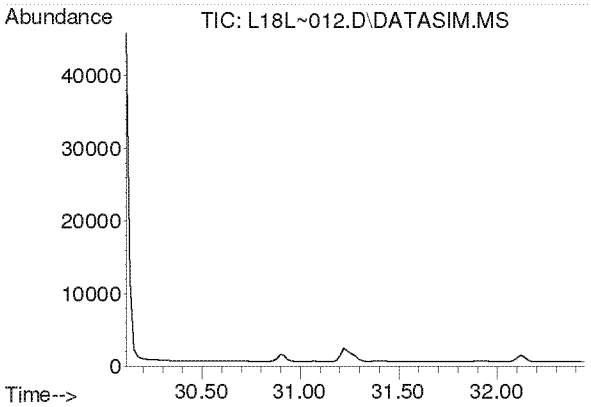
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.90 min

Lab File: L18L~012.D
Acq: 28 Dec 2018 2:46 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	31.8



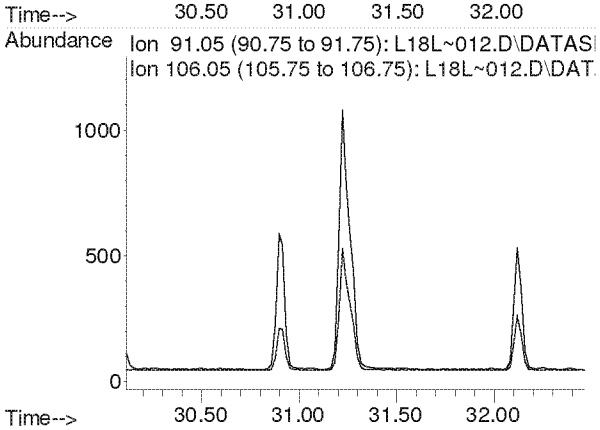


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.26 min

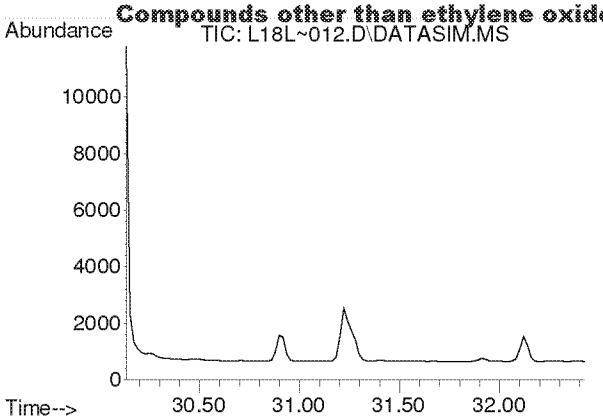
Lab File: L18L~012.D
Acq: 28 Dec 2018 2:46 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.4



Compounds other than ethylene oxide were not quantitated.

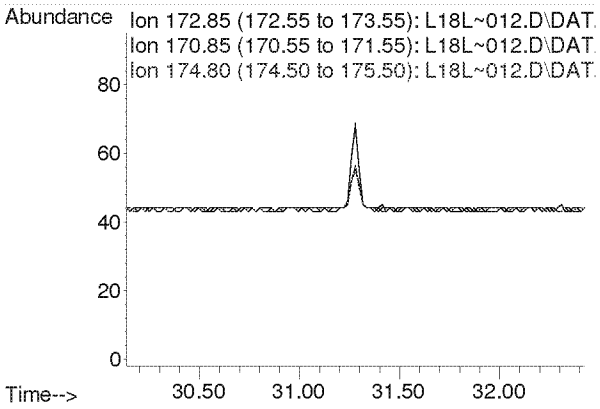


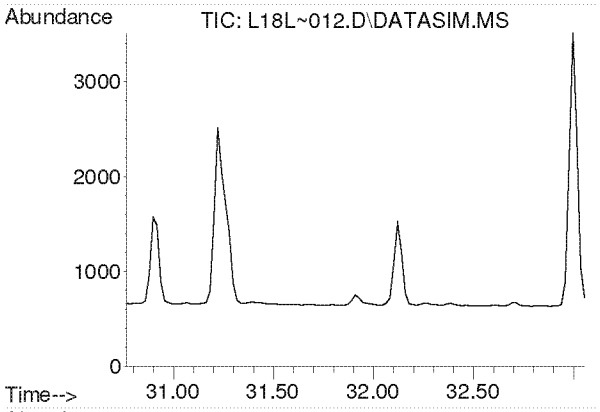
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L18L~012.D
Acq: 28 Dec 2018 2:46 am

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	49.0



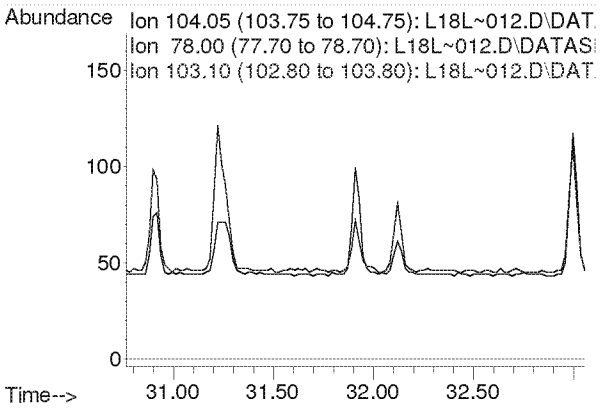


#53
Styrene
Concen: N.D.
Expected RT: 31.91 min

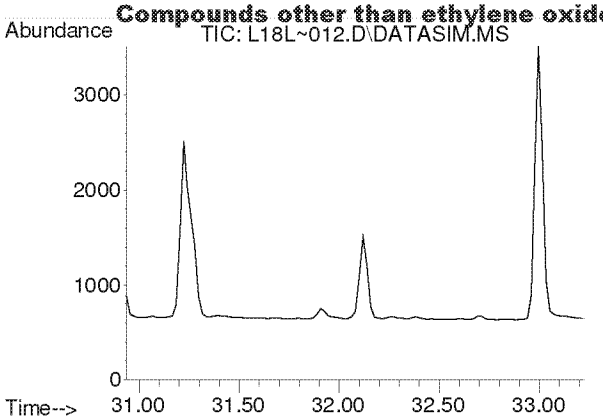
Lab File: L18L~012.D
Acq: 28 Dec 2018 2:46 am

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	45.6
103	0.0



Compounds other than ethylene oxide were not quantitated.

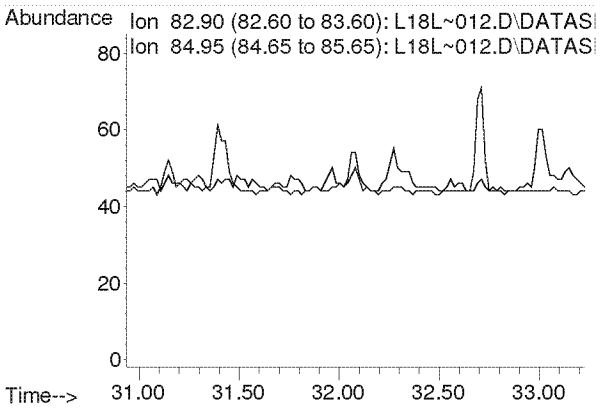


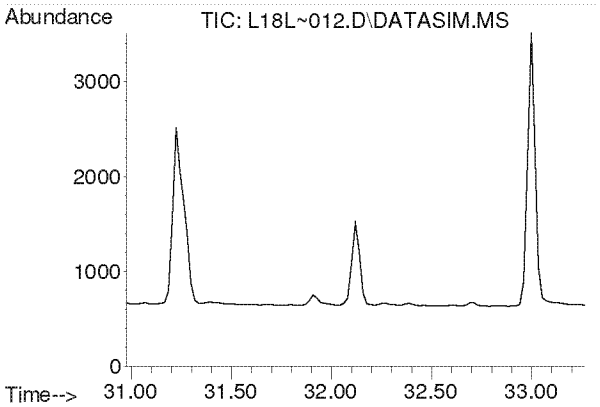
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L18L~012.D
Acq: 28 Dec 2018 2:46 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.9



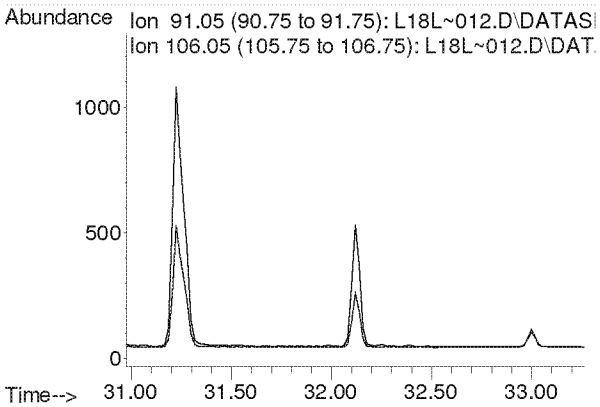


#55
o-Xylene
Concen: N.D.
Expected RT: 32.12 min

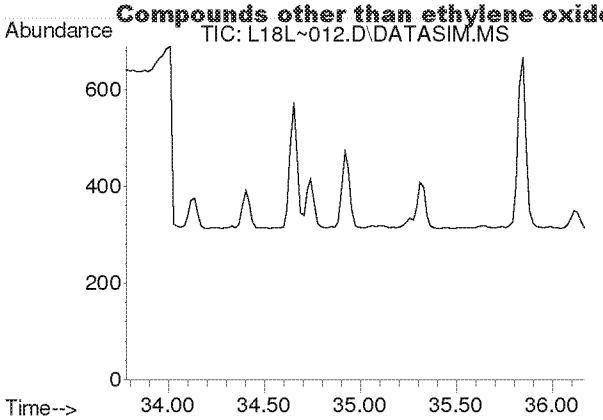
Lab File: L18L~012.D
Acq: 28 Dec 2018 2:46 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.2



Compounds other than ethylene oxide were not quantitated.

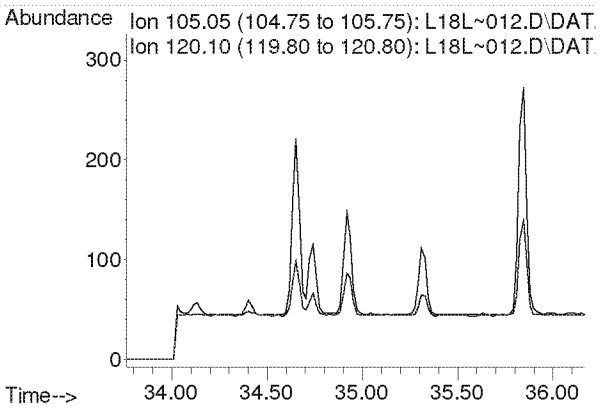


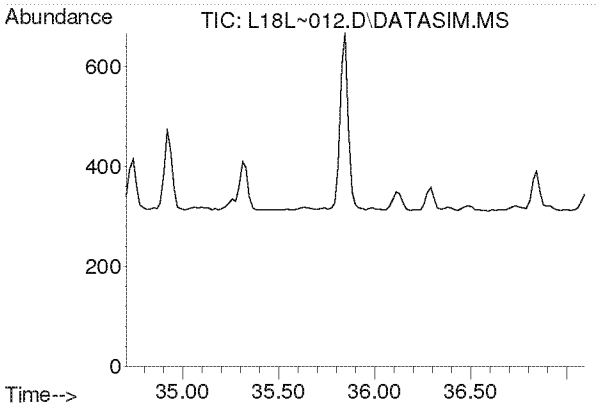
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.92 min

Lab File: L18L~012.D
Acq: 28 Dec 2018 2:46 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	45.0



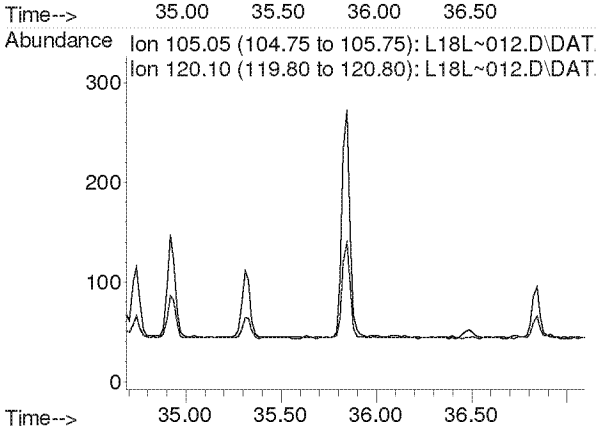


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

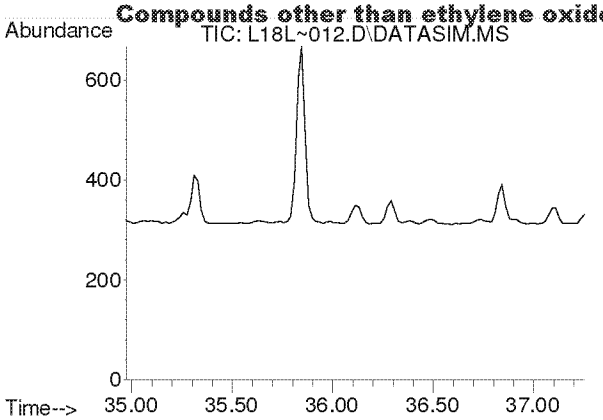
Lab File: L18L~012.D
Acq: 28 Dec 2018 2:46 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	42.8



Compounds other than ethylene oxide were not quantitated.

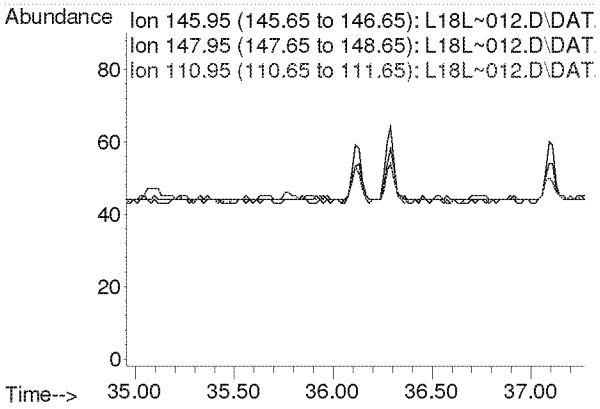


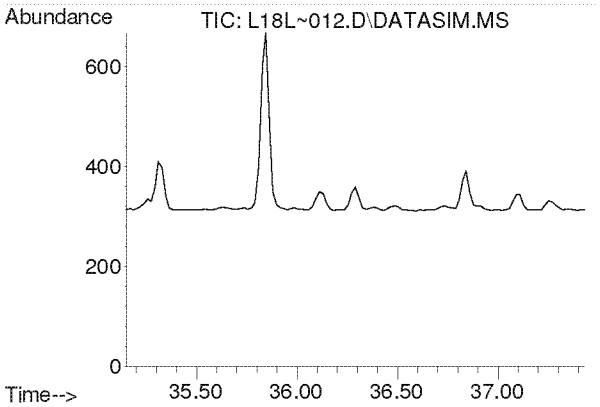
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.11 min

Lab File: L18L~012.D
Acq: 28 Dec 2018 2:46 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.5



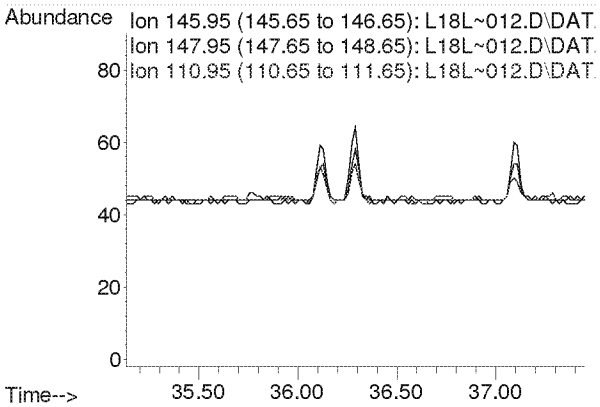


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

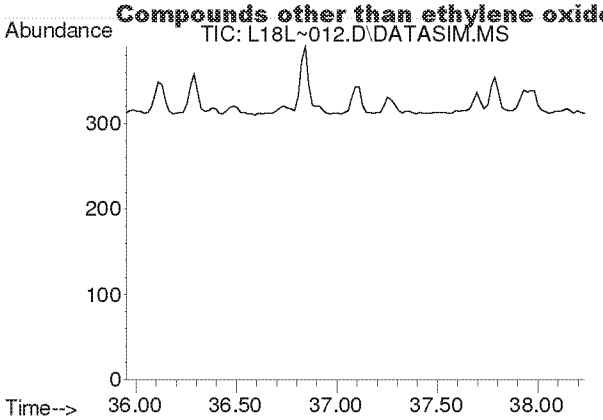
Lab File: L18L~012.D
Acq: 28 Dec 2018 2:46 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	39.5



Compounds other than ethylene oxide were not quantitated.

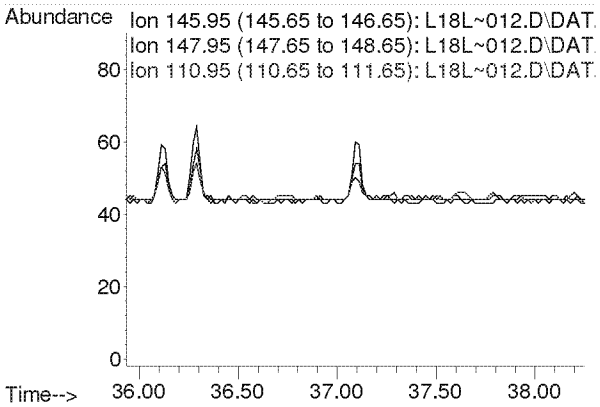


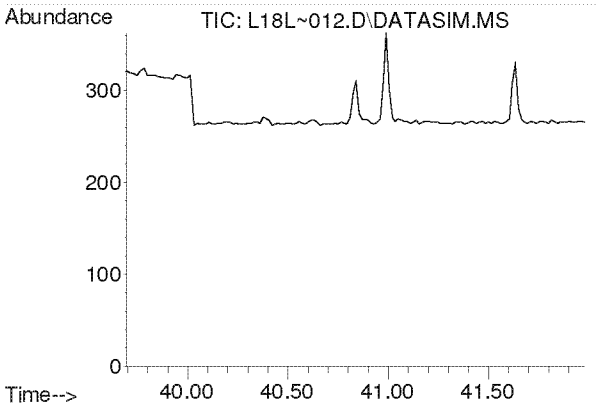
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.09 min

Lab File: L18L~012.D
Acq: 28 Dec 2018 2:46 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	41.4



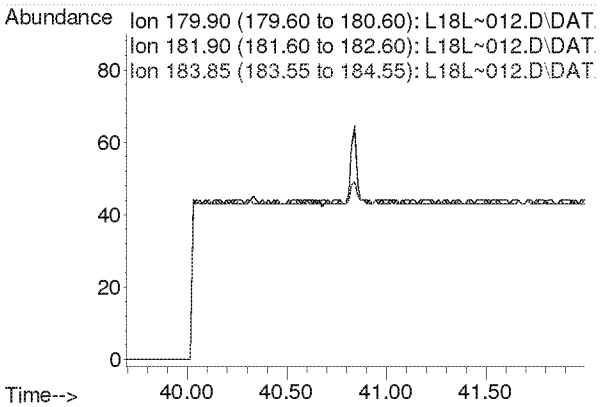


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

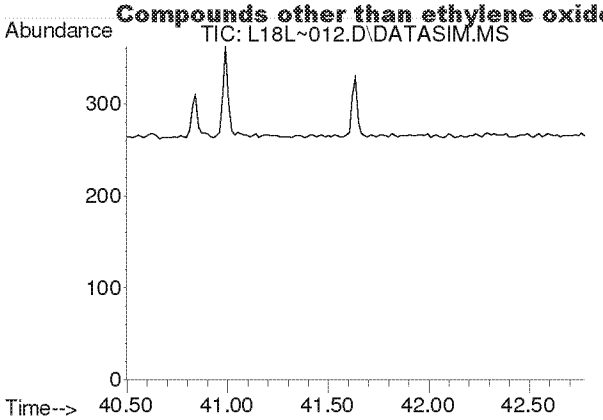
Lab File: L18L~012.D
Acq: 28 Dec 2018 2:46 am

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	95.1
184	30.7



Compounds other than ethylene oxide were not quantitated.

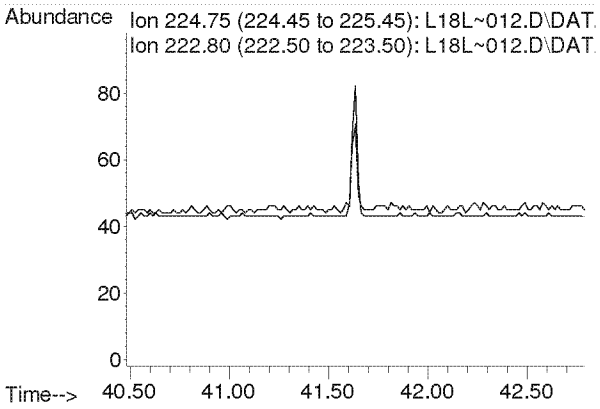


#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.64 min

Lab File: L18L~012.D
Acq: 28 Dec 2018 2:46 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\L18L~\
Data File : L18L~013.D
Acq On : 28 Dec 2018 3:48 am
Operator : MAH
Sample : 8121130-13
Misc : VILLAGE HALL C2 12/8/18
ALS Vial : 13 Sample Multiplier: 1

A-MR

Quant Time: Jan 03 12:37:32 2019
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.970	66	55501	4.7700 ppbv	-0.02
29) IS-1,4-Difluorobenzene	23.130	114	134145	4.9900 ppbv	-0.02
43) IS-Chlorobenzene-d5	30.097	117	100486	4.7400 ppbv	0.00

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. d	
8) 1,3-Butadiene	0.000	54	0	N.D. d	
9) Ethylene oxide	12.410	29	1508m	0.4546 ppbv	
10) Bromomethane	0.000	94	0	N.D. d	
11) Chloroethane	0.000	64	0	N.D. 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. 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. d	
21) 1,1-Dichloroethane	0.000	63	0	N.D. 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. d	
26) Chloroform	0.000	83	0	N.D. d	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D. d	
28) 1,2-Dichloroethane	0.000	62	0	N.D. d	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D. 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. 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. d	
37) Trichloroethylene	0.000	130	0	N.D. d	
38) Methyl Methacrylate	0.000	41	0	N.D. d	
39) cis-1,3-Dichloropropene	0.000	75	0	N.D. d	
40) Methyl Isobutyl Ketone	0.000	43	0	N.D. d	
41) trans-1,3-Dichloropropene	0.000	75	0	N.D. d	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D. d	
44) Toluene	0.000	91	0	N.D. d	
45) Dibromochloromethane	0.000	129	0	N.D. d	
46) 1,2-Dibromoethane	0.000	107	0	N.D. 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. d	
50) Ethylbenzene	0.000	91	0	N.D. d	

Compounds other than ethylene oxide were not quantitated.

Quantification Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L18L~\
Data File : L18L~013.D
Acq On : 28 Dec 2018 3:48 am
Operator : MAH
Sample : 8121130-13
Misc : VILLAGE HALL C2 12/8/18
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jan 03 12:37:32 2019
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
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. d	
53) Styrene	0.000	104	0	N.D. d	
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D. 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. d	
59) p-Dichlorobenzene	0.000	146	0	N.D. d	
60) o-Dichlorobenzene	0.000	146	0	N.D. d	
61) 1,2,4-Trichlorobenzene	0.000	180	0	N.D. d	
62) Hexachloro-1,3-butadiene	0.000	225	0	N.D. d	

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

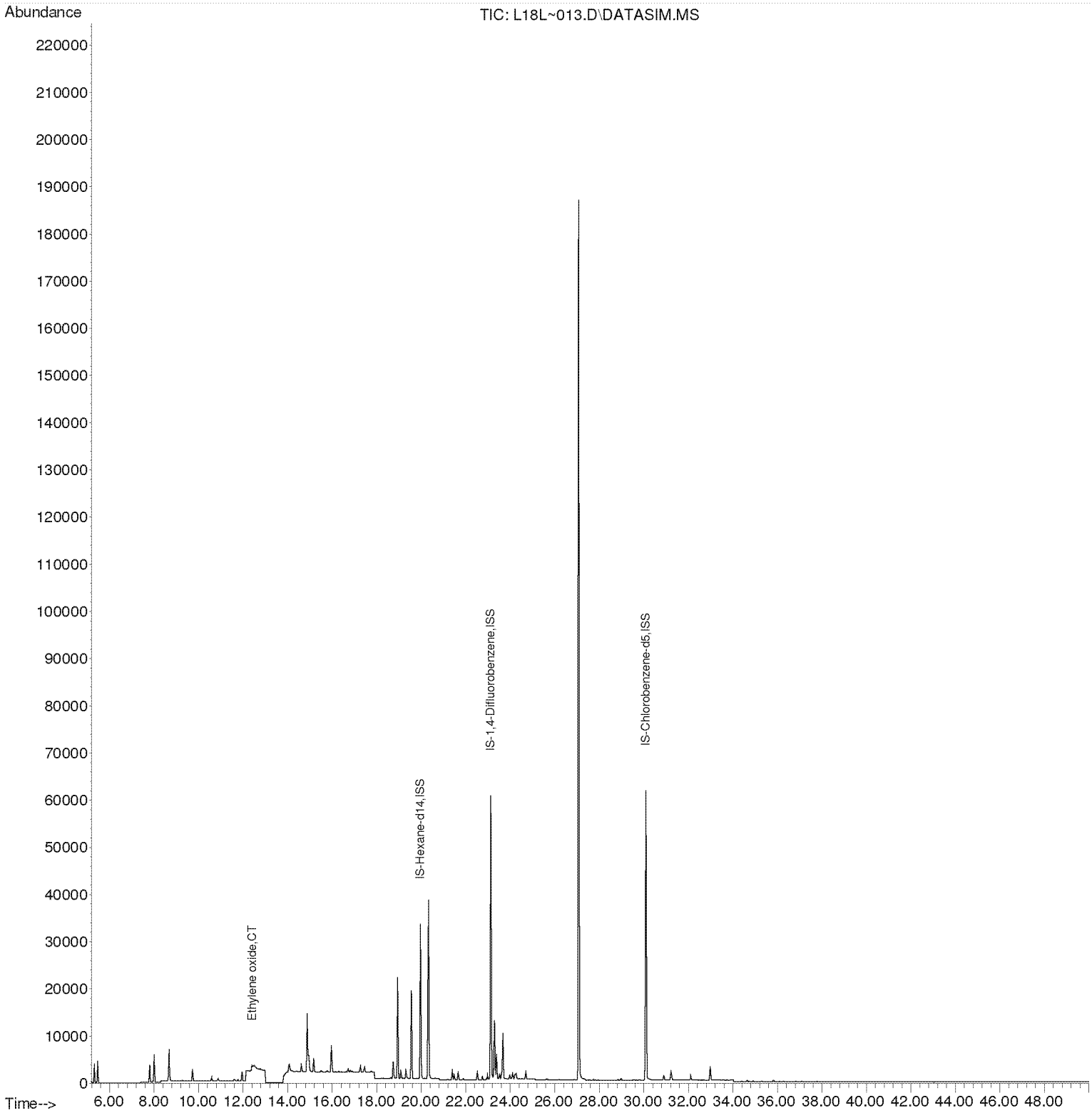
ED_002475_00000321-00349

Quantitation Report (QT Reviewed)

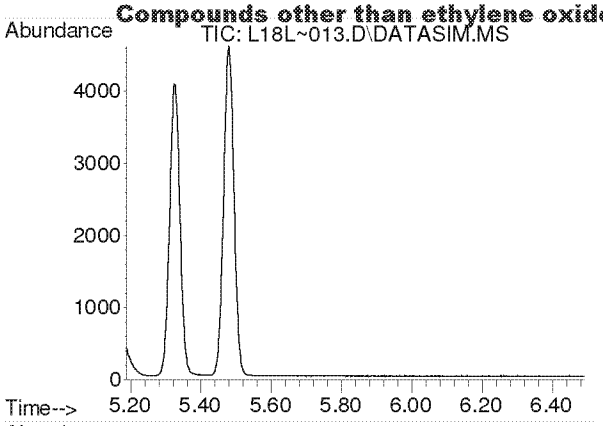
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L18L~\
Data File : L18L~013.D
Acq On : 28 Dec 2018 3:48 am
Operator : MAH
Sample : 8121130-13
Misc : VILLAGE HALL C2 12/8/18
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jan 03 12:20:24 2019
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
Response via : Initial Calibration



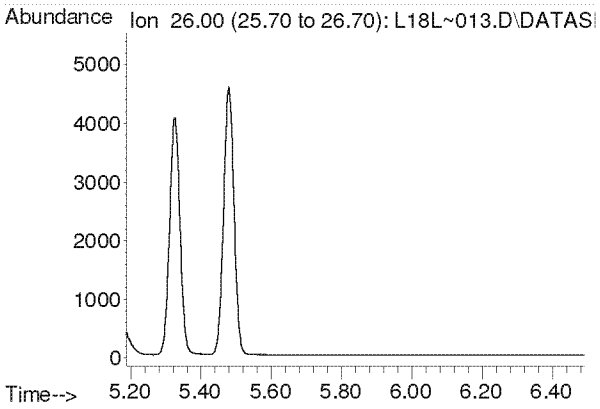
Compounds other than ethylene oxide were not quantitated.

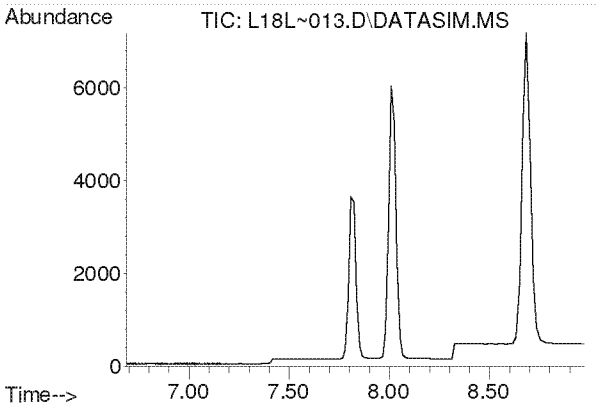


#2
Acetylene
Concen: N.D.
Expected RT: 5.42 min

Lab File: L18L~013.D
Acq: 28 Dec 2018 3:48 am

Tgt Ion: 26



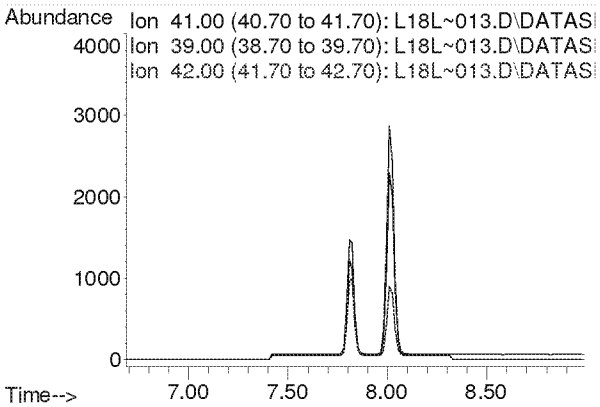


#3
Propylene
Concen: N.D.
Expected RT: 7.84 min

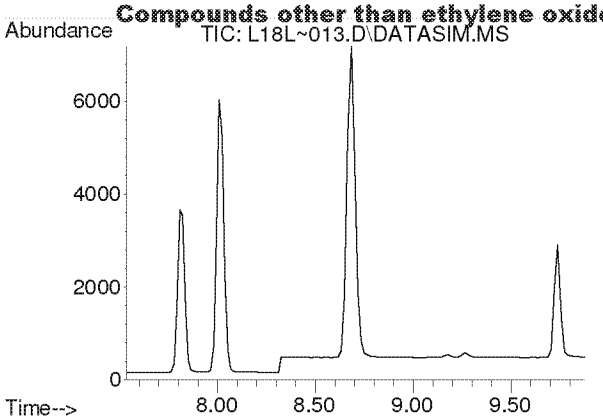
Lab File: L18L~013.D
Acq: 28 Dec 2018 3:48 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	78.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

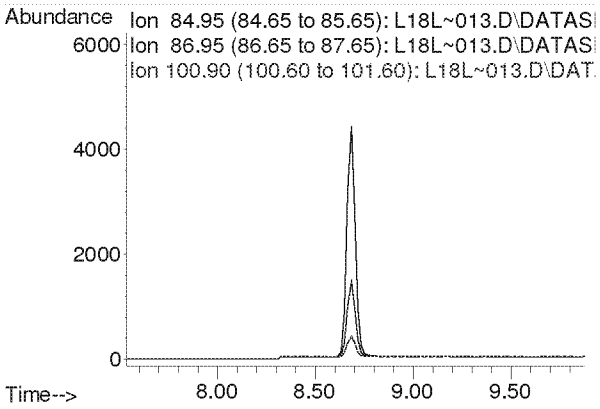


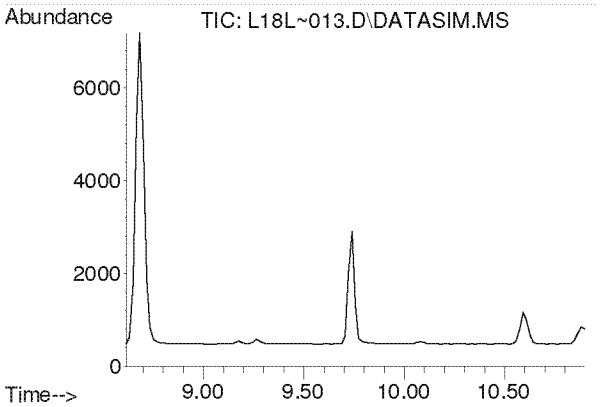
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L18L~013.D
Acq: 28 Dec 2018 3:48 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	8.9



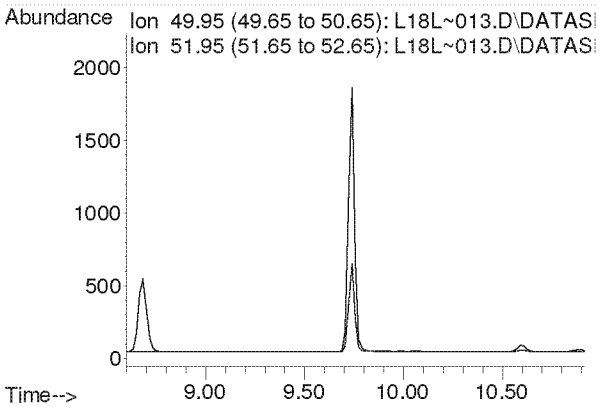


#5
Chloromethane
Concen: N.D.
Expected RT: 9.76 min

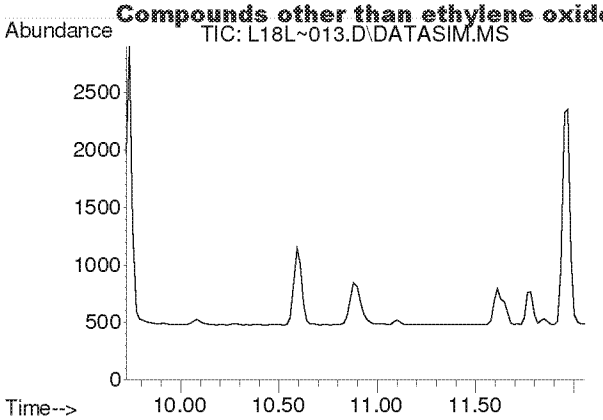
Lab File: L18L~013.D
Acq: 28 Dec 2018 3:48 am

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

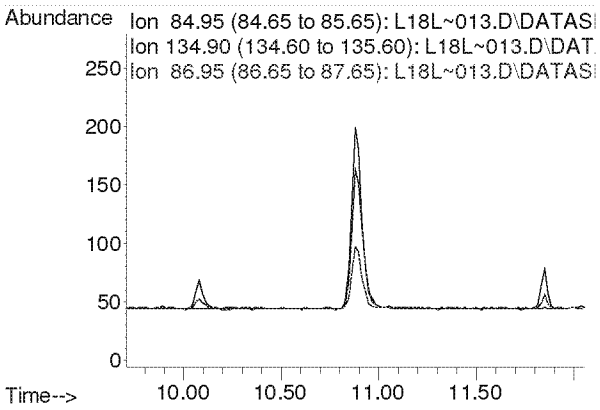


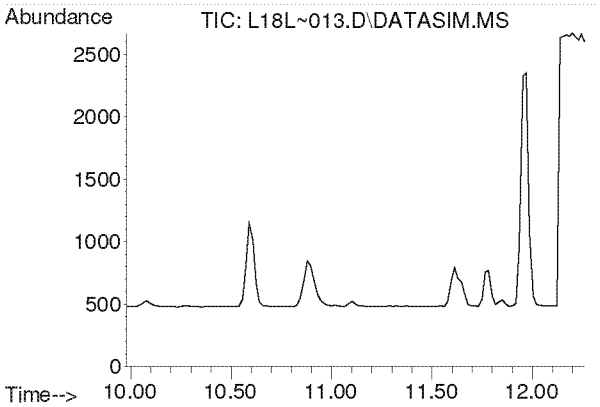
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L18L~013.D
Acq: 28 Dec 2018 3:48 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.1
87	32.1



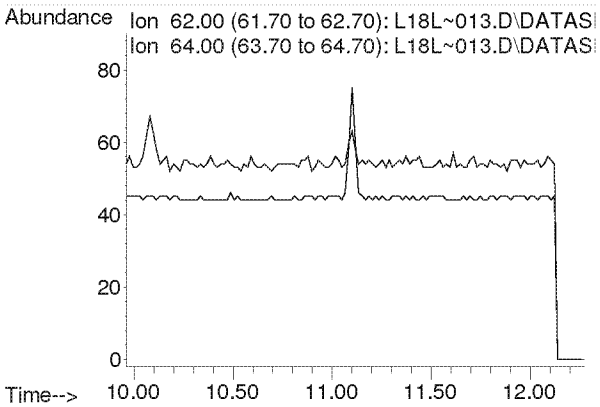


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

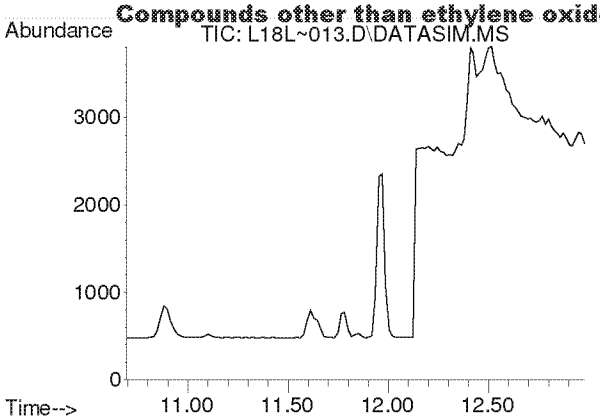
Lab File: L18L~013.D
Acq: 28 Dec 2018 3:48 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.8



Compounds other than ethylene oxide were not quantitated.

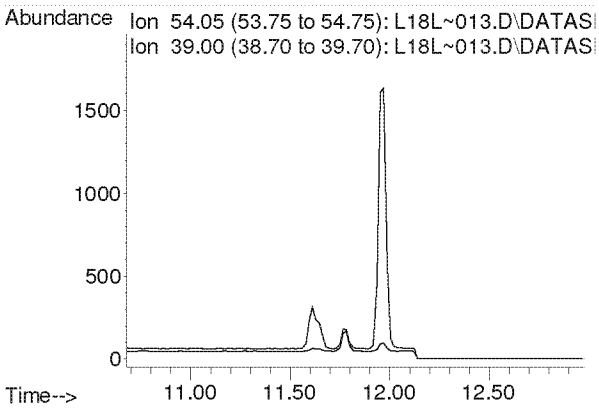


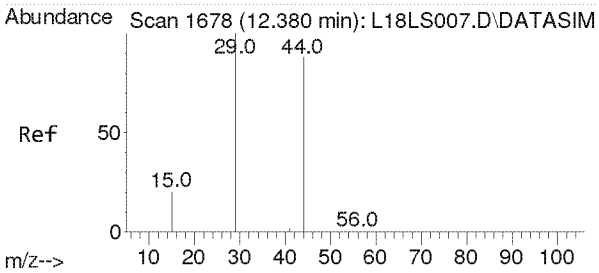
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L18L~013.D
Acq: 28 Dec 2018 3:48 am

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	105.4

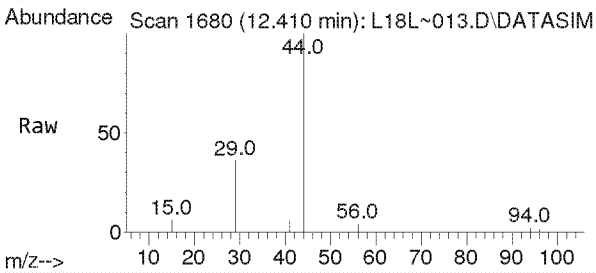


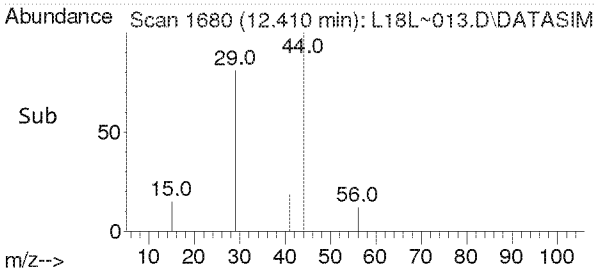


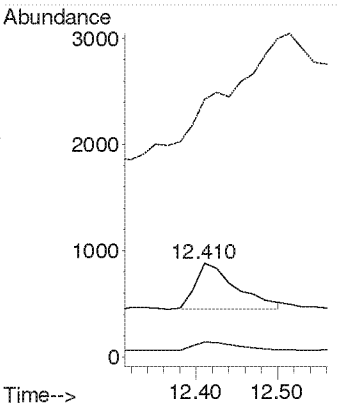
#9
Ethylene oxide
Concen: 0.455 ppbv m
RT: 12.410 min Scan# 1680
Delta R.T. 0.030 min
Lab File: L18L~013.D
Acq: 28 Dec 2018 3:48 am

Tgt Ion: 29 Resp: 1508

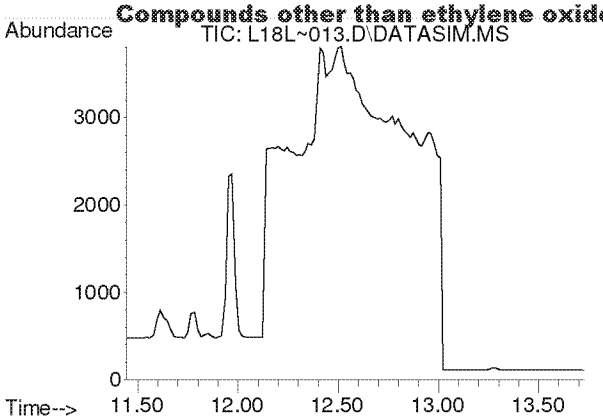
Ion	Ratio	Lower	Upper
29	100		
15	0.0	16.2	24.4#
44	0.0	72.0	108.0#







Compounds other than ethylene oxide were not quantitated.

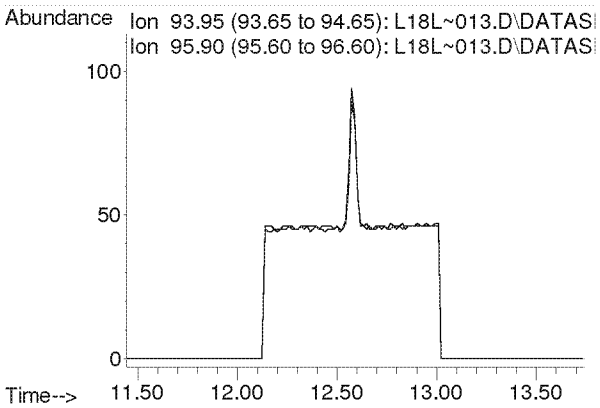


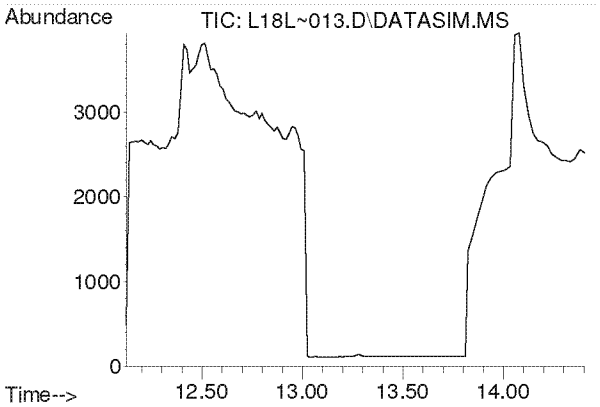
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L18L~013.D
Acq: 28 Dec 2018 3:48 am

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	93.9



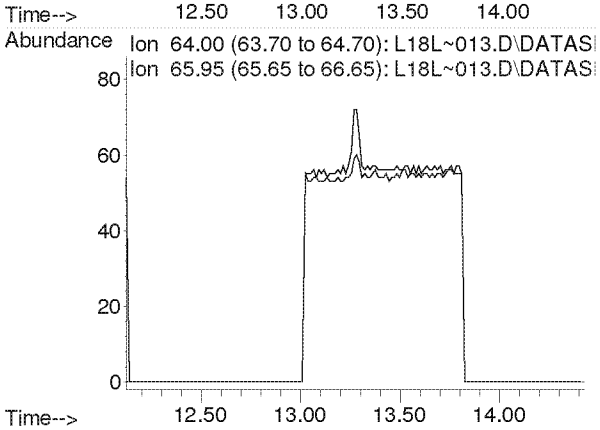


#11
Chloroethane
Concen: N.D.
Expected RT: 13.27 min

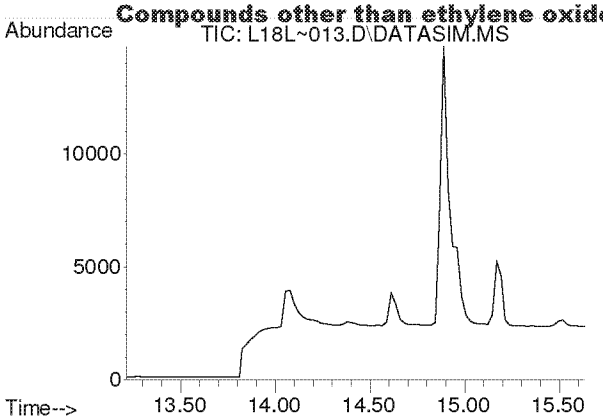
Lab File: L18L~013.D
Acq: 28 Dec 2018 3:48 am

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.0



Compounds other than ethylene oxide were not quantitated.

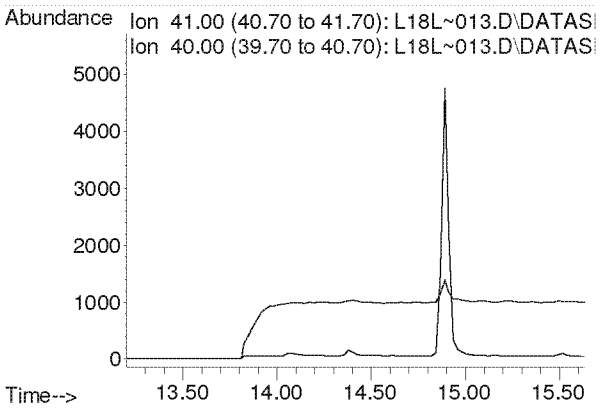


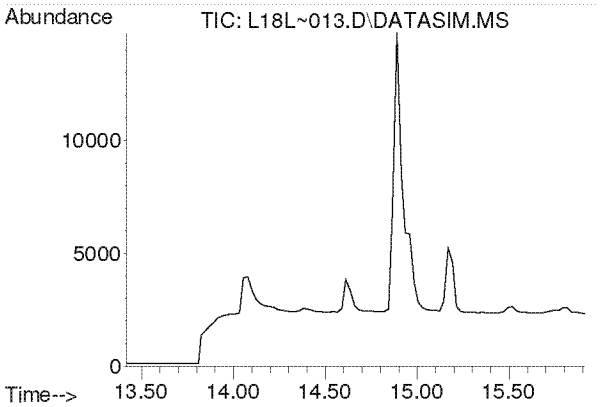
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.33 min

Lab File: L18L~013.D
Acq: 28 Dec 2018 3:48 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	50.9



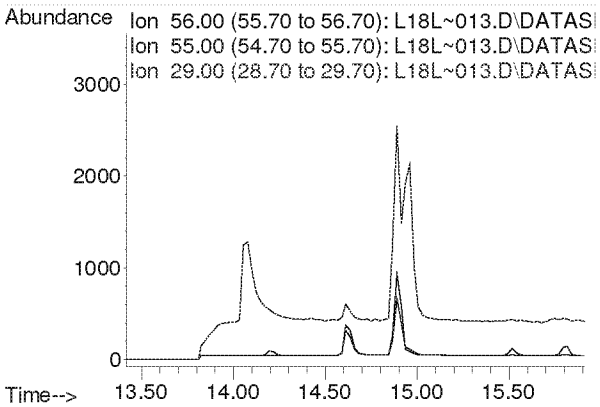


#13
Acrolein
Concen: N.D.
Expected RT: 14.61 min

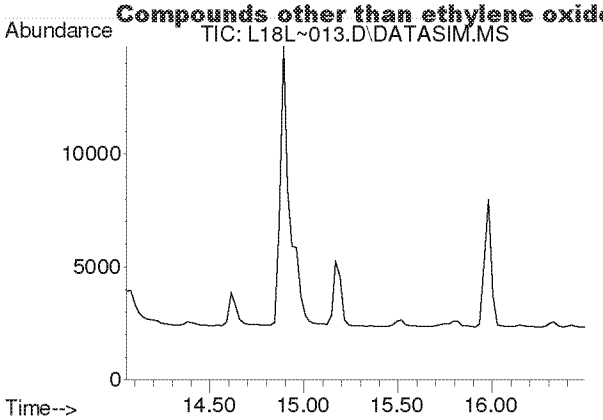
Lab File: L18L~013.D
Acq: 28 Dec 2018 3:48 am

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	75.4
29	52.9



Compounds other than ethylene oxide were not quantitated.

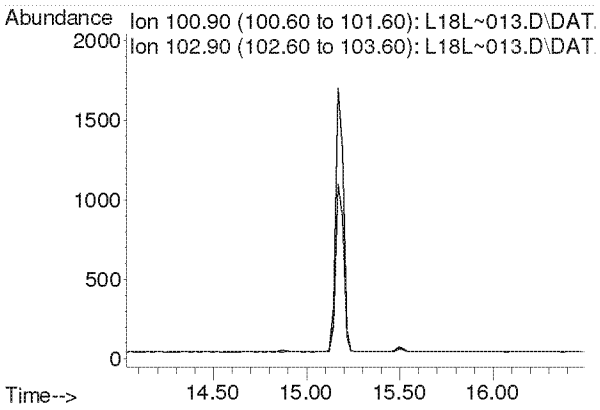


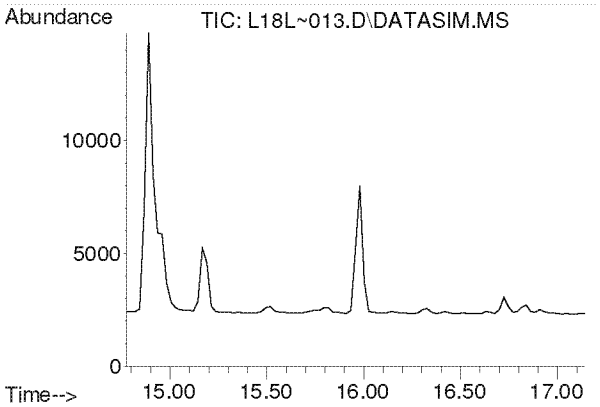
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L18L~013.D
Acq: 28 Dec 2018 3:48 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



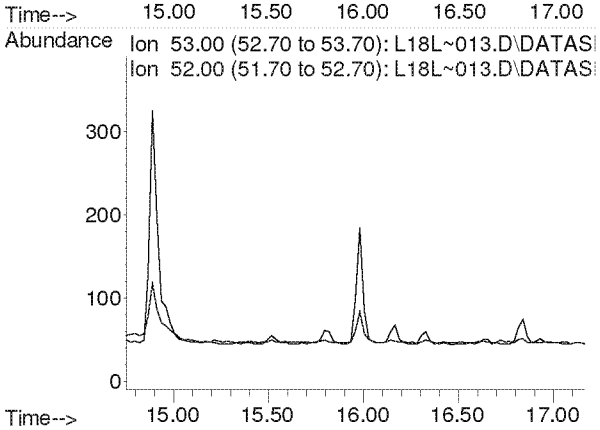


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.91 min

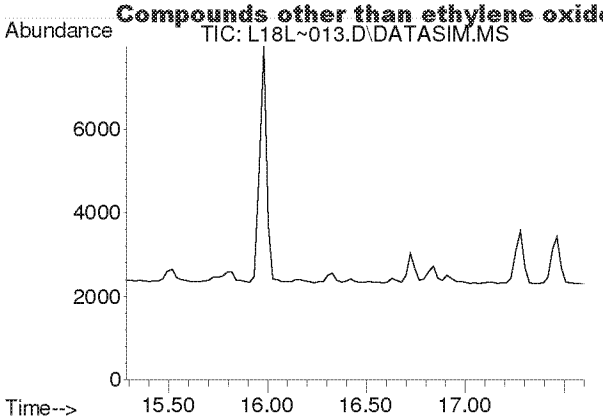
Lab File: L18L~013.D
Acq: 28 Dec 2018 3:48 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	85.4



Compounds other than ethylene oxide were not quantitated.

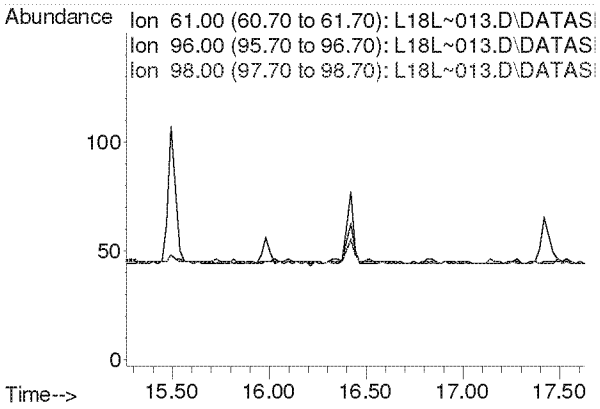


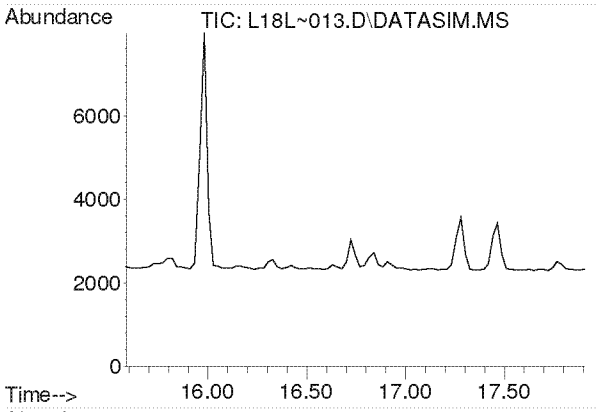
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L18L~013.D
Acq: 28 Dec 2018 3:48 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	58.3
98	37.4



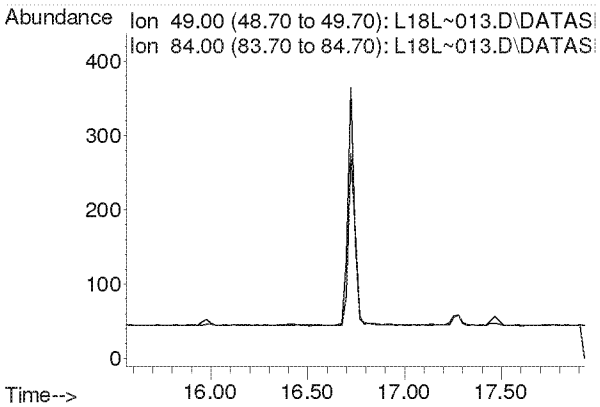


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.72 min

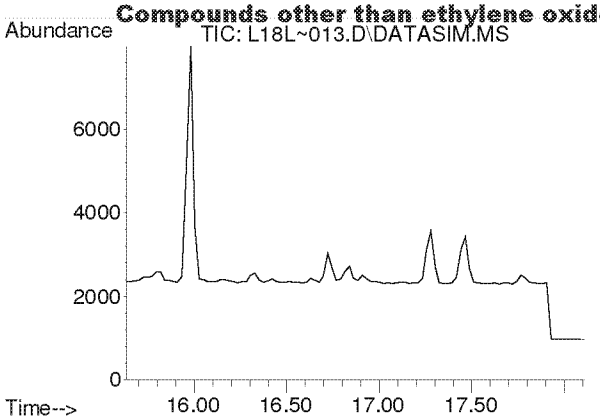
Lab File: L18L~013.D
Acq: 28 Dec 2018 3:48 am

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	76.4



Compounds other than ethylene oxide were not quantitated.

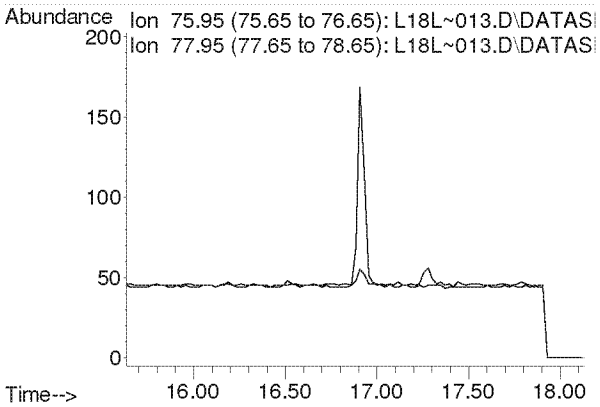


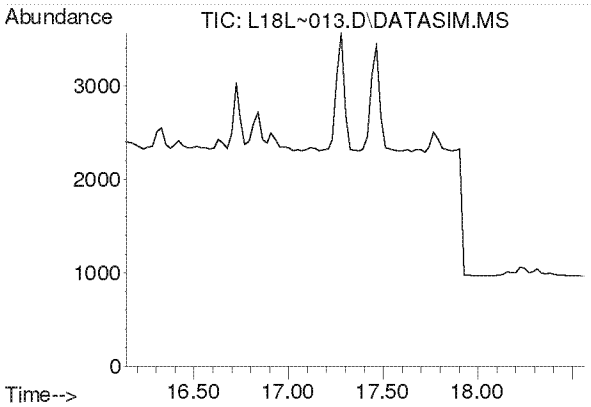
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L18L~013.D
Acq: 28 Dec 2018 3:48 am

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.1



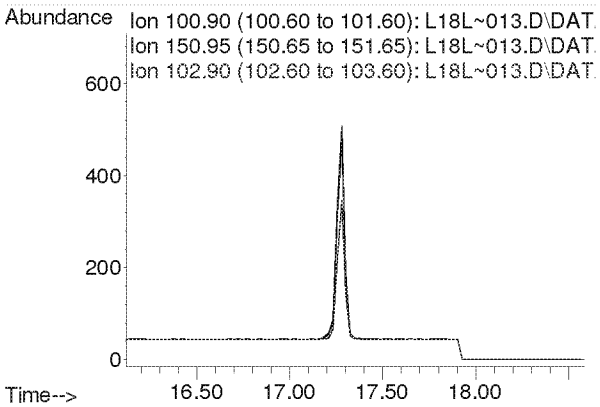


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

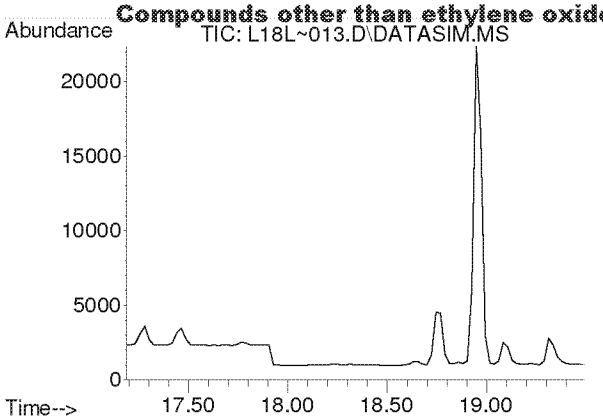
Lab File: L18L~013.D
Acq: 28 Dec 2018 3:48 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	95.3
103	64.1



Compounds other than ethylene oxide were not quantitated.

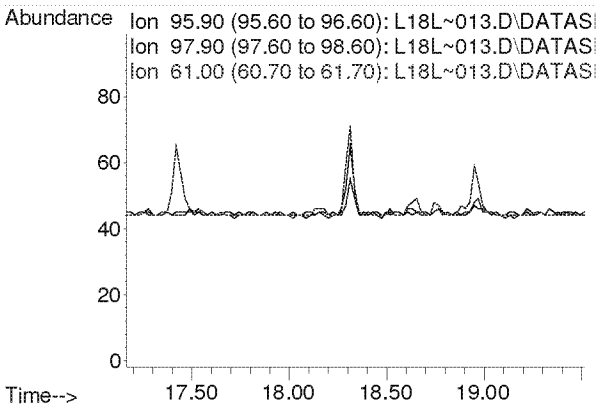


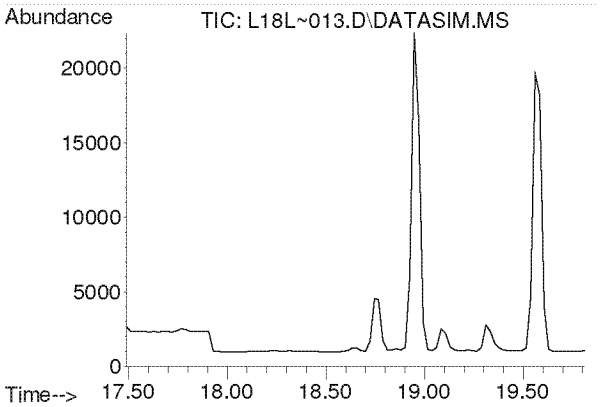
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.31 min

Lab File: L18L~013.D
Acq: 28 Dec 2018 3:48 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	63.7
61	159.2



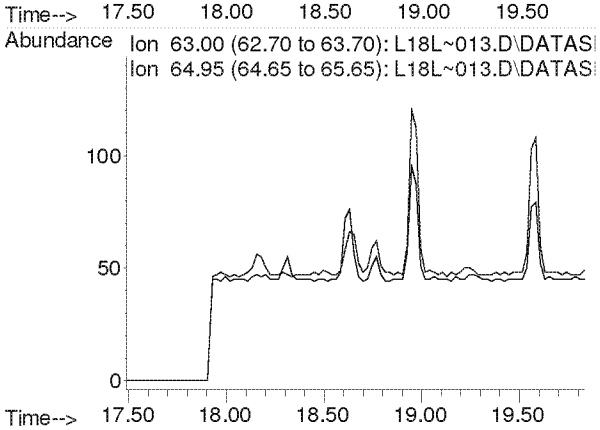


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

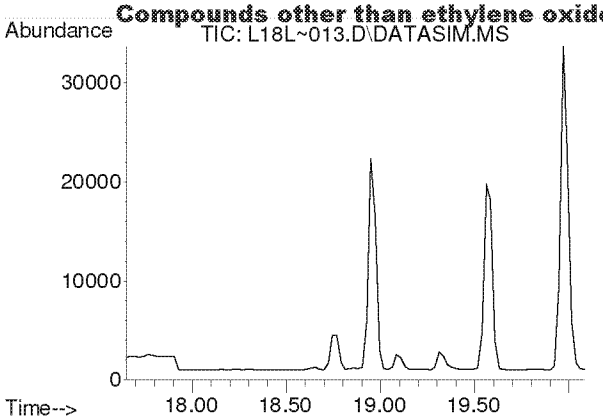
Lab File: L18L~013.D
Acq: 28 Dec 2018 3:48 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

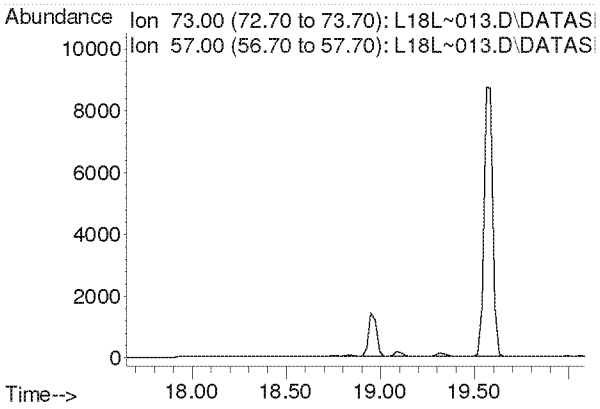


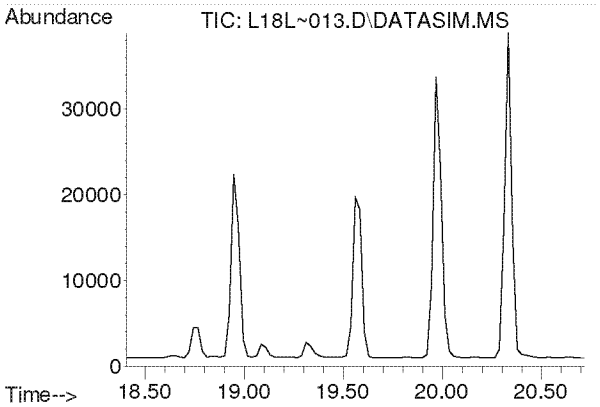
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L18L~013.D
Acq: 28 Dec 2018 3:48 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.4



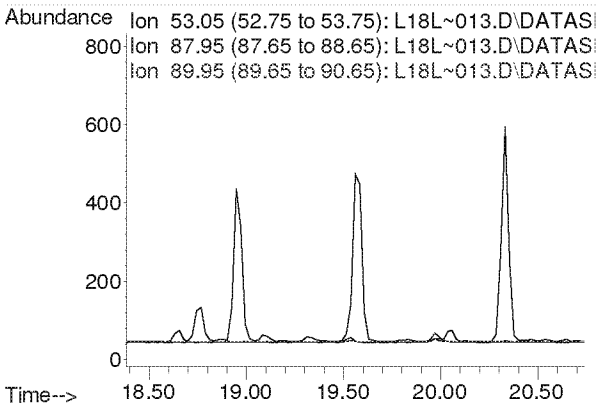


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

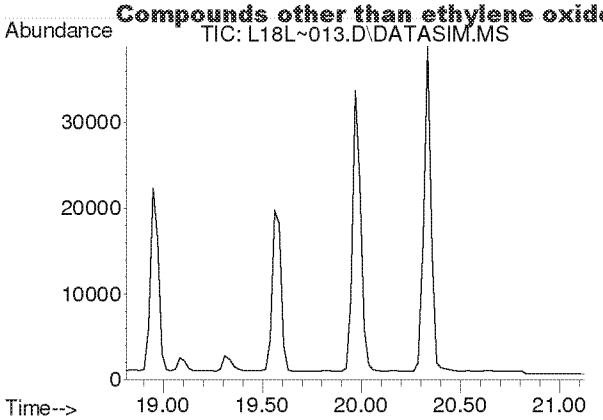
Lab File: L18L~013.D
Acq: 28 Dec 2018 3:48 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	51.8
90	16.8



Compounds other than ethylene oxide were not quantitated.

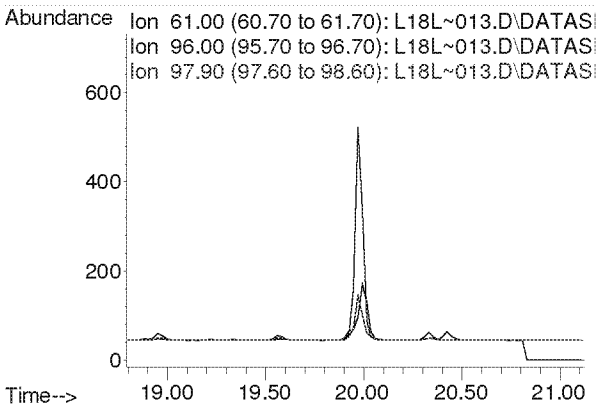


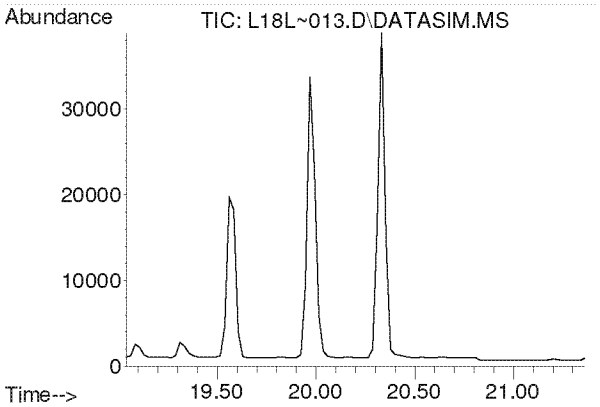
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L18L~013.D
Acq: 28 Dec 2018 3:48 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.7
98	45.2



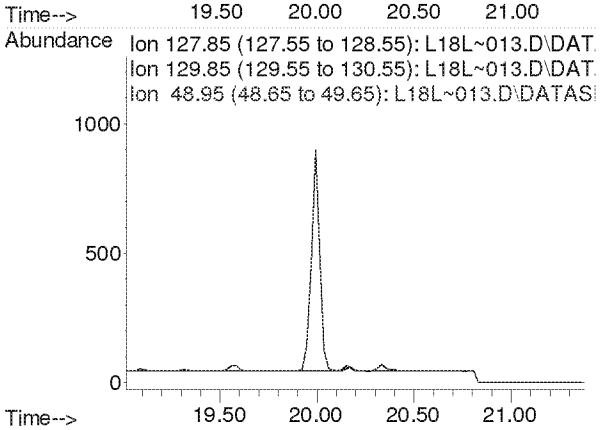


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

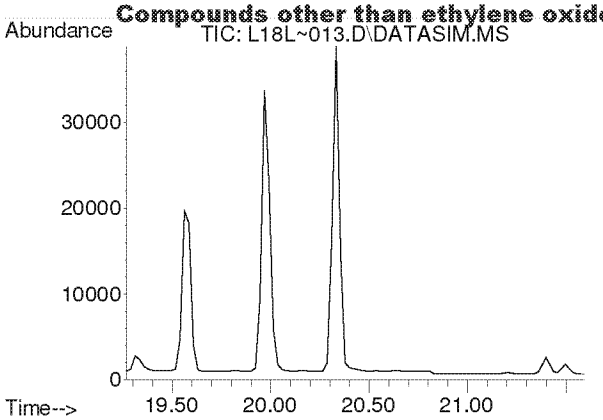
Lab File: L18L~013.D
Acq: 28 Dec 2018 3:48 am

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	171.2



Compounds other than ethylene oxide were not quantitated.

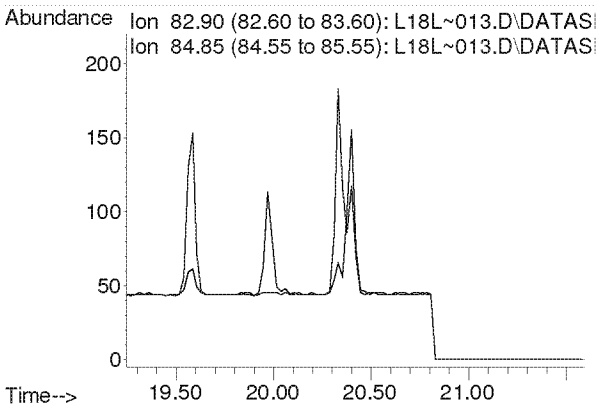


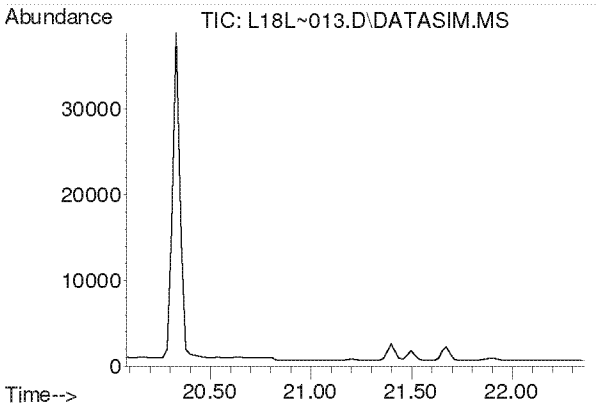
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L18L~013.D
Acq: 28 Dec 2018 3:48 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



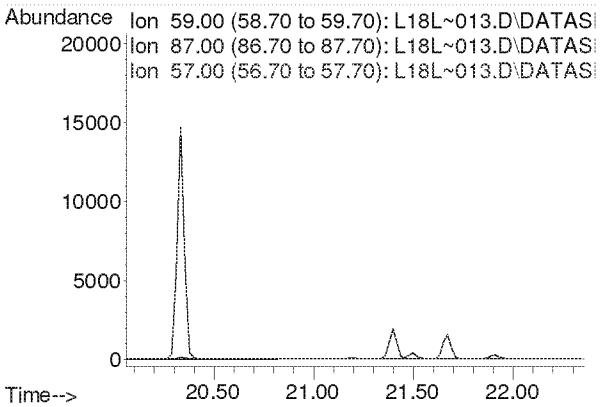


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.16 min

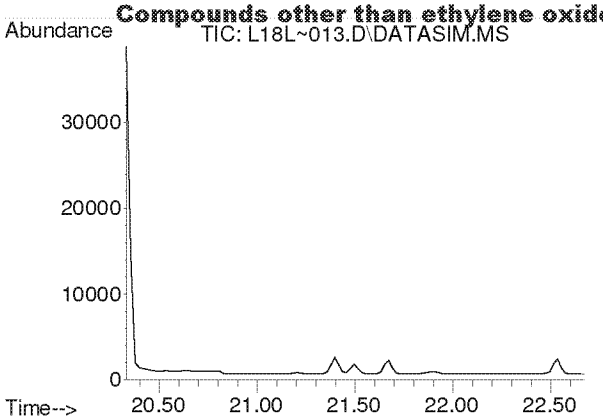
Lab File: L18L~013.D
Acq: 28 Dec 2018 3:48 am

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	37.5
57	33.8



Compounds other than ethylene oxide were not quantitated.

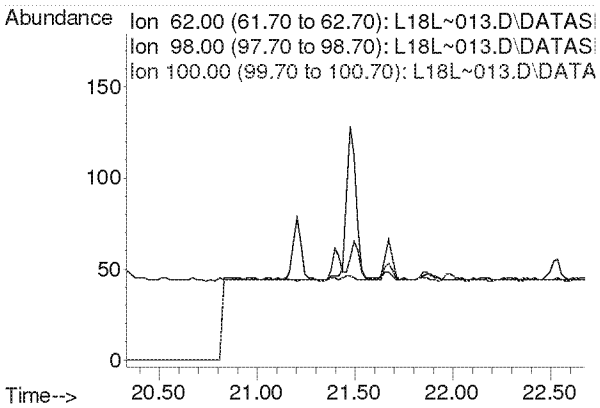


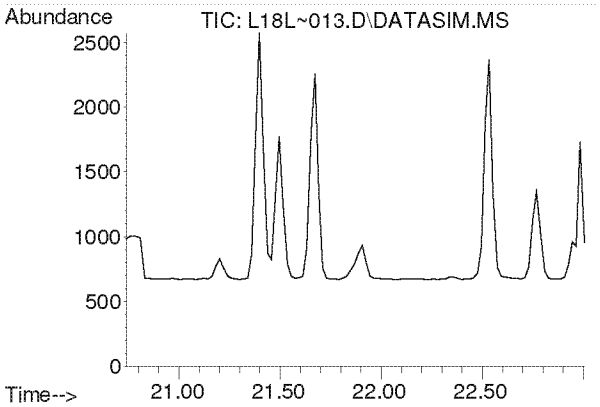
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L18L~013.D
Acq: 28 Dec 2018 3:48 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.4
100	4.0



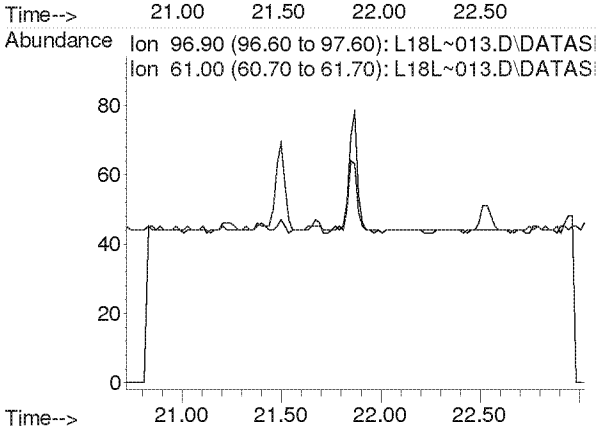


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

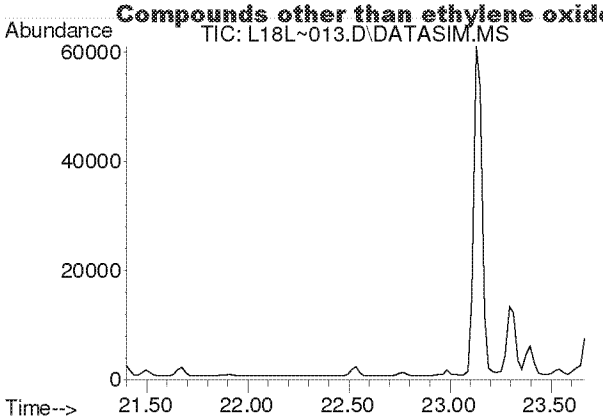
Lab File: L18L~013.D
Acq: 28 Dec 2018 3:48 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	60.5



Compounds other than ethylene oxide were not quantitated.

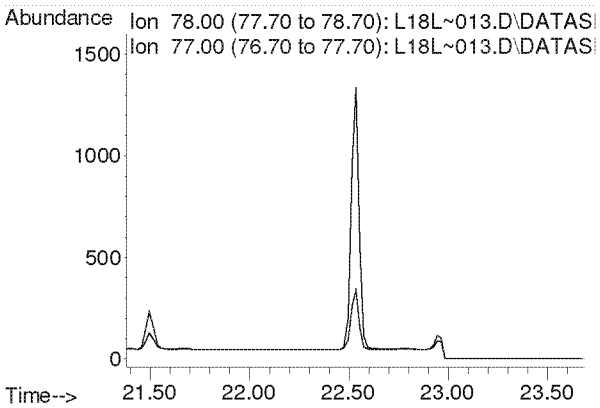


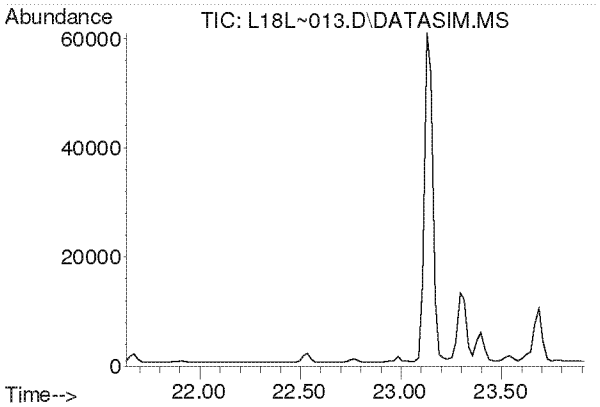
#31
Benzene
Concen: N.D.
Expected RT: 22.54 min

Lab File: L18L~013.D
Acq: 28 Dec 2018 3:48 am

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.7



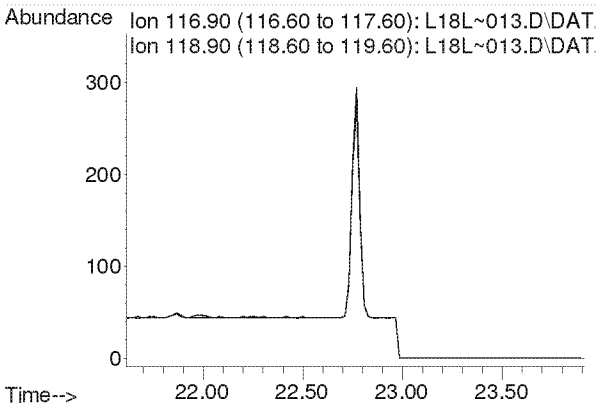


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

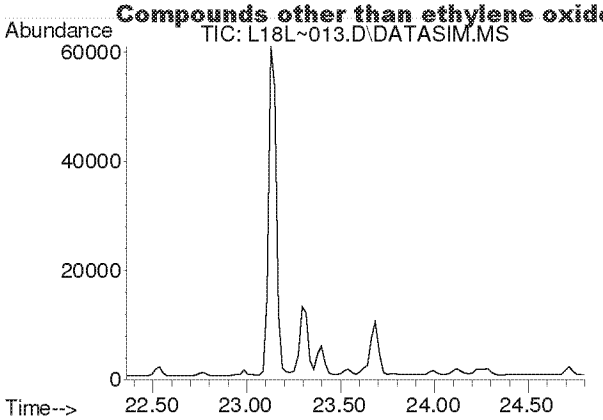
Lab File: L18L~013.D
Acq: 28 Dec 2018 3:48 am

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.5



Compounds other than ethylene oxide were not quantitated.

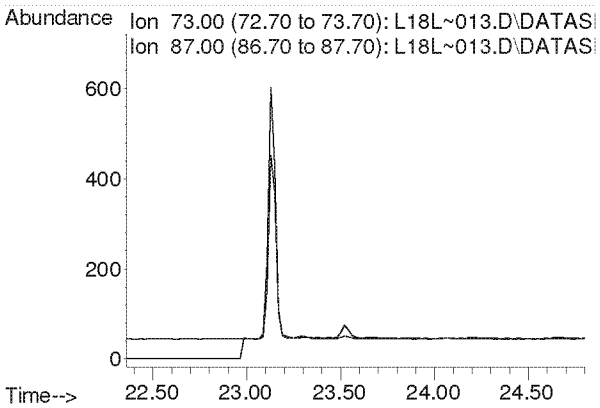


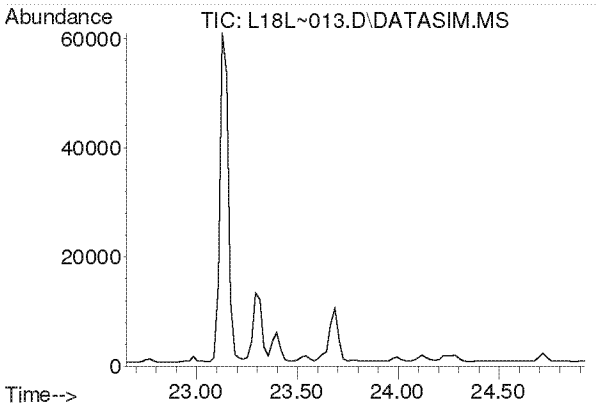
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.50 min

Lab File: L18L~013.D
Acq: 28 Dec 2018 3:48 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	24.9



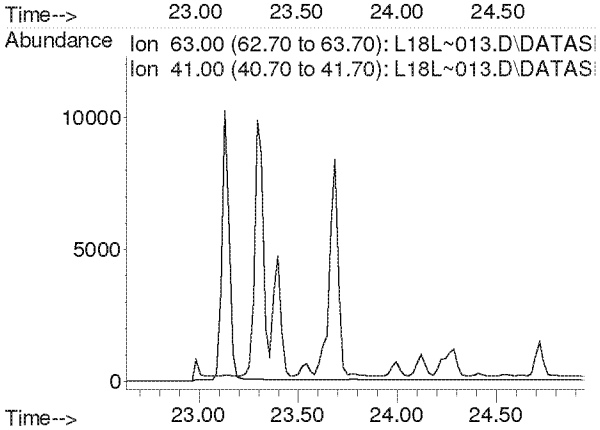


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

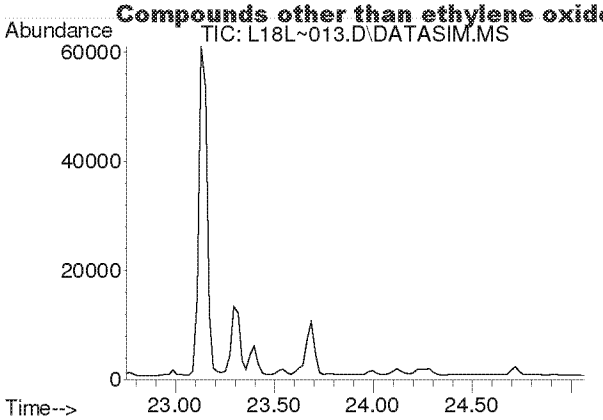
Lab File: L18L~013.D
Acq: 28 Dec 2018 3:48 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	212.8



Compounds other than ethylene oxide were not quantitated.

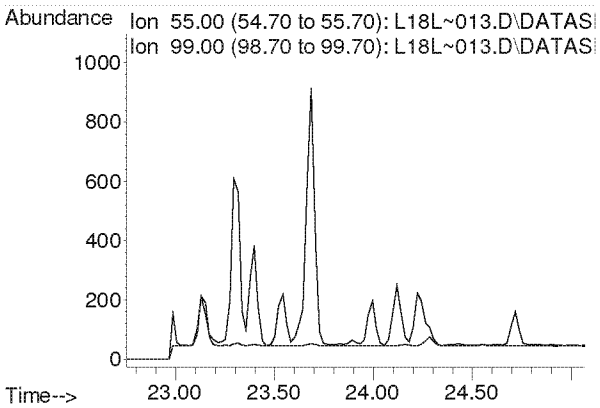


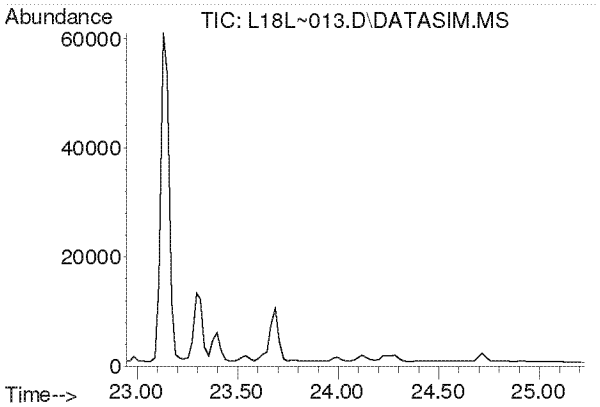
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.87 min

Lab File: L18L~013.D
Acq: 28 Dec 2018 3:48 am

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.1



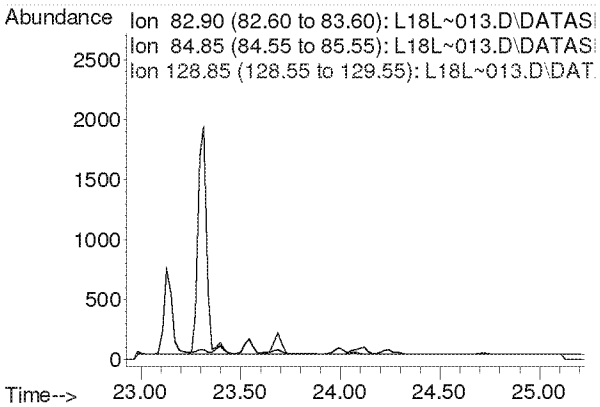


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

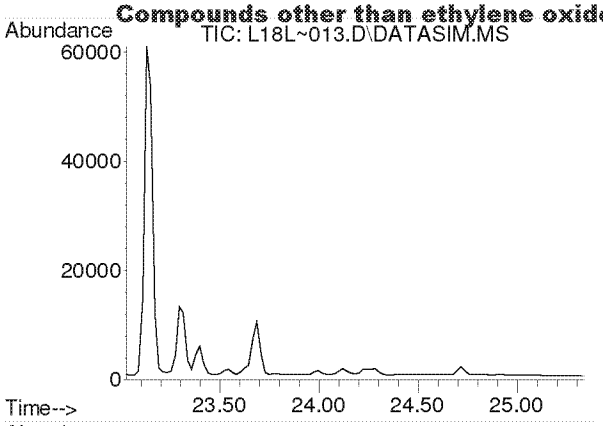
Lab File: L18L~013.D
Acq: 28 Dec 2018 3:48 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.0
129	12.4



Compounds other than ethylene oxide were not quantitated.

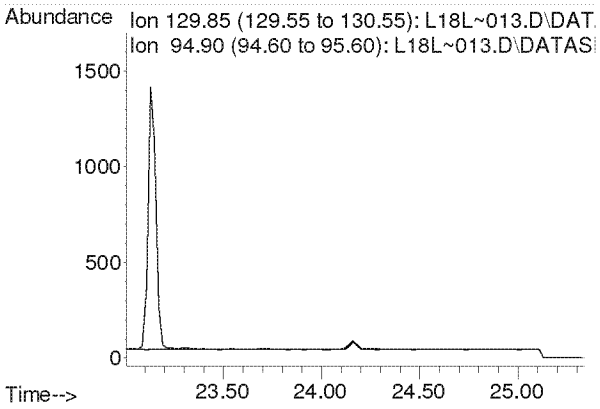


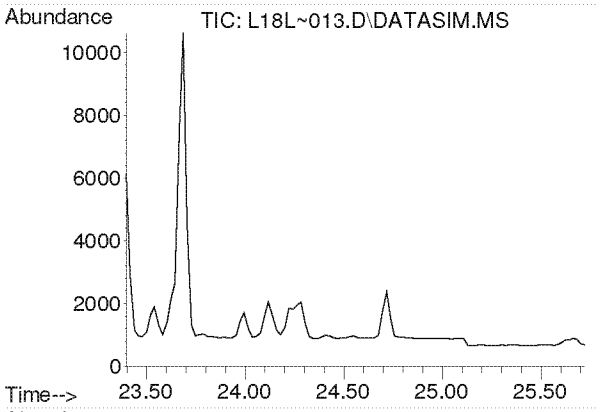
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.16 min

Lab File: L18L~013.D
Acq: 28 Dec 2018 3:48 am

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	110.3



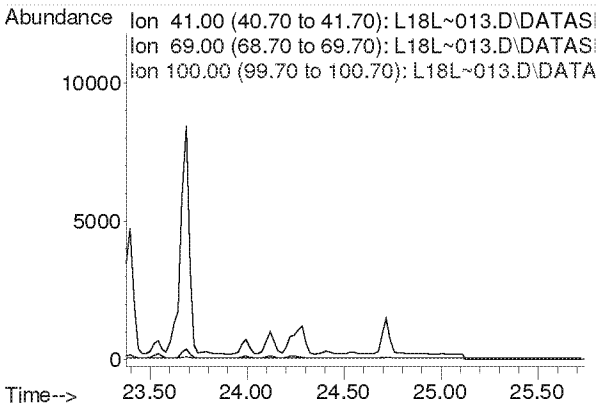


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

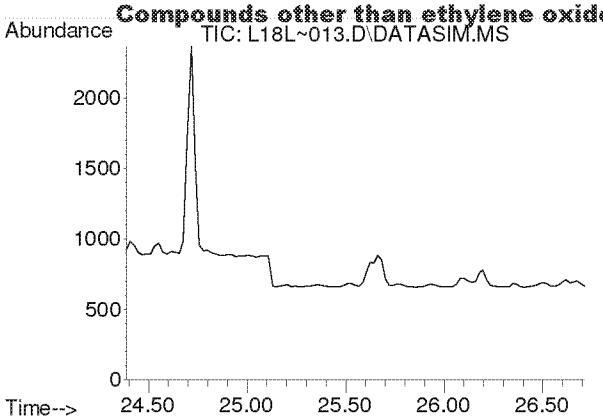
Lab File: L18L~013.D
Acq: 28 Dec 2018 3:48 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	19.9
100	5.2



Compounds other than ethylene oxide were not quantitated.

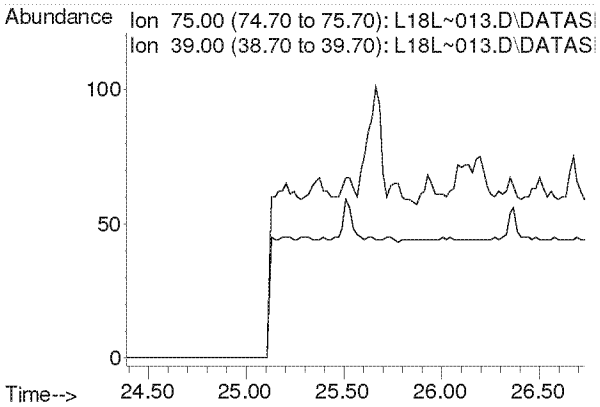


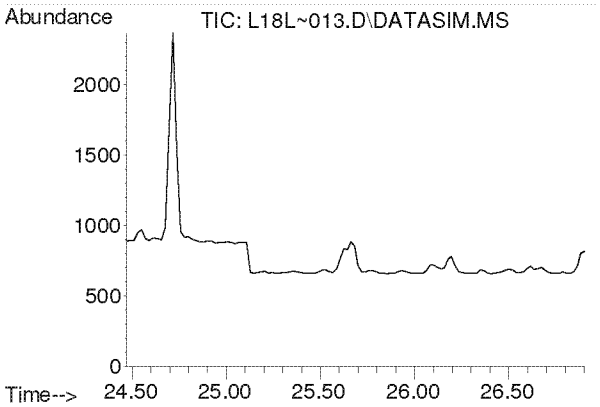
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L18L~013.D
Acq: 28 Dec 2018 3:48 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.4



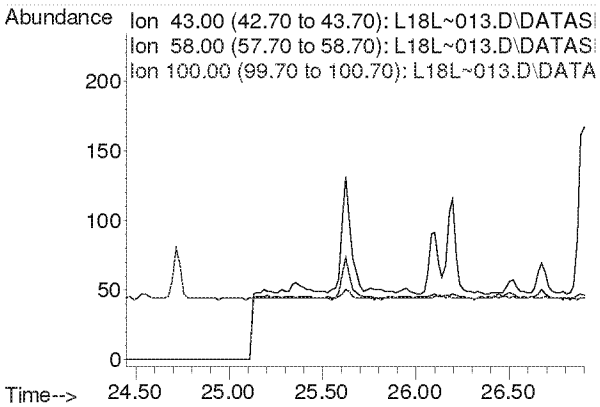


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.61 min

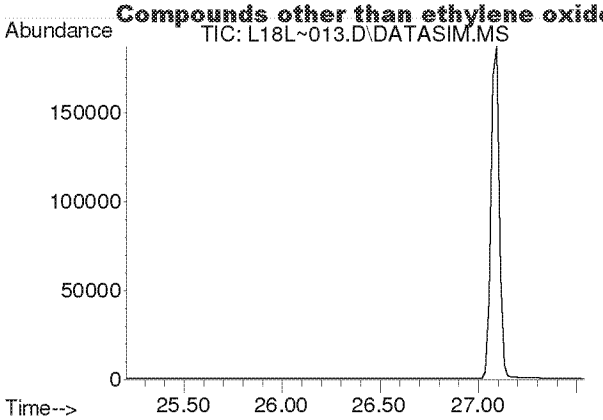
Lab File: L18L~013.D
Acq: 28 Dec 2018 3:48 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	34.2
100	7.9



Compounds other than ethylene oxide were not quantitated.

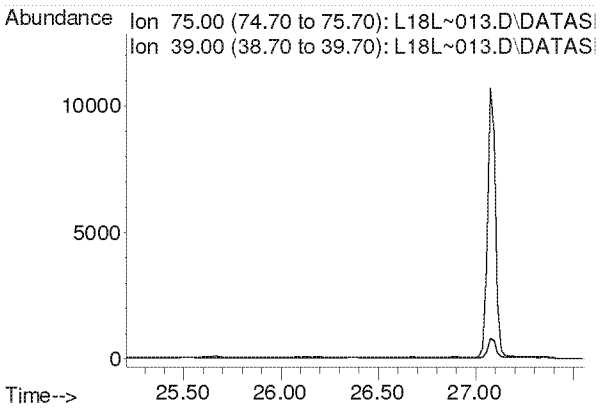


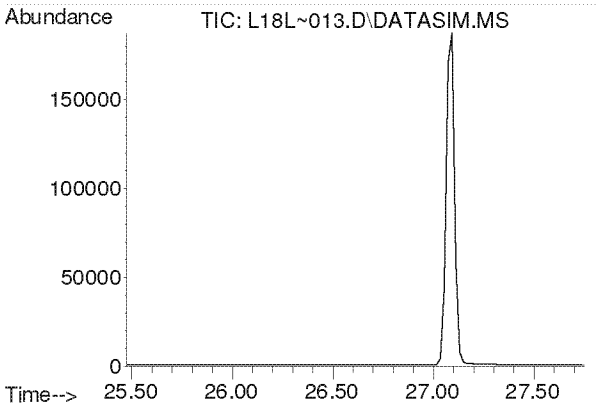
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.35 min

Lab File: L18L~013.D
Acq: 28 Dec 2018 3:48 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	50.9



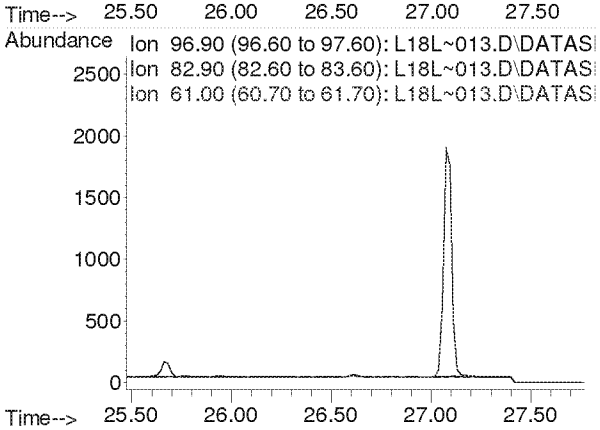


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

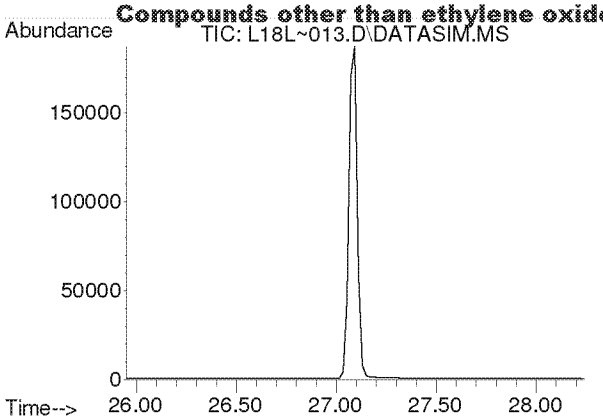
Lab File: L18L~013.D
Acq: 28 Dec 2018 3:48 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	96.1
61	63.5



Compounds other than ethylene oxide were not quantitated.

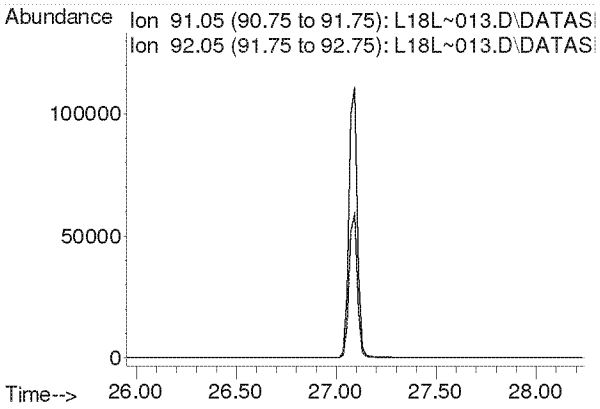


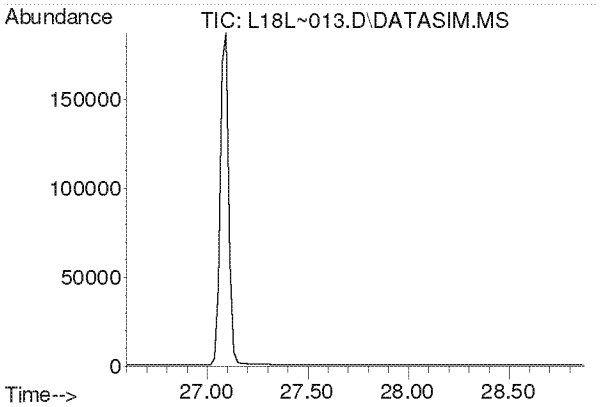
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L18L~013.D
Acq: 28 Dec 2018 3:48 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.6



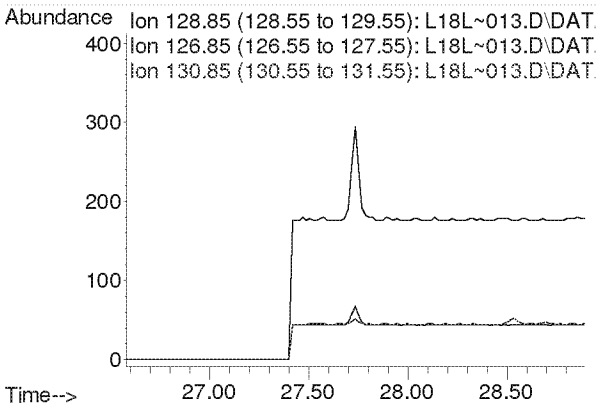


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.73 min

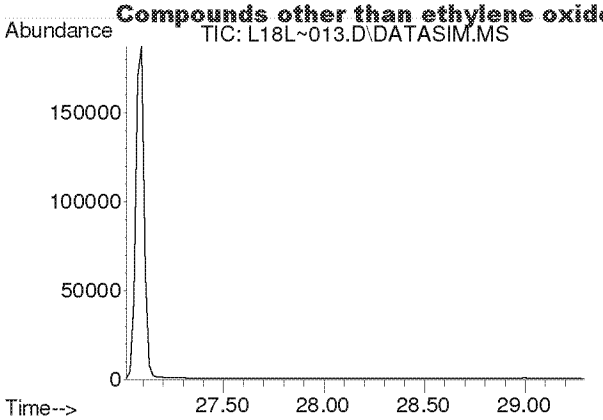
Lab File: L18L~013.D
Acq: 28 Dec 2018 3:48 am

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.2
131	6.0



Compounds other than ethylene oxide were not quantitated.

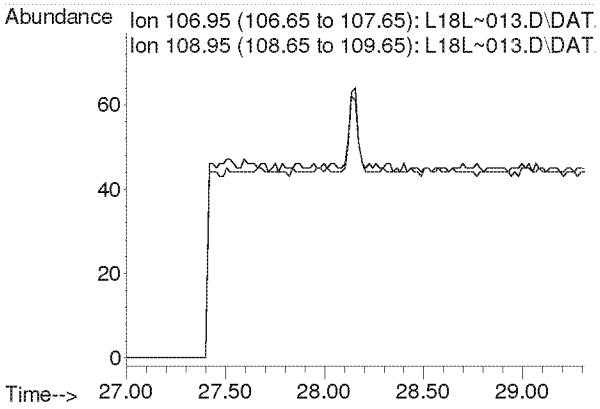


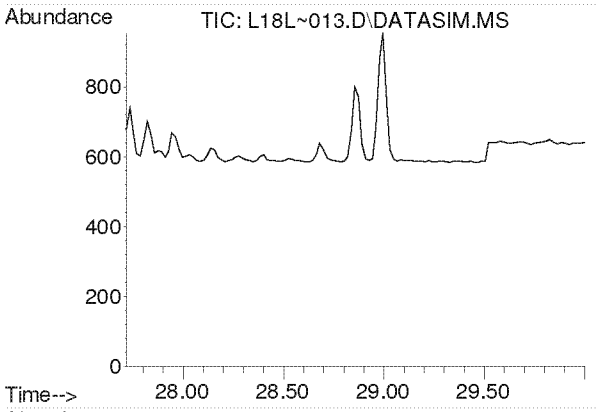
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.16 min

Lab File: L18L~013.D
Acq: 28 Dec 2018 3:48 am

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.5



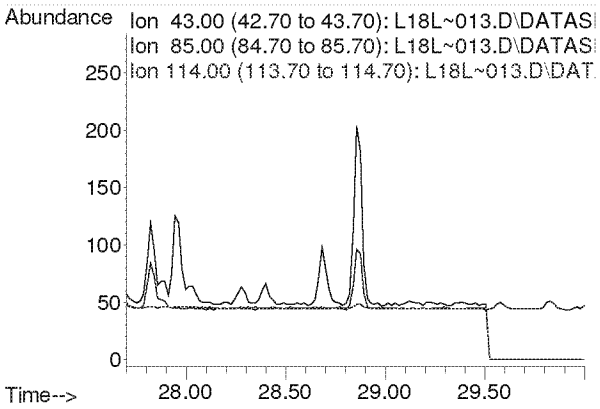


#47
n-Octane
Concen: N.D.
Expected RT: 28.86 min

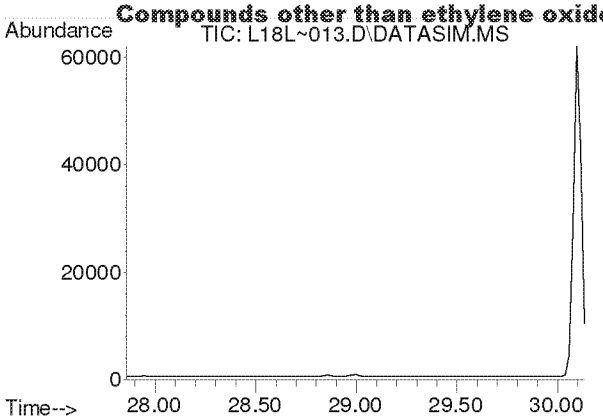
Lab File: L18L~013.D
Acq: 28 Dec 2018 3:48 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	36.0
114	2.2



Compounds other than ethylene oxide were not quantitated.

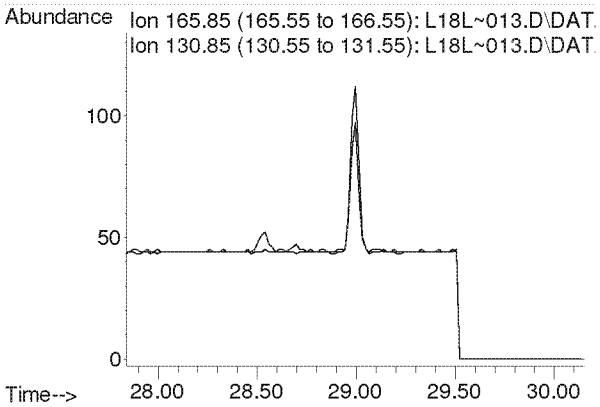


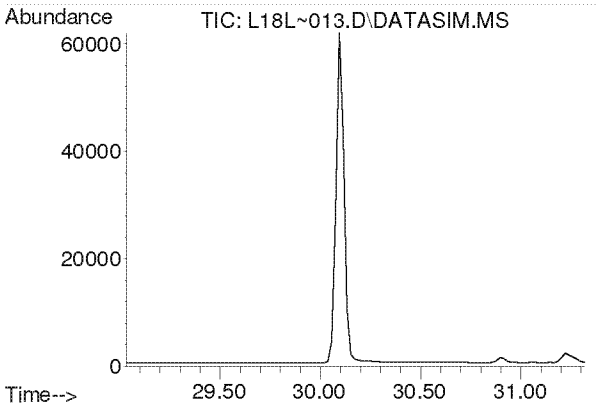
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L18L~013.D
Acq: 28 Dec 2018 3:48 am

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	78.2



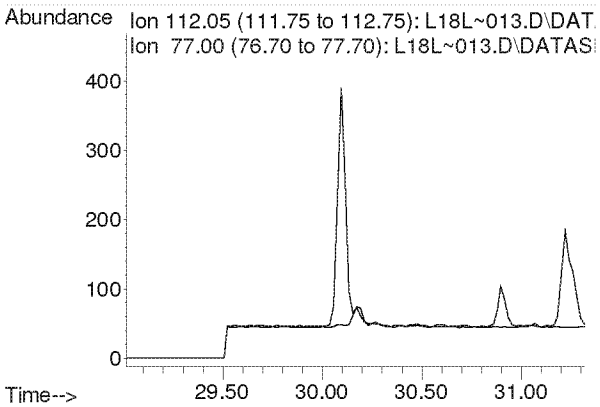


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.17 min

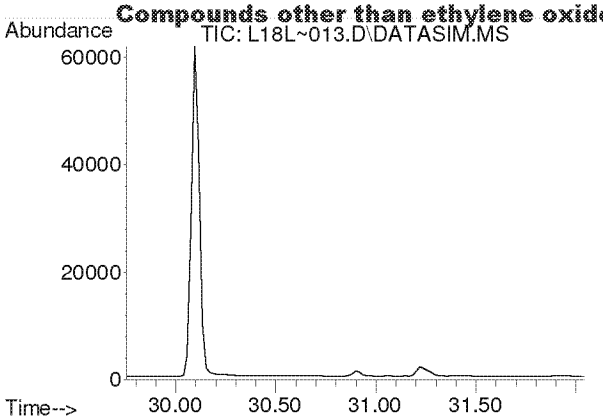
Lab File: L18L~013.D
Acq: 28 Dec 2018 3:48 am

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	63.0



Compounds other than ethylene oxide were not quantitated.

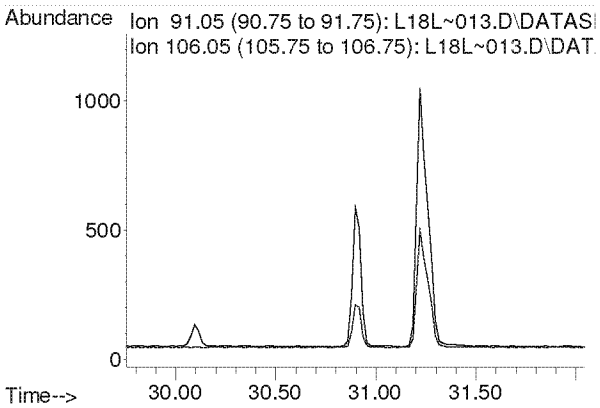


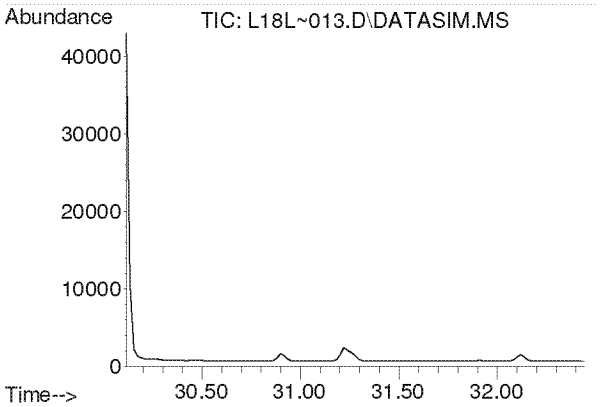
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.90 min

Lab File: L18L~013.D
Acq: 28 Dec 2018 3:48 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	31.8



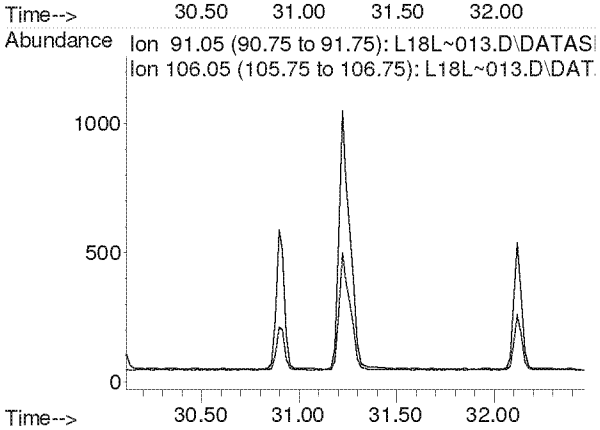


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.26 min

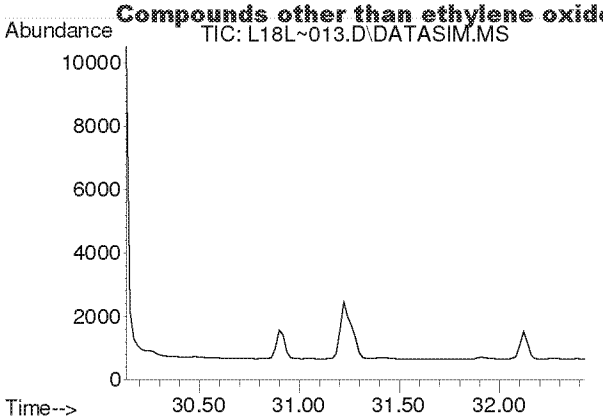
Lab File: L18L~013.D
Acq: 28 Dec 2018 3:48 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.4



Compounds other than ethylene oxide were not quantitated.

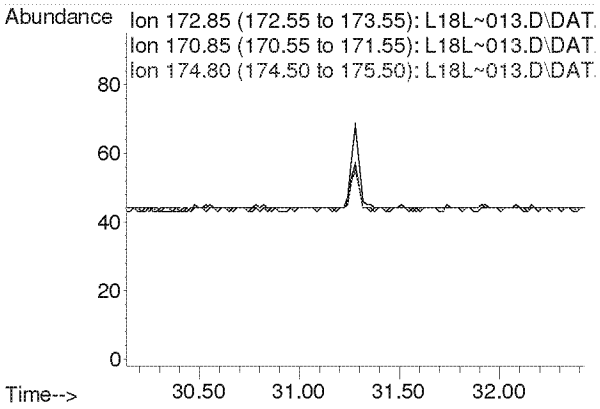


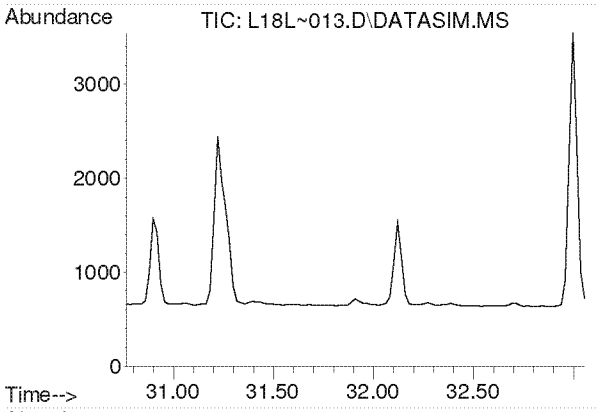
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L18L~013.D
Acq: 28 Dec 2018 3:48 am

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	49.0



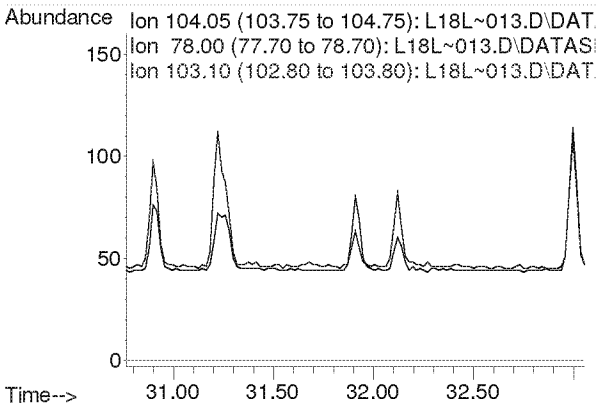


#53
Styrene
Concen: N.D.
Expected RT: 31.91 min

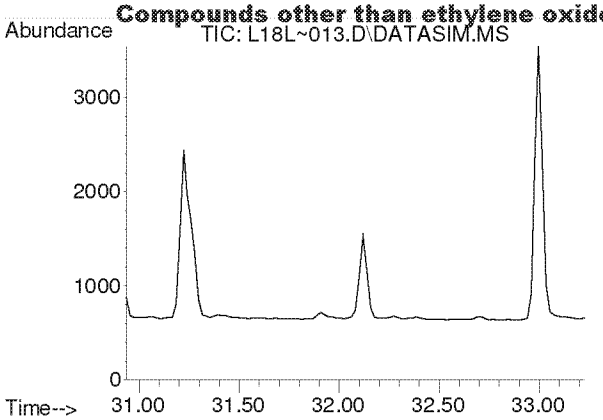
Lab File: L18L~013.D
Acq: 28 Dec 2018 3:48 am

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	45.6
103	0.0



Compounds other than ethylene oxide were not quantitated.

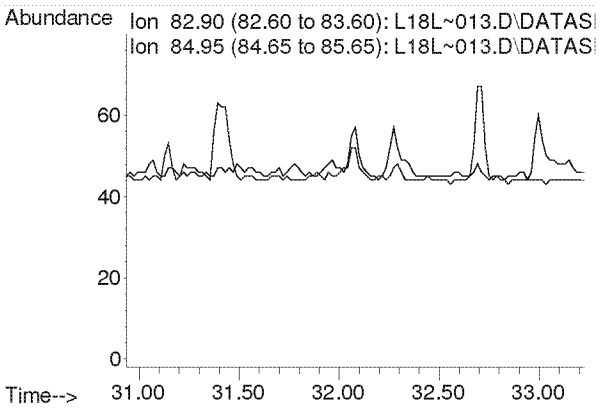


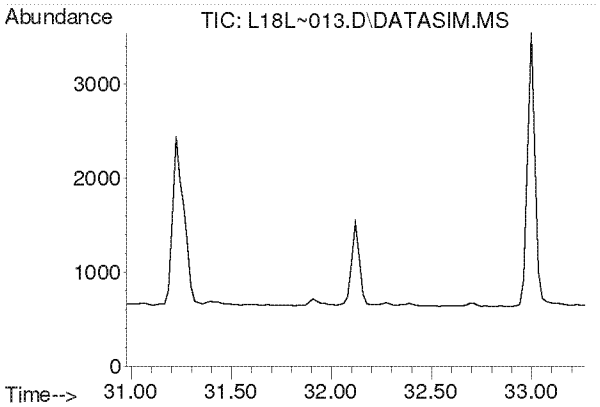
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L18L~013.D
Acq: 28 Dec 2018 3:48 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.9



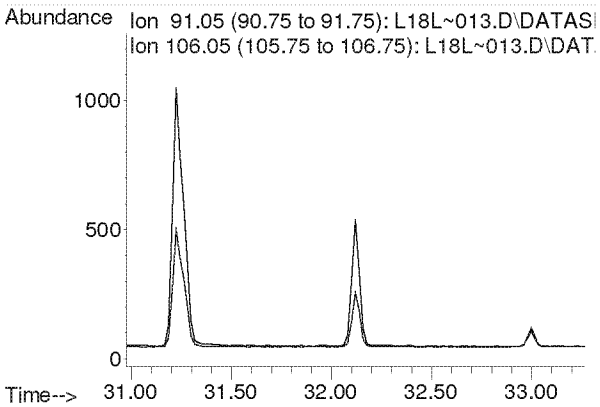


#55
o-Xylene
Concen: N.D.
Expected RT: 32.12 min

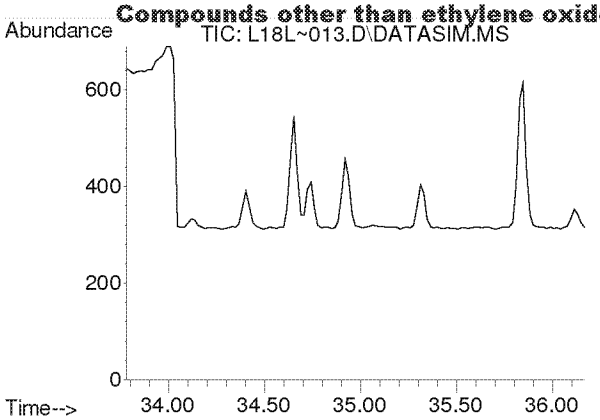
Lab File: L18L~013.D
Acq: 28 Dec 2018 3:48 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.2



Compounds other than ethylene oxide were not quantitated.

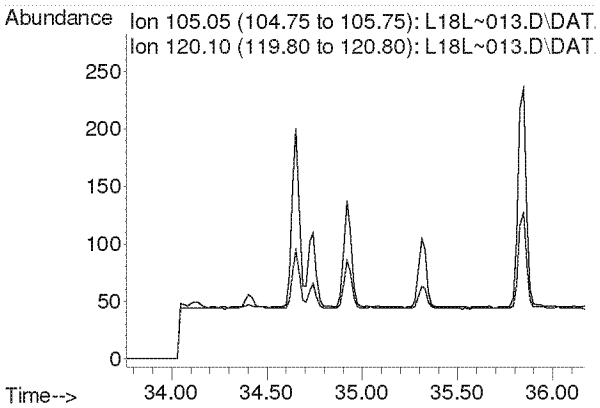


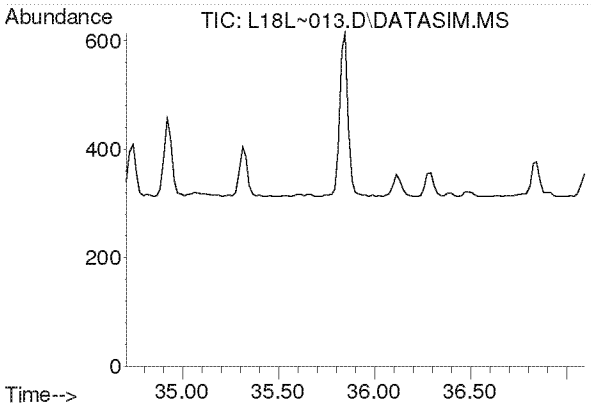
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.92 min

Lab File: L18L~013.D
Acq: 28 Dec 2018 3:48 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	45.0



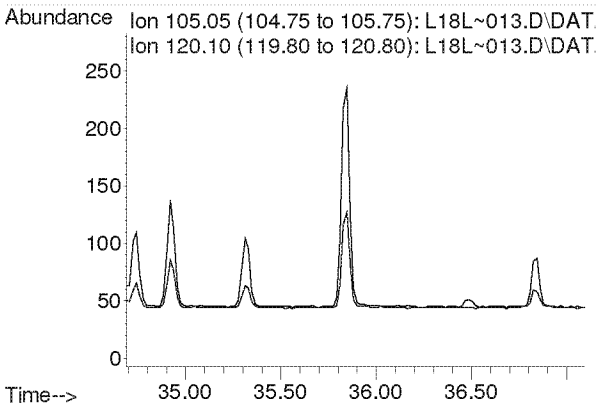


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

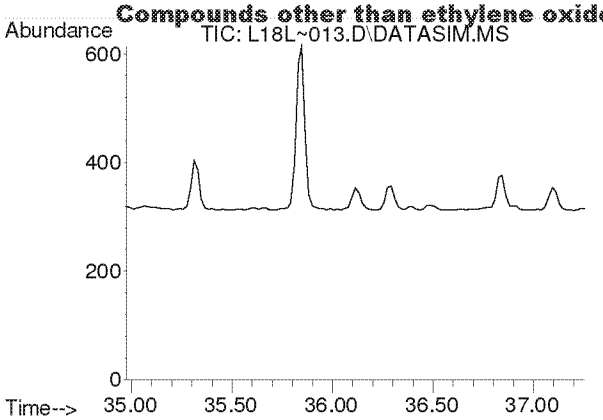
Lab File: L18L~013.D
Acq: 28 Dec 2018 3:48 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	42.8



Compounds other than ethylene oxide were not quantitated.

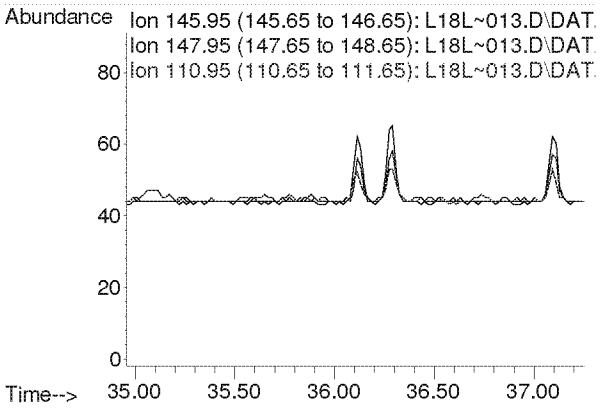


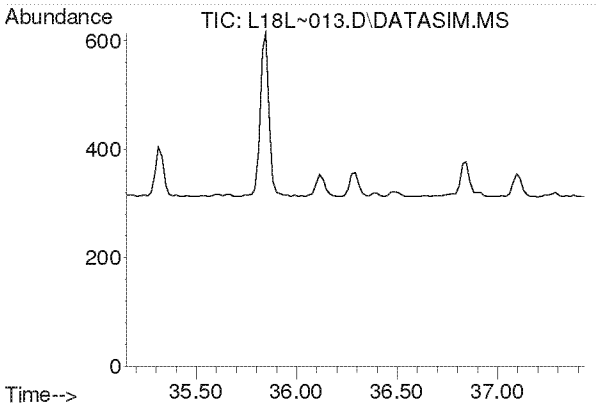
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.11 min

Lab File: L18L~013.D
Acq: 28 Dec 2018 3:48 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.5



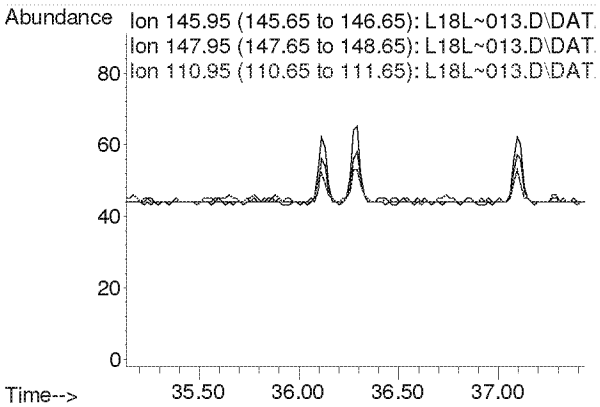


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

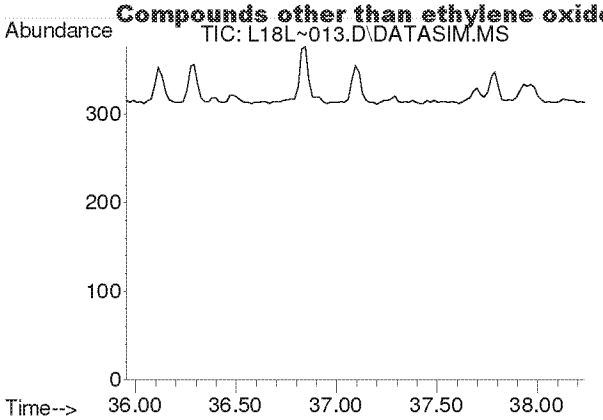
Lab File: L18L~013.D
Acq: 28 Dec 2018 3:48 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	39.5



Compounds other than ethylene oxide were not quantitated.

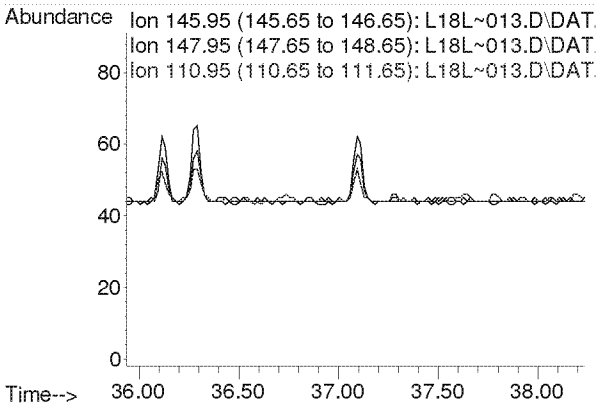


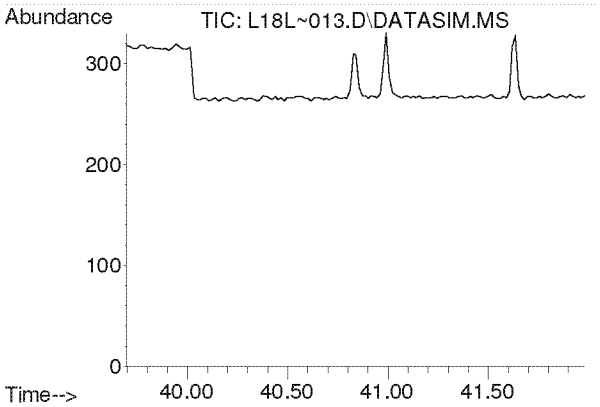
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.09 min

Lab File: L18L~013.D
Acq: 28 Dec 2018 3:48 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	41.4



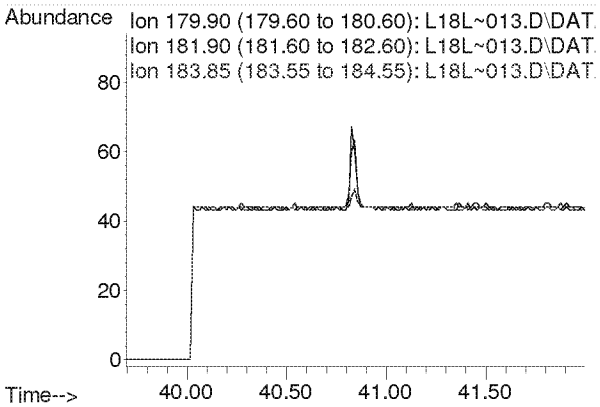


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

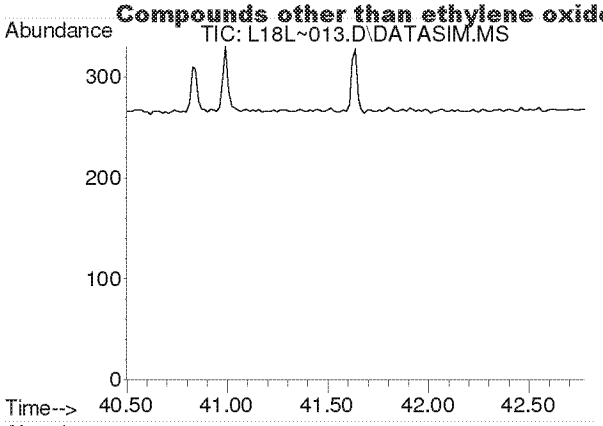
Lab File: L18L~013.D
Acq: 28 Dec 2018 3:48 am

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	95.1
184	30.7



Compounds other than ethylene oxide were not quantitated.

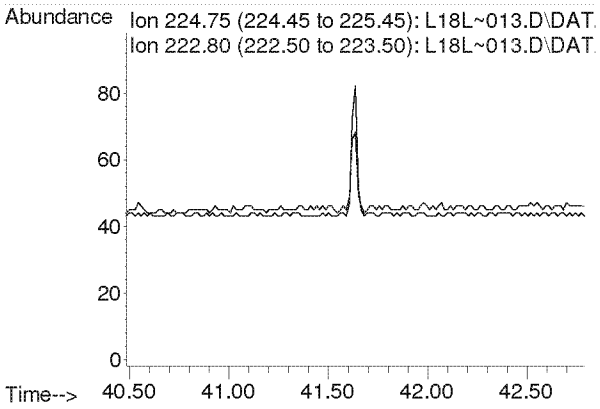


#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.64 min

Lab File: L18L~013.D
Acq: 28 Dec 2018 3:48 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\L18L~\
Data File : L18L~014.D
Acq On : 28 Dec 2018 4:49 am
Operator : MAH
Sample : B8L2704-DUP1
Misc : VILLAGE HALL R1 12/8/18
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jan 03 12:37:55 2019
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.970	66	53724	4.7700 ppbv	-0.02
29) IS-1,4-Difluorobenzene	23.151	114	129620	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.097	117	98968	4.7400 ppbv	0.00

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. d	
8) 1,3-Butadiene	0.000	54	0	N.D. d	
9) Ethylene oxide	12.425	29	1327	0.4132 ppbv #	21
10) Bromomethane	0.000	94	0	N.D. d	
11) Chloroethane	0.000	64	0	N.D. 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. 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. d	
21) 1,1-Dichloroethane	0.000	63	0	N.D. 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. d	
26) Chloroform	0.000	83	0	N.D. d	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D. d	
28) 1,2-Dichloroethane	0.000	62	0	N.D. d	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D. 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. 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. d	
37) Trichloroethylene	0.000	130	0	N.D. d	
38) Methyl Methacrylate	0.000	41	0	N.D. d	
39) cis-1,3-Dichloropropene	0.000	75	0	N.D. d	
40) Methyl Isobutyl Ketone	0.000	43	0	N.D. d	
41) trans-1,3-Dichloropropene	0.000	75	0	N.D. d	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D. d	
44) Toluene	0.000	91	0	N.D. d	
45) Dibromochloromethane	0.000	129	0	N.D. d	
46) 1,2-Dibromoethane	0.000	107	0	N.D. 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. d	
50) Ethylbenzene	0.000	91	0	N.D. d	

Compounds other than ethylene oxide were not quantitated.

Quantification Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L18L~\
Data File : L18L~014.D
Acq On : 28 Dec 2018 4:49 am
Operator : MAH
Sample : B8L2704-DUP1
Misc : VILLAGE HALL R1 12/8/18
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jan 03 12:37:55 2019
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
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. d	
53) Styrene	0.000	104	0	N.D. d	
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D. 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. d	
59) p-Dichlorobenzene	0.000	146	0	N.D. d	
60) o-Dichlorobenzene	0.000	146	0	N.D. d	
61) 1,2,4-Trichlorobenzene	0.000	180	0	N.D. d	
62) Hexachloro-1,3-butadiene	0.000	225	0	N.D. d	

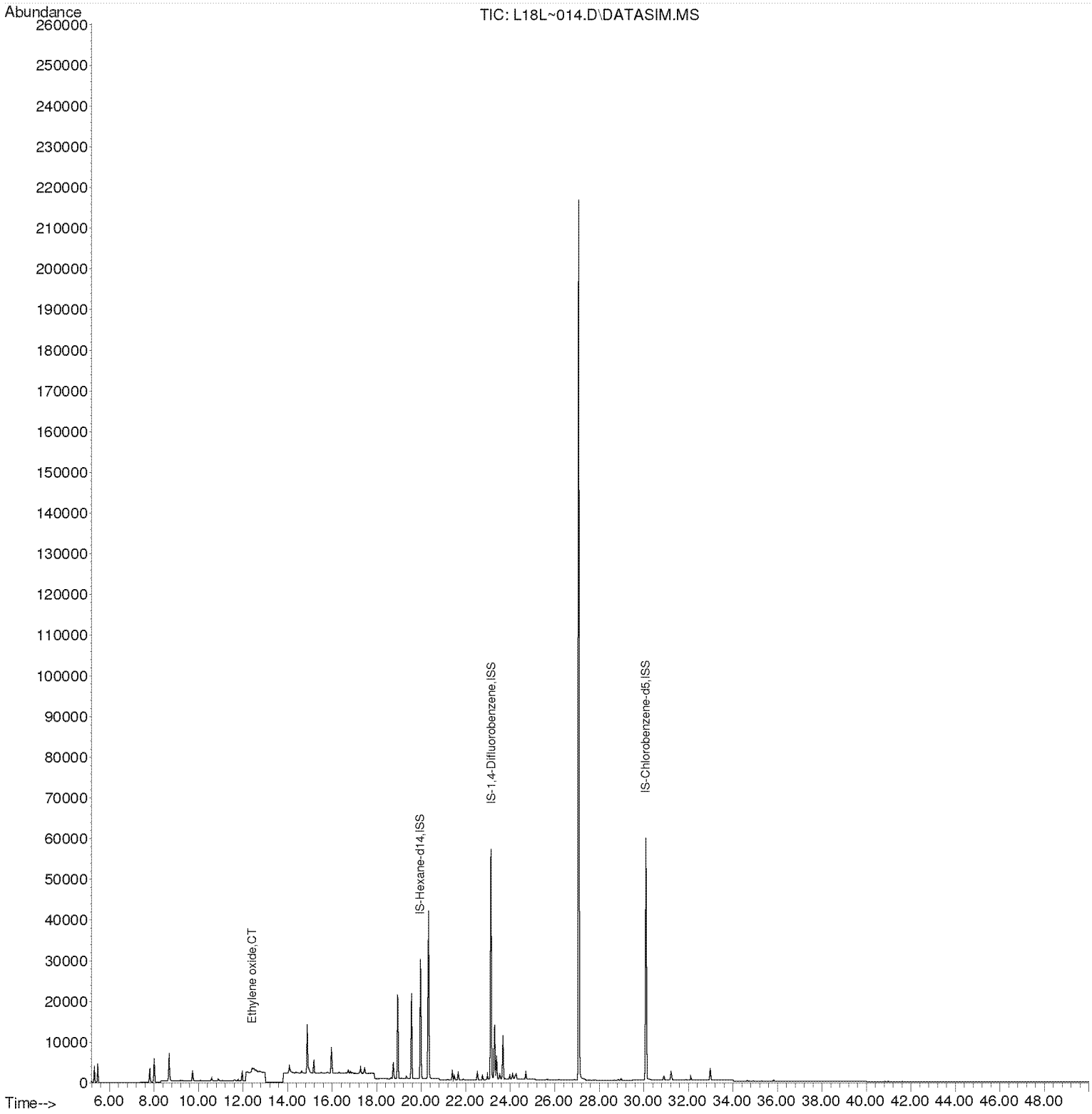
(#) = qualifier out of range (m) = manual integration (+) = signals summed

ED_002475_00000321-00382

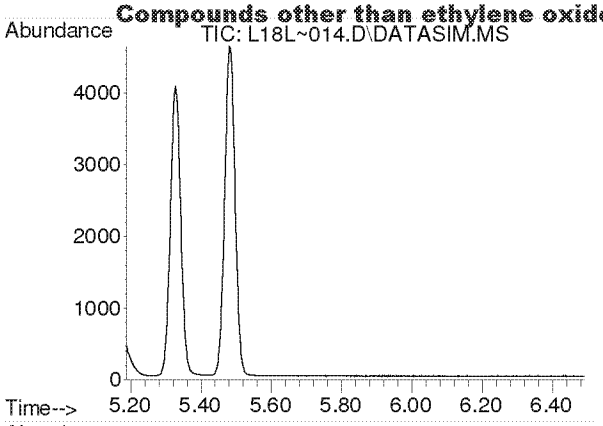
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L18L~\
Data File : L18L~014.D
Acq On : 28 Dec 2018 4:49 am
Operator : MAH
Sample : B8L2704-DUP1
Misc : VILLAGE HALL R1 12/8/18
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jan 03 12:20:32 2019
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
Response via : Initial Calibration



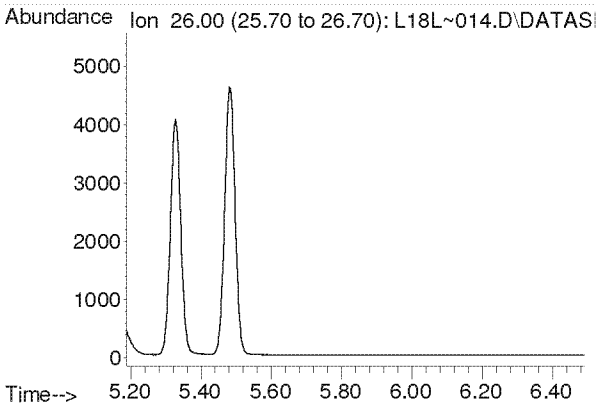
Compounds other than ethylene oxide were not quantitated.

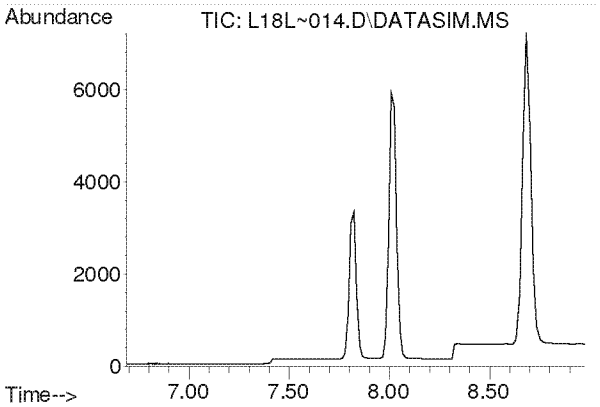


#2
Acetylene
Concen: N.D.
Expected RT: 5.42 min

Lab File: L18L~014.D
Acq: 28 Dec 2018 4:49 am

Tgt Ion: 26



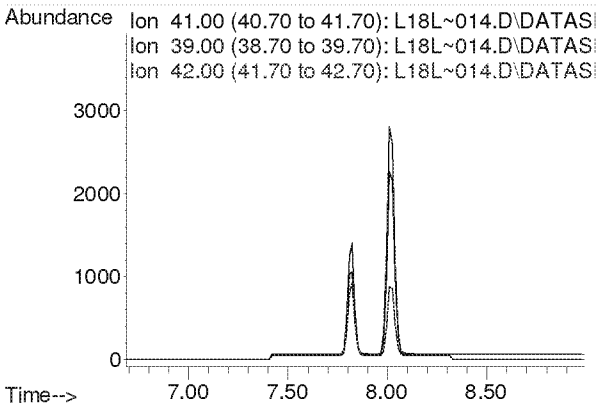


#3
Propylene
Concen: N.D.
Expected RT: 7.84 min

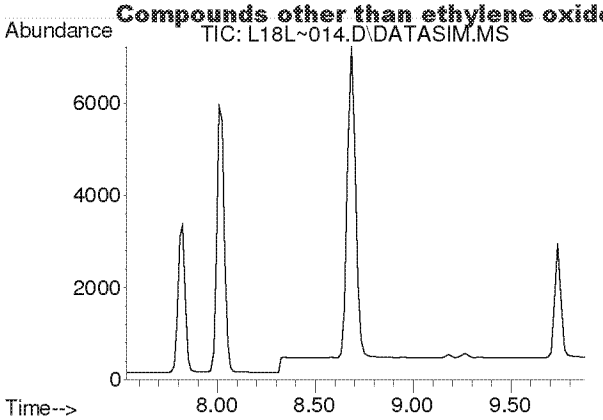
Lab File: L18L~014.D
Acq: 28 Dec 2018 4:49 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	78.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

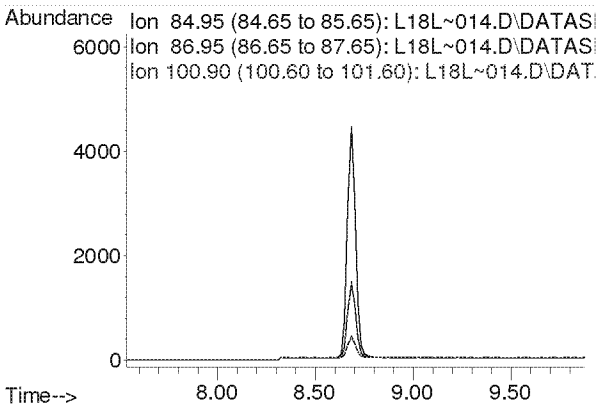


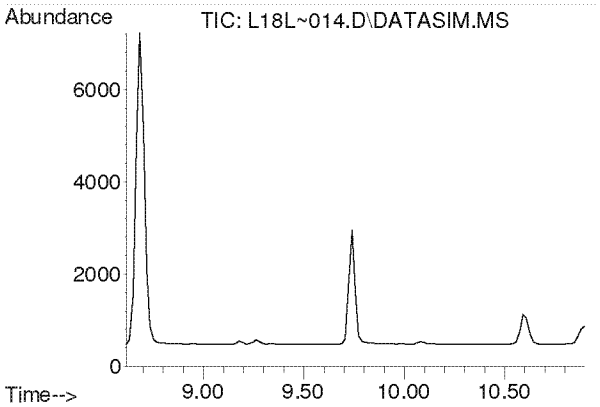
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L18L~014.D
Acq: 28 Dec 2018 4:49 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	8.9



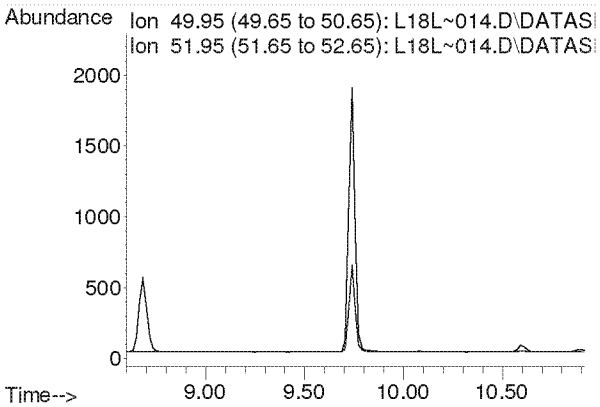


#5
Chloromethane
Concen: N.D.
Expected RT: 9.76 min

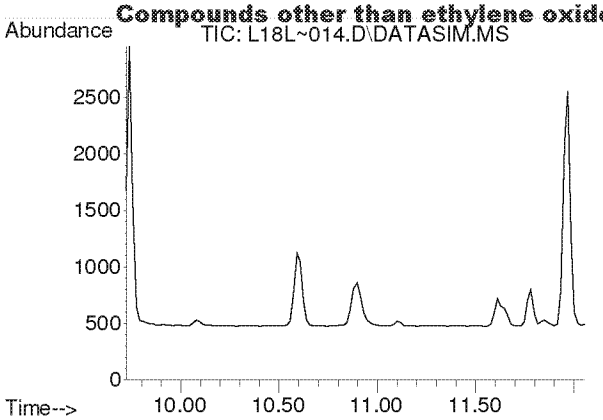
Lab File: L18L~014.D
Acq: 28 Dec 2018 4:49 am

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

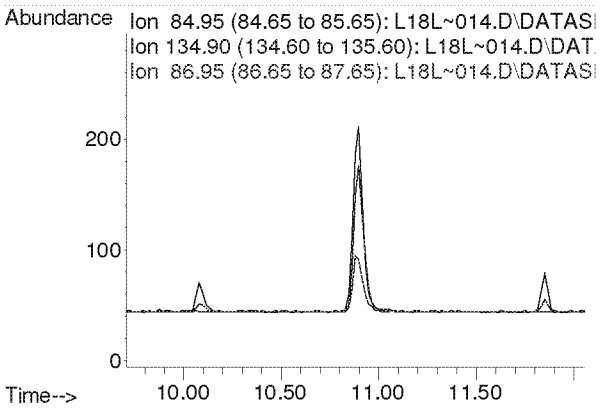


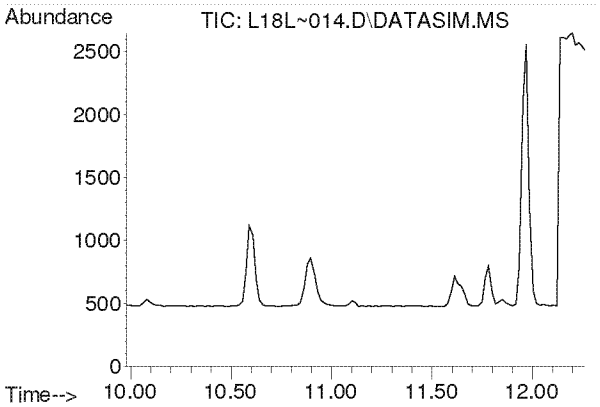
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L18L~014.D
Acq: 28 Dec 2018 4:49 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.1
87	32.1



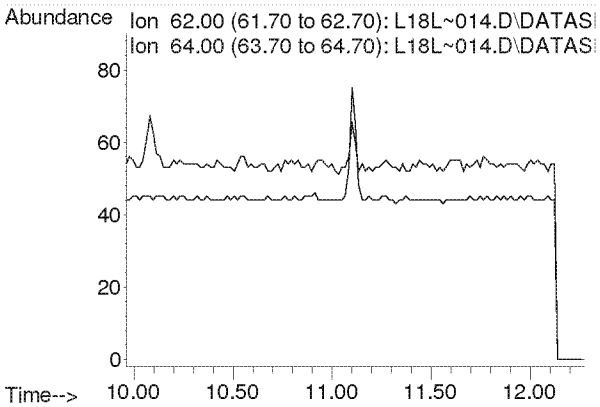


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

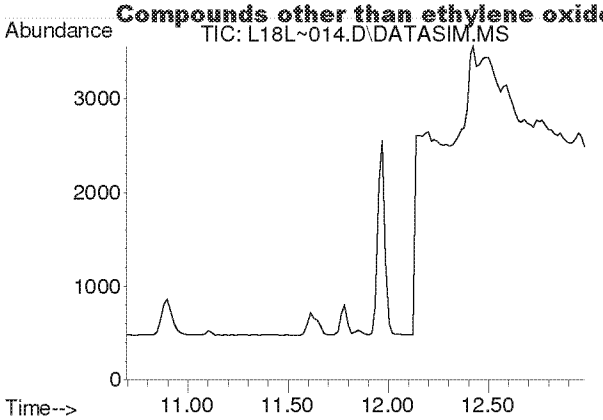
Lab File: L18L~014.D
Acq: 28 Dec 2018 4:49 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.8



Compounds other than ethylene oxide were not quantitated.

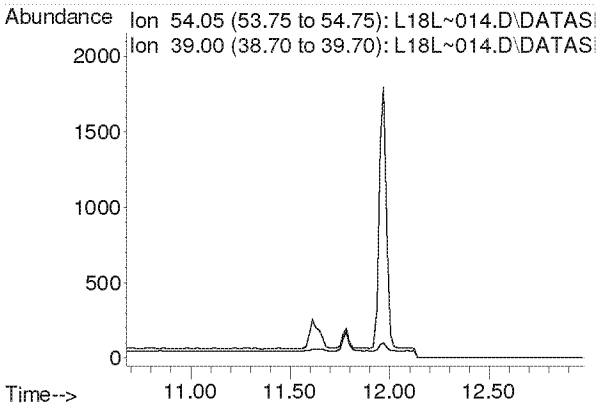


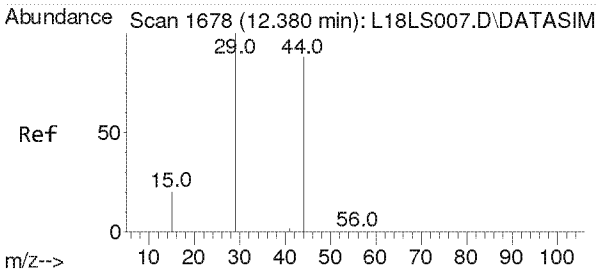
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L18L~014.D
Acq: 28 Dec 2018 4:49 am

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	105.4

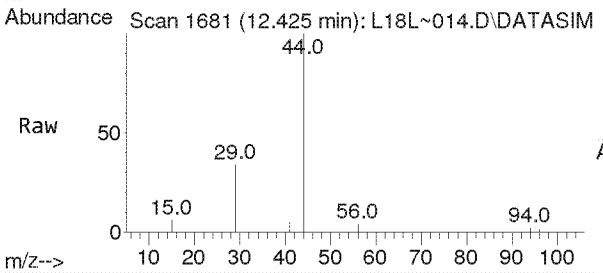


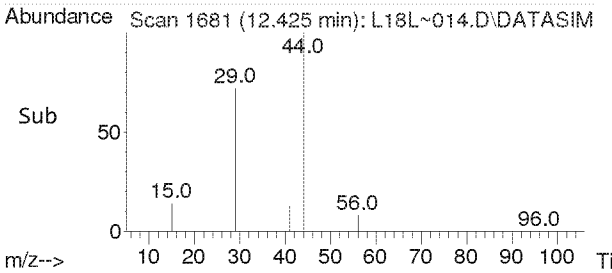


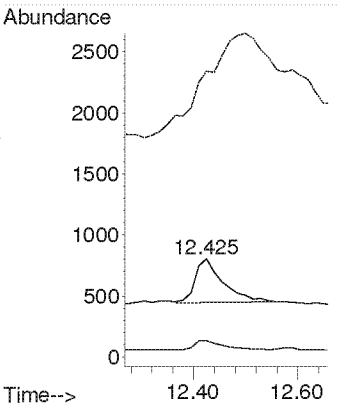
#9
Ethylene oxide
Concen: 0.413 ppbv
RT: 12.425 min Scan# 1681
Delta R.T. 0.045 min
Lab File: L18L~014.D
Acq: 28 Dec 2018 4:49 am

Tgt Ion: 29 Resp: 1327

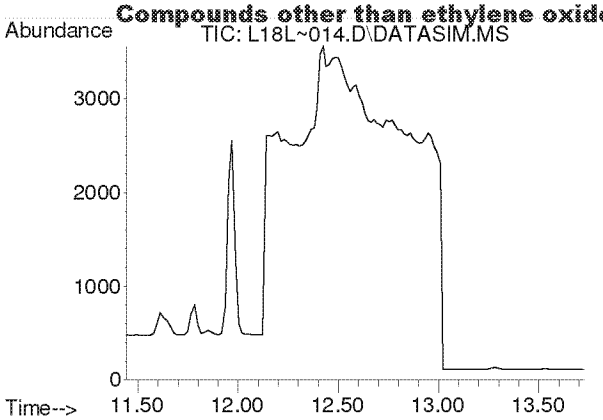
Ion	Ratio	Lower	Upper
29	100		
15	22.5	16.2	24.4
44	0.0	72.0	108.0#







Compounds other than ethylene oxide were not quantitated.

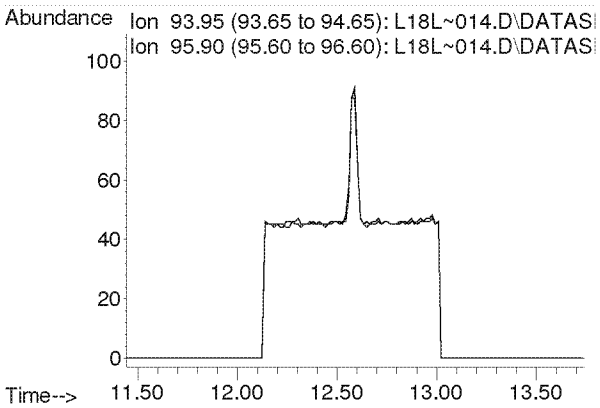


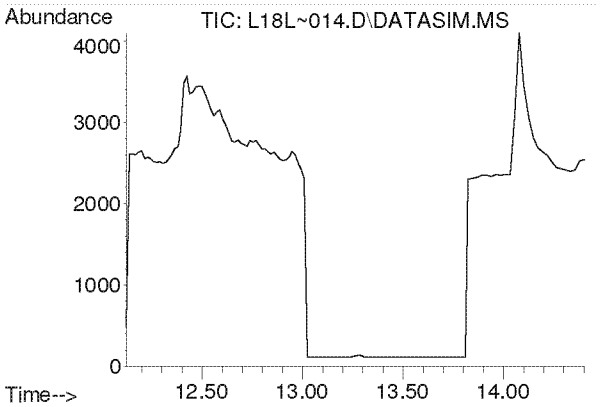
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L18L~014.D
Acq: 28 Dec 2018 4:49 am

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	93.9



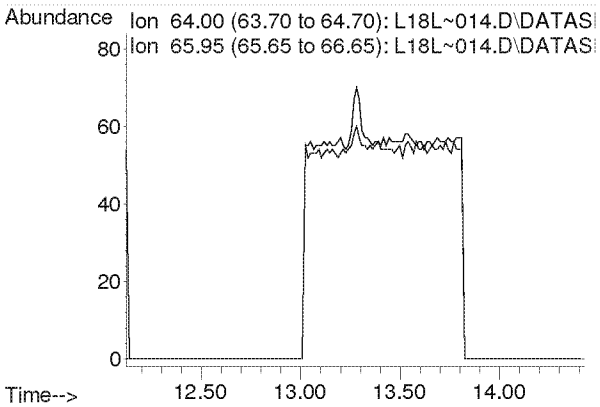


#11
Chloroethane
Concen: N.D.
Expected RT: 13.27 min

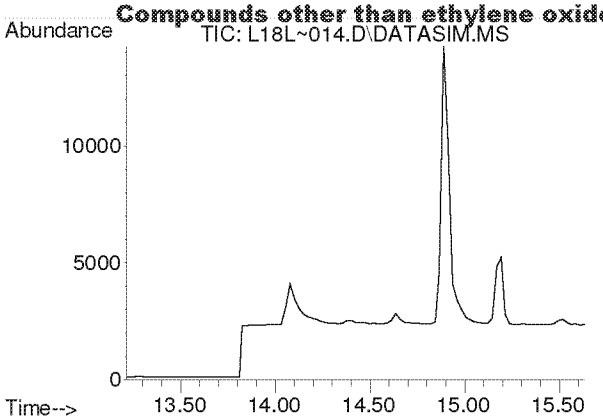
Lab File: L18L~014.D
Acq: 28 Dec 2018 4:49 am

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.0



Compounds other than ethylene oxide were not quantitated.

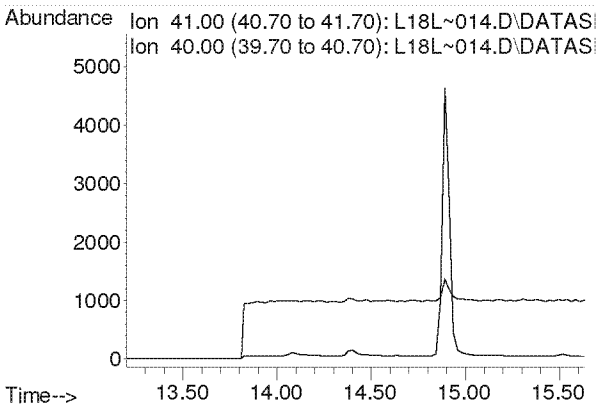


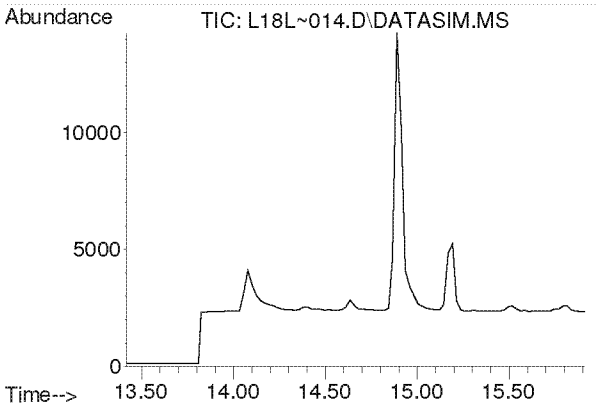
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.33 min

Lab File: L18L~014.D
Acq: 28 Dec 2018 4:49 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	50.9



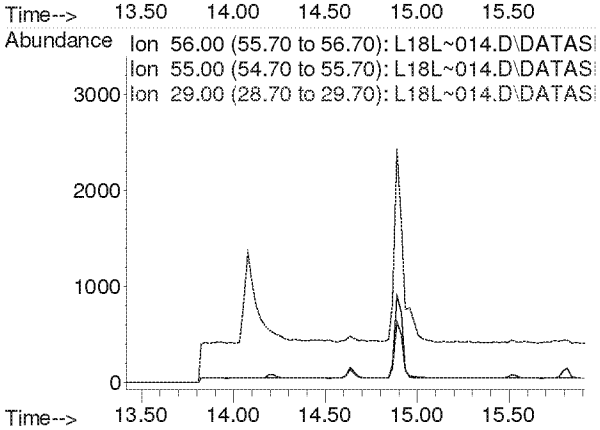


#13
Acrolein
Concen: N.D.
Expected RT: 14.61 min

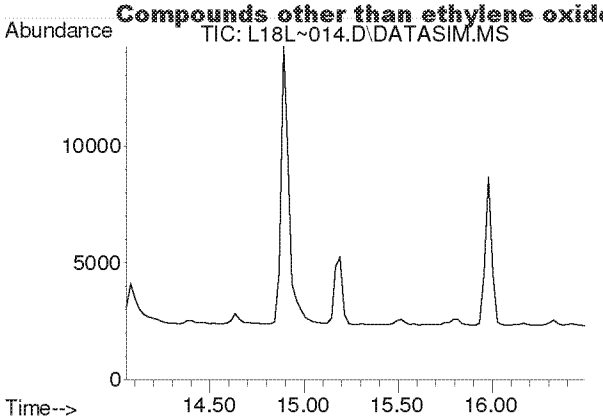
Lab File: L18L~014.D
Acq: 28 Dec 2018 4:49 am

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	75.4
29	52.9



Compounds other than ethylene oxide were not quantitated.

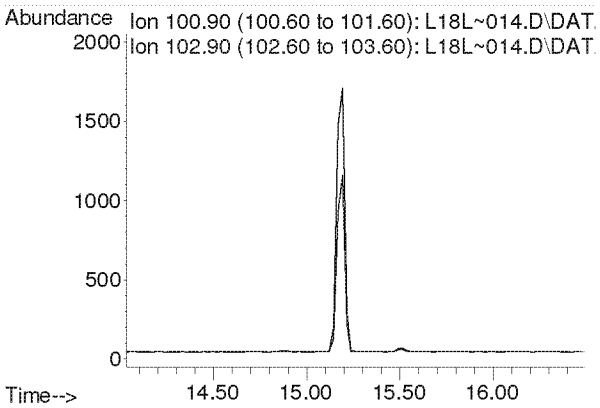


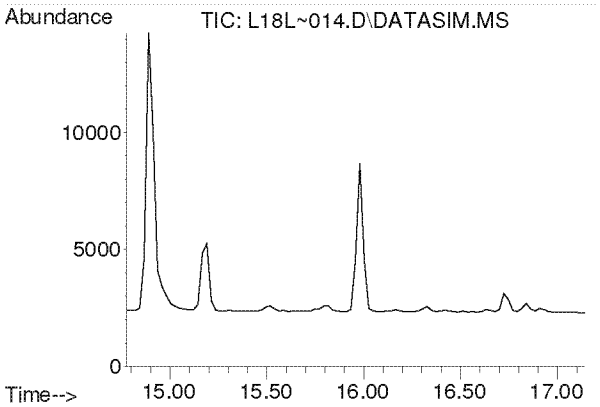
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L18L~014.D
Acq: 28 Dec 2018 4:49 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



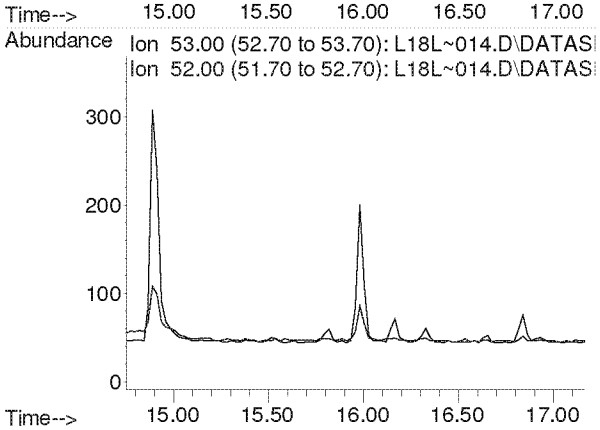


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.91 min

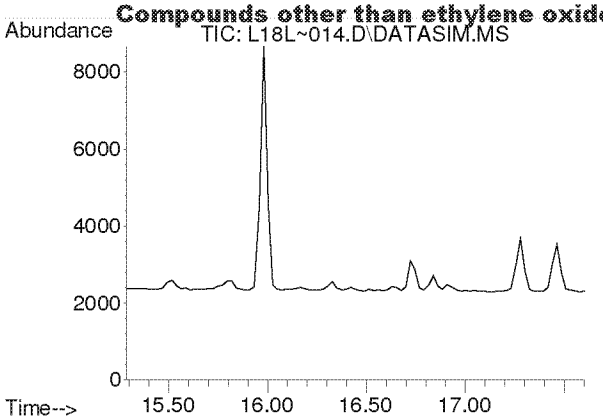
Lab File: L18L~014.D
Acq: 28 Dec 2018 4:49 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	85.4



Compounds other than ethylene oxide were not quantitated.

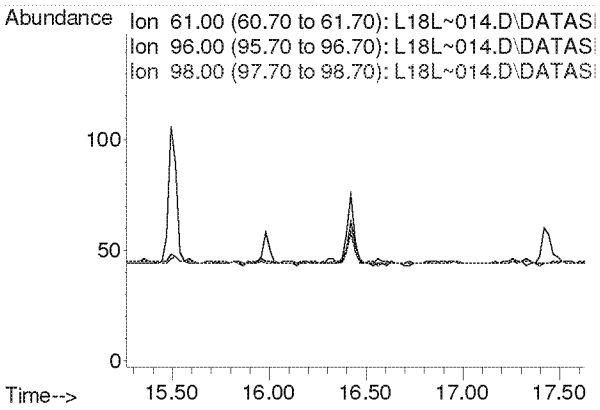


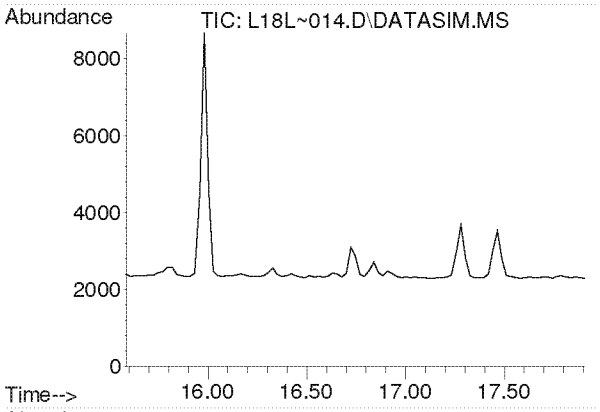
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L18L~014.D
Acq: 28 Dec 2018 4:49 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	58.3
98	37.4



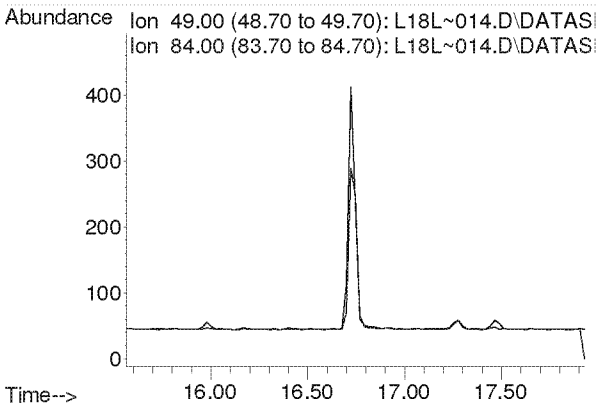


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.72 min

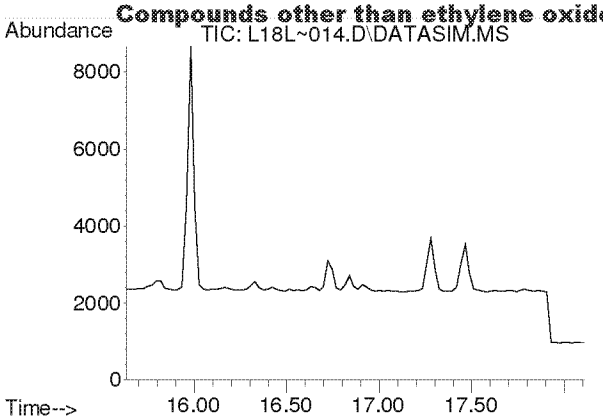
Lab File: L18L~014.D
Acq: 28 Dec 2018 4:49 am

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	76.4



Compounds other than ethylene oxide were not quantitated.

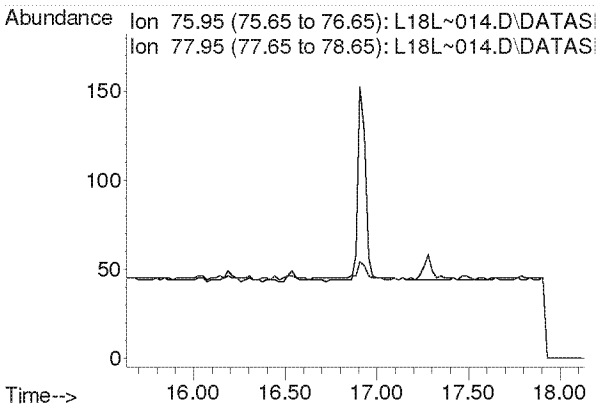


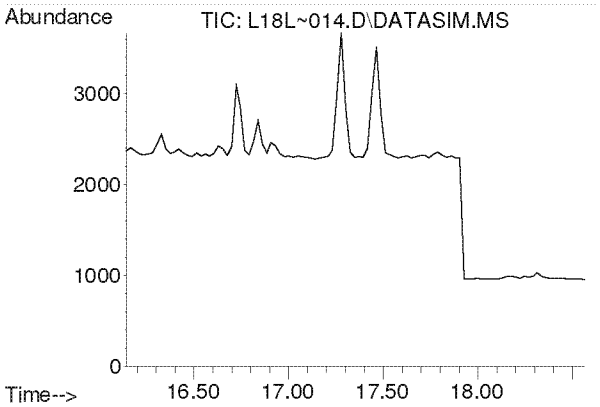
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L18L~014.D
Acq: 28 Dec 2018 4:49 am

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.1



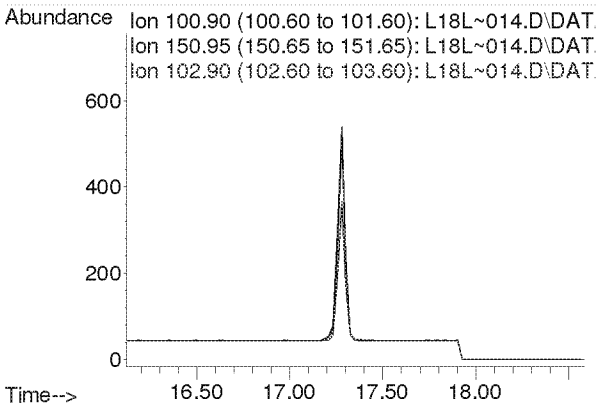


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

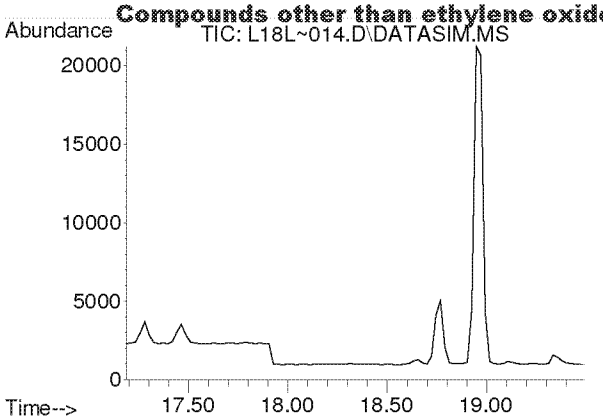
Lab File: L18L~014.D
Acq: 28 Dec 2018 4:49 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	95.3
103	64.1



Compounds other than ethylene oxide were not quantitated.

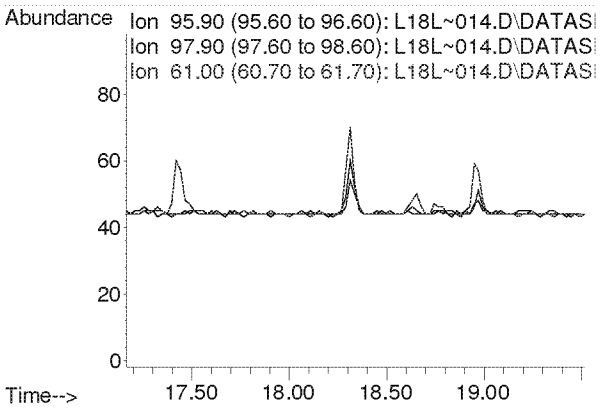


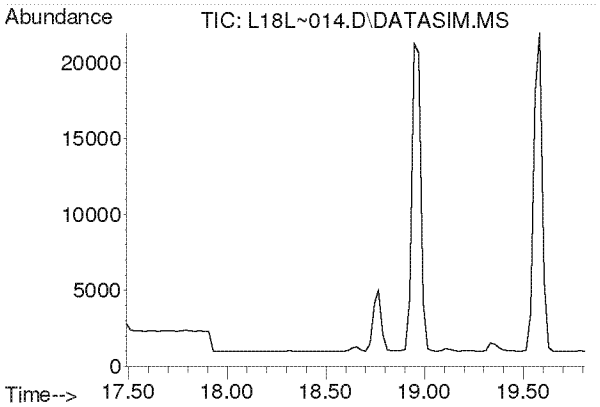
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.31 min

Lab File: L18L~014.D
Acq: 28 Dec 2018 4:49 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	63.7
61	159.2



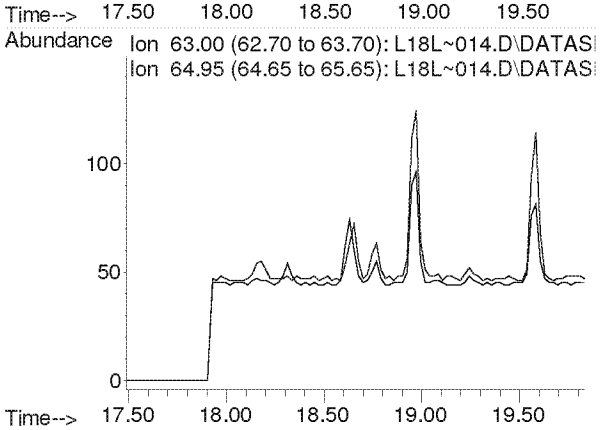


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

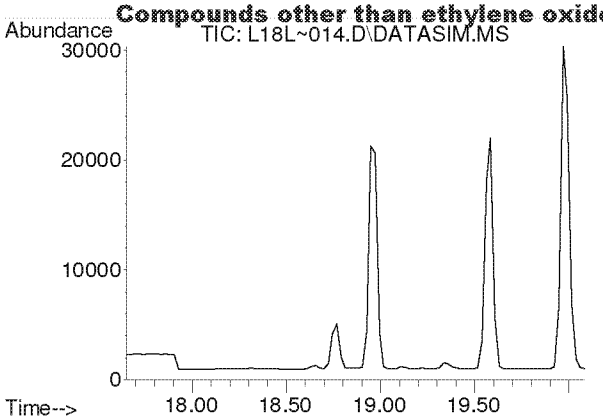
Lab File: L18L~014.D
Acq: 28 Dec 2018 4:49 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

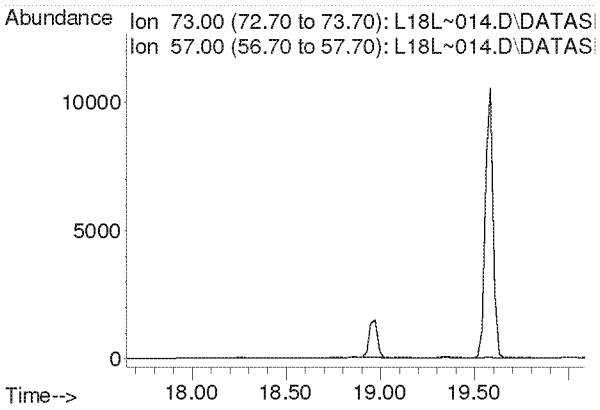


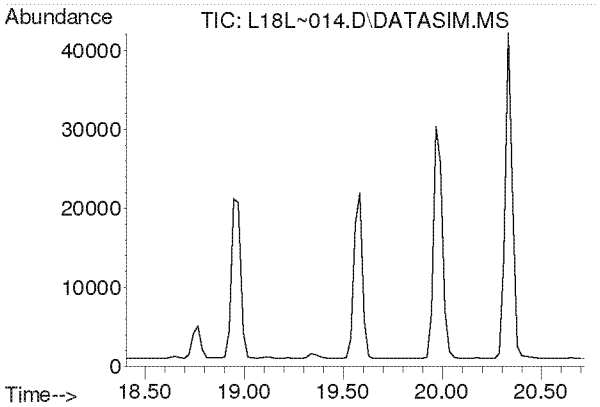
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L18L~014.D
Acq: 28 Dec 2018 4:49 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.4



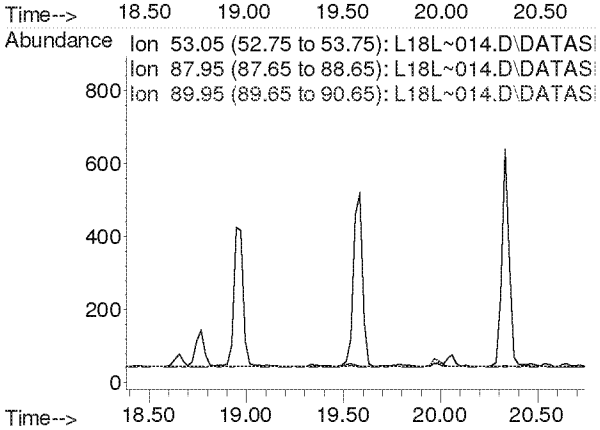


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

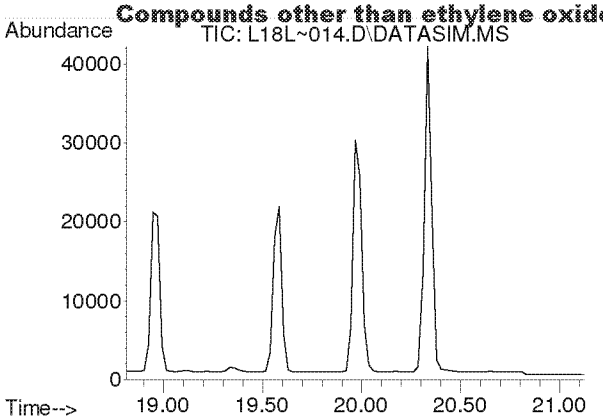
Lab File: L18L~014.D
Acq: 28 Dec 2018 4:49 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	51.8
90	16.8



Compounds other than ethylene oxide were not quantitated.

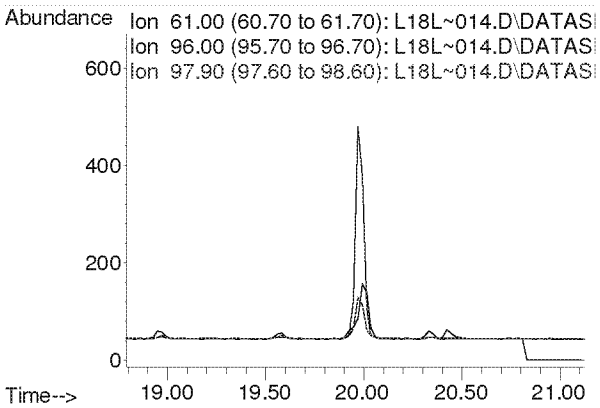


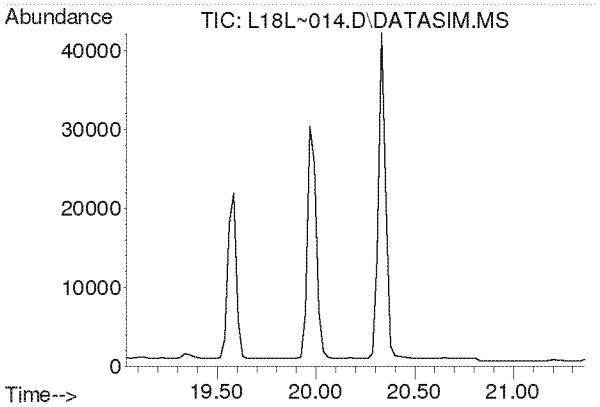
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L18L~014.D
Acq: 28 Dec 2018 4:49 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.7
98	45.2



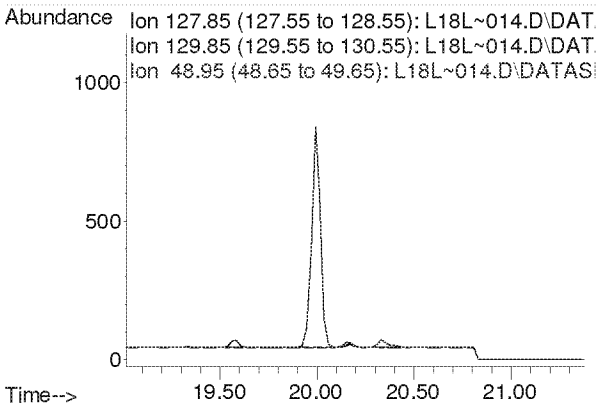


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

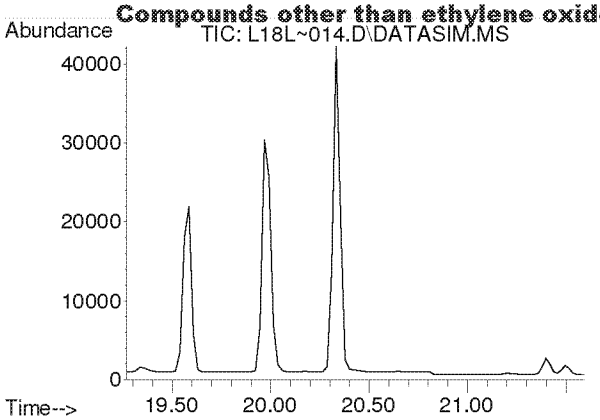
Lab File: L18L~014.D
Acq: 28 Dec 2018 4:49 am

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	171.2



Compounds other than ethylene oxide were not quantitated.

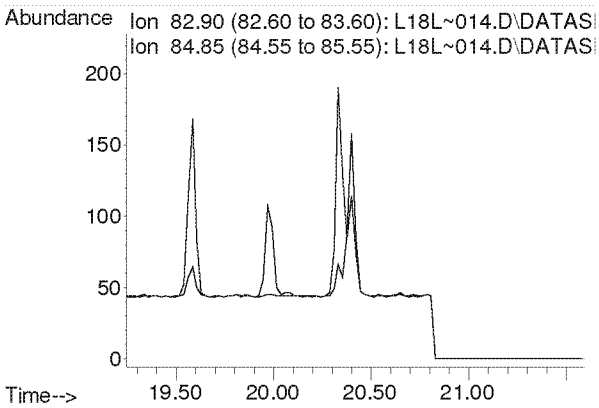


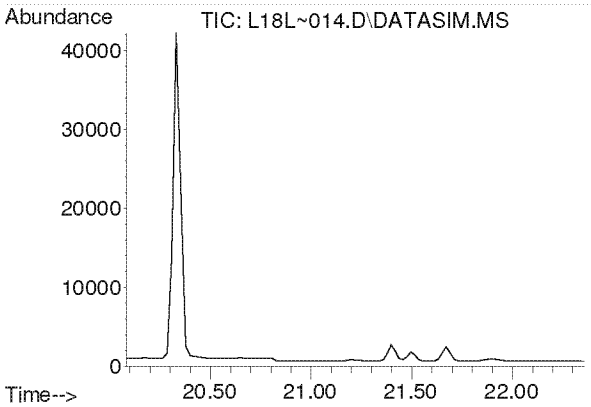
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L18L~014.D
Acq: 28 Dec 2018 4:49 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



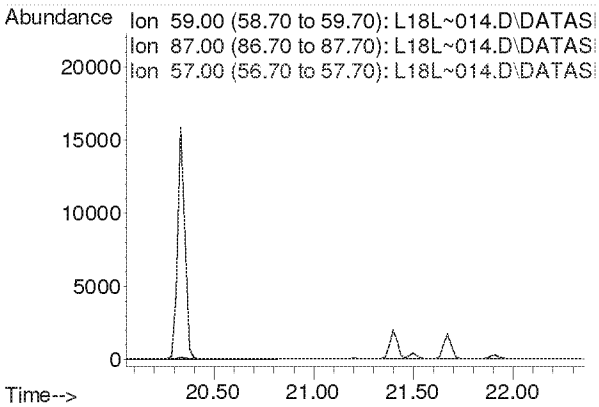


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.16 min

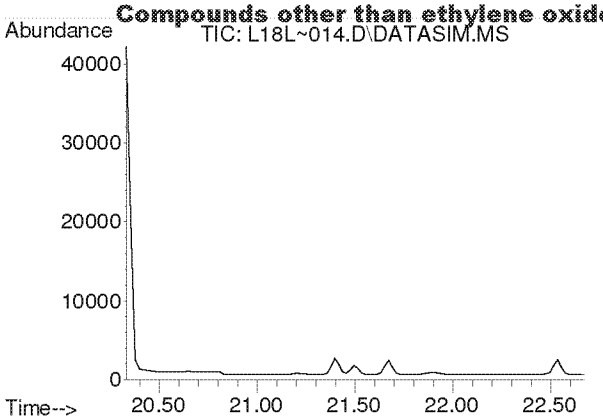
Lab File: L18L~014.D
Acq: 28 Dec 2018 4:49 am

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	37.5
57	33.8



Compounds other than ethylene oxide were not quantitated.

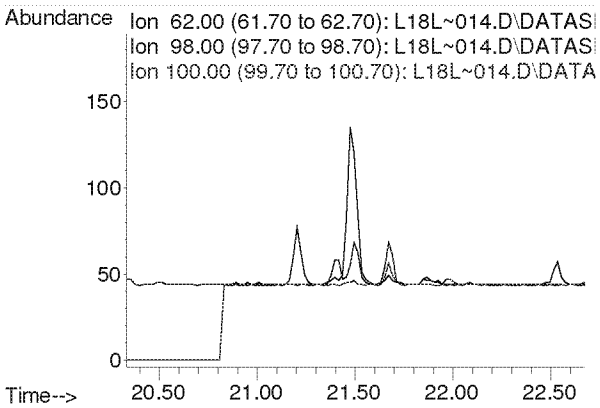


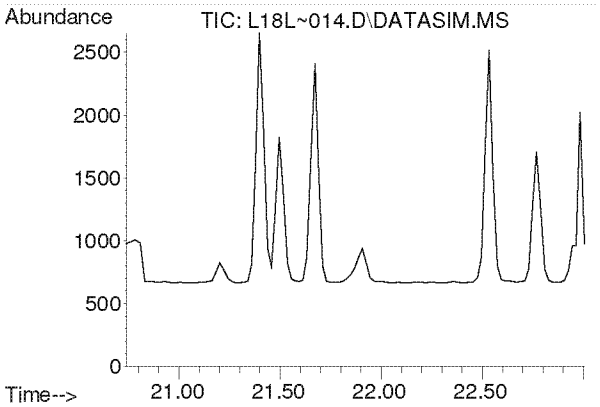
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L18L~014.D
Acq: 28 Dec 2018 4:49 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.4
100	4.0



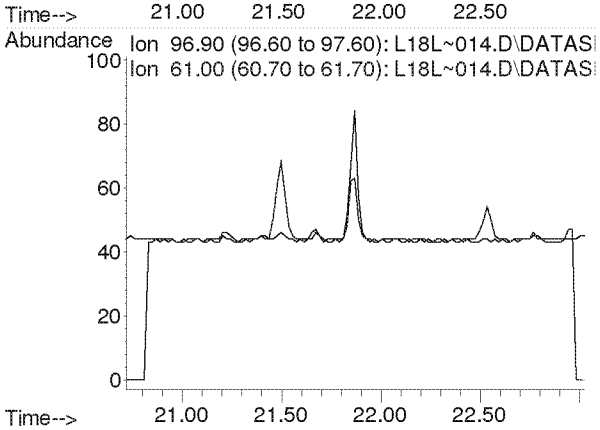


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

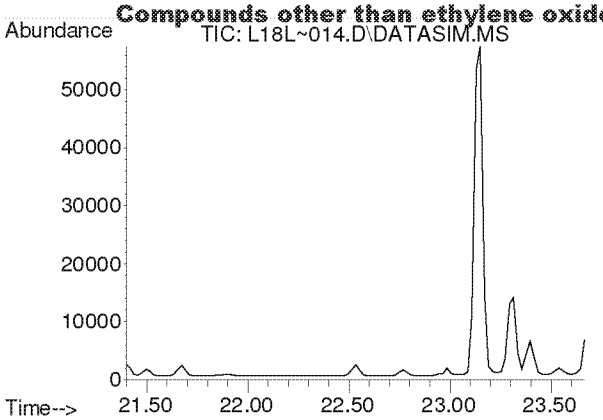
Lab File: L18L~014.D
Acq: 28 Dec 2018 4:49 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	60.5



Compounds other than ethylene oxide were not quantitated.

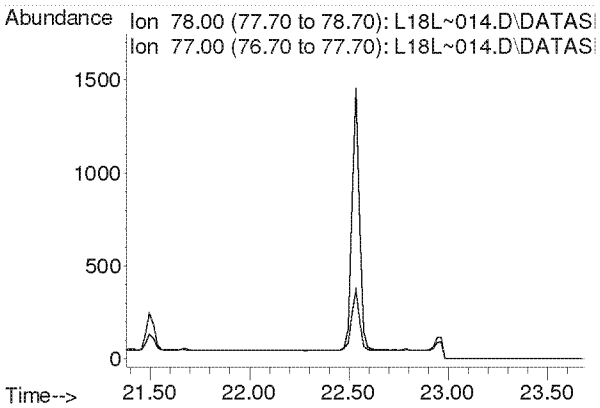


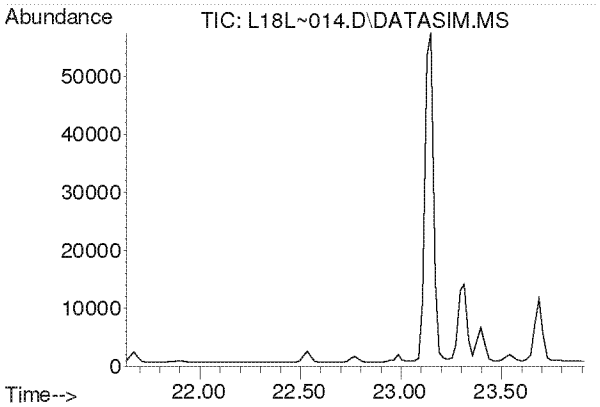
#31
Benzene
Concen: N.D.
Expected RT: 22.54 min

Lab File: L18L~014.D
Acq: 28 Dec 2018 4:49 am

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.7



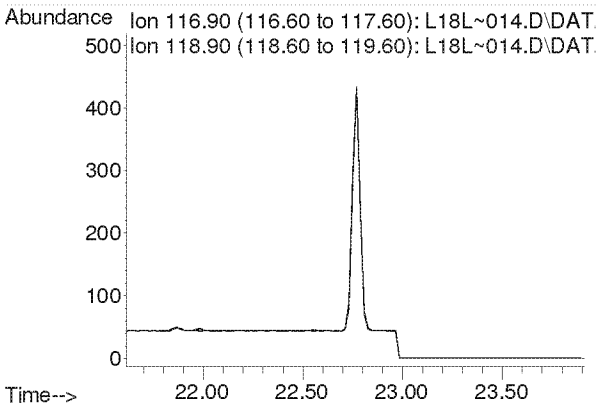


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

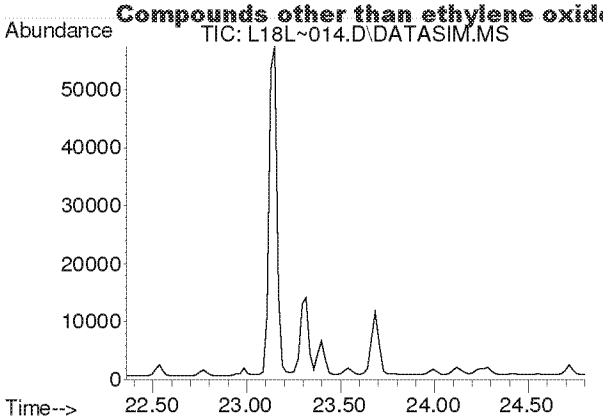
Lab File: L18L~014.D
Acq: 28 Dec 2018 4:49 am

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.5



Compounds other than ethylene oxide were not quantitated.

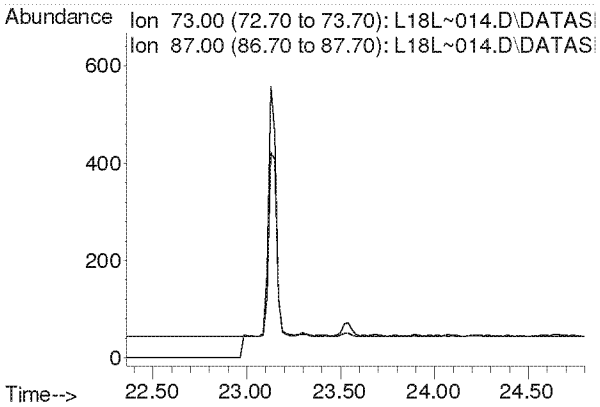


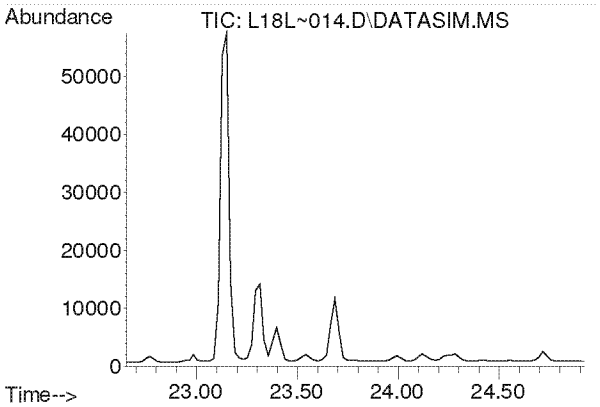
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.50 min

Lab File: L18L~014.D
Acq: 28 Dec 2018 4:49 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	24.9



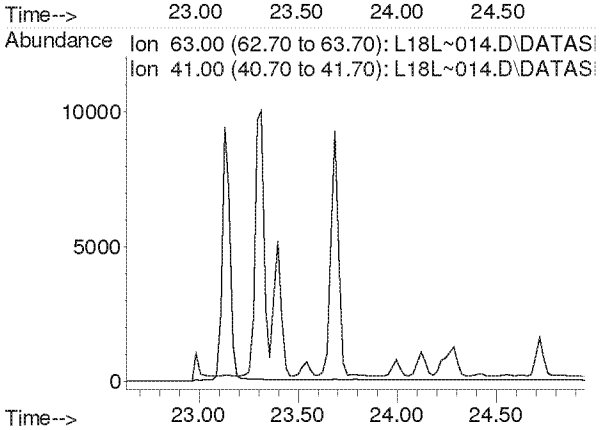


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

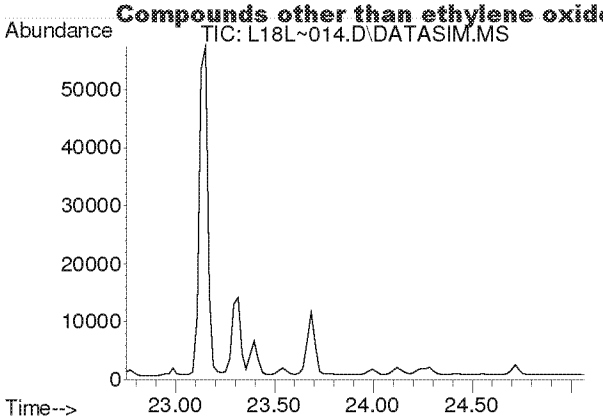
Lab File: L18L~014.D
Acq: 28 Dec 2018 4:49 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	212.8



Compounds other than ethylene oxide were not quantitated.

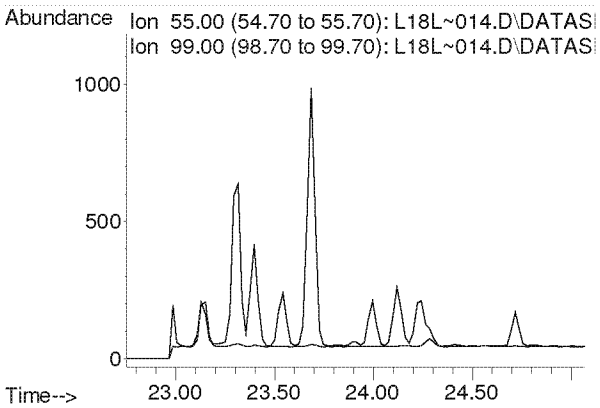


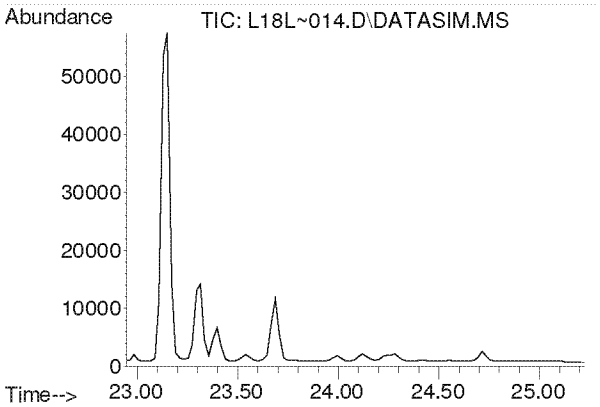
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.87 min

Lab File: L18L~014.D
Acq: 28 Dec 2018 4:49 am

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.1



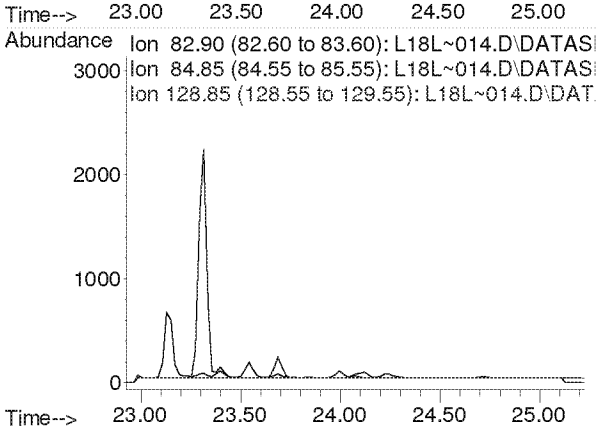


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

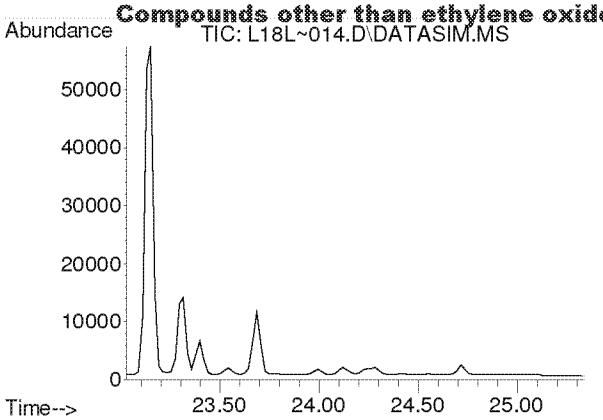
Lab File: L18L~014.D
Acq: 28 Dec 2018 4:49 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.0
129	12.4



Compounds other than ethylene oxide were not quantitated.

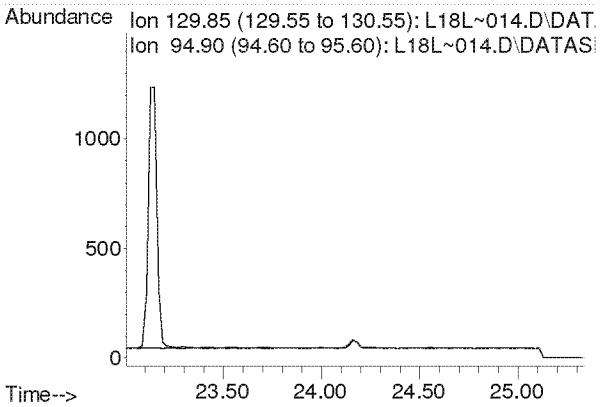


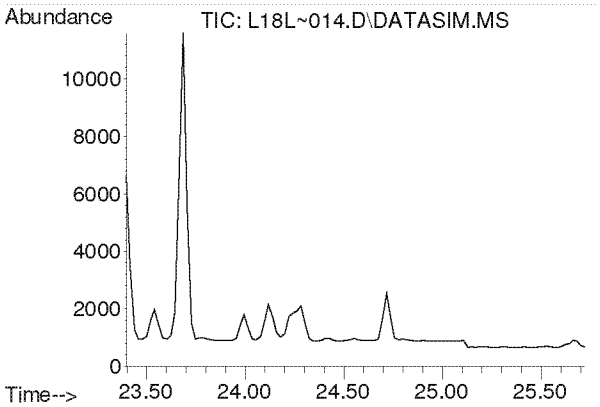
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.16 min

Lab File: L18L~014.D
Acq: 28 Dec 2018 4:49 am

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	110.3



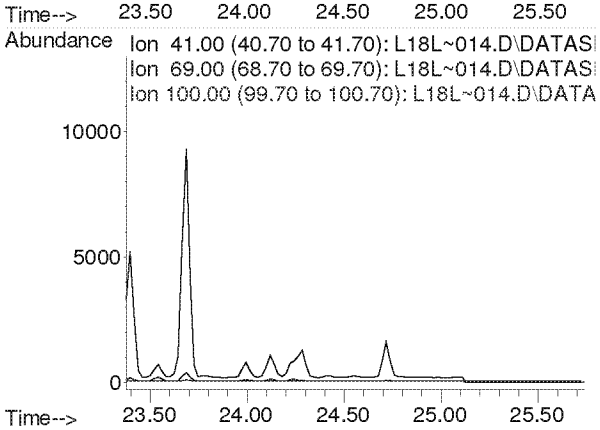


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

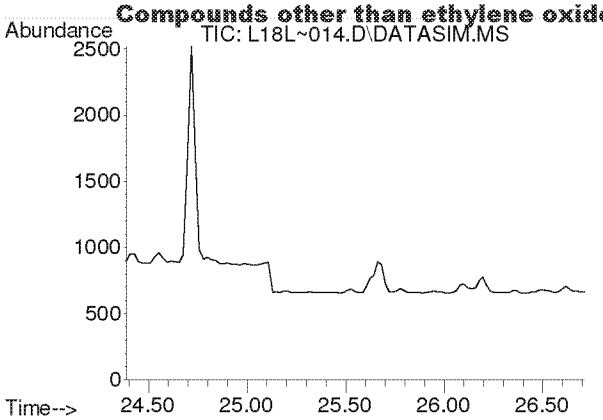
Lab File: L18L~014.D
Acq: 28 Dec 2018 4:49 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	19.9
100	5.2



Compounds other than ethylene oxide were not quantitated.

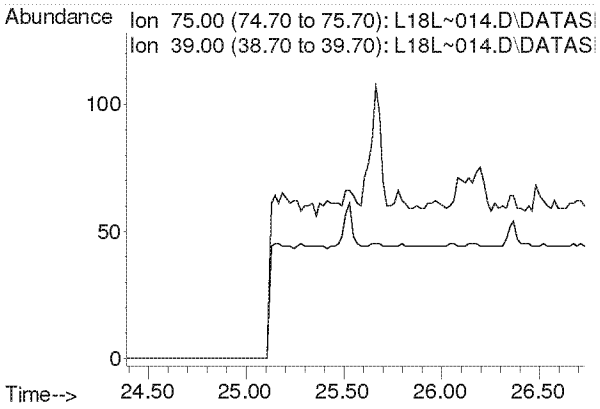


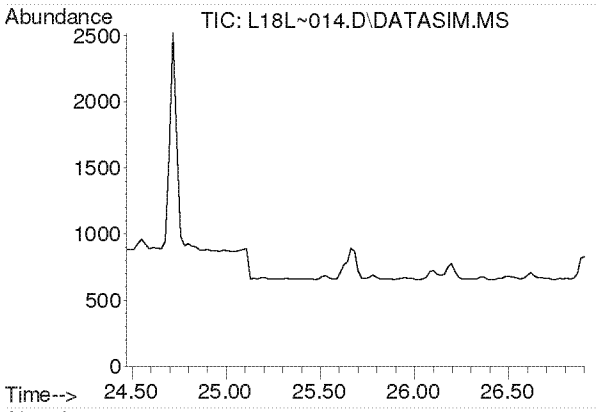
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L18L~014.D
Acq: 28 Dec 2018 4:49 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.4



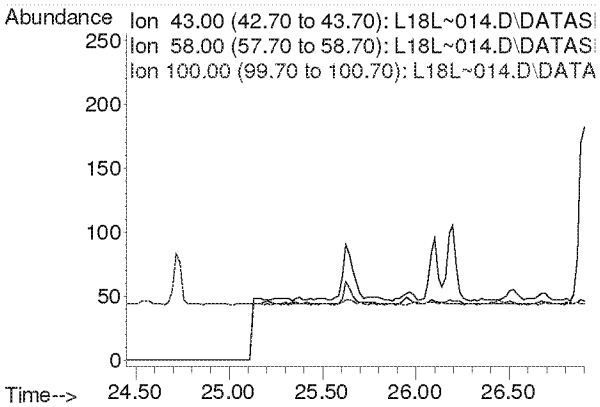


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.61 min

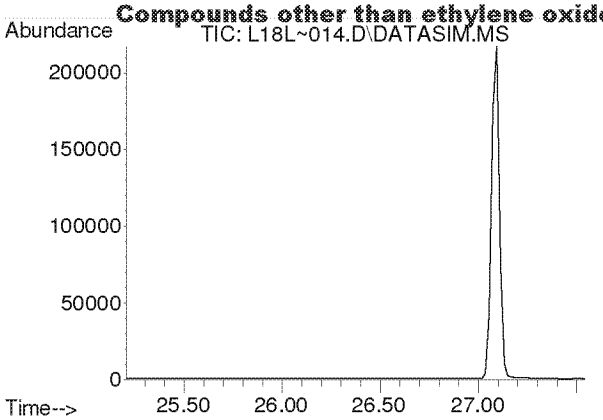
Lab File: L18L~014.D
Acq: 28 Dec 2018 4:49 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	34.2
100	7.9



Compounds other than ethylene oxide were not quantitated.

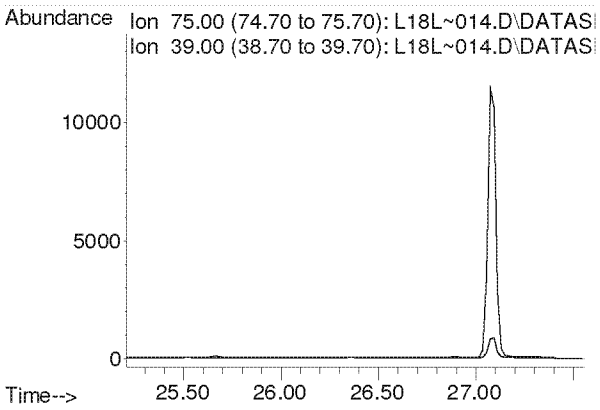


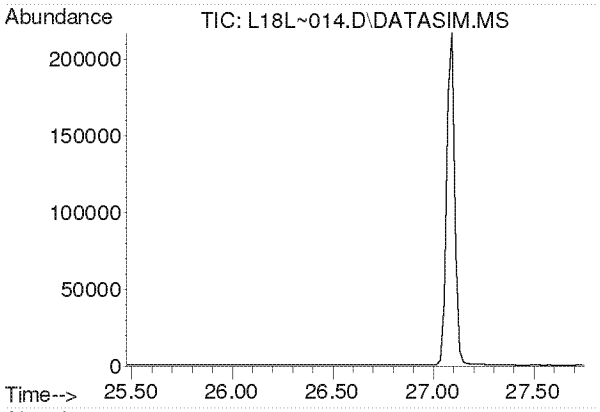
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.35 min

Lab File: L18L~014.D
Acq: 28 Dec 2018 4:49 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	50.9



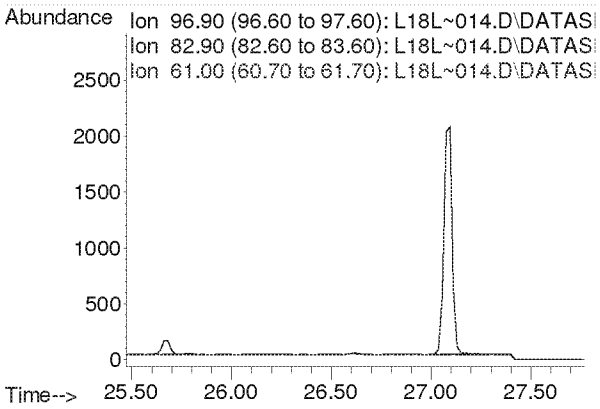


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

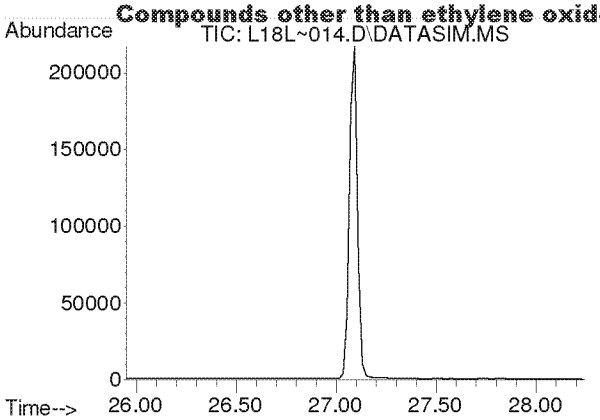
Lab File: L18L~014.D
Acq: 28 Dec 2018 4:49 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	96.1
61	63.5



Compounds other than ethylene oxide were not quantitated.

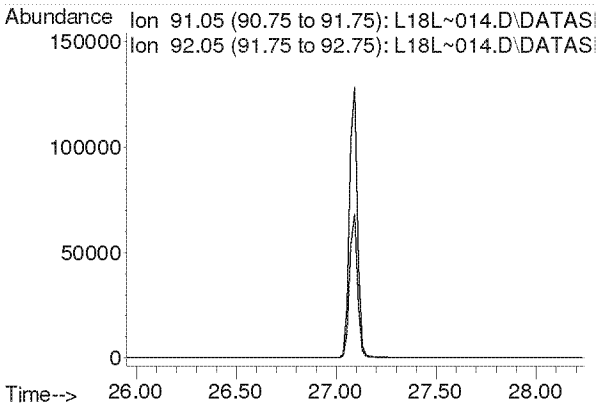


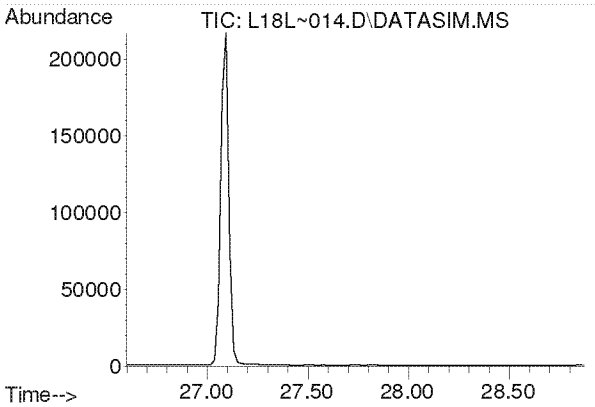
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L18L~014.D
Acq: 28 Dec 2018 4:49 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.6



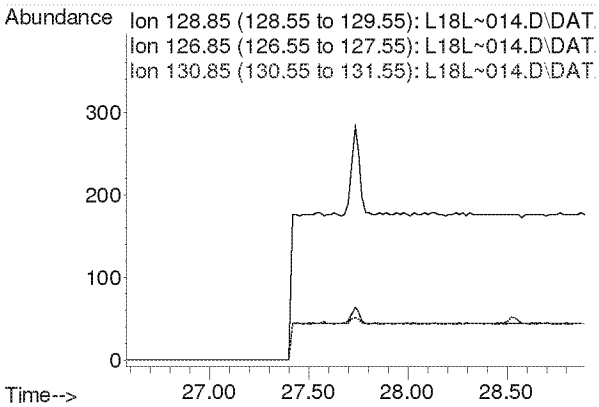


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.73 min

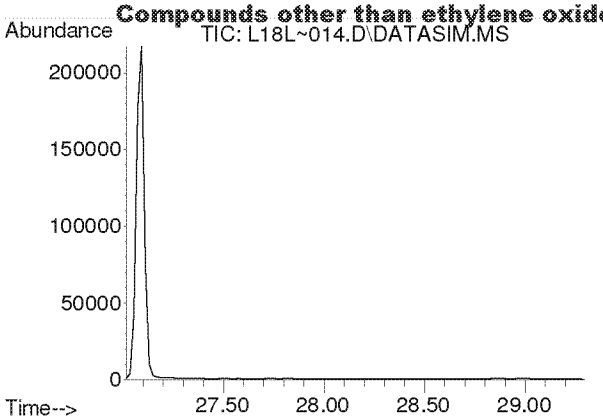
Lab File: L18L~014.D
Acq: 28 Dec 2018 4:49 am

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.2
131	6.0



Compounds other than ethylene oxide were not quantitated.

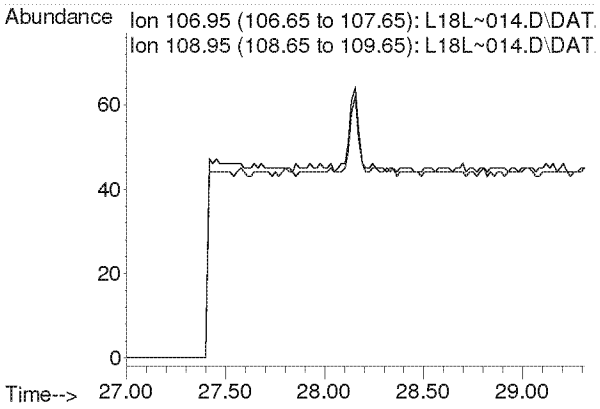


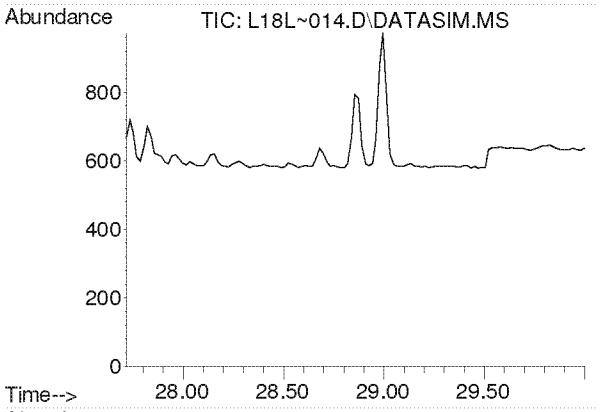
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.16 min

Lab File: L18L~014.D
Acq: 28 Dec 2018 4:49 am

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.5



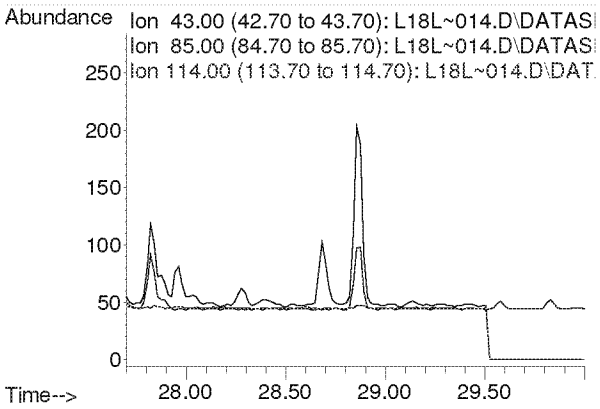


#47
n-Octane
Concen: N.D.
Expected RT: 28.86 min

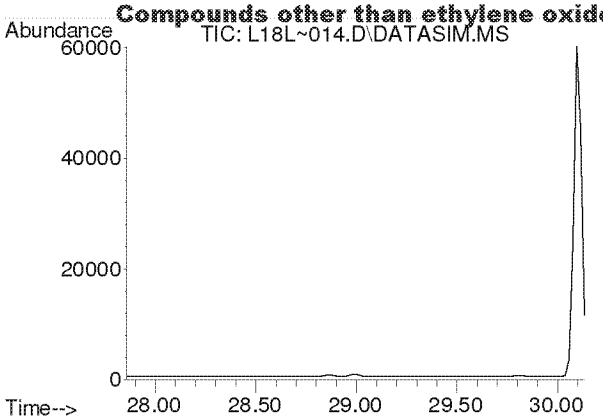
Lab File: L18L~014.D
Acq: 28 Dec 2018 4:49 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	36.0
114	2.2



Compounds other than ethylene oxide were not quantitated.

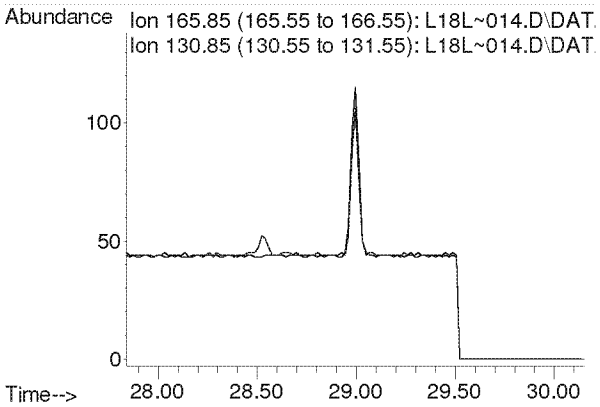


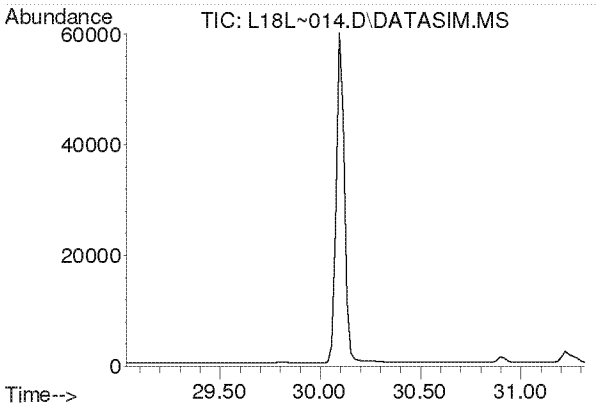
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L18L~014.D
Acq: 28 Dec 2018 4:49 am

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	78.2



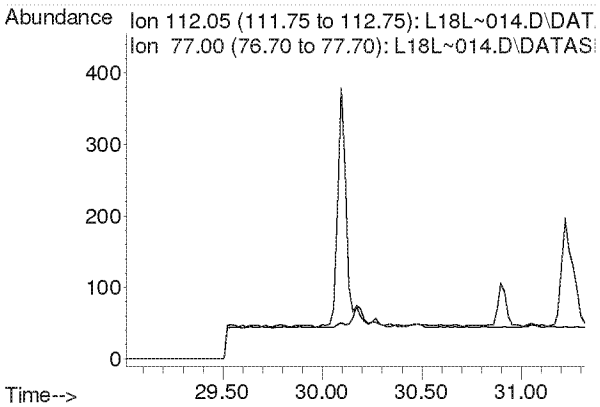


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.17 min

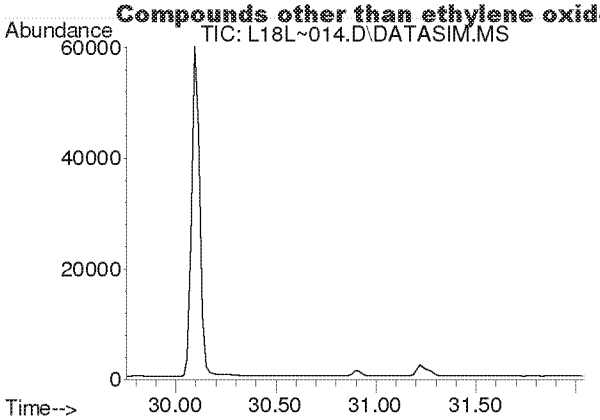
Lab File: L18L~014.D
Acq: 28 Dec 2018 4:49 am

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	63.0



Compounds other than ethylene oxide were not quantitated.

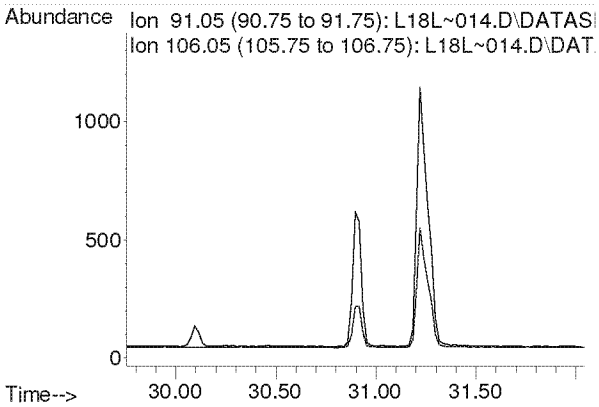


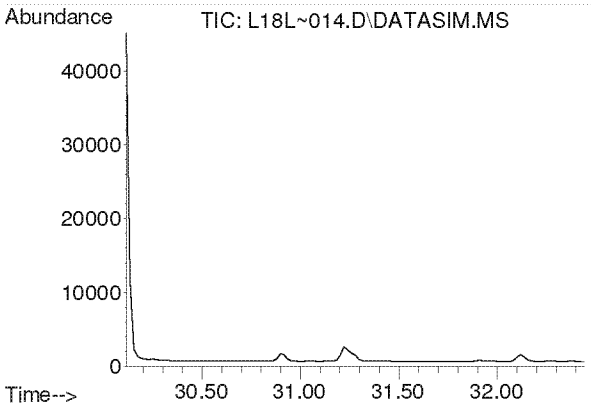
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.90 min

Lab File: L18L~014.D
Acq: 28 Dec 2018 4:49 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	31.8



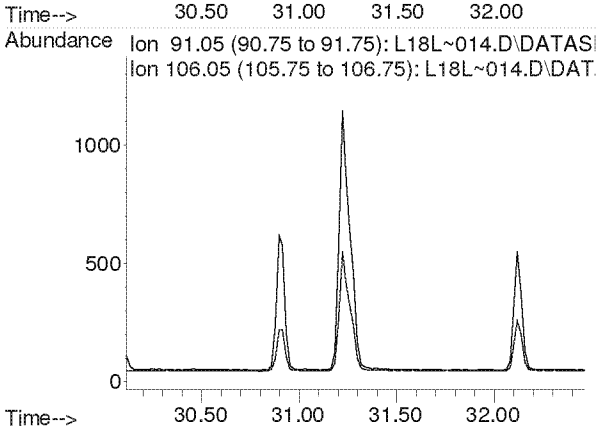


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.26 min

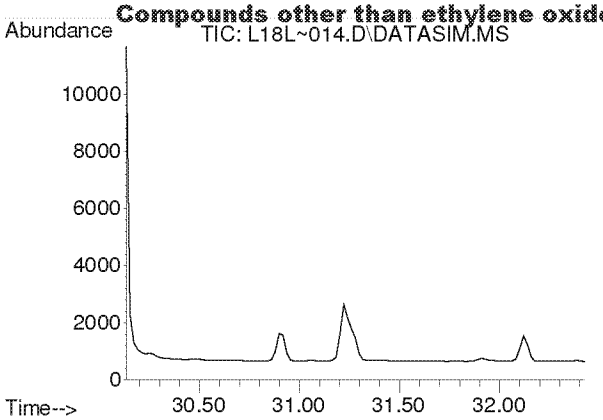
Lab File: L18L~014.D
Acq: 28 Dec 2018 4:49 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.4



Compounds other than ethylene oxide were not quantitated.

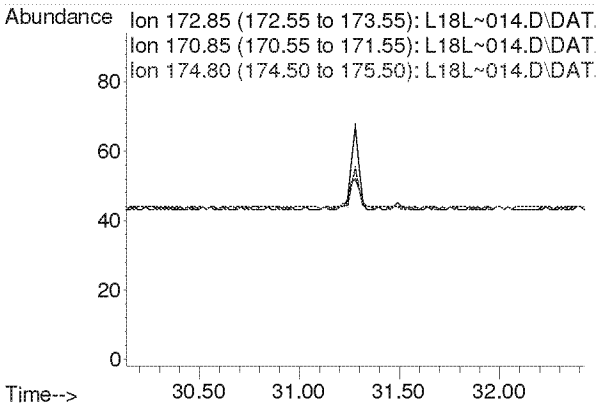


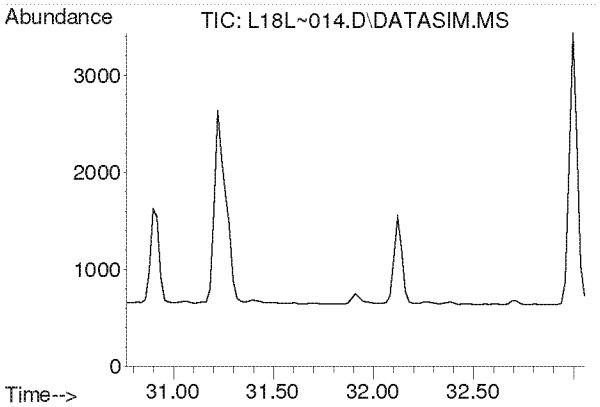
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L18L~014.D
Acq: 28 Dec 2018 4:49 am

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	49.0



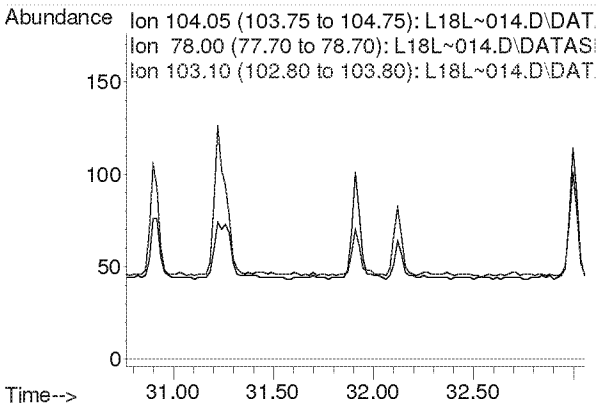


#53
Styrene
Concen: N.D.
Expected RT: 31.91 min

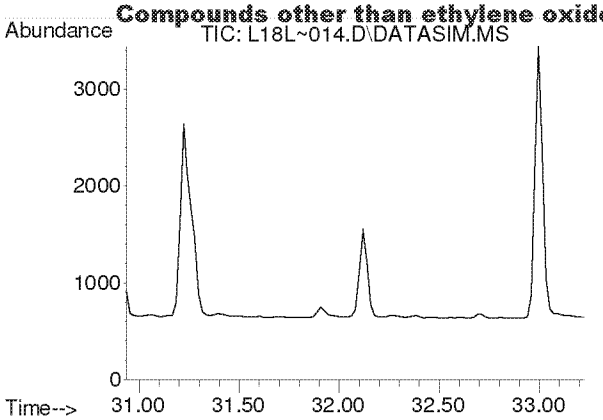
Lab File: L18L~014.D
Acq: 28 Dec 2018 4:49 am

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	45.6
103	0.0



Compounds other than ethylene oxide were not quantitated.

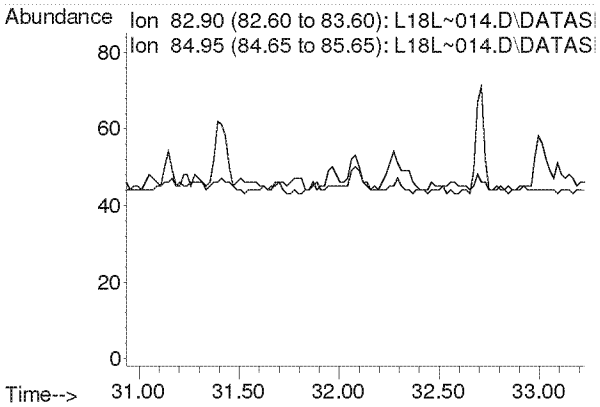


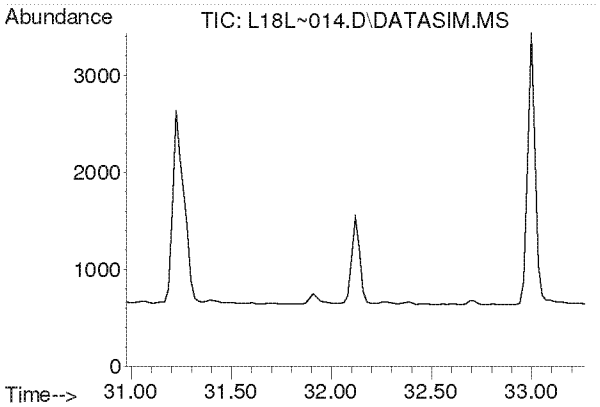
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L18L~014.D
Acq: 28 Dec 2018 4:49 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.9



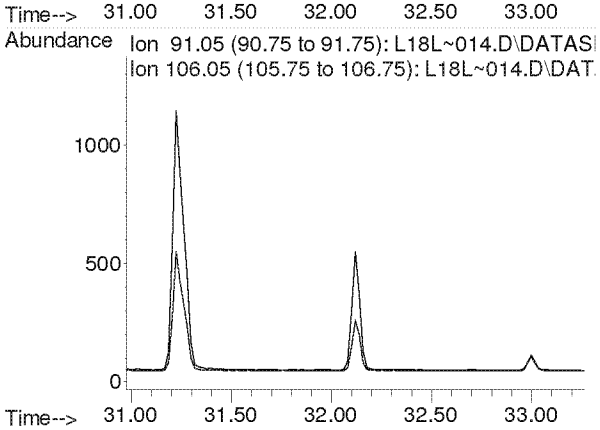


#55
o-Xylene
Concen: N.D.
Expected RT: 32.12 min

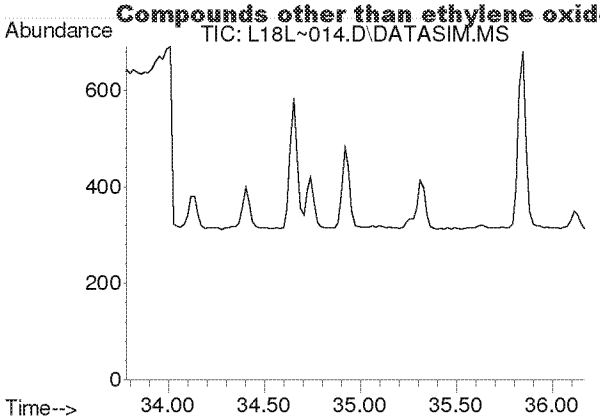
Lab File: L18L~014.D
Acq: 28 Dec 2018 4:49 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.2



Compounds other than ethylene oxide were not quantitated.

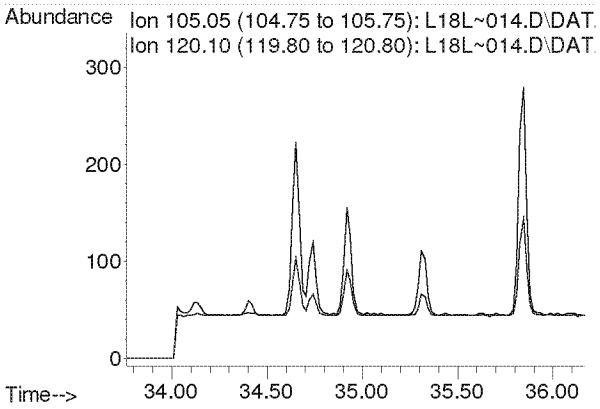


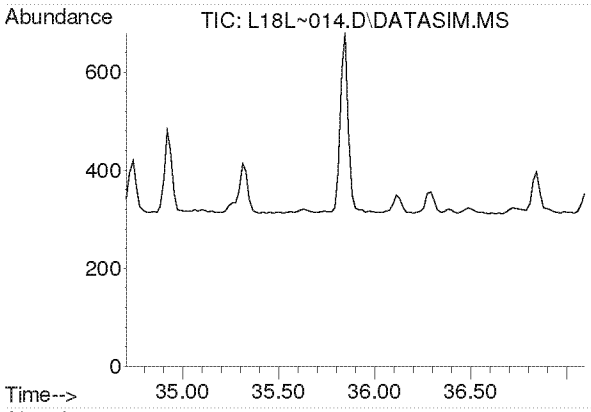
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.92 min

Lab File: L18L~014.D
Acq: 28 Dec 2018 4:49 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	45.0



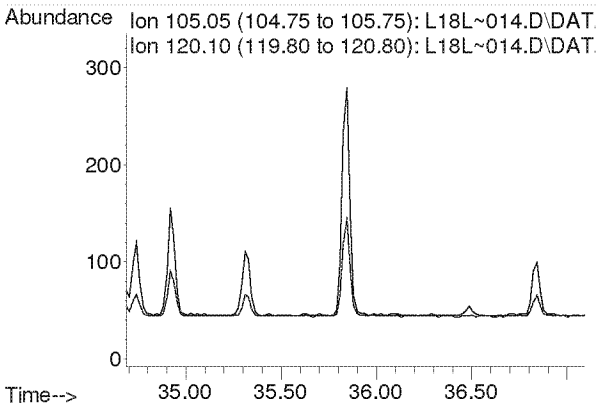


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

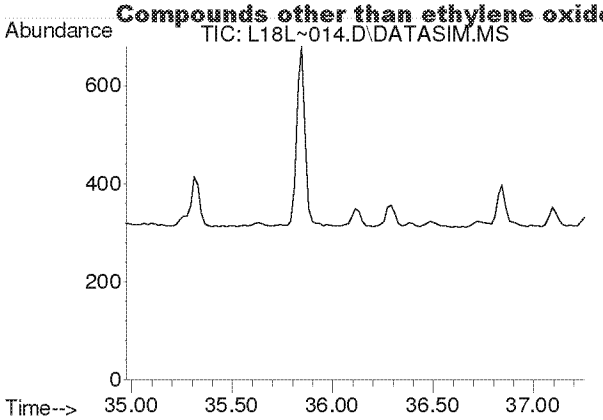
Lab File: L18L~014.D
Acq: 28 Dec 2018 4:49 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	42.8



Compounds other than ethylene oxide were not quantitated.

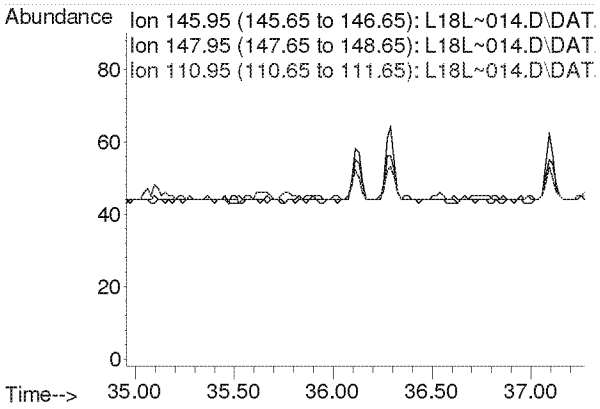


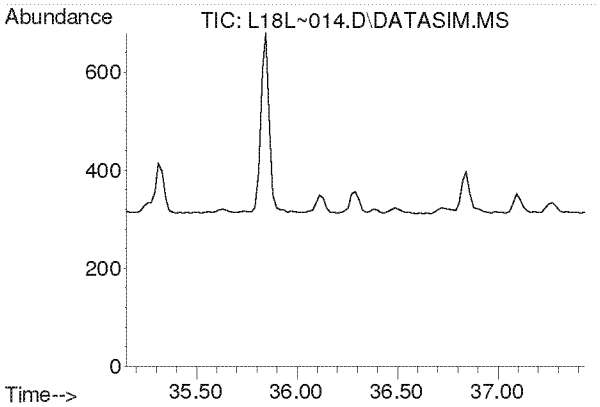
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.11 min

Lab File: L18L~014.D
Acq: 28 Dec 2018 4:49 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.5



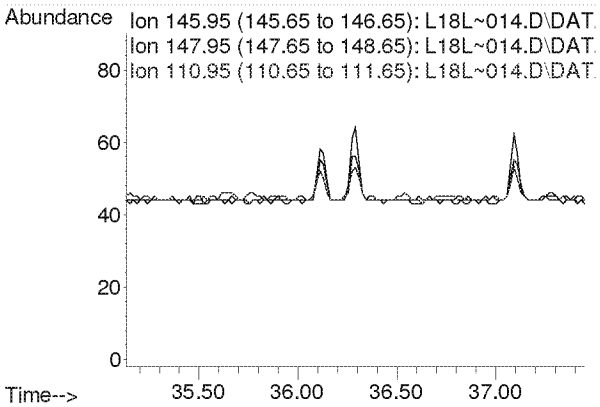


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

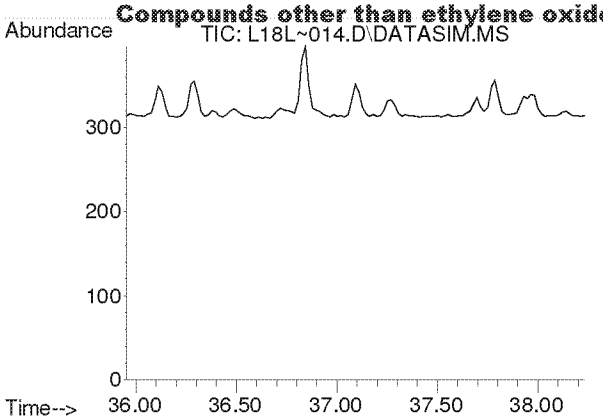
Lab File: L18L~014.D
Acq: 28 Dec 2018 4:49 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	39.5



Compounds other than ethylene oxide were not quantitated.

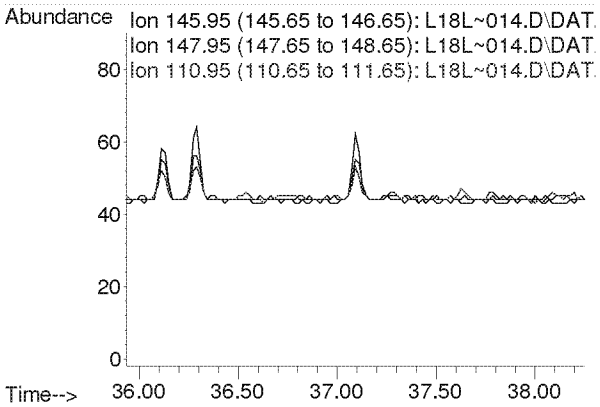


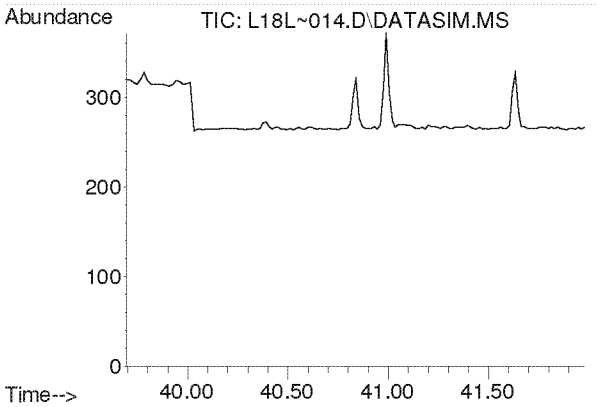
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.09 min

Lab File: L18L~014.D
Acq: 28 Dec 2018 4:49 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	41.4



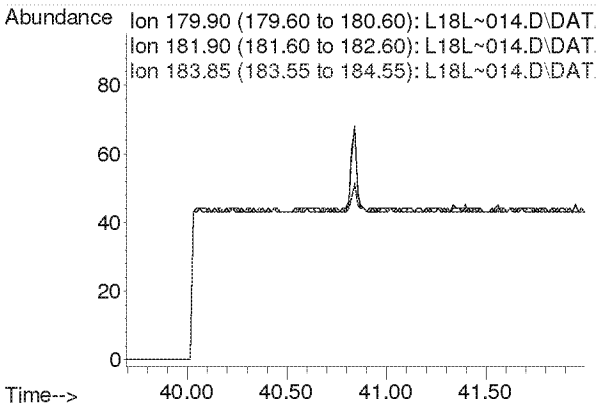


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

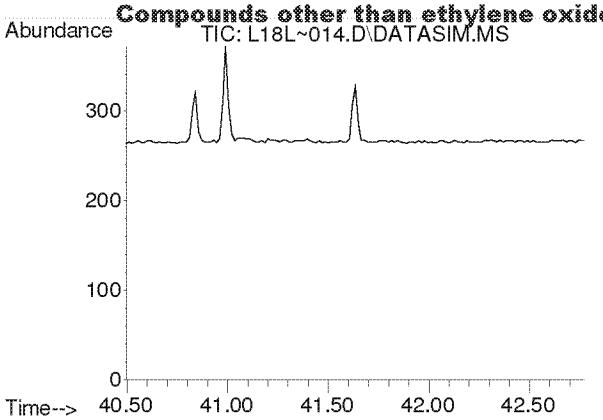
Lab File: L18L~014.D
Acq: 28 Dec 2018 4:49 am

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	95.1
184	30.7



Compounds other than ethylene oxide were not quantitated.

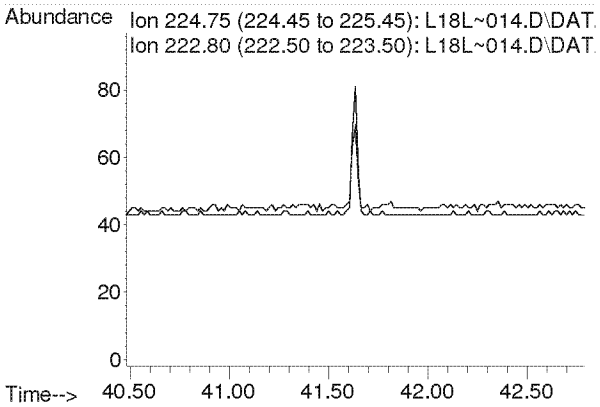


#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.64 min

Lab File: L18L~014.D
Acq: 28 Dec 2018 4:49 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\L18L~\
Data File : L18L~015.D
Acq On : 28 Dec 2018 5:51 am
Operator : MAH
Sample : B8L2704-DUP2
Misc : VILLAGE HALL R2 12/8/18
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jan 03 12:38:19 2019
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
Response via : Initial Calibration

d=MK

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.970	66	58437	4.7700 ppbv	-0.02
29) IS-1,4-Difluorobenzene	23.151	114	139975	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.097	117	101887	4.7400 ppbv	0.00

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. d	
8) 1,3-Butadiene	0.000	54	0	N.D. d	
9) Ethylene oxide	12.410	29	1624	0.4649 ppbv #	22
10) Bromomethane	0.000	94	0	N.D. d	
11) Chloroethane	0.000	64	0	N.D. 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. d	2
17) Methylene Chloride	0.000	49	0	N.D. d	0
18) Carbon Disulfide	0.000	76	0	N.D. d	0
19) Trichlorotrifluoroethane	0.000	101	0	N.D. d	
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D. d	
21) 1,1-Dichloroethane	0.000	63	0	N.D. 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. d	
26) Chloroform	0.000	83	0	N.D. d	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D. d	
28) 1,2-Dichloroethane	0.000	62	0	N.D. d	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D. 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. 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. d	
37) Trichloroethylene	0.000	130	0	N.D. d	
38) Methyl Methacrylate	0.000	41	0	N.D. d	
39) cis-1,3-Dichloropropene	0.000	75	0	N.D. 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. d	
44) Toluene	0.000	91	0	N.D. d	
45) Dibromochloromethane	0.000	129	0	N.D. d	
46) 1,2-Dibromoethane	0.000	107	0	N.D. 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. 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\L18L~\
Data File : L18L~015.D
Acq On : 28 Dec 2018 5:51 am
Operator : MAH
Sample : B8L2704-DUP2
Misc : VILLAGE HALL R2 12/8/18
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jan 03 12:38:19 2019
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
Response via : Initial Calibration

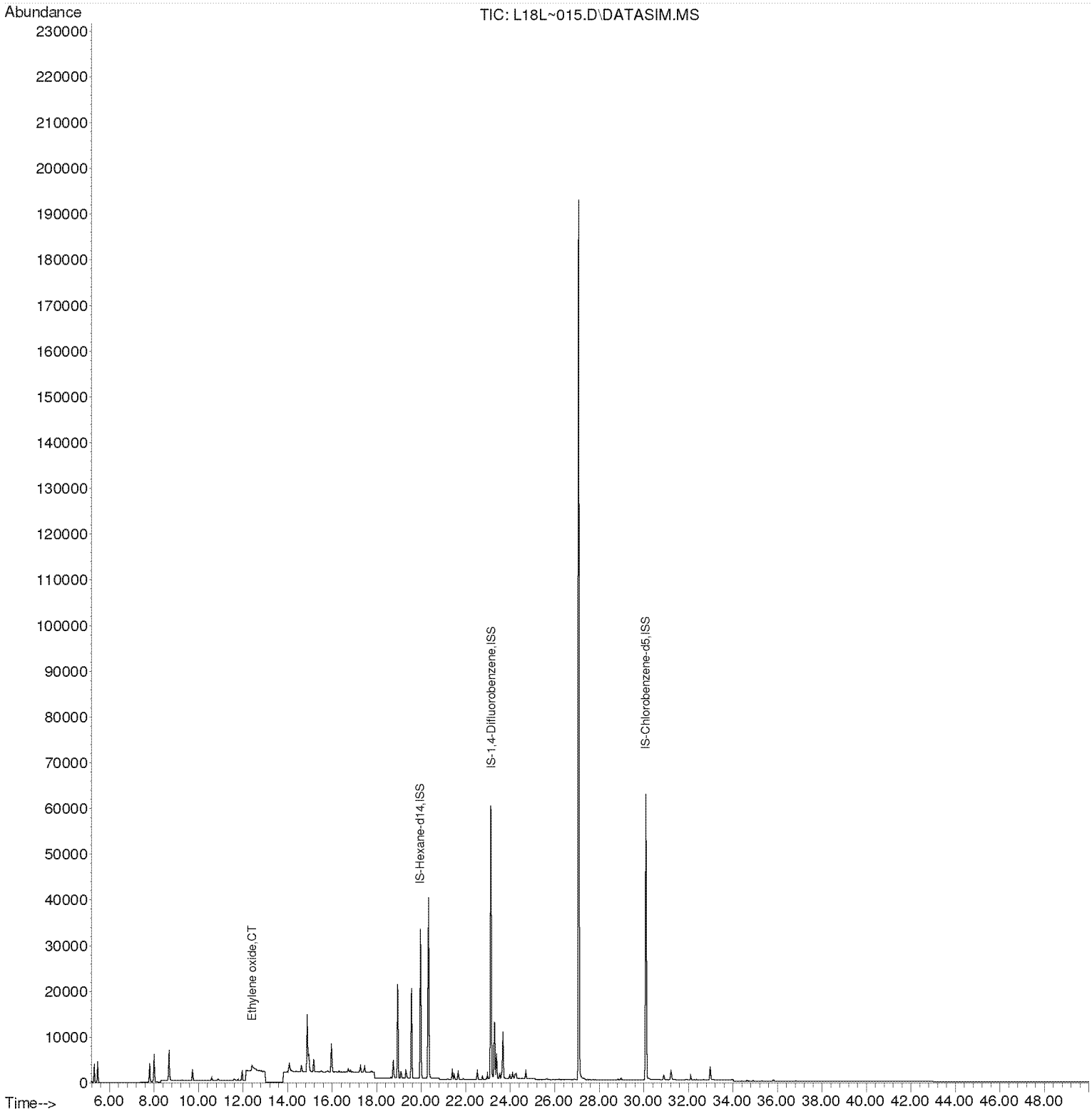
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D. d	
52) Bromoform	0.000	173	0	N.D. d	
53) Styrene	0.000	104	0	N.D. d	
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D. d	
55) o-Xylene	0.000	91	0	N.D. d	
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D. d	
57) 1,2,4-Trimethylbenzene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

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

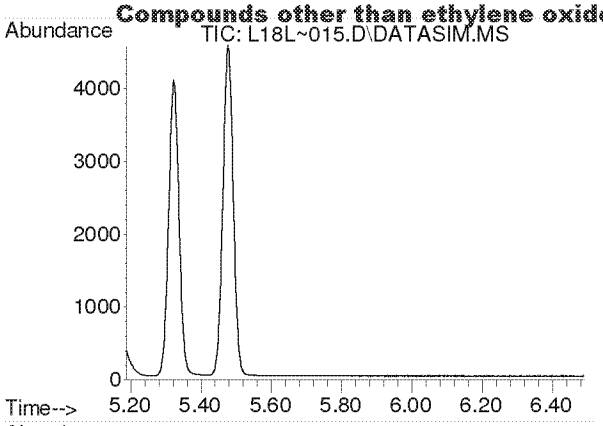
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L18L~\
Data File : L18L~015.D
Acq On : 28 Dec 2018 5:51 am
Operator : MAH
Sample : B8L2704-DUP2
Misc : VILLAGE HALL R2 12/8/18
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jan 03 12:20:38 2019
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
Response via : Initial Calibration



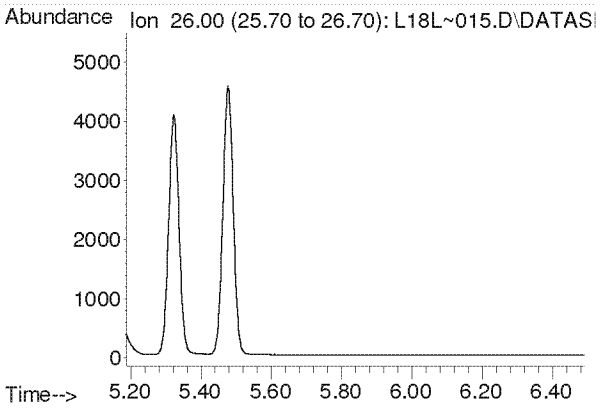
Compounds other than ethylene oxide were not quantitated.

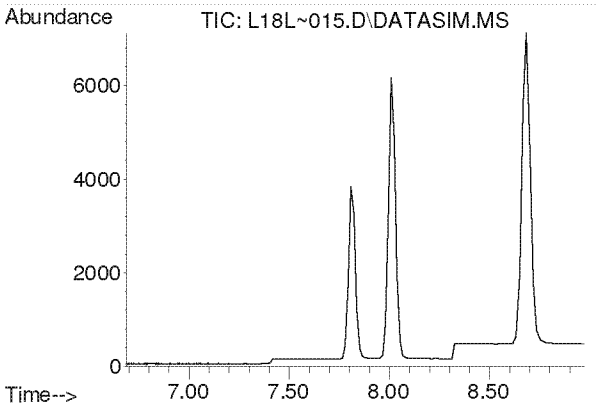


#2
Acetylene
Concen: N.D.
Expected RT: 5.42 min

Lab File: L18L~015.D
Acq: 28 Dec 2018 5:51 am

Tgt Ion: 26



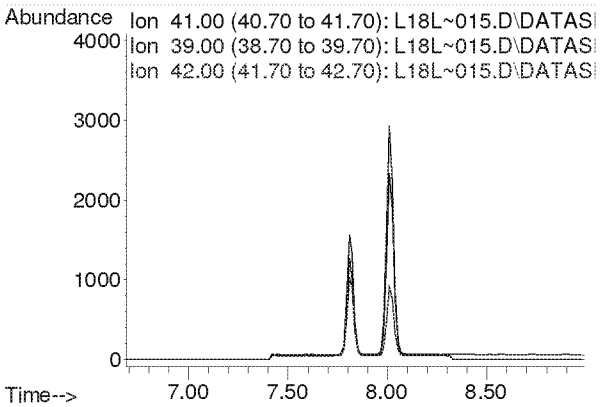


#3
Propylene
Concen: N.D.
Expected RT: 7.84 min

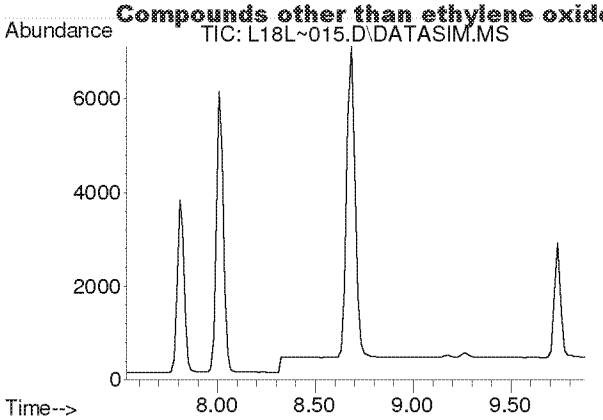
Lab File: L18L~015.D
Acq: 28 Dec 2018 5:51 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	78.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

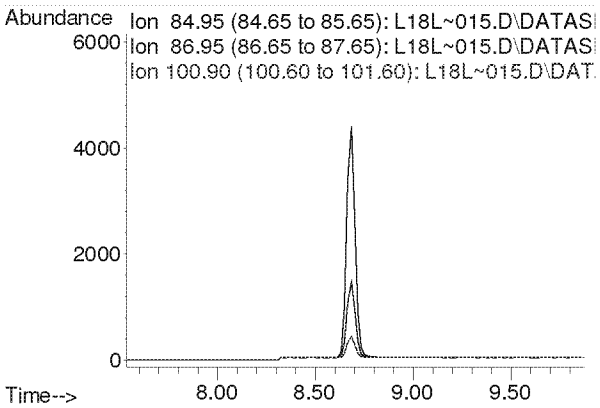


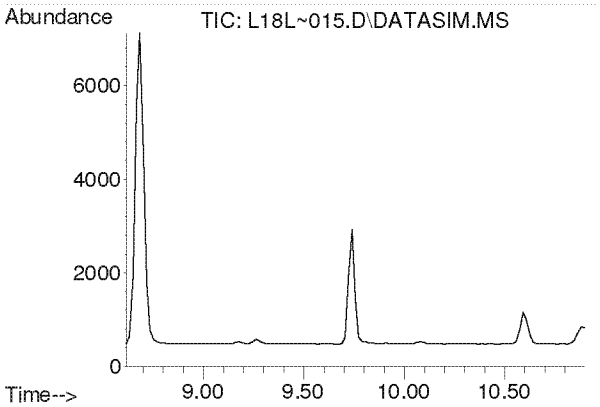
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L18L~015.D
Acq: 28 Dec 2018 5:51 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	8.9



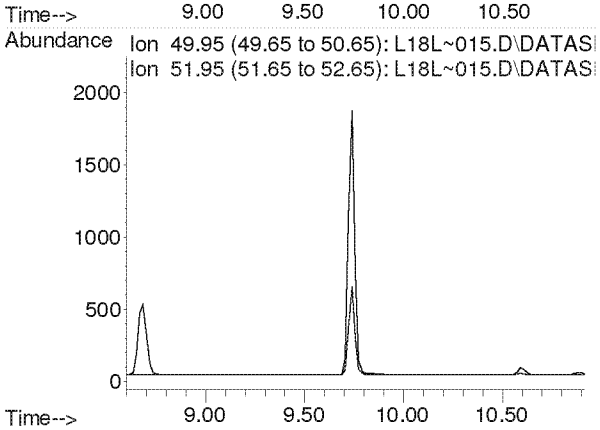


#5
Chloromethane
Concen: N.D.
Expected RT: 9.76 min

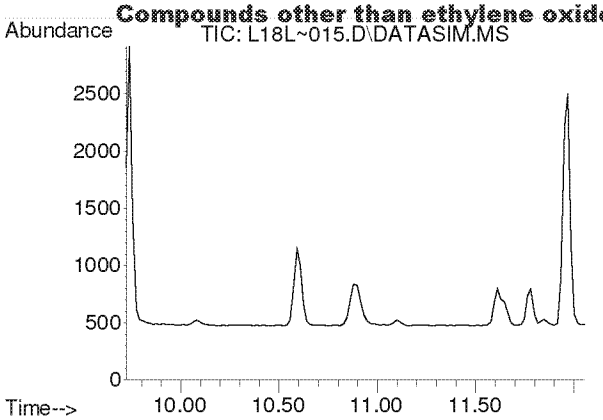
Lab File: L18L~015.D
Acq: 28 Dec 2018 5:51 am

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

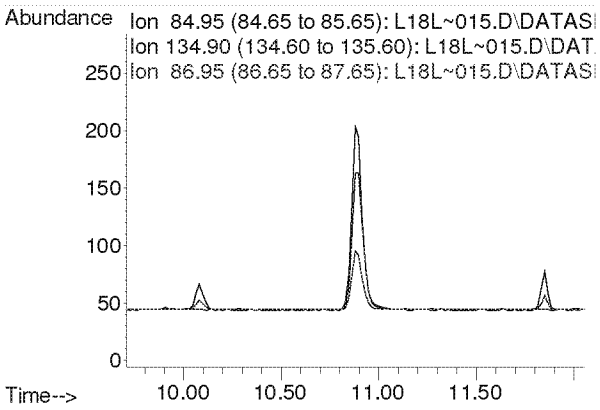


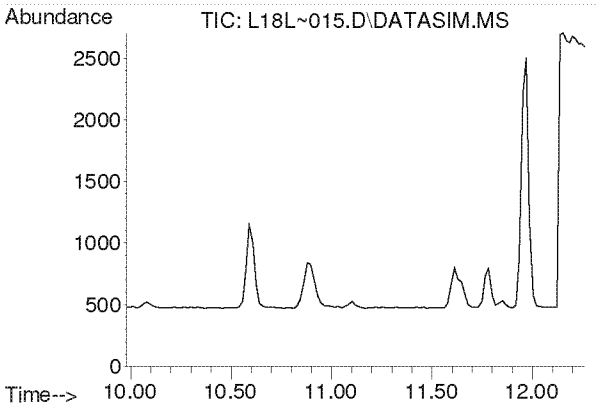
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L18L~015.D
Acq: 28 Dec 2018 5:51 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.1
87	32.1



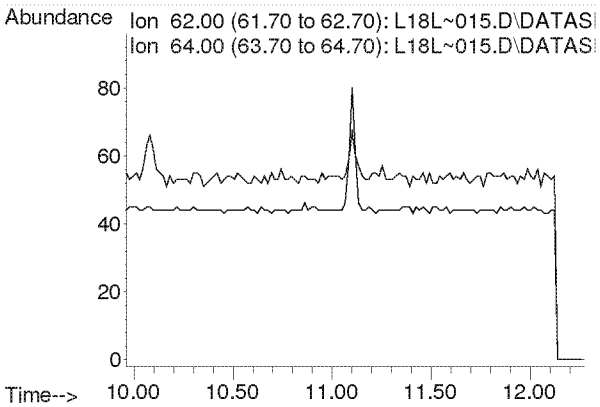


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

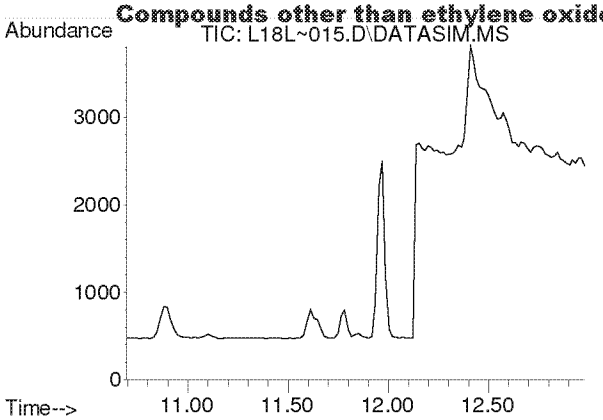
Lab File: L18L~015.D
Acq: 28 Dec 2018 5:51 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.8



Compounds other than ethylene oxide were not quantitated.

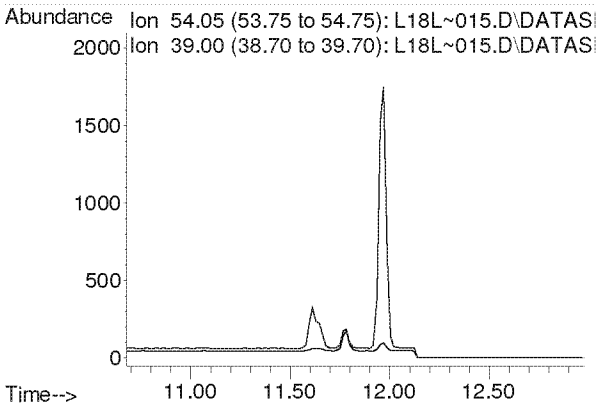


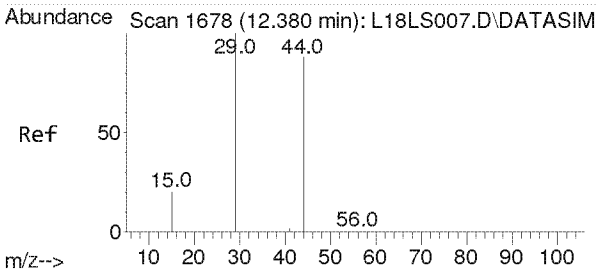
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L18L~015.D
Acq: 28 Dec 2018 5:51 am

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	105.4

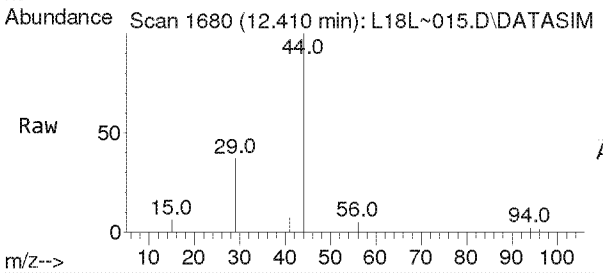


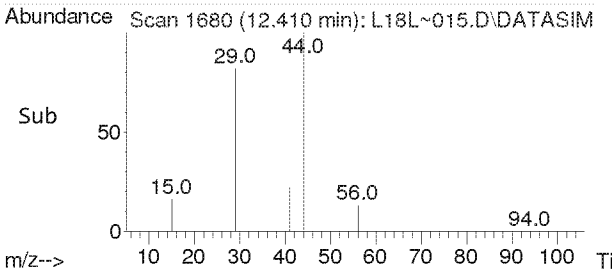


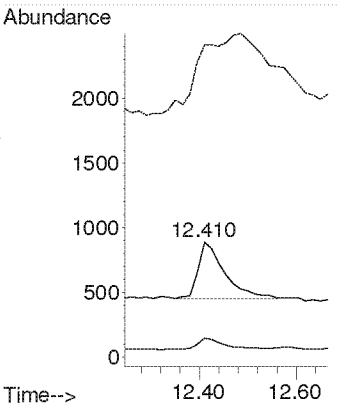
#9
Ethylene oxide
Concen: 0.465 ppbv
RT: 12.410 min Scan# 1680
Delta R.T. 0.030 min
Lab File: L18L~015.D
Acq: 28 Dec 2018 5:51 am

Tgt Ion: 29 Resp: 1624

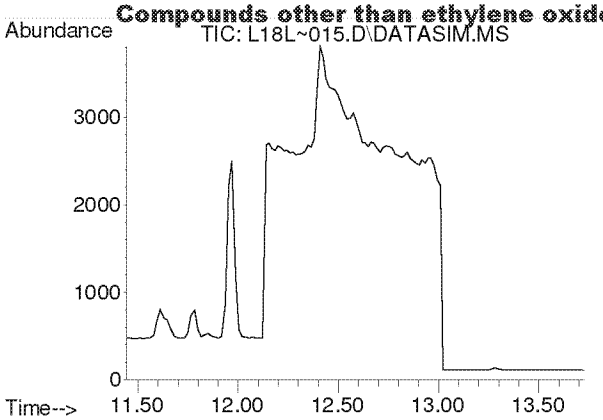
Ion	Ratio	Lower	Upper
29	100		
15	20.5	16.2	24.4
44	0.0	72.0	108.0#







Compounds other than ethylene oxide were not quantitated.

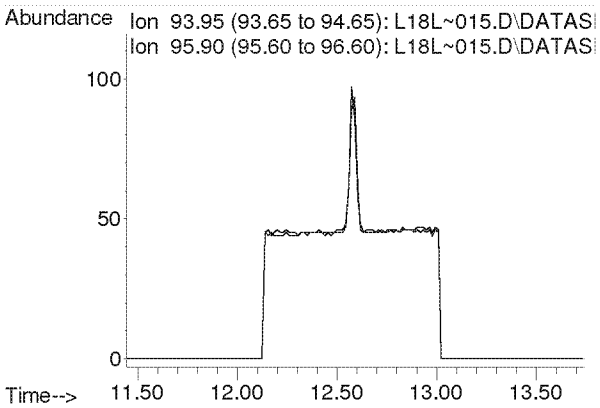


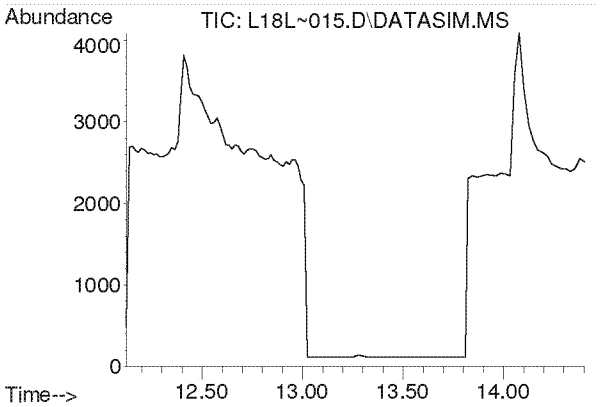
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L18L~015.D
Acq: 28 Dec 2018 5:51 am

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	93.9



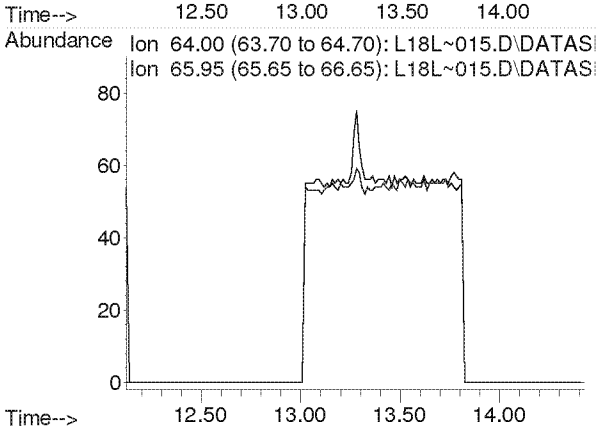


#11
Chloroethane
Concen: N.D.
Expected RT: 13.27 min

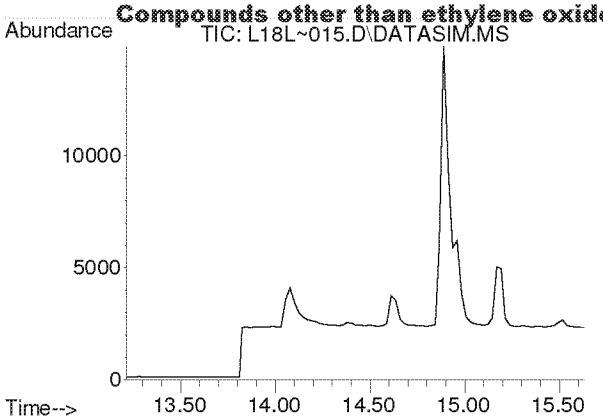
Lab File: L18L~015.D
Acq: 28 Dec 2018 5:51 am

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.0



Compounds other than ethylene oxide were not quantitated.

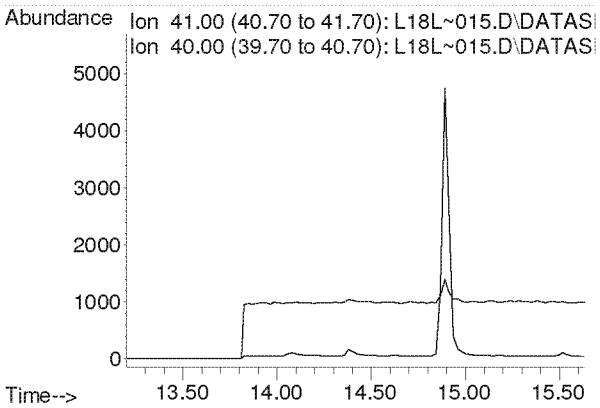


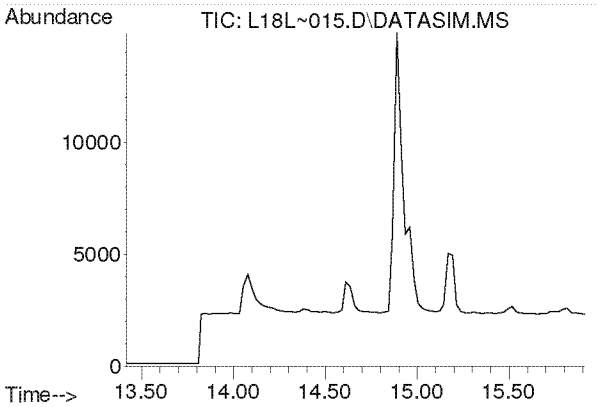
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.33 min

Lab File: L18L~015.D
Acq: 28 Dec 2018 5:51 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	50.9



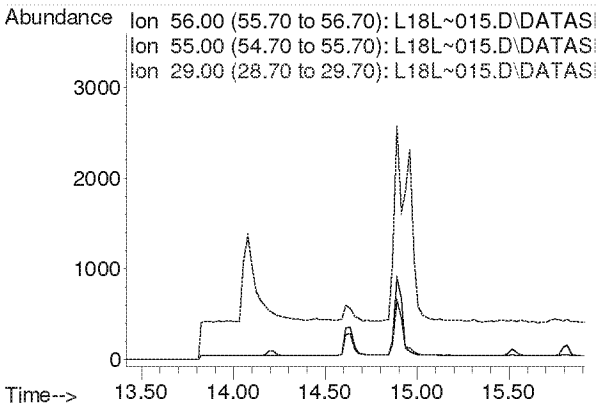


#13
Acrolein
Concen: N.D.
Expected RT: 14.61 min

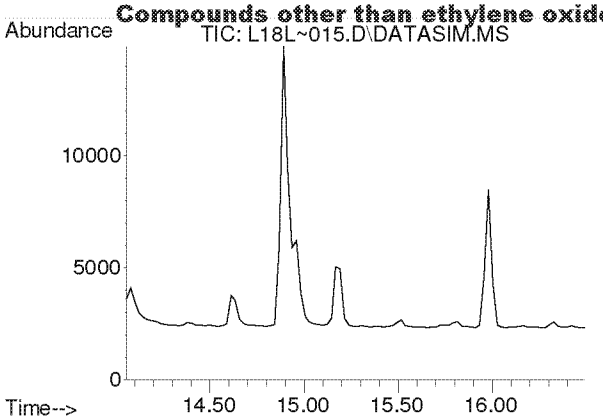
Lab File: L18L~015.D
Acq: 28 Dec 2018 5:51 am

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	75.4
29	52.9



Compounds other than ethylene oxide were not quantitated.

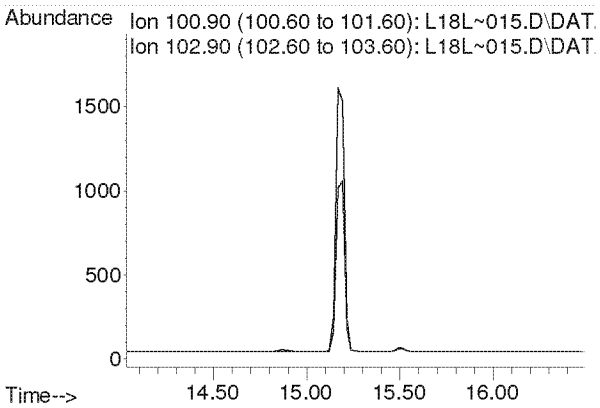


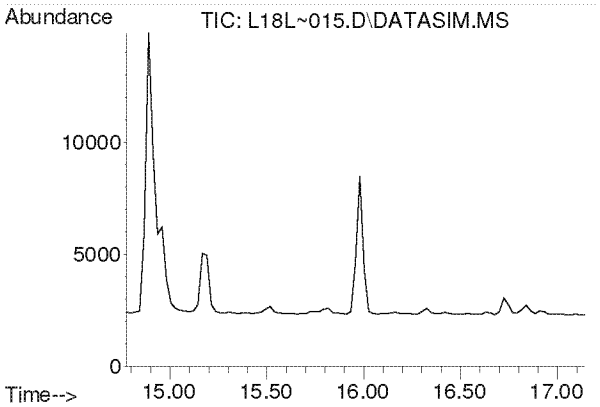
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L18L~015.D
Acq: 28 Dec 2018 5:51 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



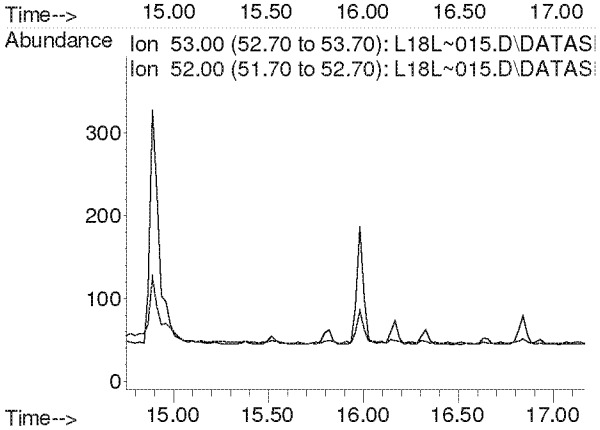


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.91 min

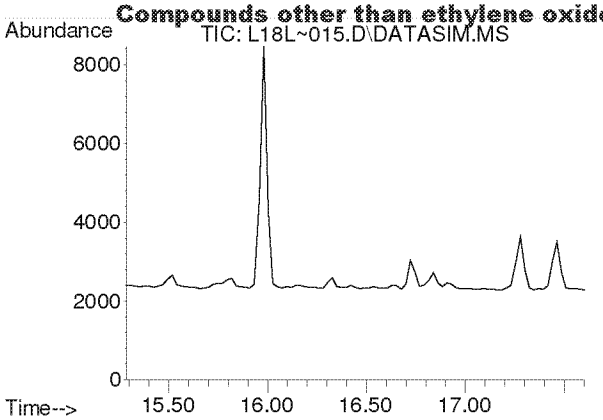
Lab File: L18L~015.D
Acq: 28 Dec 2018 5:51 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	85.4



Compounds other than ethylene oxide were not quantitated.

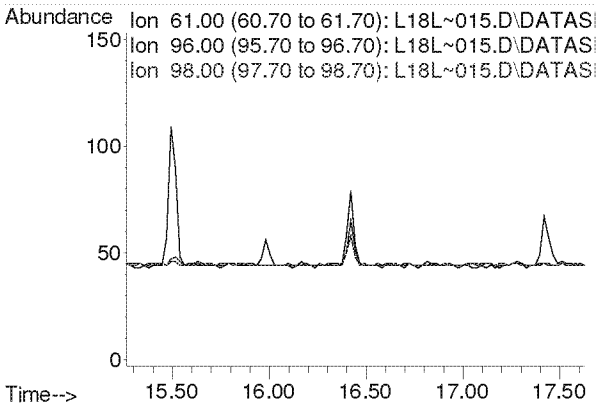


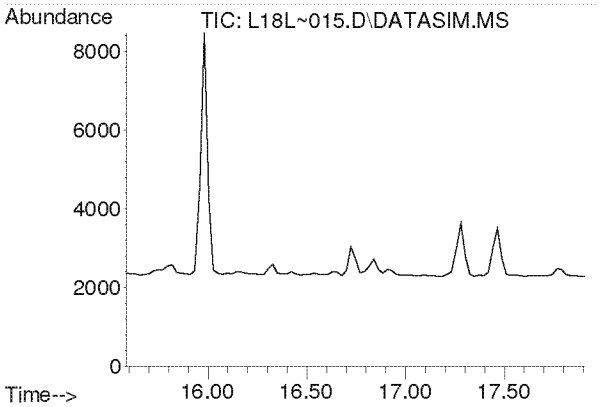
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L18L~015.D
Acq: 28 Dec 2018 5:51 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	58.3
98	37.4



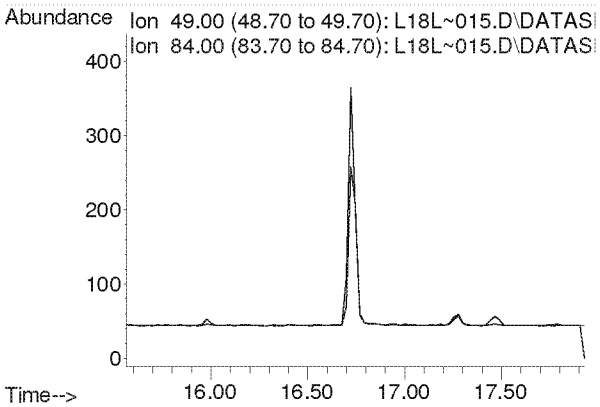


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.72 min

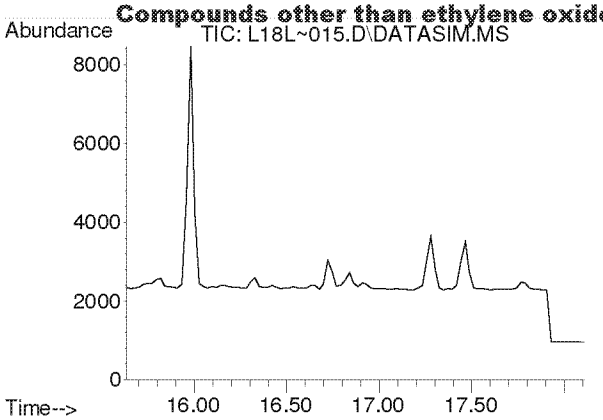
Lab File: L18L~015.D
Acq: 28 Dec 2018 5:51 am

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	76.4



Compounds other than ethylene oxide were not quantitated.

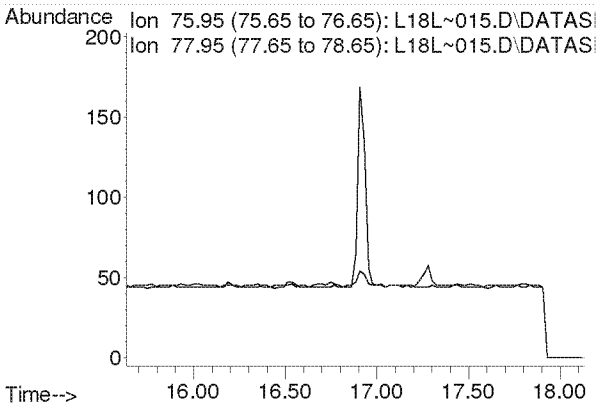


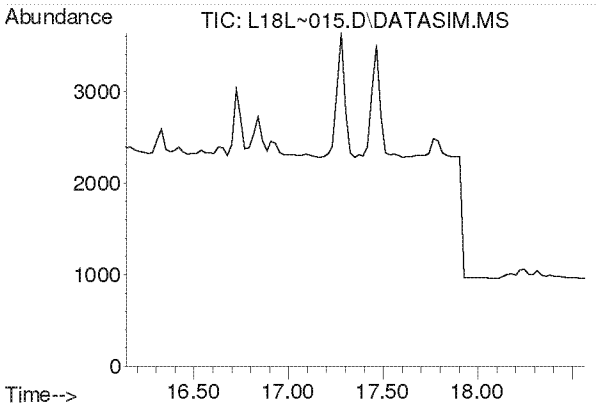
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L18L~015.D
Acq: 28 Dec 2018 5:51 am

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.1



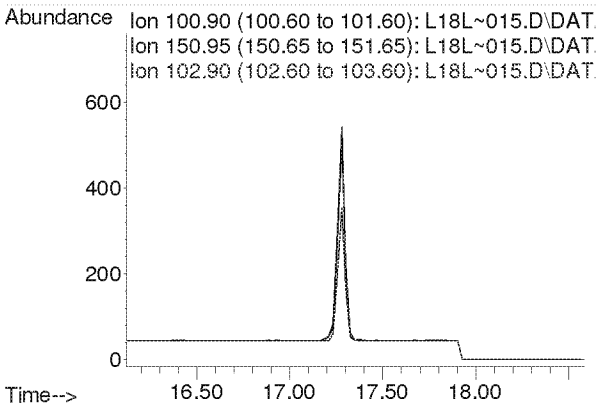


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

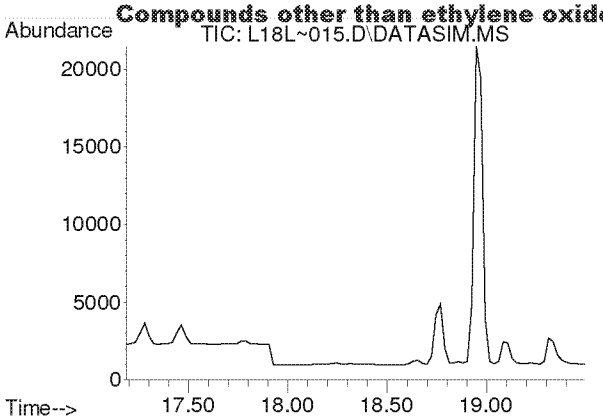
Lab File: L18L~015.D
Acq: 28 Dec 2018 5:51 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	95.3
103	64.1



Compounds other than ethylene oxide were not quantitated.

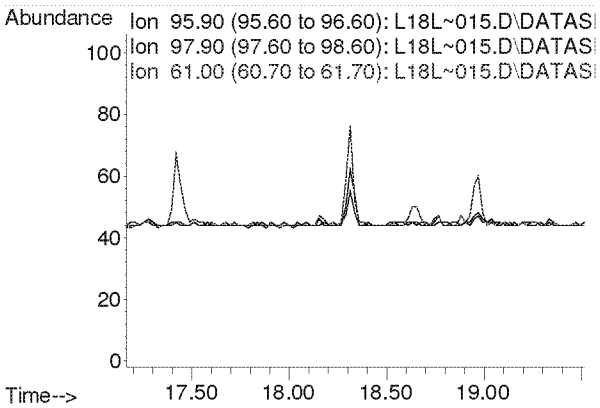


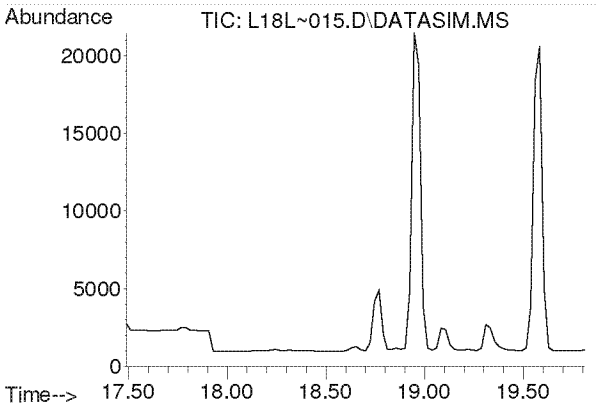
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.31 min

Lab File: L18L~015.D
Acq: 28 Dec 2018 5:51 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	63.7
61	159.2



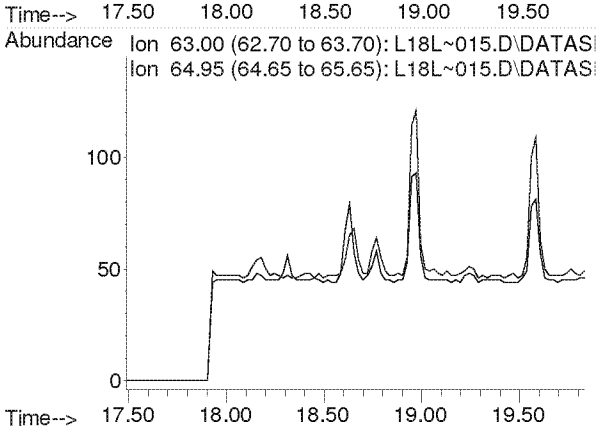


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

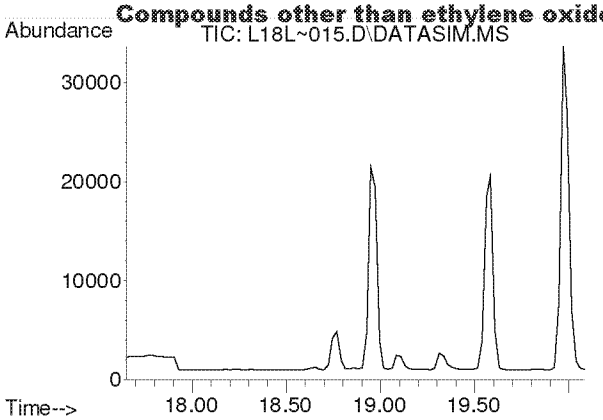
Lab File: L18L~015.D
Acq: 28 Dec 2018 5:51 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

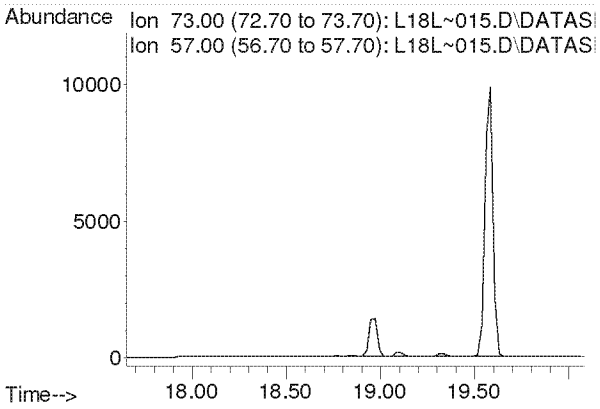


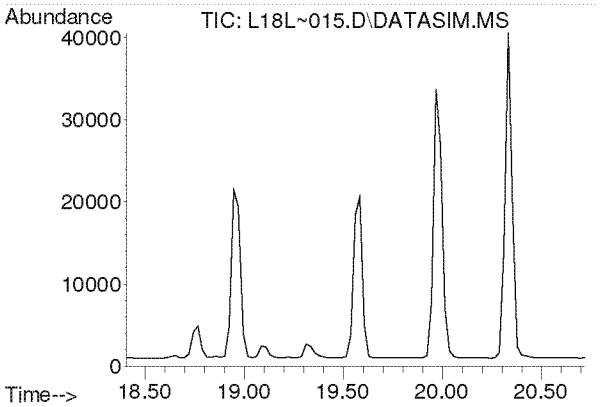
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L18L~015.D
Acq: 28 Dec 2018 5:51 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.4



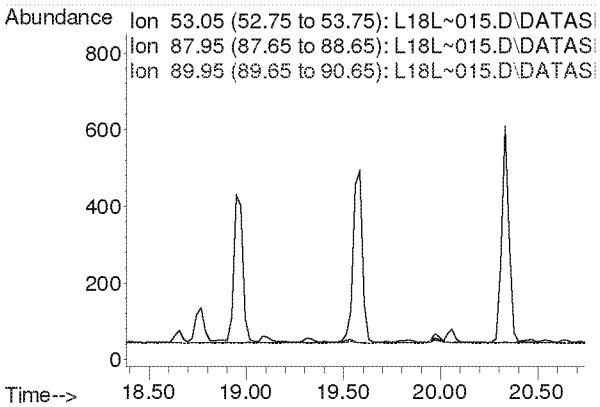


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

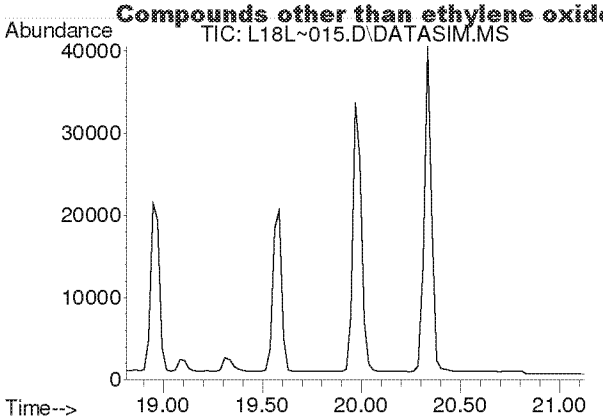
Lab File: L18L~015.D
Acq: 28 Dec 2018 5:51 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	51.8
90	16.8



Compounds other than ethylene oxide were not quantitated.

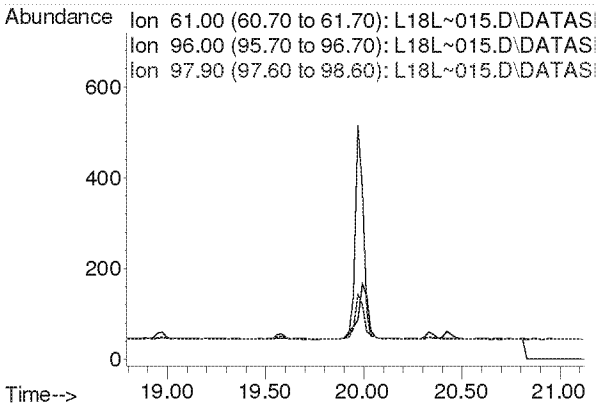


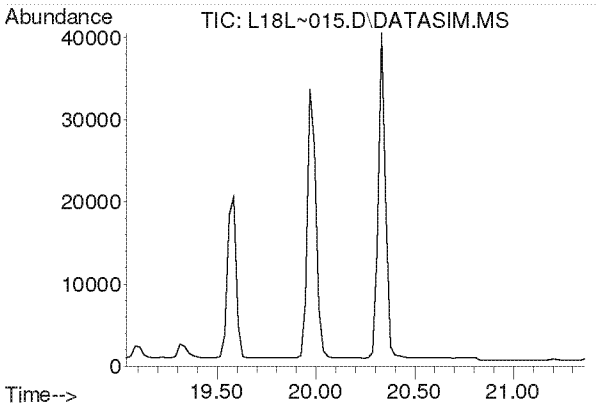
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L18L~015.D
Acq: 28 Dec 2018 5:51 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.7
98	45.2



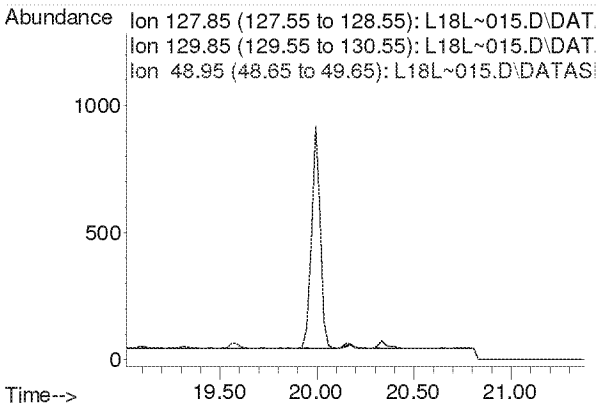


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

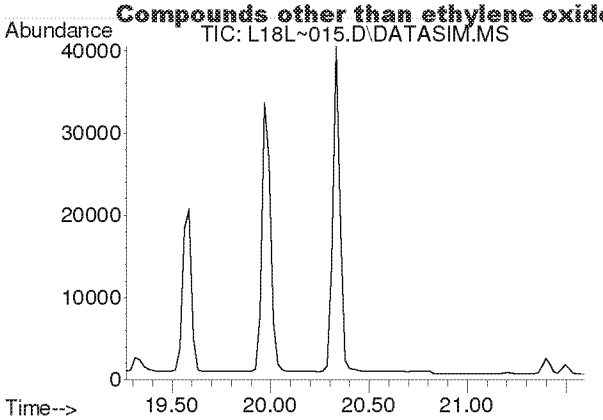
Lab File: L18L~015.D
Acq: 28 Dec 2018 5:51 am

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	171.2



Compounds other than ethylene oxide were not quantitated.

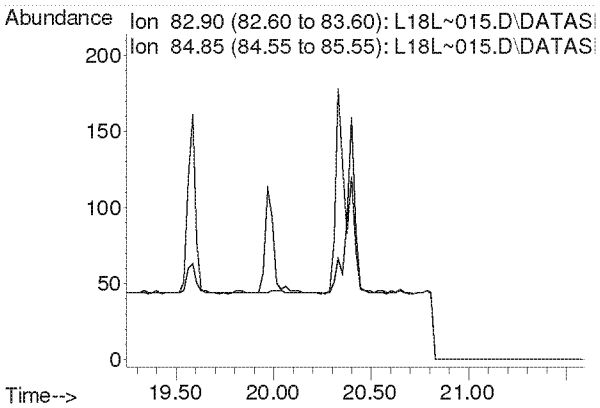


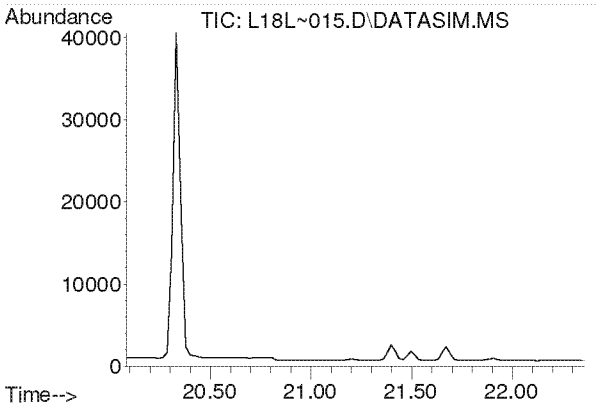
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L18L~015.D
Acq: 28 Dec 2018 5:51 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



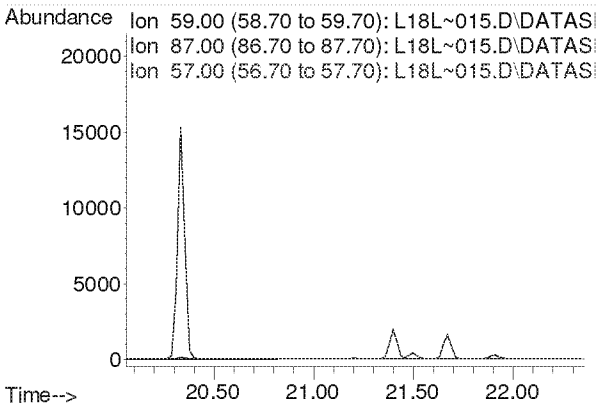


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.16 min

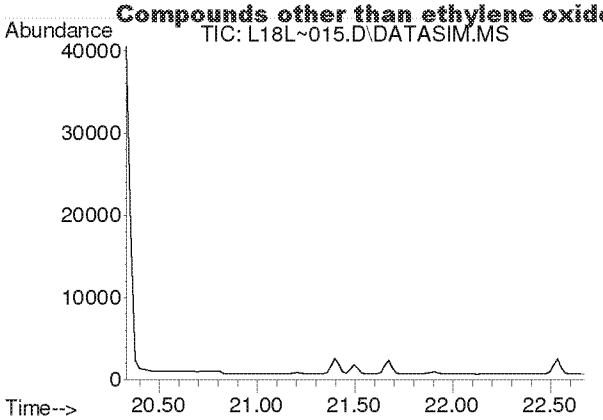
Lab File: L18L~015.D
Acq: 28 Dec 2018 5:51 am

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	37.5
57	33.8



Compounds other than ethylene oxide were not quantitated.

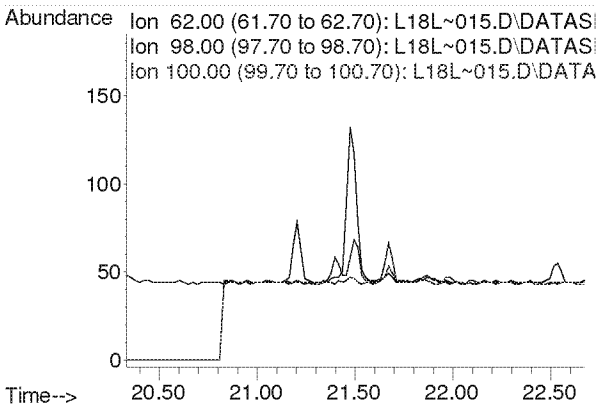


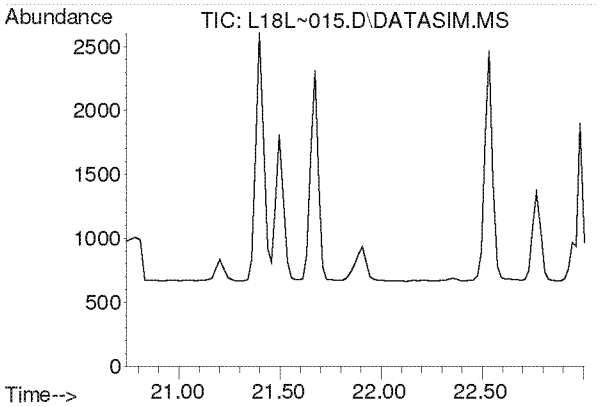
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L18L~015.D
Acq: 28 Dec 2018 5:51 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.4
100	4.0



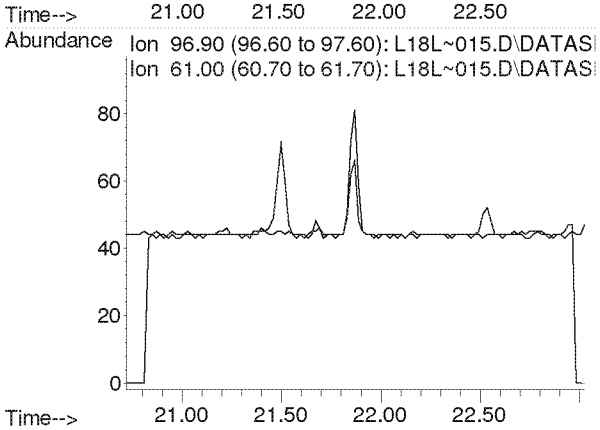


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

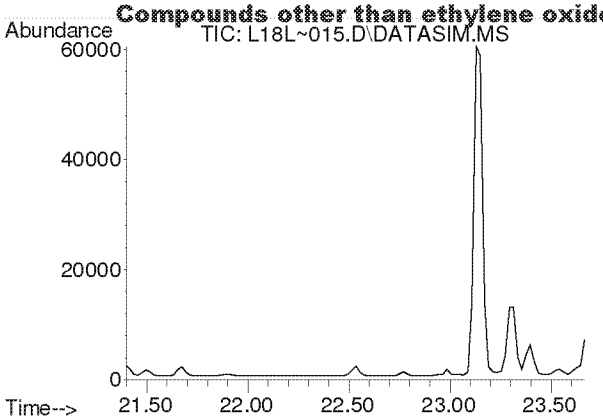
Lab File: L18L~015.D
Acq: 28 Dec 2018 5:51 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	60.5



Compounds other than ethylene oxide were not quantitated.

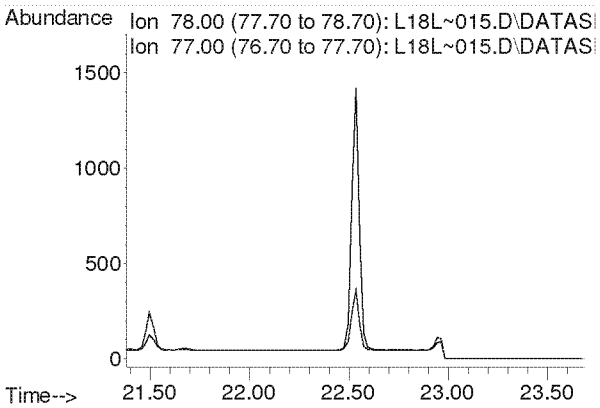


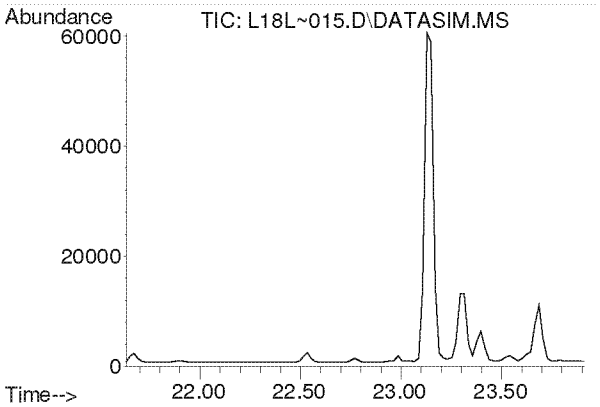
#31
Benzene
Concen: N.D.
Expected RT: 22.54 min

Lab File: L18L~015.D
Acq: 28 Dec 2018 5:51 am

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.7



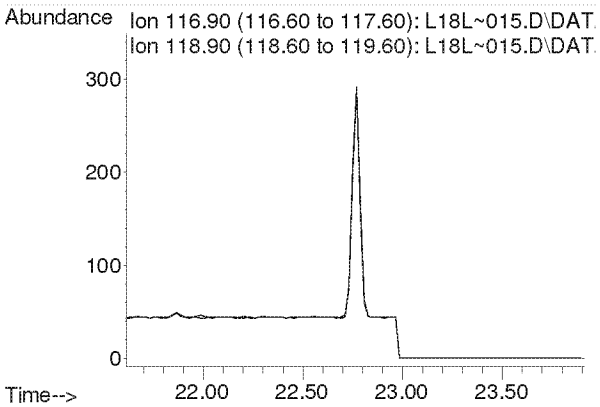


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

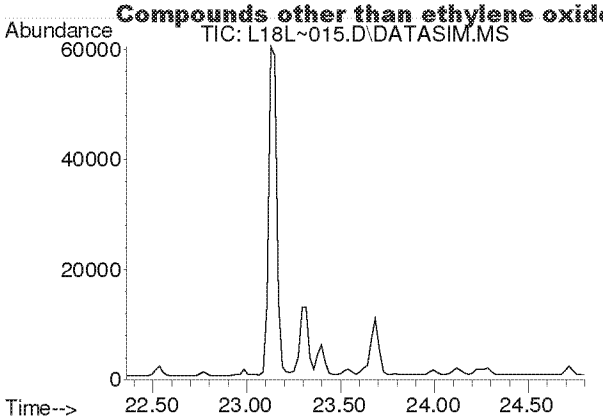
Lab File: L18L~015.D
Acq: 28 Dec 2018 5:51 am

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.5



Compounds other than ethylene oxide were not quantitated.

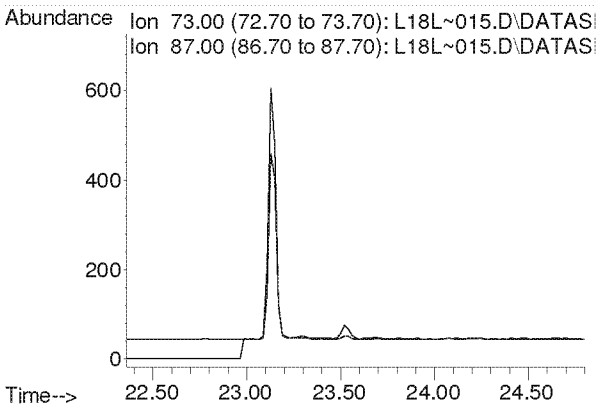


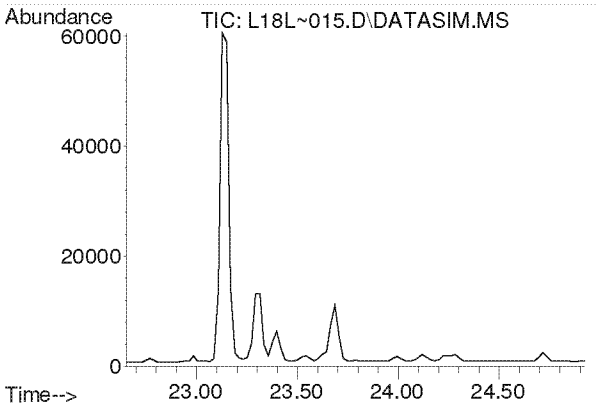
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.50 min

Lab File: L18L~015.D
Acq: 28 Dec 2018 5:51 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	24.9



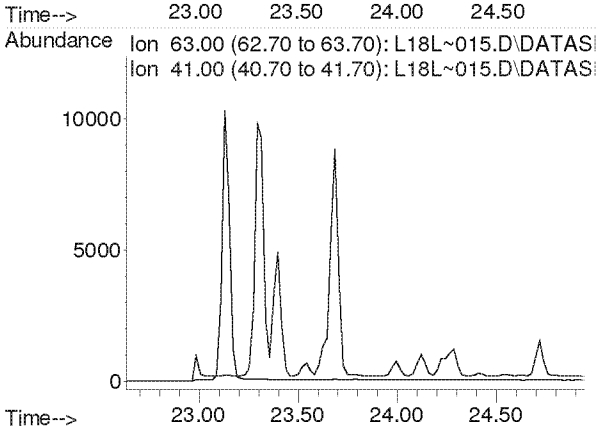


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

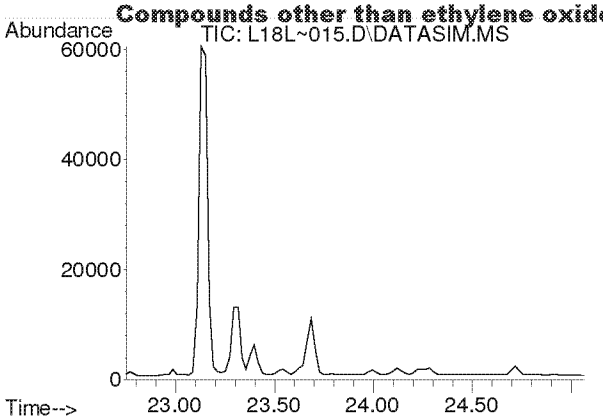
Lab File: L18L~015.D
Acq: 28 Dec 2018 5:51 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	212.8



Compounds other than ethylene oxide were not quantitated.

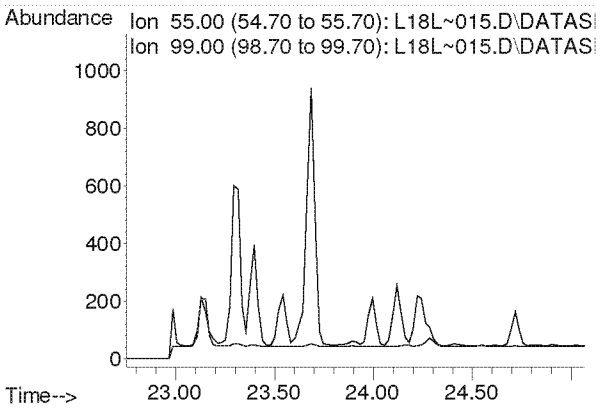


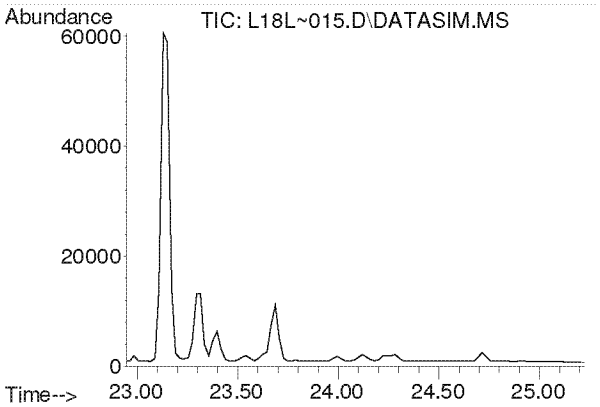
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.87 min

Lab File: L18L~015.D
Acq: 28 Dec 2018 5:51 am

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.1



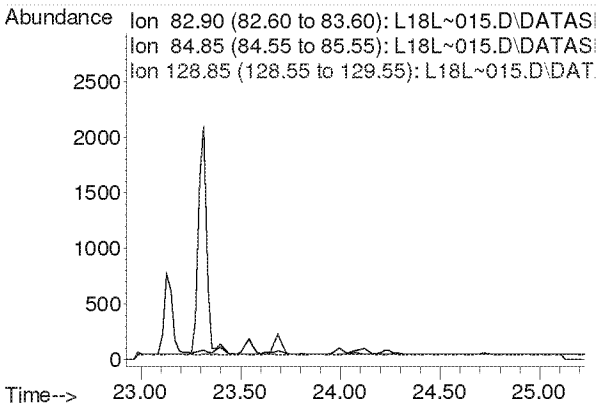


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

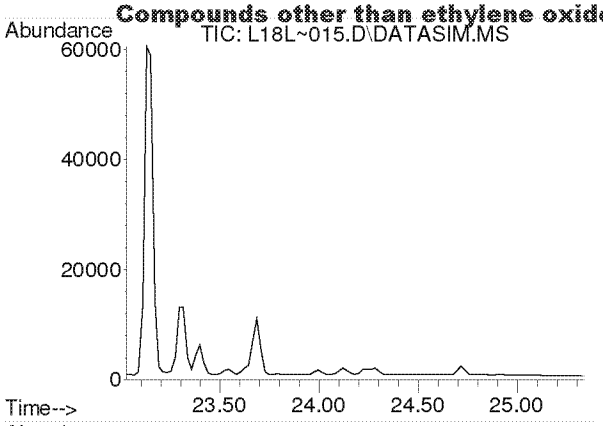
Lab File: L18L~015.D
Acq: 28 Dec 2018 5:51 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.0
129	12.4



Compounds other than ethylene oxide were not quantitated.

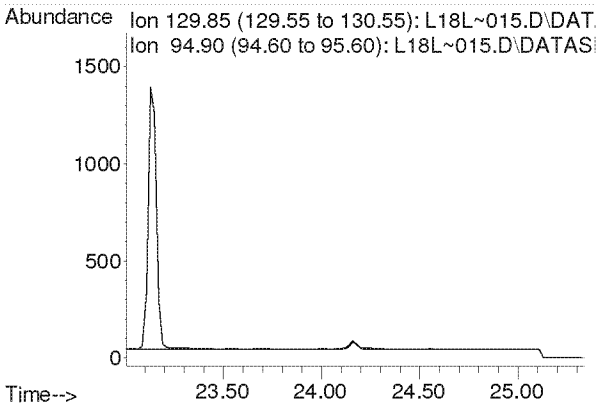


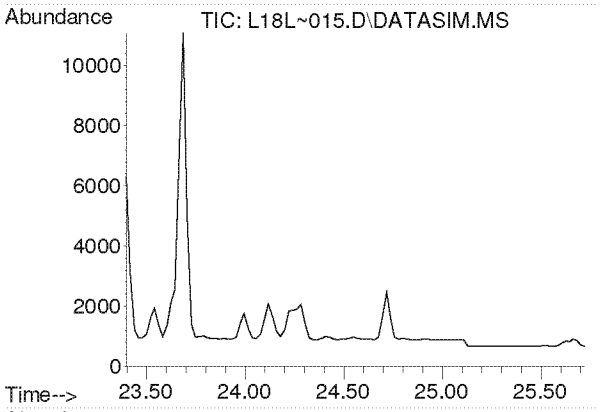
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.16 min

Lab File: L18L~015.D
Acq: 28 Dec 2018 5:51 am

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	110.3



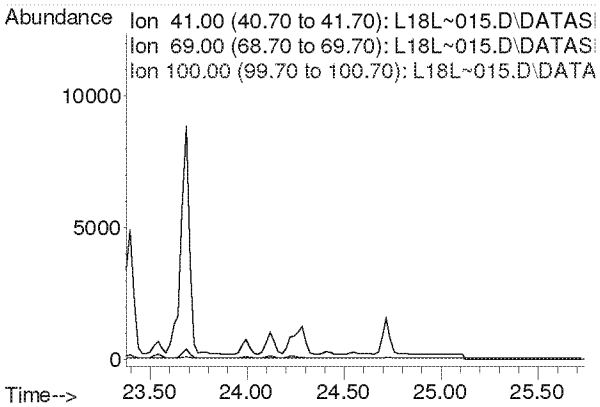


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

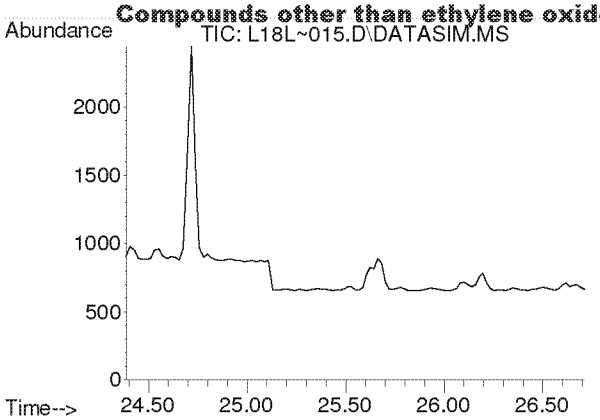
Lab File: L18L~015.D
Acq: 28 Dec 2018 5:51 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	19.9
100	5.2



Compounds other than ethylene oxide were not quantitated.

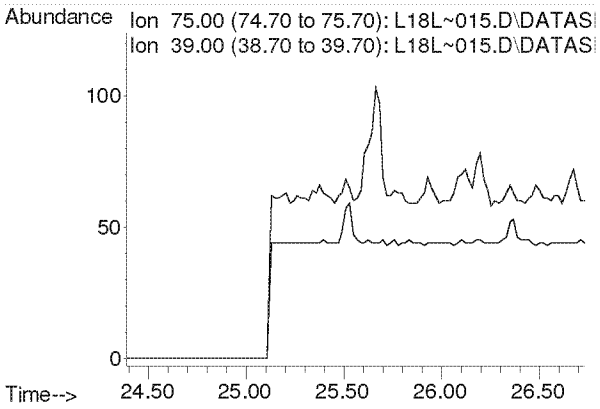


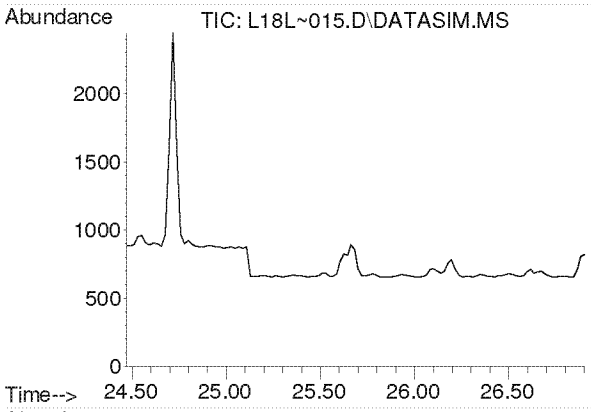
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L18L~015.D
Acq: 28 Dec 2018 5:51 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.4



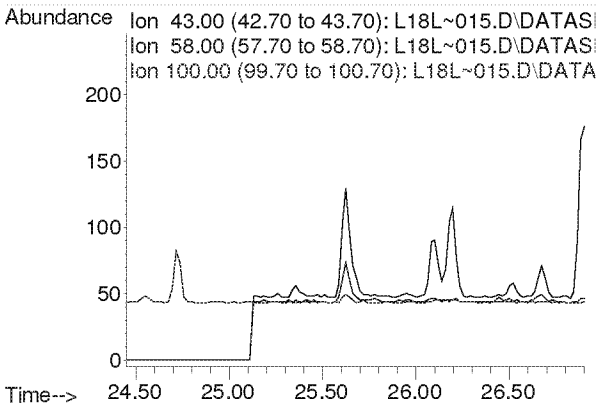


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.61 min

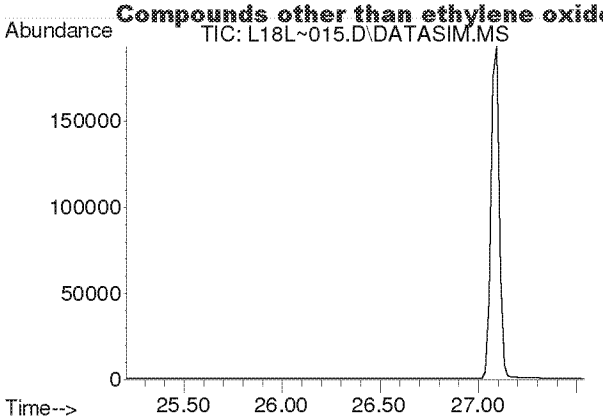
Lab File: L18L~015.D
Acq: 28 Dec 2018 5:51 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	34.2
100	7.9



Compounds other than ethylene oxide were not quantitated.

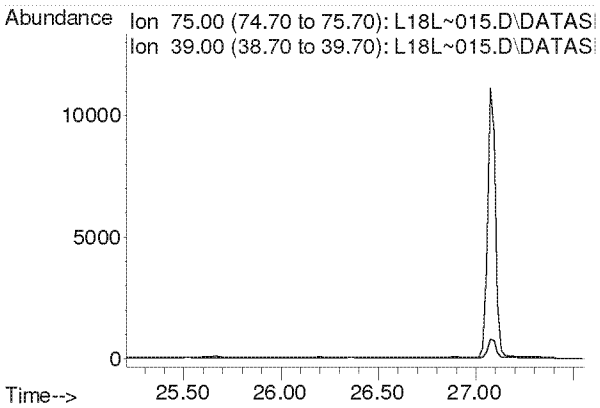


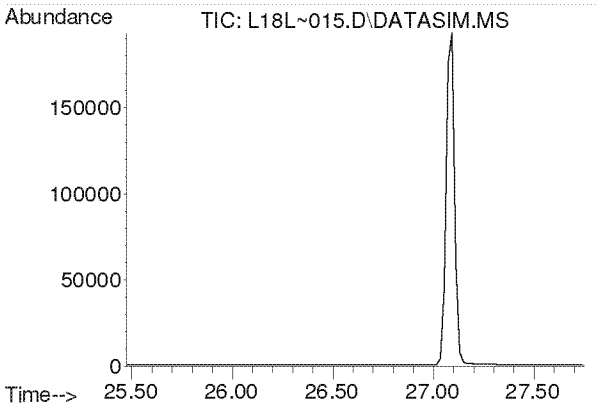
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.35 min

Lab File: L18L~015.D
Acq: 28 Dec 2018 5:51 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	50.9



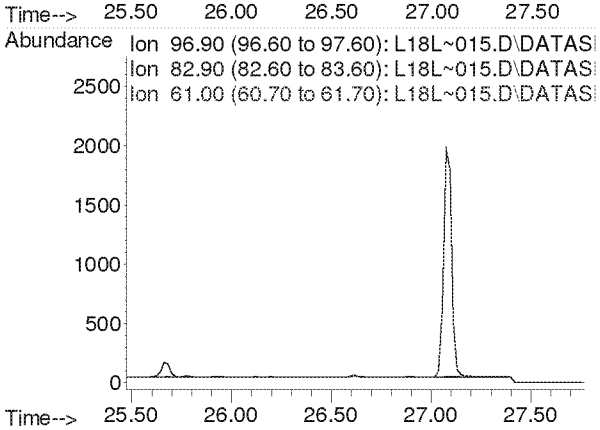


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

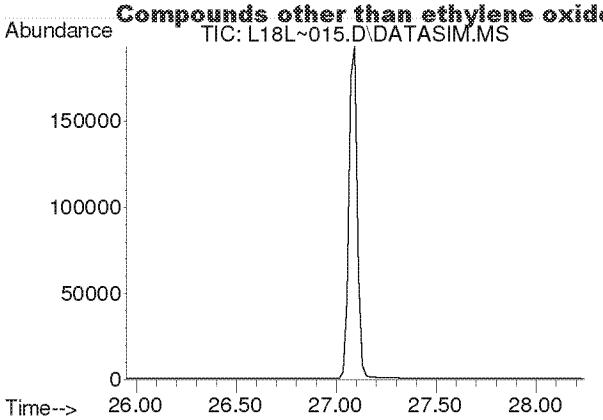
Lab File: L18L~015.D
Acq: 28 Dec 2018 5:51 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	96.1
61	63.5



Compounds other than ethylene oxide were not quantitated.

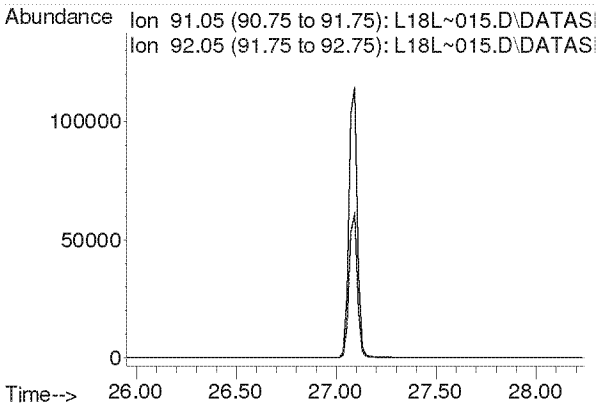


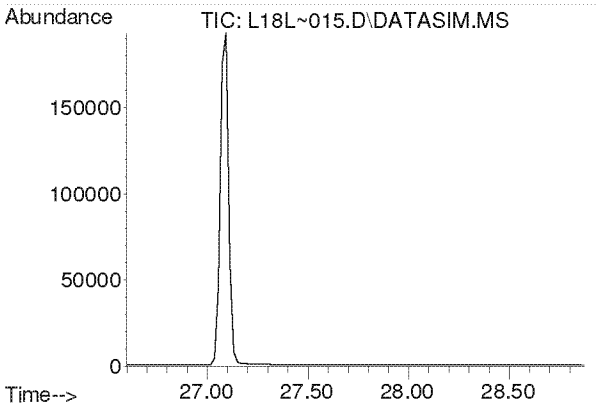
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L18L~015.D
Acq: 28 Dec 2018 5:51 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.6



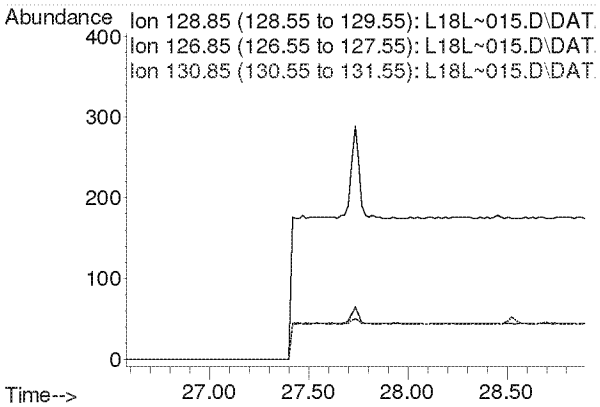


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.73 min

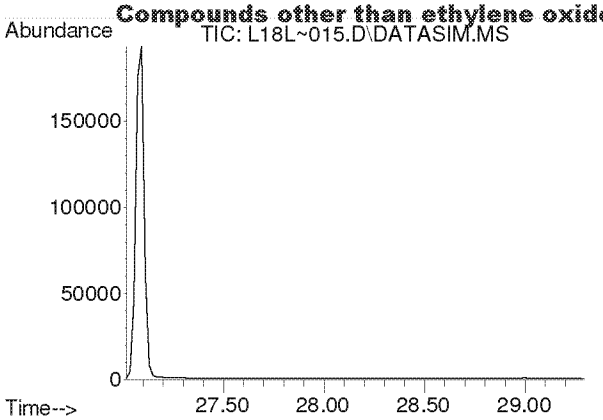
Lab File: L18L~015.D
Acq: 28 Dec 2018 5:51 am

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.2
131	6.0



Compounds other than ethylene oxide were not quantitated.

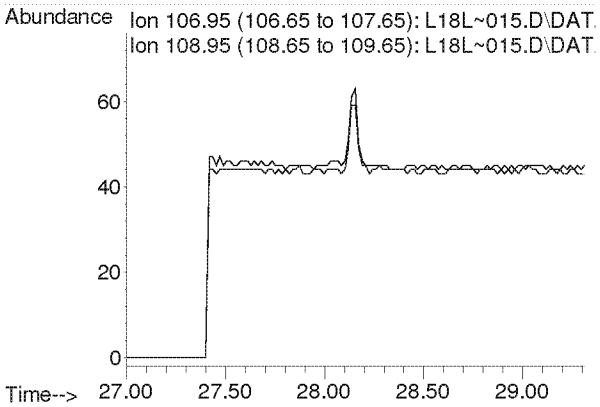


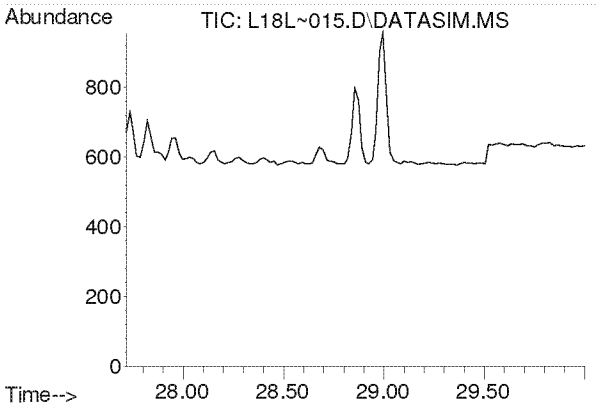
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.16 min

Lab File: L18L~015.D
Acq: 28 Dec 2018 5:51 am

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.5



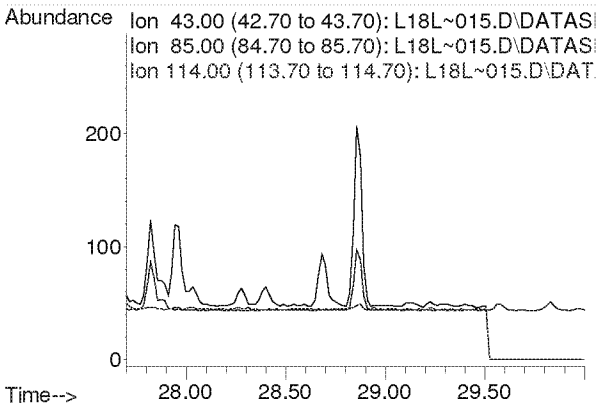


#47
n-Octane
Concen: N.D.
Expected RT: 28.86 min

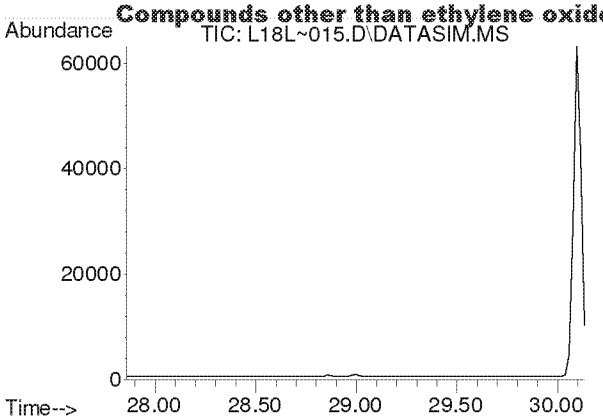
Lab File: L18L~015.D
Acq: 28 Dec 2018 5:51 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	36.0
114	2.2



Compounds other than ethylene oxide were not quantitated.

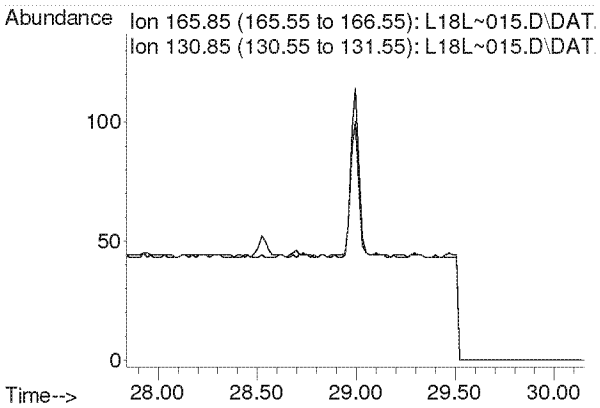


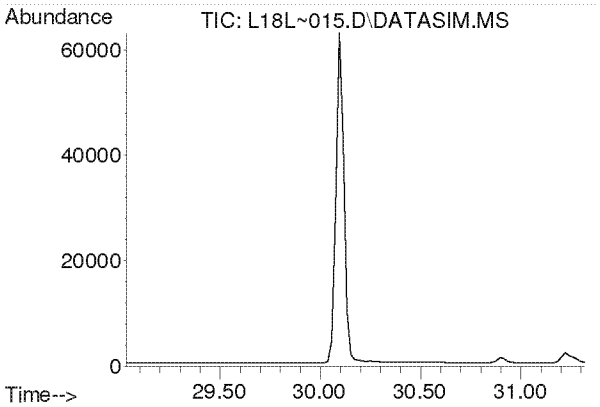
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L18L~015.D
Acq: 28 Dec 2018 5:51 am

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	78.2



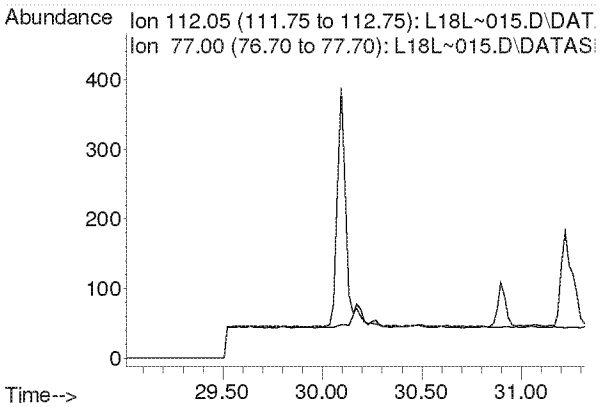


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.17 min

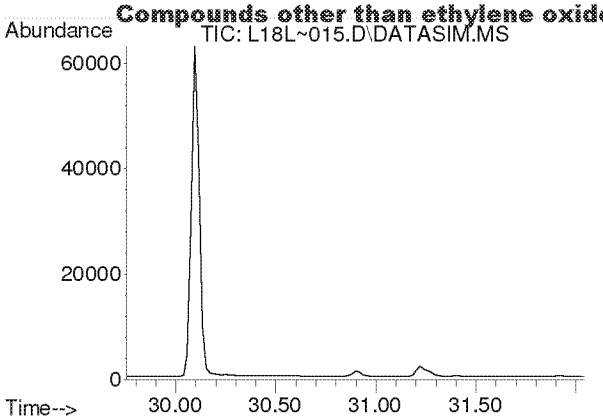
Lab File: L18L~015.D
Acq: 28 Dec 2018 5:51 am

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	63.0



Compounds other than ethylene oxide were not quantitated.

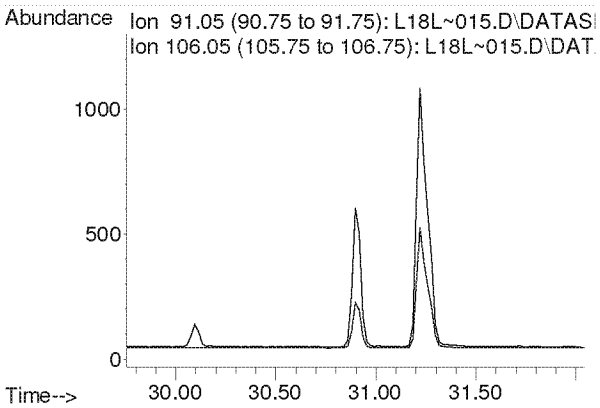


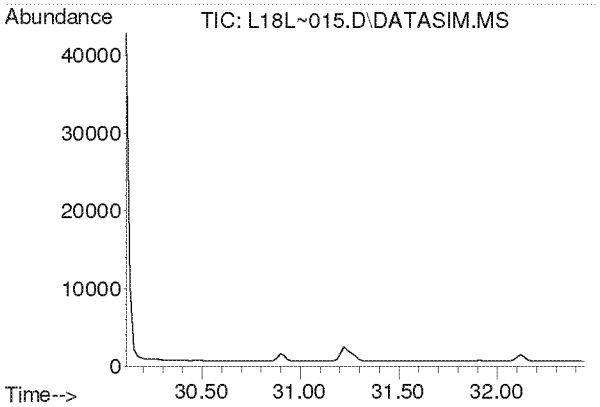
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.90 min

Lab File: L18L~015.D
Acq: 28 Dec 2018 5:51 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	31.8



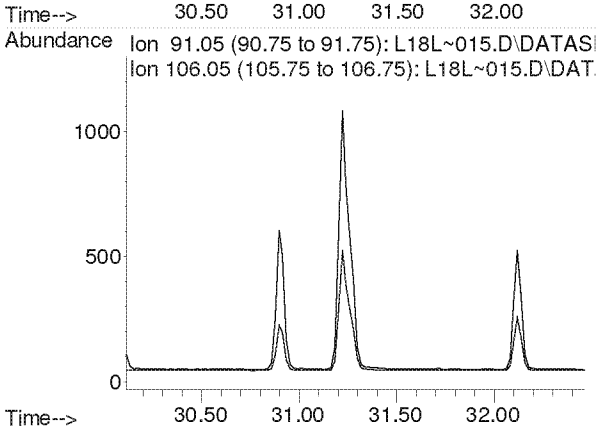


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.26 min

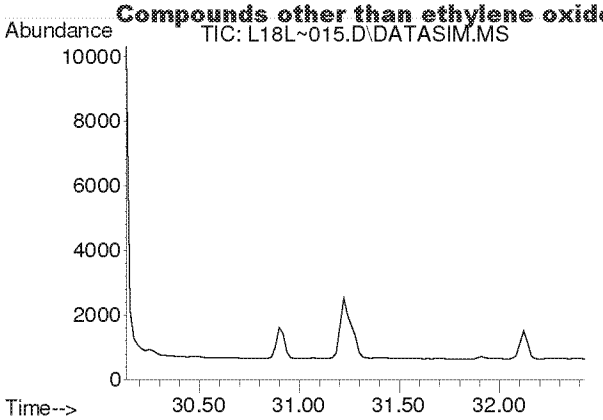
Lab File: L18L~015.D
Acq: 28 Dec 2018 5:51 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.4



Compounds other than ethylene oxide were not quantitated.

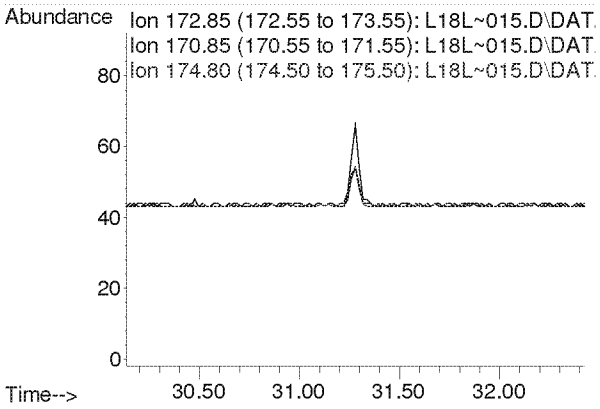


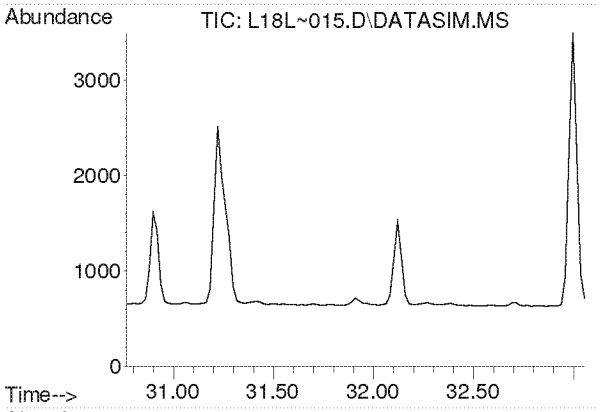
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L18L~015.D
Acq: 28 Dec 2018 5:51 am

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	49.0



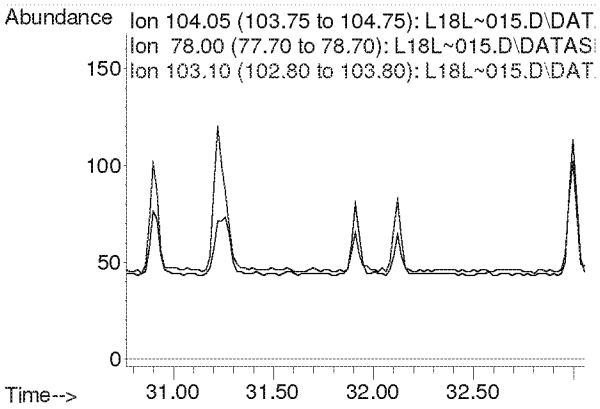


#53
Styrene
Concen: N.D.
Expected RT: 31.91 min

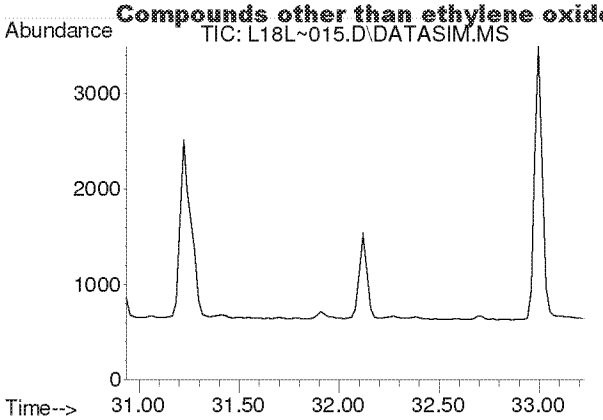
Lab File: L18L~015.D
Acq: 28 Dec 2018 5:51 am

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	45.6
103	0.0



Compounds other than ethylene oxide were not quantitated.

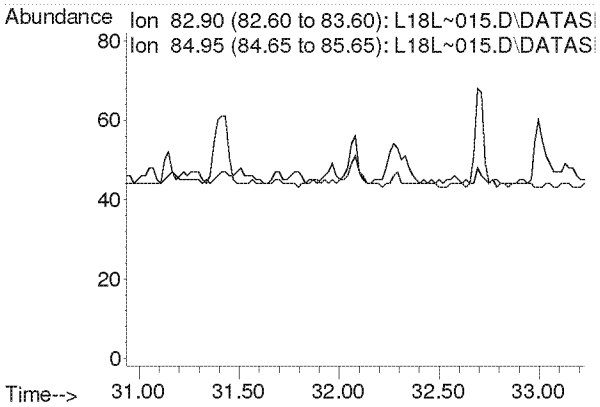


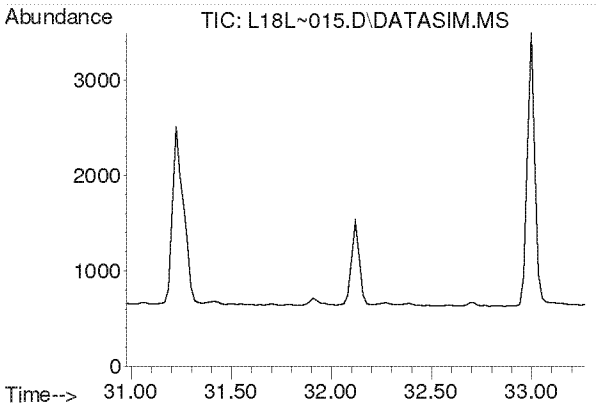
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L18L~015.D
Acq: 28 Dec 2018 5:51 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.9



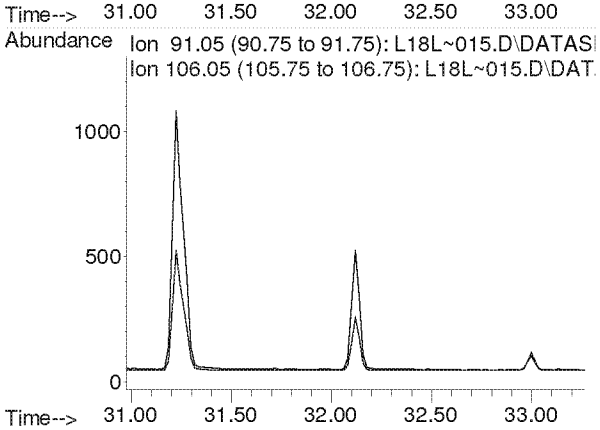


#55
o-Xylene
Concen: N.D.
Expected RT: 32.12 min

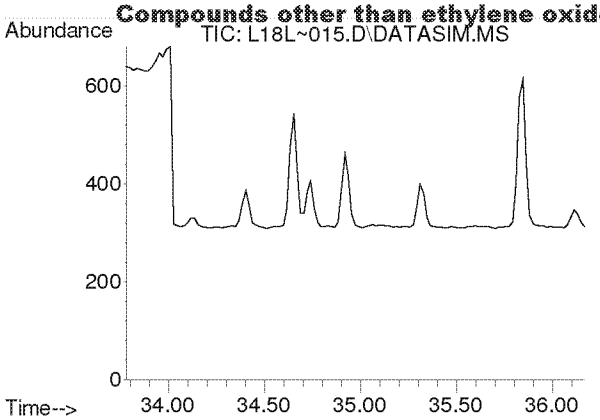
Lab File: L18L~015.D
Acq: 28 Dec 2018 5:51 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.2



Compounds other than ethylene oxide were not quantitated.

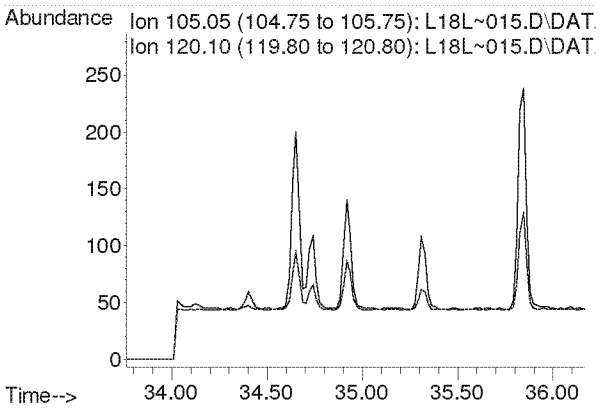


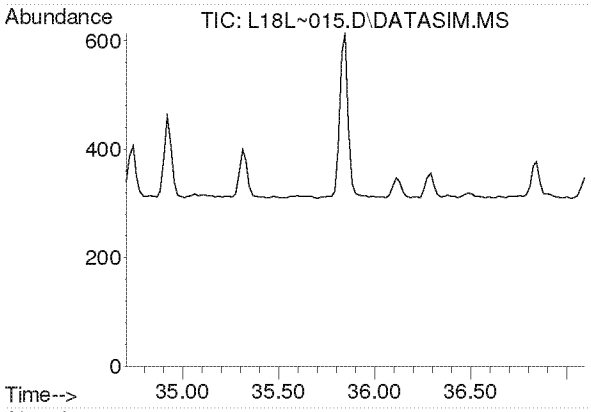
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.92 min

Lab File: L18L~015.D
Acq: 28 Dec 2018 5:51 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	45.0



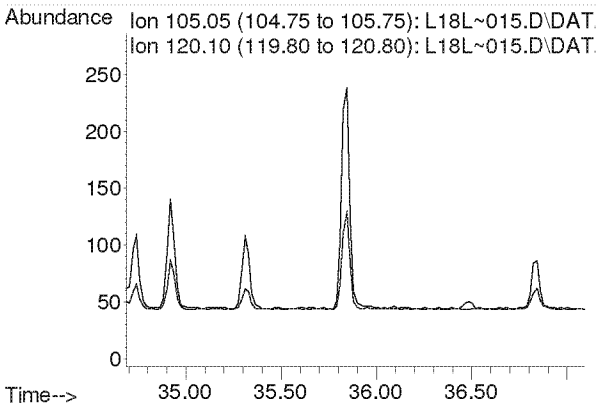


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

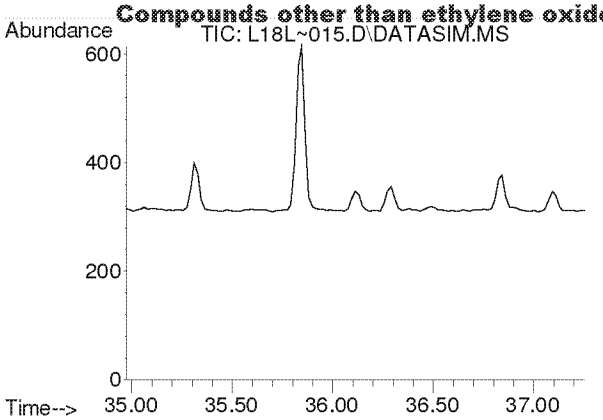
Lab File: L18L~015.D
Acq: 28 Dec 2018 5:51 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	42.8



Compounds other than ethylene oxide were not quantitated.

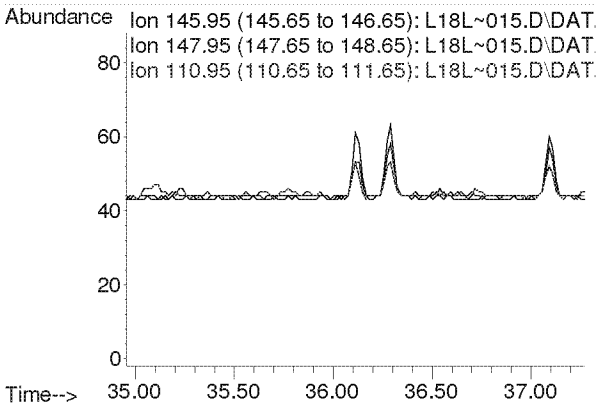


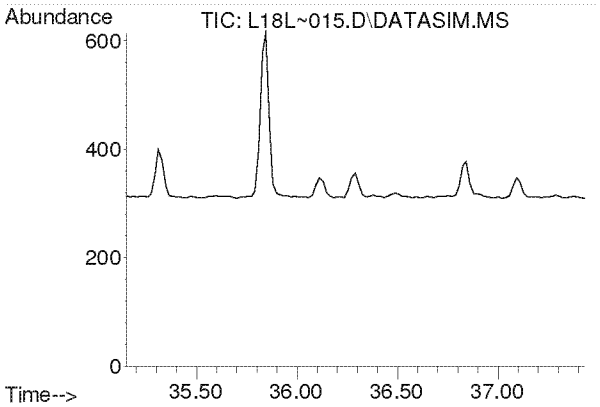
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.11 min

Lab File: L18L~015.D
Acq: 28 Dec 2018 5:51 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.5



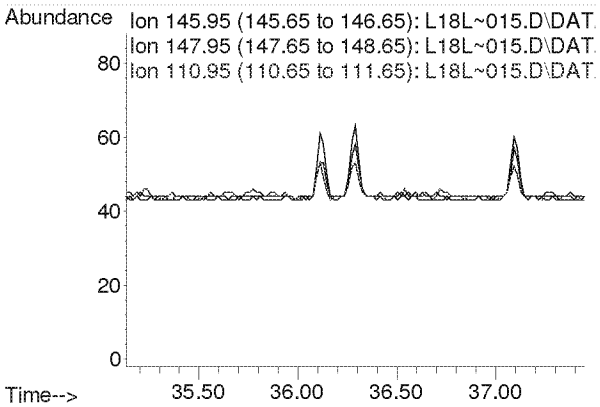


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

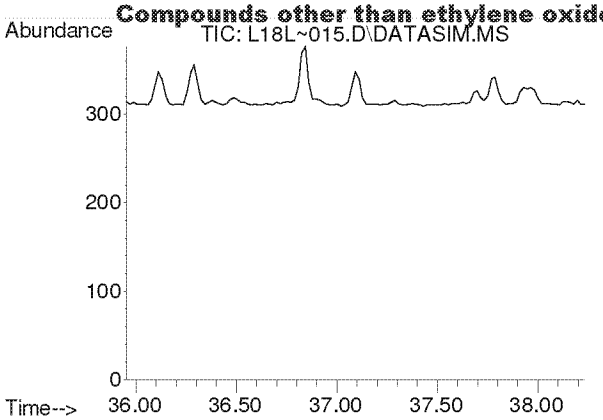
Lab File: L18L~015.D
Acq: 28 Dec 2018 5:51 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	39.5



Compounds other than ethylene oxide were not quantitated.

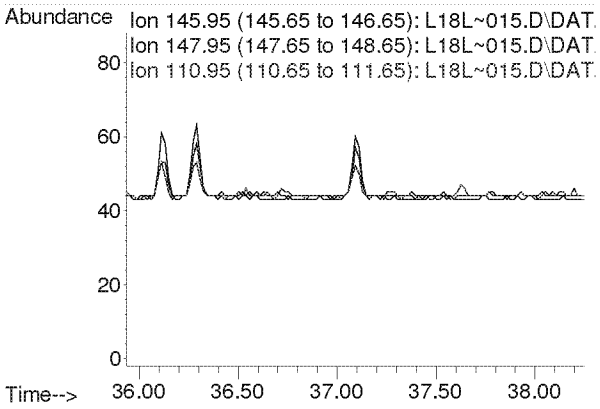


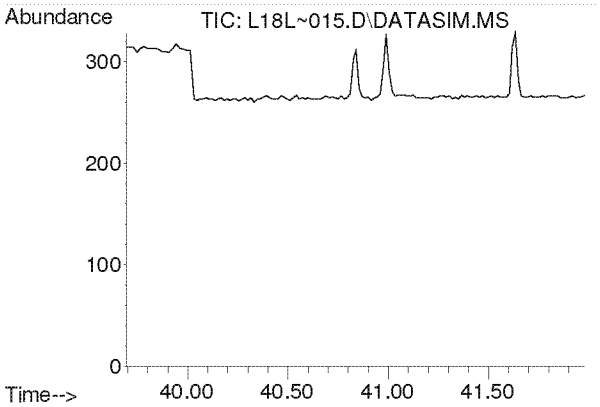
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.09 min

Lab File: L18L~015.D
Acq: 28 Dec 2018 5:51 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	41.4



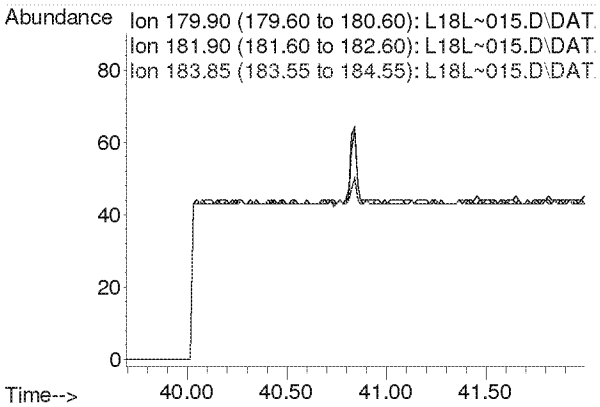


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

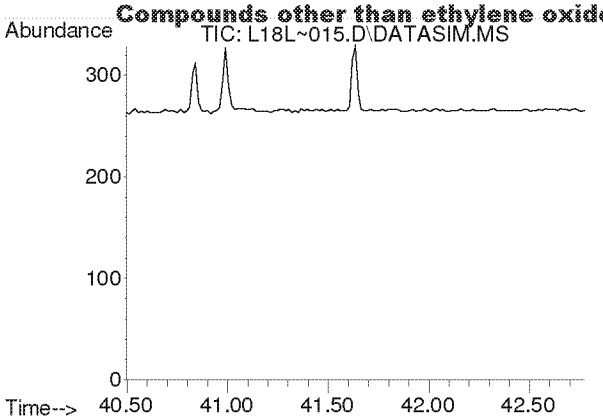
Lab File: L18L~015.D
Acq: 28 Dec 2018 5:51 am

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	95.1
184	30.7



Compounds other than ethylene oxide were not quantitated.

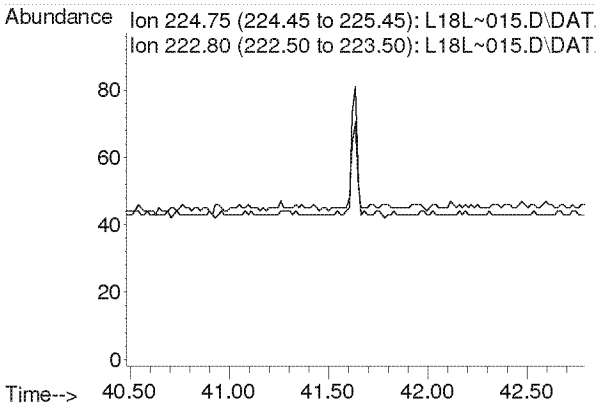


#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.64 min

Lab File: L18L~015.D
Acq: 28 Dec 2018 5:51 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\L18L~\
Data File : L18L~016.D
Acq On : 28 Dec 2018 6:53 am
Operator : MAH
Sample : 8121821-01
Misc : WILLOW POND PARK 12/14/18
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jan 03 12:40:56 2019
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
Response via : Initial Calibration

d=nt

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.970	66	53535	4.7700 ppbv	-0.02
29) IS-1,4-Difluorobenzene	23.151	114	125363	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.096	117	96106	4.7400 ppbv	0.00

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.	d
8) 1,3-Butadiene	0.000	54	0	N.D.	d
9) Ethylene oxide	12.440	29	647m	0.2022 ppbv	
10) Bromomethane	0.000	94	0	N.D.	d
11) Chloroethane	0.000	64	0	N.D.	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.	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.	d
21) 1,1-Dichloroethane	0.000	63	0	N.D.	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.	d
26) Chloroform	0.000	83	0	N.D.	d
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D.	d
28) 1,2-Dichloroethane	0.000	62	0	N.D.	d
30) 1,1,1-Trichloroethane	0.000	97	0	N.D.	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.	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.	d
37) Trichloroethylene	0.000	130	0	N.D.	d
38) Methyl Methacrylate	0.000	41	0	N.D.	d
39) cis-1,3-Dichloropropene	0.000	75	0	N.D.	d
40) Methyl Isobutyl Ketone	0.000	43	0	N.D.	d
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.	d
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.	d
44) Toluene	0.000	91	0	N.D.	d
45) Dibromochloromethane	0.000	129	0	N.D.	d
46) 1,2-Dibromoethane	0.000	107	0	N.D.	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.	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\L18L~\
Data File : L18L~016.D
Acq.On : 28 Dec 2018 6:53 am
Operator : MAH
Sample : 8121821-01
Misc : WILLOW POND PARK 12/14/18
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jan 03 12:40:56 2019
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
Response via : Initial Calibration

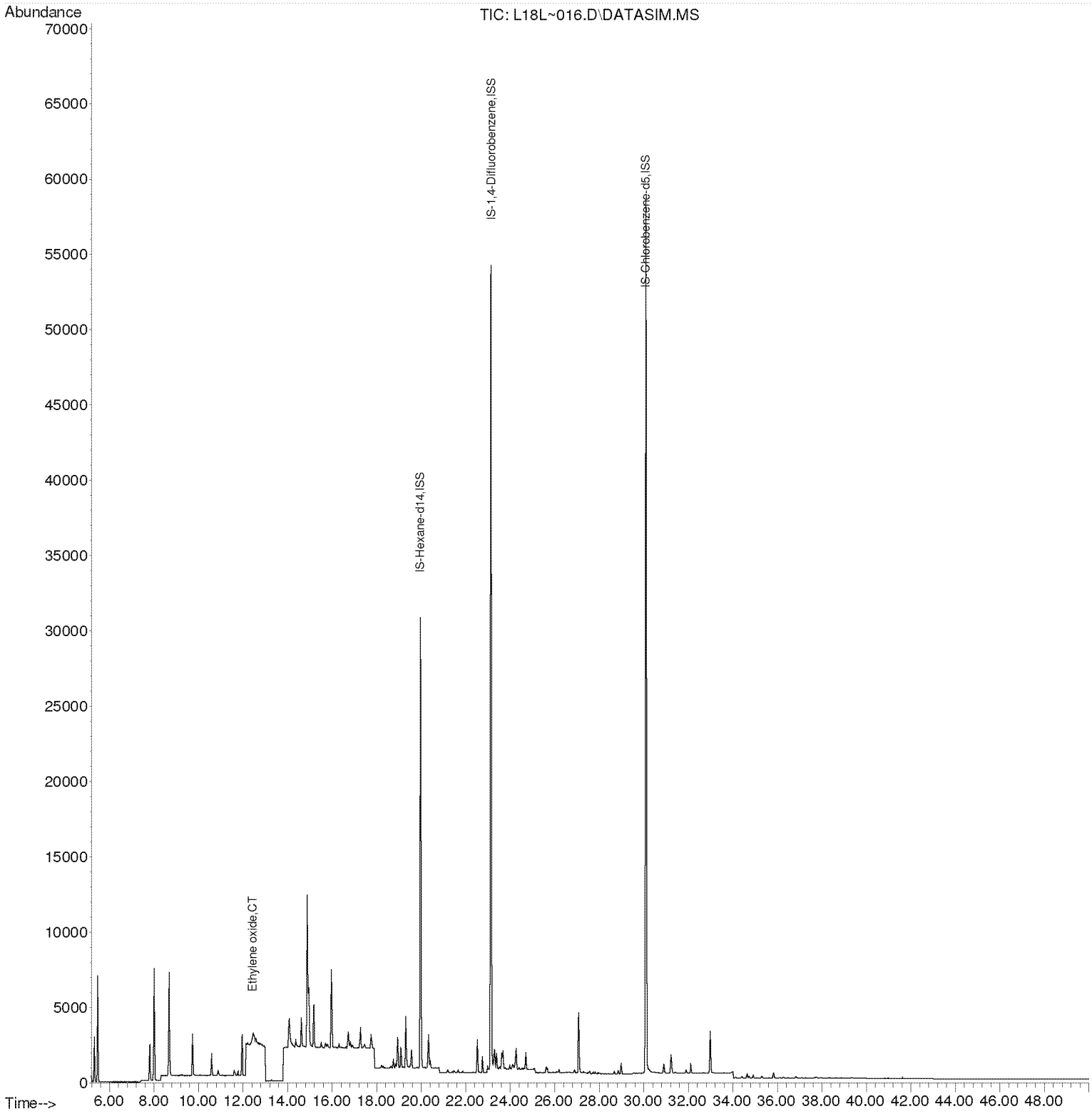
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D. d	
52) Bromoform	0.000	173	0	N.D. d	
53) Styrene	0.000	104	0	N.D. d	
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D. d	
55) o-Xylene	0.000	91	0	N.D. d	
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D. d	
57) 1,2,4-Trimethylbenzene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

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

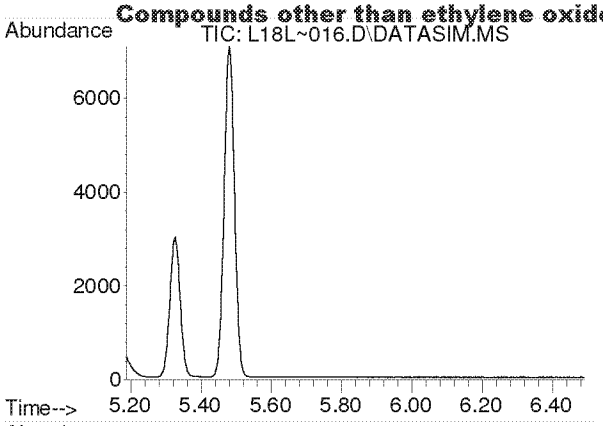
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L18L~\
Data File : L18L~016.D
Acq On : 28 Dec 2018 6:53 am
Operator : MAH
Sample : 8121821-01
Misc : WILLOW POND PARK 12/14/18
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jan 03 12:20:54 2019
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
Response via : Initial Calibration



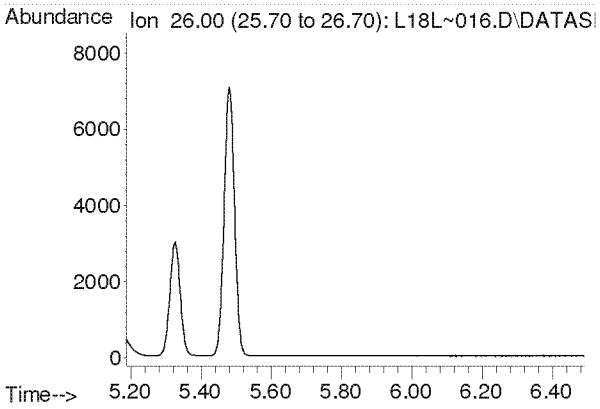
Compounds other than ethylene oxide were not quantitated.

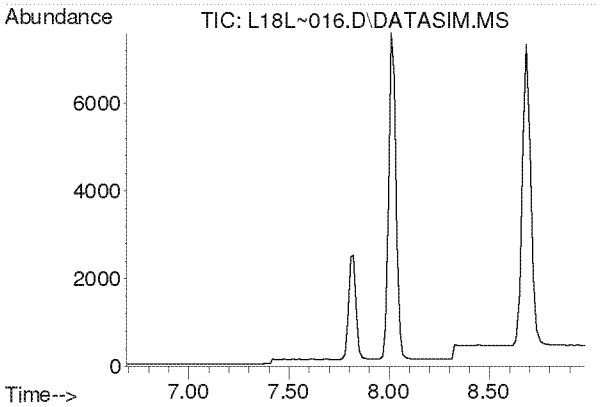


#2
Acetylene
Concen: N.D.
Expected RT: 5.42 min

Lab File: L18L~016.D
Acq: 28 Dec 2018 6:53 am

Tgt Ion: 26



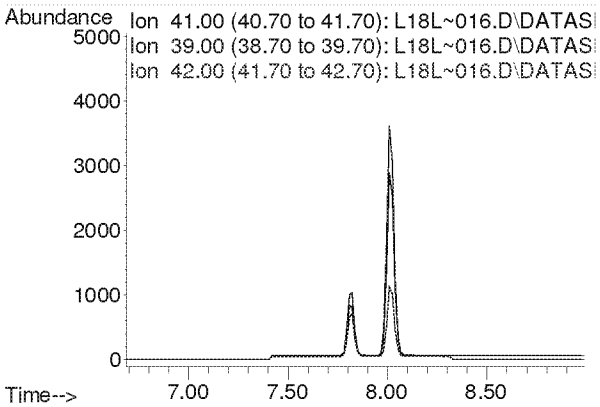


#3
Propylene
Concen: N.D.
Expected RT: 7.84 min

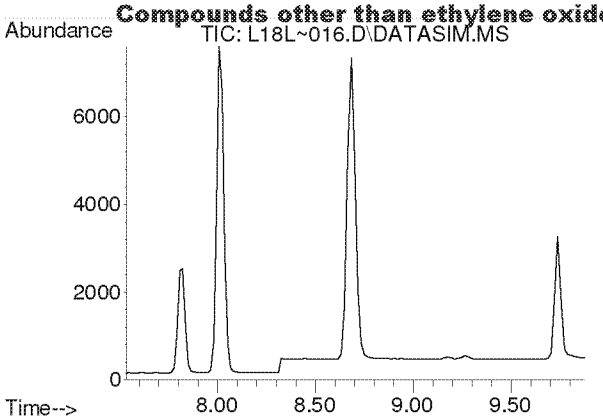
Lab File: L18L~016.D
Acq: 28 Dec 2018 6:53 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	78.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

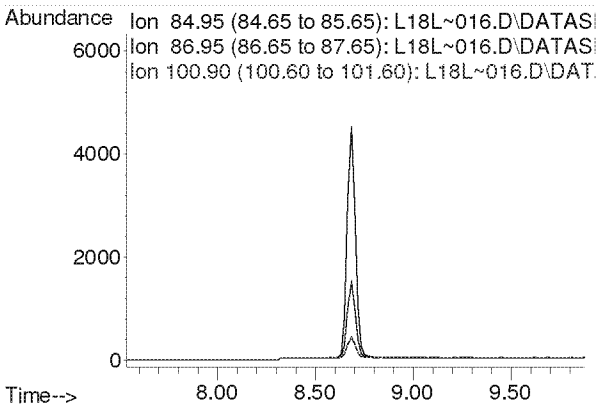


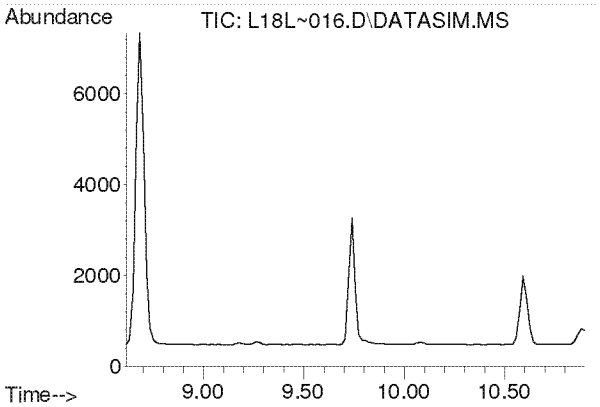
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L18L~016.D
Acq: 28 Dec 2018 6:53 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	8.9



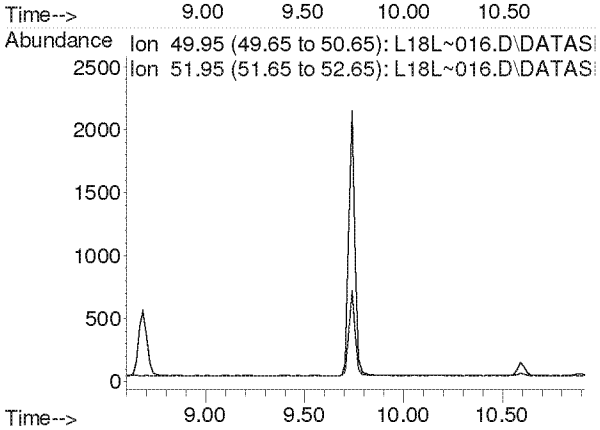


#5
Chloromethane
Concen: N.D.
Expected RT: 9.76 min

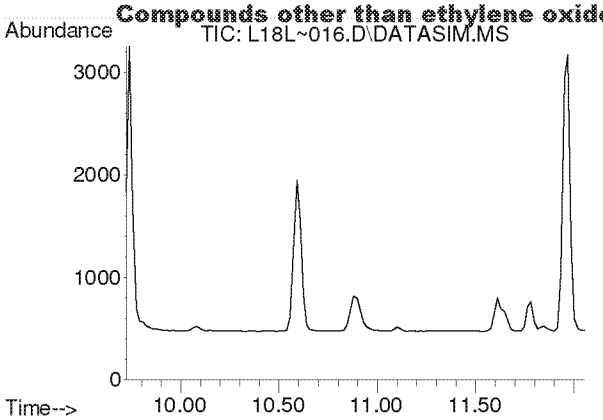
Lab File: L18L~016.D
Acq: 28 Dec 2018 6:53 am

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

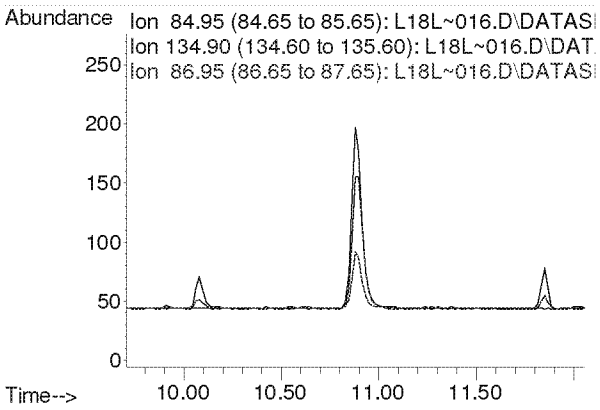


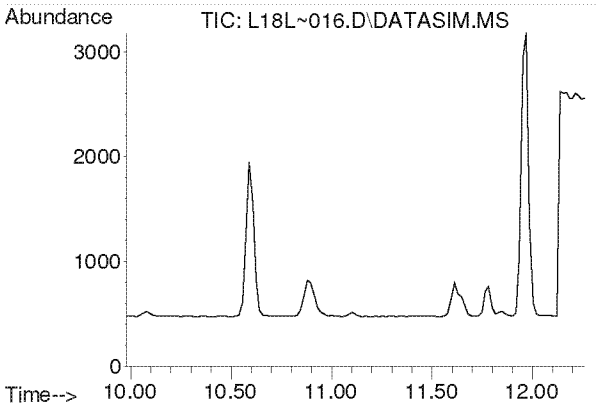
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L18L~016.D
Acq: 28 Dec 2018 6:53 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.1
87	32.1



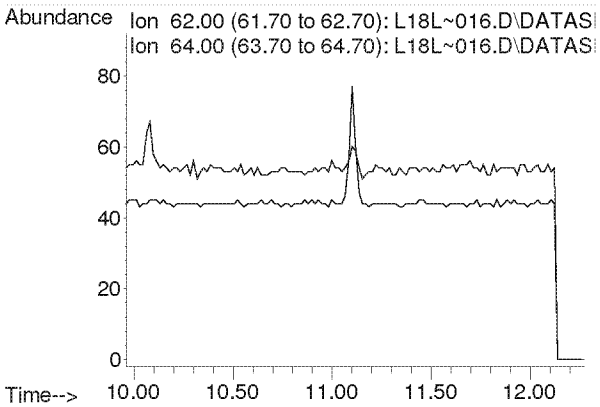


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

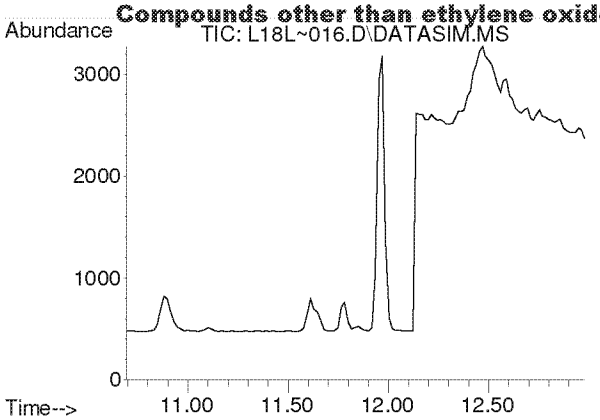
Lab File: L18L~016.D
Acq: 28 Dec 2018 6:53 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.8



Compounds other than ethylene oxide were not quantitated.

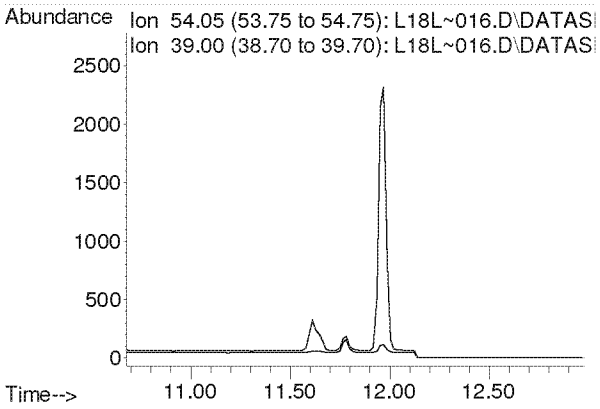


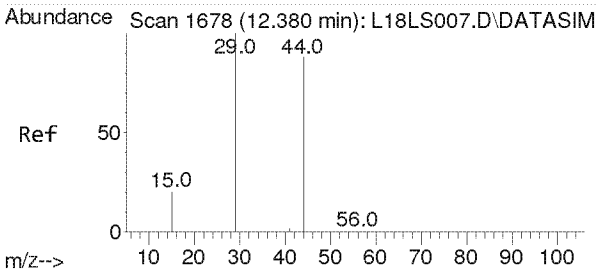
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L18L~016.D
Acq: 28 Dec 2018 6:53 am

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	105.4

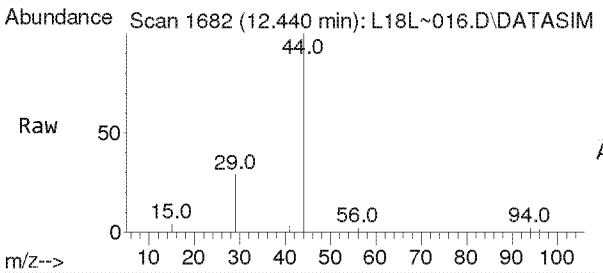


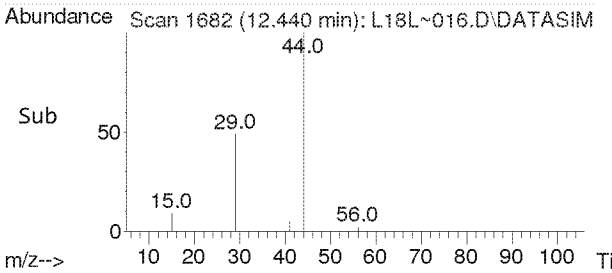


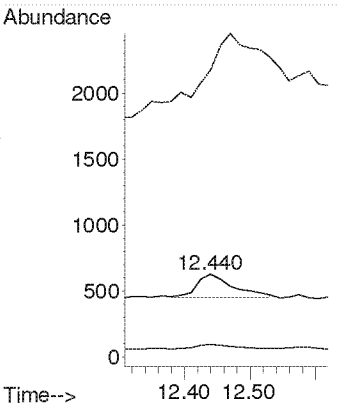
#9
Ethylene oxide
Concen: 0.202 ppbv m
RT: 12.440 min Scan# 1682
Delta R.T. 0.060 min
Lab File: L18L~016.D
Acq: 28 Dec 2018 6:53 am

Tgt Ion: 29 Resp: 647

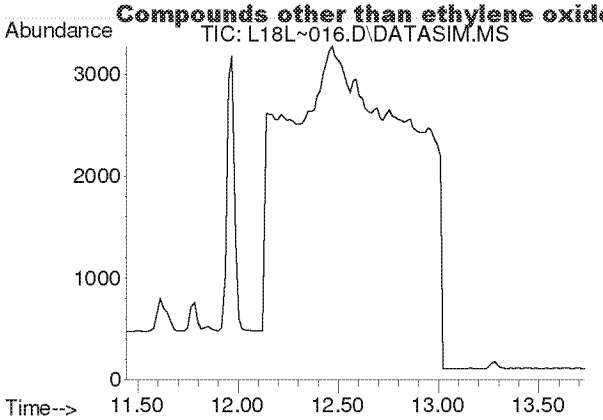
Ion	Ratio	Lower	Upper
29	100		
15	21.9	16.2	24.4
44	779.6	72.0	108.0#







Compounds other than ethylene oxide were not quantitated.

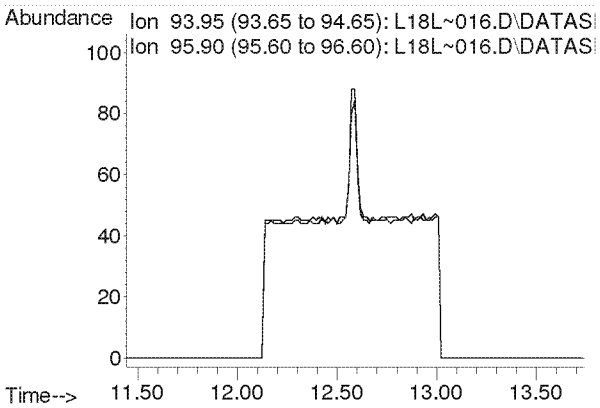


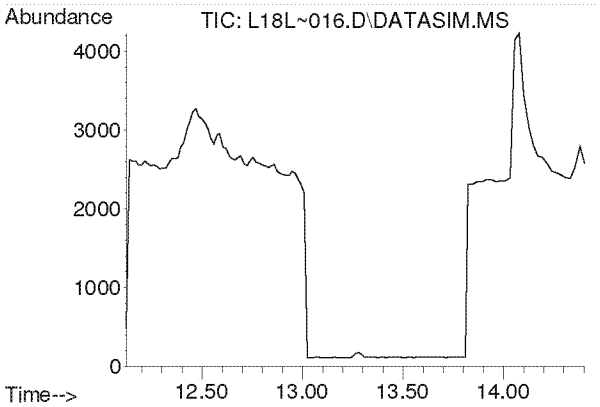
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L18L~016.D
Acq: 28 Dec 2018 6:53 am

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	93.9



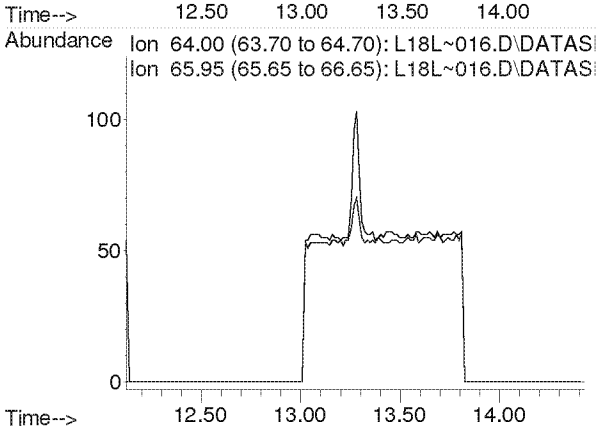


#11
Chloroethane
Concen: N.D.
Expected RT: 13.27 min

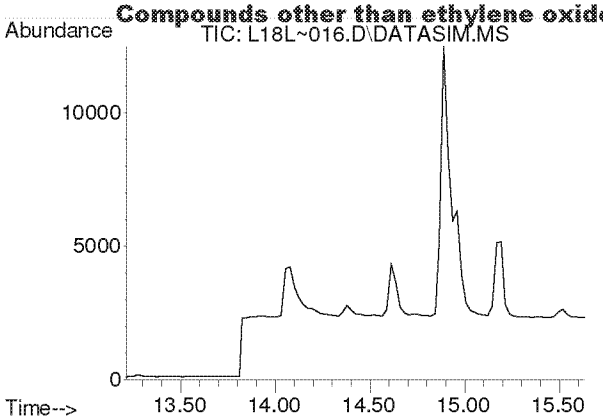
Lab File: L18L~016.D
Acq: 28 Dec 2018 6:53 am

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.0



Compounds other than ethylene oxide were not quantitated.

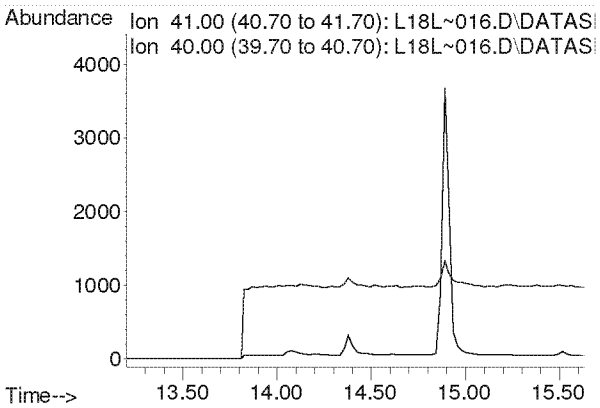


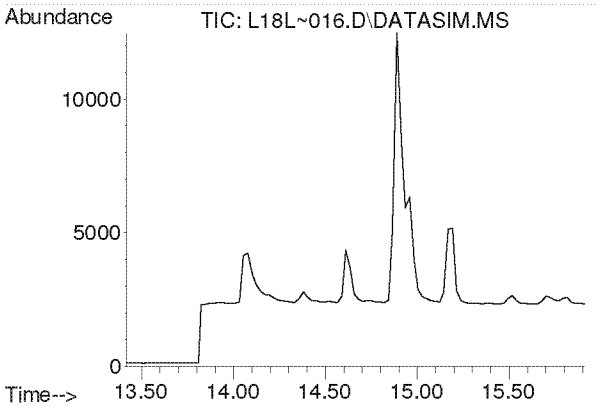
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.33 min

Lab File: L18L~016.D
Acq: 28 Dec 2018 6:53 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	50.9



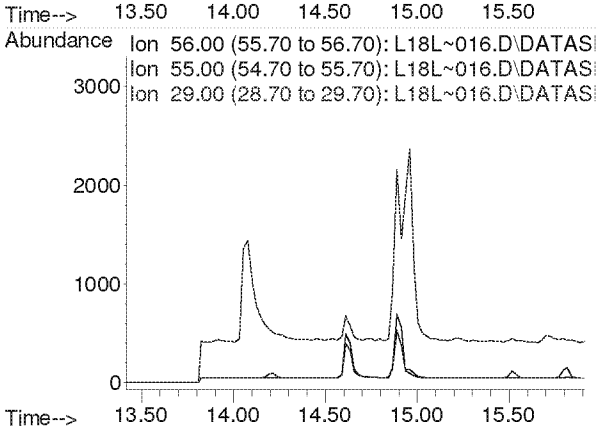


#13
Acrolein
Concen: N.D.
Expected RT: 14.61 min

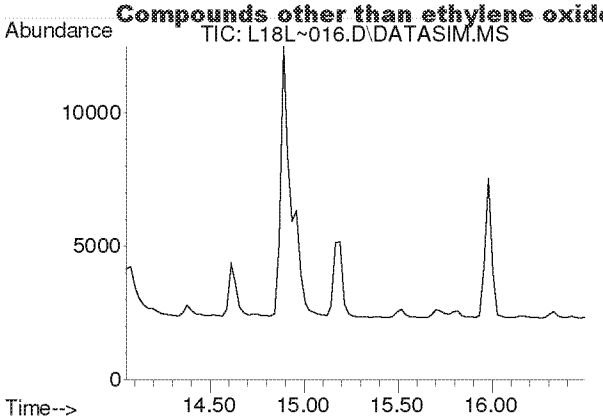
Lab File: L18L~016.D
Acq: 28 Dec 2018 6:53 am

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	75.4
29	52.9



Compounds other than ethylene oxide were not quantitated.

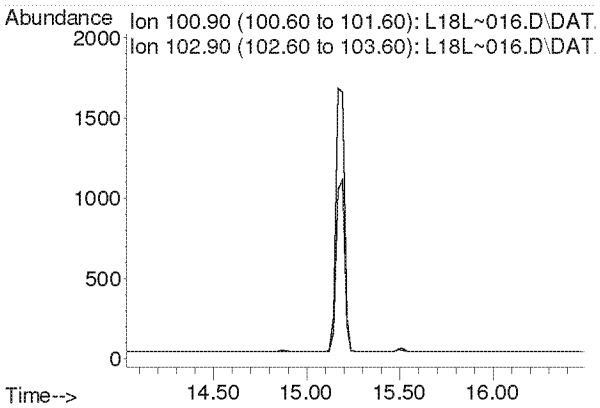


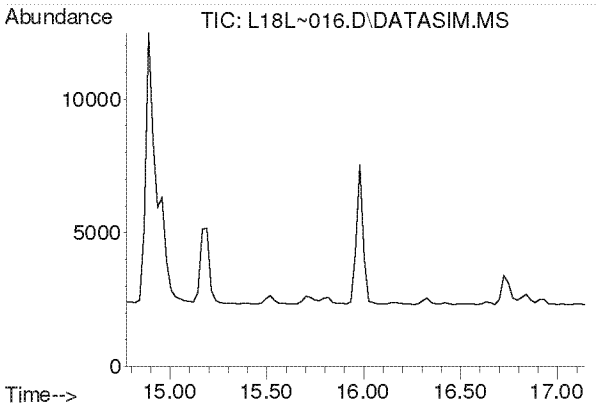
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L18L~016.D
Acq: 28 Dec 2018 6:53 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



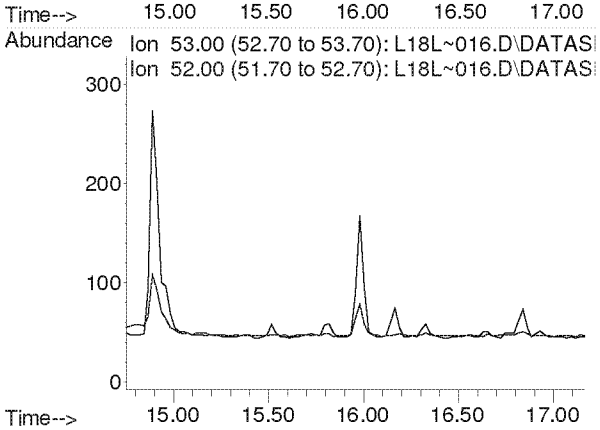


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.91 min

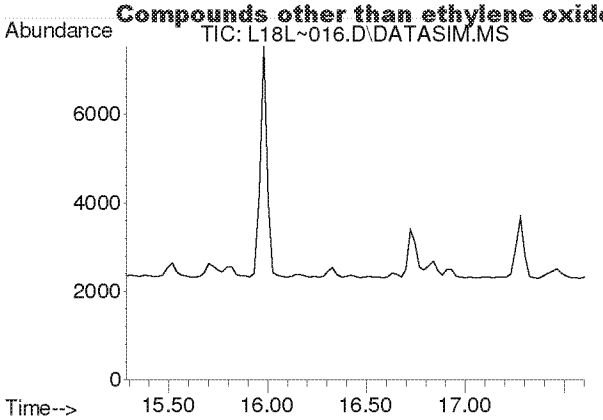
Lab File: L18L~016.D
Acq: 28 Dec 2018 6:53 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	85.4



Compounds other than ethylene oxide were not quantitated.

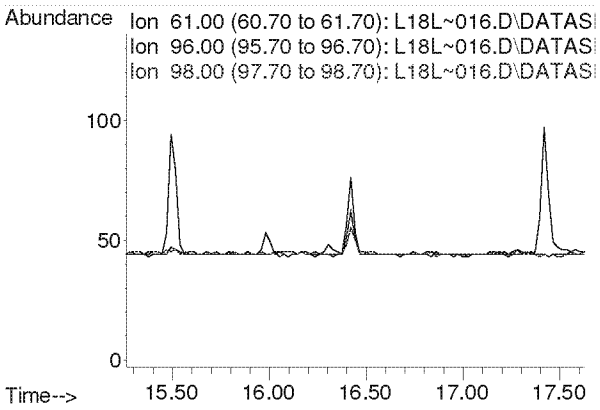


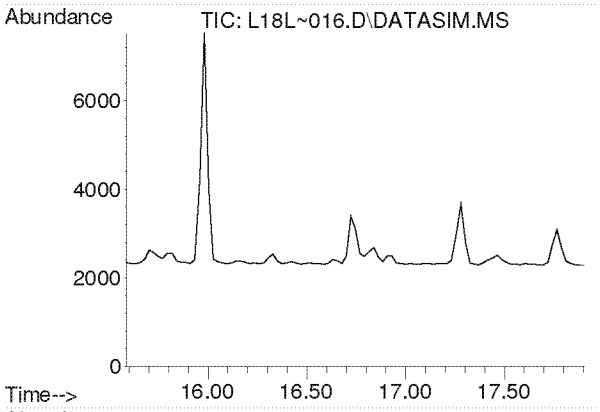
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L18L~016.D
Acq: 28 Dec 2018 6:53 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	58.3
98	37.4



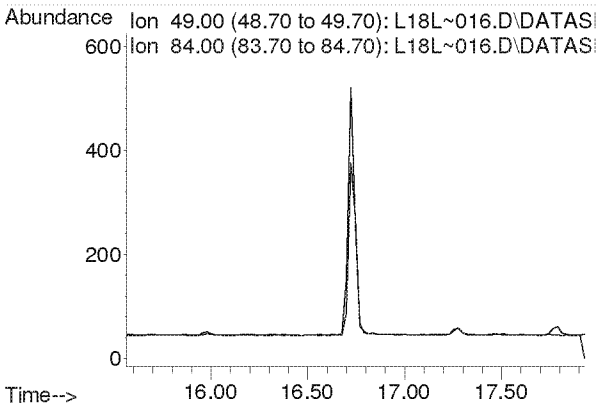


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.72 min

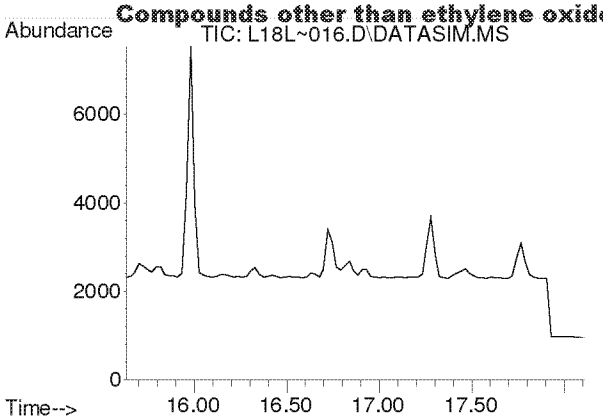
Lab File: L18L~016.D
Acq: 28 Dec 2018 6:53 am

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	76.4



Compounds other than ethylene oxide were not quantitated.

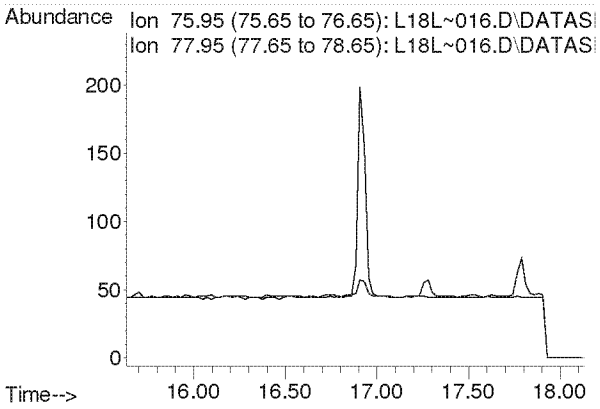


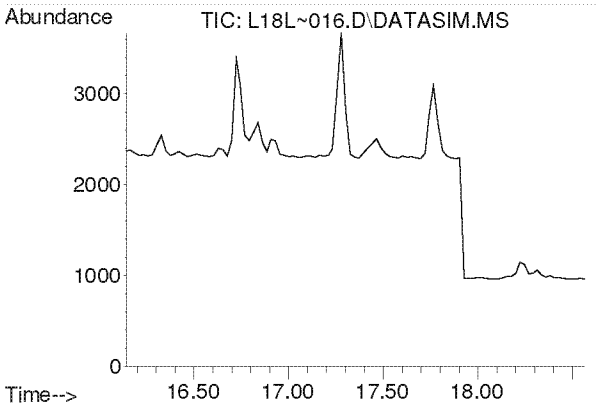
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L18L~016.D
Acq: 28 Dec 2018 6:53 am

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.1



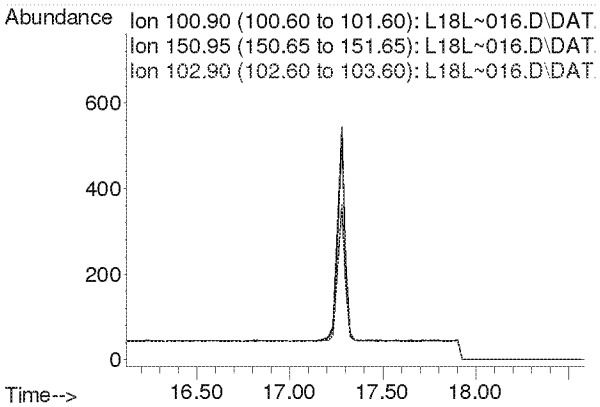


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

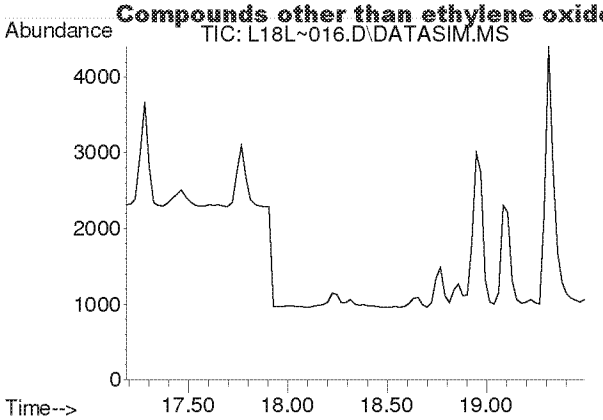
Lab File: L18L~016.D
Acq: 28 Dec 2018 6:53 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	95.3
103	64.1



Compounds other than ethylene oxide were not quantitated.

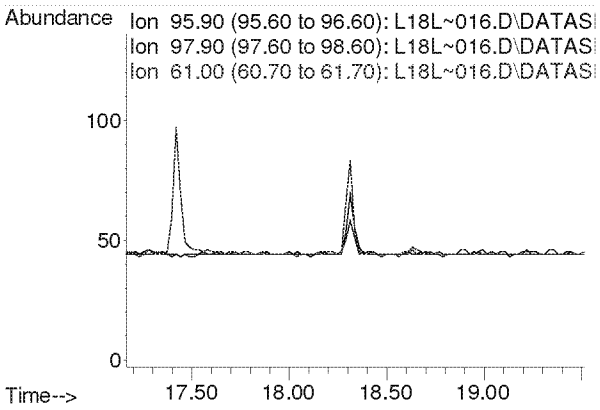


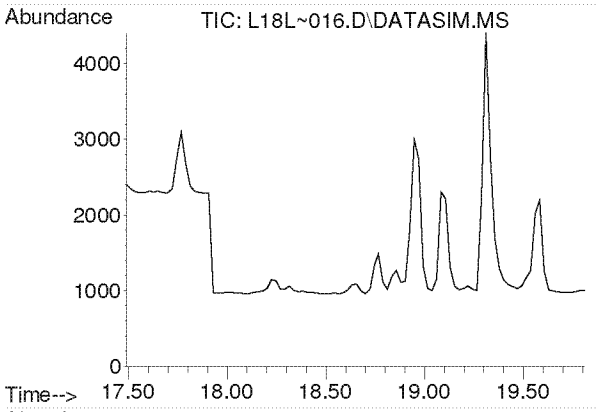
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.31 min

Lab File: L18L~016.D
Acq: 28 Dec 2018 6:53 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	63.7
61	159.2



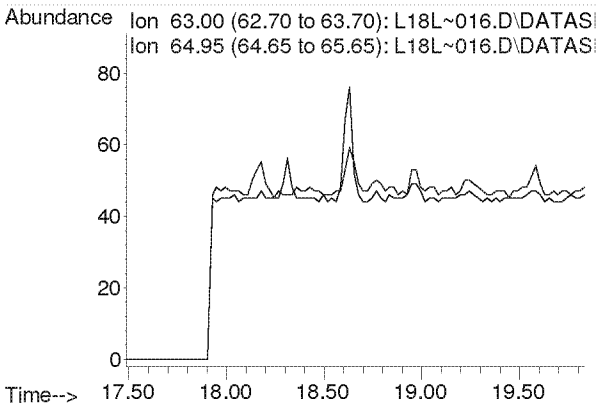


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

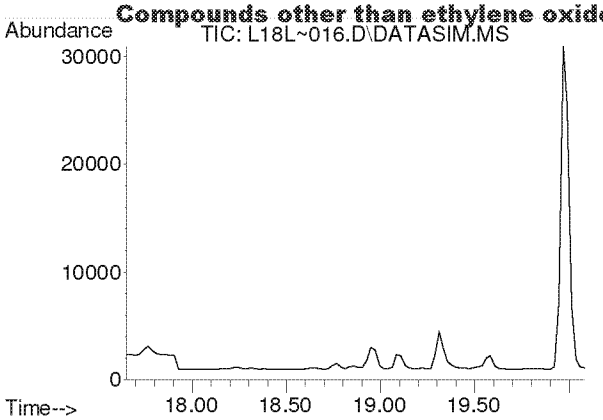
Lab File: L18L~016.D
Acq: 28 Dec 2018 6:53 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

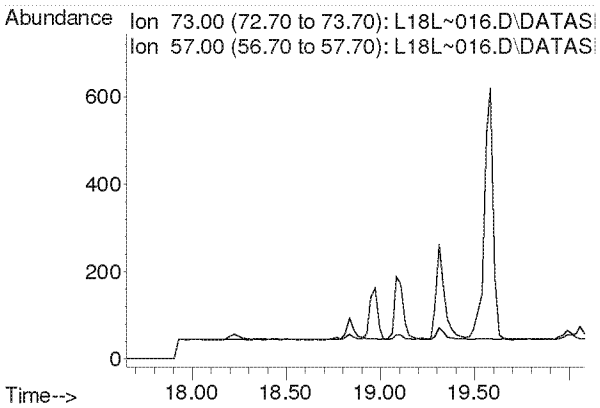


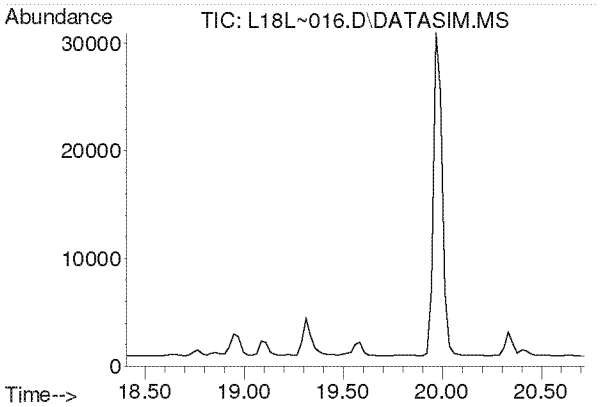
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L18L~016.D
Acq: 28 Dec 2018 6:53 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.4



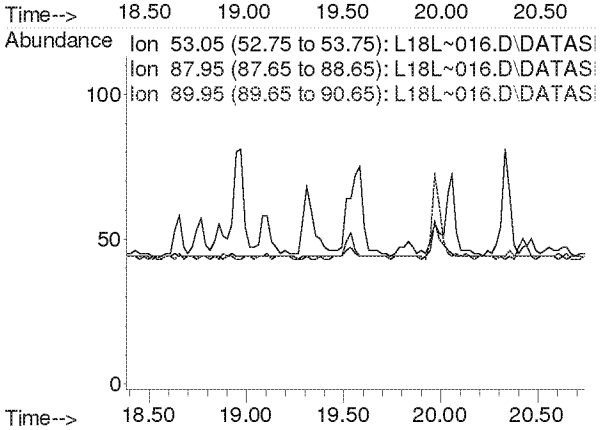


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

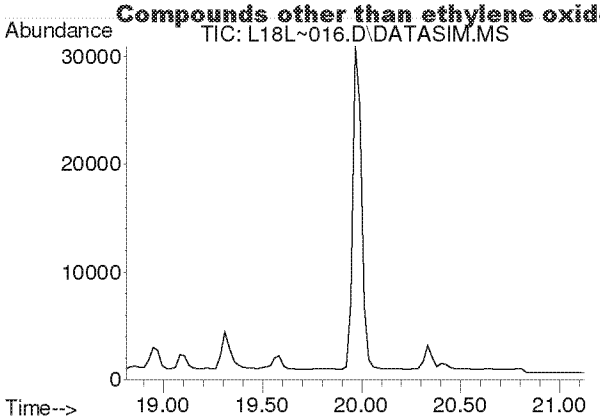
Lab File: L18L~016.D
Acq: 28 Dec 2018 6:53 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	51.8
90	16.8



Compounds other than ethylene oxide were not quantitated.

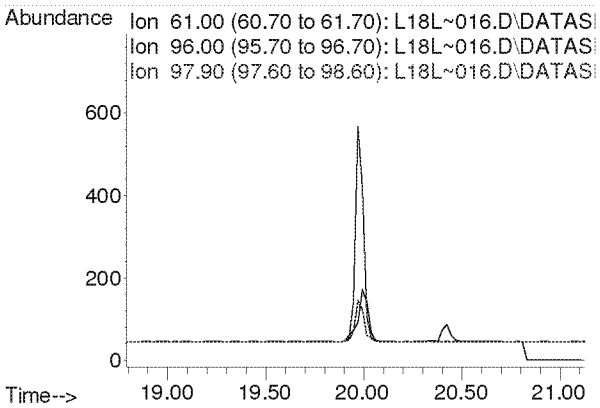


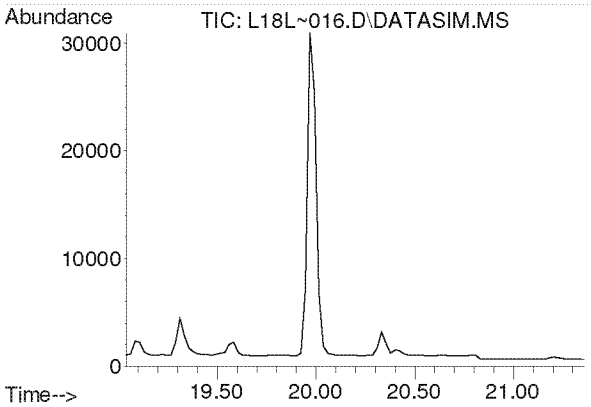
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L18L~016.D
Acq: 28 Dec 2018 6:53 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.7
98	45.2



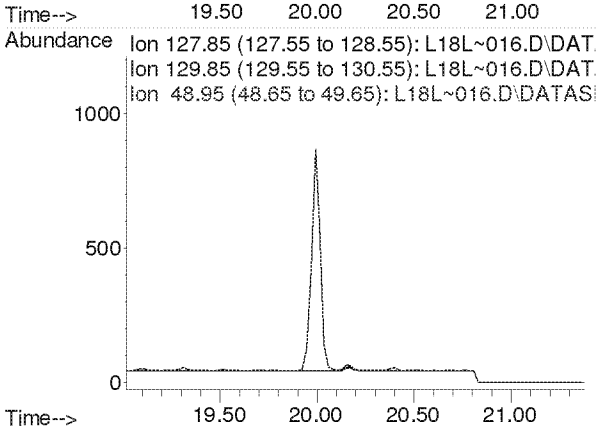


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

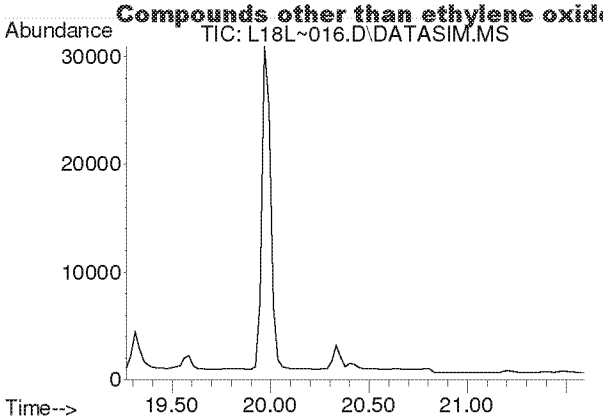
Lab File: L18L~016.D
Acq: 28 Dec 2018 6:53 am

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	171.2



Compounds other than ethylene oxide were not quantitated.

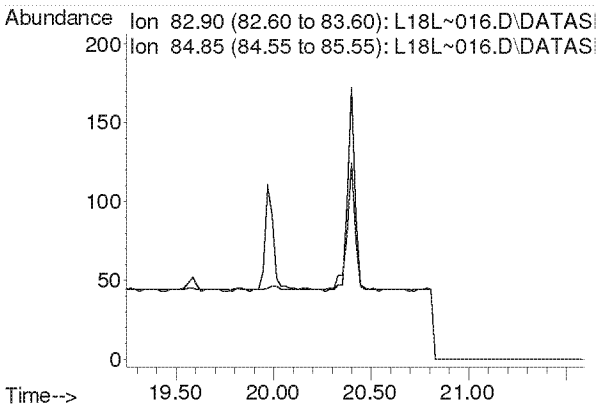


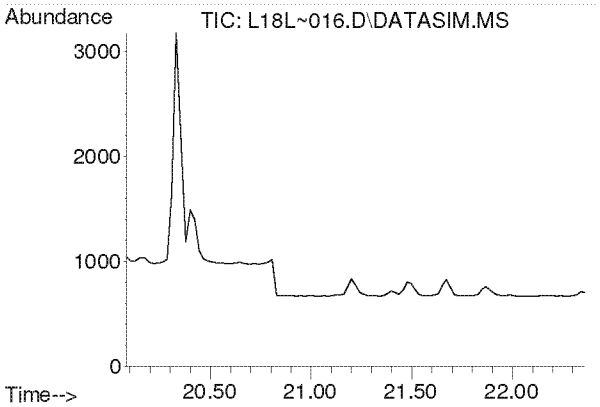
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L18L~016.D
Acq: 28 Dec 2018 6:53 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



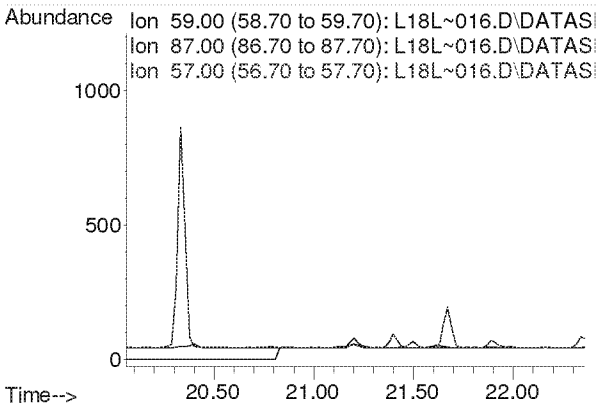


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.16 min

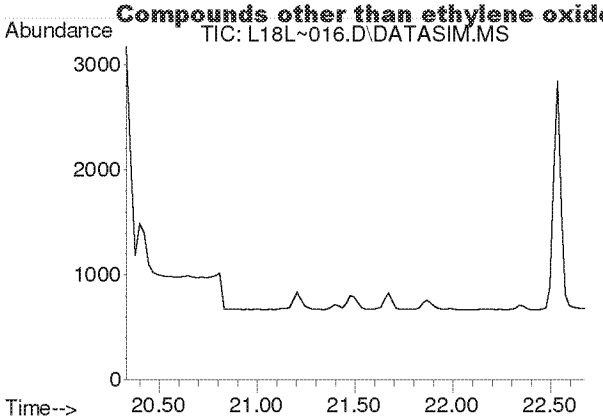
Lab File: L18L~016.D
Acq: 28 Dec 2018 6:53 am

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	37.5
57	33.8



Compounds other than ethylene oxide were not quantitated.

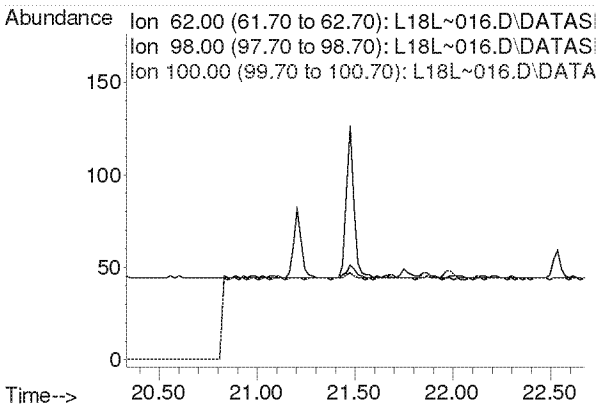


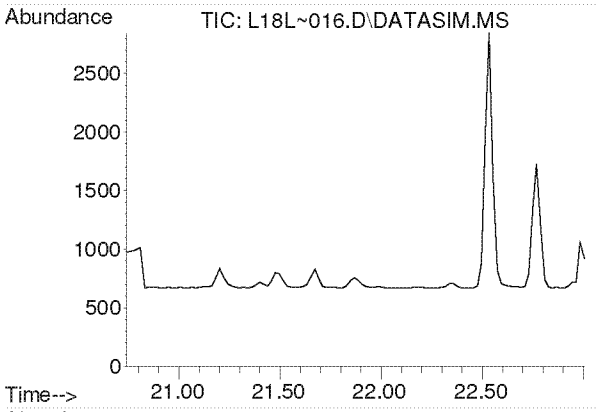
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L18L~016.D
Acq: 28 Dec 2018 6:53 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.4
100	4.0



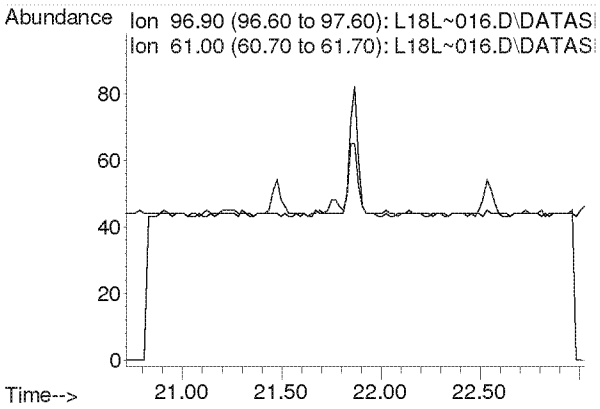


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

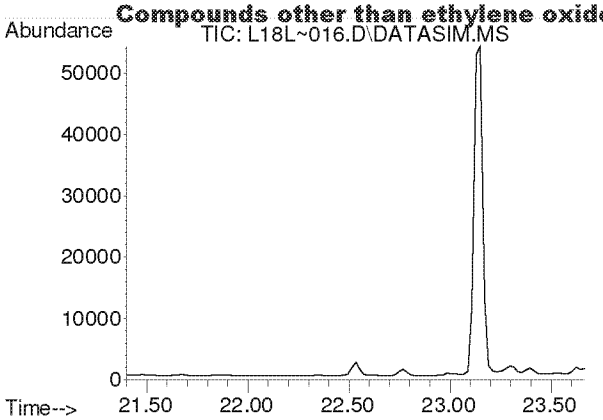
Lab File: L18L~016.D
Acq: 28 Dec 2018 6:53 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	60.5



Compounds other than ethylene oxide were not quantitated.

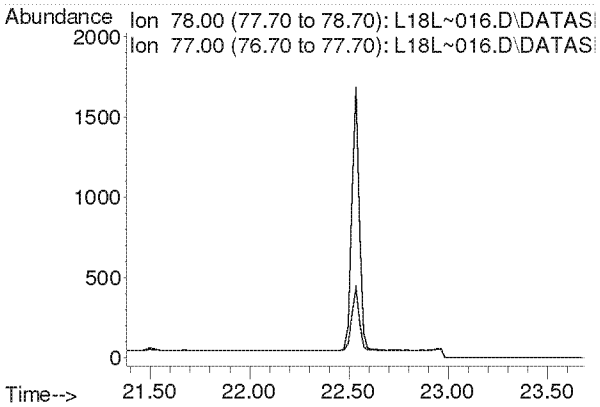


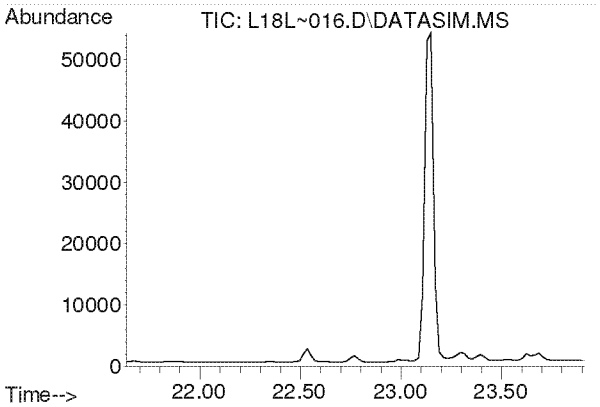
#31
Benzene
Concen: N.D.
Expected RT: 22.54 min

Lab File: L18L~016.D
Acq: 28 Dec 2018 6:53 am

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.7



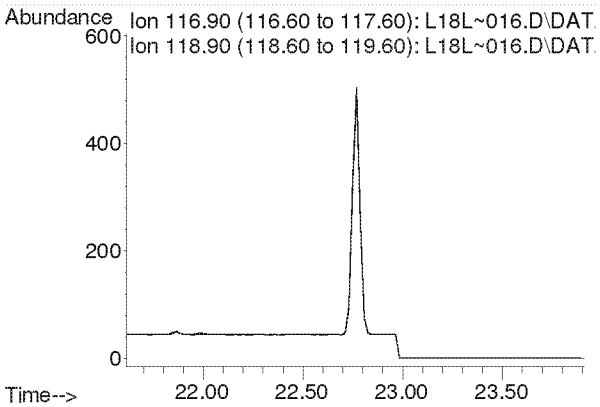


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

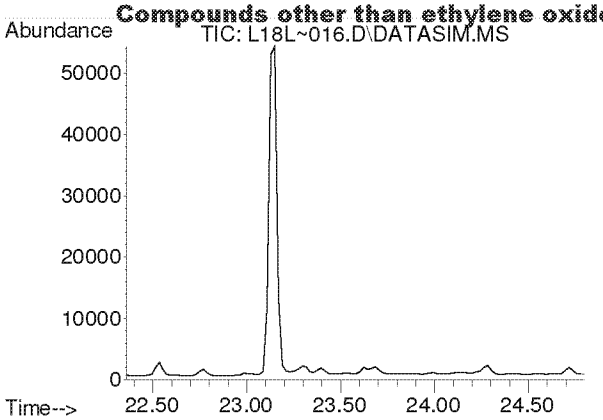
Lab File: L18L~016.D
Acq: 28 Dec 2018 6:53 am

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.5



Compounds other than ethylene oxide were not quantitated.

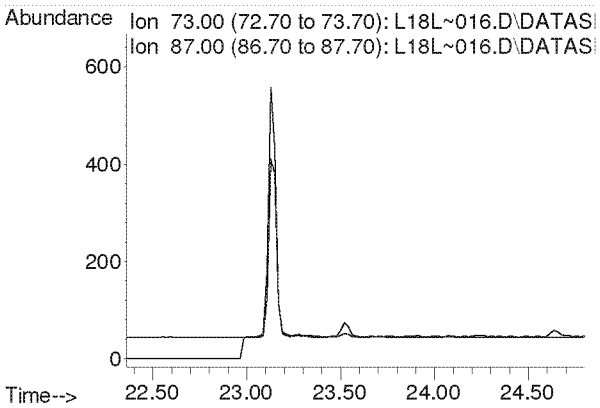


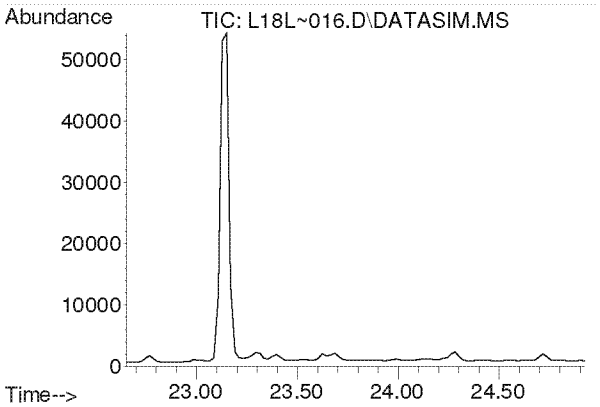
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.50 min

Lab File: L18L~016.D
Acq: 28 Dec 2018 6:53 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	24.9



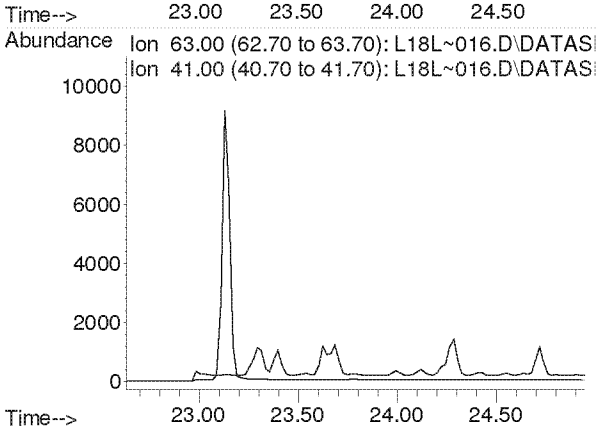


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

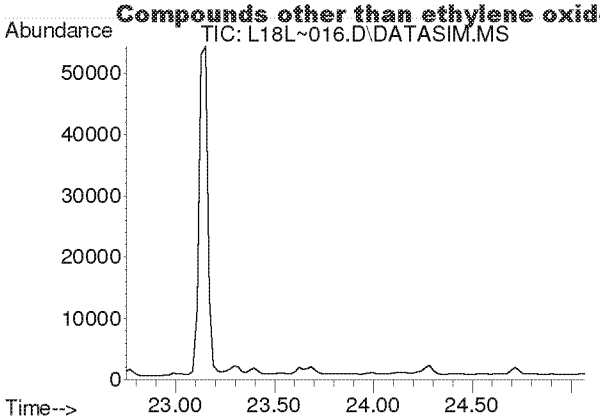
Lab File: L18L~016.D
Acq: 28 Dec 2018 6:53 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	212.8



Compounds other than ethylene oxide were not quantitated.

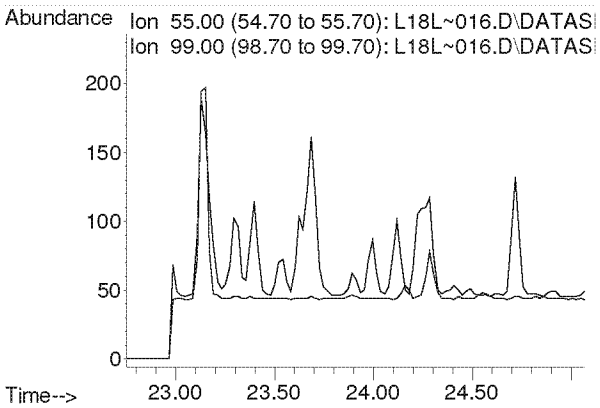


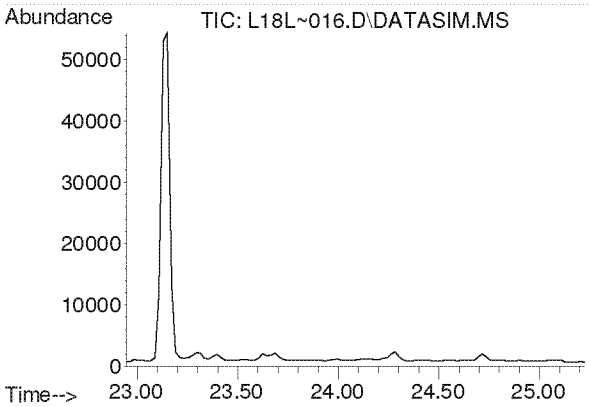
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.87 min

Lab File: L18L~016.D
Acq: 28 Dec 2018 6:53 am

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.1



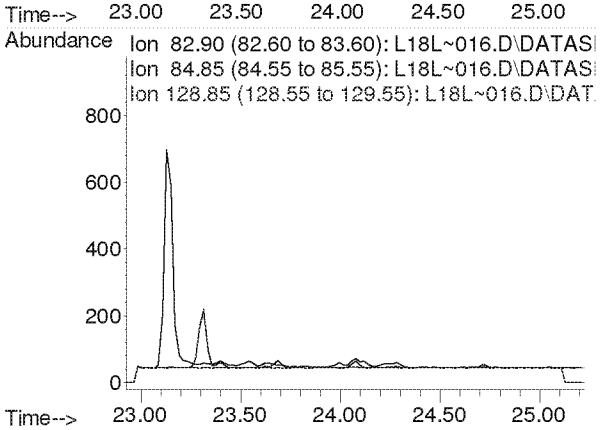


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

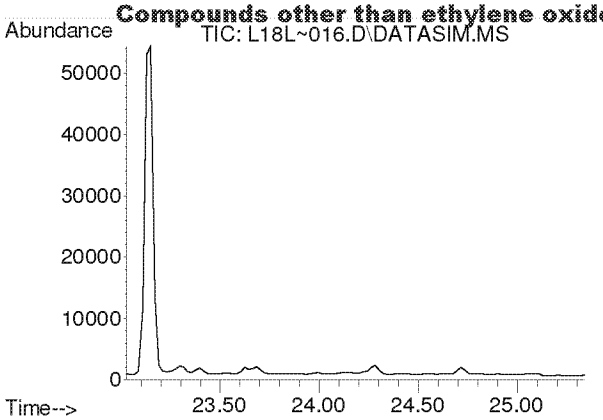
Lab File: L18L~016.D
Acq: 28 Dec 2018 6:53 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.0
129	12.4



Compounds other than ethylene oxide were not quantitated.

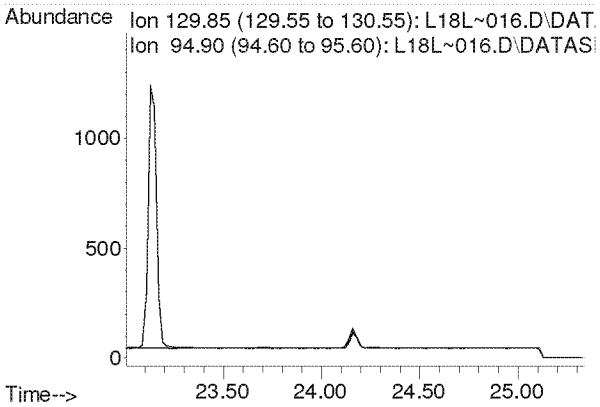


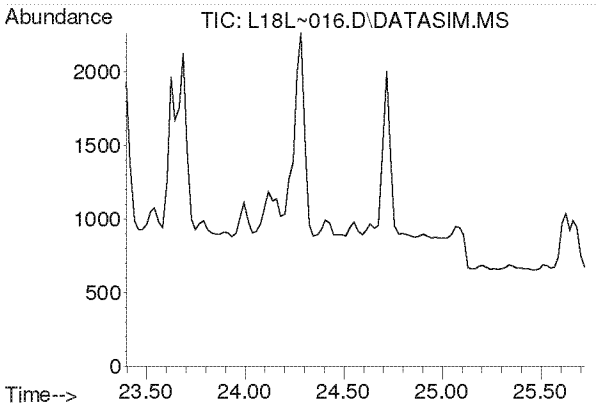
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.16 min

Lab File: L18L~016.D
Acq: 28 Dec 2018 6:53 am

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	110.3



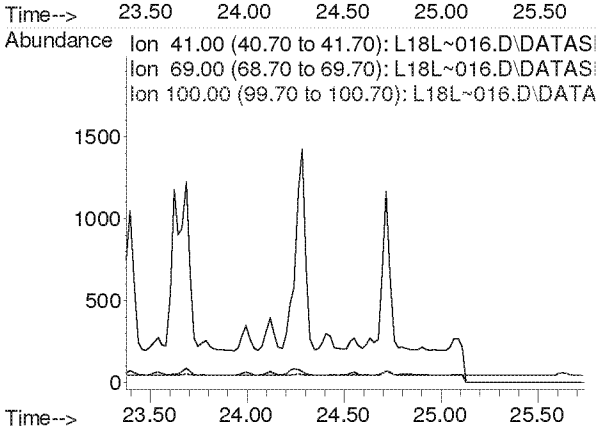


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

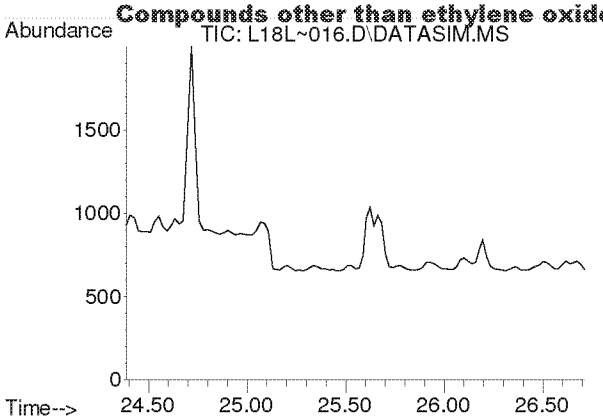
Lab File: L18L~016.D
Acq: 28 Dec 2018 6:53 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	19.9
100	5.2



Compounds other than ethylene oxide were not quantitated.

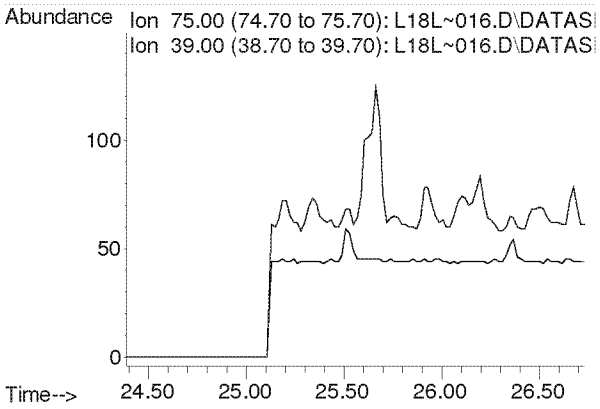


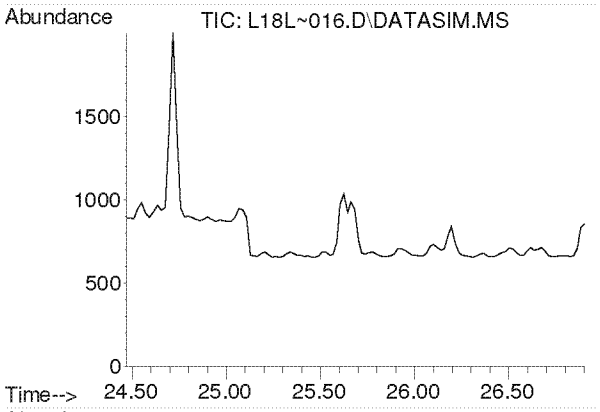
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L18L~016.D
Acq: 28 Dec 2018 6:53 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.4



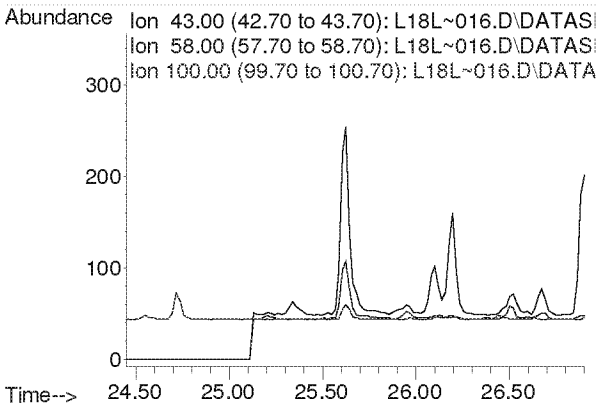


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.61 min

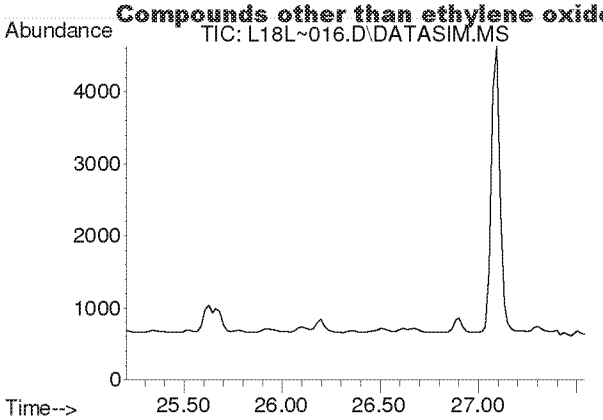
Lab File: L18L~016.D
Acq: 28 Dec 2018 6:53 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	34.2
100	7.9



Compounds other than ethylene oxide were not quantitated.

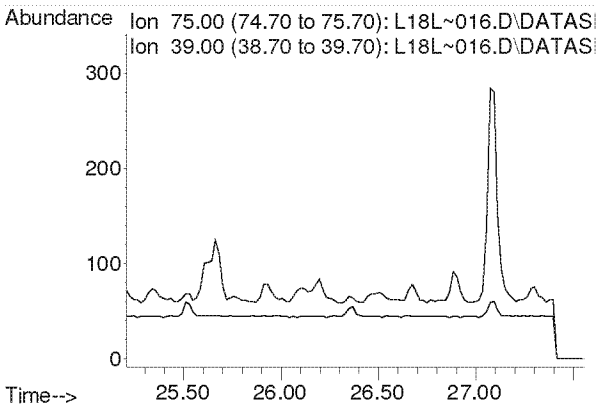


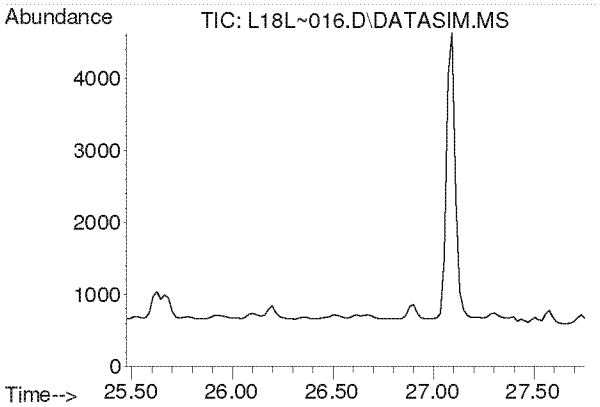
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.35 min

Lab File: L18L~016.D
Acq: 28 Dec 2018 6:53 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	50.9



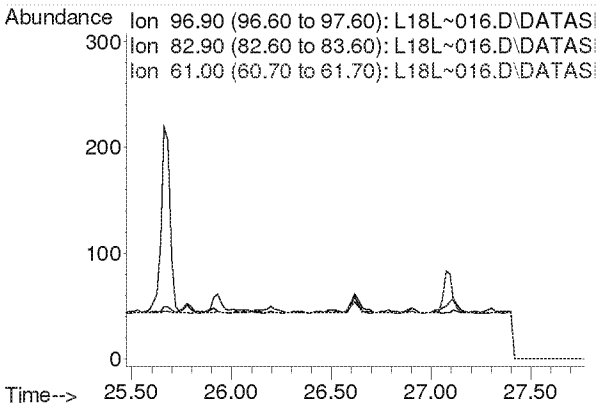


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

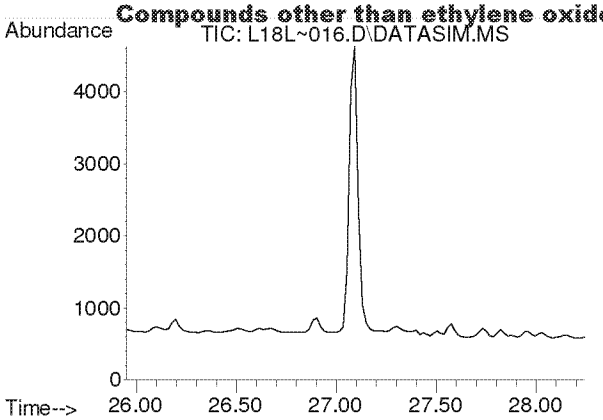
Lab File: L18L~016.D
Acq: 28 Dec 2018 6:53 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	96.1
61	63.5



Compounds other than ethylene oxide were not quantitated.

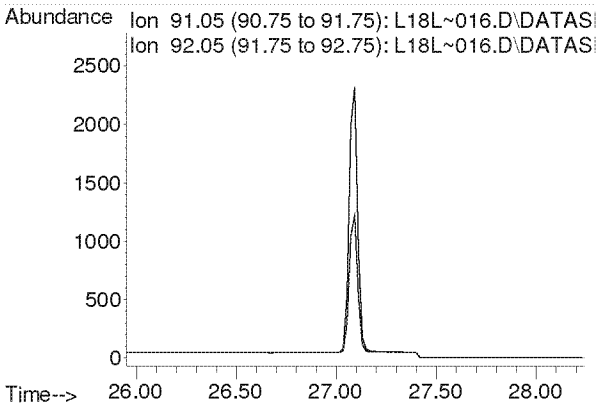


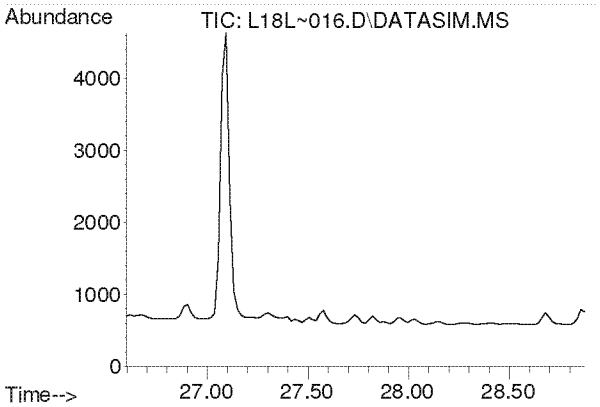
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L18L~016.D
Acq: 28 Dec 2018 6:53 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.6



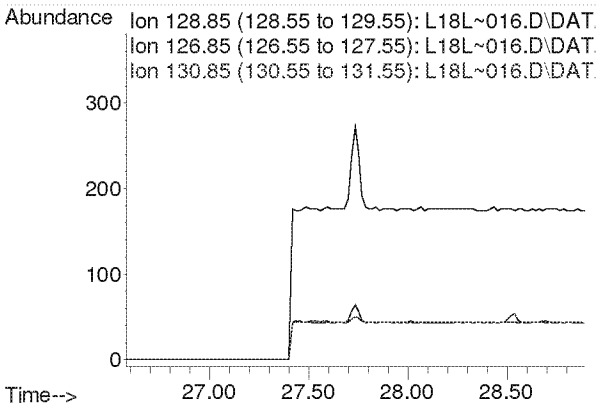


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.73 min

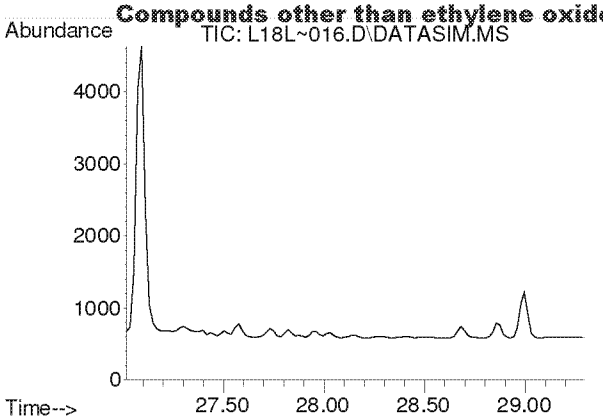
Lab File: L18L~016.D
Acq: 28 Dec 2018 6:53 am

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.2
131	6.0



Compounds other than ethylene oxide were not quantitated.

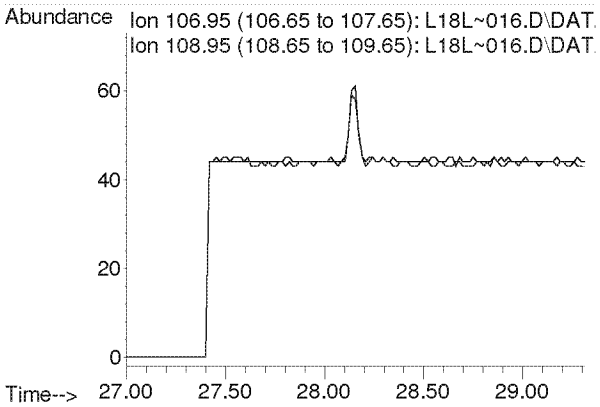


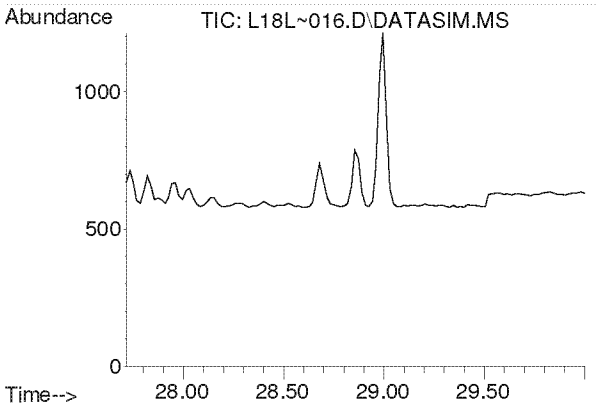
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.16 min

Lab File: L18L~016.D
Acq: 28 Dec 2018 6:53 am

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.5



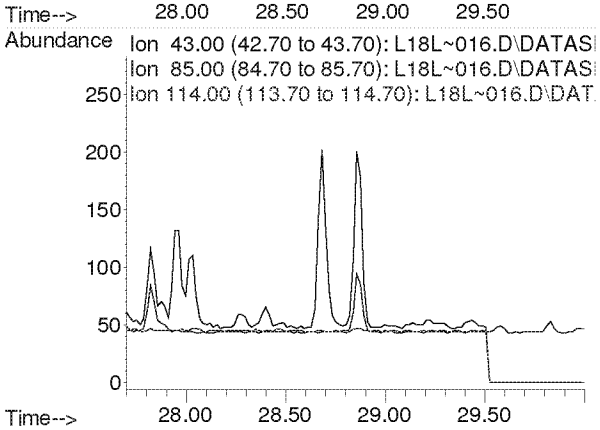


#47
n-Octane
Concen: N.D.
Expected RT: 28.86 min

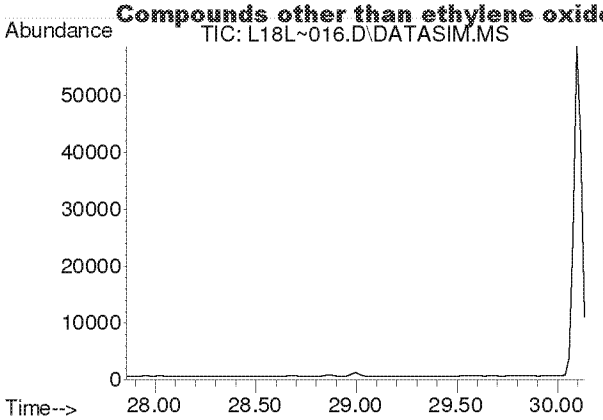
Lab File: L18L~016.D
Acq: 28 Dec 2018 6:53 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	36.0
114	2.2



Compounds other than ethylene oxide were not quantitated.

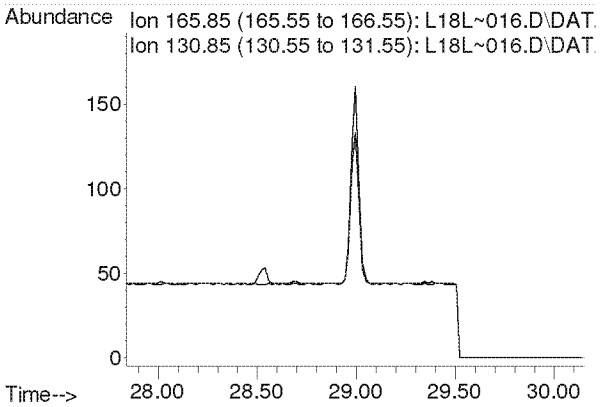


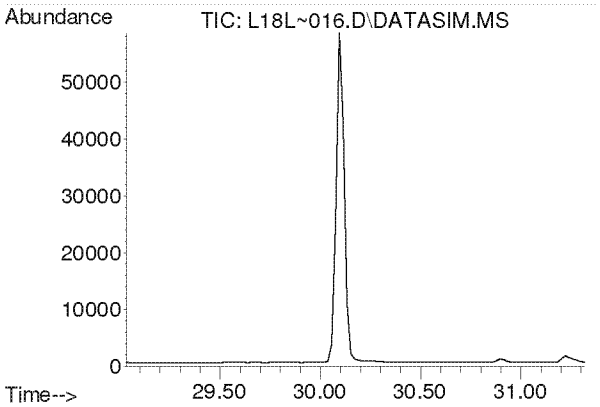
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L18L~016.D
Acq: 28 Dec 2018 6:53 am

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	78.2



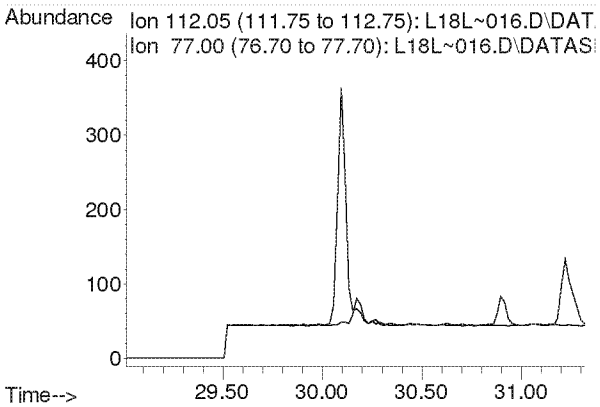


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.17 min

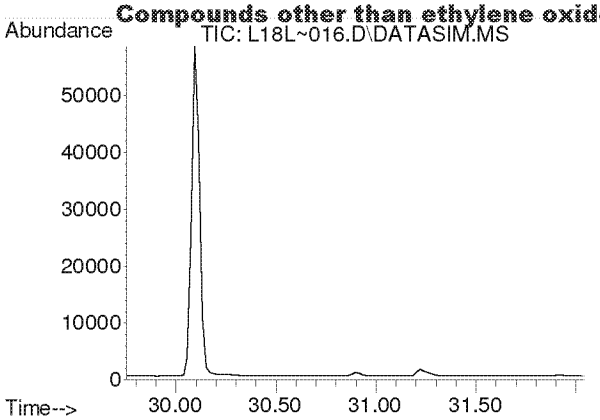
Lab File: L18L~016.D
Acq: 28 Dec 2018 6:53 am

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	63.0



Compounds other than ethylene oxide were not quantitated.

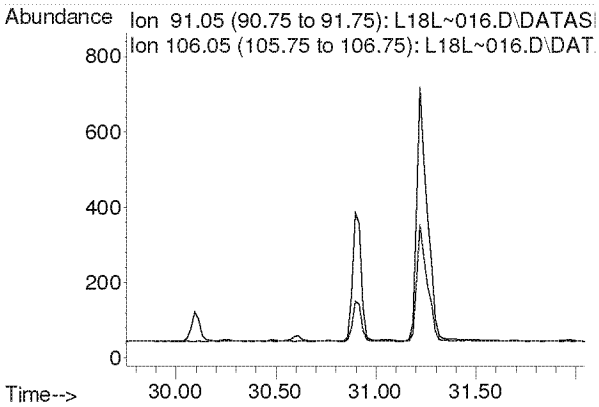


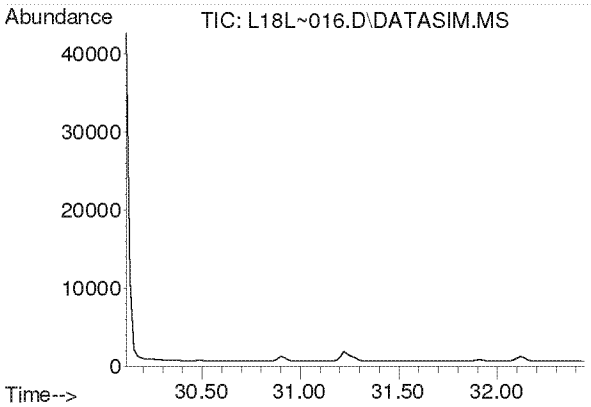
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.90 min

Lab File: L18L~016.D
Acq: 28 Dec 2018 6:53 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	31.8



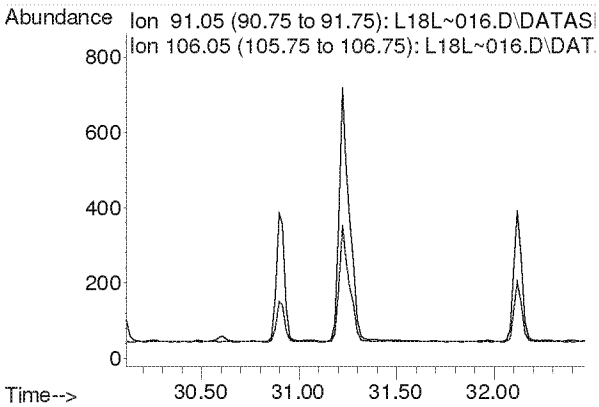


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.26 min

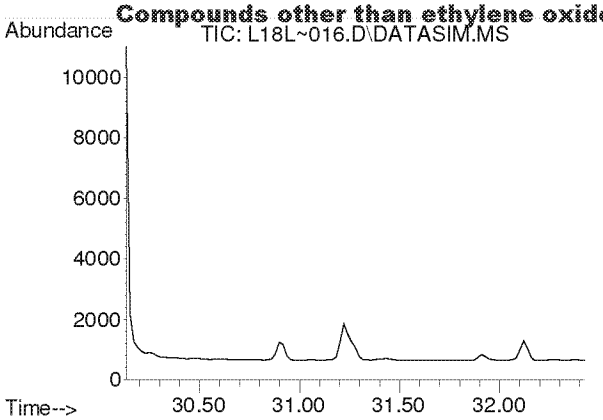
Lab File: L18L~016.D
Acq: 28 Dec 2018 6:53 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.4



Compounds other than ethylene oxide were not quantitated.

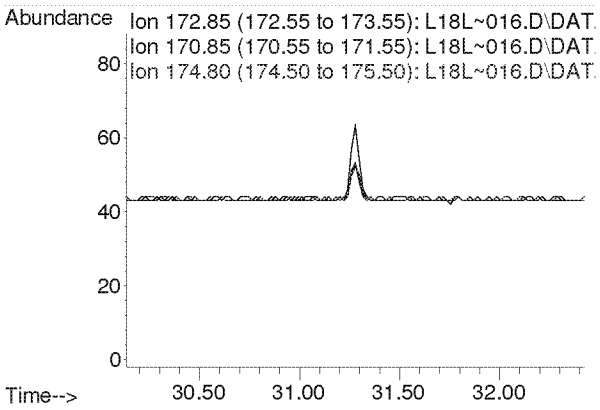


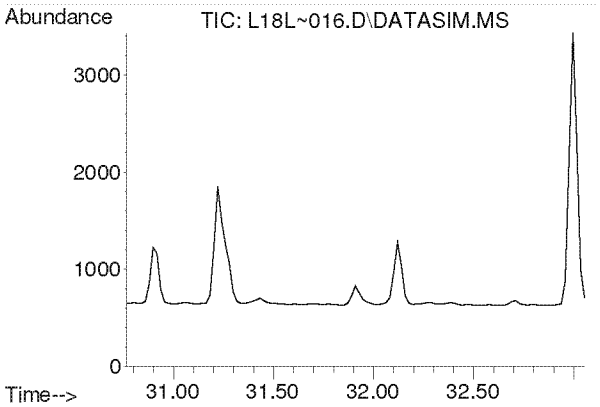
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L18L~016.D
Acq: 28 Dec 2018 6:53 am

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	49.0



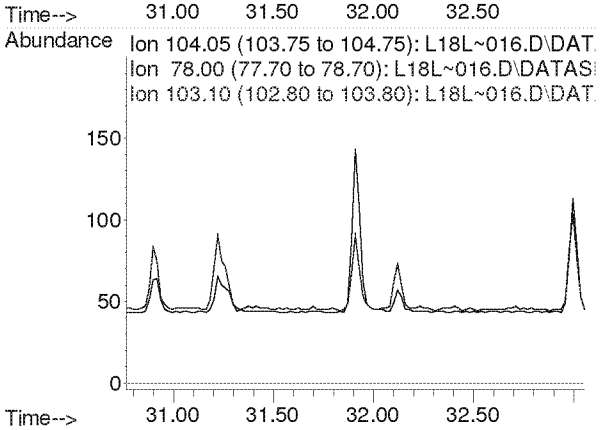


#53
Styrene
Concen: N.D.
Expected RT: 31.91 min

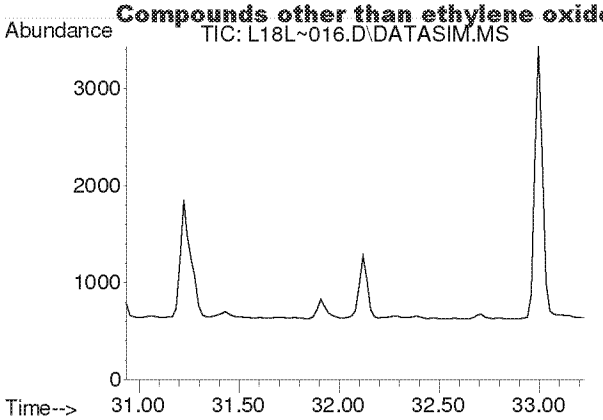
Lab File: L18L~016.D
Acq: 28 Dec 2018 6:53 am

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	45.6
103	0.0



Compounds other than ethylene oxide were not quantitated.

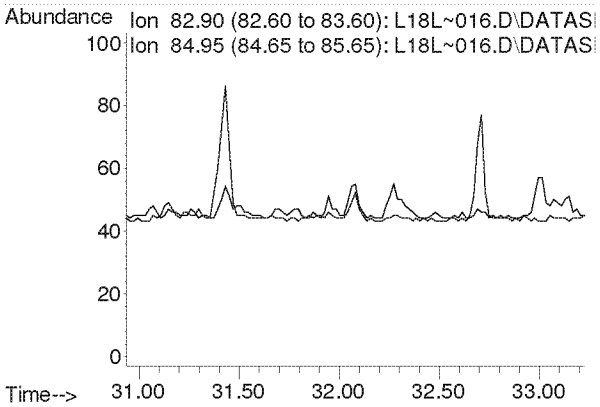


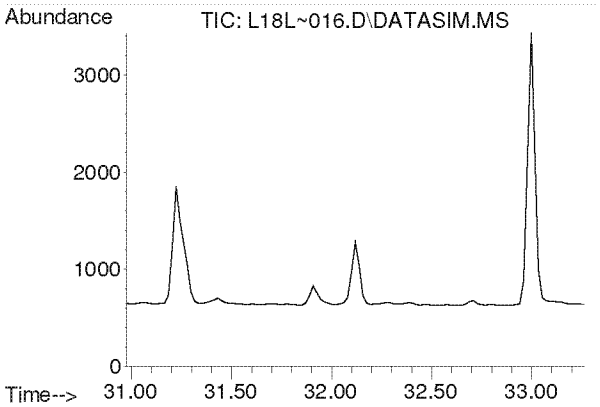
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L18L~016.D
Acq: 28 Dec 2018 6:53 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.9



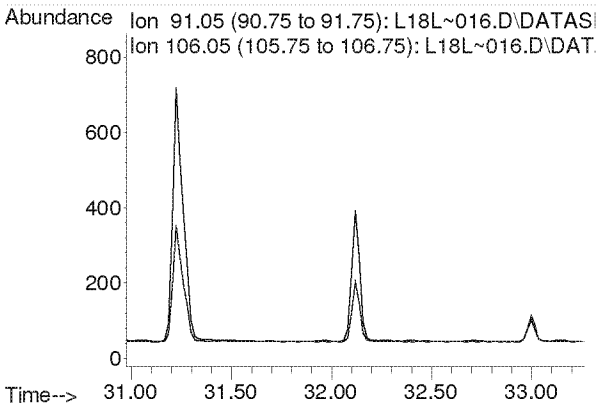


#55
o-Xylene
Concen: N.D.
Expected RT: 32.12 min

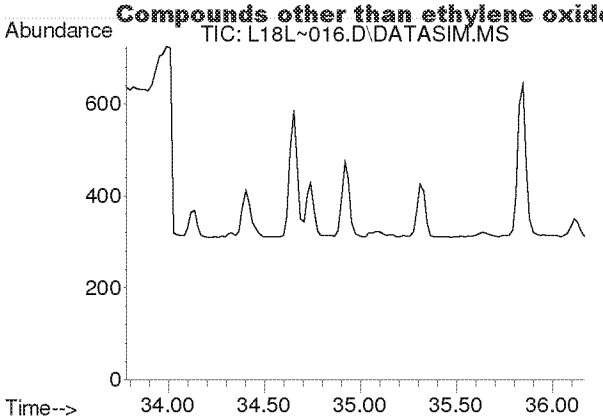
Lab File: L18L~016.D
Acq: 28 Dec 2018 6:53 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.2



Compounds other than ethylene oxide were not quantitated.

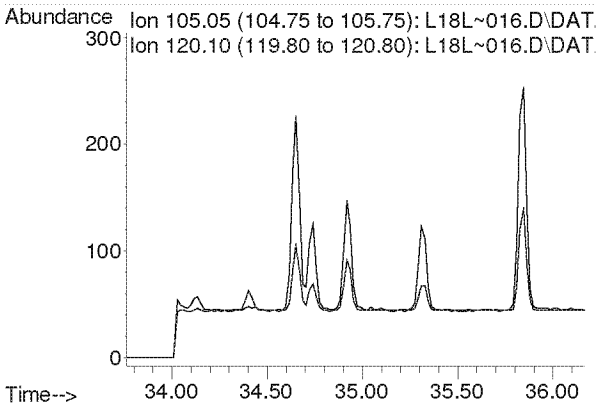


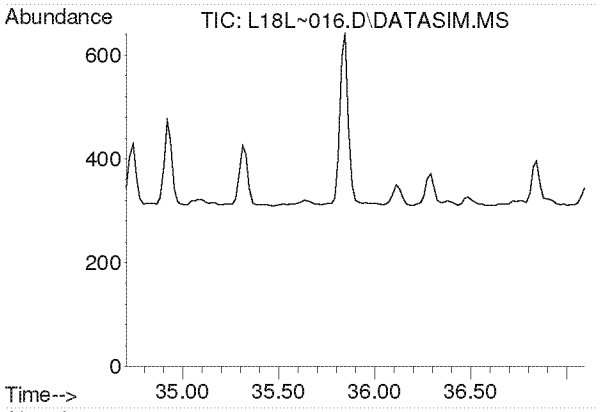
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.92 min

Lab File: L18L~016.D
Acq: 28 Dec 2018 6:53 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	45.0



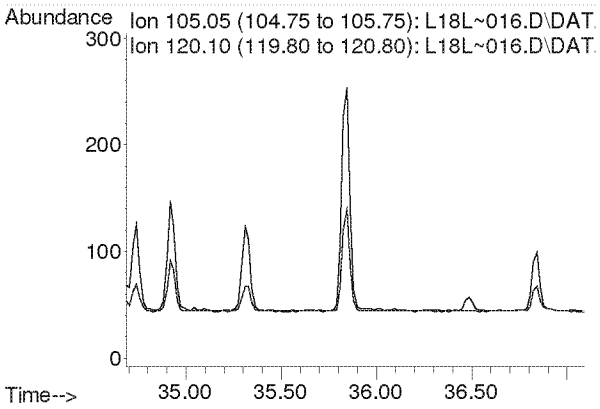


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

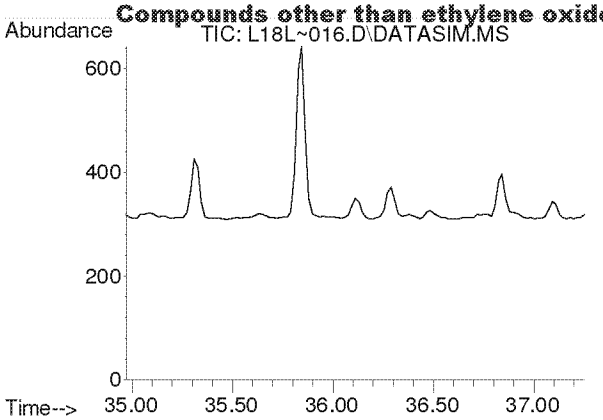
Lab File: L18L~016.D
Acq: 28 Dec 2018 6:53 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	42.8



Compounds other than ethylene oxide were not quantitated.

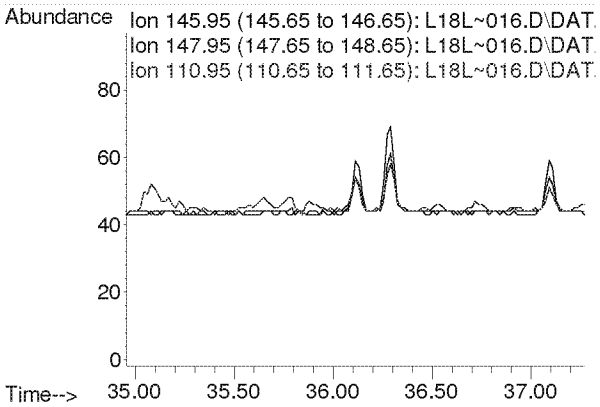


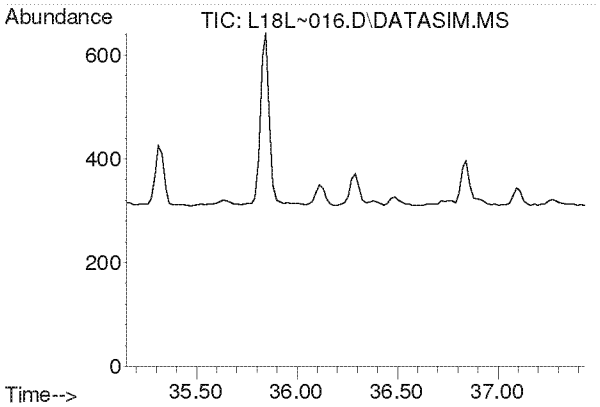
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.11 min

Lab File: L18L~016.D
Acq: 28 Dec 2018 6:53 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.5



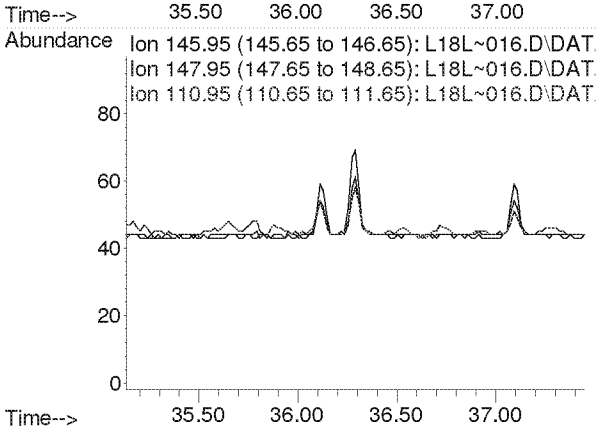


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

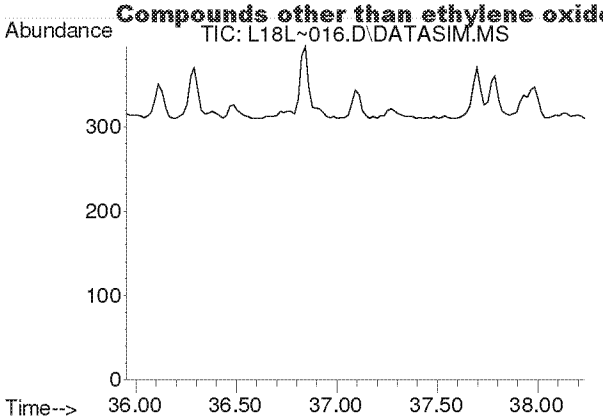
Lab File: L18L~016.D
Acq: 28 Dec 2018 6:53 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	39.5



Compounds other than ethylene oxide were not quantitated.

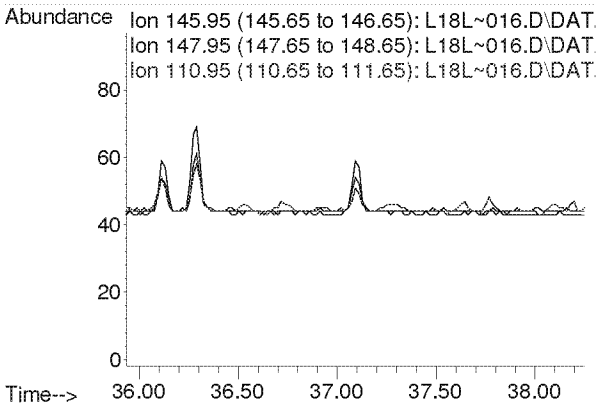


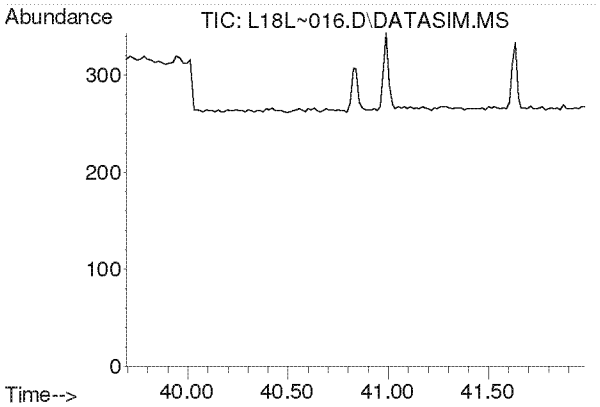
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.09 min

Lab File: L18L~016.D
Acq: 28 Dec 2018 6:53 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	41.4



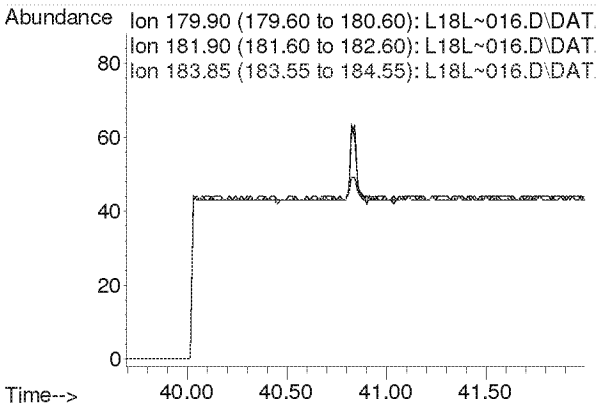


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

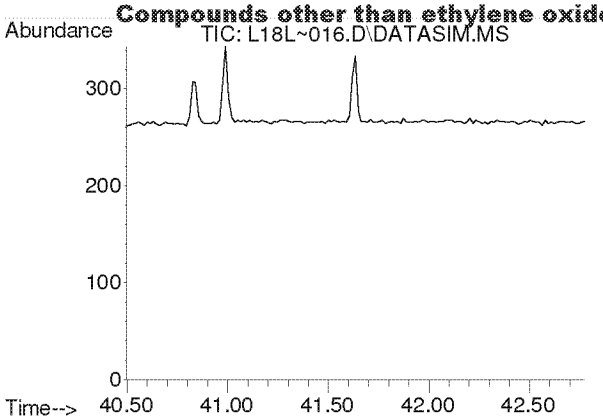
Lab File: L18L~016.D
Acq: 28 Dec 2018 6:53 am

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	95.1
184	30.7



Compounds other than ethylene oxide were not quantitated.

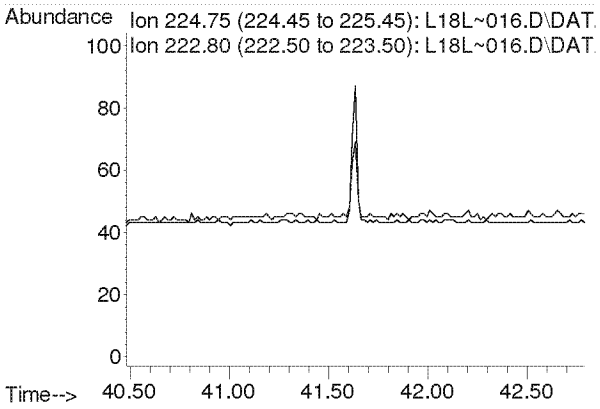


#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.64 min

Lab File: L18L~016.D
Acq: 28 Dec 2018 6:53 am

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.4



Compounds other than ethylene oxide were not quantitated.

TO-15 Method Blank and
Annual Canister Certification Blank

Analyst: [illegible] Date: 1-3-19
Reviewer: RMB Date: 1/7/19

Data File Name	L18L~017.D
Operator	MAH
Acq. Method File	8120004.M
Sample Name	8121821-02
Misc Info	TRIP BLANK 12/14/18

#	Name	Target Response	Amount (ppbv)	PASS*		Blank Criteria
1)	IS-Hexane-d14	58277		NA		NA
2)	Acetylene	0	0.000	Y	MAX	0.118
3)	Propylene	0	0.000	Y	MAX	0.192
4)	Dichlorodifluoromethane	0	0.000	Y	MAX	0.082
5)	Chloromethane	0	0.000	Y	MAX	0.139
6)	Dichlorotetrafluoroethane	0	0.000	Y	MAX	0.040
7)	Vinyl Chloride	0	0.000	Y	MAX	0.038
8)	1,3-Butadiene	0	0.000	Y	MAX	0.058
	Ethylene oxide	0	0.000	Y	MAX	0.136
9)	Bromomethane	0	0.000	Y	MAX	0.035
10)	Chloroethane	0	0.000	Y	MAX	0.075
11)	Acetonitrile	0	0.000	Y	MAX	0.049
12)	Acrolein	0	0.000	Y	MAX	0.200
13)	Trichlorofluoromethane	0	0.000	Y	MAX	0.035
14)	Acrylonitrile	0	0.000	Y	MAX	0.032
15)	1,1-Dichloroethene	0	0.000	Y	MAX	0.036
16)	Methylene Chloride	0	0.000	Y	MAX	0.043
17)	Carbon Disulfide	0	0.000	Y	MAX	0.200
18)	Trichlorotrifluoroethane	0	0.000	Y	MAX	0.029
19)	trans-1,2-Dichloroethylene	0	0.000	Y	MAX	0.040
20)	1,1-Dichloroethane	0	0.000	Y	MAX	0.043
21)	Methyl tert-Butyl Ether	0	0.000	Y	MAX	0.031
22)	Chloroprene	0	0.000	Y	MAX	0.039
23)	cis-1,2-Dichloroethylene	0	0.000	Y	MAX	0.056
24)	Bromochloromethane	0	0.000	Y	MAX	0.040
25)	Chloroform	0	0.000	Y	MAX	0.039
26)	Ethyl tert-Butyl Ether	0	0.000	Y	MAX	0.033
27)	1,2-Dichloroethane	0	0.000	Y	MAX	0.042
28)	IS-1,4-Difluorobenzene	141573		NA		NA
29)	1,1,1-Trichloroethane	0	0.000	Y	MAX	0.041
30)	Benzene	0	0.000	Y	MAX	0.043
31)	Carbon Tetrachloride	0	0.000	Y	MAX	0.040
32)	tert-Amyl Methyl Ether	0	0.000	Y	MAX	0.037
33)	1,2-Dichloropropane	0	0.000	Y	MAX	0.061
34)	Ethyl Acrylate	0	0.000	Y	MAX	0.070
35)	Bromodichloromethane	0	0.000	Y	MAX	0.049
36)	Trichloroethylene	0	0.000	Y	MAX	0.045
37)	Methyl Methacrylate	0	0.000	Y	MAX	0.200
38)	cis-1,3-dichloropropene	0	0.000	Y	MAX	0.059
39)	Methyl Isobutyl Ketone	0	0.000	Y	MAX	0.071
40)	trans-1,3-Dichloropropene	0	0.000	Y	MAX	0.059
41)	1,1,2-Trichloroethane	0	0.000	Y	MAX	0.057
42)	IS-Chlorobenzene-d5	103700		NA		NA
43)	Toluene	0	0.000	Y	MAX	0.200
44)	Dibromochloromethane	0	0.000	Y	MAX	0.046
45)	1,2-Dibromoethane	0	0.000	Y	MAX	0.057
46)	n-Octane	0	0.000	Y	MAX	0.097
47)	Tetrachloroethylene	0	0.000	Y	MAX	0.044
48)	Chlorobenzene	0	0.000	Y	MAX	0.058
49)	Ethylbenzene	0	0.000	Y	MAX	0.077
50)	m,p-Xylene	0	0.000	Y	MAX	0.108
51)	Bromoform	0	0.000	Y	MAX	0.053
52)	Styrene	0	0.000	Y	MAX	0.109
53)	1,1,2,2-Tetrachloroethane	0	0.000	Y	MAX	0.063
54)	o-Xylene	0	0.000	Y	MAX	0.080
55)	1,3,5-Trimethylbenzene	0	0.000	Y	MAX	0.102
56)	1,2,4-Trimethylbenzene	0	0.000	Y	MAX	0.080
57)	m-Dichlorobenzene	0	0.000	Y	MAX	0.055
58)	p-Dichlorobenzene	0	0.000	Y	MAX	0.060
59)	o-Dichlorobenzene	0	0.000	Y	MAX	0.062
60)	1,2,4-Trichlorobenzene	0	0.000	Y	MAX	0.200
61)	Hexachloro-1,3-butadiene	0	0.000	Y	MAX	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\L18L~\
Data File : L18L~017.D
Acq On : 28 Dec 2018 7:54 am
Operator : MAH
Sample : 8121821-02
Misc : TRIP BLANK 12/14/18
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jan 03 12:41:30 2019
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
Response via : Initial Calibration

ETOX only

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.970	66	58277	4.7700 ppbv	-0.02
29) IS-1,4-Difluorobenzene	23.151	114	141573	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.097	117	103700	4.7400 ppbv	0.00

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. d	
8) 1,3-Butadiene	0.000	54	0	N.D. d	
9) Ethylene oxide	0.000	29	0	N.D. d SC	
10) Bromomethane	0.000	94	0	N.D. d	
11) Chloroethane	0.000	64	0	N.D. 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. 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. d	
21) 1,1-Dichloroethane	0.000	63	0	N.D. 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. d	
26) Chloroform	0.000	83	0	N.D. d	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D. d	
28) 1,2-Dichloroethane	0.000	62	0	N.D. d	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D. 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. 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. d	
37) Trichloroethylene	0.000	130	0	N.D. d	
38) Methyl Methacrylate	0.000	41	0	N.D. d	
39) cis-1,3-Dichloropropene	0.000	75	0	N.D. d	
40) Methyl Isobutyl Ketone	0.000	43	0	N.D. d	
41) trans-1,3-Dichloropropene	0.000	75	0	N.D. d	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D. d	
44) Toluene	0.000	91	0	N.D. d	
45) Dibromochloromethane	0.000	129	0	N.D. d	
46) 1,2-Dibromoethane	0.000	107	0	N.D. 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. 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\L18L~\
Data File : L18L~017.D
Acq On : 28 Dec 2018 7:54 am
Operator : MAH
Sample : 8121821-02
Misc : TRIP BLANK 12/14/18
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jan 03 12:41:30 2019
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
Response via : Initial Calibration

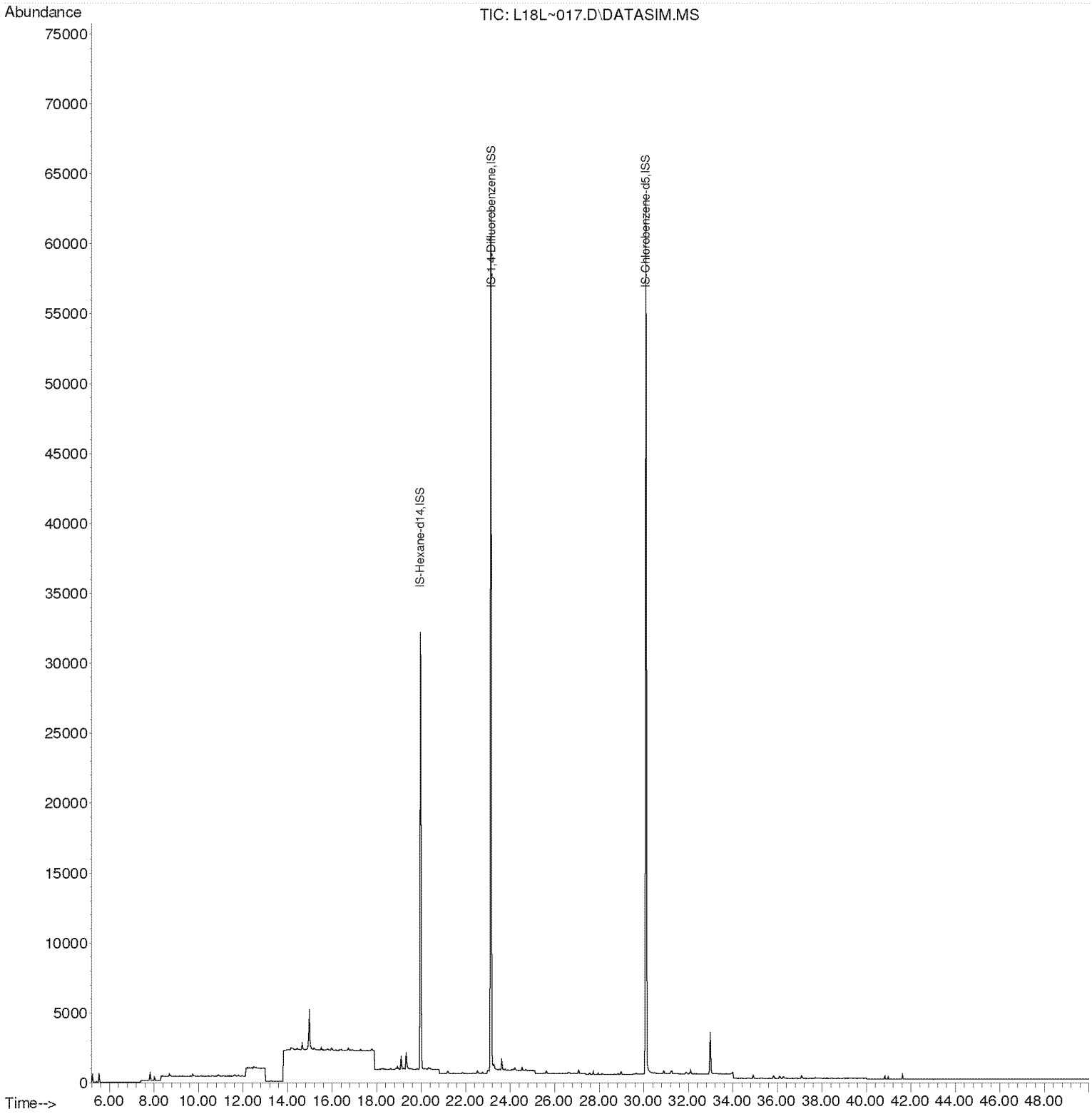
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D.	d	
52) Bromoform	0.000	173	0	N.D.	d	
53) Styrene	0.000	104	0	N.D.	d	
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	d	
55) o-Xylene	0.000	91	0	N.D.	d	
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	d	
57) 1,2,4-Trimethylbenzene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

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

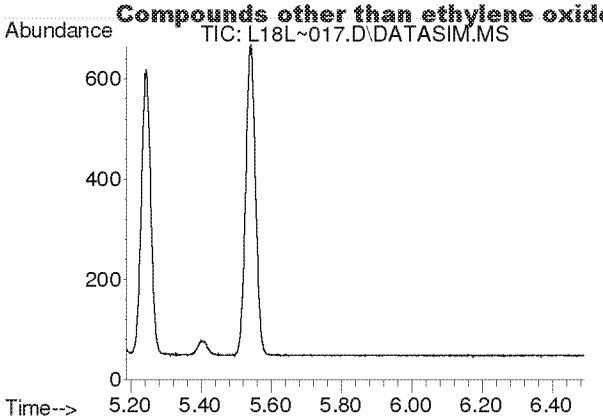
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L18L~\
Data File : L18L~017.D
Acq On : 28 Dec 2018 7:54 am
Operator : MAH
Sample : 8121821-02
Misc : TRIP BLANK 12/14/18
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jan 03 12:21:01 2019
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
Response via : Initial Calibration



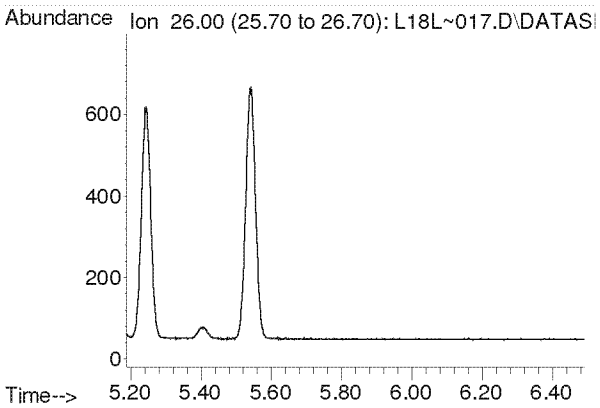
Compounds other than ethylene oxide were not quantitated.

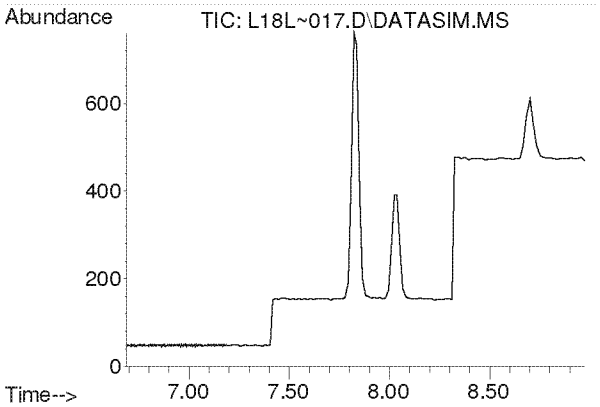


#2
Acetylene
Concen: N.D.
Expected RT: 5.42 min

Lab File: L18L~017.D
Acq: 28 Dec 2018 7:54 am

Tgt Ion: 26



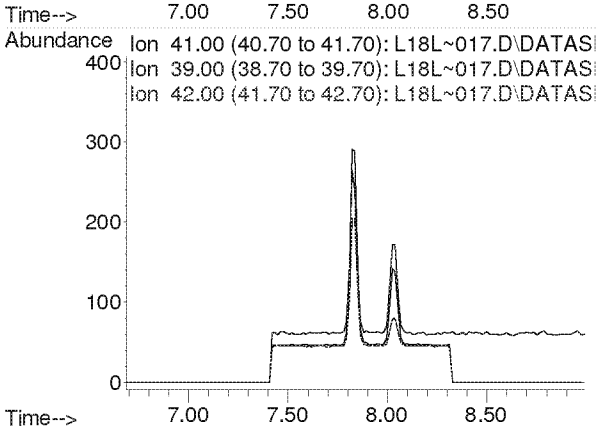


#3
Propylene
Concen: N.D.
Expected RT: 7.84 min

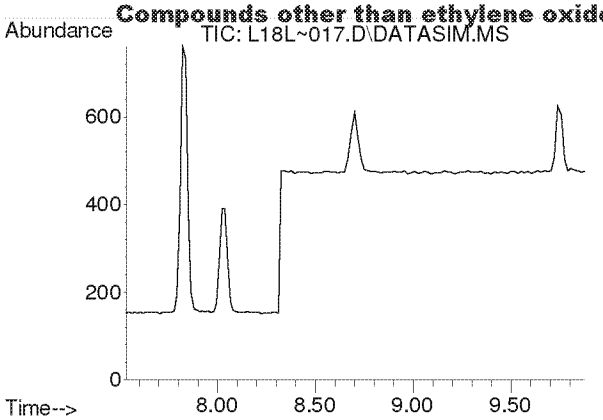
Lab File: L18L~017.D
Acq: 28 Dec 2018 7:54 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	78.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

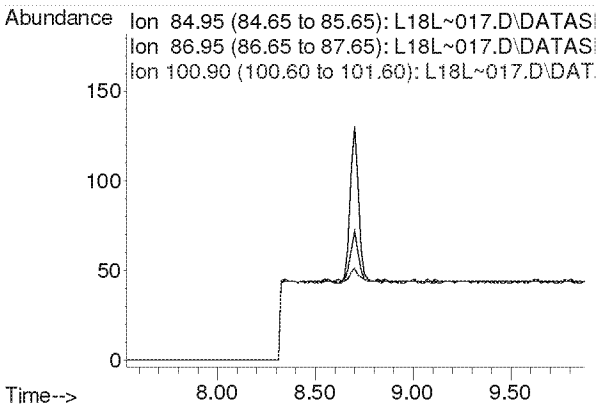


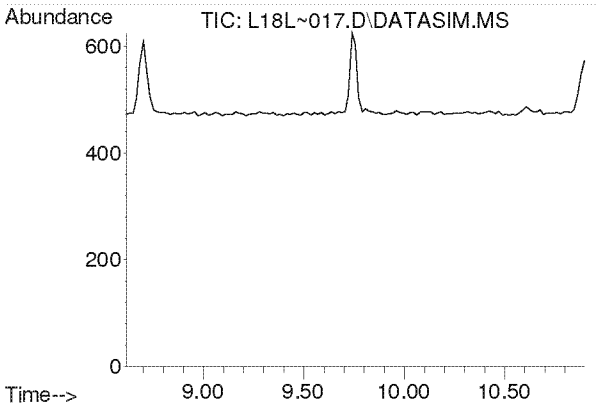
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L18L~017.D
Acq: 28 Dec 2018 7:54 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	8.9



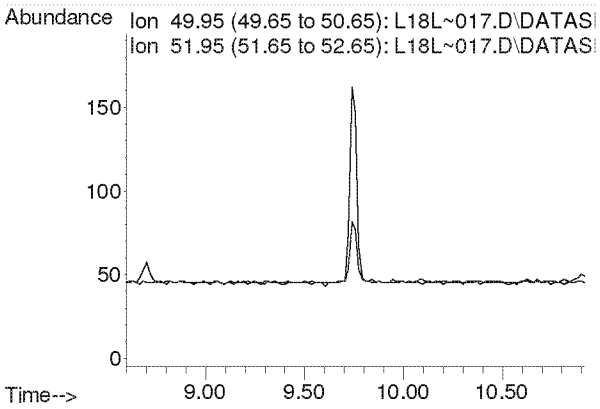


#5
Chloromethane
Concen: N.D.
Expected RT: 9.76 min

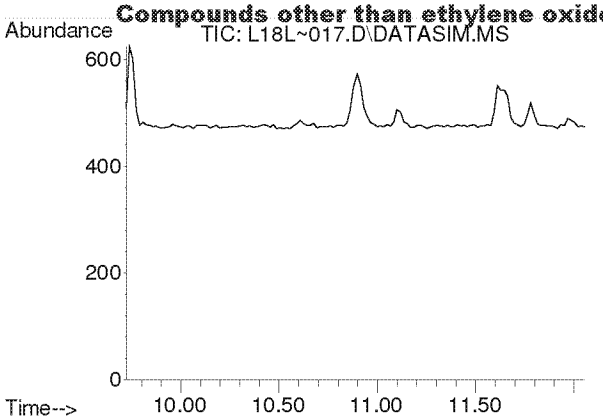
Lab File: L18L~017.D
Acq: 28 Dec 2018 7:54 am

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

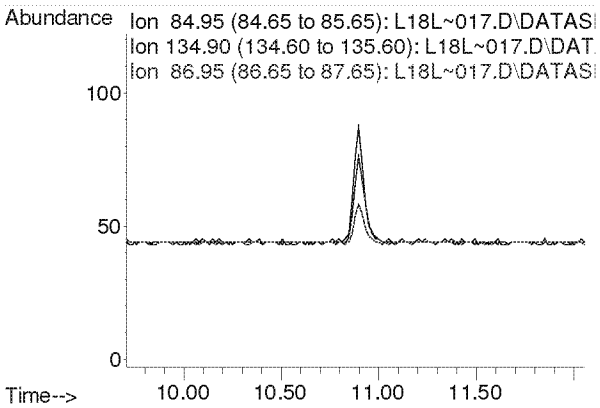


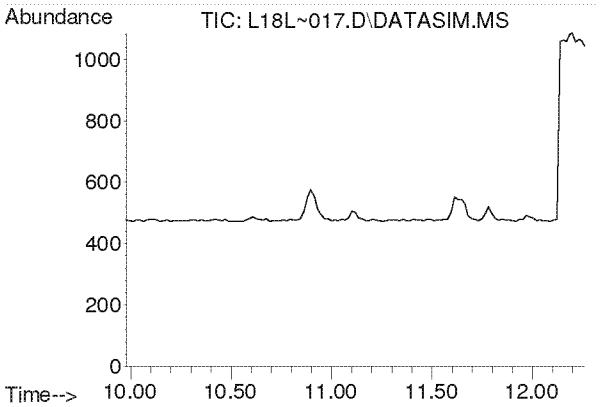
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L18L~017.D
Acq: 28 Dec 2018 7:54 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.1
87	32.1



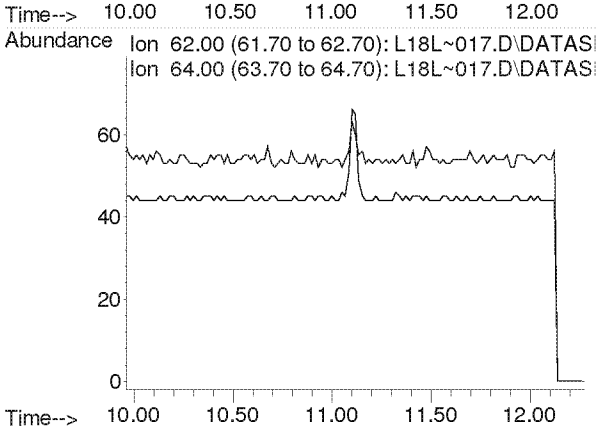


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

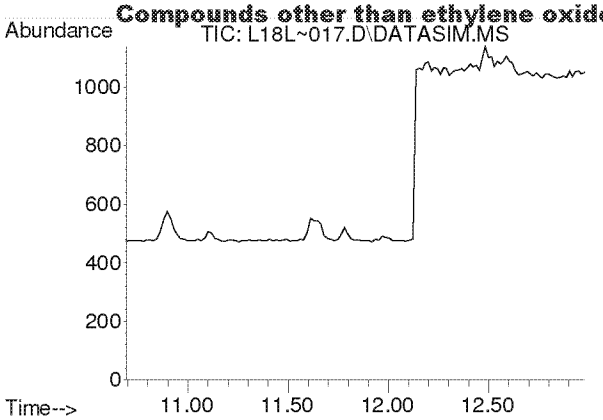
Lab File: L18L~017.D
Acq: 28 Dec 2018 7:54 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.8



Compounds other than ethylene oxide were not quantitated.

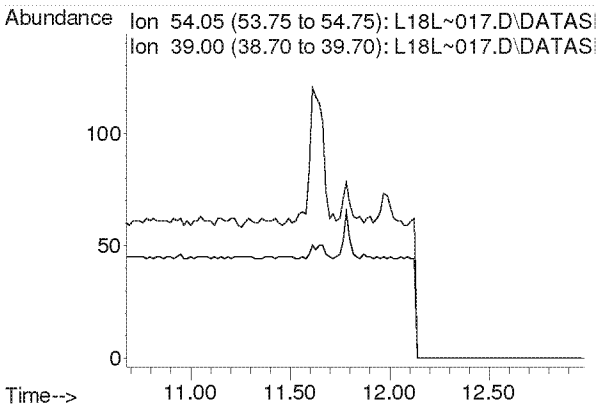


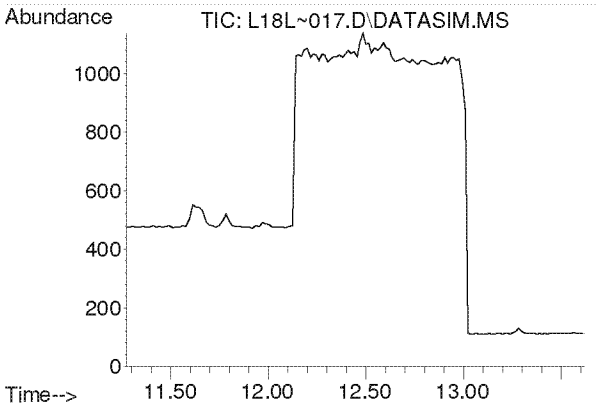
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L18L~017.D
Acq: 28 Dec 2018 7:54 am

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	105.4



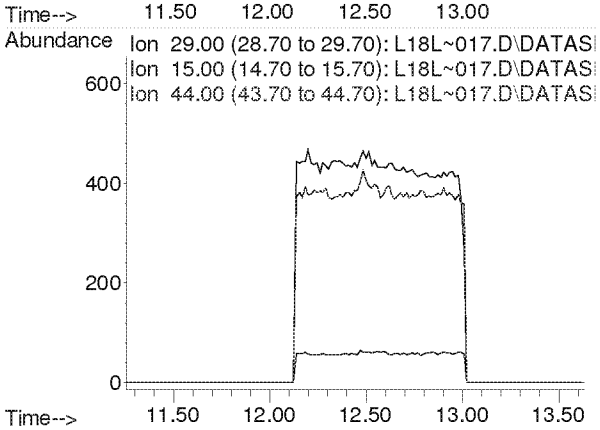


#9
Ethylene oxide
Concen: N.D.
Expected RT: 12.38 min

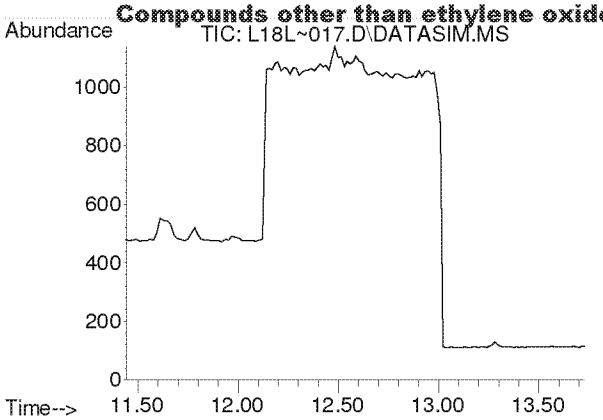
Lab File: L18L~017.D
Acq: 28 Dec 2018 7:54 am

Tgt Ion: 29

Sig	Exp Ratio
29	100
15	20.3
44	90.0



Compounds other than ethylene oxide were not quantitated.

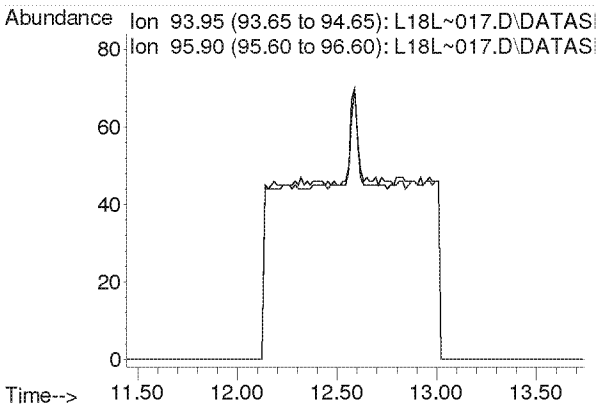


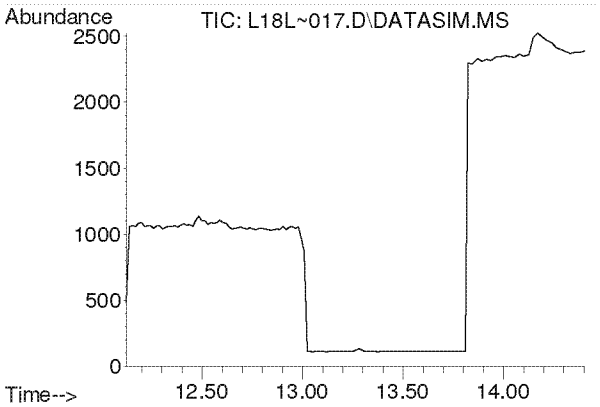
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L18L~017.D
Acq: 28 Dec 2018 7:54 am

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	93.9



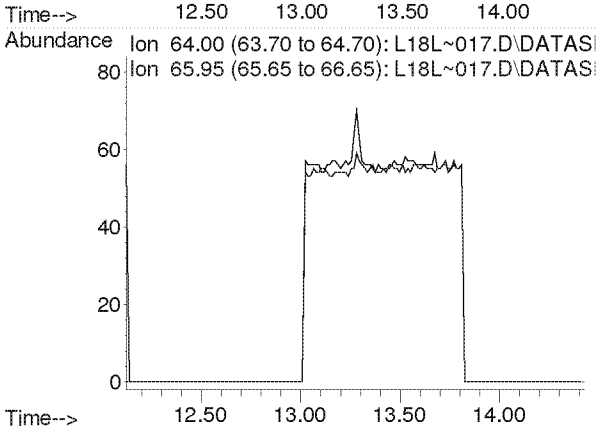


#11
Chloroethane
Concen: N.D.
Expected RT: 13.27 min

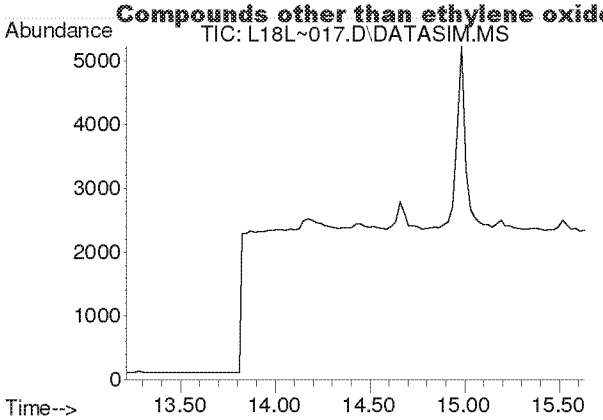
Lab File: L18L~017.D
Acq: 28 Dec 2018 7:54 am

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.0



Compounds other than ethylene oxide were not quantitated.

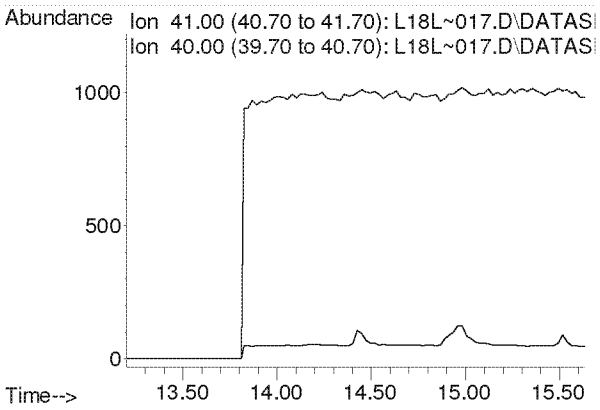


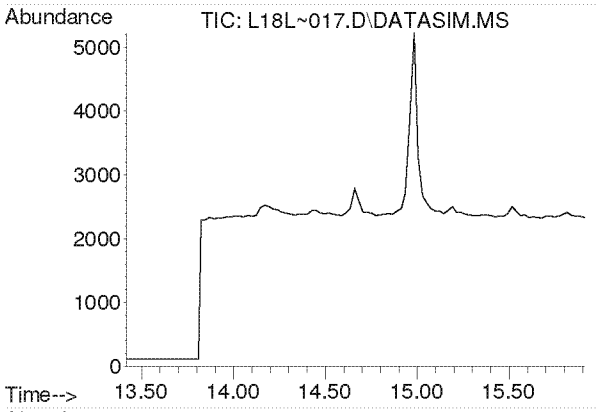
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.33 min

Lab File: L18L~017.D
Acq: 28 Dec 2018 7:54 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	50.9



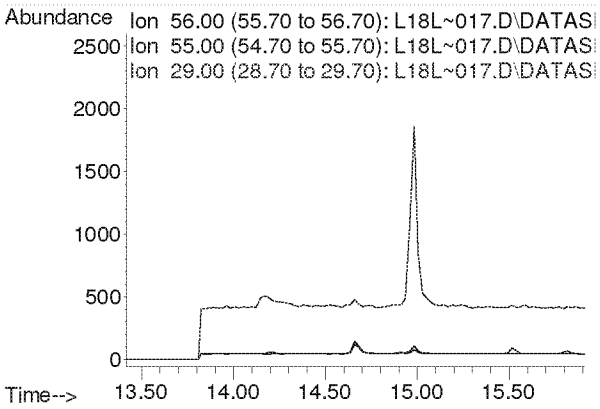


#13
Acrolein
Concen: N.D.
Expected RT: 14.61 min

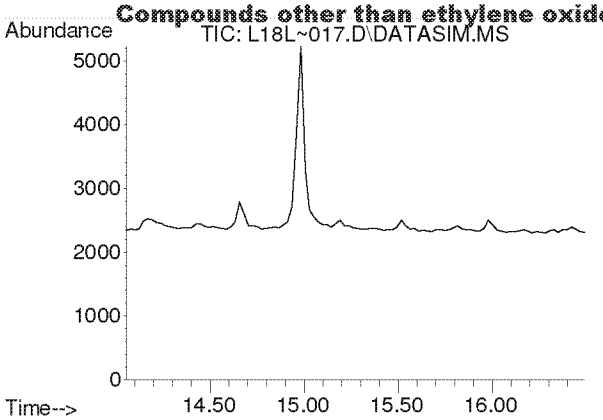
Lab File: L18L~017.D
Acq: 28 Dec 2018 7:54 am

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	75.4
29	52.9



Compounds other than ethylene oxide were not quantitated.

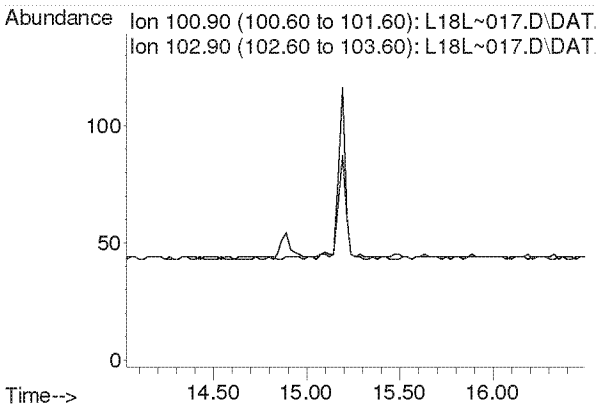


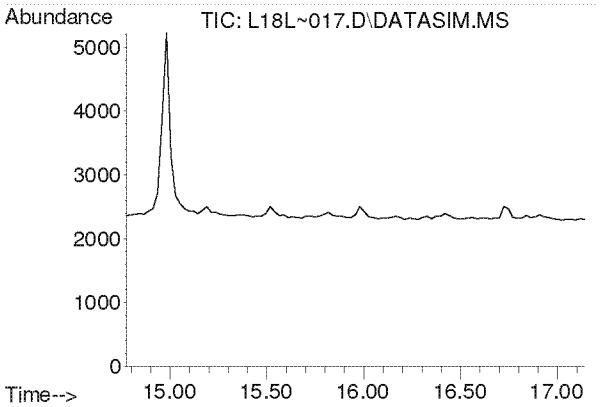
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L18L~017.D
Acq: 28 Dec 2018 7:54 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



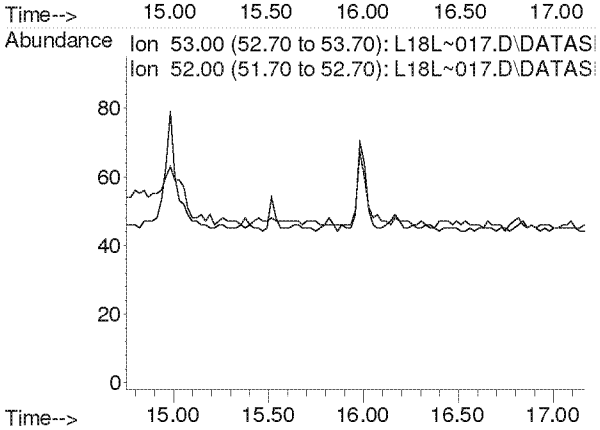


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.91 min

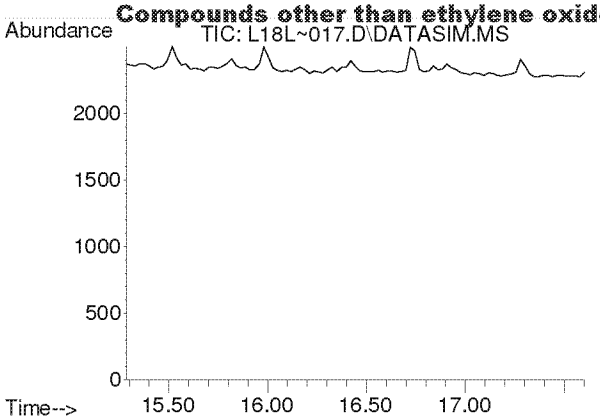
Lab File: L18L~017.D
Acq: 28 Dec 2018 7:54 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	85.4



Compounds other than ethylene oxide were not quantitated.

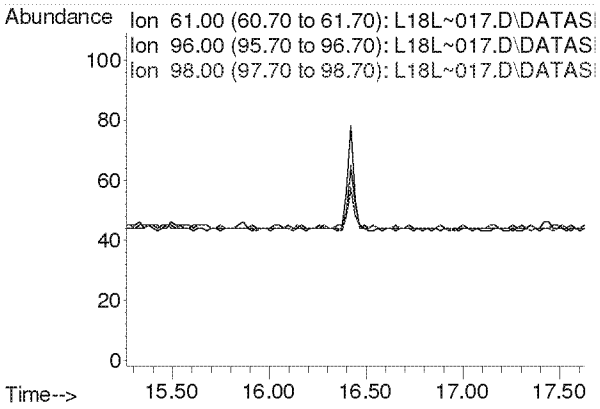


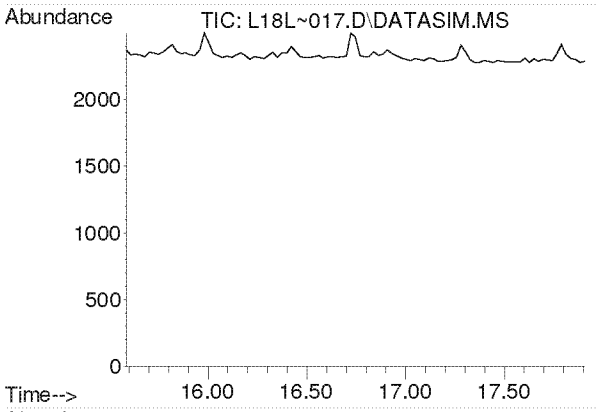
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L18L~017.D
Acq: 28 Dec 2018 7:54 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	58.3
98	37.4



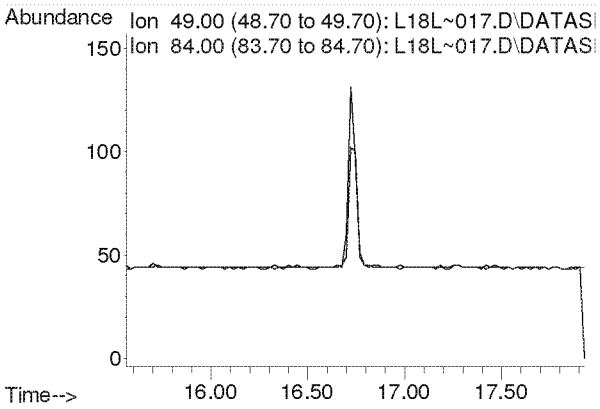


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.72 min

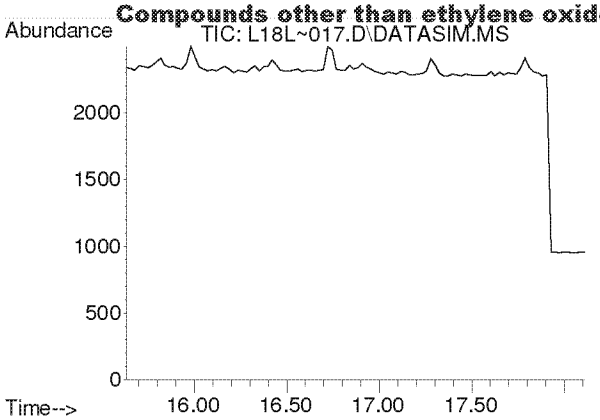
Lab File: L18L~017.D
Acq: 28 Dec 2018 7:54 am

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	76.4



Compounds other than ethylene oxide were not quantitated.

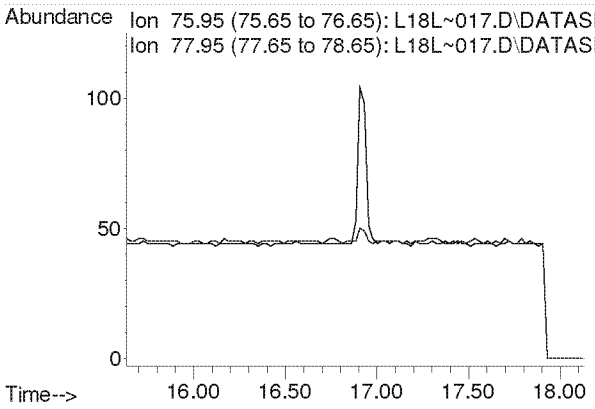


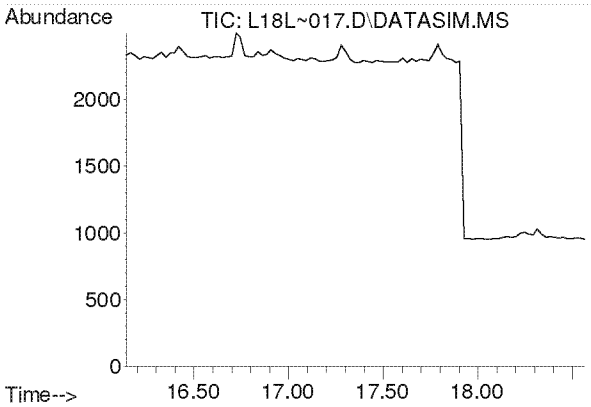
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L18L~017.D
Acq: 28 Dec 2018 7:54 am

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.1



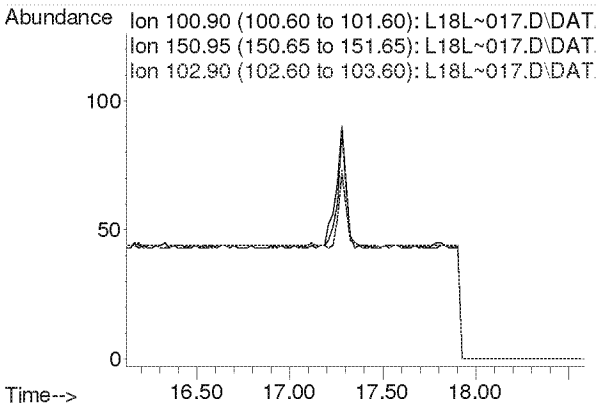


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

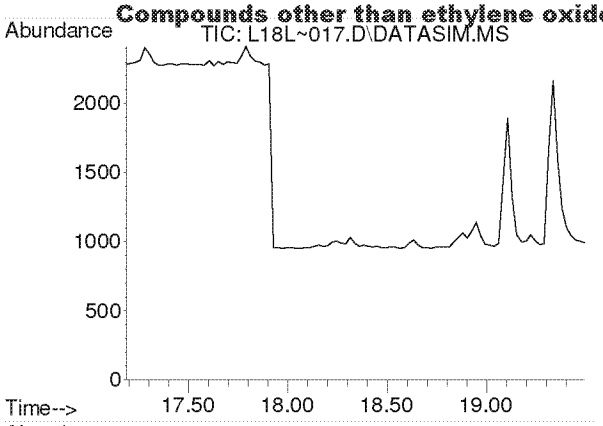
Lab File: L18L~017.D
Acq: 28 Dec 2018 7:54 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	95.3
103	64.1



Compounds other than ethylene oxide were not quantitated.

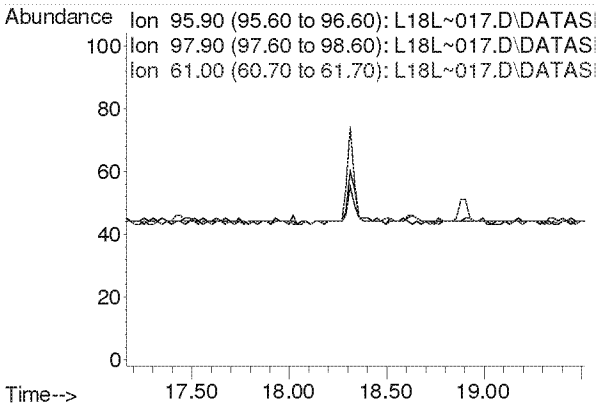


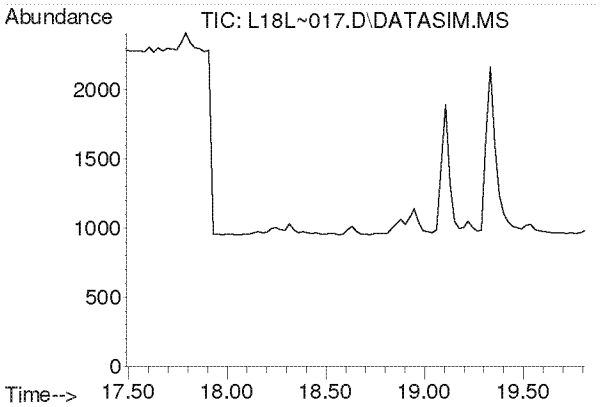
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.31 min

Lab File: L18L~017.D
Acq: 28 Dec 2018 7:54 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	63.7
61	159.2



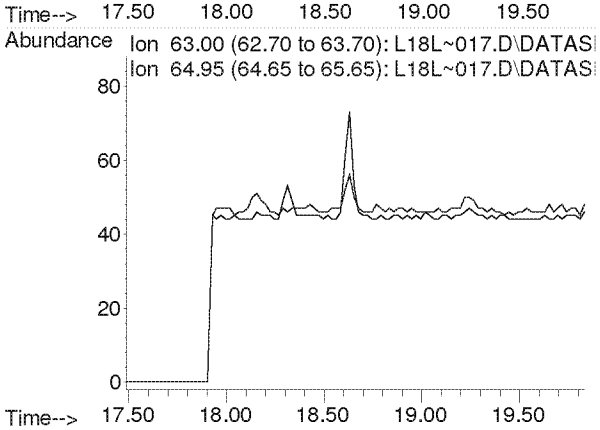


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

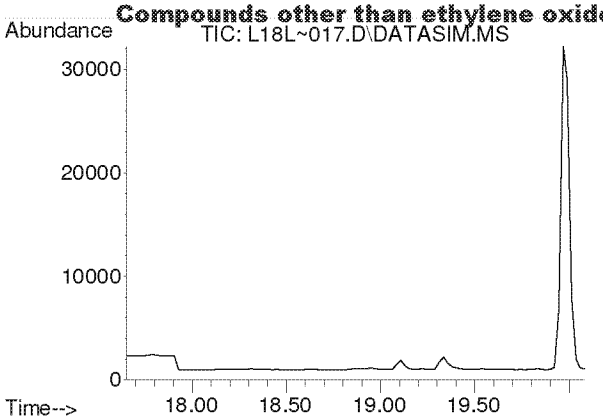
Lab File: L18L~017.D
Acq: 28 Dec 2018 7:54 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

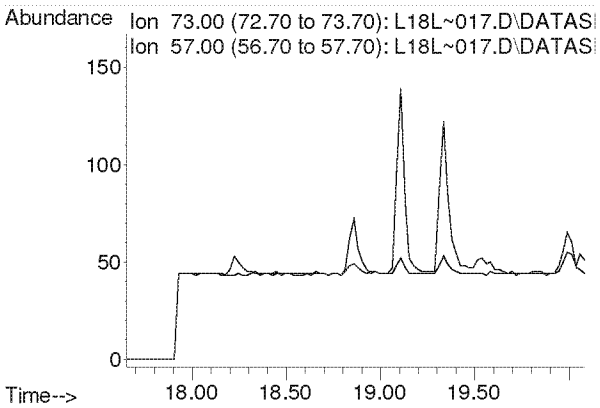


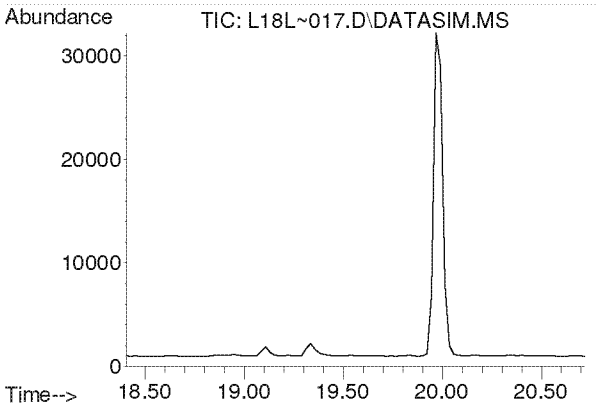
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L18L~017.D
Acq: 28 Dec 2018 7:54 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.4



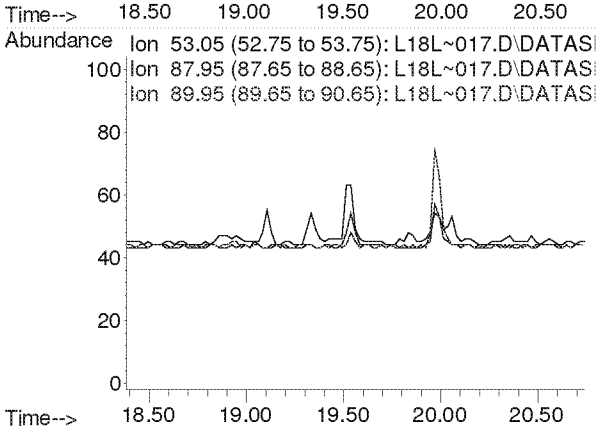


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

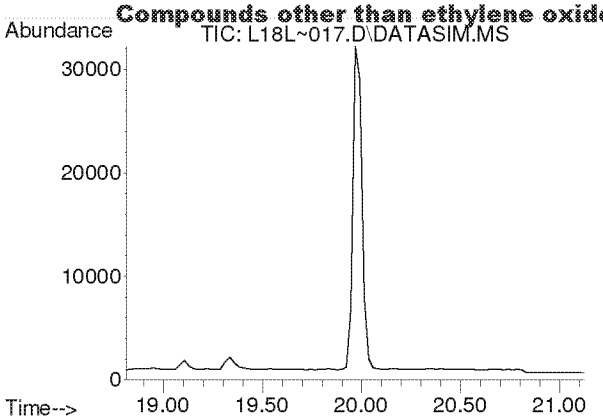
Lab File: L18L~017.D
Acq: 28 Dec 2018 7:54 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	51.8
90	16.8



Compounds other than ethylene oxide were not quantitated.

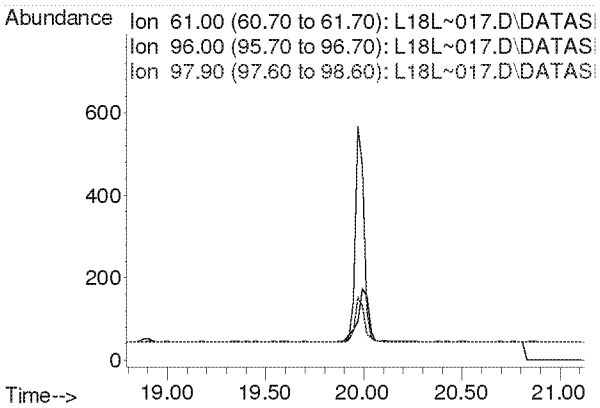


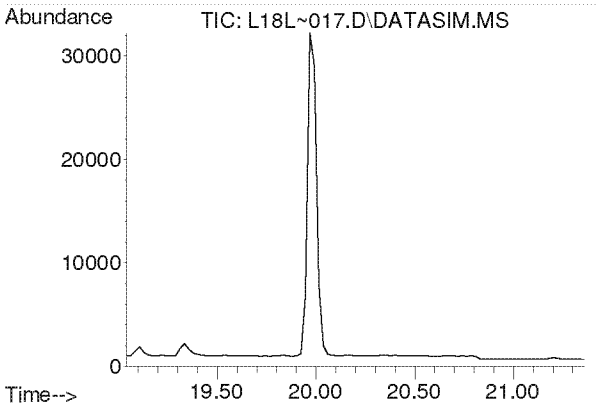
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L18L~017.D
Acq: 28 Dec 2018 7:54 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.7
98	45.2



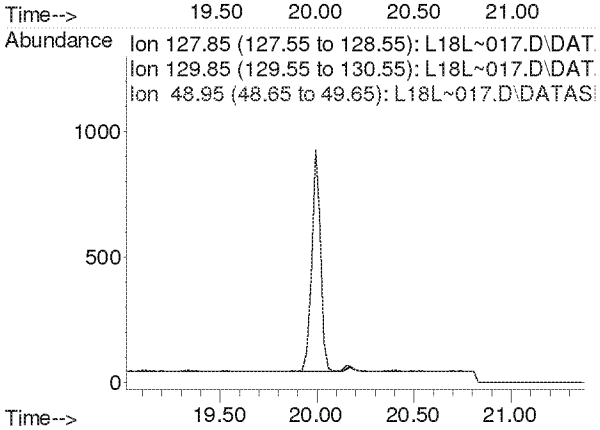


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

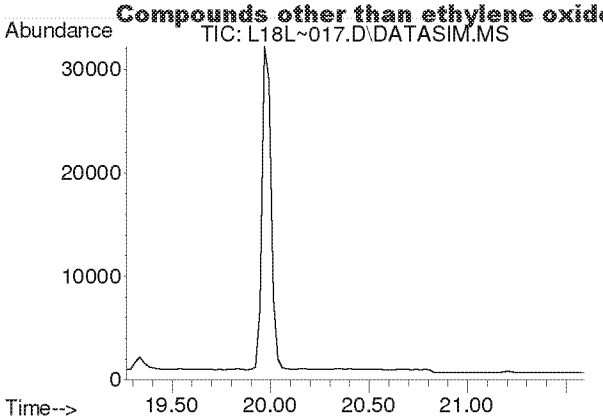
Lab File: L18L~017.D
Acq: 28 Dec 2018 7:54 am

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	171.2



Compounds other than ethylene oxide were not quantitated.

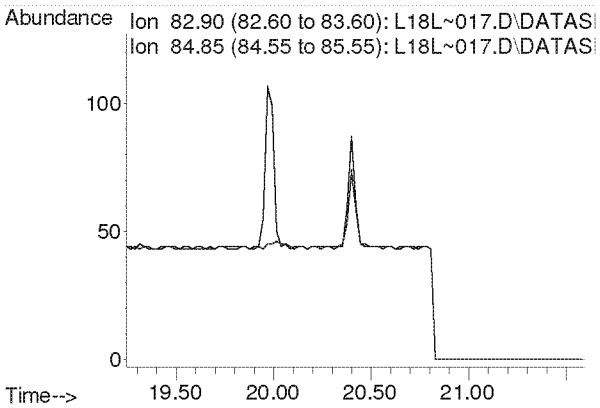


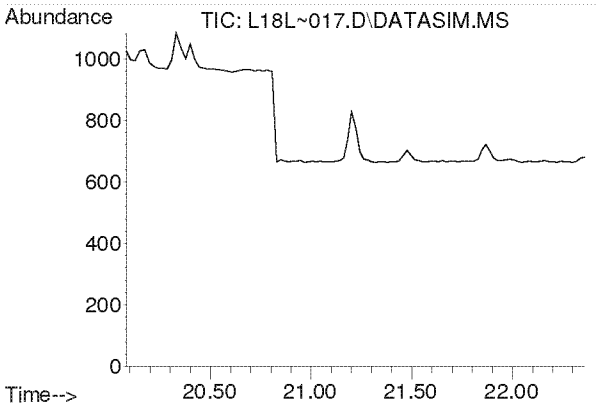
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L18L~017.D
Acq: 28 Dec 2018 7:54 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



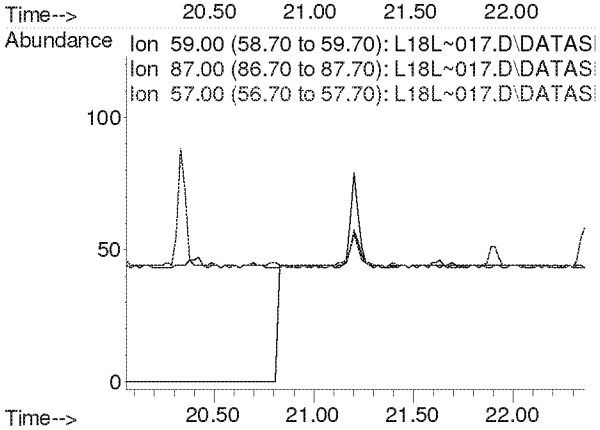


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.16 min

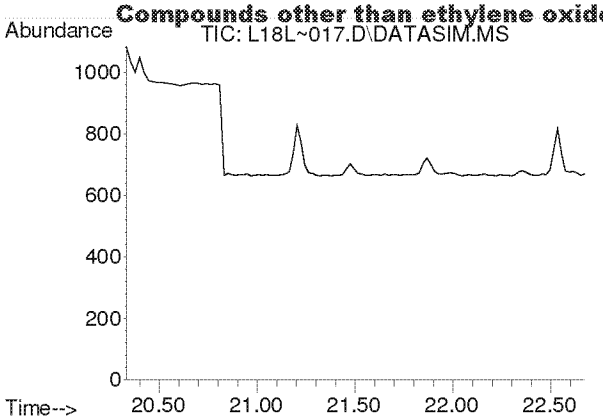
Lab File: L18L~017.D
Acq: 28 Dec 2018 7:54 am

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	37.5
57	33.8



Compounds other than ethylene oxide were not quantitated.

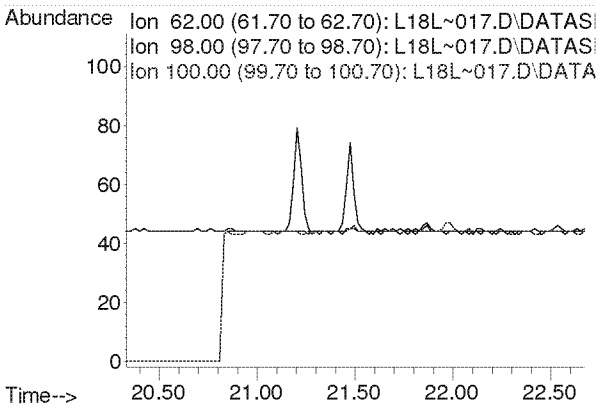


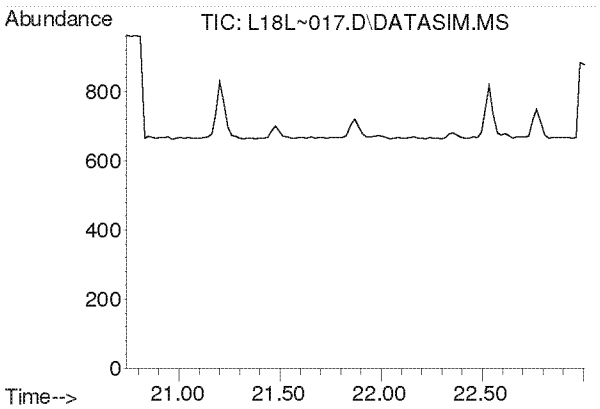
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L18L~017.D
Acq: 28 Dec 2018 7:54 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.4
100	4.0



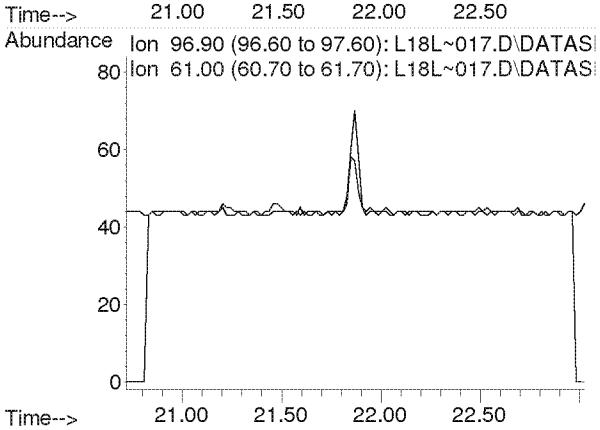


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

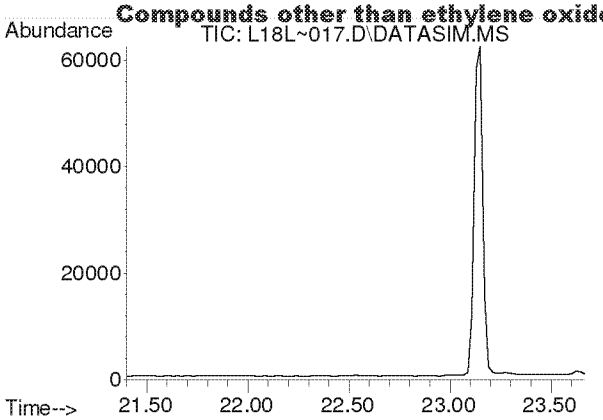
Lab File: L18L~017.D
Acq: 28 Dec 2018 7:54 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	60.5



Compounds other than ethylene oxide were not quantitated.

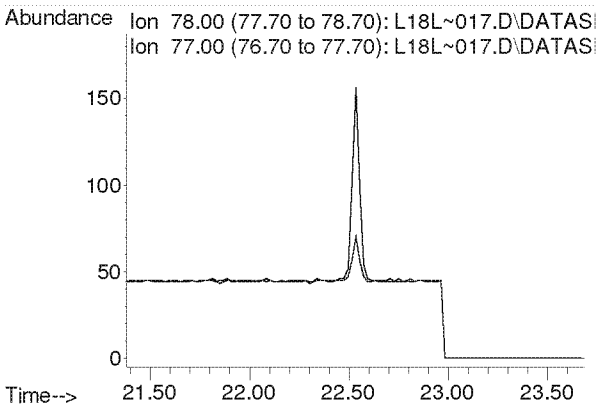


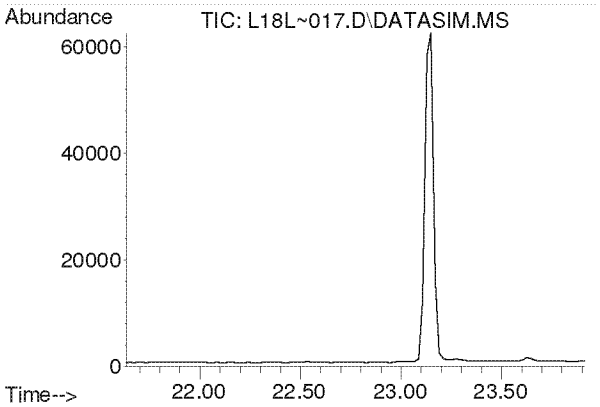
#31
Benzene
Concen: N.D.
Expected RT: 22.54 min

Lab File: L18L~017.D
Acq: 28 Dec 2018 7:54 am

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.7



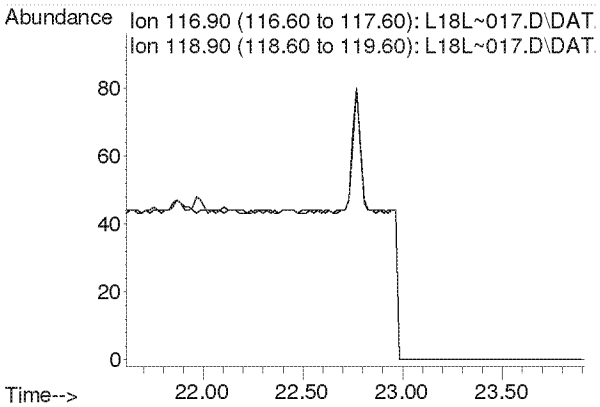


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

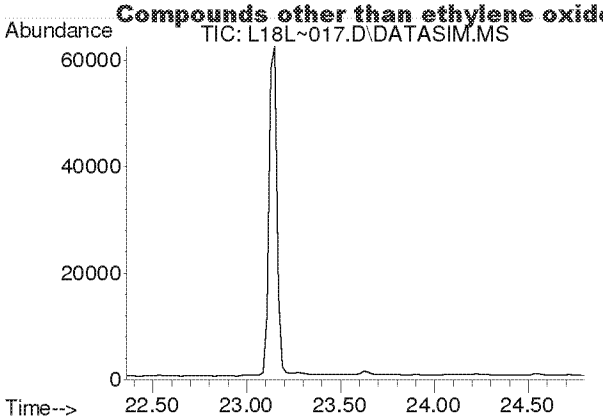
Lab File: L18L~017.D
Acq: 28 Dec 2018 7:54 am

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.5



Compounds other than ethylene oxide were not quantitated.

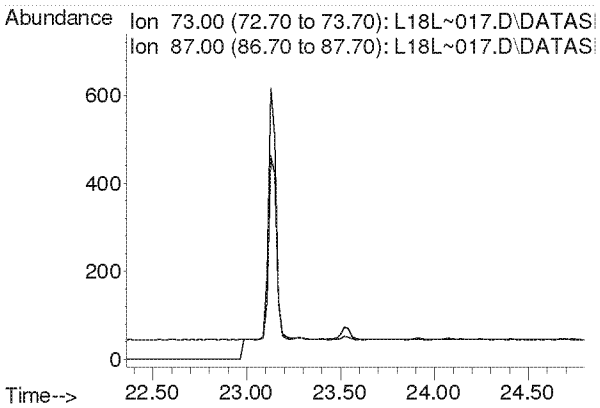


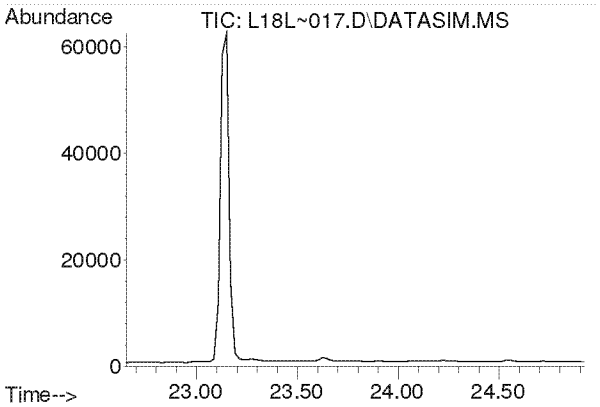
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.50 min

Lab File: L18L~017.D
Acq: 28 Dec 2018 7:54 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	24.9



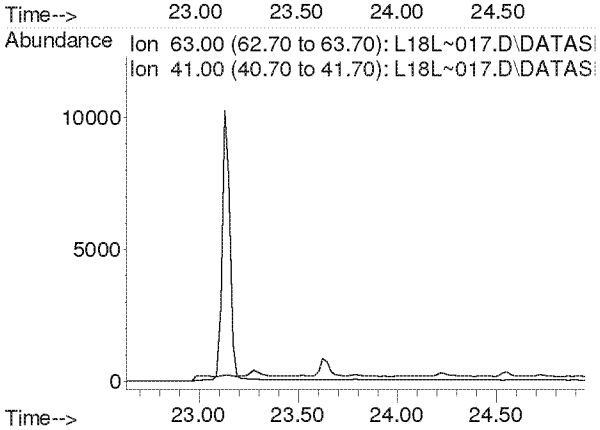


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

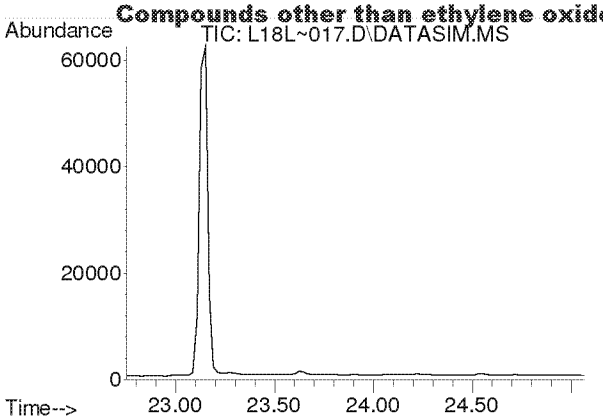
Lab File: L18L~017.D
Acq: 28 Dec 2018 7:54 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	212.8



Compounds other than ethylene oxide were not quantitated.

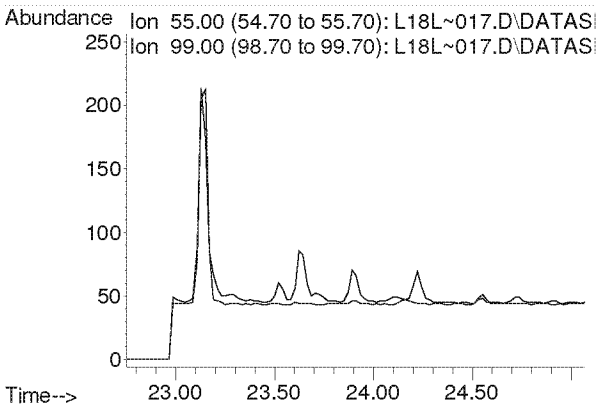


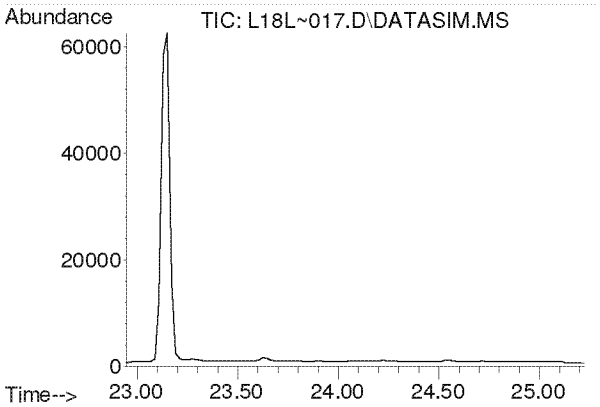
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.87 min

Lab File: L18L~017.D
Acq: 28 Dec 2018 7:54 am

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.1



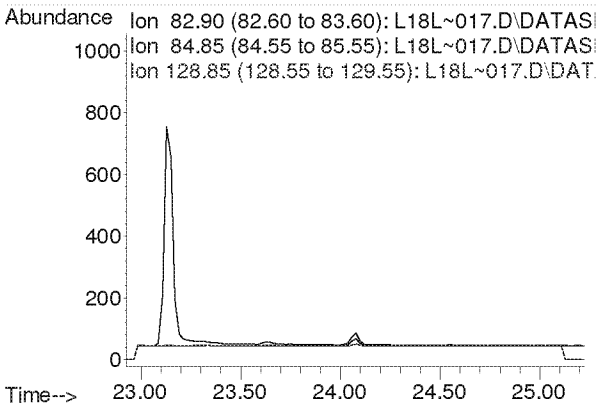


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

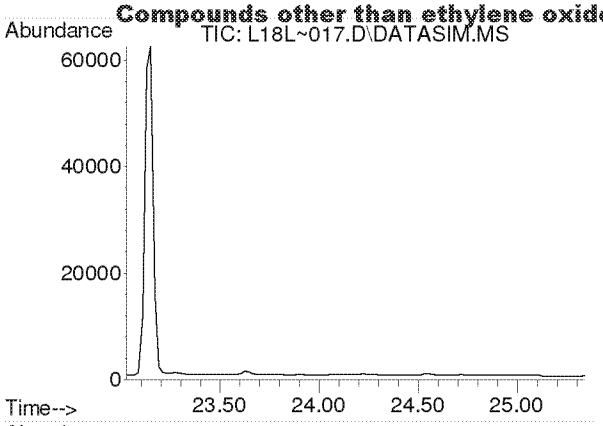
Lab File: L18L~017.D
Acq: 28 Dec 2018 7:54 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.0
129	12.4



Compounds other than ethylene oxide were not quantitated.

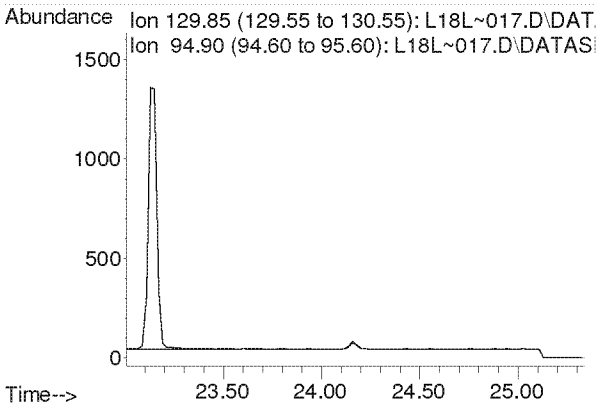


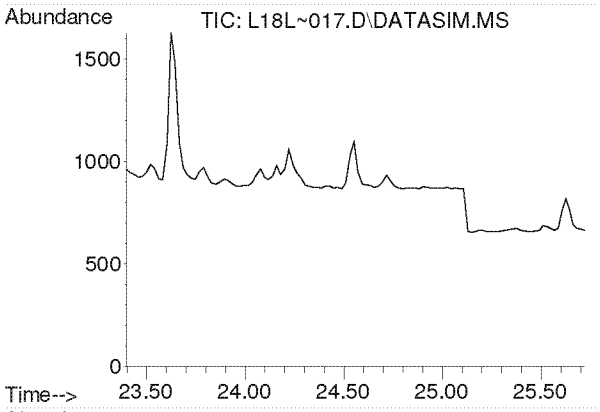
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.16 min

Lab File: L18L~017.D
Acq: 28 Dec 2018 7:54 am

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	110.3



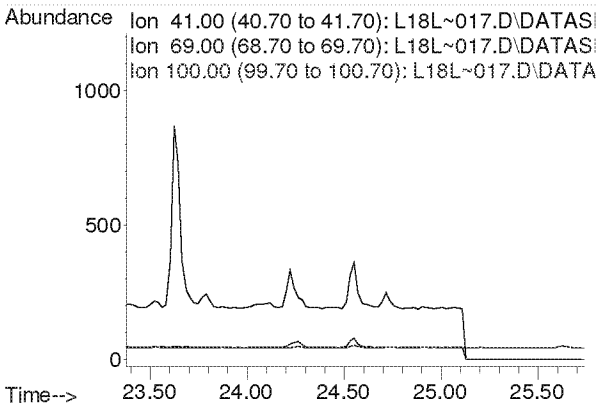


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

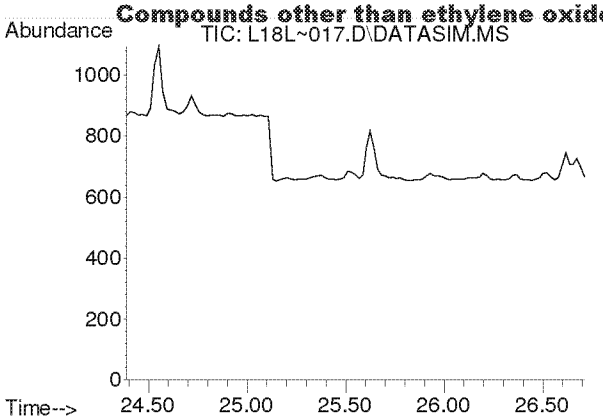
Lab File: L18L~017.D
Acq: 28 Dec 2018 7:54 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	19.9
100	5.2



Compounds other than ethylene oxide were not quantitated.

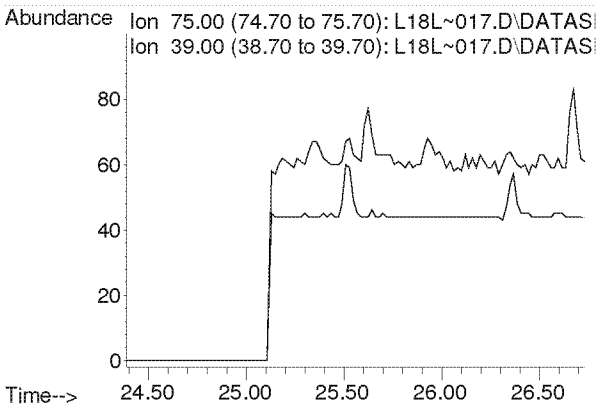


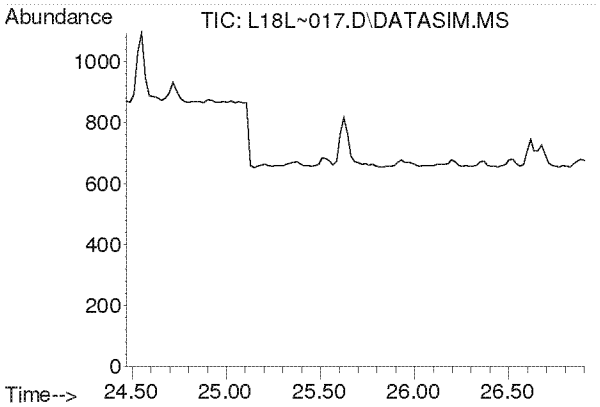
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L18L~017.D
Acq: 28 Dec 2018 7:54 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.4



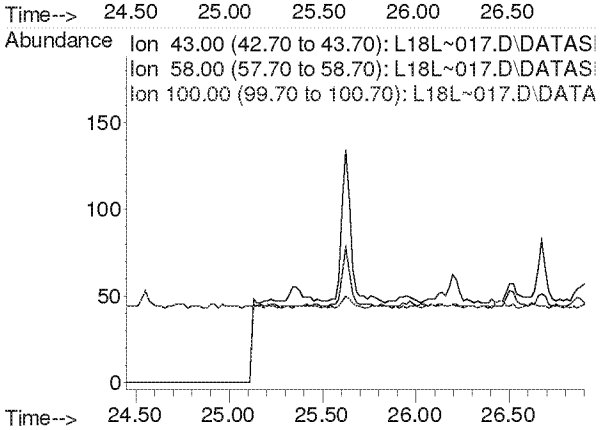


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.61 min

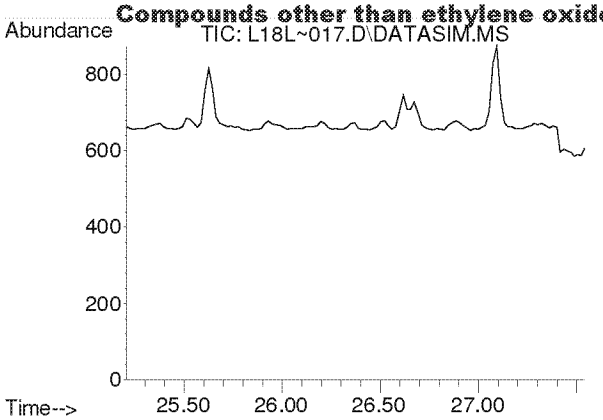
Lab File: L18L~017.D
Acq: 28 Dec 2018 7:54 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	34.2
100	7.9



Compounds other than ethylene oxide were not quantitated.

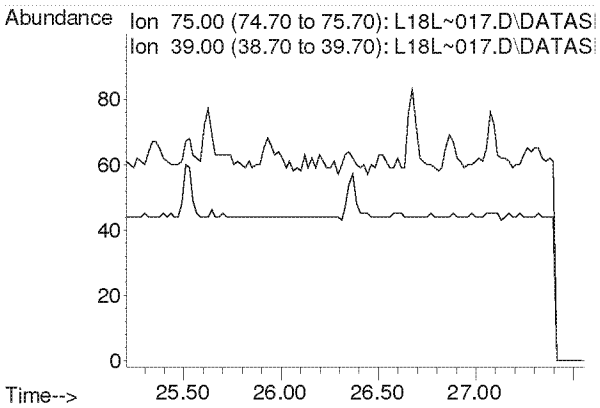


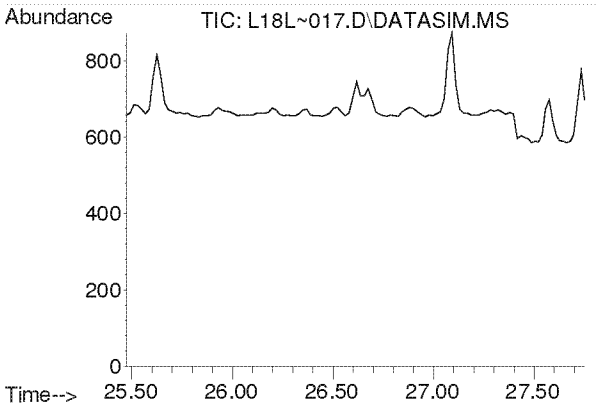
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.35 min

Lab File: L18L~017.D
Acq: 28 Dec 2018 7:54 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	50.9



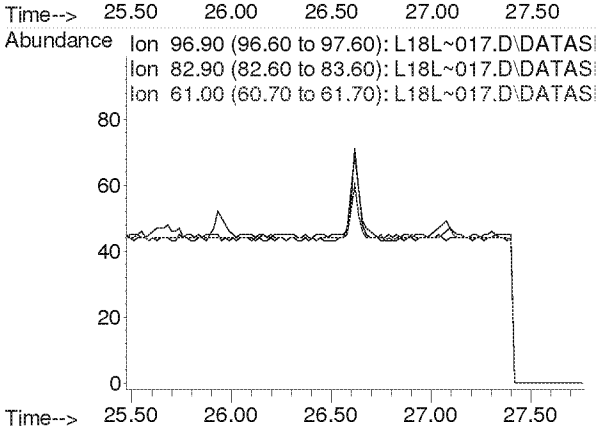


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

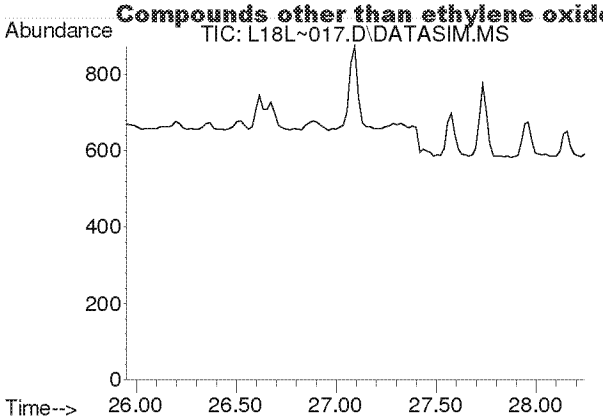
Lab File: L18L~017.D
Acq: 28 Dec 2018 7:54 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	96.1
61	63.5



Compounds other than ethylene oxide were not quantitated.

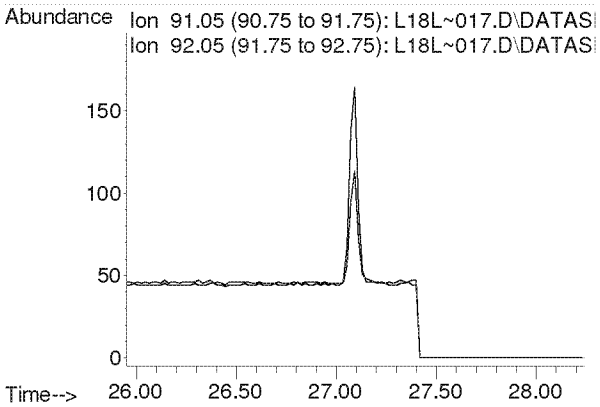


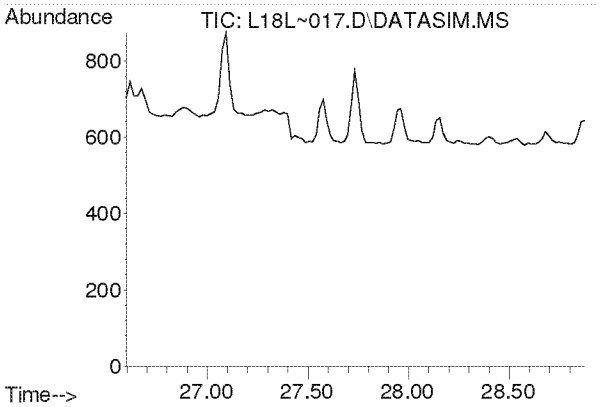
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L18L~017.D
Acq: 28 Dec 2018 7:54 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.6



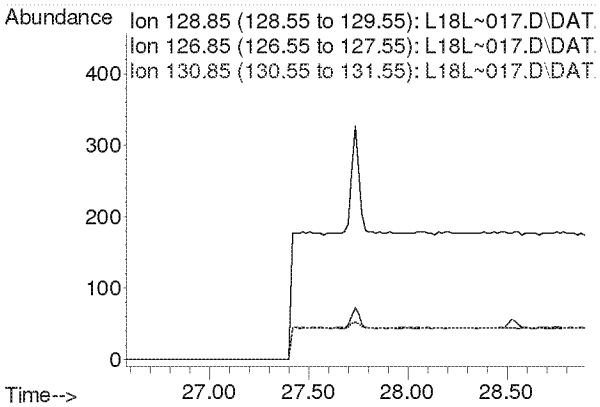


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.73 min

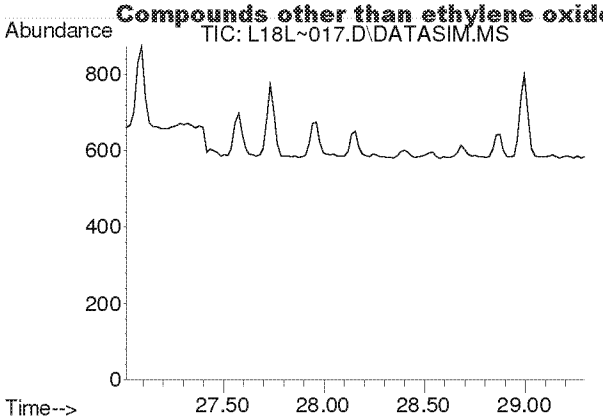
Lab File: L18L~017.D
Acq: 28 Dec 2018 7:54 am

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.2
131	6.0



Compounds other than ethylene oxide were not quantitated.

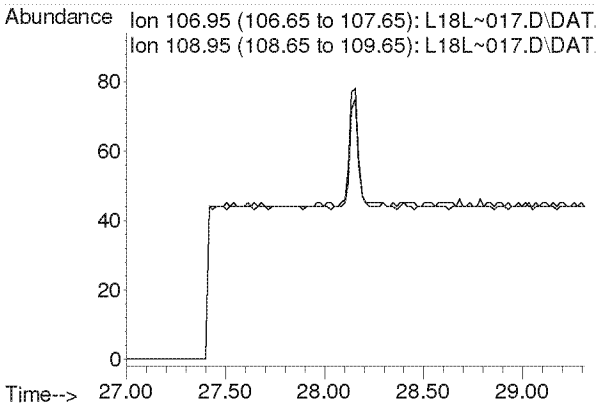


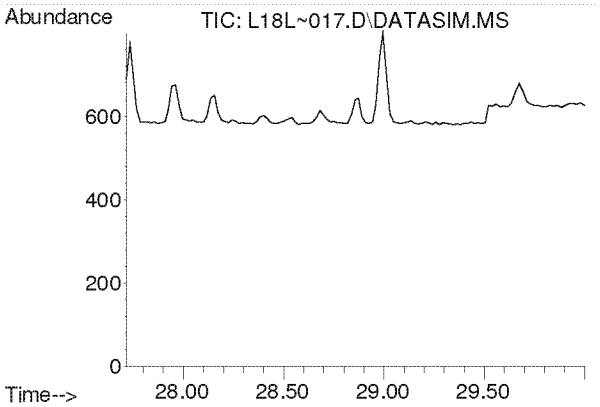
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.16 min

Lab File: L18L~017.D
Acq: 28 Dec 2018 7:54 am

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.5



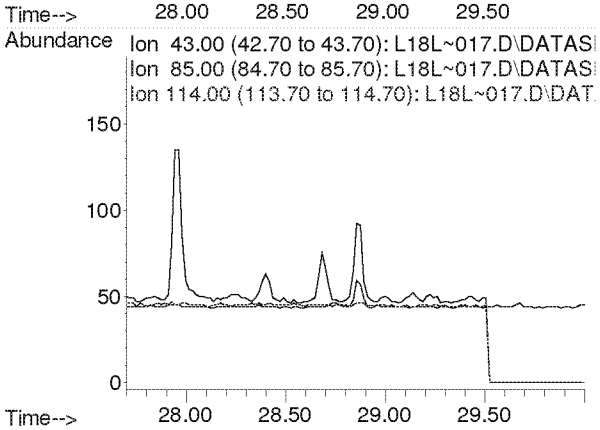


#47
n-Octane
Concen: N.D.
Expected RT: 28.86 min

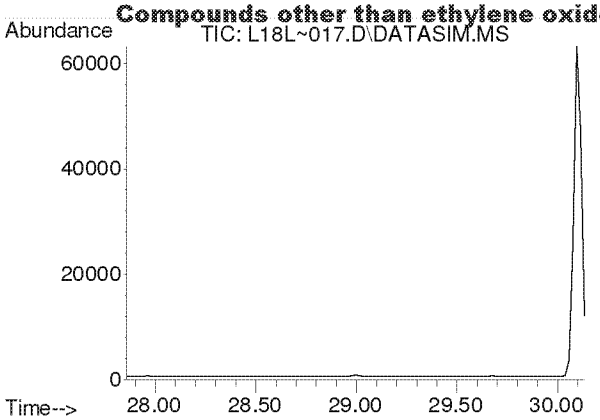
Lab File: L18L~017.D
Acq: 28 Dec 2018 7:54 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	36.0
114	2.2



Compounds other than ethylene oxide were not quantitated.

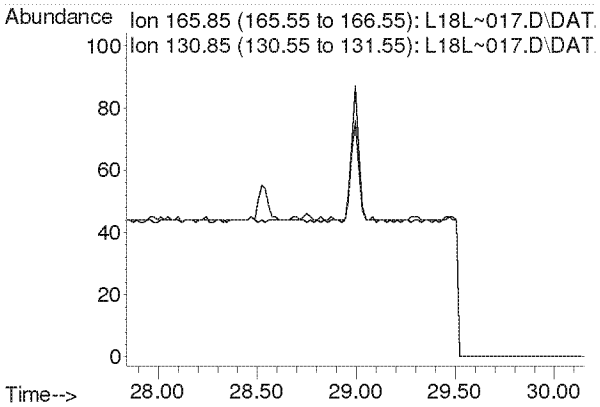


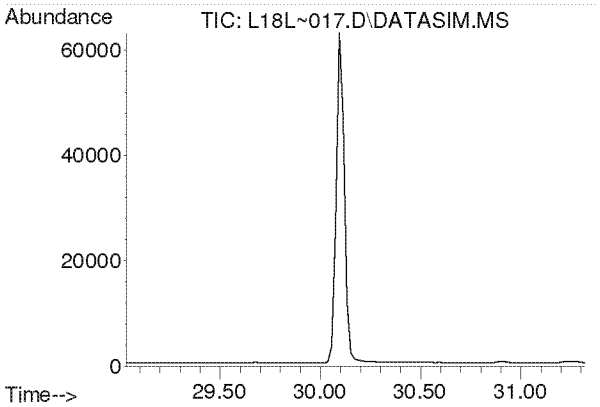
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L18L~017.D
Acq: 28 Dec 2018 7:54 am

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	78.2



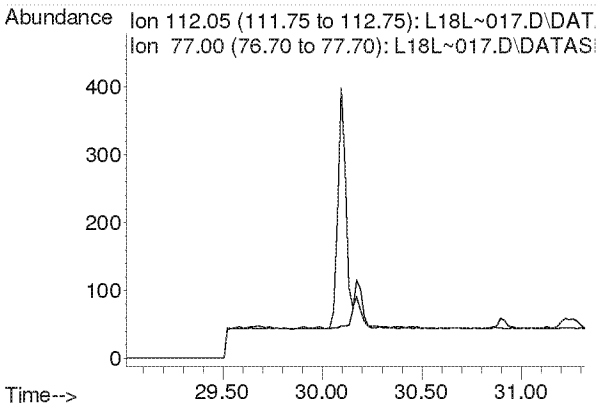


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.17 min

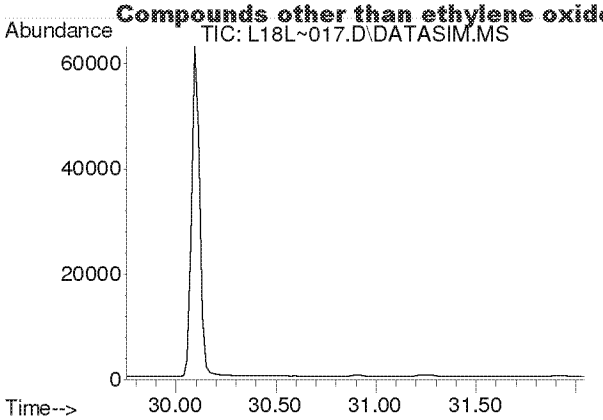
Lab File: L18L~017.D
Acq: 28 Dec 2018 7:54 am

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	63.0



Compounds other than ethylene oxide were not quantitated.

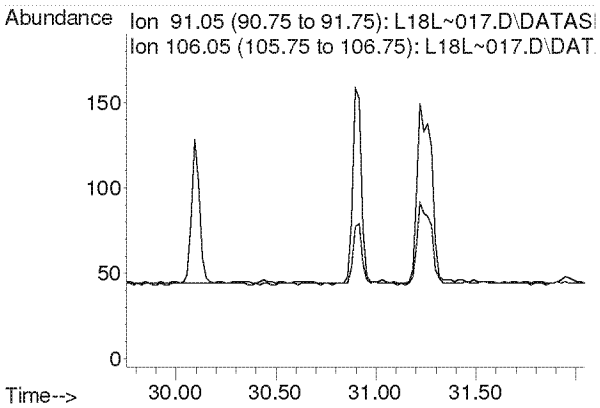


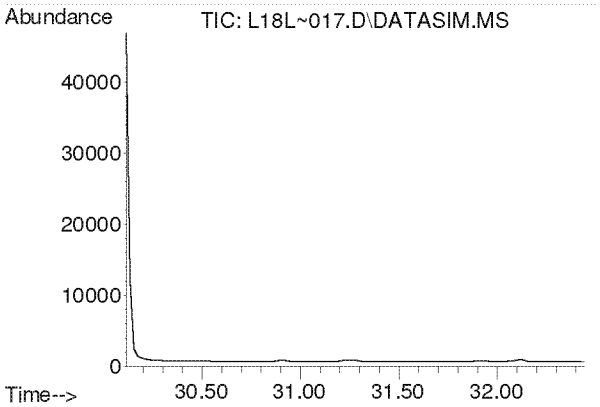
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.90 min

Lab File: L18L~017.D
Acq: 28 Dec 2018 7:54 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	31.8



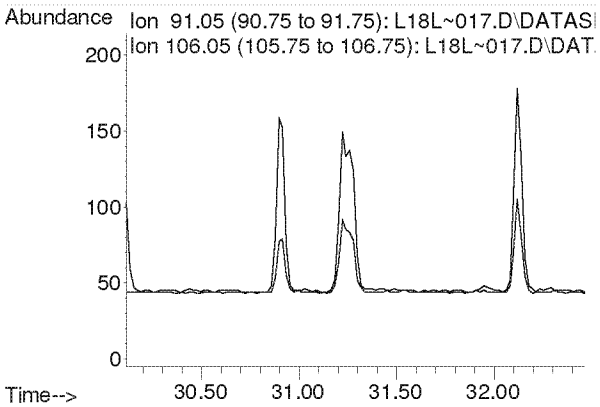


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.26 min

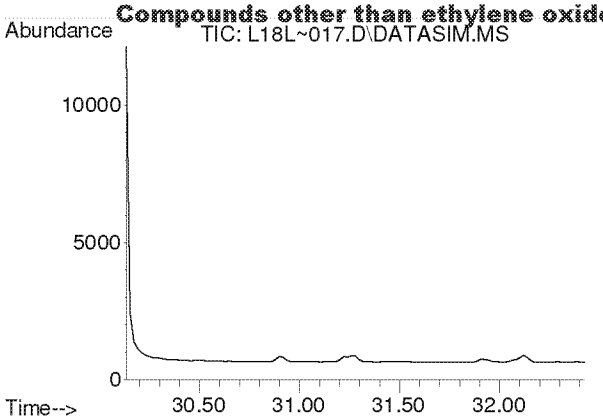
Lab File: L18L~017.D
Acq: 28 Dec 2018 7:54 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.4



Compounds other than ethylene oxide were not quantitated.

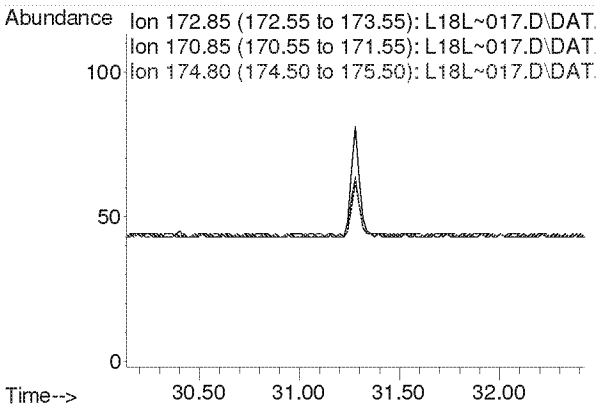


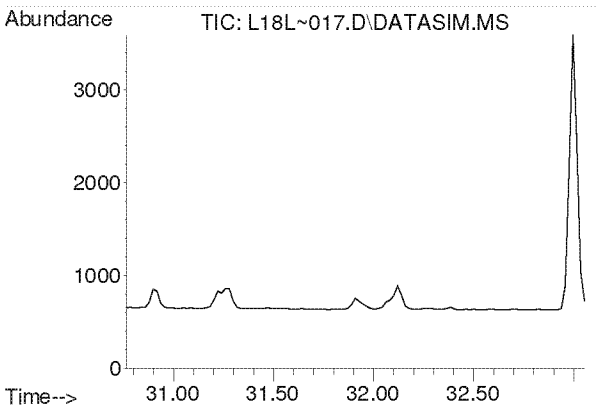
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L18L~017.D
Acq: 28 Dec 2018 7:54 am

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	49.0



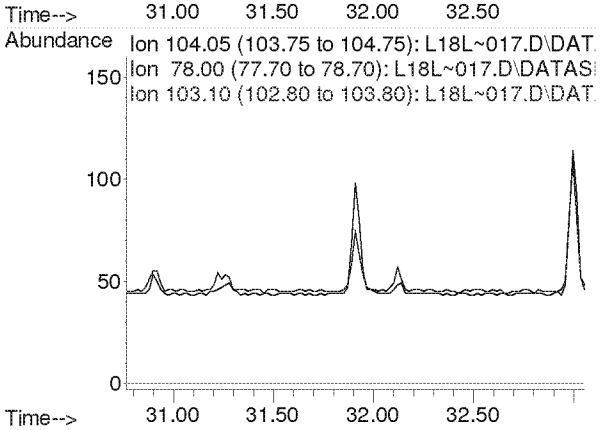


#53
Styrene
Concen: N.D.
Expected RT: 31.91 min

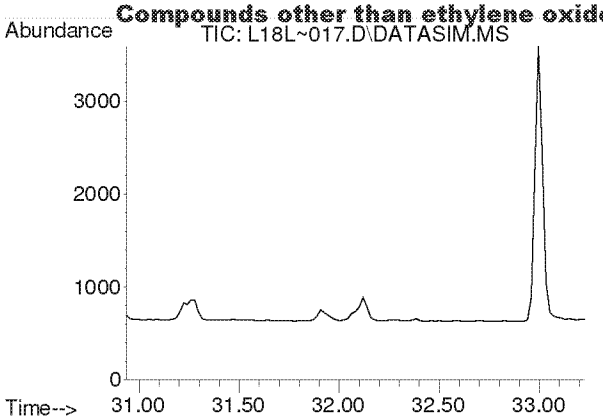
Lab File: L18L~017.D
Acq: 28 Dec 2018 7:54 am

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	45.6
103	0.0



Compounds other than ethylene oxide were not quantitated.

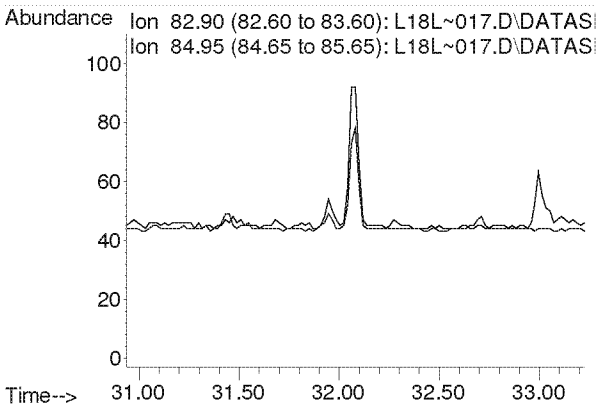


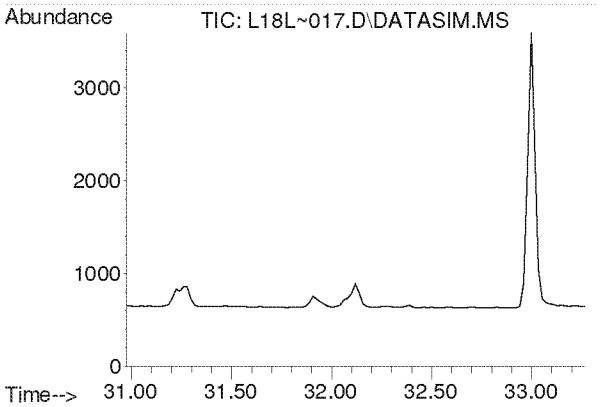
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L18L~017.D
Acq: 28 Dec 2018 7:54 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.9



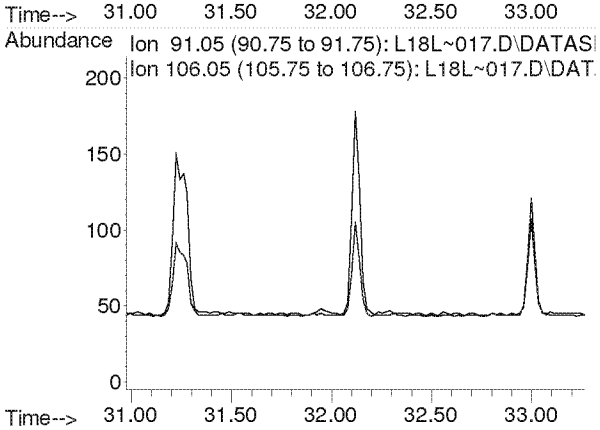


#55
o-Xylene
Concen: N.D.
Expected RT: 32.12 min

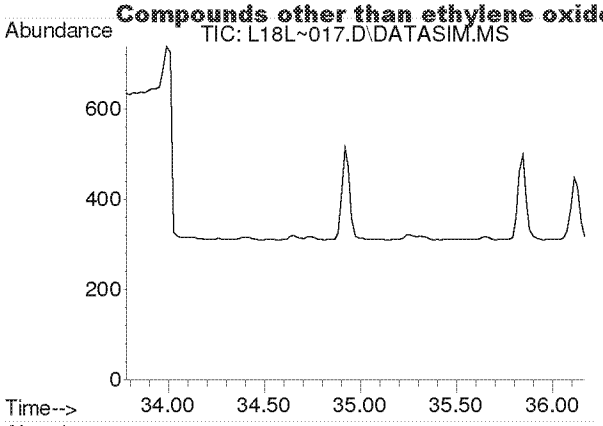
Lab File: L18L~017.D
Acq: 28 Dec 2018 7:54 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.2



Compounds other than ethylene oxide were not quantitated.

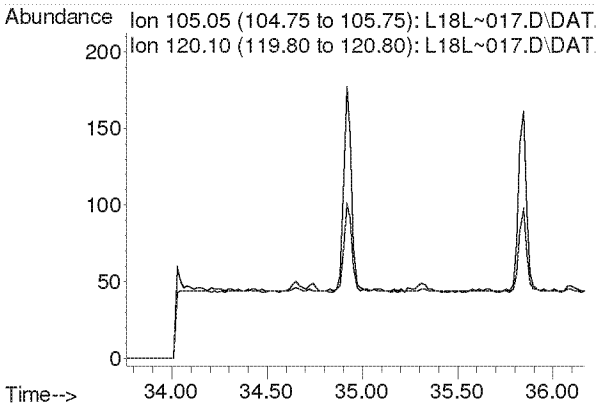


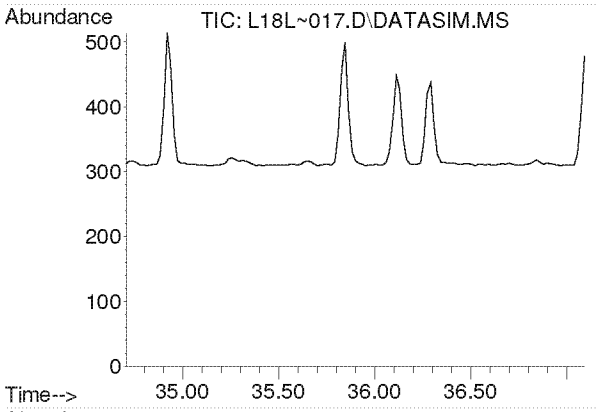
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.92 min

Lab File: L18L~017.D
Acq: 28 Dec 2018 7:54 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	45.0



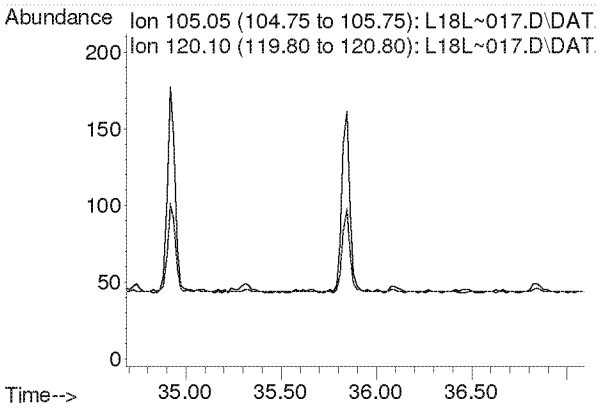


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

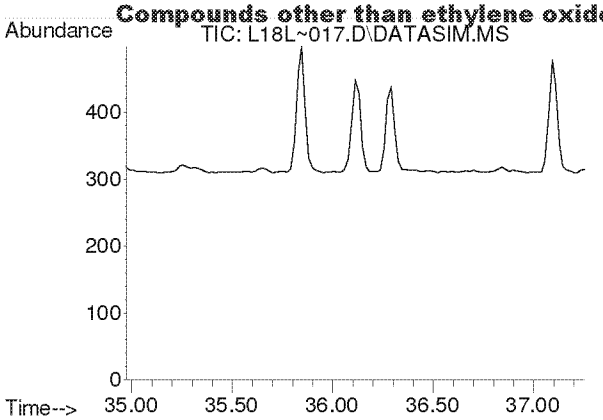
Lab File: L18L~017.D
Acq: 28 Dec 2018 7:54 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	42.8



Compounds other than ethylene oxide were not quantitated.

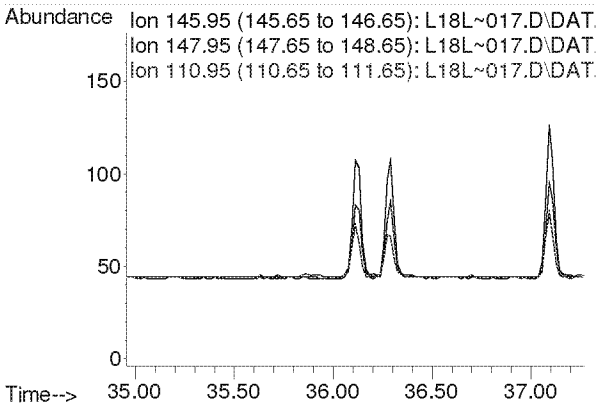


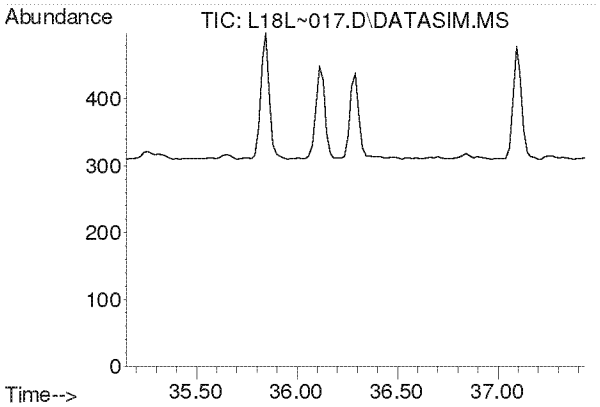
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.11 min

Lab File: L18L~017.D
Acq: 28 Dec 2018 7:54 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.5



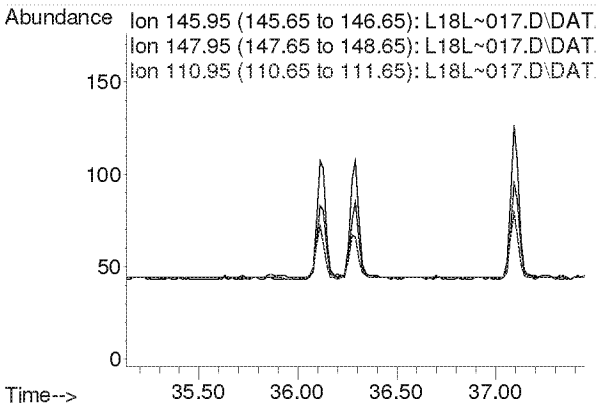


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

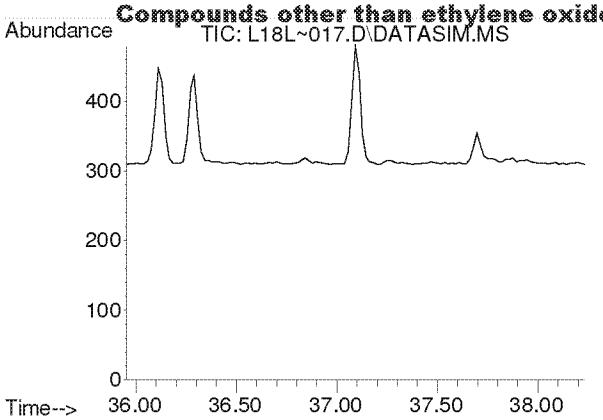
Lab File: L18L~017.D
Acq: 28 Dec 2018 7:54 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	39.5



Compounds other than ethylene oxide were not quantitated.

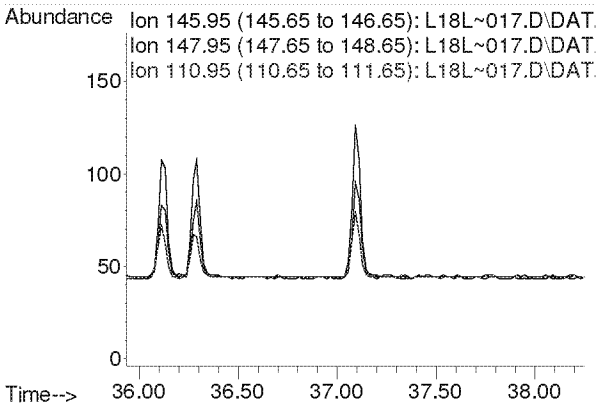


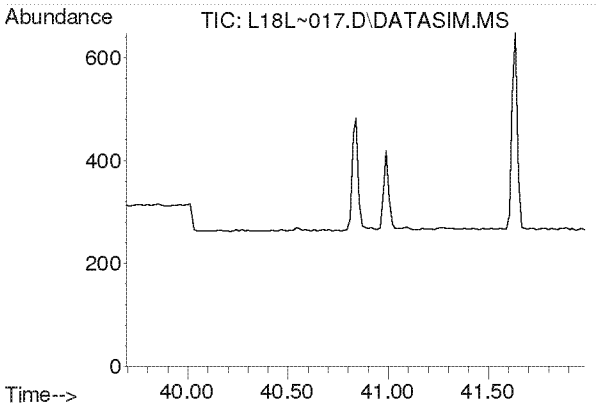
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.09 min

Lab File: L18L~017.D
Acq: 28 Dec 2018 7:54 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	41.4



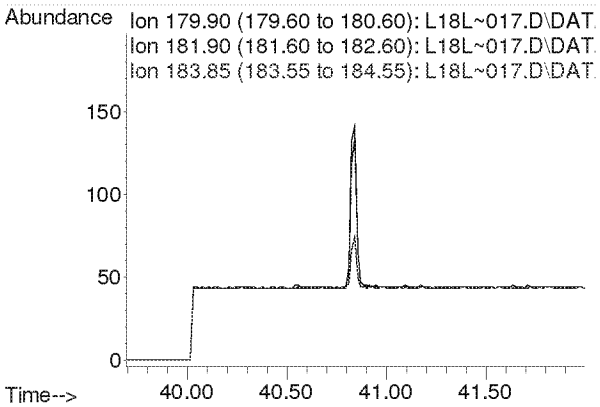


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

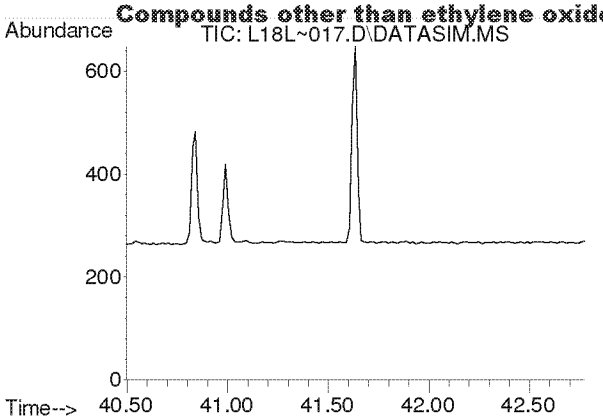
Lab File: L18L~017.D
Acq: 28 Dec 2018 7:54 am

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	95.1
184	30.7



Compounds other than ethylene oxide were not quantitated.

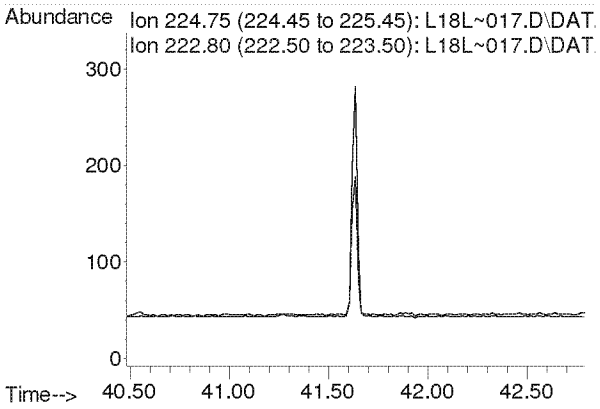


#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.64 min

Lab File: L18L~017.D
Acq: 28 Dec 2018 7:54 am

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.4



Compounds other than ethylene oxide were not quantitated.

PREPARATION BENCH SHEET

B8L2704

Eastern Research Group

Matrix: Air | **Prepared using: Air Toxics - Summa Canister Prep** | **inted: 12/27/2018 5:46:56PM**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments	
8121130-05 *TO-15 2018*	12/07/18 10:05	250	250	U.S. Environmental Protection Agency - OAQPS			Ethylene Oxide only	Ethylene Oxide only
8121130-06 *TO-15 2018*	12/07/18 11:04	250	250	U.S. Environmental Protection Agency - OAQPS			Ethylene Oxide only	Ethylene Oxide only
8121130-07 *TO-15 2018*	12/07/18 09:51	250	250	U.S. Environmental Protection Agency - OAQPS			Ethylene Oxide only	Ethylene Oxide only
8121130-08 *TO-15 2018*	12/07/18 10:34	250	250	U.S. Environmental Protection Agency - OAQPS			Ethylene Oxide only	Ethylene Oxide only
8121130-09 *TO-15 2018*	12/07/18 10:50	250	250	U.S. Environmental Protection Agency - OAQPS			Ethylene Oxide only	Ethylene Oxide only
8121130-10 *TO-15 2018*	12/06/18 00:00	250	250	U.S. Environmental Protection Agency - OAQPS			Ethylene Oxide only	Ethylene Oxide only
8121130-11 *TO-15 2018*	12/08/18 09:03	250	250	U.S. Environmental Protection Agency - OAQPS			Ethylene Oxide only	Ethylene Oxide only
8121130-12 *TO-15 2018*	12/08/18 09:10	250	250	U.S. Environmental Protection Agency - OAQPS			Ethylene Oxide only	Ethylene Oxide only
8121130-13 *TO-15 2018*	12/08/18 09:12	250	250	U.S. Environmental Protection Agency - OAQPS			Ethylene Oxide only	Ethylene Oxide only
8121219-01 *TO-15 2018*	12/07/18 23:59	250	250	U.S. Environmental Protection Agency, Region 5				
8121821-01 *TO-15 2018*	12/14/18 10:12	250	250	U.S. Environmental Protection Agency - OAQPS			Ethylene Oxide only	Ethylene Oxide only
8121821-02 *TO-15 2018*	12/14/18 00:00	250	250	U.S. Environmental Protection Agency - OAQPS			Ethylene Oxide only	Ethylene Oxide only
B8L2704-BLK1	12/18/18 08:00	250	250				h2-525	
B8L2704-DUP1	12/08/18 09:10	250	250		8121130-12			
B8L2704-DUP2	12/08/18 09:12	250	250		8121130-13			

Spiking Witnessed By: Date

Preparation Reviewed By 1-3-19 Date

Extracts Received By Date

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Compounds other than ethylene oxide were not quantitated.

PREPARATION BENCH SHEET

B8L2704

Eastern Research Group

Matrix: Air **Prepared using: Air Toxics - Summa Canister Prep** **inted: 12/27/2018 5:46:56PM**

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 # 8121130-05

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: Water Tower
City/State: Willowbrook, DC
AQS Code:
Collection Date: 12/6/18
Options:
SNMOC (Y/N):
TOXICS (Y/N): Y
METHANE (Y/N):
Relinquished by: KR
Date: 11/29/18

Canister Number: SAT059
Lab Initial Can. Press. ("Hg): 29.8
Cleaning Batch # : H2-509
Date Can. Cleaned: 11/20/18
Duplicate Event (Y/N): N
Duplicate Can # :

Field Setup

Received by: Qazzaz
Date: 12/6/18
Operator: Qazzaz
System #: 10312
Setup Date: 12/6/18
Field Initial Can. Press.: -28.8 psig psia "Hg (Circle one)

MFC Setting:
Elapsed Timer Reset (Y/N):
Canister Valve Opened (Y/N): Yes 9:54am

Field Recovery

Recovery Date: 12/7/18
Operator: Qazzaz
Field Final Can. Press.: -3.0 psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Relinquished by:
Date: 12/7/18

Sample Duration (3 or 24 hr): 24
Elapsed Time:
Canister Valve Closed (Y/N): Yes 10:05

Lab Recovery

Received by: KR
Date: 12/11/18
Lab Final Can. Press.: 2 psig "Hg (Circle one)
Converted to psia:
Status: VALID VOID (Circle one)
If void, why:

Gauge: 1 2 (Circle one)
Vacuum gauge

Samples stored in Air Tox Lab (Room 130)

5-2016

Comments: Leak check = -28.8 @ 1:59 pm
Ambient Temp @ deployment = 30°F
" " @ collection = 20°F

White: Sample Traveler Canary: Lab Copy Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

ERG Lab ID # 812130-06

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: WEST NEIGHBORHOOD
Canister Number: A21119
City/State: WILLOWBROOK, IL
Lab Initial Can. Press. ("Hg): 29.8
AQS Code: –
Cleaning Batch # : H2-509
Collection Date: 12/6/18
Date Can. Cleaned: 11/20/18
Options:
SNMOC (Y/N):
Duplicate Event (Y/N): N
TOXICS (Y/N): Y
Duplicate Can # :
METHANE (Y/N):
Relinquished by: HR
Date: 11/29/18

Field Setup

Received by: J. NWA
Date: 12/6/18
Operator: J. NWA
MFC Setting:
System #: 10310
Elapsed Timer Reset (Y/N):
Setup Date: 12/6/18
Canister Valve Opened (Y/N): @ 10:36am
Field Initial Can. Press.: -22.5 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 12/7/18
Sample Duration (3 or 24 hr): 24
Operator: [illegible]
Elapsed Time:
Field Final Can. Press.: -2.0 psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Canister Valve Closed (Y/N): @ 11:04am
Relinquished by: [illegible]
Date: 12/7/18

Lab Recovery

Received by: HR
Date: 12/11/18
Lab Final Can. Press.: 0.9 psig "Hg (Circle one)
Converted to psia:
Status: VALID VOID (Circle one)
Gauge: 1 2 (Circle one)
Vacuum Gauge
If void, why:

Samples stored in Air Tox Lab (Room 130)

5-2016

Comments: Leak check @ 11:41am -23.5 "Hg
ambient temp @ deployment = 30°F
" " " collection = 20°F

White: Sample Traveler
Canary: Lab Copy
Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

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ERG Lab ID # 8121130-07

ERG Eastern Research Group, Inc.
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AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: Gower MS
Canister Number: 077
City/State: Burr Ridge, IC
Lab Initial Can. Press. ("Hg): 29.8
AQS Code: ——
Cleaning Batch # : H1-509
Collection Date: 12/6/18
Date Can. Cleaned: 11/20/18
Options:
SNMOC (Y/N):
Duplicate Event (Y/N): N
TOXICS (Y/N): Y
Duplicate Can # :
METHANE (Y/N):
Relinquished by: KR
Date: 11/29/18

Field Setup

Received by: Qazzaz
Date: 12/6/18
Operator: Qazzaz
MFC Setting:
System #: 10311
Elapsed Timer Reset (Y/N):
Setup Date: 12/6/18
Canister Valve Opened (Y/N): Y @ 9:42 am
Field Initial Can. Press.: -29.8 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 12/7/18
Sample Duration (3 or 24 hr): 24
Operator: Qazzaz
Elapsed Time:
Field Final Can. Press.: -3.8 psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Canister Valve Closed (Y/N): Y @ 9:51 am
Relinquished by: [signature]
Date: 12/7/18

Lab Recovery

Received by: HC
Date: 12/11/18
Lab Final Can. Press.: 1.3 psig "Hg (Circle one)
Converted to psia:
Status: VALID VOID (Circle one)
Gauge: 1 2 (Circle one)
vacuum gauge
If void, why:

Samples stored in Air Tox Lab (Room 130)

5-2016

Comments: Leak check = -29.8 @ 9:47 am
Ambient Temp @ deployment = 30°F
" " @ collection = 20°F

White: Sample Traveler
Canary: Lab Copy
Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

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ERG Eastern Research Group, Inc.
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ERG Lab ID # 8121130-08

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: HINSDALE SOUTH HS
Canister Number: 5076
City/State: DARIEN, IL
Lab Initial Can. Press. ("Hg): 29.8
AQS Code: —
Cleaning Batch # : H2-508
Collection Date: 12/6/18
Date Can. Cleaned: 11/20/18
Options:
SNMOC (Y/N):
Duplicate Event (Y/N): N
TOXICS (Y/N): Y
Duplicate Can # :
METHANE (Y/N):
Relinquished by: KR
Date: 11/29/18

Field Setup

Received by: NWIA
Date: 12/6/18
Operator: NWIA
MFC Setting:
System #: 10074
Elapsed Timer Reset (Y/N):
Setup Date: 12/6/18
Canister Valve Opened (Y/N): Y @ 10:15 am
Field Initial Can. Press.: -29 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 12/7/18
Sample Duration (3 or 24 hr): 24
Operator: Garrar
Elapsed Time:
Field Final Can. Press.: -6.0 psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Canister Valve Closed (Y/N): Y @ 10:34 am
Relinquished by: [signature]
Date: 12/7/18

Lab Recovery

Received by: KR
Date: 12/11/18
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 @ 10:20 AM - 29" Hg
Ambient temp @ deploy = 30°F
" " " collection = 20°F

White: Sample Traveler
Canary: Lab Copy
Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

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ERG Eastern Research Group, Inc.

601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

ERG Lab ID # 8121130-09

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: GOWER ES

Canister Number: 775

City/State: WILLOWBROOK, IL

Lab Initial Can. Press. ("Hg): 29.8

AQS Code:

Cleaning Batch # : H2-509

Collection Date: 12/6/18

Date Can. Cleaned: 11/20/18

Options:

SNMOC (Y/N):

Duplicate Event (Y/N): N

TOXICS (Y/N): Y

Duplicate Can # :

METHANE (Y/N):

Relinquished by: LR

Date: 11/29/18

Field Setup

Received by: JNWIA

Date: 12/6/18

Operator: JNWIA

MFC Setting:

System #: PROBE #10293

Elapsed Timer Reset (Y/N):

Setup Date: 12/6/18

Canister Valve Opened (Y/N): Y @ 10:26 am

Field Initial Can. Press.: ~~-27~~ -29 12/6/18 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 12/7/18

Sample Duration (3 or 24 hr): 24

Operator: Qazzaz

Elapsed Time:

Field Final Can. Press.: -2.5 psig psia "Hg (Circle one)

Status: VALID VOID (Circle one)

Canister Valve Closed (Y/N): Y @ 10:50am

Relinquished by:

Date: 12/7/18

Lab Recovery

Received by: LR

Date: 12/11/18

Lab Final Can. Press.: 1.8 psig "Hg (Circle one)

Converted to psia:

Status: VALID VOID (Circle one)

Gauge: 1 2 (Circle one)

vacuum gauge

If void, why:

Samples stored in Air Tox Lab (Room 130)

5-2016

Comments: Leak check @ -29 @ 10:31 am

Ambient temp @ deploy = 30°F

" " " collection = 20°F

White: Sample Traveler

Canary: Lab Copy

Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

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ERG Eastern Research Group, Inc.
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ERG Lab ID # 8121130-10

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: TRIP SAMPLE
Canister Number: A22228
City/State:
Lab Initial Can. Press. ("Hg): 29.8
AQS Code:
Cleaning Batch # : H2-509
Collection Date:
Date Can. Cleaned: 11/20/18
Options:
SNMOC (Y/N):
Duplicate Event (Y/N):
TOXICS (Y/N):
Duplicate Can # :
METHANE (Y/N):
Relinquished by: LR
Date: 11/29/18

Field Setup

Received by: NWIA
Date: 12/6/18
Operator:
MFC Setting:
System #:
Elapsed Timer Reset (Y/N):
Setup Date:
Canister Valve Opened (Y/N):
Field Initial Can. Press.: psig psia "Hg (Circle one)

Field Recovery

Recovery Date:
Sample Duration (3 or 24 hr):
Operator:
Elapsed Time:
Field Final Can. Press.: psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Canister Valve Closed (Y/N):
Relinquished by: NWIA
Date: 12/6/18

Lab Recovery

Received by: LR
Date: 12/11/18
Lab Final Can. Press.: 30 psig "Hg (Circle one)
Converted to psia:
Status: VALID VOID (Circle one)
Gauge: 1 2 (Circle one)
If void, why: *see note*

Samples stored in Air Tox Lab (Room 130)

5-2016

Comments: Filled w/ 65% RH scientific Air through CAT @ 400°C

Note: There is some carryover from milling slots w/ this trip BUL. Passes BUL criteria

1-3-19

White: Sample Traveler
Canary: Lab Copy
Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

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ERG Lab ID # 8121130-11

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: WB ~~VILLAGE HALL~~ WAREHOUSE MF 12/07
Canister Number: A21012
City/State: WILLOWBROOK, IL
Lab Initial Can. Press. ("Hg): 29.4
AQS Code: —
Cleaning Batch # : H1-511
Collection Date: 12/07 - 12/08/18
Date Can. Cleaned: 11/26/18
Options:
SNMOC (Y/N): —
Duplicate Event (Y/N): N
TOXICS (Y/N): Y
Duplicate Can # : —
METHANE (Y/N): —
Relinquished by: RMB
Date: 12/3/18

Field Setup

Received by: M Fuoco
Date: 12/07/18
Operator: M Fuoco
MFC Setting: —
System #: REG # ~~10314~~ 10314 MF 12/07
Elapsed Timer Reset (Y/N): —
Setup Date: 12/07/18
Canister Valve Opened (Y/N): Y @ [illegible]
Field Initial Can. Press.: [illegible] psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 12/08/18
Sample Duration (3 or 24 hr): ~~@ 9:03~~ 24H
Operator: M Fuoco
Elapsed Time:
Field Final Can. Press.: -2 psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Canister Valve Closed (Y/N): Y @ 9:03
Relinquished by: M Fuoco
Date: 12/08/18

Lab Recovery

Received by: LR
Date: 12/11/18
Lab Final Can. Press.: 1 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: 12/07: SUNNY, -9°C
LEAK CHECK: [illegible] "Hg @ [illegible] AM
* CAN OPENED @ [illegible], NOTICED AUDIBLE LEAK, VALVE OFF, INLET TAKEN OFF AND PUT BACK ON NO AUDIBLE LEAK.
12/08: SUNNY; AMBIENT TEMP 25°F

White: Sample Traveler
Canary: Lab Copy
Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

ERG Lab ID # 8121130-12

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: Village Hall
Canister Number: 19284
City/State: Willowbrook, IL
Lab Initial Can. Press. ("Hg): 29.4
AQS Code: ——
Cleaning Batch # : H1-511
Collection Date: 12/7/18
Date Can. Cleaned: 11/26/18
Options:
SNMOC (Y/N):
Duplicate Event (Y/N): Y
TOXICS (Y/N): Y
Duplicate Can # : SAT101
METHANE (Y/N):
Relinquished by: RMB
Date: 12/3/18

Field Setup

Received by: Qazzar
Date: 12/7/18
Operator: Qazzar
MFC Setting:
System #: 10313
Elapsed Timer Reset (Y/N):
Setup Date: 12/7/18
Canister Valve Opened (Y/N): Y @ 9:39am
Field Initial Can. Press.: -29.2 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 12/8/18
Sample Duration (3 or 24 hr): 24
Operator: Qazzar
Elapsed Time:
Field Final Can. Press.: -3.5 psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Canister Valve Closed (Y/N): Y @ 9:10am
Relinquished by:
Date: 12/8/18

Lab Recovery

Received by: KR
Date: ~~12/10/18~~ KR 12/11/18
Lab Final Can. Press.: 2.0 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 = -29.2 @ 9:44 am
Ambient Temp @ deployment = 20°F
" " @ collection = 25°F

White: Sample Traveler
Canary: Lab Copy
Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

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ERG Lab ID # 8121130-13

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: Village Hall - Pump
City/State: Willowbrook, IL
AQS Code: —
Collection Date: 12/7/18
Options:
SNMOC (Y/N):
TOXICS (Y/N): Y
METHANE (Y/N):
Relinquished by: RMB
Date: 12/3/18

Canister Number: SAT101
Lab Initial Can. Press. ("Hg): 29.4
Cleaning Batch # : H1-511
Date Can. Cleaned: 11/26/18
Duplicate Event (Y/N): Y
Duplicate Can # : ~~10315~~ 19284 12/7/18

Field Setup

Received by: Qazzar
Date: 12/7/18
Operator: Qazzar
System #: 10315
Setup Date: 12/7/18
Field Initial Can. Press.: -30.0 psig psia "Hg (Circle one)

MFC Setting:
Elapsed Timer Reset (Y/N):
Canister Valve Opened (Y/N): Y @ 9:39am

Field Recovery

Recovery Date: 12/8/18
Operator: Qazzar
Field Final Can. Press.: -6.0 psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Relinquished by:
Date: 12/8/18

Sample Duration (3 or 24 hr): 24
Elapsed Time:
Canister Valve Closed (Y/N): Y @ 9:12am

Lab Recovery

Received by: LK
Date: 12/11/18
Lab Final Can. Press.: 3 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 = -30.0 @ 9:44am
Ambient Temp @ deployment = 20°F
" " @ collection = 25°F

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 # 8121821-01

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: Willow Pond Park
Canister Number: 5080
City/State: Willoughby, PC
Lab Initial Can. Press. ("Hg): 29.8
AQS Code: ~~—~~
Cleaning Batch # : H1-514
Collection Date: 12/13/18
Date Can. Cleaned: 11/29/18
Options:
SNMOC (Y/N):
Duplicate Event (Y/N): N
TOXICS (Y/N): Y
Duplicate Can # :
METHANE (Y/N):
Relinquished by: RMB
Date: 12/11/18

Field Setup

Received by: Qazzaz
Date: 12/13/18
Operator: Qazzaz
MFC Setting:
System #: 10294
Elapsed Timer Reset (Y/N):
Setup Date: 12/13/18
Canister Valve Opened (Y/N): Y @ 10:30 am
Field Initial Can. Press.: -28.8 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 12/14/18
Sample Duration (3 or 24 hr): 24
Operator: Qazzaz
Elapsed Time:
Field Final Can. Press.: -6.0 psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Canister Valve Closed (Y/N): Y @ 10:12 am
Relinquished by: [signature]
Date: 12/14/18

Lab Recovery

Received by: BHC
Date: 12-18-18
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: Leak check @ 10:24 am = -28.0 in Hg; 10:27 am = -28.0 in Hg
Ambient Temp @ deployment = 25°F
" " @ collection = 39°F

White: Sample Traveler
Canary: Lab Copy
Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

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ERG Lab ID # 8121821-02

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: TRIP BLANK
Canister Number: SAT003
City/State: WILLOW BROOK
Lab Initial Can. Press. ("Hg): 29.8
AQS Code:
Cleaning Batch # : H1-514
Collection Date:
Date Can. Cleaned: 11/29/18
Options:
SNMOC (Y/N):
Duplicate Event (Y/N):
TOXICS (Y/N):
Duplicate Can # :
METHANE (Y/N):
Relinquished by: RMB
Date: 12/11/18

Field Setup

Received by: NWIA
Date: 12/13/18
Operator:
MFC Setting:
System #:
Elapsed Timer Reset (Y/N):
Setup Date:
Canister Valve Opened (Y/N):
Field Initial Can. Press.: psig psia "Hg (Circle one)

Field Recovery

Recovery Date:
Sample Duration (3 or 24 hr):
Operator:
Elapsed Time:
Field Final Can. Press.: psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Canister Valve Closed (Y/N):
Relinquished by:
Date:

Lab Recovery

Received by: BHC
Date: 12-18-18
Lab Final Can. Press.: 30.0 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: TRIP BLANK.

Filled to 0" Hg w/ 65% RH zero Air thru CAT @ 400°C — 12-27-18

some carry over from stds, but passes BLK criteria — 1-5-19

White: Sample Traveler
Canary: Lab Copy
Pink: Field Copy