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	✓ 11-28-17	RMB 11/28/18	DST 11/29/18		
Canister Cleaning Certification	<3xMDL or 0.2ppbv per VOC targeted compound, whichever is lower	—	RMB 11/28/18	NA		
Preconcentrator Leak Check	≤ ± 0.2 psi/min	11-28-17	RMB 11/28/18	DST 11/29/18		
Samples/Internal Standard Check	IS area within ±40% and IS RT within ±0.33 min. of most recent initial calibration	— 11-28-17	RMB 11/28/18	DST 11/29/18		
COC Included and filled out	Lab receipt acknowledged, LIMS number added to COC	— 11-28-17	RMB 11/28/18	DST 11/29/18		
Manual Integration and peak deletion	Conforms with ERG-SOP-097 "Procedure for Manual Integration of Chromatographic Peaks"	— 11-28-17	RMB 11/28/18	DST 11/29/18		
Manual Calculation Check	One compound manual check must agree with software generated result		RMB 11/28/18	DST 11/29/18		8112113-03 9647 (4.80ppbv) / 48557 (0.2606) = 3.657 ppbv
Qualifiers Check	Check to make sure LIMS data flags are correct	11-28-17	RMB 11/28/18	DST 11/29/18		

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

L18K~002 ethylene oxide $\frac{9360 \times 4.80}{62816 \times 0.2606} = 2.74$ ppbv

Compounds other than ethylene oxide were not quantitated.

ANALYSIS SEQUENCE

1811063

Instrument: ERGMS#1

Calibnration ID: 8100002

Printed: 11/28/2018 6:40:21AM

Lab Number	Analysis	Container	Order	Position	STD ID	ISTD ID	Client	Comments
1811063-CCV1	QC		1		8K26009	7L07002		
B8K2704-BLK1	QC		2			7L07002		
8112012-01	TO-15 2018	A	3			7L07002	U.S. Environmental Protection Agency - OAQ	Ethylene Oxide only
8112012-02	TO-15 2018	A	4			7L07002	U.S. Environmental Protection Agency - OAQ	Ethylene Oxide only
8112012-03	TO-15 2018	A	5			7L07002	U.S. Environmental Protection Agency - OAQ	Ethylene Oxide only
B8K2704-DUP1	QC		6			7L07002		
B8K2704-DUP2	QC		7			7L07002		
8112113-01	TO-15 2018	A	8			7L07002	U.S. Environmental Protection Agency - OAQ	Ethylene Oxide only
8112113-02	TO-15 2018	A	9			7L07002	U.S. Environmental Protection Agency - OAQ	Ethylene Oxide only
B8K2704-DUP3	QC		10			7L07002		
B8K2704-DUP4	QC		11			7L07002		
8112113-03	TO-15 2018	A	12			7L07002	U.S. Environmental Protection Agency - OAQ	Ethylene Oxide only
8112113-04	TO-15 2018	A	13			7L07002	U.S. Environmental Protection Agency - OAQ	Ethylene Oxide only
8112113-05	TO-15 2018	A	14			7L07002	U.S. Environmental Protection Agency - OAQ	Ethylene Oxide only
8112113-06	TO-15 2018	A	15			7L07002	U.S. Environmental Protection Agency - OAQ	Ethylene Oxide only
8112113-07	TO-15 2018	A	16			7L07002	U.S. Environmental Protection Agency - OAQ	Ethylene Oxide only
8112113-08	TO-15 2018	A	17			7L07002	U.S. Environmental Protection Agency - OAQ	Ethylene Oxide only
8112113-09	TO-15 2018	A	18			7L07002	U.S. Environmental Protection Agency - OAQ	Ethylene Oxide only

Samples Loaded By 11-27-18 Date

Data Processed By 11-28-18 Date

Compounds other than ethylene oxide were not quantitated.

Sequence Name: C:\msdchem\1\sequence\L18K~.s
Comment: ANALYZE 11/27/18,8100002 exp 1/9/19, L18K~
Operator: MAH
Data Path: C:\MSDCHEM\1\DATA\L18K~\
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	L18K~001	BFB	BFB
2)	Sample	2	L18K~002	8100002	1811063-CCV1
3)	Sample	3	L18K~003	8100002	FLUSH
4)	Sample	4	L18K~004	8100002	B8K2704-BLK1
5)	Sample	5	L18K~005	8100002	8112012-01
6)	Sample	6	L18K~006	8100002	8112012-02
7)	Sample	7	L18K~007	8100002	8112012-03
8)	Sample	8	L18K~008	8100002	B8K2704-DUP1
9)	Sample	9	L18K~009	8100002	B8K2704-DUP2
10)	Sample	10	L18K~010	8100002	8112113-01
11)	Sample	11	L18K~011	8100002	8112113-02
12)	Sample	12	L18K~012	8100002	B8K2704-DUP3
13)	Sample	13	L18K~013	8100002	B8K2704-DUP4
14)	Sample	14	L18K~014	8100002	8112113-03
15)	Sample	15	L18K~015	8100002	8112113-04
16)	Sample	16	L18K~016	8100002	8112113-05
17)	Sample	17	L18K~017	8100002	8112113-06
18)	Sample	18	L18K~018	8100002	8112113-07
19)	Sample	19	L18K~019	8100002	8112113-08
20)	Sample	20	L18K~020	8100002	8112113-09
21)	Sample	100	OFF	FIDOFF	OFF

11-28-18

Compounds other than ethylene oxide were not quantitated.

Sample	1	BFB	BFB	L18K~001	80ML IS 7L07001	1
Sample	2	1811063-CCV1	8100002	L18K~002	80ML IS 7L07001,8K26009	1
Sample	3	FLUSH	8100002	L18K~003	80ML IS 7L07001	1
Sample	4	B8K2704-BLK1	8100002	L18K~004	80ML IS 7L07001	1
Sample	5	8112012-01	8100002	L18K~005	WB VILLAGE HALL 11/16/18	1
Sample	6	8112012-02	8100002	L18K~006	EPA WB WAREHOUSE C1 11/16/18	1
Sample	7	8112012-03	8100002	L18K~007	EPA WB WAREHOUSE C2 11/16/18	1
Sample	8	B8K2704-DUP1	8100002	L18K~008	EPA WB WAREHOUSE R1 11/16/18	1
Sample	9	B8K2704-DUP2	8100002	L18K~009	EPA WB WAREHOUSE R2 11/16/18	1
Sample	10	8112113-01	8100002	L18K~010	WB VILLAGE HALL C1 11/19/18	1
Sample	11	8112113-02	8100002	L18K~011	WB VILLAGE HALL C2 11/19/18	1
Sample	12	B8K2704-DUP3	8100002	L18K~012	WB VILLAGE HALL R1 11/19/18	1
Sample	13	B8K2704-DUP4	8100002	L18K~013	WB VILLAGE HALL R2 11/19/18	1
Sample	14	8112113-03	8100002	L18K~014	EPA WILLOW BROOK WH 11/19/18	1
Sample	15	8112113-04	8100002	L18K~015	GOWER ES 11/19/18	1
Sample	16	8112113-05	8100002	L18K~016	8112113-05 GOWER MS 11/19/18	1
Sample	17	8112113-06	8100002	L18K~017	WILLOW POND PARK 11/19/18	1
Sample	18	8112113-07	8100002	L18K~018	WATERTOWER 11/19/18	1
Sample	19	8112113-08	8100002	L18K~019	HINSPALE S. HS 11/19/18	1
Sample	20	8112113-09	8100002	L18K~020	WEST NEIGHBORHOOD 1/19/18	1
Sample	100	OFF	FIDOFF	OFF	OFF	1

11-27-18

Compounds other than ethylene oxide were not quantitated.

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

Sequence Name: C:\Smart\L18K~.SEQ
Date: 11-28-2018
Time: 06:42:59
Int. Std Volume: 80 cc

Sample Name	Inlet	Auto #	Samp Pos	Cal Vol.	Std Vol.	Method	Time
BFB	1	1	0	0		C:\Smart\BFB.MPT	12:00
1811063-CCV1	2	1	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
FLUSH	1	2	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
B8K2704-BLK1	1	2	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
8112012-01	1	3	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
8112012-02	1	4	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
8112012-03	1	5	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
B8K2704-DUP1	1	4	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
B8K2704-DUP2	1	5	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
8112113-01	1	6	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
8112113-02	1	7	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
B8K2704-DUP3	1	6	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
B8K2704-DUP4	1	7	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
8112113-03	1	8	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
8112113-04	1	9	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
8112113-05	1	10	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
8112113-06	1	11	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
8112113-07	1	12	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
8112113-08	1	13	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
8112113-09	1	14	250		0	C:\Smart\TO-15A_MS1.MPT	12:00

11-29-18

Compounds other than ethylene oxide were not quantitated.

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

11/28/2018 10:49:23 AM
Leak Check for C:\Smart\L18K~.SEQ
Report File: C:\Smart\L18K~.LCR
Leak Check Method: Evacuation
Pressurize/Evacuate time(sec) 20
Equilibration time(sec) 20
Maintanance time(sec) 60

Sample Inlet	Auto1	Auto2	Auto3	Start	End	Rate(psi/min)
1	3	---	---	1.2	1.3	0.10
1	4	---	---	1.2	1.3	0.10
1	5	---	---	1.2	1.2	0.00
1	6	---	---	1.1	1.2	0.10
1	7	---	---	1.1	1.2	0.10
1	8	---	---	1.2	1.2	0.00
1	9	---	---	1.1	1.2	0.10
1	10	---	---	1.1	1.2	0.10
1	11	---	---	1.1	1.2	0.10
1	12	---	---	1.2	1.2	0.00
1	13	---	---	1.2	1.3	0.10
1	14	---	---	1.2	1.3	0.10

11-28-18

Compounds other than ethylene oxide were not quantitated.

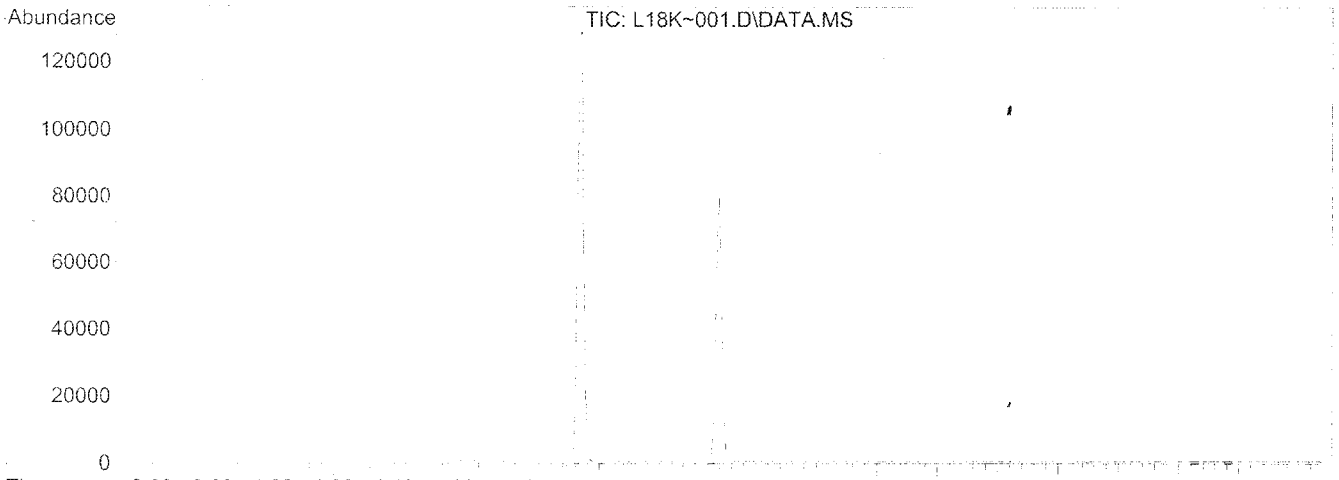
BFB

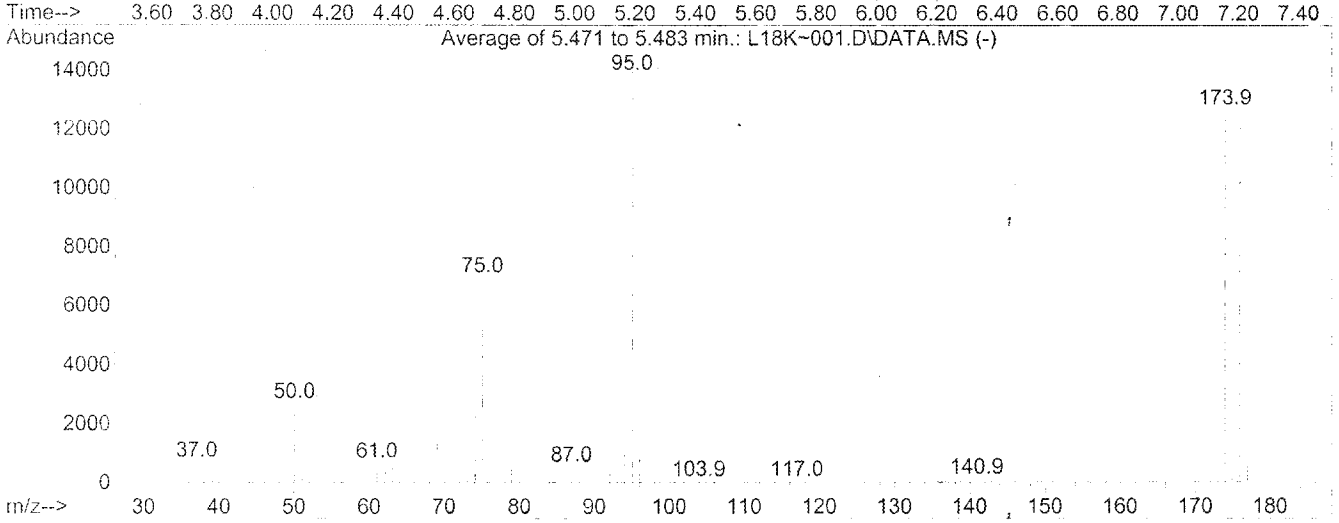
Data Path : C:\msdchem\1\DATA\L18K~\
Data File : L18K~001.D
Acq On : 27 Nov 2018 9:58 am
Operator : MAH
Sample : BFB
Misc : 80ML IS 7L07001
ALS Vial : 1 Sample Multiplier: 1

11-28-18

Integration File: RTEINT.P

Method : C:\msdchem\1\METHODS\8100002.M
Title : TO-15 by Selective Ion Analysis
Last Update : Fri Oct 12 09:33:42 2018





AutoFind: Scans 145, 146, 147; Background Corrected with Scan 139

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	19.2	2686	PASS
75	95	30	66	49.6	6937	PASS
95	95	100	100	100.0	13978	PASS
96	95	5	9	7.1	991	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	90.6	12669	PASS
175	174	4	9	6.9	870	PASS
176	174	93	101	95.4	12090	PASS
177	176	5	9	6.8	820	PASS

Compounds other than ethylene oxide were not quantitated.

GC/MS QA-QC Check Report

Tune File : C:\msdchem\1\DATA\L18K~\L18K~001.D
Tune Time : 27 Nov 2018 9:58 am

8100002	IS Avg Area	47959	116185	80110
	+40%	67142	162659	112154
	-40%	28775	69711	48066

File	Sample	Internal Standard Responses		
L18K~002.D	1811063-CCV1	62816	146572	100959
L18K~004.D	b8k2704-BLK1	54319	126676	88913
L18K~005.D	8112012-01	54310	128622	86343
L18K~006.D	8112012-02	53374	129956	87570
L18K~007.D	8112012-03	53002	130307	87574
L18K~008.D	B8K2704-DUP1	52302	128462	86727
L18K~009.D	B8K2704-DUP2	49329	118025	80362
L18K~010.D	8112113-01	49761	118297	79659
L18K~011.D	8112113-02	49187	115787	79593
L18K~012.D	B8K2704-DUP3	49421	117541	79539
L18K~013.D	B8K2704-DUP4	48988	116920	78779
L18K~014.D	8112113-03	48557	115227	79691
L18K~015.D	8112113-04	47703	112568	76651
L18K~016.D	8112113-05	45848	106902	74152
L18K~017.D	8112113-06	49243	117035	79074
L18K~018.D	8112113-07	47849	112606	76890
L18K~019.D	8112113-08	47631	111871	77070
L18K~020.D	8112113-09	46109	108996	75388

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

Created: Wed Nov 28 11:13:50 2018 MS1

11-28-18

Compounds other than ethylene oxide were not quantitated.

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\DATA\L18K~\
Data File : L18K~002.D
Acq On : 27 Nov 2018 10:41 am
Operator : MAH
Sample : 1811063-CCV1
Misc : 80ML IS 7L07001,8K26009
ALS Vial : 2 Sample Multiplier: 1

11-27-18

Quant Time: Nov 28 08:09:02 2018
Quant Method : C:\msdchem\1\METHODS\8100002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Fri Oct 12 09:33:42 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)
1	ISS	IS-Hexane-d14	1.000	1.000	0.0	100	0.00
2	CT	Acetylene	0.472	0.425	10.0	100	0.00
3	CT	Propylene	0.494	0.521	-5.5	100	0.00
4	CT	Dichlorodifluoromethane	2.254	2.170	3.7	100	0.00
5	CT	Chloromethane	0.602	0.586	2.7	100	0.00
6	CT	Dichlorotetrafluoroethane	1.980	2.159	-9.0	100	0.00
7	CT	Vinyl Chloride	0.643	0.641	0.3	100	0.00
8	CT	1,3-Butadiene	0.442	0.446	-0.9	100	0.00
9	CT	Ethylene Oxide	0.261	0.280	-7.3	100	0.00
10	CT	Bromomethane	0.629	0.625	0.6	100	0.00
11	CT	Chloroethane	0.279	0.277	0.7	100	0.00
12	CT	Acetonitrile	0.508	0.427	15.9	100	0.00
13	CT	Acrolein	0.230	0.198	13.9	100	0.00
14	CT	Trichlorofluoromethane	1.956	1.719	12.1	100	0.00
15	CT	Acrylonitrile	0.386	0.350	9.3	100	0.00
16	CT	1,1-Dichloroethene	0.874	0.983	-12.5	100	0.00
17	CT	Methylene Chloride	0.627	0.661	-5.4	100	0.00
18	CT	Carbon Disulfide	1.752	1.762	-0.6	100	0.00
19	CT	Trichlorotrifluoroethane	1.342	1.427	-6.3	100	0.00
20	CT	trans-1,2-Dichloroethylene	0.487	0.489	-0.4	100	0.00
21	CT	1,1-Dichloroethane	0.857	0.851	0.7	100	0.00
22	CT	Methyl tert-Butyl Ether	1.326	1.307	1.4	100	0.00
23	CT	Chloroprene	0.642	0.673	-4.8	100	0.00
24	CT	cis-1,2-Dichloroethylene	0.662	0.681	-2.9	100	0.00
25	CT	Bromochloromethane	0.371	0.348	6.2	100	0.00
26	CT	Chloroform	1.006	1.047	-4.1	100	0.00
27	CT	Ethyl tert-Butyl Ether	1.366	1.378	-0.9	100	0.00
28	CT	1,2-Dichloroethane	0.633	0.663	-4.7	100	0.00
29	ISS	IS-1,4-Difluorobenzene	1.000	1.000	0.0	100	0.00
30	CT	1,1,1-Trichloroethane	0.418	0.365	12.7	100	0.00
31	CT	Benzene	0.598	0.636	-6.4	100	0.00
32	CT	Carbon Tetrachloride	0.477	0.492	-3.1	100	0.00
33	CT	tert-Amyl Methyl Ether	0.490	0.492	-0.4	100	0.00
34	CT	1,2-Dichloropropane	0.229	0.234	-2.2	100	0.00
35	CT	Ethyl Acrylate	0.291	0.258	11.3	100	0.00
36	CT	Bromodichloromethane	0.440	0.376	14.5	100	0.00
37	CT	Trichloroethylene	0.272	0.263	3.3	100	0.00
38	CT	Methyl Methacrylate	0.830	0.780	6.0	100	0.00
39	CT	cis-1,3-Dichloropropene	0.209	0.181	13.4	100	0.00
40	CT	Methyl Isobutyl Ketone	0.481	0.472	1.9	100	0.00
41	CT	trans-1,3-Dichloropropene	0.154	0.106	31.2#	100	0.00
42	CT	1,1,2-Trichloroethane	0.205	0.212	-3.4	100	0.00
43	ISS	IS-Chlorobenzene-d5	1.000	1.000	0.0	100	0.00
44	CT	Toluene	0.883	0.948	-7.4	100	0.00
45	CT	Dibromochloromethane	2.130	1.732	18.7	100	0.00
46	CT	1,2-Dibromoethane	0.371	0.353	4.9	100	0.00
47	CT	n-Octane	0.550	0.580	-5.5	100	0.00
48	CT	Tetrachloroethylene	0.433	0.467	-7.9	100	0.00

ETO X only

OK. DJT 11/28/18

Compounds other than ethylene oxide were not quantitated.

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\DATA\L18K~\
Data File : L18K~002.D
Acq On : 27 Nov 2018 10:41 am
Operator : MAH
Sample : 1811063-CCV1
Misc : 80ML IS 7L07001,8K26009
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 28 08:09:02 2018
Quant Method : C:\msdchem\1\METHODS\8100002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Fri Oct 12 09:33:42 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	0.582	0.600	-3.1	100	0.00
50	CT	Ethylbenzene	0.937	0.974	-3.9	100	0.00
51	CT	m,p-Xylene	0.805	0.813	-1.0	100	0.00
52	CT	Bromoform	0.417	0.319	23.5	100	0.00
53	CT	Styrene	0.437	0.424	3.0	100	0.00
54	CT	1,1,2,2-Tetrachloroethane	0.551	0.555	-0.7	100	0.00
55	CT	o-Xylene	0.783	0.831	-6.1	100	0.00
56	CT	1,3,5-Trimethylbenzene	0.814	0.741	9.0	100	0.00
57	CT	1,2,4-Trimethylbenzene	0.684	0.623	8.2	100	0.00
58	CT	m-Dichlorobenzene	0.373	0.328	12.1	100	0.00
59	CT	p-Dichlorobenzene	0.305	0.275	9.8	100	0.00
60	CT	o-Dichlorobenzene	0.336	0.319	5.1	100	0.00
61	CT	1,2,4-Trichlorobenzene	0.157	0.146	7.0	100	0.00
62	CT	Hexachloro-1,3-butadiene	0.384	0.418	-8.9	100	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 1

ED_002475_00000114-00010

Compounds other than ethylene oxide were not quantitated.

Analytical Standard Record
Eastern Research Group
8K26009

Description:	2.50 ppbv ICV/CCV	Expires:	12/26/18
Standard Type:	Calibration Stan	Prepared:	11/26/18
Solvent:	Scientific Air	Prepared By:	Mitch Howell
Final Volume (mls):	6000	Department:	Air Toxics
Vials:	1	Last Edit:	11/26/18 11:35 by MH

canister# 3246

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

Randy Bowl 11/29/18

Reviewed By Date

Compounds other than ethylene oxide were not quantitated.

Analytical Standard Record
Eastern Research Group
8K26009

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

Parent Standards used in this standard:

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

Reviewed By Date

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\L18K~\
Data File : L18K~002.D
Acq On : 27 Nov 2018 10:41 am
Operator : MAH
Sample : 1811063-CCV1
Misc : 80ML IS 7L07001,8K26009
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 28 08:09:02 2018
Quant Method : C:\msdchem\1\METHODS\8100002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Fri Oct 12 09:33:42 2018
Response via : Initial Calibration

-11-27-18

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) IS-Hexane-d14	19.991	66	62816	4.8000	ppbv	0.00
29) IS-1,4-Difluorobenzene	23.149	114	146572	5.0200	ppbv	-0.02
43) IS-Chlorobenzene-d5	30.114	117	100959	4.7700	ppbv	-0.02

System Monitoring Compounds

Target Compounds						Qvalue
2) Acetylene	5.409	26	13353	2.1598	ppbv	100
3) Propylene	7.823	41	16690	2.5800	ppbv	99
4) Dichlorodifluoromethane	8.685	85	67572	2.2908	ppbv	100
5) Chloromethane	9.757	50	19009	2.4114	ppbv	100
6) Dichlorotetrafluoroethane	10.864	85	68953	2.6613	ppbv	99
7) Vinyl Chloride	11.119	62	20966	2.4897	ppbv	100
8) 1,3-Butadiene	11.783	54	14431	2.4952	ppbv	100
9) Ethylene oxide	12.393	29	9360	2.7442	ppbv	96
10) Bromomethane	12.603	94	20444	2.4844	ppbv	100
11) Chloroethane	13.293	64	9071	2.4836	ppbv	100
12) Acetonitrile	14.356	41	14140	2.1256	ppbv	99
13) Acrolein	14.634	56	6258	2.0803	ppbv	98
14) Trichlorofluoromethane	15.214	101	56242	2.1970	ppbv	100
15) Acrylonitrile	15.933	53	11463	2.2714	ppbv	99
16) 1,1-Dichloroethene	16.443	61	31373	2.7438	ppbv	98
17) Methylene Chloride	16.745	49	21442	2.6121	ppbv	100
18) Carbon Disulfide	16.953	76	57189	2.4945	ppbv	100
19) Trichlorotrifluoroethane	17.301	101	45563	2.5938	ppbv	99
20) trans-1,2-Dichloroethy...	18.336	96	15731	2.4667	ppbv	97
21) 1,1-Dichloroethane	18.653	63	27076	2.4140	ppbv	99
22) Methyl tert-Butyl Ether	18.812	73	43443	2.5044	ppbv	99
23) Chloroprene	19.560	53	21828	2.5986	ppbv	99
24) cis-1,2-Dichloroethylene	19.968	61	22277	2.5712	ppbv	99
25) Bromochloromethane	20.195	128	11256	2.3199	ppbv	97
26) Chloroform	20.421	83	34240	2.6019	ppbv	99
27) Ethyl tert-Butyl Ether	21.182	59	46333	2.5913	ppbv	99
28) 1,2-Dichloroethane	21.495	62	21595	2.6056	ppbv	100
30) 1,1,1-Trichloroethane	21.887	97	26313	2.1574	ppbv #	83
31) Benzene	22.553	78	46582	2.6697	ppbv	100
32) Carbon Tetrachloride	22.788	117	36177	2.5990	ppbv	98
33) tert-Amyl Methyl Ether	23.520	73	37381	2.6129	ppbv	99
34) 1,2-Dichloropropane	23.788	63	17317	2.5879	ppbv	91
35) Ethyl Acrylate	23.891	55	19161	2.2571	ppbv	98
36) Bromodichloromethane	24.097	83	28077	2.1831	ppbv	99
37) Trichloroethylene	24.179	130	19342	2.4358	ppbv	97
38) Methyl Methacrylate	24.551	41	57832	2.3874	ppbv	99
39) cis-1,3-Dichloropropene	25.528	75	13414	2.2030	ppbv	97
40) Methyl Isobutyl Ketone	25.605	43	34897	2.4828	ppbv	100
41) trans-1,3-Dichloropropene	26.367	75	7596	1.6884	ppbv	94
42) 1,1,2-Trichloroethane	26.634	97	15381	2.5691	ppbv	98
44) Toluene	27.092	91	48948	2.6185	ppbv	100
45) Dibromochloromethane	27.751	129	93137	2.0659	ppbv	100
46) 1,2-Dibromoethane	28.155	107	18682	2.3782	ppbv	100
47) n-Octane	28.874	43	30919	2.6564	ppbv	97
48) Tetrachloroethylene	28.997	166	24598	2.6863	ppbv	99
49) Chlorobenzene	30.190	112	31246	2.5348	ppbv	96
50) Ethylbenzene	30.915	91	51557	2.5995	ppbv	99

Compounds other than ethylene oxide were not quantitated.

Quantification Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\L18K~\
Data File : L18K~002.D
Acq On : 27 Nov 2018 10:41 am
Operator : MAH
Sample : 1811063-CCV1
Misc : 80ML IS 7L07001,8K26009
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 28 08:09:02 2018
Quant Method : C:\msdchem\1\METHODS\8100002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Fri Oct 12 09:33:42 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	31.240	91	85700	5.0307 ppbv	99
52) Bromoform	31.297	173	17129	1.9403 ppbv	100
53) Styrene	31.927	104	22441	2.4253 ppbv #	99
54) 1,1,2,2-Tetrachloroethane	32.080	83	29728	2.5483 ppbv	100
55) o-Xylene	32.137	91	42892	2.5887 ppbv	99
56) 1,3,5-Trimethylbenzene	34.937	105	39512	2.2934 ppbv	99
57) 1,2,4-Trimethylbenzene	35.845	105	31616	2.1836 ppbv	99
58) m-Dichlorobenzene	36.130	146	16669	2.1100 ppbv	100
59) p-Dichlorobenzene	36.290	146	15182	2.3542 ppbv	99
60) o-Dichlorobenzene	37.110	146	16874	2.3731 ppbv	99
61) 1,2,4-Trichlorobenzene	40.841	180	7679	2.3054 ppbv	100
62) Hexachloro-1,3-butadiene	41.635	225	22127	2.7243 ppbv	100

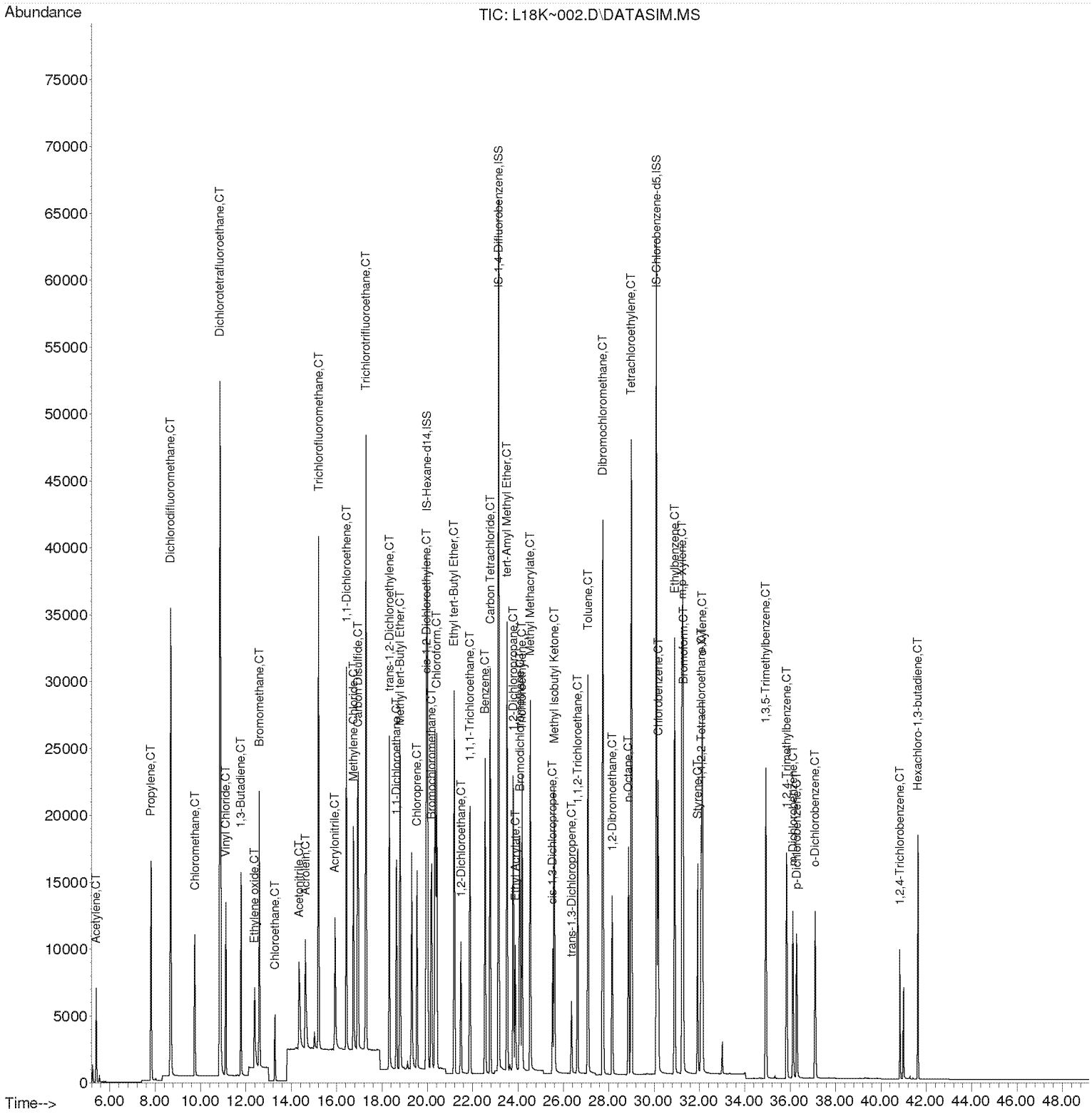
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

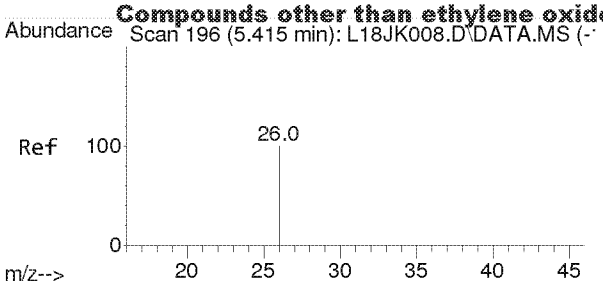
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L18K~\
Data File : L18K~002.D
Acq On : 27 Nov 2018 10:41 am
Operator : MAH
Sample : 1811063-CCV1
Misc : 80ML IS 7L07001,8K26009
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 28 08:09:02 2018
Quant Method : C:\msdchem\1\METHODS\8100002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Fri Oct 12 09:33:42 2018
Response via : Initial Calibration

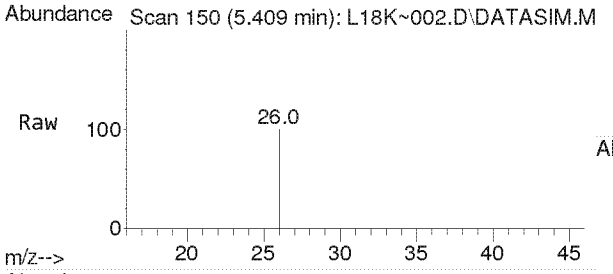


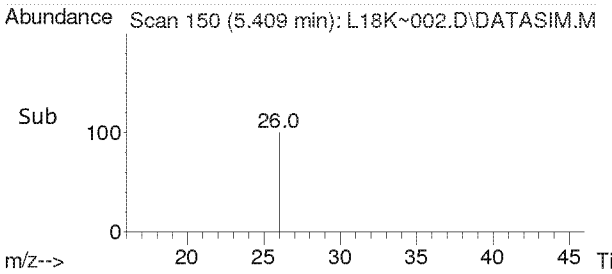
Compounds other than ethylene oxide were not quantitated.

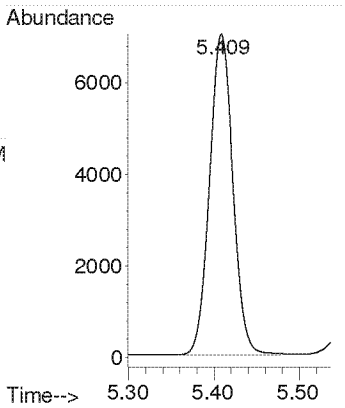


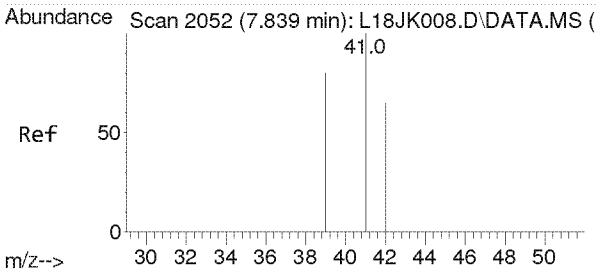
#2
Acetylene
Concen: 2.160 ppbv
RT: 5.409 min Scan# 150
Delta R.T. -0.006 min
Lab File: L18K~002.D
Acq: 27 Nov 2018 10:41 am

Tgt Ion: 26 Resp: 13353





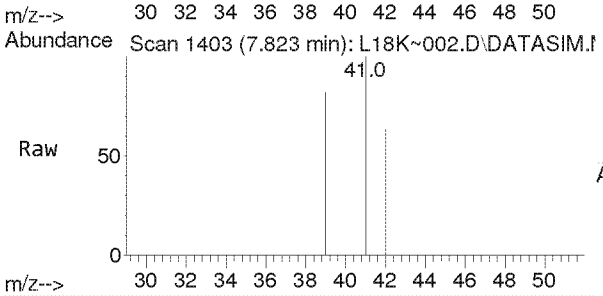


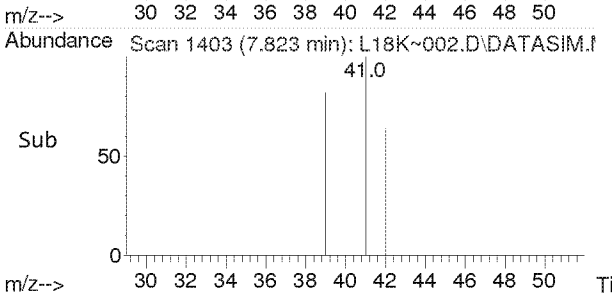


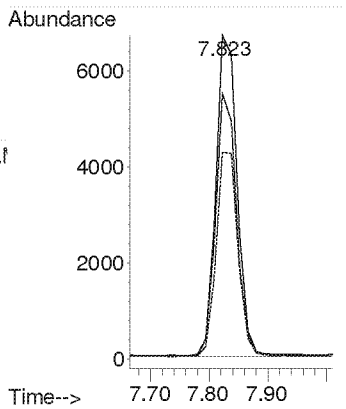
#3
Propylene
Concen: 2.580 ppbv
RT: 7.823 min Scan# 1403
Delta R.T. -0.016 min
Lab File: L18K~002.D
Acq: 27 Nov 2018 10:41 am

Tgt Ion: 41 Resp: 16690

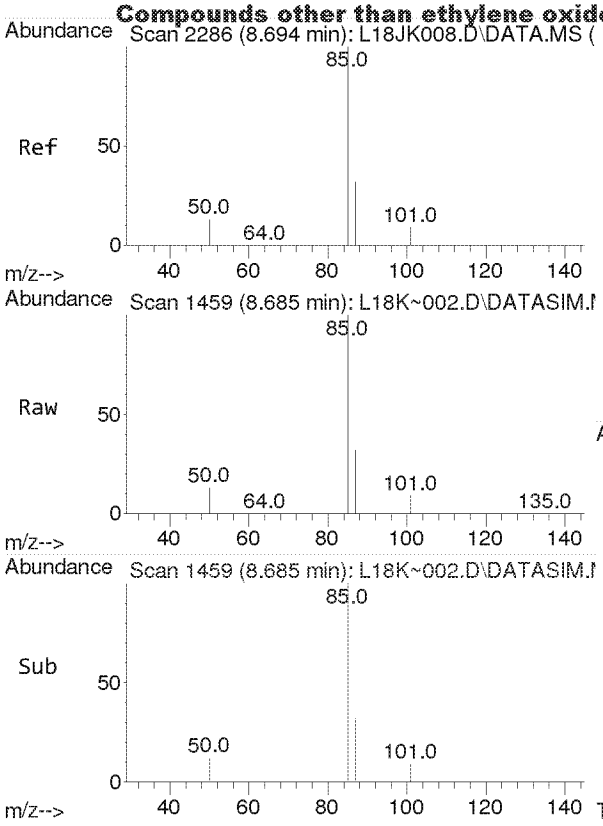
Ion	Ratio	Lower	Upper
41	100		
39	80.0	65.0	97.4
42	65.5	52.3	78.5







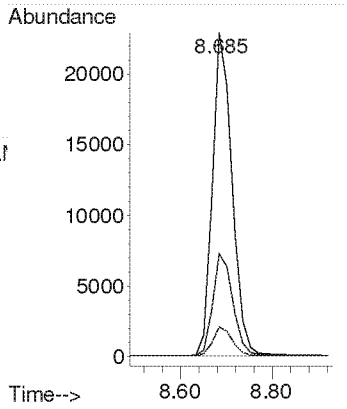
Compounds other than ethylene oxide were not quantitated.

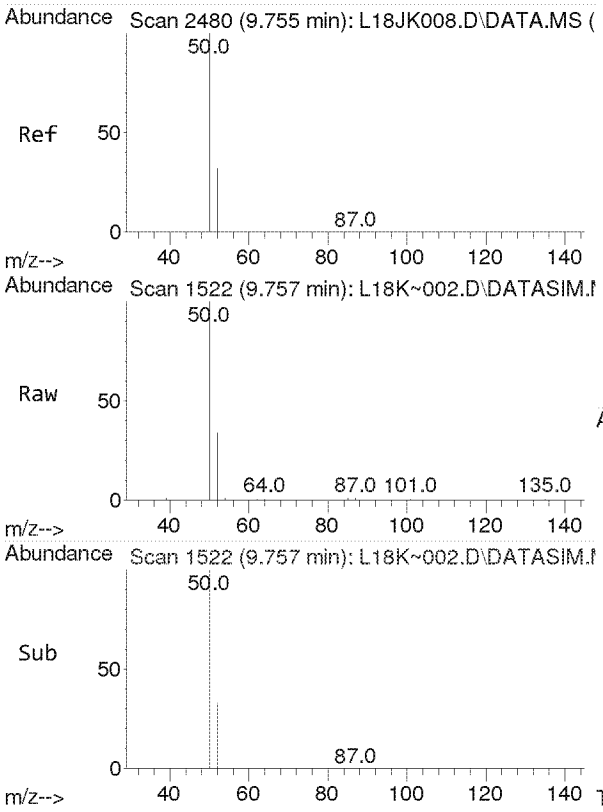


#4
Dichlorodifluoromethane
Concen: 2.291 ppbv
RT: 8.685 min Scan# 1459
Delta R.T. -0.009 min
Lab File: L18K~002.D
Acq: 27 Nov 2018 10:41 am

Tgt Ion: 85 Resp: 67572

Ion	Ratio	Lower	Upper
85	100		
87	32.1	25.8	38.8
101	8.9	7.2	10.8

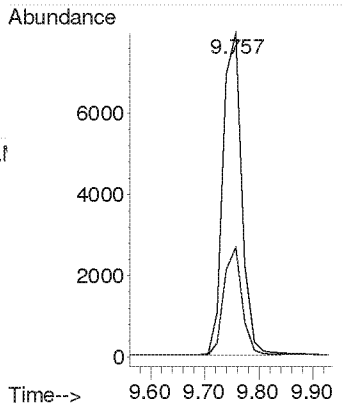




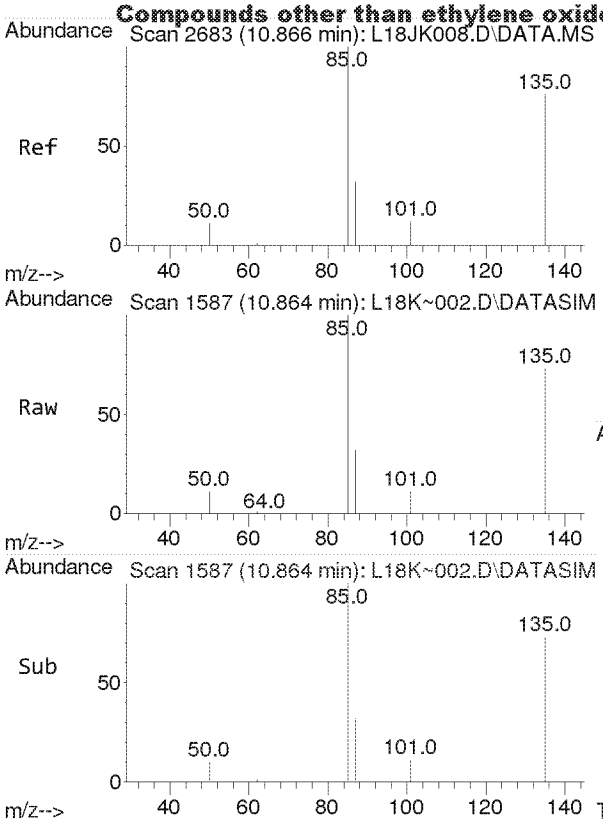
#5
Chloromethane
Concen: 2.411 ppbv
RT: 9.757 min Scan# 1522
Delta R.T. 0.002 min
Lab File: L18K~002.D
Acq: 27 Nov 2018 10:41 am

Tgt Ion: 50 Resp: 19009

Ion	Ratio	Lower	Upper
50	100		
52	32.4	25.8	38.6



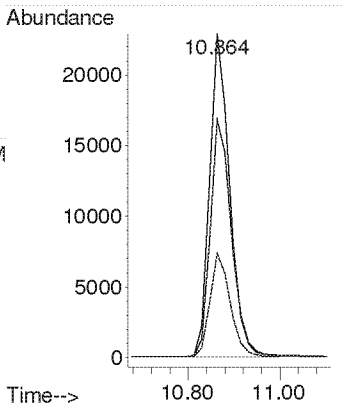
Compounds other than ethylene oxide were not quantitated.

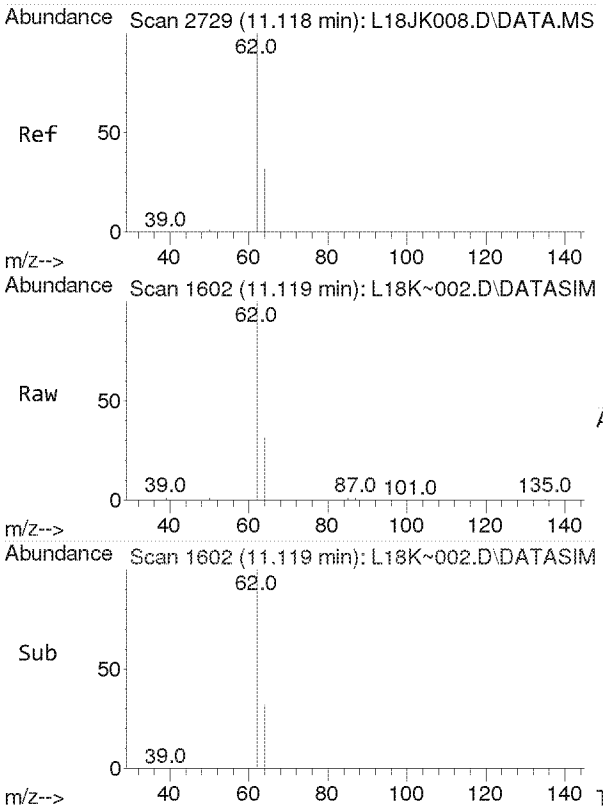


#6
Dichlorotetrafluoroethane
Concen: 2.661 ppbv
RT: 10.864 min Scan# 1587
Delta R.T. -0.002 min
Lab File: L18K~002.D
Acq: 27 Nov 2018 10:41 am

Tgt Ion: 85 Resp: 68953

Ion	Ratio	Lower	Upper
85	100		
135	78.0	63.7	95.5
87	32.3	25.7	38.5

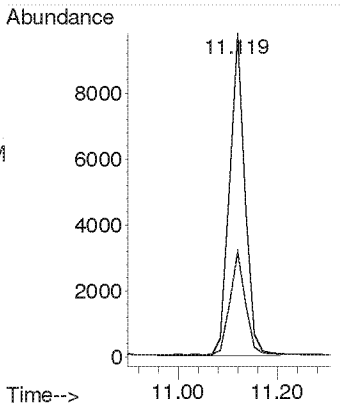




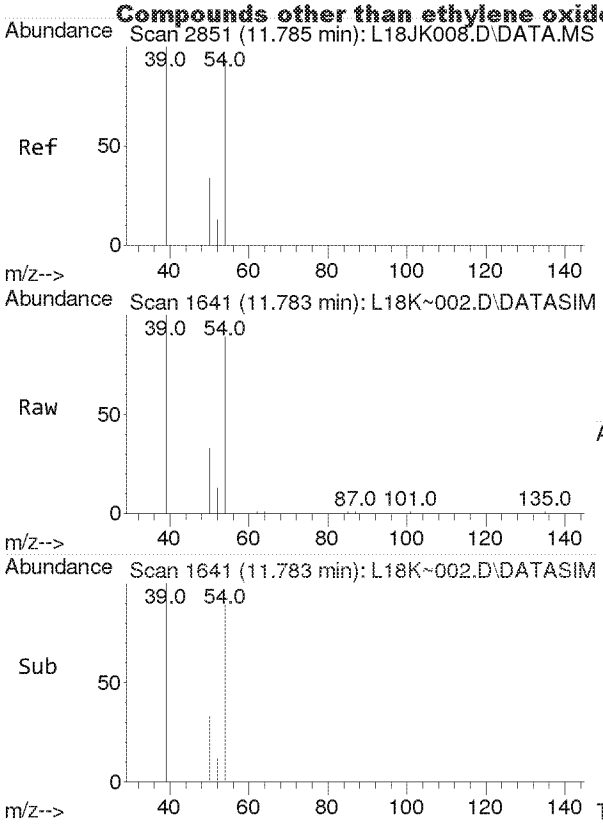
#7
Vinyl Chloride
Concen: 2.490 ppbv
RT: 11.119 min Scan# 1602
Delta R.T. 0.002 min
Lab File: L18K~002.D
Acq: 27 Nov 2018 10:41 am

Tgt Ion: 62 Resp: 20966

Ion	Ratio	Lower	Upper
62	100		
64	31.9	25.6	38.4



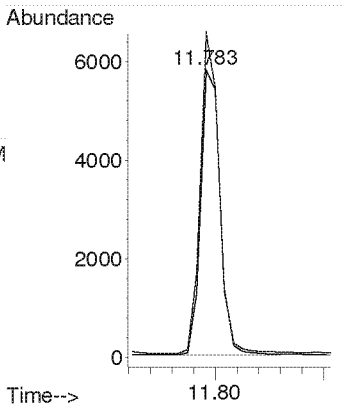
Compounds other than ethylene oxide were not quantitated.

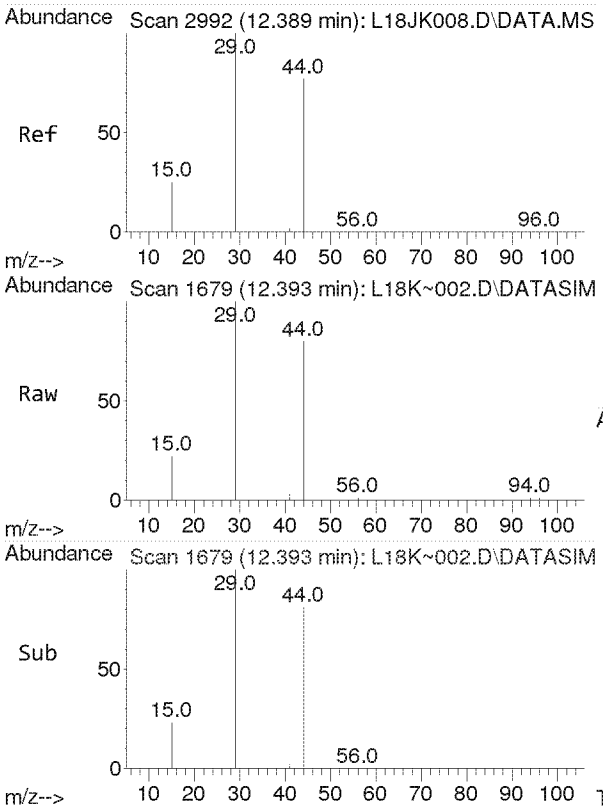


#8
1,3-Butadiene
Concen: 2.495 ppbv
RT: 11.783 min Scan# 1641
Delta R.T. -0.002 min
Lab File: L18K~002.D
Acq: 27 Nov 2018 10:41 am

Tgt Ion: 54 Resp: 14431

Ion	Ratio	Lower	Upper
54	100		
39	108.2	87.0	130.4

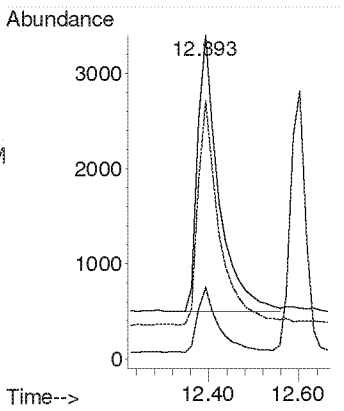




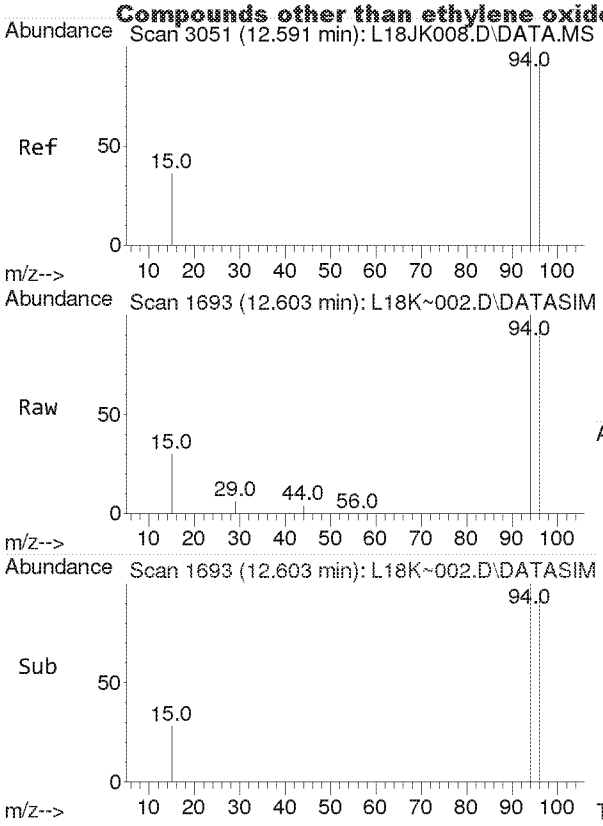
#9
Ethylene oxide
Concen: 2.744 ppbv
RT: 12.393 min Scan# 1679
Delta R.T. 0.004 min
Lab File: L18K~002.D
Acq: 27 Nov 2018 10:41 am

Tgt Ion: 29 Resp: 9360

Ion	Ratio	Lower	Upper
29	100		
15	23.2	20.1	30.1
44	81.7	62.6	93.8



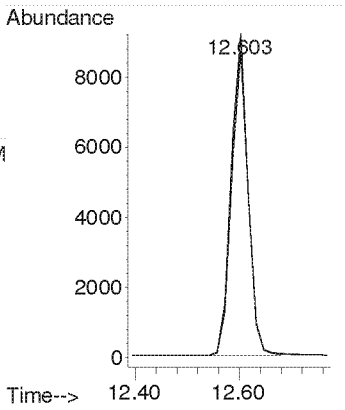
Compounds other than ethylene oxide were not quantitated.

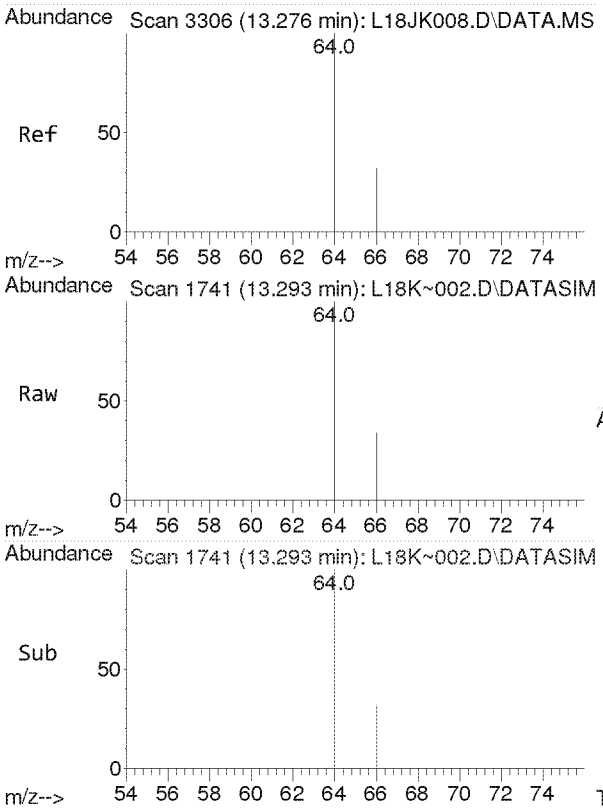


#10
Bromomethane
Concen: 2.484 ppbv
RT: 12.603 min Scan# 1693
Delta R.T. 0.012 min
Lab File: L18K~002.D
Acq: 27 Nov 2018 10:41 am

Tgt Ion: 94 Resp: 20444

Ion	Ratio	Lower	Upper
94	100		
96	94.5	75.5	113.3

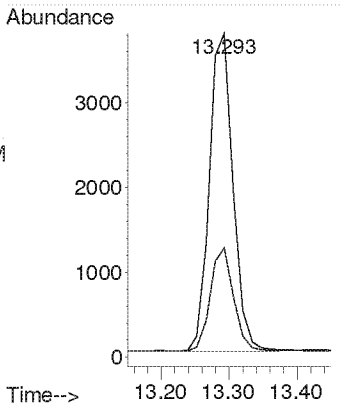




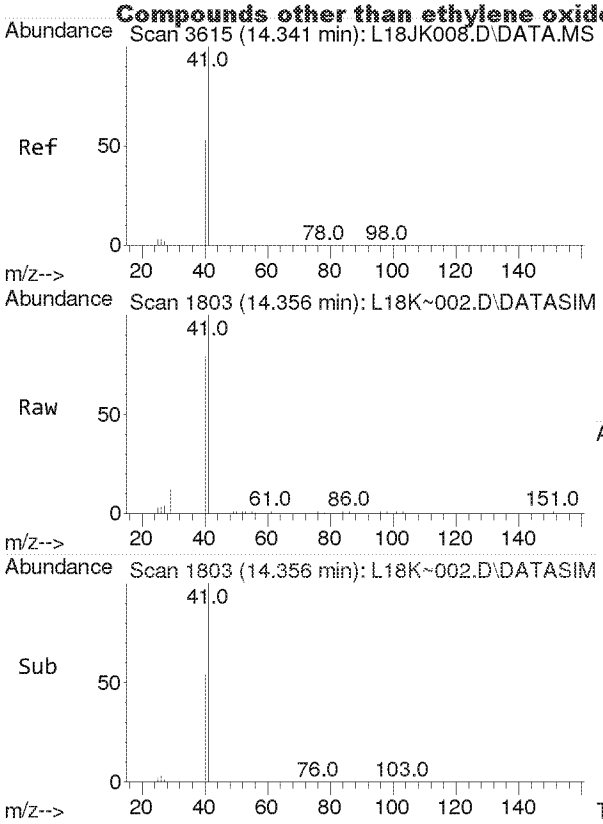
#11
Chloroethane
Concen: 2.484 ppbv
RT: 13.293 min Scan# 1741
Delta R.T. 0.018 min
Lab File: L18K~002.D
Acq: 27 Nov 2018 10:41 am

Tgt Ion: 64 Resp: 9071

Ion	Ratio	Lower	Upper
64	100		
66	32.2	25.8	38.6



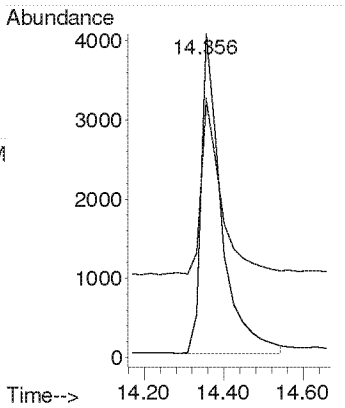
Compounds other than ethylene oxide were not quantitated.

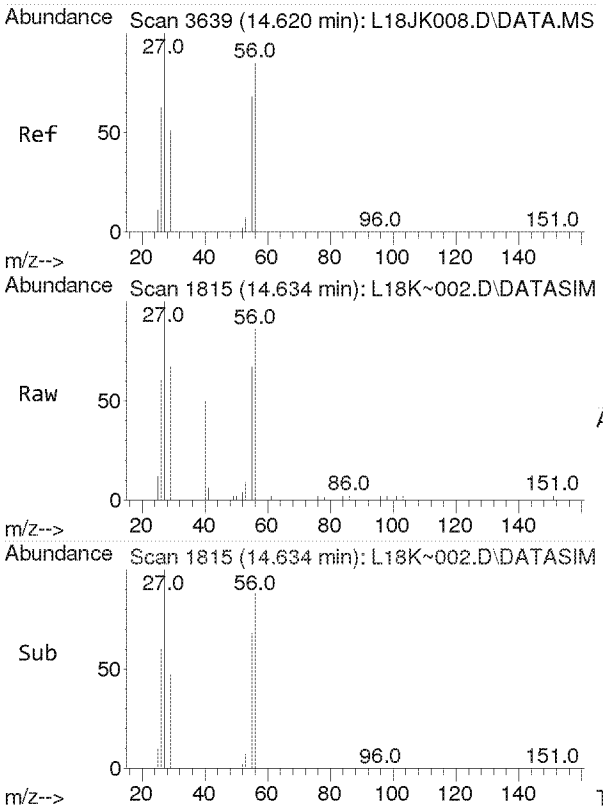


#12
Acetonitrile
Concen: 2.126 ppbv
RT: 14.356 min Scan# 1803
Delta R.T. 0.015 min
Lab File: L18K~002.D
Acq: 27 Nov 2018 10:41 am

Tgt Ion: 41 Resp: 14140

Ion	Ratio	Lower	Upper
41	100		
40	52.9	43.1	64.7

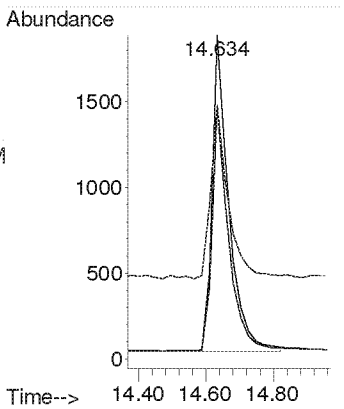




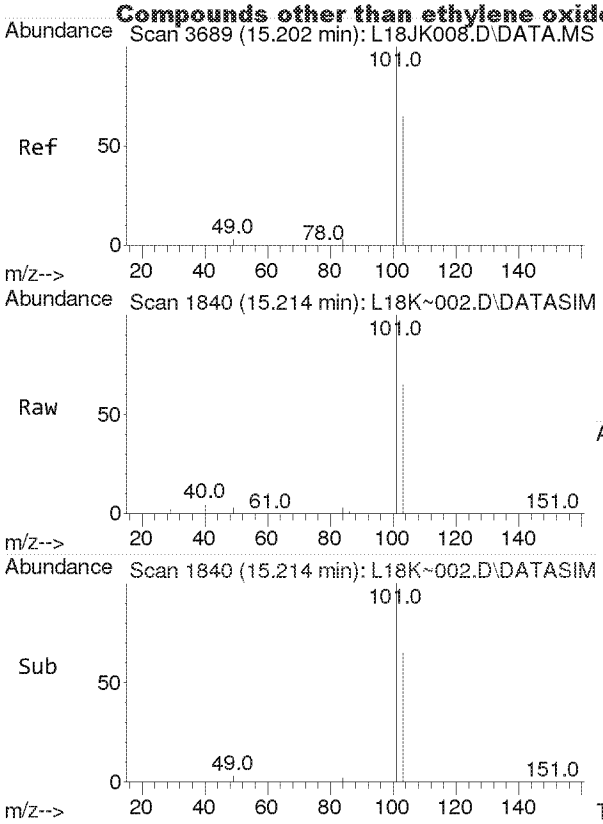
#13
Acrolein
Concen: 2.080 ppbv
RT: 14.634 min Scan# 1815
Delta R.T. 0.014 min
Lab File: L18K~002.D
Acq: 27 Nov 2018 10:41 am

Tgt Ion: 56 Resp: 6258

Ion	Ratio	Lower	Upper
56	100		
55	77.0	61.9	92.9
29	57.8	49.2	73.8



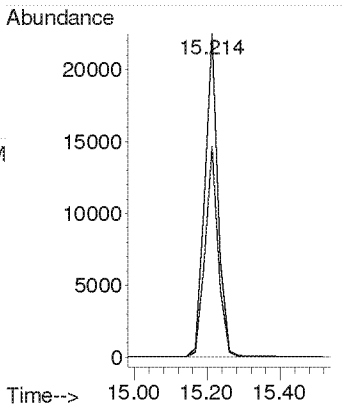
Compounds other than ethylene oxide were not quantitated.

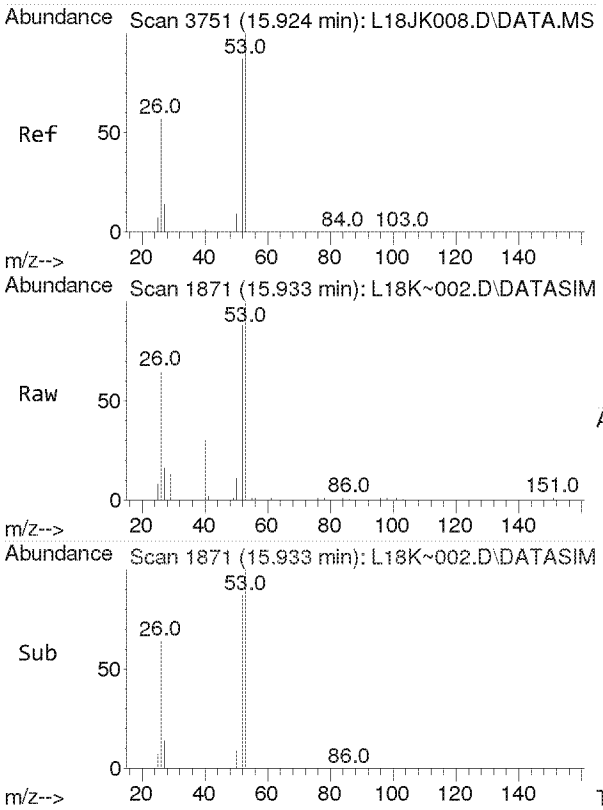


#14
Trichlorofluoromethane
Concen: 2.197 ppbv
RT: 15.214 min Scan# 1840
Delta R.T. 0.012 min
Lab File: L18K~002.D
Acq: 27 Nov 2018 10:41 am

Tgt Ion:101 Resp: 56242

Ion	Ratio	Lower	Upper
101	100		
103	64.6	51.8	77.6

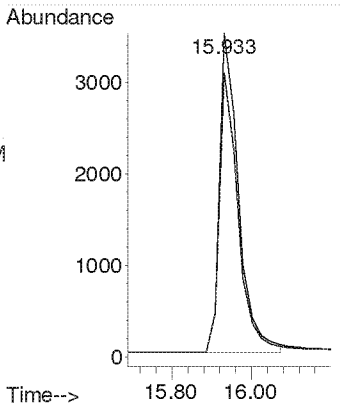




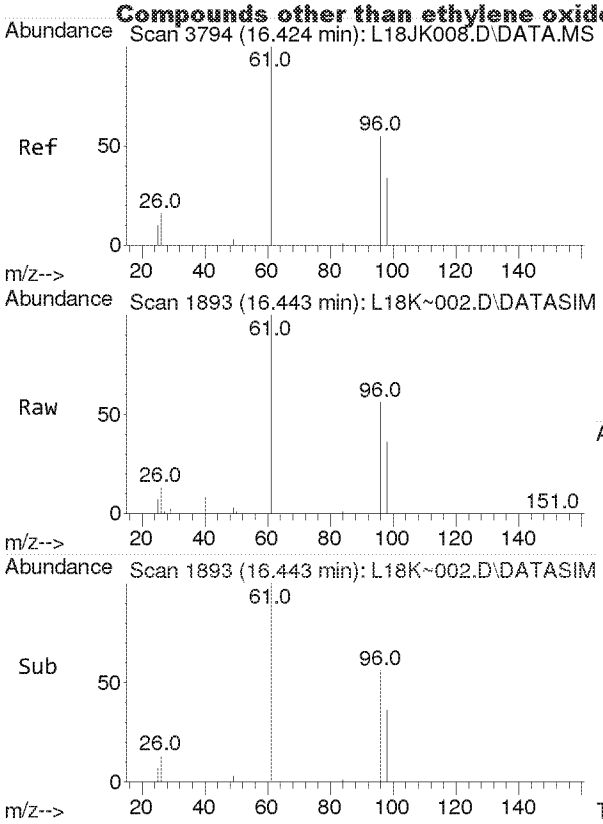
#15
Acrylonitrile
Concen: 2.271 ppbv
RT: 15.933 min Scan# 1871
Delta R.T. 0.009 min
Lab File: L18K~002.D
Acq: 27 Nov 2018 10:41 am

Tgt Ion: 53 Resp: 11463

Ion	Ratio	Lower	Upper
53	100		
52	86.4	69.7	104.5



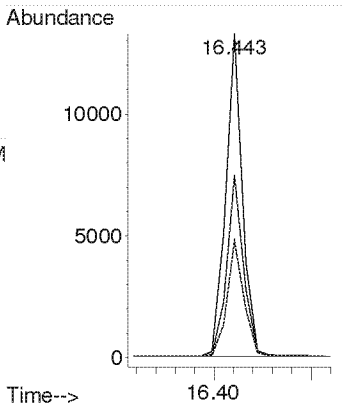
Compounds other than ethylene oxide were not quantitated.

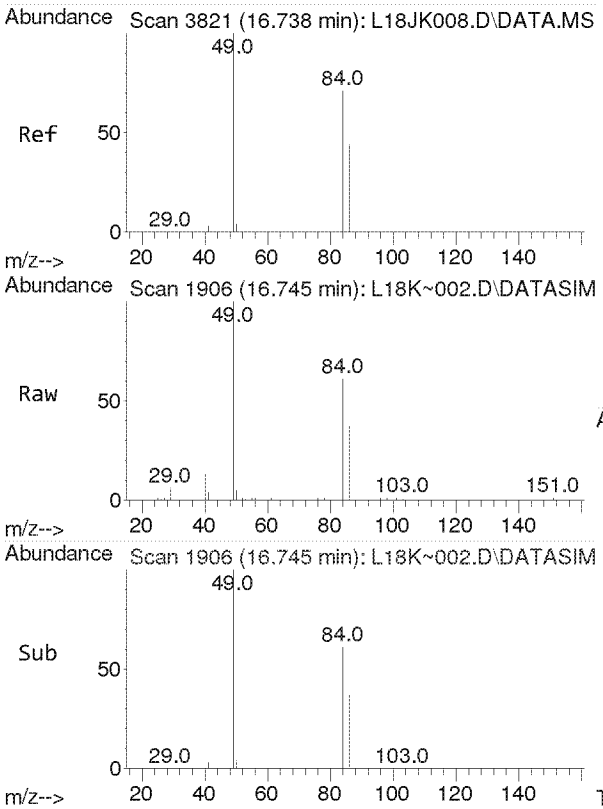


#16
1,1-Dichloroethene
Concen: 2.744 ppbv
RT: 16.443 min Scan# 1893
Delta R.T. 0.019 min
Lab File: L18K~002.D
Acq: 27 Nov 2018 10:41 am

Tgt Ion: 61 Resp: 31373

Ion	Ratio	Lower	Upper
61	100		
96	56.0	46.1	69.1
98	36.0	29.4	44.2

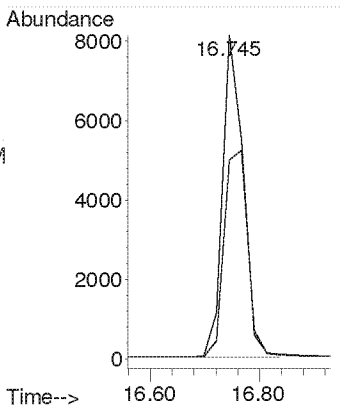




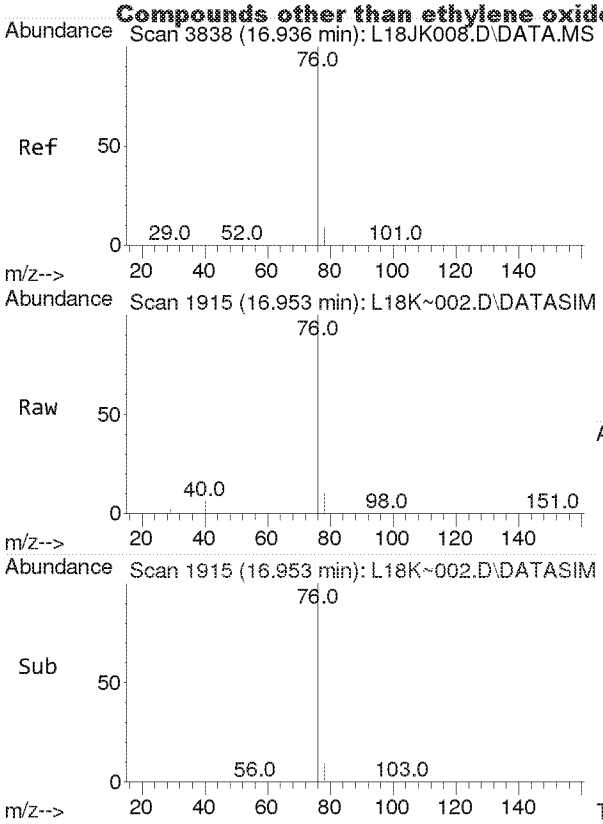
#17
Methylene Chloride
Concen: 2.612 ppbv
RT: 16.745 min Scan# 1906
Delta R.T. 0.006 min
Lab File: L18K~002.D
Acq: 27 Nov 2018 10:41 am

Tgt Ion: 49 Resp: 21442

Ion	Ratio	Lower	Upper
49	100		
84	73.9	51.9	96.5



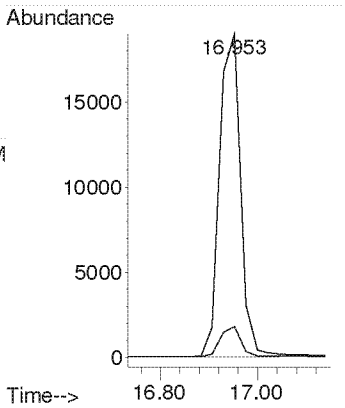
Compounds other than ethylene oxide were not quantitated.

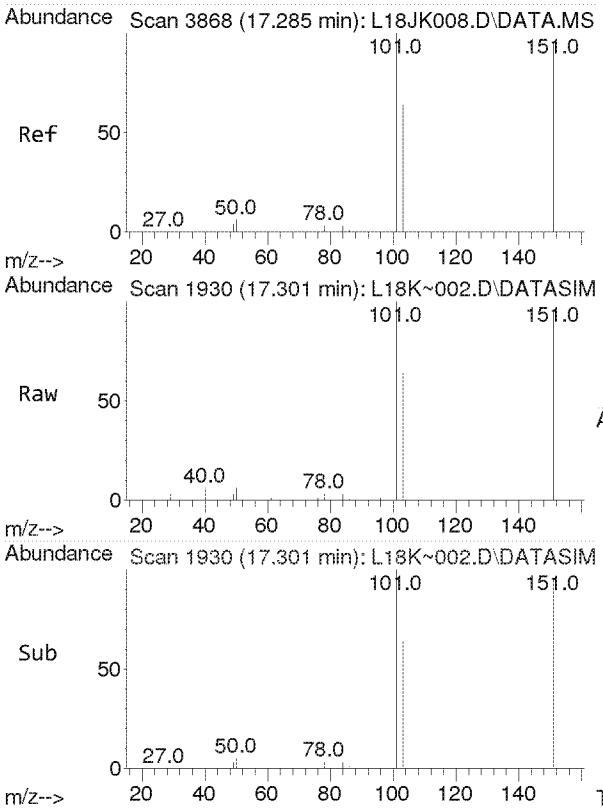


#18
Carbon Disulfide
Concen: 2.494 ppbv
RT: 16.953 min Scan# 1915
Delta R.T. 0.017 min
Lab File: L18K~002.D
Acq: 27 Nov 2018 10:41 am

Tgt Ion: 76 Resp: 57189

Ion	Ratio	Lower	Upper
76	100		
78	9.0	7.3	10.9

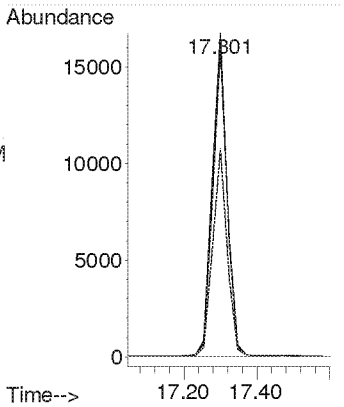




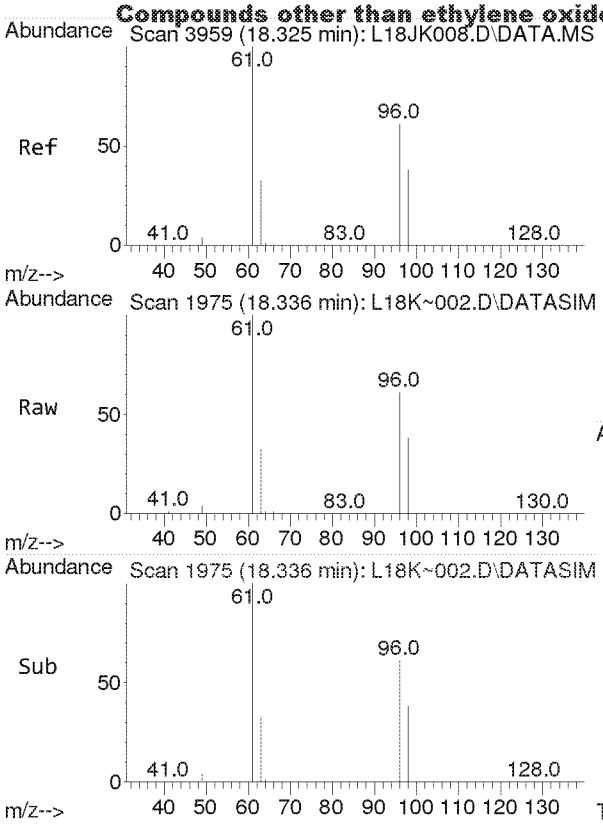
#19
Trichlorotrifluoroethane
Concen: 2.594 ppbv
RT: 17.301 min Scan# 1930
Delta R.T. 0.016 min
Lab File: L18K~002.D
Acq: 27 Nov 2018 10:41 am

Tgt Ion:101 Resp: 45563

Ion	Ratio	Lower	Upper
101	100		
151	94.6	76.8	115.2
103	63.8	51.4	77.2



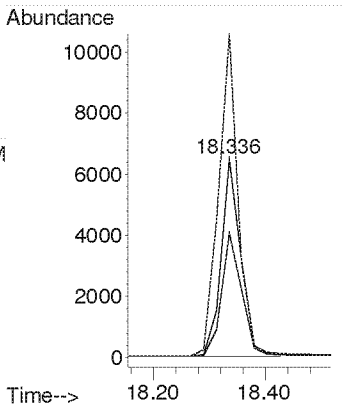
Compounds other than ethylene oxide were not quantitated.

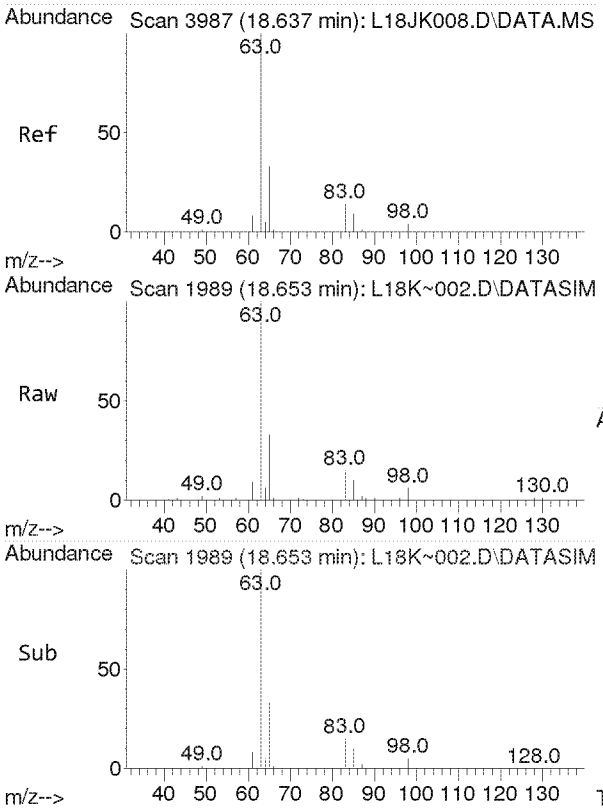


#20
trans-1,2-Dichloroethylene
Concen: 2.467 ppbv
RT: 18.336 min Scan# 1975
Delta R.T. 0.010 min
Lab File: L18K~002.D
Acq: 27 Nov 2018 10:41 am

Tgt Ion: 96 Resp: 15731

Ion	Ratio	Lower	Upper
96	100		
98	64.0	50.9	76.3
61	162.2	125.0	187.6

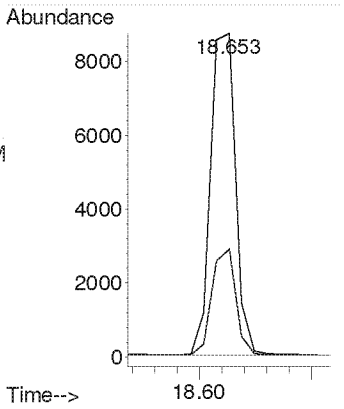




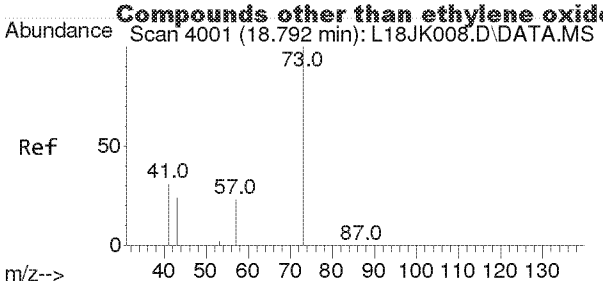
#21
1,1-Dichloroethane
Concen: 2.414 ppbv
RT: 18.653 min Scan# 1989
Delta R.T. 0.016 min
Lab File: L18K~002.D
Acq: 27 Nov 2018 10:41 am

Tgt Ion: 63 Resp: 27076

Ion	Ratio	Lower	Upper
63	100		
65	31.6	25.7	38.5



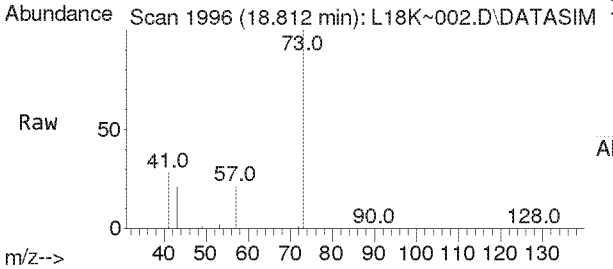
Compounds other than ethylene oxide were not quantitated.

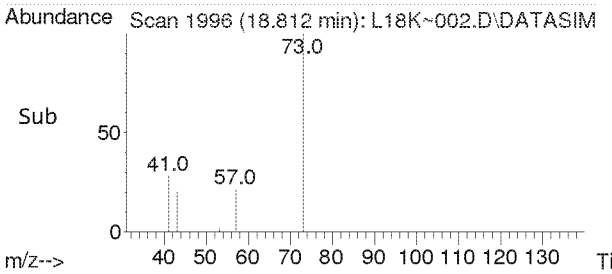


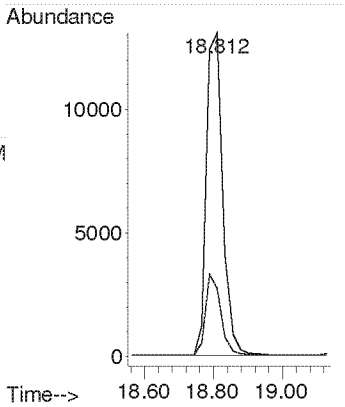
#22
Methyl tert-Butyl Ether
Concen: 2.504 ppbv
RT: 18.812 min Scan# 1996
Delta R.T. 0.019 min
Lab File: L18K~002.D
Acq: 27 Nov 2018 10:41 am

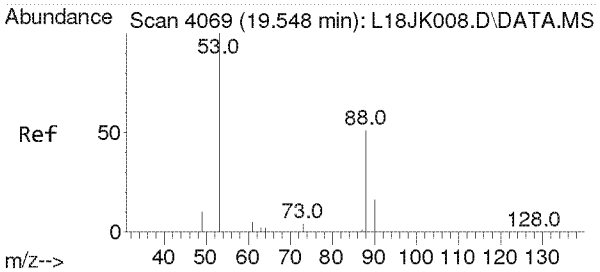
Tgt Ion: 73 Resp: 43443

Ion	Ratio	Lower	Upper
73	100		
57	23.3	18.4	27.6





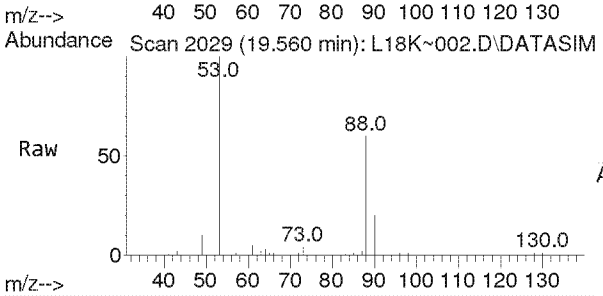


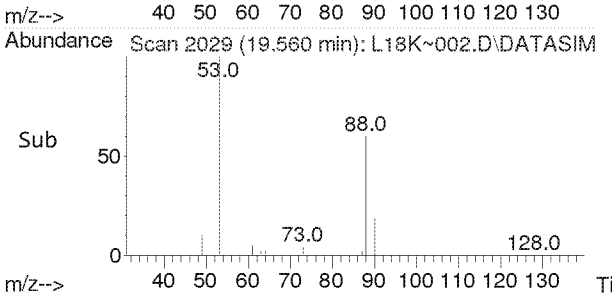


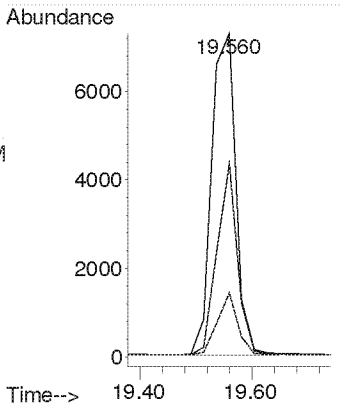
#23
Chloroprene
Concen: 2.599 ppbv
RT: 19.560 min Scan# 2029
Delta R.T. 0.011 min
Lab File: L18K~002.D
Acq: 27 Nov 2018 10:41 am

Tgt Ion: 53 Resp: 21828

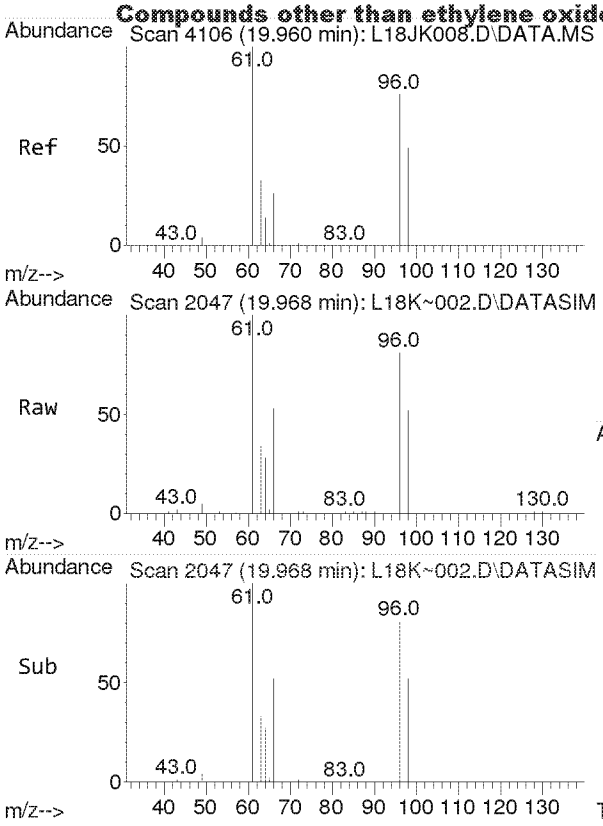
Ion	Ratio	Lower	Upper
53	100		
88	50.6	41.2	61.8
90	16.3	13.3	19.9







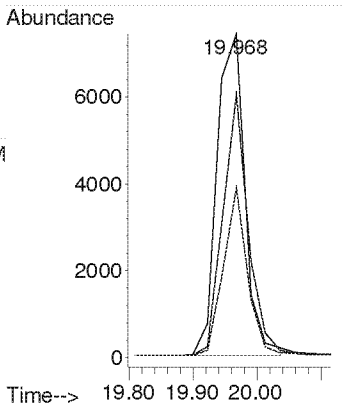
Compounds other than ethylene oxide were not quantitated.

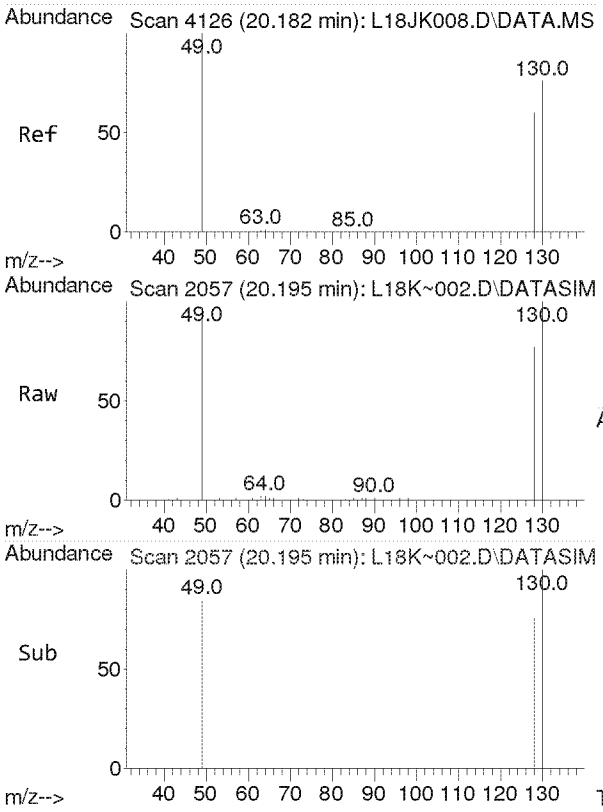


#24
cis-1,2-Dichloroethylene
Concen: 2.571 ppbv
RT: 19.968 min Scan# 2047
Delta R.T. 0.008 min
Lab File: L18K~002.D
Acq: 27 Nov 2018 10:41 am

Tgt Ion: 61 Resp: 22277

Ion	Ratio	Lower	Upper
61	100		
96	73.5	58.8	88.2
98	44.6	37.0	55.4

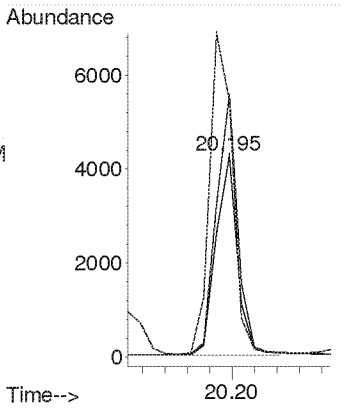




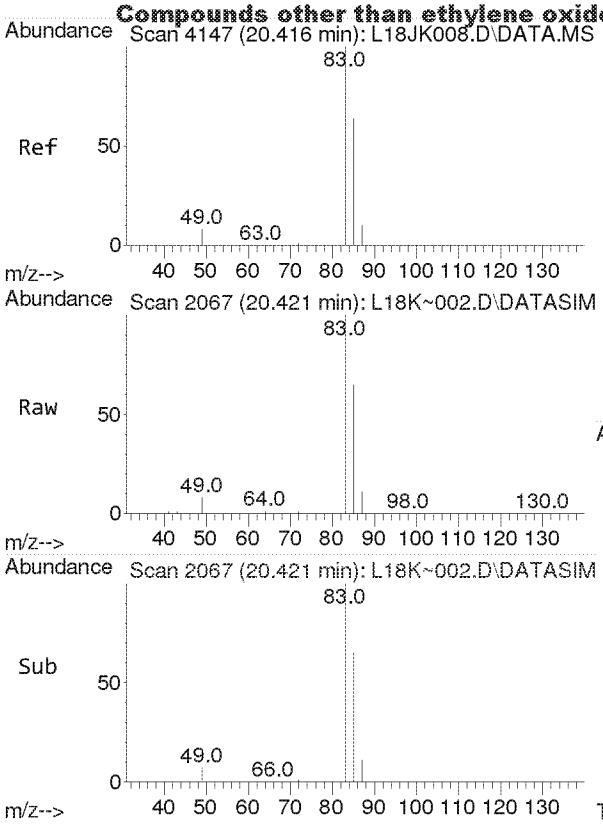
#25
Bromochloromethane
Concen: 2.320 ppbv
RT: 20.195 min Scan# 2057
Delta R.T. 0.012 min
Lab File: L18K~002.D
Acq: 27 Nov 2018 10:41 am

Tgt Ion:128 Resp: 11256

Ion	Ratio	Lower	Upper
128	100		
130	129.9	103.1	154.7
49	174.7	134.3	201.5



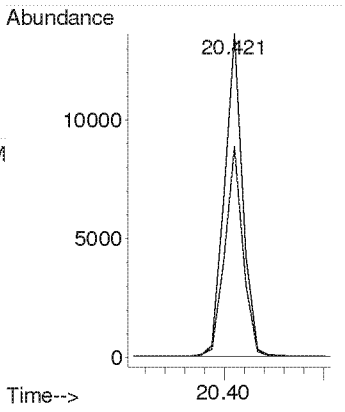
Compounds other than ethylene oxide were not quantitated.

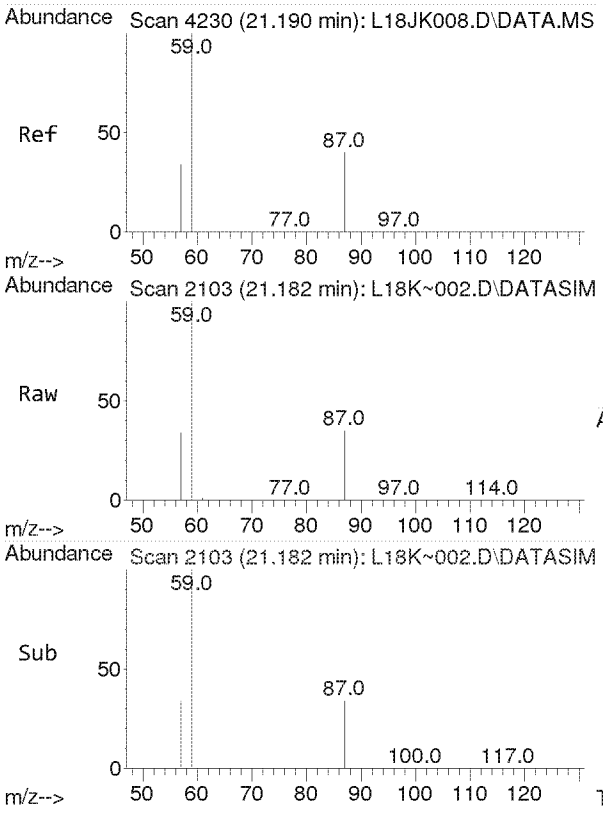


#26
Chloroform
Concen: 2.602 ppbv
RT: 20.421 min Scan# 2067
Delta R.T. 0.006 min
Lab File: L18K~002.D
Acq: 27 Nov 2018 10:41 am

Tgt Ion: 83 Resp: 34240

Ion	Ratio	Lower	Upper
83	100		
85	65.1	51.6	77.4

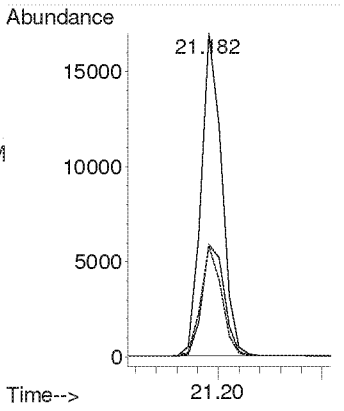




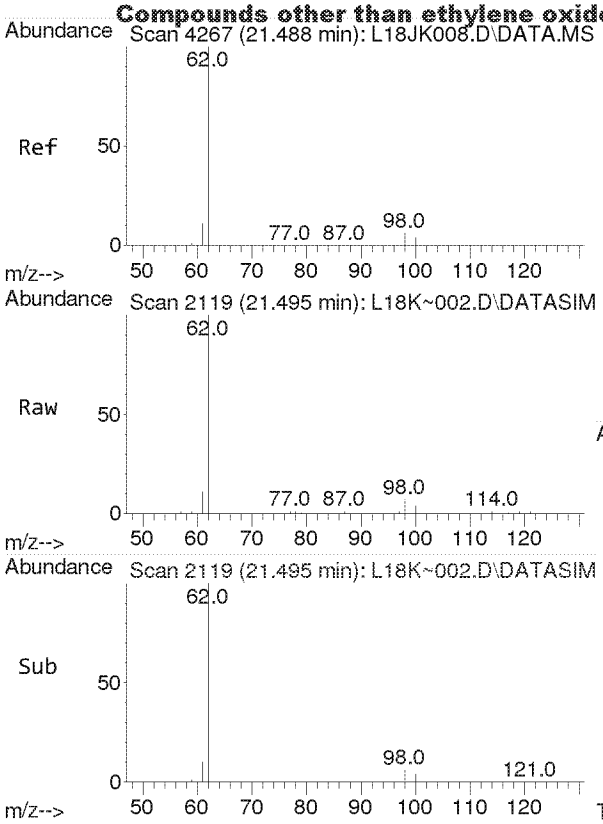
#27
Ethyl tert-Butyl Ether
Concen: 2.591 ppbv
RT: 21.182 min Scan# 2103
Delta R.T. -0.008 min
Lab File: L18K~002.D
Acq: 27 Nov 2018 10:41 am

Tgt Ion: 59 Resp: 46333

Ion	Ratio	Lower	Upper
59	100		
87	37.1	30.8	46.2
57	33.9	27.2	40.8



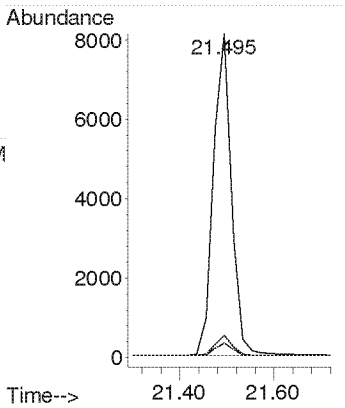
Compounds other than ethylene oxide were not quantitated.

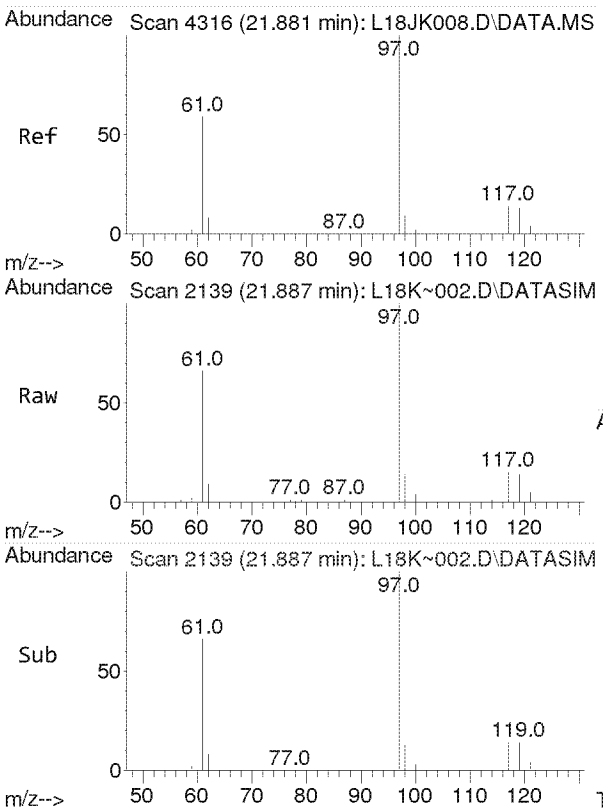


#28
1,2-Dichloroethane
Concen: 2.606 ppbv
RT: 21.495 min Scan# 2119
Delta R.T. 0.008 min
Lab File: L18K~002.D
Acq: 27 Nov 2018 10:41 am

Tgt Ion: 62 Resp: 21595

Ion	Ratio	Lower	Upper
62	100		
98	5.9	4.8	7.2
100	3.8	3.1	4.7

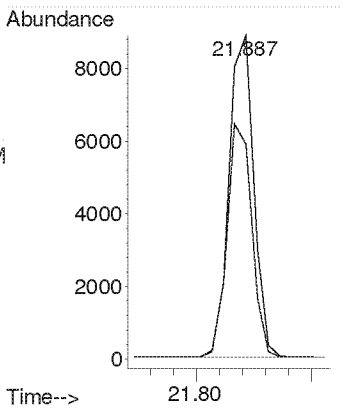




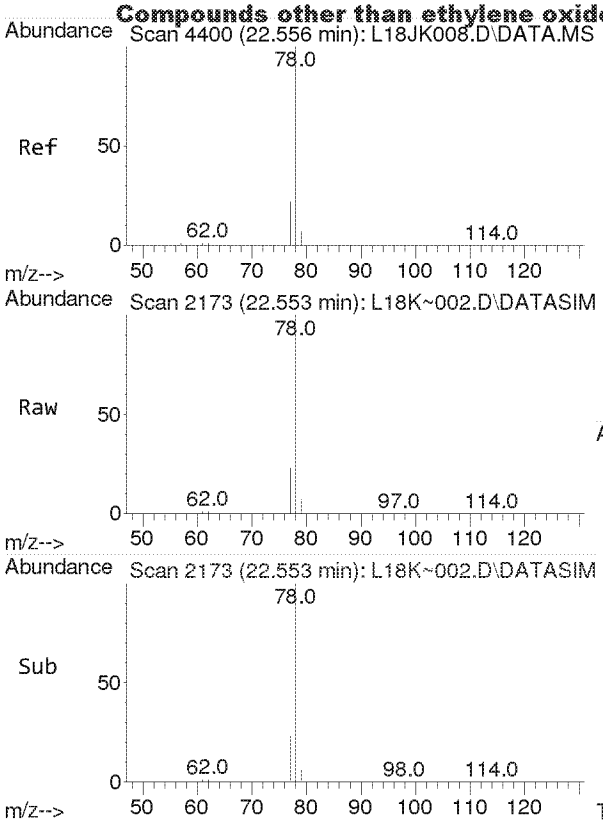
#30
1,1,1-Trichloroethane
Concen: 2.157 ppbv
RT: 21.887 min Scan# 2139
Delta R.T. 0.006 min
Lab File: L18K~002.D
Acq: 27 Nov 2018 10:41 am

Tgt Ion: 97 Resp: 26313

Ion	Ratio	Lower	Upper
97	100		
61	72.8	47.7	71.5#



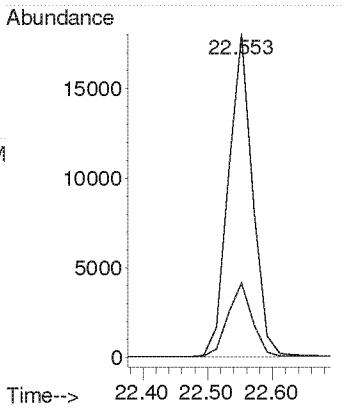
Compounds other than ethylene oxide were not quantitated.

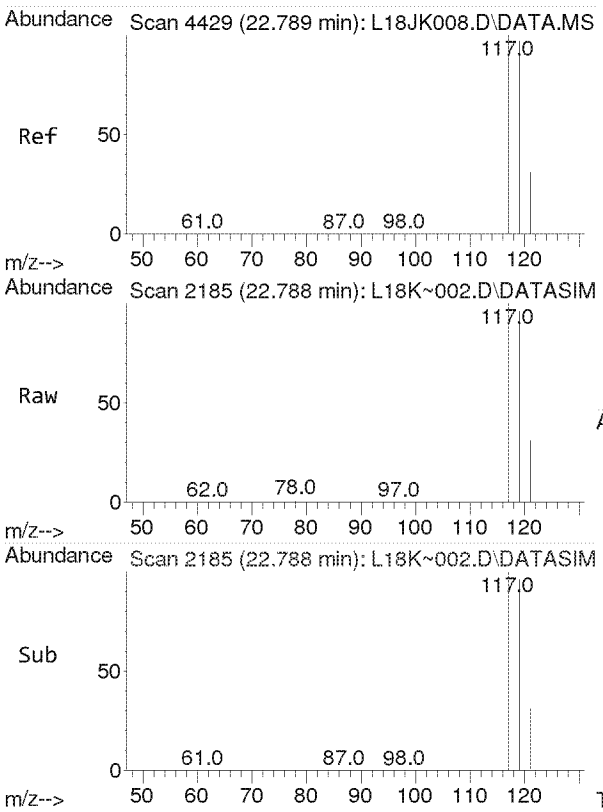


#31
Benzene
Concen: 2.670 ppbv
RT: 22.553 min Scan# 2173
Delta R.T. -0.003 min
Lab File: L18K~002.D
Acq: 27 Nov 2018 10:41 am

Tgt Ion: 78 Resp: 46582

Ion	Ratio	Lower	Upper
78	100		
77	22.9	18.3	27.5

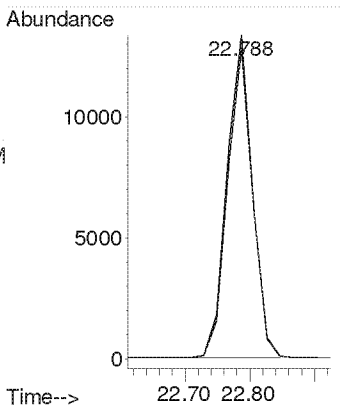




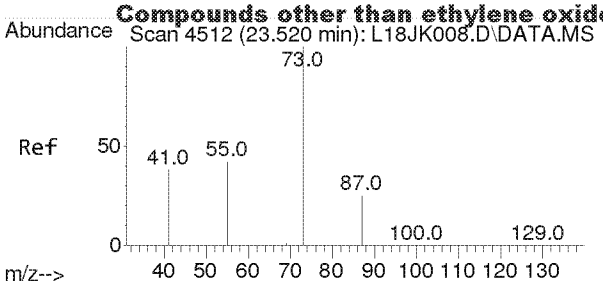
#32
Carbon Tetrachloride
Concen: 2.599 ppbv
RT: 22.788 min Scan# 2185
Delta R.T. -0.001 min
Lab File: L18K~002.D
Acq: 27 Nov 2018 10:41 am

Tgt Ion:117 Resp: 36177

Ion	Ratio	Lower	Upper
117	100		
119	95.3	77.5	116.3



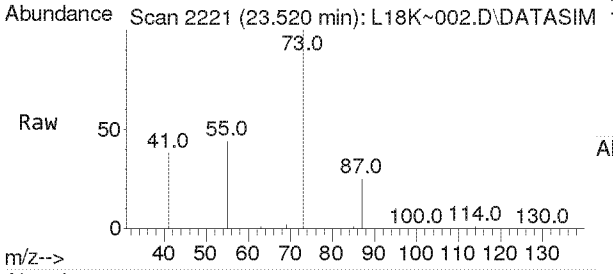
Compounds other than ethylene oxide were not quantitated.

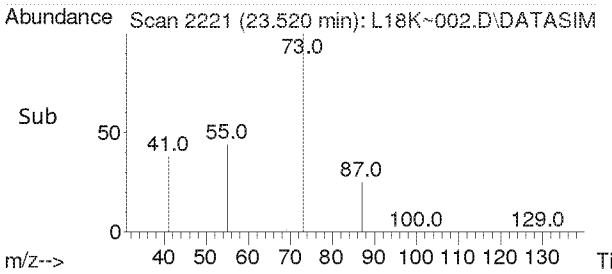


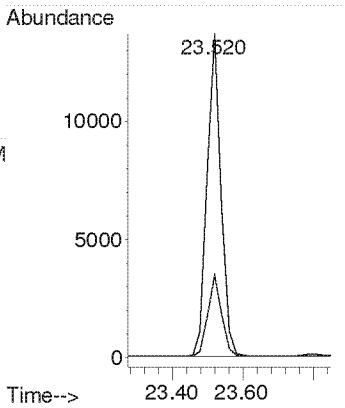
#33
tert-Amyl Methyl Ether
Concen: 2.613 ppbv
RT: 23.520 min Scan# 2221
Delta R.T. 0.000 min
Lab File: L18K~002.D
Acq: 27 Nov 2018 10:41 am

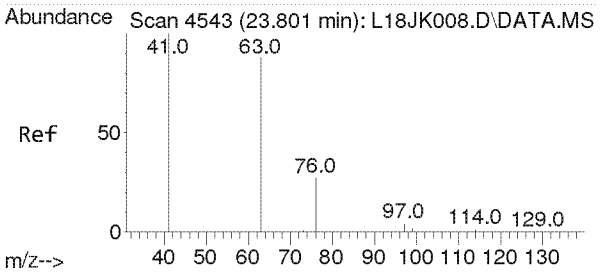
Tgt Ion: 73 Resp: 37381

Ion	Ratio	Lower	Upper
73	100		
87	24.8	20.1	30.1





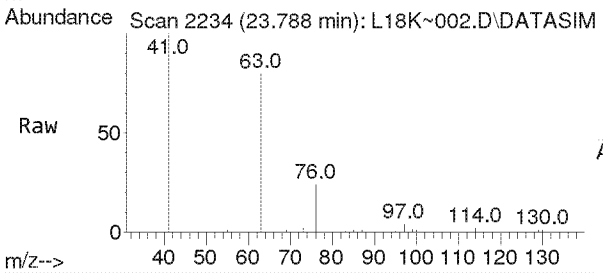


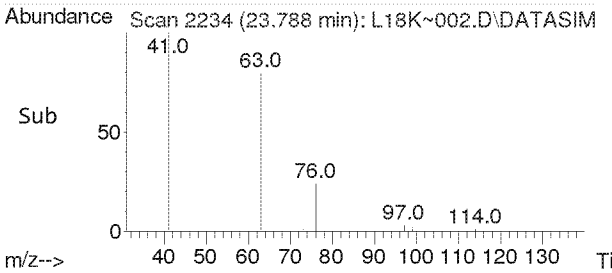


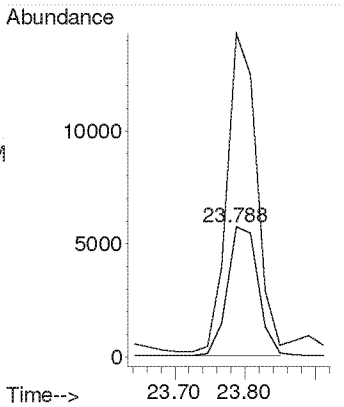
#34
1,2-Dichloropropane
Concen: 2.588 ppbv
RT: 23.788 min Scan# 2234
Delta R.T. -0.013 min
Lab File: L18K~002.D
Acq: 27 Nov 2018 10:41 am

Tgt Ion: 63 Resp: 17317

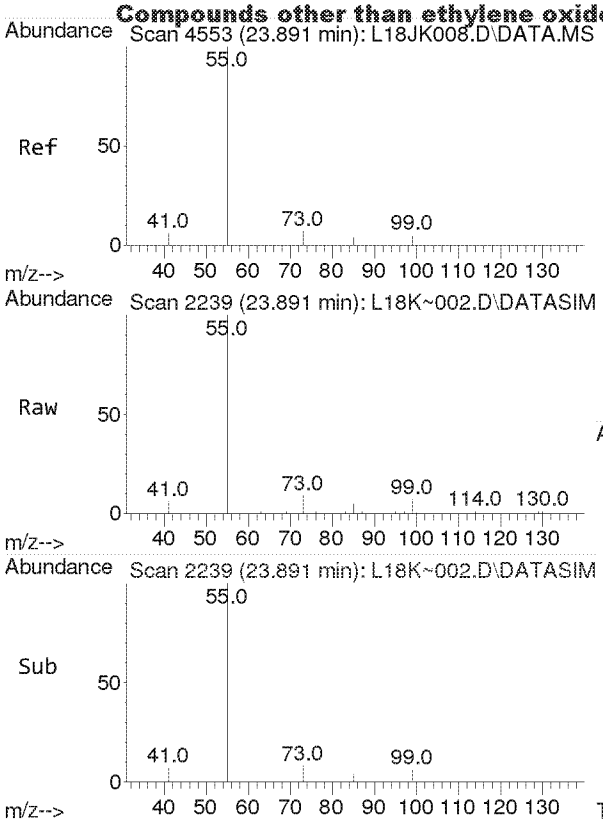
Ion	Ratio	Lower	Upper
63	100		
41	237.5	177.7	266.5







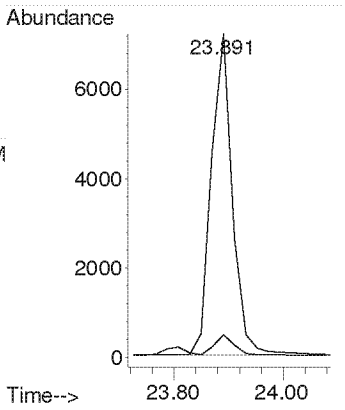
Compounds other than ethylene oxide were not quantitated.

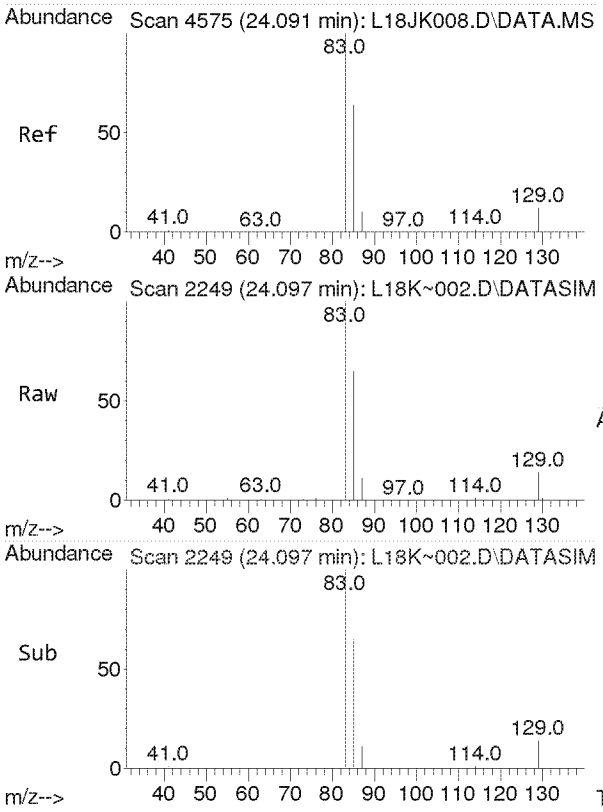


#35
Ethyl Acrylate
Concen: 2.257 ppbv
RT: 23.891 min Scan# 2239
Delta R.T. -0.000 min
Lab File: L18K~002.D
Acq: 27 Nov 2018 10:41 am

Tgt Ion: 55 Resp: 19161

Ion	Ratio	Lower	Upper
55	100		
99	5.8	5.0	7.6

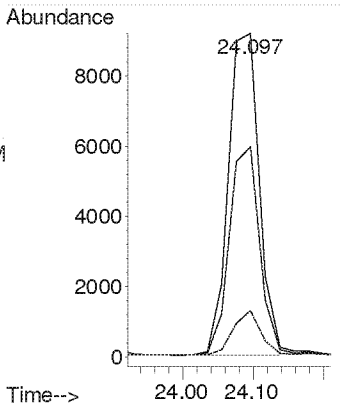




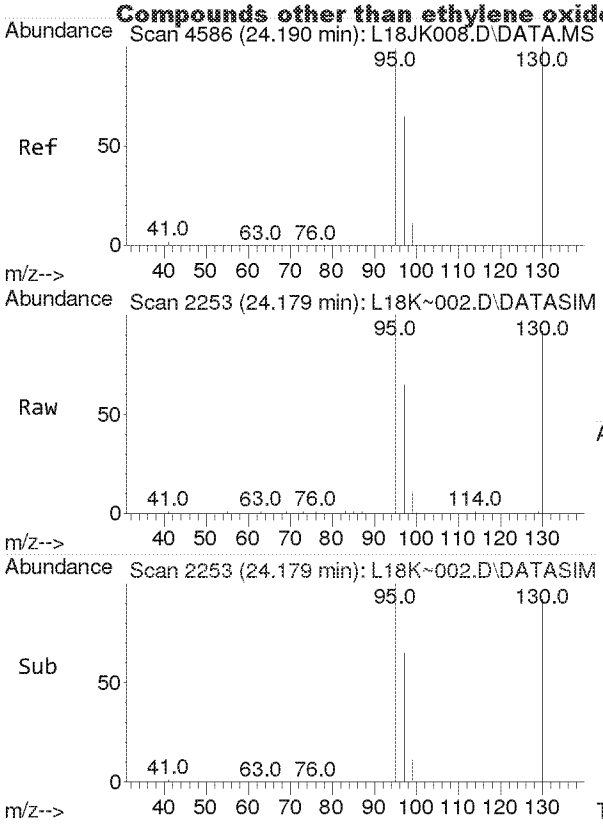
#36
Bromodichloromethane
Concen: 2.183 ppbv
RT: 24.097 min Scan# 2249
Delta R.T. 0.006 min
Lab File: L18K~002.D
Acq: 27 Nov 2018 10:41 am

Tgt Ion: 83 Resp: 28077

Ion	Ratio	Lower	Upper
83	100		
85	63.4	51.1	76.7
129	12.3	10.3	15.5



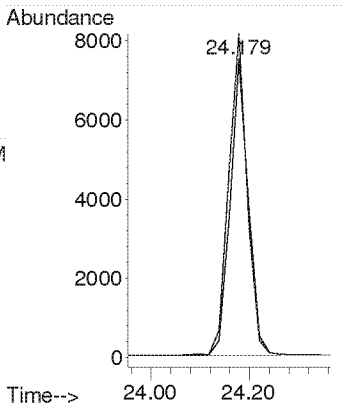
Compounds other than ethylene oxide were not quantitated.

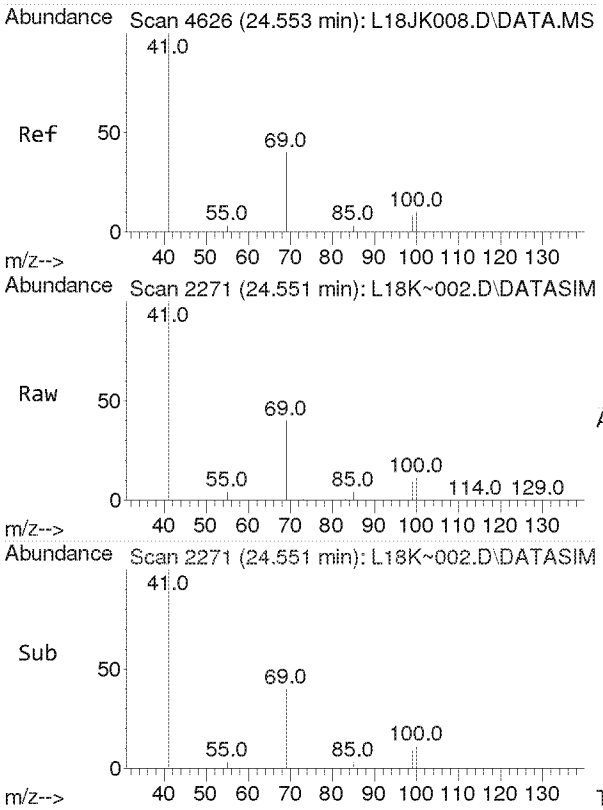


#37
Trichloroethylene
Concen: 2.436 ppbv
RT: 24.179 min Scan# 2253
Delta R.T. -0.011 min
Lab File: L18K~002.D
Acq: 27 Nov 2018 10:41 am

Tgt Ion:130 Resp: 19342

Ion	Ratio	Lower	Upper
130	100		
95	110.1	85.5	128.3

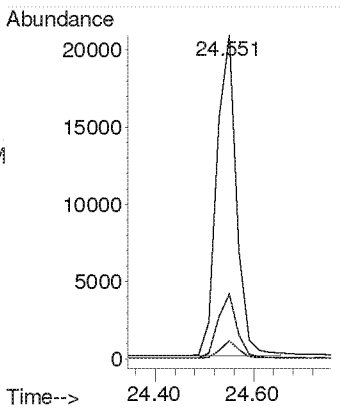




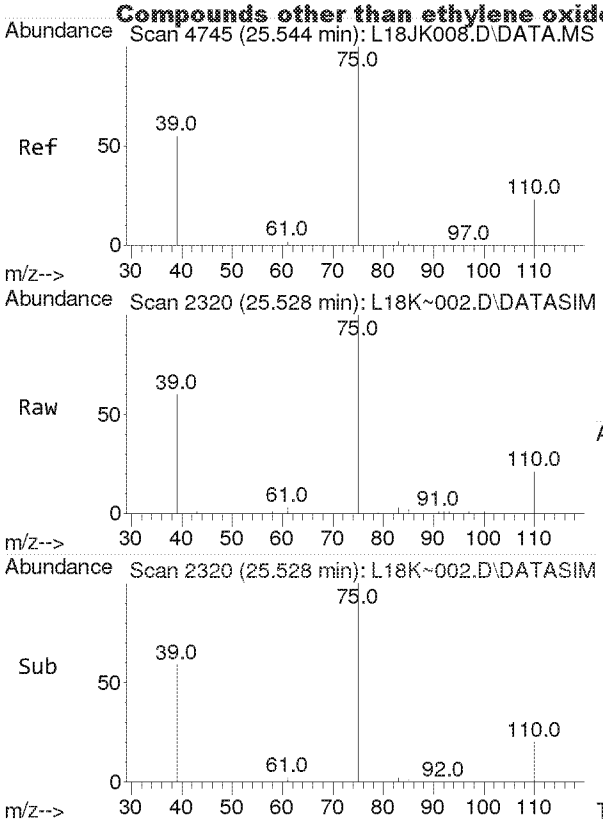
#38
Methyl Methacrylate
Concen: 2.387 ppbv
RT: 24.551 min Scan# 2271
Delta R.T. -0.002 min
Lab File: L18K~002.D
Acq: 27 Nov 2018 10:41 am

Tgt Ion: 41 Resp: 57832

Ion	Ratio	Lower	Upper
41	100		
69	19.3	16.0	24.0
100	5.0	4.1	6.1



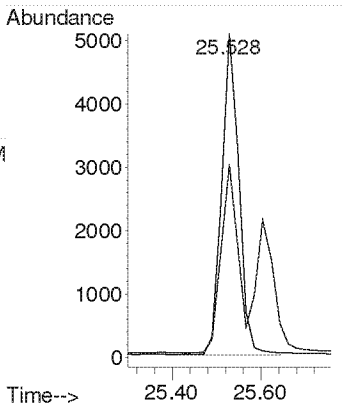
Compounds other than ethylene oxide were not quantitated.

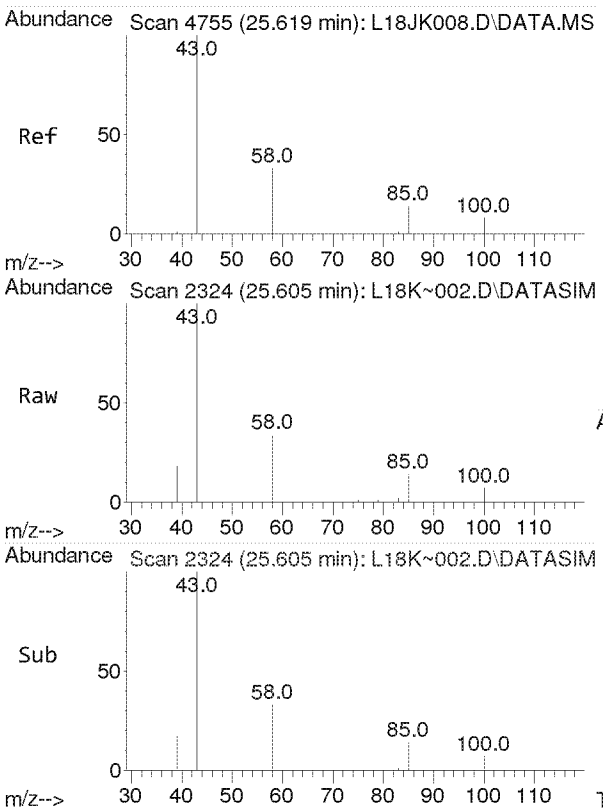


#39
cis-1,3-Dichloropropene
Concen: 2.203 ppbv
RT: 25.528 min Scan# 2320
Delta R.T. -0.015 min
Lab File: L18K~002.D
Acq: 27 Nov 2018 10:41 am

Tgt Ion: 75 Resp: 13414

Ion	Ratio	Lower	Upper
75	100		
39	58.0	44.5	66.7

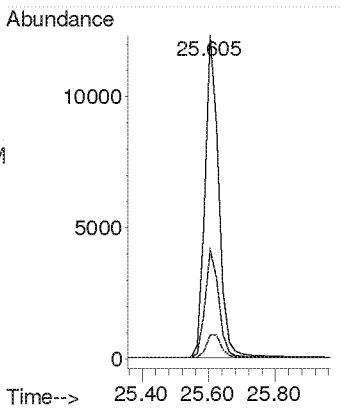




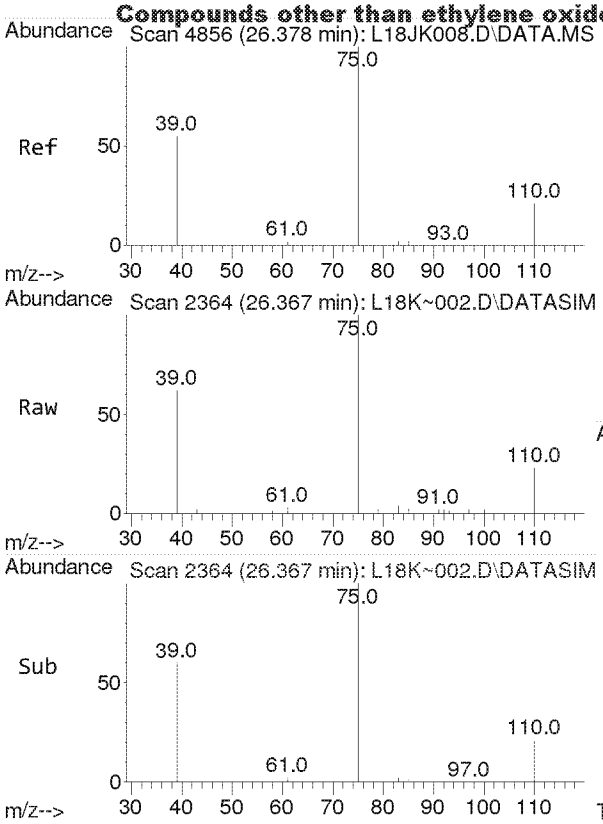
#40
Methyl Isobutyl Ketone
Concen: 2.483 ppbv
RT: 25.605 min Scan# 2324
Delta R.T. -0.014 min
Lab File: L18K~002.D
Acq: 27 Nov 2018 10:41 am

Tgt Ion: 43 Resp: 34897

Ion	Ratio	Lower	Upper
43	100		
58	33.4	26.6	40.0
100	7.7	6.4	9.6



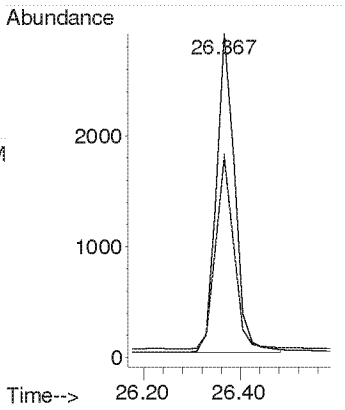
Compounds other than ethylene oxide were not quantitated.

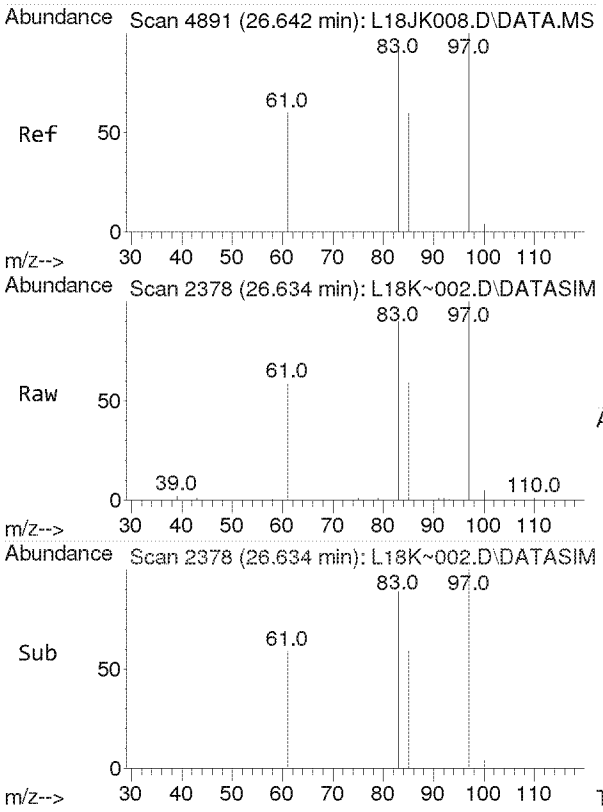


#41
trans-1,3-Dichloropropene
Concen: 1.688 ppbv
RT: 26.367 min Scan# 2364
Delta R.T. -0.011 min
Lab File: L18K~002.D
Acq: 27 Nov 2018 10:41 am

Tgt Ion: 75 Resp: 7596

Ion	Ratio	Lower	Upper
75	100		
39	59.9	44.2	66.4

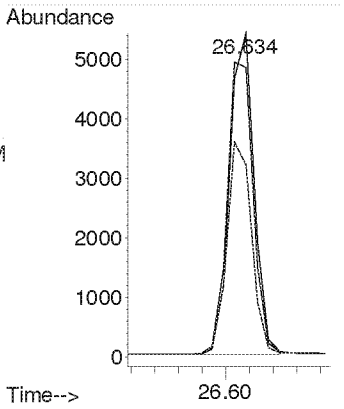




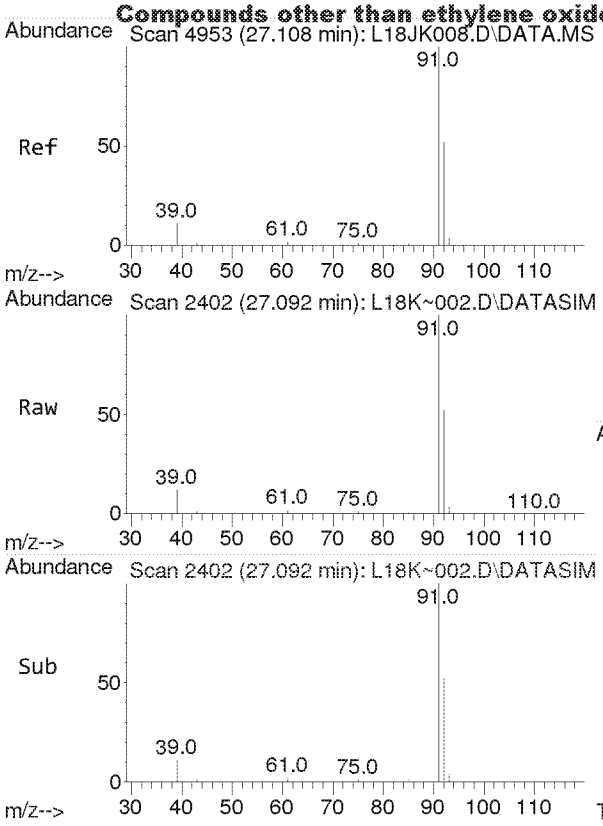
#42
1,1,2-Trichloroethane
Concen: 2.569 ppbv
RT: 26.634 min Scan# 2378
Delta R.T. -0.007 min
Lab File: L18K~002.D
Acq: 27 Nov 2018 10:41 am

Tgt Ion: 97 Resp: 15381

Ion	Ratio	Lower	Upper
97	100		
83	96.6	76.2	114.4
61	67.1	51.7	77.5



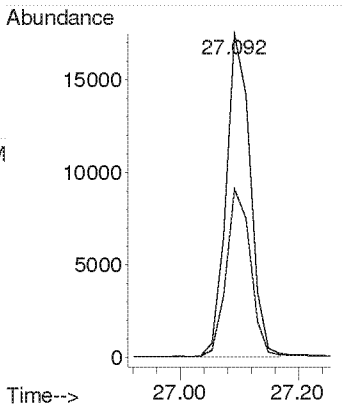
Compounds other than ethylene oxide were not quantitated.

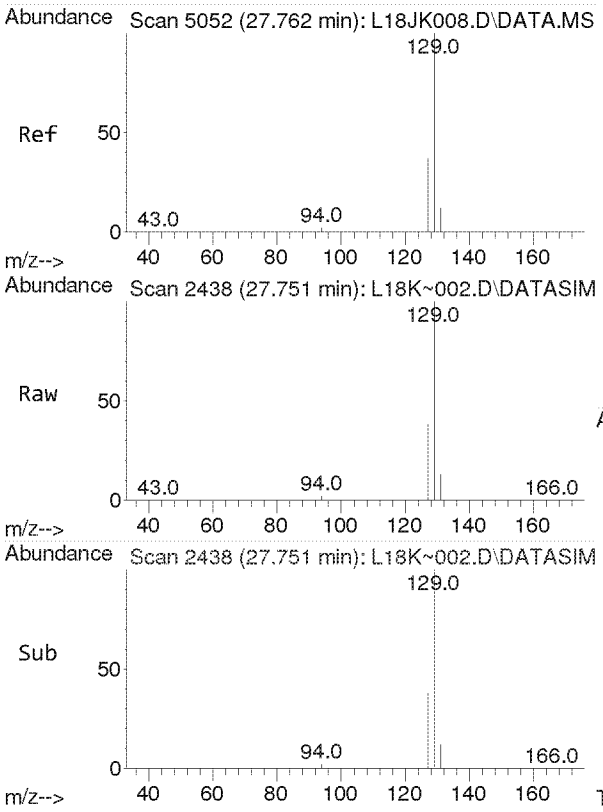


#44
Toluene
Concen: 2.618 ppbv
RT: 27.092 min Scan# 2402
Delta R.T. -0.016 min
Lab File: L18K~002.D
Acq: 27 Nov 2018 10:41 am

Tgt Ion: 91 Resp: 48948

Ion	Ratio	Lower	Upper
91	100		
92	52.2	41.7	62.5

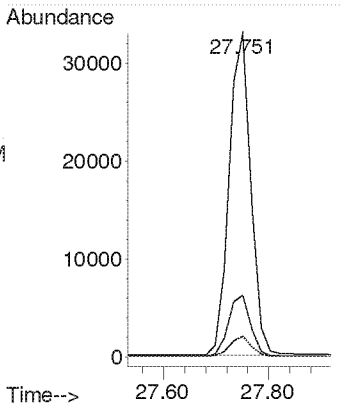




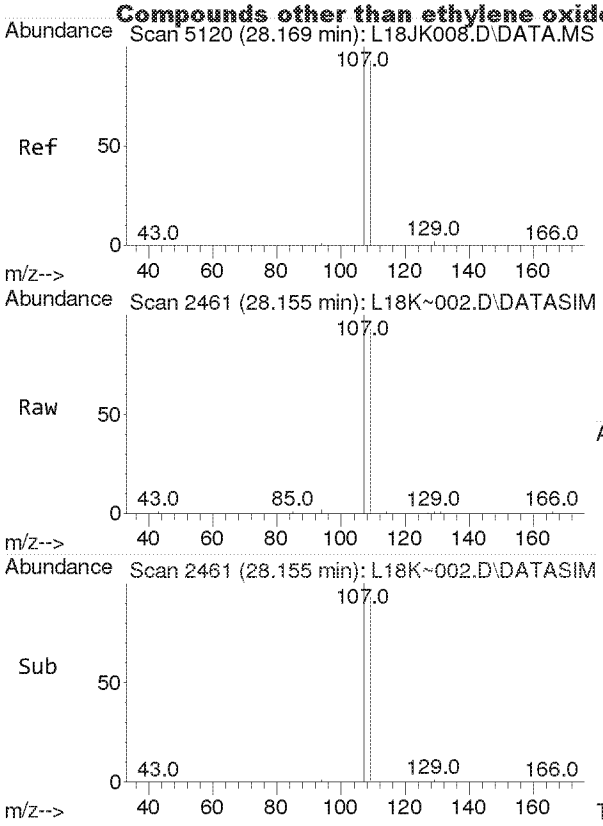
#45
Dibromochloromethane
Concen: 2.066 ppbv
RT: 27.751 min Scan# 2438
Delta R.T. -0.011 min
Lab File: L18K~002.D
Acq: 27 Nov 2018 10:41 am

Tgt Ion:129 Resp: 93137

Ion	Ratio	Lower	Upper
129	100		
127	19.3	15.4	23.2
131	6.0	4.8	7.2



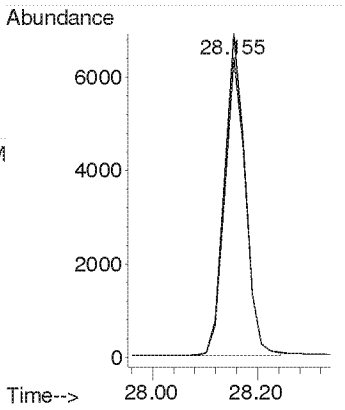
Compounds other than ethylene oxide were not quantitated.

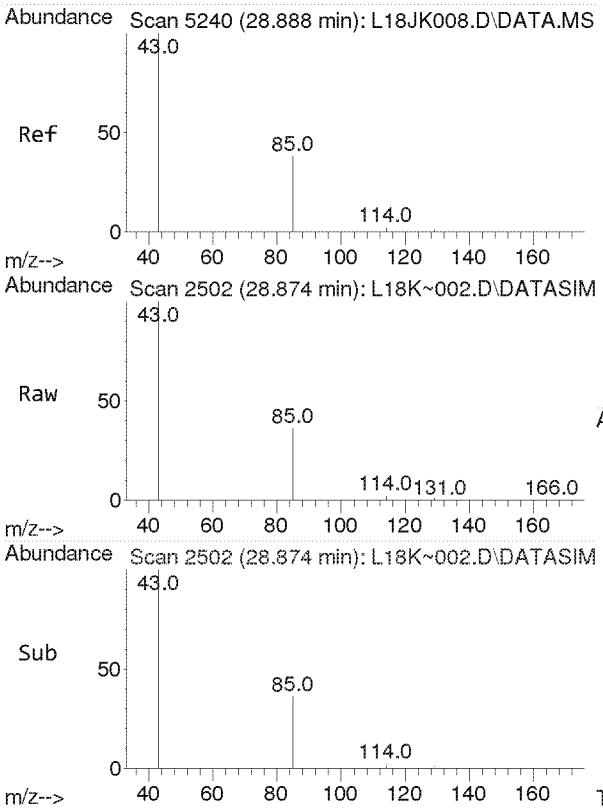


#46
1,2-Dibromoethane
Concen: 2.378 ppbv
RT: 28.155 min Scan# 2461
Delta R.T. -0.014 min
Lab File: L18K~002.D
Acq: 27 Nov 2018 10:41 am

Tgt Ion:107 Resp: 18682

Ion	Ratio	Lower	Upper
107	100		
109	93.6	75.0	112.6

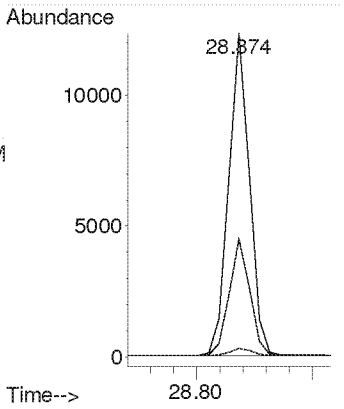




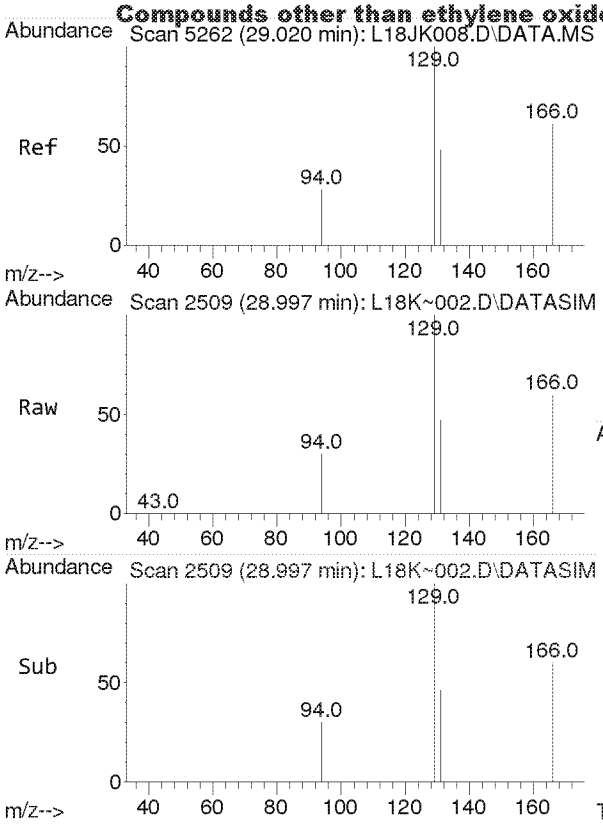
#47
n-Octane
Concen: 2.656 ppbv
RT: 28.874 min Scan# 2502
Delta R.T. -0.014 min
Lab File: L18K~002.D
Acq: 27 Nov 2018 10:41 am

Tgt Ion: 43 Resp: 30919

Ion	Ratio	Lower	Upper
43	100		
85	35.8	30.2	45.4
114	2.2	1.9	2.9



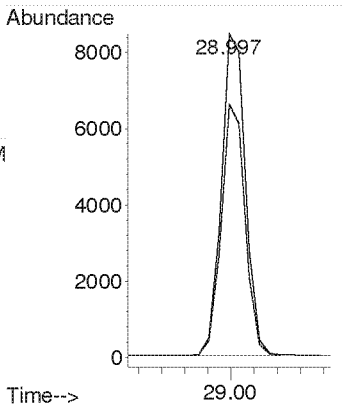
Compounds other than ethylene oxide were not quantitated.

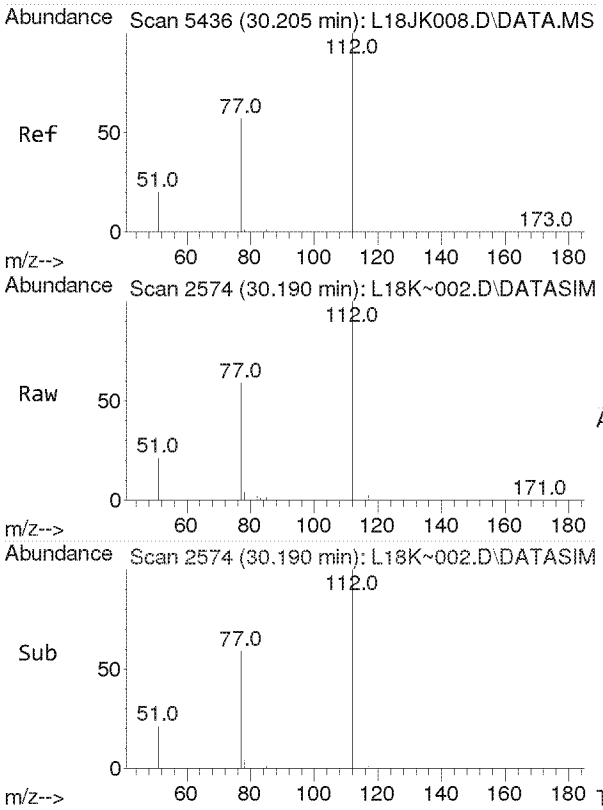


#48
Tetrachloroethylene
Concen: 2.686 ppbv
RT: 28.997 min Scan# 2509
Delta R.T. -0.023 min
Lab File: L18K~002.D
Acq: 27 Nov 2018 10:41 am

Tgt Ion:166 Resp: 24598

Ion	Ratio	Lower	Upper
166	100		
131	77.5	63.0	94.4

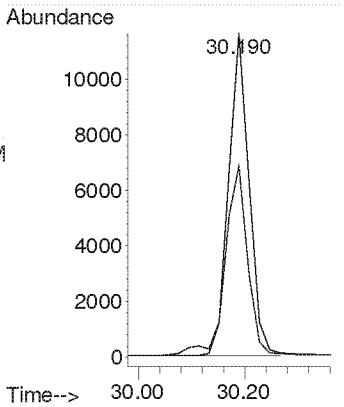




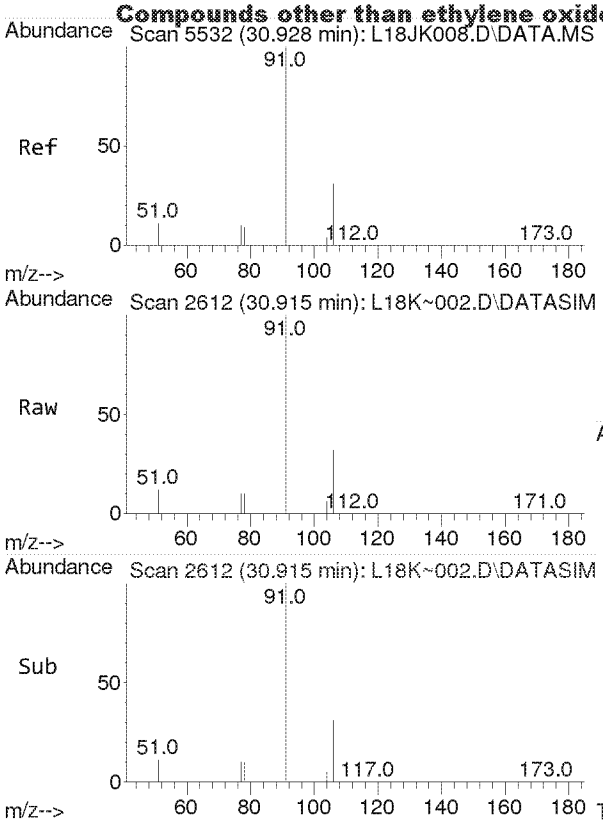
#49
Chlorobenzene
Concen: 2.535 ppbv
RT: 30.190 min Scan# 2574
Delta R.T. -0.015 min
Lab File: L18K~002.D
Acq: 27 Nov 2018 10:41 am

Tgt Ion:112 Resp: 31246

Ion	Ratio	Lower	Upper
112	100		
77	62.0	47.4	71.2



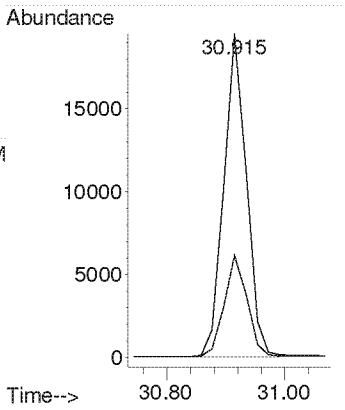
Compounds other than ethylene oxide were not quantitated.

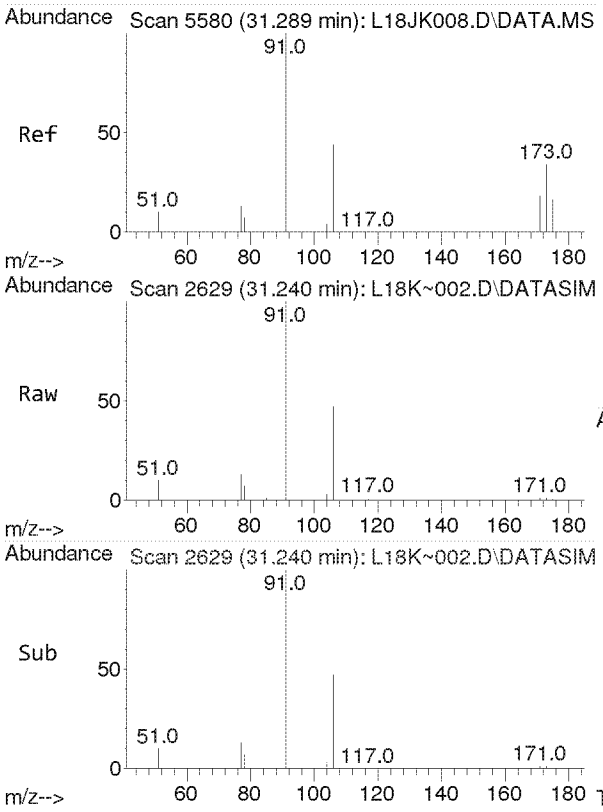


#50
Ethylbenzene
Concen: 2.600 ppbv
RT: 30.915 min Scan# 2612
Delta R.T. -0.012 min
Lab File: L18K~002.D
Acq: 27 Nov 2018 10:41 am

Tgt Ion: 91 Resp: 51557

Ion	Ratio	Lower	Upper
91	100		
106	31.4	25.4	38.2

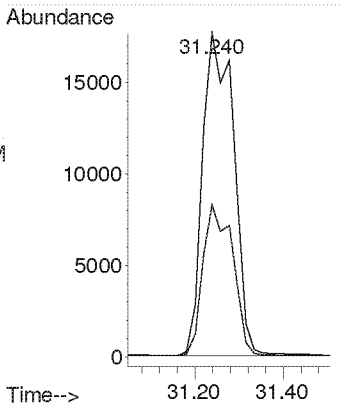




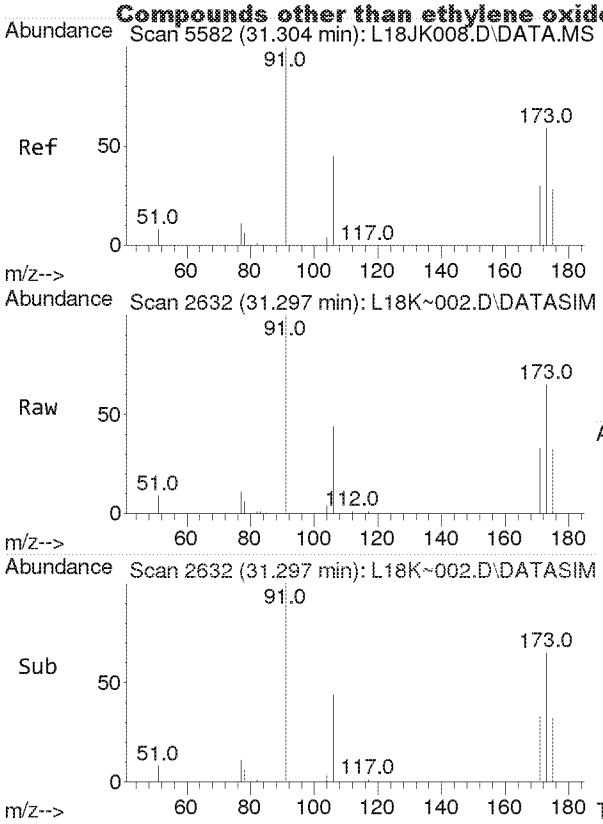
#51
m,p-Xylene
Concen: 5.031 ppbv
RT: 31.240 min Scan# 2629
Delta R.T. -0.049 min
Lab File: L18K~002.D
Acq: 27 Nov 2018 10:41 am

Tgt Ion: 91 Resp: 85700

Ion	Ratio	Lower	Upper
91	100		
106	45.0	36.3	54.5



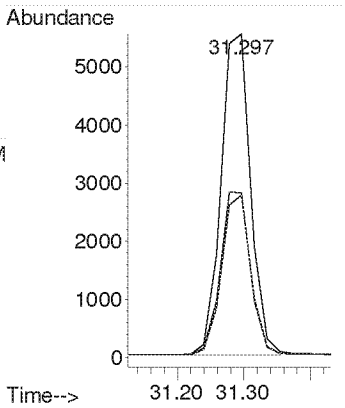
Compounds other than ethylene oxide were not quantitated.

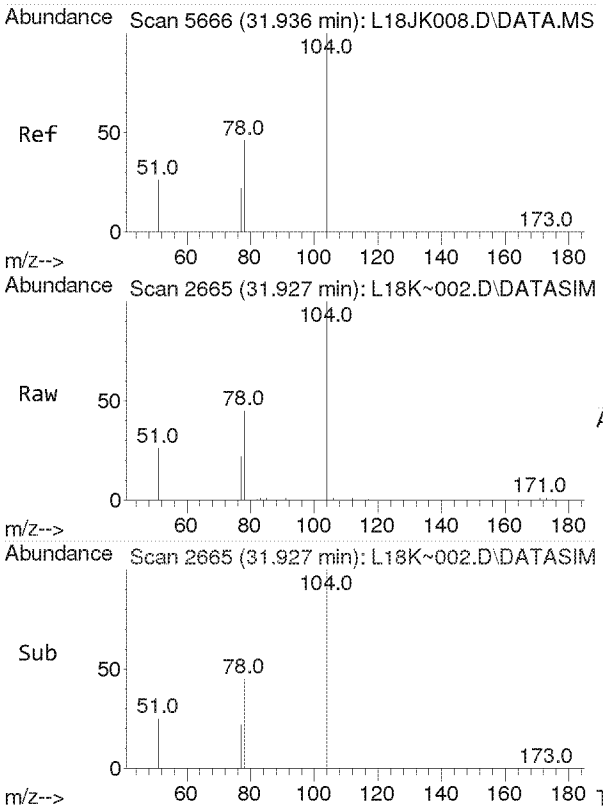


#52
Bromoform
Concen: 1.940 ppbv
RT: 31.297 min Scan# 2632
Delta R.T. -0.007 min
Lab File: L18K~002.D
Acq: 27 Nov 2018 10:41 am

Tgt Ion:173 Resp: 17129

Ion	Ratio	Lower	Upper
173	100		
171	51.3	41.1	61.7
175	49.1	39.2	58.8

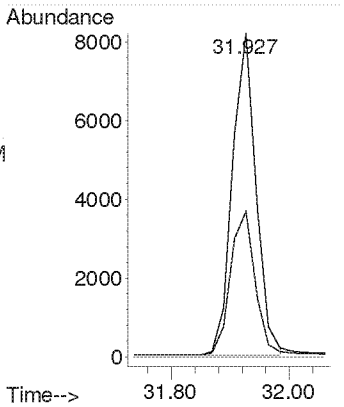




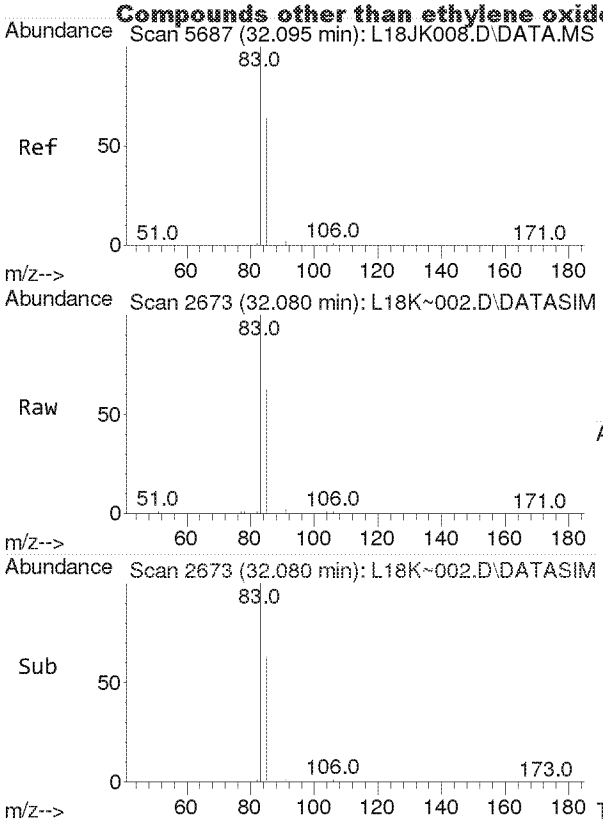
#53
Styrene
Concen: 2.425 ppbv
RT: 31.927 min Scan# 2665
Delta R.T. -0.009 min
Lab File: L18K~002.D
Acq: 27 Nov 2018 10:41 am

Tgt Ion:104 Resp: 22441

Ion	Ratio	Lower	Upper
104	100		
78	46.4	36.6	54.8
103	0.0	0.0	0.0



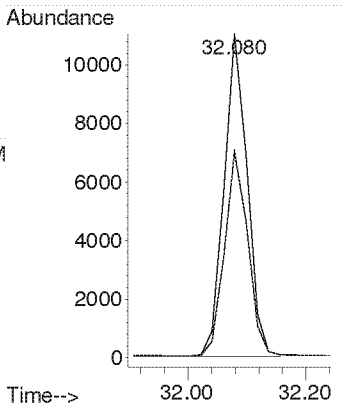
Compounds other than ethylene oxide were not quantitated.

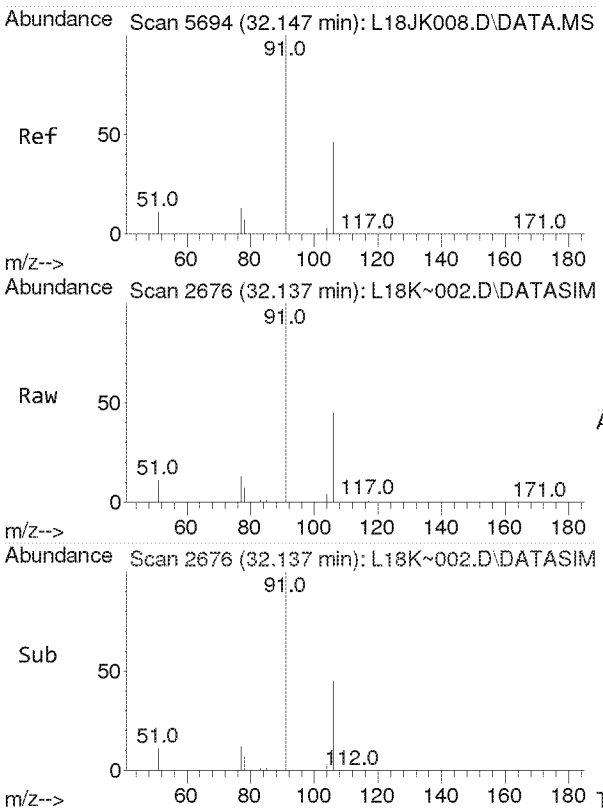


#54
1,1,2,2-Tetrachloroethane
Concen: 2.548 ppbv
RT: 32.080 min Scan# 2673
Delta R.T. -0.015 min
Lab File: L18K~002.D
Acq: 27 Nov 2018 10:41 am

Tgt Ion: 83 Resp: 29728

Ion	Ratio	Lower	Upper
83	100		
85	64.2	51.4	77.2

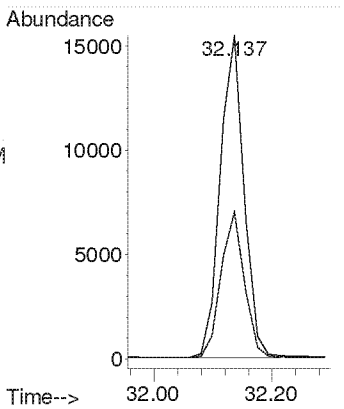




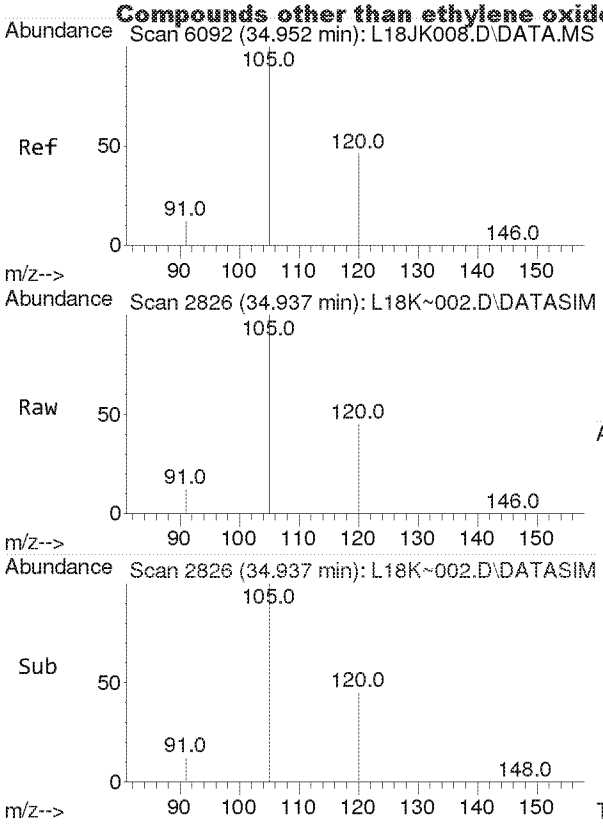
#55
o-Xylene
Concen: 2.589 ppbv
RT: 32.137 min Scan# 2676
Delta R.T. -0.010 min
Lab File: L18K~002.D
Acq: 27 Nov 2018 10:41 am

Tgt Ion: 91 Resp: 42892

Ion	Ratio	Lower	Upper
91	100		
106	44.6	36.4	54.6



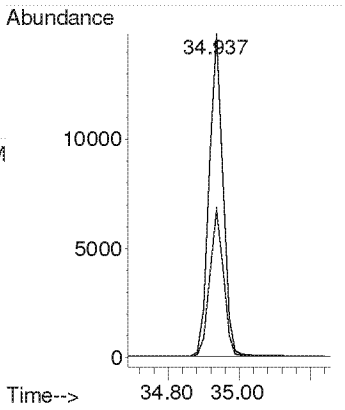
Compounds other than ethylene oxide were not quantitated.

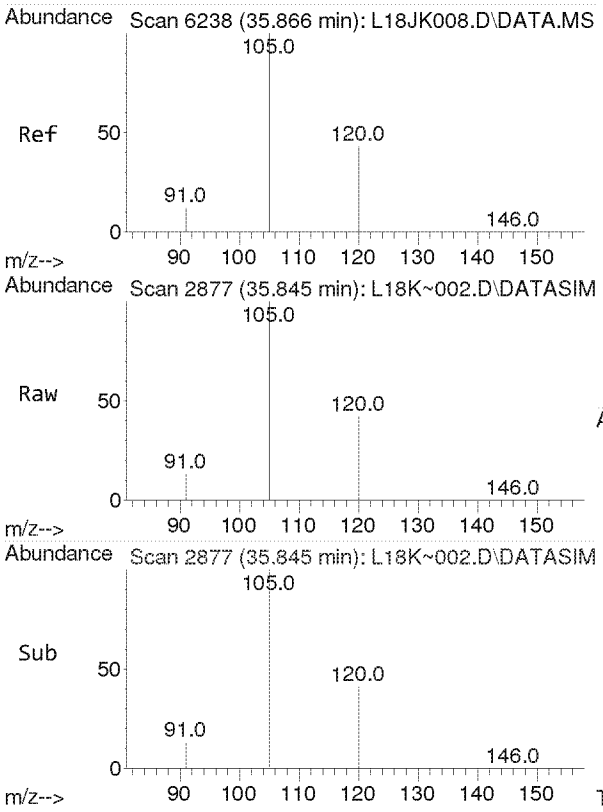


#56
1,3,5-Trimethylbenzene
Concen: 2.293 ppbv
RT: 34.937 min Scan# 2826
Delta R.T. -0.015 min
Lab File: L18K~002.D
Acq: 27 Nov 2018 10:41 am

Tgt Ion:105 Resp: 39512

Ion	Ratio	Lower	Upper
105	100		
120	45.2	36.5	54.7

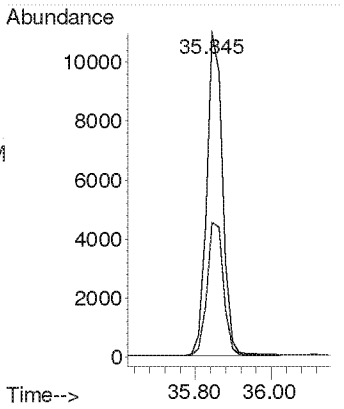




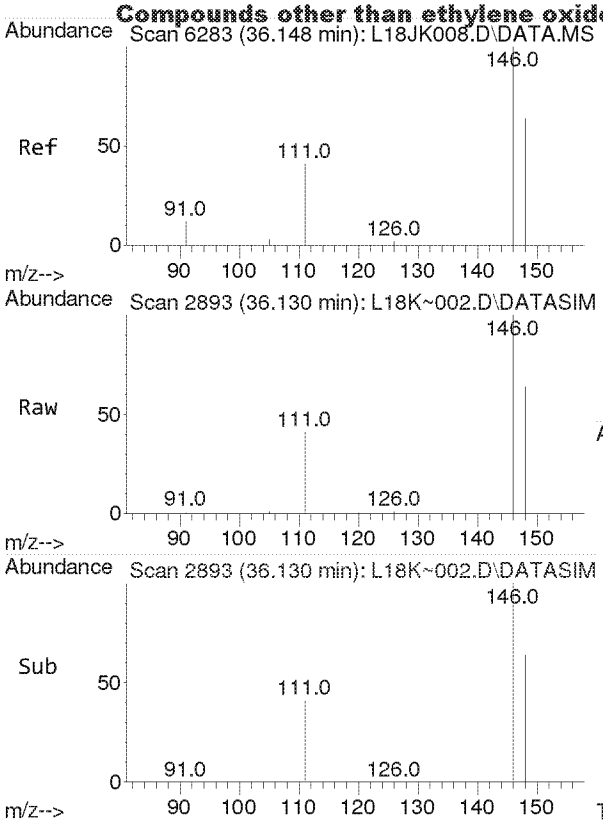
#57
1,2,4-Trimethylbenzene
Concen: 2.184 ppbv
RT: 35.845 min Scan# 2877
Delta R.T. -0.021 min
Lab File: L18K~002.D
Acq: 27 Nov 2018 10:41 am

Tgt Ion:105 Resp: 31616

Ion	Ratio	Lower	Upper
105	100		
120	42.9	34.7	52.1



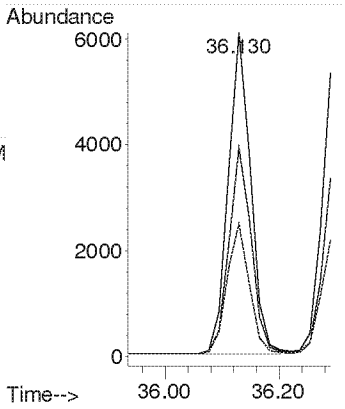
Compounds other than ethylene oxide were not quantitated.

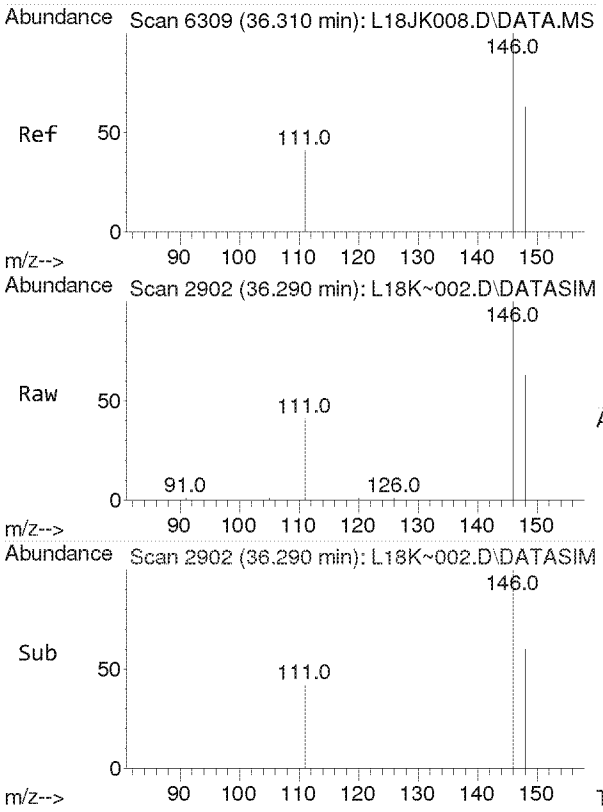


#58
m-Dichlorobenzene
Concen: 2.110 ppbv
RT: 36.130 min Scan# 2893
Delta R.T. -0.017 min
Lab File: L18K~002.D
Acq: 27 Nov 2018 10:41 am

Tgt Ion:146 Resp: 16669

Ion	Ratio	Lower	Upper
146	100		
148	64.0	51.2	76.8
111	40.8	32.9	49.3

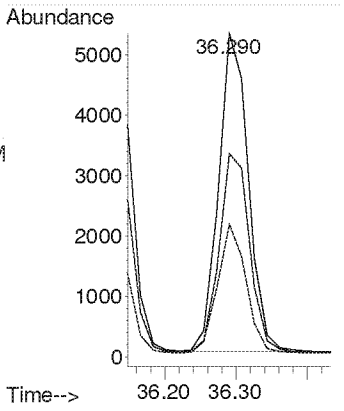




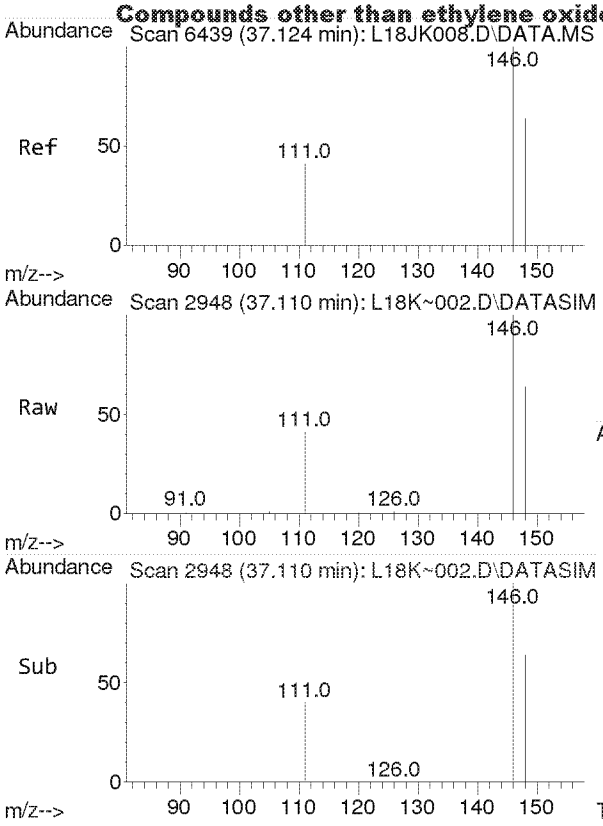
#59
p-Dichlorobenzene
Concen: 2.354 ppbv
RT: 36.290 min Scan# 2902
Delta R.T. -0.020 min
Lab File: L18K~002.D
Acq: 27 Nov 2018 10:41 am

Tgt Ion:146 Resp: 15182

Ion	Ratio	Lower	Upper
146	100		
148	64.3	51.2	76.8
111	39.1	31.8	47.8



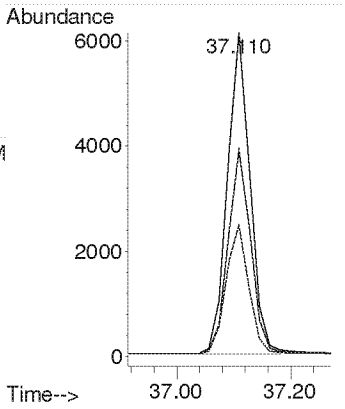
Compounds other than ethylene oxide were not quantitated.

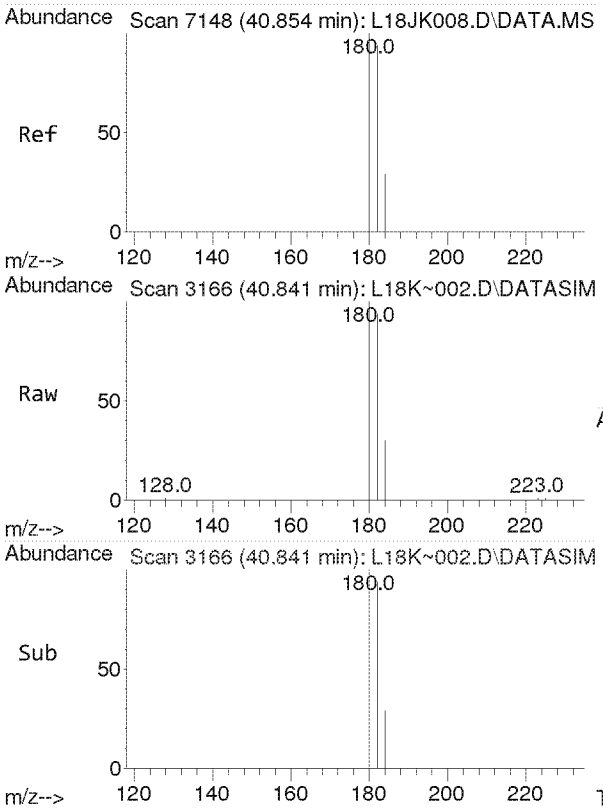


#60
o-Dichlorobenzene
Concen: 2.373 ppbv
RT: 37.110 min Scan# 2948
Delta R.T. -0.014 min
Lab File: L18K~002.D
Acq: 27 Nov 2018 10:41 am

Tgt Ion:146 Resp: 16874

Ion	Ratio	Lower	Upper
146	100		
148	63.9	51.1	76.7
111	40.7	33.4	50.2

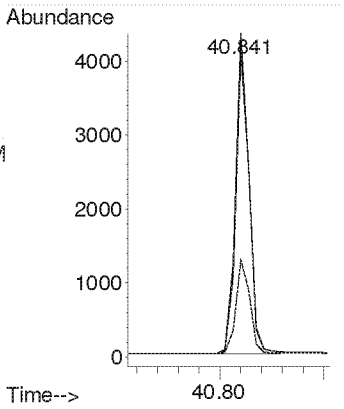




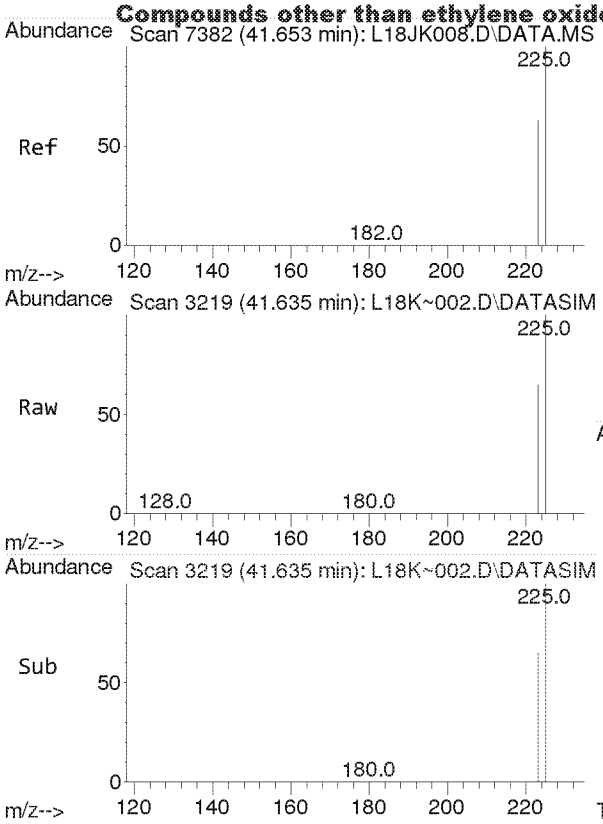
#61
1,2,4-Trichlorobenzene
Concen: 2.305 ppbv
RT: 40.841 min Scan# 3166
Delta R.T. -0.013 min
Lab File: L18K~002.D
Acq: 27 Nov 2018 10:41 am

Tgt Ion:180 Resp: 7679

Ion	Ratio	Lower	Upper
180	100		
182	95.5	76.5	114.7
184	30.7	24.4	36.6



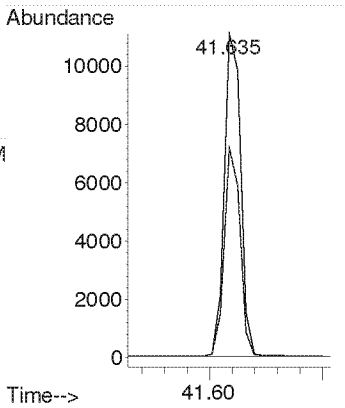
Compounds other than ethylene oxide were not quantitated.



#62
Hexachloro-1,3-butadiene
Concen: 2.724 ppbv
RT: 41.635 min Scan# 3219
Delta R.T. -0.019 min
Lab File: L18K~002.D
Acq: 27 Nov 2018 10:41 am

Tgt Ion:225 Resp: 22127

Ion	Ratio	Lower	Upper
225	100		
223	62.5	50.2	75.4



Compounds other than ethylene oxide were not quantitated.

TO-15 Method Blank and
Annual Canister Certification Blank

Analyst: ✓ Date: 11-28-17
Reviewer: RWB Date: 11/28/18

Data File Name	L18K~004.D
Operator	MAH
Acq. Method File	8100002.M
Sample Name	b8k2704-BLK1
Misc Info	80ML IS 7L07001

#	Name	Target Response	Amount (ppbv)	PASS*		Blank Criteria
1)	IS-Hexane-d14	54319		NA		NA
2)	Acetylene	0	0.000	Y		0.118
3)	Propylene	79	0.014	Y		0.192
4)	Dichlorodifluoromethane	43	0.002	Y		0.082
5)	Chloromethane	54	0.008	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	83	0.032	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	31	0.004	Y		0.043
17)	Carbon Disulfide	106	0.005	Y		0.200
18)	Trichlorotrifluoroethane	63	0.004	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	126676		NA		NA
29)	1,1,1-Trichloroethane	0	0.000	Y		0.041
30)	Benzene	63	0.004	Y		0.043
31)	Carbon Tetrachloride	0	0.000	Y		0.040
32)	tert-Amyl Methyl Ether	0	0.000	Y		0.037
33)	1,2-Dichloropropane	0	0.000	Y		0.061
34)	Ethyl Acrylate	0	0.000	Y		0.070
35)	Bromodichloromethane	0	0.000	Y		0.049
36)	Trichloroethylene	0	0.000	Y		0.045
37)	Methyl Methacrylate	406	0.019	Y		0.200
38)	cis-1,3-dichloropropene	0	0.000	Y		0.059
39)	Methyl Isobutyl Ketone	47	0.004	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	88913		NA		NA
43)	Toluene	426	0.026	Y		0.200
44)	Dibromochloromethane	0	0.000	Y		0.046
45)	1,2-Dibromoethane	0	0.000	Y		0.057
46)	n-Octane	40	0.004	Y		0.097
47)	Tetrachloroethylene	0	0.000	Y		0.044
48)	Chlorobenzene	0	0.000	Y		0.058
49)	Ethylbenzene	81	0.005	Y		0.077
50)	m,p-Xylene	85	0.006	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	97	0.007	Y		0.080
55)	1,3,5-Trimethylbenzene	32	0.002	Y		0.102
56)	1,2,4-Trimethylbenzene	46	0.004	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	36	0.005	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\L18K~\
Data File : L18K~004.D
Acq On : 27 Nov 2018 12:42 pm
Operator : MAH
Sample : b8k2704-BLK1
Misc : 80ML IS 7L07001
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 28 11:18:19 2018
Quant Method : C:\msdchem\1\METHODS\8100002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Fri Oct 12 09:33:42 2018
Response via : Initial Calibration

11-28-18

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.992	66	54319	4.8000 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.150	114	126676	5.0200 ppbv	-0.02
43) IS-Chlorobenzene-d5	30.115	117	88913	4.7700 ppbv	-0.01

System Monitoring Compounds

Target Compounds					Qvalue
2) Acetylene	0.000	26	0	N.D.	
3) Propylene	7.837	41	79	0.0141 ppbv #	74
4) Dichlorodifluoromethane	8.702	85	43	0.0017 ppbv #	49
5) Chloromethane	9.757	50	54	0.0079 ppbv #	58
6) Dichlorotetrafluoroethane	0.000	85	0	N.D.	
7) Vinyl Chloride	0.000	62	0	N.D.	
8) 1,3-Butadiene	0.000	54	0	N.D.	
9) Ethylene oxide	0.000	29	0	N.D. d	
10) Bromomethane	0.000	94	0	N.D.	
11) Chloroethane	0.000	64	0	N.D.	
12) Acetonitrile	0.000	41	0	N.D.	
13) Acrolein	14.752	56	83	0.0319 ppbv #	74
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	16.746	49	31	0.0044 ppbv #	12
18) Carbon Disulfide	16.932	76	106	0.0053 ppbv #	75
19) Trichlorotrifluoroethane	17.257	101	63	0.0041 ppbv #	54
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.	
21) 1,1-Dichloroethane	0.000	63	0	N.D.	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D.	
23) Chloroprene	0.000	53	0	N.D.	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D. d	
25) Bromochloromethane	0.000	128	0	N.D.	
26) Chloroform	0.000	83	0	N.D.	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D.	
28) 1,2-Dichloroethane	0.000	62	0	N.D.	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D.	
31) Benzene	22.555	78	63	0.0042 ppbv #	53
32) Carbon Tetrachloride	0.000	117	0	N.D.	
33) tert-Amyl Methyl Ether	0.000	73	0	N.D.	
34) 1,2-Dichloropropane	0.000	63	0	N.D.	
35) Ethyl Acrylate	0.000	55	0	N.D.	
36) Bromodichloromethane	0.000	83	0	N.D.	
37) Trichloroethylene	0.000	130	0	N.D.	
38) Methyl Methacrylate	24.552	41	406	0.0194 ppbv #	96
39) cis-1,3-Dichloropropene	0.000	75	0	N.D.	
40) Methyl Isobutyl Ketone	25.644	43	47	0.0039 ppbv #	48
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.	
44) Toluene	27.094	91	426	0.0259 ppbv	95
45) Dibromochloromethane	0.000	129	0	N.D. d	
46) 1,2-Dibromoethane	0.000	107	0	N.D.	
47) n-Octane	28.874	43	40	0.0039 ppbv #	40
48) Tetrachloroethylene	0.000	166	0	N.D.	
49) Chlorobenzene	0.000	112	0	N.D.	
50) Ethylbenzene	30.917	91	81	0.0046 ppbv #	88

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L18K~\
Data File : L18K~004.D
Acq On : 27 Nov 2018 12:42 pm
Operator : MAH
Sample : b8k2704-BLK1
Misc : 80ML IS 7L07001
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 28 11:18:19 2018
Quant Method : C:\msdchem\1\METHODS\8100002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Fri Oct 12 09:33:42 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	31.280	91	85	0.0057 ppbv #	81
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	32.139	91	97	0.0066 ppbv	99
56) 1,3,5-Trimethylbenzene	34.937	105	32	0.0021 ppbv #	31
57) 1,2,4-Trimethylbenzene	35.846	105	46	0.0036 ppbv #	32
58) m-Dichlorobenzene	0.000	146	0	N.D.	
59) p-Dichlorobenzene	0.000	146	0	N.D.	
60) o-Dichlorobenzene	0.000	146	0	N.D.	
61) 1,2,4-Trichlorobenzene	0.000	180	0	N.D.	
62) Hexachloro-1,3-butadiene	41.635	225	36	0.0050 ppbv #	19

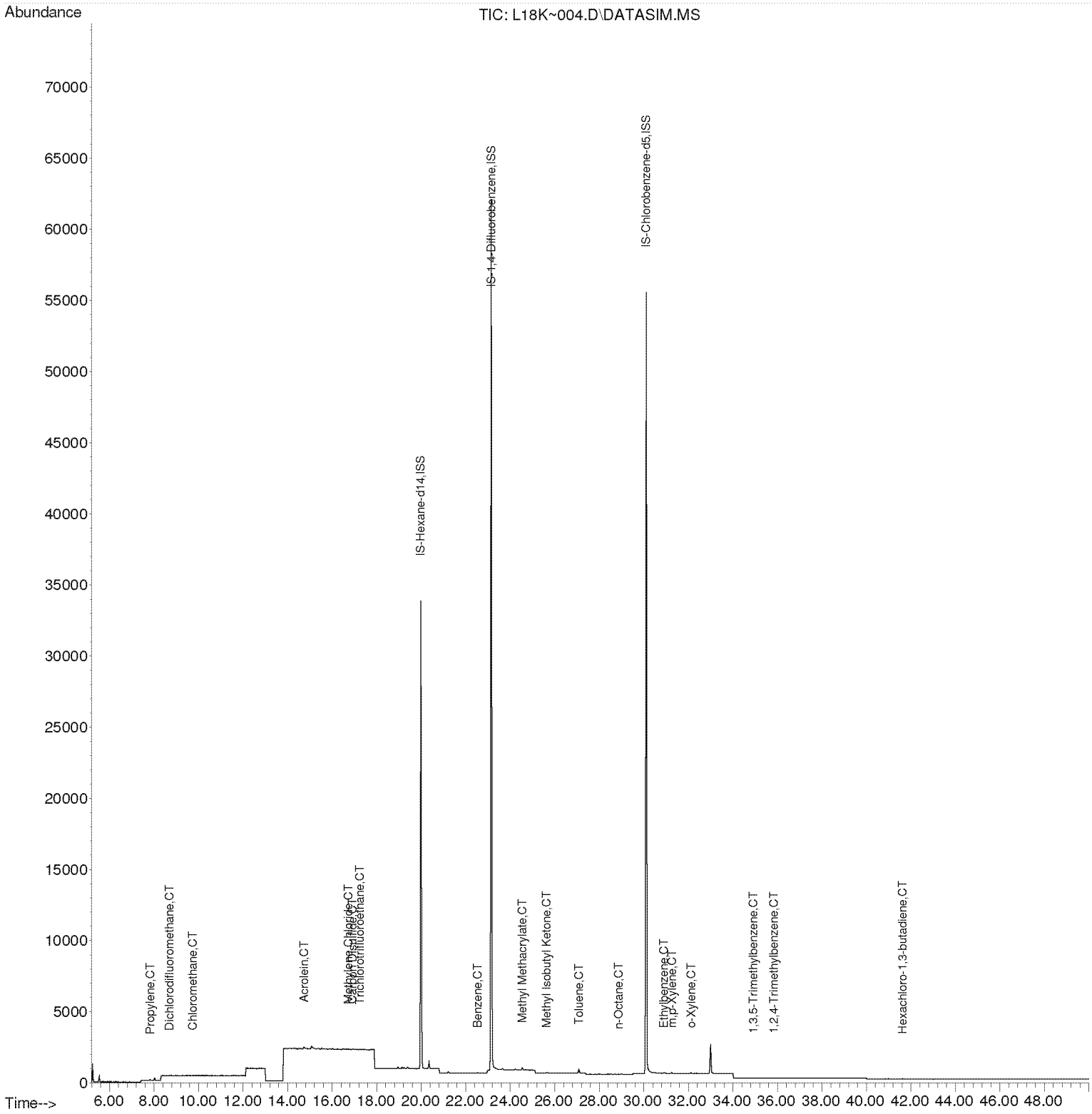
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

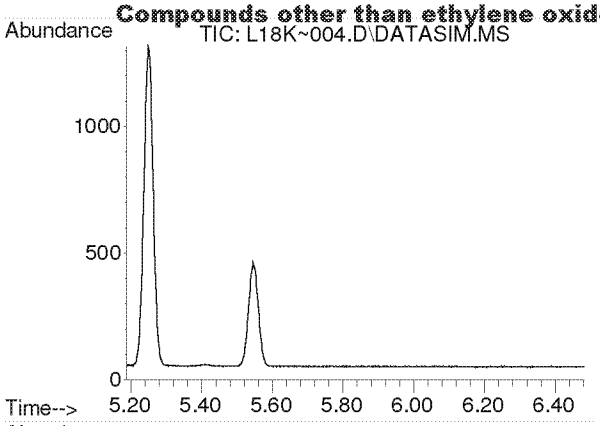
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L18K~\
Data File : L18K~004.D
Acq On : 27 Nov 2018 12:42 pm
Operator : MAH
Sample : b8k2704-BLK1
Misc : 80ML IS 7L07001
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 28 08:09:24 2018
Quant Method : C:\msdchem\1\METHODS\8100002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Fri Oct 12 09:33:42 2018
Response via : Initial Calibration



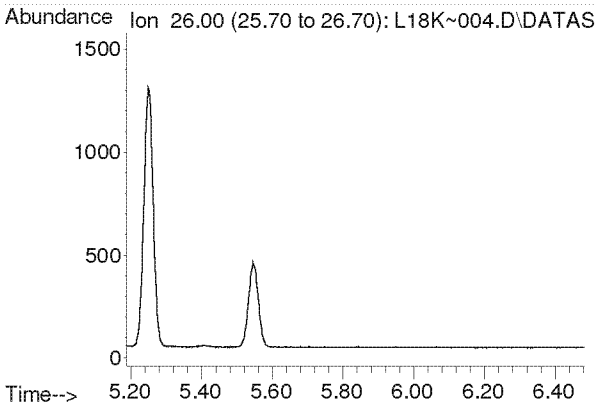
Compounds other than ethylene oxide were not quantitated.

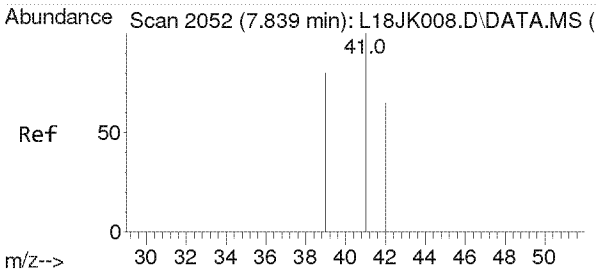


#2
Acetylene
Concen: N.D.
Expected RT: 5.41 min

Lab File: L18K~004.D
Acq: 27 Nov 2018 12:42 pm

Tgt Ion: 26

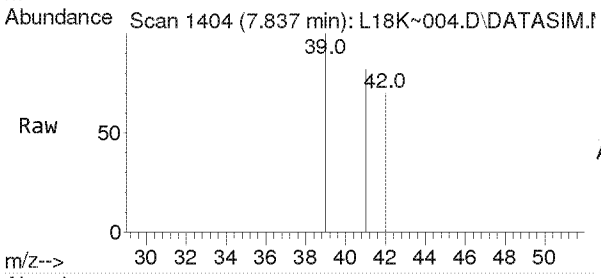


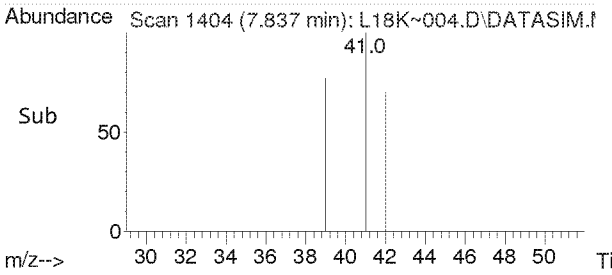


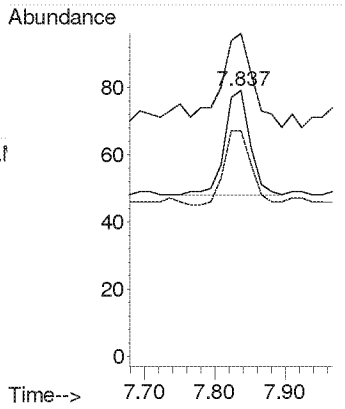
#3
Propylene
Concen: 0.014 ppbv
RT: 7.837 min Scan# 1404
Delta R.T. -0.002 min
Lab File: L18K~004.D
Acq: 27 Nov 2018 12:42 pm

Tgt Ion: 41 Resp: 79

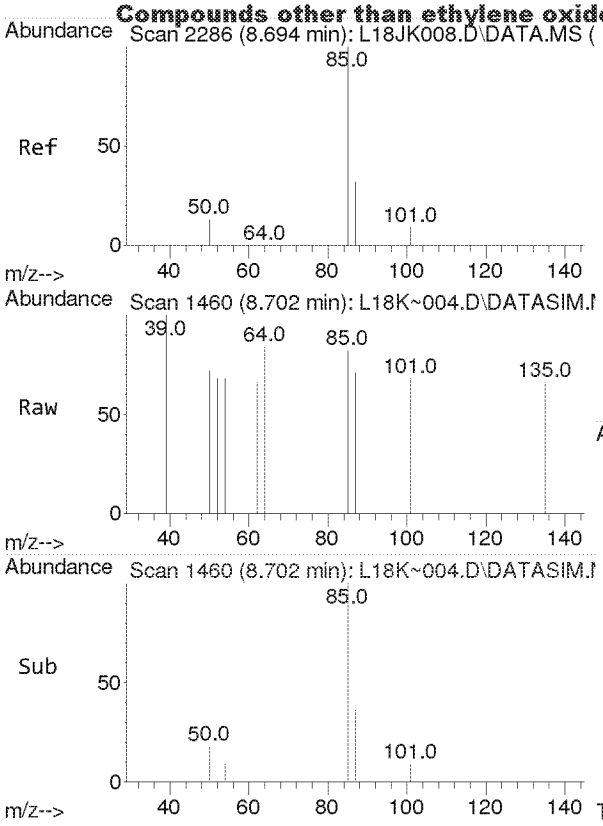
Ion	Ratio	Lower	Upper
41	100		
39	112.7	65.0	97.4#
42	75.9	52.3	78.5







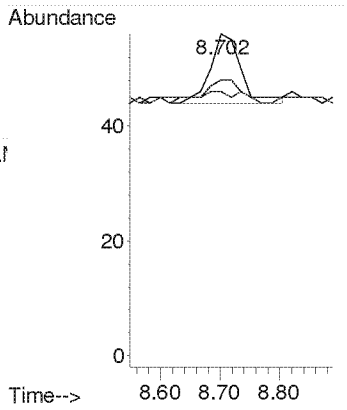
Compounds other than ethylene oxide were not quantitated.

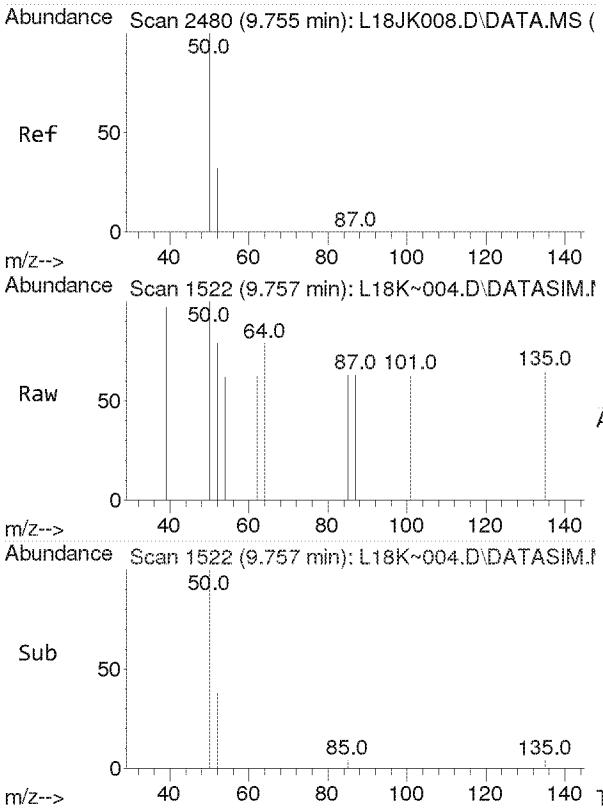


#4
Dichlorodifluoromethane
Concen: 0.002 ppbv
RT: 8.702 min Scan# 1460
Delta R.T. 0.007 min
Lab File: L18K~004.D
Acq: 27 Nov 2018 12:42 pm

Tgt Ion: 85 Resp: 43

Ion	Ratio	Lower	Upper
85	100		
87	0.0	25.8	38.8#
101	0.0	7.2	10.8#

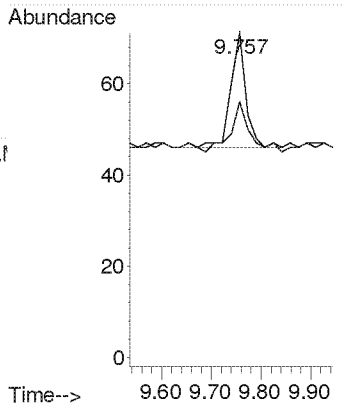




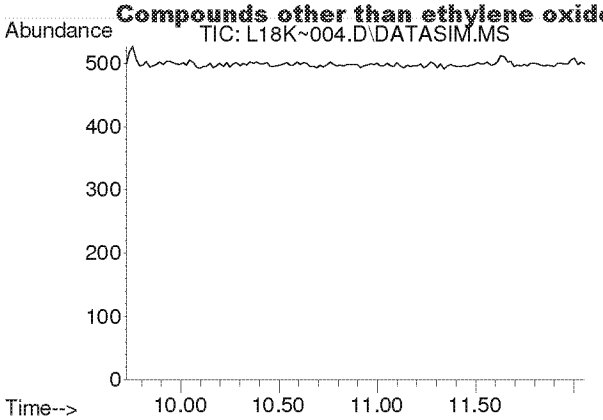
#5
Chloromethane
Concen: 0.008 ppbv
RT: 9.757 min Scan# 1522
Delta R.T. 0.002 min
Lab File: L18K~004.D
Acq: 27 Nov 2018 12:42 pm

Tgt Ion: 50 Resp: 54

Ion	Ratio	Lower	Upper
50	100		
52	55.6	25.8	38.6#



Compounds other than ethylene oxide were not quantitated.

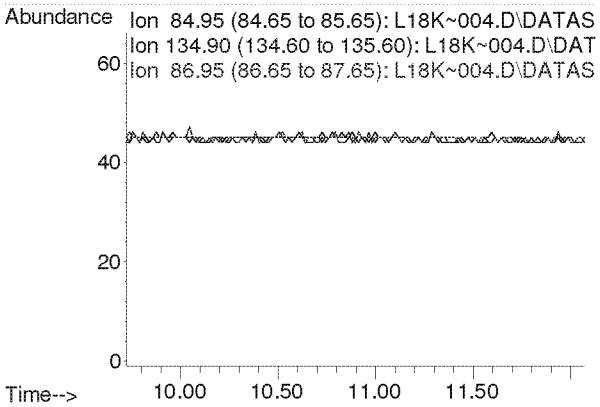


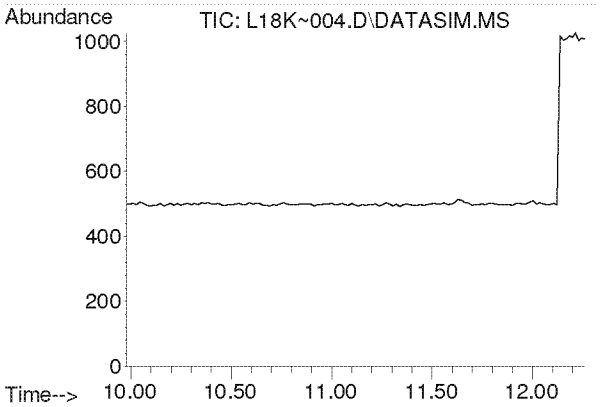
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.87 min

Lab File: L18K~004.D
Acq: 27 Nov 2018 12:42 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.6
87	32.1



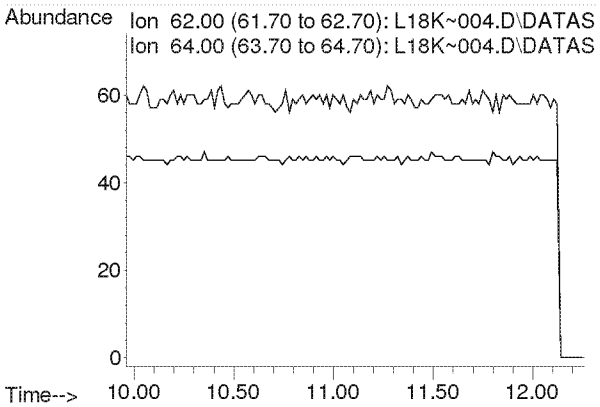


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

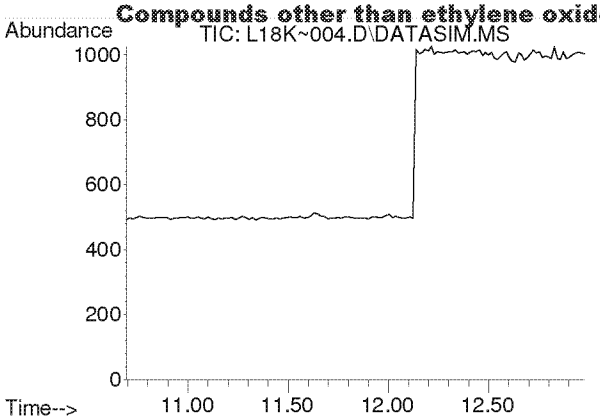
Lab File: L18K~004.D
Acq: 27 Nov 2018 12:42 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	32.0



Compounds other than ethylene oxide were not quantitated.

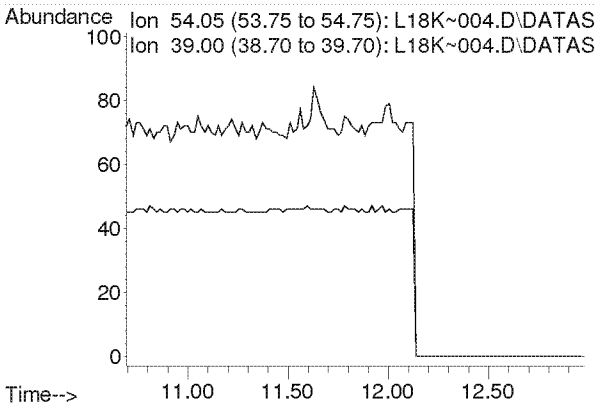


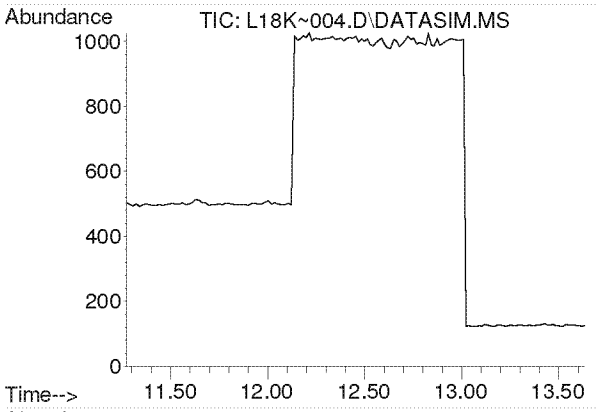
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.79 min

Lab File: L18K~004.D
Acq: 27 Nov 2018 12:42 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	108.7



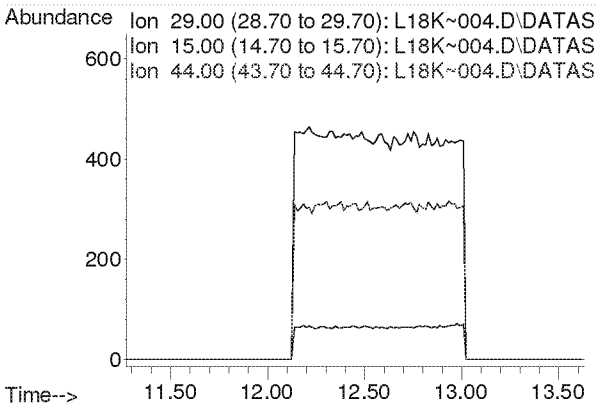


#9
Ethylene oxide
Concen: N.D.
Expected RT: 12.39 min

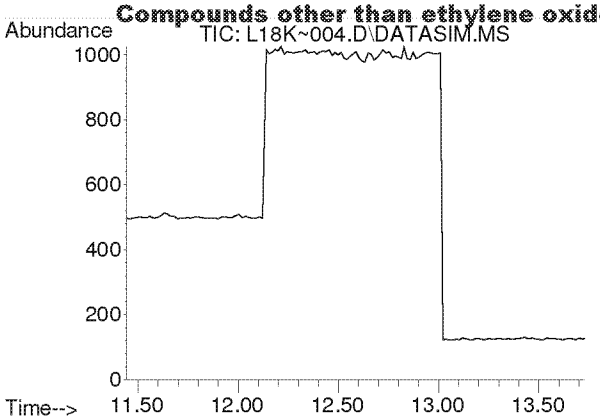
Lab File: L18K~004.D
Acq: 27 Nov 2018 12:42 pm

Tgt Ion: 29

Sig	Exp Ratio
29	100
15	25.1
44	78.2



Compounds other than ethylene oxide were not quantitated.

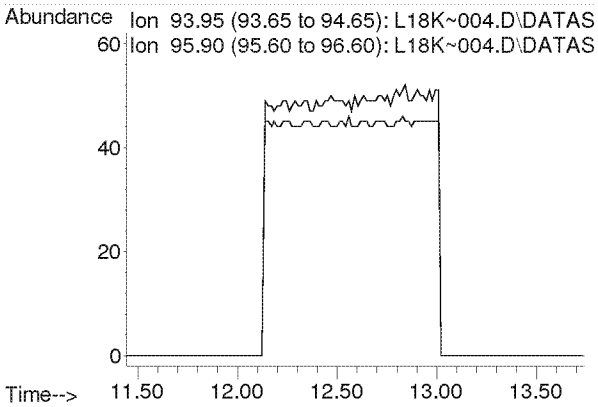


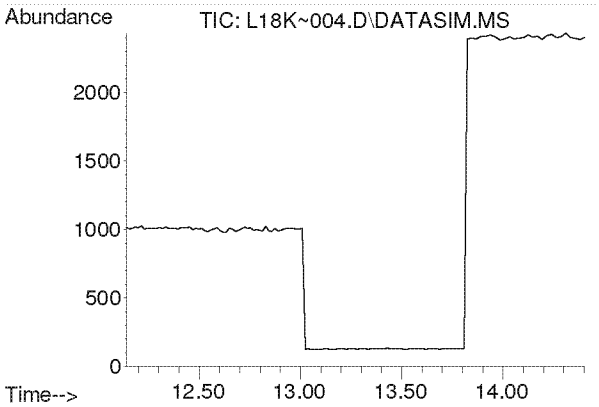
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L18K~004.D
Acq: 27 Nov 2018 12:42 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



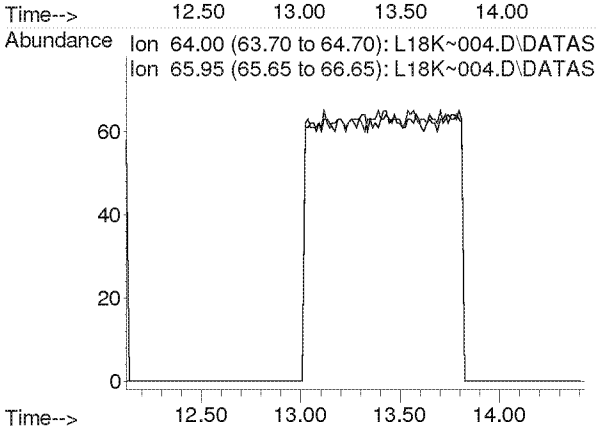


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

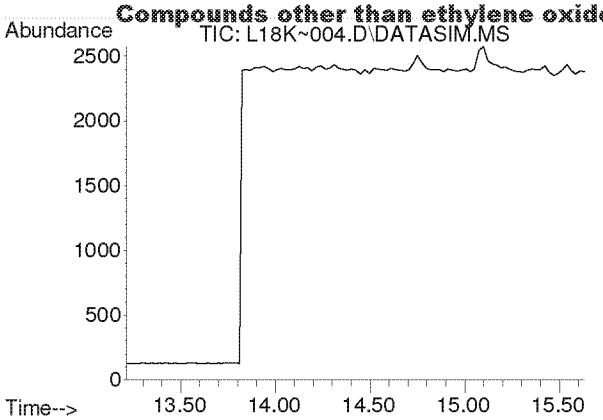
Lab File: L18K~004.D
Acq: 27 Nov 2018 12:42 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

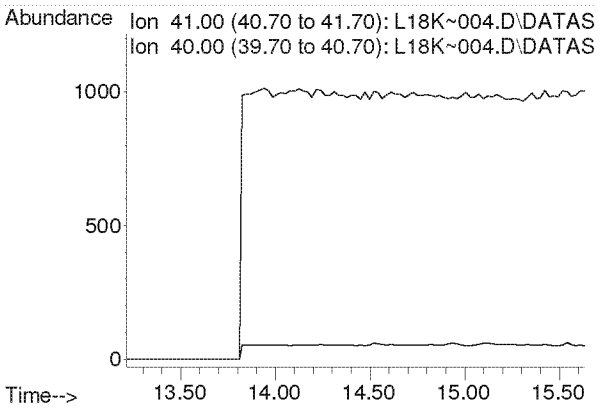


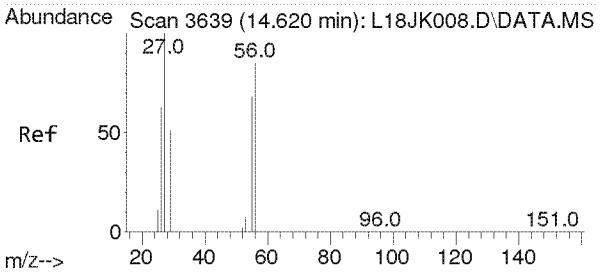
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.34 min

Lab File: L18K~004.D
Acq: 27 Nov 2018 12:42 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	53.9

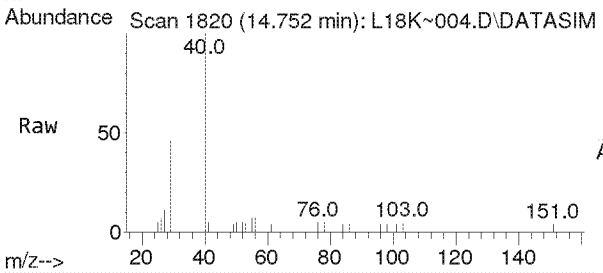


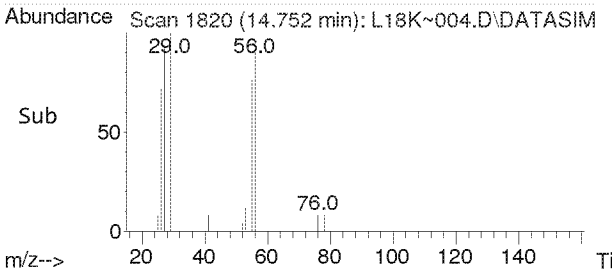


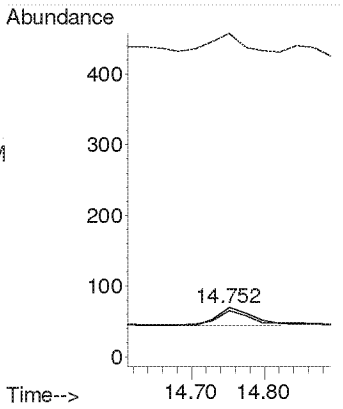
#13
Acrolein
Concen: 0.032 ppbv
RT: 14.752 min Scan# 1820
Delta R.T. 0.131 min
Lab File: L18K~004.D
Acq: 27 Nov 2018 12:42 pm

Tgt Ion: 56 Resp: 83

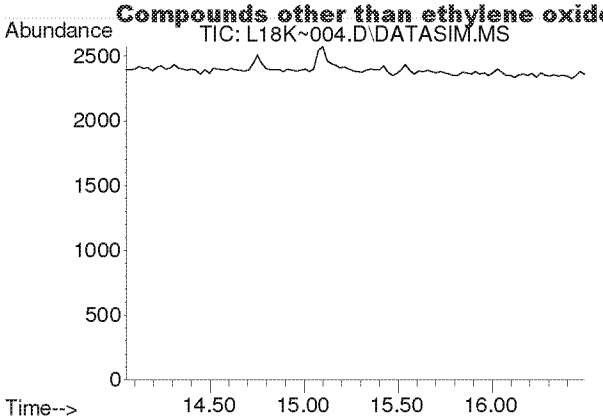
Ion	Ratio	Lower	Upper
56	100		
55	69.9	61.9	92.9
29	97.6	49.2	73.8#







Compounds other than ethylene oxide were not quantitated.

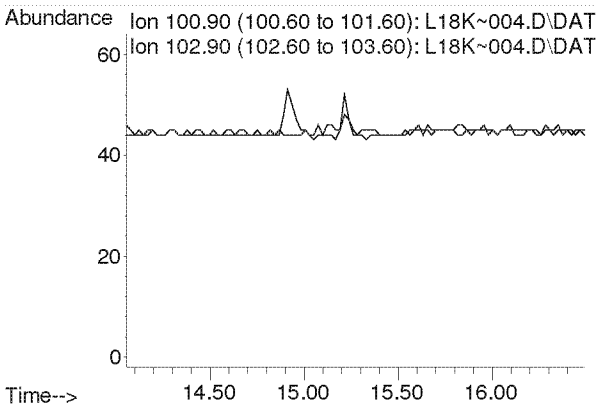


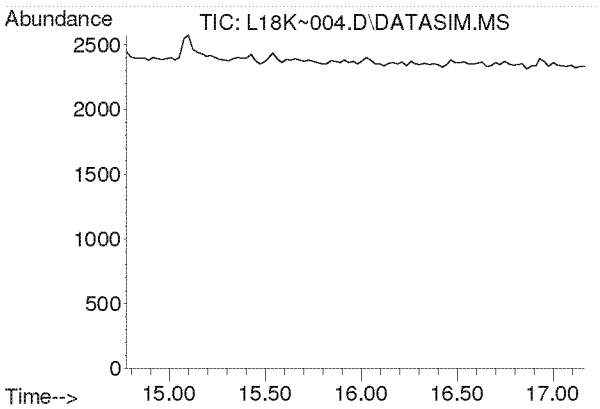
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.20 min

Lab File: L18K~004.D
Acq: 27 Nov 2018 12:42 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.7



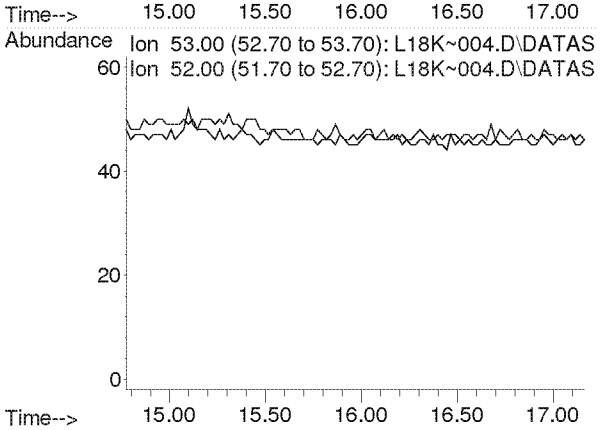


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.92 min

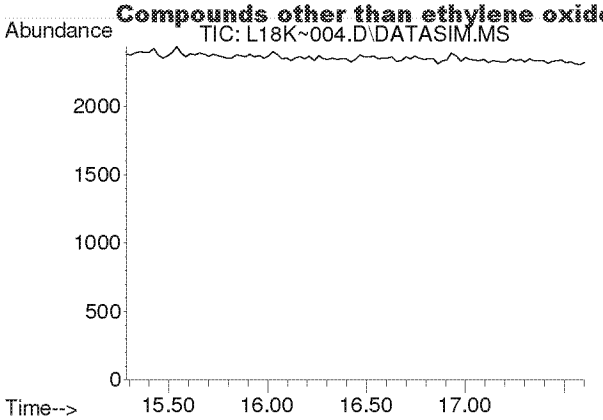
Lab File: L18K~004.D
Acq: 27 Nov 2018 12:42 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	87.1



Compounds other than ethylene oxide were not quantitated.

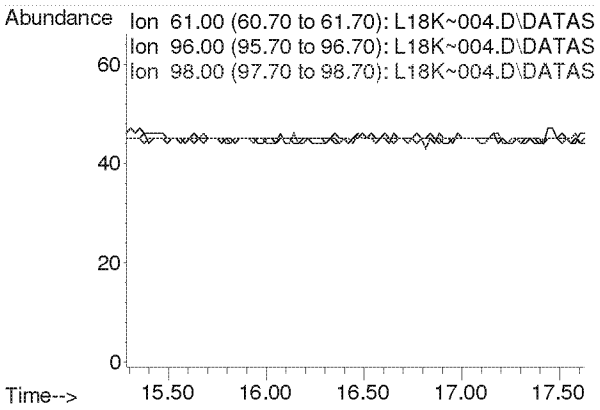


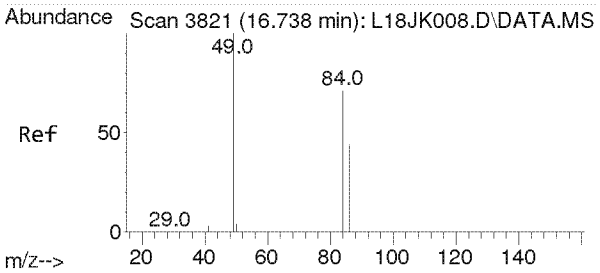
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L18K~004.D
Acq: 27 Nov 2018 12:42 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	57.6
98	36.8

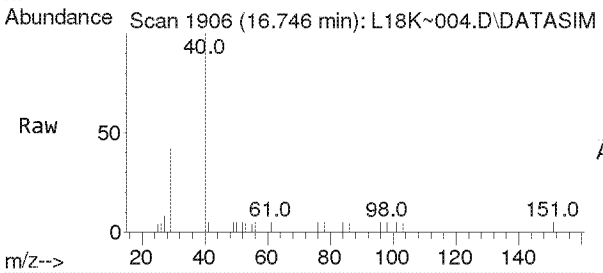


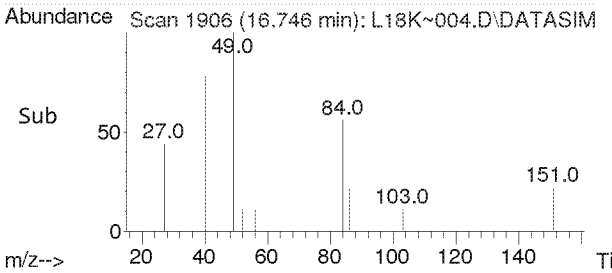


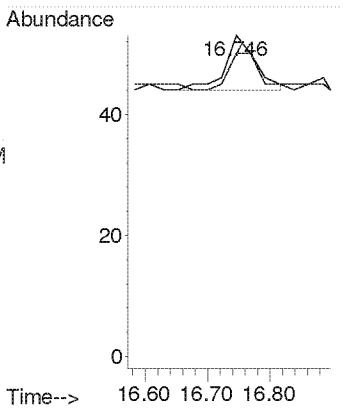
#17
Methylene Chloride
Concen: 0.004 ppbv
RT: 16.746 min Scan# 1906
Delta R.T. 0.008 min
Lab File: L18K~004.D
Acq: 27 Nov 2018 12:42 pm

Tgt Ion: 49 Resp: 31

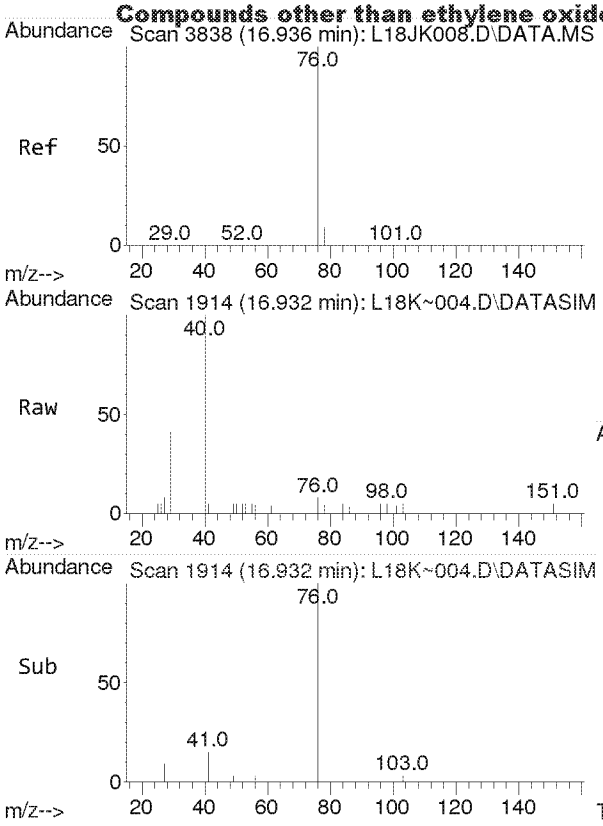
Ion	Ratio	Lower	Upper
49	100		
84	0.0	51.9	96.5#







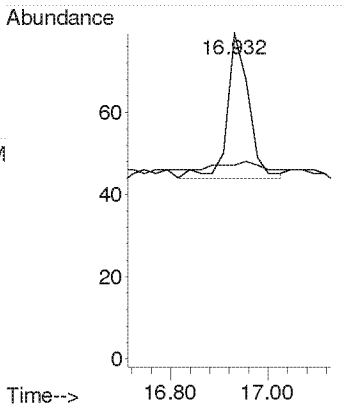
Compounds other than ethylene oxide were not quantitated.

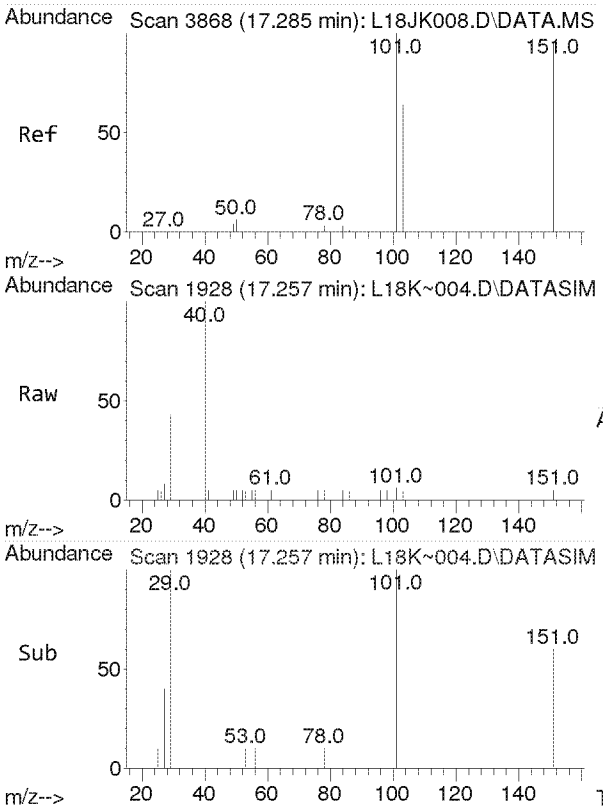


#18
Carbon Disulfide
Concen: 0.005 ppbv
RT: 16.932 min Scan# 1914
Delta R.T. -0.004 min
Lab File: L18K~004.D
Acq: 27 Nov 2018 12:42 pm

Tgt Ion: 76 Resp: 106

Ion	Ratio	Lower	Upper
76	100		
78	0.0	7.3	10.9#

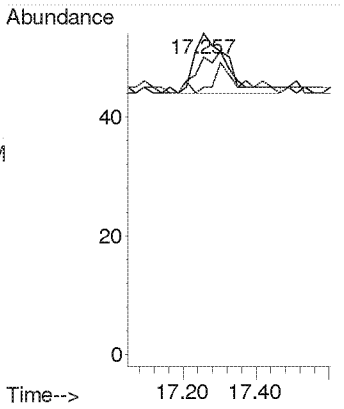




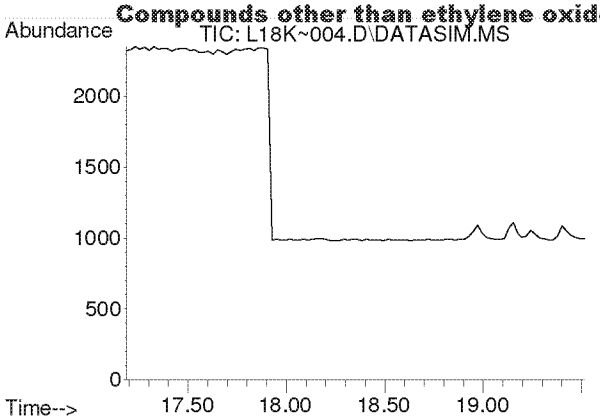
#19
Trichlorotrifluoroethane
Concen: 0.004 ppbv
RT: 17.257 min Scan# 1928
Delta R.T. -0.029 min
Lab File: L18K~004.D
Acq: 27 Nov 2018 12:42 pm

Tgt Ion:101 Resp: 63

Ion	Ratio	Lower	Upper
101	100		
151	74.6	76.8	115.2#
103	0.0	51.4	77.2#



Compounds other than ethylene oxide were not quantitated.

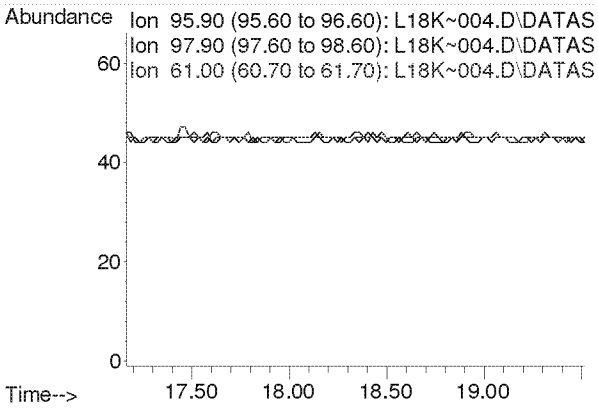


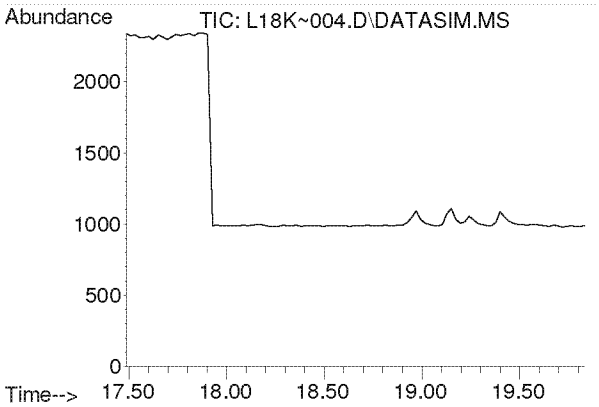
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.33 min

Lab File: L18K~004.D
Acq: 27 Nov 2018 12:42 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	63.6
61	156.3



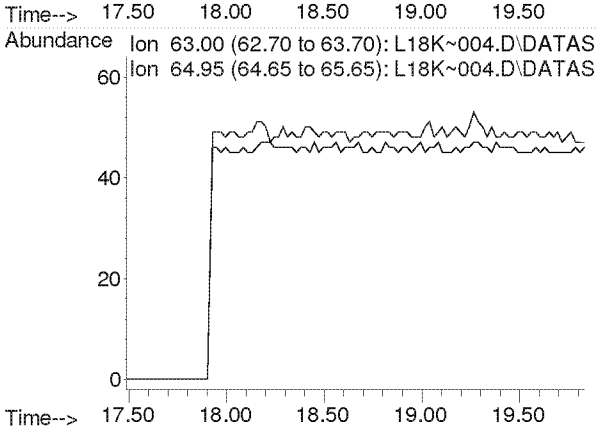


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.64 min

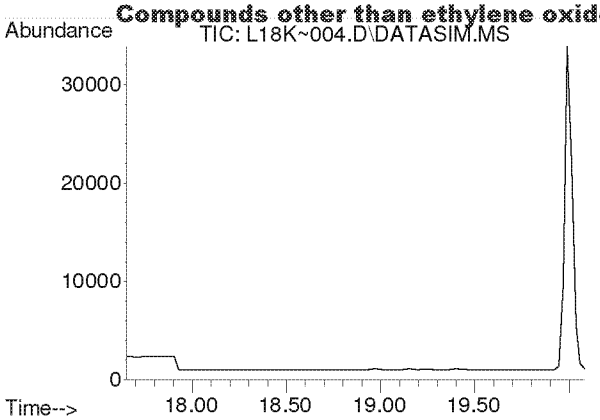
Lab File: L18K~004.D
Acq: 27 Nov 2018 12:42 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	32.1



Compounds other than ethylene oxide were not quantitated.

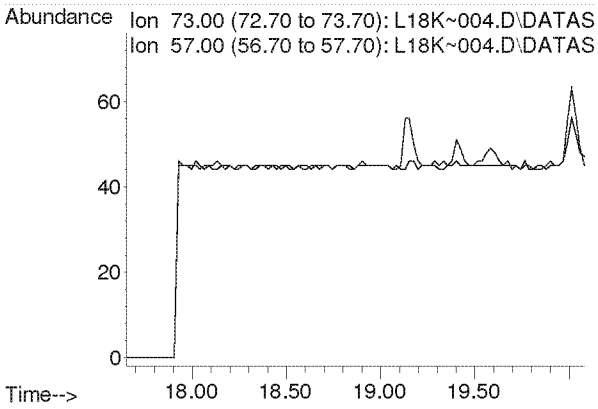


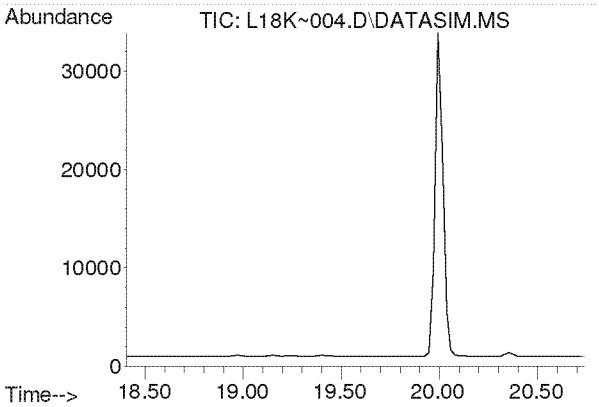
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L18K~004.D
Acq: 27 Nov 2018 12:42 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.0



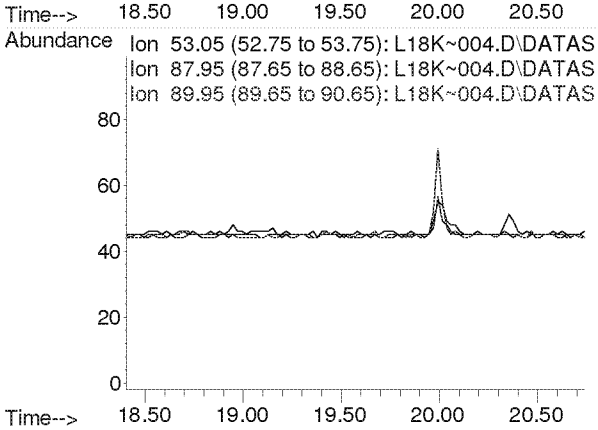


#23
Chloroprene
Concen: N.D.
Expected RT: 19.55 min

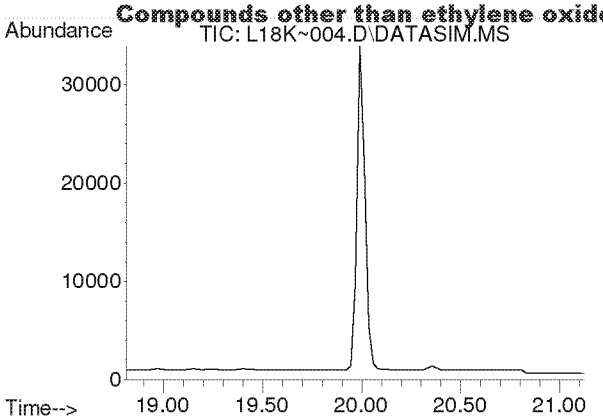
Lab File: L18K~004.D
Acq: 27 Nov 2018 12:42 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	51.5
90	16.6



Compounds other than ethylene oxide were not quantitated.

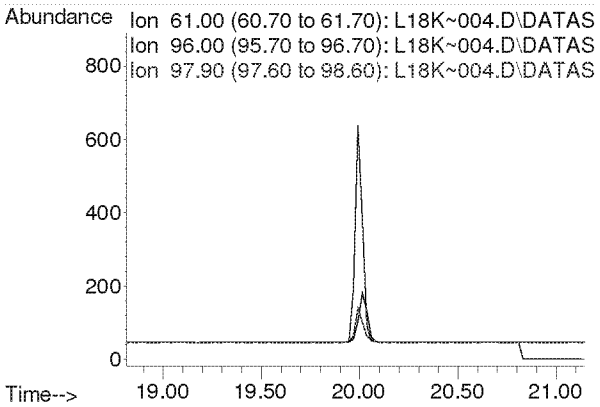


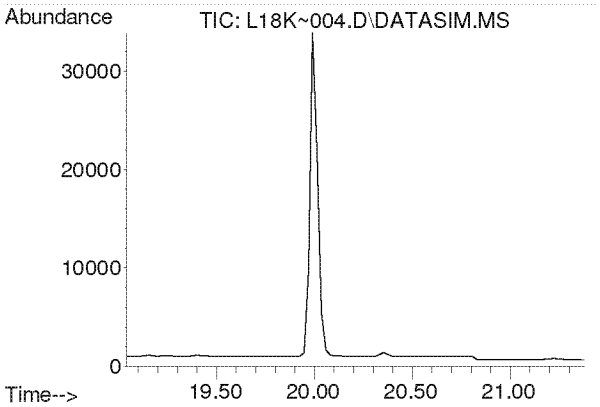
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.96 min

Lab File: L18K~004.D
Acq: 27 Nov 2018 12:42 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.5
98	46.2



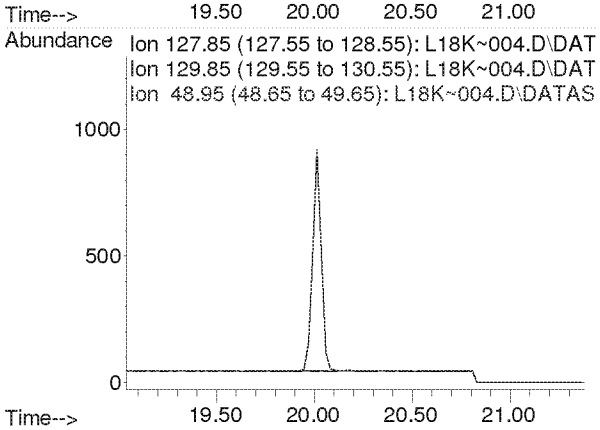


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.18 min

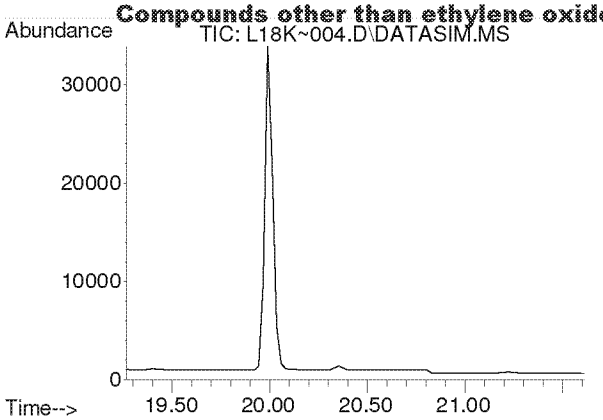
Lab File: L18K~004.D
Acq: 27 Nov 2018 12:42 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	128.9
49	167.9



Compounds other than ethylene oxide were not quantitated.

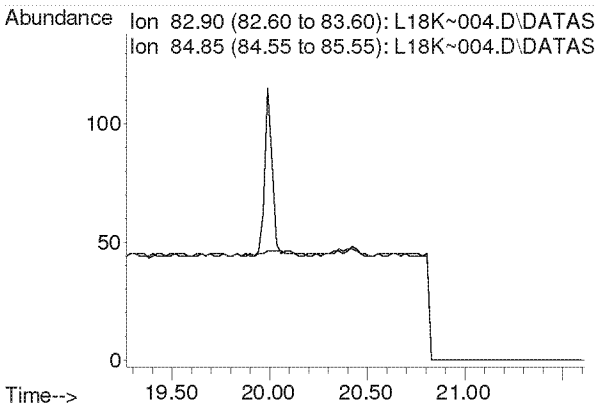


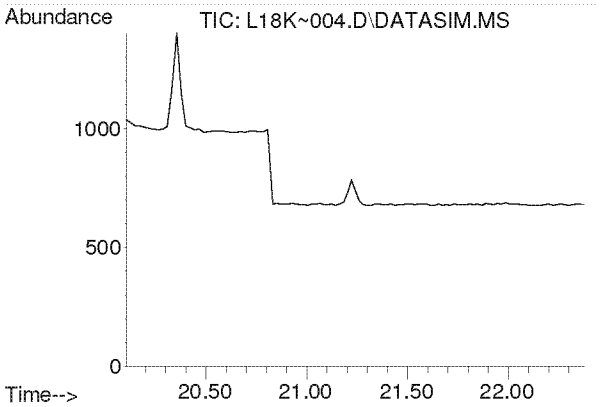
#26
Chloroform
Concen: N.D.
Expected RT: 20.42 min

Lab File: L18K~004.D
Acq: 27 Nov 2018 12:42 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



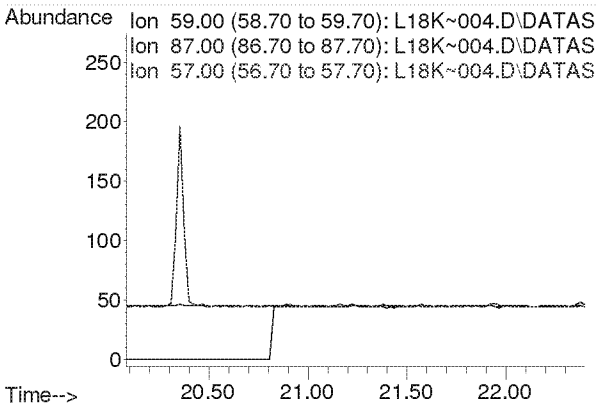


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.19 min

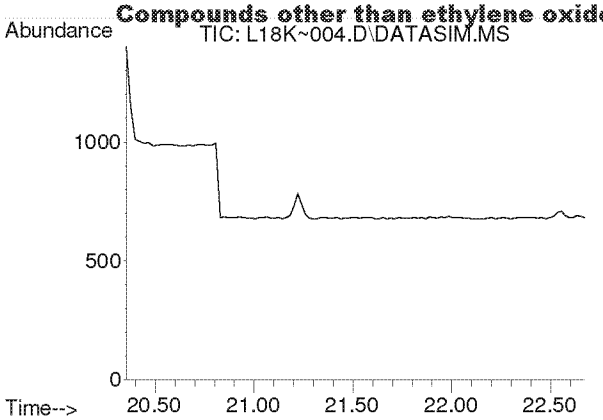
Lab File: L18K~004.D
Acq: 27 Nov 2018 12:42 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	38.5
57	34.0



Compounds other than ethylene oxide were not quantitated.

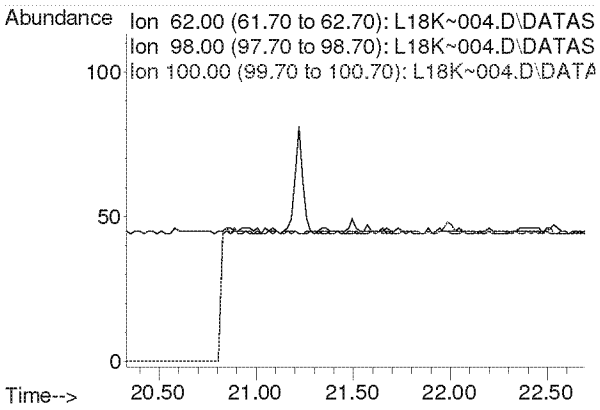


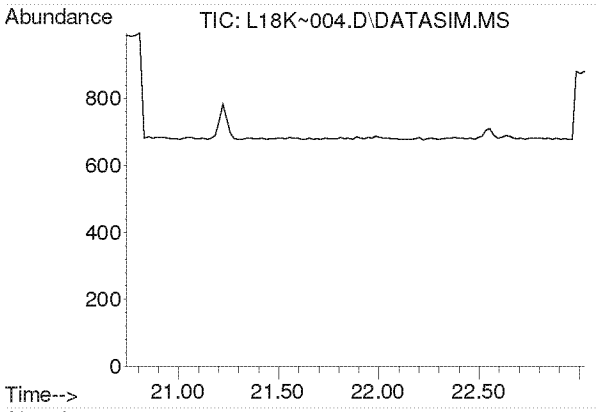
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.49 min

Lab File: L18K~004.D
Acq: 27 Nov 2018 12:42 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.0
100	3.9



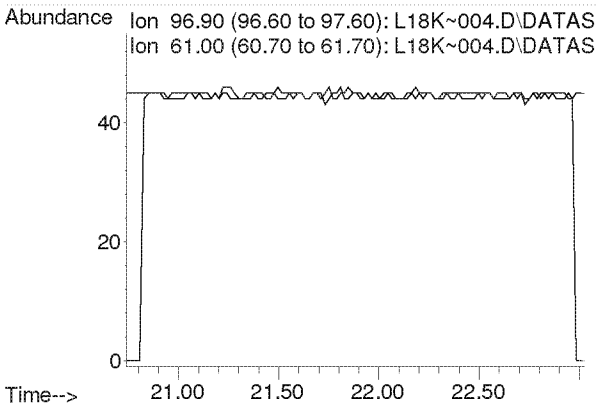


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.88 min

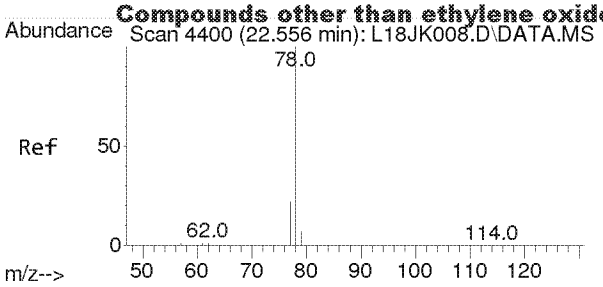
Lab File: L18K~004.D
Acq: 27 Nov 2018 12:42 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	59.6



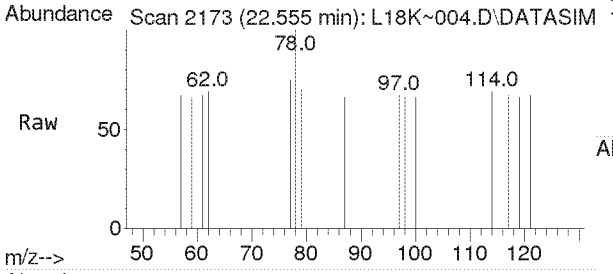
Compounds other than ethylene oxide were not quantitated.

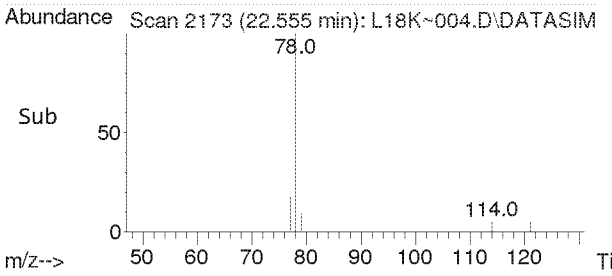


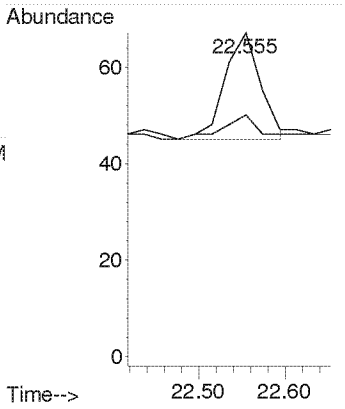
#31
Benzene
Concen: 0.004 ppbv
RT: 22.555 min Scan# 2173
Delta R.T. -0.001 min
Lab File: L18K~004.D
Acq: 27 Nov 2018 12:42 pm

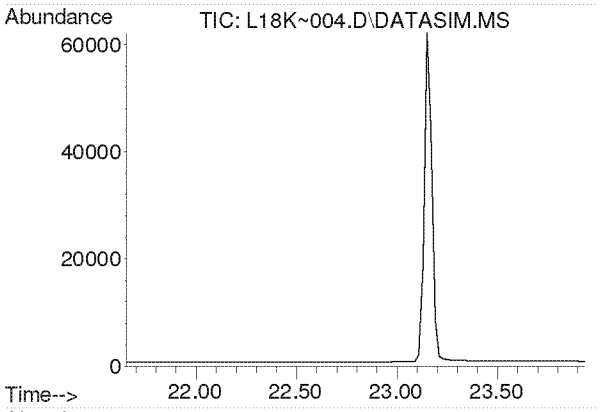
Tgt Ion: 78 Resp: 63

Ion	Ratio	Lower	Upper
78	100		
77	0.0	18.3	27.5#







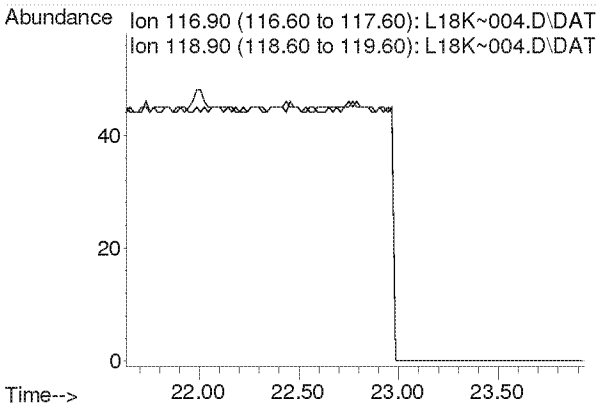


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.79 min

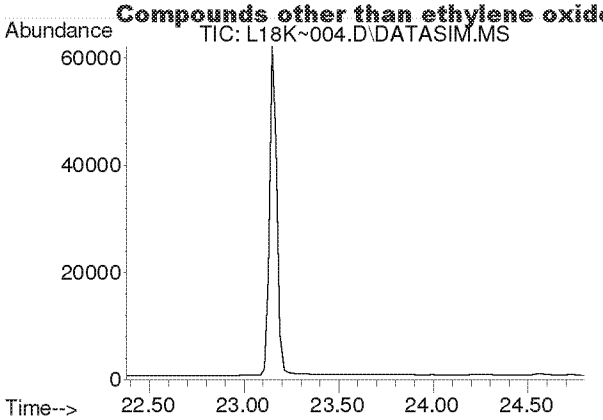
Lab File: L18K~004.D
Acq: 27 Nov 2018 12:42 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.9



Compounds other than ethylene oxide were not quantitated.

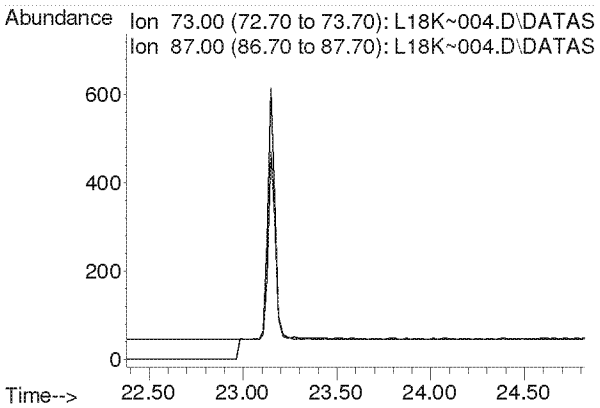


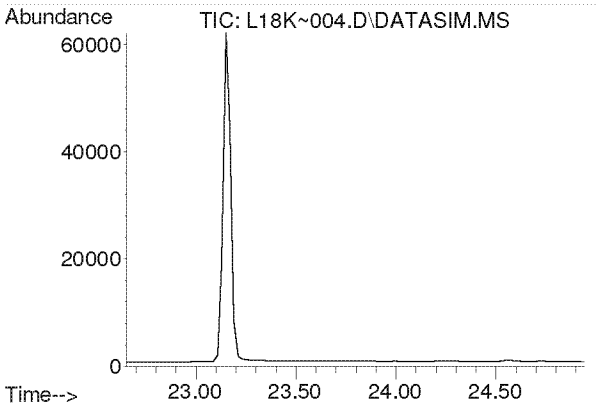
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L18K~004.D
Acq: 27 Nov 2018 12:42 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



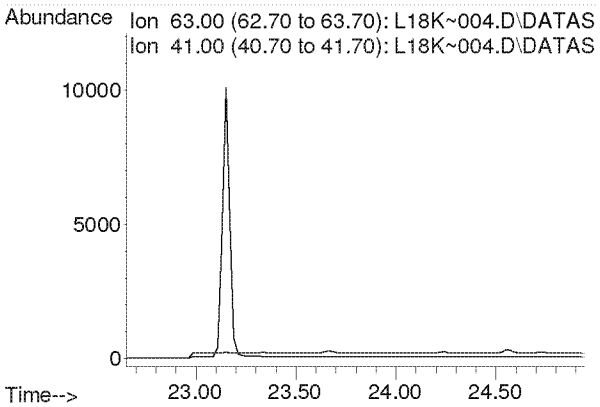


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.80 min

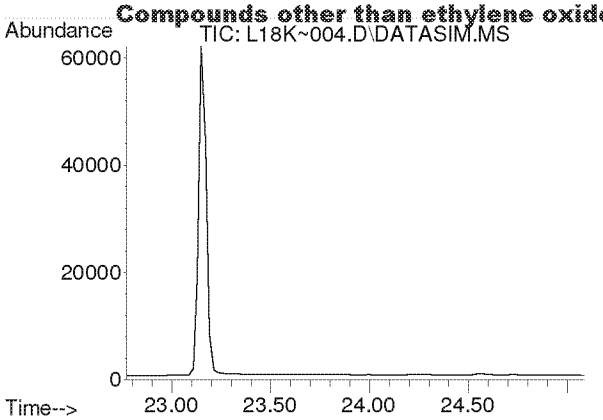
Lab File: L18K~004.D
Acq: 27 Nov 2018 12:42 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	222.1



Compounds other than ethylene oxide were not quantitated.

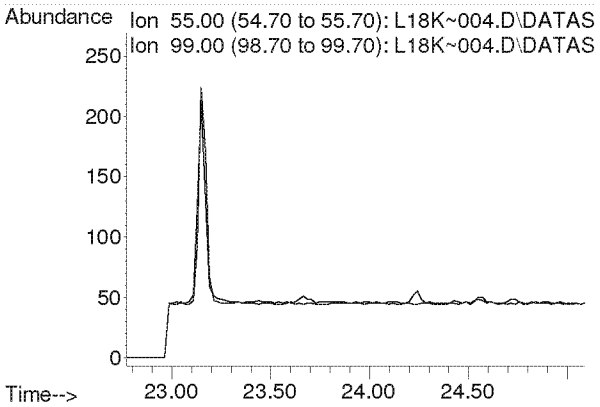


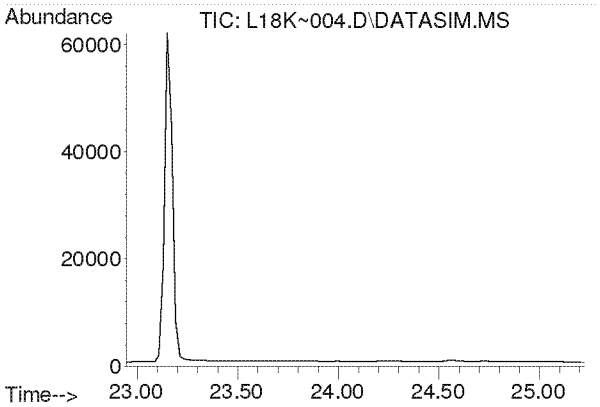
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L18K~004.D
Acq: 27 Nov 2018 12:42 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



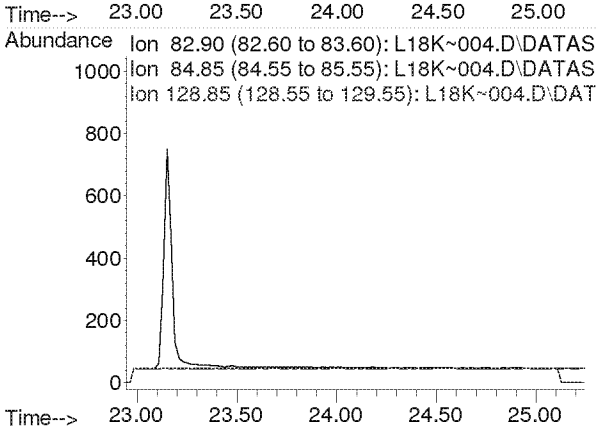


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.09 min

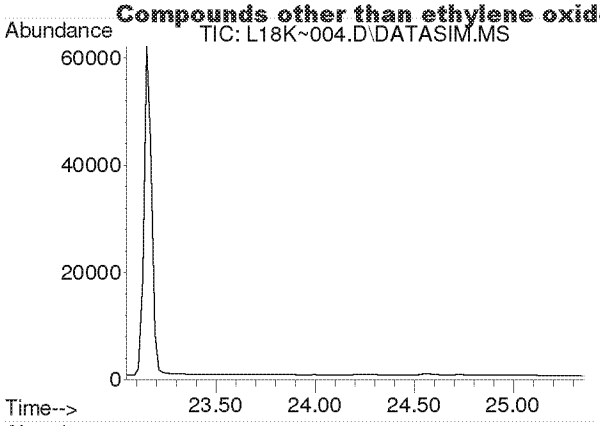
Lab File: L18K~004.D
Acq: 27 Nov 2018 12:42 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.9
129	12.9



Compounds other than ethylene oxide were not quantitated.

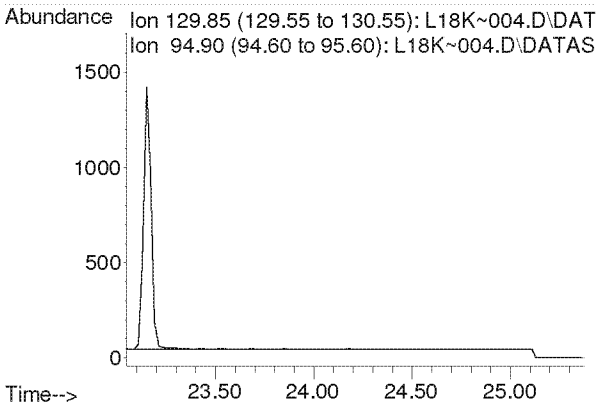


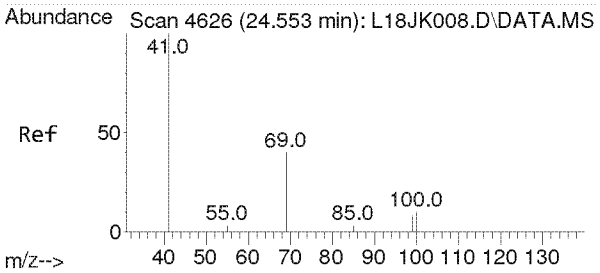
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.19 min

Lab File: L18K~004.D
Acq: 27 Nov 2018 12:42 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.9

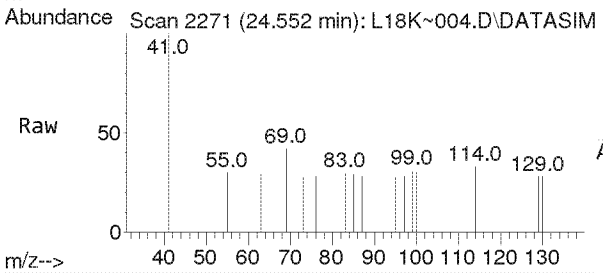


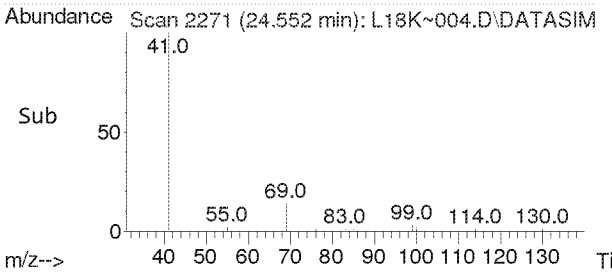


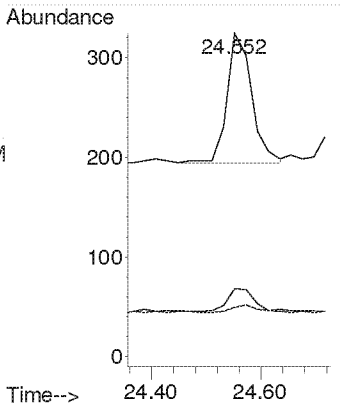
#38
Methyl Methacrylate
Concen: 0.019 ppbv
RT: 24.552 min Scan# 2271
Delta R.T. -0.001 min
Lab File: L18K~004.D
Acq: 27 Nov 2018 12:42 pm

Tgt Ion: 41 Resp: 406

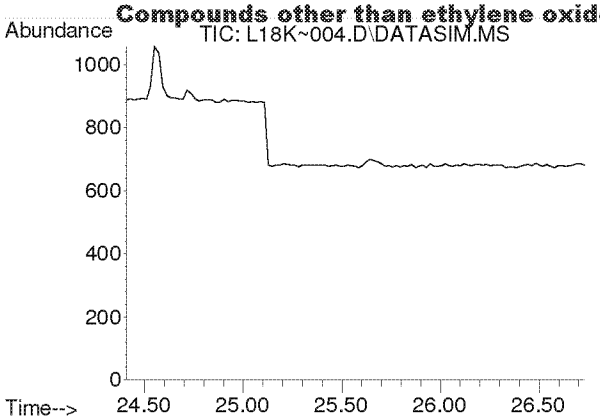
Ion	Ratio	Lower	Upper
41	100		
69	19.5	16.0	24.0
100	0.0	4.1	6.1#







Compounds other than ethylene oxide were not quantitated.

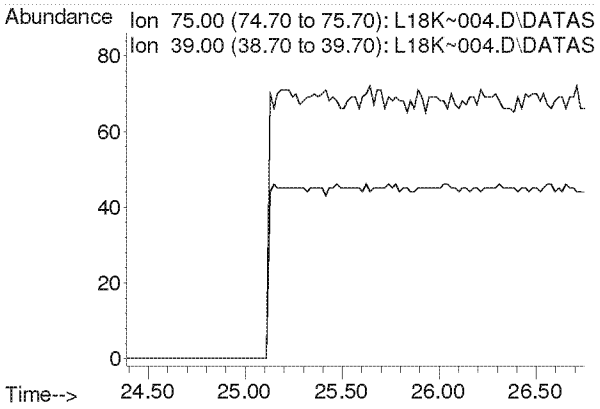


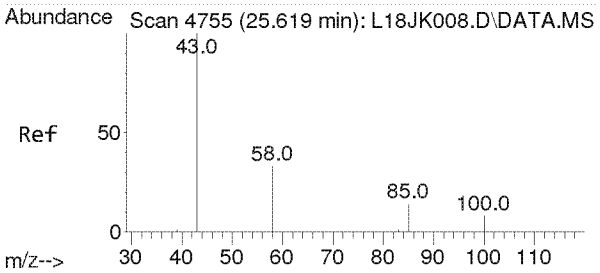
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.54 min

Lab File: L18K~004.D
Acq: 27 Nov 2018 12:42 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	55.6

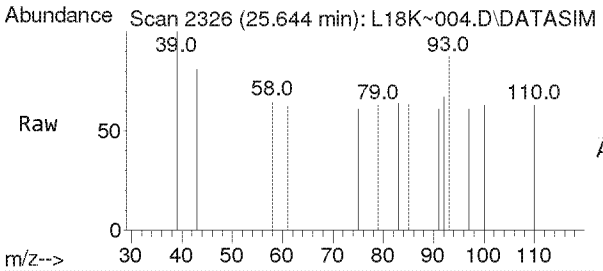


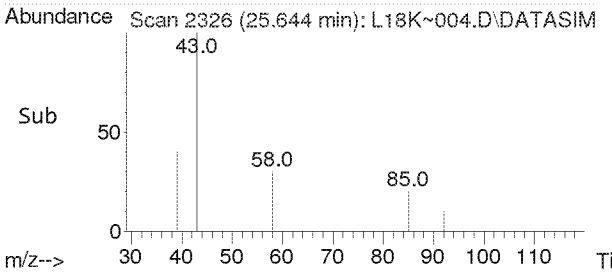


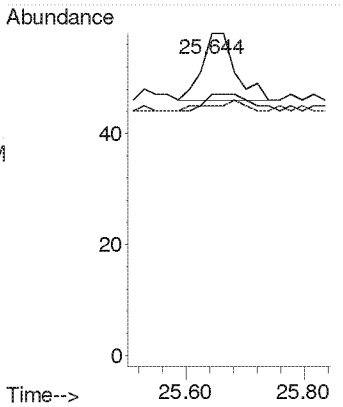
#40
Methyl Isobutyl Ketone
Concen: 0.004 ppbv
RT: 25.644 min Scan# 2326
Delta R.T. 0.026 min
Lab File: L18K~004.D
Acq: 27 Nov 2018 12:42 pm

Tgt Ion: 43 Resp: 47

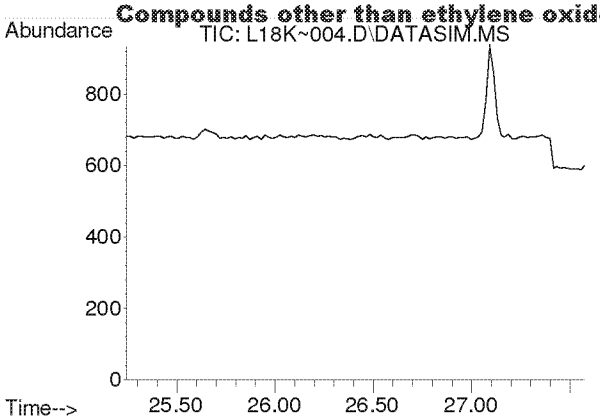
Ion	Ratio	Lower	Upper
43	100		
58	0.0	26.6	40.0#
100	0.0	6.4	9.6#







Compounds other than ethylene oxide were not quantitated.

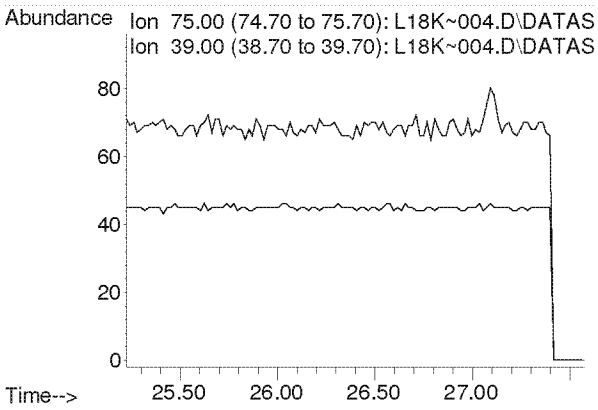


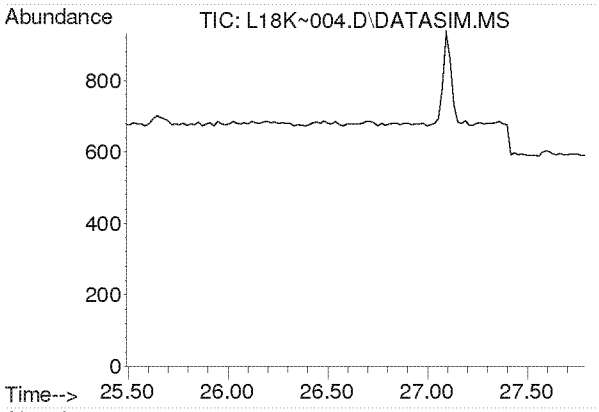
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.38 min

Lab File: L18K~004.D
Acq: 27 Nov 2018 12:42 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	55.3



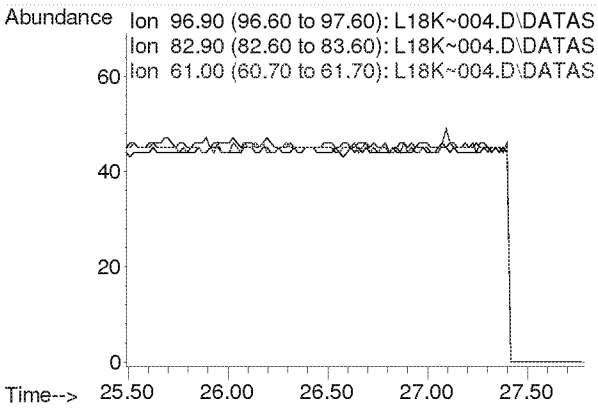


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.64 min

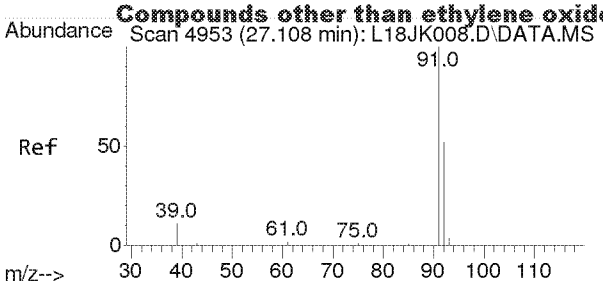
Lab File: L18K~004.D
Acq: 27 Nov 2018 12:42 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	95.3
61	64.6



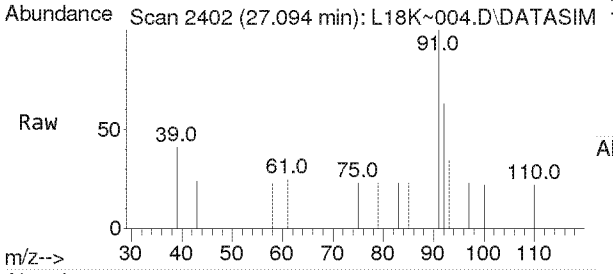
Compounds other than ethylene oxide were not quantitated.

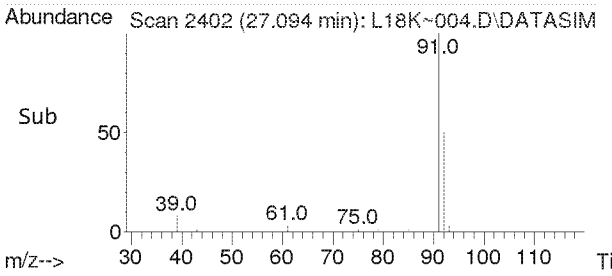


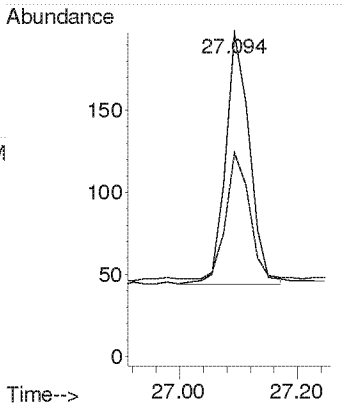
#44
Toluene
Concen: 0.026 ppbv
RT: 27.094 min Scan# 2402
Delta R.T. -0.014 min
Lab File: L18K~004.D
Acq: 27 Nov 2018 12:42 pm

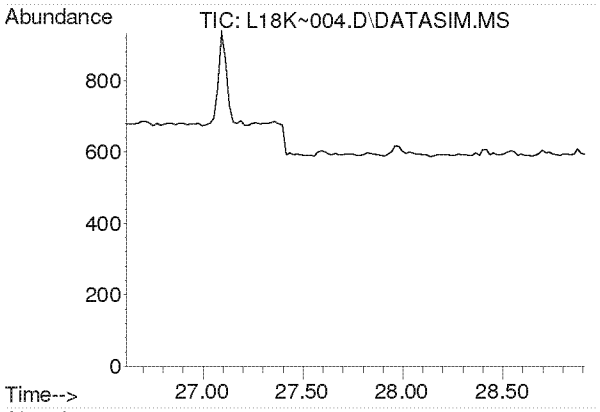
Tgt Ion: 91 Resp: 426

Ion	Ratio	Lower	Upper
91	100		
92	48.8	41.7	62.5







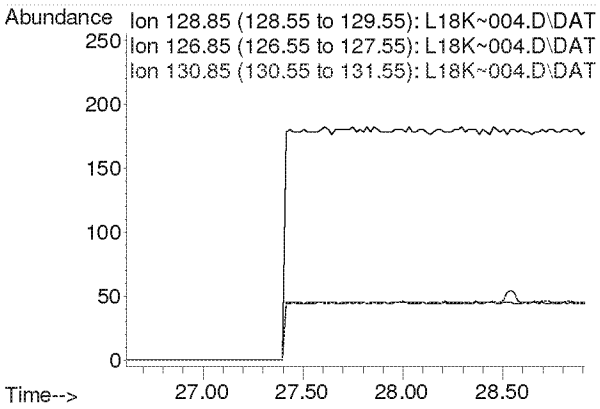


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.76 min

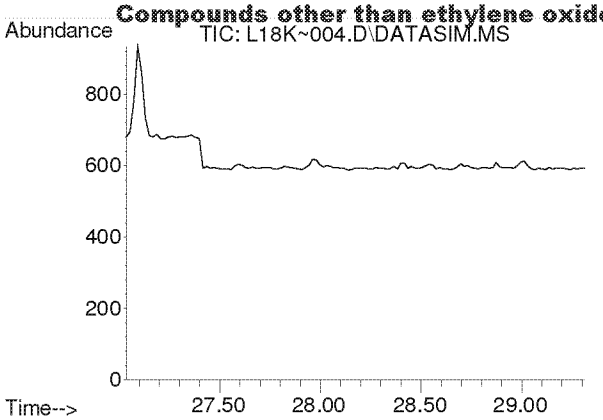
Lab File: L18K~004.D
Acq: 27 Nov 2018 12:42 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

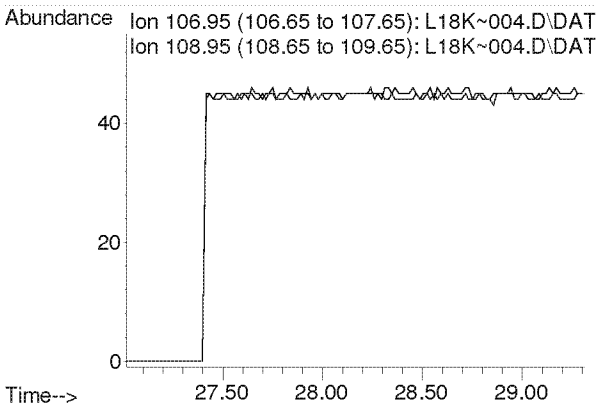


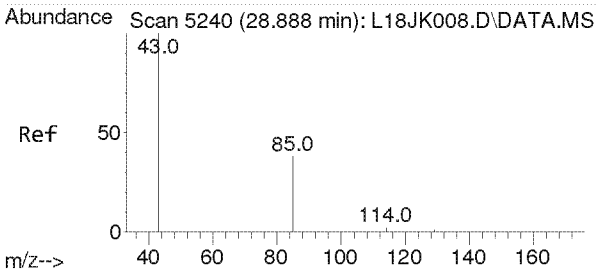
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.17 min

Lab File: L18K~004.D
Acq: 27 Nov 2018 12:42 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	93.8

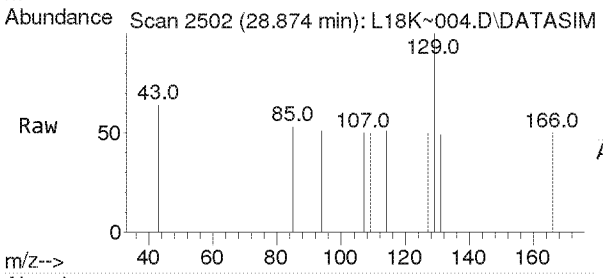


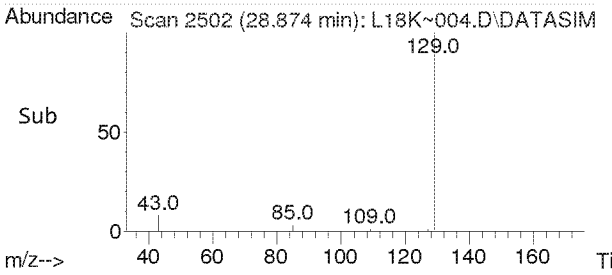


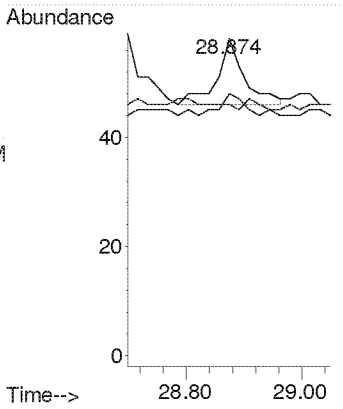
#47
n-Octane
Concen: 0.004 ppbv
RT: 28.874 min Scan# 2502
Delta R.T. -0.013 min
Lab File: L18K~004.D
Acq: 27 Nov 2018 12:42 pm

Tgt Ion: 43 Resp: 40

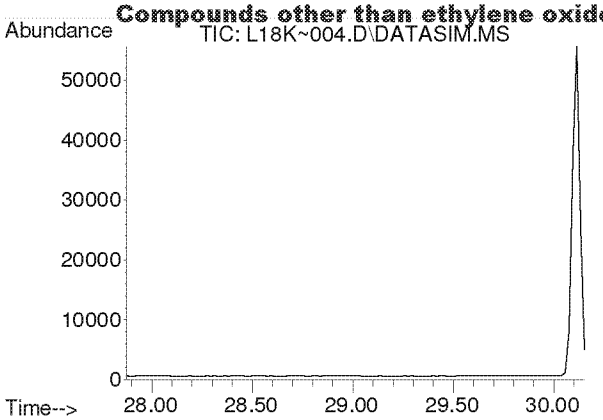
Ion	Ratio	Lower	Upper
43	100		
85	0.0	30.2	45.4#
114	0.0	1.9	2.9#







Compounds other than ethylene oxide were not quantitated.

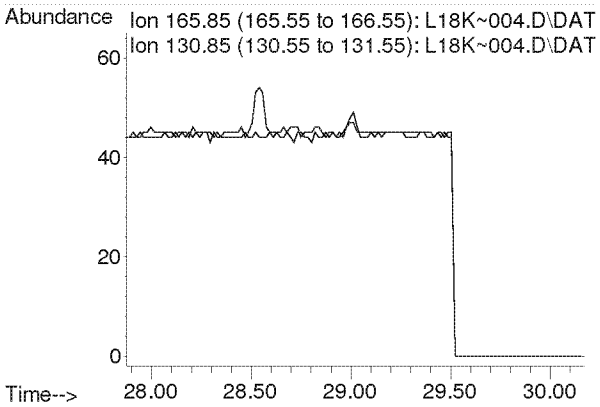


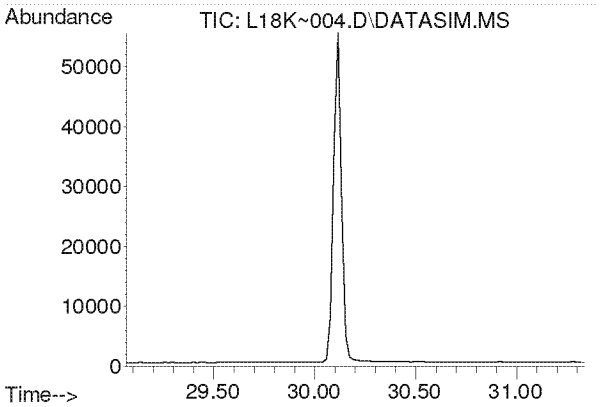
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.02 min

Lab File: L18K~004.D
Acq: 27 Nov 2018 12:42 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	78.7



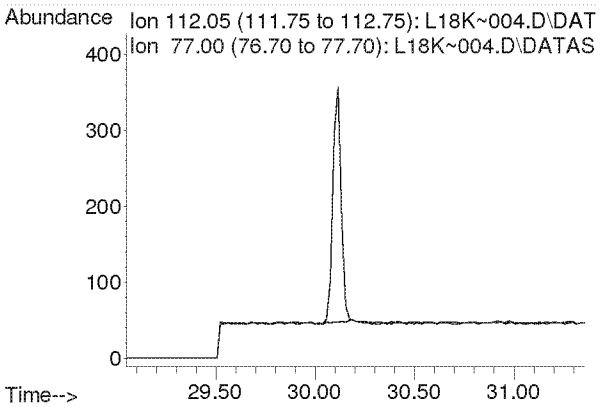


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.20 min

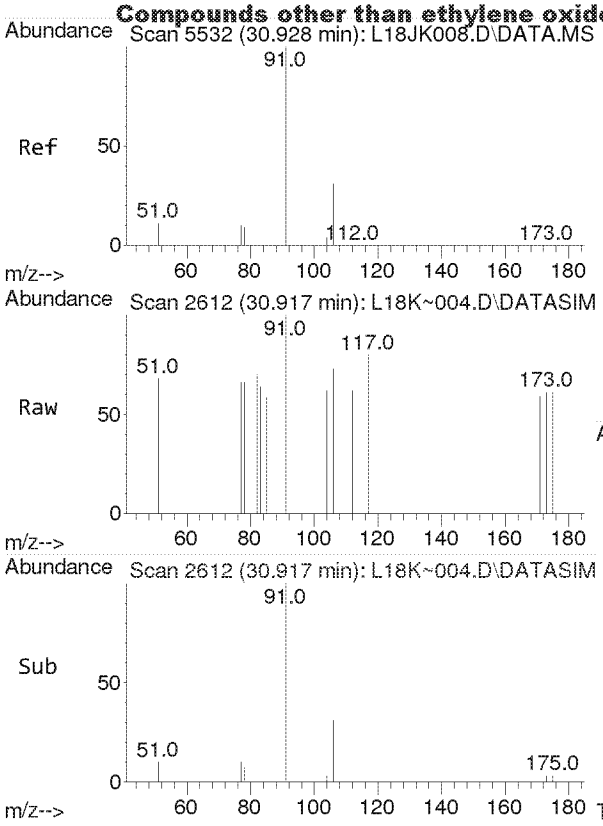
Lab File: L18K~004.D
Acq: 27 Nov 2018 12:42 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.3



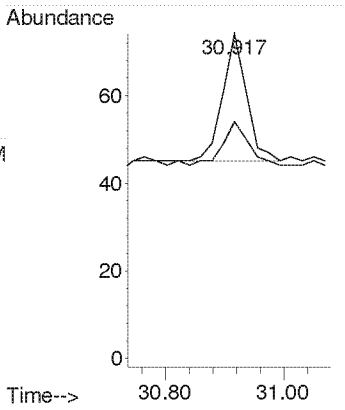
Compounds other than ethylene oxide were not quantitated.

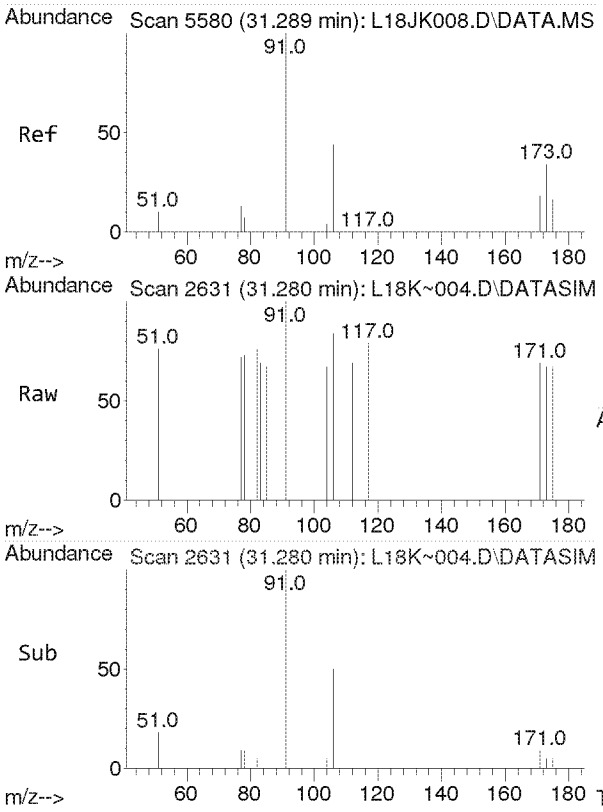


#50
Ethylbenzene
Concen: 0.005 ppbv
RT: 30.917 min Scan# 2612
Delta R.T. -0.010 min
Lab File: L18K~004.D
Acq: 27 Nov 2018 12:42 pm

Tgt Ion: 91 Resp: 81

Ion	Ratio	Lower	Upper
91	100		
106	38.3	25.4	38.2#

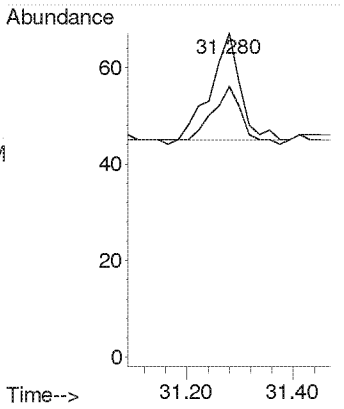




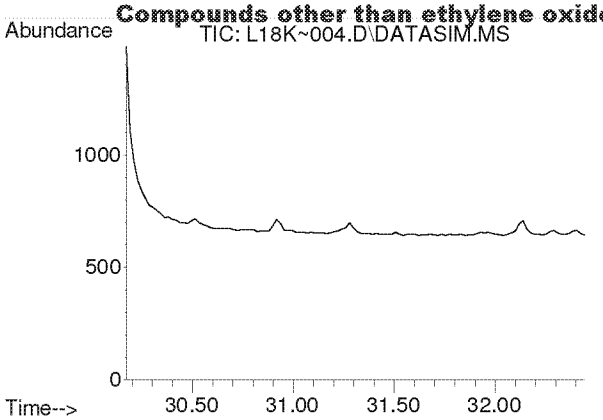
#51
m,p-Xylene
Concen: 0.006 ppbv
RT: 31.280 min Scan# 2631
Delta R.T. -0.009 min
Lab File: L18K~004.D
Acq: 27 Nov 2018 12:42 pm

Tgt Ion: 91 Resp: 85

Ion	Ratio	Lower	Upper
91	100		
106	57.6	36.3	54.5#



Compounds other than ethylene oxide were not quantitated.

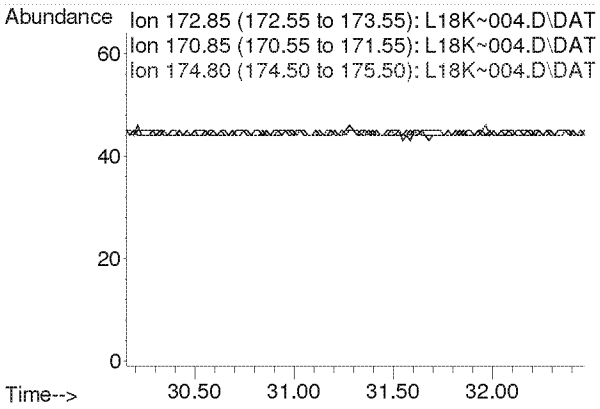


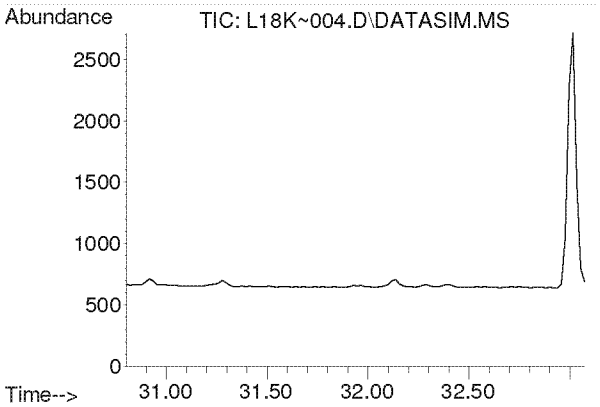
#52
Bromoform
Concen: N.D.
Expected RT: 31.30 min

Lab File: L18K~004.D
Acq: 27 Nov 2018 12:42 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.4
175	49.0



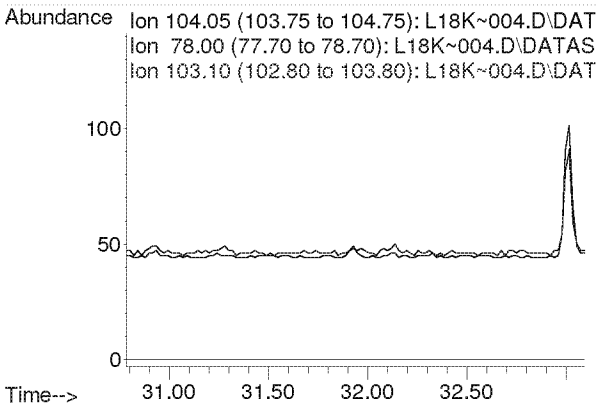


#53
Styrene
Concen: N.D.
Expected RT: 31.94 min

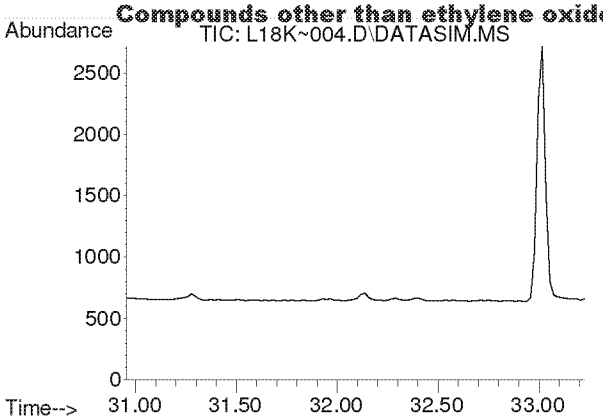
Lab File: L18K~004.D
Acq: 27 Nov 2018 12:42 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	45.7
103	0.0



Compounds other than ethylene oxide were not quantitated.

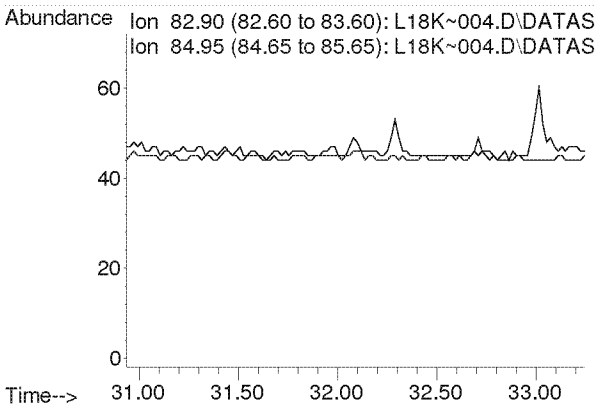


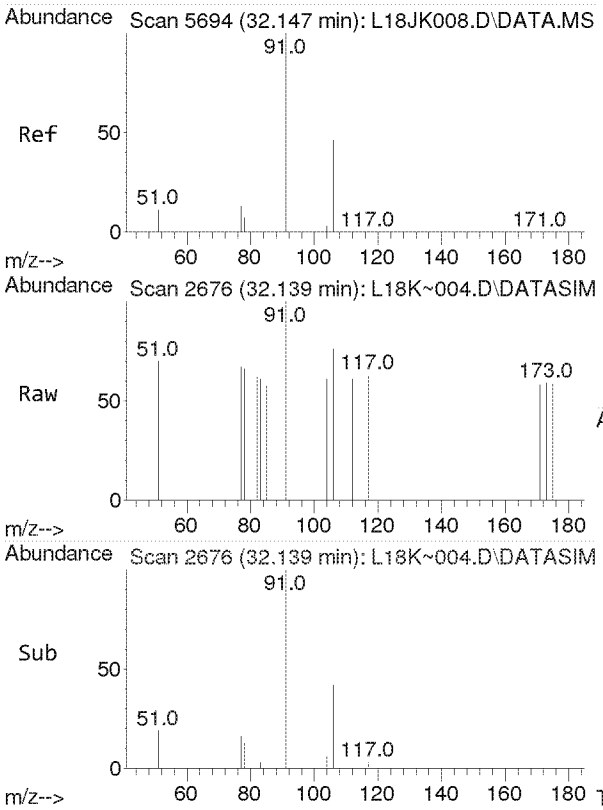
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.09 min

Lab File: L18K~004.D
Acq: 27 Nov 2018 12:42 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.3

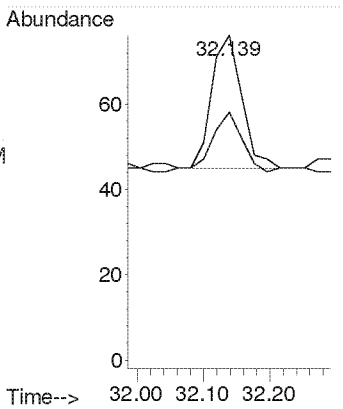




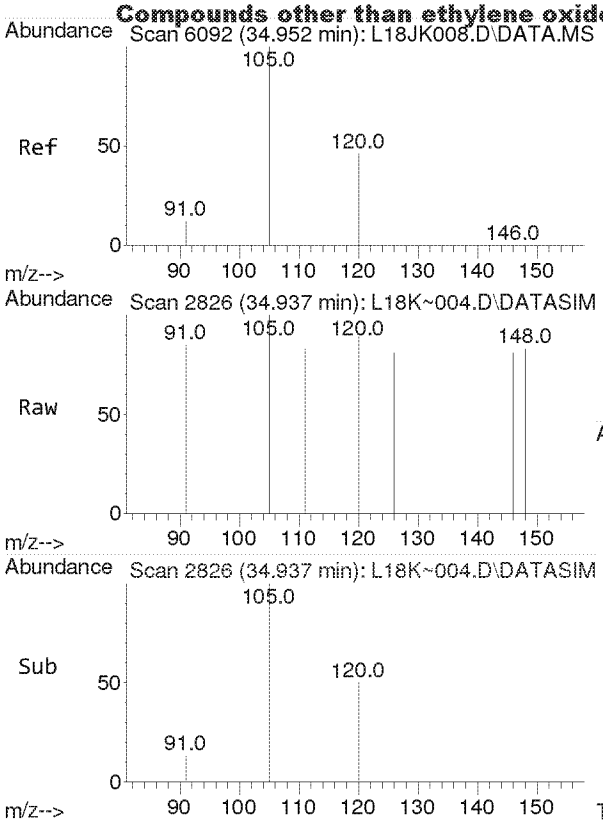
#55
o-Xylene
Concen: 0.007 ppbv
RT: 32.139 min Scan# 2676
Delta R.T. -0.008 min
Lab File: L18K~004.D
Acq: 27 Nov 2018 12:42 pm

Tgt Ion: 91 Resp: 97

Ion	Ratio	Lower	Upper
91	100		
106	46.4	36.4	54.6



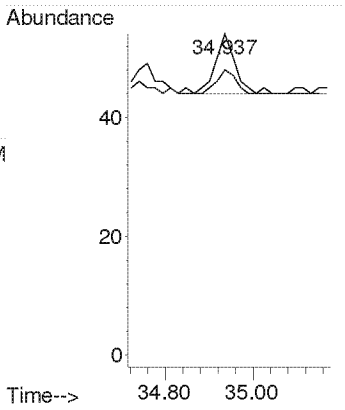
Compounds other than ethylene oxide were not quantitated.

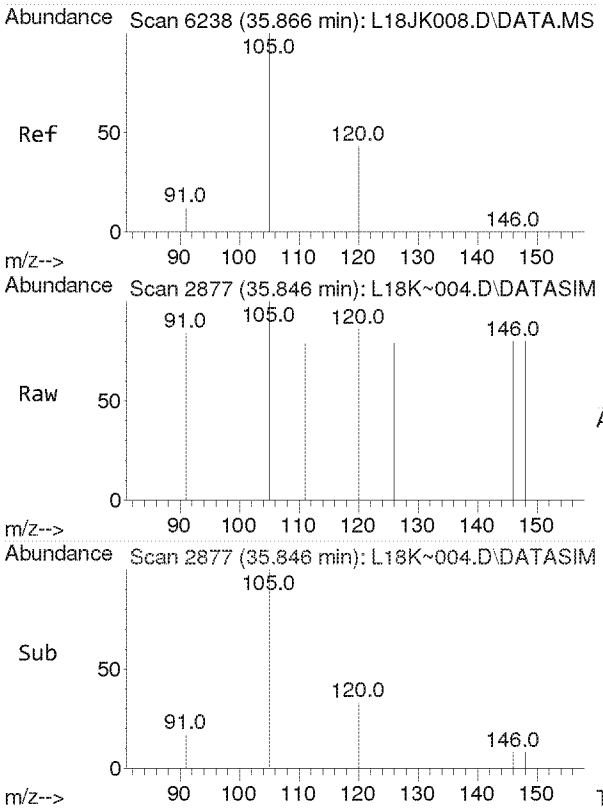


#56
1,3,5-Trimethylbenzene
Concen: 0.002 ppbv
RT: 34.937 min Scan# 2826
Delta R.T. -0.015 min
Lab File: L18K~004.D
Acq: 27 Nov 2018 12:42 pm

Tgt Ion:105 Resp: 32

Ion	Ratio	Lower	Upper
105	100		
120	0.0	36.5	54.7#

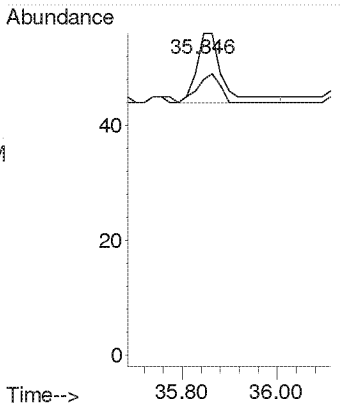




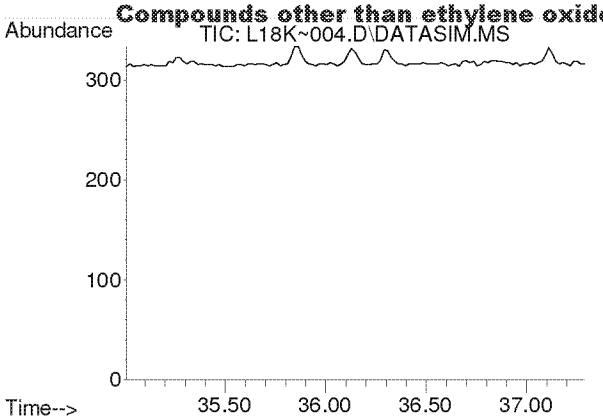
#57
1,2,4-Trimethylbenzene
Concen: 0.004 ppbv
RT: 35.846 min Scan# 2877
Delta R.T. -0.020 min
Lab File: L18K~004.D
Acq: 27 Nov 2018 12:42 pm

Tgt Ion:105 Resp: 46

Ion	Ratio	Lower	Upper
105	100		
120	0.0	34.7	52.1#



Compounds other than ethylene oxide were not quantitated.

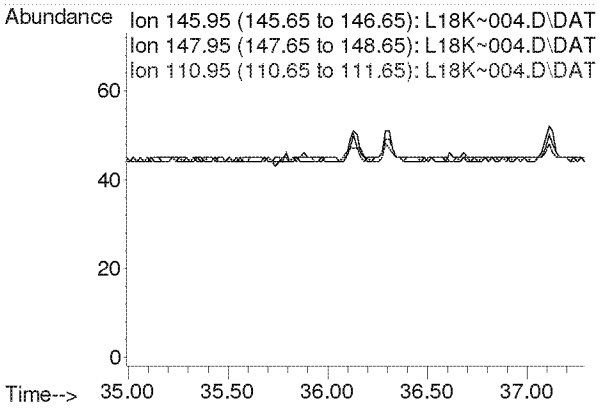


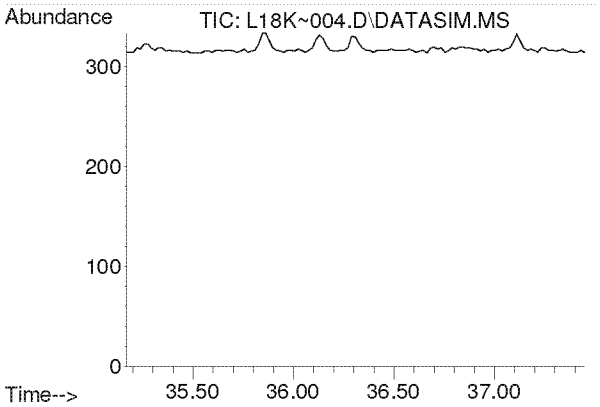
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.15 min

Lab File: L18K~004.D
Acq: 27 Nov 2018 12:42 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	41.1



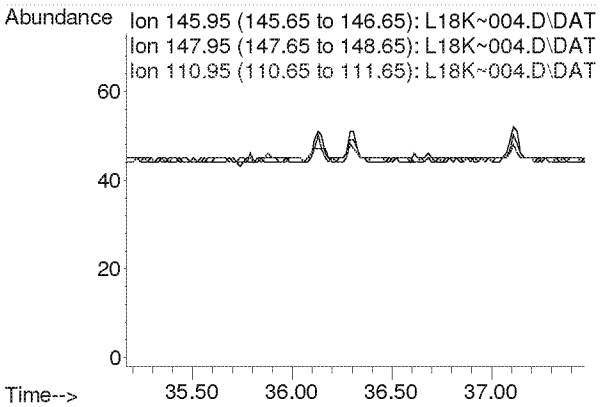


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.31 min

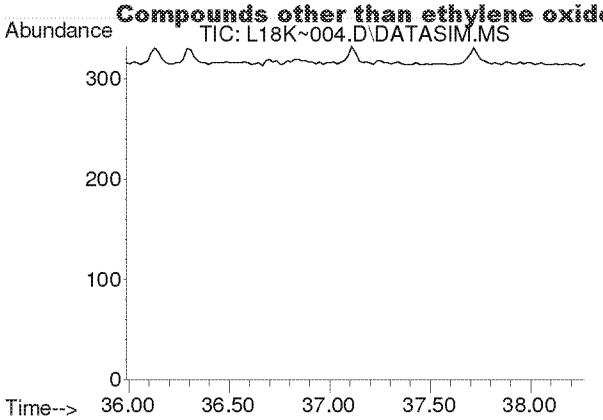
Lab File: L18K~004.D
Acq: 27 Nov 2018 12:42 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	39.8



Compounds other than ethylene oxide were not quantitated.

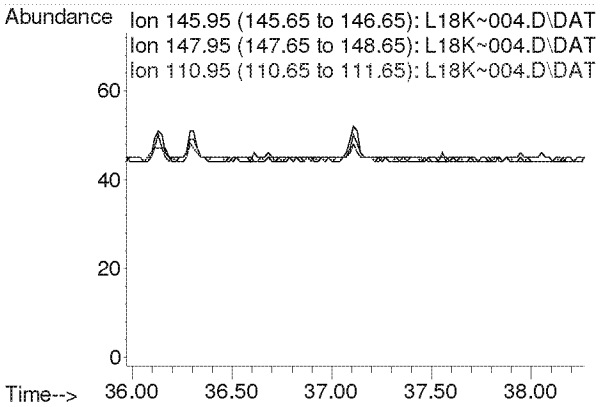


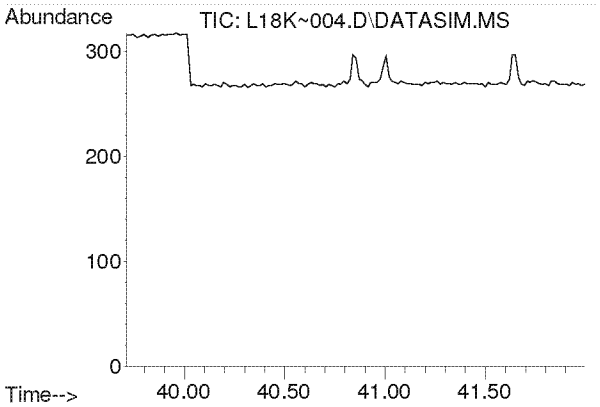
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.12 min

Lab File: L18K~004.D
Acq: 27 Nov 2018 12:42 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	63.9
111	41.8



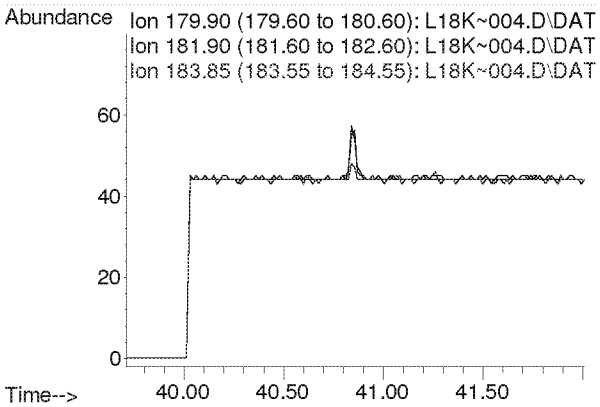


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.85 min

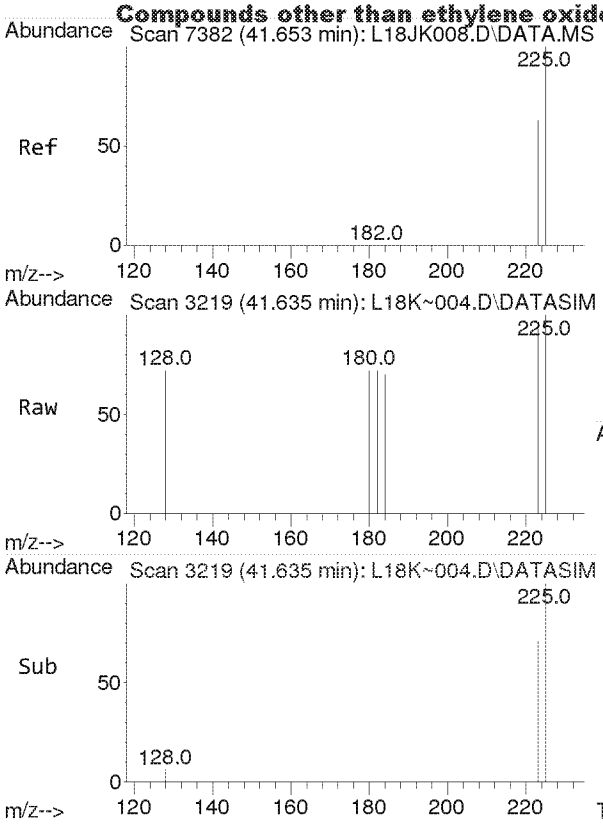
Lab File: L18K~004.D
Acq: 27 Nov 2018 12:42 pm

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	95.6
184	30.5



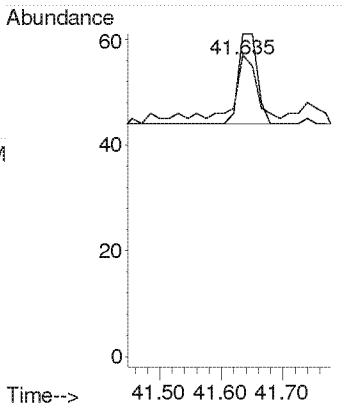
Compounds other than ethylene oxide were not quantitated.



#62
Hexachloro-1,3-butadiene
Concen: 0.005 ppbv
RT: 41.635 min Scan# 3219
Delta R.T. -0.018 min
Lab File: L18K~004.D
Acq: 27 Nov 2018 12:42 pm

Tgt Ion:225 Resp: 36

Ion	Ratio	Lower	Upper
225	100		
223	0.0	50.2	75.4#



Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L18K~\
Data File : L18K~010.D
Acq On : 27 Nov 2018 6:57 pm (#1); 27-Nov-18, 18:52:01 (#2)
Operator : MAH
Sample : 8112113-01
Misc : WB VILLAGE HALL C1 11/19/18 (Sig #1); (Sig #2)
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 28 11:27:17 2018
Quant Method : C:\msdchem\1\METHODS\8100002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Fri Oct 12 09:33:42 2018
Response via : Initial Calibration

11-27-18
d=112

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.993	66	49761	4.8000 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.151	114	118297	5.0200 ppbv	-0.02
43) IS-Chlorobenzene-d5	30.116	117	79659	4.7700 ppbv	-0.01

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	9130	3.3790 ppbv	91
10) Bromomethane	0.000	94	0	N.D. d	
11) Chloroethane	0.000	64	0	N.D.	
12) Acetonitrile	0.000	41	0	N.D. d	
13) Acrolein	0.000	56	0	N.D. d	
14) Trichlorofluoromethane	0.000	101	0	N.D. d	
15) Acrylonitrile	0.000	53	0	N.D. d	
16) 1,1-Dichloroethene	0.000	61	0	N.D.	
17) Methylene Chloride	0.000	49	0	N.D. d	
18) Carbon Disulfide	0.000	76	0	N.D. d	
19) Trichlorotrifluoroethane	0.000	101	0	N.D. d	
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.	
21) 1,1-Dichloroethane	0.000	63	0	N.D.	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D. d	
23) Chloroprene	0.000	53	0	N.D. d	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D. d	
25) Bromochloromethane	0.000	128	0	N.D.	
26) Chloroform	0.000	83	0	N.D. d	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D.	
28) 1,2-Dichloroethane	0.000	62	0	N.D. d	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D. d	
31) Benzene	0.000	78	0	N.D. d	
32) Carbon Tetrachloride	0.000	117	0	N.D. d	
33) tert-Amyl Methyl Ether	0.000	73	0	N.D.	
34) 1,2-Dichloropropane	0.000	63	0	N.D.	
35) Ethyl Acrylate	0.000	55	0	N.D.	
36) Bromodichloromethane	0.000	83	0	N.D.	
37) Trichloroethylene	0.000	130	0	N.D.	
38) Methyl Methacrylate	0.000	41	0	N.D.	
39) cis-1,3-Dichloropropene	0.000	75	0	N.D.	
40) Methyl Isobutyl Ketone	0.000	43	0	N.D. d	
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.	
44) Toluene	0.000	91	0	N.D. d	
45) Dibromochloromethane	0.000	129	0	N.D.	
46) 1,2-Dibromoethane	0.000	107	0	N.D.	
47) n-Octane	0.000	43	0	N.D. d	
48) Tetrachloroethylene	0.000	166	0	N.D. d	
49) Chlorobenzene	0.000	112	0	N.D.	
50) Ethylbenzene	0.000	91	0	N.D. d	

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L18K~\
Data File : L18K~010.D
Acq On : 27 Nov 2018 6:57 pm (#1); 27-Nov-18, 18:52:01 (#2)
Operator : MAH
Sample : 8112113-01
Misc : WB VILLAGE HALL C1 11/19/18 (Sig #1); (Sig #2)
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 28 11:27:17 2018
Quant Method : C:\msdchem\1\METHODS\8100002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Fri Oct 12 09:33:42 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.	
53) Styrene	0.000	104	0	N.D.	d
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D.	d
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	d
57) 1,2,4-Trimethylbenzene	0.000	105	0	N.D.	d
58) m-Dichlorobenzene	0.000	146	0	N.D.	
59) p-Dichlorobenzene	0.000	146	0	N.D.	
60) o-Dichlorobenzene	0.000	146	0	N.D.	
61) 1,2,4-Trichlorobenzene	0.000	180	0	N.D.	
62) Hexachloro-1,3-butadiene	0.000	225	0	N.D.	

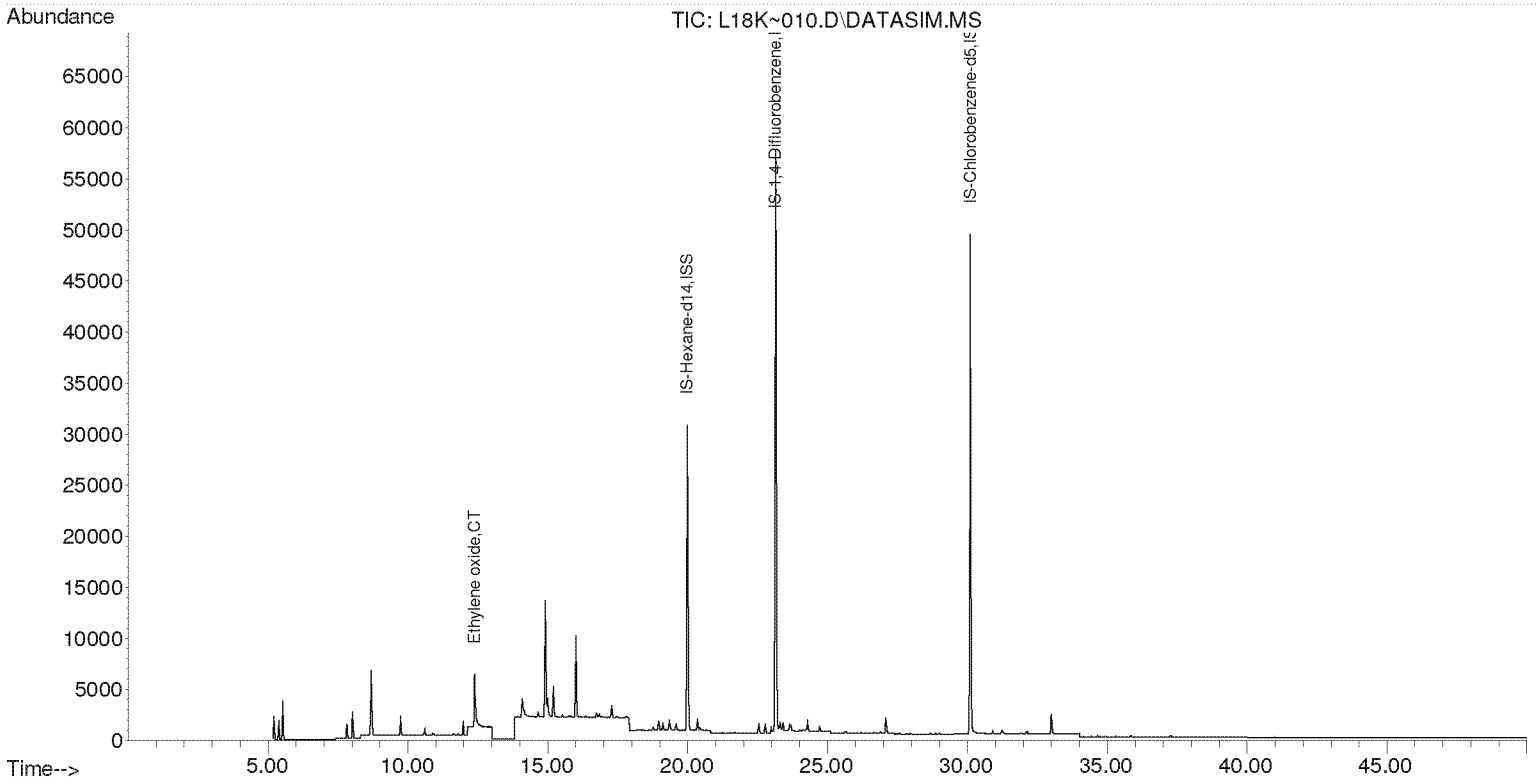
(#) = qualifier out of range (m) = manual integration (+) = signals summed

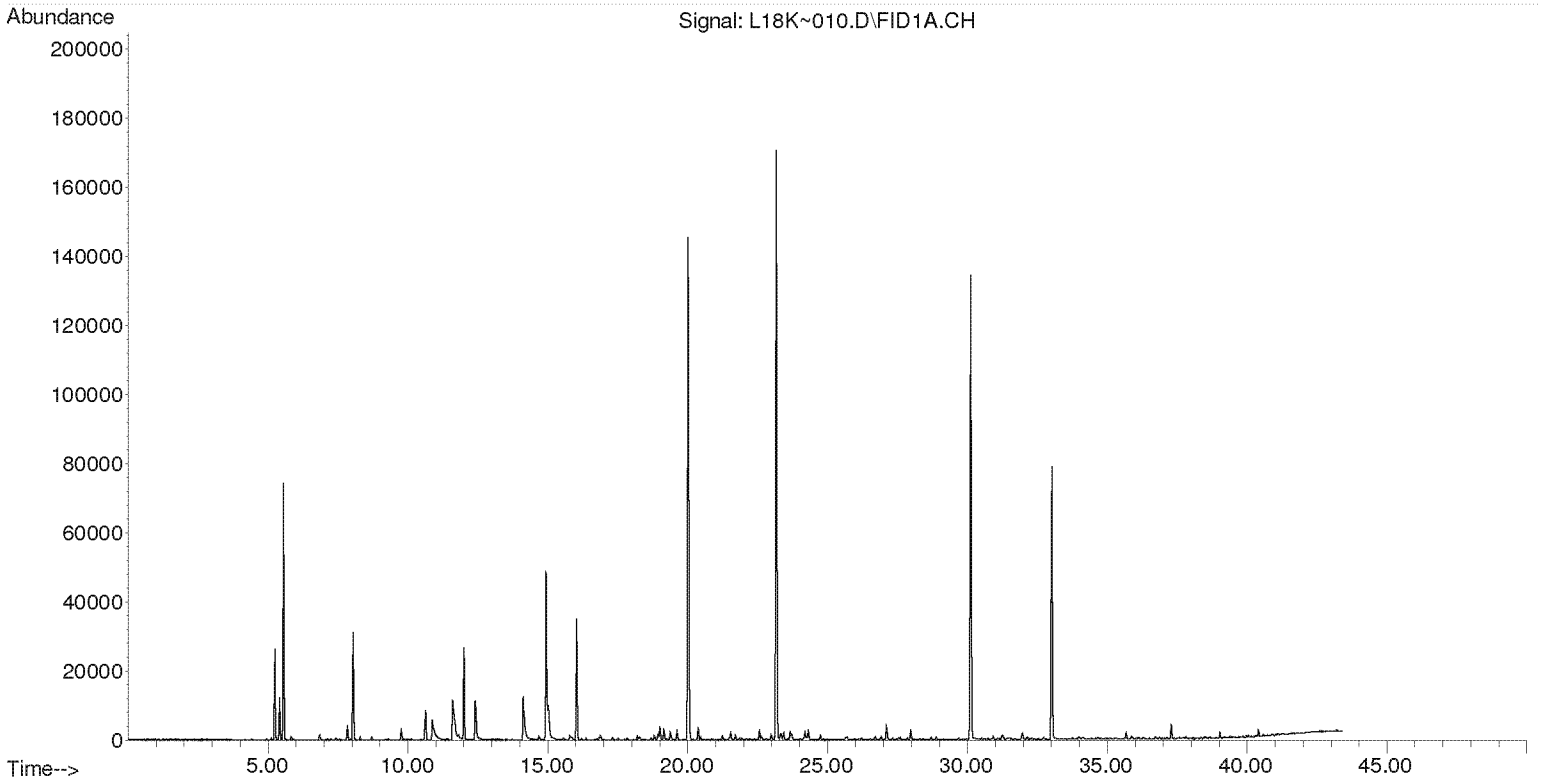
ED_002475_00000114-00081

Compounds other than ethylene oxide were not quantitated.

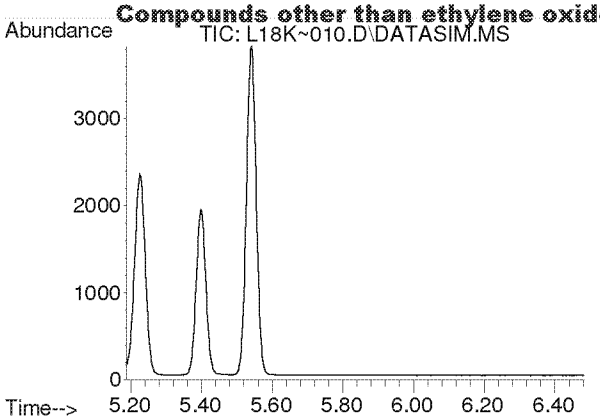
Data Path : Y:\MASS SPEC 1 DATA\L18K~\
Data File : L18K~010.D
Acq On : 27 Nov 2018 6:57 pm (#1); 27 Nov 2018 6:52 pm (#2)
Operator : MAH
Sample : 8112113-01
Misc : WB VILLAGE HALL C1 11/19/18 (Sig #1); (Sig #2)
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 28 06:28:52 2018
Quant Method : C:\msdchem\1\METHODS\8100002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Fri Oct 12 09:33:42 2018
Response via : Initial Calibration





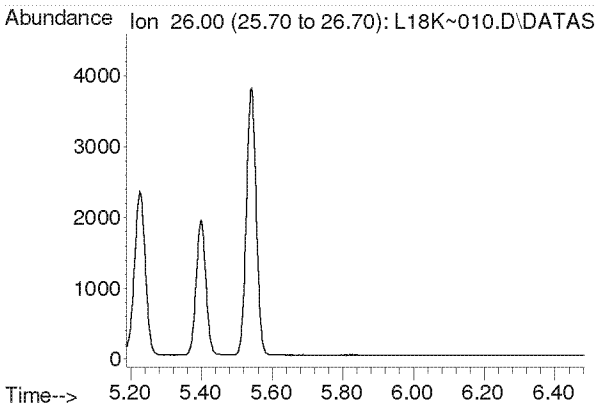
Compounds other than ethylene oxide were not quantitated.

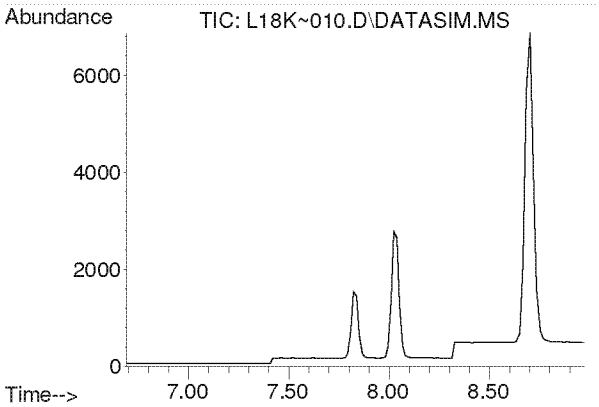


#2
Acetylene
Concen: N.D.
Expected RT: 5.41 min

Lab File: L18K~010.D
Acq: 27 Nov 2018 6:57 pm

Tgt Ion: 26



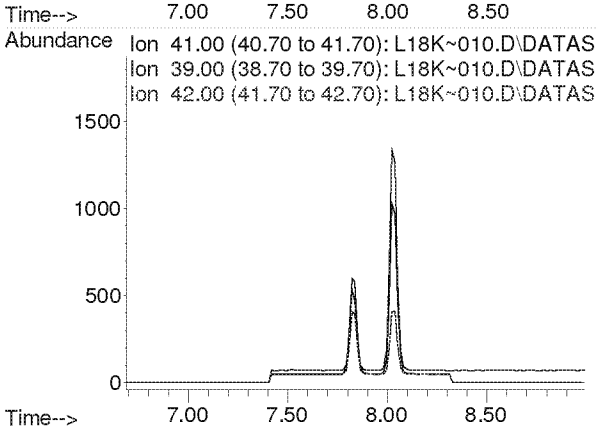


#3
Propylene
Concen: N.D.
Expected RT: 7.84 min

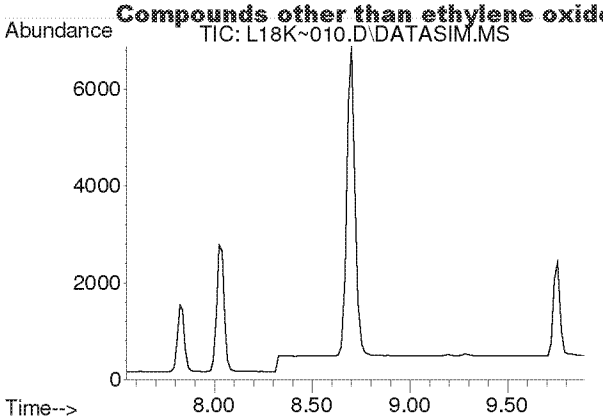
Lab File: L18K~010.D
Acq: 27 Nov 2018 6:57 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	81.2
42	65.4



Compounds other than ethylene oxide were not quantitated.

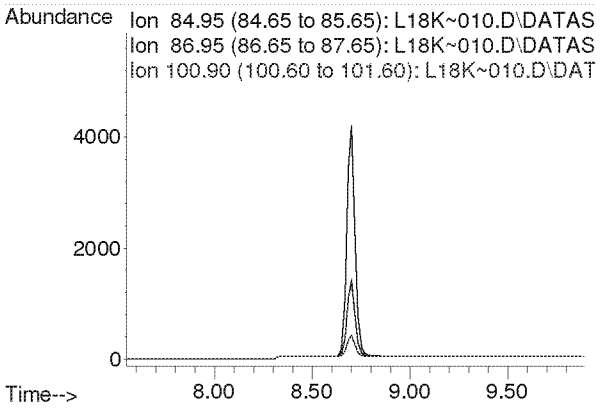


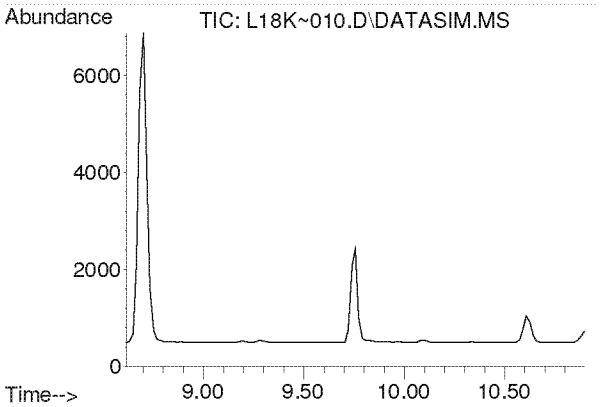
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.69 min

Lab File: L18K~010.D
Acq: 27 Nov 2018 6:57 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.3
101	9.0



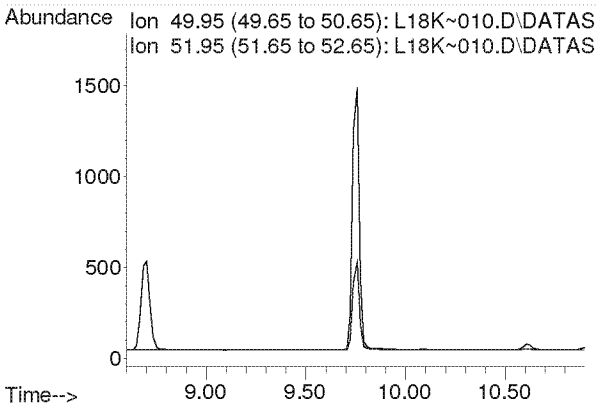


#5
Chloromethane
Concen: N.D.
Expected RT: 9.76 min

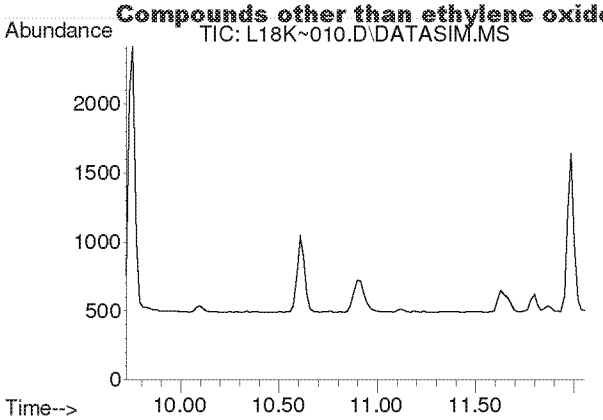
Lab File: L18K~010.D
Acq: 27 Nov 2018 6:57 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.2



Compounds other than ethylene oxide were not quantitated.

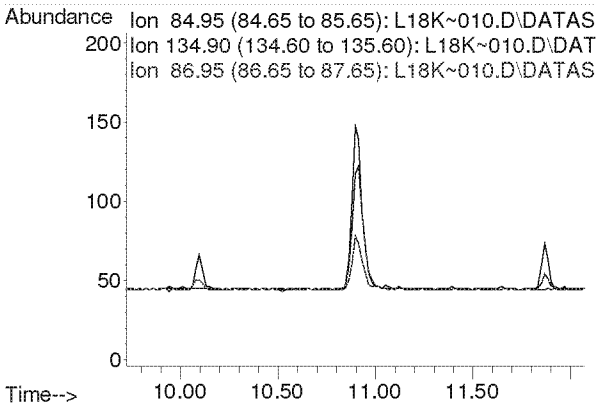


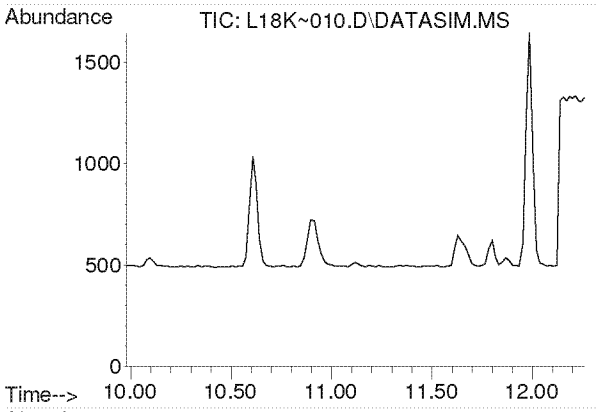
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.87 min

Lab File: L18K~010.D
Acq: 27 Nov 2018 6:57 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.6
87	32.1



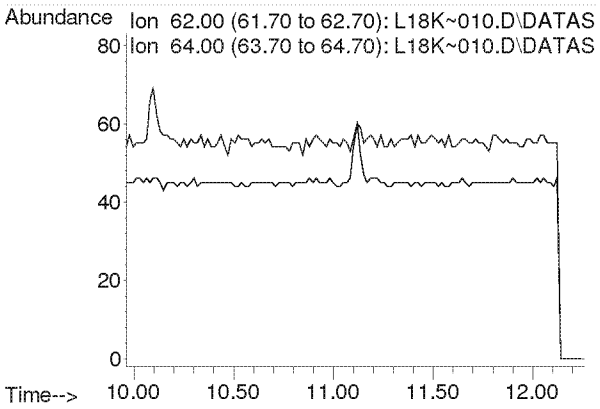


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

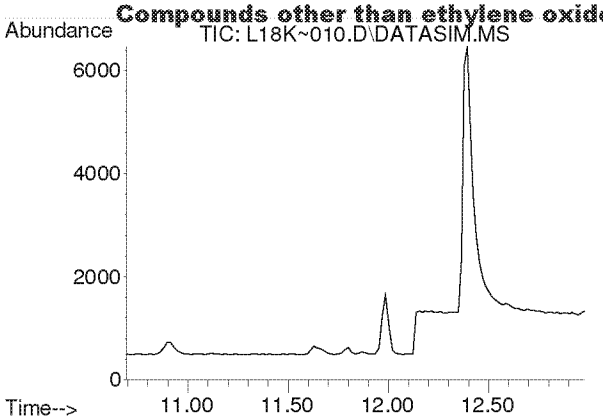
Lab File: L18K~010.D
Acq: 27 Nov 2018 6:57 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	32.0



Compounds other than ethylene oxide were not quantitated.

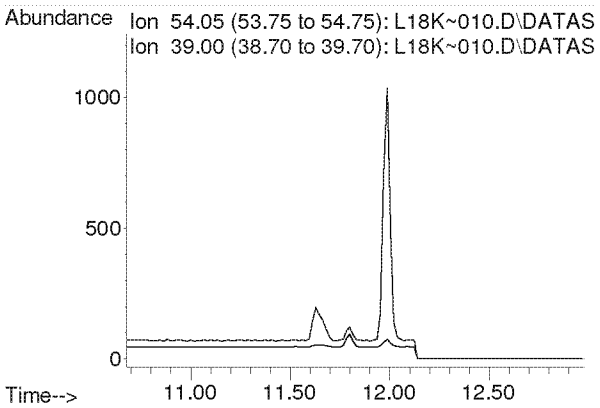


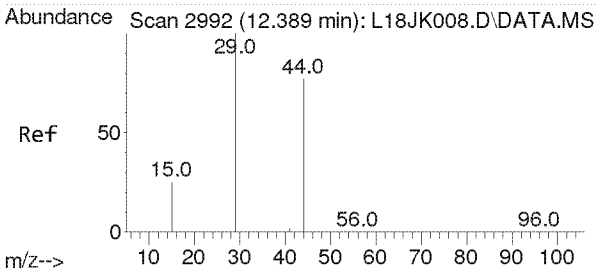
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.79 min

Lab File: L18K~010.D
Acq: 27 Nov 2018 6:57 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	108.7

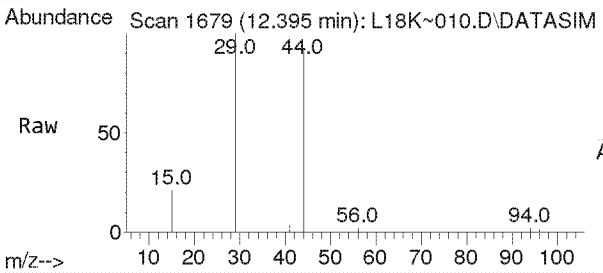


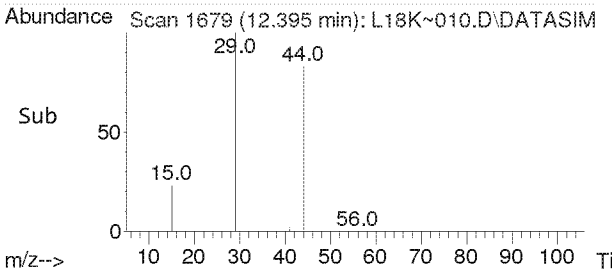


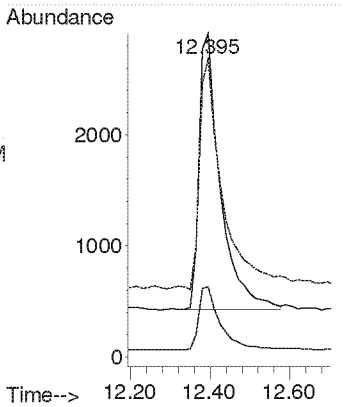
#9
Ethylene oxide
Concen: 3.379 ppbv
RT: 12.395 min Scan# 1679
Delta R.T. 0.007 min
Lab File: L18K~010.D
Acq: 27 Nov 2018 6:57 pm

Tgt Ion: 29 Resp: 9130

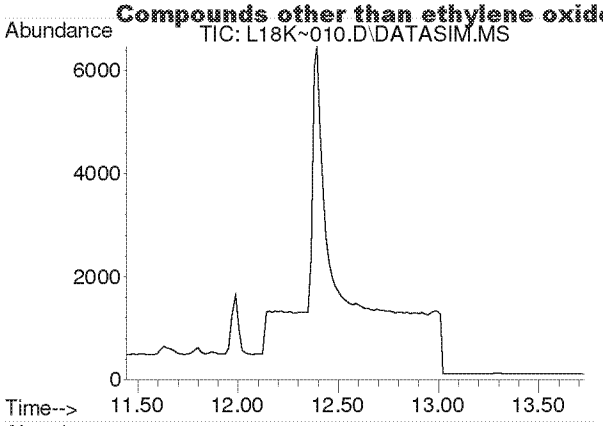
Ion	Ratio	Lower	Upper
29	100		
15	22.9	20.1	30.1
44	87.9	62.6	93.8







Compounds other than ethylene oxide were not quantitated.

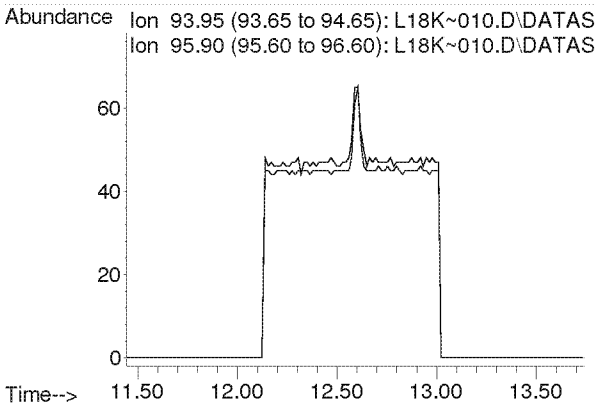


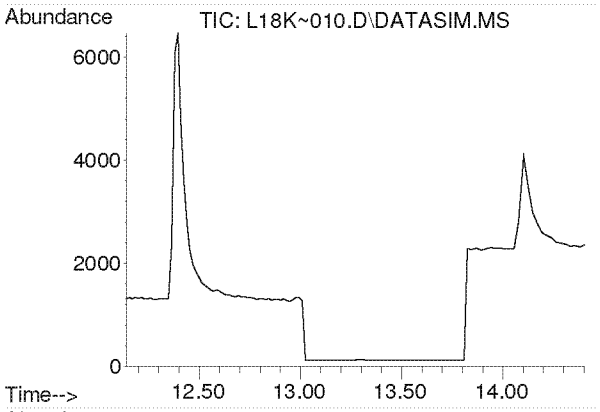
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L18K~010.D
Acq: 27 Nov 2018 6:57 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



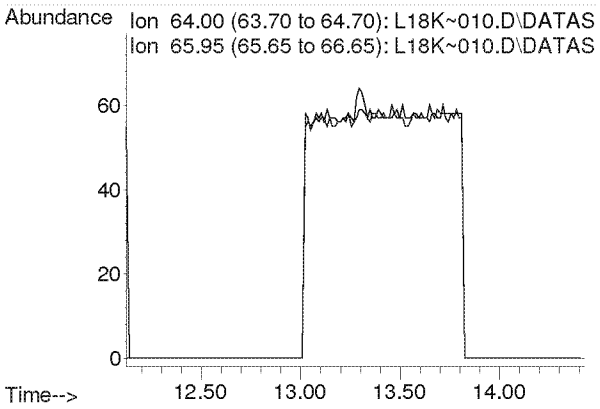


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

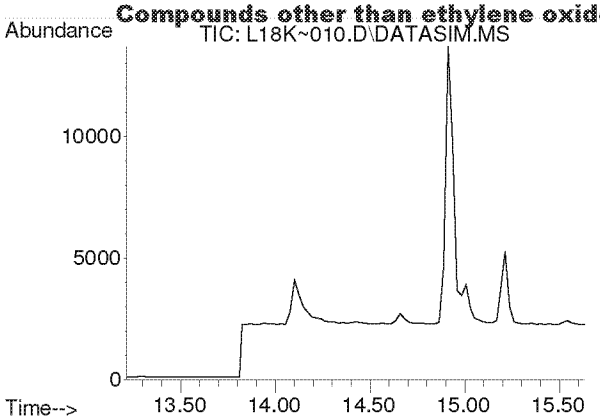
Lab File: L18K~010.D
Acq: 27 Nov 2018 6:57 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

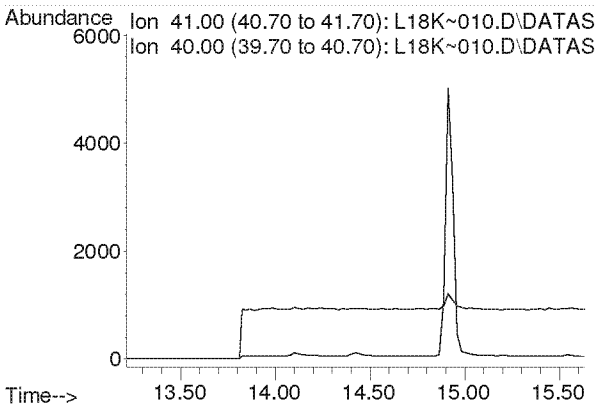


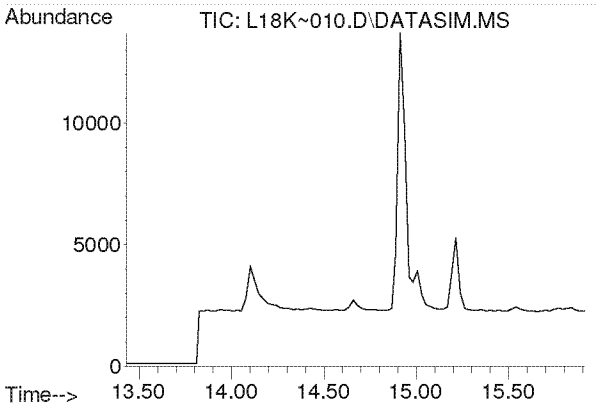
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.34 min

Lab File: L18K~010.D
Acq: 27 Nov 2018 6:57 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	53.9



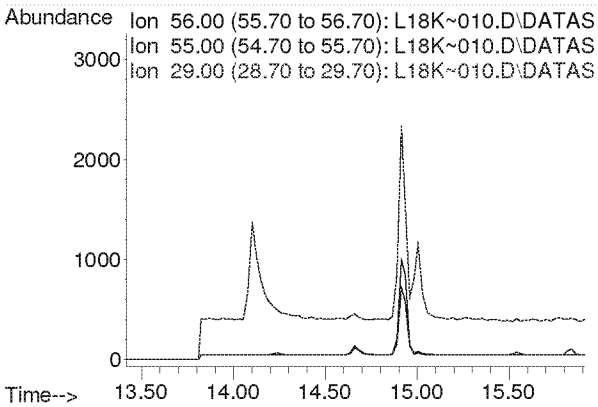


#13
Acrolein
Concen: N.D.
Expected RT: 14.62 min

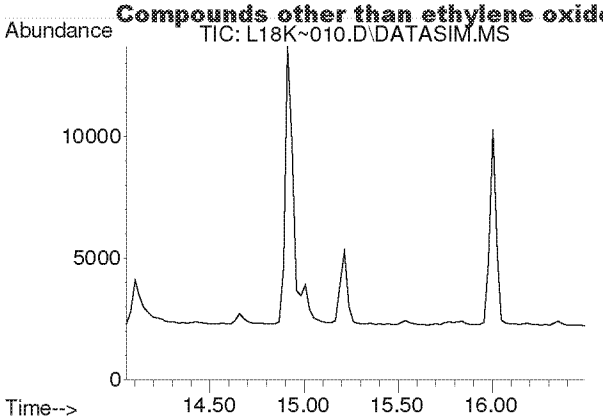
Lab File: L18K~010.D
Acq: 27 Nov 2018 6:57 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	77.4
29	61.5



Compounds other than ethylene oxide were not quantitated.

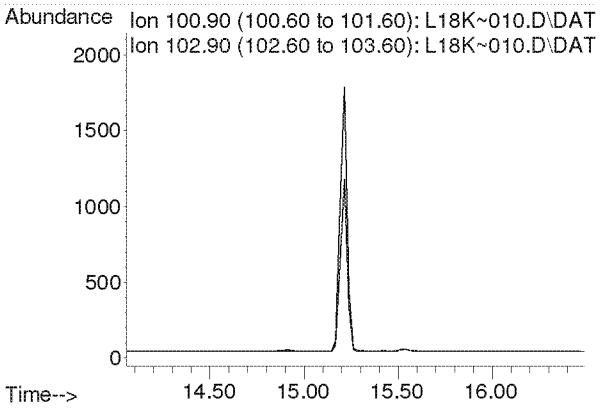


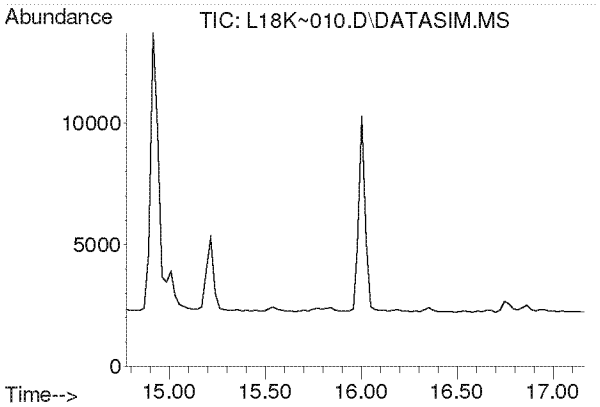
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.20 min

Lab File: L18K~010.D
Acq: 27 Nov 2018 6:57 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.7



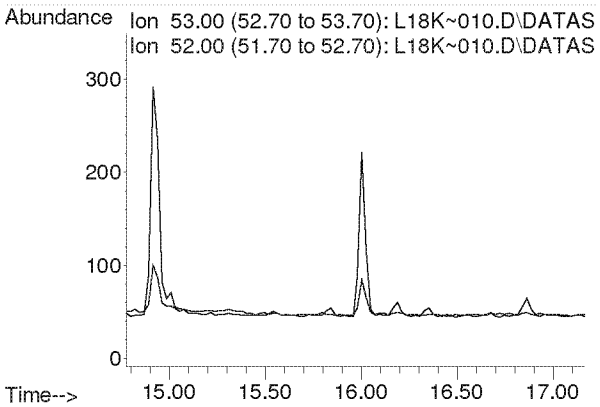


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.92 min

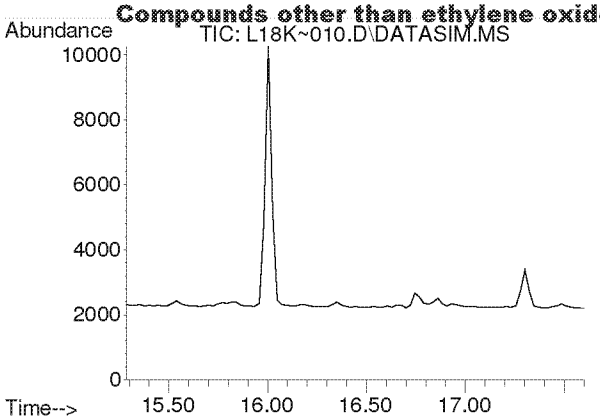
Lab File: L18K~010.D
Acq: 27 Nov 2018 6:57 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	87.1



Compounds other than ethylene oxide were not quantitated.

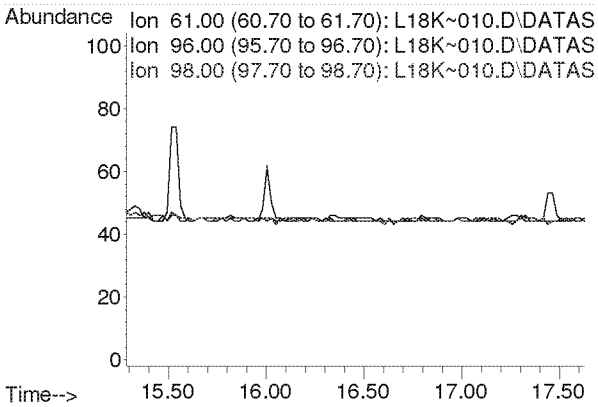


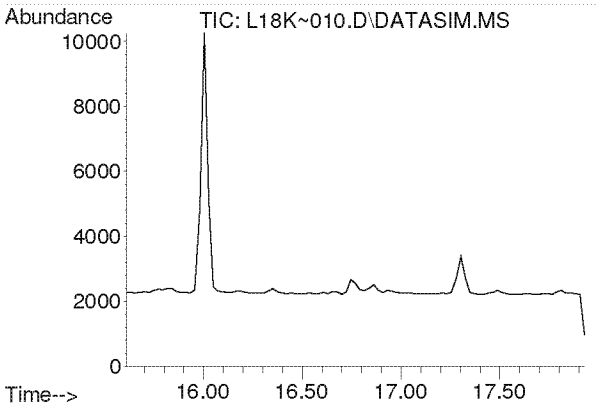
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L18K~010.D
Acq: 27 Nov 2018 6:57 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	57.6
98	36.8



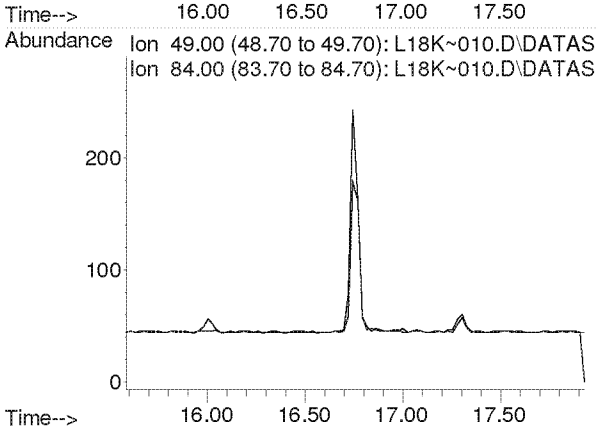


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

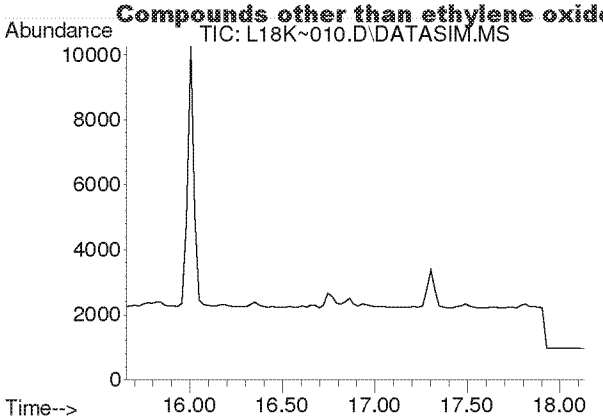
Lab File: L18K~010.D
Acq: 27 Nov 2018 6:57 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	74.2



Compounds other than ethylene oxide were not quantitated.

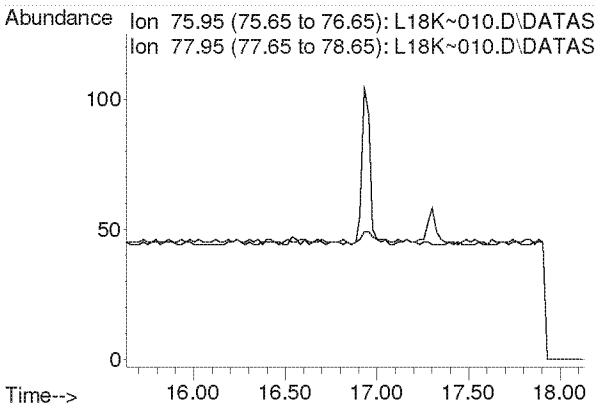


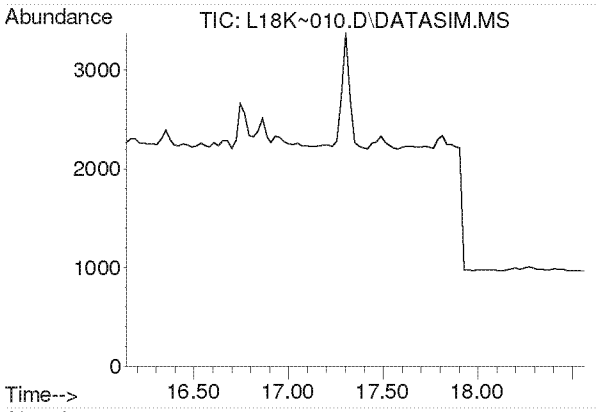
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.94 min

Lab File: L18K~010.D
Acq: 27 Nov 2018 6:57 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.1



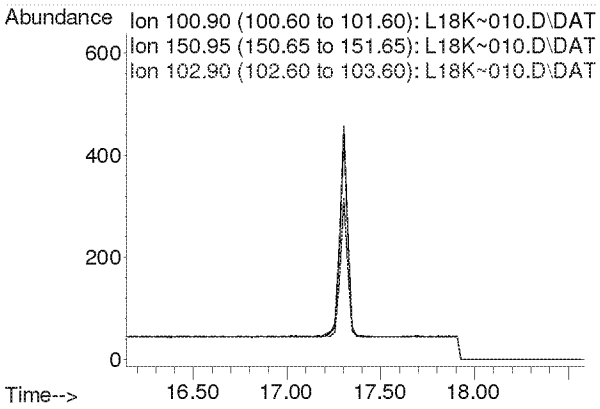


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.29 min

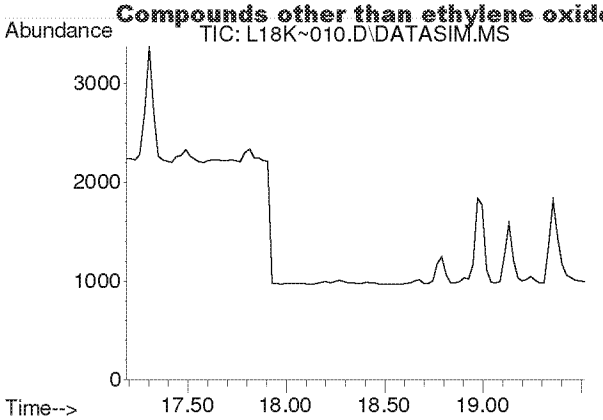
Lab File: L18K~010.D
Acq: 27 Nov 2018 6:57 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	96.0
103	64.3



Compounds other than ethylene oxide were not quantitated.

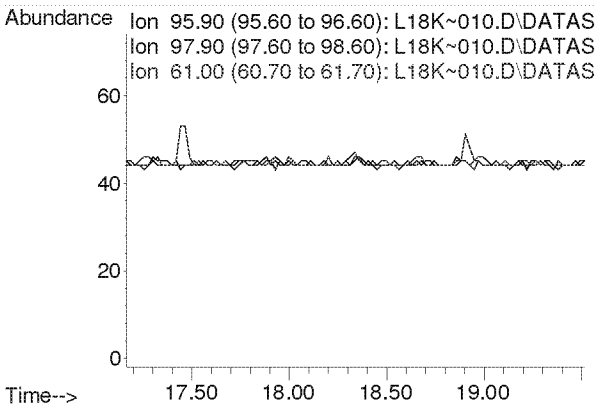


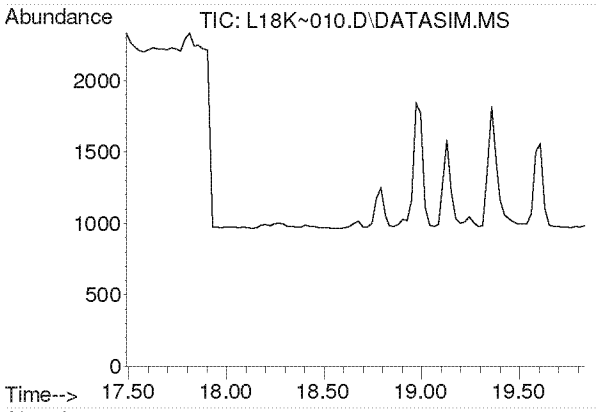
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.33 min

Lab File: L18K~010.D
Acq: 27 Nov 2018 6:57 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	63.6
61	156.3



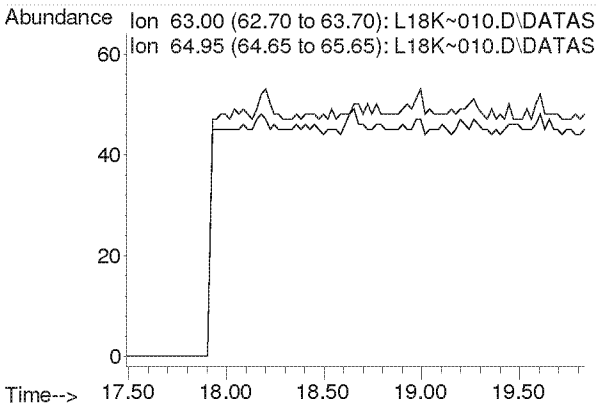


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.64 min

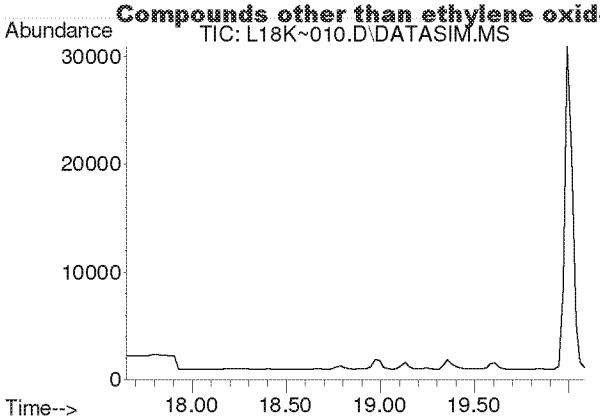
Lab File: L18K~010.D
Acq: 27 Nov 2018 6:57 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	32.1



Compounds other than ethylene oxide were not quantitated.

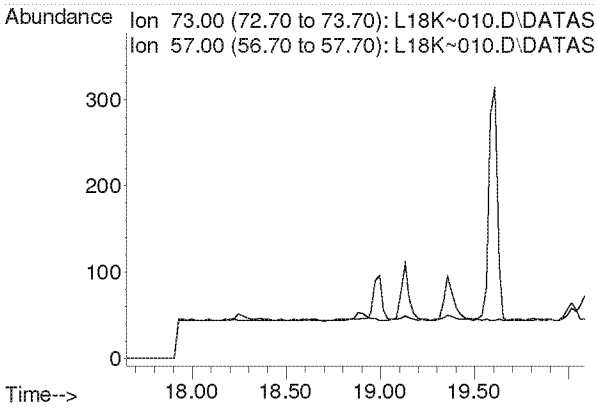


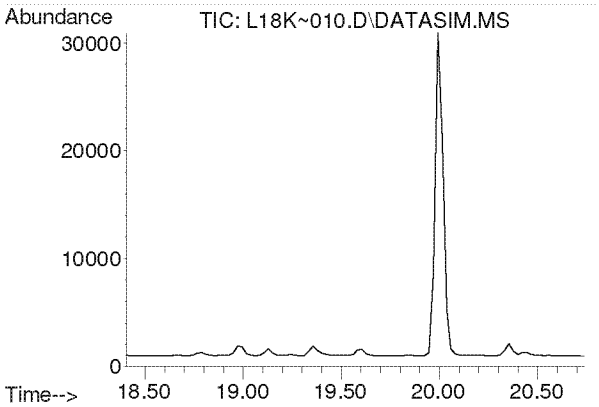
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L18K~010.D
Acq: 27 Nov 2018 6:57 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.0



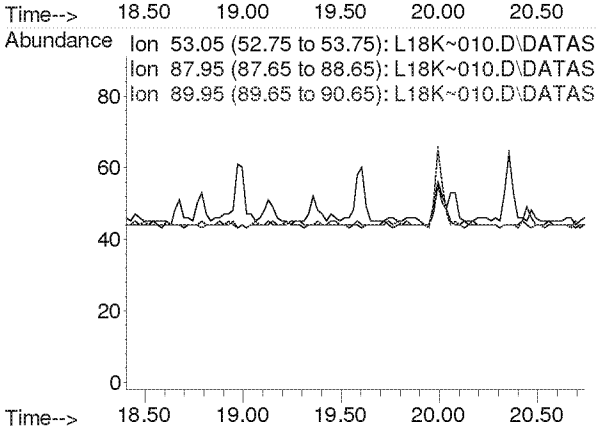


#23
Chloroprene
Concen: N.D.
Expected RT: 19.55 min

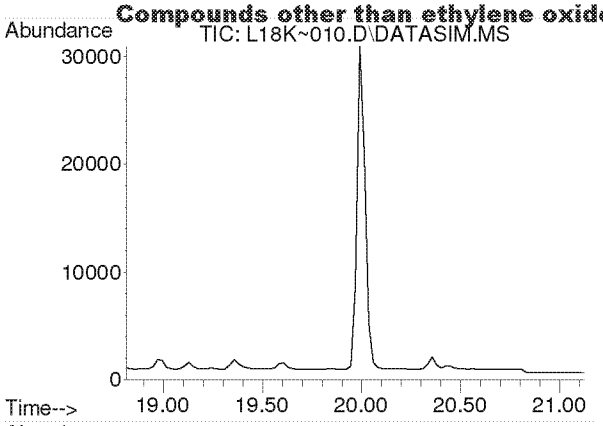
Lab File: L18K~010.D
Acq: 27 Nov 2018 6:57 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	51.5
90	16.6



Compounds other than ethylene oxide were not quantitated.

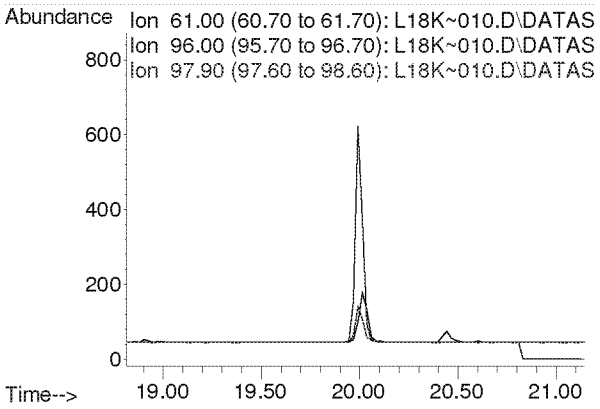


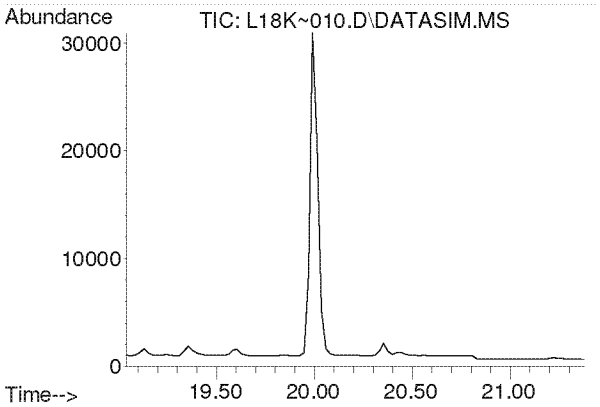
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.96 min

Lab File: L18K~010.D
Acq: 27 Nov 2018 6:57 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.5
98	46.2



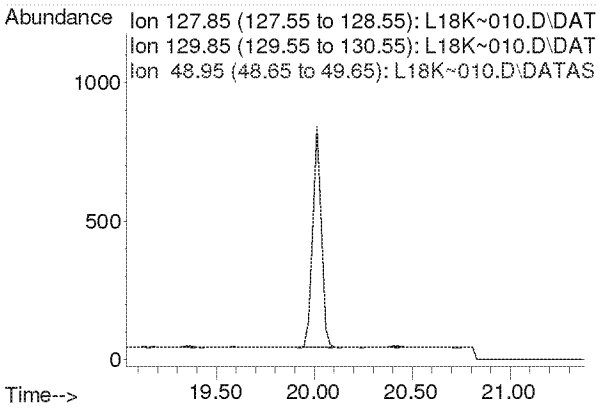


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.18 min

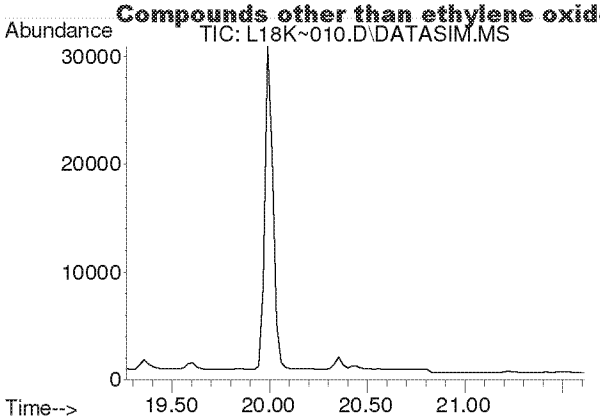
Lab File: L18K~010.D
Acq: 27 Nov 2018 6:57 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	128.9
49	167.9



Compounds other than ethylene oxide were not quantitated.

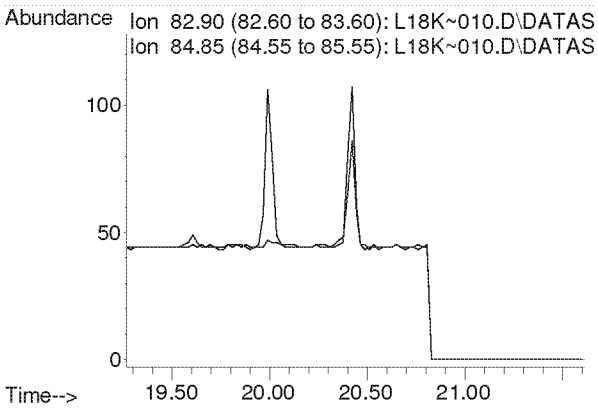


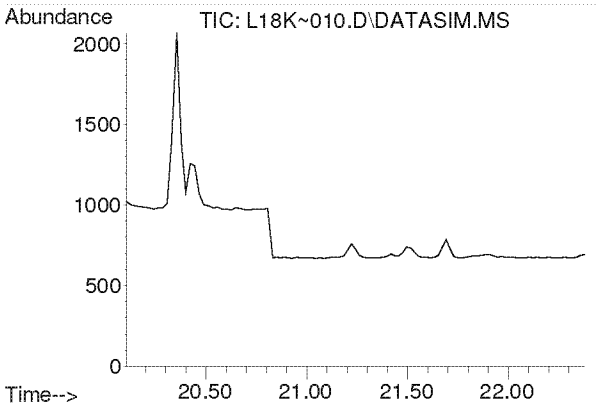
#26
Chloroform
Concen: N.D.
Expected RT: 20.42 min

Lab File: L18K~010.D
Acq: 27 Nov 2018 6:57 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



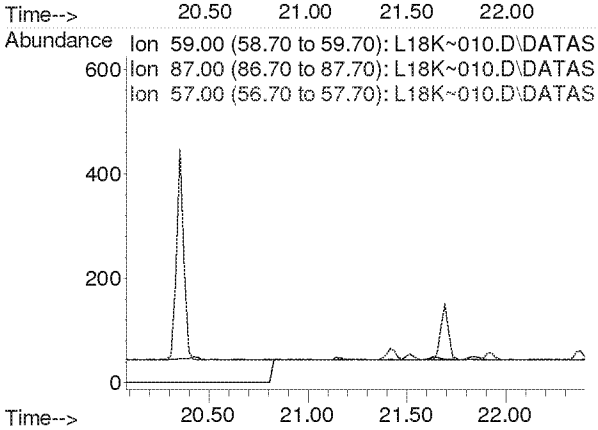


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.19 min

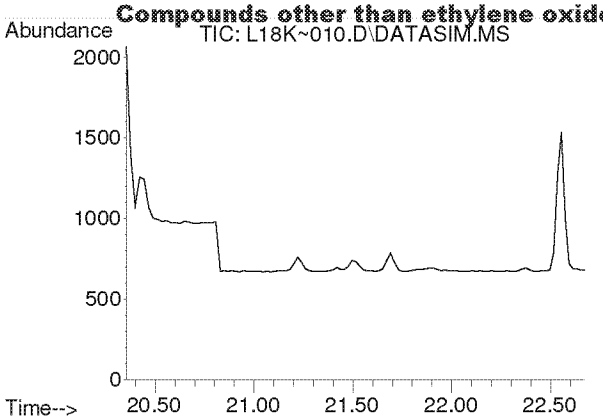
Lab File: L18K~010.D
Acq: 27 Nov 2018 6:57 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	38.5
57	34.0



Compounds other than ethylene oxide were not quantitated.

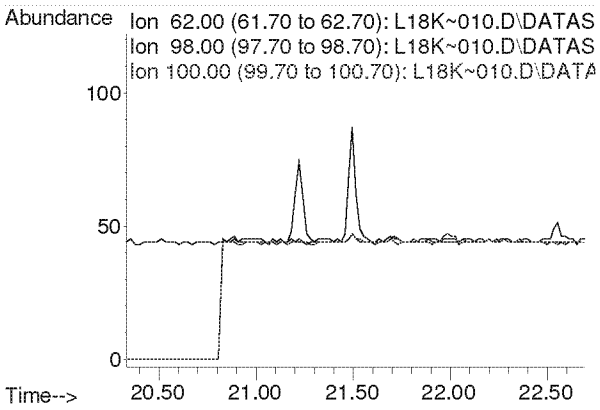


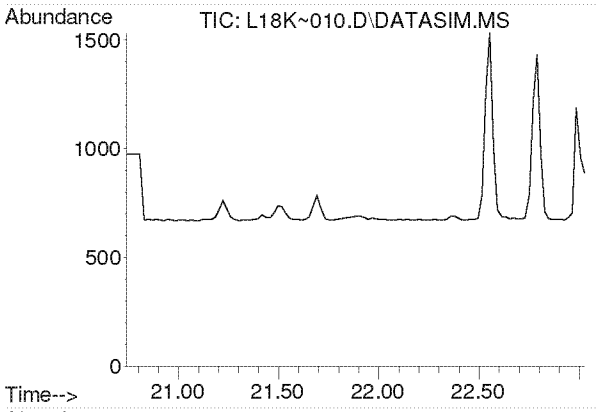
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.49 min

Lab File: L18K~010.D
Acq: 27 Nov 2018 6:57 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.0
100	3.9



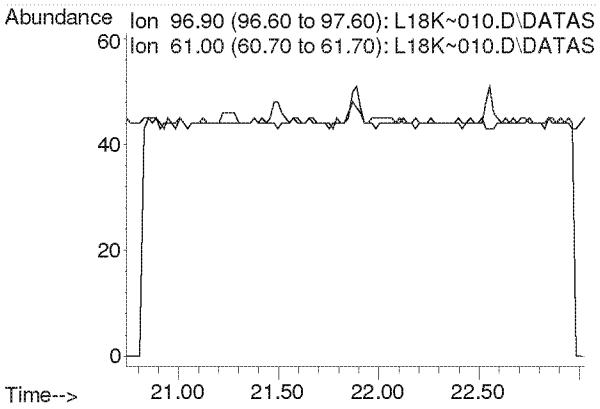


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.88 min

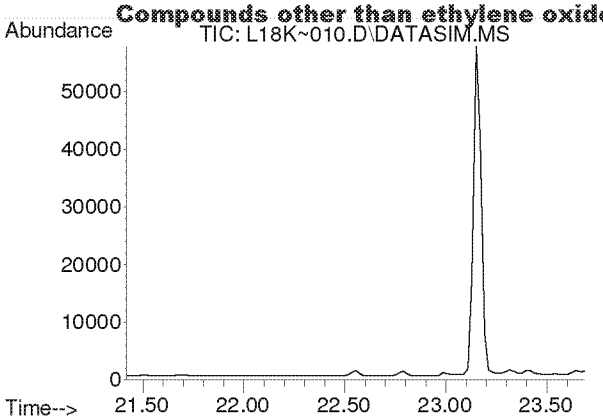
Lab File: L18K~010.D
Acq: 27 Nov 2018 6:57 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	59.6



Compounds other than ethylene oxide were not quantitated.

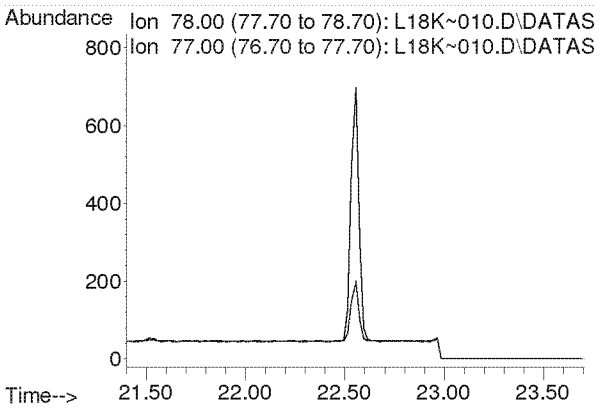


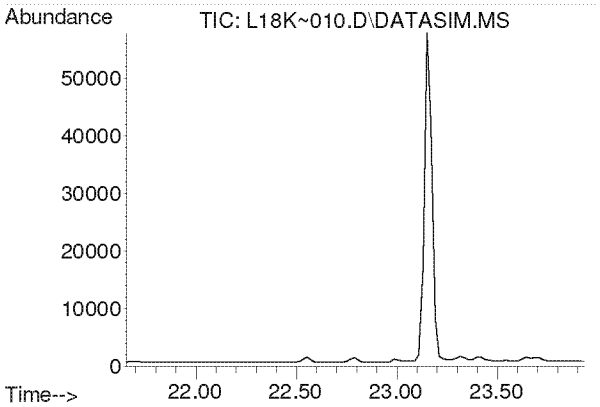
#31
Benzene
Concen: N.D.
Expected RT: 22.56 min

Lab File: L18K~010.D
Acq: 27 Nov 2018 6:57 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.9



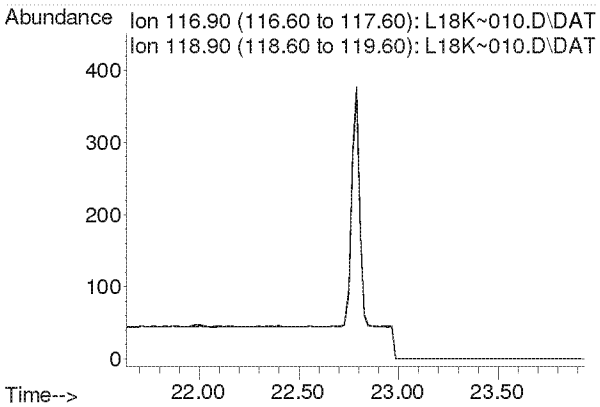


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.79 min

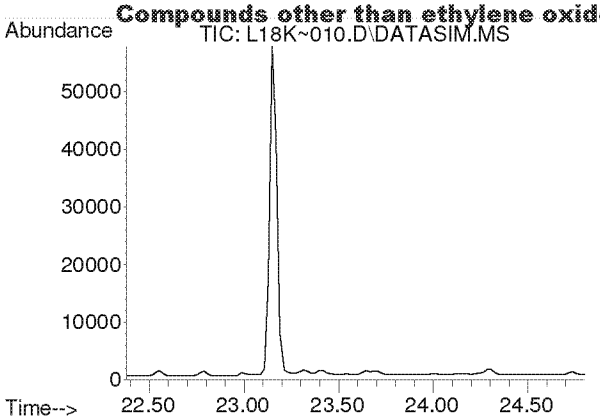
Lab File: L18K~010.D
Acq: 27 Nov 2018 6:57 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.9



Compounds other than ethylene oxide were not quantitated.

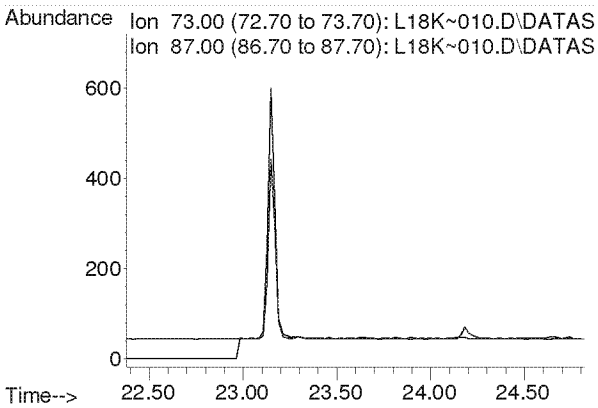


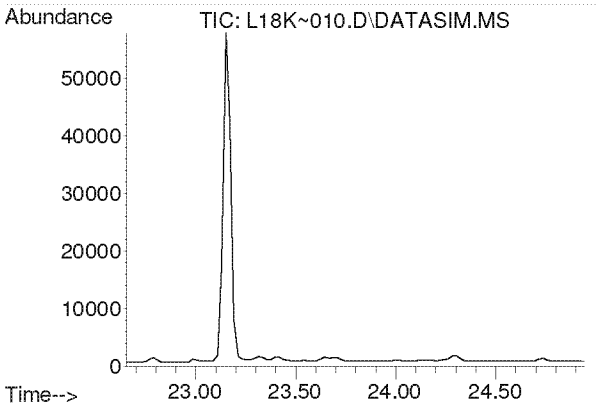
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L18K~010.D
Acq: 27 Nov 2018 6:57 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



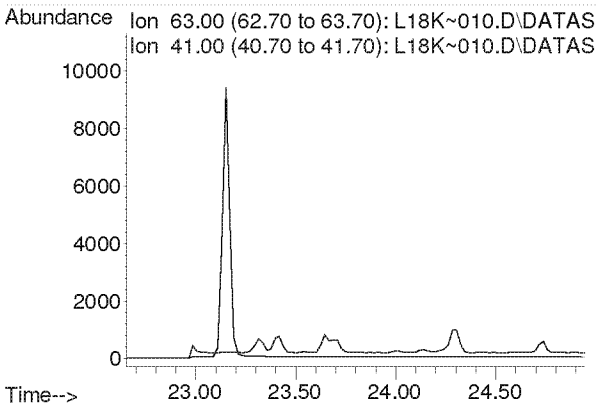


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.80 min

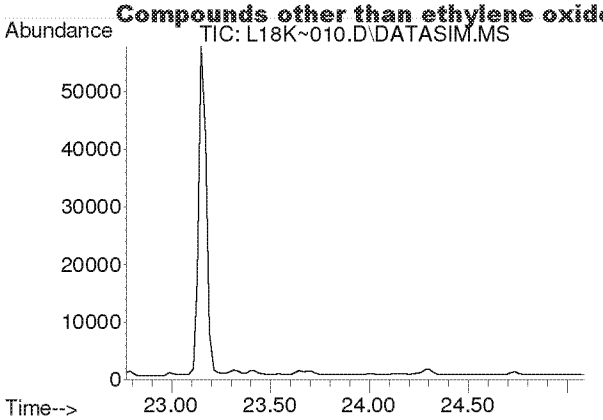
Lab File: L18K~010.D
Acq: 27 Nov 2018 6:57 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	222.1



Compounds other than ethylene oxide were not quantitated.

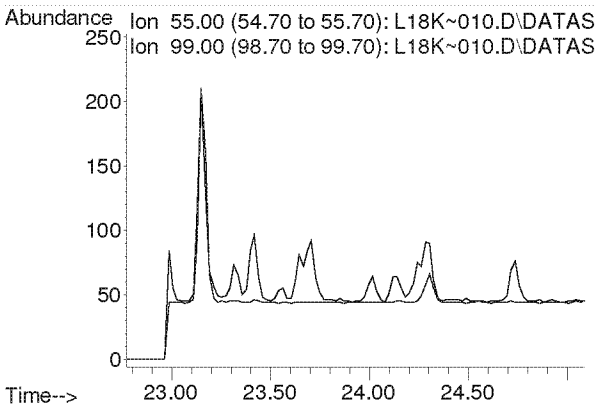


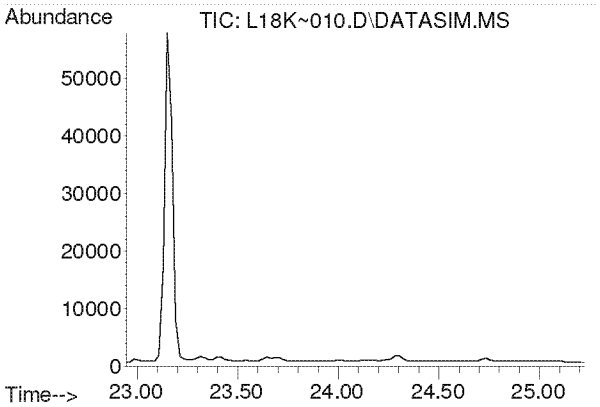
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L18K~010.D
Acq: 27 Nov 2018 6:57 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



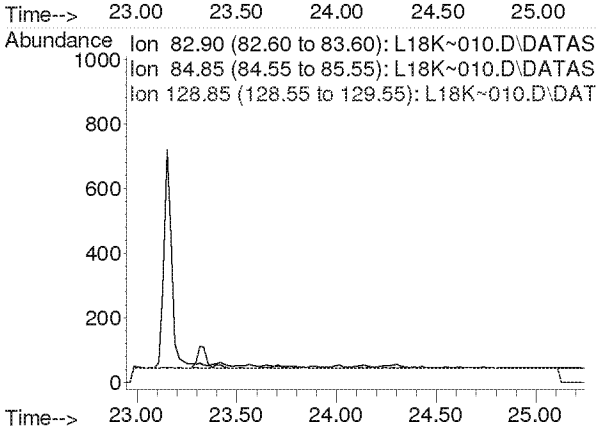


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.09 min

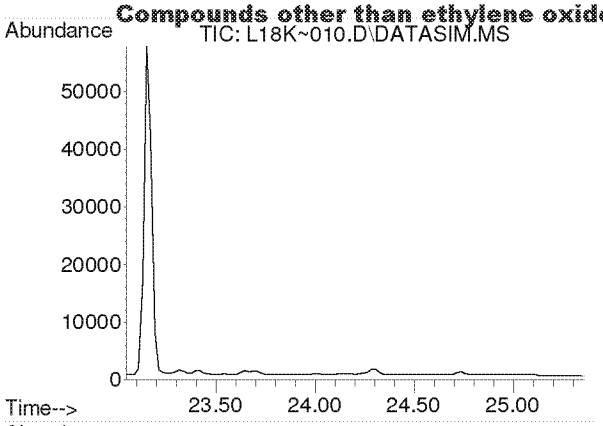
Lab File: L18K~010.D
Acq: 27 Nov 2018 6:57 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.9
129	12.9



Compounds other than ethylene oxide were not quantitated.

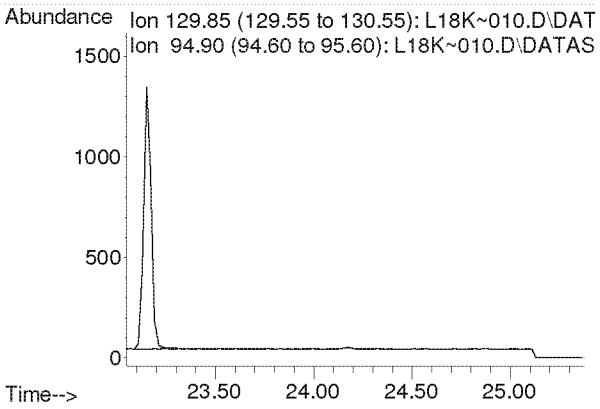


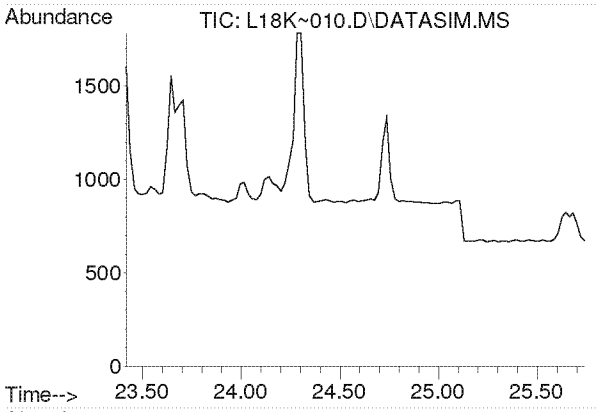
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.19 min

Lab File: L18K~010.D
Acq: 27 Nov 2018 6:57 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.9



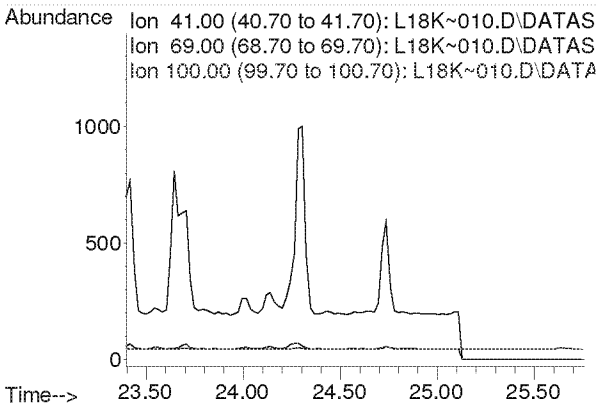


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.55 min

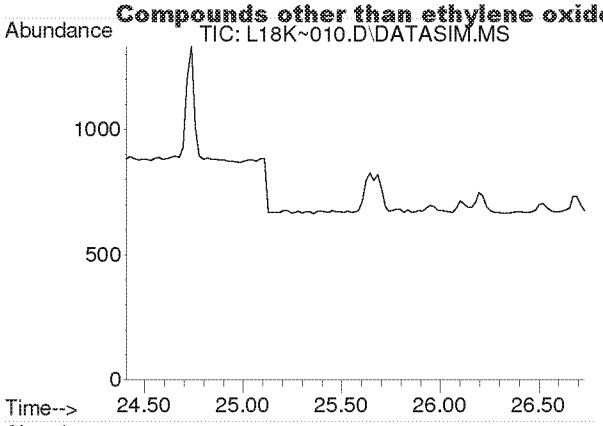
Lab File: L18K~010.D
Acq: 27 Nov 2018 6:57 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	20.0
100	5.1



Compounds other than ethylene oxide were not quantitated.

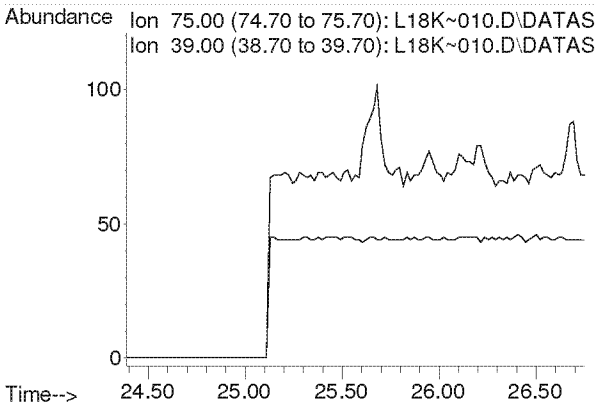


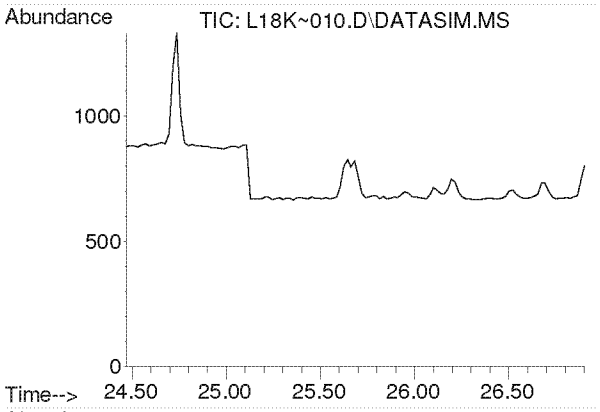
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.54 min

Lab File: L18K~010.D
Acq: 27 Nov 2018 6:57 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	55.6



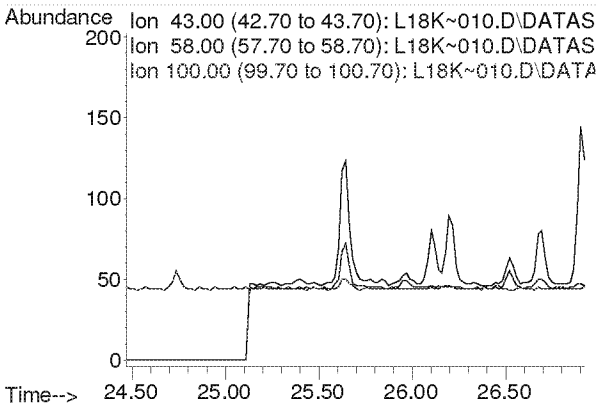


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.62 min

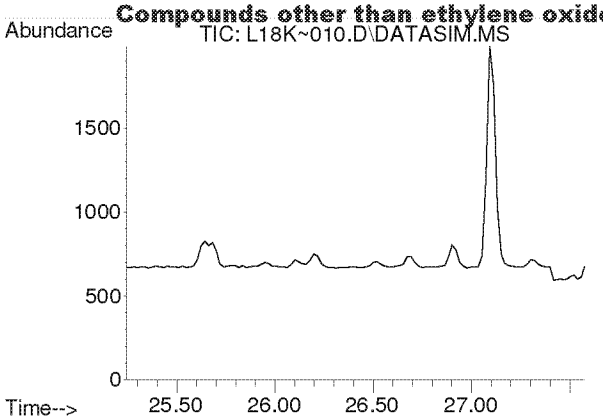
Lab File: L18K~010.D
Acq: 27 Nov 2018 6:57 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	33.3
100	8.0



Compounds other than ethylene oxide were not quantitated.

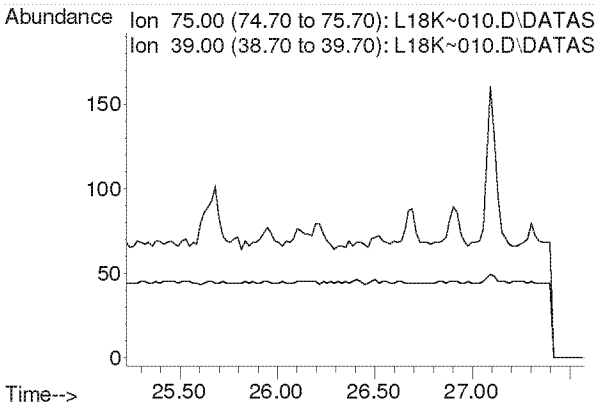


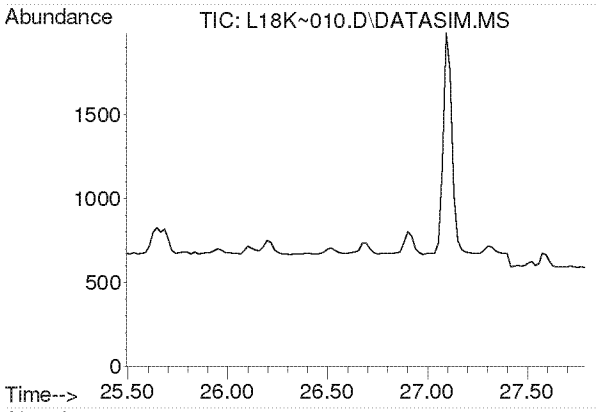
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.38 min

Lab File: L18K~010.D
Acq: 27 Nov 2018 6:57 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	55.3



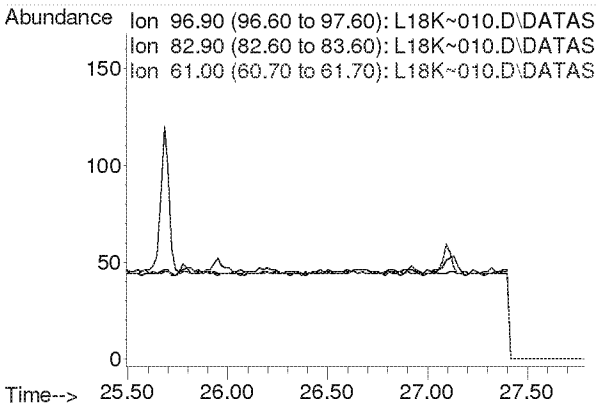


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.64 min

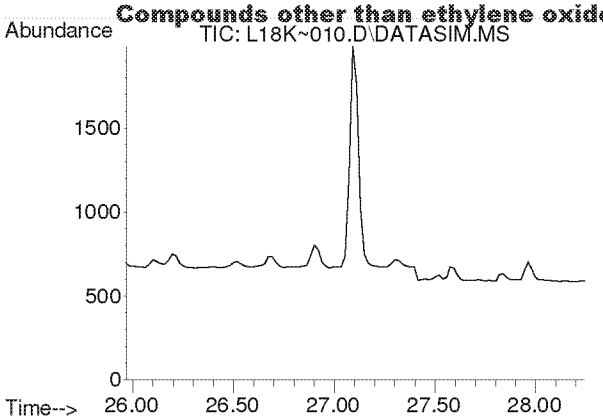
Lab File: L18K~010.D
Acq: 27 Nov 2018 6:57 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	95.3
61	64.6



Compounds other than ethylene oxide were not quantitated.

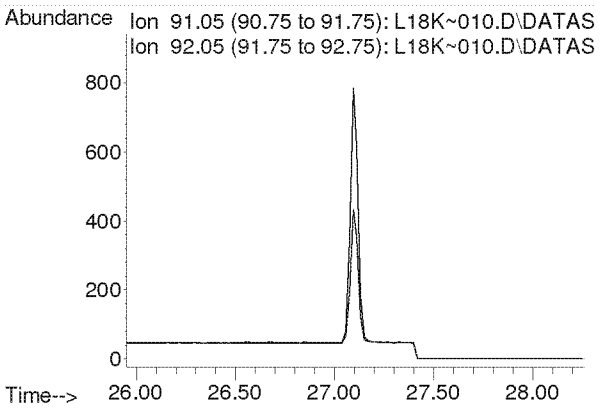


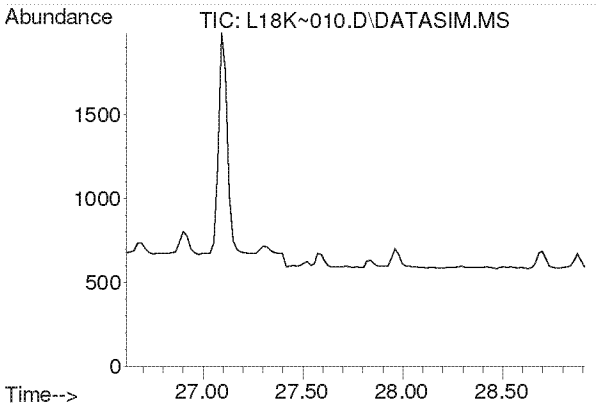
#44
Toluene
Concen: N.D.
Expected RT: 27.11 min

Lab File: L18K~010.D
Acq: 27 Nov 2018 6:57 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.1



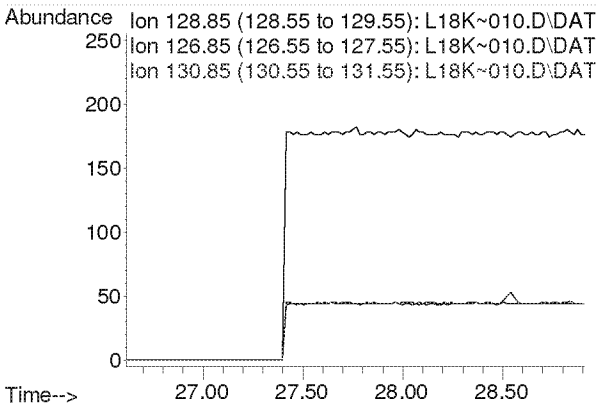


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.76 min

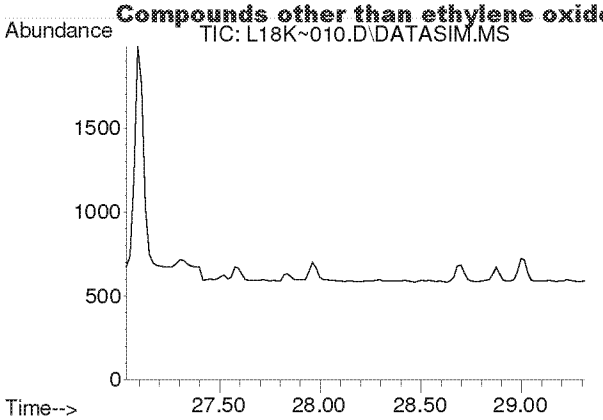
Lab File: L18K~010.D
Acq: 27 Nov 2018 6:57 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

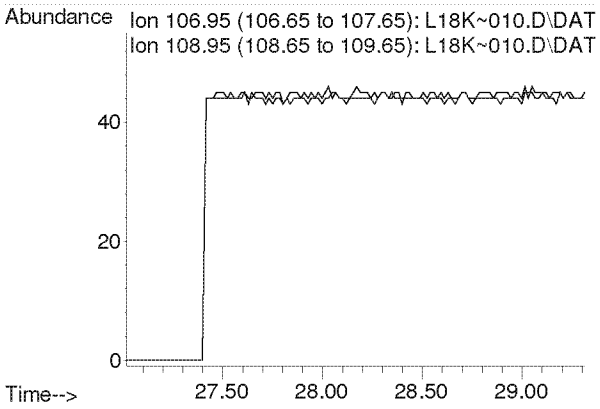


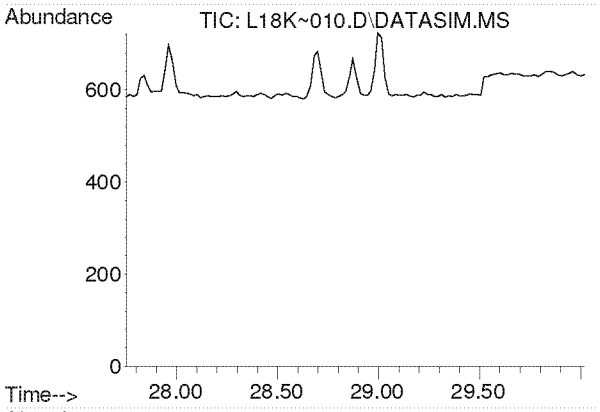
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.17 min

Lab File: L18K~010.D
Acq: 27 Nov 2018 6:57 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	93.8



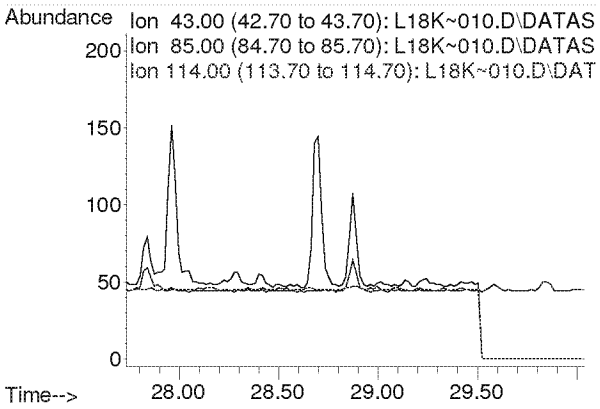


#47
n-Octane
Concen: N.D.
Expected RT: 28.89 min

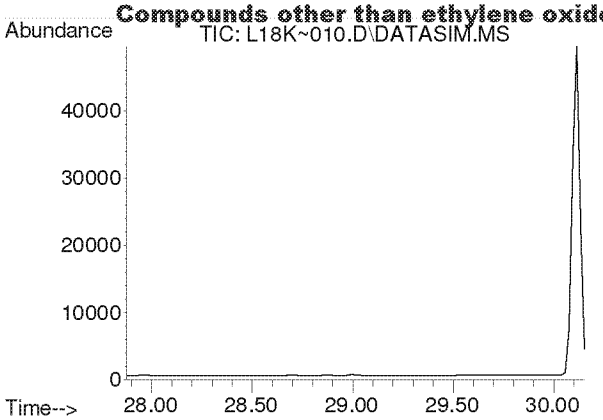
Lab File: L18K~010.D
Acq: 27 Nov 2018 6:57 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	37.8
114	2.4



Compounds other than ethylene oxide were not quantitated.

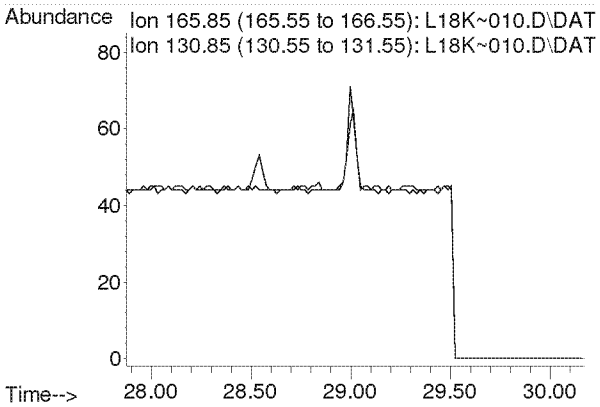


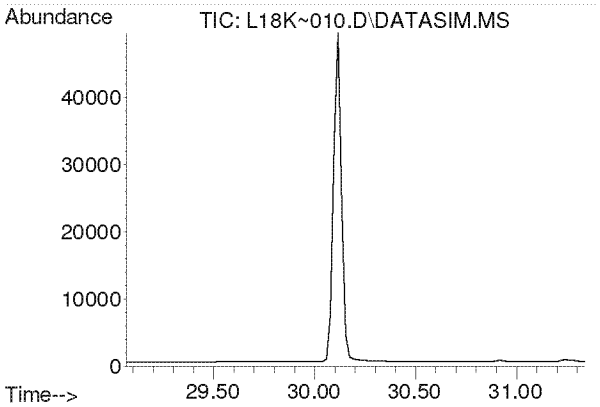
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.02 min

Lab File: L18K~010.D
Acq: 27 Nov 2018 6:57 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	78.7



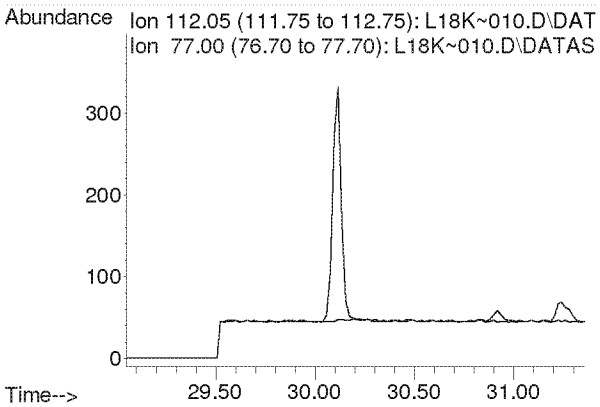


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.20 min

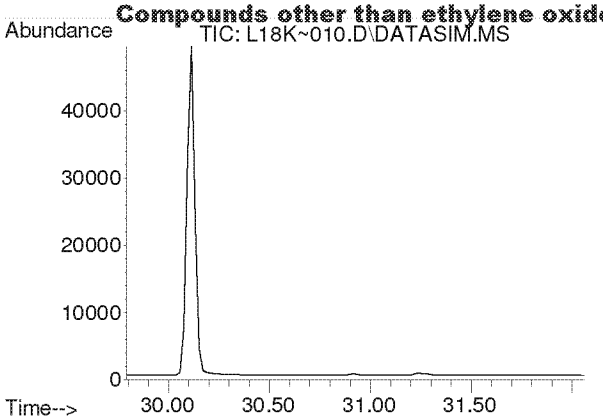
Lab File: L18K~010.D
Acq: 27 Nov 2018 6:57 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.3



Compounds other than ethylene oxide were not quantitated.

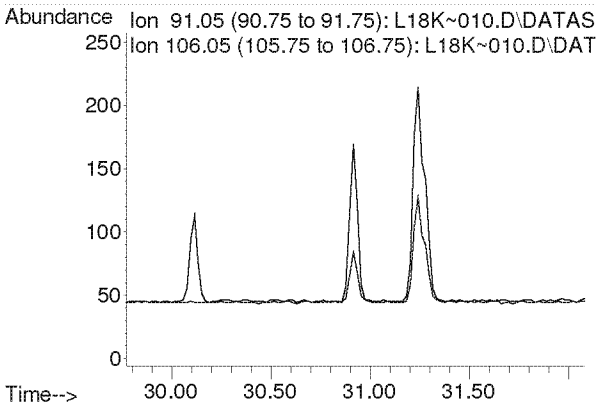


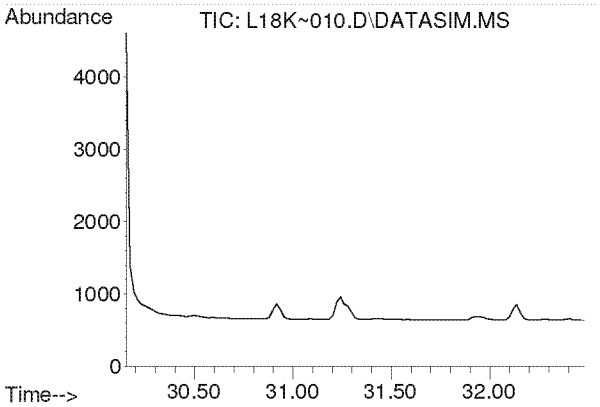
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.93 min

Lab File: L18K~010.D
Acq: 27 Nov 2018 6:57 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	31.8



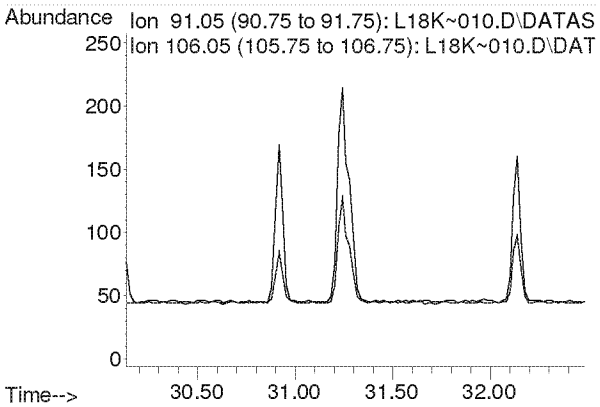


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.29 min

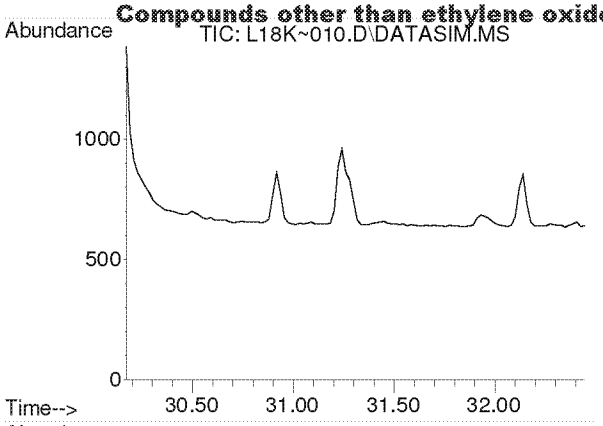
Lab File: L18K~010.D
Acq: 27 Nov 2018 6:57 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.4



Compounds other than ethylene oxide were not quantitated.

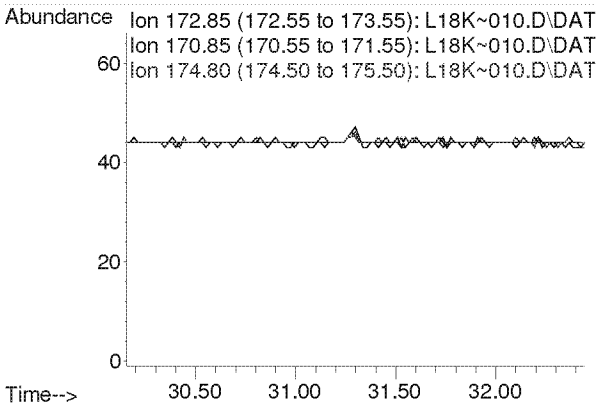


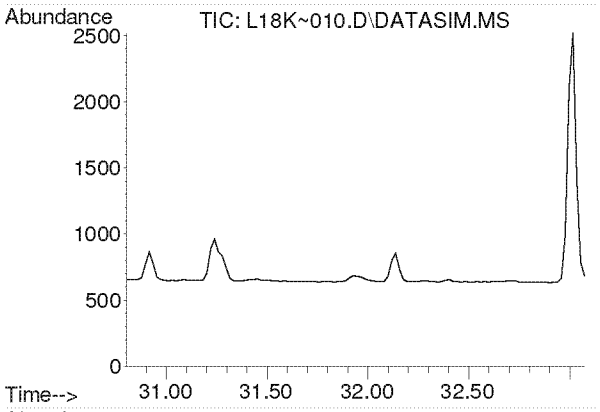
#52
Bromoform
Concen: N.D.
Expected RT: 31.30 min

Lab File: L18K~010.D
Acq: 27 Nov 2018 6:57 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.4
175	49.0



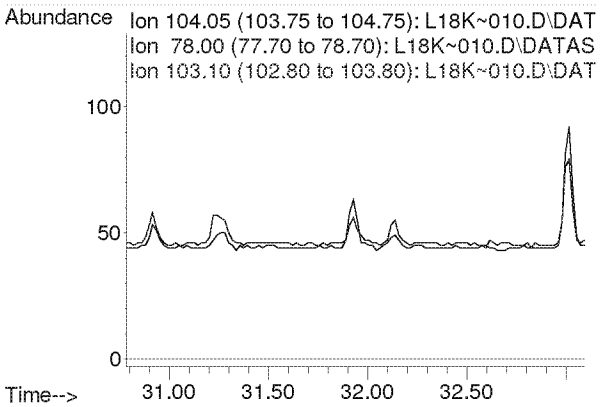


#53
Styrene
Concen: N.D.
Expected RT: 31.94 min

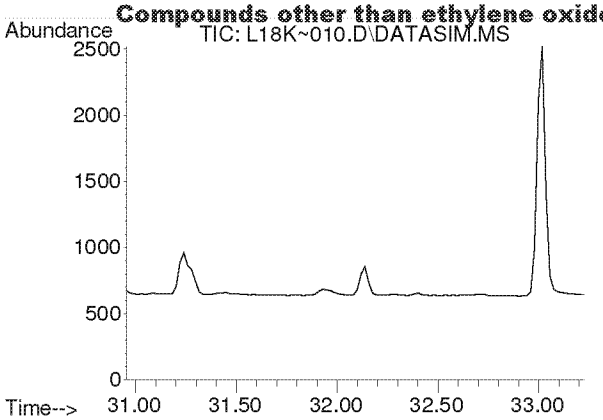
Lab File: L18K~010.D
Acq: 27 Nov 2018 6:57 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	45.7
103	0.0



Compounds other than ethylene oxide were not quantitated.

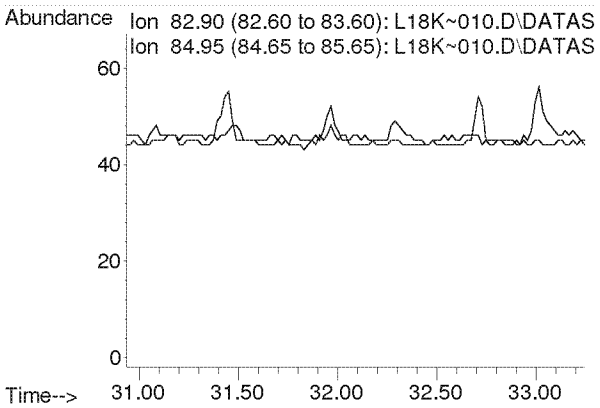


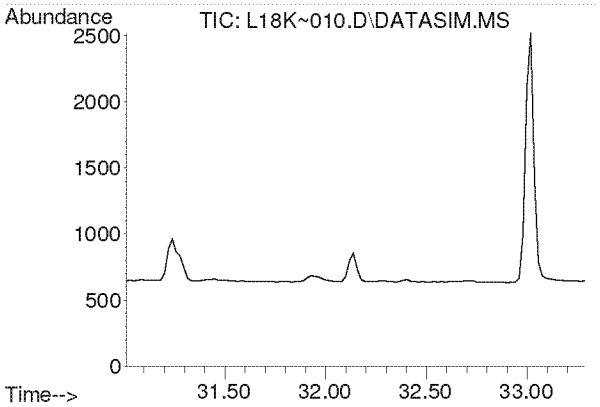
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.09 min

Lab File: L18K~010.D
Acq: 27 Nov 2018 6:57 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.3



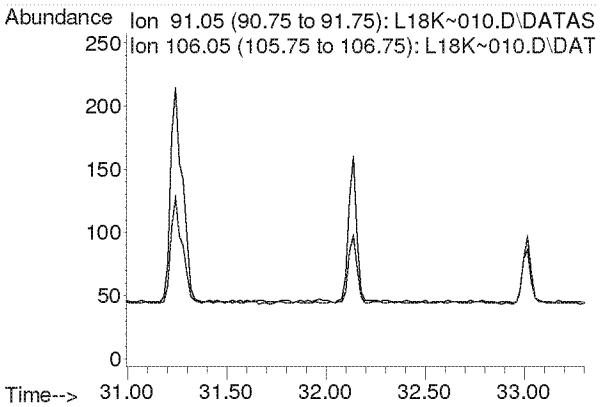


#55
o-Xylene
Concen: N.D.
Expected RT: 32.15 min

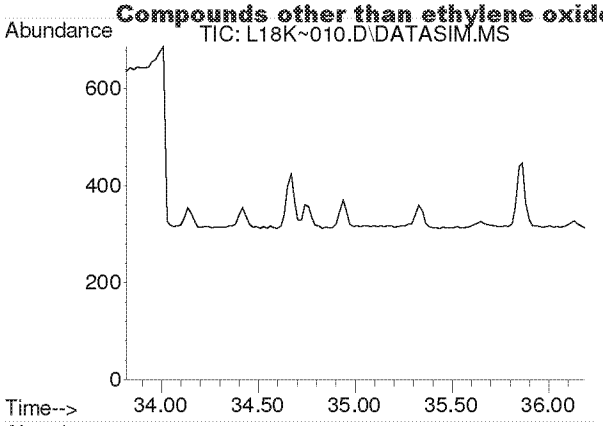
Lab File: L18K~010.D
Acq: 27 Nov 2018 6:57 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.5



Compounds other than ethylene oxide were not quantitated.

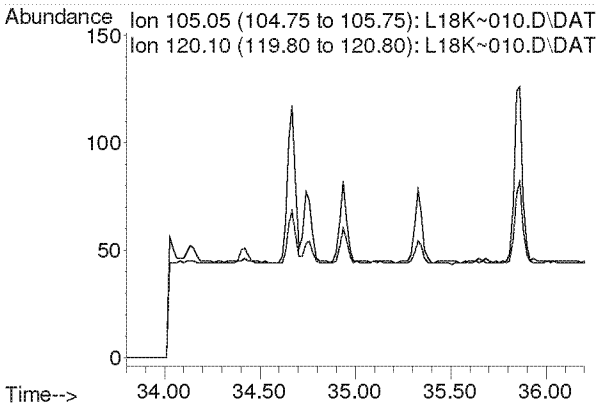


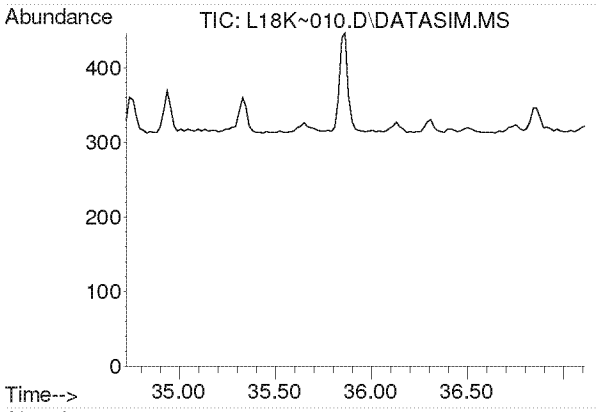
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.95 min

Lab File: L18K~010.D
Acq: 27 Nov 2018 6:57 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	45.6



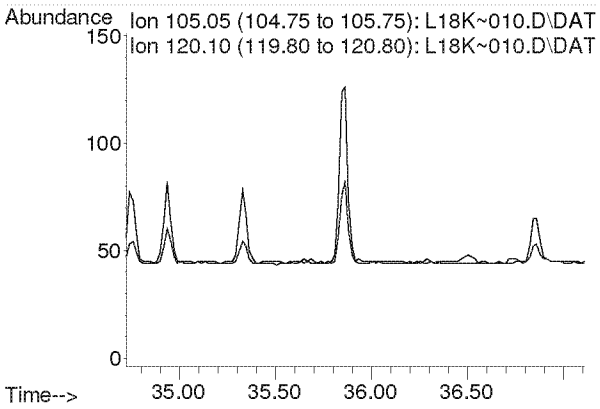


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.87 min

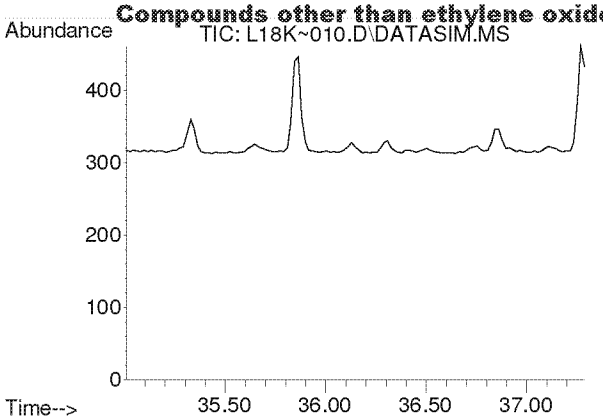
Lab File: L18K~010.D
Acq: 27 Nov 2018 6:57 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	43.4



Compounds other than ethylene oxide were not quantitated.

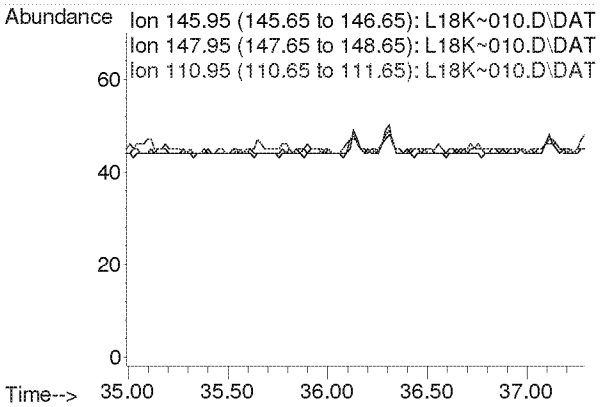


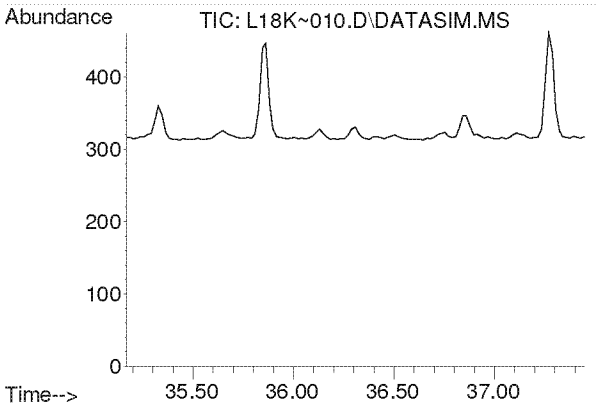
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.15 min

Lab File: L18K~010.D
Acq: 27 Nov 2018 6:57 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	41.1



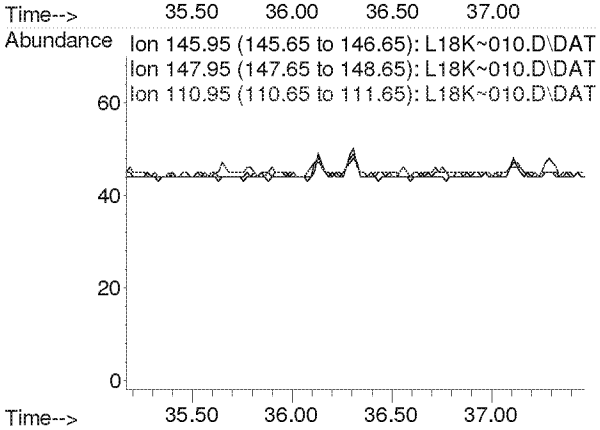


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.31 min

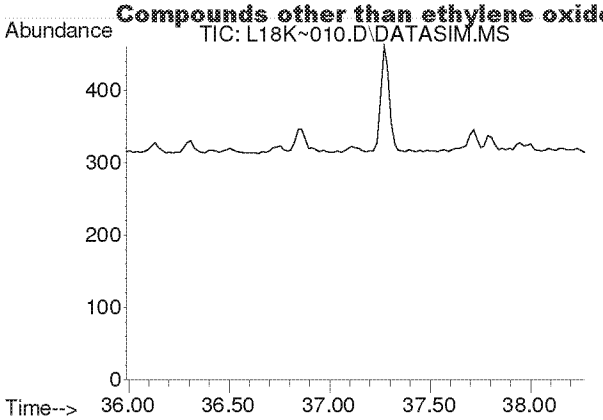
Lab File: L18K~010.D
Acq: 27 Nov 2018 6:57 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	39.8



Compounds other than ethylene oxide were not quantitated.

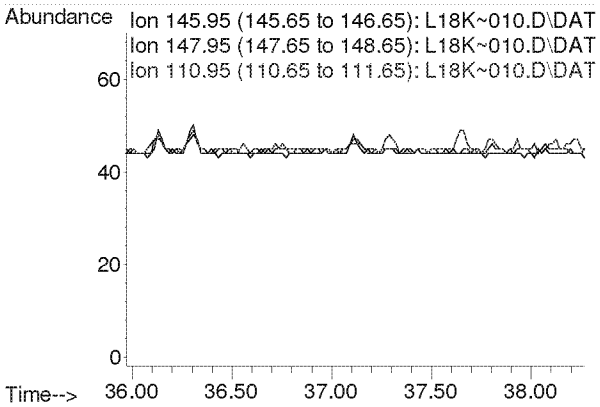


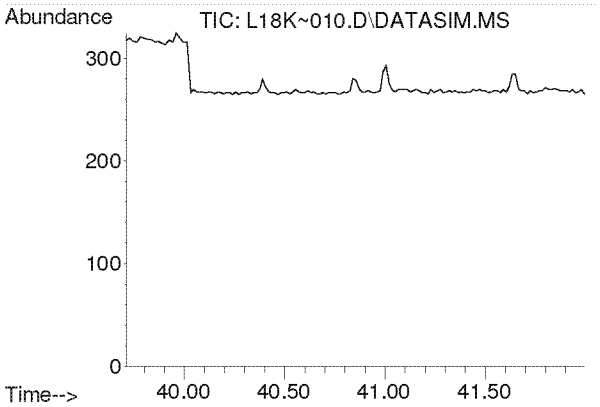
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.12 min

Lab File: L18K~010.D
Acq: 27 Nov 2018 6:57 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	63.9
111	41.8



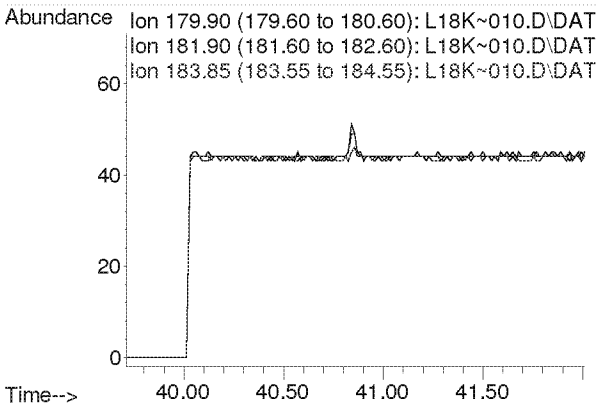


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.85 min

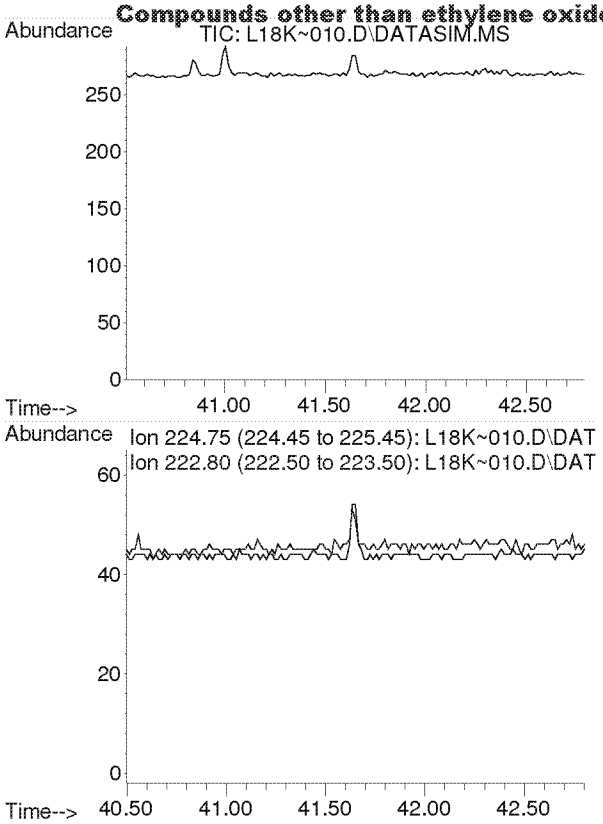
Lab File: L18K~010.D
Acq: 27 Nov 2018 6:57 pm

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	95.6
184	30.5



Compounds other than ethylene oxide were not quantitated.



#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.65 min

Lab File: L18K~010.D
Acq: 27 Nov 2018 6:57 pm

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.8

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L18K~\
Data File : L18K~011.D
Acq On : 27 Nov 2018 7:59 pm (#1); 27-Nov-18, 19:54:30 (#2)
Operator : MAH
Sample : 8112113-02
Misc : WB VILLAGE HALL C2 11/19/18 (Sig #1); (Sig #2)
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 28 11:27:39 2018
Quant Method : C:\msdchem\1\METHODS\8100002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Fri Oct 12 09:33:42 2018
Response via : Initial Calibration

11-28-18
JMR

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.992	66	49187	4.8000 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.150	114	115787	5.0200 ppbv	-0.02
43) IS-Chlorobenzene-d5	30.115	117	79593	4.7700 ppbv	-0.01

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	9316	3.4880 ppbv #	71
10) Bromomethane	0.000	94	0	N.D. d	
11) Chloroethane	0.000	64	0	N.D.	
12) Acetonitrile	0.000	41	0	N.D. d	
13) Acrolein	0.000	56	0	N.D. d	
14) Trichlorofluoromethane	0.000	101	0	N.D. d	
15) Acrylonitrile	0.000	53	0	N.D. d	
16) 1,1-Dichloroethene	0.000	61	0	N.D.	
17) Methylene Chloride	0.000	49	0	N.D. d	
18) Carbon Disulfide	0.000	76	0	N.D. d	
19) Trichlorotrifluoroethane	0.000	101	0	N.D. d	
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.	
21) 1,1-Dichloroethane	0.000	63	0	N.D.	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D. d	
23) Chloroprene	0.000	53	0	N.D. d	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D. d	
25) Bromochloromethane	0.000	128	0	N.D.	
26) Chloroform	0.000	83	0	N.D. d	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D.	
28) 1,2-Dichloroethane	0.000	62	0	N.D. d	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D. d	
31) Benzene	0.000	78	0	N.D. d	
32) Carbon Tetrachloride	0.000	117	0	N.D. d	
33) tert-Amyl Methyl Ether	0.000	73	0	N.D.	
34) 1,2-Dichloropropane	0.000	63	0	N.D.	
35) Ethyl Acrylate	0.000	55	0	N.D.	
36) Bromodichloromethane	0.000	83	0	N.D.	
37) Trichloroethylene	0.000	130	0	N.D.	
38) Methyl Methacrylate	0.000	41	0	N.D. d	
39) cis-1,3-Dichloropropene	0.000	75	0	N.D.	
40) Methyl Isobutyl Ketone	0.000	43	0	N.D. d	
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.	
44) Toluene	0.000	91	0	N.D. d	
45) Dibromochloromethane	0.000	129	0	N.D.	
46) 1,2-Dibromoethane	0.000	107	0	N.D.	
47) n-Octane	0.000	43	0	N.D. d	
48) Tetrachloroethylene	0.000	166	0	N.D. d	
49) Chlorobenzene	0.000	112	0	N.D.	
50) Ethylbenzene	0.000	91	0	N.D. d	

Compounds other than ethylene oxide were not quantitated.

Quantification Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L18K~\
Data File : L18K~011.D
Acq On : 27 Nov 2018 7:59 pm (#1); 27-Nov-18, 19:54:30 (#2)
Operator : MAH
Sample : 8112113-02
Misc : WB VILLAGE HALL C2 11/19/18 (Sig #1); (Sig #2)
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 28 11:27:39 2018
Quant Method : C:\msdchem\1\METHODS\8100002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Fri Oct 12 09:33:42 2018
Response via : Initial Calibration

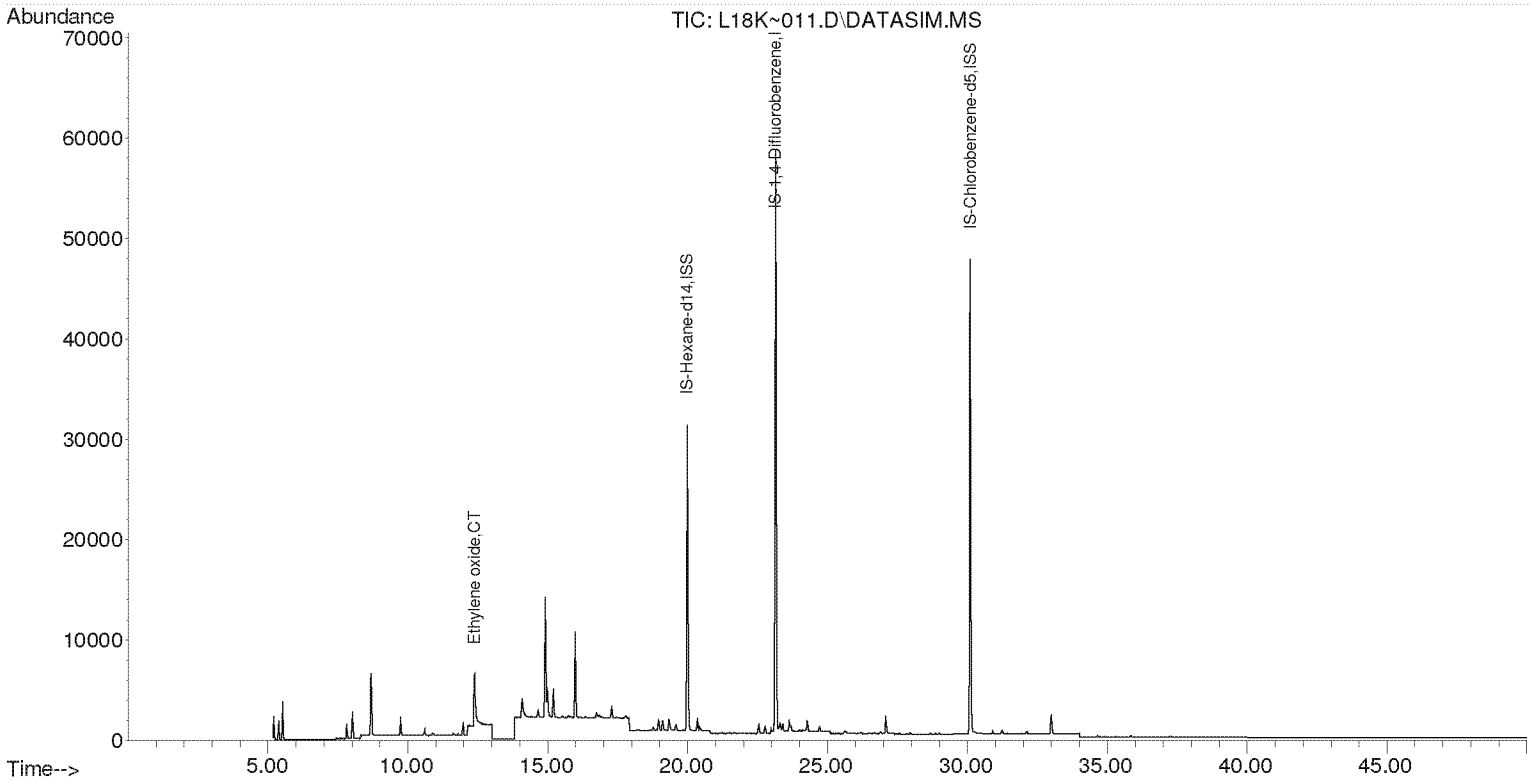
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D.	d
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	d
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D.	d
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	d
57) 1,2,4-Trimethylbenzene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

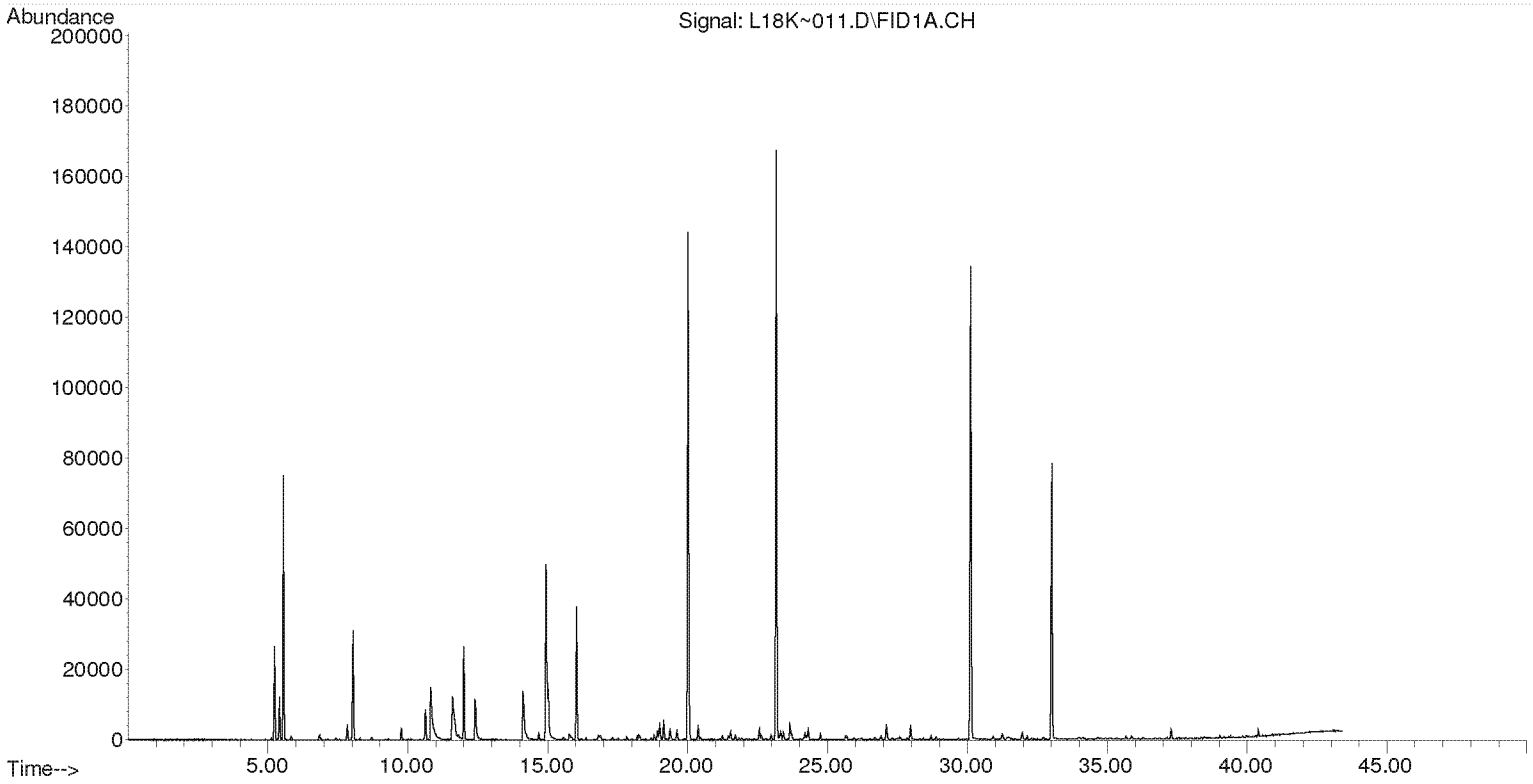
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Compounds other than ethylene oxide were not quantitated.

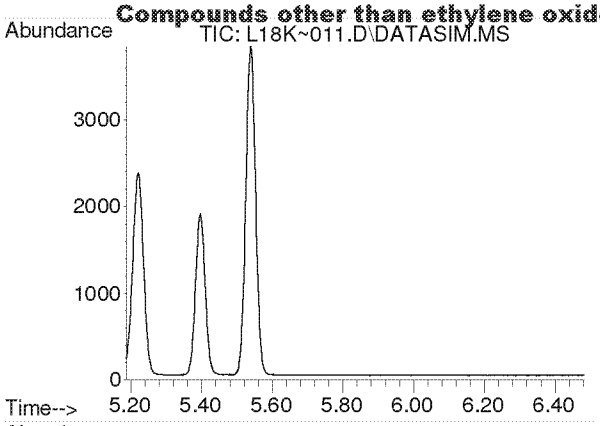
Data Path : Y:\MASS SPEC 1 DATA\L18K~\
Data File : L18K~011.D
Acq On : 27 Nov 2018 7:59 pm (#1); 27 Nov 2018 7:54 pm (#2)
Operator : MAH
Sample : 8112113-02
Misc : WB VILLAGE HALL C2 11/19/18 (Sig #1); (Sig #2)
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 28 06:29:10 2018
Quant Method : C:\msdchem\1\METHODS\8100002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Fri Oct 12 09:33:42 2018
Response via : Initial Calibration





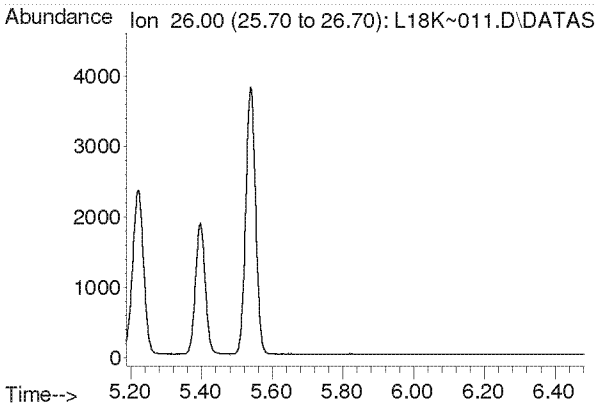
Compounds other than ethylene oxide were not quantitated.

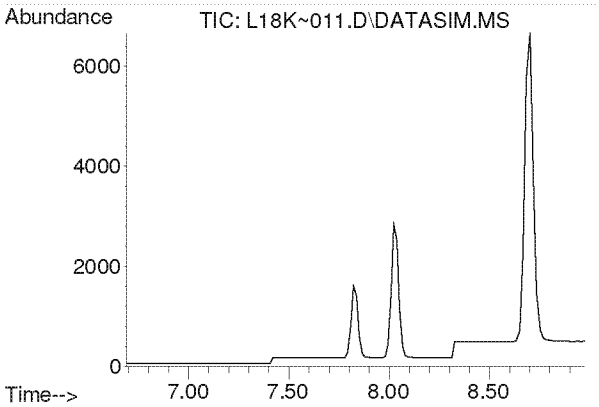


#2
Acetylene
Concen: N.D.
Expected RT: 5.41 min

Lab File: L18K~011.D
Acq: 27 Nov 2018 7:59 pm

Tgt Ion: 26



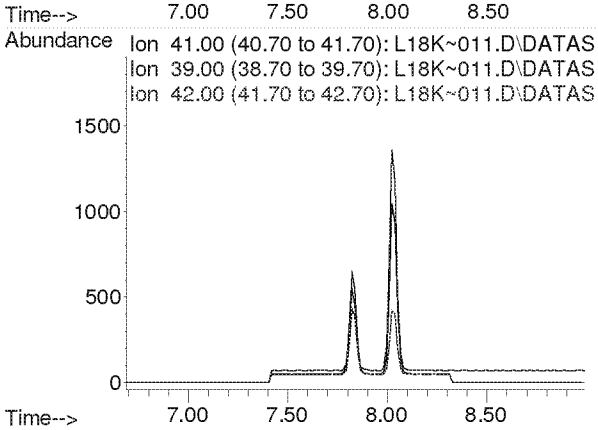


#3
Propylene
Concen: N.D.
Expected RT: 7.84 min

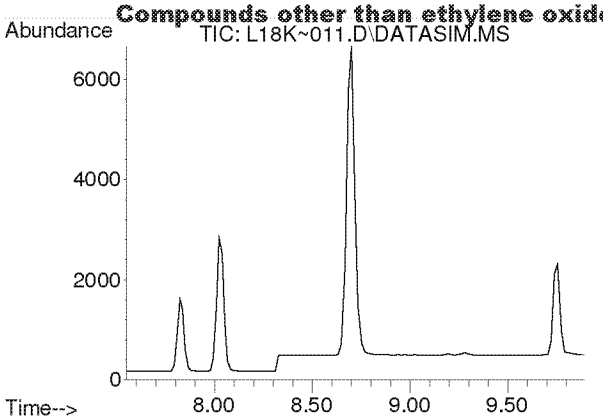
Lab File: L18K~011.D
Acq: 27 Nov 2018 7:59 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	81.2
42	65.4



Compounds other than ethylene oxide were not quantitated.

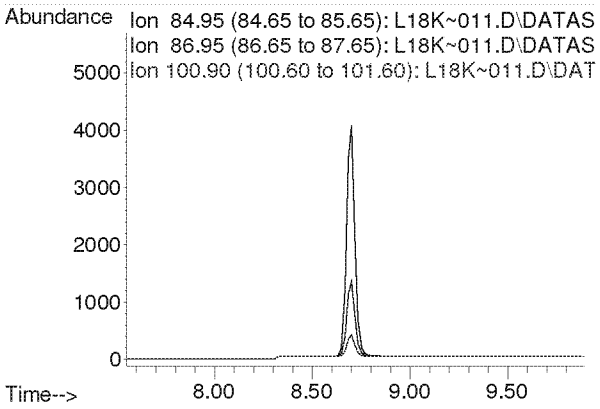


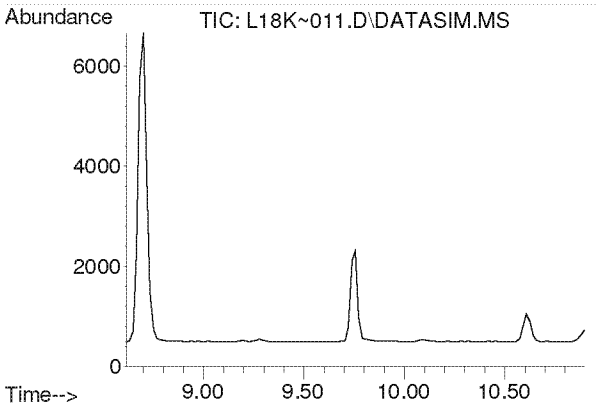
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.69 min

Lab File: L18K~011.D
Acq: 27 Nov 2018 7:59 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.3
101	9.0



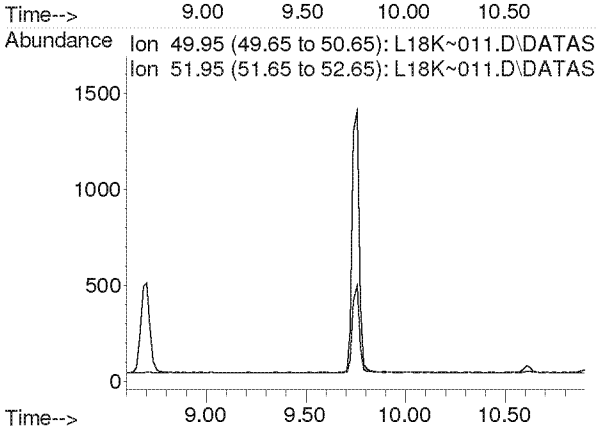


#5
Chloromethane
Concen: N.D.
Expected RT: 9.76 min

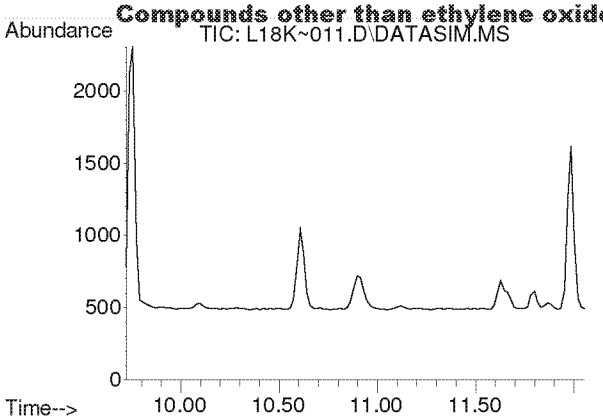
Lab File: L18K~011.D
Acq: 27 Nov 2018 7:59 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.2



Compounds other than ethylene oxide were not quantitated.

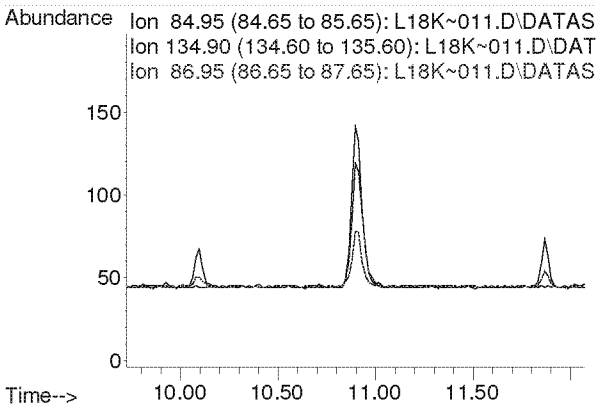


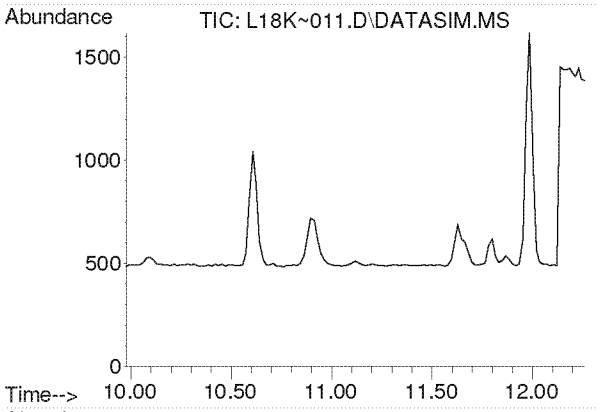
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.87 min

Lab File: L18K~011.D
Acq: 27 Nov 2018 7:59 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.6
87	32.1



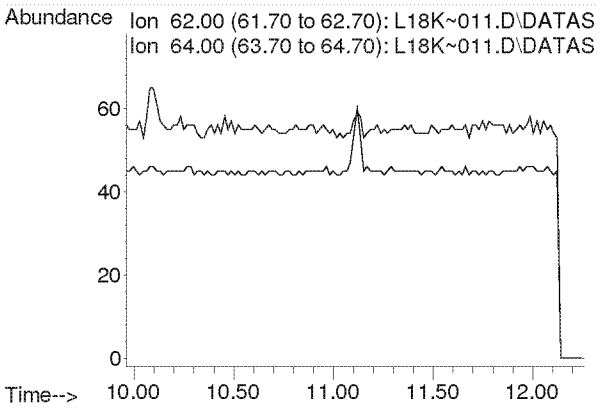


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

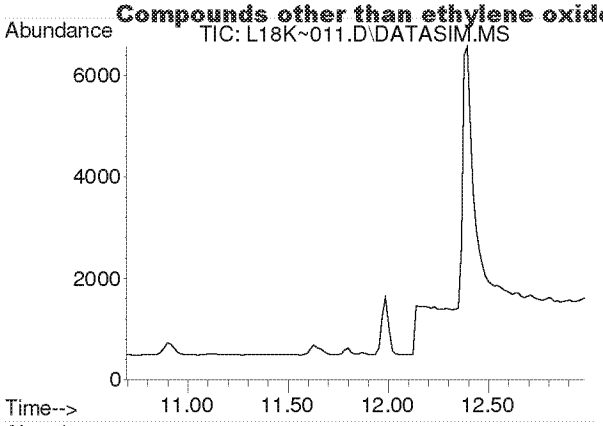
Lab File: L18K~011.D
Acq: 27 Nov 2018 7:59 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	32.0



Compounds other than ethylene oxide were not quantitated.

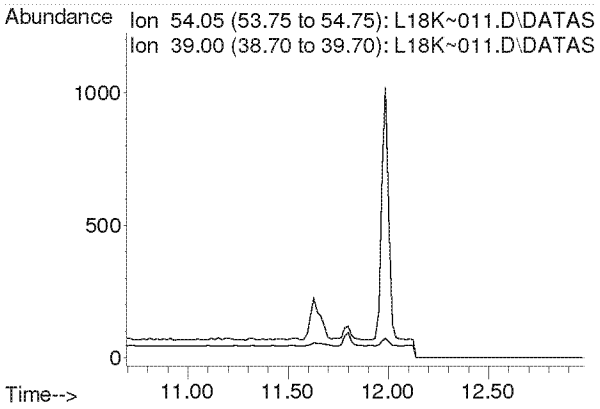


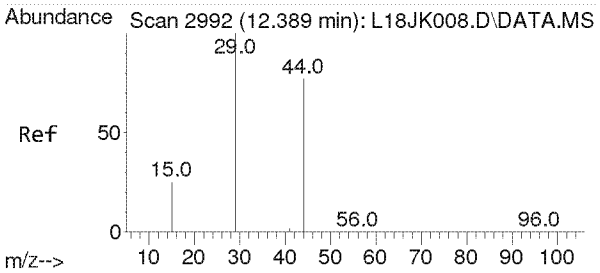
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.79 min

Lab File: L18K~011.D
Acq: 27 Nov 2018 7:59 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	108.7

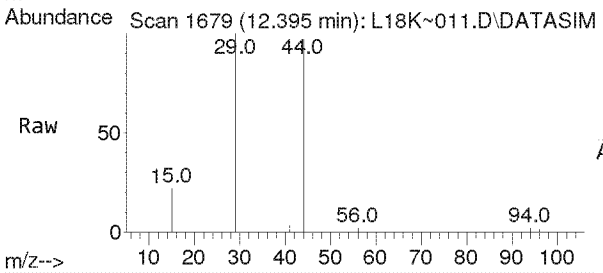


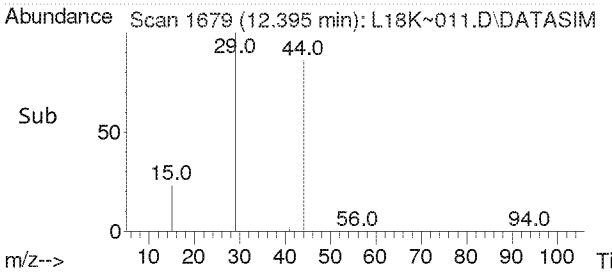


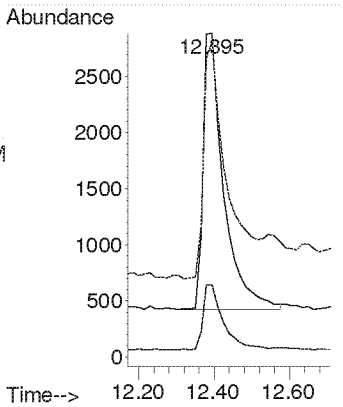
#9
Ethylene oxide
Concen: 3.488 ppbv
RT: 12.395 min Scan# 1679
Delta R.T. 0.006 min
Lab File: L18K~011.D
Acq: 27 Nov 2018 7:59 pm

Tgt Ion: 29 Resp: 9316

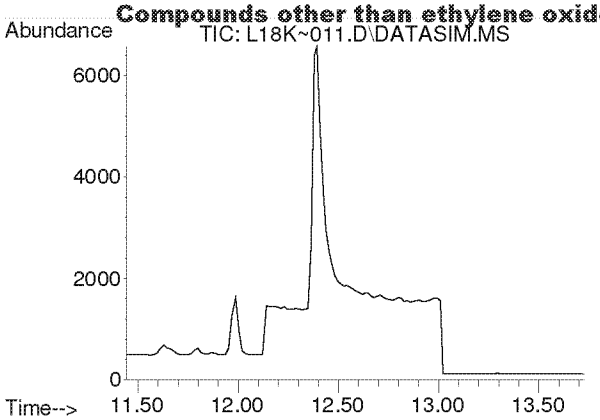
Ion	Ratio	Lower	Upper
29	100		
15	23.4	20.1	30.1
44	110.3	62.6	93.8#







Compounds other than ethylene oxide were not quantitated.

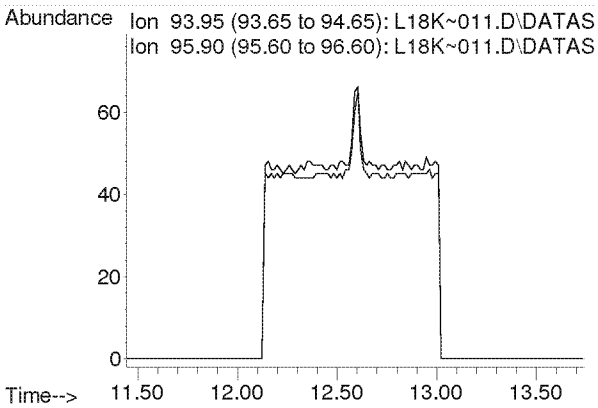


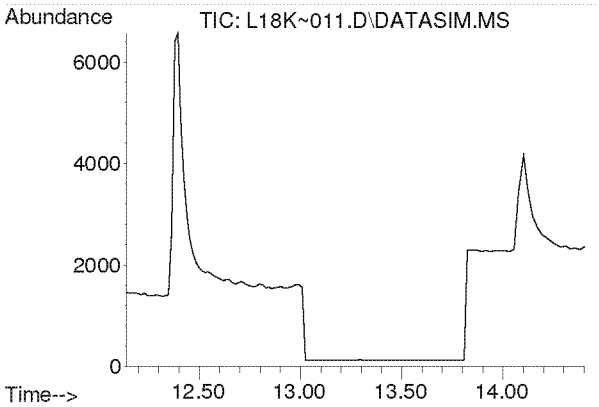
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L18K~011.D
Acq: 27 Nov 2018 7:59 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



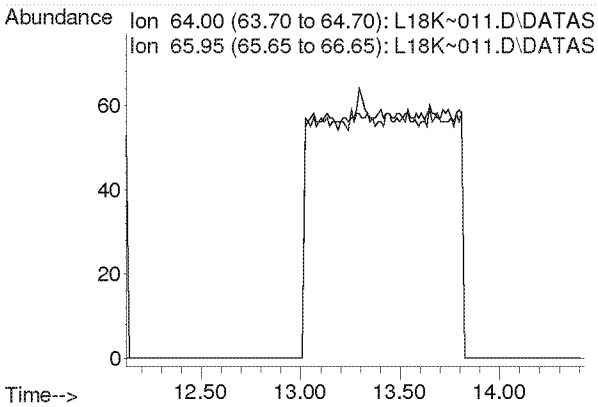


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

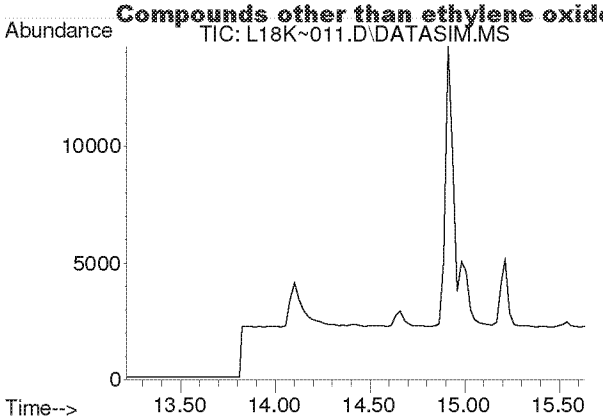
Lab File: L18K~011.D
Acq: 27 Nov 2018 7:59 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

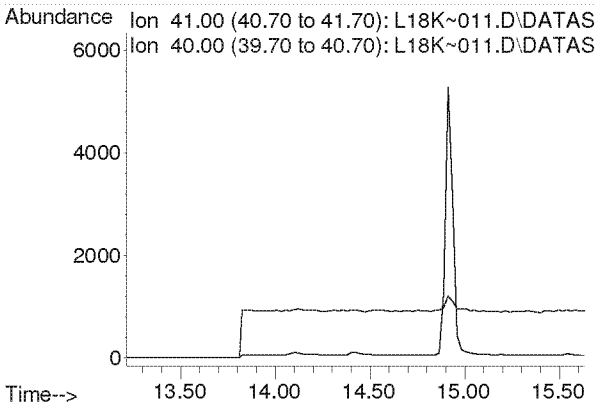


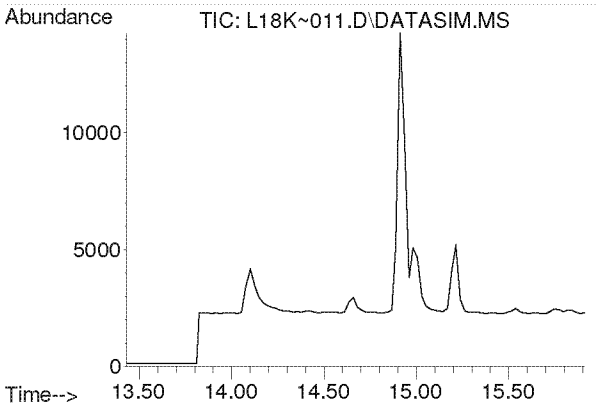
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.34 min

Lab File: L18K~011.D
Acq: 27 Nov 2018 7:59 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	53.9



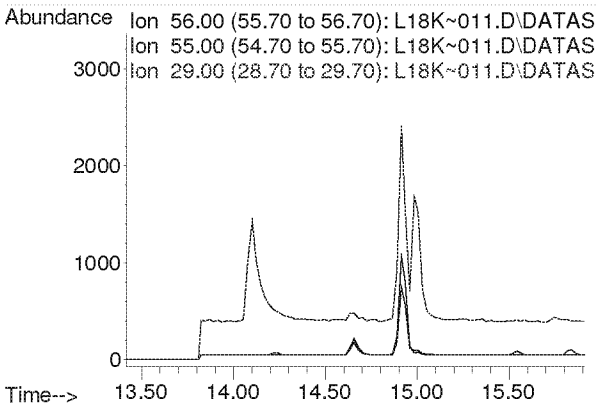


#13
Acrolein
Concen: N.D.
Expected RT: 14.62 min

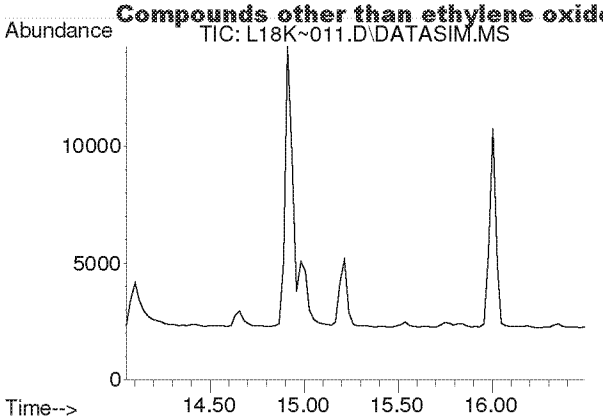
Lab File: L18K~011.D
Acq: 27 Nov 2018 7:59 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	77.4
29	61.5



Compounds other than ethylene oxide were not quantitated.

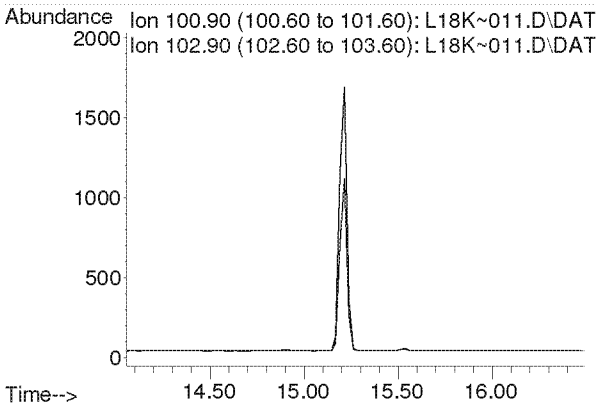


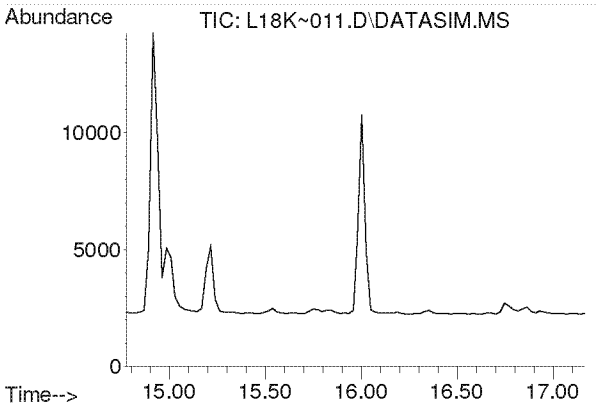
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.20 min

Lab File: L18K~011.D
Acq: 27 Nov 2018 7:59 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.7



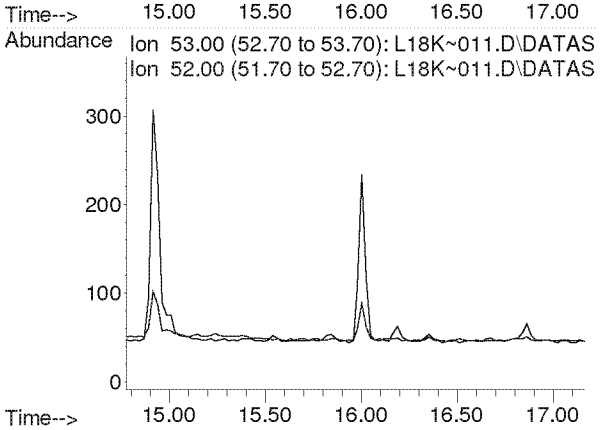


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.92 min

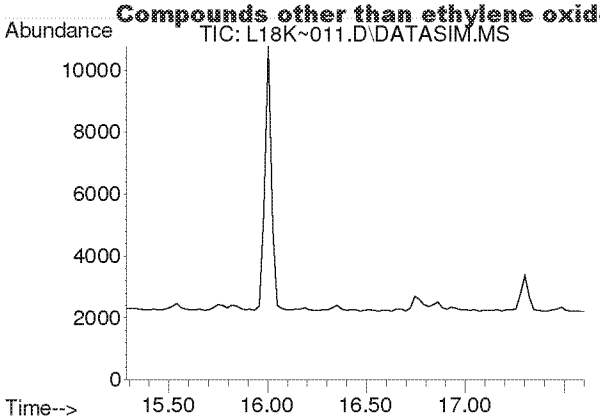
Lab File: L18K~011.D
Acq: 27 Nov 2018 7:59 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	87.1



Compounds other than ethylene oxide were not quantitated.

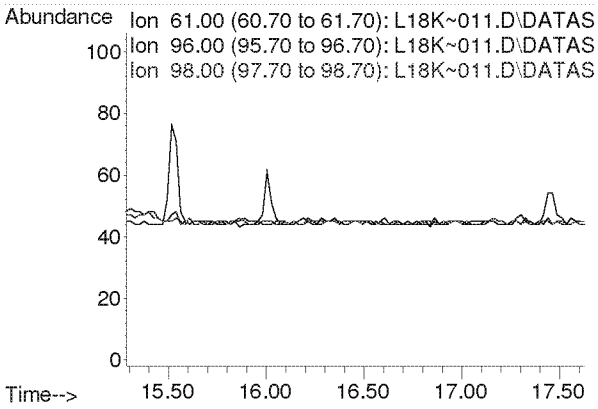


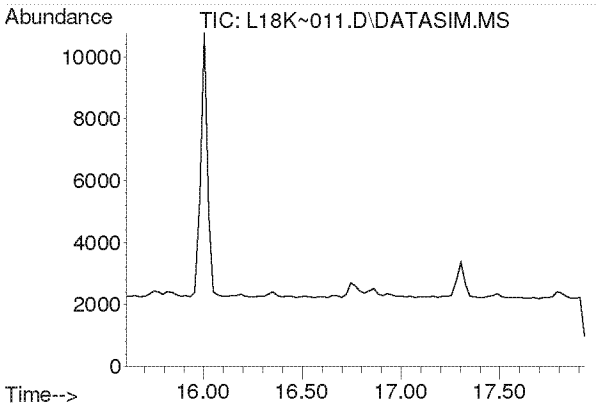
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L18K~011.D
Acq: 27 Nov 2018 7:59 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	57.6
98	36.8



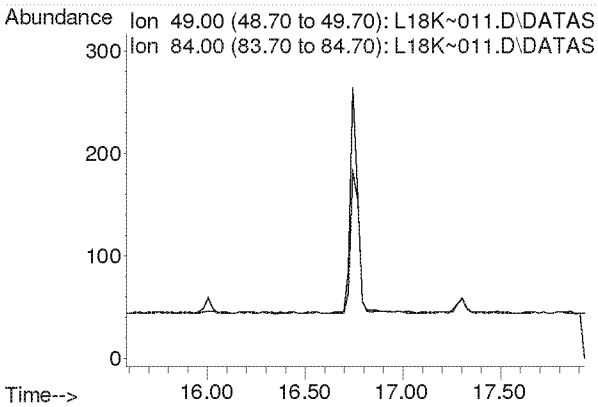


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

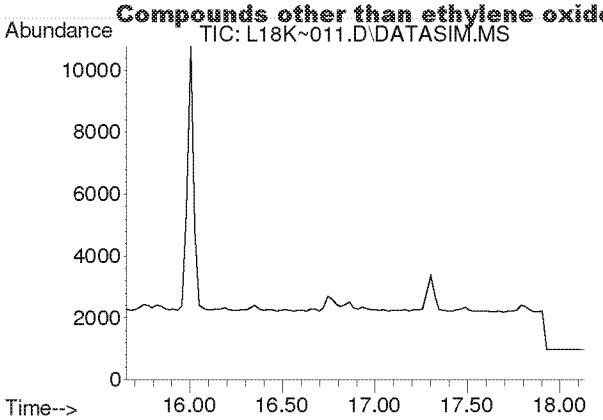
Lab File: L18K~011.D
Acq: 27 Nov 2018 7:59 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	74.2



Compounds other than ethylene oxide were not quantitated.

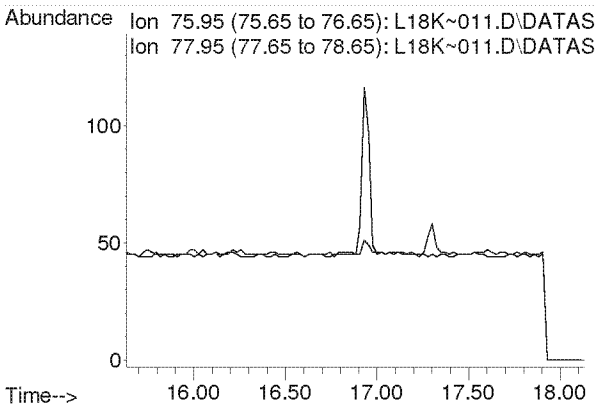


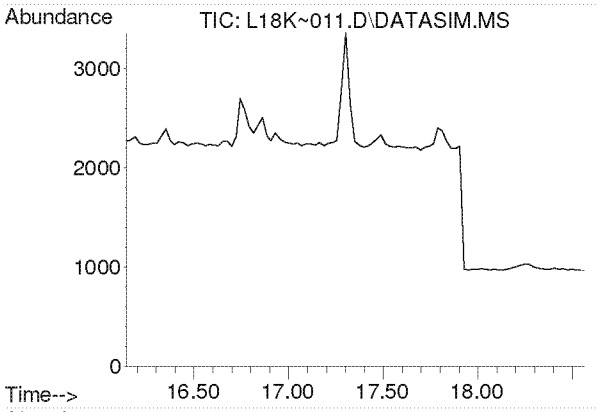
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.94 min

Lab File: L18K~011.D
Acq: 27 Nov 2018 7:59 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.1



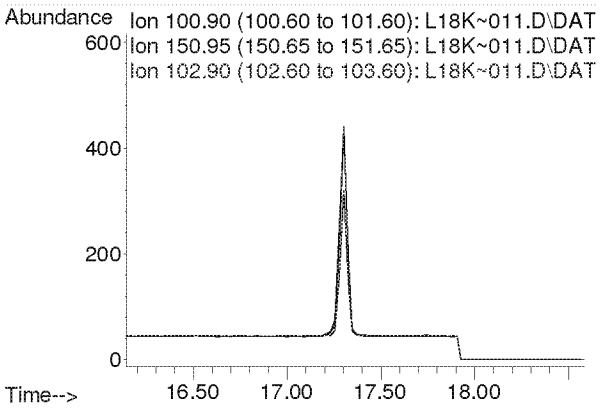


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.29 min

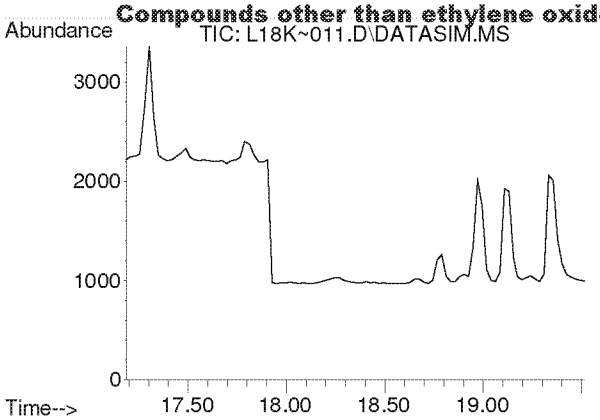
Lab File: L18K~011.D
Acq: 27 Nov 2018 7:59 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	96.0
103	64.3



Compounds other than ethylene oxide were not quantitated.

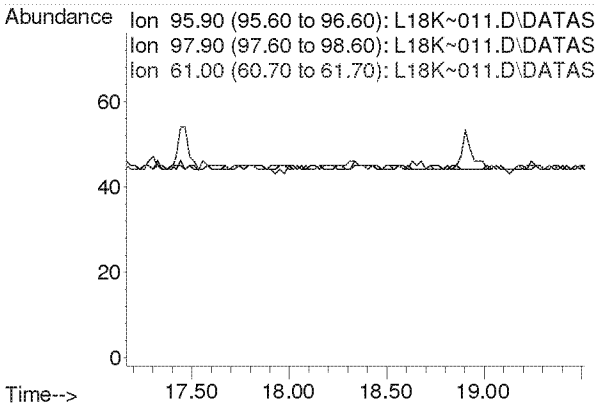


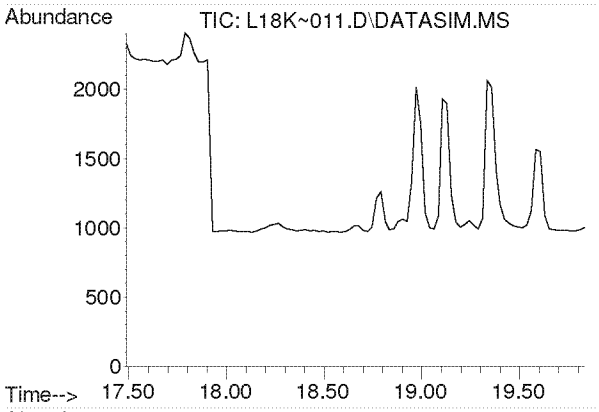
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.33 min

Lab File: L18K~011.D
Acq: 27 Nov 2018 7:59 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	63.6
61	156.3



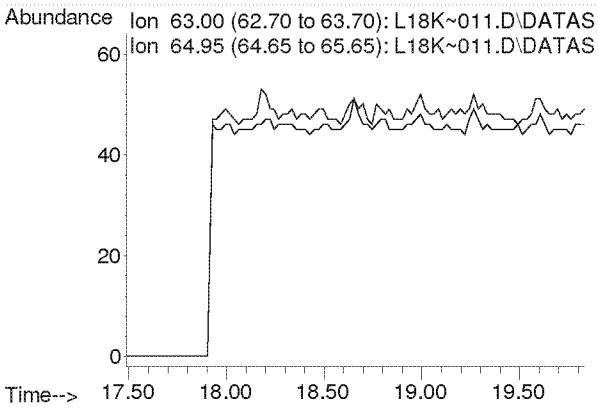


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.64 min

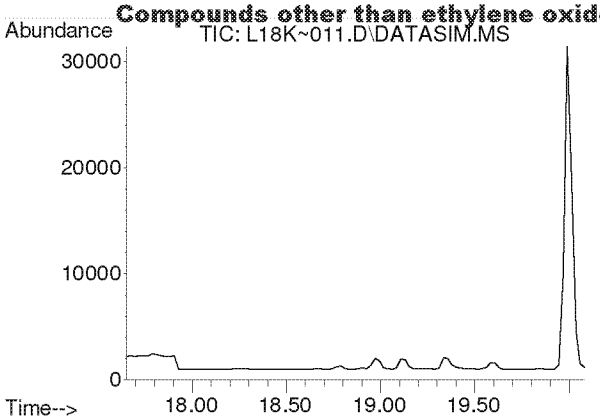
Lab File: L18K~011.D
Acq: 27 Nov 2018 7:59 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	32.1



Compounds other than ethylene oxide were not quantitated.

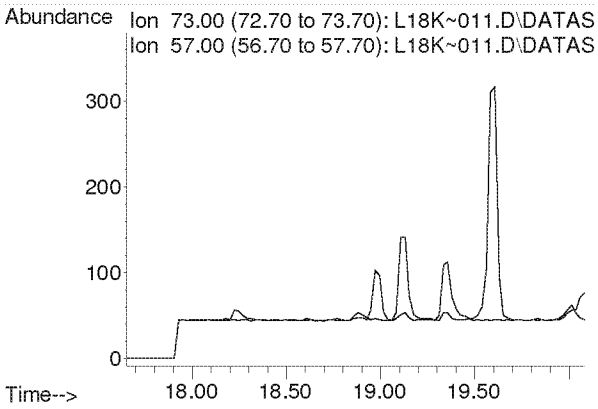


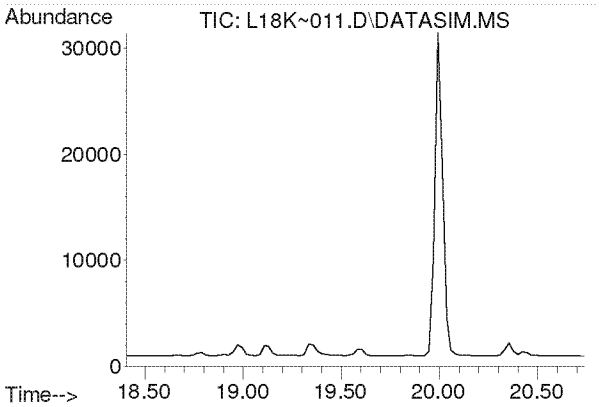
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L18K~011.D
Acq: 27 Nov 2018 7:59 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.0



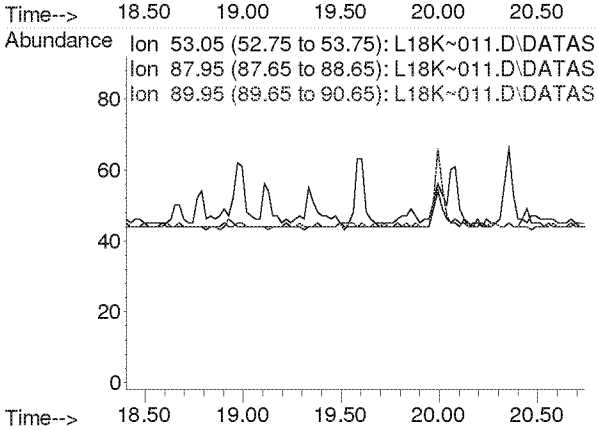


#23
Chloroprene
Concen: N.D.
Expected RT: 19.55 min

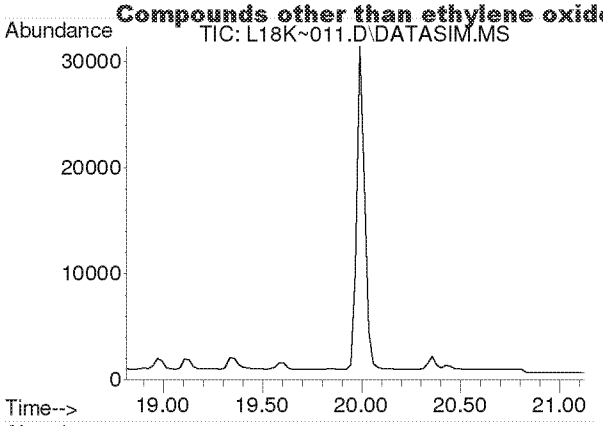
Lab File: L18K~011.D
Acq: 27 Nov 2018 7:59 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	51.5
90	16.6



Compounds other than ethylene oxide were not quantitated.

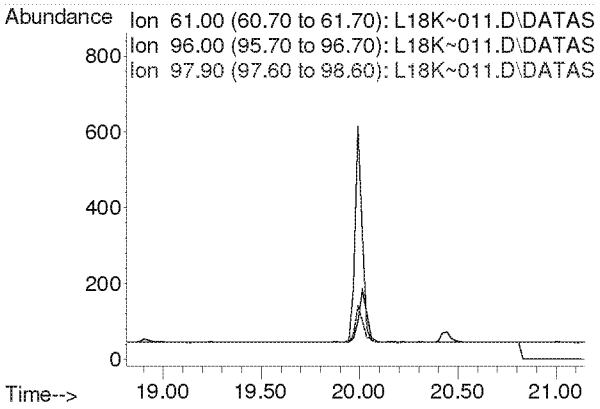


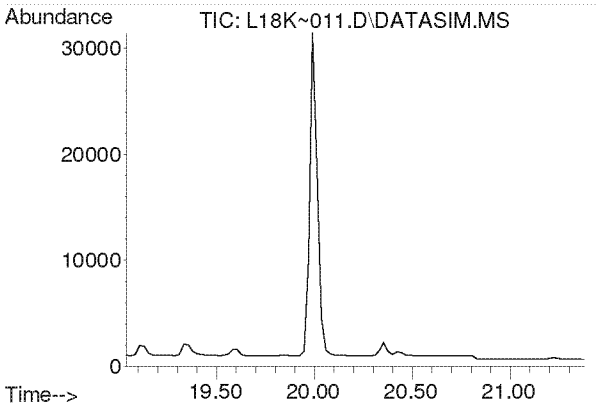
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.96 min

Lab File: L18K~011.D
Acq: 27 Nov 2018 7:59 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.5
98	46.2



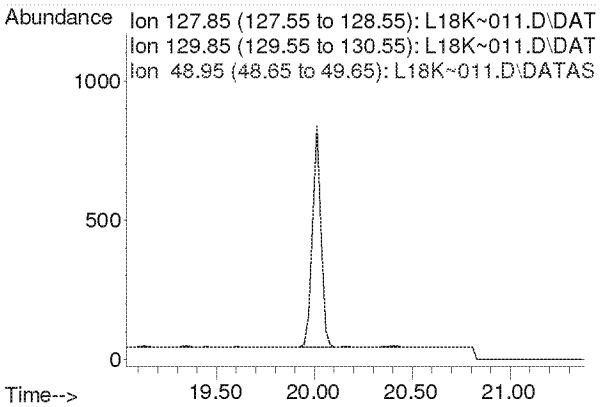


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.18 min

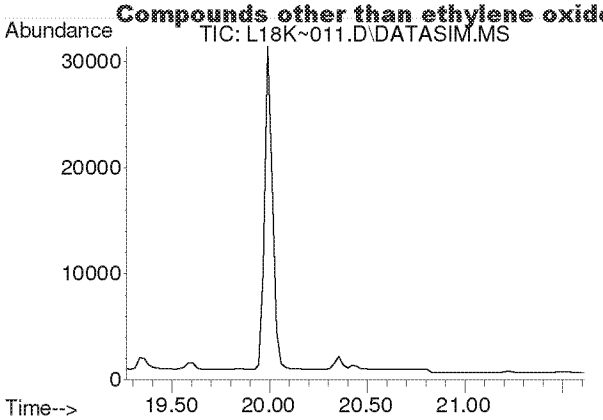
Lab File: L18K~011.D
Acq: 27 Nov 2018 7:59 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	128.9
49	167.9



Compounds other than ethylene oxide were not quantitated.

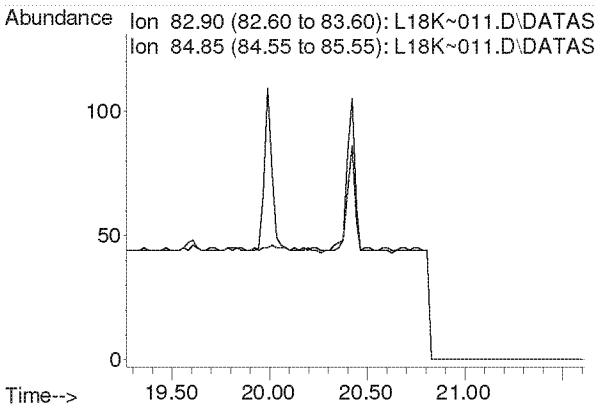


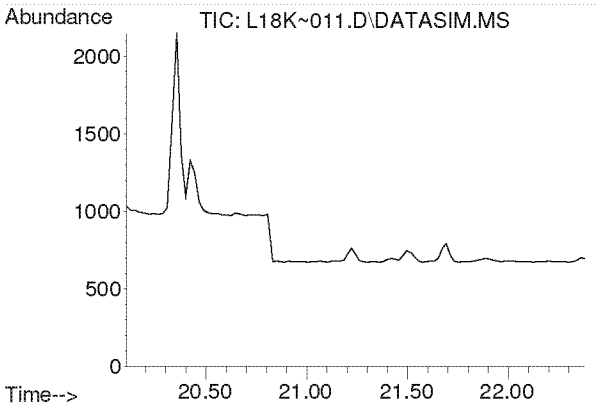
#26
Chloroform
Concen: N.D.
Expected RT: 20.42 min

Lab File: L18K~011.D
Acq: 27 Nov 2018 7:59 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



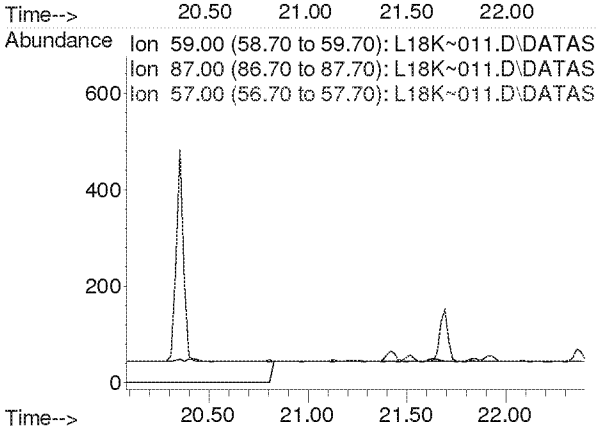


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.19 min

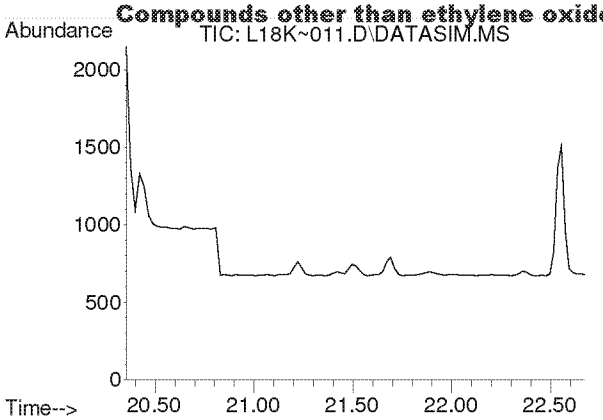
Lab File: L18K~011.D
Acq: 27 Nov 2018 7:59 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	38.5
57	34.0



Compounds other than ethylene oxide were not quantitated.

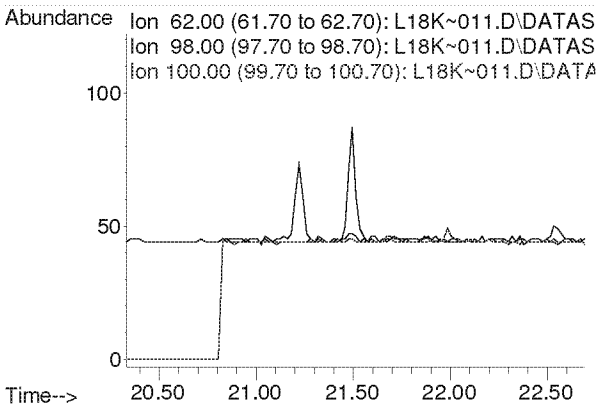


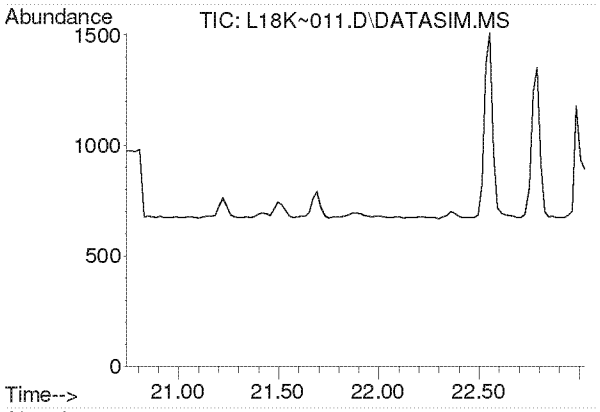
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.49 min

Lab File: L18K~011.D
Acq: 27 Nov 2018 7:59 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.0
100	3.9



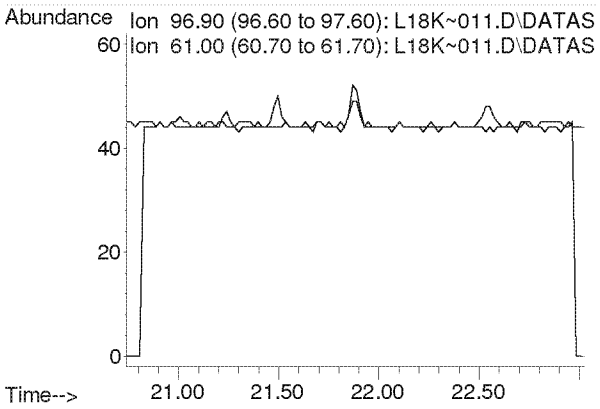


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.88 min

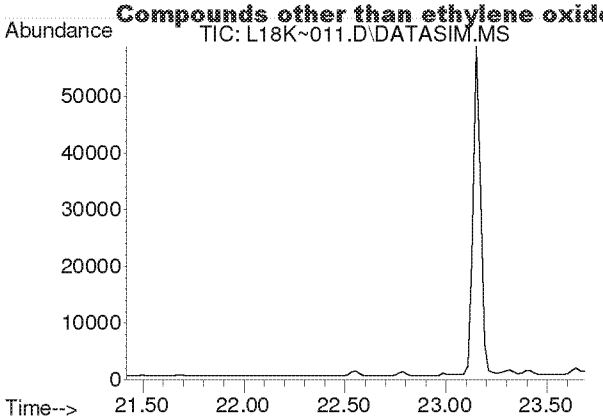
Lab File: L18K~011.D
Acq: 27 Nov 2018 7:59 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	59.6



Compounds other than ethylene oxide were not quantitated.

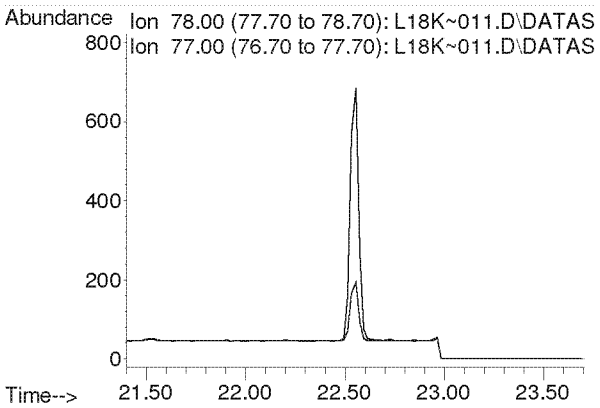


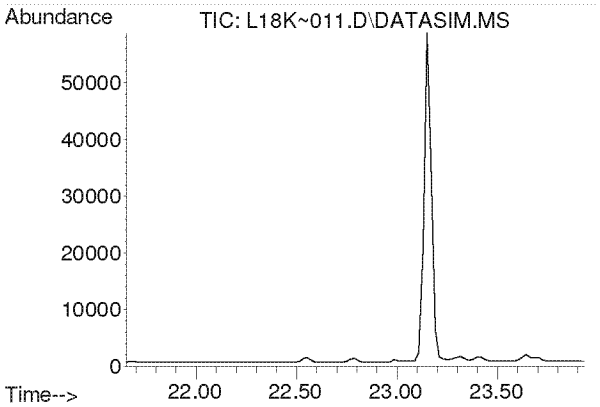
#31
Benzene
Concen: N.D.
Expected RT: 22.56 min

Lab File: L18K~011.D
Acq: 27 Nov 2018 7:59 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.9



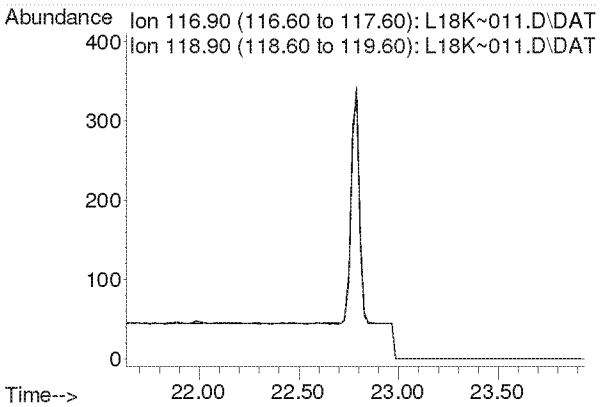


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.79 min

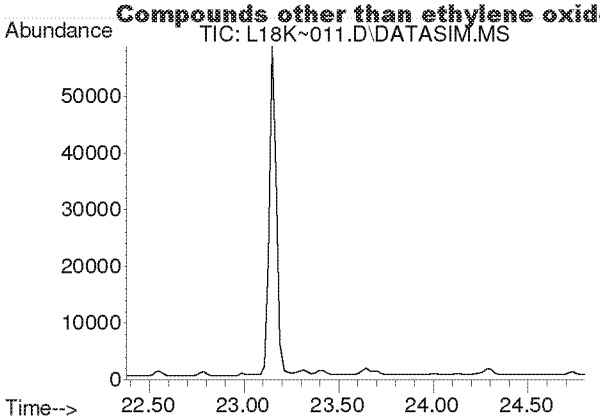
Lab File: L18K~011.D
Acq: 27 Nov 2018 7:59 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.9



Compounds other than ethylene oxide were not quantitated.

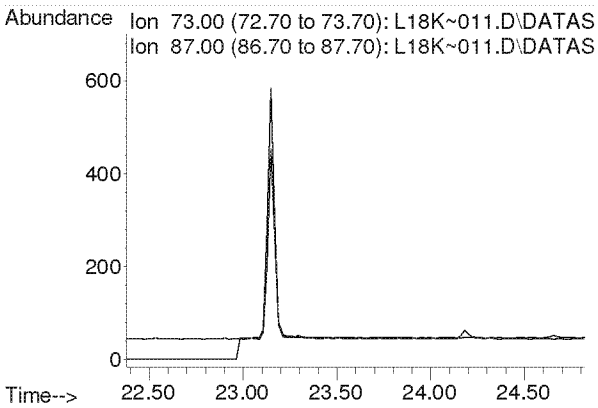


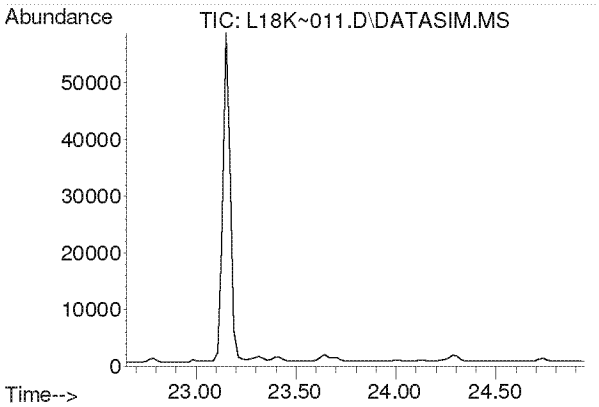
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L18K~011.D
Acq: 27 Nov 2018 7:59 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



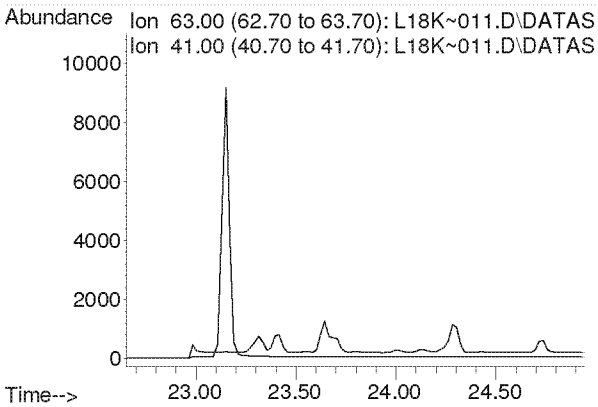


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.80 min

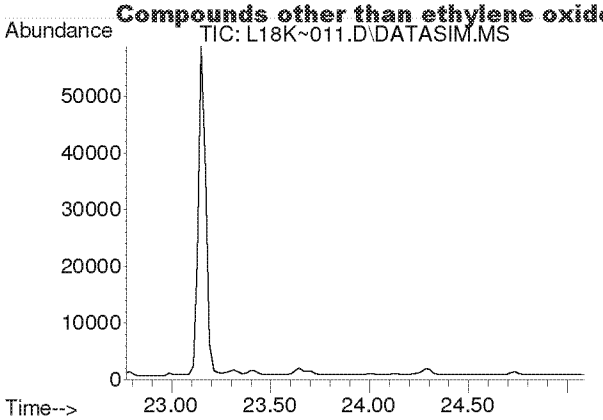
Lab File: L18K~011.D
Acq: 27 Nov 2018 7:59 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	222.1



Compounds other than ethylene oxide were not quantitated.

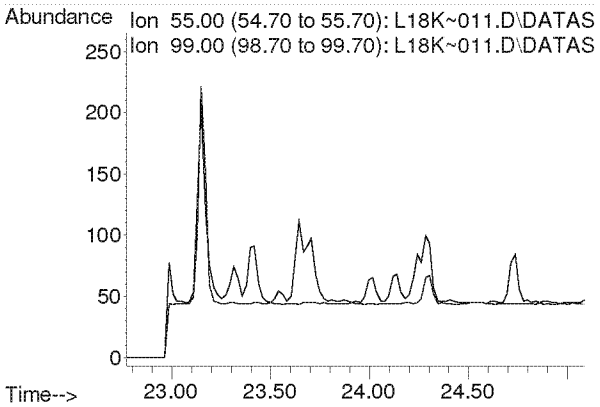


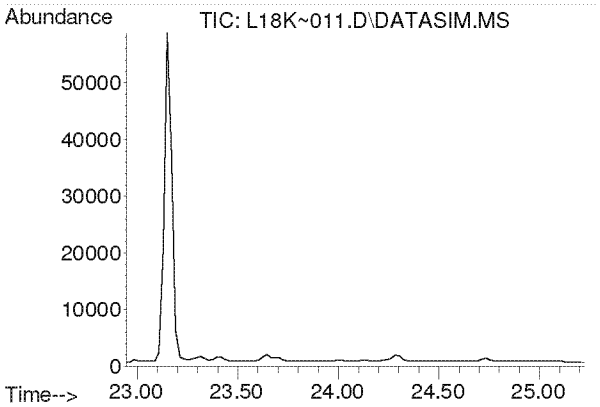
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L18K~011.D
Acq: 27 Nov 2018 7:59 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



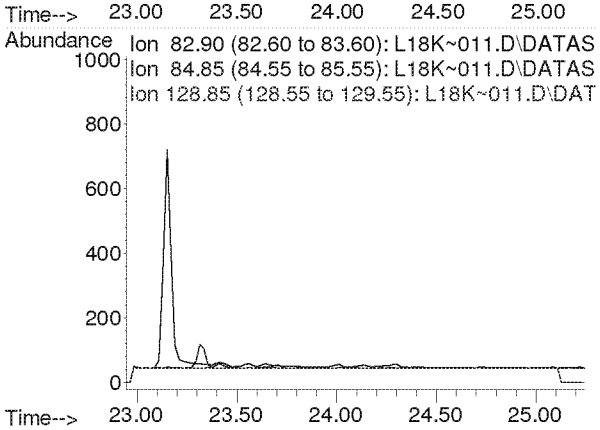


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.09 min

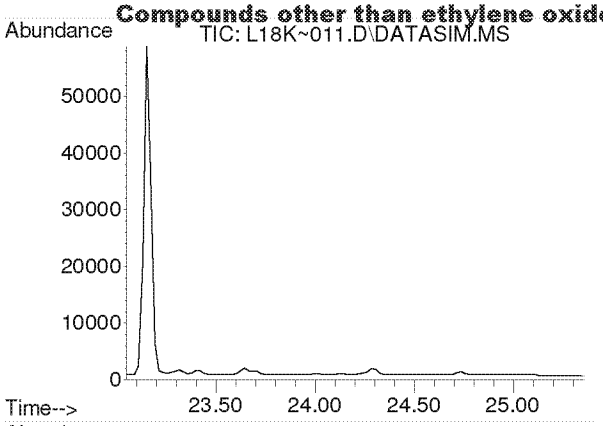
Lab File: L18K~011.D
Acq: 27 Nov 2018 7:59 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.9
129	12.9



Compounds other than ethylene oxide were not quantitated.

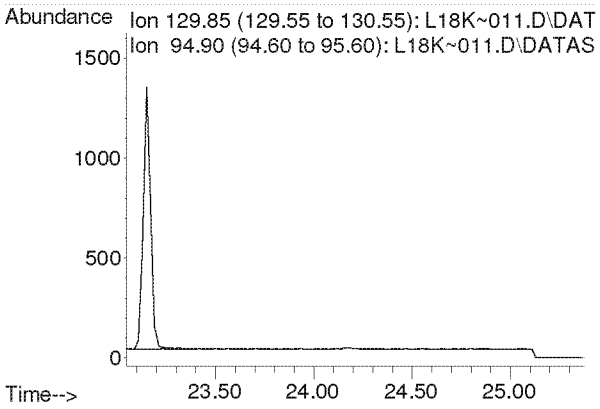


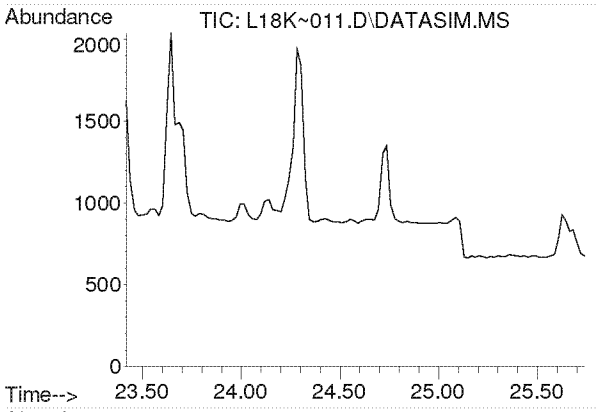
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.19 min

Lab File: L18K~011.D
Acq: 27 Nov 2018 7:59 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.9



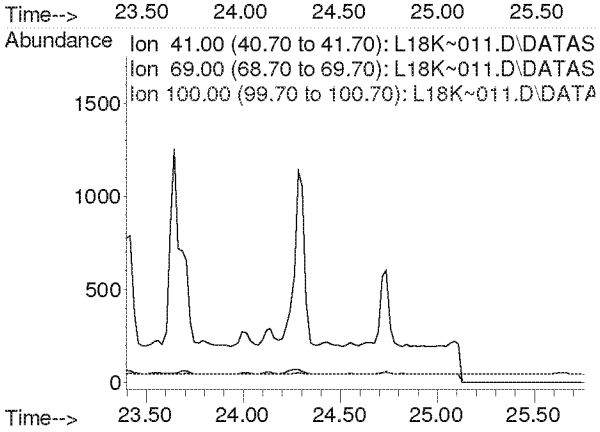


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.55 min

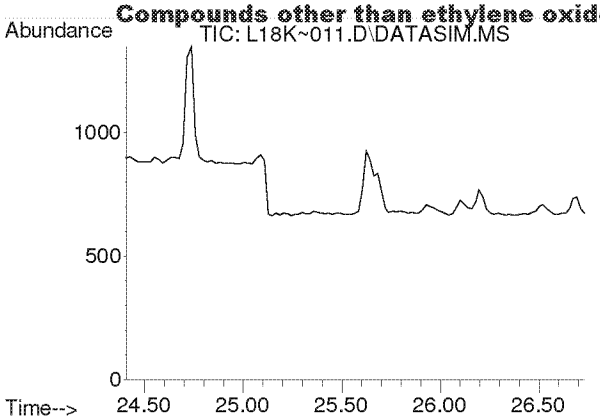
Lab File: L18K~011.D
Acq: 27 Nov 2018 7:59 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	20.0
100	5.1



Compounds other than ethylene oxide were not quantitated.

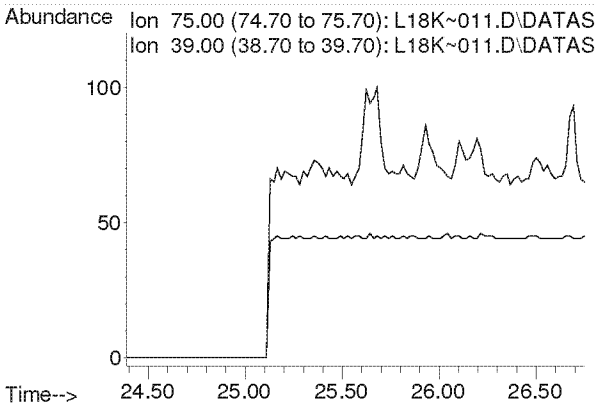


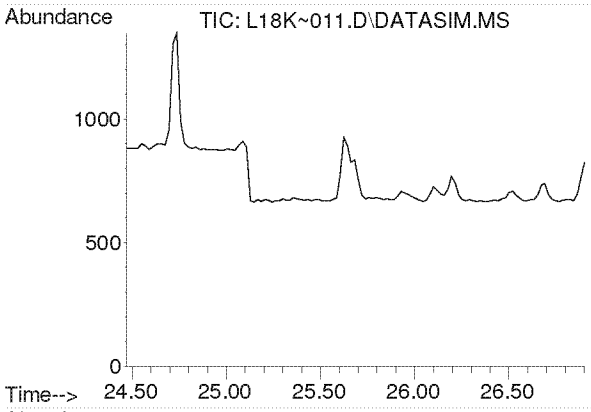
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.54 min

Lab File: L18K~011.D
Acq: 27 Nov 2018 7:59 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	55.6



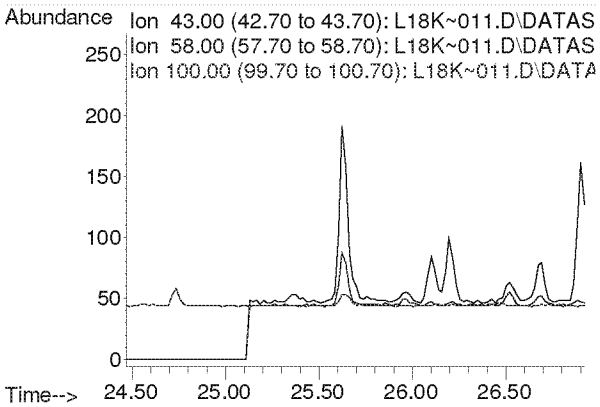


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.62 min

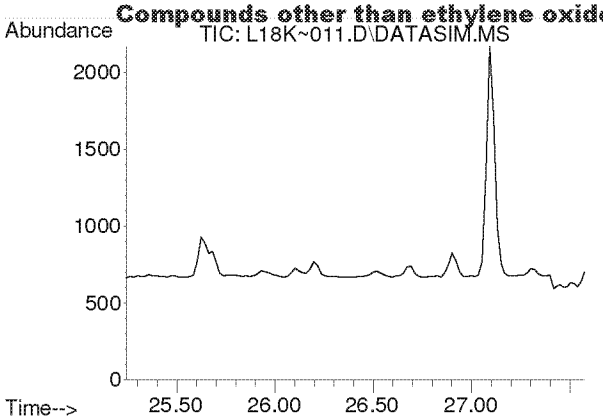
Lab File: L18K~011.D
Acq: 27 Nov 2018 7:59 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	33.3
100	8.0



Compounds other than ethylene oxide were not quantitated.

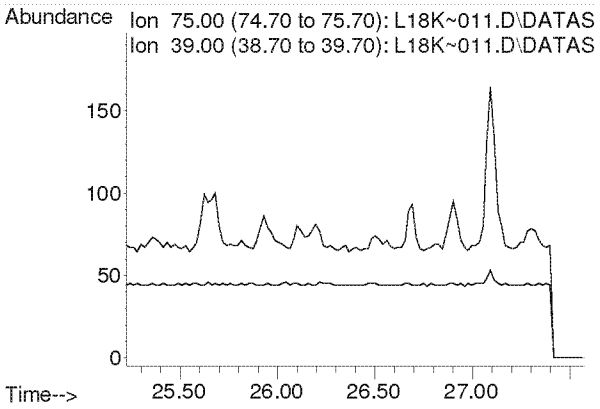


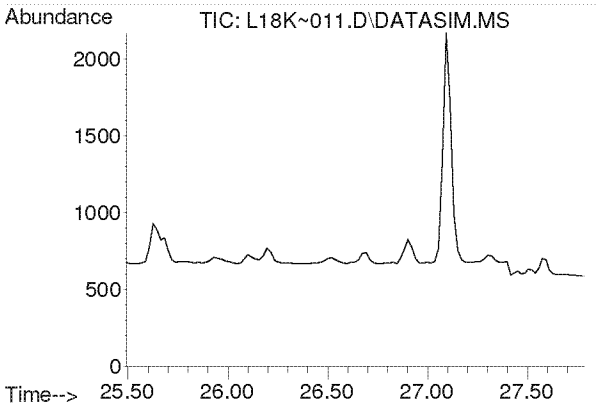
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.38 min

Lab File: L18K~011.D
Acq: 27 Nov 2018 7:59 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	55.3



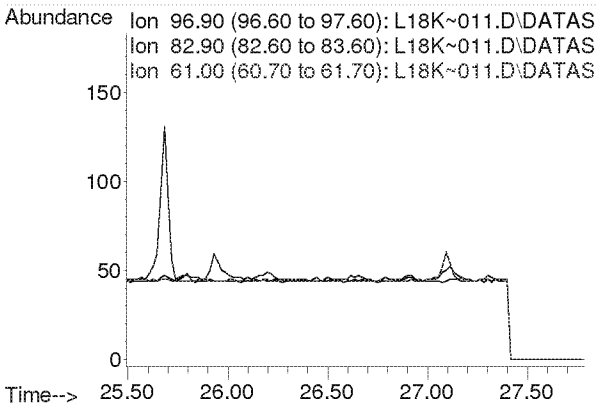


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.64 min

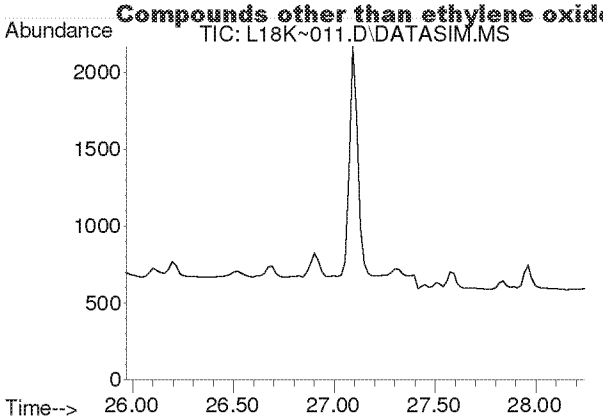
Lab File: L18K~011.D
Acq: 27 Nov 2018 7:59 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	95.3
61	64.6



Compounds other than ethylene oxide were not quantitated.

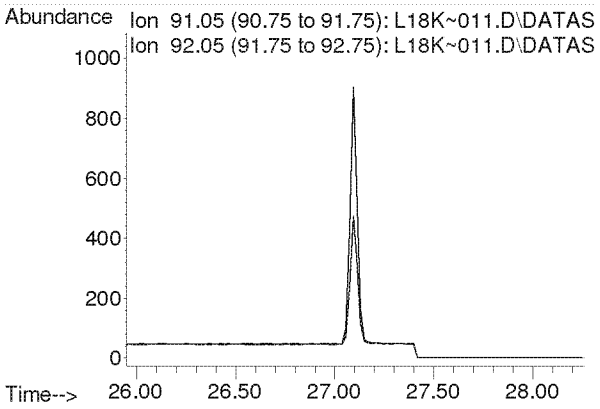


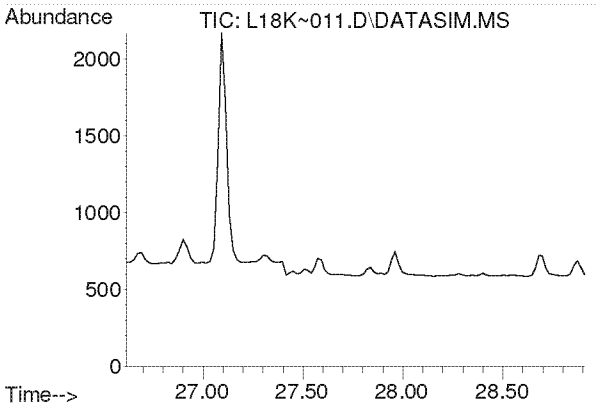
#44
Toluene
Concen: N.D.
Expected RT: 27.11 min

Lab File: L18K~011.D
Acq: 27 Nov 2018 7:59 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.1



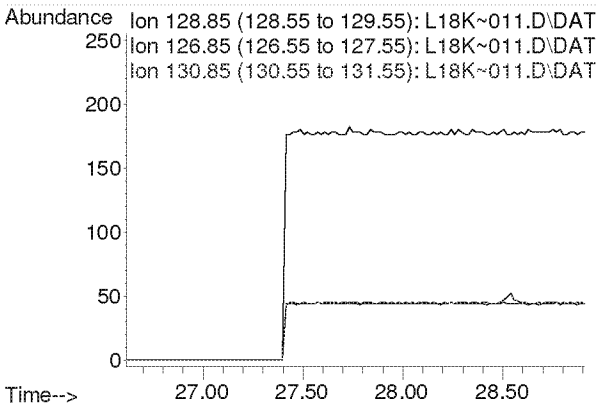


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.76 min

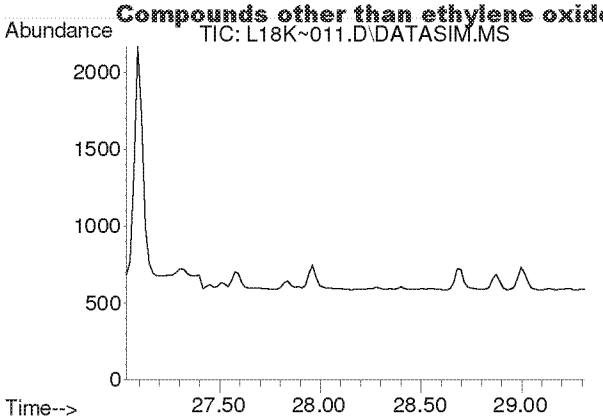
Lab File: L18K~011.D
Acq: 27 Nov 2018 7:59 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

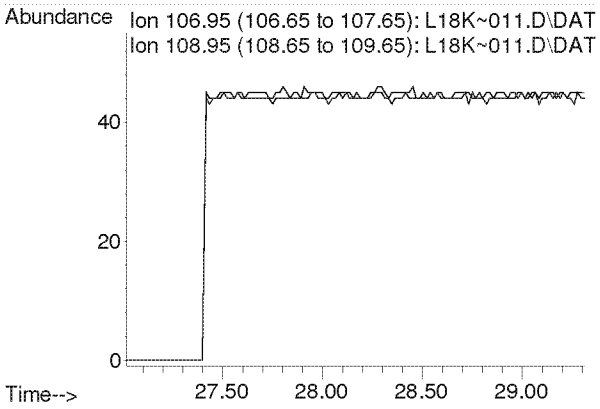


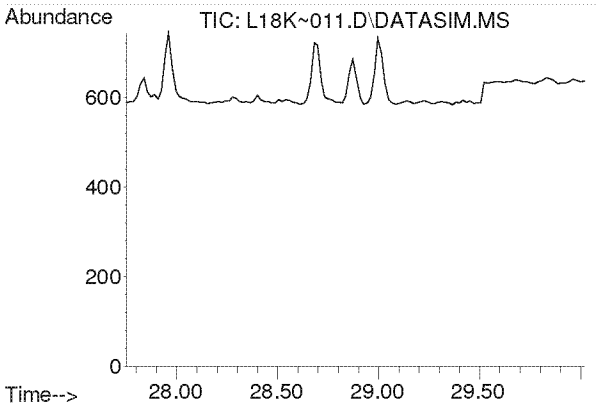
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.17 min

Lab File: L18K~011.D
Acq: 27 Nov 2018 7:59 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	93.8



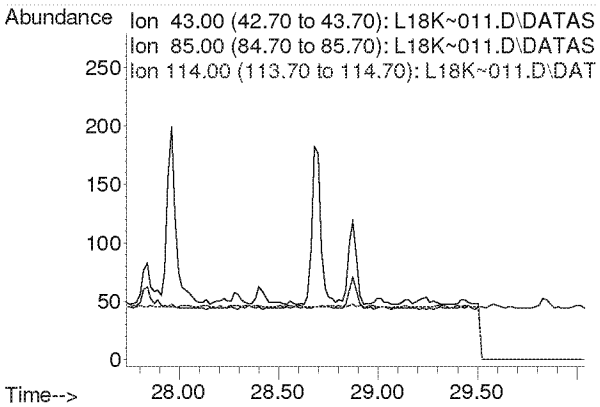


#47
n-Octane
Concen: N.D.
Expected RT: 28.89 min

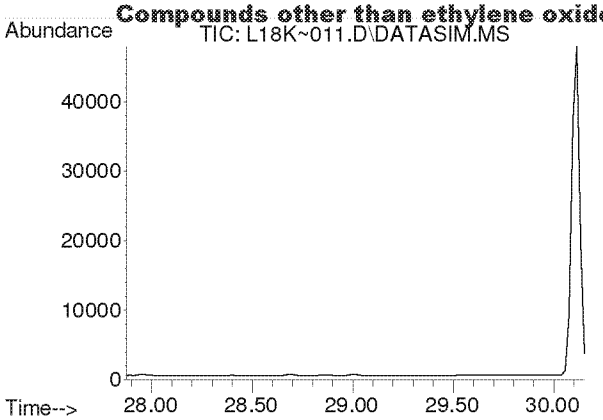
Lab File: L18K~011.D
Acq: 27 Nov 2018 7:59 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	37.8
114	2.4



Compounds other than ethylene oxide were not quantitated.

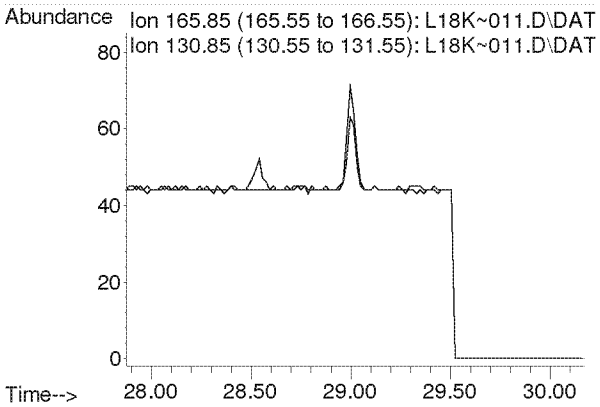


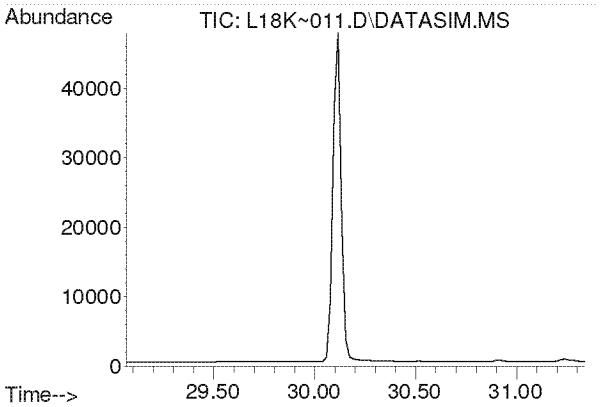
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.02 min

Lab File: L18K~011.D
Acq: 27 Nov 2018 7:59 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	78.7



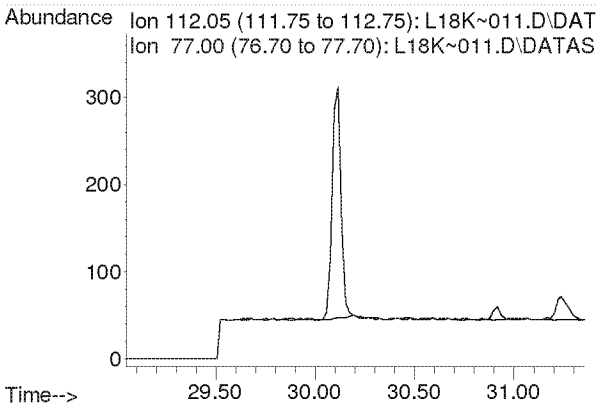


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.20 min

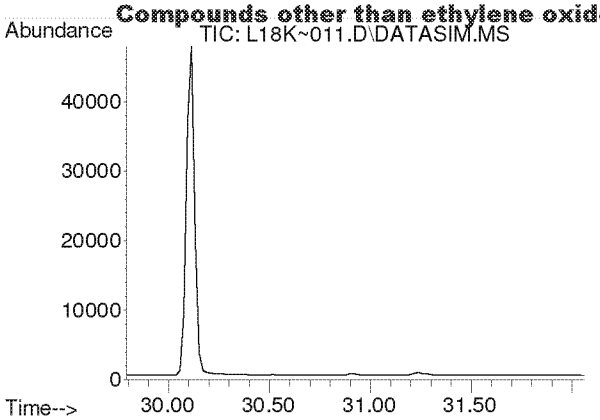
Lab File: L18K~011.D
Acq: 27 Nov 2018 7:59 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.3



Compounds other than ethylene oxide were not quantitated.

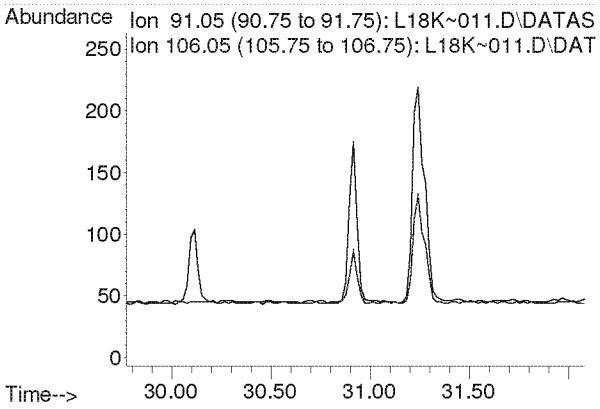


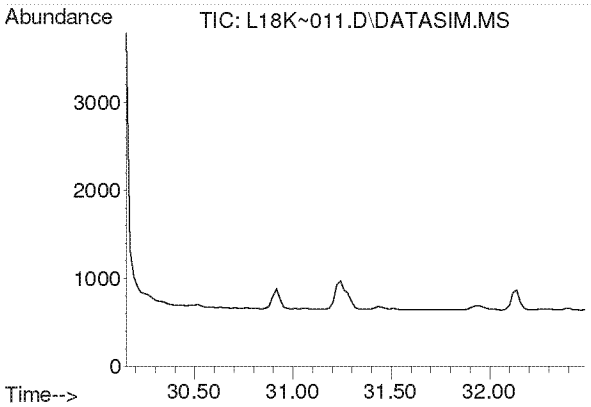
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.93 min

Lab File: L18K~011.D
Acq: 27 Nov 2018 7:59 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	31.8



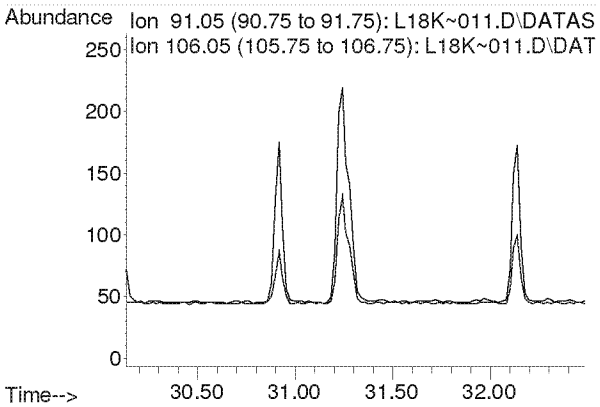


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.29 min

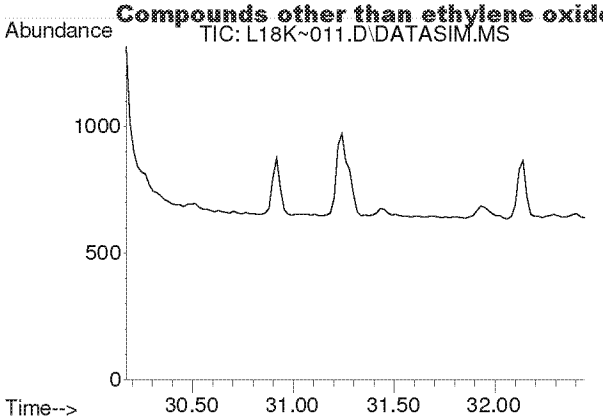
Lab File: L18K~011.D
Acq: 27 Nov 2018 7:59 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.4



Compounds other than ethylene oxide were not quantitated.

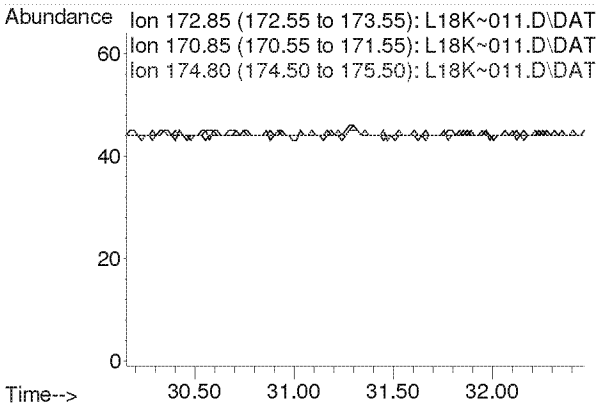


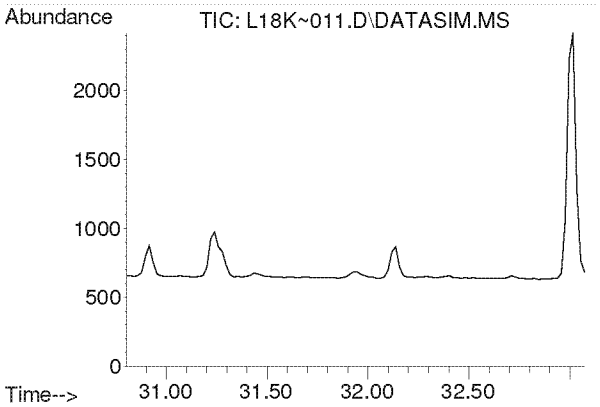
#52
Bromoform
Concen: N.D.
Expected RT: 31.30 min

Lab File: L18K~011.D
Acq: 27 Nov 2018 7:59 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.4
175	49.0



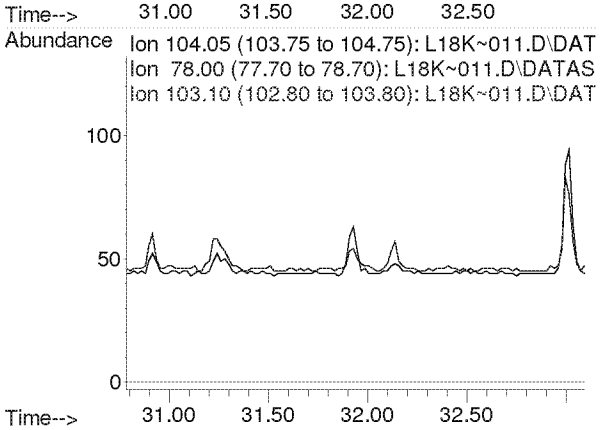


#53
Styrene
Concen: N.D.
Expected RT: 31.94 min

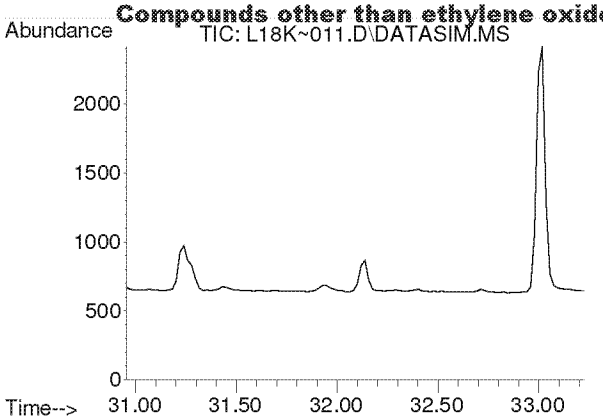
Lab File: L18K~011.D
Acq: 27 Nov 2018 7:59 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	45.7
103	0.0



Compounds other than ethylene oxide were not quantitated.

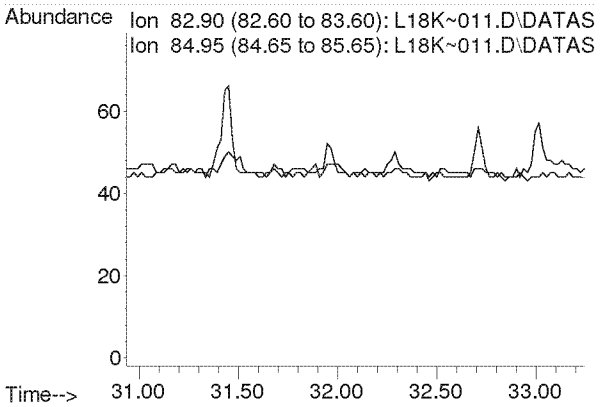


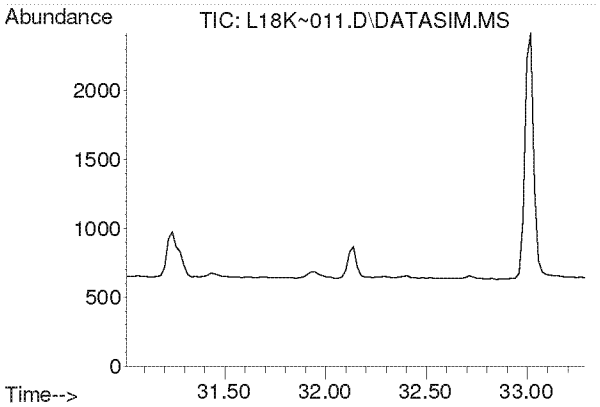
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.09 min

Lab File: L18K~011.D
Acq: 27 Nov 2018 7:59 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.3



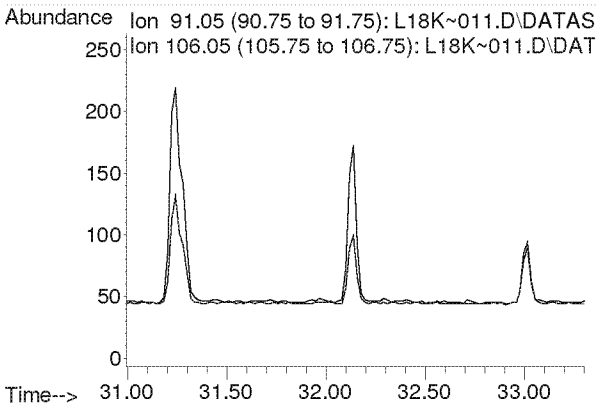


#55
o-Xylene
Concen: N.D.
Expected RT: 32.15 min

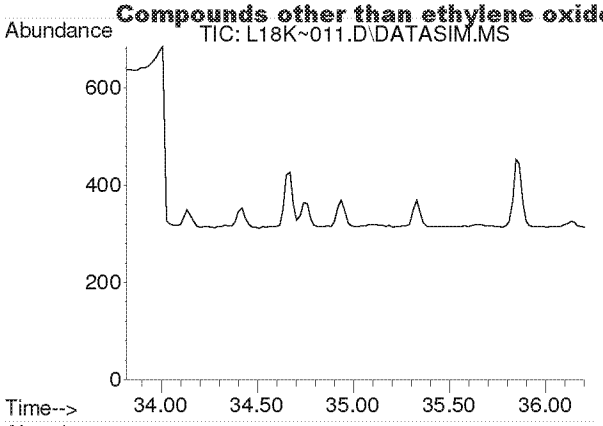
Lab File: L18K~011.D
Acq: 27 Nov 2018 7:59 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.5



Compounds other than ethylene oxide were not quantitated.

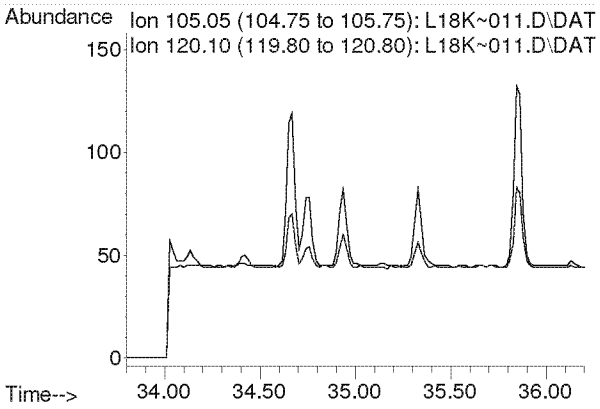


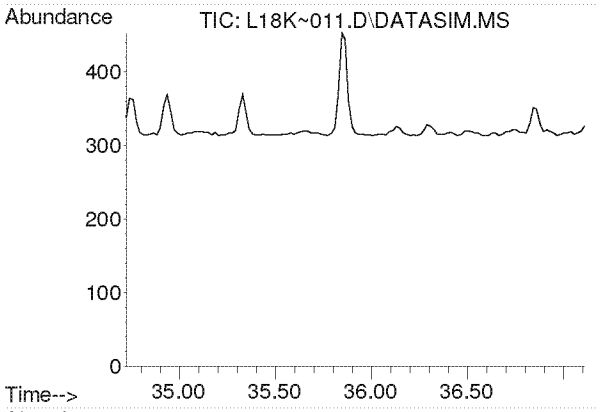
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.95 min

Lab File: L18K~011.D
Acq: 27 Nov 2018 7:59 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	45.6



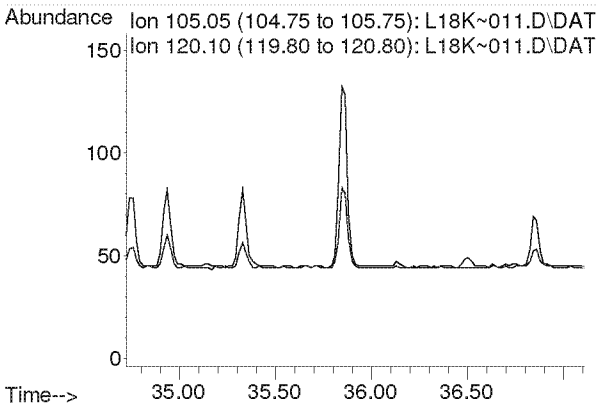


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.87 min

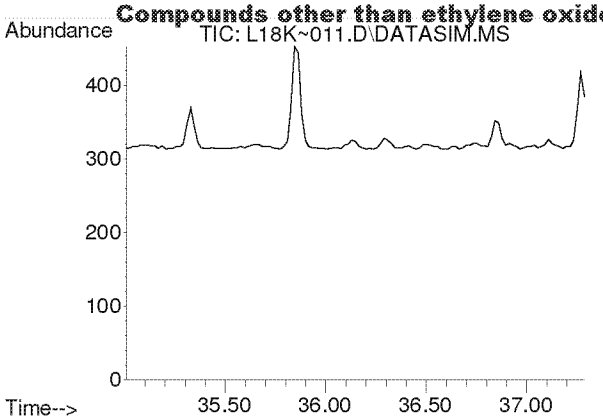
Lab File: L18K~011.D
Acq: 27 Nov 2018 7:59 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	43.4



Compounds other than ethylene oxide were not quantitated.

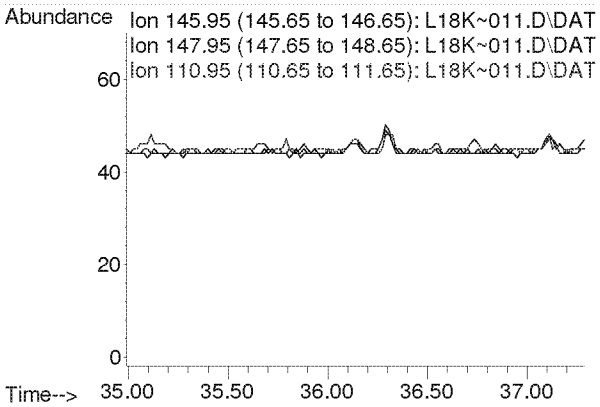


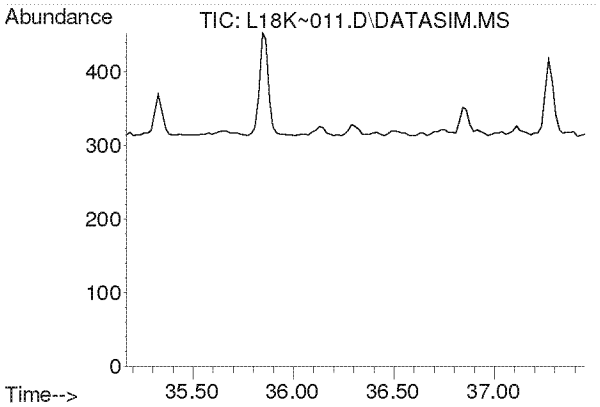
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.15 min

Lab File: L18K~011.D
Acq: 27 Nov 2018 7:59 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	41.1



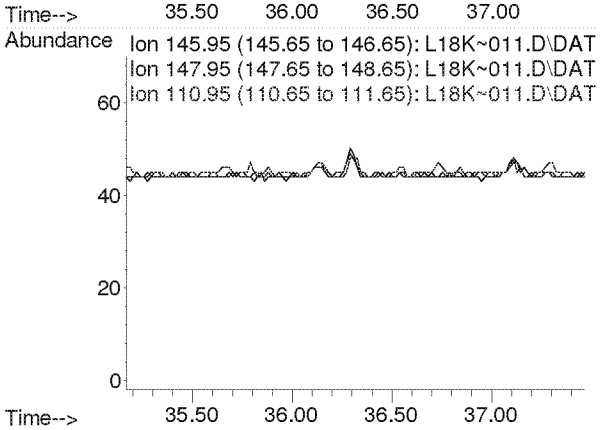


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.31 min

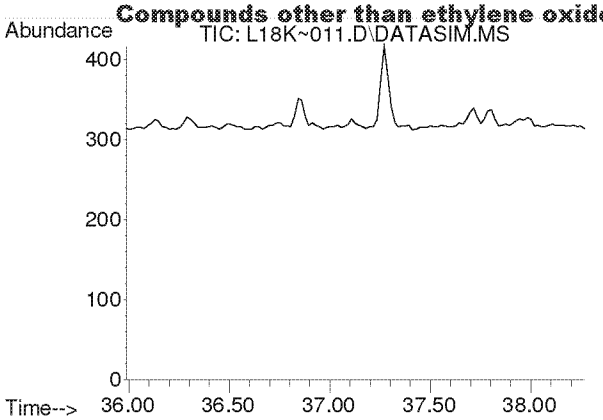
Lab File: L18K~011.D
Acq: 27 Nov 2018 7:59 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	39.8



Compounds other than ethylene oxide were not quantitated.

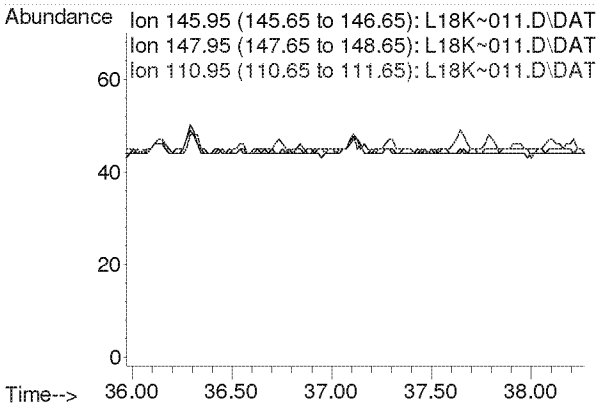


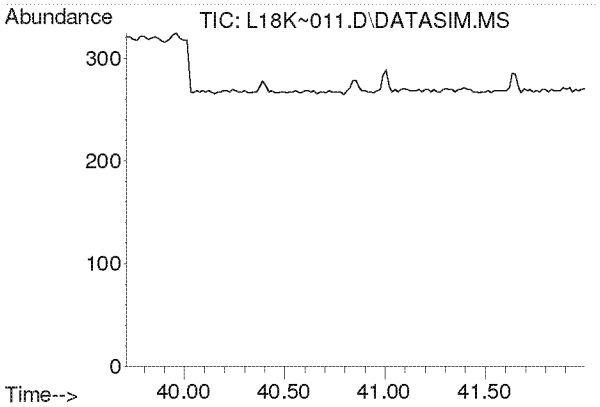
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.12 min

Lab File: L18K~011.D
Acq: 27 Nov 2018 7:59 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	63.9
111	41.8



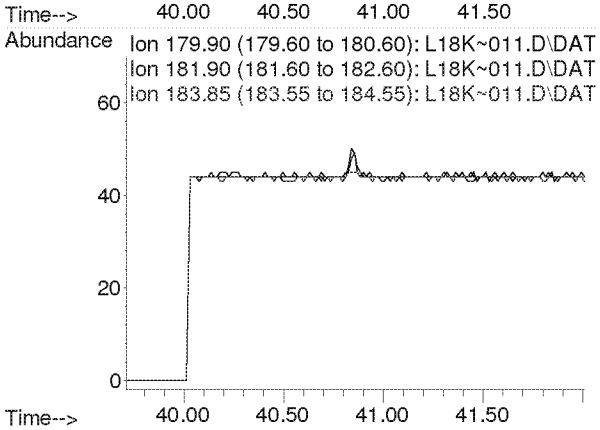


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.85 min

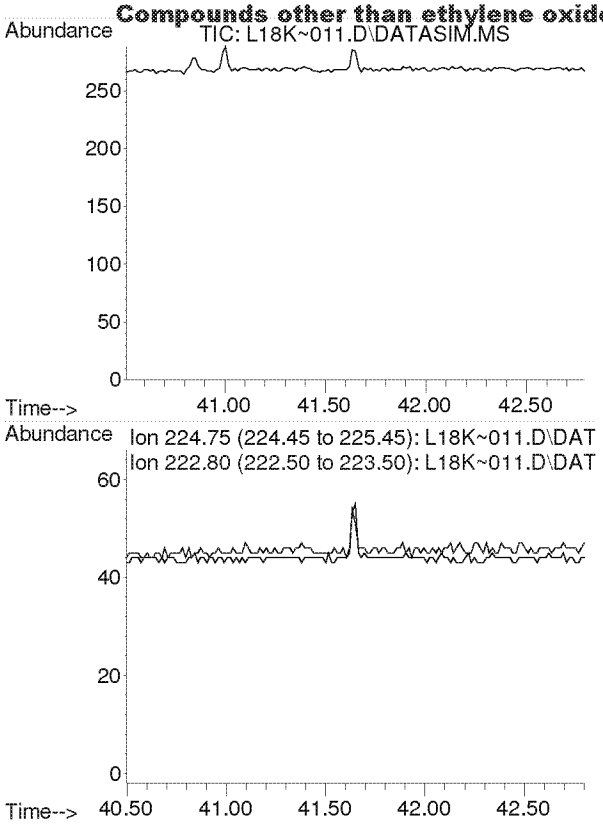
Lab File: L18K~011.D
Acq: 27 Nov 2018 7:59 pm

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	95.6
184	30.5



Compounds other than ethylene oxide were not quantitated.



#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.65 min

Lab File: L18K~011.D
Acq: 27 Nov 2018 7:59 pm

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.8

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L18K~\
Data File : L18K~012.D
Acq On : 27 Nov 2018 9:02 pm (#1); 27-Nov-18, 20:56:57 (#2)
Operator : MAH
Sample : B8K2704-DUP3
Misc : WB VILLAGE HALL R1 11/19/18 (Sig #1); (Sig #2)
ALS Vial : 12 Sample Multiplier: 1

11-27-18
J-MK

Quant Time: Nov 28 11:28:02 2018
Quant Method : C:\msdchem\1\METHODS\8100002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Fri Oct 12 09:33:42 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.993	66	49421	4.8000 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.151	114	117541	5.0200 ppbv	-0.02
43) IS-Chlorobenzene-d5	30.116	117	79539	4.7700 ppbv	-0.01

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	9038	3.3679 ppbv #	85
10) Bromomethane	0.000	94	0	N.D. d	
11) Chloroethane	0.000	64	0	N.D.	
12) Acetonitrile	0.000	41	0	N.D. d	
13) Acrolein	0.000	56	0	N.D. d	
14) Trichlorofluoromethane	0.000	101	0	N.D. d	
15) Acrylonitrile	0.000	53	0	N.D. d	
16) 1,1-Dichloroethene	0.000	61	0	N.D.	
17) Methylene Chloride	0.000	49	0	N.D. d	
18) Carbon Disulfide	0.000	76	0	N.D. d	
19) Trichlorotrifluoroethane	0.000	101	0	N.D. d	
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.	
21) 1,1-Dichloroethane	0.000	63	0	N.D.	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D. d	
23) Chloroprene	0.000	53	0	N.D. d	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D. d	
25) Bromochloromethane	0.000	128	0	N.D.	
26) Chloroform	0.000	83	0	N.D. d	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D.	
28) 1,2-Dichloroethane	0.000	62	0	N.D. d	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D.	
31) Benzene	0.000	78	0	N.D. d	
32) Carbon Tetrachloride	0.000	117	0	N.D. d	
33) tert-Amyl Methyl Ether	0.000	73	0	N.D.	
34) 1,2-Dichloropropane	0.000	63	0	N.D.	
35) Ethyl Acrylate	0.000	55	0	N.D.	
36) Bromodichloromethane	0.000	83	0	N.D.	
37) Trichloroethylene	0.000	130	0	N.D.	
38) Methyl Methacrylate	0.000	41	0	N.D.	
39) cis-1,3-Dichloropropene	0.000	75	0	N.D.	
40) Methyl Isobutyl Ketone	0.000	43	0	N.D. d	
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.	
44) Toluene	0.000	91	0	N.D. d	
45) Dibromochloromethane	0.000	129	0	N.D.	
46) 1,2-Dibromoethane	0.000	107	0	N.D.	
47) n-Octane	0.000	43	0	N.D. d	
48) Tetrachloroethylene	0.000	166	0	N.D. d	
49) Chlorobenzene	0.000	112	0	N.D. 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\L18K~\
Data File : L18K~012.D
Acq On : 27 Nov 2018 9:02 pm (#1); 27-Nov-18, 20:56:57 (#2)
Operator : MAH
Sample : B8K2704-DUP3
Misc : WB VILLAGE HALL R1 11/19/18 (Sig #1); (Sig #2)
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Nov 28 11:28:02 2018
Quant Method : C:\msdchem\1\METHODS\8100002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Fri Oct 12 09:33:42 2018
Response via : Initial Calibration

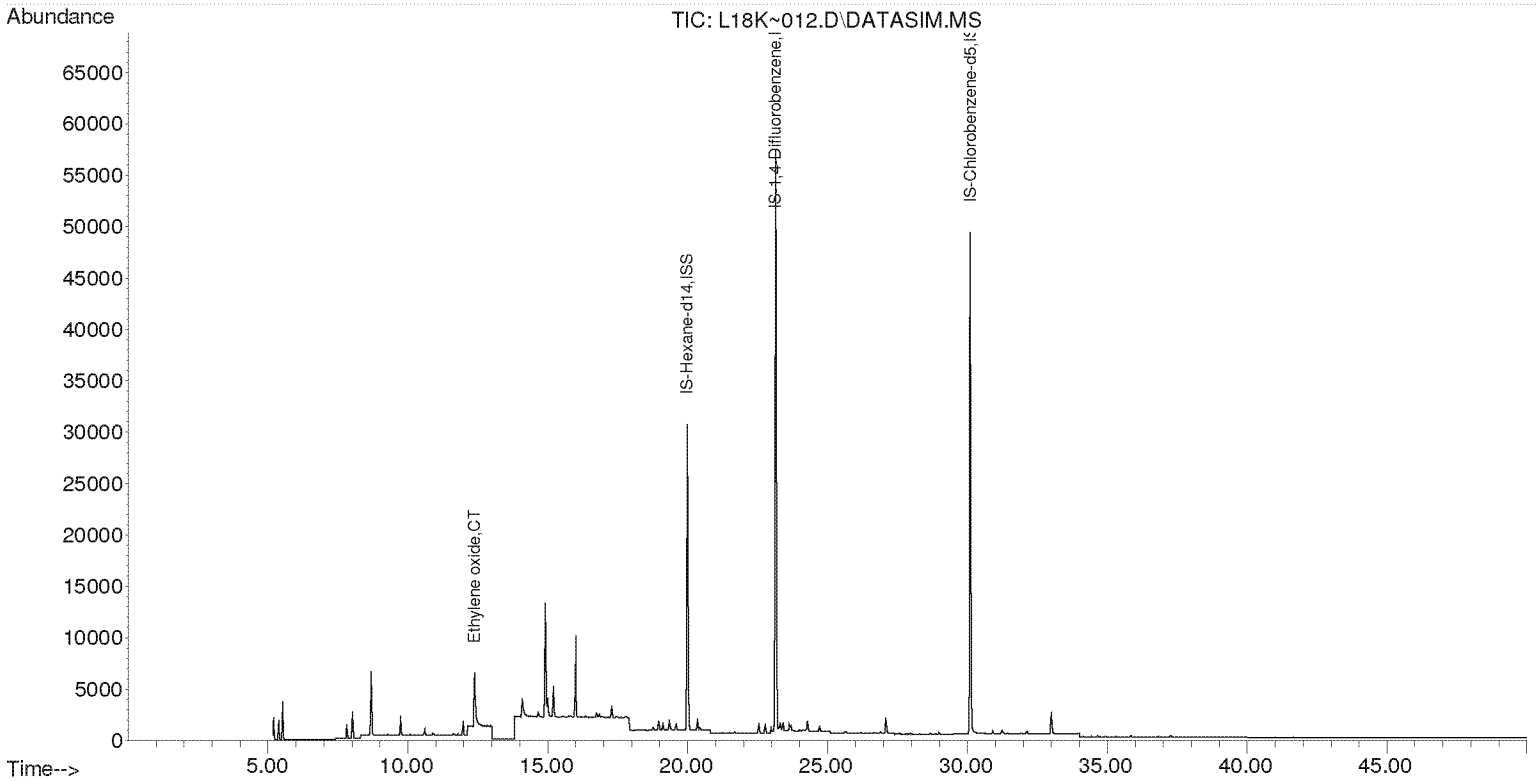
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D.	d
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	d
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D.	d
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	d
57) 1,2,4-Trimethylbenzene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

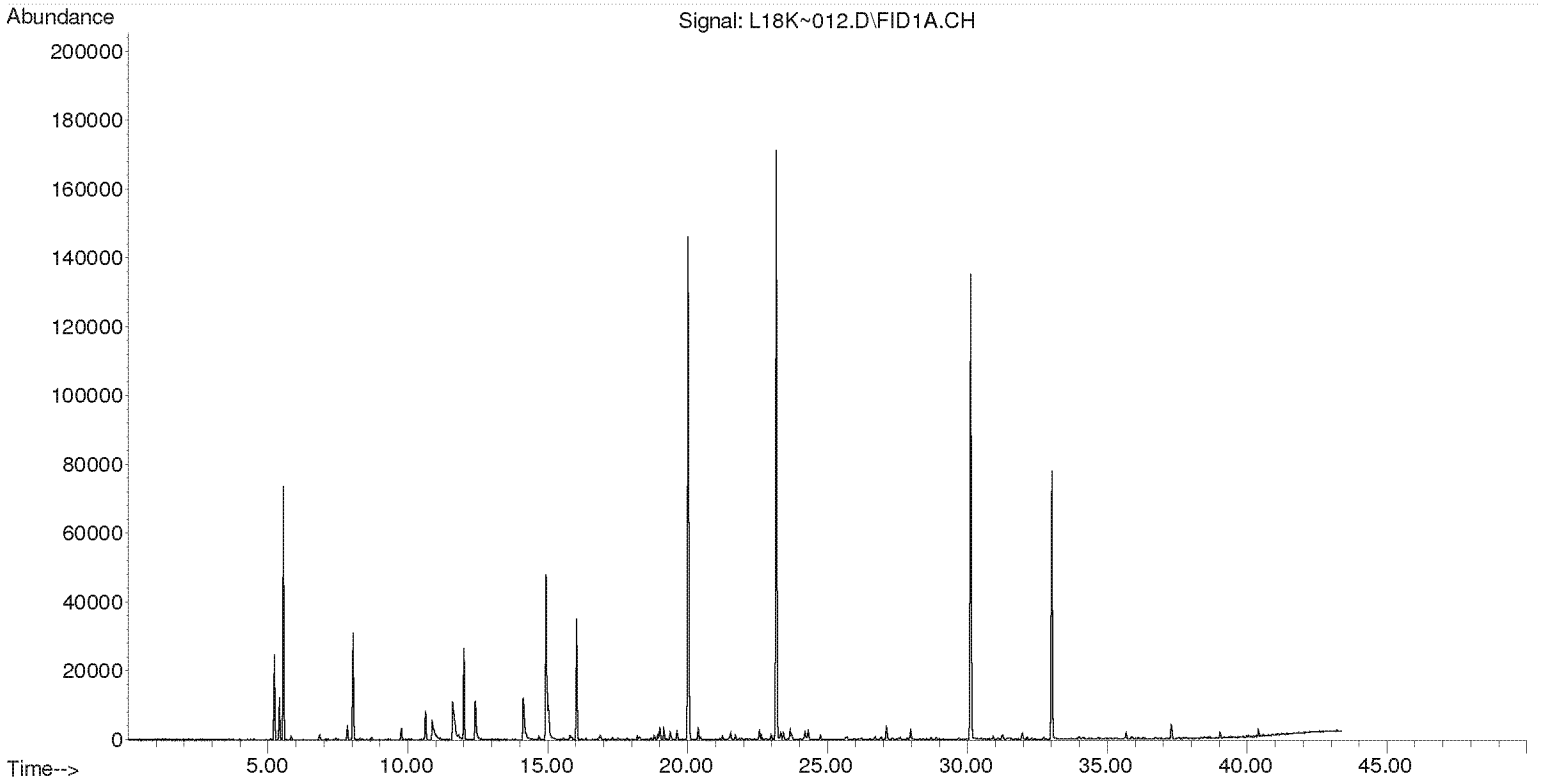
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Compounds other than ethylene oxide were not quantitated.

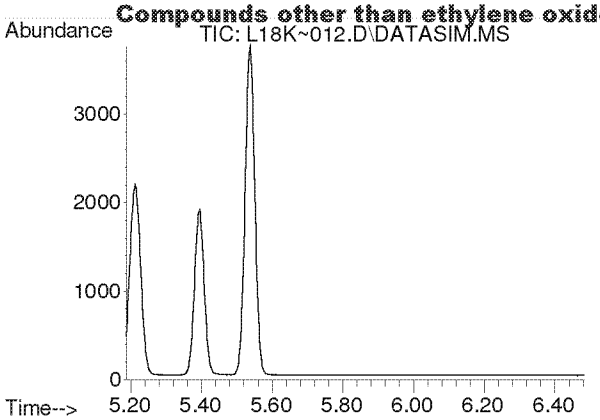
Data Path : Y:\MASS SPEC 1 DATA\L18K~\
Data File : L18K~012.D
Acq On : 27 Nov 2018 9:02 pm (#1); 27 Nov 2018 8:56 pm (#2)
Operator : MAH
Sample : B8K2704-DUP3
Misc : WB VILLAGE HALL R1 11/19/18 (Sig #1); (Sig #2)
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Nov 28 08:09:55 2018
Quant Method : C:\msdchem\1\METHODS\8100002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Fri Oct 12 09:33:42 2018
Response via : Initial Calibration





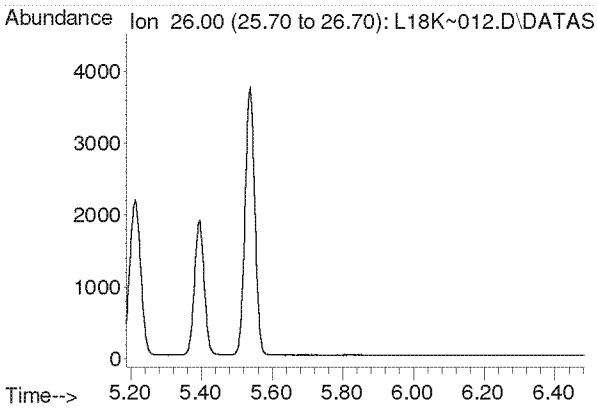
Compounds other than ethylene oxide were not quantitated.

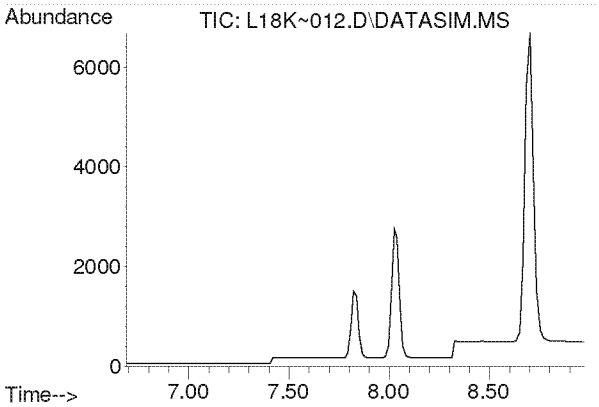


#2
Acetylene
Concen: N.D.
Expected RT: 5.41 min

Lab File: L18K~012.D
Acq: 27 Nov 2018 9:02 pm

Tgt Ion: 26



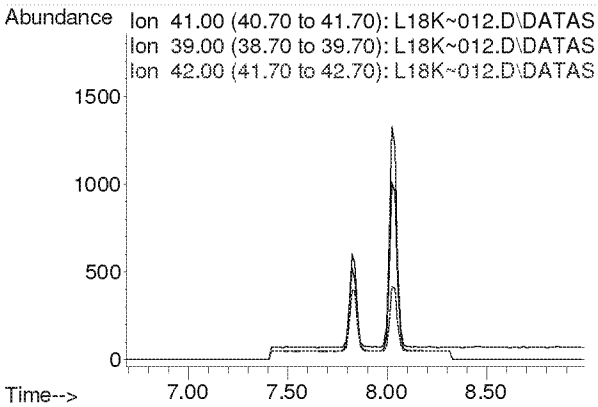


#3
Propylene
Concen: N.D.
Expected RT: 7.84 min

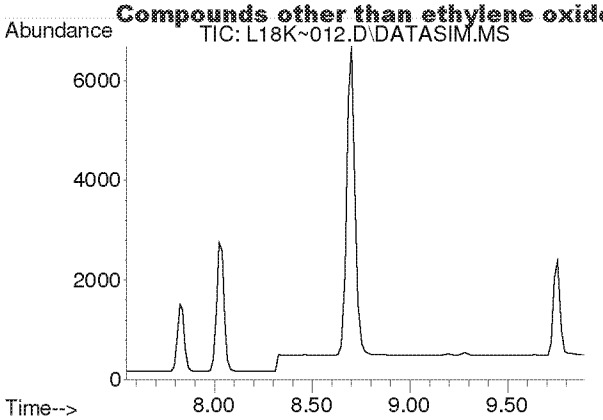
Lab File: L18K~012.D
Acq: 27 Nov 2018 9:02 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	81.2
42	65.4



Compounds other than ethylene oxide were not quantitated.

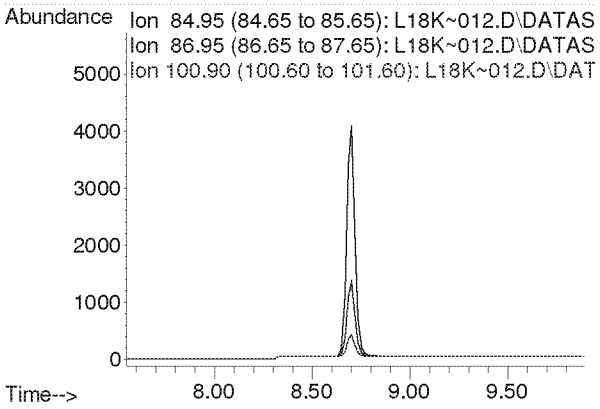


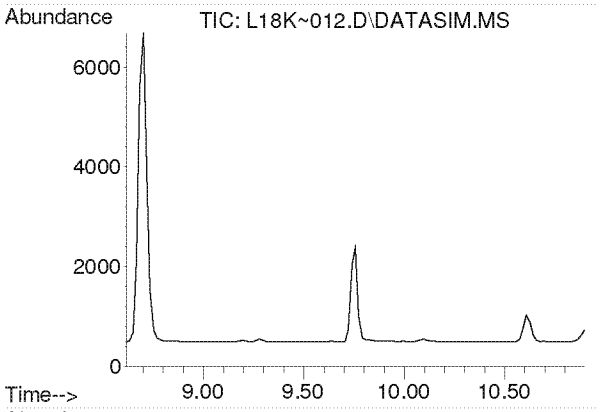
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.69 min

Lab File: L18K~012.D
Acq: 27 Nov 2018 9:02 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.3
101	9.0



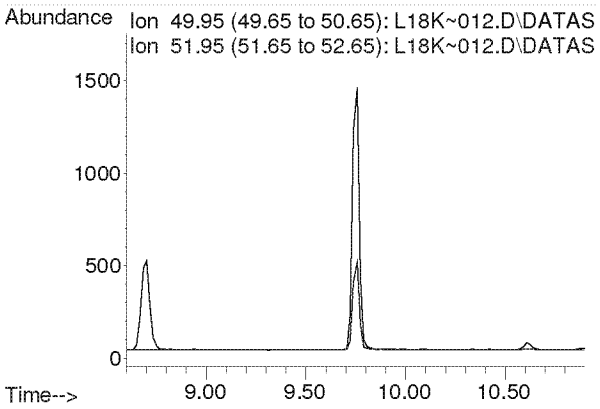


#5
Chloromethane
Concen: N.D.
Expected RT: 9.76 min

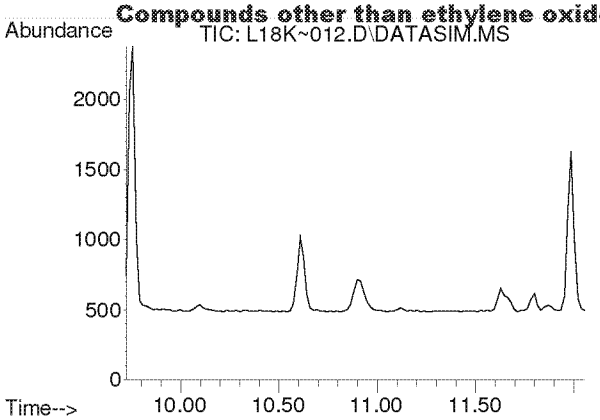
Lab File: L18K~012.D
Acq: 27 Nov 2018 9:02 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.2



Compounds other than ethylene oxide were not quantitated.

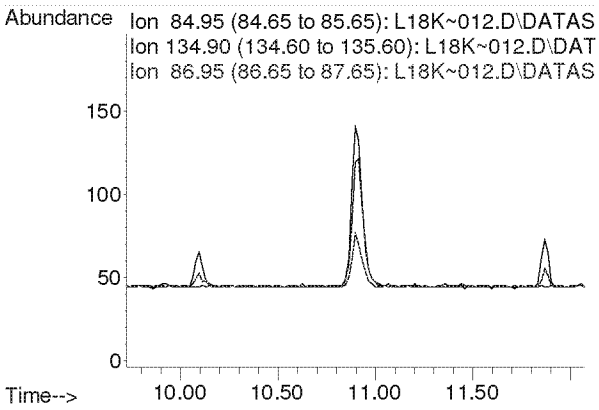


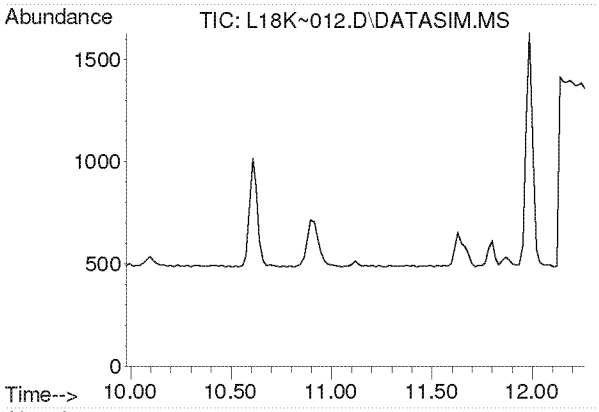
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.87 min

Lab File: L18K~012.D
Acq: 27 Nov 2018 9:02 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.6
87	32.1



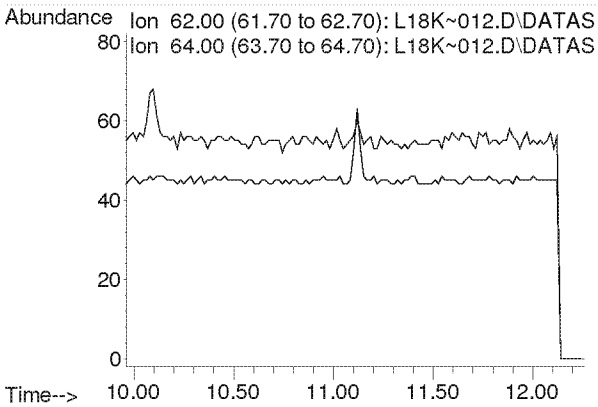


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

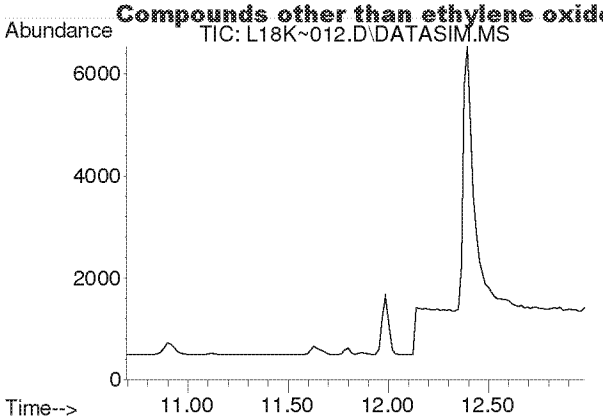
Lab File: L18K~012.D
Acq: 27 Nov 2018 9:02 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	32.0



Compounds other than ethylene oxide were not quantitated.

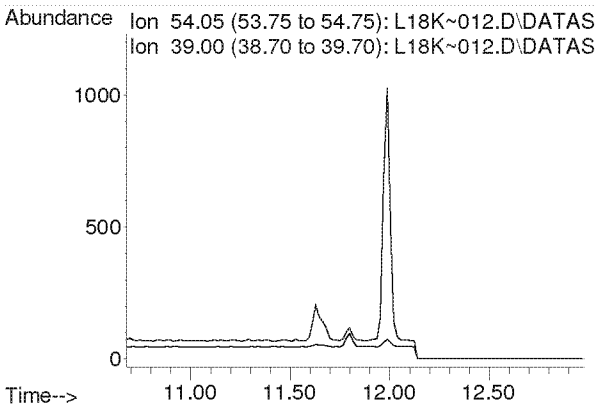


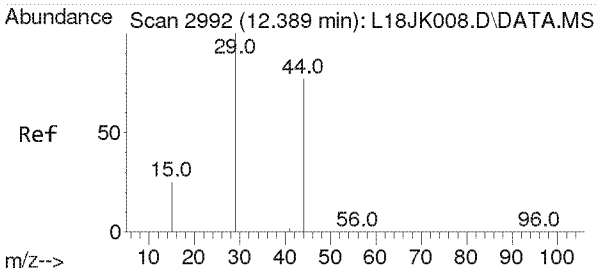
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.79 min

Lab File: L18K~012.D
Acq: 27 Nov 2018 9:02 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	108.7

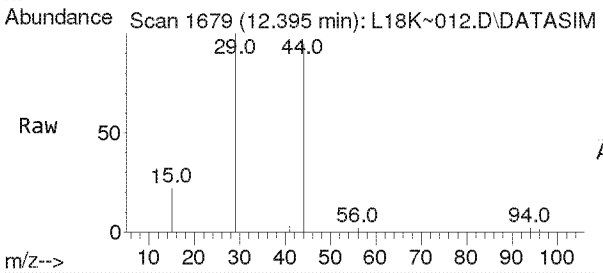


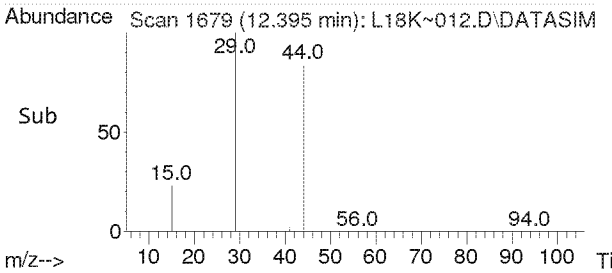


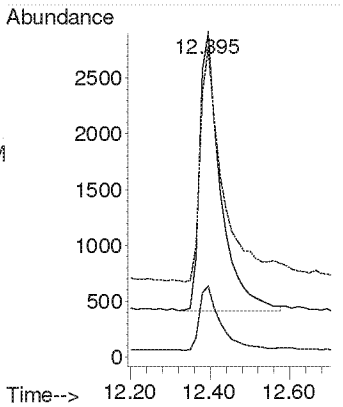
#9
Ethylene oxide
Concen: 3.368 ppbv
RT: 12.395 min Scan# 1679
Delta R.T. 0.007 min
Lab File: L18K~012.D
Acq: 27 Nov 2018 9:02 pm

Tgt Ion: 29 Resp: 9038

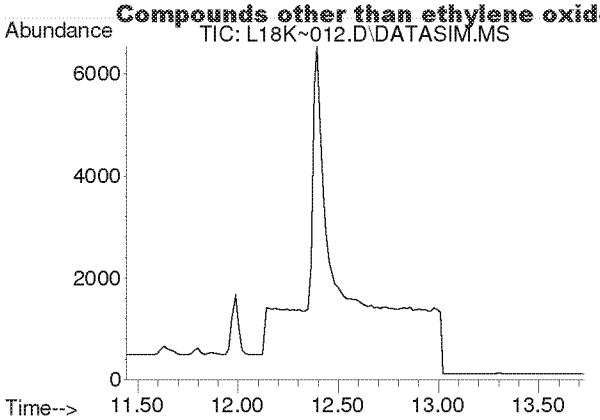
Ion	Ratio	Lower	Upper
29	100		
15	23.2	20.1	30.1
44	94.0	62.6	93.8#







Compounds other than ethylene oxide were not quantitated.

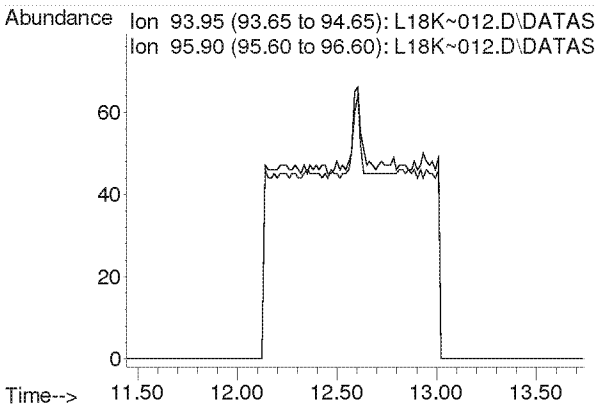


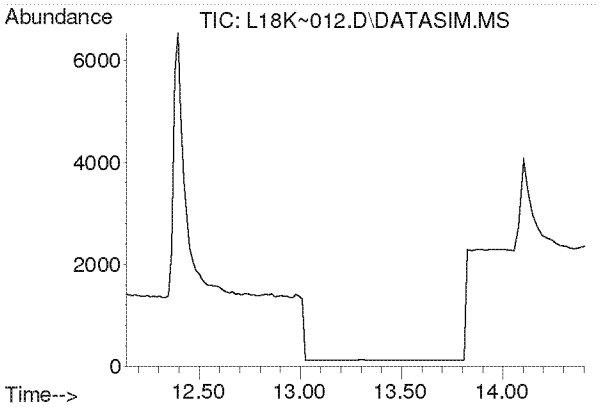
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L18K~012.D
Acq: 27 Nov 2018 9:02 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



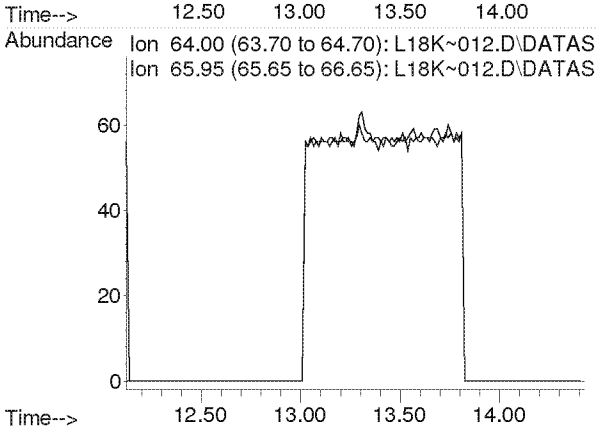


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

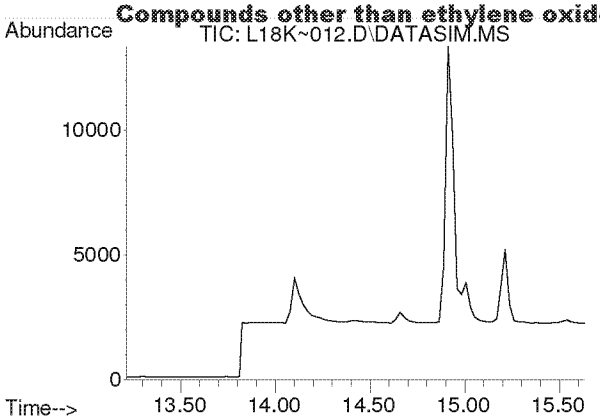
Lab File: L18K~012.D
Acq: 27 Nov 2018 9:02 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

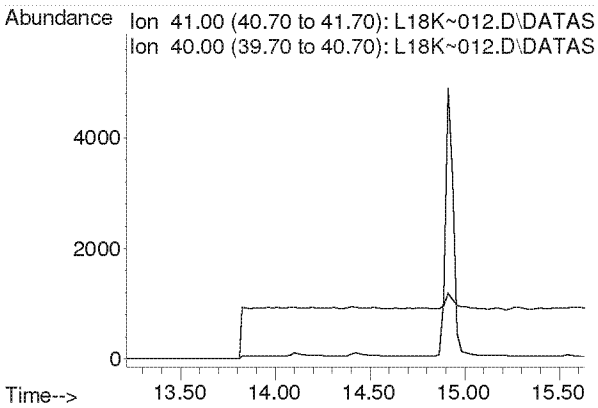


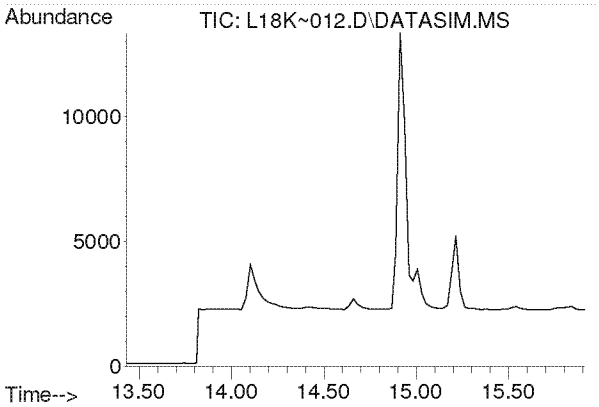
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.34 min

Lab File: L18K~012.D
Acq: 27 Nov 2018 9:02 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	53.9



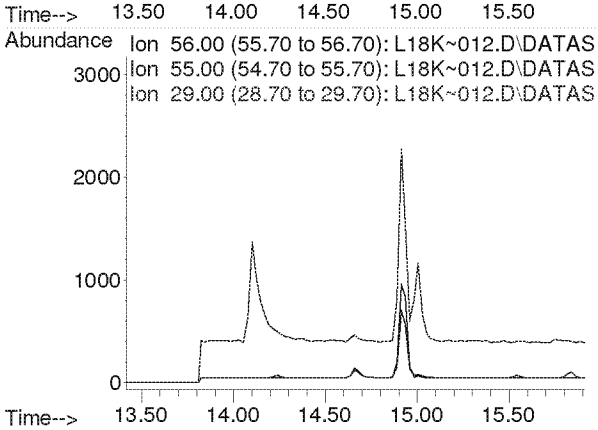


#13
Acrolein
Concen: N.D.
Expected RT: 14.62 min

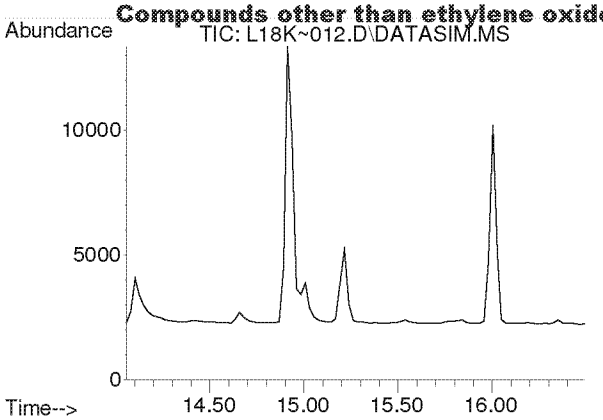
Lab File: L18K~012.D
Acq: 27 Nov 2018 9:02 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	77.4
29	61.5



Compounds other than ethylene oxide were not quantitated.

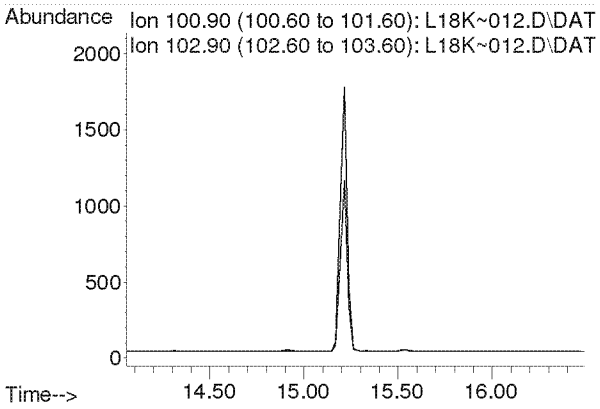


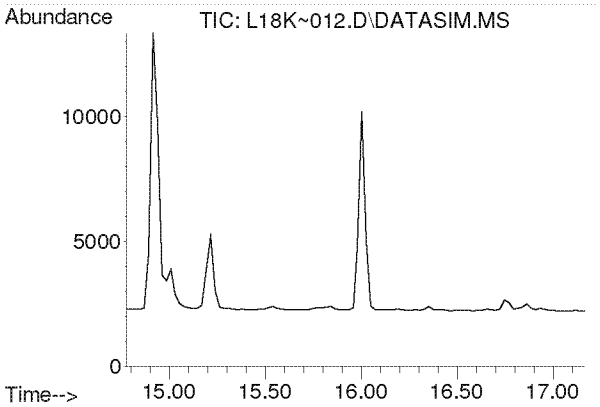
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.20 min

Lab File: L18K~012.D
Acq: 27 Nov 2018 9:02 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.7



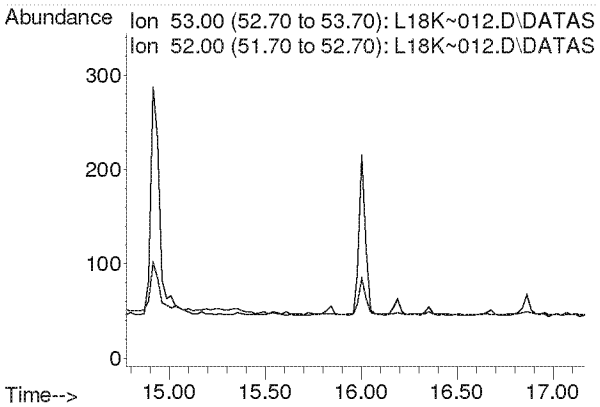


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.92 min

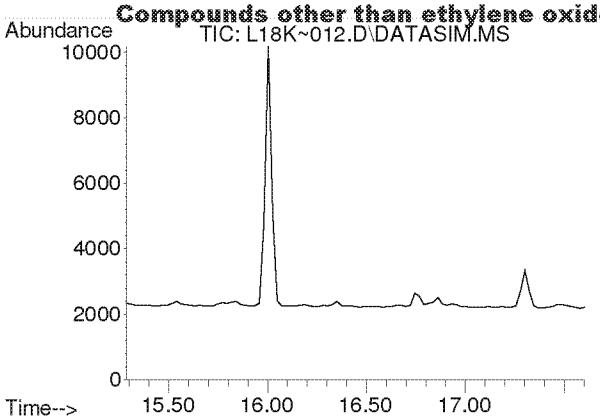
Lab File: L18K~012.D
Acq: 27 Nov 2018 9:02 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	87.1



Compounds other than ethylene oxide were not quantitated.

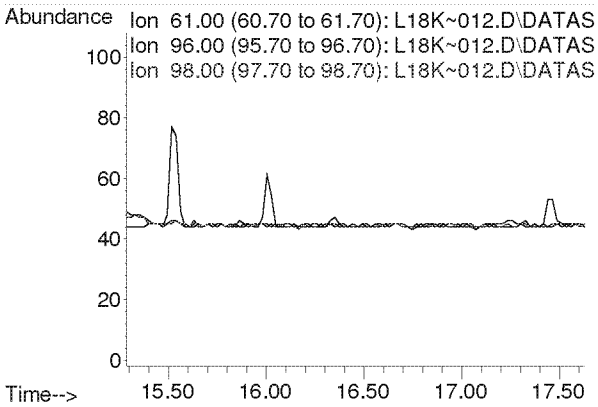


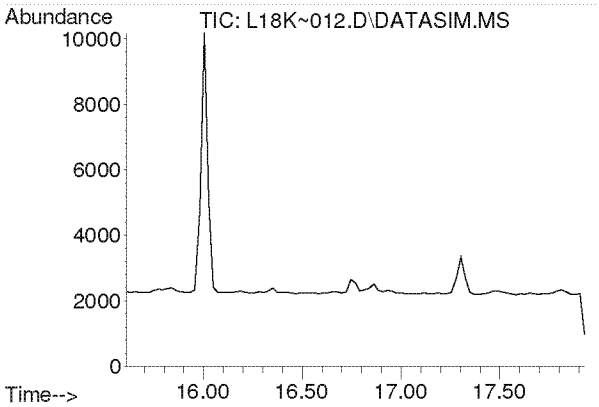
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L18K~012.D
Acq: 27 Nov 2018 9:02 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	57.6
98	36.8



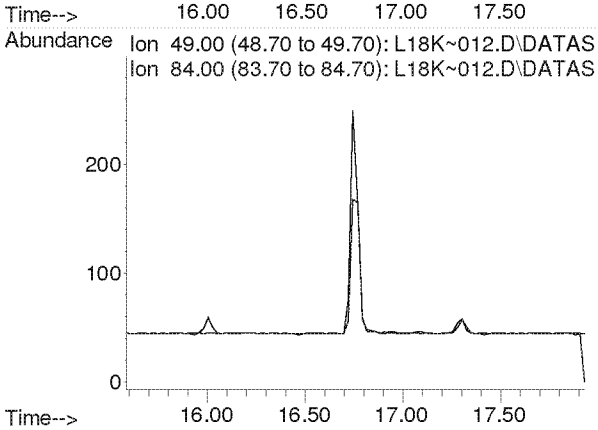


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

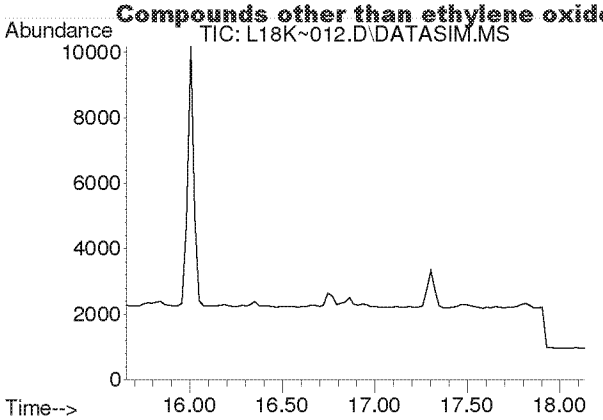
Lab File: L18K~012.D
Acq: 27 Nov 2018 9:02 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	74.2



Compounds other than ethylene oxide were not quantitated.

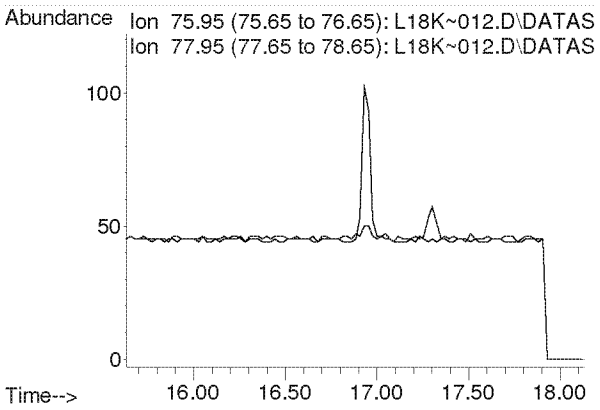


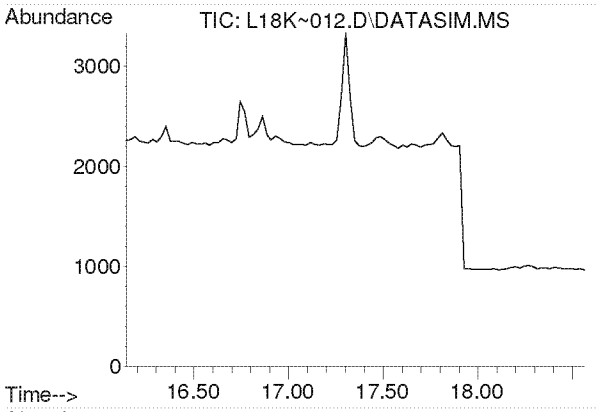
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.94 min

Lab File: L18K~012.D
Acq: 27 Nov 2018 9:02 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.1



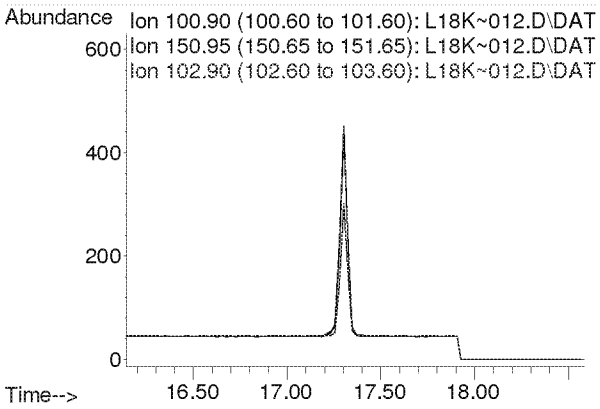


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.29 min

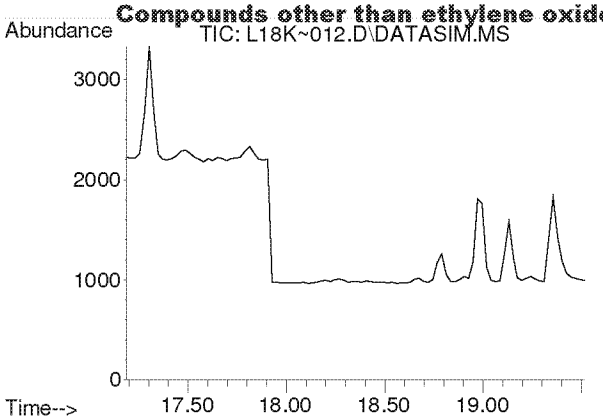
Lab File: L18K~012.D
Acq: 27 Nov 2018 9:02 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	96.0
103	64.3



Compounds other than ethylene oxide were not quantitated.

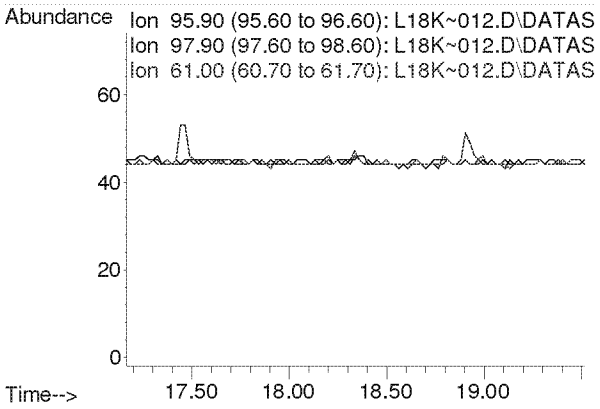


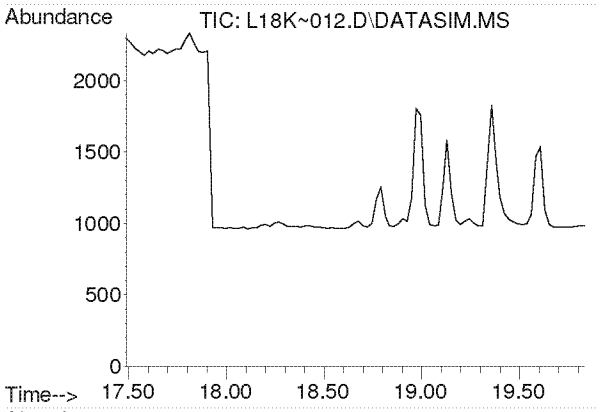
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.33 min

Lab File: L18K~012.D
Acq: 27 Nov 2018 9:02 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	63.6
61	156.3



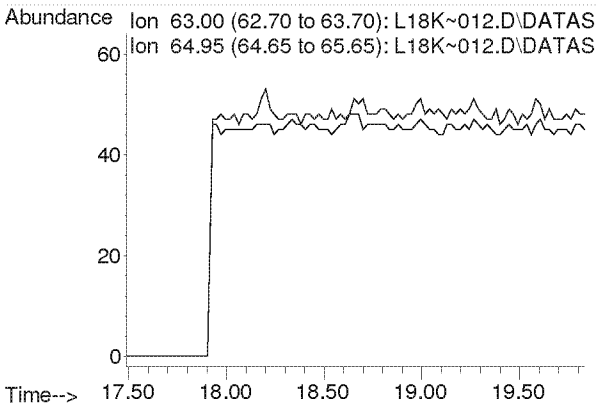


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.64 min

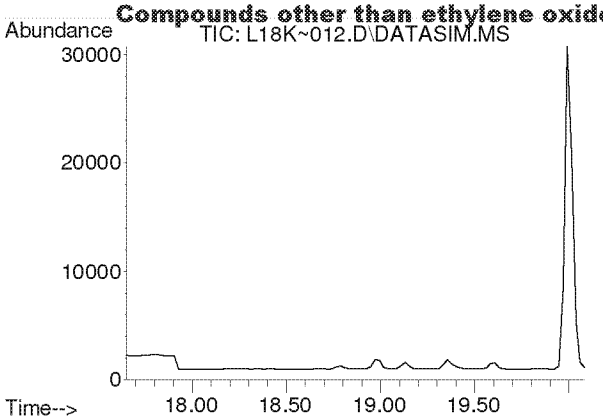
Lab File: L18K~012.D
Acq: 27 Nov 2018 9:02 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	32.1



Compounds other than ethylene oxide were not quantitated.

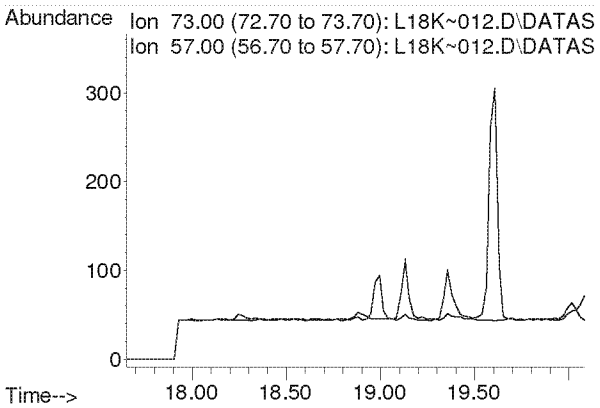


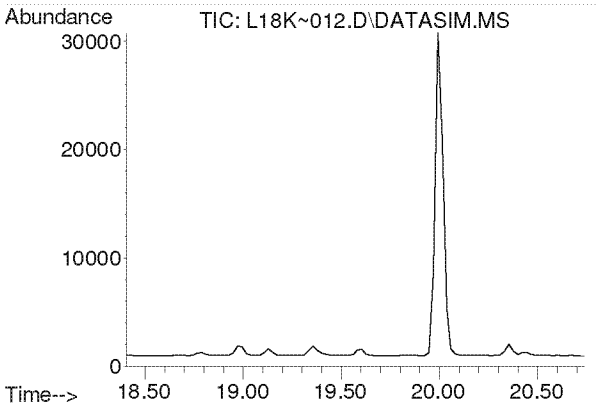
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L18K~012.D
Acq: 27 Nov 2018 9:02 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.0



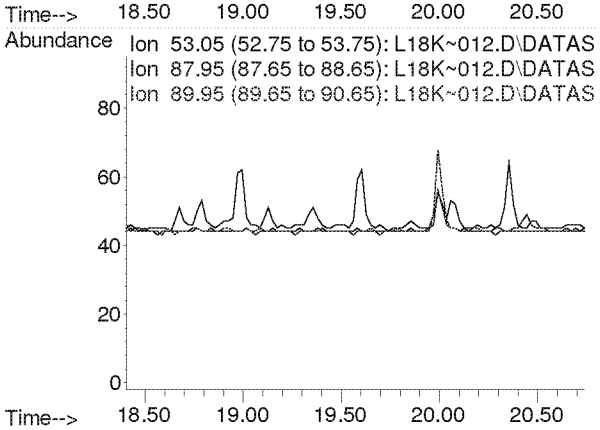


#23
Chloroprene
Concen: N.D.
Expected RT: 19.55 min

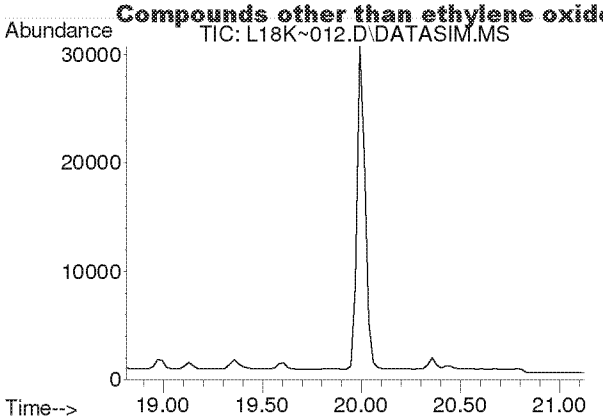
Lab File: L18K~012.D
Acq: 27 Nov 2018 9:02 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	51.5
90	16.6



Compounds other than ethylene oxide were not quantitated.

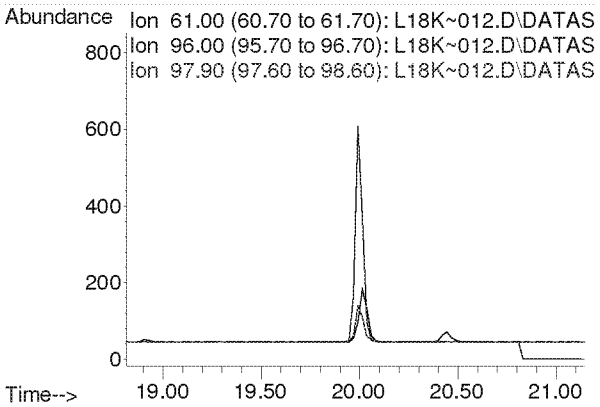


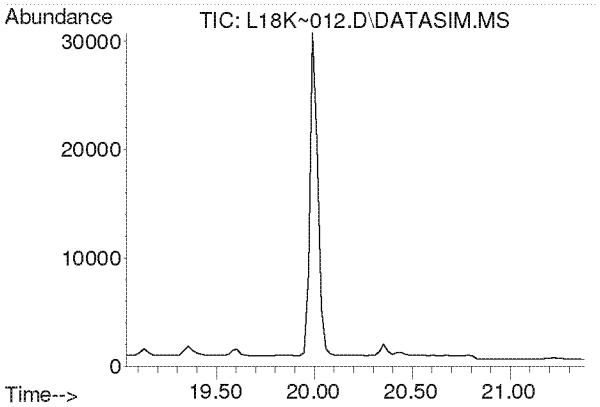
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.96 min

Lab File: L18K~012.D
Acq: 27 Nov 2018 9:02 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.5
98	46.2



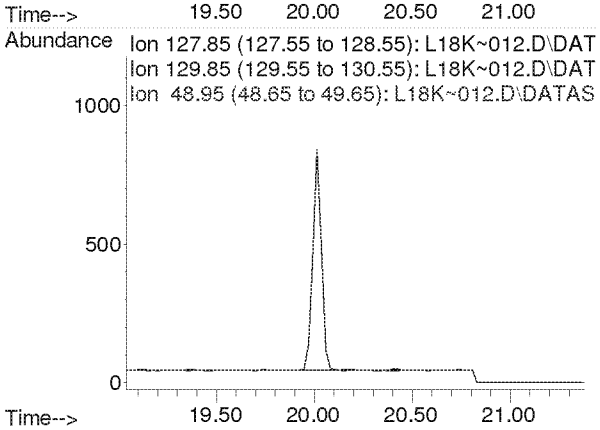


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.18 min

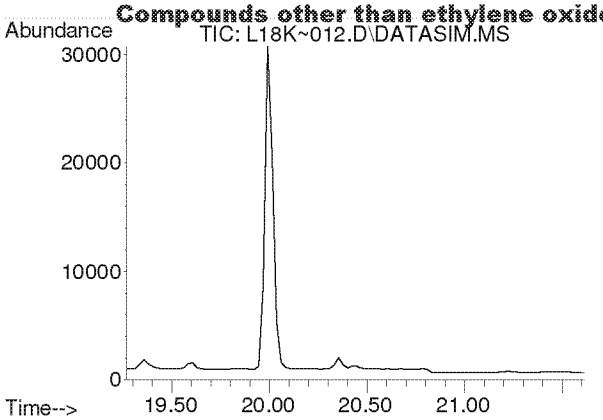
Lab File: L18K~012.D
Acq: 27 Nov 2018 9:02 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	128.9
49	167.9



Compounds other than ethylene oxide were not quantitated.

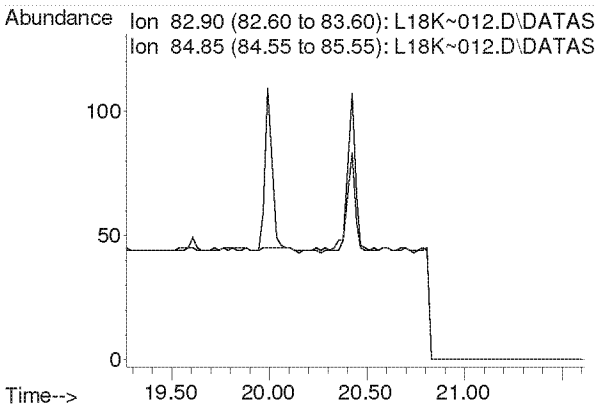


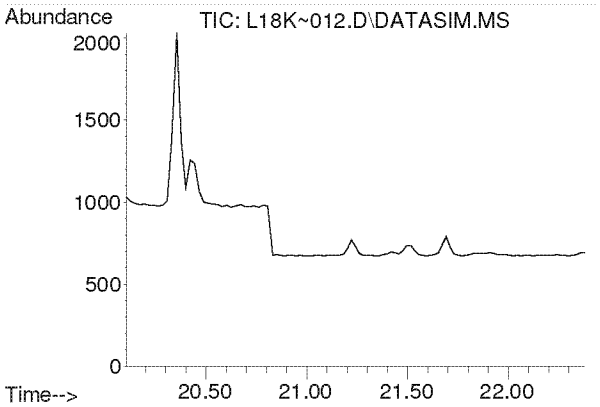
#26
Chloroform
Concen: N.D.
Expected RT: 20.42 min

Lab File: L18K~012.D
Acq: 27 Nov 2018 9:02 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



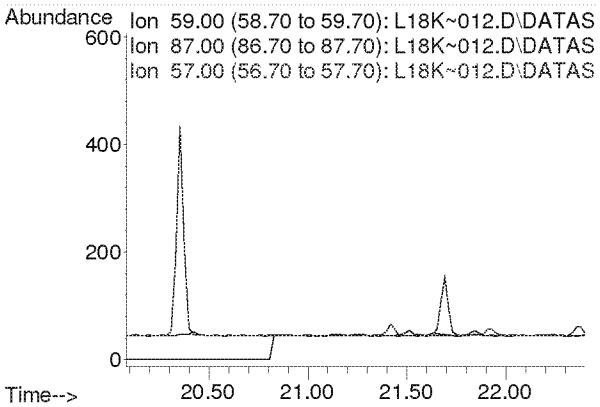


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.19 min

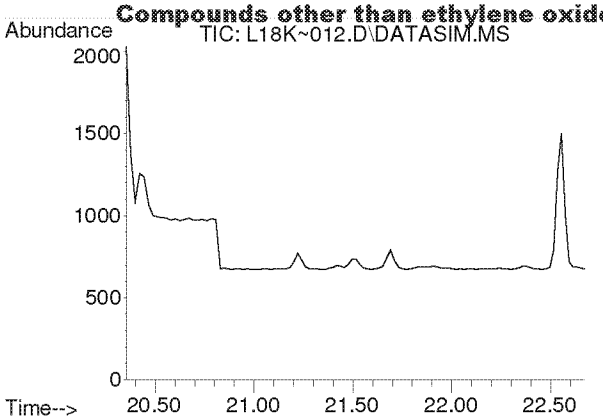
Lab File: L18K~012.D
Acq: 27 Nov 2018 9:02 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	38.5
57	34.0



Compounds other than ethylene oxide were not quantitated.

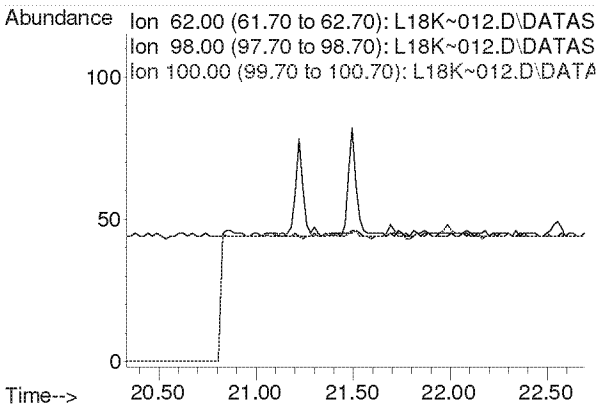


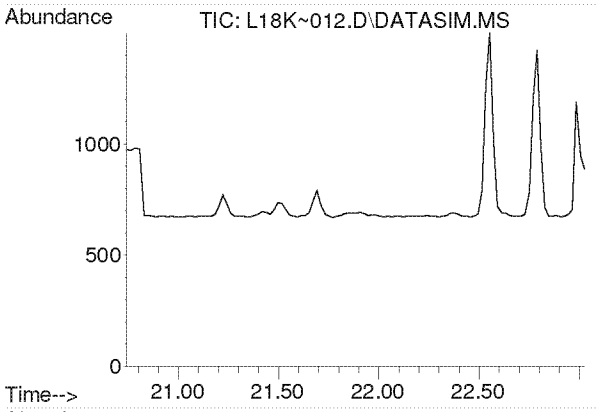
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.49 min

Lab File: L18K~012.D
Acq: 27 Nov 2018 9:02 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.0
100	3.9



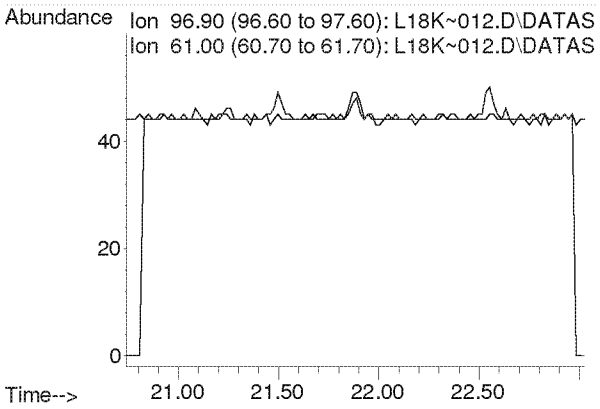


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.88 min

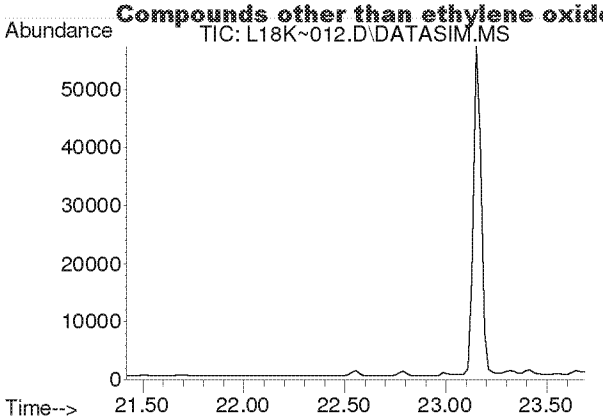
Lab File: L18K~012.D
Acq: 27 Nov 2018 9:02 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	59.6



Compounds other than ethylene oxide were not quantitated.

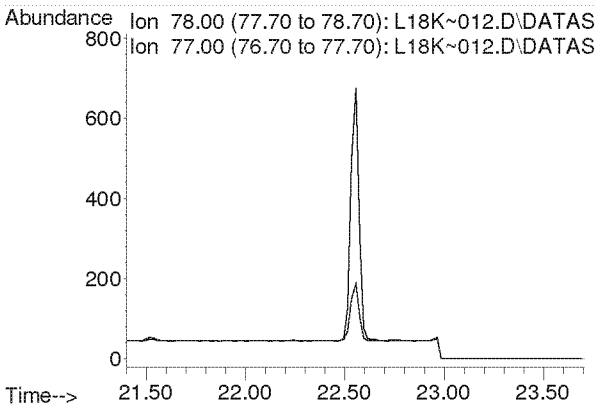


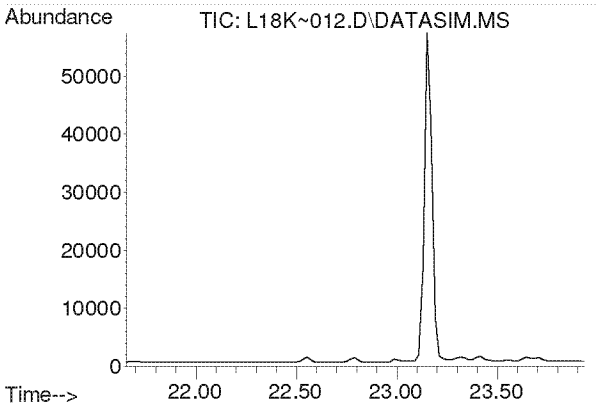
#31
Benzene
Concen: N.D.
Expected RT: 22.56 min

Lab File: L18K~012.D
Acq: 27 Nov 2018 9:02 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.9



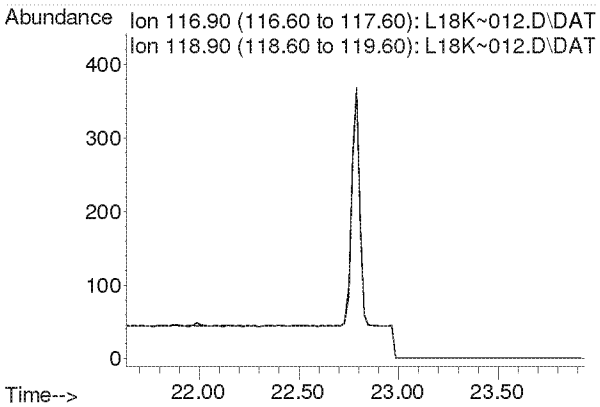


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.79 min

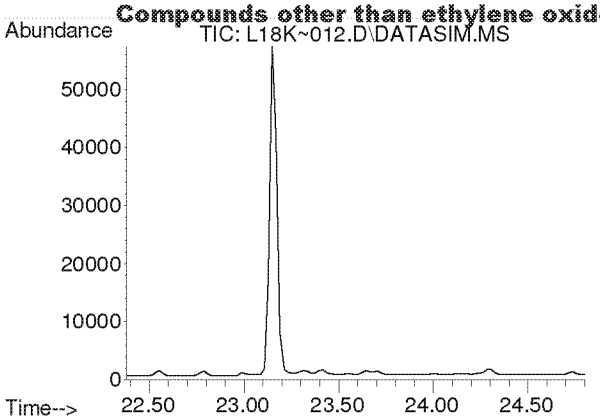
Lab File: L18K~012.D
Acq: 27 Nov 2018 9:02 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.9



Compounds other than ethylene oxide were not quantitated.

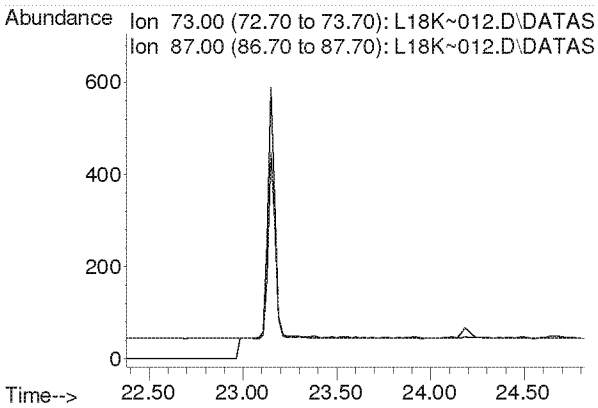


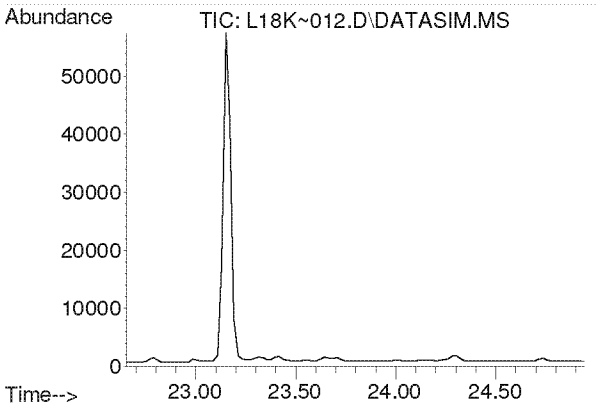
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L18K~012.D
Acq: 27 Nov 2018 9:02 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



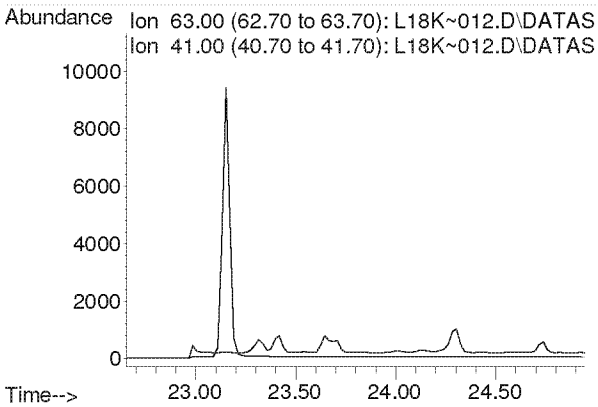


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.80 min

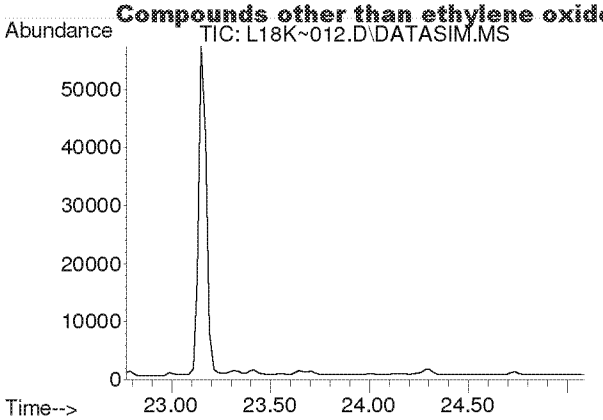
Lab File: L18K~012.D
Acq: 27 Nov 2018 9:02 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	222.1



Compounds other than ethylene oxide were not quantitated.

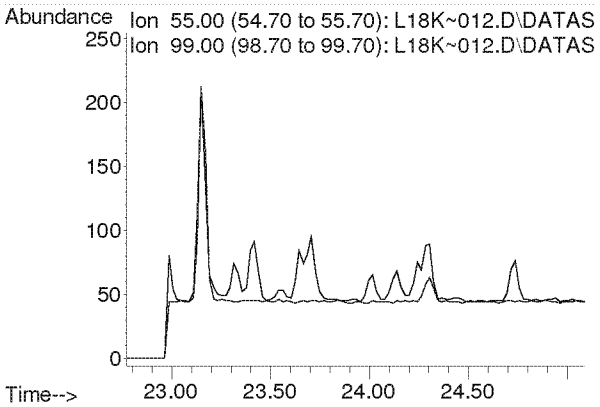


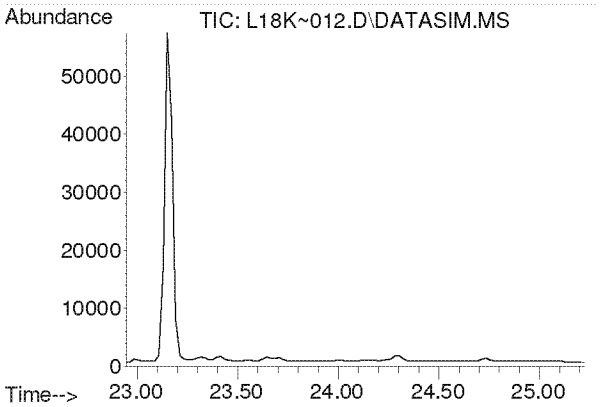
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L18K~012.D
Acq: 27 Nov 2018 9:02 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



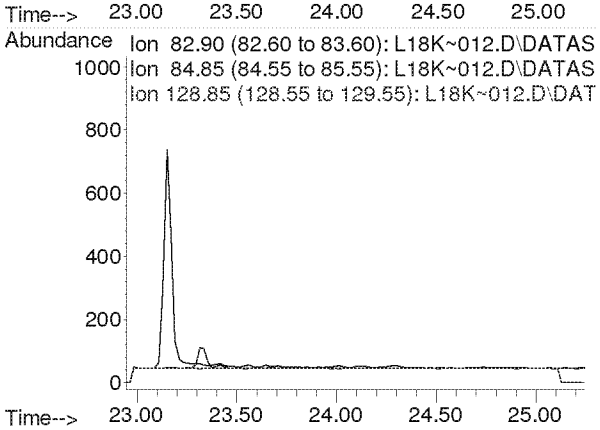


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.09 min

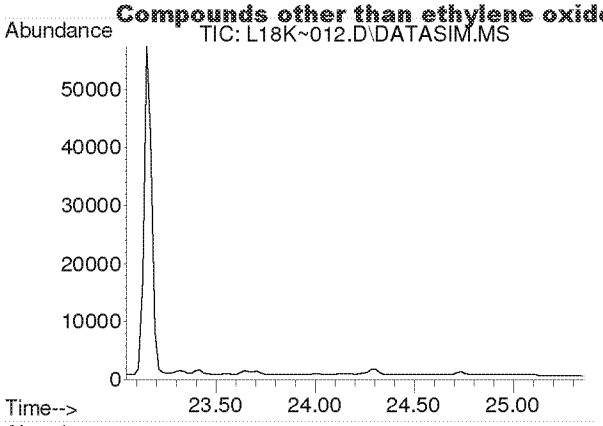
Lab File: L18K~012.D
Acq: 27 Nov 2018 9:02 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.9
129	12.9



Compounds other than ethylene oxide were not quantitated.

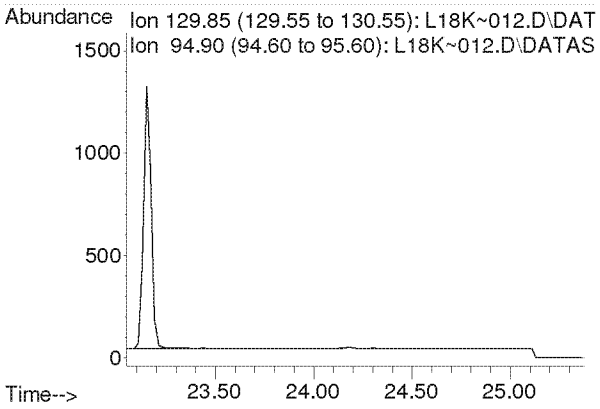


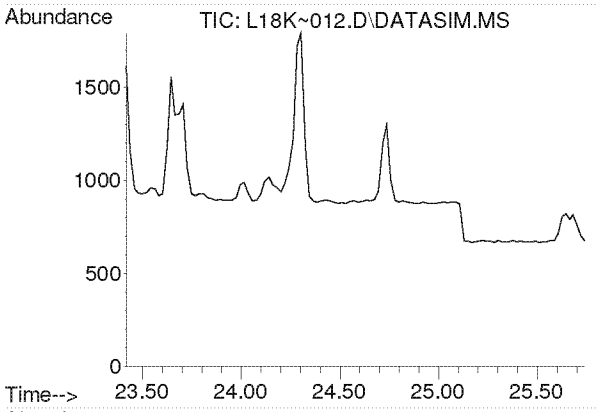
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.19 min

Lab File: L18K~012.D
Acq: 27 Nov 2018 9:02 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.9



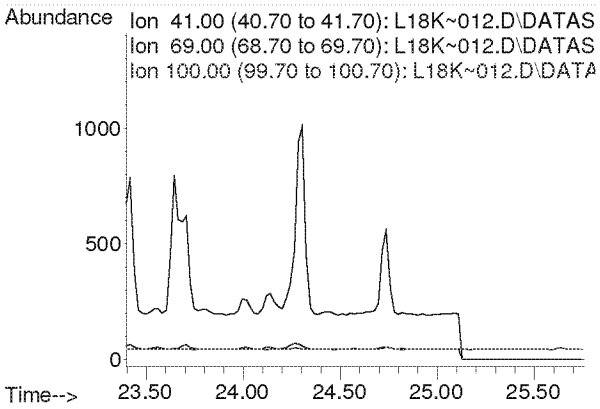


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.55 min

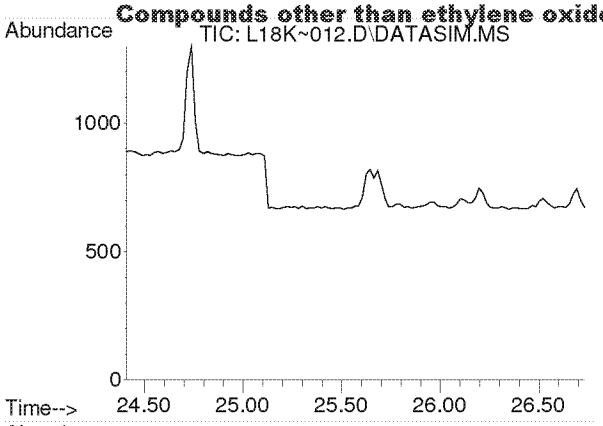
Lab File: L18K~012.D
Acq: 27 Nov 2018 9:02 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	20.0
100	5.1



Compounds other than ethylene oxide were not quantitated.

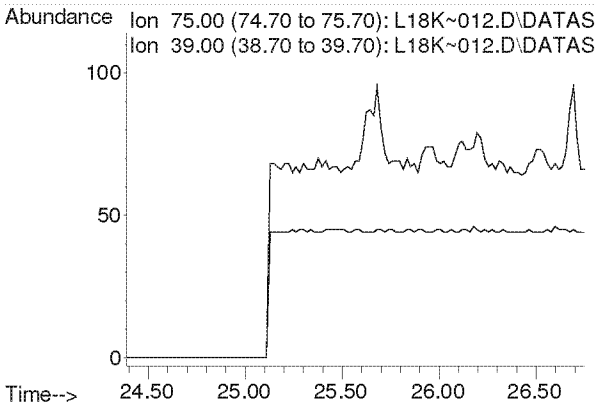


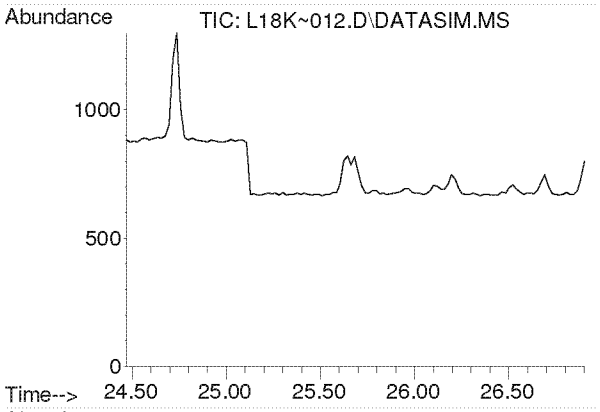
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.54 min

Lab File: L18K~012.D
Acq: 27 Nov 2018 9:02 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	55.6



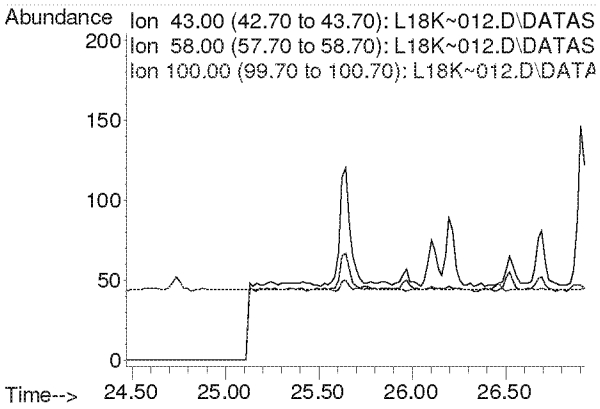


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.62 min

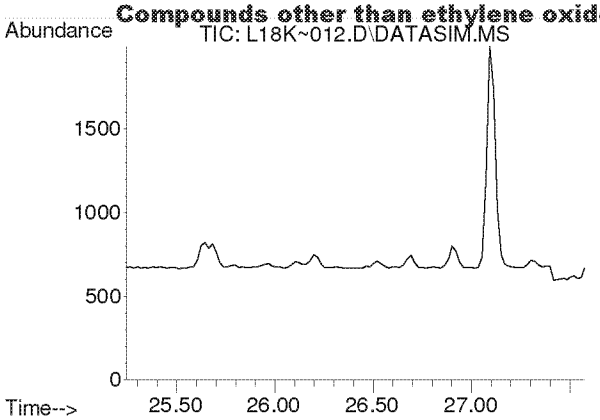
Lab File: L18K~012.D
Acq: 27 Nov 2018 9:02 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	33.3
100	8.0



Compounds other than ethylene oxide were not quantitated.

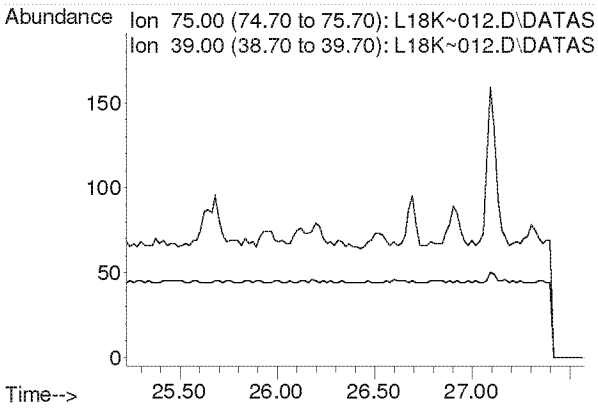


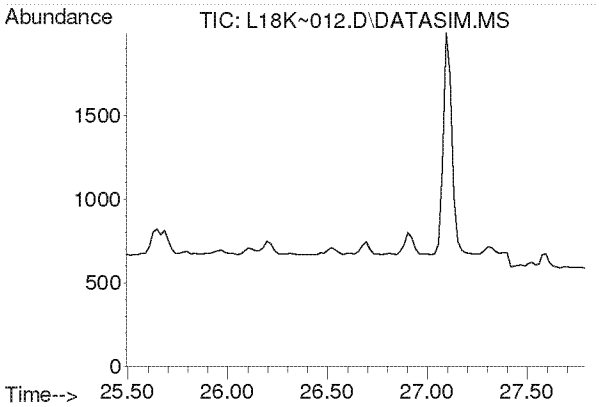
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.38 min

Lab File: L18K~012.D
Acq: 27 Nov 2018 9:02 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	55.3



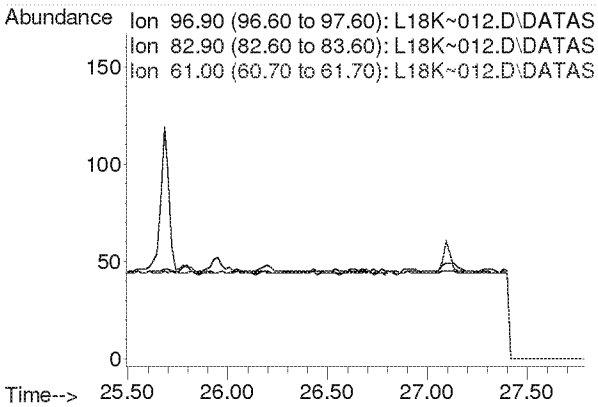


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.64 min

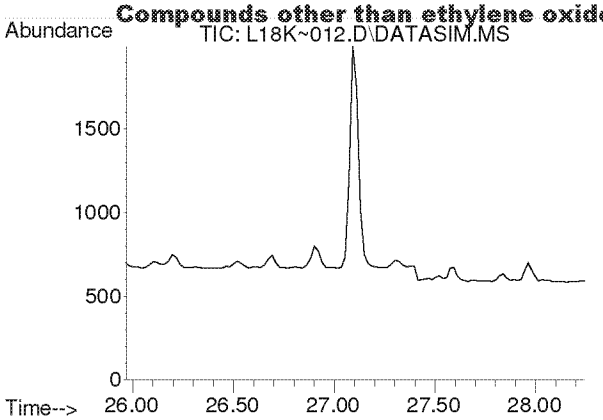
Lab File: L18K~012.D
Acq: 27 Nov 2018 9:02 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	95.3
61	64.6



Compounds other than ethylene oxide were not quantitated.

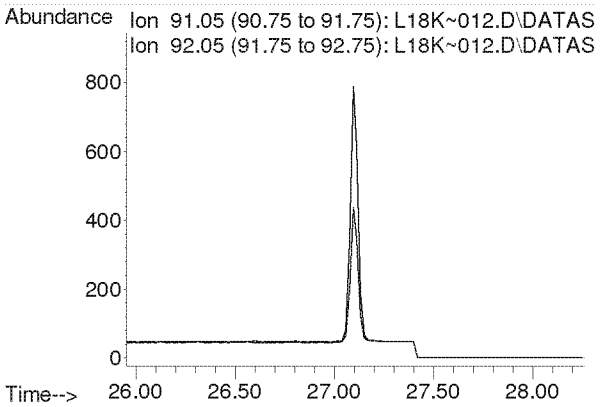


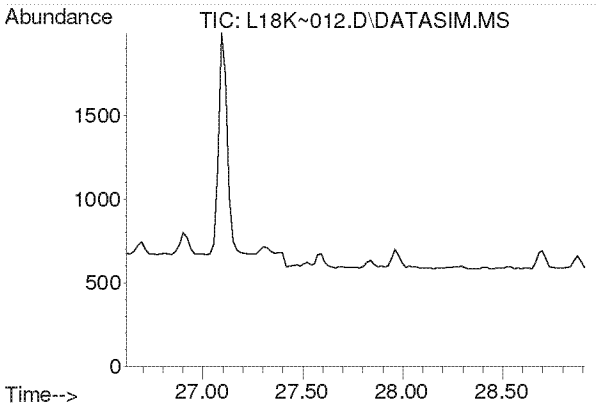
#44
Toluene
Concen: N.D.
Expected RT: 27.11 min

Lab File: L18K~012.D
Acq: 27 Nov 2018 9:02 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.1



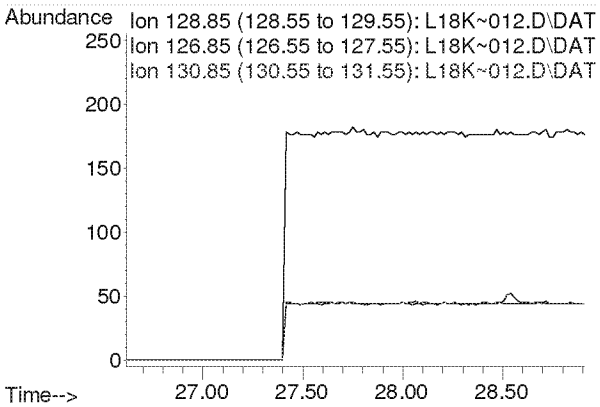


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.76 min

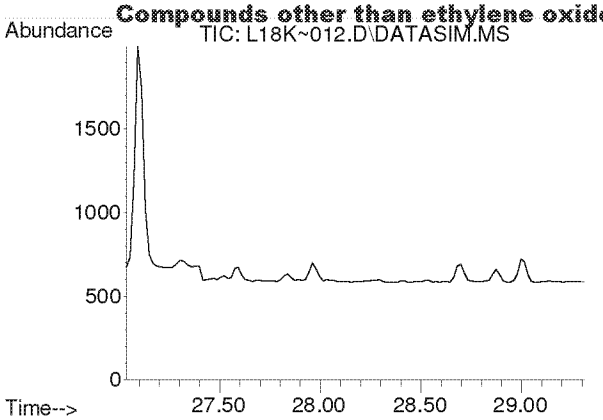
Lab File: L18K~012.D
Acq: 27 Nov 2018 9:02 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

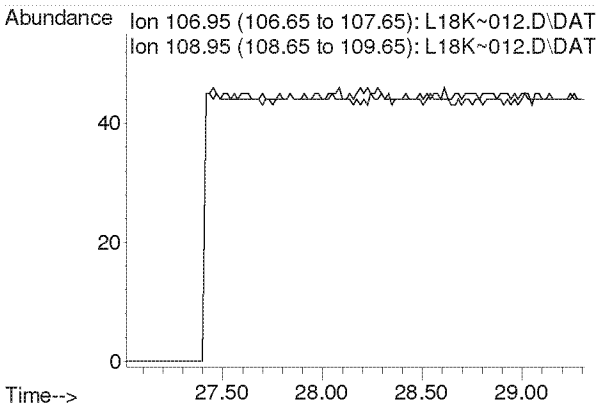


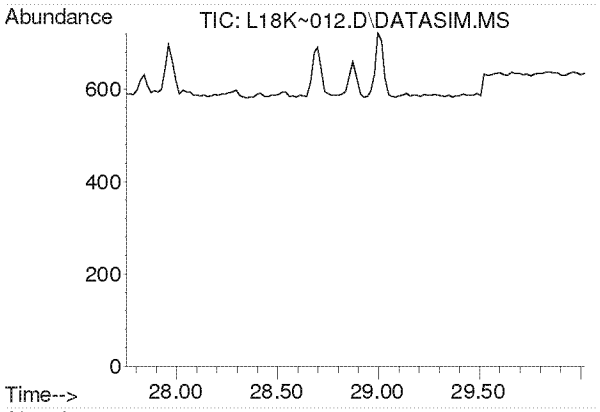
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.17 min

Lab File: L18K~012.D
Acq: 27 Nov 2018 9:02 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	93.8



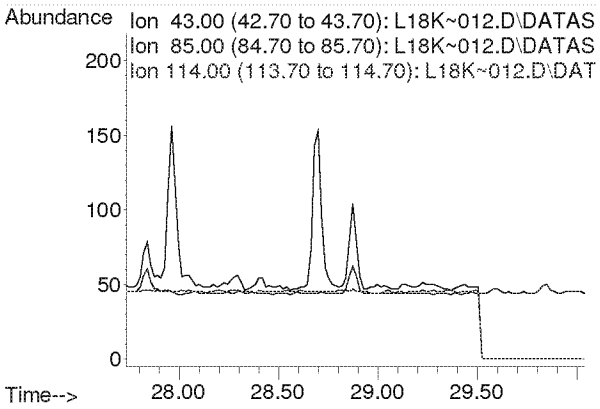


#47
n-Octane
Concen: N.D.
Expected RT: 28.89 min

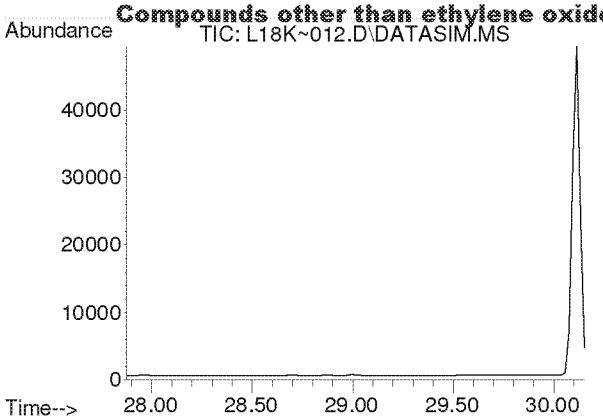
Lab File: L18K~012.D
Acq: 27 Nov 2018 9:02 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	37.8
114	2.4



Compounds other than ethylene oxide were not quantitated.

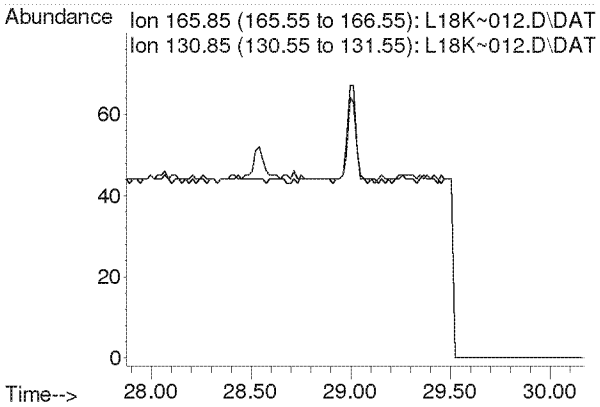


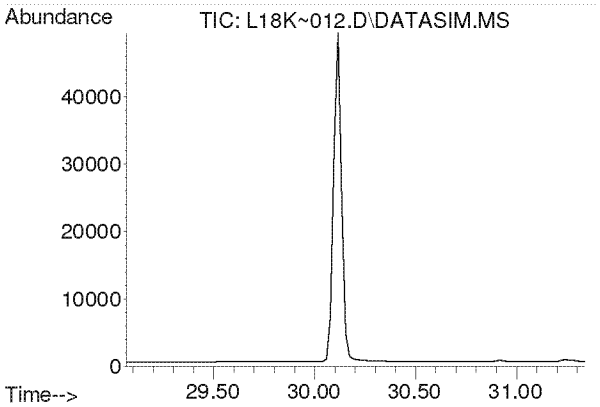
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.02 min

Lab File: L18K~012.D
Acq: 27 Nov 2018 9:02 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	78.7



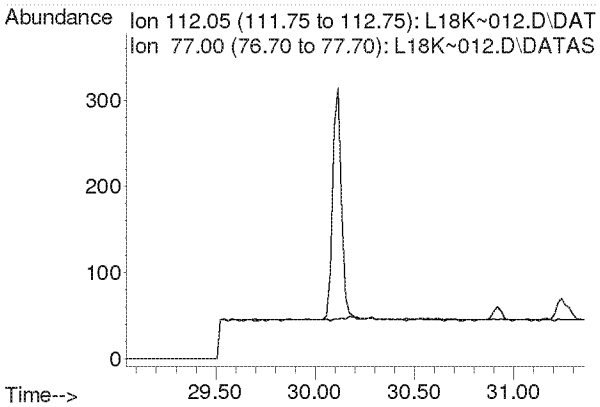


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.20 min

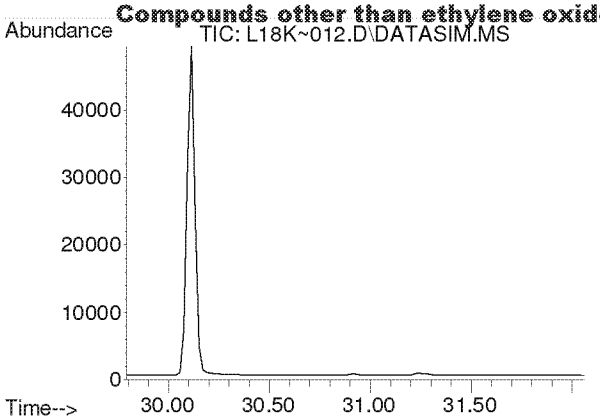
Lab File: L18K~012.D
Acq: 27 Nov 2018 9:02 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.3



Compounds other than ethylene oxide were not quantitated.

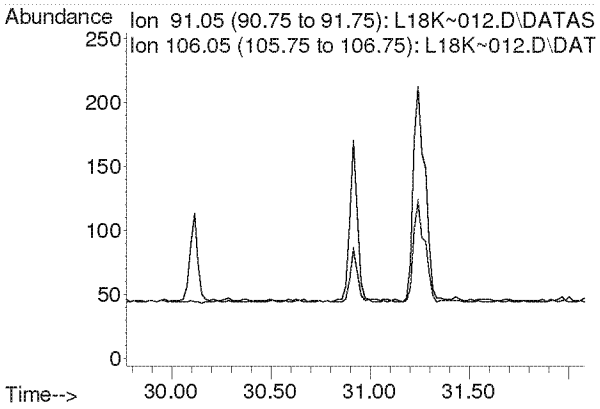


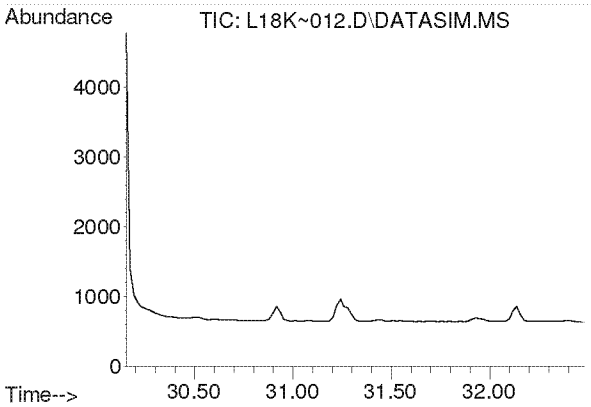
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.93 min

Lab File: L18K~012.D
Acq: 27 Nov 2018 9:02 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	31.8



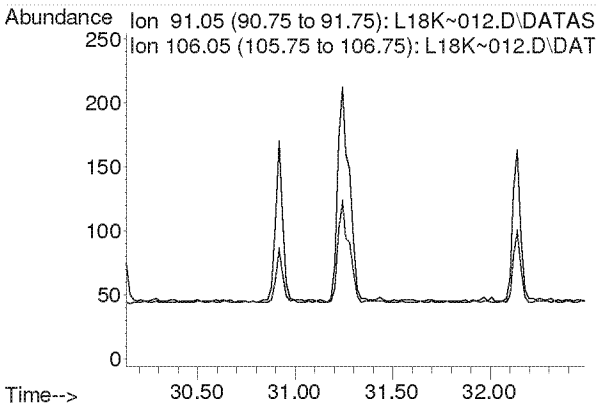


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.29 min

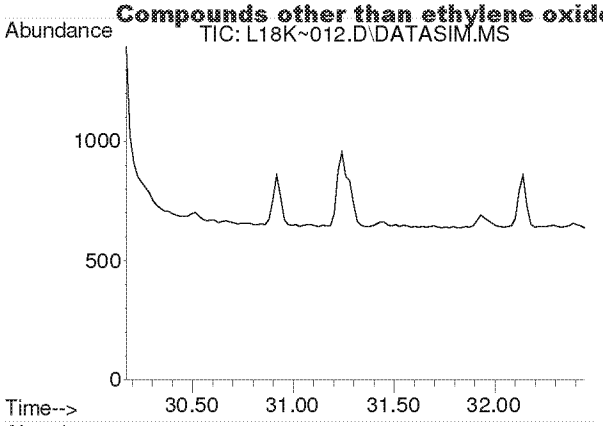
Lab File: L18K~012.D
Acq: 27 Nov 2018 9:02 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.4



Compounds other than ethylene oxide were not quantitated.

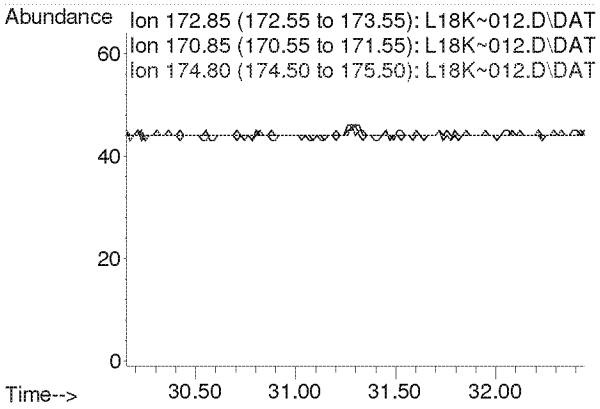


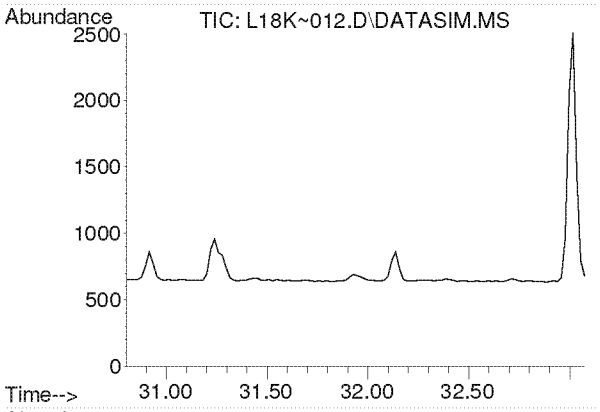
#52
Bromoform
Concen: N.D.
Expected RT: 31.30 min

Lab File: L18K~012.D
Acq: 27 Nov 2018 9:02 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.4
175	49.0



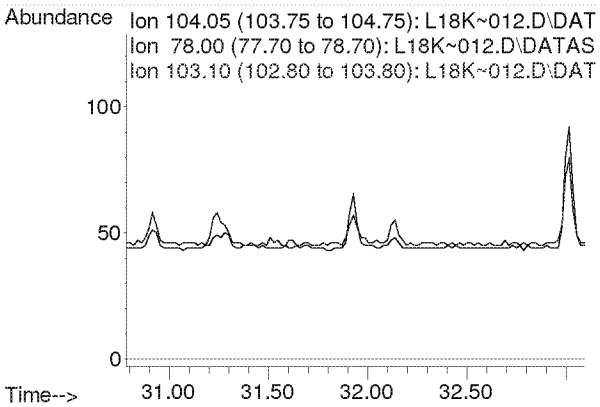


#53
Styrene
Concen: N.D.
Expected RT: 31.94 min

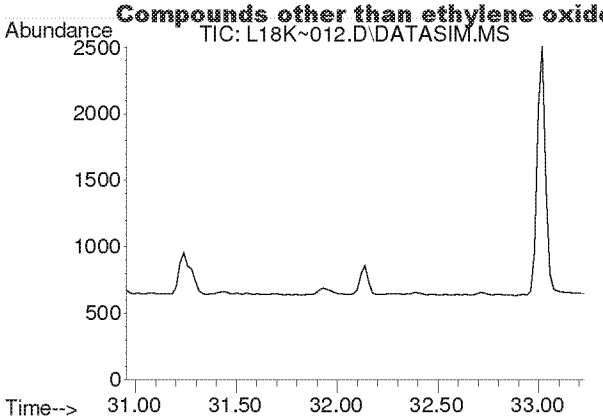
Lab File: L18K~012.D
Acq: 27 Nov 2018 9:02 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	45.7
103	0.0



Compounds other than ethylene oxide were not quantitated.

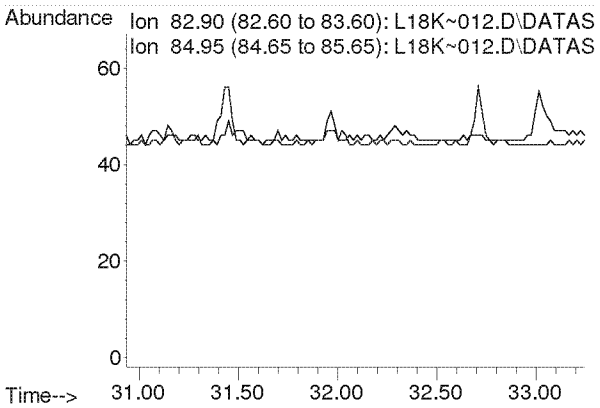


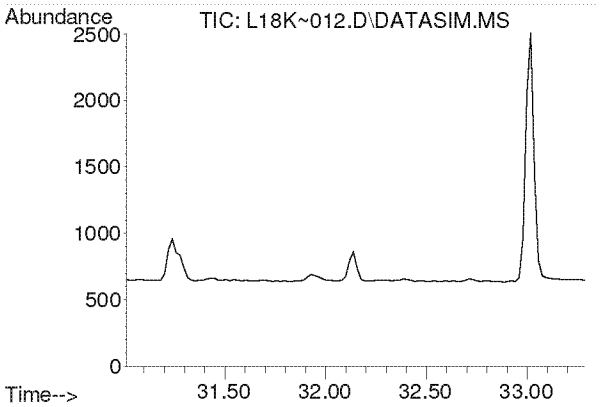
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.09 min

Lab File: L18K~012.D
Acq: 27 Nov 2018 9:02 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.3



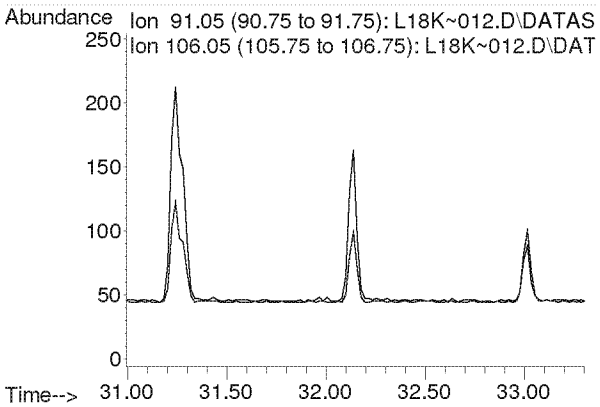


#55
o-Xylene
Concen: N.D.
Expected RT: 32.15 min

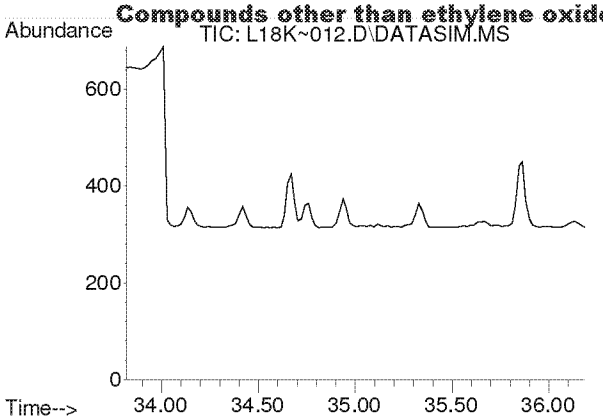
Lab File: L18K~012.D
Acq: 27 Nov 2018 9:02 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.5



Compounds other than ethylene oxide were not quantitated.

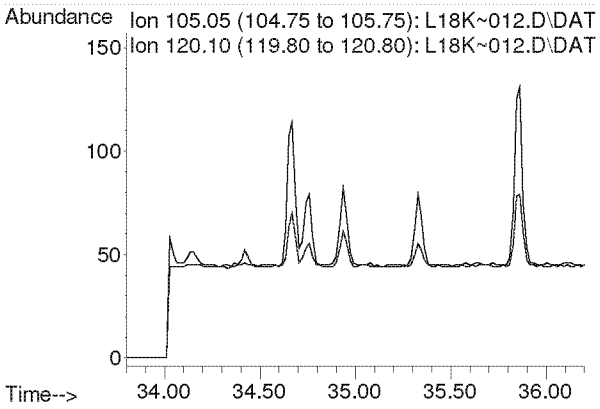


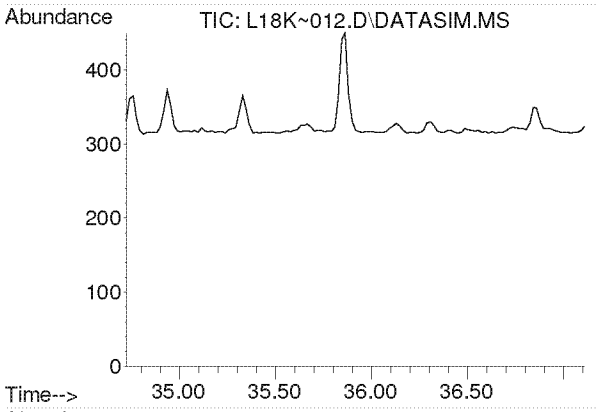
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.95 min

Lab File: L18K~012.D
Acq: 27 Nov 2018 9:02 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	45.6



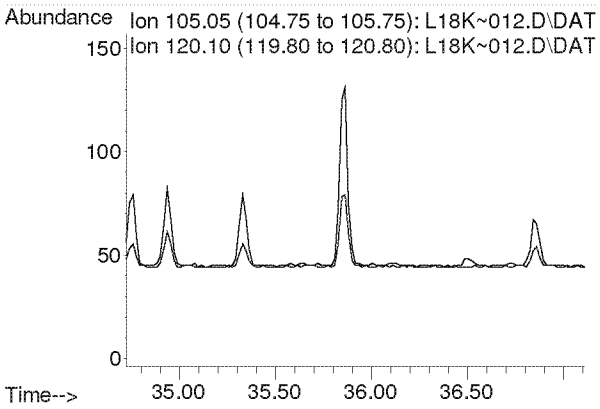


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.87 min

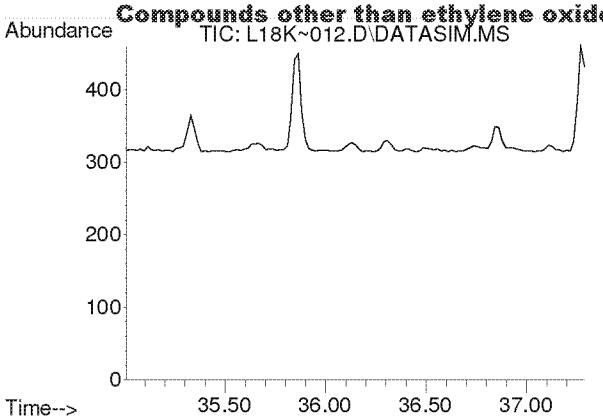
Lab File: L18K~012.D
Acq: 27 Nov 2018 9:02 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	43.4



Compounds other than ethylene oxide were not quantitated.

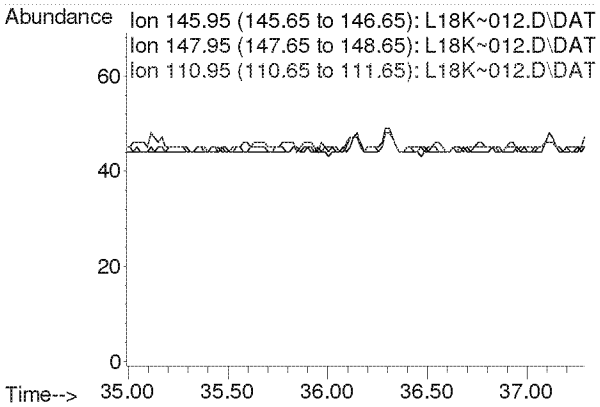


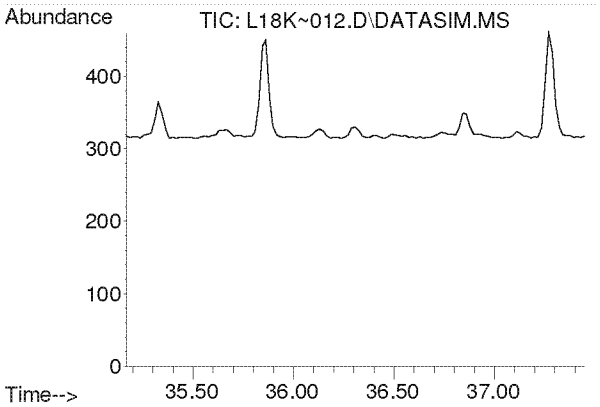
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.15 min

Lab File: L18K~012.D
Acq: 27 Nov 2018 9:02 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	41.1



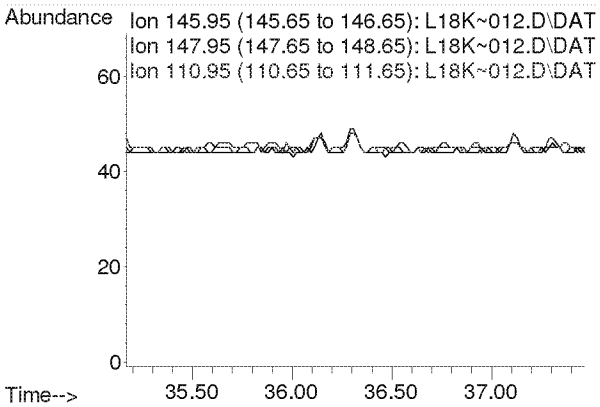


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.31 min

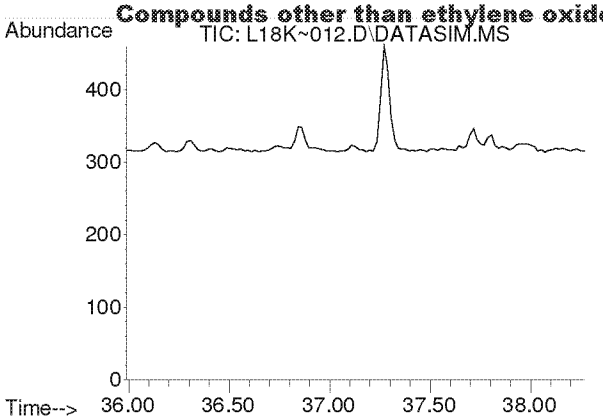
Lab File: L18K~012.D
Acq: 27 Nov 2018 9:02 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	39.8



Compounds other than ethylene oxide were not quantitated.

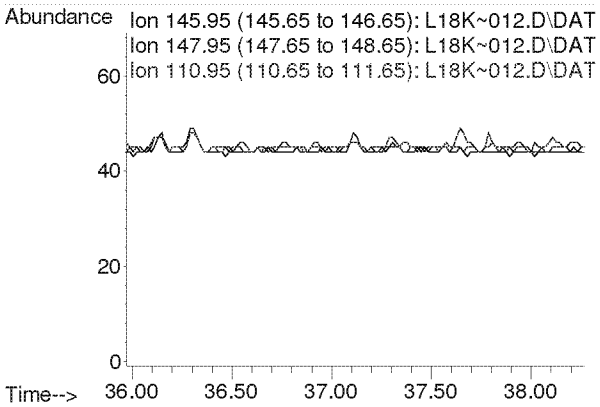


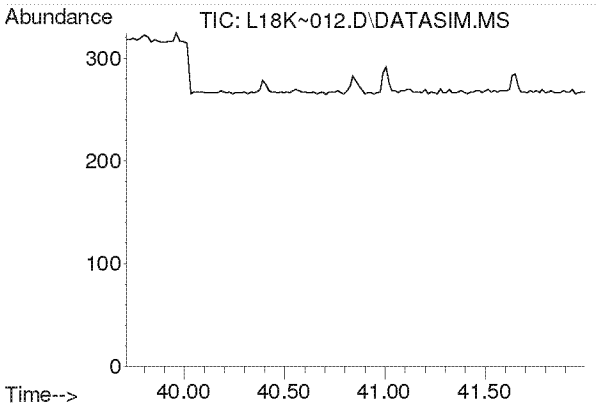
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.12 min

Lab File: L18K~012.D
Acq: 27 Nov 2018 9:02 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	63.9
111	41.8



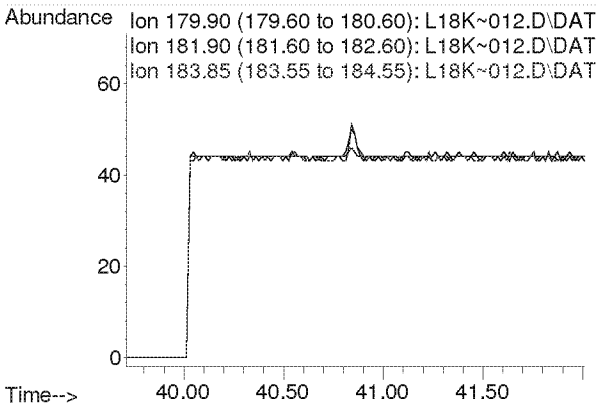


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.85 min

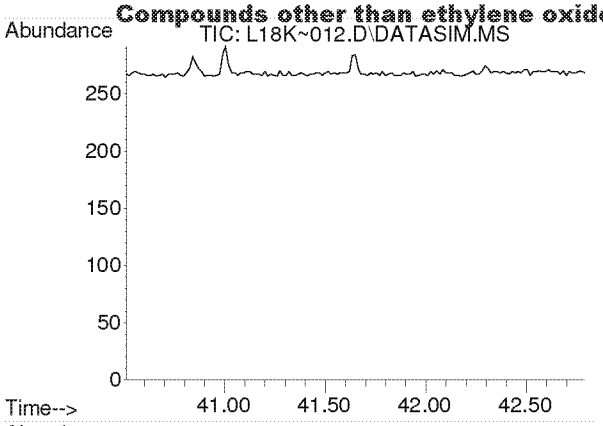
Lab File: L18K~012.D
Acq: 27 Nov 2018 9:02 pm

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	95.6
184	30.5



Compounds other than ethylene oxide were not quantitated.

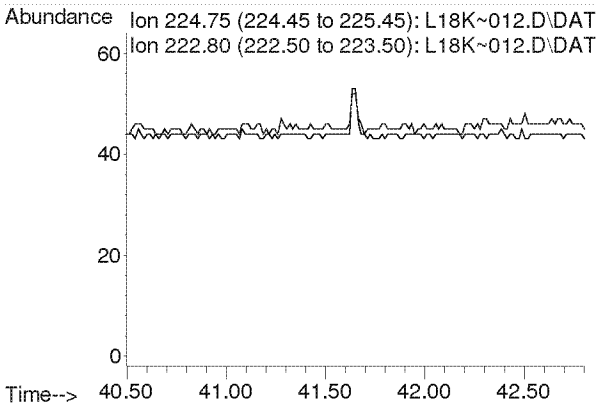


#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.65 min

Lab File: L18K~012.D
Acq: 27 Nov 2018 9:02 pm

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.8



Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L18K~\
Data File : L18K~013.D
Acq On : 27 Nov 2018 10:04 pm (#1); 27-Nov-18, 21:59:19 (#2)
Operator : MAH
Sample : B8K2704-DUP4
Misc : WB VILLAGE HALL R2 11/19/18 (Sig #1); (Sig #2)
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Nov 28 11:28:23 2018
Quant Method : C:\msdchem\1\METHODS\8100002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Fri Oct 12 09:33:42 2018
Response via : Initial Calibration

11-28-D
11-28-D
[illegible]

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.992	66	48988	4.8000 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.151	114	116920	5.0200 ppbv	-0.02
43) IS-Chlorobenzene-d5	30.116	117	78779	4.7700 ppbv	-0.01

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	9056	3.4045 ppbv #	72
10) Bromomethane	0.000	94	0	N.D. d	
11) Chloroethane	0.000	64	0	N.D.	
12) Acetonitrile	0.000	41	0	N.D. d	
13) Acrolein	0.000	56	0	N.D. d	
14) Trichlorofluoromethane	0.000	101	0	N.D. d	
15) Acrylonitrile	0.000	53	0	N.D. d	
16) 1,1-Dichloroethene	0.000	61	0	N.D.	
17) Methylene Chloride	0.000	49	0	N.D. d	
18) Carbon Disulfide	0.000	76	0	N.D. d	
19) Trichlorotrifluoroethane	0.000	101	0	N.D. d	
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.	
21) 1,1-Dichloroethane	0.000	63	0	N.D.	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D. d	
23) Chloroprene	0.000	53	0	N.D. d	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D. d	
25) Bromochloromethane	0.000	128	0	N.D.	
26) Chloroform	0.000	83	0	N.D. d	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D.	
28) 1,2-Dichloroethane	0.000	62	0	N.D. d	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D.	
31) Benzene	0.000	78	0	N.D. d	
32) Carbon Tetrachloride	0.000	117	0	N.D. d	
33) tert-Amyl Methyl Ether	0.000	73	0	N.D.	
34) 1,2-Dichloropropane	0.000	63	0	N.D.	
35) Ethyl Acrylate	0.000	55	0	N.D.	
36) Bromodichloromethane	0.000	83	0	N.D.	
37) Trichloroethylene	0.000	130	0	N.D.	
38) Methyl Methacrylate	0.000	41	0	N.D.	
39) cis-1,3-Dichloropropene	0.000	75	0	N.D.	
40) Methyl Isobutyl Ketone	0.000	43	0	N.D. d	
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.	
44) Toluene	0.000	91	0	N.D. d	
45) Dibromochloromethane	0.000	129	0	N.D.	
46) 1,2-Dibromoethane	0.000	107	0	N.D.	
47) n-Octane	0.000	43	0	N.D. d	
48) Tetrachloroethylene	0.000	166	0	N.D. d	
49) Chlorobenzene	0.000	112	0	N.D.	
50) Ethylbenzene	0.000	91	0	N.D. d	

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L18K~\
Data File : L18K~013.D
Acq On : 27 Nov 2018 10:04 pm (#1); 27-Nov-18, 21:59:19 (#2)
Operator : MAH
Sample : B8K2704-DUP4
Misc : WB VILLAGE HALL R2 11/19/18 (Sig #1); (Sig #2)
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Nov 28 11:28:23 2018
Quant Method : C:\msdchem\1\METHODS\8100002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Fri Oct 12 09:33:42 2018
Response via : Initial Calibration

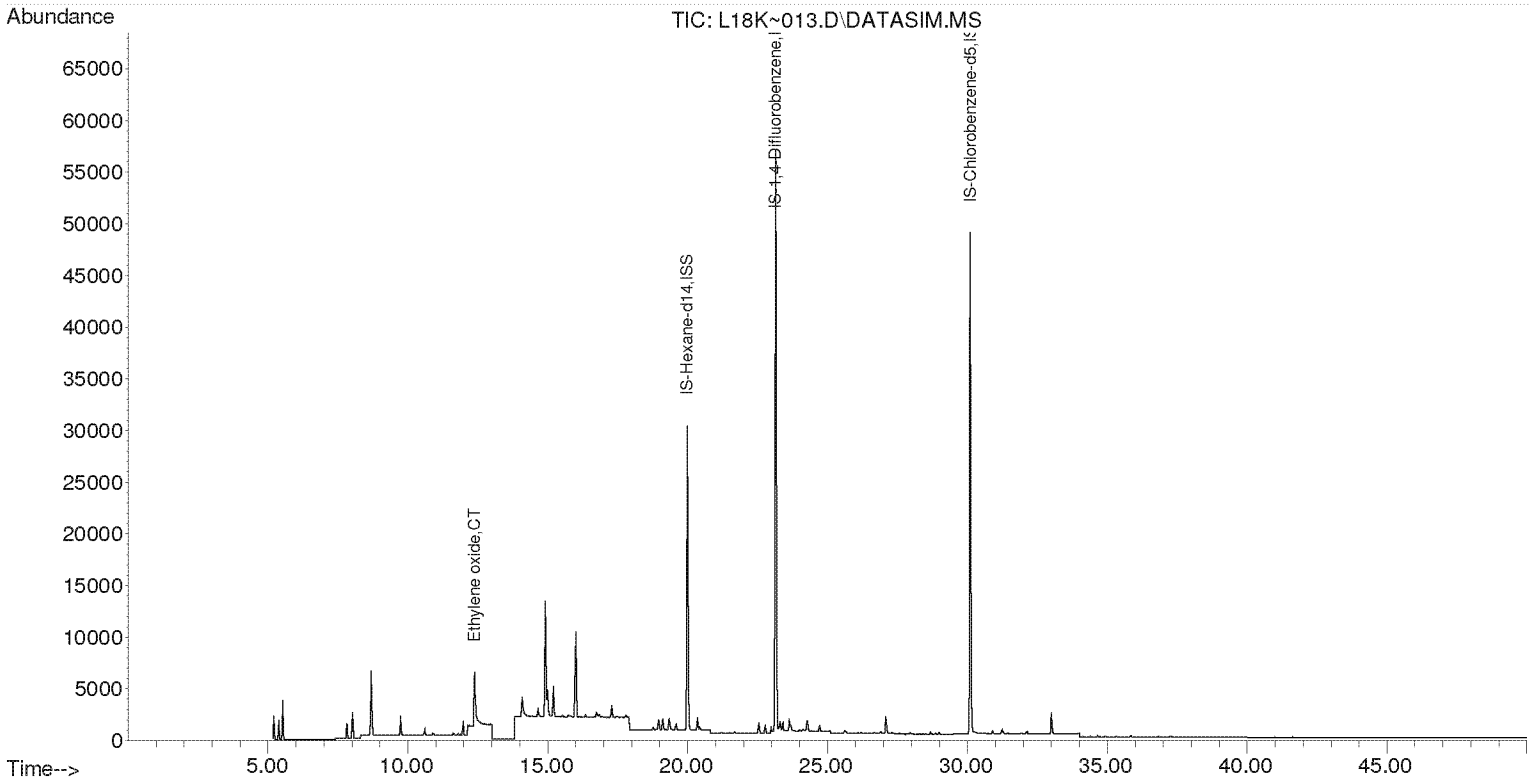
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D. d	
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D. d	
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D. d	
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D. d	
57) 1,2,4-Trimethylbenzene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

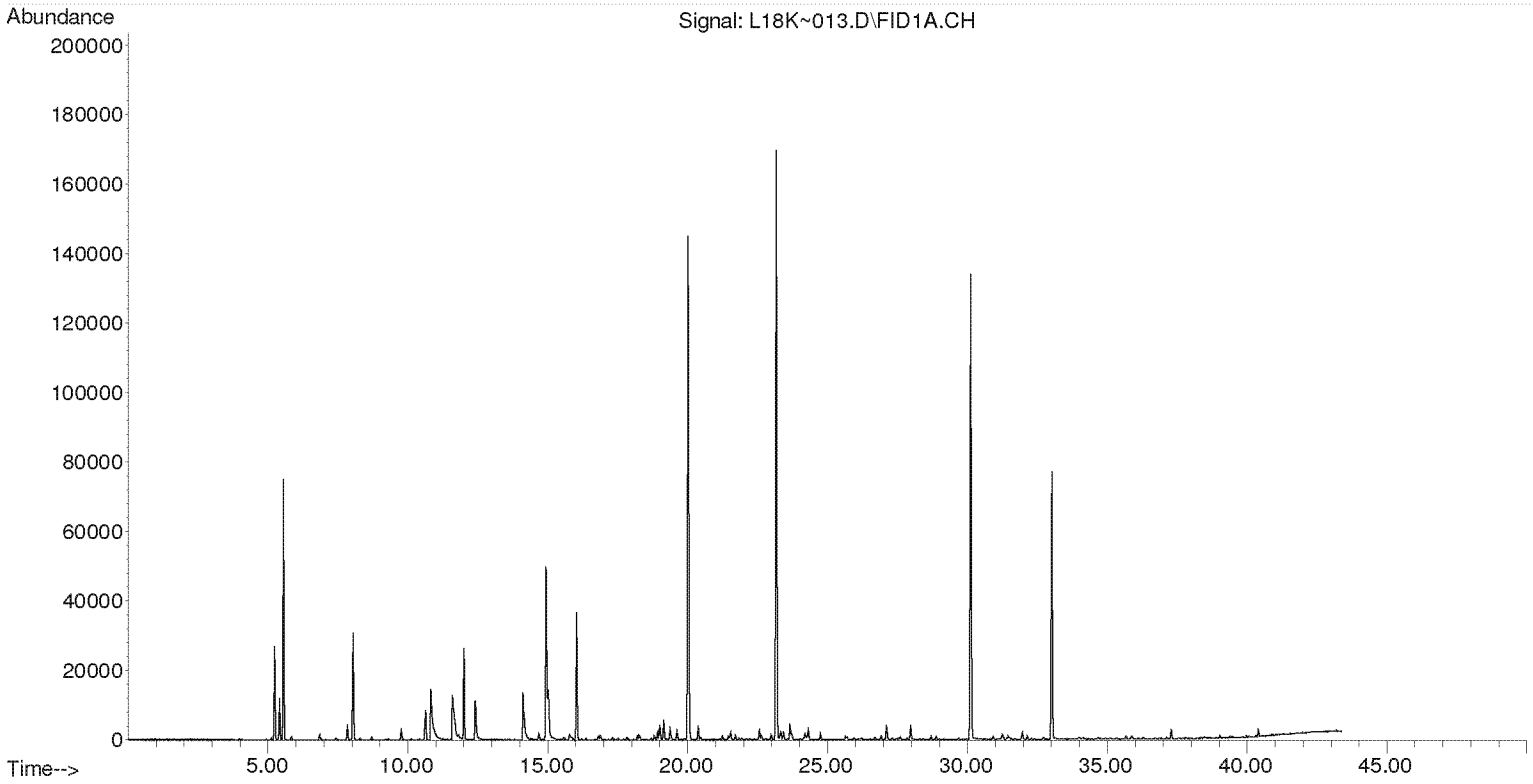
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Compounds other than ethylene oxide were not quantitated.

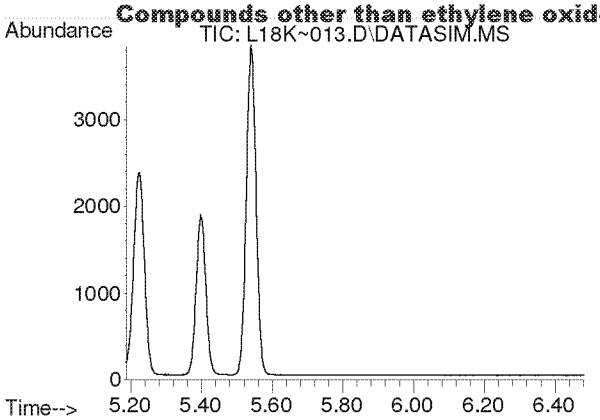
Data Path : Y:\MASS SPEC 1 DATA\L18K~\
Data File : L18K~013.D
Acq On : 27 Nov 2018 10:04 pm (#1); 27 Nov 2018 9:59 pm (#2)
Operator : MAH
Sample : B8K2704-DUP4
Misc : WB VILLAGE HALL R2 11/19/18 (Sig #1); (Sig #2)
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Nov 28 08:10:09 2018
Quant Method : C:\msdchem\1\METHODS\8100002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Fri Oct 12 09:33:42 2018
Response via : Initial Calibration





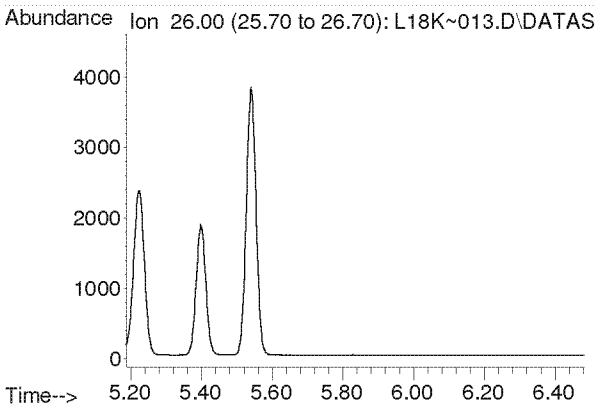
Compounds other than ethylene oxide were not quantitated.

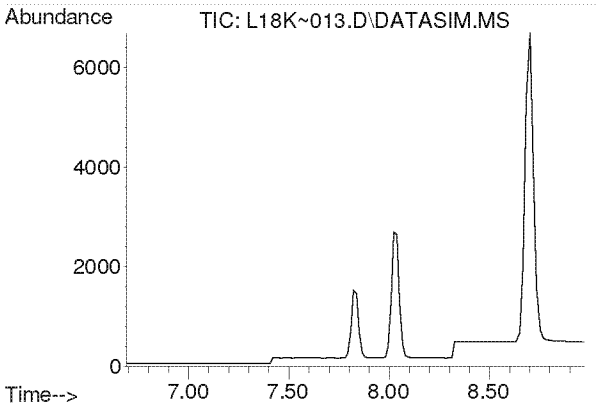


#2
Acetylene
Concen: N.D.
Expected RT: 5.41 min

Lab File: L18K~013.D
Acq: 27 Nov 2018 10:04 pm

Tgt Ion: 26



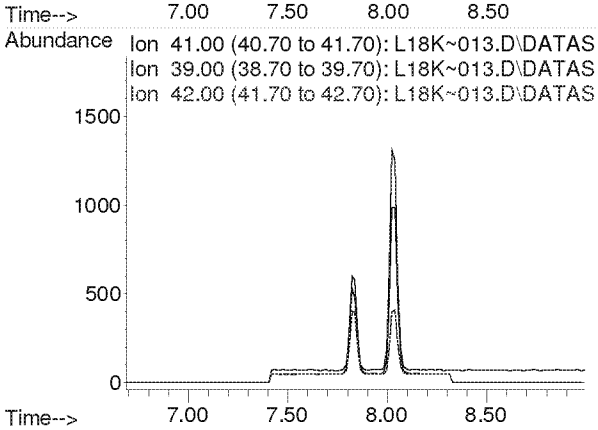


#3
Propylene
Concen: N.D.
Expected RT: 7.84 min

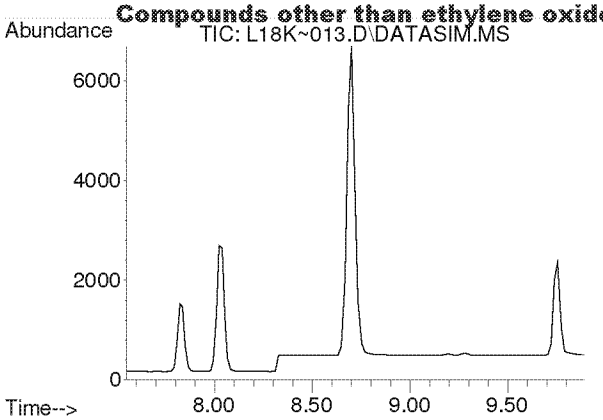
Lab File: L18K~013.D
Acq: 27 Nov 2018 10:04 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	81.2
42	65.4



Compounds other than ethylene oxide were not quantitated.

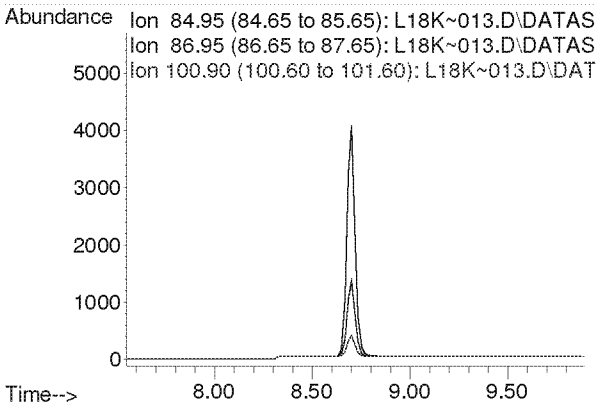


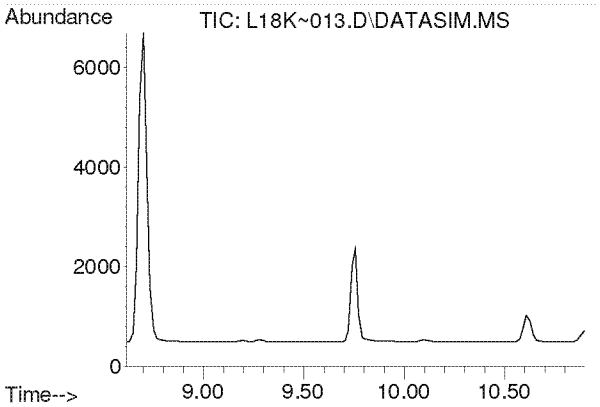
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.69 min

Lab File: L18K~013.D
Acq: 27 Nov 2018 10:04 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.3
101	9.0



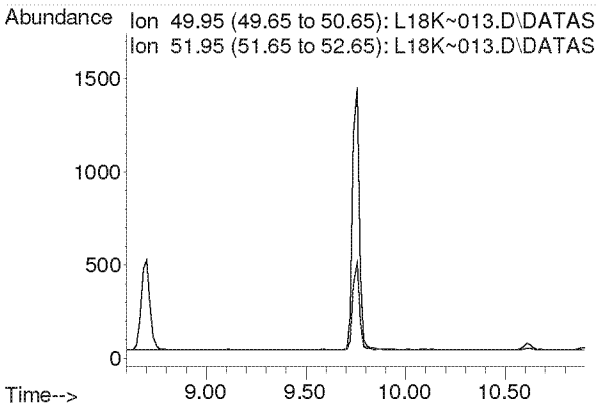


#5
Chloromethane
Concen: N.D.
Expected RT: 9.76 min

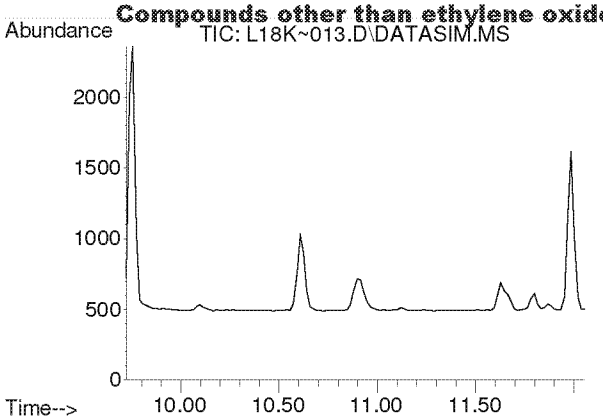
Lab File: L18K~013.D
Acq: 27 Nov 2018 10:04 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.2



Compounds other than ethylene oxide were not quantitated.

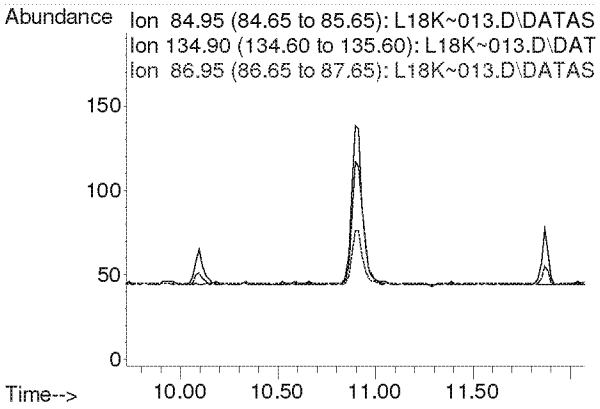


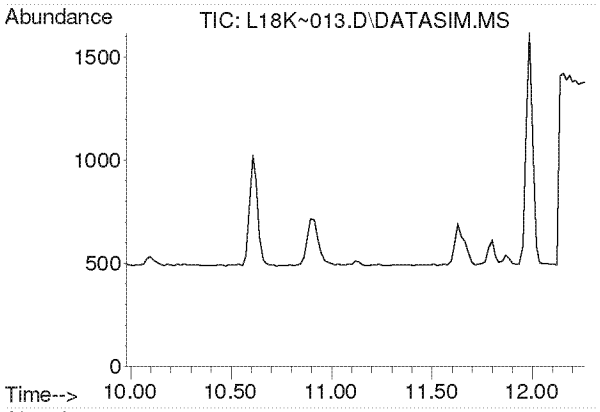
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.87 min

Lab File: L18K~013.D
Acq: 27 Nov 2018 10:04 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.6
87	32.1



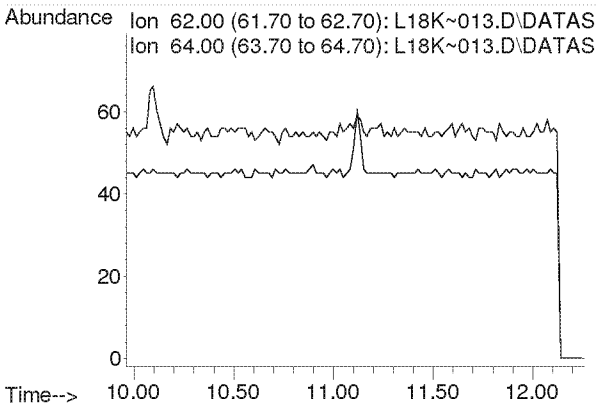


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

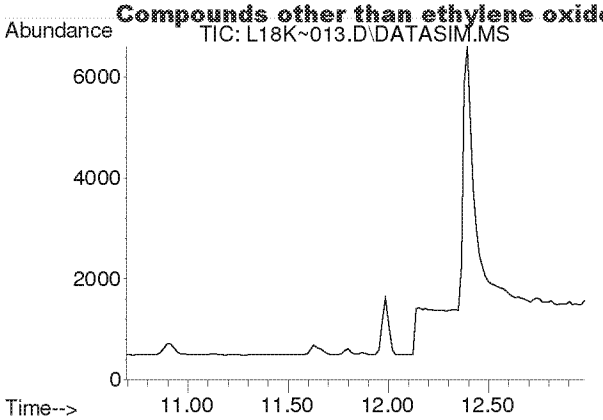
Lab File: L18K~013.D
Acq: 27 Nov 2018 10:04 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	32.0



Compounds other than ethylene oxide were not quantitated.

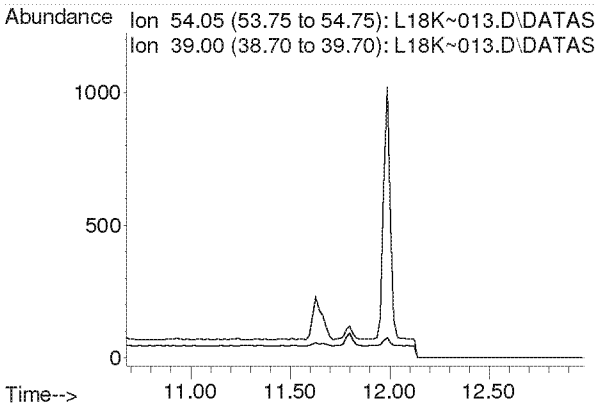


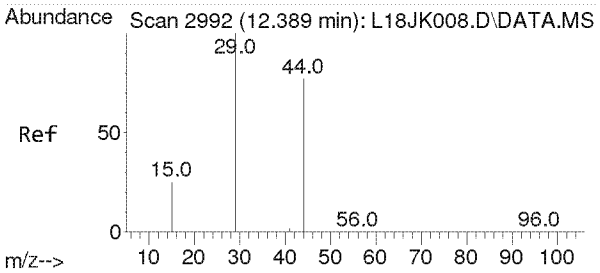
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.79 min

Lab File: L18K~013.D
Acq: 27 Nov 2018 10:04 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	108.7

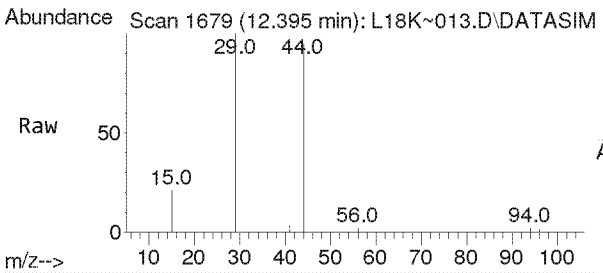


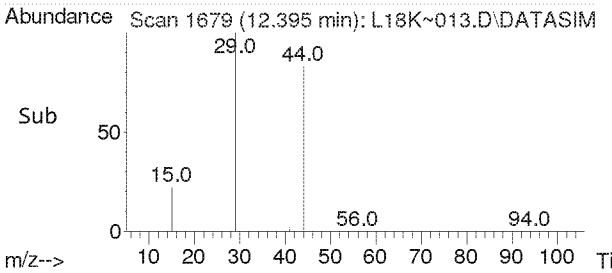


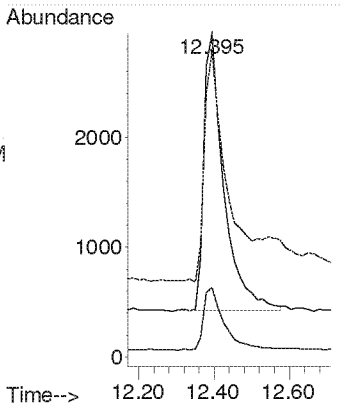
#9
Ethylene oxide
Concen: 3.404 ppbv
RT: 12.395 min Scan# 1679
Delta R.T. 0.006 min
Lab File: L18K~013.D
Acq: 27 Nov 2018 10:04 pm

Tgt Ion: 29 Resp: 9056

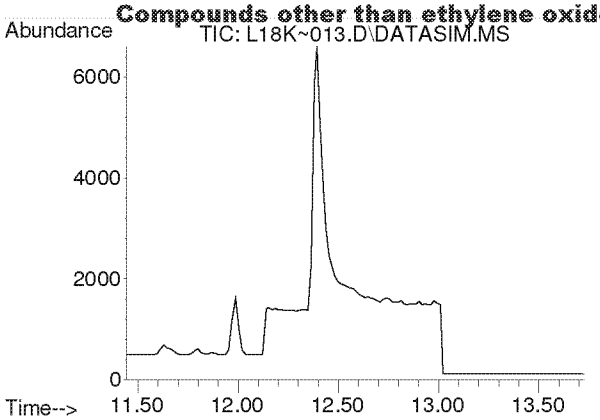
Ion	Ratio	Lower	Upper
29	100		
15	23.6	20.1	30.1
44	109.8	62.6	93.8#







Compounds other than ethylene oxide were not quantitated.

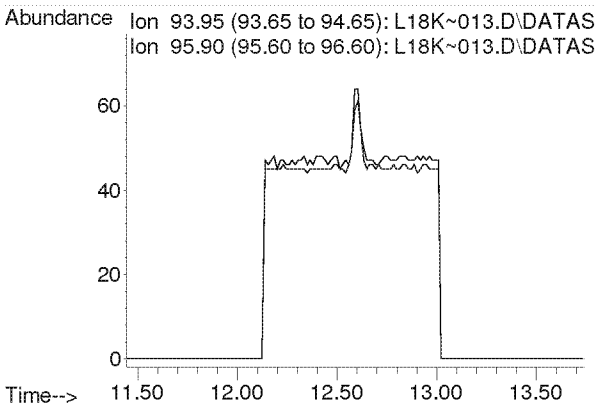


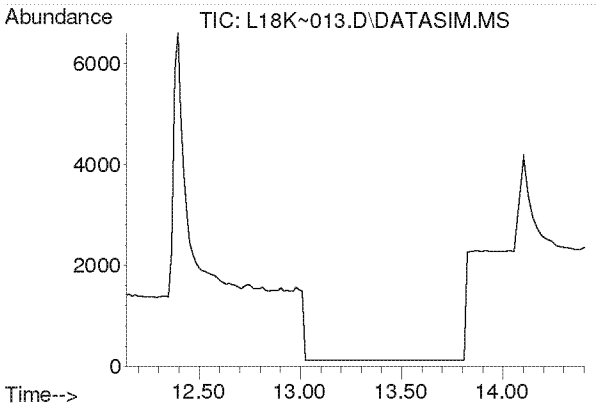
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L18K~013.D
Acq: 27 Nov 2018 10:04 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



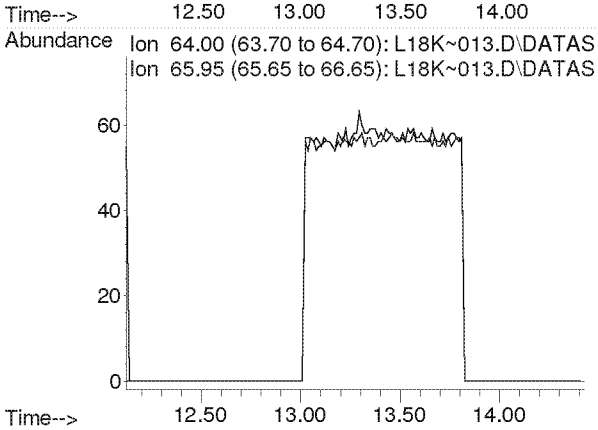


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

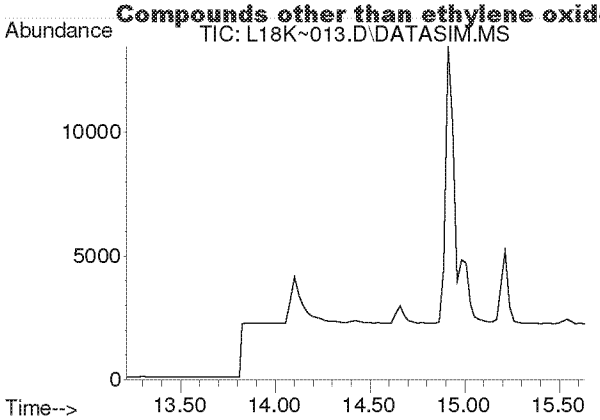
Lab File: L18K~013.D
Acq: 27 Nov 2018 10:04 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

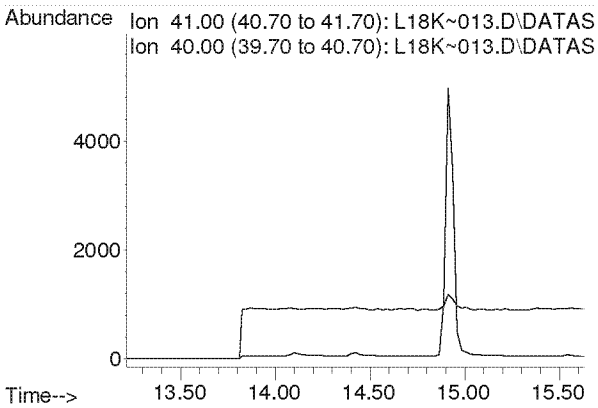


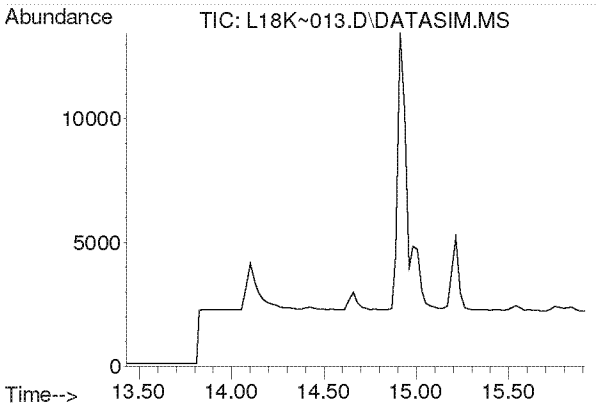
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.34 min

Lab File: L18K~013.D
Acq: 27 Nov 2018 10:04 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	53.9



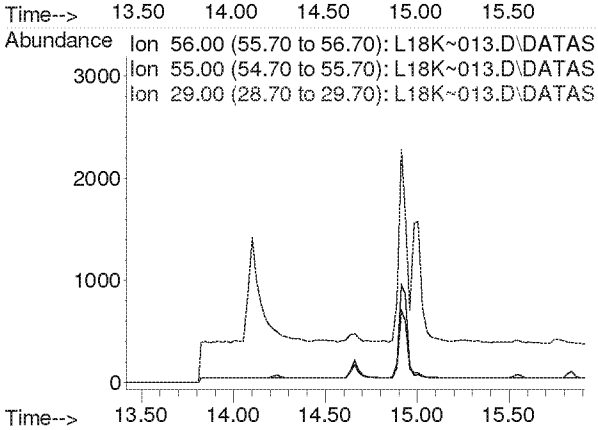


#13
Acrolein
Concen: N.D.
Expected RT: 14.62 min

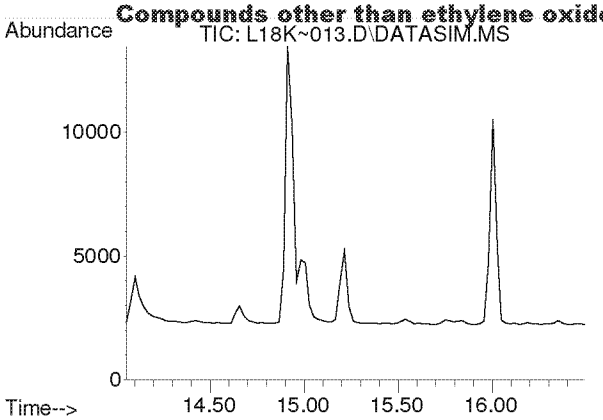
Lab File: L18K~013.D
Acq: 27 Nov 2018 10:04 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	77.4
29	61.5



Compounds other than ethylene oxide were not quantitated.

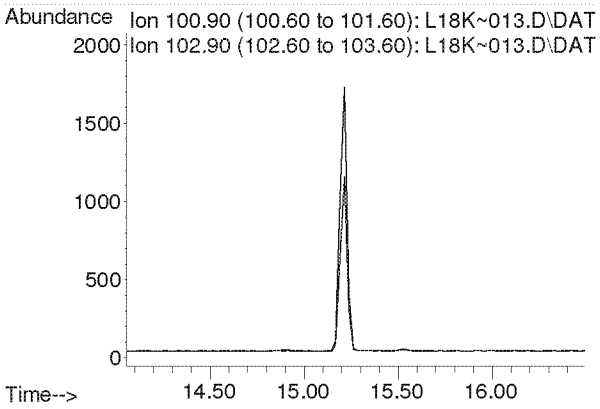


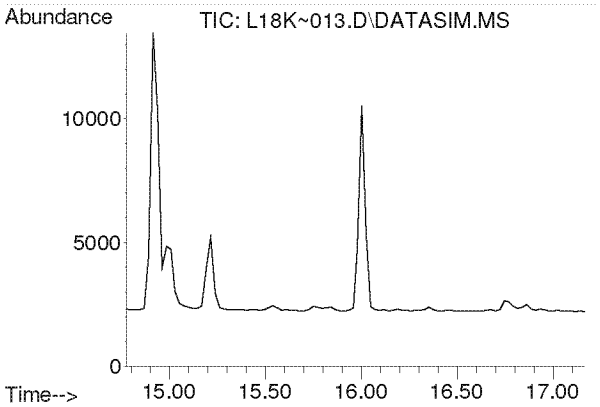
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.20 min

Lab File: L18K~013.D
Acq: 27 Nov 2018 10:04 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.7



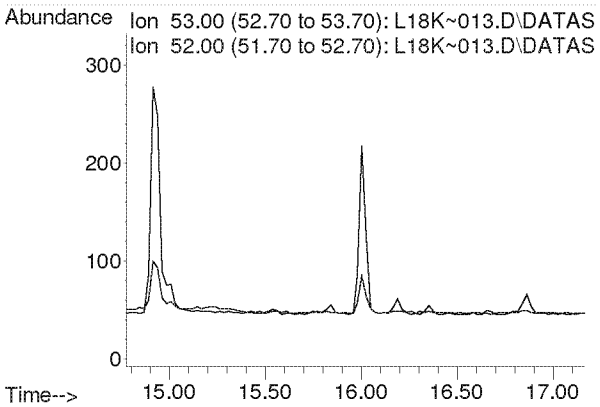


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.92 min

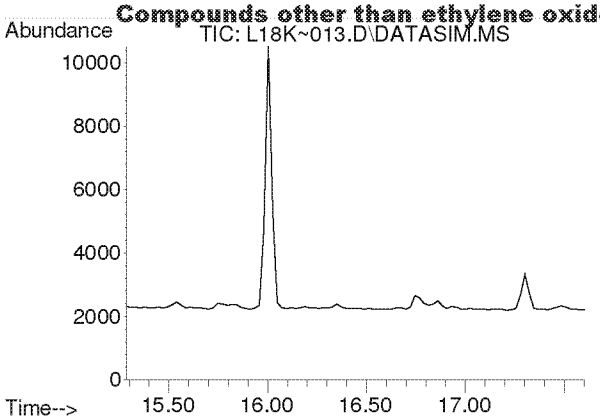
Lab File: L18K~013.D
Acq: 27 Nov 2018 10:04 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	87.1



Compounds other than ethylene oxide were not quantitated.

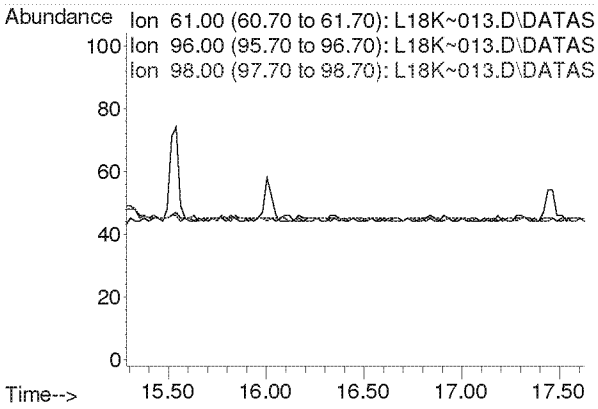


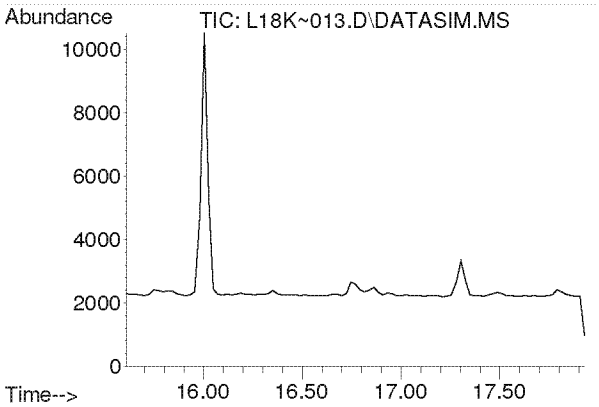
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L18K~013.D
Acq: 27 Nov 2018 10:04 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	57.6
98	36.8



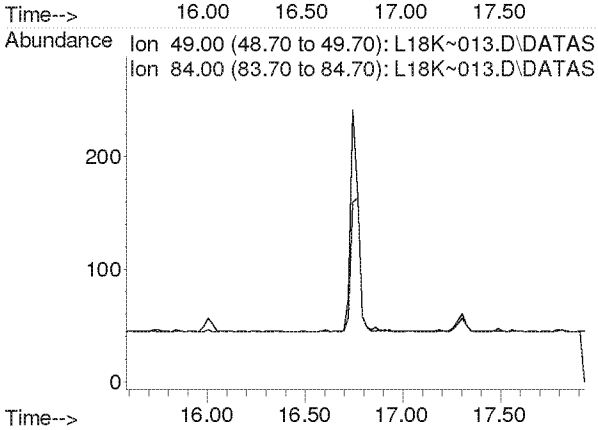


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

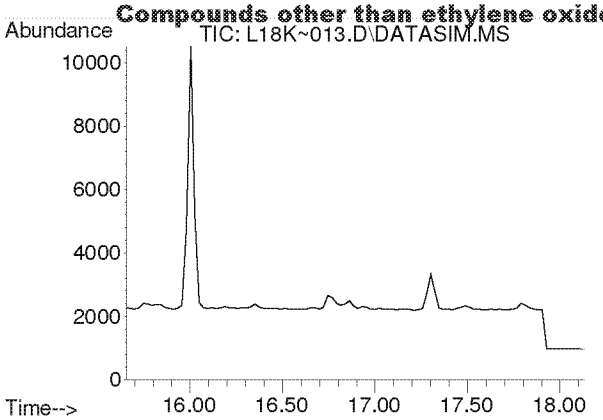
Lab File: L18K~013.D
Acq: 27 Nov 2018 10:04 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	74.2



Compounds other than ethylene oxide were not quantitated.

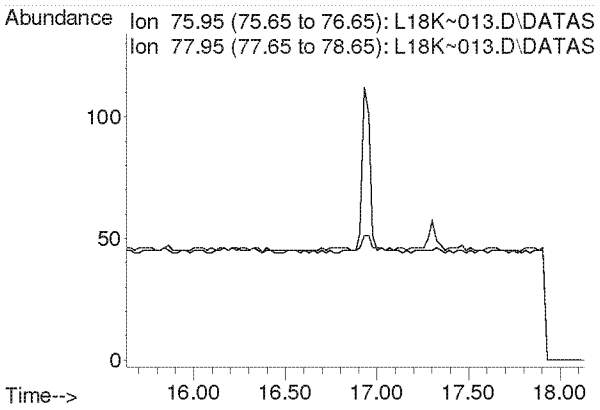


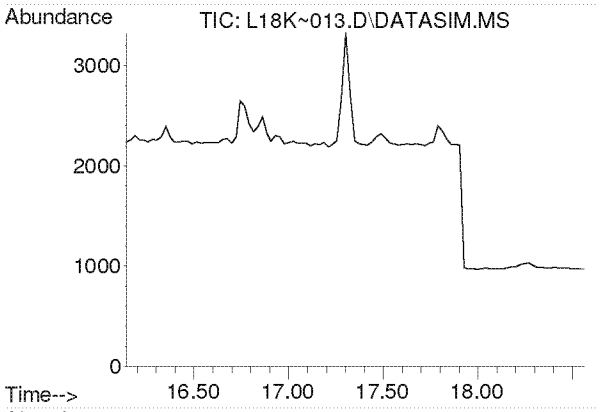
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.94 min

Lab File: L18K~013.D
Acq: 27 Nov 2018 10:04 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.1



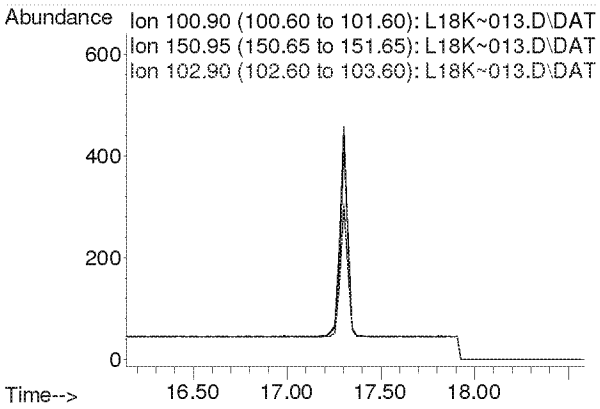


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.29 min

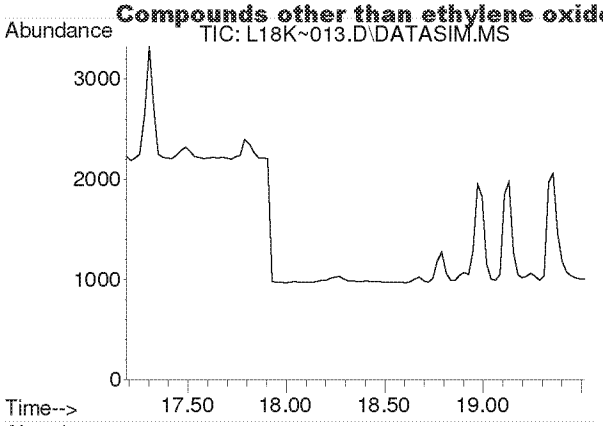
Lab File: L18K~013.D
Acq: 27 Nov 2018 10:04 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	96.0
103	64.3



Compounds other than ethylene oxide were not quantitated.

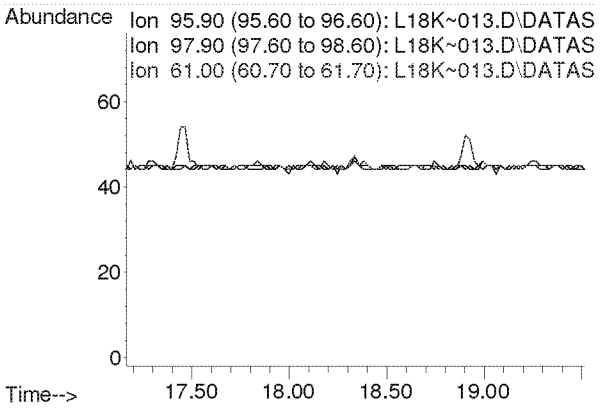


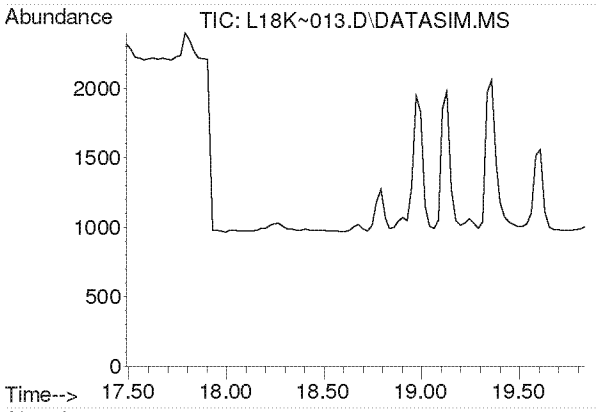
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.33 min

Lab File: L18K~013.D
Acq: 27 Nov 2018 10:04 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	63.6
61	156.3



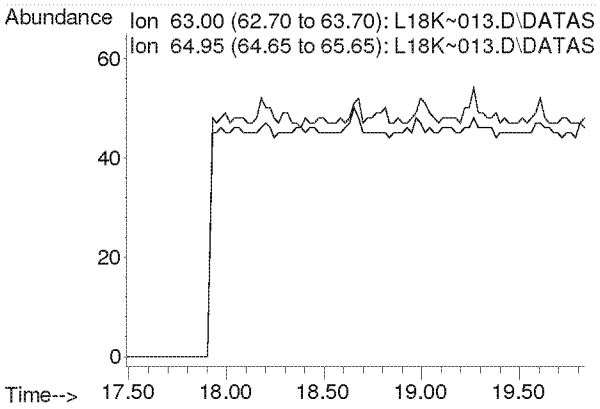


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.64 min

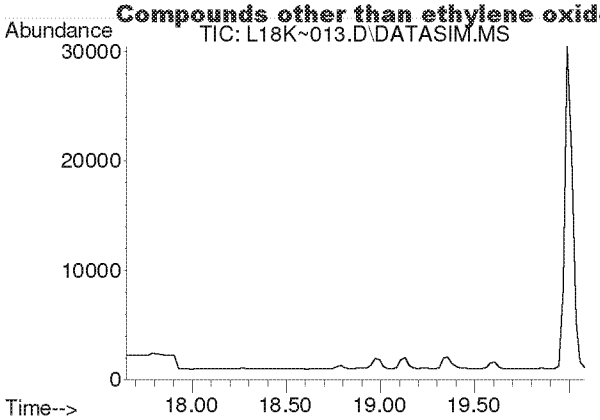
Lab File: L18K~013.D
Acq: 27 Nov 2018 10:04 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	32.1



Compounds other than ethylene oxide were not quantitated.

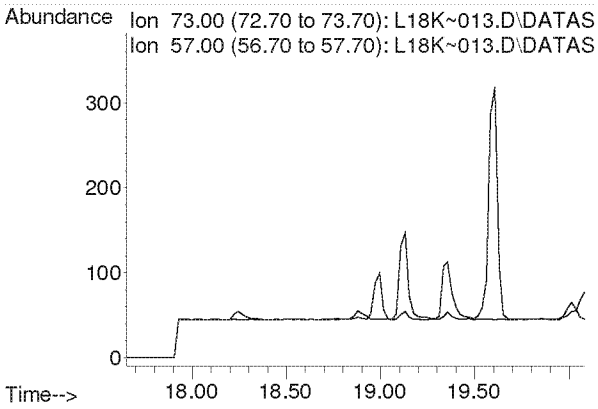


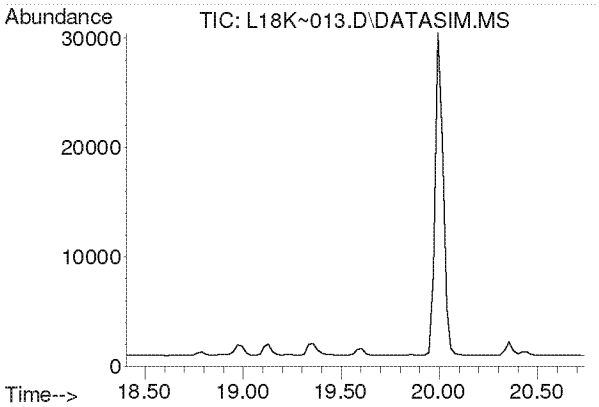
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L18K~013.D
Acq: 27 Nov 2018 10:04 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.0



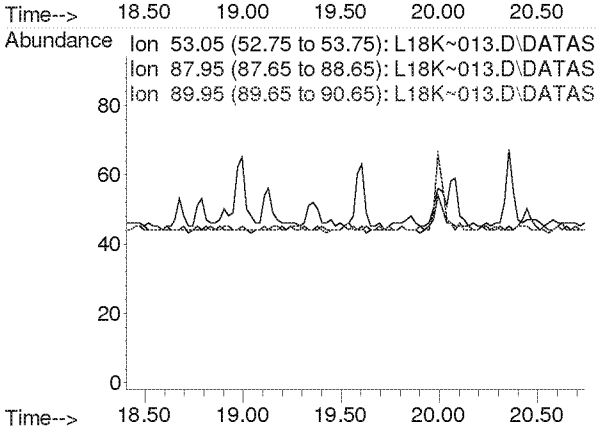


#23
Chloroprene
Concen: N.D.
Expected RT: 19.55 min

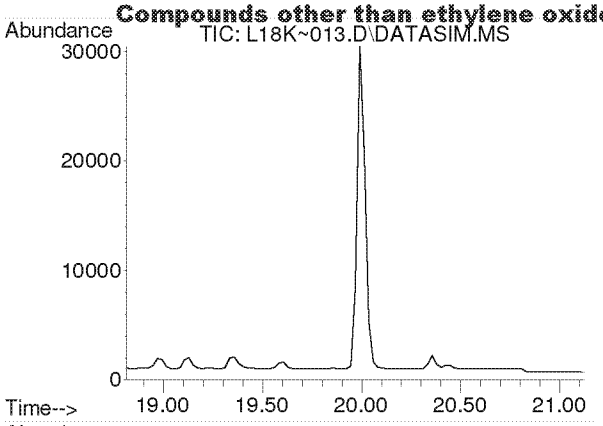
Lab File: L18K~013.D
Acq: 27 Nov 2018 10:04 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	51.5
90	16.6



Compounds other than ethylene oxide were not quantitated.

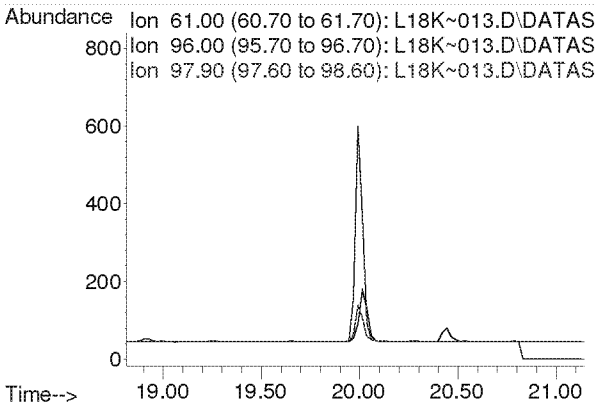


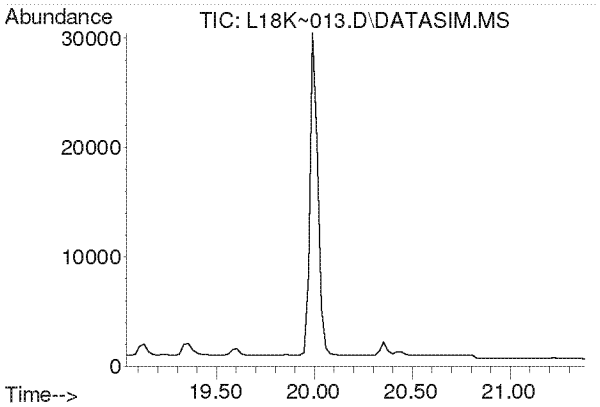
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.96 min

Lab File: L18K~013.D
Acq: 27 Nov 2018 10:04 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.5
98	46.2



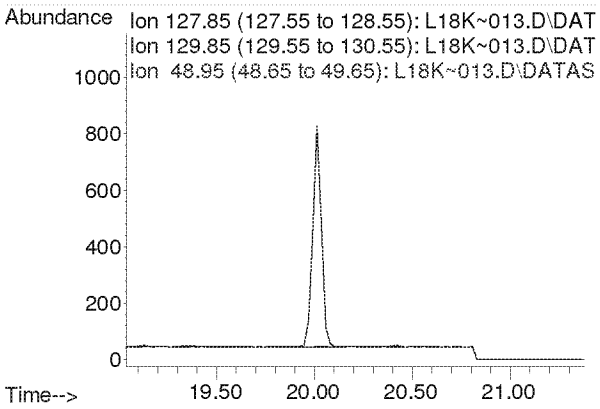


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.18 min

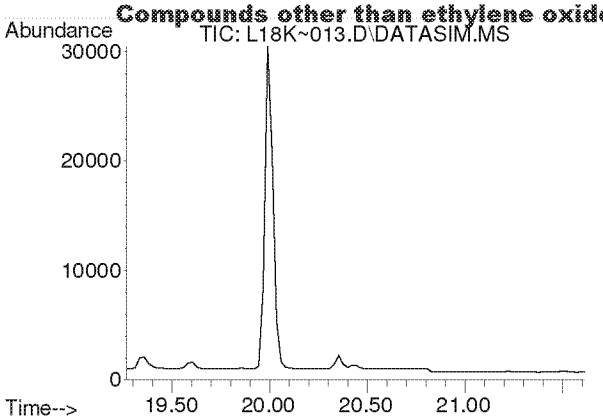
Lab File: L18K~013.D
Acq: 27 Nov 2018 10:04 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	128.9
49	167.9



Compounds other than ethylene oxide were not quantitated.

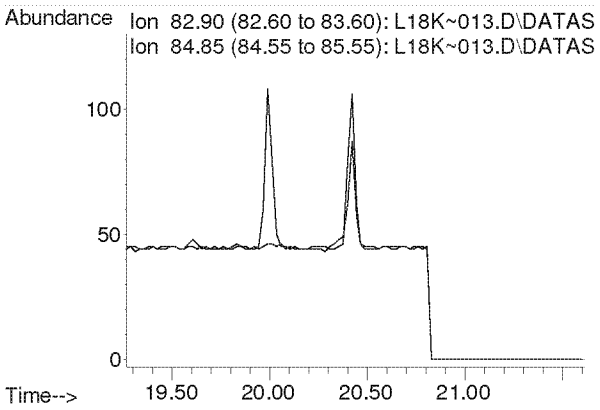


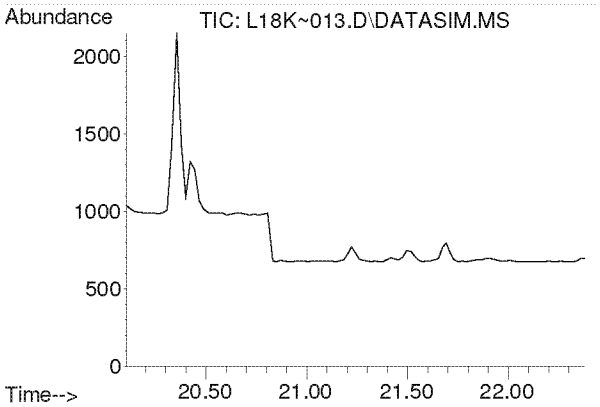
#26
Chloroform
Concen: N.D.
Expected RT: 20.42 min

Lab File: L18K~013.D
Acq: 27 Nov 2018 10:04 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



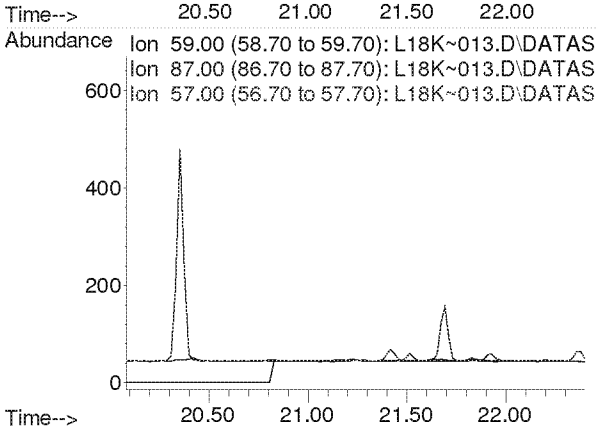


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.19 min

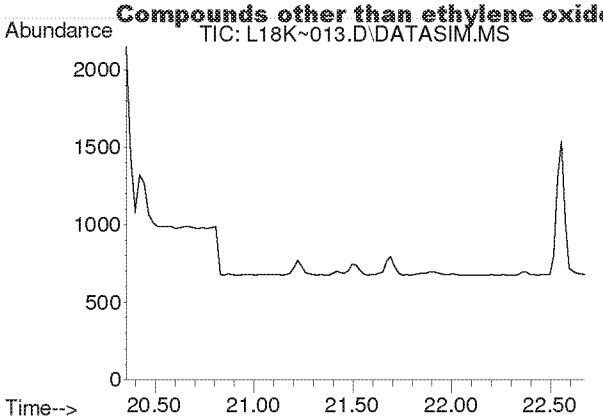
Lab File: L18K~013.D
Acq: 27 Nov 2018 10:04 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	38.5
57	34.0



Compounds other than ethylene oxide were not quantitated.

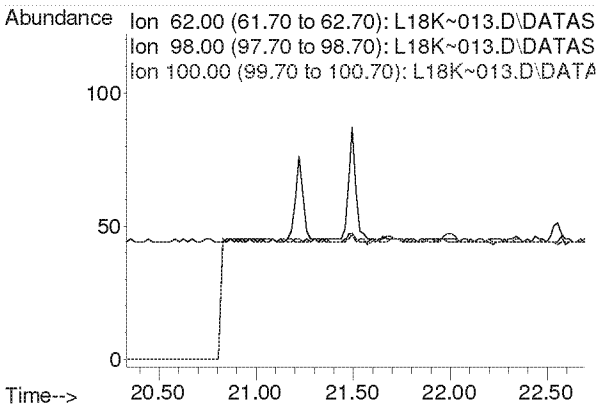


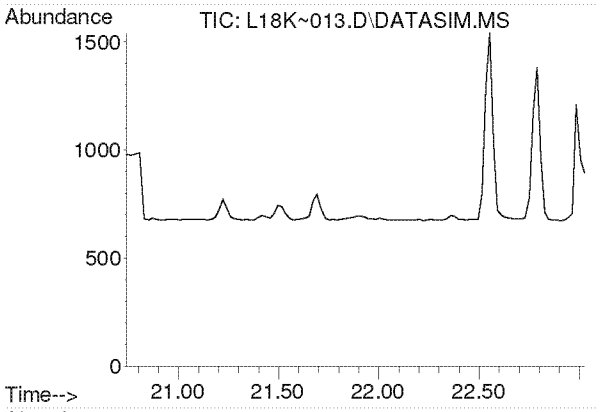
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.49 min

Lab File: L18K~013.D
Acq: 27 Nov 2018 10:04 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.0
100	3.9



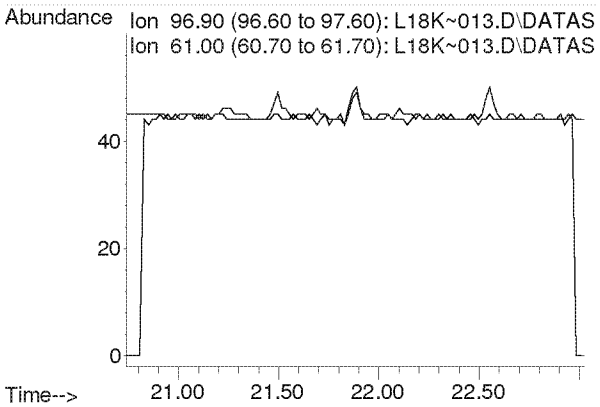


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.88 min

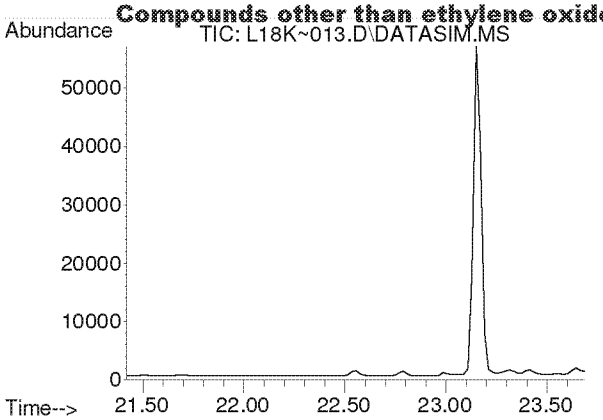
Lab File: L18K~013.D
Acq: 27 Nov 2018 10:04 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	59.6



Compounds other than ethylene oxide were not quantitated.

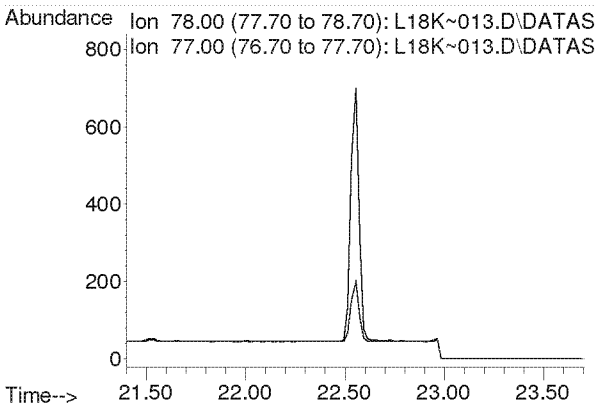


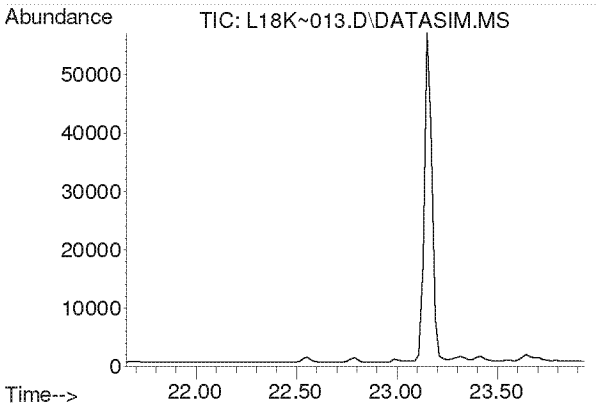
#31
Benzene
Concen: N.D.
Expected RT: 22.56 min

Lab File: L18K~013.D
Acq: 27 Nov 2018 10:04 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.9



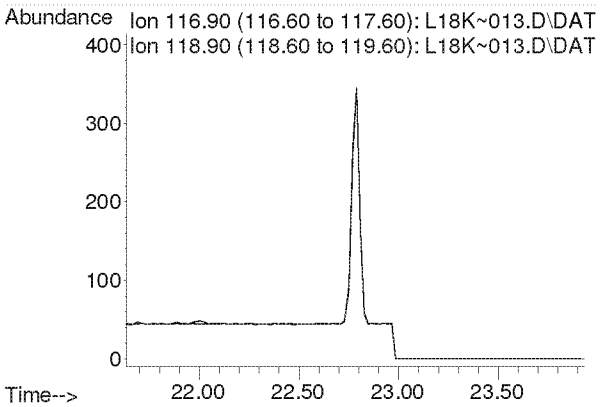


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.79 min

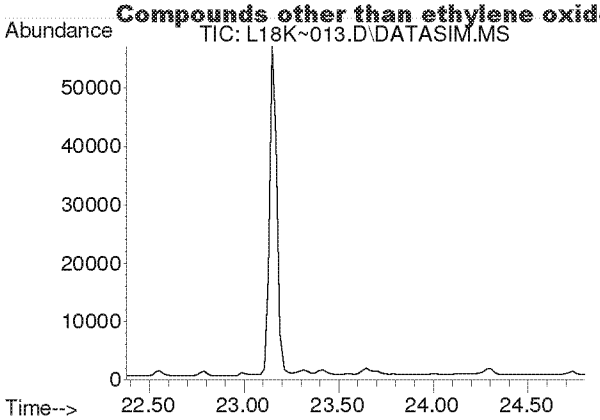
Lab File: L18K~013.D
Acq: 27 Nov 2018 10:04 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.9



Compounds other than ethylene oxide were not quantitated.

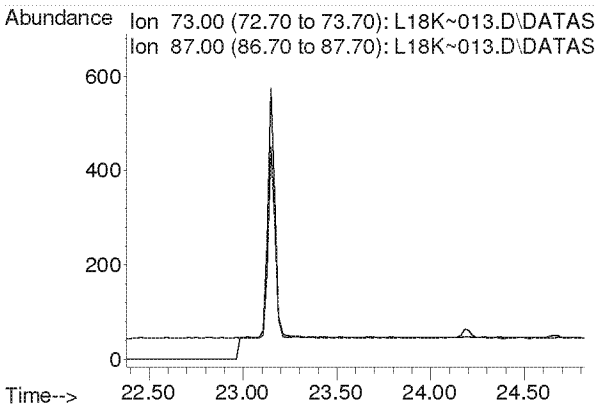


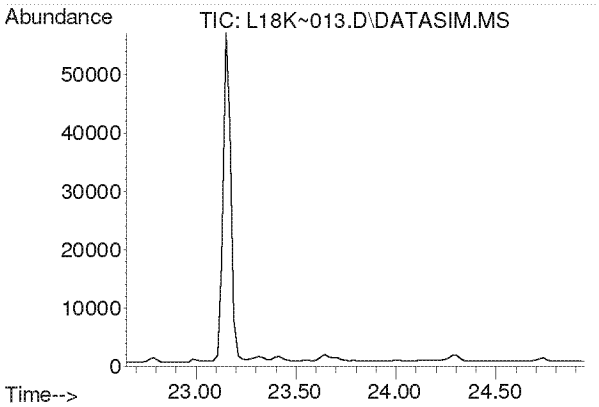
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L18K~013.D
Acq: 27 Nov 2018 10:04 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



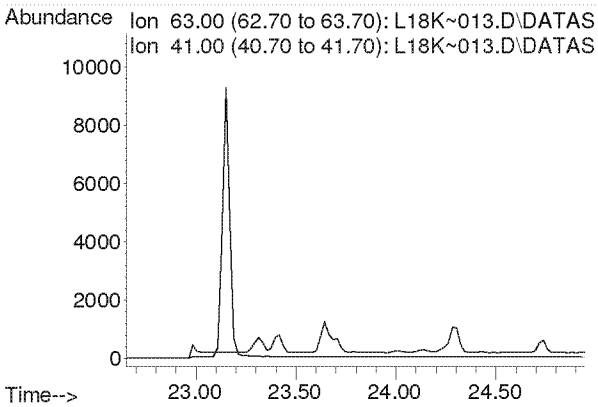


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.80 min

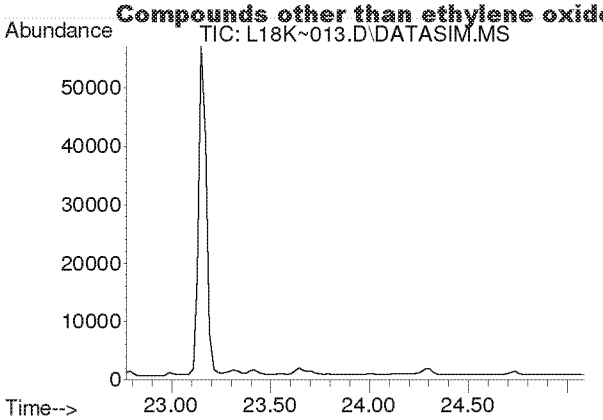
Lab File: L18K~013.D
Acq: 27 Nov 2018 10:04 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	222.1



Compounds other than ethylene oxide were not quantitated.

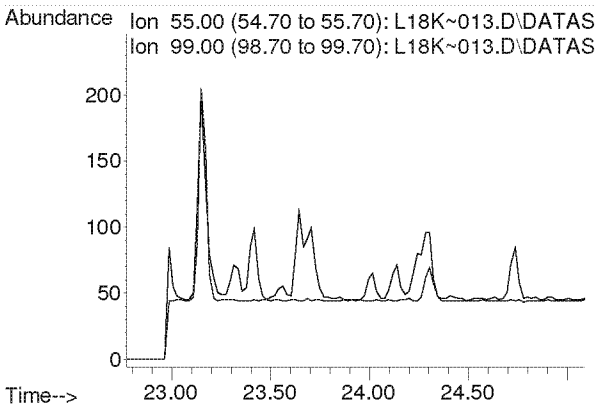


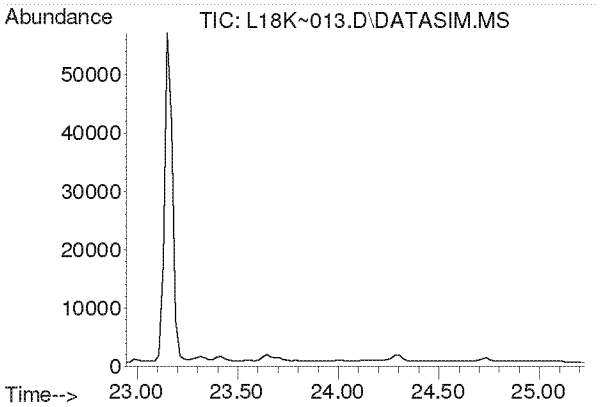
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L18K~013.D
Acq: 27 Nov 2018 10:04 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



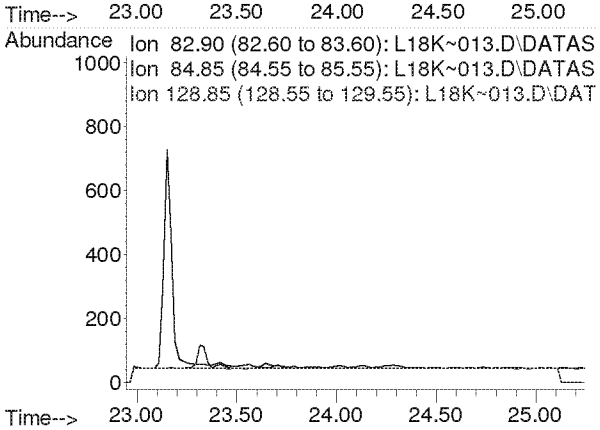


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.09 min

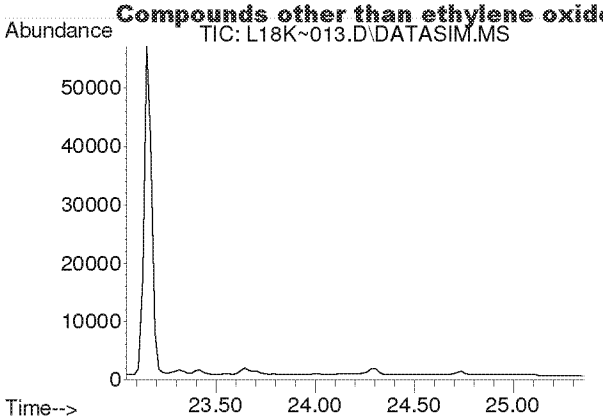
Lab File: L18K~013.D
Acq: 27 Nov 2018 10:04 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.9
129	12.9



Compounds other than ethylene oxide were not quantitated.

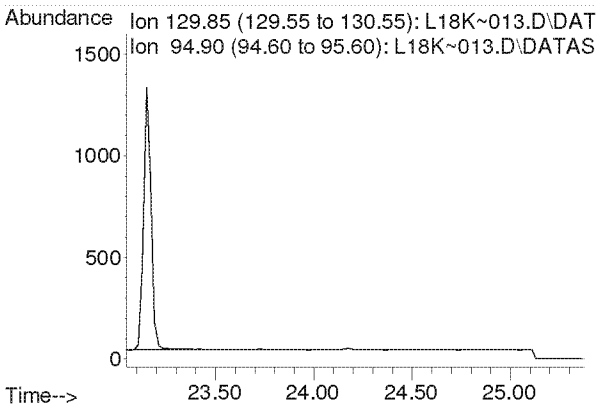


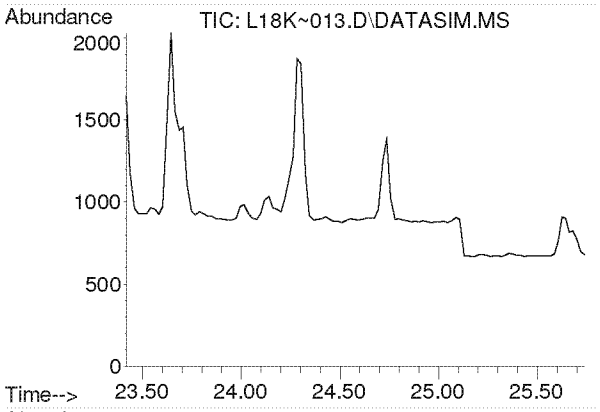
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.19 min

Lab File: L18K~013.D
Acq: 27 Nov 2018 10:04 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.9



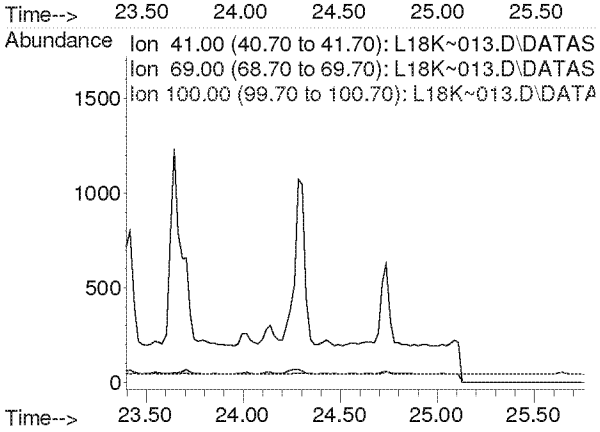


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.55 min

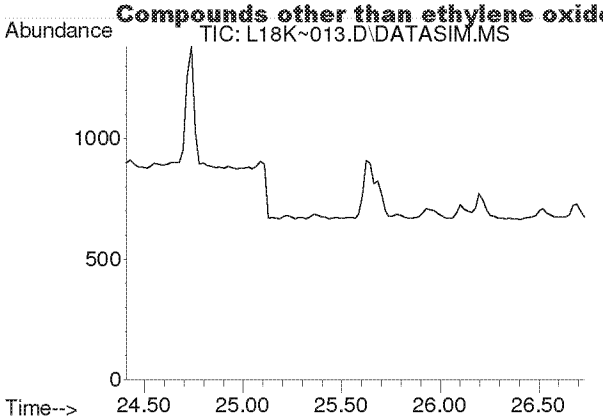
Lab File: L18K~013.D
Acq: 27 Nov 2018 10:04 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	20.0
100	5.1



Compounds other than ethylene oxide were not quantitated.

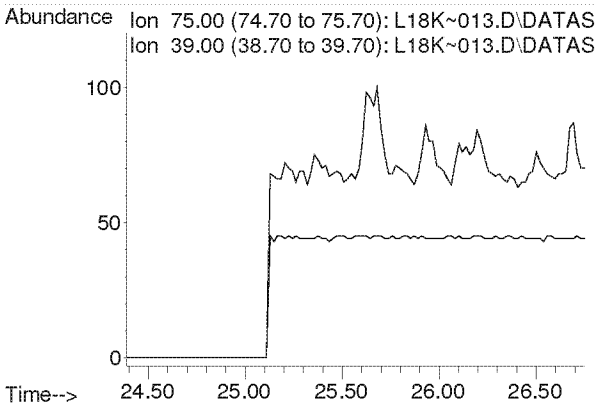


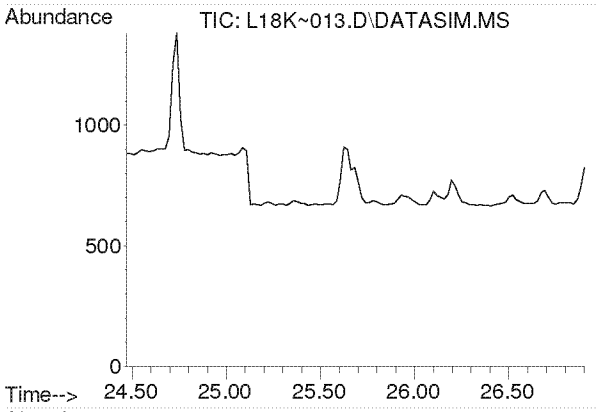
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.54 min

Lab File: L18K~013.D
Acq: 27 Nov 2018 10:04 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	55.6



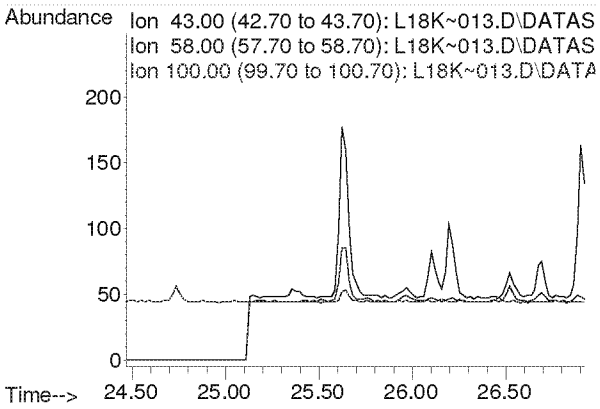


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.62 min

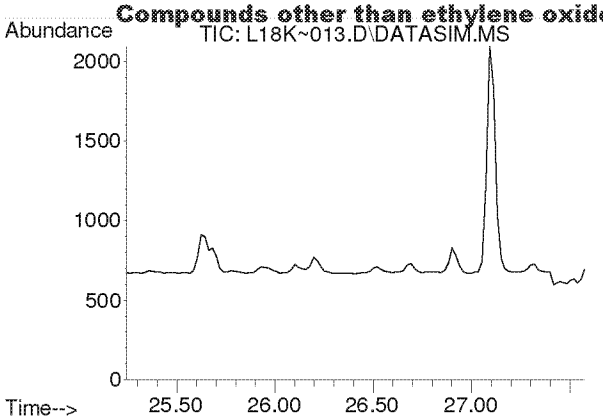
Lab File: L18K~013.D
Acq: 27 Nov 2018 10:04 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	33.3
100	8.0



Compounds other than ethylene oxide were not quantitated.

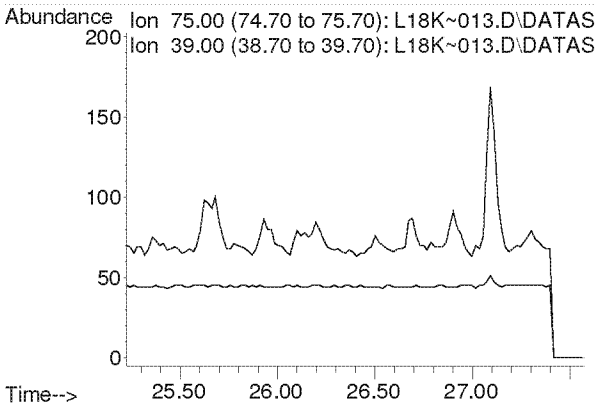


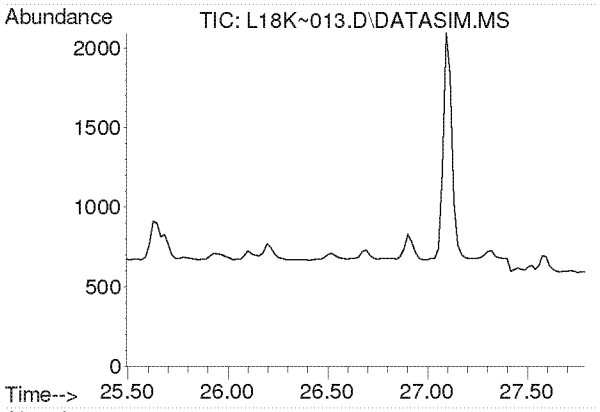
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.38 min

Lab File: L18K~013.D
Acq: 27 Nov 2018 10:04 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	55.3



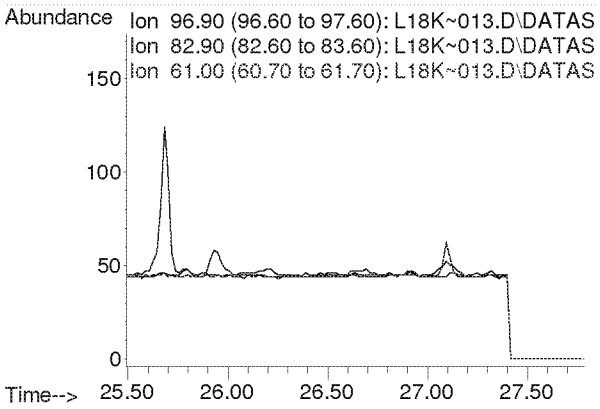


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.64 min

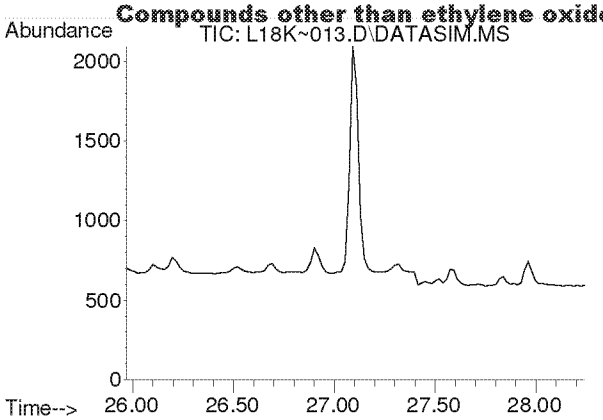
Lab File: L18K~013.D
Acq: 27 Nov 2018 10:04 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	95.3
61	64.6



Compounds other than ethylene oxide were not quantitated.

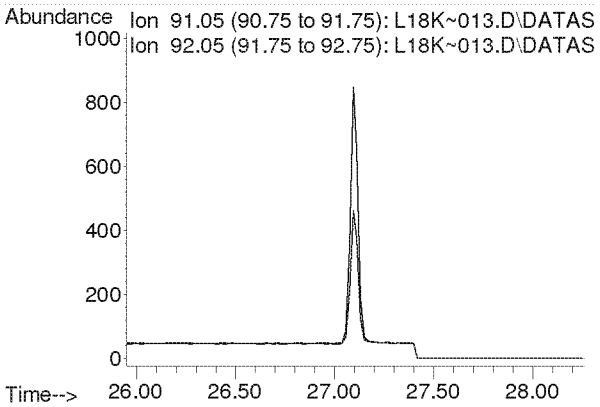


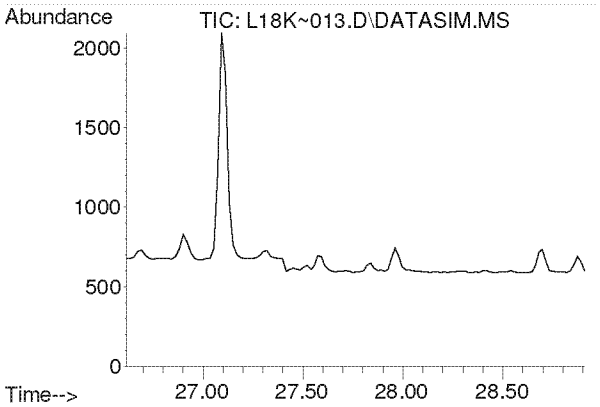
#44
Toluene
Concen: N.D.
Expected RT: 27.11 min

Lab File: L18K~013.D
Acq: 27 Nov 2018 10:04 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.1



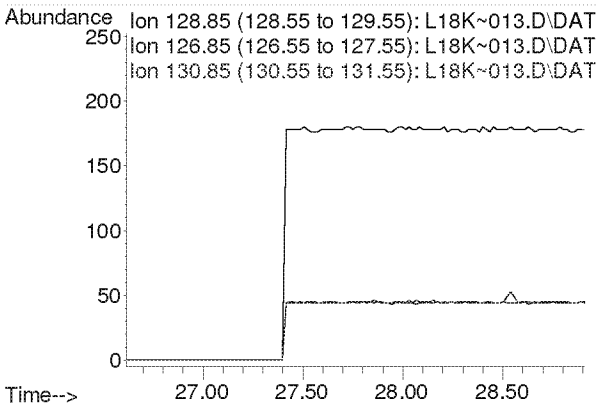


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.76 min

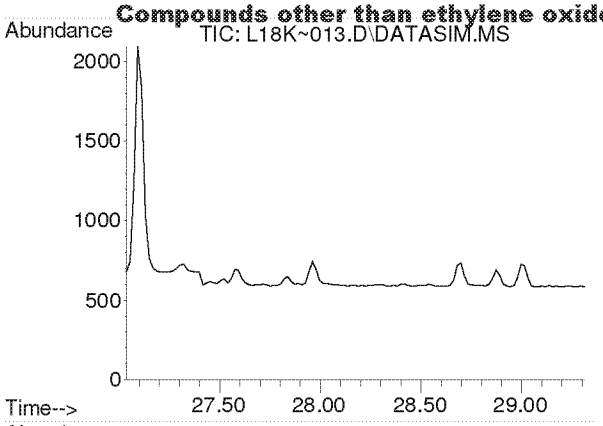
Lab File: L18K~013.D
Acq: 27 Nov 2018 10:04 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

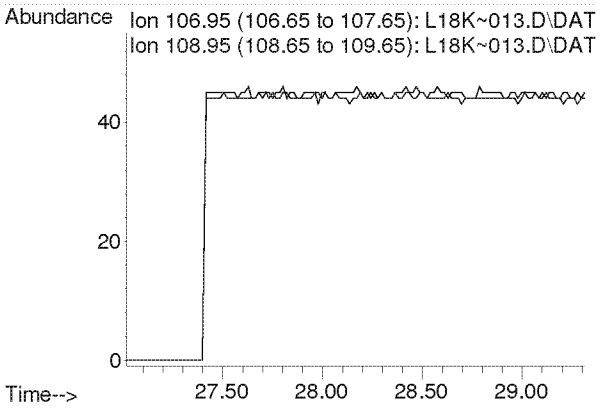


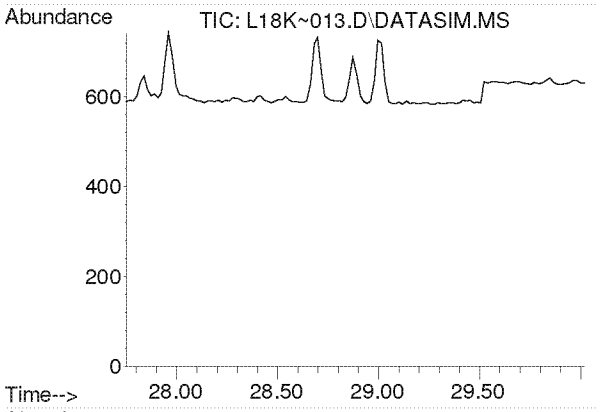
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.17 min

Lab File: L18K~013.D
Acq: 27 Nov 2018 10:04 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	93.8



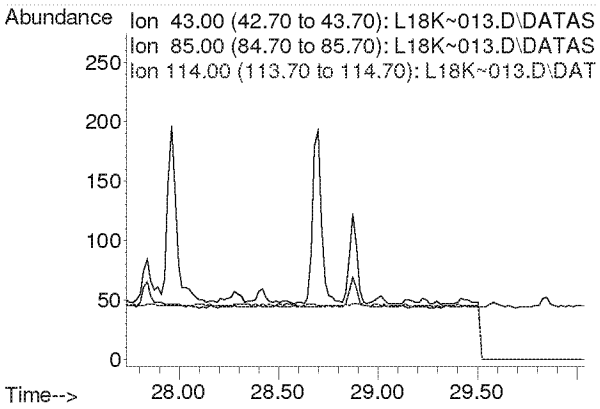


#47
n-Octane
Concen: N.D.
Expected RT: 28.89 min

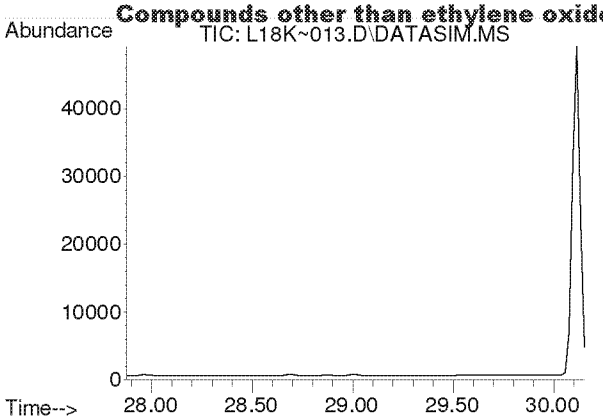
Lab File: L18K~013.D
Acq: 27 Nov 2018 10:04 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	37.8
114	2.4



Compounds other than ethylene oxide were not quantitated.

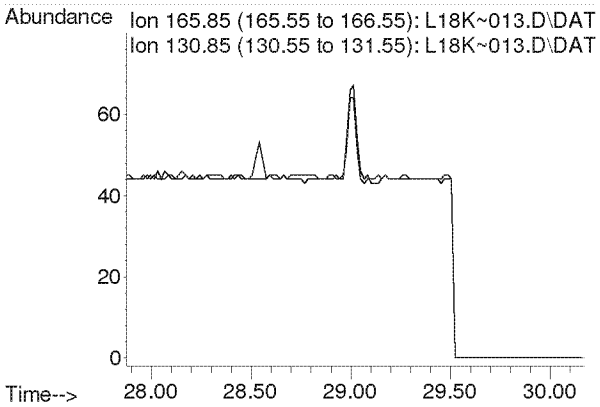


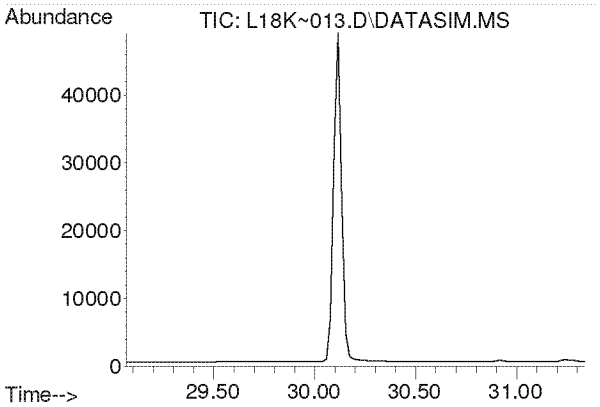
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.02 min

Lab File: L18K~013.D
Acq: 27 Nov 2018 10:04 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	78.7



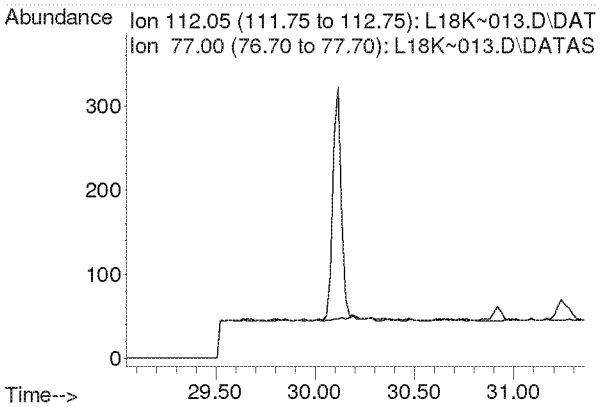


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.20 min

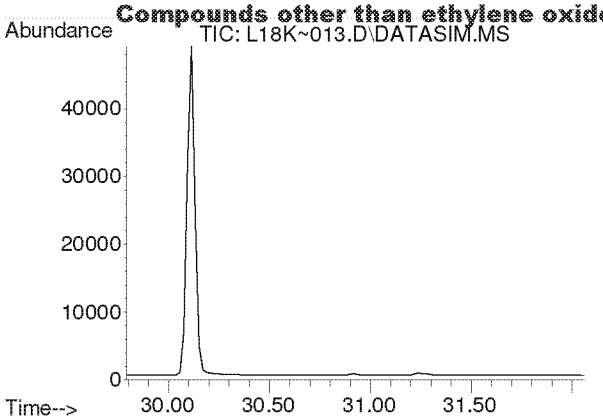
Lab File: L18K~013.D
Acq: 27 Nov 2018 10:04 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.3



Compounds other than ethylene oxide were not quantitated.

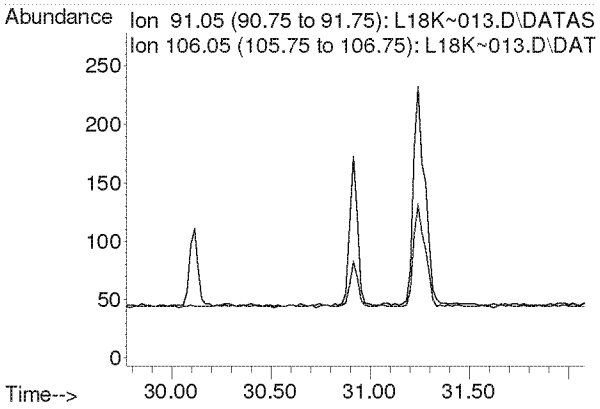


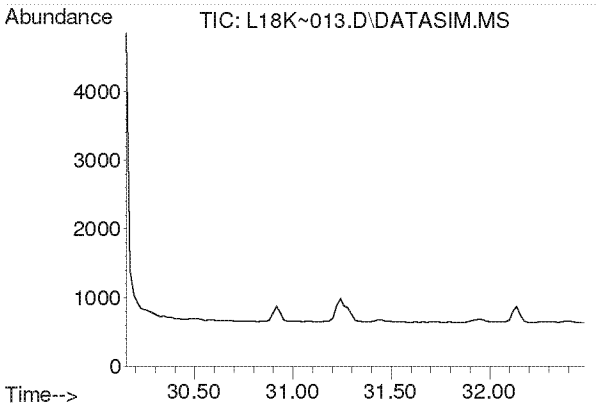
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.93 min

Lab File: L18K~013.D
Acq: 27 Nov 2018 10:04 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	31.8



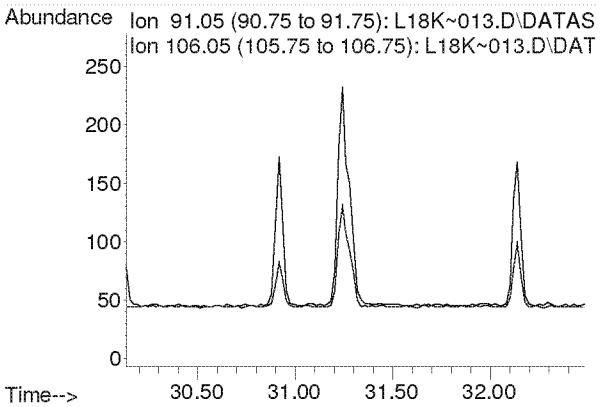


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.29 min

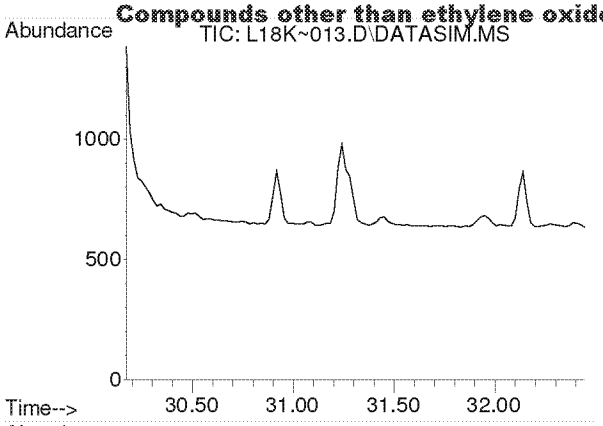
Lab File: L18K~013.D
Acq: 27 Nov 2018 10:04 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.4



Compounds other than ethylene oxide were not quantitated.

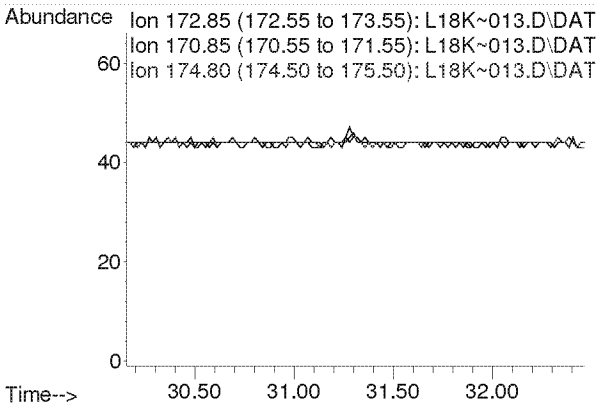


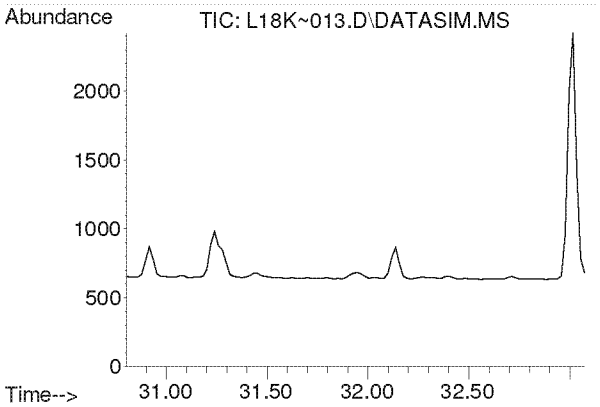
#52
Bromoform
Concen: N.D.
Expected RT: 31.30 min

Lab File: L18K~013.D
Acq: 27 Nov 2018 10:04 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.4
175	49.0



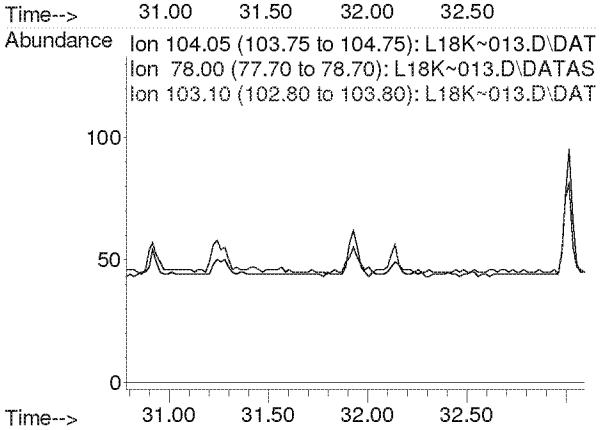


#53
Styrene
Concen: N.D.
Expected RT: 31.94 min

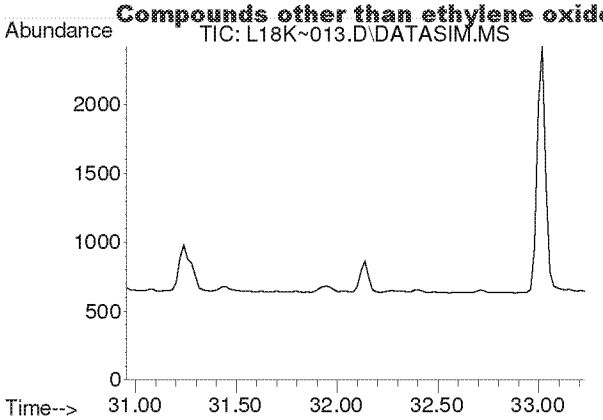
Lab File: L18K~013.D
Acq: 27 Nov 2018 10:04 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	45.7
103	0.0



Compounds other than ethylene oxide were not quantitated.

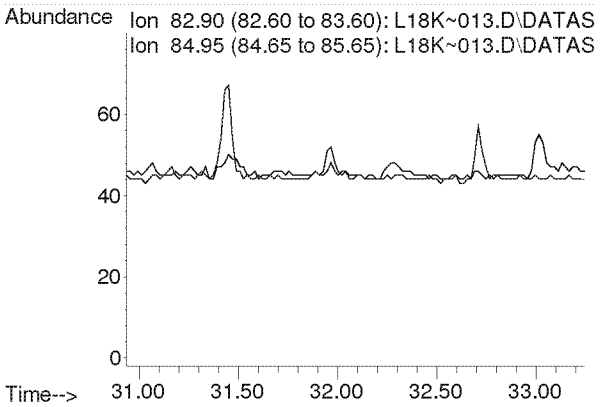


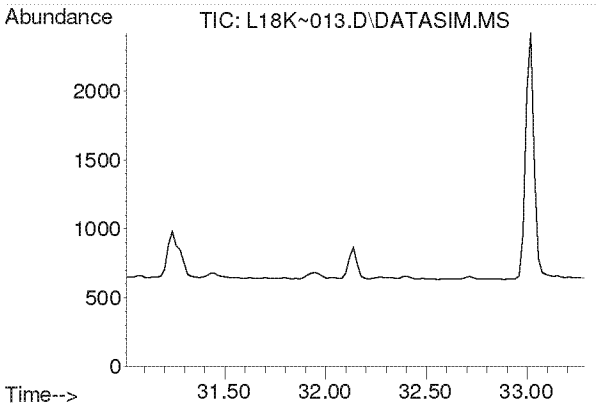
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.09 min

Lab File: L18K~013.D
Acq: 27 Nov 2018 10:04 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.3



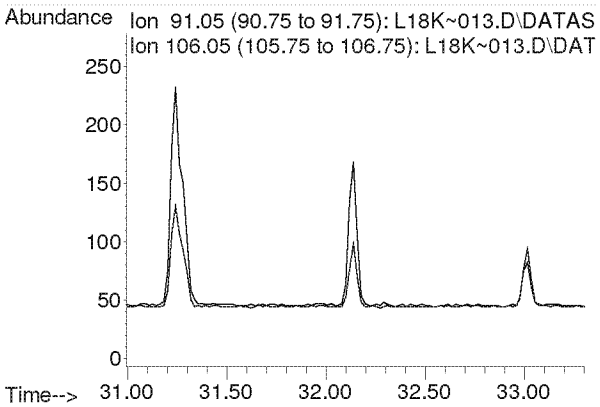


#55
o-Xylene
Concen: N.D.
Expected RT: 32.15 min

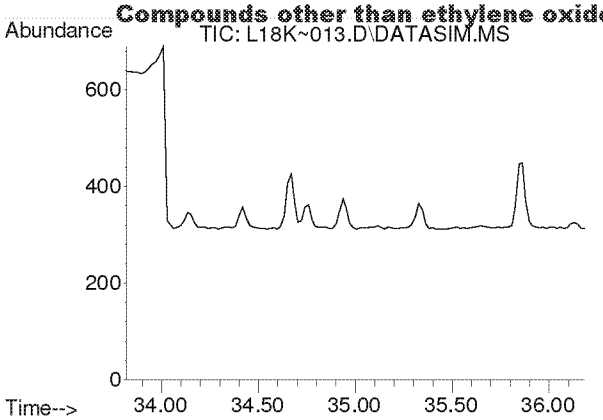
Lab File: L18K~013.D
Acq: 27 Nov 2018 10:04 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.5



Compounds other than ethylene oxide were not quantitated.

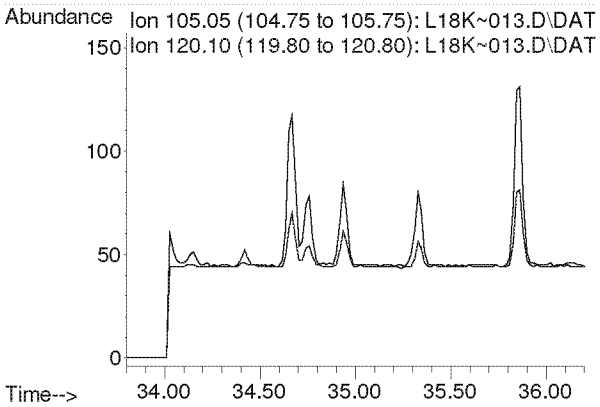


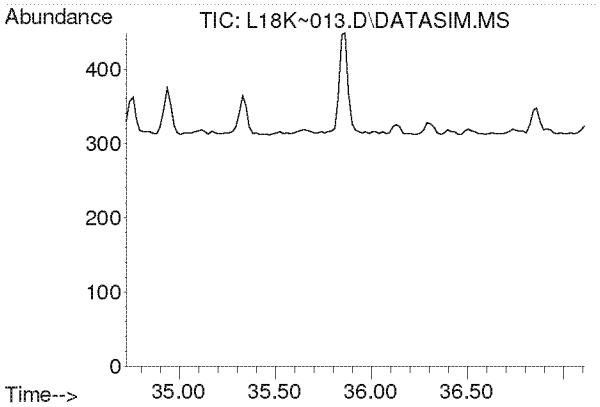
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.95 min

Lab File: L18K~013.D
Acq: 27 Nov 2018 10:04 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	45.6



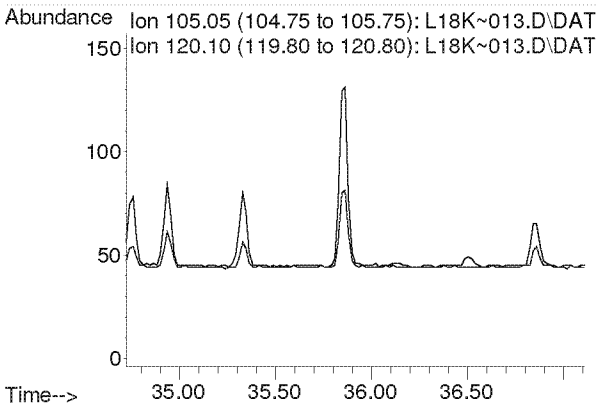


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.87 min

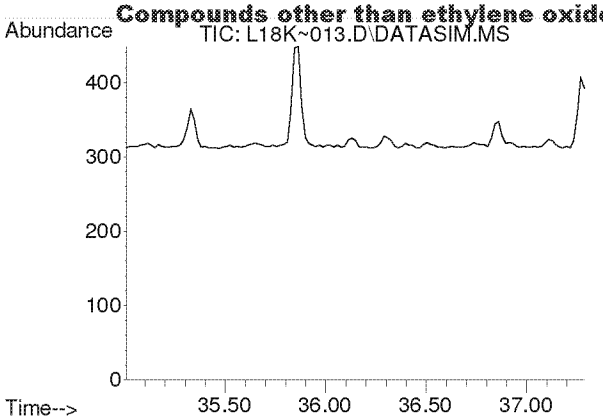
Lab File: L18K~013.D
Acq: 27 Nov 2018 10:04 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	43.4



Compounds other than ethylene oxide were not quantitated.

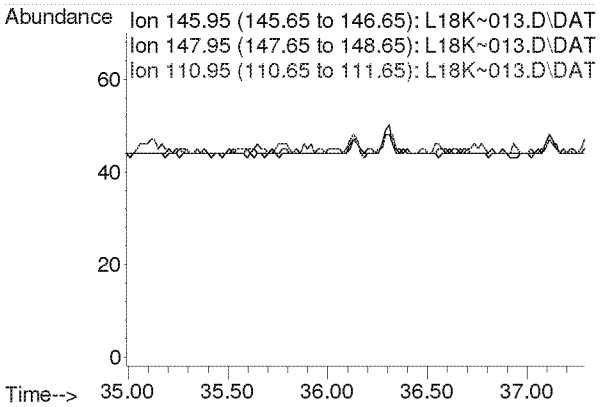


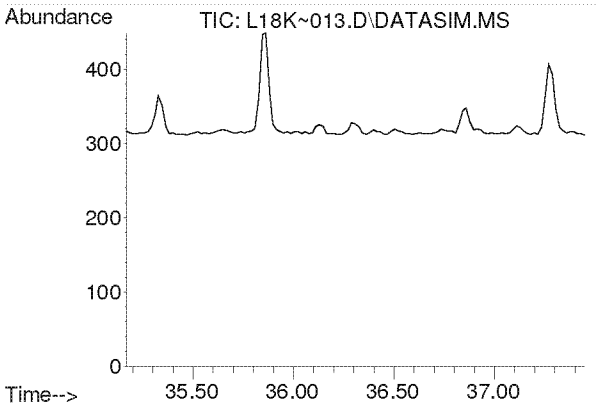
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.15 min

Lab File: L18K~013.D
Acq: 27 Nov 2018 10:04 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	41.1



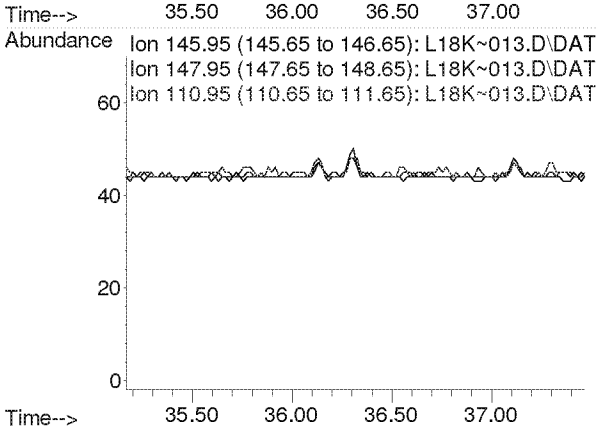


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.31 min

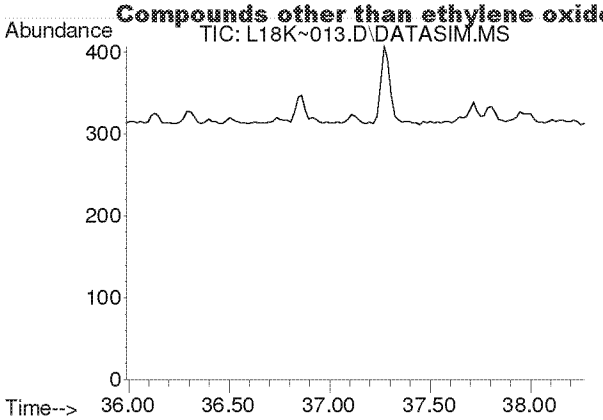
Lab File: L18K~013.D
Acq: 27 Nov 2018 10:04 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	39.8



Compounds other than ethylene oxide were not quantitated.

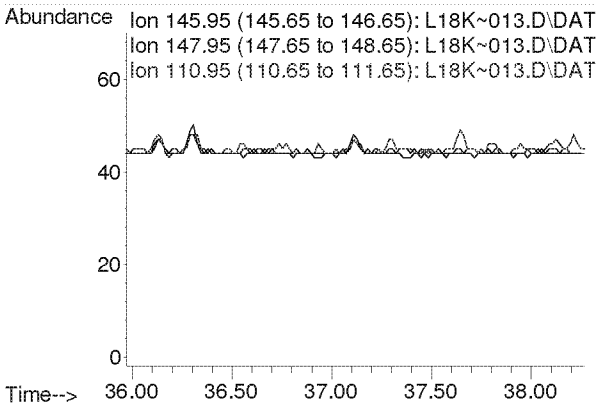


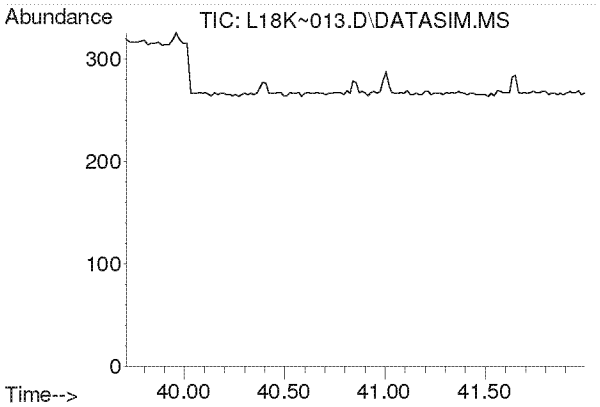
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.12 min

Lab File: L18K~013.D
Acq: 27 Nov 2018 10:04 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	63.9
111	41.8



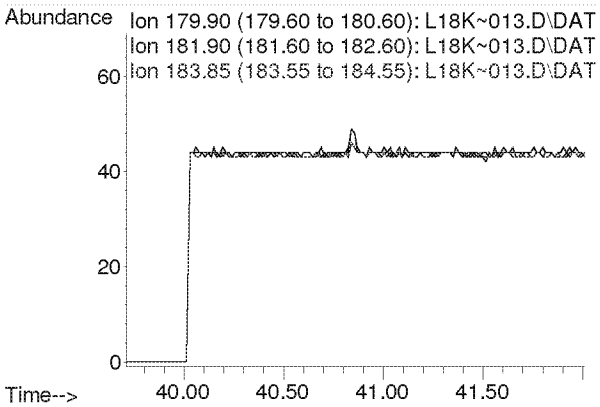


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.85 min

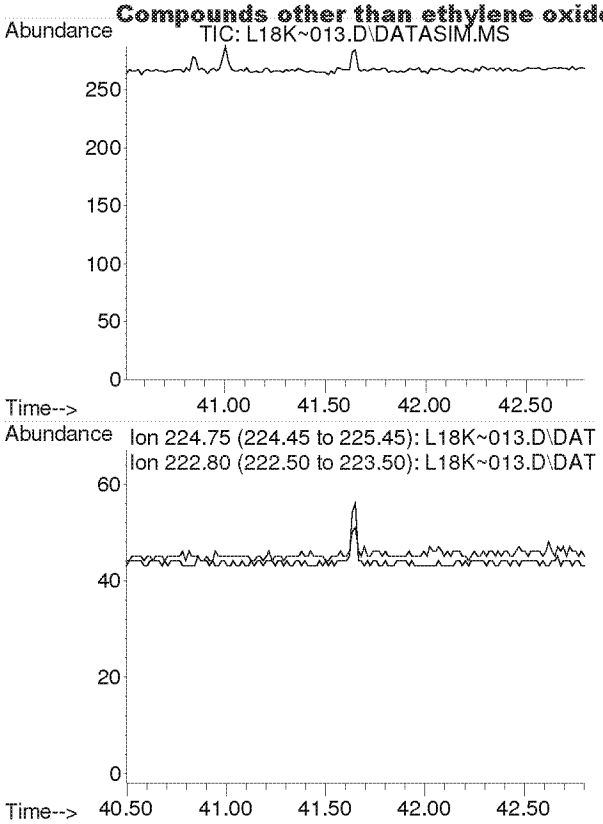
Lab File: L18K~013.D
Acq: 27 Nov 2018 10:04 pm

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	95.6
184	30.5



Compounds other than ethylene oxide were not quantitated.



#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.65 min

Lab File: L18K~013.D
Acq: 27 Nov 2018 10:04 pm

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.8

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L18K~\
Data File : L18K~014.D
Acq On : 27 Nov 2018 11:06 pm (#1); 27-Nov-18, 23:01:29 (#2)
Operator : MAH
Sample : 8112113-03
Misc : EPA WILLOW BROOK WH 11/19/18
ALS Vial : 14 Sample Multiplier: 1

11-28-18

Quant Time: Nov 28 11:28:40 2018
Quant Method : C:\msdchem\1\METHODS\8100002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Fri Oct 12 09:33:42 2018
Response via : Initial Calibration

J-MA

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.993	66	48557	4.8000 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.151	114	115227	5.0200 ppbv	-0.02
43) IS-Chlorobenzene-d5	30.116	117	79691	4.7700 ppbv	-0.01

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	9647	3.6588 ppbv	92
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.	
17) Methylene Chloride	0.000	49	0	N.D. d	
18) Carbon Disulfide	0.000	76	0	N.D. d	
19) Trichlorotrifluoroethane	0.000	101	0	N.D. d	
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.	
21) 1,1-Dichloroethane	0.000	63	0	N.D.	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D. d	
23) Chloroprene	0.000	53	0	N.D. d	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D. d	
25) Bromochloromethane	0.000	128	0	N.D.	
26) Chloroform	0.000	83	0	N.D. d	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D.	
28) 1,2-Dichloroethane	0.000	62	0	N.D. d	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D.	
31) Benzene	0.000	78	0	N.D. d	
32) Carbon Tetrachloride	0.000	117	0	N.D. d	
33) tert-Amyl Methyl Ether	0.000	73	0	N.D.	
34) 1,2-Dichloropropane	0.000	63	0	N.D. d	
35) Ethyl Acrylate	0.000	55	0	N.D.	
36) Bromodichloromethane	0.000	83	0	N.D.	
37) Trichloroethylene	0.000	130	0	N.D.	
38) Methyl Methacrylate	0.000	41	0	N.D.	
39) cis-1,3-Dichloropropene	0.000	75	0	N.D.	
40) Methyl Isobutyl Ketone	0.000	43	0	N.D. d	
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.	
44) Toluene	0.000	91	0	N.D. d	
45) Dibromochloromethane	0.000	129	0	N.D.	
46) 1,2-Dibromoethane	0.000	107	0	N.D.	
47) n-Octane	0.000	43	0	N.D. d	
48) Tetrachloroethylene	0.000	166	0	N.D. d	
49) Chlorobenzene	0.000	112	0	N.D.	
50) Ethylbenzene	0.000	91	0	N.D. d	

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L18K~\
Data File : L18K~014.D
Acq On : 27 Nov 2018 11:06 pm (#1); 27-Nov-18, 23:01:29 (#2)
Operator : MAH
Sample : 8112113-03
Misc : EPA WILLOW, BROOK WH 11/19/18
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Nov 28 11:28:40 2018
Quant Method : C:\msdchem\1\METHODS\8100002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Fri Oct 12 09:33:42 2018
Response via : Initial Calibration

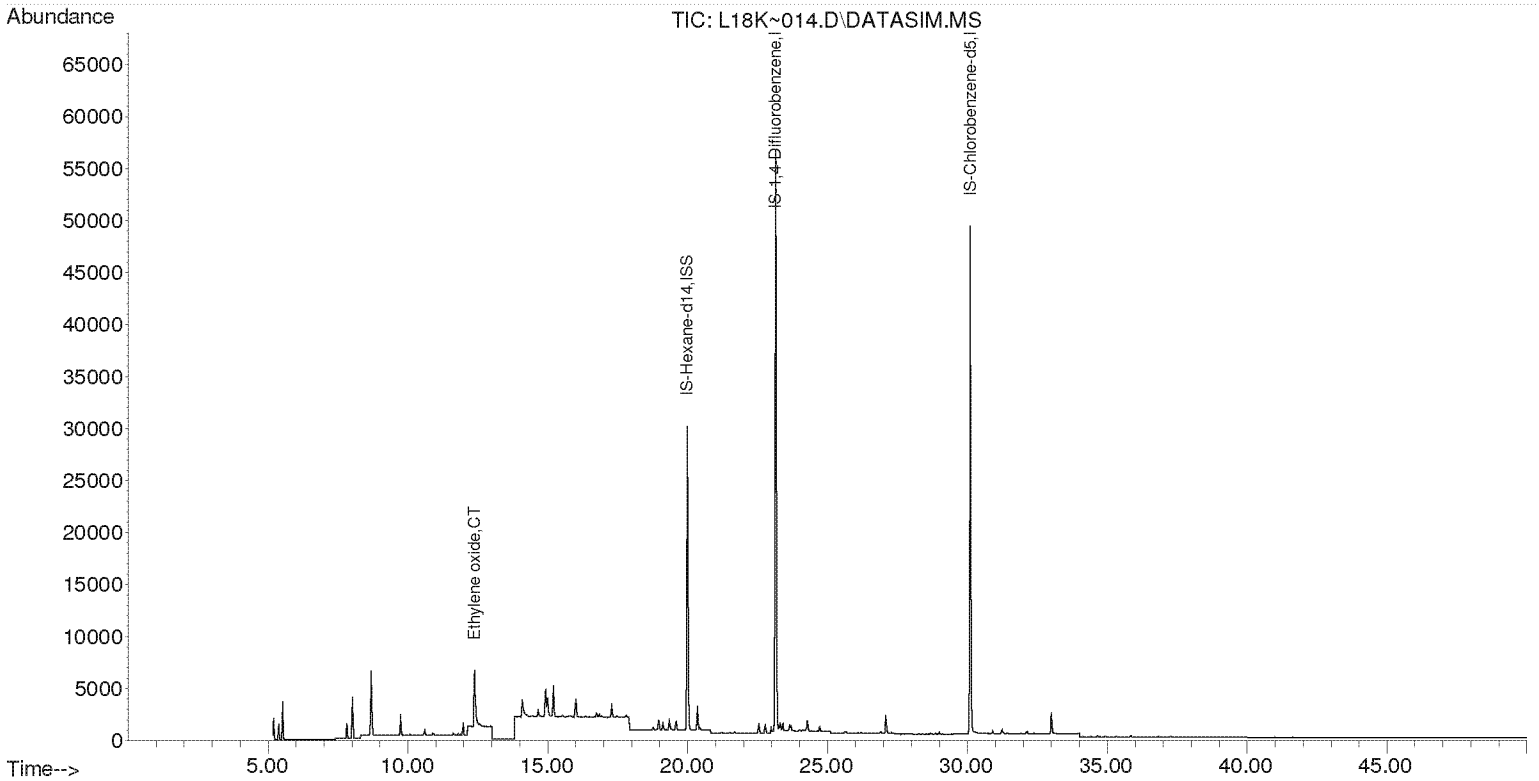
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D.	d
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	d
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D.	d
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	d
57) 1,2,4-Trimethylbenzene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

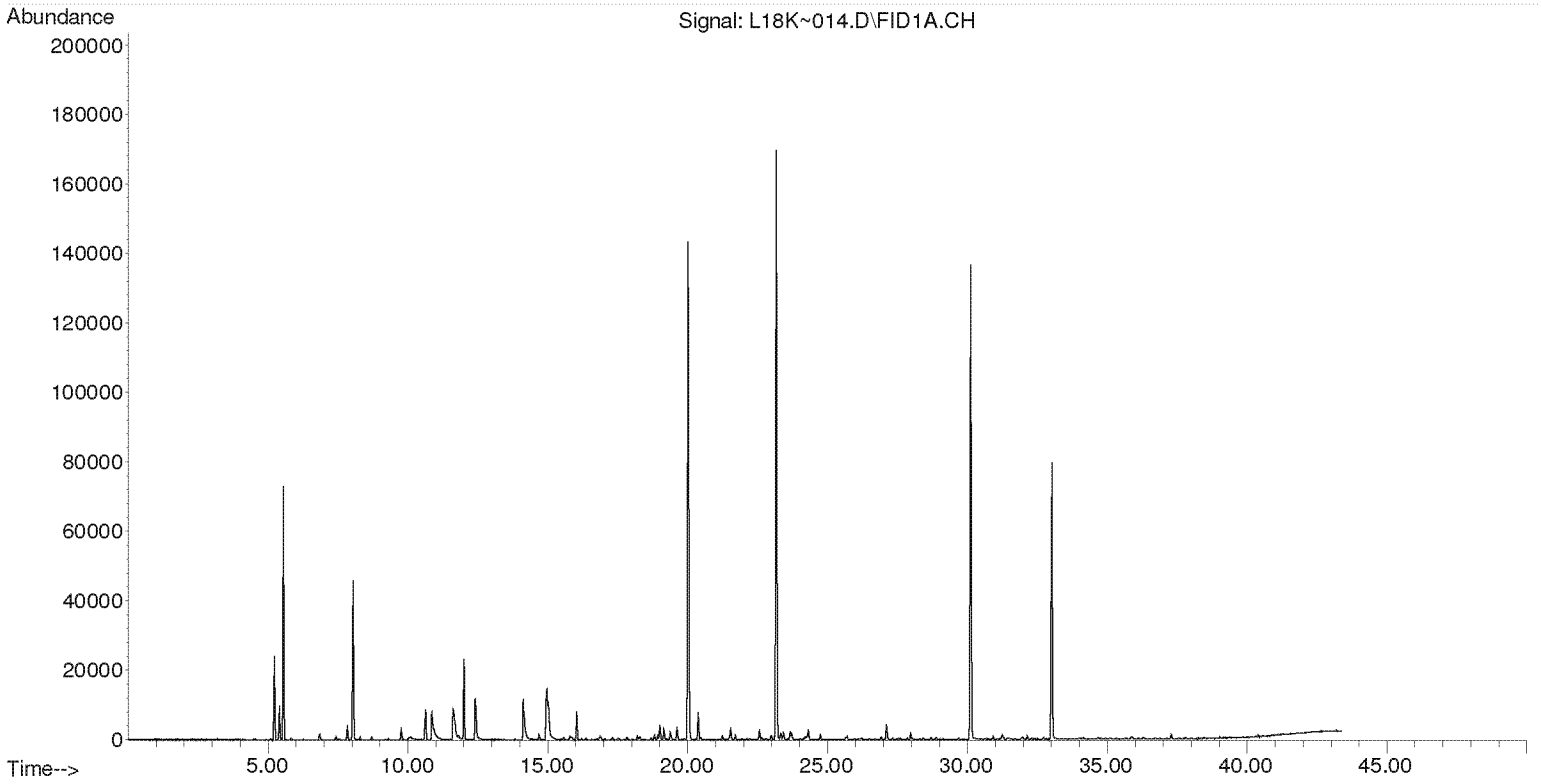
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Compounds other than ethylene oxide were not quantitated.

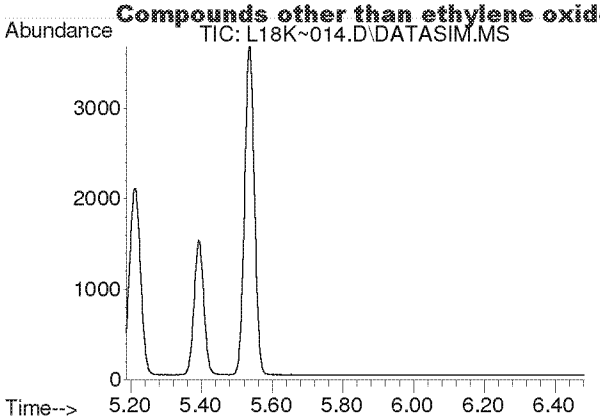
Data Path : Y:\MASS SPEC 1 DATA\L18K~\
Data File : L18K~014.D
Acq On : 27 Nov 2018 11:06 pm (#1); 27 Nov 2018 11:01 pm (#2)
Operator : MAH
Sample : 8112113-03
Misc : EPA WILLOW BROOK WH 11/19/18
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Nov 28 08:10:18 2018
Quant Method : C:\msdchem\1\METHODS\8100002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Fri Oct 12 09:33:42 2018
Response via : Initial Calibration





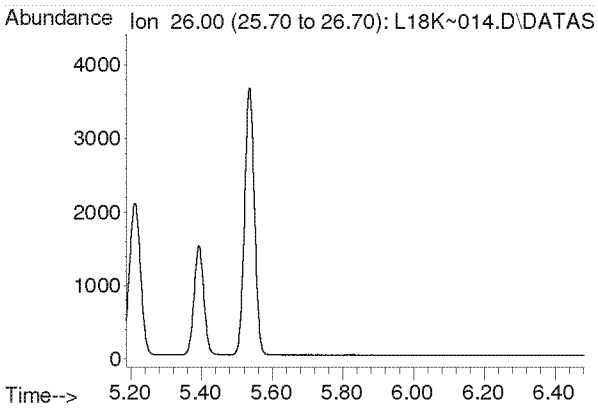
Compounds other than ethylene oxide were not quantitated.

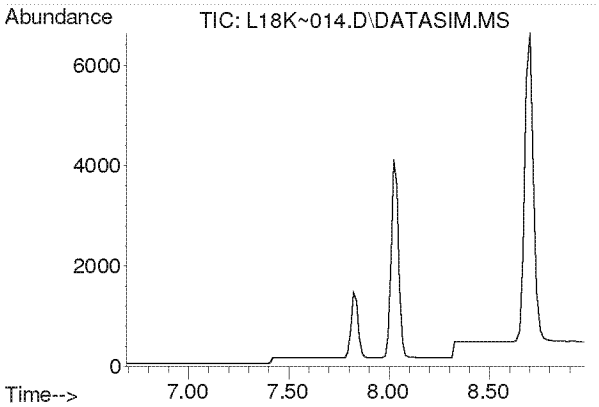


#2
Acetylene
Concen: N.D.
Expected RT: 5.41 min

Lab File: L18K~014.D
Acq: 27 Nov 2018 11:06 pm

Tgt Ion: 26



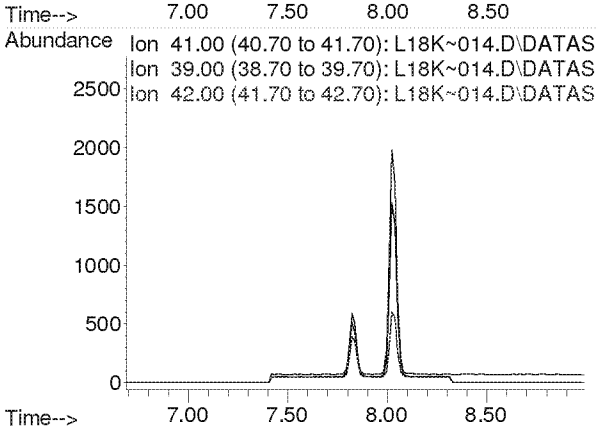


#3
Propylene
Concen: N.D.
Expected RT: 7.84 min

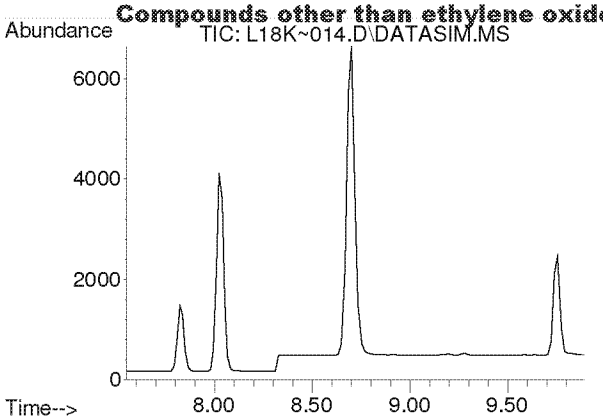
Lab File: L18K~014.D
Acq: 27 Nov 2018 11:06 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	81.2
42	65.4



Compounds other than ethylene oxide were not quantitated.

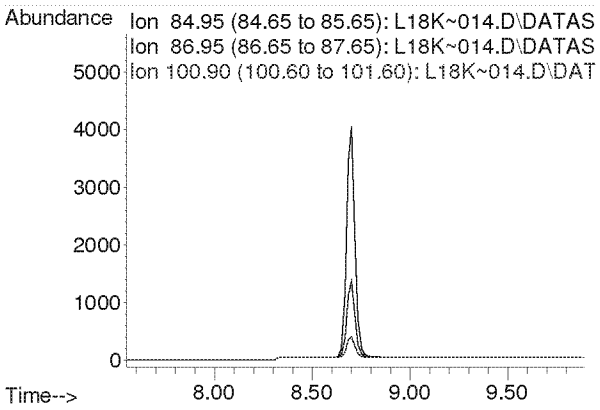


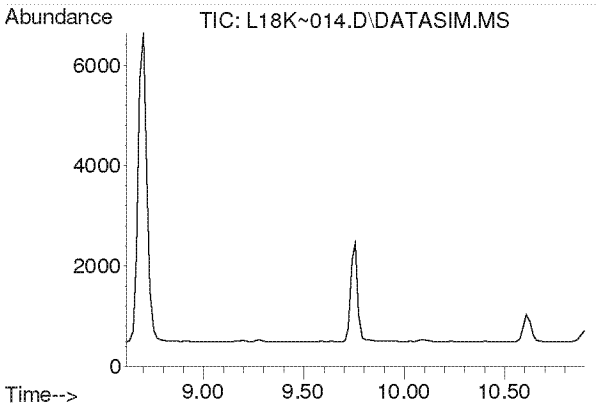
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.69 min

Lab File: L18K~014.D
Acq: 27 Nov 2018 11:06 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.3
101	9.0



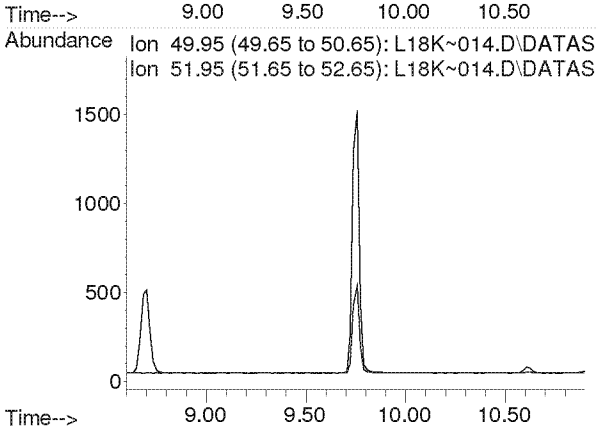


#5
Chloromethane
Concen: N.D.
Expected RT: 9.76 min

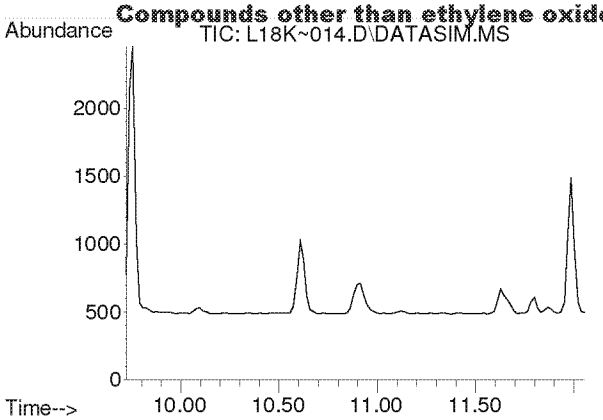
Lab File: L18K~014.D
Acq: 27 Nov 2018 11:06 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.2



Compounds other than ethylene oxide were not quantitated.

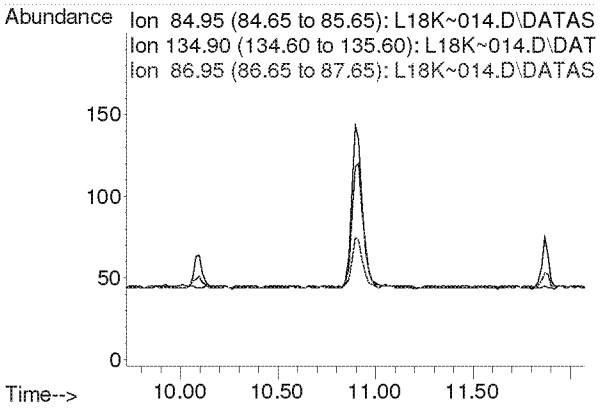


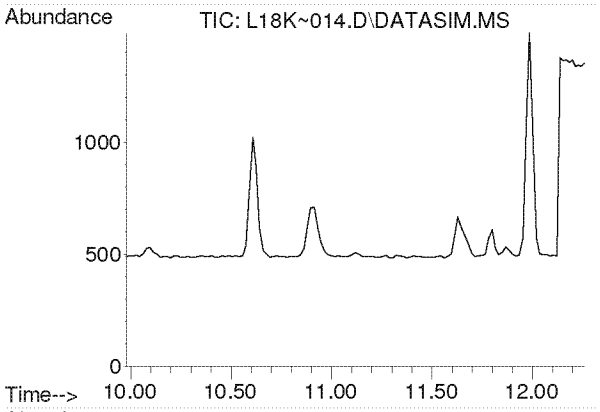
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.87 min

Lab File: L18K~014.D
Acq: 27 Nov 2018 11:06 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.6
87	32.1



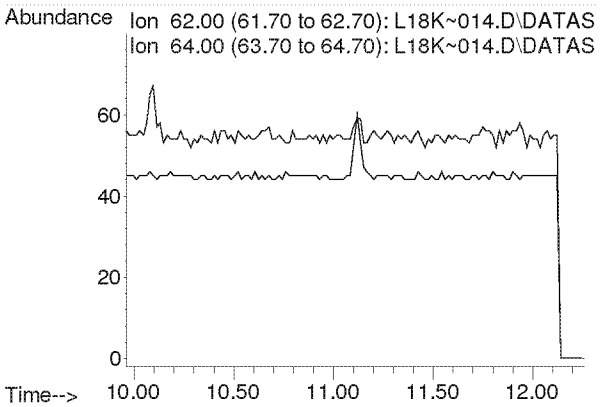


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

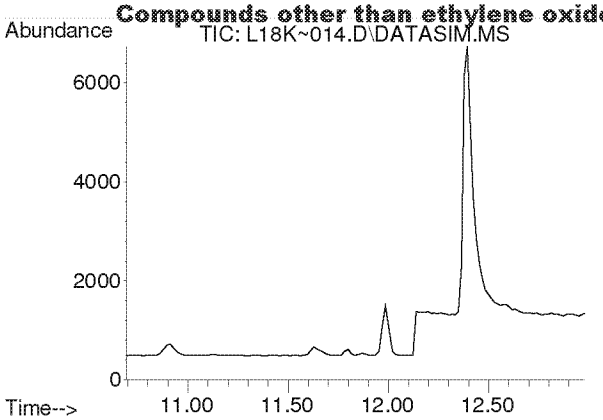
Lab File: L18K~014.D
Acq: 27 Nov 2018 11:06 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	32.0



Compounds other than ethylene oxide were not quantitated.

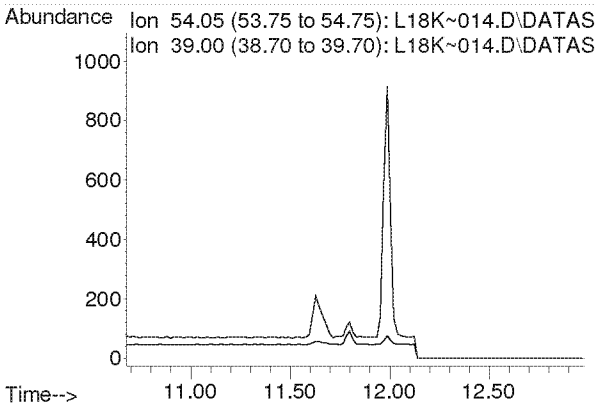


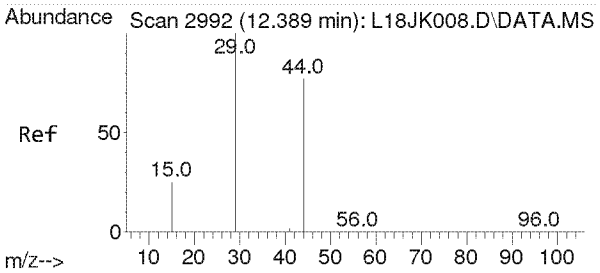
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.79 min

Lab File: L18K~014.D
Acq: 27 Nov 2018 11:06 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	108.7

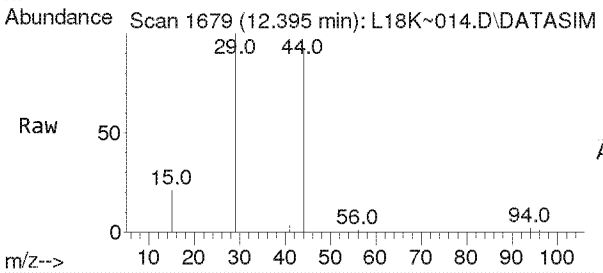


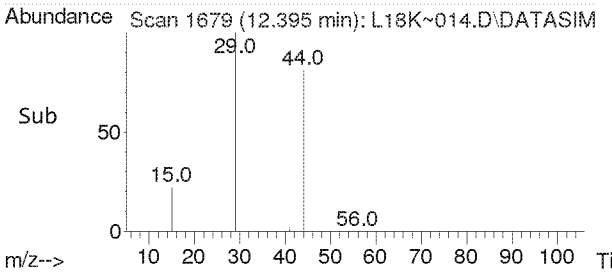


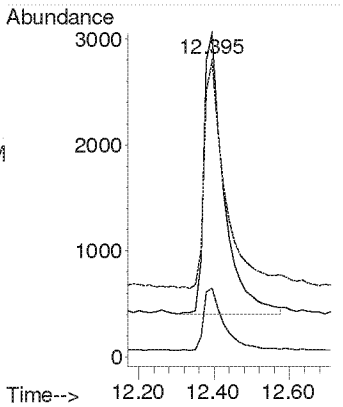
#9
Ethylene oxide
Concen: 3.659 ppbv
RT: 12.395 min Scan# 1679
Delta R.T. 0.006 min
Lab File: L18K~014.D
Acq: 27 Nov 2018 11:06 pm

Tgt Ion: 29 Resp: 9647

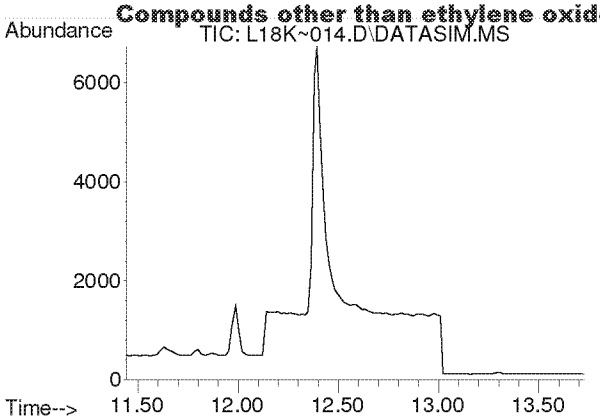
Ion	Ratio	Lower	Upper
29	100		
15	22.6	20.1	30.1
44	85.8	62.6	93.8







Compounds other than ethylene oxide were not quantitated.

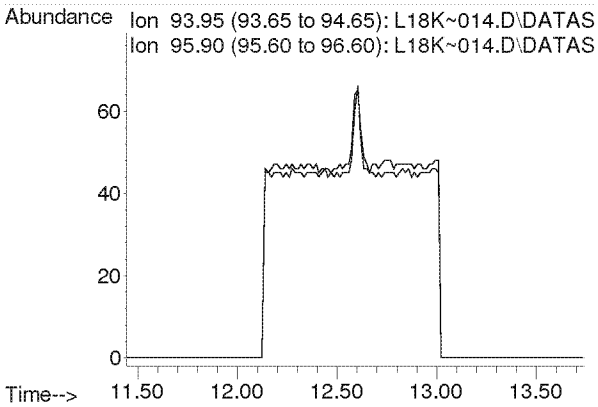


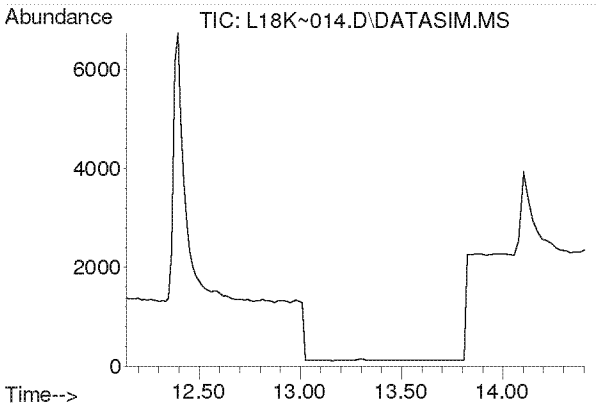
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L18K~014.D
Acq: 27 Nov 2018 11:06 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



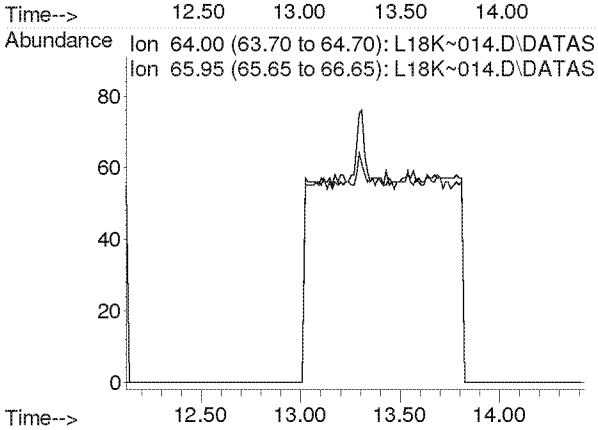


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

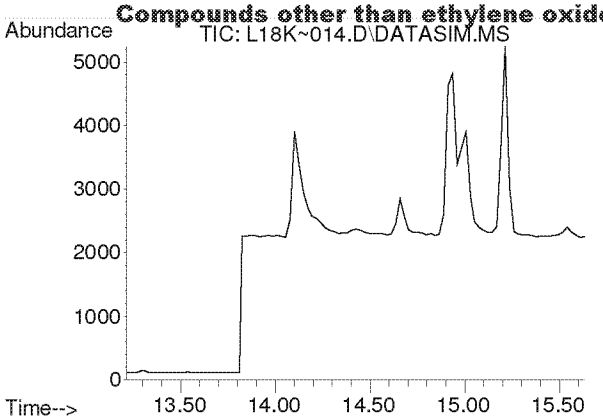
Lab File: L18K~014.D
Acq: 27 Nov 2018 11:06 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

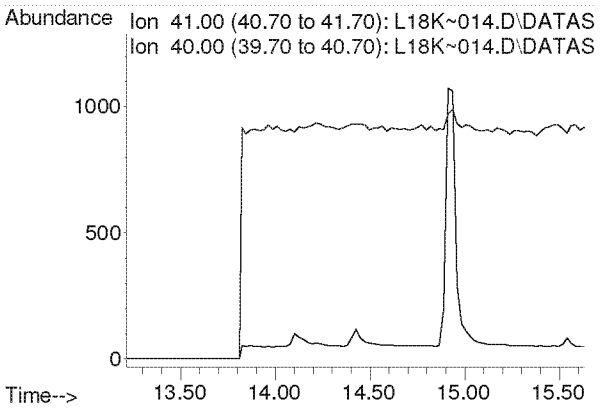


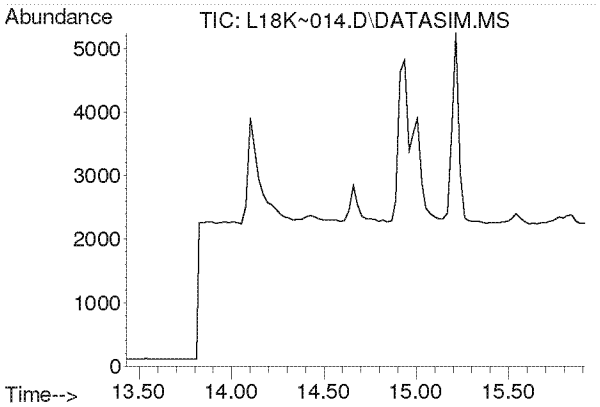
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.34 min

Lab File: L18K~014.D
Acq: 27 Nov 2018 11:06 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	53.9



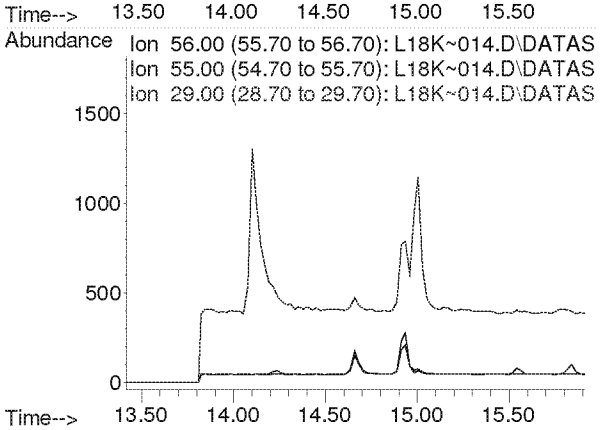


#13
Acrolein
Concen: N.D.
Expected RT: 14.62 min

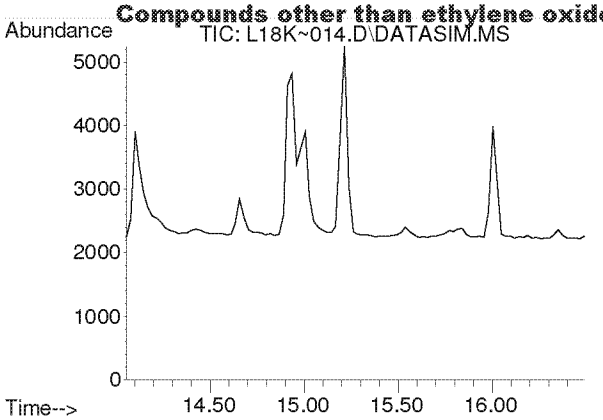
Lab File: L18K~014.D
Acq: 27 Nov 2018 11:06 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	77.4
29	61.5



Compounds other than ethylene oxide were not quantitated.

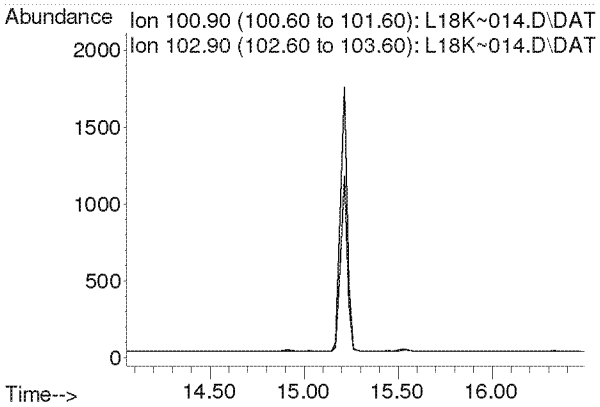


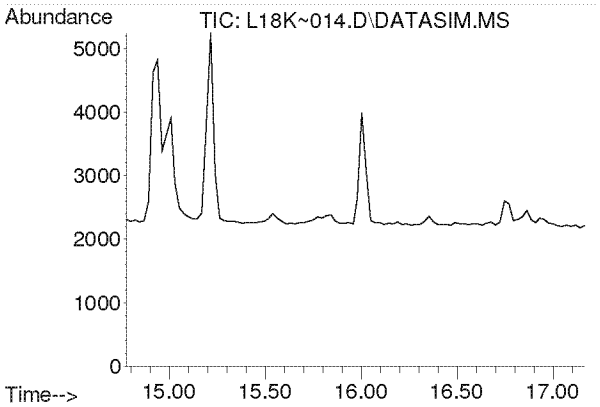
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.20 min

Lab File: L18K~014.D
Acq: 27 Nov 2018 11:06 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.7



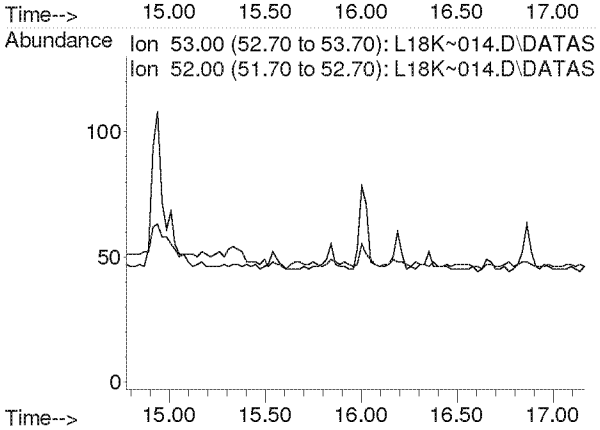


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.92 min

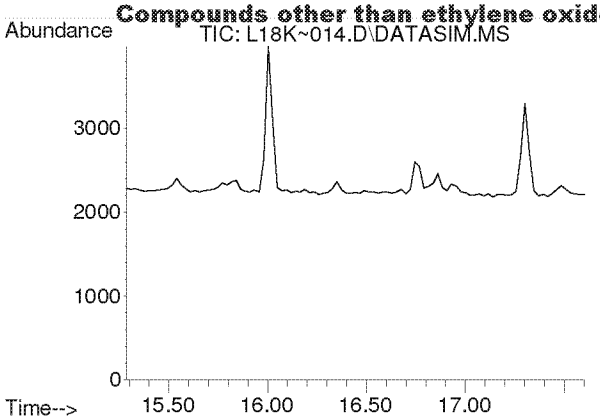
Lab File: L18K~014.D
Acq: 27 Nov 2018 11:06 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	87.1



Compounds other than ethylene oxide were not quantitated.

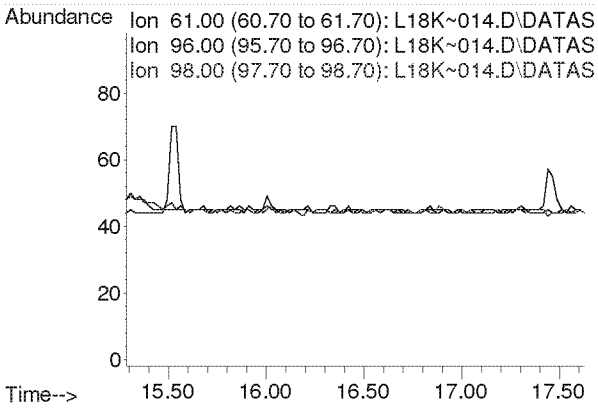


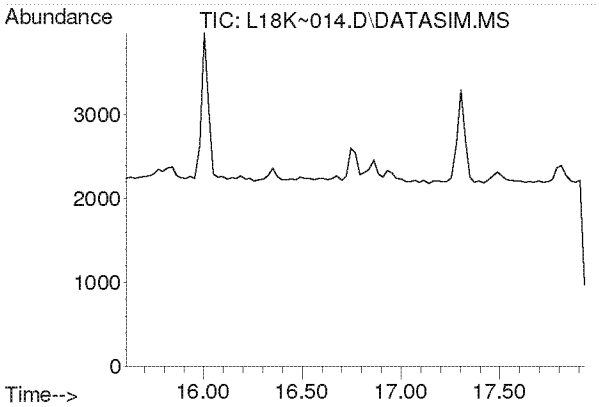
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L18K~014.D
Acq: 27 Nov 2018 11:06 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	57.6
98	36.8



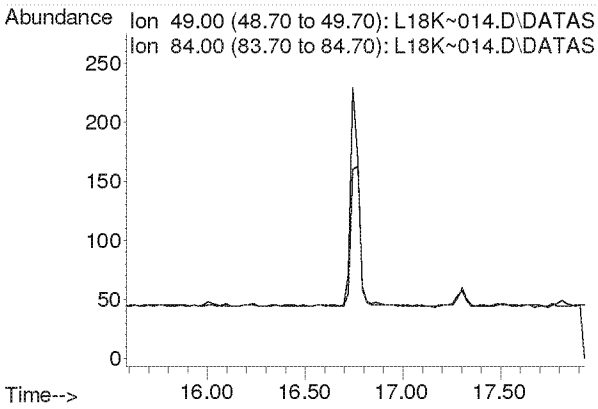


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

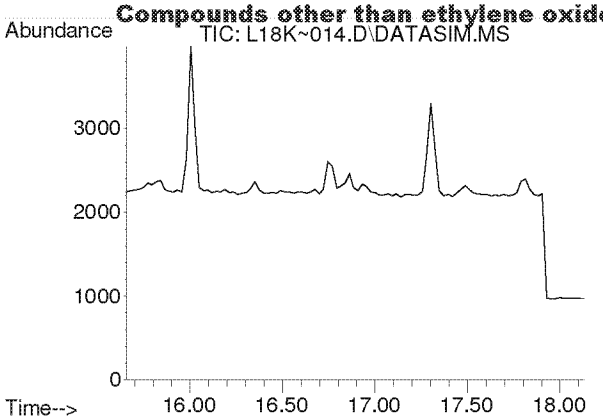
Lab File: L18K~014.D
Acq: 27 Nov 2018 11:06 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	74.2



Compounds other than ethylene oxide were not quantitated.

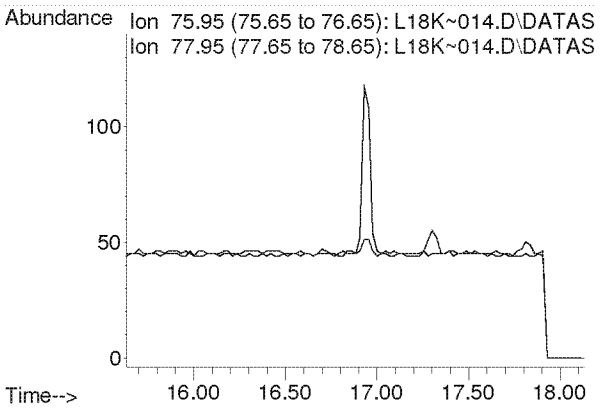


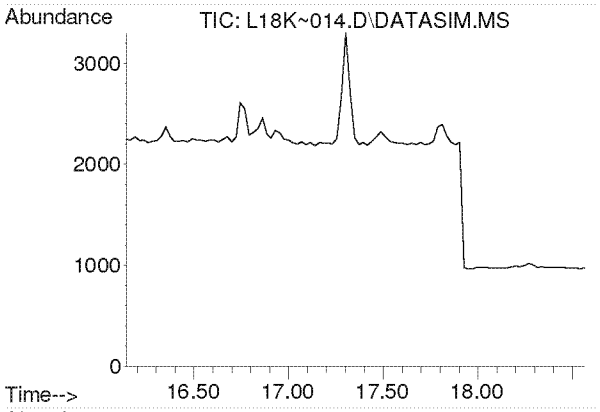
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.94 min

Lab File: L18K~014.D
Acq: 27 Nov 2018 11:06 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.1



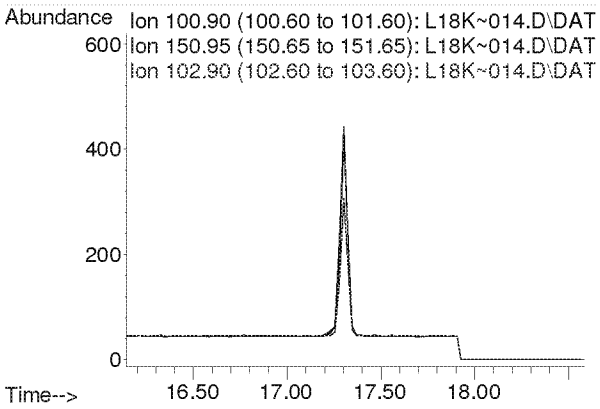


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.29 min

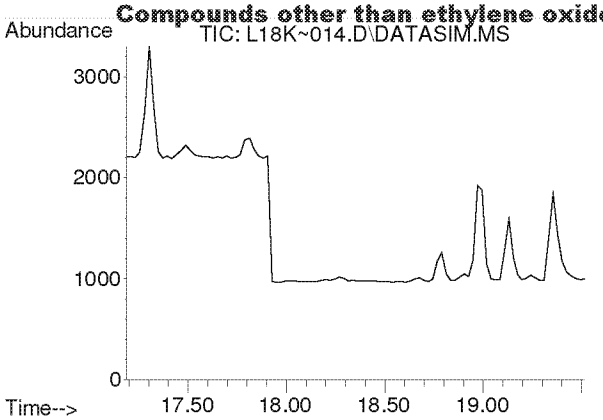
Lab File: L18K~014.D
Acq: 27 Nov 2018 11:06 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	96.0
103	64.3



Compounds other than ethylene oxide were not quantitated.

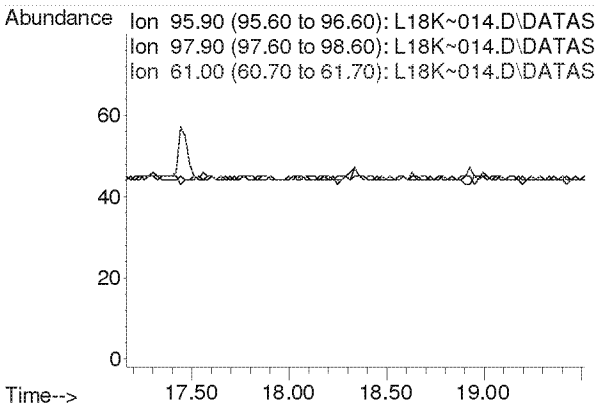


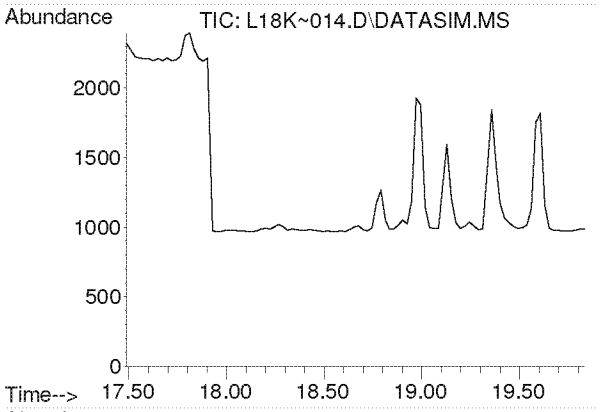
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.33 min

Lab File: L18K~014.D
Acq: 27 Nov 2018 11:06 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	63.6
61	156.3



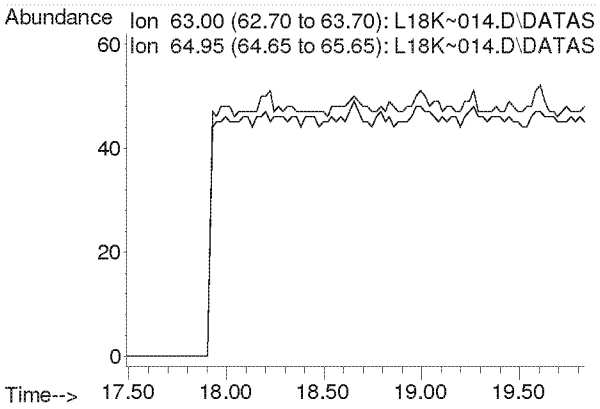


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.64 min

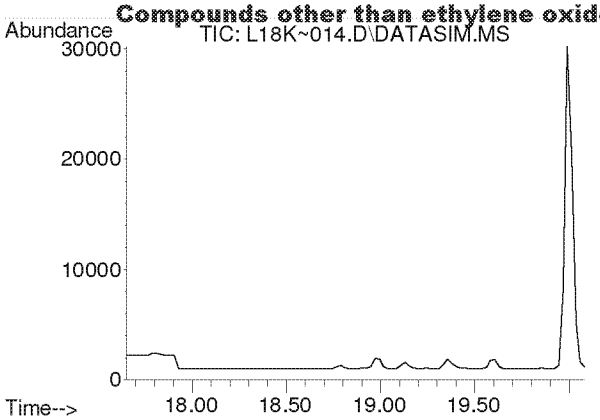
Lab File: L18K~014.D
Acq: 27 Nov 2018 11:06 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	32.1



Compounds other than ethylene oxide were not quantitated.

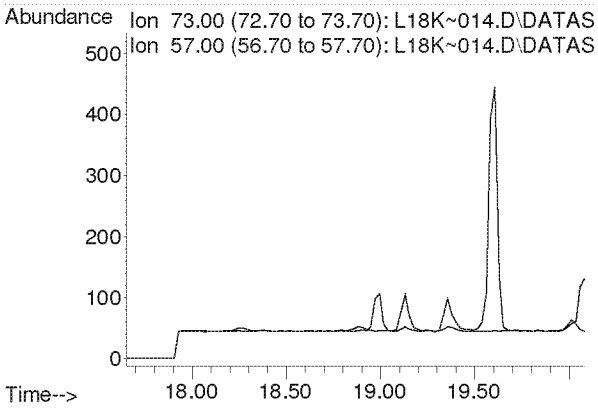


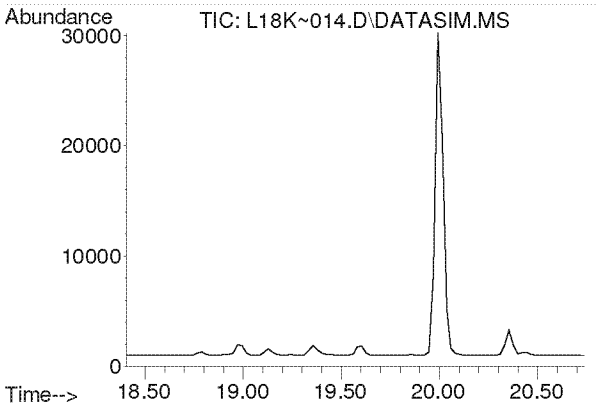
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L18K~014.D
Acq: 27 Nov 2018 11:06 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.0



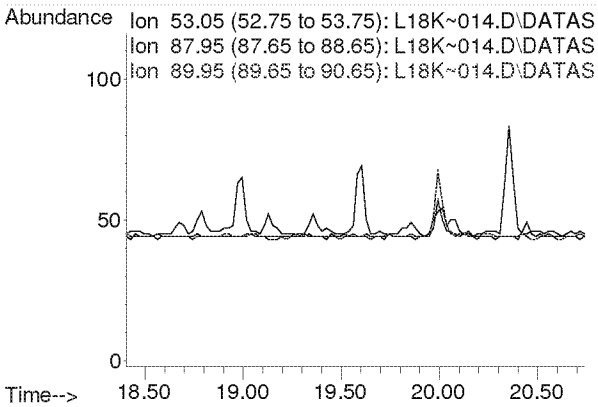


#23
Chloroprene
Concen: N.D.
Expected RT: 19.55 min

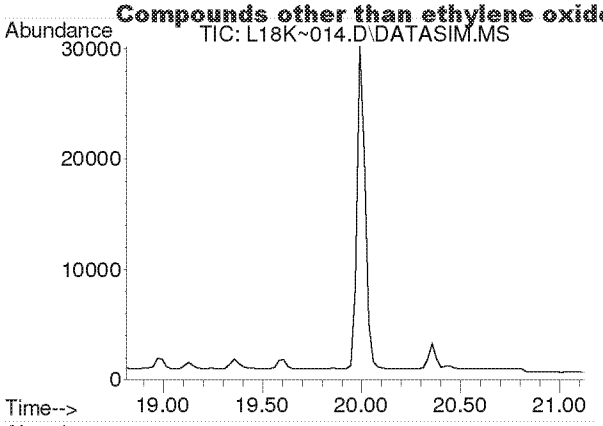
Lab File: L18K~014.D
Acq: 27 Nov 2018 11:06 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	51.5
90	16.6



Compounds other than ethylene oxide were not quantitated.

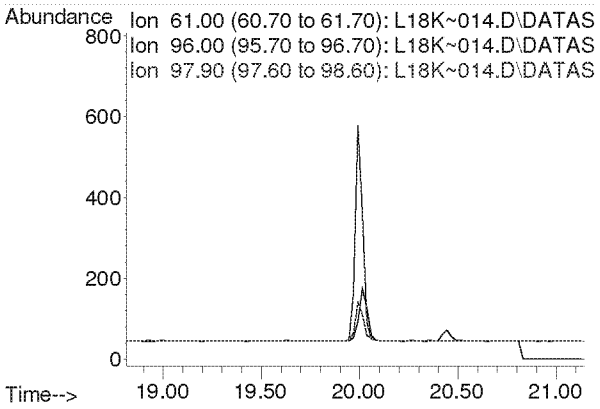


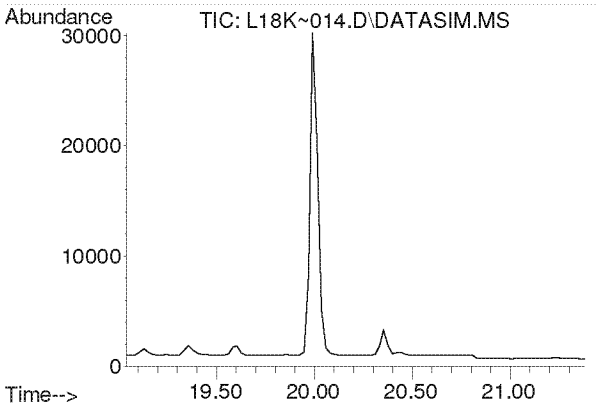
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.96 min

Lab File: L18K~014.D
Acq: 27 Nov 2018 11:06 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.5
98	46.2



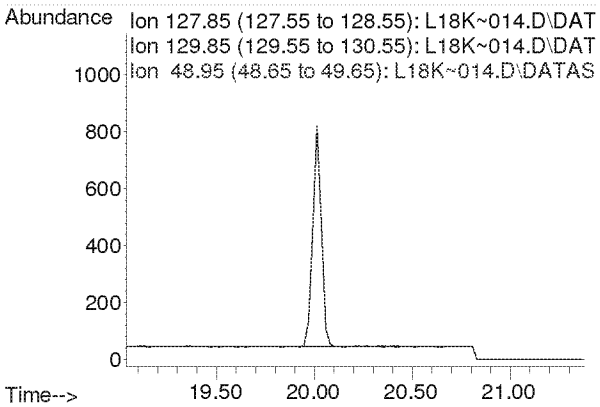


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.18 min

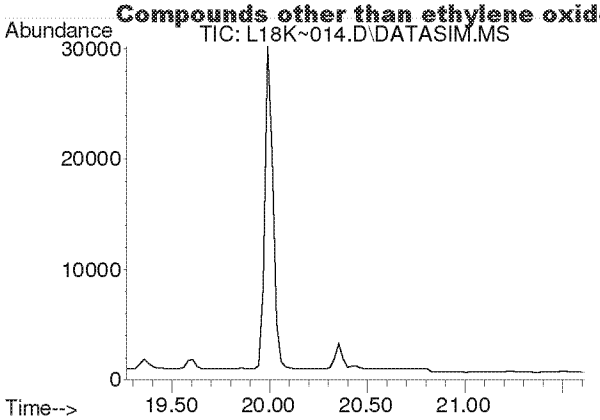
Lab File: L18K~014.D
Acq: 27 Nov 2018 11:06 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	128.9
49	167.9



Compounds other than ethylene oxide were not quantitated.

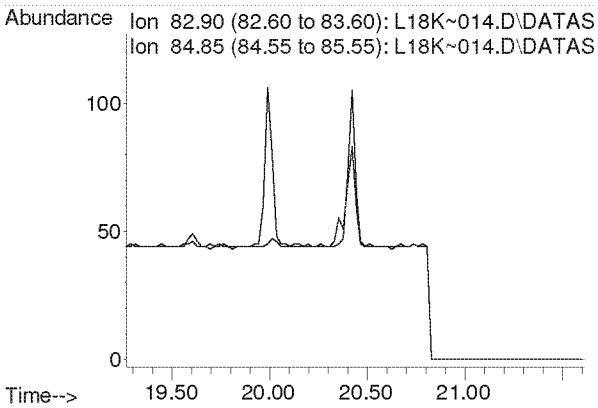


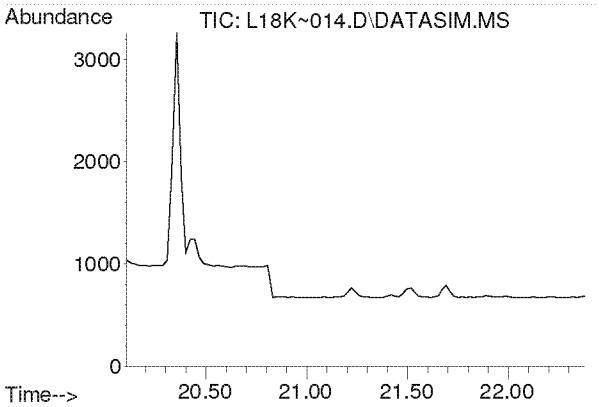
#26
Chloroform
Concen: N.D.
Expected RT: 20.42 min

Lab File: L18K~014.D
Acq: 27 Nov 2018 11:06 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



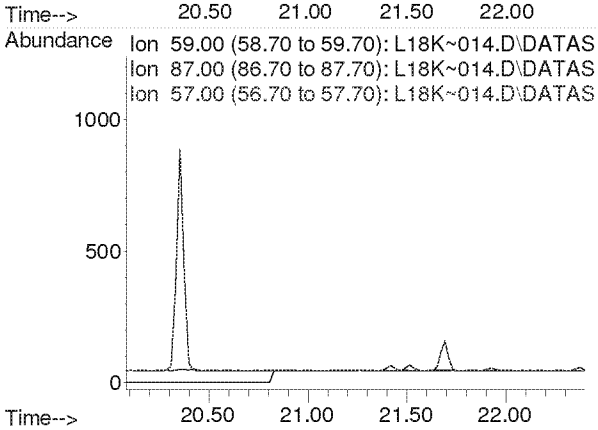


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.19 min

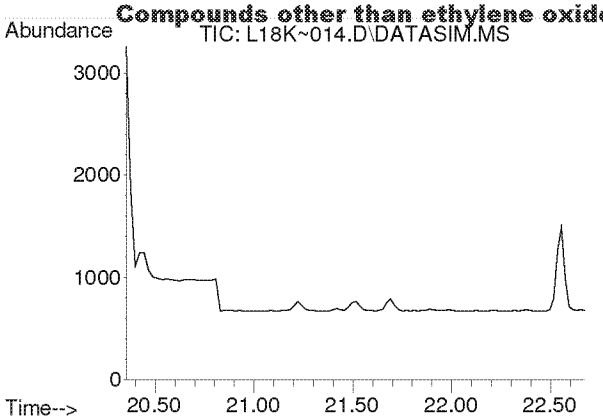
Lab File: L18K~014.D
Acq: 27 Nov 2018 11:06 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	38.5
57	34.0



Compounds other than ethylene oxide were not quantitated.

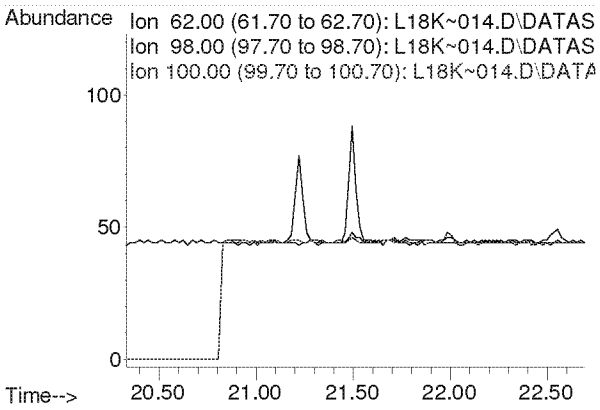


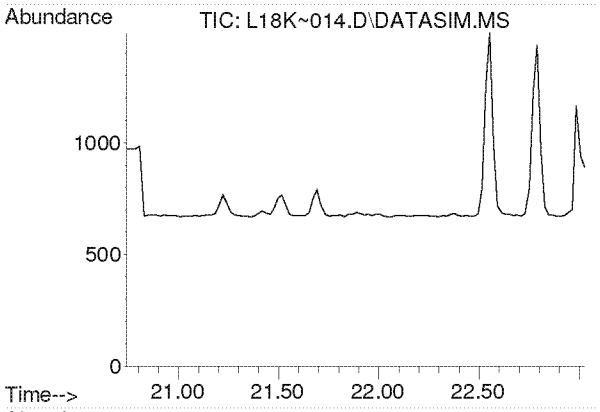
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.49 min

Lab File: L18K~014.D
Acq: 27 Nov 2018 11:06 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.0
100	3.9



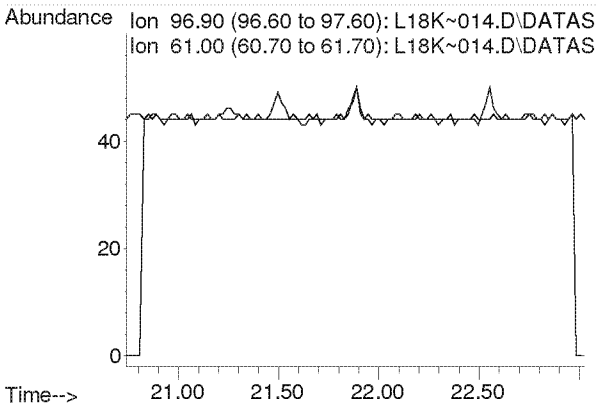


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.88 min

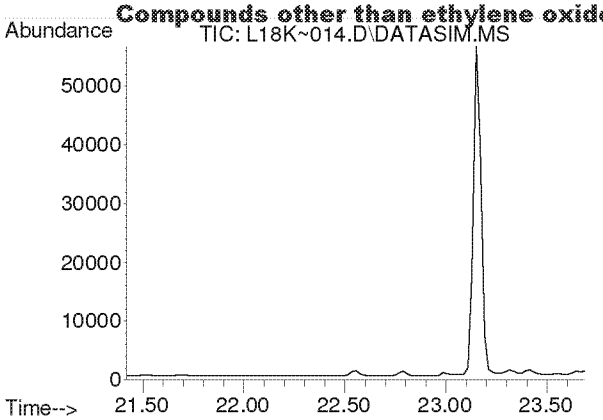
Lab File: L18K~014.D
Acq: 27 Nov 2018 11:06 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	59.6



Compounds other than ethylene oxide were not quantitated.

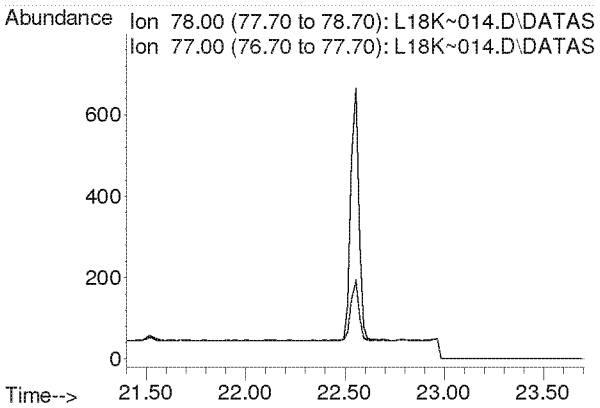


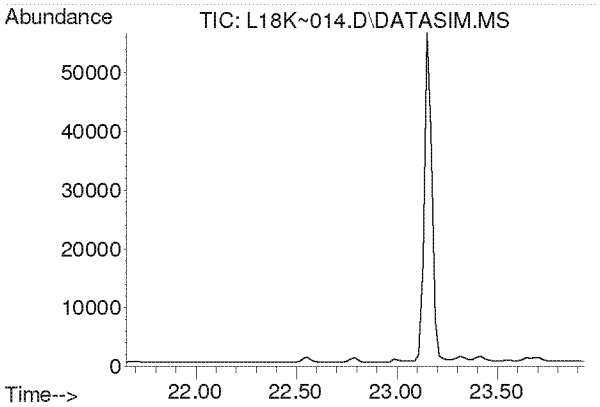
#31
Benzene
Concen: N.D.
Expected RT: 22.56 min

Lab File: L18K~014.D
Acq: 27 Nov 2018 11:06 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.9



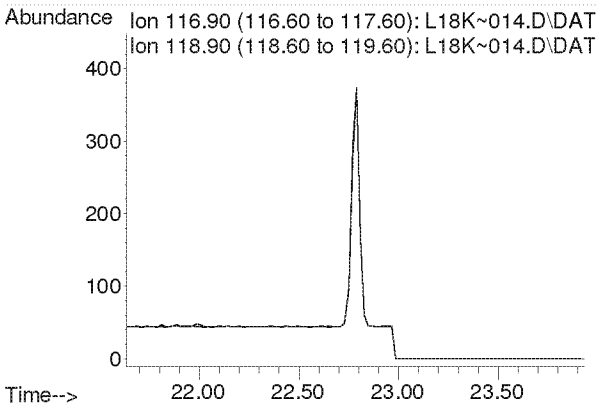


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.79 min

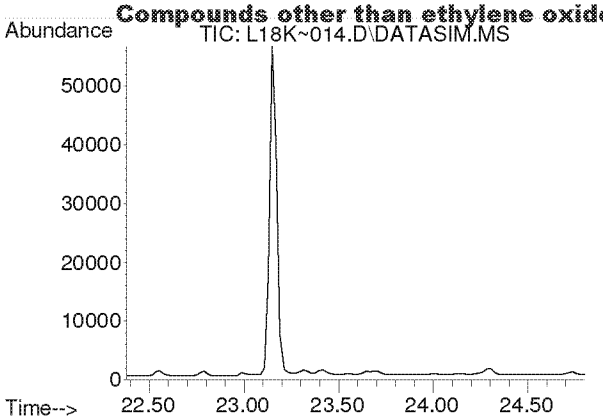
Lab File: L18K~014.D
Acq: 27 Nov 2018 11:06 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.9



Compounds other than ethylene oxide were not quantitated.

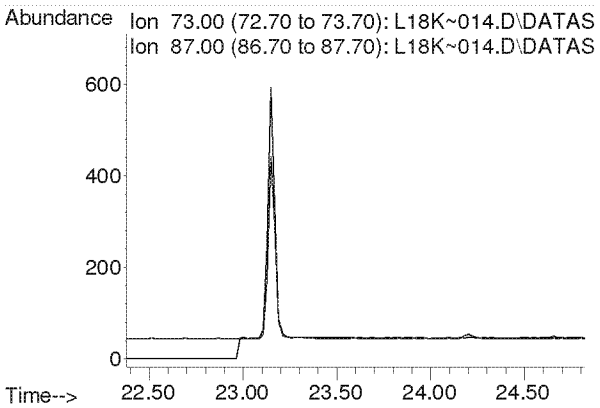


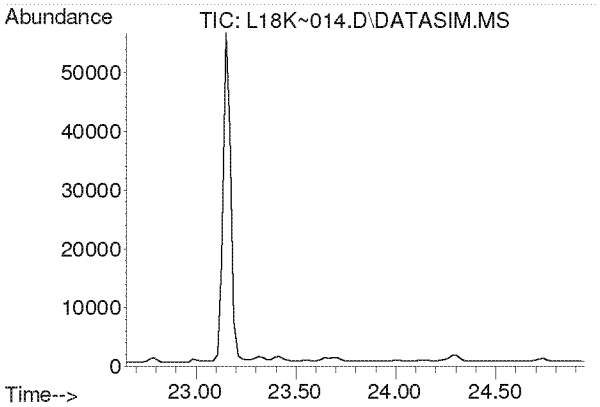
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L18K~014.D
Acq: 27 Nov 2018 11:06 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



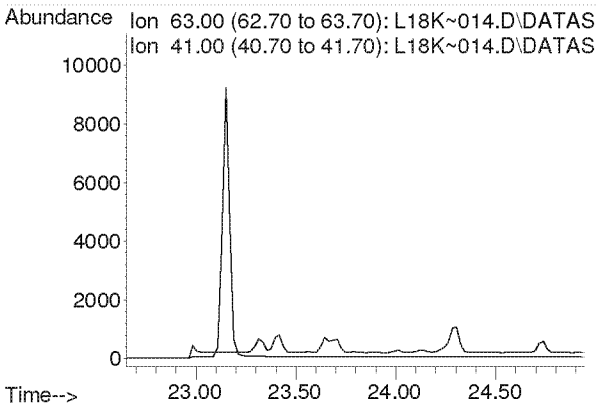


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.80 min

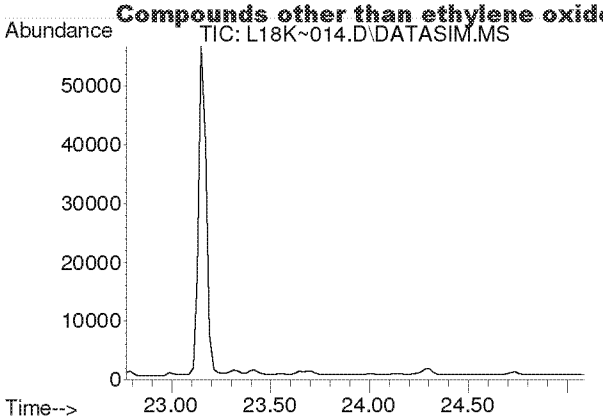
Lab File: L18K~014.D
Acq: 27 Nov 2018 11:06 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	222.1



Compounds other than ethylene oxide were not quantitated.

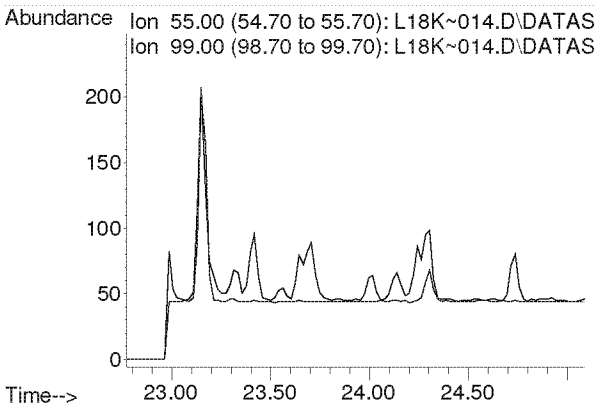


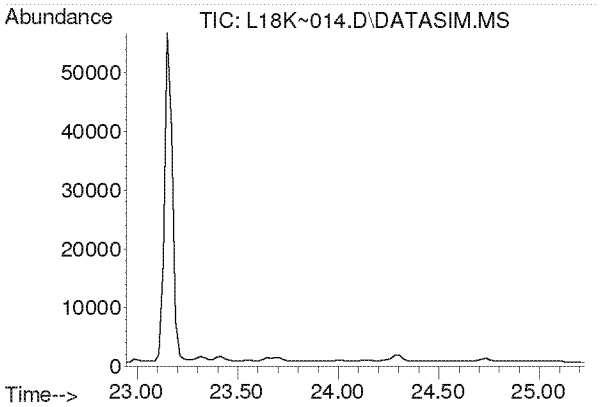
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L18K~014.D
Acq: 27 Nov 2018 11:06 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



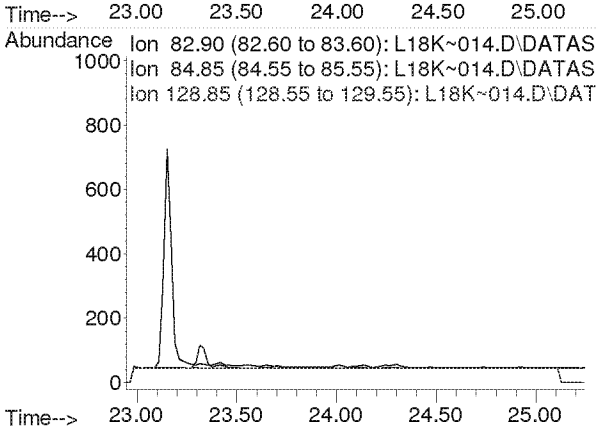


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.09 min

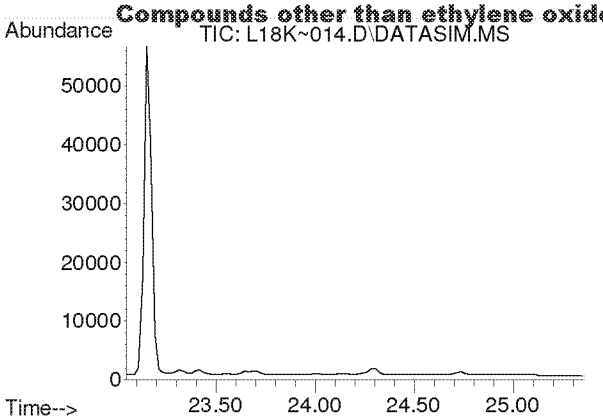
Lab File: L18K~014.D
Acq: 27 Nov 2018 11:06 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.9
129	12.9



Compounds other than ethylene oxide were not quantitated.

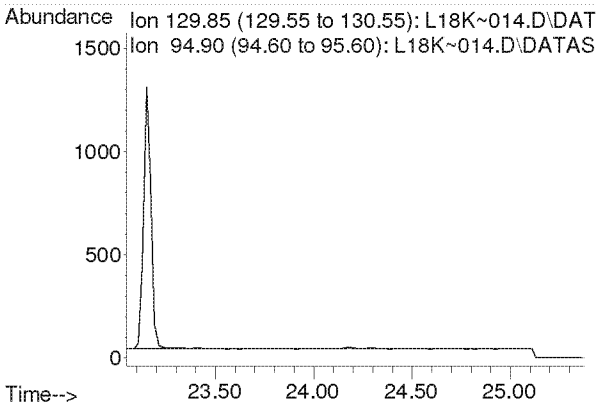


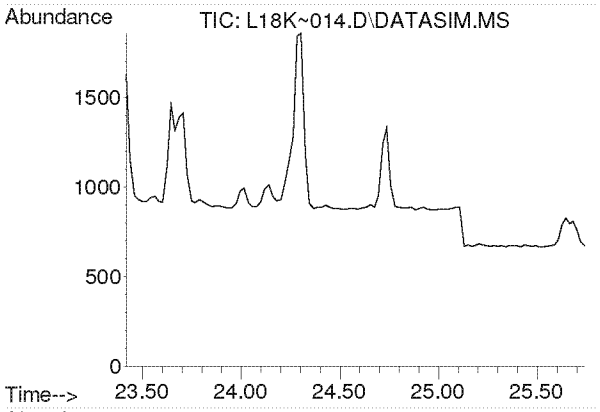
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.19 min

Lab File: L18K~014.D
Acq: 27 Nov 2018 11:06 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.9



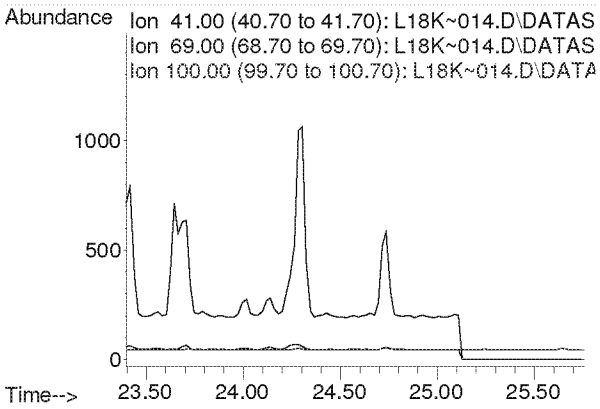


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.55 min

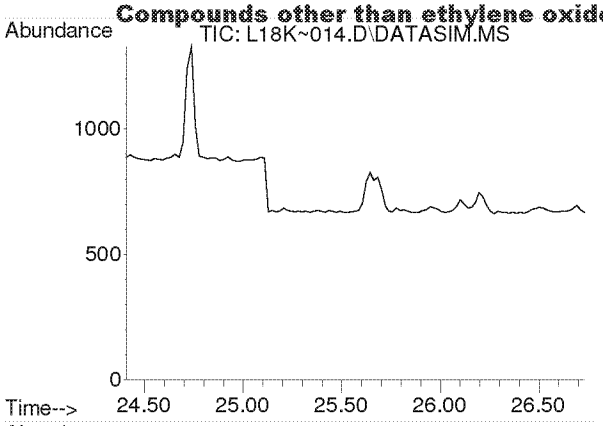
Lab File: L18K~014.D
Acq: 27 Nov 2018 11:06 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	20.0
100	5.1



Compounds other than ethylene oxide were not quantitated.

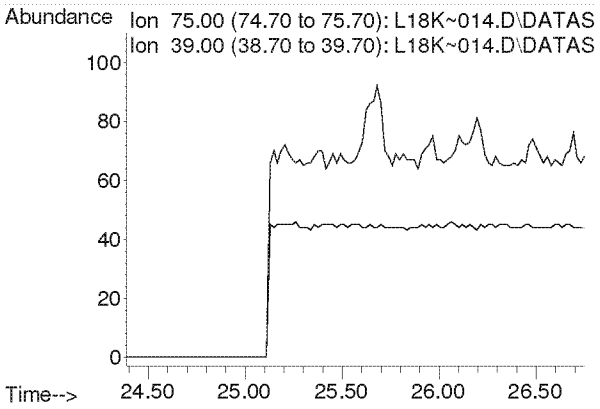


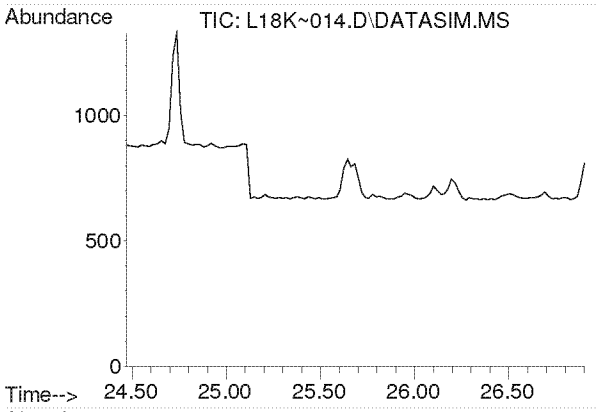
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.54 min

Lab File: L18K~014.D
Acq: 27 Nov 2018 11:06 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	55.6



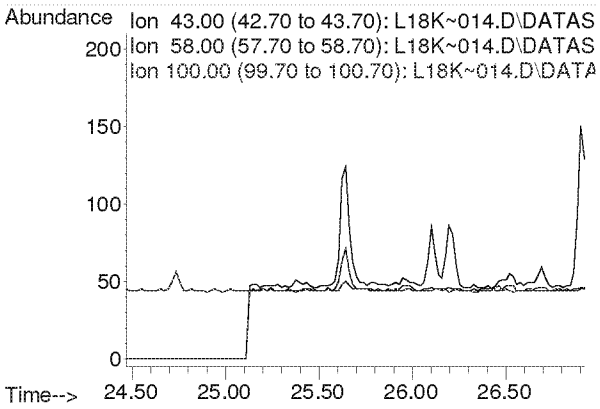


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.62 min

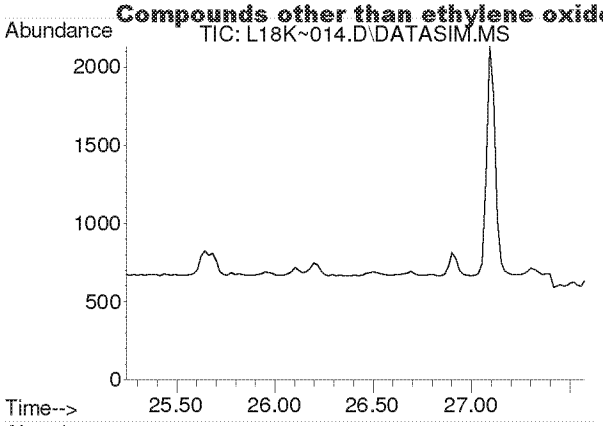
Lab File: L18K~014.D
Acq: 27 Nov 2018 11:06 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	33.3
100	8.0



Compounds other than ethylene oxide were not quantitated.

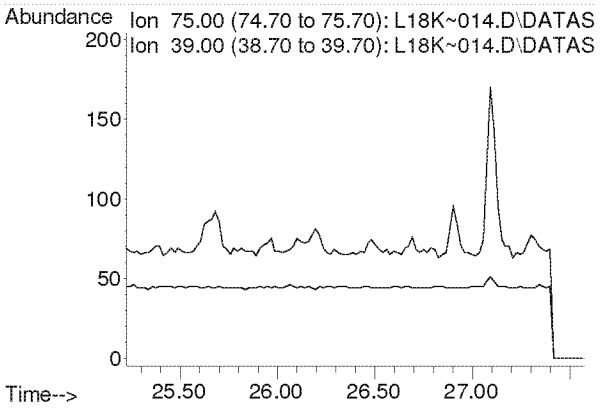


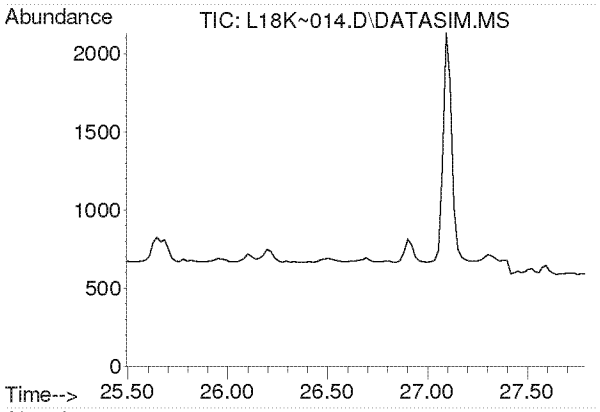
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.38 min

Lab File: L18K~014.D
Acq: 27 Nov 2018 11:06 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	55.3



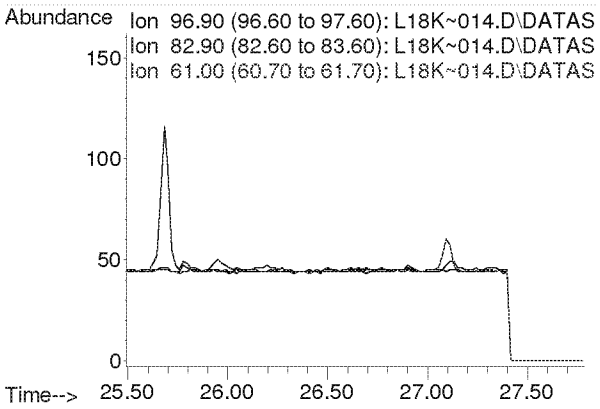


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.64 min

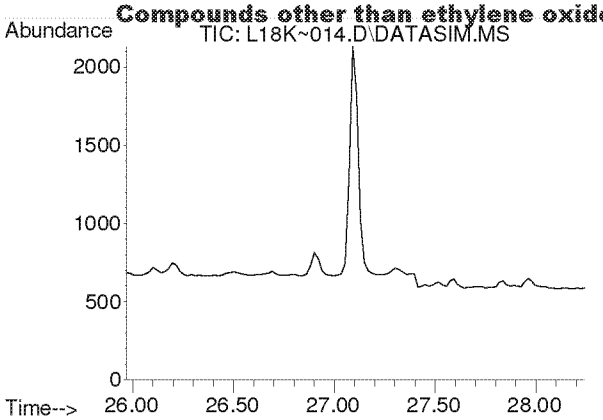
Lab File: L18K~014.D
Acq: 27 Nov 2018 11:06 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	95.3
61	64.6



Compounds other than ethylene oxide were not quantitated.

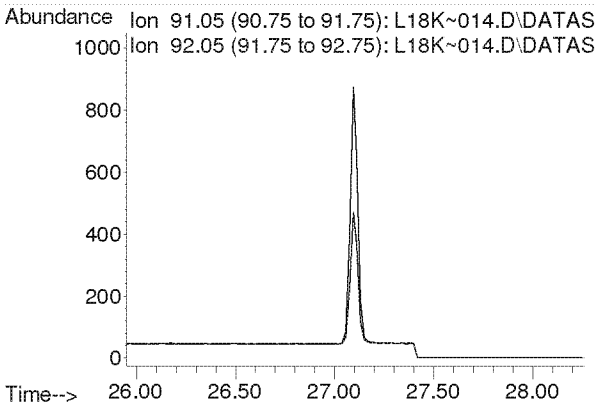


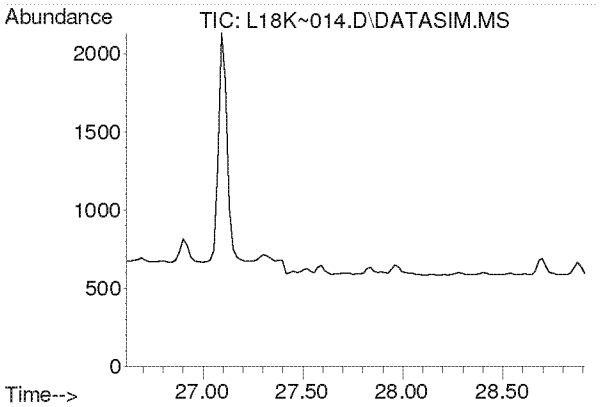
#44
Toluene
Concen: N.D.
Expected RT: 27.11 min

Lab File: L18K~014.D
Acq: 27 Nov 2018 11:06 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.1



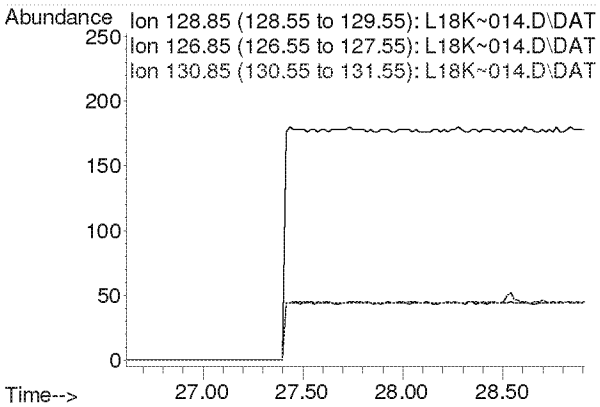


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.76 min

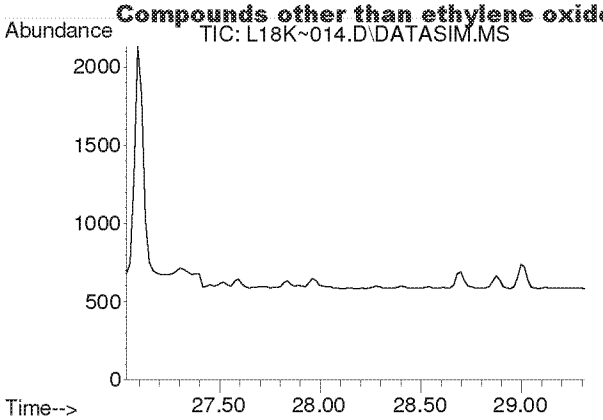
Lab File: L18K~014.D
Acq: 27 Nov 2018 11:06 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

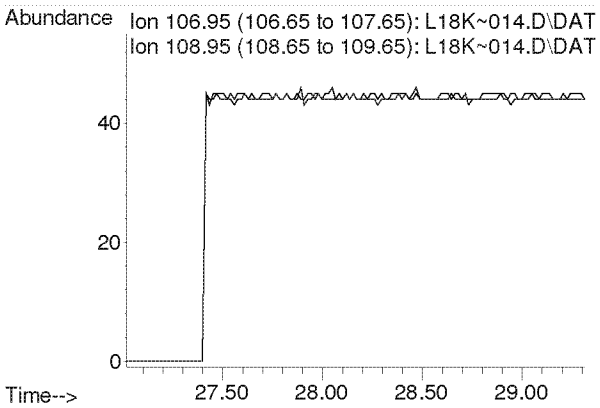


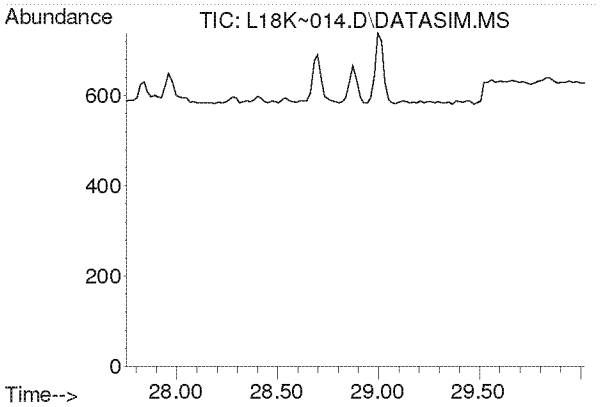
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.17 min

Lab File: L18K~014.D
Acq: 27 Nov 2018 11:06 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	93.8



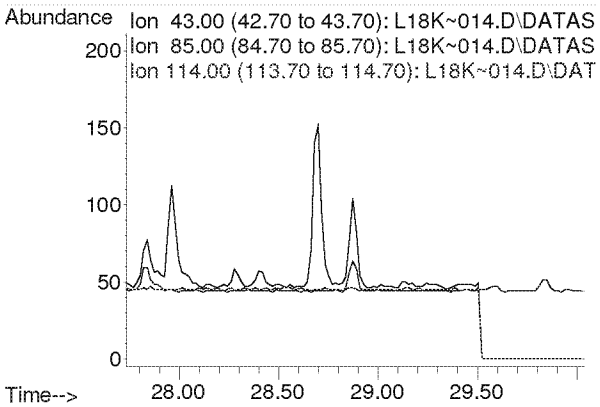


#47
n-Octane
Concen: N.D.
Expected RT: 28.89 min

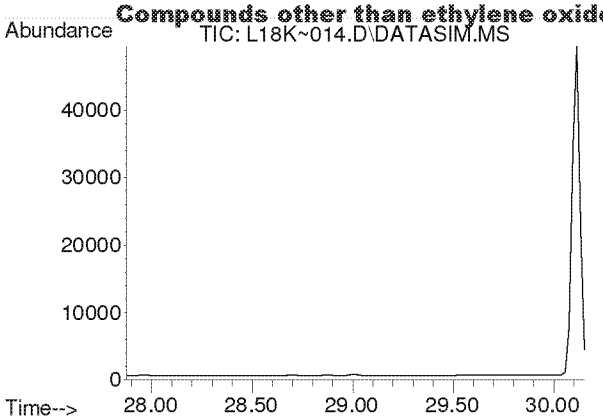
Lab File: L18K~014.D
Acq: 27 Nov 2018 11:06 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	37.8
114	2.4



Compounds other than ethylene oxide were not quantitated.

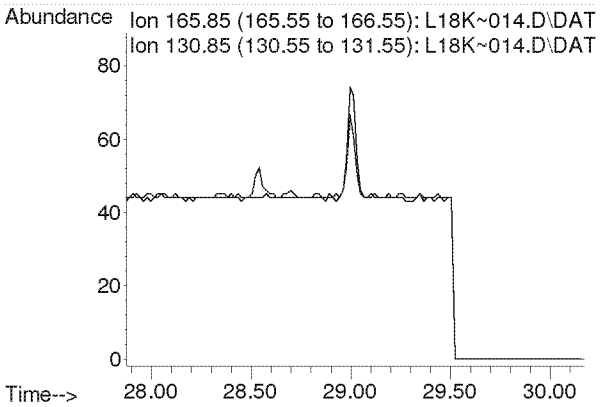


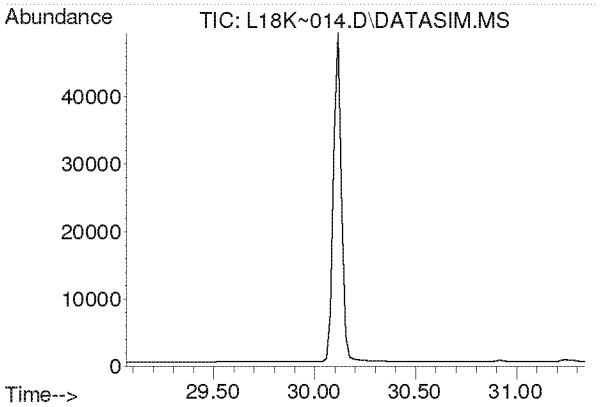
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.02 min

Lab File: L18K~014.D
Acq: 27 Nov 2018 11:06 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	78.7



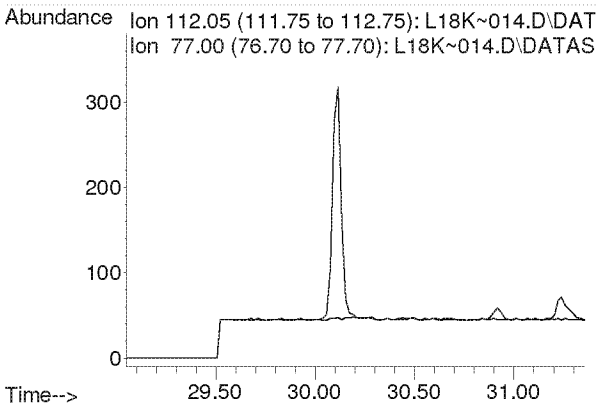


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.20 min

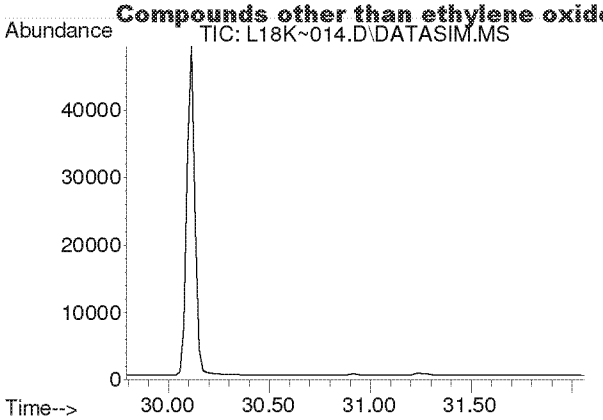
Lab File: L18K~014.D
Acq: 27 Nov 2018 11:06 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.3



Compounds other than ethylene oxide were not quantitated.

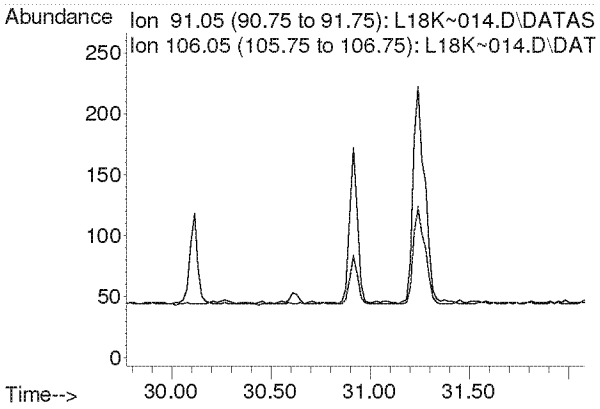


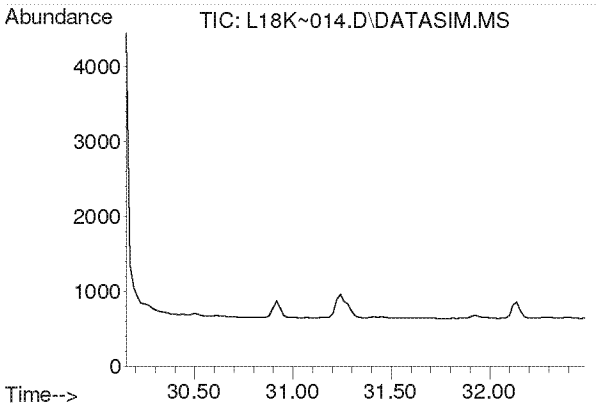
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.93 min

Lab File: L18K~014.D
Acq: 27 Nov 2018 11:06 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	31.8



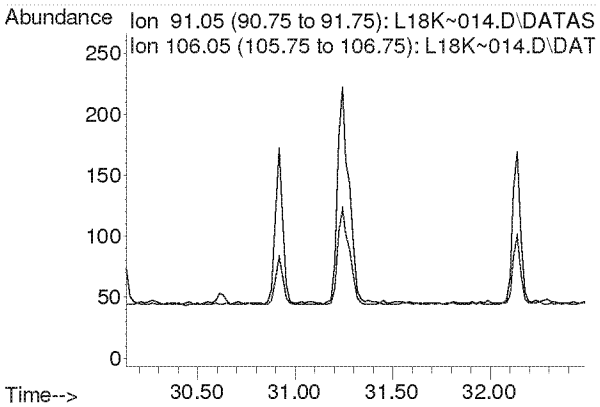


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.29 min

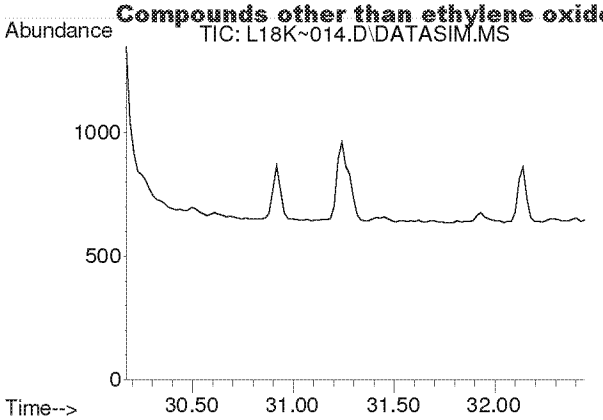
Lab File: L18K~014.D
Acq: 27 Nov 2018 11:06 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.4



Compounds other than ethylene oxide were not quantitated.

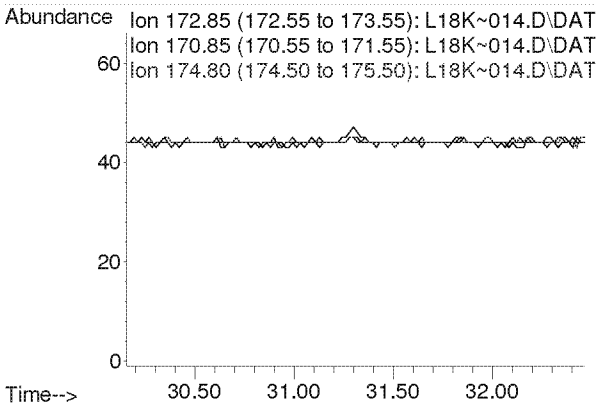


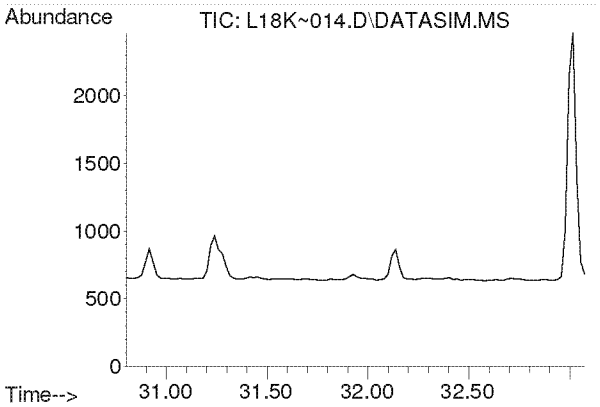
#52
Bromoform
Concen: N.D.
Expected RT: 31.30 min

Lab File: L18K~014.D
Acq: 27 Nov 2018 11:06 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.4
175	49.0



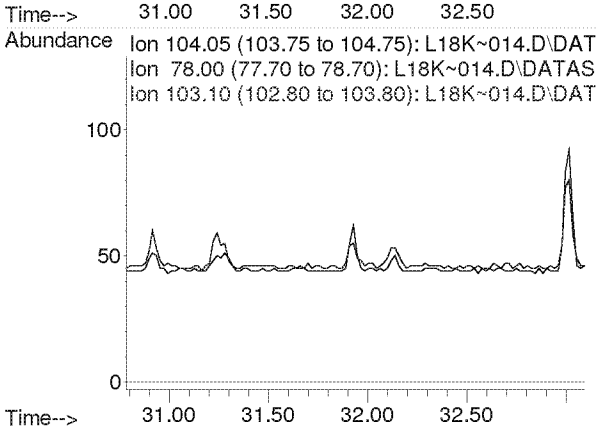


#53
Styrene
Concen: N.D.
Expected RT: 31.94 min

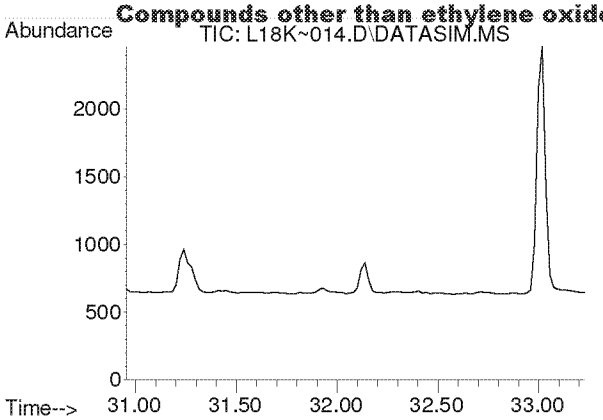
Lab File: L18K~014.D
Acq: 27 Nov 2018 11:06 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	45.7
103	0.0



Compounds other than ethylene oxide were not quantitated.

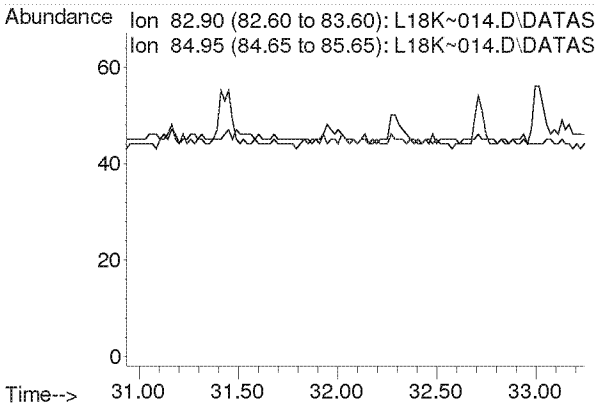


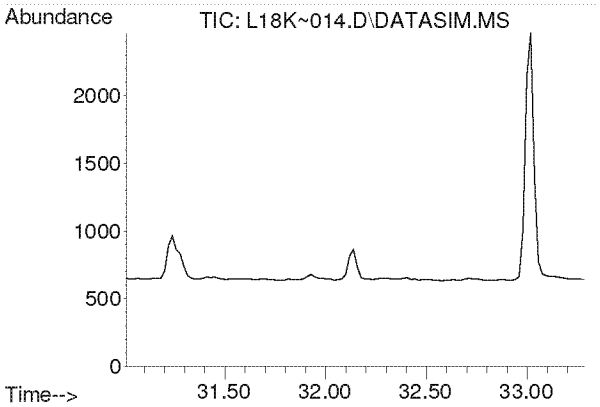
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.09 min

Lab File: L18K~014.D
Acq: 27 Nov 2018 11:06 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.3



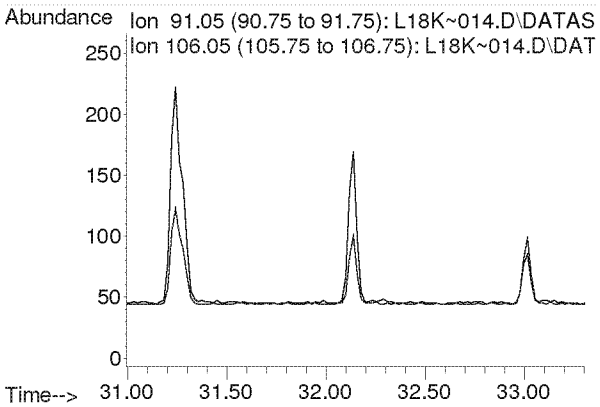


#55
o-Xylene
Concen: N.D.
Expected RT: 32.15 min

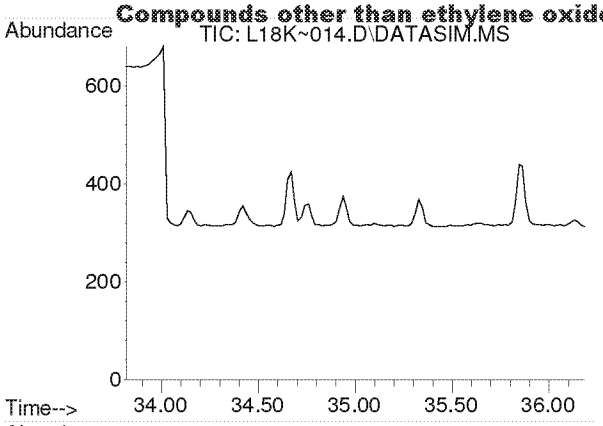
Lab File: L18K~014.D
Acq: 27 Nov 2018 11:06 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.5



Compounds other than ethylene oxide were not quantitated.

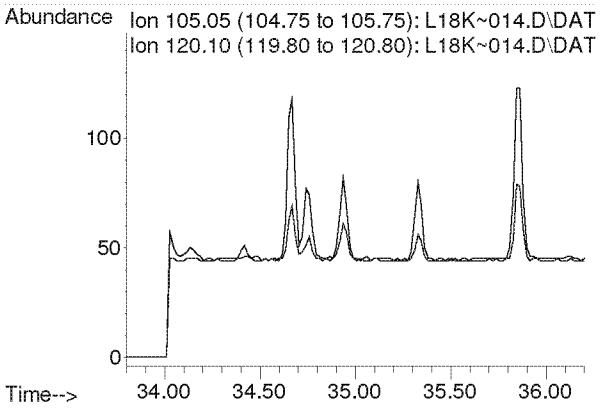


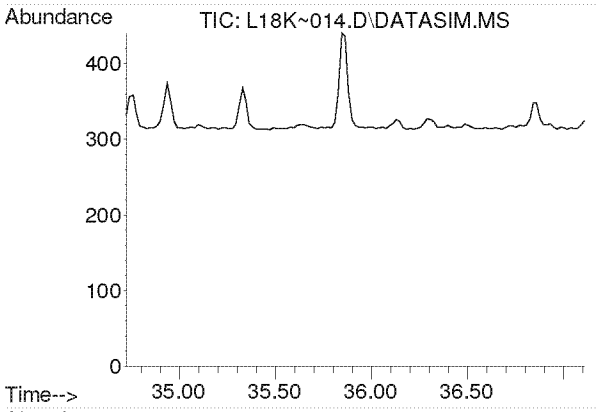
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.95 min

Lab File: L18K~014.D
Acq: 27 Nov 2018 11:06 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	45.6



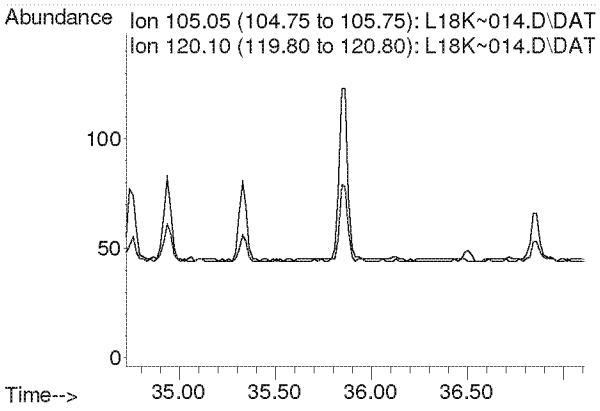


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.87 min

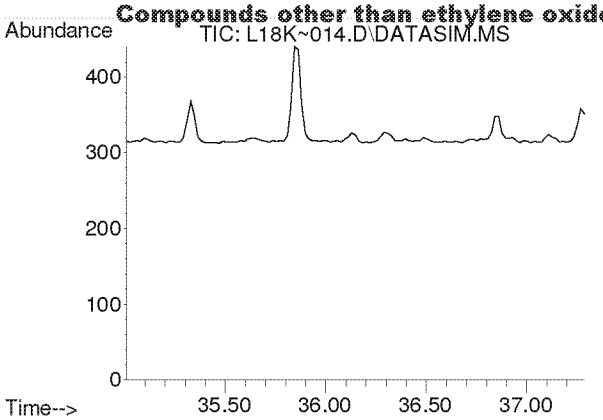
Lab File: L18K~014.D
Acq: 27 Nov 2018 11:06 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	43.4



Compounds other than ethylene oxide were not quantitated.

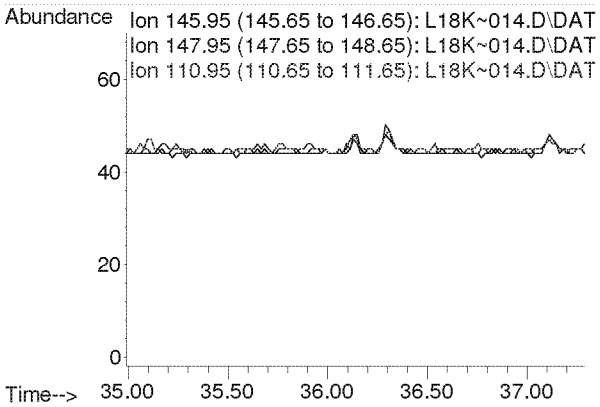


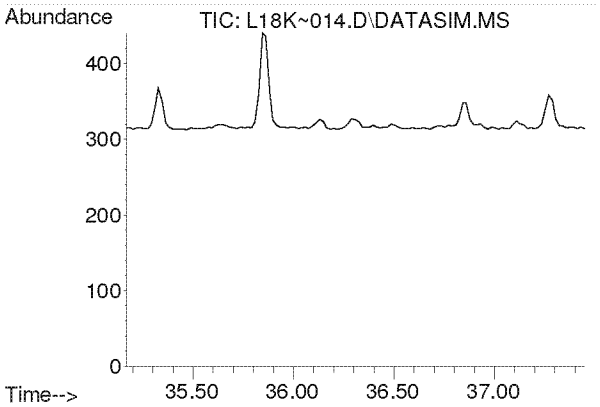
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.15 min

Lab File: L18K~014.D
Acq: 27 Nov 2018 11:06 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	41.1



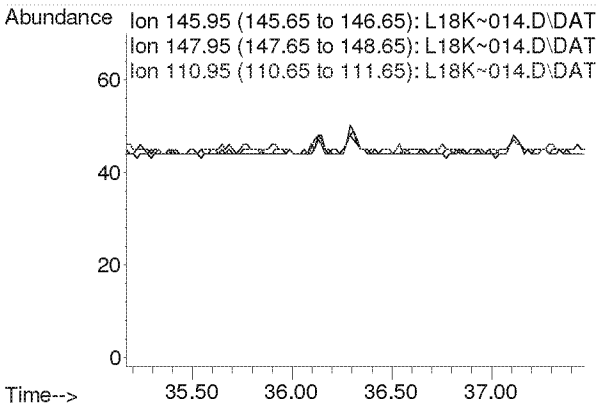


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.31 min

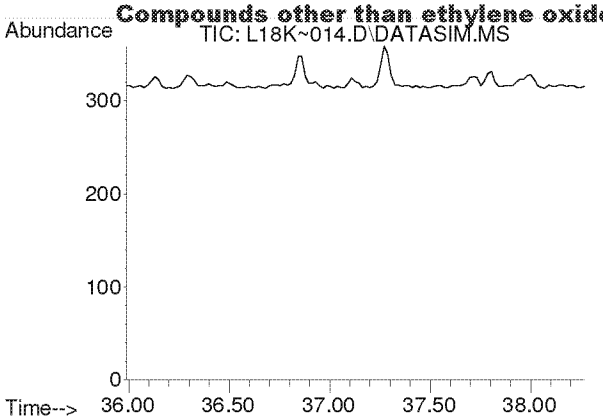
Lab File: L18K~014.D
Acq: 27 Nov 2018 11:06 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	39.8



Compounds other than ethylene oxide were not quantitated.

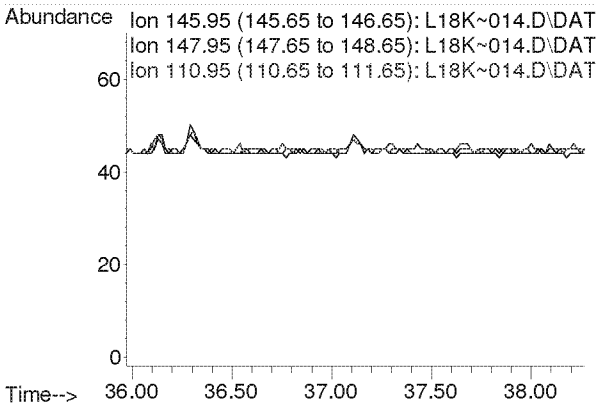


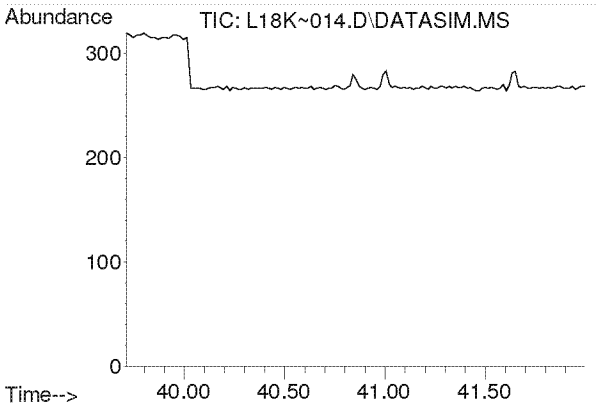
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.12 min

Lab File: L18K~014.D
Acq: 27 Nov 2018 11:06 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	63.9
111	41.8



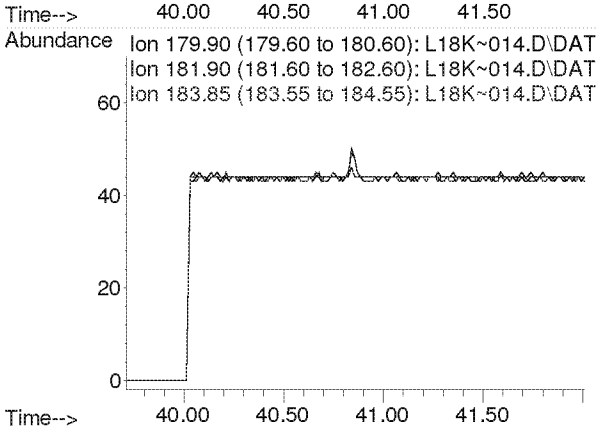


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.85 min

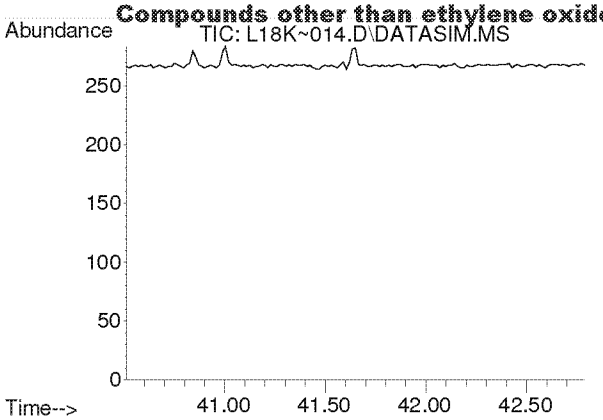
Lab File: L18K~014.D
Acq: 27 Nov 2018 11:06 pm

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	95.6
184	30.5



Compounds other than ethylene oxide were not quantitated.

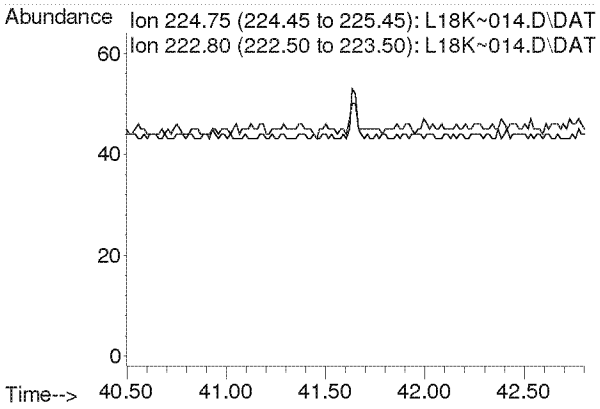


#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.65 min

Lab File: L18K~014.D
Acq: 27 Nov 2018 11:06 pm

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.8



Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : Y:\MASS SPEC 1 DATA\L18K~\
Data File : L18K~015.D
Acq On : 28 Nov 2018 12:08 am (#1); 28-Nov-18, 00:03:38 (#2)
Operator : MAH
Sample : 8112113-04
Misc : GOWER ES 11/19/18 (Sig #1); (Sig #2)
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jan 23 14:19:51 2019
Quant Method : C:\msdchem\1\METHODS\8100002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Fri Oct 12 09:33:42 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.993	66	47703	4.8000 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.151	114	112568	5.0200 ppbv	-0.02
43) IS-Chlorobenzene-d5	30.116	117	76651	4.7700 ppbv	-0.01

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	12.485	29	235m	0.0907 ppbv	
10) Bromomethane	0.000	94	0	N.D. d	
11) Chloroethane	0.000	64	0	N.D.	
12) Acetonitrile	0.000	41	0	N.D. d	
13) Acrolein	0.000	56	0	N.D. d	
14) Trichlorofluoromethane	0.000	101	0	N.D. d	
15) Acrylonitrile	0.000	53	0	N.D. d	
16) 1,1-Dichloroethene	0.000	61	0	N.D.	
17) Methylene Chloride	0.000	49	0	N.D. d	
18) Carbon Disulfide	0.000	76	0	N.D. d	
19) Trichlorotrifluoroethane	0.000	101	0	N.D. d	
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.	
21) 1,1-Dichloroethane	0.000	63	0	N.D.	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D. d	
23) Chloroprene	0.000	53	0	N.D. d	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D. d	
25) Bromochloromethane	0.000	128	0	N.D.	
26) Chloroform	0.000	83	0	N.D. d	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D.	
28) 1,2-Dichloroethane	0.000	62	0	N.D. d	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D.	
31) Benzene	0.000	78	0	N.D. d	
32) Carbon Tetrachloride	0.000	117	0	N.D. d	
33) tert-Amyl Methyl Ether	0.000	73	0	N.D.	
34) 1,2-Dichloropropane	0.000	63	0	N.D.	
35) Ethyl Acrylate	0.000	55	0	N.D.	
36) Bromodichloromethane	0.000	83	0	N.D.	
37) Trichloroethylene	0.000	130	0	N.D.	
38) Methyl Methacrylate	0.000	41	0	N.D. d	
39) cis-1,3-Dichloropropene	0.000	75	0	N.D.	
40) Methyl Isobutyl Ketone	0.000	43	0	N.D. d	
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.	
44) Toluene	0.000	91	0	N.D. d	
45) Dibromochloromethane	0.000	129	0	N.D.	
46) 1,2-Dibromoethane	0.000	107	0	N.D.	
47) n-Octane	0.000	43	0	N.D. d	
48) Tetrachloroethylene	0.000	166	0	N.D. d	
49) Chlorobenzene	0.000	112	0	N.D.	
50) Ethylbenzene	0.000	91	0	N.D. d	

Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L18K~\
Data File : L18K~015.D
Acq On : 28 Nov 2018 12:08 am (#1); 28 Nov 2018 0:03 am (#2)
Operator : MAH
Sample : 8112113-04
Misc : GOWER ES 11/19/18 (Sig #1); (Sig #2)
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Nov 28 08:10:24 2018
Quant Method : C:\msdchem\1\METHODS\8100002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Fri Oct 12 09:33:42 2018
Response via : Initial Calibration

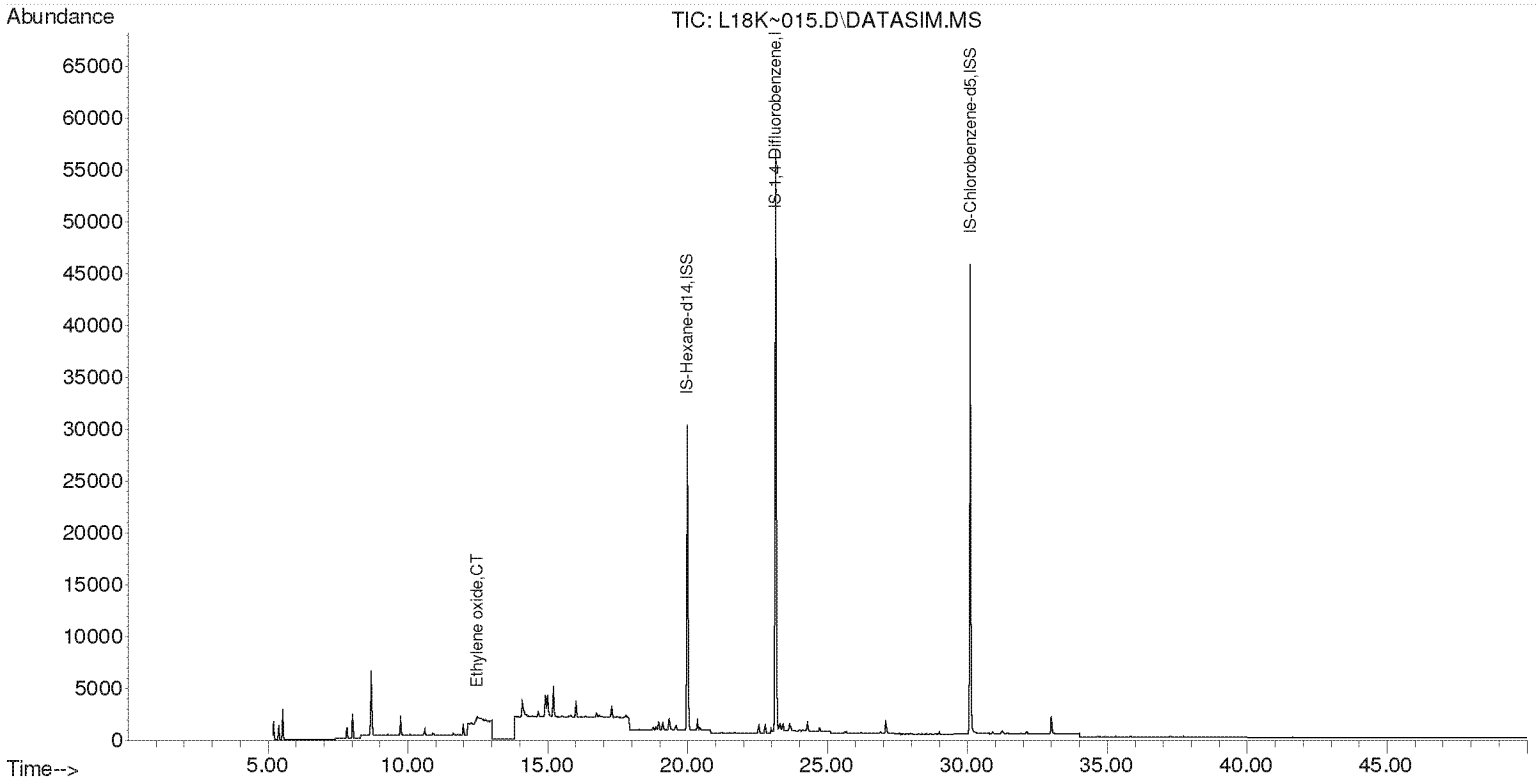
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
49) Chlorobenzene	0.000	112	0	N.D.	
50) Ethylbenzene	0.000	91	0	N.D.	d
51) m,p-Xylene	0.000	91	0	N.D.	d
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	d
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D.	d
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	d
57) 1,2,4-Trimethylbenzene	0.000	105	0	N.D.	d
58) m-Dichlorobenzene	0.000	146	0	N.D.	
59) p-Dichlorobenzene	0.000	146	0	N.D.	
60) o-Dichlorobenzene	0.000	146	0	N.D.	
61) 1,2,4-Trichlorobenzene	0.000	180	0	N.D.	
62) Hexachloro-1,3-butadiene	0.000	225	0	N.D.	

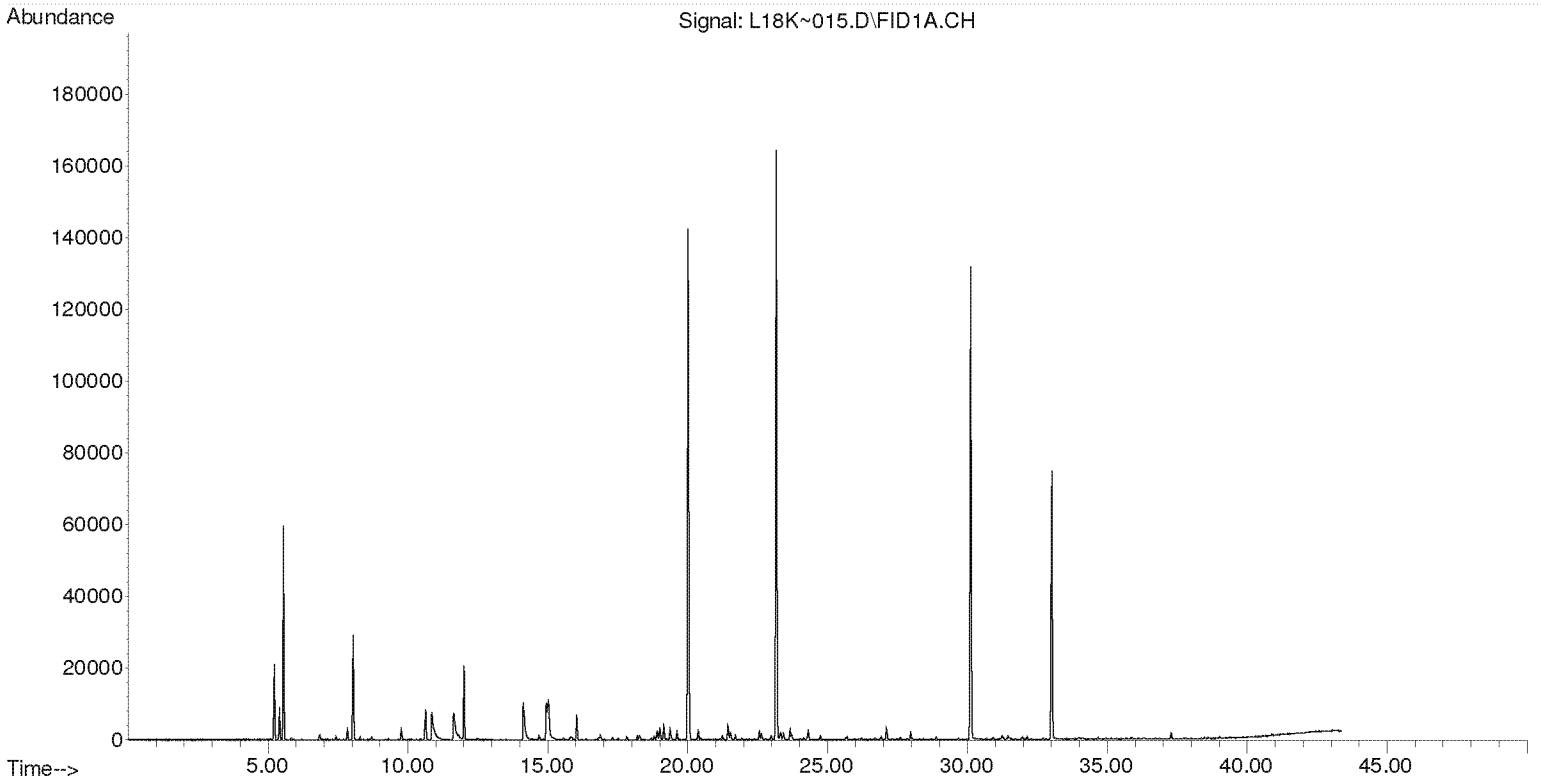
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Compounds other than ethylene oxide were not quantitated.

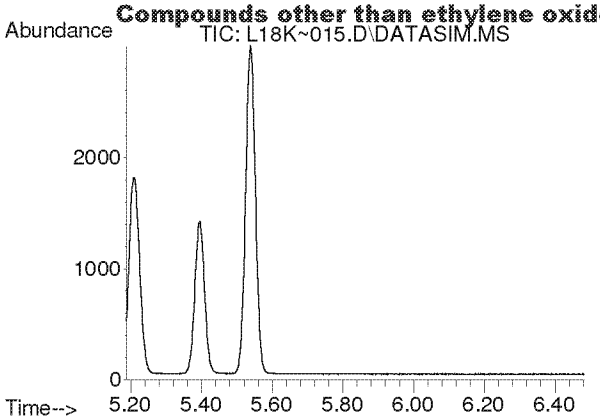
Data Path : Y:\MASS SPEC 1 DATA\L18K~\
Data File : L18K~015.D
Acq On : 28 Nov 2018 12:08 am (#1); 28 Nov 2018 0:03 am (#2)
Operator : MAH
Sample : 8112113-04
Misc : GOWER ES 11/19/18 (Sig #1); (Sig #2)
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Nov 28 08:10:24 2018
Quant Method : C:\msdchem\1\METHODS\8100002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Fri Oct 12 09:33:42 2018
Response via : Initial Calibration





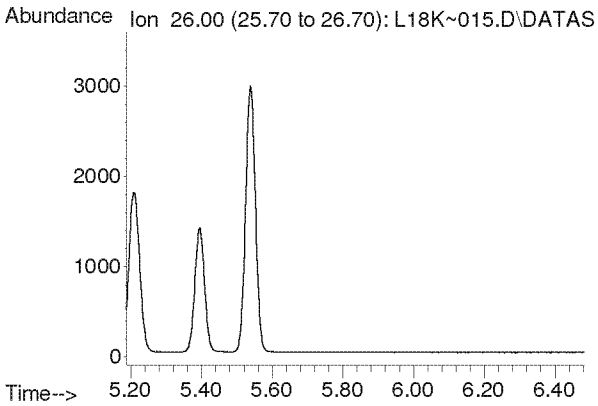
Compounds other than ethylene oxide were not quantitated.

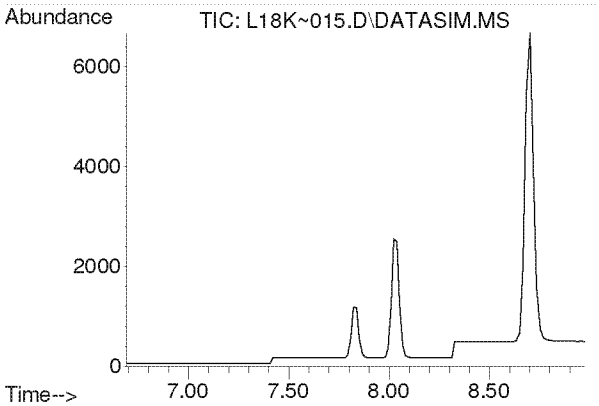


#2
Acetylene
Concen: N.D.
Expected RT: 5.41 min

Lab File: L18K~015.D
Acq: 28 Nov 2018 12:08 am

Tgt Ion: 26



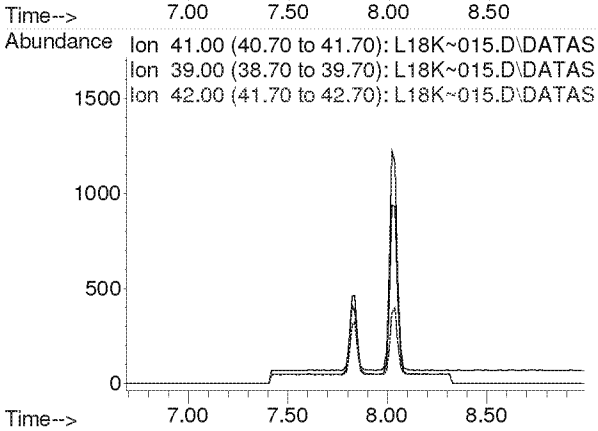


#3
Propylene
Concen: N.D.
Expected RT: 7.84 min

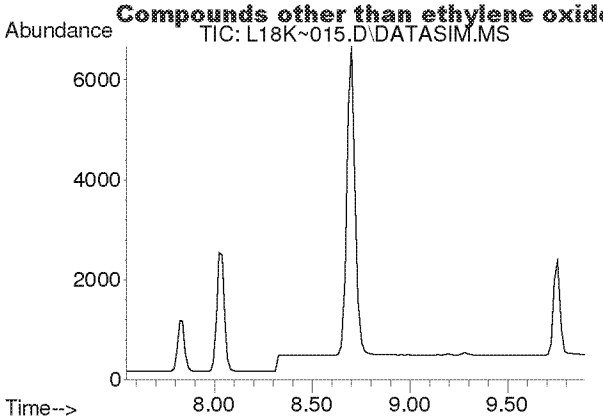
Lab File: L18K~015.D
Acq: 28 Nov 2018 12:08 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	81.2
42	65.4



Compounds other than ethylene oxide were not quantitated.

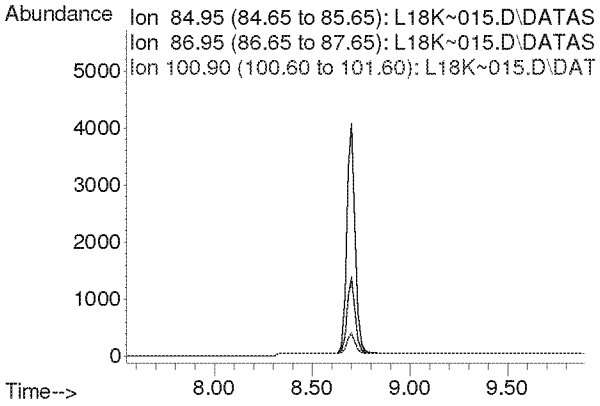


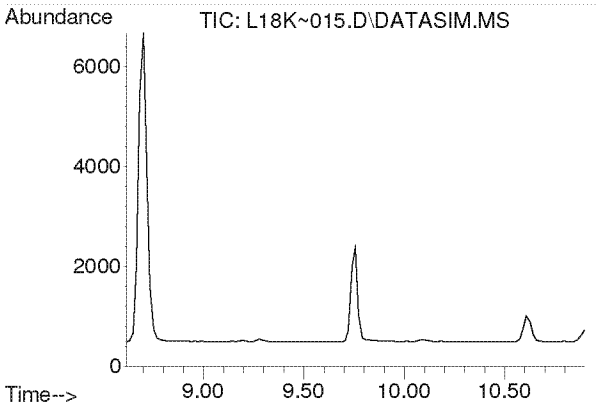
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.69 min

Lab File: L18K~015.D
Acq: 28 Nov 2018 12:08 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.3
101	9.0



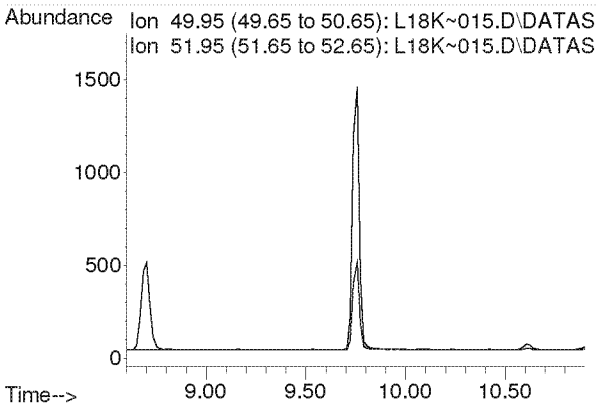


#5
Chloromethane
Concen: N.D.
Expected RT: 9.76 min

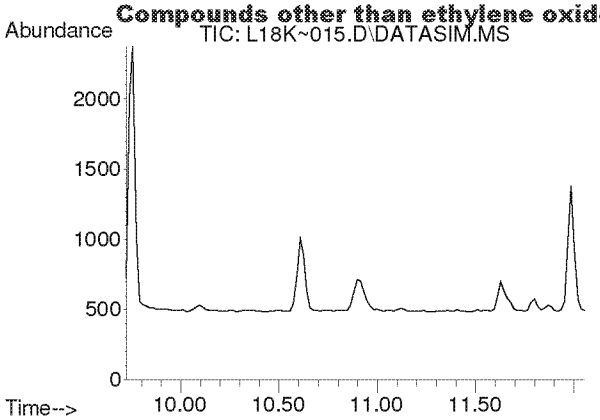
Lab File: L18K~015.D
Acq: 28 Nov 2018 12:08 am

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.2



Compounds other than ethylene oxide were not quantitated.

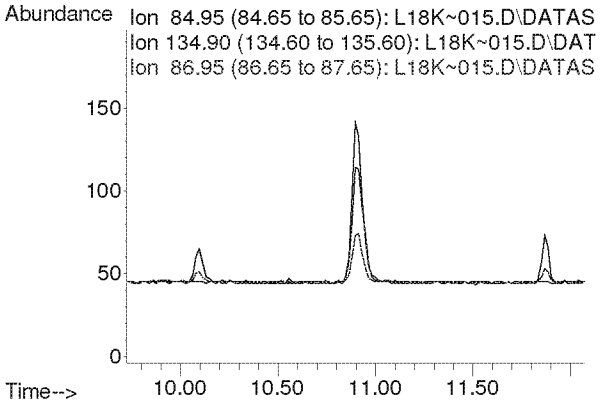


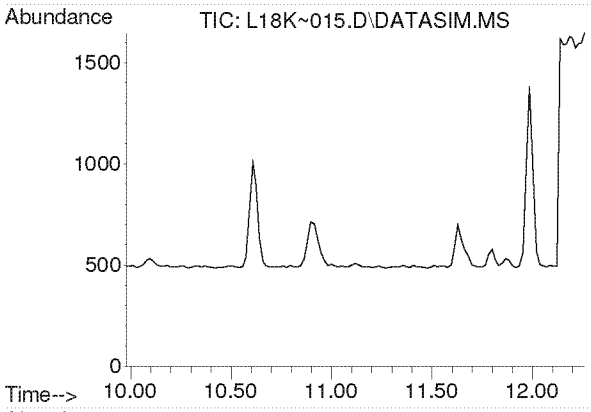
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.87 min

Lab File: L18K~015.D
Acq: 28 Nov 2018 12:08 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.6
87	32.1



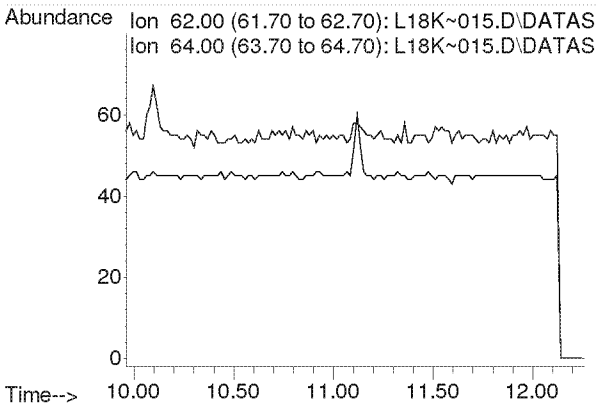


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

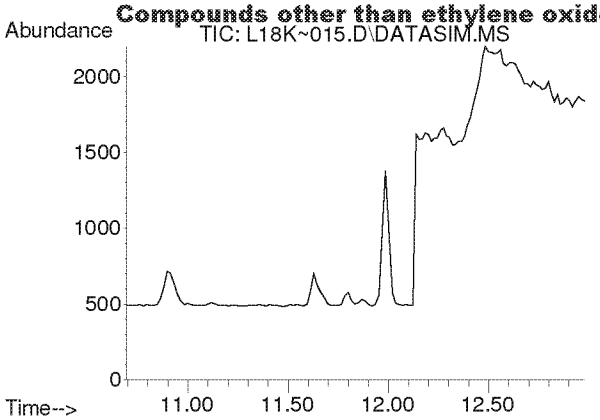
Lab File: L18K~015.D
Acq: 28 Nov 2018 12:08 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	32.0



Compounds other than ethylene oxide were not quantitated.

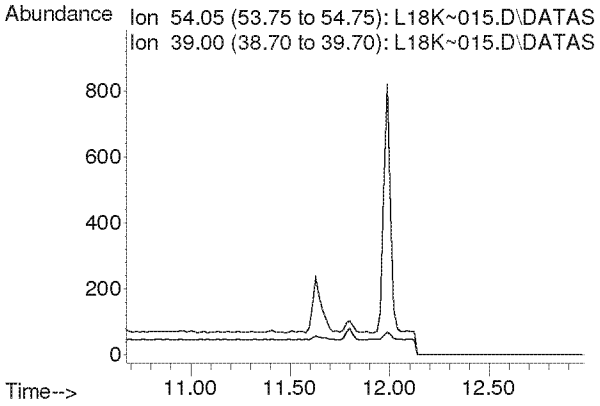


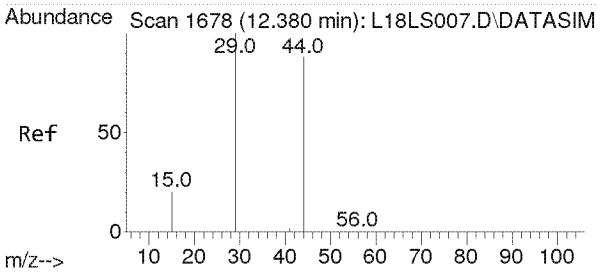
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.79 min

Lab File: L18K~015.D
Acq: 28 Nov 2018 12:08 am

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	108.7

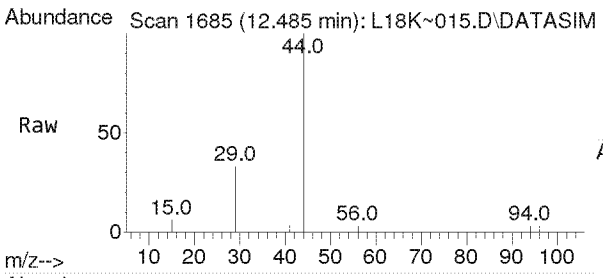


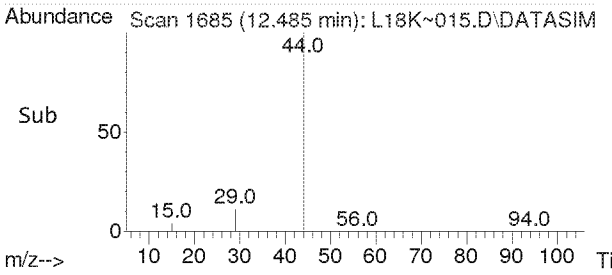


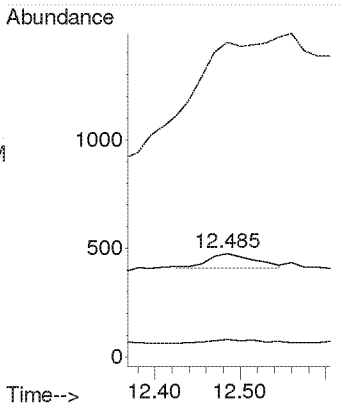
#9
Ethylene oxide
Concen: 0.091 ppbv m
RT: 12.485 min Scan# 1685
Delta R.T. 0.096 min
Lab File: L18K~015.D
Acq: 28 Nov 2018 12:08 am

Tgt Ion: 29 Resp: 235

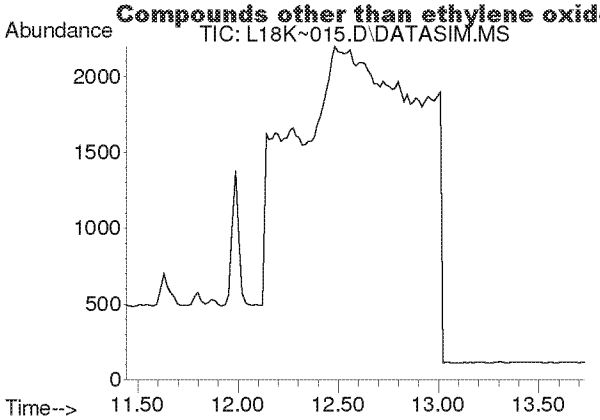
Ion	Ratio	Lower	Upper
29	100		
15	0.0	20.1	30.1#
44	0.0	62.6	93.8#







Compounds other than ethylene oxide were not quantitated.

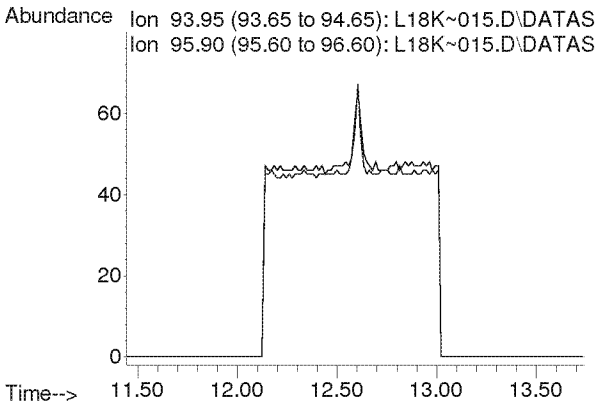


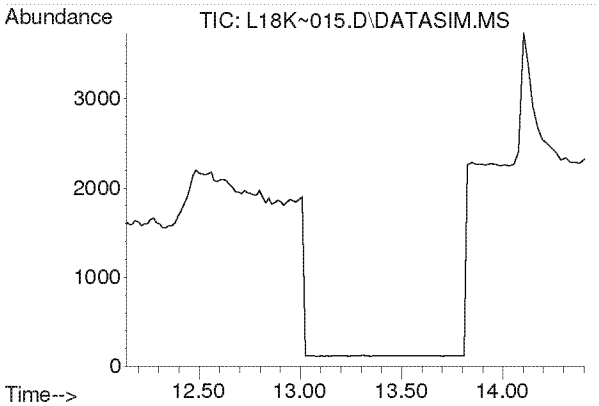
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L18K~015.D
Acq: 28 Nov 2018 12:08 am

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



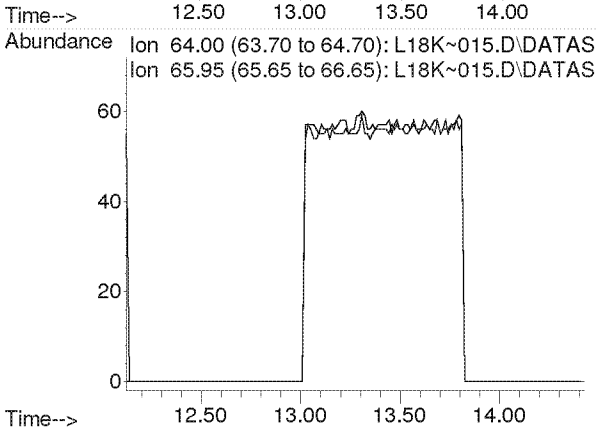


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

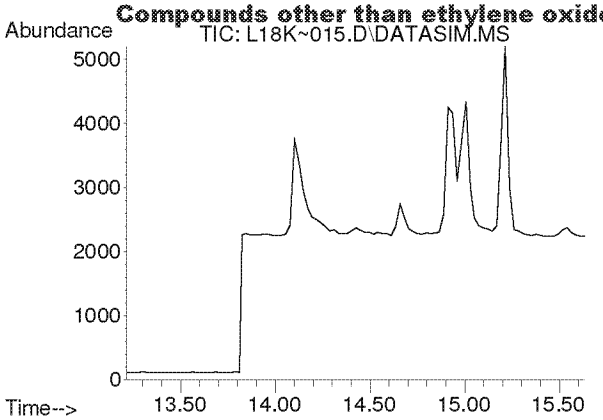
Lab File: L18K~015.D
Acq: 28 Nov 2018 12:08 am

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

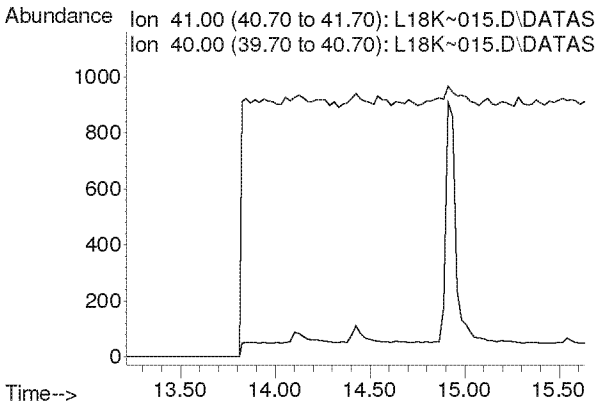


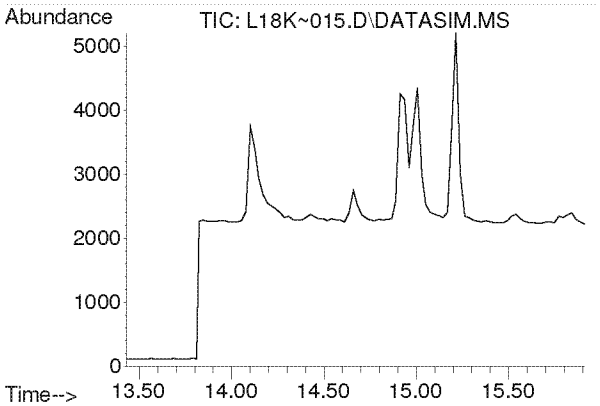
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.34 min

Lab File: L18K~015.D
Acq: 28 Nov 2018 12:08 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	53.9



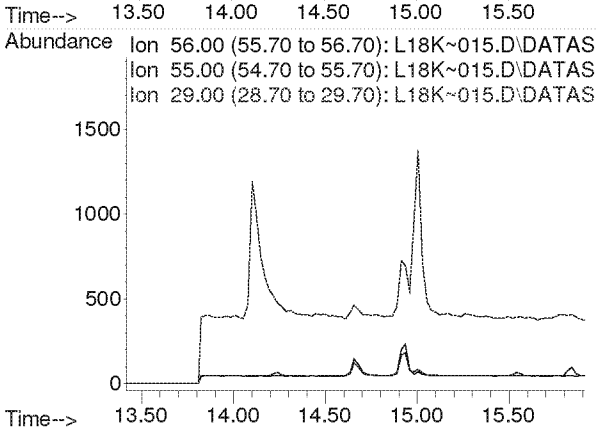


#13
Acrolein
Concen: N.D.
Expected RT: 14.62 min

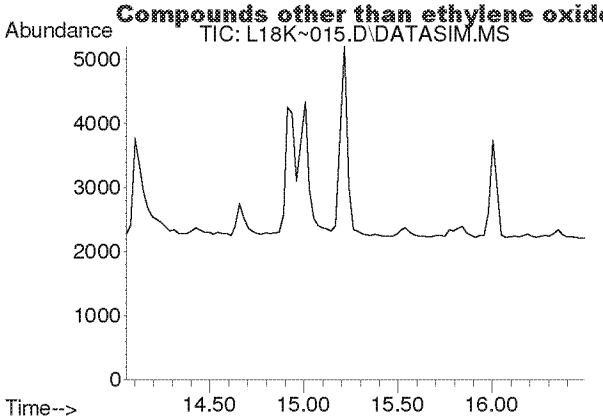
Lab File: L18K~015.D
Acq: 28 Nov 2018 12:08 am

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	77.4
29	61.5



Compounds other than ethylene oxide were not quantitated.

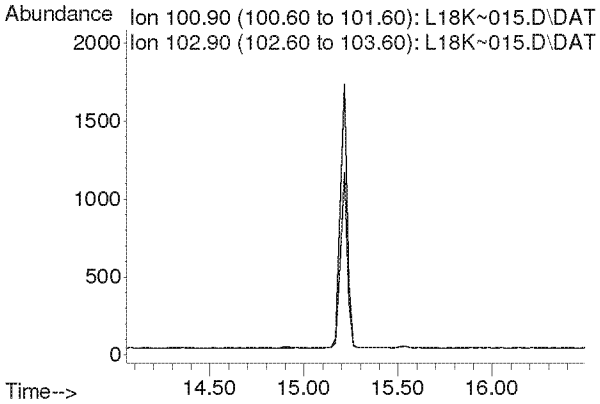


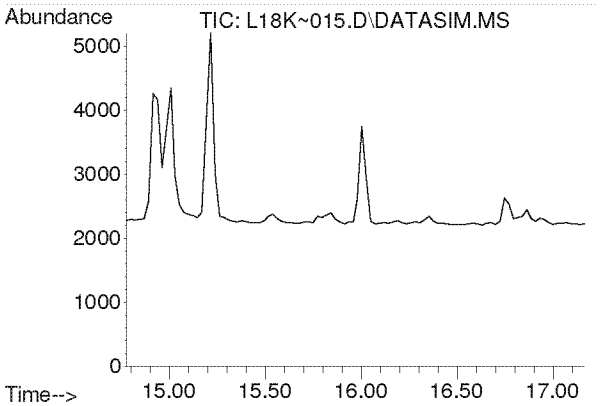
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.20 min

Lab File: L18K~015.D
Acq: 28 Nov 2018 12:08 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.7



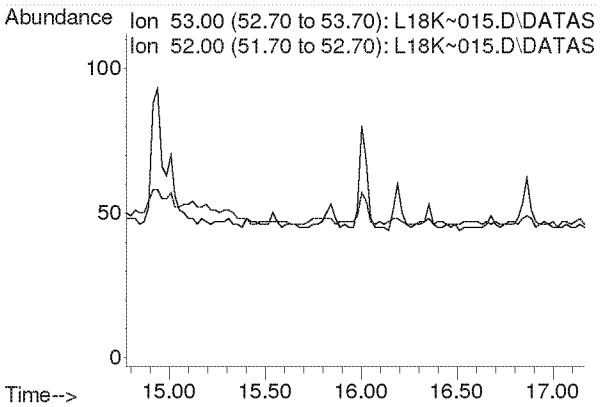


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.92 min

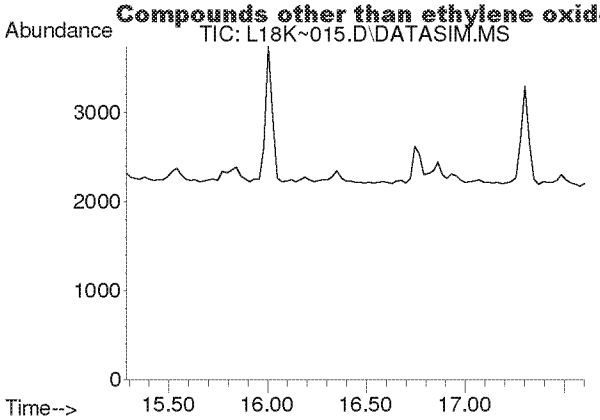
Lab File: L18K~015.D
Acq: 28 Nov 2018 12:08 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	87.1



Compounds other than ethylene oxide were not quantitated.

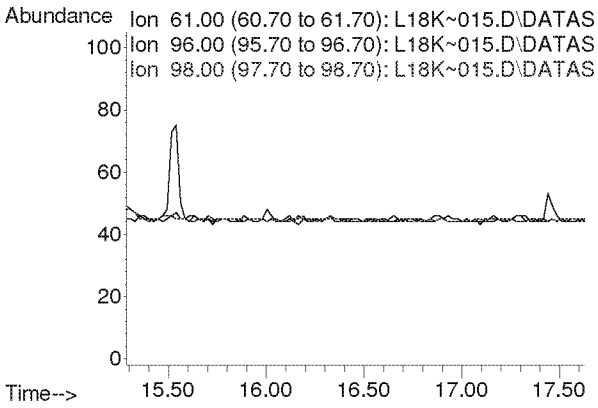


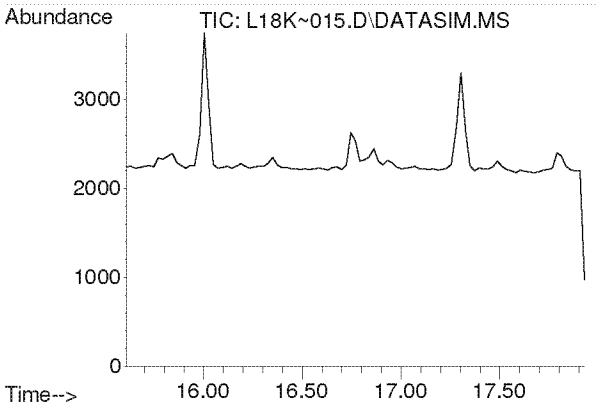
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L18K~015.D
Acq: 28 Nov 2018 12:08 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	57.6
98	36.8



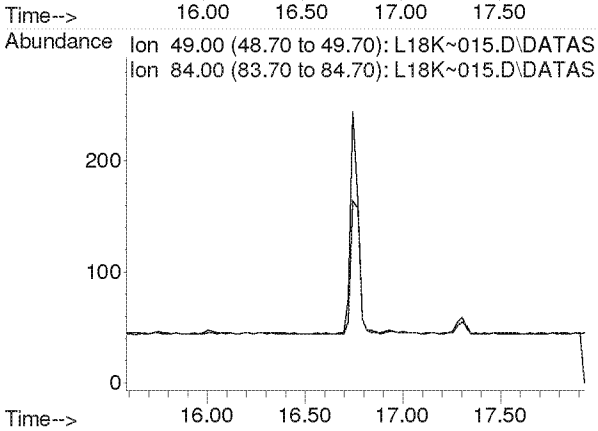


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

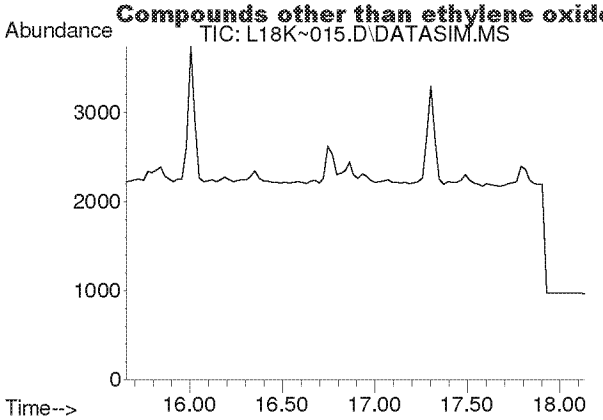
Lab File: L18K~015.D
Acq: 28 Nov 2018 12:08 am

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	74.2



Compounds other than ethylene oxide were not quantitated.

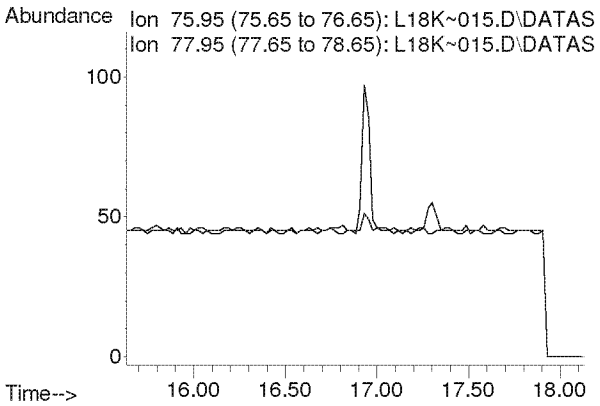


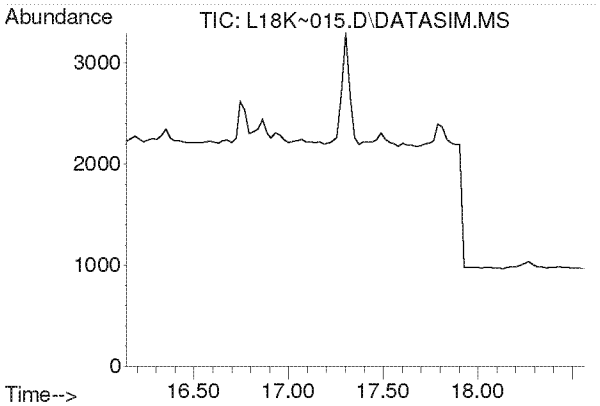
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.94 min

Lab File: L18K~015.D
Acq: 28 Nov 2018 12:08 am

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.1



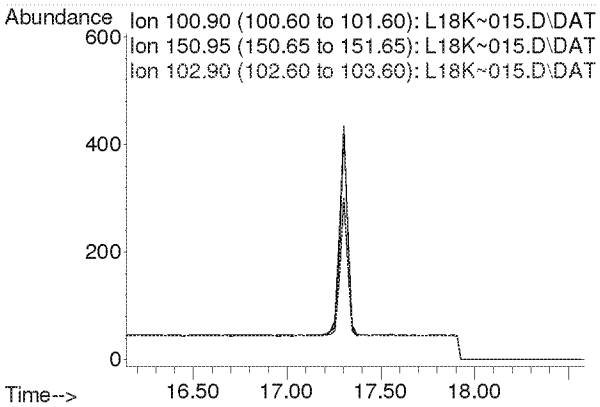


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.29 min

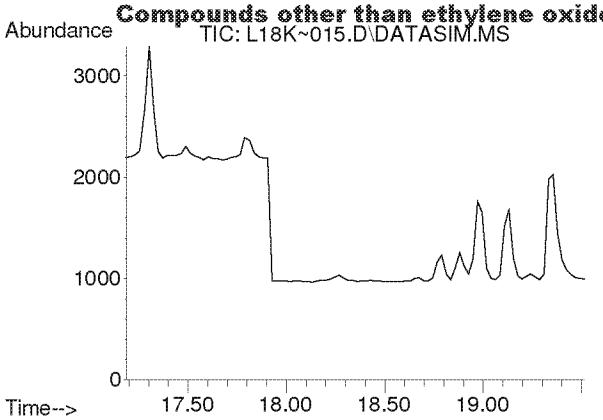
Lab File: L18K~015.D
Acq: 28 Nov 2018 12:08 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	96.0
103	64.3



Compounds other than ethylene oxide were not quantitated.

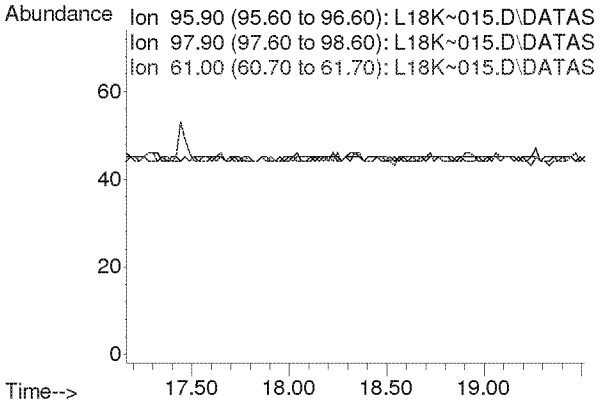


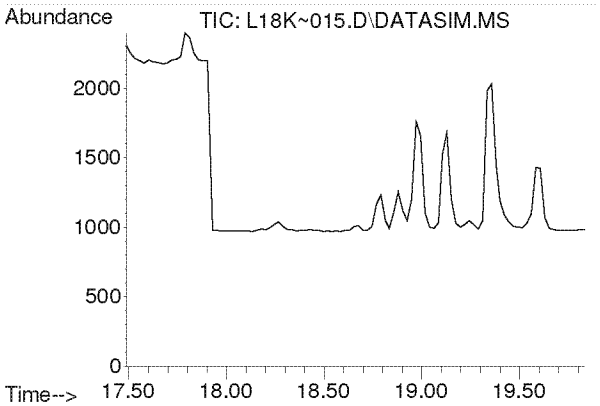
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.33 min

Lab File: L18K~015.D
Acq: 28 Nov 2018 12:08 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	63.6
61	156.3



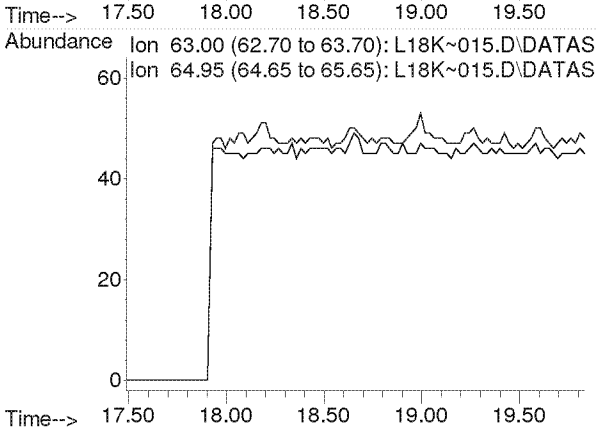


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.64 min

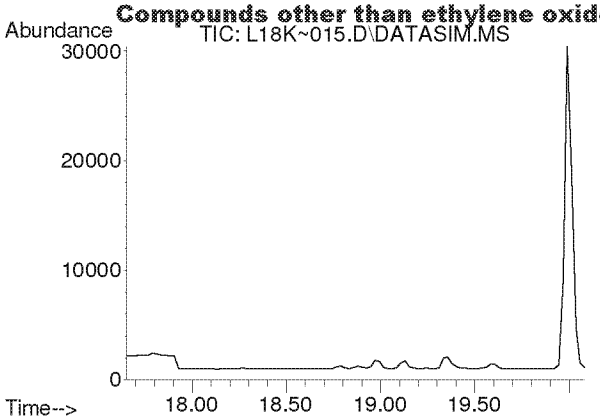
Lab File: L18K~015.D
Acq: 28 Nov 2018 12:08 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	32.1



Compounds other than ethylene oxide were not quantitated.

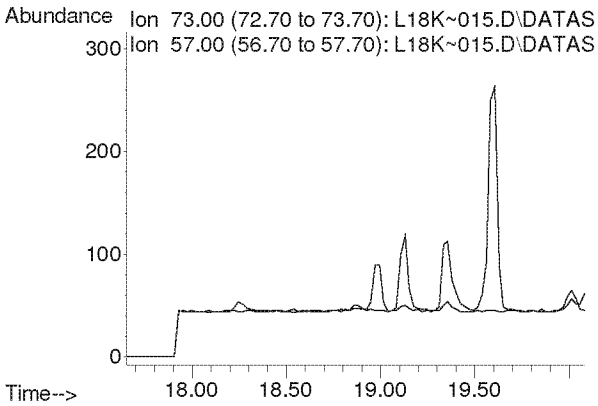


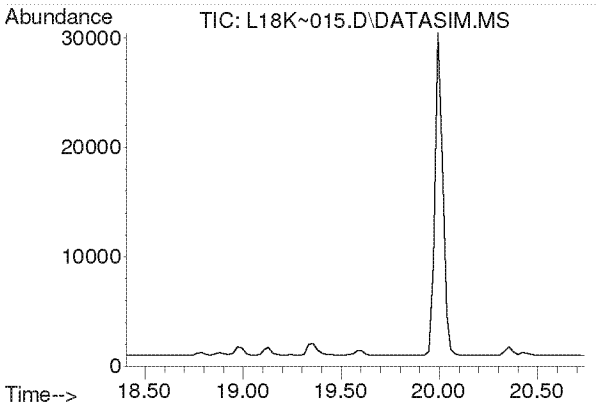
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L18K~015.D
Acq: 28 Nov 2018 12:08 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.0



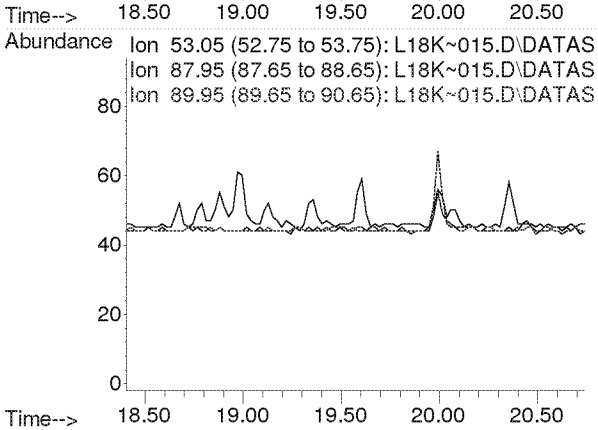


#23
Chloroprene
Concen: N.D.
Expected RT: 19.55 min

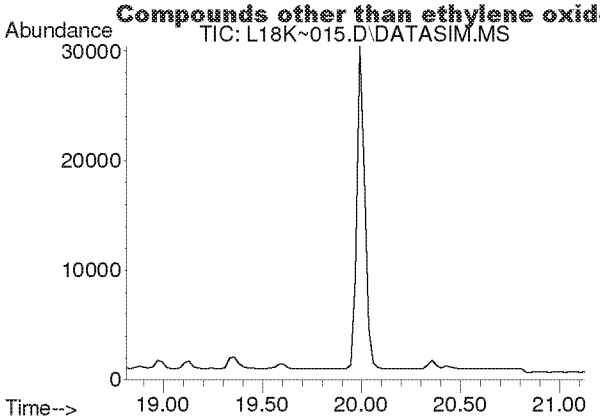
Lab File: L18K~015.D
Acq: 28 Nov 2018 12:08 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	51.5
90	16.6



Compounds other than ethylene oxide were not quantitated.

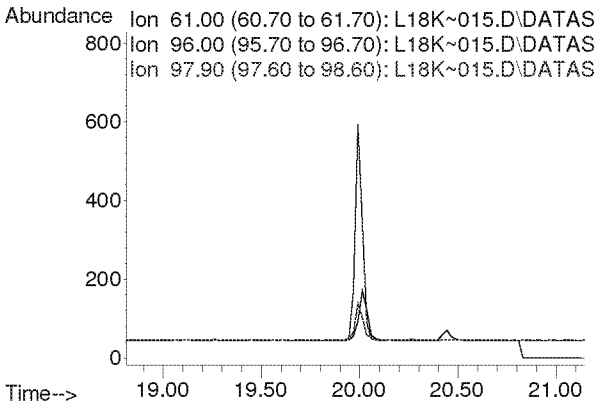


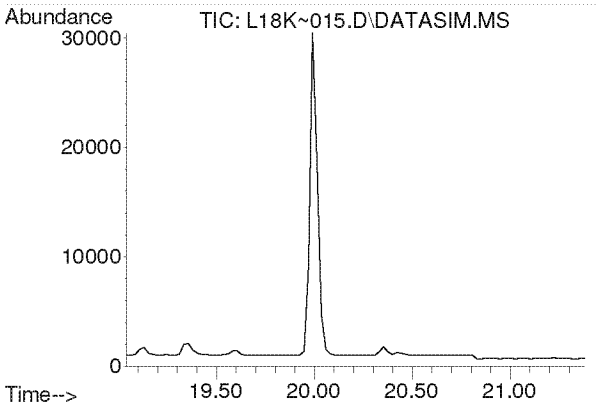
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.96 min

Lab File: L18K~015.D
Acq: 28 Nov 2018 12:08 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.5
98	46.2



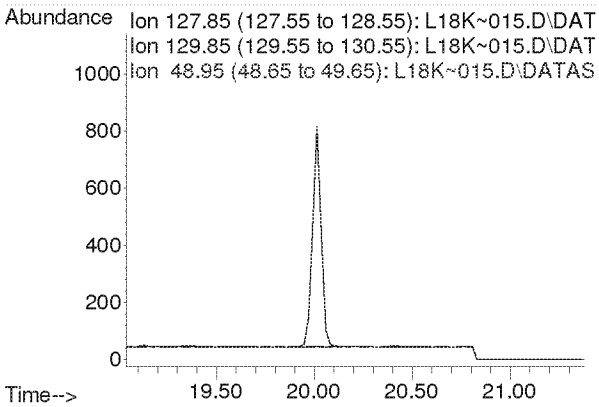


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.18 min

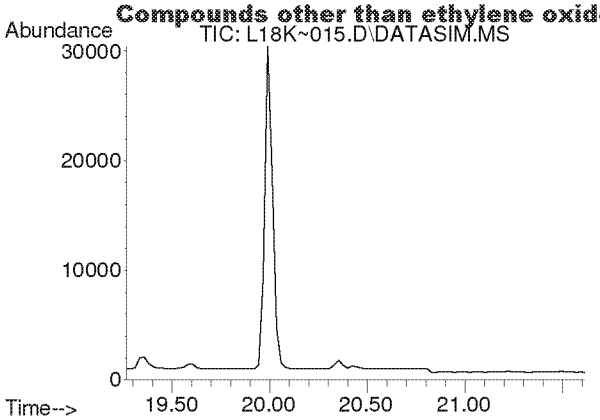
Lab File: L18K~015.D
Acq: 28 Nov 2018 12:08 am

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	128.9
49	167.9



Compounds other than ethylene oxide were not quantitated.

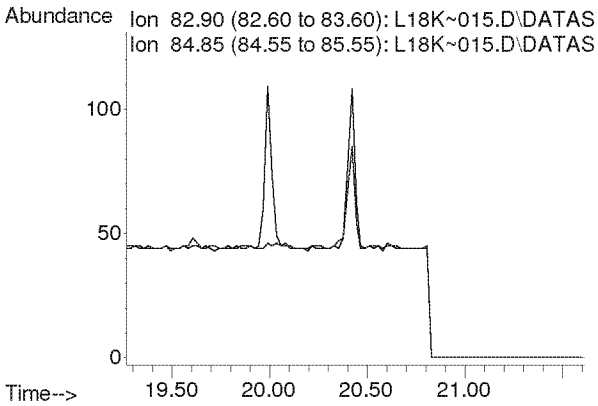


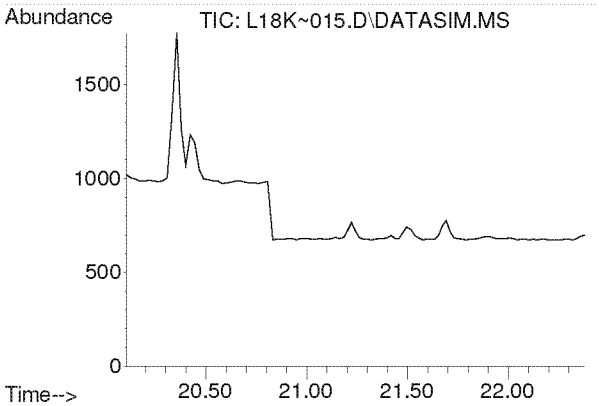
#26
Chloroform
Concen: N.D.
Expected RT: 20.42 min

Lab File: L18K~015.D
Acq: 28 Nov 2018 12:08 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



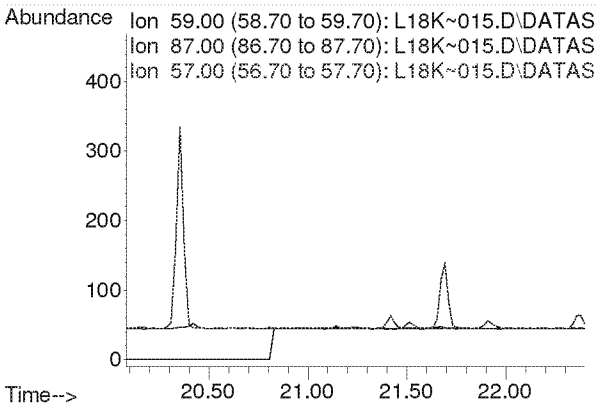


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.19 min

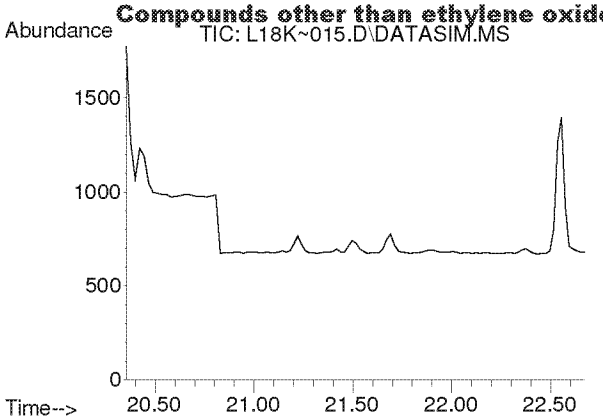
Lab File: L18K~015.D
Acq: 28 Nov 2018 12:08 am

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	38.5
57	34.0



Compounds other than ethylene oxide were not quantitated.

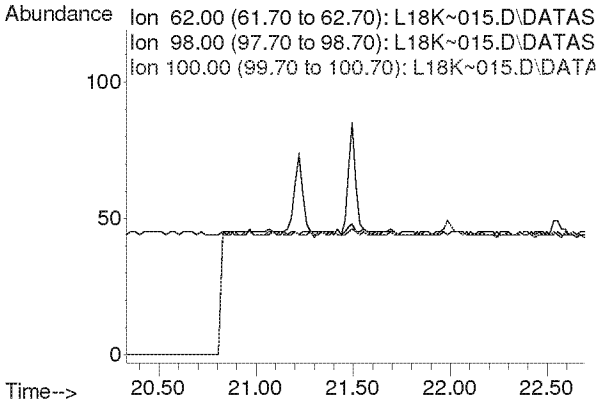


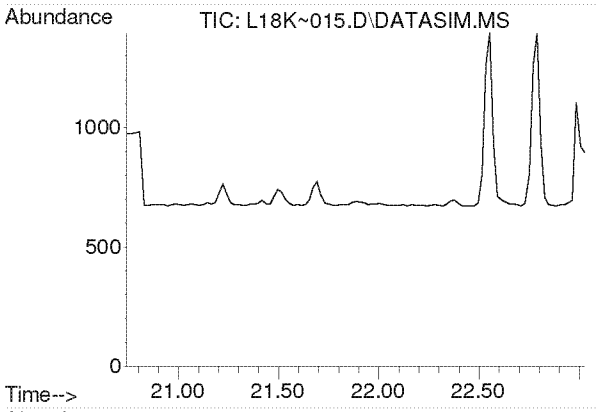
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.49 min

Lab File: L18K~015.D
Acq: 28 Nov 2018 12:08 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.0
100	3.9



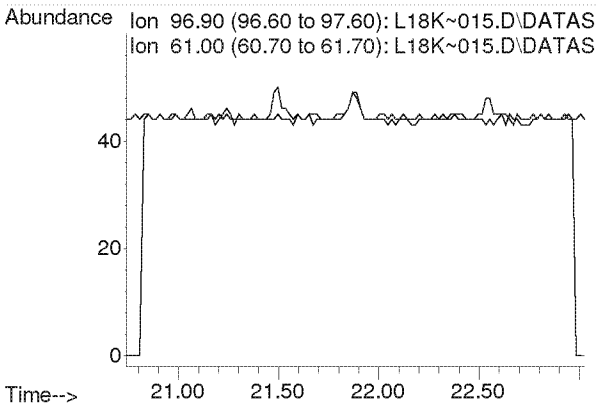


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.88 min

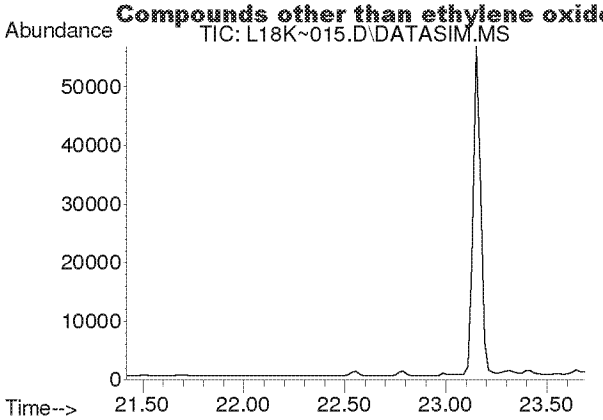
Lab File: L18K~015.D
Acq: 28 Nov 2018 12:08 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	59.6



Compounds other than ethylene oxide were not quantitated.

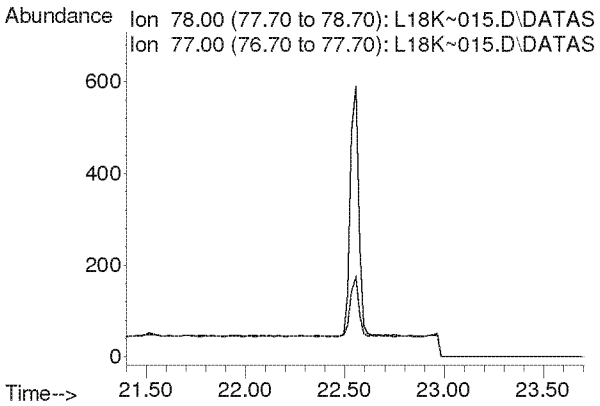


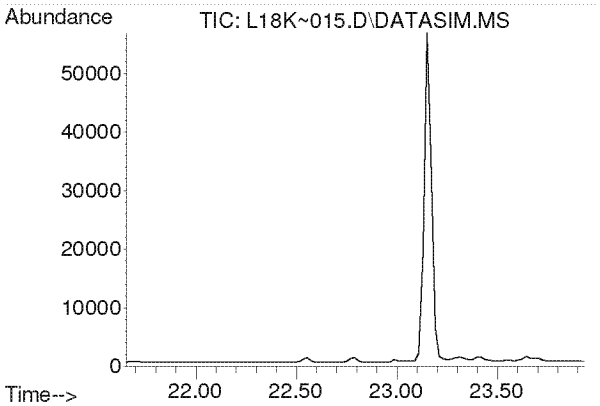
#31
Benzene
Concen: N.D.
Expected RT: 22.56 min

Lab File: L18K~015.D
Acq: 28 Nov 2018 12:08 am

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.9



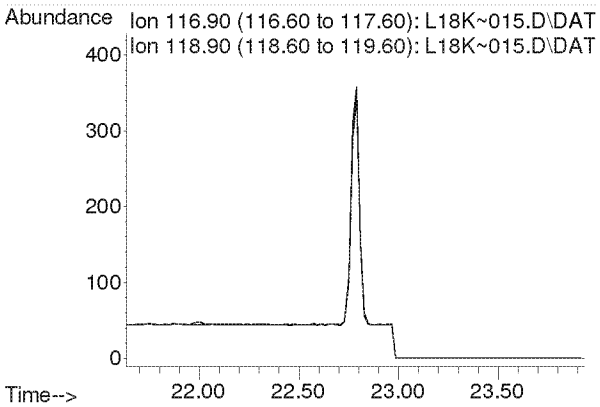


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.79 min

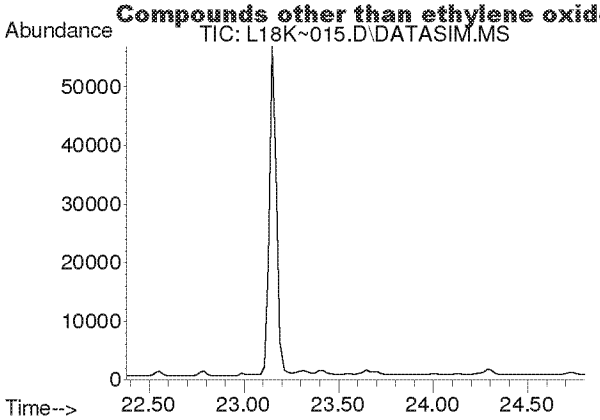
Lab File: L18K~015.D
Acq: 28 Nov 2018 12:08 am

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.9



Compounds other than ethylene oxide were not quantitated.

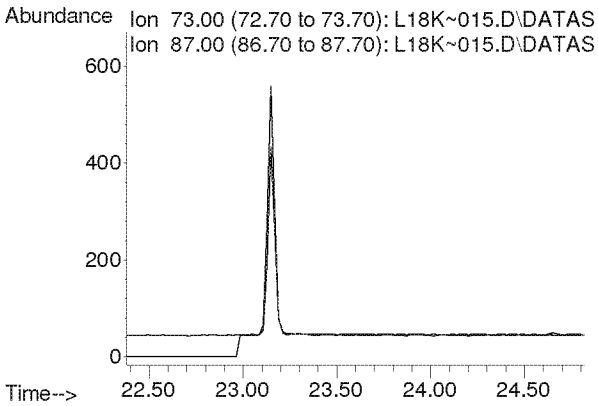


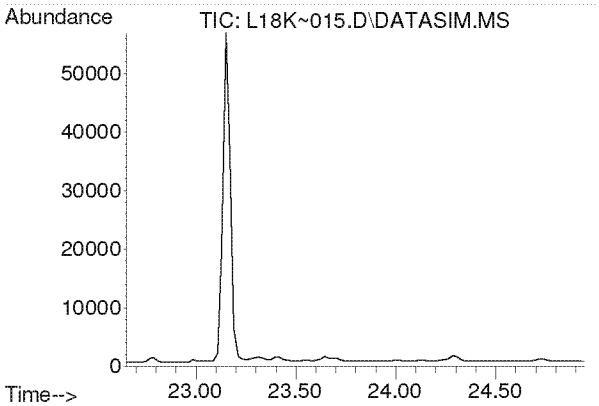
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L18K~015.D
Acq: 28 Nov 2018 12:08 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



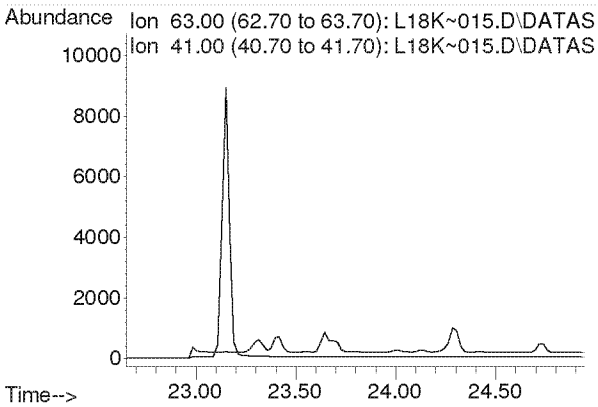


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.80 min

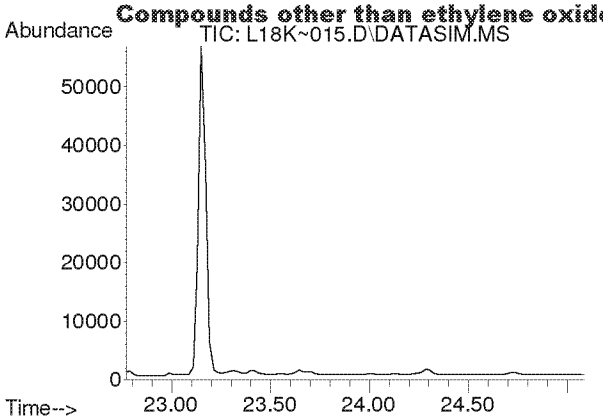
Lab File: L18K~015.D
Acq: 28 Nov 2018 12:08 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	222.1



Compounds other than ethylene oxide were not quantitated.

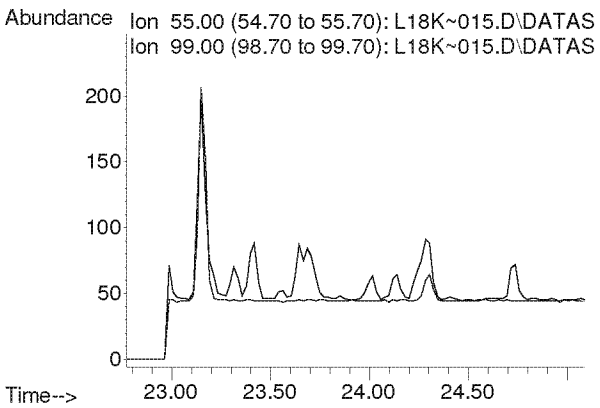


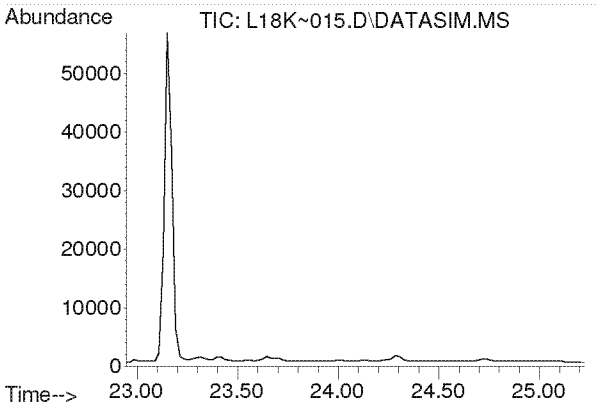
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L18K~015.D
Acq: 28 Nov 2018 12:08 am

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



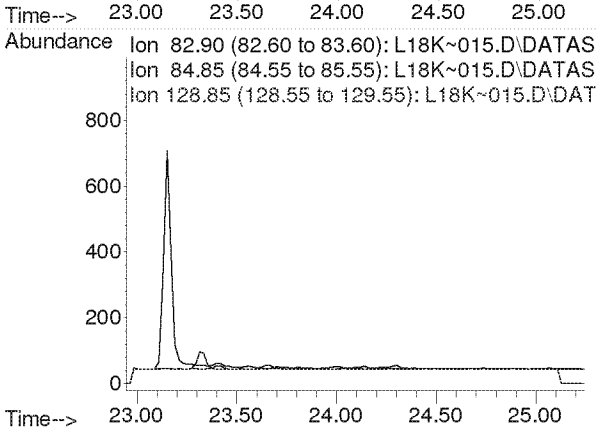


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.09 min

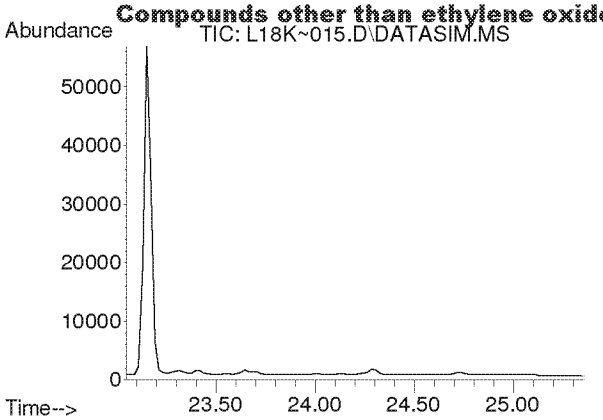
Lab File: L18K~015.D
Acq: 28 Nov 2018 12:08 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.9
129	12.9



Compounds other than ethylene oxide were not quantitated.

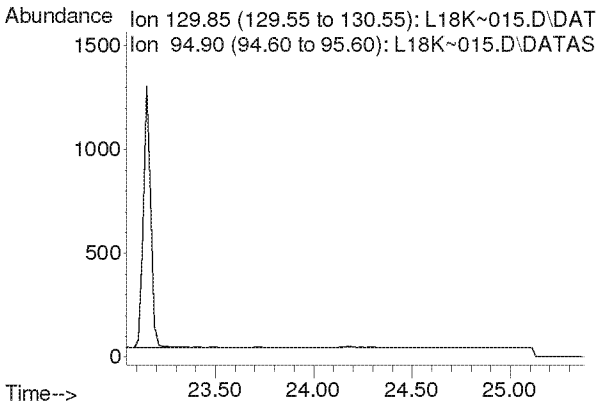


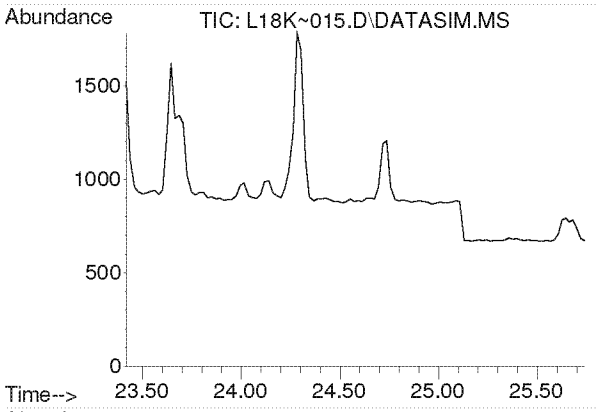
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.19 min

Lab File: L18K~015.D
Acq: 28 Nov 2018 12:08 am

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.9



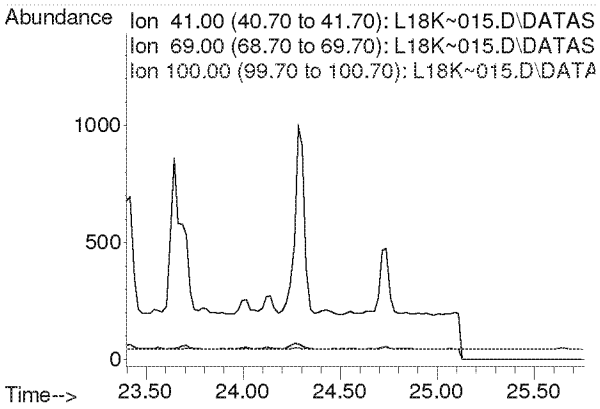


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.55 min

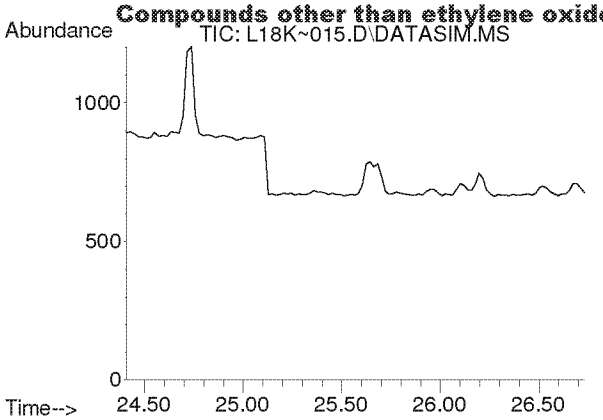
Lab File: L18K~015.D
Acq: 28 Nov 2018 12:08 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	20.0
100	5.1



Compounds other than ethylene oxide were not quantitated.

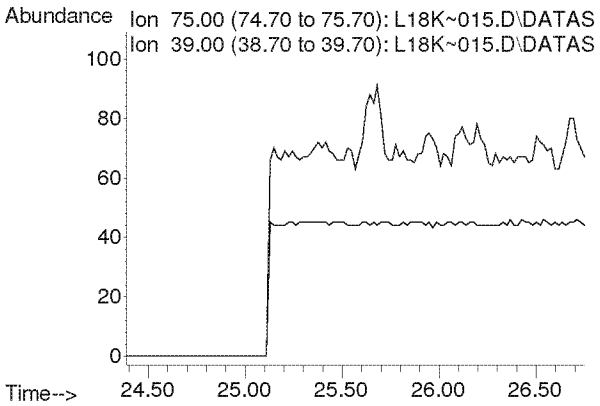


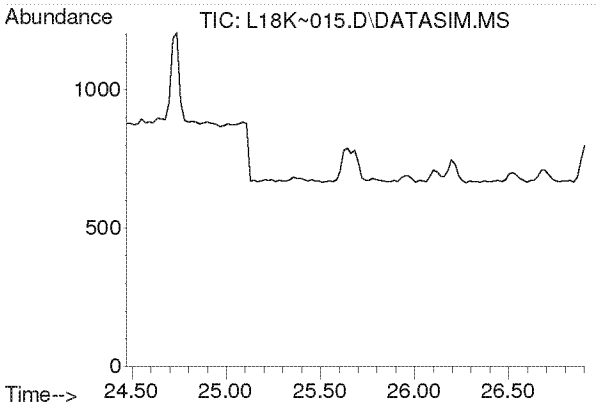
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.54 min

Lab File: L18K~015.D
Acq: 28 Nov 2018 12:08 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	55.6



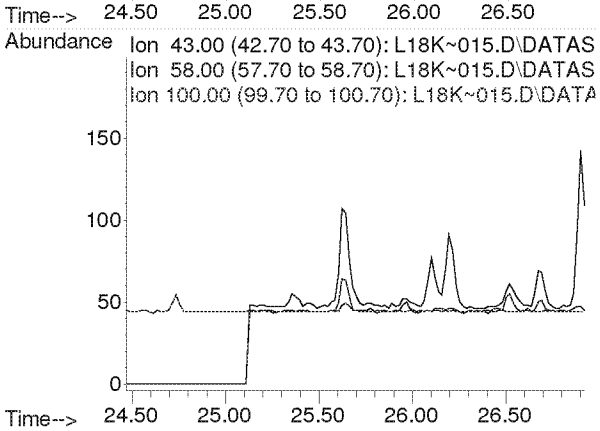


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.62 min

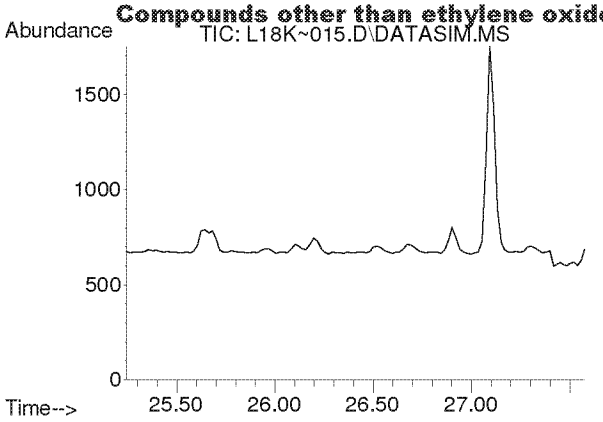
Lab File: L18K~015.D
Acq: 28 Nov 2018 12:08 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	33.3
100	8.0



Compounds other than ethylene oxide were not quantitated.

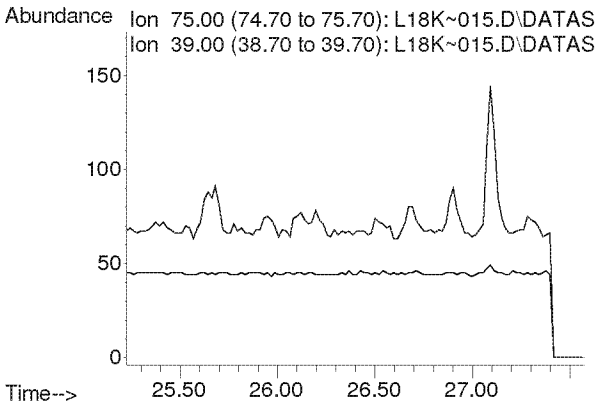


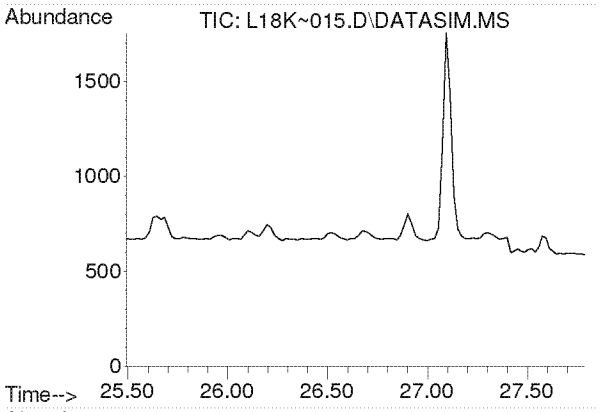
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.38 min

Lab File: L18K~015.D
Acq: 28 Nov 2018 12:08 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	55.3



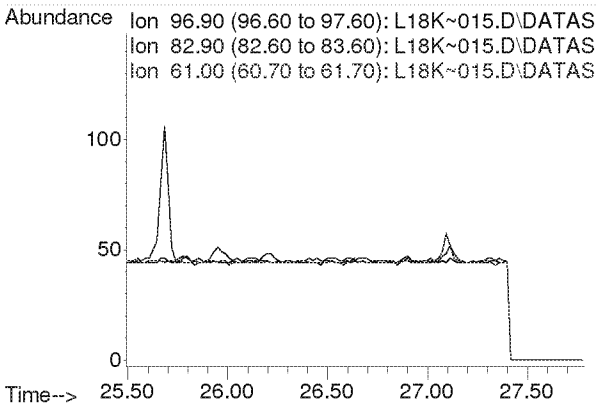


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.64 min

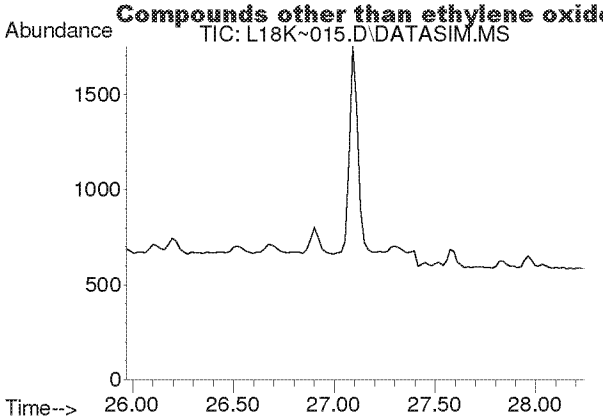
Lab File: L18K~015.D
Acq: 28 Nov 2018 12:08 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	95.3
61	64.6



Compounds other than ethylene oxide were not quantitated.

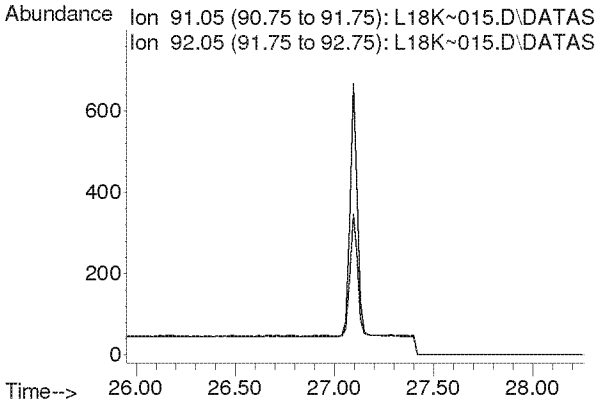


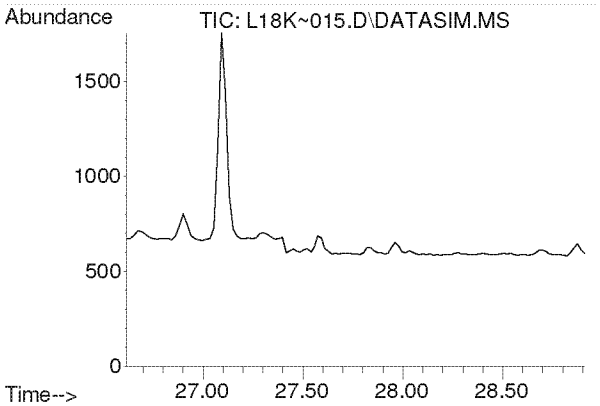
#44
Toluene
Concen: N.D.
Expected RT: 27.11 min

Lab File: L18K~015.D
Acq: 28 Nov 2018 12:08 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.1



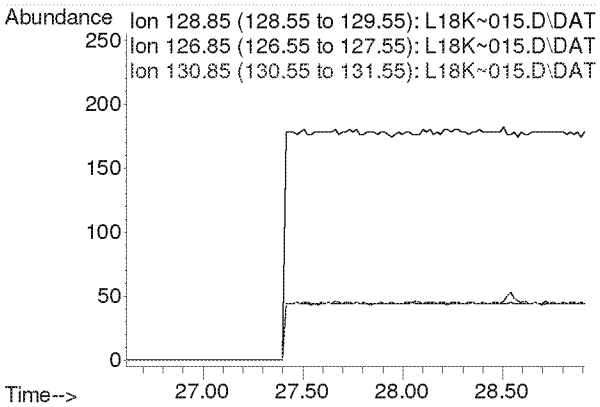


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.76 min

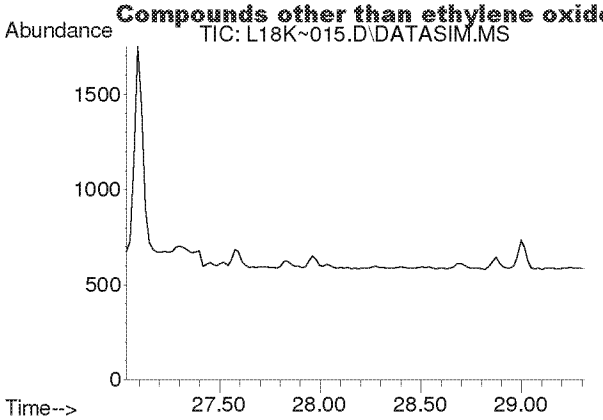
Lab File: L18K~015.D
Acq: 28 Nov 2018 12:08 am

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

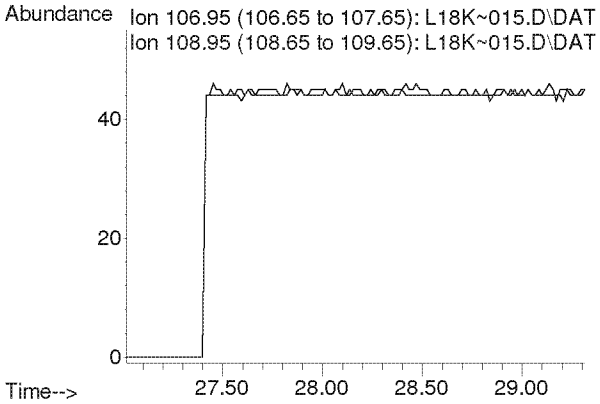


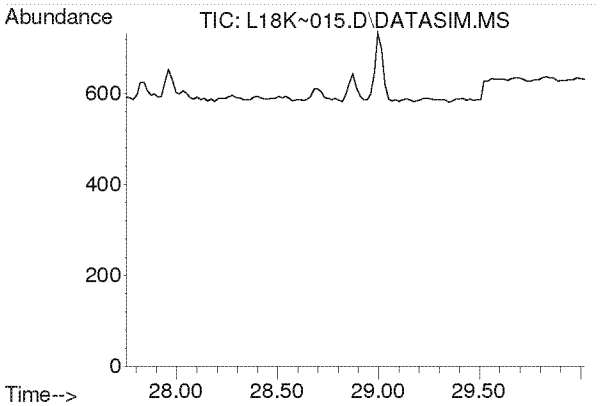
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.17 min

Lab File: L18K~015.D
Acq: 28 Nov 2018 12:08 am

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	93.8



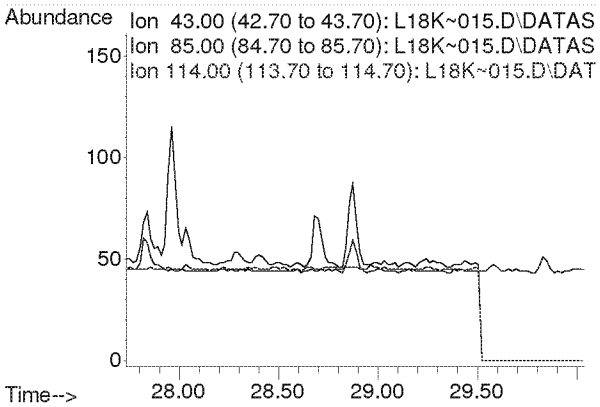


#47
n-Octane
Concen: N.D.
Expected RT: 28.89 min

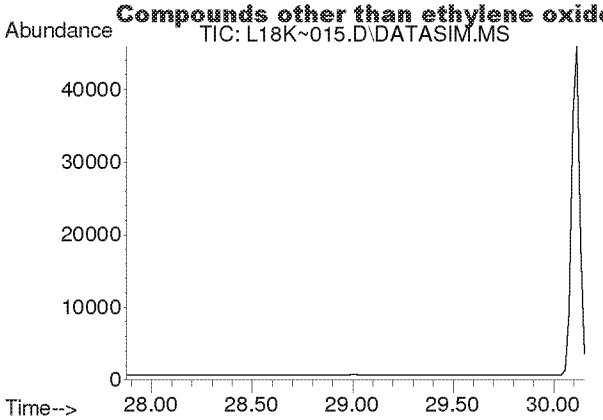
Lab File: L18K~015.D
Acq: 28 Nov 2018 12:08 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	37.8
114	2.4



Compounds other than ethylene oxide were not quantitated.

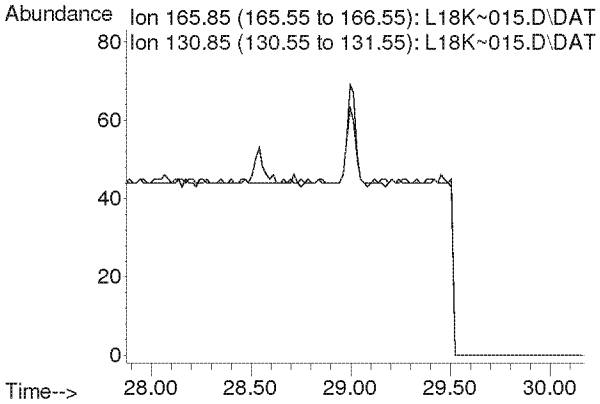


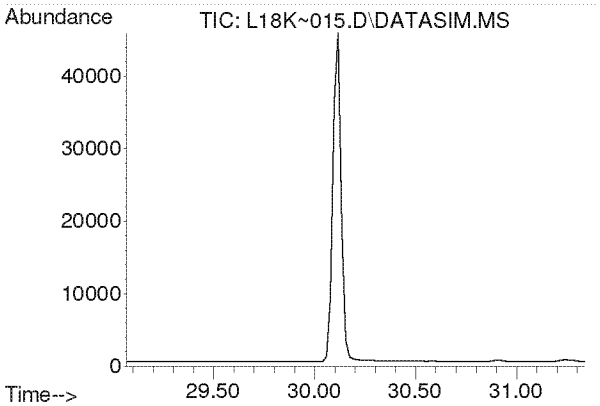
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.02 min

Lab File: L18K~015.D
Acq: 28 Nov 2018 12:08 am

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	78.7



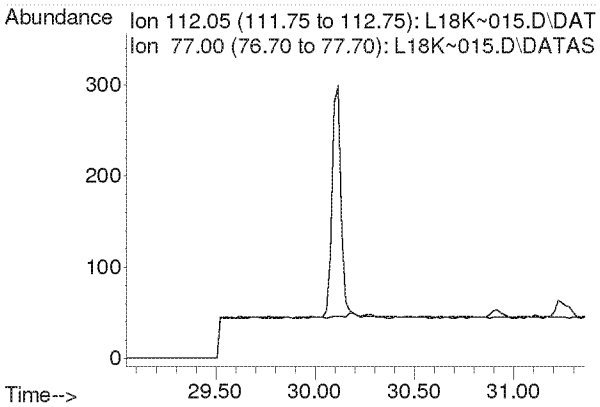


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.20 min

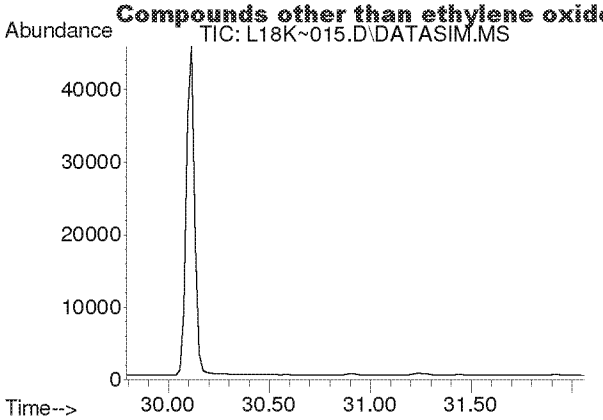
Lab File: L18K~015.D
Acq: 28 Nov 2018 12:08 am

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.3



Compounds other than ethylene oxide were not quantitated.

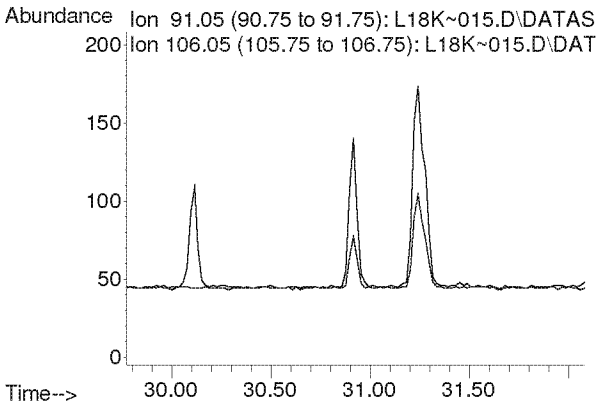


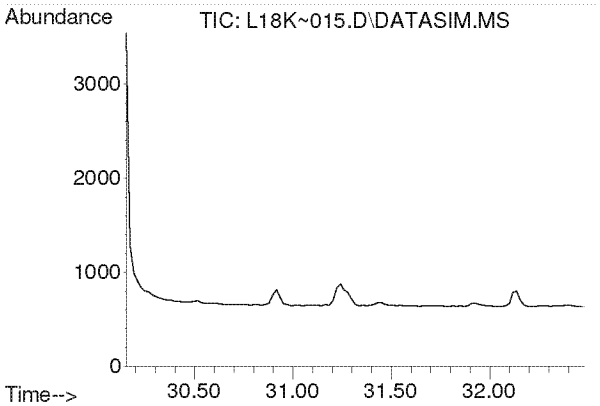
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.93 min

Lab File: L18K~015.D
Acq: 28 Nov 2018 12:08 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	31.8



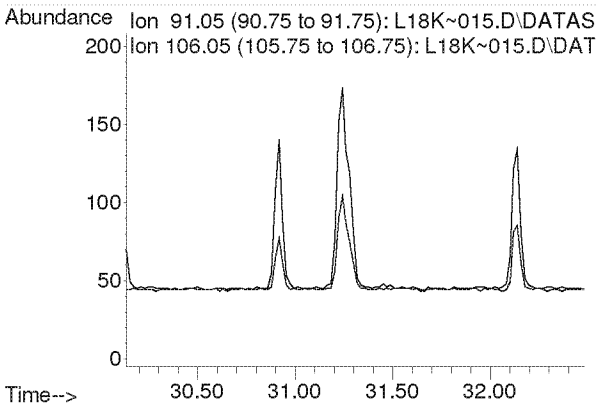


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.29 min

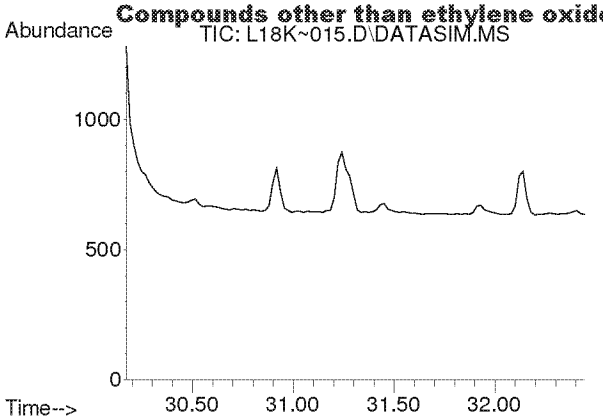
Lab File: L18K~015.D
Acq: 28 Nov 2018 12:08 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.4



Compounds other than ethylene oxide were not quantitated.

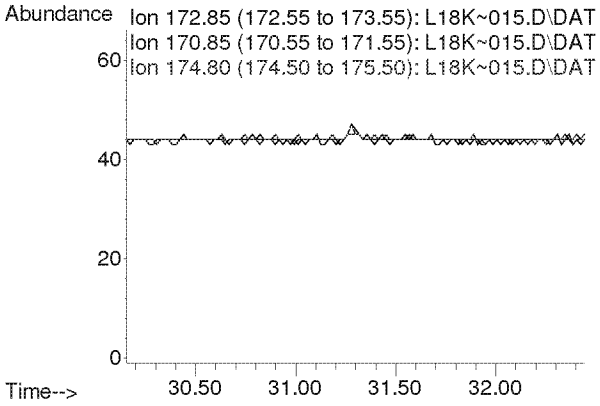


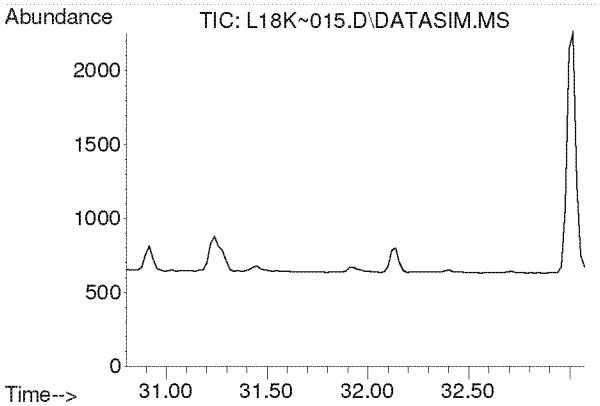
#52
Bromoform
Concen: N.D.
Expected RT: 31.30 min

Lab File: L18K~015.D
Acq: 28 Nov 2018 12:08 am

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.4
175	49.0



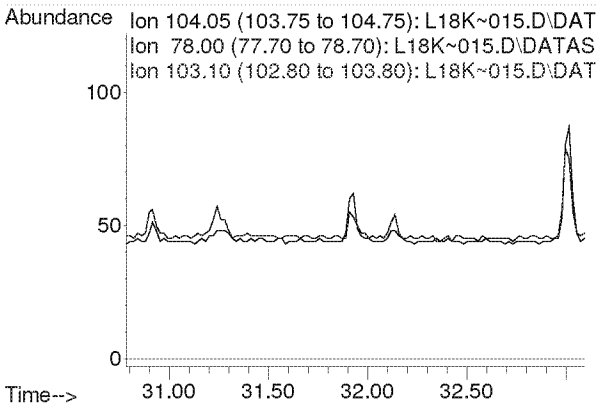


#53
Styrene
Concen: N.D.
Expected RT: 31.94 min

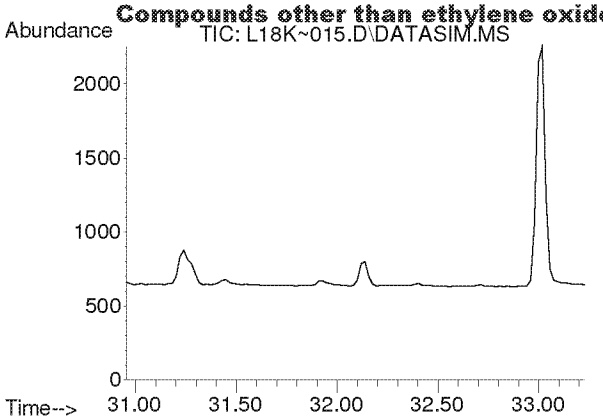
Lab File: L18K~015.D
Acq: 28 Nov 2018 12:08 am

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	45.7
103	0.0



Compounds other than ethylene oxide were not quantitated.

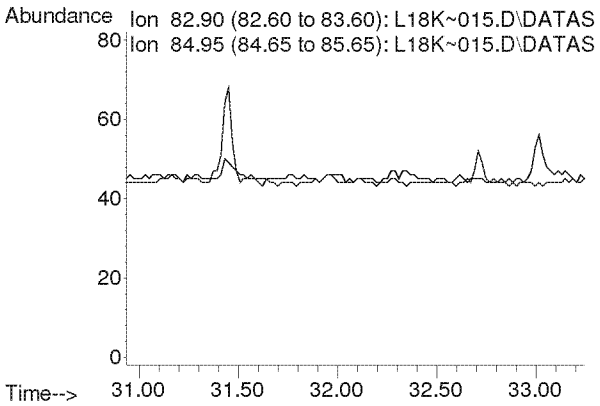


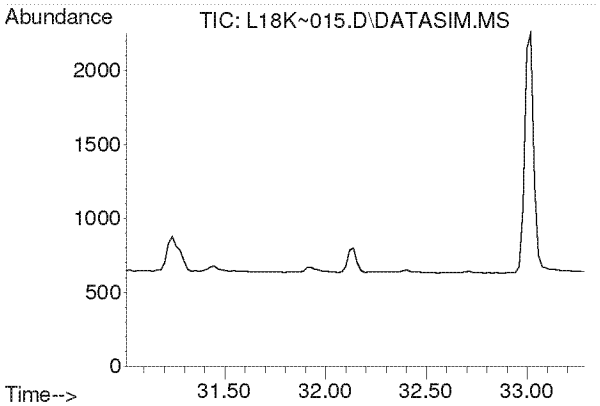
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.09 min

Lab File: L18K~015.D
Acq: 28 Nov 2018 12:08 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.3



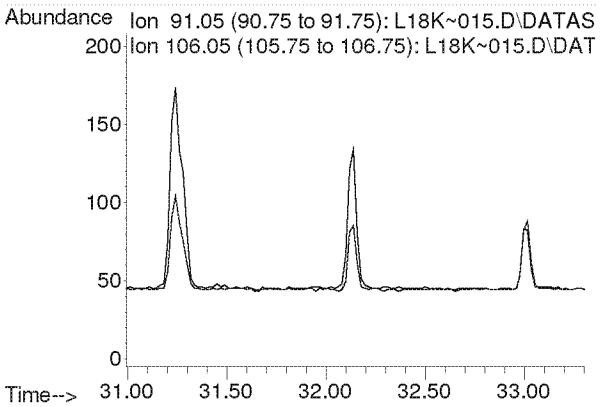


#55
o-Xylene
Concen: N.D.
Expected RT: 32.15 min

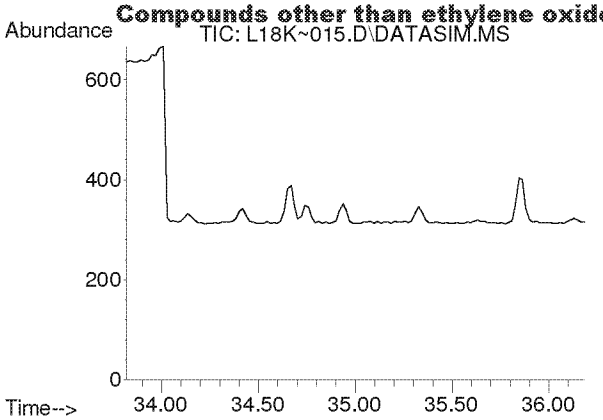
Lab File: L18K~015.D
Acq: 28 Nov 2018 12:08 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.5



Compounds other than ethylene oxide were not quantitated.

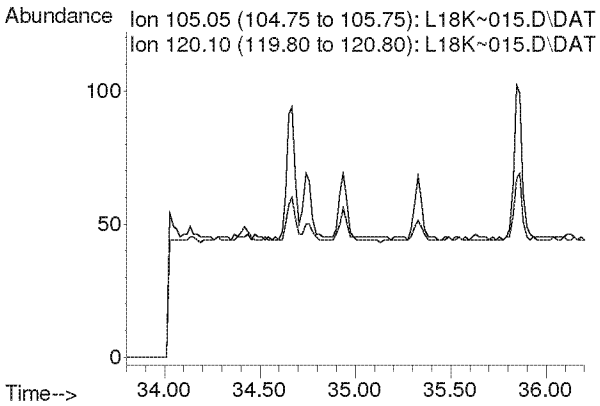


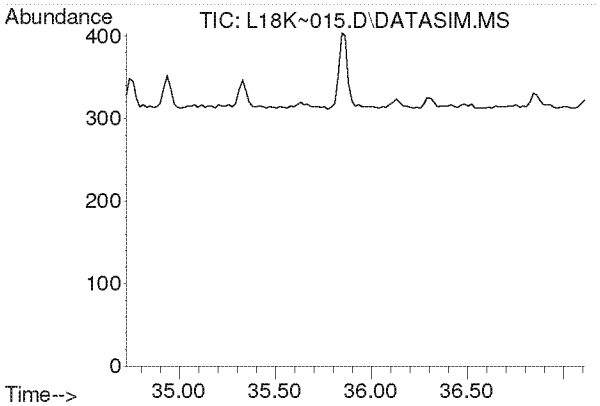
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.95 min

Lab File: L18K~015.D
Acq: 28 Nov 2018 12:08 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	45.6



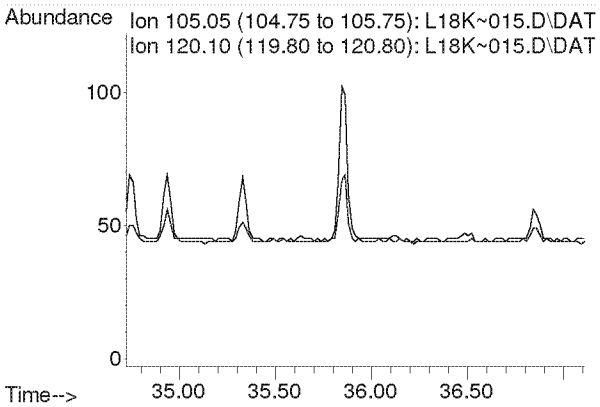


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.87 min

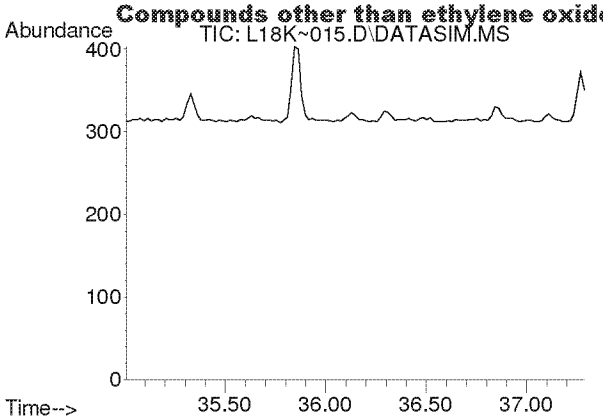
Lab File: L18K~015.D
Acq: 28 Nov 2018 12:08 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	43.4



Compounds other than ethylene oxide were not quantitated.

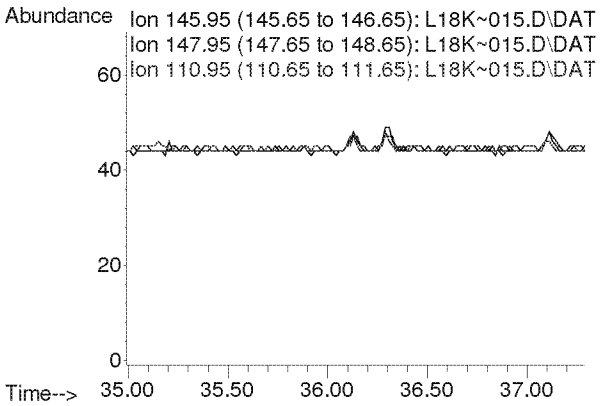


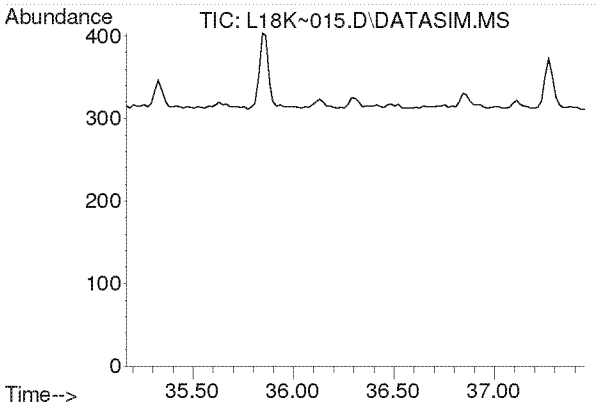
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.15 min

Lab File: L18K~015.D
Acq: 28 Nov 2018 12:08 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	41.1



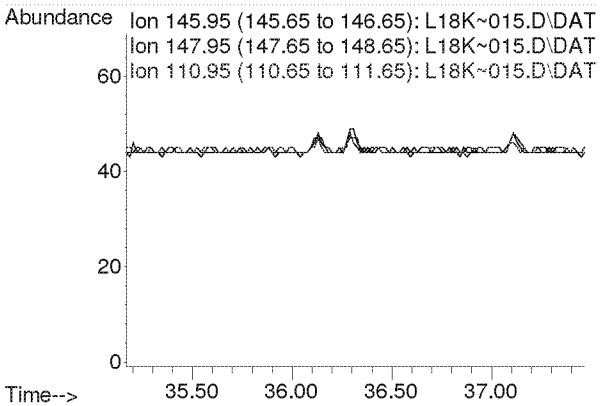


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.31 min

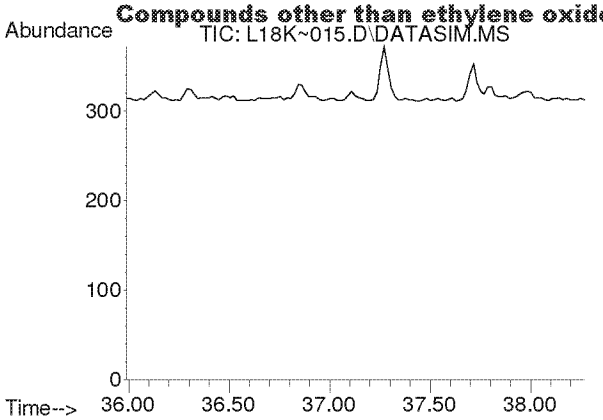
Lab File: L18K~015.D
Acq: 28 Nov 2018 12:08 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	39.8



Compounds other than ethylene oxide were not quantitated.

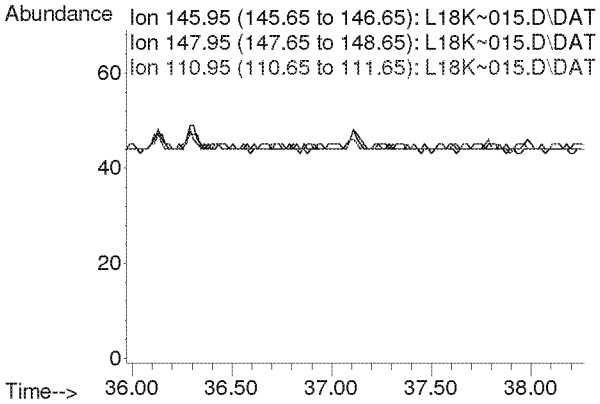


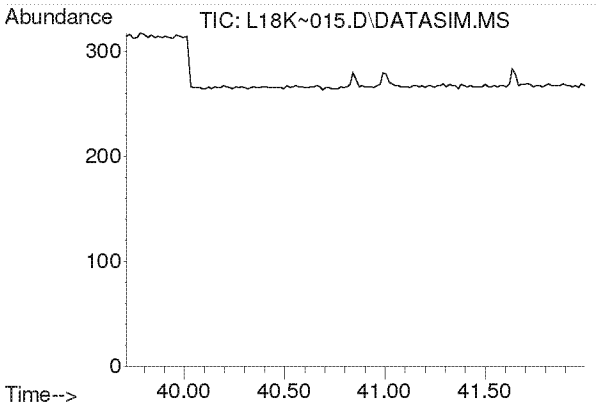
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.12 min

Lab File: L18K~015.D
Acq: 28 Nov 2018 12:08 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	63.9
111	41.8



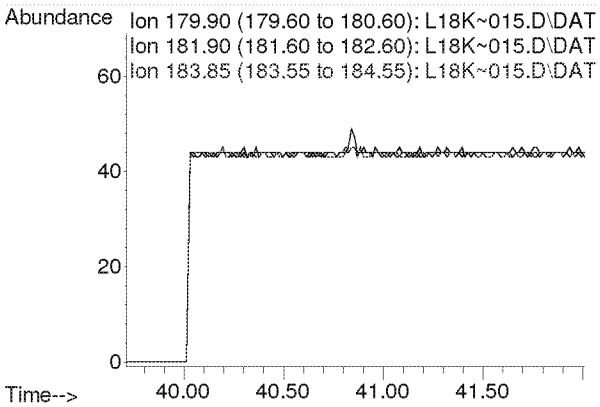


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.85 min

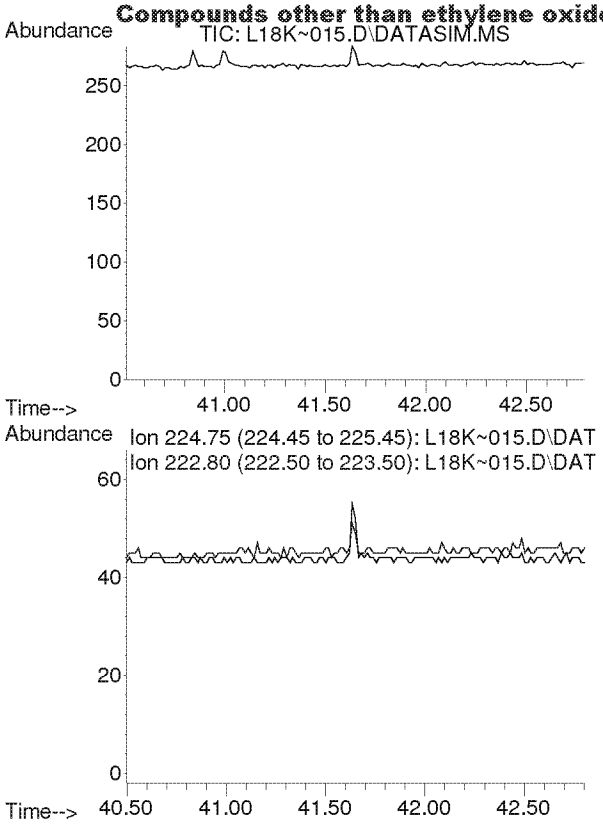
Lab File: L18K~015.D
Acq: 28 Nov 2018 12:08 am

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	95.6
184	30.5



Compounds other than ethylene oxide were not quantitated.



#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.65 min

Lab File: L18K~015.D
Acq: 28 Nov 2018 12:08 am

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.8

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : Y:\MASS SPEC 1 DATA\L18K~\
Data File : L18K~016.D
Acq On : 28 Nov 2018 1:11 am (#1); 28 Nov 2018 1:06 am (#2)
Operator : MAH
Sample : 8112113-05
Misc : 8112113-05 GOWER MS 11/19/18 (Sig #1); (Sig #2)
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Nov 28 08:10:30 2018
Quant Method : C:\msdchem\1\METHODS\8100002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Fri Oct 12 09:33:42 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.991	66	45848	4.8000 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.149	114	106902	5.0200 ppbv	-0.02
43) IS-Chlorobenzene-d5	30.114	117	74152	4.7700 ppbv	-0.02

System Monitoring Compounds

Target Compounds					Qvalue
2) Acetylene	0.000	26	0	N.D. d	
3) Propylene	0.000	41	0	N.D. d	
4) Dichlorodifluoromethane	0.000	85	0	N.D. d	
5) Chloromethane	0.000	50	0	N.D. d	
6) Dichlorotetrafluoroethane	0.000	85	0	N.D. d	
7) Vinyl Chloride	0.000	62	0	N.D. d	
8) 1,3-Butadiene	0.000	54	0	N.D. d	
9) Ethylene oxide	12.498	29	214m	0.0860 ppbv	
10) Bromomethane	0.000	94	0	N.D. d	
11) Chloroethane	0.000	64	0	N.D.	
12) Acetonitrile	0.000	41	0	N.D. d	
13) Acrolein	0.000	56	0	N.D. d	
14) Trichlorofluoromethane	0.000	101	0	N.D. d	
15) Acrylonitrile	0.000	53	0	N.D. d	
16) 1,1-Dichloroethene	0.000	61	0	N.D.	
17) Methylene Chloride	0.000	49	0	N.D. d	
18) Carbon Disulfide	0.000	76	0	N.D. d	
19) Trichlorotrifluoroethane	0.000	101	0	N.D. d	
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.	
21) 1,1-Dichloroethane	0.000	63	0	N.D.	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D.	
23) Chloroprene	0.000	53	0	N.D. d	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D. d	
25) Bromochloromethane	0.000	128	0	N.D.	
26) Chloroform	0.000	83	0	N.D. d	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D.	
28) 1,2-Dichloroethane	0.000	62	0	N.D. d	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D.	
31) Benzene	0.000	78	0	N.D. d	
32) Carbon Tetrachloride	0.000	117	0	N.D. d	
33) tert-Amyl Methyl Ether	0.000	73	0	N.D.	
34) 1,2-Dichloropropane	0.000	63	0	N.D.	
35) Ethyl Acrylate	0.000	55	0	N.D.	
36) Bromodichloromethane	0.000	83	0	N.D.	
37) Trichloroethylene	0.000	130	0	N.D.	
38) Methyl Methacrylate	0.000	41	0	N.D. d	
39) cis-1,3-Dichloropropene	0.000	75	0	N.D.	
40) Methyl Isobutyl Ketone	0.000	43	0	N.D. d	
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.	
44) Toluene	0.000	91	0	N.D. d	
45) Dibromochloromethane	0.000	129	0	N.D.	
46) 1,2-Dibromoethane	0.000	107	0	N.D.	
47) n-Octane	0.000	43	0	N.D. d	
48) Tetrachloroethylene	0.000	166	0	N.D. d	

Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L18K~\
Data File : L18K~016.D
Acq On : 28 Nov 2018 1:11 am (#1); 28 Nov 2018 1:06 am (#2)
Operator : MAH
Sample : 8112113-05
Misc : 8112113-05 GOWER MS 11/19/18 (Sig #1); (Sig #2)
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Nov 28 08:10:30 2018
Quant Method : C:\msdchem\1\METHODS\8100002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Fri Oct 12 09:33:42 2018
Response via : Initial Calibration

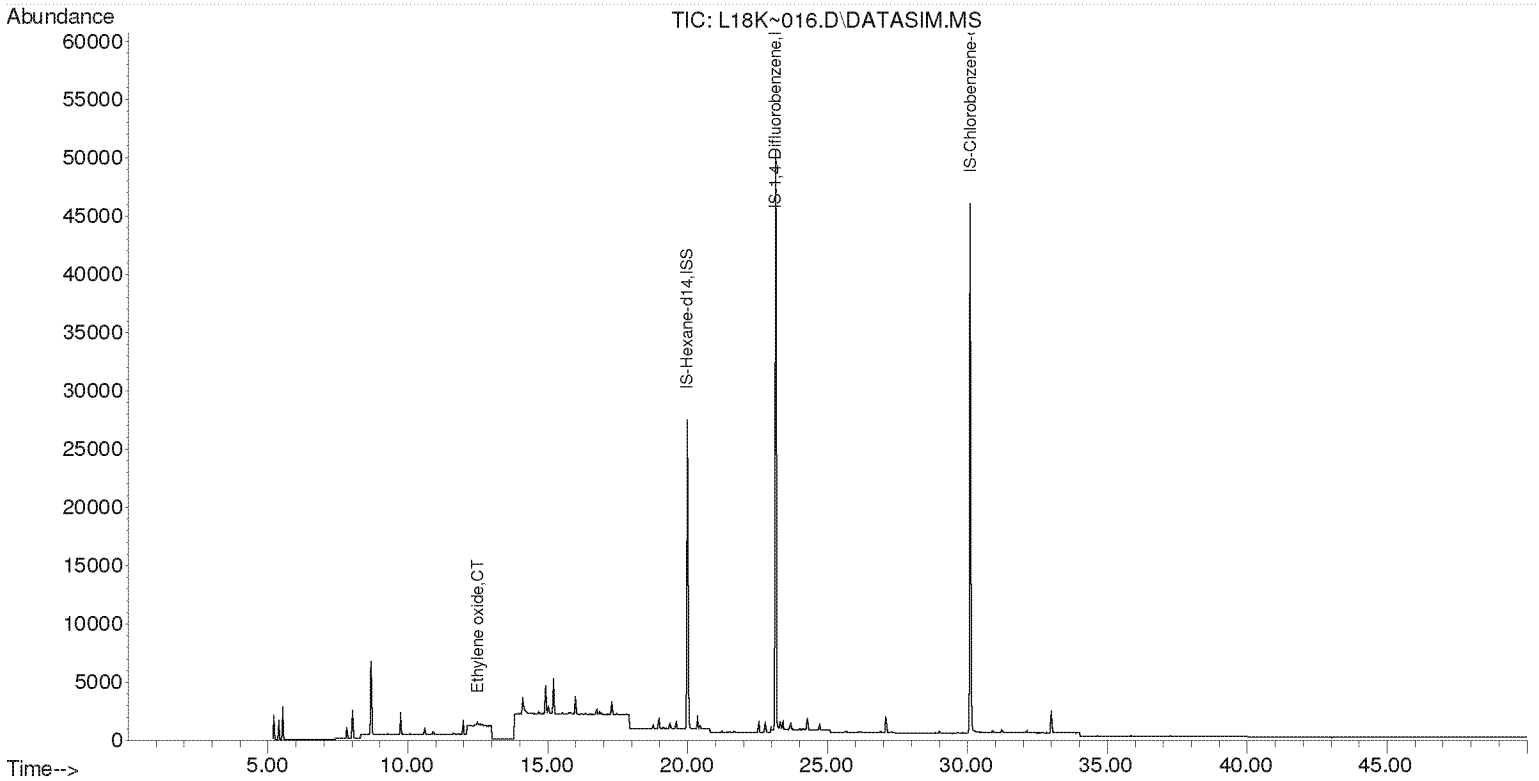
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
49) Chlorobenzene	0.000	112	0	N.D.	
50) Ethylbenzene	0.000	91	0	N.D.	d
51) m,p-Xylene	0.000	91	0	N.D.	d
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	d
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D.	d
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	d
57) 1,2,4-Trimethylbenzene	0.000	105	0	N.D.	d
58) m-Dichlorobenzene	0.000	146	0	N.D.	
59) p-Dichlorobenzene	0.000	146	0	N.D.	
60) o-Dichlorobenzene	0.000	146	0	N.D.	
61) 1,2,4-Trichlorobenzene	0.000	180	0	N.D.	
62) Hexachloro-1,3-butadiene	0.000	225	0	N.D.	

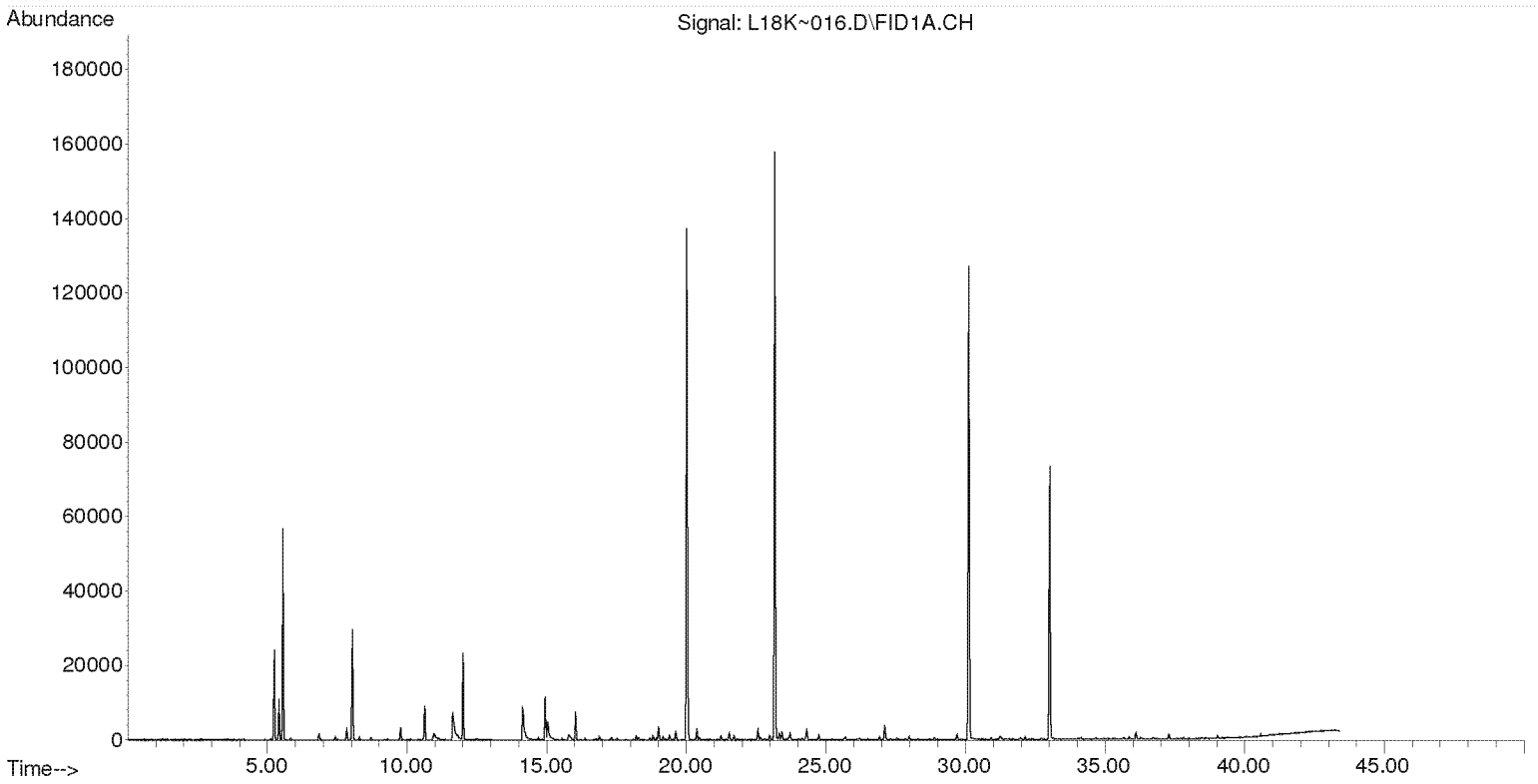
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Compounds other than ethylene oxide were not quantitated.

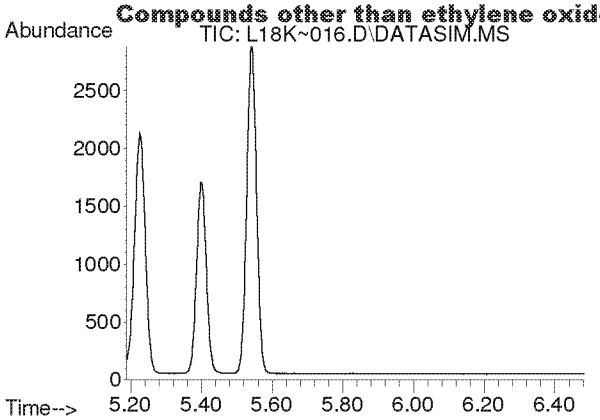
Data Path : Y:\MASS SPEC 1 DATA\L18K~\
Data File : L18K~016.D
Acq On : 28 Nov 2018 1:11 am (#1); 28 Nov 2018 1:06 am (#2)
Operator : MAH
Sample : 8112113-05
Misc : 8112113-05 GOWER MS 11/19/18 (Sig #1); (Sig #2)
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Nov 28 08:10:30 2018
Quant Method : C:\msdchem\1\METHODS\8100002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Fri Oct 12 09:33:42 2018
Response via : Initial Calibration





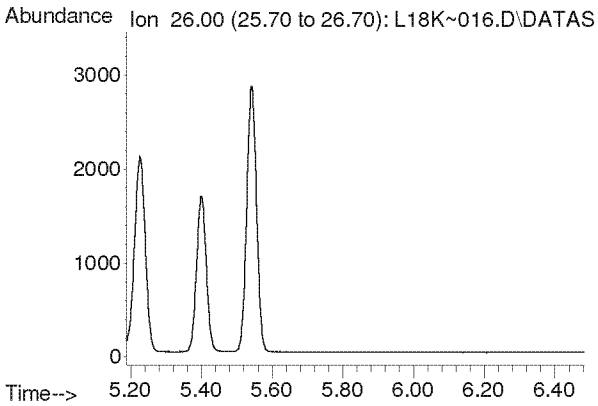
Compounds other than ethylene oxide were not quantitated.

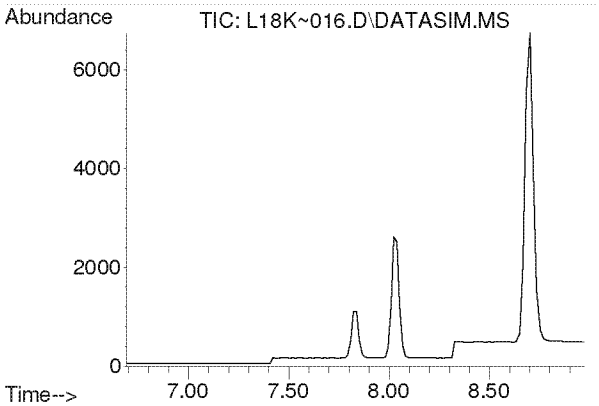


#2
Acetylene
Concen: N.D.
Expected RT: 5.41 min

Lab File: L18K~016.D
Acq: 28 Nov 2018 1:11 am

Tgt Ion: 26



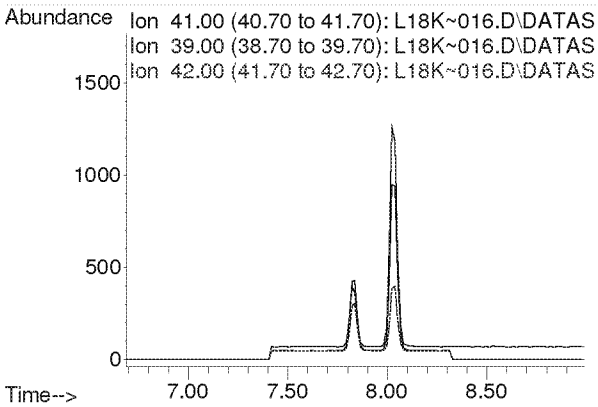


#3
Propylene
Concen: N.D.
Expected RT: 7.84 min

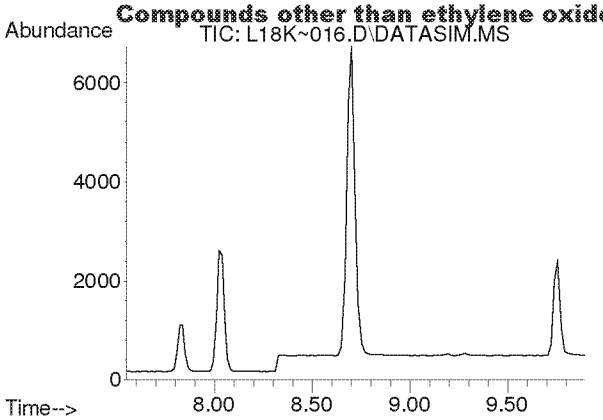
Lab File: L18K~016.D
Acq: 28 Nov 2018 1:11 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	81.2
42	65.4



Compounds other than ethylene oxide were not quantitated.

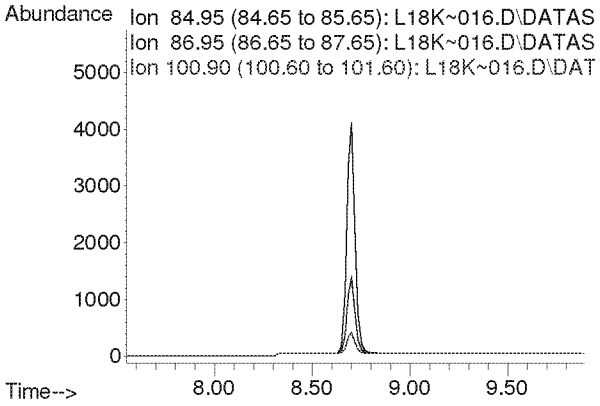


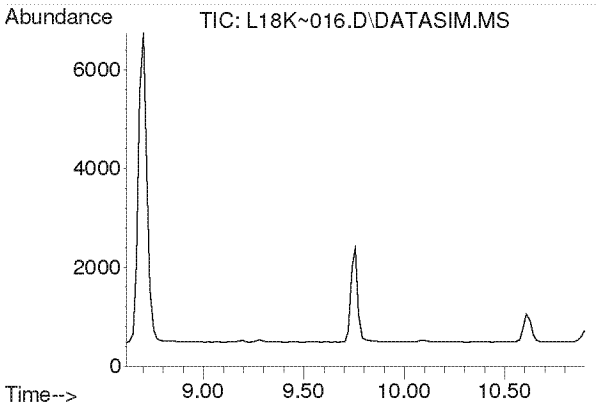
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.69 min

Lab File: L18K~016.D
Acq: 28 Nov 2018 1:11 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.3
101	9.0



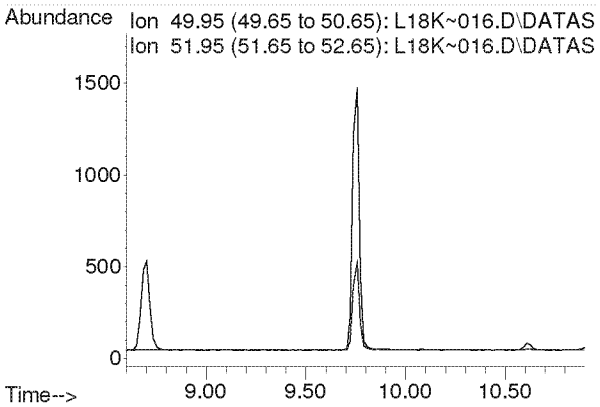


#5
Chloromethane
Concen: N.D.
Expected RT: 9.76 min

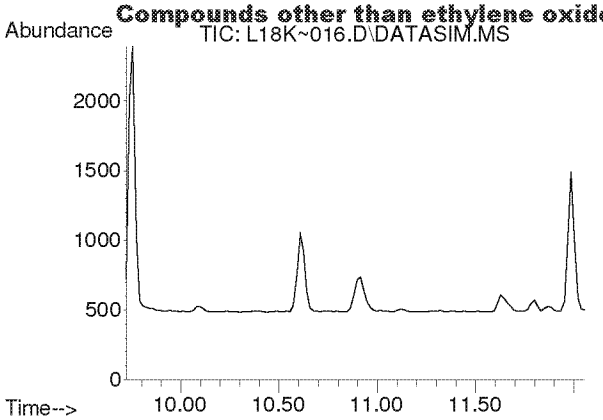
Lab File: L18K~016.D
Acq: 28 Nov 2018 1:11 am

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.2



Compounds other than ethylene oxide were not quantitated.

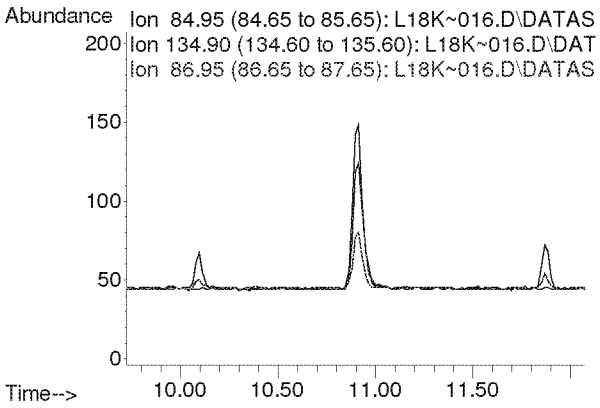


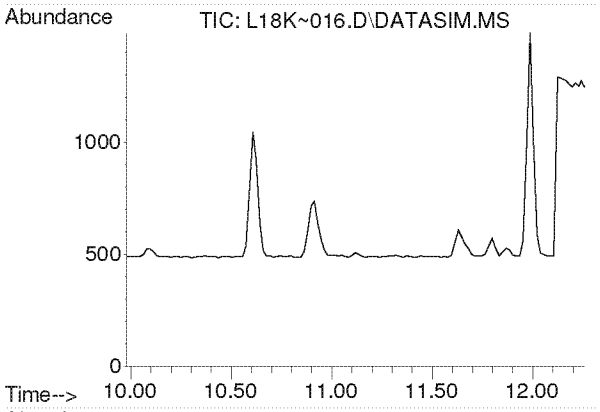
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.87 min

Lab File: L18K~016.D
Acq: 28 Nov 2018 1:11 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.6
87	32.1



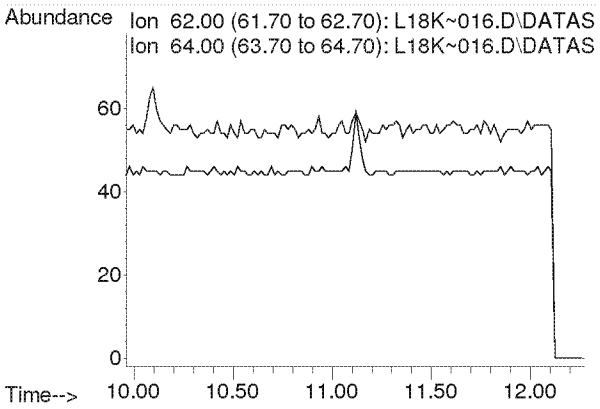


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

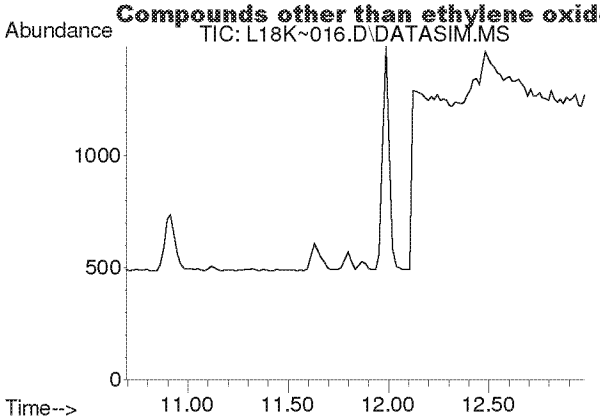
Lab File: L18K~016.D
Acq: 28 Nov 2018 1:11 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	32.0



Compounds other than ethylene oxide were not quantitated.

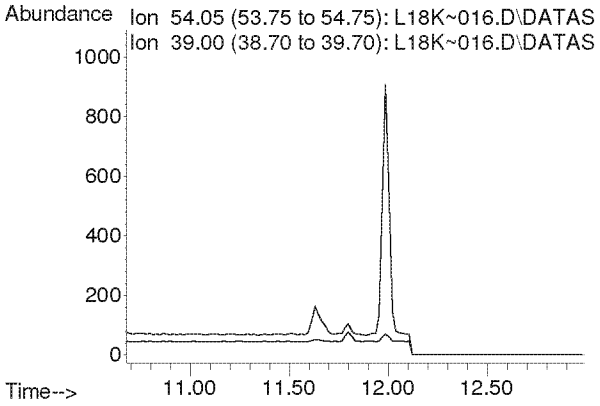


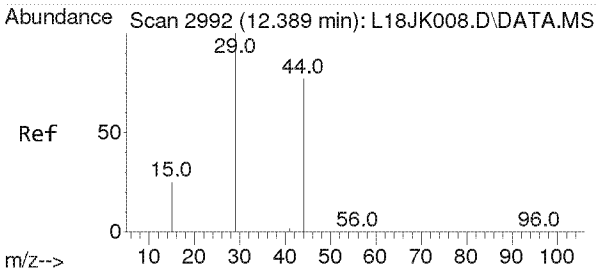
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.79 min

Lab File: L18K~016.D
Acq: 28 Nov 2018 1:11 am

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	108.7

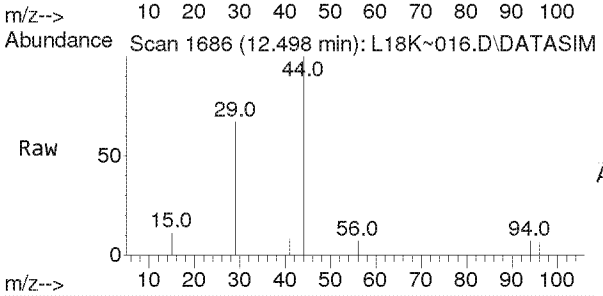


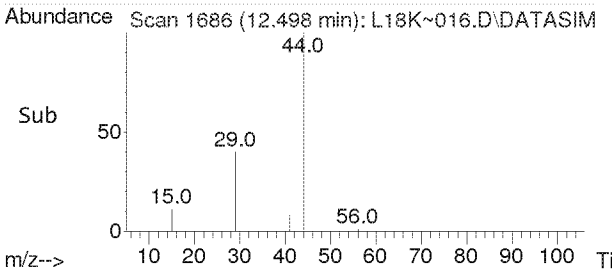


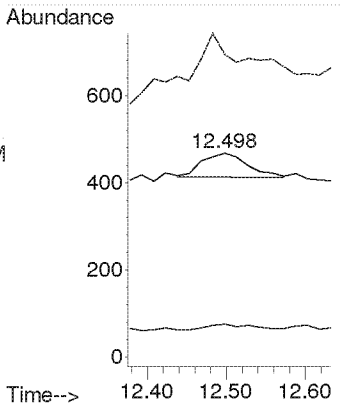
#9
Ethylene oxide
Concen: 0.086 ppbv m
RT: 12.498 min Scan# 1686
Delta R.T. 0.109 min
Lab File: L18K~016.D
Acq: 28 Nov 2018 1:11 am

Tgt Ion: 29 Resp: 214

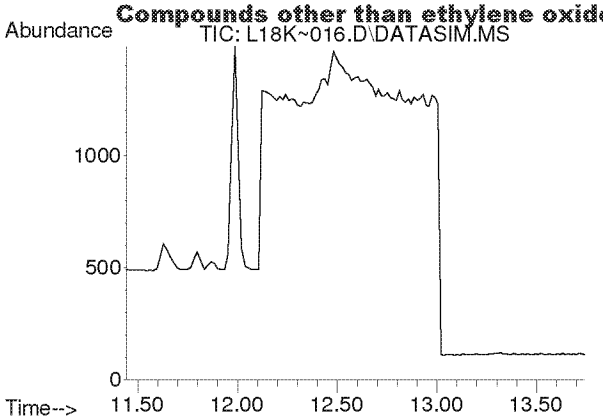
Ion	Ratio	Lower	Upper
29	100		
15	0.0	20.1	30.1#
44	0.0	62.6	93.8#







Compounds other than ethylene oxide were not quantitated.

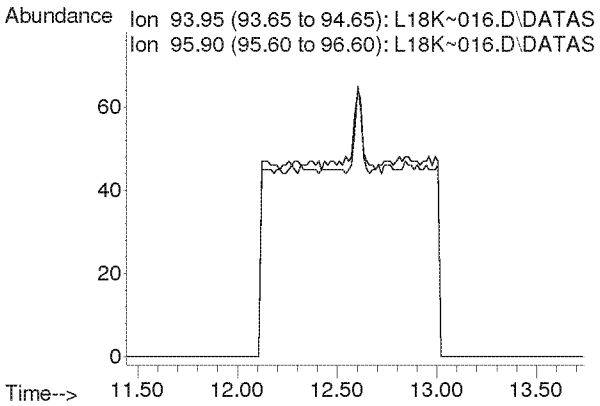


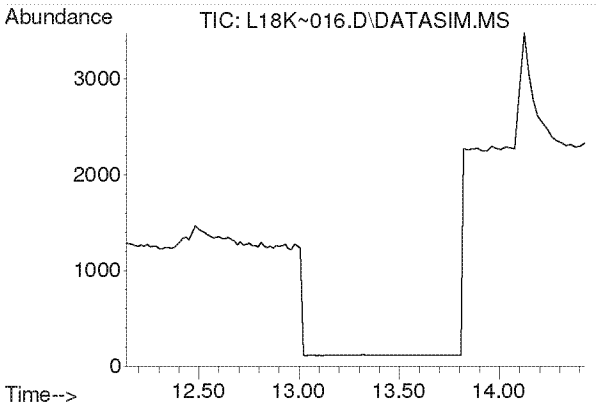
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L18K~016.D
Acq: 28 Nov 2018 1:11 am

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



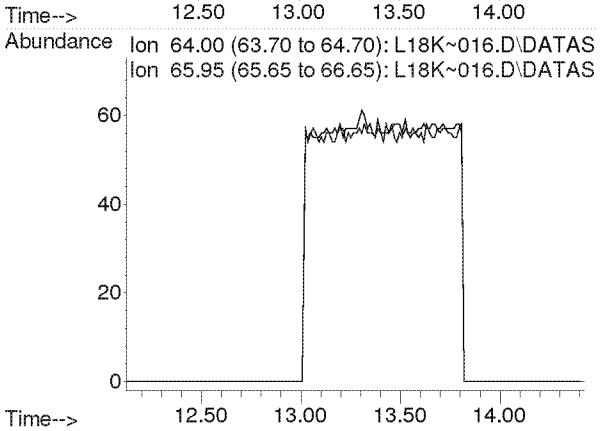


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

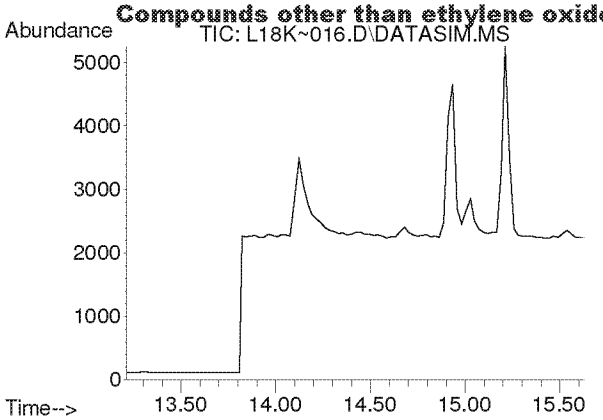
Lab File: L18K~016.D
Acq: 28 Nov 2018 1:11 am

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

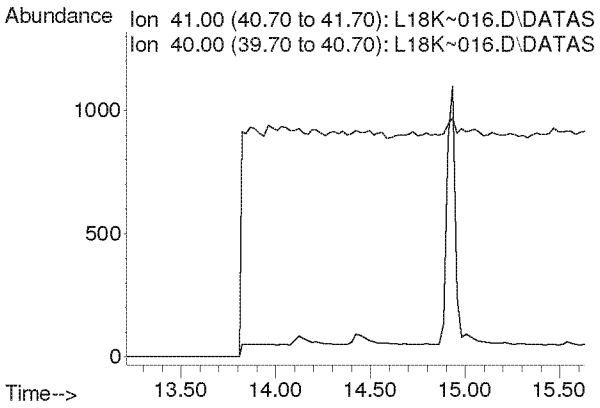


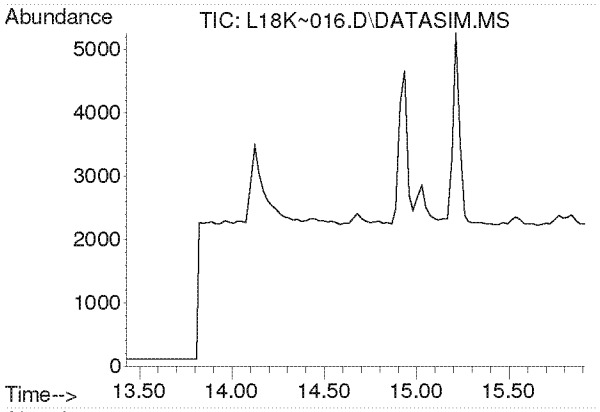
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.34 min

Lab File: L18K~016.D
Acq: 28 Nov 2018 1:11 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	53.9



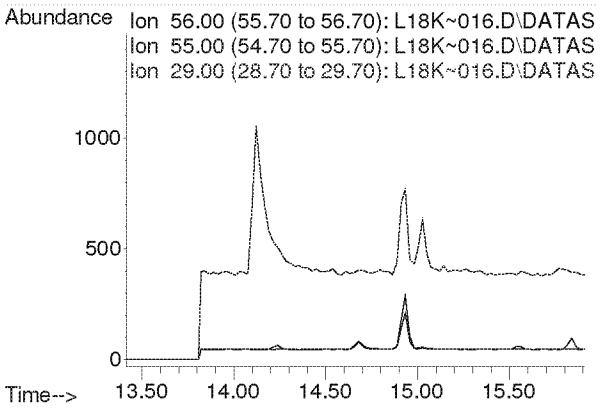


#13
Acrolein
Concen: N.D.
Expected RT: 14.62 min

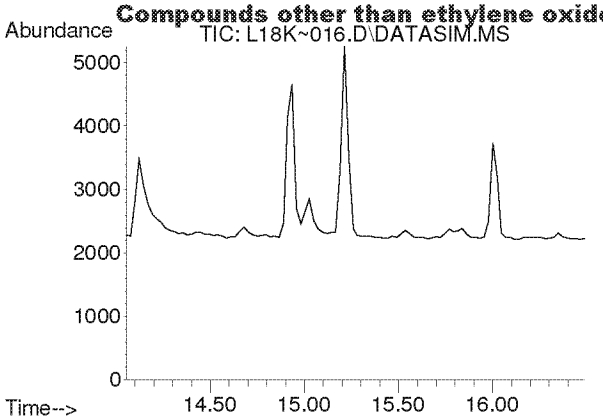
Lab File: L18K~016.D
Acq: 28 Nov 2018 1:11 am

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	77.4
29	61.5



Compounds other than ethylene oxide were not quantitated.

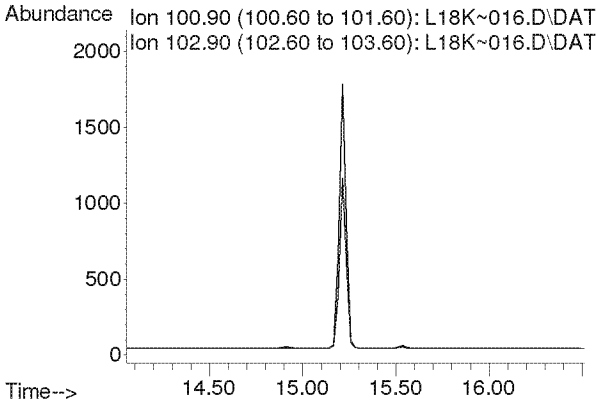


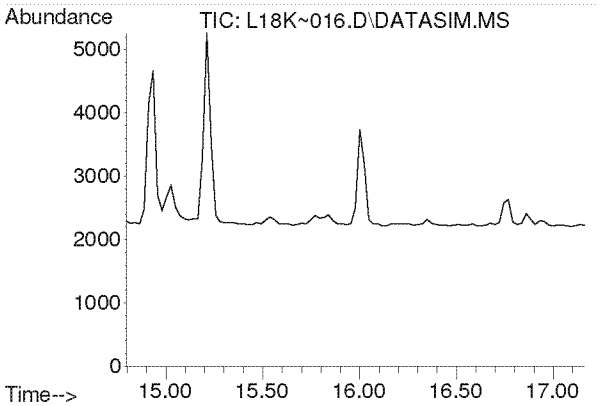
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.20 min

Lab File: L18K~016.D
Acq: 28 Nov 2018 1:11 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.7



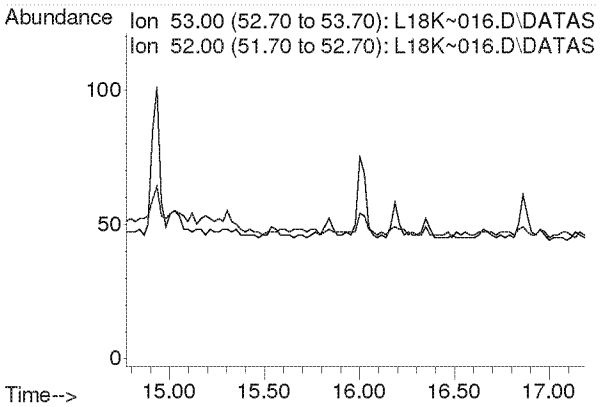


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.92 min

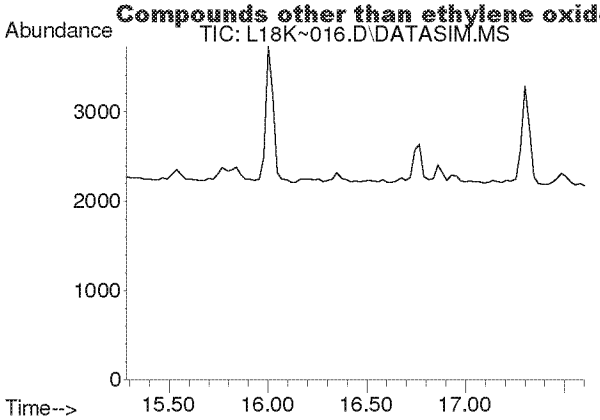
Lab File: L18K~016.D
Acq: 28 Nov 2018 1:11 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	87.1



Compounds other than ethylene oxide were not quantitated.

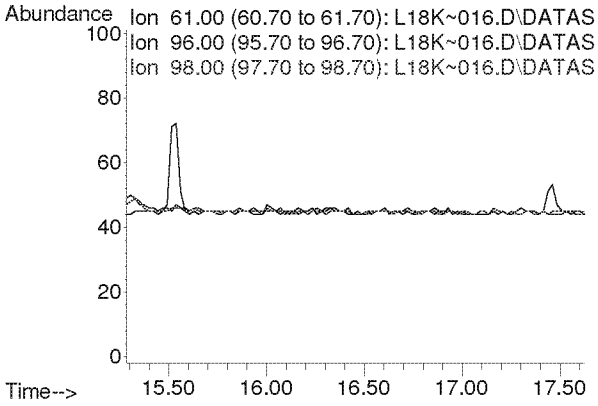


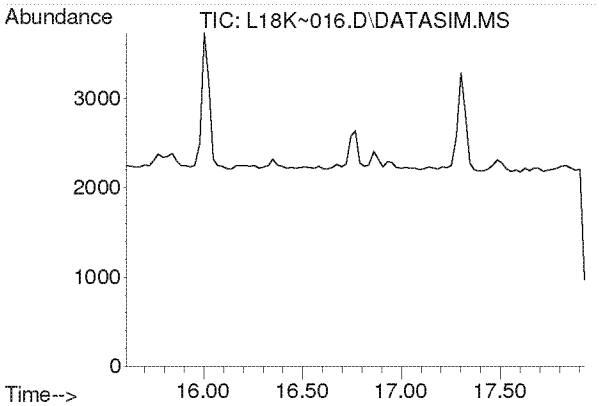
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L18K~016.D
Acq: 28 Nov 2018 1:11 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	57.6
98	36.8



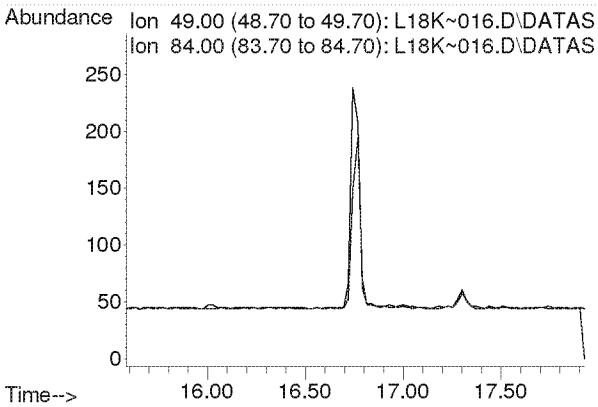


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

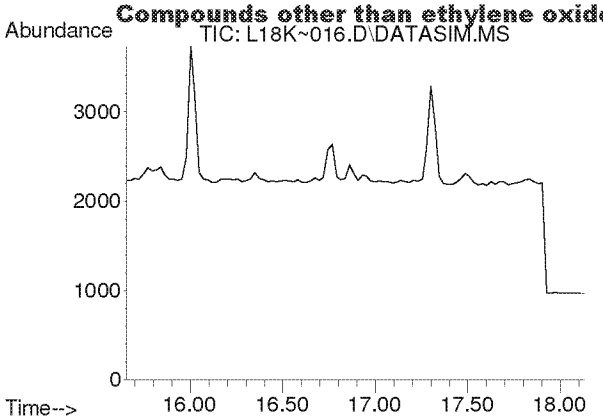
Lab File: L18K~016.D
Acq: 28 Nov 2018 1:11 am

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	74.2



Compounds other than ethylene oxide were not quantitated.

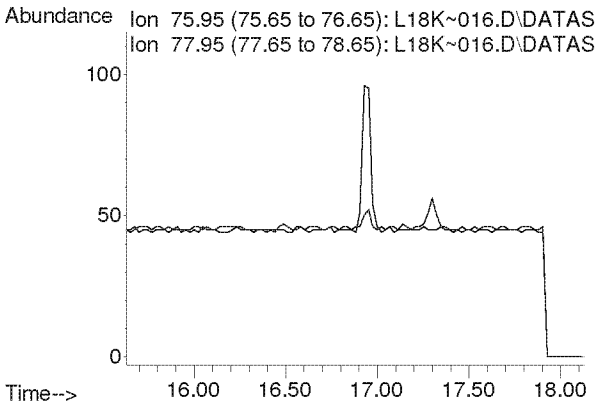


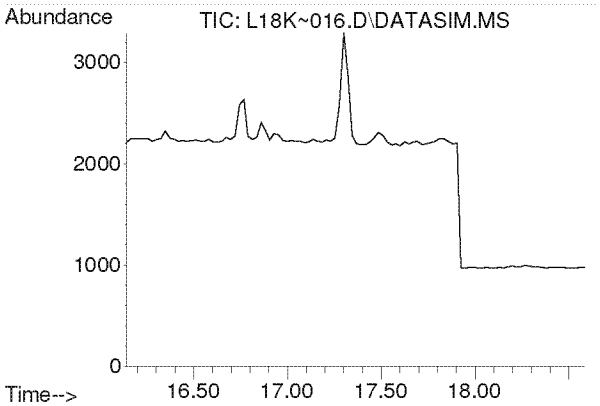
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.94 min

Lab File: L18K~016.D
Acq: 28 Nov 2018 1:11 am

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.1



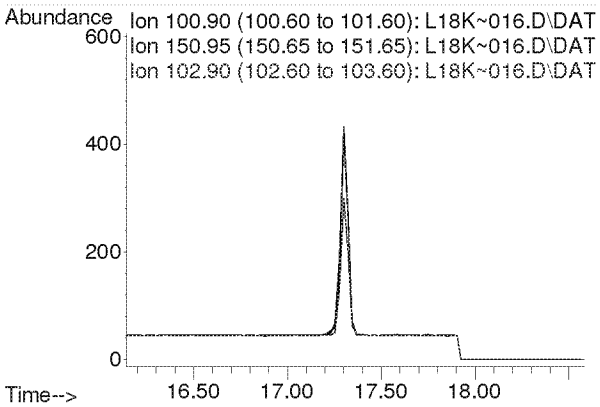


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.29 min

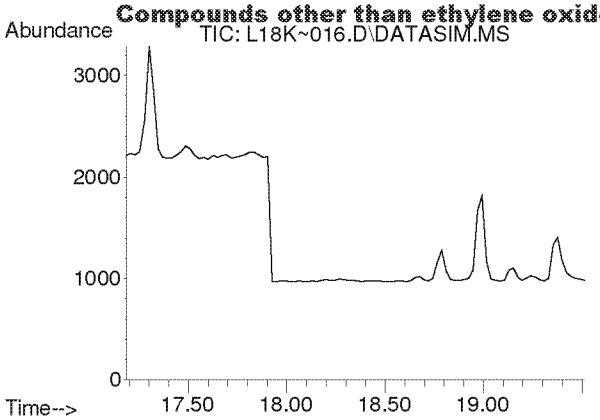
Lab File: L18K~016.D
Acq: 28 Nov 2018 1:11 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	96.0
103	64.3



Compounds other than ethylene oxide were not quantitated.

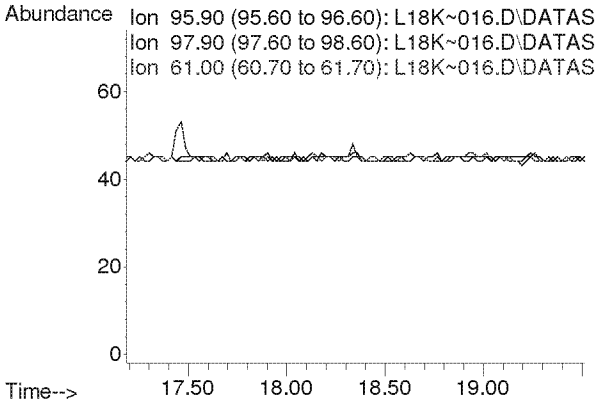


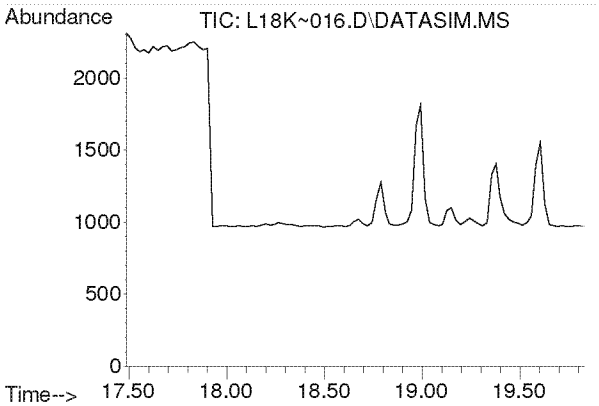
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.33 min

Lab File: L18K~016.D
Acq: 28 Nov 2018 1:11 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	63.6
61	156.3



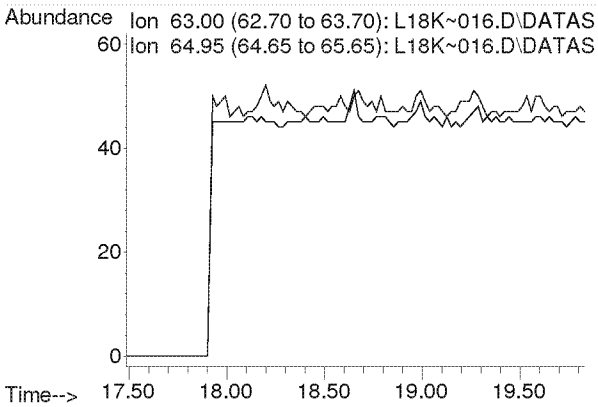


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.64 min

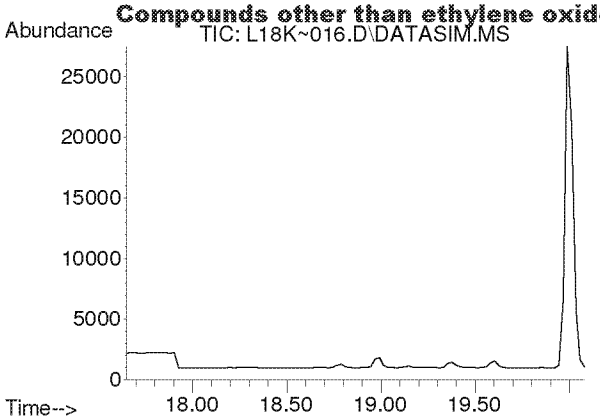
Lab File: L18K~016.D
Acq: 28 Nov 2018 1:11 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	32.1



Compounds other than ethylene oxide were not quantitated.

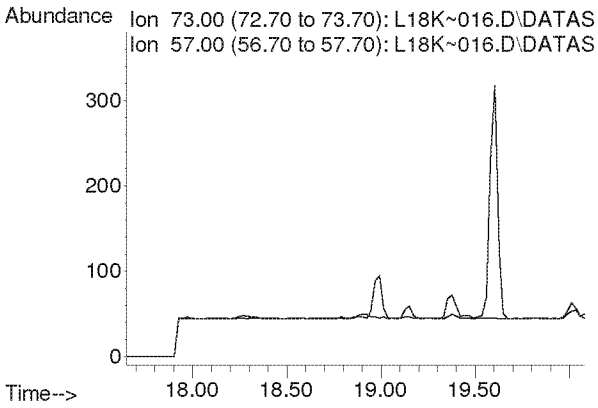


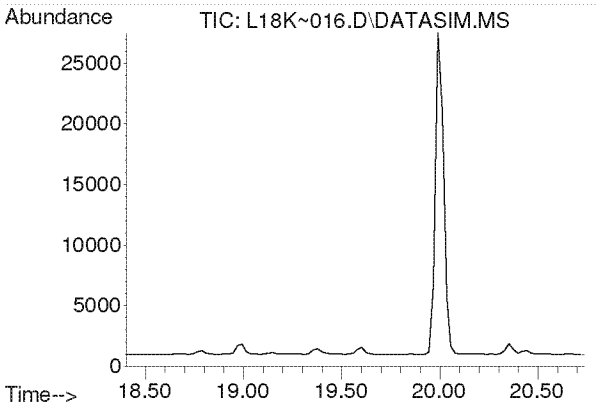
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L18K~016.D
Acq: 28 Nov 2018 1:11 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.0



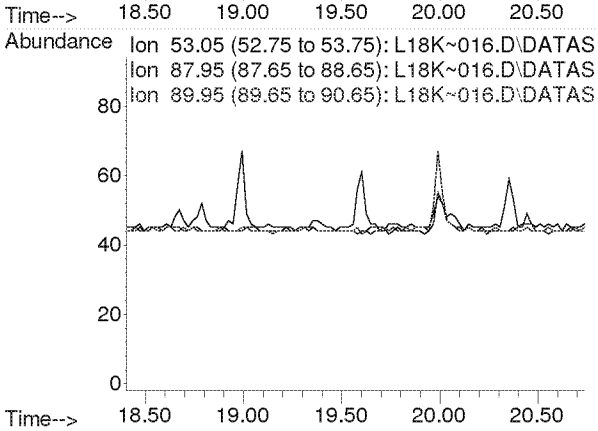


#23
Chloroprene
Concen: N.D.
Expected RT: 19.55 min

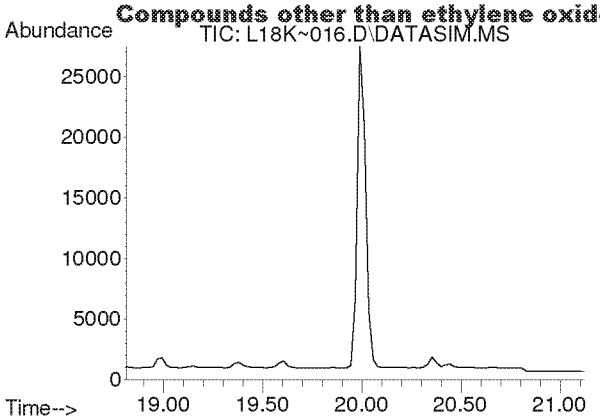
Lab File: L18K~016.D
Acq: 28 Nov 2018 1:11 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	51.5
90	16.6



Compounds other than ethylene oxide were not quantitated.

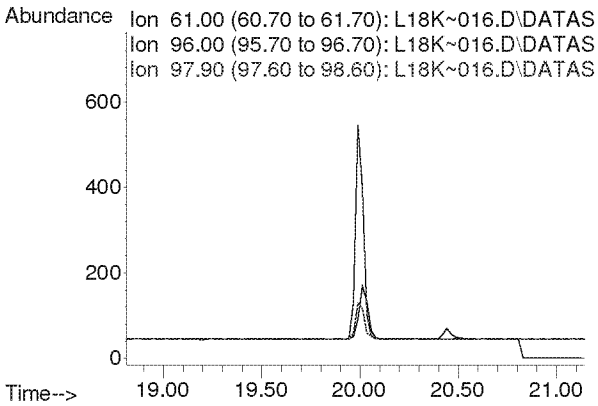


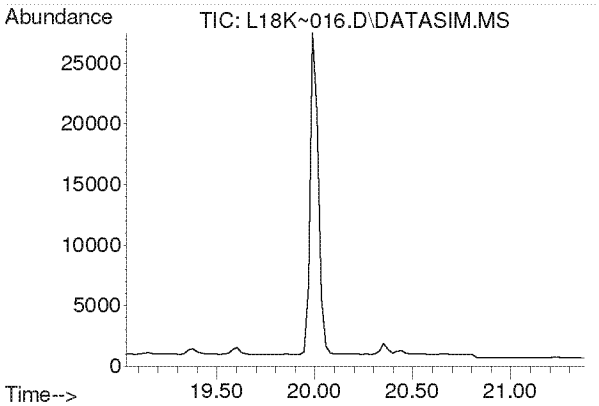
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.96 min

Lab File: L18K~016.D
Acq: 28 Nov 2018 1:11 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.5
98	46.2



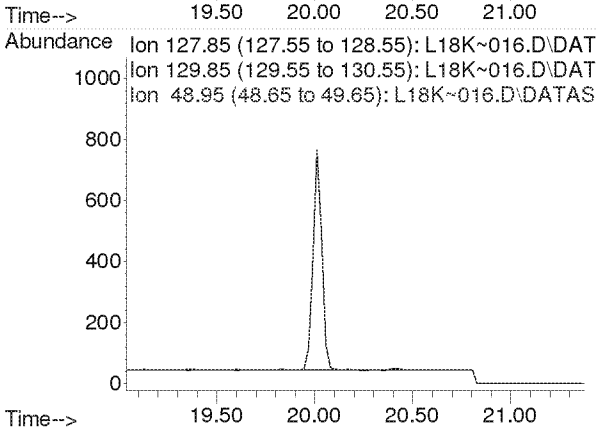


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.18 min

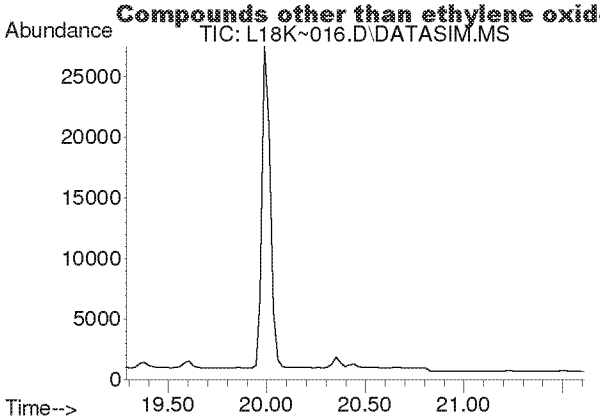
Lab File: L18K~016.D
Acq: 28 Nov 2018 1:11 am

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	128.9
49	167.9



Compounds other than ethylene oxide were not quantitated.

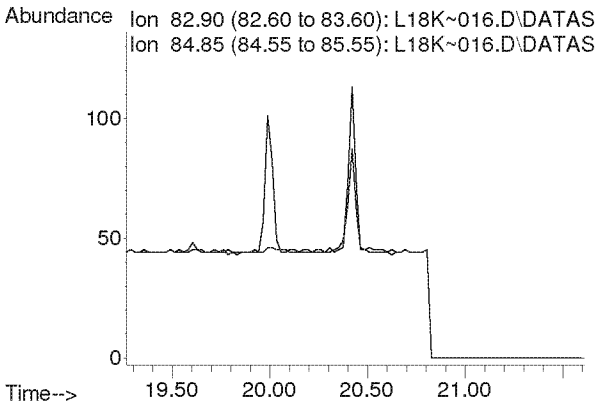


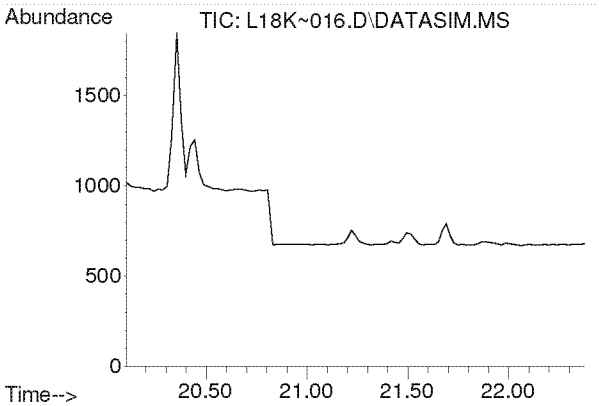
#26
Chloroform
Concen: N.D.
Expected RT: 20.42 min

Lab File: L18K~016.D
Acq: 28 Nov 2018 1:11 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



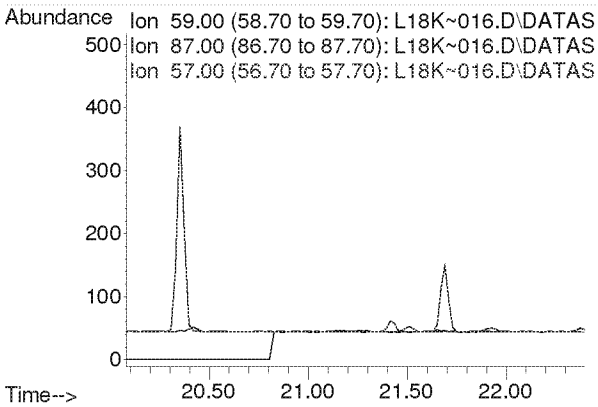


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.19 min

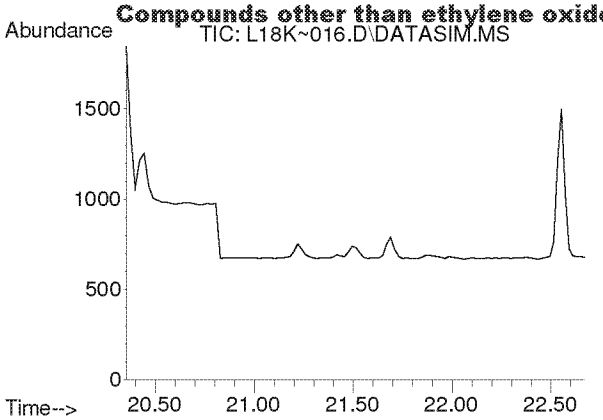
Lab File: L18K~016.D
Acq: 28 Nov 2018 1:11 am

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	38.5
57	34.0



Compounds other than ethylene oxide were not quantitated.

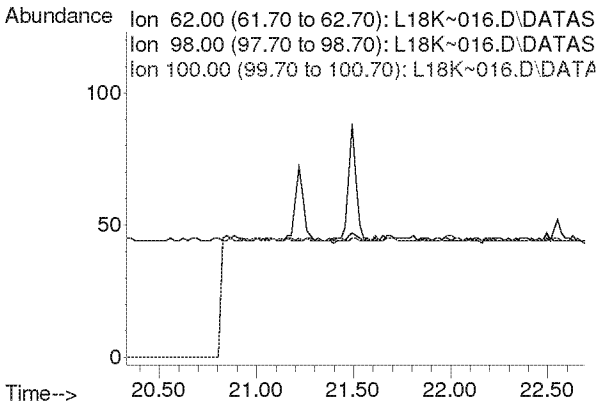


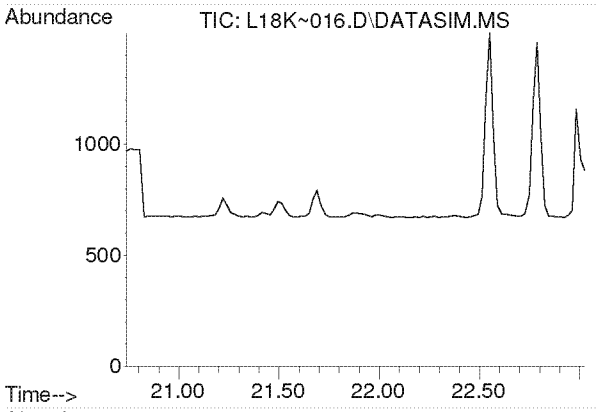
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.49 min

Lab File: L18K~016.D
Acq: 28 Nov 2018 1:11 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.0
100	3.9



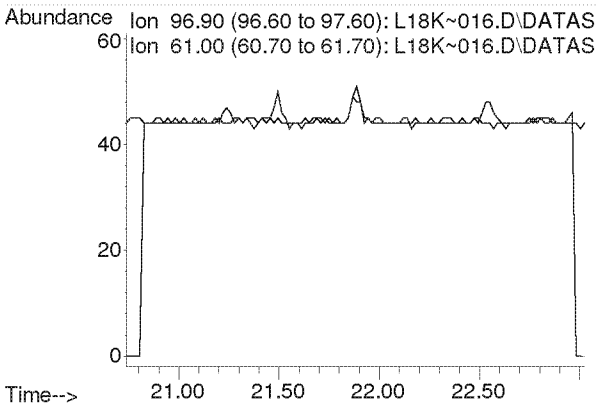


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.88 min

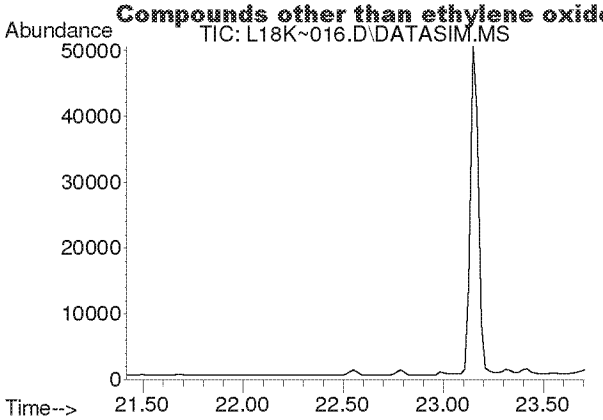
Lab File: L18K~016.D
Acq: 28 Nov 2018 1:11 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	59.6



Compounds other than ethylene oxide were not quantitated.

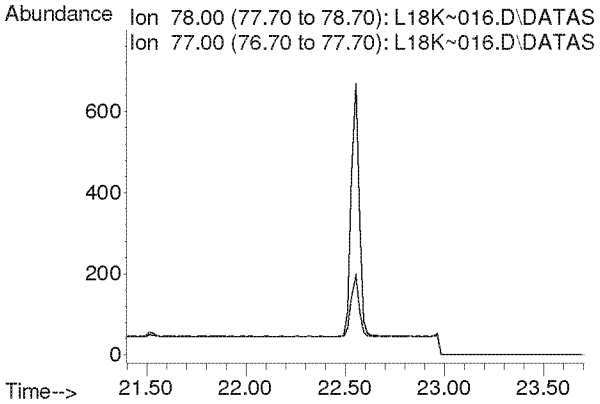


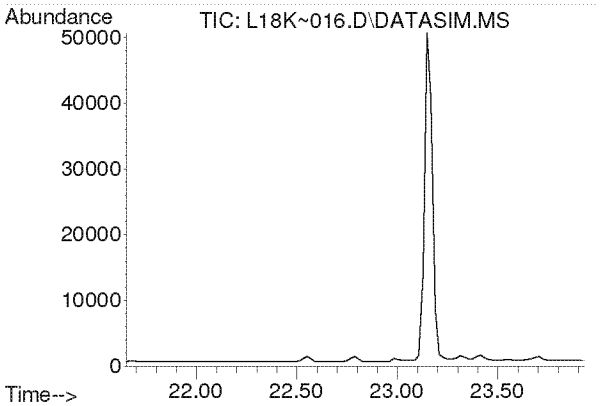
#31
Benzene
Concen: N.D.
Expected RT: 22.56 min

Lab File: L18K~016.D
Acq: 28 Nov 2018 1:11 am

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.9



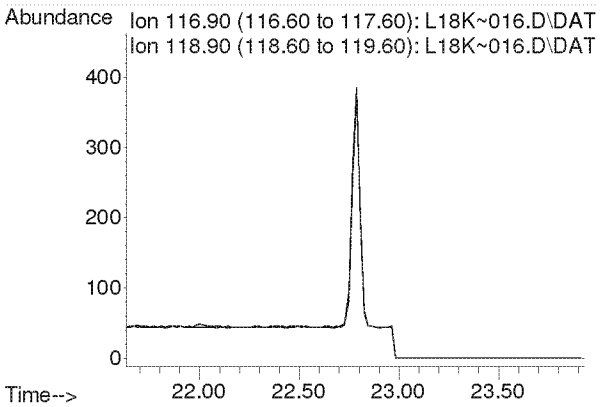


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.79 min

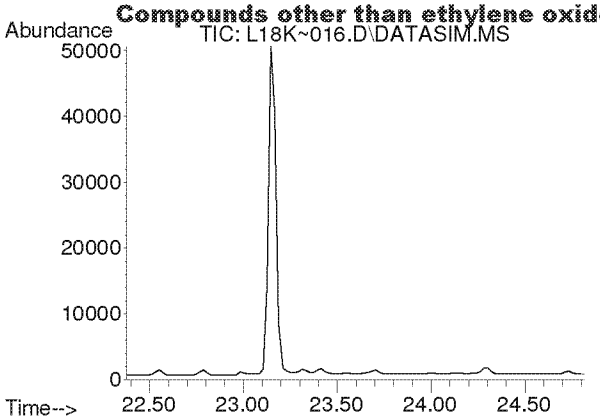
Lab File: L18K~016.D
Acq: 28 Nov 2018 1:11 am

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.9



Compounds other than ethylene oxide were not quantitated.

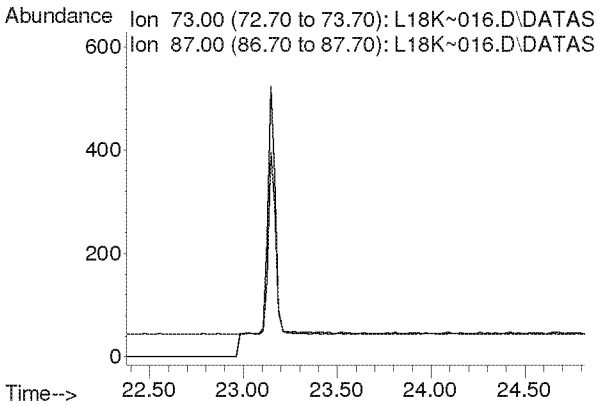


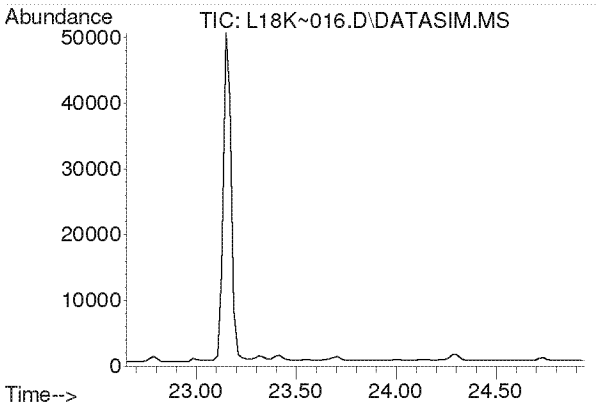
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L18K~016.D
Acq: 28 Nov 2018 1:11 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



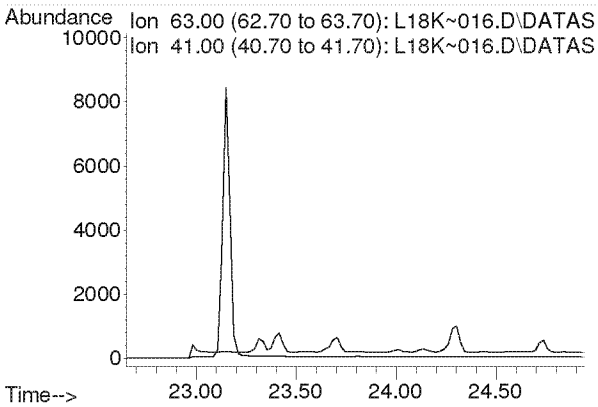


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.80 min

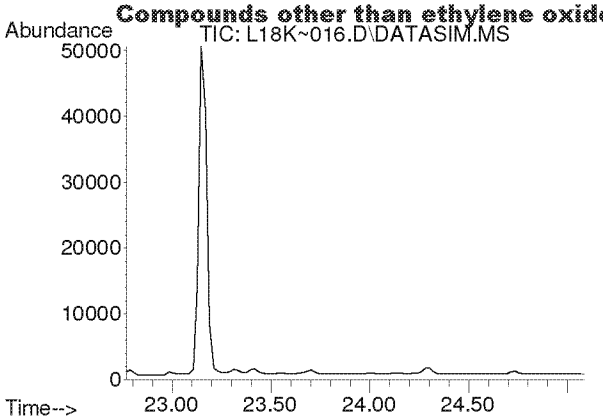
Lab File: L18K~016.D
Acq: 28 Nov 2018 1:11 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	222.1



Compounds other than ethylene oxide were not quantitated.

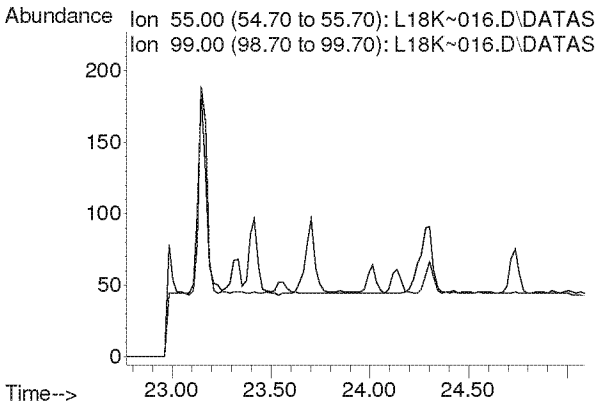


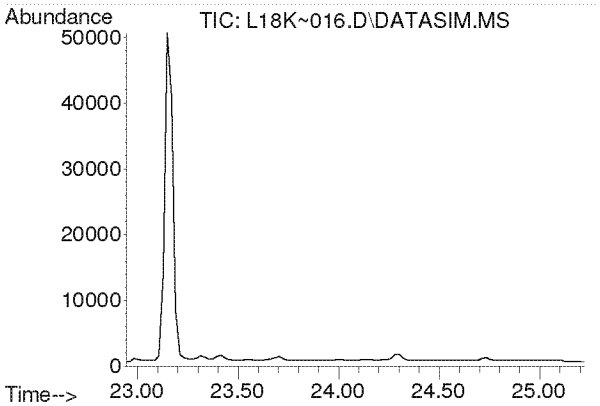
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L18K~016.D
Acq: 28 Nov 2018 1:11 am

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



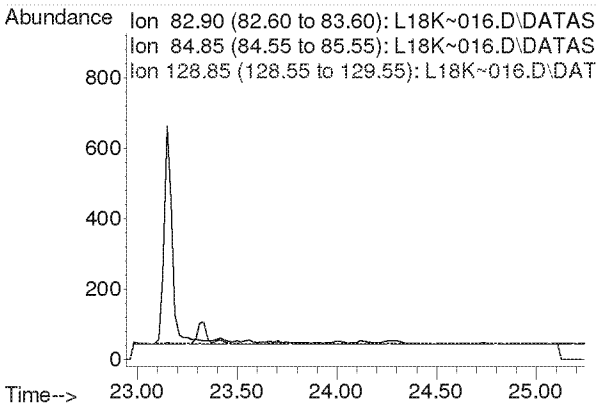


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.09 min

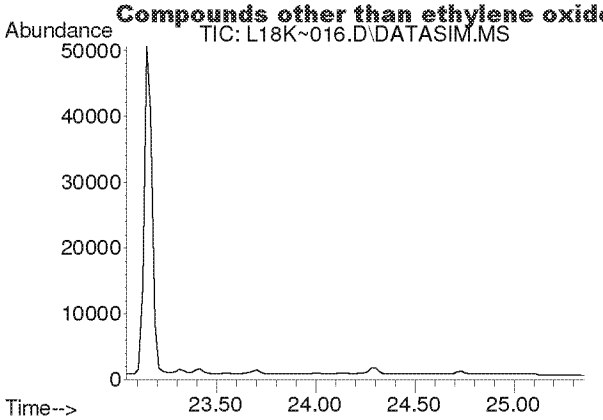
Lab File: L18K~016.D
Acq: 28 Nov 2018 1:11 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.9
129	12.9



Compounds other than ethylene oxide were not quantitated.

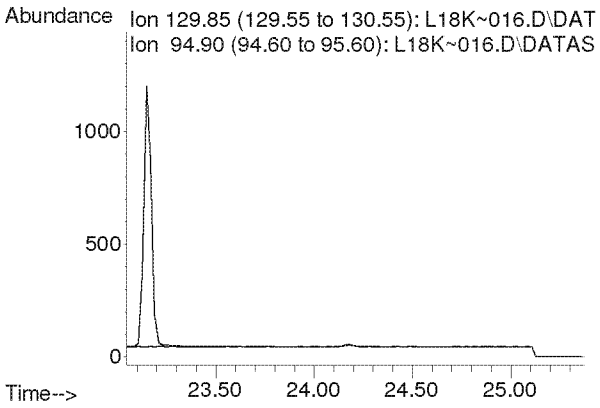


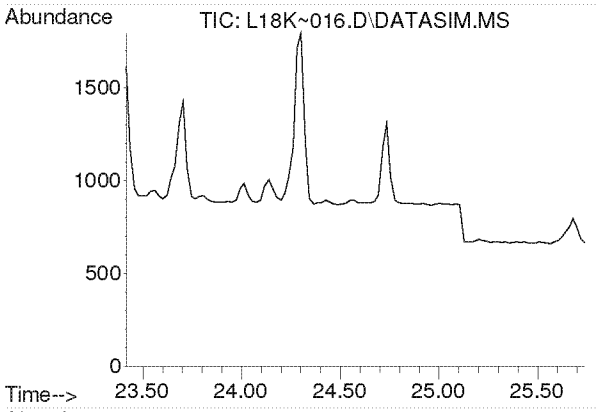
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.19 min

Lab File: L18K~016.D
Acq: 28 Nov 2018 1:11 am

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.9



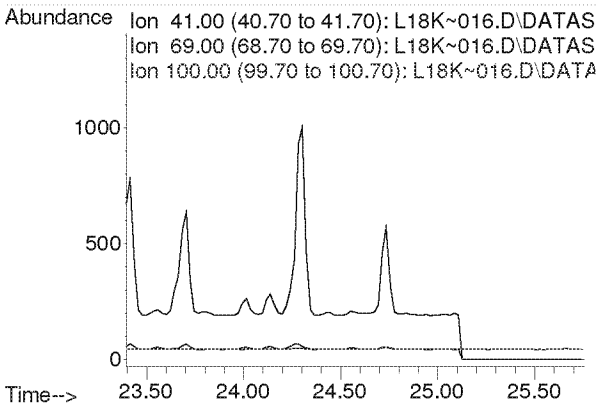


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.55 min

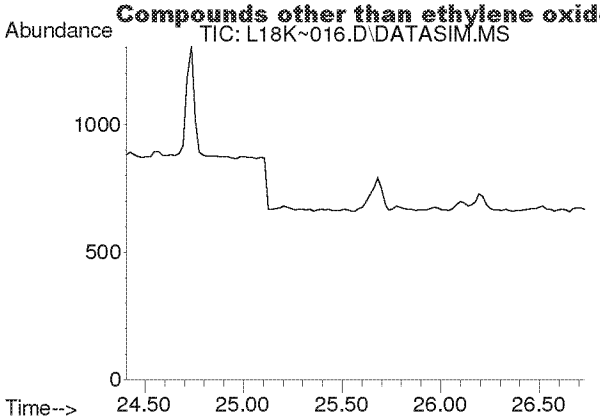
Lab File: L18K~016.D
Acq: 28 Nov 2018 1:11 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	20.0
100	5.1



Compounds other than ethylene oxide were not quantitated.

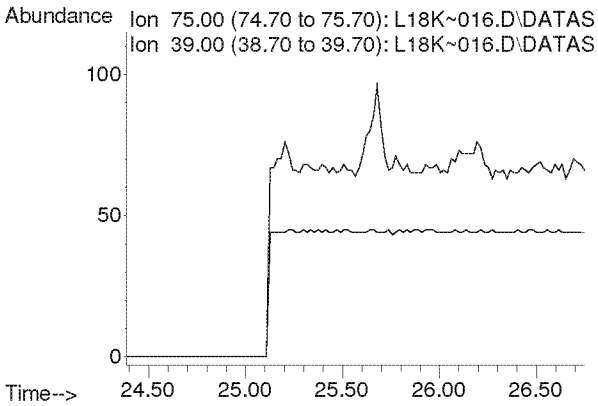


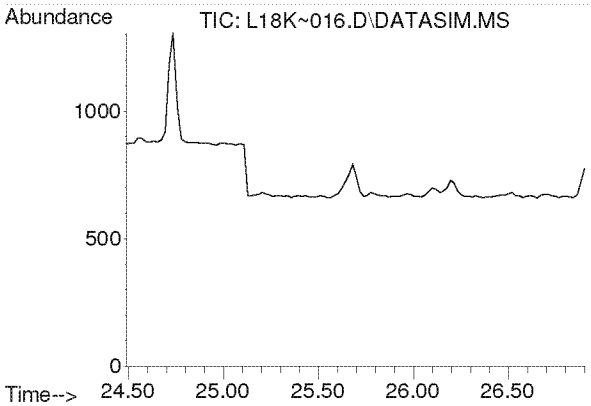
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.54 min

Lab File: L18K~016.D
Acq: 28 Nov 2018 1:11 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	55.6



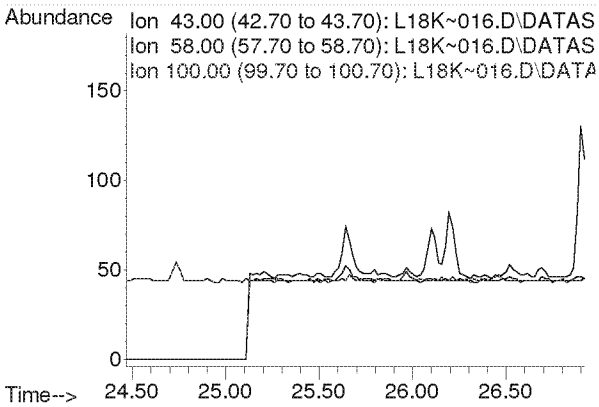


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.62 min

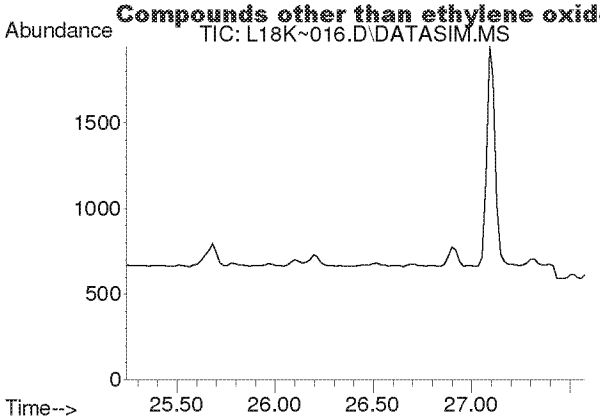
Lab File: L18K~016.D
Acq: 28 Nov 2018 1:11 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	33.3
100	8.0



Compounds other than ethylene oxide were not quantitated.

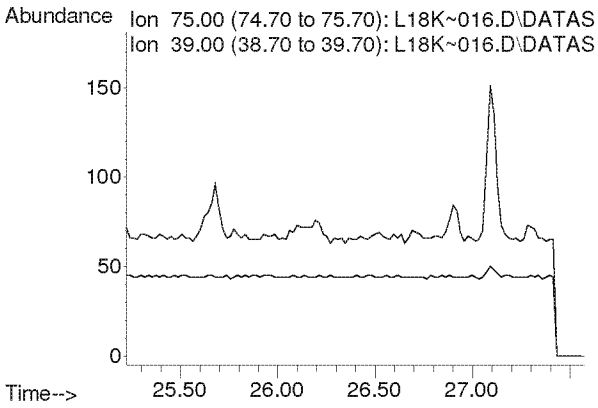


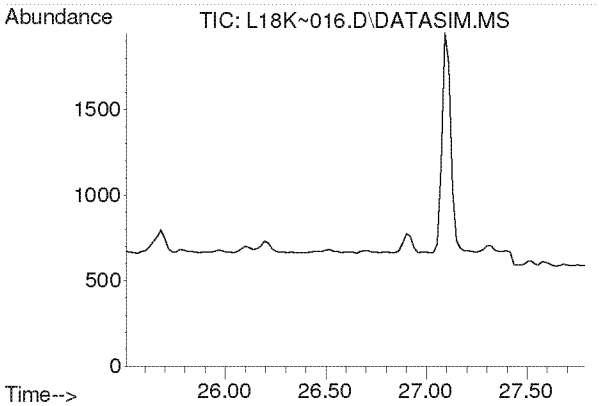
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.38 min

Lab File: L18K~016.D
Acq: 28 Nov 2018 1:11 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	55.3



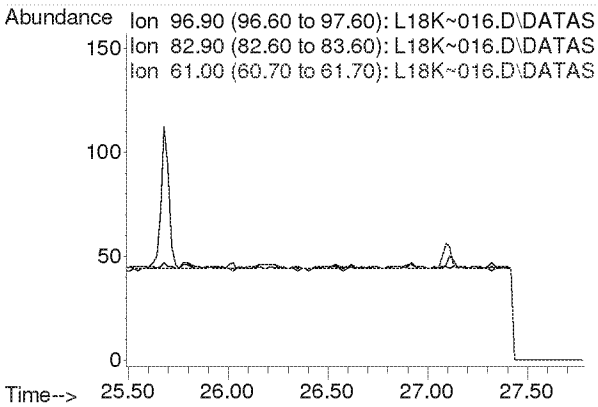


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.64 min

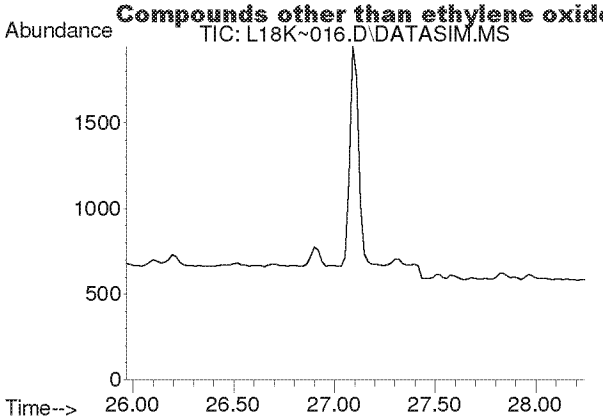
Lab File: L18K~016.D
Acq: 28 Nov 2018 1:11 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	95.3
61	64.6



Compounds other than ethylene oxide were not quantitated.

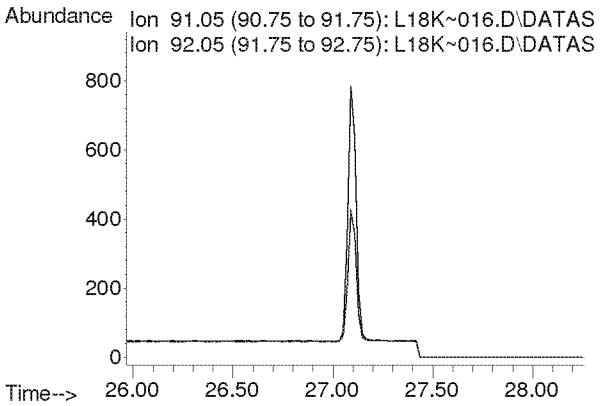


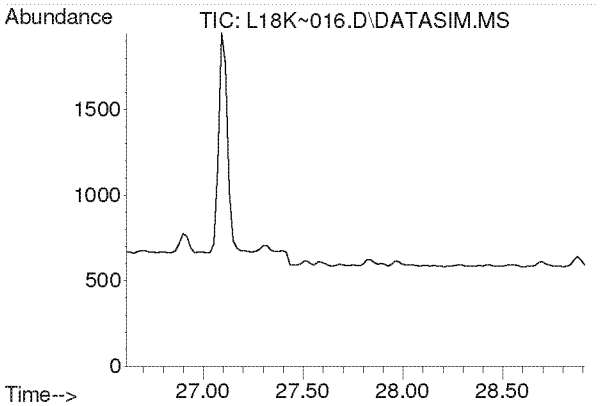
#44
Toluene
Concen: N.D.
Expected RT: 27.11 min

Lab File: L18K~016.D
Acq: 28 Nov 2018 1:11 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.1



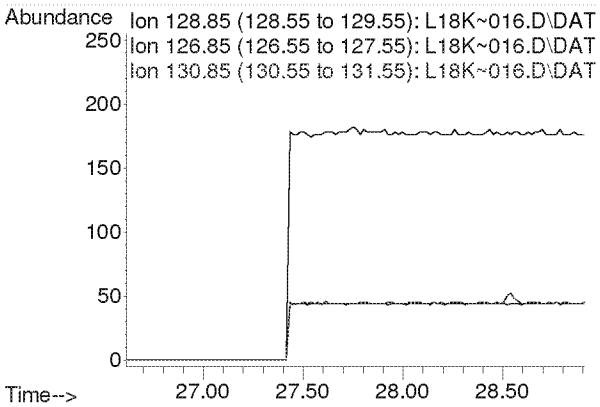


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.76 min

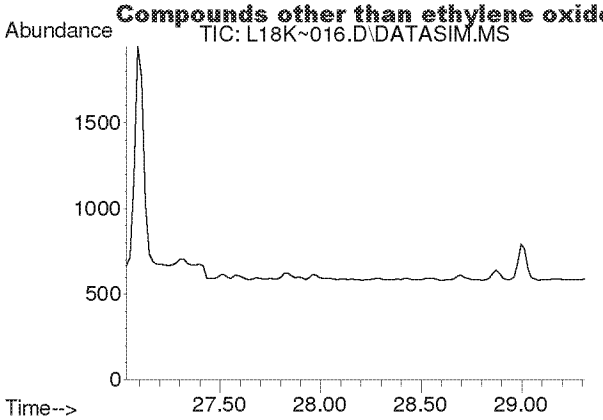
Lab File: L18K~016.D
Acq: 28 Nov 2018 1:11 am

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

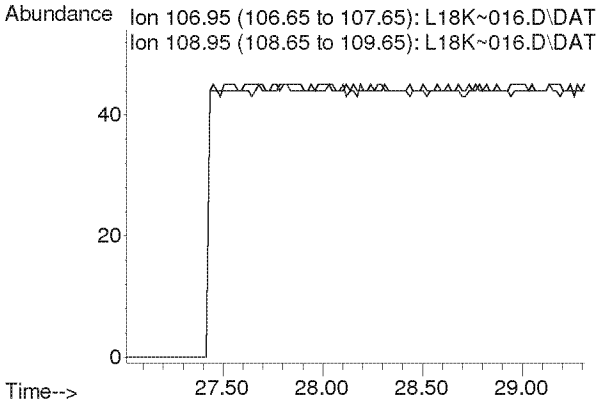


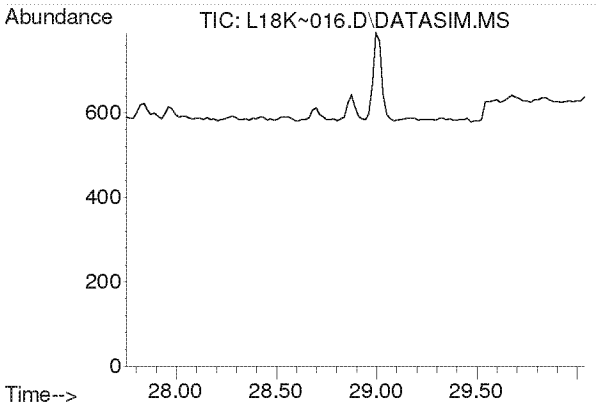
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.17 min

Lab File: L18K~016.D
Acq: 28 Nov 2018 1:11 am

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	93.8



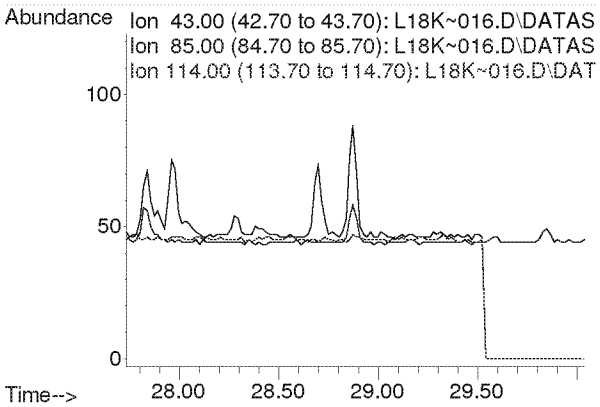


#47
n-Octane
Concen: N.D.
Expected RT: 28.89 min

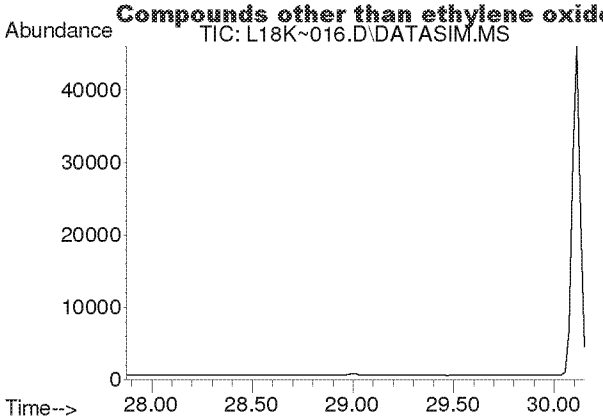
Lab File: L18K~016.D
Acq: 28 Nov 2018 1:11 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	37.8
114	2.4



Compounds other than ethylene oxide were not quantitated.

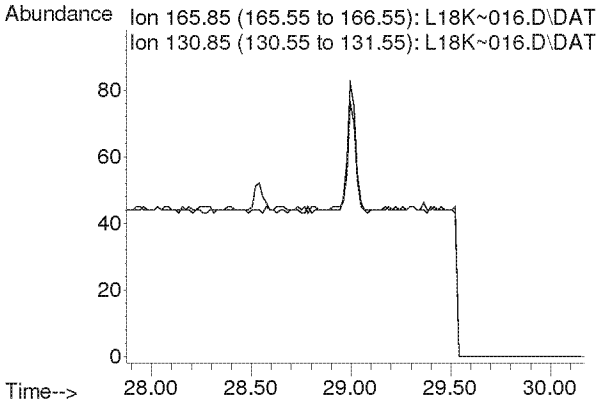


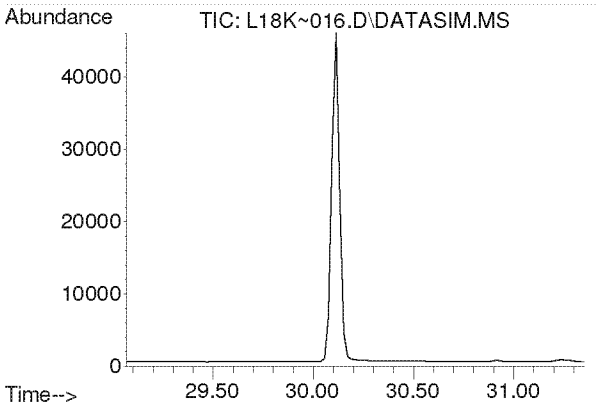
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.02 min

Lab File: L18K~016.D
Acq: 28 Nov 2018 1:11 am

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	78.7



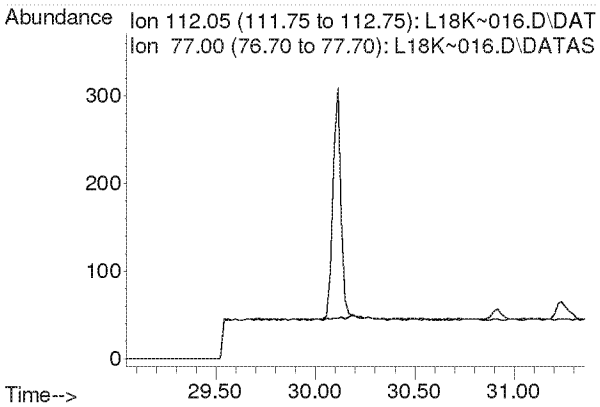


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.20 min

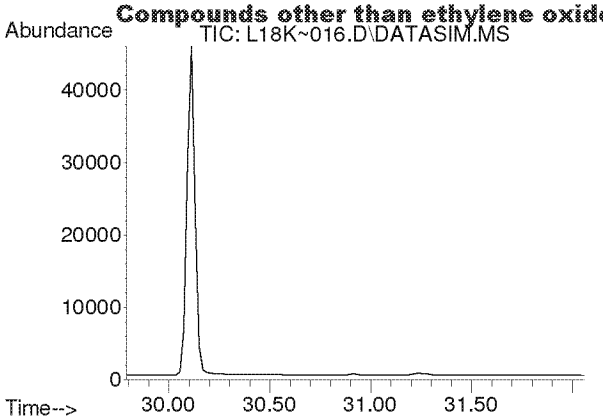
Lab File: L18K~016.D
Acq: 28 Nov 2018 1:11 am

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.3



Compounds other than ethylene oxide were not quantitated.

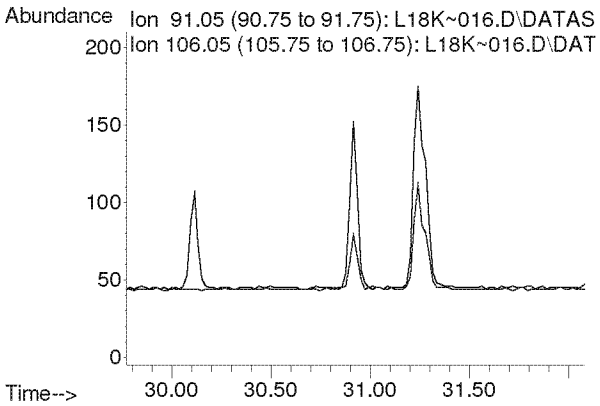


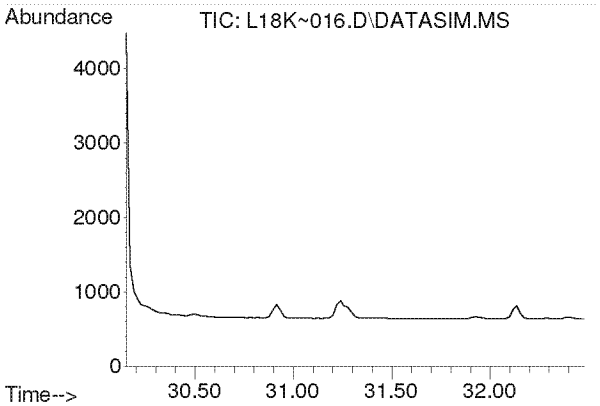
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.93 min

Lab File: L18K~016.D
Acq: 28 Nov 2018 1:11 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	31.8



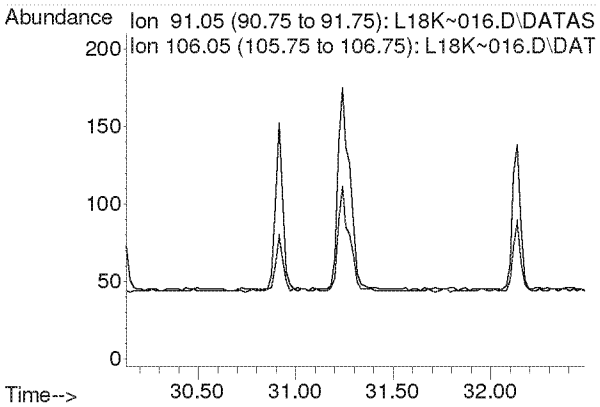


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.29 min

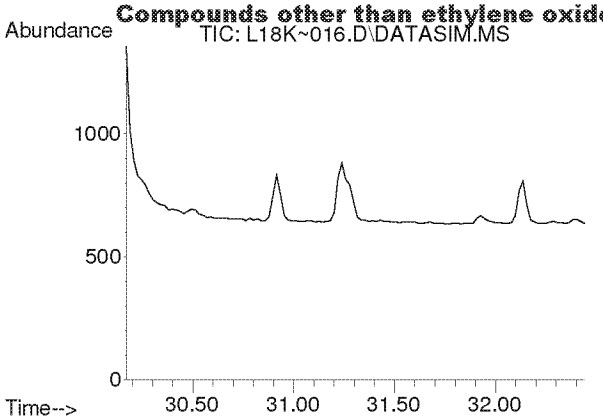
Lab File: L18K~016.D
Acq: 28 Nov 2018 1:11 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.4



Compounds other than ethylene oxide were not quantitated.

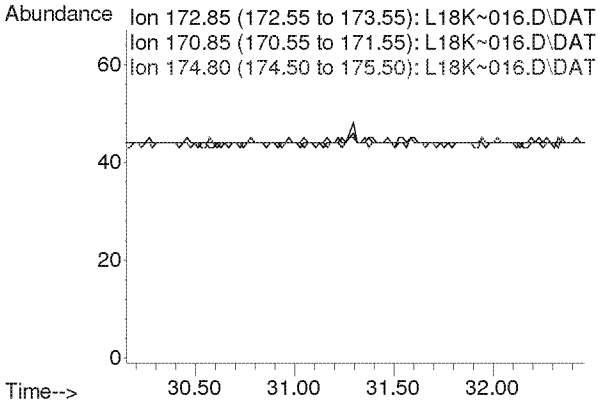


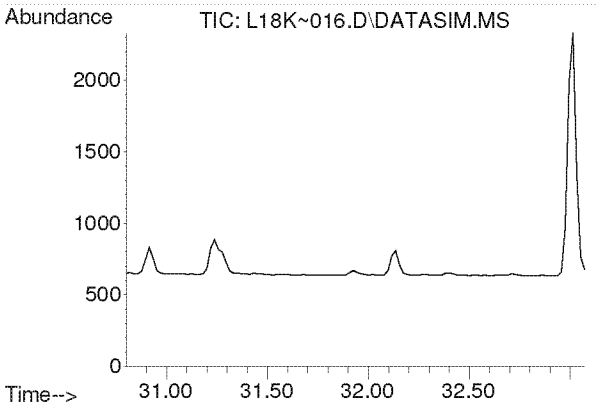
#52
Bromoform
Concen: N.D.
Expected RT: 31.30 min

Lab File: L18K~016.D
Acq: 28 Nov 2018 1:11 am

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.4
175	49.0



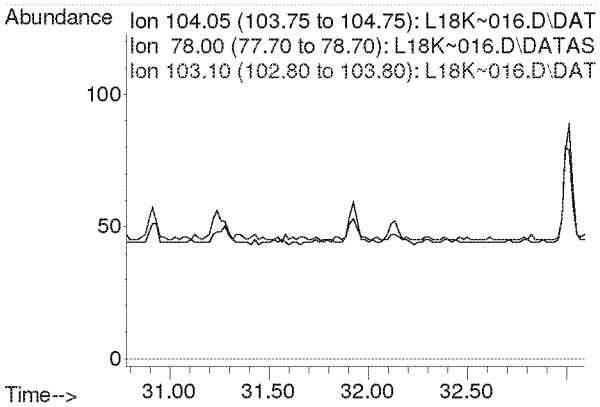


#53
Styrene
Concen: N.D.
Expected RT: 31.94 min

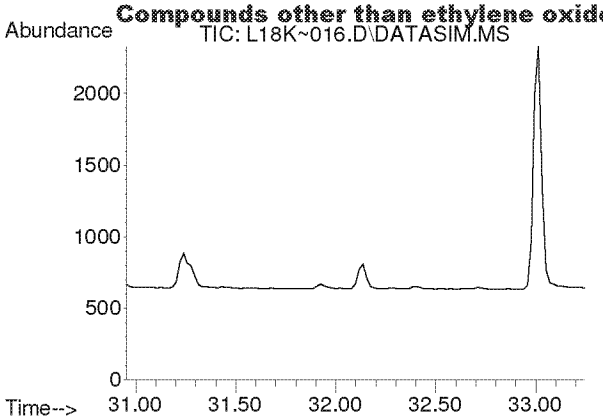
Lab File: L18K~016.D
Acq: 28 Nov 2018 1:11 am

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	45.7
103	0.0



Compounds other than ethylene oxide were not quantitated.

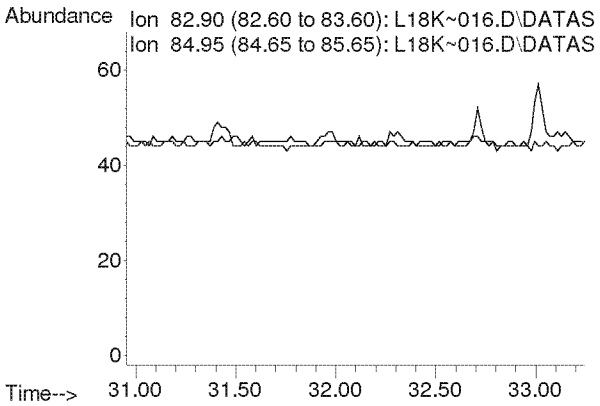


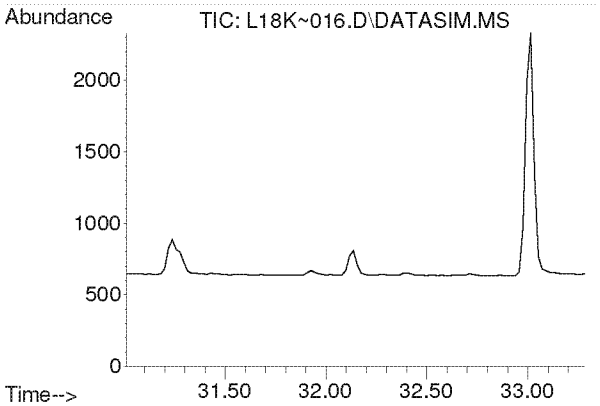
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.09 min

Lab File: L18K~016.D
Acq: 28 Nov 2018 1:11 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.3



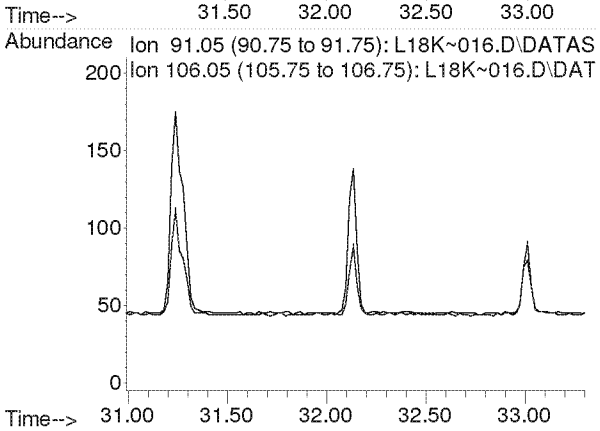


#55
o-Xylene
Concen: N.D.
Expected RT: 32.15 min

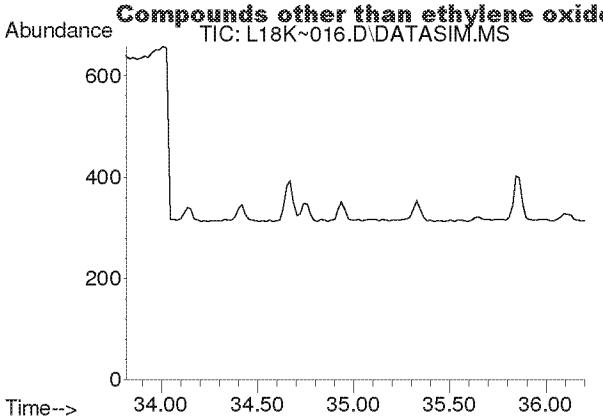
Lab File: L18K~016.D
Acq: 28 Nov 2018 1:11 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.5



Compounds other than ethylene oxide were not quantitated.

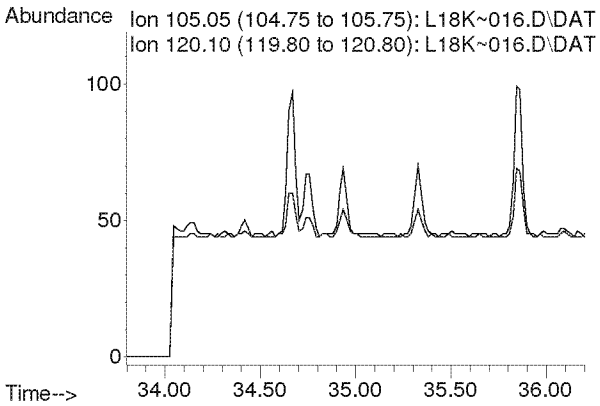


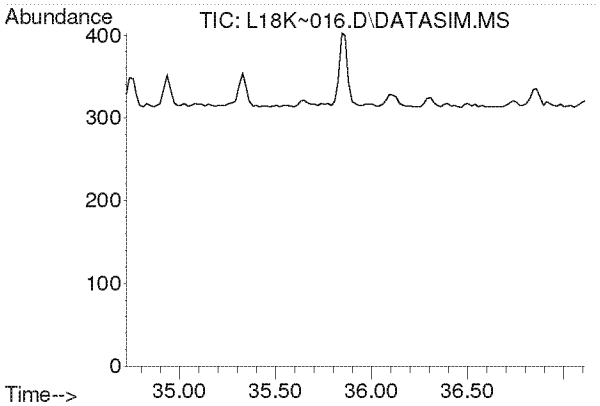
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.95 min

Lab File: L18K~016.D
Acq: 28 Nov 2018 1:11 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	45.6



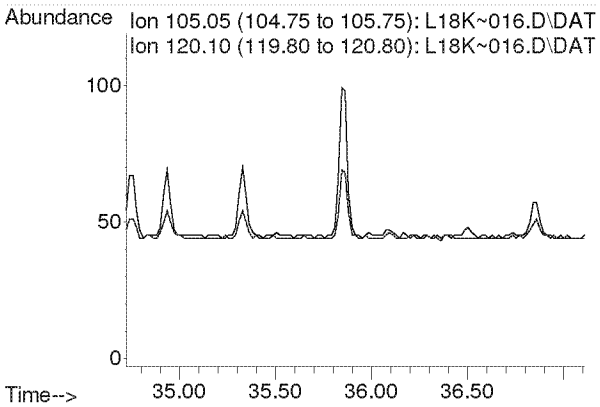


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.87 min

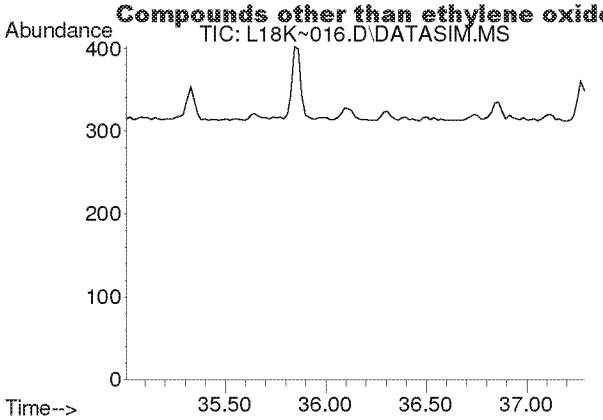
Lab File: L18K~016.D
Acq: 28 Nov 2018 1:11 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	43.4



Compounds other than ethylene oxide were not quantitated.

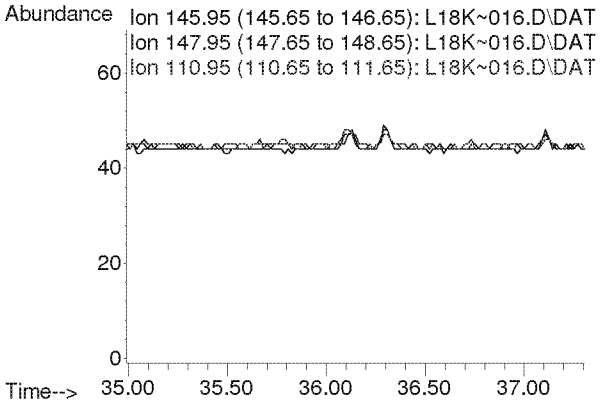


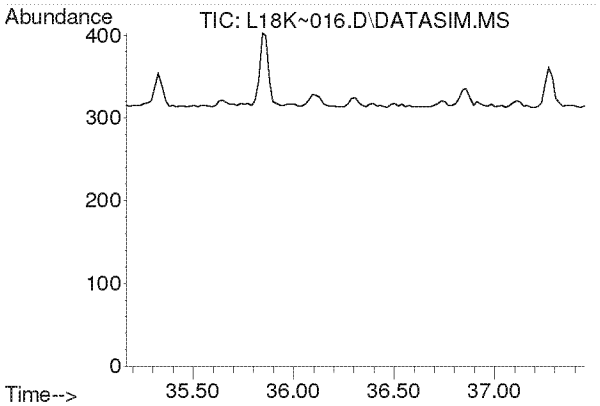
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.15 min

Lab File: L18K~016.D
Acq: 28 Nov 2018 1:11 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	41.1



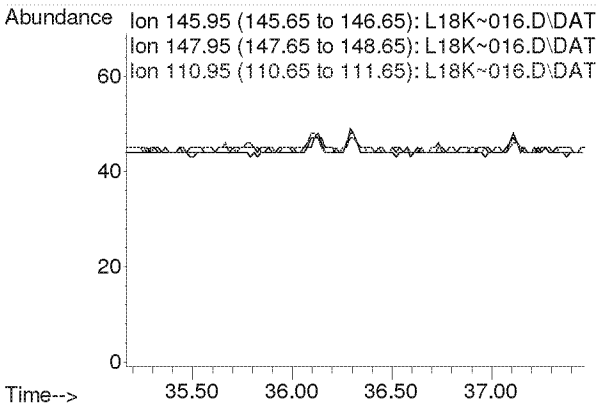


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.31 min

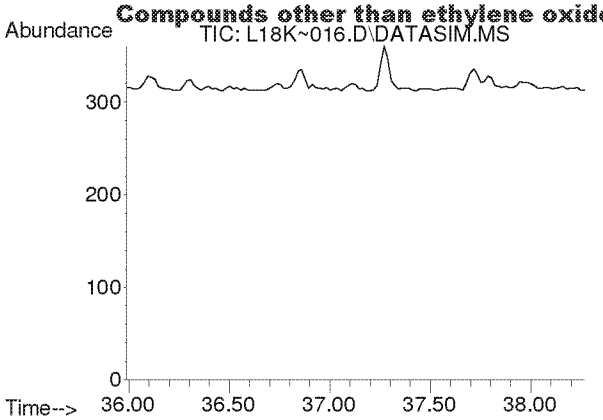
Lab File: L18K~016.D
Acq: 28 Nov 2018 1:11 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	39.8



Compounds other than ethylene oxide were not quantitated.

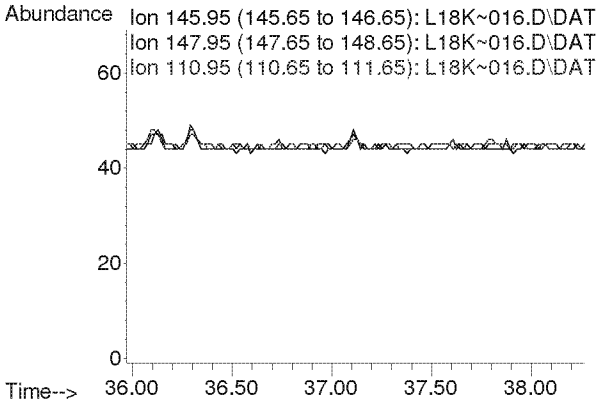


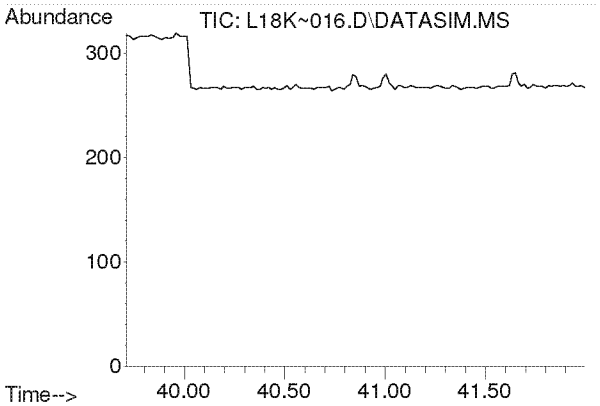
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.12 min

Lab File: L18K~016.D
Acq: 28 Nov 2018 1:11 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	63.9
111	41.8



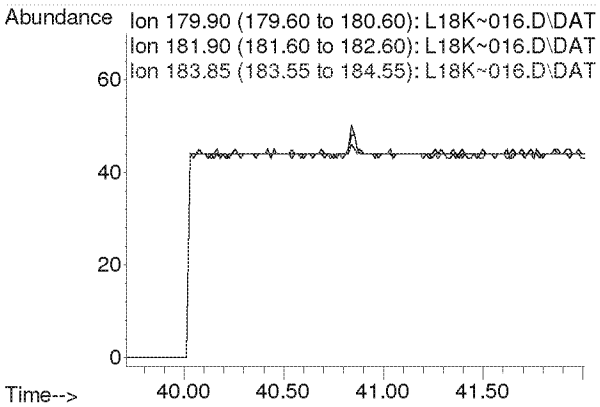


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.85 min

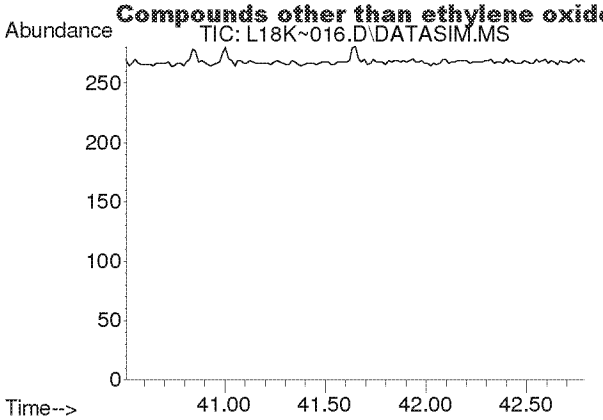
Lab File: L18K~016.D
Acq: 28 Nov 2018 1:11 am

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	95.6
184	30.5



Compounds other than ethylene oxide were not quantitated.

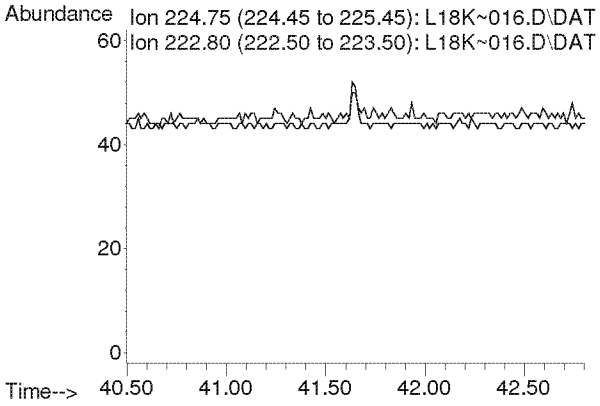


#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.65 min

Lab File: L18K~016.D
Acq: 28 Nov 2018 1:11 am

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.8



Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : Y:\MASS SPEC 1 DATA\L18K~\
Data File : L18K~017.D
Acq On : 28 Nov 2018 2:13 am (#1); 28-Nov-18, 02:08:13 (#2)
Operator : MAH
Sample : 8112113-06
Misc : WILLOW POND PARK 11/19/18 (Sig #1); (Sig #2)
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jan 23 14:21:37 2019
Quant Method : C:\msdchem\1\METHODS\8100002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Fri Oct 12 09:33:42 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.993	66	49243	4.8000 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.151	114	117035	5.0200 ppbv	-0.02
43) IS-Chlorobenzene-d5	30.116	117	79074	4.7700 ppbv	-0.01

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	12.485	29	155m	0.0580 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.	
17) Methylene Chloride	0.000	49	0	N.D. d	
18) Carbon Disulfide	0.000	76	0	N.D. d	
19) Trichlorotrifluoroethane	0.000	101	0	N.D. d	
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.	
21) 1,1-Dichloroethane	0.000	63	0	N.D.	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D. d	
23) Chloroprene	0.000	53	0	N.D. d	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D. d	
25) Bromochloromethane	0.000	128	0	N.D.	
26) Chloroform	0.000	83	0	N.D. d	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D.	
28) 1,2-Dichloroethane	0.000	62	0	N.D. d	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D. d	
31) Benzene	0.000	78	0	N.D. d	
32) Carbon Tetrachloride	0.000	117	0	N.D. d	
33) tert-Amyl Methyl Ether	0.000	73	0	N.D.	
34) 1,2-Dichloropropane	0.000	63	0	N.D.	
35) Ethyl Acrylate	0.000	55	0	N.D.	
36) Bromodichloromethane	0.000	83	0	N.D.	
37) Trichloroethylene	0.000	130	0	N.D.	
38) Methyl Methacrylate	0.000	41	0	N.D. d	
39) cis-1,3-Dichloropropene	0.000	75	0	N.D.	
40) Methyl Isobutyl Ketone	0.000	43	0	N.D. d	
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.	
44) Toluene	0.000	91	0	N.D. d	
45) Dibromochloromethane	0.000	129	0	N.D. d	
46) 1,2-Dibromoethane	0.000	107	0	N.D.	
47) n-Octane	0.000	43	0	N.D. d	
48) Tetrachloroethylene	0.000	166	0	N.D. d	
49) Chlorobenzene	0.000	112	0	N.D.	
50) Ethylbenzene	0.000	91	0	N.D. d	

Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L18K~\
Data File : L18K~017.D
Acq On : 28 Nov 2018 2:13 am (#1); 28 Nov 2018 2:08 am (#2)
Operator : MAH
Sample : 8112113-06
Misc : WILLOW POND PARK 11/19/18 (Sig #1); (Sig #2)
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Nov 28 08:10:36 2018
Quant Method : C:\msdchem\1\METHODS\8100002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Fri Oct 12 09:33:42 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
49) Chlorobenzene	0.000	112	0	N.D.	
50) Ethylbenzene	0.000	91	0	N.D.	d
51) m,p-Xylene	0.000	91	0	N.D.	d
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	d
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D.	d
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	d
57) 1,2,4-Trimethylbenzene	0.000	105	0	N.D.	d
58) m-Dichlorobenzene	0.000	146	0	N.D.	
59) p-Dichlorobenzene	0.000	146	0	N.D.	
60) o-Dichlorobenzene	0.000	146	0	N.D.	
61) 1,2,4-Trichlorobenzene	0.000	180	0	N.D.	
62) Hexachloro-1,3-butadiene	0.000	225	0	N.D.	

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

Compounds other than ethylene oxide were not quantitated.

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Quant Title : TO-15 by Selective Ion Analysis
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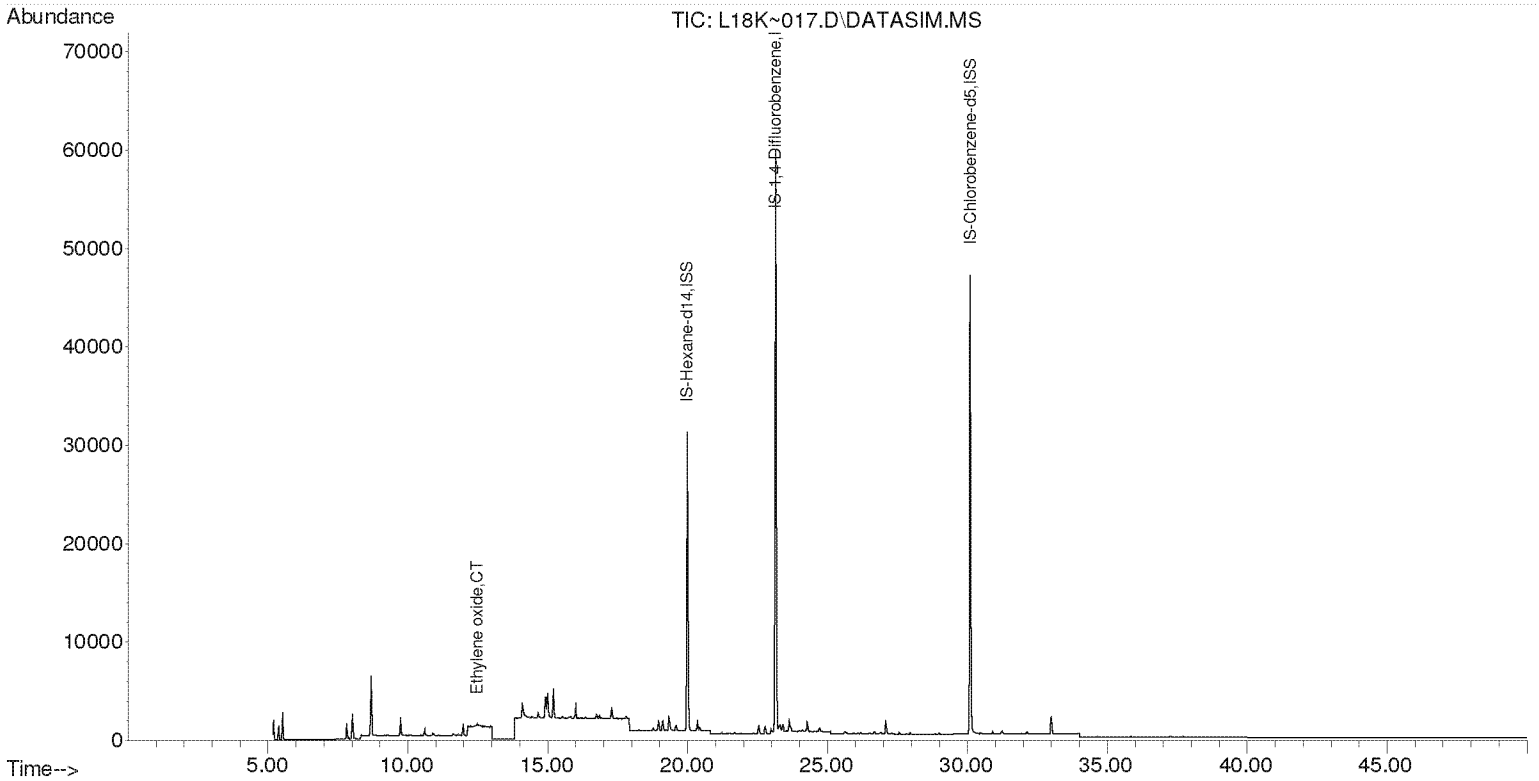
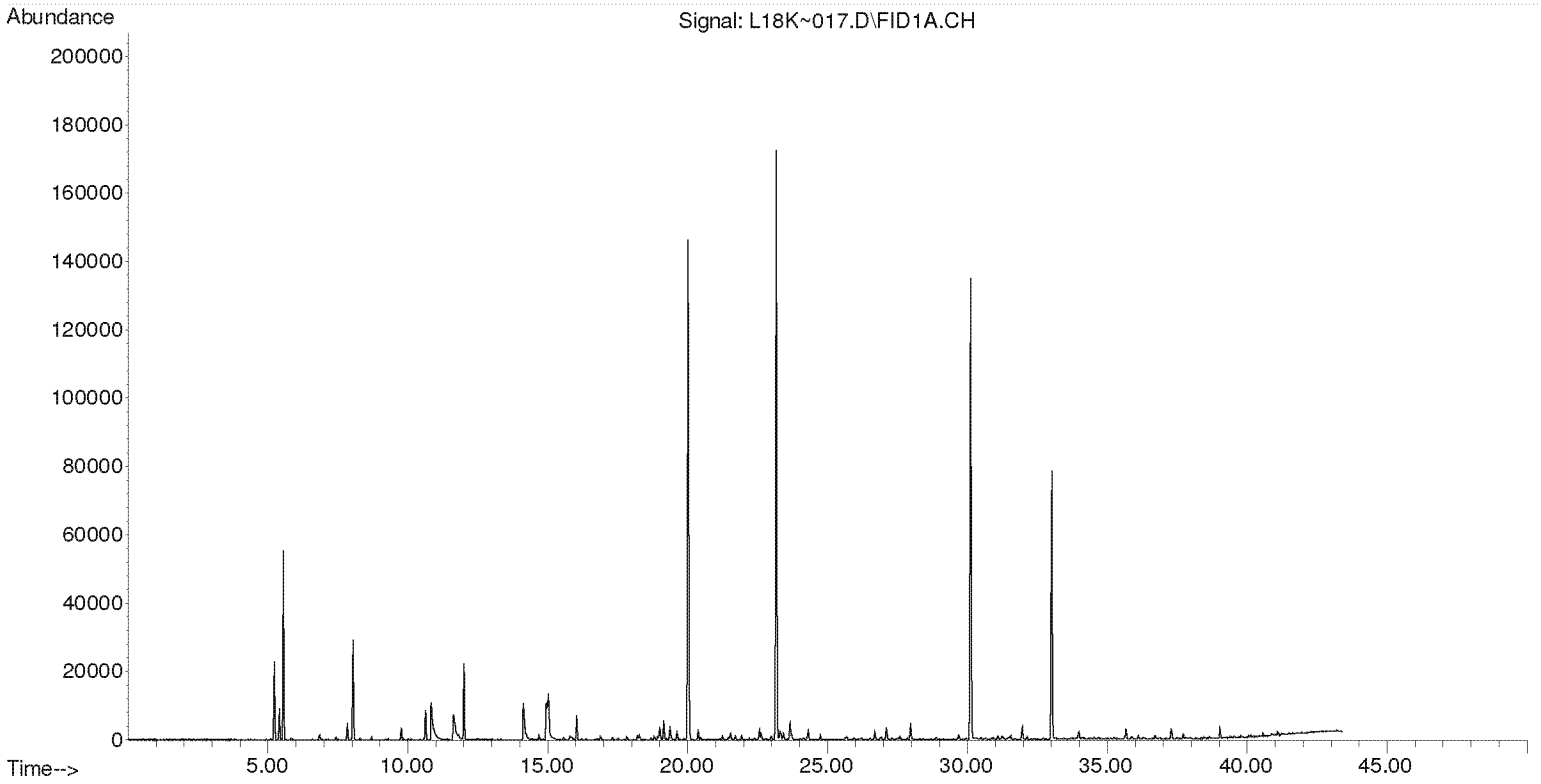
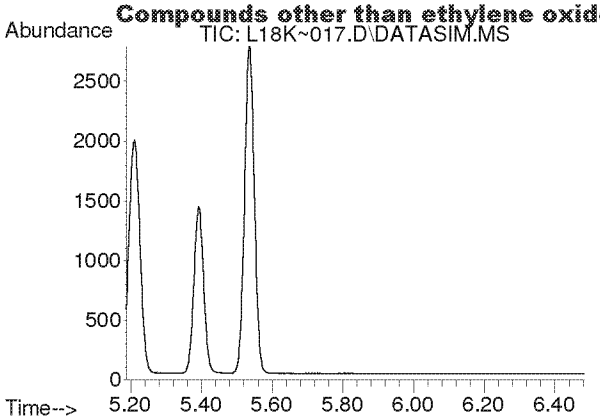




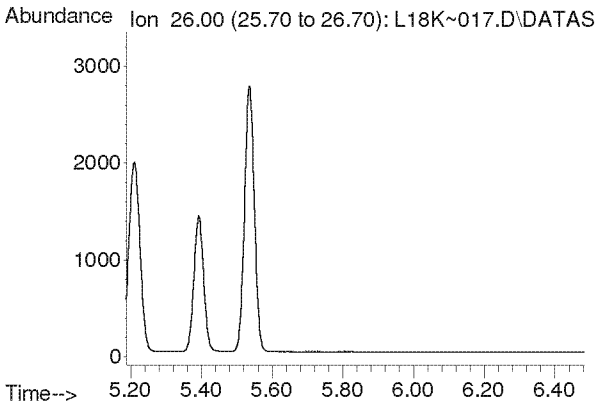
Compounds other than ethylene oxide were not quantitated.

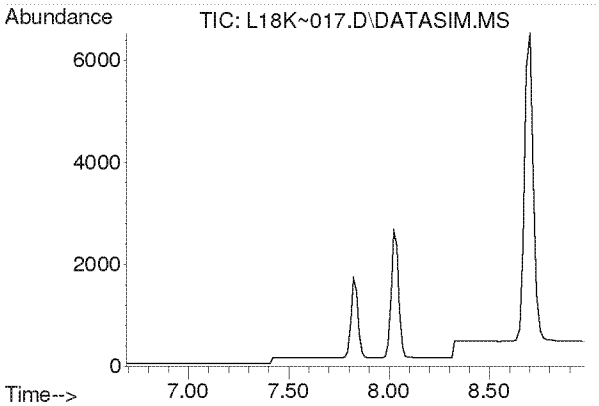


#2
Acetylene
Concen: N.D.
Expected RT: 5.41 min

Lab File: L18K~017.D
Acq: 28 Nov 2018 2:13 am

Tgt Ion: 26



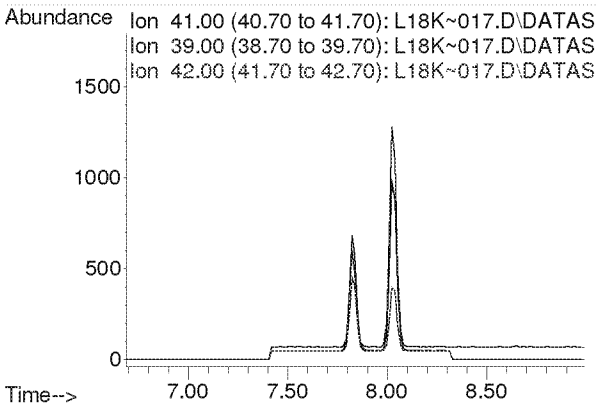


#3
Propylene
Concen: N.D.
Expected RT: 7.84 min

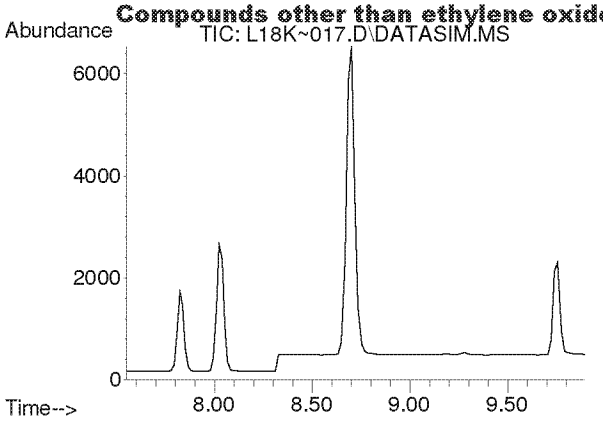
Lab File: L18K~017.D
Acq: 28 Nov 2018 2:13 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	81.2
42	65.4



Compounds other than ethylene oxide were not quantitated.

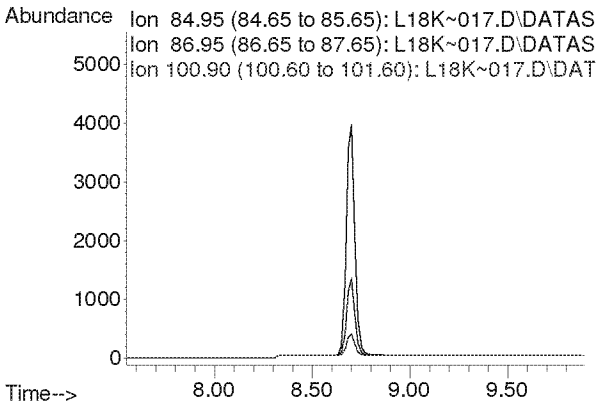


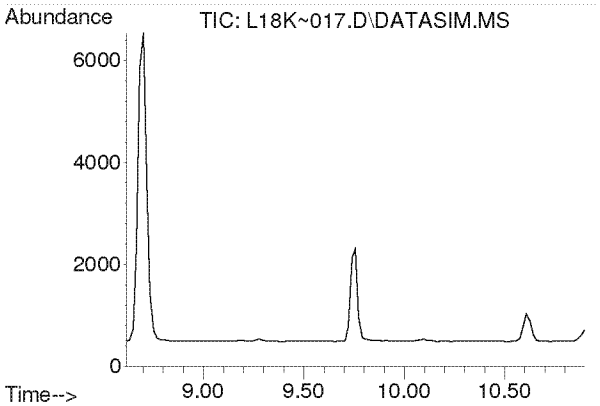
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.69 min

Lab File: L18K~017.D
Acq: 28 Nov 2018 2:13 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.3
101	9.0



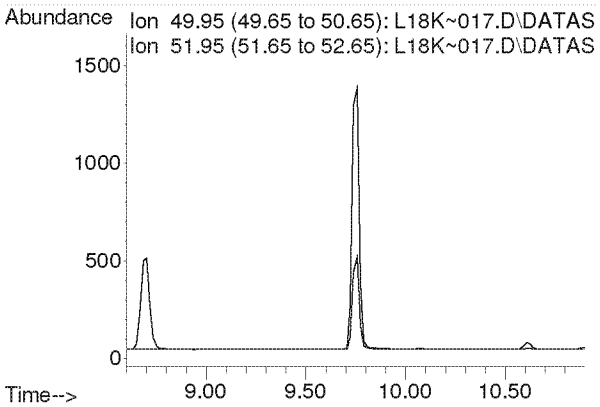


#5
Chloromethane
Concen: N.D.
Expected RT: 9.76 min

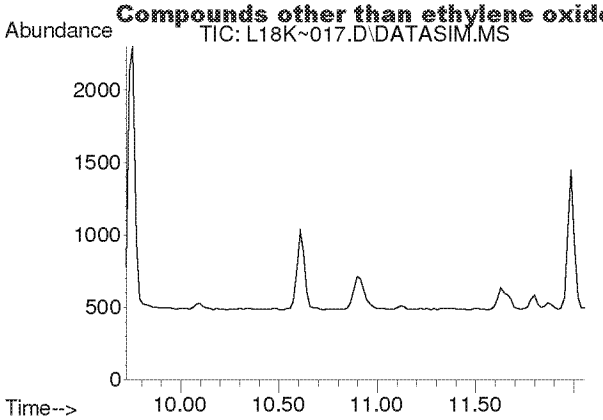
Lab File: L18K~017.D
Acq: 28 Nov 2018 2:13 am

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.2



Compounds other than ethylene oxide were not quantitated.

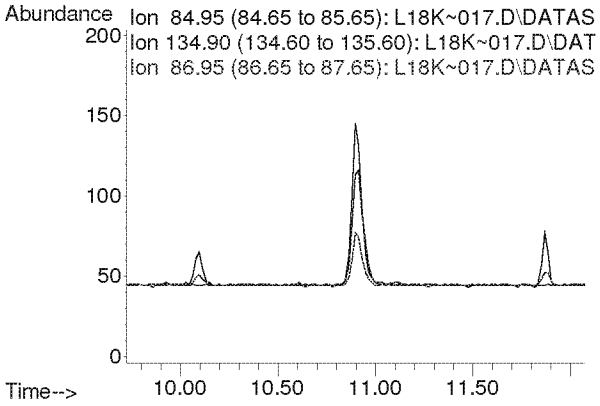


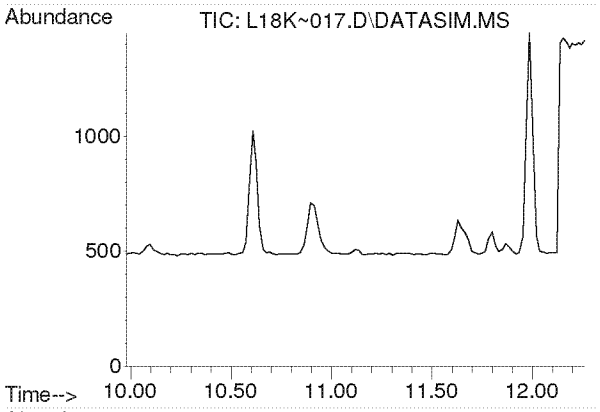
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.87 min

Lab File: L18K~017.D
Acq: 28 Nov 2018 2:13 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.6
87	32.1



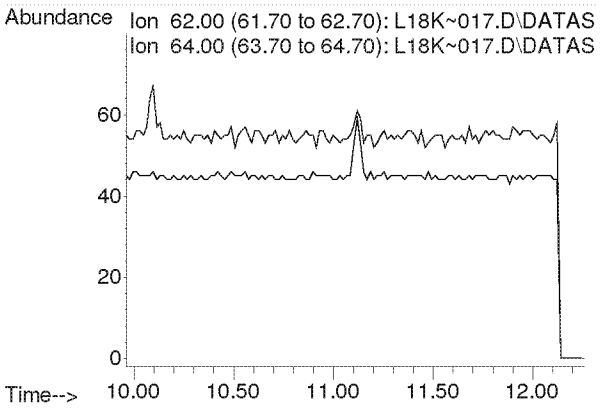


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

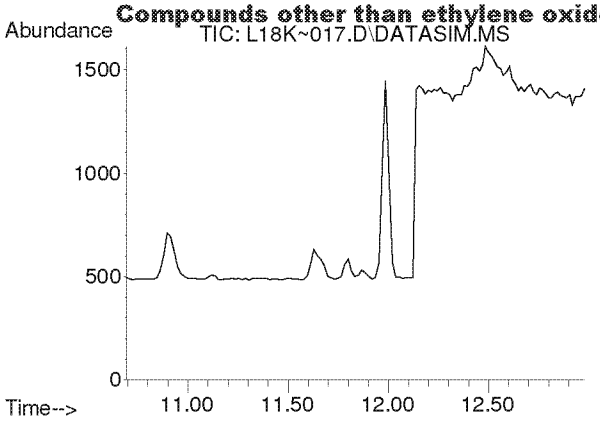
Lab File: L18K~017.D
Acq: 28 Nov 2018 2:13 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	32.0



Compounds other than ethylene oxide were not quantitated.

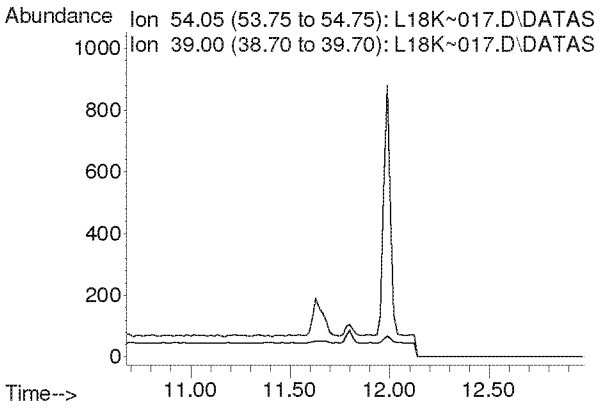


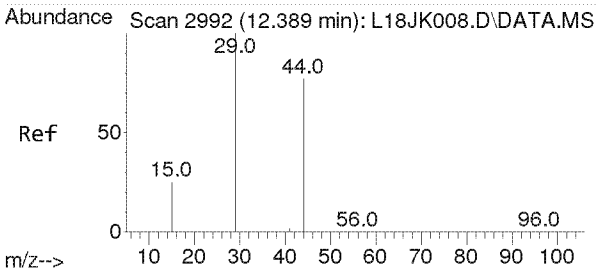
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.79 min

Lab File: L18K~017.D
Acq: 28 Nov 2018 2:13 am

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	108.7

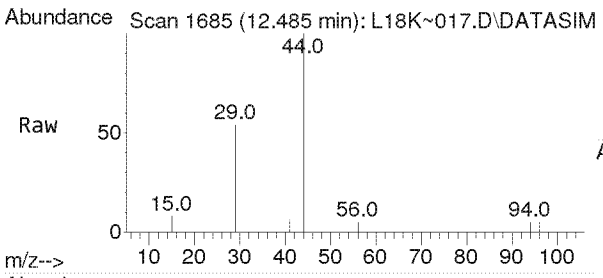


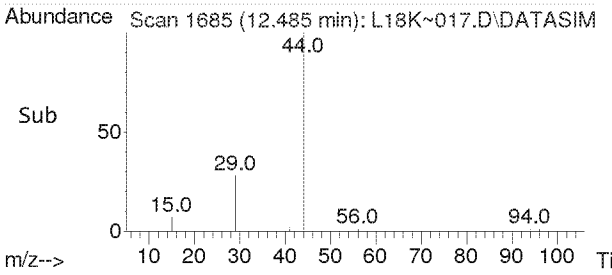


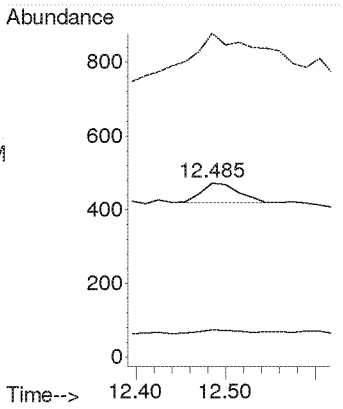
#9
Ethylene oxide
Concen: 0.058 ppbv m
RT: 12.485 min Scan# 1685
Delta R.T. 0.096 min
Lab File: L18K~017.D
Acq: 28 Nov 2018 2:13 am

Tgt Ion: 29 Resp: 155

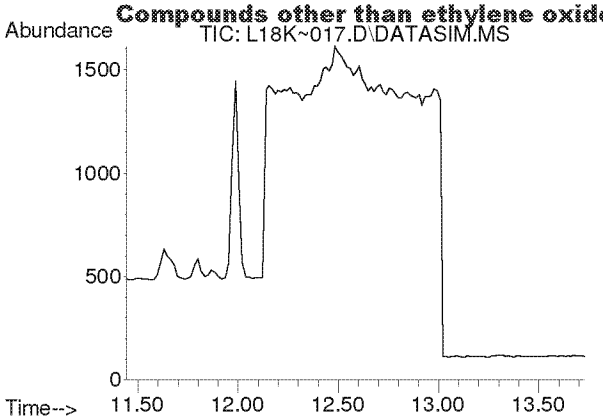
Ion	Ratio	Lower	Upper
29	100		
15	0.0	20.1	30.1#
44	0.0	62.6	93.8#







Compounds other than ethylene oxide were not quantitated.

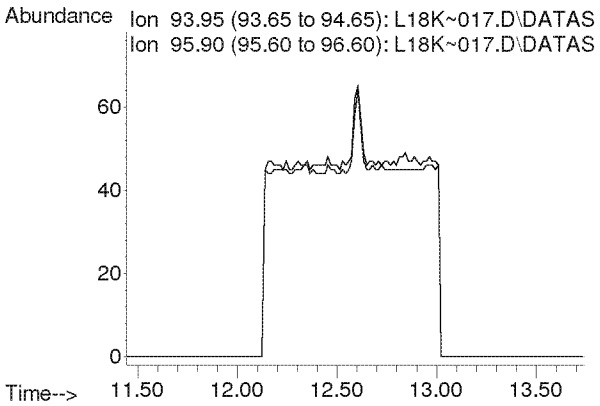


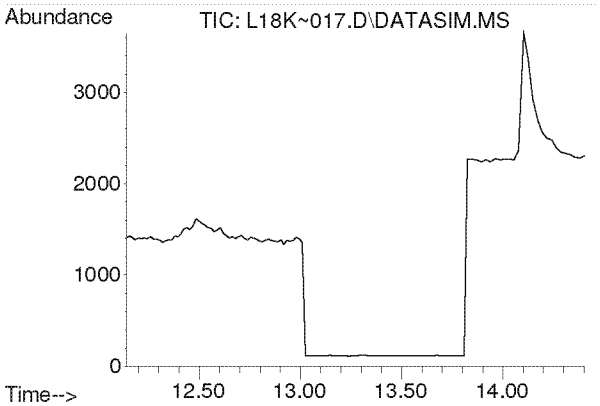
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L18K~017.D
Acq: 28 Nov 2018 2:13 am

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



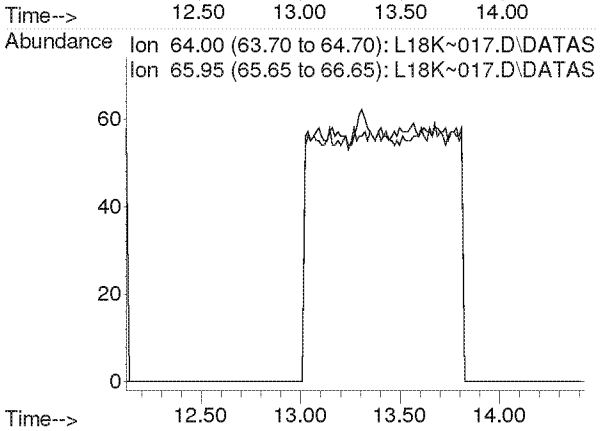


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

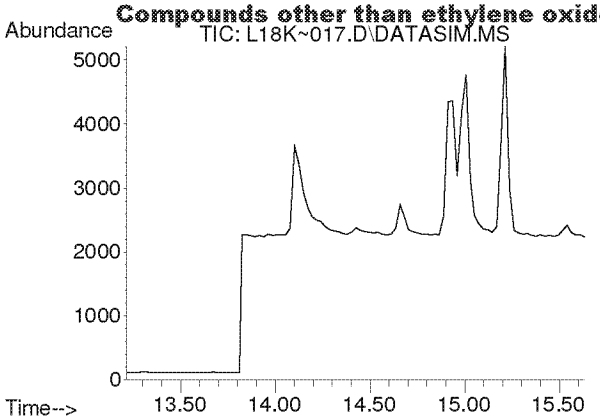
Lab File: L18K~017.D
Acq: 28 Nov 2018 2:13 am

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

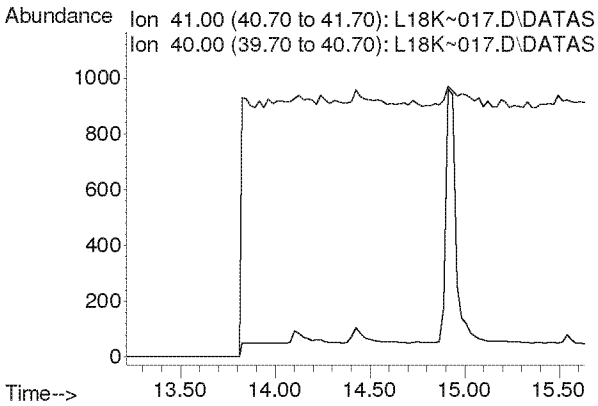


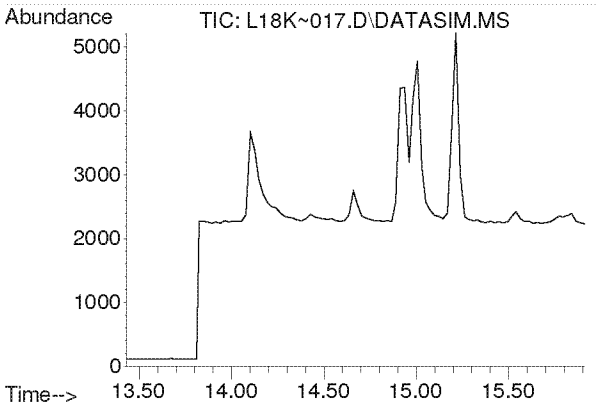
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.34 min

Lab File: L18K~017.D
Acq: 28 Nov 2018 2:13 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	53.9



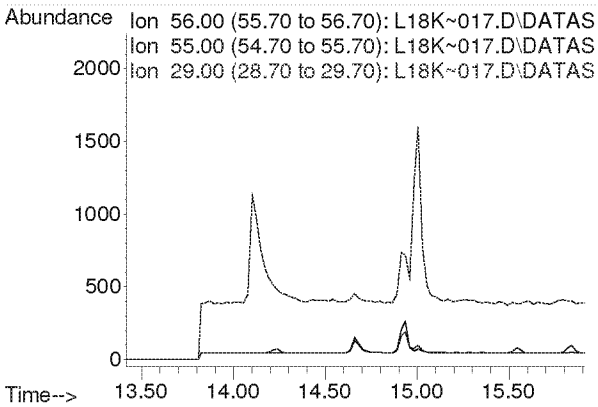


#13
Acrolein
Concen: N.D.
Expected RT: 14.62 min

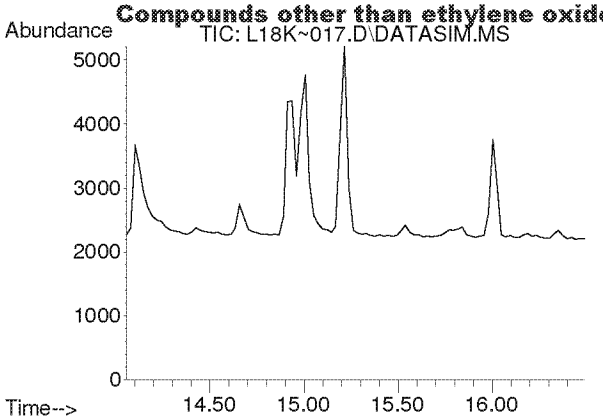
Lab File: L18K~017.D
Acq: 28 Nov 2018 2:13 am

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	77.4
29	61.5



Compounds other than ethylene oxide were not quantitated.

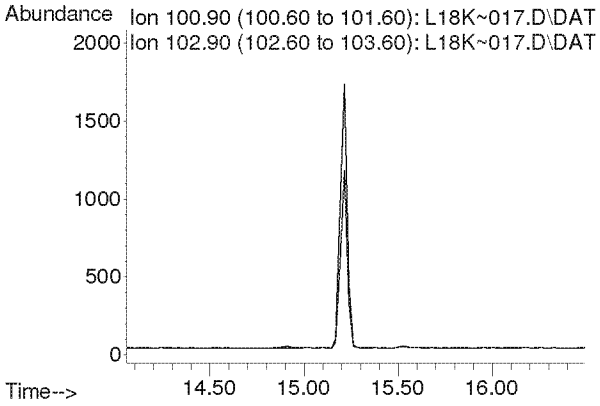


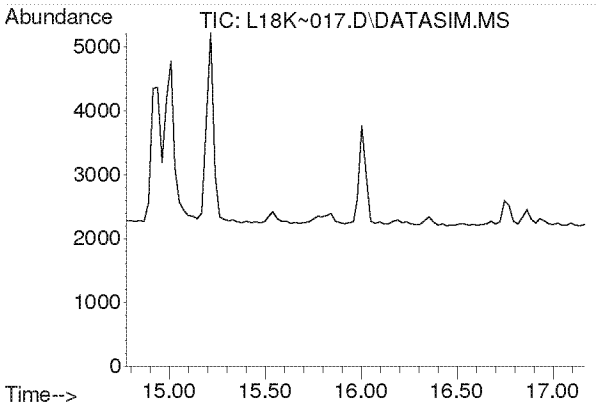
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.20 min

Lab File: L18K~017.D
Acq: 28 Nov 2018 2:13 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.7



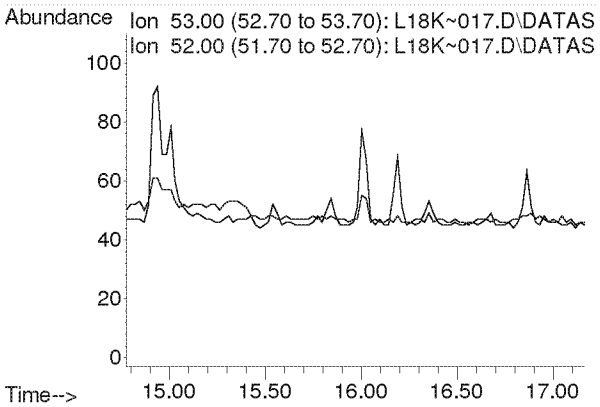


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.92 min

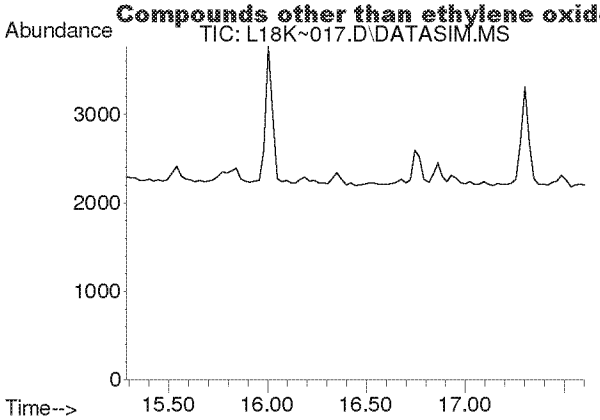
Lab File: L18K~017.D
Acq: 28 Nov 2018 2:13 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	87.1



Compounds other than ethylene oxide were not quantitated.

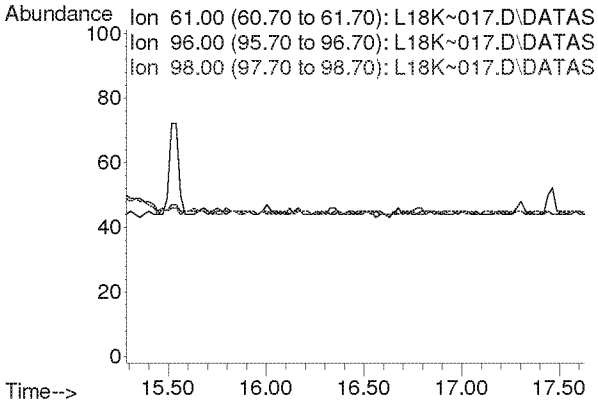


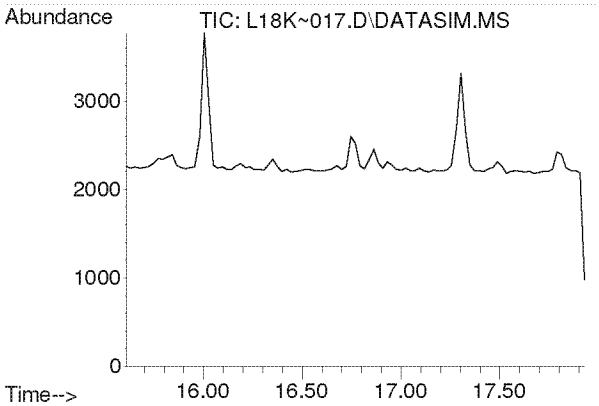
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L18K~017.D
Acq: 28 Nov 2018 2:13 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	57.6
98	36.8



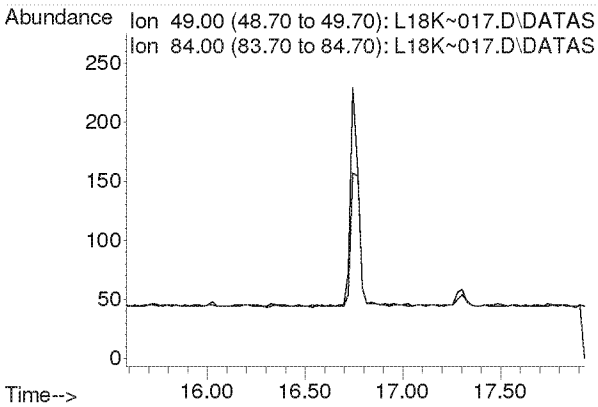


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

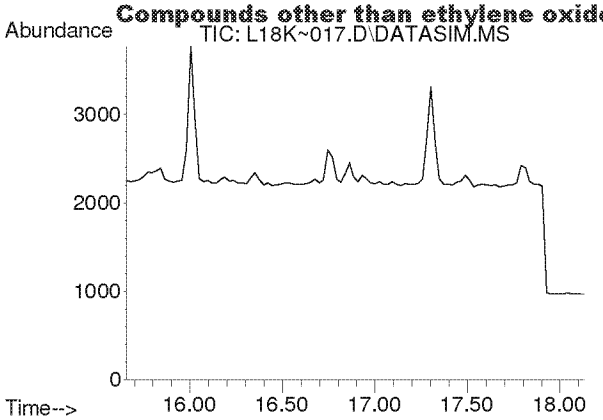
Lab File: L18K~017.D
Acq: 28 Nov 2018 2:13 am

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	74.2



Compounds other than ethylene oxide were not quantitated.

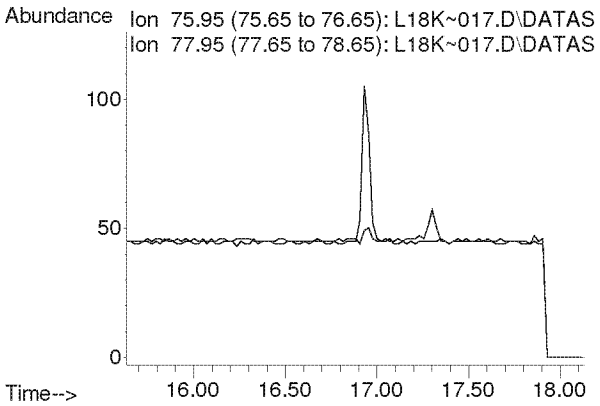


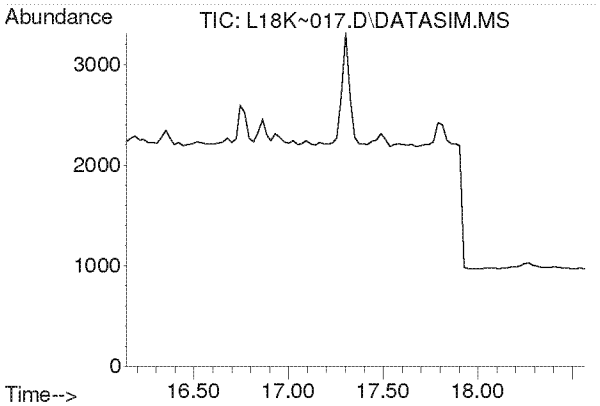
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.94 min

Lab File: L18K~017.D
Acq: 28 Nov 2018 2:13 am

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.1



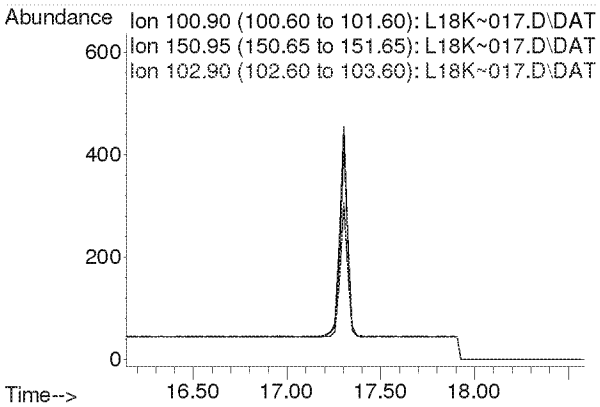


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.29 min

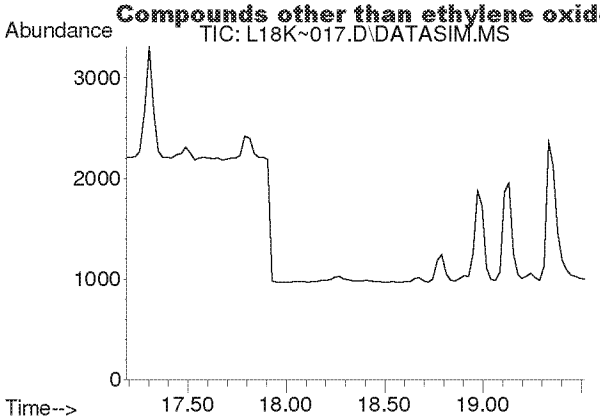
Lab File: L18K~017.D
Acq: 28 Nov 2018 2:13 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	96.0
103	64.3



Compounds other than ethylene oxide were not quantitated.

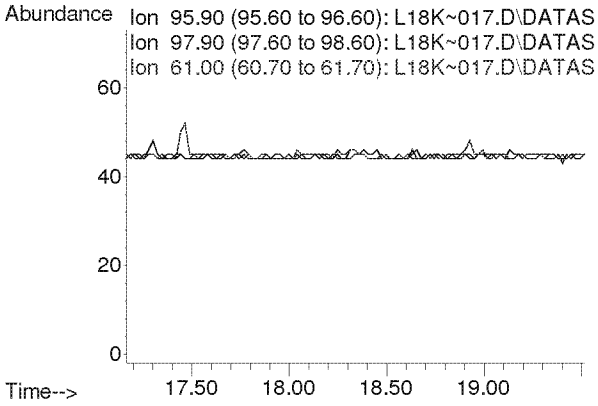


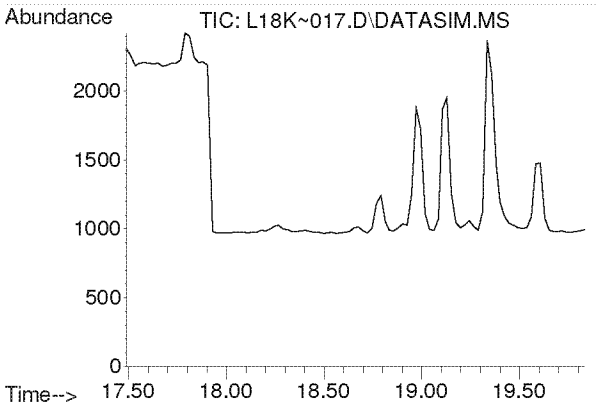
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.33 min

Lab File: L18K~017.D
Acq: 28 Nov 2018 2:13 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	63.6
61	156.3



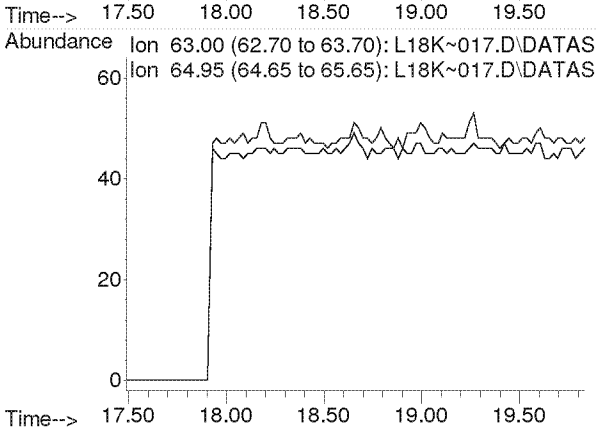


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.64 min

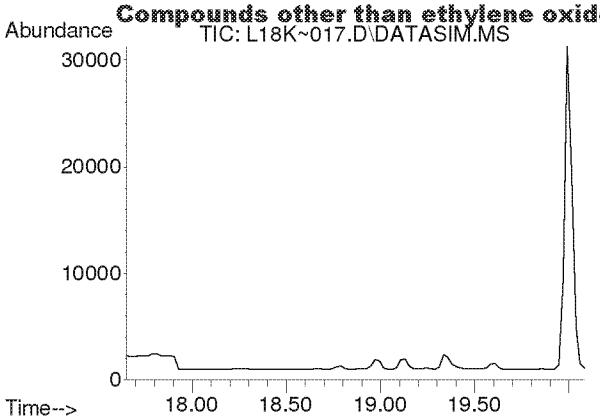
Lab File: L18K~017.D
Acq: 28 Nov 2018 2:13 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	32.1



Compounds other than ethylene oxide were not quantitated.

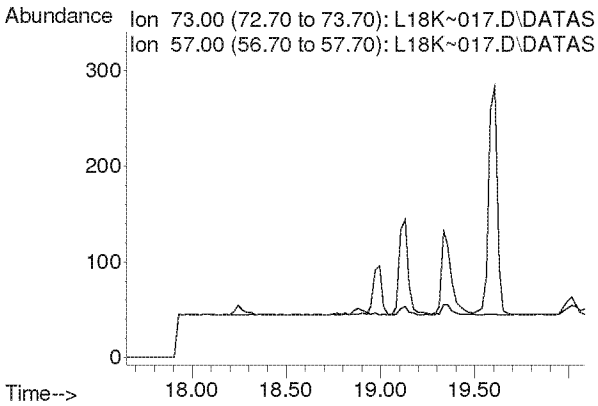


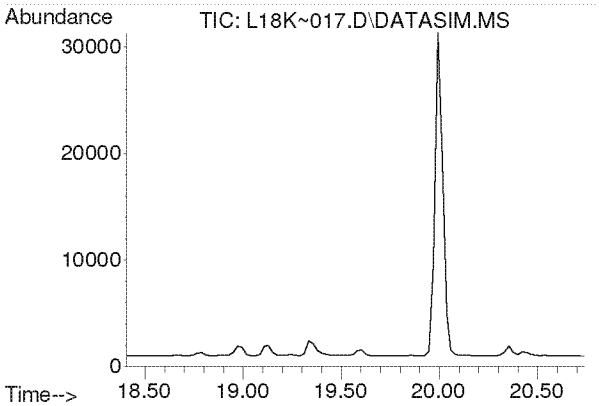
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L18K~017.D
Acq: 28 Nov 2018 2:13 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.0



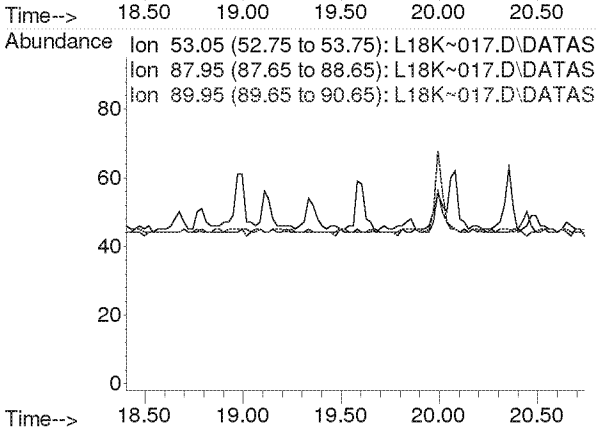


#23
Chloroprene
Concen: N.D.
Expected RT: 19.55 min

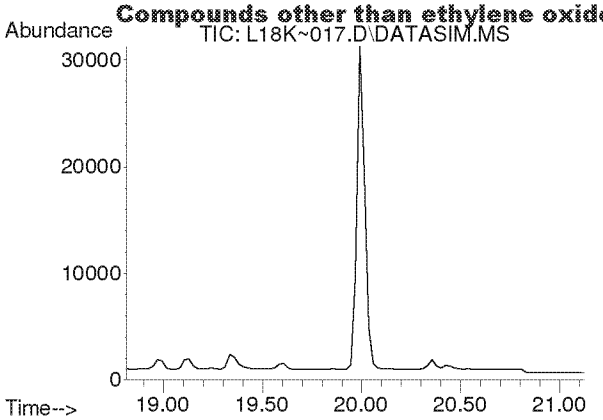
Lab File: L18K~017.D
Acq: 28 Nov 2018 2:13 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	51.5
90	16.6



Compounds other than ethylene oxide were not quantitated.

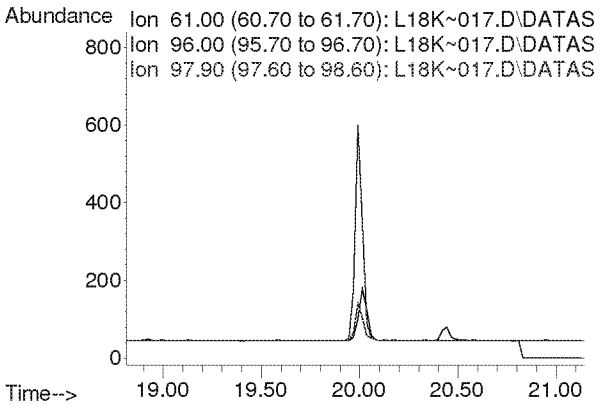


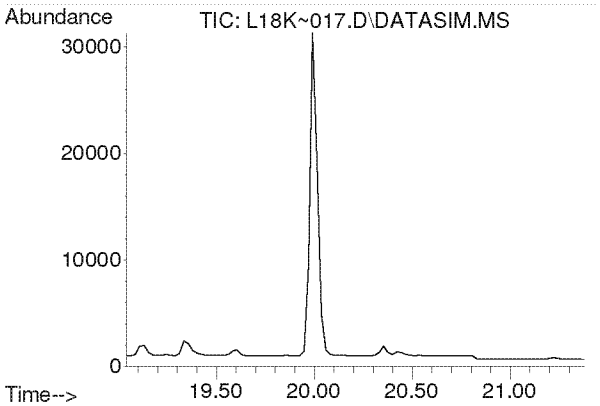
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.96 min

Lab File: L18K~017.D
Acq: 28 Nov 2018 2:13 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.5
98	46.2



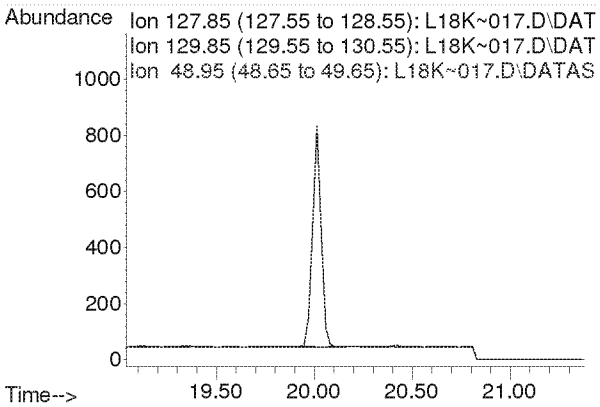


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.18 min

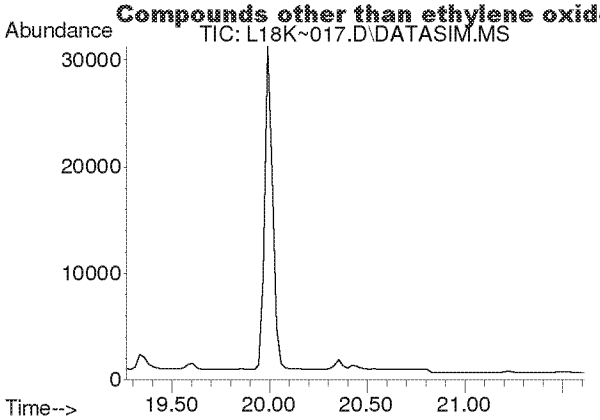
Lab File: L18K~017.D
Acq: 28 Nov 2018 2:13 am

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	128.9
49	167.9



Compounds other than ethylene oxide were not quantitated.

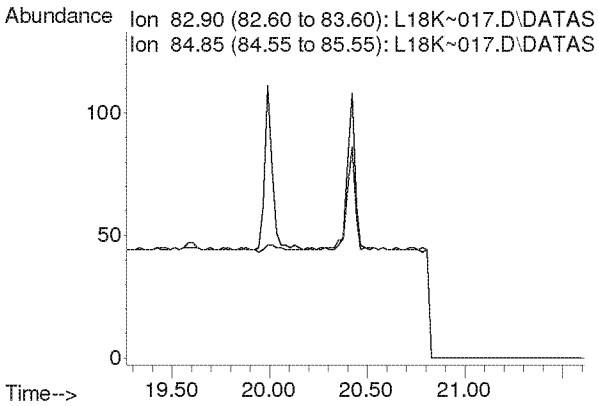


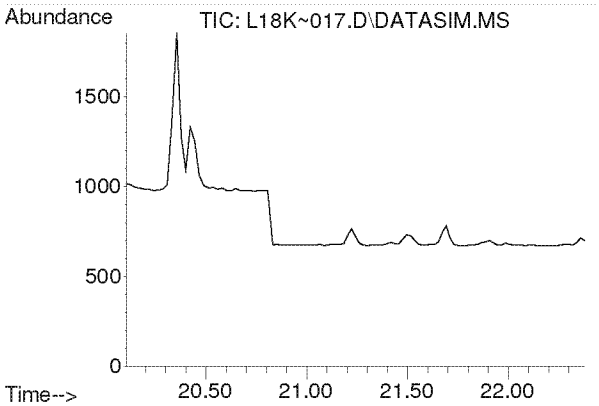
#26
Chloroform
Concen: N.D.
Expected RT: 20.42 min

Lab File: L18K~017.D
Acq: 28 Nov 2018 2:13 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



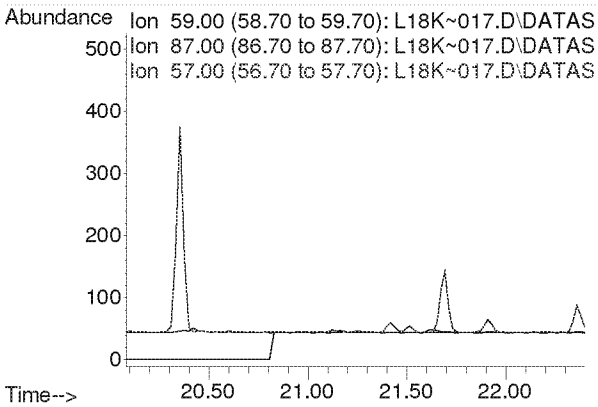


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.19 min

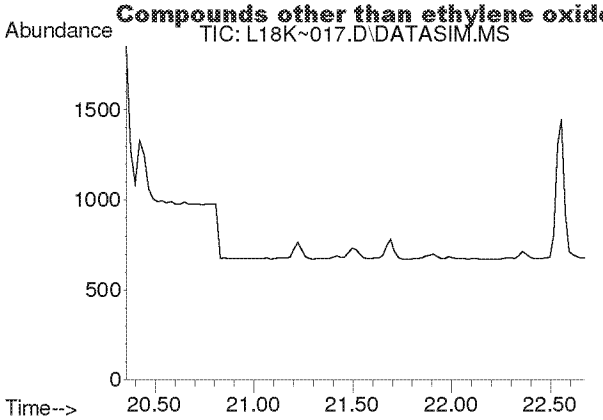
Lab File: L18K~017.D
Acq: 28 Nov 2018 2:13 am

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	38.5
57	34.0



Compounds other than ethylene oxide were not quantitated.

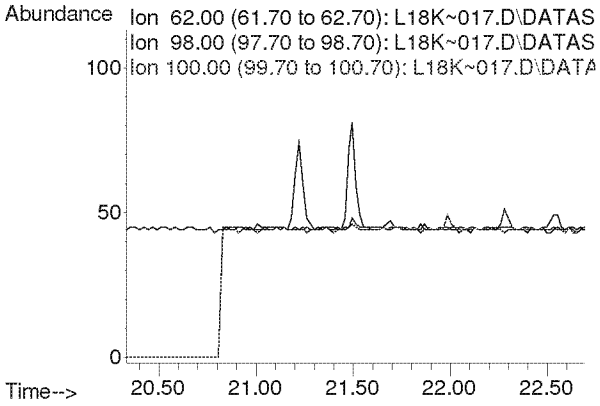


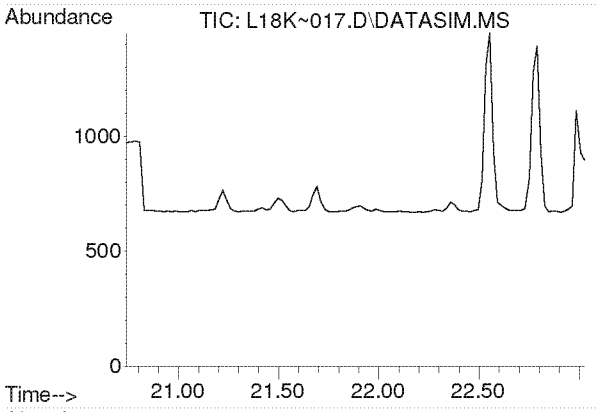
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.49 min

Lab File: L18K~017.D
Acq: 28 Nov 2018 2:13 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.0
100	3.9



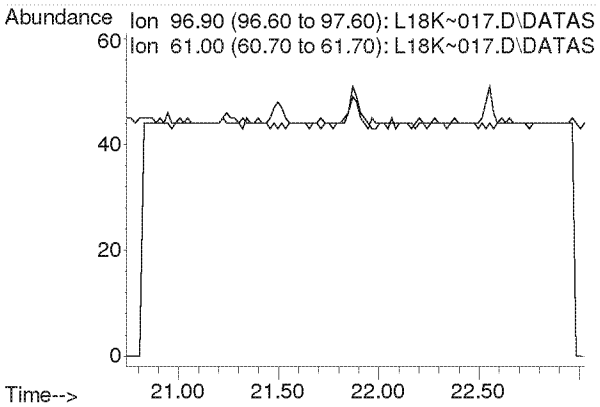


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.88 min

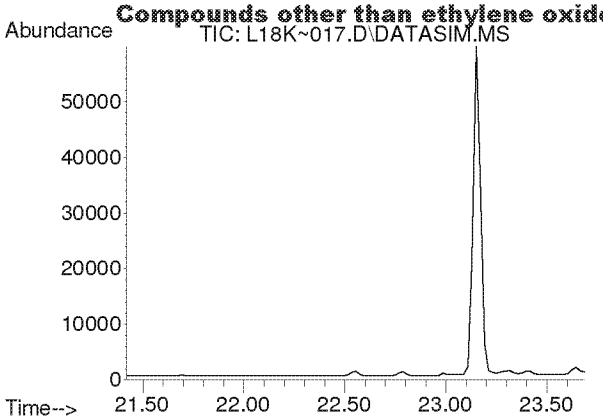
Lab File: L18K~017.D
Acq: 28 Nov 2018 2:13 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	59.6



Compounds other than ethylene oxide were not quantitated.

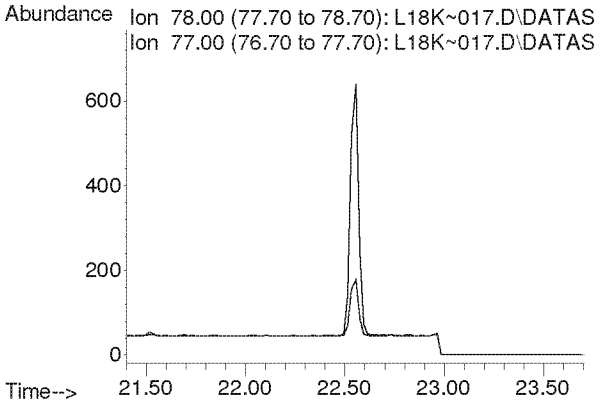


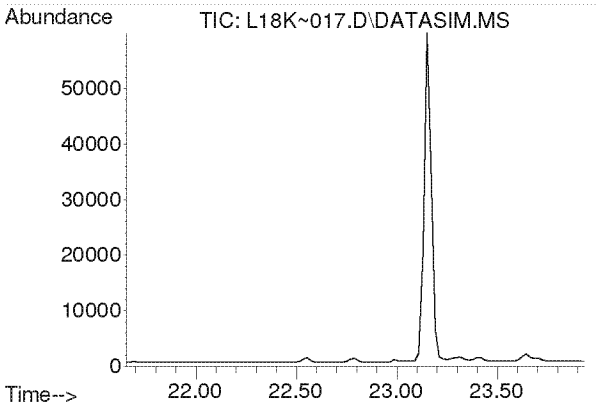
#31
Benzene
Concen: N.D.
Expected RT: 22.56 min

Lab File: L18K~017.D
Acq: 28 Nov 2018 2:13 am

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.9



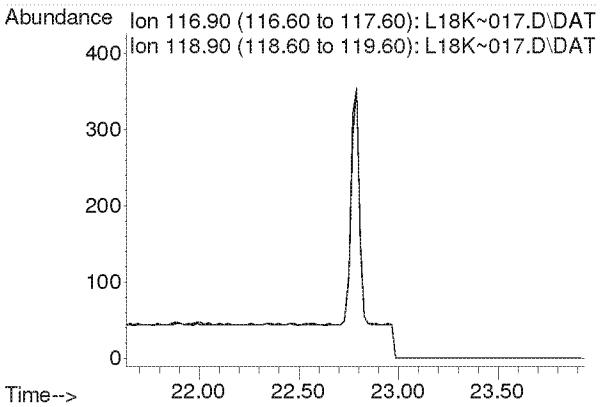


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.79 min

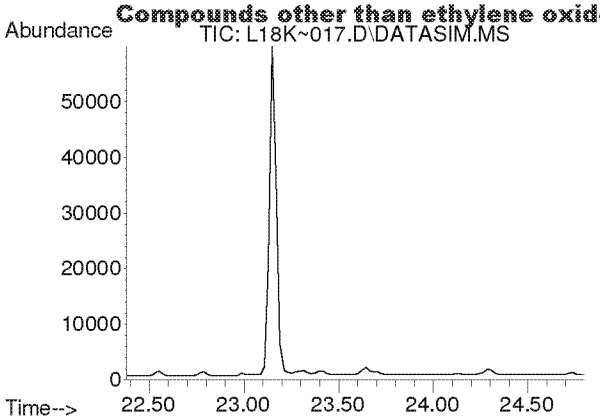
Lab File: L18K~017.D
Acq: 28 Nov 2018 2:13 am

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.9



Compounds other than ethylene oxide were not quantitated.

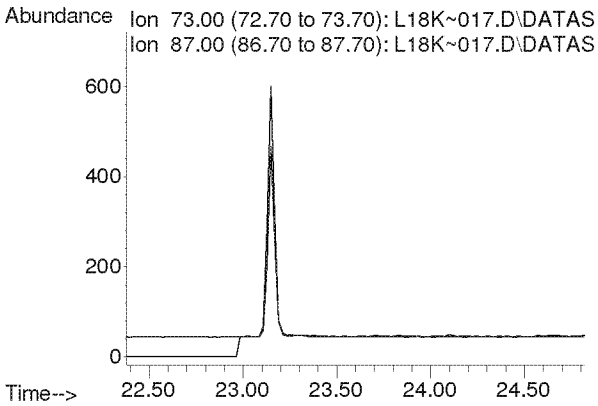


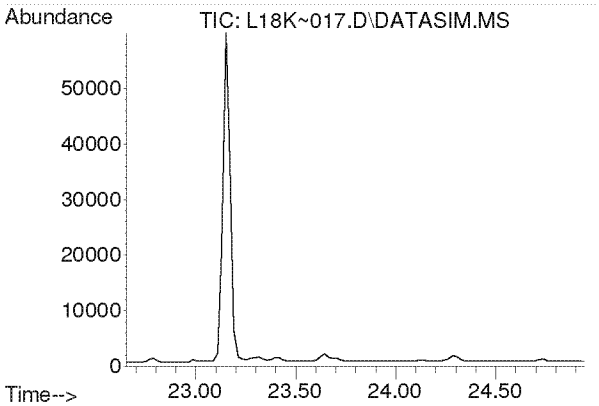
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L18K~017.D
Acq: 28 Nov 2018 2:13 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



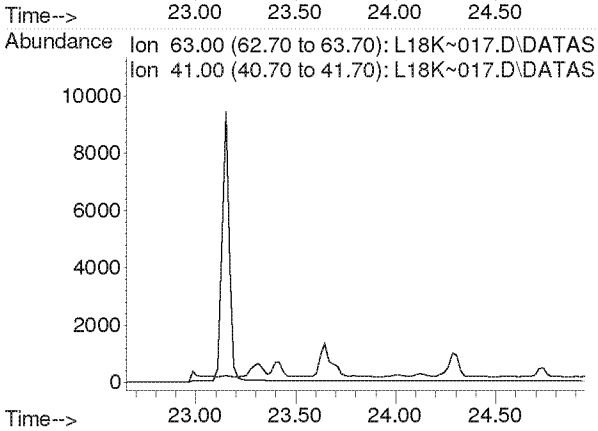


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.80 min

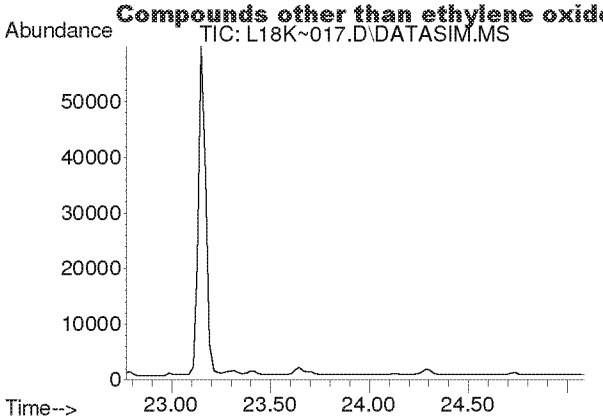
Lab File: L18K~017.D
Acq: 28 Nov 2018 2:13 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	222.1



Compounds other than ethylene oxide were not quantitated.

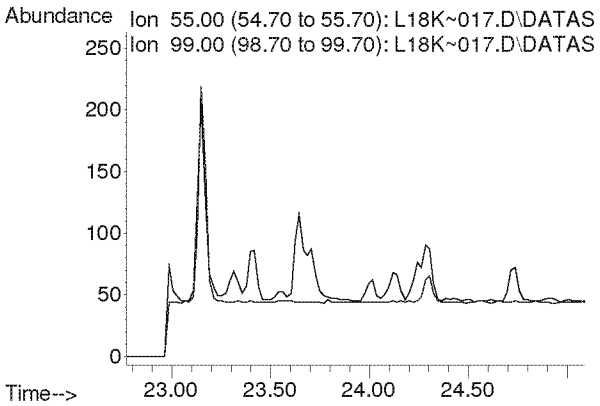


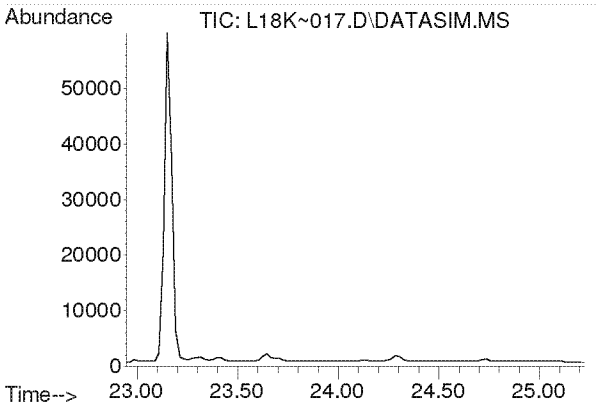
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L18K~017.D
Acq: 28 Nov 2018 2:13 am

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



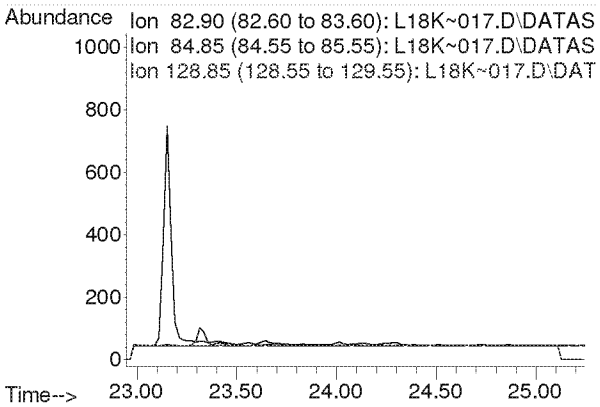


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.09 min

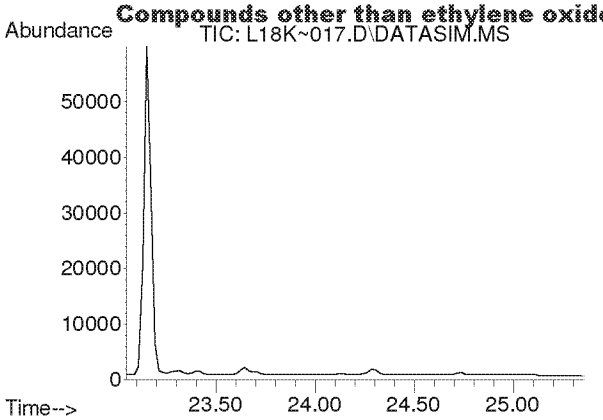
Lab File: L18K~017.D
Acq: 28 Nov 2018 2:13 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.9
129	12.9



Compounds other than ethylene oxide were not quantitated.

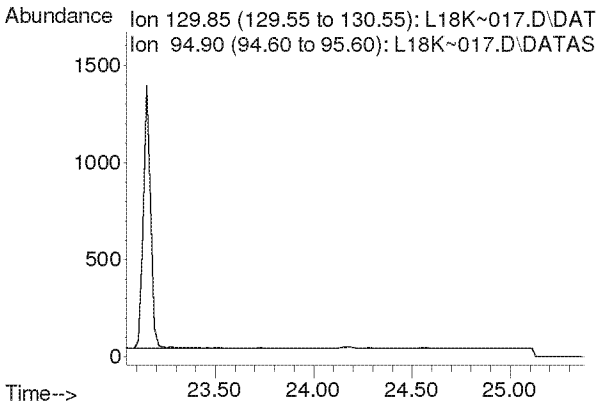


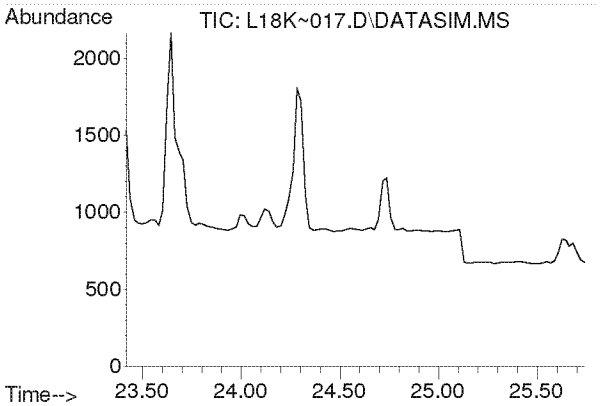
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.19 min

Lab File: L18K~017.D
Acq: 28 Nov 2018 2:13 am

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.9



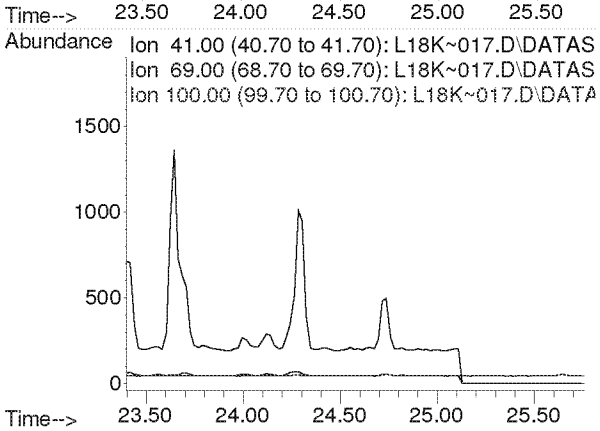


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.55 min

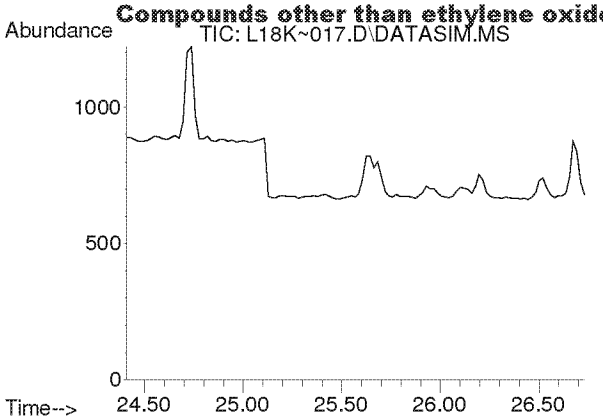
Lab File: L18K~017.D
Acq: 28 Nov 2018 2:13 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	20.0
100	5.1



Compounds other than ethylene oxide were not quantitated.

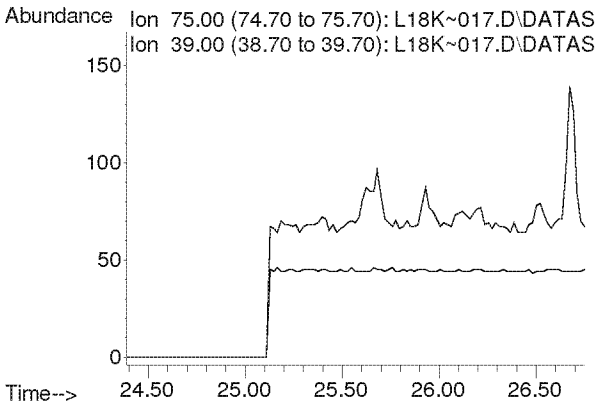


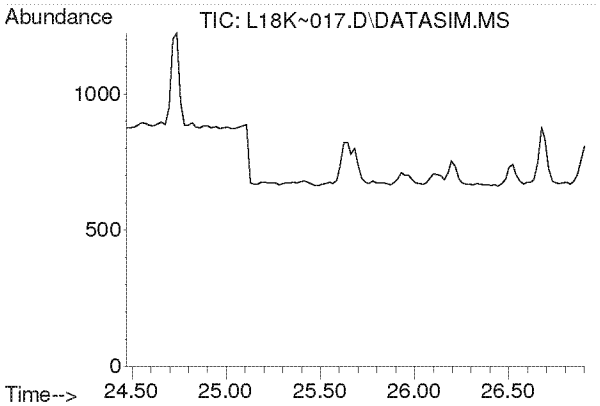
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.54 min

Lab File: L18K~017.D
Acq: 28 Nov 2018 2:13 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	55.6



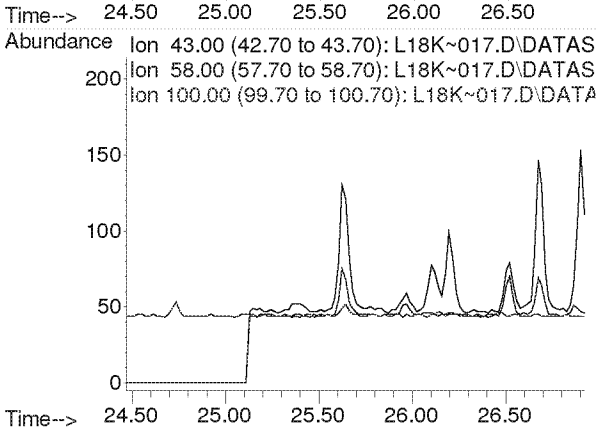


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.62 min

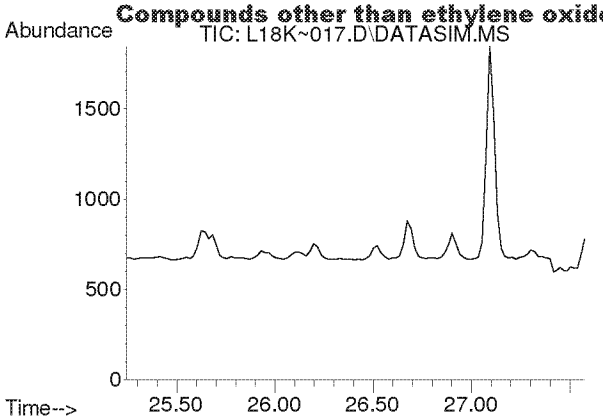
Lab File: L18K~017.D
Acq: 28 Nov 2018 2:13 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	33.3
100	8.0



Compounds other than ethylene oxide were not quantitated.

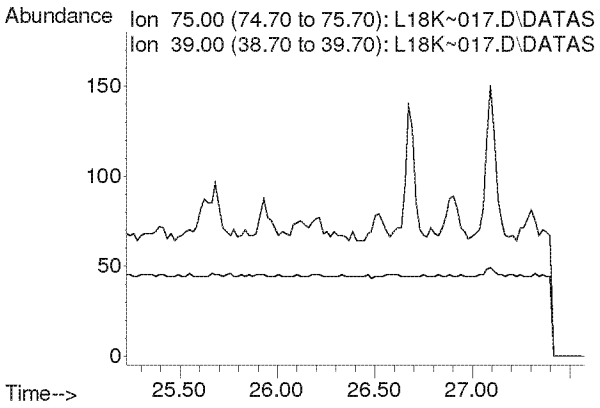


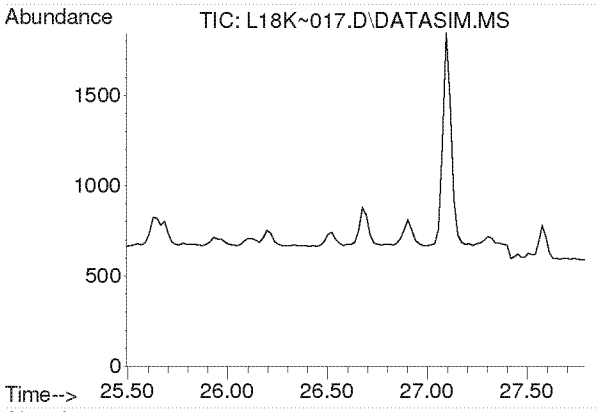
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.38 min

Lab File: L18K~017.D
Acq: 28 Nov 2018 2:13 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	55.3



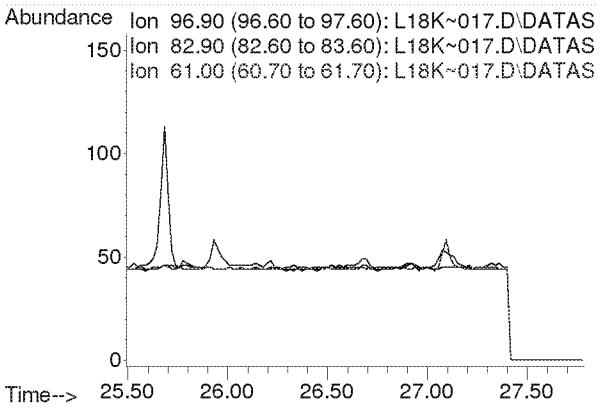


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.64 min

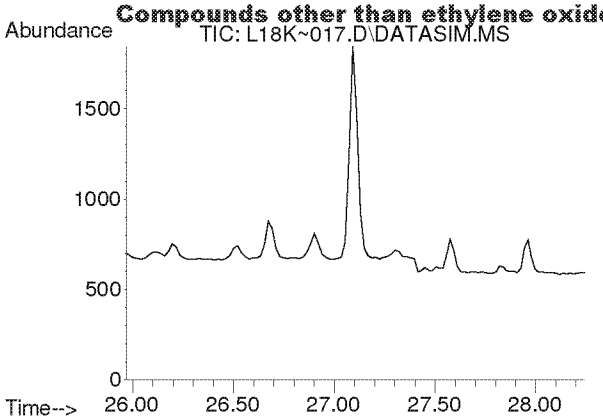
Lab File: L18K~017.D
Acq: 28 Nov 2018 2:13 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	95.3
61	64.6



Compounds other than ethylene oxide were not quantitated.

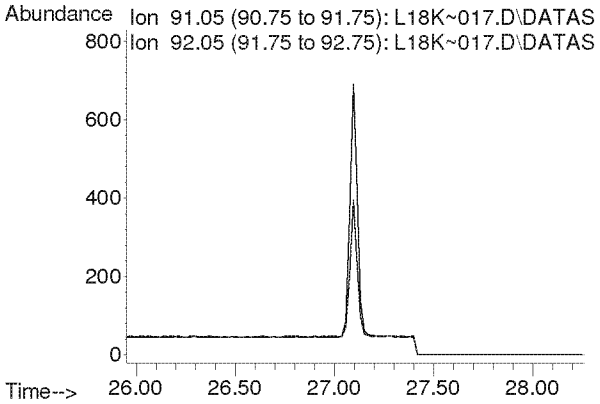


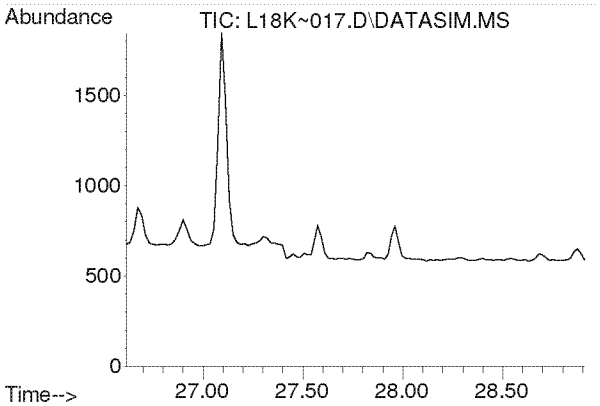
#44
Toluene
Concen: N.D.
Expected RT: 27.11 min

Lab File: L18K~017.D
Acq: 28 Nov 2018 2:13 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.1



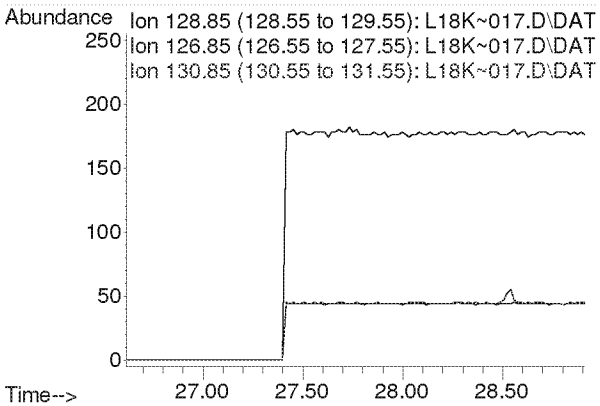


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.76 min

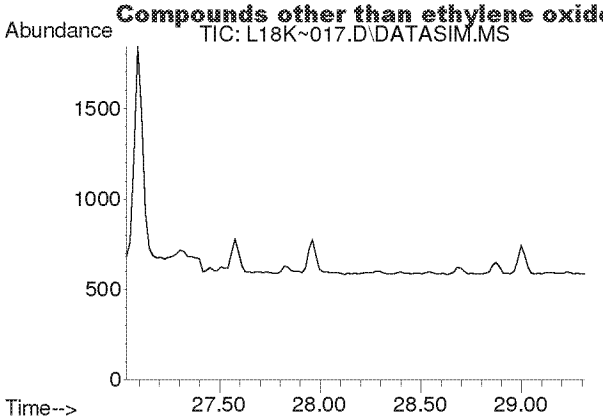
Lab File: L18K~017.D
Acq: 28 Nov 2018 2:13 am

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

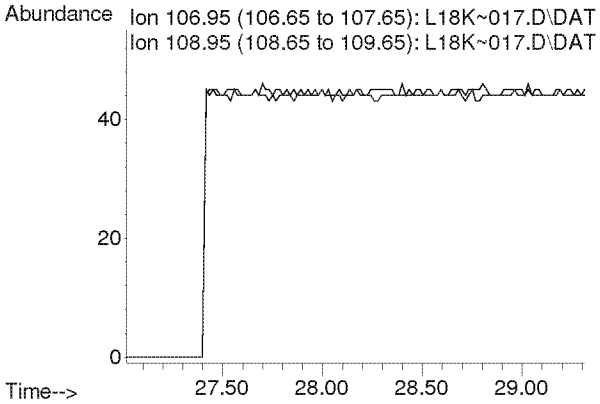


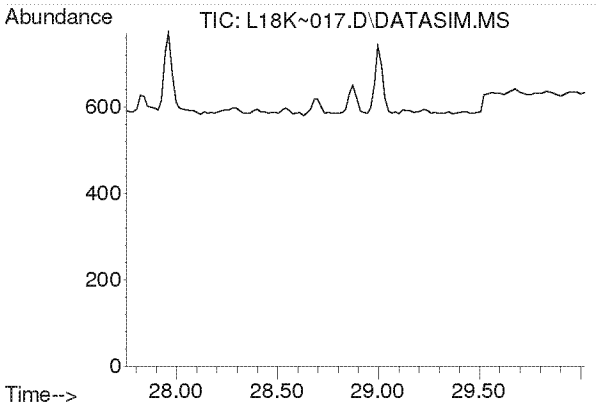
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.17 min

Lab File: L18K~017.D
Acq: 28 Nov 2018 2:13 am

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	93.8



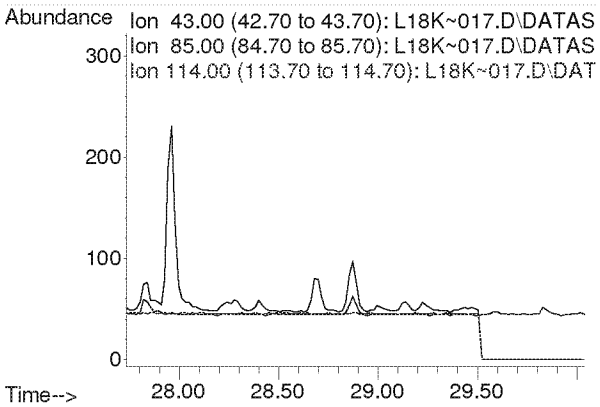


#47
n-Octane
Concen: N.D.
Expected RT: 28.89 min

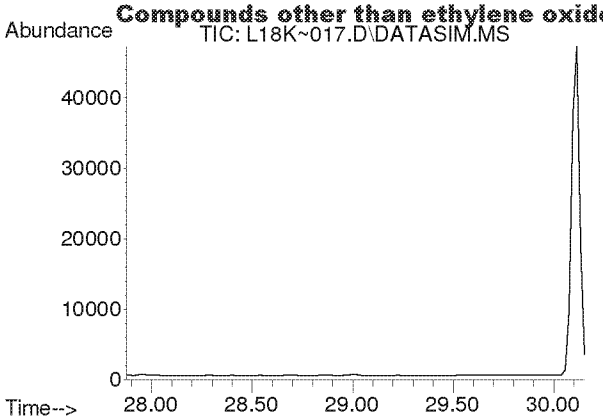
Lab File: L18K~017.D
Acq: 28 Nov 2018 2:13 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	37.8
114	2.4



Compounds other than ethylene oxide were not quantitated.

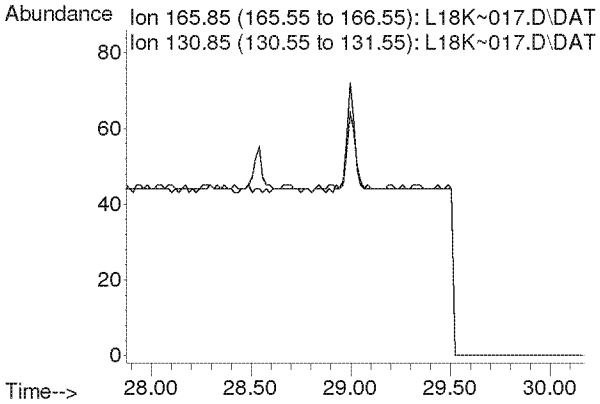


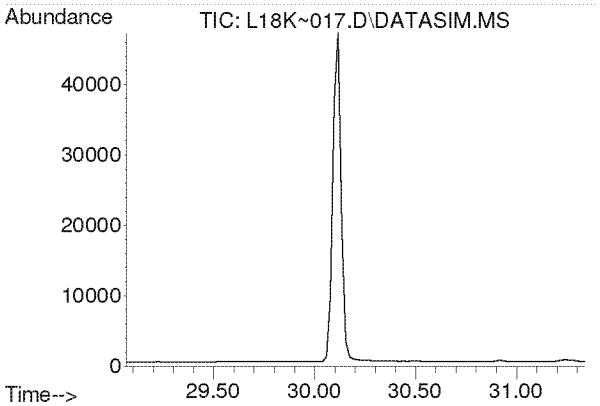
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.02 min

Lab File: L18K~017.D
Acq: 28 Nov 2018 2:13 am

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	78.7



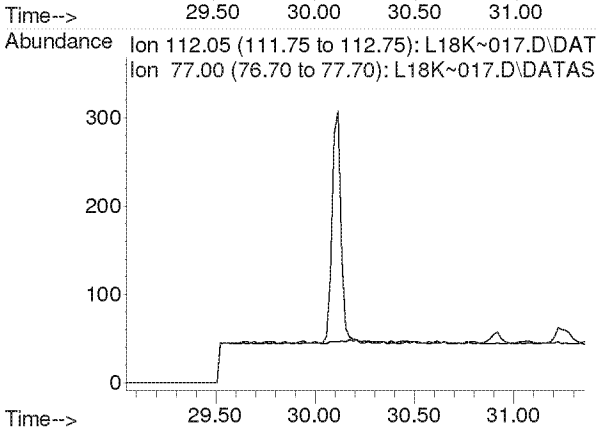


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.20 min

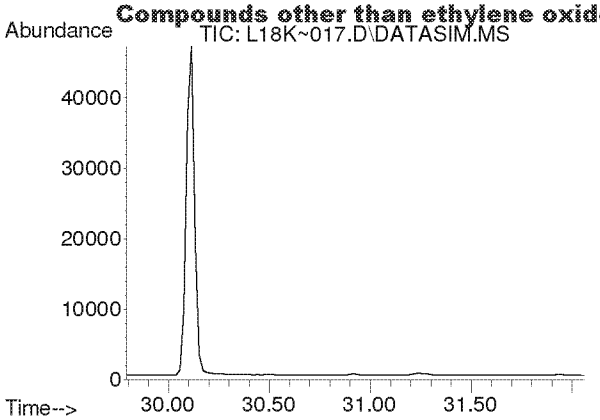
Lab File: L18K~017.D
Acq: 28 Nov 2018 2:13 am

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.3



Compounds other than ethylene oxide were not quantitated.

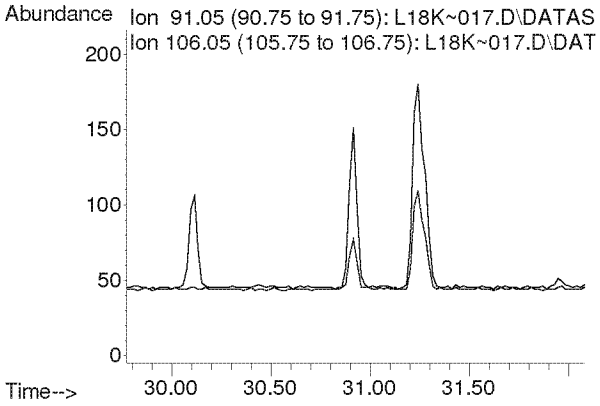


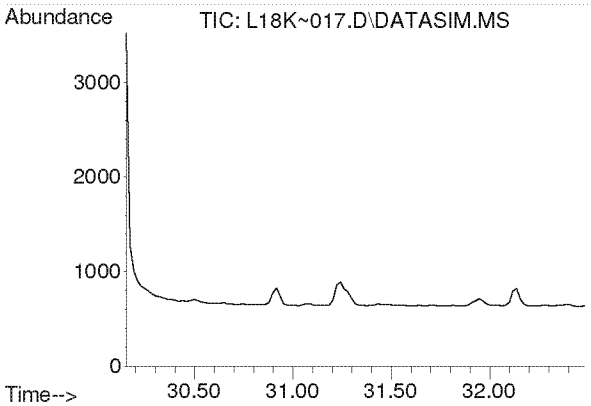
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.93 min

Lab File: L18K~017.D
Acq: 28 Nov 2018 2:13 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	31.8



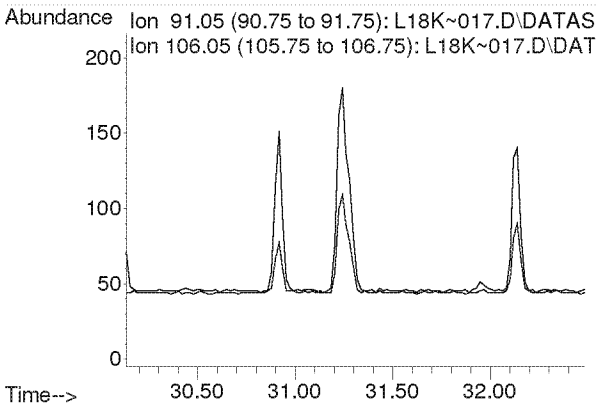


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.29 min

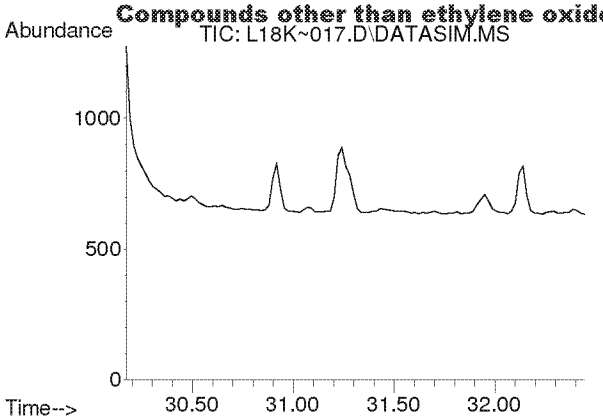
Lab File: L18K~017.D
Acq: 28 Nov 2018 2:13 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.4



Compounds other than ethylene oxide were not quantitated.

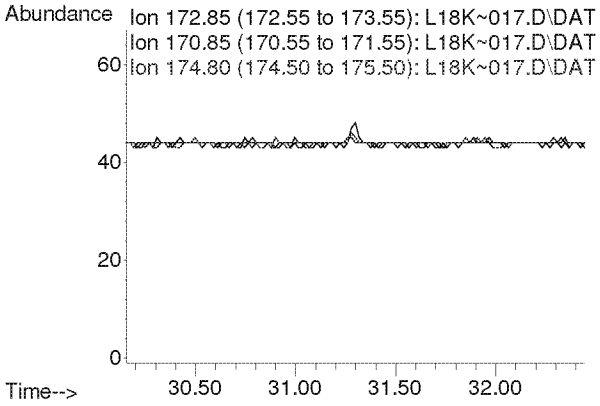


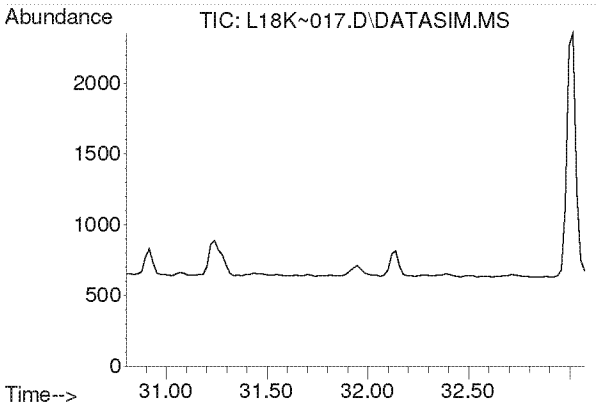
#52
Bromoform
Concen: N.D.
Expected RT: 31.30 min

Lab File: L18K~017.D
Acq: 28 Nov 2018 2:13 am

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.4
175	49.0



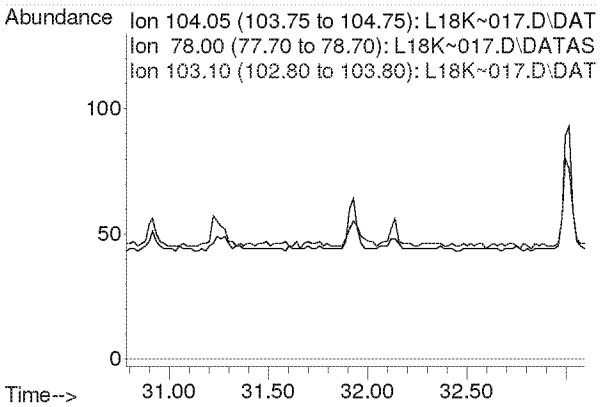


#53
Styrene
Concen: N.D.
Expected RT: 31.94 min

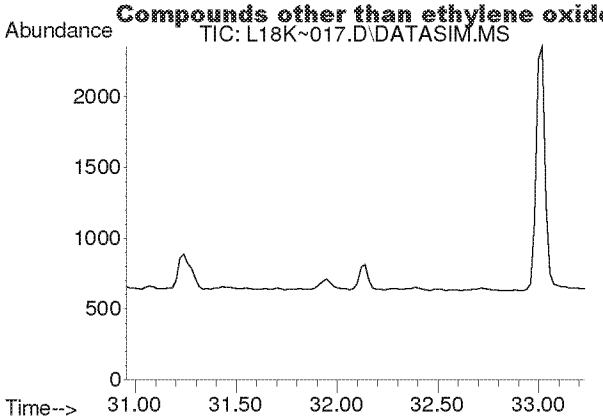
Lab File: L18K~017.D
Acq: 28 Nov 2018 2:13 am

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	45.7
103	0.0



Compounds other than ethylene oxide were not quantitated.

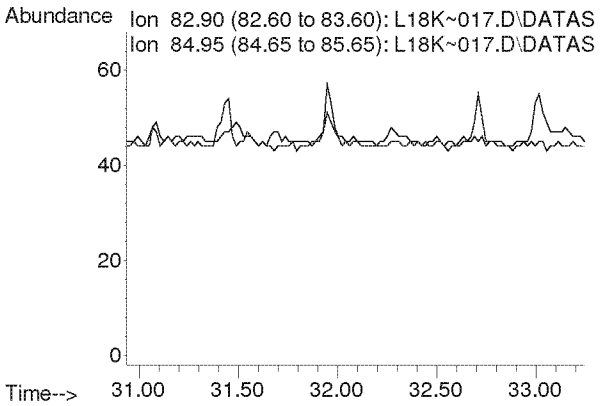


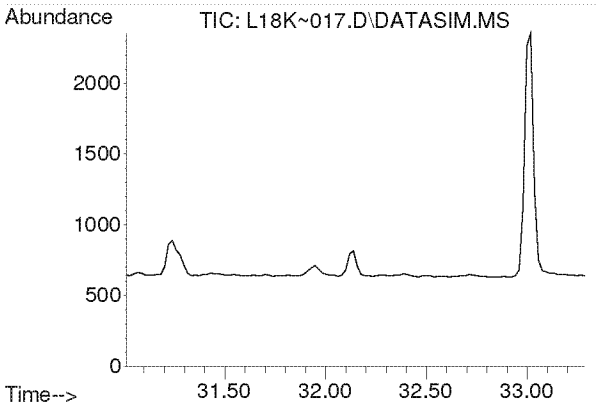
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.09 min

Lab File: L18K~017.D
Acq: 28 Nov 2018 2:13 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.3



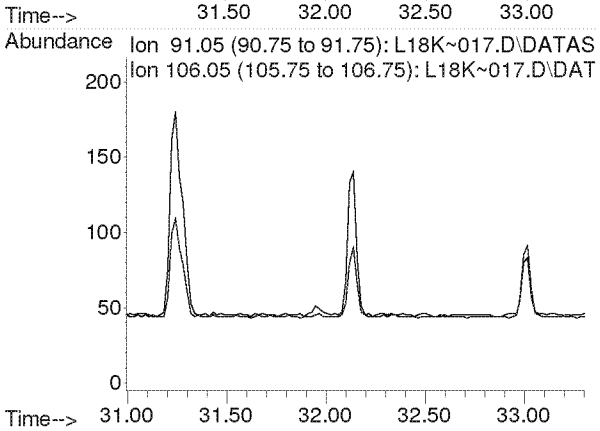


#55
o-Xylene
Concen: N.D.
Expected RT: 32.15 min

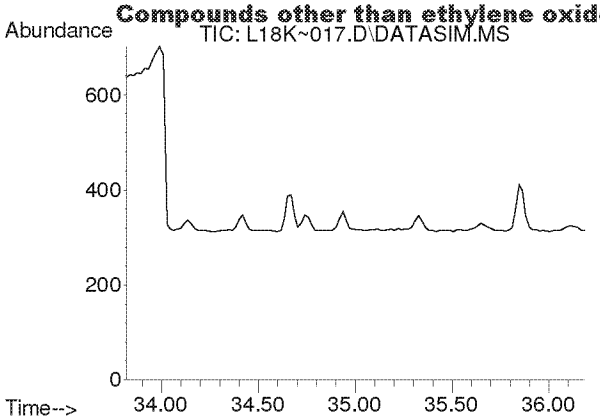
Lab File: L18K~017.D
Acq: 28 Nov 2018 2:13 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.5



Compounds other than ethylene oxide were not quantitated.

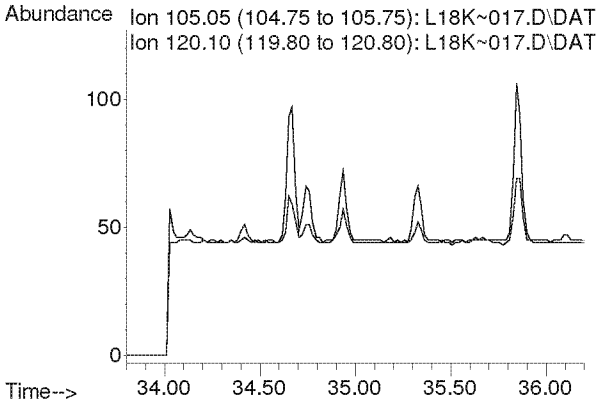


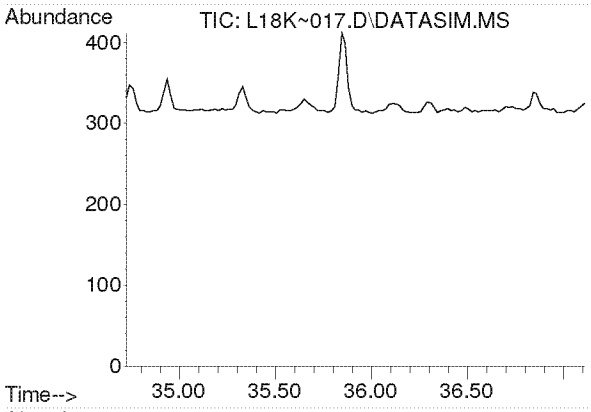
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.95 min

Lab File: L18K~017.D
Acq: 28 Nov 2018 2:13 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	45.6



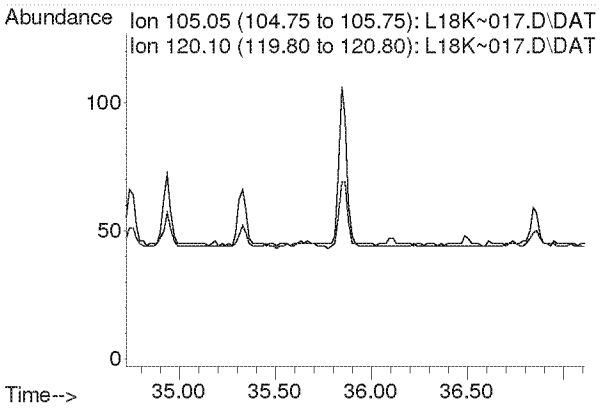


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.87 min

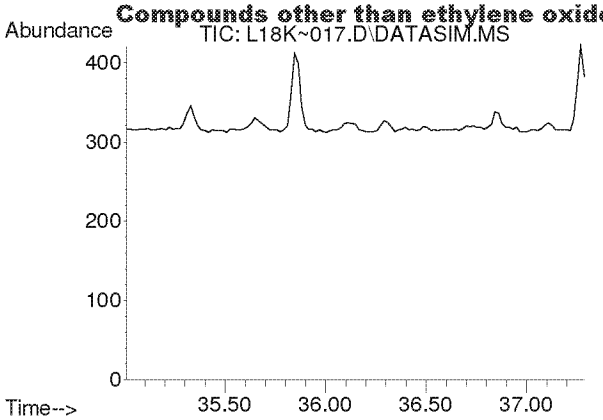
Lab File: L18K~017.D
Acq: 28 Nov 2018 2:13 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	43.4



Compounds other than ethylene oxide were not quantitated.

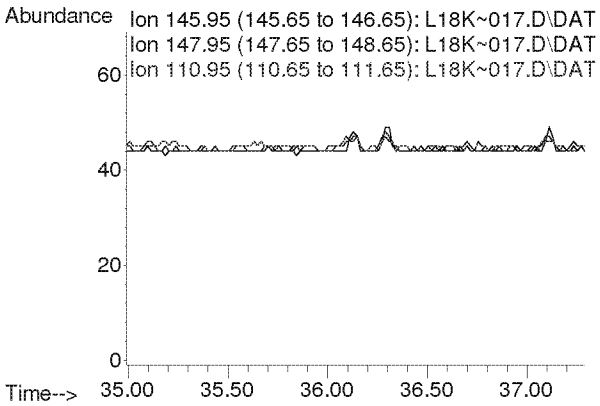


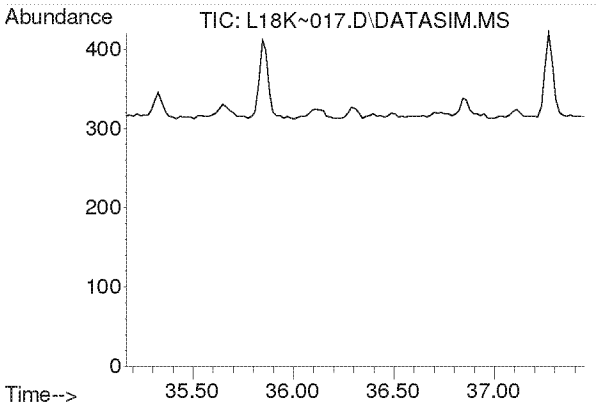
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.15 min

Lab File: L18K~017.D
Acq: 28 Nov 2018 2:13 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	41.1



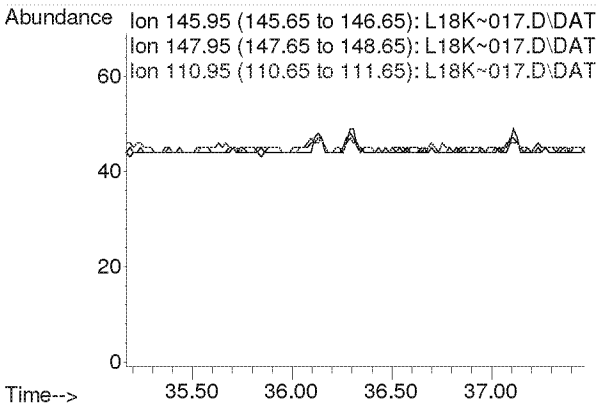


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.31 min

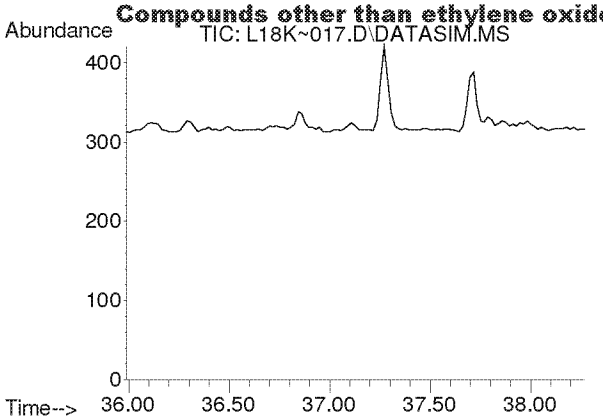
Lab File: L18K~017.D
Acq: 28 Nov 2018 2:13 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	39.8



Compounds other than ethylene oxide were not quantitated.

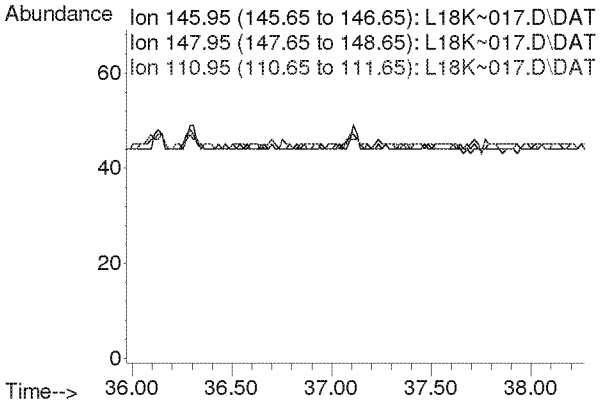


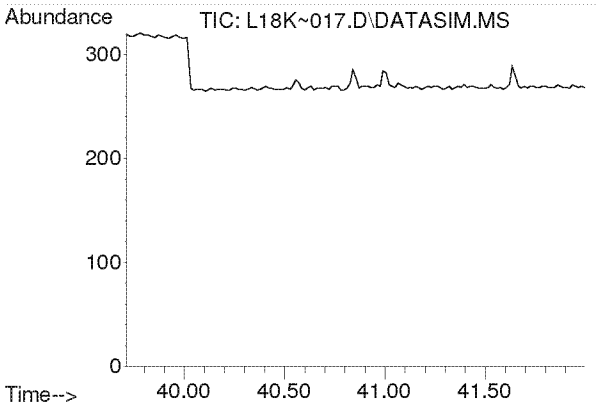
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.12 min

Lab File: L18K~017.D
Acq: 28 Nov 2018 2:13 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	63.9
111	41.8



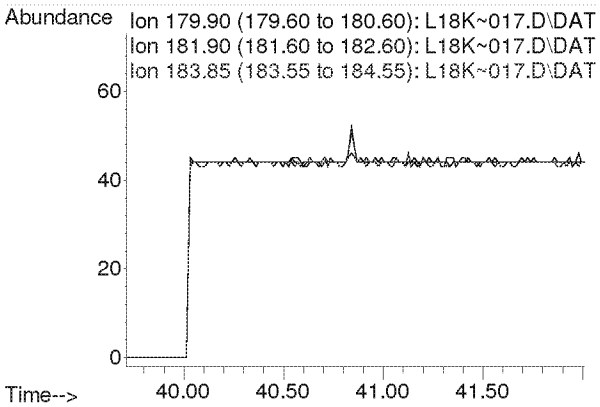


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.85 min

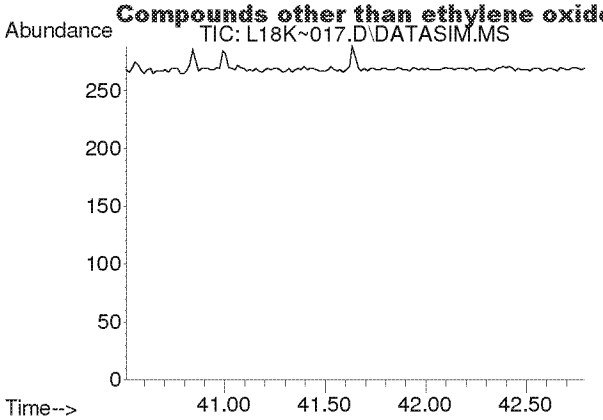
Lab File: L18K~017.D
Acq: 28 Nov 2018 2:13 am

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	95.6
184	30.5



Compounds other than ethylene oxide were not quantitated.

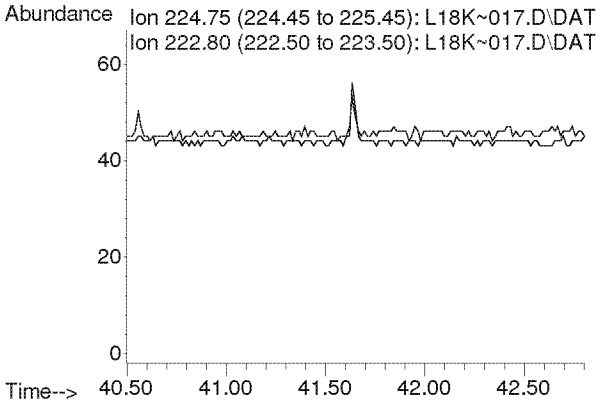


#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.65 min

Lab File: L18K~017.D
Acq: 28 Nov 2018 2:13 am

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.8



Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : Y:\MASS SPEC 1 DATA\L18K~\
Data File : L18K~018.D
Acq On : 28 Nov 2018 3:15 am (#1); 28-Nov-18, 03:10:42 (#2)
Operator : MAH
Sample : 8112113-07
Misc : WATERTOWER 11/19/18 (Sig #1); (Sig #2)
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Jan 23 14:21:13 2019
Quant Method : C:\msdchem\1\METHODS\8100002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Fri Oct 12 09:33:42 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.990	66	47849	4.8000 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.148	114	112606	5.0200 ppbv	-0.02
43) IS-Chlorobenzene-d5	30.113	117	76890	4.7700 ppbv	-0.02

System Monitoring Compounds

Target Compounds					Qvalue
2) Acetylene	0.000	26	0	N.D. d	
3) Propylene	0.000	41	0	N.D. d	
4) Dichlorodifluoromethane	0.000	85	0	N.D. d	
5) Chloromethane	0.000	50	0	N.D. d	
6) Dichlorotetrafluoroethane	0.000	85	0	N.D. d	
7) Vinyl Chloride	0.000	62	0	N.D. d	
8) 1,3-Butadiene	0.000	54	0	N.D. d	
9) Ethylene oxide	12.483	29	354m	0.1362 ppbv	
10) Bromomethane	0.000	94	0	N.D. d	
11) Chloroethane	0.000	64	0	N.D.	
12) Acetonitrile	0.000	41	0	N.D. d	
13) Acrolein	0.000	56	0	N.D. d	
14) Trichlorofluoromethane	0.000	101	0	N.D. d	
15) Acrylonitrile	0.000	53	0	N.D. d	
16) 1,1-Dichloroethene	0.000	61	0	N.D.	
17) Methylene Chloride	0.000	49	0	N.D. d	
18) Carbon Disulfide	0.000	76	0	N.D. d	
19) Trichlorotrifluoroethane	0.000	101	0	N.D. d	
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.	
21) 1,1-Dichloroethane	0.000	63	0	N.D.	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D. d	
23) Chloroprene	0.000	53	0	N.D. d	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D. d	
25) Bromochloromethane	0.000	128	0	N.D.	
26) Chloroform	0.000	83	0	N.D. d	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D.	
28) 1,2-Dichloroethane	0.000	62	0	N.D. d	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D.	
31) Benzene	0.000	78	0	N.D. d	
32) Carbon Tetrachloride	0.000	117	0	N.D. d	
33) tert-Amyl Methyl Ether	0.000	73	0	N.D.	
34) 1,2-Dichloropropane	0.000	63	0	N.D.	
35) Ethyl Acrylate	0.000	55	0	N.D.	
36) Bromodichloromethane	0.000	83	0	N.D.	
37) Trichloroethylene	0.000	130	0	N.D.	
38) Methyl Methacrylate	0.000	41	0	N.D. d	
39) cis-1,3-Dichloropropene	0.000	75	0	N.D.	
40) Methyl Isobutyl Ketone	0.000	43	0	N.D. d	
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.	
44) Toluene	0.000	91	0	N.D. d	
45) Dibromochloromethane	0.000	129	0	N.D.	
46) 1,2-Dibromoethane	0.000	107	0	N.D.	
47) n-Octane	0.000	43	0	N.D. d	
48) Tetrachloroethylene	0.000	166	0	N.D. d	
49) Chlorobenzene	0.000	112	0	N.D.	
50) Ethylbenzene	0.000	91	0	N.D. d	

Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L18K~\
Data File : L18K~018.D
Acq On : 28 Nov 2018 3:15 am (#1); 28 Nov 2018 3:10 am (#2)
Operator : MAH
Sample : 8112113-07
Misc : WATERTOWER 11/19/18 (Sig #1); (Sig #2)
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Nov 28 08:10:49 2018
Quant Method : C:\msdchem\1\METHODS\8100002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Fri Oct 12 09:33:42 2018
Response via : Initial Calibration

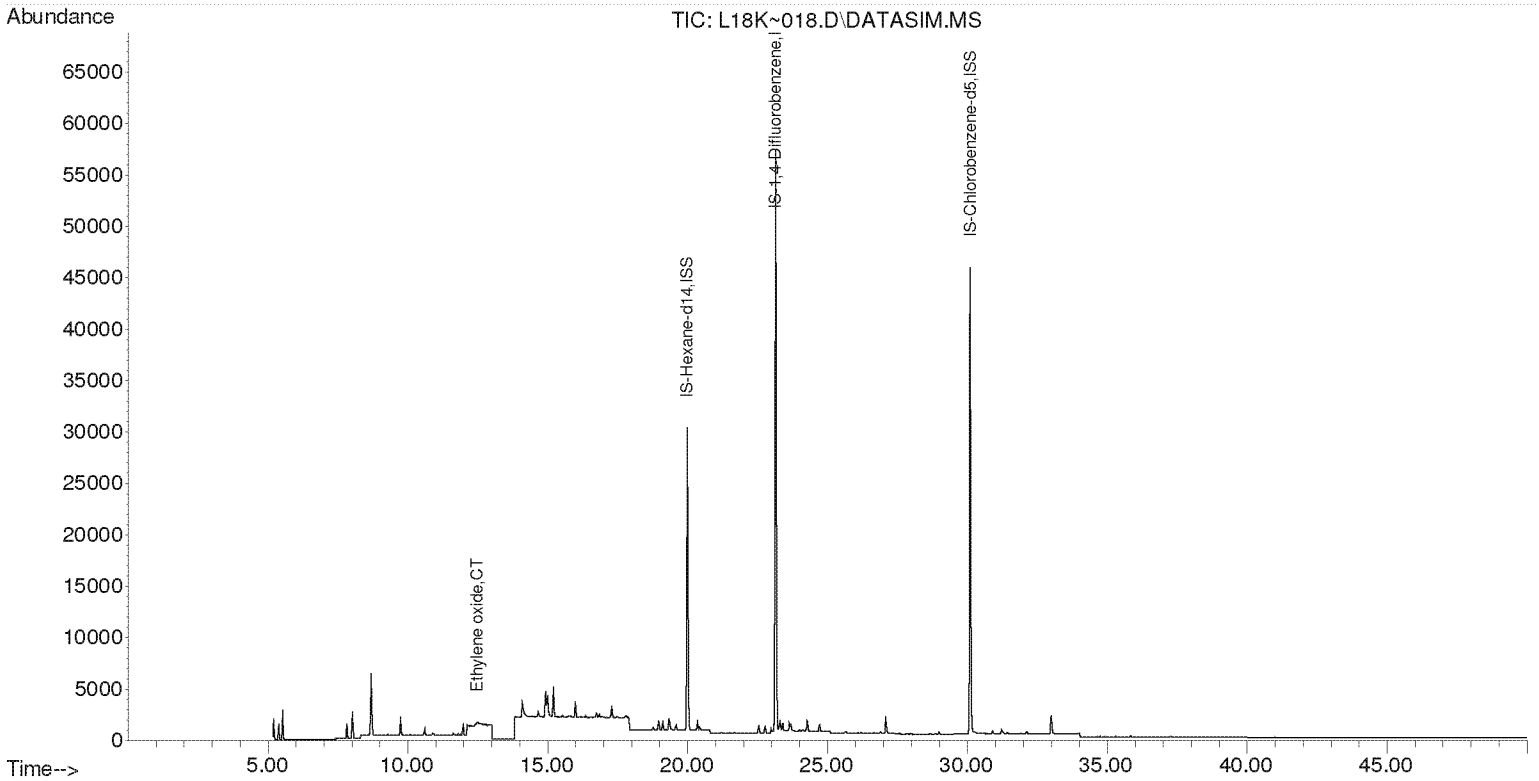
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
49) Chlorobenzene	0.000	112	0	N.D.	
50) Ethylbenzene	0.000	91	0	N.D.	d
51) m,p-Xylene	0.000	91	0	N.D.	d
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	d
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D.	d
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	d
57) 1,2,4-Trimethylbenzene	0.000	105	0	N.D.	d
58) m-Dichlorobenzene	0.000	146	0	N.D.	
59) p-Dichlorobenzene	0.000	146	0	N.D.	
60) o-Dichlorobenzene	0.000	146	0	N.D.	
61) 1,2,4-Trichlorobenzene	0.000	180	0	N.D.	
62) Hexachloro-1,3-butadiene	0.000	225	0	N.D.	

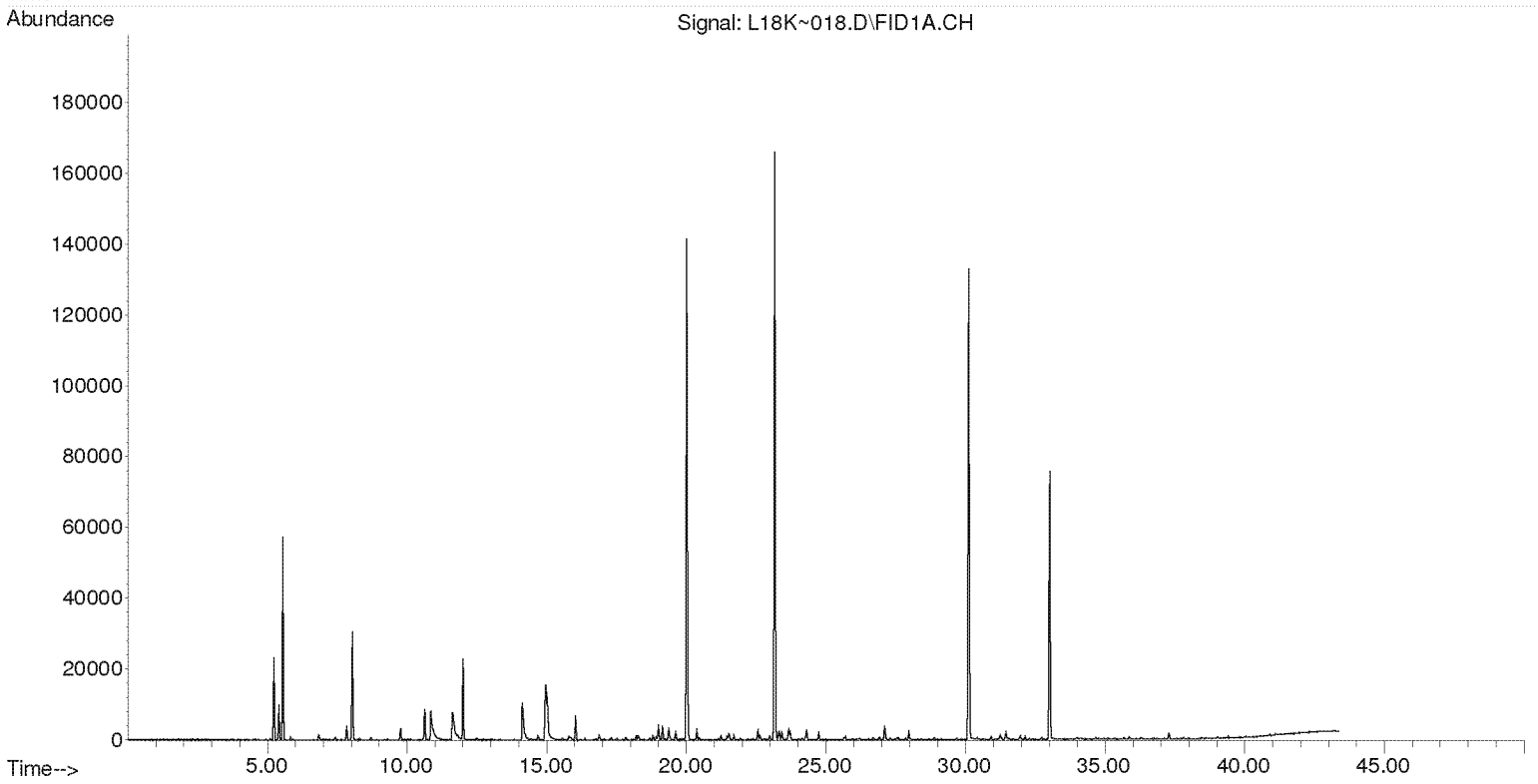
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Compounds other than ethylene oxide were not quantitated.

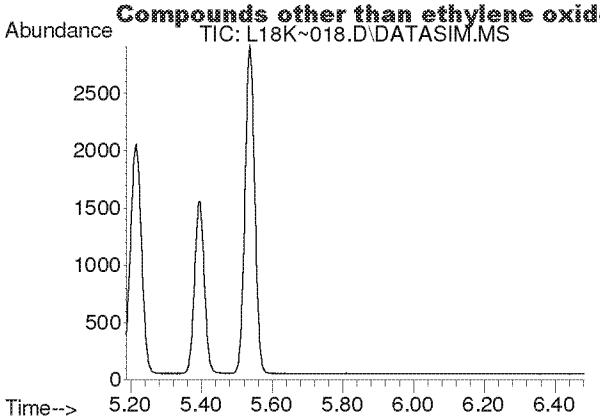
Data Path : Y:\MASS SPEC 1 DATA\L18K~\
Data File : L18K~018.D
Acq On : 28 Nov 2018 3:15 am (#1); 28 Nov 2018 3:10 am (#2)
Operator : MAH
Sample : 8112113-07
Misc : WATERTOWER 11/19/18 (Sig #1); (Sig #2)
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Nov 28 08:10:49 2018
Quant Method : C:\msdchem\1\METHODS\8100002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Fri Oct 12 09:33:42 2018
Response via : Initial Calibration





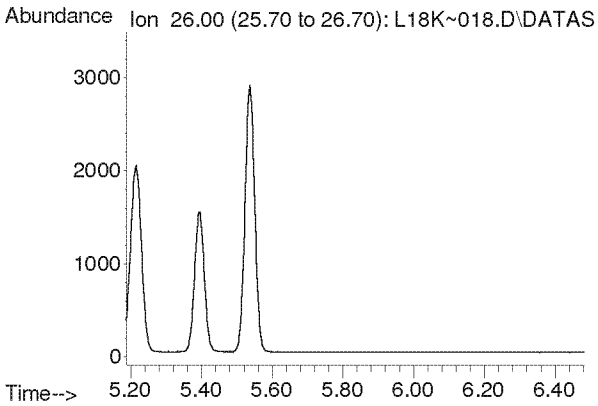
Compounds other than ethylene oxide were not quantitated.

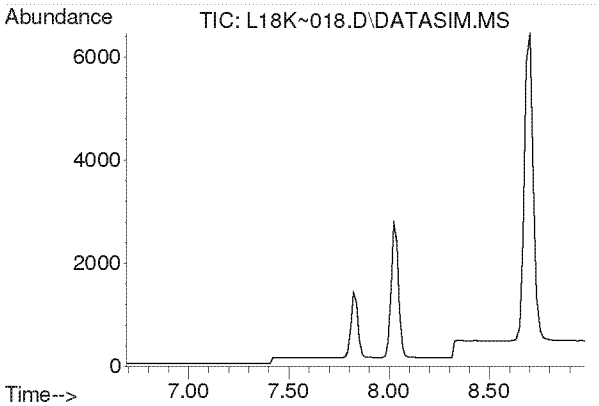


#2
Acetylene
Concen: N.D.
Expected RT: 5.41 min

Lab File: L18K~018.D
Acq: 28 Nov 2018 3:15 am

Tgt Ion: 26



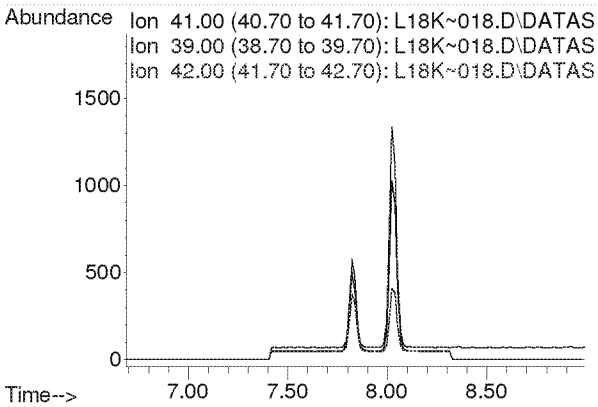


#3
Propylene
Concen: N.D.
Expected RT: 7.84 min

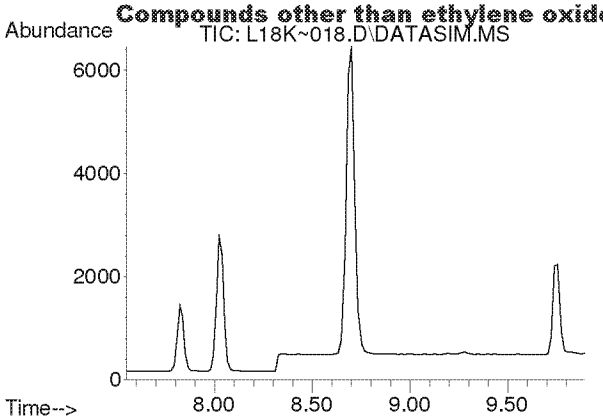
Lab File: L18K~018.D
Acq: 28 Nov 2018 3:15 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	81.2
42	65.4



Compounds other than ethylene oxide were not quantitated.

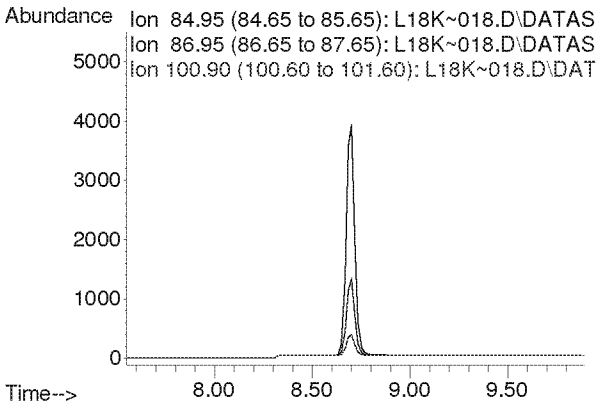


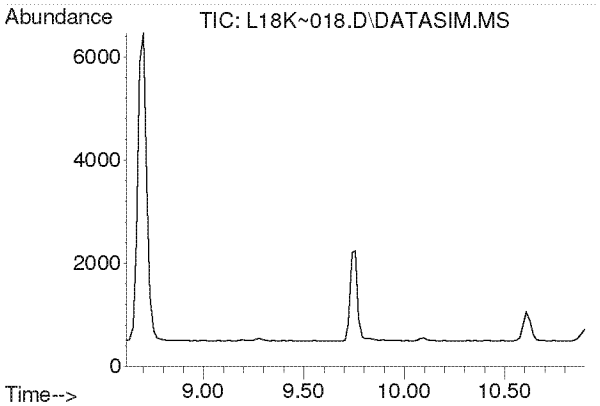
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.69 min

Lab File: L18K~018.D
Acq: 28 Nov 2018 3:15 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.3
101	9.0



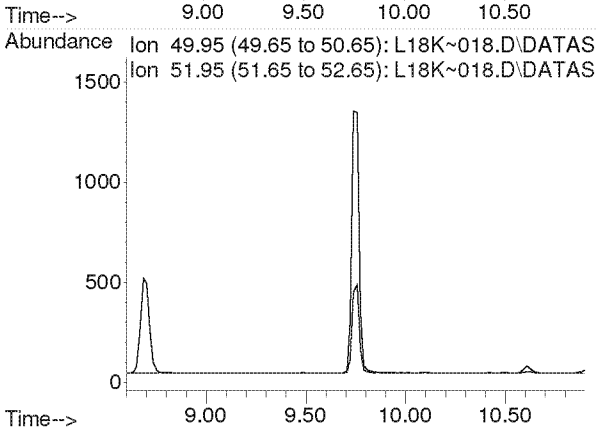


#5
Chloromethane
Concen: N.D.
Expected RT: 9.76 min

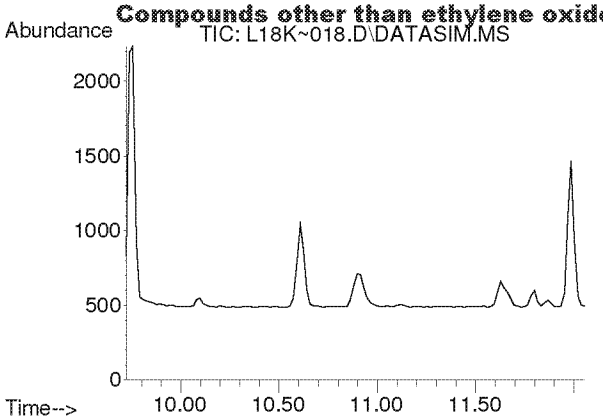
Lab File: L18K~018.D
Acq: 28 Nov 2018 3:15 am

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.2



Compounds other than ethylene oxide were not quantitated.

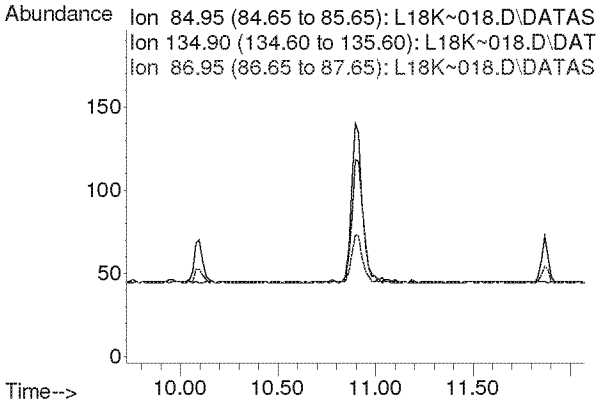


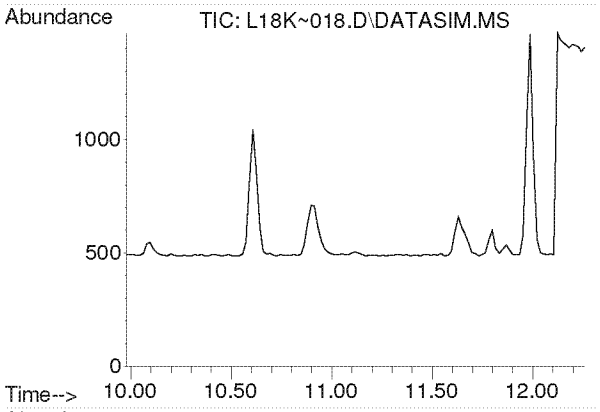
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.87 min

Lab File: L18K~018.D
Acq: 28 Nov 2018 3:15 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.6
87	32.1



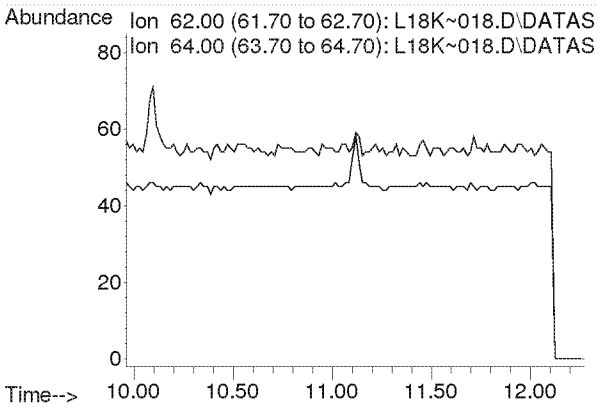


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

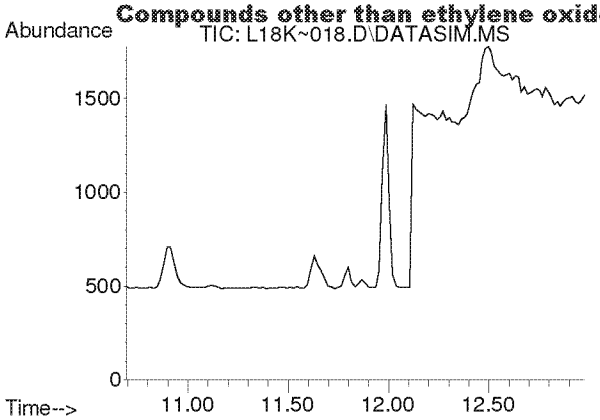
Lab File: L18K~018.D
Acq: 28 Nov 2018 3:15 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	32.0



Compounds other than ethylene oxide were not quantitated.

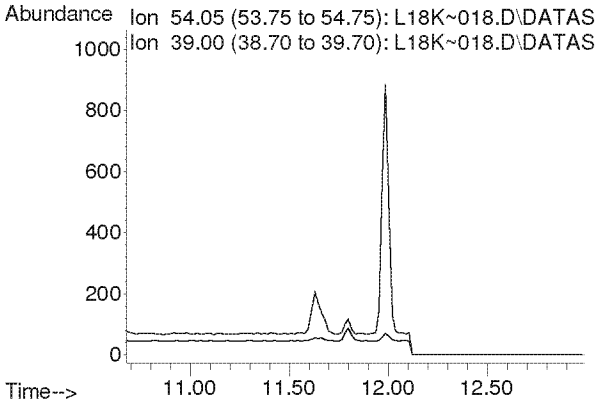


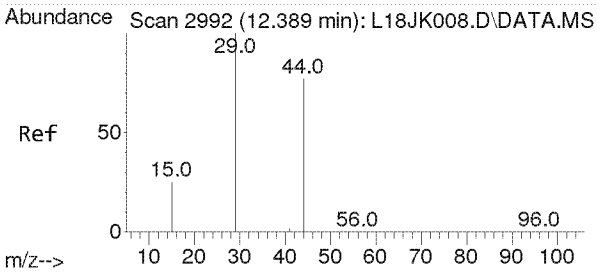
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.79 min

Lab File: L18K~018.D
Acq: 28 Nov 2018 3:15 am

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	108.7

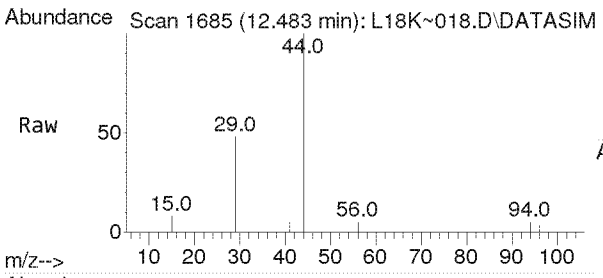


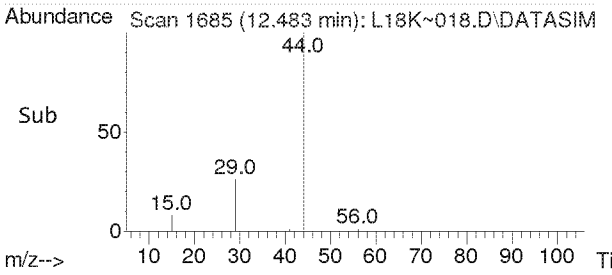


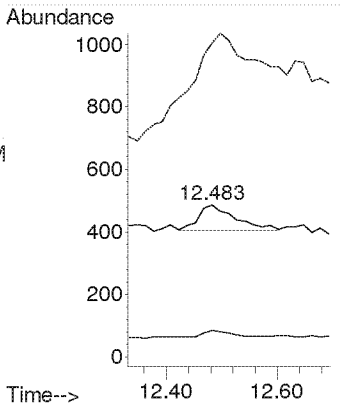
#9
Ethylene oxide
Concen: 0.136 ppbv m
RT: 12.483 min Scan# 1685
Delta R.T. 0.094 min
Lab File: L18K~018.D
Acq: 28 Nov 2018 3:15 am

Tgt Ion: 29 Resp: 354

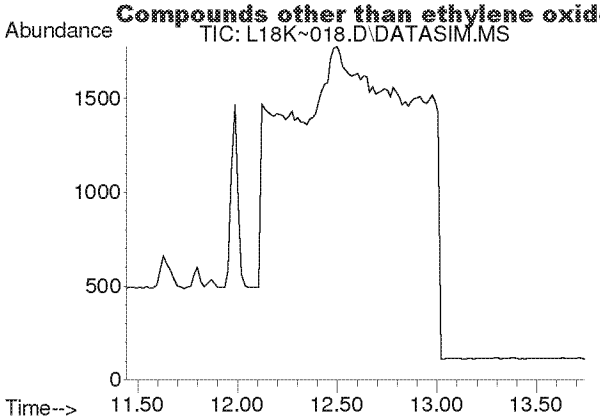
Ion	Ratio	Lower	Upper
29	100		
15	0.0	20.1	30.1#
44	0.0	62.6	93.8#







Compounds other than ethylene oxide were not quantitated.

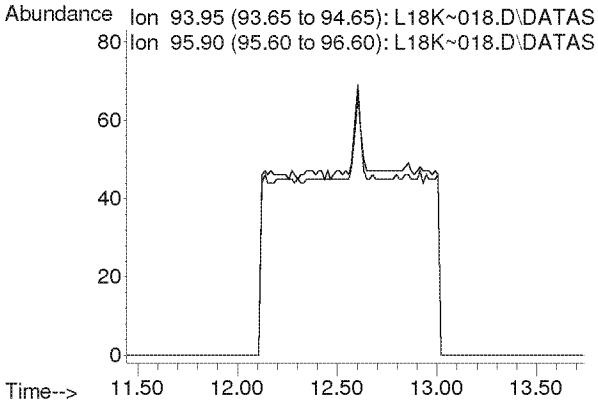


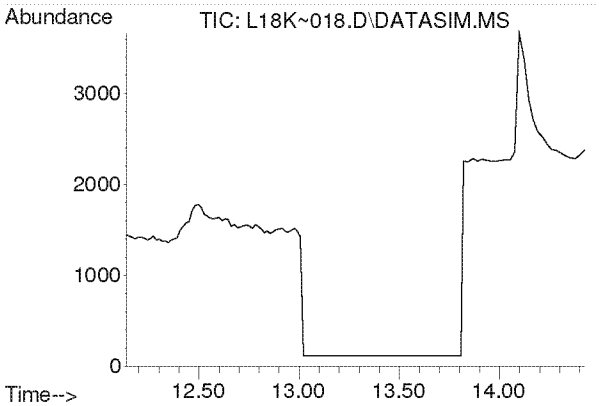
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L18K~018.D
Acq: 28 Nov 2018 3:15 am

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



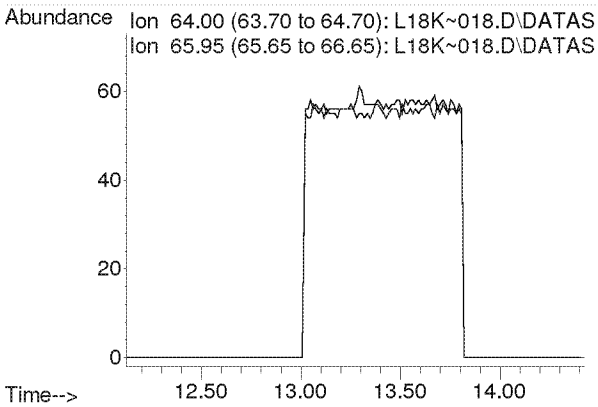


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

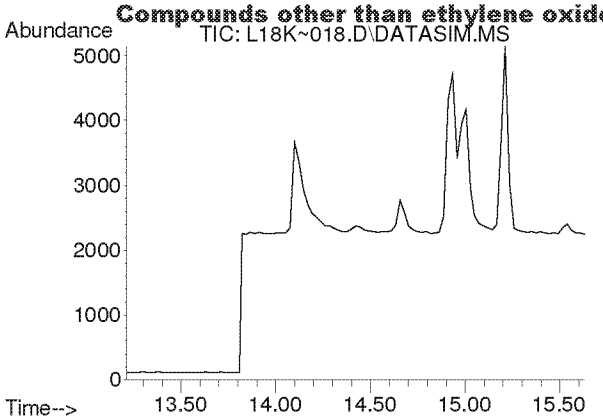
Lab File: L18K~018.D
Acq: 28 Nov 2018 3:15 am

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

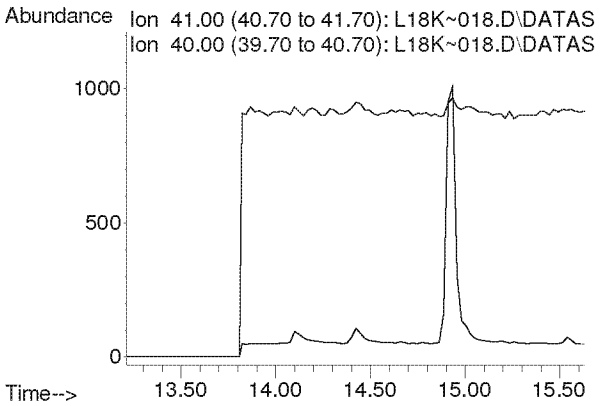


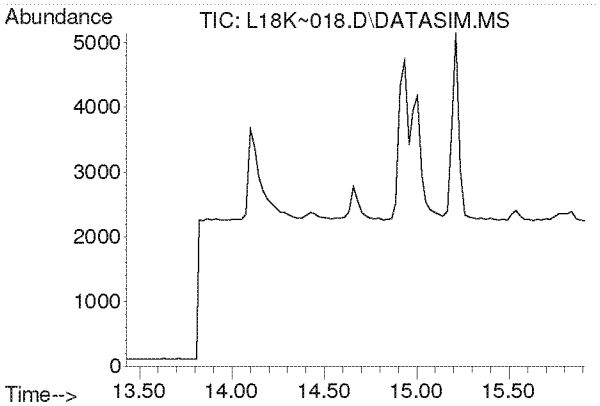
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.34 min

Lab File: L18K~018.D
Acq: 28 Nov 2018 3:15 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	53.9



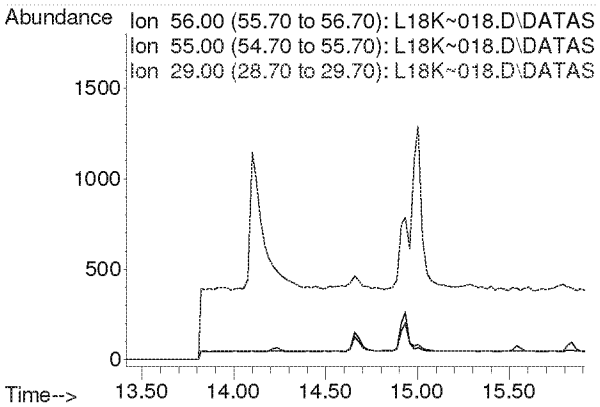


#13
Acrolein
Concen: N.D.
Expected RT: 14.62 min

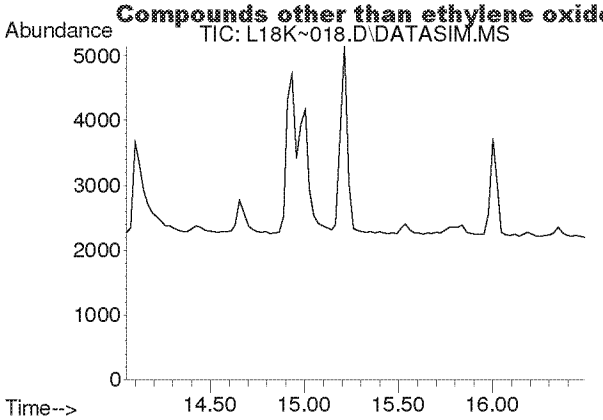
Lab File: L18K~018.D
Acq: 28 Nov 2018 3:15 am

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	77.4
29	61.5



Compounds other than ethylene oxide were not quantitated.

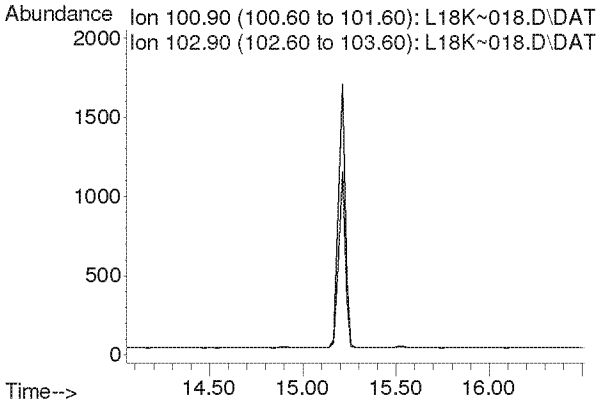


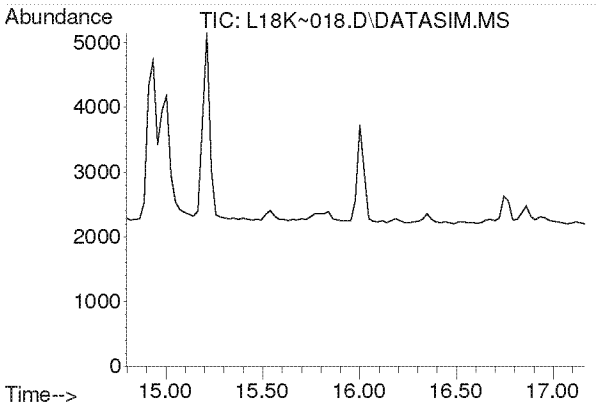
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.20 min

Lab File: L18K~018.D
Acq: 28 Nov 2018 3:15 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.7



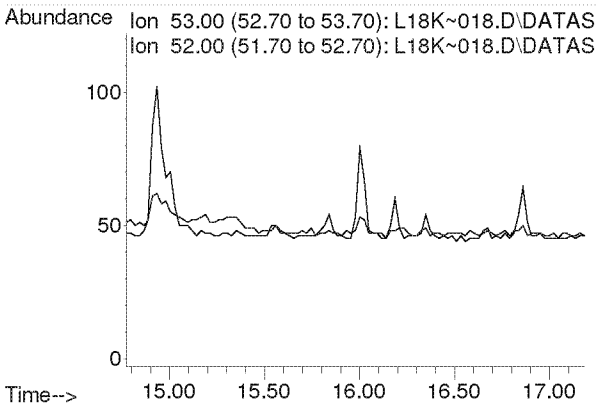


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.92 min

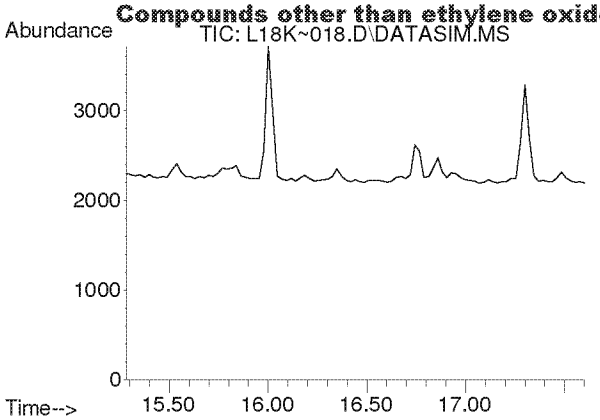
Lab File: L18K~018.D
Acq: 28 Nov 2018 3:15 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	87.1



Compounds other than ethylene oxide were not quantitated.

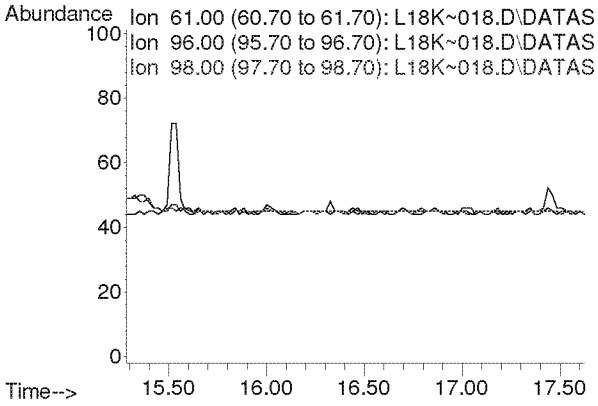


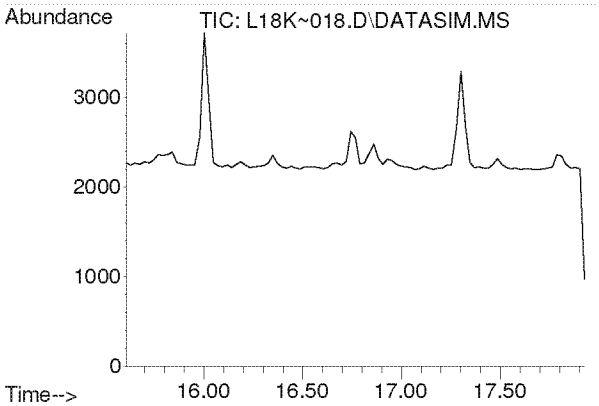
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L18K~018.D
Acq: 28 Nov 2018 3:15 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	57.6
98	36.8



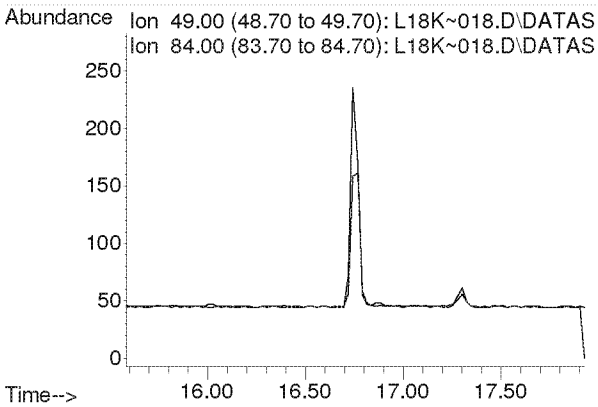


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

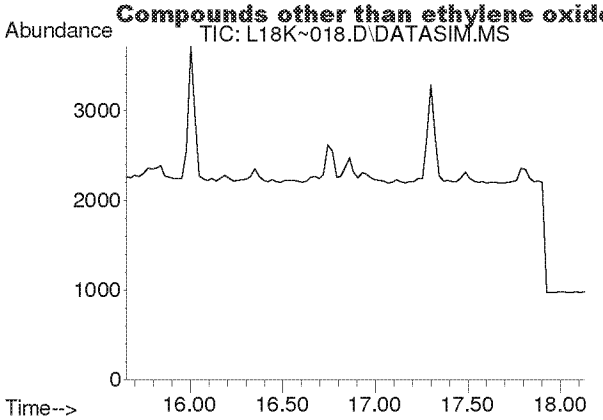
Lab File: L18K~018.D
Acq: 28 Nov 2018 3:15 am

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	74.2



Compounds other than ethylene oxide were not quantitated.

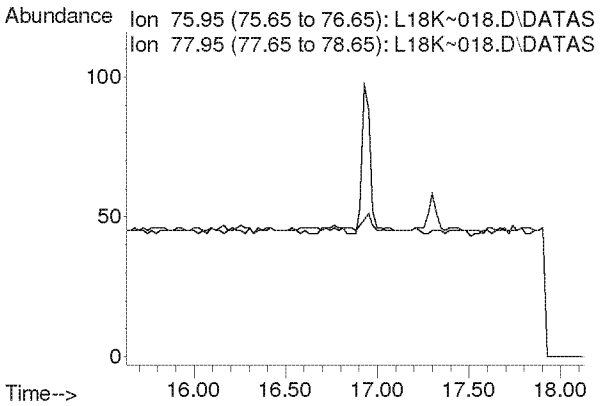


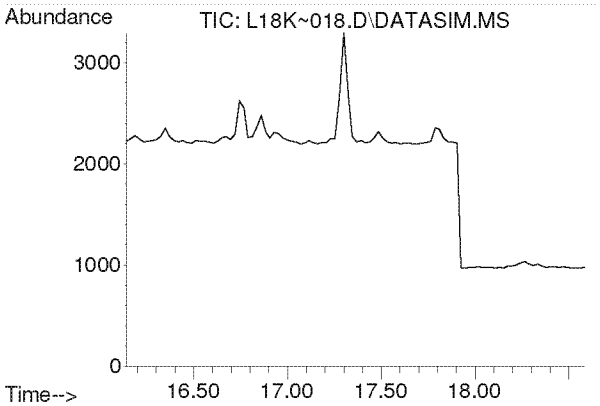
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.94 min

Lab File: L18K~018.D
Acq: 28 Nov 2018 3:15 am

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.1



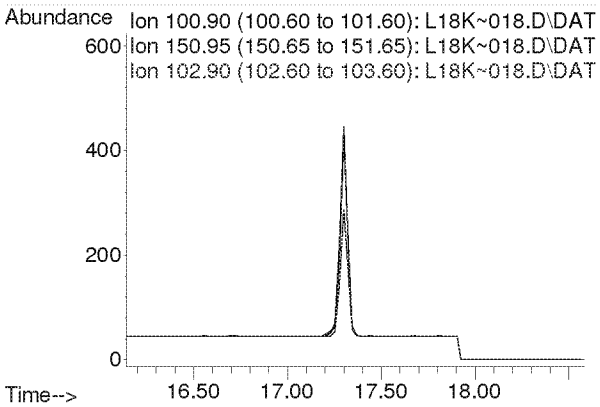


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.29 min

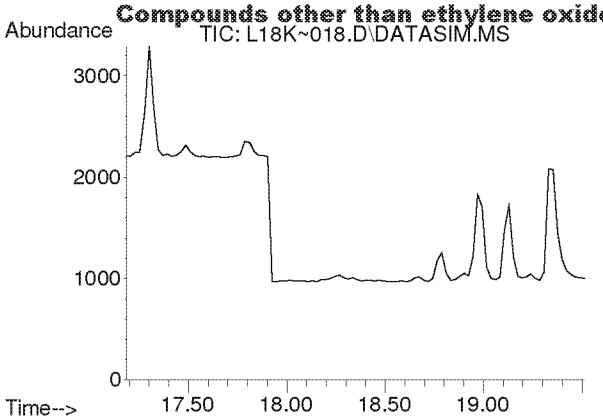
Lab File: L18K~018.D
Acq: 28 Nov 2018 3:15 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	96.0
103	64.3



Compounds other than ethylene oxide were not quantitated.

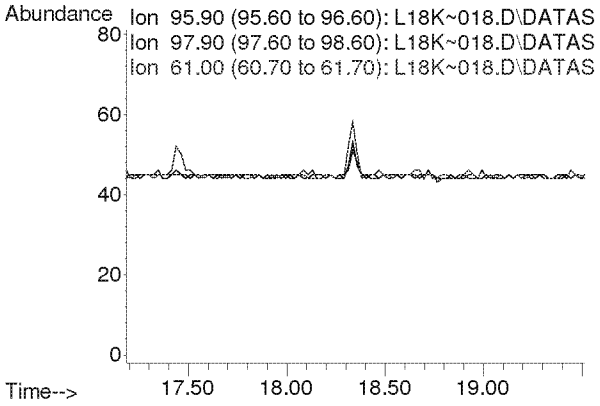


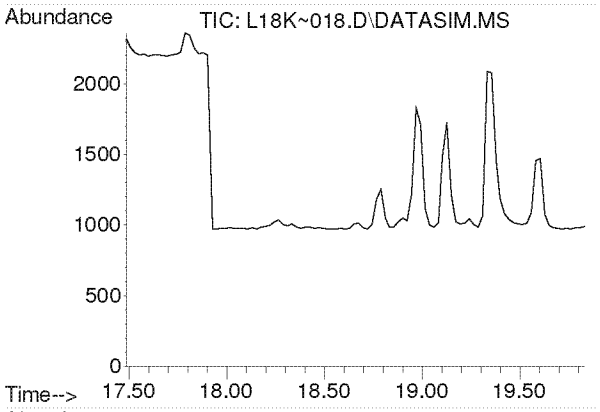
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.33 min

Lab File: L18K~018.D
Acq: 28 Nov 2018 3:15 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	63.6
61	156.3



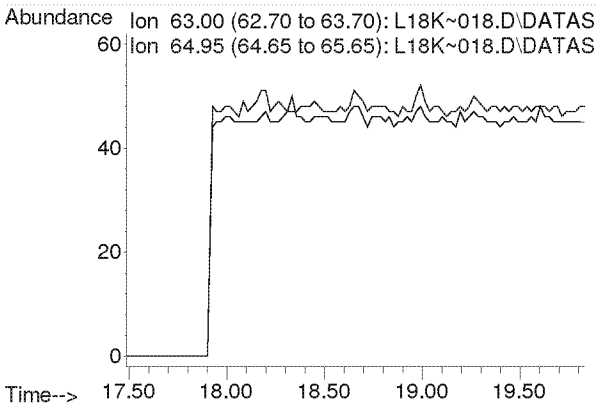


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.64 min

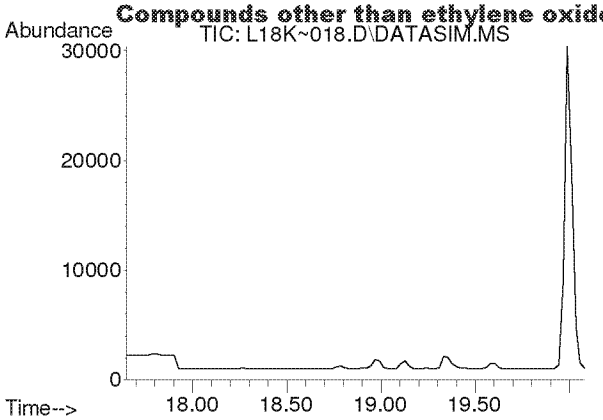
Lab File: L18K~018.D
Acq: 28 Nov 2018 3:15 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	32.1



Compounds other than ethylene oxide were not quantitated.

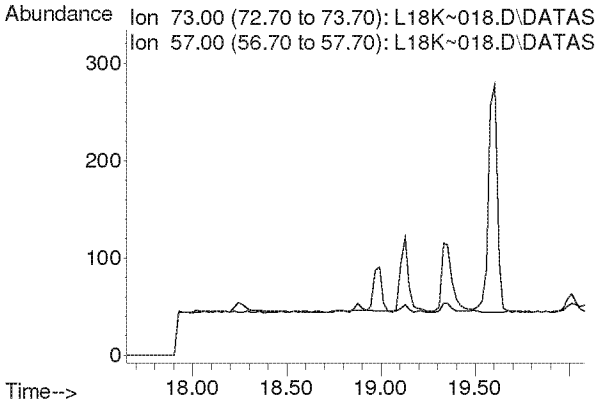


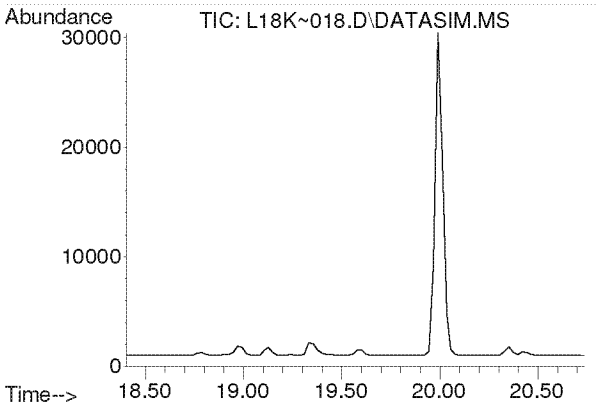
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L18K~018.D
Acq: 28 Nov 2018 3:15 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.0



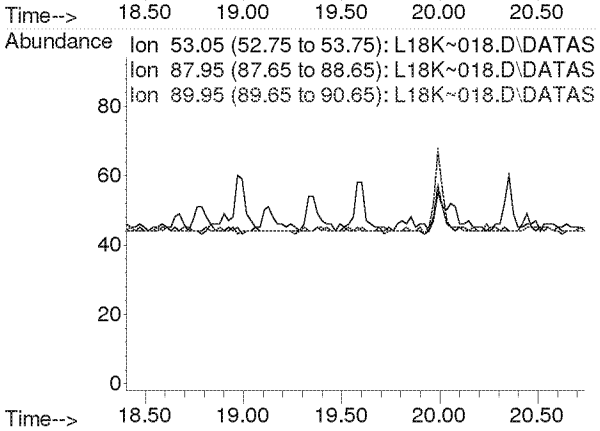


#23
Chloroprene
Concen: N.D.
Expected RT: 19.55 min

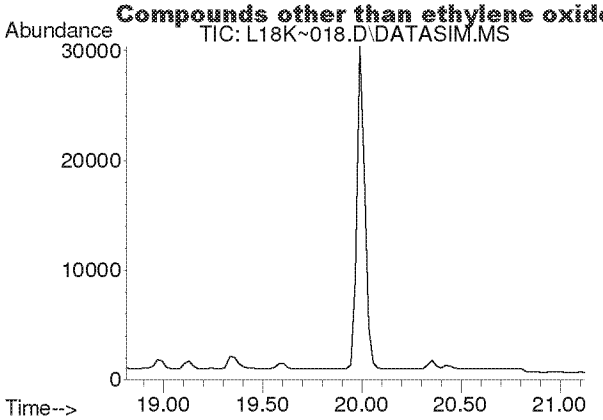
Lab File: L18K~018.D
Acq: 28 Nov 2018 3:15 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	51.5
90	16.6



Compounds other than ethylene oxide were not quantitated.

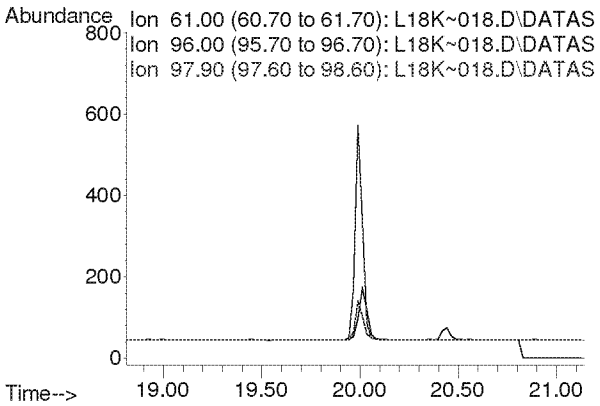


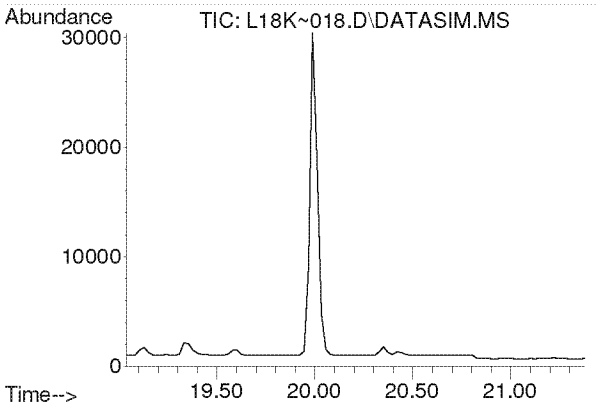
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.96 min

Lab File: L18K~018.D
Acq: 28 Nov 2018 3:15 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.5
98	46.2



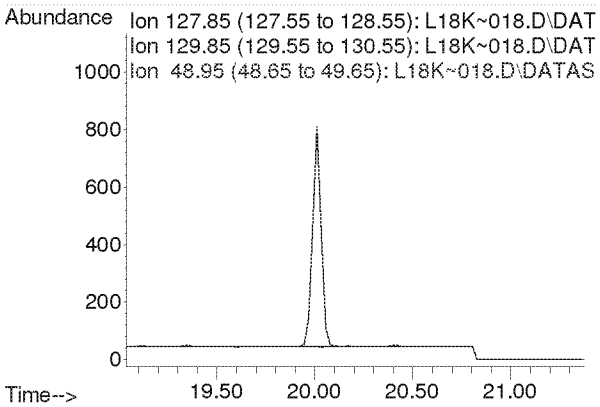


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.18 min

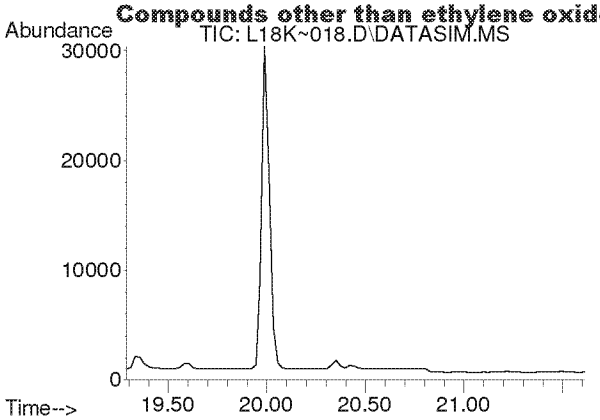
Lab File: L18K~018.D
Acq: 28 Nov 2018 3:15 am

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	128.9
49	167.9



Compounds other than ethylene oxide were not quantitated.

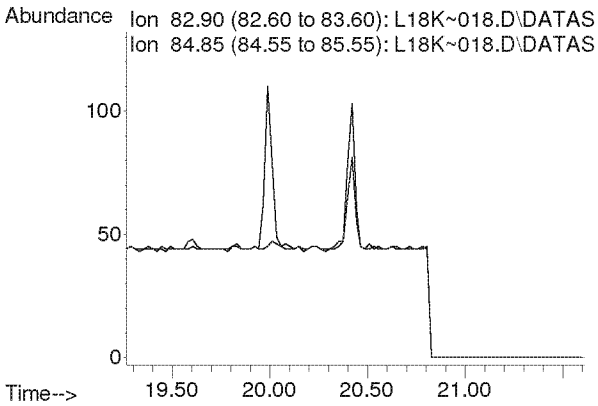


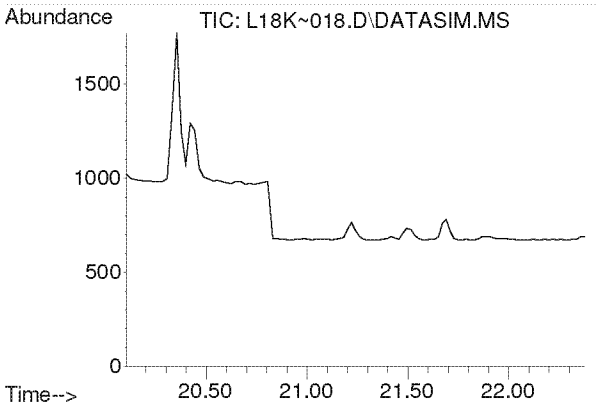
#26
Chloroform
Concen: N.D.
Expected RT: 20.42 min

Lab File: L18K~018.D
Acq: 28 Nov 2018 3:15 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



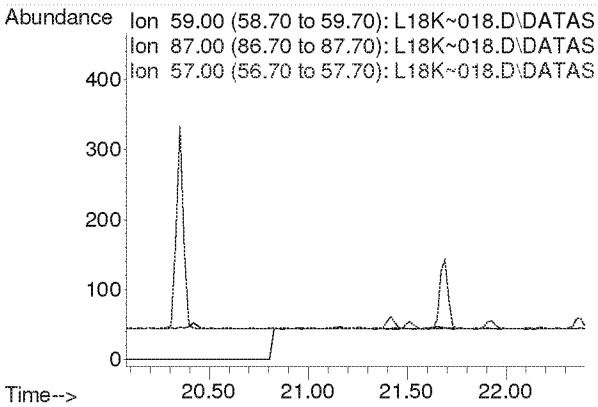


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.19 min

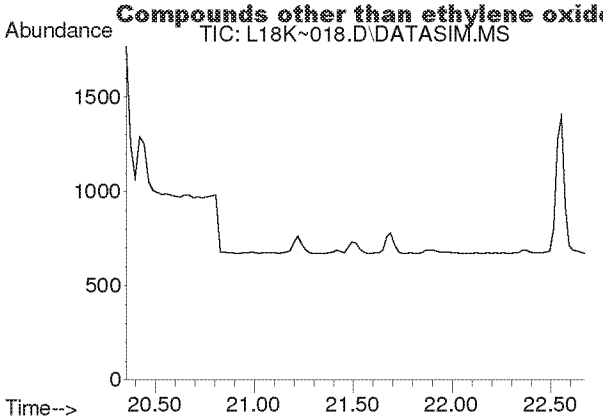
Lab File: L18K~018.D
Acq: 28 Nov 2018 3:15 am

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	38.5
57	34.0



Compounds other than ethylene oxide were not quantitated.

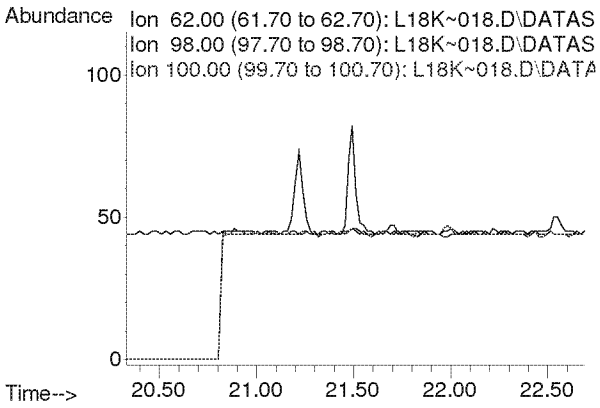


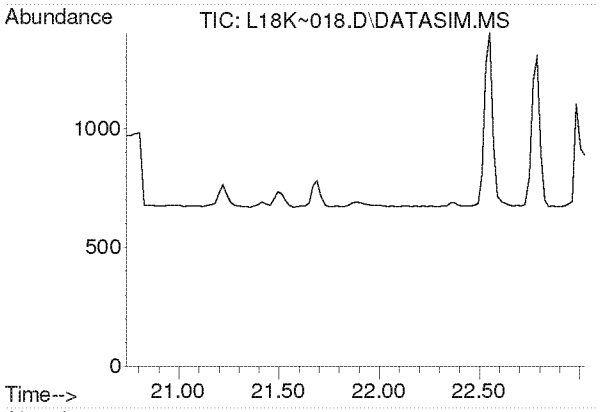
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.49 min

Lab File: L18K~018.D
Acq: 28 Nov 2018 3:15 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.0
100	3.9



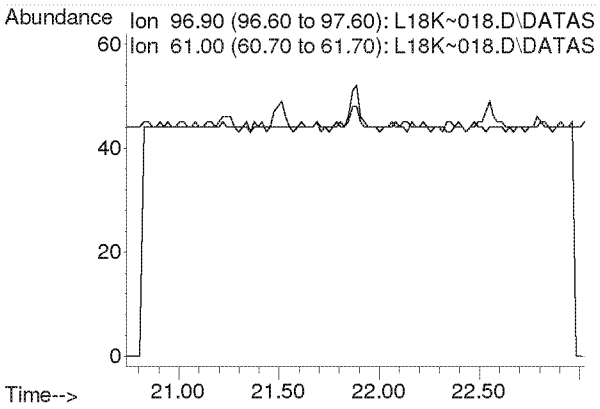


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.88 min

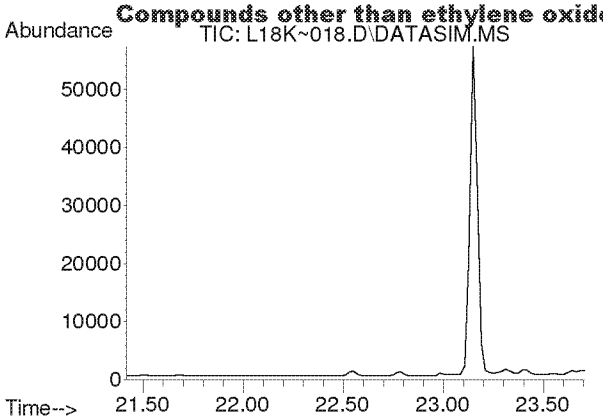
Lab File: L18K~018.D
Acq: 28 Nov 2018 3:15 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	59.6



Compounds other than ethylene oxide were not quantitated.

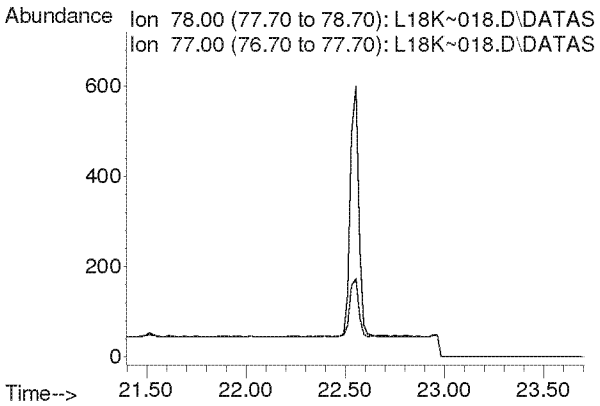


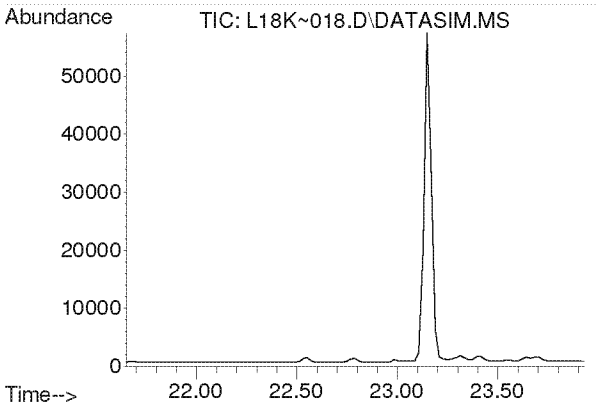
#31
Benzene
Concen: N.D.
Expected RT: 22.56 min

Lab File: L18K~018.D
Acq: 28 Nov 2018 3:15 am

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.9



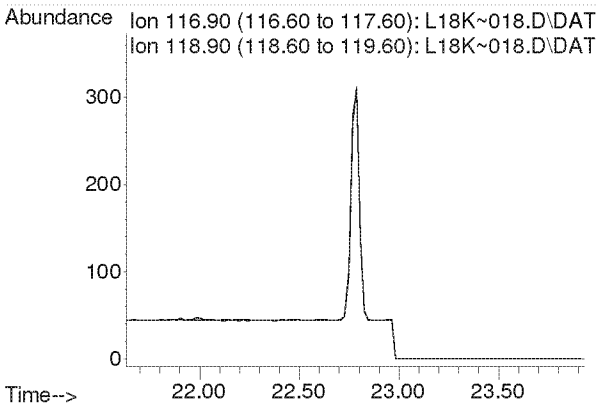


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.79 min

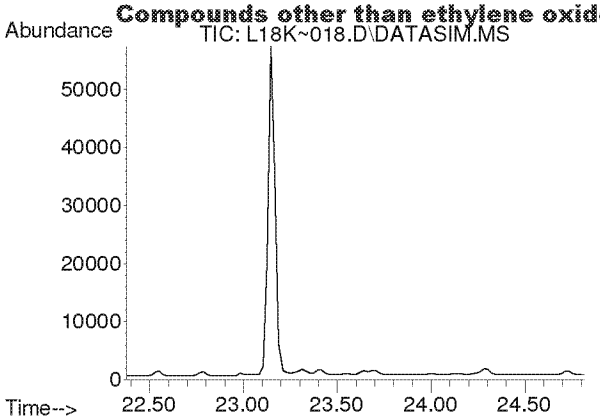
Lab File: L18K~018.D
Acq: 28 Nov 2018 3:15 am

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.9



Compounds other than ethylene oxide were not quantitated.

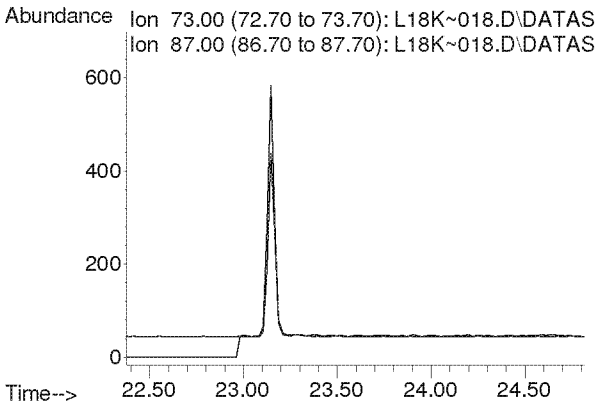


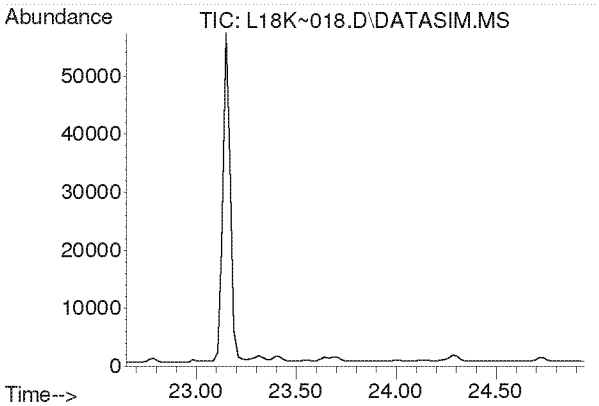
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L18K~018.D
Acq: 28 Nov 2018 3:15 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



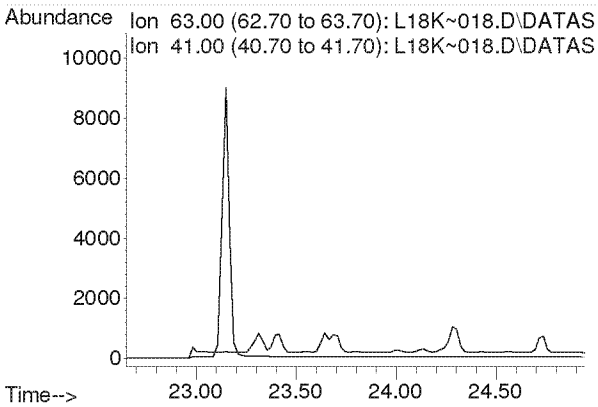


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.80 min

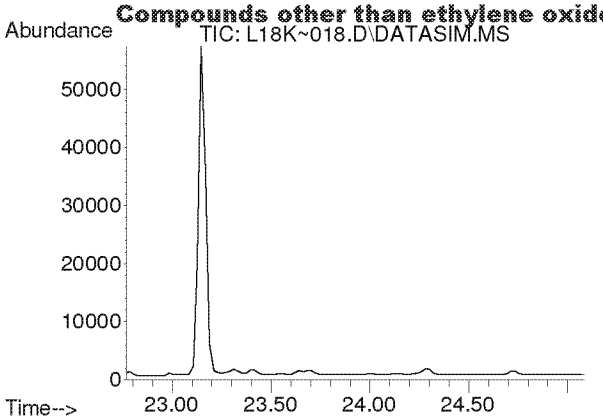
Lab File: L18K~018.D
Acq: 28 Nov 2018 3:15 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	222.1



Compounds other than ethylene oxide were not quantitated.

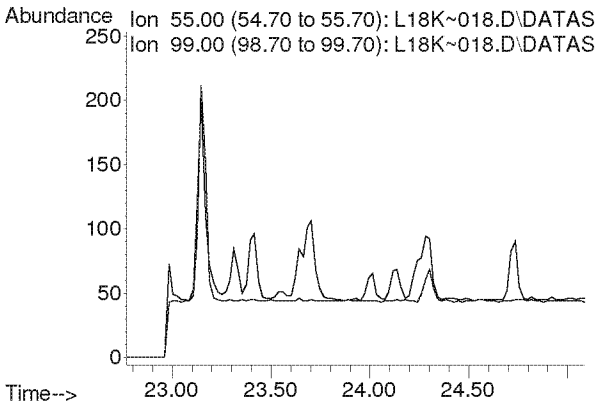


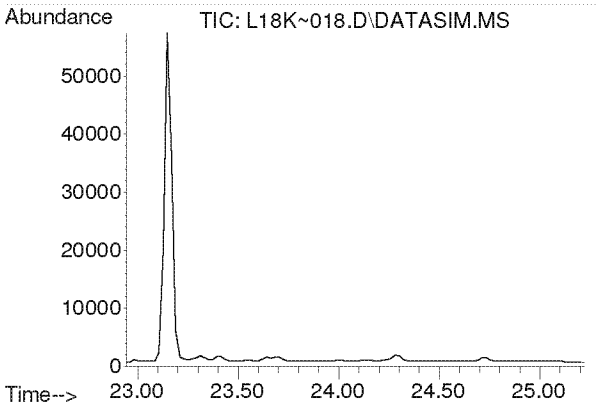
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L18K~018.D
Acq: 28 Nov 2018 3:15 am

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



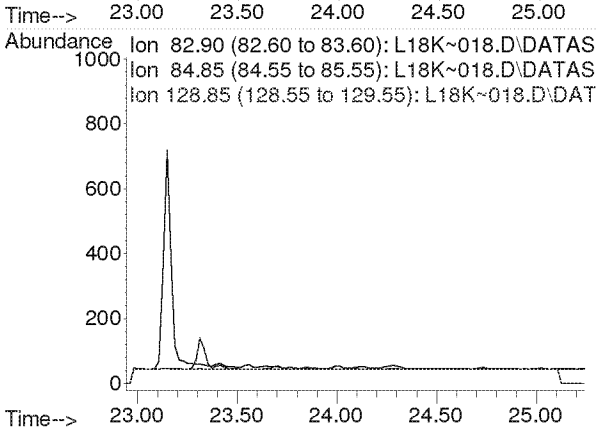


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.09 min

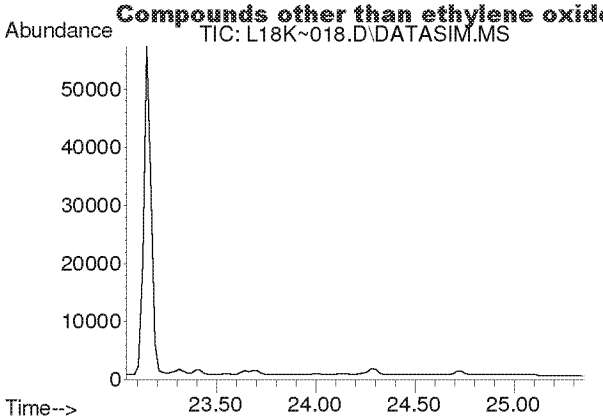
Lab File: L18K~018.D
Acq: 28 Nov 2018 3:15 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.9
129	12.9



Compounds other than ethylene oxide were not quantitated.

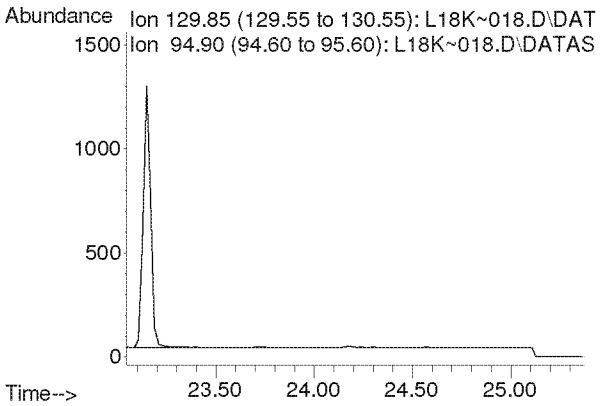


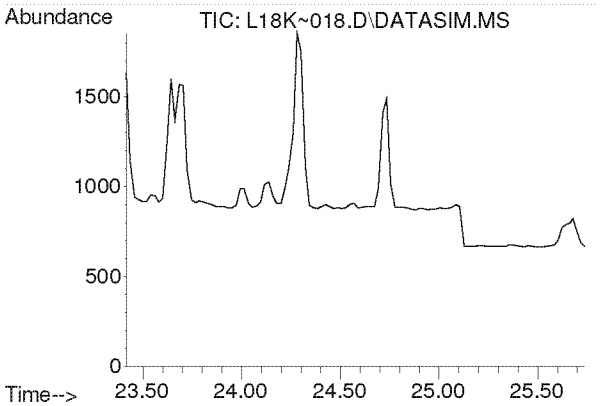
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.19 min

Lab File: L18K~018.D
Acq: 28 Nov 2018 3:15 am

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.9



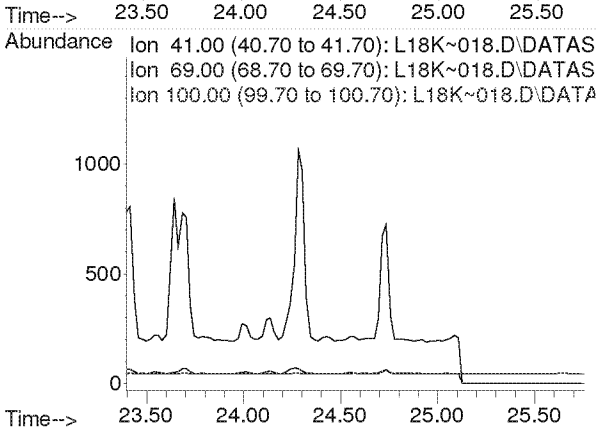


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.55 min

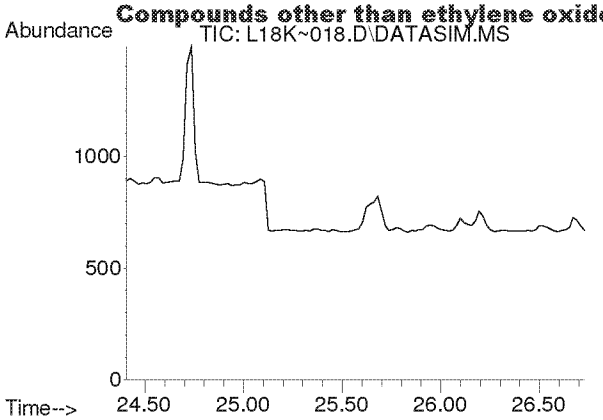
Lab File: L18K~018.D
Acq: 28 Nov 2018 3:15 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	20.0
100	5.1



Compounds other than ethylene oxide were not quantitated.

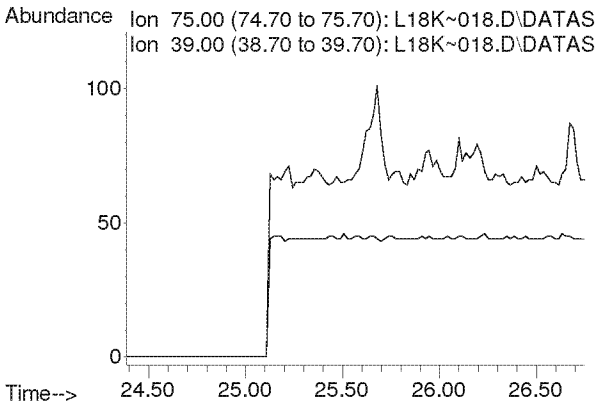


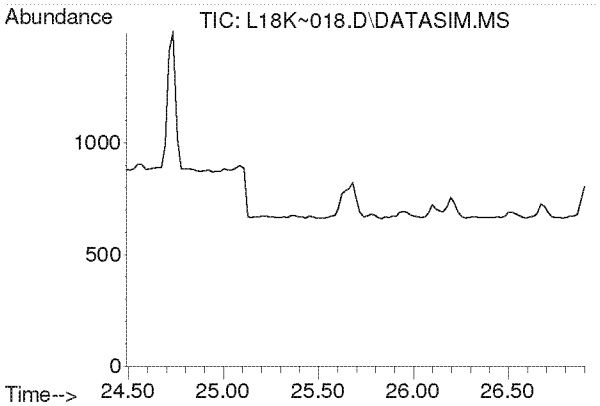
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.54 min

Lab File: L18K~018.D
Acq: 28 Nov 2018 3:15 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	55.6



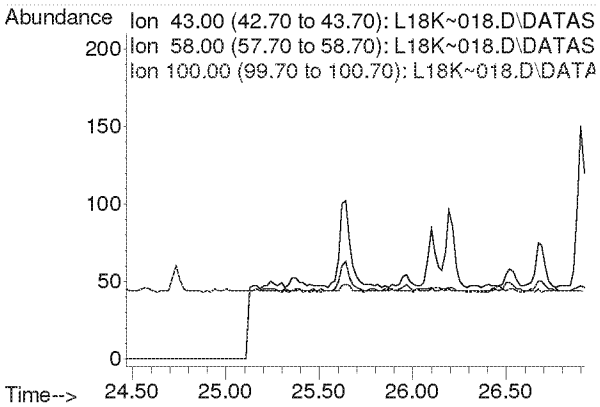


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.62 min

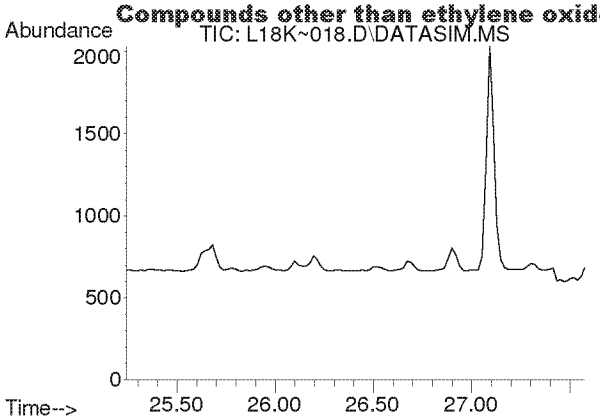
Lab File: L18K~018.D
Acq: 28 Nov 2018 3:15 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	33.3
100	8.0



Compounds other than ethylene oxide were not quantitated.

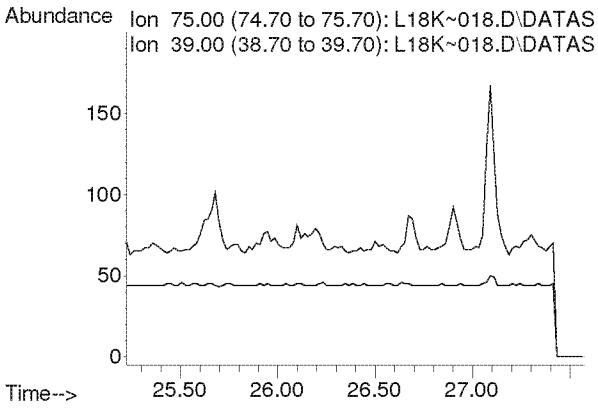


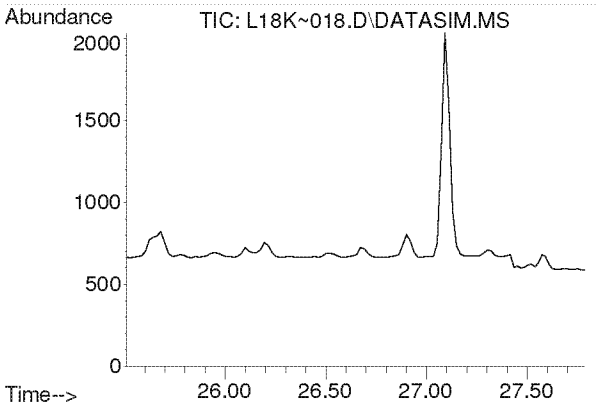
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.38 min

Lab File: L18K~018.D
Acq: 28 Nov 2018 3:15 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	55.3



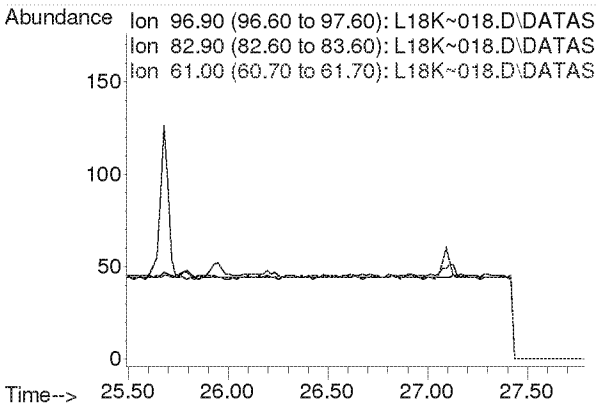


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.64 min

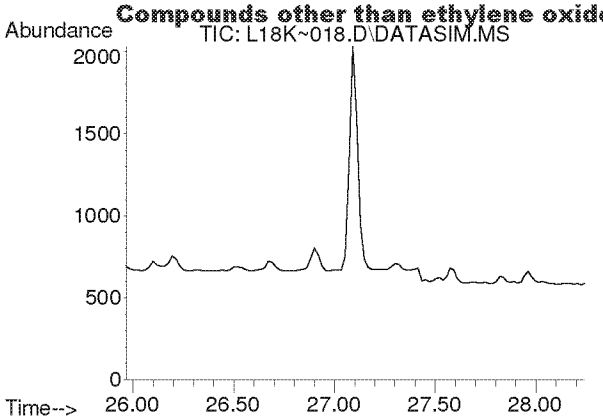
Lab File: L18K~018.D
Acq: 28 Nov 2018 3:15 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	95.3
61	64.6



Compounds other than ethylene oxide were not quantitated.

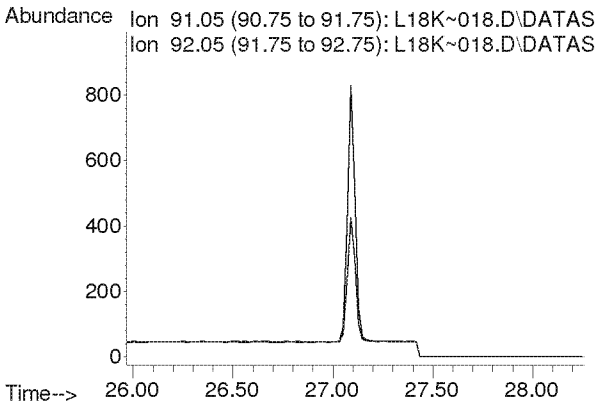


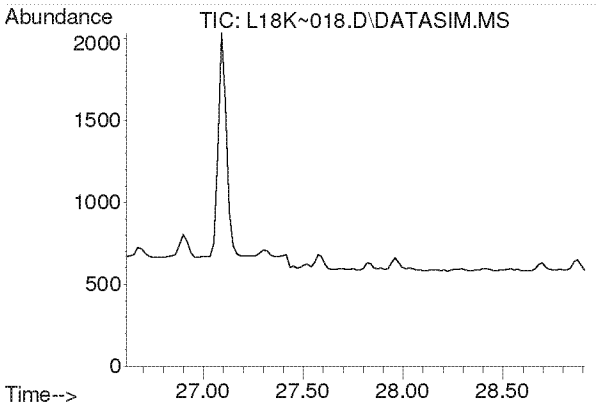
#44
Toluene
Concen: N.D.
Expected RT: 27.11 min

Lab File: L18K~018.D
Acq: 28 Nov 2018 3:15 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.1



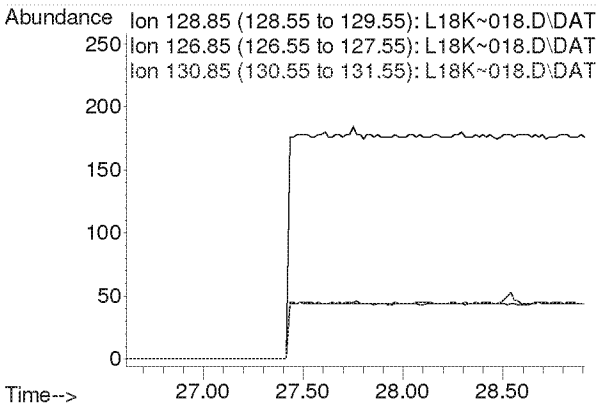


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.76 min

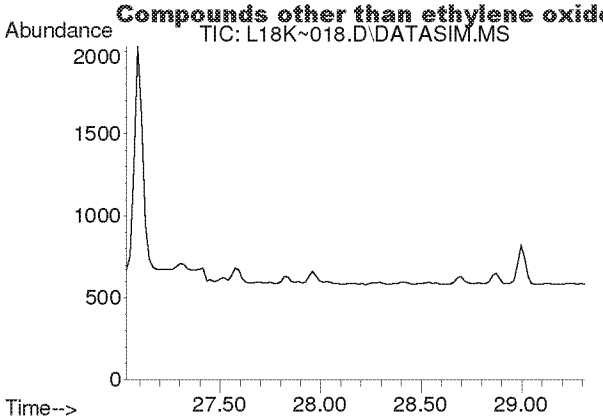
Lab File: L18K~018.D
Acq: 28 Nov 2018 3:15 am

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

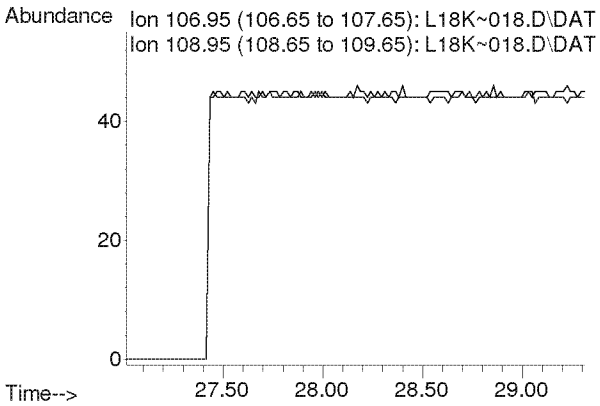


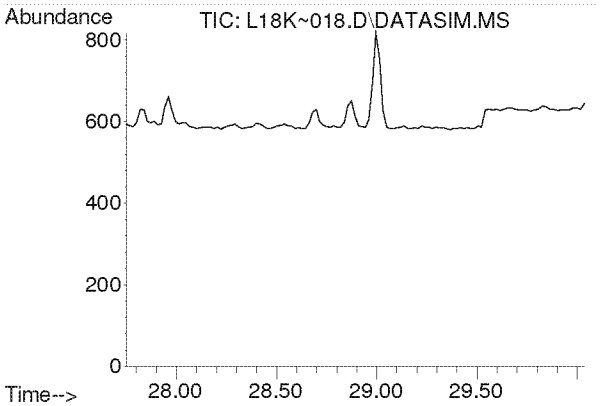
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.17 min

Lab File: L18K~018.D
Acq: 28 Nov 2018 3:15 am

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	93.8



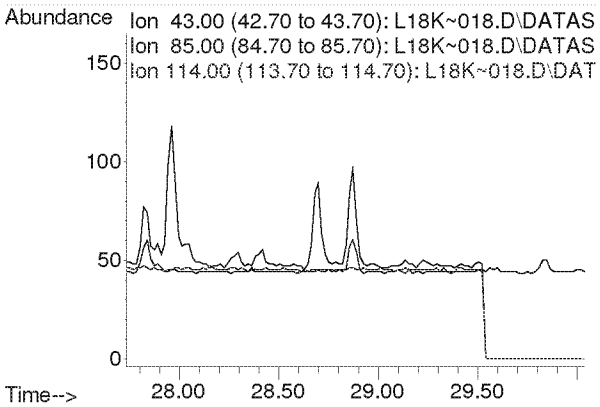


#47
n-Octane
Concen: N.D.
Expected RT: 28.89 min

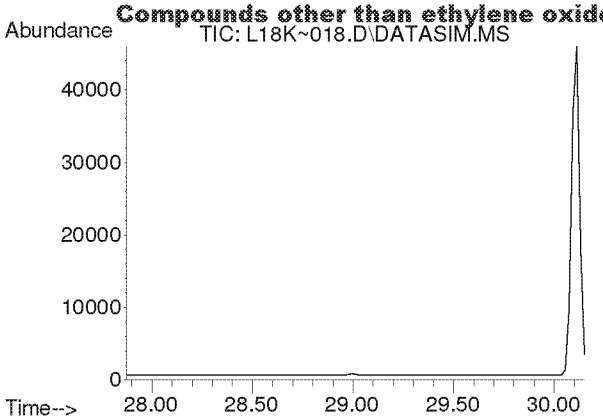
Lab File: L18K~018.D
Acq: 28 Nov 2018 3:15 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	37.8
114	2.4



Compounds other than ethylene oxide were not quantitated.

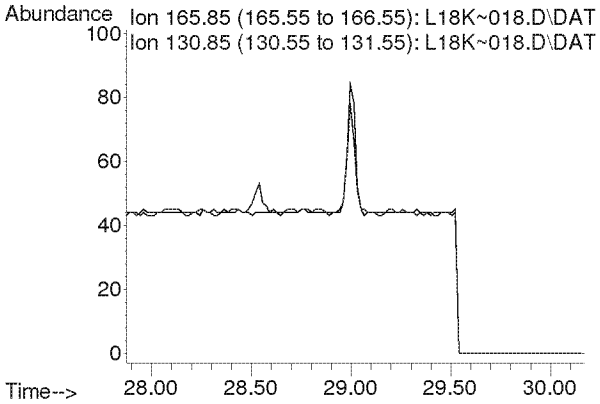


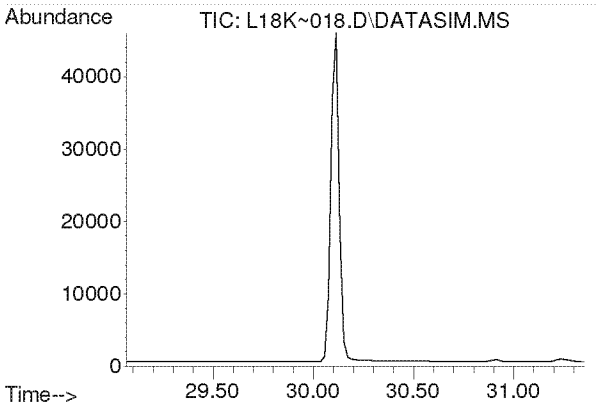
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.02 min

Lab File: L18K~018.D
Acq: 28 Nov 2018 3:15 am

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	78.7



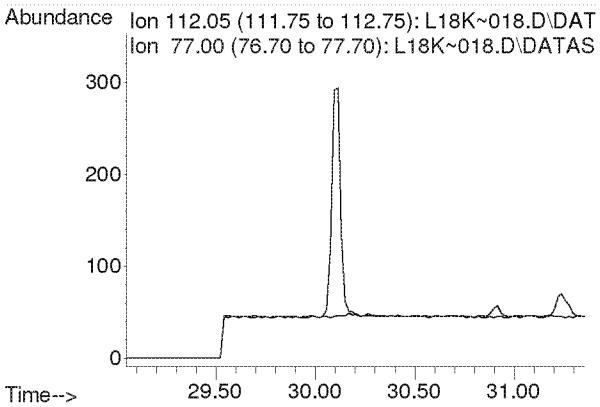


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.20 min

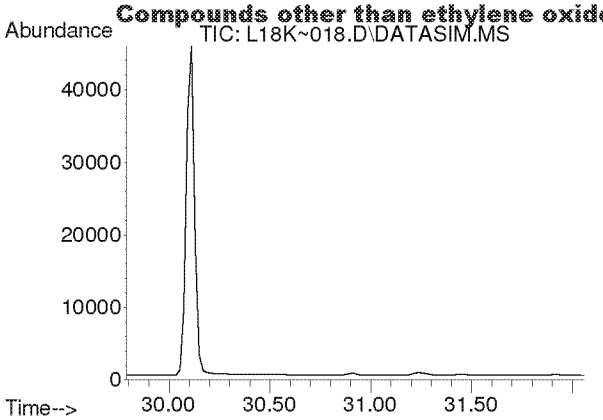
Lab File: L18K~018.D
Acq: 28 Nov 2018 3:15 am

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.3



Compounds other than ethylene oxide were not quantitated.

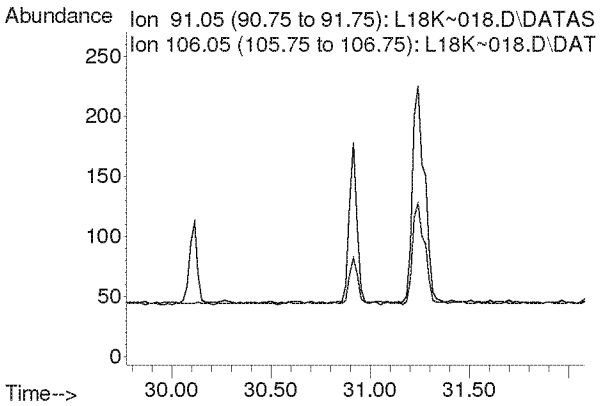


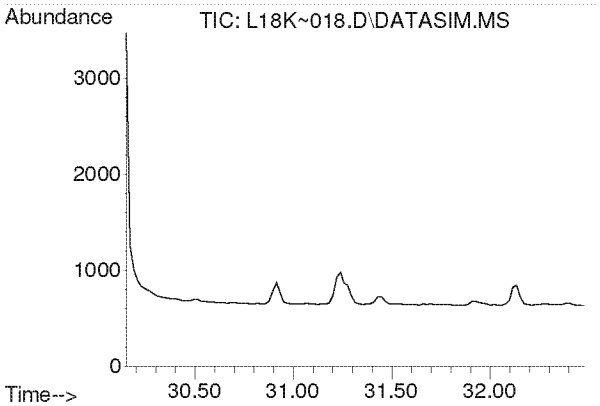
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.93 min

Lab File: L18K~018.D
Acq: 28 Nov 2018 3:15 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	31.8



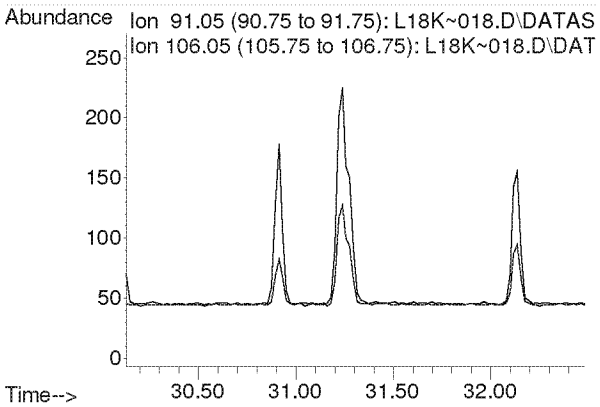


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.29 min

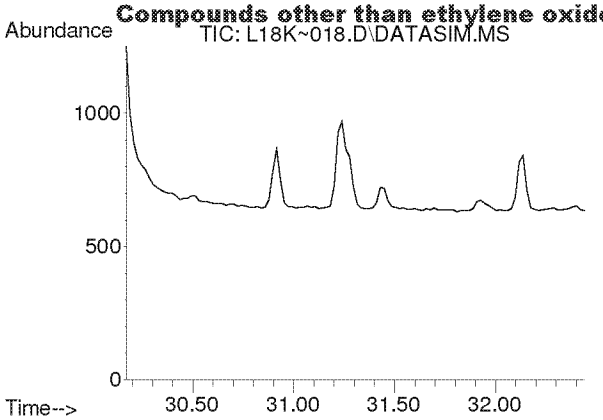
Lab File: L18K~018.D
Acq: 28 Nov 2018 3:15 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.4



Compounds other than ethylene oxide were not quantitated.

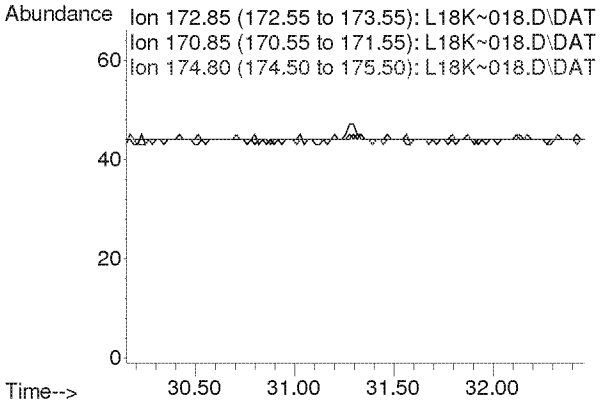


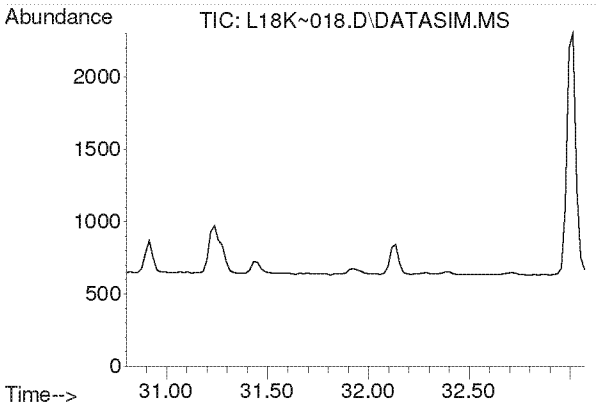
#52
Bromoform
Concen: N.D.
Expected RT: 31.30 min

Lab File: L18K~018.D
Acq: 28 Nov 2018 3:15 am

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.4
175	49.0



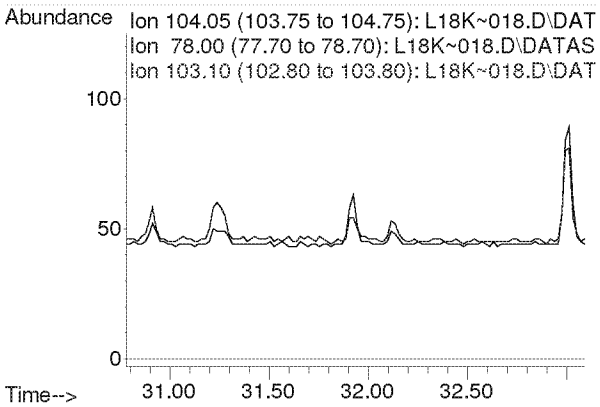


#53
Styrene
Concen: N.D.
Expected RT: 31.94 min

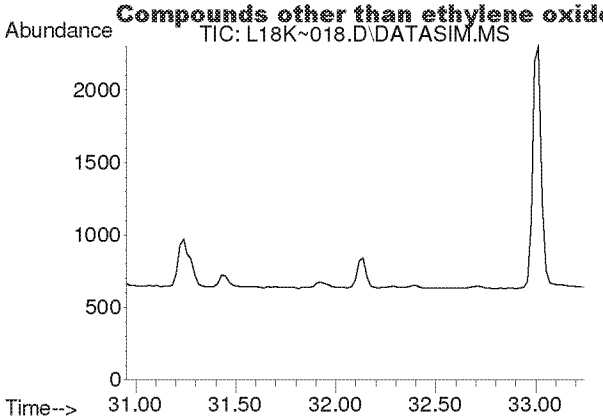
Lab File: L18K~018.D
Acq: 28 Nov 2018 3:15 am

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	45.7
103	0.0



Compounds other than ethylene oxide were not quantitated.

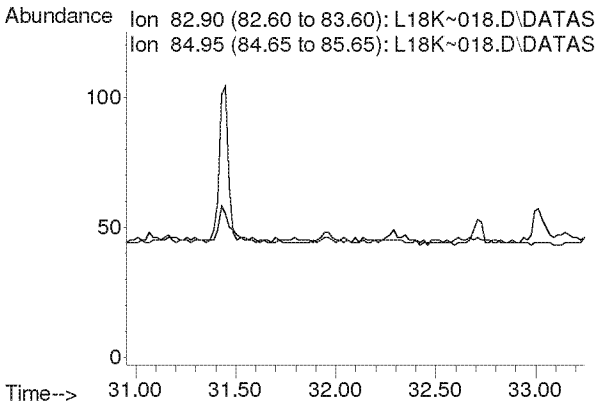


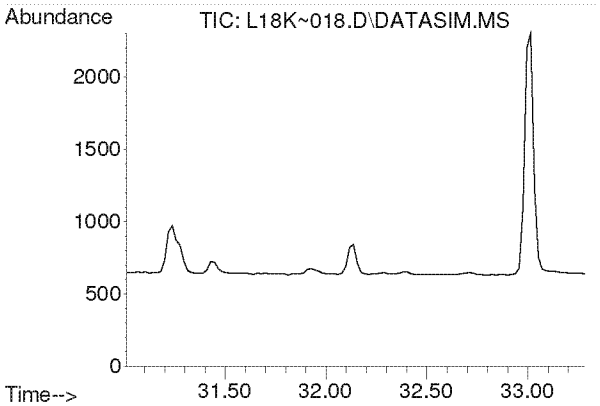
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.09 min

Lab File: L18K~018.D
Acq: 28 Nov 2018 3:15 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.3



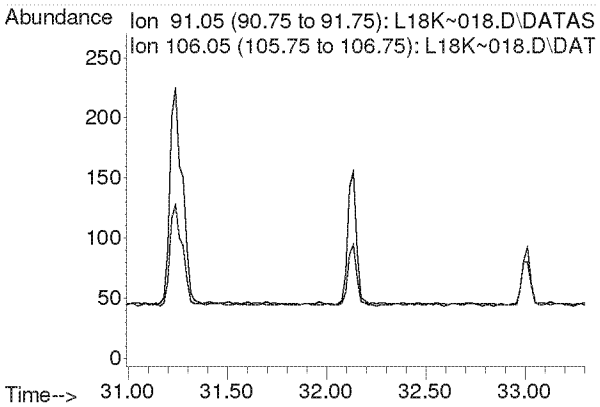


#55
o-Xylene
Concen: N.D.
Expected RT: 32.15 min

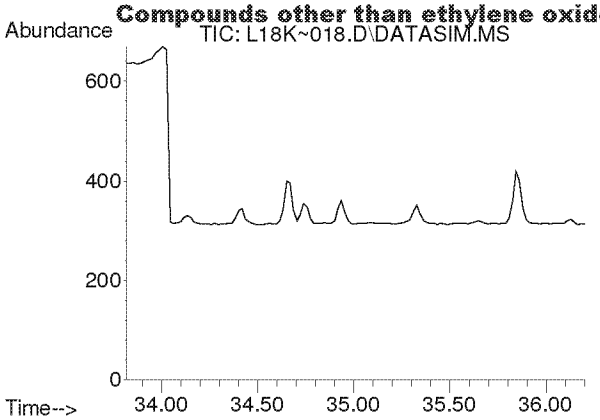
Lab File: L18K~018.D
Acq: 28 Nov 2018 3:15 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.5



Compounds other than ethylene oxide were not quantitated.

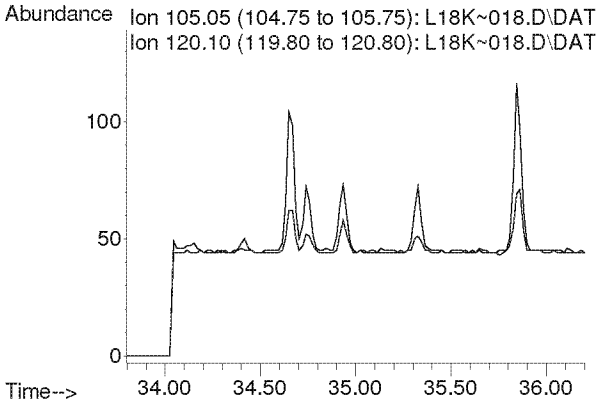


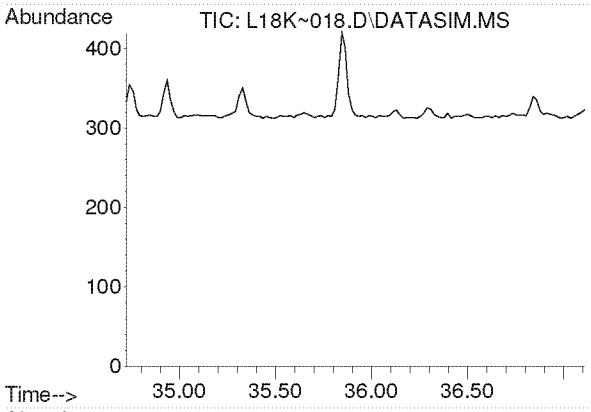
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.95 min

Lab File: L18K~018.D
Acq: 28 Nov 2018 3:15 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	45.6



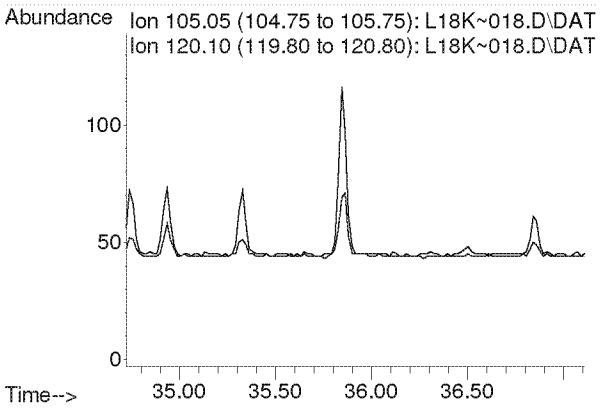


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.87 min

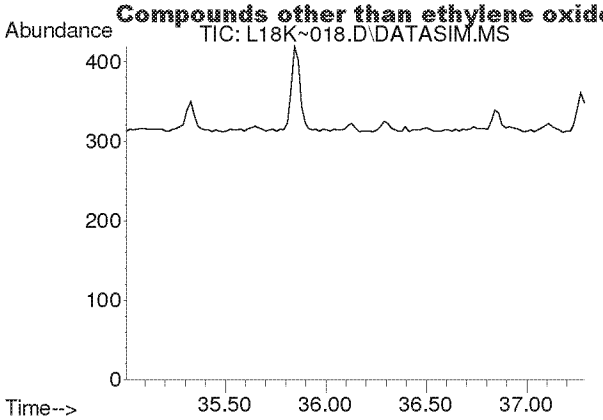
Lab File: L18K~018.D
Acq: 28 Nov 2018 3:15 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	43.4



Compounds other than ethylene oxide were not quantitated.

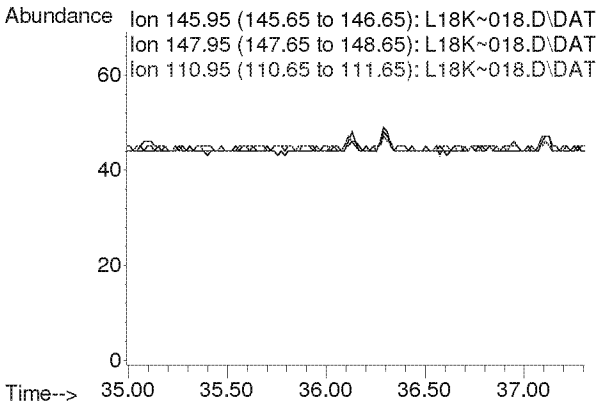


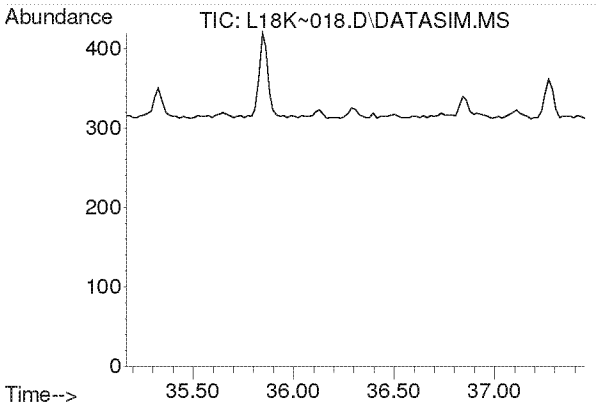
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.15 min

Lab File: L18K~018.D
Acq: 28 Nov 2018 3:15 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	41.1



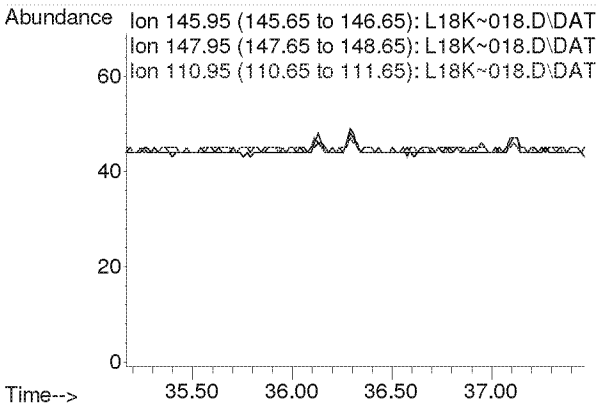


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.31 min

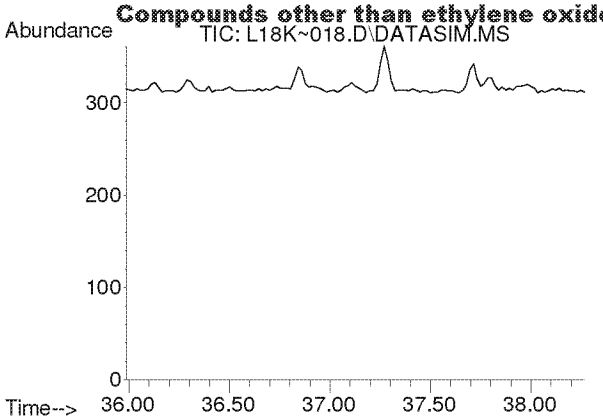
Lab File: L18K~018.D
Acq: 28 Nov 2018 3:15 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	39.8



Compounds other than ethylene oxide were not quantitated.

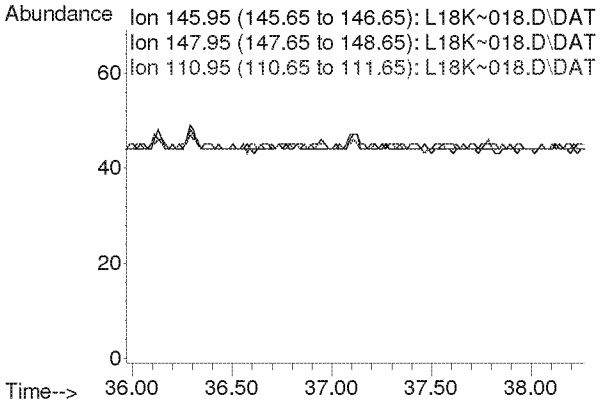


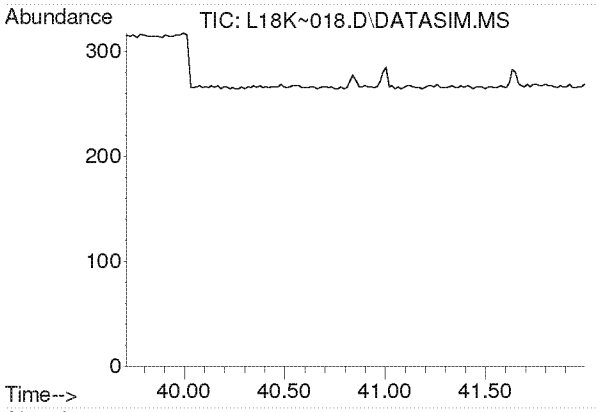
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.12 min

Lab File: L18K~018.D
Acq: 28 Nov 2018 3:15 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	63.9
111	41.8



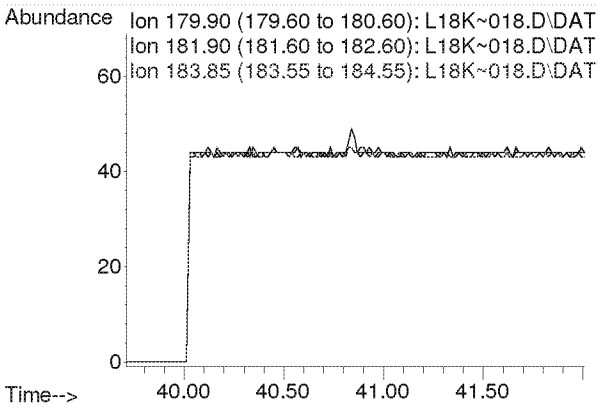


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.85 min

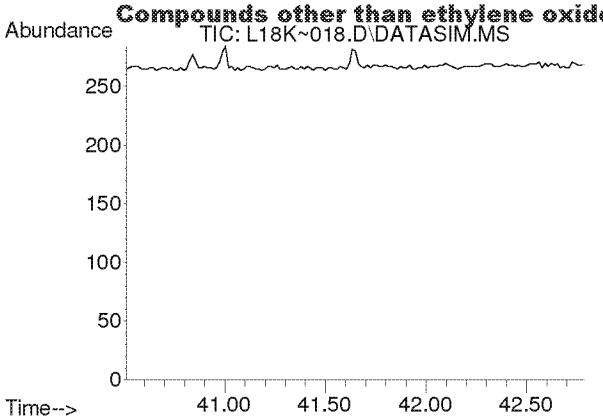
Lab File: L18K~018.D
Acq: 28 Nov 2018 3:15 am

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	95.6
184	30.5



Compounds other than ethylene oxide were not quantitated.

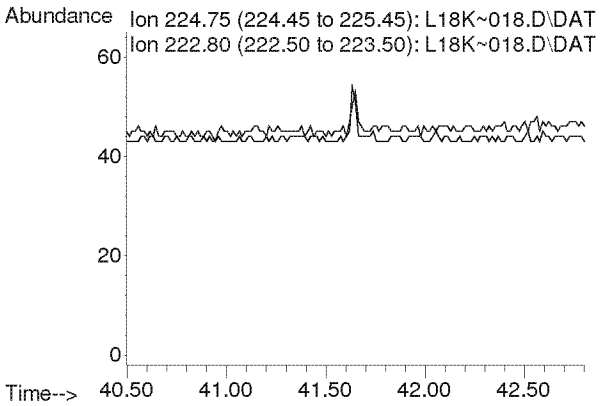


#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.65 min

Lab File: L18K~018.D
Acq: 28 Nov 2018 3:15 am

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.8



Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : Y:\MASS SPEC 1 DATA\L18K~\
Data File : L18K~019.D
Acq On : 28 Nov 2018 4:18 am (#1); 28-Nov-18, 04:13:02 (#2)
Operator : MAH
Sample : 8112113-08
Misc : HINSPALE S. HS 11/19/18 (Sig #1); (Sig #2)
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Jan 23 14:20:48 2019
Quant Method : C:\msdchem\1\METHODS\8100002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Fri Oct 12 09:33:42 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.990	66	47631	4.8000 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.169	114	111871	5.0200 ppbv	0.00
43) IS-Chlorobenzene-d5	30.113	117	77070	4.7700 ppbv	-0.02

System Monitoring Compounds

Target Compounds					Qvalue
2) Acetylene	0.000	26	0	N.D. d	
3) Propylene	0.000	41	0	N.D. d	
4) Dichlorodifluoromethane	0.000	85	0	N.D. d	
5) Chloromethane	0.000	50	0	N.D. d	
6) Dichlorotetrafluoroethane	0.000	85	0	N.D. d	
7) Vinyl Chloride	0.000	62	0	N.D. d	
8) 1,3-Butadiene	0.000	54	0	N.D. d	
9) Ethylene oxide	12.483	29	362m	0.1400 ppbv	
10) Bromomethane	0.000	94	0	N.D. d	
11) Chloroethane	0.000	64	0	N.D.	
12) Acetonitrile	0.000	41	0	N.D. d	
13) Acrolein	0.000	56	0	N.D. d	
14) Trichlorofluoromethane	0.000	101	0	N.D. d	
15) Acrylonitrile	0.000	53	0	N.D. d	
16) 1,1-Dichloroethene	0.000	61	0	N.D.	
17) Methylene Chloride	0.000	49	0	N.D. d	
18) Carbon Disulfide	0.000	76	0	N.D. d	
19) Trichlorotrifluoroethane	0.000	101	0	N.D. d	
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.	
21) 1,1-Dichloroethane	0.000	63	0	N.D.	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D. d	
23) Chloroprene	0.000	53	0	N.D. d	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D. d	
25) Bromochloromethane	0.000	128	0	N.D.	
26) Chloroform	0.000	83	0	N.D. d	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D.	
28) 1,2-Dichloroethane	0.000	62	0	N.D. d	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D.	
31) Benzene	0.000	78	0	N.D. d	
32) Carbon Tetrachloride	0.000	117	0	N.D. d	
33) tert-Amyl Methyl Ether	0.000	73	0	N.D.	
34) 1,2-Dichloropropane	0.000	63	0	N.D. d	
35) Ethyl Acrylate	0.000	55	0	N.D.	
36) Bromodichloromethane	0.000	83	0	N.D.	
37) Trichloroethylene	0.000	130	0	N.D. d	
38) Methyl Methacrylate	0.000	41	0	N.D.	
39) cis-1,3-Dichloropropene	0.000	75	0	N.D.	
40) Methyl Isobutyl Ketone	0.000	43	0	N.D. d	
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.	
44) Toluene	0.000	91	0	N.D. d	
45) Dibromochloromethane	0.000	129	0	N.D.	
46) 1,2-Dibromoethane	0.000	107	0	N.D.	
47) n-Octane	0.000	43	0	N.D. d	
48) Tetrachloroethylene	0.000	166	0	N.D. d	
49) Chlorobenzene	0.000	112	0	N.D.	
50) Ethylbenzene	0.000	91	0	N.D. d	

Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L18K~\
Data File : L18K~019.D
Acq On : 28 Nov 2018 4:18 am (#1); 28 Nov 2018 4:13 am (#2)
Operator : MAH
Sample : 8112113-08
Misc : HINSPALE S. HS 11/19/18 (Sig #1); (Sig #2)
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Nov 28 08:08:09 2018
Quant Method : C:\msdchem\1\METHODS\8100002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Fri Oct 12 09:33:42 2018
Response via : Initial Calibration

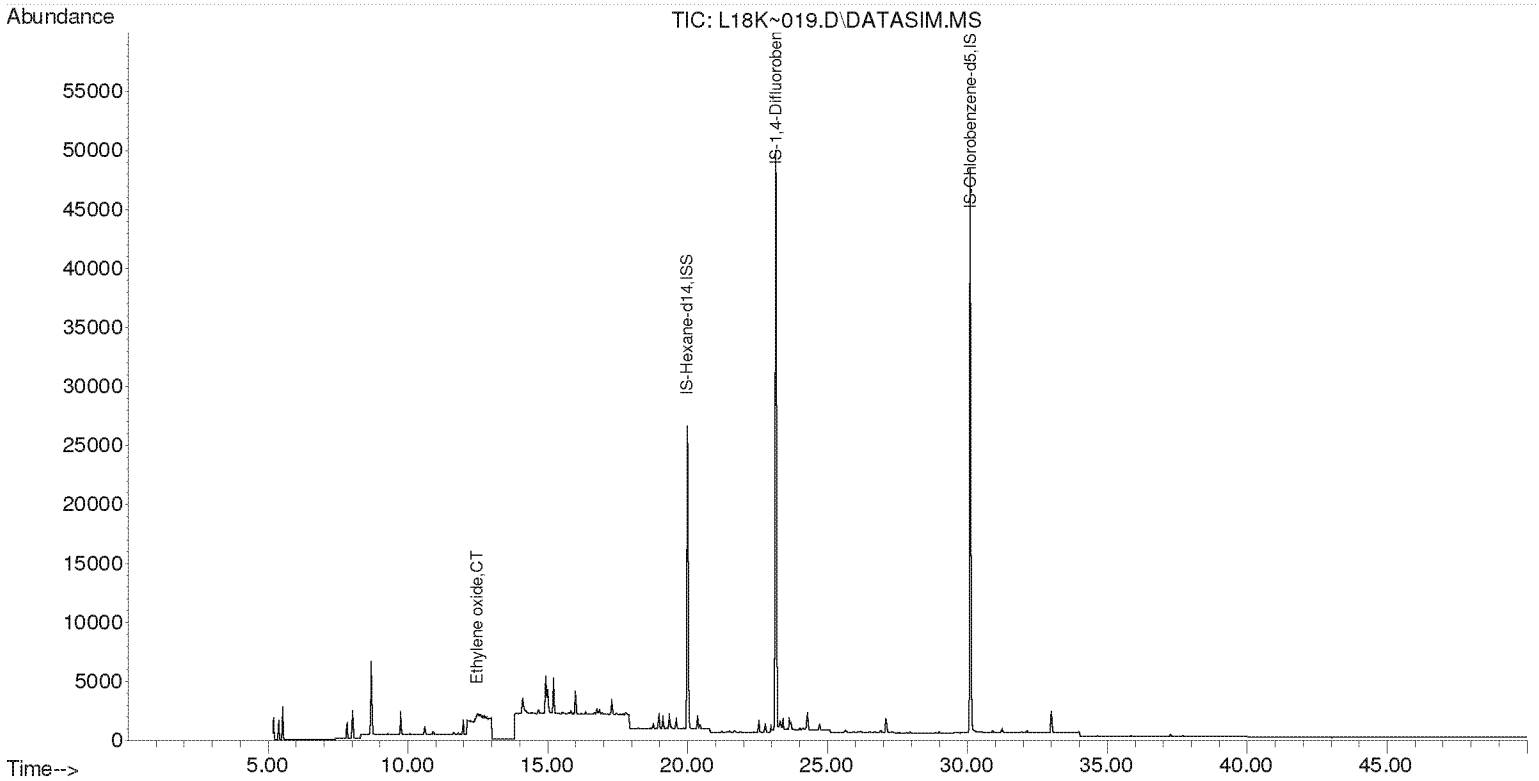
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
49) Chlorobenzene	0.000	112	0	N.D.	
50) Ethylbenzene	0.000	91	0	N.D.	d
51) m,p-Xylene	0.000	91	0	N.D.	d
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	d
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D.	d
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	d
57) 1,2,4-Trimethylbenzene	0.000	105	0	N.D.	d
58) m-Dichlorobenzene	0.000	146	0	N.D.	
59) p-Dichlorobenzene	0.000	146	0	N.D.	
60) o-Dichlorobenzene	0.000	146	0	N.D.	
61) 1,2,4-Trichlorobenzene	0.000	180	0	N.D.	
62) Hexachloro-1,3-butadiene	0.000	225	0	N.D.	

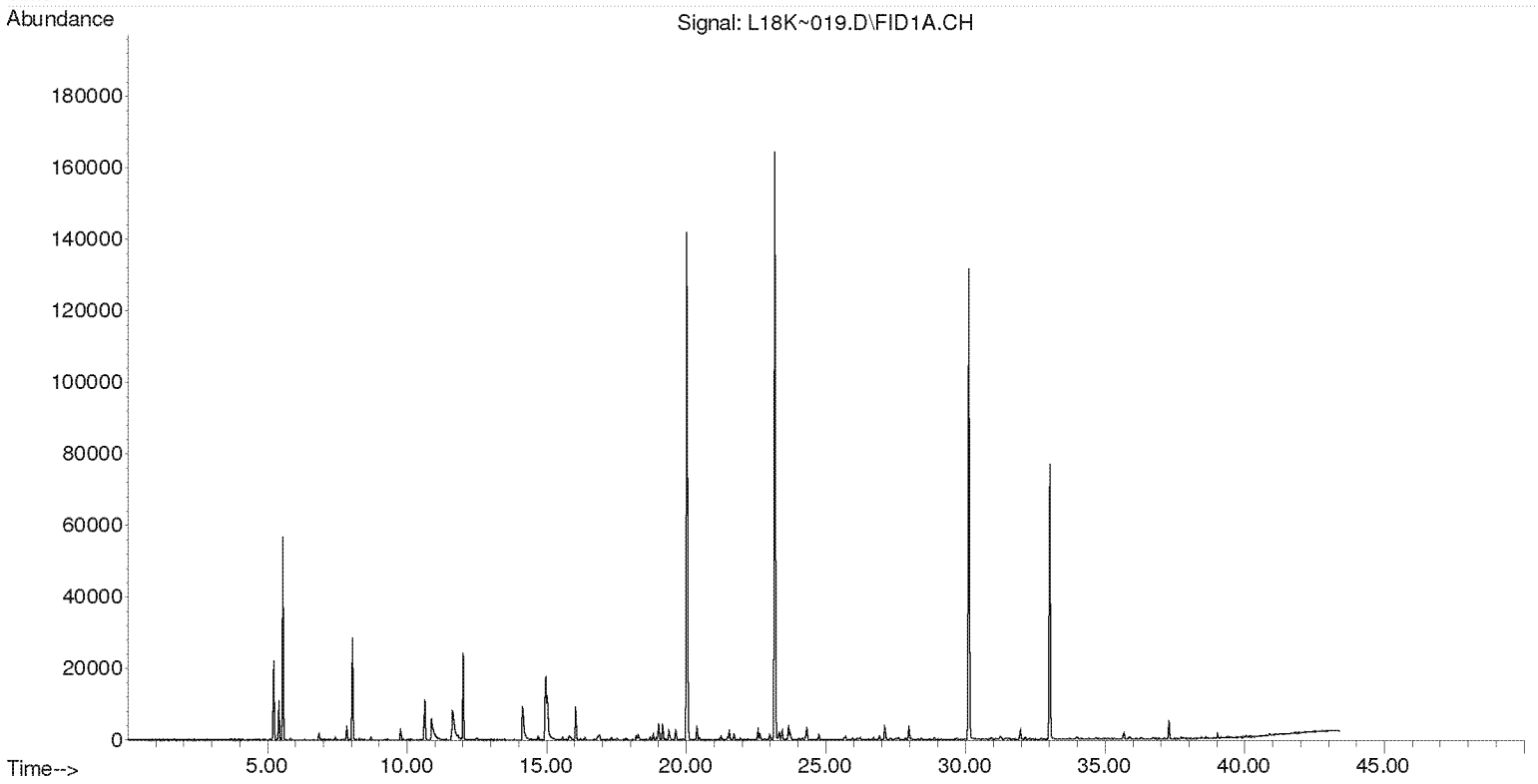
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Compounds other than ethylene oxide were not quantitated.

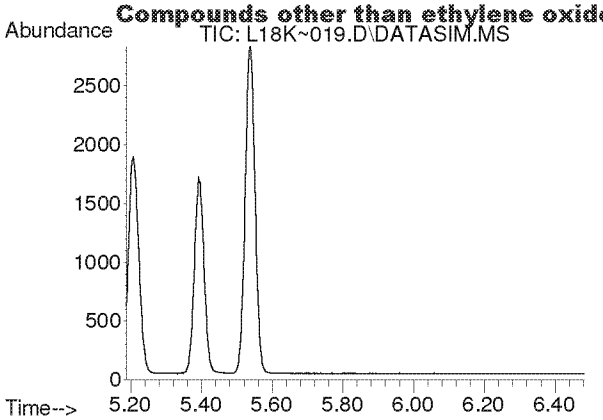
Data Path : Y:\MASS SPEC 1 DATA\L18K~\
Data File : L18K~019.D
Acq On : 28 Nov 2018 4:18 am (#1); 28 Nov 2018 4:13 am (#2)
Operator : MAH
Sample : 8112113-08
Misc : HINSPALE S. HS 11/19/18 (Sig #1); (Sig #2)
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Nov 28 08:08:09 2018
Quant Method : C:\msdchem\1\METHODS\8100002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Fri Oct 12 09:33:42 2018
Response via : Initial Calibration





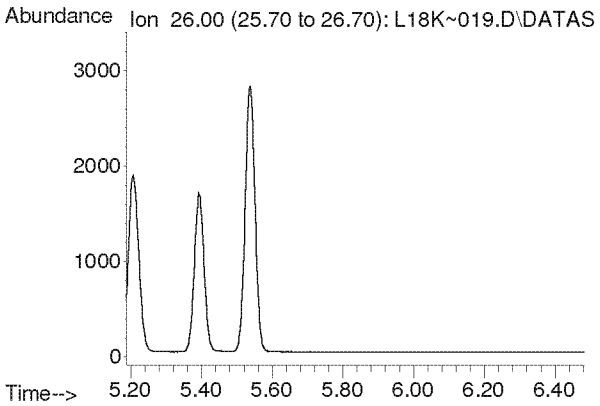
Compounds other than ethylene oxide were not quantitated.

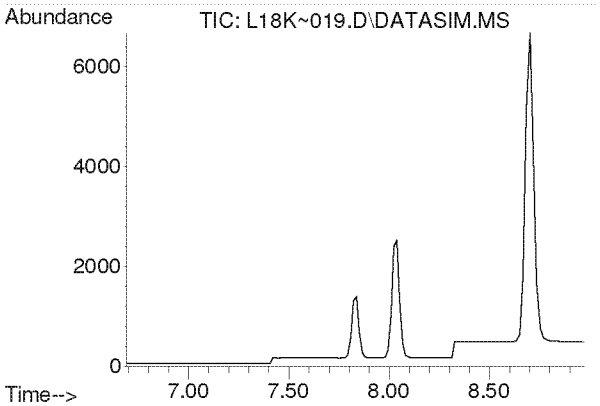


#2
Acetylene
Concen: N.D.
Expected RT: 5.41 min

Lab File: L18K~019.D
Acq: 28 Nov 2018 4:18 am

Tgt Ion: 26



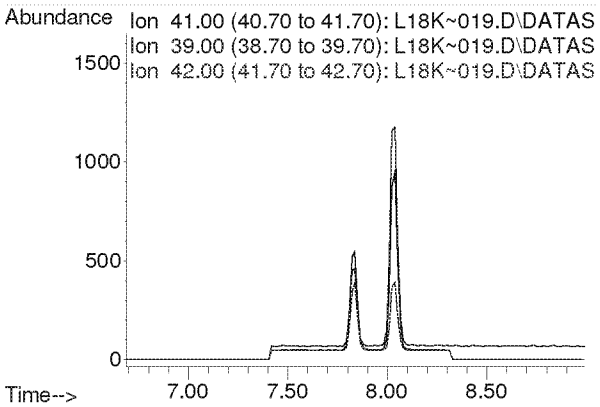


#3
Propylene
Concen: N.D.
Expected RT: 7.84 min

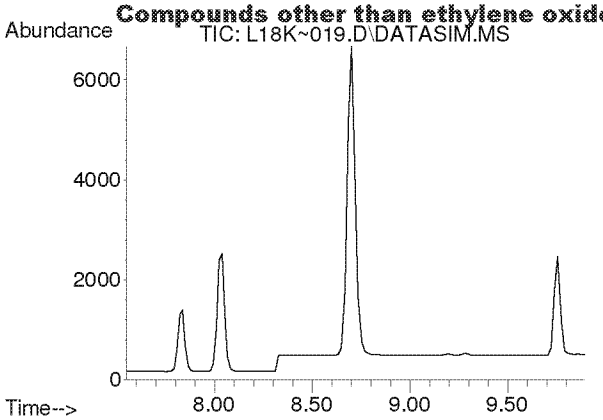
Lab File: L18K~019.D
Acq: 28 Nov 2018 4:18 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	81.2
42	65.4



Compounds other than ethylene oxide were not quantitated.

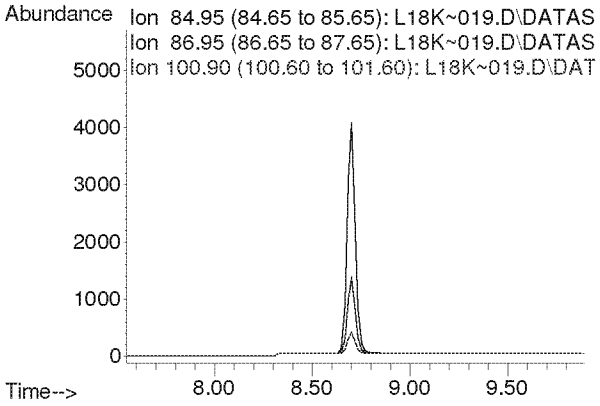


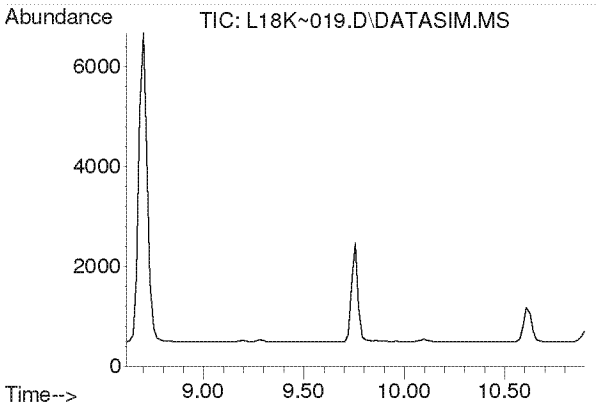
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.69 min

Lab File: L18K~019.D
Acq: 28 Nov 2018 4:18 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.3
101	9.0



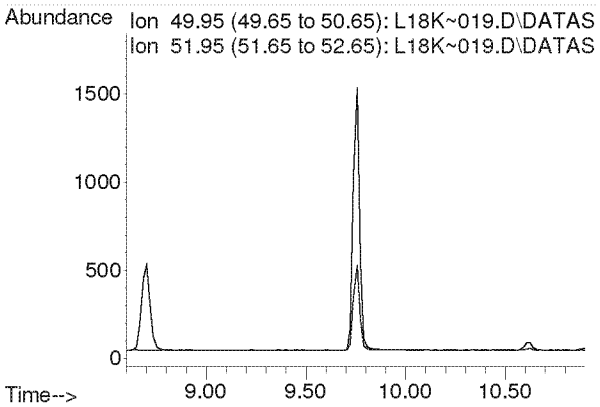


#5
Chloromethane
Concen: N.D.
Expected RT: 9.76 min

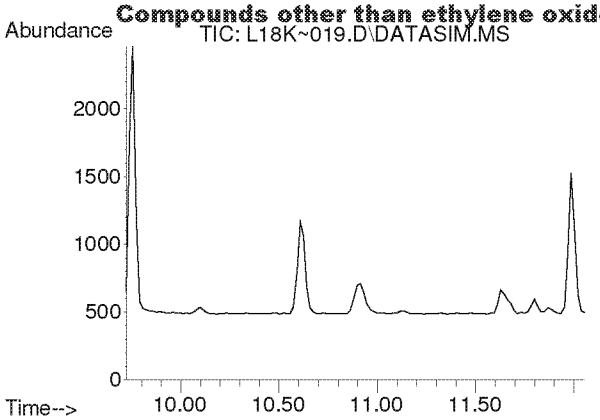
Lab File: L18K~019.D
Acq: 28 Nov 2018 4:18 am

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.2



Compounds other than ethylene oxide were not quantitated.

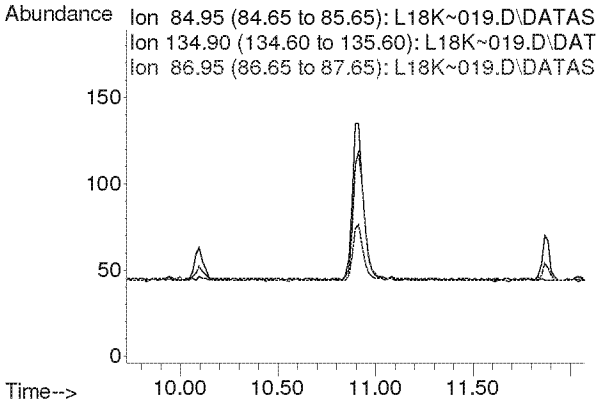


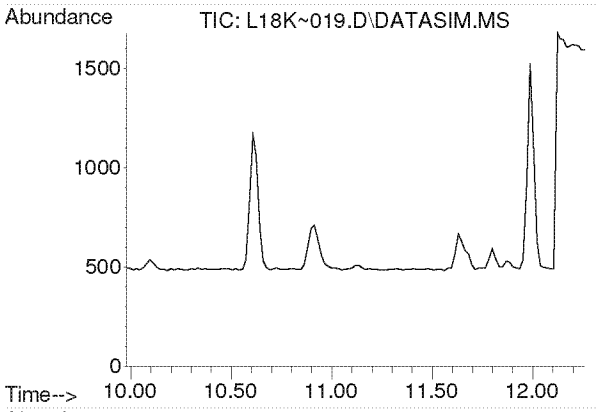
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.87 min

Lab File: L18K~019.D
Acq: 28 Nov 2018 4:18 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.6
87	32.1



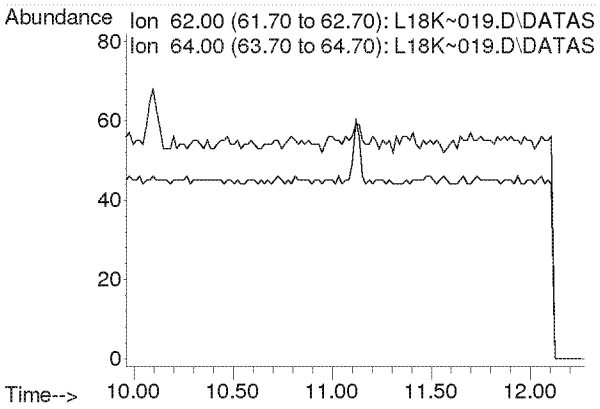


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

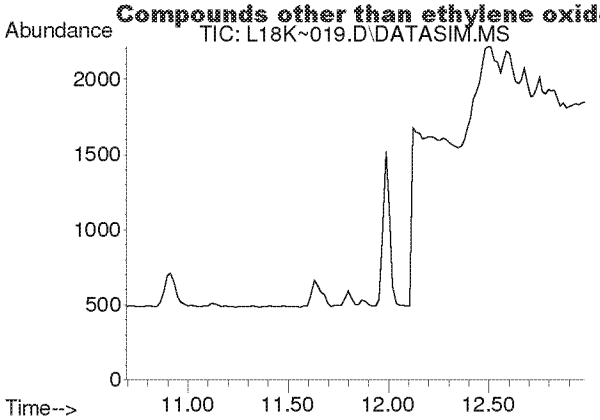
Lab File: L18K~019.D
Acq: 28 Nov 2018 4:18 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	32.0



Compounds other than ethylene oxide were not quantitated.

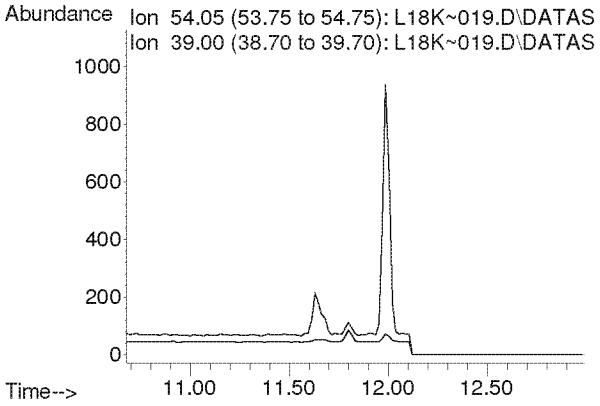


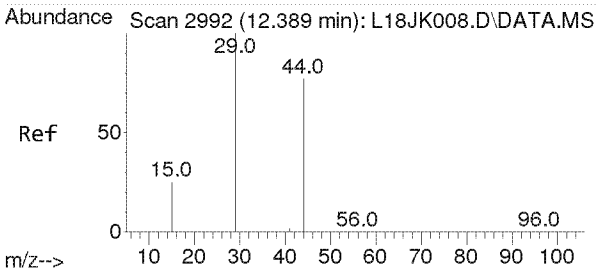
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.79 min

Lab File: L18K~019.D
Acq: 28 Nov 2018 4:18 am

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	108.7

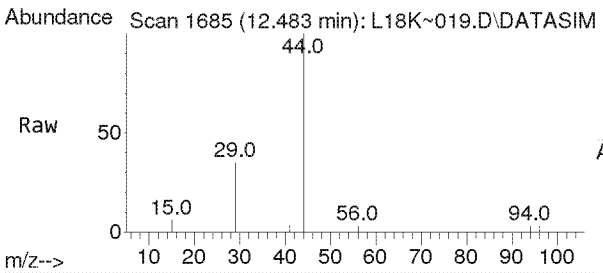


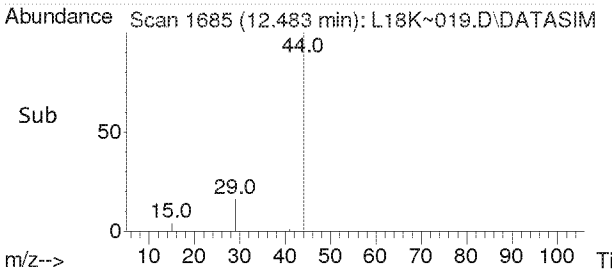


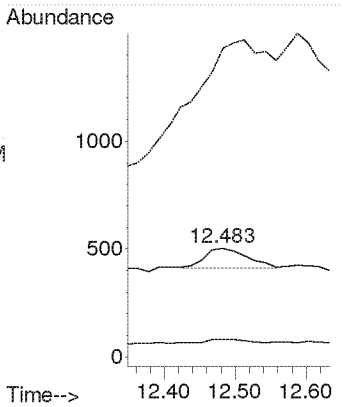
#9
Ethylene oxide
Concen: 0.140 ppbv m
RT: 12.483 min Scan# 1685
Delta R.T. 0.094 min
Lab File: L18K~019.D
Acq: 28 Nov 2018 4:18 am

Tgt Ion: 29 Resp: 362

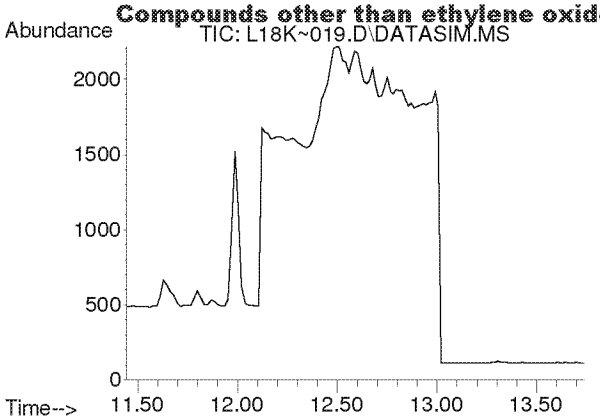
Ion	Ratio	Lower	Upper
29	100		
15	0.0	20.1	30.1#
44	0.0	62.6	93.8#







Compounds other than ethylene oxide were not quantitated.

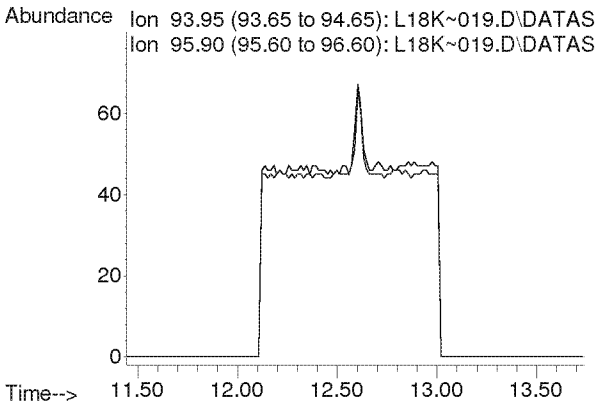


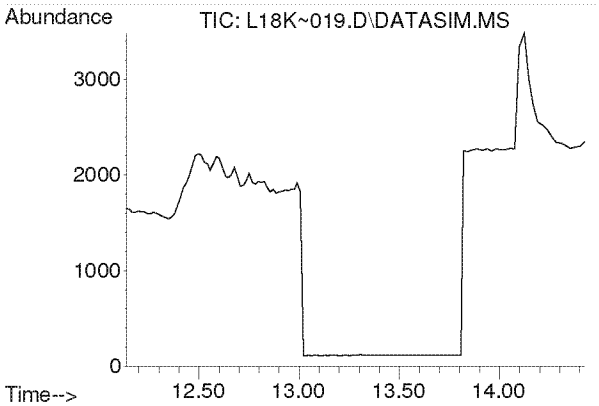
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L18K~019.D
Acq: 28 Nov 2018 4:18 am

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



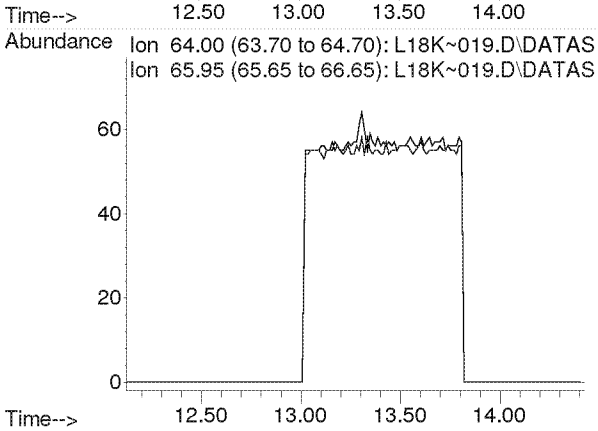


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

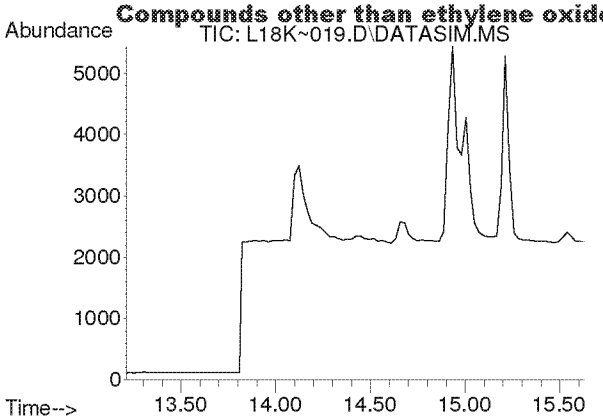
Lab File: L18K~019.D
Acq: 28 Nov 2018 4:18 am

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

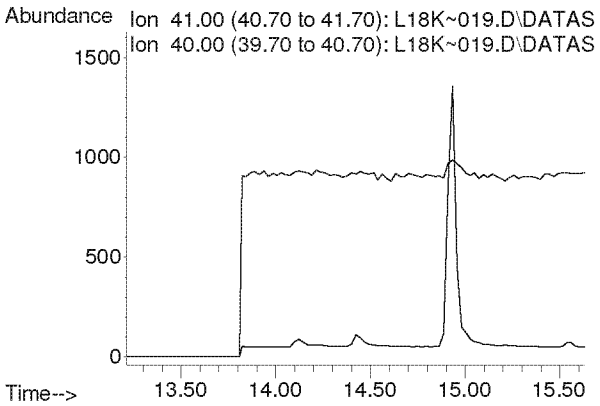


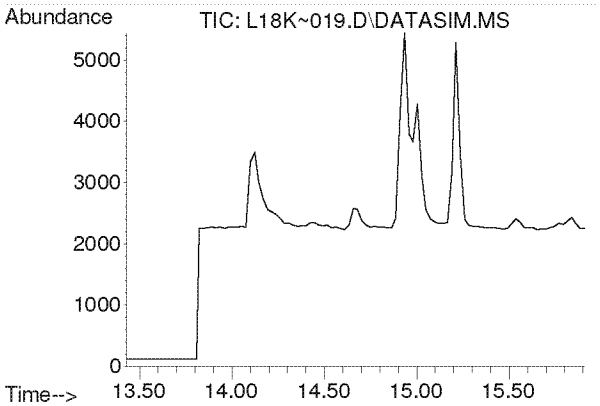
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.34 min

Lab File: L18K~019.D
Acq: 28 Nov 2018 4:18 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	53.9



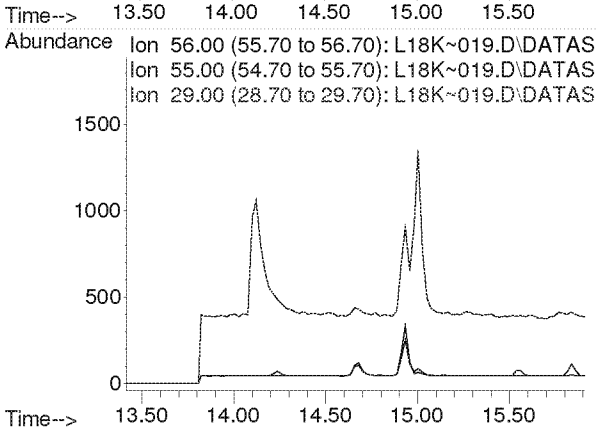


#13
Acrolein
Concen: N.D.
Expected RT: 14.62 min

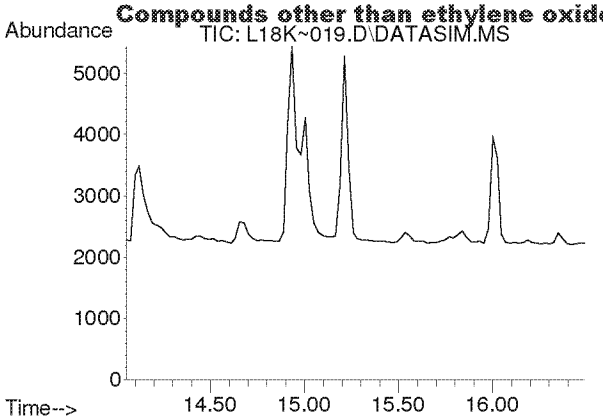
Lab File: L18K~019.D
Acq: 28 Nov 2018 4:18 am

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	77.4
29	61.5



Compounds other than ethylene oxide were not quantitated.

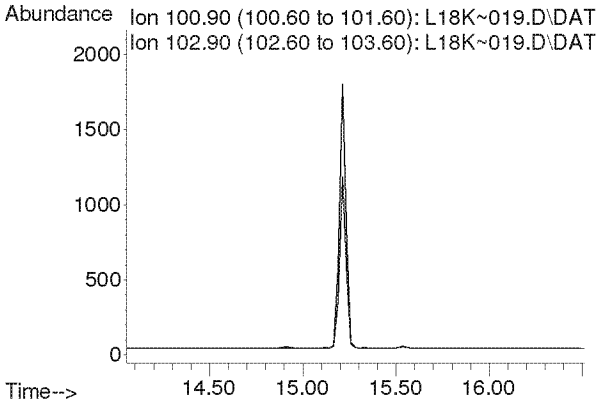


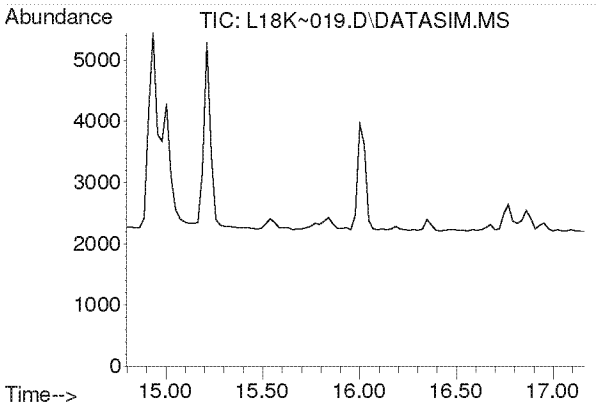
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.20 min

Lab File: L18K~019.D
Acq: 28 Nov 2018 4:18 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.7



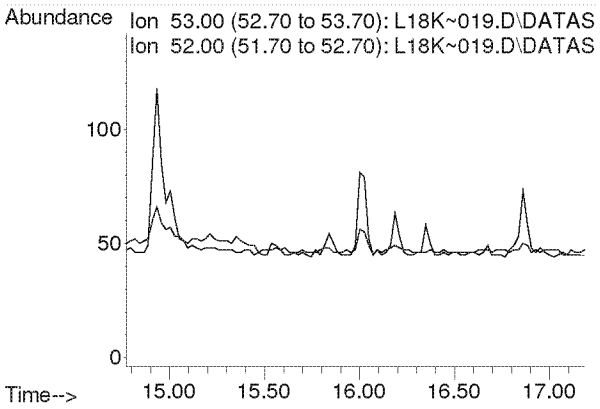


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.92 min

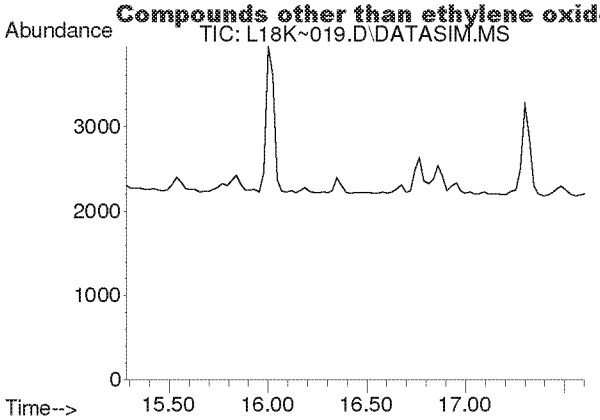
Lab File: L18K~019.D
Acq: 28 Nov 2018 4:18 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	87.1



Compounds other than ethylene oxide were not quantitated.

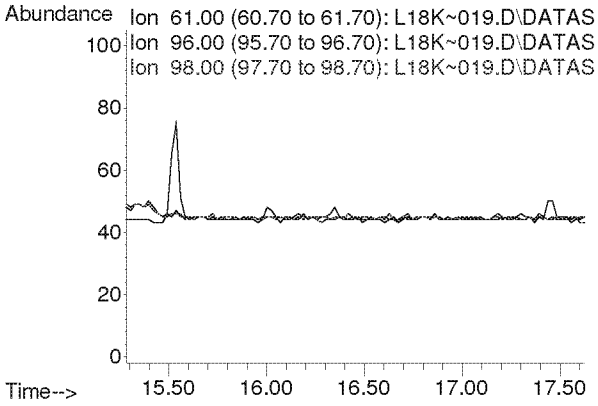


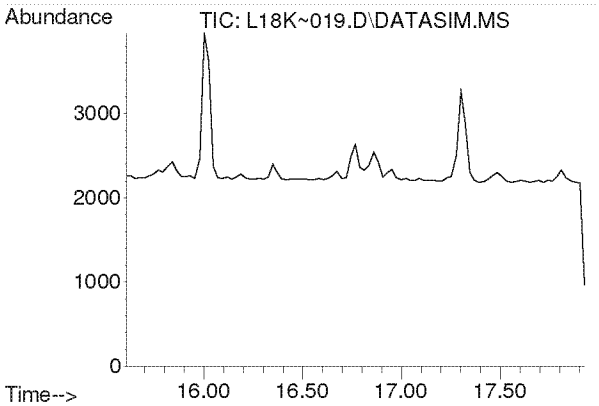
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L18K~019.D
Acq: 28 Nov 2018 4:18 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	57.6
98	36.8



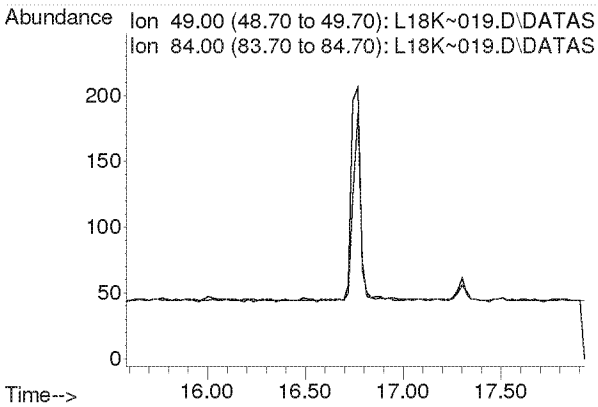


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

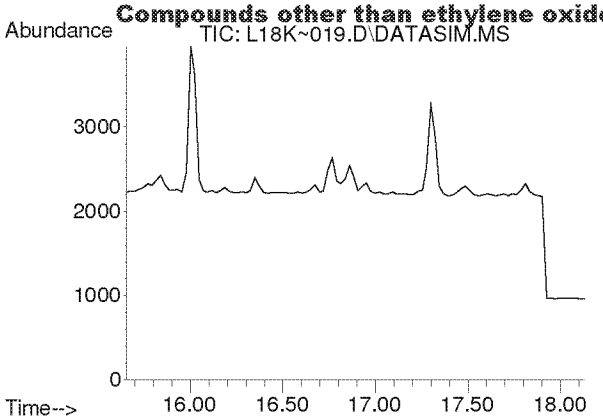
Lab File: L18K~019.D
Acq: 28 Nov 2018 4:18 am

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	74.2



Compounds other than ethylene oxide were not quantitated.

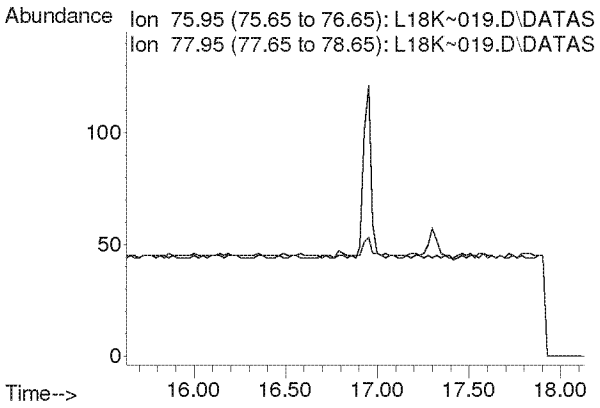


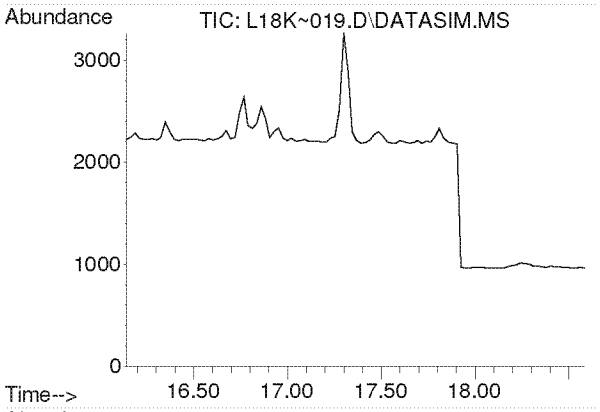
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.94 min

Lab File: L18K~019.D
Acq: 28 Nov 2018 4:18 am

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.1



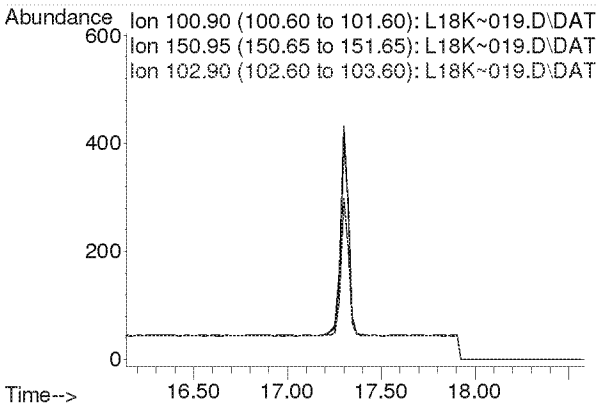


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.29 min

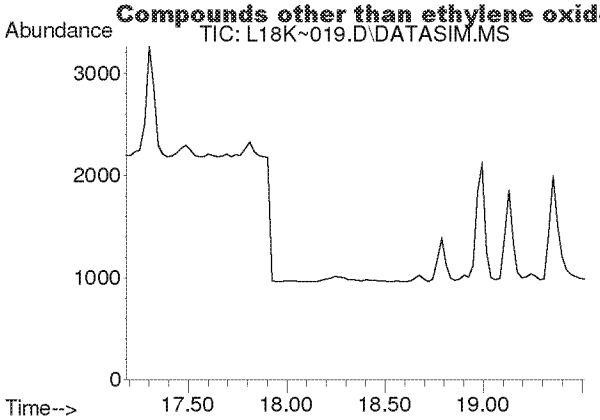
Lab File: L18K~019.D
Acq: 28 Nov 2018 4:18 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	96.0
103	64.3



Compounds other than ethylene oxide were not quantitated.

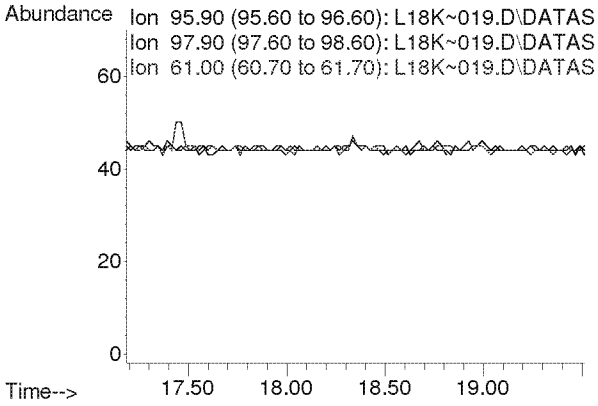


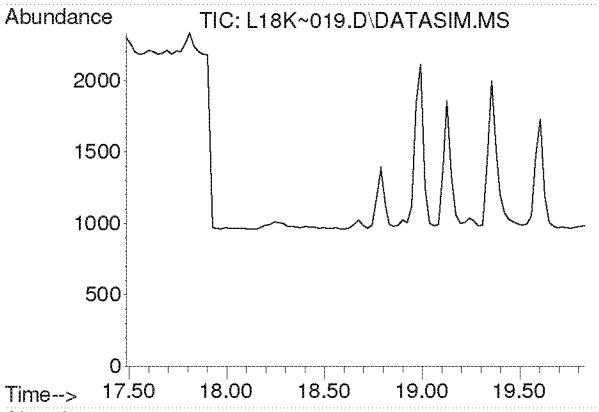
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.33 min

Lab File: L18K~019.D
Acq: 28 Nov 2018 4:18 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	63.6
61	156.3



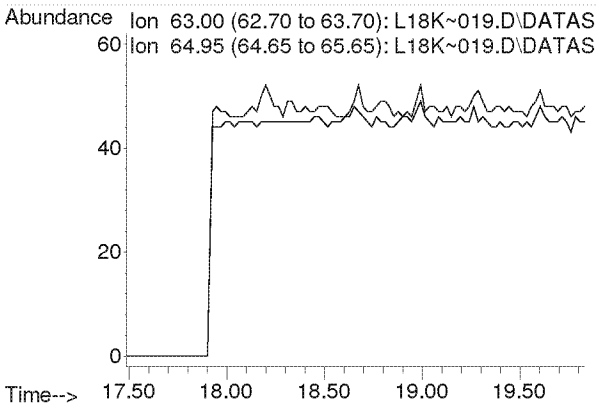


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.64 min

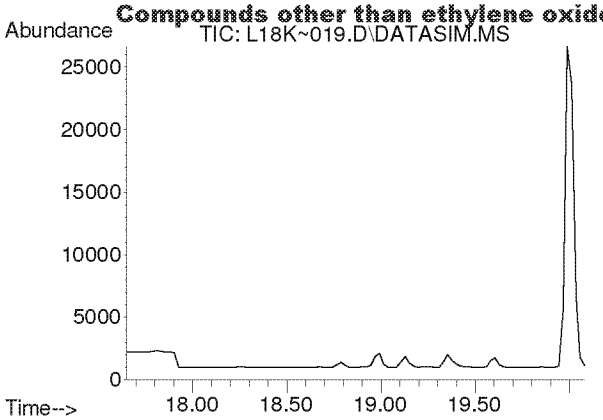
Lab File: L18K~019.D
Acq: 28 Nov 2018 4:18 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	32.1



Compounds other than ethylene oxide were not quantitated.

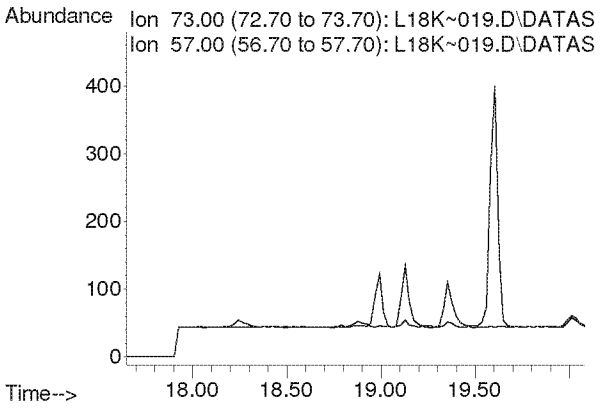


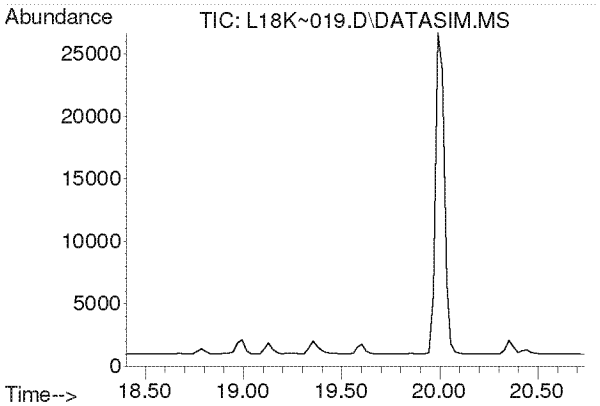
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L18K~019.D
Acq: 28 Nov 2018 4:18 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.0



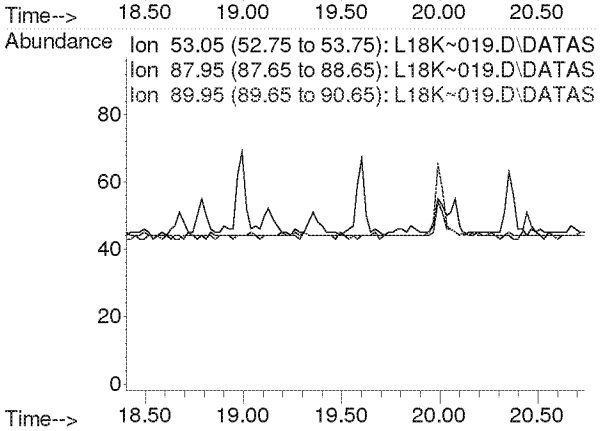


#23
Chloroprene
Concen: N.D.
Expected RT: 19.55 min

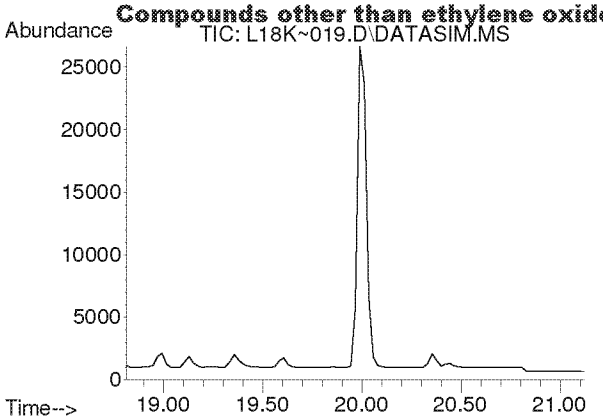
Lab File: L18K~019.D
Acq: 28 Nov 2018 4:18 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	51.5
90	16.6



Compounds other than ethylene oxide were not quantitated.

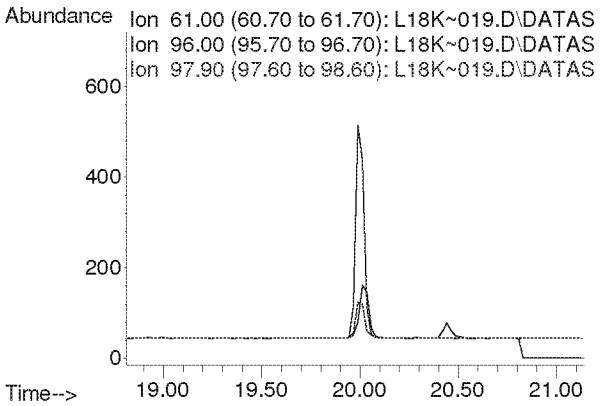


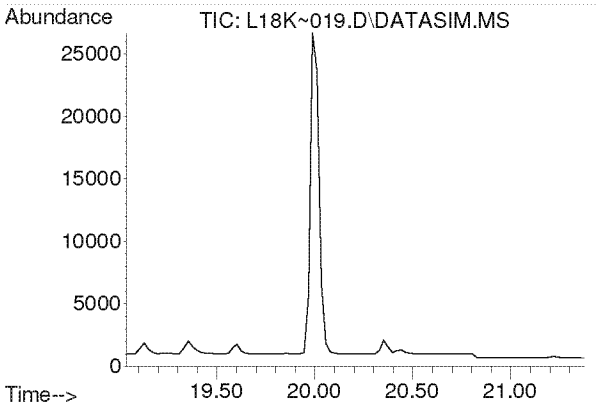
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.96 min

Lab File: L18K~019.D
Acq: 28 Nov 2018 4:18 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.5
98	46.2



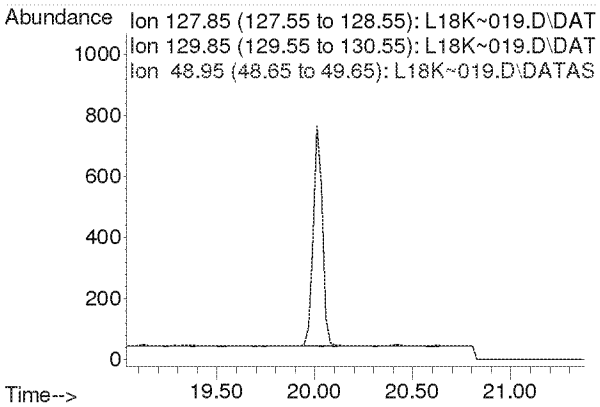


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.18 min

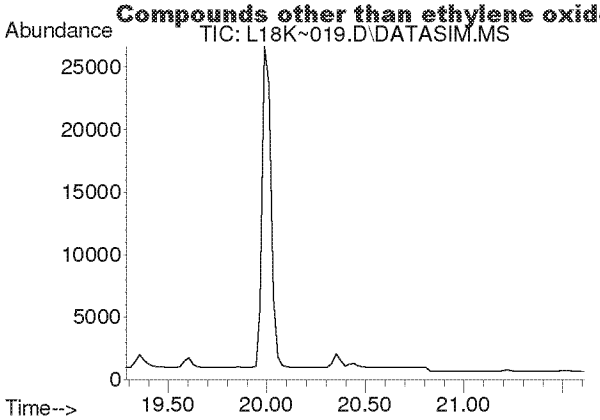
Lab File: L18K~019.D
Acq: 28 Nov 2018 4:18 am

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	128.9
49	167.9



Compounds other than ethylene oxide were not quantitated.

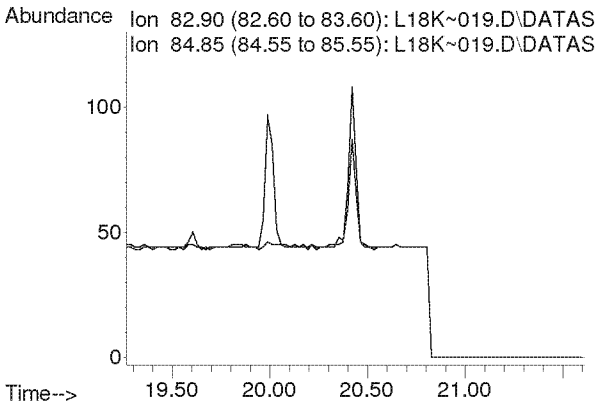


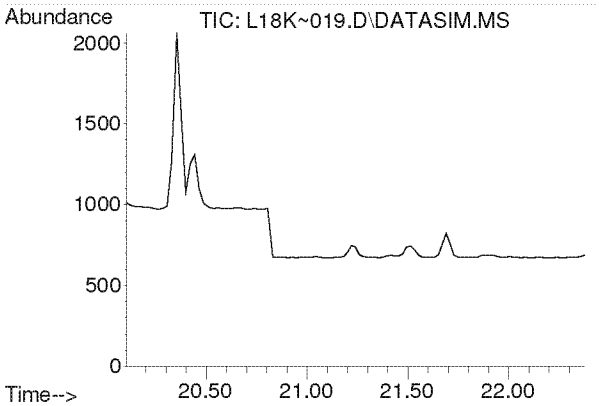
#26
Chloroform
Concen: N.D.
Expected RT: 20.42 min

Lab File: L18K~019.D
Acq: 28 Nov 2018 4:18 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



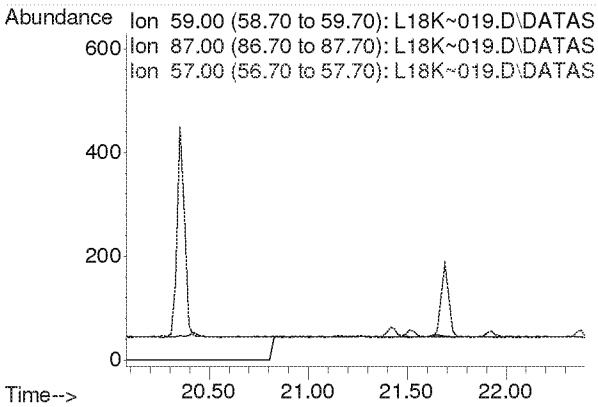


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.19 min

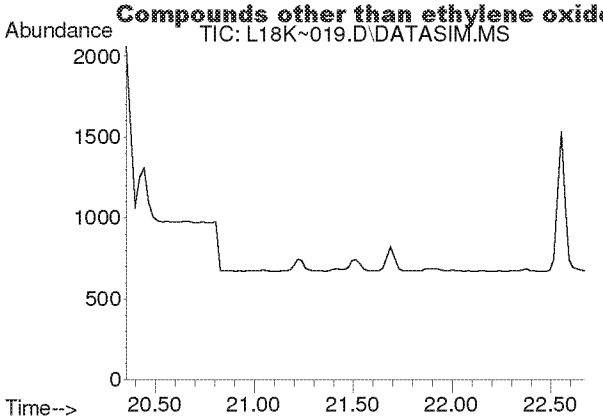
Lab File: L18K~019.D
Acq: 28 Nov 2018 4:18 am

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	38.5
57	34.0



Compounds other than ethylene oxide were not quantitated.

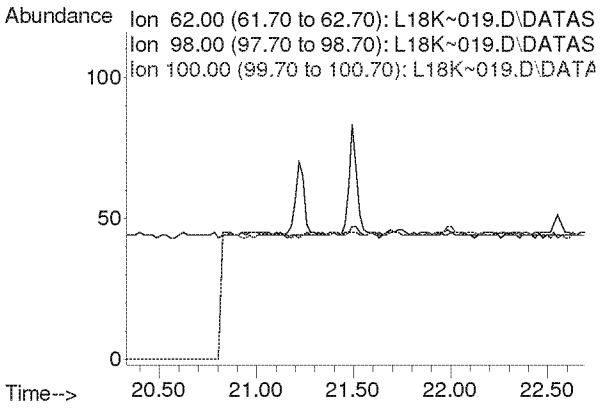


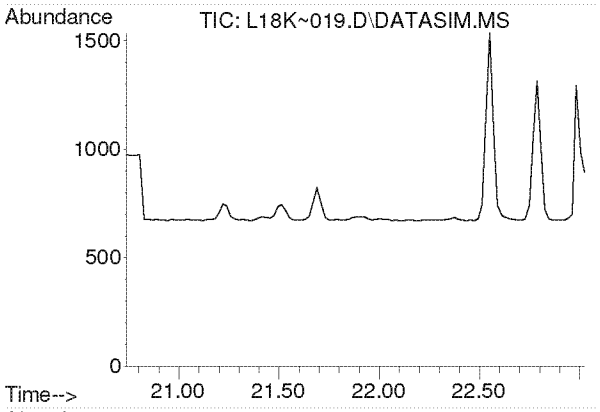
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.49 min

Lab File: L18K~019.D
Acq: 28 Nov 2018 4:18 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.0
100	3.9



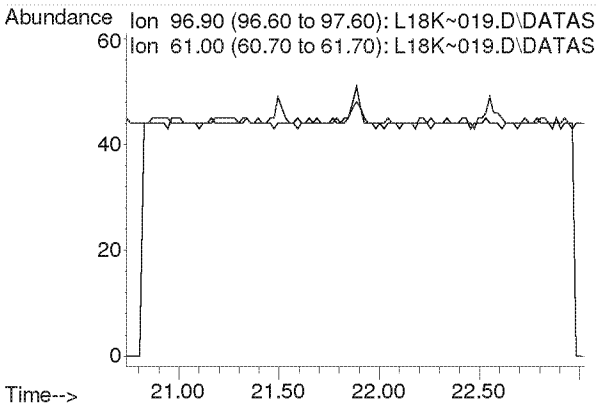


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.88 min

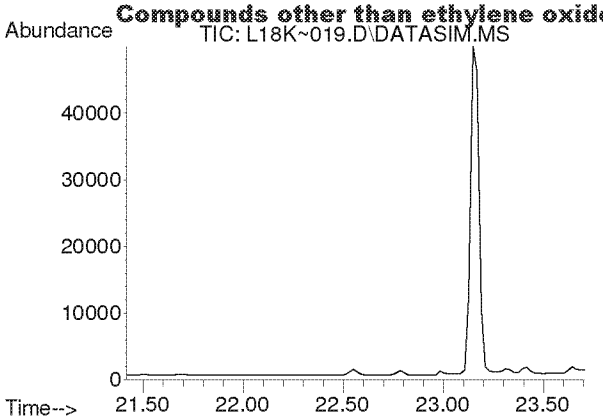
Lab File: L18K~019.D
Acq: 28 Nov 2018 4:18 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	59.6



Compounds other than ethylene oxide were not quantitated.

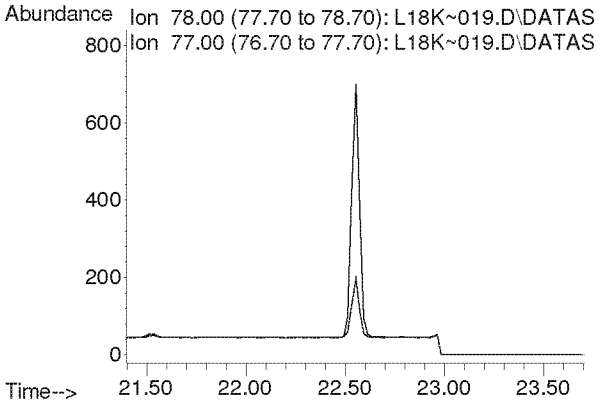


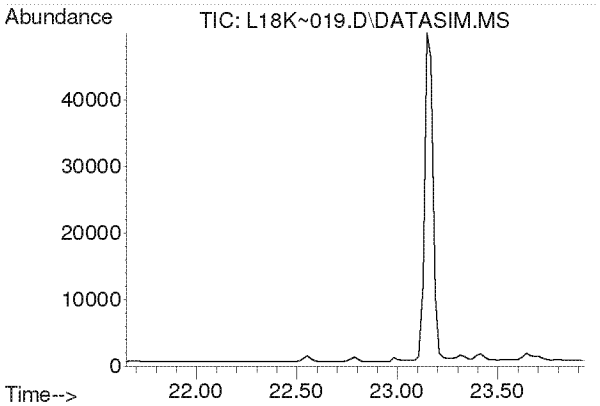
#31
Benzene
Concen: N.D.
Expected RT: 22.56 min

Lab File: L18K~019.D
Acq: 28 Nov 2018 4:18 am

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.9



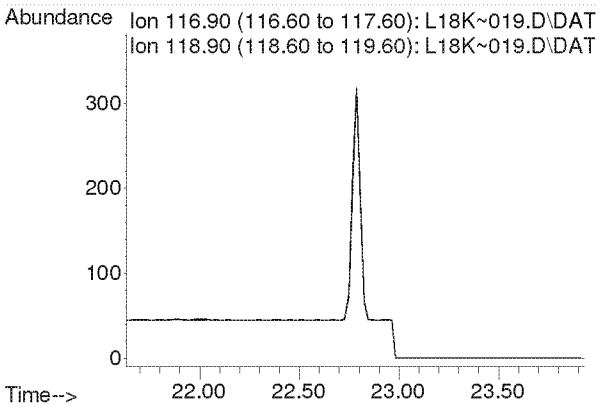


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.79 min

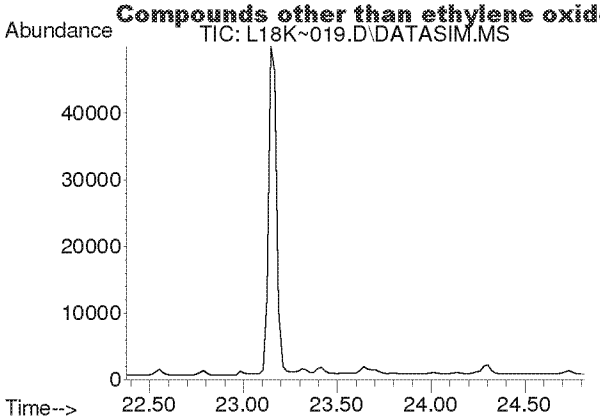
Lab File: L18K~019.D
Acq: 28 Nov 2018 4:18 am

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.9



Compounds other than ethylene oxide were not quantitated.

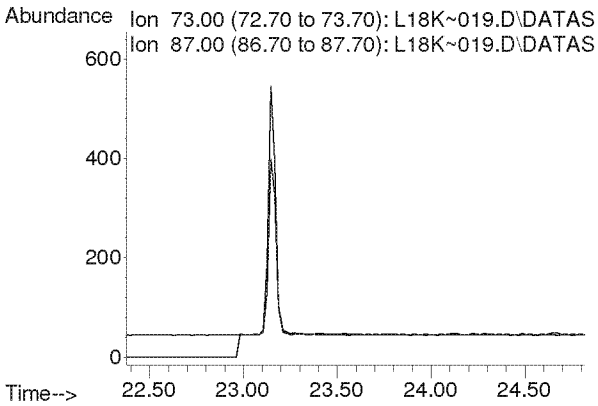


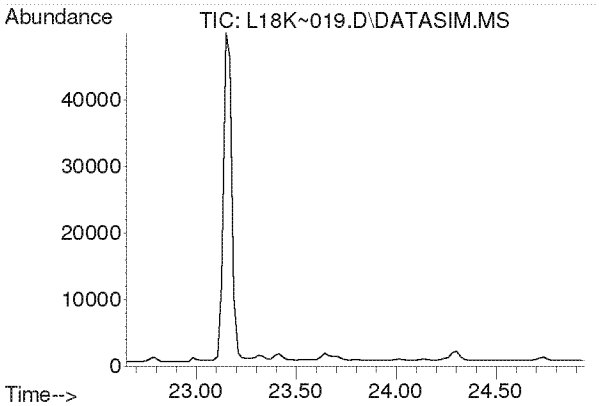
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L18K~019.D
Acq: 28 Nov 2018 4:18 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



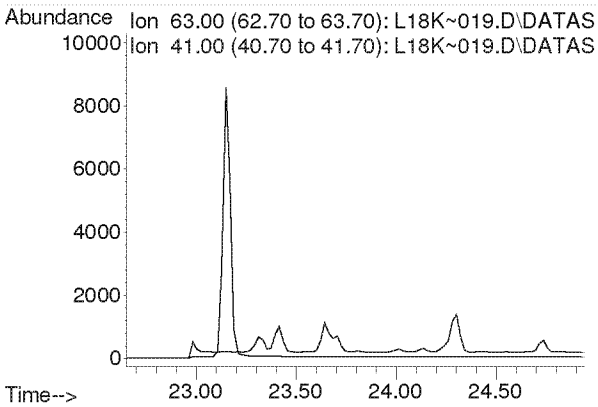


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.80 min

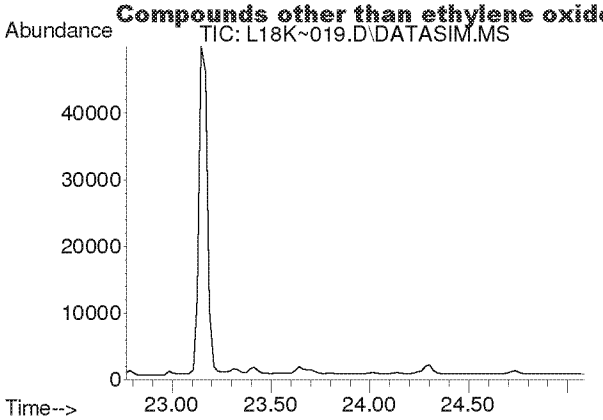
Lab File: L18K~019.D
Acq: 28 Nov 2018 4:18 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	222.1



Compounds other than ethylene oxide were not quantitated.

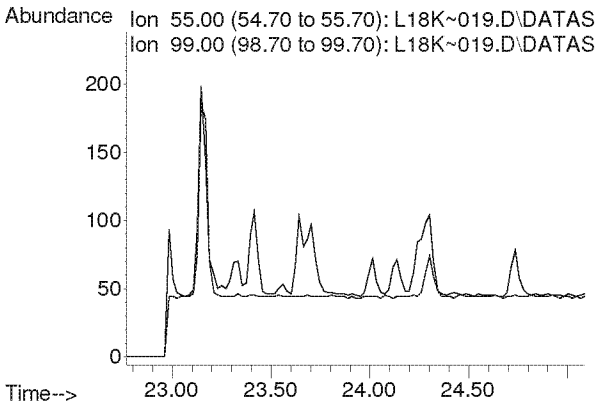


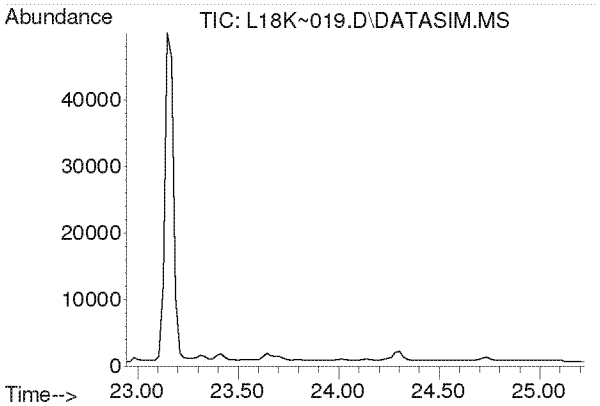
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L18K~019.D
Acq: 28 Nov 2018 4:18 am

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



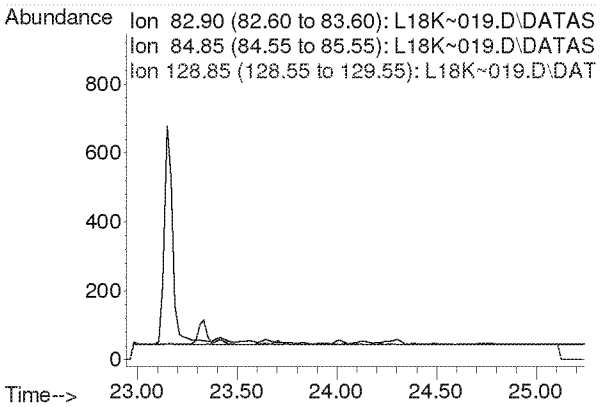


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.09 min

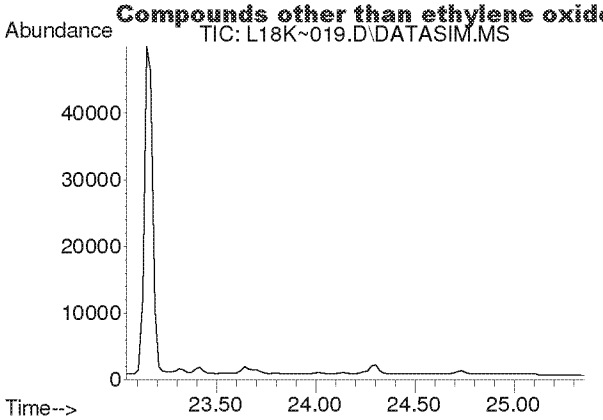
Lab File: L18K~019.D
Acq: 28 Nov 2018 4:18 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.9
129	12.9



Compounds other than ethylene oxide were not quantitated.

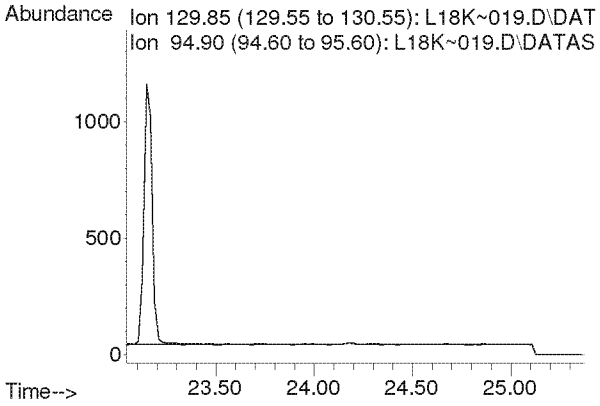


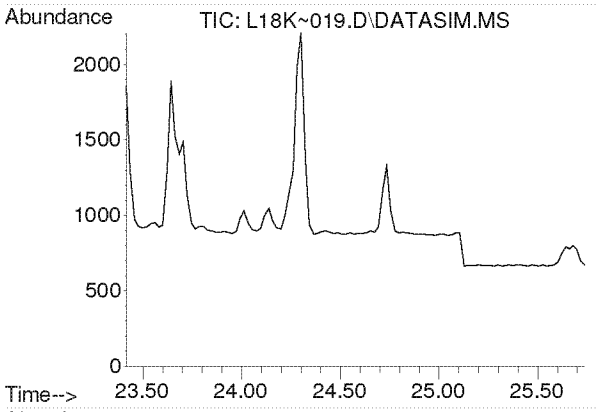
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.19 min

Lab File: L18K~019.D
Acq: 28 Nov 2018 4:18 am

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.9



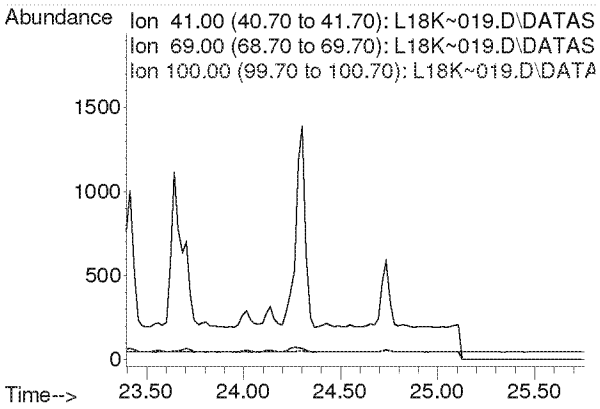


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.55 min

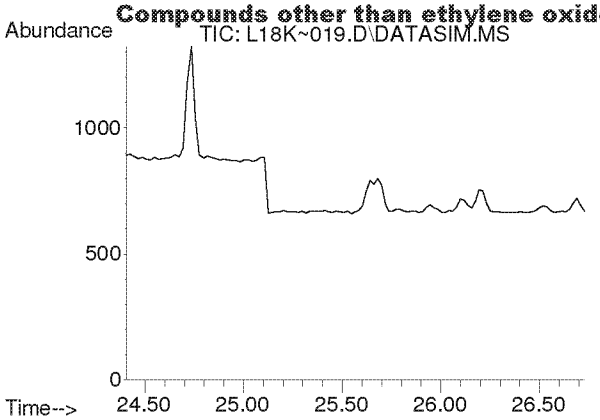
Lab File: L18K~019.D
Acq: 28 Nov 2018 4:18 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	20.0
100	5.1



Compounds other than ethylene oxide were not quantitated.

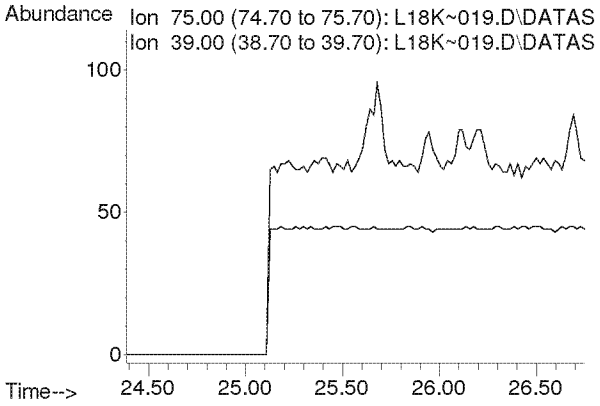


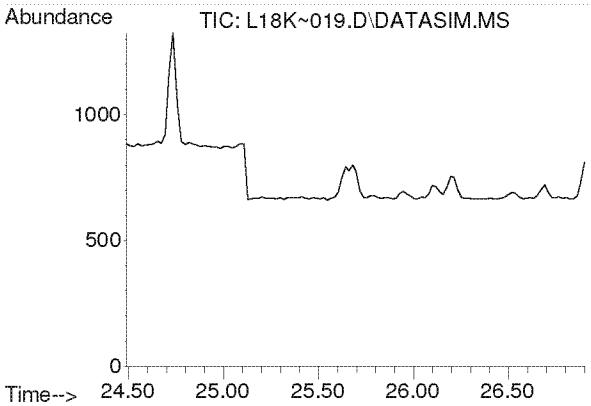
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.54 min

Lab File: L18K~019.D
Acq: 28 Nov 2018 4:18 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	55.6



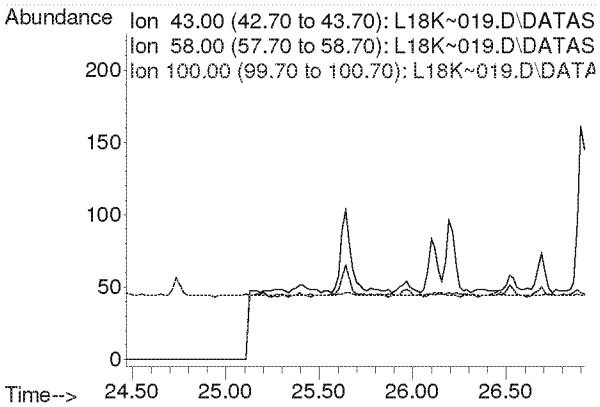


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.62 min

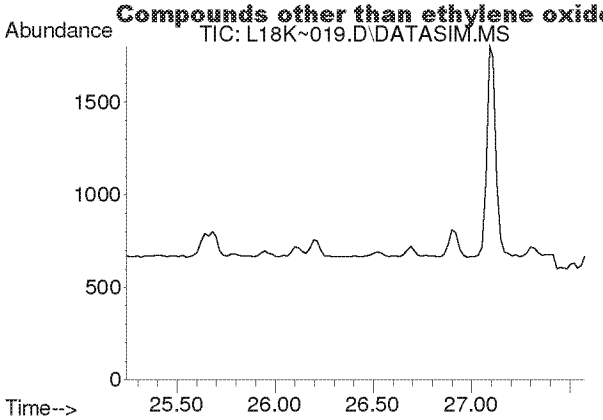
Lab File: L18K~019.D
Acq: 28 Nov 2018 4:18 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	33.3
100	8.0



Compounds other than ethylene oxide were not quantitated.

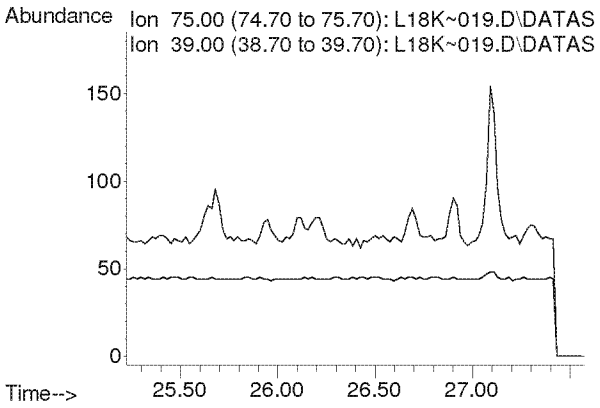


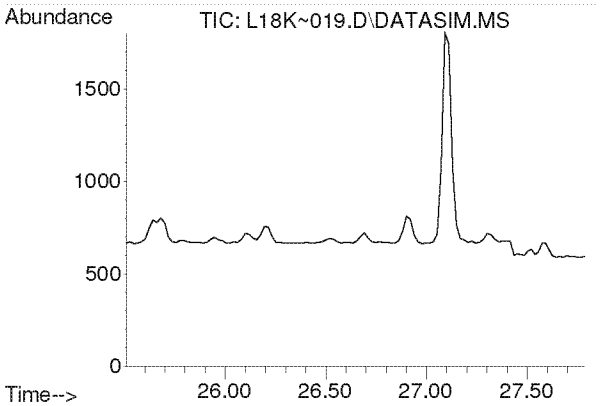
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.38 min

Lab File: L18K~019.D
Acq: 28 Nov 2018 4:18 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	55.3



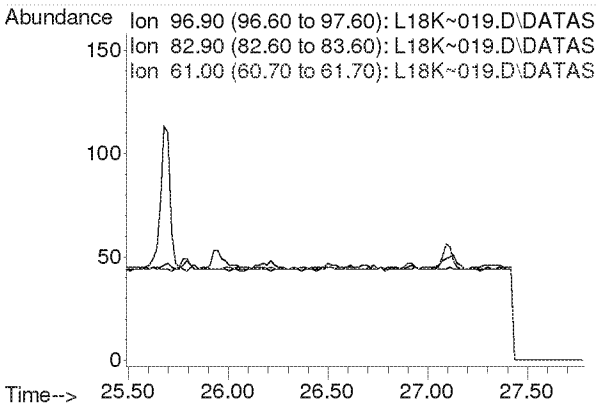


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.64 min

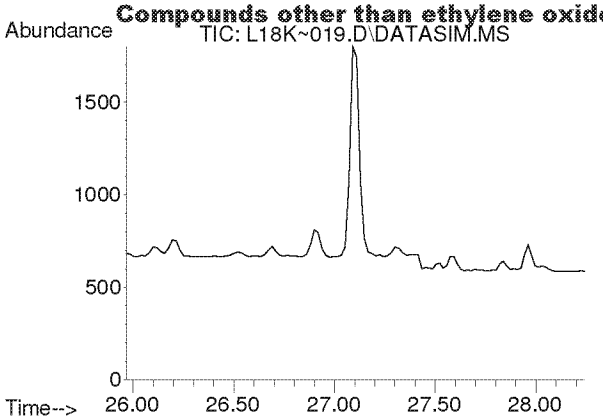
Lab File: L18K~019.D
Acq: 28 Nov 2018 4:18 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	95.3
61	64.6



Compounds other than ethylene oxide were not quantitated.

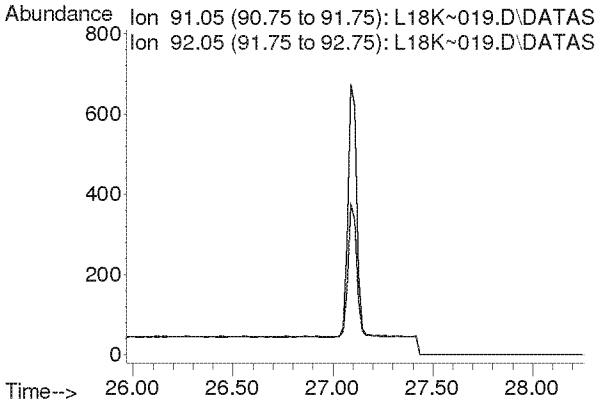


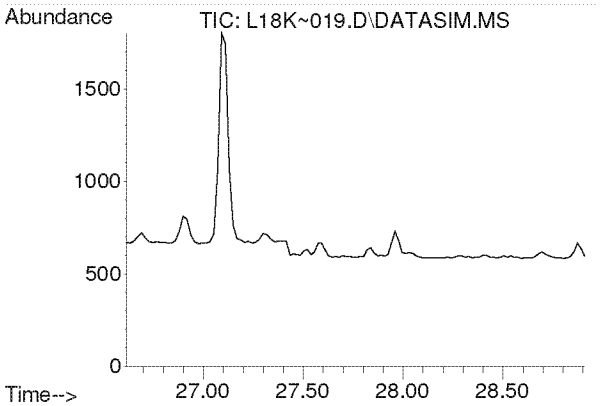
#44
Toluene
Concen: N.D.
Expected RT: 27.11 min

Lab File: L18K~019.D
Acq: 28 Nov 2018 4:18 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.1



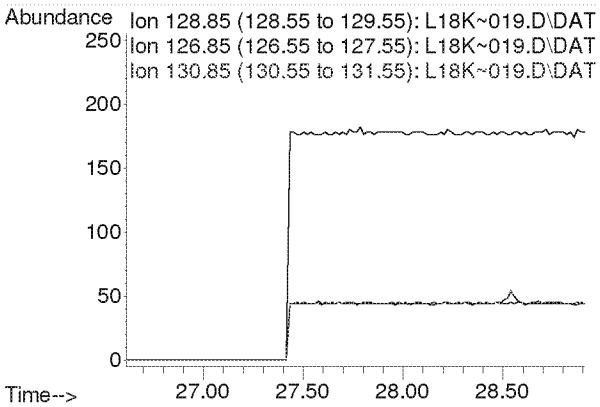


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.76 min

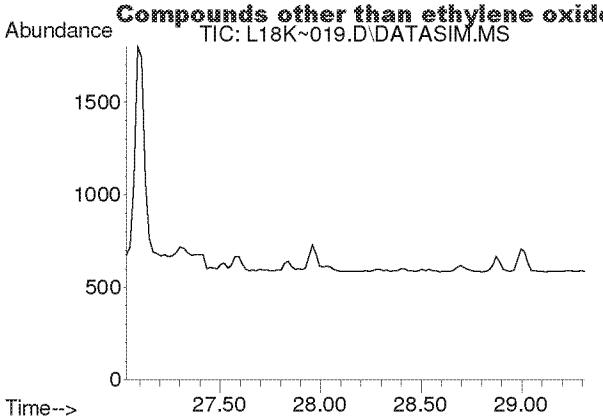
Lab File: L18K~019.D
Acq: 28 Nov 2018 4:18 am

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

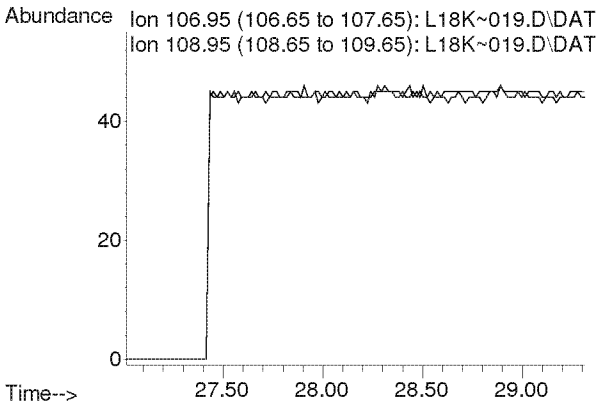


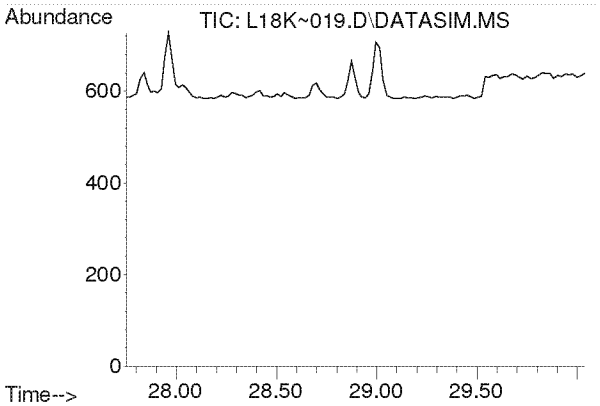
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.17 min

Lab File: L18K~019.D
Acq: 28 Nov 2018 4:18 am

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	93.8



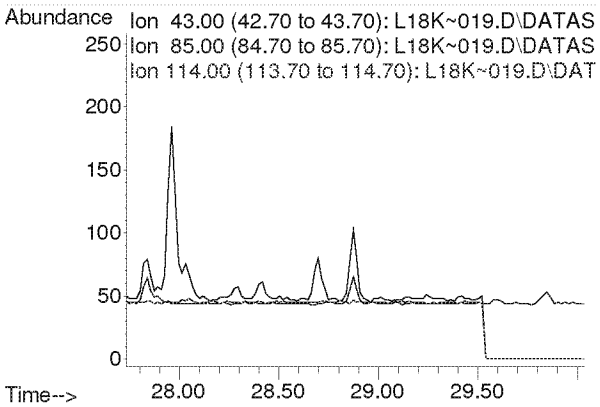


#47
n-Octane
Concen: N.D.
Expected RT: 28.89 min

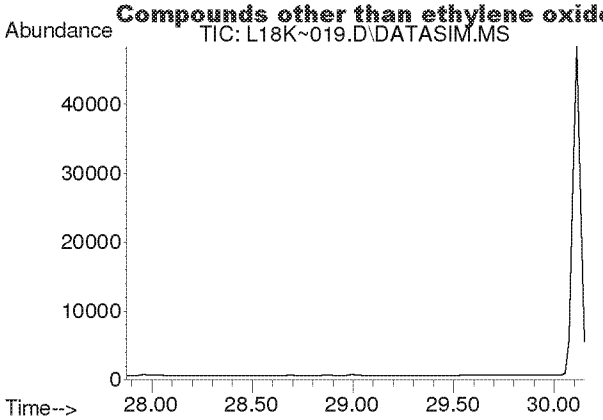
Lab File: L18K~019.D
Acq: 28 Nov 2018 4:18 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	37.8
114	2.4



Compounds other than ethylene oxide were not quantitated.

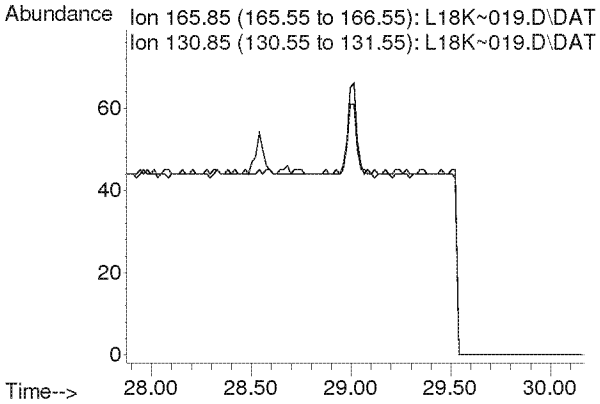


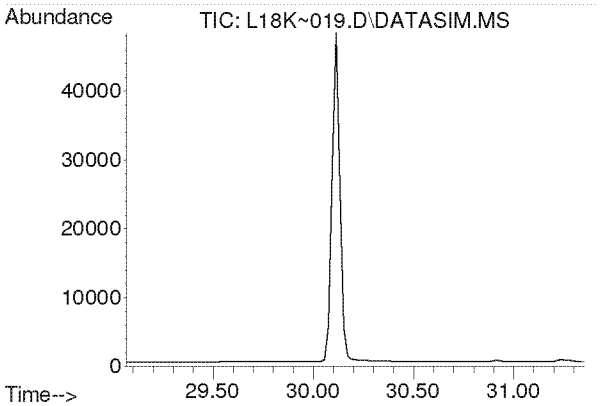
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.02 min

Lab File: L18K~019.D
Acq: 28 Nov 2018 4:18 am

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	78.7



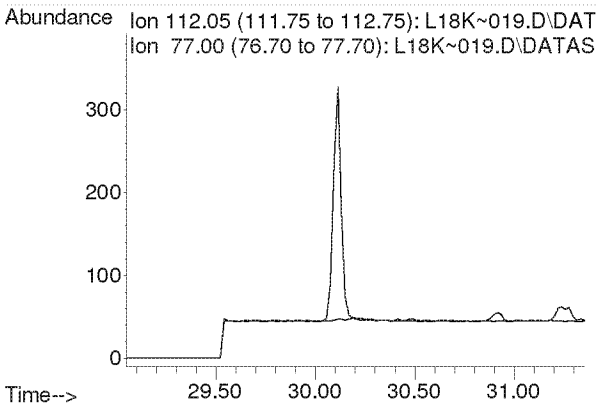


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.20 min

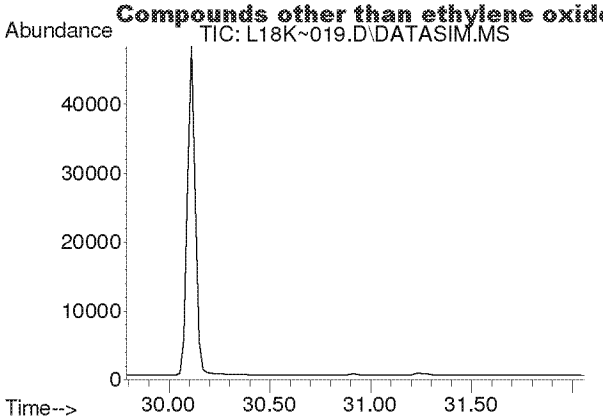
Lab File: L18K~019.D
Acq: 28 Nov 2018 4:18 am

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.3



Compounds other than ethylene oxide were not quantitated.

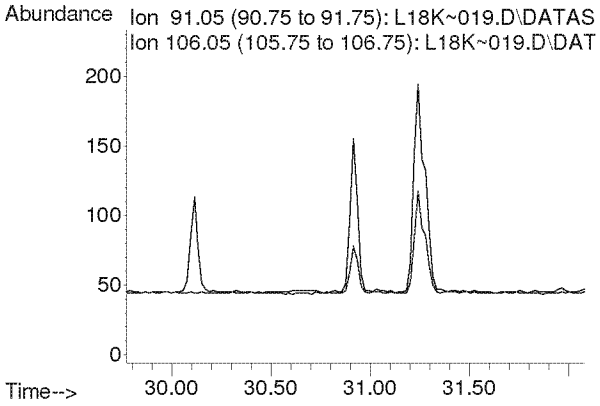


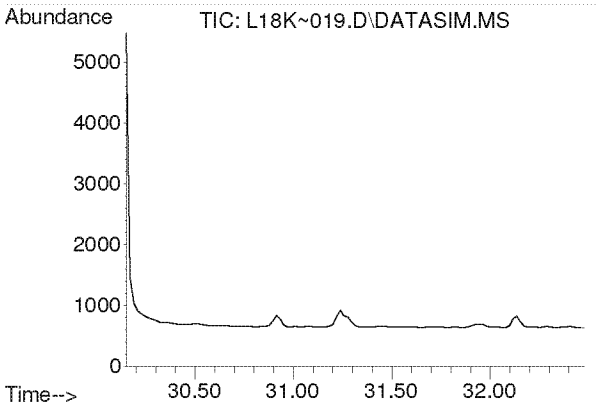
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.93 min

Lab File: L18K~019.D
Acq: 28 Nov 2018 4:18 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	31.8



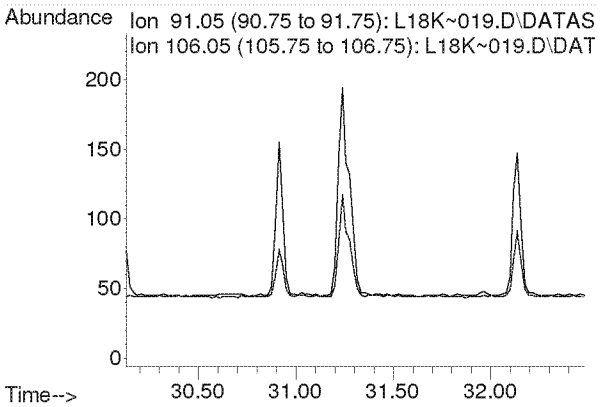


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.29 min

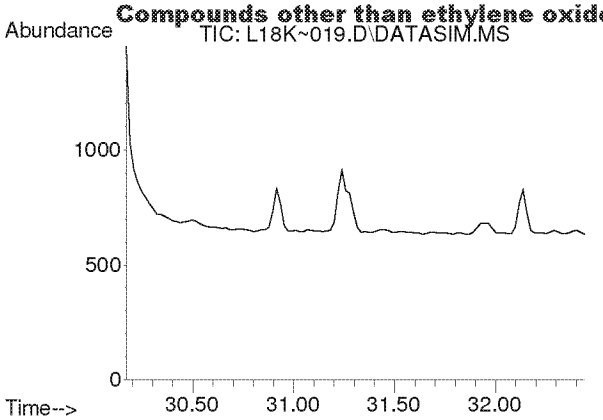
Lab File: L18K~019.D
Acq: 28 Nov 2018 4:18 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.4



Compounds other than ethylene oxide were not quantitated.

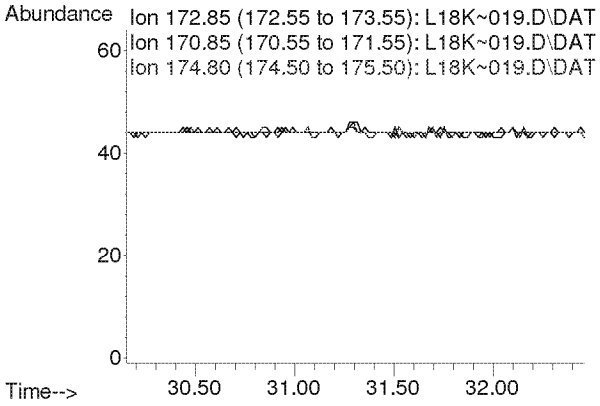


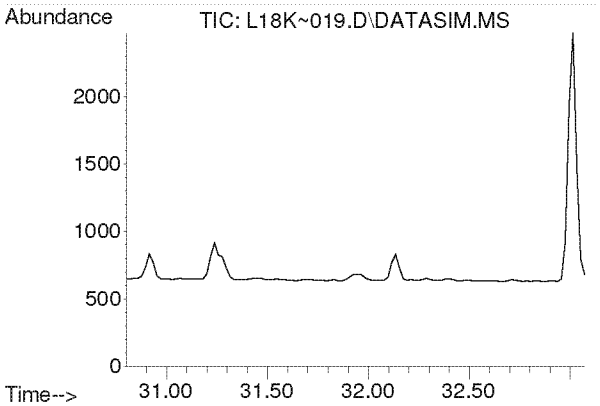
#52
Bromoform
Concen: N.D.
Expected RT: 31.30 min

Lab File: L18K~019.D
Acq: 28 Nov 2018 4:18 am

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.4
175	49.0



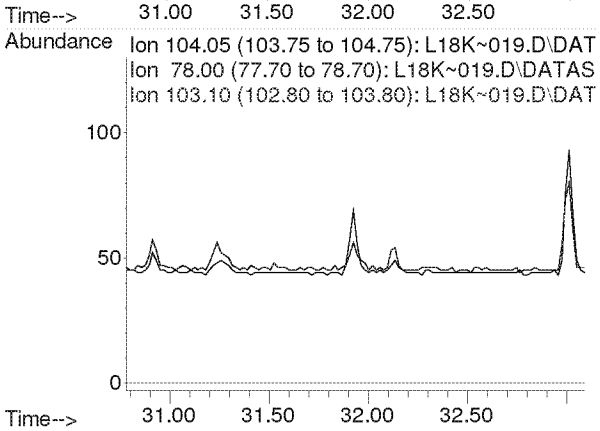


#53
Styrene
Concen: N.D.
Expected RT: 31.94 min

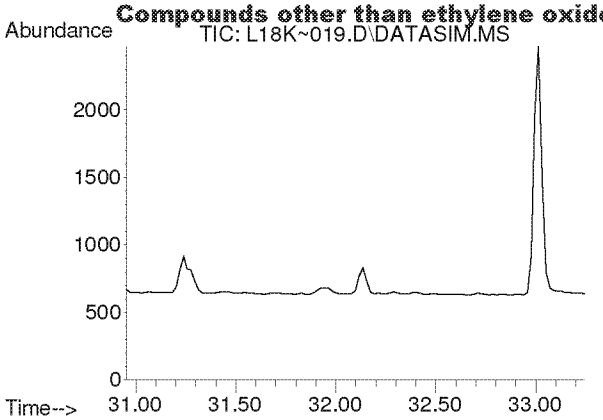
Lab File: L18K~019.D
Acq: 28 Nov 2018 4:18 am

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	45.7
103	0.0



Compounds other than ethylene oxide were not quantitated.

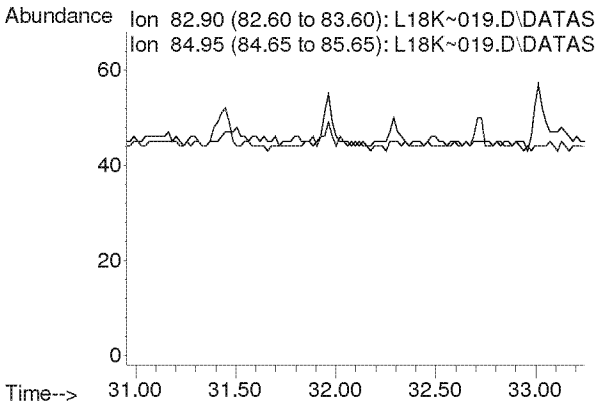


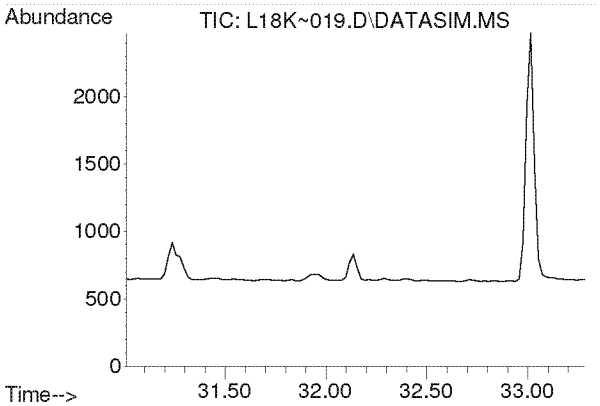
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.09 min

Lab File: L18K~019.D
Acq: 28 Nov 2018 4:18 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.3



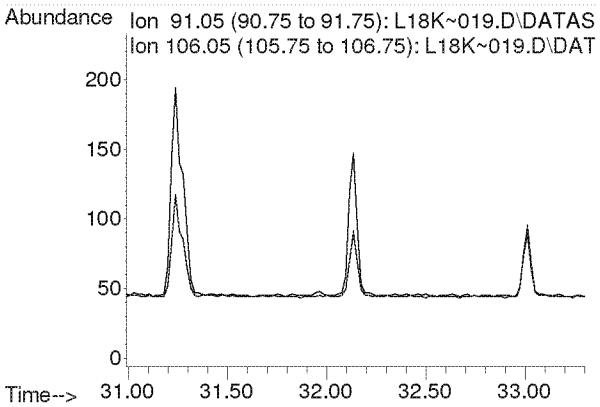


#55
o-Xylene
Concen: N.D.
Expected RT: 32.15 min

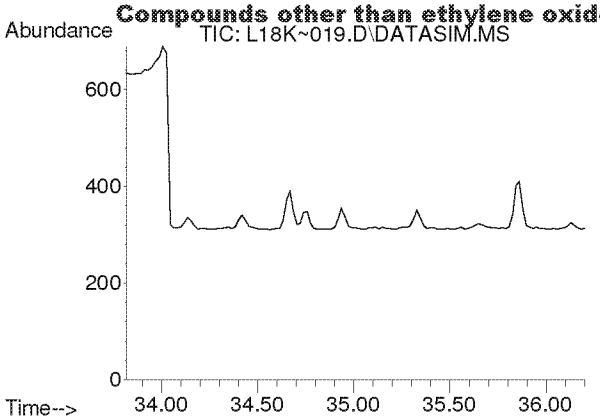
Lab File: L18K~019.D
Acq: 28 Nov 2018 4:18 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.5



Compounds other than ethylene oxide were not quantitated.

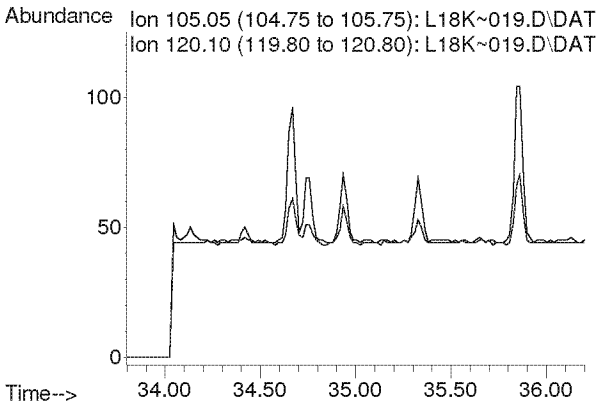


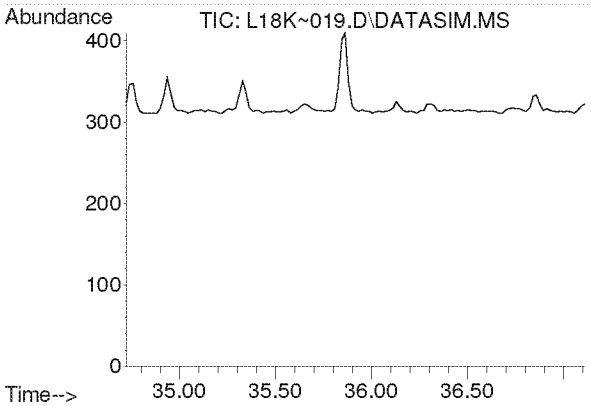
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.95 min

Lab File: L18K~019.D
Acq: 28 Nov 2018 4:18 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	45.6



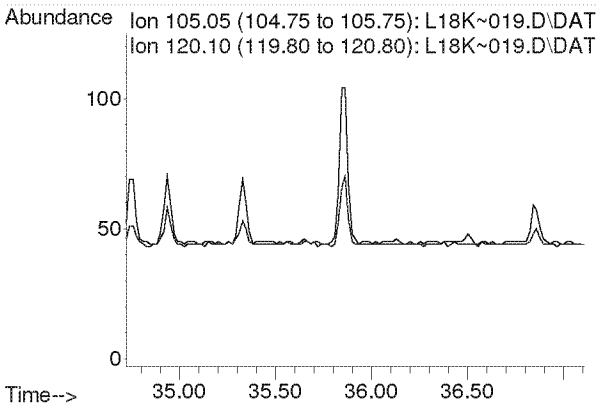


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.87 min

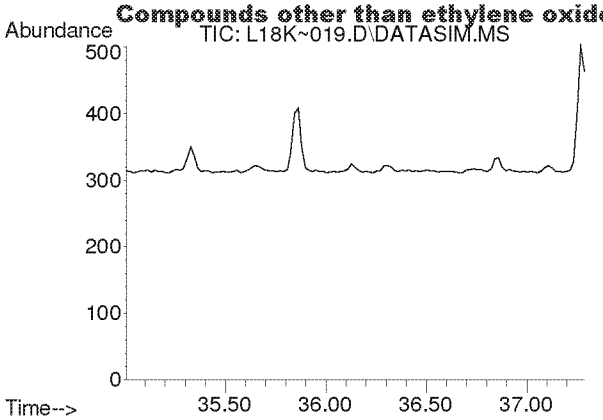
Lab File: L18K~019.D
Acq: 28 Nov 2018 4:18 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	43.4



Compounds other than ethylene oxide were not quantitated.

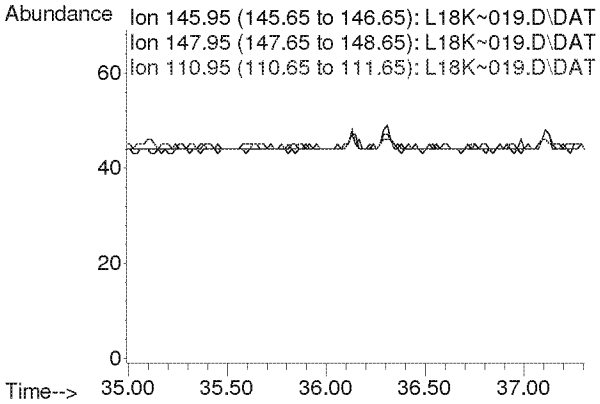


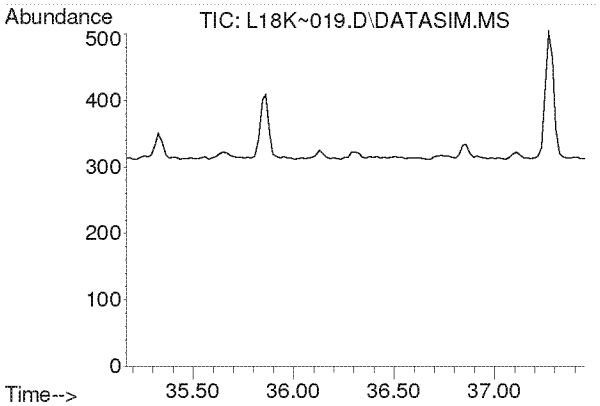
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.15 min

Lab File: L18K~019.D
Acq: 28 Nov 2018 4:18 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	41.1



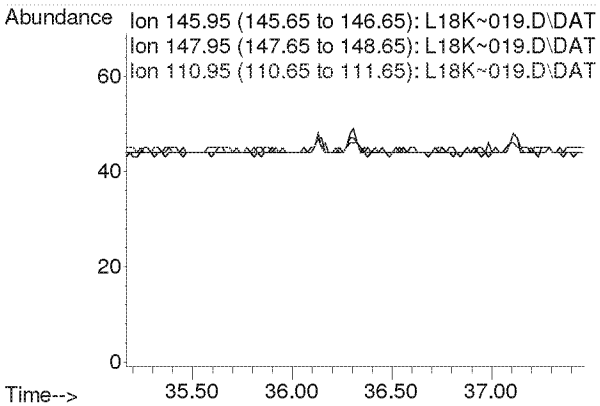


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.31 min

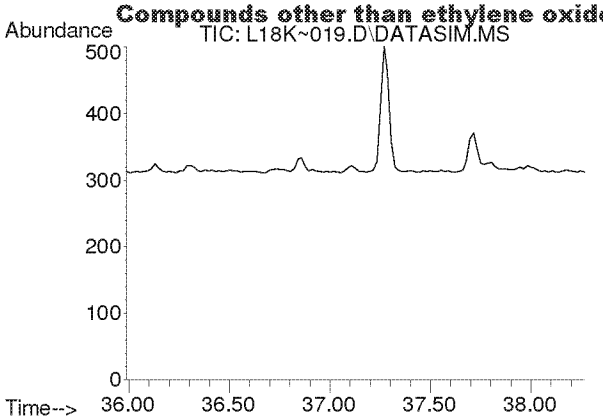
Lab File: L18K~019.D
Acq: 28 Nov 2018 4:18 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	39.8



Compounds other than ethylene oxide were not quantitated.

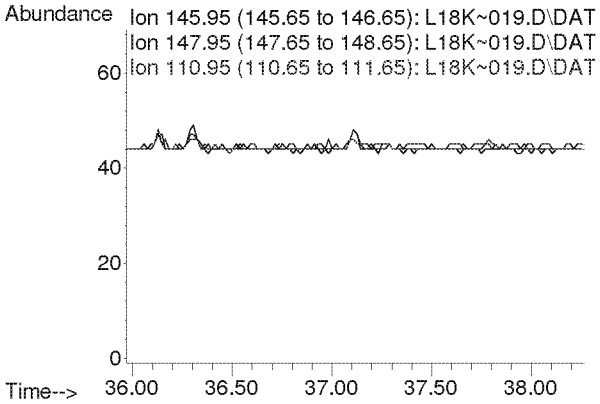


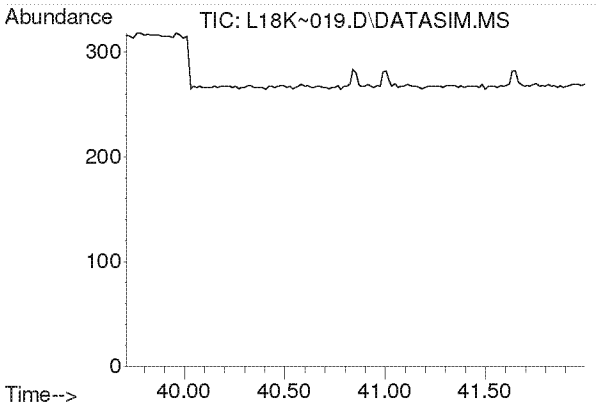
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.12 min

Lab File: L18K~019.D
Acq: 28 Nov 2018 4:18 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	63.9
111	41.8



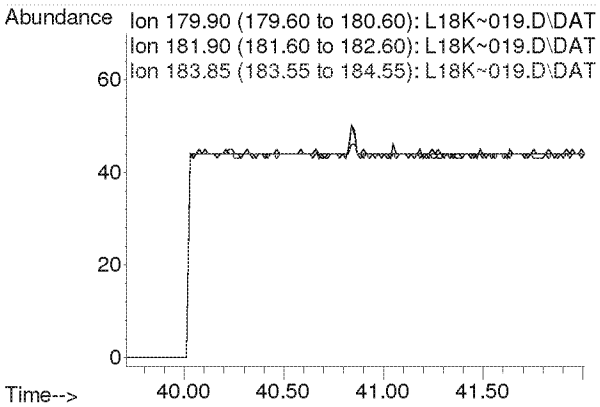


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.85 min

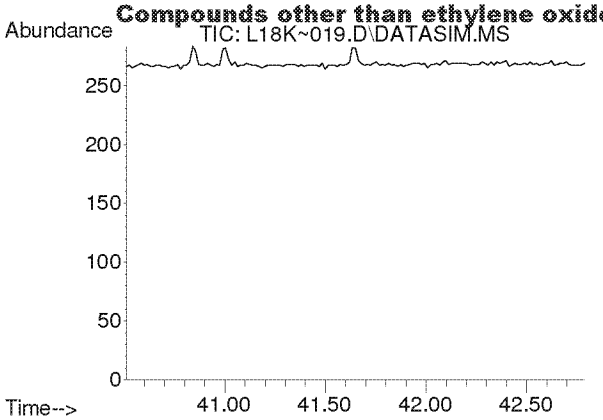
Lab File: L18K~019.D
Acq: 28 Nov 2018 4:18 am

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	95.6
184	30.5



Compounds other than ethylene oxide were not quantitated.

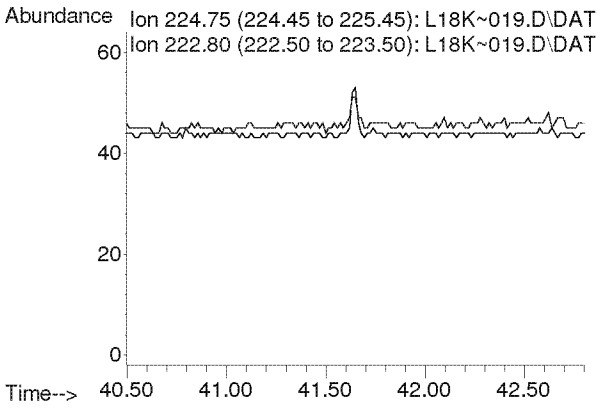


#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.65 min

Lab File: L18K~019.D
Acq: 28 Nov 2018 4:18 am

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.8



Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : Y:\MASS SPEC 1 DATA\L18K~\
Data File : L18K~020.D
Acq On : 28 Nov 2018 5:20 am (#1); 28-Nov-18, 05:15:24 (#2)
Operator : MAH
Sample : 8112113-09
Misc : WEST NEIGHBORHOOD 1/19/18 (Sig #1); (Sig #2)
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Jan 23 14:22:10 2019
Quant Method : C:\msdchem\1\METHODS\8100002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Fri Oct 12 09:33:42 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.993	66	46109	4.8000 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.151	114	108996	5.0200 ppbv	-0.02
43) IS-Chlorobenzene-d5	30.116	117	75388	4.7700 ppbv	-0.01

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	12.485	29	173m	0.0691 ppbv	
10) Bromomethane	0.000	94	0	N.D. d	
11) Chloroethane	0.000	64	0	N.D.	
12) Acetonitrile	0.000	41	0	N.D. d	
13) Acrolein	0.000	56	0	N.D. d	
14) Trichlorofluoromethane	0.000	101	0	N.D. d	
15) Acrylonitrile	0.000	53	0	N.D. d	
16) 1,1-Dichloroethene	0.000	61	0	N.D.	
17) Methylene Chloride	0.000	49	0	N.D. d	
18) Carbon Disulfide	0.000	76	0	N.D. d	
19) Trichlorotrifluoroethane	0.000	101	0	N.D. d	
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.	
21) 1,1-Dichloroethane	0.000	63	0	N.D.	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D. d	
23) Chloroprene	0.000	53	0	N.D. d	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D. d	
25) Bromochloromethane	0.000	128	0	N.D.	
26) Chloroform	0.000	83	0	N.D. d	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D.	
28) 1,2-Dichloroethane	0.000	62	0	N.D. d	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D.	
31) Benzene	0.000	78	0	N.D. d	
32) Carbon Tetrachloride	0.000	117	0	N.D. d	
33) tert-Amyl Methyl Ether	0.000	73	0	N.D.	
34) 1,2-Dichloropropane	0.000	63	0	N.D.	
35) Ethyl Acrylate	0.000	55	0	N.D.	
36) Bromodichloromethane	0.000	83	0	N.D.	
37) Trichloroethylene	0.000	130	0	N.D.	
38) Methyl Methacrylate	0.000	41	0	N.D. d	
39) cis-1,3-Dichloropropene	0.000	75	0	N.D.	
40) Methyl Isobutyl Ketone	0.000	43	0	N.D. d	
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.	
44) Toluene	0.000	91	0	N.D. d	
45) Dibromochloromethane	0.000	129	0	N.D.	
46) 1,2-Dibromoethane	0.000	107	0	N.D.	
47) n-Octane	0.000	43	0	N.D. d	
48) Tetrachloroethylene	0.000	166	0	N.D. d	
49) Chlorobenzene	0.000	112	0	N.D.	
50) Ethylbenzene	0.000	91	0	N.D. d	

Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L18K~\
Data File : L18K~020.D
Acq On : 28 Nov 2018 5:20 am (#1); 28 Nov 2018 5:15 am (#2)
Operator : MAH
Sample : 8112113-09
Misc : WEST NEIGHBORHOOD 1/19/18 (Sig #1); (Sig #2)
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Nov 28 08:07:50 2018
Quant Method : C:\msdchem\1\METHODS\8100002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Fri Oct 12 09:33:42 2018
Response via : Initial Calibration

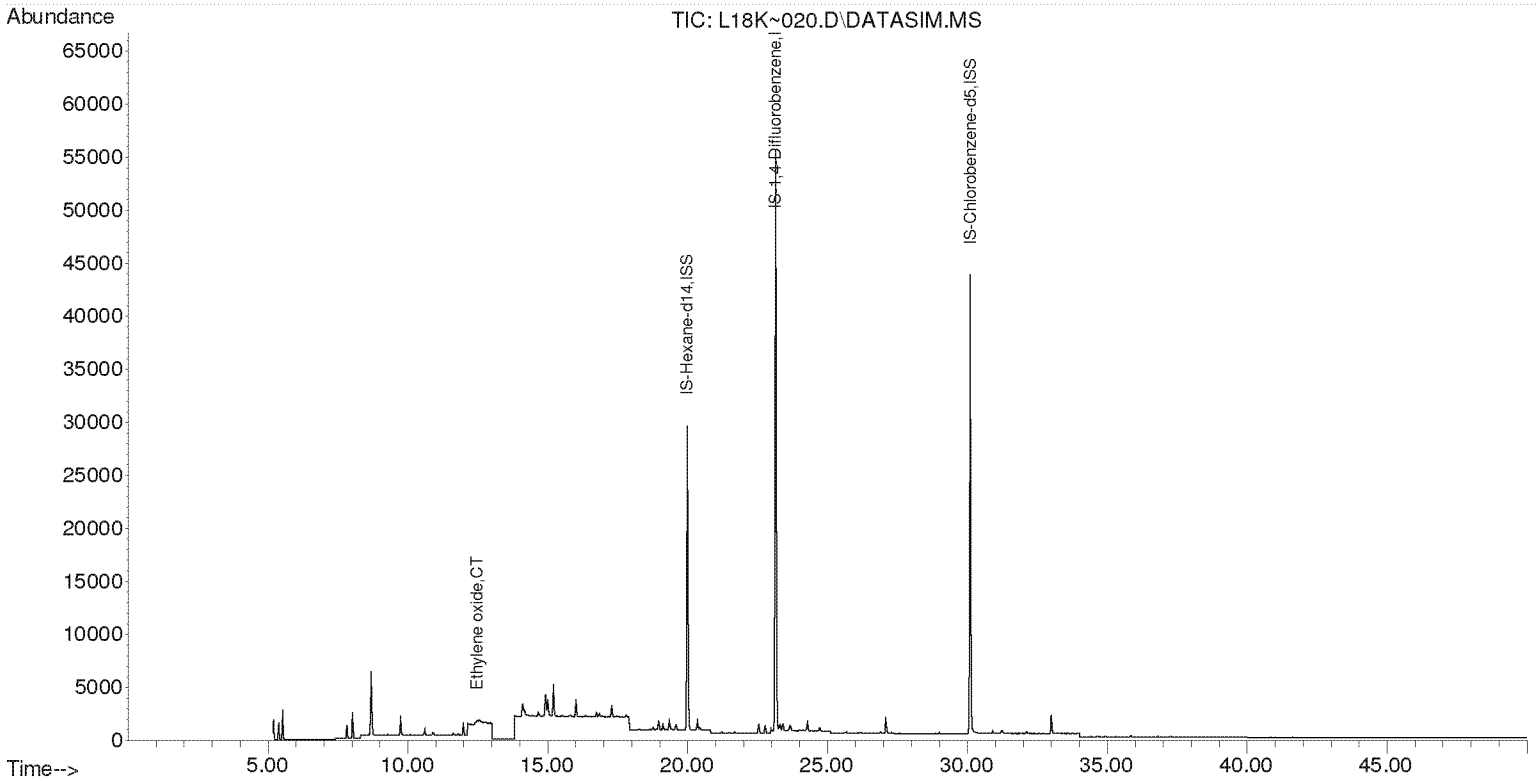
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
49) Chlorobenzene	0.000	112	0	N.D.	
50) Ethylbenzene	0.000	91	0	N.D.	d
51) m,p-Xylene	0.000	91	0	N.D.	d
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	d
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D.	d
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	d
57) 1,2,4-Trimethylbenzene	0.000	105	0	N.D.	d
58) m-Dichlorobenzene	0.000	146	0	N.D.	
59) p-Dichlorobenzene	0.000	146	0	N.D.	
60) o-Dichlorobenzene	0.000	146	0	N.D.	
61) 1,2,4-Trichlorobenzene	0.000	180	0	N.D.	
62) Hexachloro-1,3-butadiene	0.000	225	0	N.D.	

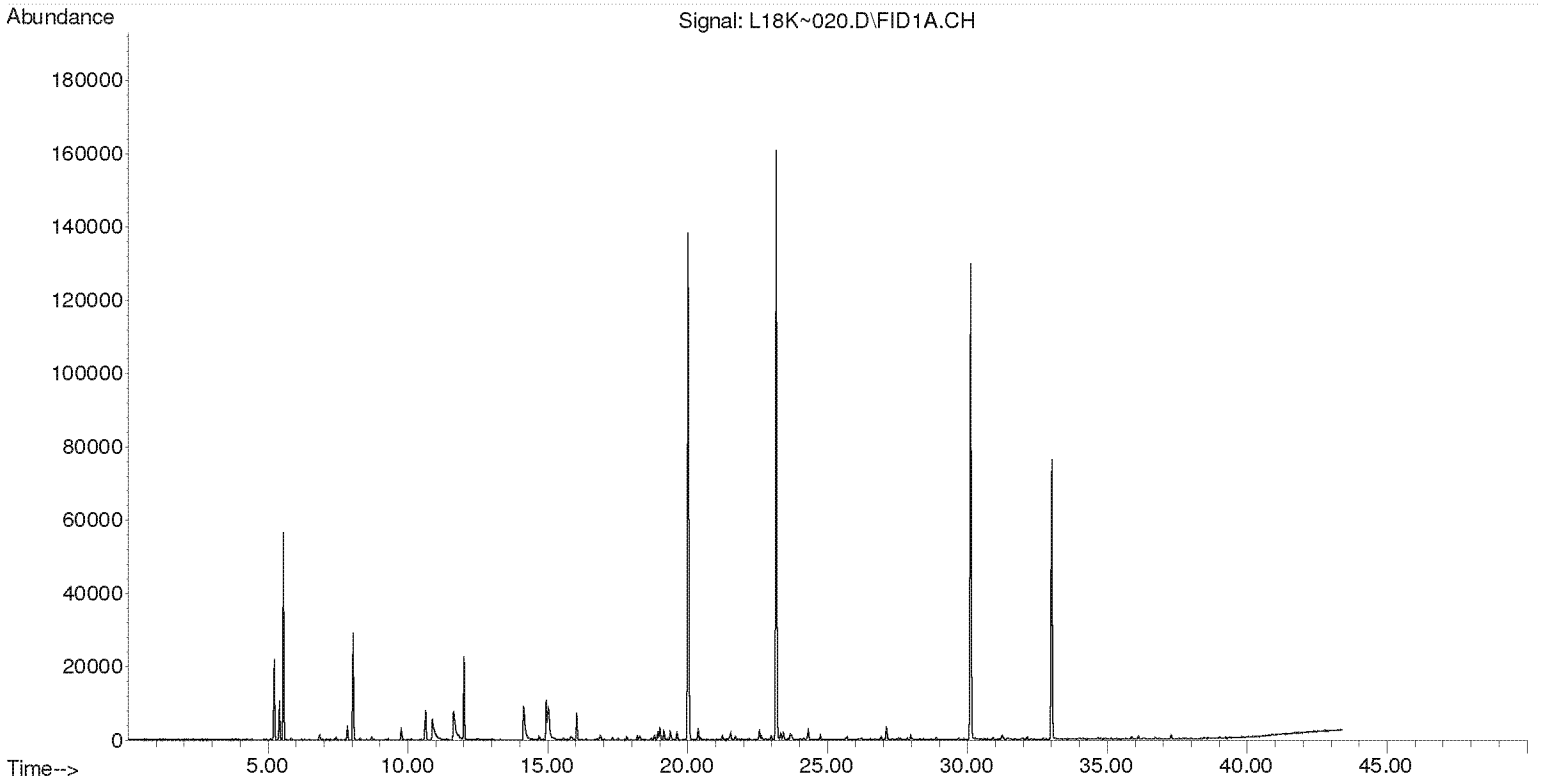
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Compounds other than ethylene oxide were not quantitated.

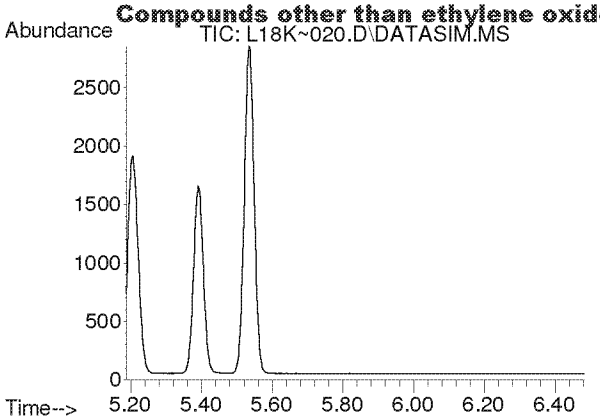
Data Path : Y:\MASS SPEC 1 DATA\L18K~\
Data File : L18K~020.D
Acq On : 28 Nov 2018 5:20 am (#1); 28 Nov 2018 5:15 am (#2)
Operator : MAH
Sample : 8112113-09
Misc : WEST NEIGHBORHOOD 1/19/18 (Sig #1); (Sig #2)
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Nov 28 08:07:50 2018
Quant Method : C:\msdchem\1\METHODS\8100002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Fri Oct 12 09:33:42 2018
Response via : Initial Calibration





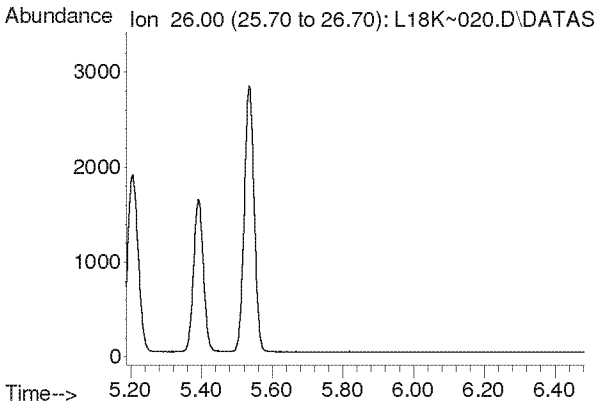
Compounds other than ethylene oxide were not quantitated.

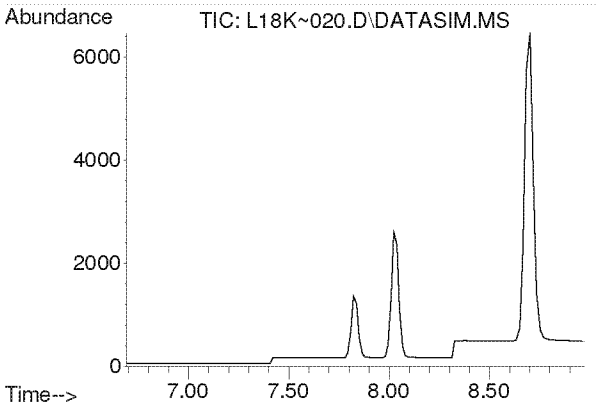


#2
Acetylene
Concen: N.D.
Expected RT: 5.41 min

Lab File: L18K~020.D
Acq: 28 Nov 2018 5:20 am

Tgt Ion: 26



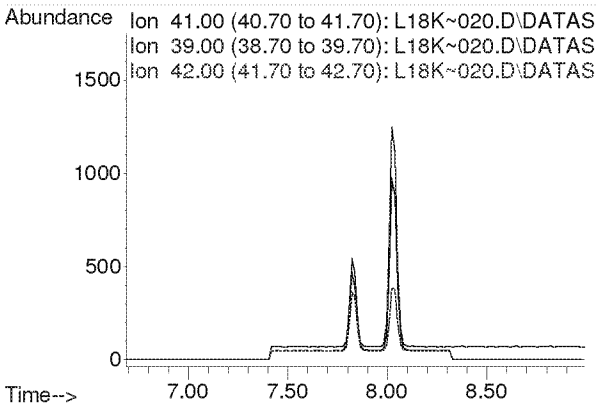


#3
Propylene
Concen: N.D.
Expected RT: 7.84 min

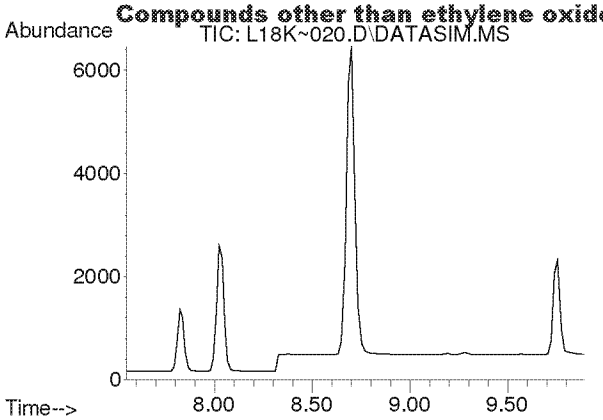
Lab File: L18K~020.D
Acq: 28 Nov 2018 5:20 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	81.2
42	65.4



Compounds other than ethylene oxide were not quantitated.

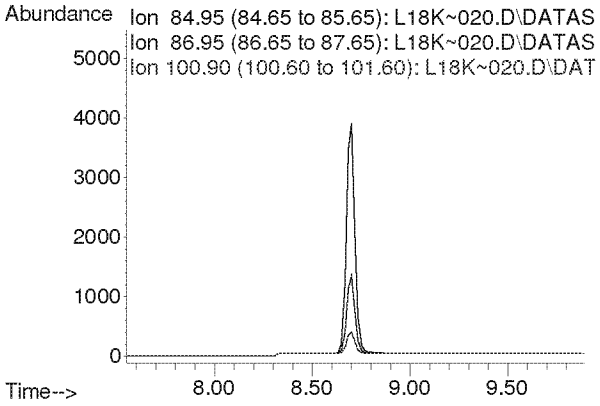


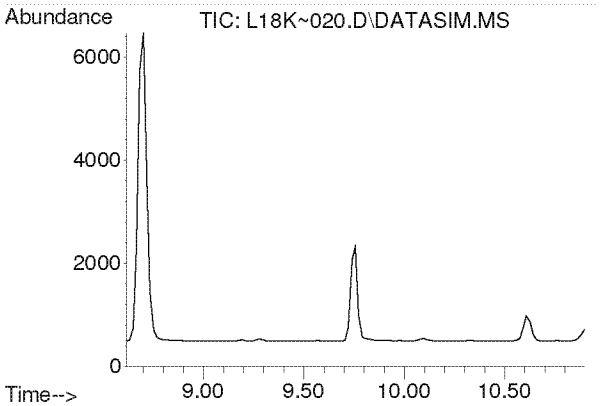
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.69 min

Lab File: L18K~020.D
Acq: 28 Nov 2018 5:20 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.3
101	9.0



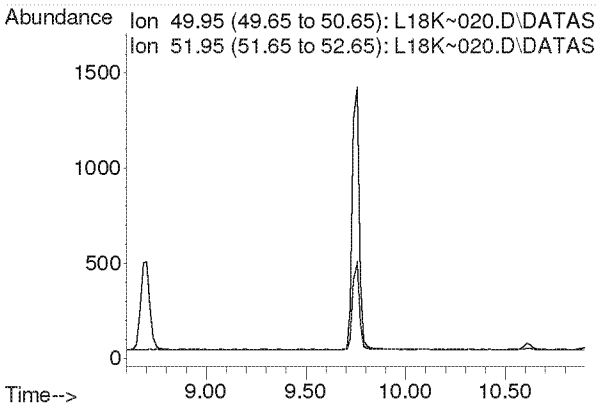


#5
Chloromethane
Concen: N.D.
Expected RT: 9.76 min

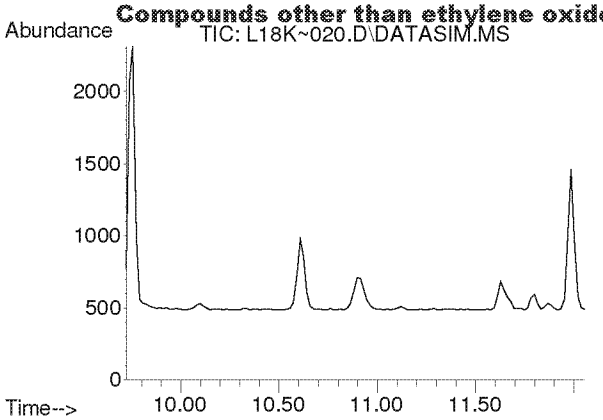
Lab File: L18K~020.D
Acq: 28 Nov 2018 5:20 am

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.2



Compounds other than ethylene oxide were not quantitated.

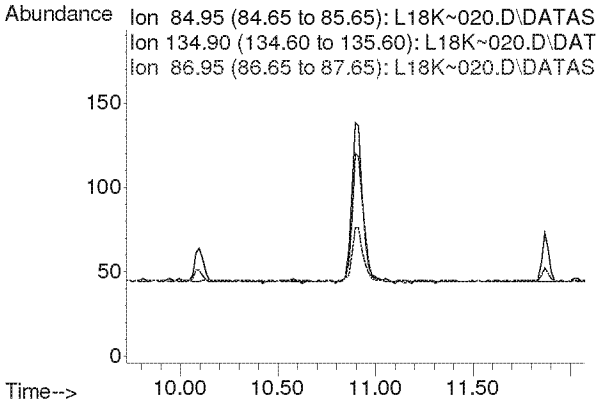


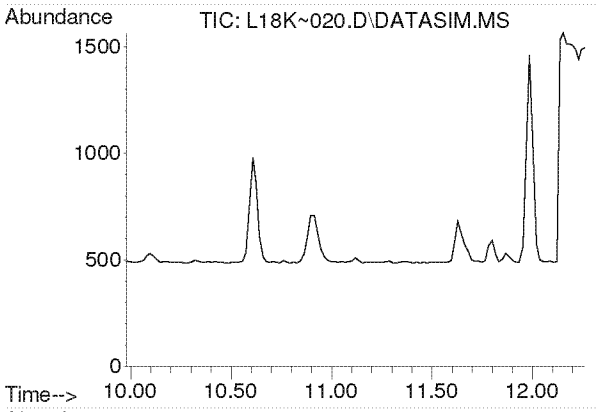
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.87 min

Lab File: L18K~020.D
Acq: 28 Nov 2018 5:20 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.6
87	32.1



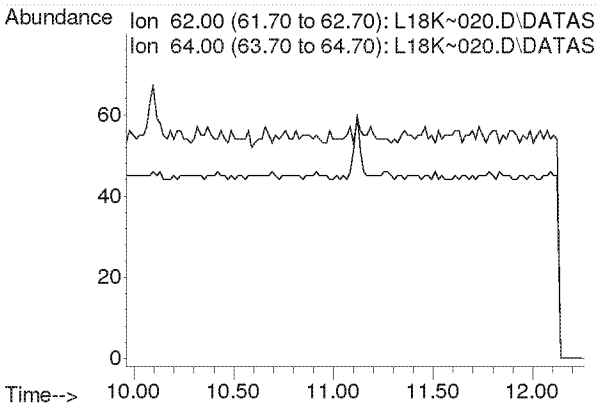


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

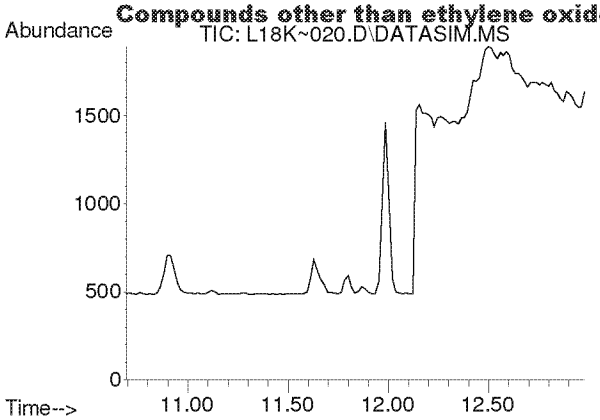
Lab File: L18K~020.D
Acq: 28 Nov 2018 5:20 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	32.0



Compounds other than ethylene oxide were not quantitated.

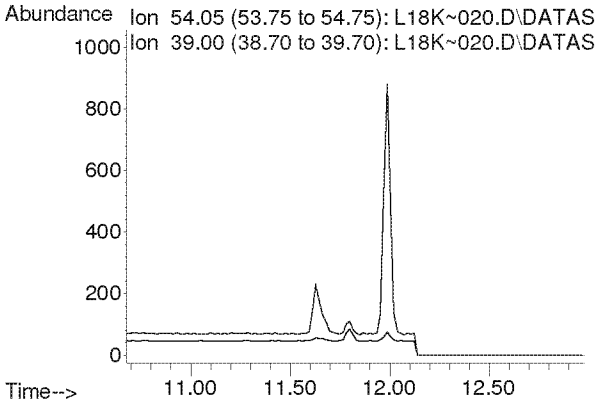


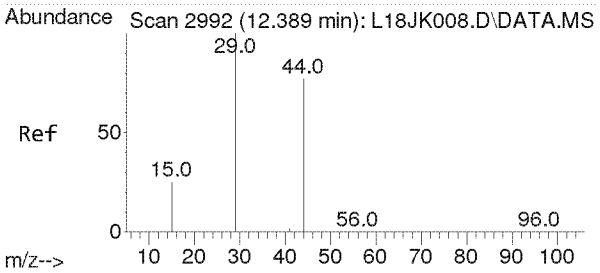
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.79 min

Lab File: L18K~020.D
Acq: 28 Nov 2018 5:20 am

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	108.7

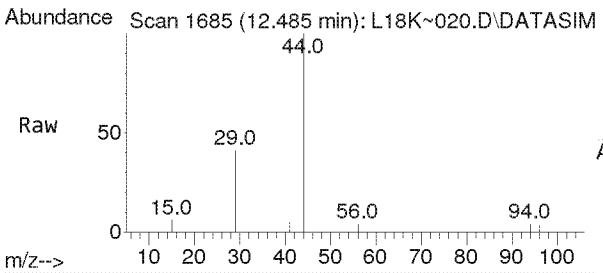


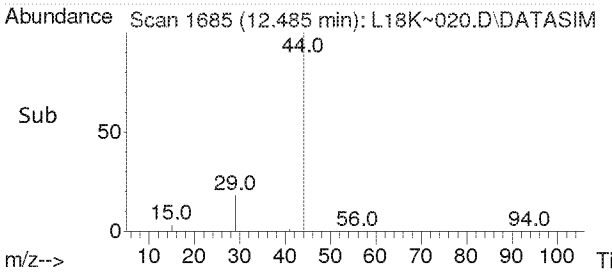


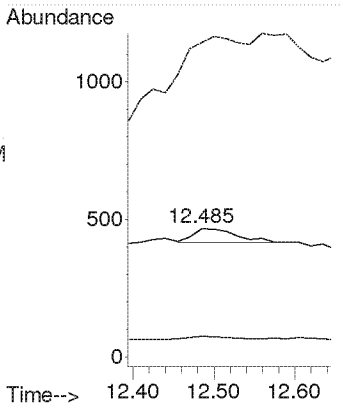
#9
Ethylene oxide
Concen: 0.069 ppbv m
RT: 12.485 min Scan# 1685
Delta R.T. 0.096 min
Lab File: L18K~020.D
Acq: 28 Nov 2018 5:20 am

Tgt Ion: 29 Resp: 173

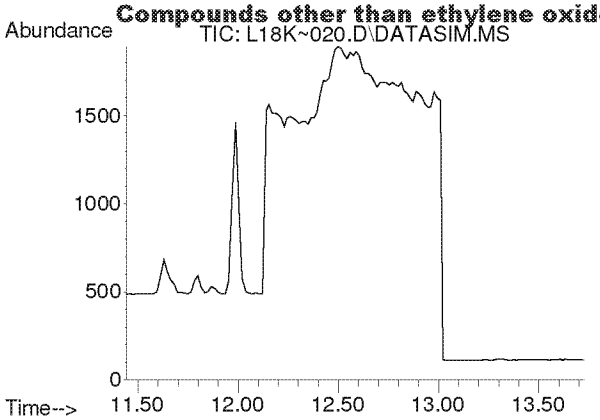
Ion	Ratio	Lower	Upper
29	100		
15	0.0	20.1	30.1#
44	0.0	62.6	93.8#







Compounds other than ethylene oxide were not quantitated.

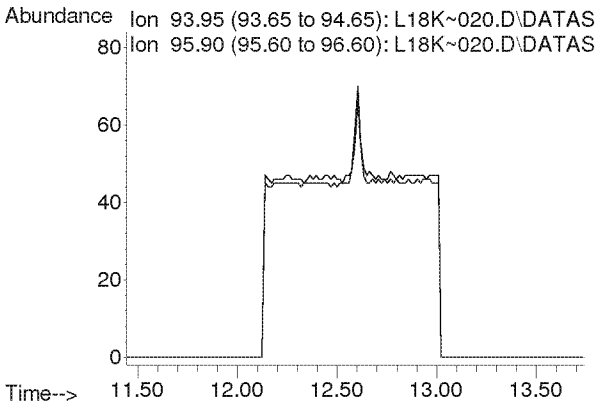


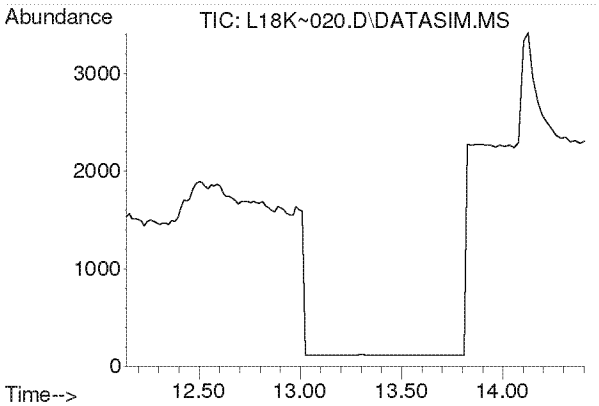
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L18K~020.D
Acq: 28 Nov 2018 5:20 am

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



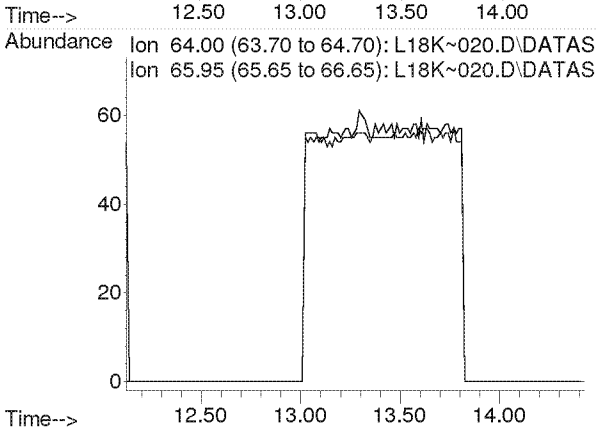


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

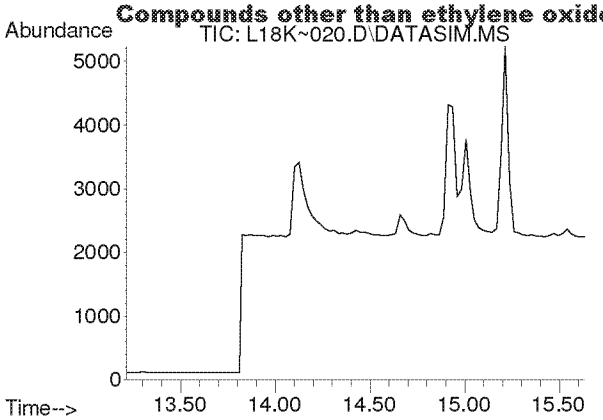
Lab File: L18K~020.D
Acq: 28 Nov 2018 5:20 am

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

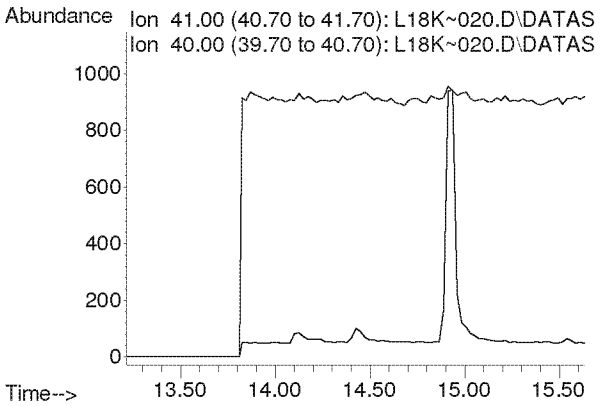


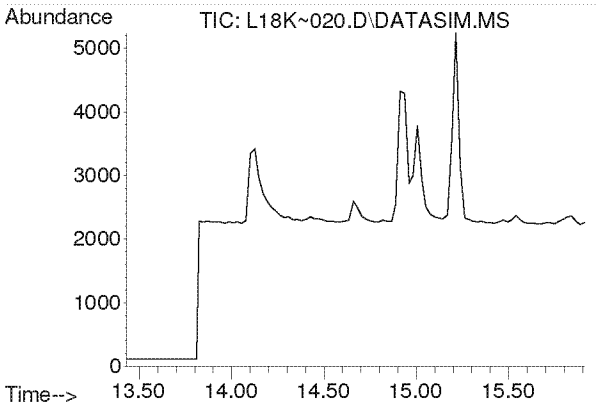
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.34 min

Lab File: L18K~020.D
Acq: 28 Nov 2018 5:20 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	53.9



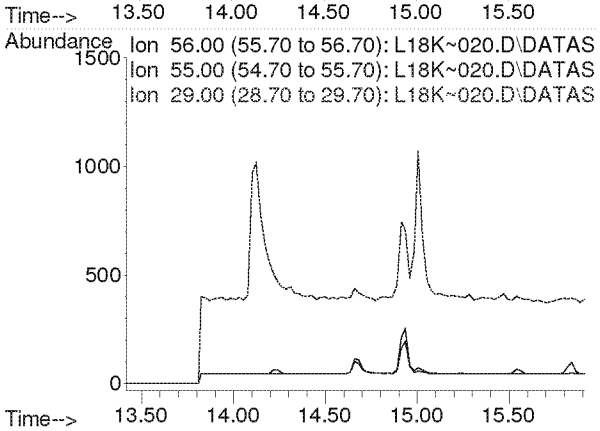


#13
Acrolein
Concen: N.D.
Expected RT: 14.62 min

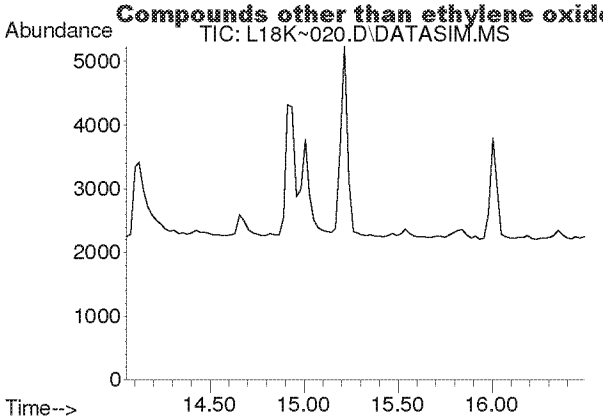
Lab File: L18K~020.D
Acq: 28 Nov 2018 5:20 am

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	77.4
29	61.5



Compounds other than ethylene oxide were not quantitated.

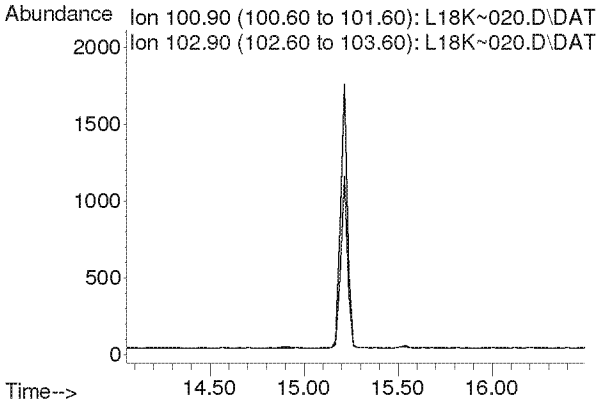


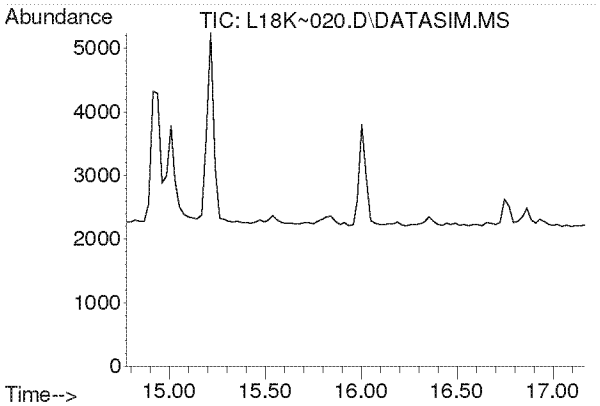
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.20 min

Lab File: L18K~020.D
Acq: 28 Nov 2018 5:20 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.7



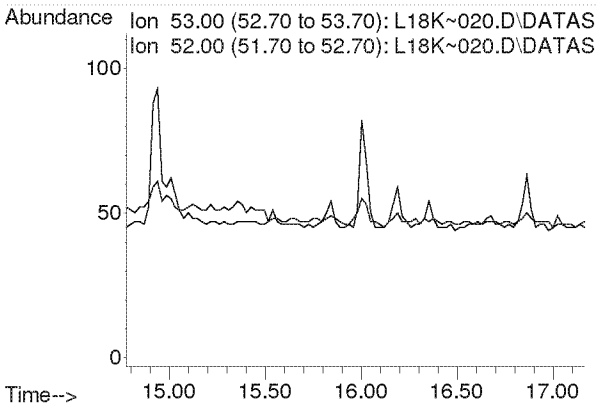


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.92 min

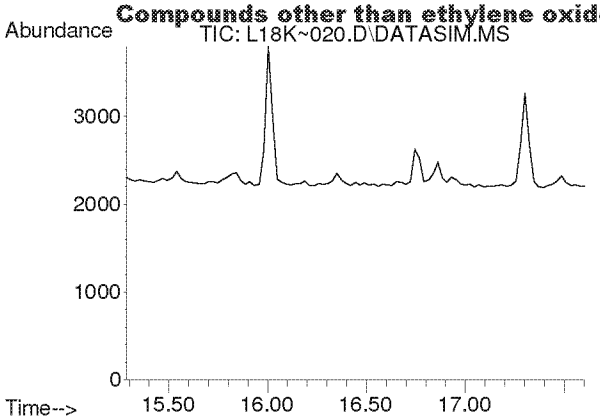
Lab File: L18K~020.D
Acq: 28 Nov 2018 5:20 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	87.1



Compounds other than ethylene oxide were not quantitated.

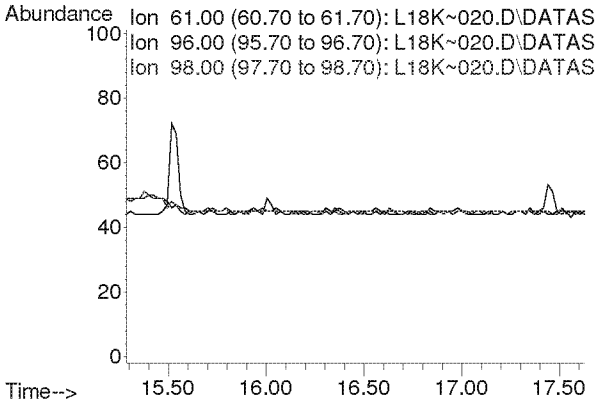


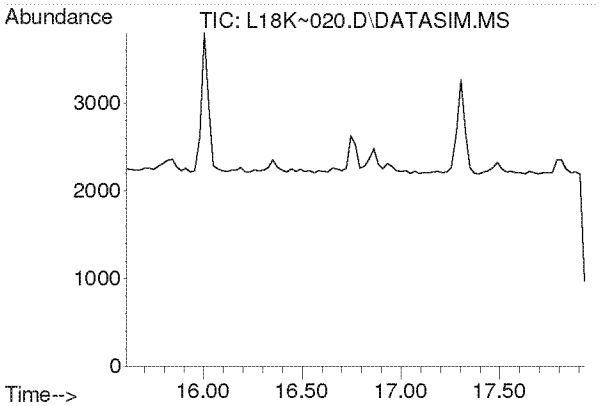
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L18K~020.D
Acq: 28 Nov 2018 5:20 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	57.6
98	36.8



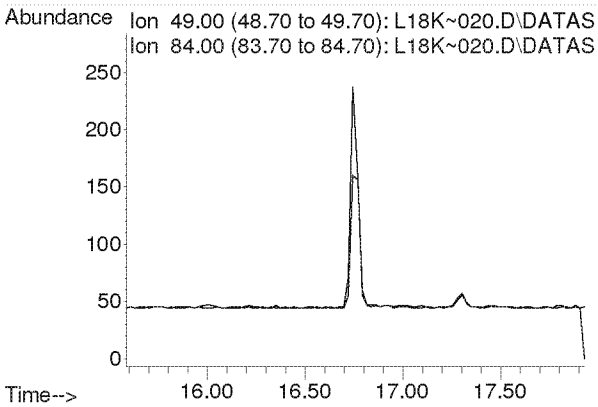


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

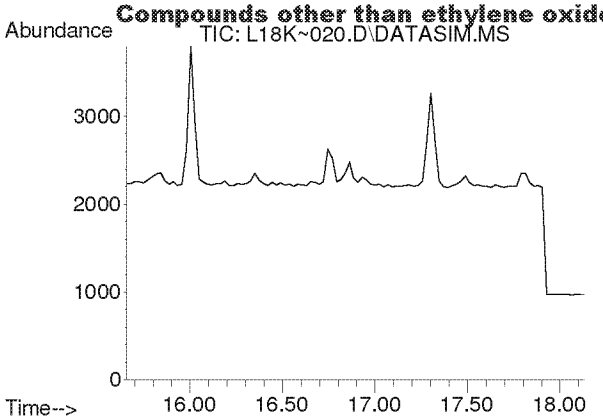
Lab File: L18K~020.D
Acq: 28 Nov 2018 5:20 am

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	74.2



Compounds other than ethylene oxide were not quantitated.

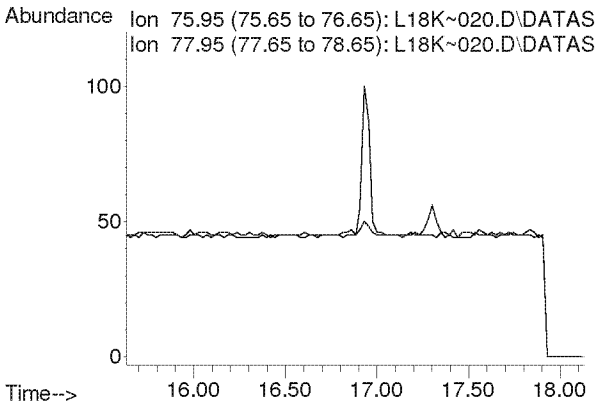


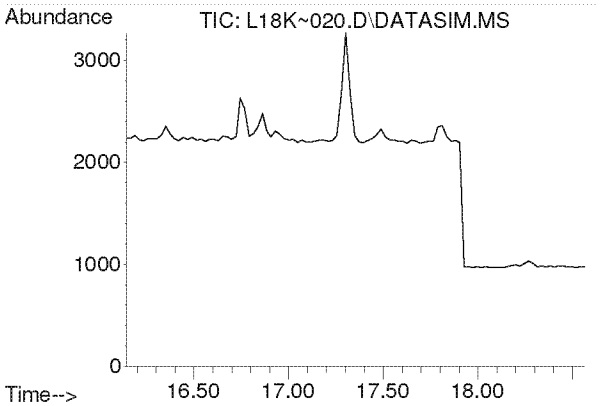
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.94 min

Lab File: L18K~020.D
Acq: 28 Nov 2018 5:20 am

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.1



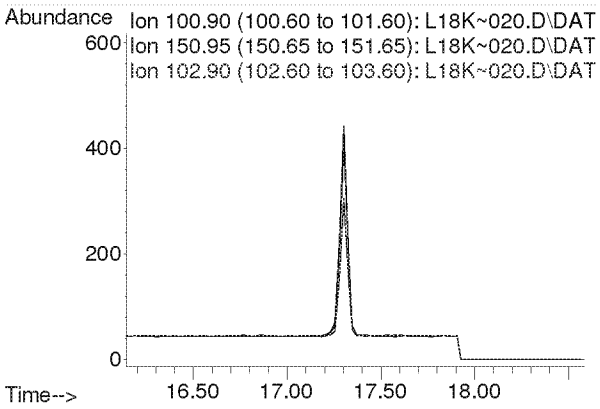


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.29 min

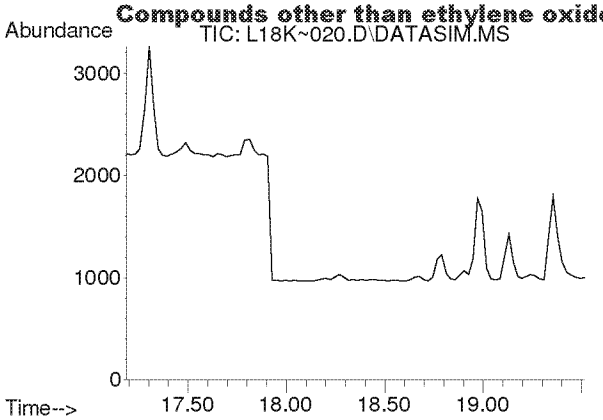
Lab File: L18K~020.D
Acq: 28 Nov 2018 5:20 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	96.0
103	64.3



Compounds other than ethylene oxide were not quantitated.

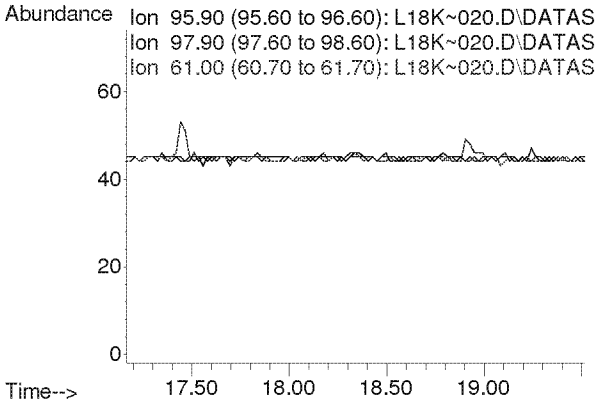


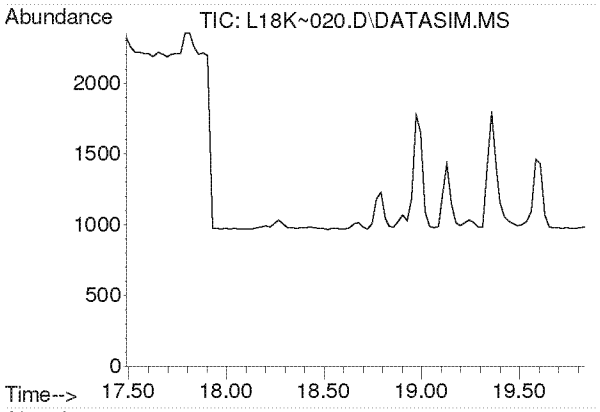
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.33 min

Lab File: L18K~020.D
Acq: 28 Nov 2018 5:20 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	63.6
61	156.3



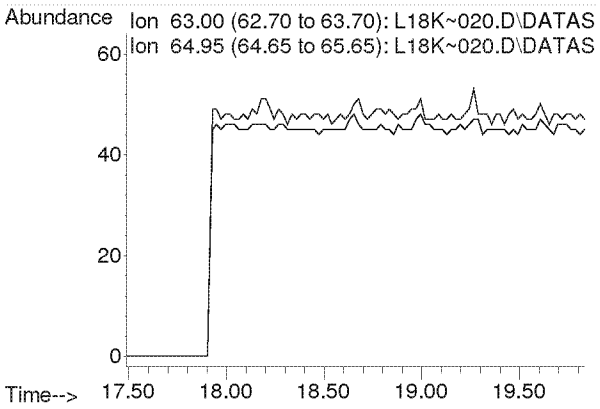


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.64 min

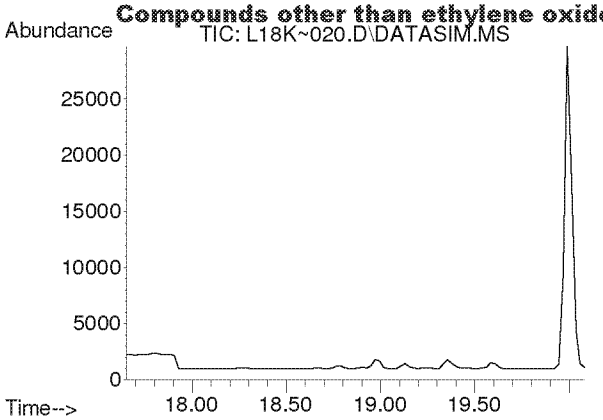
Lab File: L18K~020.D
Acq: 28 Nov 2018 5:20 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	32.1



Compounds other than ethylene oxide were not quantitated.

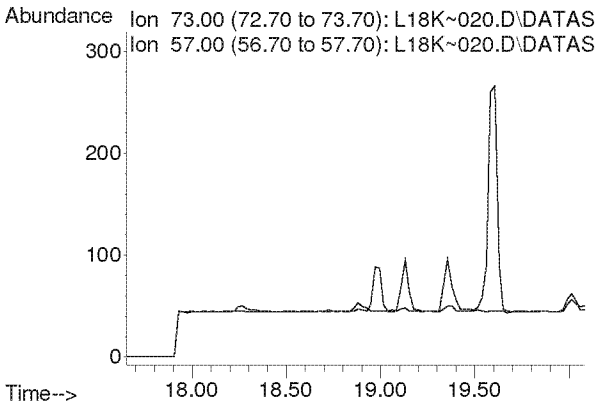


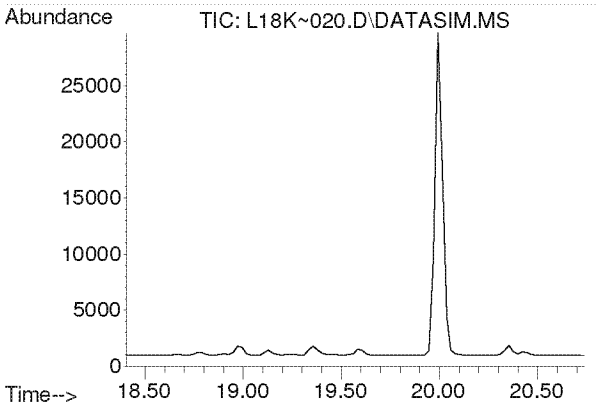
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L18K~020.D
Acq: 28 Nov 2018 5:20 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.0



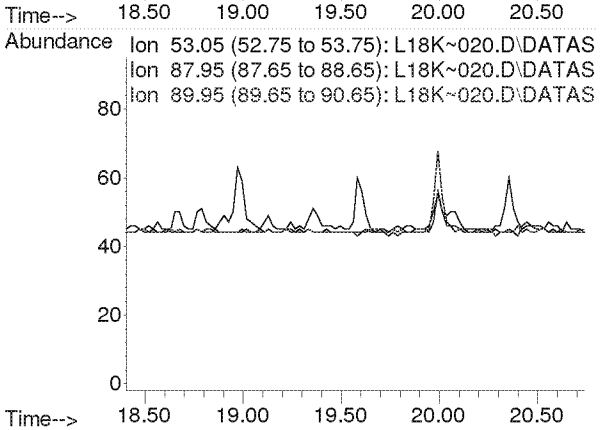


#23
Chloroprene
Concen: N.D.
Expected RT: 19.55 min

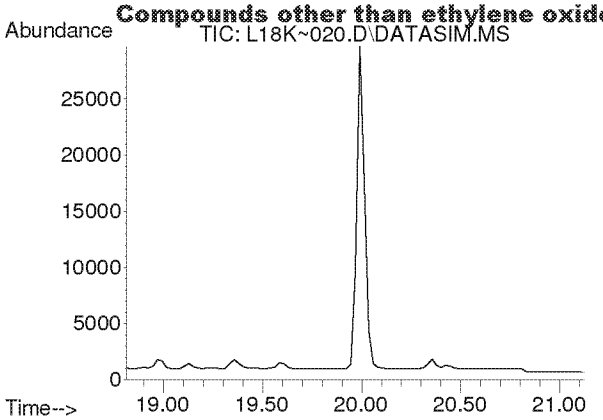
Lab File: L18K~020.D
Acq: 28 Nov 2018 5:20 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	51.5
90	16.6



Compounds other than ethylene oxide were not quantitated.

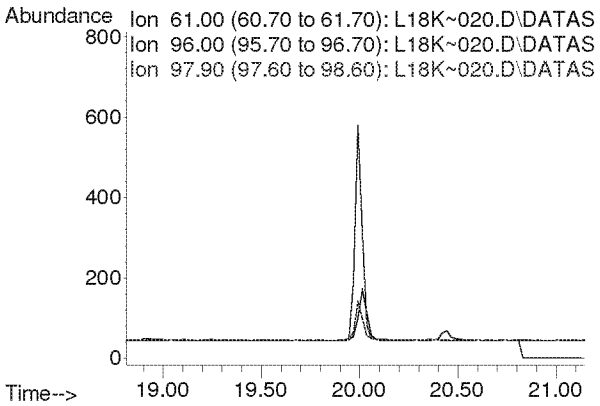


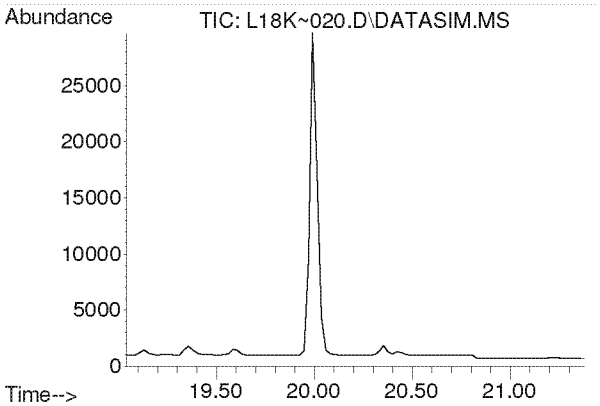
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.96 min

Lab File: L18K~020.D
Acq: 28 Nov 2018 5:20 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.5
98	46.2



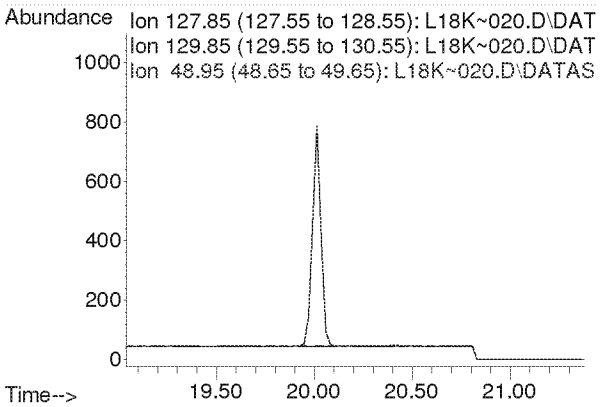


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.18 min

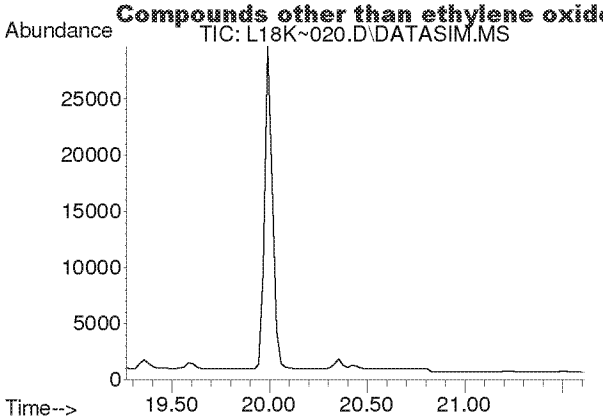
Lab File: L18K~020.D
Acq: 28 Nov 2018 5:20 am

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	128.9
49	167.9



Compounds other than ethylene oxide were not quantitated.

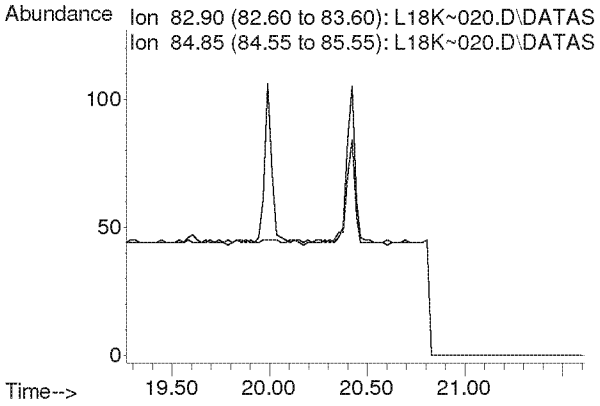


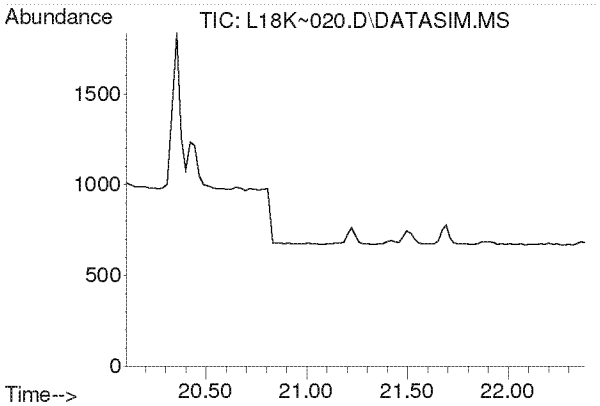
#26
Chloroform
Concen: N.D.
Expected RT: 20.42 min

Lab File: L18K~020.D
Acq: 28 Nov 2018 5:20 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



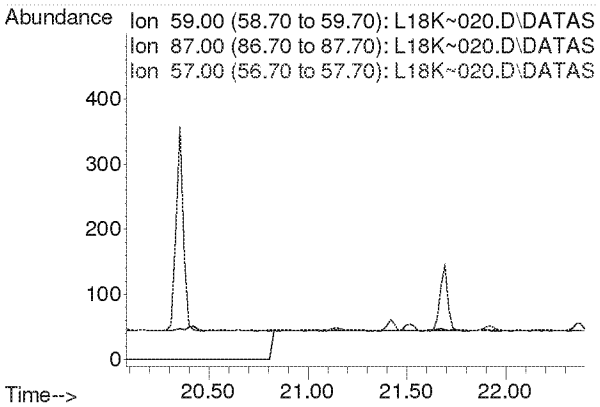


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.19 min

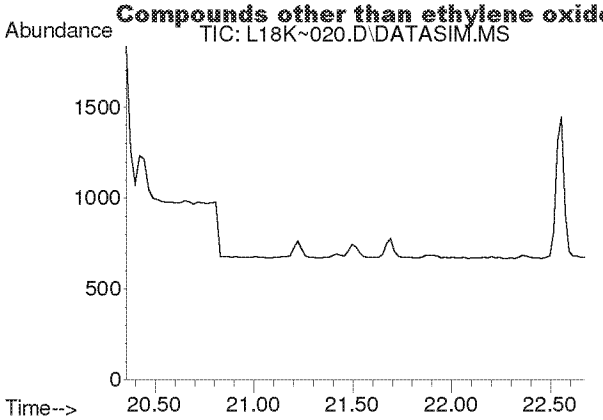
Lab File: L18K~020.D
Acq: 28 Nov 2018 5:20 am

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	38.5
57	34.0



Compounds other than ethylene oxide were not quantitated.

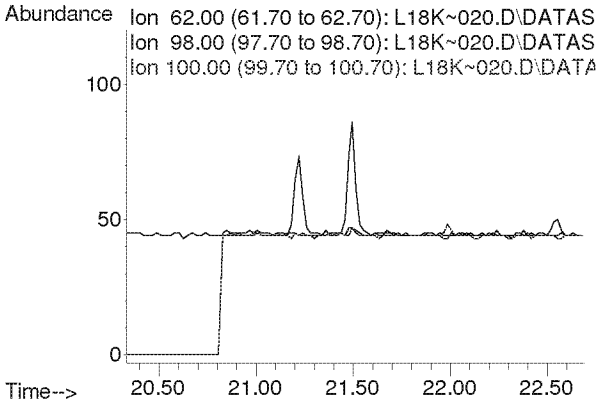


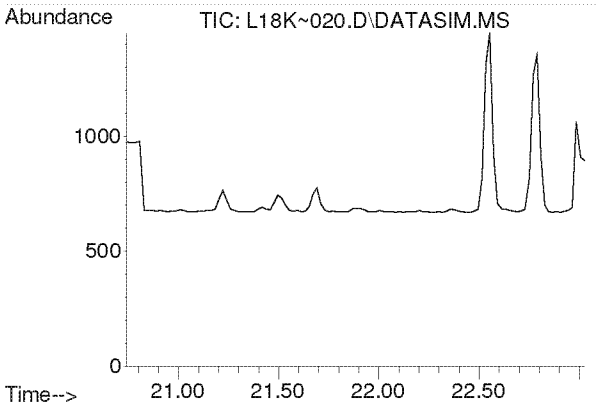
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.49 min

Lab File: L18K~020.D
Acq: 28 Nov 2018 5:20 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.0
100	3.9



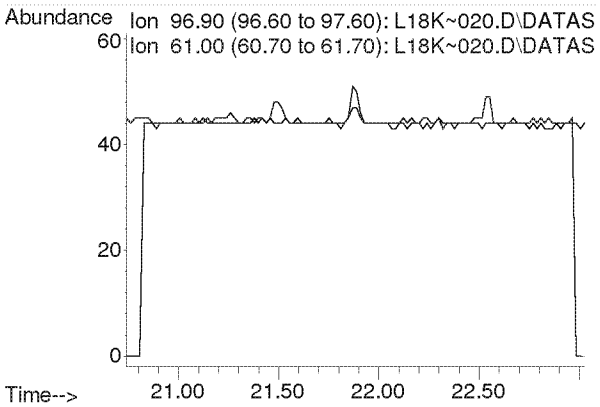


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.88 min

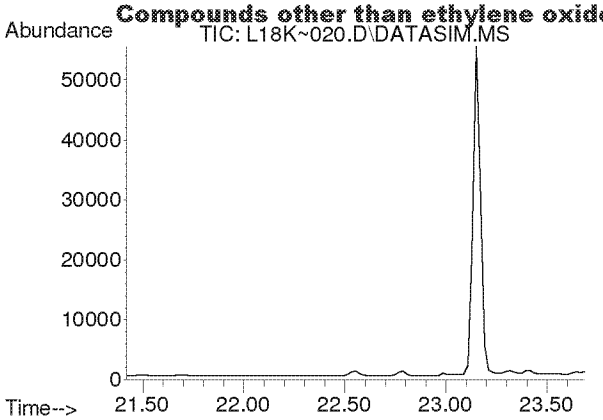
Lab File: L18K~020.D
Acq: 28 Nov 2018 5:20 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	59.6



Compounds other than ethylene oxide were not quantitated.

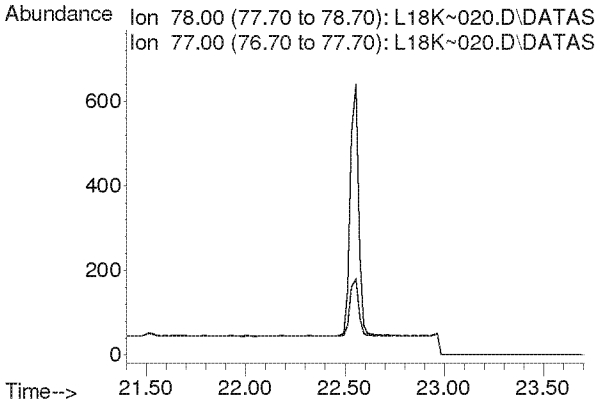


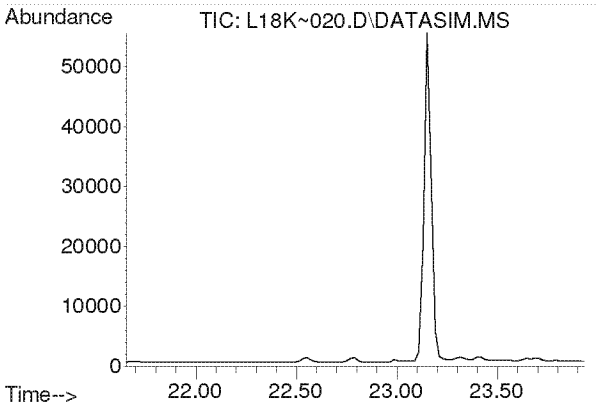
#31
Benzene
Concen: N.D.
Expected RT: 22.56 min

Lab File: L18K~020.D
Acq: 28 Nov 2018 5:20 am

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.9



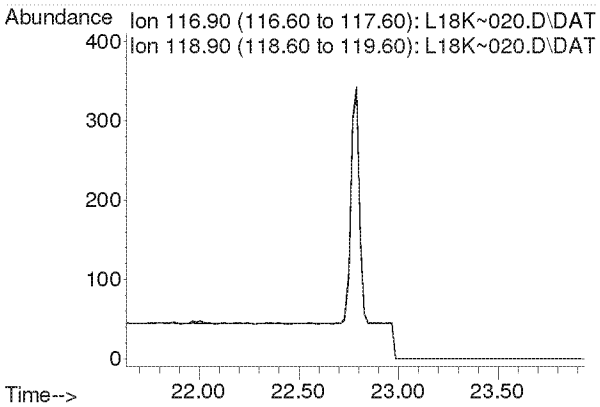


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.79 min

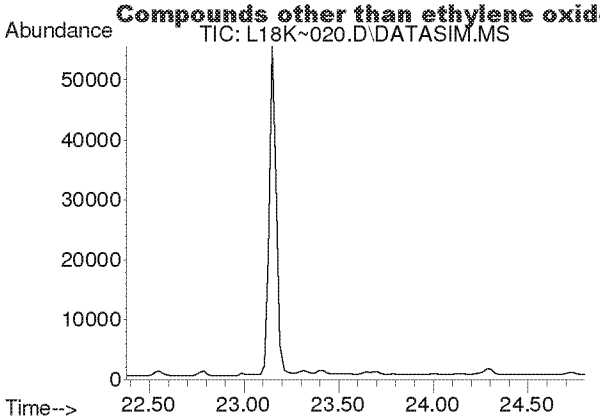
Lab File: L18K~020.D
Acq: 28 Nov 2018 5:20 am

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.9



Compounds other than ethylene oxide were not quantitated.

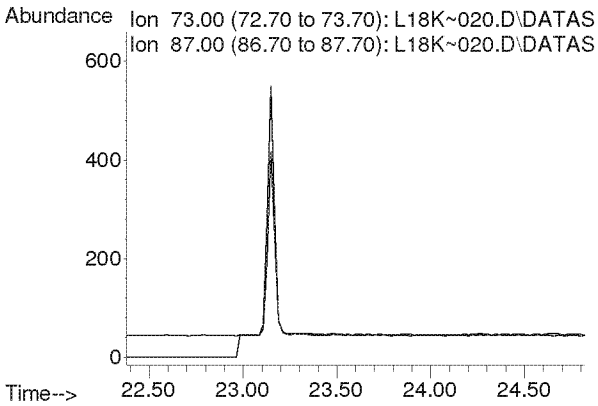


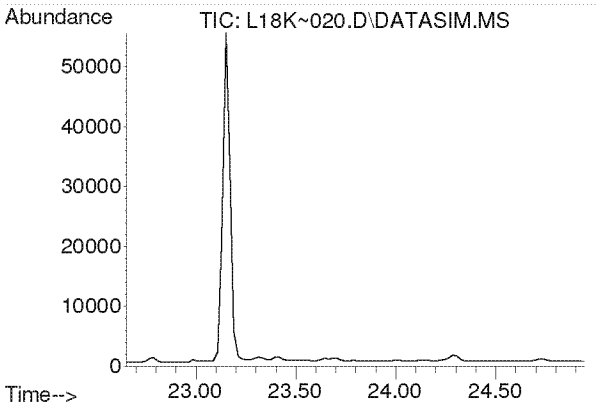
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L18K~020.D
Acq: 28 Nov 2018 5:20 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



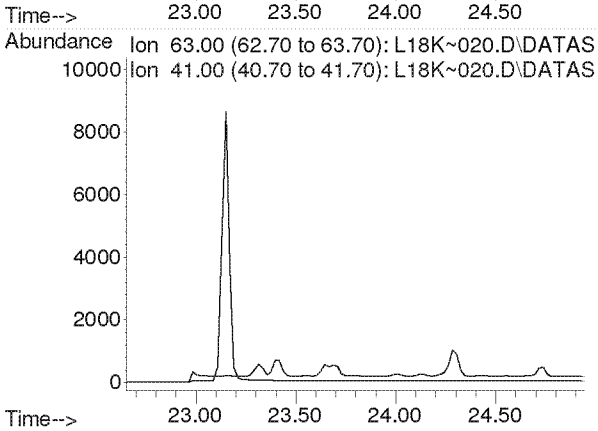


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.80 min

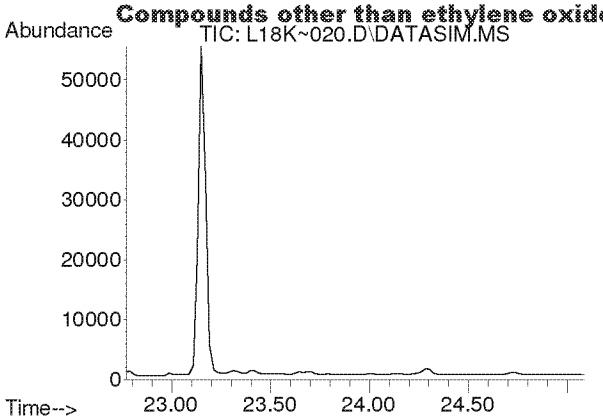
Lab File: L18K~020.D
Acq: 28 Nov 2018 5:20 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	222.1



Compounds other than ethylene oxide were not quantitated.

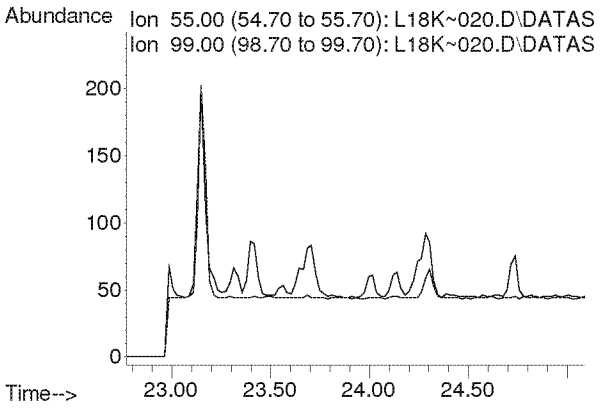


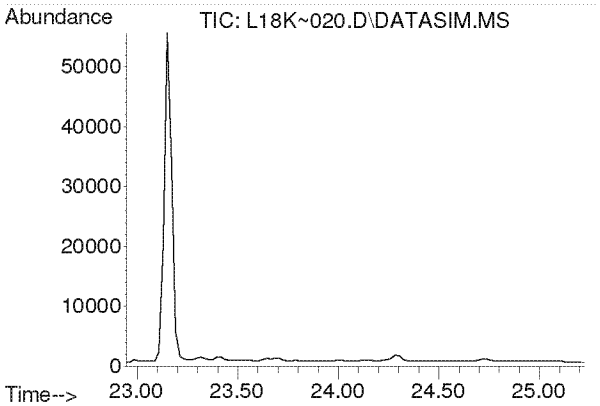
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L18K~020.D
Acq: 28 Nov 2018 5:20 am

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



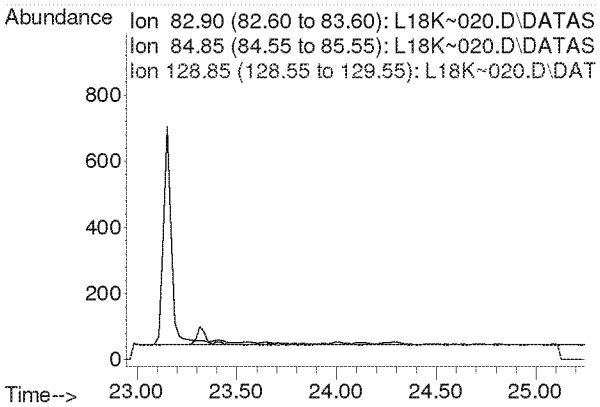


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.09 min

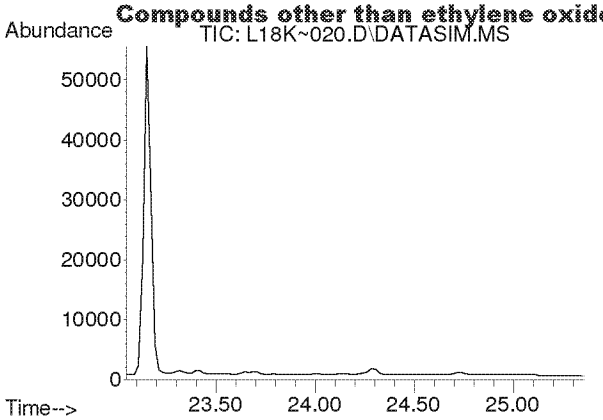
Lab File: L18K~020.D
Acq: 28 Nov 2018 5:20 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.9
129	12.9



Compounds other than ethylene oxide were not quantitated.

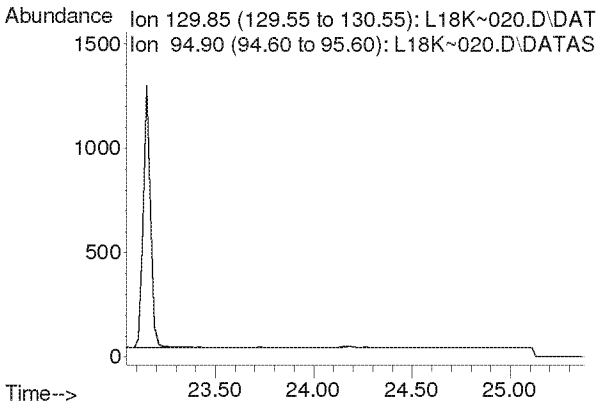


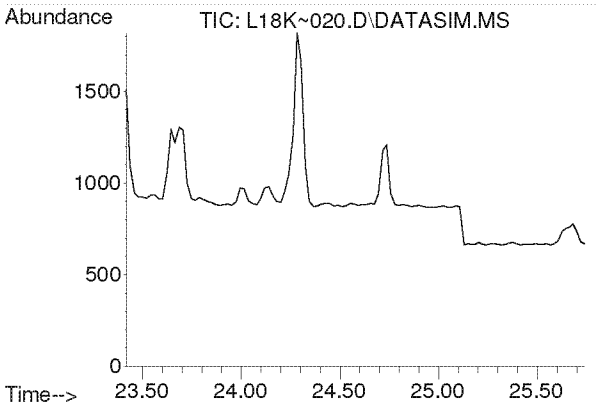
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.19 min

Lab File: L18K~020.D
Acq: 28 Nov 2018 5:20 am

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.9



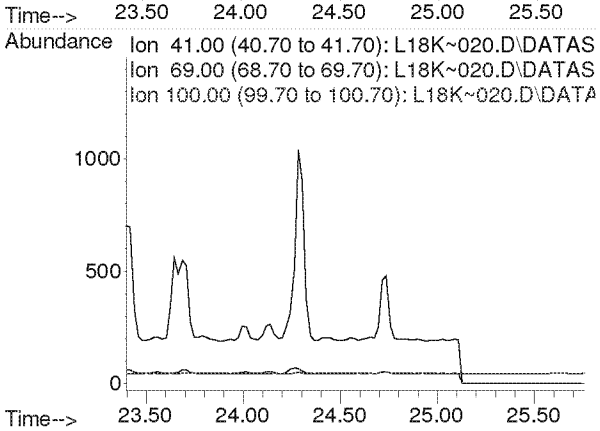


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.55 min

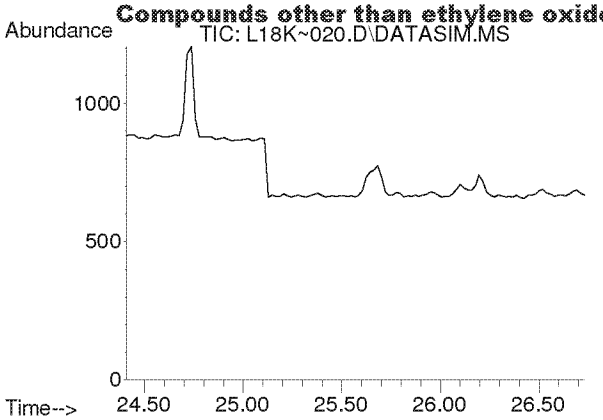
Lab File: L18K~020.D
Acq: 28 Nov 2018 5:20 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	20.0
100	5.1



Compounds other than ethylene oxide were not quantitated.

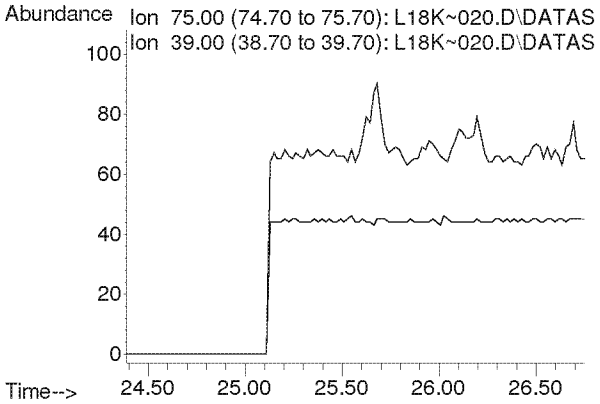


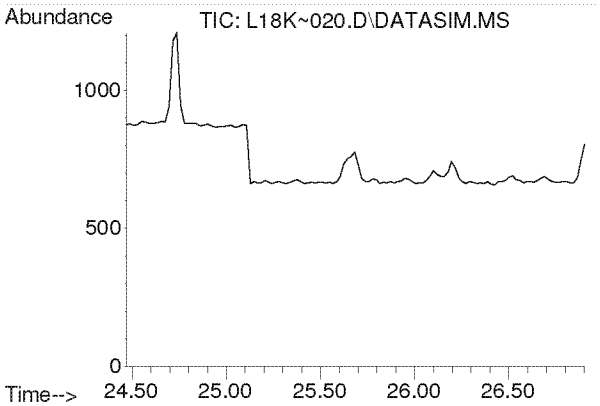
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.54 min

Lab File: L18K~020.D
Acq: 28 Nov 2018 5:20 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	55.6



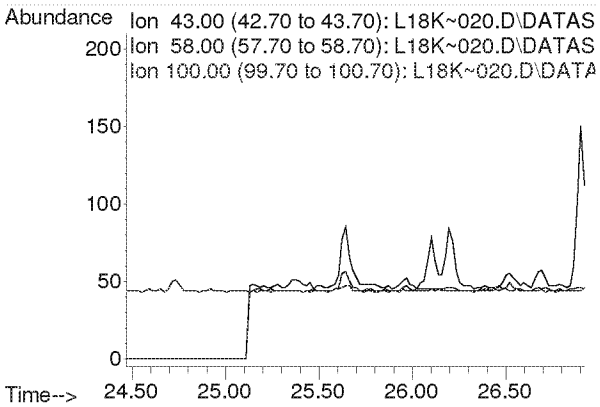


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.62 min

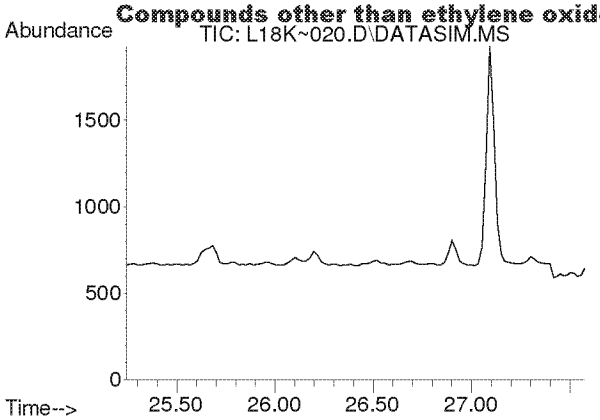
Lab File: L18K~020.D
Acq: 28 Nov 2018 5:20 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	33.3
100	8.0



Compounds other than ethylene oxide were not quantitated.

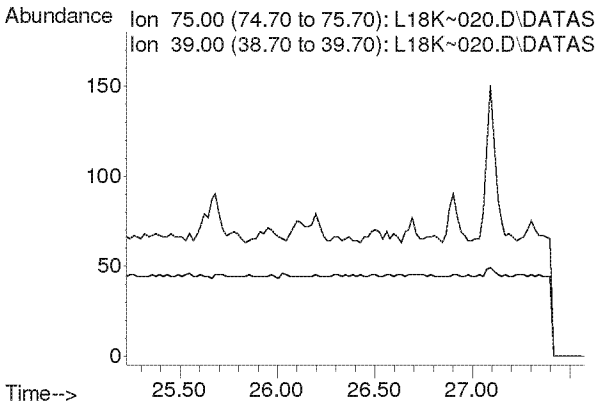


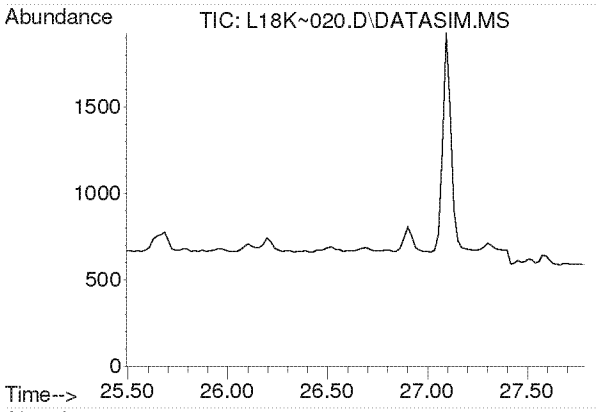
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.38 min

Lab File: L18K~020.D
Acq: 28 Nov 2018 5:20 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	55.3



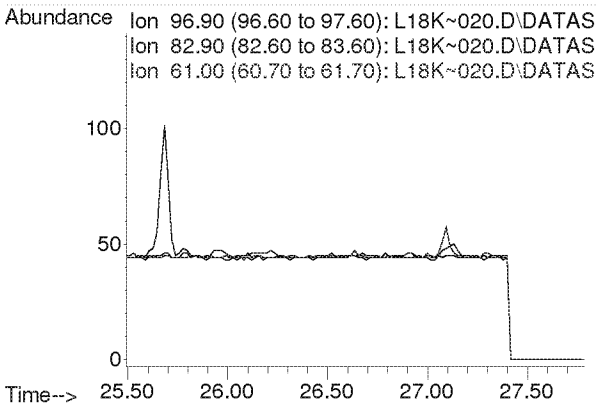


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.64 min

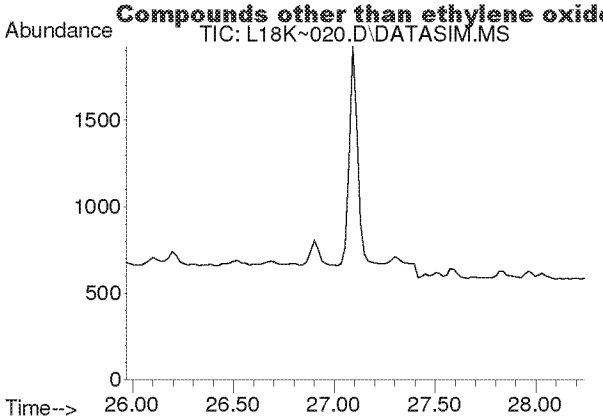
Lab File: L18K~020.D
Acq: 28 Nov 2018 5:20 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	95.3
61	64.6



Compounds other than ethylene oxide were not quantitated.

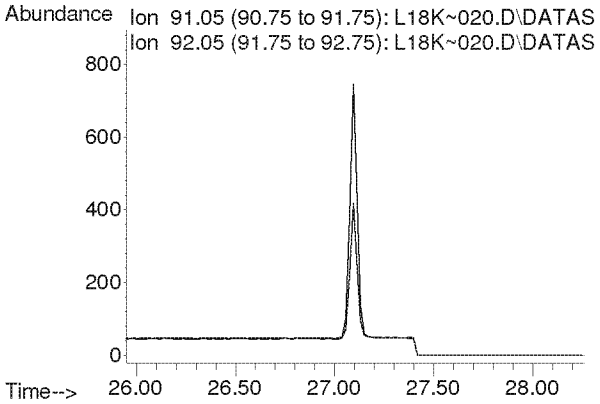


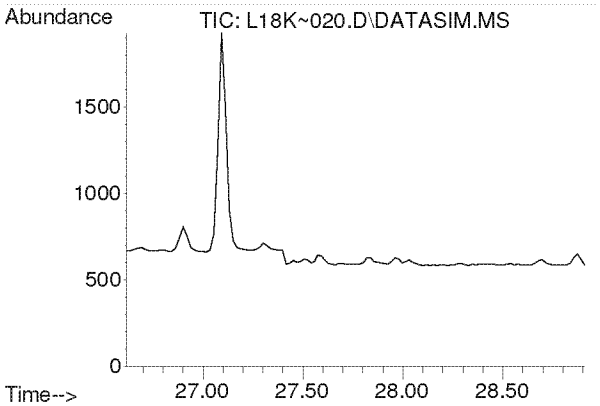
#44
Toluene
Concen: N.D.
Expected RT: 27.11 min

Lab File: L18K~020.D
Acq: 28 Nov 2018 5:20 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.1



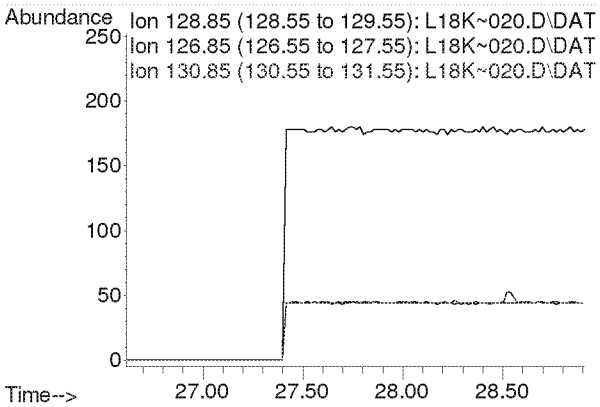


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.76 min

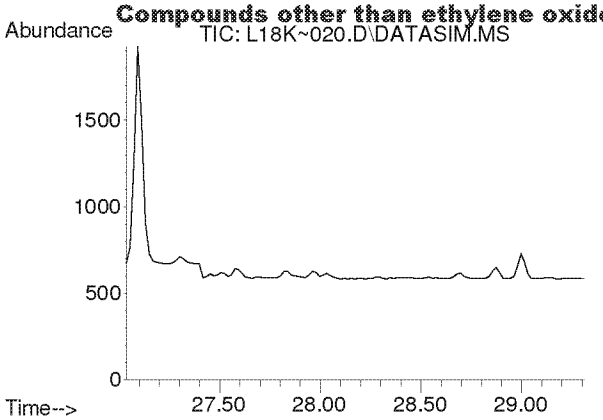
Lab File: L18K~020.D
Acq: 28 Nov 2018 5:20 am

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

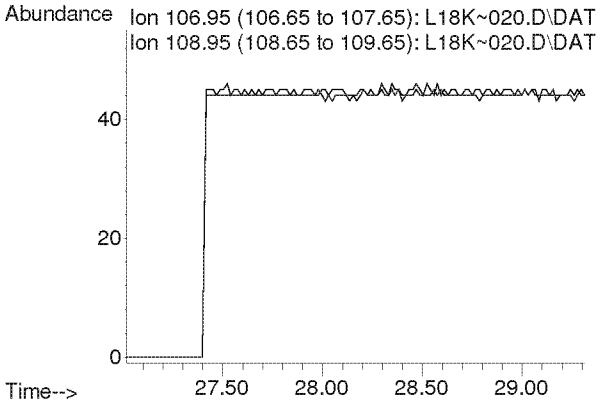


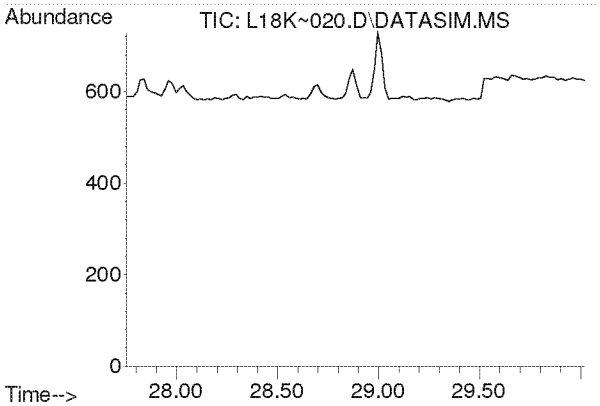
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.17 min

Lab File: L18K~020.D
Acq: 28 Nov 2018 5:20 am

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	93.8



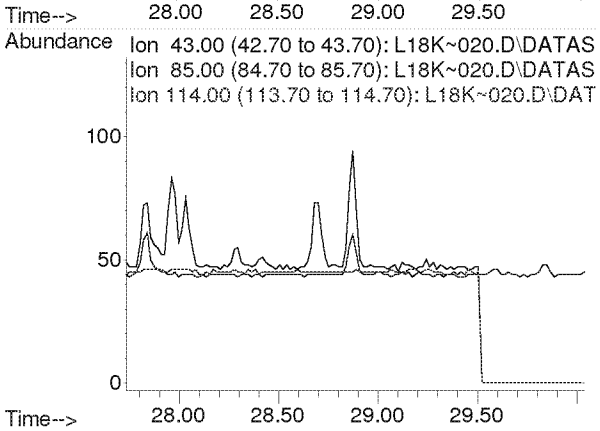


#47
n-Octane
Concen: N.D.
Expected RT: 28.89 min

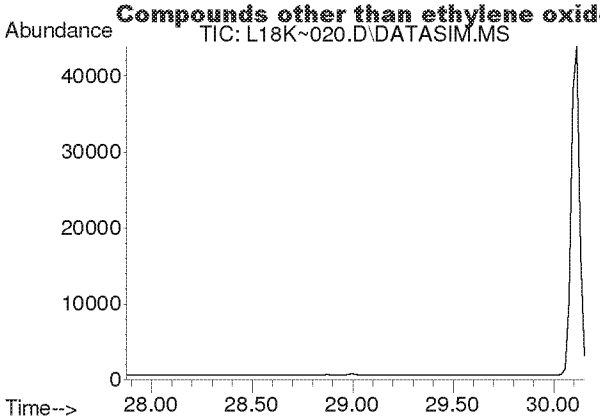
Lab File: L18K~020.D
Acq: 28 Nov 2018 5:20 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	37.8
114	2.4



Compounds other than ethylene oxide were not quantitated.

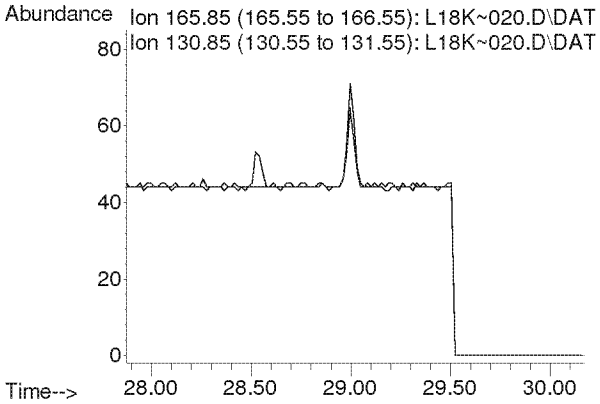


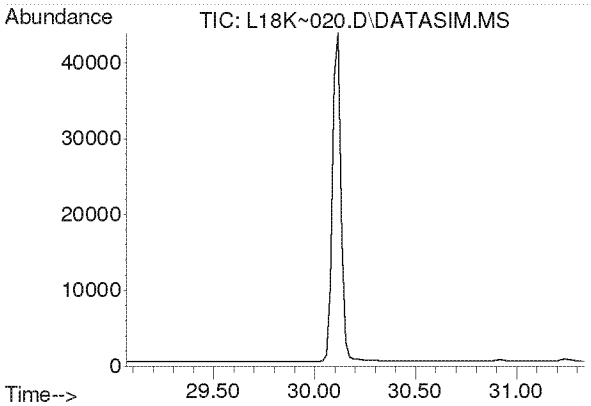
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.02 min

Lab File: L18K~020.D
Acq: 28 Nov 2018 5:20 am

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	78.7



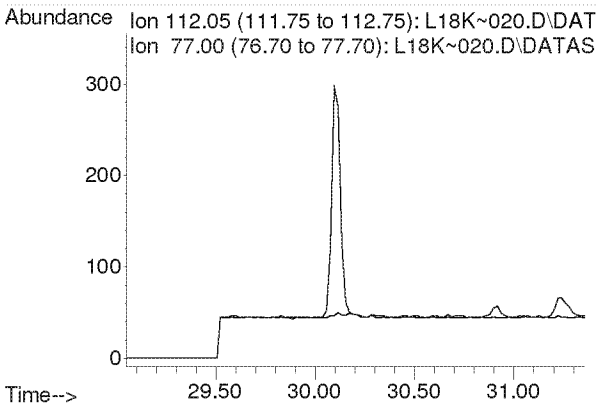


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.20 min

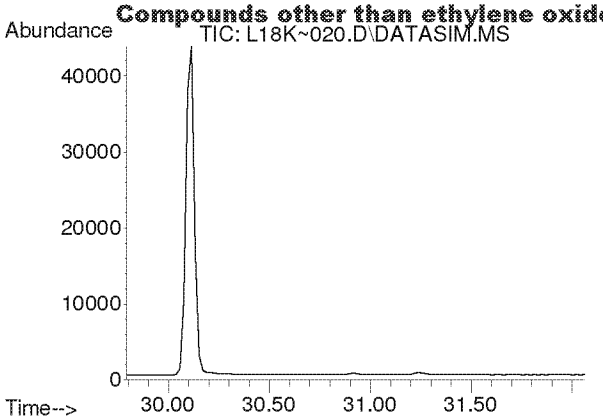
Lab File: L18K~020.D
Acq: 28 Nov 2018 5:20 am

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.3



Compounds other than ethylene oxide were not quantitated.

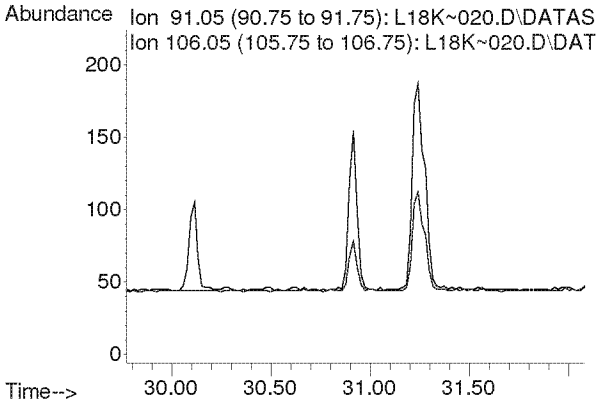


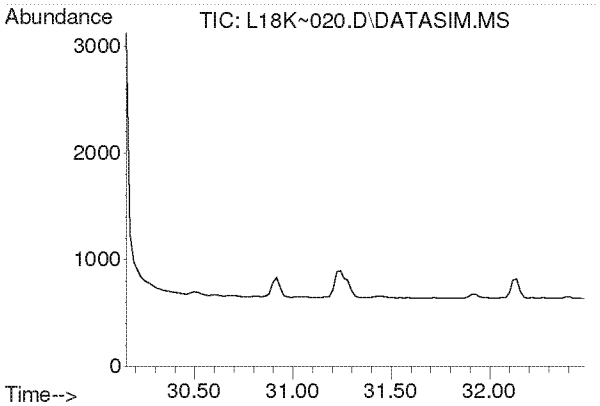
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.93 min

Lab File: L18K~020.D
Acq: 28 Nov 2018 5:20 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	31.8



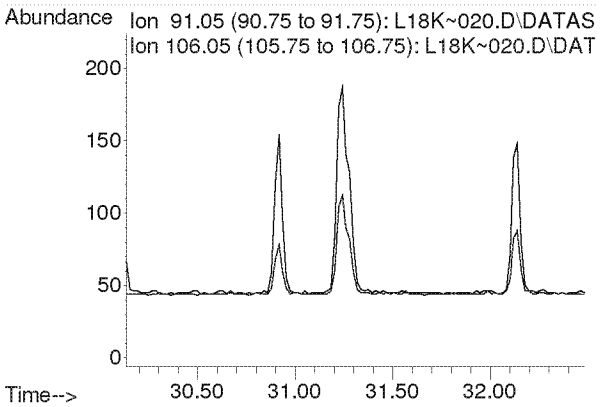


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.29 min

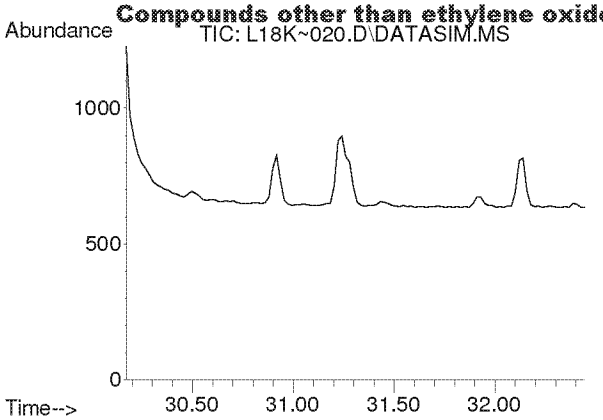
Lab File: L18K~020.D
Acq: 28 Nov 2018 5:20 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.4



Compounds other than ethylene oxide were not quantitated.

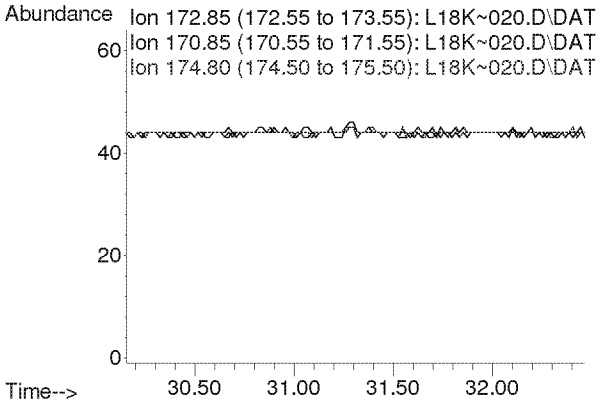


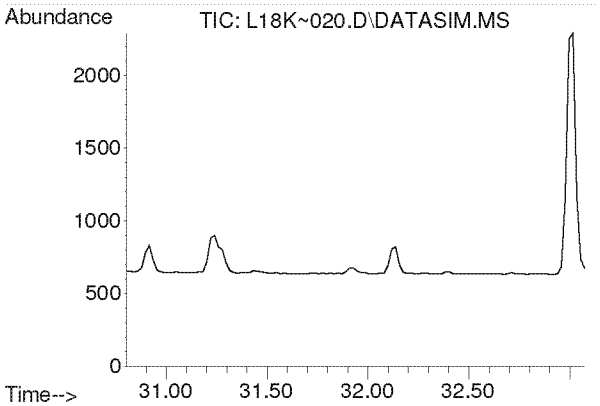
#52
Bromoform
Concen: N.D.
Expected RT: 31.30 min

Lab File: L18K~020.D
Acq: 28 Nov 2018 5:20 am

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.4
175	49.0



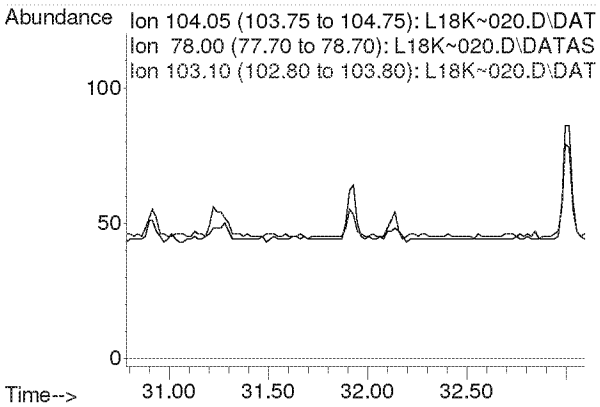


#53
Styrene
Concen: N.D.
Expected RT: 31.94 min

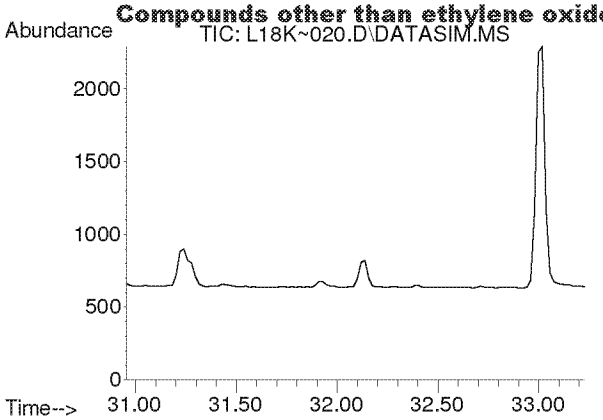
Lab File: L18K~020.D
Acq: 28 Nov 2018 5:20 am

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	45.7
103	0.0



Compounds other than ethylene oxide were not quantitated.

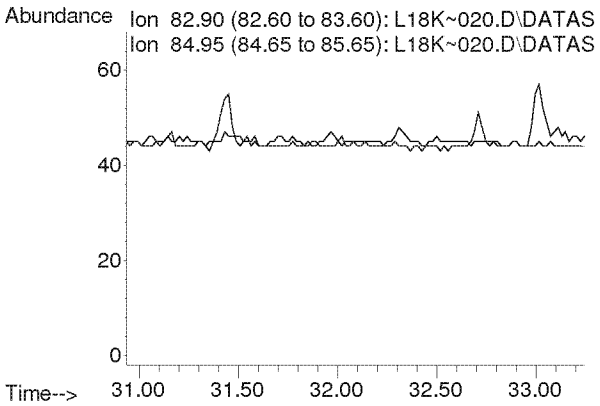


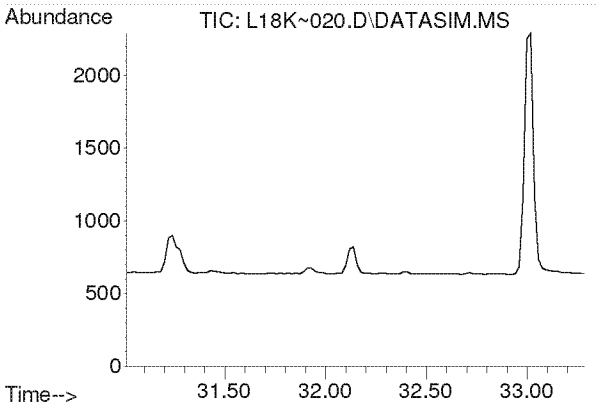
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.09 min

Lab File: L18K~020.D
Acq: 28 Nov 2018 5:20 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.3



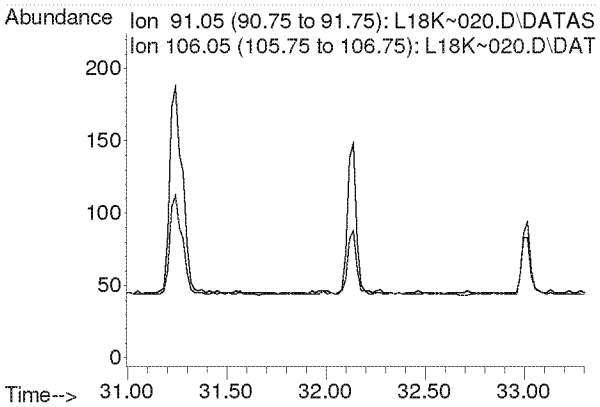


#55
o-Xylene
Concen: N.D.
Expected RT: 32.15 min

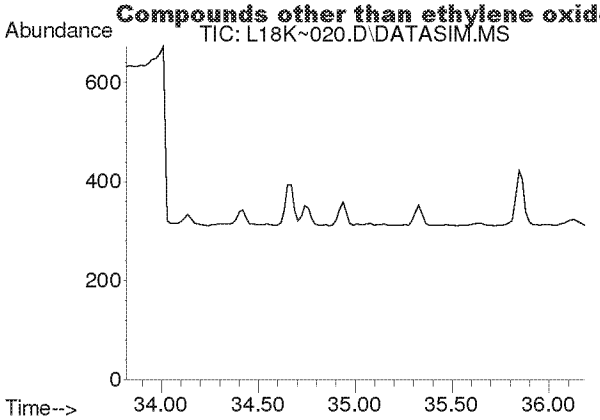
Lab File: L18K~020.D
Acq: 28 Nov 2018 5:20 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.5



Compounds other than ethylene oxide were not quantitated.

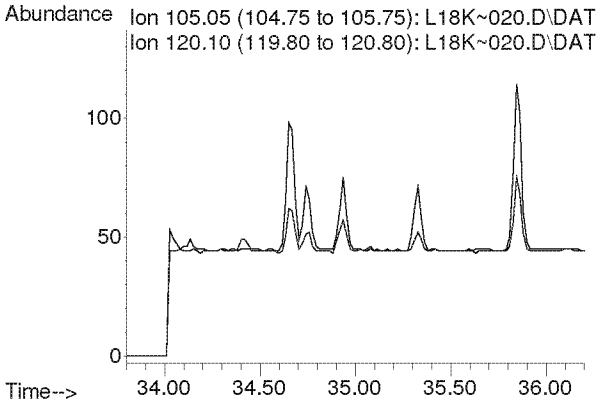


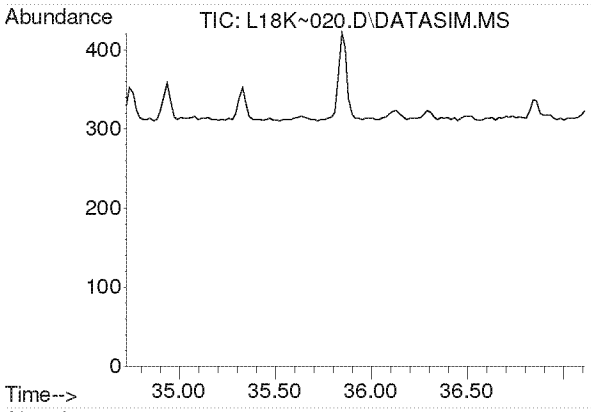
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.95 min

Lab File: L18K~020.D
Acq: 28 Nov 2018 5:20 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	45.6



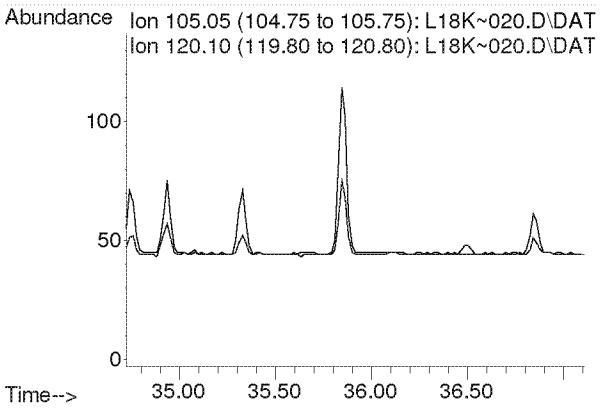


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.87 min

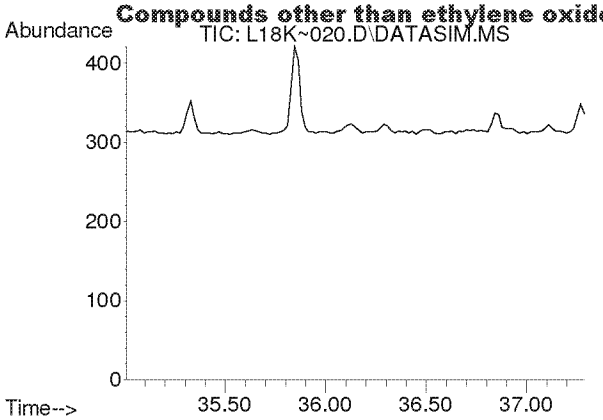
Lab File: L18K~020.D
Acq: 28 Nov 2018 5:20 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	43.4



Compounds other than ethylene oxide were not quantitated.

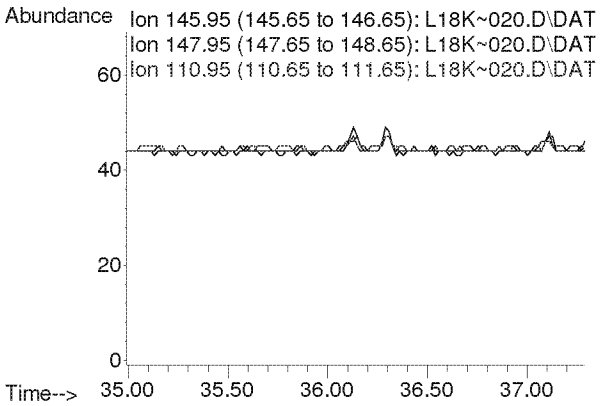


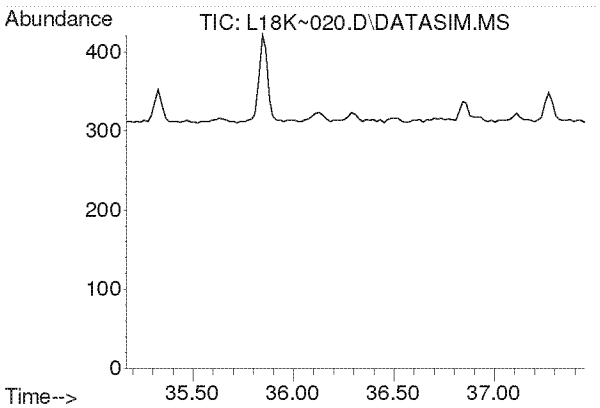
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.15 min

Lab File: L18K~020.D
Acq: 28 Nov 2018 5:20 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	41.1



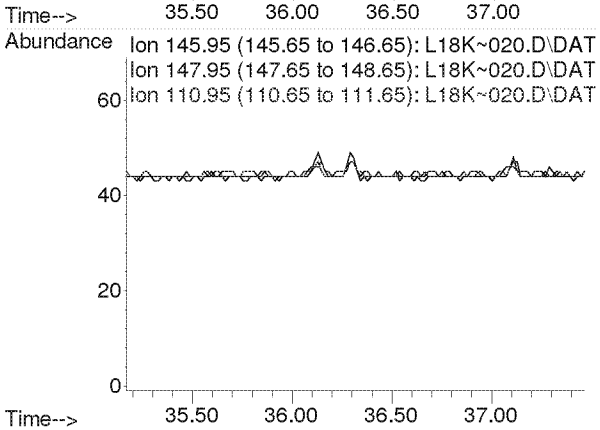


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.31 min

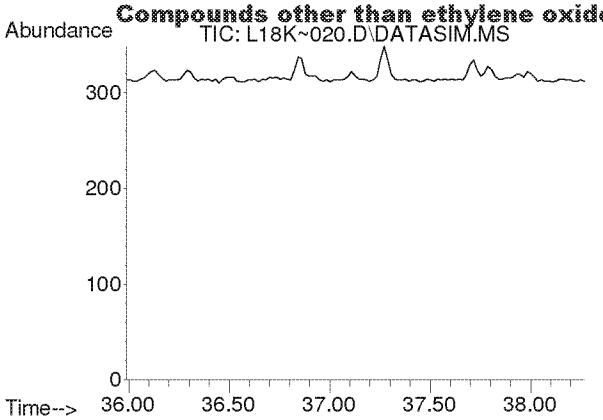
Lab File: L18K~020.D
Acq: 28 Nov 2018 5:20 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	39.8



Compounds other than ethylene oxide were not quantitated.

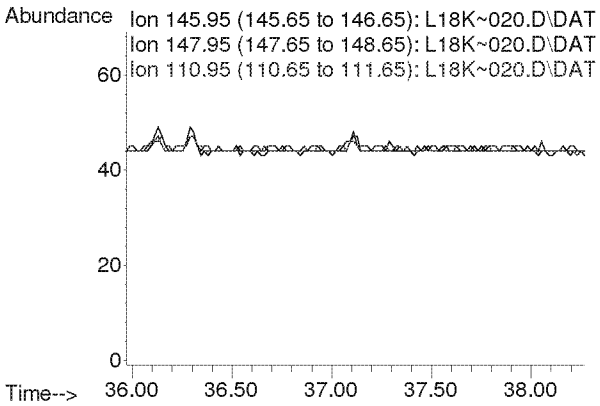


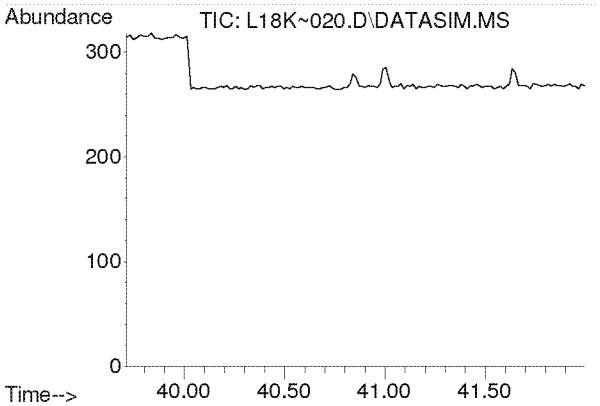
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.12 min

Lab File: L18K~020.D
Acq: 28 Nov 2018 5:20 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	63.9
111	41.8



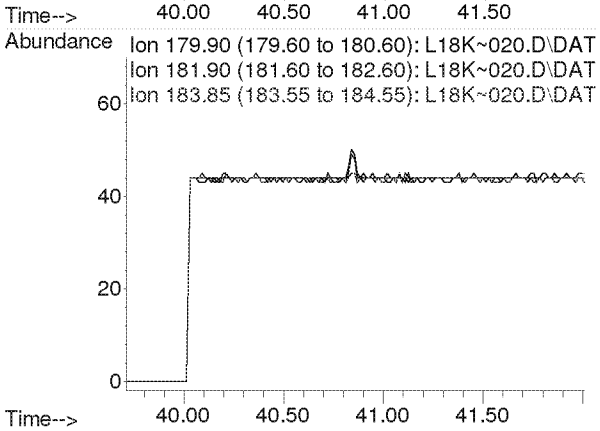


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.85 min

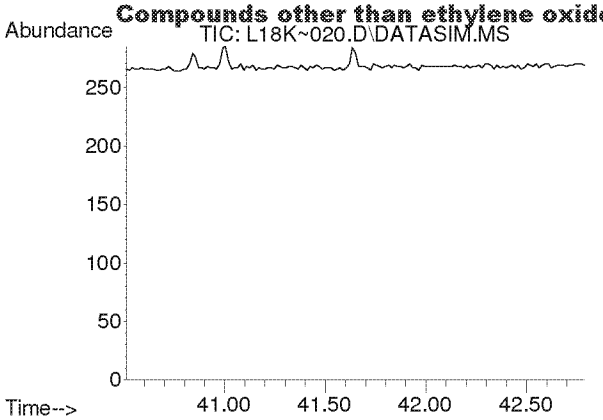
Lab File: L18K~020.D
Acq: 28 Nov 2018 5:20 am

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	95.6
184	30.5



Compounds other than ethylene oxide were not quantitated.

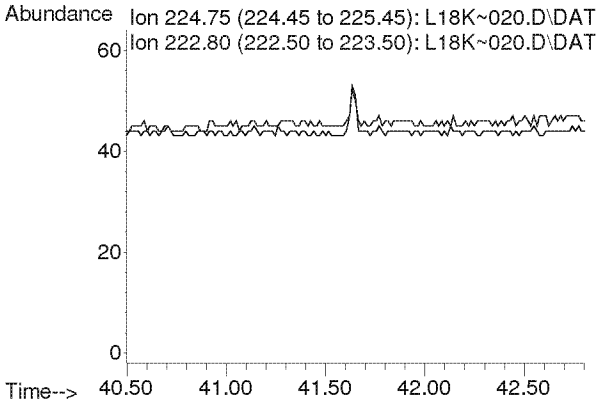


#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.65 min

Lab File: L18K~020.D
Acq: 28 Nov 2018 5:20 am

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.8



Compounds other than ethylene oxide were not quantitated.

PREPARATION BENCH SHEET

B8K2704

Eastern Research Group

Matrix: Air | **Prepared using: Air Toxics - Summa Canister Prep** | **inted: 11/28/2018 6:38:17AM**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments	
8112012-01 *TO-15 2018*	11/17/18 10:07	250	250	U.S. Environmental Protection Agency - OAQPS		Ethylene Oxide only		Ethylene Oxide only
8112012-02 *TO-15 2018*	11/17/18 09:57	250	250	U.S. Environmental Protection Agency - OAQPS		Ethylene Oxide only		Ethylene Oxide only
8112012-03 *TO-15 2018*	11/17/18 09:57	250	250	U.S. Environmental Protection Agency - OAQPS		Ethylene Oxide only		Ethylene Oxide only
8112113-01 *TO-15 2018*	11/20/18 09:30	250	250	U.S. Environmental Protection Agency - OAQPS		Ethylene Oxide only		Ethylene Oxide only
8112113-02 *TO-15 2018*	11/20/18 09:29	250	250	U.S. Environmental Protection Agency - OAQPS		Ethylene Oxide only		Ethylene Oxide only
8112113-03 *TO-15 2018*	11/20/18 09:21	250	250	U.S. Environmental Protection Agency - OAQPS		Ethylene Oxide only		Ethylene Oxide only
8112113-04 *TO-15 2018*	11/20/18 10:36	250	250	U.S. Environmental Protection Agency - OAQPS		Ethylene Oxide only		Ethylene Oxide only
8112113-05 *TO-15 2018*	11/20/18 09:39	250	250	U.S. Environmental Protection Agency - OAQPS		Ethylene Oxide only		Ethylene Oxide only
8112113-06 *TO-15 2018*	11/20/18 10:10	250	250	U.S. Environmental Protection Agency - OAQPS		Ethylene Oxide only		Ethylene Oxide only
8112113-07 *TO-15 2018*	11/20/18 09:54	250	250	U.S. Environmental Protection Agency - OAQPS		Ethylene Oxide only		Ethylene Oxide only
8112113-08 *TO-15 2018*	11/20/18 10:25	250	250	U.S. Environmental Protection Agency - OAQPS		Ethylene Oxide only		Ethylene Oxide only
8112113-09 *TO-15 2018*	11/20/18 10:45	250	250	U.S. Environmental Protection Agency - OAQPS		Ethylene Oxide only		Ethylene Oxide only
B8K2704-BLK1	11/20/18 08:00	250	250					
B8K2704-DUP1	11/17/18 09:57	250	250		8112012-02			
B8K2704-DUP2	11/17/18 09:57	250	250		8112012-03			

Spiking Witnessed By _____ Date _____ Preparation Reviewed By 11-28-18 Date _____ Extracts Received By _____ Date _____

Compounds other than ethylene oxide were not quantitated.

PREPARATION BENCH SHEET

B8K2704

Eastern Research Group

Matrix: Air **Prepared using: Air Toxics - Summa Canister Prep** **inted: 11/28/2018 6:38:17AM**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments
B8K2704-DUP3	11/20/18 08:00	250	250		8112113-01		
B8K2704-DUP4	11/20/18 08:00	250	250		8112113-02		

Spiking Witnessed By Date

Preparation Reviewed By 11-27-18 Date

Extracts Received By Date

Compounds other than ethylene oxide were not quantitated.

ERG Eastern Research Group, Inc.

ERG Lab ID # 811213-01

601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: WB VILLAGE HALL

Canister Number: A21102

City/State: WILLOWBROOK, IL

Lab Initial Can. Press. ("Hg): 29.8

AQS Code: —

Cleaning Batch # : H2-498

Collection Date: 11/19/18 - 1/20/18

Date Can. Cleaned: 11/7/18

Options:

SNMOC (Y/N):

Duplicate Event (Y/N): Y

TOXICS (Y/N): Y

Duplicate Can # : SAT 913

METHANE (Y/N):

Relinquished by: MB

Date: 11/13/18

Field Setup

Received by: J. NWIA

Date: 11/19/18

Operator: J NWIA

MFC Setting: —

System #: PROBE 10315

Elapsed Timer Reset (Y/N):

Setup Date: 11/19/18

Canister Valve Opened (Y/N): Y @ 9:32AM

Field Initial Can. Press.: -29.5 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 1/20/18

Sample Duration (3 or 24 hr): 24

Operator: N NWIA

Elapsed Time:

Field Final Can. Press.: -3 psig psia "Hg (Circle one)

Status: VALID VOID (Circle one)

Canister Valve Closed (Y/N): Y @ 9:30AM

Relinquished by:

Date: 11/20/18

Lab Recovery

Received by: LR

Date: 11/21/18

Lab Final Can. Press.: 2 psig "Hg (Circle one)

Converted to psia:

Status: VALID VOID (Circle one)

Gauge: 1 2 (Circle one)

If void, why:

Samples stored in Air Tox Lab (Room 130)

5-2016

Comments: 5 MIN. LEAK CHECK @ 9:37 -29.5" Hg
Ambient temp @ deployment 27°F
@ collection 32°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 # 8112113-02

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: WBVILLAGE HALL

City/State: WILLOWBROOK, IL

AQS Code:

Collection Date: 11/19/18 - 1/20/18

Options:

SNMOC (Y/N):

TOXICS (Y/N): Y

METHANE (Y/N):

Relinquished by: CMB

Canister Number: SAT013

Lab Initial Can. Press. ("Hg): 29.8

Cleaning Batch # : H1-499

Date Can. Cleaned: 11/8/18

Duplicate Event (Y/N): Y

Duplicate Can # : A211Ø2

Date: 11/13/18

Field Setup

Received by: J.NWIA

Date: 11/19/18

Operator: J.NWIA

System #: PRODE 10315

Setup Date: 11/19/18

Field Initial Can. Press.: -29 psig psia "Hg (Circle one)

MFC Setting:

Elapsed Timer Reset (Y/N):

Canister Valve Opened (Y/N): Y@9:33AM

Field Recovery

Recovery Date: 1/20/18

Operator: NWIA

Field Final Can. Press.: -5 psig psia "Hg (Circle one)

Status: VALID VOID (Circle one)

Relinquished by:

Sample Duration (3 or 24 hr): 24hr

Elapsed Time:

Canister Valve Closed (Y/N): Y@9:29AM

Date: 11/20/18

Lab Recovery

Received by: KC

Date: 11/21/18

Lab Final Can. Press.: 3.5 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: 5 MIN LEAK CHECK @ 9:38am - 29" Hg
Ambient Temp @ deployment 27°F
Collection 32°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 # 8112113-03

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: EPA WILLOWBROOK NAC FACILITY Canister Number: 5077
City/State: WILLOWBROOK IL Lab Initial Can. Press. ("Hg): 29.8
AQS Code: Cleaning Batch # : H1-499
Collection Date: 11/19/18 - 11/20/18 Date Can. Cleaned: 11/8/18
Options:
SNMOC (Y/N): — Duplicate Event (Y/N): N
TOXICS (Y/N): Y Duplicate Can # : N/A
METHANE (Y/N): —
Relinquished by: RJB Date: 11/13/18

Field Setup

Received by: M Fuoco Date: 11/19/18
Operator: M Fuoco MFC Setting:
System #: REGULATOR #10314 Elapsed Timer Reset (Y/N): —
Setup Date: 11/19/18 Canister Valve Opened (Y/N): Y @ 9:20 AM
Field Initial Can. Press.: -30 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 11/20/18 Sample Duration (3 or 24 hr): 24H
Operator: M Fuoco Elapsed Time: @ 9:21 AM / 24H
Field Final Can. Press.: -5 psig psia "Hg (Circle one)
Status: VALID VOID (Circle one) Canister Valve Closed (Y/N): Y
Relinquished by: M Fuoco Date: 11/20/18

Lab Recovery

Received by: ER Date: 11/21/18
Lab Final Can. Press.: 3.5 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: 11/19/18: TEMPERATURE: 27°F (AMBIENT)
LEAK CHECK @ 9:25 AM 3.11 Hg
11/20/18: TEMPERATURE: -1°C (AMBIENT)
GENERATOR TEST RUNNING DURING PICK-UP

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 # 8112113-04

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: GOWER ES
Canister Number: SAT092
City/State: WILLOWBROOK, IL
Lab Initial Can. Press. ("Hg): 29.8
AQS Code:
Cleaning Batch # : H2-498
Collection Date: 11/19/18
Date Can. Cleaned: 11/7/18
Options:
SNMOC (Y/N): —
Duplicate Event (Y/N): N
TOXICS (Y/N): Y
Duplicate Can # : —
METHANE (Y/N): —
Relinquished by: RMB
Date: 11/13/18

Field Setup

Received by: M Fuoco
Date: 11/19/18
Operator: M Fuoco
MFC Setting: —
System #: REGULATOR # 10293
Elapsed Timer Reset (Y/N): —
Setup Date: 11/19/18
Canister Valve Opened (Y/N): Y @ 10:36 AM
Field Initial Can. Press.: 28.5 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 11/20/18
Sample Duration (3 or 24 hr): 24H
Operator: M Fuoco
Elapsed Time:
Field Final Can. Press.: -4 psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Canister Valve Closed (Y/N): Y @ 10:36 AM
Relinquished by: M Fuoco
Date: 11/20/18

Lab Recovery

Received by: LR
Date: 11/21/18
Lab Final Can. Press.: 3.5 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: 11/19/18: TEMPERATURE: 27°F
LEAK CHECK @: 10:41 AM 28.5 "Hg
11/20/18: TEMP: 33°F MF 11/20/18

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 # 811213-05

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: GONER MS
Canister Number: 18879
City/State: BURR RIDGE
Lab Initial Can. Press. ("Hg): 29.8
AQS Code:
Cleaning Batch # : H2-498
Collection Date: 11/19/18 -- 11/20/18
Date Can. Cleaned: 11/7/18
Options:
SNMOC (Y/N): —
Duplicate Event (Y/N): N
TOXICS (Y/N): Y
Duplicate Can # : —
METHANE (Y/N): —
Relinquished by: RMB
Date: 11/13/18

Field Setup

Received by: M Flores
Date: 11/19/18
Operator: M Flores
MFC Setting: —
System #: REGULATOR# 10311
Elapsed Timer Reset (Y/N): —
Setup Date: 11/19/18
Canister Valve Opened (Y/N): Y @ 9:46 AM
Field Initial Can. Press.: -29.5 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 11/20/18
Sample Duration (3 or 24 hr): 24H
Operator: M Flores
Elapsed Time: @ 939AM
Field Final Can. Press.: -3.5 psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Canister Valve Closed (Y/N): Y @ 939 AM
Relinquished by: M Flores
Date: 11/20/18

Lab Recovery

Received by: LR
Date: 11/21/18
Lab Final Can. Press.: 2 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: 11/19/18 : TEMPERATURE : 27°F (AMBIENT)
LEAK CHECK @ : 9:51 AM -29 "Hg
11/20/18 : TEMPERATURE AMBIENT: -1°C
11/20/18

White: Sample Traveler Canary: Lab Copy Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

ERG Lab ID # 8112113-08

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: WILLOW POND PARK
Canister Number: SAT089
City/State: WILLOWBROOK, IL
Lab Initial Can. Press. ("Hg): 29.8
AQS Code:
Cleaning Batch # : H1-499
Collection Date: 11/19/18
Date Can. Cleaned: 11/8/18
Options:
SNMOC (Y/N): —
Duplicate Event (Y/N): N
TOXICS (Y/N): Y
Duplicate Can # : —
METHANE (Y/N): —
Relinquished by: RMB
Date: 11/13/18

Field Setup

Received by: M Fuoco
Date: 11/19/18
Operator: M Fuoco
MFC Setting: —
System #: REGULATOR # 10294
Elapsed Timer Reset (Y/N): —
Setup Date: 11/19/18
Canister Valve Opened (Y/N): Y @ 10:10 AM
Field Initial Can. Press.: -29 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 11/20/18
Sample Duration (3 or 24 hr): 24
Operator: M Fuoco
Elapsed Time:
Field Final Can. Press.: -3.5 psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Canister Valve Closed (Y/N): Y @ 10:10 AM
Relinquished by: M Fuoco
Date: 11/20/18

Lab Recovery

Received by: KT
Date: 11/21/18
Lab Final Can. Press.: 2.5 psig "Hg (Circle one)
Converted to psia:
Status: VALID VOID (Circle one)
Gauge: 1 2 (Circle one)
If void, why:

Samples stored in Air Tox Lab (Room 130)

5-2016

Comments: 11/19/18: TEMPERATURE: 27°F (AMBIENT)
LEAK CHECK @: 1:15 AM 29" Hg
11/20/18: TEMPERATURE: 33°F 11/20/18

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 # 8112113-07

AIR TOXICS SAMPLE CHAIN OF CUSTODY

RMB 11/13/18

Lab Pre-Sampling

Site Code: WATERTOWER
Canister Number: SAT.~~189~~ 169
City/State: WILLOWBROOK, IL
Lab Initial Can. Press. ("Hg): 29.8
AQS Code: —
Cleaning Batch # : H1-499
Collection Date: 11/19/18
Date Can. Cleaned: 11/8/18
Options:
SNMOC (Y/N):
Duplicate Event (Y/N): N
TOXICS (Y/N): Y
Duplicate Can # : —
METHANE (Y/N):
Relinquished by: RMB
Date: 11/13/18

Field Setup

Received by: J. NWIA
Date: 11/19/18
Operator: J. NWIA
MFC Setting: —
System #: PROBE #10312
Elapsed Timer Reset (Y/N):
Setup Date: ~~11/18~~ 11/19/18
Canister Valve Opened (Y/N): Y @ 9:54
Field Initial Can. Press.: -28 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 11/20/18
Sample Duration (3 or 24 hr): 24
Operator: NWIA
Elapsed Time:
Field Final Can. Press.: -3 psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Canister Valve Closed (Y/N): Y @ 9:54 AM
Relinquished by:
Date: 11/20/18

Lab Recovery

Received by: KC
Date: 11/21/18
Lab Final Can. Press.: 2 psig "Hg (Circle one)
Converted to psia:
Status: VALID VOID (Circle one)
Gauge: 1 2 (Circle one)
If void, why:

Samples stored in Air Tox Lab (Room 130)

5-2016

Comments: 5 MIN. LEAK CHECK @ 10:04 -28" Hg.
Ambient Temp @ deployment 27°F
@ collection 33°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 # 8112113-08

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: HINSDALE SOUTH H.S.
Canister Number: A21051
City/State: DARIEN / IL
Lab Initial Can. Press. ("Hg): 29.8
AQS Code: —
Cleaning Batch # : H2-499
Collection Date: 11/19/18
Date Can. Cleaned: 11/8/18
Options:
SNMOC (Y/N):
Duplicate Event (Y/N): N
TOXICS (Y/N): Y
Duplicate Can # : —
METHANE (Y/N):
Relinquished by: RMB
Date: 11/13/18

Field Setup

Received by: J. NWITA
Date: 11/19/18
Operator: J. NWITA
MFC Setting:
System #: PROBE # 100740
Elapsed Timer Reset (Y/N):
Setup Date: ~~11/18~~ 11/19/18
Canister Valve Opened (Y/N): Y @ 10:25 AM
Field Initial Can. Press.: -28 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 11/20/18
Sample Duration (3 or 24 hr): 24 hr
Operator: N. WITA
Elapsed Time:
Field Final Can. Press.: -5 psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Canister Valve Closed (Y/N): Y @ 10:25 AM
Relinquished by:
Date: 11/20/18

Lab Recovery

Received by: NR
Date: 11/21/18
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)

6-2016

Comments: 5 MIN. LEAK CHECK @ 10:30 -28" Hg
Ambient temp @ deployment 27°F
Collection 33°F

White: Sample Traveler
Canary: Lab Copy
Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

ERG Lab ID # 8112113-09

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: SAT025
City/State: WILLOWBROOK, IL
Lab Initial Can. Press. ("Hg): 29.8
AQS Code:
Cleaning Batch # : H2-499
Collection Date: 11/19/18
Date Can. Cleaned: 11/8/18
Options:
SNMOC (Y/N): —
Duplicate Event (Y/N): N
TOXICS (Y/N): Y
Duplicate Can # : —
METHANE (Y/N): —
Relinquished by: RMB
Date: 11/13/18

Field Setup

Received by: M Fuoco
Date: 11/19/18
Operator: M Fuoco
MFC Setting: —
System #: REGULATOR # 10316
Elapsed Timer Reset (Y/N): —
Setup Date: 11/19/18
Canister Valve Opened (Y/N): Y @ 10:45 AM
Field Initial Can. Press.: 28 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 11/20/18
Sample Duration (3 or 24 hr): 24 H
Operator: M Fuoco
Elapsed Time:
Field Final Can. Press.: -4 psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Canister Valve Closed (Y/N): Y @ 10:45 AM
Relinquished by: M Fuoco
Date: 11/20/18

Lab Recovery

Received by: KR
Date: 11/21/18
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: 11/19/18 TEMPERATURE (AMBIENT) 27°F
LEAK CHECK @ 12:53 AM -28 "Hg
11/20/18: TEMP (AMBIENT) = 33°F
MA 11/21/18

White: Sample Traveler
Canary: Lab Copy
Pink: Field Copy