Compounds other than ethylene oxide were not quantitated.

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

Sequence ID:	UBLU 1812046	**Instrument:**	A-1	**Batch:**	B812103
Cal Curve (Method):	8120004	**Analyst:**	MH	**Date Analyzed:**	12-21-18
10% Review Sample IDs:	8121220-01	**Reviewer:**	DST	**Date:**	1/2/19
Optional Additional Review Sample IDs:		**Reviewer:**		**Date:**	

Parameter	Acceptance Criteria	Analyst Check (Initials and Date)	Task Lead/Data (Initials and Date)	10% QA Review (Initials and Date)	Optional Additional QA Review (Initials and Date)	Comments
BFB Instrument Tune Performance Check – one per analysis sequence	Evaluation criteria presented in Section 16.1.1	12-26-18	RUB 12/31/18	DST 1/2/19		
Initial calibration with a minimum of 5 points - quarterly	1)RSD of response factors < ±30% with two exceptions of up to ±40% (non-Tier I compounds) 2) IS response < ±40% of mean 3) RRTs for target peaks ±0.06 units from mean RRT 4) IS RTs within 20sec of mean 5) Each calibration standard within ±30% of nominal conc (for Tier I compounds)	12-26-18	RUB 12/31/18	DST 1/2/19		
ICV(LCS) Second source calibration verification check - immediately following ICAL	The response factor ≤ ±30% DEV from calibration curve average response factor	12-26-18	RUB 12/31/18	DST 1/2/19		
Continuing calibration verification (CCV), approximately mid-point of the calibration curve – one per analysis sequence	The response factor ≤ ±30% DEV from calibration curve average response factor	12-26-18	RUB 12/31/18	DST 1/2/19		
Method Blank Analysis – one per analysis sequence	1) < 3xMDL or 0.2ppbv, whichever is lower 2) Internal Standard (IS) area response within < ±40% and IS Retention Time (RT) within ±0.33 min. of most recent initial calibration	12-26-18	RUB 12/31/18	DST 1/2/19		

1/2/19 Checked 8121220-01 spectra for t-2-butene. None found. DST 1/2/19

Compounds other than ethylene oxide were not quantitated.

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

Parameter	Acceptance Criteria	Analyst Check (Initials and Date)	Task Lead/Data (Initials and Date)	10% QA Review (Initials and Date)	Optional Additional QA Review (Initials and Date)	Comments
Replicate Analysis – one per analysis sequence /Duplicate Sample	< 25% RPD for compounds greater than 5 times the MDL	12-26-18	RMB 12/31/18	DST 1/2/19		
Canister Cleaning Certification	<3xMDL or 0.2ppbv per VOC targeted compound, whichever is lower	12-26-18	RMB 12/31/18	NA		
Preconcentrator Leak Check	≤ ± 0.2 psi/min	12-26-18	RMB 12/31/18	DST 1/2/19		
Samples/Internal Standard Check	IS area within ±40% and IS RT within ±0.33 min. of most recent initial calibration	12-26-18	RMB 12/31/18	DST 1/2/19		
COC Included and filled out	Lab receipt acknowledged, LIMS number added to COC	12-26-18	RMB 12/31/18	DST 1/2/19		
Manual Integration and peak deletion	Conforms with ERG-SOP-097 "Procedure for Manual Integration of Chromatographic Peaks"	12-26-18	RMB 12/31/18	DST 1/2/19		
Manual Calculation Check	One compound manual check must agree with software generated result		RMB 12/31/18	DST 1/2/19		CCV CCRF 7251 (4.77 ppbv) / 57838 (2.50 ppbv) = 0.239 ✓
Qualifiers Check	Check to make sure LIMS data flags are correct	12-26-18	RMB 12/31/18	DST 1/2/19		

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

L18LU002 ethylene oxide

$$\frac{7251 \times 4.77}{57838 \times 0.2851} = 2.10 \text{ ppbv}$$

Compounds other than ethylene oxide were not quantitated.

Sequence Name: C:\msdchem\1\sequence\L18LU.s
Comment: ANALYZE 12/21/18,8120004 exp 3/19/19, L18LU
Operator: MAH
Data Path: C:\MSDCHEM\1\DATA\L18LU\
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	L18LU001	BFB	BFB
2)	Sample	2	L18LU002	8120004	1812046-CCV1
3)	Sample	3	L18LU003	8120004	B8L2103-BLK1
4)	Sample	4	L18LU004	8120004	8120528-01
5)	Sample	5	L18LU005	8120004	8120528-02
6)	Sample	6	L18LU006	8120004	B8L2103-DUP1
7)	Sample	7	L18LU007	8120004	B8L2103-DUP2
8)	Sample	8	L18LU008	8120004	8120528-05
9)	Sample	9	L18LU009	8120004	8120701-01
10)	Sample	10	L18LU010	8120004	8120701-02
11)	Sample	11	L18LU011	8120004	8120701-03
12)	Sample	12	L18LU012	8120004	8120701-04
13)	Sample	13	L18LU013	8120004	8120701-05
14)	Sample	14	L18LU014	8120004	8120701-06
15)	Sample	15	L18LU015	8120004	8120701-07
16)	Sample	16	L18LU016	8120004	8120701-08
17)	Sample	17	L18LU017	8120004	8120701-09
18)	Sample	18	L18LU018	8120004	B8L2103-DUP3
19)	Sample	19	L18LU019	8120004	B8L2103-DUP4
20)	Sample	20	L18LU020	8120004	8120701-10
21)	Sample	21	L18LU021	8120004	8121220-01
22)	Sample	22	L18LU022	8120004	8121220-02
23)	Sample	23	L18LU023	8120004	8121220-03
24)	Sample	100	OFF	FIDOFF	OFF

12-26-18

ED_002475_00000322-00003

Compounds other than ethylene oxide were not quantitated.

Sample	1	BFB	BFB	L18LU001	80 ML 8L13001	1
Sample	2	1812046-CCV1	8120004	L18LU002	80 ML 8L13001,8L14004	1
Sample	3	B8L2103-BLK1	8120004	L18LU003	80 ML 8L13001	1
Sample	4	8120528-01	8120004	L18LU004	VIANT SITE #1 C1 11/29/18	1
Sample	5	8120528-02	8120004	L18LU005	VIANT SITE #1 C2 11/29/18	1
Sample	6	B8L2103-DUP1	8120004	L18LU006	VIANT SITE #1 R1 11/29/18	1
Sample	7	B8L2103-DUP2	8120004	L18LU007	VIANT SITE #1 R2 11/29/18	1
Sample	8	8120528-05	8120004	L18LU008	VIANT 11/29/18	1
Sample	9	8120701-01	8120004	L18LU009	GOWER MS 12/1/18	1
Sample	10	8120701-02	8120004	L18LU010	WB WAREHOUSE 12/1/18	1
Sample	11	8120701-03	8120004	L18LU011	HINSDALE S. HS 12/1/18	1
Sample	12	8120701-04	8120004	L18LU012	WILLOW POND PARK 12/1/18	1
Sample	13	8120701-05	8120004	L18LU013	WEST NEIGHBORHOOD 12/1/18	1
Sample	14	8120701-06	8120004	L18LU014	WATER TOWER 12/1/18	1
Sample	15	8120701-07	8120004	L18LU015	GOWER 12/1/18	1
Sample	16	8120701-08	8120004	L18LU016	WB VILLAGE HALL C1 12/1/18	1
Sample	17	8120701-09	8120004	L18LU017	WB VILLAGE HALL C2 12/1/18	1
Sample	18	B8L2103-DUP3	8120004	L18LU018	WB VILLAGE HALL R1 12/1/18	1
Sample	19	B8L2103-DUP4	8120004	L18LU019	WB VILLAGE HALL R2 12/1/18	1
Sample	20	8120701-10	8120004	L18LU020	WEAT NEIGHBOROHOOD 11/25/18	1
Sample	21	8121220-01	8120004	L18LU021	GOWER 12/10/18	1
Sample	22	8121220-02	8120004	L18LU022	WILLOWBROOK VILLAGE HALL 10/10/18	1
Sample	23	8121220-03	8120004	L18LU023	WEST NEIGHBORHOOD 12/10/18	1
Sample	100	OFF	FIDOFF	OFF	OFF	1

Compounds other than ethylene oxide were not quantitated.

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

Sequence Name: C:\Smart\L18LU.SEQ
Date: 12-26-2018
Time: 09:45:48
Int. Std Volume: 80 cc

Sample Name	Inlet #	Auto Pos	Samp Vol.	Cal Std Vol.	Method	Time
BFB	1	1	0	0	C:\Smart\BFB.MPT	12:00
1812046-CCV1	2	1	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
B8L2103-BLK1	1	1	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
8120528-01	1	1	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
8120528-02	1	2	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
B8L2103-DUP1	1	1	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
B8L2103-DUP2	1	2	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
8120528-05	1	3	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
8120701-01	1	4	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
8120701-02	1	5	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
8120701-03	1	6	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
8120701-04	1	7	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
8120701-05	1	8	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
8120701-06	1	9	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
8120701-07	1	10	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
8120701-08	1	11	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
8120701-09	1	12	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
B8L2103-DUP3	1	11	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
B8L2103-DUP4	1	12	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
8120701-10	1	13	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
8121220-01	1	14	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
8121220-02	1	15	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
8121220-03	1	16	250	0	C:\Smart\TO-15A_MS1.MPT	12:00

7L-2610

Compounds other than ethylene oxide were not quantitated.

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

12/22/2018 1:34:34 PM
Leak Check for C:\Smart\L18LU.SEQ
Report File: C:\Smart\L18LU.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	1	---	---	1.2	1.3	0.10
1	2	---	---	1.2	1.2	0.00
1	3	---	---	1.2	1.2	0.00
1	4	---	---	1.2	1.2	0.00
1	5	---	---	1.1	1.2	0.10
1	6	---	---	1.1	1.2	0.10
1	7	---	---	1.1	1.2	0.10
1	8	---	---	1.1	1.2	0.10
1	9	---	---	1.2	1.3	0.10
1	10	---	---	1.1	1.2	0.10
1	11	---	---	1.1	1.2	0.10
1	12	---	---	1.1	1.2	0.10
1	13	---	---	1.2	1.3	0.10
1	14	---	---	1.2	1.3	0.10
1	15	---	---	1.2	1.3	0.10
1	16	---	---	1.2	1.3	0.10

TL-16P

Compounds other than ethylene oxide were not quantitated.

GC/MS QA-QC Check Report

Tune File : C:\msdchem\1\DATA\L18LU\L18LU001.D
Tune Time : 21 Dec 2018 6:49 am

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

File	Sample	Surrogate Recovery %	Internal Standard Responses	
L18LU002.D	1812046-CCV1	57838	136781	98704
L18LU003.D	B8L2103-BLLK1	56325	137862	95608
L18LU004.D	8120528-01	52298	126105	87669
L18LU005.D	8120528-02	49348	119461	81477
L18LU006.D	B8L2103-DUP1	51105	122511	81604
L18LU007.D	B8L2103-DUP2	50576	121692	84881
L18LU008.D	8120528-05	54190	135019	91833
L18LU009.D	8120701-01	54299	130578	93081
L18LU010.D	8120701-02	52754	124895	85664
L18LU011.D	8120701-03	54828	132609	90922
L18LU012.D	8120701-04	55561	136691	94270
L18LU013.D	8120701-05	53686	126420	88262
L18LU014.D	8120701-06	55681	136365	95115
L18LU015.D	8120701-07	55379	135810	97633
L18LU016.D	8120701-08	52604	125132	86666
L18LU017.D	8120701-09	51939	127600	88908
L18LU018.D	B8L2103-DUP3	53399	130083	88891
L18LU019.D	B8L2103-DUP4	52565	127745	88109
L18LU020.D	8120701-10	54183	136263	96333
L18LU021.D	8121220-01	52823	127400	90123
L18LU022.D	8121220-02	57216	141806	99341
L18LU023.D	8121220-03	54801	132480	93996

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

Compounds other than ethylene oxide were not quantitated.

ANALYSIS SEQUENCE

1812046

Instrument: ERGMS#1

Calibration ID: 8120004

Printed: 12/21/2018 11:15:02AM

Lab Number	Analysis	Container	Order	Position	STD ID	ISTD ID	Client	Comments
1812046-CCV1	QC		1		8L14004	8L13002		
B8L2103-BLK1	QC		2			8L13002		
8120528-01	TO-15 2018	A	3			8L13002	U.S. Environmental Protection Agency, Regic	Ethylene Oxide only
8120528-02	TO-15 2018	A	4			8L13002	U.S. Environmental Protection Agency, Regic	Ethylene Oxide only
B8L2103-DUP1	QC		5			8L13002		
B8L2103-DUP2	QC		6			8L13002		
8120528-05	TO-15 2018	A	7			8L13002	U.S. Environmental Protection Agency, Regic	Ethylene Oxide only
8120701-01	TO-15 2018	A	8			8L13002	U.S. Environmental Protection Agency - OAC	Ethylene Oxide only
8120701-02	TO-15 2018	A	9			8L13002	U.S. Environmental Protection Agency - OAC	Ethylene Oxide only
8120701-03	TO-15 2018	A	10			8L13002	U.S. Environmental Protection Agency - OAC	Ethylene Oxide only
8120701-04	TO-15 2018	A	11			8L13002	U.S. Environmental Protection Agency - OAC	Ethylene Oxide only
8120701-05	TO-15 2018	A	12			8L13002	U.S. Environmental Protection Agency - OAC	Ethylene Oxide only
8120701-06	TO-15 2018	A	13			8L13002	U.S. Environmental Protection Agency - OAC	Ethylene Oxide only
8120701-07	TO-15 2018	A	14			8L13002	U.S. Environmental Protection Agency - OAC	Ethylene Oxide only
8120701-08	TO-15 2018	A	15			8L13002	U.S. Environmental Protection Agency - OAC	Ethylene Oxide only
8120701-09	TO-15 2018	A	16			8L13002	U.S. Environmental Protection Agency - OAC	Ethylene Oxide only
B8L2103-DUP3	QC		17			8L13002		
B8L2103-DUP4	QC		18			8L13002		
8120701-10	TO-15 2018	A	19			8L13002	U.S. Environmental Protection Agency - OAC	Ethylene Oxide only
8121220-01	TO-15 2018	A	20			8L13002	U.S. Environmental Protection Agency - OAC	Ethylene Oxide only
8121220-02	TO-15 2018	A	21			8L13002	U.S. Environmental Protection Agency - OAC	Ethylene Oxide only
8121220-03	TO-15 2018	A	22			8L13002	U.S. Environmental Protection Agency - OAC	Ethylene Oxide only

Samples Loaded By 12-21-18 Date

Data Processed By 12-26-18 Date

Page 1 of 2

Compounds other than ethylene oxide were not quantitated.

ANALYSIS SEQUENCE

ANALYSIS SEQUENCE

1812046

Instrument: ERGMS#1

Calibnration ID: 8120004

Printed: 12/21/2018 11:15:02AM

Lab Number	Analysis	Container	Order	Position	STD ID	ISTD ID	Client	Comments

Samples Loaded By Date

Data Processed By Date

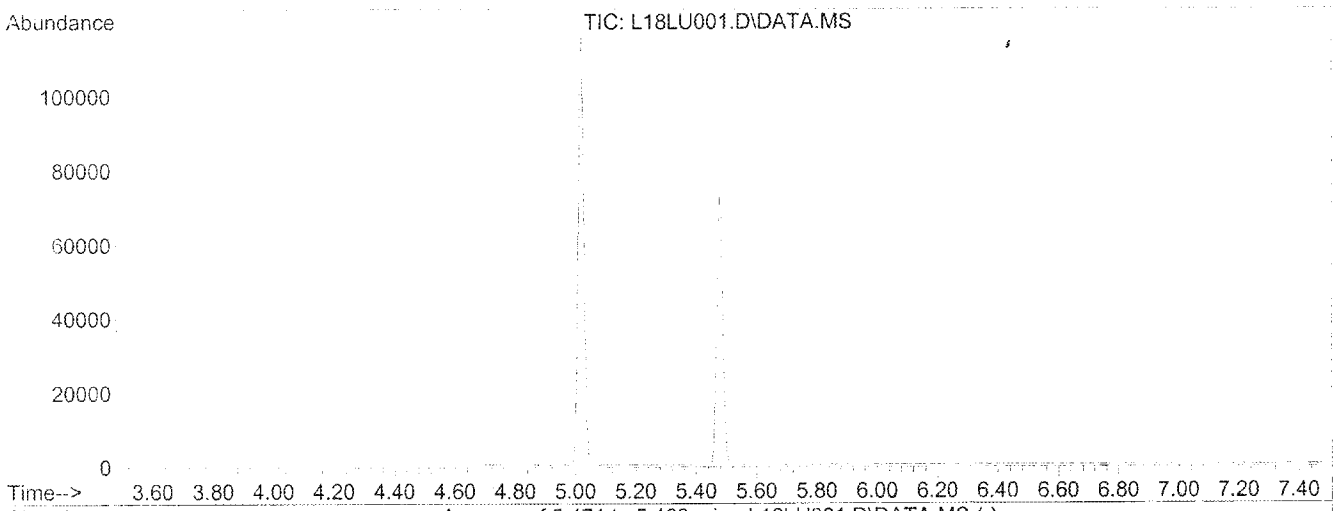
Compounds other than ethylene oxide were not quantitated.

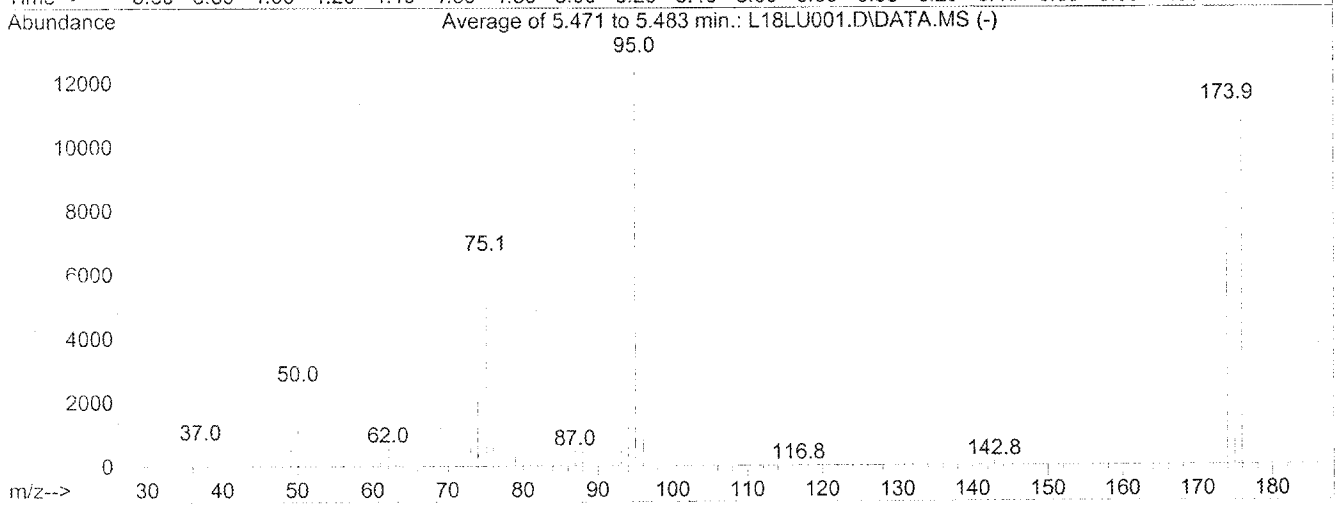
BFB

Data Path : C:\msdchem\1\DATA\L18LU\
Data File : L18LU001.D
Acq On : 21 Dec 2018 6:49 am
Operator : MAH
Sample : BFB
Misc : 80 ML 8L13001
ALS Vial : 1 Sample Multiplier: 1

Integration File: RTEINT.P

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





AutoFind: Scans 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	19.5	2514	PASS
75	95	30	66	51.0	6588	PASS
95	95	100	100	100.0	12915	PASS
96	95	5	9	7.1	912	PASS
173	174	0.00	2	0.3	39	PASS
174	95	50	120	87.2	11262	PASS
175	174	4	9	7.0	789	PASS
176	174	93	101	95.5	10760	PASS
177	176	5	9	7.2	770	PASS

Compounds other than ethylene oxide were not quantitated.

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\DATA\L18LU\
Data File : L18LU002.D
Acq On : 21 Dec 2018 7:40 am
Operator : MAH
Sample : 1812046-CCV1
Misc : 80 ML 8L13001,8L14004
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 26 09:49:27 2018
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
Response via : Initial Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	ISS	IS-Hexane-d14	1.000	1.000	0.0	100	0.00
2	CT	Acetylene	0.402	0.408	-1.5	100	0.00
3	CT	Propylene	0.478	0.511	-6.9	100	0.00
4	CT	Dichlorodifluoromethane	2.036	2.101	-3.2	100	0.00
5	CT	Chloromethane	0.595	0.594	0.2	100	0.00
6	CT	Dichlorotetrafluoroethane	1.881	2.128	-13.1	100	0.00
7	CT	Vinyl Chloride	0.638	0.645	-1.1	100	0.00
8	CT	1,3-Butadiene	0.422	0.432	-2.4	100	0.00
9	CT	Ethylene oxide	0.285	0.239	16.1	100	0.00
10	CT	Bromomethane	0.628	0.633	-0.8	100	0.00
11	CT	Chloroethane	0.277	0.282	-1.8	100	0.00
12	CT	Acetonitrile	0.489	0.456	6.7	100	0.00
13	CT	Acrolein	0.274	0.215	21.5	100	0.00
14	CT	Trichlorofluoromethane	1.866	1.695	9.2	100	0.00
15	CT	Acrylonitrile	0.384	0.355	7.6	100	0.00
16	CT	1,1-Dichloroethene	0.862	0.931	-8.0	100	0.00
17	CT	Methylene Chloride	0.618	0.645	-4.4	100	0.00
18	CT	Carbon Disulfide	1.810	1.801	0.5	100	0.00
19	CT	Trichlorotrifluoroethane	1.338	1.417	-5.9	100	0.00
20	CT	trans-1,2-Dichloroethylene	0.485	0.484	0.2	100	0.00
21	CT	1,1-Dichloroethane	0.881	0.897	-1.8	100	0.00
22	CT	Methyl tert-Butyl Ether	1.284	1.300	-1.2	100	0.00
23	CT	Chloroprene	0.631	0.645	-2.2	100	0.00
24	CT	cis-1,2-Dichloroethylene	0.682	0.673	1.3	100	0.00
25	CT	Bromochloromethane	0.367	0.351	4.4	100	0.00
26	CT	Chloroform	1.010	1.052	-4.2	100	0.00
27	CT	Ethyl tert-Butyl Ether	1.351	1.392	-3.0	100	0.00
28	CT	1,2-Dichloroethane	0.612	0.639	-4.4	100	0.00
29	ISS	IS-1,4-Difluorobenzene	1.000	1.000	0.0	100	0.00
30	CT	1,1,1-Trichloroethane	0.426	0.428	-0.5	100	0.00
31	CT	Benzene	0.583	0.628	-7.7	100	0.00
32	CT	Carbon Tetrachloride	0.464	0.518	-11.6	100	0.00
33	CT	tert-Amyl Methyl Ether	0.493	0.502	-1.8	100	0.00
34	CT	1,2-Dichloropropane	0.243	0.248	-2.1	100	0.00
35	CT	Ethyl Acrylate	0.325	0.336	-3.4	100	0.00
36	CT	Bromodichloromethane	0.449	0.406	9.6	100	0.00
37	CT	Trichloroethylene	0.275	0.298	-8.4	100	0.00
38	CT	Methyl Methacrylate	0.903	0.906	-0.3	100	0.00
39	CT	cis-1,3-Dichloropropene	0.216	0.239	-10.6	100	0.00
40	CT	Methyl Isobutyl Ketone	0.482	0.470	2.5	100	0.00
41	CT	trans-1,3-Dichloropropene	0.160	0.168	-5.0	100	0.00
42	CT	1,1,2-Trichloroethane	0.209	0.216	-3.3	100	0.00
43	ISS	IS-Chlorobenzene-d5	1.000	1.000	0.0	100	0.00
44	CT	Toluene	0.844	0.902	-6.9	100	0.00
45	CT	Dibromochloromethane	2.000	1.928	3.6	100	0.00
46	CT	1,2-Dibromoethane	0.335	0.348	-3.9	100	0.00
47	CT	n-Octane	0.542	0.568	-4.8	100	0.00
48	CT	Tetrachloroethylene	0.421	0.445	-5.7	100	0.00

Compounds other than ethylene oxide were not quantitated.

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\DATA\L18LU\
Data File : L18LU002.D
Acq On : 21 Dec 2018 7:40 am
Operator : MAH
Sample : 1812046-CCV1
Misc : 80 ML 8L13001,8L14004
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 26 09:49:27 2018
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
Response via : Initial Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
49	CT	Chlorobenzene	0.543	0.558	-2.8	100	0.00
50	CT	Ethylbenzene	0.873	0.919	-5.3	100	0.00
51	CT	m,p-Xylene	0.750	0.777	-3.6	100	0.00
52	CT	Bromoform	0.379	0.368	2.9	100	0.00
53	CT	Styrene	0.381	0.388	-1.8	100	0.00
54	CT	1,1,2,2-Tetrachloroethane	0.531	0.460	13.4	100	0.00
55	CT	o-Xylene	0.737	0.809	-9.8	100	0.00
56	CT	1,3,5-Trimethylbenzene	0.720	0.730	-1.4	100	0.00
57	CT	1,2,4-Trimethylbenzene	0.607	0.615	-1.3	100	0.00
58	CT	m-Dichlorobenzene	0.320	0.282	11.9	100	0.00
59	CT	p-Dichlorobenzene	0.244	0.230	5.7	100	0.00
60	CT	o-Dichlorobenzene	0.299	0.290	3.0	100	0.00
61	CT	1,2,4-Trichlorobenzene	0.117	0.128	-9.4	100	0.00
62	CT	Hexachloro-1,3-butadiene	0.425	0.436	-2.6	100	0.00

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

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L18LU\
Data File : L18LU002.D
Acq On : 21 Dec 2018 7:40 am
Operator : MAH
Sample : 1812046-CCV1
Misc : 80 ML 8L13001,8L14004
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 26 09:49:27 2018
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) IS-Hexane-d14	19.992	66	57838	4.7700	ppbv	0.00
29) IS-1,4-Difluorobenzene	23.171	114	136781	4.9900	ppbv	0.02
43) IS-Chlorobenzene-d5	30.135	117	98704	4.7400	ppbv	0.04

System Monitoring Compounds

Target Compounds						Qvalue
2) Acetylene	5.422	26	11868	2.4328	ppbv	100
3) Propylene	7.838	41	15195	2.6216	ppbv	100
4) Dichlorodifluoromethane	8.702	85	60629	2.4561	ppbv	99
5) Chloromethane	9.757	50	17852	2.4762	ppbv	99
6) Dichlorotetrafluoroethane	10.864	85	62948	2.7597	ppbv	99
7) Vinyl Chloride	11.119	62	19558	2.5290	ppbv	100
8) 1,3-Butadiene	11.783	54	12946	2.5299	ppbv	100
9) Ethylene oxide	12.395	29	7251	2.0974	ppbv	97
10) Bromomethane	12.590	94	19179	2.5176	ppbv	100
11) Chloroethane	13.282	64	8562	2.5509	ppbv	100
12) Acetonitrile	14.358	41	13984	2.3594	ppbv	96
13) Acrolein	14.636	56	6316	1.8978	ppbv	99
14) Trichlorofluoromethane	15.193	101	51381	2.2706	ppbv	100
15) Acrylonitrile	15.935	53	10760	2.3136	ppbv	98
16) 1,1-Dichloroethene	16.445	61	27553	2.6376	ppbv	100
17) Methylene Chloride	16.747	49	19399	2.5890	ppbv	99
18) Carbon Disulfide	16.932	76	54149	2.4669	ppbv	100
19) Trichlorotrifluoroethane	17.303	101	41920	2.5848	ppbv	99
20) trans-1,2-Dichloroethy...	18.337	96	14434	2.4560	ppbv	100
21) 1,1-Dichloroethane	18.632	63	26431	2.4745	ppbv	100
22) Methyl tert-Butyl Ether	18.791	73	40039	2.5720	ppbv	100
23) Chloroprene	19.539	53	19383	2.5316	ppbv	99
24) cis-1,2-Dichloroethylene	19.970	61	20402	2.4664	ppbv	100
25) Bromochloromethane	20.197	128	10503	2.3607	ppbv	99
26) Chloroform	20.423	83	31897	2.6043	ppbv	99
27) Ethyl tert-Butyl Ether	21.184	59	43393	2.6485	ppbv	100
28) 1,2-Dichloroethane	21.497	62	19301	2.6009	ppbv	100
30) 1,1,1-Trichloroethane	21.889	97	29000	2.4846	ppbv	99
31) Benzene	22.555	78	43187	2.7044	ppbv	100
32) Carbon Tetrachloride	22.790	117	35801	2.8163	ppbv	100
33) tert-Amyl Methyl Ether	23.522	73	35801	2.6489	ppbv	100
34) 1,2-Dichloropropane	23.810	63	17180	2.5839	ppbv	100
35) Ethyl Acrylate	23.893	55	23425	2.6269	ppbv	100
36) Bromodichloromethane	24.099	83	28471	2.3155	ppbv	100
37) Trichloroethylene	24.181	130	20601	2.7356	ppbv	100
38) Methyl Methacrylate	24.552	41	63060	2.5483	ppbv	100
39) cis-1,3-Dichloropropene	25.549	75	16667	2.8124	ppbv	99
40) Methyl Isobutyl Ketone	25.626	43	32627	2.4702	ppbv	100
41) trans-1,3-Dichloropropene	26.388	75	11312	2.5762	ppbv	100
42) 1,1,2-Trichloroethane	26.636	97	14690	2.5625	ppbv	100
44) Toluene	27.113	91	45844	2.6082	ppbv	100
45) Dibromochloromethane	27.752	129	101978	2.4487	ppbv	100
46) 1,2-Dibromoethane	28.173	107	18092	2.5917	ppbv	100
47) n-Octane	28.892	43	29789	2.6380	ppbv	100
48) Tetrachloroethylene	29.015	166	23085	2.6318	ppbv	100
49) Chlorobenzene	30.211	112	28582	2.5292	ppbv	99
50) Ethylbenzene	30.936	91	47826	2.6323	ppbv	100

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L18LU\
Data File : L18LU002.D
Acq On : 21 Dec 2018 7:40 am
Operator : MAH
Sample : 1812046-CCV1
Misc : 80 ML 8L13001,8L14004
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 26 09:49:27 2018
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
Response via : Initial Calibration

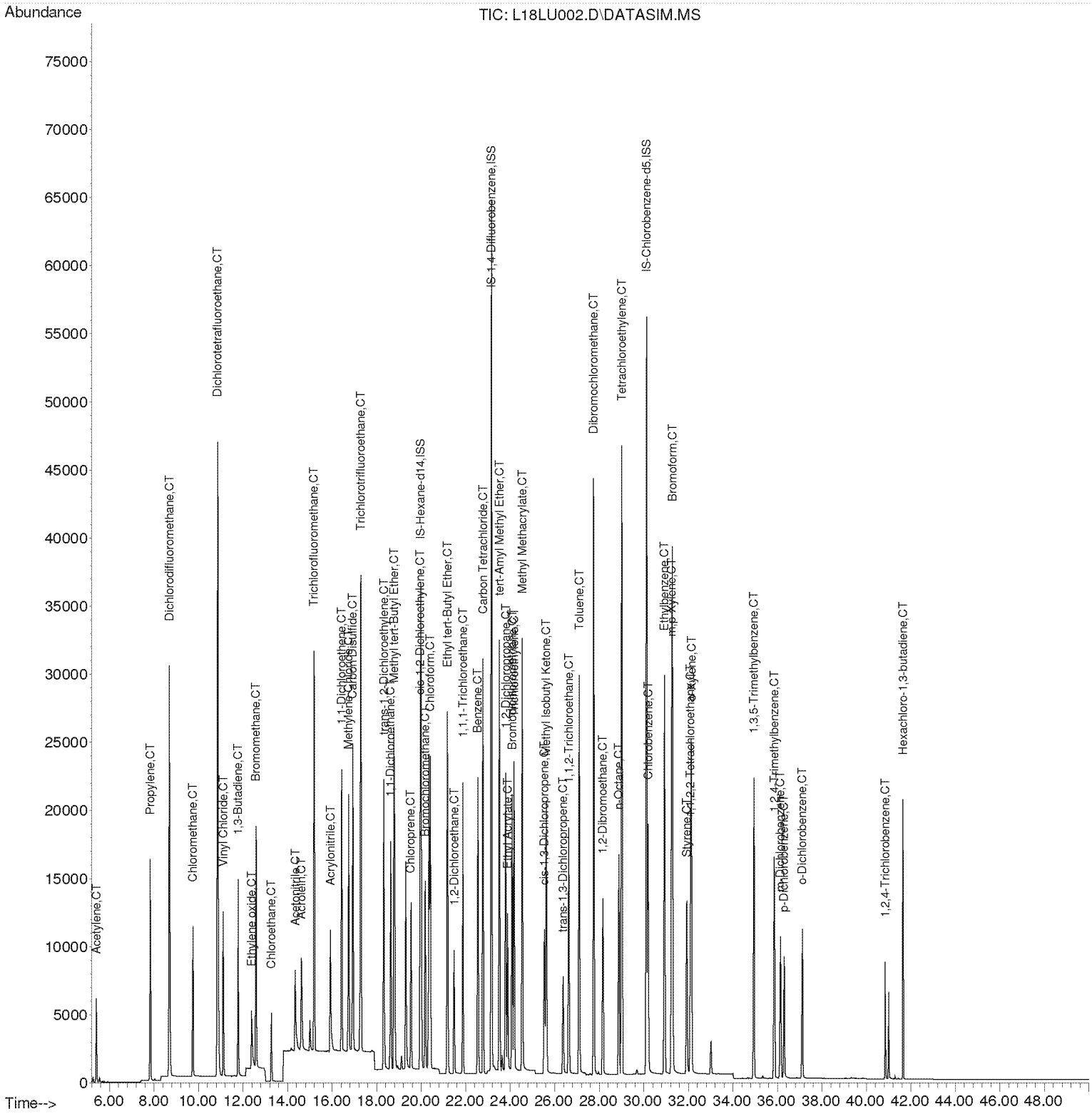
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
51) m,p-Xylene	31.261	91	80561	5.1602	ppbv		100
52) Bromoform	31.299	173	19463	2.4656	ppbv		100
53) Styrene	31.948	104	20205	2.5447	ppbv	#	100
54) 1,1,2,2-Tetrachloroethane	32.101	83	24230	2.1934	ppbv		99
55) o-Xylene	32.158	91	41080	2.6785	ppbv		100
56) 1,3,5-Trimethylbenzene	34.955	105	38325	2.5575	ppbv		99
57) 1,2,4-Trimethylbenzene	35.864	105	30458	2.4085	ppbv		100
58) m-Dichlorobenzene	36.149	146	14075	2.1136	ppbv		99
59) p-Dichlorobenzene	36.309	146	12484	2.4584	ppbv		100
60) o-Dichlorobenzene	37.128	146	15093	2.4202	ppbv		100
61) 1,2,4-Trichlorobenzene	40.856	180	6589	2.7147	ppbv		100
62) Hexachloro-1,3-butadiene	41.651	225	22707	2.5650	ppbv		99

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

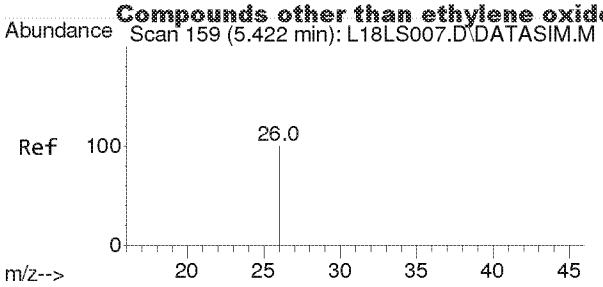
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L18LU\
Data File : L18LU002.D
Acq On : 21 Dec 2018 7:40 am
Operator : MAH
Sample : 1812046-CCV1
Misc : 80 ML 8L13001,8L14004
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 26 09:49:27 2018
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
Response via : Initial Calibration

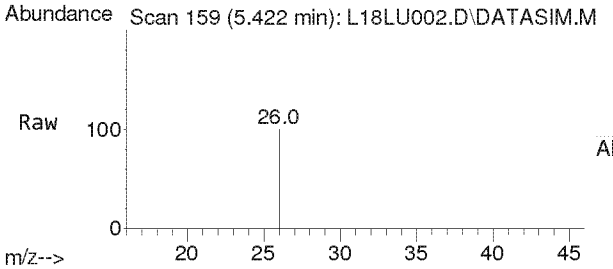


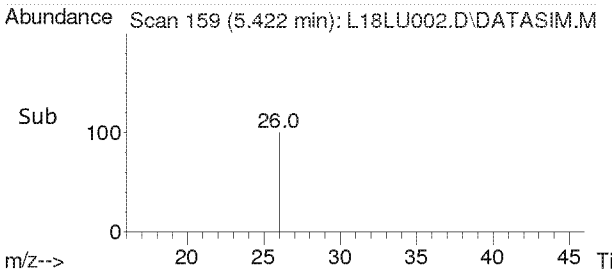
Compounds other than ethylene oxide were not quantitated.

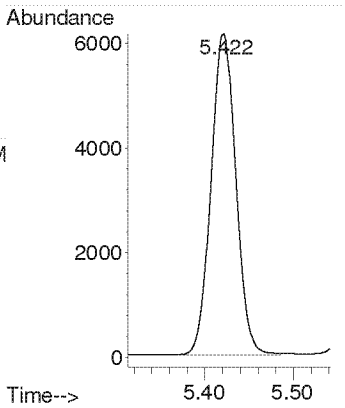


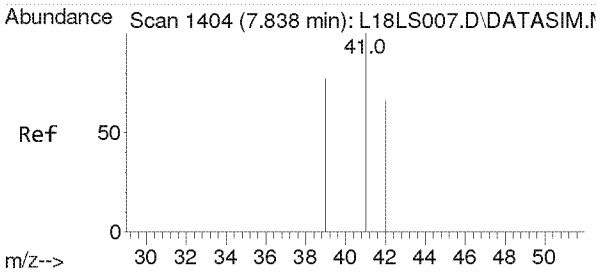
#2
Acetylene
Concen: 2.433 ppbv
RT: 5.422 min Scan# 159
Delta R.T. 0.000 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion: 26 Resp: 11868





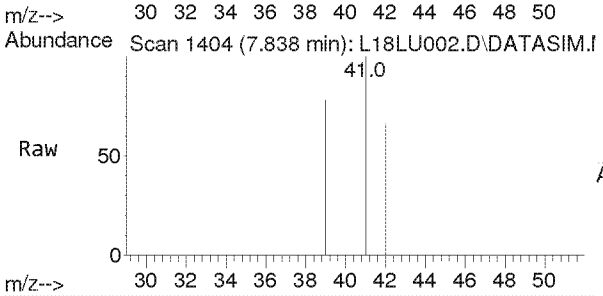


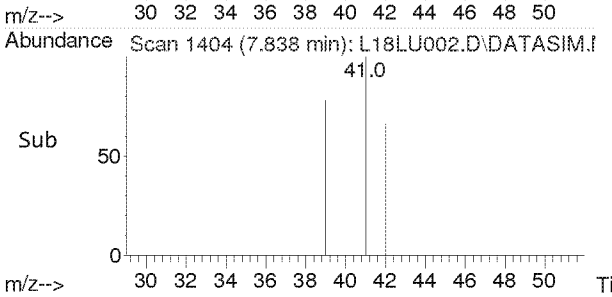


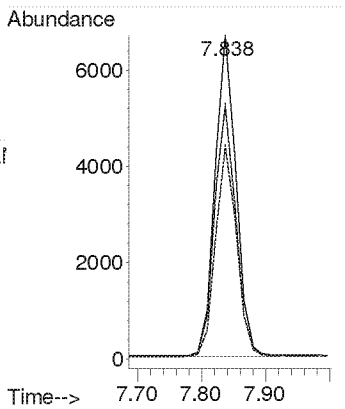
#3
Propylene
Concen: 2.622 ppbv
RT: 7.838 min Scan# 1404
Delta R.T. 0.000 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion: 41 Resp: 15195

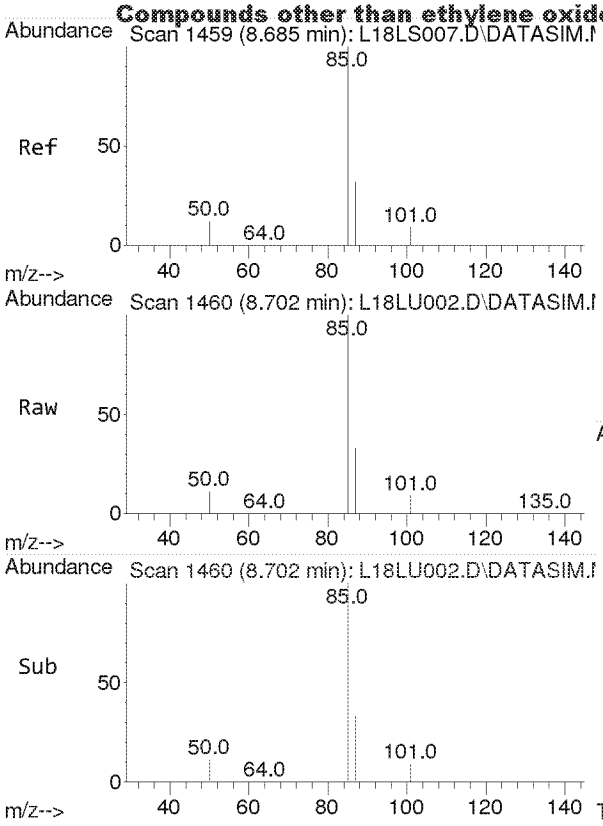
Ion	Ratio	Lower	Upper
41	100		
39	78.6	62.6	93.8
42	65.8	52.6	79.0







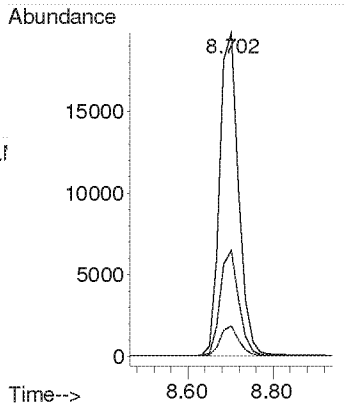
Compounds other than ethylene oxide were not quantitated.

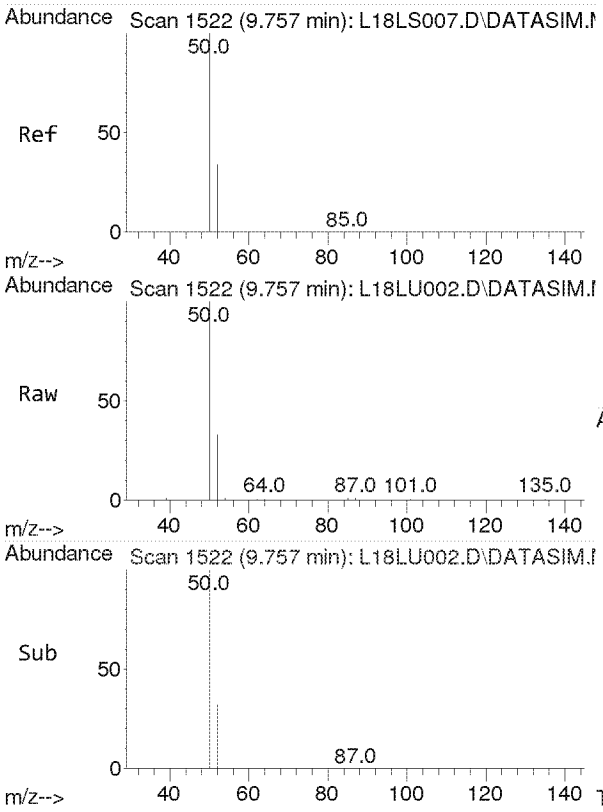


#4
Dichlorodifluoromethane
Concen: 2.456 ppbv
RT: 8.702 min Scan# 1460
Delta R.T. 0.017 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion: 85 Resp: 60629

Ion	Ratio	Lower	Upper
85	100		
87	32.1	26.0	39.0
101	8.9	7.1	10.7

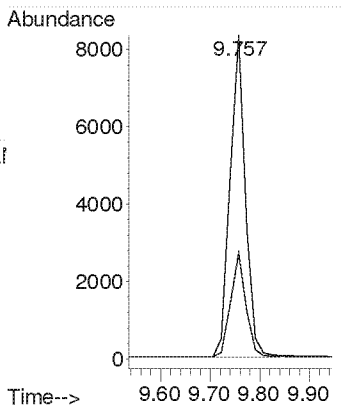




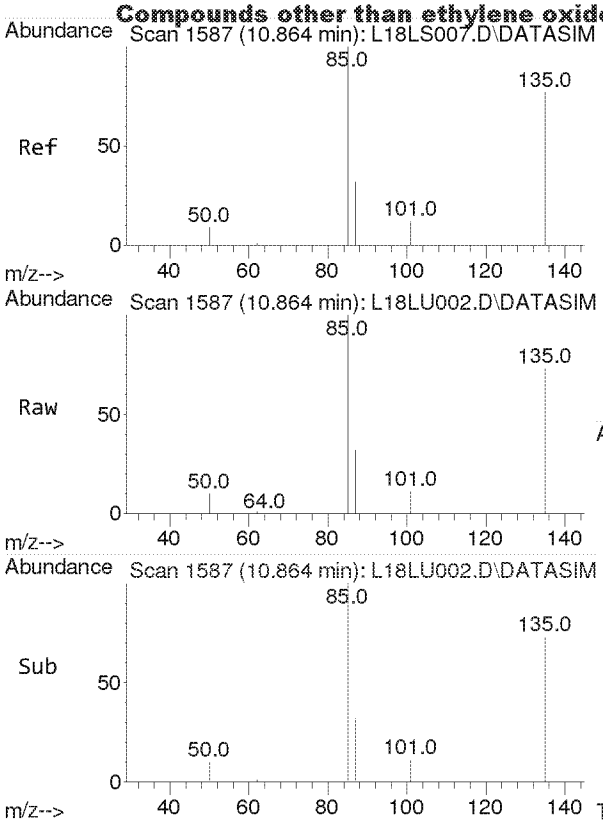
#5
Chloromethane
Concen: 2.476 ppbv
RT: 9.757 min Scan# 1522
Delta R.T. 0.000 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion: 50 Resp: 17852

Ion	Ratio	Lower	Upper
50	100		
52	32.1	26.1	39.1



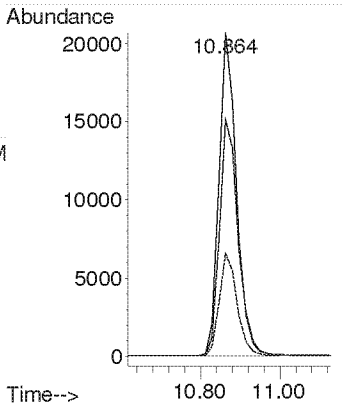
Compounds other than ethylene oxide were not quantitated.

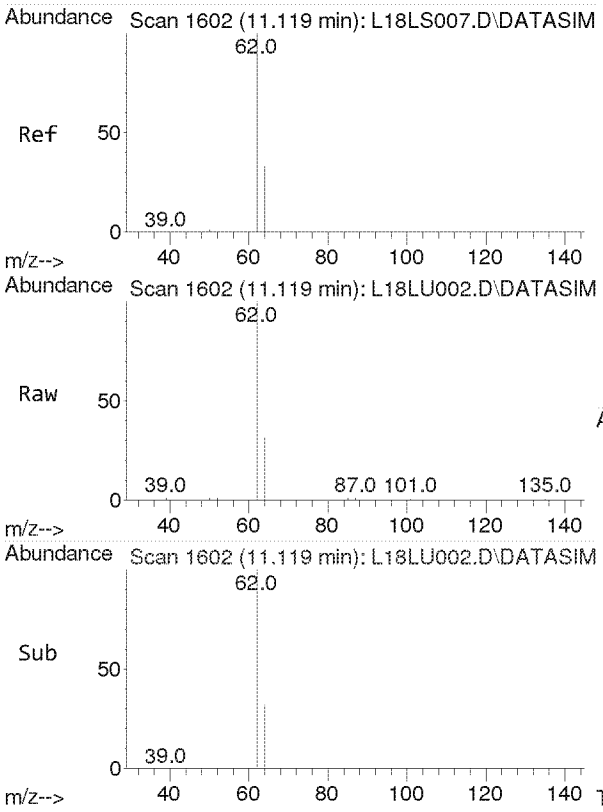


#6
Dichlorotetrafluoroethane
Concen: 2.760 ppbv
RT: 10.864 min Scan# 1587
Delta R.T. 0.000 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion: 85 Resp: 62948

Ion	Ratio	Lower	Upper
85	100		
135	78.0	63.3	94.9
87	32.3	25.7	38.5

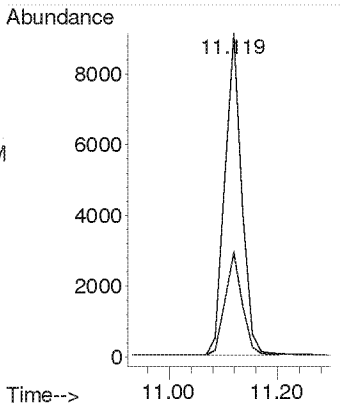




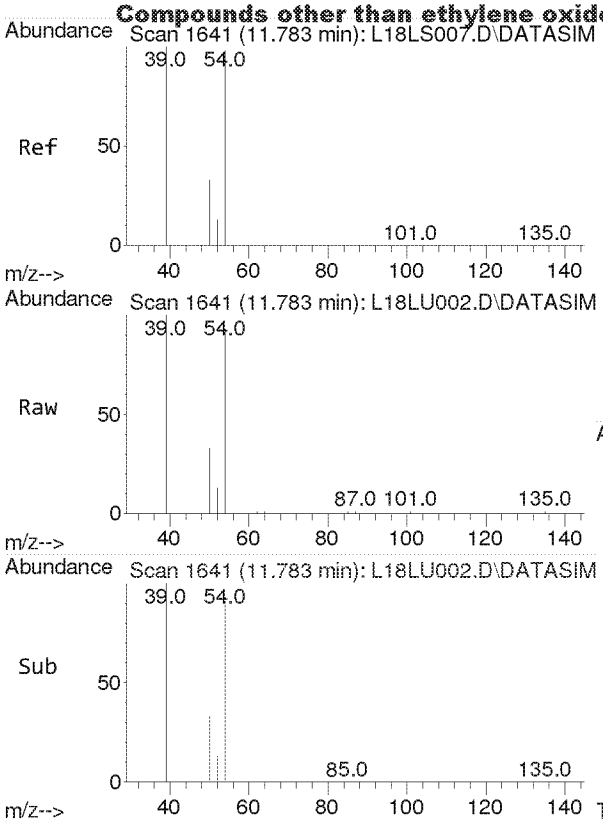
#7
Vinyl Chloride
Concen: 2.529 ppbv
RT: 11.119 min Scan# 1602
Delta R.T. 0.000 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion: 62 Resp: 19558

Ion	Ratio	Lower	Upper
62	100		
64	31.9	25.4	38.2



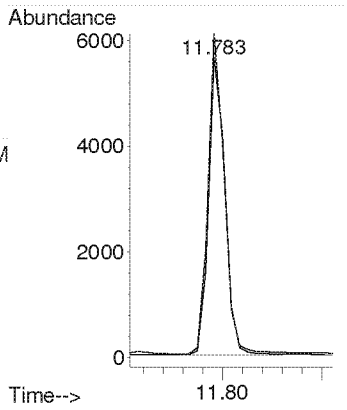
Compounds other than ethylene oxide were not quantitated.

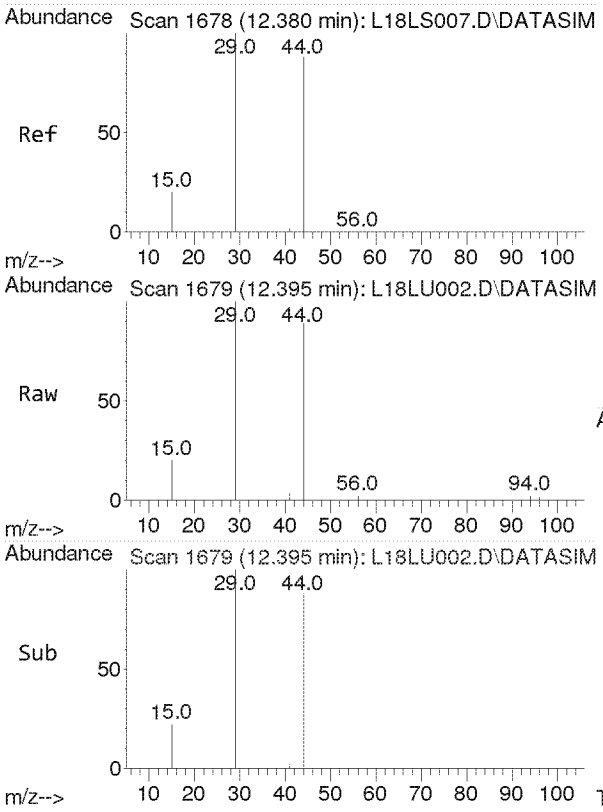


#8
1,3-Butadiene
Concen: 2.530 ppbv
RT: 11.783 min Scan# 1641
Delta R.T. 0.000 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion: 54 Resp: 12946

Ion	Ratio	Lower	Upper
54	100		
39	105.6	84.3	126.5

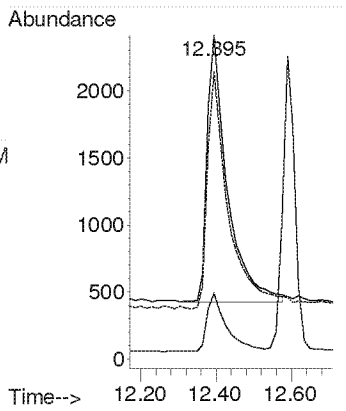




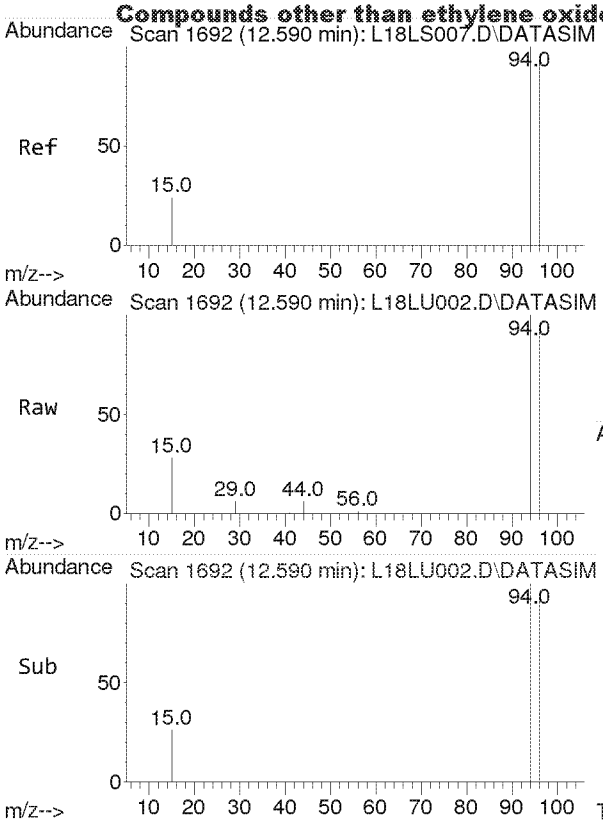
#9
Ethylene oxide
Concen: 2.097 ppbv
RT: 12.395 min Scan# 1679
Delta R.T. 0.015 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion: 29 Resp: 7251

Ion	Ratio	Lower	Upper
29	100		
15	20.8	16.2	24.4
44	93.7	72.0	108.0



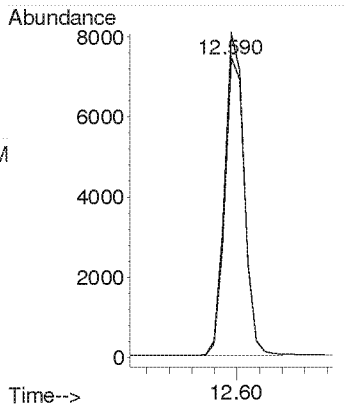
Compounds other than ethylene oxide were not quantitated.

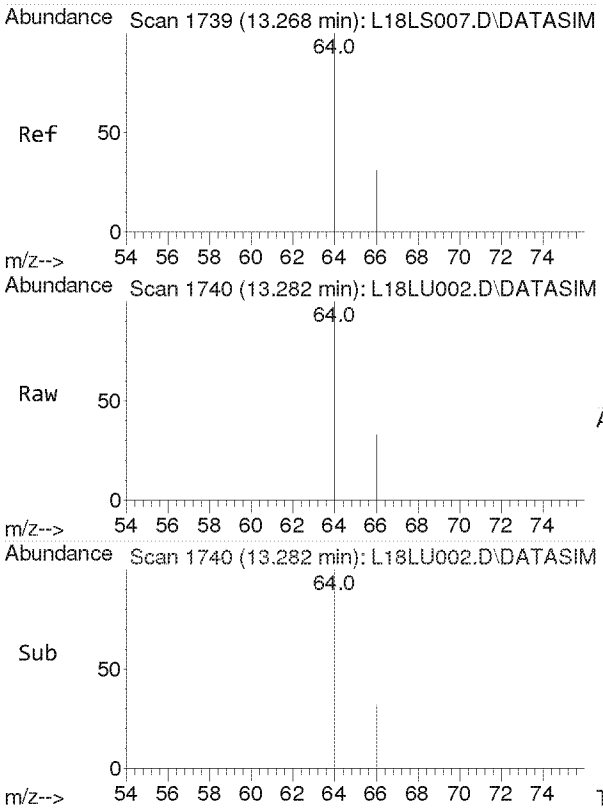


#10
Bromomethane
Concen: 2.518 ppbv
RT: 12.590 min Scan# 1692
Delta R.T. 0.000 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion: 94 Resp: 19179

Ion	Ratio	Lower	Upper
94	100		
96	94.4	75.1	112.7

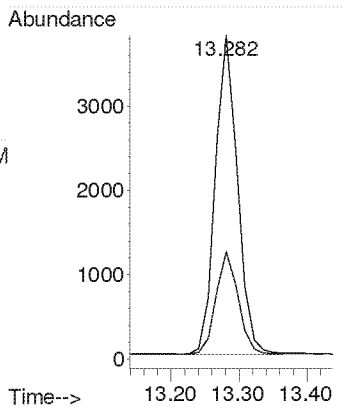




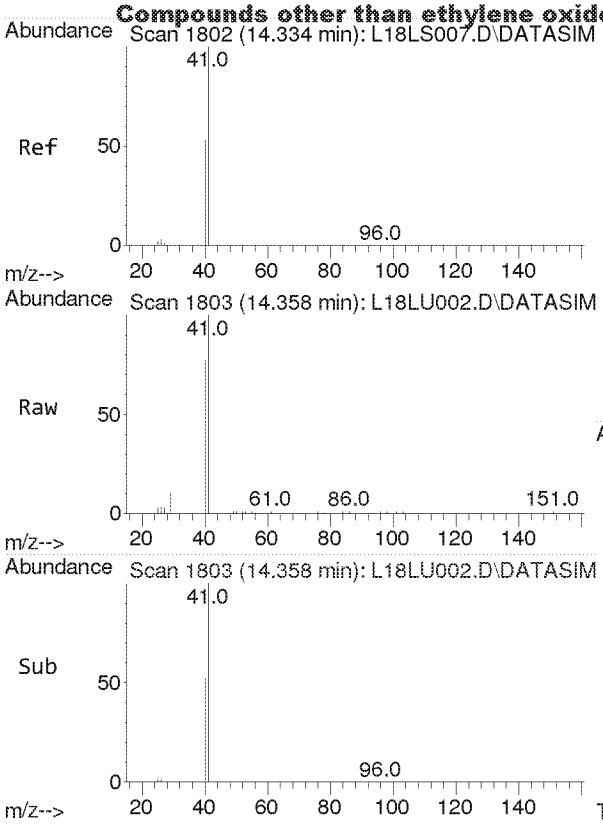
#11
Chloroethane
Concen: 2.551 ppbv
RT: 13.282 min Scan# 1740
Delta R.T. 0.014 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion: 64 Resp: 8562

Ion	Ratio	Lower	Upper
64	100		
66	32.1	25.6	38.4



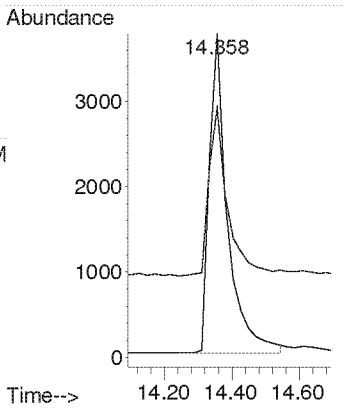
Compounds other than ethylene oxide were not quantitated.

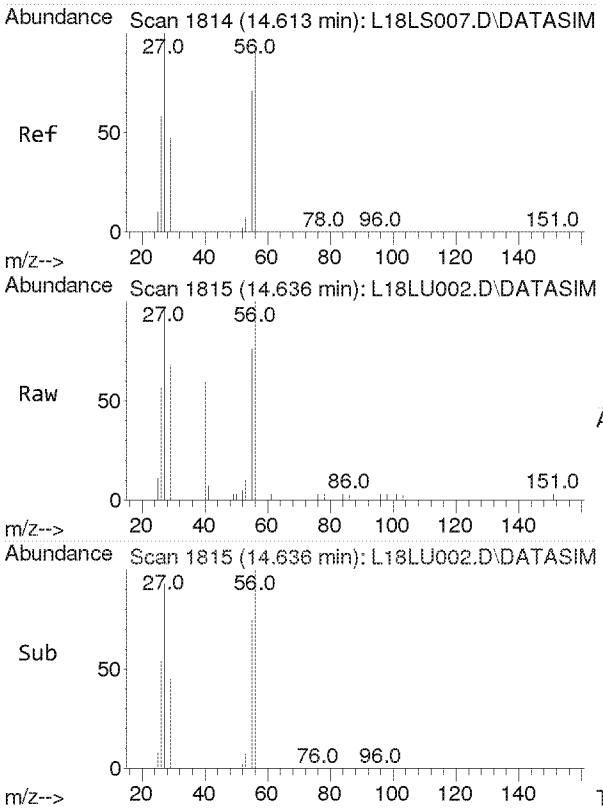


#12
Acetonitrile
Concen: 2.359 ppbv
RT: 14.358 min Scan# 1803
Delta R.T. 0.023 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion: 41 Resp: 13984

Ion	Ratio	Lower	Upper
41	100		
40	53.5	40.7	61.1

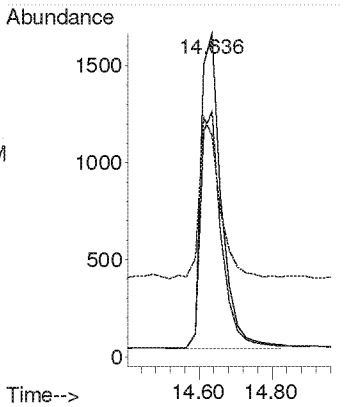




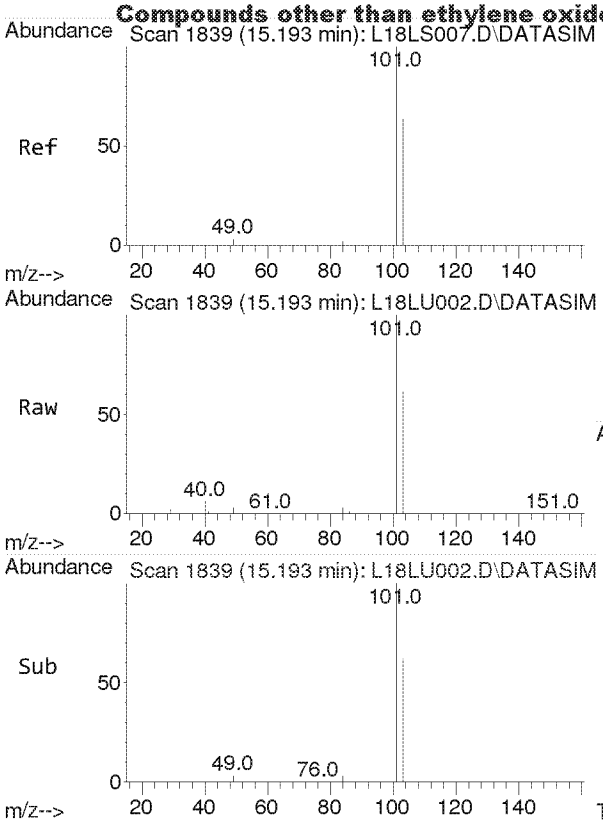
#13
Acrolein
Concen: 1.898 ppbv
RT: 14.636 min Scan# 1815
Delta R.T. 0.023 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion: 56 Resp: 6316

Ion	Ratio	Lower	Upper
56	100		
55	75.8	60.3	90.5
29	51.6	42.3	63.5



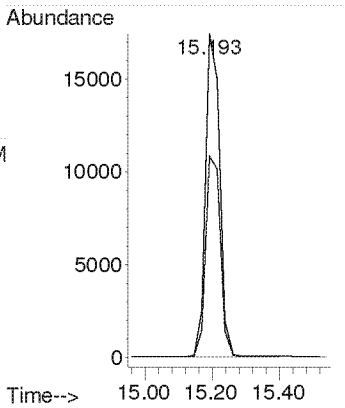
Compounds other than ethylene oxide were not quantitated.

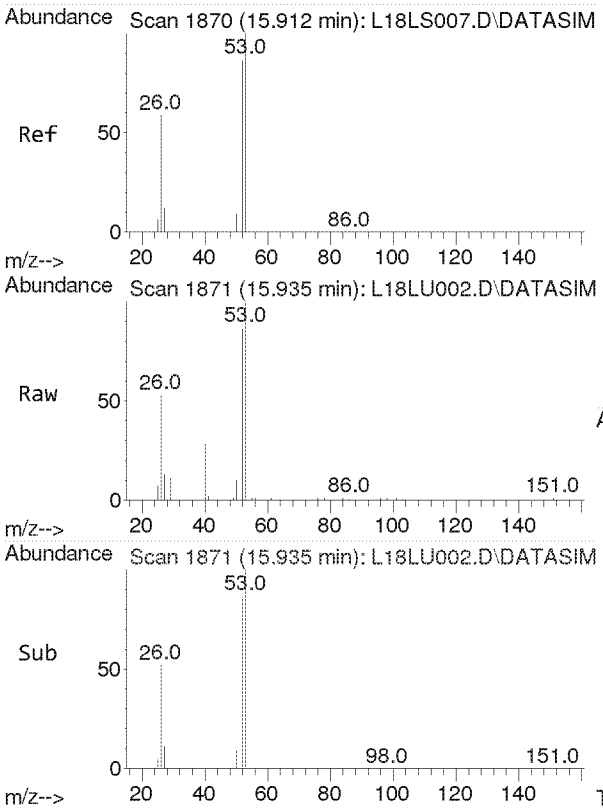


#14
Trichlorofluoromethane
Concen: 2.271 ppbv
RT: 15.193 min Scan# 1839
Delta R.T. 0.000 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion:101 Resp: 51381

Ion	Ratio	Lower	Upper
101	100		
103	64.6	51.7	77.5

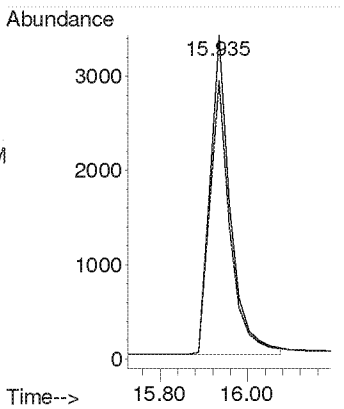




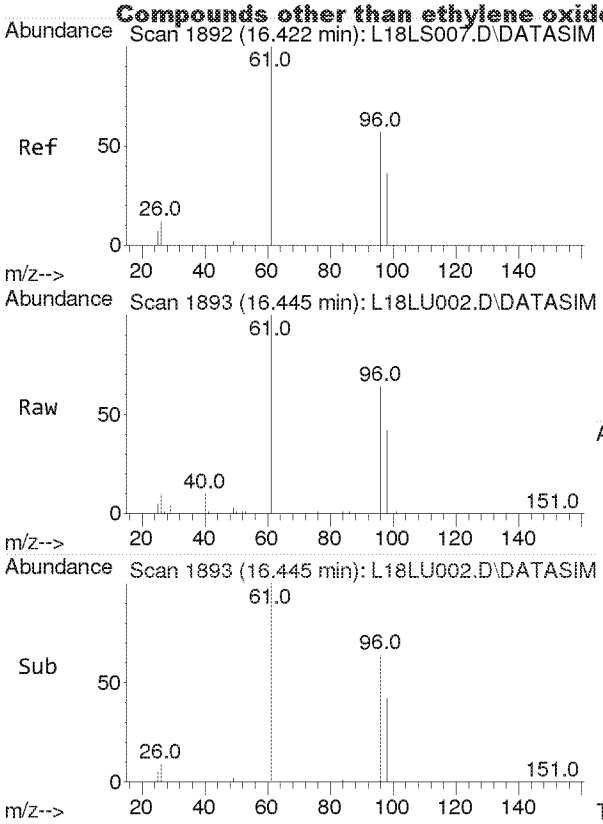
#15
Acrylonitrile
Concen: 2.314 ppbv
RT: 15.935 min Scan# 1871
Delta R.T. 0.023 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion: 53 Resp: 10760

Ion	Ratio	Lower	Upper
53	100		
52	87.0	68.3	102.5



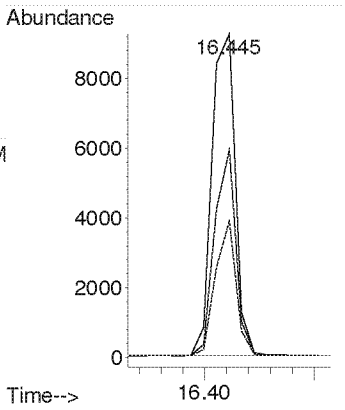
Compounds other than ethylene oxide were not quantitated.

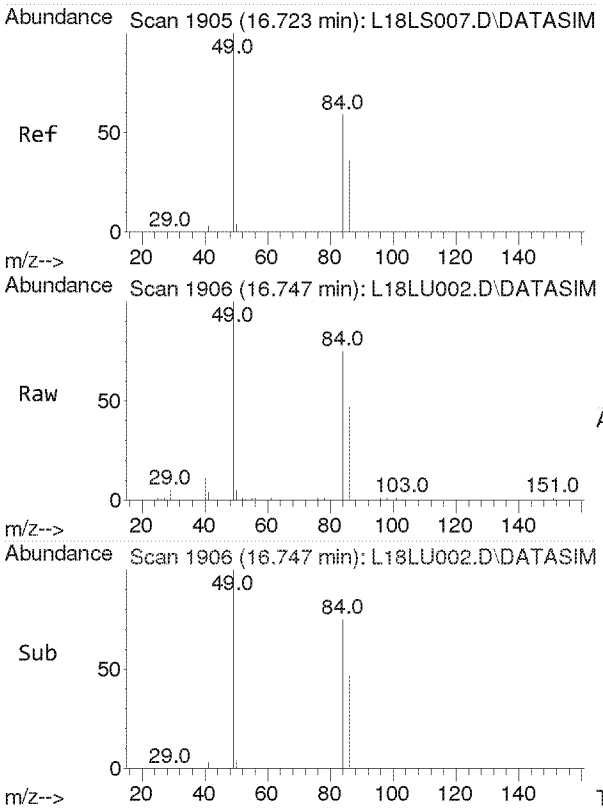


#16
1,1-Dichloroethene
Concen: 2.638 ppbv
RT: 16.445 min Scan# 1893
Delta R.T. 0.023 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion: 61 Resp: 27553

Ion	Ratio	Lower	Upper
61	100		
96	58.2	46.6	70.0
98	37.1	29.9	44.9

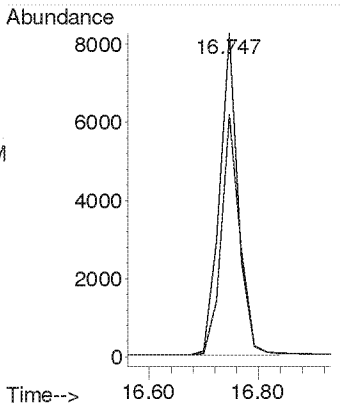




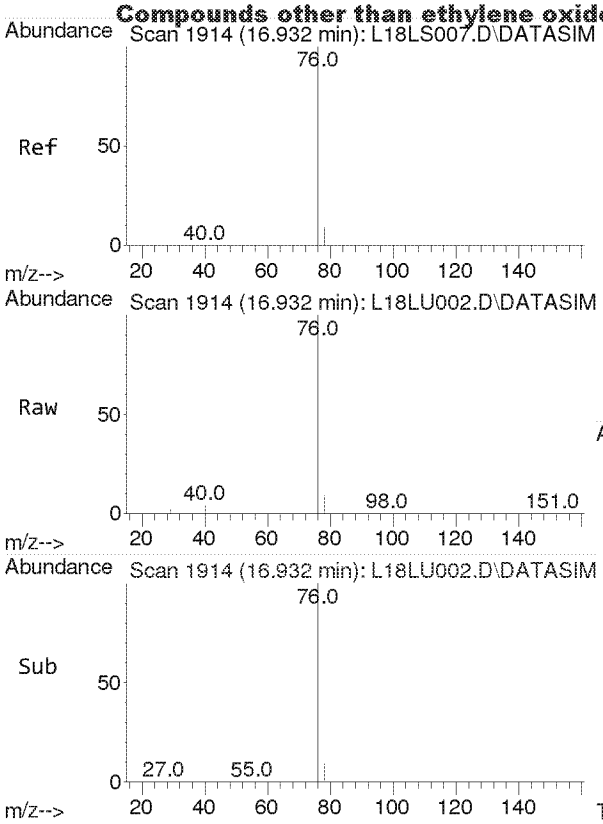
#17
Methylene Chloride
Concen: 2.589 ppbv
RT: 16.747 min Scan# 1906
Delta R.T. 0.023 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion: 49 Resp: 19399

Ion	Ratio	Lower	Upper
49	100		
84	75.7	53.5	99.3



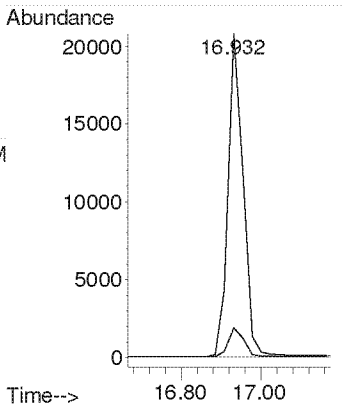
Compounds other than ethylene oxide were not quantitated.

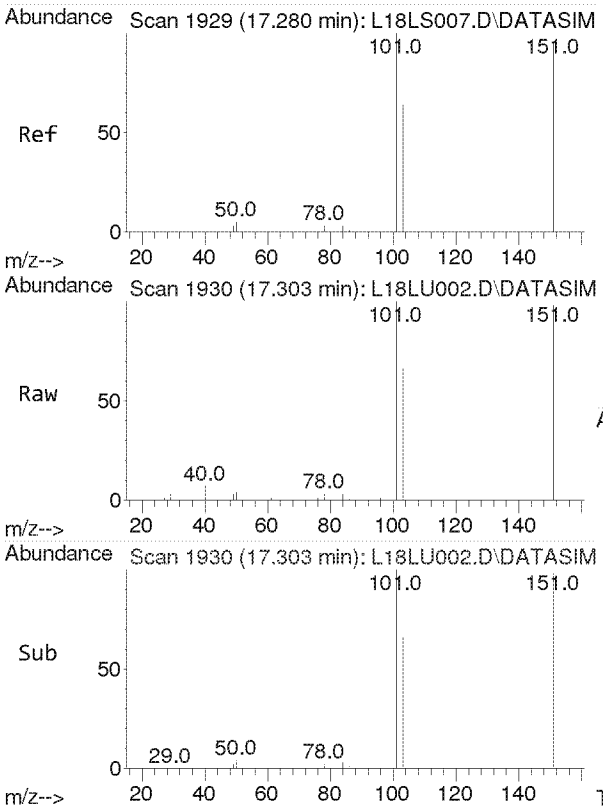


#18
Carbon Disulfide
Concen: 2.467 ppbv
RT: 16.932 min Scan# 1914
Delta R.T. 0.000 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion: 76 Resp: 54149

Ion	Ratio	Lower	Upper
76	100		
78	9.0	7.3	10.9

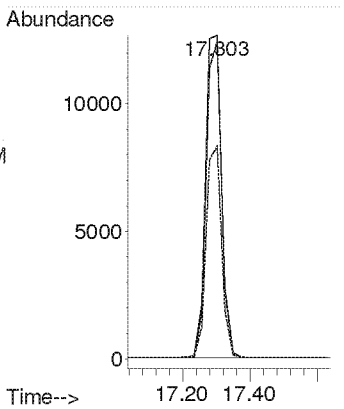




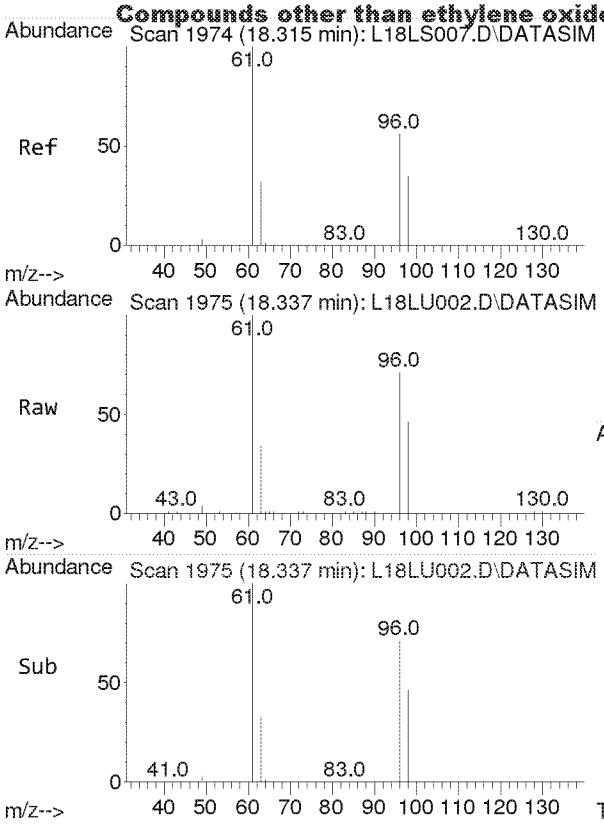
#19
Trichlorotrifluoroethane
Concen: 2.585 ppbv
RT: 17.303 min Scan# 1930
Delta R.T. 0.023 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion:101 Resp: 41920

Ion	Ratio	Lower	Upper
101	100		
151	94.6	76.2	114.4
103	64.0	51.3	76.9



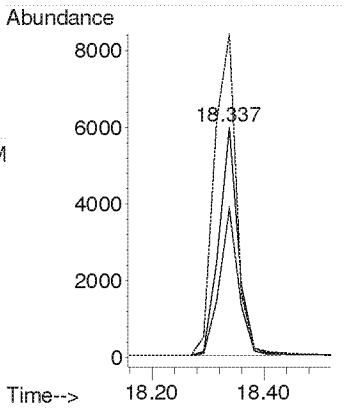
Compounds other than ethylene oxide were not quantitated.

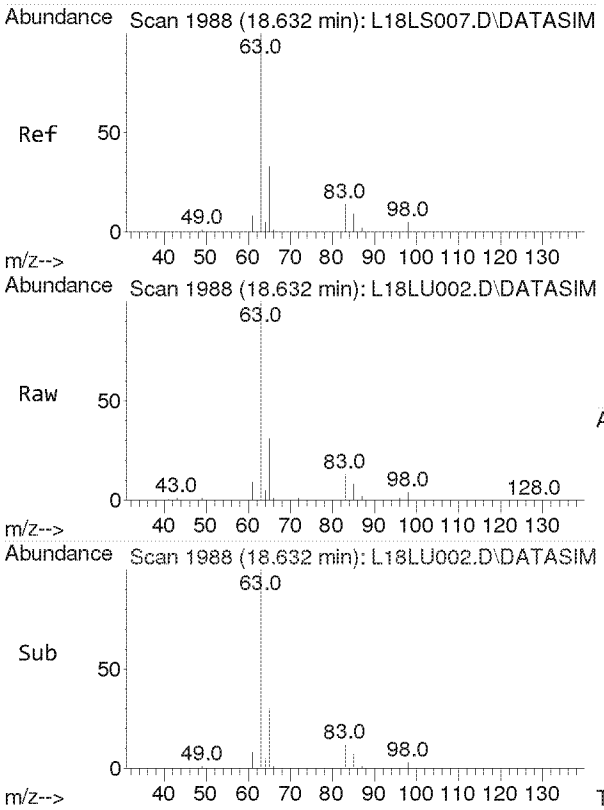


#20
trans-1,2-Dichloroethylene
Concen: 2.456 ppbv
RT: 18.337 min Scan# 1975
Delta R.T. 0.023 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion: 96 Resp: 14434

Ion	Ratio	Lower	Upper
96	100		
98	63.8	51.0	76.4
61	159.5	127.4	191.0

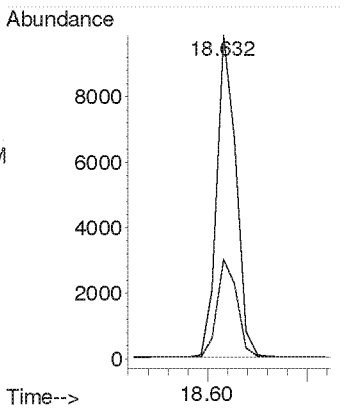




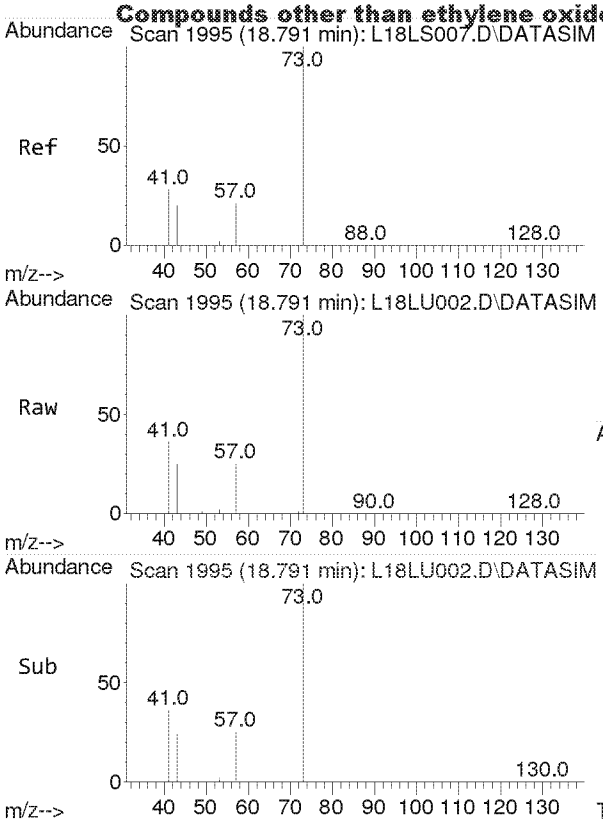
#21
1,1-Dichloroethane
Concen: 2.475 ppbv
RT: 18.632 min Scan# 1988
Delta R.T. 0.000 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion: 63 Resp: 26431

Ion	Ratio	Lower	Upper
63	100		
65	31.5	25.4	38.0



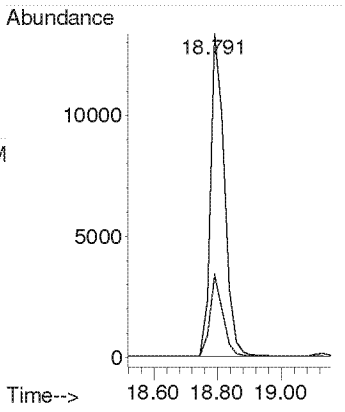
Compounds other than ethylene oxide were not quantitated.

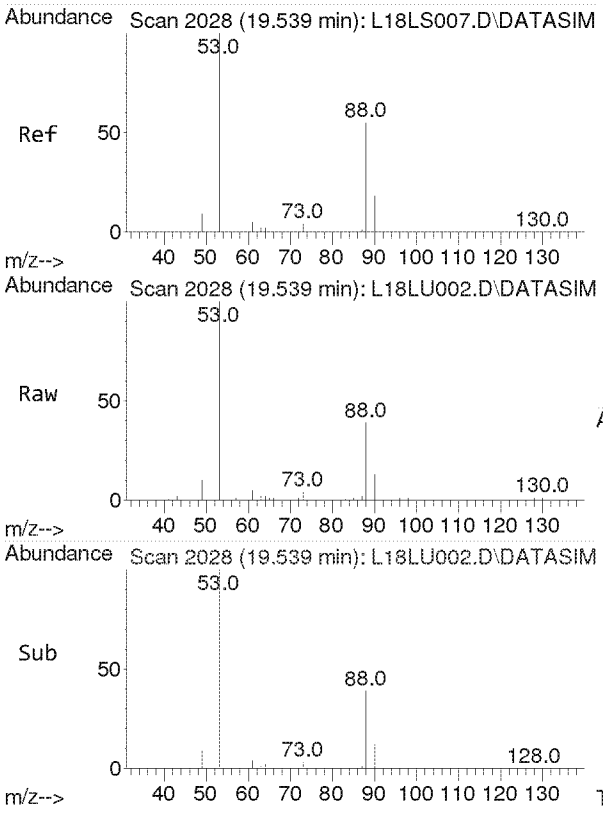


#22
Methyl tert-Butyl Ether
Concen: 2.572 ppbv
RT: 18.791 min Scan# 1995
Delta R.T. 0.000 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion: 73 Resp: 40039

Ion	Ratio	Lower	Upper
73	100		
57	23.4	18.7	28.1

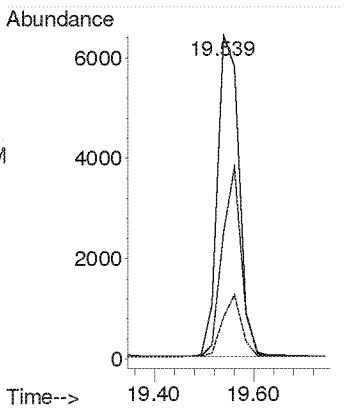




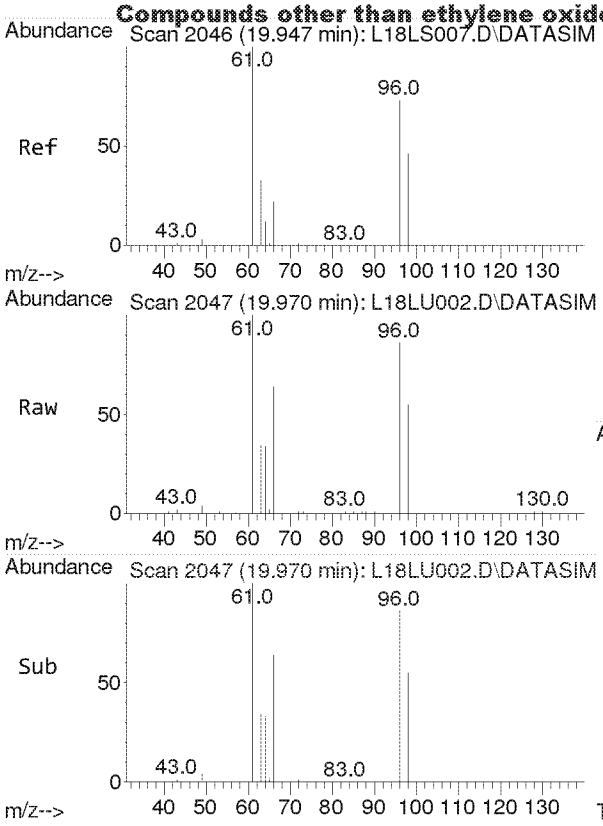
#23
Chloroprene
Concen: 2.532 ppbv
RT: 19.539 min Scan# 2028
Delta R.T. 0.000 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion: 53 Resp: 19383

Ion	Ratio	Lower	Upper
53	100		
88	52.2	41.4	62.2
90	17.0	13.4	20.2



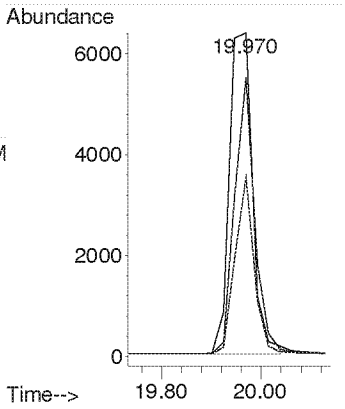
Compounds other than ethylene oxide were not quantitated.

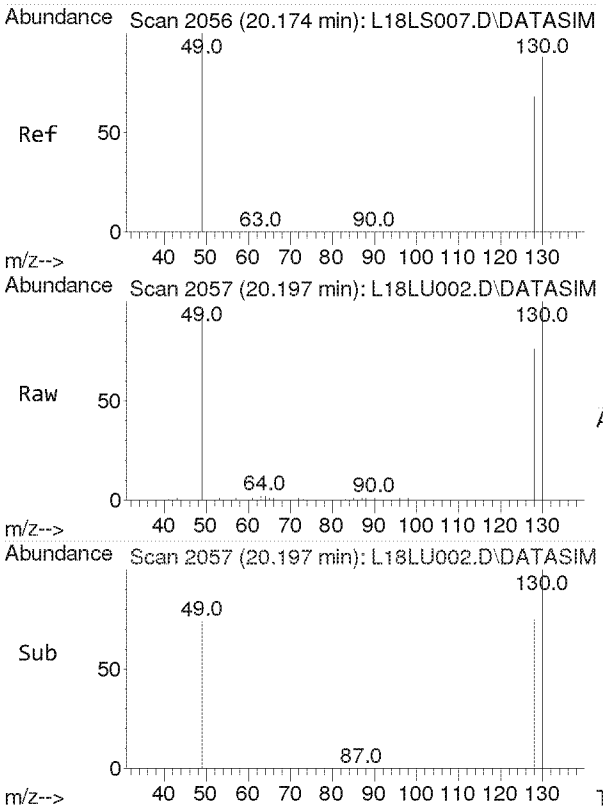


#24
cis-1,2-Dichloroethylene
Concen: 2.466 ppbv
RT: 19.970 min Scan# 2047
Delta R.T. 0.023 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion: 61 Resp: 20402

Ion	Ratio	Lower	Upper
61	100		
96	73.9	59.0	88.4
98	45.1	36.2	54.2

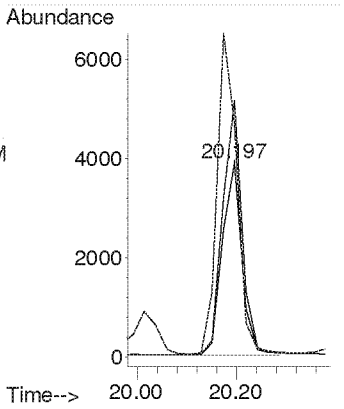




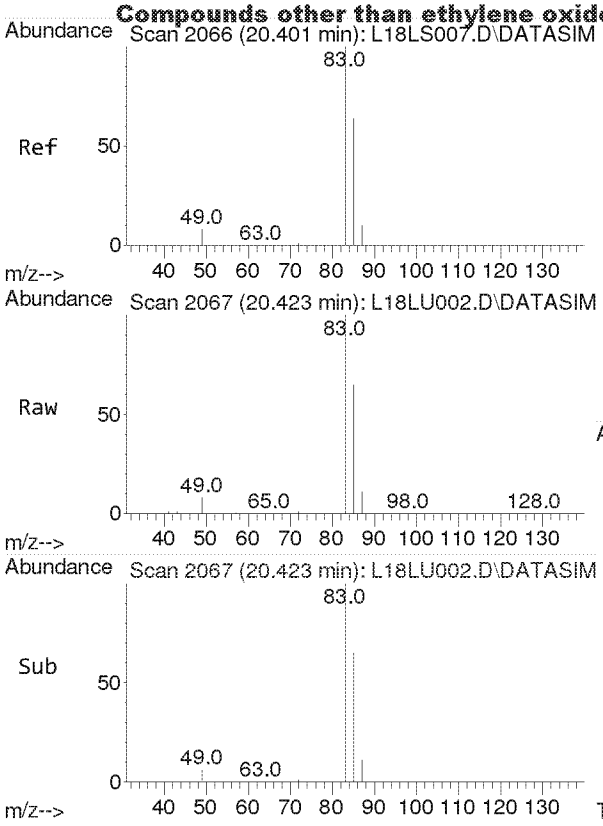
#25
Bromochloromethane
Concen: 2.361 ppbv
RT: 20.197 min Scan# 2057
Delta R.T. 0.023 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion:128 Resp: 10503

Ion	Ratio	Lower	Upper
128	100		
130	130.6	103.3	154.9
49	171.6	137.0	205.4



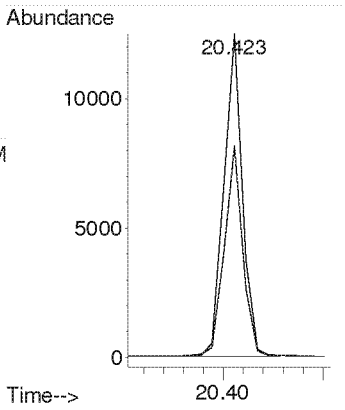
Compounds other than ethylene oxide were not quantitated.

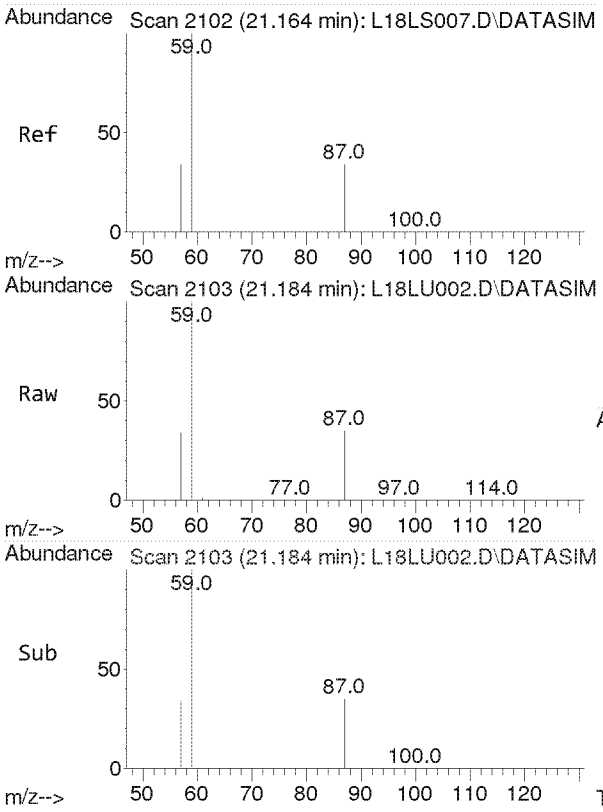


#26
Chloroform
Concen: 2.604 ppbv
RT: 20.423 min Scan# 2067
Delta R.T. 0.023 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion: 83 Resp: 31897

Ion	Ratio	Lower	Upper
83	100		
85	65.0	51.5	77.3

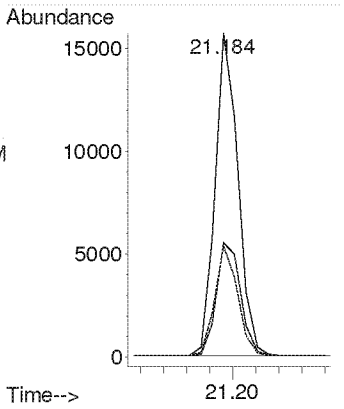




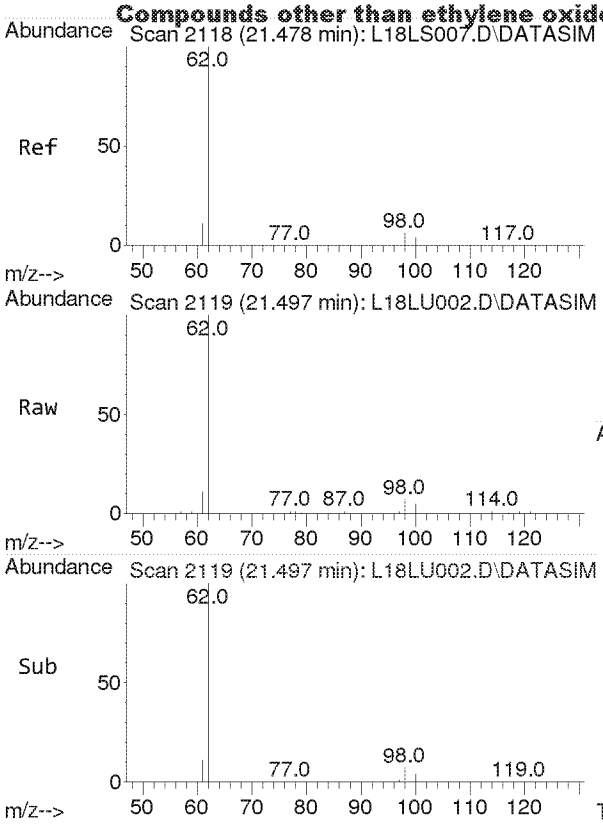
#27
Ethyl tert-Butyl Ether
Concen: 2.649 ppbv
RT: 21.184 min Scan# 2103
Delta R.T. 0.020 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion: 59 Resp: 43393

Ion	Ratio	Lower	Upper
59	100		
87	37.3	30.0	45.0
57	33.9	27.0	40.6



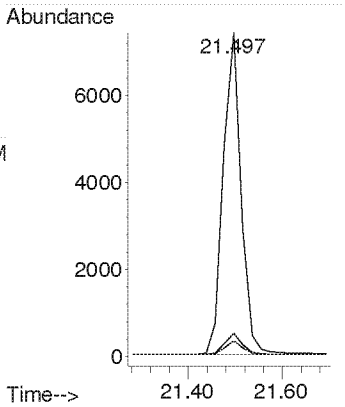
Compounds other than ethylene oxide were not quantitated.

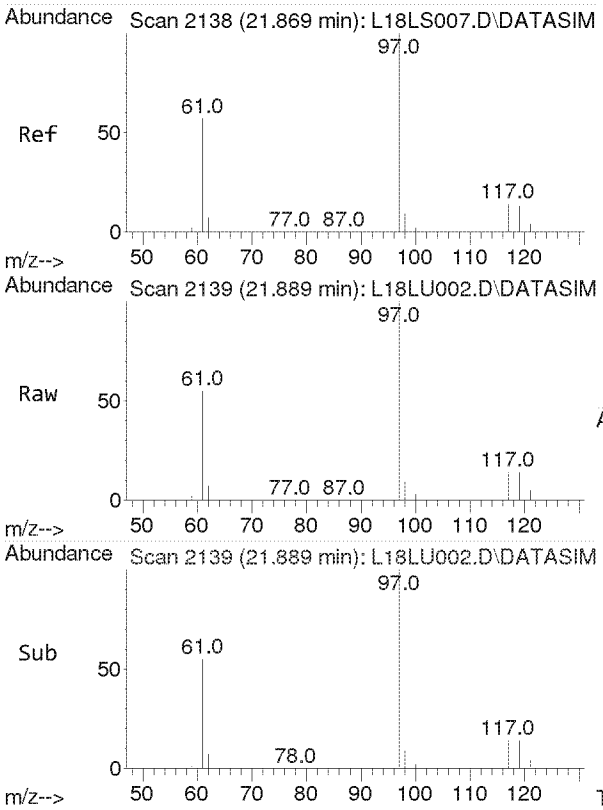


#28
1,2-Dichloroethane
Concen: 2.601 ppbv
RT: 21.497 min Scan# 2119
Delta R.T. 0.020 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion: 62 Resp: 19301

Ion	Ratio	Lower	Upper
62	100		
98	6.3	5.1	7.7
100	4.0	3.2	4.8

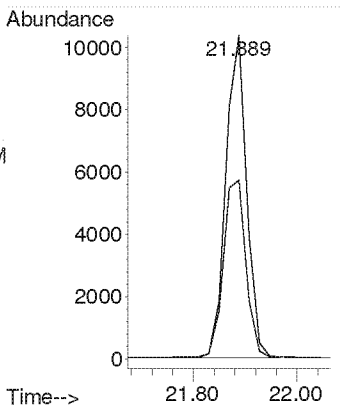




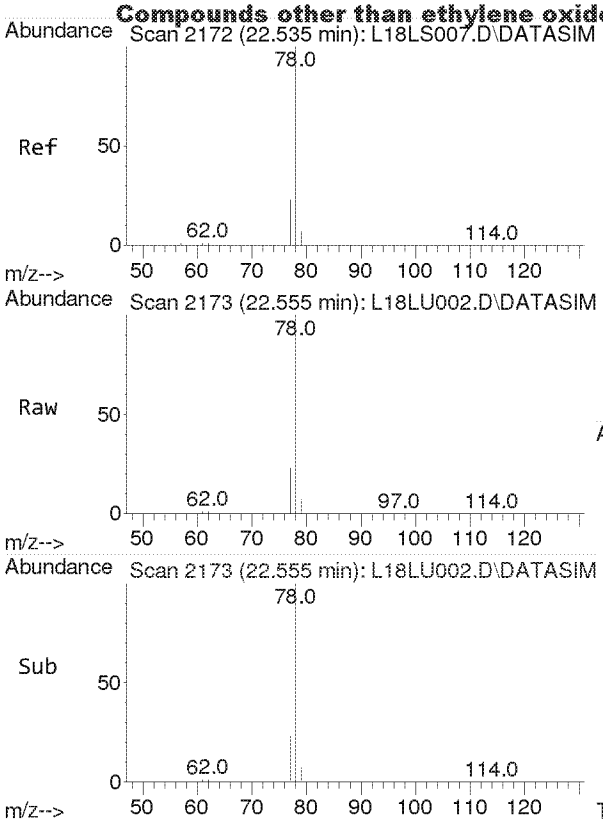
#30
1,1,1-Trichloroethane
Concen: 2.485 ppbv
RT: 21.889 min Scan# 2139
Delta R.T. 0.020 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion: 97 Resp: 29000

Ion	Ratio	Lower	Upper
97	100		
61	59.5	48.4	72.6



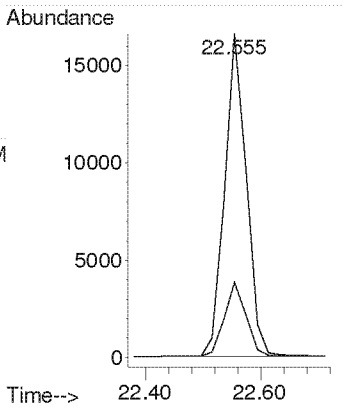
Compounds other than ethylene oxide were not quantitated.

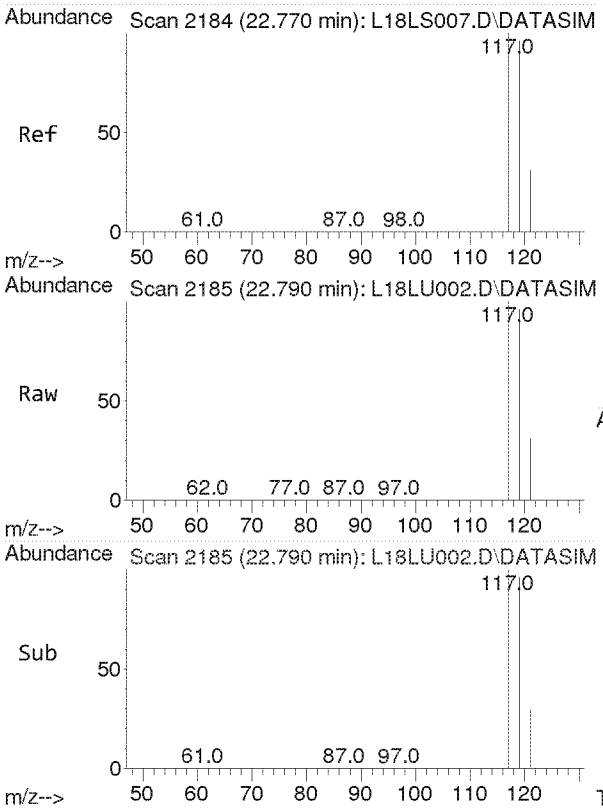


#31
Benzene
Concen: 2.704 ppbv
RT: 22.555 min Scan# 2173
Delta R.T. 0.020 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion: 78 Resp: 43187

Ion	Ratio	Lower	Upper
78	100		
77	22.9	18.2	27.2

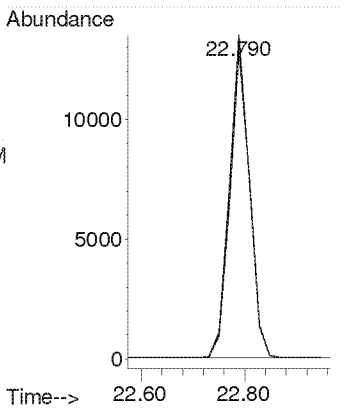




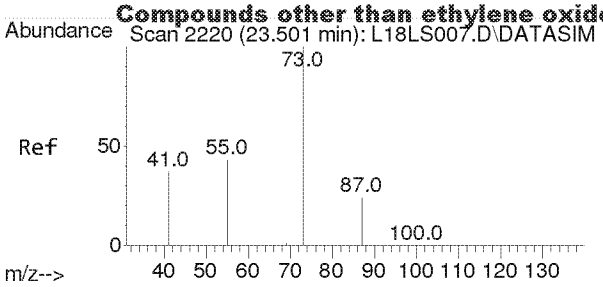
#32
Carbon Tetrachloride
Concen: 2.816 ppbv
RT: 22.790 min Scan# 2185
Delta R.T. 0.020 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion:117 Resp: 35801

Ion	Ratio	Lower	Upper
117	100		
119	96.2	77.2	115.8



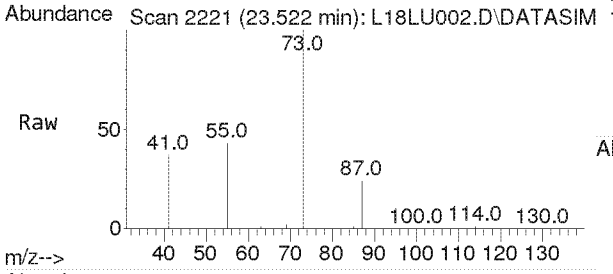
Compounds other than ethylene oxide were not quantitated.

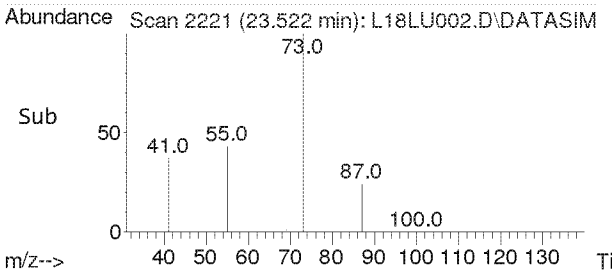


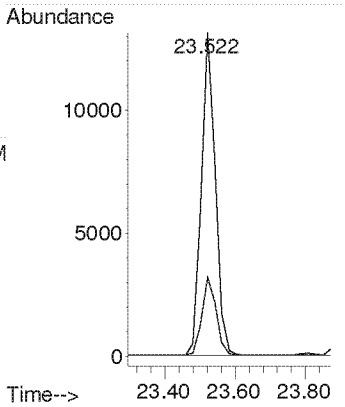
#33
tert-Amyl Methyl Ether
Concen: 2.649 ppbv
RT: 23.522 min Scan# 2221
Delta R.T. 0.021 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

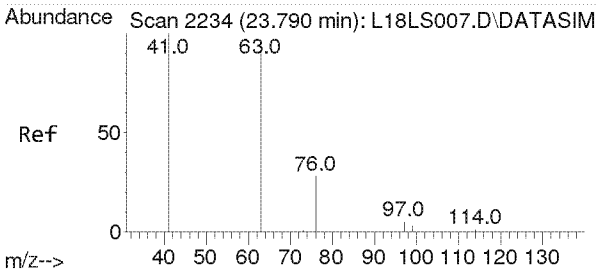
Tgt Ion: 73 Resp: 35801

Ion	Ratio	Lower	Upper
73	100		
87	24.7	19.9	29.9





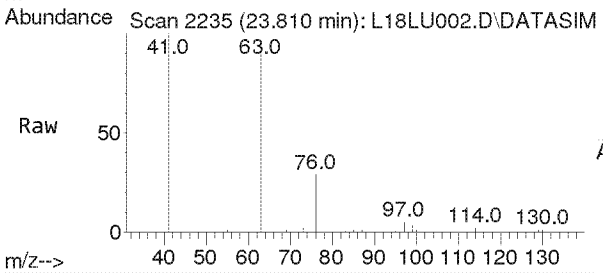


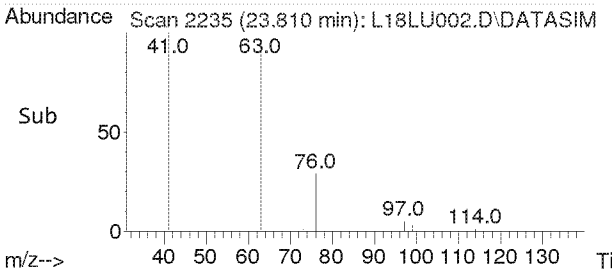


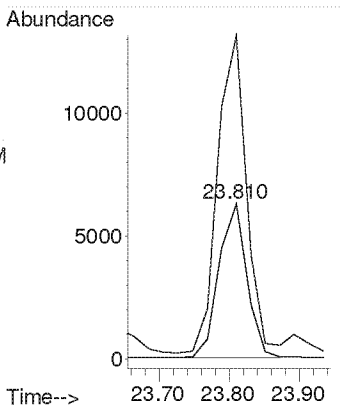
#34
1,2-Dichloropropane
Concen: 2.584 ppbv
RT: 23.810 min Scan# 2235
Delta R.T. 0.021 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion: 63 Resp: 17180

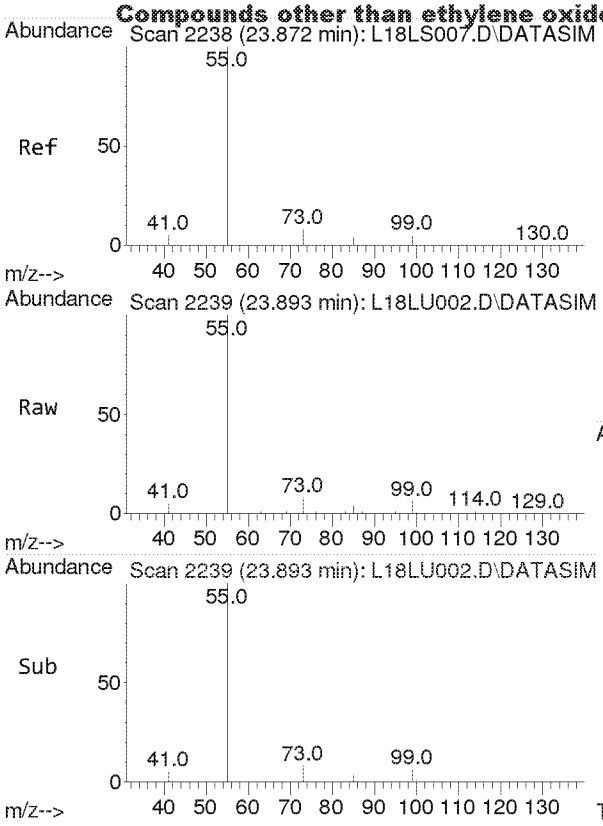
Ion	Ratio	Lower	Upper
63	100		
41	212.6	170.2	255.4







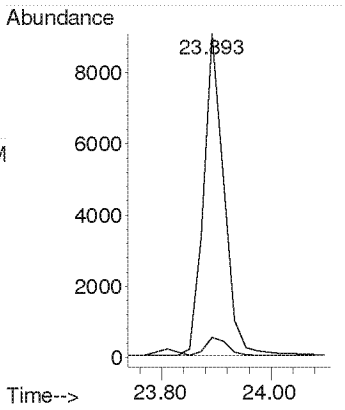
Compounds other than ethylene oxide were not quantitated.

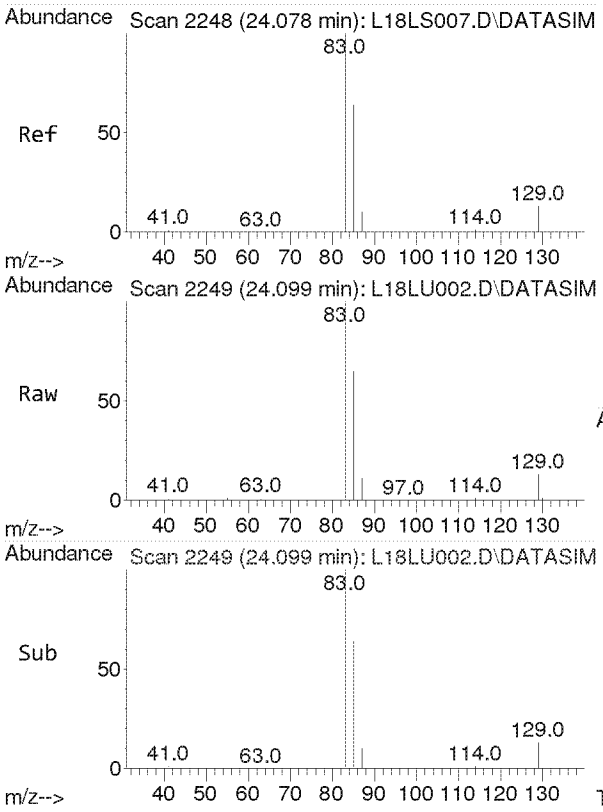


#35
Ethyl Acrylate
Concen: 2.627 ppbv
RT: 23.893 min Scan# 2239
Delta R.T. 0.021 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion: 55 Resp: 23425

Ion	Ratio	Lower	Upper
55	100		
99	6.0	4.9	7.3

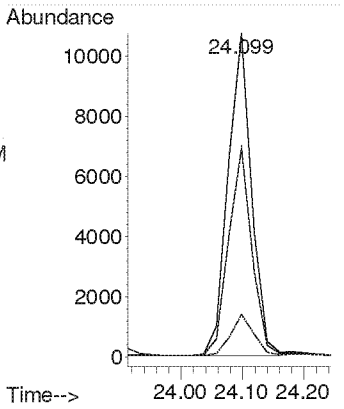




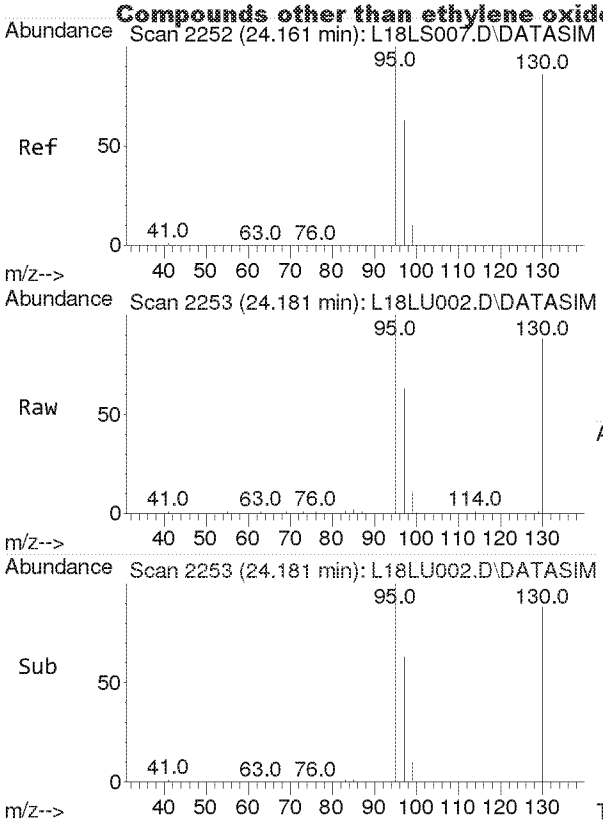
#36
Bromodichloromethane
Concen: 2.316 ppbv
RT: 24.099 min Scan# 2249
Delta R.T. 0.021 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion: 83 Resp: 28471

Ion	Ratio	Lower	Upper
83	100		
85	63.9	51.2	76.8
129	12.4	9.9	14.9



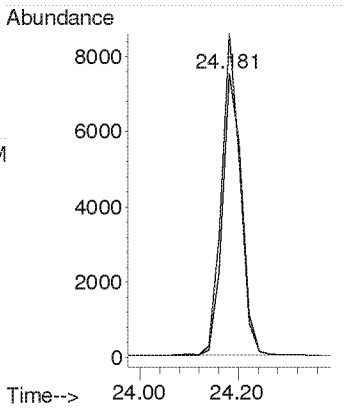
Compounds other than ethylene oxide were not quantitated.

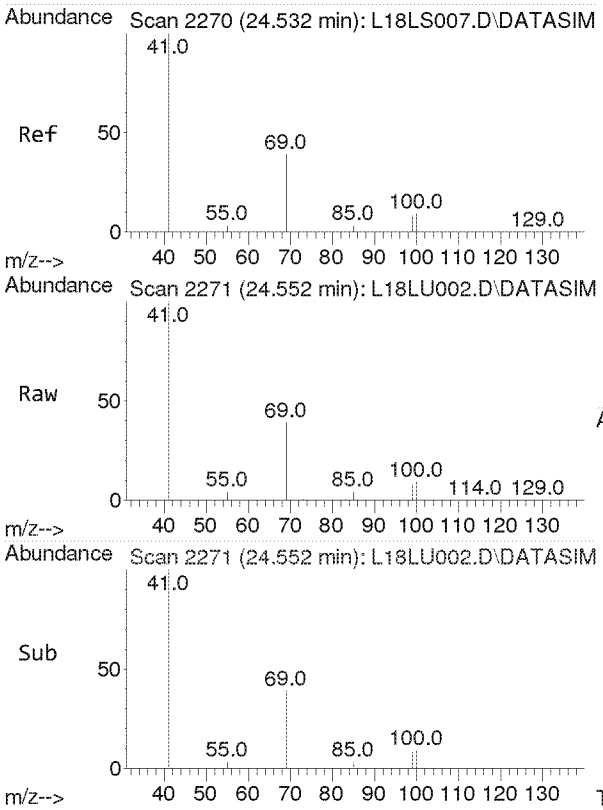


#37
Trichloroethylene
Concen: 2.736 ppbv
RT: 24.181 min Scan# 2253
Delta R.T. 0.021 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion:130 Resp: 20601

Ion	Ratio	Lower	Upper
130	100		
95	109.8	88.2	132.4

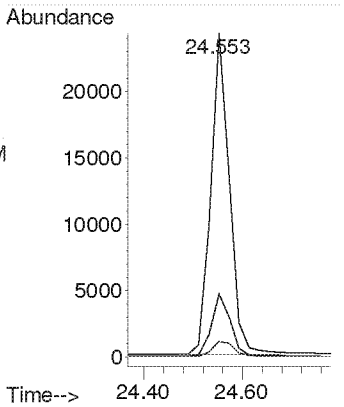




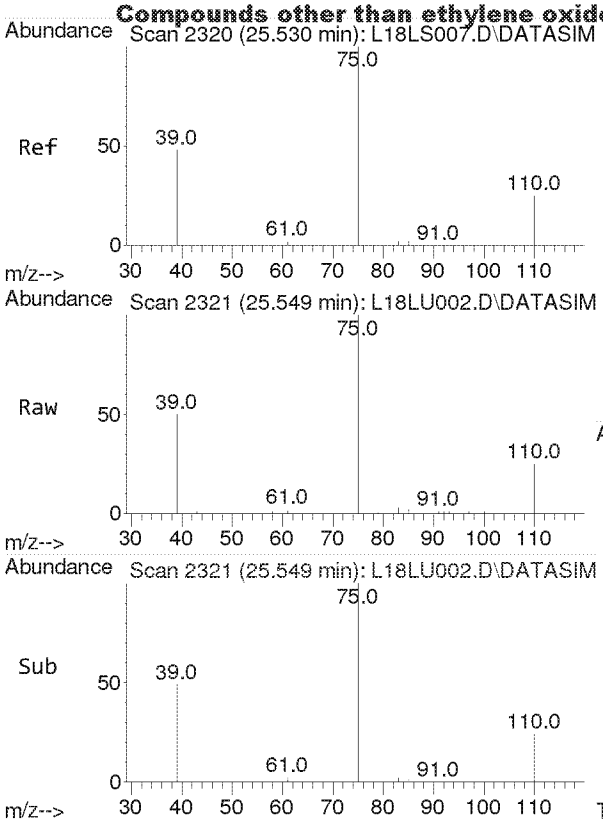
#38
Methyl Methacrylate
Concen: 2.548 ppbv
RT: 24.552 min Scan# 2271
Delta R.T. 0.021 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion: 41 Resp: 63060

Ion	Ratio	Lower	Upper
41	100		
69	19.7	15.9	23.9
100	5.1	4.2	6.2



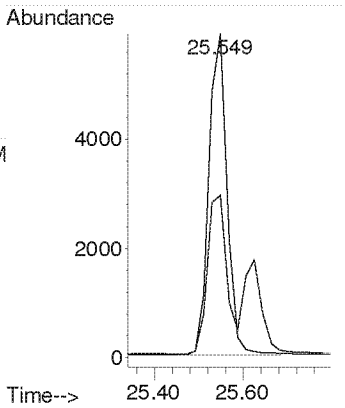
Compounds other than ethylene oxide were not quantitated.

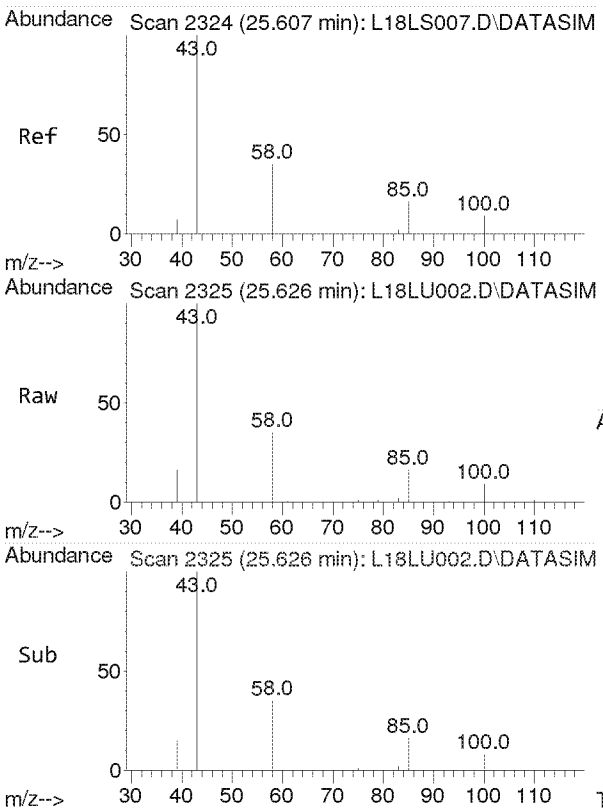


#39
cis-1,3-Dichloropropene
Concen: 2.812 ppbv
RT: 25.549 min Scan# 2321
Delta R.T. 0.019 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion: 75 Resp: 16667

Ion	Ratio	Lower	Upper
75	100		
39	53.9	43.5	65.3

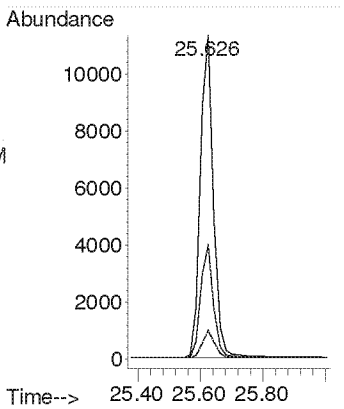




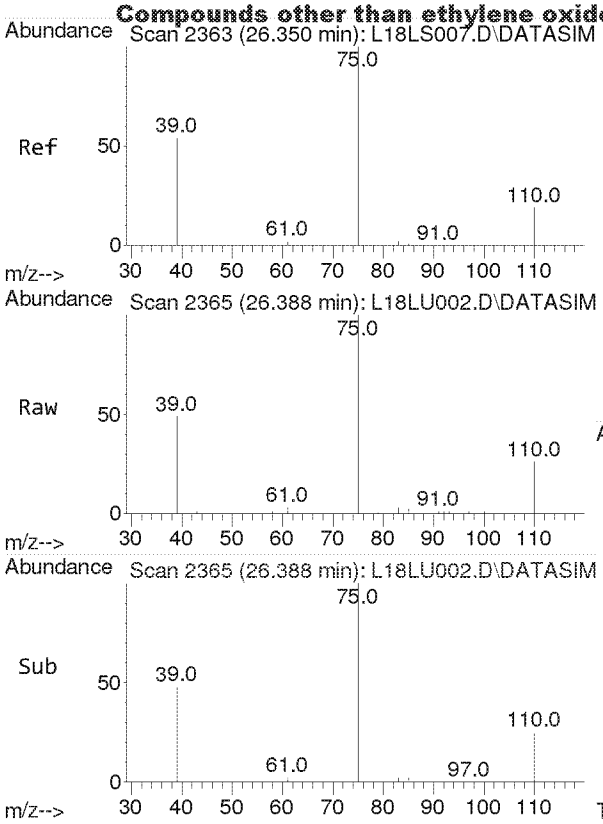
#40
Methyl Isobutyl Ketone
Concen: 2.470 ppbv
RT: 25.626 min Scan# 2325
Delta R.T. 0.019 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion: 43 Resp: 32627

Ion	Ratio	Lower	Upper
43	100		
58	34.2	27.4	41.0
100	8.0	6.3	9.5



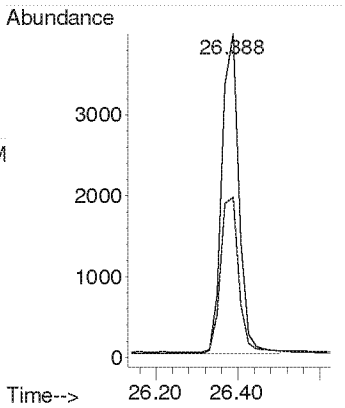
Compounds other than ethylene oxide were not quantitated.

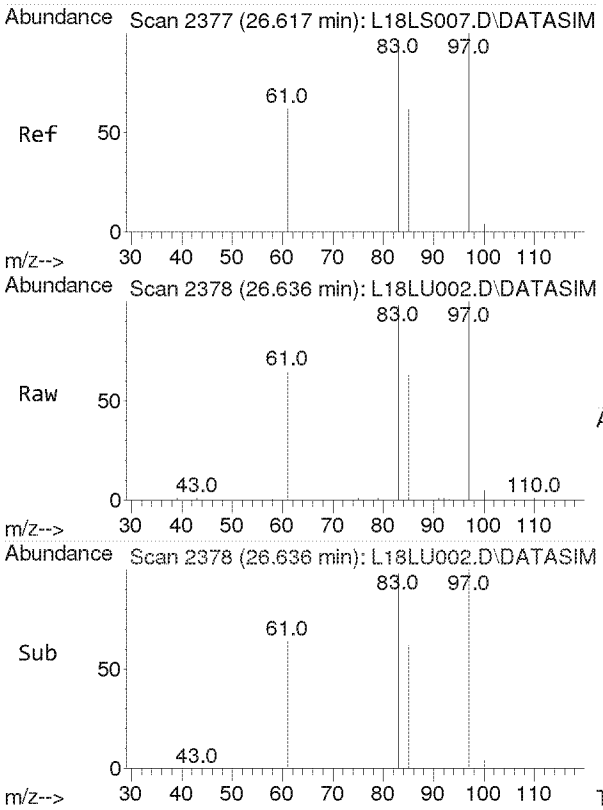


#41
trans-1,3-Dichloropropene
Concen: 2.576 ppbv
RT: 26.388 min Scan# 2365
Delta R.T. 0.038 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion: 75 Resp: 11312

Ion	Ratio	Lower	Upper
75	100		
39	51.0	40.7	61.1

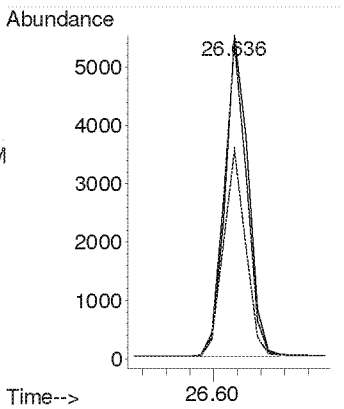




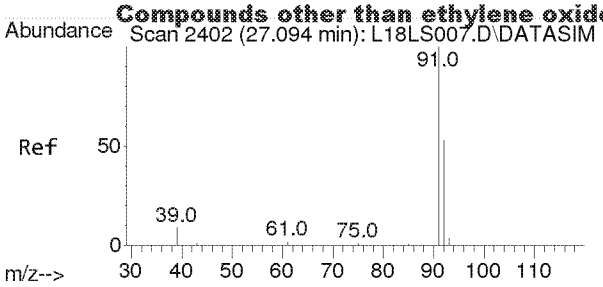
#42
1,1,2-Trichloroethane
Concen: 2.562 ppbv
RT: 26.636 min Scan# 2378
Delta R.T. 0.019 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion: 97 Resp: 14690

Ion	Ratio	Lower	Upper
97	100		
83	96.1	76.9	115.3
61	63.0	50.8	76.2



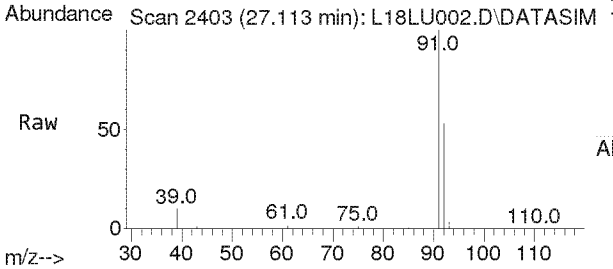
Compounds other than ethylene oxide were not quantitated.

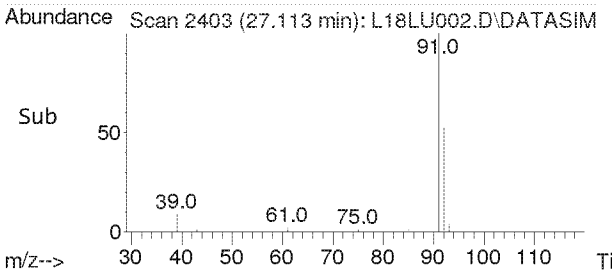


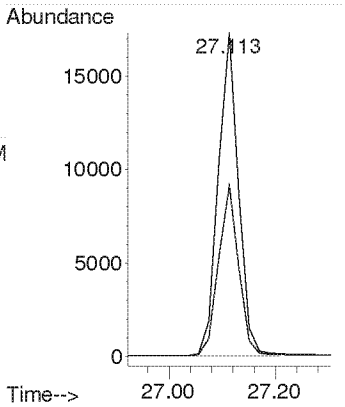
#44
Toluene
Concen: 2.608 ppbv
RT: 27.113 min Scan# 2403
Delta R.T. 0.019 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

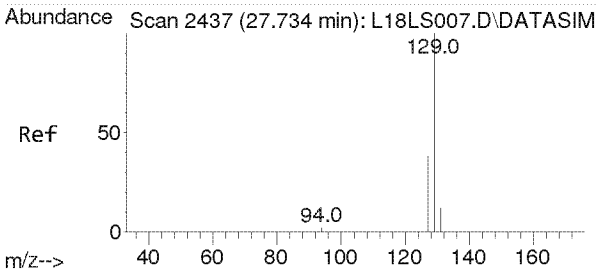
Tgt Ion: 91 Resp: 45844

Ion	Ratio	Lower	Upper
91	100		
92	52.5	42.1	63.1





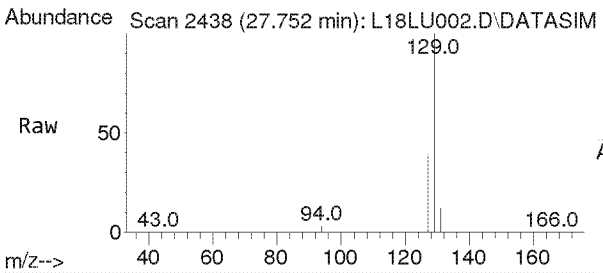


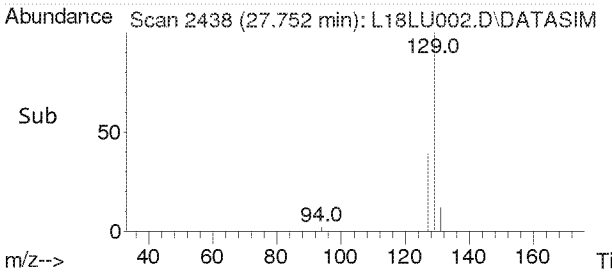


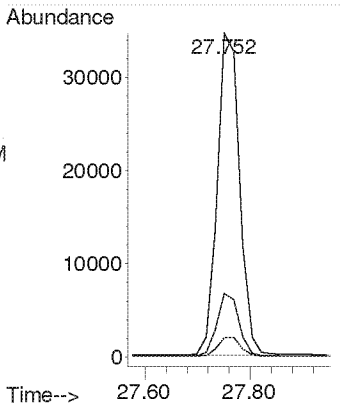
#45
Dibromochloromethane
Concen: 2.449 ppbv
RT: 27.752 min Scan# 2438
Delta R.T. 0.018 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion:129 Resp: 101978

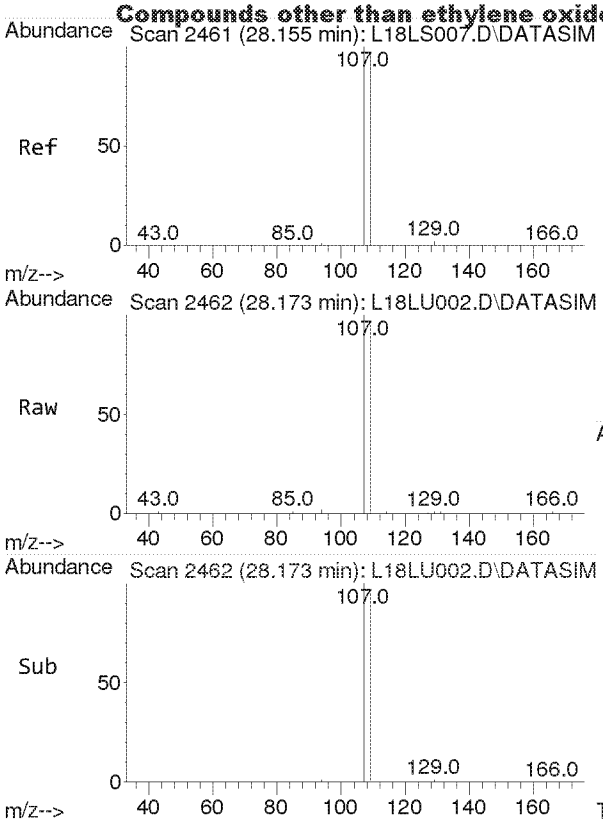
Ion	Ratio	Lower	Upper
129	100		
127	19.3	15.4	23.0
131	6.0	4.8	7.2







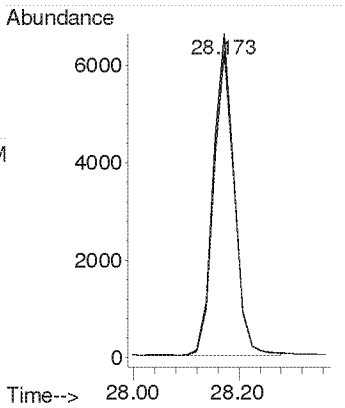
Compounds other than ethylene oxide were not quantitated.

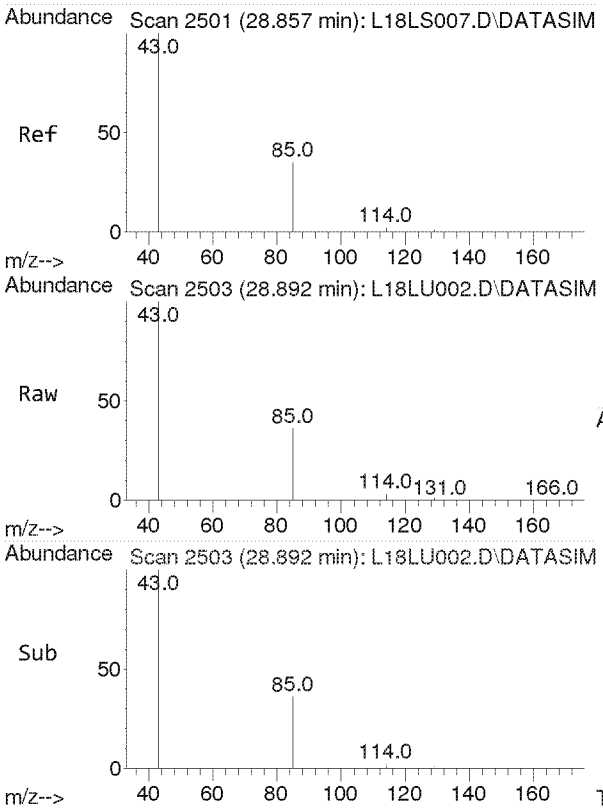


#46
1,2-Dibromoethane
Concen: 2.592 ppbv
RT: 28.173 min Scan# 2462
Delta R.T. 0.018 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion:107 Resp: 18092

Ion	Ratio	Lower	Upper
107	100		
109	94.5	75.6	113.4

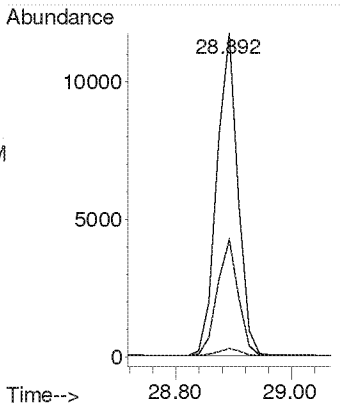




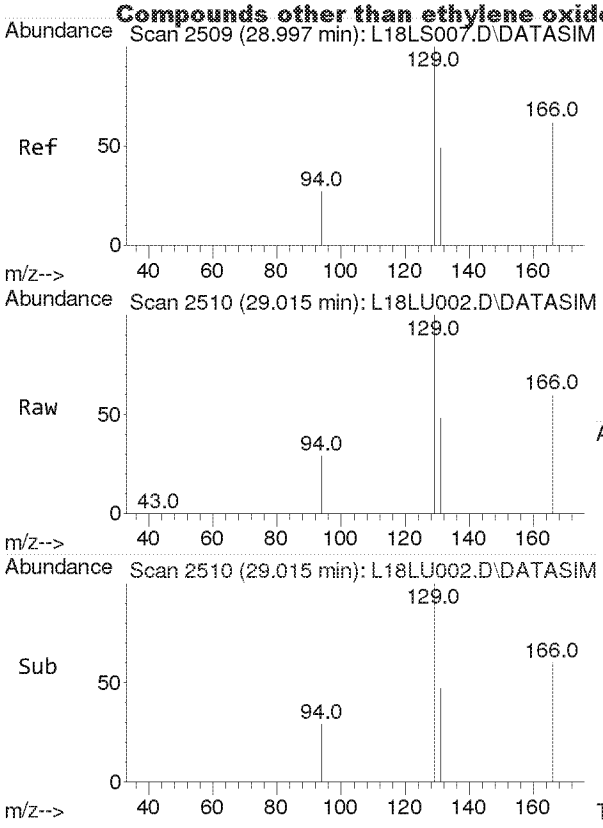
#47
n-Octane
Concen: 2.638 ppbv
RT: 28.892 min Scan# 2503
Delta R.T. 0.035 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion: 43 Resp: 29789

Ion	Ratio	Lower	Upper
43	100		
85	35.9	28.8	43.2
114	2.3	1.8	2.6



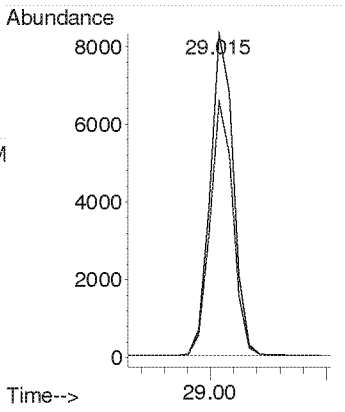
Compounds other than ethylene oxide were not quantitated.

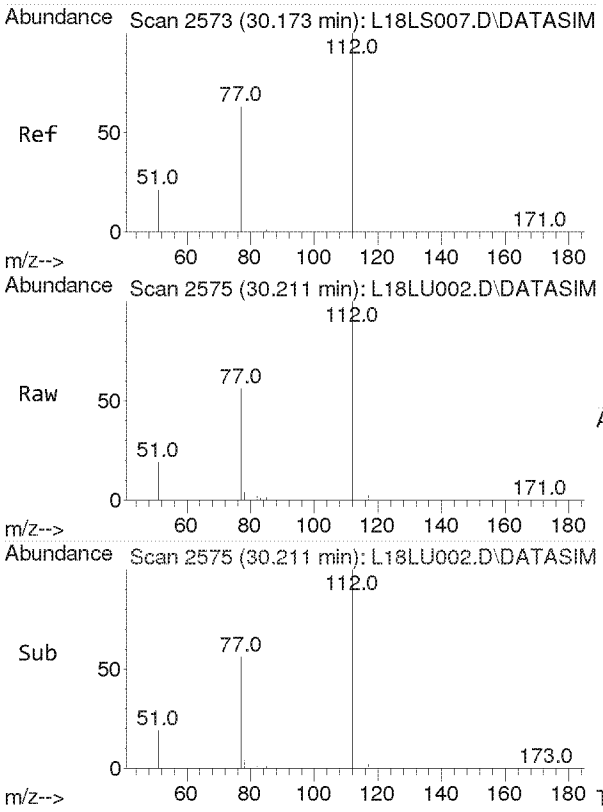


#48
Tetrachloroethylene
Concen: 2.632 ppbv
RT: 29.015 min Scan# 2510
Delta R.T. 0.018 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion:166 Resp: 23085

Ion	Ratio	Lower	Upper
166	100		
131	78.2	62.6	93.8

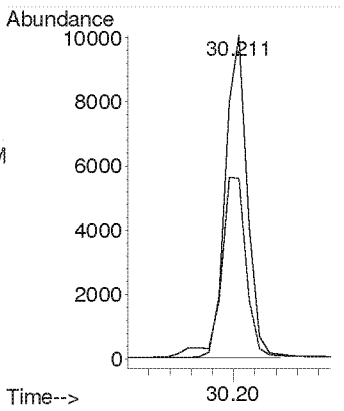




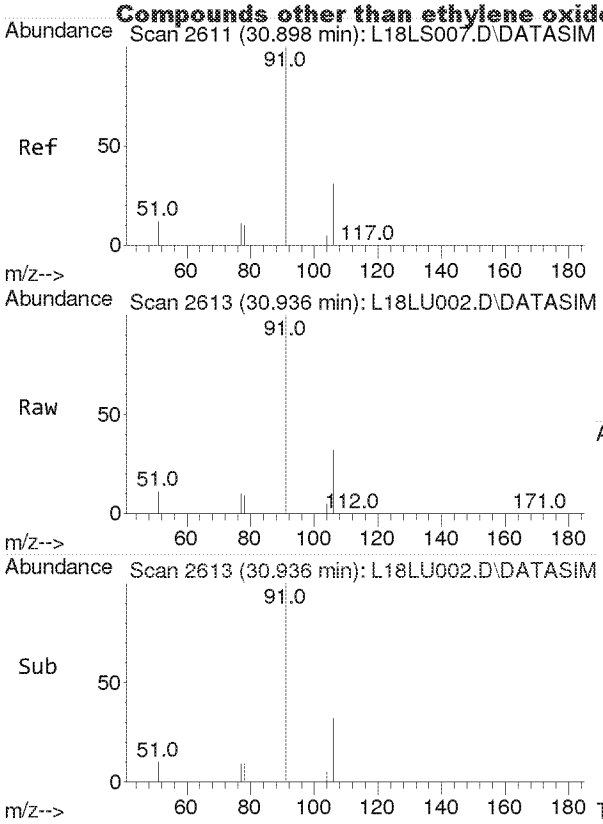
#49
Chlorobenzene
Concen: 2.529 ppbv
RT: 30.211 min Scan# 2575
Delta R.T. 0.038 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion:112 Resp: 28582

Ion	Ratio	Lower	Upper
112	100		
77	62.0	50.4	75.6



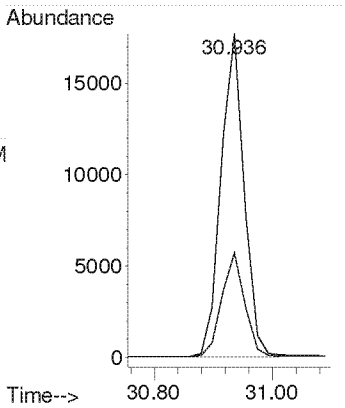
Compounds other than ethylene oxide were not quantitated.

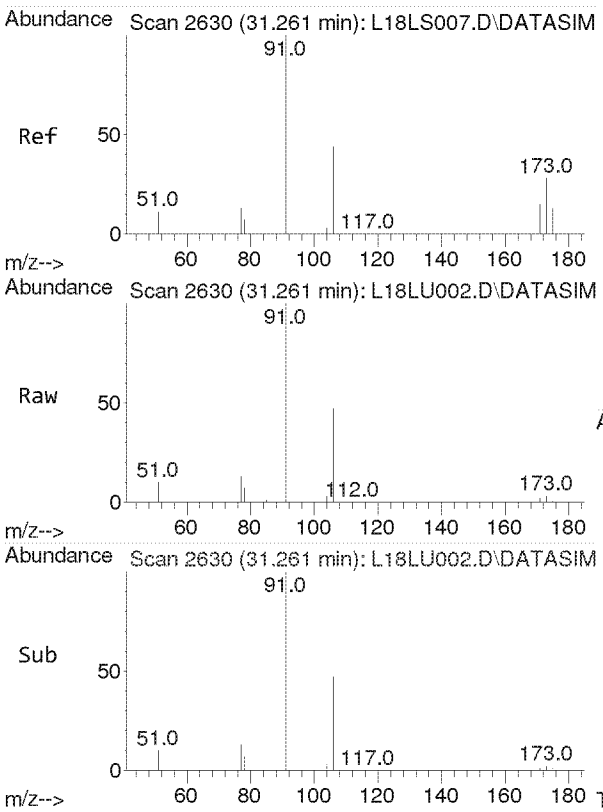


#50
Ethylbenzene
Concen: 2.632 ppbv
RT: 30.936 min Scan# 2613
Delta R.T. 0.038 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion: 91 Resp: 47826

Ion	Ratio	Lower	Upper
91	100		
106	31.6	25.4	38.2

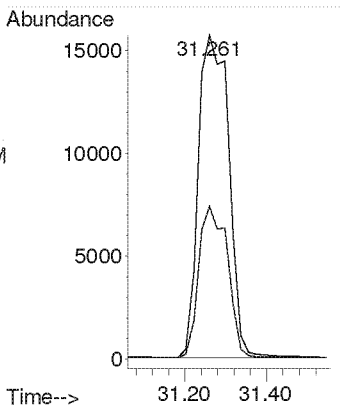




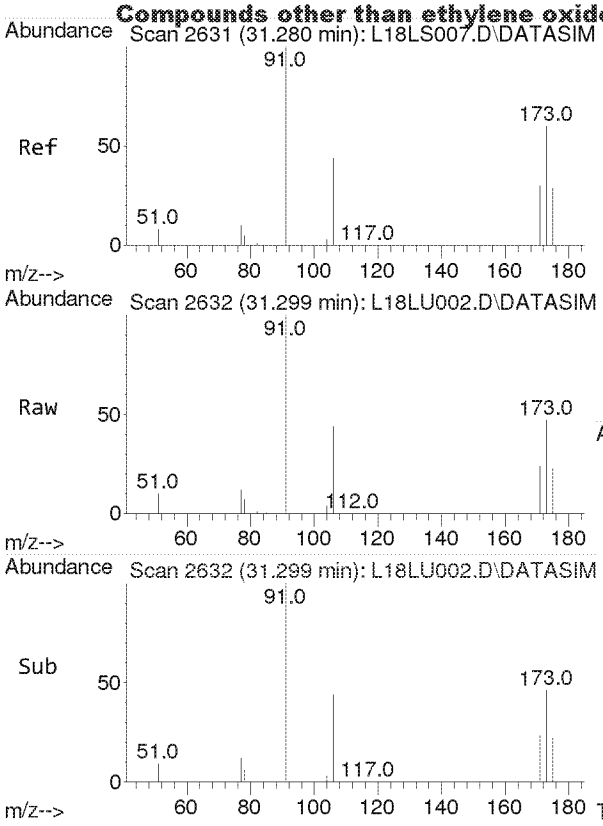
#51
m,p-Xylene
Concen: 5.160 ppbv
RT: 31.261 min Scan# 2630
Delta R.T. 0.000 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion: 91 Resp: 80561

Ion	Ratio	Lower	Upper
91	100		
106	44.6	35.5	53.3



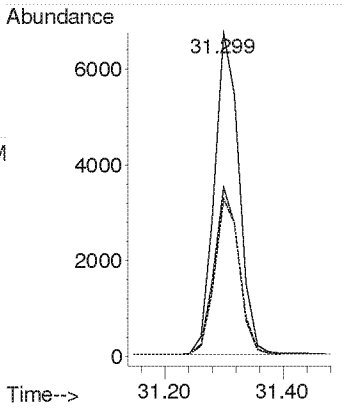
Compounds other than ethylene oxide were not quantitated.

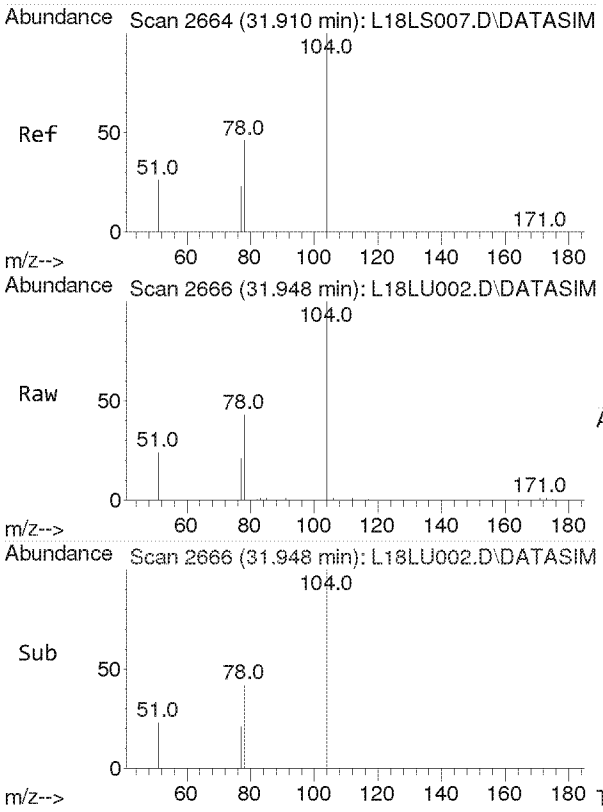


#52
Bromoform
Concen: 2.466 ppbv
RT: 31.299 min Scan# 2632
Delta R.T. 0.019 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion:173 Resp: 19463

Ion	Ratio	Lower	Upper
173	100		
171	51.4	41.0	61.6
175	49.2	39.2	58.8

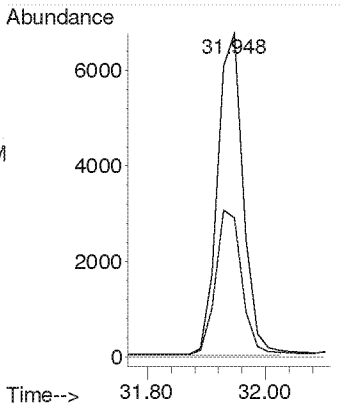




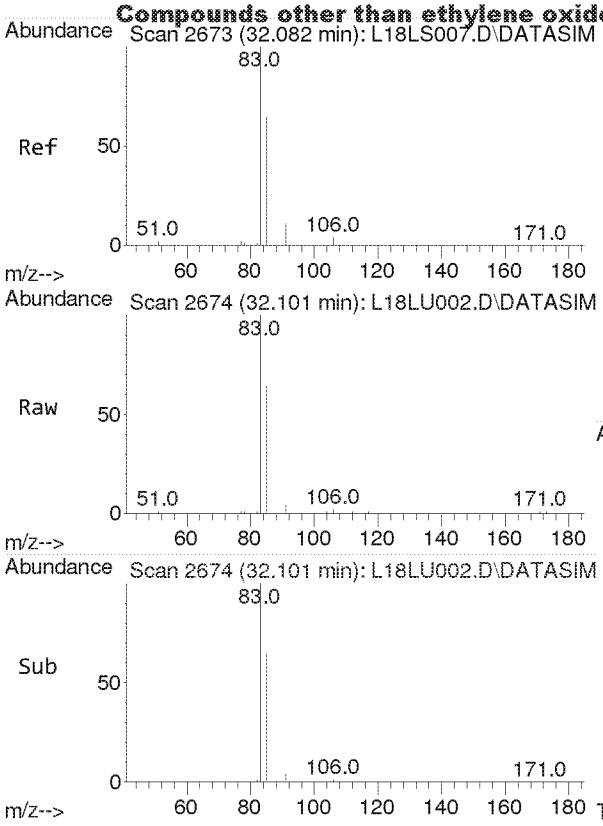
#53
Styrene
Concen: 2.545 ppbv
RT: 31.948 min Scan# 2666
Delta R.T. 0.038 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion:104 Resp: 20205

Ion	Ratio	Lower	Upper
104	100		
78	45.9	36.5	54.7
103	0.0	0.0	0.0



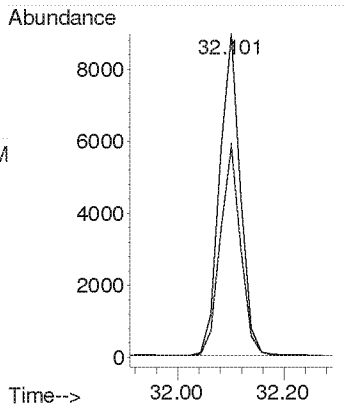
Compounds other than ethylene oxide were not quantitated.

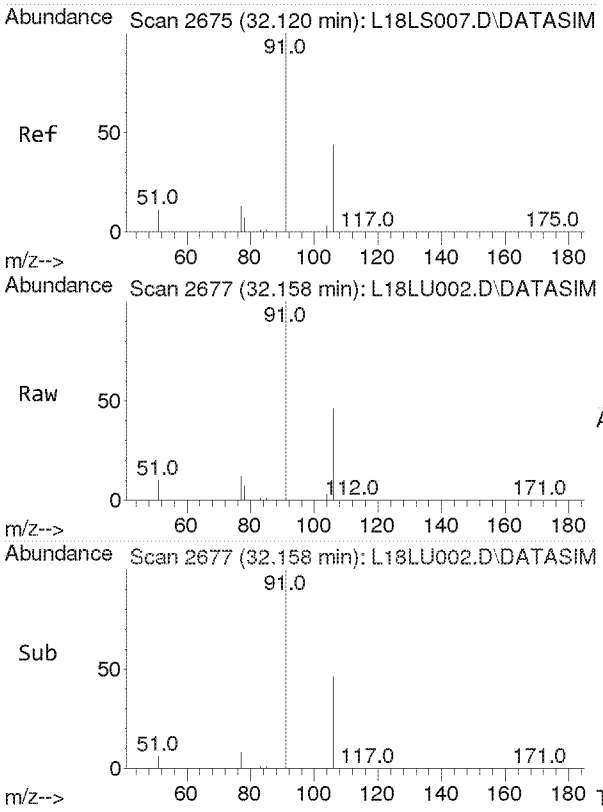


#54
1,1,2,2-Tetrachloroethane
Concen: 2.193 ppbv
RT: 32.101 min Scan# 2674
Delta R.T. 0.019 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion: 83 Resp: 24230

Ion	Ratio	Lower	Upper
83	100		
85	64.6	51.1	76.7

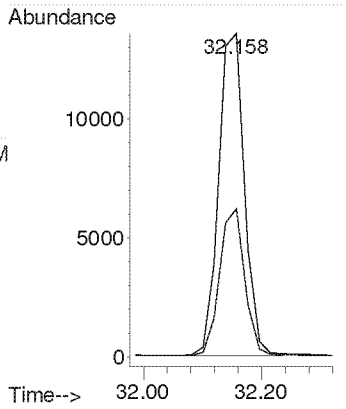




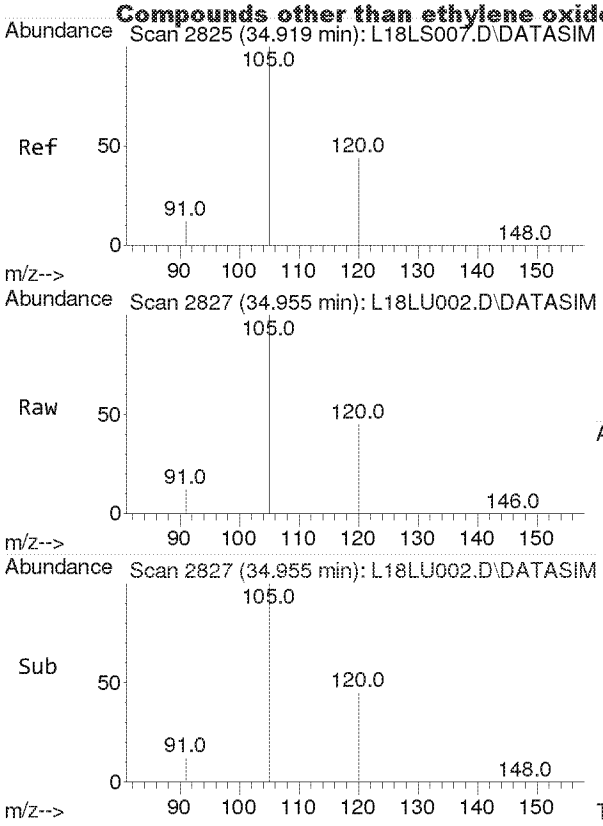
#55
o-Xylene
Concen: 2.679 ppbv
RT: 32.158 min Scan# 2677
Delta R.T. 0.038 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion: 91 Resp: 41080

Ion	Ratio	Lower	Upper
91	100		
106	44.4	35.4	53.0



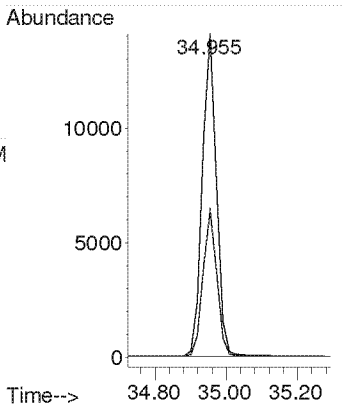
Compounds other than ethylene oxide were not quantitated.

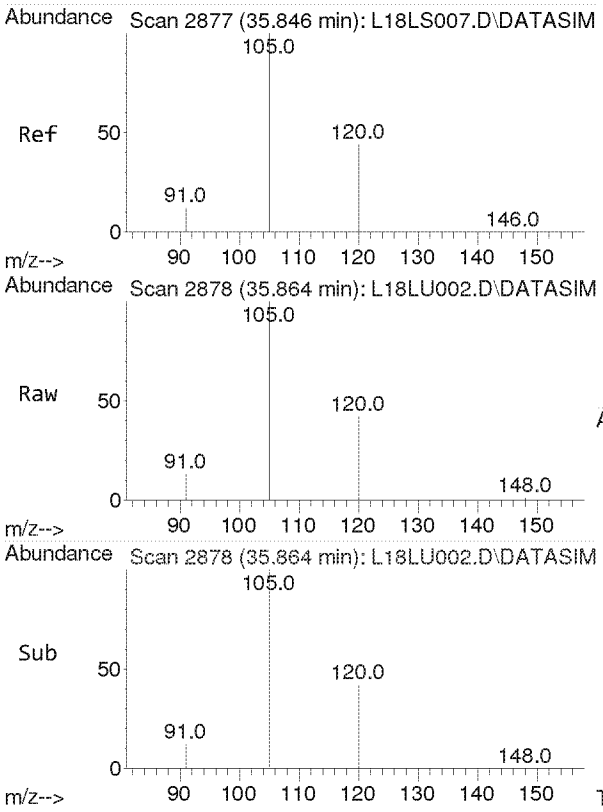


#56
1,3,5-Trimethylbenzene
Concen: 2.558 ppbv
RT: 34.955 min Scan# 2827
Delta R.T. 0.036 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion:105 Resp: 38325

Ion	Ratio	Lower	Upper
105	100		
120	44.6	36.0	54.0

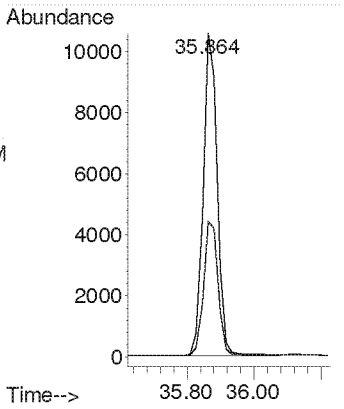




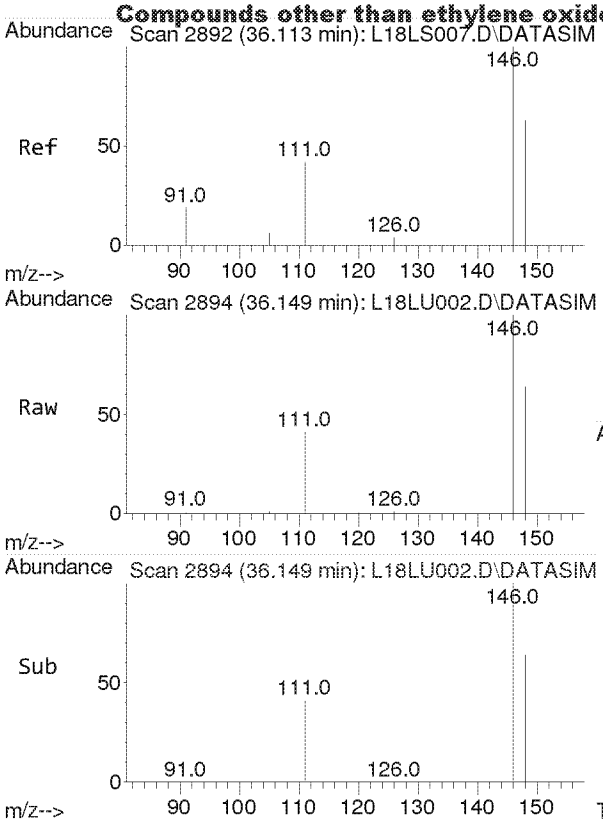
#57
1,2,4-Trimethylbenzene
Concen: 2.408 ppbv
RT: 35.864 min Scan# 2878
Delta R.T. 0.018 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion:105 Resp: 30458

Ion	Ratio	Lower	Upper
105	100		
120	43.0	34.2	51.4



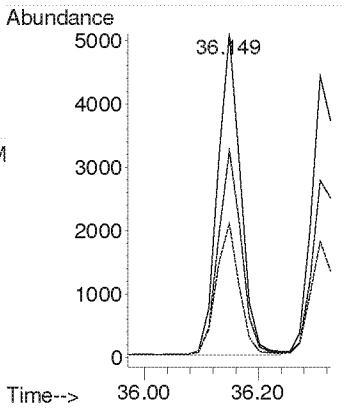
Compounds other than ethylene oxide were not quantitated.

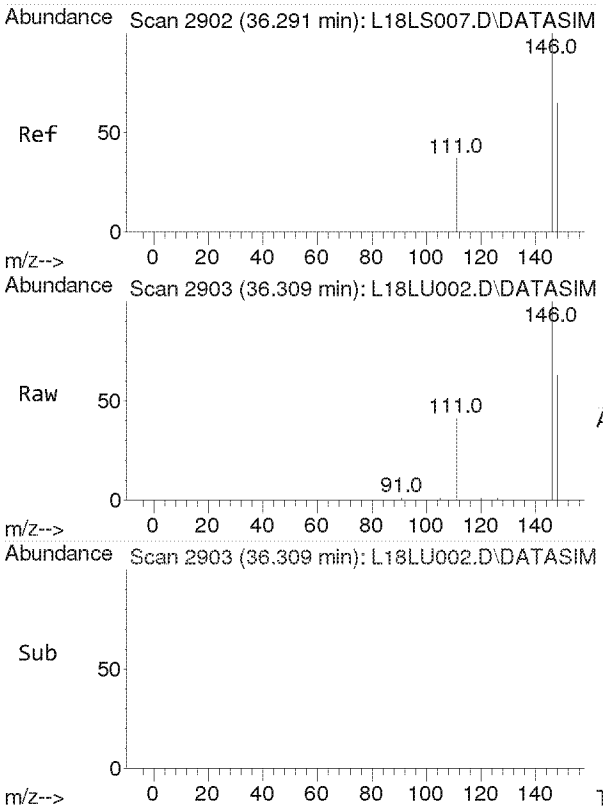


#58
m-Dichlorobenzene
Concen: 2.114 ppbv
RT: 36.149 min Scan# 2894
Delta R.T. 0.036 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion:146 Resp: 14075

Ion	Ratio	Lower	Upper
146	100		
148	64.3	51.2	76.8
111	41.1	32.4	48.6

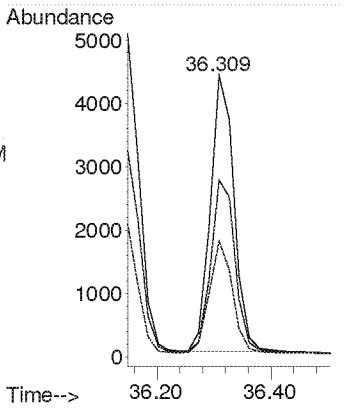




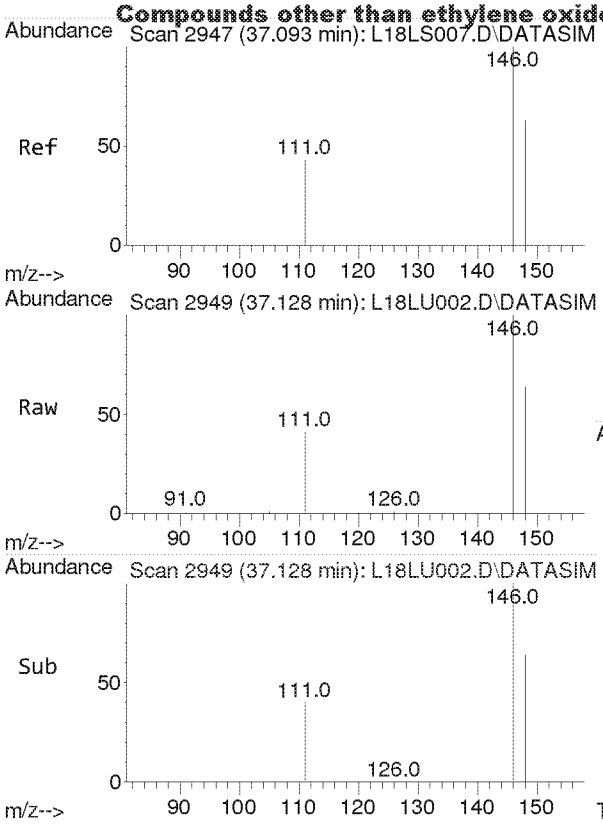
#59
p-Dichlorobenzene
Concen: 2.458 ppbv
RT: 36.309 min Scan# 2903
Delta R.T. 0.018 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion:146 Resp: 12484

Ion	Ratio	Lower	Upper
146	100		
148	64.1	51.2	76.8
111	39.8	31.6	47.4



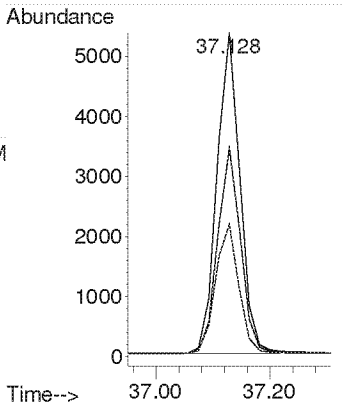
Compounds other than ethylene oxide were not quantitated.

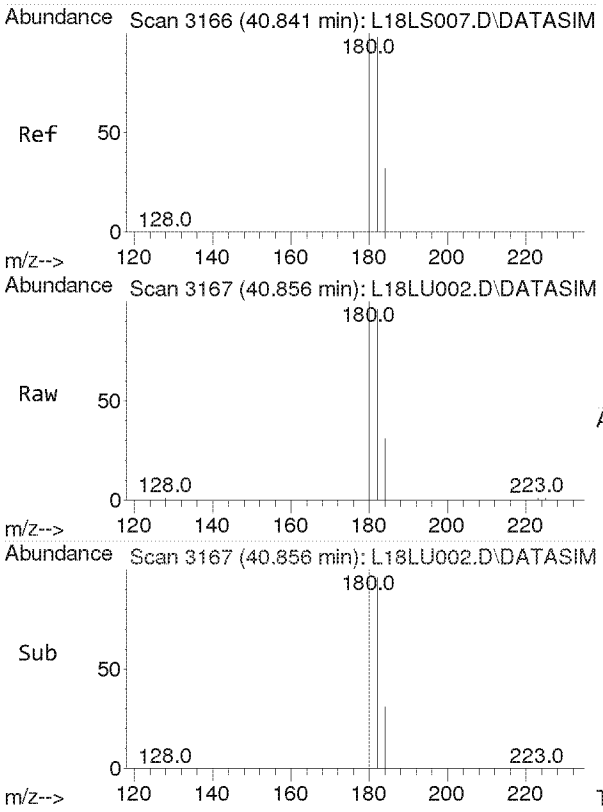


#60
o-Dichlorobenzene
Concen: 2.420 ppbv
RT: 37.128 min Scan# 2949
Delta R.T. 0.036 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion:146 Resp: 15093

Ion	Ratio	Lower	Upper
146	100		
148	64.0	51.3	76.9
111	40.9	33.1	49.7

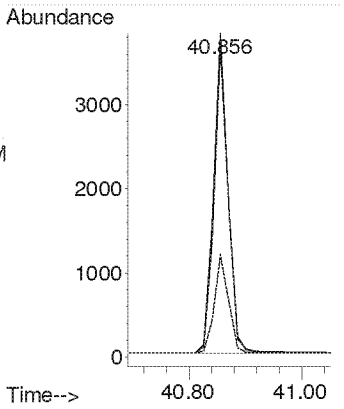




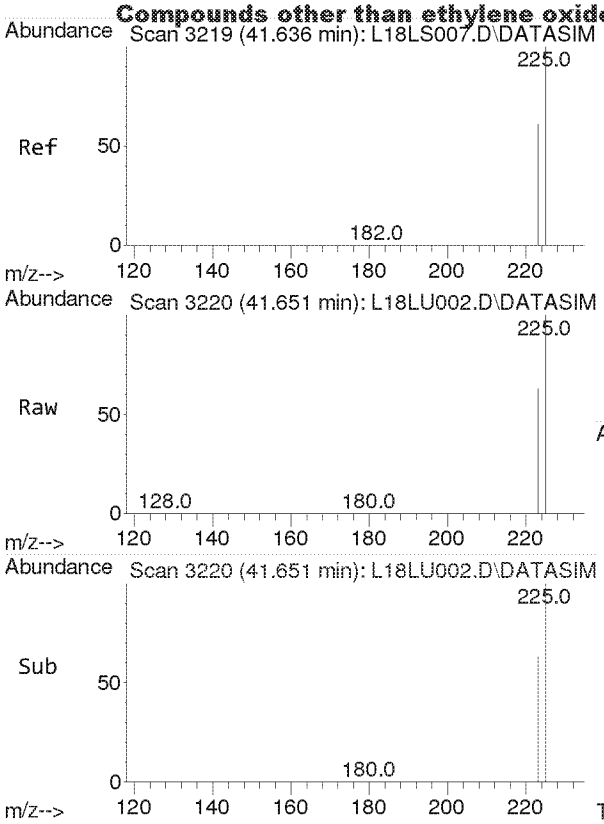
#61
1,2,4-Trichlorobenzene
Concen: 2.715 ppbv
RT: 40.856 min Scan# 3167
Delta R.T. 0.015 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion:180 Resp: 6589

Ion	Ratio	Lower	Upper
180	100		
182	95.5	76.1	114.1
184	30.7	24.6	36.8



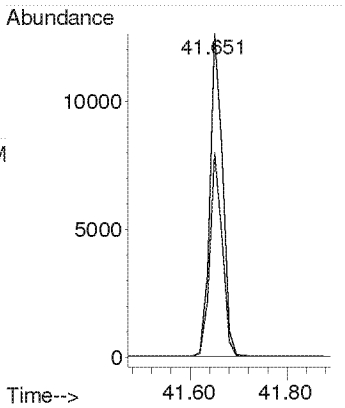
Compounds other than ethylene oxide were not quantitated.



#62
Hexachloro-1,3-butadiene
Concen: 2.565 ppbv
RT: 41.651 min Scan# 3220
Delta R.T. 0.015 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion:225 Resp: 22707

Ion	Ratio	Lower	Upper
225	100		
223	61.9	49.9	74.9



Compounds other than ethylene oxide were not quantitated.

TO-15 Method Blank and
Annual Canister Certification Blank

Analyst: K Date: 12/26/17
Reviewer: KAB Date: 12/31/18

Data File Name	L18LU003.D
Operator	MAH
Acq. Method File	8120004.M
Sample Name	B8L2103-BLK1
Misc Info	80 ML 8L13001

#	Name	Target Response	Amount (ppbv)	PASS*		Blank Criteria
1)	IS-Hexane-d14	56325		NA		NA
2)	Acetylene	0	0.000	Y		0.118
3)	Propylene	56	0.010	Y		0.192
4)	Dichlorodifluoromethane	0	0.000	Y		0.082
5)	Chloromethane	34	0.005	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	60	0.019	Y		0.200
13)	Trichlorofluoromethane	0	0.000	Y		0.035
14)	Acrylonitrile	0	0.000	Y		0.032
15)	1,1-Dichloroethene	0	0.000	Y		0.036
16)	Methylene Chloride	0	0.000	Y		0.043
17)	Carbon Disulfide	475	0.022	Y	MAX	0.200
18)	Trichlorotrifluoroethane	42	0.003	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	137862		NA		NA
29)	1,1,1-Trichloroethane	0	0.000	Y		0.041
30)	Benzene	58	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	0	0.000	Y		0.200
38)	cis-1,3-dichloropropene	0	0.000	Y		0.059
39)	Methyl Isobutyl Ketone	85	0.006	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	95608		NA		NA
43)	Toluene	35	0.002	Y		0.200
44)	Dibromochloromethane	0	0.000	Y		0.046
45)	1,2-Dibromoethane	0	0.000	Y		0.057
46)	n-Octane	0	0.000	Y		0.097
47)	Tetrachloroethylene	0	0.000	Y		0.044
48)	Chlorobenzene	0	0.000	Y		0.058
49)	Ethylbenzene	87	0.005	Y		0.077
50)	m,p-Xylene	49	0.003	Y		0.108
51)	Bromoform	0	0.000	Y		0.053
52)	Styrene	0	0.000	Y		0.109
53)	1,1,2,2-Tetrachloroethane	0	0.000	Y		0.063
54)	o-Xylene	101	0.007	Y		0.080
55)	1,3,5-Trimethylbenzene	0	0.000	Y		0.102
56)	1,2,4-Trimethylbenzene	50	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	40	0.017	Y		0.200
61)	Hexachloro-1,3-butadiene	0	0.000	Y		0.082

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

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

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L18LU\
Data File : L18LU003.D
Acq On : 21 Dec 2018 9:24 am
Operator : MAH
Sample : B8L2103-BLK1
Misc : 80 ML 8L13001
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 26 09:56:23 2018
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.990	66	56325	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.169	114	137862	4.9900 ppbv	0.02
43) IS-Chlorobenzene-d5	30.134	117	95608	4.7400 ppbv	0.04

System Monitoring Compounds

Target Compounds					Qvalue
2) Acetylene	0.000	26	0	N.D.	
3) Propylene	7.837	41	56	0.0099 ppbv	88
4) Dichlorodifluoromethane	0.000	85	0	N.D.	
5) Chloromethane	9.757	50	34	0.0048 ppbv #	42
6) Dichlorotetrafluoroethane	0.000	85	0	N.D.	
7) Vinyl Chloride	0.000	62	0	N.D.	
8) 1,3-Butadiene	0.000	54	0	N.D.	
9) Ethylene oxide	0.000	29	0	N.D. d	
10) Bromomethane	0.000	94	0	N.D.	
11) Chloroethane	0.000	64	0	N.D.	
12) Acetonitrile	0.000	41	0	N.D.	
13) Acrolein	14.750	56	60	0.0185 ppbv #	41
14) Trichlorofluoromethane	0.000	101	0	N.D.	
15) Acrylonitrile	0.000	53	0	N.D.	
16) 1,1-Dichloroethene	0.000	61	0	N.D.	
17) Methylene Chloride	0.000	49	0	N.D.	
18) Carbon Disulfide	16.930	76	475	0.0222 ppbv	100
19) Trichlorotrifluoroethane	17.255	101	42	0.0027 ppbv #	9
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	22.552	78	58	0.0036 ppbv #	53
32) Carbon Tetrachloride	0.000	117	0	N.D.	
33) tert-Amyl Methyl Ether	0.000	73	0	N.D.	
34) 1,2-Dichloropropane	0.000	63	0	N.D.	
35) Ethyl Acrylate	0.000	55	0	N.D.	
36) Bromodichloromethane	0.000	83	0	N.D.	
37) Trichloroethylene	0.000	130	0	N.D.	
38) Methyl Methacrylate	0.000	41	0	N.D. d	
39) cis-1,3-Dichloropropene	0.000	75	0	N.D.	
40) Methyl Isobutyl Ketone	25.661	43	85	0.0064 ppbv #	47
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.	
44) Toluene	27.111	91	35	0.0021 ppbv #	41
45) Dibromochloromethane	0.000	129	0	N.D.	
46) 1,2-Dibromoethane	0.000	107	0	N.D.	
47) n-Octane	0.000	43	0	N.D.	
48) Tetrachloroethylene	0.000	166	0	N.D.	
49) Chlorobenzene	0.000	112	0	N.D.	
50) Ethylbenzene	30.936	91	87	0.0049 ppbv	91

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L18LU\
Data File : L18LU003.D
Acq On : 21 Dec 2018 9:24 am
Operator : MAH
Sample : B8L2103-BLK1
Misc : 80 ML 8L13001
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 26 09:56:23 2018
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
Response via : Initial Calibration

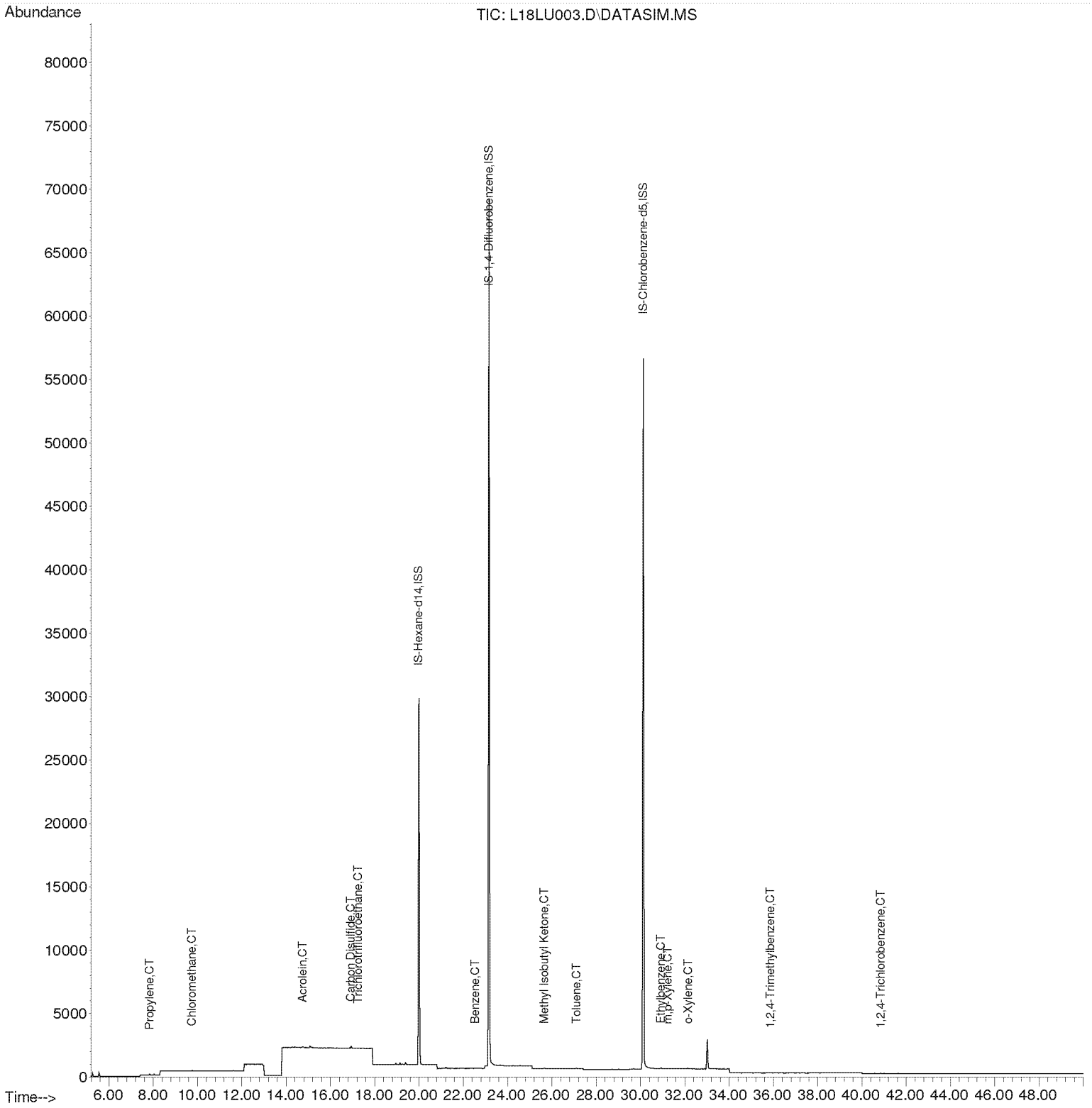
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	31.241	91	49	0.0032 ppbv #	74
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	32.157	91	101	0.0068 ppbv	87
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	
57) 1,2,4-Trimethylbenzene	35.863	105	50	0.0041 ppbv #	33
58) m-Dichlorobenzene	0.000	146	0	N.D.	
59) p-Dichlorobenzene	0.000	146	0	N.D.	
60) o-Dichlorobenzene	0.000	146	0	N.D.	
61) 1,2,4-Trichlorobenzene	40.856	180	40	0.0170 ppbv #	82
62) Hexachloro-1,3-butadiene	0.000	225	0	N.D.	

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

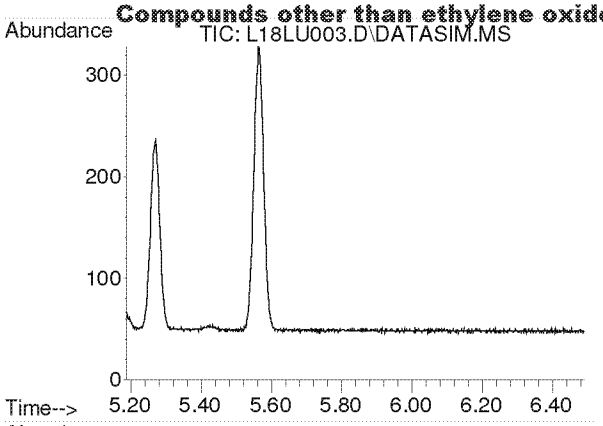
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L18LU\
Data File : L18LU003.D
Acq On : 21 Dec 2018 9:24 am
Operator : MAH
Sample : B8L2103-BLK1
Misc : 80 ML 8L13001
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 26 09:50:01 2018
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
Response via : Initial Calibration



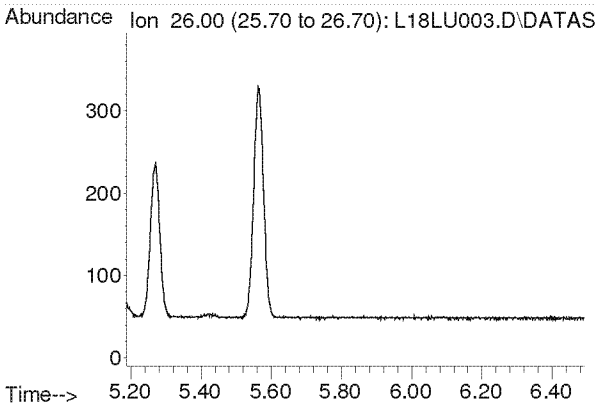
Compounds other than ethylene oxide were not quantitated.

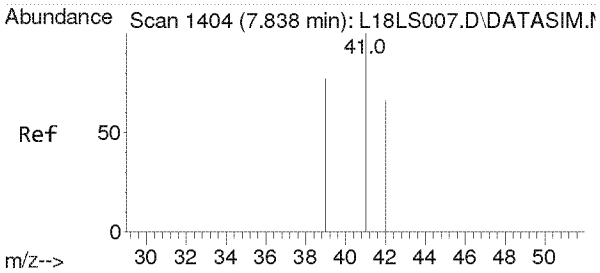


#2
Acetylene
Concen: N.D.
Expected RT: 5.42 min

Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 26

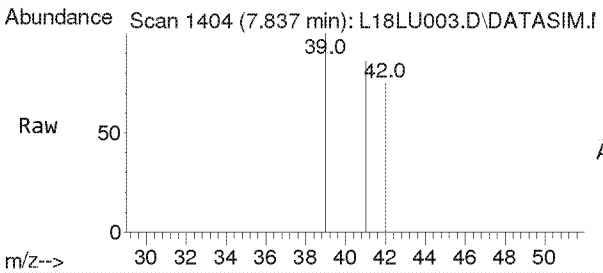


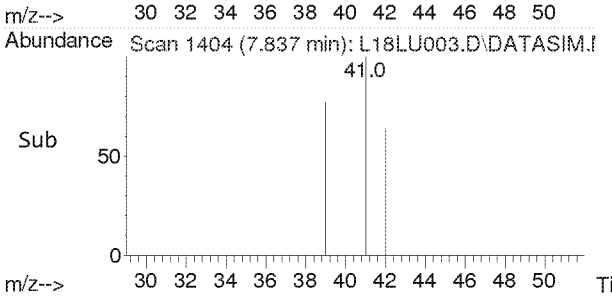


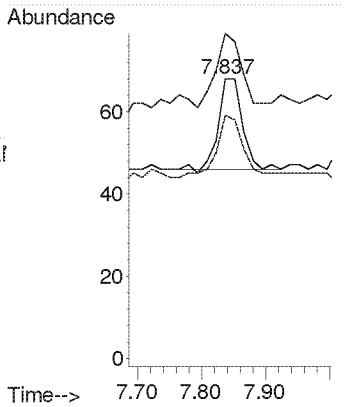
#3
Propylene
Concen: 0.010 ppbv
RT: 7.837 min Scan# 1404
Delta R.T. -0.000 min
Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 41 Resp: 56

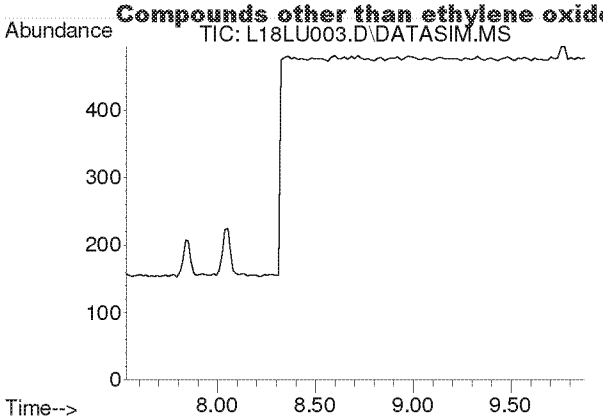
Ion	Ratio	Lower	Upper
41	100		
39	87.5	62.6	93.8
42	76.8	52.6	79.0







Compounds other than ethylene oxide were not quantitated.

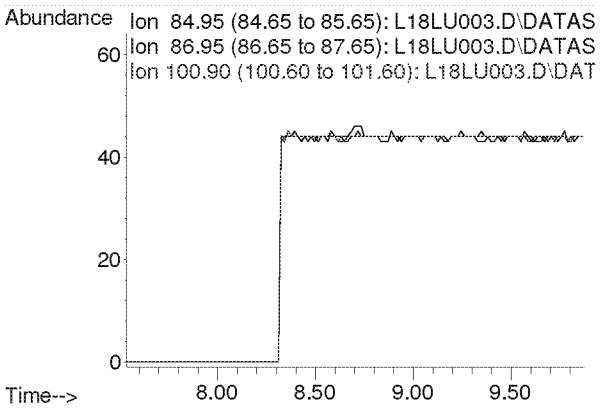


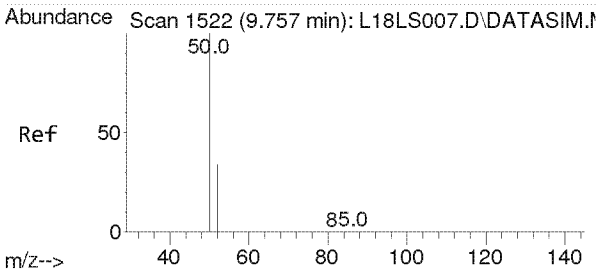
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	8.9

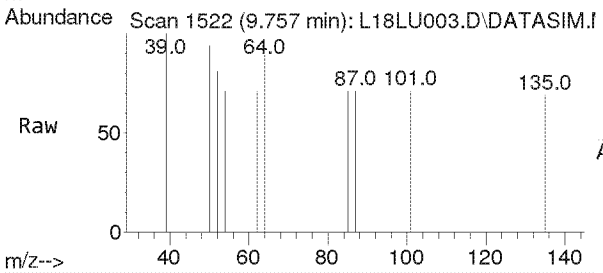


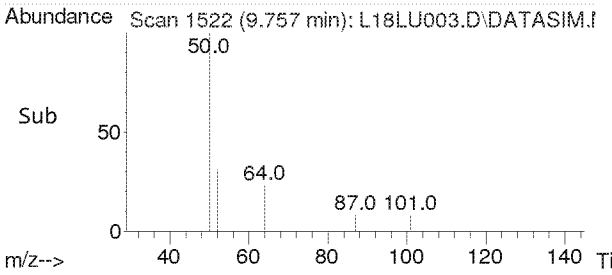


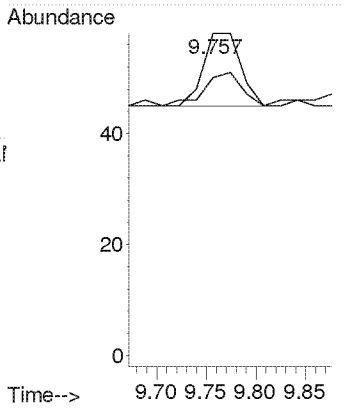
#5
Chloromethane
Concen: 0.005 ppbv
RT: 9.757 min Scan# 1522
Delta R.T. -0.000 min
Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 50 Resp: 34

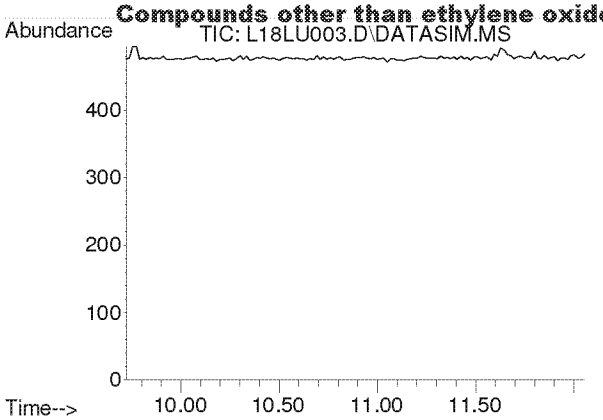
Ion	Ratio	Lower	Upper
50	100		
52	0.0	26.1	39.1#







Compounds other than ethylene oxide were not quantitated.

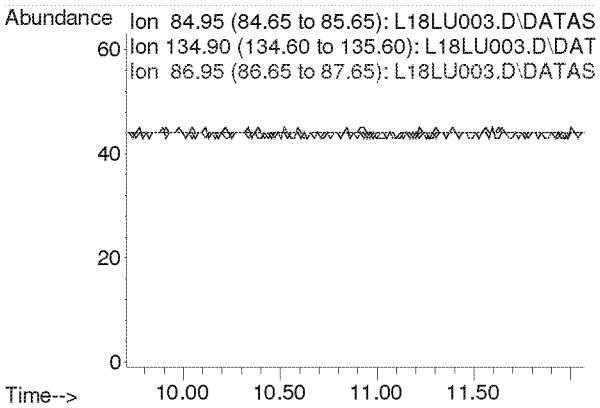


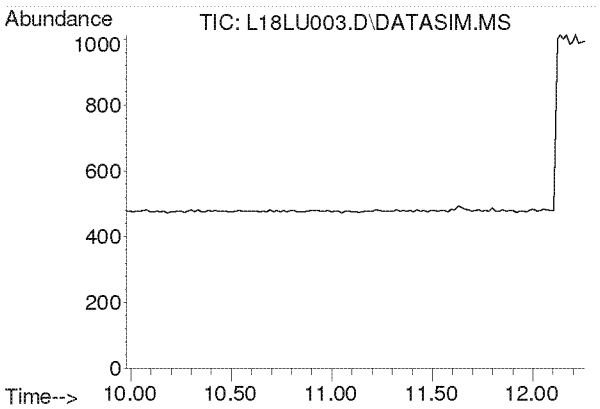
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.1
87	32.1



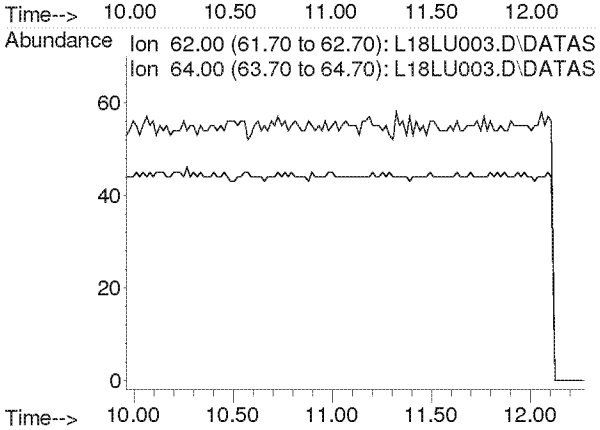


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

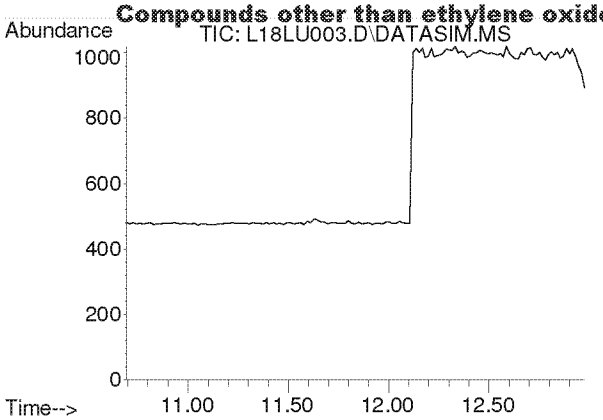
Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.8



Compounds other than ethylene oxide were not quantitated.

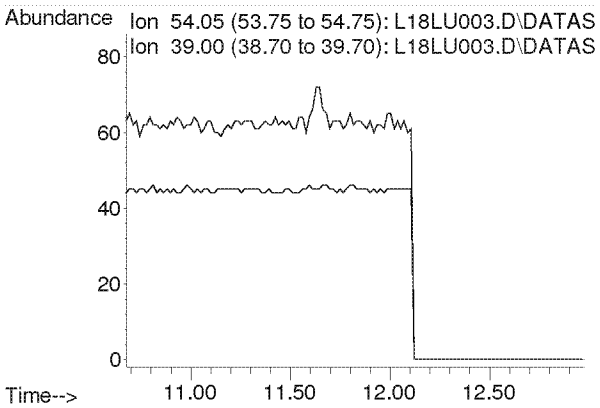


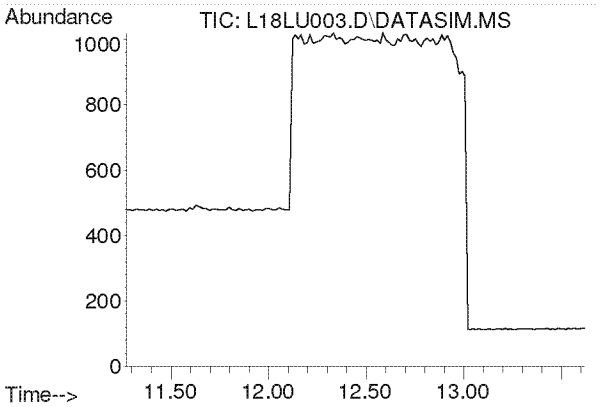
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	105.4



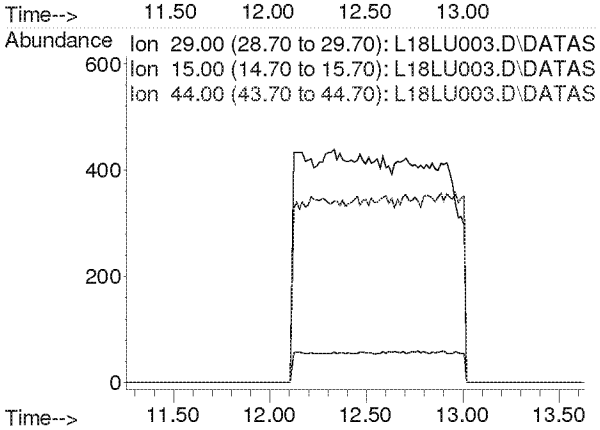


#9
Ethylene oxide
Concen: N.D.
Expected RT: 12.38 min

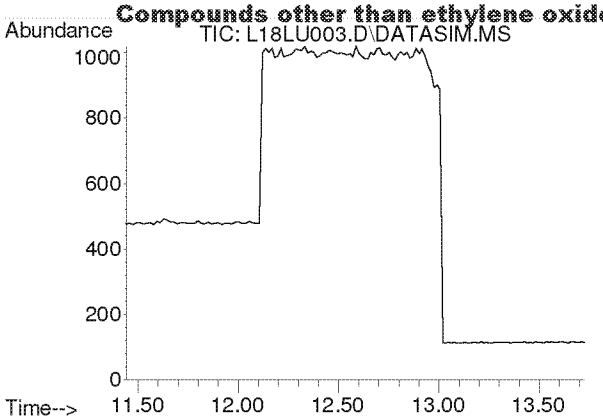
Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 29

Sig	Exp Ratio
29	100
15	20.3
44	90.0



Compounds other than ethylene oxide were not quantitated.

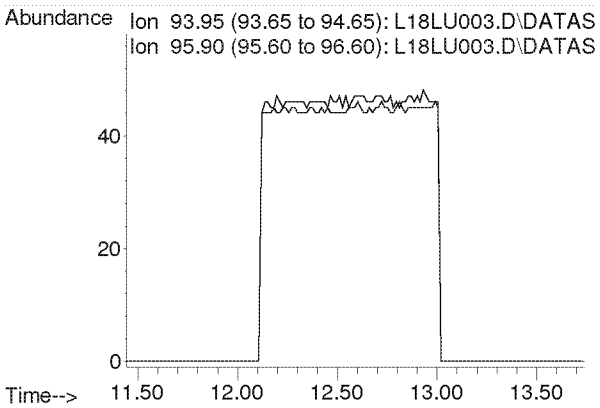


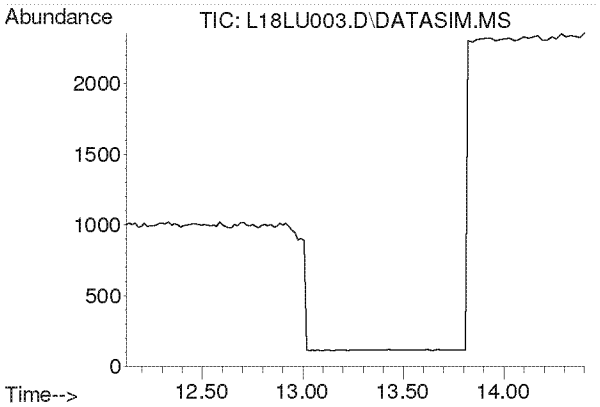
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	93.9



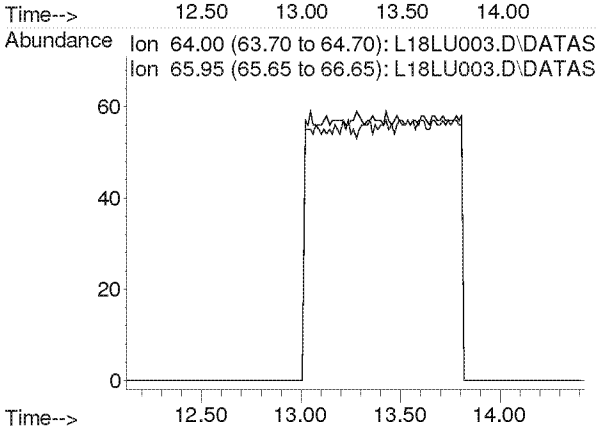


#11
Chloroethane
Concen: N.D.
Expected RT: 13.27 min

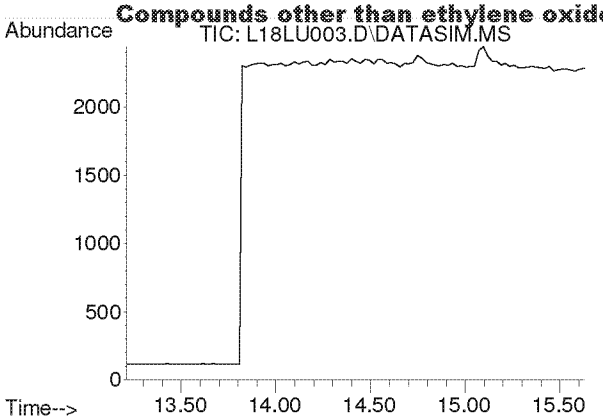
Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.0



Compounds other than ethylene oxide were not quantitated.

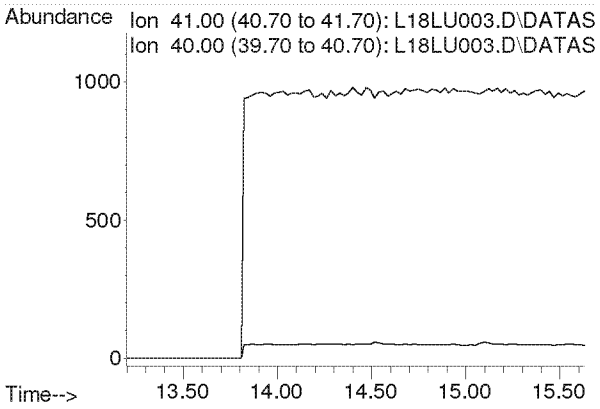


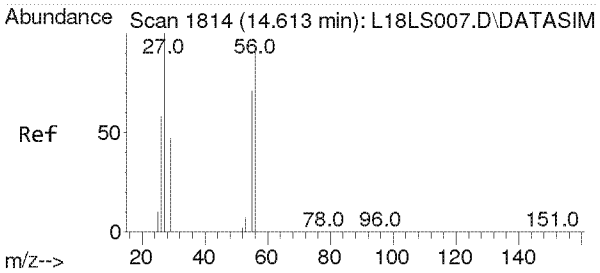
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.33 min

Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	50.9

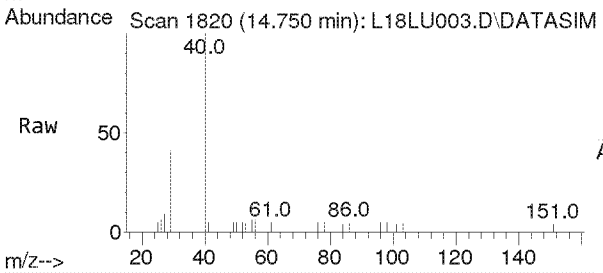


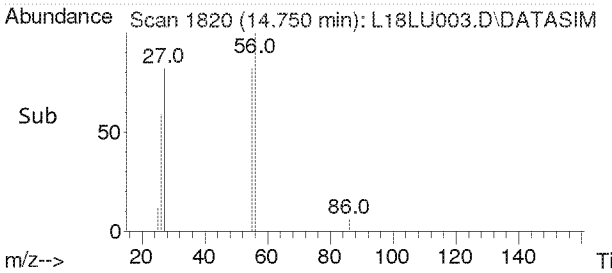


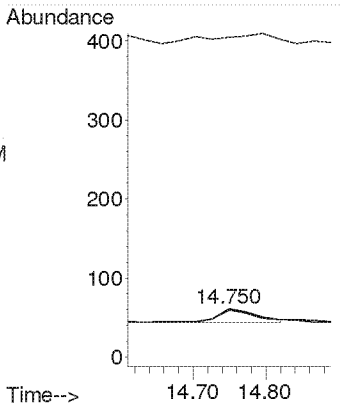
#13
Acrolein
Concen: 0.019 ppbv
RT: 14.750 min Scan# 1820
Delta R.T. 0.137 min
Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 56 Resp: 60

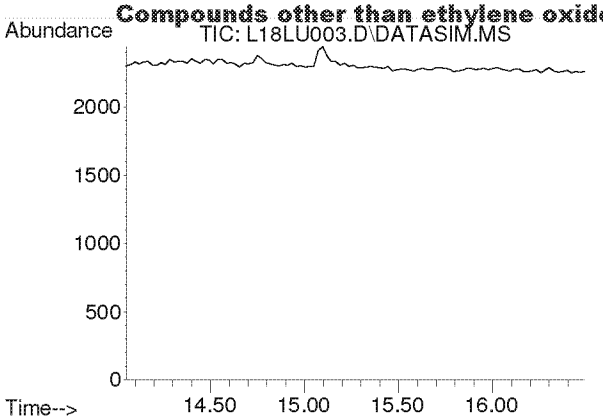
Ion	Ratio	Lower	Upper
56	100		
55	96.7	60.3	90.5#
29	128.3	42.3	63.5#







Compounds other than ethylene oxide were not quantitated.

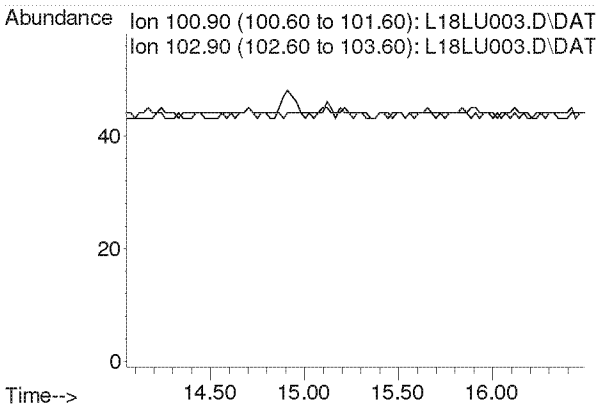


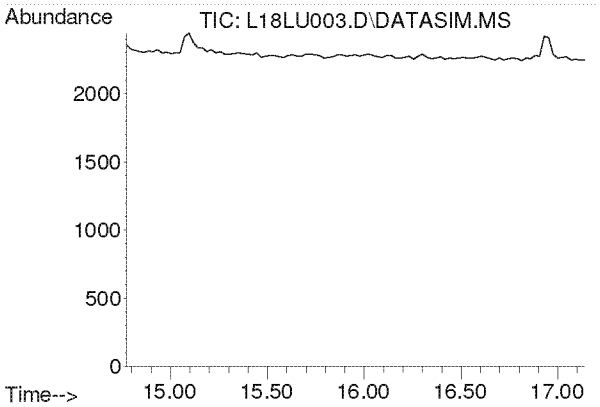
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



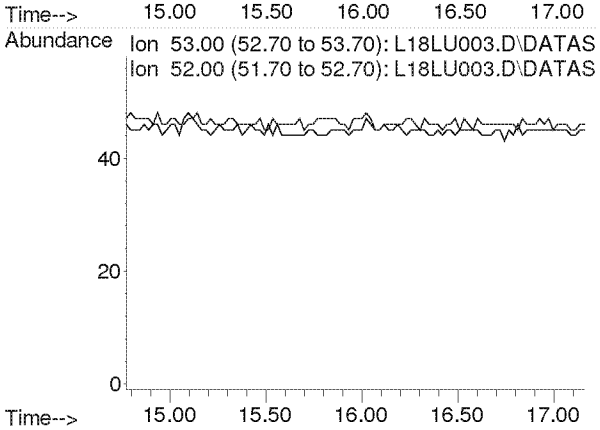


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.91 min

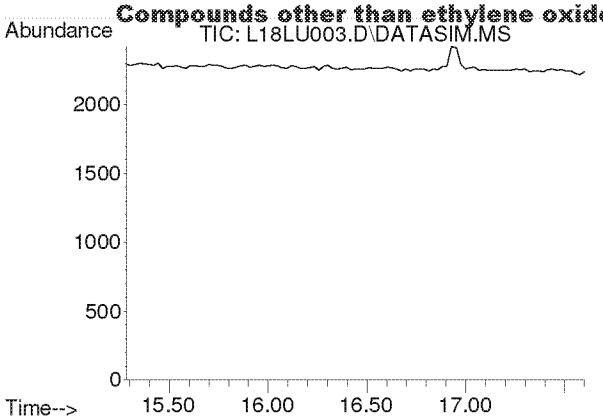
Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	85.4



Compounds other than ethylene oxide were not quantitated.

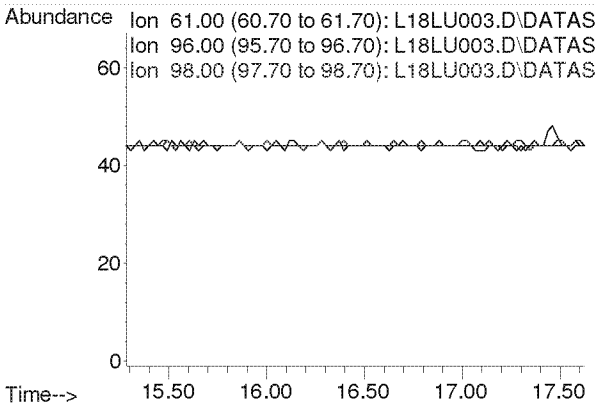


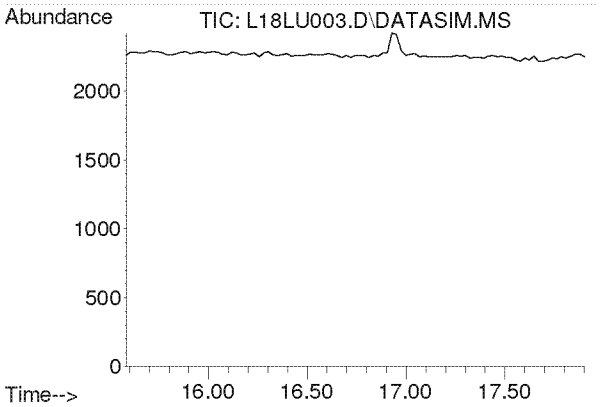
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	58.3
98	37.4



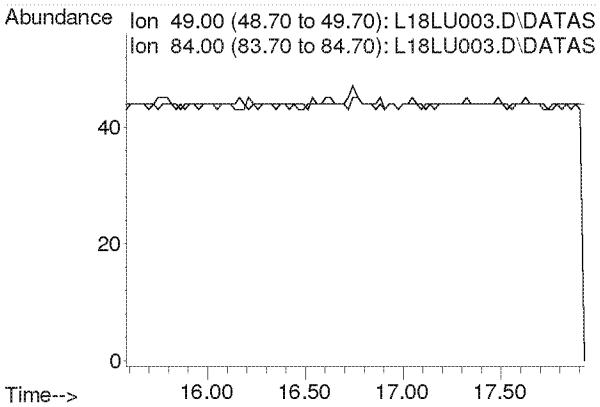


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.72 min

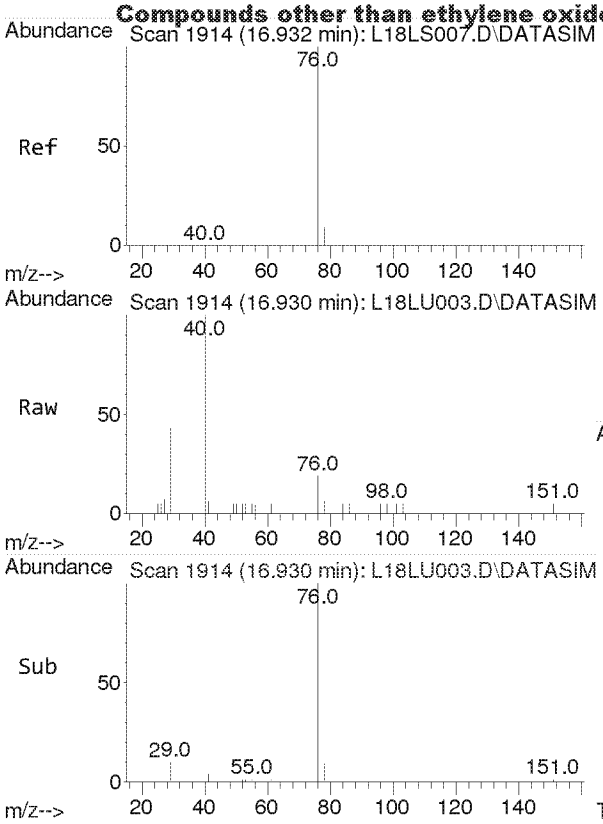
Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	76.4



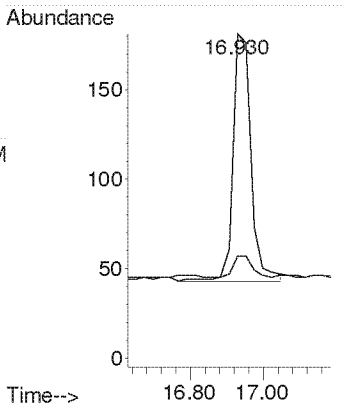
Compounds other than ethylene oxide were not quantitated.

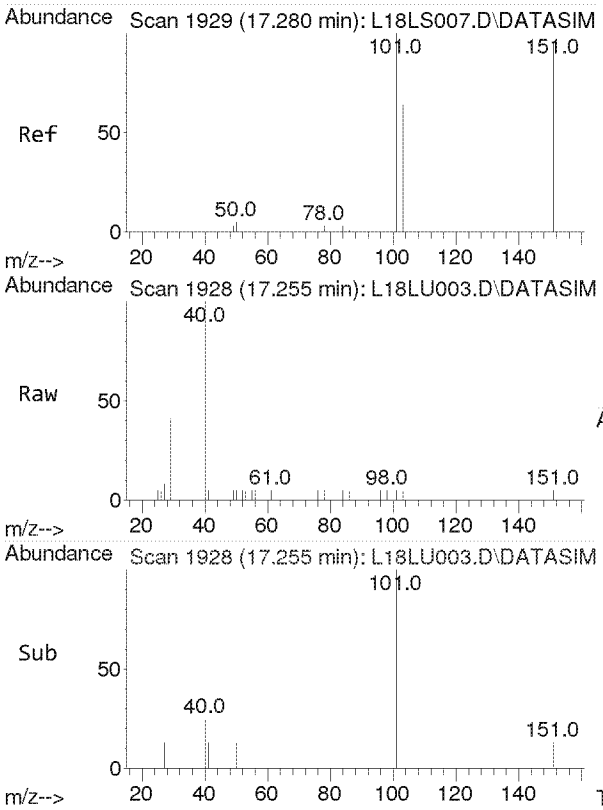


#18
Carbon Disulfide
Concen: 0.022 ppbv
RT: 16.930 min Scan# 1914
Delta R.T. -0.002 min
Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 76 Resp: 475

Ion	Ratio	Lower	Upper
76	100		
78	9.1	7.3	10.9

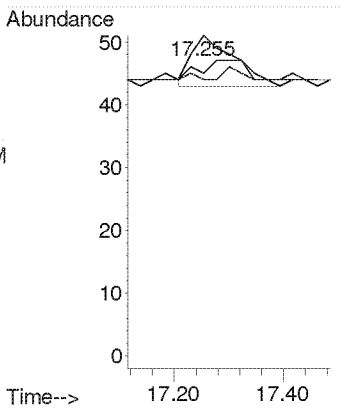




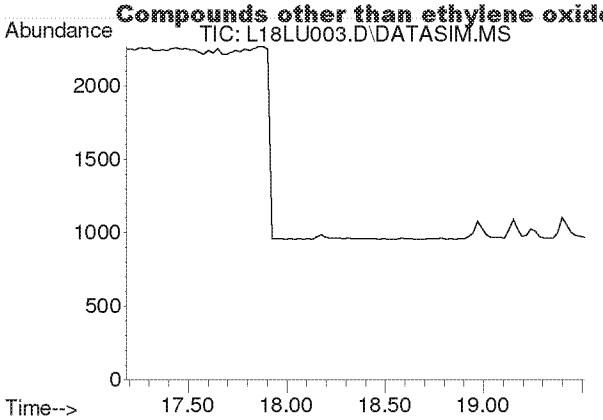
#19
Trichlorotrifluoroethane
Concen: 0.003 ppbv
RT: 17.255 min Scan# 1928
Delta R.T. -0.025 min
Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion:101 Resp: 42

Ion	Ratio	Lower	Upper
101	100		
151	0.0	76.2	114.4#
103	0.0	51.3	76.9#



Compounds other than ethylene oxide were not quantitated.

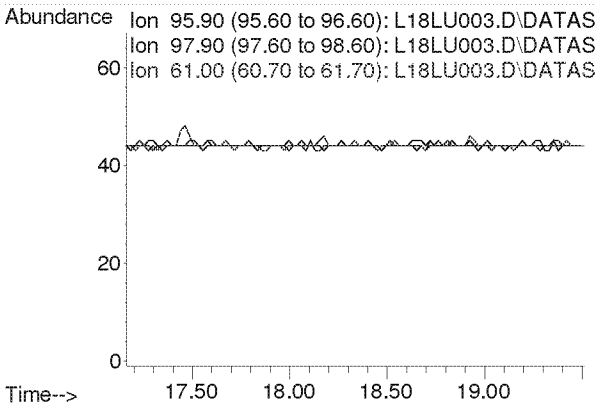


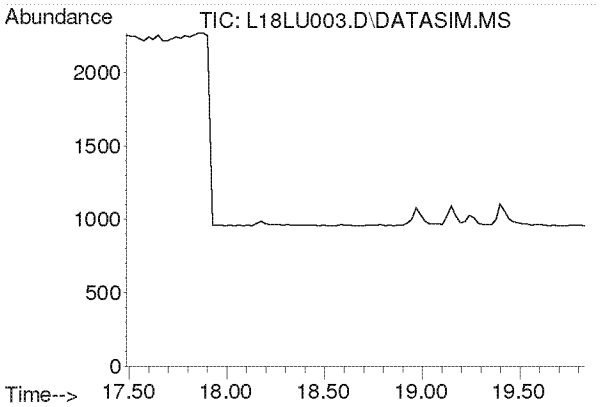
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.31 min

Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	63.7
61	159.2



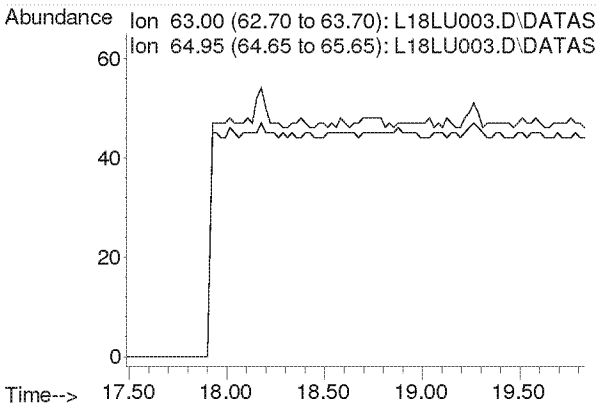


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

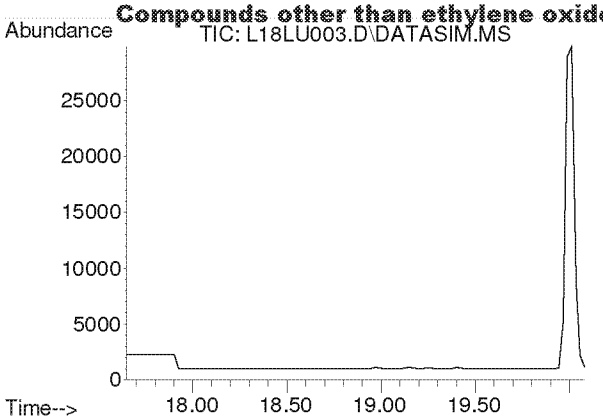
Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

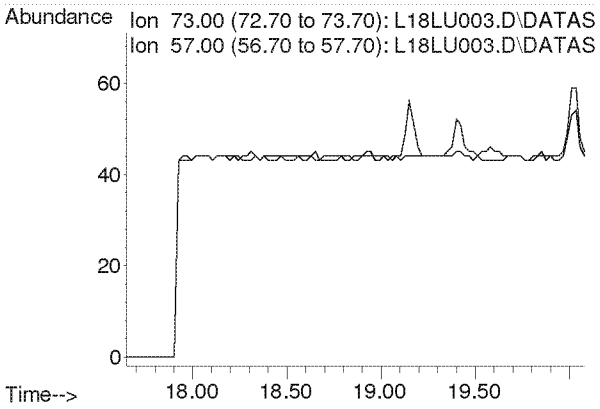


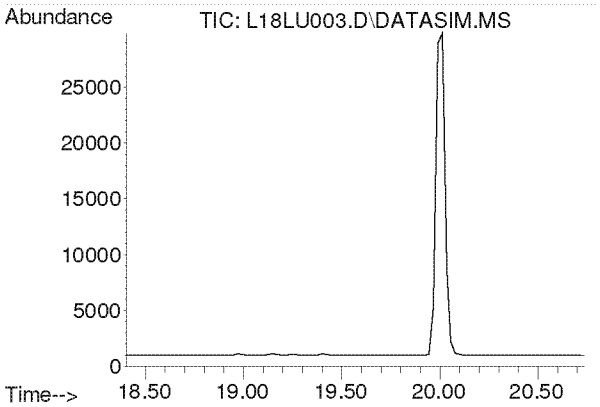
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.4



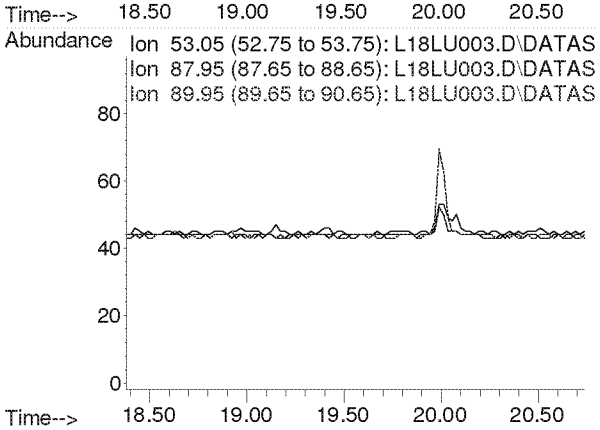


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

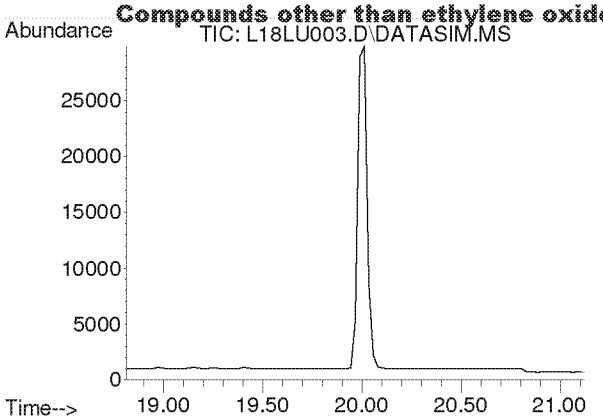
Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	51.8
90	16.8



Compounds other than ethylene oxide were not quantitated.

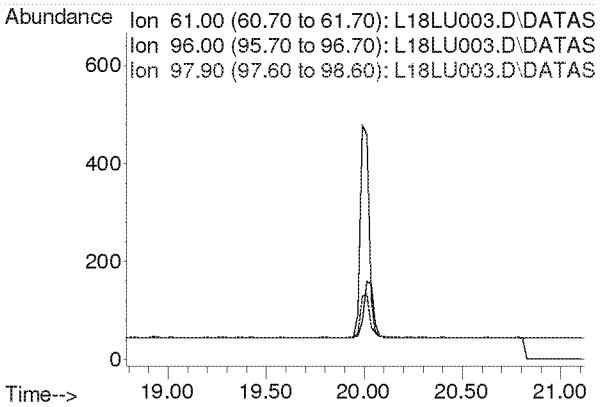


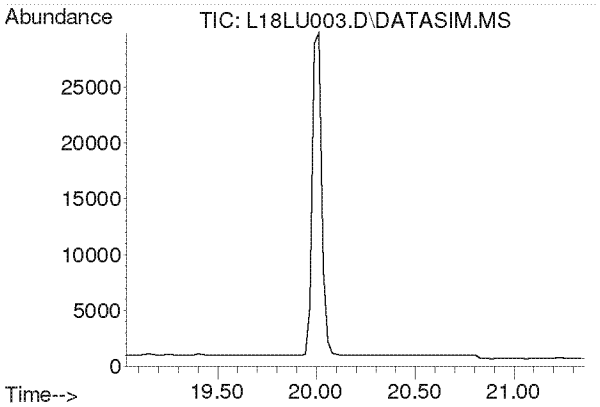
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.7
98	45.2



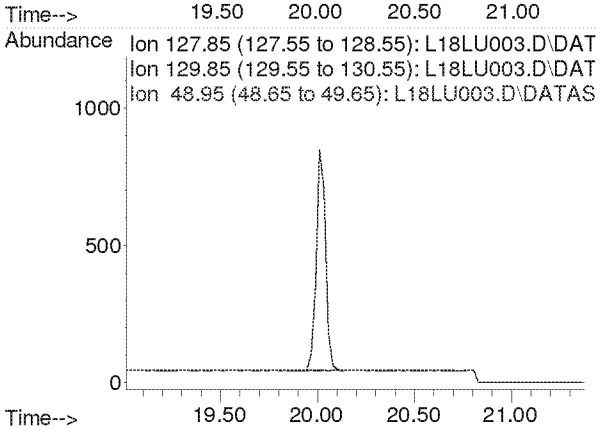


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

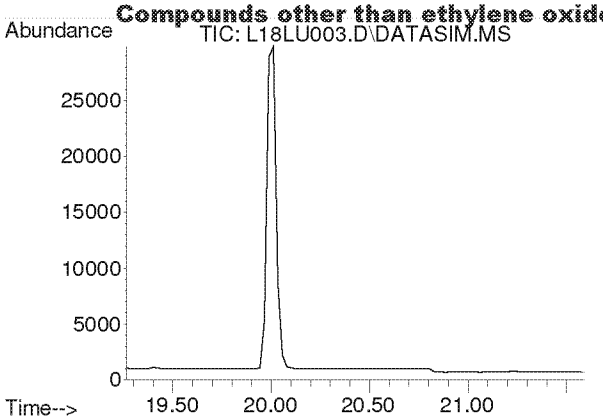
Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	171.2



Compounds other than ethylene oxide were not quantitated.

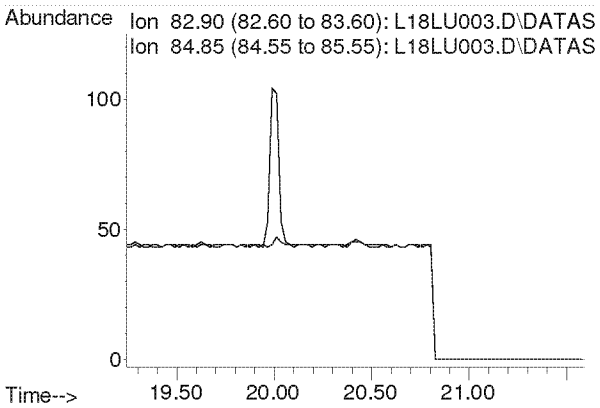


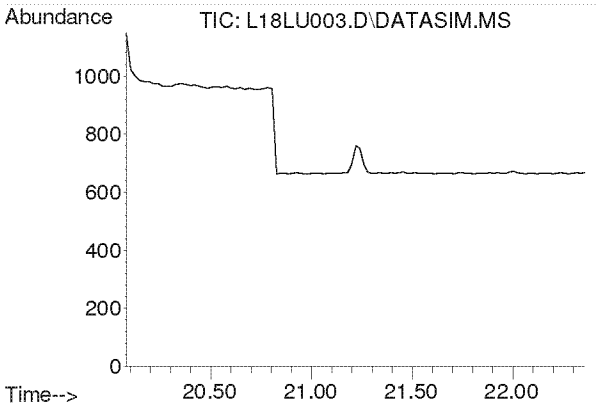
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



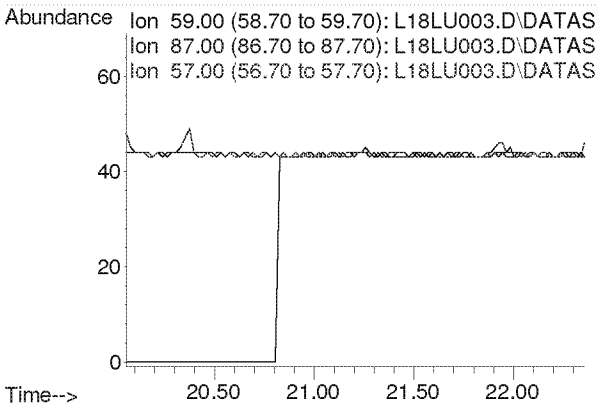


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.16 min

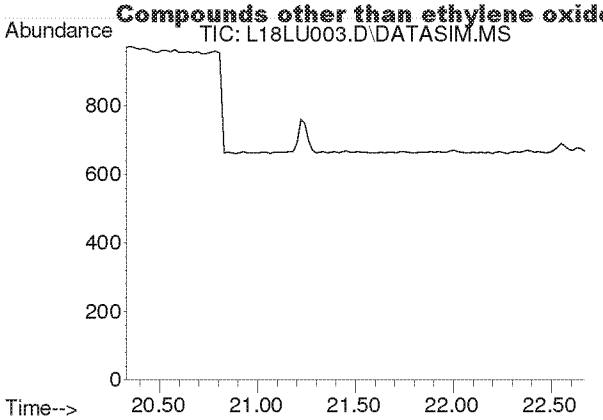
Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	37.5
57	33.8



Compounds other than ethylene oxide were not quantitated.

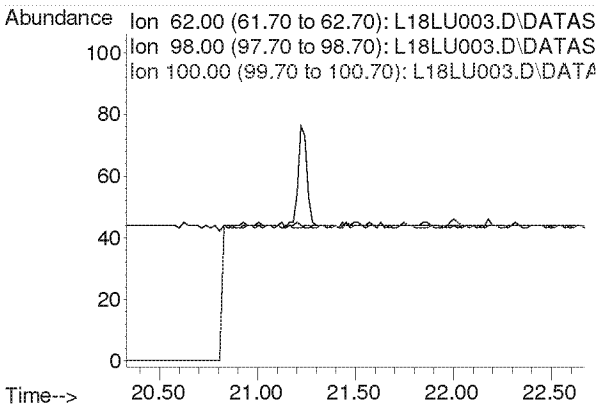


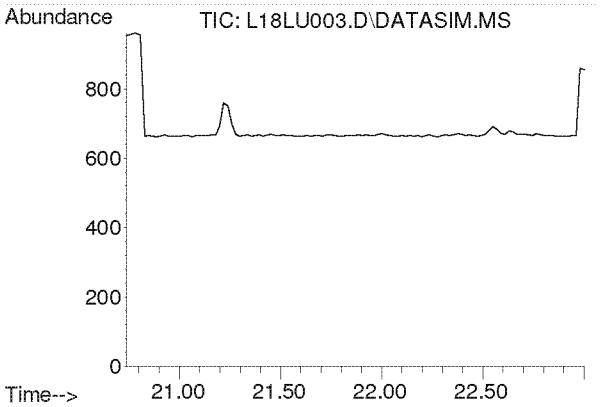
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.4
100	4.0



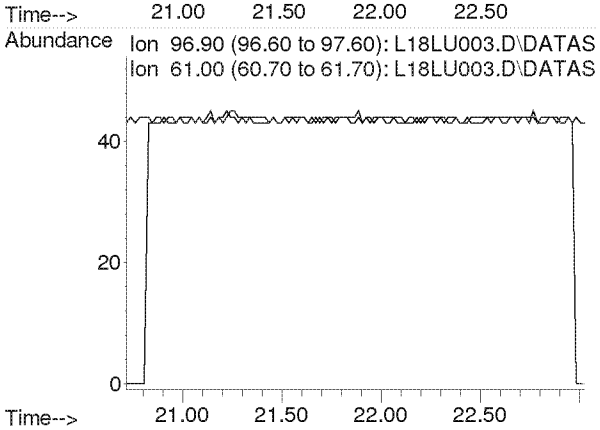


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

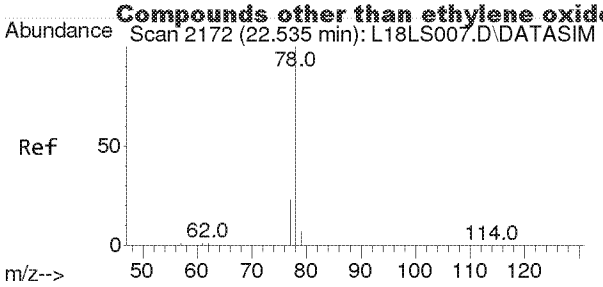
Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	60.5



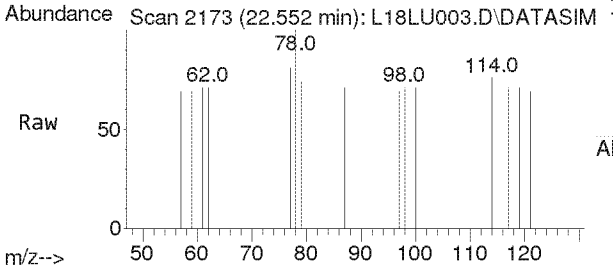
Compounds other than ethylene oxide were not quantitated.

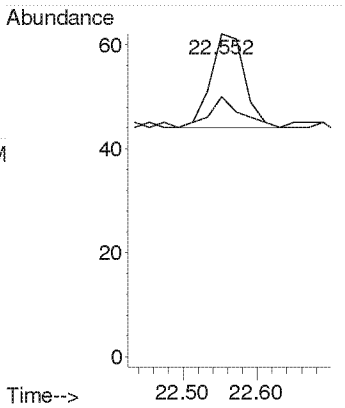


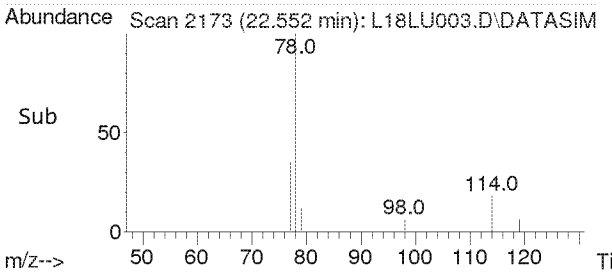
#31
Benzene
Concen: 0.004 ppbv
RT: 22.552 min Scan# 2173
Delta R.T. 0.017 min
Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

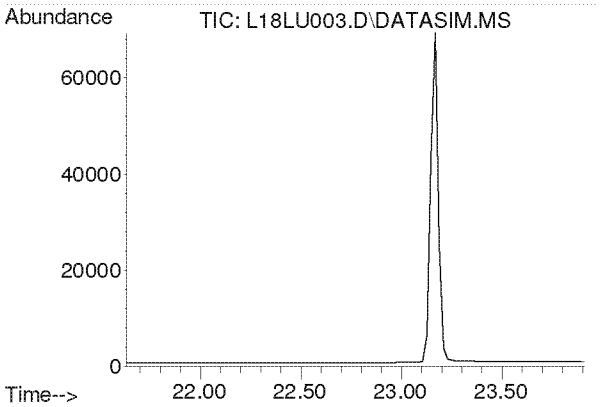
Tgt Ion: 78 Resp: 58

Ion	Ratio	Lower	Upper
78	100		
77	0.0	18.2	27.2#







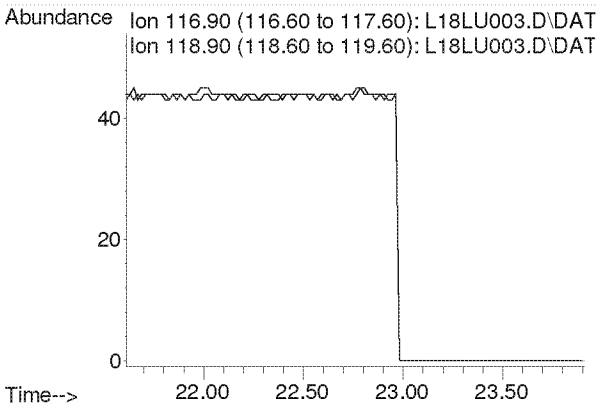


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

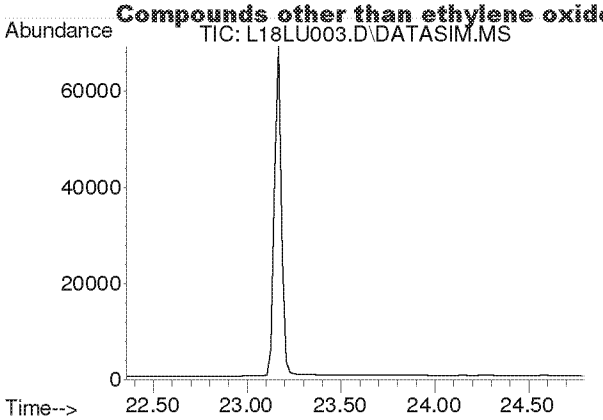
Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.5



Compounds other than ethylene oxide were not quantitated.

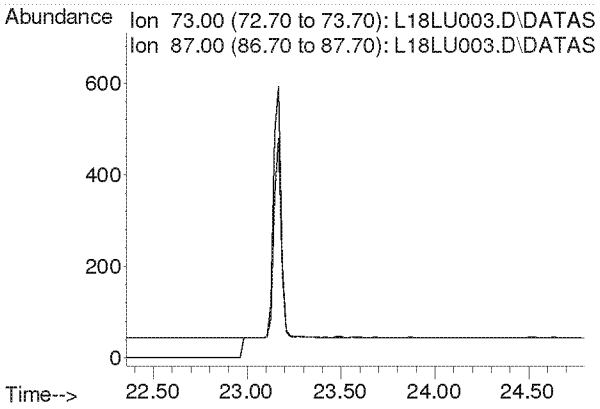


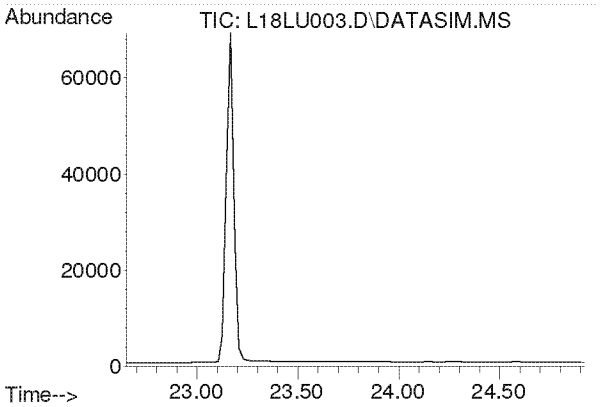
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.50 min

Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	24.9



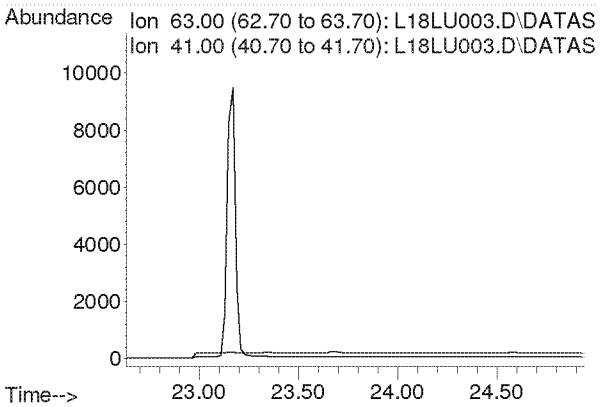


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

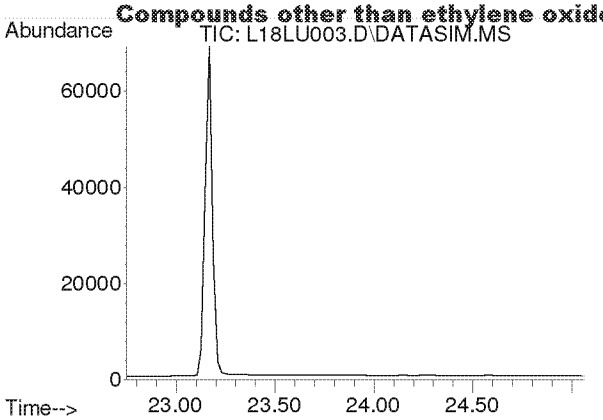
Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	212.8



Compounds other than ethylene oxide were not quantitated.

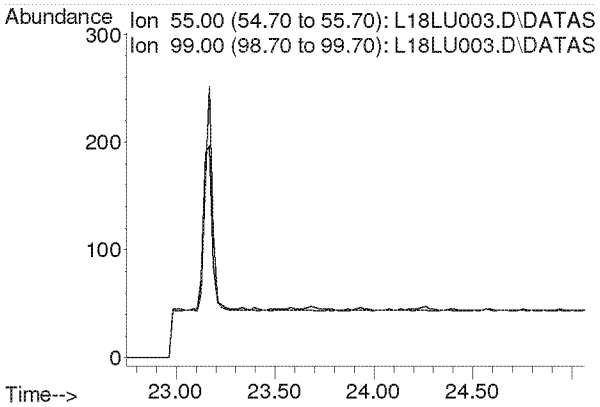


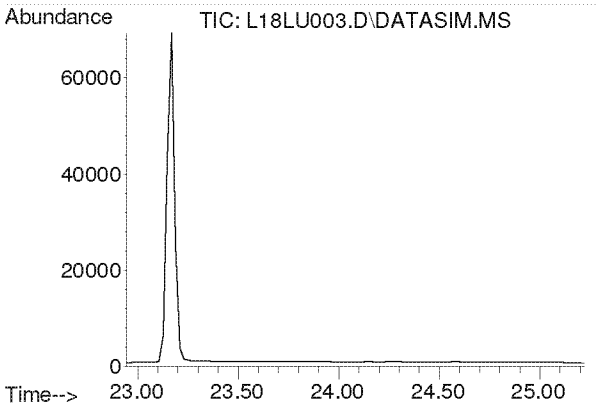
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.87 min

Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.1



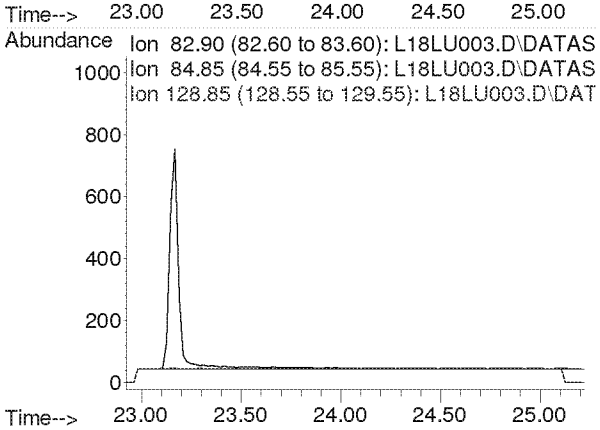


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

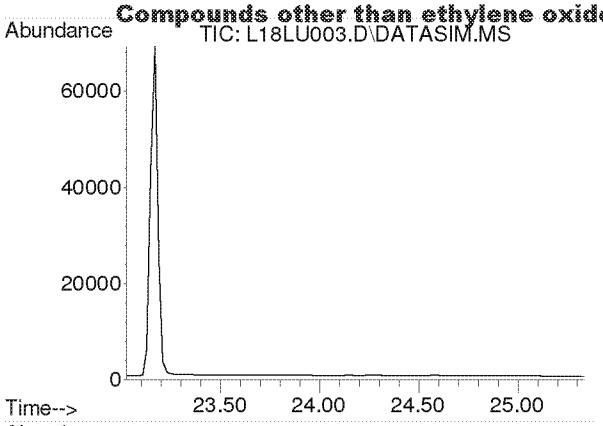
Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.0
129	12.4



Compounds other than ethylene oxide were not quantitated.

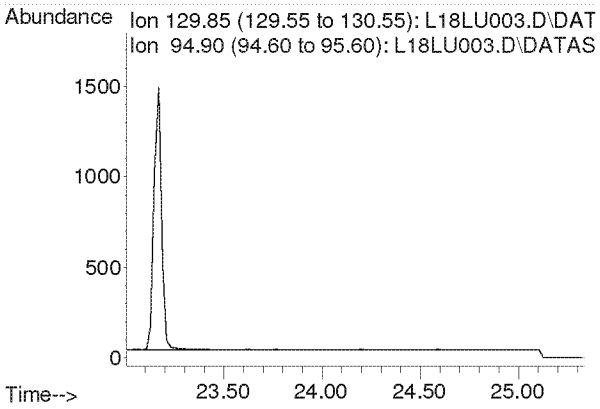


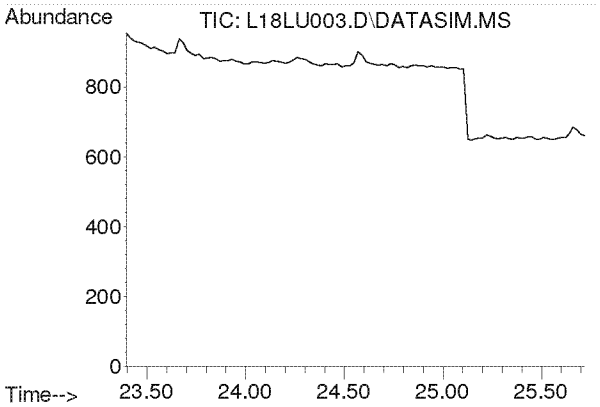
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.16 min

Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	110.3



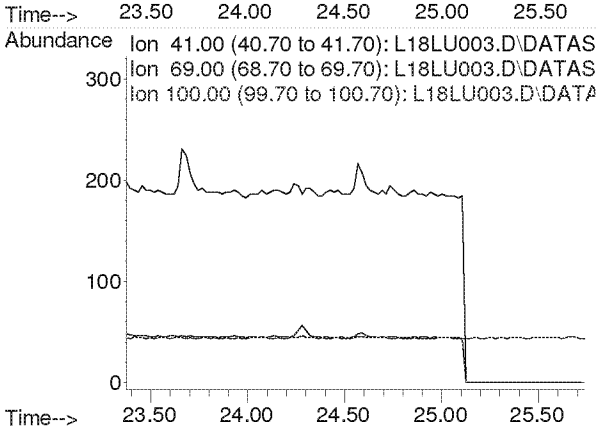


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

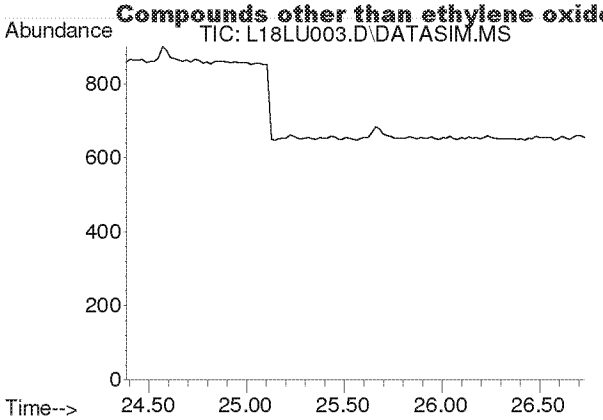
Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	19.9
100	5.2



Compounds other than ethylene oxide were not quantitated.

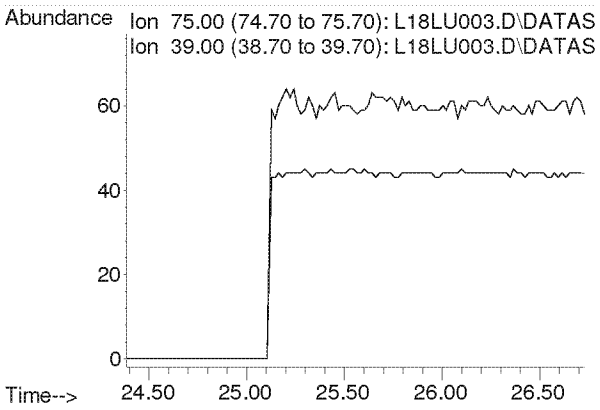


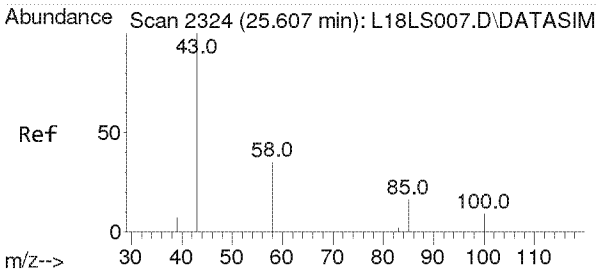
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.4

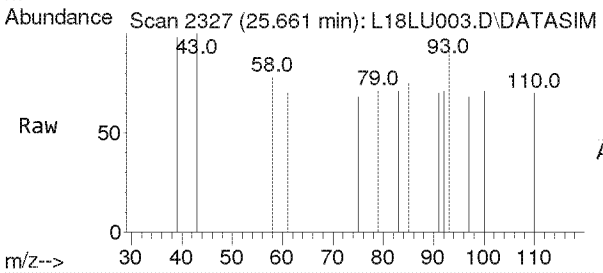


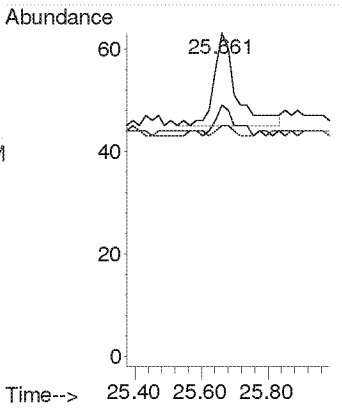


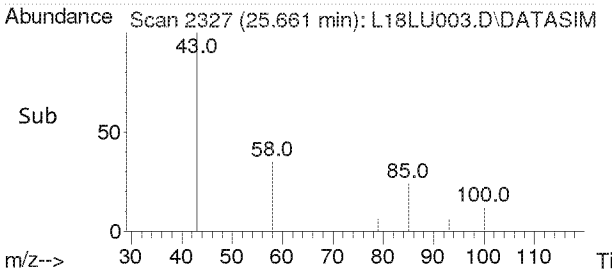
#40
Methyl Isobutyl Ketone
Concen: 0.006 ppbv
RT: 25.661 min Scan# 2327
Delta R.T. 0.055 min
Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 43 Resp: 85

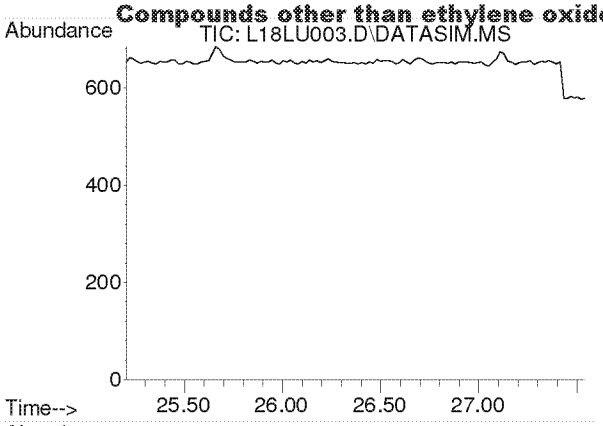
Ion	Ratio	Lower	Upper
43	100		
58	0.0	27.4	41.0#
100	0.0	6.3	9.5#







Compounds other than ethylene oxide were not quantitated.

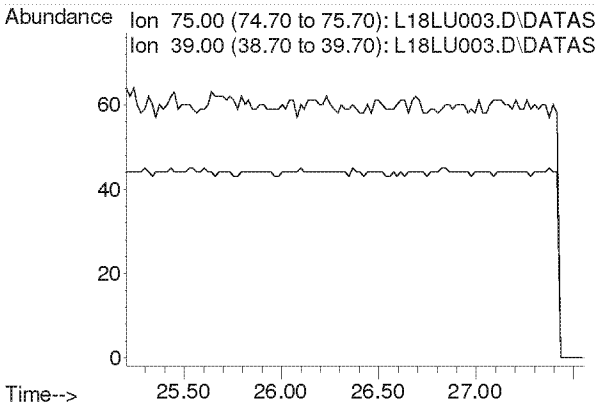


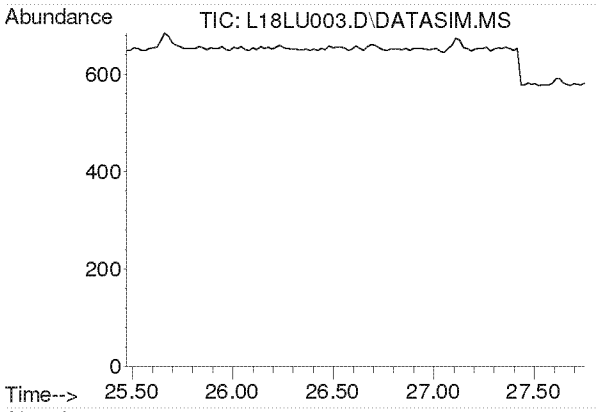
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.35 min

Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	50.9



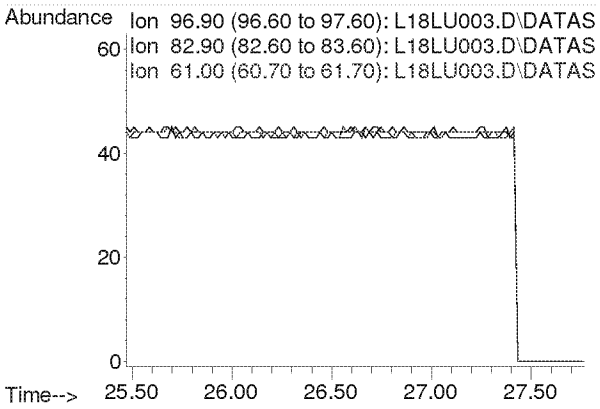


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

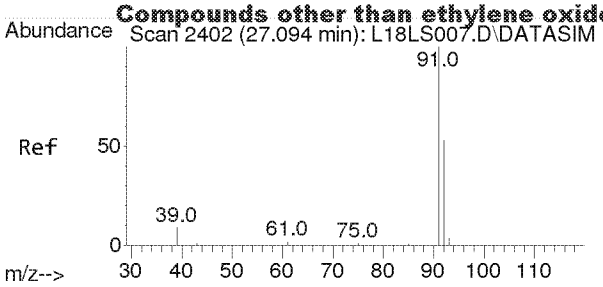
Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	96.1
61	63.5



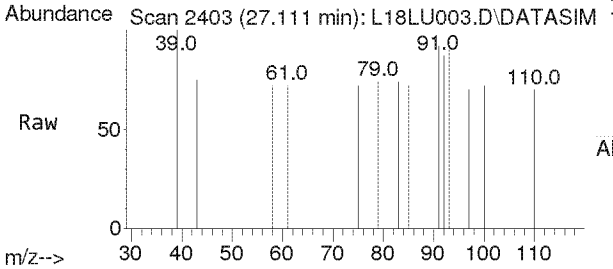
Compounds other than ethylene oxide were not quantitated.

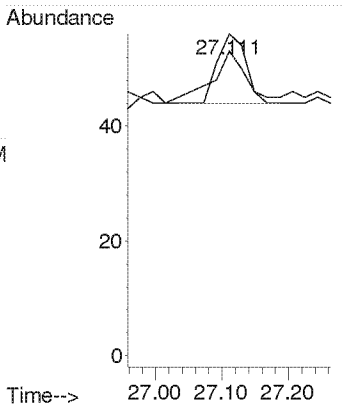


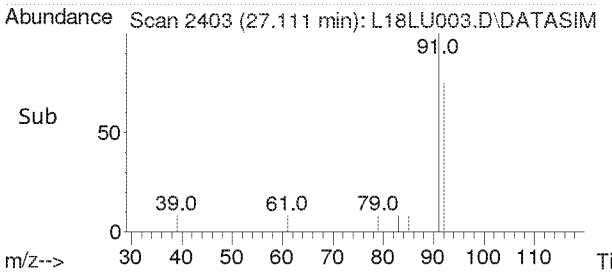
#44
Toluene
Concen: 0.002 ppbv
RT: 27.111 min Scan# 2403
Delta R.T. 0.017 min
Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

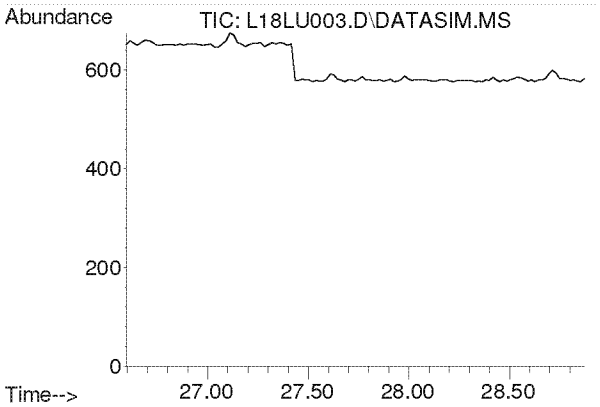
Tgt Ion: 91 Resp: 35

Ion	Ratio	Lower	Upper
91	100		
92	94.3	42.1	63.1#







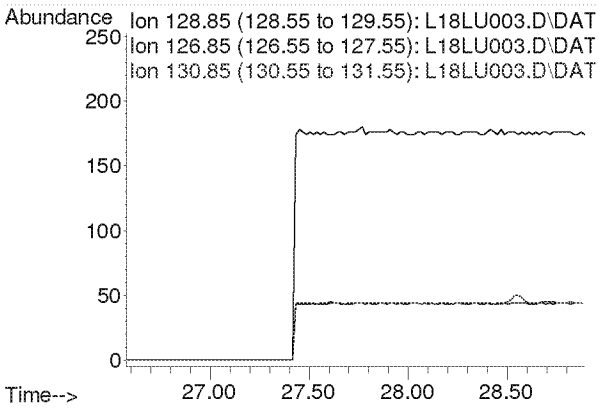


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.73 min

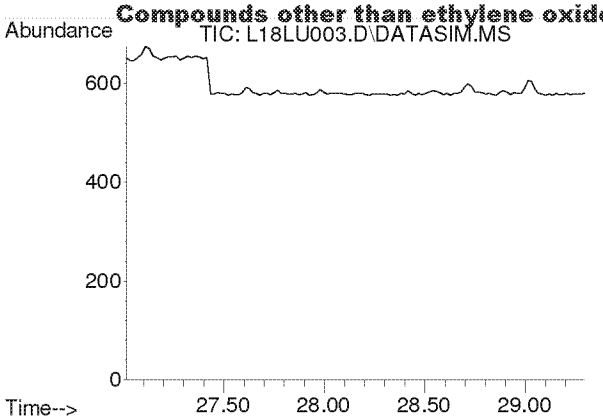
Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.2
131	6.0



Compounds other than ethylene oxide were not quantitated.

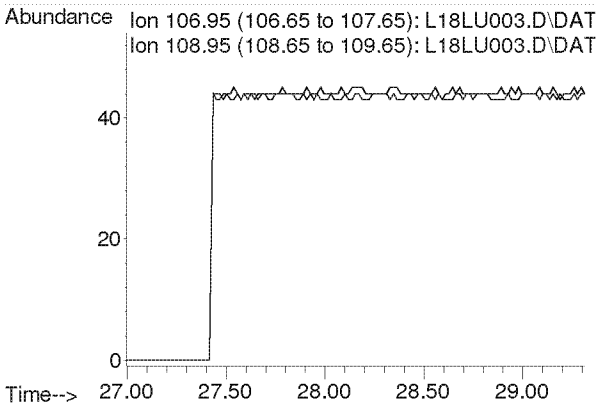


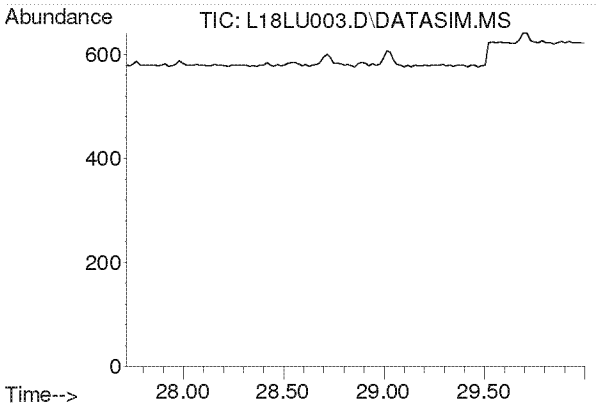
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.16 min

Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.5



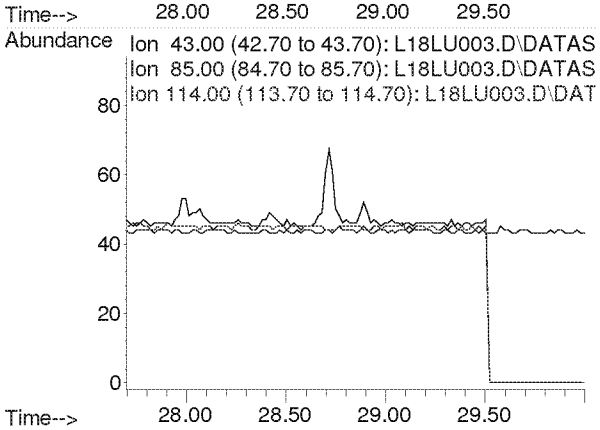


#47
n-Octane
Concen: N.D.
Expected RT: 28.86 min

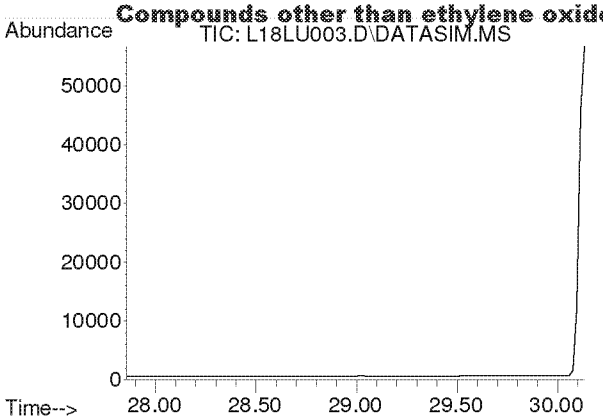
Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	36.0
114	2.2



Compounds other than ethylene oxide were not quantitated.

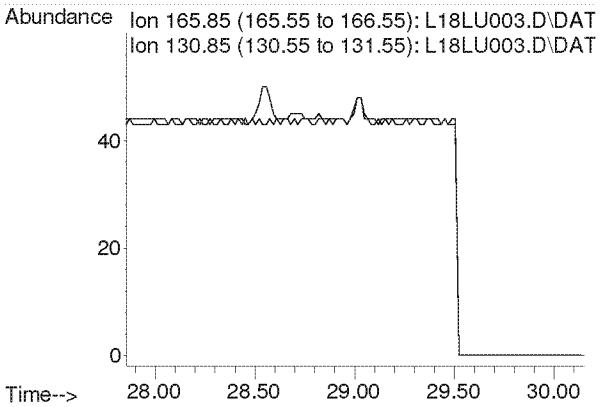


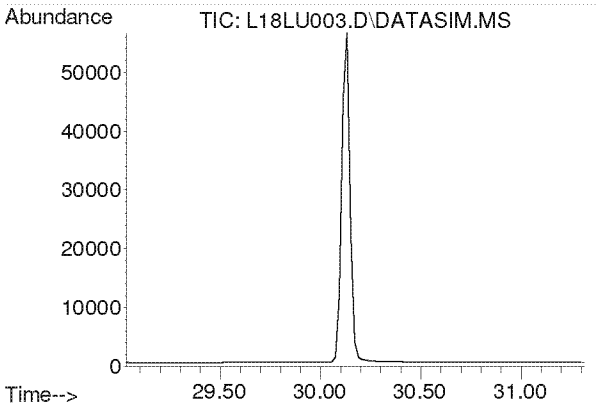
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	78.2



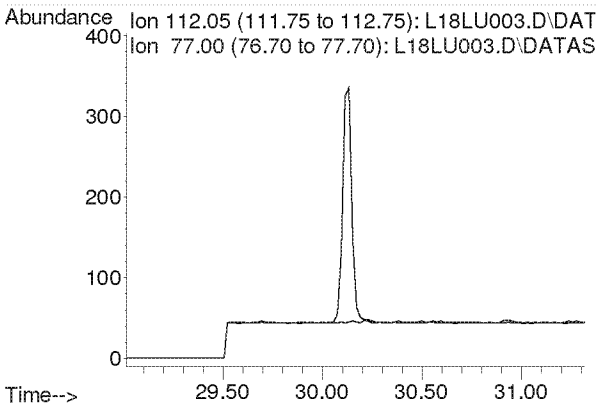


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.17 min

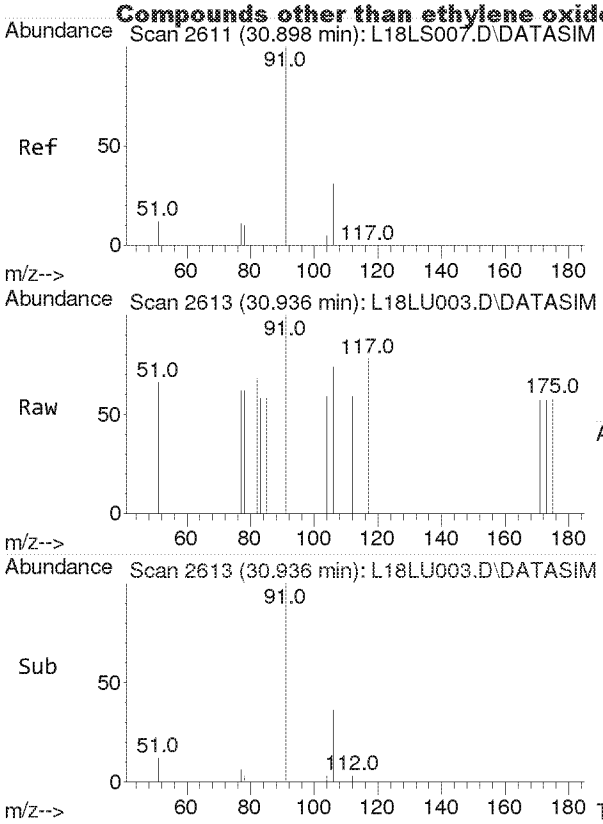
Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	63.0



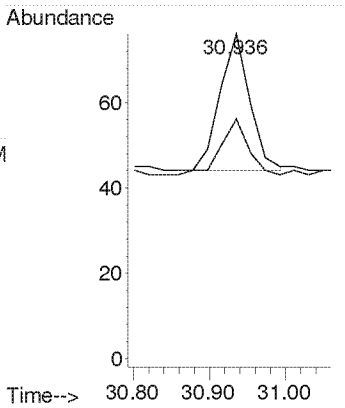
Compounds other than ethylene oxide were not quantitated.

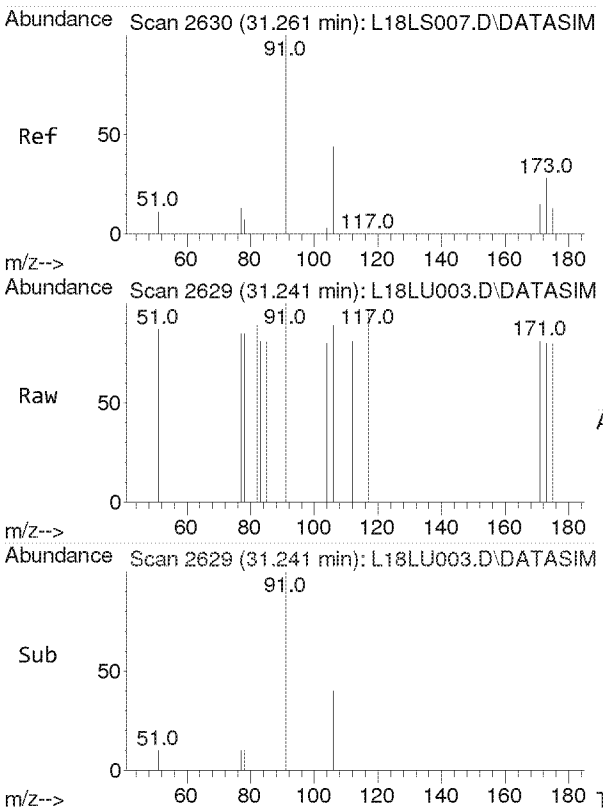


#50
Ethylbenzene
Concen: 0.005 ppbv
RT: 30.936 min Scan# 2613
Delta R.T. 0.037 min
Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 91 Resp: 87

Ion	Ratio	Lower	Upper
91	100		
106	36.8	25.4	38.2

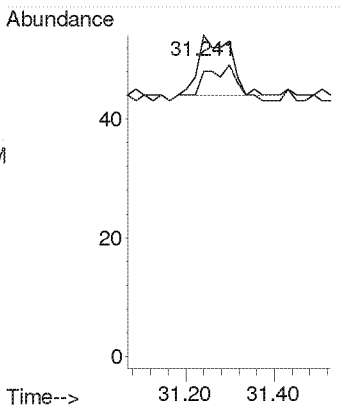




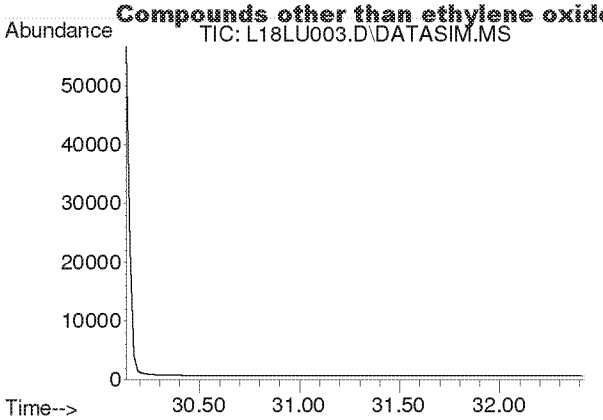
#51
m,p-Xylene
Concen: 0.003 ppbv
RT: 31.241 min Scan# 2629
Delta R.T. -0.020 min
Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 91 Resp: 49

Ion	Ratio	Lower	Upper
91	100		
106	61.2	35.5	53.3#



Compounds other than ethylene oxide were not quantitated.

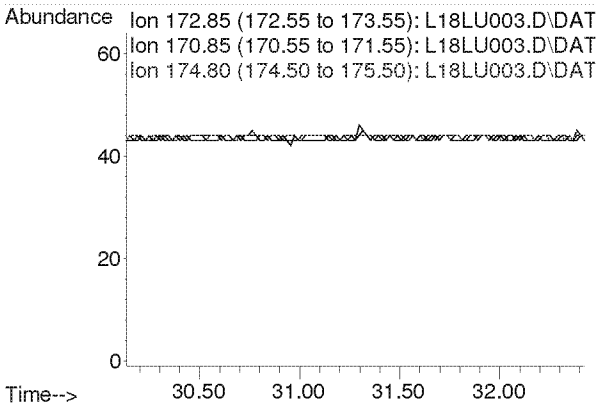


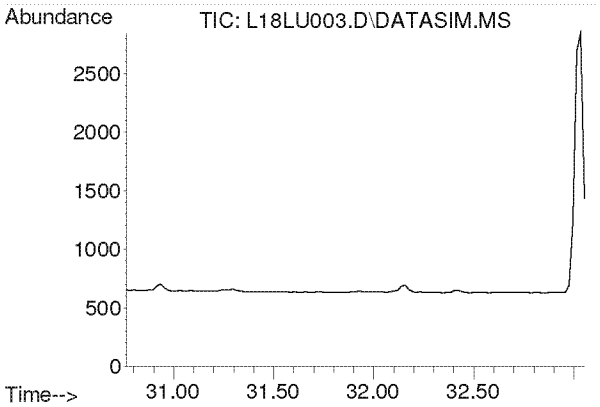
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	49.0



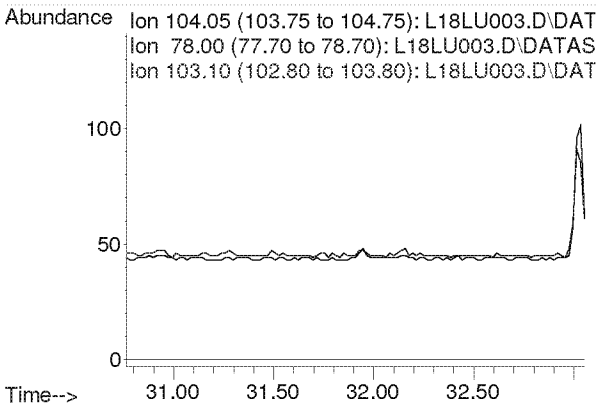


#53
Styrene
Concen: N.D.
Expected RT: 31.91 min

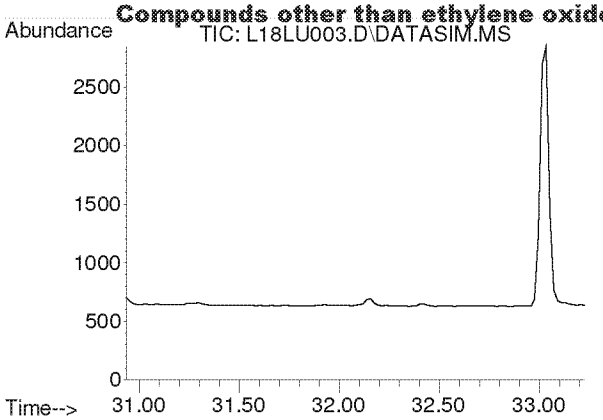
Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	45.6
103	0.0



Compounds other than ethylene oxide were not quantitated.

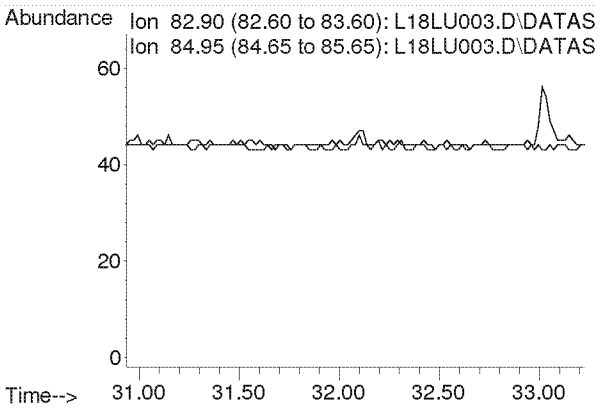


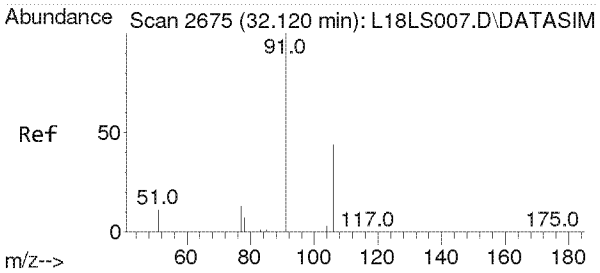
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.9

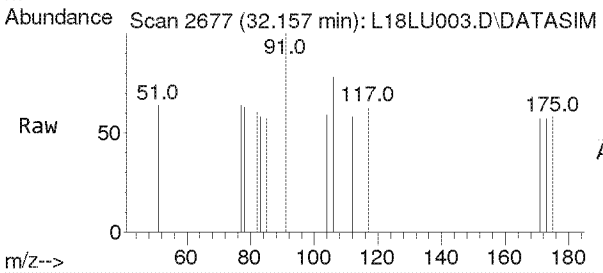


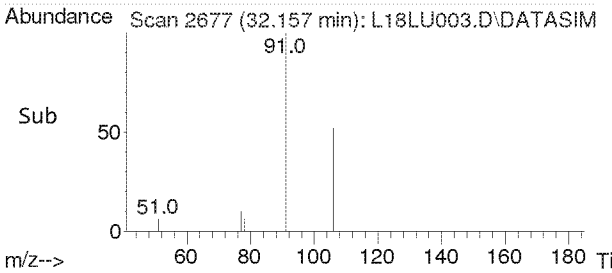


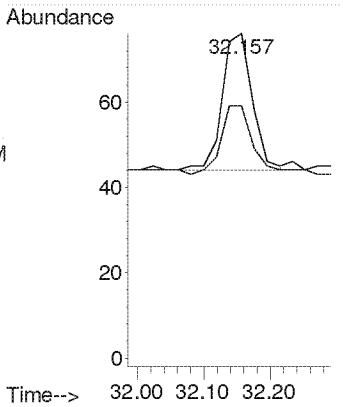
#55
o-Xylene
Concen: 0.007 ppbv
RT: 32.157 min Scan# 2677
Delta R.T. 0.037 min
Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 91 Resp: 101

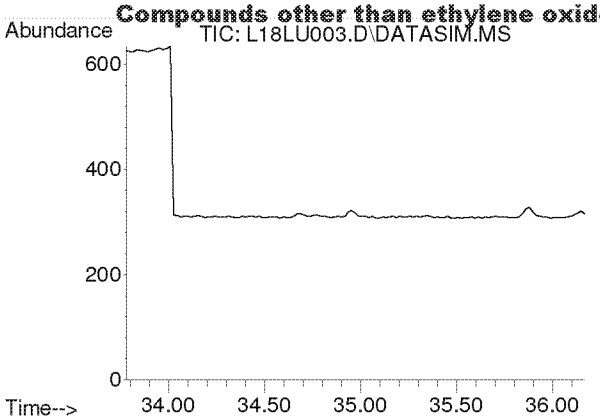
Ion	Ratio	Lower	Upper
91	100		
106	52.5	35.4	53.0







Compounds other than ethylene oxide were not quantitated.

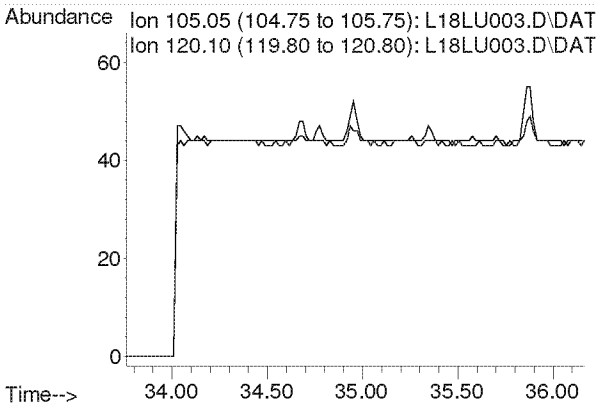


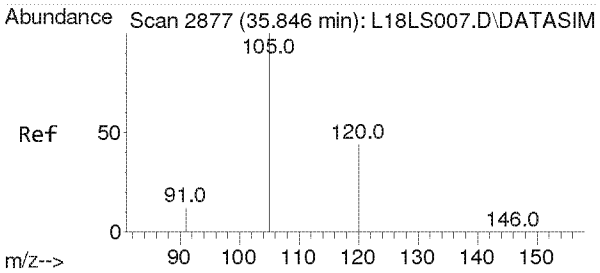
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.92 min

Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	45.0

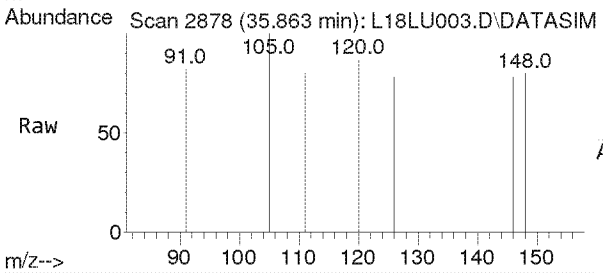


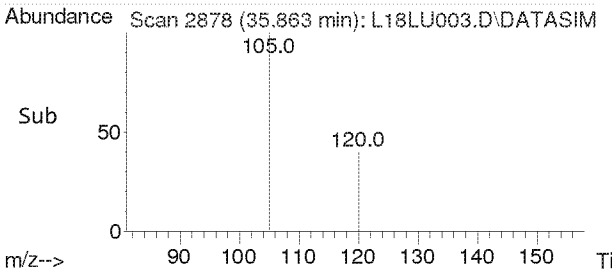


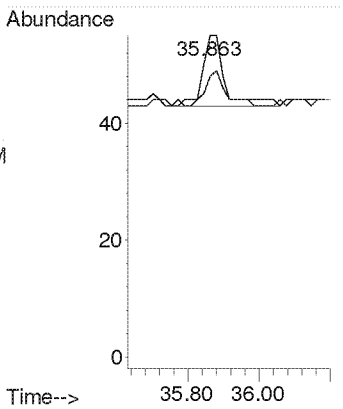
#57
1,2,4-Trimethylbenzene
Concen: 0.004 ppbv
RT: 35.863 min Scan# 2878
Delta R.T. 0.017 min
Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion:105 Resp: 50

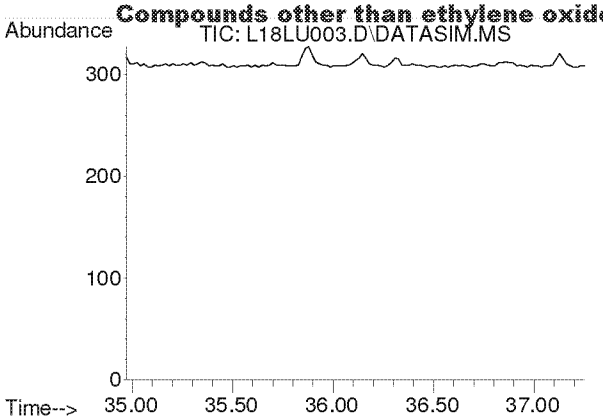
Ion	Ratio	Lower	Upper
105	100		
120	0.0	34.2	51.4#







Compounds other than ethylene oxide were not quantitated.

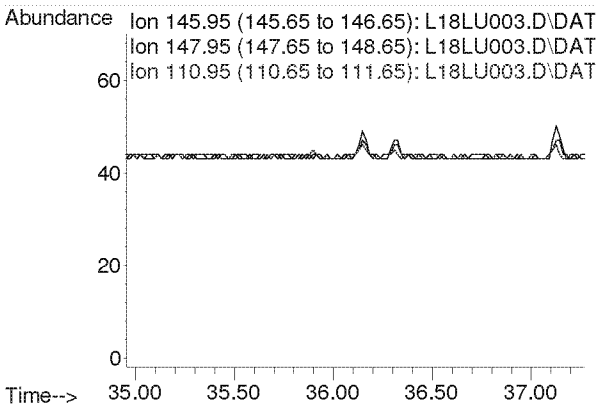


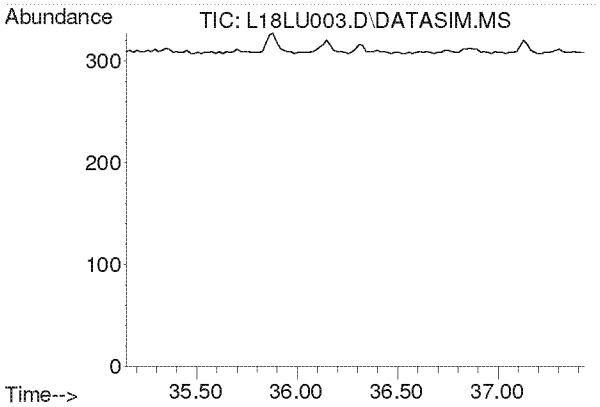
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.11 min

Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.5



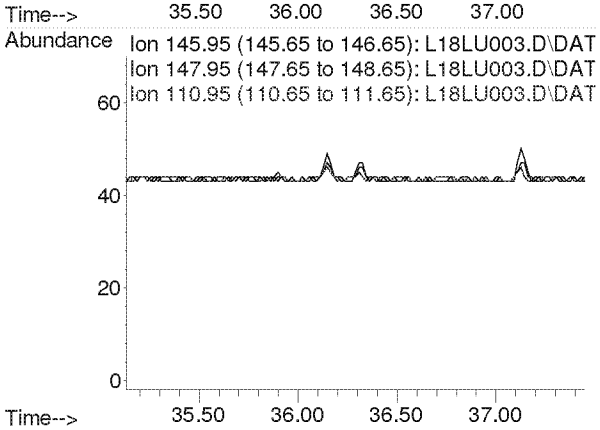


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

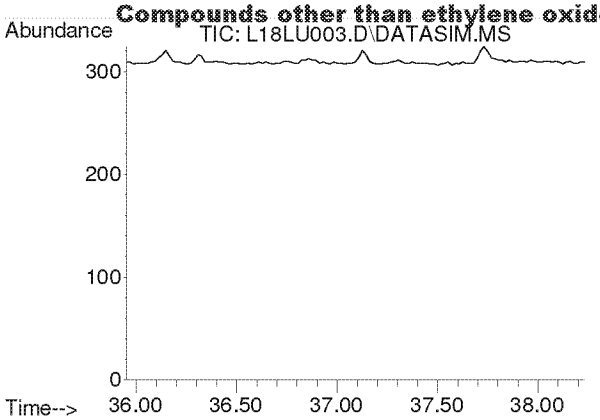
Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	39.5



Compounds other than ethylene oxide were not quantitated.

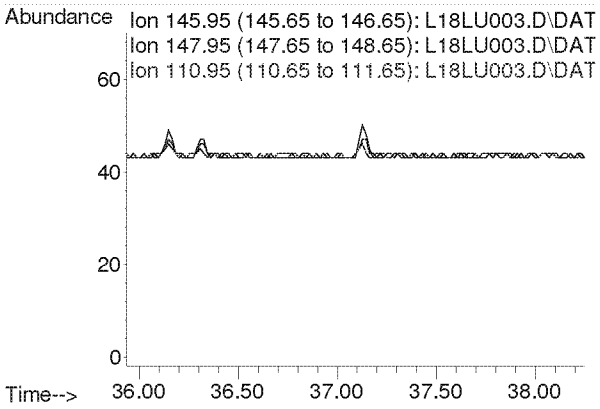


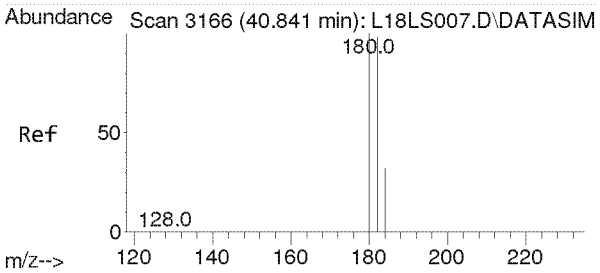
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.09 min

Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	41.4

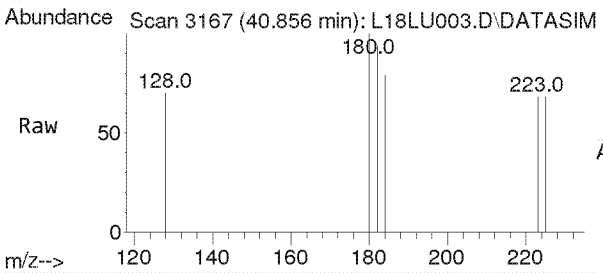


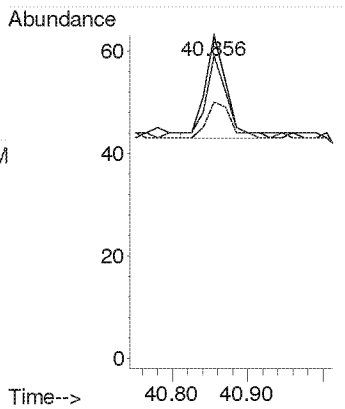


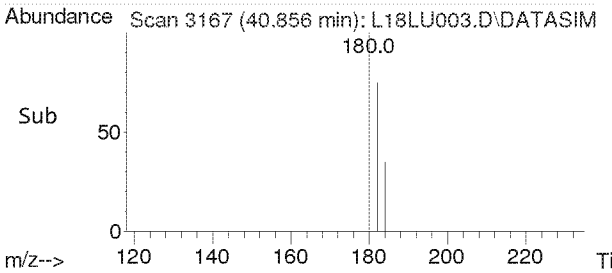
#61
1,2,4-Trichlorobenzene
Concen: 0.017 ppbv
RT: 40.856 min Scan# 3167
Delta R.T. 0.014 min
Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion:180 Resp: 40

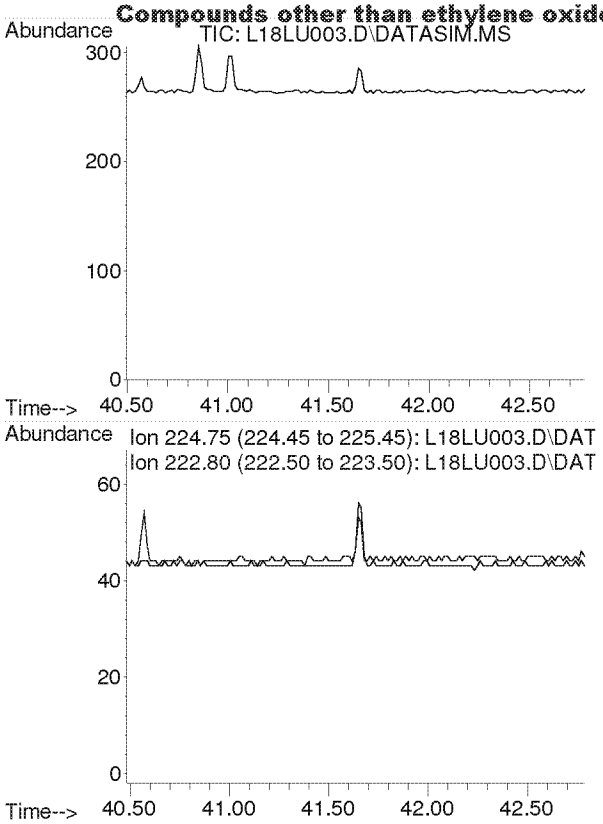
Ion	Ratio	Lower	Upper
180	100		
182	90.0	76.1	114.1
184	0.0	24.6	36.8#







Compounds other than ethylene oxide were not quantitated.



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

Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.4

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : Y:\MASS SPEC 1 DATA\L18LU\
Data File : L18LU021.D
Acq On : 22 Dec 2018 3:49 am
Operator : MAH
Sample : 8121220-01 Elementary School
Misc : GOWER 12/10/18 HG 1/25/19
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Dec 26 09:51:56 2018
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.993	66	52823	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.171	114	127400	4.9900 ppbv	0.02
43) IS-Chlorobenzene-d5	30.116	117	90123	4.7400 ppbv	0.02

System Monitoring Compounds

Target Compounds					Qvalue
2) Acetylene	0.000	26	0	N.D. d	
3) Propylene	0.000	41	0	N.D. d	
4) Dichlorodifluoromethane	0.000	85	0	N.D. d	
5) Chloromethane	0.000	50	0	N.D. d	
6) Dichlorotetrafluoroethane	0.000	85	0	N.D. d	
7) Vinyl Chloride	0.000	62	0	N.D. d	
8) 1,3-Butadiene	0.000	54	0	N.D. d	
9) Ethylene oxide	12.485	29	242m	0.0766 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.	
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.	

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : Y:\MASS SPEC 1 DATA\L18LU\
Data File : L18LU021.D
Acq On : 22 Dec 2018 3:49 am
Operator : MAH
Sample : 8121220-01
Misc : GOWER 12/10/18
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Dec 26 09:51:56 2018
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
Response via : Initial Calibration

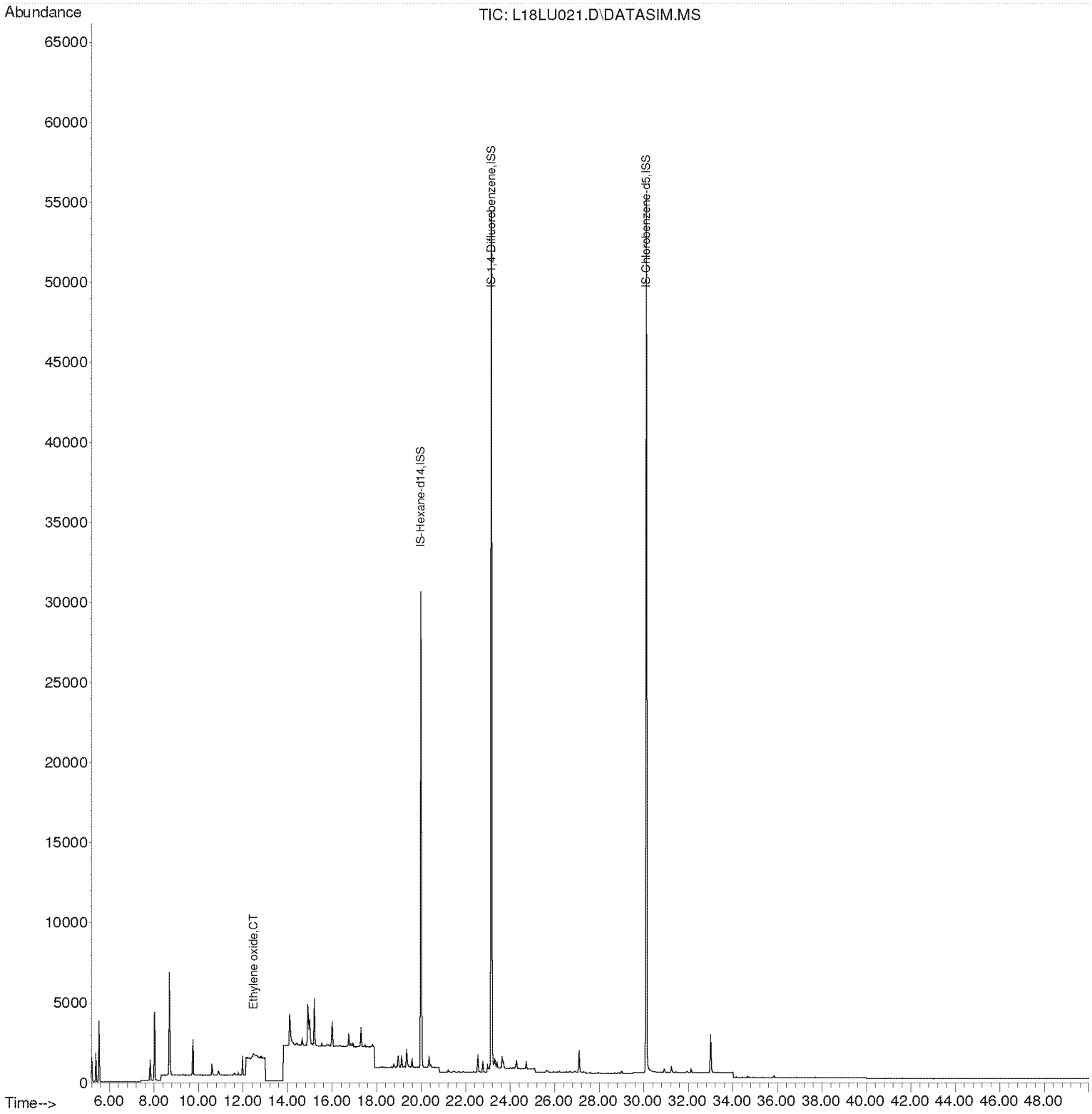
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
47) n-Octane	0.000	43	0	N.D. d	
48) Tetrachloroethylene	0.000	166	0	N.D. d	
49) Chlorobenzene	0.000	112	0	N.D.	
50) Ethylbenzene	0.000	91	0	N.D. d	
51) m,p-Xylene	0.000	91	0	N.D. d	
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D. 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

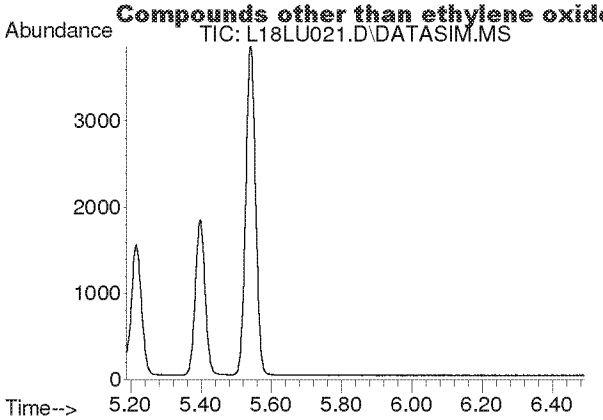
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L18LU\
Data File : L18LU021.D
Acq On : 22 Dec 2018 3:49 am
Operator : MAH
Sample : 8121220-01
Misc : GOWER 12/10/18
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Dec 26 09:51:56 2018
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
Response via : Initial Calibration



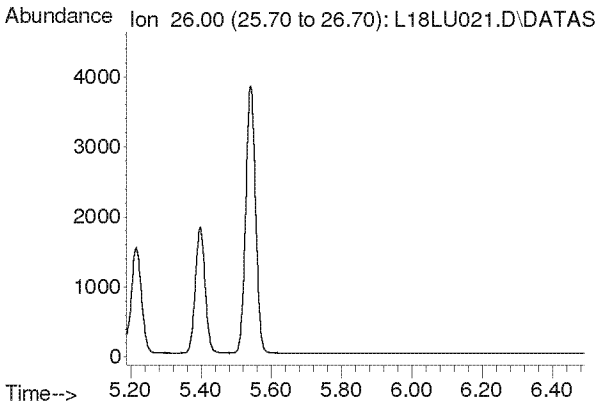
Compounds other than ethylene oxide were not quantitated.

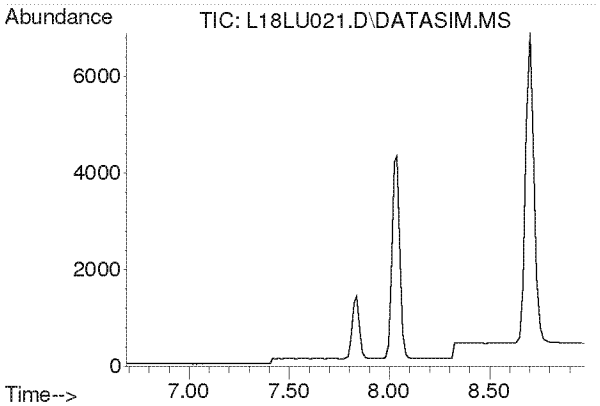


#2
Acetylene
Concen: N.D.
Expected RT: 5.42 min

Lab File: L18LU021.D
Acq: 22 Dec 2018 3:49 am

Tgt Ion: 26



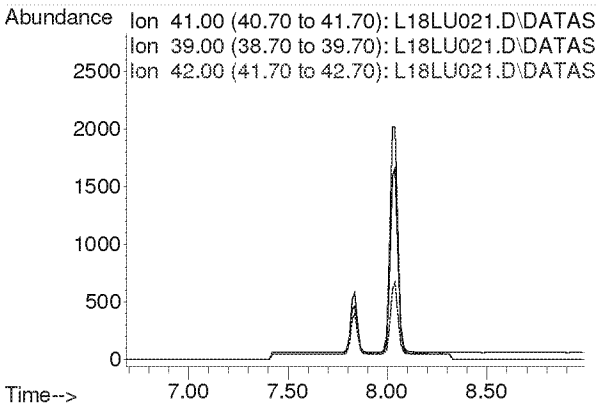


#3
Propylene
Concen: N.D.
Expected RT: 7.84 min

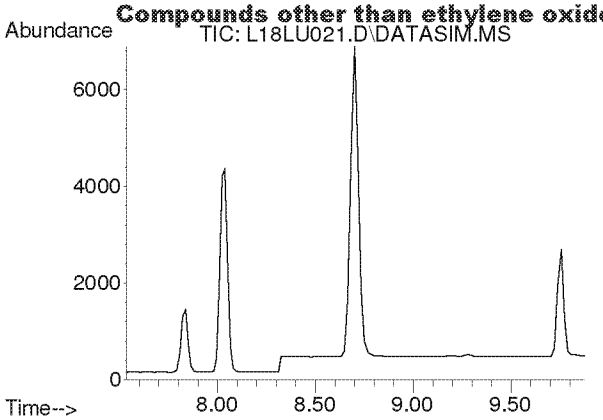
Lab File: L18LU021.D
Acq: 22 Dec 2018 3:49 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	78.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

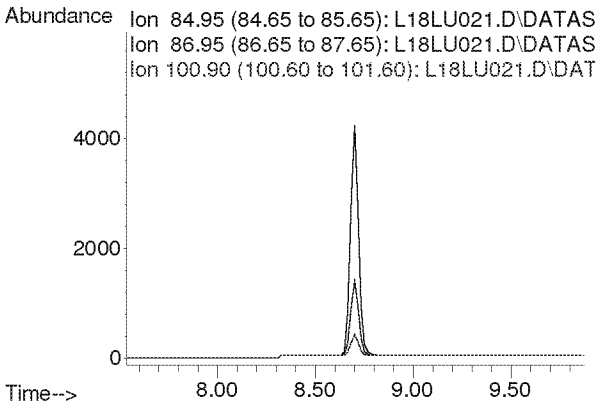


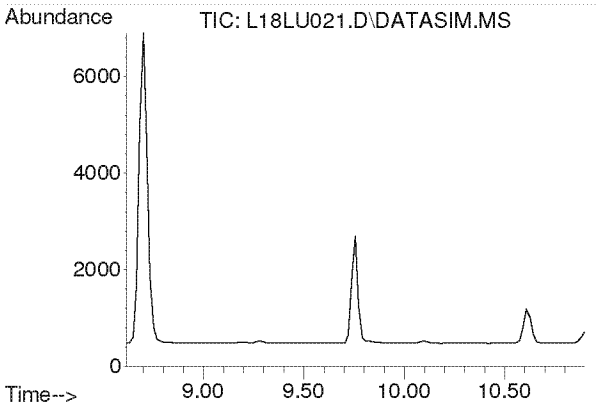
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L18LU021.D
Acq: 22 Dec 2018 3:49 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	8.9



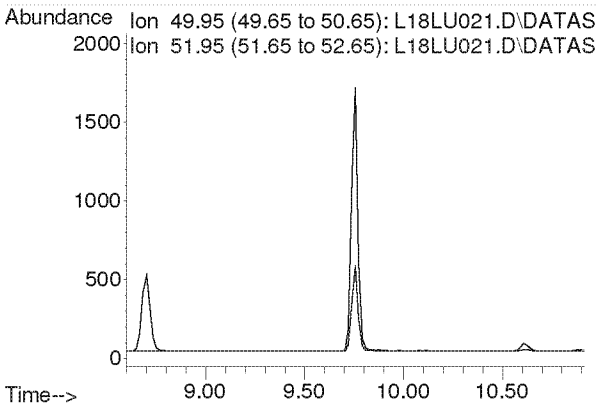


#5
Chloromethane
Concen: N.D.
Expected RT: 9.76 min

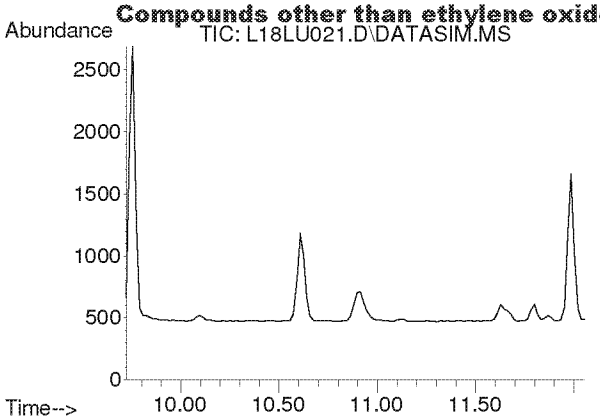
Lab File: L18LU021.D
Acq: 22 Dec 2018 3:49 am

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

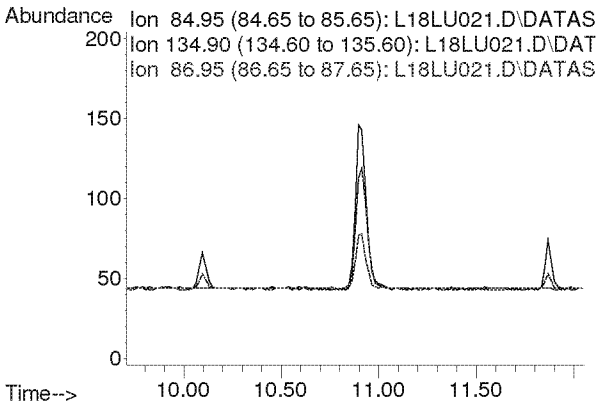


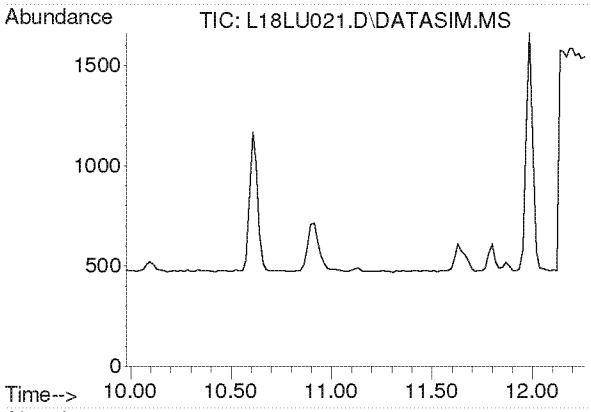
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L18LU021.D
Acq: 22 Dec 2018 3:49 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.1
87	32.1



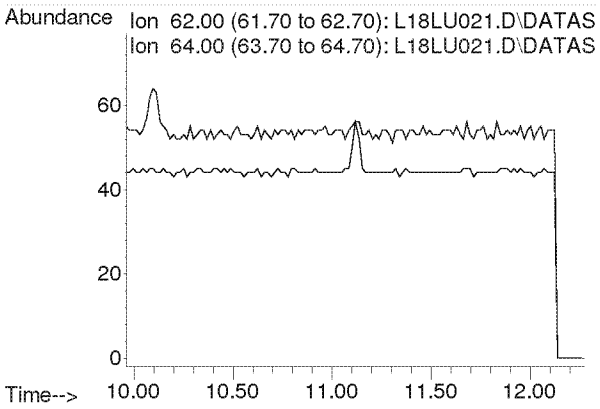


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

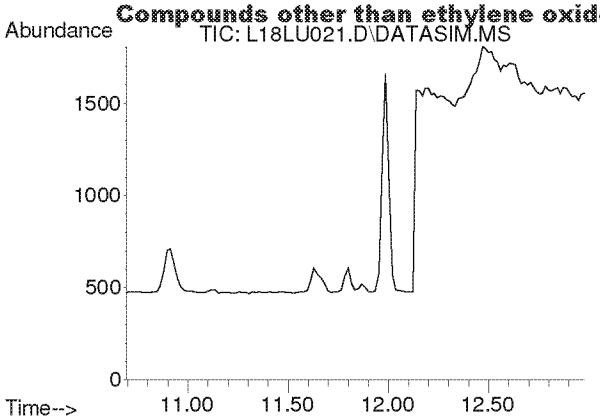
Lab File: L18LU021.D
Acq: 22 Dec 2018 3:49 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.8



Compounds other than ethylene oxide were not quantitated.

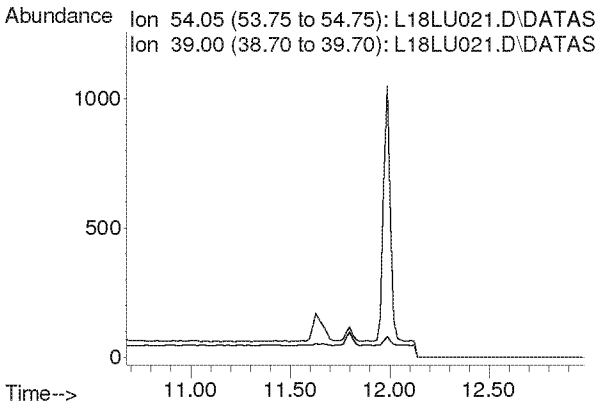


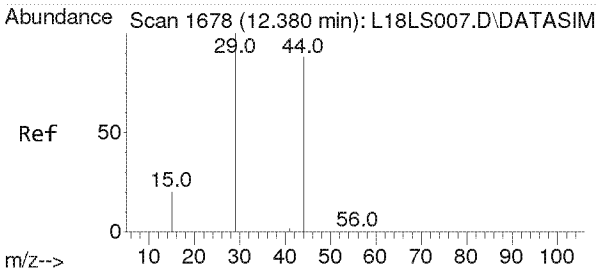
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L18LU021.D
Acq: 22 Dec 2018 3:49 am

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	105.4

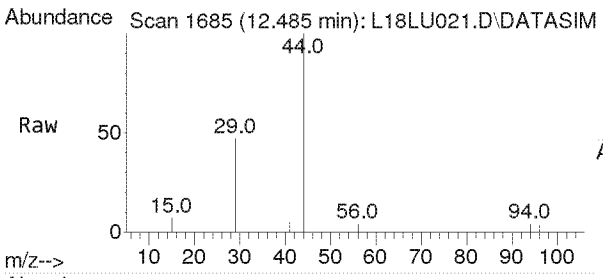


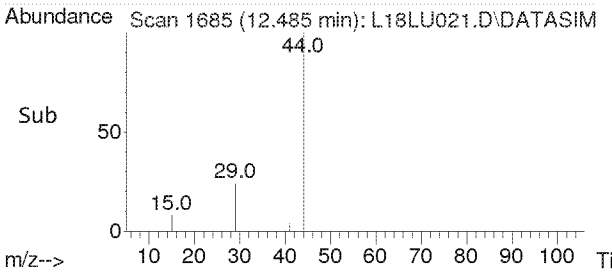


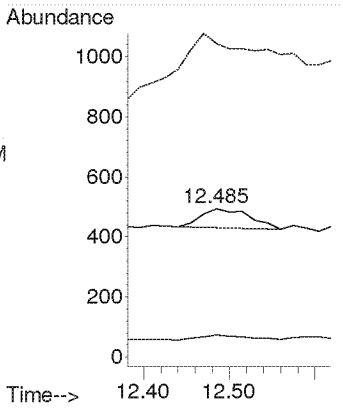
#9
Ethylene oxide
Concen: 0.077 ppbv m
RT: 12.485 min Scan# 1685
Delta R.T. 0.105 min
Lab File: L18LU021.D
Acq: 22 Dec 2018 3:49 am

Tgt Ion: 29 Resp: 242

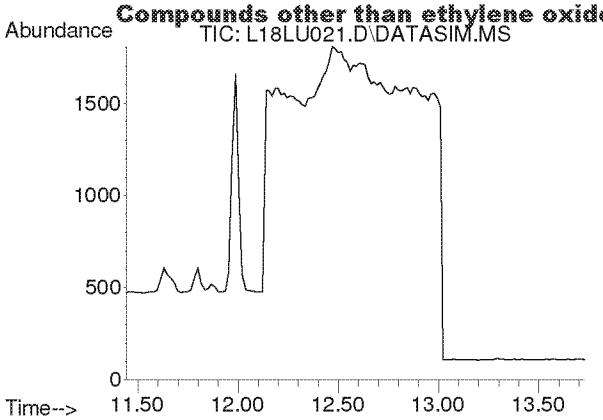
Ion	Ratio	Lower	Upper
29	100		
15	0.0	16.2	24.4#
44	0.0	72.0	108.0#







Compounds other than ethylene oxide were not quantitated.

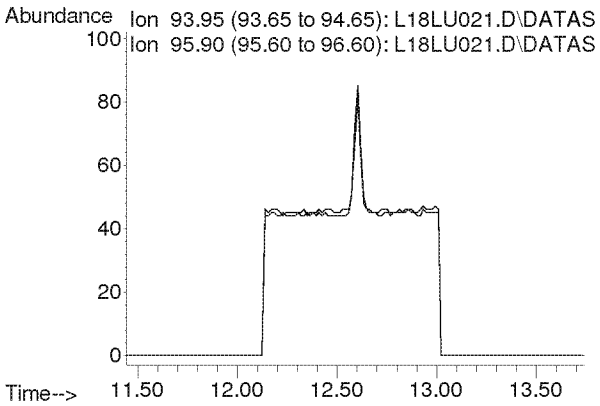


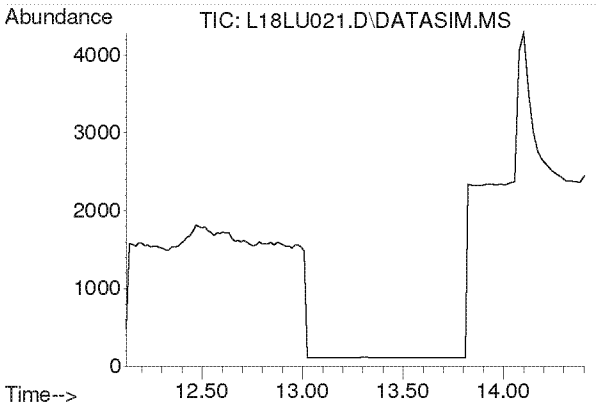
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L18LU021.D
Acq: 22 Dec 2018 3:49 am

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	93.9



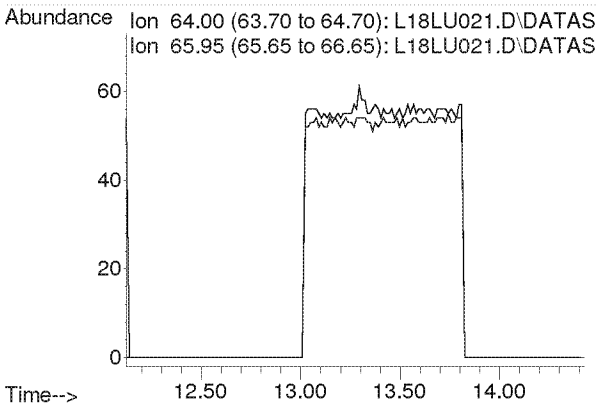


#11
Chloroethane
Concen: N.D.
Expected RT: 13.27 min

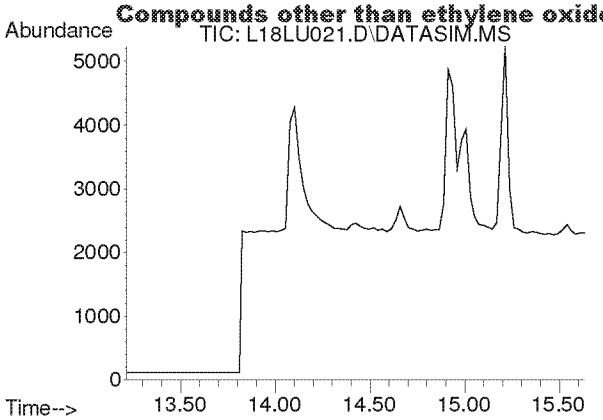
Lab File: L18LU021.D
Acq: 22 Dec 2018 3:49 am

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.0



Compounds other than ethylene oxide were not quantitated.

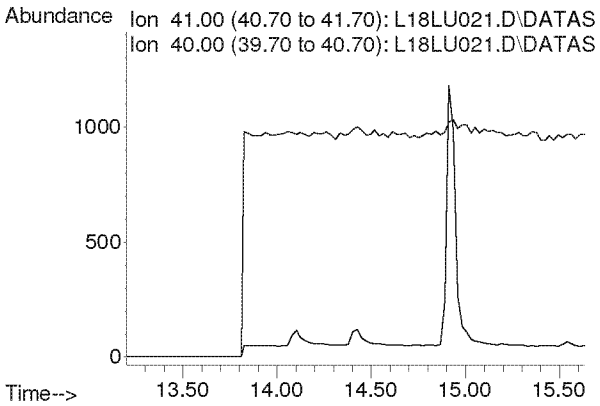


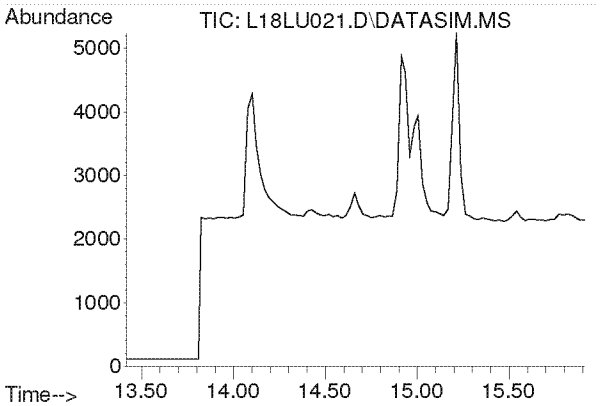
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.33 min

Lab File: L18LU021.D
Acq: 22 Dec 2018 3:49 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	50.9



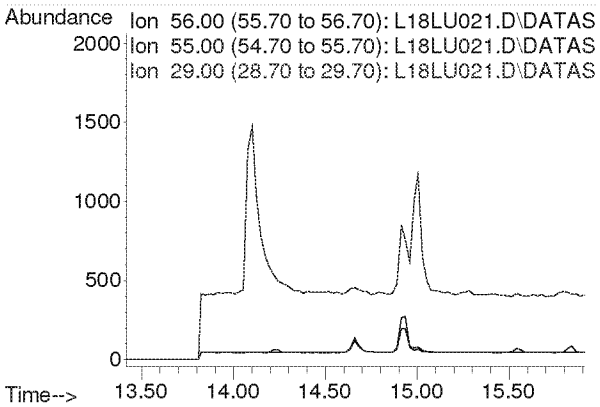


#13
Acrolein
Concen: N.D.
Expected RT: 14.61 min

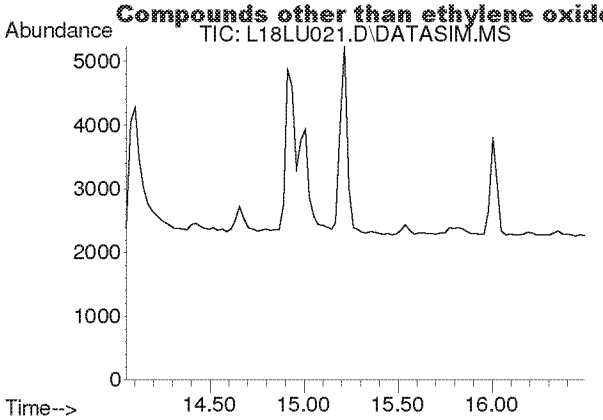
Lab File: L18LU021.D
Acq: 22 Dec 2018 3:49 am

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	75.4
29	52.9



Compounds other than ethylene oxide were not quantitated.

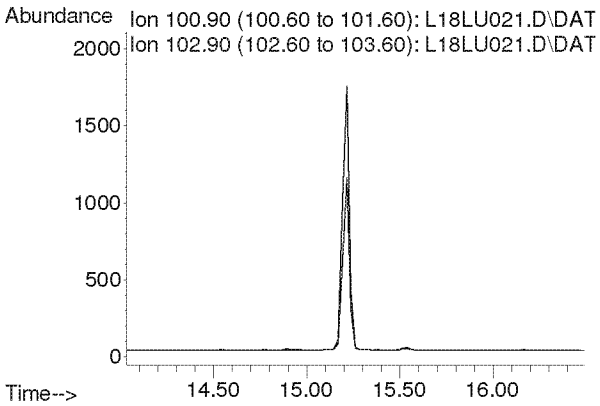


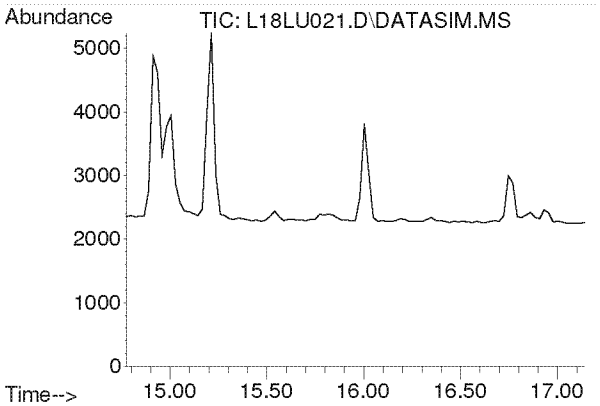
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L18LU021.D
Acq: 22 Dec 2018 3:49 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



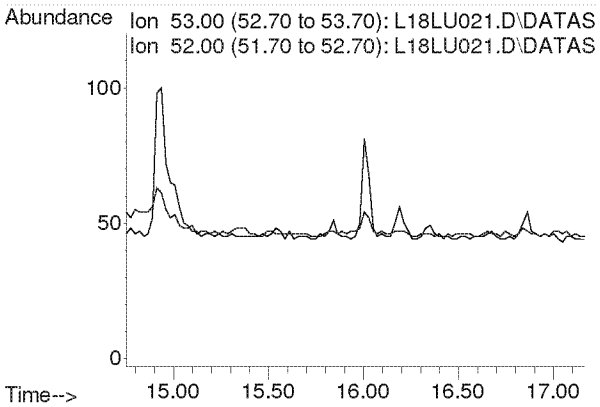


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.91 min

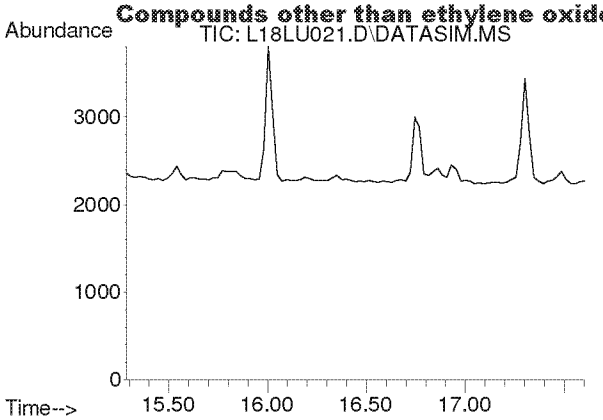
Lab File: L18LU021.D
Acq: 22 Dec 2018 3:49 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	85.4



Compounds other than ethylene oxide were not quantitated.

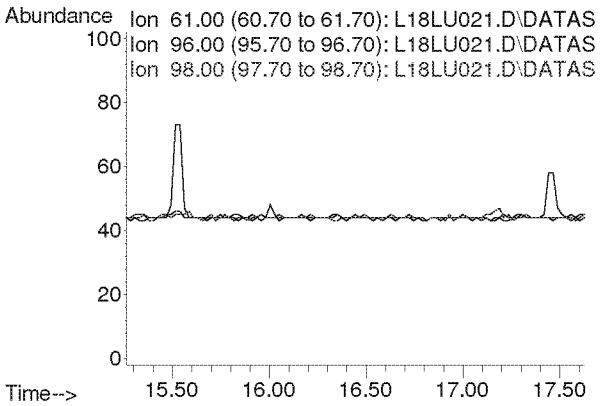


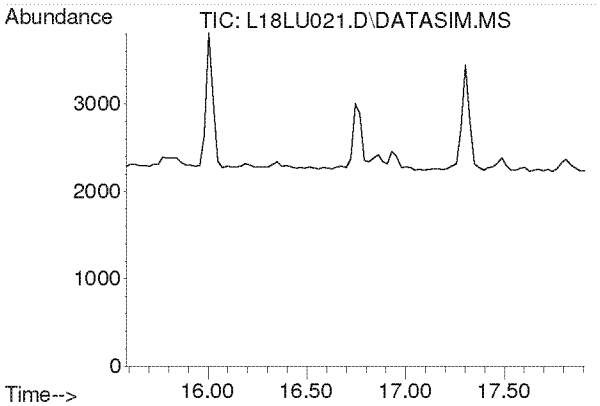
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L18LU021.D
Acq: 22 Dec 2018 3:49 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	58.3
98	37.4



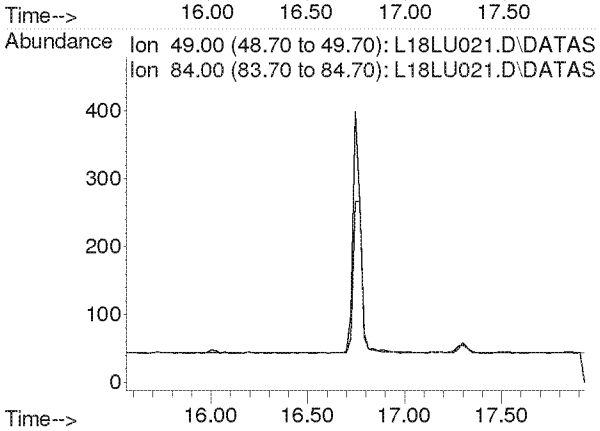


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.72 min

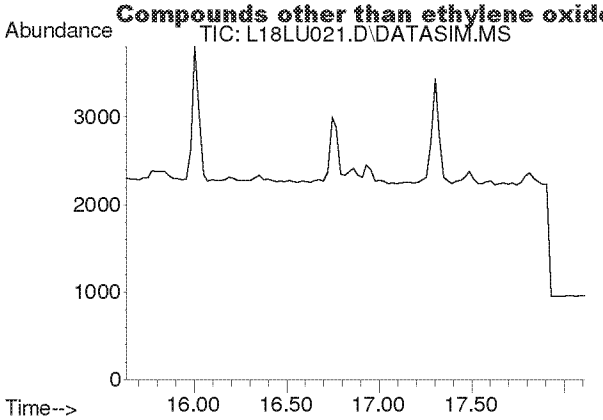
Lab File: L18LU021.D
Acq: 22 Dec 2018 3:49 am

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	76.4



Compounds other than ethylene oxide were not quantitated.

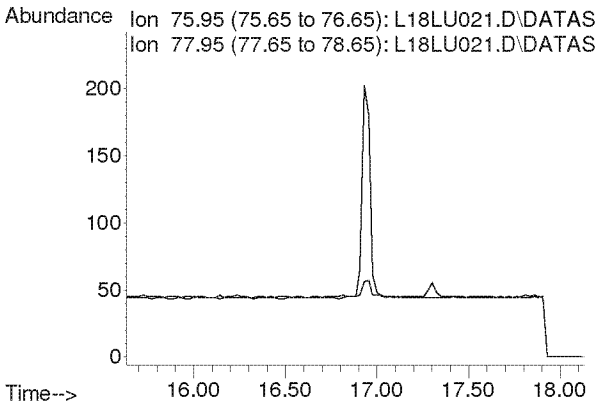


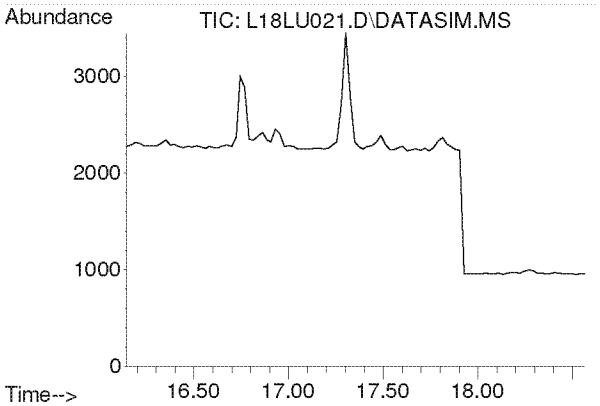
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L18LU021.D
Acq: 22 Dec 2018 3:49 am

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.1



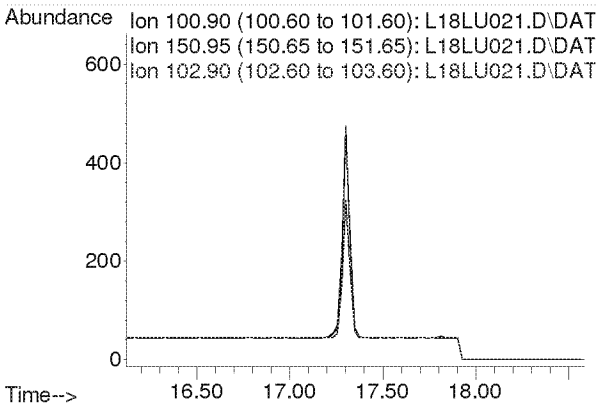


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

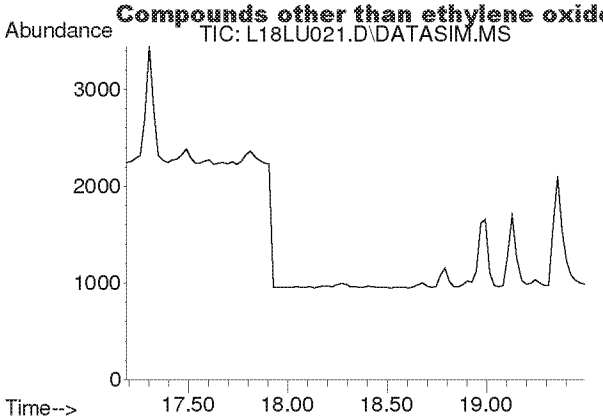
Lab File: L18LU021.D
Acq: 22 Dec 2018 3:49 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	95.3
103	64.1



Compounds other than ethylene oxide were not quantitated.

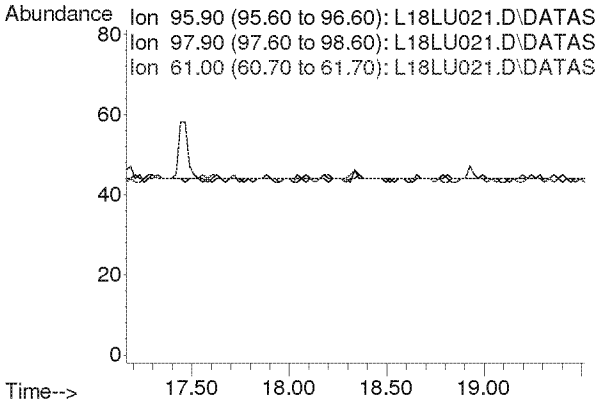


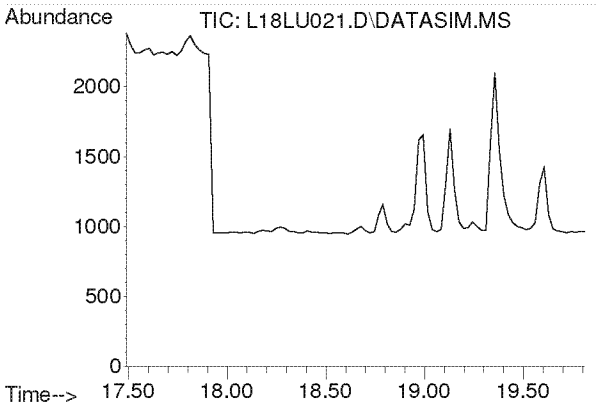
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.31 min

Lab File: L18LU021.D
Acq: 22 Dec 2018 3:49 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	63.7
61	159.2



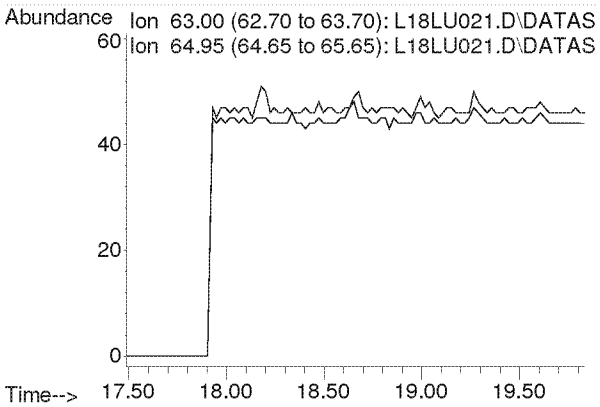


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

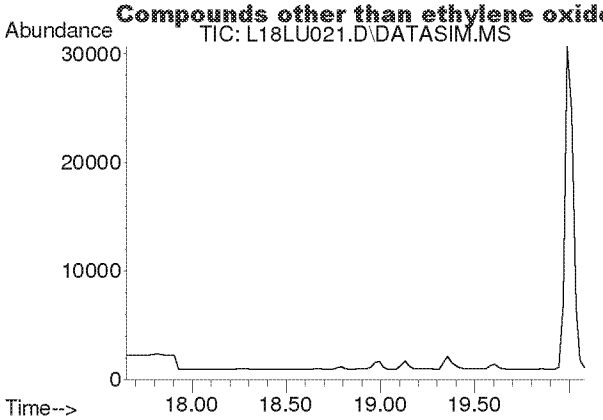
Lab File: L18LU021.D
Acq: 22 Dec 2018 3:49 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

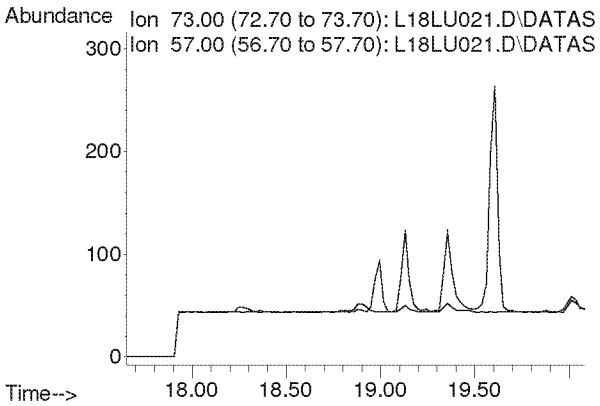


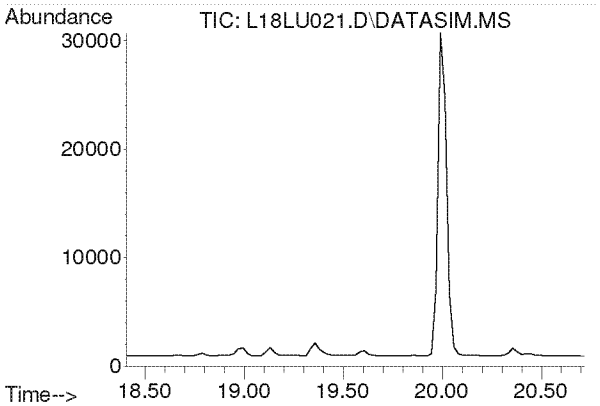
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L18LU021.D
Acq: 22 Dec 2018 3:49 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.4



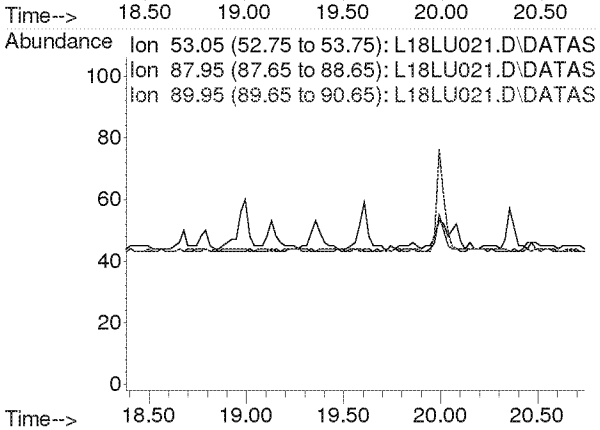


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

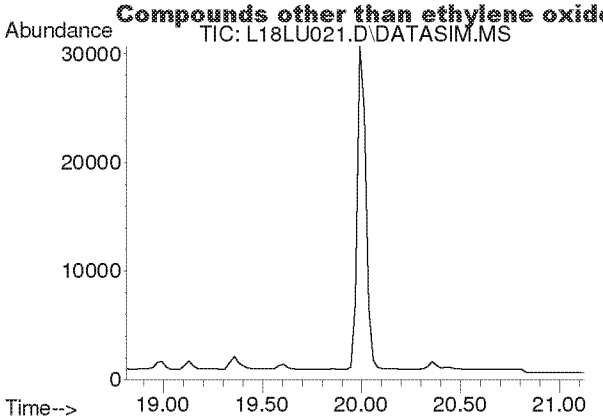
Lab File: L18LU021.D
Acq: 22 Dec 2018 3:49 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	51.8
90	16.8



Compounds other than ethylene oxide were not quantitated.

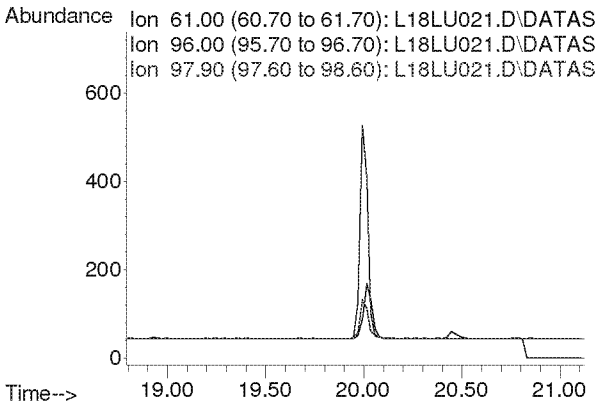


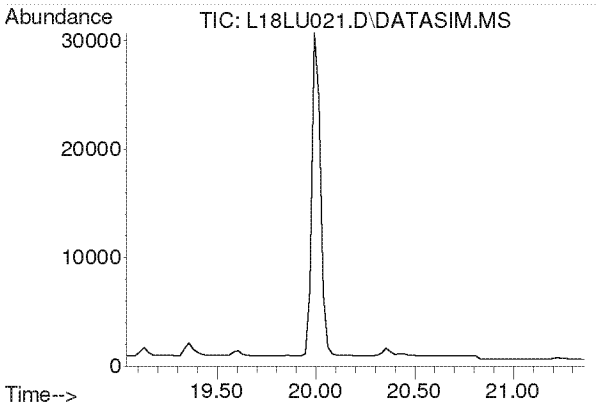
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L18LU021.D
Acq: 22 Dec 2018 3:49 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.7
98	45.2



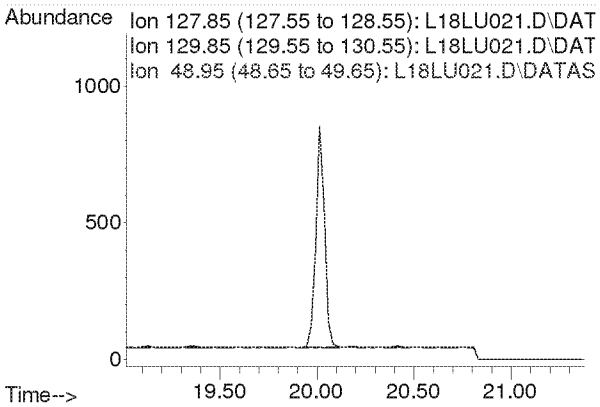


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

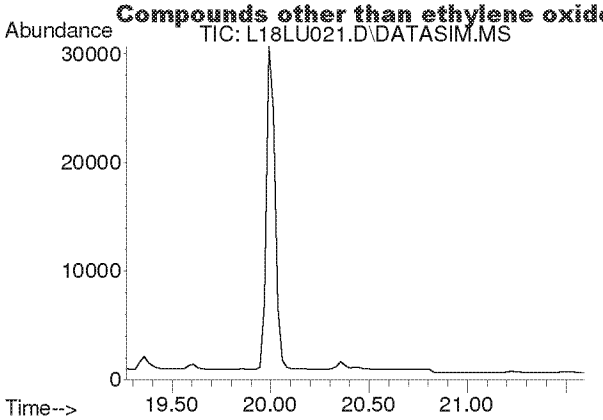
Lab File: L18LU021.D
Acq: 22 Dec 2018 3:49 am

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	171.2



Compounds other than ethylene oxide were not quantitated.

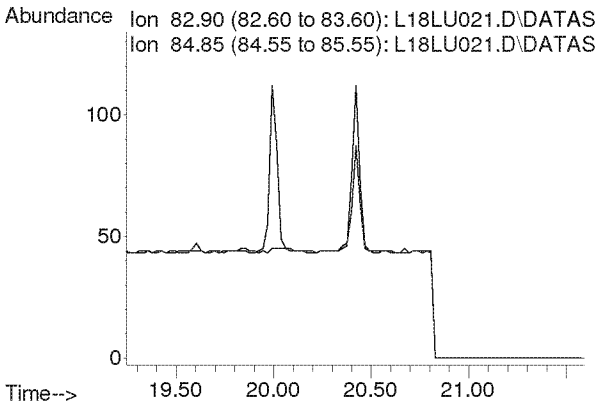


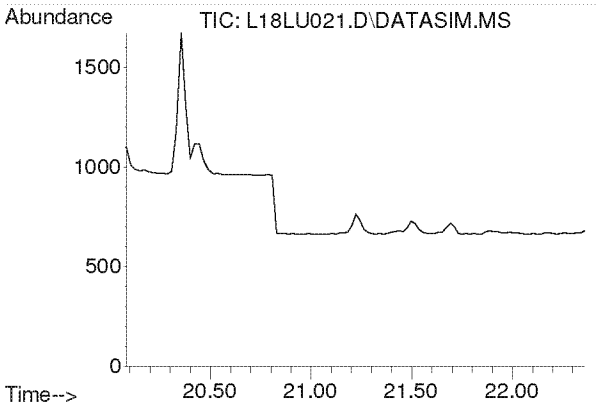
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L18LU021.D
Acq: 22 Dec 2018 3:49 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



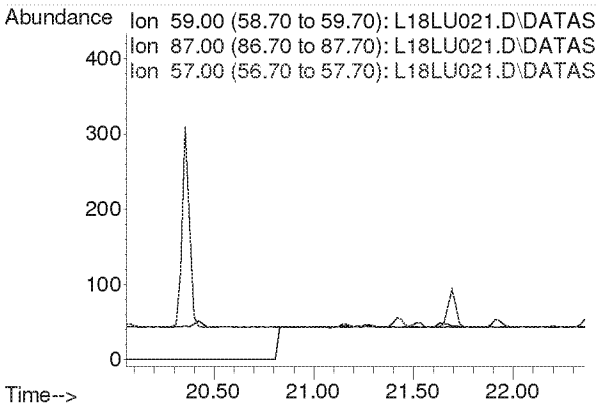


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.16 min

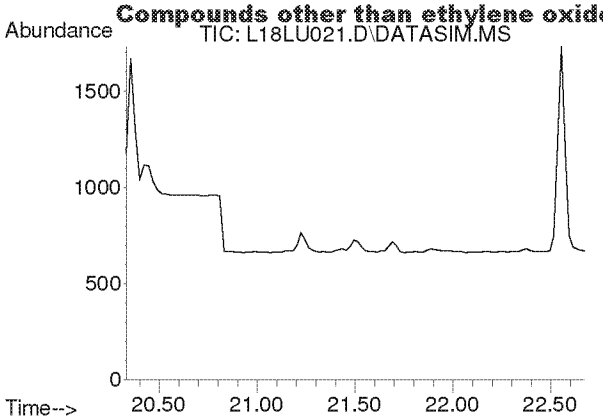
Lab File: L18LU021.D
Acq: 22 Dec 2018 3:49 am

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	37.5
57	33.8



Compounds other than ethylene oxide were not quantitated.

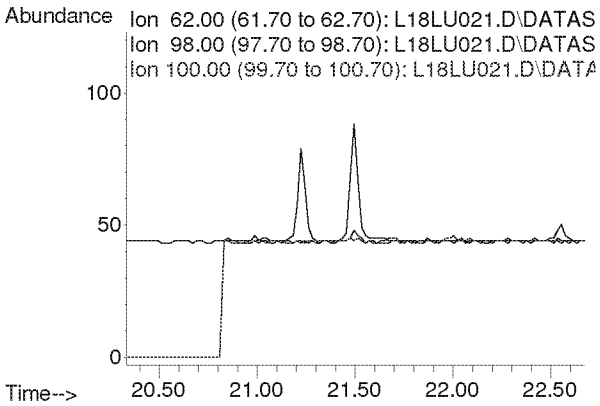


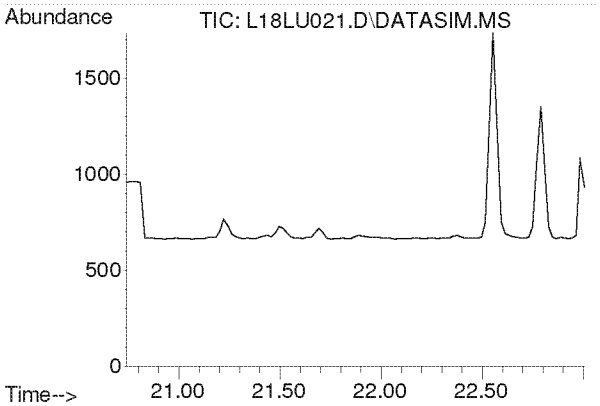
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L18LU021.D
Acq: 22 Dec 2018 3:49 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.4
100	4.0



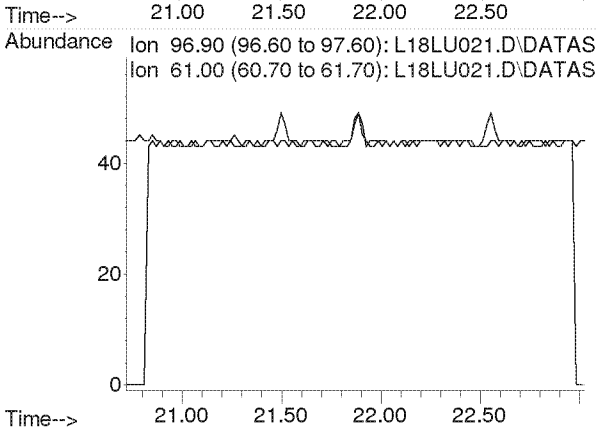


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

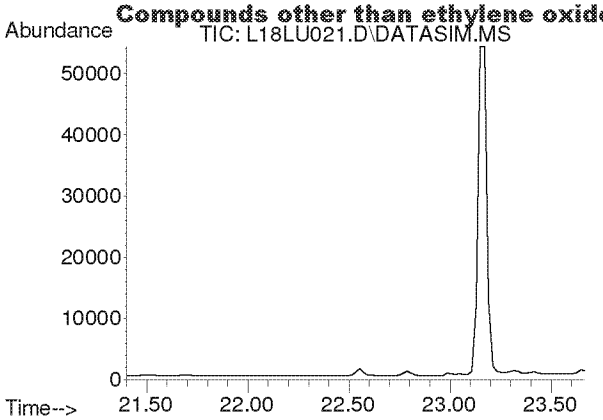
Lab File: L18LU021.D
Acq: 22 Dec 2018 3:49 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	60.5



Compounds other than ethylene oxide were not quantitated.

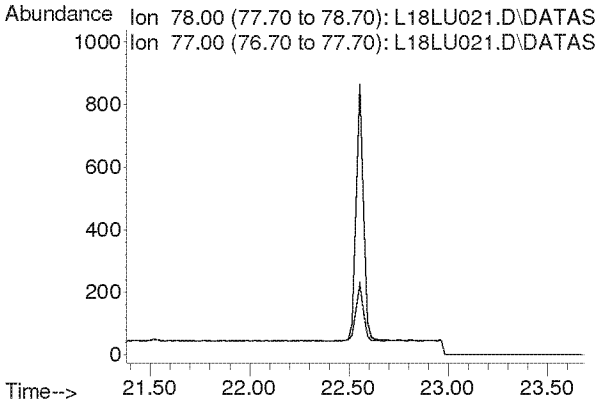


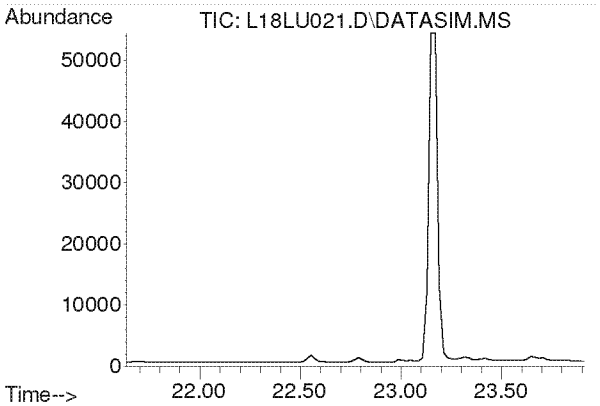
#31
Benzene
Concen: N.D.
Expected RT: 22.54 min

Lab File: L18LU021.D
Acq: 22 Dec 2018 3:49 am

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.7



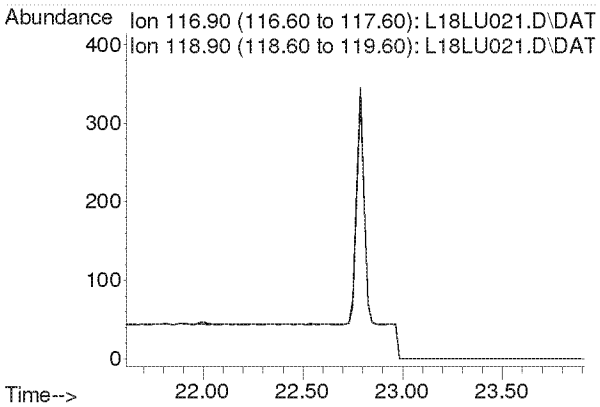


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

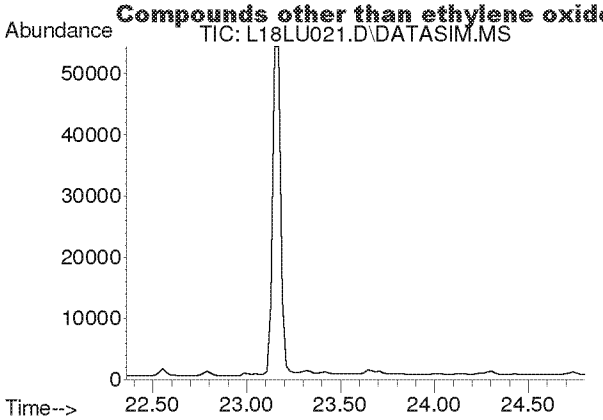
Lab File: L18LU021.D
Acq: 22 Dec 2018 3:49 am

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.5



Compounds other than ethylene oxide were not quantitated.

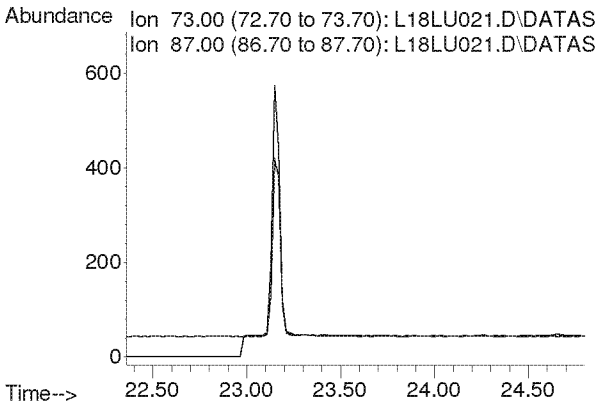


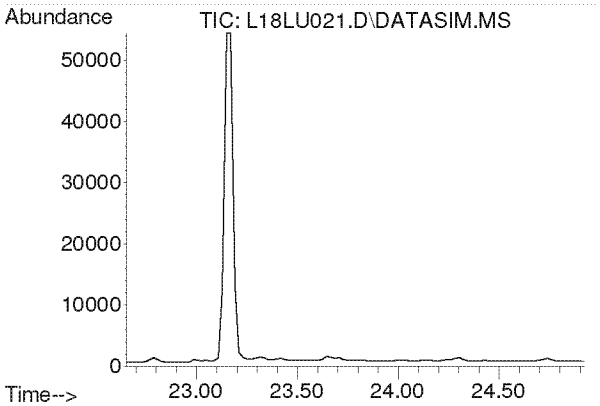
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.50 min

Lab File: L18LU021.D
Acq: 22 Dec 2018 3:49 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	24.9



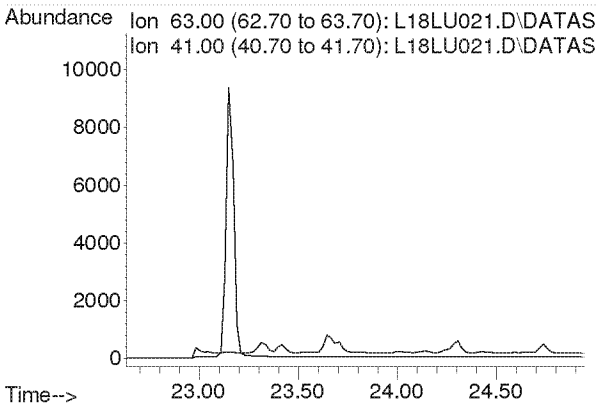


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

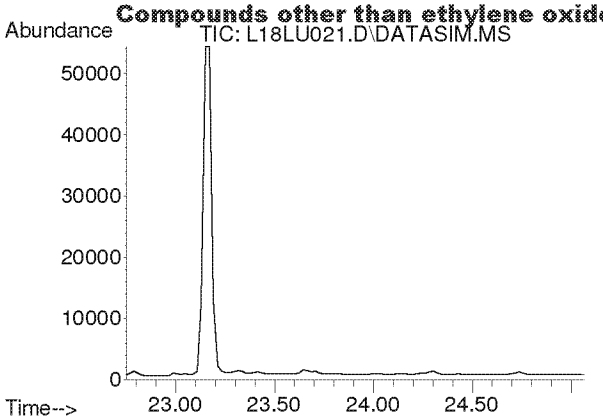
Lab File: L18LU021.D
Acq: 22 Dec 2018 3:49 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	212.8



Compounds other than ethylene oxide were not quantitated.

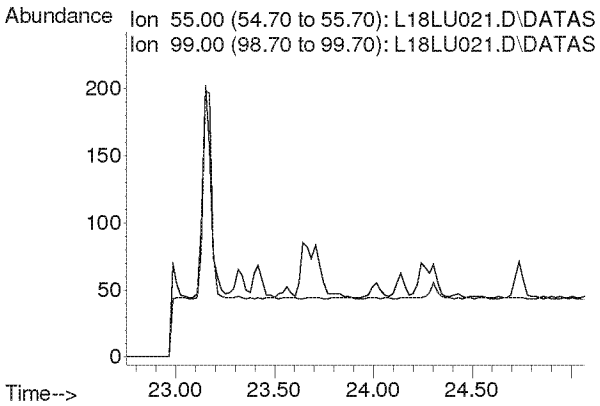


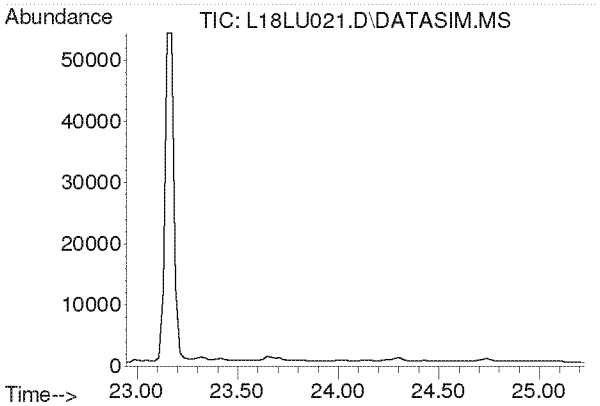
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.87 min

Lab File: L18LU021.D
Acq: 22 Dec 2018 3:49 am

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.1



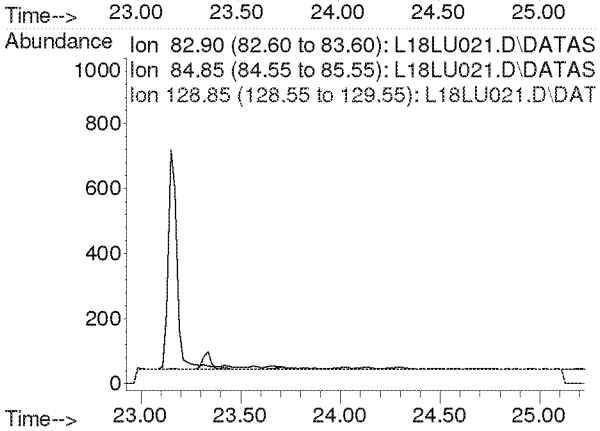


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

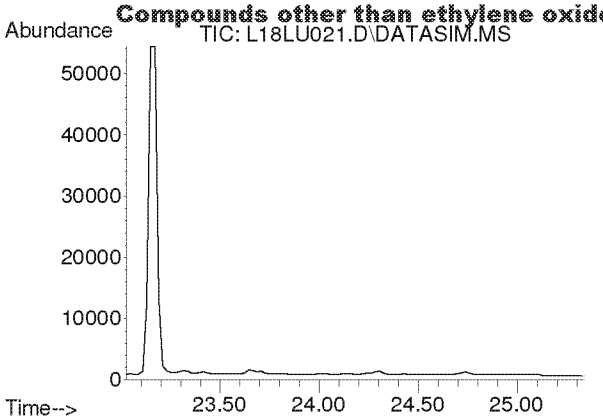
Lab File: L18LU021.D
Acq: 22 Dec 2018 3:49 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.0
129	12.4



Compounds other than ethylene oxide were not quantitated.

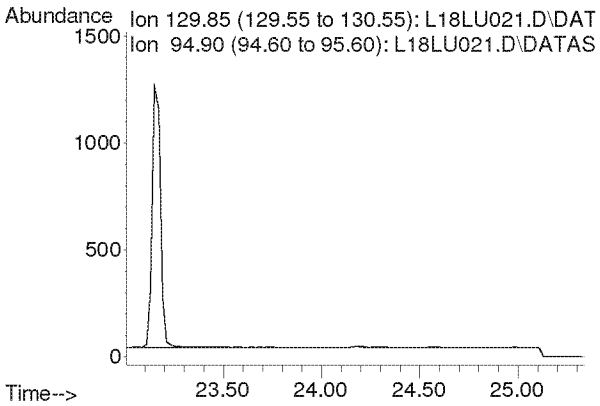


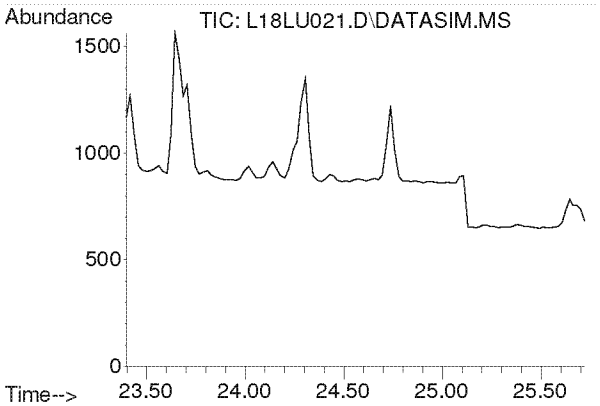
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.16 min

Lab File: L18LU021.D
Acq: 22 Dec 2018 3:49 am

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	110.3



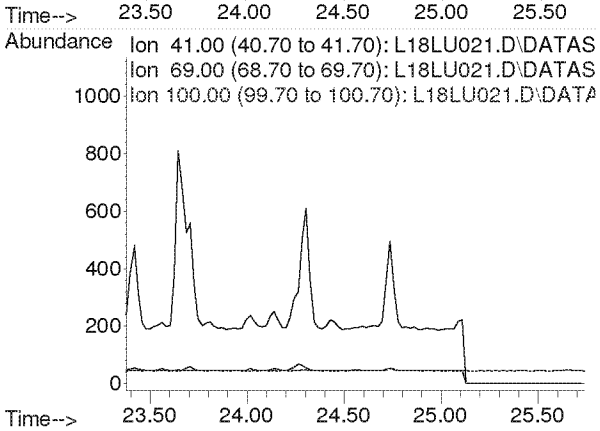


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

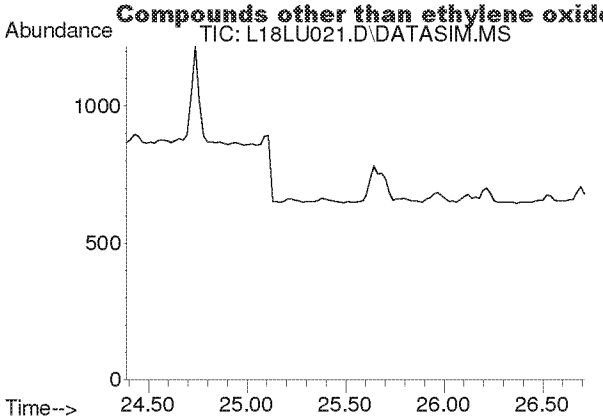
Lab File: L18LU021.D
Acq: 22 Dec 2018 3:49 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	19.9
100	5.2



Compounds other than ethylene oxide were not quantitated.

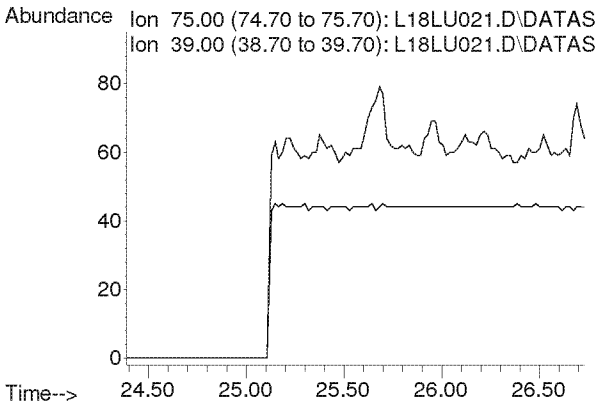


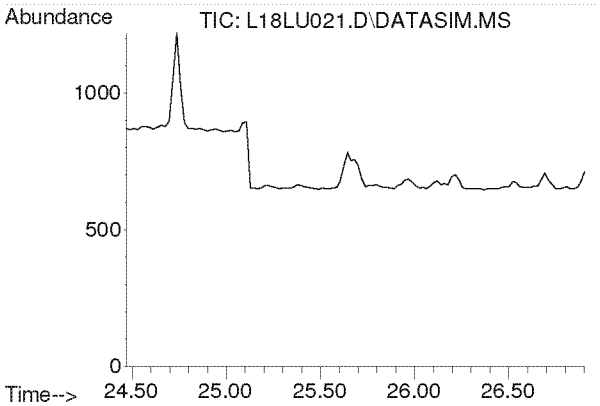
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L18LU021.D
Acq: 22 Dec 2018 3:49 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.4



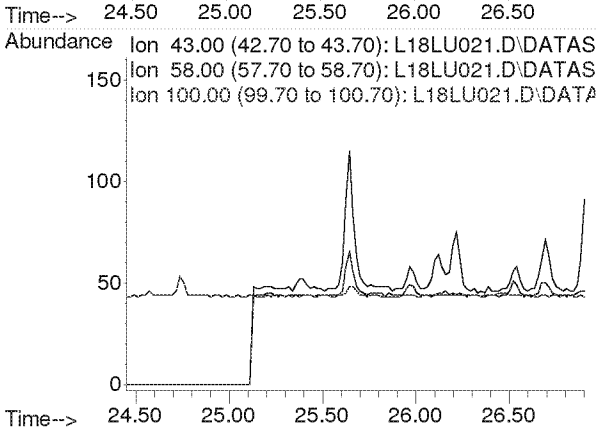


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.61 min

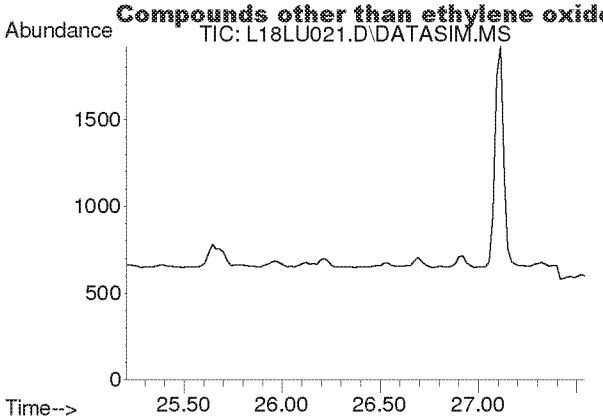
Lab File: L18LU021.D
Acq: 22 Dec 2018 3:49 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	34.2
100	7.9



Compounds other than ethylene oxide were not quantitated.

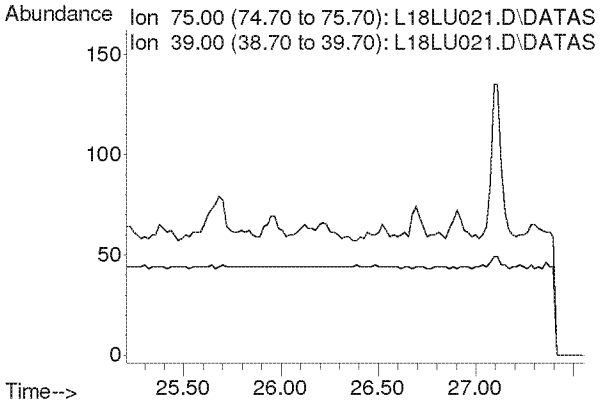


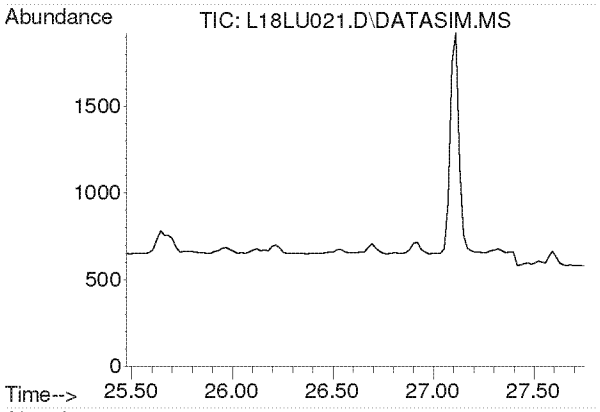
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.35 min

Lab File: L18LU021.D
Acq: 22 Dec 2018 3:49 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	50.9



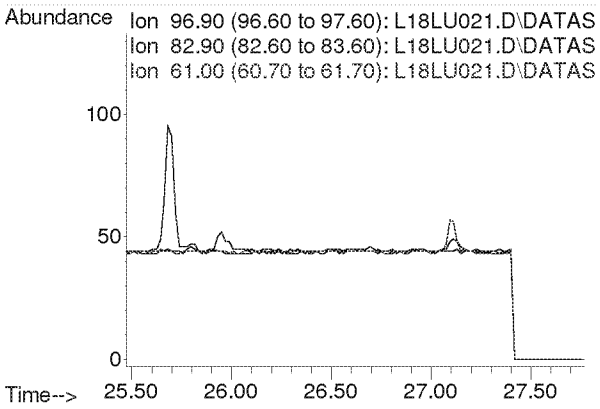


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

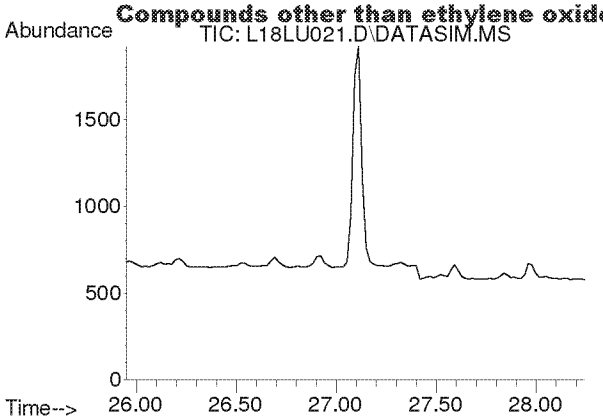
Lab File: L18LU021.D
Acq: 22 Dec 2018 3:49 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	96.1
61	63.5



Compounds other than ethylene oxide were not quantitated.

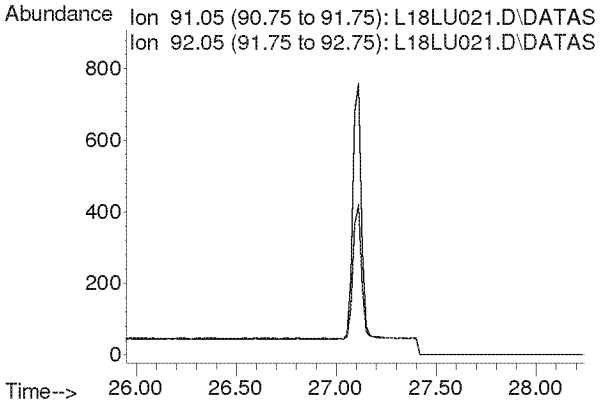


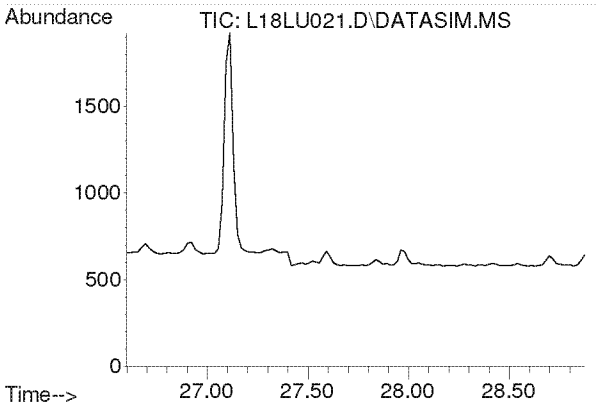
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L18LU021.D
Acq: 22 Dec 2018 3:49 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.6



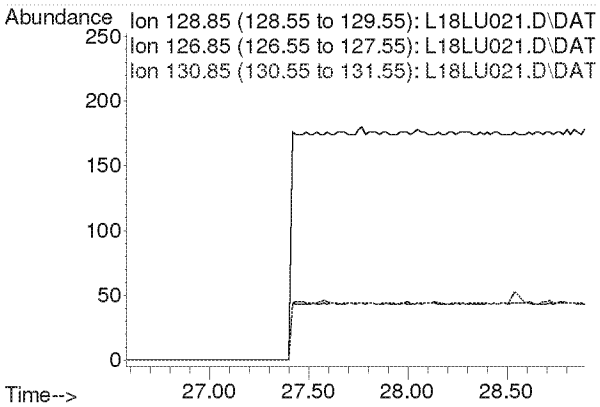


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.73 min

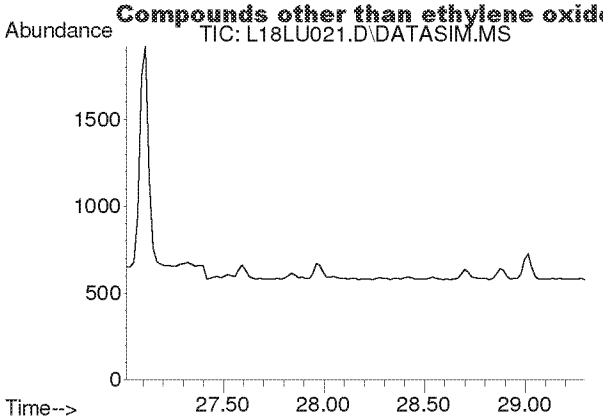
Lab File: L18LU021.D
Acq: 22 Dec 2018 3:49 am

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.2
131	6.0



Compounds other than ethylene oxide were not quantitated.

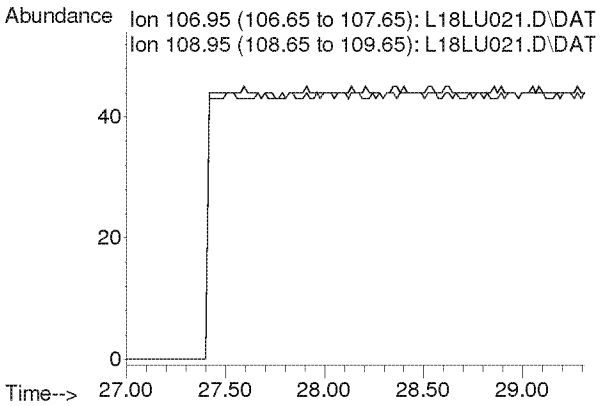


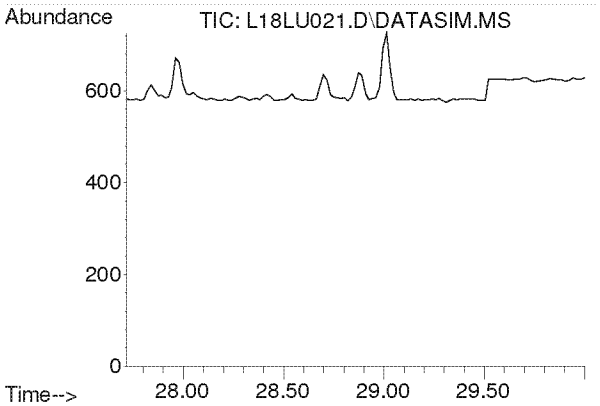
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.16 min

Lab File: L18LU021.D
Acq: 22 Dec 2018 3:49 am

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.5



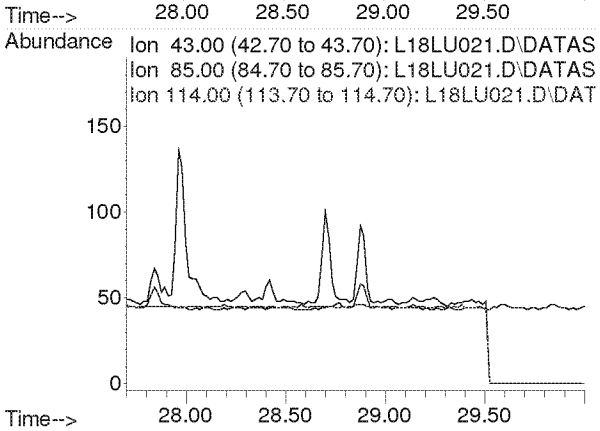


#47
n-Octane
Concen: N.D.
Expected RT: 28.86 min

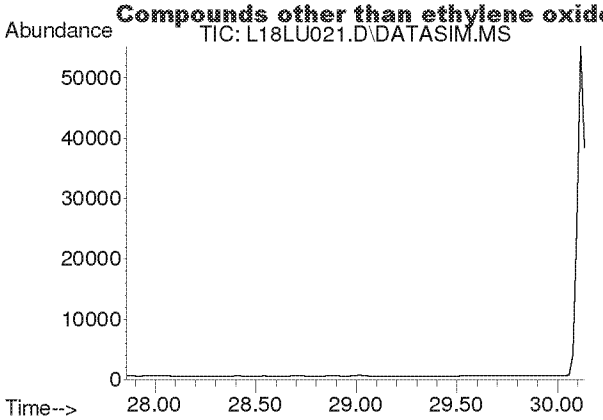
Lab File: L18LU021.D
Acq: 22 Dec 2018 3:49 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	36.0
114	2.2



Compounds other than ethylene oxide were not quantitated.

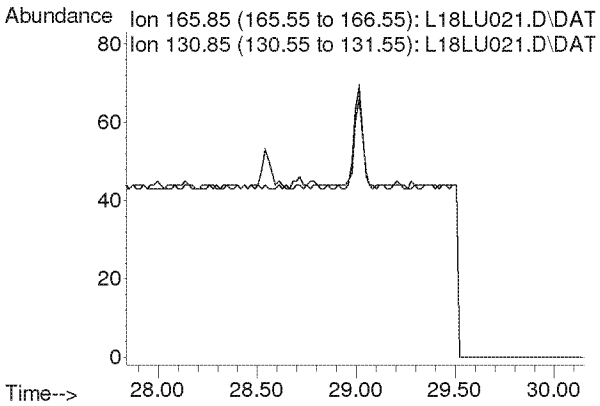


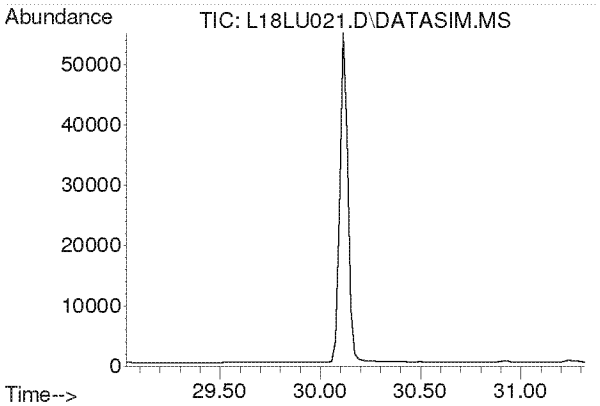
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L18LU021.D
Acq: 22 Dec 2018 3:49 am

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	78.2



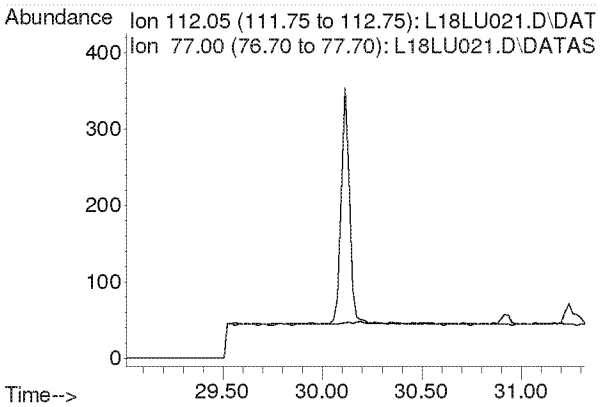


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.17 min

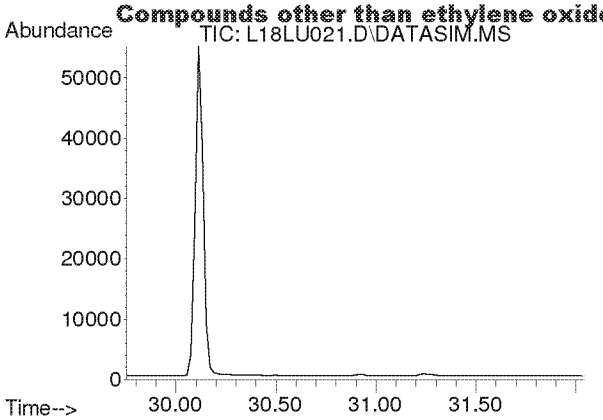
Lab File: L18LU021.D
Acq: 22 Dec 2018 3:49 am

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	63.0



Compounds other than ethylene oxide were not quantitated.

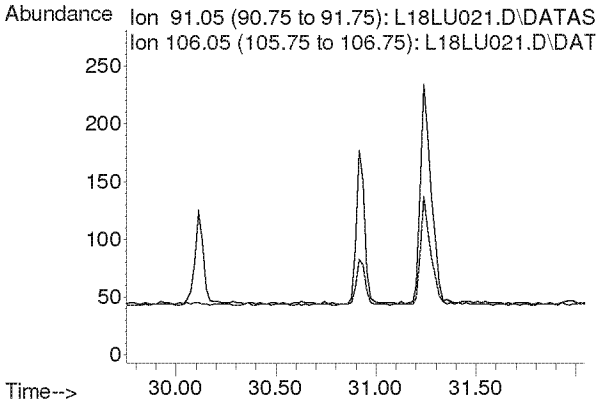


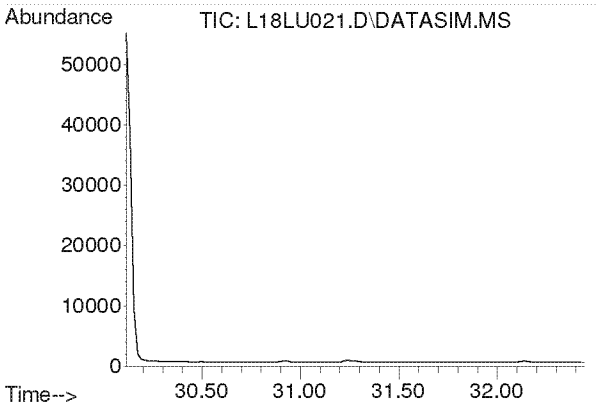
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.90 min

Lab File: L18LU021.D
Acq: 22 Dec 2018 3:49 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	31.8



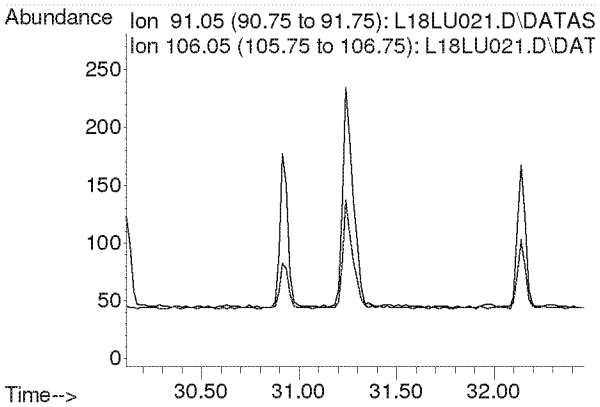


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.26 min

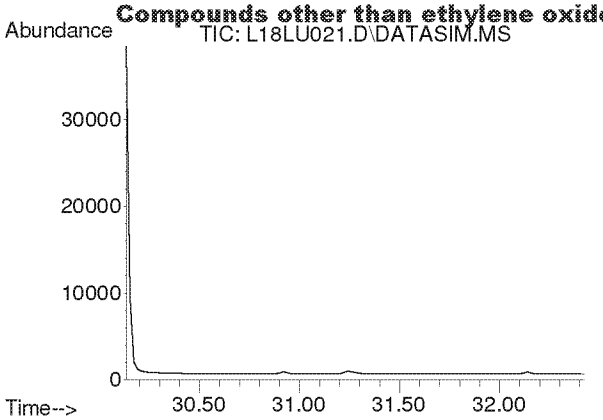
Lab File: L18LU021.D
Acq: 22 Dec 2018 3:49 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.4



Compounds other than ethylene oxide were not quantitated.

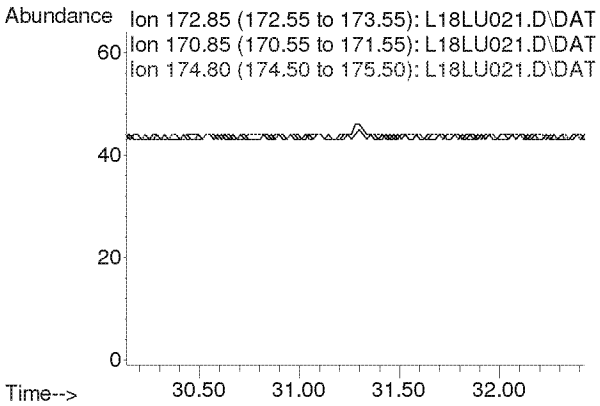


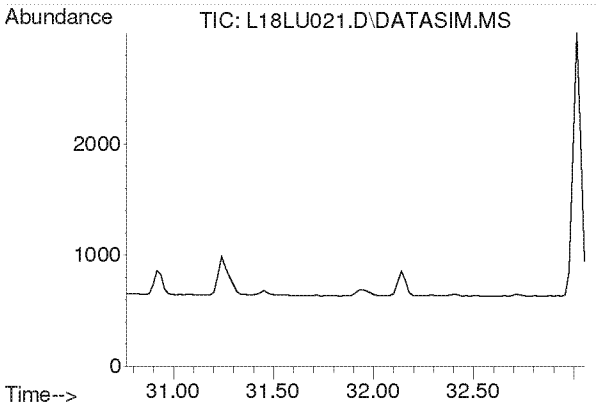
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L18LU021.D
Acq: 22 Dec 2018 3:49 am

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	49.0



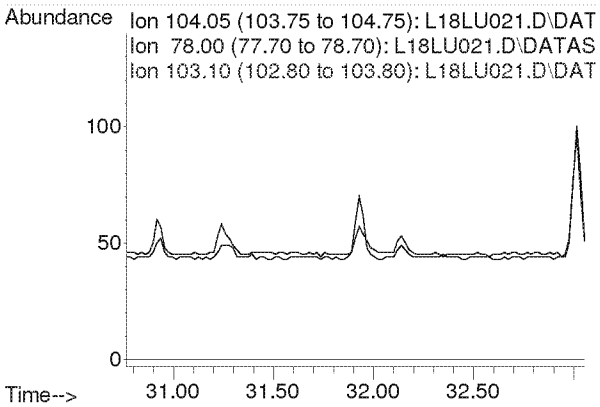


#53
Styrene
Concen: N.D.
Expected RT: 31.91 min

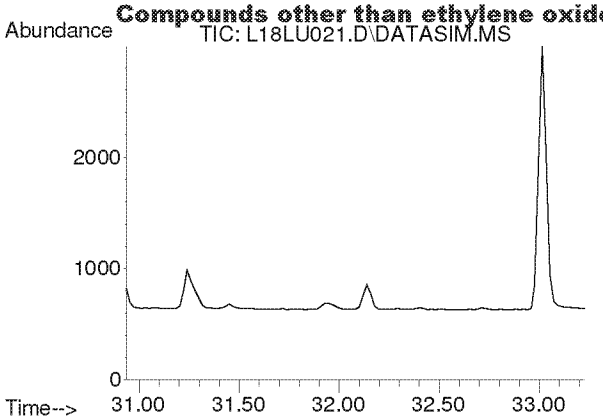
Lab File: L18LU021.D
Acq: 22 Dec 2018 3:49 am

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	45.6
103	0.0



Compounds other than ethylene oxide were not quantitated.

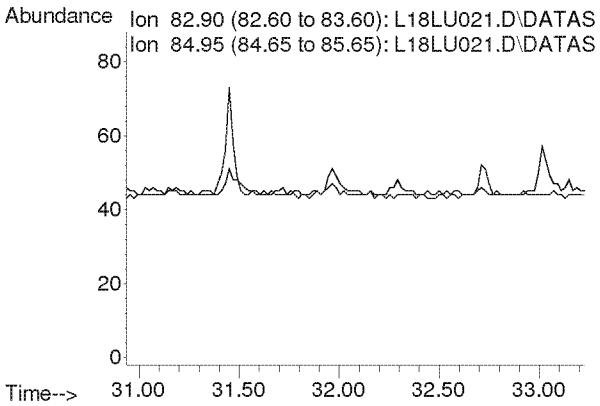


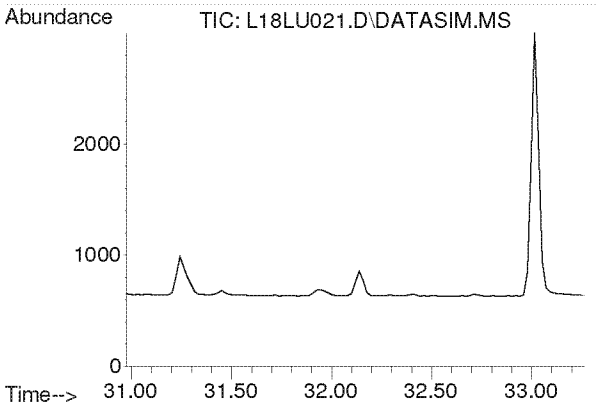
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L18LU021.D
Acq: 22 Dec 2018 3:49 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.9



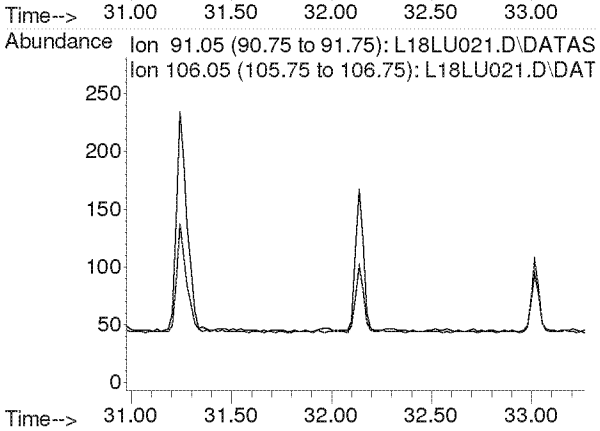


#55
o-Xylene
Concen: N.D.
Expected RT: 32.12 min

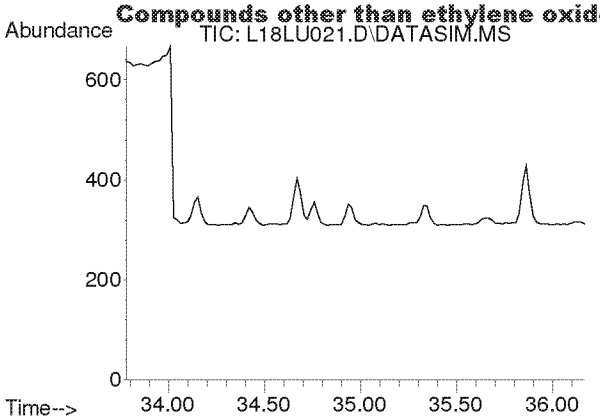
Lab File: L18LU021.D
Acq: 22 Dec 2018 3:49 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.2



Compounds other than ethylene oxide were not quantitated.

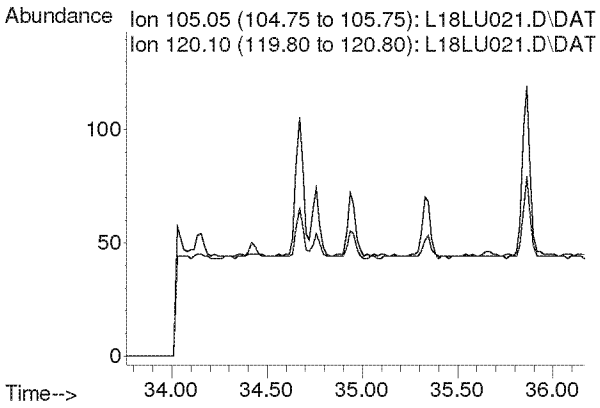


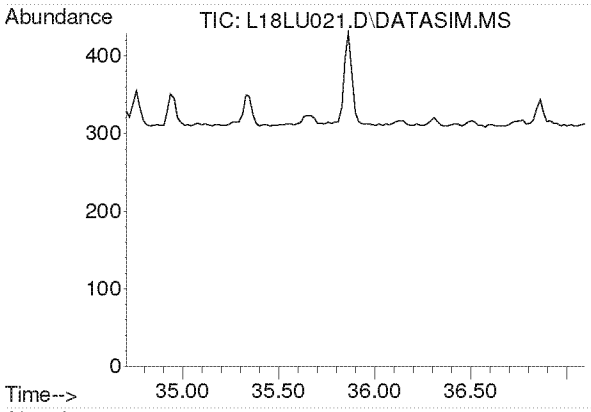
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.92 min

Lab File: L18LU021.D
Acq: 22 Dec 2018 3:49 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	45.0



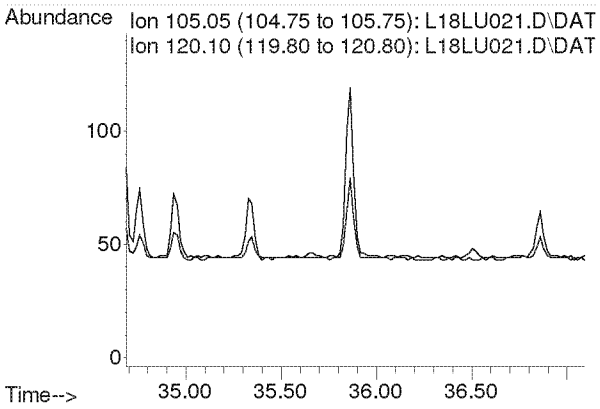


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

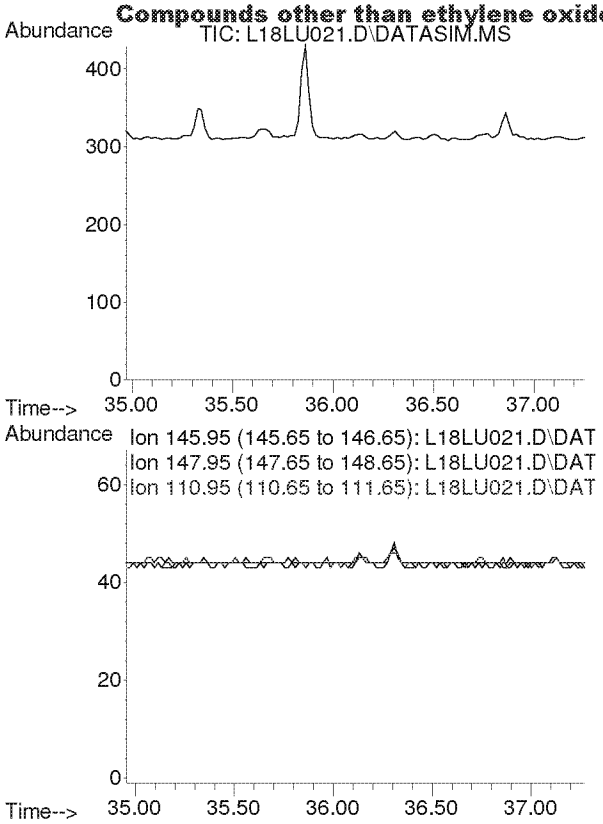
Lab File: L18LU021.D
Acq: 22 Dec 2018 3:49 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	42.8



Compounds other than ethylene oxide were not quantitated.

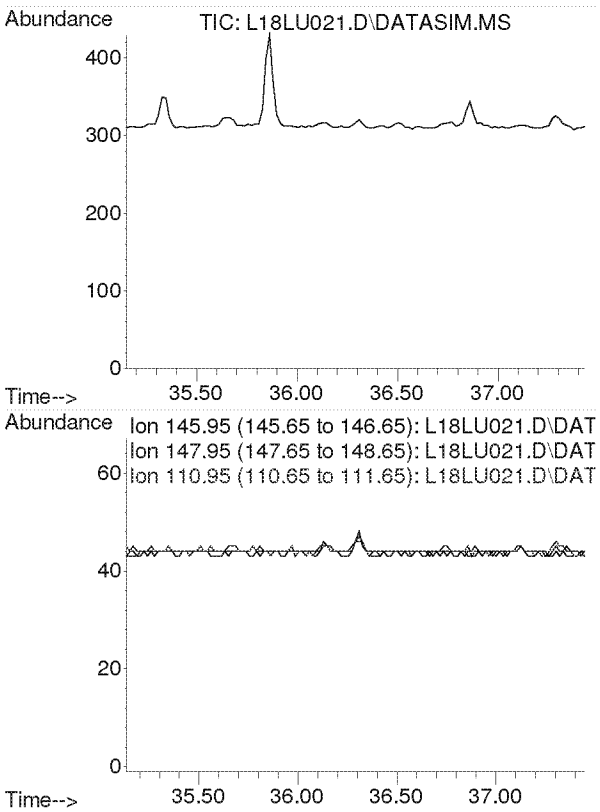


#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.11 min

Lab File: L18LU021.D
Acq: 22 Dec 2018 3:49 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.5



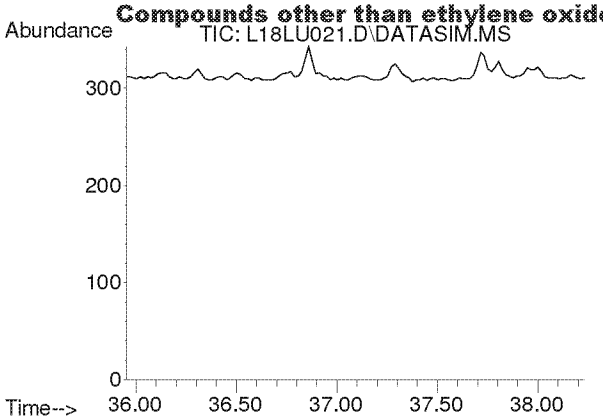
#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

Lab File: L18LU021.D
Acq: 22 Dec 2018 3:49 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	39.5

Compounds other than ethylene oxide were not quantitated.

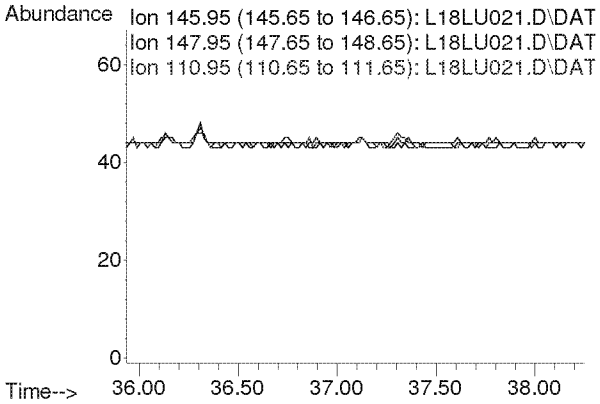


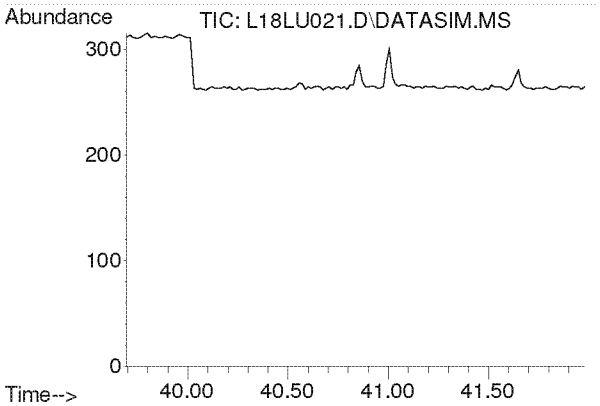
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.09 min

Lab File: L18LU021.D
Acq: 22 Dec 2018 3:49 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	41.4



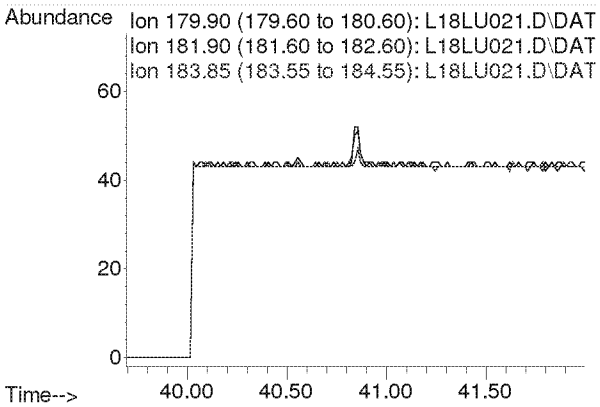


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

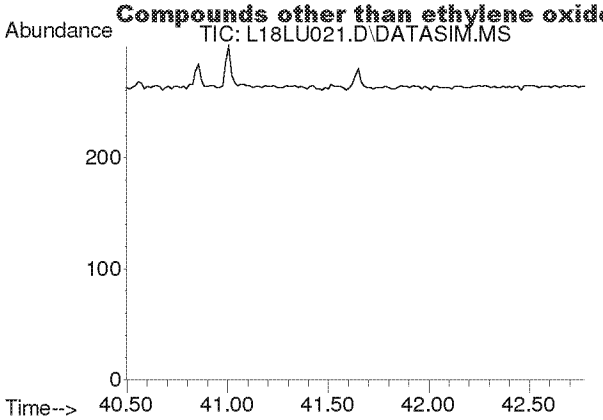
Lab File: L18LU021.D
Acq: 22 Dec 2018 3:49 am

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	95.1
184	30.7



Compounds other than ethylene oxide were not quantitated.

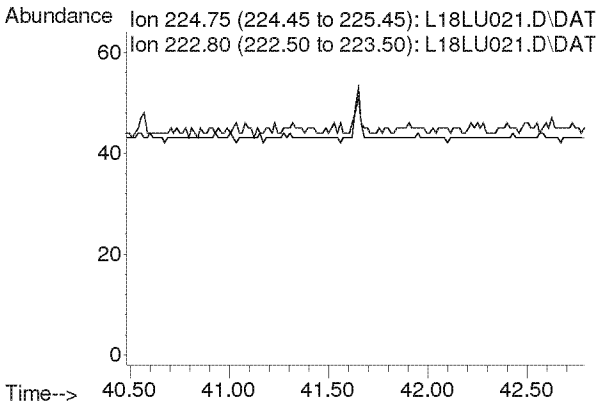


#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.64 min

Lab File: L18LU021.D
Acq: 22 Dec 2018 3:49 am

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.4



Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : Y:\MASS SPEC 1 DATA\L18LU\
Data File : L18LU022.D
Acq On : 22 Dec 2018 4:49 am (#1); 22 Dec 2018 4:44 am (#2)
Operator : MAH
Sample : 8121220-02 IQ 9/25/19
Misc : WILLOWBROOK VILLAGE HALL 10/10/18 (Sig #1); (Sig #2)
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Dec 26 09:52:03 2018
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
Last Update : Thu Dec 20 06:20:47 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.993	66	57216	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.171	114	141806	4.9900 ppbv	0.02
43) IS-Chlorobenzene-d5	30.116	117	99341	4.7400 ppbv	0.02

System Monitoring Compounds

Target Compounds					Qvalue
2) Acetylene	0.000	26	0	N.D. d	
3) Propylene	0.000	41	0	N.D. d	
4) Dichlorodifluoromethane	0.000	85	0	N.D. d	
5) Chloromethane	0.000	50	0	N.D. d	
6) Dichlorotetrafluoroethane	0.000	85	0	N.D. d	
7) Vinyl Chloride	0.000	62	0	N.D. d	
8) 1,3-Butadiene	0.000	54	0	N.D. d	
9) Ethylene oxide	12.470	29	572m	0.1673 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.	
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.	

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : Y:\MASS SPEC 1 DATA\L18LU\
Data File : L18LU022.D
Acq On : 22 Dec 2018 4:49 am (#1); 22 Dec 2018 4:44 am (#2)
Operator : MAH
Sample : 8121220-02
Misc : WILLOWBROOK VILLAGE HALL 10/10/18 (Sig #1); (Sig #2)
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Dec 26 09:52:03 2018
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units Dev(Min)
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
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.

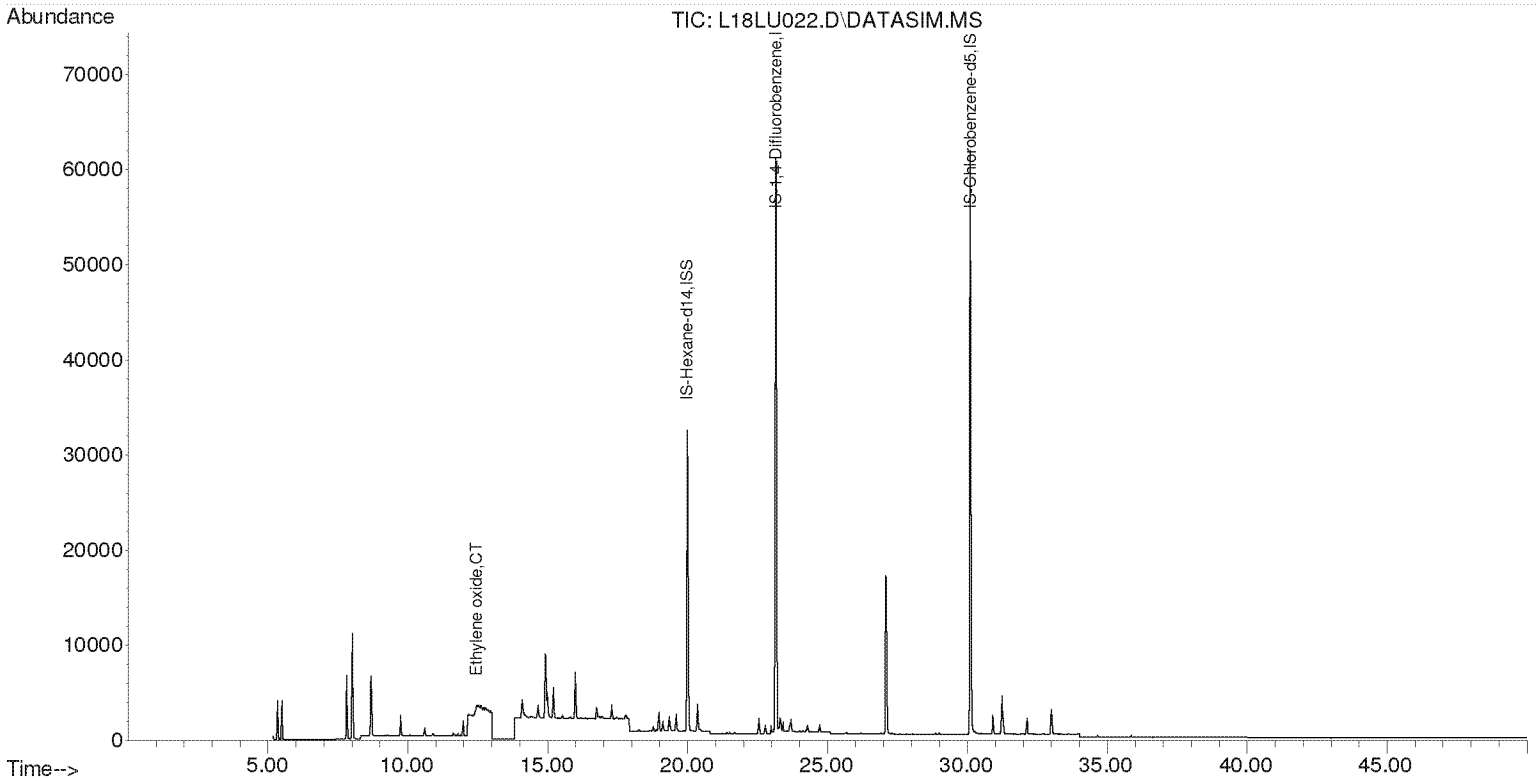
(#) = qualifier out of range (m) = manual integration (+) = signals summed

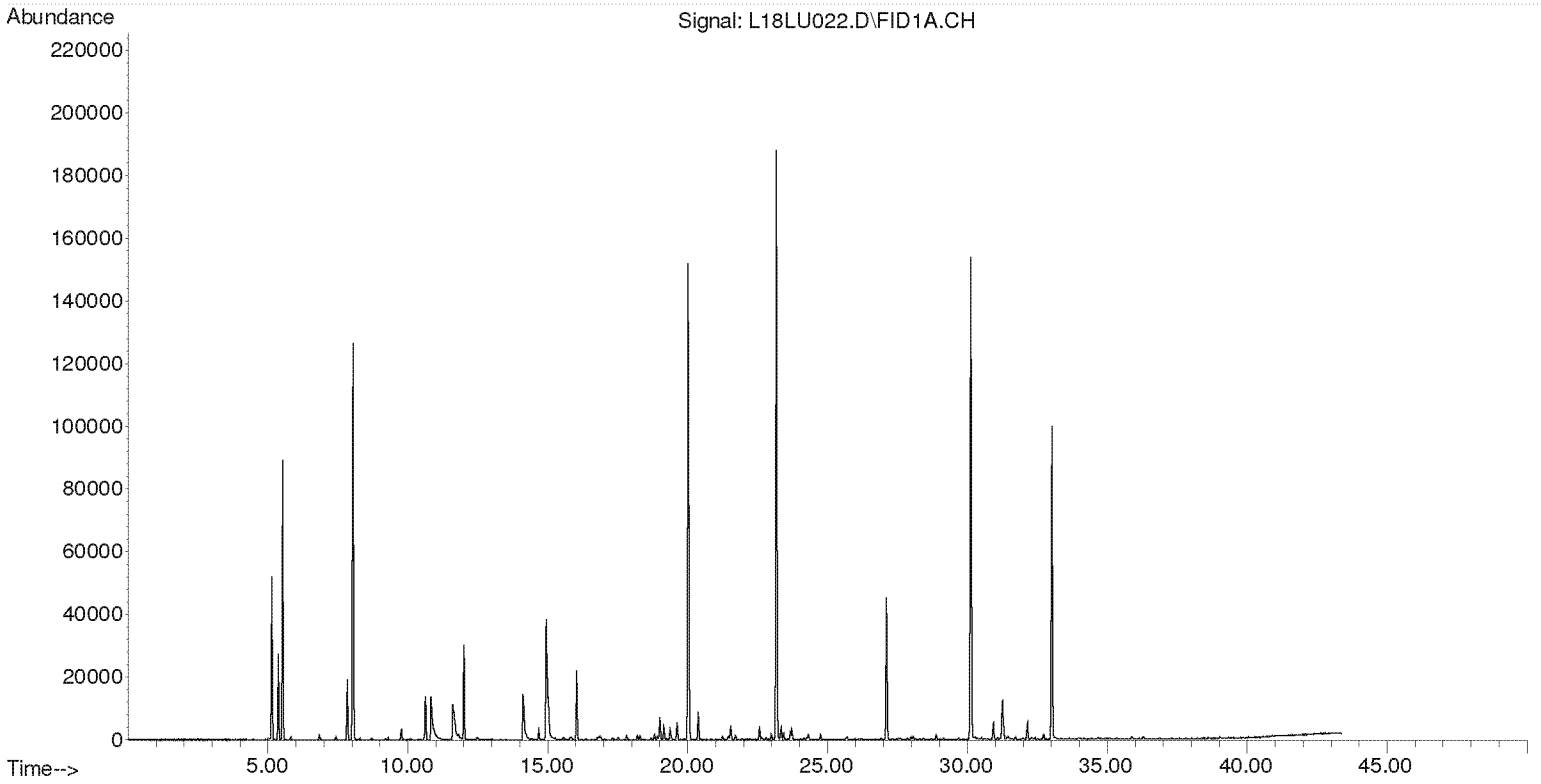
ED_002475_00000322-00114

Compounds other than ethylene oxide were not quantitated.

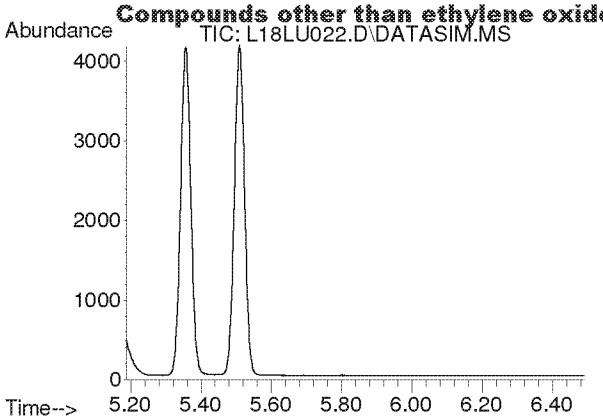
Data Path : Y:\MASS SPEC 1 DATA\L18LU\
Data File : L18LU022.D
Acq On : 22 Dec 2018 4:49 am (#1); 22 Dec 2018 4:44 am (#2)
Operator : MAH
Sample : 8121220-02
Misc : WILLOWBROOK VILLAGE HALL 10/10/18 (Sig #1); (Sig #2)
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Dec 26 09:52:03 2018
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
Response via : Initial Calibration





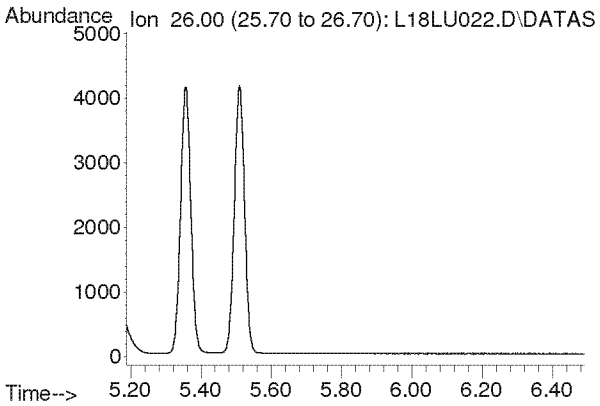
Compounds other than ethylene oxide were not quantitated.

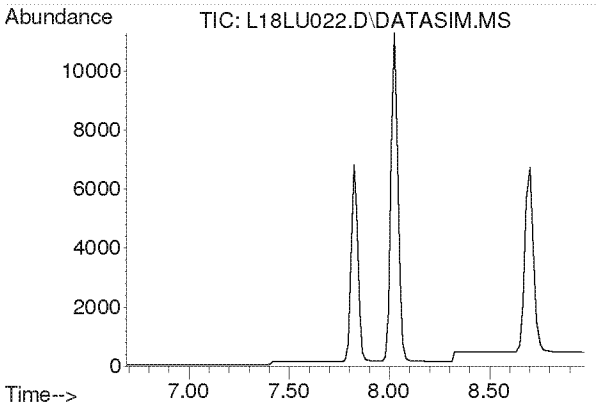


#2
Acetylene
Concen: N.D.
Expected RT: 5.42 min

Lab File: L18LU022.D
Acq: 22 Dec 2018 4:49 am

Tgt Ion: 26



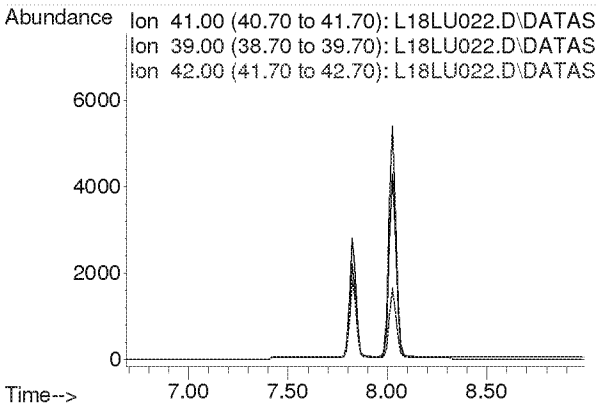


#3
Propylene
Concen: N.D.
Expected RT: 7.84 min

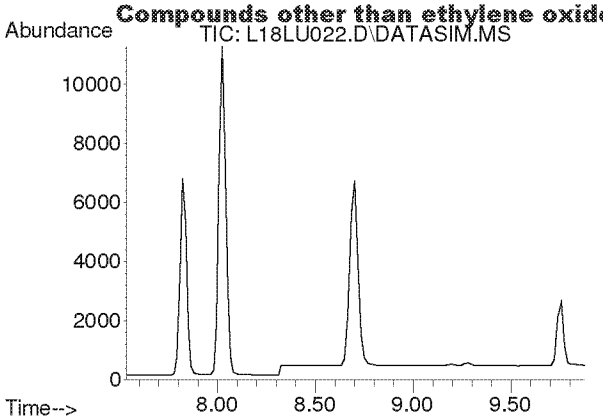
Lab File: L18LU022.D
Acq: 22 Dec 2018 4:49 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	78.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

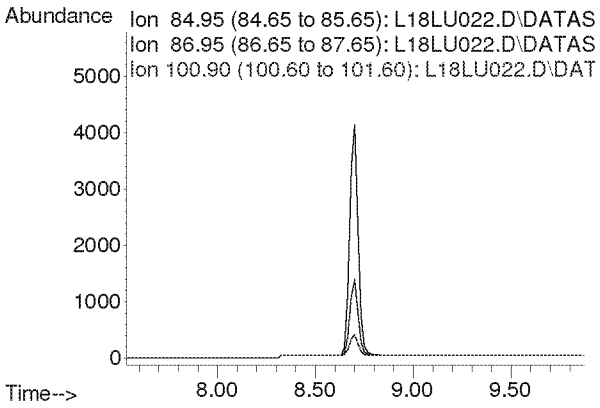


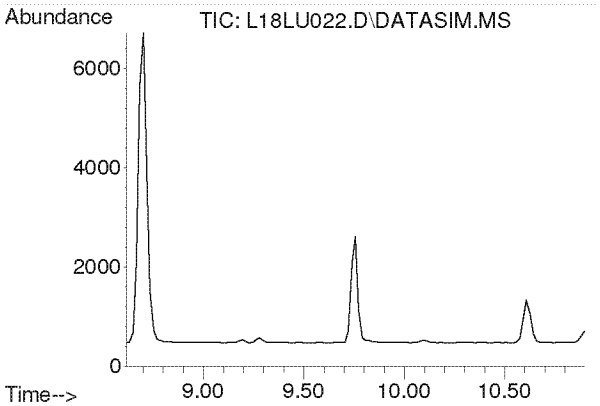
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L18LU022.D
Acq: 22 Dec 2018 4:49 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	8.9



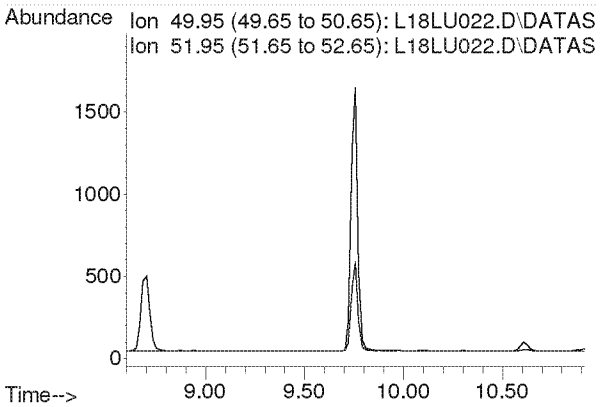


#5
Chloromethane
Concen: N.D.
Expected RT: 9.76 min

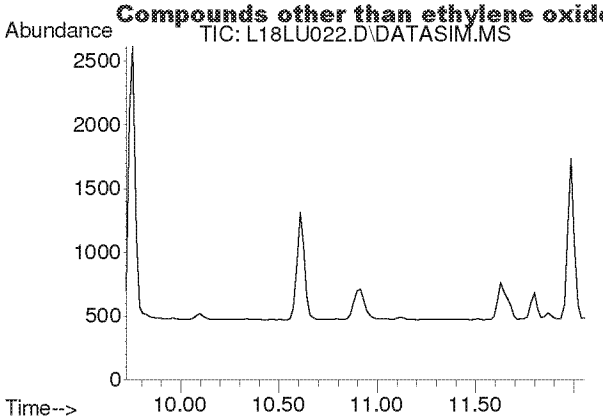
Lab File: L18LU022.D
Acq: 22 Dec 2018 4:49 am

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

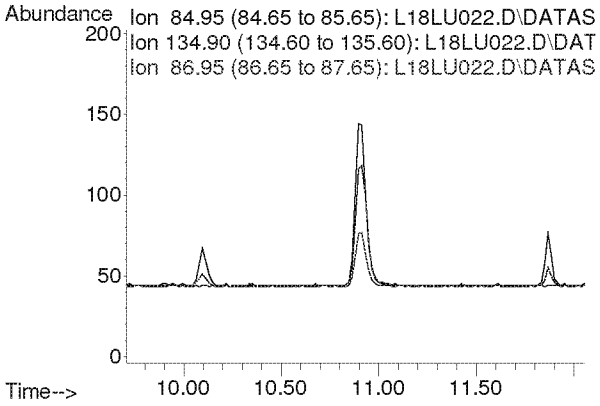


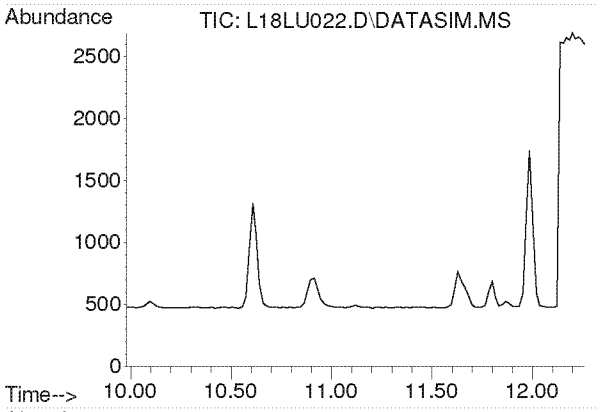
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L18LU022.D
Acq: 22 Dec 2018 4:49 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.1
87	32.1



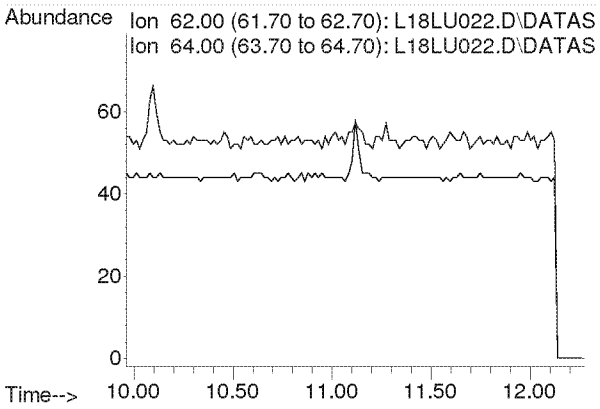


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

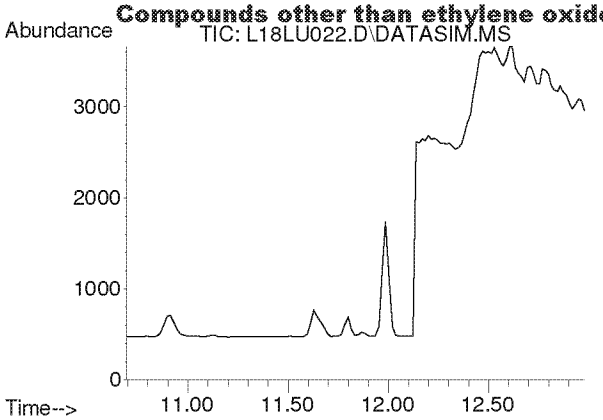
Lab File: L18LU022.D
Acq: 22 Dec 2018 4:49 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.8



Compounds other than ethylene oxide were not quantitated.

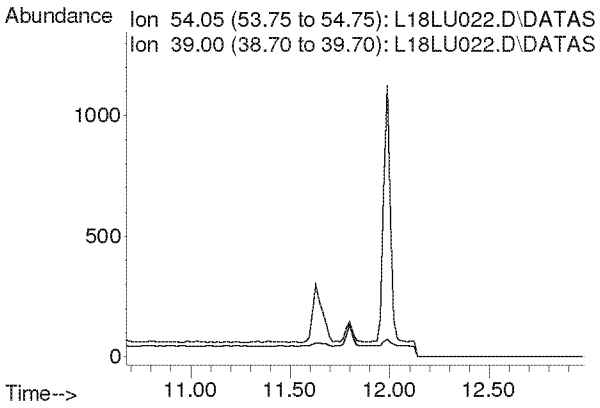


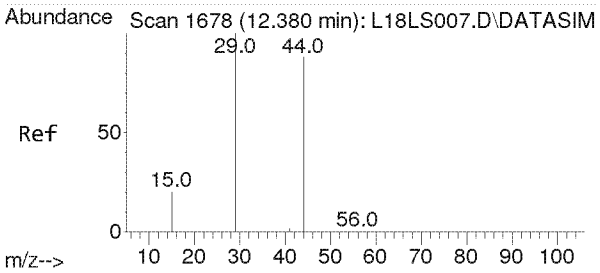
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L18LU022.D
Acq: 22 Dec 2018 4:49 am

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	105.4

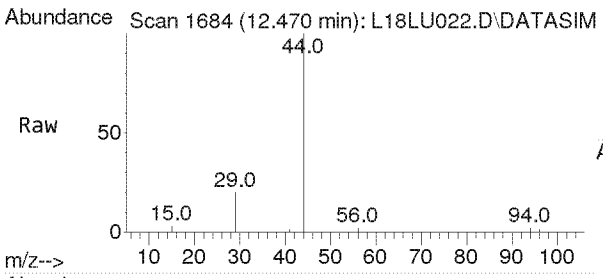


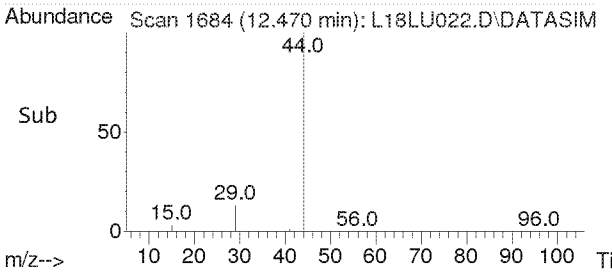


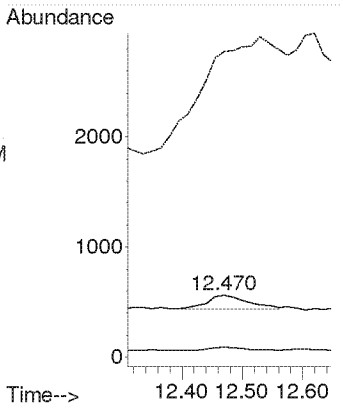
#9
Ethylene oxide
Concen: 0.167 ppbv m
RT: 12.470 min Scan# 1684
Delta R.T. 0.090 min
Lab File: L18LU022.D
Acq: 22 Dec 2018 4:49 am

Tgt Ion: 29 Resp: 572

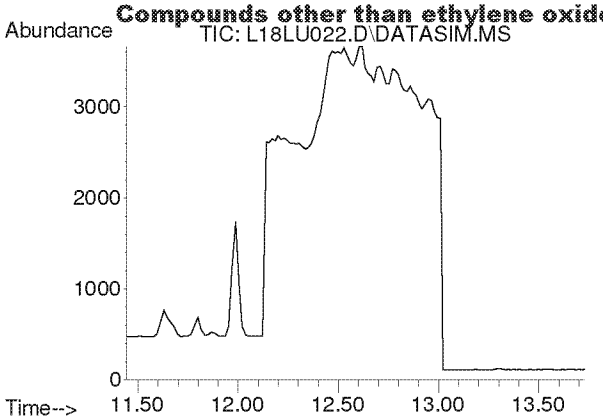
Ion	Ratio	Lower	Upper
29	100		
15	0.0	16.2	24.4#
44	0.0	72.0	108.0#







Compounds other than ethylene oxide were not quantitated.

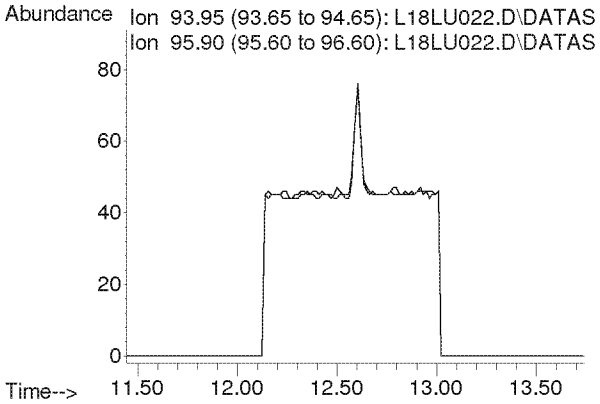


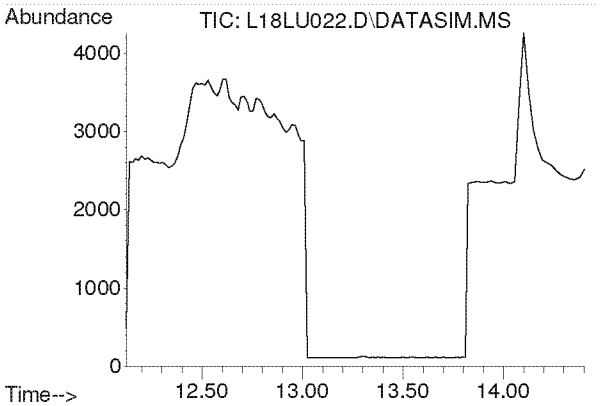
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L18LU022.D
Acq: 22 Dec 2018 4:49 am

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	93.9



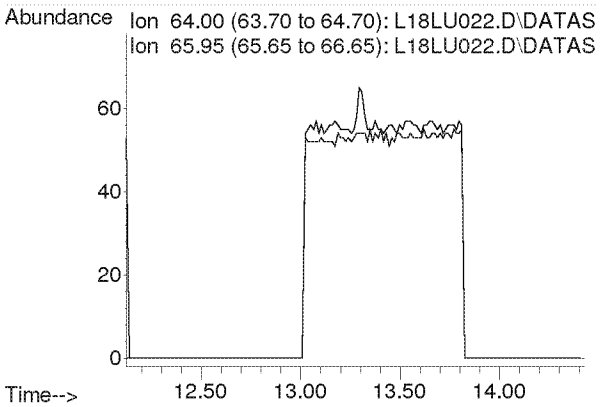


#11
Chloroethane
Concen: N.D.
Expected RT: 13.27 min

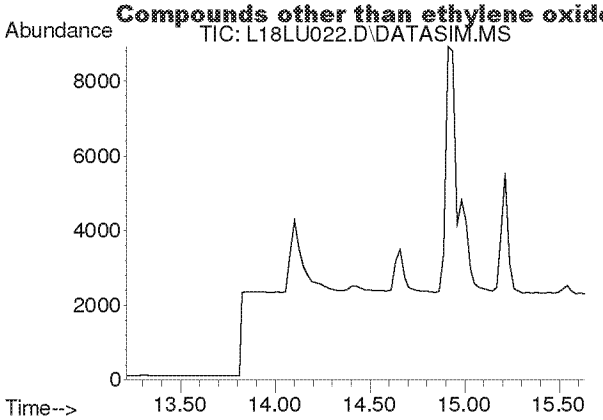
Lab File: L18LU022.D
Acq: 22 Dec 2018 4:49 am

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.0



Compounds other than ethylene oxide were not quantitated.

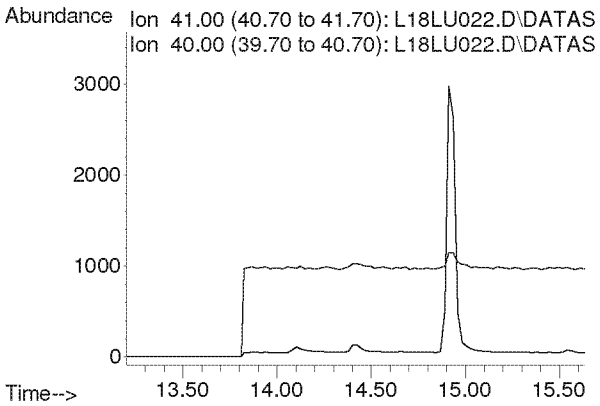


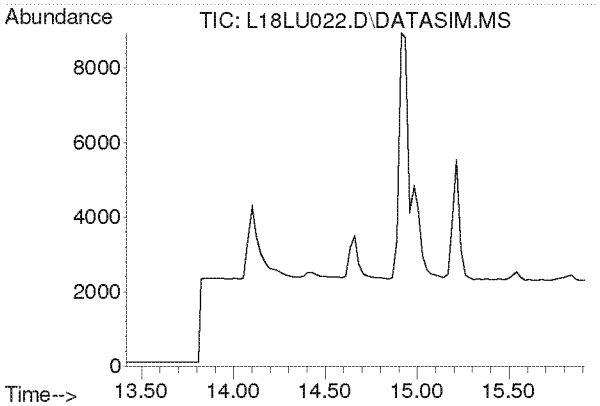
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.33 min

Lab File: L18LU022.D
Acq: 22 Dec 2018 4:49 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	50.9



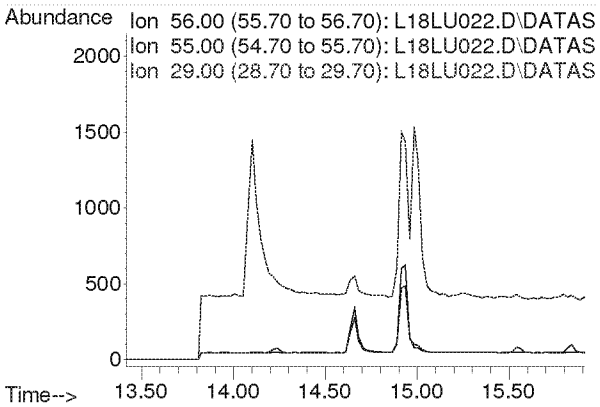


#13
Acrolein
Concen: N.D.
Expected RT: 14.61 min

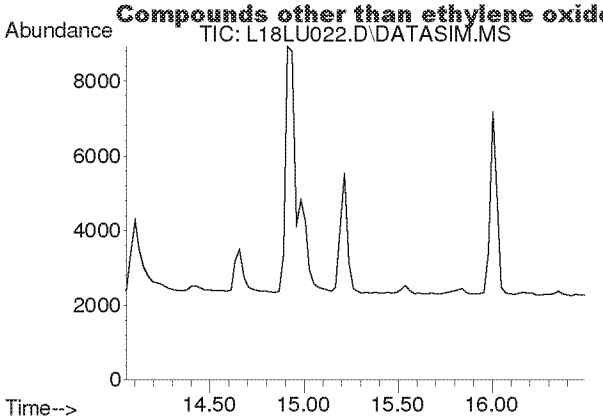
Lab File: L18LU022.D
Acq: 22 Dec 2018 4:49 am

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	75.4
29	52.9



Compounds other than ethylene oxide were not quantitated.

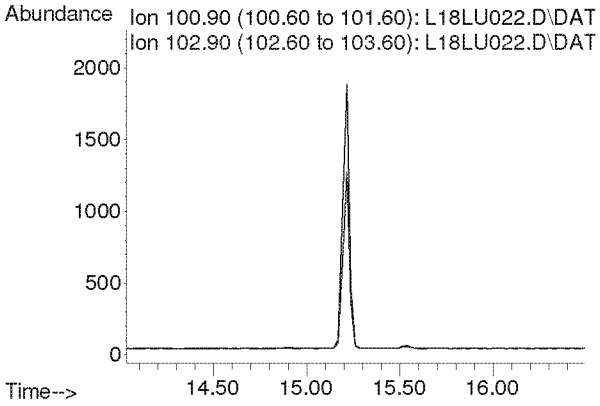


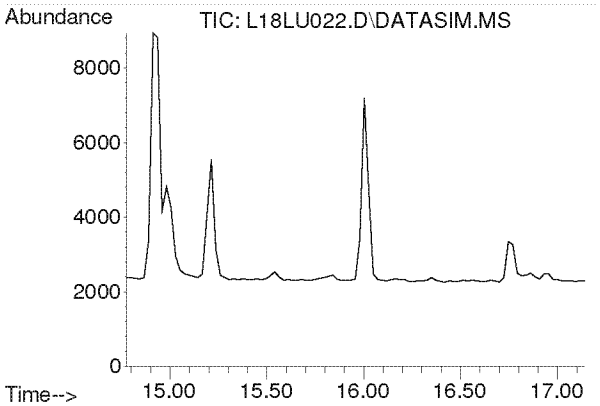
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L18LU022.D
Acq: 22 Dec 2018 4:49 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



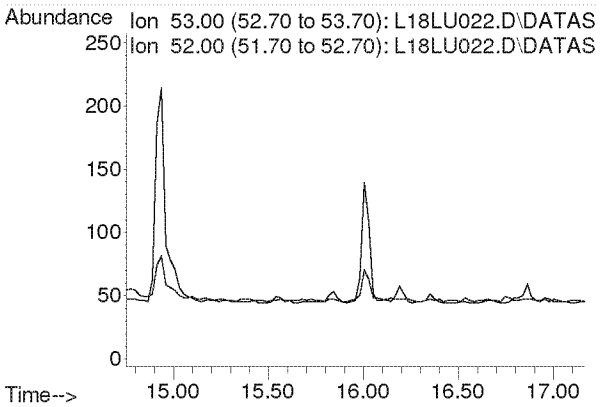


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.91 min

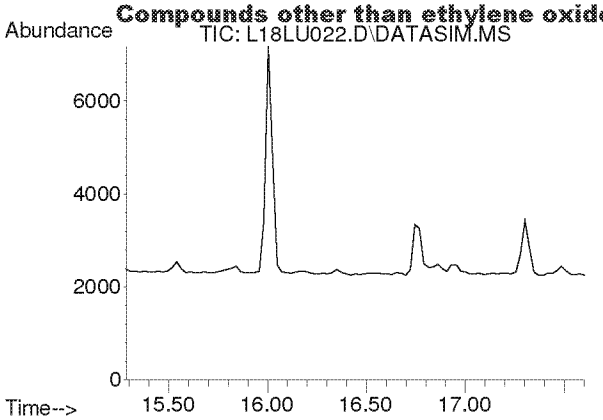
Lab File: L18LU022.D
Acq: 22 Dec 2018 4:49 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	85.4



Compounds other than ethylene oxide were not quantitated.

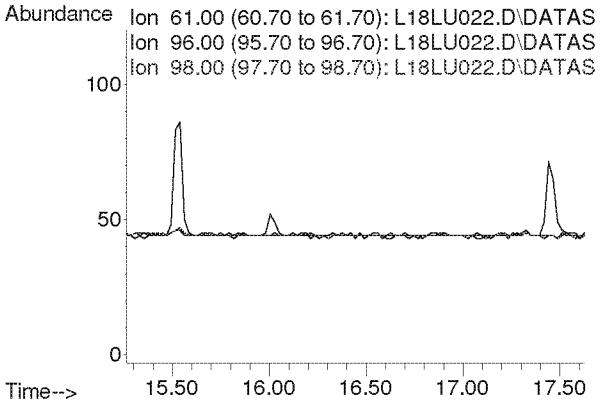


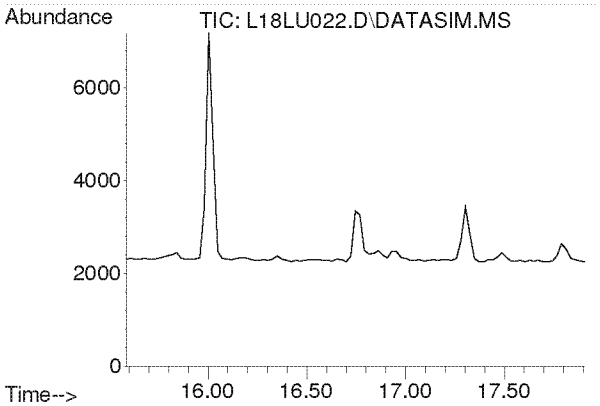
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L18LU022.D
Acq: 22 Dec 2018 4:49 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	58.3
98	37.4



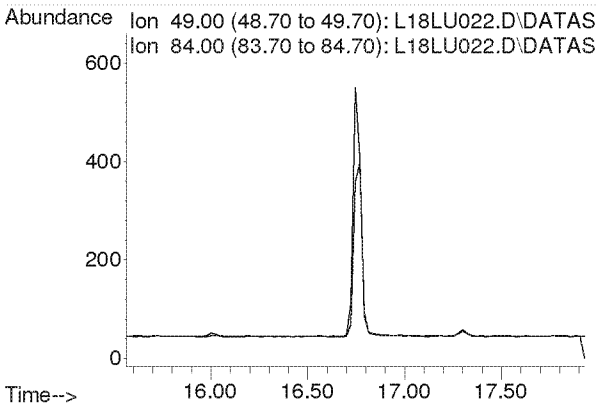


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.72 min

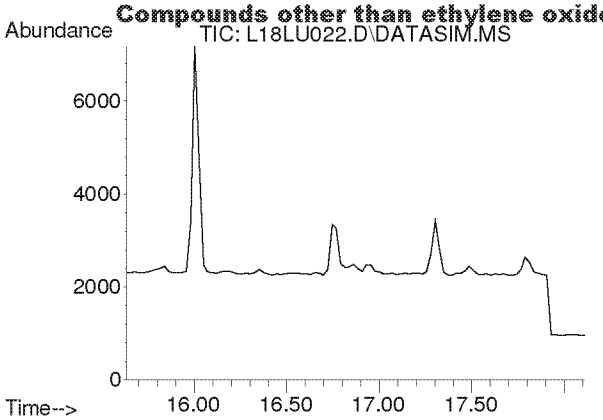
Lab File: L18LU022.D
Acq: 22 Dec 2018 4:49 am

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	76.4



Compounds other than ethylene oxide were not quantitated.

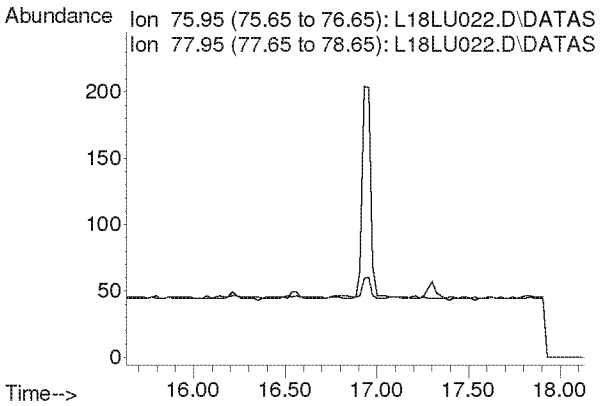


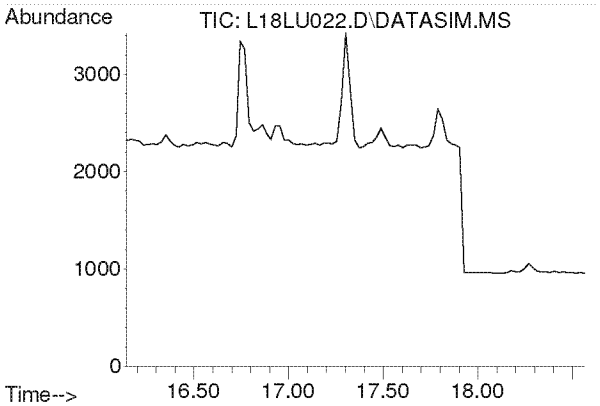
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L18LU022.D
Acq: 22 Dec 2018 4:49 am

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.1



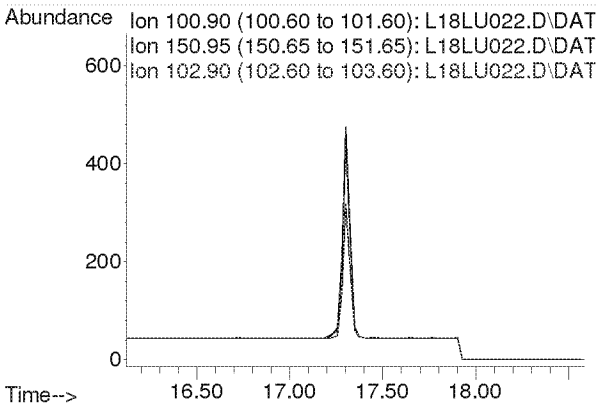


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

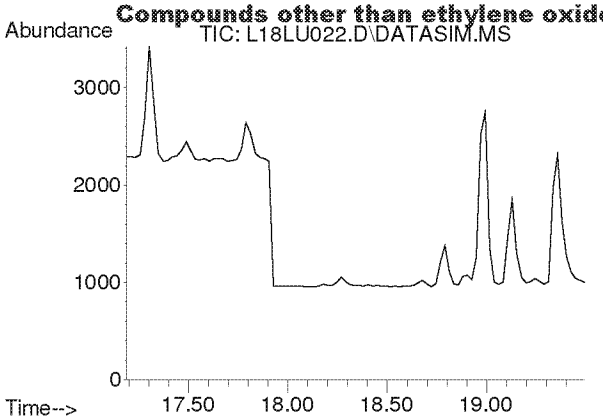
Lab File: L18LU022.D
Acq: 22 Dec 2018 4:49 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	95.3
103	64.1



Compounds other than ethylene oxide were not quantitated.

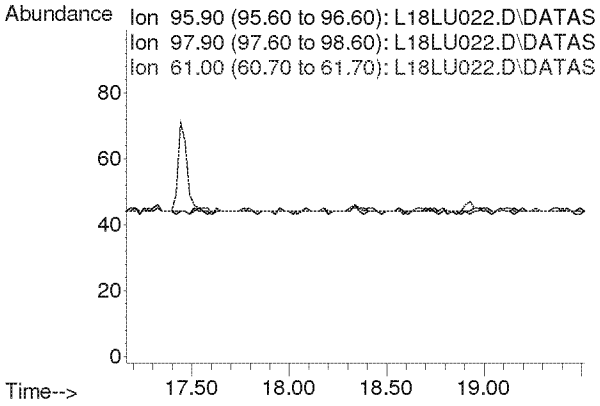


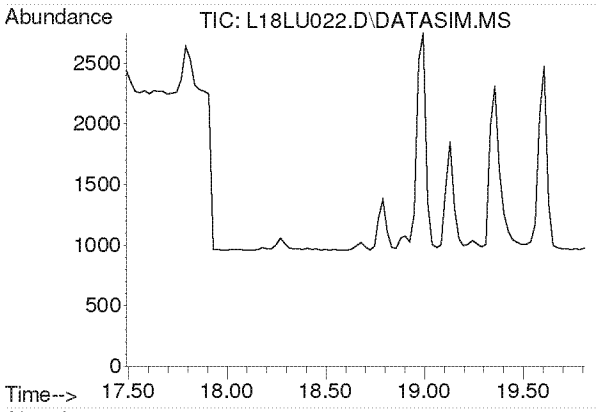
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.31 min

Lab File: L18LU022.D
Acq: 22 Dec 2018 4:49 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	63.7
61	159.2



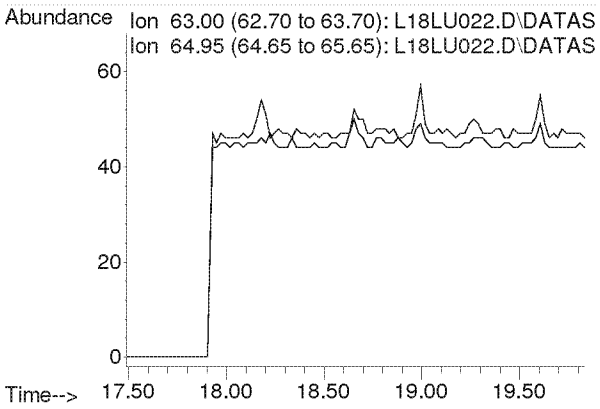


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

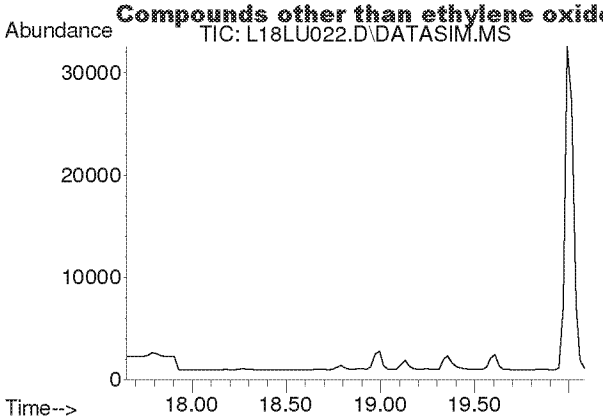
Lab File: L18LU022.D
Acq: 22 Dec 2018 4:49 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

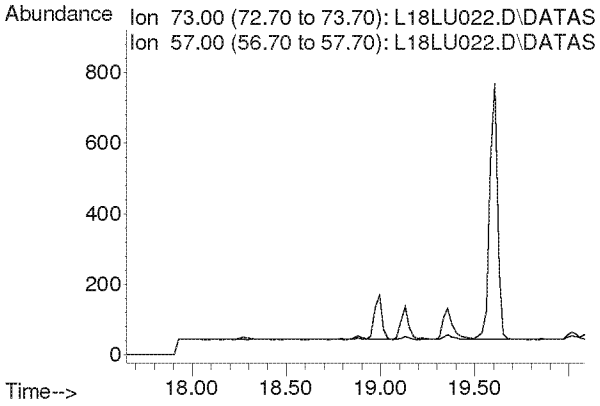


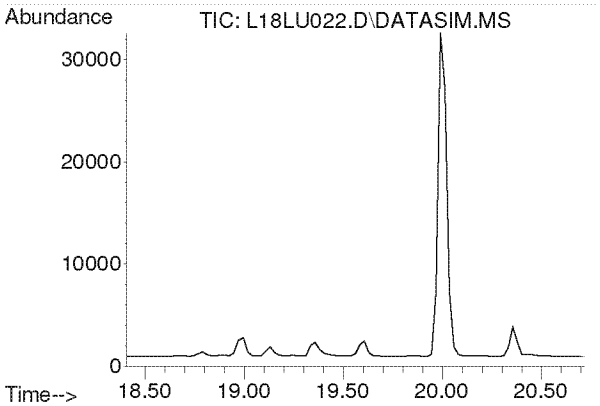
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L18LU022.D
Acq: 22 Dec 2018 4:49 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.4



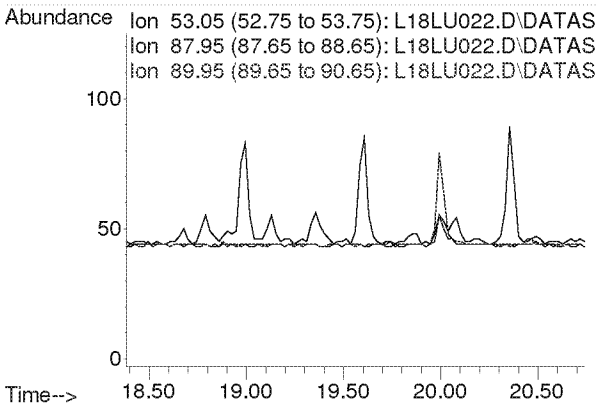


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

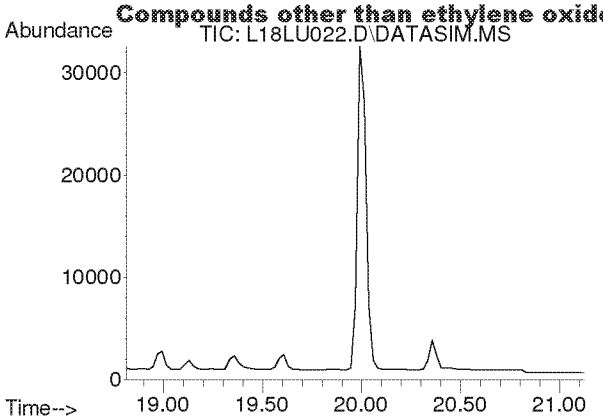
Lab File: L18LU022.D
Acq: 22 Dec 2018 4:49 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	51.8
90	16.8



Compounds other than ethylene oxide were not quantitated.

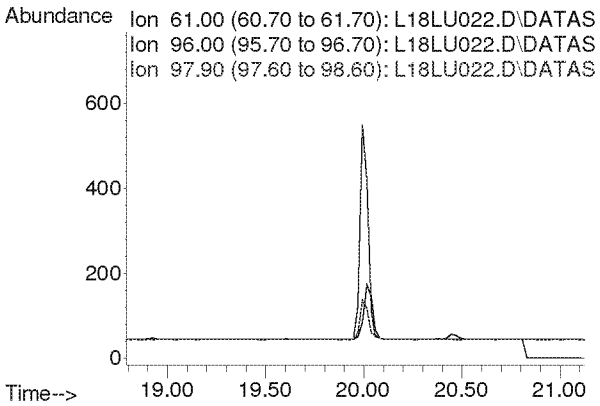


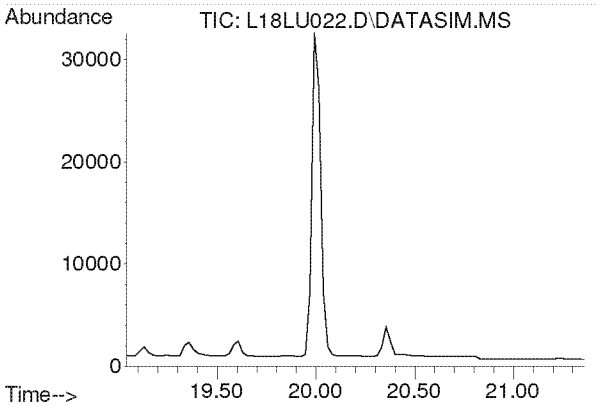
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L18LU022.D
Acq: 22 Dec 2018 4:49 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.7
98	45.2



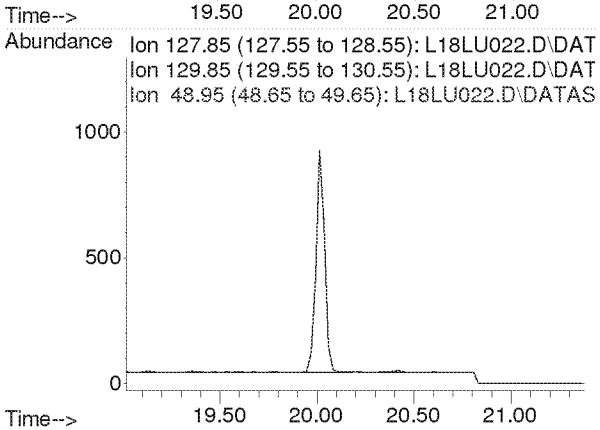


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

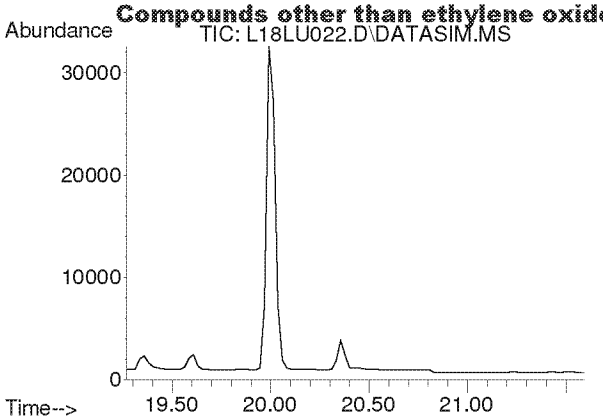
Lab File: L18LU022.D
Acq: 22 Dec 2018 4:49 am

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	171.2



Compounds other than ethylene oxide were not quantitated.

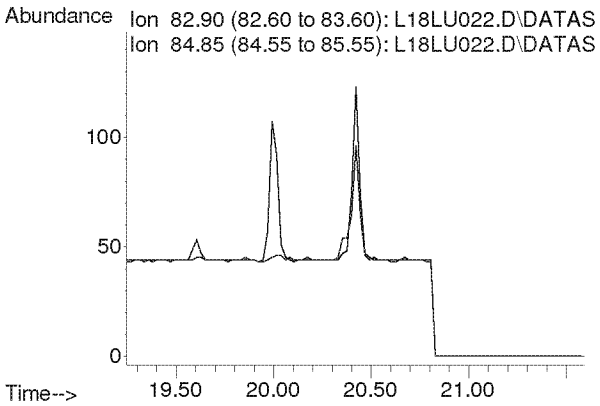


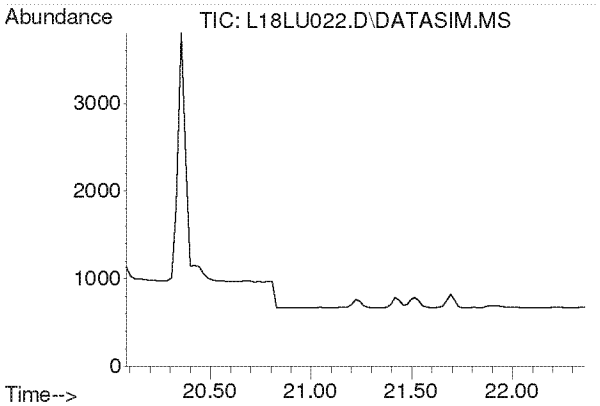
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L18LU022.D
Acq: 22 Dec 2018 4:49 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



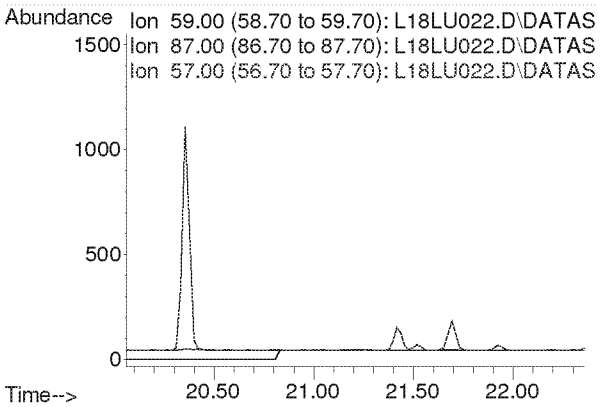


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.16 min

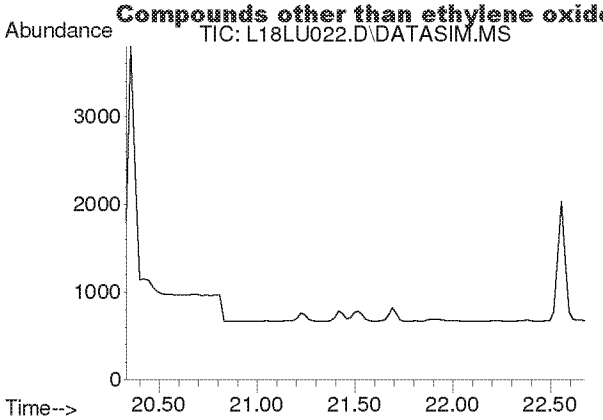
Lab File: L18LU022.D
Acq: 22 Dec 2018 4:49 am

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	37.5
57	33.8



Compounds other than ethylene oxide were not quantitated.

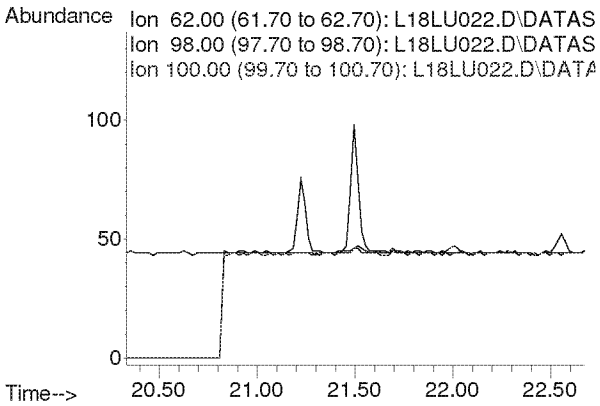


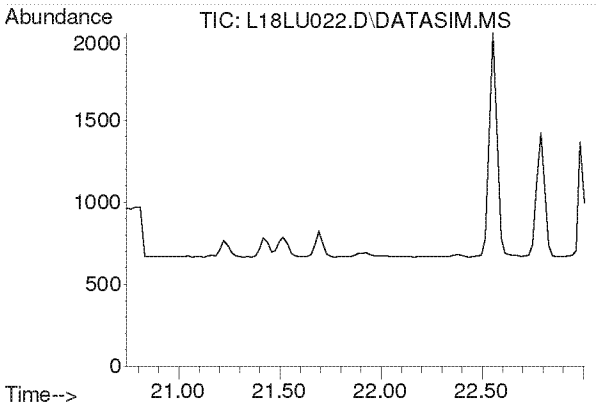
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L18LU022.D
Acq: 22 Dec 2018 4:49 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.4
100	4.0



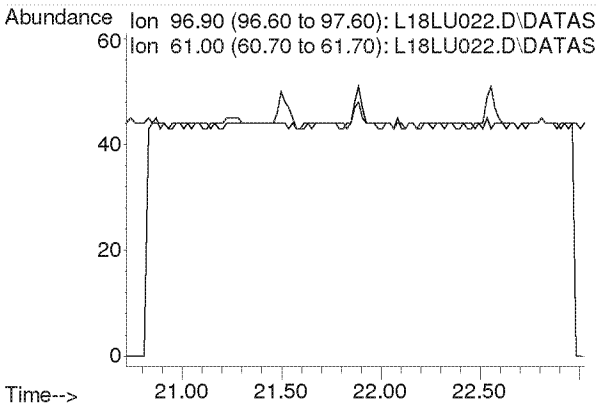


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

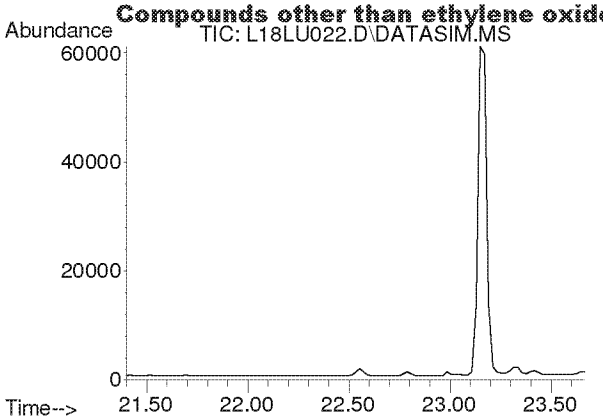
Lab File: L18LU022.D
Acq: 22 Dec 2018 4:49 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	60.5



Compounds other than ethylene oxide were not quantitated.

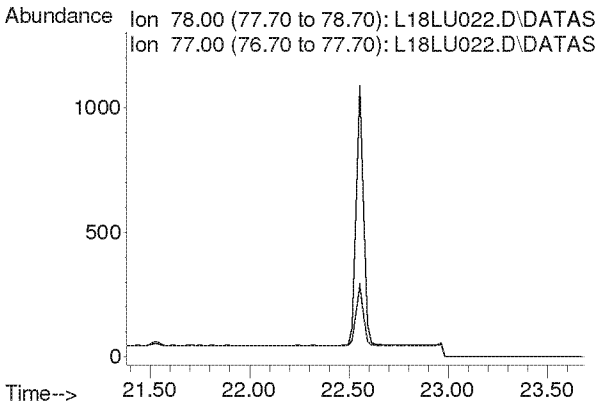


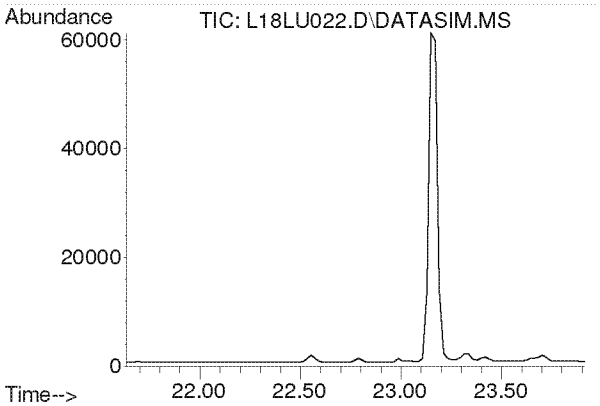
#31
Benzene
Concen: N.D.
Expected RT: 22.54 min

Lab File: L18LU022.D
Acq: 22 Dec 2018 4:49 am

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.7



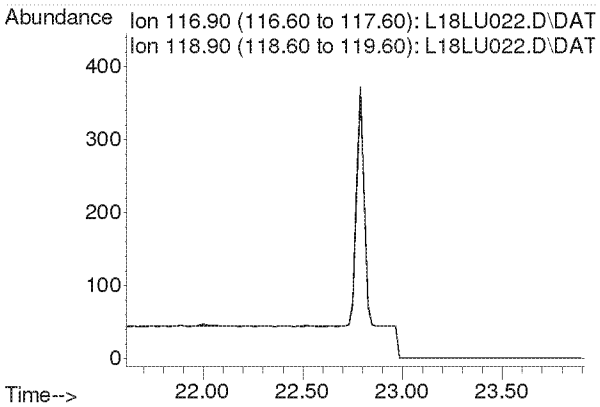


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

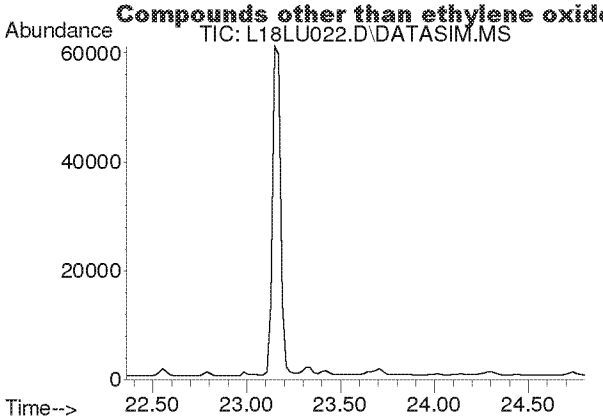
Lab File: L18LU022.D
Acq: 22 Dec 2018 4:49 am

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.5



Compounds other than ethylene oxide were not quantitated.

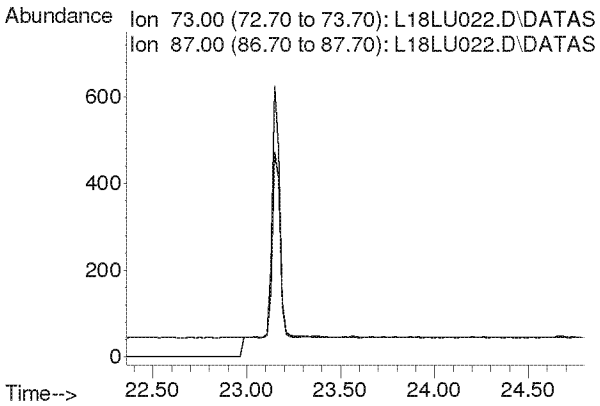


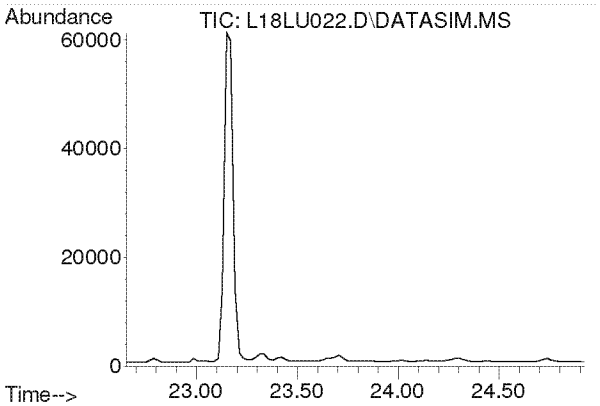
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.50 min

Lab File: L18LU022.D
Acq: 22 Dec 2018 4:49 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	24.9



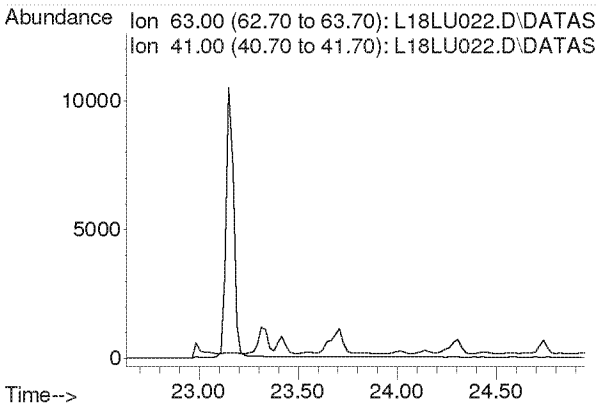


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

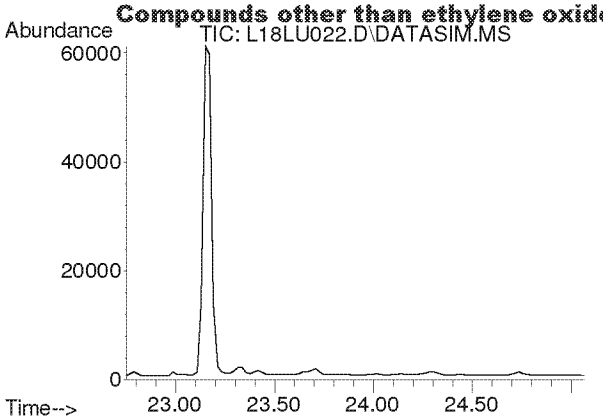
Lab File: L18LU022.D
Acq: 22 Dec 2018 4:49 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	212.8



Compounds other than ethylene oxide were not quantitated.

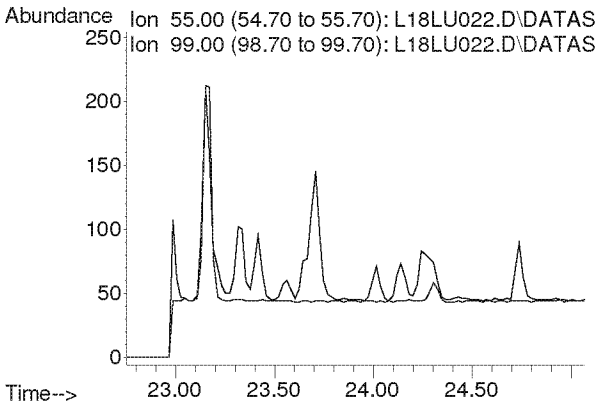


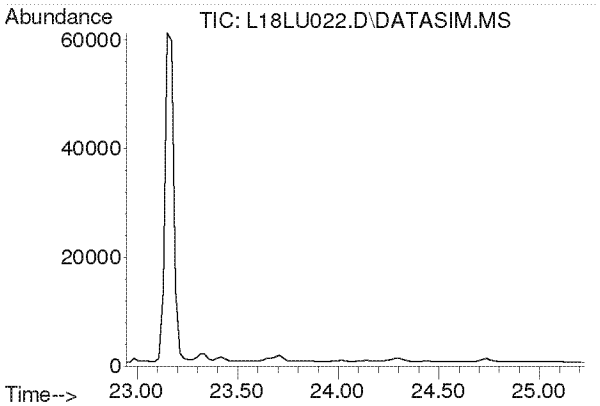
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.87 min

Lab File: L18LU022.D
Acq: 22 Dec 2018 4:49 am

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.1



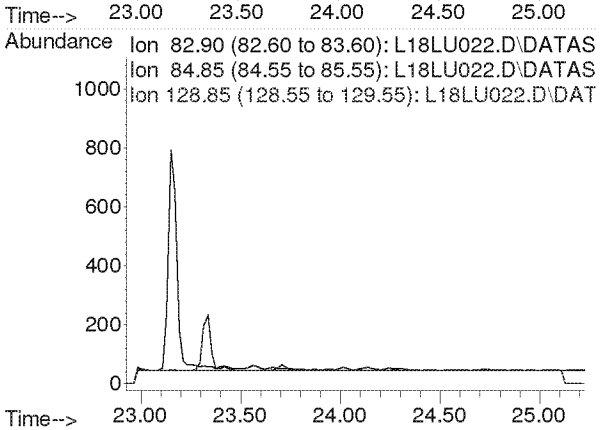


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

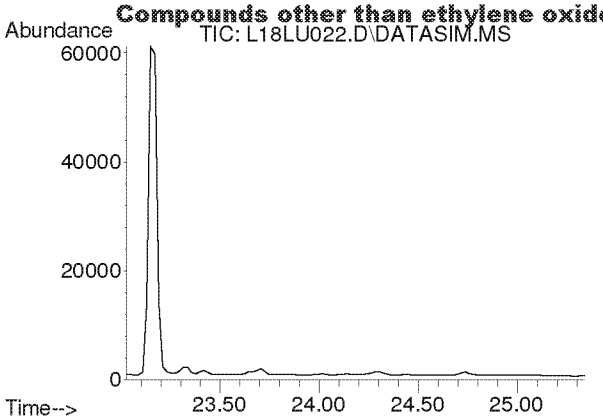
Lab File: L18LU022.D
Acq: 22 Dec 2018 4:49 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.0
129	12.4



Compounds other than ethylene oxide were not quantitated.

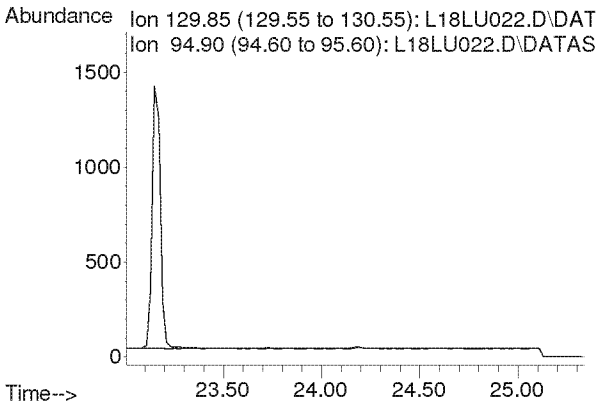


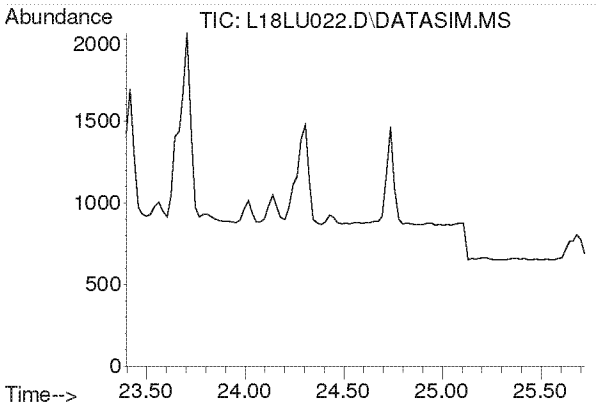
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.16 min

Lab File: L18LU022.D
Acq: 22 Dec 2018 4:49 am

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	110.3



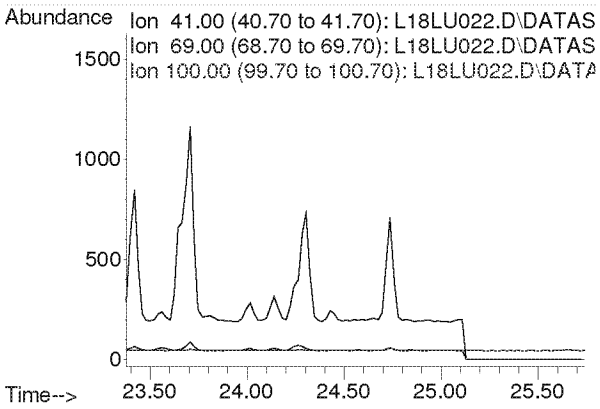


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

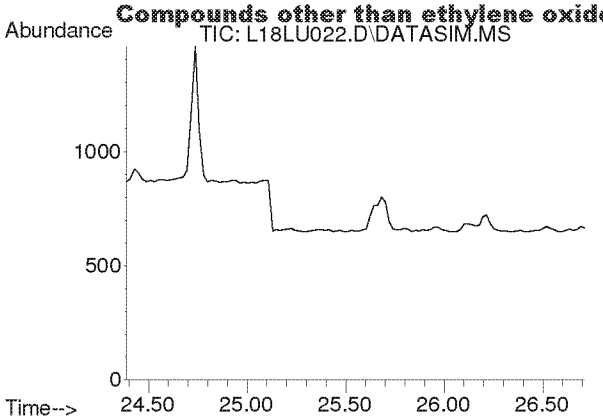
Lab File: L18LU022.D
Acq: 22 Dec 2018 4:49 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	19.9
100	5.2



Compounds other than ethylene oxide were not quantitated.

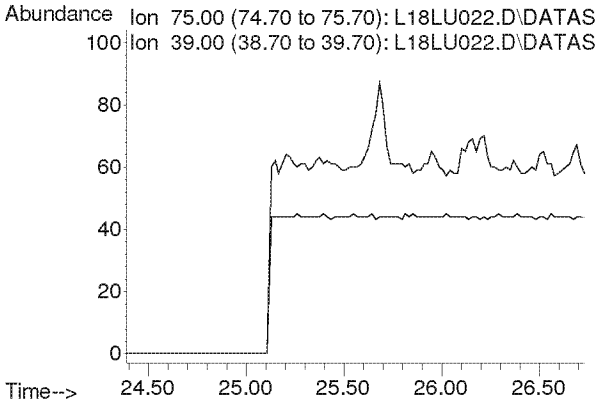


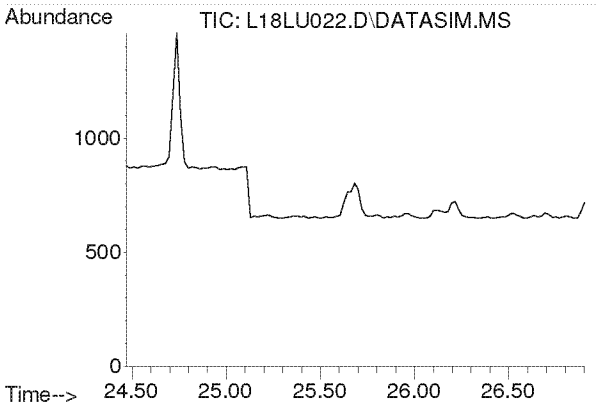
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L18LU022.D
Acq: 22 Dec 2018 4:49 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.4



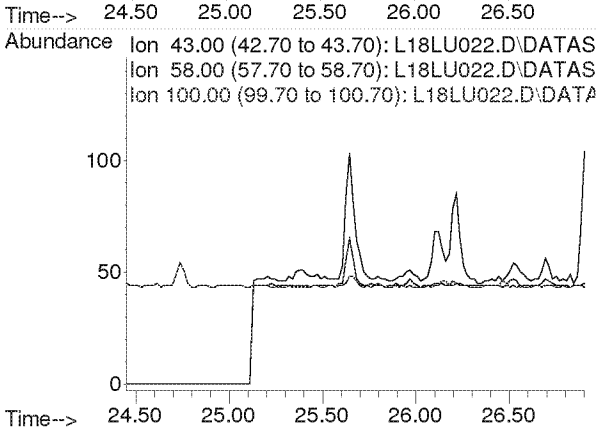


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.61 min

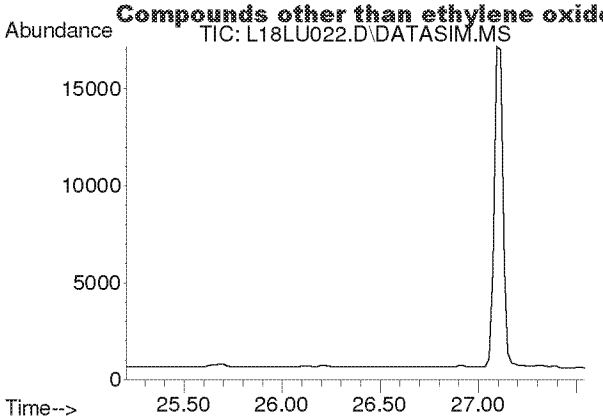
Lab File: L18LU022.D
Acq: 22 Dec 2018 4:49 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	34.2
100	7.9



Compounds other than ethylene oxide were not quantitated.

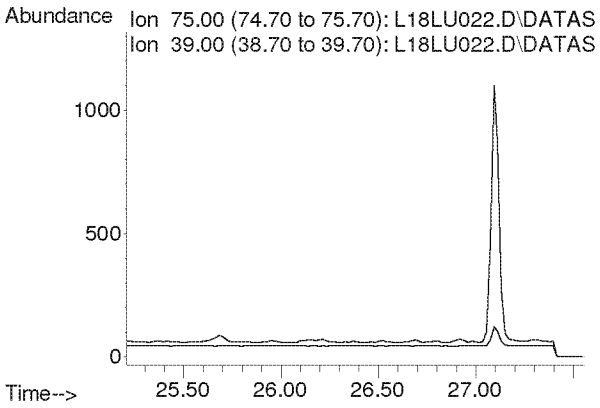


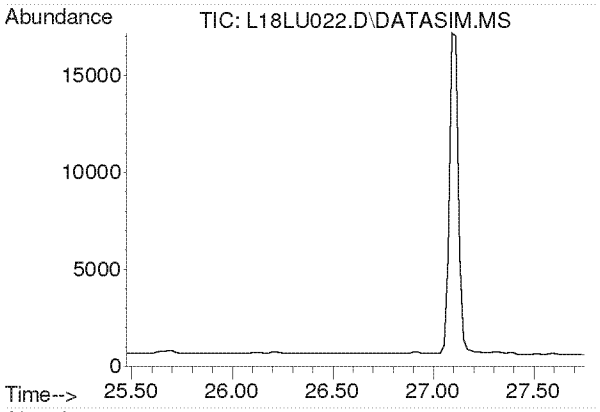
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.35 min

Lab File: L18LU022.D
Acq: 22 Dec 2018 4:49 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	50.9



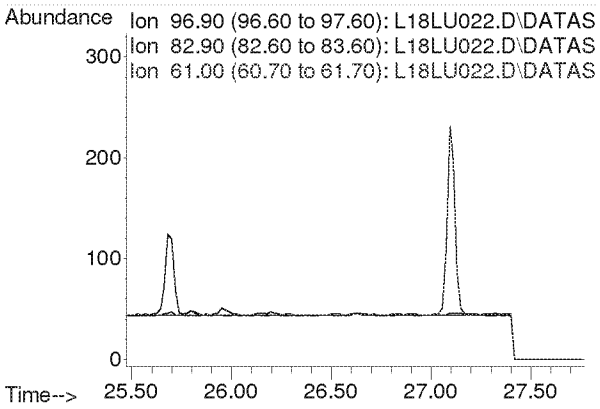


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

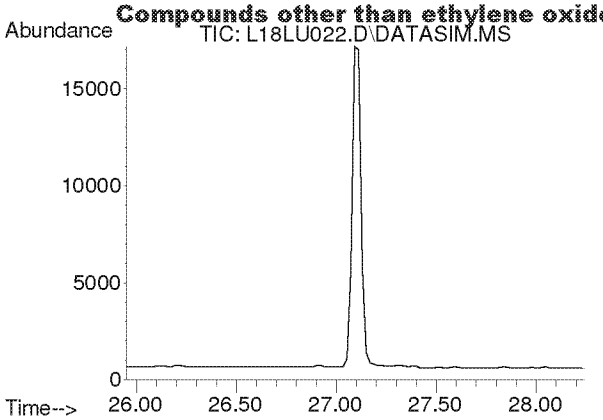
Lab File: L18LU022.D
Acq: 22 Dec 2018 4:49 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	96.1
61	63.5



Compounds other than ethylene oxide were not quantitated.

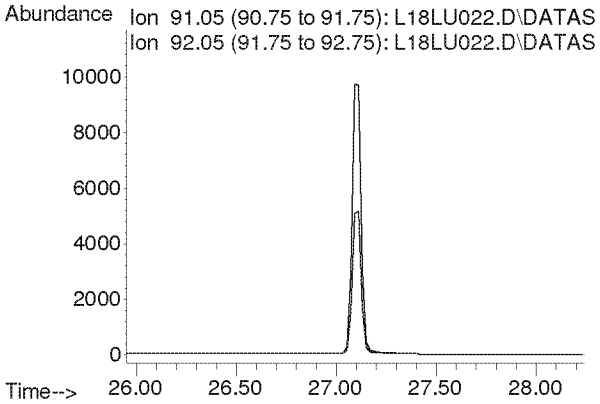


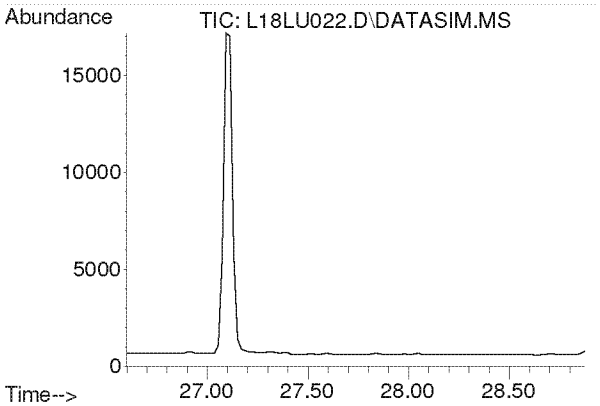
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L18LU022.D
Acq: 22 Dec 2018 4:49 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.6



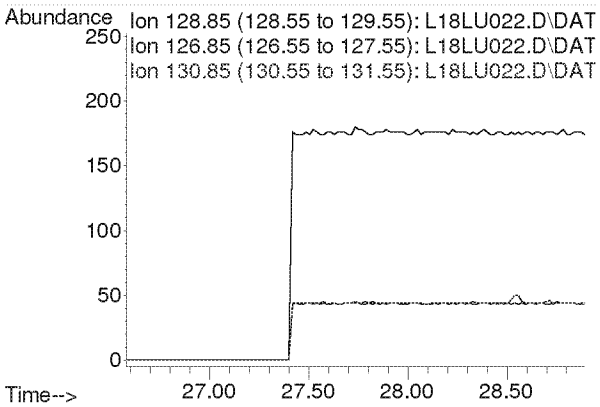


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.73 min

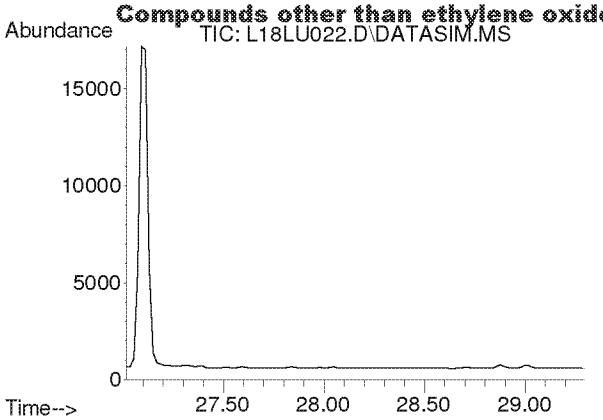
Lab File: L18LU022.D
Acq: 22 Dec 2018 4:49 am

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.2
131	6.0



Compounds other than ethylene oxide were not quantitated.

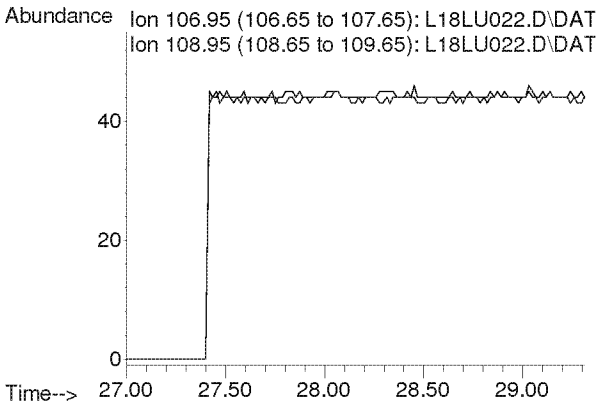


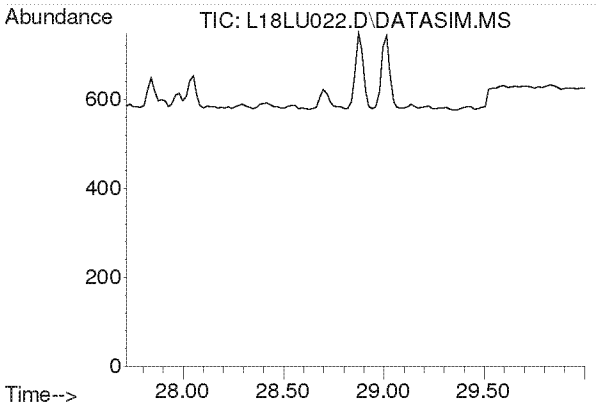
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.16 min

Lab File: L18LU022.D
Acq: 22 Dec 2018 4:49 am

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.5



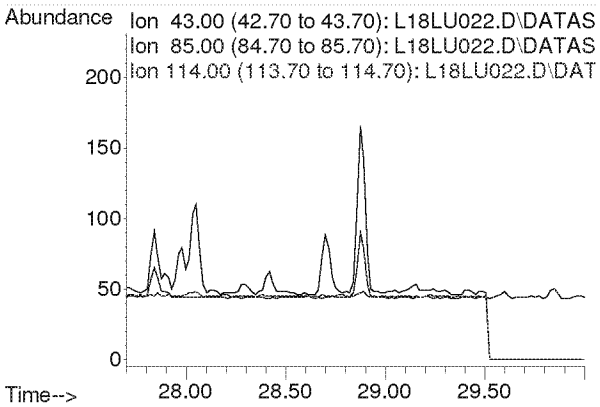


#47
n-Octane
Concen: N.D.
Expected RT: 28.86 min

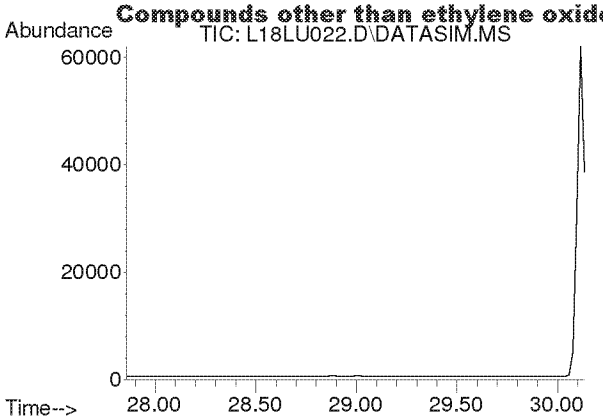
Lab File: L18LU022.D
Acq: 22 Dec 2018 4:49 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	36.0
114	2.2



Compounds other than ethylene oxide were not quantitated.

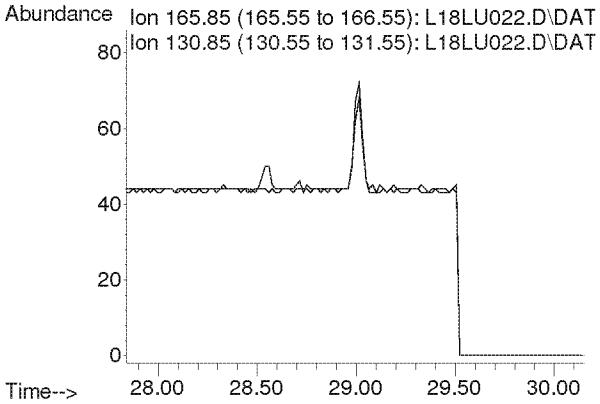


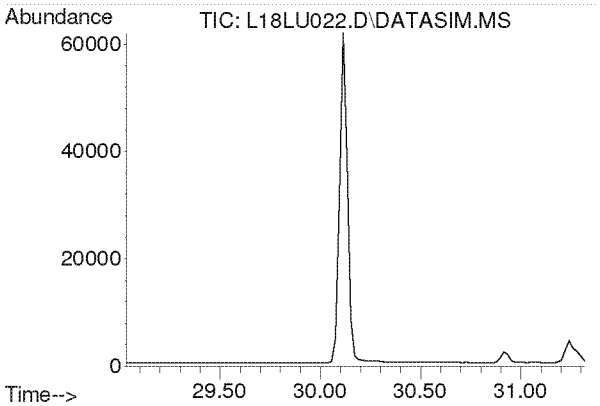
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L18LU022.D
Acq: 22 Dec 2018 4:49 am

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	78.2



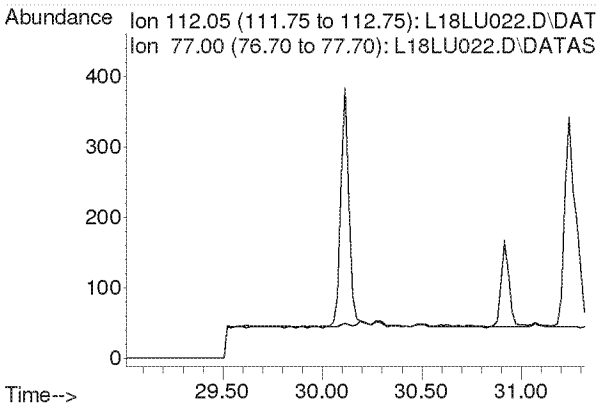


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.17 min

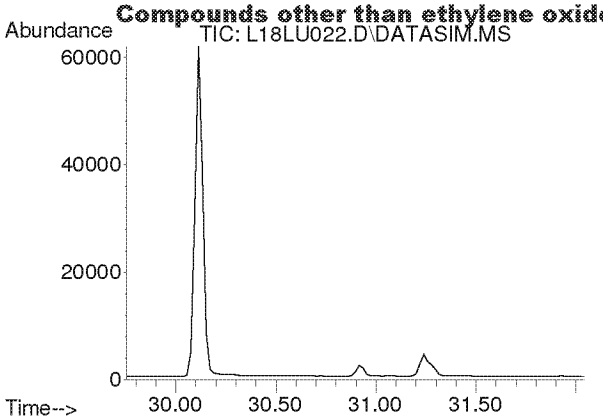
Lab File: L18LU022.D
Acq: 22 Dec 2018 4:49 am

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	63.0



Compounds other than ethylene oxide were not quantitated.

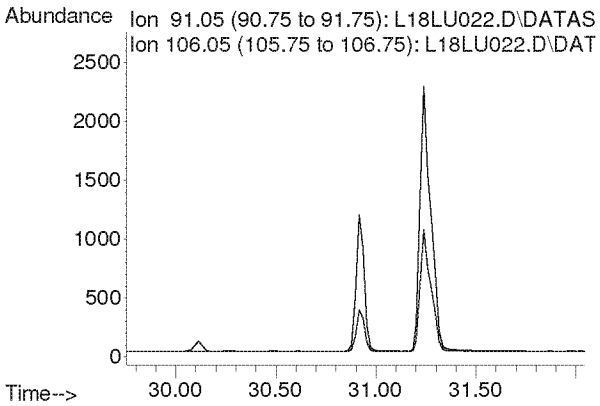


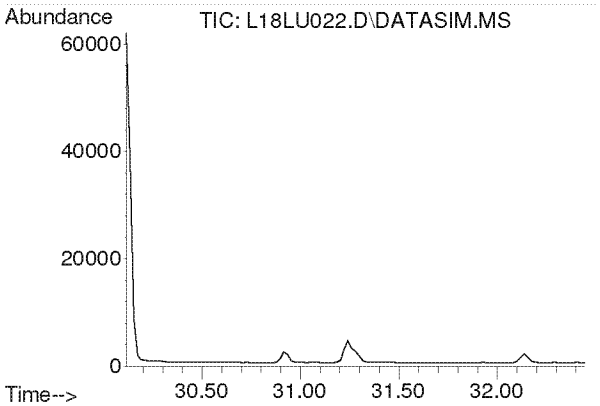
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.90 min

Lab File: L18LU022.D
Acq: 22 Dec 2018 4:49 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	31.8



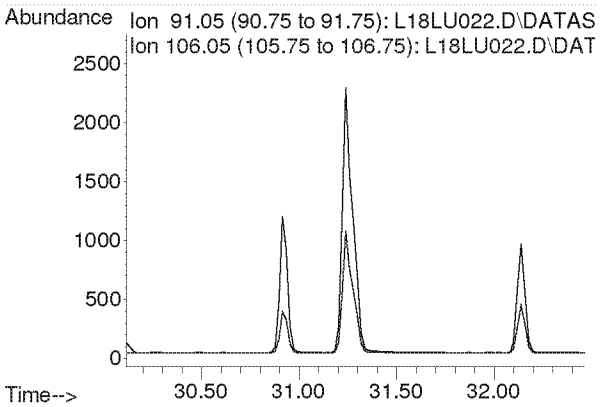


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.26 min

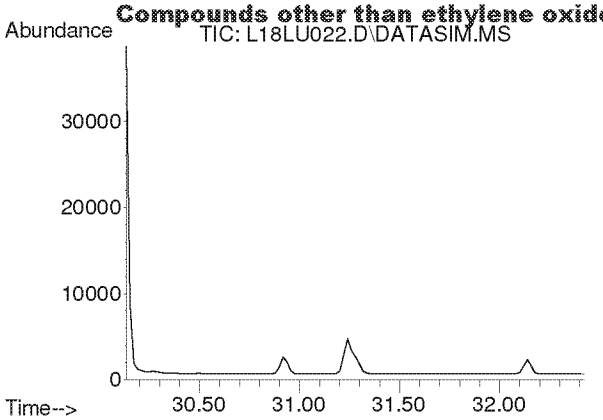
Lab File: L18LU022.D
Acq: 22 Dec 2018 4:49 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.4



Compounds other than ethylene oxide were not quantitated.

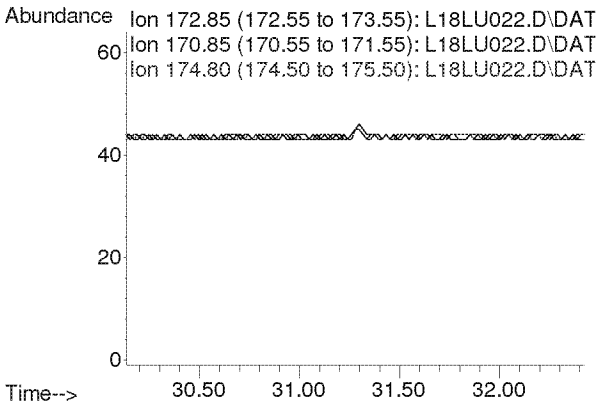


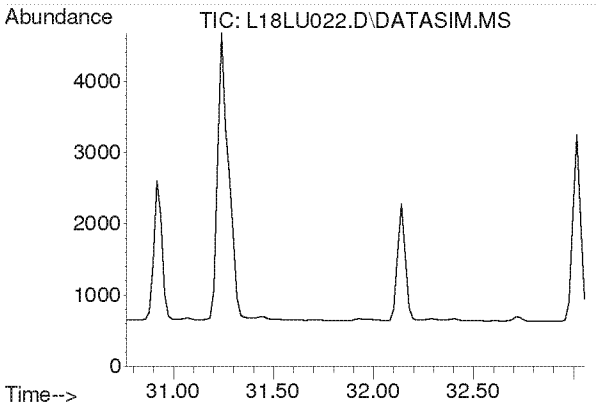
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L18LU022.D
Acq: 22 Dec 2018 4:49 am

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	49.0



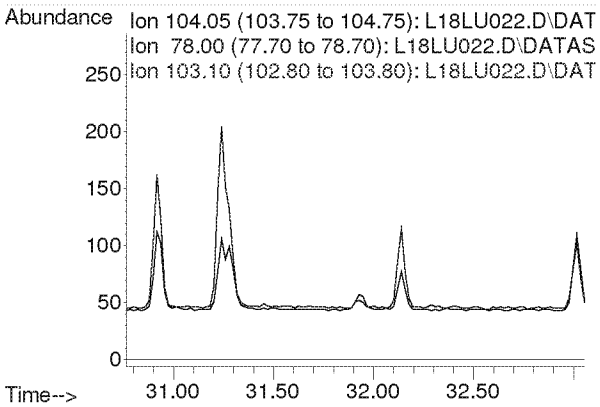


#53
Styrene
Concen: N.D.
Expected RT: 31.91 min

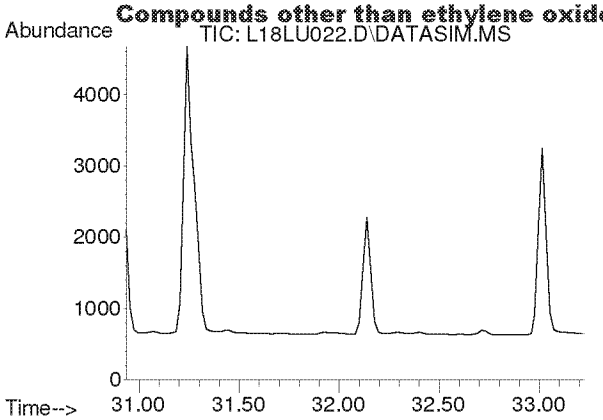
Lab File: L18LU022.D
Acq: 22 Dec 2018 4:49 am

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	45.6
103	0.0



Compounds other than ethylene oxide were not quantitated.

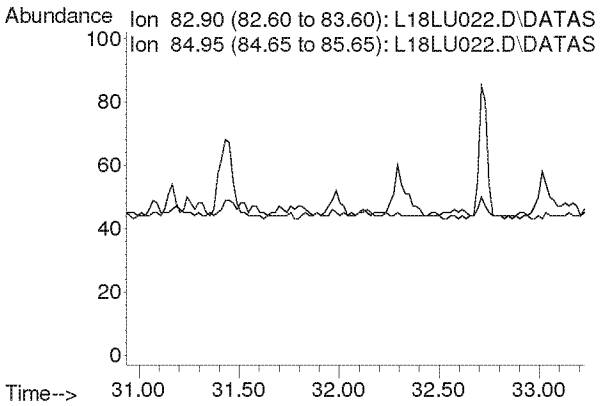


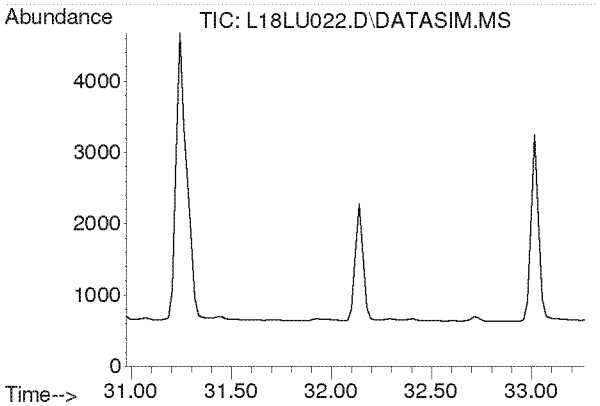
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L18LU022.D
Acq: 22 Dec 2018 4:49 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.9



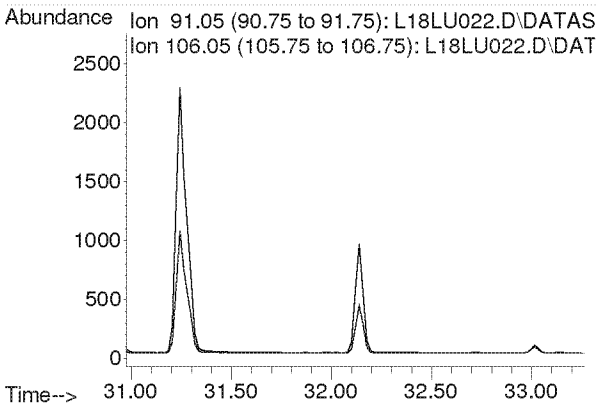


#55
o-Xylene
Concen: N.D.
Expected RT: 32.12 min

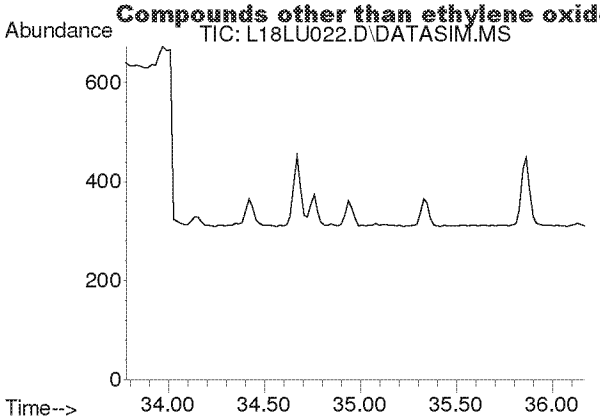
Lab File: L18LU022.D
Acq: 22 Dec 2018 4:49 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.2



Compounds other than ethylene oxide were not quantitated.

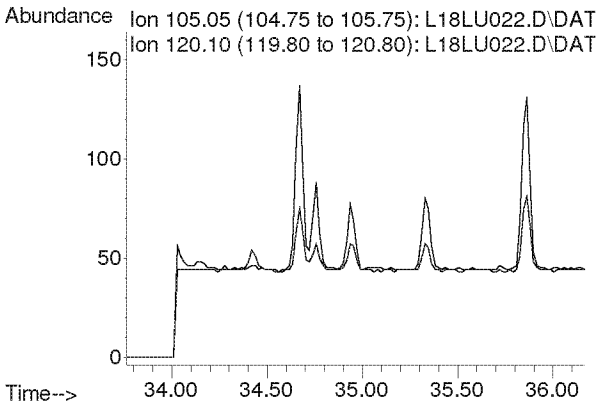


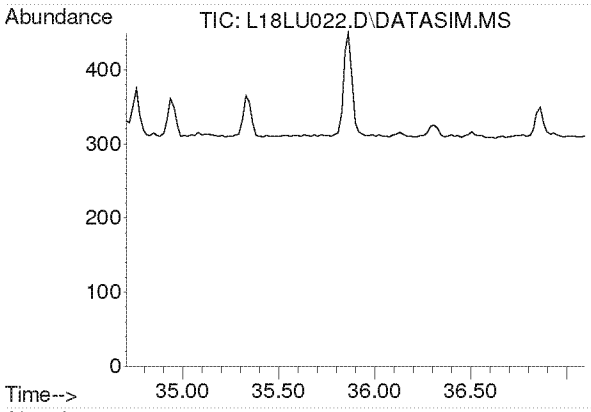
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.92 min

Lab File: L18LU022.D
Acq: 22 Dec 2018 4:49 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	45.0



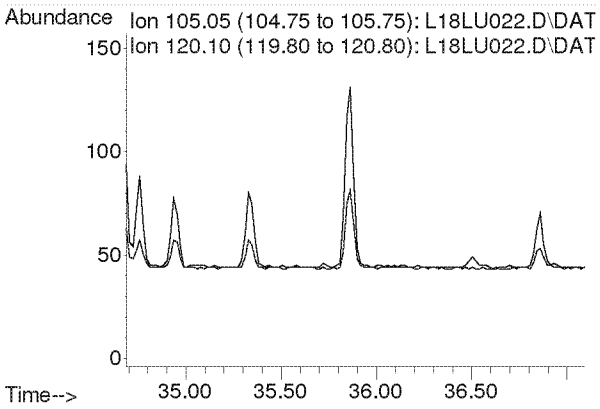


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

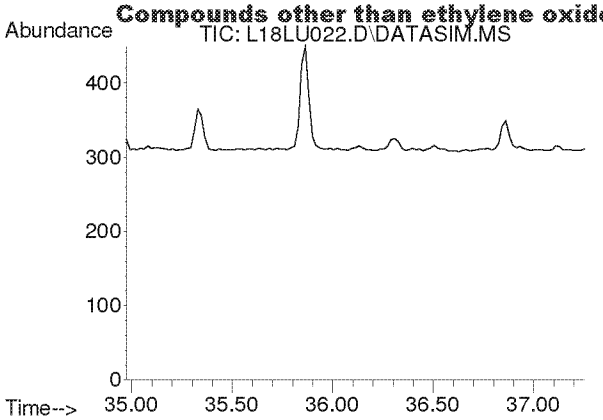
Lab File: L18LU022.D
Acq: 22 Dec 2018 4:49 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	42.8



Compounds other than ethylene oxide were not quantitated.

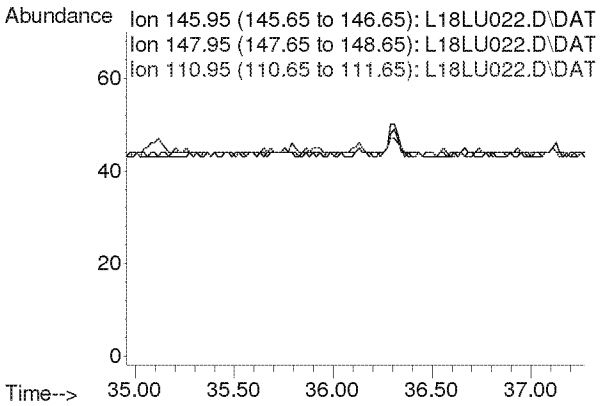


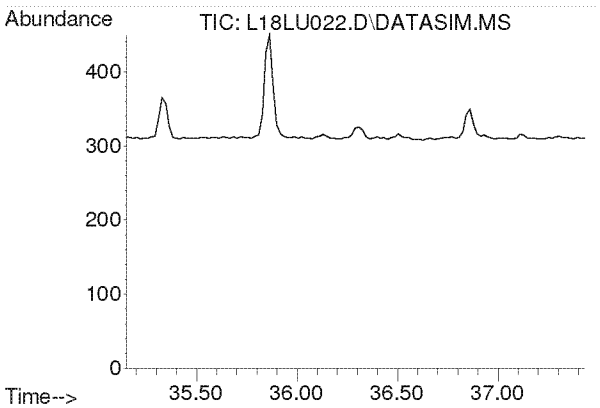
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.11 min

Lab File: L18LU022.D
Acq: 22 Dec 2018 4:49 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.5



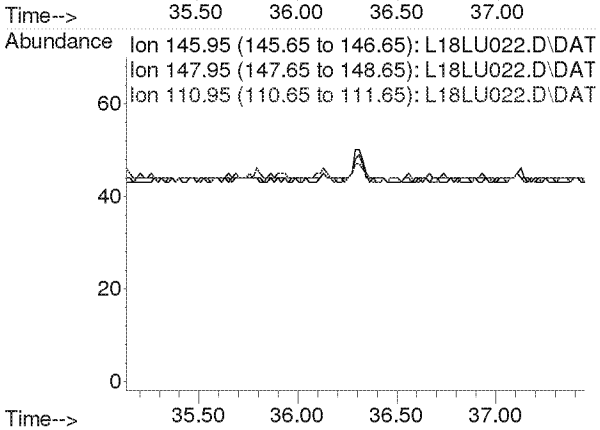


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

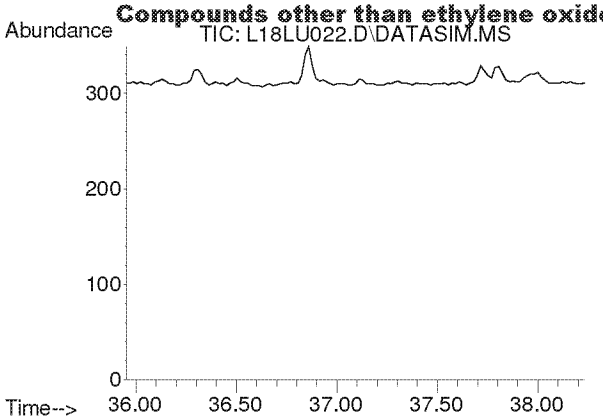
Lab File: L18LU022.D
Acq: 22 Dec 2018 4:49 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	39.5



Compounds other than ethylene oxide were not quantitated.

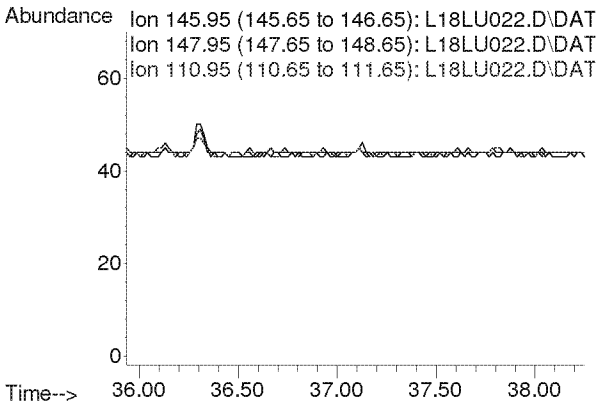


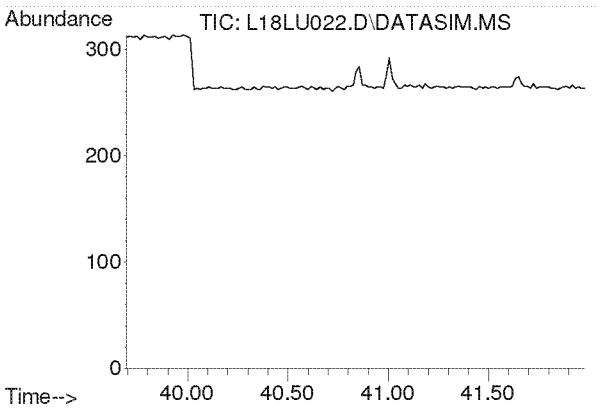
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.09 min

Lab File: L18LU022.D
Acq: 22 Dec 2018 4:49 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	41.4



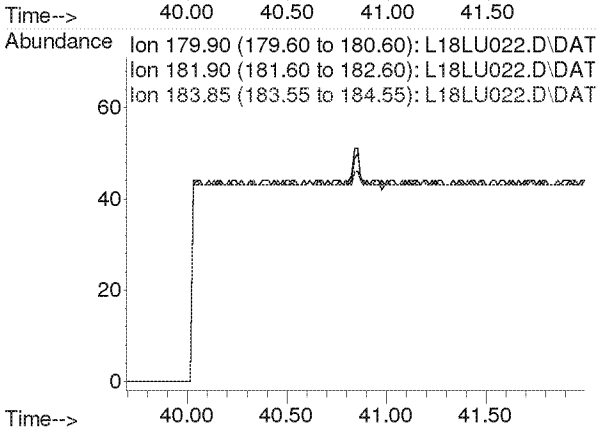


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

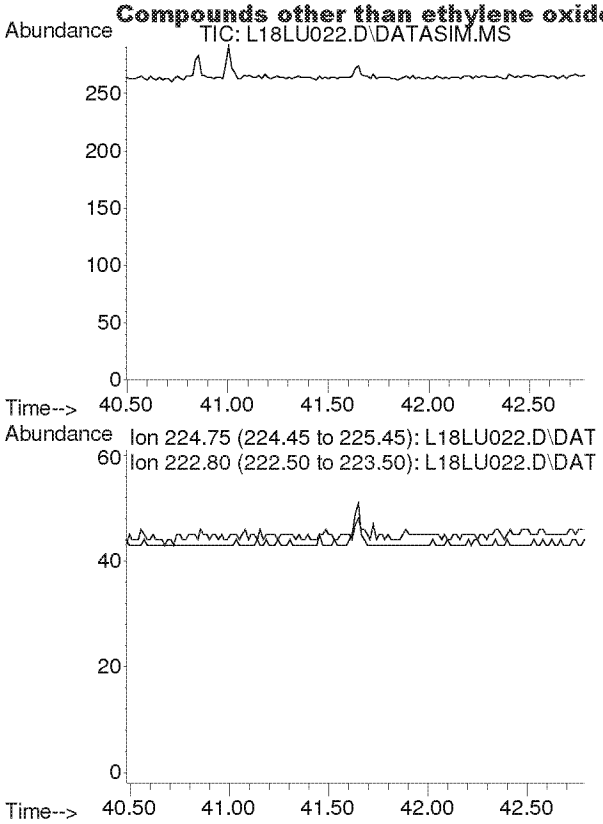
Lab File: L18LU022.D
Acq: 22 Dec 2018 4:49 am

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	95.1
184	30.7



Compounds other than ethylene oxide were not quantitated.



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

Lab File: L18LU022.D
Acq: 22 Dec 2018 4:49 am

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.4

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L18LU\
Data File : L18LU023.D
Acq On : 22 Dec 2018 5:51 am (#1); 22-Dec-18, 05:46:05 (#2)
Operator : MAH
Sample : 8121220-03
Misc : WEST NEIGHBORHOOD 12/10/18 (Sig #1); (Sig #2)
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Dec 26 10:11:17 2018
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.992	66	54801	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.150	114	132480	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.115	117	93996	4.7400 ppbv	0.02

System Monitoring Compounds

Target Compounds					Qvalue
2) Acetylene	0.000	26	0	N.D. d	
3) Propylene	0.000	41	0	N.D. d	
4) Dichlorodifluoromethane	0.000	85	0	N.D. d	
5) Chloromethane	0.000	50	0	N.D. d	
6) Dichlorotetrafluoroethane	0.000	85	0	N.D. d	
7) Vinyl Chloride	0.000	62	0	N.D. d	
8) 1,3-Butadiene	0.000	54	0	N.D. d	
9) Ethylene oxide	12.470	29	388m	0.1185 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.	
38) Methyl Methacrylate	0.000	41	0	N.D. d	
39) cis-1,3-Dichloropropene	0.000	75	0	N.D.	
40) Methyl Isobutyl Ketone	0.000	43	0	N.D. d	
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.	
44) Toluene	0.000	91	0	N.D. d	
45) Dibromochloromethane	0.000	129	0	N.D.	
46) 1,2-Dibromoethane	0.000	107	0	N.D.	
47) n-Octane	0.000	43	0	N.D. d	
48) Tetrachloroethylene	0.000	166	0	N.D. d	
49) Chlorobenzene	0.000	112	0	N.D.	
50) Ethylbenzene	0.000	91	0	N.D. d	

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L18LU\
Data File : L18LU023.D
Acq On : 22 Dec 2018 5:51 am (#1); 22-Dec-18, 05:46:05 (#2)
Operator : MAH
Sample : 8121220-03
Misc : WEST NEIGHBORHOOD 12/10/18 (Sig #1); (Sig #2)
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Dec 26 10:11:17 2018
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
Response via : Initial Calibration

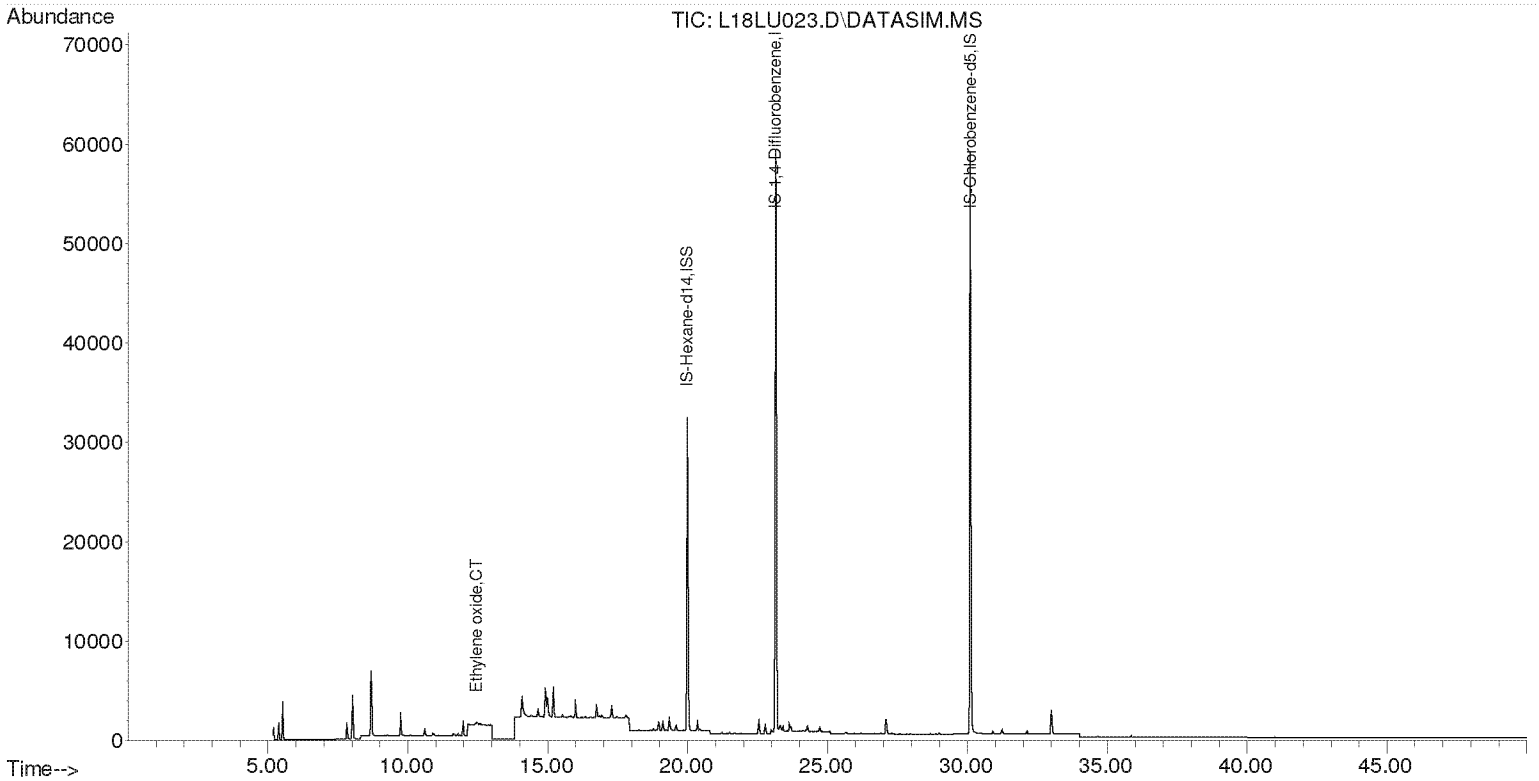
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D.	d
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	d
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D.	d
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	d
57) 1,2,4-Trimethylbenzene	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.	

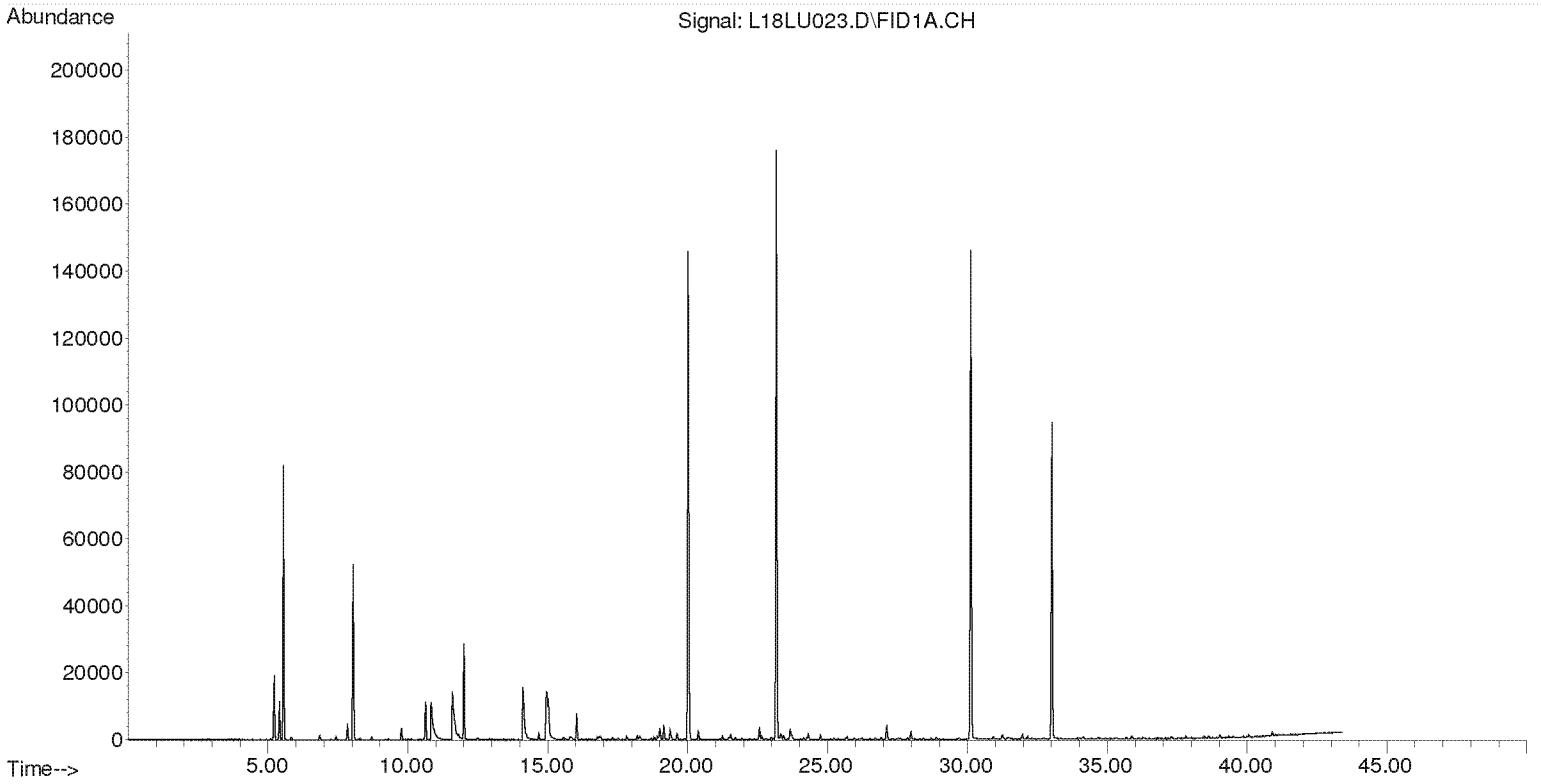
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Compounds other than ethylene oxide were not quantitated.

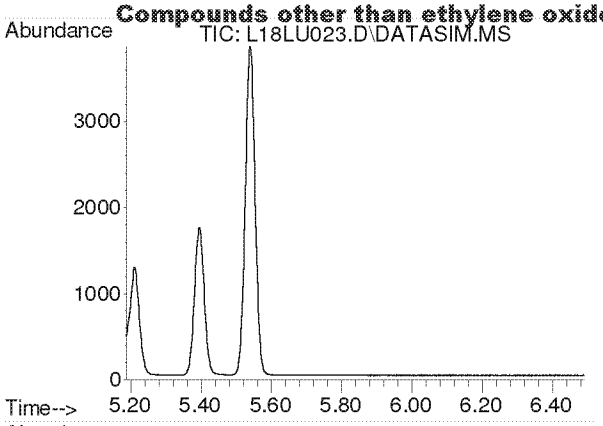
Data Path : Y:\MASS SPEC 1 DATA\L18LU\
Data File : L18LU023.D
Acq On : 22 Dec 2018 5:51 am (#1); 22 Dec 2018 5:46 am (#2)
Operator : MAH
Sample : 8121220-03
Misc : WEST NEIGHBORHOOD 12/10/18 (Sig #1); (Sig #2)
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Dec 26 09:52:10 2018
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
Response via : Initial Calibration





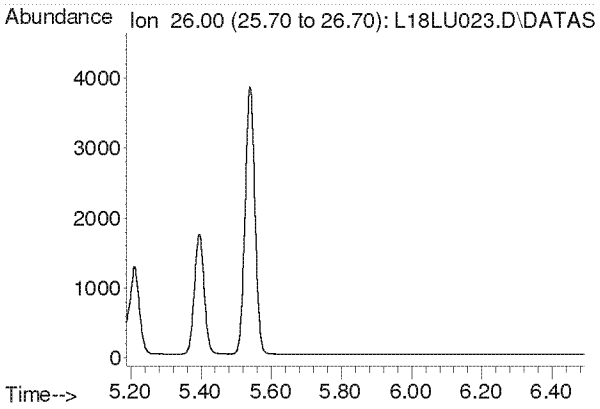
Compounds other than ethylene oxide were not quantitated.

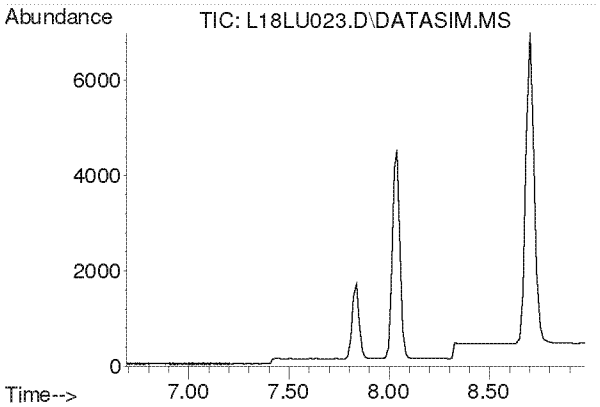


#2
Acetylene
Concen: N.D.
Expected RT: 5.42 min

Lab File: L18LU023.D
Acq: 22 Dec 2018 5:51 am

Tgt Ion: 26



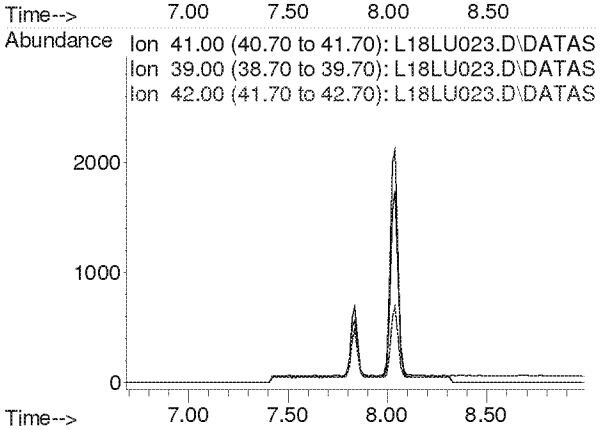


#3
Propylene
Concen: N.D.
Expected RT: 7.84 min

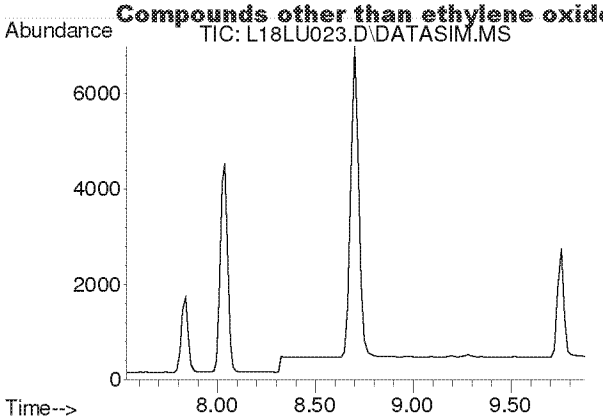
Lab File: L18LU023.D
Acq: 22 Dec 2018 5:51 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	78.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

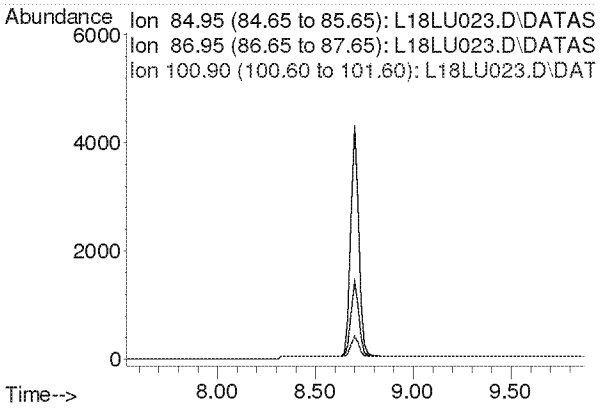


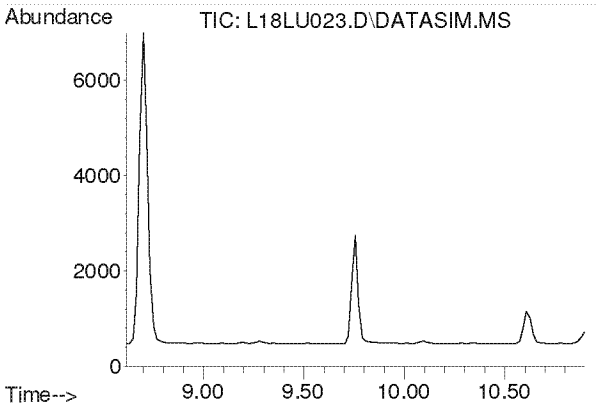
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L18LU023.D
Acq: 22 Dec 2018 5:51 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	8.9



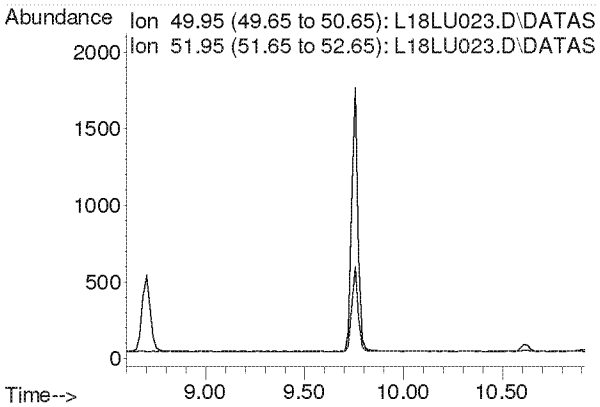


#5
Chloromethane
Concen: N.D.
Expected RT: 9.76 min

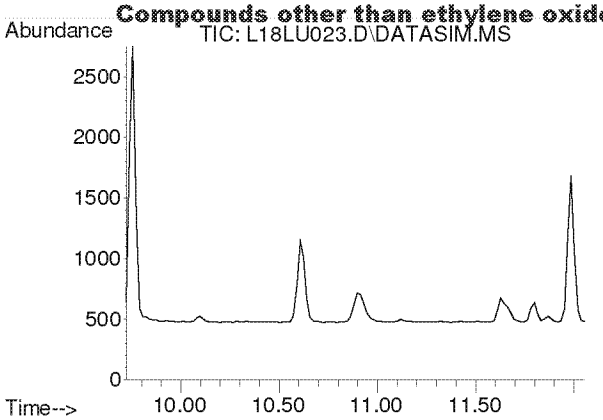
Lab File: L18LU023.D
Acq: 22 Dec 2018 5:51 am

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

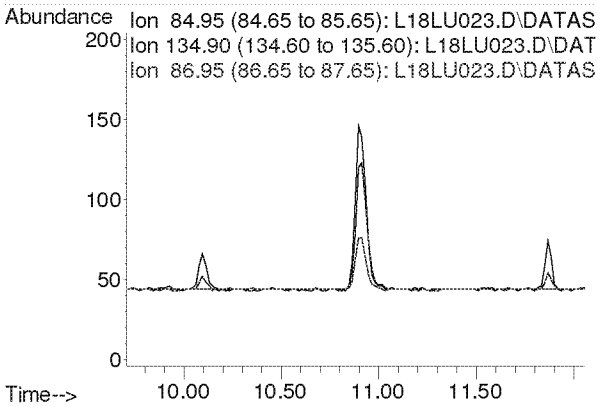


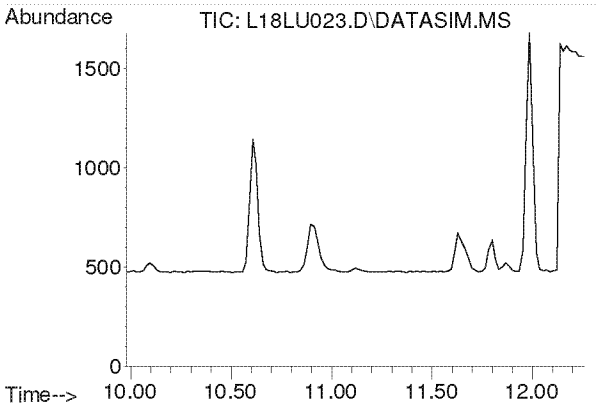
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L18LU023.D
Acq: 22 Dec 2018 5:51 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.1
87	32.1



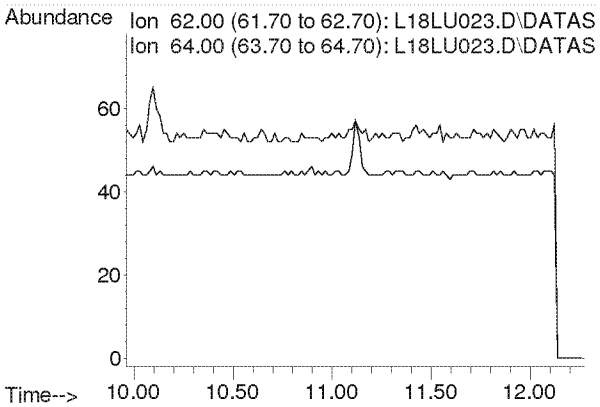


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

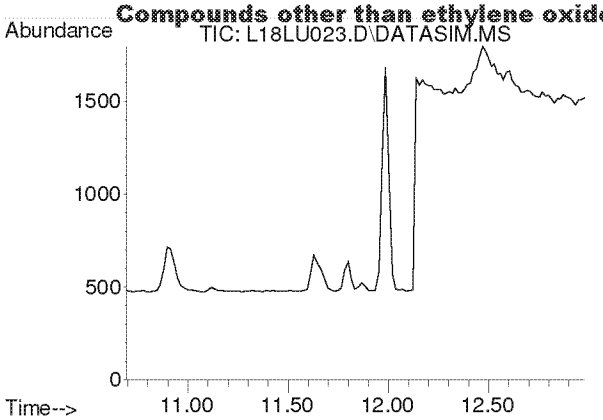
Lab File: L18LU023.D
Acq: 22 Dec 2018 5:51 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.8



Compounds other than ethylene oxide were not quantitated.

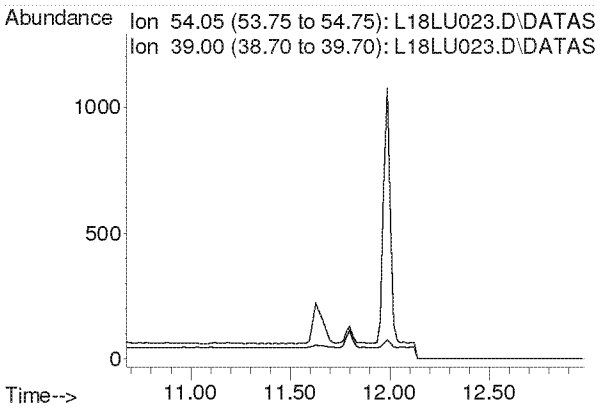


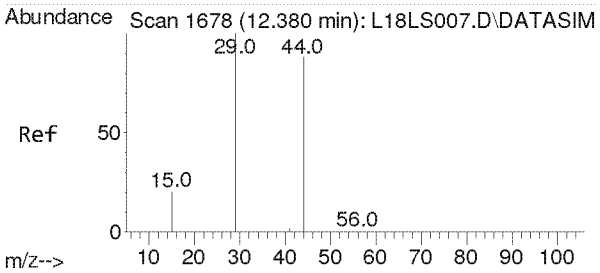
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L18LU023.D
Acq: 22 Dec 2018 5:51 am

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	105.4

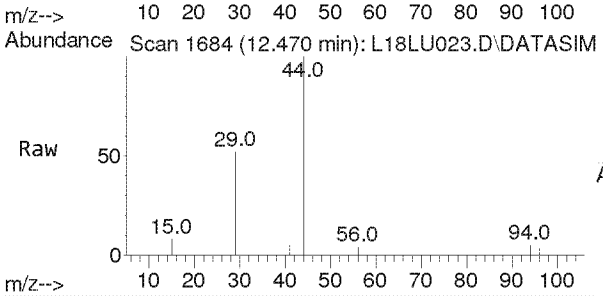


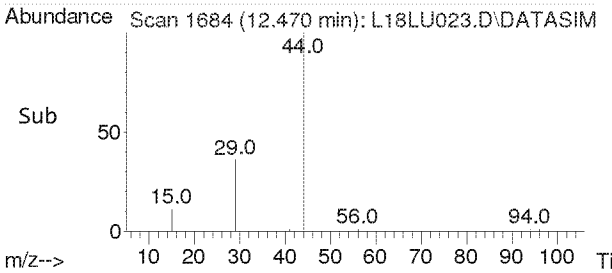


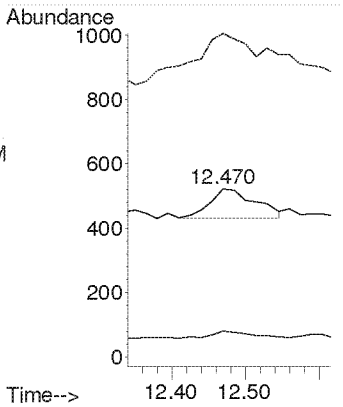
#9
Ethylene oxide
Concen: 0.118 ppbv m
RT: 12.470 min Scan# 1684
Delta R.T. 0.090 min
Lab File: L18LU023.D
Acq: 22 Dec 2018 5:51 am

Tgt Ion: 29 Resp: 388

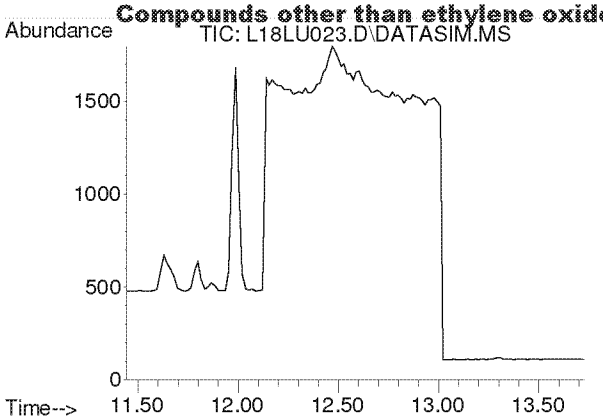
Ion	Ratio	Lower	Upper
29	100		
15	0.0	16.2	24.4#
44	11.3	72.0	108.0#







Compounds other than ethylene oxide were not quantitated.

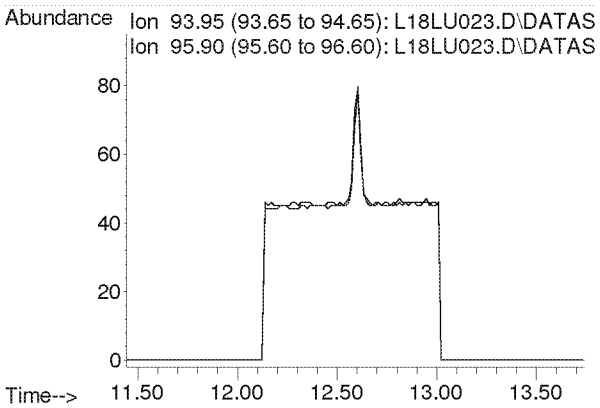


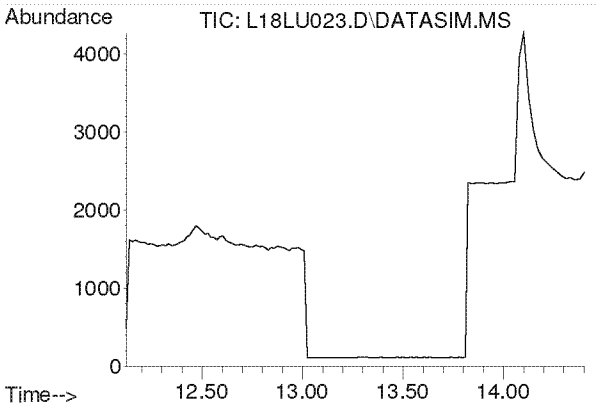
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L18LU023.D
Acq: 22 Dec 2018 5:51 am

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	93.9



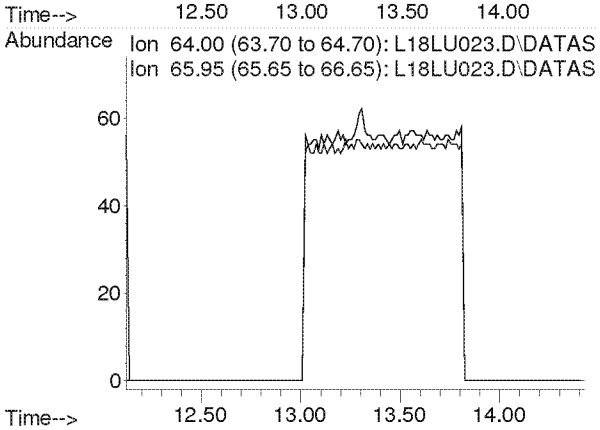


#11
Chloroethane
Concen: N.D.
Expected RT: 13.27 min

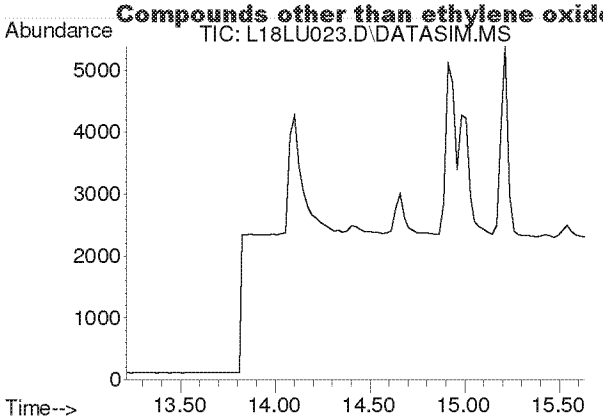
Lab File: L18LU023.D
Acq: 22 Dec 2018 5:51 am

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.0



Compounds other than ethylene oxide were not quantitated.

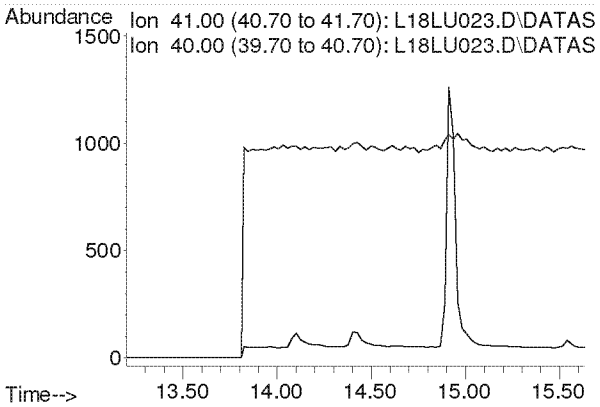


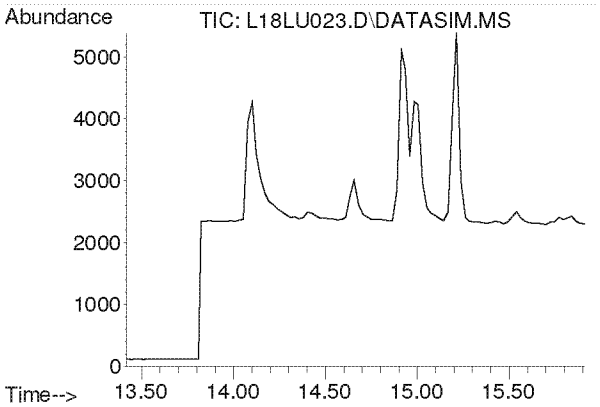
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.33 min

Lab File: L18LU023.D
Acq: 22 Dec 2018 5:51 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	50.9



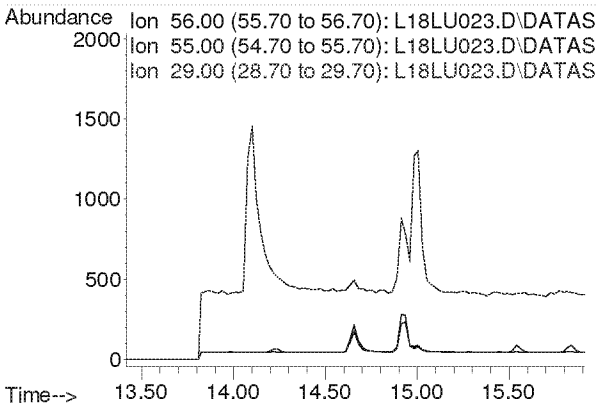


#13
Acrolein
Concen: N.D.
Expected RT: 14.61 min

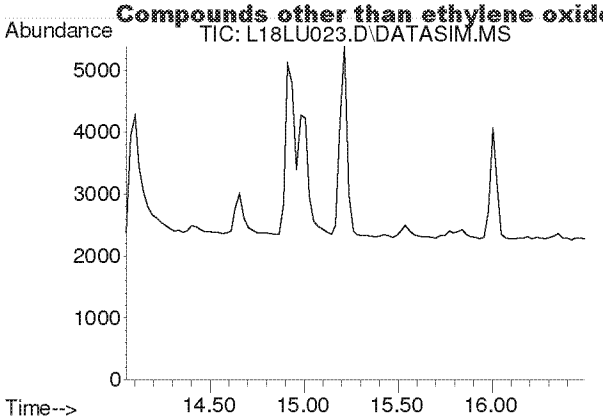
Lab File: L18LU023.D
Acq: 22 Dec 2018 5:51 am

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	75.4
29	52.9



Compounds other than ethylene oxide were not quantitated.

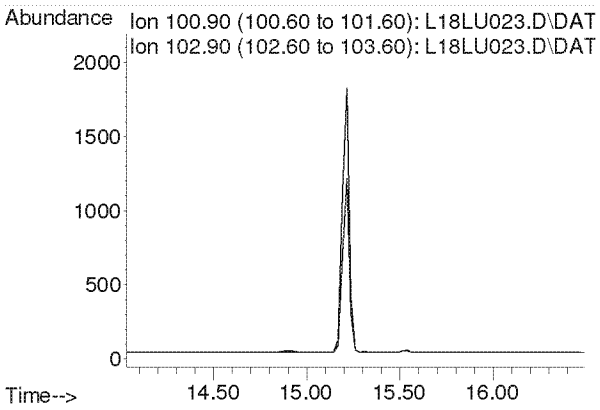


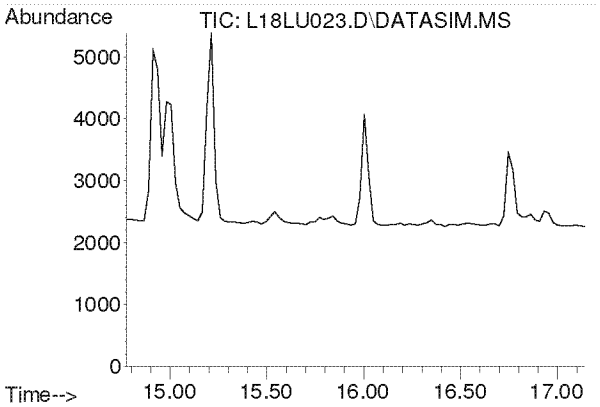
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L18LU023.D
Acq: 22 Dec 2018 5:51 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



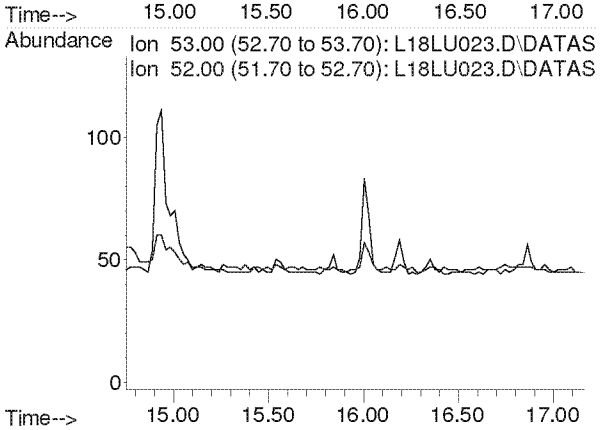


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.91 min

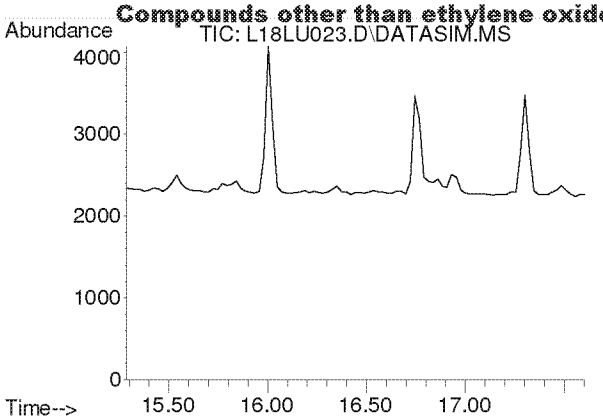
Lab File: L18LU023.D
Acq: 22 Dec 2018 5:51 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	85.4



Compounds other than ethylene oxide were not quantitated.

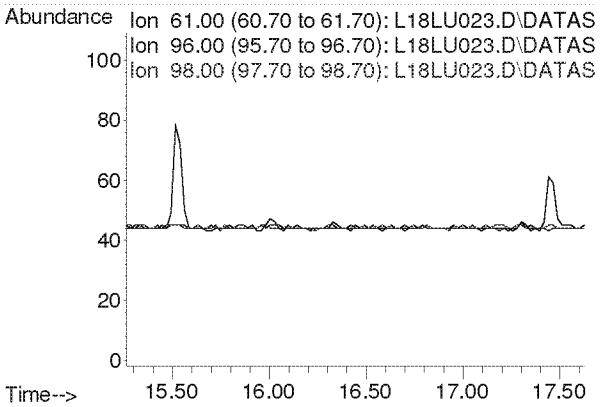


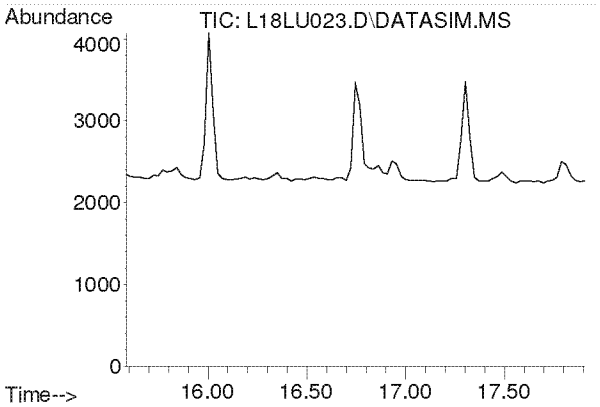
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L18LU023.D
Acq: 22 Dec 2018 5:51 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	58.3
98	37.4



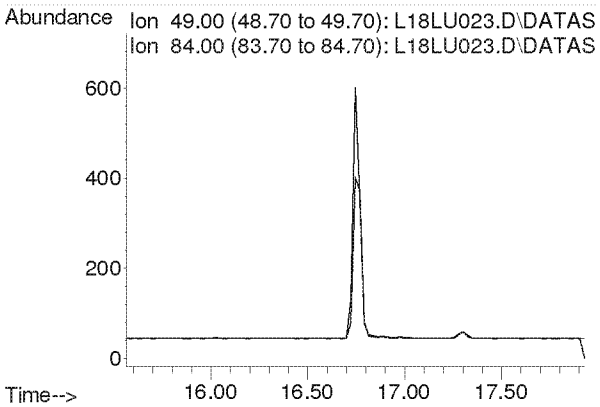


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.72 min

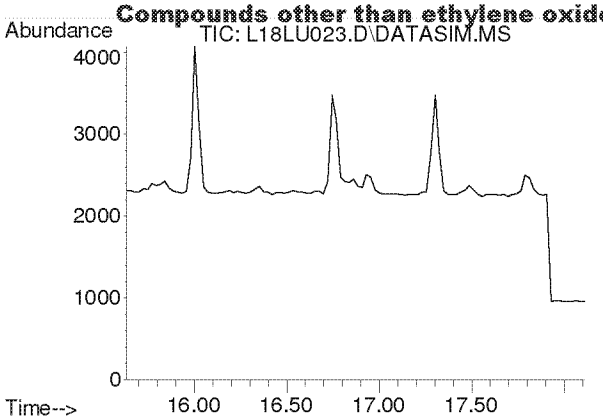
Lab File: L18LU023.D
Acq: 22 Dec 2018 5:51 am

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	76.4



Compounds other than ethylene oxide were not quantitated.

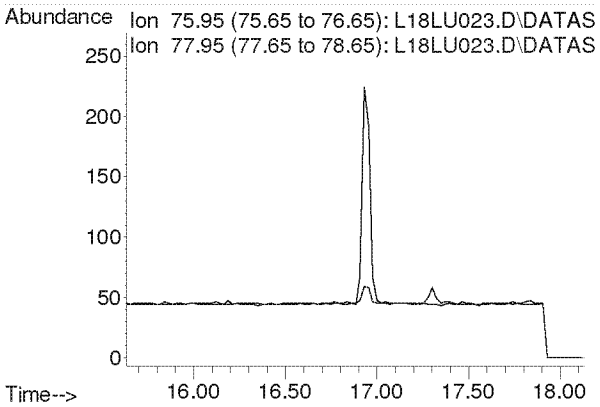


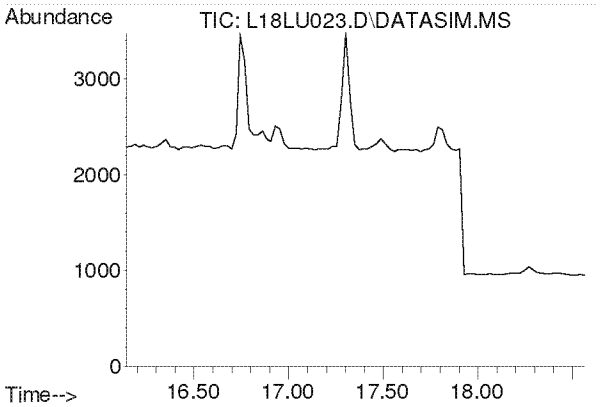
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L18LU023.D
Acq: 22 Dec 2018 5:51 am

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.1



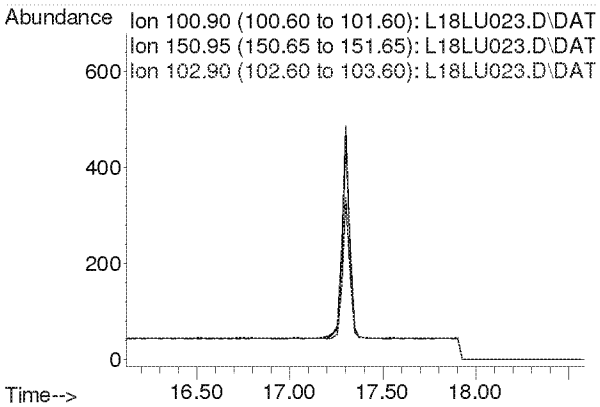


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

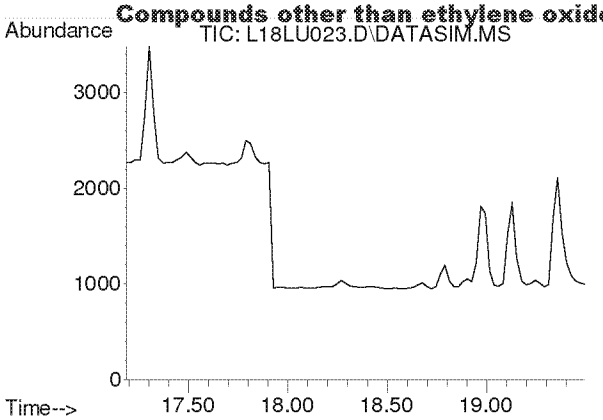
Lab File: L18LU023.D
Acq: 22 Dec 2018 5:51 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	95.3
103	64.1



Compounds other than ethylene oxide were not quantitated.

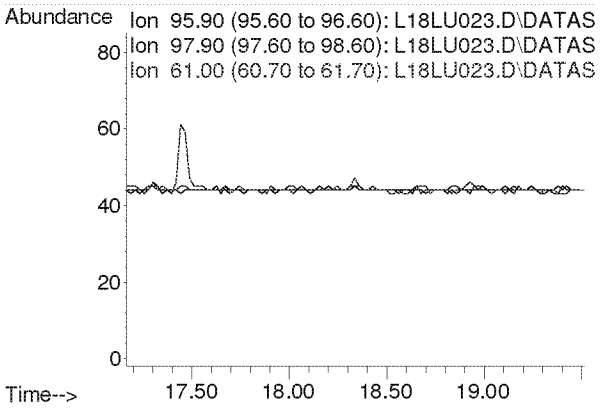


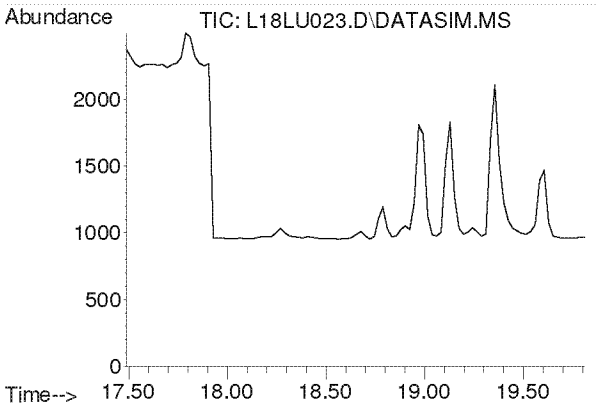
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.31 min

Lab File: L18LU023.D
Acq: 22 Dec 2018 5:51 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	63.7
61	159.2



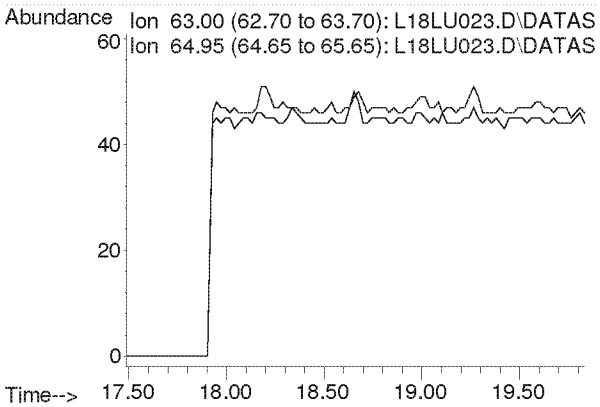


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

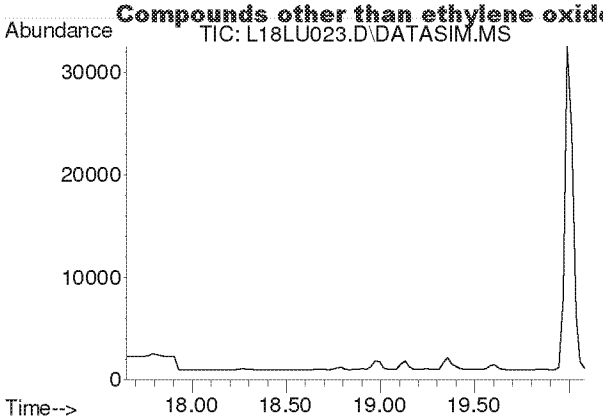
Lab File: L18LU023.D
Acq: 22 Dec 2018 5:51 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

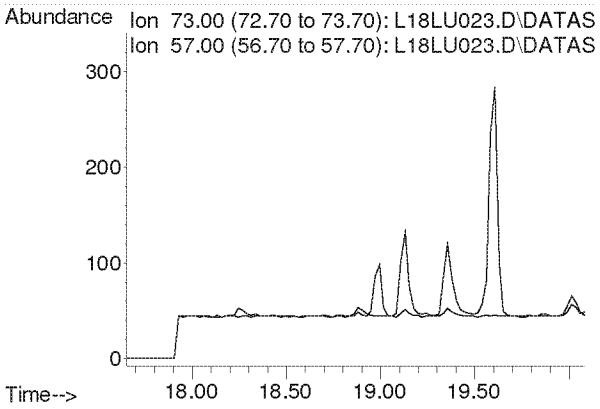


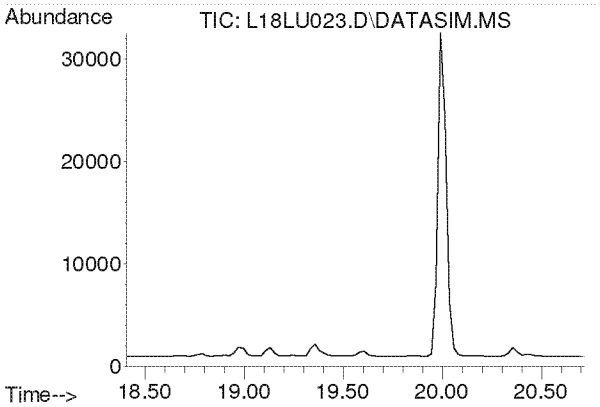
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L18LU023.D
Acq: 22 Dec 2018 5:51 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.4



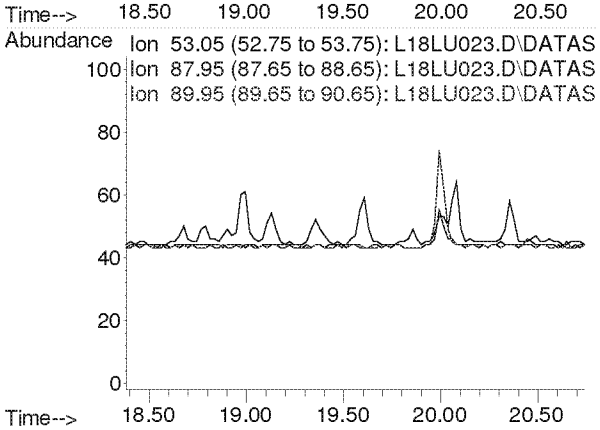


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

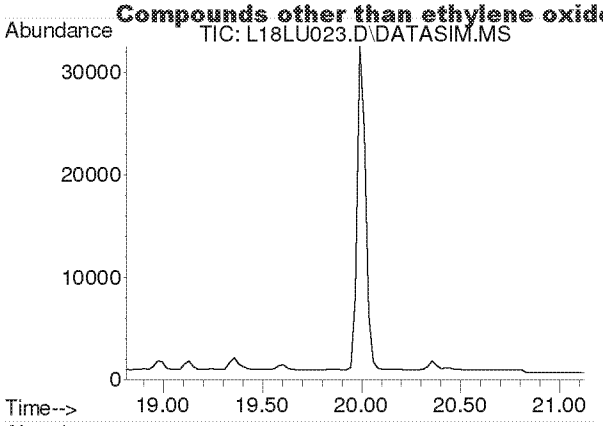
Lab File: L18LU023.D
Acq: 22 Dec 2018 5:51 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	51.8
90	16.8



Compounds other than ethylene oxide were not quantitated.

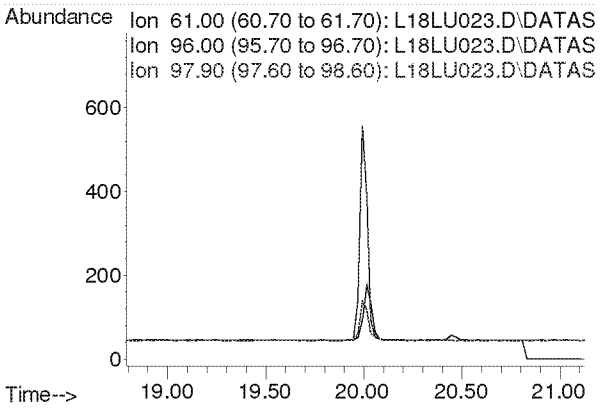


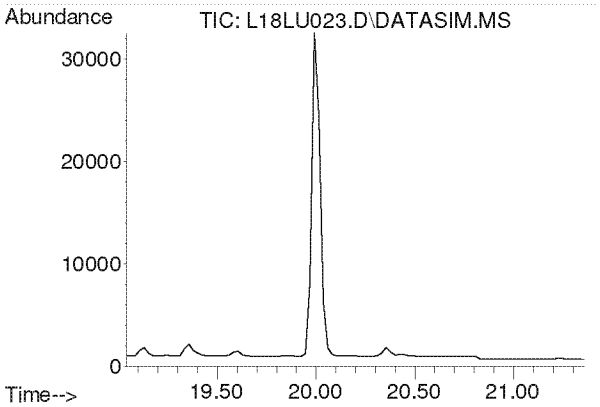
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L18LU023.D
Acq: 22 Dec 2018 5:51 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.7
98	45.2



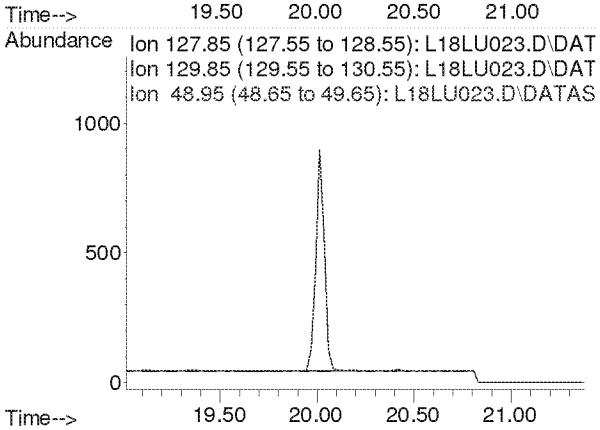


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

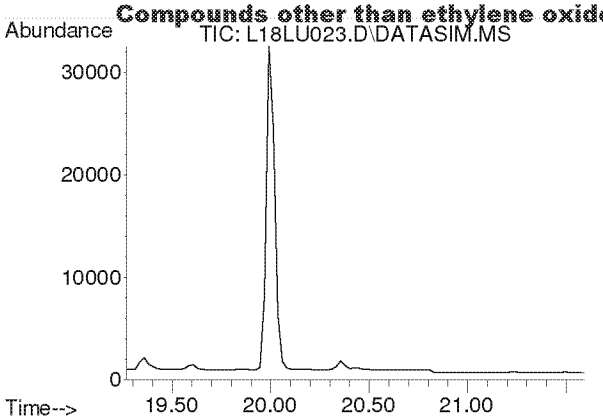
Lab File: L18LU023.D
Acq: 22 Dec 2018 5:51 am

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	171.2



Compounds other than ethylene oxide were not quantitated.

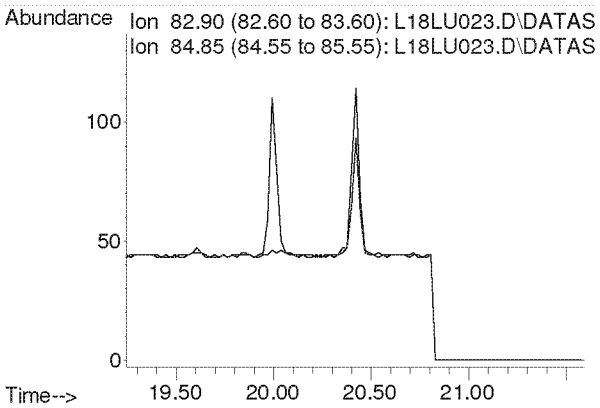


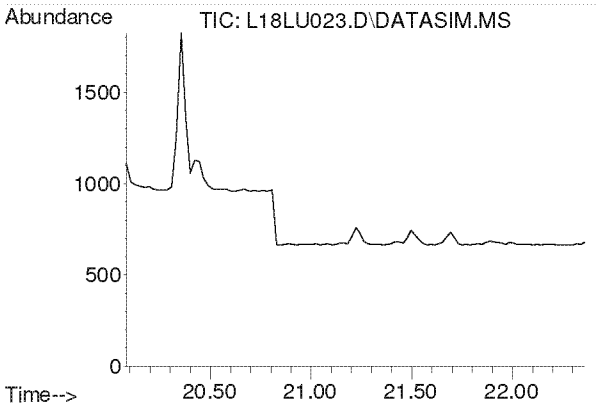
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L18LU023.D
Acq: 22 Dec 2018 5:51 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



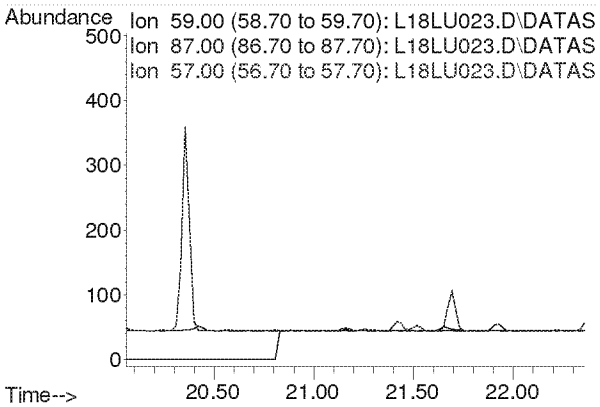


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.16 min

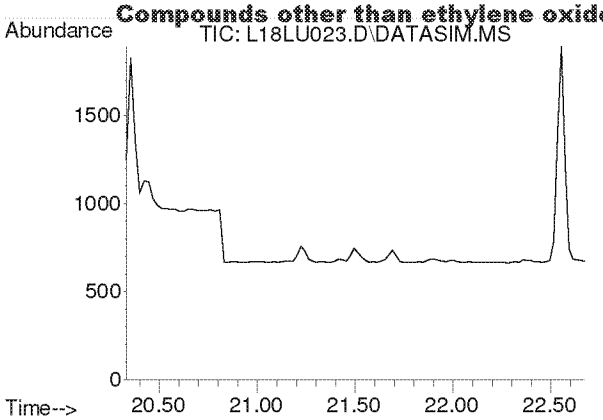
Lab File: L18LU023.D
Acq: 22 Dec 2018 5:51 am

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	37.5
57	33.8



Compounds other than ethylene oxide were not quantitated.

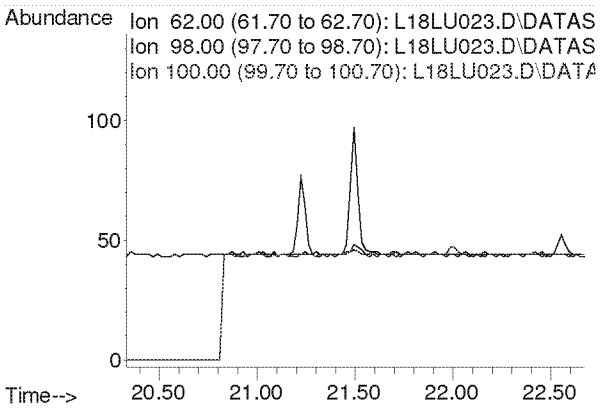


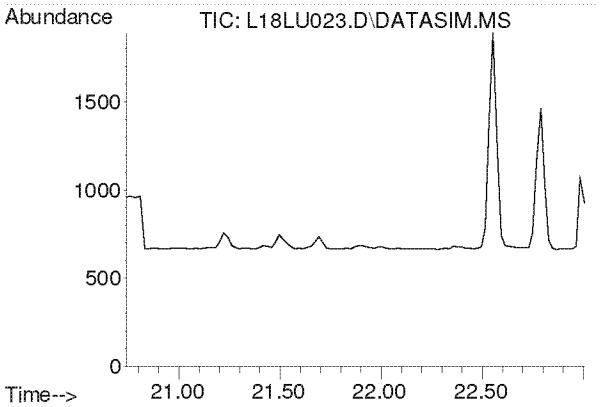
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L18LU023.D
Acq: 22 Dec 2018 5:51 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.4
100	4.0



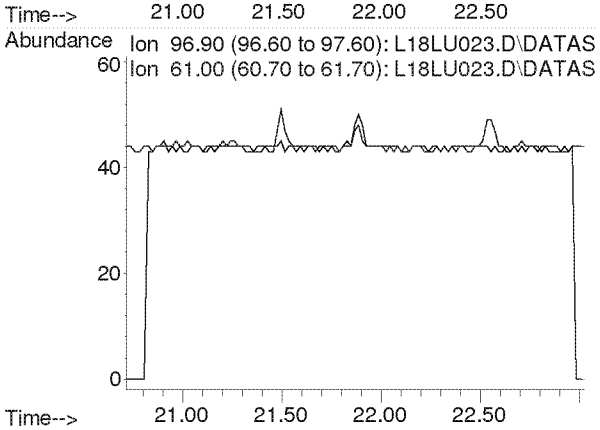


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

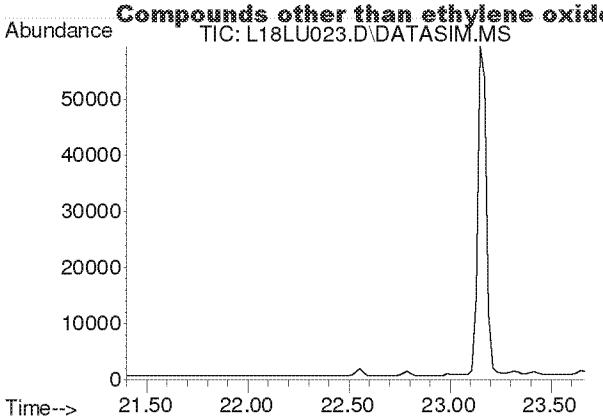
Lab File: L18LU023.D
Acq: 22 Dec 2018 5:51 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	60.5



Compounds other than ethylene oxide were not quantitated.

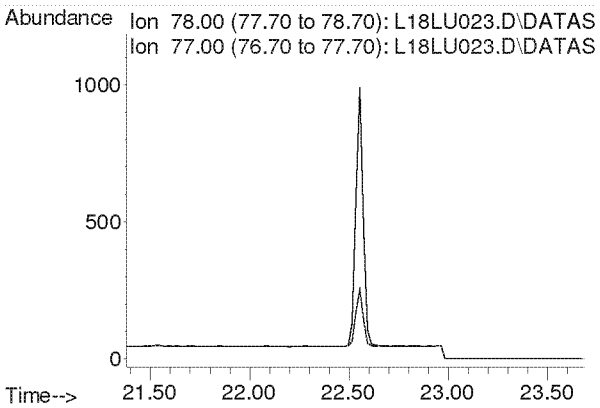


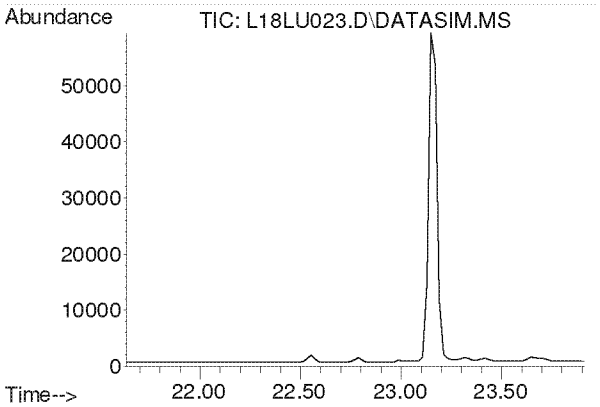
#31
Benzene
Concen: N.D.
Expected RT: 22.54 min

Lab File: L18LU023.D
Acq: 22 Dec 2018 5:51 am

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.7



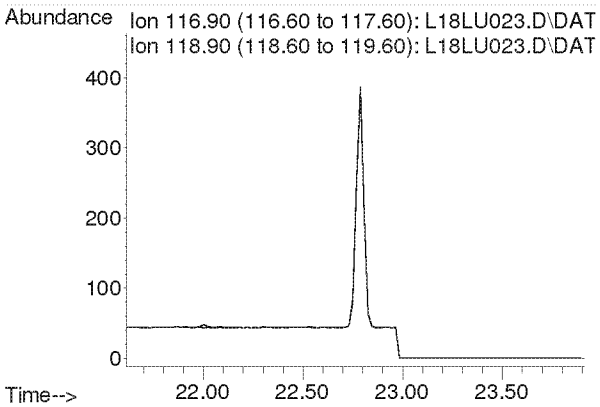


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

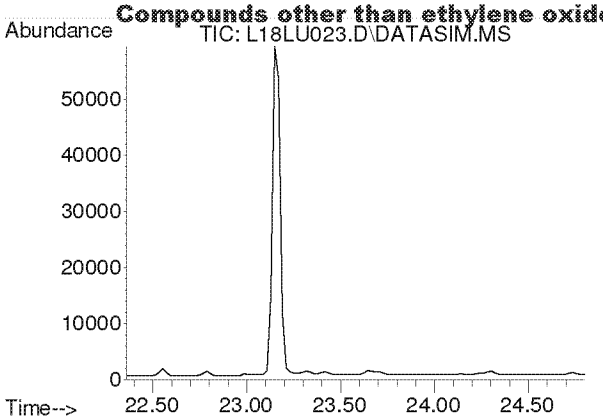
Lab File: L18LU023.D
Acq: 22 Dec 2018 5:51 am

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.5



Compounds other than ethylene oxide were not quantitated.

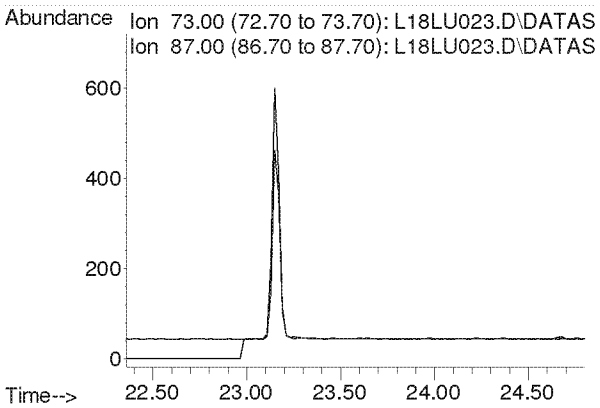


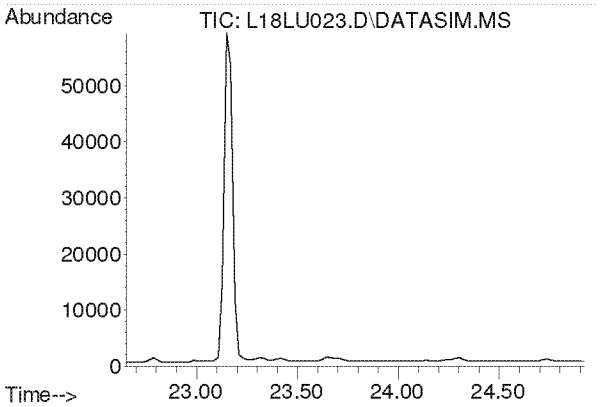
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.50 min

Lab File: L18LU023.D
Acq: 22 Dec 2018 5:51 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	24.9



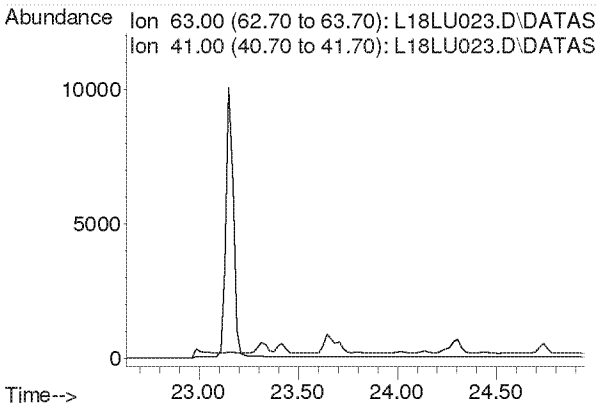


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

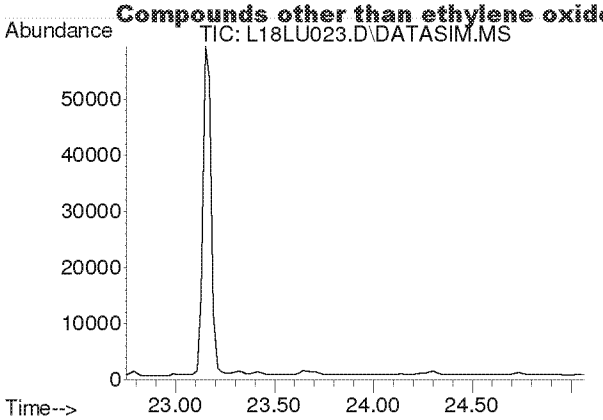
Lab File: L18LU023.D
Acq: 22 Dec 2018 5:51 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	212.8



Compounds other than ethylene oxide were not quantitated.

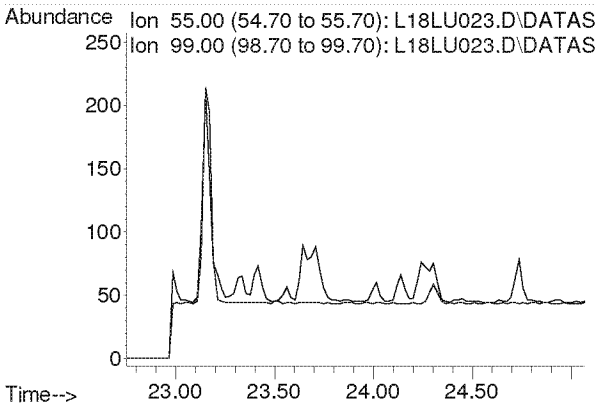


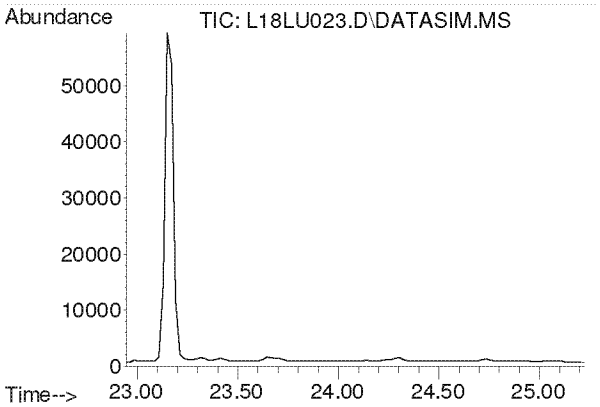
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.87 min

Lab File: L18LU023.D
Acq: 22 Dec 2018 5:51 am

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.1



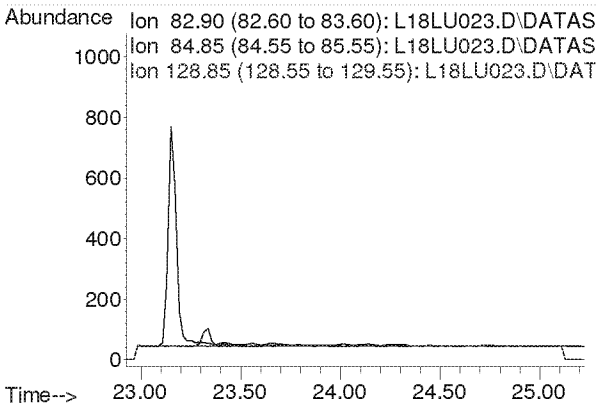


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

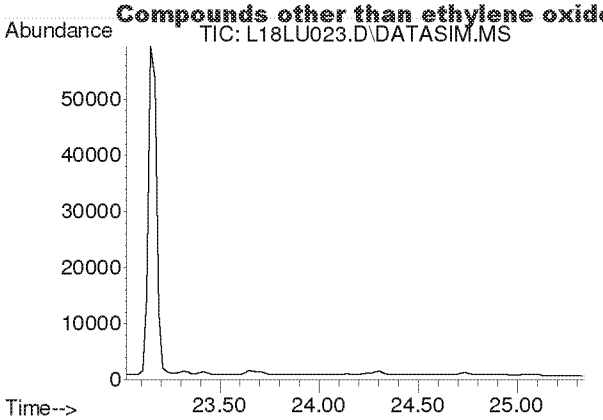
Lab File: L18LU023.D
Acq: 22 Dec 2018 5:51 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.0
129	12.4



Compounds other than ethylene oxide were not quantitated.

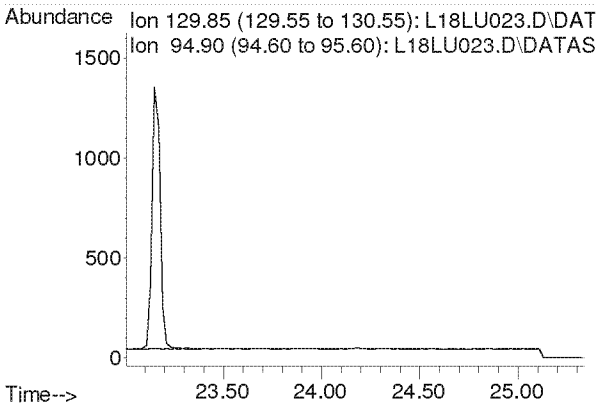


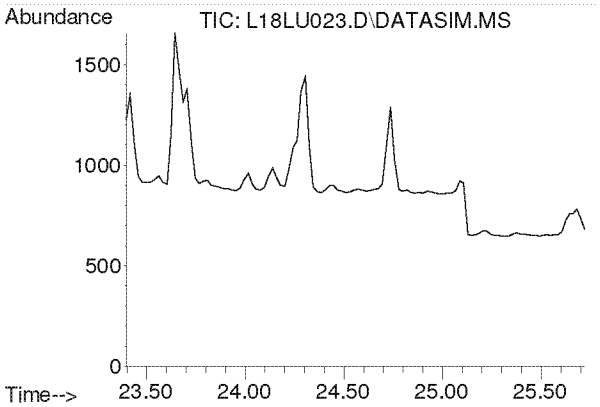
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.16 min

Lab File: L18LU023.D
Acq: 22 Dec 2018 5:51 am

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	110.3



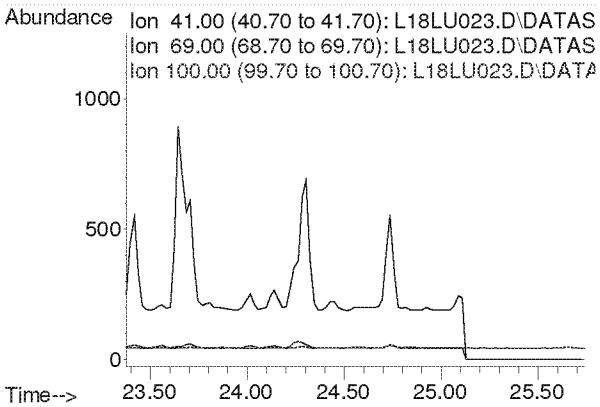


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

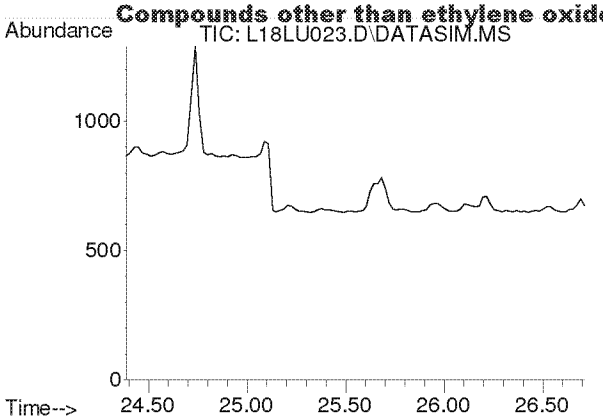
Lab File: L18LU023.D
Acq: 22 Dec 2018 5:51 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	19.9
100	5.2



Compounds other than ethylene oxide were not quantitated.

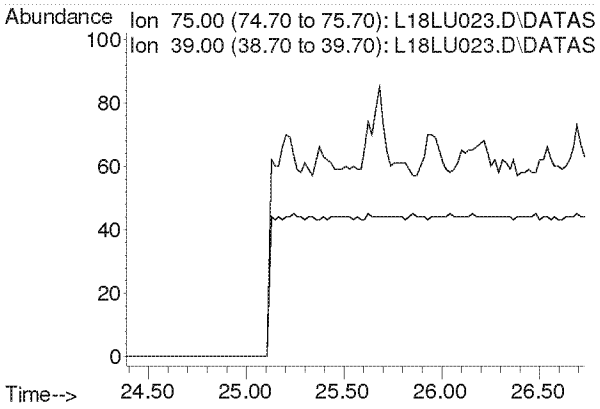


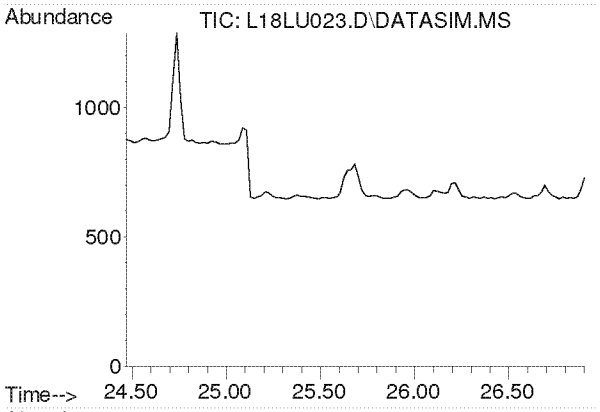
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L18LU023.D
Acq: 22 Dec 2018 5:51 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.4



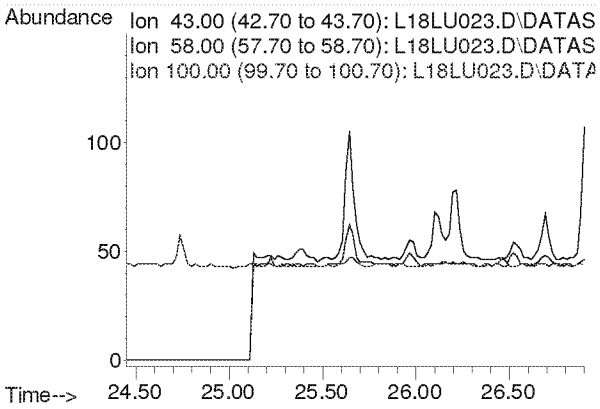


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.61 min

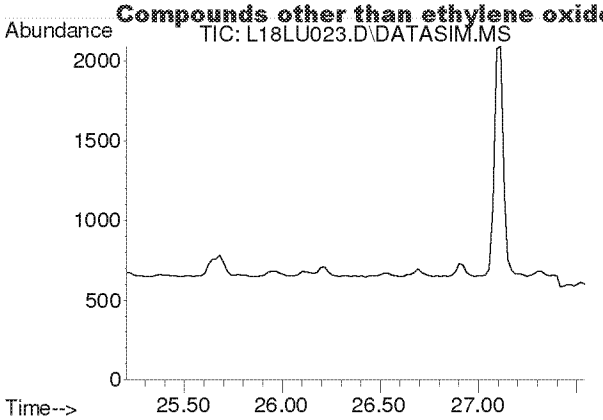
Lab File: L18LU023.D
Acq: 22 Dec 2018 5:51 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	34.2
100	7.9



Compounds other than ethylene oxide were not quantitated.

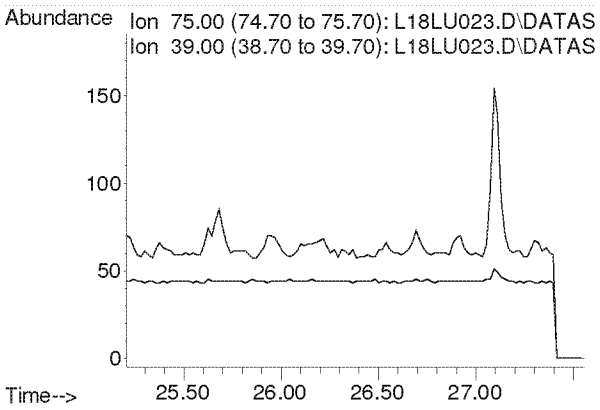


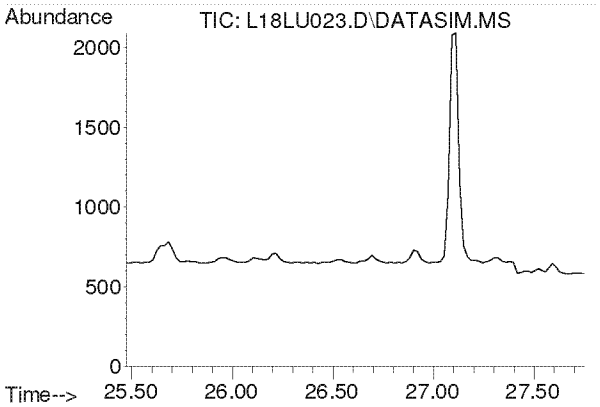
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.35 min

Lab File: L18LU023.D
Acq: 22 Dec 2018 5:51 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	50.9



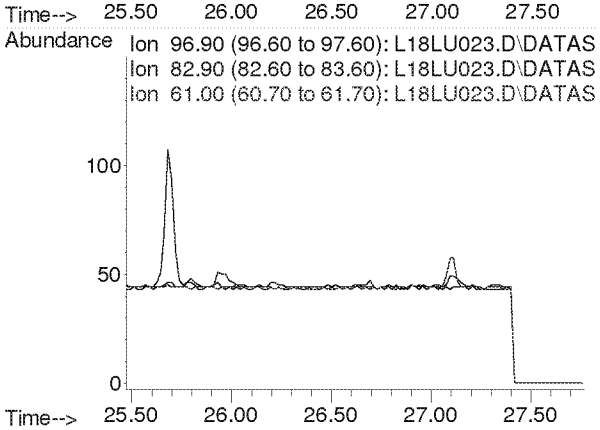


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

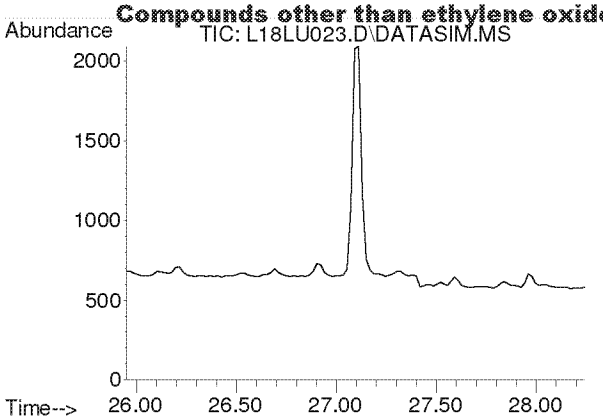
Lab File: L18LU023.D
Acq: 22 Dec 2018 5:51 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	96.1
61	63.5



Compounds other than ethylene oxide were not quantitated.

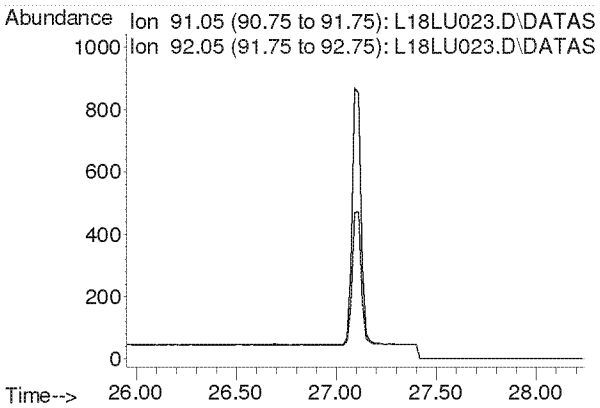


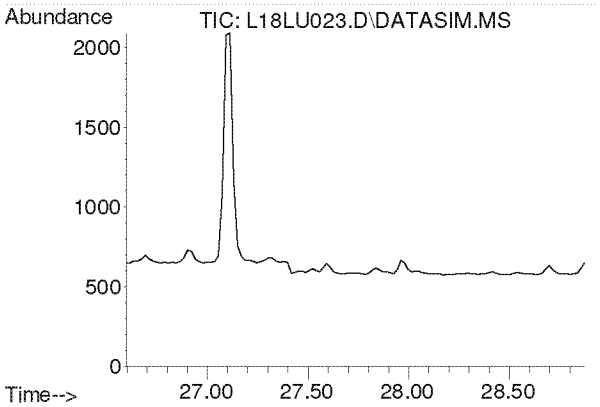
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L18LU023.D
Acq: 22 Dec 2018 5:51 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.6



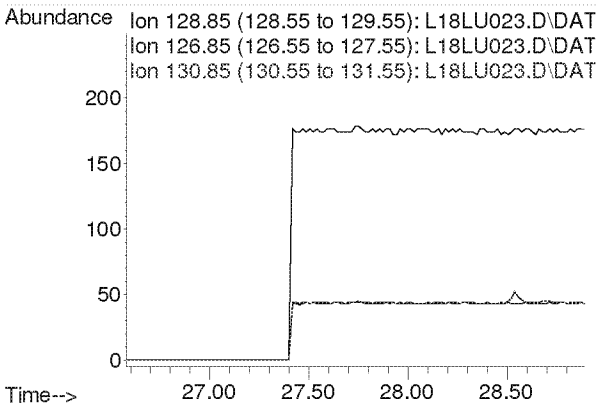


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.73 min

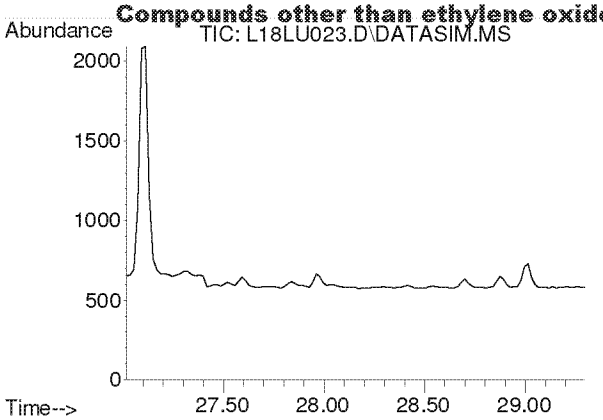
Lab File: L18LU023.D
Acq: 22 Dec 2018 5:51 am

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.2
131	6.0



Compounds other than ethylene oxide were not quantitated.

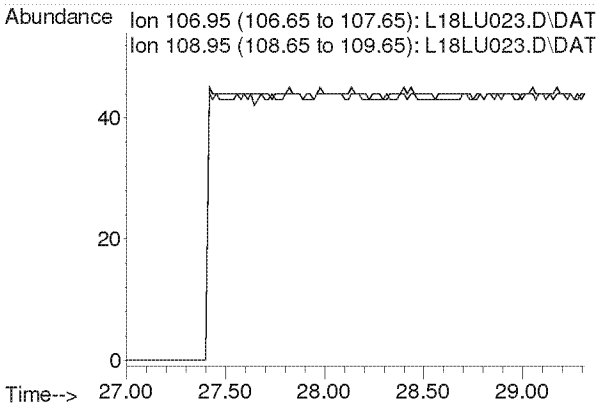


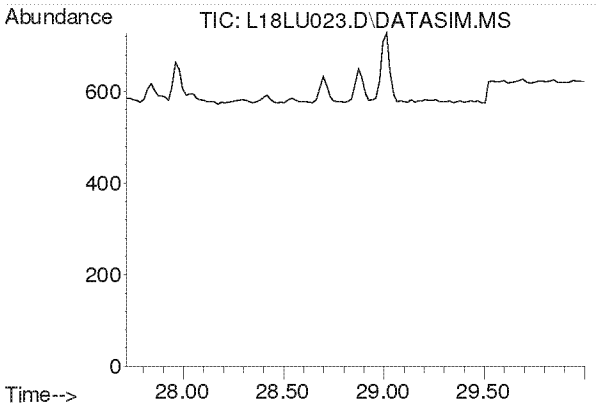
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.16 min

Lab File: L18LU023.D
Acq: 22 Dec 2018 5:51 am

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.5



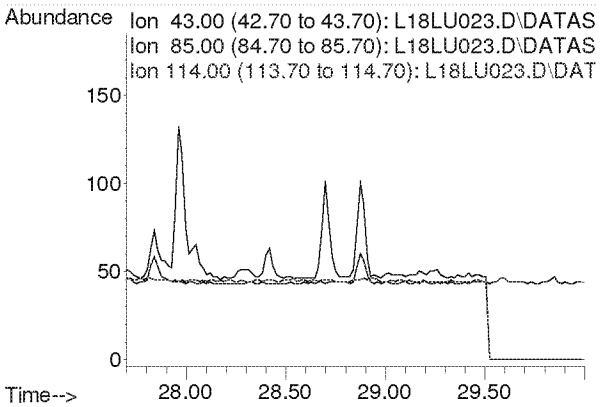


#47
n-Octane
Concen: N.D.
Expected RT: 28.86 min

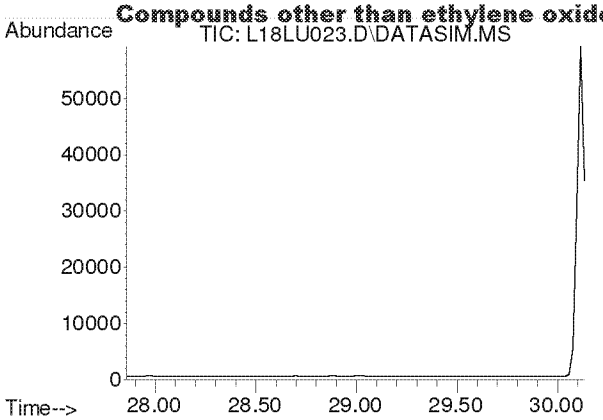
Lab File: L18LU023.D
Acq: 22 Dec 2018 5:51 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	36.0
114	2.2



Compounds other than ethylene oxide were not quantitated.

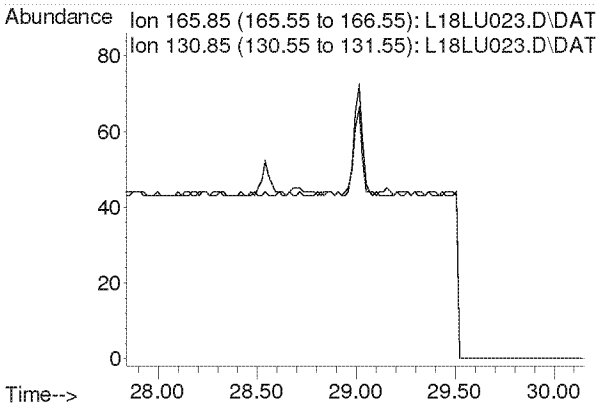


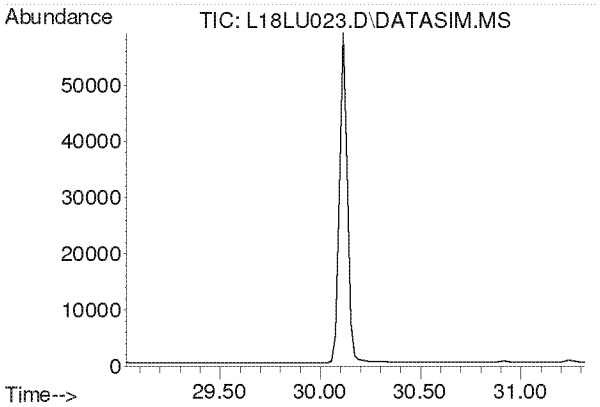
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L18LU023.D
Acq: 22 Dec 2018 5:51 am

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	78.2



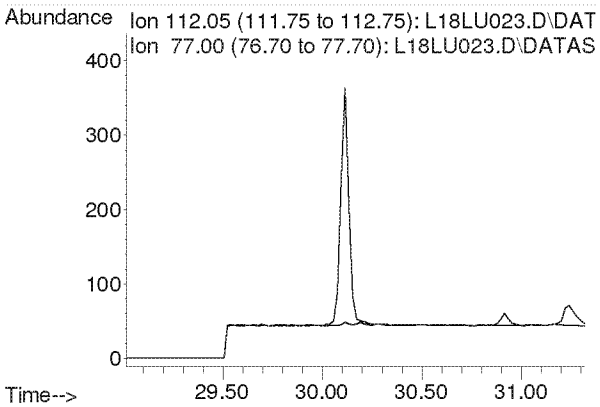


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.17 min

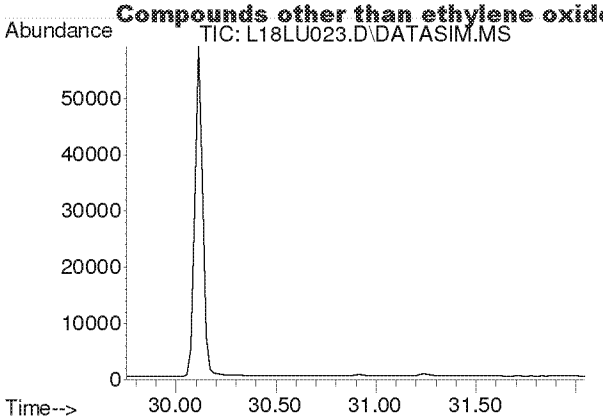
Lab File: L18LU023.D
Acq: 22 Dec 2018 5:51 am

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	63.0



Compounds other than ethylene oxide were not quantitated.

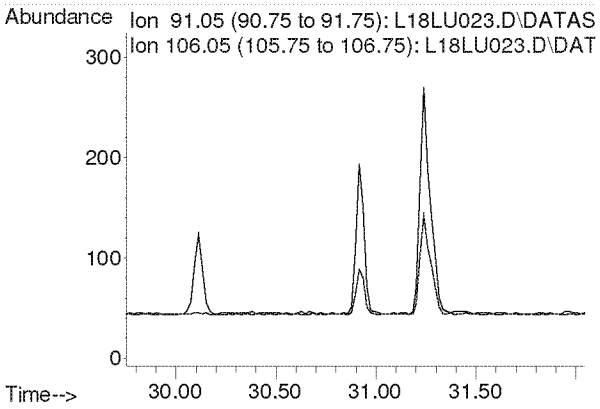


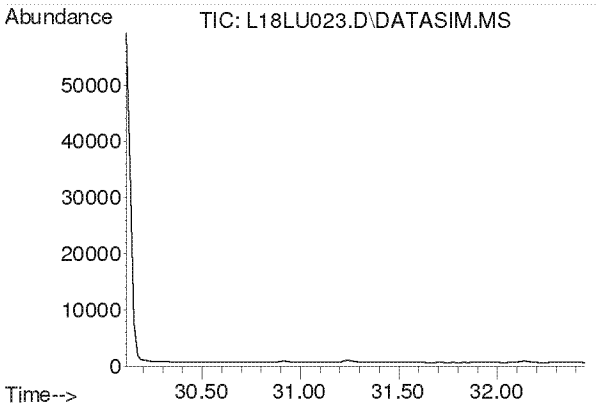
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.90 min

Lab File: L18LU023.D
Acq: 22 Dec 2018 5:51 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	31.8



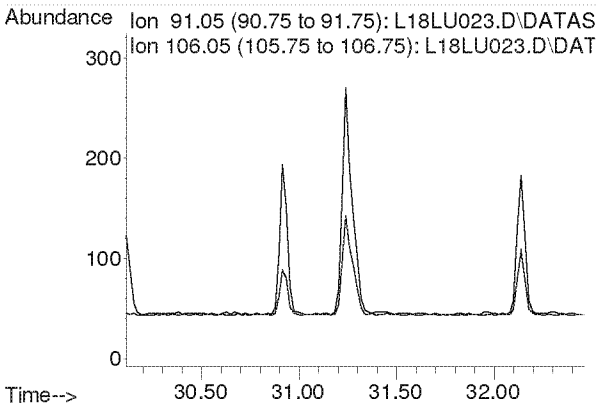


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.26 min

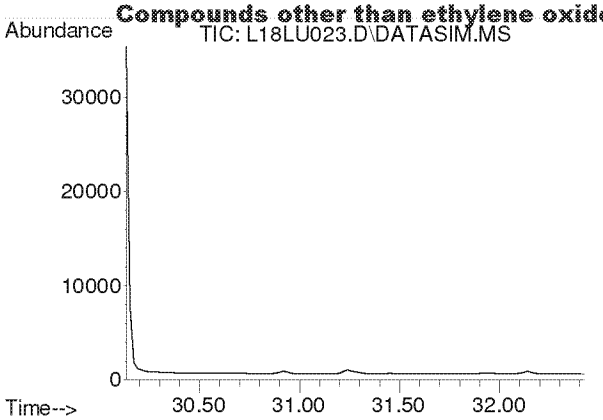
Lab File: L18LU023.D
Acq: 22 Dec 2018 5:51 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.4



Compounds other than ethylene oxide were not quantitated.

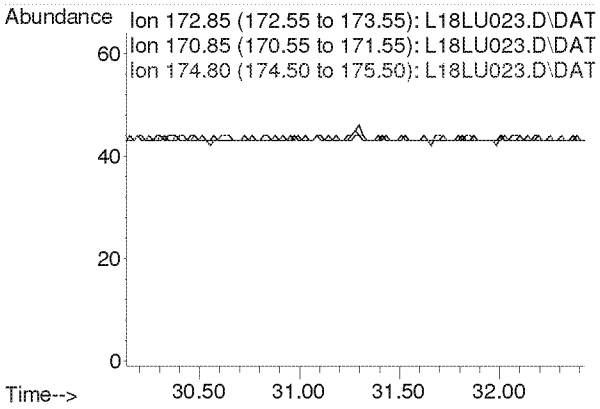


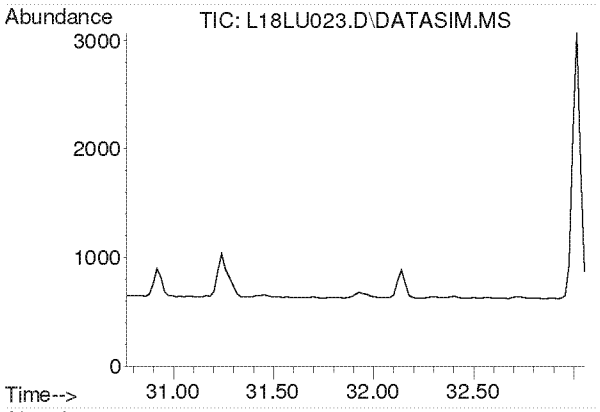
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L18LU023.D
Acq: 22 Dec 2018 5:51 am

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	49.0



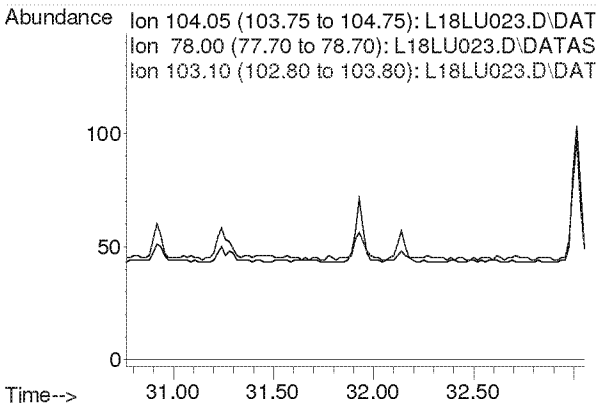


#53
Styrene
Concen: N.D.
Expected RT: 31.91 min

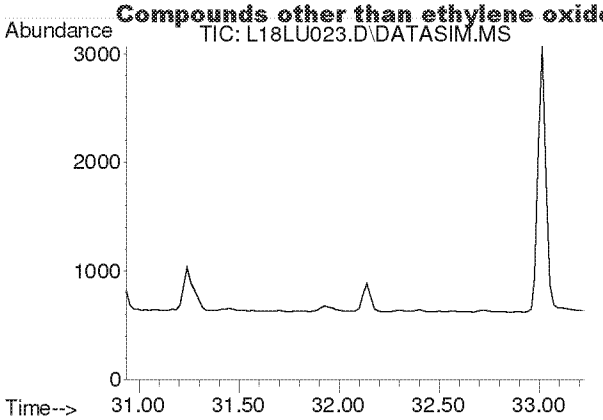
Lab File: L18LU023.D
Acq: 22 Dec 2018 5:51 am

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	45.6
103	0.0



Compounds other than ethylene oxide were not quantitated.

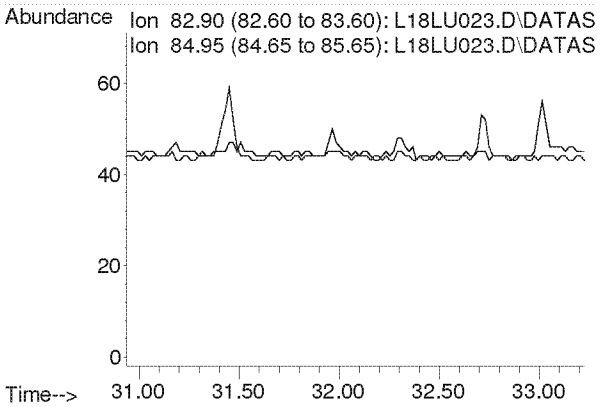


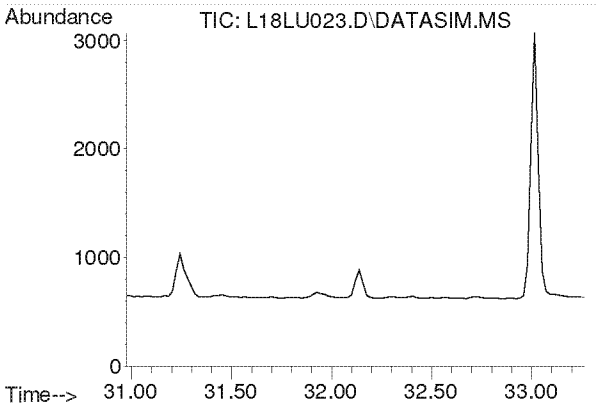
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L18LU023.D
Acq: 22 Dec 2018 5:51 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.9



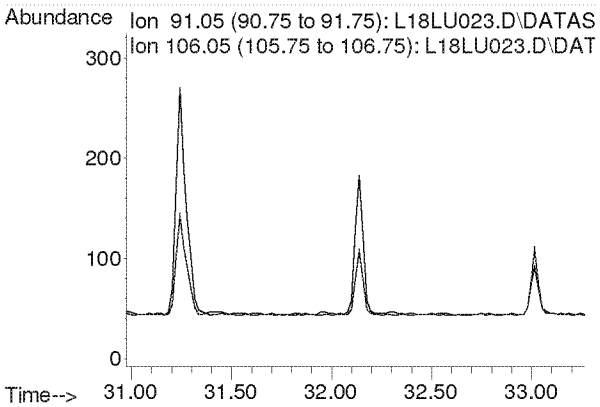


#55
o-Xylene
Concen: N.D.
Expected RT: 32.12 min

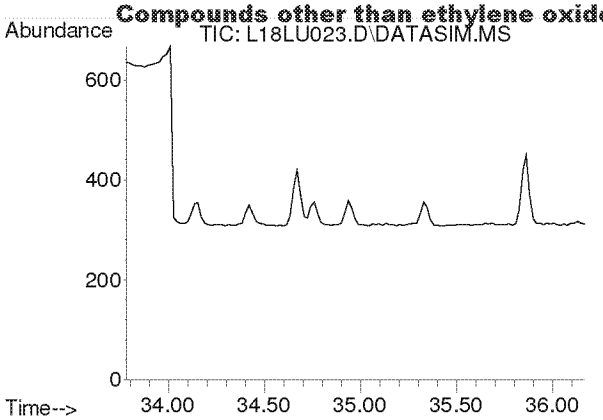
Lab File: L18LU023.D
Acq: 22 Dec 2018 5:51 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.2



Compounds other than ethylene oxide were not quantitated.

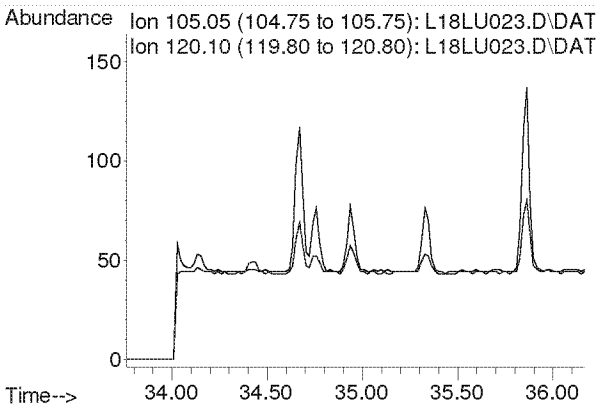


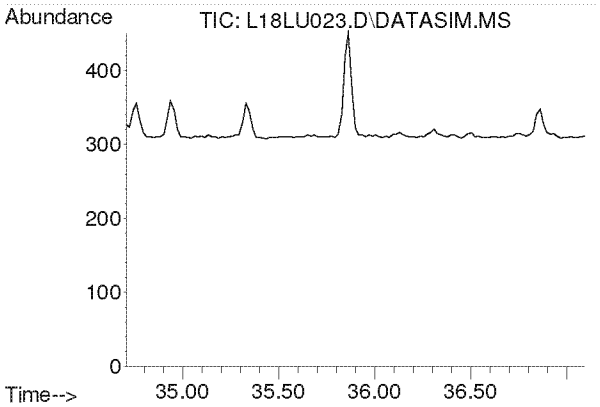
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.92 min

Lab File: L18LU023.D
Acq: 22 Dec 2018 5:51 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	45.0



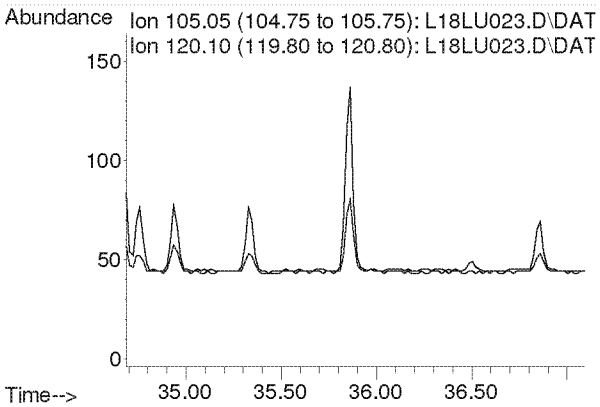


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

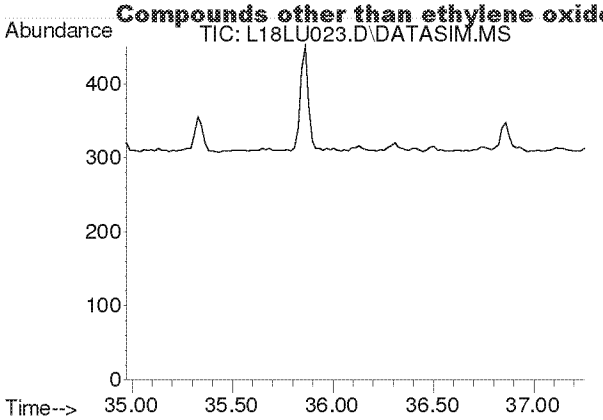
Lab File: L18LU023.D
Acq: 22 Dec 2018 5:51 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	42.8



Compounds other than ethylene oxide were not quantitated.

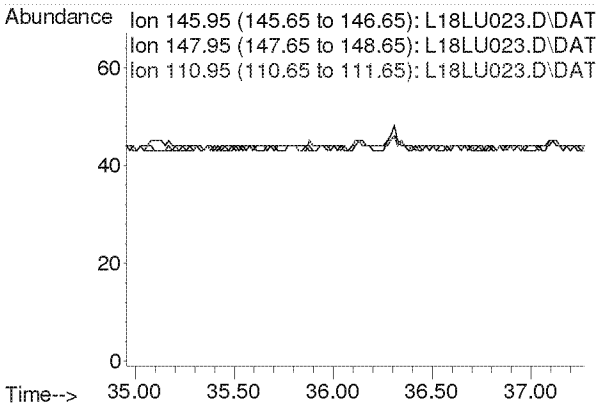


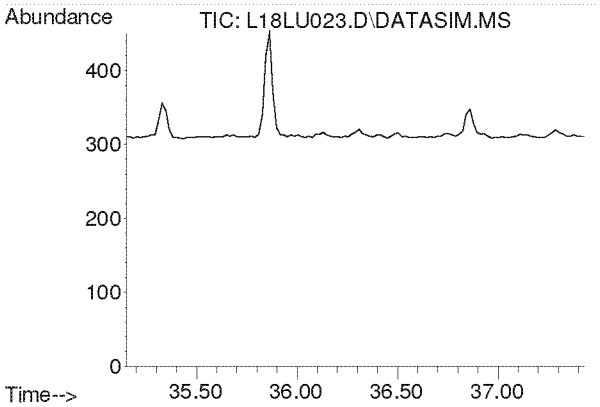
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.11 min

Lab File: L18LU023.D
Acq: 22 Dec 2018 5:51 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.5



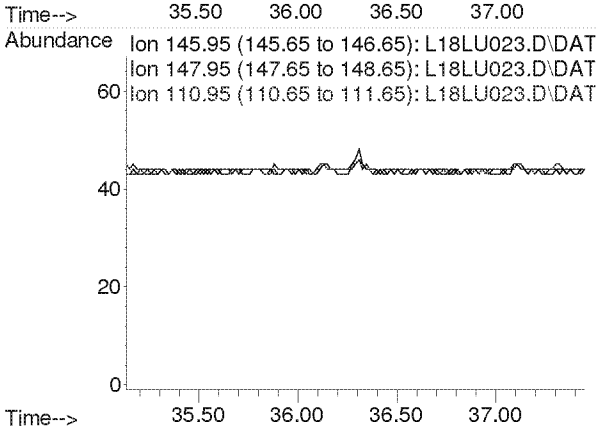


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

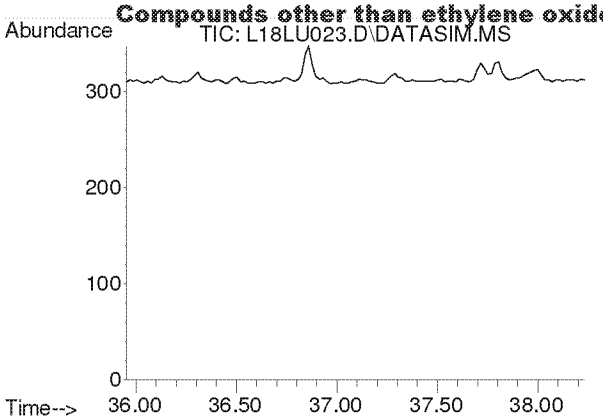
Lab File: L18LU023.D
Acq: 22 Dec 2018 5:51 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	39.5



Compounds other than ethylene oxide were not quantitated.

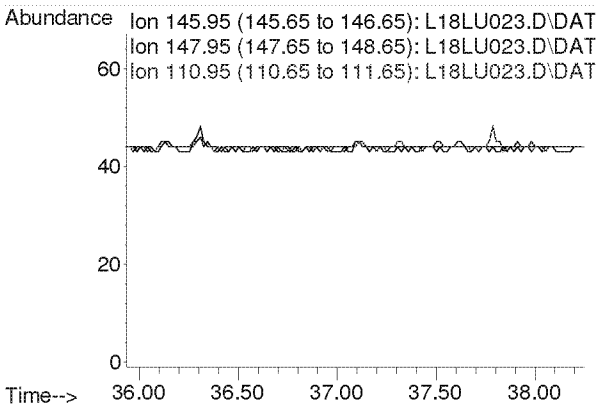


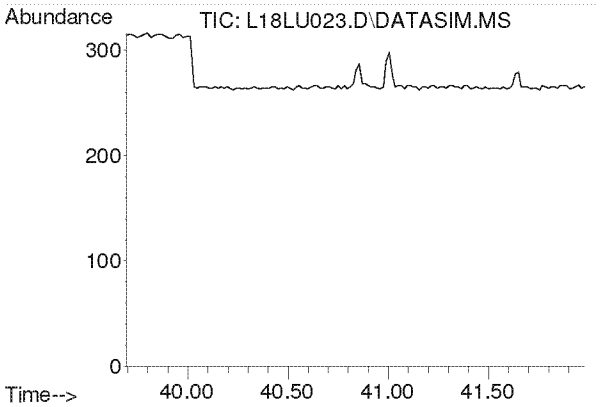
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.09 min

Lab File: L18LU023.D
Acq: 22 Dec 2018 5:51 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	41.4



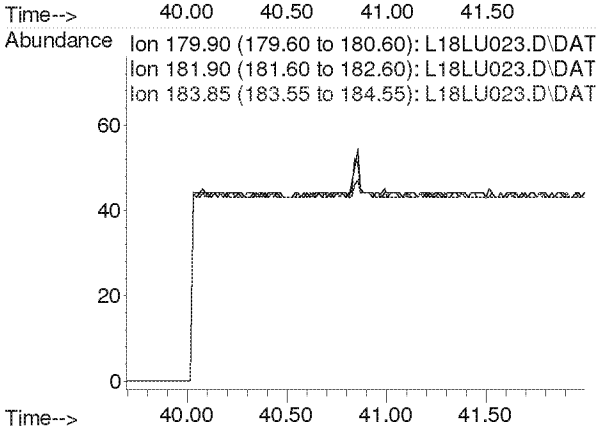


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

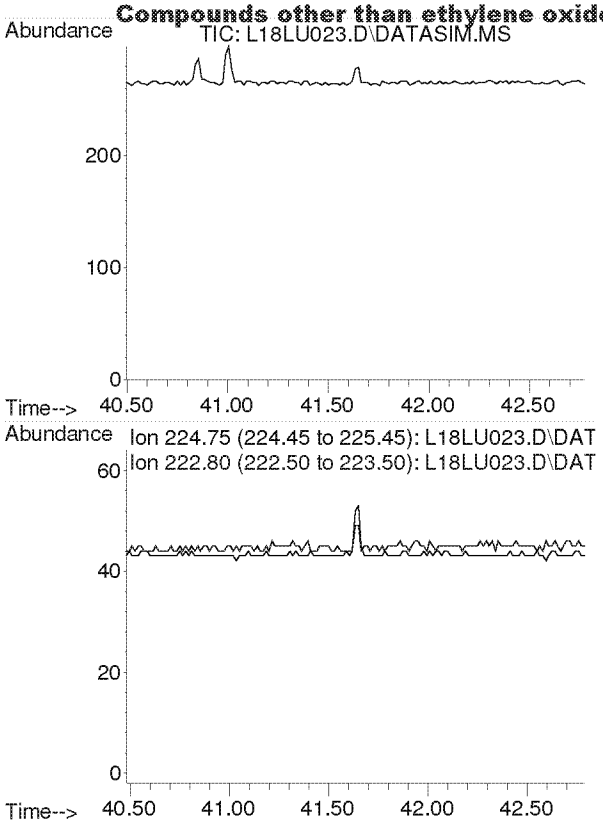
Lab File: L18LU023.D
Acq: 22 Dec 2018 5:51 am

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	95.1
184	30.7



Compounds other than ethylene oxide were not quantitated.



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

Lab File: L18LU023.D
Acq: 22 Dec 2018 5:51 am

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.4

Compounds other than ethylene oxide were not quantitated.

PREPARATION BENCH SHEET

B8L2103

Eastern Research Group

Matrix: Air | **Prepared using: Air Toxics - Summa Canister Prep** | **nted: 12/21/2018 10:45:06AM**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments	
8120528-01 *TO-15 2018*	11/29/18 23:59	250	250	U.S. Environmental Protection Agency, Region 5			Ethylene Oxide only	Ethylene Oxide only
8120528-02 *TO-15 2018*	11/29/18 23:59	250	250	U.S. Environmental Protection Agency, Region 5			Ethylene Oxide only	Ethylene Oxide only
8120528-05 *TO-15 2018*	11/29/18 23:59	250	250	U.S. Environmental Protection Agency, Region 5			Ethylene Oxide only	Ethylene Oxide only
8120701-01 *TO-15 2018*	12/02/18 09:29	250	250	U.S. Environmental Protection Agency - OAQPS			Ethylene Oxide only	Ethylene Oxide only
8120701-02 *TO-15 2018*	12/02/18 09:12	250	250	U.S. Environmental Protection Agency - OAQPS			Ethylene Oxide only	Ethylene Oxide only
8120701-03 *TO-15 2018*	12/02/18 09:55	250	250	U.S. Environmental Protection Agency - OAQPS			Ethylene Oxide only	Ethylene Oxide only
8120701-04 *TO-15 2018*	12/02/18 09:46	250	250	U.S. Environmental Protection Agency - OAQPS			Ethylene Oxide only	Ethylene Oxide only
8120701-05 *TO-15 2018*	12/02/18 10:10	250	250	U.S. Environmental Protection Agency - OAQPS			Ethylene Oxide only	Ethylene Oxide only
8120701-06 *TO-15 2018*	12/02/18 09:37	250	250	U.S. Environmental Protection Agency - OAQPS			Ethylene Oxide only	Ethylene Oxide only
8120701-07 *TO-15 2018*	12/02/18 10:03	250	250	U.S. Environmental Protection Agency - OAQPS			Ethylene Oxide only	Ethylene Oxide only
8120701-08 *TO-15 2018*	12/02/18 09:17	250	250	U.S. Environmental Protection Agency - OAQPS			Ethylene Oxide only	Ethylene Oxide only
8120701-09 *TO-15 2018*	12/02/18 09:18	250	250	U.S. Environmental Protection Agency - OAQPS			Ethylene Oxide only	Ethylene Oxide only
8120701-10 *TO-15 2018*	11/26/18 10:30	250	250	U.S. Environmental Protection Agency - OAQPS			Ethylene Oxide only	Ethylene Oxide only
8121220-01 *TO-15 2018*	12/11/18 09:53	250	250	U.S. Environmental Protection Agency - OAQPS			Ethylene Oxide only	Ethylene Oxide only

Spiking Witnessed By: Date

Preparation Reviewed By: 12-26-18 Date

Extracts Received By Date

Page 1 of 2

Compounds other than ethylene oxide were not quantitated.

PREPARATION BENCH SHEET

B8L2103

Eastern Research Group

Matrix: Air **Prepared using: Air Toxics - Summa Canister Prep** **nted: 12/21/2018 10:45:06AM**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments	
8121220-02 *TO-15 2018*	12/11/18 08:57	250	250	U.S. Environmental Protection Agency - OAQPS	Ethylene Oxide only			Ethylene Oxide only
8121220-03 *TO-15 2018*	12/11/18 09:58	250	250	U.S. Environmental Protection Agency - OAQPS	Ethylene Oxide only			Ethylene Oxide only
B8L2103-BLK1	12/18/18 08:00	250	250					
B8L2103-DUP1	11/29/18 23:59	250	250		8120528-01			
B8L2103-DUP2	11/29/18 23:59	250	250		8120528-02			
B8L2103-DUP3	12/02/18 09:17	250	250		8120701-08			
B8L2103-DUP4	12/02/18 09:18	250	250		8120701-09			

Spiking Witnessed By Date

Preparation Reviewed By Date

Extracts Received By Date

Compounds other than ethylene oxide were not quantitated.

A- 14

ERG Eastern Research Group, Inc.

ERG Lab ID # 8121220-01

601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: GOWER ES

Canister Number: A21022

City/State: Willowbrook, IL

Lab Initial Can. Press. ("Hg): 29.8

AQS Code:

Cleaning Batch # : 42-515

Collection Date: 12/10/18

Date Can. Cleaned: 11/30/18

Options:

SNMOC (Y/N):

Duplicate Event (Y/N): N

TOXICS (Y/N): Y

Duplicate Can # :

METHANE (Y/N):

Relinquished by: [illegible]

Date: 12/5/18

Field Setup

Received by: M. Compher

Date: 12/10/18

Operator: M. Compher

MFC Setting:

System #: 10293

Elapsed Timer Reset (Y/N):

Setup Date: 12/10/18

Canister Valve Opened (Y/N): Y @ 1042

Field Initial Can. Press.: -28.5 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 12/11/18

Sample Duration (3 or 24 hr): 24 hr

Operator: E. Delisio

Elapsed Time:

Field Final Can. Press.: -5 psig psia "Hg (Circle one)

Status: VALID VOID (Circle one)

Canister Valve Closed (Y/N): Y @ 0953

Relinquished by: E. Delisio

Date: 12/11/18

Lab Recovery

Received by: ER

Date: 12/12/18

Lab Final Can. Press.: 4.5 psig "Hg (Circle one)

Converted to psia:

Status: VALID VOID (Circle one)

Gauge: 1 2 (Circle one)

If void, why:

Samples stored in Air Tox Lab (Room 130)

5-2016

Comments: Leak check @ 1047 - 29 "Hg

Ambient temperature @ deployment = 16°F

" " collection = 28°F

White: Sample Traveler

Canary: Lab Copy

Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

~~TAB~~ 15

ERG
Eastern Research Group, Inc.
601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

ERG Lab ID # 8121220-02

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: Willowbrook Village Hall
Canister Number: 5029
City/State: Willowbrook, IL
Lab Initial Can. Press. ("Hg): 29.8
AQS Code:
Cleaning Batch # : HZ-515
Collection Date: 12/10/18
Date Can. Cleaned: 11/30/18
Options:
SNMOC (Y/N):
Duplicate Event (Y/N): N
TOXICS (Y/N): Y
Duplicate Can # :
METHANE (Y/N):
Relinquished by:
Date: 12/5/18

Field Setup

Received by: M. Lompher
Date: 12/10/18
Operator: M. Lompher
MFC Setting:
System #: 10313
Elapsed Timer Reset (Y/N):
Setup Date: 12/10/18
Canister Valve Opened (Y/N): YC 943
Field Initial Can. Press.: -29 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 12/11/18
Sample Duration (3 or 24 hr): 24 hr
Operator: E. Delino
Elapsed Time:
Field Final Can. Press.: -5 psig psia "Hg (Circle one) JVC 12/11/18
Status: VALID VOID (Circle one)
Canister Valve Closed (Y/N): Y @0857
Relinquished by: E. Delino
Date: 12/11/18

Lab Recovery

Received by: NR
Date: 12/12/18
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 @ -29" Hg @ 942
Ambient temperature @ deployment =
" " @ collection = 28°F
Sample is VALID, circled wrong status

White: Sample Traveler
Canary: Lab Copy
Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

-59 16

ERG Eastern Research Group, Inc.

ERG Lab ID # 8121220-03

601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: WEST NEIGHBORHOOD

Canister Number: AZ1077

City/State: WILLOWBROOK, IL

Lab Initial Can. Press. ("Hg): 29.8

AQS Code: —

Cleaning Batch # : HZ-515

Collection Date: 12/10/18

Date Can. Cleaned: 11/30/18

Options:

SNMOC (Y/N):

Duplicate Event (Y/N): N

TOXICS (Y/N): Y

Duplicate Can # :

METHANE (Y/N):

Relinquished by: [illegible]

Date: 12/5/18

Field Setup

Received by: NWIA

Date: 12/10/18

Operator: NWIA

MFC Setting:

System #: 1031D

Elapsed Timer Reset (Y/N):

Setup Date: 12/10/18

Canister Valve Opened (Y/N): Y @ 1053

Field Initial Can. Press.: -29 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 12/11/18

Sample Duration (3 or 24 hr): 24 hr

Operator: E. Delisio

Elapsed Time:

Field Final Can. Press.: -5 psig psia "Hg (Circle one)

Status: VALID VOID (Circle one)

Canister Valve Closed (Y/N): Y @ 0958

Relinquished by: E. Delisio

Date: 12/11/18

Lab Recovery

Received by: HC

Date: 12/12/18

Lab Final Can. Press.: 4 psig "Hg (Circle one)

Converted to psia:

Status: VALID VOID (Circle one)

Gauge: 1 2 (Circle one)

If void, why:

Samples stored in Air Tox Lab (Room 130)

5-2016

Comments: Leak check @ 1058 29.5 "Hg
Ambient temp @ deployment = 16°F
" " " collection = 28°F

White: Sample Traveler

Canary: Lab Copy

Pink: Field Copy