

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL120825\
 Data File : VL043329.D
 Acq On : 09 Dec 2025 00:38
 Operator : SY/MD
 Sample : Q3798-01 4X
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 SV1

Quant Time: Dec 09 01:27:13 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL111825AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
 QLast Update : Wed Nov 19 01:11:25 2025
 Response via : Initial Calibration

Compound	R.T. QIon		Response	Conc	Units	Dev(Min)

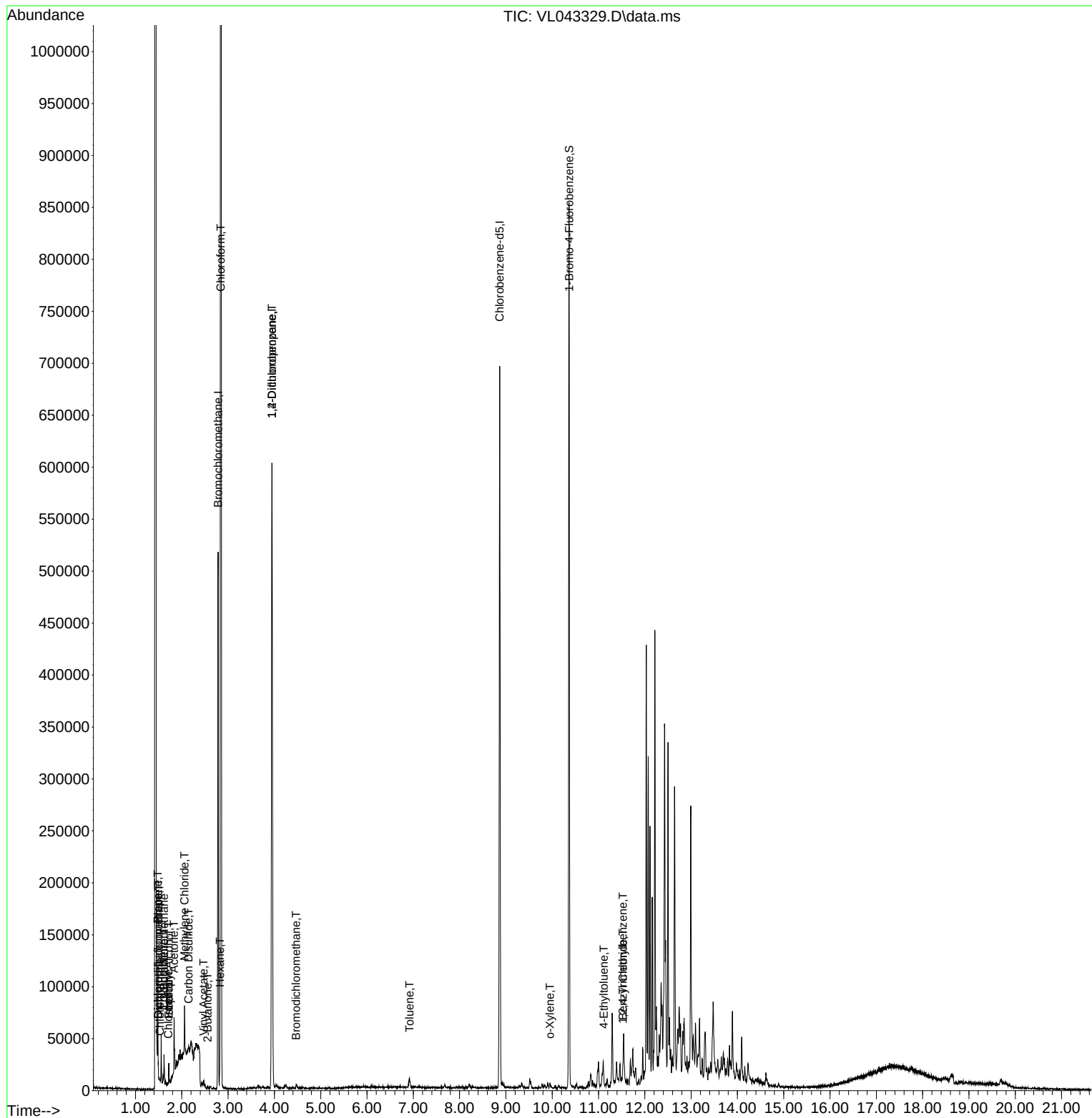
Internal Standards						
1) Bromochloromethane	2.784	49	136060	10.000	ppbv	0.00
33) 1,4-Difluorobenzene	3.946	114	343692	10.000	ppbv	0.00
55) Chlorobenzene-d5	8.865	117	270053	10.000	ppbv	0.00
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	10.364	95	203754	10.293	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	= 102.900%	
Target Compounds						
					Qvalue	
2) Dichlorodifluoromethane	1.492	85	2304	0.120	ppbv	89
3) Chlorodifluoromethane	1.615	51	577	0.031	ppbv	94
4) Chloromethane	1.528	50	228	0.032	ppbv #	71
7) Chloroethane	1.709	64	208	0.068	ppbv #	84
8) Dichlorotetrafluoroethane	1.492	85	2304	0.144	ppbv #	17
9) Propene	1.483	41	6918	0.863	ppbv #	1
13) Ethanol	1.719	45	6121	2.172	ppbv #	38
15) Acetone	1.832	43	22914	1.212	ppbv	98
16) 1,3-Butadiene	1.615	39	2087	0.248	ppbv #	26
19) Isopropyl Alcohol	1.719	45	6121	0.573	ppbv #	68
20) Methylene Chloride	2.059	84	6969	0.506	ppbv	93
23) Vinyl Acetate	2.470	43	1331	0.058	ppbv #	38
26) Hexane	2.823	57	2049	0.115	ppbv #	1
27) Carbon Disulfide	2.143	76	1437	0.079	ppbv #	1
29) Chloroform	2.842	83	1292956	50.891	ppbv	95
34) 2-Butanone	2.557	43	1530	0.063	ppbv	99
39) 1,2-Dichloropropane	3.946	63	85715	7.115	ppbv #	25
42) Bromodichloromethane	4.470	83	1053	0.040	ppbv	99
53) Toluene	6.917	91	2810	0.072	ppbv #	1
60) o-Xylene	9.953	91	1952	0.047	ppbv	96
66) Benzyl Chloride	11.526	91	554	0.082	ppbv #	64
72) 4-Ethyltoluene	11.112	105	1547	0.031	ppbv #	42
74) 1,2,4-Trimethylbenzene	11.523	105	4924	0.106	ppbv #	47

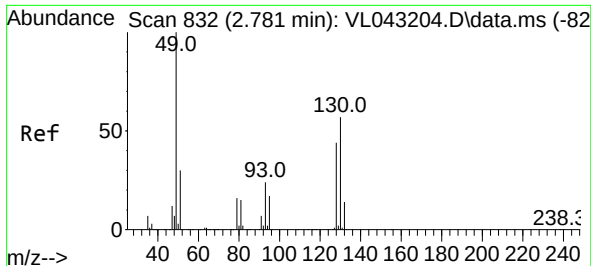
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quant Time: Dec 09 01:27:13 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL11825AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
QLast Update : Wed Nov 19 01:11:25 2025
Response via : Initial Calibration

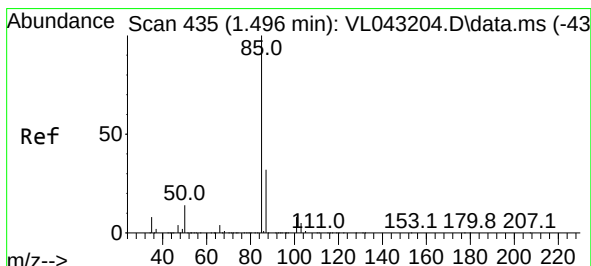
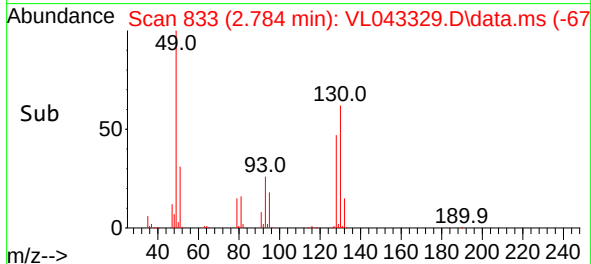
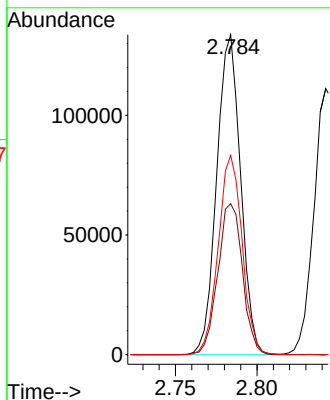
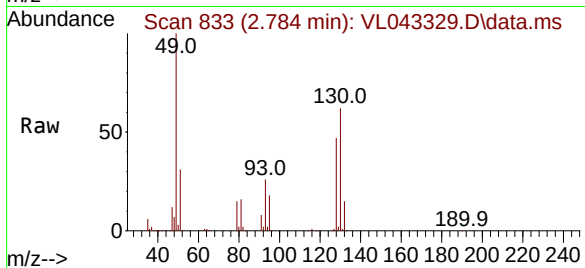




#1
Bromochloromethane
Concen: 10.000 ppbv
RT: 2.784 min Scan# 832
Delta R.T. 0.003 min
Lab File: VL043329.D
Acq: 09 Dec 2025 00:38

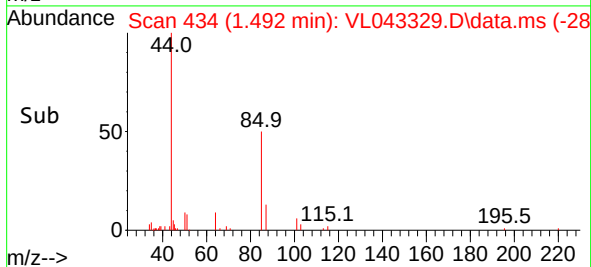
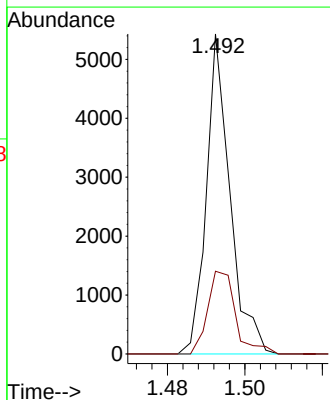
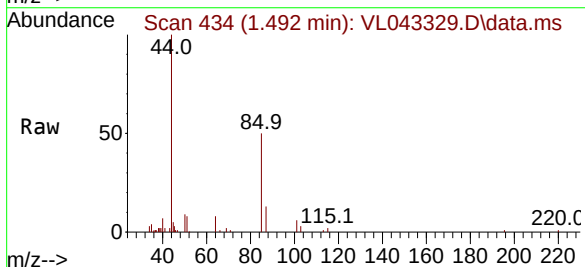
Instrument :
MSVOA_L
ClientSampleId :
SV1

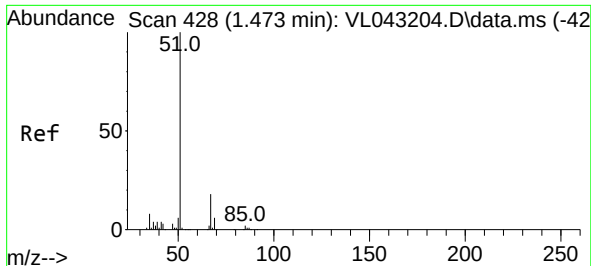
Tgt Ion: 49 Resp: 136060
Ion Ratio Lower Upper
49 100
128 48.6 23.0 69.0
130 62.3 29.9 89.7



#2
Dichlorodifluoromethane
Concen: 0.120 ppbv
RT: 1.492 min Scan# 434
Delta R.T. -0.003 min
Lab File: VL043329.D
Acq: 09 Dec 2025 00:38

Tgt Ion: 85 Resp: 2304
Ion Ratio Lower Upper
85 100
87 25.8 25.4 38.2

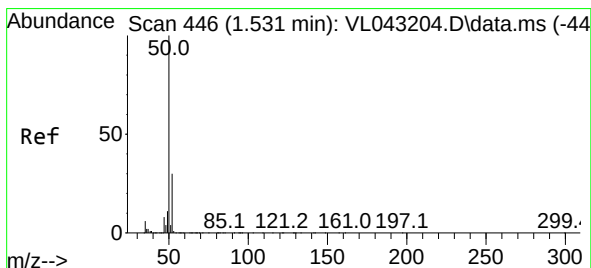
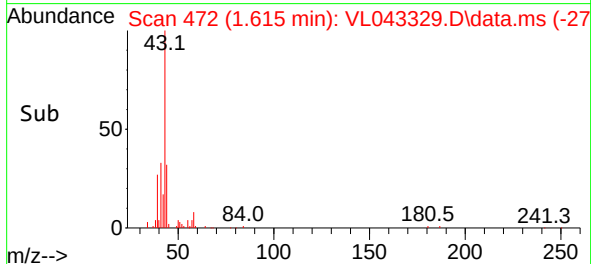
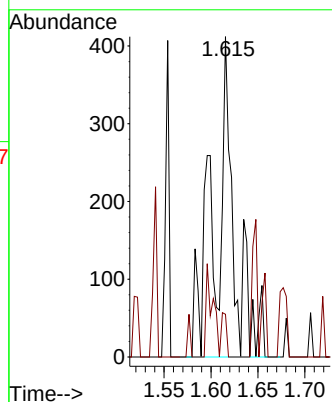
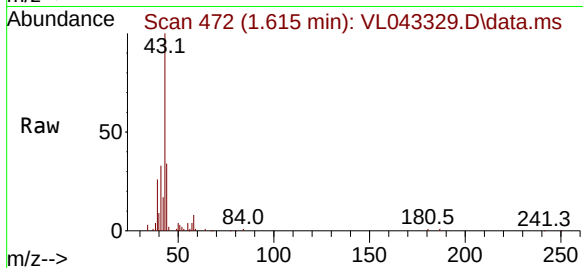




#3
Chlorodifluoromethane
Concen: 0.031 ppbv
RT: 1.615 min Scan# 41
Delta R.T. 0.142 min
Lab File: VL043329.D
Acq: 09 Dec 2025 00:38

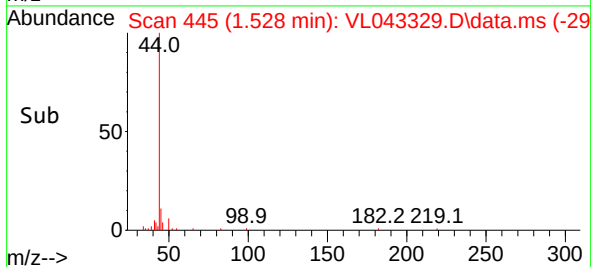
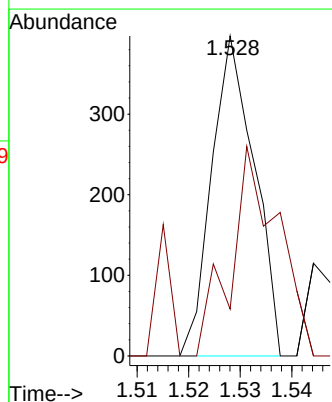
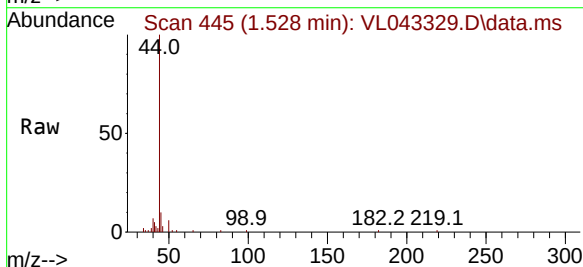
Instrument :
MSVOA_L
ClientSampleId :
SV1

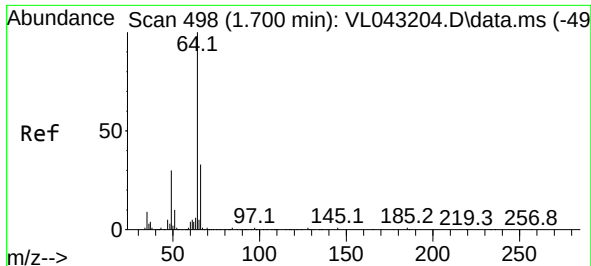
Tgt Ion: 51 Resp: 577
Ion Ratio Lower Upper
51 100
67 15.9 14.9 22.3



#4
Chloromethane
Concen: 0.032 ppbv
RT: 1.528 min Scan# 445
Delta R.T. -0.003 min
Lab File: VL043329.D
Acq: 09 Dec 2025 00:38

Tgt Ion: 50 Resp: 228
Ion Ratio Lower Upper
50 100
52 14.6 24.1 36.1#

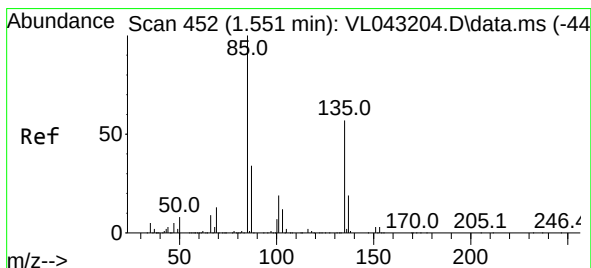
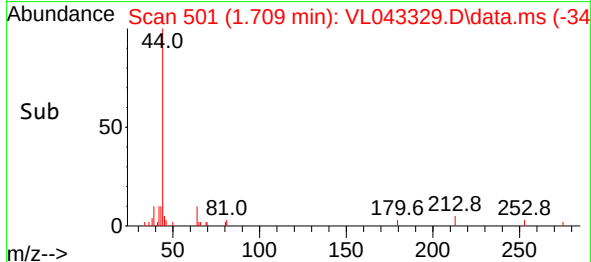
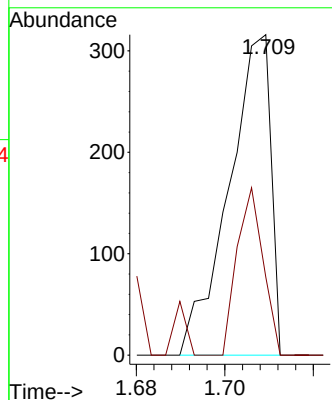
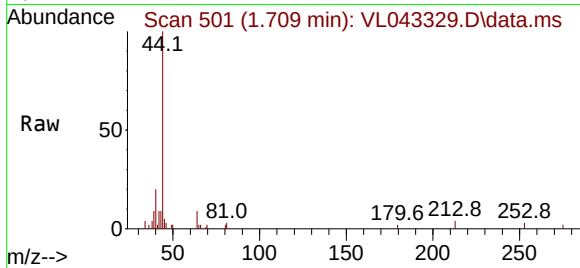




#7
Chloroethane
Concen: 0.068 ppbv
RT: 1.709 min Scan# 501
Delta R.T. 0.010 min
Lab File: VL043329.D
Acq: 09 Dec 2025 00:38

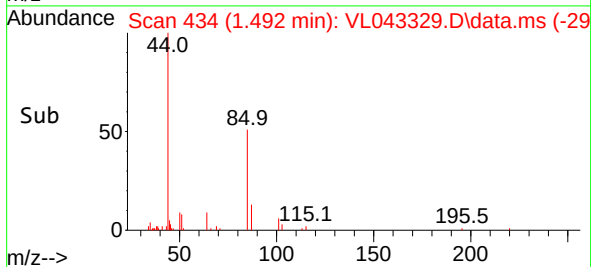
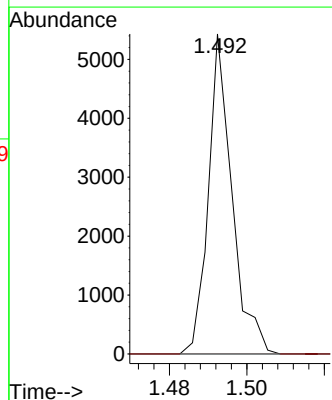
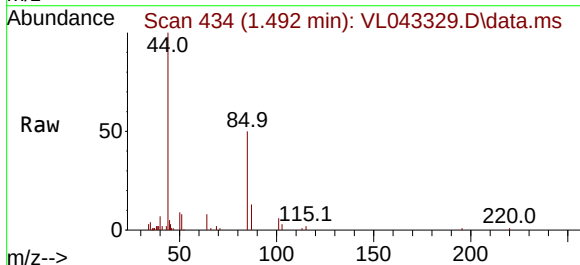
Instrument :
MSVOA_L
ClientSampleId :
SV1

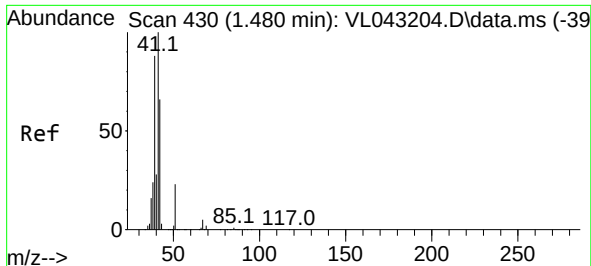
Tgt Ion: 64 Resp: 208
Ion Ratio Lower Upper
64 100
66 24.4 26.8 40.2#



#8
Dichlorotetrafluoroethane
Concen: 0.144 ppbv
RT: 1.492 min Scan# 434
Delta R.T. -0.058 min
Lab File: VL043329.D
Acq: 09 Dec 2025 00:38

Tgt Ion: 85 Resp: 2304
Ion Ratio Lower Upper
85 100
135 0.0 52.6 79.0#





#9

Propene

Concen: 0.863 ppbv

RT: 1.483 min Scan# 41

Delta R.T. 0.003 min

Lab File: VL043329.D

Acq: 09 Dec 2025 00:38

Instrument :

MSVOA_L

ClientSampleId :

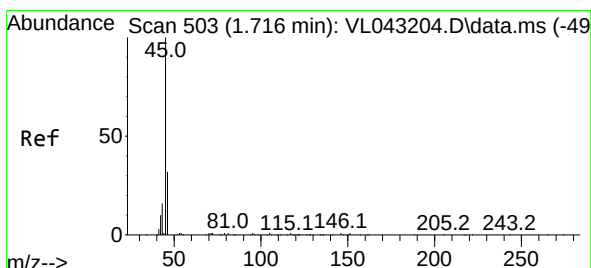
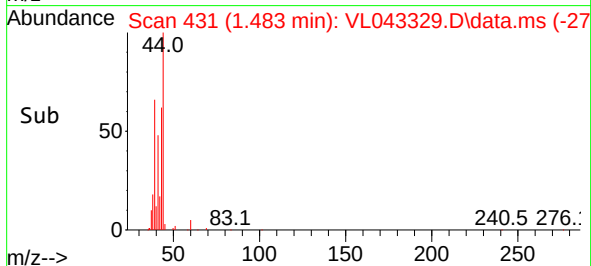
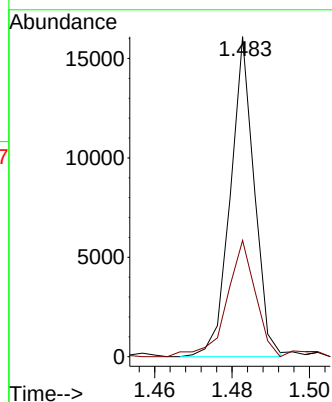
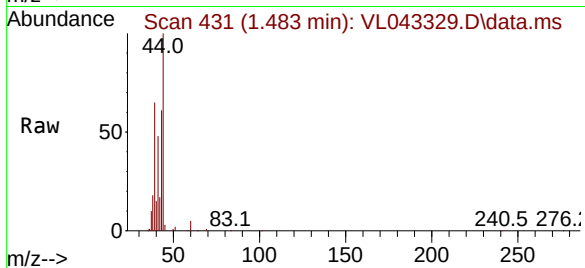
SV1

Tgt Ion: 41 Resp: 6918

Ion Ratio Lower Upper

41 100

42 46.3 3.7 5.5#



#13

Ethanol

Concen: 2.172 ppbv

RT: 1.719 min Scan# 504

Delta R.T. 0.003 min

Lab File: VL043329.D

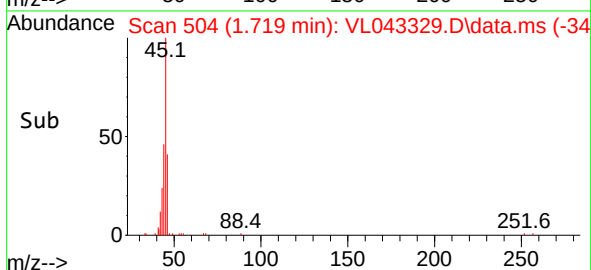
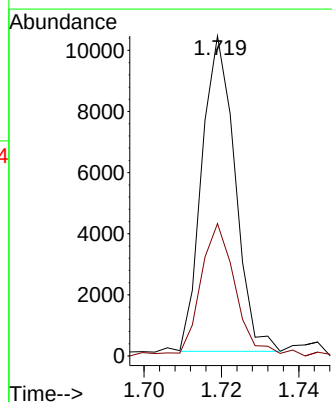
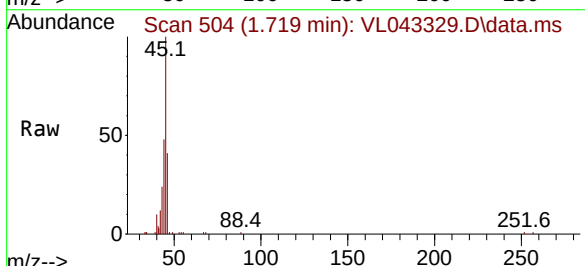
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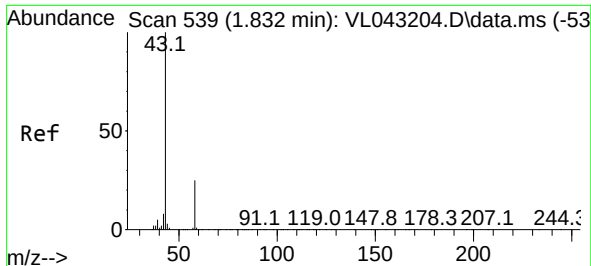
Tgt Ion: 45 Resp: 6121

Ion Ratio Lower Upper

45 100

46 0.0 15.0 59.8#

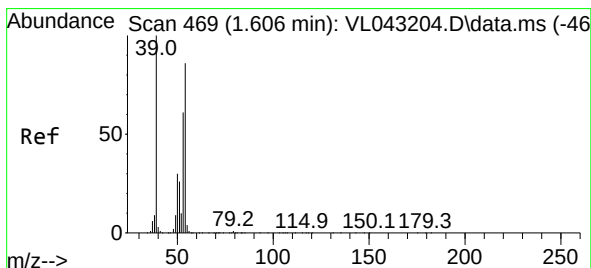
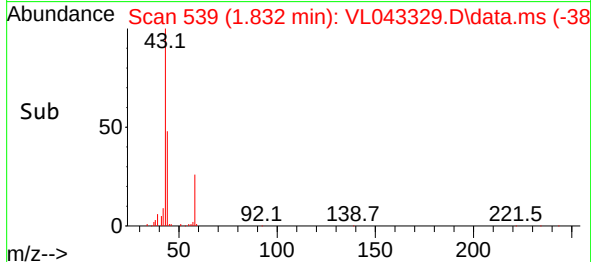
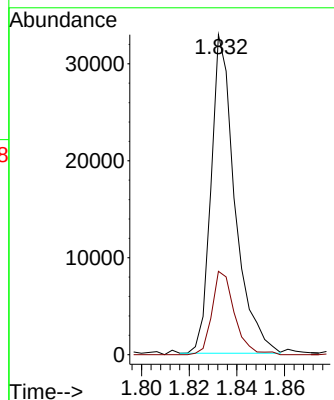
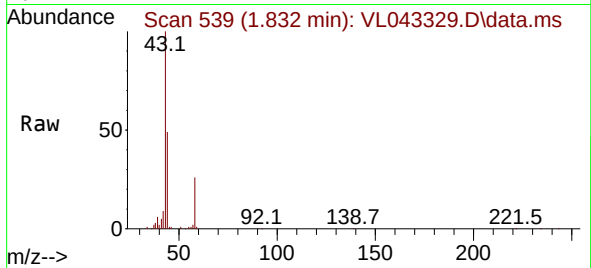




#15
Acetone
Concen: 1.212 ppbv
RT: 1.832 min Scan# 51
Delta R.T. -0.000 min
Lab File: VL043329.D
Acq: 09 Dec 2025 00:38

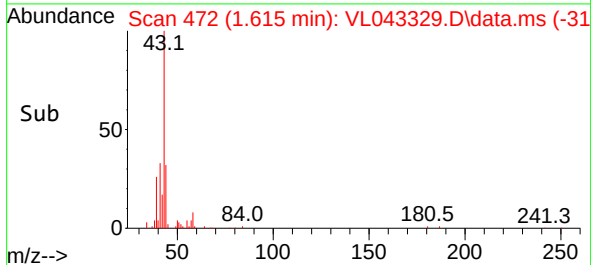
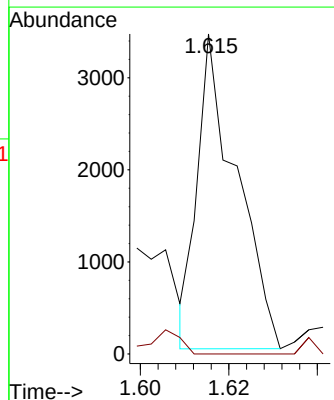
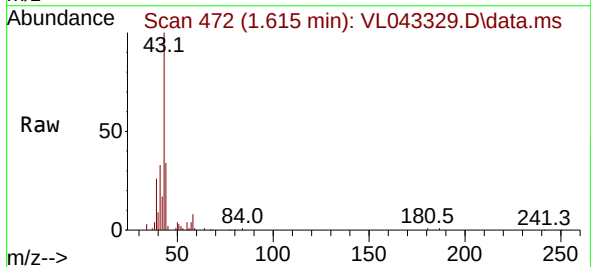
Instrument :
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ClientSampleId :
SV1

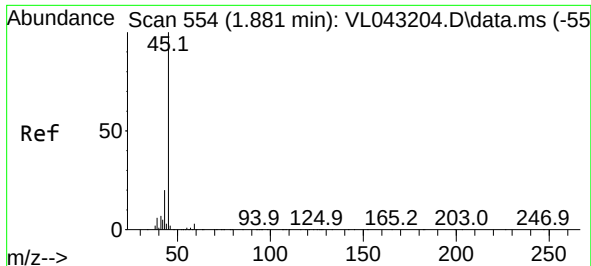
Tgt Ion: 43 Resp: 22914
Ion Ratio Lower Upper
43 100
58 24.7 20.7 31.1



#16
1,3-Butadiene
Concen: 0.248 ppbv
RT: 1.615 min Scan# 472
Delta R.T. 0.010 min
Lab File: VL043329.D
Acq: 09 Dec 2025 00:38

Tgt Ion: 39 Resp: 2087
Ion Ratio Lower Upper
39 100
54 11.5 59.4 89.2#

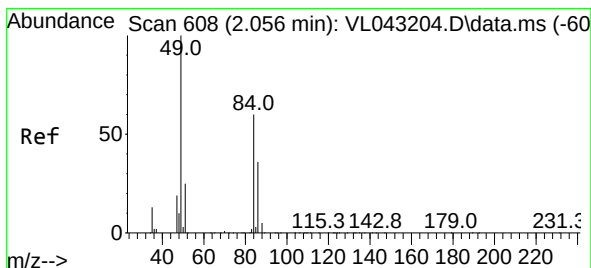
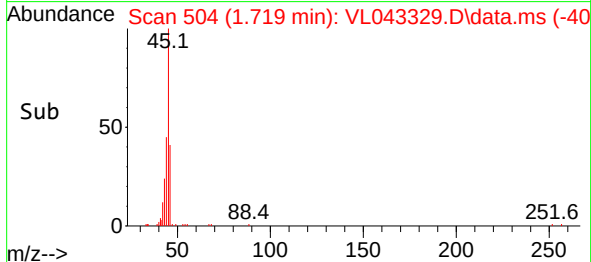
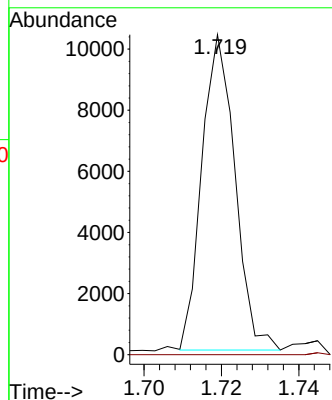
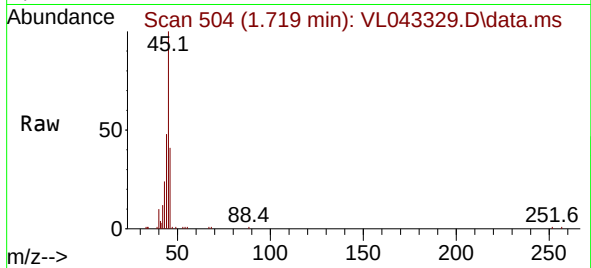




#19
Isopropyl Alcohol
Concen: 0.573 ppbv
RT: 1.719 min Scan# 50
Delta R.T. -0.162 min
Lab File: VL043329.D
Acq: 09 Dec 2025 00:38

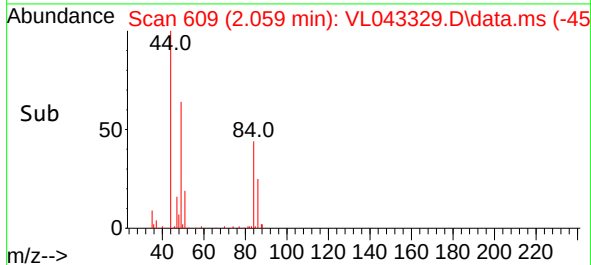
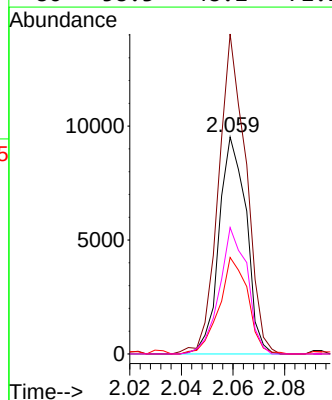
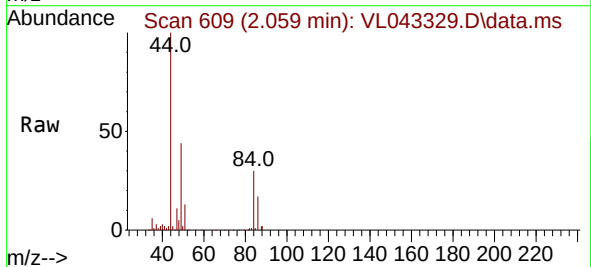
Instrument :
MSVOA_L
ClientSampleId :
SV1

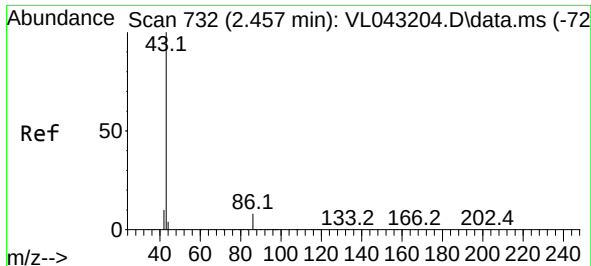
Tgt Ion: 45 Resp: 6121
Ion Ratio Lower Upper
45 100
58 19.2 31.3 46.9#



#20
Methylene Chloride
Concen: 0.506 ppbv
RT: 2.059 min Scan# 609
Delta R.T. 0.003 min
Lab File: VL043329.D
Acq: 09 Dec 2025 00:38

Tgt Ion: 84 Resp: 6969
Ion Ratio Lower Upper
84 100
49 153.1 132.9 199.3
51 44.5 34.8 52.2
86 58.3 48.2 72.2



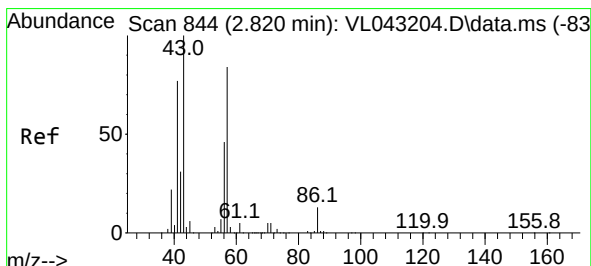
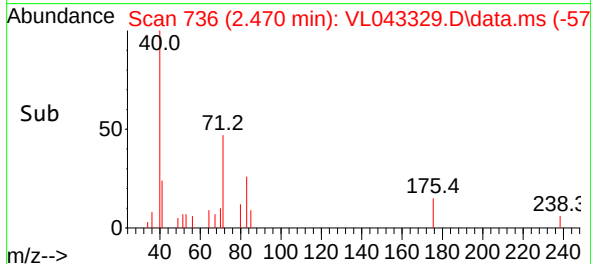
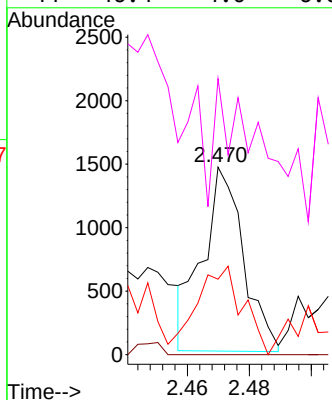
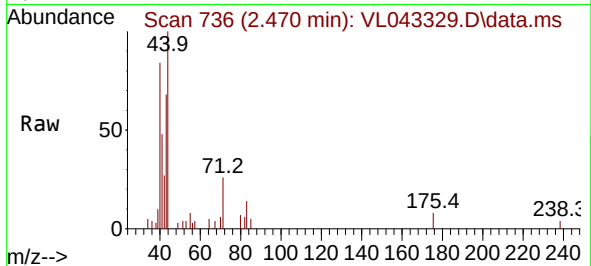


#23
 Vinyl Acetate
 Concen: 0.058 ppbv
 RT: 2.470 min Scan# 71
 Delta R.T. 0.013 min
 Lab File: VL043329.D
 Acq: 09 Dec 2025 00:38

Instrument :
 MSVOA_L
 ClientSampleId :
 SV1

Tgt Ion: 43 Resp: 1331

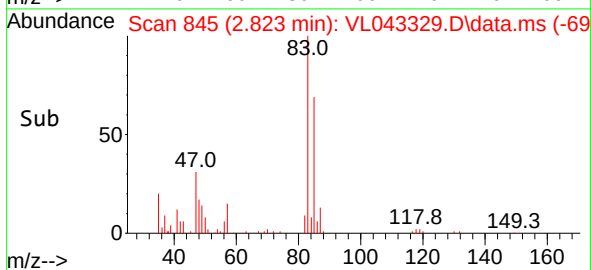
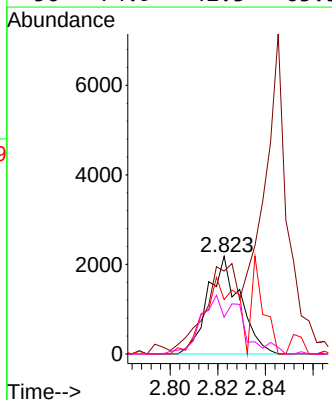
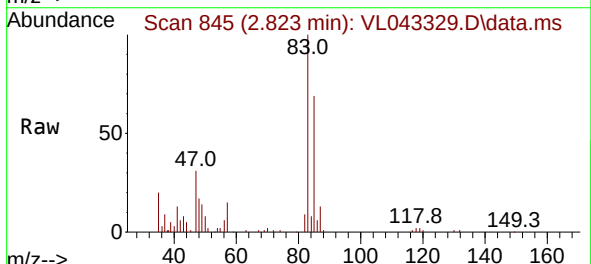
Ion	Ratio	Lower	Upper
43	100		
86	0.0	6.2	9.2#
42	32.6	8.0	12.0#
44	46.4	4.0	6.0#

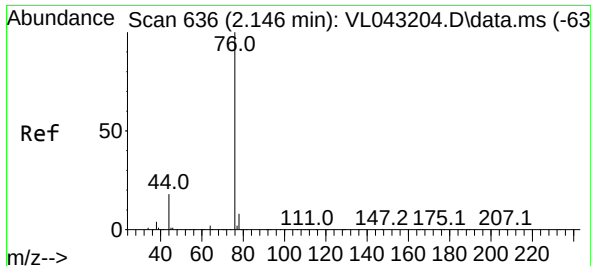


#26
 Hexane
 Concen: 0.115 ppbv
 RT: 2.823 min Scan# 845
 Delta R.T. 0.003 min
 Lab File: VL043329.D
 Acq: 09 Dec 2025 00:38

Tgt Ion: 57 Resp: 2049

Ion	Ratio	Lower	Upper
57	100		
41	363.7	74.6	111.8#
43	128.4	179.0	268.4#
56	74.9	42.3	63.5#





#27

Carbon Disulfide

Concen: 0.079 ppbv

RT: 2.143 min Scan# 61

Delta R.T. -0.003 min

Lab File: VL043329.D

Acq: 09 Dec 2025 00:38

Instrument :

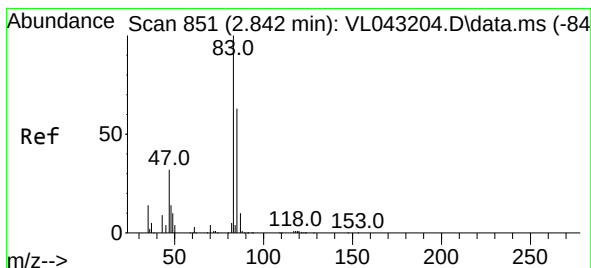
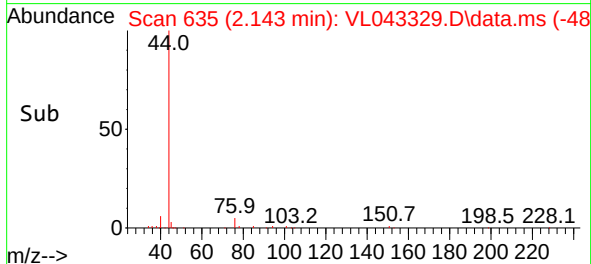
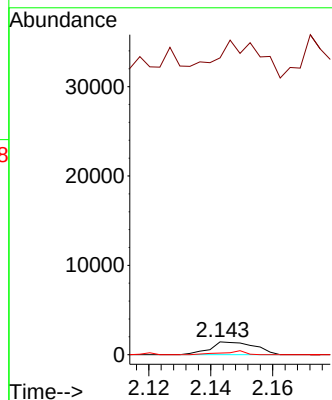
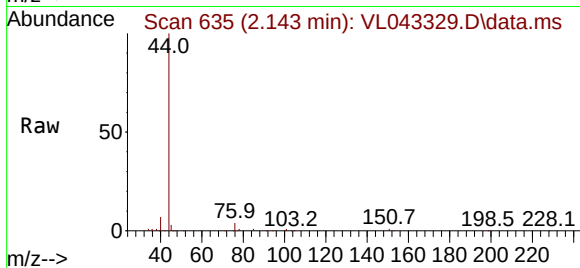
MSVOA_L

ClientSampleId :

SV1

Tgt Ion: 76 Resp: 1437

Ion	Ratio	Lower	Upper
76	100		
44	7575.4	16.1	24.1#
78	15.0	9.6	14.4#



#29

Chloroform

Concen: 50.891 ppbv

RT: 2.842 min Scan# 851

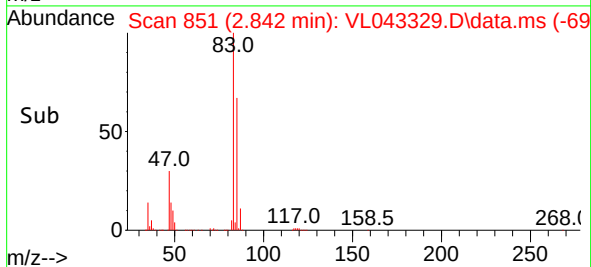
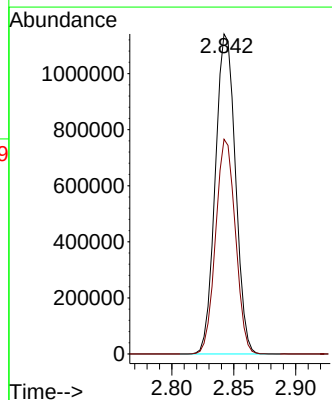
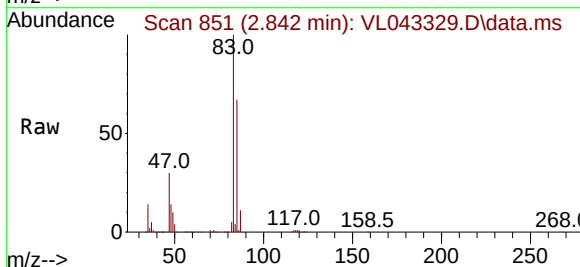
Delta R.T. -0.000 min

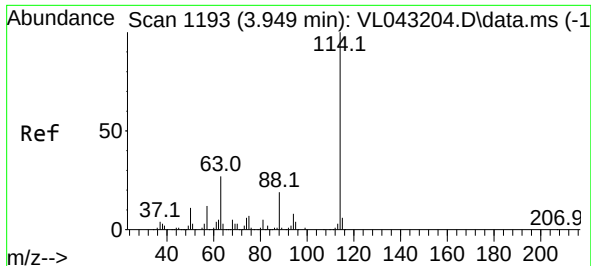
Lab File: VL043329.D

Acq: 09 Dec 2025 00:38

Tgt Ion: 83 Resp: 1292956

Ion	Ratio	Lower	Upper
83	100		
85	67.1	50.5	75.7





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 3.946 min Scan# 1193

Delta R.T. -0.003 min

Lab File: VL043329.D

Acq: 09 Dec 2025 00:38

Instrument :

MSVOA_L

ClientSampleId :

SV1

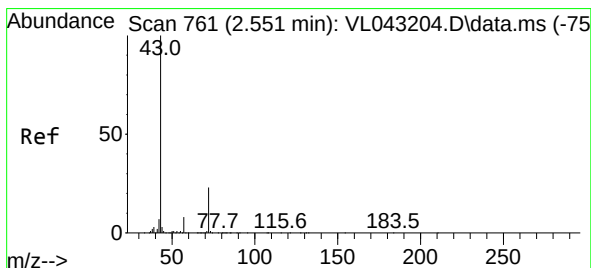
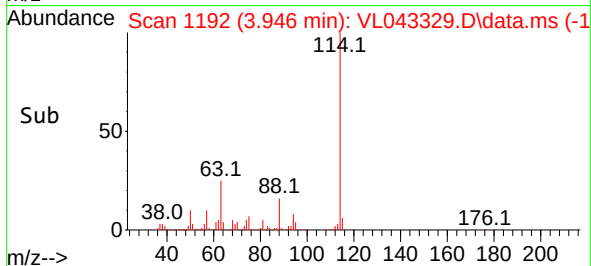
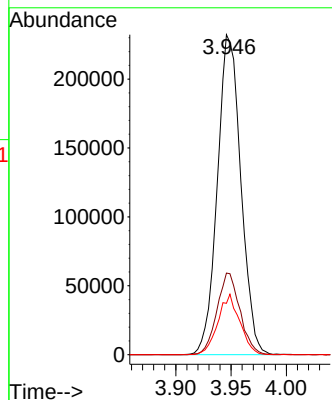
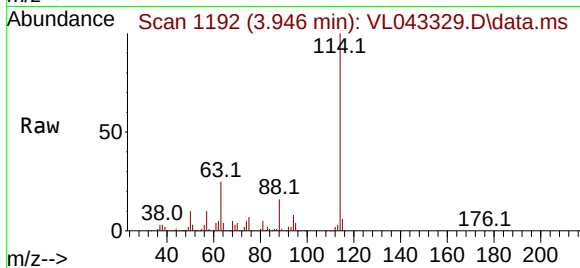
Tgt Ion:114 Resp: 343692

Ion Ratio Lower Upper

114 100

63 25.0 21.0 31.6

88 17.5 14.9 22.3



#34

2-Butanone

Concen: 0.063 ppbv

RT: 2.557 min Scan# 763

Delta R.T. 0.006 min

Lab File: VL043329.D

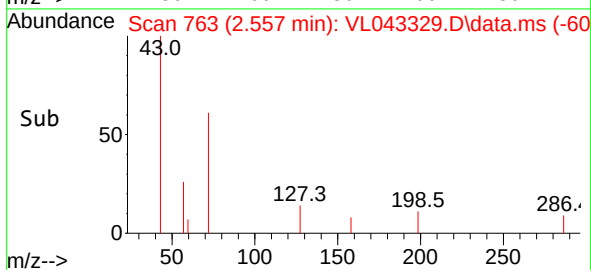
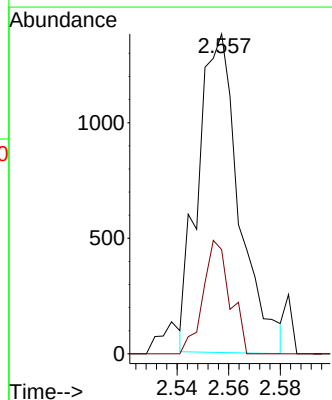
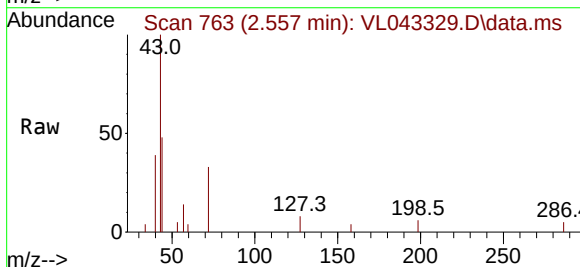
Acq: 09 Dec 2025 00:38

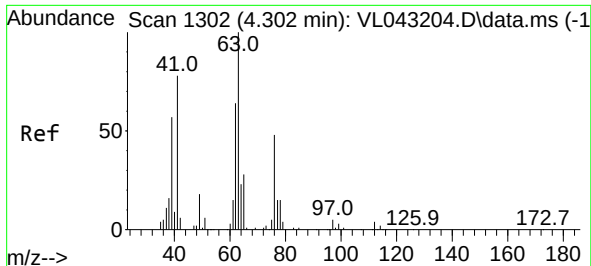
Tgt Ion: 43 Resp: 1530

Ion Ratio Lower Upper

43 100

72 23.3 18.1 27.1





#39

1,2-Dichloropropane

Concen: 7.115 ppbv

RT: 3.946 min Scan# 1192

Delta R.T. -0.356 min

Lab File: VL043329.D

Acq: 09 Dec 2025 00:38

Instrument :

MSVOA_L

ClientSampleId :

SV1

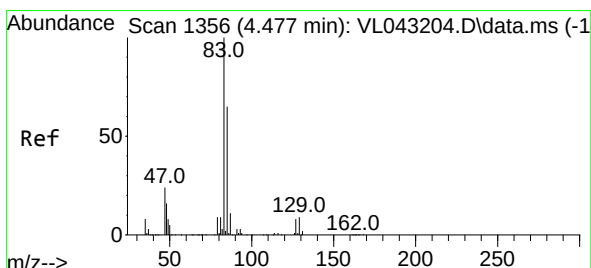
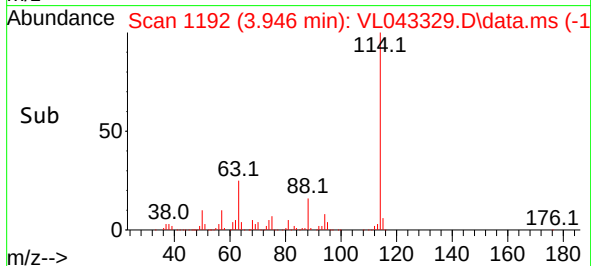
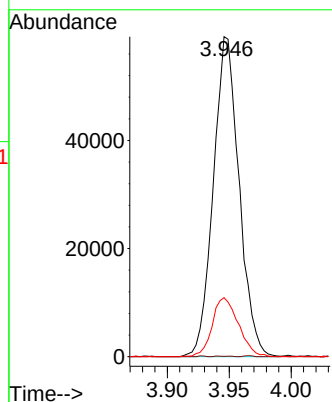
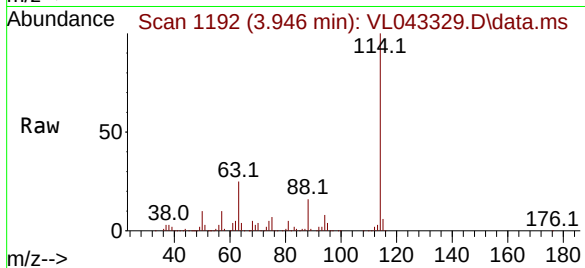
Tgt Ion: 63 Resp: 85715

Ion Ratio Lower Upper

63 100

41 0.1 62.6 93.8#

62 18.4 51.0 76.6#



#42

Bromodichloromethane

Concen: 0.040 ppbv

RT: 4.470 min Scan# 1354

Delta R.T. -0.007 min

Lab File: VL043329.D

Acq: 09 Dec 2025 00:38

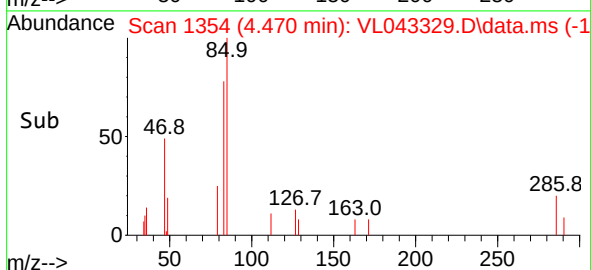
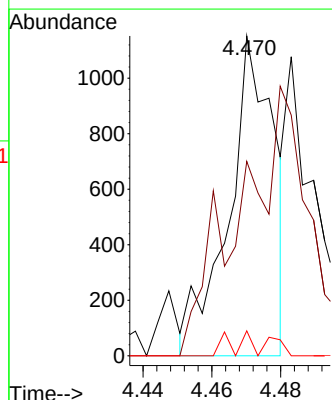
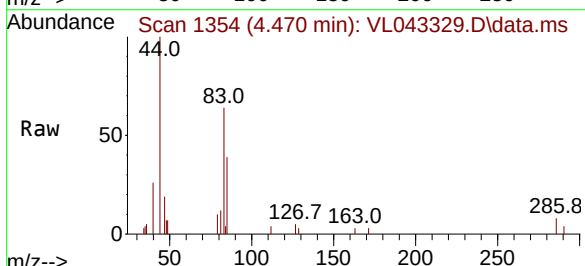
Tgt Ion: 83 Resp: 1053

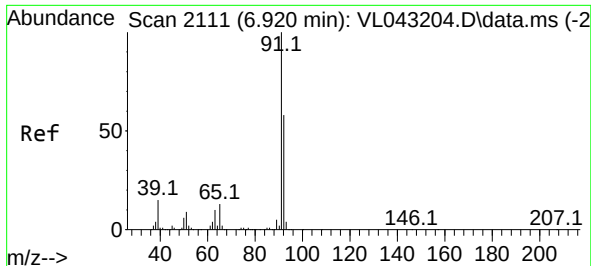
Ion Ratio Lower Upper

83 100

85 65.3 51.7 77.5

127 8.4 6.3 9.5

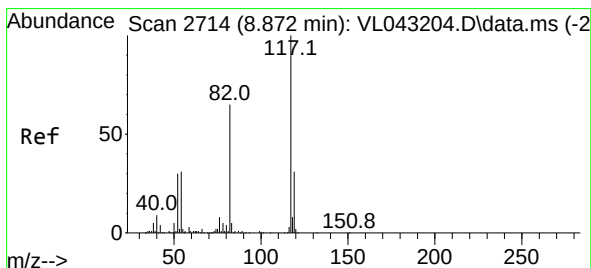
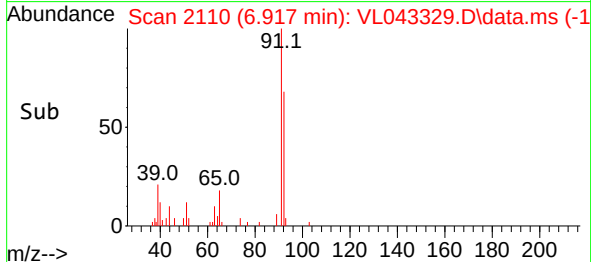
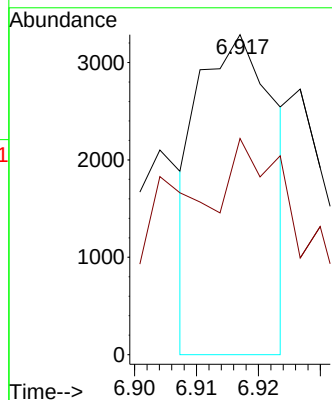
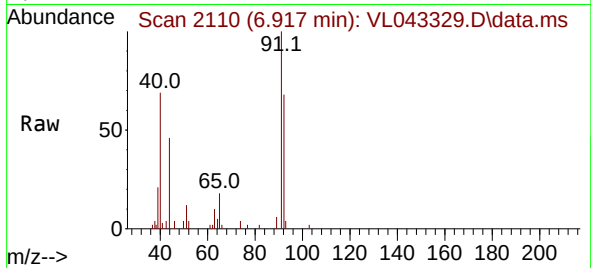




#53
Toluene
Concen: 0.072 ppbv
RT: 6.917 min Scan# 2111
Delta R.T. -0.003 min
Lab File: VL043329.D
Acq: 09 Dec 2025 00:38

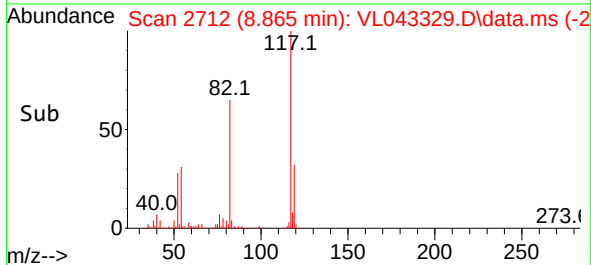
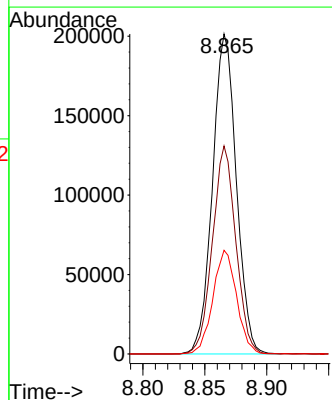
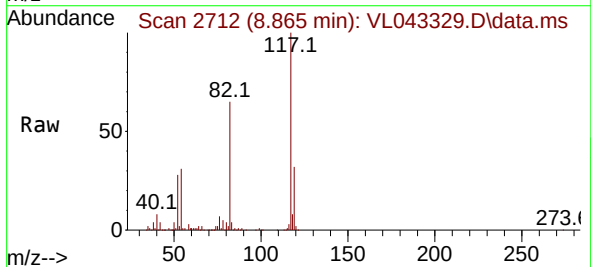
Instrument :
MSVOA_L
ClientSampleId :
SV1

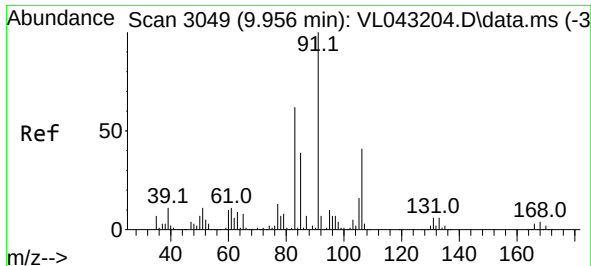
Tgt Ion: 91 Resp: 2810
Ion Ratio Lower Upper
91 100
92 136.7 47.4 71.0#



#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 8.865 min Scan# 2712
Delta R.T. -0.007 min
Lab File: VL043329.D
Acq: 09 Dec 2025 00:38

Tgt Ion: 117 Resp: 270053
Ion Ratio Lower Upper
117 100
82 63.8 56.1 84.1
119 32.3 25.0 37.6

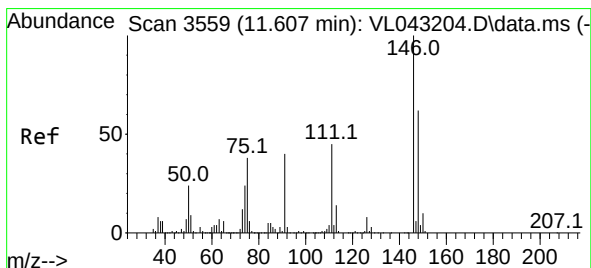
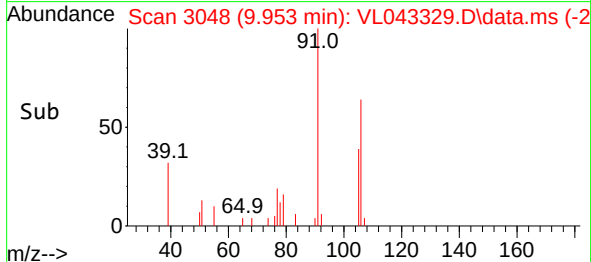
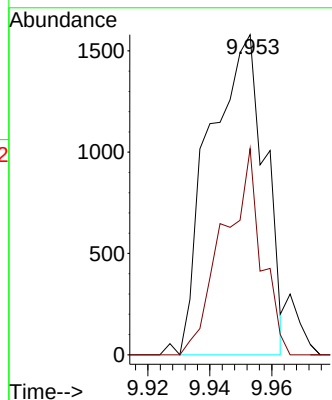
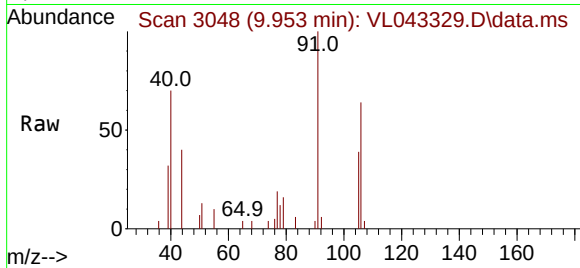




#60
o-Xylene
Concen: 0.047 ppbv
RT: 9.953 min Scan# 3049
Delta R.T. -0.003 min
Lab File: VL043329.D
Acq: 09 Dec 2025 00:38

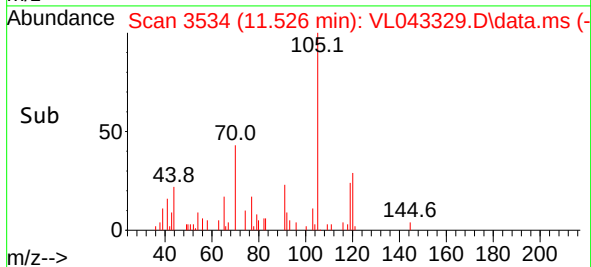
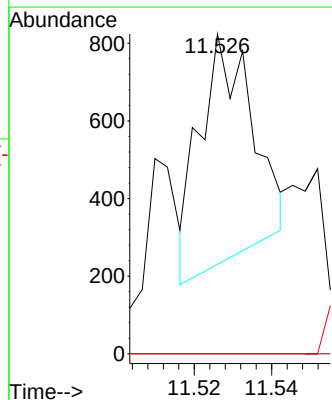
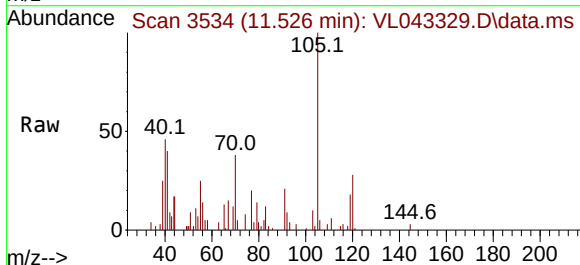
Instrument :
MSVOA_L
ClientSampleId :
SV1

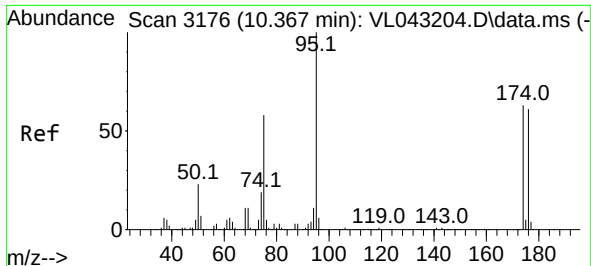
Tgt Ion: 91 Resp: 1952
Ion Ratio Lower Upper
91 100
106 44.5 20.9 62.8



#66
Benzyl Chloride
Concen: 0.082 ppbv
RT: 11.526 min Scan# 3534
Delta R.T. -0.081 min
Lab File: VL043329.D
Acq: 09 Dec 2025 00:38

Tgt Ion: 91 Resp: 554
Ion Ratio Lower Upper
91 100
126 38.1 14.4 21.6#
128 8.3 4.6 6.8#

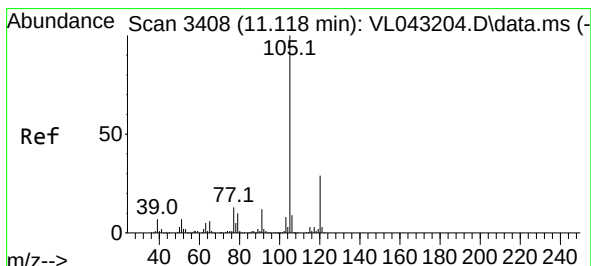
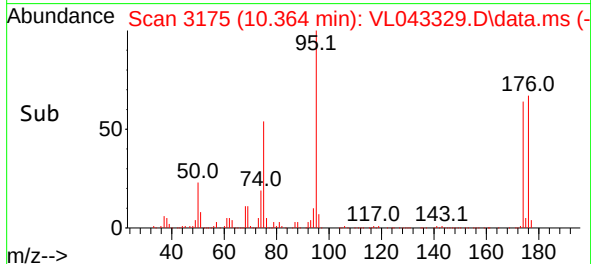
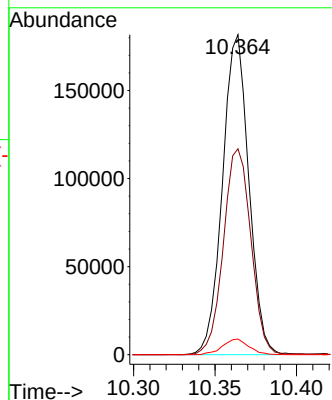
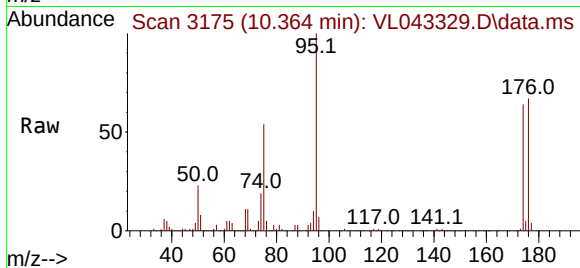




#68
1-Bromo-4-Fluorobenzene
Concen: 10.293 ppbv
RT: 10.364 min Scan# 3175
Delta R.T. -0.003 min
Lab File: VL043329.D
Acq: 09 Dec 2025 00:38

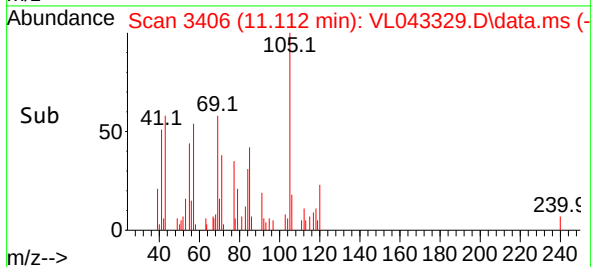
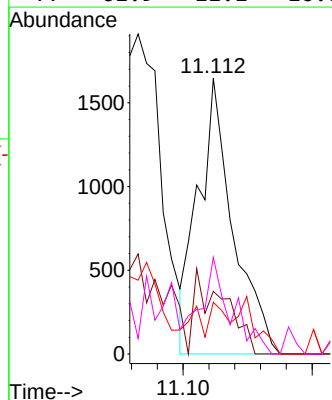
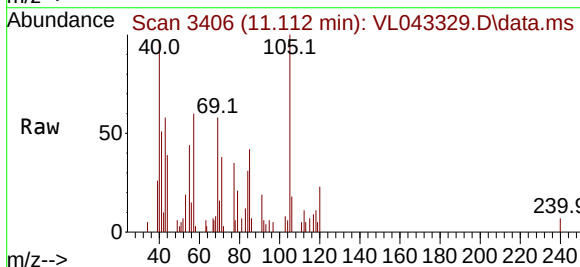
Instrument :
MSVOA_1
ClientSampleId :
SV1

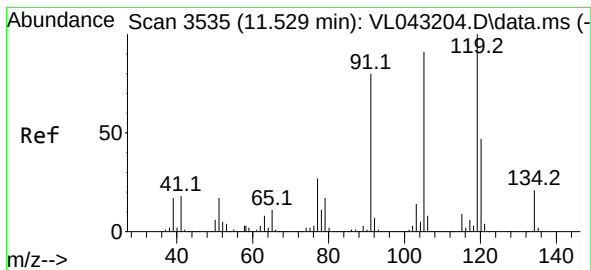
Tgt Ion: 95 Resp: 203754
Ion Ratio Lower Upper
95 100
174 67.7 50.2 75.2
175 4.9 4.1 6.1



#72
4-Ethyltoluene
Concen: 0.031 ppbv
RT: 11.112 min Scan# 3406
Delta R.T. -0.007 min
Lab File: VL043329.D
Acq: 09 Dec 2025 00:38

Tgt Ion:105 Resp: 1547
Ion Ratio Lower Upper
105 100
120 0.0 23.8 35.8#
91 13.5 10.3 15.5
77 61.9 11.1 16.7#





#74

1,2,4-Trimethylbenzene

Concen: 0.106 ppbv

RT: 11.523 min Scan# 3

Delta R.T. -0.007 min

Lab File: VL043329.D

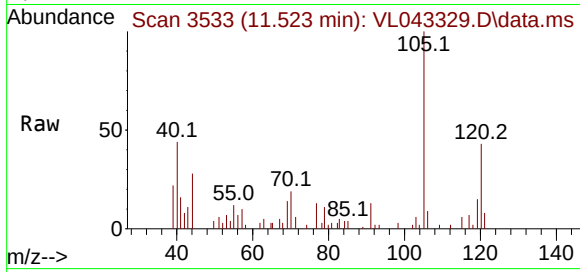
Acq: 09 Dec 2025 00:38

Instrument :

MSVOA_L

ClientSampleId :

SV1



Tgt Ion:105 Resp: 4924

Ion Ratio Lower Upper

105 100

120 42.7 41.7 62.5

91 13.3 70.0 105.0#

77 6.5 23.8 35.8#

