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Lakewood LF 12237

November 29, 1985

NJDEP/HSMA
65 Prospect Street
Trenton, NJ 08618

Attention: Al Pleva

Reference: Test Report No. SR12237

This report covers the analysis of seven (7) aqueous and five (5) non-aqueous samples submitted to S-R Analytical, Inc. (S-R) on October 17, 1985. The following analyses were requested:

- Volatile Organics
- Acid Extractable Organics
- Base/Neutral Extractable Organics
- Pesticides and Polychlorinated Biphenyls
- Volatile and Semi-Volatile Organic NBS Library Search
- Metals, Cyanide and Phenol

This report is organized in the following manner:

- Preparatory Factors and Data Qualifications
- Methodology
- Analytical Results
- Quality Assurance Data
- Precision and Accuracy Statements

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I. Preparatory Factors and Data Qualifications

Preparatory Factors

Volatile Organics

Sample No.	Preparatory Factor, wt., g/final vol., mls	Volume Purged
solid method blank	0/10.0	100 ul
aqueous method blank	--	30 ml
SR12237-1	--	5.0 ml
SR12237-2	--	5.0 ml
SR12237-2 Duplicate	--	5.0 ml
SR12237-3	--	5.0 ml
SR12237-4	--	5.0 ml
SR12237-5	--	5.0 ml
SR12237-6	--	5.0 ml
SR12237-7	--	5.0 ml
SR12237-8	4.1790/10.0	100 ul
SR12237-9	4.1044/10.0	100 ul
SR12237-10	4.0140/10.0	100 ul
SR12237-11	4.1830/10.0	100 ul
SR12237-12	4.4550/10.0	100 ul
SR12237-12 Duplicate	4.4550/10.0	100 ul

I. Preparatory Factors and Data Qualifications (CONT'D)

Preparatory Factors

AE, B/N, Pesticides and Polychlorinated Biphenyls

Sample No.	Initial Volume	Final Volume
solid method blank	--	10.0 ml
aqueous method blank	1,000 ml	10.0 ml
SR12237-1	970 ml	10.0 ml
SR12237-2	880 ml	10.0 ml
SR12237-2 Duplicate	970 ml	10.0 ml
SR12237-3	930 ml	10.0 ml
SR12237-4	910 ml	10.0 ml
SR12237-5	970 ml	10.0 ml
SR12237-6	1,000 ml	10.0 ml
SR12237-7	88 ml	10.0 ml
SR12237-8	30.73 g	10.0 ml
SR12237-9	30.18 g	10.0 ml
SR12237-10	30.28 g	10.0 ml
SR12237-10 Duplicate	30.96 g	10.0 ml
SR12237-11	30.02 g	10.0 ml
SR12237-12	30.09 g	10.0 ml

Data Qualifications

1. The minimum response factor for bromofrom in the volatiles was not met in the initial calibration curve.

2. The minimum response factor for bromoform in the volatiles was not met in the check standard.

3. The maximum percent difference not met for three of thirteen calibration check compounds on November 11, 1985 and not met for two of thirteen calibration check compounds on November 12, 1985.

4. 2,2,4-Trimethylpentane(Isooctane) is a contaminent in the methanol used for volatiles on solid samples and is reported frequently in the volatile NBS Library Search.

5. Due to the complexity of the chromatogram and the ratio of response between the original and confirmation for samples SR11327-9 (delta BHC) and SR11327-12 (Endosulfan I) there is a doubt to whether these compounds are actually present.

II. Methodology (CONT'D)

Pesticides and Polychlorinated Biphenyls

Aqueous and solid samples are prepared in accordance with the methods outlined under "Acid Extractables and Base/Neutral Extractable Organics." Following evaporation in the Kuderna-Danish apparatus, the extract is then solvent exchanged to hexane and eluted through a 20-gram florisil column with 50% petroleum ether in diethyl ether for cleanup.

Oil samples are prepared by adding a known amount of sample to a 20 gram florisil column, and eluting with 50% petroleum in diethyl ether. Analysis of the above extracts is carried out by GC in accordance with the following method:

- EPA Method 608, Organochlorine Pesticides and PCB's, Federal Register, Vol. 44, No. 233, December 3, 1979.

Any result reported above the MDL has been confirmed by analyses on an alternate column.

Miscellaneous Parameters

Aqueous, non-aqueous and solid samples are prepared and analyzed according to the following publications:

- EPA Test Methods for Evaluating Solid Wastes - Physical/Chemical Methods -SW846, 1982.
- Standard Methods for the Examination of Water and Wastewater, 15th edition.
- EPA Chemical Analysis of Water and Wastes, EPA-600, 1979.

III. Analytical Results

Volatile Organics

Constituent	solid method blank	SR12237-1 RW1	SR12237-2 RW2	SR12237-2 Duplicate	MDL, ug/l
	Sample Designation				
Chloromethane	ND	ND	ND	ND	10
Bromomethane	ND	ND	ND	ND	10
Vinyl chloride	ND	ND	ND	ND	10
Chloroethane	ND	ND	ND	ND	10
Methylene chloride*	1.2J	1.7JB	3.0JB	8.0JB	10
1,1-Dichloroethene	ND	ND	ND	ND	10
1,1-Dichloroethane	ND	ND	ND	ND	10
trans-1,2-Dichloroethene	ND	ND	ND	ND	10
Chloroform	ND	ND	ND	ND	10
1,2-Dichloroethane	ND	ND	ND	ND	10
1,1,1-Trichloroethane	ND	ND	ND	ND	10
Carbon tetrachloride	ND	ND	ND	ND	10
Bromodichloromethane	ND	ND	ND	ND	10
1,2-Dichloropropane	ND	ND	ND	ND	10
trans-1,3-Dichloropropene	ND	ND	ND	ND	10
Trichloroethene	ND	ND	ND	ND	10
Benzene	ND	ND	2.6J	2.4J	10
Dibromochloromethane	ND	ND	ND	ND	10
1,1,2-Trichloroethane	ND	ND	ND	ND	10
cis-1,3-Dichloropropene	ND	ND	ND	ND	10
2-Chloroethyl vinyl ether	ND	ND	ND	ND	10
Bromoform	ND	ND	ND	ND	10
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	10
Tetrachloroethene	ND	ND	ND	ND	10
Toluene*	ND	ND	ND	ND	10
Chlorobenzene	ND	ND	140	130	10
Ethyl benzene	ND	ND	ND	ND	10

*Identification of these compounds at low levels is sometimes attributed to laboratory contamination.

ND - Not Detected

MDL - Method Detection Limit (lowest possible limit at which compound can be accurately quantified)

J - Constituent detected but below the MDL. Quantification of level preceeding letter is approximate.

B - Analyte found in the blank as well as the sample. This warns data user of possible blank contamination.

III. Analytical Results, (CONT'D)

Volatile Organics

Constituent	Sample Designation SR12237-3 Leachate #1	SR12237-4 Leachate #2	SR12237-5 Potable #1	MDL, ug/l
Chloromethane	ND	ND	ND	10
Bromomethane	ND	ND	ND	10
Vinyl chloride	ND	ND	ND	10
Chloroethane	ND	ND	ND	10
Methylene chloride*	5.6JB	1.6JB	6.0JB	10
1,1-Dichloroethene	ND	ND	ND	10
1,1-Dichloroethane	ND	ND	ND	10
trans-1,2-Dichloroethene	ND	ND	ND	10
Chloroform	ND	ND	ND	10
1,2-Dichloroethane	ND	ND	ND	10
1,1,1-Trichloroethane	ND	ND	ND	10
Carbon tetrachloride	ND	ND	ND	10
Bromodichloromethane	ND	ND	ND	10
1,2-Dichloropropane	ND	ND	ND	10
trans-1,3-Dichloropropene	ND	ND	ND	10
Trichloroethene	ND	ND	ND	10
Benzene	ND	ND	ND	10
Dibromochloromethane	ND	ND	ND	10
1,1,2-Trichloroethane	ND	ND	ND	10
cis-1,3-Dichloropropene	ND	ND	ND	10
2-Chloroethyl vinyl ether	ND	ND	ND	10
Bromoform	ND	ND	ND	10
1,1,2,2-Tetrachloroethane	ND	ND	ND	10
Tetrachloroethene	ND	ND	ND	10
Toluene*	ND	35	ND	10
Chlorobenzene	ND	ND	ND	10
Ethyl benzene	ND	11	ND	10

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ND - Not Detected

MDL - Method Detection Limit (lowest possible limit at which compound can be accurately quantified)

J - Constituent detected but below the MDL. Quantification of level preceeding letter is approximate.

B - Analyte found in the blank as well as the sample. This warns data user of possible blank contamination.

III. Analytical Results, (CONT'D)

Volatile Organics

Constituent	Sample Designation SR12237-6 Trip Blank	SR12237-7 Field Blank	MDL, ug/l
Chloromethane	ND	ND	10
Bromomethane	ND	ND	10
Vinyl chloride	ND	ND	10
Chloroethane	ND	ND	10
Methylene chloride*	5.6JB	5.5JB	10
1,1-Dichloroethene	ND	ND	10
1,1-Dichloroethane	ND	ND	10
trans-1,2-Dichloroethene	ND	ND	10
Chloroform	ND	ND	10
1,2-Dichloroethane	ND	ND	10
1,1,1-Trichloroethane	ND	ND	10
Carbon tetrachloride	ND	ND	10
Bromodichloromethane	ND	ND	10
1,2-Dichloropropane	ND	ND	10
trans-1,3-Dichloropropene	ND	ND	10
Trichloroethene	ND	ND	10
Benzene	ND	ND	10
Dibromochloromethane	ND	ND	10
1,1,2-Trichloroethane	ND	ND	10
cis-1,3-Dichloropropene	ND	ND	10
2-Chloroethyl vinyl ether	ND	ND	10
Bromoform	ND	ND	10
1,1,2,2-Tetrachloroethane	ND	ND	10
Tetrachloroethene	ND	ND	10
Toluene*	ND	ND	10
Chlorobenzene	ND	ND	10
Ethyl benzene	ND	ND	10

*Identification of these compounds at low levels is sometimes attributed to laboratory contamination.

ND - Not Detected

MDL - Method Detection Limit (lowest possible limit at which compound can be accurately quantified)

J - Constituent detected but below the MDL. Quantification of level preceeding letter is approximate.

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III. Analytical Results, (CONT'D)

Volatile Organics

Constituent	solid method blank	SR12237-8 Soil #1	SR12237-9 Soil #2	SR12237-10 Soil #3	MDL, ug/kg
		Sample Designation			
Chloromethane	ND	ND	ND	ND	330
Bromomethane	ND	ND	ND	ND	330
Vinyl chloride	ND	ND	ND	ND	330
Chloroethane	ND	ND	ND	ND	330
Methylene chloride*	320J	630B	580B	1,100B	330
1,1-Dichloroethene	ND	ND	ND	ND	330
1,1-Dichloroethane	ND	ND	ND	ND	330
trans-1,2-Dichloroethene	ND	ND	ND	ND	330
Chloroform	ND	ND	ND	ND	330
1,2-Dichloroethane	ND	ND	ND	ND	330
1,1,1-Trichloroethane	ND	ND	ND	ND	330
Carbon tetrachloride	ND	ND	ND	ND	330
Bromodichloromethane	ND	ND	ND	ND	330
1,2-Dichloropropane	ND	ND	ND	ND	330
trans-1,3-Dichloropropene	ND	ND	ND	ND	330
Trichloroethene	ND	ND	ND	ND	330
Benzene	ND	ND	ND	ND	330
Dibromochloromethane	ND	ND	ND	ND	330
1,1,2-Trichloroethane	ND	ND	ND	ND	330
cis-1,3-Dichloropropene	ND	ND	ND	ND	330
2-Chloroethyl vinyl ether	ND	ND	ND	ND	330
Bromoform	ND	ND	ND	ND	330
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	330
Tetrachloroethene	ND	ND	ND	ND	330
Toluene*	ND	ND	ND	ND	330
Chlorobenzene	ND	ND	ND	ND	330
Ethyl benzene	ND	ND	ND	ND	330

*Identification of these compounds at low levels is sometimes attributed to laboratory contamination.

ND - Not Detected

MDL - Method Detection Limit (lowest possible limit at which compound can be accurately quantified)

J - Constituent detected but below the MDL. Quantification of level preceeding letter is approximate.

B - Analyte found in the blank as well as the sample. This warns data user of possible blank contamination.

III. Analytical Results, (CONT'D)

Volatile Organics

Constituent	Sample Designation SR12237-11 Soil #4	SR12237-12 Soil #5	SR12237-12 Duplicate	MDL, ug/kg
Chloromethane	ND	ND	ND	330
Bromomethane	ND	ND	ND	330
Vinyl chloride	ND	ND	ND	330
Chloroethane	ND	ND	ND	330
Methylene chloride*	950B	720B	670B	330
1,1-Dichloroethene	ND	ND	ND	330
1,1-Dichloroethane	ND	ND	ND	330
trans-1,2-Dichloroethene	ND	ND	ND	330
Chloroform	ND	ND	ND	330
1,2-Dichloroethane	ND	ND	ND	330
1,1,1-Trichloroethane	ND	ND	ND	330
Carbon tetrachloride	ND	ND	ND	330
Bromodichloromethane	ND	ND	ND	330
1,2-Dichloropropane	ND	ND	ND	330
trans-1,3-Dichloropropene	ND	ND	ND	330
Trichloroethene	ND	ND	ND	330
Benzene	ND	ND	ND	330
Dibromochloromethane	ND	ND	ND	330
1,1,2-Trichloroethane	ND	ND	ND	330
cis-1,3-Dichloropropene	ND	ND	ND	330
2-Chloroethyl vinyl ether	ND	ND	ND	330
Bromoform	ND	ND	ND	330
1,1,2,2-Tetrachloroethane	ND	ND	ND	330
Tetrachloroethene	ND	ND	ND	330
Toluene*	ND	ND	ND	330
Chlorobenzene	ND	ND	ND	330
Ethyl benzene	ND	ND	ND	330

*Identification of these compounds at low levels is sometimes attributed to laboratory contamination.

ND - Not Detected

MDL - Method Detection Limit (lowest possible limit at which compound can be accurately quantified)

B - Analyte found in the blank as well as the sample. This warns data user of possible blank contamination.

III. Analytical Results, (CONT'D)

Acid Extractable Organics (Method 625 by GC/MS)

Constituent	aqueous method blank	Sample Designation SR12237-1 RW1	SR12237-2 RW2	SR12237-2 Duplicate	MDL, ug/l
Phenol	ND	ND	ND	ND	5.0
2-Chlorophenol	ND	ND	ND	ND	5.0
2-Nitrophenol	ND	ND	ND	ND	5.0
2,4-Dimethylphenol	ND	ND	ND	ND	5.0
2,4-Dichlorophenol	ND	ND	ND	ND	5.0
4-Chloro-3-methyl-phenol	ND	ND	ND	ND	5.0
2,4,6-Trichlorophenol	ND	ND	ND	ND	5.0
2,4-Dinitrophenol	ND	ND	ND	ND	50
4-Nitrophenol	ND	ND	ND	ND	5.0
2-Methyl-4,6-dinitrophenol	ND	ND	ND	ND	50
Pentachlorophenol	ND	ND	ND	ND	5.0

Constituent	Sample Designation SR12237-3 Leachate #1	SR12237-4 Leachate #2	SR12237-5 Potable #1	MDL, ug/l
Phenol	ND	ND	ND	5.0
2-Chlorophenol	ND	ND	ND	5.0
2-Nitrophenol	ND	ND	ND	5.0
2,4-Dimethylphenol	ND	ND	ND	5.0
2,4-Dichlorophenol	ND	ND	ND	5.0
4-Chloro-3-methyl-phenol	ND	ND	ND	5.0
2,4,6-Trichlorophenol	ND	ND	ND	5.0
2,4-Dinitrophenol	ND	ND	ND	50
4-Nitrophenol	ND	ND	ND	5.0
2-Methyl-4,6-dinitrophenol	ND	ND	ND	50
Pentachlorophenol	ND	ND	ND	5.0

ND - Not Detected

MDL - Method Detection Limit (lowest possible limit at which compound can be accurately quantified)

III. Analytical Results, (CONT'D)

Acid Extractable Organics (Method 625 by GC/MS)

Constituent	Sample Designation SR12237-6 Trip Blank	SR12237-7 Field Blank	MDL, ug/l
Phenol	ND	ND	5.0
2-Chlorophenol	ND	ND	5.0
2-Nitrophenol	ND	ND	5.0
2,4-Dimethylphenol	ND	ND	5.0
2,4-Dichlorophenol	ND	ND	5.0
4-Chloro-3-methyl-phenol	ND	ND	5.0
2,4,6-Trichlorophenol	ND	ND	5.0
2,4-Dinitrophenol	ND	ND	50
4-Nitrophenol	ND	ND	5.0
2-Methyl-4,6-dinitrophenol	ND	ND	50
Pentachlorophenol	ND	ND	5.0

Constituent	Sample Designation solid method blank	SR12237-8 Soil #1	SR12237-9 Soil #2	SR12237-10 Soil #3	MDL, ug/kg
Phenol	ND	ND	ND	ND	830
2-Chlorophenol	ND	ND	ND	ND	830
2-Nitrophenol	ND	ND	ND	ND	830
2,4-Dimethylphenol	ND	ND	ND	ND	830
2,4-Dichlorophenol	ND	ND	ND	ND	830
4-Chloro-3-methyl-phenol	ND	ND	ND	ND	830
2,4,6-Trichlorophenol	ND	ND	ND	ND	830
2,4-Dinitrophenol	ND	ND	ND	ND	8,300
4-Nitrophenol	ND	ND	ND	ND	830
2-Methyl-4,6-dinitrophenol	ND	ND	ND	ND	8,300
Pentachlorophenol	ND	ND	ND	ND	830

ND - Not Detected

MDL - Method Detection Limit (lowest possible limit at which compound can be accurately quantified)

III. Analytical Results, (CONT'D)

Acid Extractable Organics (Method 625 by GC/MS)

Constituent	Sample Designation SR12237-10 Duplicate	SR12237-11 Soil #4	SR12237-12 Soil #5	MDL, ug/kg
Phenol	ND	ND	ND	830
2-Chlorophenol	ND	ND	ND	830
2-Nitrophenol	ND	ND	ND	830
2,4-Dimethylphenol	ND	ND	ND	830
2,4-Dichlorophenol	ND	ND	ND	830
4-Chloro-3-methyl-phenol	ND	ND	ND	830
2,4,6-Trichlorophenol	ND	ND	ND	830
2,4-Dinitrophenol	ND	ND	ND	8,300
4-Nitrophenol	ND	ND	ND	830
2-Methyl-4,6-dinitrophenol	ND	ND	ND	8,300
Pentachlorophenol	ND	ND	ND	830

ND - Not Detected

MDL - Method Detection Limit (lowest possible limit at which compound can be accurately quantified)

III. Analytical Results, (CONT'D)
B. Acid/Neutral Extractable Organics (Method 625 by GC/MS)

Constituent	aqueous method blank	Sample Designation SR12237-1 RW1	SR12237-2 RW2	SR12237-2 Duplicate	MDL, ug/l
bis(2-Chloroethyl) ether	ND	ND	ND	ND	1.0
1,2-Dichlorobenzene	ND	ND	ND	ND	1.0
1,4-Dichlorobenzene	ND	ND	ND	ND	1.0
1,3-Dichlorobenzene	ND	ND	ND	ND	1.0
bis (2-Chloroisopropyl) ether	ND	ND	ND	ND	1.0
N-Nitrosodipropyl amine	ND	ND	ND	ND	1.0
Hexachloroethane	ND	ND	ND	ND	1.0
Nitrobenzene	ND	ND	ND	ND	1.0
Isophorone	ND	ND	ND	ND	1.0
bis (2-Chloroethoxy) methane	ND	ND	ND	ND	1.0
1,2,4-Trichlorobenzene	ND	ND	ND	ND	1.0
Naphthalene	ND	ND	ND	ND	1.0
Hexachlorobutadiene	ND	ND	ND	ND	1.0
Hexachlorocyclopentadiene	ND	ND	ND	ND	1.0
2-Chloronaphthalene	ND	ND	ND	ND	1.0
Dimethyl phthalate*	ND	ND	ND	ND	1.0
2,6-Dinitrotoluene	ND	ND	ND	ND	1.0
Acenaphthylene	ND	ND	ND	ND	1.0
Acenaphthene	ND	ND	ND	ND	1.0
2,4-Dinitrotoluene	ND	ND	ND	ND	1.0
Diethyl phthalate*	ND	ND	ND	ND	1.0
N-Nitrosodimethyl amine	ND	ND	ND	ND	1.0
4-Chlorophenylphenyl ether	ND	ND	ND	ND	1.0
Fluorene	ND	ND	ND	ND	1.0
Azobenzene	ND	ND	ND	ND	1.0
N-Nitrosodiphenyl amine	ND	ND	ND	ND	1.0
4-Bromophenylphenyl ether	ND	ND	ND	ND	1.0
Hexachlorobenzene	ND	ND	ND	ND	1.0
Phenanthrene	ND	ND	ND	ND	1.0
Anthracene	ND	ND	ND	ND	1.0
Dibutyl phthalate*	ND	ND	ND	ND	1.0
Fluoranthene	ND	ND	ND	ND	1.0
Benzidine	ND	ND	ND	ND	30
Pyrene	ND	ND	ND	ND	1.0
Butylbenzyl phthalate*	ND	ND	ND	ND	1.0
3,3'-Dichlorobenzidine	ND	ND	ND	ND	30
Benzo (a) anthracene	ND	ND	ND	ND	1.0
Chrysene	ND	ND	ND	ND	1.0
bis (2-Ethylhexyl) phthalate*	ND	ND	ND	ND	1.0
Dioctyl phthalate*	ND	ND	ND	ND	1.0
Benzo (k) fluoranthene	ND	ND	ND	ND	1.0
Benzo (b) fluoranthene	ND	ND	ND	ND	1.0
Benzo (a) pyrene	ND	ND	ND	ND	1.0
Indeno (1,2,3-c,d) pyrene	ND	ND	ND	ND	20
Dibenzo (a,h) anthracene	ND	ND	ND	ND	20
Benzo (ghi) perylene	ND	ND	ND	ND	20

*Identification of these compounds at low levels is sometimes attributed to laboratory contamination.

ND - Not Detected

MDL - Method Detection Limit (lowest possible limit at which compound can be accurately quantified)

Analytical Results (CONT'D)

Base/Neutral Extractable Organics (Method 625 by GC/MS)

Constituent	SR12237-3 Leachate #1	SR12237-4 Leachate #2	SR12237-5 Potable #1	MDL, ug/l
	Sample Designation			
bis(2-Chloroethyl) ether	ND	ND	ND	1.0
1,2-Dichlorobenzene	ND	ND	ND	1.0
1,4-Dichlorobenzene	ND	ND	ND	1.0
1,3-Dichlorobenzene	ND	ND	ND	1.0
bis (2-Chloroisopropyl) ether	ND	ND	ND	1.0
N-Nitrosodipropyl amine	ND	ND	ND	1.0
Hexachloroethane	ND	ND	ND	1.0
Nitrobenzene	ND	ND	ND	1.0
Isophorone	ND	ND	ND	1.0
bis (2-Chloroethoxy) methane	ND	ND	ND	1.0
1,2,4-Trichlorobenzene	ND	ND	ND	1.0
Naphthalene	ND	ND	ND	1.0
Hexachlorobutadiene	ND	ND	ND	1.0
Hexachlorocyclopentadiene	ND	ND	ND	1.0
2-Chloronaphthalene	ND	ND	ND	1.0
Dimethyl phthalate*	ND	ND	ND	1.0
2,6-Dinitrotoluene	ND	ND	ND	1.0
Acenaphthylene	ND	ND	ND	1.0
Acenaphthene	ND	ND	ND	1.0
2,4-Dinitrotoluene	ND	ND	ND	1.0
Diethyl phthalate*	ND	40	ND	1.0
N-Nitrosodimethyl amine	ND	ND	ND	1.0
4-Chlorophenylphenyl ether	ND	ND	ND	1.0
Fluorene	ND	ND	ND	1.0
Azobenzene	ND	ND	ND	1.0
N-Nitrosodiphenyl amine	ND	ND	ND	1.0
4-Bromophenylphenyl ether	ND	ND	ND	1.0
Hexachlorobenzene	ND	ND	ND	1.0
Phenanthrene	ND	ND	ND	1.0
Anthracene	ND	ND	ND	1.0
Dibutyl phthalate*	ND	ND	ND	1.0
Fluoranthene	ND	ND	ND	1.0
Benzidine	ND	ND	ND	30
Pyrene	ND	ND	ND	1.0
Butylbenzyl phthalate*	ND	ND	ND	1.0
3,3'-Dichlorobenzidine	ND	ND	ND	30
Benzo (a) anthracene	ND	ND	ND	1.0
Chrysene	ND	ND	ND	1.0
bis (2-Ethylhexyl) phthalate*	35	39	ND	1.0
Dioctyl phthalate*	ND	ND	ND	1.0
Benzo (k) fluoranthene	ND	ND	ND	1.0
Benzo (b) fluoranthene	ND	ND	ND	1.0
Benzo (a) pyrene	ND	ND	ND	1.0
Indeno (1,2,3-c,d) pyrene	ND	ND	ND	20
Dibenzo (a,h) anthracene	ND	ND	ND	20
Benzo (ghi) perylene	ND	ND	ND	20

*Identification of these compounds at low levels is sometimes attributed to laboratory contamination.

ND - Not Detected
MDL - Method Detection Limit (lowest possible limit at which compound can be accurately quantified)

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Analytical Results (CONT'D)

Base/Neutral Extractable Organics (Method 625 by GC/MS)

Constituent	Sample Designation SR12237-6 Trip Blank	SR12237-7 Field Blank	MDL, ug/l
bis(2-Chloroethyl) ether	ND	ND	1.0
1,2-Dichlorobenzene	ND	ND	1.0
1,4-Dichlorobenzene	ND	ND	1.0
1,3-Dichlorobenzene	ND	ND	1.0
bis (2-Chloroisopropyl) ether	ND	ND	1.0
N-Nitrosodipropyl amine	ND	ND	1.0
Hexachloroethane	ND	ND	1.0
Nitrobenzene	ND	ND	1.0
Isophorone	ND	ND	1.0
bis (2-Chloroethoxy) methane	ND	ND	1.0
1,2,4-Trichlorobenzene	ND	ND	1.0
Naphthalene	ND	ND	1.0
Hexachlorobutadiene	ND	ND	1.0
Hexachlorocyclopentadiene	ND	ND	1.0
2-Chloronaphthalene	ND	ND	1.0
Dimethyl phthalate*	ND	ND	1.0
2,6-Dinitrotoluene	ND	ND	1.0
Acenaphthylene	ND	ND	1.0
Acenaphthene	ND	ND	1.0
2,4-Dinitrotoluene	ND	ND	1.0
Diethyl phthalate*	ND	ND	1.0
N-Nitrosodimethyl amine	ND	ND	1.0
4-Chlorophenylphenyl ether	ND	ND	1.0
Fluorene	ND	ND	1.0
Azobenzene	ND	ND	1.0
N-Nitrosodiphenyl amine	ND	ND	1.0
4-Bromophenylphenyl ether	ND	ND	1.0
Hexachlorobenzene	ND	ND	1.0
Phenanthrene	ND	ND	1.0
Anthracene	ND	ND	1.0
Dibutyl phthalate*	ND	ND	1.0
Fluoranthene	ND	ND	1.0
Benzidine	ND	ND	30
Pyrene	ND	ND	1.0
Butylbenzyl phthalate*	ND	ND	1.0
3,3'-Dichlorobenzidine	ND	ND	30
Benzo (a) anthracene	ND	ND	1.0
Chrysene	ND	ND	1.0
bis (2-Ethylhexyl) phthalate*	ND	ND	1.0
Dioctyl phthalate*	ND	ND	1.0
Benzo (k) fluoranthene	ND	ND	1.0
Benzo (b) fluoranthene	ND	ND	1.0
Benzo (a) pyrene	ND	ND	1.0
Indeno (1,2,3-c,d) pyrene	ND	ND	20
Dibenzo (a,h) anthracene	ND	ND	20
Benzo (ghi) perylene	ND	ND	20

*Identification of these compounds at low levels is sometimes attributed to laboratory contamination.

ND - Not Detected
MDL - Method Detection Limit (lowest possible limit at which compound can be accurately quantified)

ANALYTICAL RESULTS (CONT'D)

Base/Neutral Extractable Organics (Method 625 by GC/MS)

Constituent	Sample Designation SR12237-8 Soil #1	SR12237-9 Soil #2	SR12237-10 Soil #3	MDL, ug/kg
bis(2-Chloroethyl) ether	ND	ND	ND	330
1,2-Dichlorobenzene	ND	ND	ND	330
1,4-Dichlorobenzene	ND	ND	ND	330
1,3-Dichlorobenzene	ND	ND	ND	330
bis (2-Chloroisopropyl) ether	ND	ND	ND	330
N-Nitrosodipropyl amine	ND	ND	ND	330
Hexachloroethane	ND	ND	ND	330
Nitrobenzene	ND	ND	ND	330
Isophorone	ND	ND	ND	330
bis (2-Chloroethoxy) methane	ND	ND	ND	330
1,2,4-Trichlorobenzene	ND	ND	ND	330
Naphthalene	ND	ND	ND	330
Hexachlorobutadiene	ND	ND	ND	330
Hexachlorocyclopentadiene	ND	ND	ND	330
2-Chloronaphthalene	ND	ND	ND	330
Dimethyl phthalate*	ND	ND	ND	330
2,6-Dinitrotoluene	ND	ND	ND	330
Acenaphthylene	ND	ND	ND	330
Acenaphthene	ND	ND	ND	330
2,4-Dinitrotoluene	ND	ND	ND	330
Diethyl phthalate*	ND	ND	ND	330
N-Nitrosodimethyl amine	ND	ND	ND	330
4-Chlorophenylphenyl ether	ND	ND	ND	330
Fluorene	ND	ND	ND	330
Azobenzene	ND	ND	ND	330
N-Nitrosodiphenyl amine	ND	ND	ND	330
4-Bromophenylphenyl ether	ND	ND	ND	330
Hexachlorobenzene	ND	ND	ND	330
Phenanthrene	ND	ND	ND	330
Anthracene	ND	ND	ND	330
Dibutyl phthalate*	ND	ND	ND	330
Fluoranthene	ND	ND	ND	330
Benzidine	ND	ND	ND	9,900
Pyrene	ND	ND	ND	330
Butylbenzyl phthalate*	ND	ND	ND	330
3,3'-Dichlorobenzidine	ND	ND	ND	9,900
Benzo (a) anthracene	ND	ND	ND	330
Chrysene	ND	ND	ND	330
bis (2-Ethylhexyl) phthalate*	ND	72J	ND	330
Dioctyl phthalate*	ND	ND	ND	330
Benzo (k) fluoranthene	ND	ND	ND	330
Benzo (b) fluoranthene	ND	ND	ND	330
Benzo (a) pyrene	ND	ND	ND	330
Indeno (1,2,3-c,d) pyrene	ND	ND	ND	6,600
Dibenzo (a,h) anthracene	ND	ND	ND	6,600
Benzo (ghi) perylene	ND	ND	ND	6,600

*Identification of these compounds at low levels is sometimes attributed to laboratory contamination.

ND - Not Detected

MDL - Method Detection Limit (lowest possible limit at which compound can be accurately quantified)

J - Constituent detected but below the MDL. Quantification of level preceeding letter is approximate.

ANALYTICAL RESULTS (CONT'D)

Base/Neutral Extractable Organics (Method 625 by GC/MS)

Constituent	Sample Designation SR12237-10 Duplicate	SR12237-11 Soil #4	SR12237-12 Soil #5	MDL, ug/kg
bis(2-Chloroethyl) ether	ND	ND	ND	330
1,2-Dichlorobenzene	ND	ND	ND	330
1,4-Dichlorobenzene	ND	ND	ND	330
1,3-Dichlorobenzene	ND	ND	ND	330
bis (2-Chloroisopropyl) ether	ND	ND	ND	330
N-Nitrosodipropyl amine	ND	ND	ND	330
Hexachloroethane	ND	ND	ND	330
Nitrobenzene	ND	ND	ND	330
Isophorone	ND	ND	ND	330
bis (2-Chloroethoxy) methane	ND	ND	ND	330
1,2,4-Trichlorobenzene	ND	ND	ND	330
Naphthalene	ND	ND	ND	330
Hexachlorobutadiene	ND	ND	ND	330
Hexachlorocyclopentadiene	ND	ND	ND	330
2-Chloronaphthalene	ND	ND	ND	330
Dimethyl phthalate*	ND	ND	ND	330
2,6-Dinitrotoluene	ND	ND	ND	330
Acenaphthylene	ND	ND	ND	330
Acenaphthene	ND	ND	ND	330
2,4-Dinitrotoluene	ND	ND	ND	330
Diethyl phthalate*	ND	110J	430	330
N-Nitrosodimethyl amine	ND	ND	ND	330
4-Chlorophenylphenyl ether	ND	ND	ND	330
Fluorene	ND	ND	ND	330
Azobenzene	ND	ND	ND	330
N-Nitrosodiphenyl amine	ND	ND	ND	330
4-Bromophenylphenyl ether	ND	ND	ND	330
Hexachlorobenzene	ND	ND	ND	330
Phenanthrene	ND	ND	ND	330
Anthracene	ND	ND	ND	330
Dibutyl phthalate*	ND	ND	ND	330
Fluoranthene	ND	ND	ND	330
Benzidine	ND	ND	ND	9,900
Pyrene	ND	ND	ND	330
Butylbenzyl phthalate*	ND	ND	1,700	330
3,3'-Dichlorobenzidine	ND	ND	ND	9,900
Benzo (a) anthracene	ND	ND	ND	330
Chrysene	ND	ND	ND	330
bis (2-Ethylhexyl) phthalate*	ND	ND	ND	330
Dioctyl phthalate*	ND	ND	1,600	330
Benzo (k) fluoranthene	ND	ND	1,000	330
Benzo (b) fluoranthene	ND	ND	ND	330
Benzo (a) pyrene	ND	ND	ND	330
Indeno (1,2,3-c,d) pyrene	ND	ND	ND	6,600
Dibenzo (a,h) anthracene	ND	ND	ND	6,600
Benzo (ghi) perylene	ND	ND	ND	6,600

*Identification of these compounds at low levels is sometimes attributed to laboratory contamination.

ND - Not Detected

MDL - Method Detection Limit (lowest possible limit at which compound can be accurately quantified)

J - Constituent detected but below the MDL. Quantification of level preceeding letter is approximate.

III. Analytical Results, (CONT'D)

Pesticidal Compounds and Polychlorinated Biphenyls

Constituent	aqueous method blank	Sample Designation SR12237-1 RW1	SR12237-2 RW2	SR12237-2 Duplicate	MDL, ug/l
Aldrin	ND	ND	ND	ND	1.0
alpha BHC	ND	ND	ND	ND	1.0
beta BHC	ND	ND	ND	ND	1.0
gamma BHC	ND	ND	ND	ND	1.0
delta BHC	ND	ND	ND	ND	1.0
Chlordane	ND	ND	ND	ND	1.0
Dieldrin	ND	ND	ND	ND	1.0
p,p'-DDE	ND	ND	ND	ND	1.0
p,p'-DDT	ND	ND	ND	ND	1.0
p,p'-DDD	ND	ND	ND	ND	1.0
Endosulfan I	ND	ND	ND	ND	1.0
Endosulfan II	ND	ND	ND	ND	1.0
Endosulfan Sulfate	ND	ND	ND	ND	1.0
Endrin	ND	ND	ND	ND	1.0
Endrin Aldehyde	ND	ND	ND	ND	1.0
Heptachlor	ND	ND	ND	ND	1.0
Heptachlor Epoxide	ND	ND	ND	ND	1.0
Toxaphene	ND	ND	ND	ND	4.0
Polychlorinated Biphenyls, total, as Aroclor 1254	ND	ND	ND	ND	1.0

ND - Not Detected

MDL - Method Detection Limit (lowest possible limit at which compound can be accurately quantified)

III. Analytical Results, (CONT'D)

Pesticidal Compounds and Polychlorinated Biphenyls

Constituent	Sample Designation SR12237-3 Leachate #1	SR12237-4 Leachate #2	SR12237-5 Potable #1	MDL, ug/l
Aldrin	ND	ND	ND	1.0
alpha BHC	ND	ND	ND	1.0
beta BHC	ND	ND	ND	1.0
gamma BHC	ND	ND	ND	1.0
delta BHC	ND	ND	ND	1.0
Chlordane	ND	ND	ND	1.0
Dieldrin	ND	ND	ND	1.0
p,p'-DDE	ND	ND	ND	1.0
p,p'-DDT	ND	ND	ND	1.0
p,p'-DDD	ND	ND	ND	1.0
Endosulfan I	ND	ND	ND	1.0
Endosulfan II	ND	ND	ND	1.0
Endosulfan Sulfate	ND	ND	ND	1.0
Endrin	ND	ND	ND	1.0
Endrin Aldehyde	ND	ND	ND	1.0
Heptachlor	ND	ND	ND	1.0
Heptachlor Epoxide	ND	ND	ND	1.0
Toxaphene	ND	ND	ND	4.0
Polychlorinated Biphenyls, total, as Aroclor 1254	ND	ND	ND	1.0

ND - Not Detected

MDL - Method Detection Limit (lowest possible limit at which compound can be accurately quantified)

III. Analytical Results, (CONT'D)

Pesticidal Compounds and Polychlorinated Biphenyls

Constituent	Sample Designation SR12237-6 Trip Blank	SR12237-7 Field Blank	MDL, ug/l
Aldrin	ND	ND	1.0
alpha BHC	ND	ND	1.0
beta BHC	ND	ND	1.0
gamma BHC	ND	ND	1.0
delta BHC	ND	ND	1.0
Chlordane	ND	ND	1.0
Dieldrin	ND	ND	1.0
p,p'-DDE	ND	ND	1.0
p,p'-DDT	ND	ND	1.0
p,p'-DDD	ND	ND	1.0
Endosulfan I	ND	ND	1.0
Endosulfan II	ND	ND	1.0
Endosulfan Sulfate	ND	ND	1.0
Endrin	ND	ND	1.0
Endrin Aldehyde	ND	ND	1.0
Heptachlor	ND	ND	1.0
Heptachlor Epoxide	ND	ND	1.0
Toxaphene	ND	ND	4.0
Polychlorinated Biphenyls, total, as Aroclor 1254	ND	ND	1.0

ND - Not Detected

MDL - Method Detection Limit (lowest possible limit at which compound can be accurately quantified)

III. Analytical Results, (CONT'D)

Pesticidal Compounds and Polychlorinated Biphenyls

Constituent	solid method blank	Sample Designation SR12237-8 Soil #1	SR12237-8 Duplicate	SR12237-9 Soil #2	MDL, ug/kg
Aldrin	ND	ND	ND	ND	100
alpha BHC	ND	ND	ND	ND	100
beta BHC	ND	ND	ND	ND	100
gamma BHC	ND	ND	ND	ND	100
delta BHC	ND	ND	ND	96J; 400*	100
Chlordane	ND	ND	ND	ND	100
Dieldrin	ND	ND	ND	ND	100
p,p'-DDE	ND	ND	ND	ND	100
p,p'-DDT	ND	ND	ND	ND	100
p,p'-DDD	ND	ND	ND	ND	100
Endosulfan I	ND	ND	ND	ND	100
Endosulfan II	ND	ND	ND	ND	100
Endosulfan Sulfate	ND	ND	ND	ND	100
Endrin	ND	ND	ND	ND	100
Endrin Aldehyde	ND	ND	ND	ND	100
Heptachlor	ND	ND	ND	ND	100
Heptachlor Epoxide	ND	ND	ND	ND	100
Toxaphene	ND	ND	ND	ND	400
Polychlorinated Biphenyls, total, as Aroclor 1254	ND	ND	ND	ND	100

ND - Not Detected

MDL - Method Detection Limit (lowest possible limit at which compound can be accurately quantified)

*Alternate column confirmation

III. Analytical Results, (CONT'D)

Pesticidal Compounds and Polychlorinated Biphenyls

Constituent	Sample Designation SR12237-10 Soil #3	SR12237-11 Soil #4	SR12237-12 Soil #5	MDL, ug/kg
Aldrin	ND	ND	ND	100
alpha BHC	ND	ND	ND	100
beta BHC	ND	ND	ND	100
gamma BHC	ND	ND	ND	100
delta BHC	ND	ND	ND	100
Chlordane	ND	ND	ND	100
Dieldrin	ND	ND	ND	100
p,p'-DDE	ND	ND	ND	100
p,p'-DDT	ND	ND	ND	100
p,p'-DDD	ND	ND	ND	100
Endosulfan I	ND	ND	230; 100*	100
Endosulfan II	ND	ND	ND	100
Endosulfan Sulfate	ND	ND	ND	100
Endrin	ND	ND	ND	100
Endrin Aldehyde	ND	ND	ND	100
Heptachlor	ND	ND	ND	100
Heptachlor Epoxide	ND	ND	ND	100
Toxaphene	ND	ND	ND	400
Polychlorinated Biphenyls, total, as Aroclor 1254	ND	ND	ND	100

ND - Not Detected

MDL - Method Detection Limit (lowest possible limit at which compound can be accurately quantified)

*Alternate column confirmation

III. Analytical Results, (CONT'D)

NBS Library Search

The NBS Scan searches the mass spectrum of each peak in the chromatogram against the NBS library of 38,000 + compounds. This library consists of the mass spectra of various compounds compiled by researchers utilizing many different types of mass spectrometers under varied conditions. Due to the large number of compounds involved, it is impossible to run standards for all of them. Therefore, the spectra of the sample are compared to those in the library, and identified without the benefit of any standards. The computer can not positively identify any compound without a standard and so it identifies three (3) possible compounds for each peak and assigns them probabilities based upon a parameter called "Fit".

For any given compound identified in the NBS Scan, a perfect match to the library would be assigned a "Fit" value of 1,000. However, due to matrix interferences and instrumental differences, the mass spectra of the sample rarely duplicate those in the library exactly, reducing the fit values produced. According to the instrument manufacturer, any entry yielding a fit of 850 or greater has a good probability of being in the sample. The higher the value, the greater the probability. However, even with a fit of 1,000, the sample would have to be compared against an analytical standard for the compound in question. If the chromatographic "retention time" of the sample matched that of the standard, then the compound would be positively identified.

Therefore, the following guidelines are used for the tentative identification of compounds found by the library search.

1. Substances with responses of less than 25% of the internal standard are not searched.

2. The major ions in the reference spectrum (ions greater than than 10% of the most abundant ion) should be present in the sample spectrum.

3. The relative intensities of the major ions should agree with ± 20%.

4. Molecular ions present in the reference spectrum should be present in the sample spectrum.

5. Ions present in the sample spectrum but not in the reference spectrum are reviewed for possible background contamination or co-eluting compounds.

6. Ions present in the reference spectrum but not in the sample spectrum are reviewed for possible subtraction from the sample spectrum because of possible background contamination or co-eluting compounds.

7. If in the opinion of the mass spectral specialist no valid tentative identification can be made, the compound is reported as unknown. Additional classification has been given whenever possible (ie. unknown aromatic; unknown chlorinated hydrocarbons)

Copies of the sample spectra and the three (3) computer choices are attached for your additional review.

III. Analytical Results, (CONT'D)

Volatile Organic NBS Library Search

Sample No.	Compounds Identified	Scan No.	Estimated Conc. (ug/l)
aqueous method blank	Pentane-2,2,4-Trimethyl	735	9.6
SR12237-1 RW1	2,2,4-Trimethylpentane	736	16
SR12237-2 RW2	Unidentified Compound	490	22
SR12237-2 Duplicate	Unidentified Compound	451	13
SR12237-3 Leachate #1	Unidentified Compound	357	18
	Unidentified Compound	450	36
	Unidentified Compound	908	37
	Pentane-2,2,4-Trimethyl	737	20
SR12237-4 Leachate #2	2-Pentanone,4-Methyl	606	21
	Pentane-2,2,4-Trimethyl	737	27
SR12237-5 Potable #1	Pentane-2,2,4-Trimethyl	737	16
SR12237-6 Trip Blank	Pentane-2,2,4-Trimethyl	737	14
SR12237-7 Field Blank	Pentane-2,2,4-Trimethyl	737	15

Sample No.	Compounds Identified	Scan No.	Estimated Conc. (ug/kg)
solid method blank	2,2,4-Trimethylpentane	489	2.2
SR12237-8 Soil #1	Unidentified Compound	736	13
	Pentane-2,2,4-Trimethyl	736	160
SR12237-9 Soil #2	Pentane-2,2,4-Trimethyl	736	160
SR12237-10 Soil #3	Pentane-2,2,4-Trimethyl	736	150
SR12237-11 Soil #4	Pentane-2,2,4-Trimethyl	736	140
SR12237-12 Soil #5	Pentane-2,2,4-Trimethyl	736	140
SR12237-12 Duplicate	Pentane-2,2,4-Trimethyl	736	140

III. Analytical Results, (CONT'D)

Semi-Volatile Organic NBS Library Search

Sample No.		Compounds Identified	Scan No.	Fit	Estimated Con. (ug/l)
aqueous method blank		None Identified	-	-	-
SR12237-1	RW1	None Identified	-	-	-
SR12237-2	RW2	None Identified	-	-	-
SR12237-2	Duplicate	None Identified	-	-	-
SR12237-3	Leachate #1	1,3-Dimethyl Benzene	497	985	120
		Unidentified Alkane	649	-	140
		Unidentified Alkane	905	-	310
		Unidentified Alkane	985	-	120
		Unidentified Alkane	1,079	-	110
		Unidentified Compound	1,486	-	220
		Unidentified Alkane	1,829	-	1,000
		Unidentified Alkane	1,895	-	1,300
		Unidentified Alkane	2,572	-	230
SR12237-4	Leachate #2	Unidentified Compound	508	-	140
		Unidentified Compound	655	-	350
		Unidentified Compound	686	-	240
		Unidentified Alkane	734	-	260
		Unidentified Compound	757	-	130
		2-Methylphenol	792	970	260
		Unidentified Compound	894	-	160
		Unidentified Compound	904	-	360
		Unidentified Alkane	983	-	160
		Benzeneacetic Acid	1,044	981	250
		Unidentified Compound	1,078	-	210
		Unidentified Compound	1,104	-	140
		Benzenepropanoic Acid	1,142	996	150
		Unidentified Alkane	1,170	-	170
		Unidentified Compound	1,189	-	260
		2,5-Dimethylbenzene Butanoic Acid	1,384	960	180
		Unidentified Compound	1,489	-	520
		Unidentified Compound	1,545	-	300
		Unidentified Alkane	1,830	-	420
		Unidentified Alkane	1,895	-	210
		Unidentified Compound	1,988	-	140
		Unidentified Compound	2,122	-	160
		Unidentified Alkane	2,578	-	190

III. Analytical Results, (CONT'D)

Semi-Volatile Organic NBS Library Search

Sample No.	Compounds Identified	Scan No.	Fit	Estimated Con. (ug/kg)
SR12237-5 Potable #1	None Identified	-	-	-
SR12237-6 Trip Blank	None Identified	-	-	-
SR12237-7 Field Blank	None Identified	-	-	-
solid method blank	Unidentified Compound	654	-	11,000
	Unidentified Alkane	2,567	-	19,000
SR12237-8 Soil #1	Unidentified Compound	887	-	4,200
	Unidentified Compound	1,884	-	17,000
	Unidentified Compound	1,820	-	19,000
	Unidentified Compound	2,391	-	8,300
SR12237-9 Soil #2	Unidentified Compound	560	-	840
	Unidentified Compound	622	-	2,000
	Unidentified Compound	659	-	7,200
	Unidentified Alkane	691	-	770
	Unidentified Alkane	2,347	-	520
	Unidentified Alkane	2,484	-	580

III. Analytical Results, (CONT'D)

Semi-Volatile Organic NBS Library Search

Sample No.	Compounds Identified	Scan No.	Fit	Estimated Con. (ug/kg)
SR12237-10 Soil #3	Unidentified Alkane	661	-	2,600
	Unidentified Alkane	668	-	7,200
	Unidentified Alkane	694	-	690
	Unidentified Alkane	1,731	-	450
	Unidentified Compound	1,817	-	360
	Unidentified Alkane	1,843	-	660
	Unidentified Compound	1,882	-	410
	Unidentified Alkane	1,919	-	1,700
	Unidentified Alkane	1,993	-	2,700
	Unidentified Alkane	2,065	-	3,800
	Unidentified Alkane	2,146	-	4,800
	Unidentified Phthalate	2,204	-	5,600
	Unidentified Alkane	2,241	-	4,600
	Unidentified Alkane	2,354	-	12,000
	Unidentified Compound	2,429	-	2,700
	Unidentified Alkane	2,491	-	8,700
	Unidentified Alkane	2,656	-	5,000
	Unidentified Alkane	2,860	-	1,800
	Unidentified Alkane	3,111	-	770
	Unidentified Phthalate	3,212	-	340
SR12237-10 Duplicate	Unidentified Alkane	655	-	2,700
	Unidentified Alkane	663	-	9,800
	Unidentified Alkane	694	-	550
	Unidentified Alkane	1,734	-	460
	Unidentified Compound	1,822	-	240
	Unidentified Alkane	1,847	-	670
	Unidentified Compound	1,885	-	440
	Unidentified Alkane	1,923	-	1,900
	Unidentified Alkane	1,998	-	3,200
	Unidentified Alkane	2,070	-	4,900
	Unidentified Alkane	2,153	-	5,300
	Unidentified Alkane	2,215	-	7,900
	Unidentified Alkane	2,251	-	7,400
	Unidentified Alkane	2,364	-	16,000
	Unidentified Phthalate	2,428	-	3,400
	Unidentified Alkane	2,503	-	16,000
	Unidentified Alkane	2,676	-	4,600
	Unidentified Alkane	2,880	-	4,700
	Unidentified Alkane	3,137	-	2,200
	Unidentified Phthalate	3,238	-	440
	Unidentified Alkane	3,457	-	590

III. Analytical Results, (CONT'D)

Semi-Volatile Organic NBS Library Search

Sample No.	Compounds Identified	Scan No.	Fit	Estimated Con. (ug/kg)
SR12237-11 Soil #4	Unidentified Alkane	667	-	9,200
	Unidentified Compound	1,773	-	5,100
	Unidentified Compound	1,798	-	3,600
	Unidentified Compound	1,813	-	5,300
	Unidentified Compound	1,821	-	3,200
	Unidentified Compound	1,827	-	18,000
	Unidentified Alkane	1,843	-	1,400
	Unidentified Compound	1,876	-	1,600
	Unidentified Compound	1,883	-	11,000
	Unidentified Compound	1,898	-	3,800
	Unidentified Alkane	1,918	-	2,100
	Unidentified Alkane	1,969	-	2,800
	Unidentified Alkane	1,980	-	1,300
	Unidentified Compound	1,989	-	2,100
	Unidentified Compound	2,009	-	3,600
	Unidentified Compound	2,021	-	2,100
	Unidentified Compound	2,039	-	1,100
	Unidentified Alkane	2,064	-	2,000
	Unidentified Alkane	2,147	-	2,100
	Unidentified Alkane	2,240	-	2,300
	Unidentified Alkane	2,351	-	13,000
	Unidentified Alkane	2,487	-	8,900
	Unidentified Alkane	2,657	-	13,000
	Unidentified Alkane	2,859	-	3,900
	Unidentified Alkane	3,121	-	1,800

III. Analytical Results, (CONT'D)

Semi-Volatile Organic NBS Library Search

Sample No.	Compounds Identified	Scan No.	Fit	Estimated Con. (ug/kg)
SR12237-12 Soil #5	Unidentified Compound	673	-	9,600
	Unidentified Alkane	742	-	10,000
	Unidentified Alkane	798	-	10,000
	Unidentified Alkane	920	-	20,000
	Unidentified Compound	889	-	60,000
	Unidentified Compound	1,101	-	48,000
	Unidentified Compound	1,372	-	10,000
	Unidentified Alkane	1,488	-	13,000
	Unidentified Compound	1,568	-	27,000
	Unidentified Alkane	1,672	-	160,000
	Unidentified Alkane	1,753	-	30,000
	Unidentified Alkane	1,767	-	18,000
	Unidentified Alkane	1,842	-	81,000
	Unidentified Alkane	1,858	-	32,000
	Unidentified Alkane	1,924	-	100,000
	Unidentified Alkane	1,998	-	100,000
	Unidentified Alkane	2,070	-	87,000
	Unidentified Alkane	2,151	-	82,000
	Unidentified Phthalate	2,208	-	8,900
	Unidentified Alkane	2,248	-	42,000
	Unidentified Alkane	2,362	-	69,000
	Unidentified Alkane	2,434	-	33,000
	Unidentified Alkane	2,497	-	57,000
	Unidentified Alkane	2,668	-	28,000
	Unidentified Alkane	2,875	-	14,000

III. Analytical Results, (CONT'D)

Metals, Cyanide and Phenol

Parameter	aqueous method blank	Sample Designation SR12237-1 RW1	SR12237-1 Duplicate	SR12237-2 RW2	MDL, ug/ml
Antimony, total	ND	ND	ND	ND	0.05
Arsenic, total	ND	ND	ND	ND	0.05
Beryllium, total	ND	ND	ND	ND	0.01
Cadmium, total	ND	ND	ND	ND	0.01
Chromium,total	ND	ND	ND	0.19	0.05
Copper, total	ND	ND	ND	0.10	0.05
Lead, total	ND	ND	ND	ND	0.05
Mercury, total	ND	ND	ND	0.0043	0.002
Nickel, total	ND	ND	ND	ND	0.05
Selenium, total	ND	ND	ND	ND	0.01
Silver, total	ND	ND	ND	ND	0.05
Thallium, total	ND	ND	ND	0.11	0.1
Zinc, total	ND	0.012	0.012	0.040	0.01
Cyanide, total	ND	ND	ND	ND	0.025
Phenolics, as phenol	ND	ND	ND	ND	0.025

Parameter	Sample Designation SR12237-3 Leachate #1	SR12237-4 Leachate #2	SR12237-5 Potable #1	MDL, ug/ml
Antimony, total	ND	ND	ND	0.05
Arsenic, total	ND	ND	ND	0.05
Beryllium, total	ND	ND	ND	0.01
Cadmium, total	ND	ND	ND	0.01
Chromium,total	ND	0.15	ND	0.05
Copper, total	ND	0.52	ND	0.05
Lead, total	ND	0.056	ND	0.05
Mercury, total	ND	ND	ND	0.002
Nickel, total	0.060	0.14	ND	0.05
Selenium, total	ND	ND	ND	0.01
Silver, total	ND	ND	ND	0.05
Thallium, total	0.19	0.36	ND	0.1
Zinc, total	0.10	0.37	ND	0.01
Cyanide, total	ND	ND	ND	0.025
Phenolics, as phenol	0.090	0.38	ND	0.025

ND - Not Detected

MDL - Method Detection Limit (lowest possible limit at which compound can be accurately quantified)

III. Analytical Results, (CONT'D)

Metals, Cyanide and Phenol

Parameter	Sample Designation SR12237-6 Trip Blank	SR12237-7 Field Blank	MDL, ug/ml
Antimony, total	ND	ND	0.05
Arsenic, total	ND	ND	0.05
Beryllium, total	ND	ND	0.01
Cadmium, total	ND	ND	0.01
Chromium,total	ND	ND	0.05
Copper, total	ND	ND	0.05
Lead, total	ND	ND	0.05
Mercury, total	ND	ND	0.002
Nickel, total	ND	ND	0.05
Selenium, total	ND	ND	0.01
Silver, total	ND	ND	0.05
Thallium, total	ND	ND	0.1
Zinc, total	ND	0.011	0.01
Cyanide, total	ND	ND	0.025
Phenolics, as phenol	ND	ND	0.025

Parameter	Sample Designation SR12237-8 Soil #1	SR12237-8 Duplicate	SR12237-9 Soil #2	MDL, ug/g
Antimony, total	ND	ND	ND	5.0
Arsenic, total	ND	ND	ND	5.0
Beryllium, total	ND	ND	ND	1.0
Cadmium, total	ND	ND	ND	1.0
Chromium,total	ND	ND	ND	5.0
Copper, total	ND	ND	ND	5.0
Lead, total	ND	ND	ND	5.0
Mercury, total	ND	ND	ND	0.2
Nickel, total	ND	ND	ND	5.0
Selenium, total	ND	ND	ND	1.0
Silver, total	ND	ND	ND	5.0
Thallium, total	ND	ND	ND	10
Zinc, total	5.0	6.2	10	1.0
Cyanide, total	ND	ND	ND	1.0
Phenolics, as phenol	ND	ND	ND	1.0

ND - Not Detected

MDL - Method Detection Limit (lowest possible limit at which compound can be accurately quantified)

III. Analytical Results, (CONT'D)

Metals, Cyanide and Phenol

Parameter	Sample Designation SR12237-10 Soil #3	SR12237-11 Soil #4	SR12237-12 Soil #5	MDL, ug/g
Antimony, total	ND	ND	ND	5.0
Arsenic, total	ND	ND	ND	5.0
Beryllium, total	ND	ND	ND	1.0
Cadmium, total	ND	ND	ND	1.0
Chromium,total	6.2	7.6	8.2	5.0
Copper, total	ND	ND	ND	5.0
Lead, total	ND	ND	ND	5.0
Mercury, total	ND	ND	ND	0.2
Nickel, total	ND	ND	ND	5.0
Selenium, total	ND	ND	ND	1.0
Silver, total	ND	ND	ND	5.0
Thallium, total	ND	ND	ND	10
Zinc, total	4.3	5.2	8.8	1.0
Cyanide, total	ND	ND	ND	1.0
Phenolics, as phenol	ND	ND	ND	1.0

ND - Not Detected

MDL - Method Detection Limit (lowest possible limit at which compound can be accurately quantified)

IV. Quality Assurance Data

Volatile Organics

Constituent	SR12237-1 plus Spike Amount of Spike, ug	% Recovery
Methylene chloride	1.0	137
1,1-Dichloroethylene	1.0	128
1,1-Dichloroethane	1.0	130
Chloroform	1.0	118
Carbon tetrachloride	1.0	114
1,2-Dichloropropane	1.0	107
Trichloroethylene	1.0	117
Dibromochloromethane	1.0	91
1,1,2-Trichloroethane	1.0	102
2-Chloroethyl vinyl ether	1.0	113
Tetrachloroethylene	1.0	108
Chlorobenzene	1.0	100

Constituent	SR12237-8 plus Spike Amount of Spike, ug	% Recovery
trans-1,2-Dichloroethylene	1.0	122
1,2-Dichloroethane	1.0	106
1,1,1-Trichloroethane	1.0	105
Bromodichloromethane	1.0	89
trans-1,3-Dichloropropene	1.0	81
Benzene	1.0	102
cis-1,3-Dichloropropene	1.0	80
Bromoform	1.0	52
1,1,2,2-Tetrachloroethane	1.0	79
Toluene	1.0	110
Ethyl benzene	1.0	113

IV. Quality Assurance Data, (CONT'D)

Volatile Organics

Sample Designation	Amount Added, ng	Surrogate % Recovery D8-Toluene	4-Bromofluorobenzene
solid method blank	50	106	104
aqueous method blank	50	102	99
SR12237-1	50	107	95
SR12237-2	50	104	93
SR12237-2 Duplicate	50	101	90
SR12237-3	50	104	108
SR12237-4	50	103	98
SR12237-5	50	107	97
SR12237-6	50	106	97
SR12237-7	50	108	98
SR12237-8	50	110	101
SR12237-9	50	108	100
SR12237-10	50	109	98
SR12237-11	50	106	102
SR12237-12	50	108	105
SR12237-12 Duplicate	50	107	101
SR12237-1 Spike	250	75	89
SR12237-8 Spike	250	102	104

OK

Only two ?

IV. Quality Assurance Data, (CONT'D)

Acid Extractable Organics (Method 625 by GC/MS)

	SR12237-5 plus Spike	
Constituent	Amount Injected, ng	% Recovery
Phenol	10	13
2-Chlorophenol	10	27
2-Nitrophenol	10	17
2,4-Dimethylphenol	10	29
2,4,6-Trichlorophenol	10	39

	SR12237-9 plus Spike	
Constituent	Amount Injected, ng	% Recovery
Phenol	100	69
2-Chlorophenol	100	69
2-Nitrophenol	100	26
2,4-Dimethylphenol	100	22
2,4-Dichlorophenol	100	19
4-Chloro-3methyl-phenol	100	19
2,4,6-Trichlorophenol	100	92
2,4-Dinitrophenol	100	180
4-Nitrophenol	100	98
2-Methyl-4,6-dinitrophenol	100	101
Pentachlorophenol	100	110

S-R ANALYTICAL INC.

IV. Quality Assurance Data, (CONT'D)

Acid Extractable Organics

Sample Designation	Amount Injected, ng	Surrogate % Recovery 2-Fluorophenol	2,4,6-Tribromophenol	Dilution
solid method blank	100	80	49	none
aqueous method blank	10	118	23	none
SR12237-1	10	84	14	none
SR12237-2	10	21	19	none
SR12237-2 Duplicate	10	32	30	none
SR12237-3	10	34	88	none
SR12237-4	10	55	118	none
SR12237-5	10	80	20	none
SR12237-6	10	99	39	none
SR12237-7	10	91	27	none
SR12237-8	10	60	47	1:10
SR12237-9	100	72	87	none
SR12237-10	100	91	57	none
SR12237-10 Duplicate	100	94	92	none
SR12237-11	100	63	58	none
SR12237-12	100	70	112	none
SR12237-5 Spike	10	20	38	none
SR12237-9 Spike	100	76	92	none

IV. Quality Assurance Data, (CONT'D)

Base/Neutral Extractable Organics (Method 625 by GC/MS)

	SR12237-5 plus Spike	
Constituent	Amount Injected, ng	% Recovery
1,2-Dichlorobenzene	12	124
bis (2-Chloroethyl) ether	12	68
Fluorene	12	156
4-Bromophenylphenyl ether	12	108
Phenanthrene	12	112
Butylbenzyl phthalate	12	137
bis (2-Ethylhexyl) phthalate	12	153

Base/Neutral Extractable Organics (Method 625 by GC/MS)

	SR12237-9 plus Spike	
Constituent	Amount Injected, ng	% Recovery
1,2-Dichlorobenzene	120	77
bis (2-Chloroethyl) ether	120	78
2,6-Dinitrotoluene	120	73
Fluorene	120	92
4-Bromophenylphenyl ether	120	90
Phenanthrene	120	73
Butylbenzyl phthalate	120	110
bis (2-Ethylhexyl) phthalate	120	123

IV. Quality Assurance Data, (CONT'D)

Base/Neutral Extractable Organics

Sample Designation	Amount Injected, ng	Surrogate % Recovery D5-Nitrobenzene	2-Fluorobiphenyl	Dilution
solid method blank	100	67	57	none
aqueous method blank	10	37	53	none
SR12237-1	10	30	91	none
SR12237-2	10	43	46	none
SR12237-2 Duplicate	10	46	34	none
SR12237-3	10	22	52	none
SR12237-4	10	17	60	none
SR12237-5	10	39	80	none
SR12237-6	10	39	57	none
SR12237-7	10	48	46	none
SR12237-8	10	35	41	1:10
SR12237-9	100	174	67	none
SR12237-10	100	89	68	none
SR12237-10 Duplicate	100	89	32	none
SR12237-11	100	63	84	none
SR12237-12	100	33	87	none
SR12237-5 Spike	10	29	75	none
SR12237-9 Spike	100	22	67	none

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IV. Quality Assurance Data (CONT'D)

Pesticidal Compounds and Polychlorinated Biphenyls (EPA Method 608 by G.C.)

	SR12237-5 plus Spike	
Constituent	Amount of Spike, ug	% Recovery
Aldrin	1.0	49
alpha BHC	0.52	63
delta BHC	1.0	50
Dieldrin	1.04	65
p,p'-DDE	1.98	59
p,p'-DDD	1.0	57
Endosulfan Sulfate	2.48	44
Polychlorinated Biphenyls, Aroclor 1254*	51.1	63

*Spike performed on sample SR12237-1.

IV. Quality Assurance Data (CONT'D)

Pesticidal Compounds and Polychlorinated Biphenyls (EPA Method 608 by G.C.)

SR12237-10 plus Spike

Constituent	Amount of Spike, ug	% Recovery
Aldrin	14.2	66
gamma BHC	7.09	55
p,p'-DDE	33.3	79
p,p'-DDT	32.8	61
p,p'-DDD	33.2	88
Endrin	11.7	70
Heptachlor	6.83	72
Heptachlor Epoxide	12.8	66
Polychlorinated Biphenyls, Aroclor 1254*	511	66

*Spike performed on sample SR12237-9.

Surrogate % Recovery

Sample Designation	Amount Added, ug	Dibutylchlorendate
aqueous method blank	3.56	144
solid method blank	3.56	61
SR12237-1	3.56	61
SR12237-2	3.56	65
SR12237-2 Duplicate	3.56	64
SR12237-3	3.56	77
SR12237-4	3.56	92
SR12237-5	3.56	47
SR12237-6	3.56	63
SR12237-7	3.56	58
SR12237-8	3.56	75
SR12237-8 Duplicate	3.56	68
SR12237-9	3.56	64
SR12237-10	3.56	108
SR12237-11	3.56	72
SR12237-12	3.56	117

IV. Quality Assurance Data, (CONT'D)

Metals, Cyanide and Phenol

Paramater	Sample No.	Amount of Spike, ug	% Recovery
Antimony	SR12237-2	500	13
Antimony	SR12237-9	500	19
Arsenic	SR12237-2	300	41
Arsenic	SR12237-9	500	75
Beryllium	SR12237-2	300	82
Beryllium	SR12237-9	500	104
Cadmium	SR12237-2	300	77
Cadmium	SR12237-9	500	101
Chromium	SR12237-2	300	79
Chromium	SR12237-9	500	106
Copper	SR12237-2	300	86
Copper	SR12237-9	500	105
Lead	SR12237-2	300	79
Lead	SR12237-9	500	98
Mercury	SR12237-5	20	97
Mercury	SR12237-9	20	113
Nickel	SR12237-2	300	79
Nickel	SR12237-9	500	106
Selenium	SR12237-2	300	86
Selenium	SR12237-9	500	65
Silver	SR12237-2	300	83
Silver	SR12237-9	500	20
Thallium	SR12237-2	300	76
Thallium	SR12237-9	500	105
Zinc	SR12237-2	300	84
Zinc	SR12237-9	500	102
Cyanide	SR12237-2	25	108
Cyanide	SR12237-9	25	69
Phenol	SR12237-2	30	97
Phenol	SR12237-9	30	86

V. Precision and Accuracy Statements

Volatile Organics Analysis (non-aqueous)

Constituent	Precision % RSD	Accuracy, ($\bar{P}$ + 2 sp.)
Methylene chloride	29	103 ± 60
1,1-Dichloroethene	32	94 ± 61
1,1-Dichloroethane	24	97 ± 47
trans-1,2-Dichloroethene	23	104 ± 47
Chloroform	19	97 ± 37
1,2-Dichloroethane	17	107 ± 37
1,1,1-Trichloroethane	33	106 ± 69
Carbon tetrachloride	26	99 ± 52
Bromodichloromethane	22	100 ± 44
1,2-Dichloropropane	18	97 ± 35
trans-1,3-Dichloropropene	24	97 ± 47
Trichloroethene	11	93 ± 20
Dibromochloromethane	15	93 ± 27
Benzene	22	103 ± 45
1,1,2-Trichloroethane	7	97 ± 14
cis-1,3-Dichloropropene	7	96 ± 14
2-Chloroethyl vinyl ether	10	98 ± 20
Bromoform	12	91 ± 22
1,1,2,2-Tetrachloroethane	11	79 ± 18
Tetrachloroethene	9	92 ± 16
Toluene	10	108 ± 22
Chlorobenzene	7	96 ± 13
Ethyl benzene	13	113 ± 30

V. Precision and Accuracy Statements, (CONT'D)

Volatile Organics Analysis (aqueous)

Constituent	Precision % RSD	Accuracy, ($\bar{P}$ + 2 sp.)
Methylene chloride	23	103 ± 47
1,1-Dichloroethylene	32	94 ± 59
1,1-Dichloroethane	24	97 ± 47
trans-1,2-Dichloroethylene	22	100 ± 43
Chloroform	21	100 ± 41
1,2-Dichloroethane	21	99 ± 41
1,1,1-Trichloroethane	21	107 ± 46
Carbon tetrachloride	26	102 ± 54
Bromodichloromethane	21	96 ± 41
1,2-Dichloropropane	21	95 ± 39
trans-1,3-Dichloropropene	20	97 ± 39
Trichloroethylene	27	104 ± 57
Dibromochloromethane	22	93 ± 41
Benzene	21	103 ± 43
1,1,2-Trichloroethane	18	92 ± 34
cis-1,3-Dichloropropene	20	89 ± 36
2-Chloroethyl vinyl ether	24	95 ± 45
Bromoform	22	93 ± 40
1,1,2,2-Tetrachloroethane	17	84 ± 29
Tetrachloroethylene	24	100 ± 47
Toluene	20	108 ± 43
Chlorobenzene	26	110 ± 58
Ethyl benzene	30	117 ± 69

V. Precision and Accuracy Statements, (CONT'D)

Acid Extractable Organics (aqueous)

Constituent	Precision % RSD	Accuracy, %
Phenol	40	63 ± 79
2-Nitrophenol	50	83 ± 83
4-Nitrophenol	98	27 ± 53
2,4-Dinitrophenol	104	32 ± 67
Pentachlorophenol	48	71 ± 68
4-Chloro-3-Methyl-Phenol	78	60 ± 93
2-Chlorophenol	40	92 ± 74
2,4-Dichlorophenol	60	69 ± 83
2,4,6-Trichlorophenol	49	75 ± 73
2,4-Dimethylphenol	42	81 ± 84

Acid Extractable Organics (non-aqueous)

Constituent	Precision % RSD	Accuracy, %
Phenol	65	65 ± 84
2-Nitrophenol	52	63 ± 65
4-Nitrophenol	71	48 ± 68
2,4-Dinitrophenol	86	39 ± 67
Pentachlorophenol	47	88 ± 83
4-Chloro-3-Methyl-Phenol	51	68 ± 70
2-Chlorophenol	45	73 ± 66
2,4-Dichlorophenol	63	63 ± 80
2,4,6-Trichlorophenol	56	62 ± 69
2,4-Dimethylphenol	49	74 ± 73

V. Precision and Accuracy Statements, (CONT'D)

Base/Neutral Extractable Organics (aqueous)

Constituent	Precision % RSD	Accuracy, %
1,2-Dichlorobenzene	43	92 ± 80
Naphthalene	37	78 ± 58
2,6-Dinitrotoluene	44	63 ± 55
4-Bromophenyl phenyl ether	29	87 ± 51
bis (2-Ethylhexyl) phthalate	37	101 ± 74
Butyl benzyl phthalate	37	76 ± 56
Fluorene	40	83 ± 65
Phenanthrene	25	93 ± 47
bis(2-Chloroethyl)ether	45	94 ± 84
N-Nitrosodimethyl amine	41	71 ± 58

Base/Neutral Extractable Organics (non-aqueous)

Constituent	Precision % RSD	Accuracy, %
1,2-Dichlorobenzene	56	55 ± 62
Naphthalene	49	73 ± 72
2,6-Dinitrotoluene	47	61 ± 58
4-Bromophenyl phenyl ether	39	78 ± 61
bis (2-Ethylhexyl) phthalate	43	97 ± 83
Butyl benzyl phthalate	43	87 ± 75
Fluorene	42	85 ± 71
Phenanthrene	36	91 ± 65
bis(2-Chloroethyl)ether	49	58 ± 57
N-Nitrosodimethyl amine	34	75 ± 51

V. Precision and Accuracy Statements, (CONT'D)

Pesticides and Polychlorinated Biphenyls (aqueous)

Constituent	Precision % RSD	Accuracy, % ($\bar{P}$ + 2sp.)
Aldrin	16	97 ± 31
alpha BHC	44	89 ± 79
beta BHC	110	51 ± 113
gamma BHC	29	95 ± 56
Dieldrin	32	80 ± 51
p,p'-DDE	12	98 ± 23
p,p'-DDT	12	94 ± 23
p,p'-DDD	13	98 ± 26
Endrin	12	94 ± 23
Heptachlor	26	108 ± 57
Heptachlor Epoxide	9	95 ± 18
Toxaphene	15	79 ± 30
Polychlorinated Biphenyls, total, as Aroclor 1254	16	81 ± 26

Pesticides and Polychlorinated Biphenyls (non-aqueous)

Constituent	Precision % RSD	Accuracy, % ($\bar{P}$ + 2sp.)
Aldrin	16	76 ± 25
alpha BHC	29	71 ± 41
beta BHC	52	24 ± 25
gamma BHC	18	74 ± 26
Dieldrin	38	93 ± 71
p,p'-DDE	17	85 ± 29
p,p'-DDT	28	85 ± 47
p,p'-DDD	19	89 ± 33
Endrin	35	96 ± 67
Heptachlor	14	92 ± 25
Heptachlor Epoxide	14	86 ± 25
Polychlorinated Biphenyls, total, as Aroclor 1254	32	79 ± 51

V. Precision and Accuracy Statements, (CONT'D)

Heavy Metals (non-aqueous)

Parameter	Precision % RSD	Accuracy, %
Antimony	54	37 ± 40
Arsenic	16	96 ± 31
Barium	89	49 ± 87
Beryllium	9.1	88 ± 16
Cadmium	13	87 ± 23
Chromium	9.1	88 ± 16
Copper	14	85 ± 24
Iron	6.8	110 ± 15
Lead	53	60 ± 64
Manganese	3.4	96 ± 7
Mercury	22	103 ± 45
Nickel	20	94 ± 37
Potassium	40	81 ± 65
Selenium	24	78 ± 37
Silver	28	58 ± 32
Thallium	8.7	101 ± 19
Zinc	16	92 ± 30

V. Precision and Accuracy Statements, (CONT'D)

Heavy Metals, Cyanide and Phenol (aqueous)

Parameter	Precision % RSD	Accuracy, %
Antimony	71	34 ± 48
Arsenic	23	95 ± 44
Barium	13	90 ± 23
Beryllium	4.8	94 ± 8.6
Cadmium	10	92 ± 19
Chromium	16	103 ± 33
Copper	14	88 ± 25
Lead	10	94 ± 19
Mercury	25	102 ± 51
Nickel	27	96 ± 52
Selenium	32	85 ± 54
Silver	48	50 ± 48
Thallium	12	96 ± 23
Zinc	41	89 ± 73
Cyanide	13	90 ± 29
Phenol	9.2	99 ± 21

Should the State of New Jersey have any questions concerning this analysis, please don't hesitate to contact your account representative.

Respectfully submitted,

S-R ANALYTICAL, INC.

Ian Lambert

Ian C. Lambert
Laboratory Manager

ICL/vd

Form DWM-026
6/84

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION

CHAIN OF CUSTODY RECORD

SR12237-1 1

Use One Form for Each Sample | *Shaded Areas for DEP Field Use Only*

NAME OF UNIT AND ADDRESS: NJDEP 65 Prospect St Trenton 08618

Name of Person(s) Preparing Container(s) for Sample Shuttle

Name	Title	Agency

Date above-mentioned Person(s) Placed Container(s) in Sample Shuttle	Military Time	Laboratory Affixed Sample Shuttle Seal No.
___/___/___		

Name of Person(s) Breaking Laboratory Seal on Sample Shuttle and Taking Field Sample

Name	Title
R Gervasio	Sup Tech
K Klos	Spec HSMS IV

Date Laboratory Sample Shuttle Seal No. 0997A Broken 10/17/85

Time (Mil) Seal Broken and Sampling Begun 0900

FIELD SAMPLE NUMBER	CONTAINER NUMBER(S)	VOLUME OF CONTAINERS	DESCRIPTION OF SAMPLE
			W-11 RW-1 GW

LAB CONTROL NO.

Date Sampling Completed & Field Seal Affixed to Sample Shuttle 10/17/85

Military Time 1500

Field Affixed Sample Shuttle Seal No. 0997B 0998B

Laboratory Person Breaking Field Seal on Sample Shuttle & Accepting Responsibility for Sample

Name Caroline Palmer Title Sample Mgmt

Field Sample Seal No. 0997B 0998B

Date Broken 10/18/85

Military Time Seal Broken 0800

SAMPLE RELINQUISHED BY	SAMPLE RECEIVED BY	DATE	TIME	REASON FOR CHANGE OF CUSTODY
R Gervasio	Caroline Palmer	10/18/85	8:00	Ship to Lab
Caroline Palmer	Lee M Cramer	10/18/85	8:15	VOA's
Lee M Cramer	Caroline Palmer	10/18/85	4:00	storage
Caroline Palmer	Glenn Gray	10/23/85	8:15	ORE Prep
Glenn Gray	Caroline Palmer	10/23/85	4:00	storage
Caroline Palmer	Tammy Welch	11/1/85	8:00	Metals Prep
Tammy Welch	Caroline Palmer	11/1/85	4:00	storage
Caroline Palmer	John Erickson	11/10/85	9:00	cyanide / Phenol
John Erickson	Caroline Palmer	11/10/85	4:00	Storage

Form DWM-026
6/84

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION

CHAIN OF CUSTODY RECORD

SR12237-2

Use One Form for Each Sample | *Shaded Areas for DEP Field Use Only*

NAME OF UNIT AND ADDRESS: NJDEP 65 Prospect Trenton NJ

Name of Person(s) Preparing Container(s) for Sample Shuttle

Name	Title	Agency
Name	Title	Agency

Date above-mentioned Person(s) Placed Container(s) in Sample Shuttle	Military Time	Laboratory Affixed Sample Shuttle Seal No.
___/___/___		

Name of Person(s) Breaking Laboratory Seal on Sample Shuttle and Taking Field Sample

Name	Title
R Gervasio	Supt Tech
K Kloo	Spec.

Date Laboratory Sample Shuttle Seal No. 0997A Broken 10/17/85 | Time (Mil) Seal Broken and Sampling Begun 0900

FIELD SAMPLE NUMBER	CONTAINER NUMBER(S)	VOLUME OF CONTAINERS	DESCRIPTION OF SAMPLE
			Well RW2-GW

LAB CONTROL NO.

Date Sampling Completed & Field Seal Affixed to Sample Shuttle 10/17/85 | Military Time 1500 | Field Affixed Sample Shuttle Seal No. 0997B 0998B

Laboratory Person Breaking Field Seal on Sample Shuttle & Accepting Responsibility for Sample — Name Caroline Palmer Title Sample Mgmt

Field Sample Seal No. 0997B 0998B | Date Broken 10/18/85 | Military Time Seal Broken 08:00

SAMPLE RELINQUISHED BY	SAMPLE RECEIVED BY	DATE	TIME	REASON FOR CHANGE OF CUSTODY
R Gervasio	Caroline Palmer	10/18	8:00	Ship to Lab
Caroline Palmer	Lee [illegible]	10/18/85	8:15	VOA's
Lee [illegible]	Caroline Palmer	10/18/85	4:00	storage
Caroline Palmer	[illegible]	10/23/85	8:15	ORG Prep
[illegible]	Caroline Palmer	10/23/85	4:00	storage
Caroline Palmer	Tammy Welch	11/1/85	8:00	Metals Prep
Tammy Welch	Caroline Palmer	11/1/85	4:00	storage
Caroline Palmer	[illegible]	11/12/85	9:00	cyanide / phenol
[illegible]	Caroline Palmer	11/12/85	4:00	storage

Form DWM-026
6/84

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION

CHAIN OF CUSTODY RECORD

SR12237-3

Use One Form for Each Sample | *Shaded Areas for DEP Field Use Only*

NAME OF UNIT AND ADDRESS: NJDEP 65 Prospect Street Trenton N.J. 08618

Name of Person(s) Preparing Container(s) for Sample Shuttle

Name	Title	Agency
Name	Title	Agency

Date above-mentioned Person(s) Placed Container(s) in Sample Shuttle	Military Time	Laboratory Affixed Sample Shuttle Seal No.
___/___/___		

Name of Person(s) Breaking Laboratory Seal on Sample Shuttle and Taking Field Sample

Name	Title
Bob Hayton	HSMS III
Helen Kornitas	HSMS IV

Date Laboratory Sample Shuttle Seal No. 0994A Broken 10/17/85 | Time (Mil) Seal Broken and Sampling Begun 9:00

FIELD SAMPLE NUMBER	CONTAINER NUMBER(S)	VOLUME OF CONTAINERS	DESCRIPTION OF SAMPLE
			Leachate #1

LAB CONTROL NO.

Date Sampling Completed & Field Seal Affixed to Sample Shuttle 10/17/85 | Military Time 1500 | Field Affixed Sample Shuttle Seal No. 0994B 0995B

Laboratory Person Breaking Field Seal on Sample Shuttle & Accepting Responsibility for Sample

Name Caroline Palmer Title Sample Mgmt

Field Sample Seal No. 0994B 0995B | Date Broken 10/18/85 | Military Time Seal Broken 08:00

SAMPLE RELINQUISHED BY	SAMPLE RECEIVED BY	DATE	TIME	REASON FOR CHANGE OF CUSTODY
R Sparrow	Caroline Palmer	10/18	8:00	Ship To Lab
Caroline Palmer	Lee [illegible]	10/18/85	8:15	VOAs
Lee [illegible]	Caroline Palmer	10/18/85	4:00	storage
Caroline Palmer	Glenn Savory	10/23/85	8:15	ORG Prep
Glenn Savory	Caroline Palmer	10/23/85	4:00	storage
Caroline Palmer	Tammy Welch	11/1/85	8:00	Metals Prep
Tammy Welch	Caroline Palmer	11/1/85	4:00	storage
Caroline Palmer	John Erickson	11/12/85	9:00	cyanide/Phenol
John Erickson	Caroline Palmer	11/12/85	4:00	storage

Form DWM-026
6/84

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION

CHAIN OF CUSTODY RECORD

SR12237-4

Use One Form for Each Sample — *Shaded Areas for DEP Field Use Only*

NAME OF UNIT AND ADDRESS: NJDEP 6 Prospect ST Trenton NJ

Name of Person(s) Preparing Container(s) for Sample Shuttle

Name	Title	Agency
Name	Title	Agency

Date above-mentioned Person(s) Placed Container(s) in Sample Shuttle ___/___/___	Military Time	Laboratory Affixed Sample Shuttle Seal No.

Name of Person(s) Breaking Laboratory Seal on Sample Shuttle and Taking Field Sample
- Name: R Gervasio Title: Supt Tech
- Name: K Kloo Title: Hsms IV
- Name: R Hayton Title: Hsms III

Date Laboratory Sample Shuttle Seal No. 0997A Broken 10/17/85 — Time (Mil) Seal Broken and Sampling Begun 0900

FIELD SAMPLE NUMBER	CONTAINER NUMBER(S)	VOLUME OF CONTAINERS	DESCRIPTION OF SAMPLE
LAB CONTROL NO.			Leachate #2 LR

Date Sampling Completed & Field Seal Affixed to Sample Shuttle 10/17/85 — Military Time 1500 — Field Affixed Sample Shuttle Seal No. 0999B

Laboratory Person Breaking Field Seal on Sample Shuttle & Accepting Responsibility for Sample: Name Caroline Palmer Title Sample Mgmt

Field Sample Seal No. 0997B 0998B — Date Broken 10/18/85 — Military Time Seal Broken

SAMPLE RELINQUISHED BY	SAMPLE RECEIVED BY	DATE	TIME	REASON FOR CHANGE OF CUSTODY
R Gervasio	Caroline Palmer	10/18/85	08:00	Ship to Lab
Caroline Palmer	Lee A Cramer	10/18/85	8:15	VOA's
Lee A Cramer	Caroline Palmer	10/18/85	4:00	storage
Caroline Palmer	Henry Sayers	10/23/85	8:15	ORG prep
Henry Sayers	Caroline Palmer	10/23/85	4:00	storage
Caroline Palmer	Tommy Welch	11/1/85	8:00	Metals Prep
Tommy Welch	Caroline Palmer	11/1/85	4:00	storage
Caroline Palmer	John Eustin	11/12/85	9:00	Cyanide / Phenols
John Eustin	Caroline Palmer	11/13/85	4:00	storage

Form DWM-026
6/84

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION

CHAIN OF CUSTODY RECORD

SR 12237-5

Use One Form for Each Sample | *Shaded Areas for DEP Field Use Only*

NAME OF UNIT AND ADDRESS: NJDEP HSMA 65 Prospect St Trenton NJ 08618

Name of Person(s) Preparing Container(s) for Sample Shuttle

Name	Title	Agency
Name	Title	Agency

Date above-mentioned Person(s) Placed Container(s) in Sample Shuttle	Military Time	Laboratory Affixed Sample Shuttle Seal No.
___/___/___		

Name of Person(s) Breaking Laboratory Seal on Sample Shuttle and Taking Field Sample

Name	Title
R Gervasio	Technician
R. Hayton	HSMS III
H Kornitas	HSMS IV

Date Laboratory Sample Shuttle Seal No. 0994A Broken 10/17/85 | Time (Mil) Seal Broken and Sampling Begun 0900

FIELD SAMPLE NUMBER	CONTAINER NUMBER(S)	VOLUME OF CONTAINERS	DESCRIPTION OF SAMPLE
			Potable Well #1 Clear

LAB CONTROL NO. _____

Date Sampling Completed & Field Seal Affixed to Sample Shuttle 10/17/85 | Military Time 1500 | Field Affixed Sample Shuttle Seal No. 0995B 0994B

Laboratory Person Breaking Field Seal on Sample Shuttle & Accepting Responsibility for Sample — Name Caroline Palmer Title Sample Mgmt

Field Sample Seal No. 0995B 0994B | Date Broken 10/18/85 | Military Time Seal Broken 08:00

SAMPLE RELINQUISHED BY	SAMPLE RECEIVED BY	DATE	TIME	REASON FOR CHANGE OF CUSTODY
R Gervasio	Caroline Palmer	10/18/85	8:00	Ship to Lab
Caroline Palmer	Leetz Cramer	10/18/85	8:15	VOA's
Leetz Cramer	Caroline Palmer	10/18/85	4:00	storage
Caroline Palmer	Glenn Savory	10/23/85	8:15	ORG Prep
Glenn Savory	Caroline Palmer	10/23/85	4:00	storage
Caroline Palmer	Tammy Welch	11/1/85	8:00	Metals Prep
Tammy Welch	Caroline Palmer	11/1/85	4:00	storage
Caroline Palmer	John Eichman	11/12/85	9:00	cyanide Phenol
John Eichman	Caroline Palmer	11/12/85	4:00	storage

Form ~~DWM-026~~
6/84

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION

SR12237-6

CHAIN OF CUSTODY RECORD

Use One Form for Each Sample — *Shaded Areas for DEP Field Use Only*

NAME OF UNIT AND ADDRESS: NJ DEP CR Project St. Trenton NJ 08618

Name of Person(s) Preparing Container(s) for Sample Shuttle

Name — Title — Agency

Name — Title — Agency

Date above-mentioned Person(s) Placed Container(s) in Sample Shuttle ___/___/___ — Military Time — Laboratory Affixed Sample Shuttle Seal No.

Name of Person(s) Breaking Laboratory Seal on Sample Shuttle and Taking Field Sample: Name ____ Title ____; Name ____ Title ____; Name ____ Title ____

Date Laboratory Sample Shuttle Seal No. 0993 A Broken 10/17/85 — Time (Mil) Seal Broken and Sampling Begun 0900

FIELD SAMPLE NUMBER	CONTAINER NUMBER(S)	VOLUME OF CONTAINERS	DESCRIPTION OF SAMPLE
			TRIP BLANK

LAB CONTROL NO. ____

Date Sampling Completed & Field Seal Affixed to Sample Shuttle 10/17/85 — Military Time 1800 — Field Affixed Sample Shuttle Seal No. 0993 B

Laboratory Person Breaking Field Seal on Sample Shuttle & Accepting Responsibility for Sample: Name Caroline Palmer Title Sample Mgmt

Field Sample Seal No. 0993 B 0992 B — Date Broken 10/18/85 — Military Time Seal Broken 08:00

SAMPLE RELINQUISHED BY	SAMPLE RECEIVED BY	DATE	TIME	REASON FOR CHANGE OF CUSTODY
[illegible]	Caroline Palmer	10/18/85	8:00	SHIP TO LAB
Caroline Palmer	Lee [illegible]	10/18/85	8:15	VOA's
Lee [illegible]	Caroline Palmer	10/18/85	4:00	storage
Caroline Palmer	Hem [illegible]	10/23/85	8:15	ORG prep
Hem [illegible]	Caroline Palmer	10/23/85	4:00	storage
Caroline Palmer	Tammy Welch	11/1/85	8:00	Metals prep
Tammy Welch	Caroline Palmer	11/1/85	4:00	storage
Caroline Palmer	John [illegible]	11/12/85	9:00	Cyanide/Phenol
John [illegible]	Caroline Palmer	11/12/85	4:00	storage

Form DWM-026
6/84

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION

CHAIN OF CUSTODY RECORD

SR12237-7

Use One Form for Each Sample

Shaded Areas for DEP Field Use Only

NAME OF UNIT AND ADDRESS: NJ DEP 65 PROSPECT ST TRENTON NJ 08618

Name of Person(s) Preparing Container(s) for Sample Shuttle

Name | Title | Agency

Name | Title | Agency

Date above-mentioned Person(s) Placed Container(s) in Sample Shuttle ___/___/___ | Military Time | Laboratory Affixed Sample Shuttle Seal No.

Name of Person(s) Breaking Laboratory Seal on Sample Shuttle and Taking Field Sample
Name: R GERVASIO Title: SUP. TECH.
Name: K. KROO Title: HSMS IV
Name: Title:

Date Laboratory Sample Shuttle Seal No. 0993 A Broken 10/17/85 | Time (Mil) Seal Broken and Sampling Begun 09:00

FIELD SAMPLE NUMBER	CONTAINER NUMBER(S)	VOLUME OF CONTAINERS	DESCRIPTION OF SAMPLE
			FIELD BLANK

LAB CONTROL NO. ___

Date Sampling Completed & Field Seal Affixed to Sample Shuttle 10/17/85 | Military Time 15:00 | Field Affixed Sample Shuttle Seal No. 0993 C 0992 B

Laboratory Person Breaking Field Seal on Sample Shuttle & Accepting Responsibility for Sample
Name: Caroline Palmer Title: Sample Mgmt

Field Sample Seal No. 0993 C 0992 B | Date Broken 10/18/85 | Military Time Seal Broken 08:00

SAMPLE RELINQUISHED BY	SAMPLE RECEIVED BY	DATE	TIME	REASON FOR CHANGE OF CUSTODY
R Gervasio	Caroline Palmer	10/18	8:00	SHIP TO LAB
Caroline Palmer	Leon Gomez	10/18/85	8:15	VOA's
Leon Gomez	Caroline Palmer	10/18/85	4:00	storage
Caroline Palmer	Leon Gomez	10/23/85	8:15	ORG Prep
Leon Gomez	Caroline Palmer	10/23/85	4:00	storage
Caroline Palmer	Tammy Welch	11/1/85	8:00	Metals Prep
Tammy Welch	Caroline Palmer	11/1/85	4:00	Storage
Caroline Palmer	John Erb	11/13/85	9:00	Cyanide/Phenol
John Erb	Caroline Palmer	11/13/85	4:00	Storage

Form DWM-026
6/84

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION

CHAIN OF CUSTODY RECORD

SR12237-8

Use One Form for Each Sample | *Shaded Areas for DEP Field Use Only*

NAME OF UNIT AND ADDRESS: NJDEP HSMA 65 Prospect St Trenton NJ 08618

Name of Person(s) Preparing Container(s) for Sample Shuttle

Name	Title	Agency
Name	Title	Agency

Date above-mentioned Person(s) Placed Container(s) in Sample Shuttle	Military Time	Laboratory Affixed Sample Shuttle Seal No.
___/___/___		

Name of Person(s) Breaking Laboratory Seal on Sample Shuttle and Taking Field Sample

Name	Title
R. Gervasio	Technician
R. Hayton	HSMS III
H. Kornitas	HSMS IV

Date Laboratory Sample Shuttle Seal No. 0994A Broken 10/17/85 | Time (Mil) Seal Broken and Sampling Begun 0900

FIELD SAMPLE NUMBER	CONTAINER NUMBER(S)	VOLUME OF CONTAINERS	DESCRIPTION OF SAMPLE
			Soil #1 Dark brown

LAB CONTROL NO.

Date Sampling Completed & Field Seal Affixed to Sample Shuttle 10/17/85 | Military Time 1500 | Field Affixed Sample Shuttle Seal No. 0995B 0994B

Laboratory Person Breaking Field Seal on Sample Shuttle & Accepting Responsibility for Sample

Name Caroline Palmer Title Sample Mgmt

Field Sample Seal No. 0995B 0994B | Date Broken 10/18/85 | Military Time Seal Broken 08:00

SAMPLE RELINQUISHED BY	SAMPLE RECEIVED BY	DATE	TIME	REASON FOR CHANGE OF CUSTODY
R. Gervasio	Caroline Palmer	10/18/85	8:00	Ship to Lab
Caroline Palmer	Lee K. Cramer	10/18/85	8:15	VOA's
Lee K. Cramer	Caroline Palmer	10/18/85	4:00	storage
Caroline Palmer	Candace E. Hoover	10/23/85	9:00	Organic prep.
Candace E. Hoover	Caroline Palmer	10/23/85	4:00	STORAGE
Caroline Palmer	Tammy Welch	11/1/85	8:00	Metals Prep
Tammy Welch	Caroline Palmer	11/1/85	4:00	Storage
Caroline Palmer	John Erickson	11/2/85	9:00	Cyanide / Phenol
John Erickson	Caroline Palmer	11/12/85	4:00	storage

Form DWM-026
6/84

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION

CHAIN OF CUSTODY RECORD

SR12237-9

Use One Form for Each Sample — *Shaded Areas for DEP Field Use Only*

NAME OF UNIT AND ADDRESS: NJ DEP 65 Prospect Street Trenton NJ

Name of Person(s) Preparing Container(s) for Sample Shuttle

Name	Title	Agency
Name	Title	Agency

Date above-mentioned Person(s) Placed Container(s) in Sample Shuttle ___/___/___	Military Time	Laboratory Affixed Sample Shuttle Seal No.

Name of Person(s) Breaking Laboratory Seal on Sample Shuttle and Taking Field Sample: Name Robert Hayton Title HSMS III; Name Helen Karnitas Title HSMS IV; Name ___ Title ___

Date Laboratory Sample Shuttle Seal No. 0994A Broken 10/17/85 — Time (Mil) Seal Broken and Sampling Begun 9:00

FIELD SAMPLE NUMBER	CONTAINER NUMBER(S)	VOLUME OF CONTAINERS

LAB CONTROL NO. ___

DESCRIPTION OF SAMPLE: Soil #2 Dark Brown — Black Leachate

Date Sampling Completed & Field Seal Affixed to Sample Shuttle 10/17/85 — Military Time 1500 — Field Affixed Sample Shuttle Seal No. 0994B 0995B

Laboratory Person Breaking Field Seal on Sample Shuttle & Accepting Responsibility for Sample: Name Carolina Palmer Title Sample Mgmt

Field Sample Seal No. 0994B 0995B — Date Broken 10/18/85 — Military Time Seal Broken 08:00

SAMPLE RELINQUISHED BY	SAMPLE RECEIVED BY	DATE	TIME	REASON FOR CHANGE OF CUSTODY
R. Sergeo	Carolina Palmer	10/18/85	8:00	Ship To Lab
Carolina Palmer	Leo A. Cramer	10/18/85	8:15	VOA's
Leo A. Cramer	Carolina Palmer	10/18/85	4:00	storage
Carolina Palmer	Andrea L. Young	10/23/85	9:00	Organic Prep.
Andrea L. Young	Carolina Palmer	10/23/85	4:00	storage
Carolina Palmer	Tommy Welch	11/1/85	8:00	Metals Prep
Tommy Welch	Carolina Palmer	11/1/85	4:00	storage
Carolina Palmer	John Enton	11/12/85	9:00	cyanide / phenol
John Enton	Carolina Palmer	11/12/85	4:00	storage

Form DWM-026
6/84

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION

CHAIN OF CUSTODY RECORD

SR12237-10

Use One Form for Each Sample | *Shaded Areas for DEP Field Use Only*

NAME OF UNIT AND ADDRESS: NJDEP 65 Prospect Street Trenton NJ 08625

Name of Person(s) Preparing Container(s) for Sample Shuttle

Name	Title	Agency
Name	Title	Agency

Date above-mentioned Person(s) Placed Container(s) in Sample Shuttle	Military Time	Laboratory Affixed Sample Shuttle Seal No.
___/___/___		

Name of Person(s) Breaking Laboratory Seal on Sample Shuttle and Taking Field Sample

Name	Title
Bob Hayton	HSMS III
Helen Kosnitas	HSMS IV

Date Laboratory Sample Shuttle Seal No. 0994A Broken 10/12/85 | Time (Mil) Seal Broken and Sampling Begun 9:00

FIELD SAMPLE NUMBER	CONTAINER NUMBER(S)	VOLUME OF CONTAINERS	DESCRIPTION OF SAMPLE
			Soil #3 ~~Sandy with Red~~ ~~Streaks~~ RAH Brown Sludge Like material

LAB CONTROL NO.

Date Sampling Completed & Field Seal Affixed to Sample Shuttle 10/12/85 | Military Time 1500 | Field Affixed Sample Shuttle Seal No. 0994B 0995B

Laboratory Person Breaking Field Seal on Sample Shuttle & Accepting Responsibility for Sample — Name: Caroline Palmer Title: Sample Mgmt

Field Sample Seal No. 0994B 0995B | Date Broken 10/18/85 | Military Time Seal Broken 08:00

SAMPLE RELINQUISHED BY	SAMPLE RECEIVED BY	DATE	TIME	REASON FOR CHANGE OF CUSTODY
R Gerson	Caroline Palmer	10/18	800	Ship to Lab
Caroline Palmer	Leslie Cramer	10/18/85	8:15	VOA's
Leslie Cramer	Caroline Palmer	10/18/85	4:00	storage
Caroline Palmer	Candace DeYoung	10/23/85	9:00	Organic Prep
Candace DeYoung	Caroline Palmer	10/23/85	4:00	storage
Caroline Palmer	Tammy Welch	11/1/85	8:00	Metals Prep
Tammy Welch	Caroline Palmer	11/1/85	8:00	Storage
Caroline Palmer	John Eaton	11/12/85	9:00	Cyanide/Phenol
John Eaton	Caroline Palmer	11/12/85	4:00	Storage

Form ~~DWM-026~~
6/84

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION

CHAIN OF CUSTODY RECORD

SR12237-11

Use One Form for Each Sample | *Shaded Areas for DEP Field Use Only*

NAME OF UNIT AND ADDRESS: NJDEP HSMA 65 Prospect St Trenton NJ 08618

Name of Person(s) Preparing Container(s) for Sample Shuttle

Name	Title	Agency

Date above-mentioned Person(s) Placed Container(s) in Sample Shuttle ___/___/___	Military Time	Laboratory Affixed Sample Shuttle Seal No.

Name of Person(s) Breaking Laboratory Seal on Sample Shuttle and Taking Field Sample

Name	Title
R. Gervasio	Technician
R. Hayton	HSMS III
H. Kornitas	HSMS IV

Date Laboratory Sample Shuttle Seal No. 0994A Broken 10/17/85 | Time (Mil) Seal Broken and Sampling Begun 0900

FIELD SAMPLE NUMBER	CONTAINER NUMBER(S)	VOLUME OF CONTAINERS	DESCRIPTION OF SAMPLE
			Soil #4 Light brown, several colors in it.

LAB CONTROL NO.

Date Sampling Completed & Field Seal Affixed to Sample Shuttle 10/17/85 | Military Time 1500 | Field Affixed Sample Shuttle Seal No. 0995B 0994B

Laboratory Person Breaking Field Seal on Sample Shuttle & Accepting Responsibility for Sample — Name Caroline Palmer Title Sample Mgmt

Field Sample Seal No. 0995B 0994B | Date Broken 10/18/85 | Military Time Seal Broken 08:00

SAMPLE RELINQUISHED BY	SAMPLE RECEIVED BY	DATE	TIME	REASON FOR CHANGE OF CUSTODY
R. Gervasio	Caroline Palmer	10/18/85	08:00	Ship to Lab
Caroline Palmer	Leed R. Cramer	10/18/85	8:15	VOA's
Leed R. Cramer	Caroline Palmer	10/18/85	4:00	storage
Caroline Palmer	Candace D. Young	10/23/85	4:00	ORGANIC PREP
Candace D. Young	Caroline Palmer	10/23/85	4:00	storage
Caroline Palmer	Tammy Welch	11/1/85	8:00	Metal Prep
Tammy Welch	Caroline Palmer	11/1/85	4:00	storage
Caroline Palmer	John Einton	11/12/85	9:00	Cyanide/Phenol
John Einton	Caroline Palmer	11/12/85	4:00	storage

Form DWM-026
6/84

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION

CHAIN OF CUSTODY RECORD

SR12237-12

Use One Form for Each Sample | *Shaded Areas for DEP Field Use Only*

NAME OF UNIT AND ADDRESS: NJDEP 65 Prospect St. Trenton N.J. 08618

Name of Person(s) Preparing Container(s) for Sample Shuttle

Name	Title	Agency
Name	Title	Agency

Date above-mentioned Person(s) Placed Container(s) in Sample Shuttle	Military Time	Laboratory Affixed Sample Shuttle Seal No.
___/___/___		

Name of Person(s) Breaking Laboratory Seal on Sample Shuttle and Taking Field Sample

Name	Title
Bob Hayton	HSMS Tr
Helen Kornitas	HSMS Tr

Date Laboratory Sample Shuttle Seal No. 0994A Broken 10/17/85 | Time (Mil) Seal Broken and Sampling Begun 9:00

FIELD SAMPLE NUMBER	CONTAINER NUMBER(S)	VOLUME OF CONTAINERS	DESCRIPTION OF SAMPLE
			Soil #5 Black

LAB CONTROL NO.

Date Sampling Completed & Field Seal Affixed to Sample Shuttle 10/17/85 | Military Time 1500 | Field Affixed Sample Shuttle Seal No. 0994B 0995B

Laboratory Person Breaking Field Seal on Sample Shuttle & Accepting Responsibility for Sample — Name Caroline Palmer Title Sample Mgmt

Field Sample Seal No. 0994B 0995B | Date Broken 10/18/85 | Military Time Seal Broken 08:00

SAMPLE RELINQUISHED BY	SAMPLE RECEIVED BY	DATE	TIME	REASON FOR CHANGE OF CUSTODY
R Sequoia	Caroline Palmer	10/18	8:00	Shipto Lab
Caroline Palmer	Leila Cogmer	10/18/85	8:15	VOA's
Leila Cogmer	Caroline Palmer	10/18/85	4:00	storage
Caroline Palmer	Candace DeYoung	10/23/85	9:00	ORGANIC PREP
Candace DeYoung	Caroline Palmer	10/23/85	4:00	storage
Caroline Palmer	Tammy Welch	11/1/85	8:00	Metals Prep
Tammy Welch	Caroline Palmer	11/85	4:00	storage
Caroline Palmer	John Eunkin	11/12/85	9:00	Cyanide/Phenol
John Eunkin	Caroline Palmer	11/12/85	4:00	storage

Stablex-Reutter Inc.

LABORATORY NOTEBOOK ACCOUNTABILITY RECORD

ANALYSIS	SAMPLE NO. (S-R)	OSW DESIGNATION	NOTEBOOK NUMBER	PAGE(S)	DATE	ANALYST
Volatile Prep	SR12873-8-12	Soil #1 - #5	1323	169	10/17/85	PT
Volatile Analysis	SR12873-1-12	RW1, RW2, Leachate #1 & #2, Potable #1, Trip Blank, Field Blank, Soil #1 - #5	GC/MS		10/18/85	PT
A/E Prep	"	"	1402 1405	6 14	10/23/85	CY GS
A/E Analysis	"	"	GC/MS		11/11 to 11/13/85	WF
B/N Prep	"	"	1402 1405	6 14	10/23/85	CY GS
B/N Analysis	"	"	GC/MS		11/11 to 11/13/85	WF
Pest & PCB Prep	"	"	1403	11	10/23/85	CY
Pest & PCB Analysis	"	"	1350	189	11/8/85	BK
Volatile NBS	"	"	GC/MS		10/17/85	PT/LC
Semi-Volatile NBS	"	"	GC/MS		11/11 to 11/13/85	WF
Gen. Metals Prep	"	"	1399	124	11/5/85	TW
Mercury Prep	"	"	1399	133	11/6/85	TW
Hyd. Prep	"	"	1399	124 126	11/5/85	TW
Gen. Metals Analysis	"	"	1412 1372	ICP 197	11/11/85 11/5/85	SG NS
Mercury Analysis	"	"	1372	208	11/7/85	NS
Hyd. Analysis	"	"	1376 1411	157 50	11/7/85 11/8/85	SG NS
Cyanide	"	"	1391	84	11/12/85	JE

Stablex-Reutter Inc.

LABORATORY NOTEBOOK ACCOUNTABILITY RECORD

ANALYSIS	SAMPLE NO. (S-R)	OSW DESIGNATION	NOTEBOOK NUMBER	PAGE(S)	DATE	ANALYST
Phenol	SR12373-- 1 to 12	RW1, RW2, Leachate #1 & #2, Potable #1, Trip Blank, Field Blank, Soil #1 - #5	1391	85	11/13/85	JE

18471

Form DWM-025
6/84

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION

SAMPLE ANALYSIS REQUEST FORM

NJDEP File # 15

SAMPLE LOCATION

NAME OF FACILITY/ COMPANY/PERSON: Lakewood Landfill	CODE:	MAILING ADDRESS: 65 Prospect St
SAMPLE LOCATION: Soil #1		Trenton 08618

SAMPLE COLLECTOR

SAMPLER(S) Name: Robert Hayton	Agency: NJDEP	Sampler ID #: HS69
Name: Helen Kornitas	Agency: NJDEP	Sampler ID #: HS145

SAMPLE IDENTIFICATION

NJDEP SAMPLE NO.: Soil #1	SAMPLING DATE: 10/17/85	ABSCISSA (Longitude):
SAMPLE POINT ID:	TIME (MIL) SAMPLING BEGAN: 0955	ORDINATE (Latitude):
SAMPLE SOURCE CODE: Soil	TIME (MIL) SAMPLING FINISHED: 1000	ELEVATION:
REFERENCE POINT: 1		

SAMPLING PROCESS

COLLECTION METHOD	Code: Grab	Other:	SAMPLE TYPE	Code:	Other:
TYPE OF SAMPLER	Code: Trowel	Other:	SAMPLE MATRIX	Code: Soil	Other:
DESCRIPTION: Dark Brown					

FIELD MEASUREMENTS

SAMPLE TEMP. °C	PARAMETER:	PARAMETER:	PARAMETER:
AIR TEMP. °C	VALUE:	VALUE:	VALUE:
WEATHER: Clear 70° F			

CHAIN-OF-CUSTODY IMPLEMENTED ☒ YES ☐ NO

PRESERVATION CODE(S) ___ ___ ___ ___ ___

REQUESTED ANALYSIS(ES)

PARAMETERS (by Compound or Group of Compounds)	CONTAINER NUMBER	DETECTION LIMIT (digits/units)	PRECISION & ACCURACY LIMITS	REQUESTED TURNOVER (days)
PP+40	SR31			

18471

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NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION

SAMPLE ANALYSIS REQUEST FORM

NJDEP File # 16

SAMPLE LOCATION

NAME OF FACILITY/ COMPANY/PERSON	Lakewood Landfill	CODE	MAILING ADDRESS 65 Prospect St.
SAMPLE LOCATION	Soil #4		Trenton NJ 08618

SAMPLE COLLECTOR

SAMPLER(S) Name	Robert Hayton	Agency	NJDEP	Sampler ID #	HS69
Name	Helen Kornitas	Agency	NJDEP	Sampler ID #	HS145

SAMPLE IDENTIFICATION

NJDEP SAMPLE NO.	Soil #4	SAMPLING DATE	10/17/85	ABSCISSA (Longitude)	
SAMPLE POINT ID		TIME (MIL) SAMPLING BEGAN	1150	ORDINATE (Latitude)	
SAMPLE SOURCE CODE	Soil	TIME (MIL) SAMPLING FINISHED	1155	ELEVATION	
REFERENCE POINT					

SAMPLING PROCESS

COLLECTION METHOD	Code Grab	Other	SAMPLE TYPE	Code	Other
TYPE OF SAMPLER	Code Auger	Other	SAMPLE MATRIX	Code Soil	Other
DESCRIPTION	Light brown w/ colors in it				

FIELD MEASUREMENTS

SAMPLE TEMP.	°C	PARAMETER	PARAMETER	PARAMETER
AIR TEMP.	°C	VALUE	VALUE	VALUE
WEATHER	Clear 70° F			

CHAIN-OF-CUSTODY IMPLEMENTED ☒ YES ☐ NO

PRESERVATION CODE(S) ___ ___ ___ ___ ___

REQUESTED ANALYSIS(ES)

PARAMETERS (by Compound or Group of Compounds)	CONTAINER NUMBER	DETECTION LIMIT (digits/units)	PRECISION & ACCURACY LIMITS	REQUESTED TURNOVER (days)
PP +40	SR31			

ANALYSIS(ES)

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NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION

SAMPLE ANALYSIS REQUEST FORM

NJDEP File # 17

SAMPLE LOCATION

NAME OF FACILITY/ COMPANY/PERSON	LAKE WOOD LANDFILL	CODE	MAILING ADDRESS
SAMPLE LOCATION			

SAMPLE COLLECTOR

SAMPLER(S) Name	Agency	Sampler ID #
Name	Agency	Sampler ID #

SAMPLE IDENTIFICATION

NJDEP SAMPLE NO.	TRIP BLANK	SAMPLING DATE	10-17-85	ABSCISSA (Longitude)	
SAMPLE POINT ID		TIME (MIL) SAMPLING BEGAN		ORDINATE (Latitude)	
SAMPLE SOURCE CODE		TIME (MIL) SAMPLING FINISHED		ELEVATION	
REFERENCE POINT					

SAMPLING PROCESS

COLLECTION METHOD	Code	Other	SAMPLE TYPE	Code AQUEOUS	Other
TYPE OF SAMPLER	Code	Other	SAMPLE MATRIX	Code AQUEOUS	Other
DESCRIPTION					

FIELD MEASUREMENTS

SAMPLE TEMP.	°C	PARAMETER	PARAMETER	PARAMETER
AIR TEMP.	75 °F	VALUE	VALUE	VALUE
WEATHER	SUNNY			

CHAIN-OF-CUSTODY IMPLEMENTED ☐ YES ☐ NO

PRESERVATION CODE(S) ___ ___ ___ ___ ___

REQUESTED ANALYSIS(ES)

PARAMETERS (by Compound or Group of Compounds)	CONTAINER NUMBER	DETECTION LIMIT (digits/units)	PRECISION & ACCURACY LIMITS	REQUESTED TURNOVER (days)
PP 40	SR30			

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NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION

SAMPLE ANALYSIS REQUEST FORM

NJDEP File # 18

SAMPLE LOCATION

NAME OF FACILITY/ COMPANY/PERSON	LAKEWOOD LANDFILL	CODE	MAILING ADDRESS
SAMPLE LOCATION			

SAMPLE COLLECTOR

SAMPLER(S) Name	R. GERVASIO	Agency	NJ DEP	Sampler ID #	HS 76
Name	K. KLOO	Agency	NJ DEP	Sampler ID #	HS 144

SAMPLE IDENTIFICATION

NJDEP SAMPLE NO.	FIELD BLANK	SAMPLING DATE	10-17-85	ABSCISSA (Longitude)	
SAMPLE POINT ID		TIME (MIL) SAMPLING BEGAN	09:30	ORDINATE (Latitude)	
SAMPLE SOURCE CODE		TIME (MIL) SAMPLING FINISHED	09:45	ELEVATION	
REFERENCE POINT					

SAMPLING PROCESS

COLLECTION METHOD	Code GRAB	Other	SAMPLE TYPE	Code AQUEOUS	Other
TYPE OF SAMPLER	Code BAILER	Other	SAMPLE MATRIX	Code AQUEOUS	Other
DESCRIPTION	TEFLON				

FIELD MEASUREMENTS

SAMPLE TEMP.	°C	PARAMETER	PARAMETER	PARAMETER
AIR TEMP.	75 °F	VALUE	VALUE	VALUE
WEATHER	SUNNY			

CHAIN-OF-CUSTODY IMPLEMENTED ☒ YES ☐ NO

PRESERVATION CODE(S) ___ ___ ___ ___ ___

REQUESTED ANALYSIS(ES)

PARAMETERS (by Compound or Group of Compounds)	CONTAINER NUMBER	DETECTION LIMIT (digits/units)	PRECISION & ACCURACY LIMITS	REQUESTED TURNOVER (days)
PP 140	SR 30			

ANALYSIS(ES) [illegible] TITLE [illegible]

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NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION

SAMPLE ANALYSIS REQUEST FORM

NJDEP File # 19

SAMPLE LOCATION

NAME OF FACILITY/ COMPANY/PERSON	Lakewood Landfill	CODE	MAILING ADDRESS 65 Prospect St. Trenton N.J. office
SAMPLE LOCATION	Leachate #1		

SAMPLE COLLECTOR

SAMPLER(S) Name	Bob Hayton	Agency	NJDEP	Sampler ID #	HS 69
Name	Helen Kornitas	Agency	NJDEP	Sampler ID #	HS 145

SAMPLE IDENTIFICATION

NJDEP SAMPLE NO.	Leachate #1	SAMPLING DATE	10/17/85	ABSCISSA (Longitude)	
SAMPLE POINT ID		TIME (MIL) SAMPLING BEGAN		ORDINATE (Latitude)	
SAMPLE SOURCE CODE		TIME (MIL) SAMPLING FINISHED	10:10	ELEVATION	
REFERENCE POINT					

SAMPLING PROCESS

COLLECTION METHOD	Code Grab	Other	SAMPLE TYPE	Code Liquid	Other
TYPE OF SAMPLER	Code Glass	Other	SAMPLE MATRIX	Code Liquid	Other
DESCRIPTION					

FIELD MEASUREMENTS

SAMPLE TEMP.	°C	PARAMETER		PARAMETER		PARAMETER	
AIR TEMP.	°C	VALUE		VALUE		VALUE	
WEATHER	Clear 70°F						

CHAIN-OF-CUSTODY IMPLEMENTED ☒ YES ☐ NO

PRESERVATION CODE(S)

REQUESTED ANALYSIS(ES)

PARAMETERS (by Compound or Group of Compounds)	CONTAINER NUMBER	DETECTION LIMIT (digits/units)	PRECISION & ACCURACY LIMITS	REQUESTED TURNOVER (days)
PP+40	CR31			

ANALYSIS(ES) AUTHORIZED BY A. Pleva

TITLE

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NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION

SAMPLE ANALYSIS REQUEST FORM

NJDEP File # 20

SAMPLE LOCATION

NAME OF FACILITY/ COMPANY/PERSON	Lakewood Landfill	CODE	MAILING ADDRESS 65 Prospect Street Trenton N.J.
SAMPLE LOCATION	Soil #2		

SAMPLE COLLECTOR

SAMPLER(S) Name	Bob Hayton	Agency	NJDEP	Sampler ID #	69
Name	Helen Kornitas	Agency	NJDEP	Sampler ID #	145

SAMPLE IDENTIFICATION

NJDEP SAMPLE NO.	Soil #2	SAMPLING DATE	10/17/85	ABSCISSA (Longitude)	
SAMPLE POINT ID		TIME (MIL) SAMPLING BEGAN	1115	ORDINATE (Latitude)	
SAMPLE SOURCE CODE		TIME (MIL) SAMPLING FINISHED	1120	ELEVATION	
REFERENCE POINT					

SAMPLING PROCESS

COLLECTION METHOD	Code GRAB	Other	SAMPLE TYPE	Code Soil	Other
TYPE OF SAMPLER	Code Trowel	Other	SAMPLE MATRIX	Code	Other
DESCRIPTION	Dark Brown To Black				

FIELD MEASUREMENTS

SAMPLE TEMP.	°C	PARAMETER	PARAMETER	PARAMETER
AIR TEMP.	°C	VALUE	VALUE	VALUE
WEATHER	Clear 70°F			

CHAIN-OF-CUSTODY IMPLEMENTED	☒ YES ☐ NO	PRESERVATION CODE(S)

REQUESTED ANALYSIS(ES)

PARAMETERS (by Compound or Group of Compounds)	CONTAINER NUMBER	DETECTION LIMIT (digits/units)	PRECISION & ACCURACY LIMITS	REQUESTED TURNOVER (days)
AP+40	SR31			

ANALYSIS(ES)	AP Plus	TITLE	[illegible]

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NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION

SAMPLE ANALYSIS REQUEST FORM

NJDEP File # 21

SAMPLE LOCATION

NAME OF FACILITY/ COMPANY/PERSON	Lakewood Landfill	CODE	MAILING ADDRESS 65 Prospect Street Trenton NJ 08618
SAMPLE LOCATION	Soil #3		

SAMPLE COLLECTOR

SAMPLER(S) Name	Bob Hanton	Agency	NJDEP	Sampler ID #	HS 69
Name	Helen Kornitas	Agency	NJDEP	Sampler ID #	HK 145

SAMPLE IDENTIFICATION

NJDEP SAMPLE NO.	Soil #3	SAMPLING DATE	10/17	ABSCISSA (Longitude)	
SAMPLE POINT ID		TIME (MIL) SAMPLING BEGAN		ORDINATE (Latitude)	
SAMPLE SOURCE CODE		TIME (MIL) SAMPLING FINISHED	11:31	ELEVATION	
REFERENCE POINT					

SAMPLING PROCESS

COLLECTION METHOD	Code SAB	Other	SAMPLE TYPE	Code Soil	Other
TYPE OF SAMPLER	Code Trowel	Other	SAMPLE MATRIX	Code Soil	Other
DESCRIPTION	~~Sandy with Root Fragments~~ Brown Sludge like material				

FIELD MEASUREMENTS

SAMPLE TEMP.	°C	PARAMETER	PARAMETER	PARAMETER
AIR TEMP.	°C	VALUE	VALUE	VALUE
WEATHER	Cloudy 70°F			

CHAIN-OF-CUSTODY IMPLEMENTED ☒ YES ☐ NO

PRESERVATION CODE(S) ___ ___ ___ ___ ___

REQUESTED ANALYSIS(ES)

PARAMETERS (by Compound or Group of Compounds)	CONTAINER NUMBER	DETECTION LIMIT (digits/units)	PRECISION & ACCURACY LIMITS	REQUESTED TURNOVER (days)
PP 740	SR31			

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NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION

SAMPLE ANALYSIS REQUEST FORM

NJDEP File # 22

SAMPLE LOCATION

NAME OF FACILITY/ COMPANY/PERSON	Lakewood Landfill	CODE	MAILING ADDRESS 65 Prospect St. Trenton N.J. 08608
SAMPLE LOCATION	Soil #5		

SAMPLE COLLECTOR

SAMPLER(S) Name	Bob Hayton	Agency	NJDEP	Sampler ID #	HS 69
Name	Helen Kornitas	Agency	NJDEP	Sampler ID #	HS 145

SAMPLE IDENTIFICATION

NJDEP SAMPLE NO.	Soil #5	SAMPLING DATE	10/17/85	ABSCISSA (Longitude)	
SAMPLE POINT ID		TIME (MIL) SAMPLING BEGAN		ORDINATE (Latitude)	
SAMPLE SOURCE CODE		TIME (MIL) SAMPLING FINISHED	1225	ELEVATION	
REFERENCE POINT					

SAMPLING PROCESS

COLLECTION METHOD	Code: Grab	Other	SAMPLE TYPE	Code: Soil	Other
TYPE OF SAMPLER	Code: Auger & trowel	Other	SAMPLE MATRIX	Code: Soil	Other
DESCRIPTION	Black with some sand				

FIELD MEASUREMENTS

SAMPLE TEMP. °C	PARAMETER	PARAMETER	PARAMETER
AIR TEMP. °C	VALUE	VALUE	VALUE
WEATHER Clear 70°F			

CHAIN-OF-CUSTODY IMPLEMENTED ☒ YES ☐ NO

PRESERVATION CODE(S) ___ ___ ___ ___ ___

REQUESTED ANALYSIS(ES)

PARAMETERS (by Compound or Group of Compounds)	CONTAINER NUMBER	DETECTION LIMIT (digits/units)	PRECISION & ACCURACY LIMITS	REQUESTED TURNOVER (days)
PP 140	SR31			

ANALYSIS(ES) AUTHORIZED BY Al Plova

TITLE HSMS II

18471

Form DWM-025
/84

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION

SAMPLE ANALYSIS REQUEST FORM

NJDEP File # 23

SAMPLE LOCATION

NAME OF FACILITY/ COMPANY/PERSON	Lakewood Landfill	CODE	MAILING ADDRESS 65 Prospect St. Trenton NJ 08618
SAMPLE LOCATION	Potable Well #1		

SAMPLE COLLECTOR

SAMPLER(S) Name	Robert Hayton	Agency	NJDEP	Sampler ID #	HS69
Name	Helen Kornitas	Agency	NJDEP	Sampler ID #	HS145

SAMPLE IDENTIFICATION

NJDEP SAMPLE NO.	Potable #1	SAMPLING DATE	10/17/85	ABSCISSA (Longitude)	
SAMPLE POINT ID		TIME (MIL) SAMPLING BEGAN	1055	ORDINATE (Latitude)	
SAMPLE SOURCE CODE	Water	TIME (MIL) SAMPLING FINISHED	1100	ELEVATION	
REFERENCE POINT					

SAMPLING PROCESS

COLLECTION METHOD	Code Water	Other	SAMPLE TYPE	Code	Other
TYPE OF SAMPLER	Code Glass	Other	SAMPLE MATRIX	Code Water	Other
DESCRIPTION	Clear				

FIELD MEASUREMENTS

SAMPLE TEMP.	°C	PARAMETER		PARAMETER		PARAMETER	
AIR TEMP.	°C	VALUE		VALUE		VALUE	
WEATHER	Clear 70°F						

CHAIN-OF-CUSTODY IMPLEMENTED ☒ YES ☐ NO

PRESERVATION CODE(S) ___ ___ ___ ___ ___

REQUESTED ANALYSIS(ES)

PARAMETERS (by Compound or Group of Compounds)	CONTAINER NUMBER	DETECTION LIMIT (digits/units)	PRECISION & ACCURACY LIMITS	REQUESTED TURNOVER (days)
PP +40	SR31			

ANALYSIS(ES) AUTHORIZED BY Al Pieva

TITLE HSMS II

18471

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6/84

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION

SAMPLE ANALYSIS REQUEST FORM

NJDEP File # 24

SAMPLE LOCATION

NAME OF FACILITY/ COMPANY/PERSON	Lakewood LF	CODE	MAILING ADDRESS
SAMPLE LOCATION			

SAMPLE COLLECTOR

SAMPLER(S) Name	R Gervasio	Agency	NJDEP	Sampler ID #	HJG
Name	K Kloo	Agency	NJDEP	Sampler ID #	HS 144

SAMPLE IDENTIFICATION

NJDEP SAMPLE NO.	RW-2	SAMPLING DATE	10-17-85	ABSCISSA (Longitude)	
SAMPLE POINT ID	GW-monitoring W	TIME (MIL) SAMPLING BEGAN	1000	ORDINATE (Latitude)	
SAMPLE SOURCE CODE	Aqueous	TIME (MIL) SAMPLING FINISHED	1200	ELEVATION	
REFERENCE POINT	South end of site				

SAMPLING PROCESS

COLLECTION METHOD	Code Grab	Other	SAMPLE TYPE	Code aqueous	Other
TYPE OF SAMPLER	Code Bailer	Other	SAMPLE MATRIX	Code aqueous	Other
DESCRIPTION	Teflon				

FIELD MEASUREMENTS

SAMPLE TEMP. °C	PARAMETER	PARAMETER	PARAMETER
AIR TEMP. 75°F °C	VALUE	VALUE	VALUE
WEATHER Sunny			

CHAIN-OF-CUSTODY IMPLEMENTED ☒ YES ☐ NO

PRESERVATION CODE(S) 40°C

REQUESTED ANALYSIS(ES)

PARAMETERS (by Compound or Group of Compounds)	CONTAINER NUMBER	DETECTION LIMIT (digits/units)	PRECISION & ACCURACY LIMITS	REQUESTED TURNOVER (days)
PP + 40	5E17			

ANALYSIS(ES) AUTHORIZED BY Al Plen

TITLE Asmt

18471

Form DWM-025
6/84

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION

SAMPLE ANALYSIS REQUEST FORM

NJDEP File # 25

SAMPLE LOCATION

NAME OF FACILITY/ COMPANY/PERSON	Lakewood LF	CODE	MAILING ADDRESS
SAMPLE LOCATION			

SAMPLE COLLECTOR

SAMPLER(S) Name	R Gervasa	Agency	NJDEP	Sampler ID #	HS 76
Name	K Klein	Agency	NJDEP	Sampler ID #	HS 144

SAMPLE IDENTIFICATION

NJDEP SAMPLE NO.	~~[illegible]~~ Leachate 2	SAMPLING DATE	10-17-85	ABSCISSA (Longitude)	
SAMPLE POINT ID	~~[illegible]~~ LR	TIME (MIL) SAMPLING BEGAN	1230	ORDINATE (Latitude)	
SAMPLE SOURCE CODE	Aqueous	TIME (MIL) SAMPLING FINISHED	1245	ELEVATION	
REFERENCE POINT					

SAMPLING PROCESS

COLLECTION METHOD	Code Grab	Other	SAMPLE TYPE	Code Aqueous	Other
TYPE OF SAMPLER	Code Glass	Other Bottle	SAMPLE MATRIX	Code Aqueous	Other
DESCRIPTION	Glass				

FIELD MEASUREMENTS

SAMPLE TEMP.	°C	PARAMETER	PARAMETER	PARAMETER
AIR TEMP.	75°F	VALUE	VALUE	VALUE
WEATHER	Sunny			

CHAIN-OF-CUSTODY IMPLEMENTED ☒ YES ☐ NO

PRESERVATION CODE(S) ___ ___ ___ ___ ___

REQUESTED ANALYSIS(ES)

PARAMETERS (by Compound or Group of Compounds)	CONTAINER NUMBER	DETECTION LIMIT (digits/units)	PRECISION & ACCURACY LIMITS	REQUESTED TURNOVER (days)
PP+40	SP-17			

ANALYSIS(ES) [illegible] TITLE

184/1

12237

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6/84

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION

SAMPLE ANALYSIS REQUEST FORM

NJDEP File # 26

SAMPLE LOCATION

NAME OF FACILITY/ COMPANY/PERSON: Lakewood LF	CODE	MAILING ADDRESS
SAMPLE LOCATION		

SAMPLE COLLECTOR

SAMPLER(S) Name	R Gervasio	Agency	NJDEP	Sampler ID #	#S 76
Name	K. Kloc	Agency	NJDEP	Sampler ID #	#S 744

SAMPLE IDENTIFICATION

NJDEP SAMPLE NO.	RW-1	SAMPLING DATE	10-17-85	ABSCISSA (Longitude)	
SAMPLE POINT ID	GW - monitoring well	TIME (MIL) SAMPLING BEGAN	1000	ORDINATE (Latitude)	
SAMPLE SOURCE CODE	aqueous	TIME (MIL) SAMPLING FINISHED	1030	ELEVATION	
REFERENCE POINT	South end of site				

SAMPLING PROCESS

COLLECTION METHOD	Code / Other: Grab		SAMPLE TYPE	Code / Other: aqueous	
TYPE OF SAMPLER	Code / Other: Bailer		SAMPLE MATRIX	Code / Other: aqueous	
DESCRIPTION	Teflon				

FIELD MEASUREMENTS

SAMPLE TEMP. °C		PARAMETER		PARAMETER		PARAMETER	
AIR TEMP. 65°F °C		VALUE		VALUE		VALUE	
WEATHER Sunny							

CHAIN-OF-CUSTODY IMPLEMENTED ☒ YES ☐ NO

PRESERVATION CODE(S) 4°C

REQUESTED ANALYSIS(ES)

PARAMETERS (by Compound or Group of Compounds)	CONTAINER NUMBER	DETECTION LIMIT (digits/units)	PRECISION & ACCURACY LIMITS	REQUESTED TURNOVER (days)
PP+40	SR-17			

ANALYSIS(ES) AUTHORIZED BY: R. Olsen

TITLE: Chemist

FIELD DATA SHEET

PROJECT NAME	DATE OF SAMPLING: 10/17/85 TIME TO ARRIVE: after 4:30 pm
ADDRESS	FIELD CONTACT AND PHONE NO. Al Pleva 609-984-3015
CLIENT NJDEP - HSMA	D.M.F.

TIME LEFT ~~SITE~~ S-R	TIME ARRIVED AT SITE	TIME LEFT SITE	TIME ARRIVED AT S-R
335	440	445	515

DESCRIPTION OF WORK sample pickup

NOTEBOOK REFERENCE:

pick up samples @ Al's house after 4:30 pm

SAMPLE DESIGNATION/DESCRIPTION

DIRECTIONS

EXPENSES

MILEAGE $ 48470 - 48543

OTHER MISC. TRAVEL $ —

TOLLS $ .70

COMMENTS:

28

S-R ANALYTICAL INC.

28 Springdale Rd., Cherry Hill, N.J. 08003
(609) 751-1122 (215) 923-2068

CHAIN OF CUSTODY RECORD

Name of Unit and Address

NJ DEP 65 PROSPECT ST. TRENTON NJ 08618

Number	Item	Description of Samples
6		40 ML V.O
2		500 ML GLASS
4		500 ML PLASTIC
6		1 L GLASS
		Remarks: Cooler 52-30

Person Assuming Responsibility for Samples:	Time	Date
Richard Grieson	15:00	10-17-85

Number	Relinquished by:	Received by:	Time	Date	Reason for Change of Custody
		Caroline Palmer CAROLINE PALMER	10/18/85	8:00 pm	received by lab
Number	Relinquished by:	Received by:	Time	Date	Reason for Change of Custody
Number	Relinquished by:	Received by:	Time	Date	Reason of Change of Custody
Number	Relinquished by:	Received by:	Time	Date	Reason of Change of Custody

29

S-R ANALYTICAL INC.

28 Springdale Rd., Cherry Hill, N.J. 08003
(609) 751-1122 (215) 923-2068

CHAIN OF CUSTODY RECORD

Name of Unit and Address

NJDEP 65 Prospect St
Trenton, N.J. 08618

Number	Item	Description of Samples
7	500ml	glass bottles
6	1-L	glass bottles organics
4	500ml	plastic bottles
11	40ml	glass vials

Remarks:

Cooler SR31

Person Assuming Responsibility for Samples:	Time	Date
R Gerson	1500	10-17-95

Number	Relinquished by:	Received by:	Time	Date	Reason for Change of Custody
		Carolyn Palmer CAROLYNE PALMER	8:00 am	10/18	received by lab

Number	Relinquished by:	Received by:	Time	Date	Reason for Change of Custody

Number	Relinquished by:	Received by:	Time	Date	Reason of Change of Custody

Number	Relinquished by:	Received by:	Time	Date	Reason of Change of Custody

30

S-R ANALYTICAL INC.

28 Springdale Rd., Cherry Hill, N.J. 08003
(609) 751-1122 (215) 923-2068

CHAIN OF CUSTODY RECORD

Name of Unit and Address
NJ DEP 60 Prospect St
Trenton NJ 08618

Number	Item	Description of Samples
9	1-L	Glass Bottle Organics
9	40 ml	Glass Vials
6	500 ml	Plastic Bottles
3	500 ml	Glass Bottles
		Remarks: Cooler SR-17

Person Assuming Responsibility for Samples:	Time	Date
R Gerosa	1500	10-17-91

Number	Relinquished by:	Received by:	Time	Date	Reason for Change of Custody
		Carolina Palmer CAROLINE PALMER	8:00 am	10/18	received by lab

Number	Relinquished by:	Received by:	Time	Date	Reason for Change of Custody

Number	Relinquished by:	Received by:	Time	Date	Reason of Change of Custody

Number	Relinquished by:	Received by:	Time	Date	Reason of Change of Custody

GC/MS TUNE DATA

VOLATILE ORGANICS

GC/MS Tuning and Mass Calibration Data

Bromofluorobenzene (BFB)

31

Case No. 12237 Contractor S-R Analytical Contract No.

Instrument ID 5100B Date 10/18/85 Time 7:57

Lab ID BFBB1018AM Data Release Authorized By: Patricia Zwaddell

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	15.0 - 40.0% of the base peak	29.8
75	30.0 - 60.0% of the base peak	52.9
95	Base peak, 100% relative abundance	100
96	5.0 - 9.0% of the base peak	7.10
173	Less than 1.0% of the base peak	<0.01
174	Greater than 50.0% of the base peak	65.8
175	5.0 - 9.0% of mass 174	3.49 (5.30)[1]
176	Greater than 95.0%, but less than 101.0% of mass 174	63.8 (96.9)[1]
177	5.0 - 9.0% of mass 176	3.46 (5.42)[2]

[1] Value in parenthesis is % mass 174.
[2] Value in parenthesis is % mass 176.

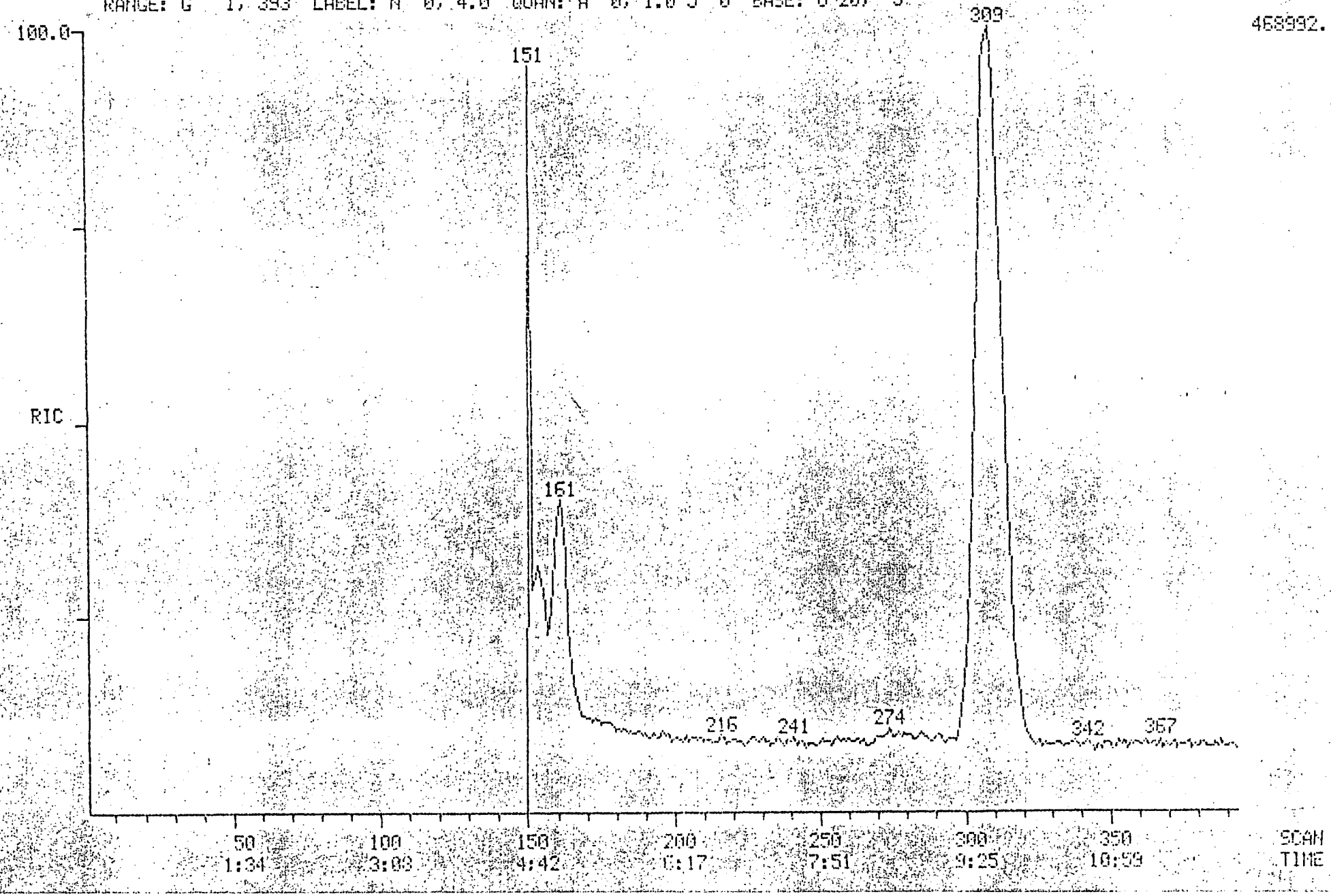
THIS PERFORMANCE TUNE APPLIES TO THE FOLLOWING SAMPLES, BLANKS AND STANDARDS.

SAMPLE ID	LAB ID	DATE OF ANALYSIS	TIME OF ANALYSIS
100ug/l Std	NSB1018AK	10/18	8:38
200ug/l Std	VSB1018AM		9:25
300ug/l Std	VSB1018AH		10:13
12230-1 SPIKE	12237V1S		11:00
	BLKB1018A		11:52
	12237V1		12:36
	12237V2		13:22
	12237V3		14:09
	12237V2D		14:56
	12237V4		15:44
	12237V5		16:35
	12237V6		17:20
	12237V7		18:06

FORM V 7/85

MIDRIC
10/18/85 7:57:00
SAMPLE:
CONDS.: EI
RANGE: G 1, 393 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

DATA: BFBB1018AM #309 SCANS 1 TO 393
CALI: VSB1104AM #2

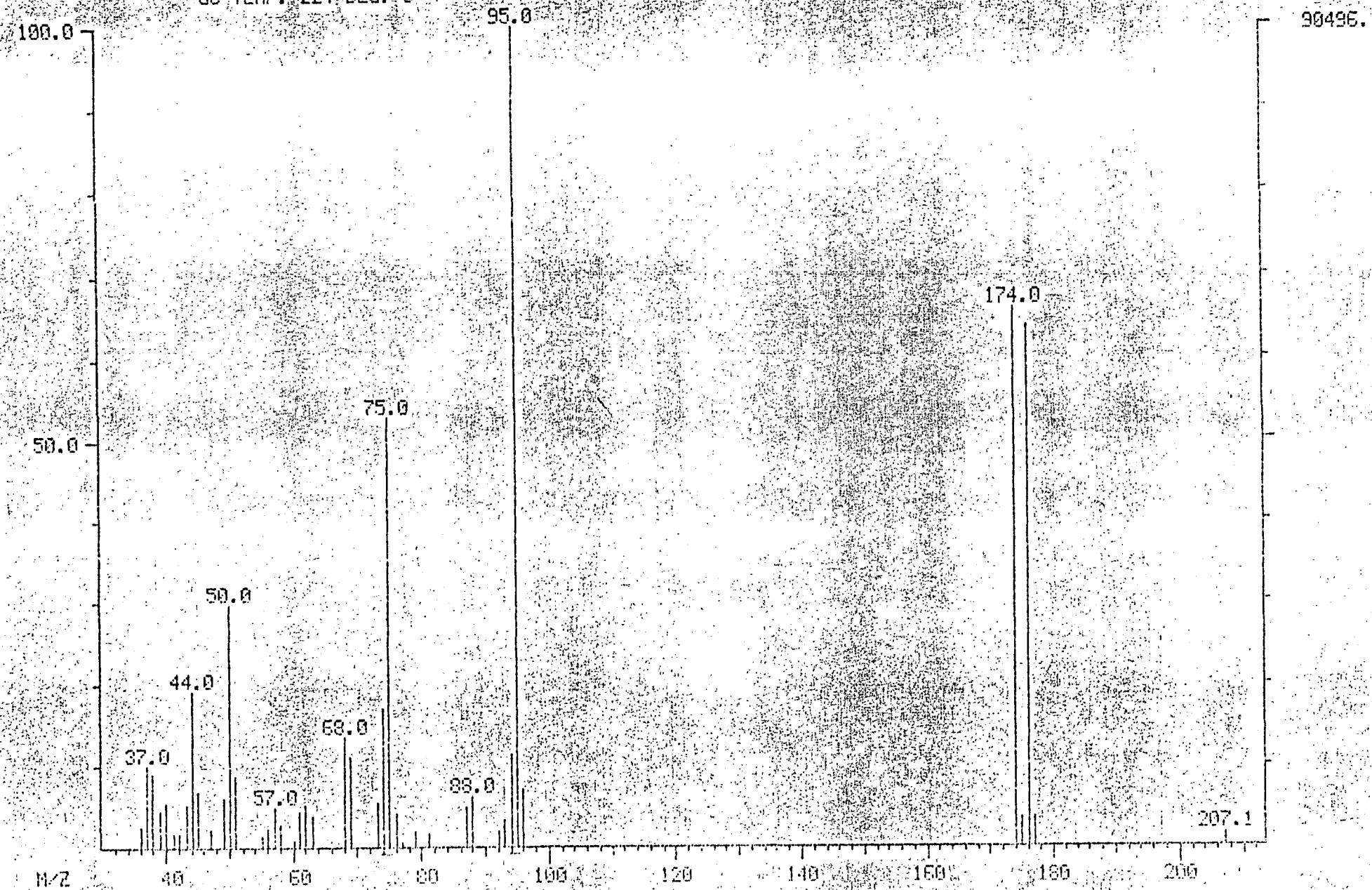


32

MID MASS SPECTRUM
10/18/85 7:57:00 + 9:42
SAMPLE:
CONDS.: EI
GC TEMP: 224 DEG. C

DATA: BFBB1018AM #303
CALI: VSB1104AM #2

BASE M/Z: 95
RIC: 468992.



33

PROCEDURE: TCA DIAGNOSTIC REPORT
DATA FILE: 12282V1
REFERENCE: VPP
NAME LIST: VH INITIALIZATION OPTION: 2 PROCESSING OPTION: 3
REPORT: HI

< ----- STANDARDS ----- >< --- PLUS UNKNOWNS --- >< - LIST NAMES - >

PROC	USED	POSS	RMS	PROC	USED	POSS	RMS	STANDARD/UNKNOWN
3	0	1	OMID Mass List					Data: BFBB101SAM # 309 Ba

10/18/85 7:57:00 + 9:42 Cali: VSB1104AM # 2 RIC: 463992.
Sample:
Conds.: EI

36 0.00 Minima Min inten: 0.
207 # 0 Maxima

Mass	% RA
36	2.59
37	9.94
38	8.96
39	4.66
40	5.27
41	1.63
42	1.54
43	5.20
44	19.13
45	6.50
47	2.20
49	5.90
50	29.84
51	8.50
55	1.37
56	2.08
57	4.82
58	2.59
60	0.90
61	4.28
62	5.24
63	3.71
68	13.44
69	11.05
73	5.39
74	17.03
75	52.90
76	4.11
77	0.62
79	2.01
81	1.70
87	4.90
88	6.15
92	1.94
93	3.10
94	11.32
95	100.00
96	7.10
174	65.84
175	3.49
176	63.79
177	3.46
207	1.71

CALIBRATION CURVE

VOLATILE ORGANICS

Initial Calibration Data
Volatile HSL Compounds

Case No: VSB10ISA-LM,H Region: _____ Instrument I D: 5100B

Contractor: S-R Analytical Calibration Date: 10/18/85

Contract No: 12237

Minimum $\overline{RF}$ for SPCC is 0.300 (0.25 for Bromoform) Maximum % RSD for CCC is 30%

Laboratory ID	VSB10RAL	VSB10ISAM	VSB10ISAH					
Compound	RF_{100}	RF_{200}	RF_{300}			$\overline{RF}$	% RSD	CCC* SPCC**
Chloromethane	3.406	3.209	3.302			3.306	2.98	*
Bromomethane	3.008	2.787	2.657			2.817	6.30	
Vinyl Chloride	3.342	3.278	3.178			3.266	2.53	*
Chloroethane	2.188	2.044	2.055			2.096	3.82	
Methylene Chloride	2.604	2.353	2.169			2.377	9.30	
Acetone								
Carbon Disulfide								
1, 1-Dichloroethene	2.199	2.071	2.171			2.147	3.13	*
1, 1-Dichloroethane	4.516	4.316	4.495			4.443	2.47	**
Trans-1, 2-Dichloroethene	2.122	2.050	2.044			2.072	2.09	
Chloroform	4.107	4.025	3.931			4.021	2.19	*
1, 2-Dichloroethane	1.775	1.773	1.574			1.707	6.76	
2-Butanone								
1, 1, 1-Trichloroethane	0.511	0.501	0.533			0.515	3.18	
Carbon Tetrachloride	0.434	0.472	0.487			0.466	5.27	
Vinyl Acetate								
Bromodichloromethane	0.500	0.534	0.503			0.512	3.67	
1, 2-Dichloropropane	.459	.470	.452			0.460	1.97	*
Trans-1, 3-Dichloropropene	0.200	0.213	0.194			0.202	4.80	
Trichloroethene	0.425	0.434	0.431			0.430	1.06	
Dibromochloromethane	0.204	0.258	0.220			0.227	12.20	
1, 1, 2-Trichloroethane	0.200	0.205	0.178			0.194	7.39	
Benzene	1.048	1.083	1.125			1.085	3.55	
cis-1, 3-Dichloropropene	0.423	0.451	0.404			0.426	5.55	
2-Chloroethylvinylether	0.047	0.047	0.042			0.045	6.37	
Bromoform	0.054	0.095	0.072			0.075	24.20	**
4-Methyl-2-Pentanone								
2-Hexanone								
Tetrachloroethene	0.598	0.576	0.635			0.603	4.94	
1, 1, 2, 2-Tetrachloroethane	0.371	0.375	0.359			0.368	2.26	**
Toluene	.975	.938	1.039			0.984	5.19	*
Chlorobenzene	1.142	1.112	1.156			1.137	1.98	**
Ethylbenzene	.606	.599	.645			0.617	4.02	*
Styrene								
Total Xylenes								

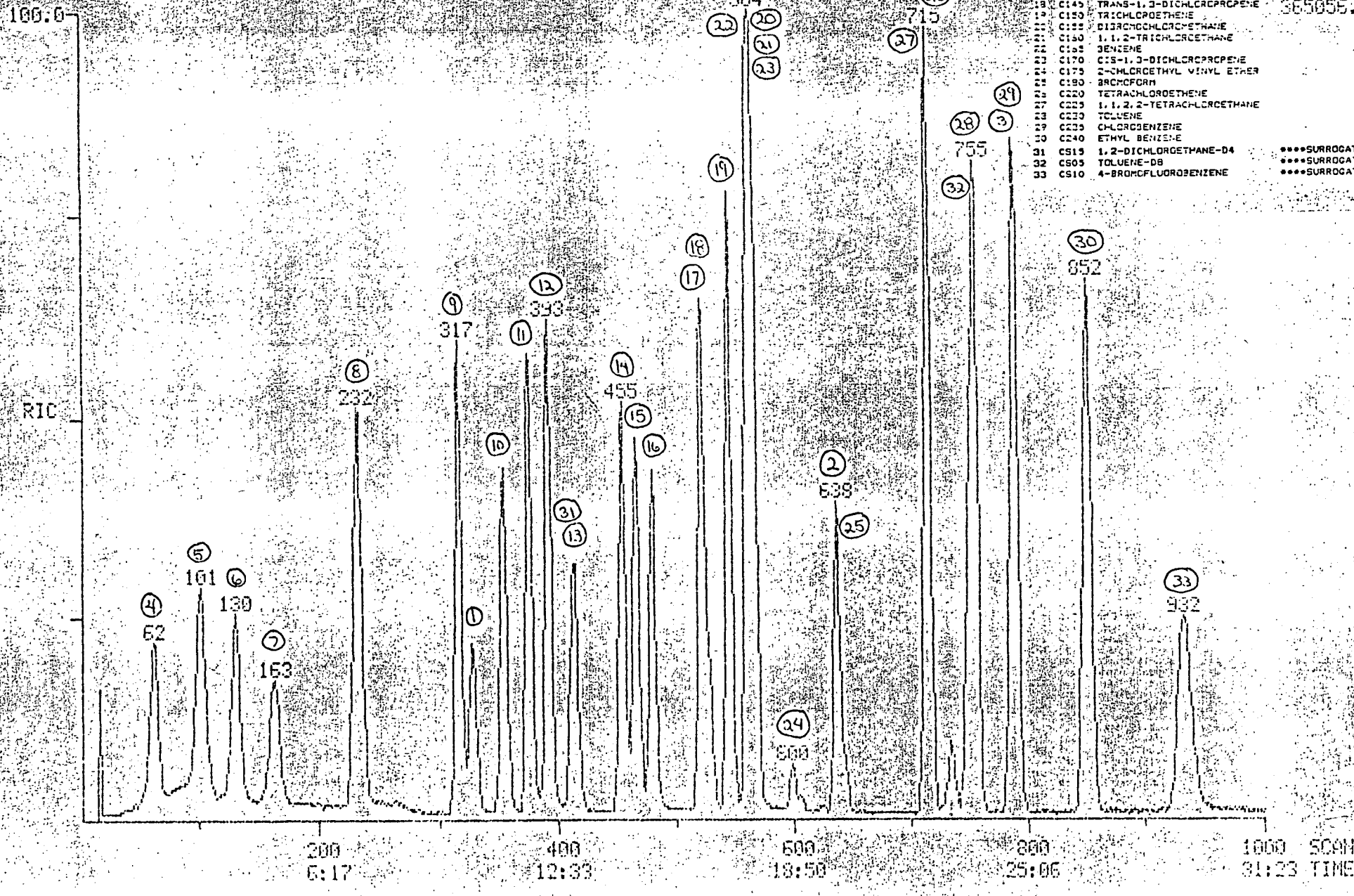
RF -Response Factor (subscript is the amount of ug/L)
$\overline{RF}$ -Average Response Factor
%RSD -Percent Relative Standard Deviation

CCC -Calibration Check Compounds (*)
SPCC -System Performance Check Compounds (**)

Form VI

MIDRIC
10/18/85 8:38:00
SAMPLE: VSB1018AL
CONDS.: 100 UG STD
RANGE: G 1,1200 LABEL: N 0,4.0 QUAN: A 0, 1.0 J 0 BASE: U 20 3

DATA: VSB1018AL #1 SCANS 1 TO 1000
CALI: VSB1018AL #2



NO	NAME		
1	C101	BROMOCHLOROETHANE	****INTERNAL STANDARD #1*
2	C110	1,4-DIFLUOROBENZENE	****INTERNAL STANDARD #2*
3	C120	CHLOROBENZENE-D5	****INTERNAL STANDARD #3*
4	C010	CHLOROMETHANE	
5	C015	BROMOMETHANE	
6	C020	VINYL CHLORIDE	
7	C025	CHLOROETHANE	
8	C030	METHYLENE CHLORIDE	
9	C045	1,1-DICHLOROETHENE	
10	C050	1,1-DICHLOROETHANE	
11	C055	TRANS-1,2-DICHLOROETHENE	
12	C060	CHLOROFORM	
13	C065	1,2-DICHLOROETHANE	
14	C115	1,1,1-TRICHLOROETHANE	
15	C120	CARBON TETRACHLORIDE	
16	C130	BROMODICHLOROMETHANE	
17	C140	1,2-DICHLOROPROPANE	
18	C145	TRANS-1,3-DICHLOROPROPENE	
19	C150	TRICHLOROETHENE	
20	C155	DIBROMOCHLOROMETHANE	
21	C160	1,1,2-TRICHLOROETHANE	
22	C165	BENZENE	
23	C170	CIS-1,3-DICHLOROPROPENE	
24	C175	2-CHLOROETHYL VINYL ETHER	
25	C180	BROMOFORM	
26	C220	TETRACHLOROETHENE	
27	C225	1,1,2,2-TETRACHLOROETHANE	
28	C230	TOLUENE	
29	C235	CHLOROBENZENE	
30	C240	ETHYL BENZENE	
31	CS15	1,2-DICHLOROETHANE-D4	****SURROGATE #1*
32	CS05	TOLUENE-D8	****SURROGATE #2*
33	CS10	4-BROMOFLUOROBENZENE	****SURROGATE #3*

365055.

96

Quantitation Report File: VSB1018AL

Data: VSB1018AL.TI
10/18/85 8:38:00
Sample:
Submitted by: Analyst: MS

AMOUNT=AREA * REF.AMNT/(REF.AREA)* RESP.FACT)
Resp. fac. from Library Entry

NO	NAME		
1	CI01	BROMOCHLOROMETHANE	****INTERNAL STANDARD #1****
2	CI10	1,4-DIFLUOROBENZENE	****INTERNAL STANDARD #2****
3	CI20	CHLOROBENZENE-D5	****INTERNAL STANDARD #3****
4	C010	CHLOROMETHANE	
5	C015	BROMOMETHANE	
6	C020	VINYL CHLORIDE	
7	C025	CHLOROETHANE	
8	C030	METHYLENE CHLORIDE	
9	C045	1,1-DICHLOROETHENE	
10	C050	1,1-DICHLOROETHANE	
11	C055	TRANS-1,2-DICHLOROETHENE	
12	C060	CHLOROFORM	
13	C065	1,2-DICHLOROETHANE	
14	C115	1,1,1-TRICHLOROETHANE	
15	C120	CARBON TETRACHLORIDE	
16	C130	BROMODICHLOROMETHANE	
17	C140	1,2-DICHLOROPROPANE	
18	C145	TRANS-1,3-DICHLOROPROPENE	
19	C150	TRICHLOROETHENE	
20	C155	DIBROMOCHLOROMETHANE	
21	C160	1,1,2-TRICHLOROETHANE	
22	C165	BENZENE	
23	C170	CIS-1,3-DICHLOROPROPENE	
24	C175	2-CHLOROETHYL VINYL ETHER	
25	C180	BROMOFORM	
26	C220	TETRACHLOROETHENE	
27	C225	1,1,2,2-TETRACHLOROETHANE	
28	C230	TOLUENE	
29	C235	CHLOROBENZENE	
30	C240	ETHYL BENZENE	
31	CS15	1,2-DICHLOROETHANE-D4	****SURROGATE #1****
32	CS05	TOLUENE-D8	****SURROGATE #2****
33	CS10	4-BROMOFLUOROBENZENE	****SURROGATE #3****

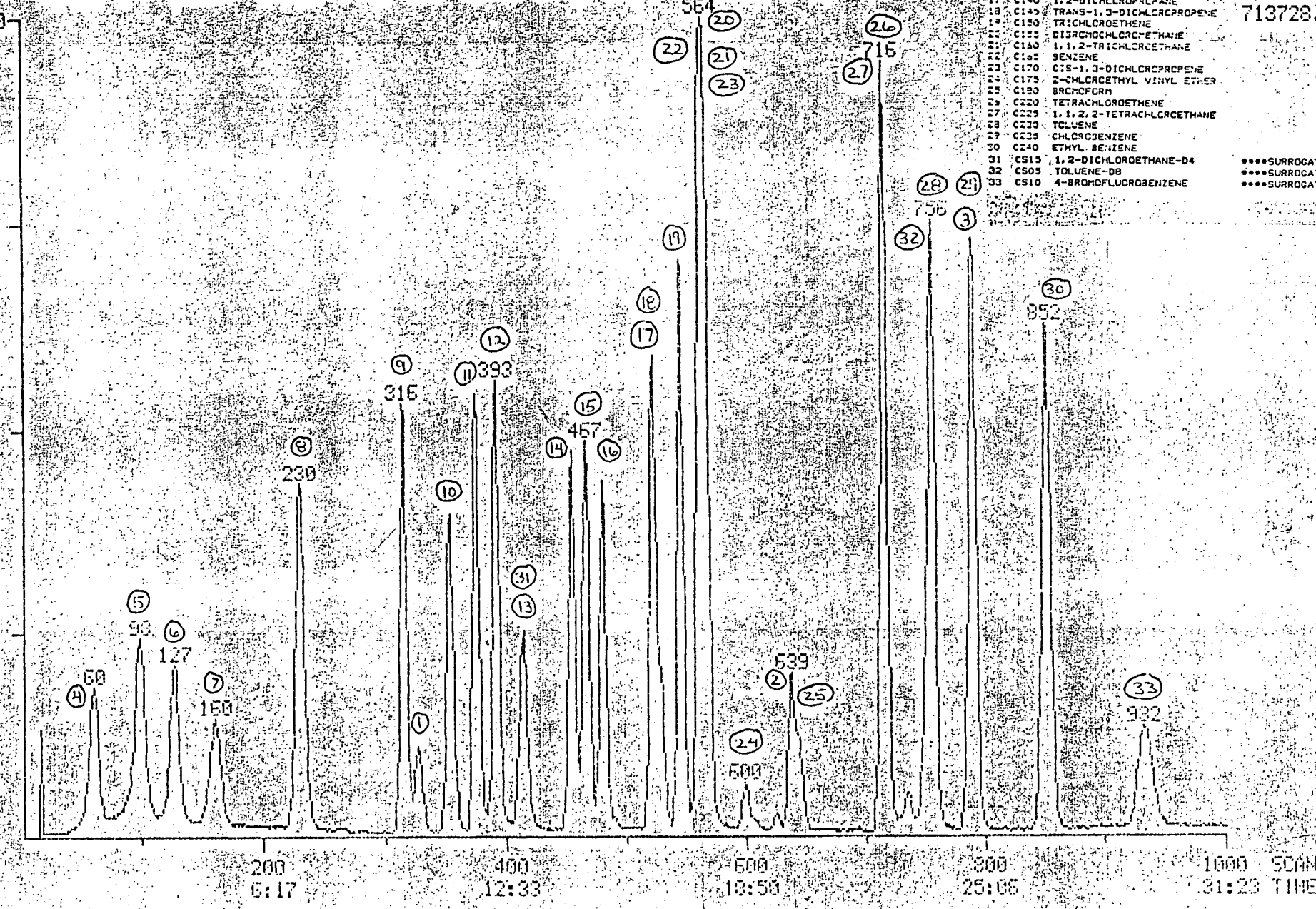
No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	128	329	10:19	1	1.000	A BB	52960.	50.000 UG/L	1.67
2	114	638	20:01	2	1.000	A BB	286224.	50.000 UG/L	1.67
3	117	786	24:40	3	1.000	A BB	180112.	50.000 UG/L	1.67
4	50	62	1:57	1	0.188	A BB	360712.	100.000 UG/L	3.33
5	94	101	3:10	1	0.307	A BB	318600.	100.000 UG/L	3.33
6	62	130	4:05	1	0.395	A BB	354032.	100.000 UG/L	3.33
7	64	163	5:07	1	0.495	A BB	231704.	100.000 UG/L	3.33
8	84	232	7:17	1	0.705	A BB	276368.	100.000 UG/L	3.33
9	96	317	9:57	1	0.964	A BB	232896.	100.000 UG/L	3.33
10	63	355	11:08	1	1.079	A BB	478328.	100.000 UG/L	3.33
11	96	377	11:50	1	1.146	A BB	224760.	100.000 UG/L	3.33
12	83	393	12:20	1	1.195	A BB	435040.	100.000 UG/L	3.33
13	62	415	13:01	1	1.261	A BB	187984.	100.000 UG/L	3.33
14	97	455	14:17	2	0.713	A BB	292272.	100.000 UG/L	3.33
15	117	467	14:39	2	0.732	A VB	251168.	100.000 UG/L	3.33
16	83	480	15:04	2	0.752	A BB	286296.	100.000 UG/L	3.33
17	63	522	16:23	2	0.818	A BB	262760.	100.000 UG/L	3.33
18	75	529	16:36	2	0.829	A BB	114536.	100.000 UG/L	3.33
19	130	546	17:08	2	0.856	A BB	243136.	100.000 UG/L	3.33
20	129	564	17:42	2	0.884	A BB	116520.	100.000 UG/L	3.33
21	97	567	17:47	2	0.889	A BB	114520.	100.000 UG/L	3.33
22	78	562	17:38	2	0.881	A BB	600192.	100.000 UG/L	3.33
23	75	567	17:47	2	0.889	A BB	242192.	100.000 UG/L	3.33
24	63	600	18:50	2	0.940	A BB	26720.	100.000 UG/L	3.33
25	173	644	20:12	2	1.009	A BB	33680.	100.000 UG/L	3.33
26	164	715	22:26	3	0.910	A BB	215512.	100.000 UG/L	3.33
27	83	714	22:24	3	0.906	A BB	133712.	100.000 UG/L	3.33
28	92	755	23:41	3	0.961	A BB	351240.	100.000 UG/L	3.33
29	112	790	24:47	3	1.005	A BB	411512.	100.000 UG/L	3.33
30	106	852	26:44	3	1.084	A BB	218368.	100.000 UG/L	3.33
31	65	412	12:56	1	1.252	A BB	92952.	50.000 UG/L	1.67
32	98	750	23:32	3	0.954	A BB	263352.	50.000 UG/L	1.67
33	95	932	29:15	3	1.186	A BB	154784.	50.000 UG/L	1.67

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	10:19	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	20:01	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
3	24:42	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
4	1:55	1.02	0.185	1.02	100.00	100.00	3.406	3.406	1.00
5	3:04	1.03	0.298	1.03	100.00	100.00	3.008	3.008	1.00
6	3:59	1.02	0.386	1.02	100.00	100.00	3.342	3.342	1.00
7	5:01	1.02	0.486	1.02	100.00	100.00	2.188	2.188	1.00
8	7:13	1.01	0.699	1.01	100.00	100.00	2.609	2.609	1.00
9	9:55	1.00	0.960	1.00	100.00	100.00	2.199	2.199	1.00
10	11:08	1.00	1.079	1.00	100.00	100.00	4.516	4.516	1.00
11	11:48	1.00	1.143	1.00	100.00	100.00	2.122	2.122	1.00
12	12:20	1.00	1.195	1.00	100.00	100.00	4.107	4.107	1.00
13	13:01	1.00	1.261	1.00	100.00	100.00	1.775	1.775	1.00
14	14:17	1.00	0.713	1.00	100.00	100.00	0.511	0.511	1.00
15	14:39	1.00	0.732	1.00	100.00	100.00	0.439	0.439	1.00
16	15:06	1.00	0.754	1.00	100.00	100.00	0.500	0.500	1.00
17	16:25	1.00	0.820	1.00	100.00	100.00	0.459	0.459	1.00
18	16:36	1.00	0.829	1.00	100.00	100.00	0.200	0.200	1.00
19	17:08	1.00	0.856	1.00	100.00	100.00	0.425	0.425	1.00
20	17:42	1.00	0.884	1.00	100.00	100.00	0.204	0.204	1.00
21	17:49	1.00	0.890	1.00	100.00	100.00	0.200	0.200	1.00
22	17:38	1.00	0.881	1.00	100.00	100.00	1.048	1.048	1.00
23	17:49	1.00	0.890	1.00	100.00	100.00	0.423	0.423	1.00
24	18:50	1.00	0.940	1.00	100.00	100.00	0.047	0.047	1.00
25	20:14	1.00	1.011	1.00	100.00	100.00	0.059	0.059	1.00
26	22:28	1.00	0.910	1.00	100.00	100.00	0.598	0.598	1.00
27	22:24	1.00	0.907	1.00	100.00	100.00	0.371	0.371	1.00
28	23:43	1.00	0.961	1.00	100.00	100.00	0.975	0.975	1.00
29	24:47	1.00	1.004	1.00	100.00	100.00	1.142	1.142	1.00
30	26:46	1.00	1.084	1.00	100.00	100.00	0.606	0.606	1.00
31	12:58	1.00	1.255	1.00	50.00	50.00	1.755	1.755	1.00
32	23:32	1.00	0.953	1.00	50.00	50.00	1.462	1.462	1.00
33	29:15	1.00	1.184	1.00	50.00	50.00	0.859	0.859	1.00

MIDRIC
10/18/85 9:25:00
SAMPLE: VSB1018AM
CONDS.: 200 UG STD
RANGE: G 1,1200 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

DATA: VSB1018AM #1
CALI: VSB1018AM #2

SCANS 1 TO 1000



NO	NAME		
1	C101	BROMOCHLOROMETHANE	****INTERNAL STANDARD #1**
2	C110	1,4-DIFLUOROBENZENE	****INTERNAL STANDARD #2**
3	C120	CHLOROBENZENE-D5	****INTERNAL STANDARD #3**
4	C010	CHLOROMETHANE	
5	C015	BROMOMETHANE	
6	C020	VINYL CHLORIDE	
7	C025	CHLOROETHANE	
8	C030	METHYLENE CHLORIDE	
9	C045	1,1-DICHLOROETHENE	
10	C050	1,1-DICHLOROETHANE	
11	C055	TRANS-1,2-DICHLOROETHENE	
12	C060	CHLOROFORM	
13	C065	1,2-DICHLOROETHANE	
14	C115	1,1,1-TRICHLOROETHANE	
15	C120	CARBON TETRACHLORIDE	
16	C130	BROMODICHLOROMETHANE	
17	C140	1,2-DICHLOROPROPANE	
18	C145	TRANS-1,3-DICHLOROPROPENE	713728.
19	C150	TRICHLOROETHENE	
20	C155	DIBROMOCHLOROMETHANE	
21	C160	1,1,2-TRICHLOROETHANE	
22	C165	BENZENE	
23	C170	CIS-1,3-DICHLOROPROPENE	
24	C175	2-CHLOROETHYL VINYL ETHER	
25	C180	BROMOFORM	
26	C220	TETRACHLOROETHENE	
27	C225	1,1,2,2-TETRACHLOROETHANE	
28	C230	TOLUENE	
29	C235	CHLOROBENZENE	
30	C240	ETHYL BENZENE	
31	CS15	1,2-DICHLOROETHANE-D4	****SURROGATE #1**
32	CS05	TOLUENE-D8	****SURROGATE #2**
33	CS10	4-BROMOFLUOROBENZENE	****SURROGATE #3**

40

Quantitation Report File: VSB1018AM

Data: VSB1018AM.TI
10/18/85 9:25:00
Sample:
Submitted by: Analyst: MS

AMOUNT=AREA * REF.AMNT/(REF.AREA)* RESP.FACT)
Resp. fac. from Library Entry

NO	NAME		
1	CI01	BROMOCHLOROMETHANE	****INTERNAL STANDARD #1****
2	CI10	1,4-DIFLUOROBENZENE	****INTERNAL STANDARD #2****
3	CI20	CHLOROBENZENE-D5	****INTERNAL STANDARD #3****
4	C010	CHLOROMETHANE	
5	C015	BROMOMETHANE	
6	C020	VINYL CHLORIDE	
7	C025	CHLOROETHANE	
8	C030	METHYLENE CHLORIDE	
9	C045	1,1-DICHLOROETHENE	
10	C050	1,1-DICHLOROETHANE	
11	C055	TRANS-1,2-DICHLOROETHENE	
12	C060	CHLOROFORM	
13	C065	1,2-DICHLOROETHANE	
14	C115	1,1,1-TRICHLOROETHANE	
15	C120	CARBON TETRACHLORIDE	
16	C130	BROMODICHLOROMETHANE	
17	C140	1,2-DICHLOROPROPANE	
18	C145	TRANS-1,3-DICHLOROPROPENE	
19	C150	TRICHLOROETHENE	
20	C155	DIBROMOCHLOROMETHANE	
21	C160	1,1,2-TRICHLOROETHANE	
22	C165	BENZENE	
23	C170	CIS-1,3-DICHLOROPROPENE	
24	C175	2-CHLOROETHYL VINYL ETHER	
25	C180	BROMOFORM	
26	C220	TETRACHLOROETHENE	
27	C225	1,1,2,2-TETRACHLOROETHANE	
28	C230	TOLUENE	
29	C235	CHLOROBENZENE	
30	C240	ETHYL BENZENE	
31	CS15	1,2-DICHLOROETHANE-D4	****SURROGATE #1****
32	CS05	TOLUENE-D8	****SURROGATE #2****
33	CS10	4-BROMOFLUOROBENZENE	****SURROGATE #3****

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount		%Tot
1	128	329	10:19	1	1.000	A BB	47632.	50.000	UG/L	0.88
2	114	638	20:01	2	1.000	A BB	253568.	50.000	UG/L	0.88
3	117	787	24:42	3	1.000	A BB	167376.	50.000	UG/L	0.88
4	50	61	1:55	1	0.185	A BB	611374.	200.000	UG/L	3.51
5	94	98	3:04	1	0.298	A BB	531039.	200.000	UG/L	3.51
6	69	127	3:59	1	0.386	A BB	624512.	200.000	UG/L	3.51
7	64	160	5:01	1	0.486	A BB	389400.	200.000	UG/L	3.51
8	84	230	7:13	1	0.699	A BB	448288.	200.000	UG/L	3.51
9	96	316	9:55	1	0.960	A BB	394616.	200.000	UG/L	3.51
10	63	355	11:08	1	1.079	A BB	822402.	200.000	UG/L	3.51
11	96	376	11:48	1	1.143	A BV	390552.	200.000	UG/L	3.51
12	83	393	12:20	1	1.195	A BB	766880.	200.000	UG/L	3.51
13	62	415	13:01	1	1.261	A BB	337768.	200.000	UG/L	3.51
14	97	455	14:17	2	0.713	A BB	508280.	200.000	UG/L	3.51
15	117	467	14:39	2	0.732	A VB	478672.	200.000	UG/L	3.51
16	83	481	15:06	2	0.754	A VB	541224.	200.000	UG/L	3.51
17	63	523	16:25	2	0.820	A BB	476904.	200.000	UG/L	3.51
18	75	529	16:36	2	0.829	A BB	215880.	200.000	UG/L	3.51
19	130	546	17:08	2	0.856	A BB	440336.	200.000	UG/L	3.51
20	129	564	17:42	2	0.884	A BB	261896.	200.000	UG/L	3.51
21	97	568	17:49	2	0.890	A BB	208024.	200.000	UG/L	3.51
22	78	562	17:38	2	0.881	A BB	1098080.	200.000	UG/L	3.51
23	75	568	17:49	2	0.890	A BB	457472.	200.000	UG/L	3.51
24	63	600	18:50	2	0.940	A BB	48072.	200.000	UG/L	3.51
25	173	645	20:14	2	1.011	A BB	96776.	200.000	UG/L	3.51
26	164	716	22:28	3	0.910	A BB	385720.	200.000	UG/L	3.51
27	83	714	22:24	3	0.907	A BB	250776.	200.000	UG/L	3.51
28	92	756	23:43	3	0.961	A BB	628120.	200.000	UG/L	3.51
29	112	790	24:47	3	1.004	A BB	744536.	200.000	UG/L	3.51
30	106	853	26:46	3	1.084	A BB	401304.	200.000	UG/L	3.51
31	65	413	12:58	1	1.255	A BB	95160.	50.000	UG/L	0.88
32	98	750	23:32	3	0.953	A BB	235464.	50.000	UG/L	0.88
33	95	932	29:15	3	1.184	A BB	157528.	50.000	UG/L	0.88

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	10:19	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	20:01	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
3	24:42	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
4	1:55	1.00	0.185	1.00	200.00	200.00	3.209	3.209	1.00
5	3:04	1.00	0.298	1.00	200.00	200.00	2.787	2.787	1.00
6	3:59	1.00	0.386	1.00	200.00	200.00	3.278	3.278	1.00
7	5:01	1.00	0.486	1.00	200.00	200.00	2.044	2.044	1.00
8	7:13	1.00	0.699	1.00	200.00	200.00	2.353	2.353	1.00
9	9:55	1.00	0.960	1.00	200.00	200.00	2.071	2.071	1.00
10	11:08	1.00	1.079	1.00	200.00	200.00	4.316	4.316	1.00
11	11:48	1.00	1.143	1.00	200.00	200.00	2.050	2.050	1.00
12	12:20	1.00	1.195	1.00	200.00	200.00	4.025	4.025	1.00
13	13:01	1.00	1.261	1.00	200.00	200.00	1.773	1.773	1.00
14	14:17	1.00	0.713	1.00	200.00	200.00	0.501	0.501	1.00
15	14:39	1.00	0.732	1.00	200.00	200.00	0.472	0.472	1.00
16	15:06	1.00	0.754	1.00	200.00	200.00	0.534	0.534	1.00
17	16:25	1.00	0.820	1.00	200.00	200.00	0.470	0.470	1.00
18	16:36	1.00	0.829	1.00	200.00	200.00	0.213	0.213	1.00
19	17:08	1.00	0.856	1.00	200.00	200.00	0.434	0.434	1.00
20	17:42	1.00	0.884	1.00	200.00	200.00	0.258	0.258	1.00
21	17:49	1.00	0.890	1.00	200.00	200.00	0.205	0.205	1.00
22	17:38	1.00	0.881	1.00	200.00	200.00	1.083	1.083	1.00
23	17:49	1.00	0.890	1.00	200.00	200.00	0.451	0.451	1.00
24	18:50	1.00	0.940	1.00	200.00	200.00	0.047	0.047	1.00
25	20:14	1.00	1.011	1.00	200.00	200.00	0.095	0.095	1.00
26	22:28	1.00	0.910	1.00	200.00	200.00	0.576	0.576	1.00
27	22:24	1.00	0.907	1.00	200.00	200.00	0.375	0.375	1.00
28	23:43	1.00	0.961	1.00	200.00	200.00	0.938	0.938	1.00
29	24:47	1.00	1.004	1.00	200.00	200.00	1.112	1.112	1.00
30	26:46	1.00	1.084	1.00	200.00	200.00	0.599	0.599	1.00
31	12:58	1.00	1.255	1.00	50.00	50.00	1.998	1.998	1.00
32	23:32	1.00	0.953	1.00	50.00	50.00	1.407	1.407	1.00
33	29:15	1.00	1.184	1.00	50.00	50.00	0.941	0.941	1.00

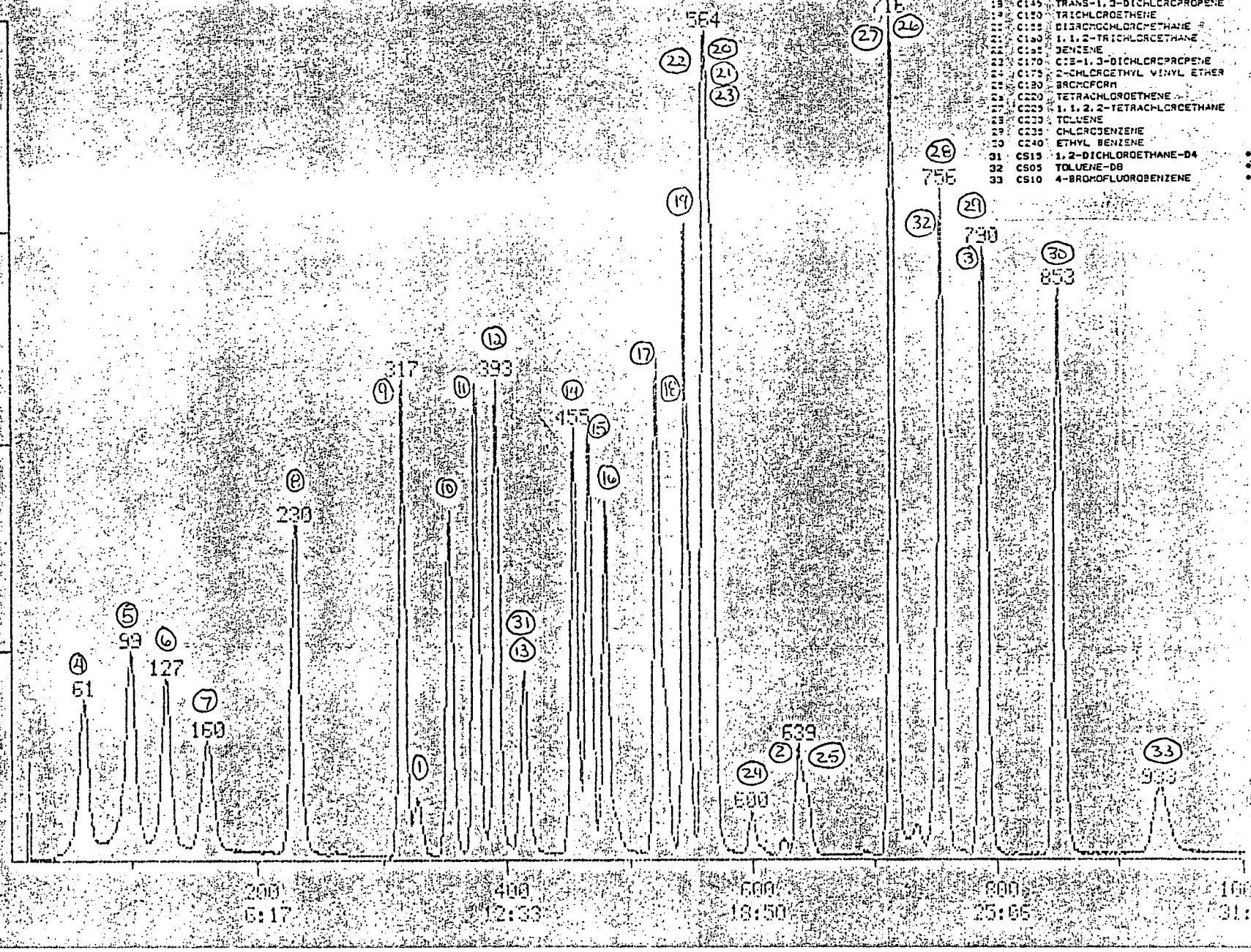
MIDRIC
10/18/85 10:13:00
SAMPLE: VSB1018AH
CONDS.: 300 UG STD
RANGE: G 1,1200 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

DATA: VSB1018AH #1
CALI: VSB1018AH #2

SCANS 1 TO 1000

1044480.

NO	NAME		
1	C101	BROMOCHLOROMETHANE	****INTERNAL STANDARD #1*
2	C110	1,4-DIFLUOROBENZENE	****INTERNAL STANDARD #2*
3	C120	CHLOROBENZENE-D5	****INTERNAL STANDARD #3*
4	C010	CHLOROMETHANE	
5	C015	BROMOMETHANE	
6	C020	VINYL CHLORIDE	
7	C025	CHLOROETHANE	
8	C030	METHYLENE CHLORIDE	
9	C045	1,1-DICHLOROETHENE	
10	C050	1,1-DICHLOROETHANE	
11	C055	TRANS-1,2-DICHLOROETHENE	
12	C060	CHLOROFORM	
13	C065	1,2-DICHLOROETHANE	
14	C115	1,1,1-TRICHLOROETHANE	
15	C120	CARBON TETRACHLORIDE	
16	C130	BROMODICHLOROMETHANE	
17	C140	1,2-DICHLOROPROPANE	
18	C145	TRANS-1,3-DICHLOROPROPENE	
19	C150	TRICHLOROETHENE	
20	C155	DIBROMOCHLOROMETHANE	
21	C160	1,1,2-TRICHLOROETHANE	
22	C165	BENZENE	
23	C170	CIS-1,3-DICHLOROPROPENE	
24	C175	2-CHLOROETHYL VINYL ETHER	
25	C180	BROMOFORM	
26	C220	TETRACHLOROETHENE	
27	C225	1,1,2,2-TETRACHLOROETHANE	
28	C230	TOLUENE	
29	C235	CHLOROBENZENE	
30	C240	ETHYL BENZENE	
31	CS15	1,2-DICHLOROETHANE-D4	****SURROGATE #1*
32	CS05	TOLUENE-D8	****SURROGATE #2*
33	CS10	4-BROMOFLUOROBENZENE	****SURROGATE #3*



Quantitation Report File: VSB1018AH

Data: VSB1018AH.TI
10/18/85 10:13:00
Sample:
Submitted by: Analyst: MS

AMOUNT=AREA * REF.AMNT/(REF.AREA)* RESP.FACT)
Resp. fac. from Library Entry

NO	NAME		
1	CI01	BROMOCHLOROMETHANE	****INTERNAL STANDARD #1****
2	CI10	1,4-DIFLUOROBENZENE	****INTERNAL STANDARD #2****
3	CI20	CHLOROBENZENE-D5	****INTERNAL STANDARD #3****
4	C010	CHLOROMETHANE	
5	C015	BROMOMETHANE	
6	C020	VINYL CHLORIDE	
7	C025	CHLOROETHANE	
8	C030	METHYLENE CHLORIDE	
9	C045	1,1-DICHLOROETHENE	
10	C050	1,1-DICHLOROETHANE	
11	C055	TRANS-1,2-DICHLOROETHENE	
12	C060	CHLOROFORM	
13	C065	1,2-DICHLOROETHANE	
14	C115	1,1,1-TRICHLOROETHANE	
15	C120	CARBON TETRACHLORIDE	
16	C130	BROMODICHLOROMETHANE	
17	C140	1,2-DICHLOROPROPANE	
18	C145	TRANS-1,3-DICHLOROPROPENE	
19	C150	TRICHLOROETHENE	
20	C155	DIBROMOCHLOROMETHANE	
21	C160	1,1,2-TRICHLOROETHANE	
22	C165	BENZENE	
23	C170	CIS-1,3-DICHLOROPROPENE	
24	C175	2-CHLOROETHYL VINYL ETHER	
25	C180	BROMOFORM	
26	C220	TETRACHLOROETHENE	
27	C225	1,1,2,2-TETRACHLOROETHANE	
28	C230	TOLUENE	
29	C235	CHLOROBENZENE	
30	C240	ETHYL BENZENE	
31	CS15	1,2-DICHLOROETHANE-D4	****SURROGATE #1****
32	CS05	TOLUENE-D8	****SURROGATE #2****
33	CS10	4-BROMOFLUOROBENZENE	****SURROGATE #3****

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	128	329	10:19	1	1.000	A BB	47232.	50.000 UG/L	0.60
2	114	638	20:01	2	1.000	A BB	257656.	50.000 UG/L	0.60
3	117	787	24:42	3	1.000	A BB	161152.	50.000 UG/L	0.60
4	50	61	1:55	1	0.185	A BB	935630.	300.000 UG/L	3.57
5	94	99	3:06	1	0.301	A BB	752958.	300.000 UG/L	3.57
6	62	127	3:59	1	0.386	A BB	900688.	300.000 UG/L	3.57
7	64	160	5:01	1	0.486	A BB	582292.	300.000 UG/L	3.57
8	84	230	7:13	1	0.699	A BB	614763.	300.000 UG/L	3.57
9	96	316	9:55	1	0.960	A BB	615312.	300.000 UG/L	3.57
10	63	355	11:08	1	1.079	A BB	1273760.	300.000 UG/L	3.57
11	96	376	11:48	1	1.143	A BB	579220.	300.000 UG/L	3.57
12	83	393	12:20	1	1.195	A BB	1114040.	300.000 UG/L	3.57
13	62	416	13:03	1	1.264	A BB	446136.	300.000 UG/L	3.57
14	97	455	14:17	2	0.713	A BB	823752.	300.000 UG/L	3.57
15	117	467	14:39	2	0.732	A VB	753280.	300.000 UG/L	3.57
16	83	481	15:06	2	0.754	A BB	778360.	300.000 UG/L	3.57
17	63	523	16:25	2	0.820	A BB	699472.	300.000 UG/L	3.57
18	75	530	16:38	2	0.831	A BB	299216.	300.000 UG/L	3.57
19	130	546	17:08	2	0.856	A BV	666560.	300.000 UG/L	3.57
20	129	565	17:44	2	0.886	A BB	339344.	300.000 UG/L	3.57
21	97	568	17:49	2	0.890	A BB	275168.	300.000 UG/L	3.57
22	78	563	17:40	2	0.882	A BB	1738700.	300.000 UG/L	3.57
23	75	568	17:49	2	0.890	A BB	623916.	300.000 UG/L	3.57
24	63	600	18:50	2	0.940	A BB	65424.	300.000 UG/L	3.57
25	173	645	20:14	2	1.011	A BB	111592.	300.000 UG/L	3.57
26	164	716	22:28	3	0.910	A BB	613744.	300.000 UG/L	3.57
27	83	715	22:26	3	0.909	A BB	346976.	300.000 UG/L	3.57
28	92	756	23:43	3	0.961	A BB	1004570.	300.000 UG/L	3.57
29	112	790	24:47	3	1.004	A BB	1117590.	300.000 UG/L	3.57
30	106	853	26:46	3	1.084	A BB	624104.	300.000 UG/L	3.57
31	65	413	12:58	1	1.255	A BB	97600.	50.000 UG/L	0.60
32	98	750	23:32	3	0.953	A BB	239512.	50.000 UG/L	0.60
33	95	933	29:16	3	1.186	A BB	139152.	50.000 UG/L	0.60

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	10:19	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	20:01	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
3	24:42	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
4	1:55	1.00	0.185	1.00	300.00	300.00	3.302	3.302	1.00
5	3:04	1.01	0.298	1.01	300.00	300.00	2.657	2.657	1.00
6	3:59	1.00	0.386	1.00	300.00	300.00	3.178	3.178	1.00
7	5:01	1.00	0.486	1.00	300.00	300.00	2.055	2.055	1.00
8	7:13	1.00	0.699	1.00	300.00	300.00	2.169	2.169	1.00
9	9:55	1.00	0.960	1.00	300.00	300.00	2.171	2.171	1.00
10	11:08	1.00	1.079	1.00	300.00	300.00	4.495	4.495	1.00
11	11:48	1.00	1.143	1.00	300.00	300.00	2.044	2.044	1.00
12	12:20	1.00	1.195	1.00	300.00	300.00	3.931	3.931	1.00
13	13:01	1.00	1.261	1.00	300.00	300.00	1.574	1.574	1.00
14	14:17	1.00	0.713	1.00	300.00	300.00	0.533	0.533	1.00
15	14:39	1.00	0.732	1.00	300.00	300.00	0.487	0.487	1.00
16	15:06	1.00	0.754	1.00	300.00	300.00	0.503	0.503	1.00
17	16:25	1.00	0.820	1.00	300.00	300.00	0.452	0.452	1.00
18	16:36	1.00	0.829	1.00	300.00	300.00	0.194	0.194	1.00
19	17:08	1.00	0.856	1.00	300.00	300.00	0.431	0.431	1.00
20	17:42	1.00	0.884	1.00	300.00	300.00	0.220	0.220	1.00
21	17:49	1.00	0.890	1.00	300.00	300.00	0.178	0.178	1.00
22	17:38	1.00	0.881	1.00	300.00	300.00	1.125	1.125	1.00
23	17:49	1.00	0.890	1.00	300.00	300.00	0.404	0.404	1.00
24	18:50	1.00	0.940	1.00	300.00	300.00	0.042	0.042	1.00
25	20:14	1.00	1.011	1.00	300.00	300.00	0.072	0.072	1.00
26	22:28	1.00	0.910	1.00	300.00	300.00	0.635	0.635	1.00
27	22:24	1.00	0.907	1.00	300.00	300.00	0.359	0.359	1.00
28	23:43	1.00	0.961	1.00	300.00	300.00	1.039	1.039	1.00
29	24:47	1.00	1.004	1.00	300.00	300.00	1.156	1.156	1.00
30	26:46	1.00	1.084	1.00	300.00	300.00	0.645	0.645	1.00
31	12:58	1.00	1.255	1.00	50.00	50.00	2.066	2.066	1.00
32	23:32	1.00	0.953	1.00	50.00	50.00	1.486	1.486	1.00
33	29:15	1.00	1.184	1.00	50.00	50.00	0.863	0.863	1.00

SAMPLE RIC, QUANTITATION REPORT

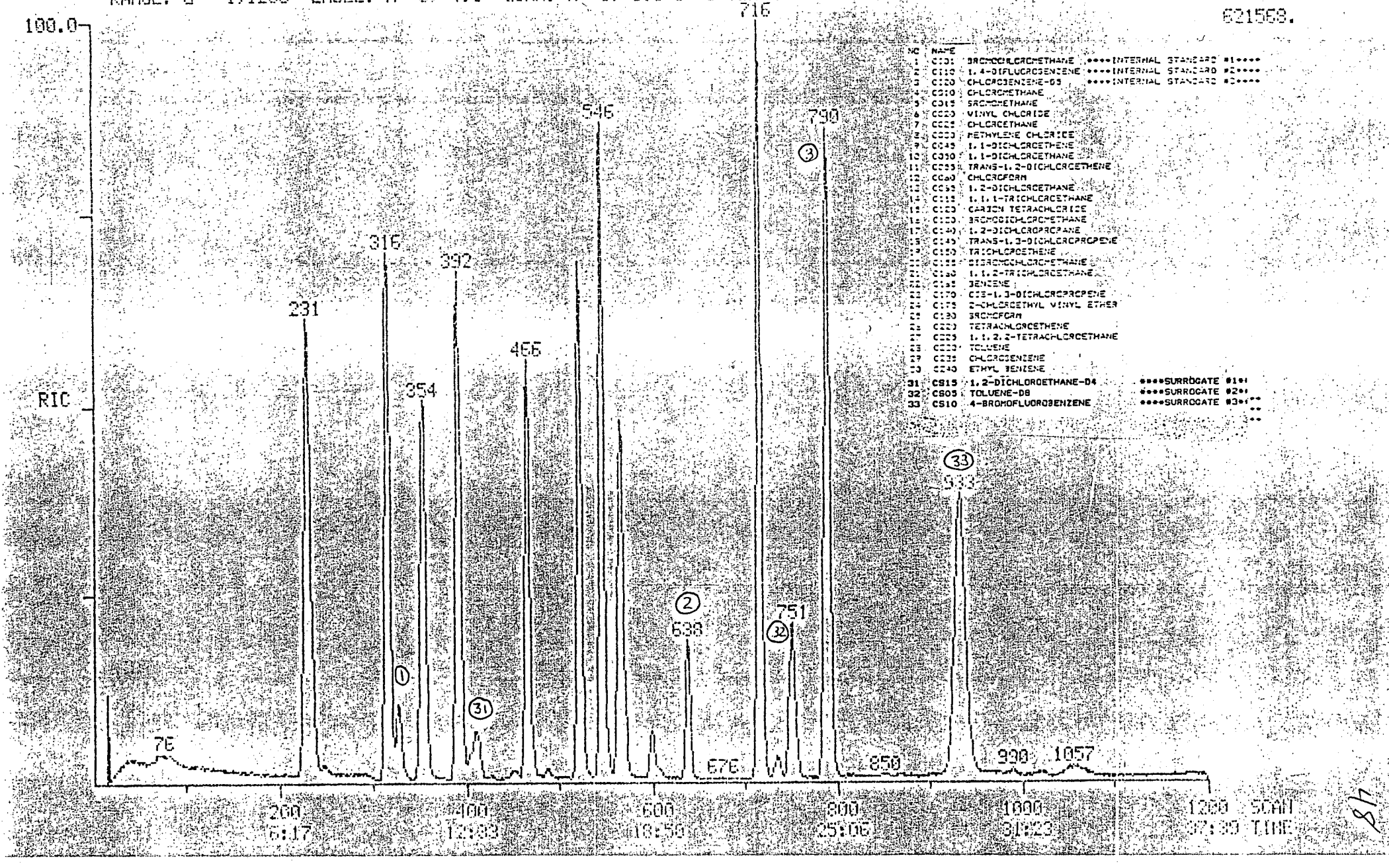
AND CONFIRMATION PRINTOUT

VOLATILE ORGANICS

MIDRIC
10/18/85 11:00:00
SAMPLE: 12237-1 SPIKE
CONDS.: 5 ML INJ,200 UG SPK
RANGE: G 1,1200 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

DATA: 12237V1S #1
CALI: 12237V1S #2

SCANS: 1 TO 1200



NO	NAME	
1	C101 BROMOCHLOROMETHANE	****INTERNAL STANDARD #1****
2	C110 1,4-DIFLUOROBENZENE	****INTERNAL STANDARD #2****
3	C120 CHLOROBENZENE-D5	****INTERNAL STANDARD #3****
4	C010 CHLOROMETHANE	
5	C015 BROMOMETHANE	
6	C020 VINYL CHLORIDE	
7	C025 CHLOROETHANE	
8	C030 METHYLENE CHLORIDE	
9	C045 1,1-DICHLOROETHENE	
10	C050 1,1-DICHLOROETHANE	
11	C055 TRANS-1,2-DICHLOROETHENE	
12	C060 CHLOROFORM	
13	C065 1,2-DICHLOROETHANE	
14	C115 1,1,1-TRICHLOROETHANE	
15	C075 CARBON TETRACHLORIDE	
16	C080 BROMODICHLOROMETHANE	
17	C140 1,2-DICHLOROPROPANE	
18	C145 TRANS-1,3-DICHLOROPROPENE	
19	C150 TRICHLOROETHENE	
20	C155 DIBROMOCHLOROMETHANE	
21	C160 1,1,2-TRICHLOROETHANE	
22	C165 BENZENE	
23	C170 CIS-1,3-DICHLOROPROPENE	
24	C175 2-CHLOROETHYL VINYL ETHER	
25	C180 BROMOFORM	
26	C220 TETRACHLOROETHENE	
27	C225 1,1,2,2-TETRACHLOROETHANE	
28	C230 TOLUENE	
29	C235 CHLOROBENZENE	
30	C240 ETHYL BENZENE	
31	CS15 1,2-DICHLOROETHANE-D4	****SURROGATE #1**
32	CS05 TOLUENE-D8	****SURROGATE #2**
33	CS10 4-BROMOFLUOROBENZENE	****SURROGATE #3**

87

Quantitation Report File: 12237V15

Data: 12237V15.TI
10/18/85 11:00:00
Sample: 12237-1 SPIKE
Submitted by: HSMA Analyst: MS

AMOUNT=AREA * REF.AMNT/(REF.AREA)* RESP.FACT)
Resp. fac. from Library Entry

NO	NAME		
1	CI01	BROMOCHLOROMETHANE	****INTERNAL STANDARD #1****
2	CI10	1,4-DIFLUOROBENZENE	****INTERNAL STANDARD #2****
3	CI20	CHLOROBENZENE-D5	****INTERNAL STANDARD #3****
4	C010	CHLOROMETHANE	
5	C015	BROMOMETHANE	
6	C020	VINYL CHLORIDE	
7	C025	CHLOROETHANE	
8	C030	METHYLENE CHLORIDE	
9	C045	1,1-DICHLOROETHENE	
10	C050	1,1-DICHLOROETHANE	
11	C055	TRANS-1,2-DICHLOROETHENE	
12	C060	CHLOROFORM	
13	C065	1,2-DICHLOROETHANE	
14	C115	1,1,1-TRICHLOROETHANE	
15	C120	CARBON TETRACHLORIDE	
16	C130	BROMODICHLOROMETHANE	
17	C140	1,2-DICHLOROPROPANE	
18	C145	TRANS-1,3-DICHLOROPROPENE	
19	C150	TRICHLOROETHENE	
20	C155	DIBROMOCHLOROMETHANE	
21	C160	1,1,2-TRICHLOROETHANE	
22	C165	BENZENE	
23	C170	CIS-1,3-DICHLOROPROPENE	
24	C175	2-CHLOROETHYL VINYL ETHER	
25	C180	BROMOFORM	
26	C220	TETRACHLOROETHENE	
27	C225	1,1,2,2-TETRACHLOROETHANE	
28	C230	TOLUENE	
29	C235	CHLOROBENZENE	
30	C240	ETHYL BENZENE	
31	CS15	1,2-DICHLOROETHANE-D4	****SURROGATE #1****
32	CS05	TOLUENE-D8	****SURROGATE #2****
33	CS10	4-BROMOFLUOROBENZENE	****SURROGATE #3****

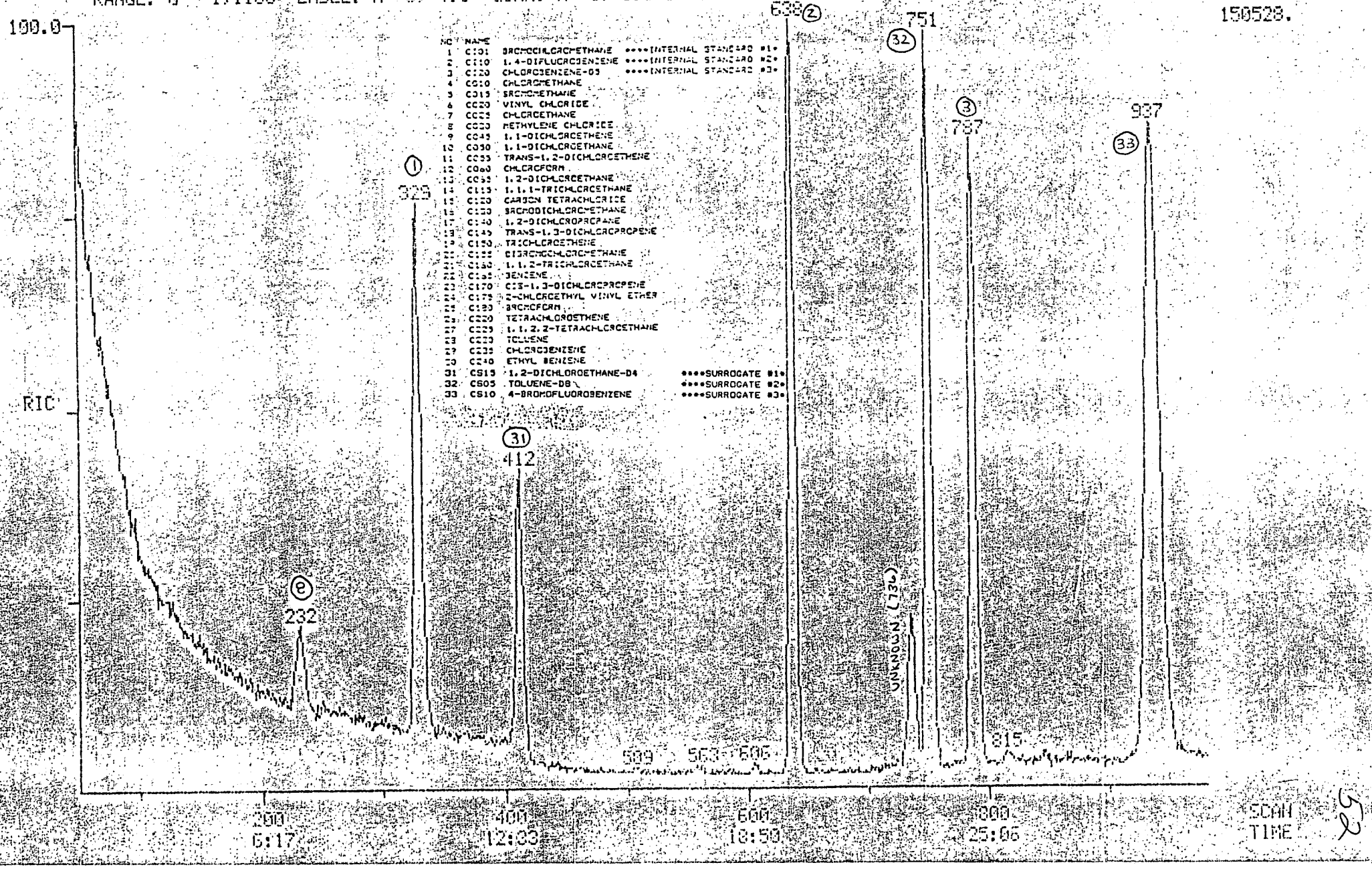
No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	128	328	10:18	1	1.000	A BB	42656.	50.000 UG/L	1.64
2	114	638	20:01	2	1.000	A BB	234320.	50.000 UG/L	1.64
3	117	786	24:40	3	1.000	A BB	177080.	50.000 UG/L	1.64
4	NOT FOUND								
5	NOT FOUND								
6	NOT FOUND								
7	NOT FOUND								
8	84	231	7:15	1	0.704	A BB	551368.	274.684 UG/L	9.01
9	96	316	9:55	1	0.963	A BB	454616.	257.288 UG/L	8.44
10	63	354	11:06	1	1.079	A BB	955024.	259.345 UG/L	8.51
11	NOT FOUND								
12	83	392	12:18	1	1.195	A BB	809608.	235.774 UG/L	7.74
13	NOT FOUND								
14	97	455	14:17	2	0.713	A BB	8472.	3.607 UG/L	0.12
15	117	466	14:37	2	0.730	A BB	504400.	228.062 UG/L	7.48
16	NOT FOUND								
17	63	522	16:23	2	0.818	A BB	469752.	213.183 UG/L	6.99
18	NOT FOUND								
19	130	545	17:06	2	0.854	A BB	476984.	234.442 UG/L	7.69
20	129	564	17:42	2	0.884	A BB	220960.	182.600 UG/L	5.99
21	97	567	17:47	2	0.889	A BB	196856.	204.810 UG/L	6.72
22	78	561	17:36	2	0.879	A BB	6344.	1.250 UG/L	0.04
23	NOT FOUND								
24	63	599	18:48	2	0.939	A BB	50408.	226.946 UG/L	7.45
25	NOT FOUND								
26	164	716	22:28	3	0.911	A BB	439104.	215.203 UG/L	7.06
27	83	715	22:26	3	0.910	A BB	29960.	22.584 UG/L	0.74
28	92	755	23:41	3	0.961	A BB	5232.	1.575 UG/L	0.05
29	112	790	24:47	3	1.005	A BB	790640.	200.746 UG/L	6.59
30	NOT FOUND								
31	65	411	12:54	1	1.253	A BB	63696.	37.372 UG/L	1.23
32	98	750	23:32	3	0.954	A BB	222624.	44.683 UG/L	1.47
33	95	933	29:16	3	1.187	A BB	179736.	53.923 UG/L	1.77

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	10:18	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	20:01	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
3	24:42	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
4	1:57		0.189			200.00		3.209	
5	3:10		0.308			200.00		2.787	
6	4:05		0.396			200.00		3.278	
7	5:07		0.497			200.00		2.044	
8	7:17	1.00	0.707	1.00	274.68	200.00	3.231	2.353	1.37
9	9:57	1.00	0.966	1.00	257.29	200.00	2.664	2.071	1.29
10	11:08	1.00	1.082	1.00	259.35	200.00	5.597	4.316	1.30
11	11:48		1.146			200.00		2.050	
12	12:18	1.00	1.195	1.00	235.77	200.00	4.745	4.025	1.18
13	13:01		1.265			200.00		1.773	
14	14:15	1.00	0.712	1.00	3.61	200.00	0.009	0.501	0.02
15	14:37	1.00	0.730	1.00	228.06	200.00	0.538	0.472	1.14
16	15:04		0.752			200.00		0.534	
17	16:23	1.00	0.818	1.00	213.18	200.00	0.501	0.470	1.07
18	16:36		0.829			200.00		0.213	
19	17:06	1.00	0.854	1.00	234.44	200.00	0.509	0.434	1.17
20	17:42	1.00	0.884	1.00	182.60	200.00	0.236	0.258	0.91
21	17:47	1.00	0.889	1.00	204.81	200.00	0.210	0.205	1.02
22	17:38	1.00	0.881	1.00	1.25	200.00	0.007	1.083	0.01
23	17:47		0.889			200.00		0.451	
24	18:48	1.00	0.939	1.00	226.95	200.00	0.054	0.047	1.13
25	20:14		1.011			200.00		0.095	
26	22:28	1.00	0.910	1.00	215.20	200.00	0.620	0.576	1.08
27	22:24	1.00	0.907	1.00	22.58	200.00	0.042	0.375	0.11
28	23:43	1.00	0.961	1.00	1.57	200.00	0.007	0.938	0.01
29	24:49	1.00	1.005	1.00	200.75	200.00	1.116	1.112	1.00
30	26:46		1.084			200.00		0.599	
31	12:56	1.00	1.256	1.00	37.37	50.00	1.493	1.998	0.75
32	23:34	1.00	0.954	1.00	44.68	50.00	1.257	1.407	0.89
33	29:16	1.00	1.186	1.00	53.92	50.00	1.015	0.941	1.08

MIDRIC
10/18/85 11:52:00
SAMPLE: AQ BLANK
CONDS.: 30 ML INJ
RANGE: G 1.1100 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

DATA: BLKB1018A #1 SCANS 50 TO 980
CALI: 12237V12D #2

150528.



NO	NAME	
1	C101 BROMOCHLOROMETHANE	****INTERNAL STANDARD #1*
2	C110 1,4-DIFLUOROBENZENE	****INTERNAL STANDARD #2*
3	C120 CHLOROBENZENE-D5	****INTERNAL STANDARD #3*
4	C010 CHLOROMETHANE	
5	C015 BROMOMETHANE	
6	C020 VINYL CHLORIDE	
7	C025 CHLOROETHANE	
8	C030 METHYLENE CHLORIDE	
9	C045 1,1-DICHLOROETHENE	
10	C050 1,1-DICHLOROETHANE	
11	C055 TRANS-1,2-DICHLOROETHENE	
12	C060 CHLOROFORM	
13	C065 1,2-DICHLOROETHANE	
14	C115 1,1,1-TRICHLOROETHANE	
15	C120 CARBON TETRACHLORIDE	
16	C130 BROMODICHLOROMETHANE	
17	C140 1,2-DICHLOROPROPANE	
18	C145 TRANS-1,3-DICHLOROPROPENE	
19	C150 TRICHLOROETHENE	
20	C155 DIBROMOCHLOROMETHANE	
21	C160 1,1,2-TRICHLOROETHANE	
22	C165 BENZENE	
23	C170 CIS-1,3-DICHLOROPROPENE	
24	C175 2-CHLOROETHYL VINYL ETHER	
25	C180 BROMOFORM	
26	C220 TETRACHLOROETHENE	
27	C225 1,1,2,2-TETRACHLOROETHANE	
28	C230 TOLUENE	
29	C235 CHLOROBENZENE	
30	C240 ETHYL BENZENE	
31	CS15 1,2-DICHLOROETHANE-D4	****SURROGATE #1*
32	CS05 TOLUENE-D8	****SURROGATE #2*
33	CS10 4-BROMOFLUOROBENZENE	****SURROGATE #3*

5

Quantitation Report File: BLKB1018A

Data: BLKB1018A.TI
10/18/85 11:52:00
Sample: AQ BLANK
Submitted by: HSMA Analyst: PAT

AMOUNT=AREA * REF.AMNT/(REF.AREA)* RESP.FACT)
Resp. fac. from Library Entry

NO	NAME	
1	CI01 BROMOCHLOROMETHANE	****INTERNAL STANDARD #1****
2	CI10 1,4-DIFLUOROBENZENE	****INTERNAL STANDARD #2****
3	CI20 CHLOROBENZENE-D5	****INTERNAL STANDARD #3****
4	C010 CHLOROMETHANE	
5	C015 BROMOMETHANE	
6	C020 VINYL CHLORIDE	
7	C025 CHLOROETHANE	
8	C030 METHYLENE CHLORIDE	
9	C045 1,1-DICHLOROETHENE	
10	C050 1,1-DICHLOROETHANE	
11	C055 TRANS-1,2-DICHLOROETHENE	
12	C060 CHLOROFORM	
13	C065 1,2-DICHLOROETHANE	
14	C115 1,1,1-TRICHLOROETHANE	
15	C120 CARBON TETRACHLORIDE	
16	C130 BROMODICHLOROMETHANE	
17	C140 1,2-DICHLOROPROPANE	
18	C145 TRANS-1,3-DICHLOROPROPENE	
19	C150 TRICHLOROETHENE	
20	C155 DIBROMOCHLOROMETHANE	
21	C160 1,1,2-TRICHLOROETHANE	
22	C165 BENZENE	
23	C170 CIS-1,3-DICHLOROPROPENE	
24	C175 2-CHLOROETHYL VINYL ETHER	
25	C180 BROMOFORM	
26	C220 TETRACHLOROETHENE	
27	C225 1,1,2,2-TETRACHLOROETHANE	
28	C230 TOLUENE	
29	C235 CHLOROBENZENE	
30	C240 ETHYL BENZENE	
31	CS15 1,2-DICHLOROETHANE-D4	****SURROGATE #1****
32	CS05 TOLUENE-D5	****SURROGATE #2****
33	CS10 4-BROMOFLUOROBENZENE	****SURROGATE #3****

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	128	329	10:19	1	1.000	A BB	68224.	50.000 UG/L	16.99
2	114	633	20:01	2	1.000	A BB	238496.	50.000 UG/L	16.99
3	117	787	24:42	3	1.000	A BB	184888.	50.000 UG/L	16.99
4	50	63	1:59	1	0.191	A BB	1744.	0.398 UG/L	0.14
5	NOT FOUND								
6	NOT FOUND								
7	NOT FOUND								
8	84	232	7:17	1	0.705	A BB	22224.	6.922 UG/L	2.35
9	NOT FOUND								
10	NOT FOUND								
11	NOT FOUND								
12	NOT FOUND								
13	NOT FOUND								
14	NOT FOUND								
15	NOT FOUND								
16	NOT FOUND								
17	NOT FOUND								
18	NOT FOUND								
19	NOT FOUND								
20	NOT FOUND								
21	NOT FOUND								
22	78	568	17:42	2	0.882	A BB	1800.	0.577 UG/L	0.19
23	NOT FOUND								
24	NOT FOUND								
25	NOT FOUND								
26	NOT FOUND								
27	NOT FOUND								
28	NOT FOUND								
29	NOT FOUND								
30	NOT FOUND								
31	65	412	12:56	1	1.252	A BB	98776.	36.235 UG/L	12.31
32	98	750	23:32	3	0.953	A BB	265688.	51.074 UG/L	17.35
33	95	935	29:20	3	1.188	A BB	172032.	49.432 UG/L	16.79

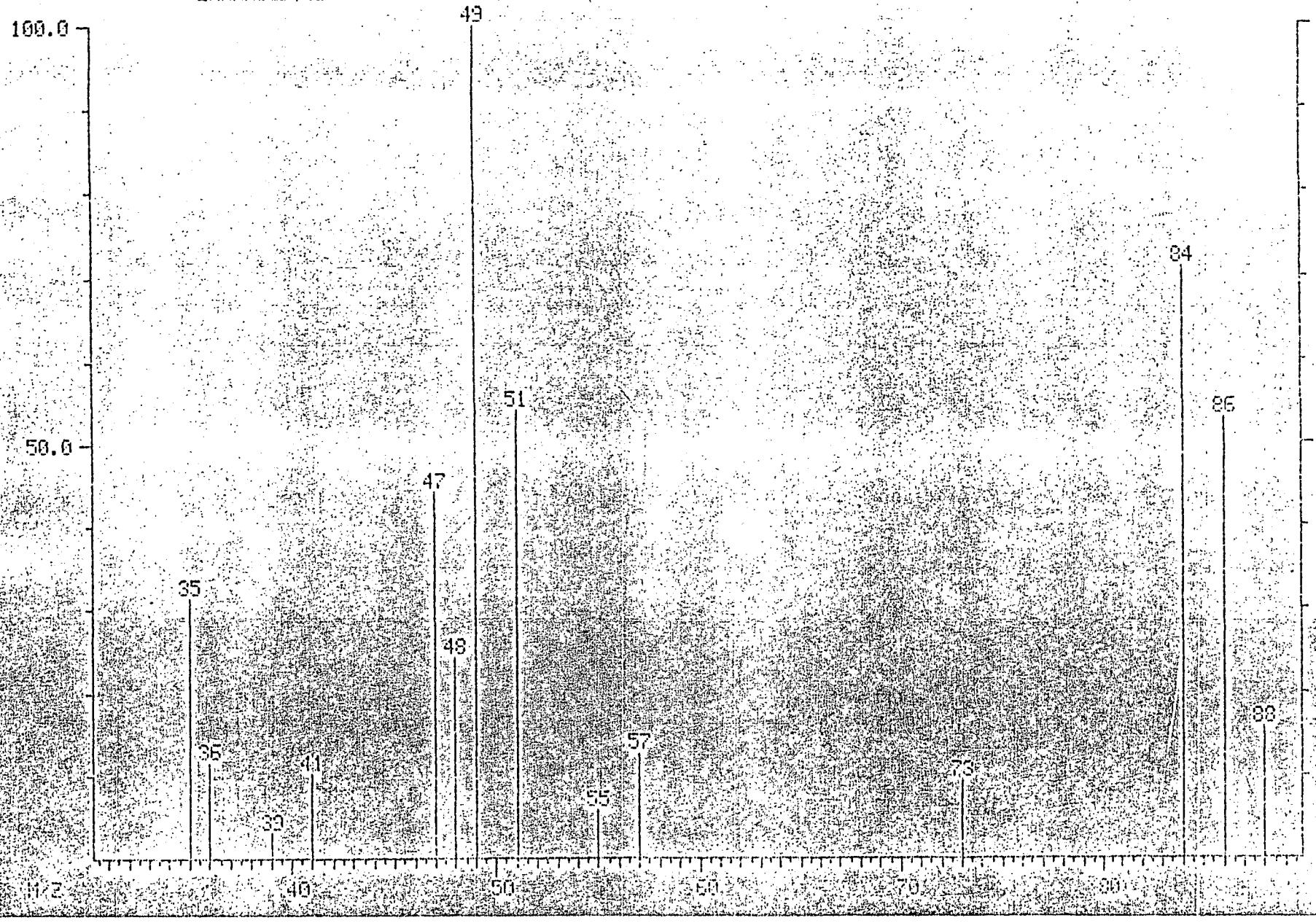
No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	10:16	1.01	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	19:59	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
3	24:38	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
4	1:53	1.05	0.183	1.04	0.40	200.00	0.006	3.209	0.00
5	3:04		0.300			200.00		2.787	
6	3:59		0.388			200.00		3.278	
7	5:01		0.489			200.00		2.044	
8	7:13	1.01	0.703	1.00	6.92	200.00	0.081	2.353	0.03
9	9:53		0.963			200.00		2.071	
10	11:05		1.080			200.00		4.316	
11	11:46		1.147			200.00		2.050	
12	12:16		1.196			200.00		4.025	
13	12:59		1.266			200.00		1.773	
14	14:15		0.713			200.00		0.501	
15	14:35		0.730			200.00		0.472	
16	15:04		0.754			200.00		0.534	
17	16:21		0.818			200.00		0.470	
18	16:34		0.829			200.00		0.213	
19	17:06		0.856			200.00		0.434	
20	17:40		0.884			200.00		0.258	
21	17:46		0.889			200.00		0.205	
22	17:36	1.00	0.881	1.00	0.30	200.00	0.002	1.083	0.00
23	17:46		0.889			200.00		0.451	
24	18:46		0.939			200.00		0.047	
25	20:11		1.009			200.00		0.095	
26	22:26		0.911			200.00		0.576	
27	22:22		0.908			200.00		0.375	
28	23:40		0.961			200.00		0.938	
29	24:44		1.004			200.00		1.112	
30	26:40		1.083			200.00		0.599	
31	12:54	1.00	1.257	1.00	36.24	50.00	1.448	1.998	0.72
32	23:30	1.00	0.954	1.00	51.07	50.00	1.437	1.407	1.02
33	29:11	1.01	1.185	1.00	49.43	50.00	0.930	0.941	0.99

MID MASS SPECTRUM
10/18/85 11:52:00 + 7:17
SAMPLE: AQ BLANK
CONDS.: 30 ML INJ
GC TEMP: 78 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: BLKB1018A #232
CALI: BLKB1018A #2

BASE M/Z: 49
RIC: 14304.

METHYLENE CHLORIDE

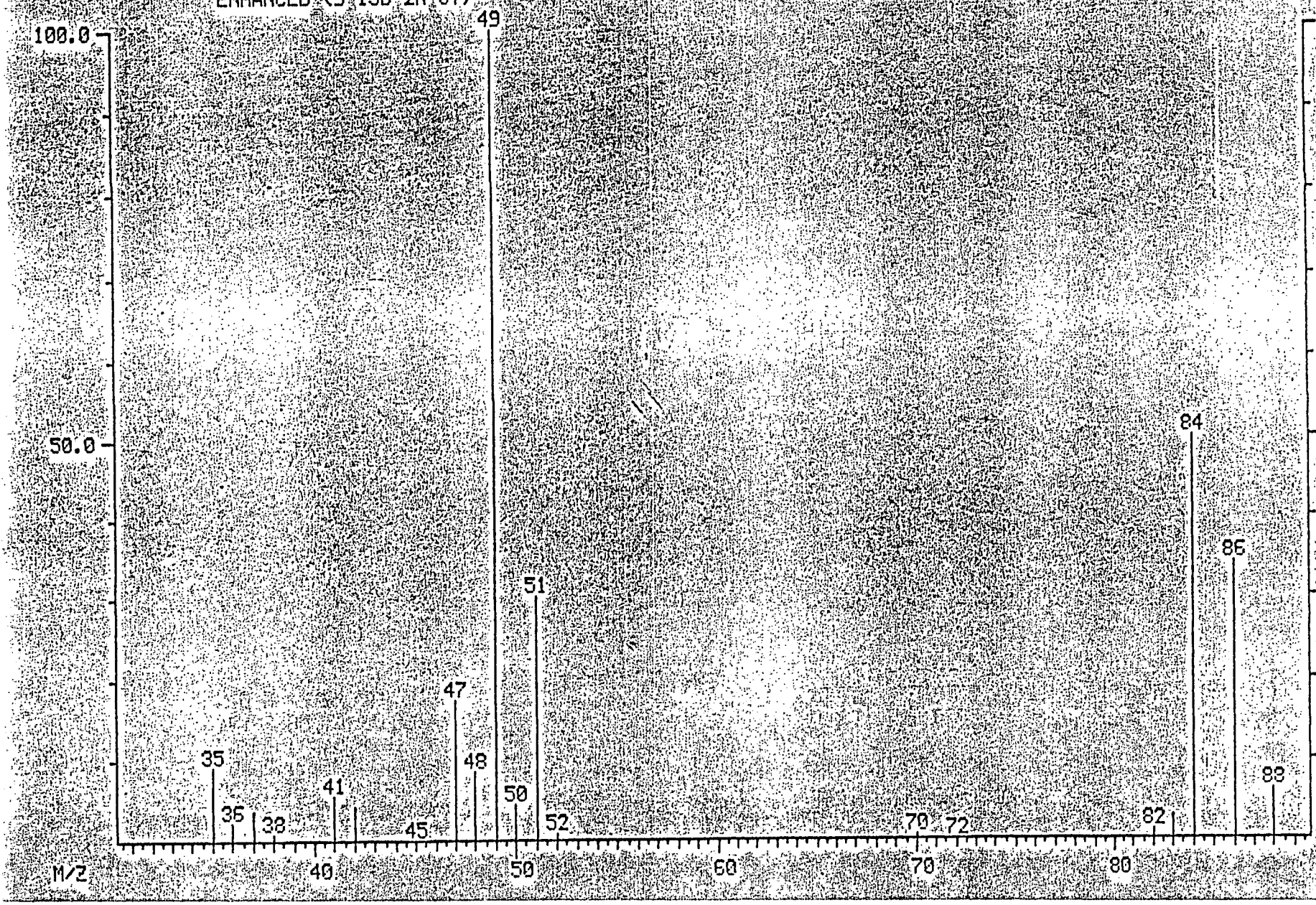


MID MASS SPECTRUM
10/07/85 23:21:00 + 5:07
SAMPLE: Vol. Std.
CONDS.: EI
GC TEMP: 61 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: VSB107P5 #163
CALI: VSB107P5 #2

BASE M/Z: 49
RIC: 450560.

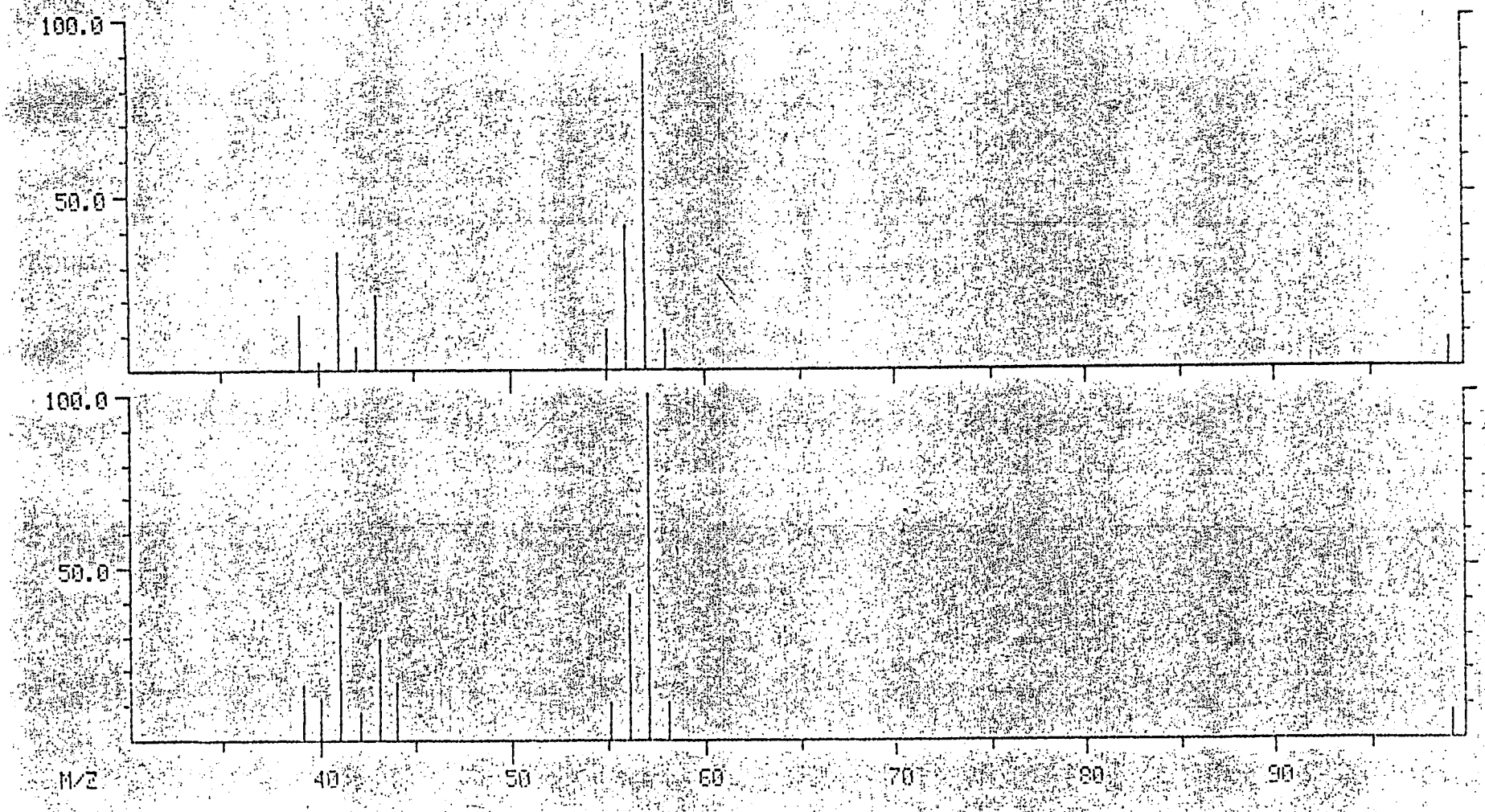
METHYLENE CHLORIDE



67

MID DUAL MASS SPECTRUM
10/18/85 11:52:00 + 23:06
SAMPLE: AQ BLANK
CONDS.: 30 ML INJ
GC TEMP: 206 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: BLKB1018A #736 BASE M/Z: 57/ 57
CALI: BLKB1018A #2 RIC: 28159./ 34047.



58

MID LIBRARY SEARCH
10/18/85 11:52:00 + 23:05
SAMPLE: A0 BLANK
CONDS.: 30 ML INJ
ENHANCED (S 15B 2N 0T)

DATA: BLKB1018A # 736
CALI: BLKB1018A # 2

BASE M/Z: 57
RIC: 28159.

1225
SAMPLE

C7.H15.N3 BUTANE, 2-AZIDO-2,3,3-TRIMETHYL-
1225
M WT 141
B PK 57
RANK 1
5725
FIT 941

C4.H9.O2.N PROPANE, 2-METHYL-1-NITRO-
1225
M WT 103
B PK 41
RANK 2
1512
FIT 905

C8.H18 PENTANE, 2,2,4-TRIMETHYL-
1225
M WT 114
B PK 57
RANK 3
2462
FIT 882

M/Z 30 40 50 60 70 80 90 100 110

59

MID Library Search
10/19/85 11:52:00 + 23:06
Sample: AQ BLANK
Conds.: 30 ML INJ
Enhanced (S 15B 2N OT)

Data: BLKB1018A # 736
Cali: BLKB1018A # 2

Base m/z: 57
RIC: 28159

60

Rank	In.	Name
1	5725	BUTANE, 2-AZIDO-2,3,3-TRIMETHYL-
2	1512	PROPANE, 2-METHYL-1-NITRO-
3	2462	PENTANE, 2,2,4-TRIMETHYL-
4	15620	ETHANEDIOIC ACID, DIBUTYL ESTER
5	2475	BUTANE, 2,2,3,3-TETRAMETHYL-

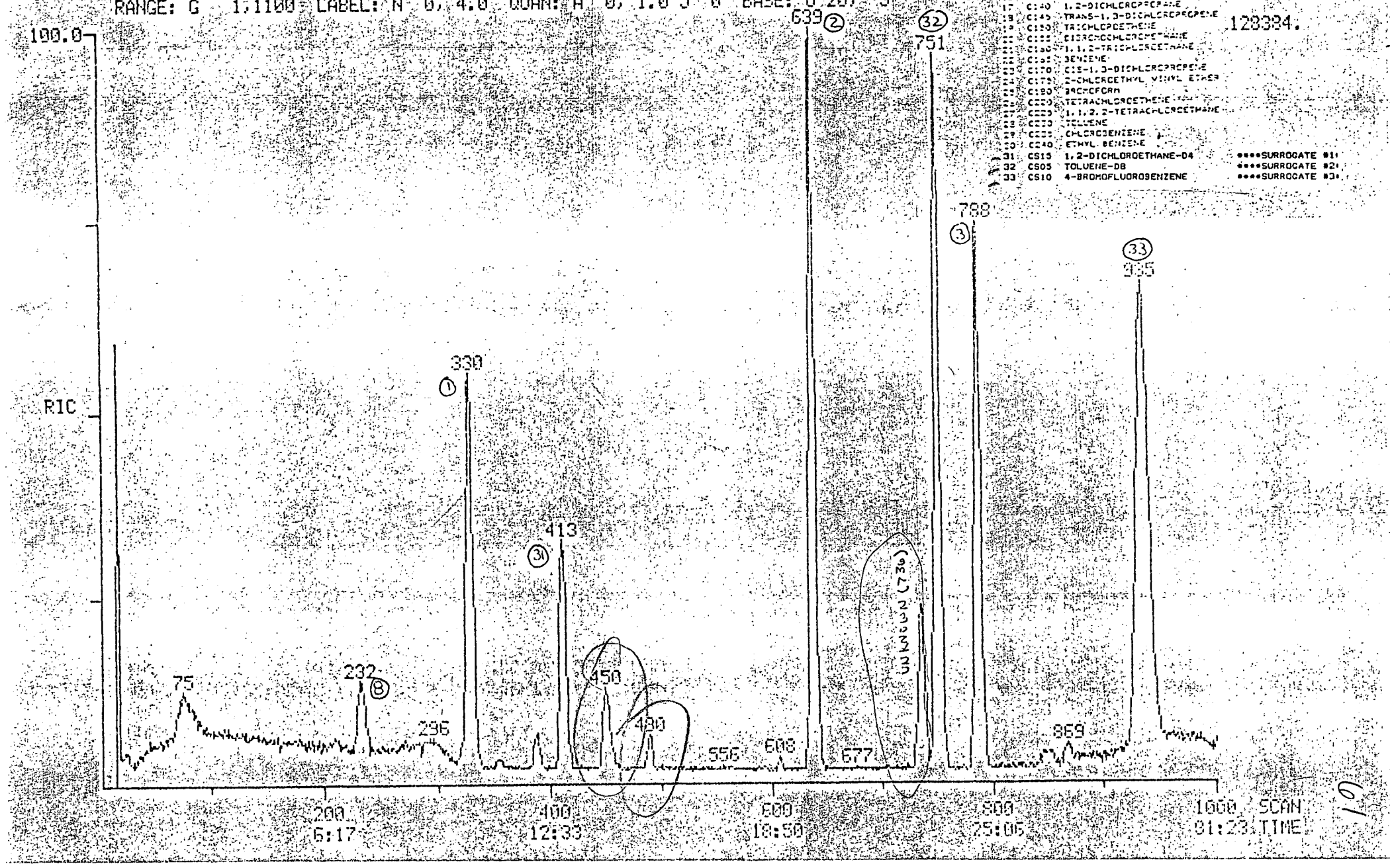
Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C7.H15.N3	141	57	889	941	936
2	C4.H9.O2.N	103	41	803	905	809
3	C8.H18	114	57	882	882	973
4	C10.H18.O4	202	57	778	880	839
5	C8.H18	114	57	864	870	963

MIDRIC
10/18/85 12:36:00
SAMPLE: 12237-1
CONDS.: 5 ML INJ
RANGE: G 1,1100 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

DATA: 12237V1 #1
CALI: BLKB1018A #2

SCANS 1 TO 1000

NO	NAME		
1	C100	BROMOCHLOROMETHANE	****INTERNAL STANDARD #1
2	C110	1,4-DIFLUOROBENZENE	****INTERNAL STANDARD #2
3	C120	CHLOROBENZENE-D5	****INTERNAL STANDARD #3
4	C010	CHLOROETHANE	
5	C015	BROMOETHANE	
6	C020	VINYL CHLORIDE	
7	C025	CHLOROETHANE	
8	C030	METHYLENE CHLORIDE	
9	C040	1,1-DICHLOROETHENE	
10	C050	1,1-DICHLOROETHANE	
11	C055	TRANS-1,2-DICHLOROETHENE	
12	C060	CHLOROFORM	
13	C065	1,2-DICHLOROETHANE	
14	C115	1,1,1-TRICHLOROETHANE	
15	C120	CARBON TETRACHLORIDE	
16	C125	BROMODICHLOROMETHANE	
17	C140	1,2-DICHLOROPROPANE	
18	C145	TRANS-1,3-DICHLOROPROPENE	
19	C150	TRICHLOROETHENE	
20	C155	DIBROMOCHLOROMETHANE	
21	C160	1,1,2-TRICHLOROETHANE	
22	C165	BENZENE	
23	C170	CIS-1,3-DICHLOROPROPENE	
24	C175	2-CHLOROETHYL VINYL ETHER	
25	C180	BROMOFORM	
26	C200	TETRACHLOROETHENE	
27	C205	1,1,2,2-TETRACHLOROETHANE	
28	C210	TOLUENE	
29	C225	CHLOROBENZENE	
30	C240	ETHYL BENZENE	
31	CS15	1,2-DICHLOROETHANE-D4	****SURROGATE #1
32	CS05	TOLUENE-D8	****SURROGATE #2
33	CS10	4-BROMOFLUOROBENZENE	****SURROGATE #3



61

Quantitation Report File: 12237V1

Data: 12237V1.TI
10/18/85 12:36:00
Sample: 12237-1
Submitted by: HSMA Analyst: PAT

AMOUNT=AREA * REF.AMNT/(REF.AREA)* RESP.FACT)
Resp. fac. from Library Entry

NO	NAME		
1	CI01	BROMOCHLOROMETHANE	****INTERNAL STANDARD #1****
2	CI10	1,4-DIFLUOROBENZENE	****INTERNAL STANDARD #2****
3	CI20	CHLOROBENZENE-D5	****INTERNAL STANDARD #3****
4	C010	CHLOROMETHANE	
5	C015	BROMOMETHANE	
6	C020	VINYL CHLORIDE	
7	C025	CHLOROETHANE	
8	C030	METHYLENE CHLORIDE	
9	C045	1,1-DICHLOROETHENE	
10	C050	1,1-DICHLOROETHANE	
11	C055	TRANS-1,2-DICHLOROETHENE	
12	C060	CHLOROFORM	
13	C065	1,2-DICHLOROETHANE	
14	C115	1,1,1-TRICHLOROETHANE	
15	C120	CARBON TETRACHLORIDE	
16	C130	BROMODICHLOROMETHANE	
17	C140	1,2-DICHLOROPROPANE	
18	C145	TRANS-1,3-DICHLOROPROPENE	
19	C150	TRICHLOROETHENE	
20	C155	DIBROMOCHLOROMETHANE	
21	C160	1,1,2-TRICHLOROETHANE	
22	C165	BENZENE	
23	C170	CIS-1,3-DICHLOROPROPENE	
24	C175	2-CHLOROETHYL VINYL ETHER	
25	C180	BROMOFORM	
26	C220	TETRACHLOROETHENE	
27	C225	1,1,2,2-TETRACHLOROETHANE	
28	C230	TOLUENE	
29	C235	CHLOROBENZENE	
30	C240	ETHYL BENZENE	
31	CS15	1,2-DICHLOROETHANE-D4	****SURROGATE #1****
32	CS05	TOLUENE-D8	****SURROGATE #2****
33	CS10	4-BROMOFLUOROBENZENE	****SURROGATE #3****

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount		%Tot
1	128	329	10:19	1	1.000	A BB	46824.	50.000	UG/L	16.68
2	114	639	20:03	2	1.000	A BB	260208.	50.000	UG/L	16.68
3	117	787	24:42	3	1.000	A BB	155328.	50.000	UG/L	16.68
4	NOT FOUND									
5	NOT FOUND									
6	NOT FOUND									
7	NOT FOUND									
8	84	233	7:19	1	0.708	A BB	19024.	8.634	UG/L	2.88 yes LFC
9	NOT FOUND									
10	NOT FOUND									
11	NOT FOUND									
12	NOT FOUND									
13	NOT FOUND									
14	NOT FOUND									
15	NOT FOUND									
16	NOT FOUND									
17	NOT FOUND									
18	NOT FOUND									
19	NOT FOUND									
20	NOT FOUND									
21	NOT FOUND									
22	NOT FOUND									
23	NOT FOUND									
24	NOT FOUND									
25	NOT FOUND									
26	NOT FOUND									
27	NOT FOUND									
28	NOT FOUND									
29	NOT FOUND									
30	NOT FOUND									
31	65	412	12:56	1	1.252	A BB	74240.	39.681	UG/L	13.24
32	98	751	23:34	3	0.954	A BB	234600.	53.694	UG/L	17.91
33	95	934	29:18	3	1.187	A BB	139608.	47.761	UG/L	15.93

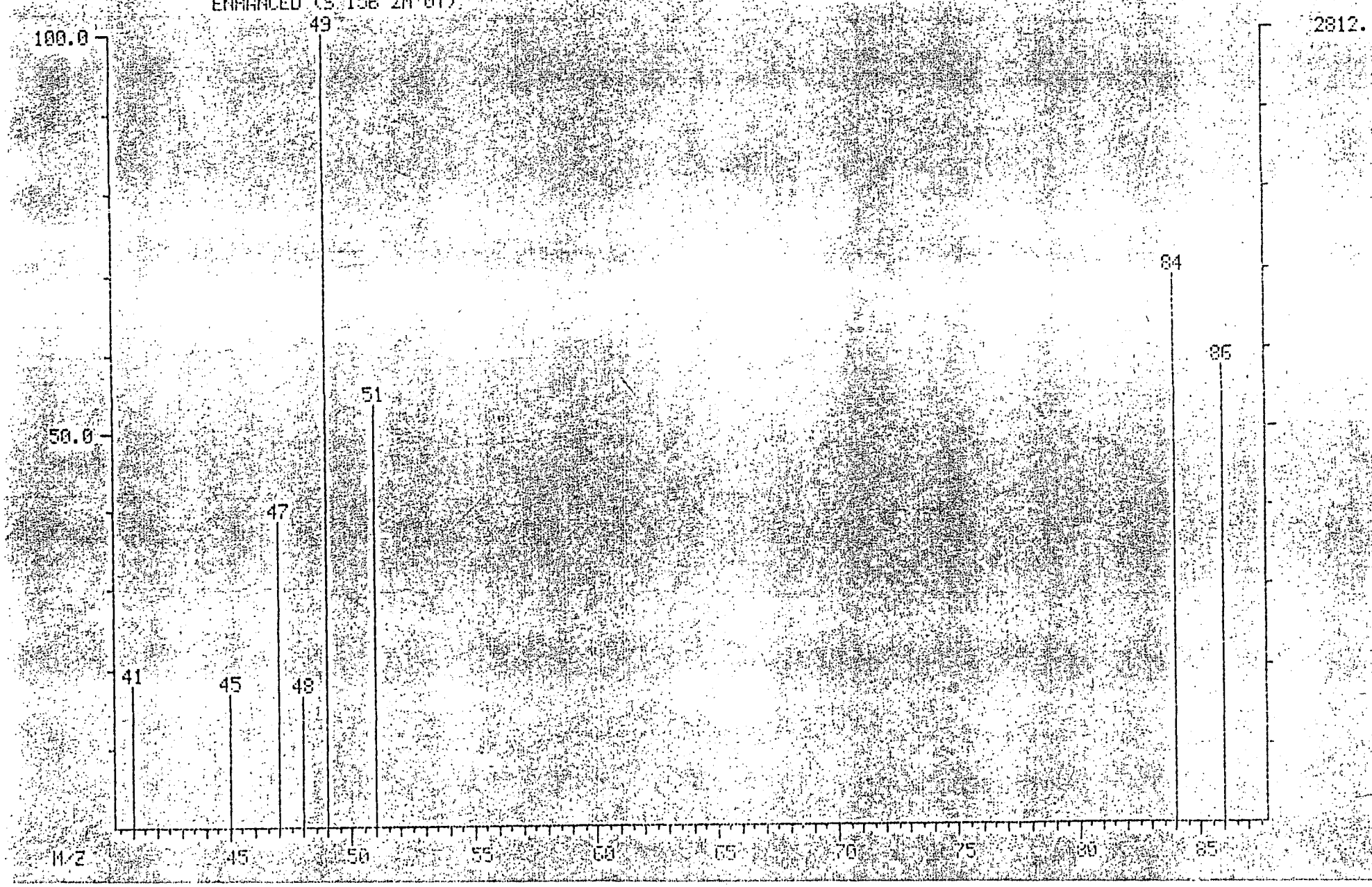
No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	10:16	1.01	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	19:59	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
3	24:38	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
4	1:51		0.180			200.00		3.209	
5	3:03		0.297			200.00		2.787	
6	3:57		0.385			200.00		3.278	
7	4:59		0.486			200.00		2.044	
8	7:11	1.02	0.700	1.01	8.63	200.00	0.102	2.353	0.04
9	9:53		0.963			200.00		2.071	
10	11:06		1.083			200.00		4.316	
11	11:46		1.147			200.00		2.050	
12	12:18		1.199			200.00		4.025	
13	12:59		1.266			200.00		1.773	
14	14:15		0.713			200.00		0.501	
15	14:37		0.732			200.00		0.472	
16	15:04		0.754			200.00		0.534	
17	16:21		0.818			200.00		0.470	
18	16:34		0.829			200.00		0.213	
19	17:06		0.856			200.00		0.434	
20	17:40		0.884			200.00		0.258	
21	17:46		0.889			200.00		0.205	
22	17:36		0.881			200.00		1.083	
23	17:46		0.889			200.00		0.451	
24	18:48		0.940			200.00		0.047	
25	20:12		1.011			200.00		0.095	
26	22:26		0.911			200.00		0.576	
27	22:22		0.908			200.00		0.375	
28	23:41		0.962			200.00		0.938	
29	24:45		1.005			200.00		1.112	
30	26:42		1.084			200.00		0.599	
31	12:56	1.00	1.260	0.99	39.68	50.00	1.586	1.998	0.79
32	23:30	1.00	0.954	1.00	53.69	50.00	1.511	1.407	1.07
33	29:13	1.00	1.186	1.00	47.76	50.00	0.899	0.941	0.96

MID MASS SPECTRUM
10/18/85 12:35:00 + 7:19
SAMPLE: 12237-1
CONDS.: 5 ML INJ
GC TEMP: 79 DEG. C
ENHANCED (S 158 2N 0T)

DATA: 12237V1 #233
CALI: 12237V1 #2

BASE M/Z: 49
RIC: 10432.

METHYLENE CHLORIDE



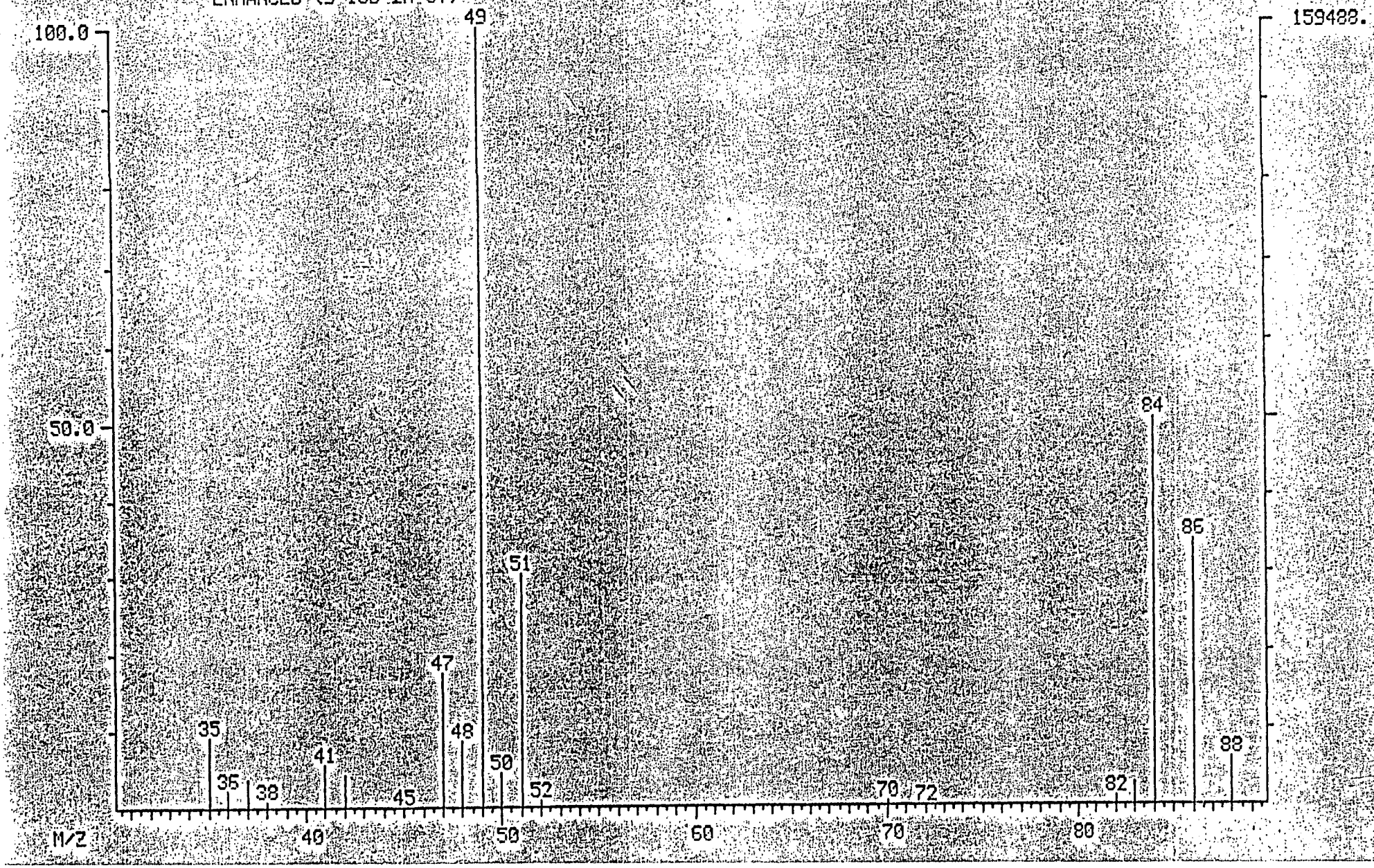
65

MID MASS SPECTRUM
10/07/85 23:21:00 + 5:07
SAMPLE: Vol. Std.
CONDS.: EI
GC TEMP: 61 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: VSB107P5 #163
CALI: VSB107P5 #2

BASE M/Z: 49
RIC: 450560.

METHYLENE CHLORIDE



MID DUAL MASS SPECTRUM
10/18/85 12:36:00 + 23:06
SAMPLE: 12237-1
CONDS.: 5 ML INJ
GC TEMP: 206 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: 12237V1 #736
CALI: 12237V1 #2

BASE M/Z: 57/ 57
RIC: 25919./ 30495.

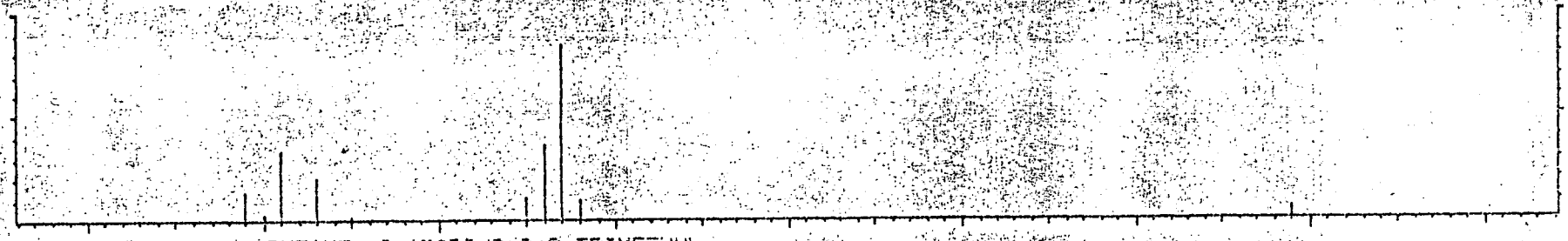
67

MID LIBRARY SEARCH
10/18/85 12:36:00 + 23:06
SAMPLE: 12237-1
CONDS.: 5 ML INJ
ENHANCED (S 15B 2N 0T)

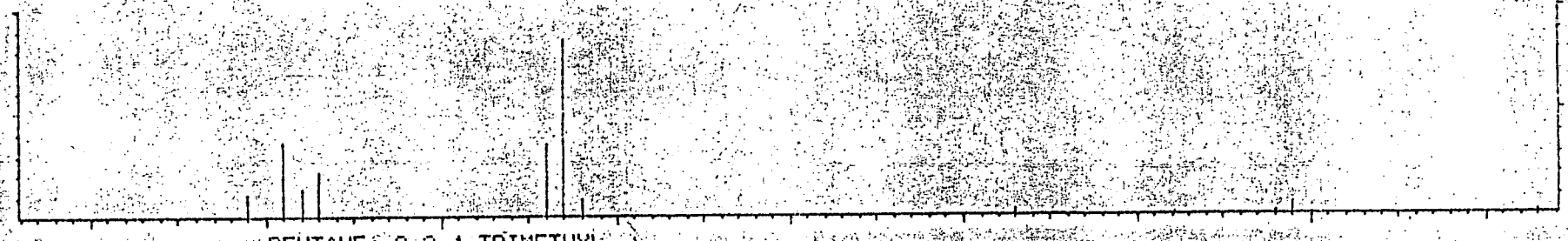
DATA: 12237V1 # 736
CALI: 12237V1 # 2

BASE M/Z: 57
RIC: 25919.

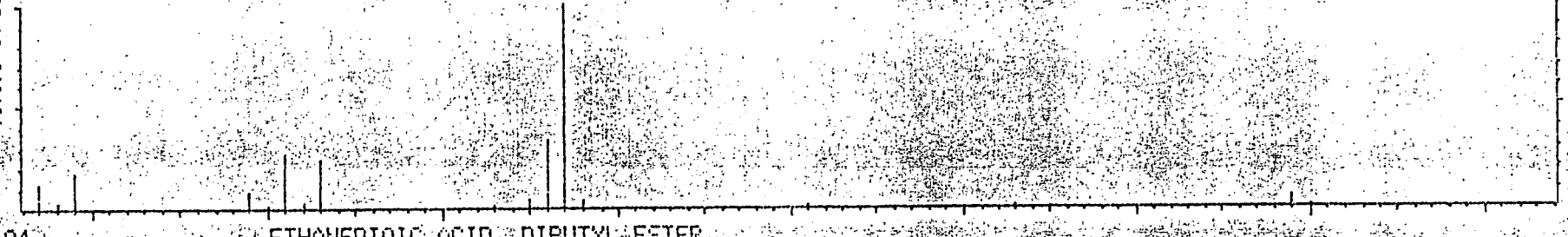
1195
SAMPLE



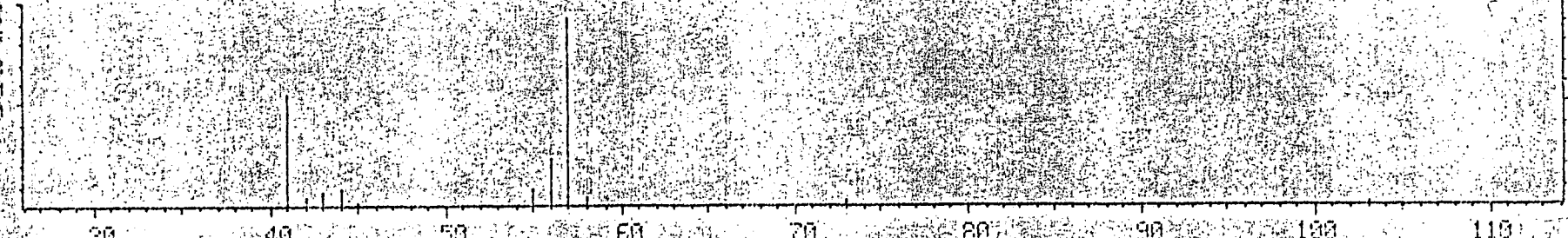
C7.H15.N3 BUTANE, 2-AZIDO-2,3,3-TRIMETHYL-
1195
M WT 141
B PK 57
RANK 1
5725
FIT 911



C8.H18 PENTANE, 2,2,4-TRIMETHYL-
1195
M WT 114
B PK 57
RANK 2
2462
FIT 882



C10.H18.O4 ETHANEDIOIC ACID, DIBUTYL ESTER
1195
M WT 202
B PK 57
RANK 3
15620
FIT 880



M/Z 30 40 50 60 70 80 90 100 110

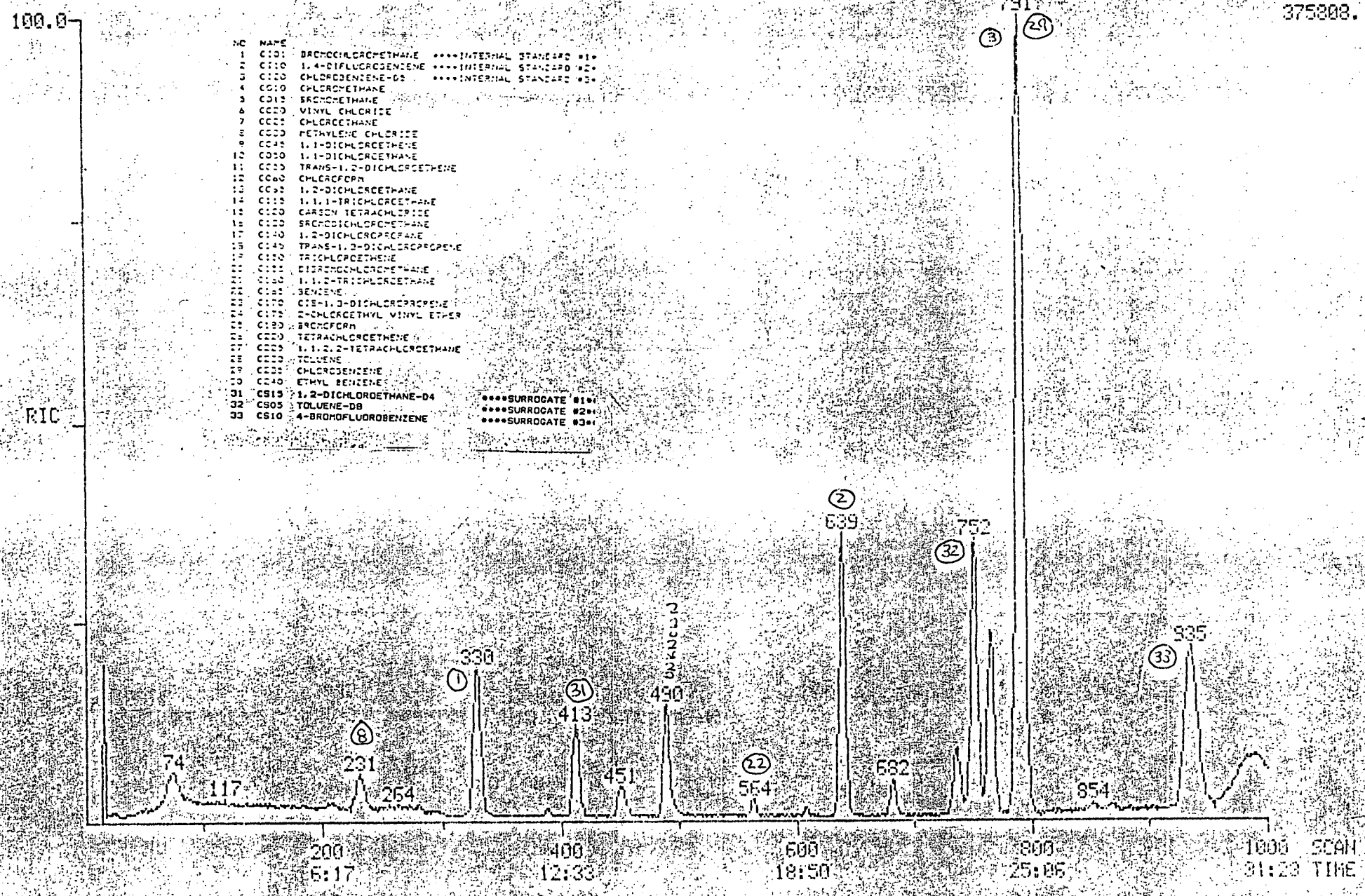
68

NID Library Search Data: 12237V1 # 736 Base m/z: 57
10/18/85 12:36:00 + 23:06 Cali: 12237V1 # 2 RIC: 25919.
Sample: 12237-1
Conds.: 5 ML INJ
Enhanced (S 15B 2N OT)

Rank	In.	Name
1	5725	BUTANE, 2-AZIDO-2,3,3-TRIMETHYL-
2	2462	PENTANE, 2,2,4-TRIMETHYL-
3	15620	ETHANEDIOIC ACID, DIBUTYL ESTER
4	1512	PROPANE, 2-METHYL-1-NITRO-
5	2475	BUTANE, 2,2,3,3-TETRAMETHYL-

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C7.H15.N3	141	57	849	911	931
2	C8.H18	114	57	877	882	973
3	C10.H18.O4	202	57	787	880	855
4	C4.H9.O2.N	103	41	786	877	821
5	C8.H18	114	57	861	875	963

MIDRIC DATA: 12237V2 #1 SCANS 1 TO 1000
10/18/85 13:22:00 CALI: 12237V1 #2
SAMPLE: 12237-2
CONDS.: 5 ML INJ
RANGE: G 1,1100 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3



NO	NAME	
1	CI01	BROMOCHLOROMETHANE ****INTERNAL STANDARD #1*
2	CI10	1,4-DIFLUOROBENZENE ****INTERNAL STANDARD #2*
3	CI20	CHLOROBENZENE-D5 ****INTERNAL STANDARD #3*
4	CC10	CHLOROMETHANE
5	CC15	BROMOMETHANE
6	CC20	VINYL CHLORIDE
7	CC25	CHLOROETHANE
8	CC30	METHYLENE CHLORIDE
9	CC45	1,1-DICHLOROETHENE
10	CC50	1,1-DICHLOROETHANE
11	CC55	TRANS-1,2-DICHLOROETHENE
12	CC60	CHLOROFORM
13	CC65	1,2-DICHLOROETHANE
14	CC75	1,1,1-TRICHLOROETHANE
15	CC80	CARBON TETRACHLORIDE
16	CC85	BROMODICHLOROMETHANE
17	CC90	1,2-DICHLOROPROPANE
18	CC95	TRANS-1,3-DICHLOROPROPENE
19	CC100	TRICHLOROETHENE
20	CC105	DIBROMOCHLOROMETHANE
21	CC110	1,1,2-TRICHLOROETHANE
22	CC115	BENZENE
23	CC120	CIS-1,3-DICHLOROPROPENE
24	CC125	2-CHLOROETHYL VINYL ETHER
25	CC130	BROMOFORM
26	CC135	TETRACHLOROETHENE
27	CC140	1,1,2,2-TETRACHLOROETHANE
28	CC145	TOLUENE
29	CC150	CHLOROBENZENE
30	CC240	ETHYL BENZENE
31	CS15	1,2-DICHLOROETHANE-D4 ****SURROGATE #1**
32	CS05	TOLUENE-D8 ****SURROGATE #2**
33	CS10	4-BROMOFLUOROBENZENE ****SURROGATE #3**

Quantitation Report File: 12237V2

Data: 12237V2.TI
10/18/85 13:22:00
Sample: 12237-2
Submitted by: HSMA Analyst: PAT

AMOUNT=AREA * REF.AMNT/(REF.AREA)* RESP.FACT)
Resp. fac. from Library Entry

NO	NAME		
1	CI01	BROMOCHLOROMETHANE	****INTERNAL STANDARD #1****
2	CI10	1,4-DIFLUOROBENZENE	****INTERNAL STANDARD #2****
3	CI20	CHLOROBENZENE-D5	****INTERNAL STANDARD #3****
4	C010	CHLOROMETHANE	
5	C015	BROMOMETHANE	
6	C020	VINYL CHLORIDE	
7	C025	CHLOROETHANE	
8	C030	METHYLENE CHLORIDE	
9	C045	1,1-DICHLOROETHENE	
10	C050	1,1-DICHLOROETHANE	
11	C055	TRANS-1,2-DICHLOROETHENE	
12	C060	CHLOROFORM	
13	C065	1,2-DICHLOROETHANE	
14	C115	1,1,1-TRICHLOROETHANE	
15	C120	CARBON TETRACHLORIDE	
16	C130	BROMODICHLOROMETHANE	
17	C140	1,2-DICHLOROPROPANE	
18	C145	TRANS-1,3-DICHLOROPROPENE	
19	C150	TRICHLOROETHENE	
20	C155	DIBROMOCHLOROMETHANE	
21	C160	1,1,2-TRICHLOROETHANE	
22	C165	BENZENE	
23	C170	CIS-1,3-DICHLOROPROPENE	
24	C175	2-CHLOROETHYL VINYL ETHER	
25	C180	BROMOFORM	
26	C220	TETRACHLOROETHENE	
27	C225	1,1,2,2-TETRACHLOROETHANE	
28	C230	TOLUENE	
29	C235	CHLOROBENZENE	
30	C240	ETHYL BENZENE	
31	CS15	1,2-DICHLOROETHANE-D4	****SURROGATE #1****
32	CS05	TOLUENE-D8	****SURROGATE #2****
33	CS10	4-BROMOFLUOROBENZENE	****SURROGATE #3****

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	128	329	10:19	1	1.000	A BB	49824.	50.000 UG/L	11.27
2	114	639	20:03	2	1.000	A BB	270920.	50.000 UG/L	11.27
3	117	788	24:44	3	1.000	A BB	168040.	50.000 UG/L	11.27
4	NOT FOUND								
5	NOT FOUND								
6	NOT FOUND								
7	NOT FOUND								
8	84	231	7:15	1	0.702	A BB	23256.	9.919 UG/L	2.24 µg LFC
9	NOT FOUND								
10	NOT FOUND								
11	NOT FOUND								
12	NOT FOUND								
13	NOT FOUND								
14	NOT FOUND								
15	NOT FOUND								
16	NOT FOUND								
17	NOT FOUND								
18	NOT FOUND								
19	NOT FOUND								
20	NOT FOUND								
21	NOT FOUND								
22	78	564	17:42	2	0.883	A BB	16800.	2.864 UG/L	0.65 µg LFC
23	NOT FOUND								
24	NOT FOUND								
25	NOT FOUND								
26	NOT FOUND								
27	NOT FOUND								
28	NOT FOUND								
29	112	792	24:51	3	1.005	A BB	526624.	140.958 UG/L	31.78 µg LFC
30	NOT FOUND								
31	65	413	12:58	1	1.255	A BB	61784.	41.081 UG/L	9.26
32	98	751	23:34	3	0.953	A BB	246400.	52.115 UG/L	11.75
33	95	934	29:18	3	1.185	A BB	147376.	46.593 UG/L	10.51

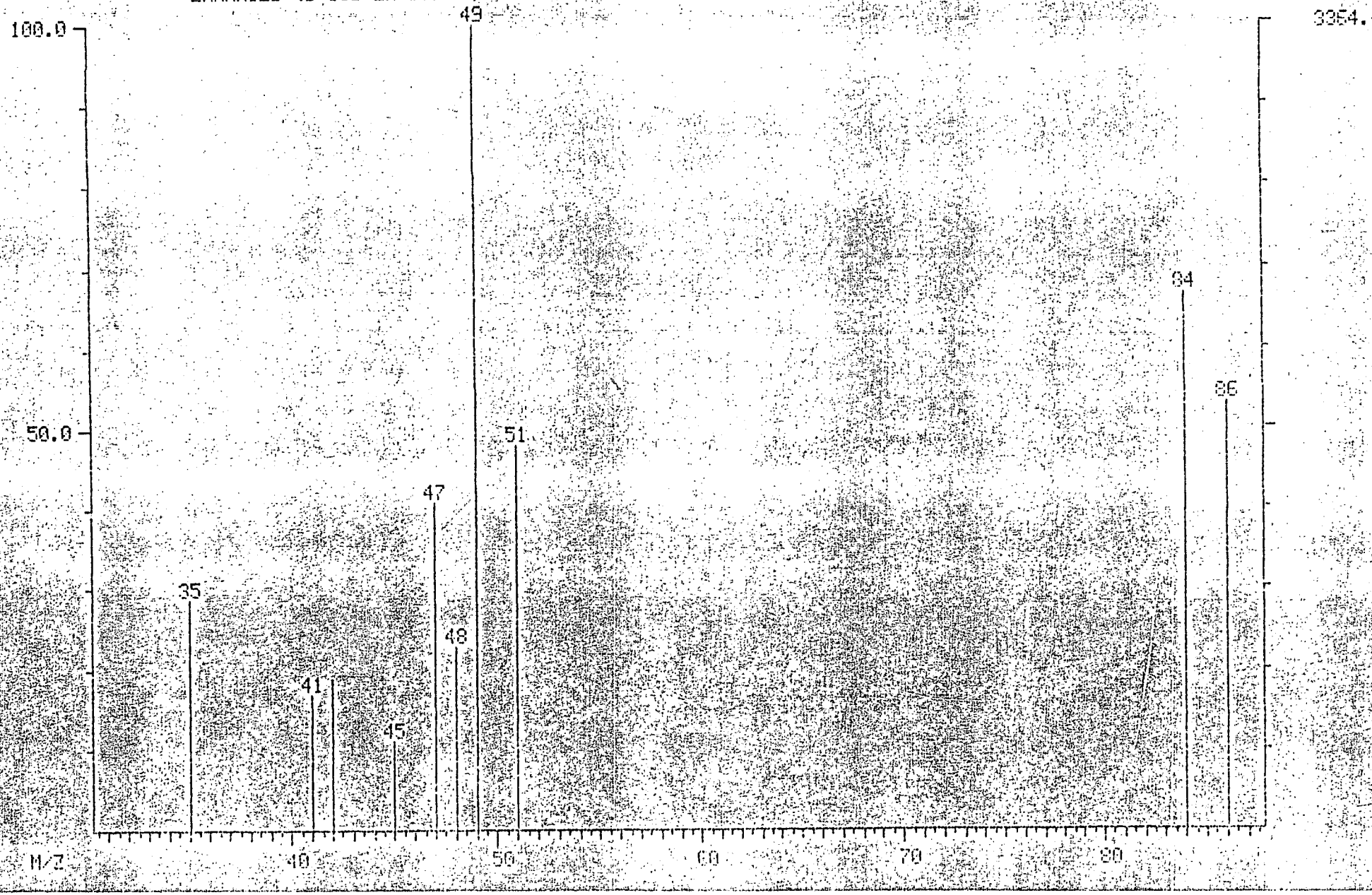
No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	10:16	1.01	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	19:59	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
3	24:38	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
4	1:51		0.180			200.00		3.209	
5	3:03		0.297			200.00		2.787	
6	3:57		0.385			200.00		3.278	
7	4:59		0.486			200.00		2.044	
8	7:11	1.01	0.700	1.00	9.92	200.00	0.117	2.353	0.05
9	9:53		0.963			200.00		2.071	
10	11:06		1.083			200.00		4.316	
11	11:46		1.147			200.00		2.050	
12	12:18		1.199			200.00		4.025	
13	12:59		1.266			200.00		1.773	
14	14:15		0.713			200.00		0.501	
15	14:37		0.732			200.00		0.472	
16	15:04		0.754			200.00		0.534	
17	16:21		0.818			200.00		0.470	
18	16:34		0.829			200.00		0.213	
19	17:06		0.856			200.00		0.434	
20	17:40		0.884			200.00		0.258	
21	17:46		0.889			200.00		0.205	
22	17:36	1.01	0.881	1.00	2.86	200.00	0.016	1.083	0.01
23	17:46		0.889			200.00		0.451	
24	18:48		0.940			200.00		0.047	
25	20:12		1.011			200.00		0.095	
26	22:26		0.911			200.00		0.576	
27	22:22		0.908			200.00		0.375	
28	23:41		0.962			200.00		0.938	
29	24:45	1.00	1.005	1.00	140.96	200.00	0.784	1.112	0.70
30	26:42		1.084			200.00		0.599	
31	12:56	1.00	1.260	1.00	41.08	50.00	1.641	1.998	0.82
32	23:30	1.00	0.954	1.00	52.12	50.00	1.466	1.407	1.04
33	29:13	1.00	1.186	1.00	46.59	50.00	0.877	0.941	0.93

MID MASS SPECTRUM
10/18/85 13:22:00 + 7:15
SAMPLE: 12237-2
CONDS.: 5 ML INJ
GC TEMP: 79 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: 12237V2 #231
CALI: 12237V2 #2

BASE M/Z: 49
RIC: 13696.

METHYLENE CHLORIDE



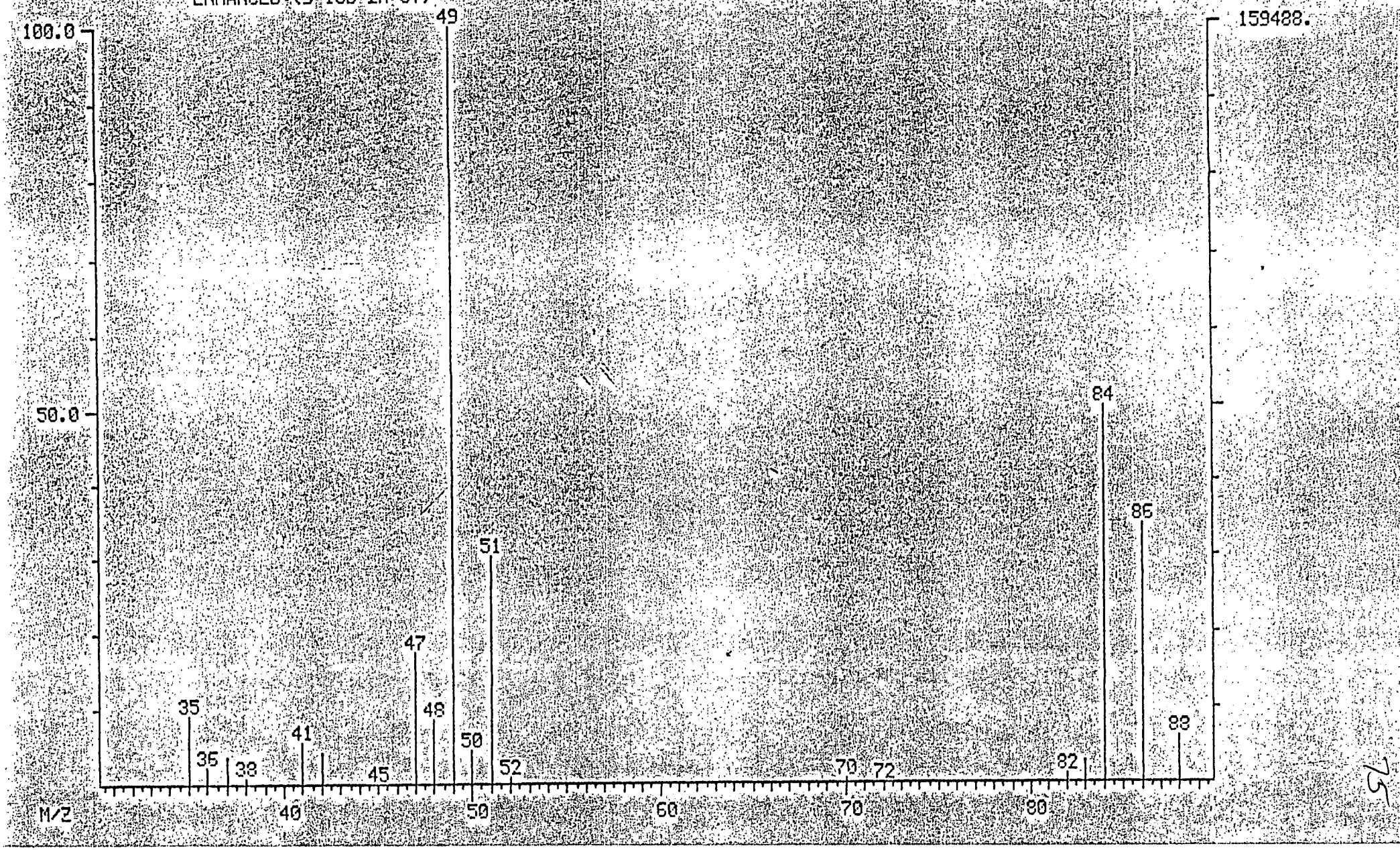
74

MID MASS SPECTRUM
10/07/85 23:21:00 + 5:07
SAMPLE: Vol. Std.
CONDS.: EI
GC TEMP: 61 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: VSB107P5 #153
CALI: VSB107P5 #2

BASE M/Z: 49
RIC: 450560.

METHYLENE CHLORIDE

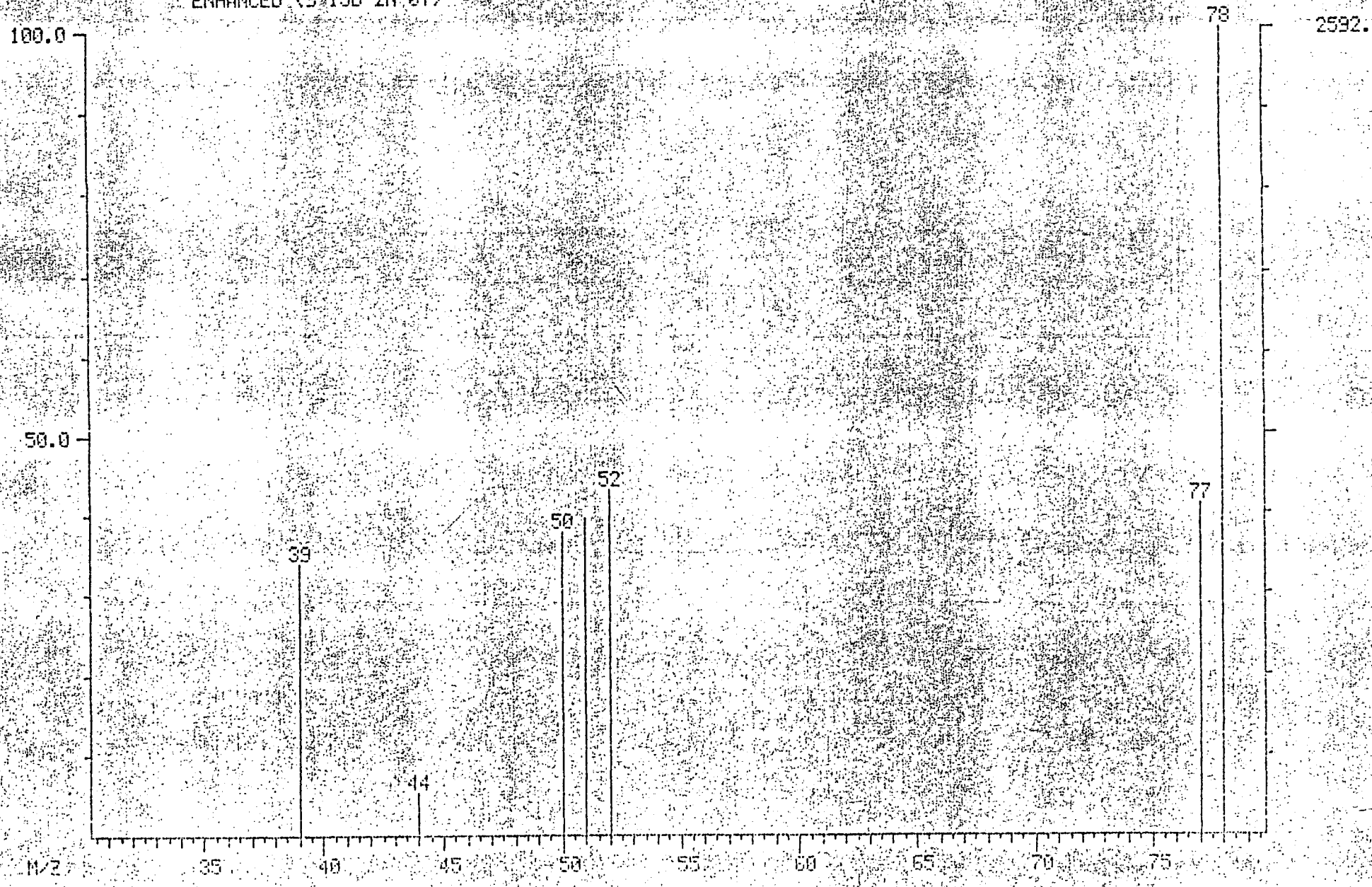


MID MASS SPECTRUM
10/18/85 13:22:00 + 17:42
SAMPLE: 12237-2
CONDS.: 5 ML INJ
GC TEMP: 162 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: 12237V2 #564
CALI: 12237V2 #2

BASE M/Z: 78
RIC: 7600.

BENZENE



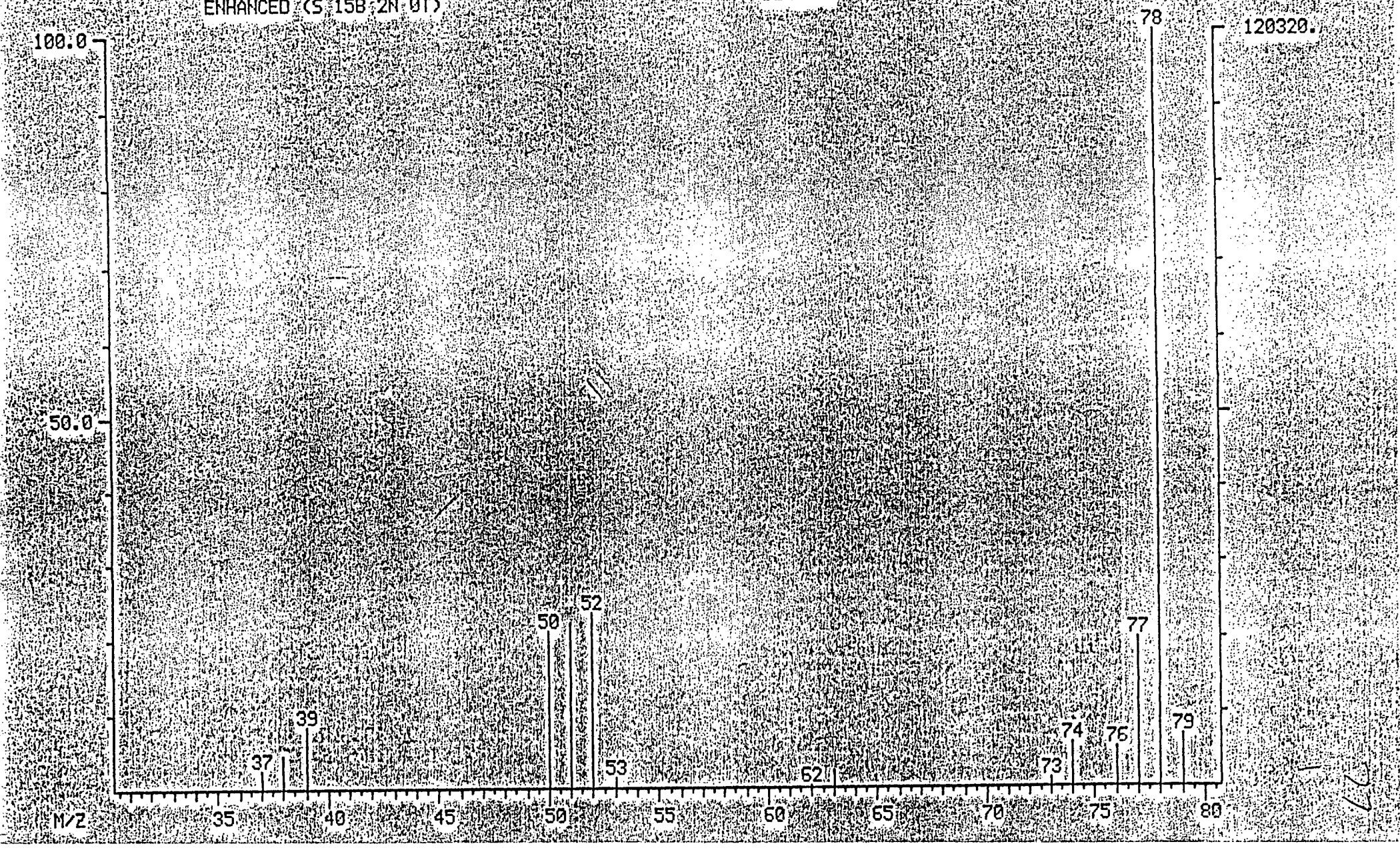
76

MID MASS SPECTRUM
10/07/85 23:21:00 + 15:43
SAMPLE:
CONDS.: EI
GC TEMP: 147 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: VSB107P5 #501
CALI: VSB107P5 #2

BASE M/Z: 78
RIC: 271360.

BENZENE

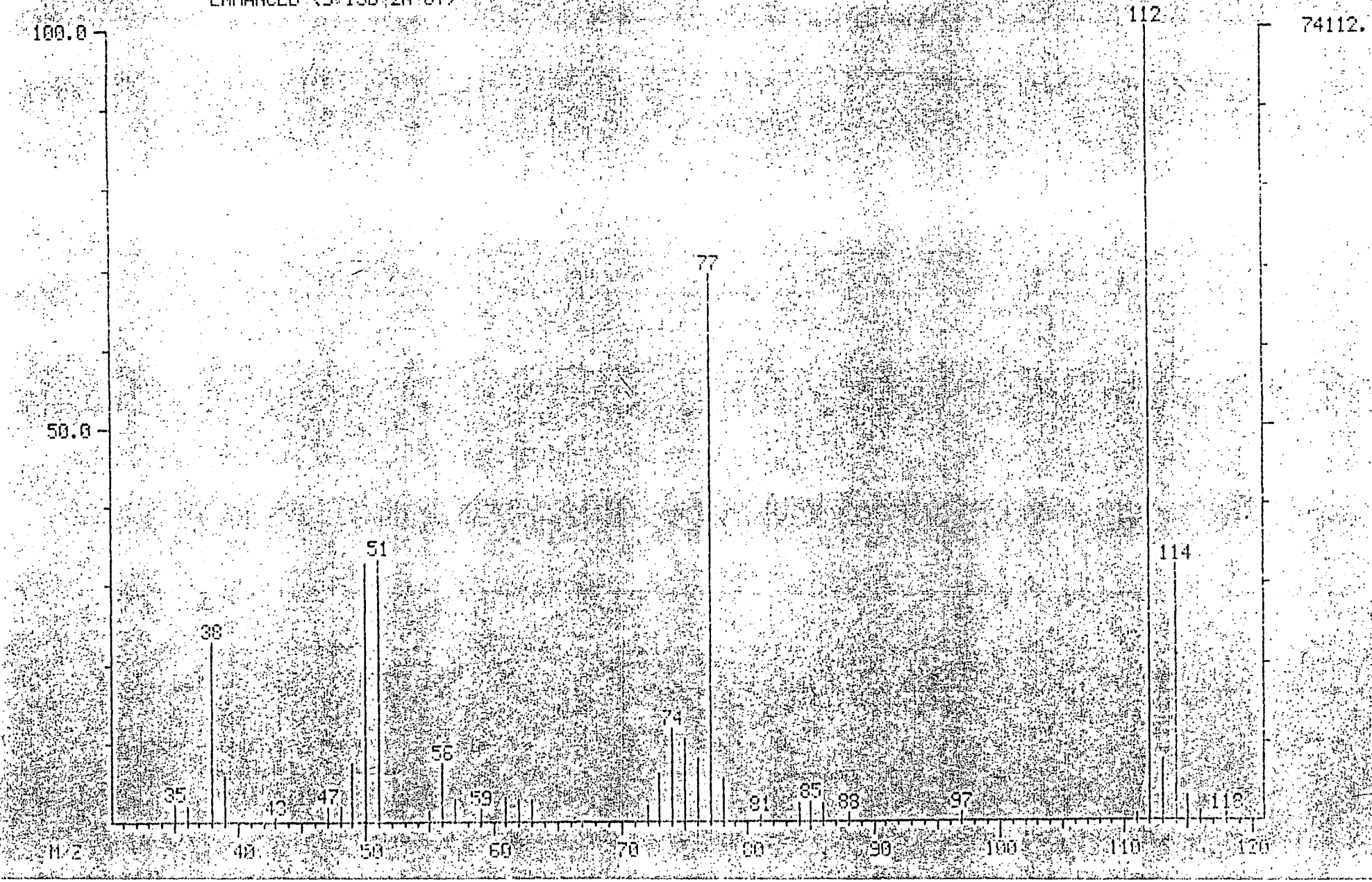


MID MASS SPECTRUM
10/18/85 13:22:00 + 24:51
SAMPLE: 12237-2
CONDS.: 5 ML INJ
GC TEMP: 219 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: 12237V2 #792
CALI: 12237V2 #2

BASE M/Z: 112
RIC: 297472.

CHLOROBENZENE



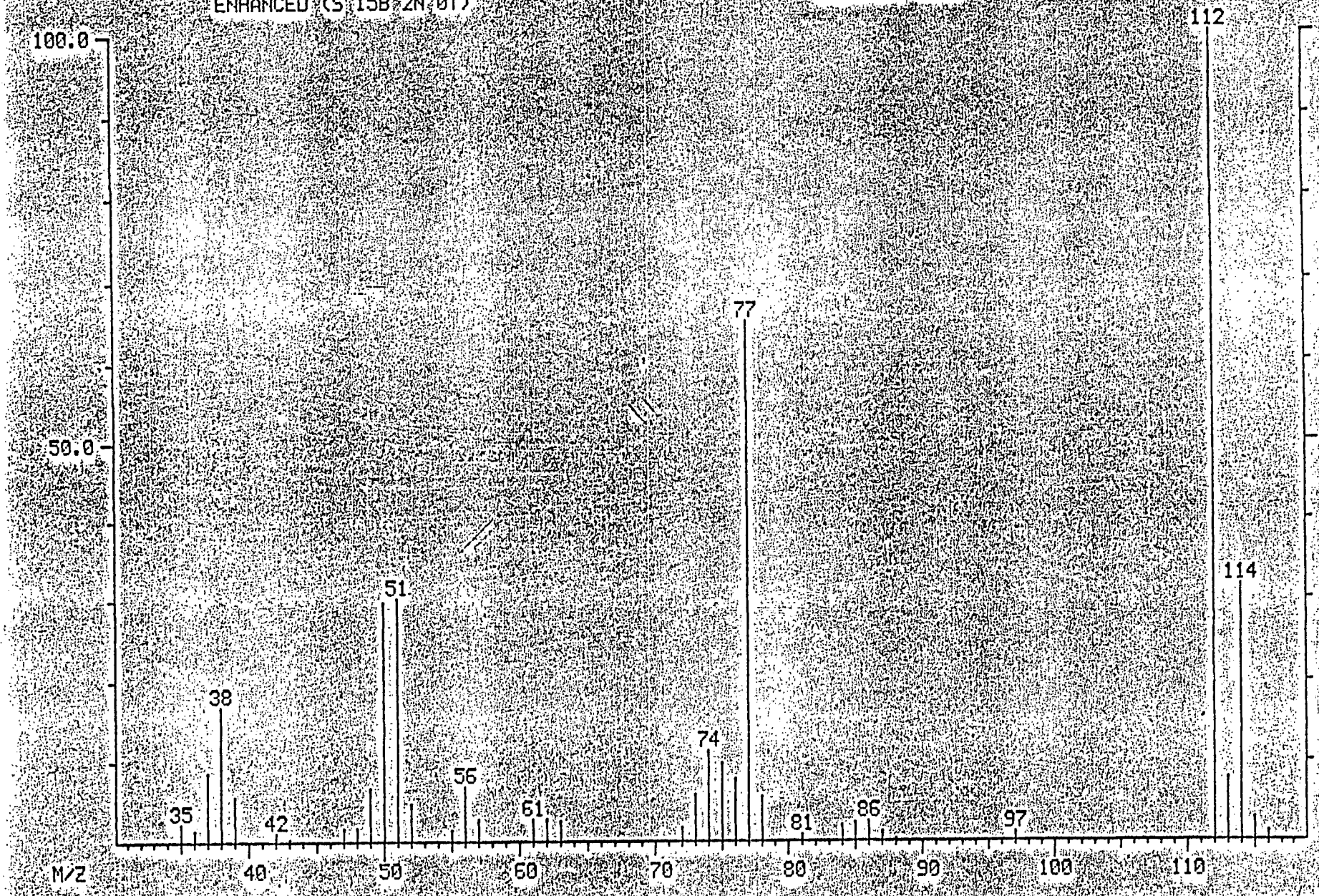
78

MID MASS SPECTRUM
10/07/85 23:21:00 + 22:57
SAMPLE:
CONDS.: EI
GC TEMP: 204 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: VSB107P5 #731
CALI: VSB107P5 #2

BASE M/Z: 112
RIC: 330752.

CHLOROBENZENE

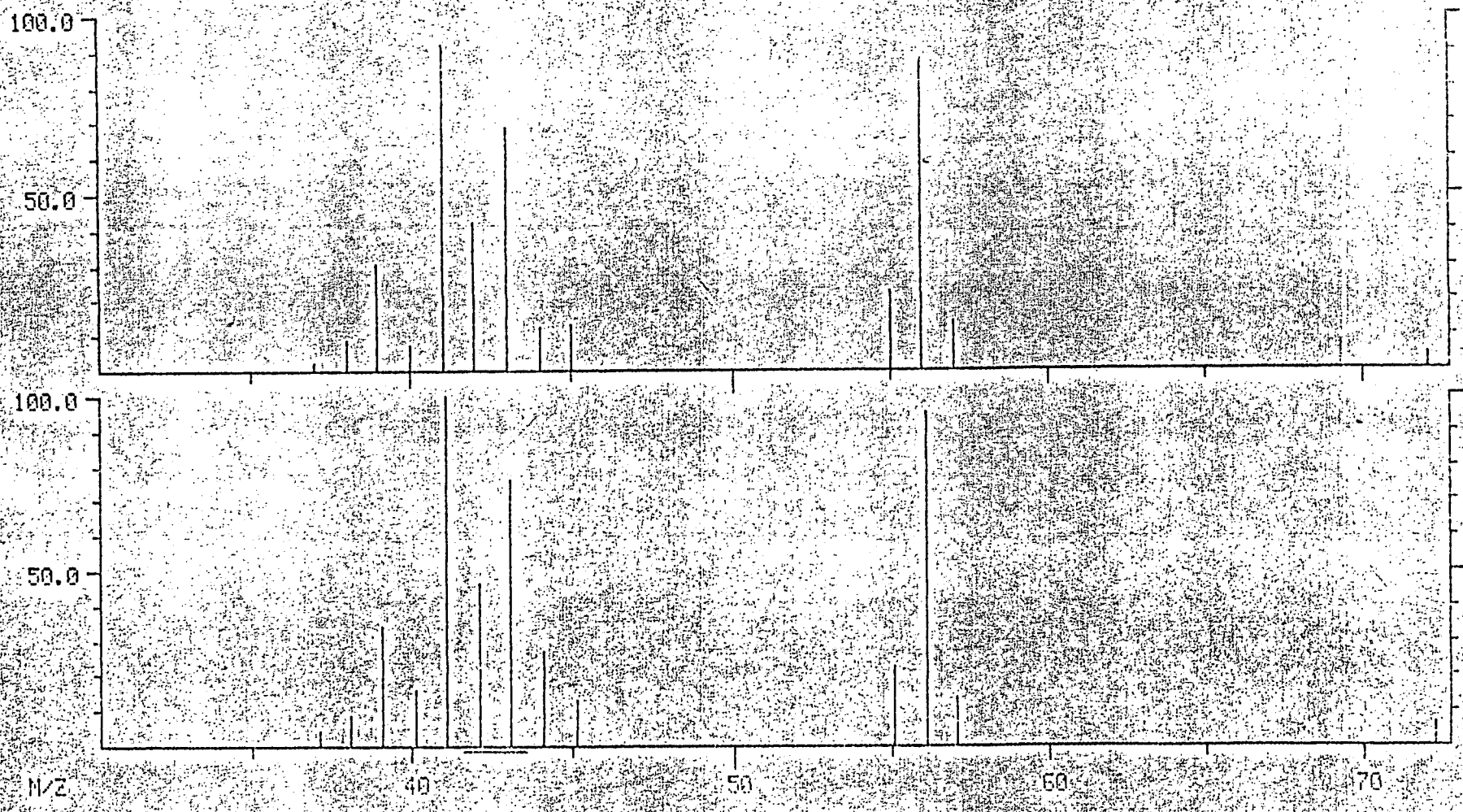


99

MID DUAL MASS SPECTRUM
10/18/85 13:22:00 + 15:22
SAMPLE: 12237-2
CONDS.: 5 ML INJ
GC TEMP: 144 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: 12237V2 #490
CALI: 12237V2 #2

BASE M/Z: 41/ 41
RIC: 47935./ 54847.

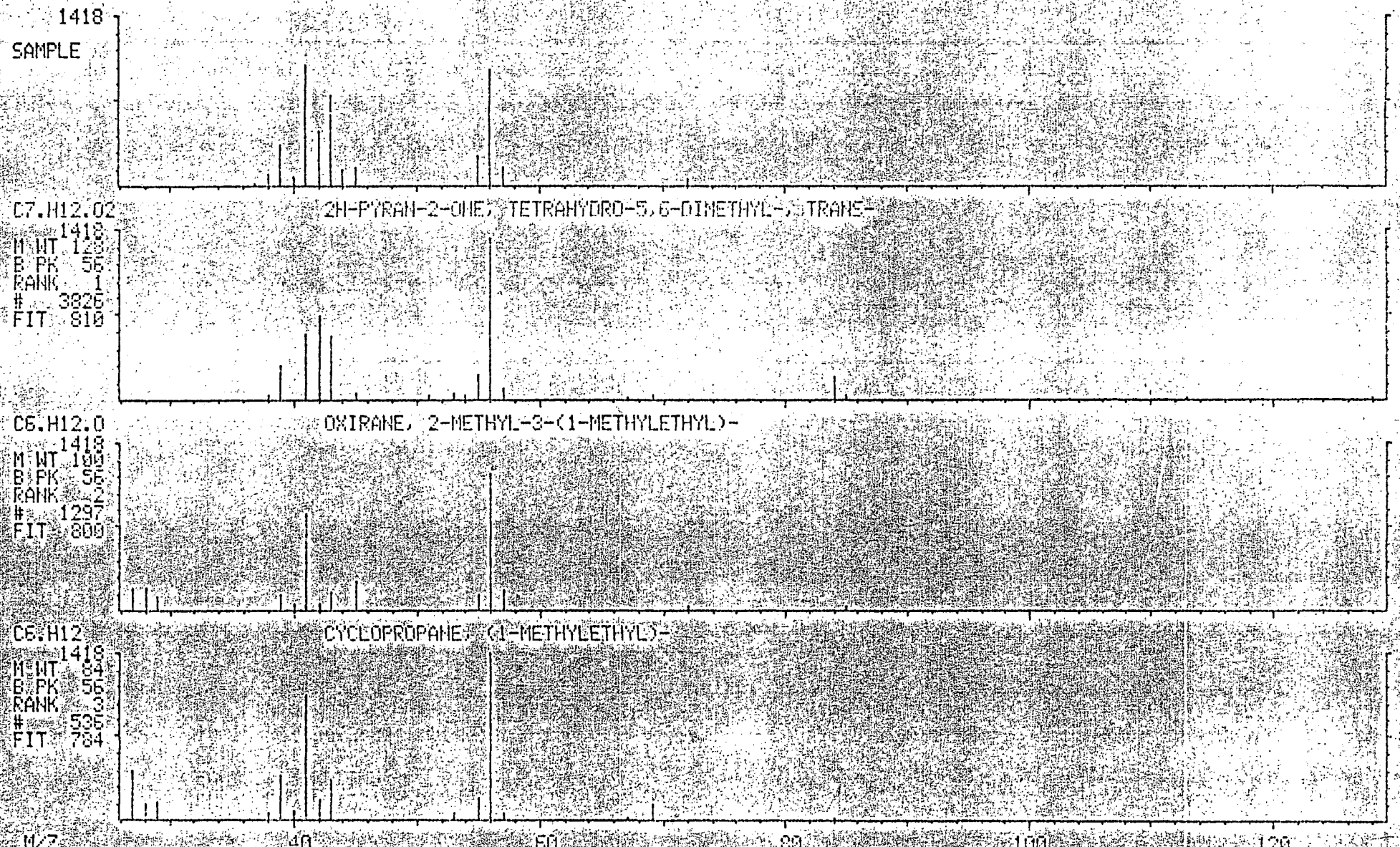


28

MID LIBRARY SEARCH
10/18/85 13:22:00 + 15:22
SAMPLE: 12237-2
CONDS.: 5 ML INJ
ENHANCED (S 15B 2N 0T)

DATA: 12237V2 # 490
CALI: 12237V2 # 2

BASE M/Z: 41
RIC: 47935.



8

MID Library Search
10/18/85 13:22:00 + 15:22
Sample: 12237-2
Conds.: 5 ML INJ
Enhanced (S 15B 2N OT)

Data: 12237V2 # 490
Cali: 12237V2 # 2

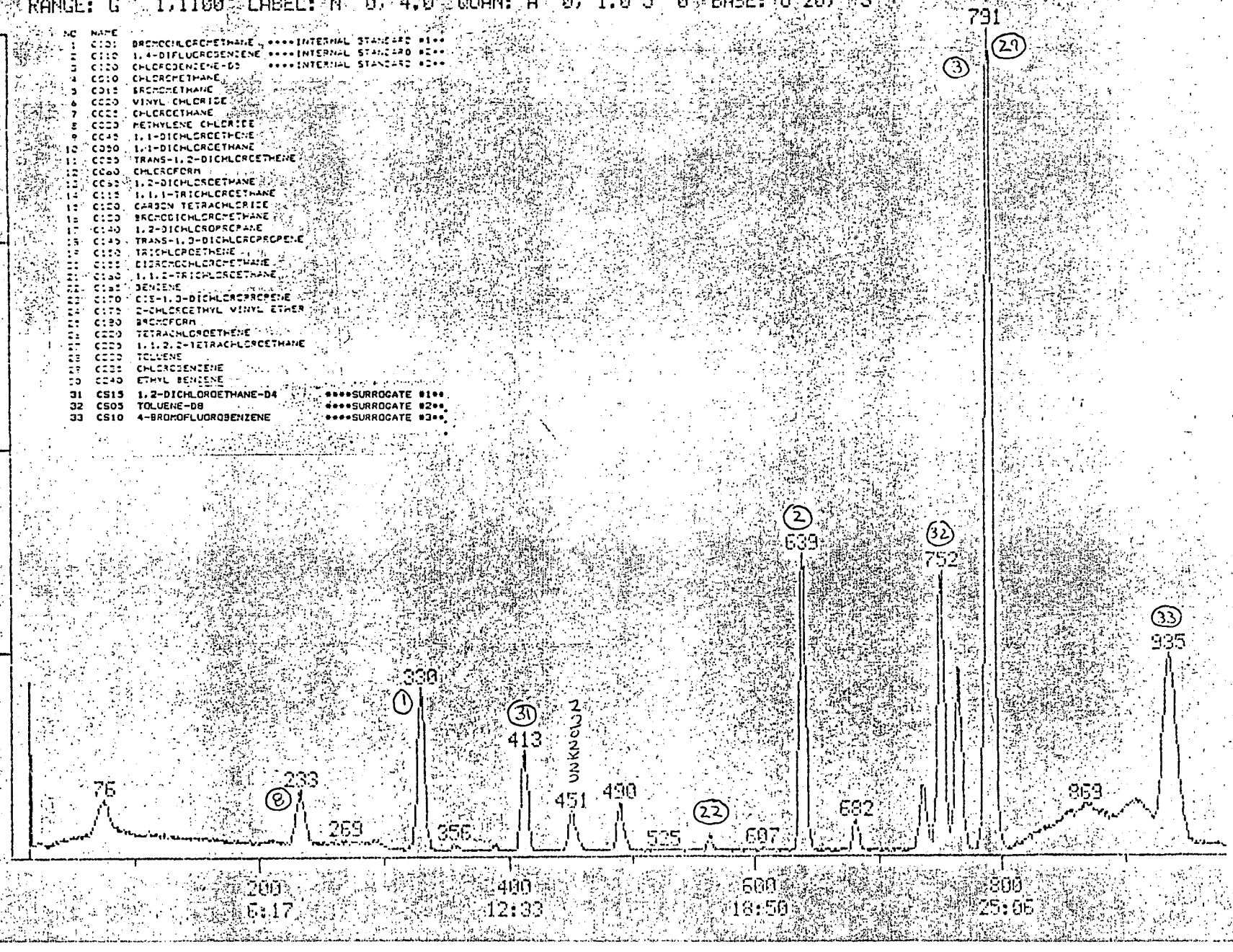
Base m/z: 41
RIC: 47935

82

Rank	In.	Name
1	3826	2H-PYRAN-2-ONE, TETRAHYDRO-5,6-DIMETHYL-, TRANS-
2	1297	OXIRANE, 2-METHYL-3-(1-METHYLETHYL)-
3	536	CYCLOPROPANE, (1-METHYLETHYL)-
4	3804	2H-PYRAN-2-ONE, TETRAHYDRO-3,6-DIMETHYL-
5	3935	OXIRANE, 2,3-BIS(1-METHYLETHYL)-, TRANS-

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C7.H12.O2	128	56	756	810	893
2	C6.H12.O	100	56	758	800	842
3	C6.H12	84	56	720	784	867
4	C7.H12.O2	128	42	731	783	870
5	C8.H16.O	128	56	665	765	800

MIDRIC DATA: 12237V2D #1 SCANS 1 TO 980
10/18/85 14:56:00 CALI: 12237V2D #2
SAMPLE: 12237-2 DUPLICATE
CONDS.: 5 ML INJ
RANGE: G 1,1100 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3



NO	NAME	
1	CI01	BROMOCHLOROMETHANE ****INTERNAL STANDARD #1**
2	CI10	1,4-DIFLUOROBENZENE ****INTERNAL STANDARD #2**
3	CI20	CHLOROBENZENE-D5 ****INTERNAL STANDARD #3**
4	CS10	CHLOROMETHANE
5	CS15	BROMOMETHANE
6	CS20	VINYL CHLORIDE
7	CS25	CHLOROETHANE
8	CS30	METHYLENE CHLORIDE
9	CS45	1,1-DICHLOROETHENE
10	CS50	1,1-DICHLOROETHANE
11	CS55	TRANS-1,2-DICHLOROETHENE
12	CS60	CHLOROFORM
13	CS65	1,2-DICHLOROETHANE
14	CS15	1,1,1-TRICHLOROETHANE
15	CS20	CARBON TETRACHLORIDE
16	CS30	BROMODICHLOROMETHANE
17	CS40	1,2-DICHLOROPROPANE
18	CS45	TRANS-1,3-DICHLOROPROPENE
19	CS50	TRICHLOROETHENE
20	CS55	DIBROMOCHLOROMETHANE
21	CS60	1,1,2-TRICHLOROETHANE
22	CS65	BENZENE
23	CS70	CIS-1,3-DICHLOROPROPENE
24	CS75	2-CHLOROETHYL VINYL ETHER
25	CS80	BROMOFORM
26	CS20	TETRACHLOROETHENE
27	CS25	1,1,2,2-TETRACHLOROETHANE
28	CS30	TOLUENE
29	CS35	CHLOROBENZENE
30	CS40	ETHYL BENZENE
31	CS15	1,2-DICHLOROETHANE-D4 ****SURROGATE #1**
32	CS05	TOLUENE-D8 ****SURROGATE #2**
33	CS10	4-BROMOFLUOROBENZENE ****SURROGATE #3**

Quantitation Report File: 12237V2D

Data: 12237V2D.TI
10/18/85 14:56:00
Sample: 12237-2 DUPLICATE
Submitted by: HSMA Analyst: PAT

AMOUNT=AREA * REF.AMNT/(REF.AREA)* RESP.FACT)
Resp. fac. from Library Entry

NO	NAME		
1	CI01	BROMOCHLOROMETHANE	****INTERNAL STANDARD #1****
2	CI10	1,4-DIFLUOROBENZENE	****INTERNAL STANDARD #2****
3	CI20	CHLOROBENZENE-D5	****INTERNAL STANDARD #3****
4	C010	CHLOROMETHANE	
5	C015	BROMOMETHANE	
6	C020	VINYL CHLORIDE	
7	C025	CHLOROETHANE	
8	C030	METHYLENE CHLORIDE	
9	C045	1,1-DICHLOROETHENE	
10	C050	1,1-DICHLOROETHANE	
11	C055	TRANS-1,2-DICHLOROETHENE	
12	C060	CHLOROFORM	
13	C065	1,2-DICHLOROETHANE	
14	C115	1,1,1-TRICHLOROETHANE	
15	C120	CARBON TETRACHLORIDE	
16	C130	BROMODICHLOROMETHANE	
17	C140	1,2-DICHLOROPROPANE	
18	C145	TRANS-1,3-DICHLOROPROPENE	
19	C150	TRICHLOROETHENE	
20	C155	DIBROMOCHLOROMETHANE	
21	C160	1,1,2-TRICHLOROETHANE	
22	C165	BENZENE	
23	C170	CIS-1,3-DICHLOROPROPENE	
24	C175	2-CHLOROETHYL VINYL ETHER	
25	C180	BROMOFORM	
26	C220	TETRACHLOROETHENE	
27	C225	1,1,2,2-TETRACHLOROETHANE	
28	C230	TOLUENE	
29	C235	CHLOROBENZENE	
30	C240	ETHYL BENZENE	
31	CS15	1,2-DICHLOROETHANE-D4	****SURROGATE #1****
32	CS05	TOLUENE-D8	****SURROGATE #2****
33	CS10	4-BROMOFLUOROBENZENE	****SURROGATE #3****

85

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	126	329	10:19	1	1.000	A BB	46424.	50.000 UG/L	11.51
2	114	639	20:03	2	1.000	A BB	256200.	50.000 UG/L	11.51
3	117	789	24:45	3	1.000	A BB	161896.	50.000 UG/L	11.51
4	NOT	FOUND							
5	NOT	FOUND							
6	NOT	FOUND							
7	NOT	FOUND							
8	84	232	7:17	1	0.705	A BB	32632.	14.937 UG/L	3.44
9	NOT	FOUND							
10	NOT	FOUND							
11	NOT	FOUND							
12	NOT	FOUND							
13	NOT	FOUND							
14	NOT	FOUND							
15	NOT	FOUND							
16	NOT	FOUND							
17	NOT	FOUND							
18	NOT	FOUND							
19	NOT	FOUND							
20	NOT	FOUND							
21	NOT	FOUND							
22	78	563	17:40	2	0.881	A BB	15040.	2.711 UG/L	0.62
23	NOT	FOUND							
24	NOT	FOUND							
25	NOT	FOUND							
26	NOT	FOUND							
27	NOT	FOUND							
28	NOT	FOUND							
29	112	792	24:51	3	1.004	A BB	469208.	130.307 UG/L	30.00
30	NOT	FOUND							
31	65	413	12:58	1	1.255	A BB	75816.	40.873 UG/L	9.41
32	98	752	23:36	3	0.953	A BB	229480.	50.379 UG/L	11.60
33	95	935	29:20	3	1.185	A BB	137568.	45.143 UG/L	10.39

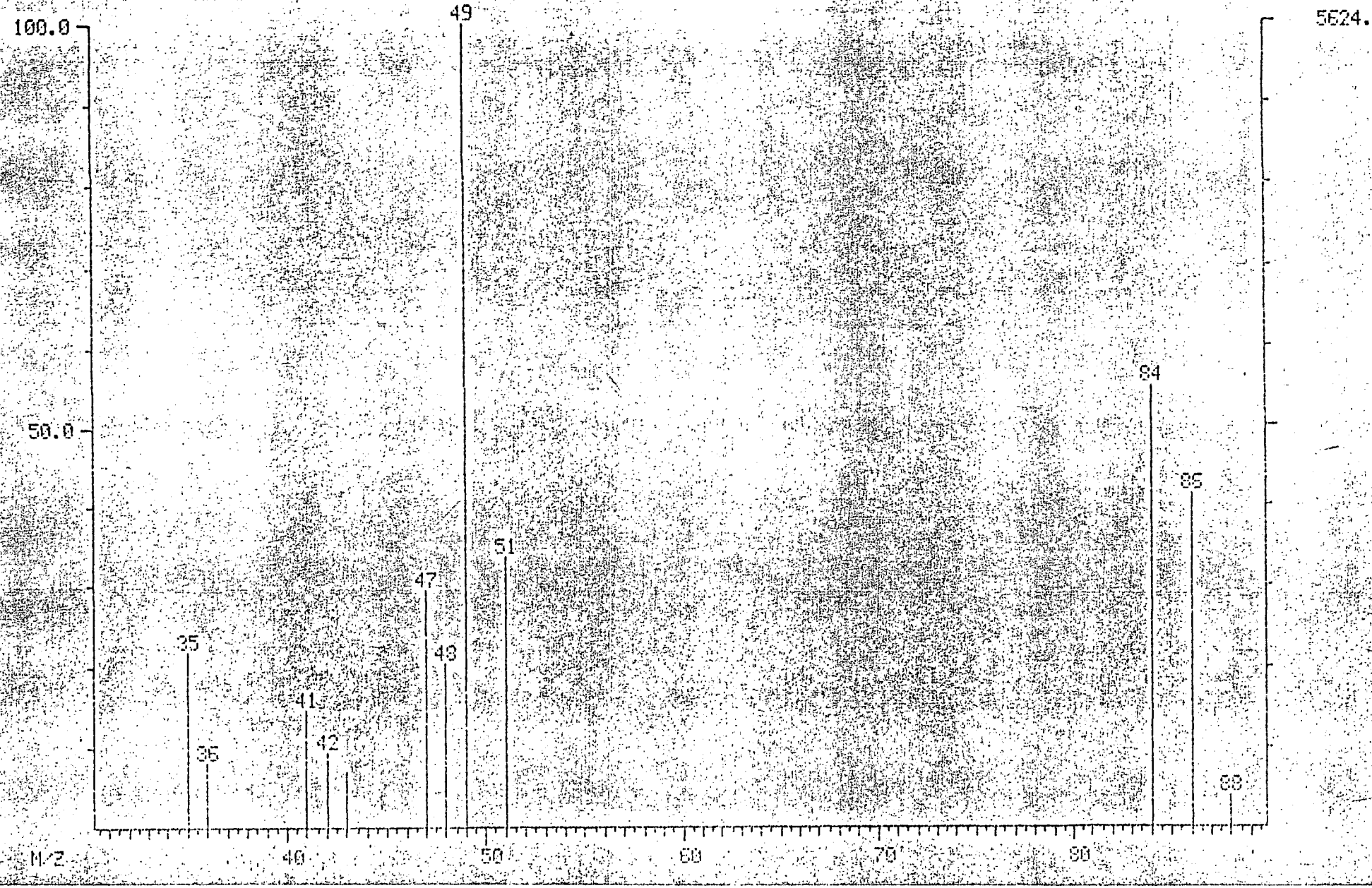
No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	10:16	1.01	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	19:59	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
3	24:38	1.01	1.000	1.00	50.00	50.00	1.000	1.000	1.00
4	1:53		0.183			200.00		3.209	
5	3:04		0.300			200.00		2.787	
6	3:59		0.388			200.00		3.278	
7	5:01		0.489			200.00		2.044	
8	7:13	1.01	0.703	1.00	14.94	200.00	0.176	2.353	0.07
9	9:53		0.963			200.00		2.071	
10	11:05		1.080			200.00		4.316	
11	11:46		1.147			200.00		2.050	
12	12:16		1.196			200.00		4.025	
13	12:59		1.266			200.00		1.773	
14	14:15		0.713			200.00		0.501	
15	14:35		0.730			200.00		0.472	
16	15:04		0.754			200.00		0.534	
17	16:21		0.818			200.00		0.470	
18	16:34		0.829			200.00		0.213	
19	17:06		0.856			200.00		0.434	
20	17:40		0.884			200.00		0.258	
21	17:46		0.889			200.00		0.205	
22	17:36	1.00	0.881	1.00	2.71	200.00	0.015	1.083	0.01
23	17:46		0.889			200.00		0.451	
24	18:46		0.939			200.00		0.047	
25	20:11		1.009			200.00		0.095	
26	22:26		0.911			200.00		0.576	
27	22:22		0.908			200.00		0.375	
28	23:40		0.961			200.00		0.938	
29	24:44	1.01	1.004	1.00	130.31	200.00	0.725	1.112	0.65
30	26:40		1.083			200.00		0.599	
31	12:54	1.00	1.257	1.00	40.87	50.00	1.633	1.998	0.82
32	23:30	1.00	0.954	1.00	50.38	50.00	1.417	1.407	1.01
33	29:11	1.01	1.185	1.00	45.14	50.00	0.850	0.941	0.90

MID MASS SPECTRUM
10/18/85 14:56:00 + 7:17
SAMPLE: 12237-2 DUPLICATE
CONDS.: 5 ML INJ
GC TEMP: 79 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: 12237V2D #232
CALI: 12237V2D #2

BASE M/Z: 49
RIC: 19392.

METHYLENE CHLORIDE



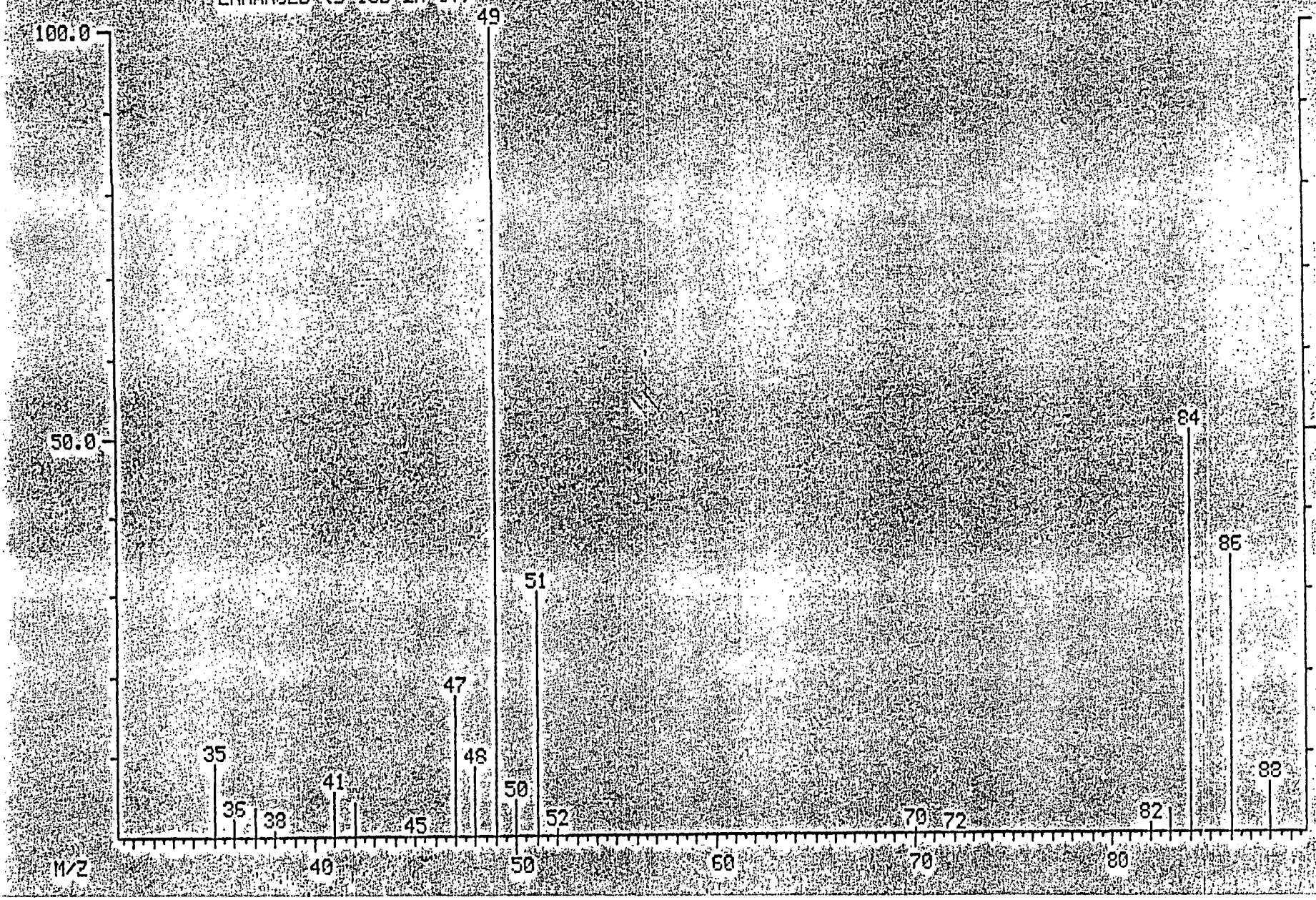
87

MID MASS SPECTRUM
10/07/85 23:21:00 + 5:07
SAMPLE: Vol. Std.
CONDS.: EI
GC TEMP: 61 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: VSB107P5 #163
CALI: VSB107P5 #2

BASE M/Z: 49
RIC: 450560.

METHYLENE CHLORIDE

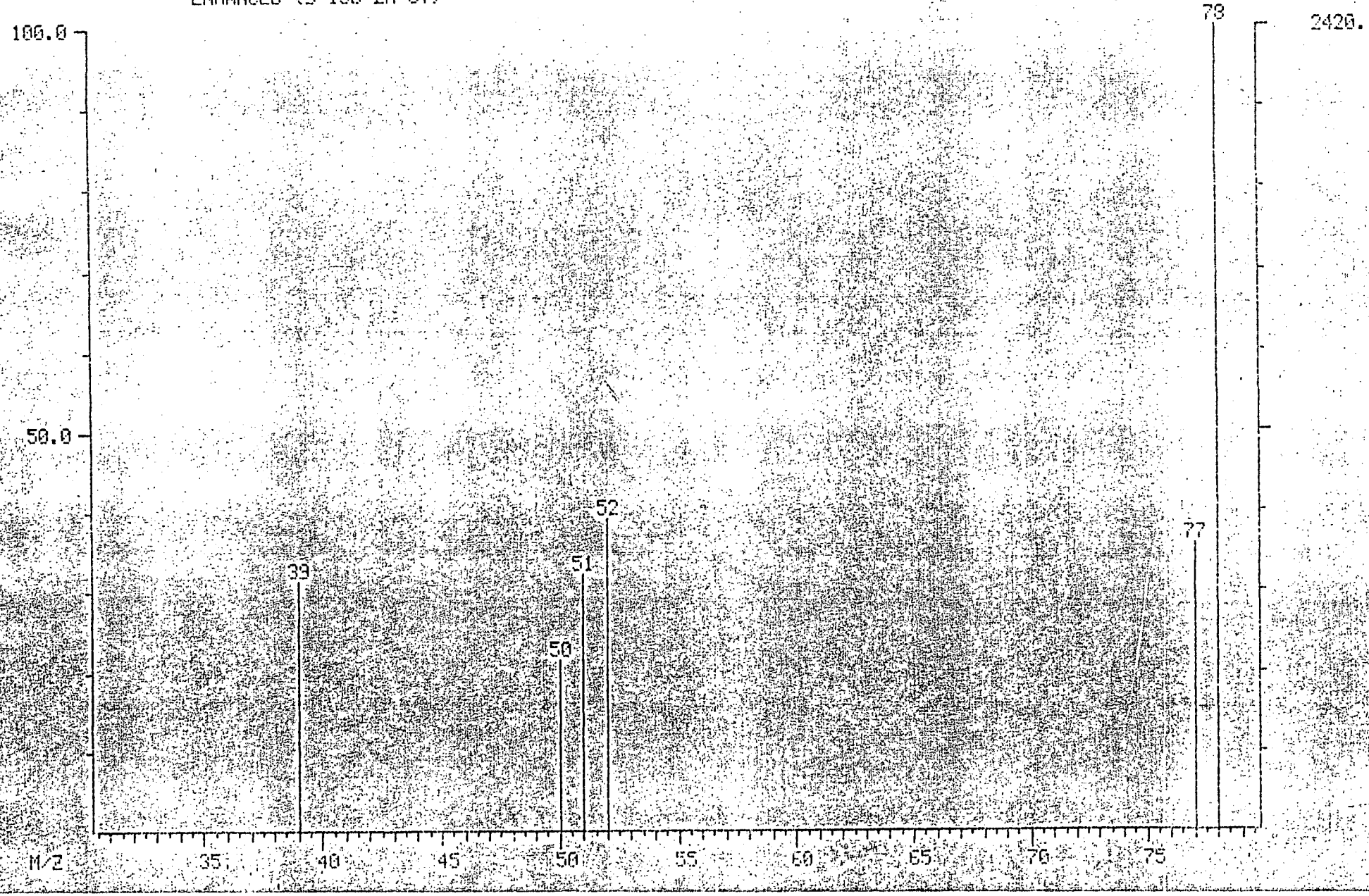


MID MASS SPECTRUM
10/18/85 14:56:00 + 17:40
SAMPLE: 12237-2 DUPLICATE
CONDS.: 5 ML INJ
GC TEMP: 162 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: 12237V2D #563
CALI: 12237V2D #2

BASE M/Z: 78
RIC: 6312.

BENZENE

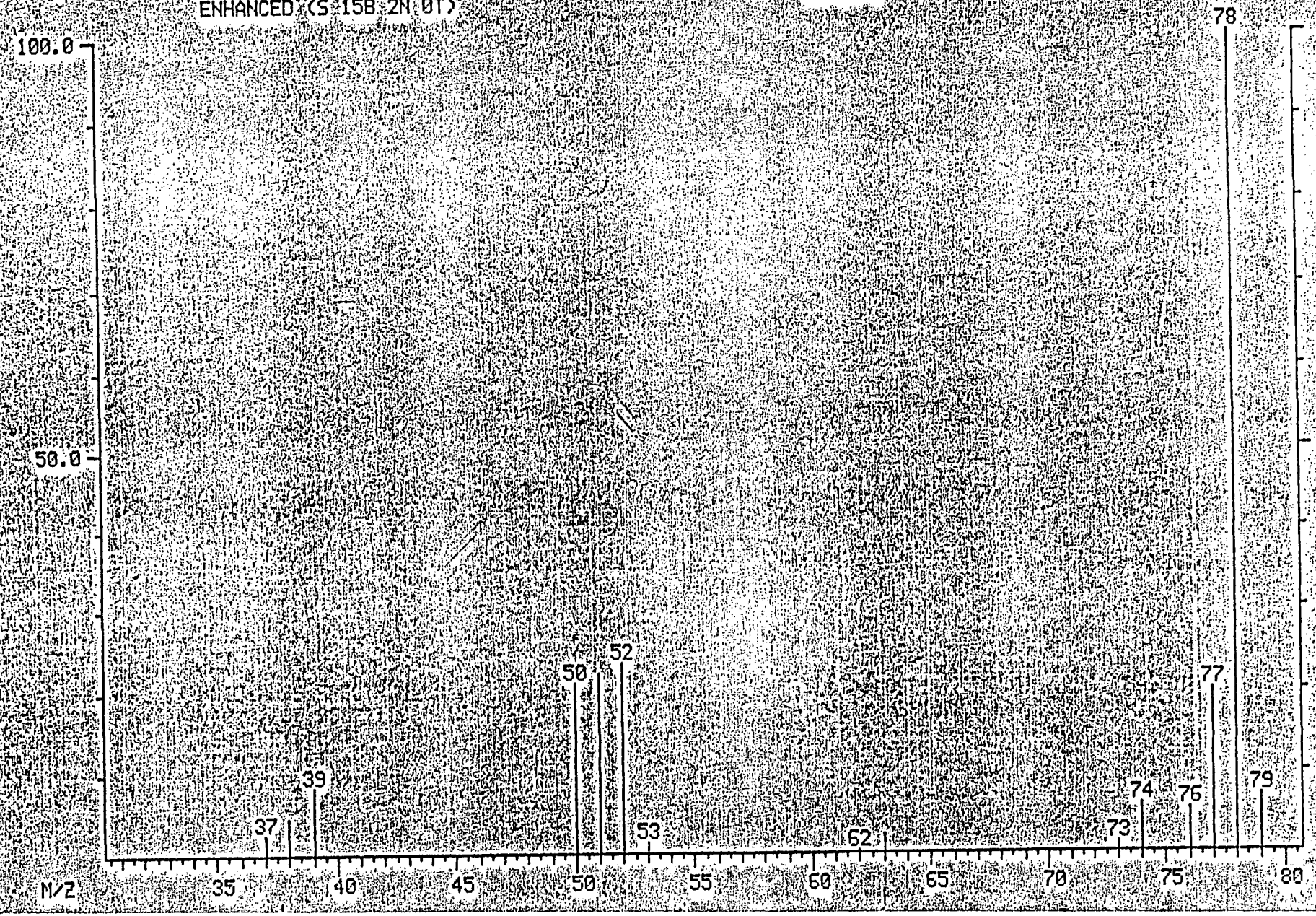


MID MASS SPECTRUM
10/07/85 23:21:00 + 15:43
SAMPLE:
CONDS.: EI
GC TEMP: 147 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: VSB107P5 #501
CALI: VSB107P5 #2

BASE M/Z: 78
RIC: 271360.

BENZENE

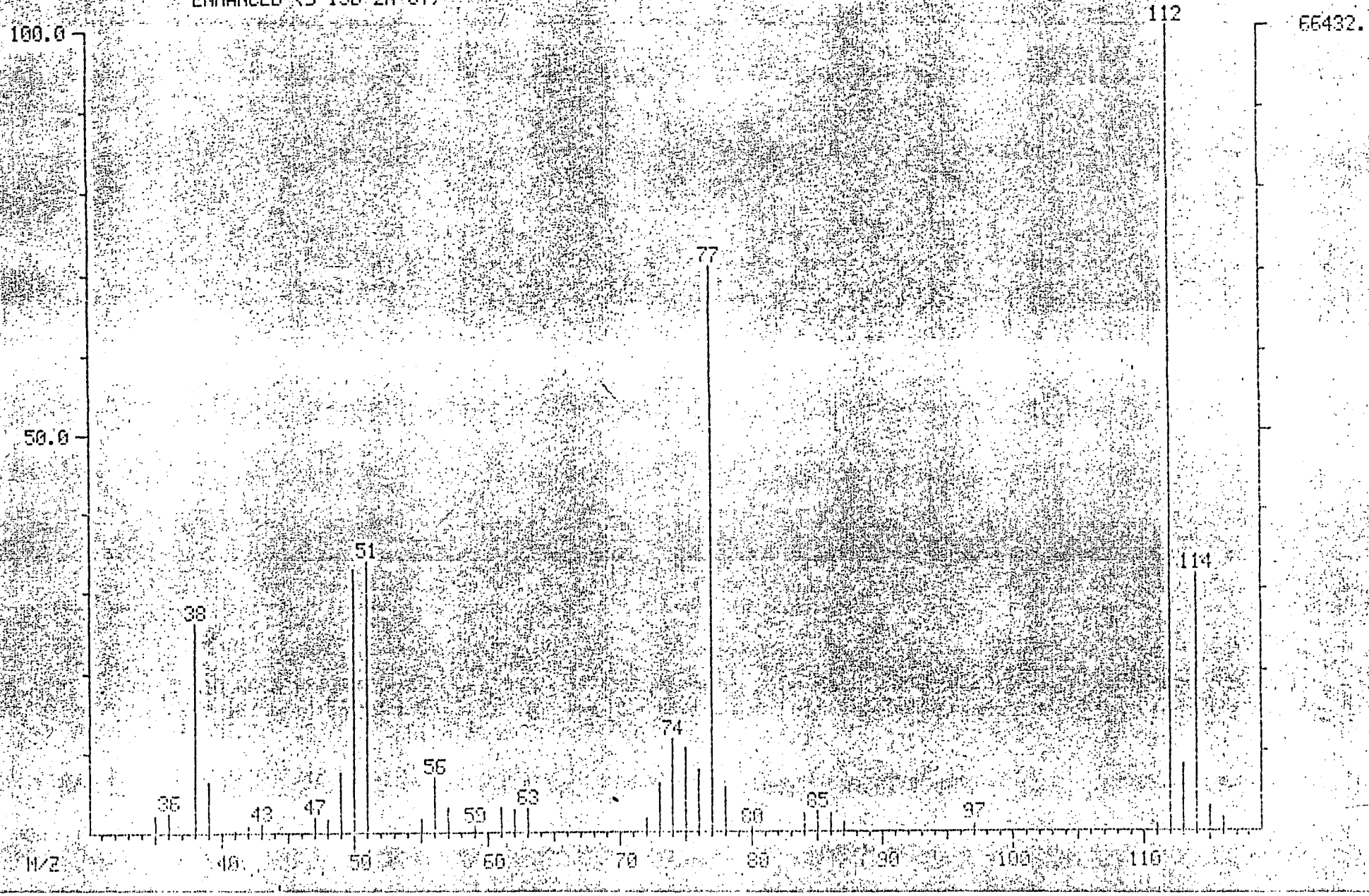


MID MASS SPECTRUM
10/18/85 14:56:00 + 24:51
SAMPLE: 12237-2 DUPLICATE
CONDS.: 5 ML INJ
GC TEMP: 219 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: 12237V2D #792
CALI: 12237V2D #2

BASE M/Z: 112
RIC: 271872.

CHLOROBENZENE

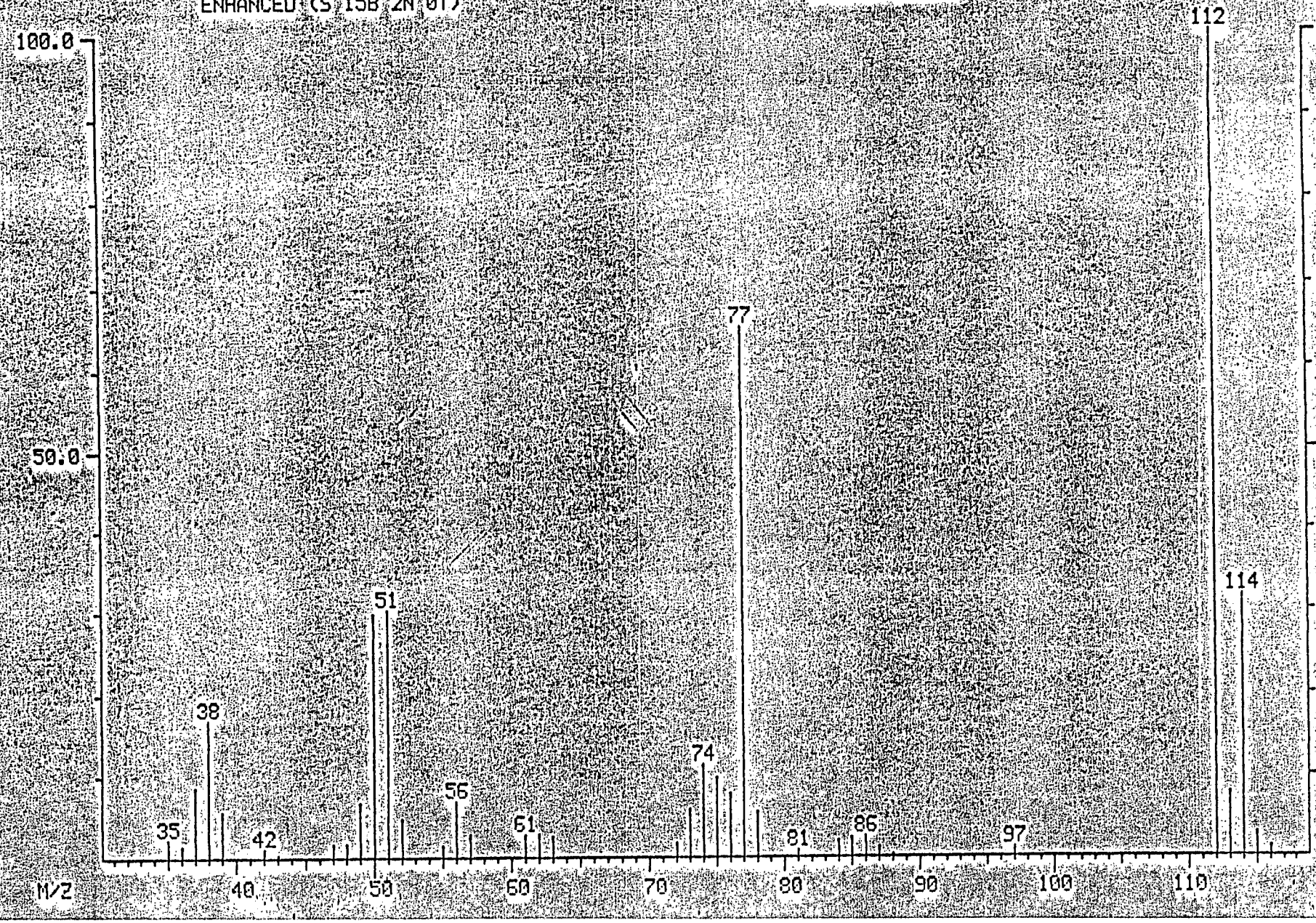


MID MASS SPECTRUM
10/07/85 23:21:00 + 22:57
SAMPLE:
CONDS.: EI
GC TEMP: 204 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: VSB107P5 #731
CALI: VSB107P5 #2

BASE M/Z: 112
RIC: 330752.

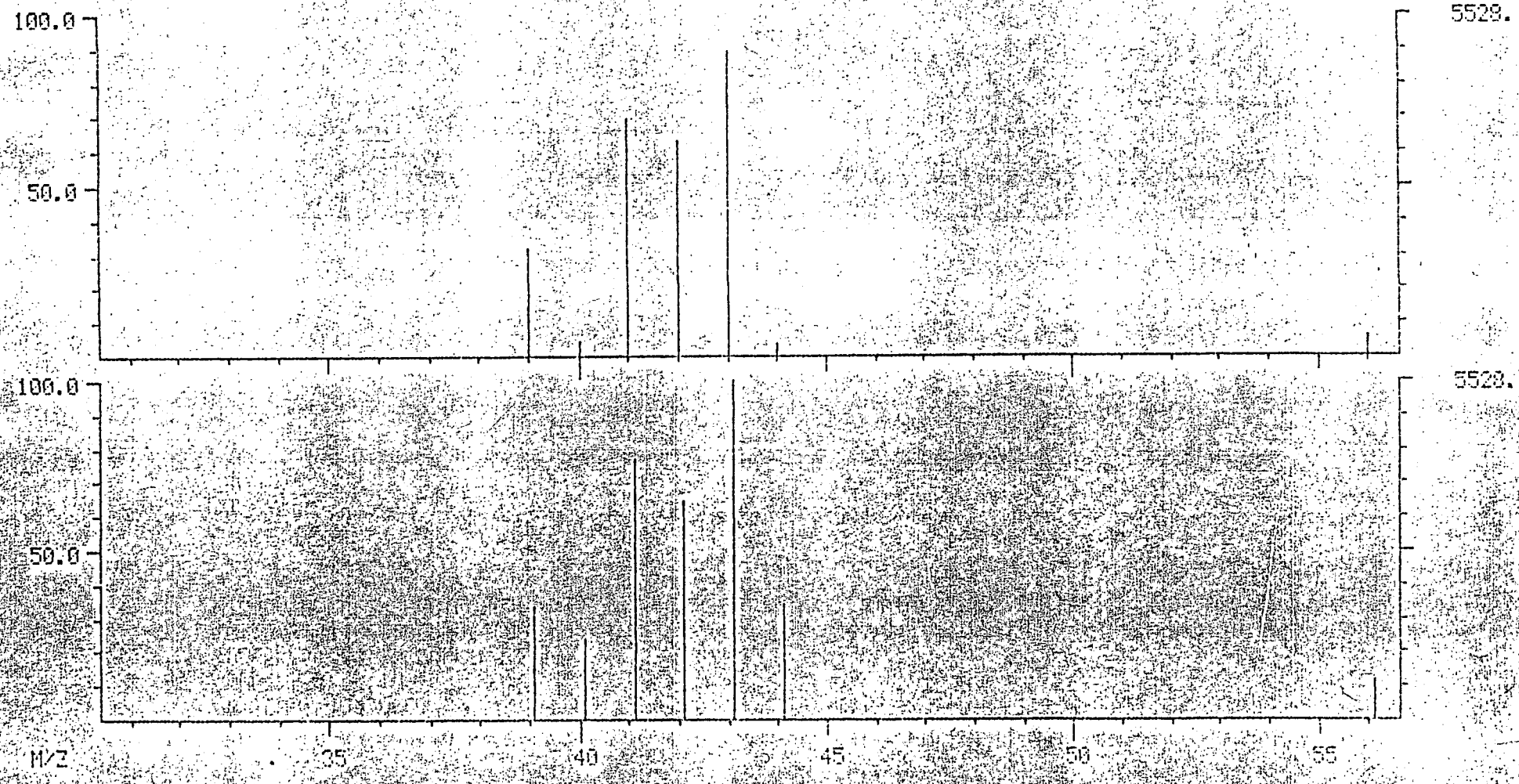
CHLOROBENZENE



MID DUAL MASS SPECTRUM
10/18/85 14:56:00 + 14:09
SAMPLE: 12237-2 DUPLICATE
CONDS.: 5 ML INJ
GC TEMP: 134 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: 12237V2D #451
CALI: 12237V2D #2

BASE M/Z: 43/ 43
RIC: 14793./ 19071.

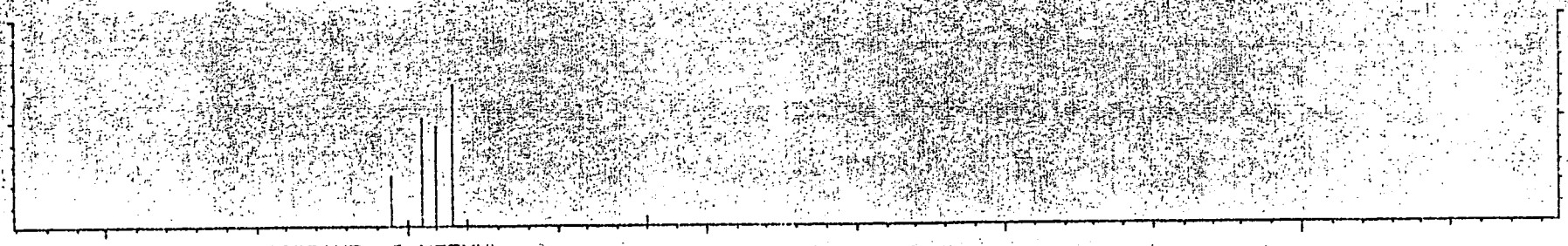


93

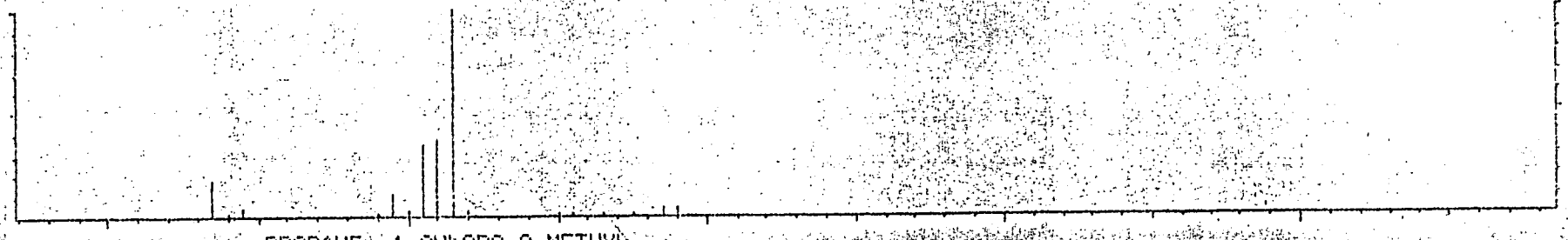
MID LIBRARY SEARCH
10/18/85 14:55:00 + 14:09
SAMPLE: 12237-2 DUPLICATE
CONDS.: 5 ML INJ
ENHANCED (S,15B 2N 0T)

DATA: 12237V2D # 451 BASE M/Z: 43
CALI: 12237V2D # 2 RIC: 14783.

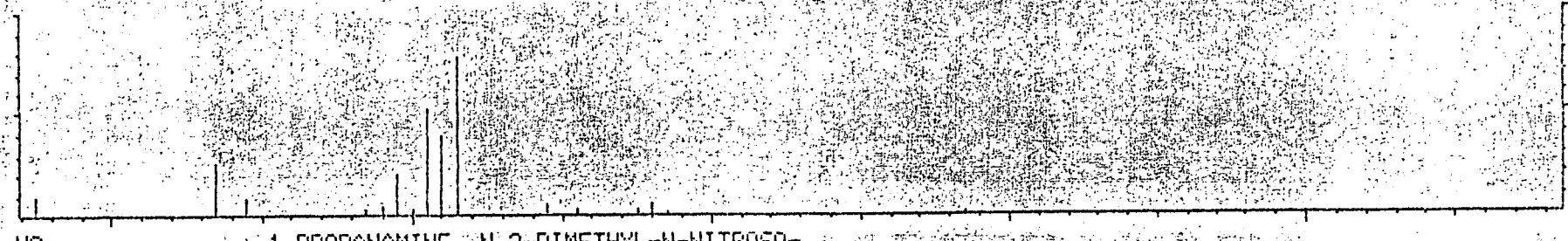
1481
SAMPLE



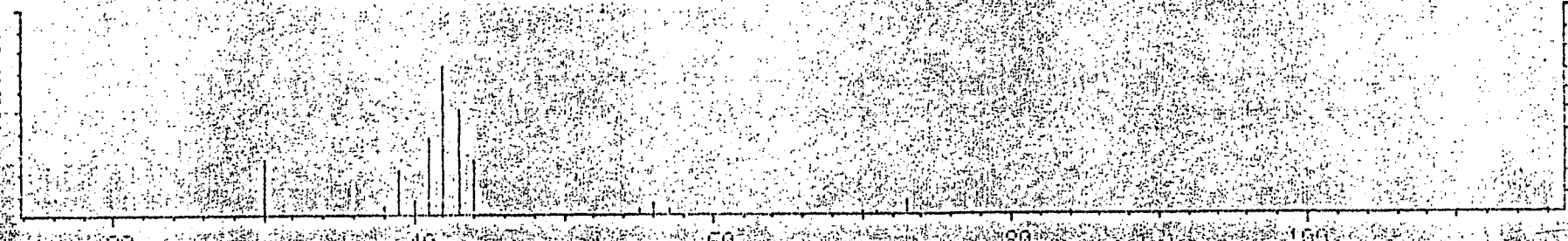
C4.H10 PROPANE, 2-METHYL-
1481
M WT 58
B PK 43
RANK 1
94
FIT 828



C4.H9.CL PROPANE, 1-CHLORO-2-METHYL-
1481
M WT 92
B PK 43
RANK 2
834
FIT 794



C5.H12.O.N2 1-PROPANAMINE, N,2-DIMETHYL-N-NITROSO-
1481
M WT 116
B PK 42
RANK 3
2558
FIT 742



M/Z 20 40 60 80 100

MID Library Search
10/18/85 14:56:00 + 14:09
Sample: 12237-2 DUPLICATE
Conds: 5 ML INJ
Enhanced (S 15B 2N OT)

Data: 12237V2D # 451
Cali: 12237V2D # 2

Base m/z 43
RIC: 14783

Rank	In.	Name
1	94	PROPANE, 2-METHYL-
2	834	PROPANE, 1-CHLORO-2-METHYL-
3	2558	1-PROPANAMINE, N,2-DIMETHYL-N-NITROSO-
4	529	1-PENTENE, 4-METHYL-
5	29	AZIRIDINE

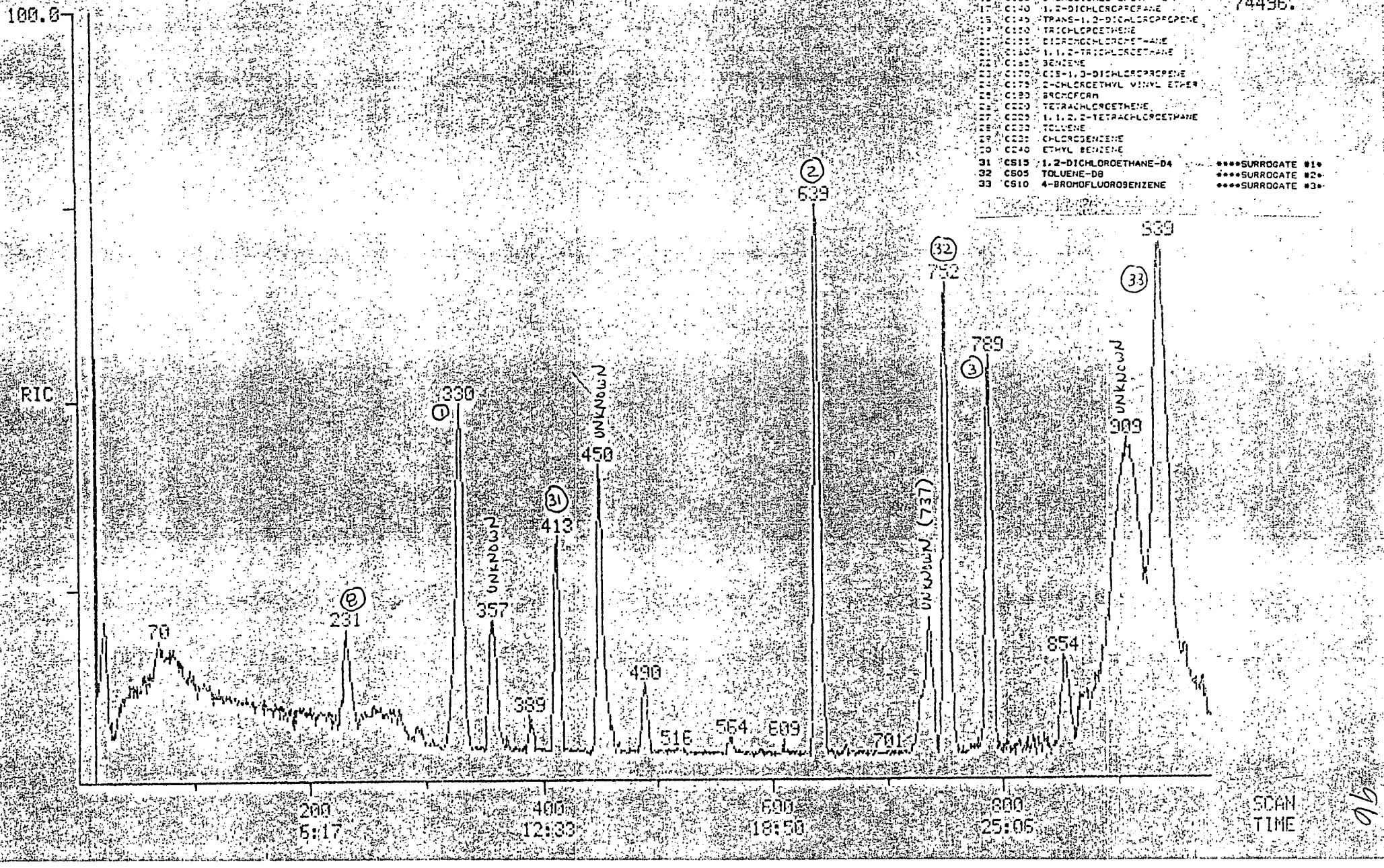
Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C4 H10	58	43	804	828	931
2	C4 H9 CL	92	43	783	794	980
3	C5 H12 O N2	116	42	742	742	916
4	C6 H12	84	43	697	697	903
5	C2 H5 N	43	42	667	687	840

MIDRIC
10/18/85 14:09:00
SAMPLE: 12237-3
CONDS.: 5 ML INJ
RANGE: G 1,1100 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 31

DATA: 12237V3 #1
CALI: 12237V2 #2

SCANS 1 TO 980

NO	NAME		
1	C001	BROMOCHLOROETHANE	****INTERNAL STANDARD #1**
2	C010	1,4-DIFLUOROBENZENE	****INTERNAL STANDARD #2**
3	C120	CHLOROBENZENE-D5	****INTERNAL STANDARD #3**
4	C010	CHLOROMETHANE	
5	C015	BROMOMETHANE	
6	C020	VINYL CHLORIDE	
7	C025	CHLOROETHANE	
8	C030	METHYLENE CHLORIDE	
9	C045	1,1-DICHLOROETHENE	
10	C050	1,1-DICHLOROETHANE	
11	C055	TRANS-1,2-DICHLOROETHENE	
12	C060	CHLOROFORM	
13	C065	1,2-DICHLOROETHANE	
14	C115	1,1,1-TRICHLOROETHANE	
15	C120	CARBON TETRACHLORIDE	
16	C125	BROMODICHLOROMETHANE	
17	C140	1,2-DICHLOROPROPANE	
18	C145	TRANS-1,3-DICHLOROPROPENE	
19	C150	TRICHLOROETHENE	
20	C155	DIBROMOCHLOROMETHANE	
21	C160	1,1,2-TRICHLOROETHANE	
22	C165	BENZENE	
23	C170	CIS-1,3-DICHLOROPROPENE	
24	C175	2-CHLOROETHYL VINYL ETHER	
25	C180	BROMOFORM	
26	C200	TETRACHLOROETHENE	
27	C205	1,1,2,2-TETRACHLOROETHANE	
28	C230	TOLUENE	
29	C235	CHLOROBENZENE	
30	C240	ETHYL BENZENE	
31	CS15	1,2-DICHLOROETHANE-D4	****SURROGATE #1*
32	CS05	TOLUENE-D8	****SURROGATE #2*
33	CS10	4-BROMOFLUOROBENZENE	****SURROGATE #3*



90

Quantitation Report File: 12237V3

Data: 12237V3.TI
10/18/85 14:09:00
Sample: 12237-3
Submitted by: HSMA Analyst: PAT

AMOUNT=AREA * REF.AMNT/(REF.AREA)* RESP.FACT)
Resp. fac. from Library Entry

NO	NAME		
1	CI01	BROMOCHLOROMETHANE	****INTERNAL STANDARD #1****
2	CI10	1,4-DIFLUOROBENZENE	****INTERNAL STANDARD #2****
3	CI20	CHLOROBENZENE-D5	****INTERNAL STANDARD #3****
4	C010	CHLOROMETHANE	
5	C015	BROMOMETHANE	
6	C020	VINYL CHLORIDE	
7	C025	CHLOROETHANE	
8	C030	METHYLENE CHLORIDE	
9	C045	1,1-DICHLOROETHENE	
10	C050	1,1-DICHLOROETHANE	
11	C055	TRANS-1,2-DICHLOROETHENE	
12	C060	CHLOROFORM	
13	C065	1,2-DICHLOROETHANE	
14	C115	1,1,1-TRICHLOROETHANE	
15	C120	CARBON TETRACHLORIDE	
16	C130	BROMODICHLOROMETHANE	
17	C140	1,2-DICHLOROPROPANE	
18	C145	TRANS-1,3-DICHLOROPROPENE	
19	C150	TRICHLOROETHENE	
20	C155	DIBROMOCHLOROMETHANE	
21	C160	1,1,2-TRICHLOROETHANE	
22	C165	BENZENE	
23	C170	CIS-1,3-DICHLOROPROPENE	
24	C175	2-CHLOROETHYL VINYL ETHER	
25	C180	BROMOFORM	
26	C220	TETRACHLOROETHENE	
27	C225	1,1,2,2-TETRACHLOROETHANE	
28	C230	TOLUENE	
29	C235	CHLOROBENZENE	
30	C240	ETHYL BENZENE	
31	CS15	1,2-DICHLOROETHANE-D4	****SURROGATE #1****
32	CS05	TOLUENE-D8	****SURROGATE #2****
33	CS10	4-BROMOFLUOROBENZENE	****SURROGATE #3****

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot	
1	128	329	10:19	1	1.000	A BB	22552.	50.000 UG/L	15.00	
2	114	639	20:03	2	1.000	A BB	99040.	50.000 UG/L	15.00	
3	117	788	24:44	3	1.000	A BB	61672.	50.000 UG/L	15.00	
4	NOT FOUND									
5	NOT FOUND									
6	NOT FOUND									
7	NOT FOUND									
8	84	232	7:17	1	0.705	A BB	13256.	12.491 UG/L	3.75	yes LRC
9	NOT FOUND									
10	NOT FOUND									
11	NOT FOUND									
12	NOT FOUND									
13	NOT FOUND									
14	NOT FOUND									
15	NOT FOUND									
16	NOT FOUND									
17	NOT FOUND									
18	NOT FOUND									
19	NOT FOUND									
20	NOT FOUND									
21	NOT FOUND									
~~22~~	~~78~~	~~563~~	~~17:40~~	~~2~~	~~0.881~~	~~A BB~~	~~16723.~~	~~2.194 UG/L~~	~~0.94~~	~~no LRC~~
23	NOT FOUND									
24	NOT FOUND									
25	NOT FOUND									
26	NOT FOUND									
27	NOT FOUND									
28	NOT FOUND									
~~29~~	~~112~~	~~772~~	~~24:51~~	~~3~~	~~1.000~~	~~A BB~~	~~7184.~~	~~1.687 UG/L~~	~~1.79~~	~~no LRC~~
~~30~~	~~166~~	~~881~~	~~26:48~~	~~3~~	~~1.081~~	~~A BB~~	~~11172.~~	~~13.188 UG/L~~	~~4.54~~	~~no LRC~~
31	65	413	12:58	1	1.255	A BB	36200.	40.173 UG/L	12.05	
32	98	752	23:36	3	0.954	A BB	90136.	51.946 UG/L	15.58	
33	95	936	29:22	3	1.188	A BB	62528.	53.863 UG/L	16.16	

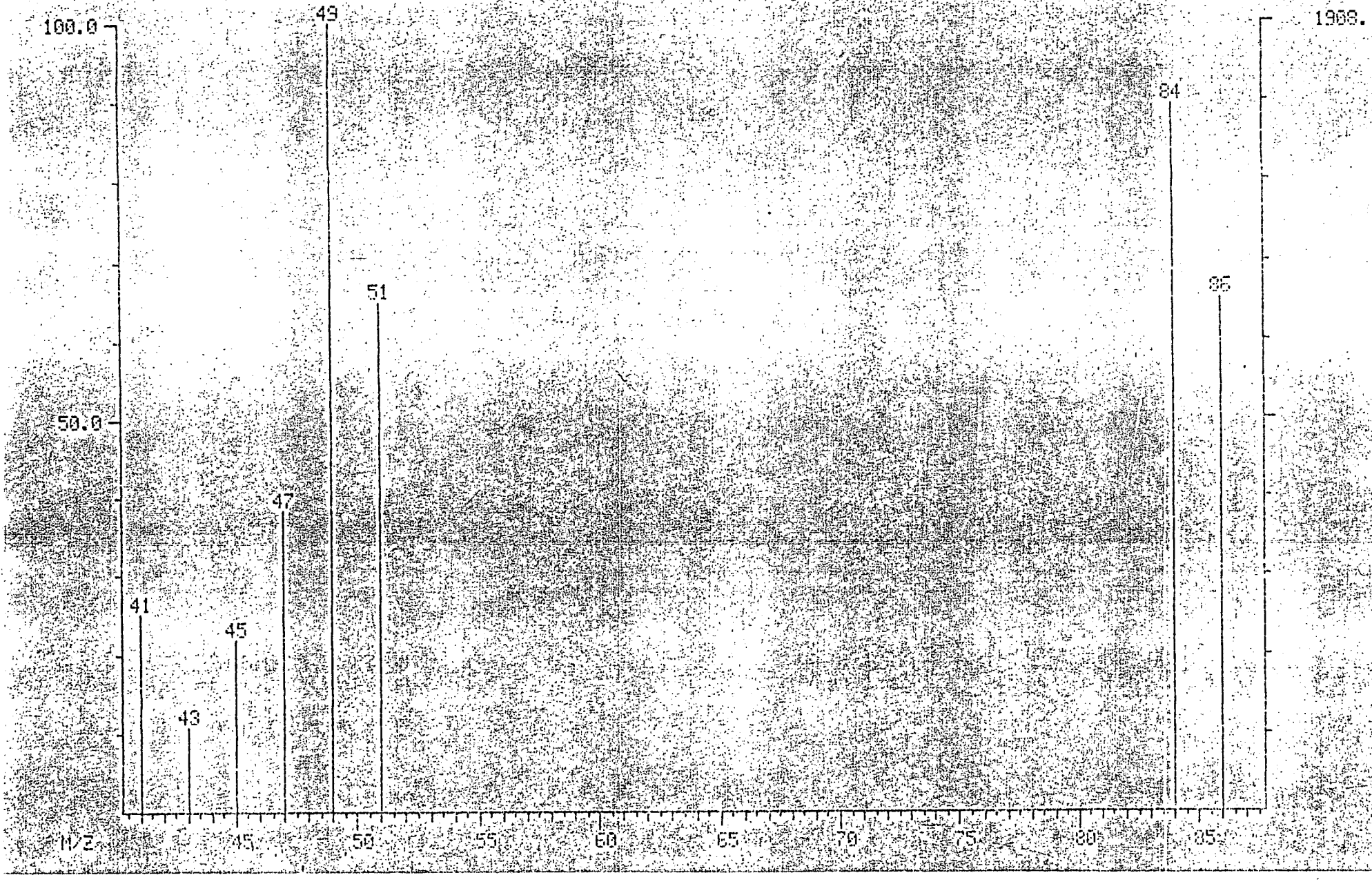
No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	10:21	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	20:03	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
3	24:44	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
4	1:59		0.191			200.00		3.209	
5	3:12		0.309			200.00		2.787	
6	4:07		0.397			200.00		3.278	
7	5:05		0.491			200.00		2.044	
8	7:17	1.00	0.703	1.00	12.49	200.00	0.147	2.353	0.06
9	9:59		0.964			200.00		2.071	
10	11:10		1.079			200.00		4.316	
11	11:50		1.142			200.00		2.050	
12	12:22		1.194			200.00		4.025	
13	13:03		1.261			200.00		1.773	
14	14:18		0.714			200.00		0.501	
15	14:41		0.732			200.00		0.472	
16	15:07		0.754			200.00		0.534	
17	16:25		0.818			200.00		0.470	
18	16:38		0.829			200.00		0.213	
19	17:10		0.856			200.00		0.434	
20	17:44		0.884			200.00		0.258	
21	17:49		0.889			200.00		0.205	
22	17:40	1.00	0.881	1.00	3.13	200.00	0.017	1.083	0.02
23	17:49		0.889			200.00		0.451	
24	18:51		0.941			200.00		0.047	
25	20:16		1.011			200.00		0.095	
26	22:30		0.910			200.00		0.576	
27	22:26		0.907			200.00		0.375	
28	23:45		0.961			200.00		0.938	
29	24:51	1.00	1.005	1.00	6.64	200.00	0.037	1.112	0.03
30	26:50	1.00	1.085	1.00	15.14	200.00	0.045	0.599	0.08
31	12:59	1.00	1.255	1.00	40.17	50.00	1.605	1.998	0.80
32	23:34	1.00	0.953	1.00	51.95	50.00	1.462	1.407	1.04
33	29:20	1.00	1.187	1.00	53.86	50.00	1.014	0.941	1.08

MID MASS SPECTRUM
10/18/85 14:09:00 + 7:15
SAMPLE: 12237-3
CONDS.: 5 ML INJ
GC TEMP: 78 DEG. C
ENHANCED (S.15B 2N 0T)

DATA: 12237V3 #231
CALI: 12237V3 #2

BASE M/Z: 49
RIC: 7920.

METHYLENE CHLORIDE



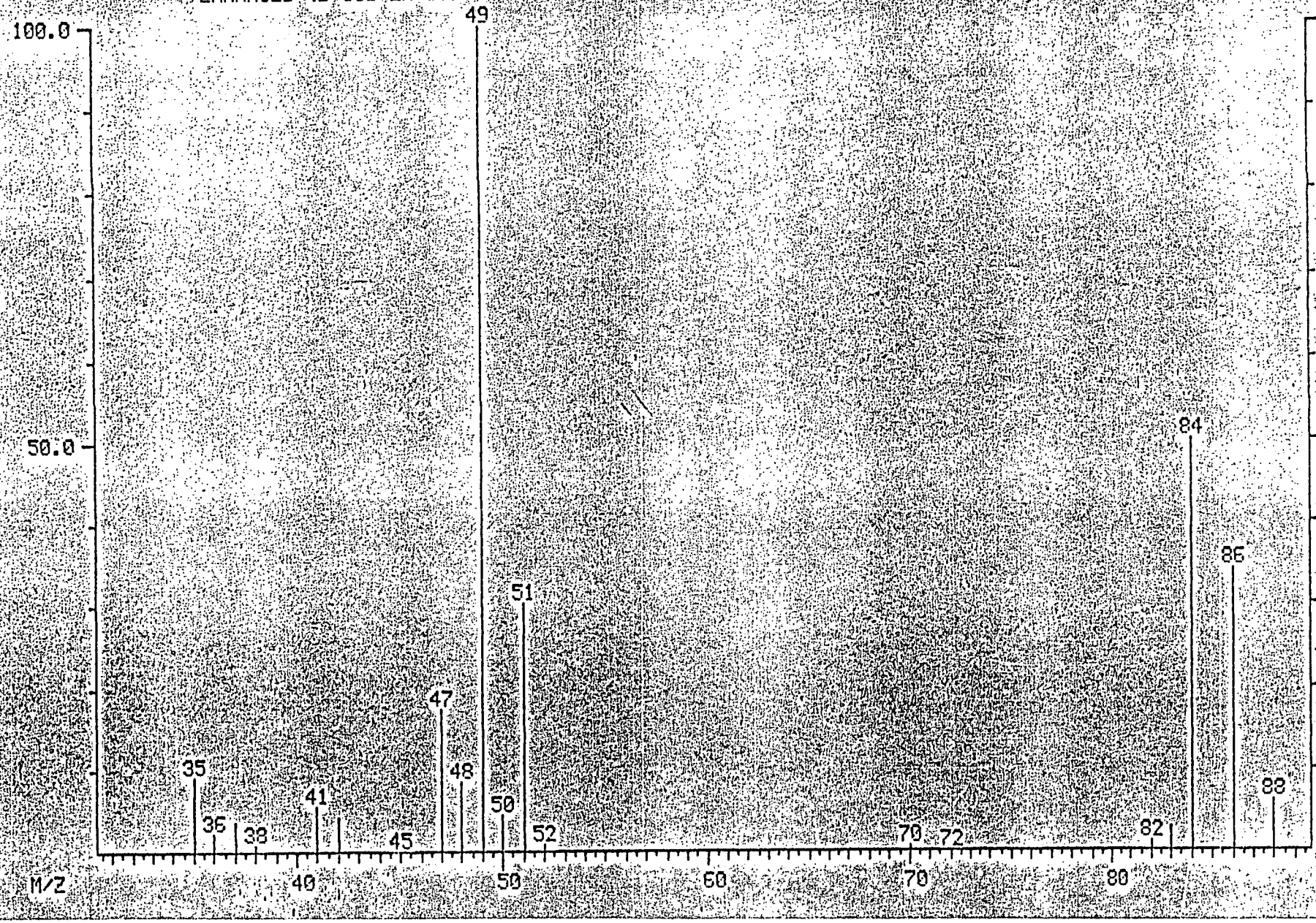
001

MID MASS SPECTRUM
10/07/85 23:21:00 + 5:07
SAMPLE: Vol. Std.
CONDS.: EI
GC TEMP: 61 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: VSB107P5 #153
CALI: VSB107P5 #2

BASE M/Z: 49
RIC: 450560.

METHYLENE CHLORIDE

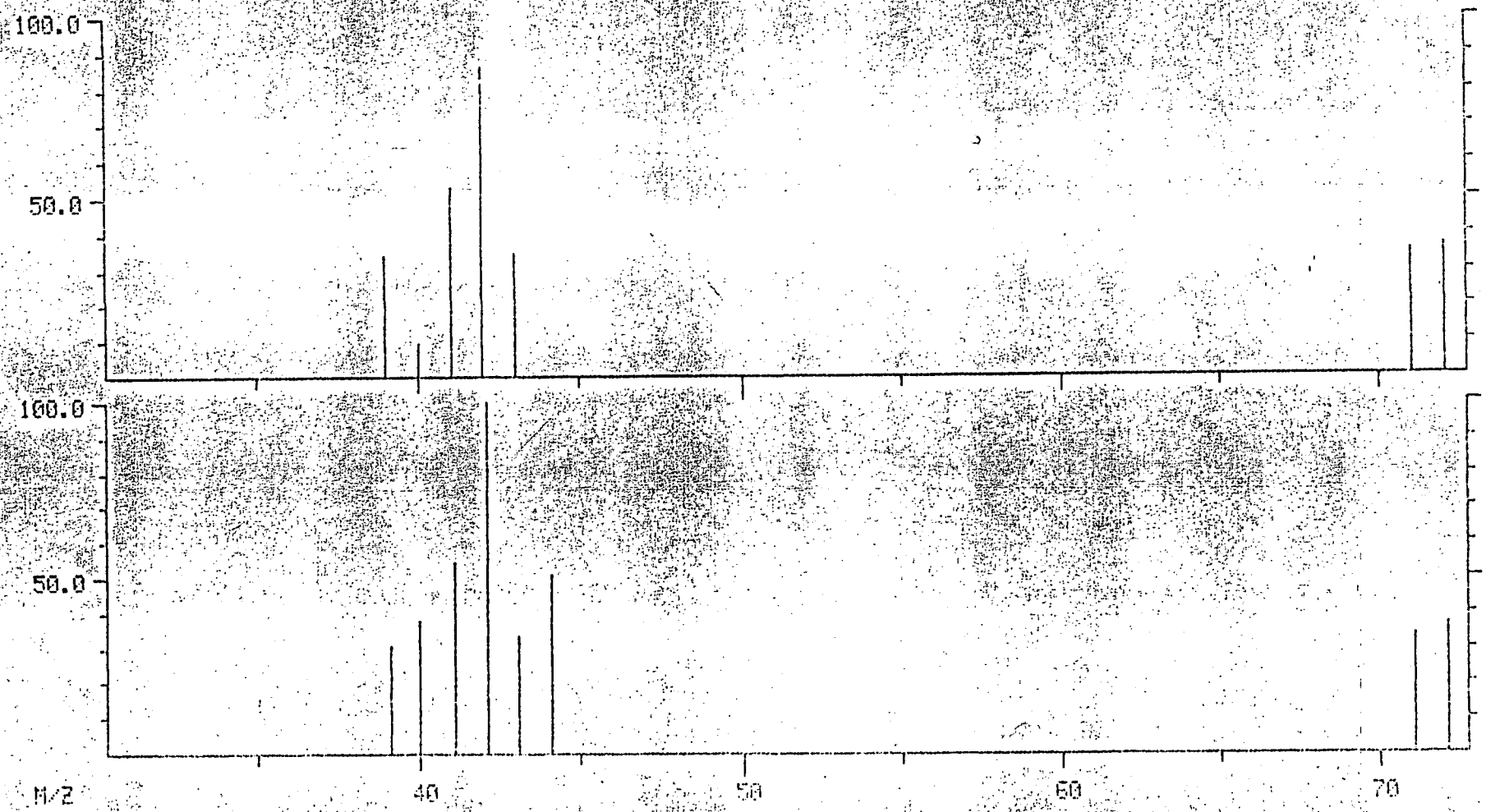


101

MID DUAL MASS SPECTRUM
10/18/85 14:09:00 + 11:12
SAMPLE: 12237-3
CONDS.: 5 ML INJ
GC TEMP: 110 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: 12237V3 #357
CALI: 12237V3 #2

BASE M/Z: 42/ 42
RIC: 11839./ 15535.

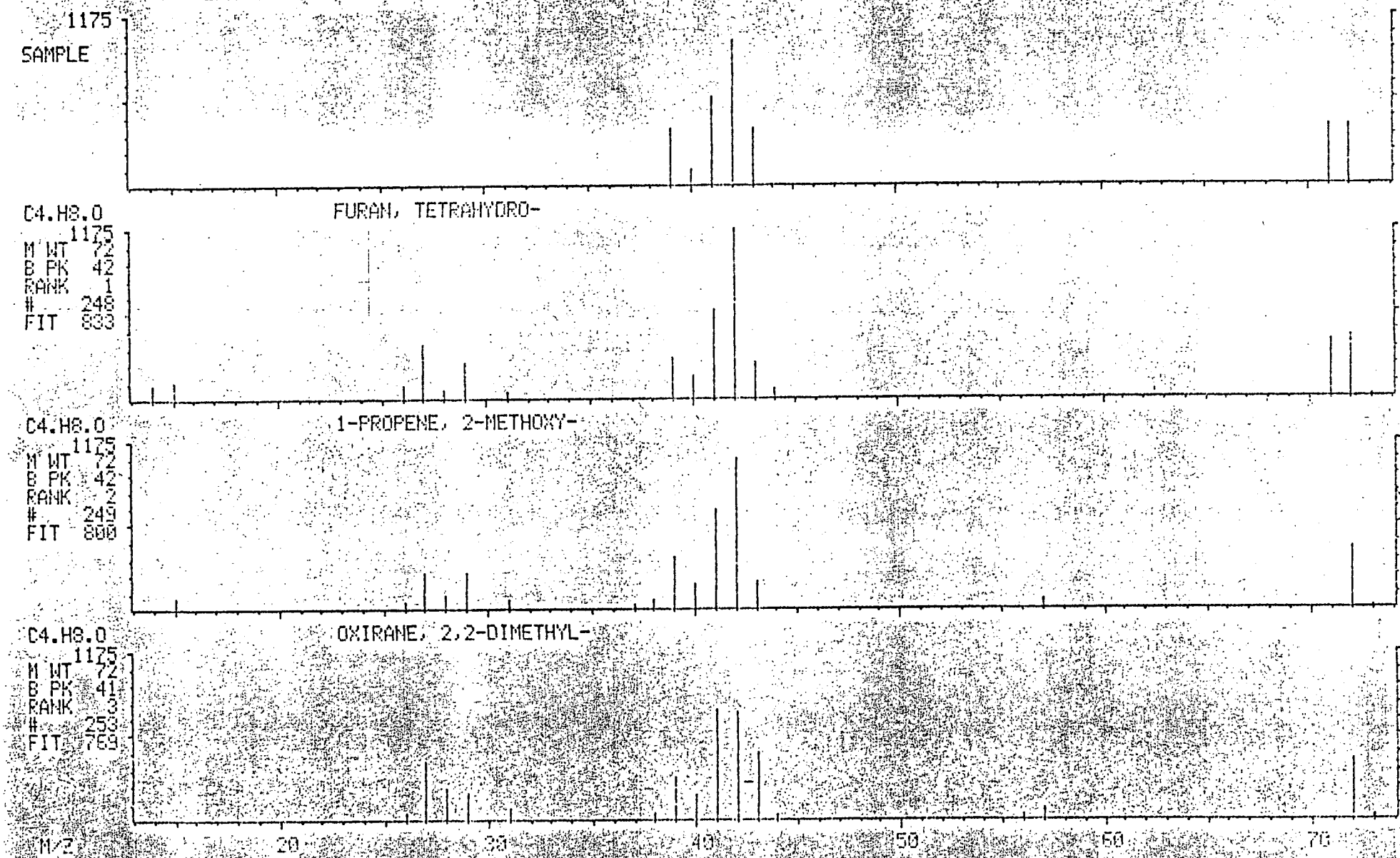


102

MID LIBRARY SEARCH
10/18/85 14:09:00 + 11:12
SAMPLE: 12237-3
CONDS.: 5 ML INJ
ENHANCED (5 15B 2N 0T)

DATA: 12237V3 # 357
CALI: 12237V3 # 2

BASE M/Z: 42
RIC: 11839.



163

NID Library Search
10/18/85 14:09:00 + 11:12
Sample: 12237-3
Conds.: 5 ML INJ
Enhanced (S 15B 2N OT)

Data: 12237V3 # 357
Cali: 12237V3 # 2

Base m/z: 42
RIC: 11539.

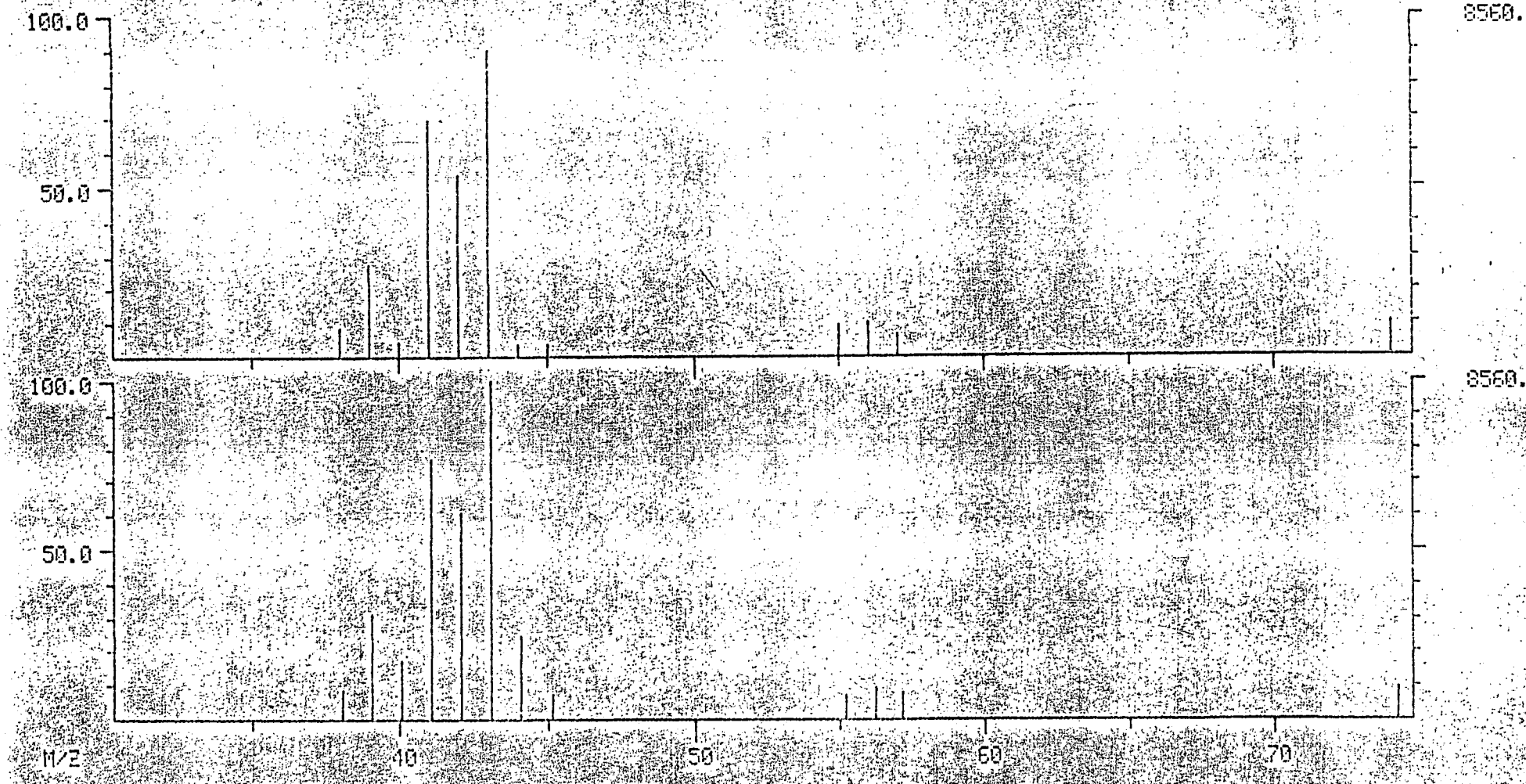
Rank	In.	Name
1	248	FURAN, TETRAHYDRO-
2	249	1-PROPENE, 2-METHOXY-
3	253	OXIRANE, 2,2-DIMETHYL-
4	27	CYCLOPROPANE
5	246	OXIRANE, ETHYL-

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C4.H8.O	72	42	833	833	991
2	C4.H8.O	72	42	659	800	811
3	C4.H8.O	72	41	633	769	812
4	C3.H6	42	42	484	757	569
5	C4.H8.O	72	42	757	757	970

MID DUAL MASS SPECTRUM
10/18/85 14:09:00 + 14:07
SAMPLE: 12237-3
CONDS.: 5 ML INJ
GC TEMP: 133 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: 12237V3 #450
CALI: 12237V3 #2

BASE M/Z: 43/ 43
RIC: 25471./ 30751.

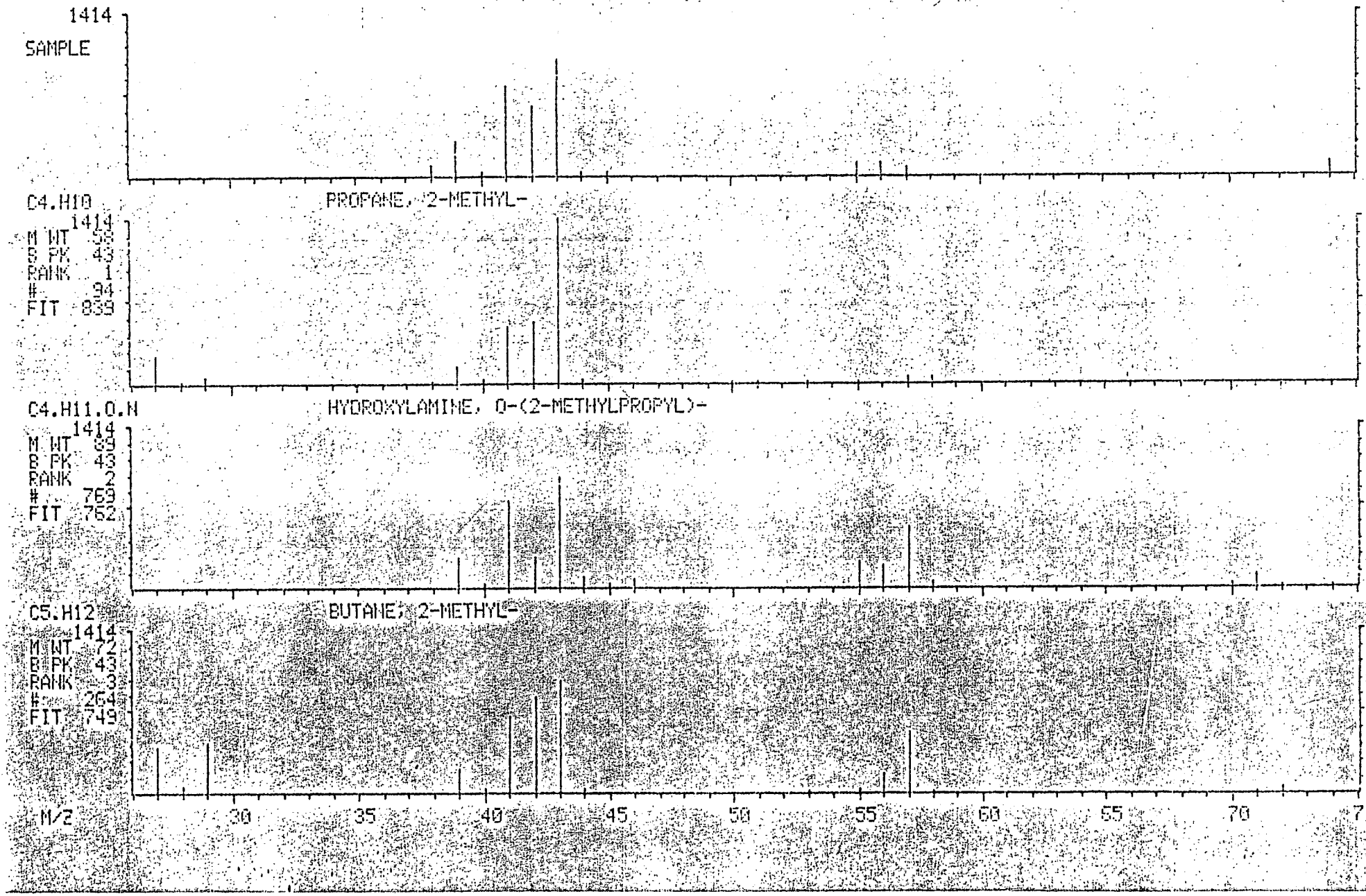


105

MID LIBRARY SEARCH
10/18/85 14:09:00 + 14:07
SAMPLE: 12237-3
CONDS.: 5 ML INJ
ENHANCED (S 15B 2N 0T)

DATA: 12237V3 # 450
CALI: 12237V3 # 2

BASE M/Z: 43
RIC: 25471.



100

MID Library Search
10/18/85 14:09:00 + 14:07
Sample: 12237-3
Conds.: 5 ML INJ
Enhanced (S 15B 2N OT)

Data: 12237V3 # 450
Cali: 12237V3 # 2

Base m/z: 43
RIC: 25471.

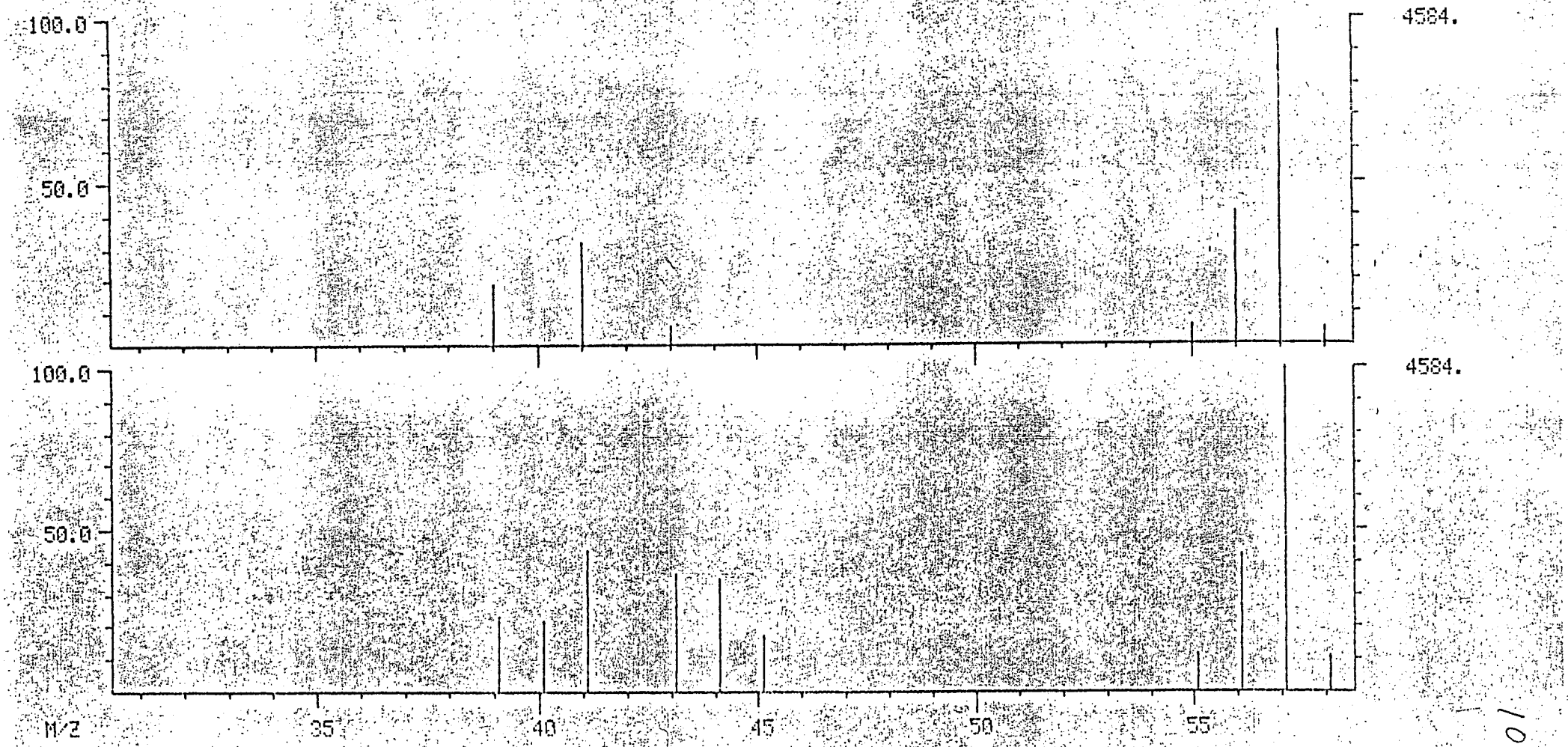
Rank	In.	Name
1	94	PROPANE, 2-METHYL-
2	769	HYDROXYLAMINE, O-(2-METHYLPROPYL)-
3	264	BUTANE, 2-METHYL-
4	1522	HYDROXYLAMINE, O-PENTYL-
5	2340	2(3H)-FURANONE, DIHYDRO-4,5-DIMETHYL-

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C4.H10	58	43	744	839	829
2	C4.H11.O.N	89	43	742	762	840
3	C5.H12	72	43	677	749	821
4	C5.H13.O.N	103	43	693	745	848
5	C6.H10.O2	114	42	657	737	757

MID DUAL MASS SPECTRUM
10/18/85 14:09:00 + 23:07
SAMPLE: 12237-3
CONDS.: 5 ML INJ
GC TEMP: 206 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: 12237V3 #737
CALI: 12237V3 #2

BASE M/Z: 57/ 57
RIC: 9375./ 15647.

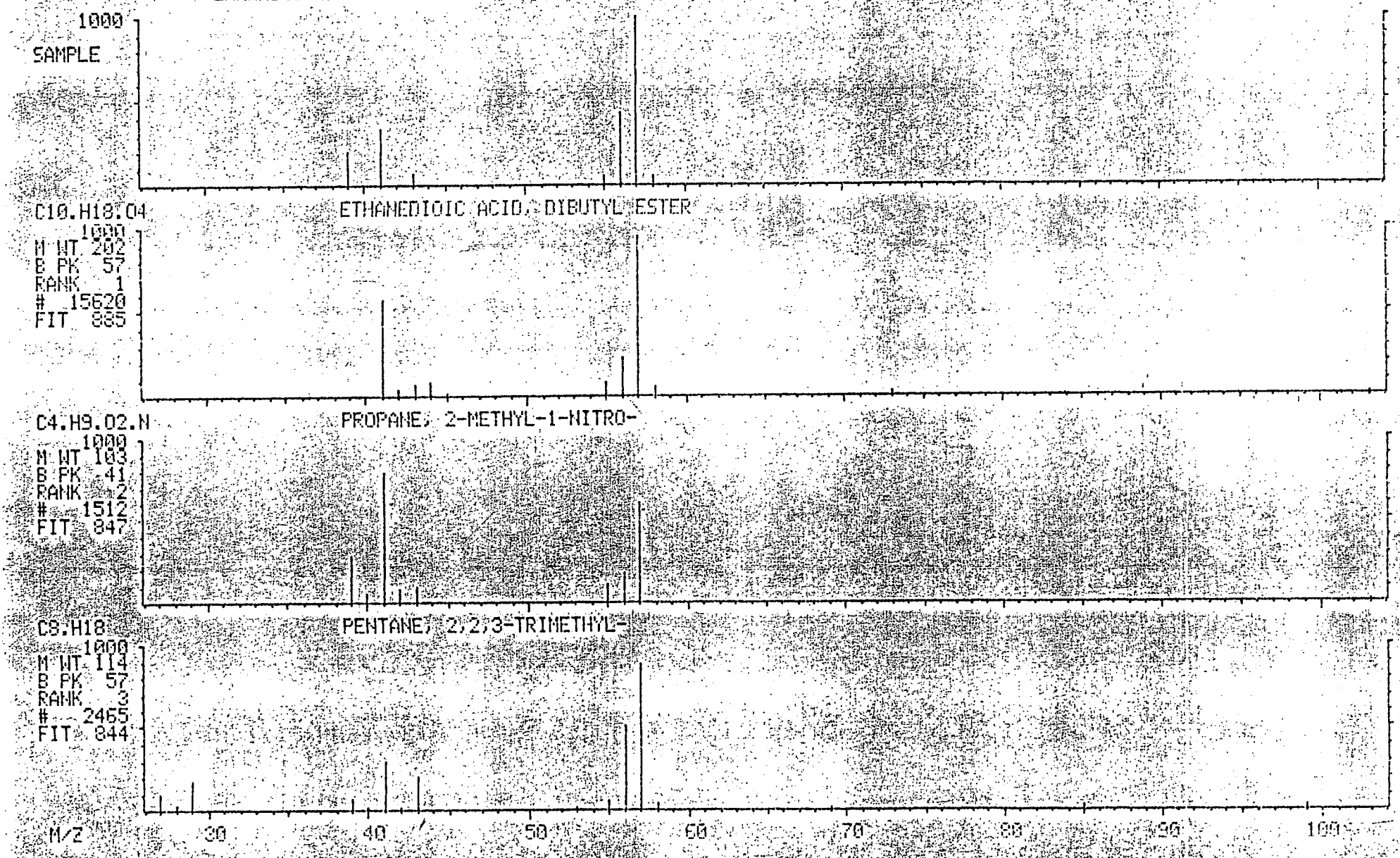


108

MID LIBRARY SEARCH
10/18/85 14:09:00 + 23:07
SAMPLE: 12237-3
CONDS.: 5 ML INJ
ENHANCED (S 15B 2N 0T)

DATA: 12237V3 # 737
CALI: 12237V3 # 2

BASE M/Z: 57
RIC: 9391.



MID Library Search
10/18/85 14:09:00 + 23:07
Sample: 12237-3
Conds.: 5 ML INJ
Enhanced (S 15B 2N OT)

Data: 12237V3 # 737
Cali: 12237V3 # 2

Base m/z: 57
RIC: 9391.

110

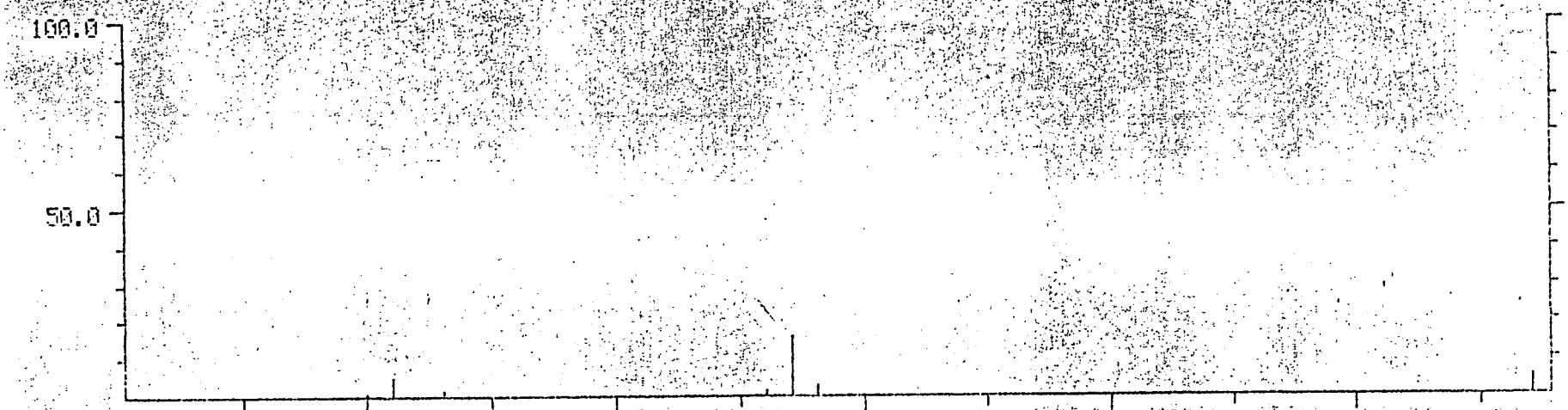
Rank	In.	Name
1	15620	ETHANEDIOIC ACID, DIBUTYL ESTER
2	1512	PROPANE, 2-METHYL-1-NITRO-
3	2465	PENTANE, 2,2,3-TRIMETHYL-
4	3957	PENTANE, 2,2,4,4-TETRAMETHYL-
5	2475	BUTANE, 2,2,3,3-TETRAMETHYL-

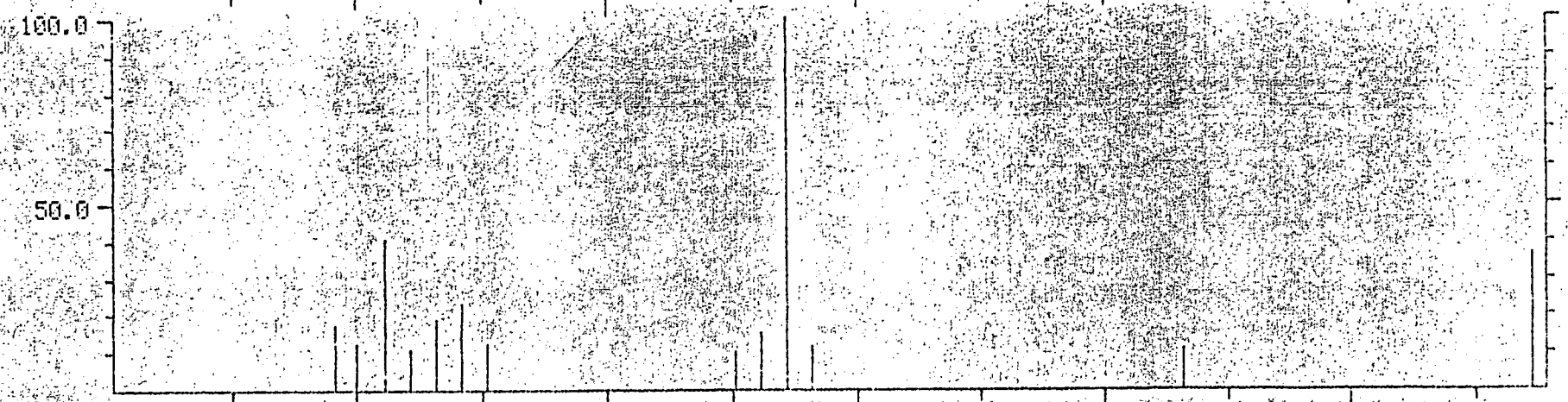
Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C10.H18.O4	202	57	825	885	904
2	C4.H9.O2.N	103	41	822	847	875
3	C8.H18	114	57	844	844	968
4	C9.H20	128	57	843	843	981
5	C8.H18	114	57	825	825	969

MID DUAL MASS SPECTRUM
10/18/85 14:09:00 + 28:29
SAMPLE: 12237-3
CONDS.: 5 ML INJ
GC TEMP: 219 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: 12237V3 #908
CALI: 12237V3 #2

BASE M/Z: 57/ 57
RIC: 3339./ 31807.

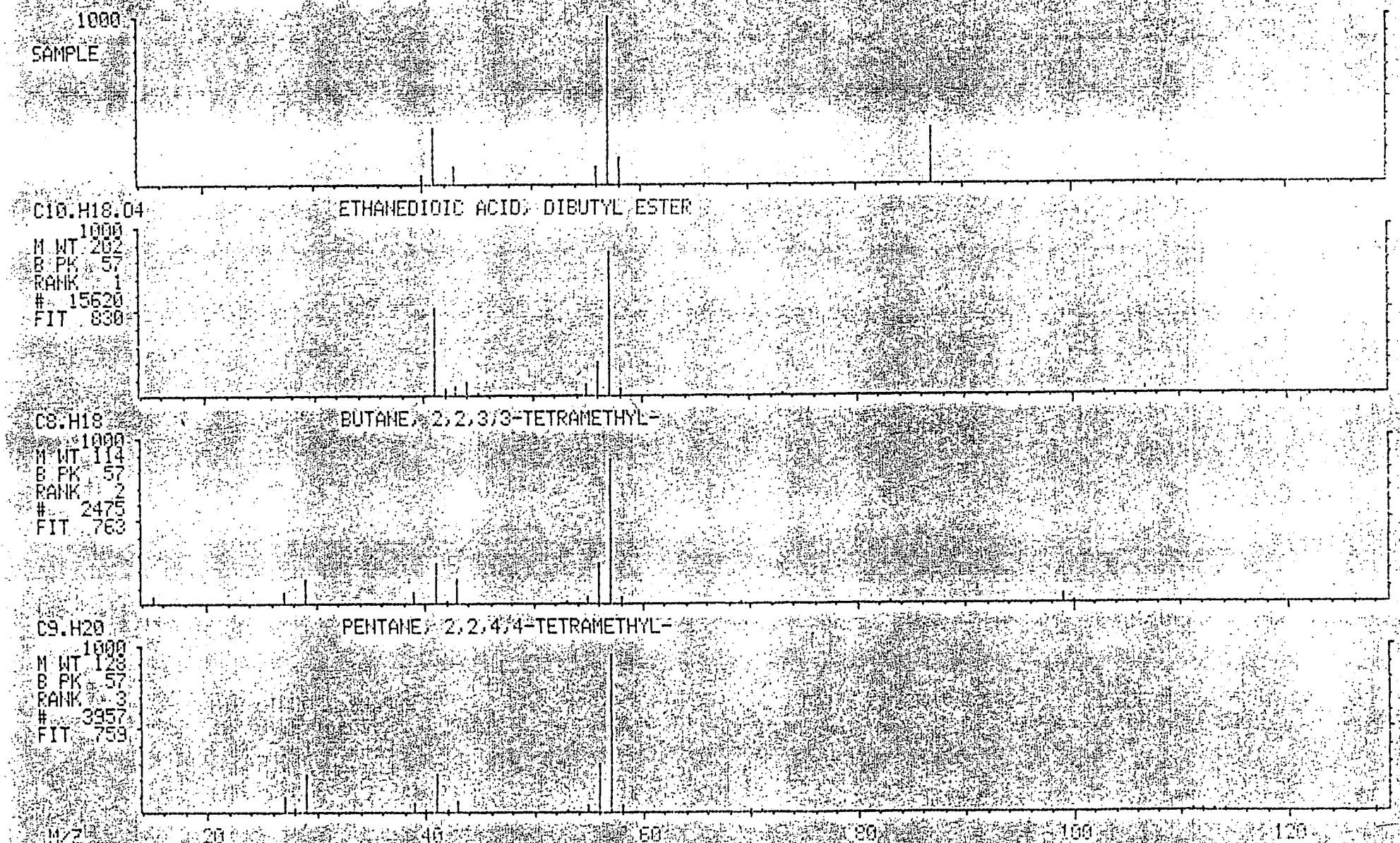




MID LIBRARY SEARCH
10/18/85 14:09:00 + 28:29
SAMPLE: 12237-3
CONDS.: 5 ML INJ
ENHANCED (S 15B 2N 0T)

DATA: 12237V3 # 908
CALI: 12237V3 # 2

BASE M/Z: 57
RIC: 3339.



112

MID Library Search
10/18/85 14:09:00 + 28:29
Sample: 12237-3
Conds.: 5 ML INJ
Enhanced (S 15B 2N OT)

Data: 12237V3 # 908
Cali: 12237V3 # 2

Base m/z: 57
RIC: 3339.

113

Rank	In.	Name
1	15620	ETHANEDIOIC ACID, DIBUTYL ESTER
2	2475	BUTANE, 2,2,3,3-TETRAMETHYL-
3	3957	PENTANE, 2,2,4,4-TETRAMETHYL-
4	4218	BUTANE, 1,1'-OXYBIS-
5	1512	PROPANE, 2-METHYL-1-NITRO-

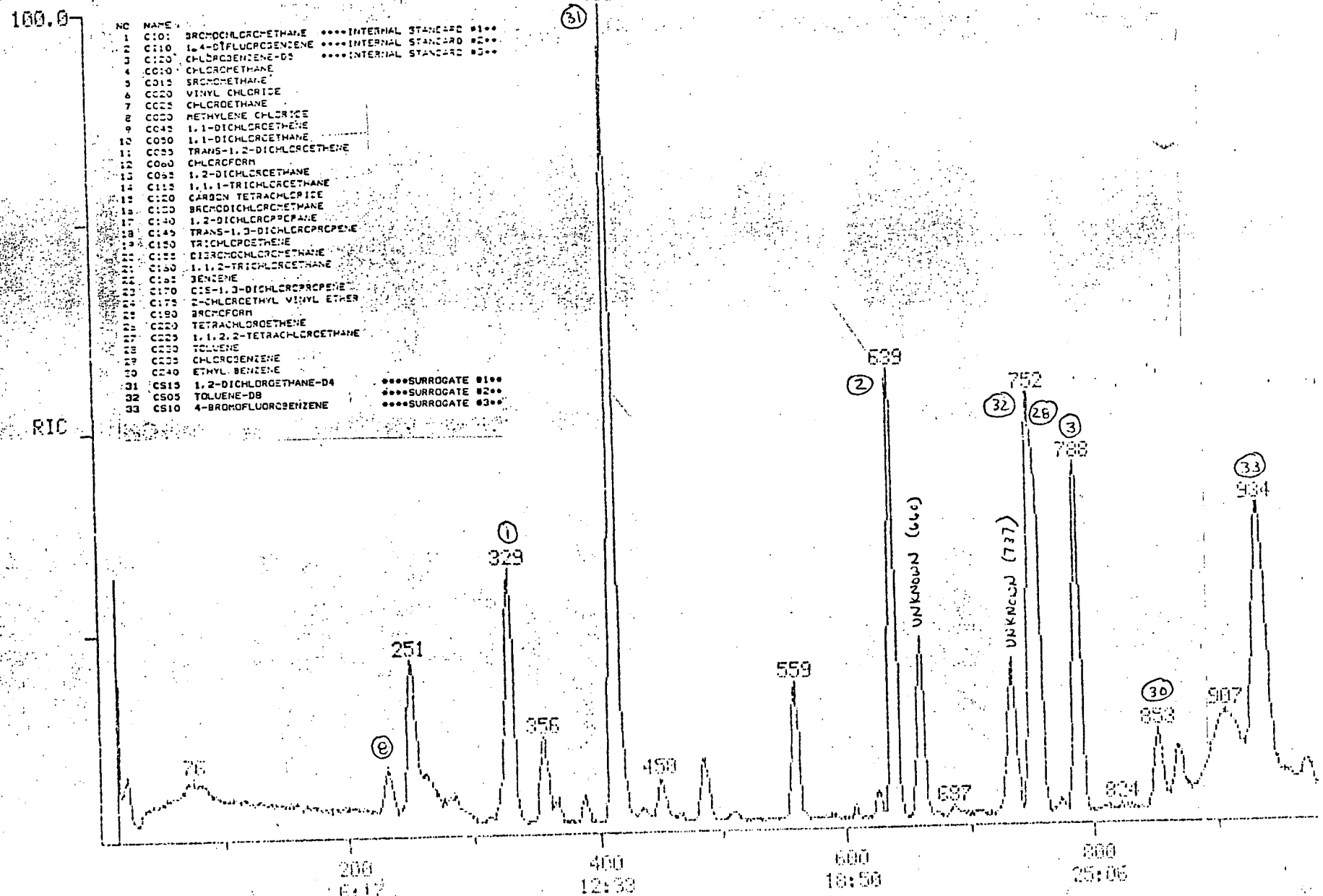
Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C10.H18.O4	202	57	621	830	710
2	C8.H18	114	57	571	763	710
3	C9.H20	128	57	580	759	715
4	C8.H18.O	130	57	745	758	956
5	C4.H9.O2.N	103	41	498	725	627

MIDRIC
10/18/85 15:44:00
SAMPLE: 12237-4
CONDS.: 5 ML INJ
RANGE: G 1.1100 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

DATA: 12237U4 #1
CALI: 12237U12 #2

SCANS 1 TO 980

209408.



11

Quantitation Report File: 12237V4

Data: 12237V4.TI
10/19/85 15:44:00
Sample: 12237-4
Submitted by: HSMA Analyst: PAT

AMOUNT=AREA * REF.AMNT/(REF.AREA)* RESP.FACT)
Resp. fac. from Library Entry

NO	NAME		
1	CI01	BROMOCHLOROMETHANE	****INTERNAL STANDARD #1****
2	CI10	1,4-DIFLUOROBENZENE	****INTERNAL STANDARD #2****
3	CI20	CHLOROBENZENE-D5	****INTERNAL STANDARD #3****
4	C010	CHLOROMETHANE	
5	C015	BROMOMETHANE	
6	C020	VINYL CHLORIDE	
7	C025	CHLOROETHANE	
8	C030	METHYLENE CHLORIDE	
9	C045	1,1-DICHLOROETHENE	
10	C050	1,1-DICHLOROETHANE	
11	C055	TRANS-1,2-DICHLOROETHENE	
12	C060	CHLOROFORM	
13	C065	1,2-DICHLOROETHANE	
14	C115	1,1,1-TRICHLOROETHANE	
15	C120	CARBON TETRACHLORIDE	
16	C130	BROMODICHLOROMETHANE	
17	C140	1,2-DICHLOROPROPANE	
18	C145	TRANS-1,3-DICHLOROPROPENE	
19	C150	TRICHLOROETHENE	
20	C155	DIBROMOCHLOROMETHANE	
21	C160	1,1,2-TRICHLOROETHANE	
22	C165	BENZENE	
23	C170	CIS-1,3-DICHLOROPROPENE	
24	C175	2-CHLOROETHYL VINYL ETHER	
25	C180	BROMOFORM	
26	C220	TETRACHLOROETHENE	
27	C225	1,1,2,2-TETRACHLOROETHANE	
28	C230	TOLUENE	
29	C235	CHLOROBENZENE	
30	C240	ETHYL BENZENE	
31	CS15	1,2-DICHLOROETHANE-D4	****SURROGATE #1****
32	CS05	TOLUENE-D8	****SURROGATE #2****
33	CS10	4-BROMOFLUOROBENZENE	****SURROGATE #3****

116

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot	
1	120	329	10:19	1	1.000	A BB	44192.	50.000 UG/L	14.13	
2	114	638	20:01	2	1.000	A BB	233208.	50.000 UG/L	14.13	
3	117	763	24:44	3	1.000	A BB	137392.	50.000 UG/L	14.13	
4	NOT FOUND									
5	NOT FOUND									
6	NOT FOUND									
7	NOT FOUND									
8	84	232	7:17	1	0.705	A BB	17712.	8.517 UG/L	2.41	YES LTC
9	NOT FOUND									
10	NOT FOUND									
11	NOT FOUND									
12	NOT FOUND									
13	NOT FOUND									
14	NOT FOUND									
15	NOT FOUND									
16	NOT FOUND									
17	NOT FOUND									
18	NOT FOUND									
19	NOT FOUND									
20	NOT FOUND									
21	NOT FOUND									
~~22~~	~~78~~	~~568~~	~~17.40~~	~~2~~	~~0.882~~	~~A BB~~	~~3960.~~	~~0.784 UG/L~~	~~0.22~~	No LTC
23	NOT FOUND									
24	NOT FOUND									
25	NOT FOUND									
26	NOT FOUND									
27	NOT FOUND									
28	92	757	23:45	3	0.961	A BB	90616.	35.150 UG/L	9.93	YES LTC
~~29~~	~~112~~	~~771~~	~~24.17~~	~~3~~	~~1.021~~	~~A BB~~	~~12868.~~	~~4.171 UG/L~~	~~1.18~~	No LTC
30	106	853	26:46	3	1.082	A BB	17960.	10.904 UG/L	3.08	YES LTC
31	65	412	12:56	1	1.252	A BB	77136.	43.685 UG/L	12.34	
32	98	751	23:34	3	0.953	A BB	199672.	51.653 UG/L	14.59	
33	95	934	29:18	3	1.185	A BB	126848.	49.049 UG/L	13.86	

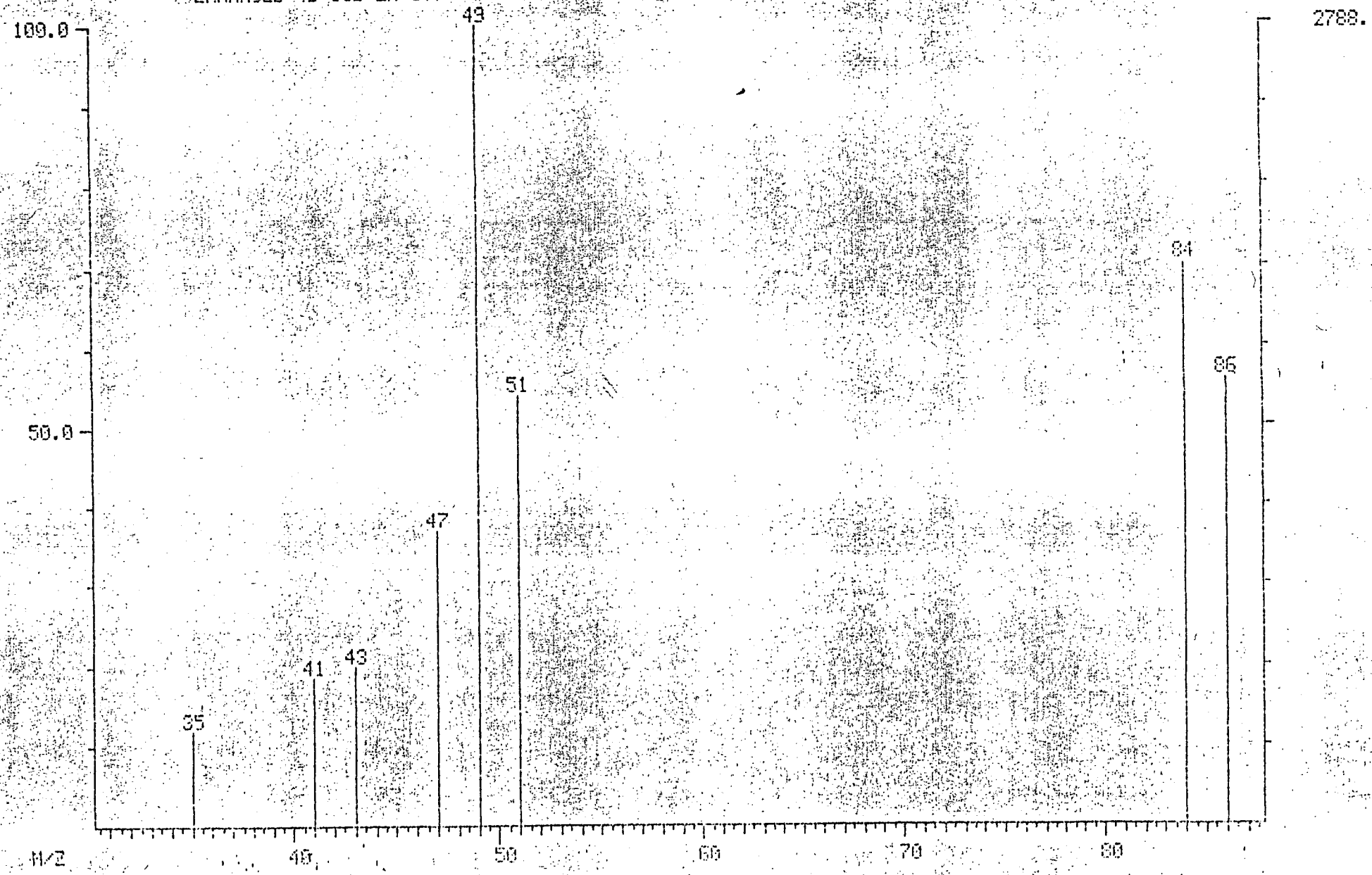
No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	10:16	1.01	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	19:59	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
3	24:38	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
4	1:53		0.183			200.00		3.209	
5	3:04		0.300			200.00		2.787	
6	3:59		0.388			200.00		3.278	
7	5:01		0.489			200.00		2.044	
8	7:13	1.01	0.703	1.00	8.52	200.00	0.100	2.353	0.04
9	9:53		0.963			200.00		2.071	
10	11:05		1.080			200.00		4.316	
11	11:46		1.147			200.00		2.050	
12	12:16		1.196			200.00		4.025	
13	12:59		1.266			200.00		1.773	
14	14:15		0.713			200.00		0.501	
15	14:35		0.730			200.00		0.472	
16	15:04		0.754			200.00		0.534	
17	16:21		0.818			200.00		0.470	
18	16:34		0.829			200.00		0.213	
19	17:06		0.856			200.00		0.434	
20	17:40		0.884			200.00		0.258	
21	17:46		0.889			200.00		0.205	
22	17:36	1.00	0.881	1.00	0.78	200.00	0.004	1.083	0.00
23	17:46		0.889			200.00		0.451	
24	18:46		0.939			200.00		0.047	
25	20:11		1.009			200.00		0.095	
26	22:26		0.911			200.00		0.576	
27	22:22		0.908			200.00		0.375	
28	23:40	1.00	0.961	1.00	35.15	200.00	0.165	0.938	0.18
29	24:44	1.00	1.004	1.00	4.19	200.00	0.023	1.112	0.02
30	26:40	1.00	1.083	1.00	10.90	200.00	0.033	0.599	0.05
31	12:54	1.00	1.257	1.00	43.68	50.00	1.745	1.998	0.87
32	23:30	1.00	0.954	1.00	51.65	50.00	1.453	1.407	1.03
33	29:11	1.00	1.185	1.00	49.05	50.00	0.923	0.941	0.98

MID MASS SPECTRUM
10/18/85 15:44:00 + 7:17
SAMPLE: 12237-4
CONDS.: 5 ML INJ
GC TEMP: 79 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: 12237V4 #232
CALI: 12237V4 #2

BASE M/Z: 49
RIC: 10240.

METHYLENE CHLORIDE

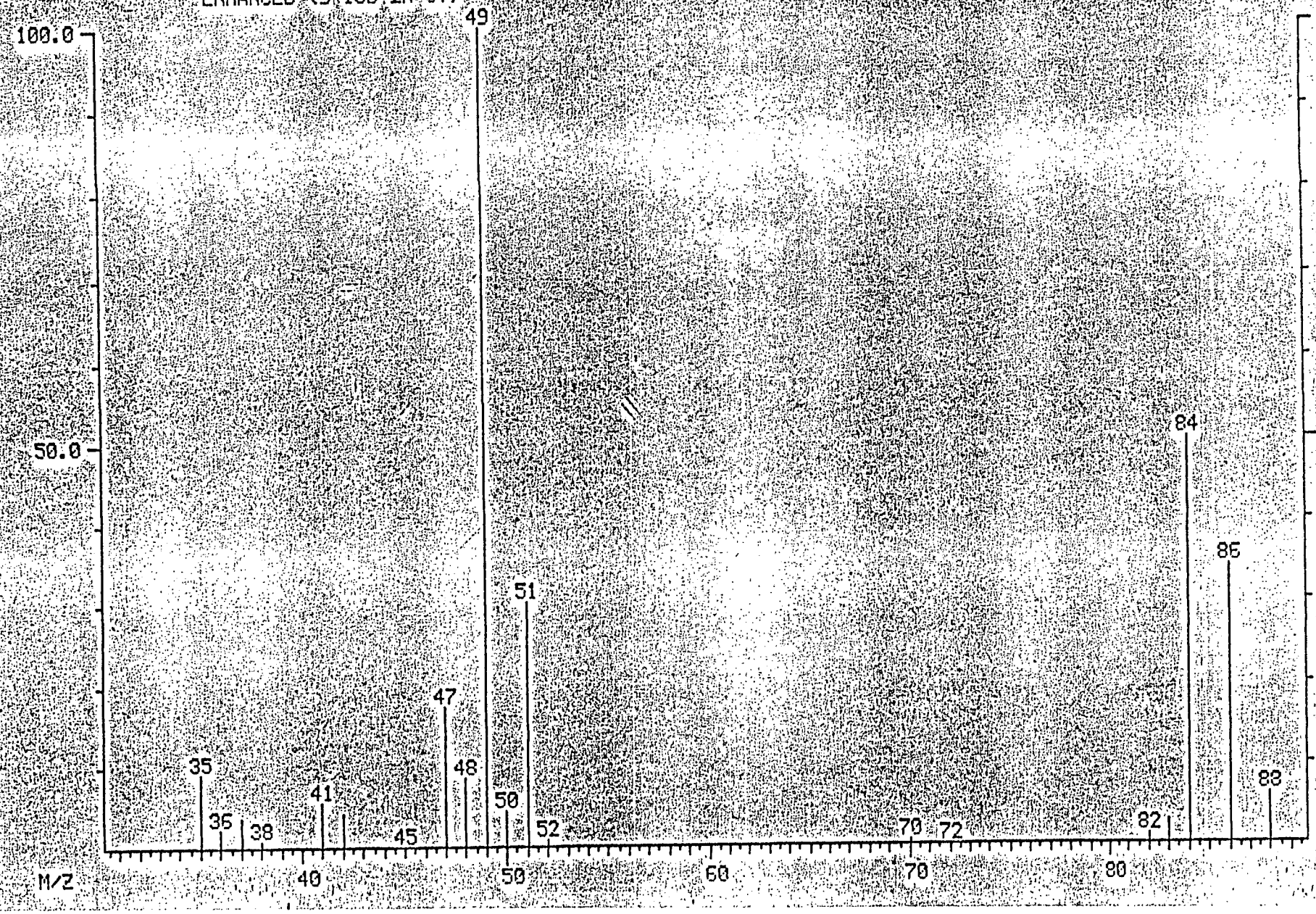


MID MASS SPECTRUM
10/07/85 23:21:00 + 5:07
SAMPLE: Vol. Std.
CONDS.: EI
GC TEMP: 61 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: VSB107P5 #163
CALI: VSB107P5 #2

BASE M/Z: 49
RIC: 450560.

METHYLENE CHLORIDE

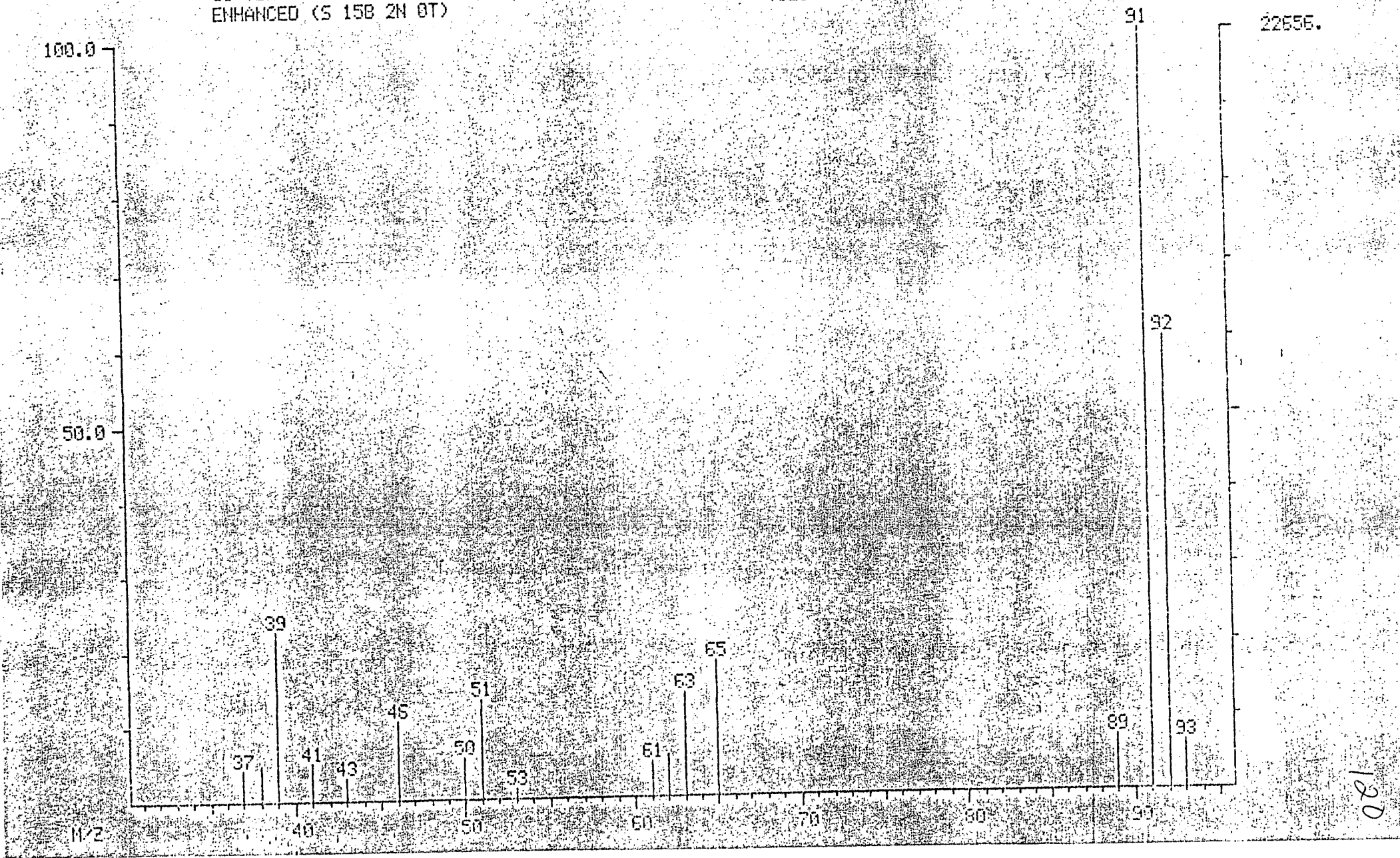


MID MASS SPECTRUM
10/18/85 15:44:00 + 23:45
SAMPLE: 12237-4
CONDS.: 5 ML INJ
GC TEMP: 211 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: 12237V4 #757
CALI: 12237V4 #2

BASE M/Z: 91
RIC: 64832.

TOLUENE



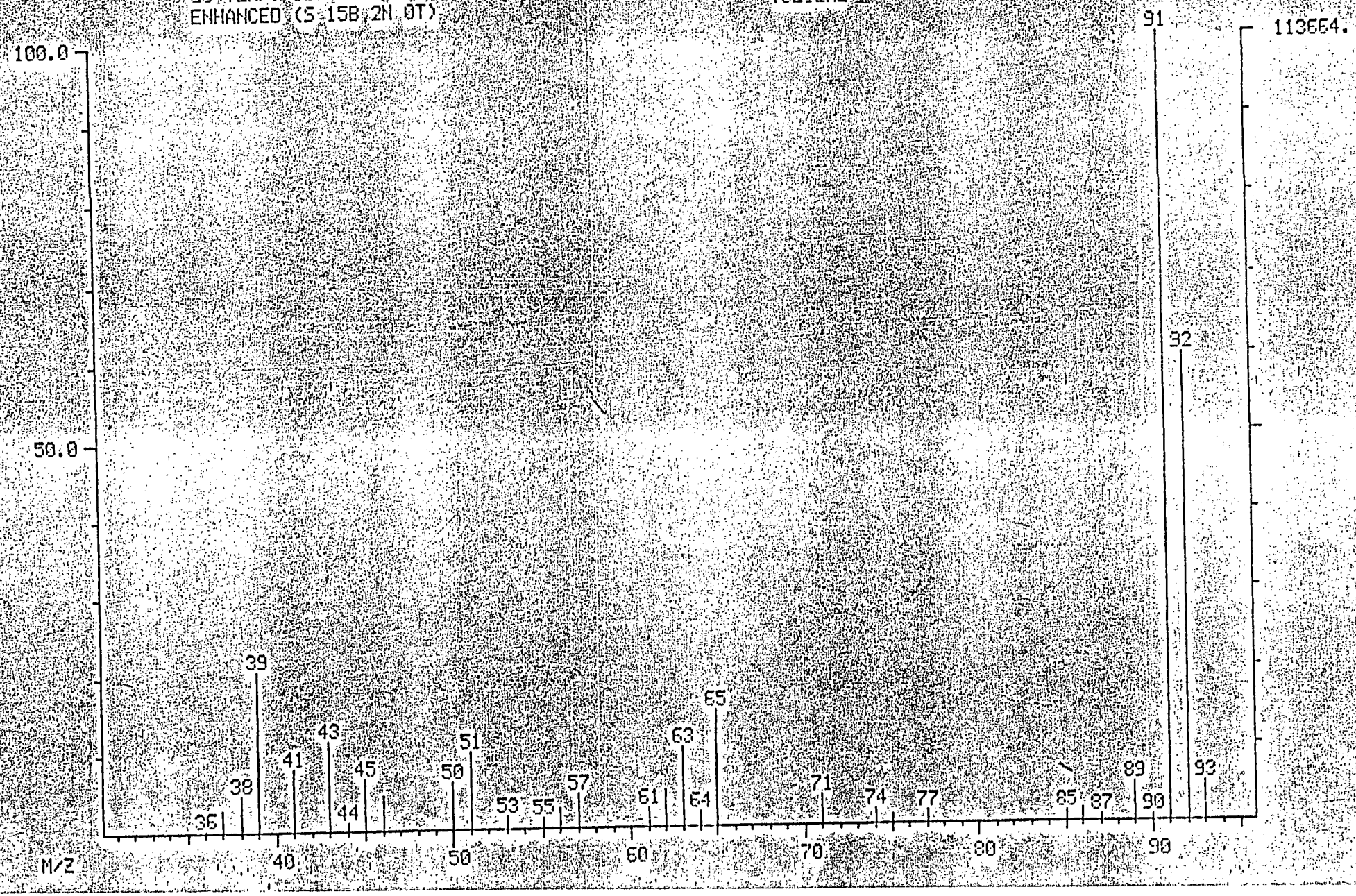
120

MID MASS SPECTRUM
10/07/85 23:21:00 + 21:51
SAMPLE:
CONDS.: EI
GC TEMP: 196 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: VSB107P5 #696
CALI: VSB107P5 #2

BASE M/Z: 91
RIC: 344064.

TOLUENE



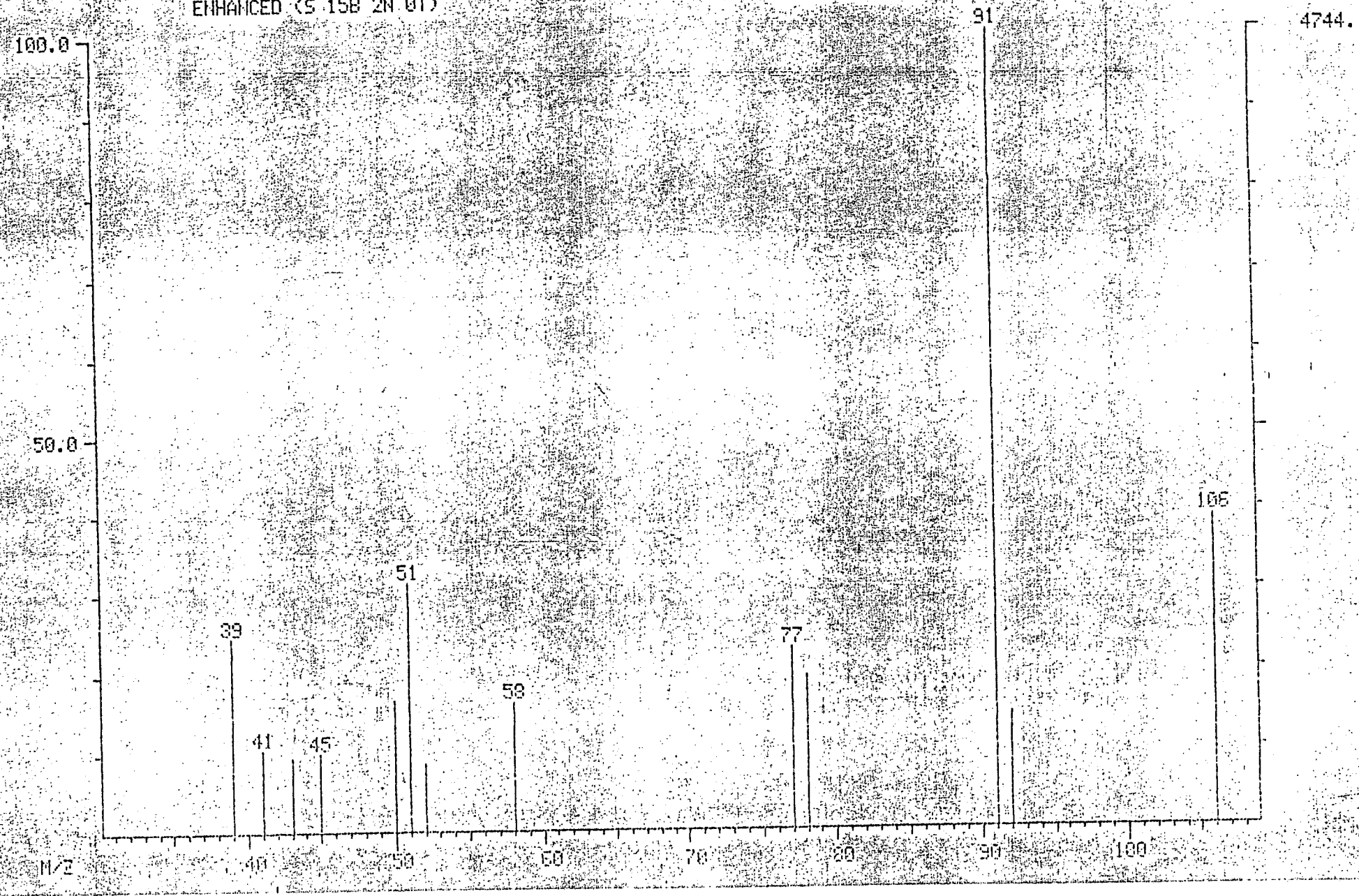
121

MID MASS SPECTRUM
10/18/85 15:44:00 + 26:48
SAMPLE: 12237-4
CONDS.: 5 ML INJ
GC TEMP: 219 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: 12237V4 #854
CALI: 12237V4 #2

BASE M/Z: 91
RIC: 15344.

ETHYL BENZENE



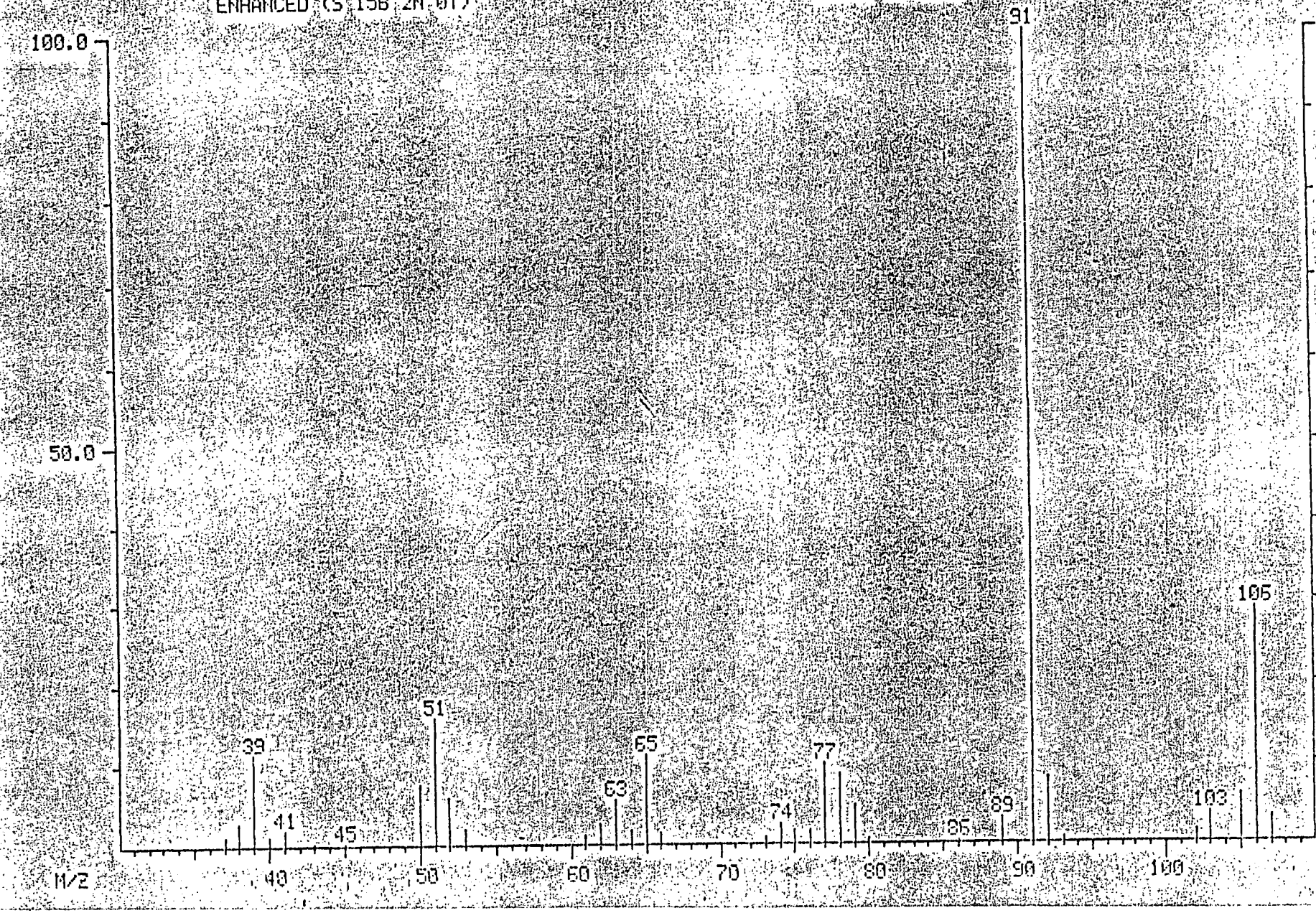
122

MID MASS SPECTRUM
10/07/85 23:21:00 + 24:40
SAMPLE:
CONDS.: EI
GC TEMP: 218 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: VSB107P5 #786
CALI: VSB107P5 #2

BASE M/Z: 91
RIC: 373248.

ETHYL BENZENE

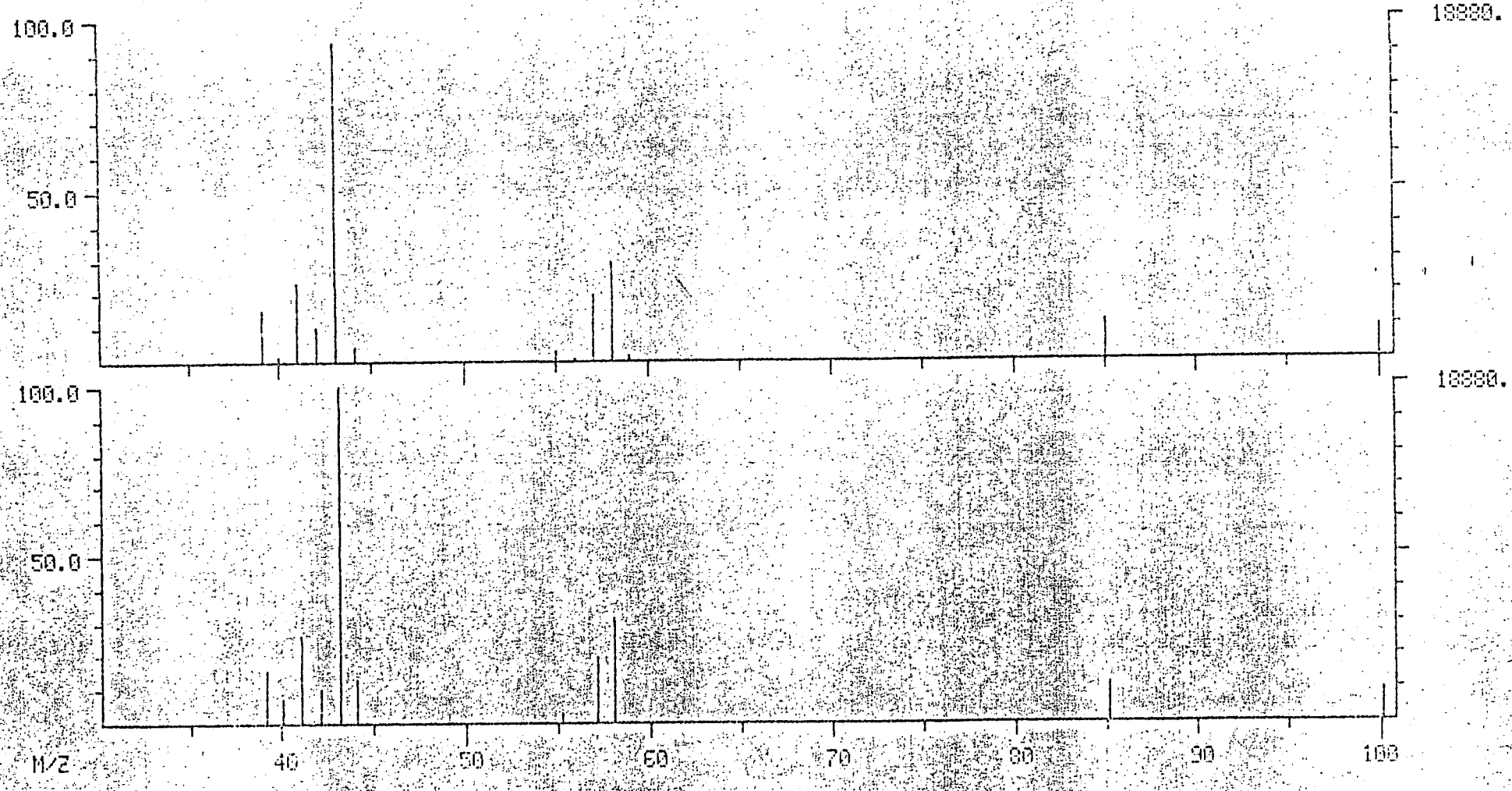


123

MID DUAL MASS SPECTRUM
10/18/85 15:44:00 + 20:43
SAMPLE: 12237-4
CONDS.: 5 ML INJ
GC TEMP: 187 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: 12237V4 #660
CALI: 12237V4 #2

BASE M/Z: 43/ 43
RIC: 42111./ 46399.

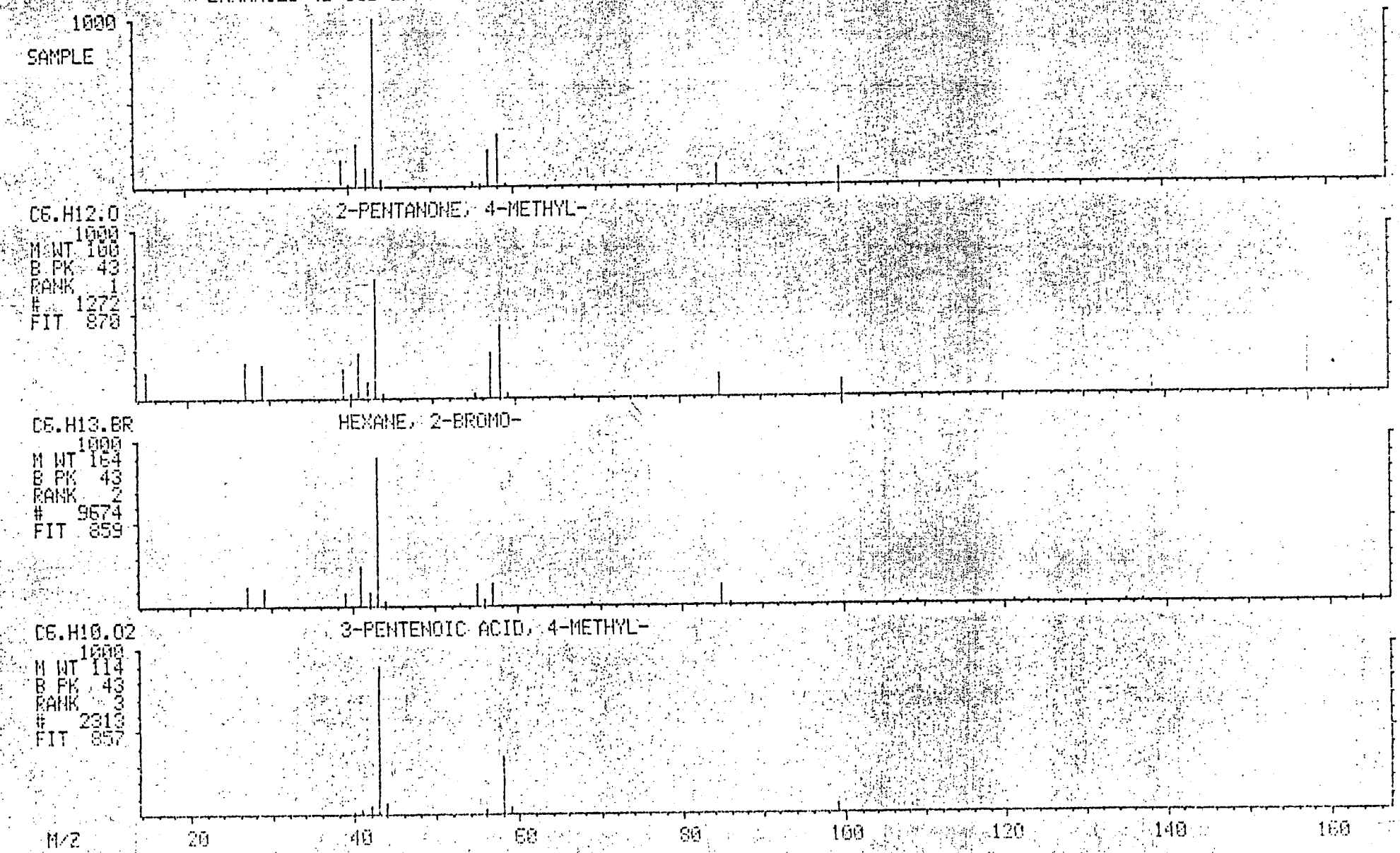


124

MID LIBRARY SEARCH
10/18/85 15:44:00 + 20:43
SAMPLE: 12237-4
CONDS.: 5 ML INJ
ENHANCED (S 15B 2N 0T)

DATA: 12237V4 # 660
CALI: 12237V4 # 2

BASE M/Z: 43
RIC: 42111.



125

126

MID Library Search
10/18/85 15:44:00 + 20:43
Sample: 12237-4
Conds.: 5 ML INJ
Enhanced (S 15B 2N OT)

Data: 12237V4 # 660
Cali: 12237V4 # 2

Base m/z: 43
RIC: 42111.

Rank	In.	Name
1	1272	2-PENTANONE, 4-METHYL-
2	9674	HEXANE, 2-BROMO-
3	2313	3-PENTENOIC ACID, 4-METHYL-
4	2347	ETHANONE, 1-(3-ETHYLOXIRANYL)-
5	5927	ETHANONE, 1-(3-BUTYLOXIRANYL)-

Rank	Formula	M.Wt	B.Pk	%Purity	Fit	RFit
1	C6.H12.O	100	43	866	870	978
2	C6.H13.BR	164	43	648	859	722
3	C6.H10.O2	114	43	569	857	615
4	C6.H10.O2	114	43	755	838	799
5	C8.H14.O2	142	43	661	794	747

MID DUAL MASS SPECTRUM
10/18/85 15:44:00 + 23:07
SAMPLE: 12237-4
CONDS.: 5 ML INJ
GC TEMP: 206 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: 12237V4 #737
CALI: 12237V4 #2

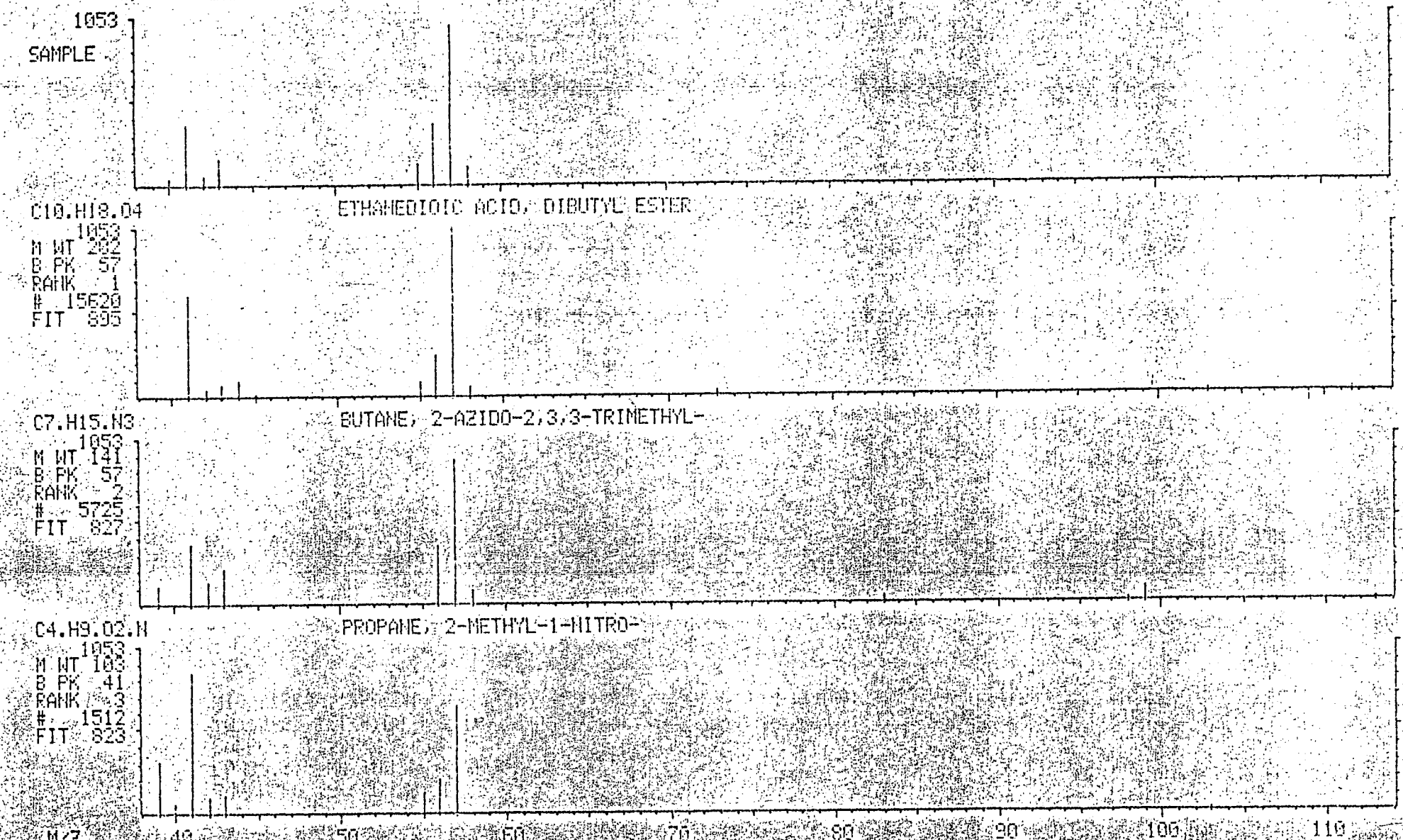
BASE M/Z: 57/ 57
RIC: 18783./ 32159.

127

MID LIBRARY SEARCH
10/18/85 15:44:00 + 23:07
SAMPLE: 12237-4
CONDS.: 5 ML INJ
ENHANCED (S 15B 2N 0T)

DATA: 12237V4 # 737
CALI: 12237V4 # 2

BASE M/Z: 57
RIC: 18783.



128

MID Library Search
10/18/85 15:44:00 + 23:07
Sample: 12237-4
Conds.: 5 ML INJ
Enhanced (S 15B 2N OT)

Data: 12237V4 # 737
Cali: 12237V4 # 2

Base m/z: 57
RIC: 18783

129

Rank	In.	Name
1	15620	ETHANEDIOIC ACID, DIBUTYL ESTER
2	5725	BUTANE, 2-AZIDO-2,3,3-TRIMETHYL-
3	1512	PROPANE, 2-METHYL-1-NITRO-
4	3957	PENTANE, 2,2,4,4-TETRAMETHYL-
5	4169	OXIRANE, (BUTOXYMETHYL)-

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C10.H18.O4	202	57	881	895	951
2	C7.H15.N3	141	57	764	827	915
3	C4.H9.O2.N	103	41	779	823	879
4	C9.H20	128	57	811	811	968
5	C7.H14.O2	130	57	748	760	917

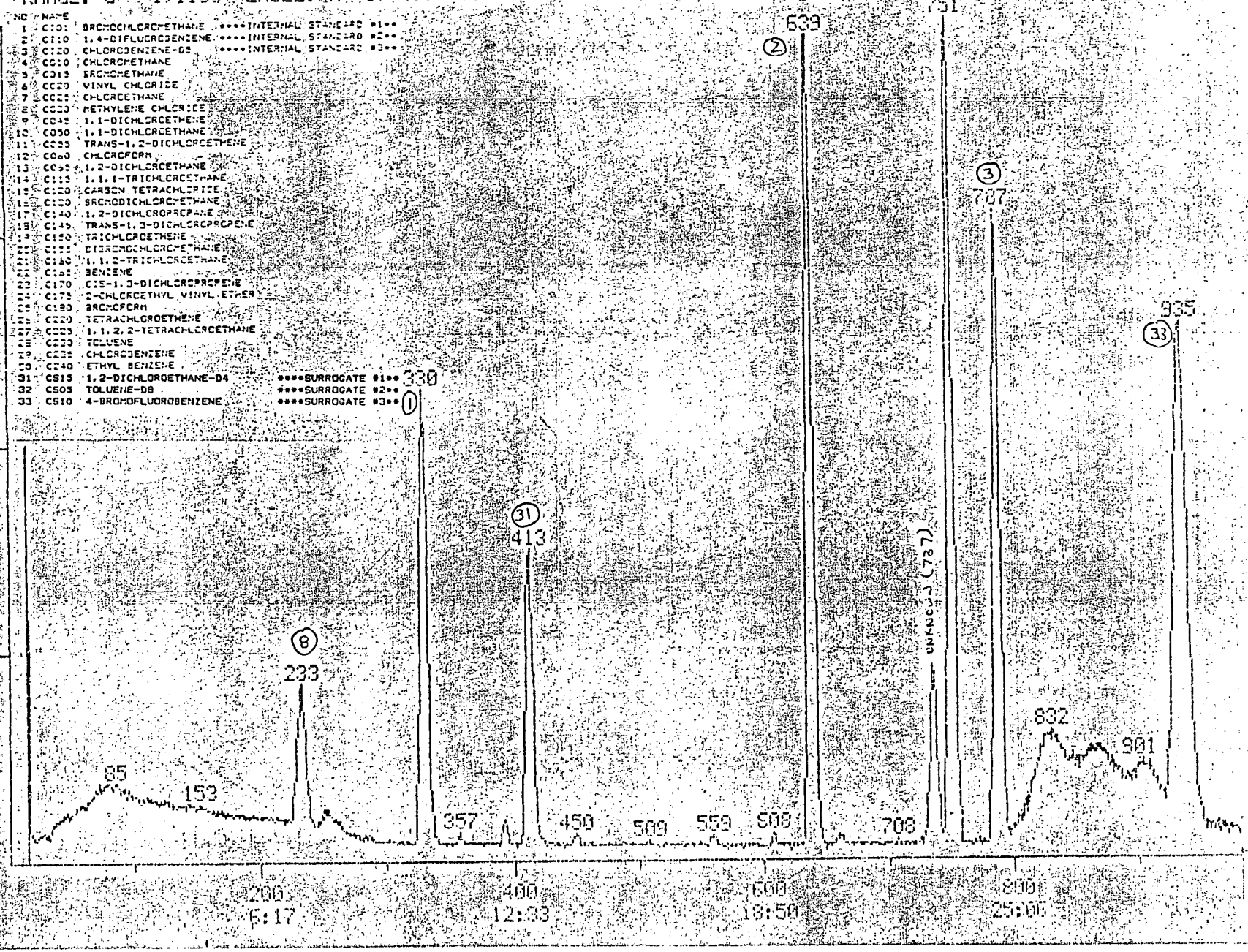
MIDRIC
10/18/85 16:35:00
SAMPLE: 12237-5
CONDS.: 5 ML INJ
RANGE: G 1,1100 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

DATA: 12237V5 #1
CALI: 12237V4 #2

SCANS 1 TO 980

129152.

NO		NAME	
1	C001	BROMOCHLOROMETHANE	****INTERNAL STANDARD #1**
2	C110	1,4-DIFLUOROBENZENE	****INTERNAL STANDARD #2**
3	C120	CHLOROBENZENE-D5	****INTERNAL STANDARD #3**
4	C010	CHLOROMETHANE	
5	C015	BROMOMETHANE	
6	C020	VINYL CHLORIDE	
7	C025	CHLOROETHANE	
8	C030	METHYLENE CHLORIDE	
9	C045	1,1-DICHLOROETHENE	
10	C050	1,1-DICHLOROETHANE	
11	C055	TRANS-1,2-DICHLOROETHENE	
12	C060	CHLOROFORM	
13	C065	1,2-DICHLOROETHANE	
14	C115	1,1,1-TRICHLOROETHANE	
15	C120	CARBON TETRACHLORIDE	
16	C130	BROMODICHLOROMETHANE	
17	C140	1,2-DICHLOROPROPANE	
18	C145	TRANS-1,3-DICHLOROPROPENE	
19	C150	TRICHLOROETHENE	
20	C155	DIBROMOCHLOROMETHANE	
21	C160	1,1,2-TRICHLOROETHANE	
22	C165	BENZENE	
23	C170	CIS-1,3-DICHLOROPROPENE	
24	C175	2-CHLOROETHYL VINYL ETHER	
25	C180	BROMOFORM	
26	C220	TETRACHLOROETHENE	
27	C225	1,1,2,2-TETRACHLOROETHANE	
28	C230	TOLUENE	
29	C235	CHLOROBENZENE	
30	C240	ETHYL BENZENE	
31	CS15	1,2-DICHLOROETHANE-D4	****SURROGATE #1**
32	CS05	TOLUENE-D8	****SURROGATE #2**
33	CS10	4-BROMOFLUOROBENZENE	****SURROGATE #3**



130

Quantitation Report File: 12237V5

Data: 12237V5.TI
10/18/85 16:35:00
Sample: 12237-5
Submitted by: HSMA Analyst: PAT

AMOUNT=AREA * REF.AMNT/(REF.AREA)* RESP.FACT)
Resp. fac. from Library Entry

NO	NAME		
1	CI01	BROMOCHLOROMETHANE	****INTERNAL STANDARD #1****
2	CI10	1,4-DIFLUOROBENZENE	****INTERNAL STANDARD #2****
3	CI20	CHLOROBENZENE-D5	****INTERNAL STANDARD #3****
4	C010	CHLOROMETHANE	
5	C015	BROMOMETHANE	
6	C020	VINYL CHLORIDE	
7	C025	CHLOROETHANE	
8	C030	METHYLENE CHLORIDE	
9	C045	1,1-DICHLOROETHENE	
10	C050	1,1-DICHLOROETHANE	
11	C055	TRANS-1,2-DICHLOROETHENE	
12	C060	CHLOROFORM	
13	C065	1,2-DICHLOROETHANE	
14	C115	1,1,1-TRICHLOROETHANE	
15	C120	CARBON TETRACHLORIDE	
16	C130	BROMODICHLOROMETHANE	
17	C140	1,2-DICHLOROPROPANE	
18	C145	TRANS-1,3-DICHLOROPROPENE	
19	C150	TRICHLOROETHENE	
20	C155	DIBROMOCHLOROMETHANE	
21	C160	1,1,2-TRICHLOROETHANE	
22	C165	BENZENE	
23	C170	CIS-1,3-DICHLOROPROPENE	
24	C175	2-CHLOROETHYL VINYL ETHER	
25	C180	BROMOFORM	
26	C220	TETRACHLOROETHENE	
27	C225	1,1,2,2-TETRACHLOROETHANE	
28	C230	TOLUENE	
29	C235	CHLOROBENZENE	
30	C240	ETHYL BENZENE	
31	CS15	1,2-DICHLOROETHANE-D4	****SURROGATE #1****
32	CS05	TOLUENE-D8	****SURROGATE #2****
33	CS10	4-BROMOFLUOROBENZENE	****SURROGATE #3****

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	126	329	10:19	1	1.000	A BB	48824.	50.000 UG/L	16.21
2	114	638	20:01	2	1.000	A BB	263712.	50.000 UG/L	16.21
3	117	787	24:42	3	1.000	A BB	162016.	50.000 UG/L	16.21
4	NOT FOUND								
5	NOT FOUND								
6	NOT FOUND								
7	NOT FOUND								
8	84	233	7:19	1	0.708	A BB	29776.	12.960 UG/L	4.20
9	NOT FOUND								
10	NOT FOUND								
11	NOT FOUND								
~~12~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~1~~	~~1.175~~	~~A BB~~	~~[illegible]~~	~~[illegible] UG/L~~	~~[illegible]~~
13	NOT FOUND								
14	NOT FOUND								
15	NOT FOUND								
16	NOT FOUND								
17	NOT FOUND								
18	NOT FOUND								
19	NOT FOUND								
20	NOT FOUND								
21	NOT FOUND								
22	NOT FOUND								
23	NOT FOUND								
24	NOT FOUND								
25	NOT FOUND								
26	NOT FOUND								
27	NOT FOUND								
28	NOT FOUND								
29	NOT FOUND								
30	NOT FOUND								
31	65	413	12:58	1	1.255	A BB	80680.	41.357 UG/L	13.40
32	98	751	23:34	3	0.954	A BB	244336.	53.600 UG/L	17.37
33	95	933	29:16	3	1.186	A BB	148136.	48.574 UG/L	15.74

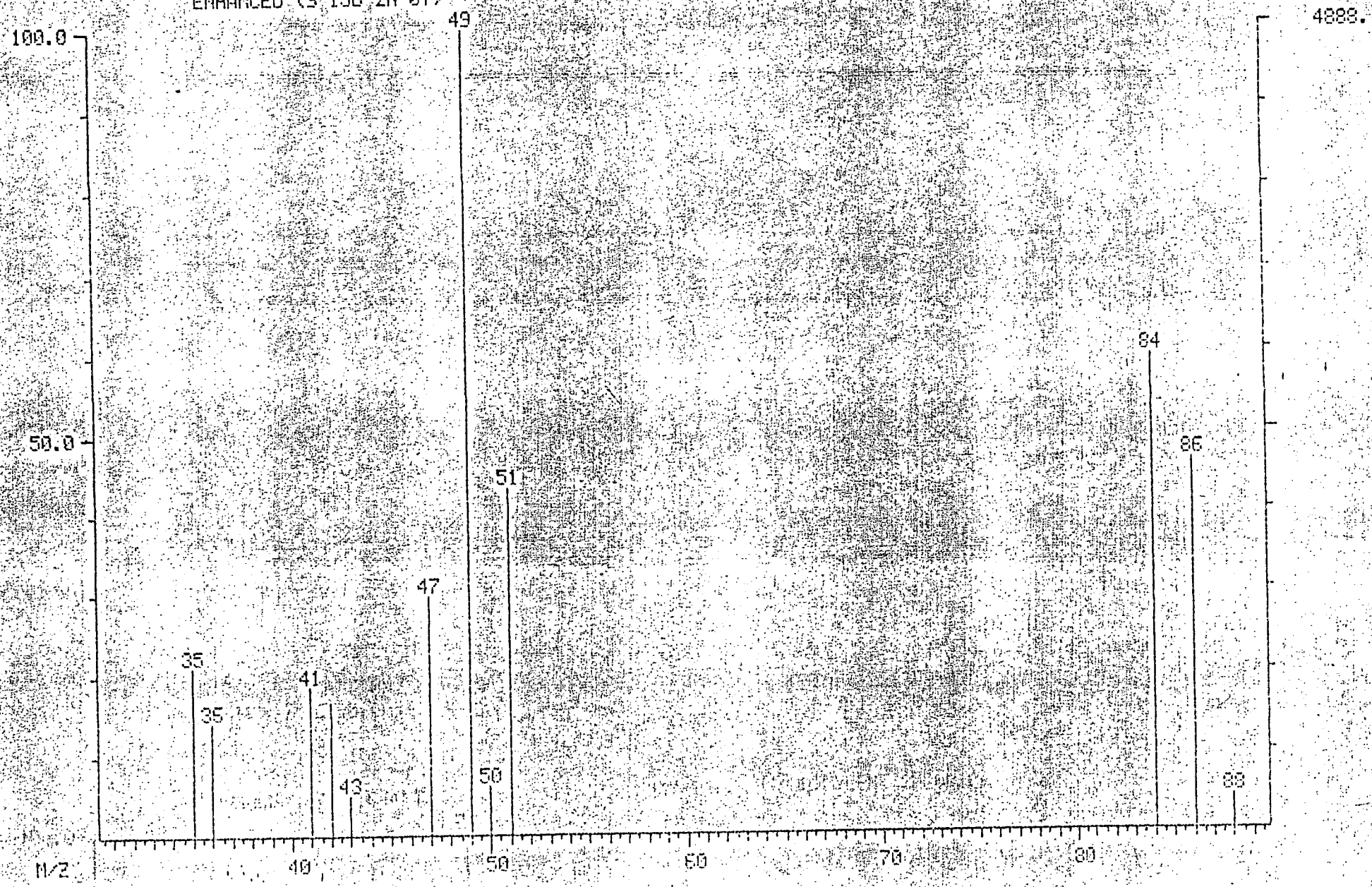
No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	10:16	1.01	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	19:59	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
3	24:38	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
4	1:53		0.183			200.00		3.209	
5	3:04		0.300			200.00		2.787	
6	3:59		0.388			200.00		3.278	
7	5:01		0.489			200.00		2.044	
8	7:13	1.01	0.703	1.01	12.96	200.00	0.152	2.353	0.06
9	9:53		0.963			200.00		2.071	
10	11:05		1.080			200.00		4.316	
11	11:46		1.147			200.00		2.050	
12	12:16	1.01	1.196	1.00	2.05	200.00	0.041	4.025	0.01
13	12:59		1.266			200.00		1.773	
14	14:15		0.713			200.00		0.501	
15	14:35		0.730			200.00		0.472	
16	15:04		0.754			200.00		0.534	
17	16:21		0.818			200.00		0.470	
18	16:34		0.829			200.00		0.213	
19	17:06		0.856			200.00		0.434	
20	17:40		0.884			200.00		0.258	
21	17:46		0.889			200.00		0.205	
22	17:36		0.881			200.00		1.083	
23	17:46		0.889			200.00		0.451	
24	18:46		0.939			200.00		0.047	
25	20:11		1.009			200.00		0.095	
26	22:26		0.911			200.00		0.576	
27	22:22		0.908			200.00		0.375	
28	23:40		0.961			200.00		0.938	
29	24:44		1.004			200.00		1.112	
30	26:40		1.083			200.00		0.599	
31	12:54	1.00	1.257	1.00	41.36	50.00	1.652	1.998	0.83
32	23:30	1.00	0.954	1.00	53.60	50.00	1.508	1.407	1.07
33	29:11	1.00	1.185	1.00	48.57	50.00	0.914	0.941	0.97

MID MASS SPECTRUM
10/18/85 16:35:00 + 7:19
SAMPLE: 12237-5
CONDS.: 5 ML INJ
GC TEMP: 79 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: 12237V5 #233
CALI: 12237V5 #2

BASE M/Z: 49
RIC: 17760.

METHYLENE CHLORIDE



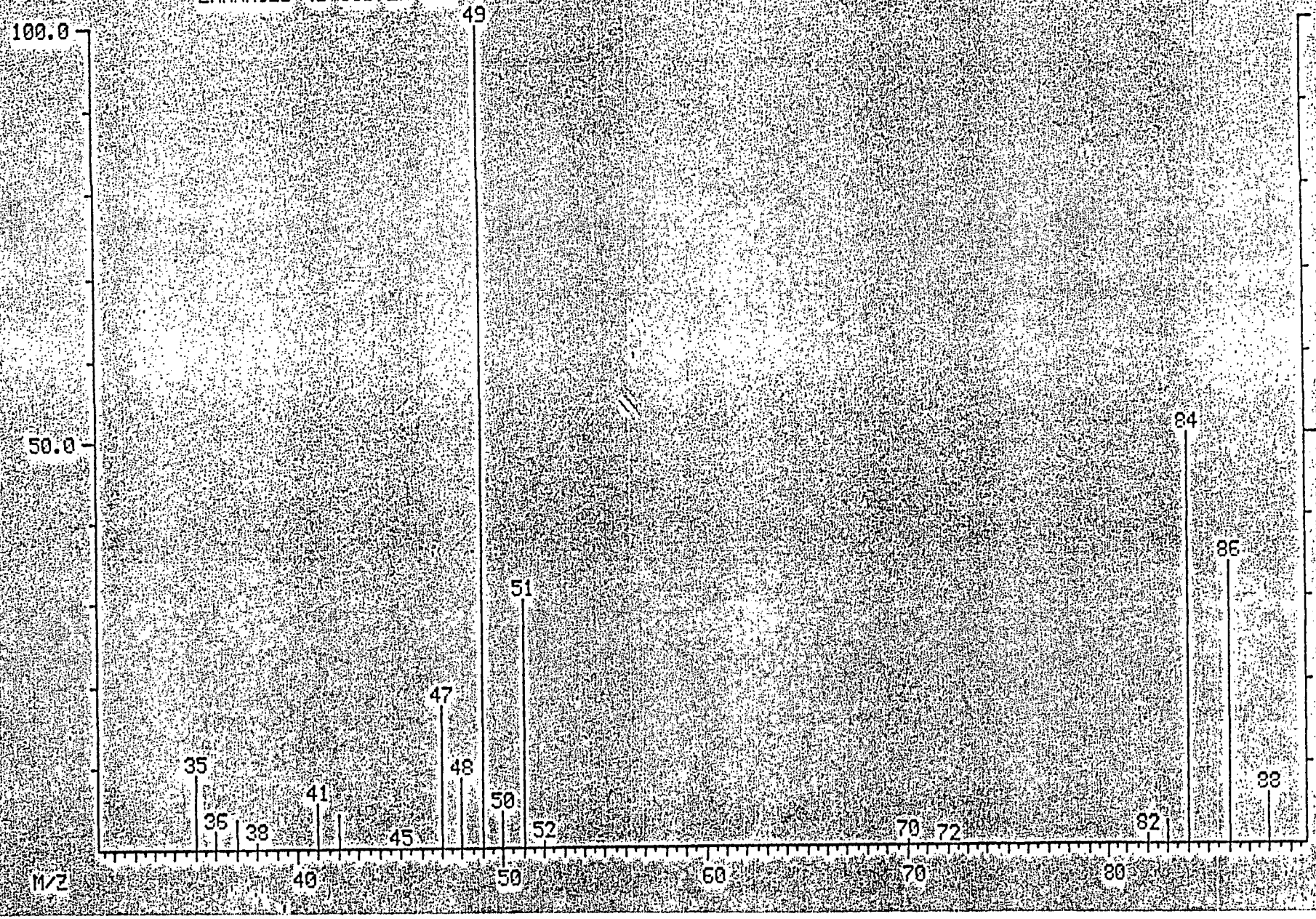
134

MID MASS SPECTRUM
10/07/85 23:21:00 + 5:07
SAMPLE: Vol. Std.
CONDS.: EI
GC TEMP: 61 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: VSB107P5 #163
CALI: VSB107P5 #2

BASE M/Z: 49
RIC: 450560.

METHYLENE CHLORIDE

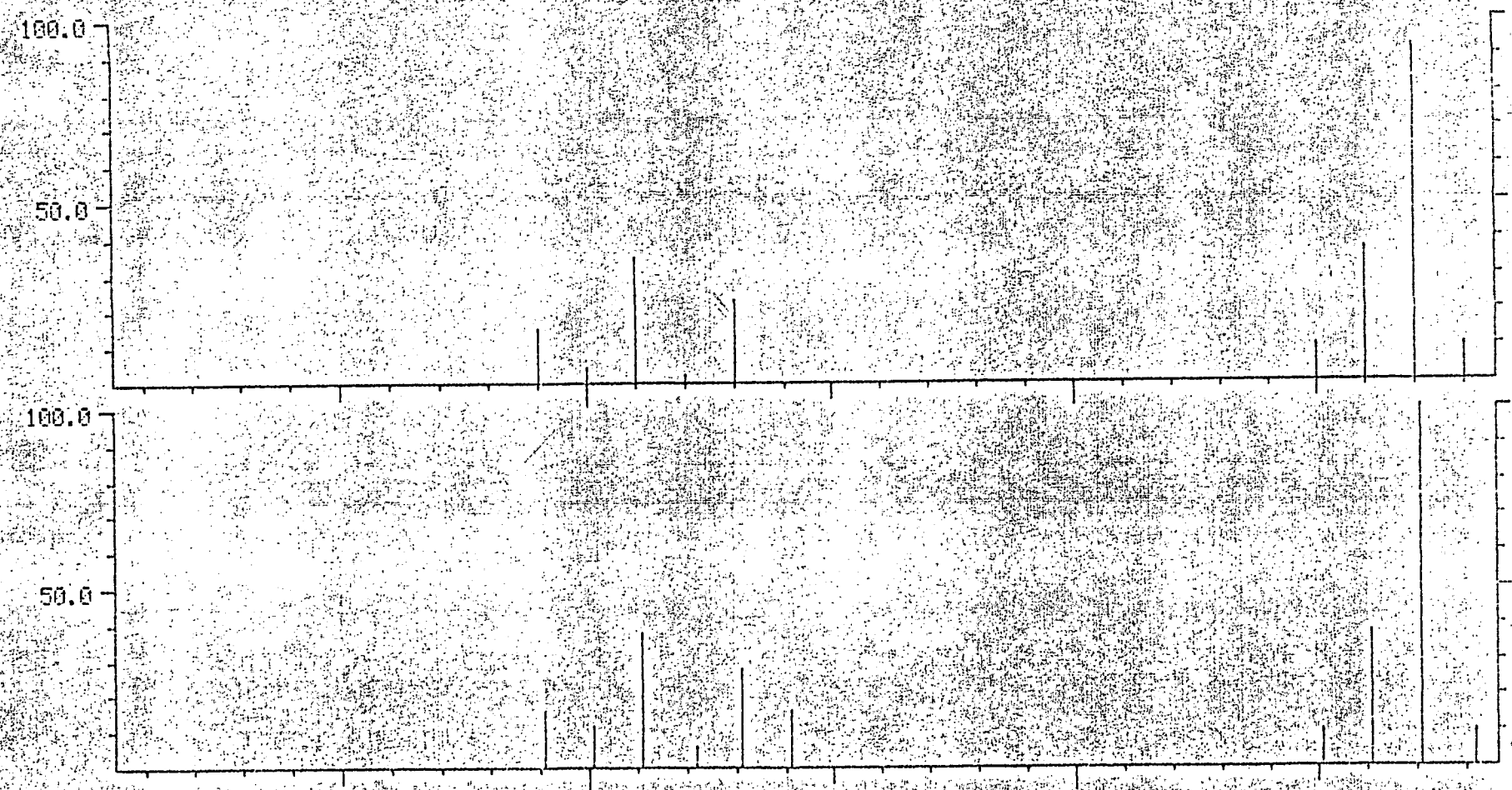


137

MID DUAL MASS SPECTRUM
10/18/85 16:35:00 + 23:07
SAMPLE: 12237-5
CONDS.: 5 ML INJ
GC TEMP: 206 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: 12237V5 #737
CALI: 12237V5 #2

BASE M/Z: 57/ 57
RIC: 23711./ 28695.

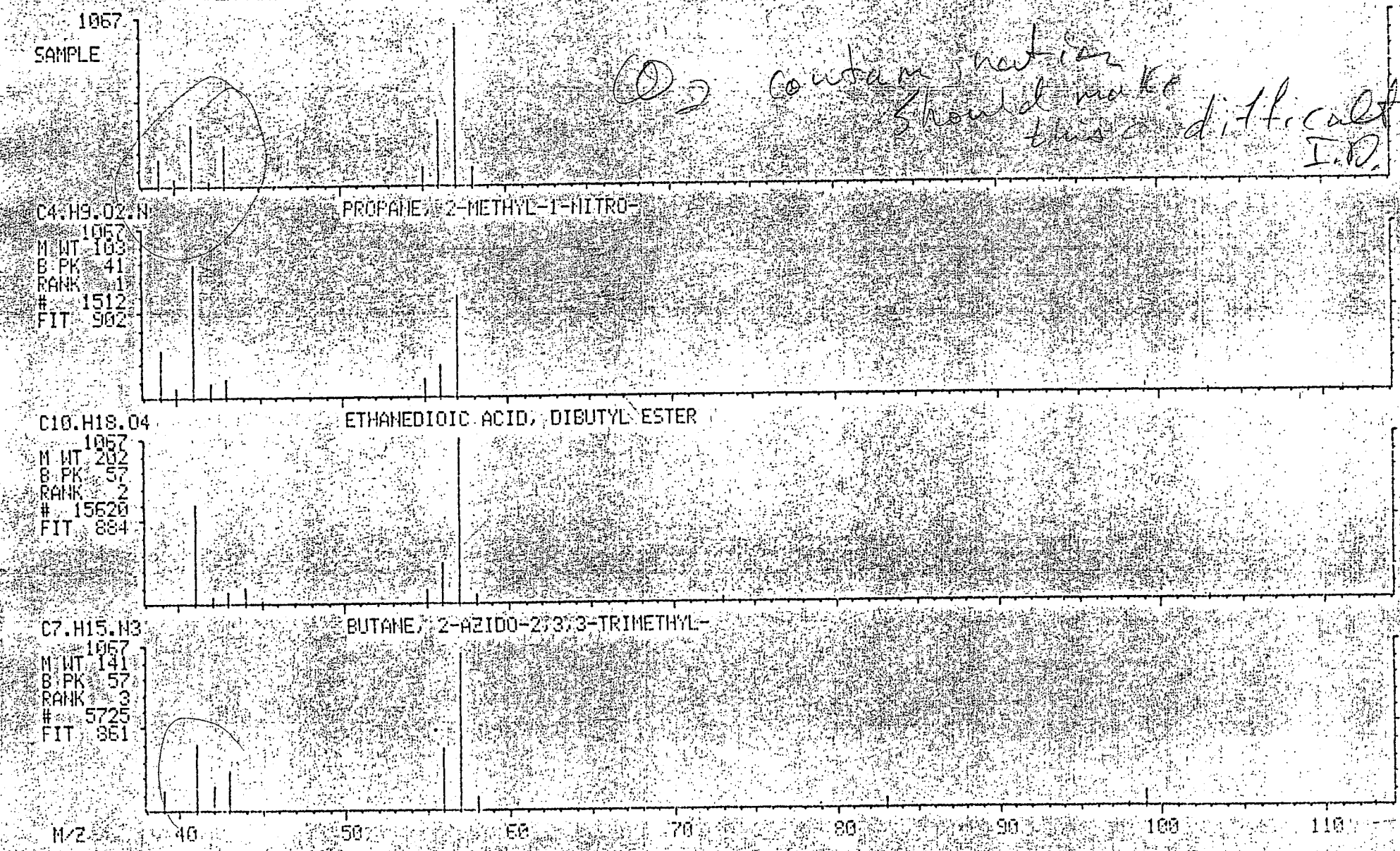


136

MID LIBRARY SEARCH
10/18/85 16:35:00 + 23:07
SAMPLE: 12237-5
CONDS.: 5 ML INJ
ENHANCED (S 15B 2N 0T)

DATA: 12237V5 #.737
CALI: 12237V5 # 2

BASE M/Z: 57
RIC: 23711.



O_2 contamination should make this a difficult I.D.

137

MID Library Search
10/18/85 16:35:00 + 23:07
Sample: 12237-5
Conds.: 5 ML INJ
Enhanced (S 15B 2N OT)

Data: 12237V5 # 737
Cali: 12237V5 # 2

Base m/z: 57
RIC: 23711

138

Rank	In.	Name
1	1512	PROPANE, 2-METHYL-1-NITRO-
2	15620	ETHANEDIOIC ACID, DIBUTYL ESTER
3	5725	BUTANE, 2-AZIDO-2,3,3-TRIMETHYL-
4	2465	PENTANE, 2,2,3-TRIMETHYL-
5	2475	BUTANE, 2,2,3,3-TETRAMETHYL-

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C4.H9.O2.N	103	41	856	902	863
2	C10.H18.O4	202	57	826	884	891
3	C7.H15.N3	141	57	807	861	920
4	C8.H18	114	57	838	838	974
5	C8.H18	114	57	811	823	965

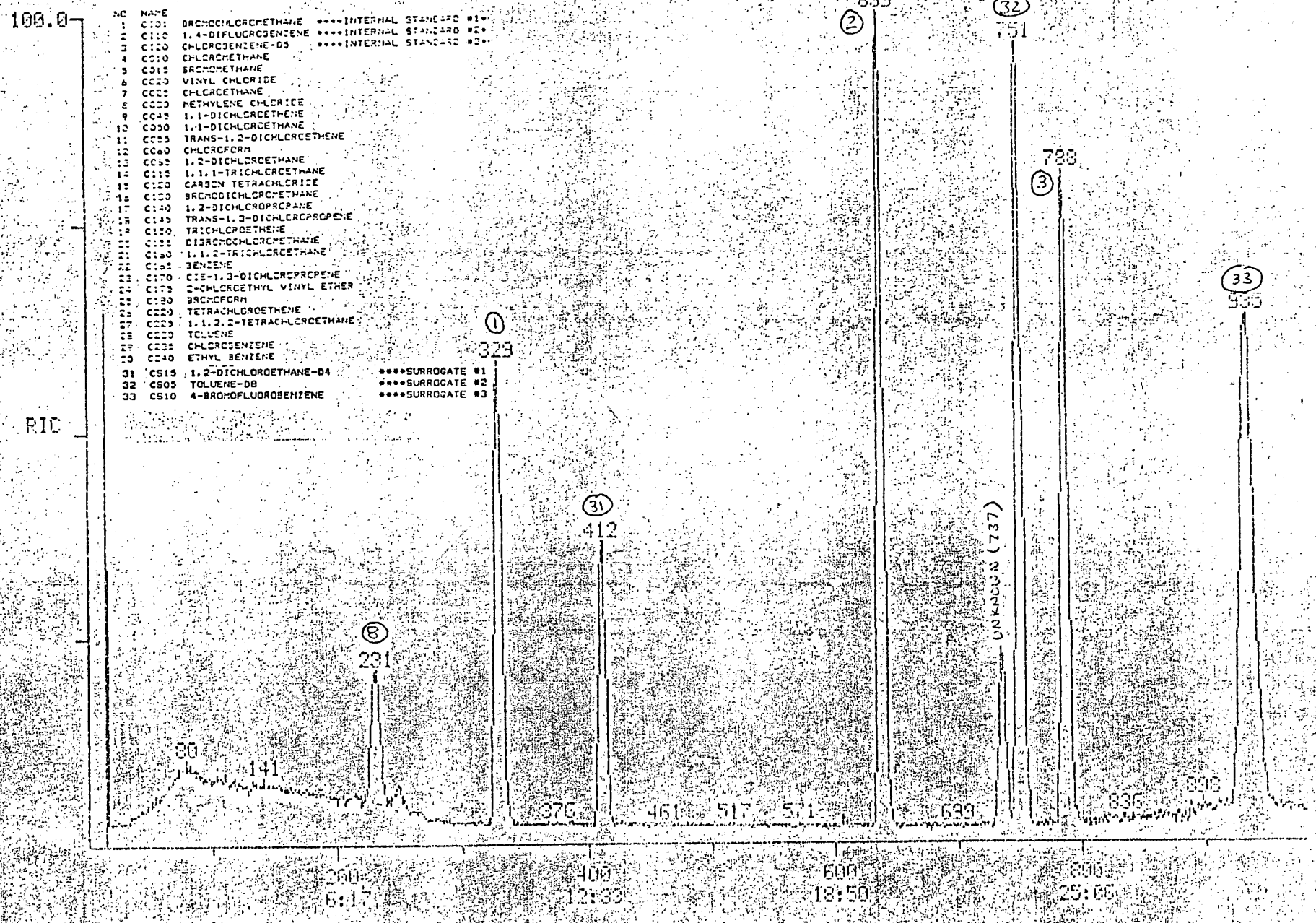
MIDRIC
10/18/85 17:20:00
SAMPLE: 12237-6
CONDS.: 5 ML INJ
RANGE: G 1,1100 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

DATA: 12237V6 #1
CALI: 12237V5 #2

SCANS 1 TO 980

112256.

NO	NAME		
1	C101	BROMOCHLOROMETHANE	****INTERNAL STANDARD #1
2	C110	1,4-DIFLUOROBENZENE	****INTERNAL STANDARD #2
3	C120	CHLOROBENZENE-D5	****INTERNAL STANDARD #3
4	C010	CHLOROMETHANE	
5	C015	BROMOMETHANE	
6	C020	VINYL CHLORIDE	
7	C025	CHLOROETHANE	
8	C030	METHYLENE CHLORIDE	
9	C045	1,1-DICHLOROETHENE	
10	C050	1,1-DICHLOROETHANE	
11	C055	TRANS-1,2-DICHLOROETHENE	
12	C060	CHLOROFORM	
13	C065	1,2-DICHLOROETHANE	
14	C115	1,1,1-TRICHLOROETHANE	
15	C120	CARBON TETRACHLORIDE	
16	C130	BROMODICHLOROMETHANE	
17	C140	1,2-DICHLOROPROPANE	
18	C145	TRANS-1,3-DICHLOROPROPENE	
19	C150	TRICHLOROETHENE	
20	C155	DIBROMOCHLOROMETHANE	
21	C160	1,1,2-TRICHLOROETHANE	
22	C165	BENZENE	
23	C170	CIS-1,3-DICHLOROPROPENE	
24	C175	2-CHLOROETHYL VINYL ETHER	
25	C180	BROMOFORM	
26	C220	TETRACHLOROETHENE	
27	C225	1,1,2,2-TETRACHLOROETHANE	
28	C230	TOLUENE	
29	C235	CHLOROBENZENE	
30	C240	ETHYL BENZENE	
31	CS15	1,2-DICHLOROETHANE-D4	****SURROGATE #1
32	CS05	TOLUENE-D8	****SURROGATE #2
33	CS10	4-BROMOFLUOROBENZENE	****SURROGATE #3



Quantitation Report File: 12237V6

140

Data: 12237V6.TI
10/18/85 17:20:00
Sample: 12237-6
Submitted by: HSMA Analyst: PAT

AMOUNT=AREA * REF.AMNT/(REF.AREA)* RESP.FACT)
Resp. fac. from Library Entry

NO	NAME	
1	CI01	BROMOCHLOROMETHANE ****INTERNAL STANDARD #1****
2	CI10	1,4-DIFLUOROBENZENE ****INTERNAL STANDARD #2****
3	CI20	CHLOROBENZENE-D5 ****INTERNAL STANDARD #3****
4	C010	CHLOROMETHANE
5	C015	BROMOMETHANE
6	C020	VINYL CHLORIDE
7	C025	CHLOROETHANE
8	C030	METHYLENE CHLORIDE
9	C045	1,1-DICHLOROETHENE
10	C050	1,1-DICHLOROETHANE
11	C055	TRANS-1,2-DICHLOROETHENE
12	C060	CHLOROFORM
13	C065	1,2-DICHLOROETHANE
14	C115	1,1,1-TRICHLOROETHANE
15	C120	CARBON TETRACHLORIDE
16	C130	BROMODICHLOROMETHANE
17	C140	1,2-DICHLOROPROPANE
18	C145	TRANS-1,3-DICHLOROPROPENE
19	C150	TRICHLOROETHENE
20	C155	DIBROMOCHLOROMETHANE
21	C160	1,1,2-TRICHLOROETHANE
22	C165	BENZENE
23	C170	CIS-1,3-DICHLOROPROPENE
24	C175	2-CHLOROETHYL VINYL ETHER
25	C180	BROMOFORM
26	C220	TETRACHLOROETHENE
27	C225	1,1,2,2-TETRACHLOROETHANE
28	C230	TOLUENE
29	C235	CHLOROBENZENE
30	C240	ETHYL BENZENE
31	CS15	1,2-DICHLOROETHANE-D4 ****SURROGATE #1****
32	CS05	TOLUENE-D8 ****SURROGATE #2****
33	CS10	4-BROMOFLUOROBENZENE ****SURROGATE #3****

141

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	128	329	10:19	1	1.000	A BB	43200.	50.000 UG/L	16.31
2	114	638	20:01	2	1.000	A BB	224848.	50.000 UG/L	16.31
3	117	787	24:42	3	1.000	A BB	-140672.	50.000 UG/L	16.31
4	NOT FOUND								
5	NOT FOUND								
6	NOT FOUND								
7	NOT FOUND								
8	84	231	7:15	1	0.702	A BB	25544.	12.565 UG/L	4.10
9	NOT FOUND								
10	NOT FOUND								
11	NOT FOUND								
12	NOT FOUND								
13	NOT FOUND								
14	NOT FOUND								
15	NOT FOUND								
16	NOT FOUND								
17	NOT FOUND								
18	NOT FOUND								
19	NOT FOUND								
20	NOT FOUND								
21	NOT FOUND								
22	NOT FOUND								
23	NOT FOUND								
24	NOT FOUND								
25	NOT FOUND								
26	NOT FOUND								
27	NOT FOUND								
28	NOT FOUND								
29	NOT FOUND								
30	NOT FOUND								
31	65	412	12:56	1	1.252	A BB	72672.	42.102 UG/L	13.74
32	98	751	23:34	3	0.954	A BB	210296.	53.133 UG/L	17.33
33	95	935	29:20	3	1.188	A BB	129040.	48.733 UG/L	15.90

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	10:16	1.01	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	19:59	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
3	24:38	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
4	1:53		0.183			200.00		3.209	
5	3:04		0.300			200.00		2.787	
6	3:59		0.388			200.00		3.278	
7	5:01		0.489			200.00		2.044	
8	7:13	1.00	0.703	1.00	12.57	200.00	0.148	2.353	0.06
9	9:53		0.963			200.00		2.071	
10	11:05		1.080			200.00		4.316	
11	11:46		1.147			200.00		2.050	
12	12:16		1.196			200.00		4.025	
13	12:59		1.266			200.00		1.773	
14	14:15		0.713			200.00		0.501	
15	14:35		0.730			200.00		0.472	
16	15:04		0.754			200.00		0.534	
17	16:21		0.818			200.00		0.470	
18	16:34		0.829			200.00		0.213	
19	17:06		0.856			200.00		0.434	
20	17:40		0.884			200.00		0.258	
21	17:46		0.889			200.00		0.205	
22	17:36		0.881			200.00		1.083	
23	17:46		0.889			200.00		0.451	
24	18:46		0.939			200.00		0.047	
25	20:11		1.009			200.00		0.095	
26	22:26		0.911			200.00		0.576	
27	22:22		0.908			200.00		0.375	
28	23:40		0.961			200.00		0.938	
29	24:44		1.004			200.00		1.113	
30	26:40		1.083			200.00		0.599	
31	12:54	1.00	1.257	1.00	42.10	50.00	1.682	1.998	0.84
32	23:30	1.00	0.954	1.00	53.13	50.00	1.495	1.407	1.06
33	29:11	1.01	1.185	1.00	48.73	50.00	0.917	0.941	0.97

MID MASS SPECTRUM
10/18/85 17:20:00 + 7:17
SAMPLE: 12237-6
CONDS.: 5 ML INJ
GC TEMP: 78 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: 12237V6 #232
CALI: 12237V6 #2

BASE M/Z: 49
RIC: 14036.

METHYLENE CHLORIDE

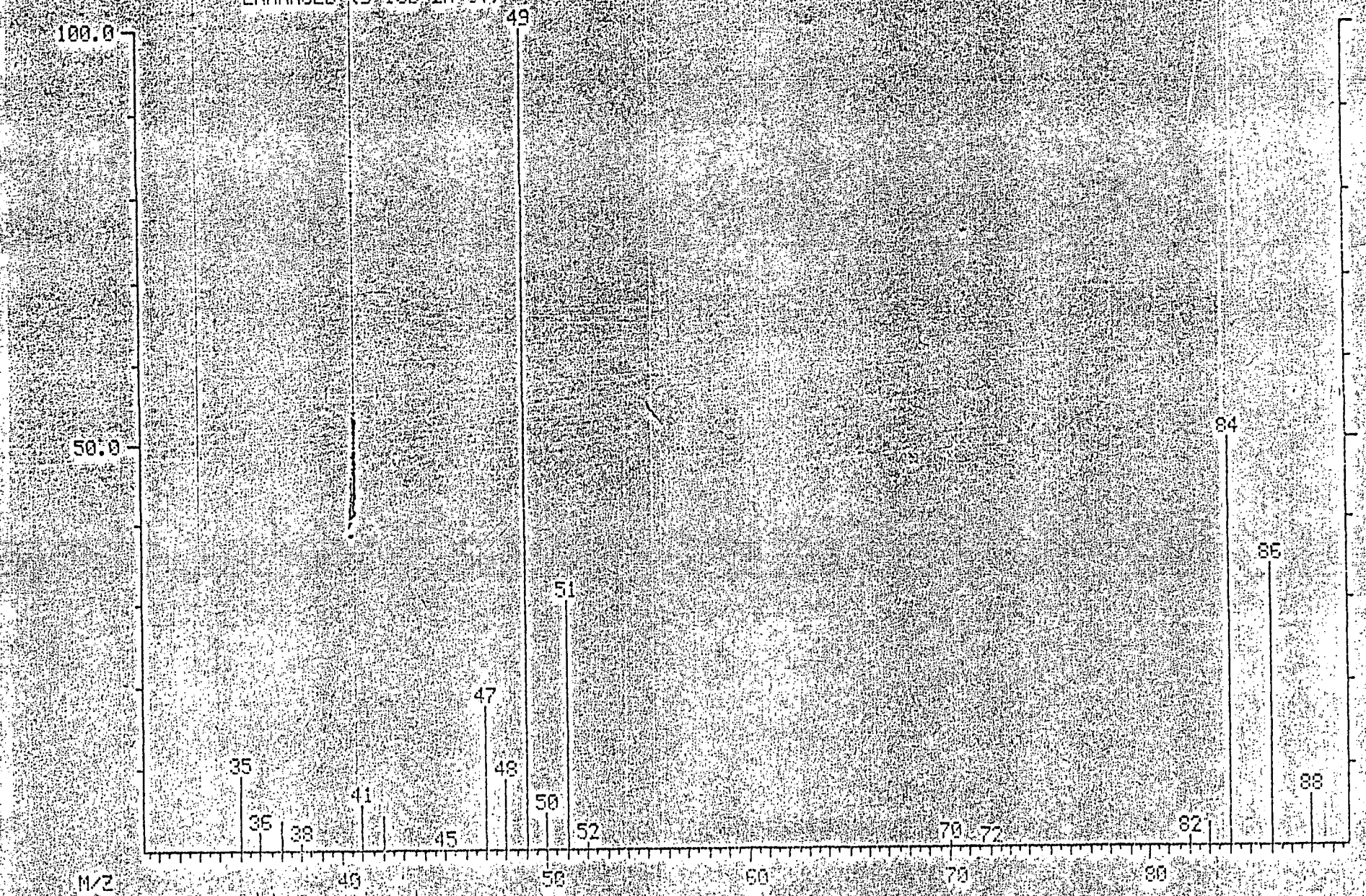
143

MID MASS SPECTRUM
10/07/85 23:21:00 + 5:07
SAMPLE: Vol Std.
CONDS.: EI
GC TEMP: 61 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: VSB107P5 #163
CALI: VSB107P5 #2

BASE M/Z: 49
RIC: 450560.

METHYLENE CHLORIDE



144

MID DUAL MASS SPECTRUM
10/18/85 17:20:00 + 23:07
SAMPLE: 12237-6
CONDS.: 5 ML INJ
GC TEMP: 206 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: 12237V6 #737
CALI: 12237V6 #2

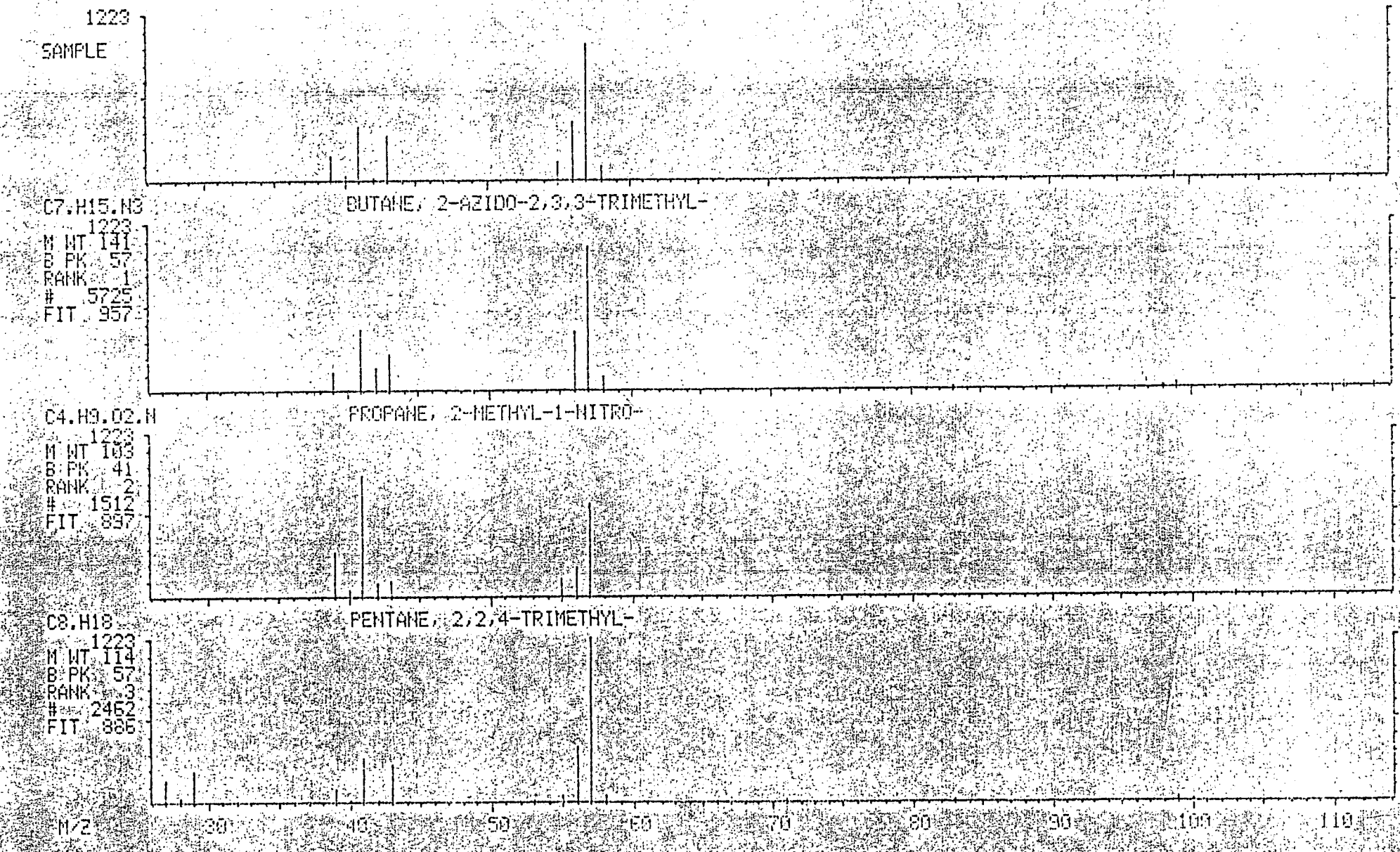
BASE M/Z: 57/ 57
RIC: 21471./ 24767.

145

MID LIBRARY SEARCH
10/18/85 17:20:00 + 23:07
SAMPLE: 12237-6
CONDS.: 5 ML INJ
ENHANCED (S 15B 2N 0T)

DATA: 12237V6 # 737
CALI: 12237V6 # 2

BASE M/Z: 57
RIC: 21471.



146

MID Library Search Date: 12237V6 # 737 Base m/z: 57
10/18/85 17:20:00 + 23:07 Cali: 12237V6 # 2 RIC: 21471 147
Sample: 12237-6
Conds.: 5 ML INJ
Enhanced (S-15B 2N OT)

Rank	In.	Name
1	5725	BUTANE, 2-AZIDO-2,3,3-TRIMETHYL-
2	1512	PROPANE, 2-METHYL-1-NITRO-
3	2462	PENTANE, 2,2,4-TRIMETHYL-
4	15620	ETHANEDIOIC ACID, DIBUTYL ESTER
5	2475	BUTANE, 2,2,3,3-TETRAMETHYL-

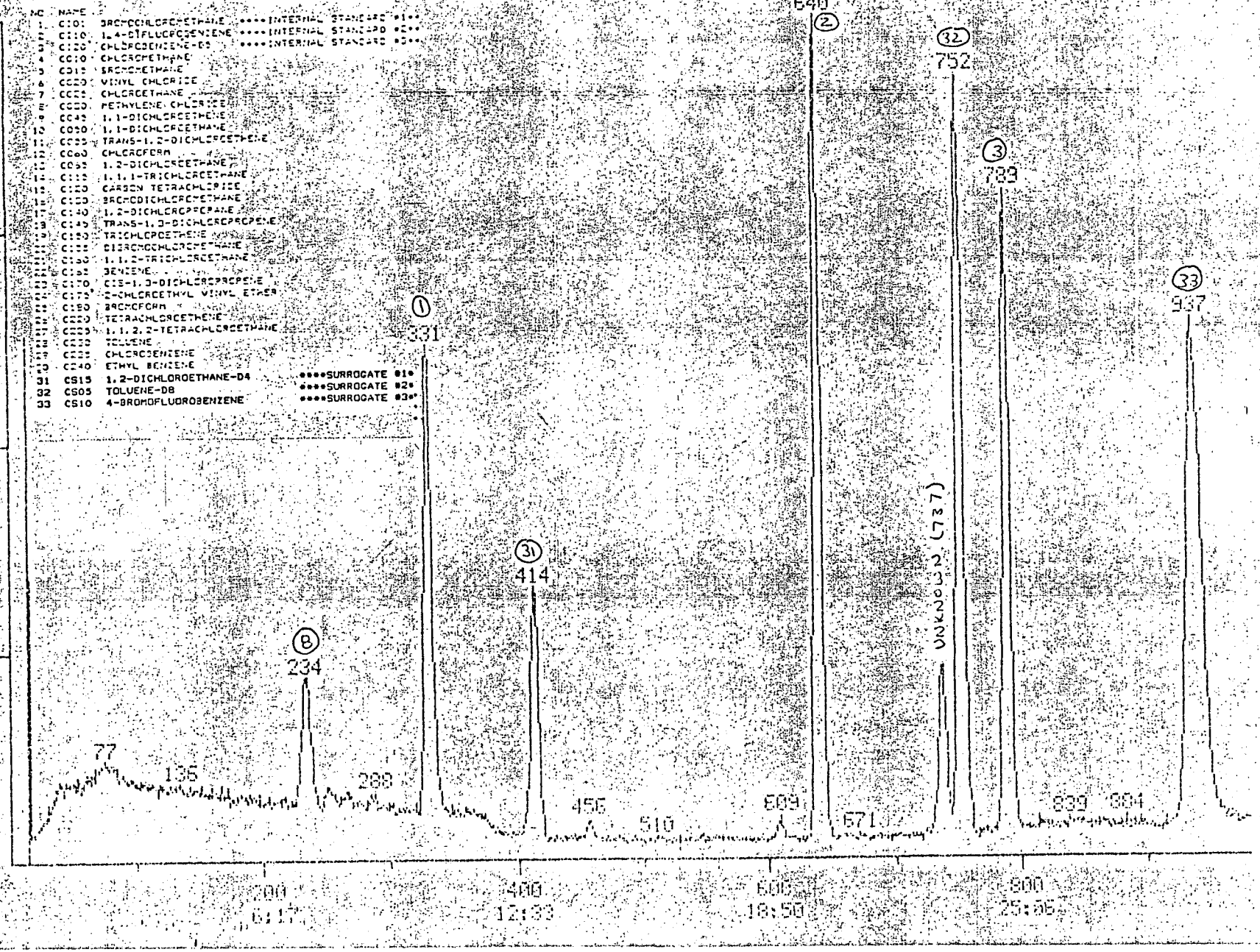
Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C7 H15 N3	141	57	897	957	917
2	C4 H9 O2 N	103	41	841	897	847
3	C8 H18	114	57	886	886	980
4	C10 H18 O4	202	57	800	874	864
5	C8 H18	114	57	864	873	965

MIDRIC
10/18/85 18:06:00
SAMPLE: 12237-7
CONDS.: 5 ML INJ
RANGE: G 1,1100 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

DATA: 12237V7,#1 SCANS 1 TO 980
CALI: 12237V7,#2

152332.

NO	NAME	
1	C101	BROMOCHLOROETHANE ****INTERNAL STANDARD #1**
2	C110	1,4-DIFLUOROBENZENE ****INTERNAL STANDARD #2**
3	C120	CHLOROBENZENE-D5 ****INTERNAL STANDARD #3**
4	C010	CHLOROETHANE
5	C015	BROMOETHANE
6	C020	VINYL CHLORIDE
7	C025	CHLOROETHANE
8	C030	METHYLENE CHLORIDE
9	C045	1,1-DICHLOROETHENE
10	C050	1,1-DICHLOROETHANE
11	C055	TRANS-1,2-DICHLOROETHENE
12	C060	CHLOROFORM
13	C065	1,2-DICHLOROETHANE
14	C115	1,1,1-TRICHLOROETHANE
15	C100	CARBON TETRACHLORIDE
16	C105	BROMODICHLOROMETHANE
17	C140	1,2-DICHLOROPROPANE
18	C145	TRANS-1,3-DICHLOROPROPENE
19	C150	TRICHLOROETHENE
20	C155	DIBROMOCHLOROMETHANE
21	C160	1,1,2-TRICHLOROETHANE
22	C165	BENZENE
23	C170	CIS-1,3-DICHLOROPROPENE
24	C175	2-CHLOROETHYL VINYL ETHER
25	C180	BROMOFORM
26	C220	TETRACHLOROETHENE
27	C225	1,1,2,2-TETRACHLOROETHANE
28	C230	TOLUENE
29	C235	CHLOROBENZENE
30	C240	ETHYL BENZENE
31	CS15	1,2-DICHLOROETHANE-D4 ****SURROGATE #1*
32	CS05	TOLUENE-D8 ****SURROGATE #2*
33	CS10	4-BROMOFLUOROBENZENE ****SURROGATE #3*



87

Quantitation Report File: 12237V7

149

Data. 12237V7.TI
10/18/85 18:06:00
Sample: 12237-7
Submitted by: HSMA Analyst: PAT

AMOUNT=AREA * REF.AMNT/(REF.AREA)* RESP.FACT)
Resp. fac. from Library Entry

NO	NAME	
1	CI01	BROMOCHLOROMETHANE ****INTERNAL STANDARD #1****
2	CI10	1,4-DIFLUOROBENZENE ****INTERNAL STANDARD #2****
3	CI20	CHLOROBENZENE-D5 ****INTERNAL STANDARD #3****
4	C010	CHLOROMETHANE
5	C015	BROMOMETHANE
6	C020	VINYL CHLORIDE
7	C025	CHLOROETHANE
8	C030	METHYLENE CHLORIDE
9	C045	1,1-DICHLOROETHENE
10	C050	1,1-DICHLOROETHANE
11	C055	TRANS-1,2-DICHLOROETHENE
12	C060	CHLOROFORM
13	C065	1,2-DICHLOROETHANE
14	C115	1,1,1-TRICHLOROETHANE
15	C120	CARBON TETRACHLORIDE
16	C130	BROMODICHLOROMETHANE
17	C140	1,2-DICHLOROPROPANE
18	C145	TRANS-1,3-DICHLOROPROPENE
19	C150	TRICHLOROETHENE
20	C155	DIBROMOCHLOROMETHANE
21	C160	1,1,2-TRICHLOROETHANE
22	C165	BENZENE
23	C170	CIS-1,3-DICHLOROPROPENE
24	C175	2-CHLOROETHYL VINYL ETHER
25	C180	BROMOFORM
26	C220	TETRACHLOROETHENE
27	C225	1,1,2,2-TETRACHLOROETHANE
28	C230	TOLUENE
29	C235	CHLOROBENZENE
30	C240	ETHYL BENZENE
31	CS15	1,2-DICHLOROETHANE-D4 ****SURROGATE #1****
32	CS05	TOLUENE-D8 ****SURROGATE #2****
33	CS10	4-BROMOFLUOROBENZENE ****SURROGATE #3****

150

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	128	331	10:23	1	1.000	A BB	60440.	50.000 UG/L	16.50
2	114	640	20:05	2	1.000	A BB	284224.	50.000 UG/L	16.50
3	117	789	24:45	3	1.000	A BB	167216.	50.000 UG/L	16.50
4	NOT FOUND								
5	NOT FOUND								
6	NOT FOUND								
7	NOT FOUND								
8	84	234	7:21	1	0.707	A BB	35464.	12.469 UG/L	4.11 yes LFC
9	NOT FOUND								
10	NOT FOUND								
11	NOT FOUND								
12	NOT FOUND								
13	NOT FOUND								
~~14~~	~~77~~	~~457~~	~~14:20~~	~~2~~	~~0.714~~	~~A BB~~	~~6763.~~	~~2.446 UG/L~~	~~0.81~~ no LFC
15	NOT FOUND								
16	NOT FOUND								
17	NOT FOUND								
18	NOT FOUND								
19	NOT FOUND								
20	NOT FOUND								
21	NOT FOUND								
22	NOT FOUND								
23	NOT FOUND								
24	NOT FOUND								
25	NOT FOUND								
26	NOT FOUND								
27	NOT FOUND								
~~28~~	~~92~~	~~755~~	~~23:47~~	~~3~~	~~0.961~~	~~A BB~~	~~2406.~~	~~0.767 UG/L~~	~~0.25~~ no LFC
29	NOT FOUND								
30	NOT FOUND								
31	65	414	12:59	1	1.251	A BB	82056.	33.978 UG/L	11.21
32	98	752	23:36	3	0.953	A BB	255168.	54.236 UG/L	17.90
33	95	937	29:24	3	1.186	A BB	154656.	49.135 UG/L	16.22

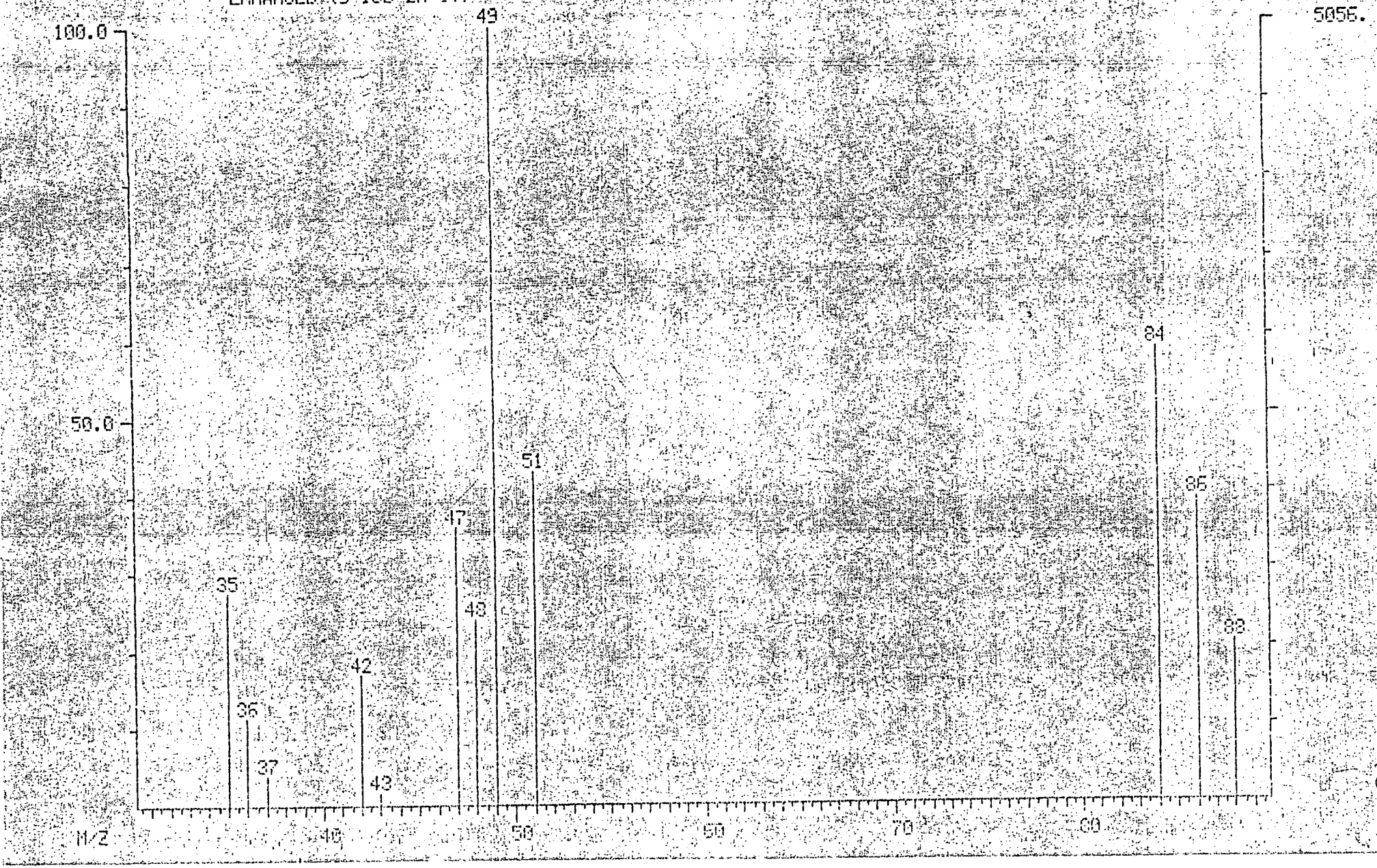
No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	10:16	1.01	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	19:59	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
3	24:38	1.01	1.000	1.00	50.00	50.00	1.000	1.000	1.00
4	1:53		0.183			200.00		3.209	
5	3:04		0.300			200.00		2.787	
6	3:59		0.388			200.00		3.278	
7	5:01		0.489			200.00		2.044	
8	7:13	1.02	0.703	1.01	12.47	200.00	0.147	2.353	0.06
9	9:53		0.963			200.00		2.071	
10	11:05		1.080			200.00		4.316	
11	11:46		1.147			200.00		2.050	
12	12:16		1.196			200.00		4.025	
13	12:59		1.266			200.00		1.773	
14	14:15	1.01	0.713	1.00	2.45	200.00	0.006	0.501	0.01
15	14:35		0.730			200.00		0.472	
16	15:04		0.754			200.00		0.534	
17	16:21		0.818			200.00		0.470	
18	16:34		0.829			200.00		0.213	
19	17:06		0.856			200.00		0.434	
20	17:40		0.884			200.00		0.258	
21	17:46		0.889			200.00		0.205	
22	17:36		0.881			200.00		1.083	
23	17:46		0.889			200.00		0.451	
24	18:46		0.939			200.00		0.047	
25	20:11		1.009			200.00		0.095	
26	22:26		0.911			200.00		0.576	
27	22:22		0.908			200.00		0.375	
28	23:40	1.01	0.961	1.00	0.77	200.00	0.004	0.938	0.00
29	24:44		1.004			200.00		1.112	
30	26:40		1.083			200.00		0.599	
31	12:54	1.01	1.257	1.00	33.98	50.00	1.356	1.998	0.68
32	23:30	1.00	0.954	1.00	54.24	50.00	1.526	1.407	1.08
33	29:11	1.01	1.185	1.00	49.14	50.00	0.925	0.941	0.98

MID MASS SPECTRUM
10/18/85 18:06:00 + 7:21
SAMPLE: 12237-7
CONDS.: 5 ML INJ
GC TEMP: 79 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: 12237V7 #234
CALI: 12237V7 #2

BASE M/Z: 49
RIC: 19296.

METHYLENE CHLORIDE



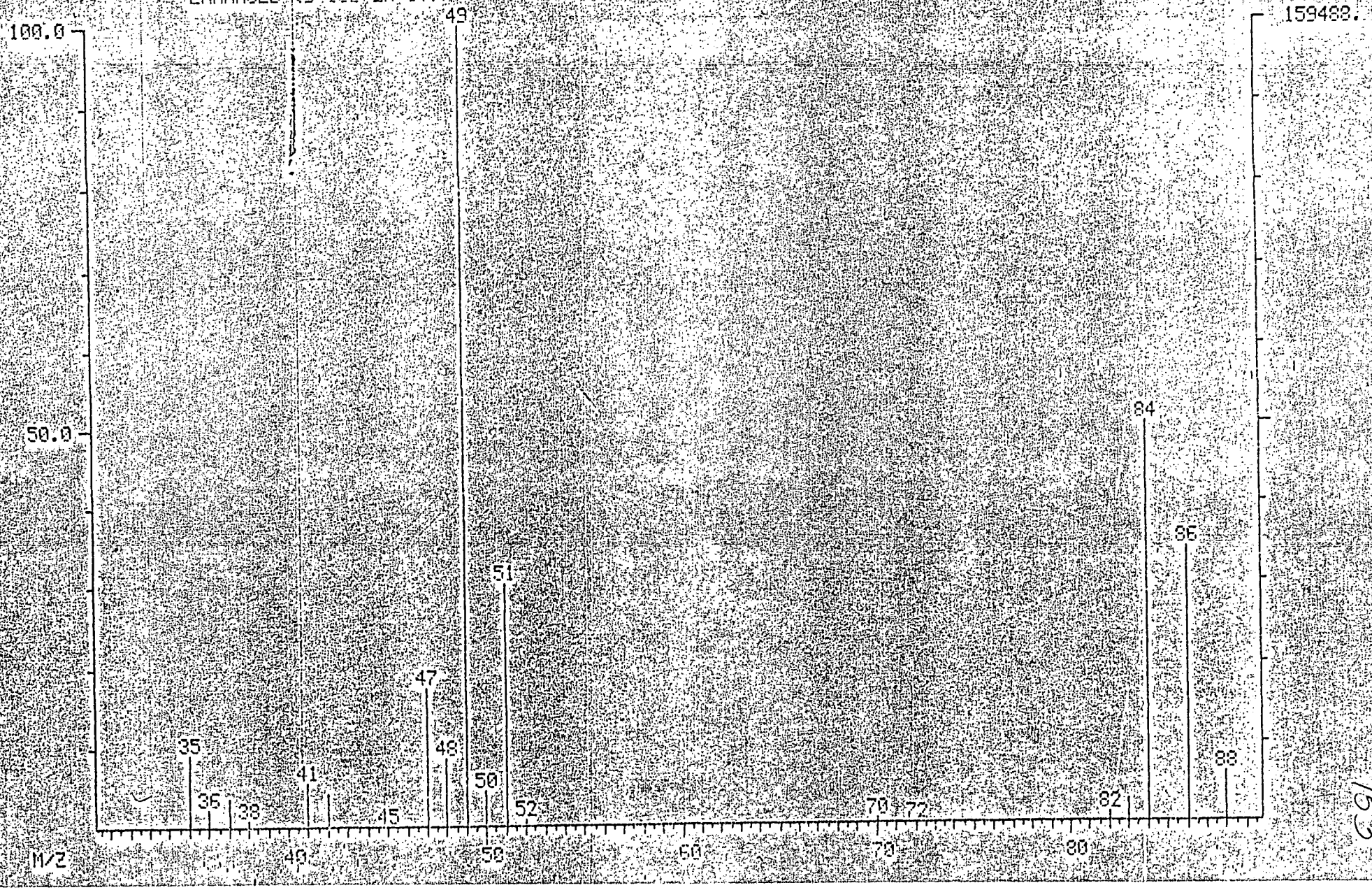
152

MID MASS SPECTRUM
10/07/85 23:21:00 + 5:07
SAMPLE: Vol. std.
CONDS.: EI
GC TEMP: 61 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: VSB107P5 #153
CALI: VSB107P5 #2

BASE M/Z: 49
RIC: 450560.

METHYLENE CHLORIDE



163

MID DUAL MASS SPECTRUM
10/18/85 18:06:00 + 23:07
SAMPLE: 12237-7
CONDS.: 5 ML INJ
GC TEMP: 206 DEG. C
ENHANCED (S 158 2N 0T)

DATA: 12237V7 #737
CALI: 12237V7 #2

BASE M/Z: 57/ 57
RIC: 27295./ 34751.

54

MID LIBRARY SEARCH
10/18/85 18:06:00 + 23:07
SAMPLE: 12237-7
CONDS.: 5-ML INJ
ENHANCED (S 15B 2N 0T)

DATA: 12237V7 # 737
CALI: 12237V7 # 2

BASE M/Z: 57
RIC: 27295.

1109
SAMPLE

C7.H15.N3 BUTANE, 2-AZIDO-2,3,3-TRIMETHYL-
1109
M WT 141
B PK 57
RANK 1
5725
FIT 936

C4.H9.O2.N PROPANE, 2-METHYL-1-NITRO-
1109
M WT 103
B PK 41
RANK 2
1512
FIT 911

C10.H18.O4 ETHANEDIOIC ACID, DIBUTYL ESTER
1109
M WT 202
B PK 57
RANK 3
15620
FIT 879

M/Z 40 50 60 70 80 90 100 110

155

156

MID Library Search Data: 12237V7 # 737 Base m/z 57
10/18/85 18:06:00 + 23:07 Cali: 12237V7 # 2 RIC: 27295
Sample: 12237-7
Conds.: 5 ML INJ
Enhanced (S 15B 2N OT)

Rank	In.	Name
1	5725	BUTANE, 2-AZIDO-2,3,3-TRIMETHYL-
2	1512	PROPANE, 2-METHYL-1-NITRO-
3	15620	ETHANEDIOIC ACID, DIBUTYL ESTER
4	2462	PENTANE, 2,2,4-TRIMETHYL-
5	2475	BUTANE, 2,2,3,3-TETRAMETHYL-

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C7 H15 N3	141	57	866	936	920
2	C4 H9 O2 N	103	41	784	911	791
3	C10 H18 O4	202	57	760	879	820
4	C8 H18	114	57	879	879	965
5	C8 H18	114	57	864	871	955

GC/MS TUNE DATA

VOLATILE ORGANICS

157

GC/MS Tuning and Mass Calibration Data
Bromofluorobenzene (BFB)

Case No. 12237 Contractor S-R Analytical Contract No. _____

Instrument ID 5100B Date 10/18/85 Time 7:57

Lab ID BFBB1018AM Data Release Authorized By: Patricia Twaddell

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	15.0 - 40.0% of the base peak	29.8
75	30.0 - 60.0% of the base peak	52.9
95	Base peak, 100% relative abundance	100
96	5.0 - 9.0% of the base peak	7.10
173	Less than 1.0% of the base peak	<0.01
174	Greater than 50.0% of the base peak	65.8
175	5.0 - 9.0% of mass 174	3.49 (5.30)[1]
176	Greater than 95.0%, but less than 101.0% of mass 174	63.8 (96.9)[1]
177	5.0 - 9.0% of mass 176	3.46 (5.42)[2]

[1] Value in parenthesis is % mass 174.
[2] Value in parenthesis is % mass 176.

THIS PERFORMANCE TUNE APPLIES TO THE FOLLOWING SAMPLES, BLANKS AND STANDARDS.

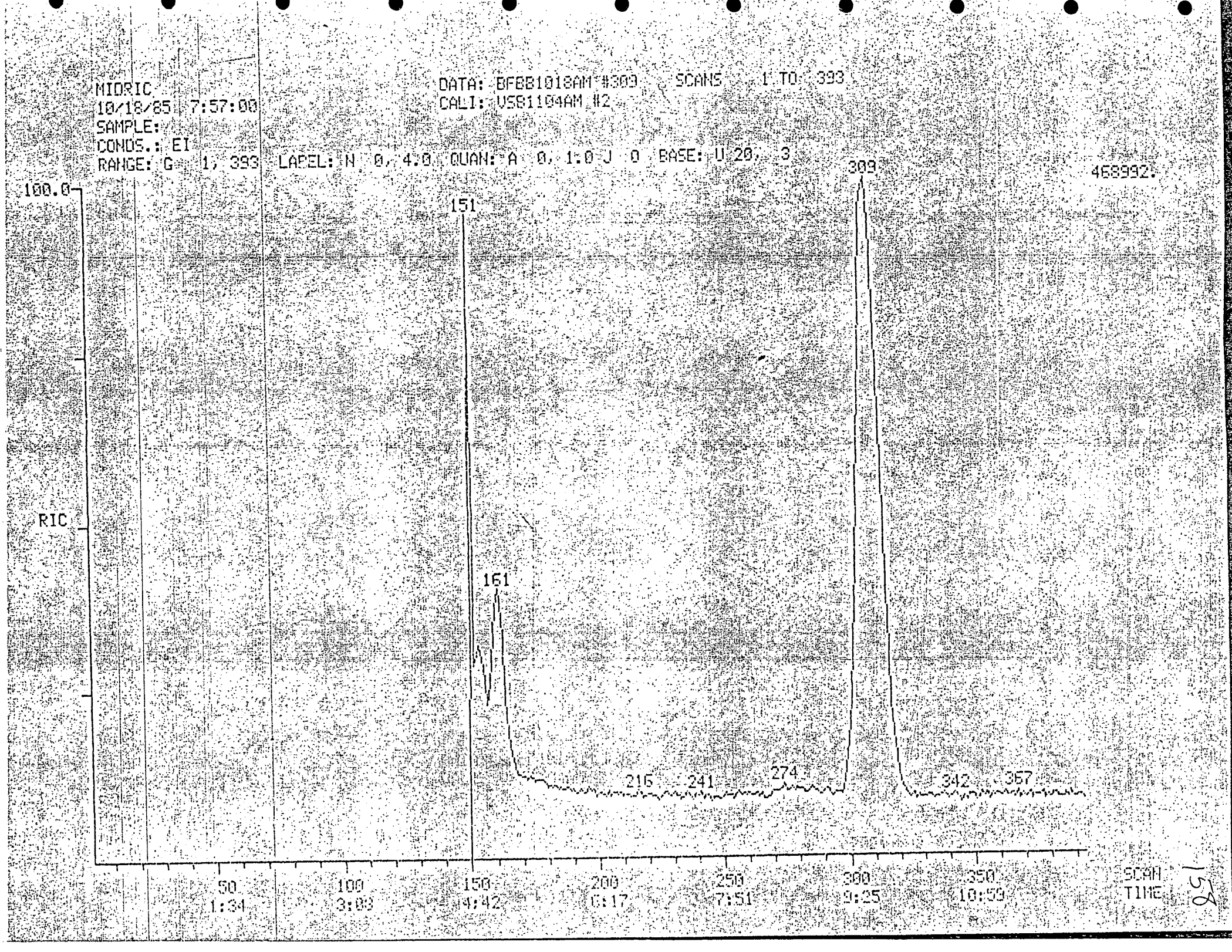
SAMPLE ID	LAB ID	DATE OF ANALYSIS	TIME OF ANALYSIS
100ug/l Std	VSB1018AK	10/18	8:38
200ug/l Std	VSB1018AM		9:25
300ug/l Std	VSB1018AH		10:13
12230-1 SPIKE	12237V1S		11:00
	BLKB1018A		11:52
	12237V1		12:36
	12237V2		13:22
	12237V3		14:09
	12237V2D		14:56
	12237V4		15:44
	12237V5		16:35
	12237V6		17:20
	12237V7		18:06

7/85

FORM V

MIDRIC
10/18/85 7:57:00
SAMPLE:
CONDS.: EI
RANGE: G 1, 393 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

DATA: BFBB1018AM #309 SCANS 1 TO 393
CALI: USB1104AM #2

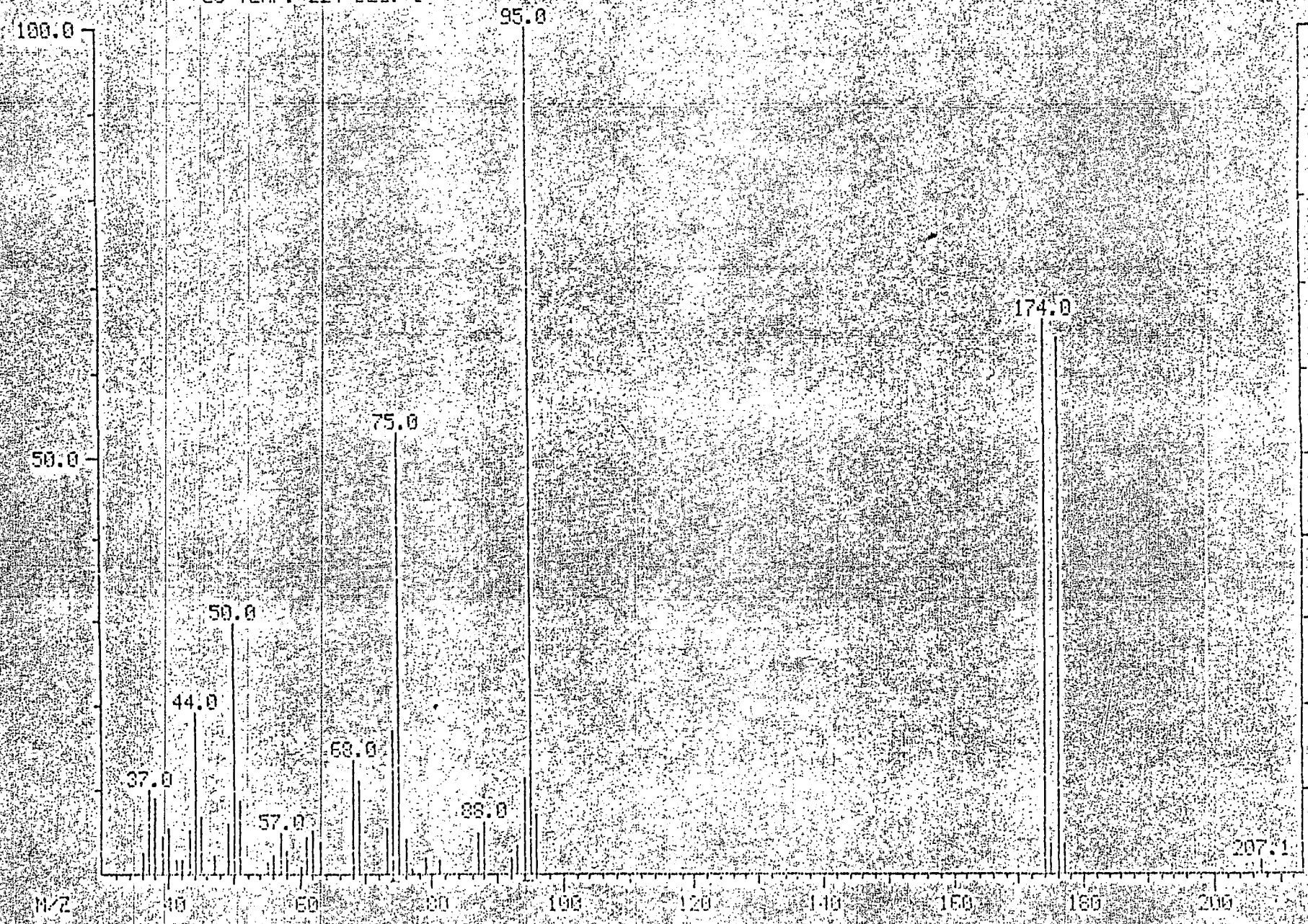


154

MID MASS SPECTRUM
10/18/85 7:57:00 + 9:42
SAMPLE:
CONDS.: EI
GC TEMP: 224 DEG. C

DATA: BFBB1018AM #309
CALI: VSB1104AM #2

BASE M/Z: 95
RIC: 468992.



PROCEDURE: TCA DIAGNOSTIC REPORT
DATA FILE: 12282V1
REFERENCE: VPP
NAME LIST: VH INITIALIZATION OPTION: 2 PROCESSING OPTION: 3
REPORT: HI

: ---- STANDARDS ----- >< --- PLUS UNKNOWNS --- >< - LIST NAMES - >

PROC	USED	POSS	RMS	PROC	USED	POSS	RMS	STANDARD/UNKNOWN
3	0	1		OMID Mass List				Data: BFBB1018AM # 309 Bas

10/18/85 7:57:00 + 9:42 Cali: VSB1104AM # 2 RIC: 468992
Sample:
Conds.: EI

36 0.00 Minima Min inten: 0.
207 # 0 Maxima

Mass	% RA
36	2.59
37	9.94
38	8.96
39	4.66
40	5.27
41	1.63
42	1.54
43	5.20
44	19.13
45	6.80
47	2.20
49	5.90
50	29.84
51	8.50
55	1.37
56	2.08
57	4.82
58	2.59
60	0.90
61	4.28
62	5.24
63	3.71
68	13.44
69	11.05
73	5.39
74	17.03
75	52.90
76	4.11
77	0.62
79	2.01
81	1.70
87	4.90
88	6.15
92	1.94
93	3.10
94	11.32
95	100.00
96	7.10
174	65.84
175	3.49
176	63.79
177	3.46
207	1.71

GC/MS Tuning and Mass Calibration Data
Bromofluorobenzene (BFB)

161

Case No. 12237 Contractor _____ Contract No. _____

Instrument ID 5100B Date 10/18/85 Time 19:16

Lab ID BFBB1018DM Data Release Authorized By: Lee [illegible] Cramer

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	15.0 - 40.0% of the base peak	27.9
75	30.0 - 60.0% of the base peak	53.1
95	Base peak, 100% relative abundance	100
96	5.0 - 9.0% of the base peak	7.17
173	Less than 1.0% of the base peak	<0.01
174	Greater than 50.0% of the base peak	71.7
175	5.0 - 9.0% of mass 174	4.85 (6.76)[1]
176	Greater than 95.0%, but less than 101.0% of mass 174	69.8 (97.3)[1]
177	5.0 - 9.0% of mass 176	4.86 (6.96)[2]

[1] Value in parenthesis is % mass 174.
[2] Value in parenthesis is % mass 176.

THIS PERFORMANCE TUNE APPLIES TO THE FOLLOWING SAMPLES, BLANKS AND STANDARDS.

SAMPLE ID	LAB ID	DATE OF ANALYSIS	TIME OF ANALYSIS
200 w/ 1 std	VSB1018PM	10/18/85	19:36
BLANK	BLKB1018PM		20:31
12237-8 SPK	12237V8S		21:22
12237-8	12237V8		22:[illegible]
12237-9	12237V9		22:59
12237-10	12237V10		23:50
12237-11	12237V11	10/19/85	0:41
12237-12	12237V12		1:32
12237-12D	12237V12D		2:23

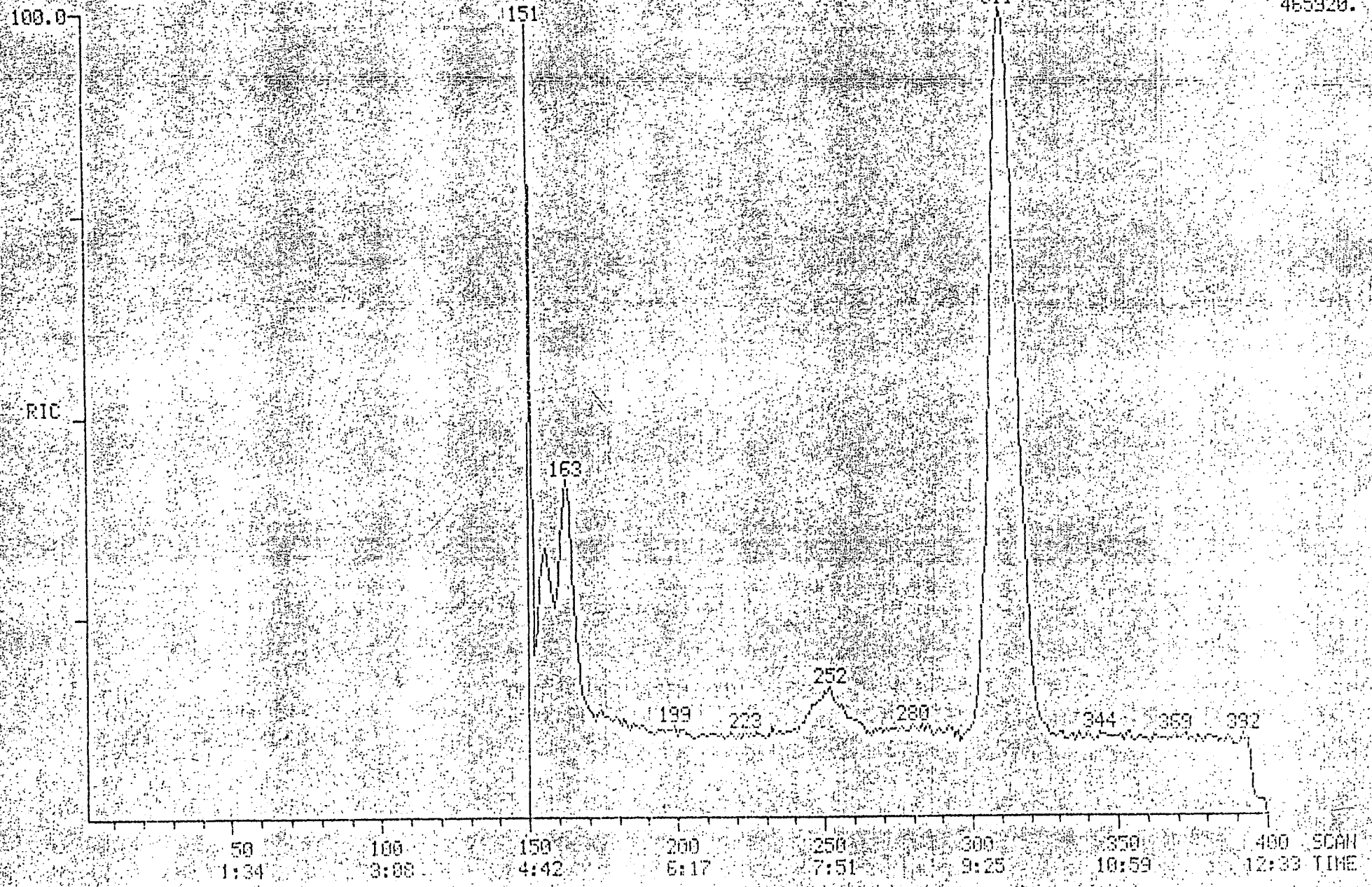
FORM V

7/85

MIDRIC
10/18/85 19:16:00
SAMPLE: BFB 8 10-18-85
CONDS.: EI
RANGE: G 1, 400 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

DATA: BFBB101SPM #310 SCANS 1 TO 400
CALI: 12237V1S #2

465920.

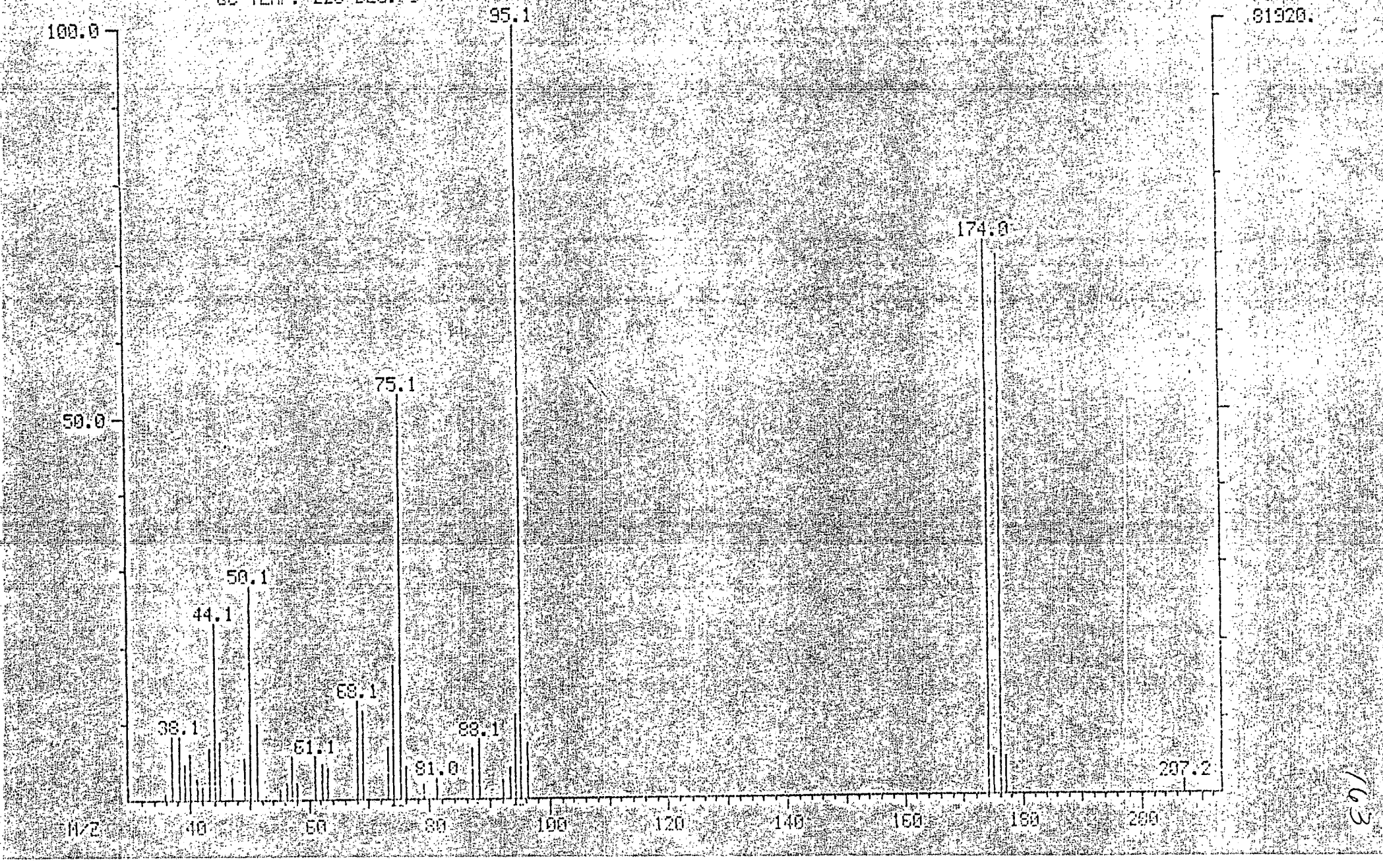


91

MID MASS SPECTRUM
10/18/85 19:16:00 + 9:44
SAMPLE: BFB 8 10-18-85
CONDS.: EI
GC TEMP: 225 DEG. C

DATA: BFBB1018PM #310
CALI: 12237V15 #2

BASE M/Z: 95
RIC: 446876.



163

MID Mass List
10/18/85 19:16:00 + 9:44
Sample: BFB B 10-18-85
Conds.: EI

Data: BFBB1018PM # 310
Cali: 12237V1S # 2

Base m/z: 95
RIC: 446976

164

36 0.00 Minima
207 # 0 Maxima

Min inten: 0.

Mass	% RA
36	0.77
37	8.44
38	8.47
39	4.46
40	5.91
41	2.77
42	1.61
43	6.64
44	23.24
45	7.60
47	3.07
49	5.32
50	27.97
51	9.97
55	1.30
56	2.08
57	5.56
58	2.08
61	5.69
62	4.62
63	4.11
68	12.91
69	11.68
73	6.63
74	17.56
75	53.05
76	4.36
79	1.99
81	2.67
87	6.59
88	7.82
92	2.35
93	3.96
94	11.13
95	100.00
96	7.17
174	71.72
175	4.85
176	69.77
177	4.86
207	1.73

CALIBRATION CURVE

VOLATILE ORGANICS

Initial Calibration Data
Volatile HSL Compounds

Case No: VSB10ISA-LM,H Region: _____ Instrument I D: 5100B

Contractor: S-R Analytical Calibration Date: 10/15/85

Contract No: 12237

Minimum $\overline{RF}$ for SPCC is 0.300 (0.25 for Bromoform) Maximum % RSD for CCC is 30%

Laboratory ID	VSB10ISAL	VSB10ISAM	VSB10ISAH					
Compound	RF_{100}	RF_{200}	RF_{300}			$\overline{RF}$	% RSD	CCC-SPCC--
Chloromethane	3.406	3.209	3.302			3.306	2.98	--
Bromomethane	3.008	2.787	2.657			2.817	6.30	
Vinyl Chloride	3.342	3.278	3.178			3.266	2.63	-
Chloroethane	2.188	2.044	2.055			2.096	3.82	
Methylene Chloride	2.604	2.353	2.169			2.377	9.30	
Acetone								
Carbon Disulfide								
1,1-Dichloroethene	2.199	2.071	2.171			2.147	3.13	-
1,1-Dichloroethane	4.516	4.316	4.495			4.443	2.47	--
Trans-1,2-Dichloroethene	2.122	2.050	2.044			2.072	2.09	
Chloroform	4.107	4.025	3.931			4.021	2.79	- -
1,2-Dichloroethane	1.775	1.773	1.574			1.707	6.76	
2-Butanone								
1,1,1-Trichloroethane	0.511	0.501	0.533			0.515	3.18	
Carbon Tetrachloride	0.431	0.472	0.487			0.466	5.27	
Vinyl Acetate								
Bromodichloromethane	0.500	0.534	0.503			0.512	3.67	
1,2-Dichloropropane	.459	.470	.452			0.460	1.97	-
Trans-1,3-Dichloropropene	0.200	0.213	0.194			0.202	4.80	
Trichloroethene	0.425	0.431	0.431			0.430	1.06	
Dibromochloromethane	0.204	0.258	0.220			0.227	12.20	
1,1,2-Trichloroethane	0.200	0.205	0.178			0.194	7.39	
Benzene	1.048	1.083	1.125			1.085	3.55	
cis-1,3-Dichloropropene	0.423	0.451	0.404			0.426	5.55	
2-Chloroethylvinylether	0.047	0.047	0.042			0.045	6.37	
Bromoform	0.054	0.095	0.072			0.075	24.20	--
4-Methyl-2-Pentanone								
2-Hexanone								
Tetrachloroethene	0.598	0.576	0.635			0.603	4.94	
1,1,2,2-Tetrachloroethane	0.371	0.375	0.359			0.368	2.26	--
Toluene	.975	.938	1.039			0.984	5.19	-
Chlorobenzene	1.142	1.112	1.156			1.137	1.98	--
Ethylbenzene	.606	.599	.645			0.617	4.02	-
Styrene								
Total Xylenes								

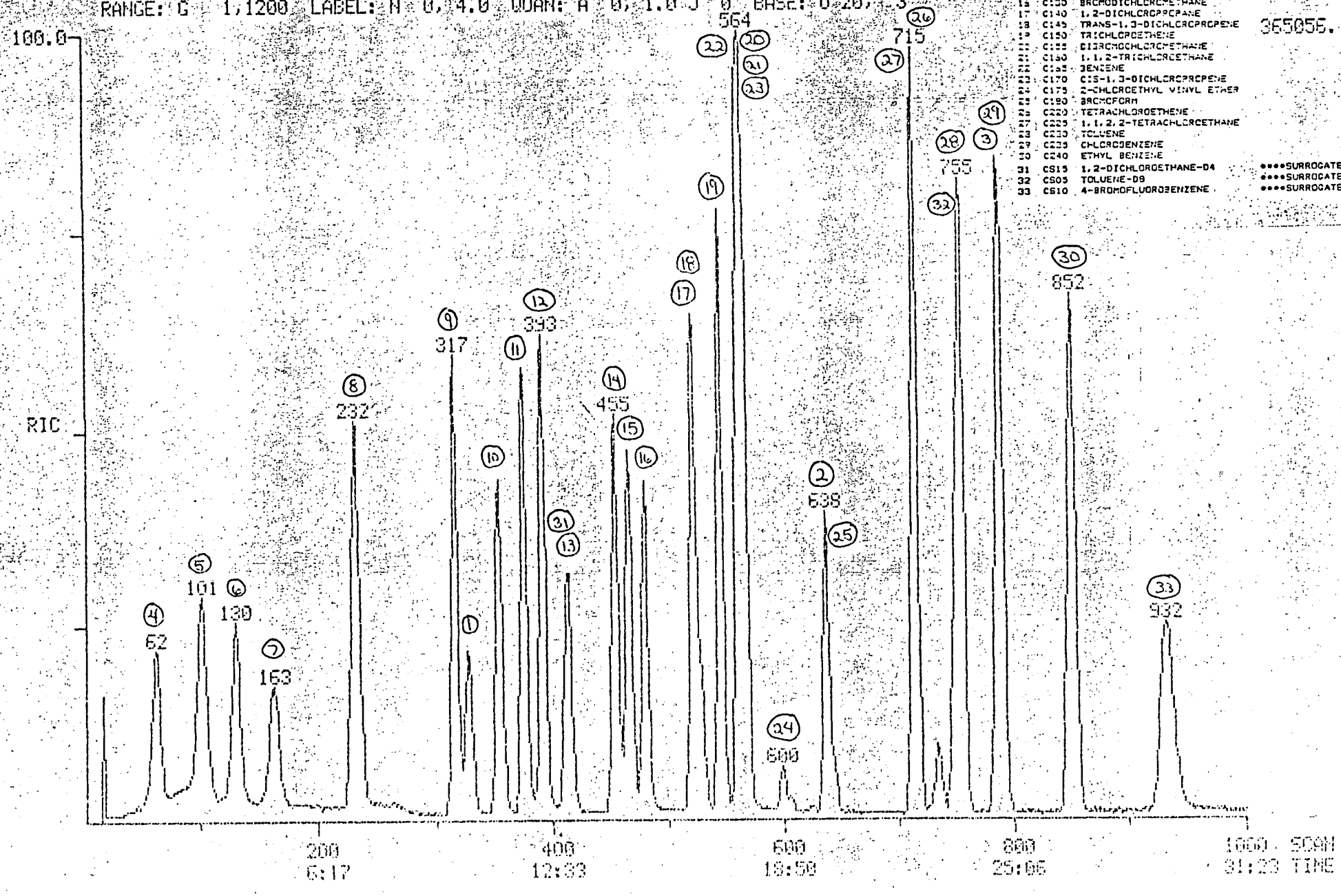
RF -Response Factor (subscript is the amount of ug/L)
$\overline{RF}$ -Average Response Factor
%RSD -Percent Relative Standard Deviation

CCC -Calibration Check Compounds (-)
SPCC -System Performance Check Compounds (--)

Form VI

MIDRIC
10/18/85 8:33:00
SAMPLE: VSB1018AL
CONDS.: 100 UG STD
RANGE: G 1,1200 LABEL: N 0,4.0 QUAN: A 0,1.0 J 0 BASE: U 20,1.3

DATA: VSB1018AL #1 SCANS 1 TO 1000
CALI: VSB1018AL #2



NO	NAME		
1	C101	BROMOCHLOROMETHANE	****INTERNAL STANDARD #1*
2	C110	1,4-DIFLUOROBENZENE	****INTERNAL STANDARD #2*
3	C120	CHLOROBENZENE-D5	****INTERNAL STANDARD #3*
4	C010	CHLOROMETHANE	
5	C015	BROMOMETHANE	
6	C020	VINYL CHLORIDE	
7	C025	CHLOROETHANE	
8	C030	METHYLENE CHLORIDE	
9	C045	1,1-DICHLOROETHENE	
10	C050	1,1-DICHLOROETHANE	
11	C055	TRANS-1,2-DICHLOROETHENE	
12	C060	CHLOROFORM	
13	C065	1,2-DICHLOROETHANE	
14	C115	1,1,1-TRICHLOROETHANE	
15	C120	CARBON TETRACHLORIDE	
16	C130	BROMODICHLOROMETHANE	
17	C140	1,2-DICHLOROPROPANE	
18	C145	TRANS-1,3-DICHLOROPROPENE	
19	C150	TRICHLOROETHENE	
20	C155	DIBROMOCHLOROMETHANE	
21	C160	1,1,2-TRICHLOROETHANE	
22	C165	BENZENE	
23	C170	CIS-1,3-DICHLOROPROPENE	
24	C175	2-CHLOROETHYL VINYL ETHER	
25	C180	BROMOFORM	
26	C220	TETRACHLOROETHENE	
27	C225	1,1,2,2-TETRACHLOROETHANE	
28	C230	TOLUENE	
29	C235	CHLOROBENZENE	
30	C240	ETHYL BENZENE	
31	CS15	1,2-DICHLOROETHANE-D4	****SURROGATE #1*
32	CS05	TOLUENE-D8	****SURROGATE #2*
33	CS10	4-BROMOFLUOROBENZENE	****SURROGATE #3*

365056.

166

Quantitation Report File: VSB1018AL

Data: VSB1018AL.TI
10/18/85 8:38:00
Sample:
Submitted by: Analyst: MS

AMOUNT=AREA * REF.AMNT/(REF.AREA)* RESP.FACT)
Resp. fac. from Library Entry

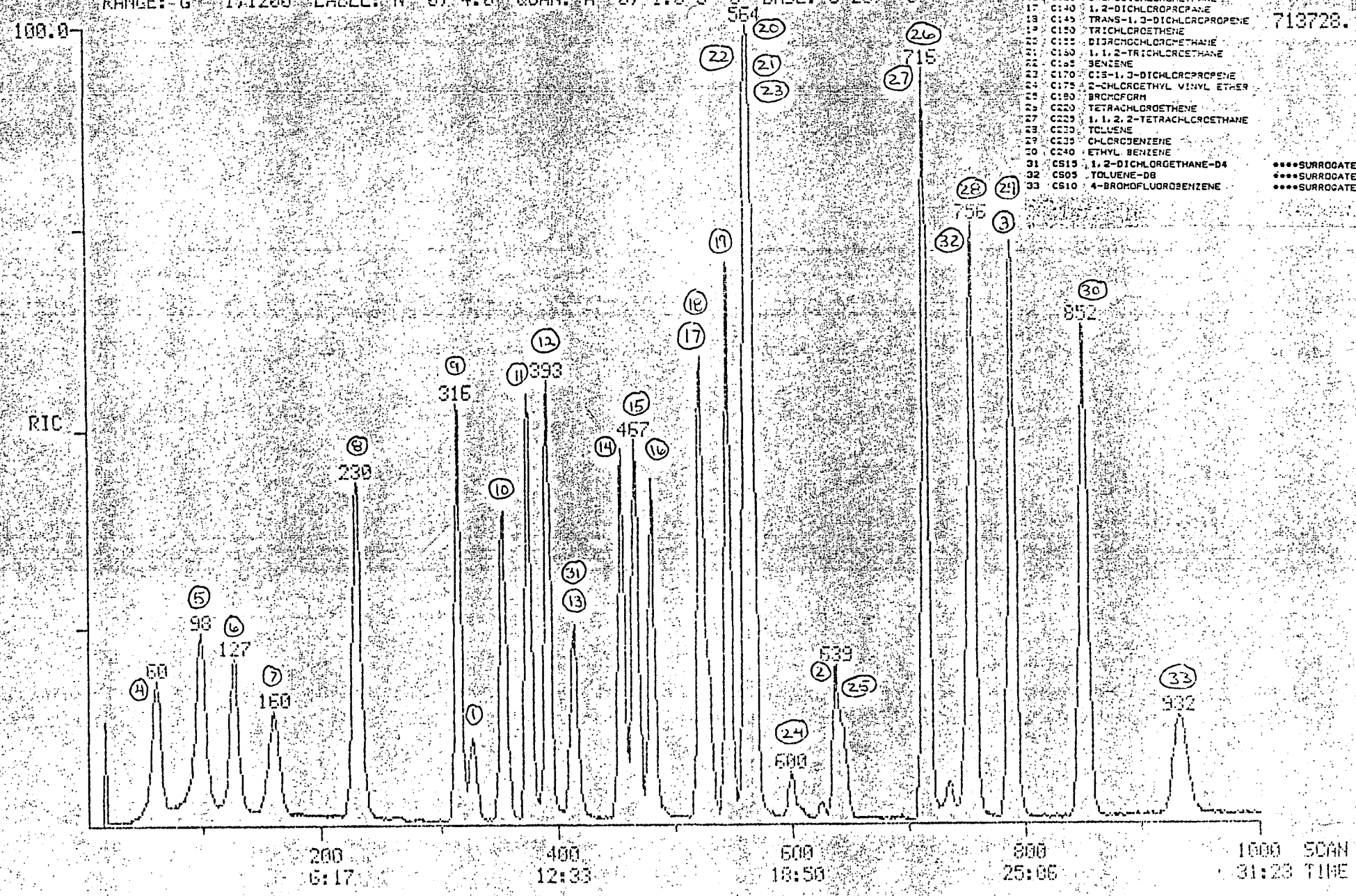
NO	NAME		
1	CI01	BROMOCHLOROMETHANE	****INTERNAL STANDARD #1****
2	CI10	1,4-DIFLUOROBENZENE	****INTERNAL STANDARD #2****
3	CI20	CHLOROBENZENE-D5	****INTERNAL STANDARD #3****
4	C010	CHLOROMETHANE	
5	C015	BROMOMETHANE	
6	C020	VINYL CHLORIDE	
7	C025	CHLOROETHANE	
8	C030	METHYLENE CHLORIDE	
9	C045	1,1-DICHLOROETHENE	
10	C050	1,1-DICHLOROETHANE	
11	C055	TRANS-1,2-DICHLOROETHENE	
12	C060	CHLOROFORM	
13	C065	1,2-DICHLOROETHANE	
14	C115	1,1,1-TRICHLOROETHANE	
15	C120	CARBON TETRACHLORIDE	
16	C130	BROMODICHLOROMETHANE	
17	C140	1,2-DICHLOROPROPANE	
18	C145	TRANS-1,3-DICHLOROPROPENE	
19	C150	TRICHLOROETHENE	
20	C155	DIBROMOCHLOROMETHANE	
21	C160	1,1,2-TRICHLOROETHANE	
22	C165	BENZENE	
23	C170	CIS-1,3-DICHLOROPROPENE	
24	C175	2-CHLOROETHYL VINYL ETHER	
25	C180	BROMOFORM	
26	C220	TETRACHLOROETHENE	
27	C225	1,1,2,2-TETRACHLOROETHANE	
28	C230	TOLUENE	
29	C235	CHLOROBENZENE	
30	C240	ETHYL BENZENE	
31	CS15	1,2-DICHLOROETHANE-D4	****SURROGATE #1****
32	CS05	TOLUENE-D8	****SURROGATE #2****
33	CS10	4-BROMOFLUOROBENZENE	****SURROGATE #3****

168

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount		%Tot
1	128	329	10:19	1	1.000	A BB	52960.	50.000	UG/L	1.67
2	114	638	20:01	2	1.000	A BB	286224.	50.000	UG/L	1.67
3	117	786	24:40	3	1.000	A BB	180112.	50.000	UG/L	1.67
4	50	62	1:57	1	0.188	A BB	360712.	100.000	UG/L	3.33
5	94	101	3:10	1	0.307	A BB	318600.	100.000	UG/L	3.33
6	62	130	4:05	1	0.395	A BB	354032.	100.000	UG/L	3.33
7	64	163	5:07	1	0.495	A BB	231704.	100.000	UG/L	3.33
8	84	232	7:17	1	0.705	A BB	276368.	100.000	UG/L	3.33
9	96	317	9:57	1	0.964	A BB	232896.	100.000	UG/L	3.33
10	63	355	11:08	1	1.079	A BB	478328.	100.000	UG/L	3.33
11	96	377	11:50	1	1.146	A BB	224760.	100.000	UG/L	3.33
12	83	393	12:20	1	1.195	A BB	435040.	100.000	UG/L	3.33
13	62	415	13:01	1	1.261	A BB	187984.	100.000	UG/L	3.33
14	97	455	14:17	2	0.713	A BB	292272.	100.000	UG/L	3.33
15	117	467	14:39	2	0.732	A VB	251168.	100.000	UG/L	3.33
16	83	480	15:04	2	0.752	A BB	286296.	100.000	UG/L	3.33
17	63	522	16:23	2	0.818	A BB	262760.	100.000	UG/L	3.33
18	75	529	16:36	2	0.829	A BB	114536.	100.000	UG/L	3.33
19	130	546	17:08	2	0.856	A BB	243136.	100.000	UG/L	3.33
20	129	564	17:42	2	0.884	A BB	116520.	100.000	UG/L	3.33
21	97	567	17:47	2	0.889	A BB	114520.	100.000	UG/L	3.33
22	78	562	17:38	2	0.881	A BB	600192.	100.000	UG/L	3.33
23	75	567	17:47	2	0.889	A BB	242192.	100.000	UG/L	3.33
24	63	600	18:50	2	0.940	A BB	26720.	100.000	UG/L	3.33
25	173	644	20:12	2	1.009	A BB	33680.	100.000	UG/L	3.33
26	164	715	22:26	3	0.910	A BB	215512.	100.000	UG/L	3.33
27	83	714	22:24	3	0.908	A BB	133712.	100.000	UG/L	3.33
28	92	755	23:41	3	0.961	A BB	351240.	100.000	UG/L	3.33
29	112	790	24:47	3	1.005	A BB	411512.	100.000	UG/L	3.33
30	106	852	26:44	3	1.084	A BB	218368.	100.000	UG/L	3.33
31	65	412	12:56	1	1.252	A BB	92952.	50.000	UG/L	1.67
32	98	750	23:32	3	0.954	A BB	263352.	50.000	UG/L	1.67
33	95	932	29:15	3	1.186	A BB	154784.	50.000	UG/L	1.67

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	10:19	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	20:01	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
3	24:42	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
4	1:55	1.02	0.185	1.02	100.00	100.00	3.406	3.406	1.00
5	3:04	1.03	0.299	1.03	100.00	100.00	3.008	3.008	1.00
6	3:59	1.02	0.386	1.02	100.00	100.00	3.342	3.342	1.00
7	5:01	1.02	0.486	1.02	100.00	100.00	2.188	2.188	1.00
8	7:13	1.01	0.699	1.01	100.00	100.00	2.609	2.609	1.00
9	9:55	1.00	0.960	1.00	100.00	100.00	2.199	2.199	1.00
10	11:08	1.00	1.079	1.00	100.00	100.00	4.516	4.516	1.00
11	11:48	1.00	1.143	1.00	100.00	100.00	2.122	2.122	1.00
12	12:20	1.00	1.195	1.00	100.00	100.00	4.107	4.107	1.00
13	13:01	1.00	1.261	1.00	100.00	100.00	1.775	1.775	1.00
14	14:17	1.00	0.713	1.00	100.00	100.00	0.511	0.511	1.00
15	14:39	1.00	0.732	1.00	100.00	100.00	0.439	0.439	1.00
16	15:06	1.00	0.754	1.00	100.00	100.00	0.500	0.500	1.00
17	16:25	1.00	0.820	1.00	100.00	100.00	0.459	0.459	1.00
18	16:36	1.00	0.829	1.00	100.00	100.00	0.200	0.200	1.00
19	17:08	1.00	0.856	1.00	100.00	100.00	0.425	0.425	1.00
20	17:42	1.00	0.884	1.00	100.00	100.00	0.204	0.204	1.00
21	17:49	1.00	0.890	1.00	100.00	100.00	0.200	0.200	1.00
22	17:38	1.00	0.881	1.00	100.00	100.00	1.048	1.048	1.00
23	17:49	1.00	0.890	1.00	100.00	100.00	0.423	0.423	1.00
24	18:50	1.00	0.940	1.00	100.00	100.00	0.047	0.047	1.00
25	20:14	1.00	1.011	1.00	100.00	100.00	0.059	0.059	1.00
26	22:28	1.00	0.910	1.00	100.00	100.00	0.598	0.598	1.00
27	22:24	1.00	0.907	1.00	100.00	100.00	0.371	0.371	1.00
28	23:43	1.00	0.961	1.00	100.00	100.00	0.975	0.975	1.00
29	24:47	1.00	1.004	1.00	100.00	100.00	1.142	1.142	1.00
30	26:46	1.00	1.084	1.00	100.00	100.00	0.606	0.606	1.00
31	12:58	1.00	1.255	1.00	50.00	50.00	1.755	1.755	1.00
32	23:32	1.00	0.953	1.00	50.00	50.00	1.462	1.462	1.00
33	29:15	1.00	1.184	1.00	50.00	50.00	0.859	0.859	1.00

MIDRIC DATA: VSB1018AM #1 SCANS 1 TO 1000
10/18/85 9:25:00 CALI: VSB1018AM #2
SAMPLE: VSB1018AM
CONDS.: 200 UG STD
RANGE: G 1,1200 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3



NO	NAME		
1	C101	BROMOCHLOROMETHANE	****INTERNAL STANDARD #1**
2	C110	1,4-DIFLUOROBENZENE	****INTERNAL STANDARD #2**
3	C120	CHLOROBENZENE-D5	****INTERNAL STANDARD #3**
4	C010	CHLOROMETHANE	
5	C015	BROMOMETHANE	
6	C020	VINYL CHLORIDE	
7	C025	CHLOROETHANE	
8	C030	METHYLENE CHLORIDE	
9	C045	1,1-DICHLOROETHENE	
10	C050	1,1-DICHLOROETHANE	
11	C055	TRANS-1,2-DICHLOROETHENE	
12	C060	CHLOROFORM	
13	C065	1,2-DICHLOROETHANE	
14	C115	1,1,1-TRICHLOROETHANE	
15	C120	CARBON TETRACHLORIDE	
16	C130	BROMODICHLOROMETHANE	
17	C140	1,2-DICHLOROPROPANE	
18	C145	TRANS-1,3-DICHLOROPROPENE	
19	C150	TRICHLOROETHENE	
20	C155	DIBROMOCHLOROMETHANE	
21	C160	1,1,2-TRICHLOROETHANE	
22	C165	BENZENE	
23	C170	CIS-1,3-DICHLOROPROPENE	
24	C175	2-CHLOROETHYL VINYL ETHER	
25	C180	BROMOFORM	
26	C220	TETRACHLOROETHENE	
27	C225	1,1,2,2-TETRACHLOROETHANE	
28	C230	TOLUENE	
29	C235	CHLOROBENZENE	
30	C240	ETHYL BENZENE	
31	CS15	1,2-DICHLOROETHANE-D4	****SURROGATE #1**
32	CS05	TOLUENE-D8	****SURROGATE #2**
33	CS10	4-BROMOFLUOROBENZENE	****SURROGATE #3**

Quantitation Report File: VSB1018AM

180

Data: VSB1018AM.TI
10/18/85 9:25:00
Sample:
Submitted by: Analyst: MS

AMOUNT=AREA * REF.AMNT/(REF.AREA)* RESP.FACT)
Resp. fac. from Library Entry

NO	NAME		
1	CI01	BROMOCHLOROMETHANE	****INTERNAL STANDARD #1****
2	CI10	1,4-DIFLUOROBENZENE	****INTERNAL STANDARD #2****
3	CI20	CHLOROBENZENE-D5	****INTERNAL STANDARD #3****
4	C010	CHLOROMETHANE	
5	C015	BROMOMETHANE	
6	C020	VINYL CHLORIDE	
7	C025	CHLOROETHANE	
8	C030	METHYLENE CHLORIDE	
9	C045	1,1-DICHLOROETHENE	
10	C050	1,1-DICHLOROETHANE	
11	C055	TRANS-1,2-DICHLOROETHENE	
12	C060	CHLOROFORM	
13	C065	1,2-DICHLOROETHANE	
14	C115	1,1,1-TRICHLOROETHANE	
15	C120	CARBON TETRACHLORIDE	
16	C130	BROMODICHLOROMETHANE	
17	C140	1,2-DICHLOROPROPANE	
18	C145	TRANS-1,3-DICHLOROPROPENE	
19	C150	TRICHLOROETHENE	
20	C155	DIBROMOCHLOROMETHANE	
21	C160	1,1,2-TRICHLOROETHANE	
22	C165	BENZENE	
23	C170	CIS-1,3-DICHLOROPROPENE	
24	C175	2-CHLOROETHYL VINYL ETHER	
25	C180	BROMOFORM	
26	C220	TETRACHLOROETHENE	
27	C225	1,1,2,2-TETRACHLOROETHANE	
28	C230	TOLUENE	
29	C235	CHLOROBENZENE	
30	C240	ETHYL BENZENE	
31	CS15	1,2-DICHLOROETHANE-D4	****SURROGATE #1****
32	CS05	TOLUENE-D8	****SURROGATE #2****
33	CS10	4-BROMOFLUOROBENZENE	****SURROGATE #3****

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	128	329	10:19	1	1.000	A BB	47632.	50.000 UG/L	0.88
2	114	638	20:01	2	1.000	A BB	253568.	50.000 UG/L	0.88
3	117	787	24:42	3	1.000	A BB	167376.	50.000 UG/L	0.88
4	50	61	1:55	1	0.185	A BB	611374.	200.000 UG/L	3.51
5	94	98	3:04	1	0.298	A BB	531039.	200.000 UG/L	3.51
6	62	127	3:59	1	0.386	A BB	624512.	200.000 UG/L	3.51
7	64	160	5:01	1	0.486	A BB	389400.	200.000 UG/L	3.51
8	84	230	7:13	1	0.699	A BB	448288.	200.000 UG/L	3.51
9	96	316	9:55	1	0.960	A BB	394616.	200.000 UG/L	3.51
10	63	355	11:08	1	1.079	A BB	822402.	200.000 UG/L	3.51
11	96	376	11:48	1	1.143	A BV	390552.	200.000 UG/L	3.51
12	83	393	12:20	1	1.195	A BB	766880.	200.000 UG/L	3.51
13	62	415	13:01	1	1.261	A BB	337768.	200.000 UG/L	3.51
14	97	455	14:17	2	0.713	A BB	508280.	200.000 UG/L	3.51
15	117	467	14:39	2	0.732	A VB	478672.	200.000 UG/L	3.51
16	83	481	15:06	2	0.754	A VB	541224.	200.000 UG/L	3.51
17	63	523	16:25	2	0.820	A BB	476904.	200.000 UG/L	3.51
18	75	529	16:36	2	0.829	A BB	215880.	200.000 UG/L	3.51
19	130	546	17:08	2	0.856	A BB	440336.	200.000 UG/L	3.51
20	129	564	17:42	2	0.884	A BB	261896.	200.000 UG/L	3.51
21	97	568	17:49	2	0.890	A BB	208024.	200.000 UG/L	3.51
22	78	562	17:38	2	0.881	A BB	1098080.	200.000 UG/L	3.51
23	75	568	17:49	2	0.890	A BB	457472.	200.000 UG/L	3.51
24	63	600	18:50	2	0.940	A BB	48072.	200.000 UG/L	3.51
25	173	645	20:14	2	1.011	A BB	96776.	200.000 UG/L	3.51
26	164	716	22:28	3	0.910	A BB	385720.	200.000 UG/L	3.51
27	83	714	22:24	3	0.907	A BB	250776.	200.000 UG/L	3.51
28	92	756	23:43	3	0.961	A BB	628120.	200.000 UG/L	3.51
29	112	790	24:47	3	1.004	A BB	744536.	200.000 UG/L	3.51
30	106	853	26:46	3	1.084	A BB	401304.	200.000 UG/L	3.51
31	65	413	12:58	1	1.255	A BB	95160.	50.000 UG/L	0.88
32	98	750	23:32	3	0.953	A BB	235464.	50.000 UG/L	0.88
33	95	932	29:15	3	1.184	A BB	157528.	50.000 UG/L	0.88

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	10:19	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	20:01	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
3	24:42	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
4	1:55	1.00	0.185	1.00	200.00	200.00	3.209	3.209	1.00
5	3:04	1.00	0.298	1.00	200.00	200.00	2.787	2.787	1.00
6	3:59	1.00	0.386	1.00	200.00	200.00	3.278	3.278	1.00
7	5:01	1.00	0.486	1.00	200.00	200.00	2.044	2.044	1.00
8	7:13	1.00	0.699	1.00	200.00	200.00	2.353	2.353	1.00
9	9:55	1.00	0.960	1.00	200.00	200.00	2.071	2.071	1.00
10	11:08	1.00	1.079	1.00	200.00	200.00	4.316	4.316	1.00
11	11:48	1.00	1.143	1.00	200.00	200.00	2.050	2.050	1.00
12	12:20	1.00	1.195	1.00	200.00	200.00	4.025	4.025	1.00
13	13:01	1.00	1.261	1.00	200.00	200.00	1.773	1.773	1.00
14	14:17	1.00	0.713	1.00	200.00	200.00	0.501	0.501	1.00
15	14:39	1.00	0.732	1.00	200.00	200.00	0.472	0.472	1.00
16	15:06	1.00	0.754	1.00	200.00	200.00	0.534	0.534	1.00
17	16:25	1.00	0.820	1.00	200.00	200.00	0.470	0.470	1.00
18	16:36	1.00	0.829	1.00	200.00	200.00	0.213	0.213	1.00
19	17:08	1.00	0.856	1.00	200.00	200.00	0.434	0.434	1.00
20	17:42	1.00	0.884	1.00	200.00	200.00	0.258	0.258	1.00
21	17:49	1.00	0.890	1.00	200.00	200.00	0.205	0.205	1.00
22	17:38	1.00	0.881	1.00	200.00	200.00	1.083	1.083	1.00
23	17:49	1.00	0.890	1.00	200.00	200.00	0.451	0.451	1.00
24	18:50	1.00	0.940	1.00	200.00	200.00	0.047	0.047	1.00
25	20:14	1.00	1.011	1.00	200.00	200.00	0.095	0.095	1.00
26	22:28	1.00	0.910	1.00	200.00	200.00	0.576	0.576	1.00
27	22:24	1.00	0.907	1.00	200.00	200.00	0.375	0.375	1.00
28	23:43	1.00	0.961	1.00	200.00	200.00	0.938	0.938	1.00
29	24:47	1.00	1.004	1.00	200.00	200.00	1.112	1.112	1.00
30	26:46	1.00	1.084	1.00	200.00	200.00	0.599	0.599	1.00
31	12:58	1.00	1.255	1.00	50.00	50.00	1.998	1.998	1.00
32	23:32	1.00	0.953	1.00	50.00	50.00	1.407	1.407	1.00
33	29:15	1.00	1.184	1.00	50.00	50.00	0.941	0.941	1.00

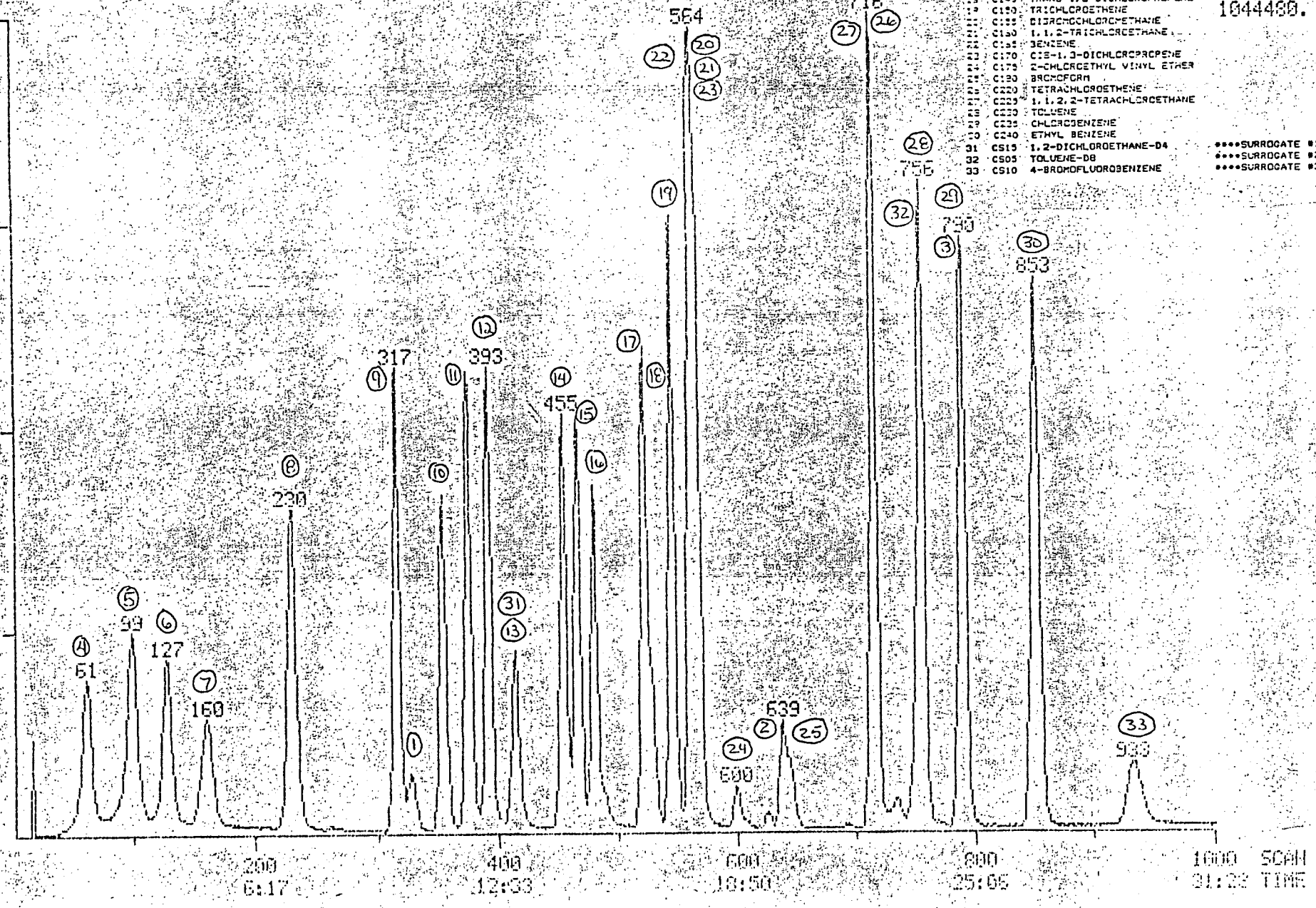
MIDRIC
10/18/85 10:13:00
SAMPLE: VSB1018AH
CONDS.: 300 UG STD
RANGE: G 1,1200 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

DATA: VSB1018AH #1
CALI: VSB1018AH #2

SCANS 1 TO 1000

1044480.

NO	NAME	
1	C101	BROMOCHLOROMETHANE ****INTERNAL STANDARD #1*
2	C110	1,4-DIFLUOROBENZENE ****INTERNAL STANDARD #2*
3	C120	CHLOROBENZENE-D5 ****INTERNAL STANDARD #3*
4	C010	CHLOROMETHANE
5	C015	BROMOMETHANE
6	C020	VINYL CHLORIDE
7	C025	CHLOROETHANE
8	C030	METHYLENE CHLORIDE
9	C045	1,1-DICHLOROETHENE
10	C050	1,1-DICHLOROETHANE
11	C055	TRANS-1,2-DICHLOROETHENE
12	C060	CHLOROFORM
13	C065	1,2-DICHLOROETHANE
14	C115	1,1,1-TRICHLOROETHANE
15	C120	CARBON TETRACHLORIDE
16	C130	BROMODICHLOROMETHANE
17	C140	1,2-DICHLOROPROPANE
18	C145	TRANS-1,3-DICHLOROPROPENE
19	C150	TRICHLOROETHENE
20	C155	DIBROMOCHLOROMETHANE
21	C160	1,1,2-TRICHLOROETHANE
22	C165	BENZENE
23	C170	CIS-1,3-DICHLOROPROPENE
24	C175	2-CHLOROETHYL VINYL ETHER
25	C180	BROMOFORM
26	C220	TETRACHLOROETHENE
27	C225	1,1,2,2-TETRACHLOROETHANE
28	C230	TOLUENE
29	C235	CHLOROBENZENE
30	C240	ETHYL BENZENE
31	CS15	1,2-DICHLOROETHANE-D4 ****SURROGATE #1*
32	CS05	TOLUENE-D8 ****SURROGATE #2*
33	CS10	4-BROMOFLUOROBENZENE ****SURROGATE #3*



183

Quantitation Report File: VSB1018AH

Data: VSB1018AH.TI
10/18/85 10:13:00
Sample:
Submitted by: Analyst: MS

AMOUNT=AREA * REF.AMNT/(REF.AREA)* RESP.FACT)
Resp. fac. from Library Entry

NO	NAME		
1	CI01	BROMOCHLOROMETHANE	****INTERNAL STANDARD #1****
2	CI10	1,4-DIFLUOROBENZENE	****INTERNAL STANDARD #2****
3	CI20	CHLOROBENZENE-D5	****INTERNAL STANDARD #3****
4	C010	CHLOROMETHANE	
5	C015	BROMOMETHANE	
6	C020	VINYL CHLORIDE	
7	C025	CHLOROETHANE	
8	C030	METHYLENE CHLORIDE	
9	C045	1,1-DICHLOROETHENE	
10	C050	1,1-DICHLOROETHANE	
11	C055	TRANS-1,2-DICHLOROETHENE	
12	C060	CHLOROFORM	
13	C065	1,2-DICHLOROETHANE	
14	C115	1,1,1-TRICHLOROETHANE	
15	C120	CARBON TETRACHLORIDE	
16	C130	BROMODICHLOROMETHANE	
17	C140	1,2-DICHLOROPROPANE	
18	C145	TRANS-1,3-DICHLOROPROPENE	
19	C150	TRICHLOROETHENE	
20	C155	DIBROMOCHLOROMETHANE	
21	C160	1,1,2-TRICHLOROETHANE	
22	C165	BENZENE	
23	C170	CIS-1,3-DICHLOROPROPENE	
24	C175	2-CHLOROETHYL VINYL ETHER	
25	C180	BROMOFORM	
26	C220	TETRACHLOROETHENE	
27	C225	1,1,2,2-TETRACHLOROETHANE	
28	C230	TOLUENE	
29	C235	CHLOROBENZENE	
30	C240	ETHYL BENZENE	
31	CS15	1,2-DICHLOROETHANE-D4	****SURROGATE #1****
32	CS05	TOLUENE-D8	****SURROGATE #2****
33	CS10	4-BROMOFLUOROBENZENE	****SURROGATE #3****

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount		%Tot
1	128	329	10:19	1	1.000	A BB	47232.	50.000	UG/L	0.60
2	114	638	20:01	2	1.000	A BB	257656.	50.000	UG/L	0.60
3	117	787	24:42	3	1.000	A BB	161152.	50.000	UG/L	0.60
4	50	61	1:55	1	0.185	A BB	935630.	300.000	UG/L	3.57
5	94	99	3:06	1	0.301	A BB	752958.	300.000	UG/L	3.57
6	62	127	3:59	1	0.386	A BB	900688.	300.000	UG/L	3.57
7	64	160	5:01	1	0.486	A BB	582292.	300.000	UG/L	3.57
8	84	230	7:13	1	0.699	A BB	614763.	300.000	UG/L	3.57
9	96	316	9:55	1	0.960	A BB	615312.	300.000	UG/L	3.57
10	63	355	11:08	1	1.079	A BB	1273760.	300.000	UG/L	3.57
11	96	376	11:48	1	1.143	A BB	579220.	300.000	UG/L	3.57
12	83	393	12:20	1	1.195	A BB	1114040.	300.000	UG/L	3.57
13	62	416	13:03	1	1.264	A BB	446136.	300.000	UG/L	3.57
14	97	455	14:17	2	0.713	A BB	823752.	300.000	UG/L	3.57
15	117	467	14:39	2	0.732	A VB	753280.	300.000	UG/L	3.57
16	83	481	15:06	2	0.754	A BB	778360.	300.000	UG/L	3.57
17	63	523	16:25	2	0.820	A BB	699472.	300.000	UG/L	3.57
18	75	530	16:38	2	0.831	A BB	299216.	300.000	UG/L	3.57
19	130	546	17:08	2	0.856	A BV	666560.	300.000	UG/L	3.57
20	129	565	17:44	2	0.886	A BB	339344.	300.000	UG/L	3.57
21	97	568	17:49	2	0.890	A BB	275168.	300.000	UG/L	3.57
22	78	563	17:40	2	0.882	A BB	1738700.	300.000	UG/L	3.57
23	75	568	17:49	2	0.890	A BB	623916.	300.000	UG/L	3.57
24	63	600	18:50	2	0.940	A BB	65424.	300.000	UG/L	3.57
25	173	645	20:14	2	1.011	A BB	111592.	300.000	UG/L	3.57
26	164	716	22:28	3	0.910	A BB	613744.	300.000	UG/L	3.57
27	83	715	22:26	3	0.909	A BB	346976.	300.000	UG/L	3.57
28	92	756	23:43	3	0.961	A BB	1004570.	300.000	UG/L	3.57
29	112	790	24:47	3	1.004	A BB	1117590.	300.000	UG/L	3.57
30	106	853	26:46	3	1.084	A BB	624104.	300.000	UG/L	3.57
31	65	413	12:58	1	1.255	A BB	97600.	50.000	UG/L	0.60
32	98	750	23:32	3	0.953	A BB	239512.	50.000	UG/L	0.60
33	95	933	29:16	3	1.186	A BB	139152.	50.000	UG/L	0.60

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	10:19	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	20:01	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
3	24:42	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
4	1:55	1.00	0.185	1.00	300.00	300.00	3.302	3.302	1.00
5	3:04	1.01	0.298	1.01	300.00	300.00	2.657	2.657	1.00
6	3:59	1.00	0.386	1.00	300.00	300.00	3.178	3.178	1.00
7	5:01	1.00	0.486	1.00	300.00	300.00	2.055	2.055	1.00
8	7:13	1.00	0.699	1.00	300.00	300.00	2.169	2.169	1.00
9	9:55	1.00	0.960	1.00	300.00	300.00	2.171	2.171	1.00
10	11:08	1.00	1.079	1.00	300.00	300.00	4.495	4.495	1.00
11	11:48	1.00	1.143	1.00	300.00	300.00	2.044	2.044	1.00
12	12:20	1.00	1.195	1.00	300.00	300.00	3.931	3.931	1.00
13	13:01	1.00	1.261	1.00	300.00	300.00	1.574	1.574	1.00
14	14:17	1.00	0.713	1.00	300.00	300.00	0.533	0.533	1.00
15	14:39	1.00	0.732	1.00	300.00	300.00	0.487	0.487	1.00
16	15:06	1.00	0.754	1.00	300.00	300.00	0.503	0.503	1.00
17	16:25	1.00	0.820	1.00	300.00	300.00	0.452	0.452	1.00
18	16:36	1.00	0.829	1.00	300.00	300.00	0.194	0.194	1.00
19	17:08	1.00	0.856	1.00	300.00	300.00	0.431	0.431	1.00
20	17:42	1.00	0.884	1.00	300.00	300.00	0.220	0.220	1.00
21	17:49	1.00	0.890	1.00	300.00	300.00	0.178	0.178	1.00
22	17:38	1.00	0.881	1.00	300.00	300.00	1.125	1.125	1.00
23	17:49	1.00	0.890	1.00	300.00	300.00	0.404	0.404	1.00
24	18:50	1.00	0.940	1.00	300.00	300.00	0.042	0.042	1.00
25	20:14	1.00	1.011	1.00	300.00	300.00	0.072	0.072	1.00
26	22:28	1.00	0.910	1.00	300.00	300.00	0.635	0.635	1.00
27	22:24	1.00	0.907	1.00	300.00	300.00	0.359	0.359	1.00
28	23:43	1.00	0.961	1.00	300.00	300.00	1.039	1.039	1.00
29	24:47	1.00	1.004	1.00	300.00	300.00	1.156	1.156	1.00
30	26:46	1.00	1.084	1.00	300.00	300.00	0.645	0.645	1.00
31	12:58	1.00	1.255	1.00	50.00	50.00	2.066	2.066	1.00
32	23:32	1.00	0.953	1.00	50.00	50.00	1.486	1.486	1.00
33	29:15	1.00	1.184	1.00	50.00	50.00	0.863	0.863	1.00

DAILY STANDARDS

VOLATILE ORGANICS

Continuing Calibration Check
Volatile HSL Compounds

Case No: 12237 Region: _____

Contractor: S&A Analytical

Contract No: _____

Instrument ID: 5100B

Calibration Date: 10/18/85

Time: 19:36

Laboratory ID: HSB1018PM

Initial Calibration Date: 10/18/85

--- Minimum RF for SPCC is 0.300 (0.25 for Bromoform)

Maximum %D for CCC is 25% --

Compound	RF	RF_{200}	%D	CCC	SPCC
Chloromethane	3.306	3.118	5.7		• •
Bromomethane	2.817	2.472	12		
Vinyl Chloride	3.266	3.081	5.7	•	
Chloroethane	2.096	2.056	1.9		
Methylene Chloride	2.377	2.400	-0.97		
Acetone					
Carbon Disulfide				•	
1,1-Dichloroethene	2.147	1.948	9.3		• •
1,1-Dichloroethane	4.443	4.202	5.4		
Trans-1,2-Dichloroethene	2.072	1.934	6.7		
Chloroform	4.021	3.723	7.4	•	
1,2-Dichloroethane	1.707	1.738	-1.8		
2-Butanone					
1,1,1-Trichloroethane	0.515	0.508	1.3		
Carbon Tetrachloride	0.466	0.481	-3.2		
Vinyl Acetate					
Bromodichloromethane	0.512	0.571	-11		
1,2-Dichloropropane	0.460	0.487	-5.9	•	
Trans-1,3-Dichloropropene	0.202	0.221	-9.4		
Trichloroethene	0.430	0.426	0.93		
Dibromochloromethane	0.277	0.308	-36		
1,1,2-Trichloroethane	0.194	0.222	-14		
Benzene	1.085	1.094	-0.83		
cis-1,3-Dichloropropene	0.426	0.491	-15		
2-Chloroethylvinylether	0.045	0.011	75		• •
Bromoform	0.075	0.17	-56	•	
4-Methyl-2-Pentanone					
2-Hexanone					
Tetrachloroethene	0.603	0.573	4.9		• •
1,1,2,2-Tetrachloroethane	0.368	0.405	-10		
Toluene	0.984	0.944	4.1	•	
Chlorobenzene	1.137	1.125	1.0		• •
Ethylbenzene	0.607	0.593	3.9	•	
Styrene					
Total Xylenes					

RF_{200} Response Factor from daily standard file at 200 ug/l
RF -Average Response Factor from initial calibration Form VI

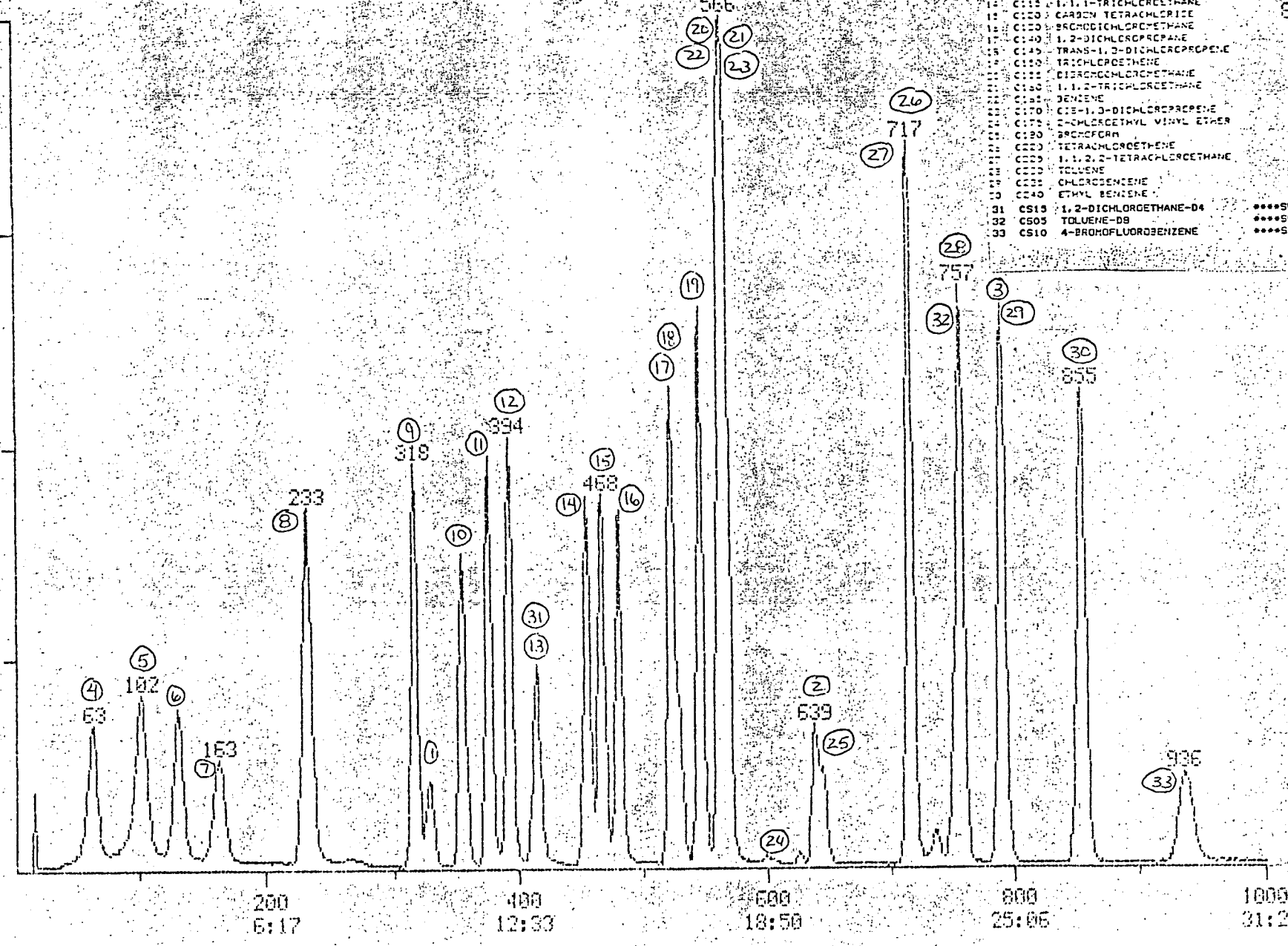
%D -Percent Difference
CCC -Calibration Check Compounds (•)
SPCC -System Performance Check Compounds (••)

MIDRIC
11/18/85 19:36:00
SAMPLE: VS81018PM
CONDS.: 200 UG STD
RANGE: G 1,1100 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

DATA: VS81018PM #1 SCANS 1 TO 1000
CALI: 12282V1 #2

841728.

NO	NAME		
1	C101	BROMOCHLOROMETHANE	****INTERNAL STANDARD #1***
2	C110	1,4-DIFLUOROBENZENE	****INTERNAL STANDARD #2***
3	C120	CHLOROBENZENE-D5	****INTERNAL STANDARD #3***
4	C010	CHLOROMETHANE	
5	C015	BROMOMETHANE	
6	C020	VINYL CHLORIDE	
7	C025	CHLOROETHANE	
8	C030	METHYLENE CHLORIDE	
9	C045	1,1-DICHLOROETHENE	
10	C050	1,1-DICHLOROETHANE	
11	C055	TRANS-1,2-DICHLOROETHENE	
12	C060	CHLOROFORM	
13	C065	1,2-DICHLOROETHANE	
14	C115	1,1,1-TRICHLOROETHANE	
15	C120	CARBON TETRACHLORIDE	
16	C130	BROMODICHLOROMETHANE	
17	C140	1,2-DICHLOROPROPANE	
18	C145	TRANS-1,3-DICHLOROPROPENE	
19	C150	TRICHLOROETHENE	
20	C155	DIBROMOCHLOROMETHANE	
21	C160	1,1,2-TRICHLOROETHANE	
22	C165	BENZENE	
23	C170	CIS-1,3-DICHLOROPROPENE	
24	C175	2-CHLOROETHYL VINYL ETHER	
25	C180	BROMOFORM	
26	C020	TETRACHLOROETHENE	
27	C025	1,1,2,2-TETRACHLOROETHANE	
28	C030	TOLUENE	
29	C035	CHLOROBENZENE	
30	C040	ETHYL BENZENE	
31	CS15	1,2-DICHLOROETHANE-D4	****SURROGATE #1***
32	CS05	TOLUENE-D8	****SURROGATE #2***
33	CS10	4-BROMOFLUOROBENZENE	****SURROGATE #3***



ACQUISITION STARTED: ANALYSIS NO. 1 RACK NO. 15 VIAL NO. 25
FREE SECTORS: 10972 FILENAME: 12237V3

81

Quantitation Report File: VSB1018PM

Data: VSB1018PM.TI
11/18/85 19:36:00
Sample: VSB1018PM
Submitted by: HSMA Analyst: PAT

AMOUNT=AREA * REF.AMNT/(REF.AREA)* RESP.FACT)
Resp. fac. from Library Entry

NO	NAME		
1	CI01	BROMOCHLOROMETHANE	****INTERNAL STANDARD #1****
2	CI10	1,4-DIFLUOROBENZENE	****INTERNAL STANDARD #2****
3	CI20	CHLOROBENZENE-D5	****INTERNAL STANDARD #3****
4	C010	CHLOROMETHANE	
5	C015	BROMOMETHANE	
6	C020	VINYL CHLORIDE	
7	C025	CHLOROETHANE	
8	C030	METHYLENE CHLORIDE	
9	C045	1,1-DICHLOROETHENE	
10	C050	1,1-DICHLOROETHANE	
11	C055	TRANS-1,2-DICHLOROETHENE	
12	C060	CHLOROFORM	
13	C065	1,2-DICHLOROETHANE	
14	C115	1,1,1-TRICHLOROETHANE	
15	C120	CARBON TETRACHLORIDE	
16	C130	BROMODICHLOROMETHANE	
17	C140	1,2-DICHLOROPROPANE	
18	C145	TRANS-1,3-DICHLOROPROPENE	
19	C150	TRICHLOROETHENE	
20	C155	DIBROMOCHLOROMETHANE	
21	C160	1,1,2-TRICHLOROETHANE	
22	C165	BENZENE	
23	C170	CIS-1,3-DICHLOROPROPENE	
24	C175	2-CHLOROETHYL VINYL ETHER	
25	C180	BROMOFORM	
26	C220	TETRACHLOROETHENE	
27	C225	1,1,2,2-TETRACHLOROETHANE	
28	C230	TOLUENE	
29	C235	CHLOROBENZENE	
30	C240	ETHYL BENZENE	
31	CS15	1,2-DICHLOROETHANE-D4	****SURROGATE #1****
32	CS05	TOLUENE-D8	****SURROGATE #2****
33	CS10	4-BROMOFLUOROBENZENE	****SURROGATE #3****

190

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	128	330	10:21	1	1.000	A BB	54936.	50.000 UG/L	0.88
2	114	639	20:03	2	1.000	A BB	282496.	50.000 UG/L	0.88
3	117	788	24:44	3	1.000	A BB	185112.	50.000 UG/L	0.88
4	50	63	1:59	1	0.191	A BB	685178.	200.000 UG/L	3.51
5	94	102	3:12	1	0.309	A BB	543260.	200.000 UG/L	3.51
6	62	131	4:07	1	0.397	A BB	677140.	200.000 UG/L	3.51
7	64	162	5:05	1	0.491	A BB	451870.	200.000 UG/L	3.51
8	84	232	7:17	1	0.703	A BB	527320.	200.000 UG/L	3.51
9	96	318	9:59	1	0.964	A BB	428168.	200.000 UG/L	3.51
10	63	356	11:10	1	1.079	A BB	923436.	200.000 UG/L	3.51
11	96	377	11:50	1	1.142	A BB	424992.	200.000 UG/L	3.51
12	83	394	12:22	1	1.194	A BB	818040.	200.000 UG/L	3.51
13	62	416	13:03	1	1.261	A BB	381896.	200.000 UG/L	3.51
14	97	456	14:18	2	0.714	A BB	574160.	200.000 UG/L	3.51
15	117	468	14:41	2	0.732	A VB	543184.	200.000 UG/L	3.51
16	83	482	15:07	2	0.754	A BB	644696.	200.000 UG/L	3.51
17	63	523	16:25	2	0.818	A BB	550208.	200.000 UG/L	3.51
18	75	530	16:38	2	0.829	A BB	249760.	200.000 UG/L	3.51
19	130	547	17:10	2	0.856	A BB	481816.	200.000 UG/L	3.51
20	129	565	17:44	2	0.884	A BB	348160.	200.000 UG/L	3.51
21	97	568	17:49	2	0.889	A BB	251120.	200.000 UG/L	3.51
22	78	563	17:40	2	0.881	A BB	1235710.	200.000 UG/L	3.51
23	75	568	17:49	2	0.889	A BB	554296.	200.000 UG/L	3.51
24	63	601	18:51	2	0.941	A BB	12944.	200.000 UG/L	3.51
25	173	646	20:16	2	1.011	A BB	132392.	200.000 UG/L	3.51
26	164	717	22:30	3	0.910	A BB	424208.	200.000 UG/L	3.51
27	83	715	22:26	3	0.907	A BB	300112.	200.000 UG/L	3.51
28	92	757	23:45	3	0.961	A BB	698712.	200.000 UG/L	3.51
29	112	792	24:51	3	1.005	A BB	833232.	200.000 UG/L	3.51
30	106	855	26:50	3	1.085	A BB	438816.	200.000 UG/L	3.51
31	65	414	12:59	1	1.255	A BB	107832.	50.000 UG/L	0.88
32	98	751	23:34	3	0.953	A BB	263584.	50.000 UG/L	0.88
33	95	935	29:20	3	1.187	A BB	168312.	50.000 UG/L	0.88

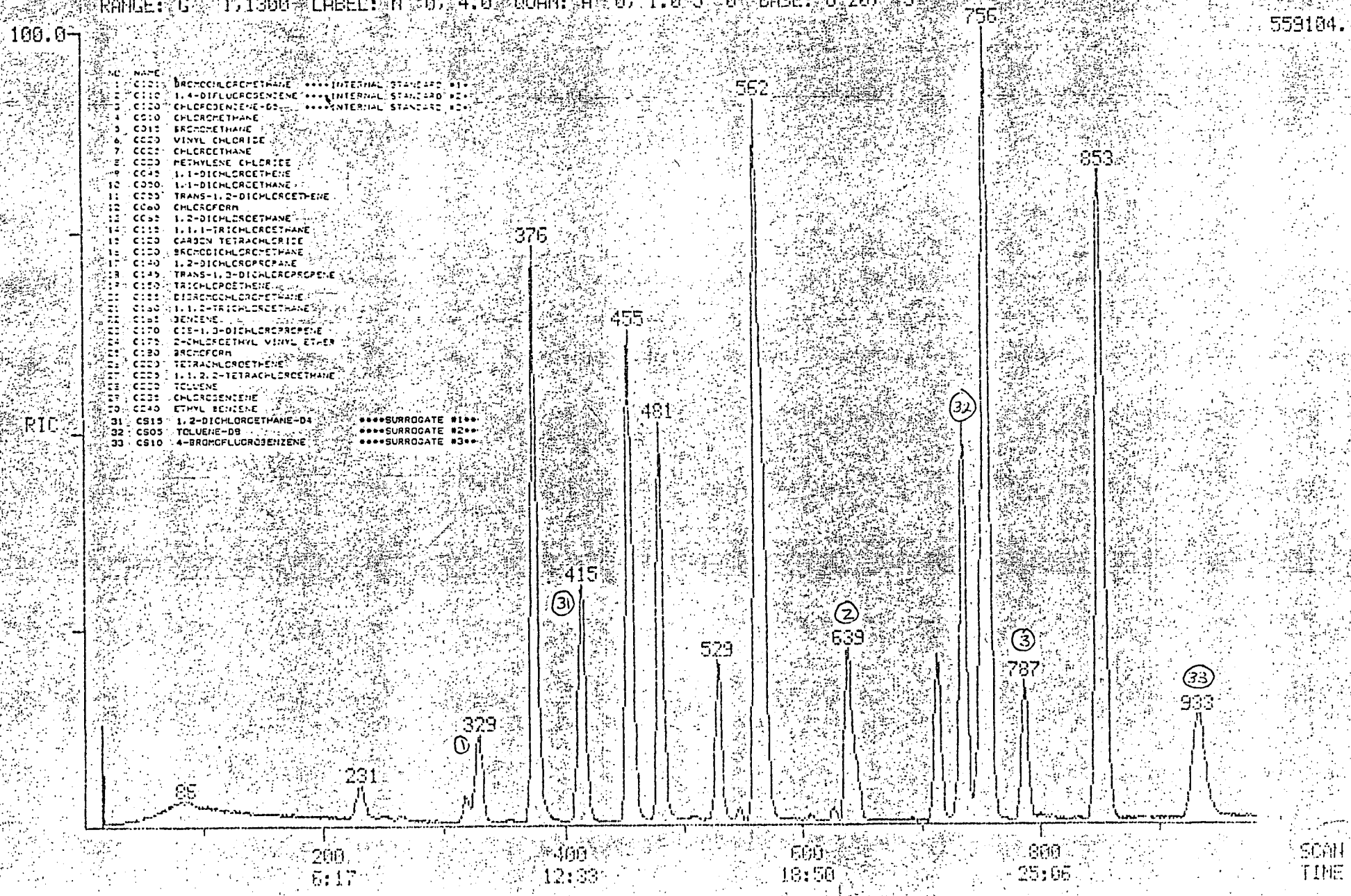
No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	10:21	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	20:03	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
3	24:44	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
4	1:59	1.00	0.191	1.00	200.00	200.00	3.118	3.118	1.00
5	3:12	1.00	0.309	1.00	200.00	200.00	2.472	2.472	1.00
6	4:07	1.00	0.397	1.00	200.00	200.00	3.081	3.081	1.00
7	5:05	1.00	0.491	1.00	200.00	200.00	2.056	2.056	1.00
8	7:17	1.00	0.703	1.00	200.00	200.00	2.400	2.400	1.00
9	9:59	1.00	0.964	1.00	200.00	200.00	1.948	1.948	1.00
10	11:10	1.00	1.079	1.00	200.00	200.00	4.202	4.202	1.00
11	11:50	1.00	1.142	1.00	200.00	200.00	1.934	1.934	1.00
12	12:22	1.00	1.194	1.00	200.00	200.00	3.723	3.723	1.00
13	13:03	1.00	1.261	1.00	200.00	200.00	1.738	1.738	1.00
14	14:18	1.00	0.714	1.00	200.00	200.00	0.508	0.508	1.00
15	14:41	1.00	0.732	1.00	200.00	200.00	0.481	0.481	1.00
16	15:07	1.00	0.754	1.00	200.00	200.00	0.571	0.571	1.00
17	16:25	1.00	0.818	1.00	200.00	200.00	0.487	0.487	1.00
18	16:38	1.00	0.829	1.00	200.00	200.00	0.221	0.221	1.00
19	17:10	1.00	0.856	1.00	200.00	200.00	0.426	0.426	1.00
20	17:44	1.00	0.884	1.00	200.00	200.00	0.308	0.308	1.00
21	17:49	1.00	0.889	1.00	200.00	200.00	0.222	0.222	1.00
22	17:40	1.00	0.881	1.00	200.00	200.00	1.094	1.094	1.00
23	17:49	1.00	0.889	1.00	200.00	200.00	0.491	0.491	1.00
24	18:51	1.00	0.941	1.00	200.00	200.00	0.011	0.011	1.00
25	20:16	1.00	1.011	1.00	200.00	200.00	0.117	0.117	1.00
26	22:30	1.00	0.910	1.00	200.00	200.00	0.573	0.573	1.00
27	22:26	1.00	0.907	1.00	200.00	200.00	0.405	0.405	1.00
28	23:45	1.00	0.961	1.00	200.00	200.00	0.944	0.944	1.00
29	24:51	1.00	1.005	1.00	200.00	200.00	1.125	1.125	1.00
30	26:50	1.00	1.085	1.00	200.00	200.00	0.593	0.593	1.00
31	12:59	1.00	1.255	1.00	50.00	50.00	1.963	1.963	1.00
32	23:34	1.00	0.953	1.00	50.00	50.00	1.424	1.424	1.00
33	29:20	1.00	1.187	1.00	50.00	50.00	0.909	0.909	1.00

SAMPLE RIC, QUANTITATION REPORT

AND CONFIRMATION PRINTOUT

VOLATILE ORGANICS

MIDRIC DATA: 12237V85 #1 SCANS 1 TO 980
10/18/85 21:22:00 CALI: BLKB1018PM #2
SAMPLE: 12237-8 SPIKE
CONDS.: 4.17G / 10ML, 100 UL INJ, 200 UG SPK
RANGE: G 1,1300 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3



192

Quantitation Report File: 12237V8S

Data: 12237V8S.TI
10/18/85 21:22:00
Sample: 12237-8 SPIKE
Submitted by: HSMA Analyst: PAT

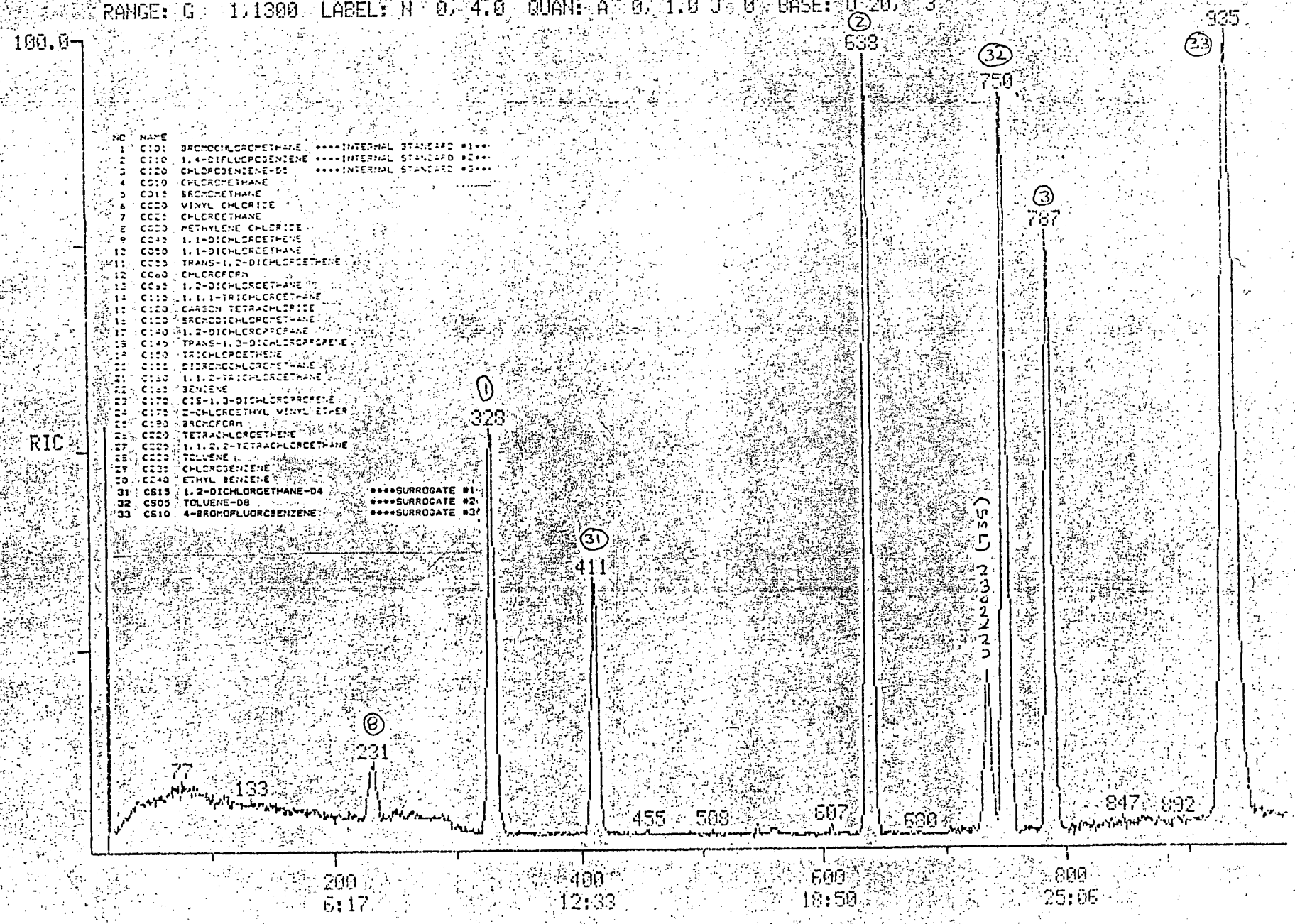
AMOUNT=AREA * REF.AMNT/(REF.AREA)* RESP.FACT)
Resp. fac. from Library Entry

NO	NAME		
1	CI01	BROMOCHLOROMETHANE	****INTERNAL STANDARD #1****
2	CI10	1,4-DIFLUOROBENZENE	****INTERNAL STANDARD #2****
3	CI20	CHLOROBENZENE-D5	****INTERNAL STANDARD #3****
4	C010	CHLOROMETHANE	
5	C015	BROMOMETHANE	
6	C020	VINYL CHLORIDE	
7	C025	CHLOROETHANE	
8	C030	METHYLENE CHLORIDE	
9	C045	1,1-DICHLOROETHENE	
10	C050	1,1-DICHLOROETHANE	
11	C055	TRANS-1,2-DICHLOROETHENE	
12	C060	CHLOROFORM	
13	C065	1,2-DICHLOROETHANE	
14	C115	1,1,1-TRICHLOROETHANE	
15	C120	CARBON TETRACHLORIDE	
16	C130	BROMODICHLOROMETHANE	
17	C140	1,2-DICHLOROPROPANE	
18	C145	TRANS-1,3-DICHLOROPROPENE	
19	C150	TRICHLOROETHENE	
20	C155	DIBROMOCHLOROMETHANE	
21	C160	1,1,2-TRICHLOROETHANE	
22	C165	BENZENE	
23	C170	CIS-1,3-DICHLOROPROPENE	
24	C175	2-CHLOROETHYL VINYL ETHER	
25	C180	BROMOFORM	
26	C220	TETRACHLOROETHENE	
27	C225	1,1,2,2-TETRACHLOROETHANE	
28	C230	TOLUENE	
29	C235	CHLOROBENZENE	
30	C240	ETHYL BENZENE	
31	CS15	1,2-DICHLOROETHANE-D4	****SURROGATE #1****
32	CS05	TOLUENE-D8	****SURROGATE #2****
33	CS10	4-BROMOFLUOROBENZENE	****SURROGATE #3****

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	128	328	10:18	1	1.000	A BB	43536.	50.000 UG/L	2.06
2	114	639	20:03	2	1.000	A BB	250672.	50.000 UG/L	2.06
3	117	787	24:42	3	1.000	A BB	156472.	50.000 UG/L	2.06
4	NOT FOUND								
5	NOT FOUND								
6	NOT FOUND								
7	NOT FOUND								
8	84	231	7:15	1	0.704	A BB	32144.	15.354 UG/L	0.63
9	96	318	9:59	1	0.970	A BB	21400.	12.614 UG/L	0.52
10	63	355	11:08	1	1.082	A BB	10088.	2.737 UG/L	0.11
11	96	376	11:48	1	1.146	A BB	412560.	244.988 UG/L	10.11
12	NOT FOUND								
13	62	415	13:01	1	1.265	A BB	319928.	211.420 UG/L	8.73
14	97	455	14:17	2	0.712	A BB	537384.	210.954 UG/L	8.71
15	NOT FOUND								
16	83	481	15:06	2	0.753	A BB	512192.	179.066 UG/L	7.39
17	NOT FOUND								
18	75	529	16:36	2	0.828	A BB	180520.	162.907 UG/L	6.72
19	130	547	17:10	2	0.856	A BB	6768.	3.166 UG/L	0.13
20	129	564	17:42	2	0.883	A BB	3088.	1.999 UG/L	0.08
21	NOT FOUND								
22	78	562	17:38	2	0.879	A BB	1118470.	204.007 UG/L	8.42
23	75	568	17:49	2	0.889	A BB	395840.	160.959 UG/L	6.64
24	NOT FOUND								
25	173	645	20:14	2	1.009	A BB	61496.	104.694 UG/L	4.32
26	NOT FOUND								
27	83	714	22:24	3	0.907	A BB	201024.	158.487 UG/L	6.54
28	92	756	23:43	3	0.961	A BB	651216.	220.523 UG/L	9.10
29	NOT FOUND								
30	106	852	26:44	3	1.083	A BB	420992.	226.997 UG/L	9.37
31	65	413	12:58	1	1.259	A BB	87600.	51.255 UG/L	2.12
32	98	750	23:32	3	0.953	A BB	232872.	52.260 UG/L	2.16
33	95	933	29:16	3	1.186	A BB	138200.	48.569 UG/L	2.00

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	10:16	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	19:59	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
3	24:38	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
4	1:53		0.183			200.00		3.118	
5	3:04		0.300			200.00		2.472	
6	3:59		0.388			200.00		3.081	
7	5:01		0.489			200.00		2.056	
8	7:13	1.00	0.703	1.00	15.38	200.00	0.185	2.400	0.08
9	9:53	1.01	0.963	1.01	12.61	200.00	0.123	1.948	0.06
10	11:05	1.01	1.080	1.00	2.76	200.00	0.058	4.202	0.01
11	11:46	1.00	1.147	1.00	244.99	200.00	2.369	1.934	1.22
12	12:16		1.196			200.00		3.723	
13	12:59	1.00	1.266	1.00	211.42	200.00	1.837	1.738	1.06
14	14:15	1.00	0.713	1.00	210.95	200.00	0.536	0.508	1.05
15	14:35		0.730			200.00		0.481	
16	15:04	1.00	0.754	1.00	179.07	200.00	0.511	0.571	0.90
17	16:21		0.818			200.00		0.487	
18	16:34	1.00	0.829	1.00	162.91	200.00	0.160	0.221	0.81
19	17:06	1.00	0.856	1.00	3.17	200.00	0.007	0.426	0.02
20	17:40	1.00	0.884	1.00	2.00	200.00	0.003	0.308	0.01
21	17:46		0.889			200.00		0.222	
22	17:36	1.00	0.881	1.00	204.01	200.00	1.115	1.094	1.02
23	17:46	1.00	0.889	1.00	160.96	200.00	0.395	0.491	0.80
24	18:46		0.939			200.00		0.011	
25	20:11	1.00	1.009	1.00	104.69	200.00	0.061	0.117	0.52
26	22:26		0.911			200.00		0.573	
27	22:22	1.00	0.908	1.00	158.49	200.00	0.321	0.405	0.79
28	23:40	1.00	0.961	1.00	220.52	200.00	1.040	0.944	1.10
29	24:44		1.004			200.00		1.125	
30	26:40	1.00	1.083	1.00	227.00	200.00	0.673	0.593	1.13
31	12:54	1.00	1.257	1.00	51.25	50.00	2.012	1.963	1.03
32	23:30	1.00	0.954	1.00	52.26	50.00	1.488	1.424	1.05
33	29:11	1.00	1.185	1.00	48.57	50.00	0.883	0.909	0.97

MIDRIC DATA: BLKB1018PM #1 SCANS 1 TO 980
10/18/85 20:31:00 CALI: 12237V7 #2
SAMPLE: NA BLANK
CONDS.: 100 UL INJ
RANGE: G 1,1300 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3



NO	NAME	
1	C101 BROMOCHLOROMETHANE	****INTERNAL STANDARD #1**
2	C110 1,4-DIFLUOROBENZENE	****INTERNAL STANDARD #2**
3	C120 CHLOROBENZENE-D5	****INTERNAL STANDARD #3**
4	C010 CHLOROMETHANE	
5	C015 BROMOMETHANE	
6	C020 VINYL CHLORIDE	
7	C025 CHLOROETHANE	
8	C030 METHYLENE CHLORIDE	
9	C045 1,1-DICHLOROETHENE	
10	C050 1,1-DICHLOROETHANE	
11	C055 TRANS-1,2-DICHLOROETHENE	
12	C060 CHLOROFORM	
13	C065 1,2-DICHLOROETHANE	
14	C115 1,1,1-TRICHLOROETHANE	
15	C120 CARBON TETRACHLORIDE	
16	C130 BROMODICHLOROMETHANE	
17	C140 1,2-DICHLOROPROPANE	
18	C145 TRANS-1,3-DICHLOROPROPENE	
19	C150 TRICHLOROETHENE	
20	C155 DIBROMOCHLOROMETHANE	
21	C160 1,1,2-TRICHLOROETHANE	
22	C165 BENZENE	
23	C170 CIS-1,3-DICHLOROPROPENE	
24	C175 2-CHLOROETHYL VINYL ETHER	
25	C180 BROMOFORM	
26	C220 TETRACHLOROETHENE	
27	C225 1,1,2,2-TETRACHLOROETHANE	
28	C230 TOLUENE	
29	C235 CHLOROBENZENE	
30	C240 ETHYL BENZENE	
31	CS15 1,2-DICHLOROETHANE-D4	****SURROGATE #1
32	CS05 TOLUENE-D8	****SURROGATE #2
33	CS10 4-BROMOFLUOROBENZENE	****SURROGATE #3

Quantitation Report File: BLKB1018PM

197

Data: BLKB1018PM.TI
10/18/85 20:31:00
Sample: NA BLANK
Submitted by: HSMA Analyst: PAT

AMOUNT=AREA * REF.AMNT/(REF.AREA)* RESP.FACT)
Resp. fac. from Library Entry

NO	NAME		
1	CI01	BROMOCHLOROMETHANE	****INTERNAL STANDARD #1****
2	CI10	1,4-DIFLUOROBENZENE	****INTERNAL STANDARD #2****
3	CI20	CHLOROBENZENE-D5	****INTERNAL STANDARD #3****
4	C010	CHLOROMETHANE	
5	C015	BROMOMETHANE	
6	C020	VINYL CHLORIDE	
7	C025	CHLOROETHANE	
8	C030	METHYLENE CHLORIDE	
9	C045	1,1-DICHLOROETHENE	
10	C050	1,1-DICHLOROETHANE	
11	C055	TRANS-1,2-DICHLOROETHENE	
12	C060	CHLOROFORM	
13	C065	1,2-DICHLOROETHANE	
14	C115	1,1,1-TRICHLOROETHANE	
15	C120	CARBON TETRACHLORIDE	
16	C130	BROMODICHLOROMETHANE	
17	C140	1,2-DICHLOROPROPANE	
18	C145	TRANS-1,3-DICHLOROPROPENE	
19	C150	TRICHLOROETHENE	
20	C155	DIBROMOCHLOROMETHANE	
21	C160	1,1,2-TRICHLOROETHANE	
22	C165	BENZENE	
23	C170	CIS-1,3-DICHLOROPROPENE	
24	C175	2-CHLOROETHYL VINYL ETHER	
25	C180	BROMOFORM	
26	C220	TETRACHLOROETHENE	
27	C225	1,1,2,2-TETRACHLOROETHANE	
28	C230	TOLUENE	
29	C235	CHLOROBENZENE	
30	C240	ETHYL BENZENE	
31	CS15	1,2-DICHLOROETHANE-D4	****SURROGATE #1****
32	CS05	TOLUENE-D8	****SURROGATE #2****
33	CS10	4-BROMOFLUOROBENZENE	****SURROGATE #3****

198

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	128	329	10:18	1	1.000	A BB	152384.	50.000 UG/L	16.67
2	114	638	20:01	2	1.000	A BB	276080.	50.000 UG/L	16.67
3	117	787	24:42	3	1.000	A BB	167256.	50.000 UG/L	16.67
4	NOT FOUND								
5	NOT FOUND								
6	NOT FOUND								
7	NOT FOUND								
8	84	231	7:15	1	0.704	A BB	16096.	6.402 UG/L	2.13 yes LFC
9	NOT FOUND								
10	NOT FOUND								
11	NOT FOUND								
12	NOT FOUND								
13	NOT FOUND								
14	NOT FOUND								
15	NOT FOUND								
16	NOT FOUND								
17	NOT FOUND								
18	NOT FOUND								
19	NOT FOUND								
20	NOT FOUND								
21	NOT FOUND								
22	NOT FOUND								
23	NOT FOUND								
24	NOT FOUND								
25	NOT FOUND								
26	NOT FOUND								
27	NOT FOUND								
28	NOT FOUND								
29	NOT FOUND								
30	NOT FOUND								
31	65	411	12:54	1	1.253	A BB	78752.	38.295 UG/L	12.77
32	98	750	23:32	3	0.953	A BB	252512.	53.013 UG/L	17.68
33	95	934	29:18	3	1.187	A BB	158792.	52.208 UG/L	17.41

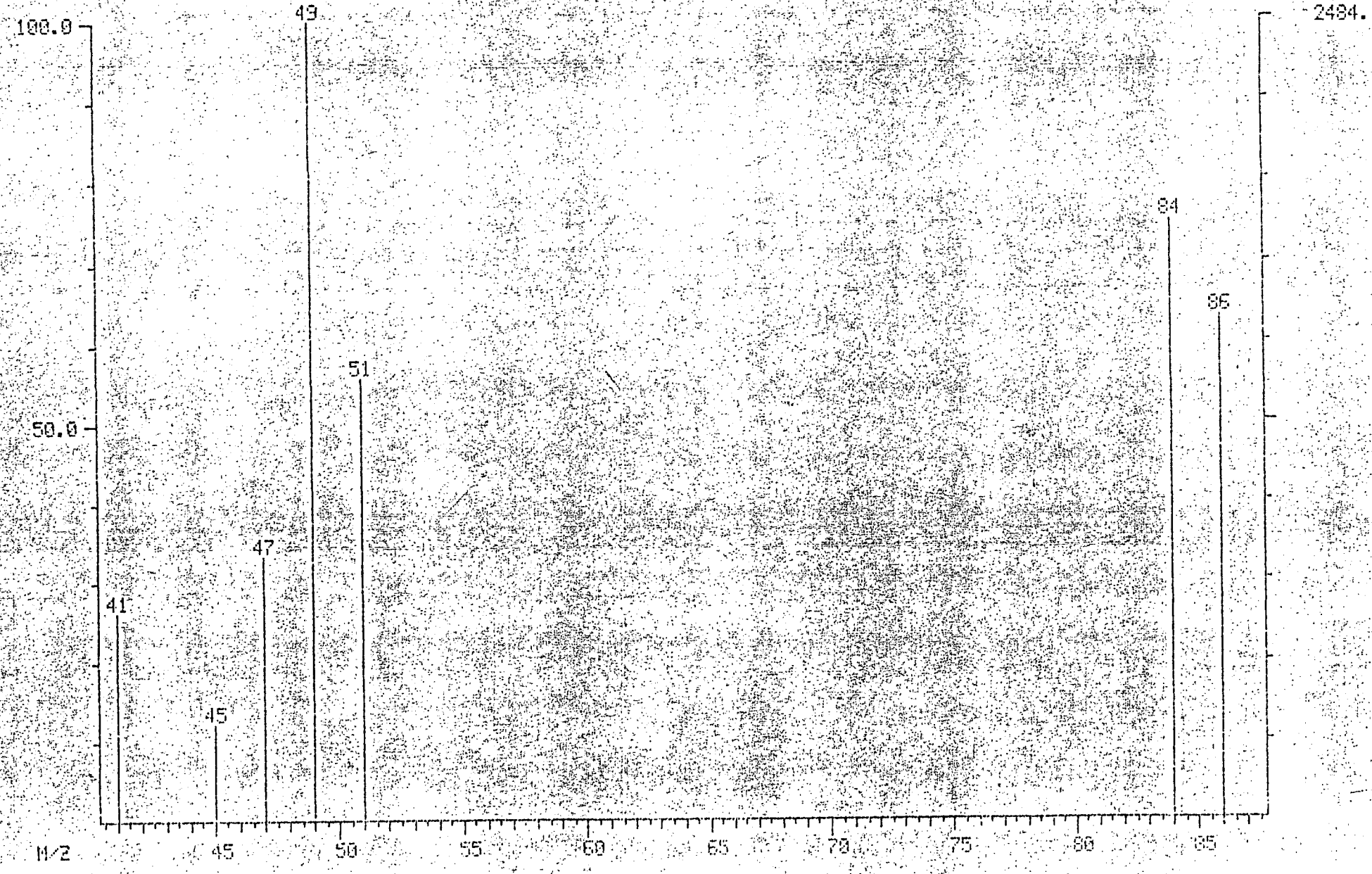
No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	10:16	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	19:59	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
3	24:38	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
4	1:53		0.183			200.00		3.118	
5	3:04		0.300			200.00		2.472	
6	3:59		0.386			200.00		3.081	
7	5:01		0.489			200.00		2.056	
8	7:13	1.00	0.703	1.00	6.40	200.00	0.077	2.400	0.03
9	9:53		0.963			200.00		1.948	
10	11:05		1.080			200.00		4.202	
11	11:46		1.147			200.00		1.934	
12	12:16		1.196			200.00		3.723	
13	12:59		1.266			200.00		1.738	
14	14:15		0.713			200.00		0.508	
15	14:35		0.730			200.00		0.481	
16	15:04		0.754			200.00		0.571	
17	16:21		0.818			200.00		0.487	
18	16:34		0.829			200.00		0.221	
19	17:06		0.856			200.00		0.426	
20	17:40		0.884			200.00		0.308	
21	17:46		0.889			200.00		0.222	
22	17:36		0.881			200.00		1.094	
23	17:46		0.889			200.00		0.491	
24	18:46		0.939			200.00		0.011	
25	20:11		1.009			200.00		0.117	
26	22:26		0.911			200.00		0.573	
27	22:22		0.908			200.00		0.405	
28	23:40		0.961			200.00		0.944	
29	24:44		1.004			200.00		1.125	
30	26:40		1.083			200.00		0.593	
31	12:54	1.00	1.257	1.00	38.30	50.00	1.503	1.963	0.77
32	23:30	1.00	0.954	1.00	53.01	50.00	1.510	1.424	1.06
33	29:11	1.00	1.185	1.00	52.21	50.00	0.949	0.909	1.04

MID MASS SPECTRUM
10/18/85 20:31:00 + 7:15
SAMPLE: NA BLANK
CONDS.: 100 UL INJ
GC TEMP: 78 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: BLKB1018PM #231
CALI: BLKB1018PM #2

BASE M/Z: 49
RIC: 9072.

METHYLENE CHLORIDE



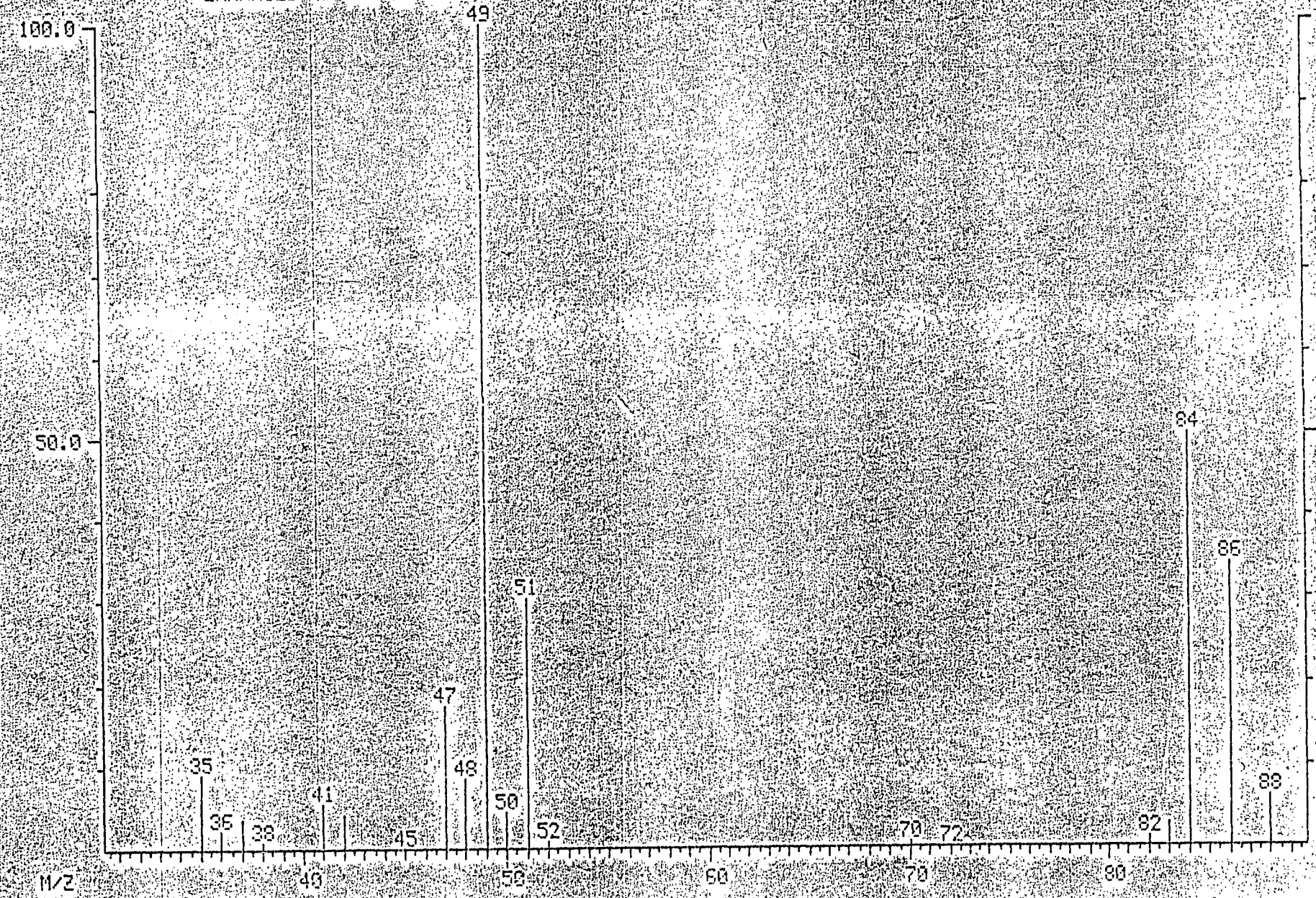
200

MID MASS SPECTRUM
10/07/85 23:21:00 + 5:07
SAMPLE: Vol.Std.
CONDS.: EI
GC TEMP: 61 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: VSB107P5 #163
CALI: VSB107P5 #2

BASE M/Z: 49
RIC: 450560.

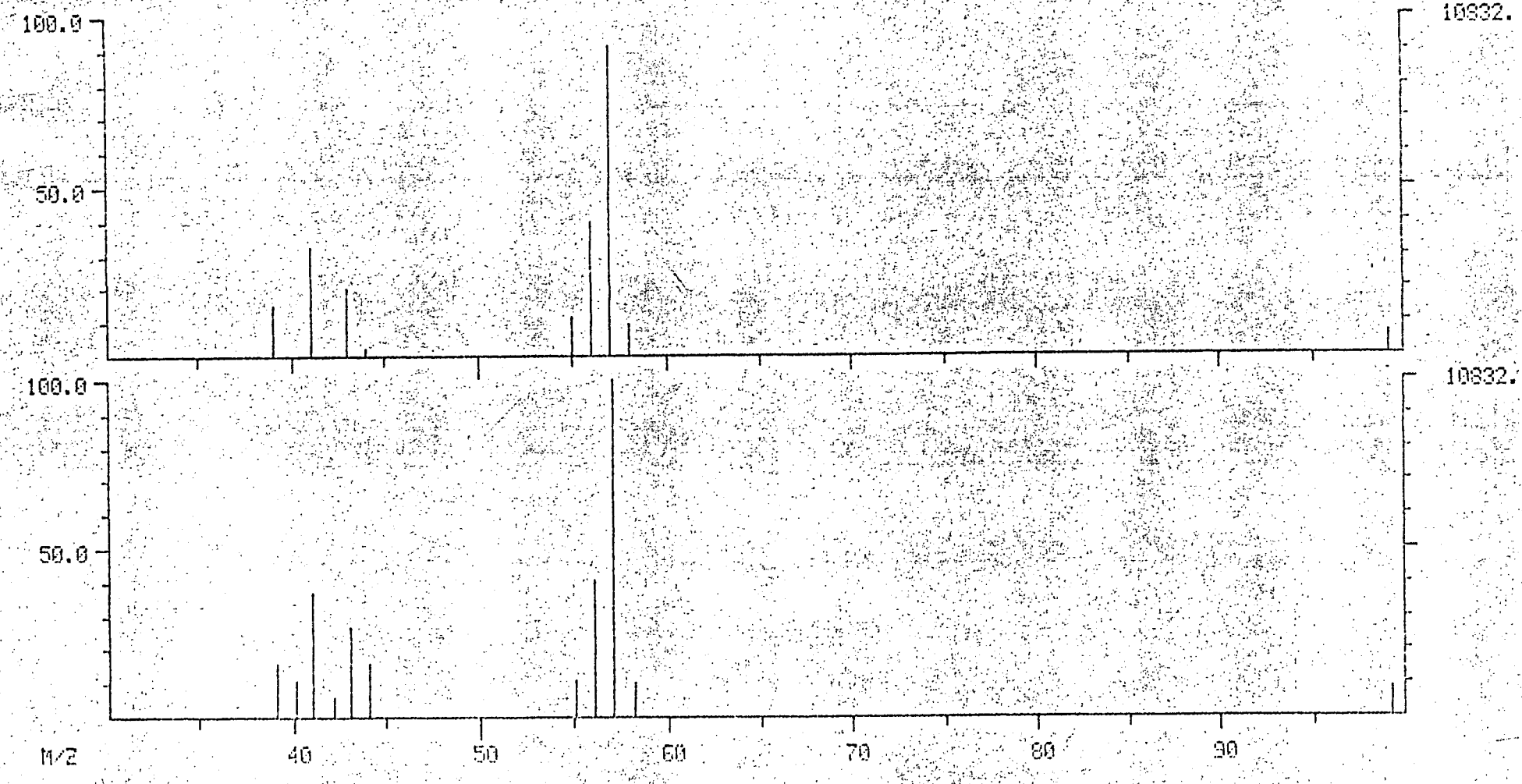
METHYLENE CHLORIDE



207

MID DUAL MASS SPECTRUM
10/18/85 20:31:00 + 23:04
SAMPLE: NA BLANK
CONDS.: 100 UL INJ
GC TEMP: 205 DEG. C
ENHANCED (S 15B 2N 0T)

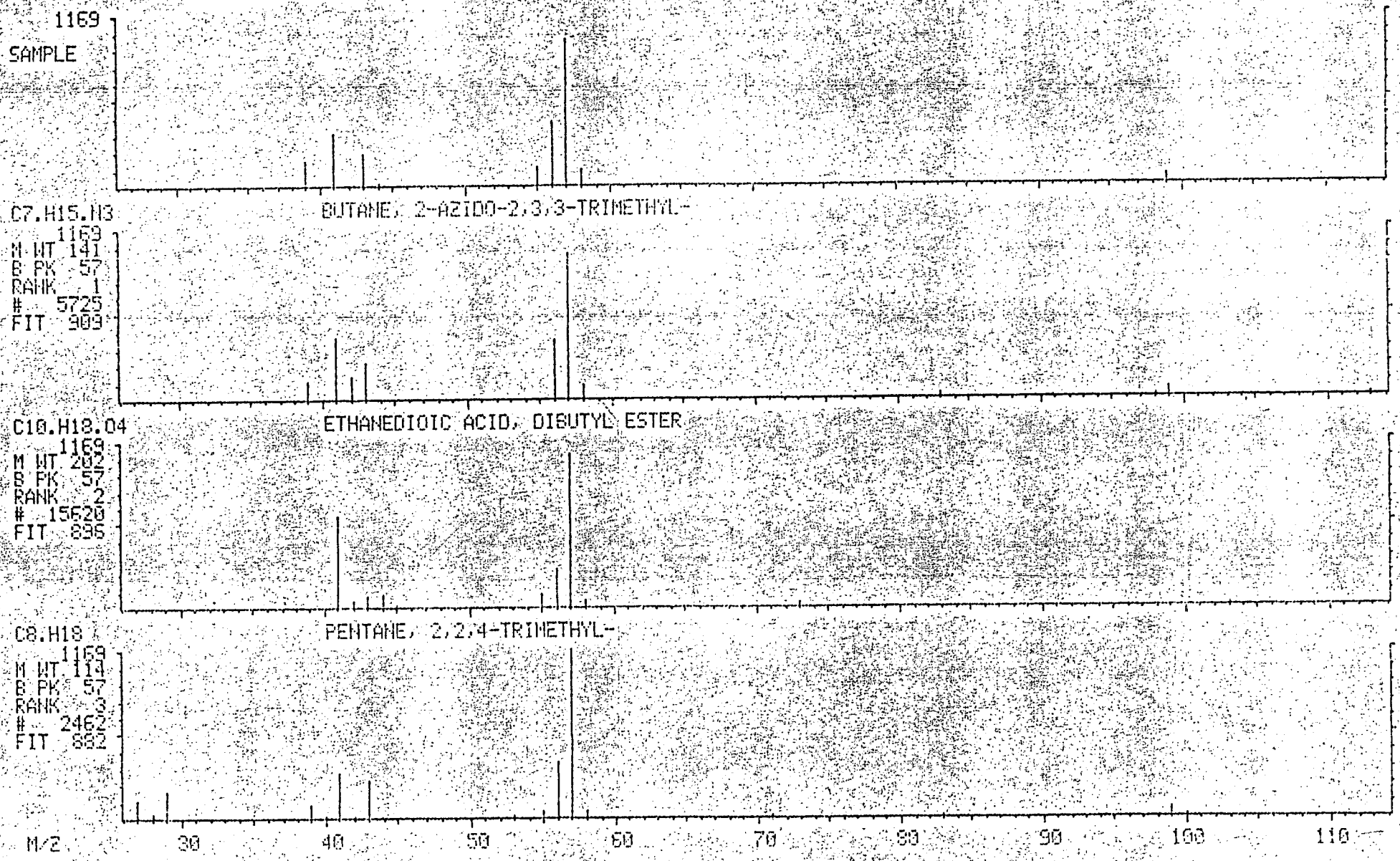
DATA: BLKB1018PM #735 BASE M/Z: 57/ 57
CALI: BLKB1018PM #2 RIC: 24767./ 30559.



202

MID LIBRARY SEARCH
10/18/85 20:31:00 + 23:04
SAMPLE: NA BLANK
CONDS.: 100 UL INJ
ENHANCED (S 15B 2N 0T)

DATA: BLKB1018PM # 735 BASE M/Z: 57
CALI: BLKB1018PM # 2 RIC: 24767.



203

MID Library Search
10/18/85 20:31:00 + 23:04
Sample: NA BLANK
Conds.: 100 UL INJ
Enhanced (S 15B 2N OT)

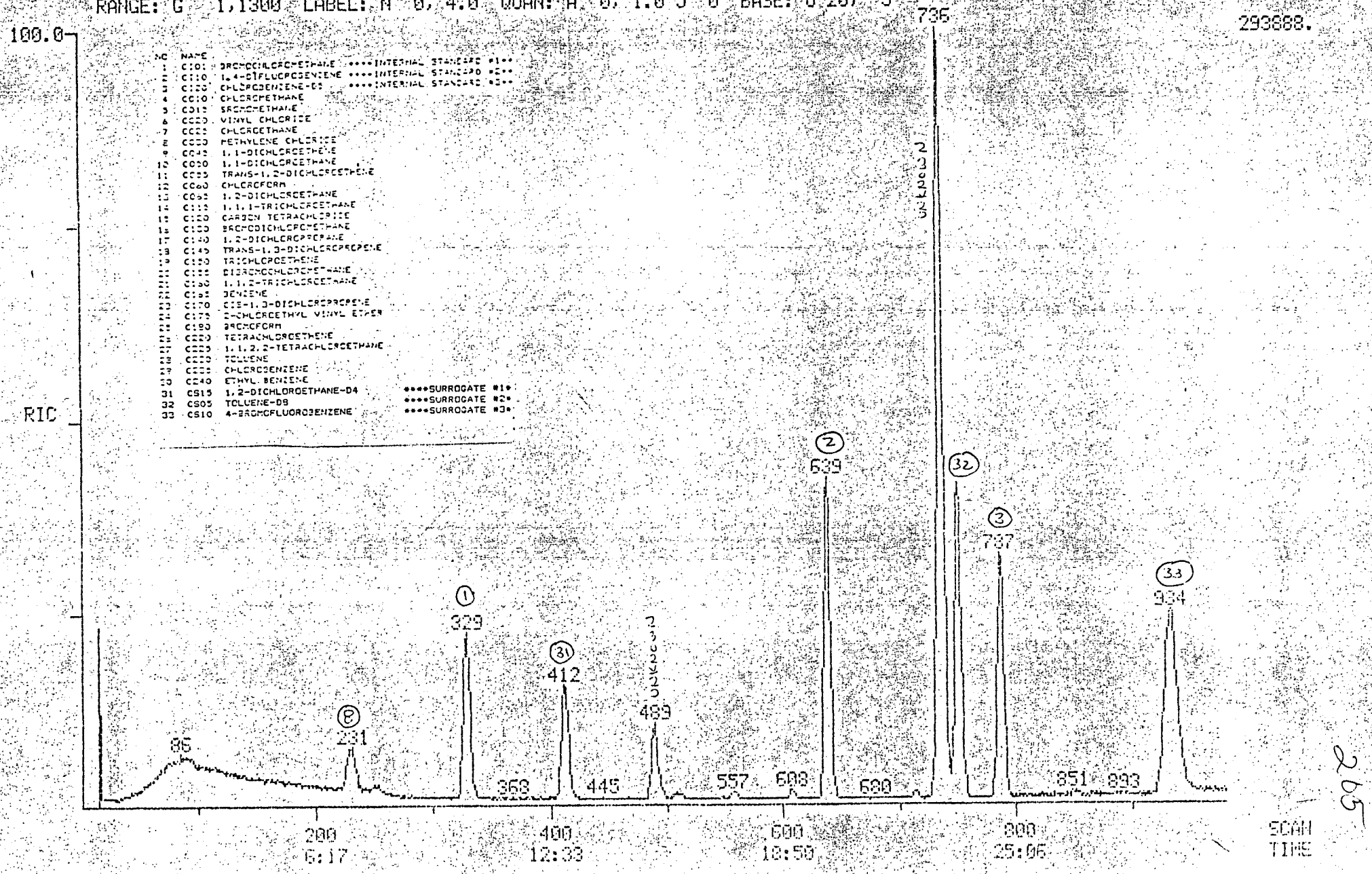
Data: BLKB1018PM # 735 Base m/z: 57
Cali: BLKB1018PM # 2 RIC: 24767.

204

Rank	In.	Name
1	5725	BUTANE, 2-AZIDO-2,3,3-TRIMETHYL-
2	15620	ETHANEDIOIC ACID, DIBUTYL ESTER
3	2462	PENTANE, 2,2,4-TRIMETHYL-
4	2475	BUTANE, 2,2,3,3-TETRAMETHYL-
5	2472	HEXANE, 2,2-DIMETHYL-

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C7.H15.N3	141	57	854	909	937
2	C10.H18.O4	202	57	806	896	851
3	C8.H18	114	57	875	882	973
4	C8.H18	114	57	871	878	971
5	C8.H18	114	57	857	864	973

MIDRIC DATA: 12237V8 #1 SCANS 1 TO 980
10/18/85 22:13:00 CALI: 12237V85 #2
SAMPLE: 12237-8
CONDS.: 4.17G / 10ML, 100 UL INJ
RANGE: G 1,1300 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3



265

Quantitation Report File: 12237V8

206

Data: 12237V8.TI
10/18/85 22:13:00
Sample: 12237-8
Submitted by: HSMA Analyst: PAT

AMOUNT=AREA * REF.AMNT/(REF.AREA)* RESP.FACT)
Resp. fac. from Library Entry

NO	NAME		
1	CI01	BROMOCHLOROMETHANE	****INTERNAL STANDARD #1****
2	CI10	1,4-DIFLUOROBENZENE	****INTERNAL STANDARD #2****
3	CI20	CHLOROBENZENE-D5	****INTERNAL STANDARD #3****
4	C010	CHLOROMETHANE	
5	C015	BROMOMETHANE	
6	C020	VINYL CHLORIDE	
7	C025	CHLOROETHANE	
8	C030	METHYLENE CHLORIDE	
9	C045	1,1-DICHLOROETHENE	
10	C050	1,1-DICHLOROETHANE	
11	C055	TRANS-1,2-DICHLOROETHENE	
12	C060	CHLOROFORM	
13	C065	1,2-DICHLOROETHANE	
14	C115	1,1,1-TRICHLOROETHANE	
15	C120	CARBON TETRACHLORIDE	
16	C130	BROMODICHLOROMETHANE	
17	C140	1,2-DICHLOROPROPANE	
18	C145	TRANS-1,3-DICHLOROPROPENE	
19	C150	TRICHLOROETHENE	
20	C155	DIBROMOCHLOROMETHANE	
21	C160	1,1,2-TRICHLOROETHANE	
22	C165	BENZENE	
23	C170	CIS-1,3-DICHLOROPROPENE	
24	C175	2-CHLOROETHYL VINYL ETHER	
25	C180	BROMOFORM	
26	C220	TETRACHLOROETHENE	
27	C225	1,1,2,2-TETRACHLOROETHANE	
28	C230	TOLUENE	
29	C235	CHLOROBENZENE	
30	C240	ETHYL BENZENE	
31	CS15	1,2-DICHLOROETHANE-D4	****SURROGATE #1****
32	CS05	TOLUENE-D8	****SURROGATE #2****
33	CS10	4-BROMOFLUOROBENZENE	****SURROGATE #3****

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	128	329	10:19	1	1.000	A BB	44544.	50.000 UG/L	15.88
2	114	639	20:03	2	1.000	A BB	247592.	50.000 UG/L	15.88
3	117	787	24:42	3	1.000	A BB	146344.	50.000 UG/L	15.88
4	NOT FOUND								
5	NOT FOUND								
6	NOT FOUND								
7	NOT FOUND								
8	64	230	7:13	1	0.699	A BB	24843.	11.623 UG/L	3.69 yes LTC
9	NOT FOUND								
10	NOT FOUND								
11	NOT FOUND								
12	NOT FOUND								
13	NOT FOUND								
14	NOT FOUND								
15	NOT FOUND								
16	NOT FOUND								
17	NOT FOUND								
18	NOT FOUND								
19	NOT FOUND								
20	NOT FOUND								
21	NOT FOUND								
22	NOT FOUND								
23	NOT FOUND								
24	NOT FOUND								
25	NOT FOUND								
26	NOT FOUND								
~~27~~	~~[illegible]~~	~~715~~	~~[illegible]~~	~~3~~	~~[illegible]~~	~~A BB~~	~~[illegible]~~	~~[illegible] UG/L~~	~~1.72~~ no LTC
28	NOT FOUND								
29	NOT FOUND								
30	NOT FOUND								
31	65	412	12:56	1	1.252	A BB	73584.	42.080 UG/L	13.37
32	98	750	23:32	3	0.953	A BB	230224.	55.241 UG/L	17.55
33	95	934	29:18	3	1.187	A BB	134352.	50.485 UG/L	16.04

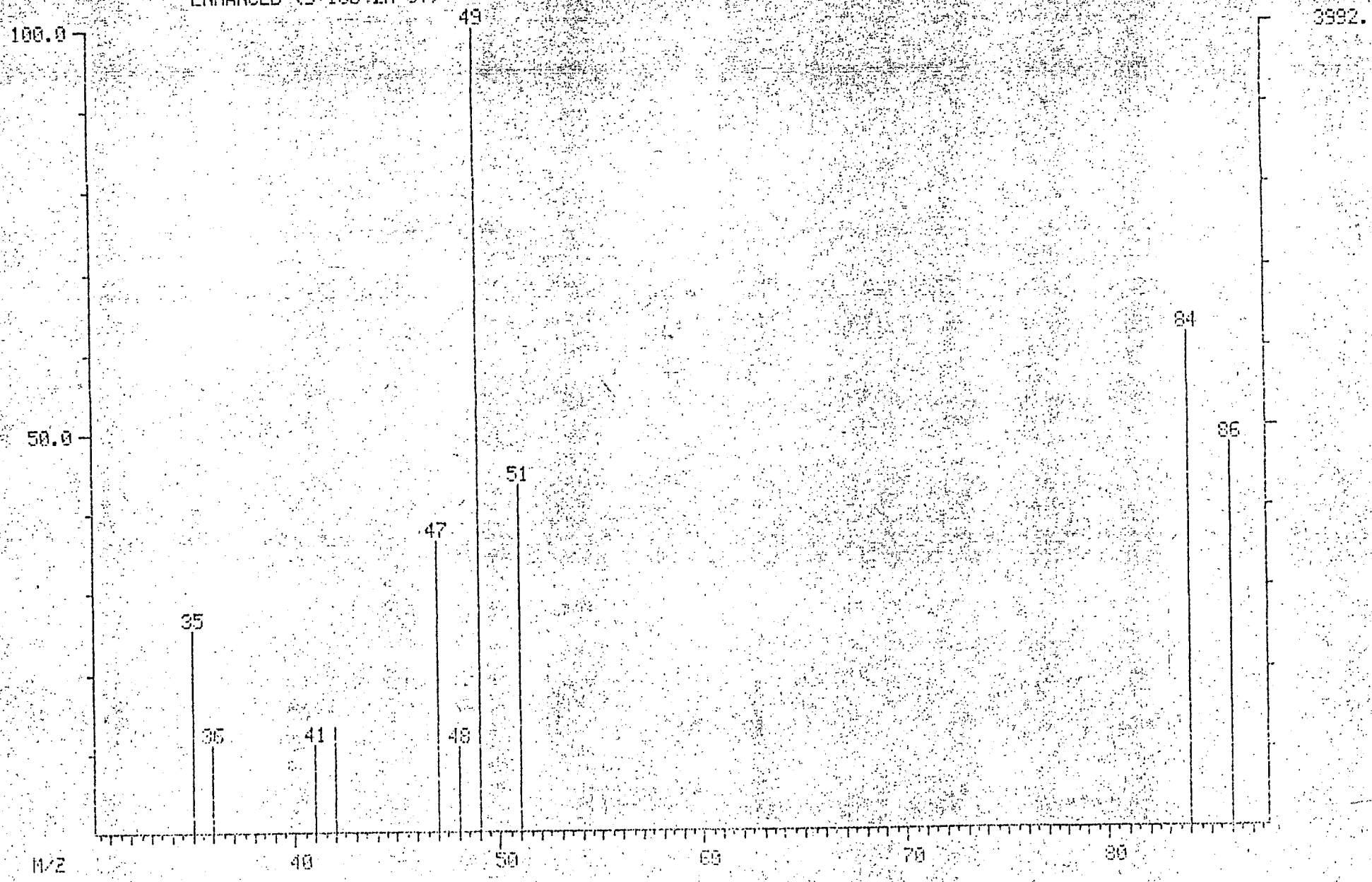
No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	10:16	1.01	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	19:59	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
3	24:38	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
4	1:53		0.183			200.00		3.118	
5	3:04		0.300			200.00		2.472	
6	3:59		0.388			200.00		3.081	
7	5:01		0.489			200.00		2.056	
8	7:13	1.00	0.703	0.99	11.62	200.00	0.139	2.400	0.06
9	9:53		0.963			200.00		1.948	
10	11:05		1.080			200.00		4.202	
11	11:46		1.147			200.00		1.934	
12	12:16		1.196			200.00		3.723	
13	12:59		1.266			200.00		1.738	
14	14:15		0.713			200.00		0.508	
15	14:35		0.730			200.00		0.481	
16	15:04		0.754			200.00		0.571	
17	16:21		0.818			200.00		0.487	
18	16:34		0.829			200.00		0.221	
19	17:06		0.856			200.00		0.426	
20	17:40		0.884			200.00		0.308	
21	17:46		0.889			200.00		0.222	
22	17:36		0.881			200.00		1.094	
23	17:46		0.889			200.00		0.491	
24	18:46		0.939			200.00		0.011	
25	20:11		1.009			200.00		0.117	
26	22:26		0.911			200.00		0.573	
27	22:22	1.00	0.908	1.00	5.40	200.00	0.011	0.405	0.03
28	23:40		0.961			200.00		0.944	
29	24:44		1.004			200.00		1.125	
30	26:40		1.083			200.00		0.593	
31	12:54	1.00	1.257	1.00	42.08	50.00	1.652	1.963	0.84
32	23:30	1.00	0.954	1.00	55.24	50.00	1.573	1.424	1.10
33	29:11	1.00	1.185	1.00	50.48	50.00	0.918	0.909	1.01

MID MASS SPECTRUM
10/18/85 22:13:00 + 7:15
SAMPLE: 12237-8
CONDS.: 4.17G / 10ML 100 UL INJ
GC TEMP: 79 DEG. C
ENHANCED (S 158 2N 0T)

DATA: 12237V8 #231
CALI: 12237V8 #2

BASE M/Z: 49
RIC: 14400.

METHYLENE CHLORIDE



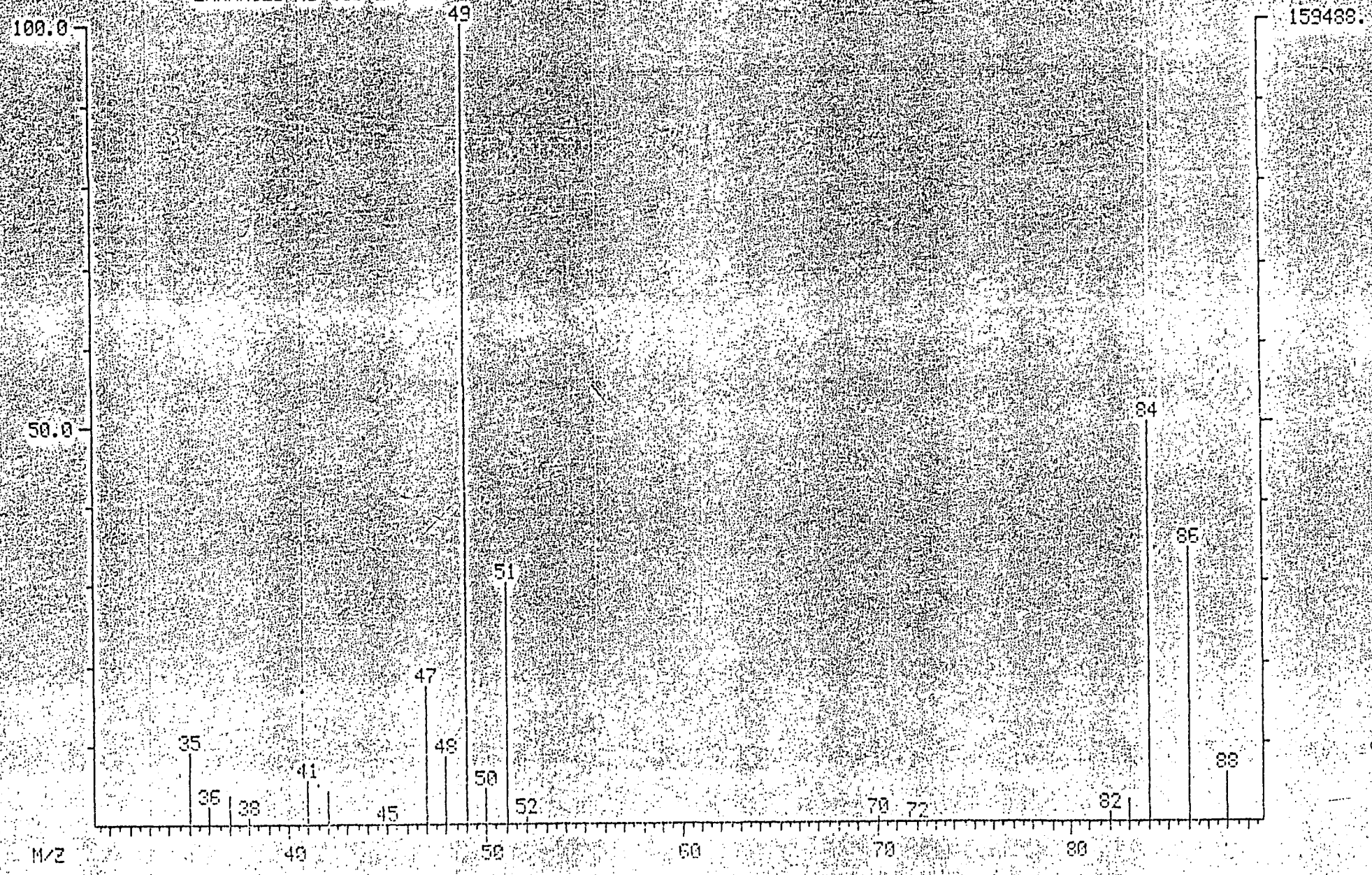
209

MID MASS SPECTRUM
10/07/85 23:21:00 + 5:07
SAMPLE: Vol.std.
CONDS.: EI
GC TEMP: 61 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: VSB107P5 #163
CALI: VSB107P5 #2

BASE M/Z: 49
RIC: 450560.

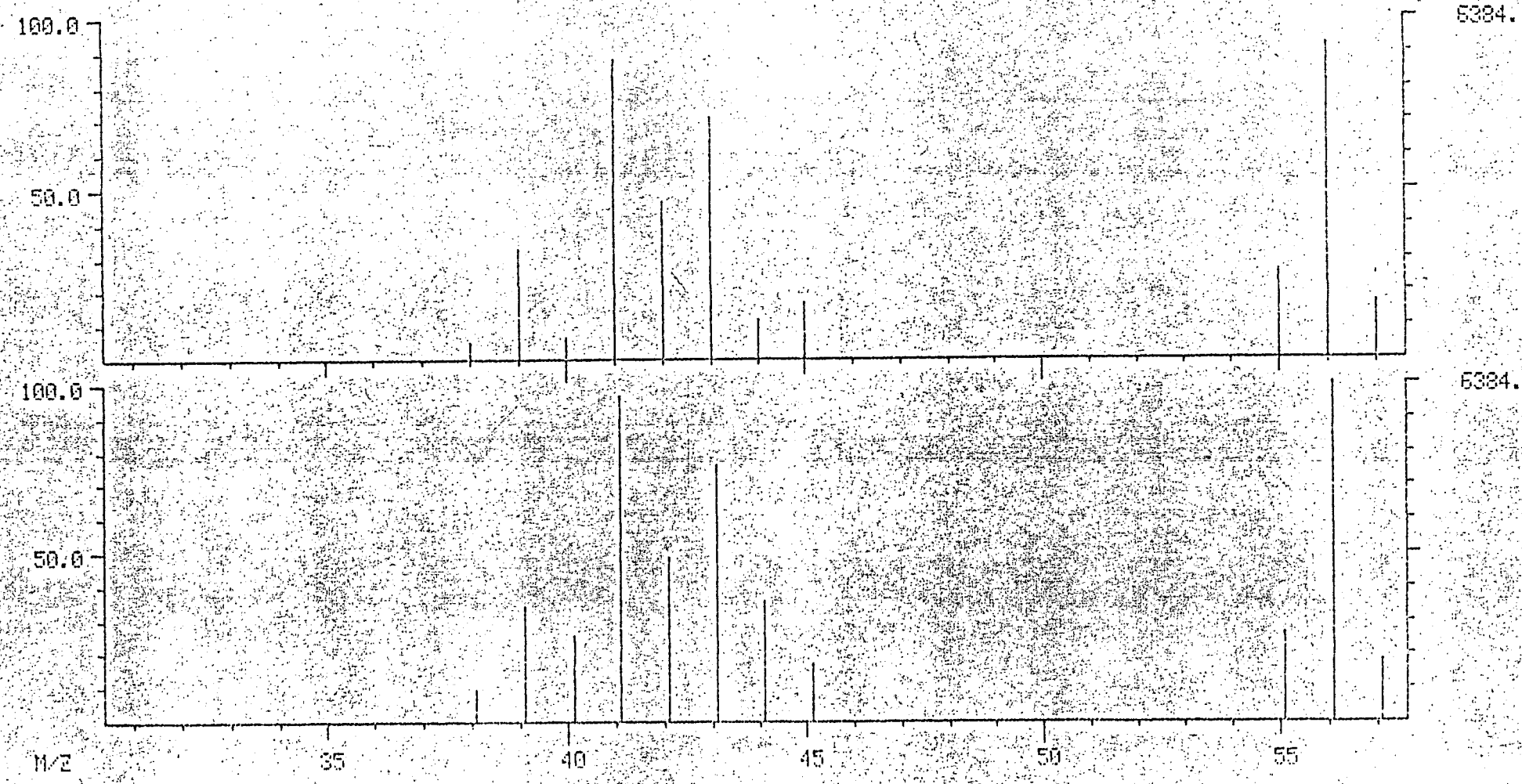
METHYLENE CHLORIDE



212

MID DUAL MASS SPECTRUM
10/18/85 22:13:00 + 15:21
SAMPLE: 12237-8
CONDS.: 4.17G / 10ML, 100 UL INJ
GC TEMP: 143 DEG. C
ENHANCED (S 158.2N 0T)

DATA: 12237V8 #489 BASE M/Z: 56/ 56
CALI: 12237V8 #2 RIC: 26367./ 31167.

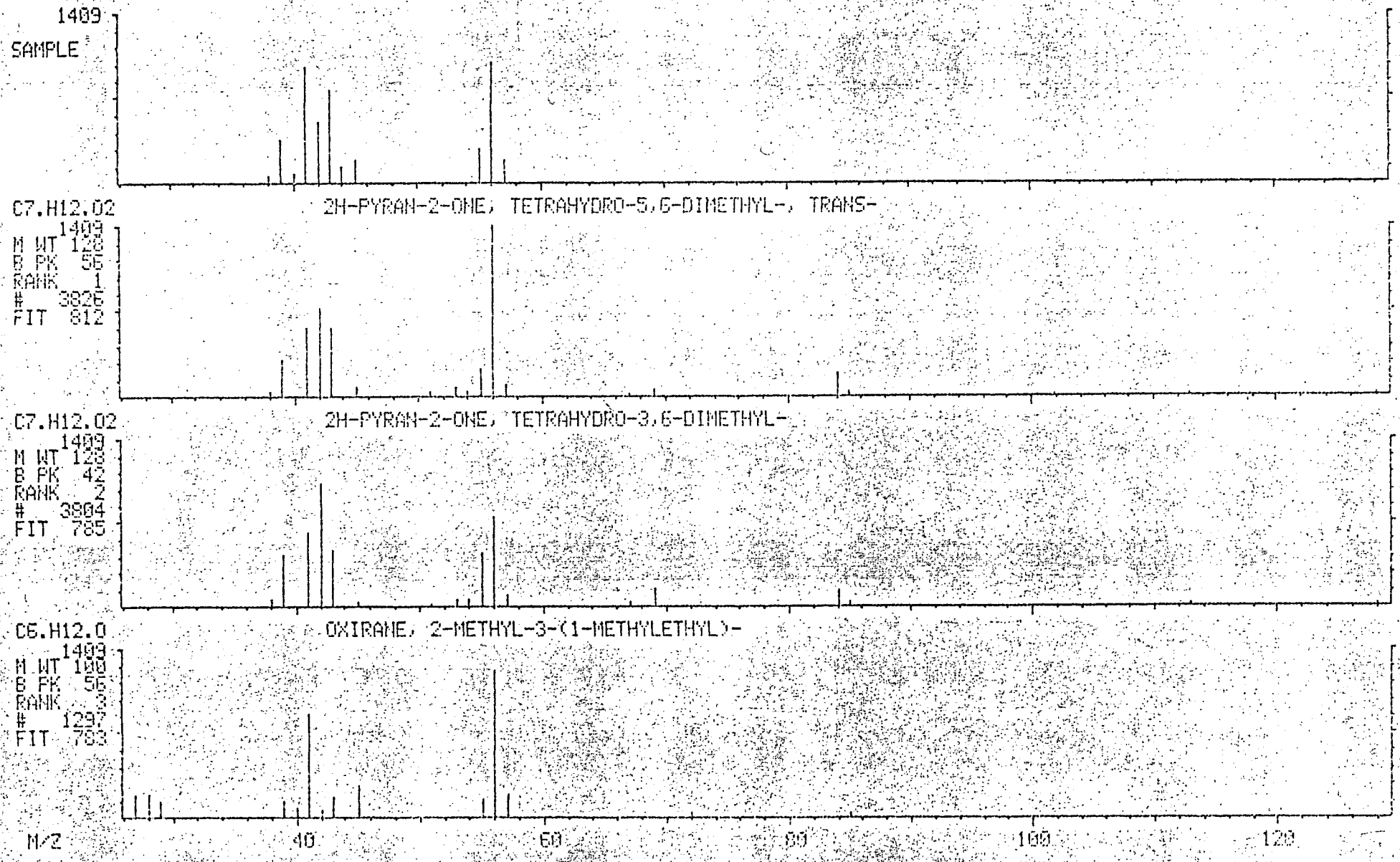


112

MID LIBRARY SEARCH
10/18/85 22:13:00 + 15:21
SAMPLE: 12237-8
CONDS.: 4.17G / 10ML, 100 UL INJ.
ENHANCED (S 15B 2N 0T)

DATA: 12237U8 # 489
CALI: 12237U8 # 2

BASE M/Z: 56
RIC: 25367.



212

MID Library Search Data: 12237V8 # 489 Base m/z: 56
10/18/85 22:13:00 + 15:21 Cali: 12237V8 # 2 RIC: 26367.
Sample: 12237-8
Conds.: 4.17G / 10ML, 100 UL INJ
Enhanced (S 15B 2N OT)

213

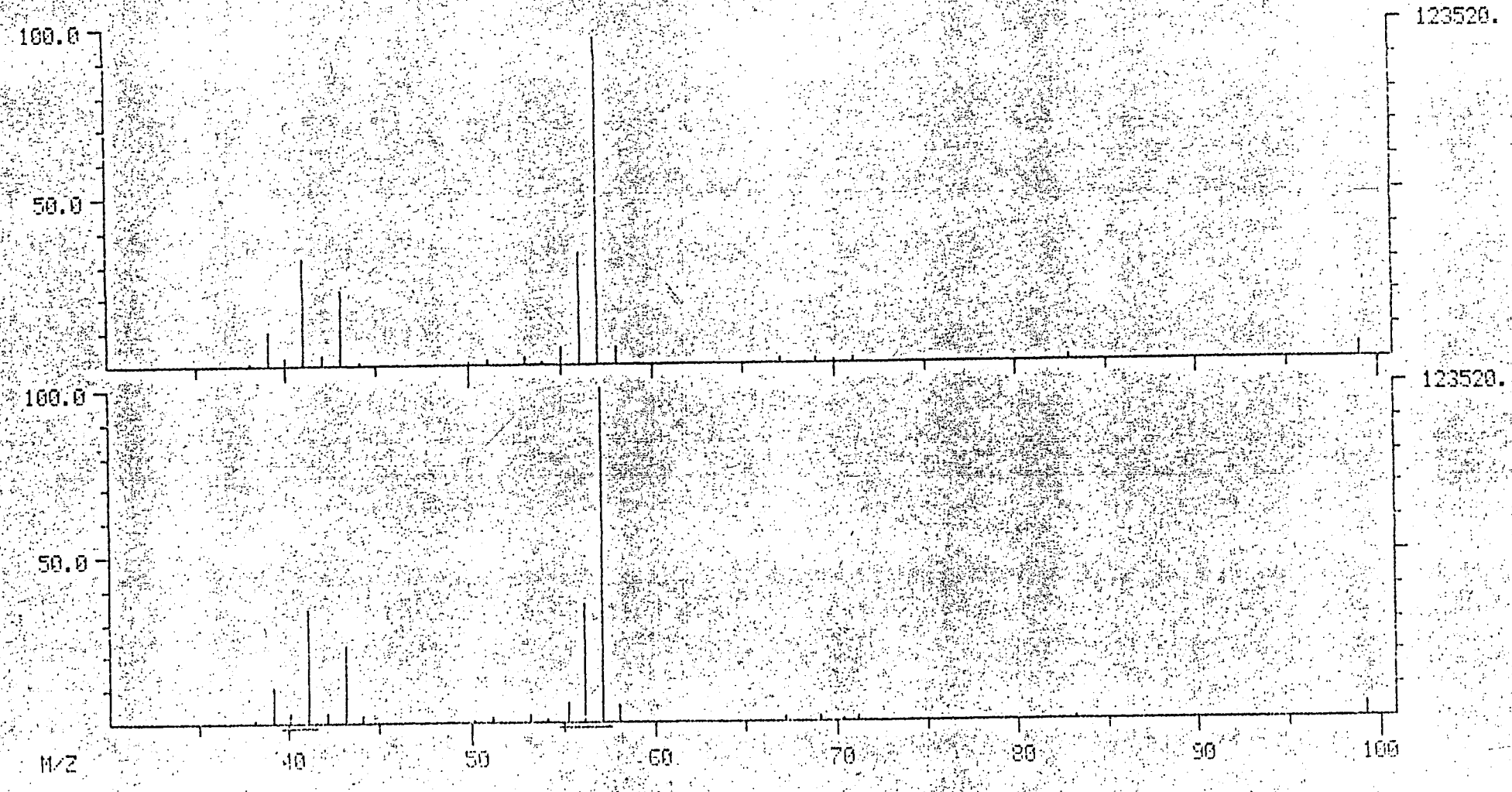
Rank	In.	Name
1	3226	2H-PYRAN-2-ONE, TETRAHYDRO-5,6-DIMETHYL-, TRANS-
2	3204	2H-PYRAN-2-ONE, TETRAHYDRO-3,6-DIMETHYL-
3	1297	OXIRANE, 2-METHYL-3-(1-METHYLETHYL)-
4	536	CYCLOPROPANE, (1-METHYLETHYL)-
5	1512	PROPANE, 2-METHYL-1-NITRO-

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C7.H12.O2	128	56	778	812	920
2	C7.H12.O2	128	42	752	785	897
3	C6.H12.O	100	56	754	783	855
4	C6.H12	84	56	729	781	877
5	C4.H9.O2.N	103	41	702	761	706

MID DUAL MASS SPECTRUM
10/18/85 22:13:00 + 23:06
SAMPLE: 12237-8
CONDS.: 4.17G / 10ML, 100 UL INJ
GC TEMP: 206 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: 12237U8 #736
CALI: 12237U8 #2

BASE M/Z: 57/ 57
RIC: 277503./ 295423.

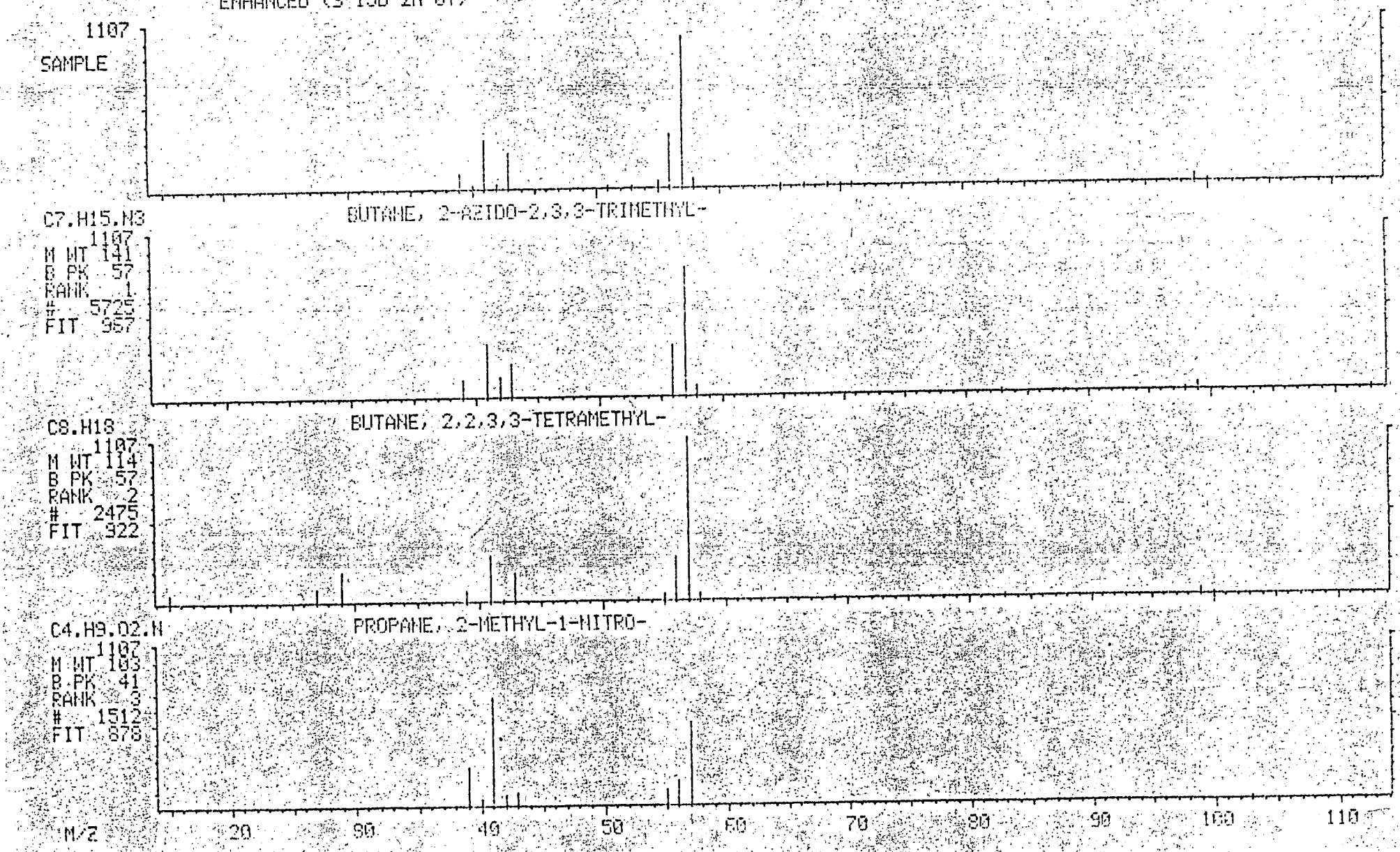


214

MID LIBRARY SEARCH
10/18/85 22:13:00 + 23:06
SAMPLE: 12237-8
CONDS.: 4.17G / 10ML, 100 UL INJ
ENHANCED (S 15B 2N 0T)

DATA: 12237V8 # 736
CALI: 12237V8 # 2

BASE M/Z: 57
RIC: 273919.



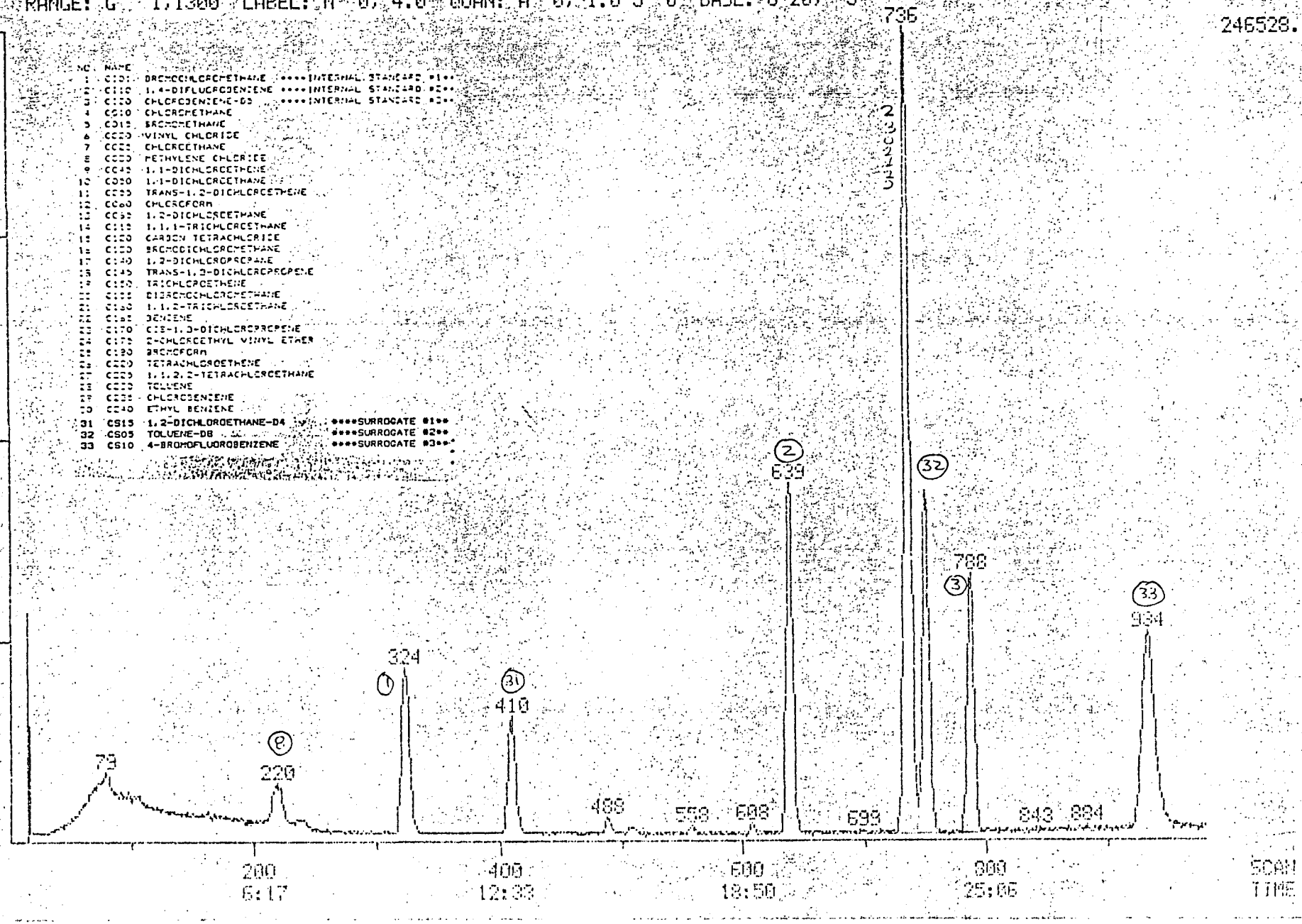
2/9

MID Library Search Date: 12237V8 # 736 Base m/z: 57
10/18/85 22:13:00 + 23:06 Cali: 12237V8 # 2 RIC: 273919.
Sample: 12237-8
Conds.: 4.17G / 10ML, 100 UL INJ
Enhanced (S 15B 2N OT)

Rank	In.	Name
1	5725	BUTANE, 2-AZIDO-2,3,3-TRIMETHYL-
2	2475	BUTANE, 2,2,3,3-TETRAMETHYL-
3	1512	PROPANE, 2-METHYL-1-NITRO-
4	5779	HEXANE, 2,2,5,5-TETRAMETHYL-
5	12014	HEPTANE, 2-BROMO-

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C7.H15.N3	141	57	899	967	913
2	C8.H18	114	57	893	922	964
3	C4.H9.O2.N	103	41	782	878	788
4	C10.H22	142	57	810	860	843
5	C7.H15.BR	178	57	830	855	883

MIDRIC DATA: 12237V9 #1 SCANS 1 TO 980
10/18/85 22:59:00 CALI: 12237V8 #2
SAMPLE: 12237-9
CONDS.: 4.10G / 10ML, 100 UL INJ
RANGE: G 1,1300 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3



NO.	NAME	
1	CS01	BROMOCHLOROETHANE ****INTERNAL STANDARD #1**
2	CS10	1,4-DIFLUOROBENZENE ****INTERNAL STANDARD #2**
3	CS20	CHLOROBENZENE-D5 ****INTERNAL STANDARD #3**
4	CS10	CHLOROMETHANE
5	CS15	BROMOMETHANE
6	CS20	VINYL CHLORIDE
7	CS25	CHLOROETHANE
8	CS30	METHYLENE CHLORIDE
9	CS45	1,1-DICHLOROETHENE
10	CS50	1,1-DICHLOROETHANE
11	CS55	TRANS-1,2-DICHLOROETHENE
12	CS60	CHLOROFORM
13	CS65	1,2-DICHLOROETHANE
14	CS75	1,1,1-TRICHLOROETHANE
15	CS80	CARBON TETRACHLORIDE
16	CS85	BROMODICHLOROMETHANE
17	CS90	1,2-DICHLOROPROPANE
18	CS95	TRANS-1,3-DICHLOROPROPENE
19	CS100	TRICHLOROETHENE
20	CS105	DIBROMOCHLOROMETHANE
21	CS110	1,1,2-TRICHLOROETHANE
22	CS115	BENZENE
23	CS120	CIS-1,3-DICHLOROPROPENE
24	CS125	2-CHLOROETHYL VINYL ETHER
25	CS130	BROMOFORM
26	CS135	TETRACHLOROETHENE
27	CS140	1,1,2,2-TETRACHLOROETHANE
28	CS145	TOLUENE
29	CS150	CHLOROBENZENE
30	CS240	ETHYL BENZENE
31	CS15	1,2-DICHLOROETHANE-D4 ****SURROGATE #1**
32	CS05	TOLUENE-D8 ****SURROGATE #2**
33	CS10	4-BROMOFLUOROBENZENE ****SURROGATE #3**

2/12

Quantitation Report File: 12237V9

218

Data: 12237V9.TI
10/18/85 22:59:00
Sample: 12237-9
Submitted by: HSMA Analyst: PAT

AMOUNT=AREA * REF.AMNT/(REF.AREA)* RESP.FACT)
Resp. fac. from Library Entry

NO	NAME		
1	CI01	BROMOCHLOROMETHANE	****INTERNAL STANDARD #1****
2	CI10	1,4-DIFLUOROBENZENE	****INTERNAL STANDARD #2****
3	CI20	CHLOROBENZENE-D5	****INTERNAL STANDARD #3****
4	C010	CHLOROMETHANE	
5	C015	BROMOMETHANE	
6	C020	VINYL CHLORIDE	
7	C025	CHLOROETHANE	
8	C030	METHYLENE CHLORIDE	
9	C045	1,1-DICHLOROETHENE	
10	C050	1,1-DICHLOROETHANE	
11	C055	TRANS-1,2-DICHLOROETHENE	
12	C060	CHLOROFORM	
13	C065	1,2-DICHLOROETHANE	
14	C115	1,1,1-TRICHLOROETHANE	
15	C120	CARBON TETRACHLORIDE	
16	C130	BROMODICHLOROMETHANE	
17	C140	1,2-DICHLOROPROPANE	
18	C145	TRANS-1,3-DICHLOROPROPENE	
19	C150	TRICHLOROETHENE	
20	C155	DIBROMOCHLOROMETHANE	
21	C160	1,1,2-TRICHLOROETHANE	
22	C165	BENZENE	
23	C170	CIS-1,3-DICHLOROPROPENE	
24	C175	2-CHLOROETHYL VINYL ETHER	
25	C180	BROMOFORM	
26	C220	TETRACHLOROETHENE	
27	C225	1,1,2,2-TETRACHLOROETHANE	
28	C230	TOLUENE	
29	C235	CHLOROBENZENE	
30	C240	ETHYL BENZENE	
31	CS15	1,2-DICHLOROETHANE-D4	****SURROGATE #1****
32	CS05	TOLUENE-D8	****SURROGATE #2****
33	CS10	4-BROMOFLUOROBENZENE	****SURROGATE #3****

219

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	128	323	10:08	1	1.000	A BB	38776.	50.000 UG/L	16.27
2	114	639	20:03	2	1.000	A BB	218624.	50.000 UG/L	16.27
3	117	787	24:42	3	1.000	A BB	129376.	50.000 UG/L	16.27
4	NOT FOUND								
5	NOT FOUND								
6	NOT FOUND								
7	NOT FOUND								
8	84	220	6:54	1	0.681	A BB	20792.	11.172 UG/L	3.64
9	NOT FOUND								
10	NOT FOUND								
11	NOT FOUND								
12	NOT FOUND								
13	NOT FOUND								
14	NOT FOUND								
15	NOT FOUND								
16	NOT FOUND								
17	NOT FOUND								
18	NOT FOUND								
19	NOT FOUND								
20	NOT FOUND								
21	NOT FOUND								
22	NOT FOUND								
23	NOT FOUND								
24	NOT FOUND								
25	NOT FOUND								
26	NOT FOUND								
27	NOT FOUND								
28	NOT FOUND								
29	NOT FOUND								
30	NOT FOUND								
31	65	410	12:52	1	1.269	A BB	62840.	41.938 UG/L	13.65
32	98	751	23:34	3	0.954	A BB	199928.	54.263 UG/L	17.66
33	95	934	29:18	3	1.187	A BB	117384.	49.894 UG/L	16.24

yo LFK

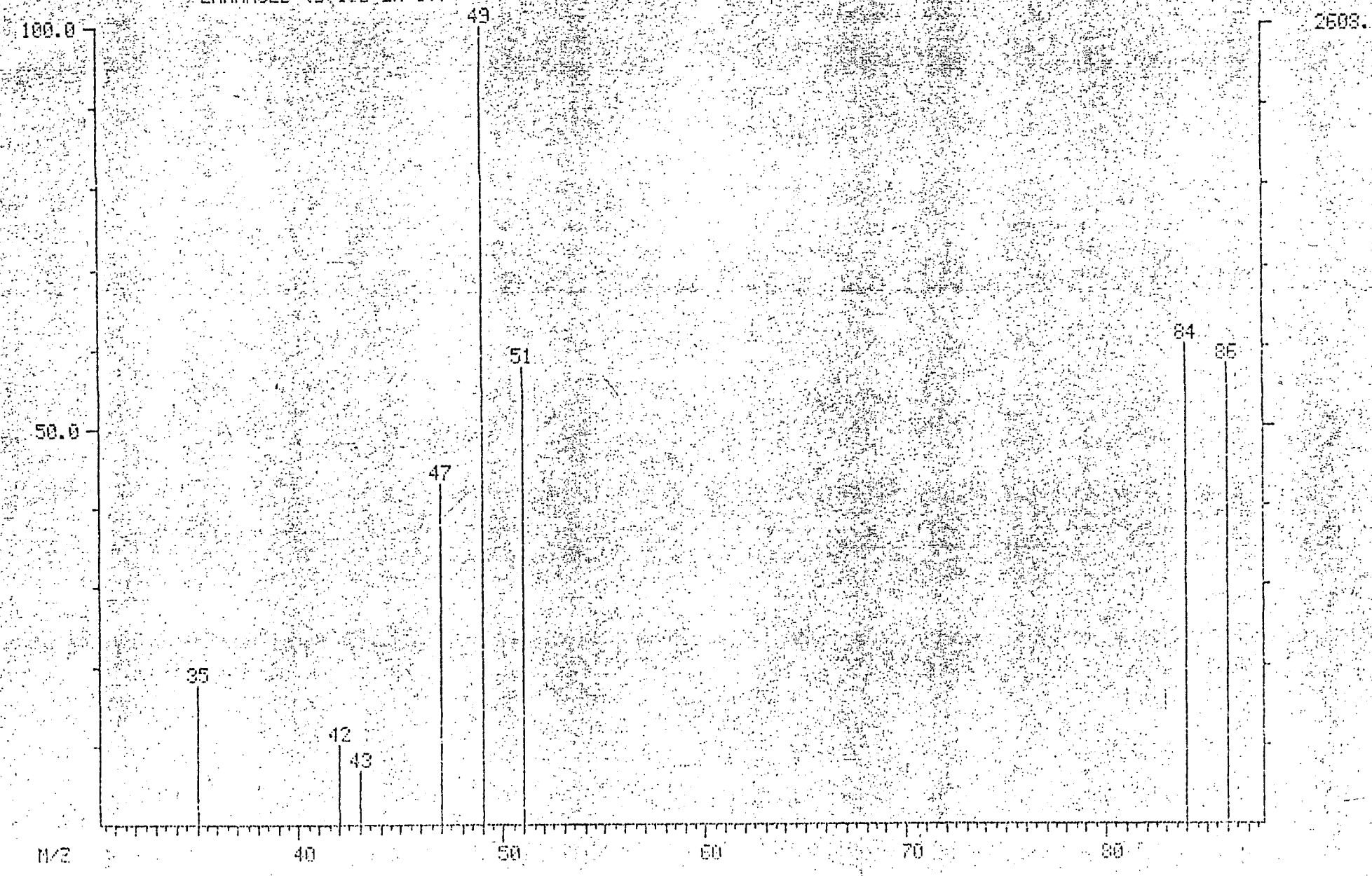
No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	10:16	0.99	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	19:59	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
3	24:38	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
4	1:53		0.183			200.00		3.118	
5	3:04		0.300			200.00		2.472	
6	3:59		0.388			200.00		3.081	
7	5:01		0.489			200.00		2.056	
8	7:13	0.96	0.703	0.97	11.17	200.00	0.134	2.400	0.06
9	9:53		0.963			200.00		1.948	
10	11:05		1.080			200.00		4.202	
11	11:46		1.147			200.00		1.934	
12	12:16		1.196			200.00		3.723	
13	12:59		1.266			200.00		1.738	
14	14:15		0.713			200.00		0.508	
15	14:35		0.730			200.00		0.481	
16	15:04		0.754			200.00		0.571	
17	16:21		0.818			200.00		0.487	
18	16:34		0.829			200.00		0.221	
19	17:06		0.856			200.00		0.426	
20	17:40		0.884			200.00		0.308	
21	17:46		0.889			200.00		0.222	
22	17:36		0.881			200.00		1.094	
23	17:46		0.889			200.00		0.491	
24	18:46		0.939			200.00		0.011	
25	20:11		1.009			200.00		0.117	
26	22:26		0.911			200.00		0.573	
27	22:22		0.908			200.00		0.405	
28	23:40		0.961			200.00		0.944	
29	24:44		1.004			200.00		1.125	
30	26:40		1.083			200.00		0.593	
31	12:54	1.00	1.257	1.01	41.94	50.00	1.646	1.963	0.84
32	23:30	1.00	0.954	1.00	54.26	50.00	1.545	1.424	1.09
33	29:11	1.00	1.185	1.00	49.89	50.00	0.907	0.909	1.00

MID MASS SPECTRUM
10/18/85 22:59:00 + 6:54
SAMPLE: 12237-9
CONDS.: 4.10G / 10ML, 100 UL INJ
GC TEMP: 75 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: 12237V9 #220
CALI: 12237V9 #2

BASE M/Z: 49
RIC: 9232.

METHYLENE CHLORIDE



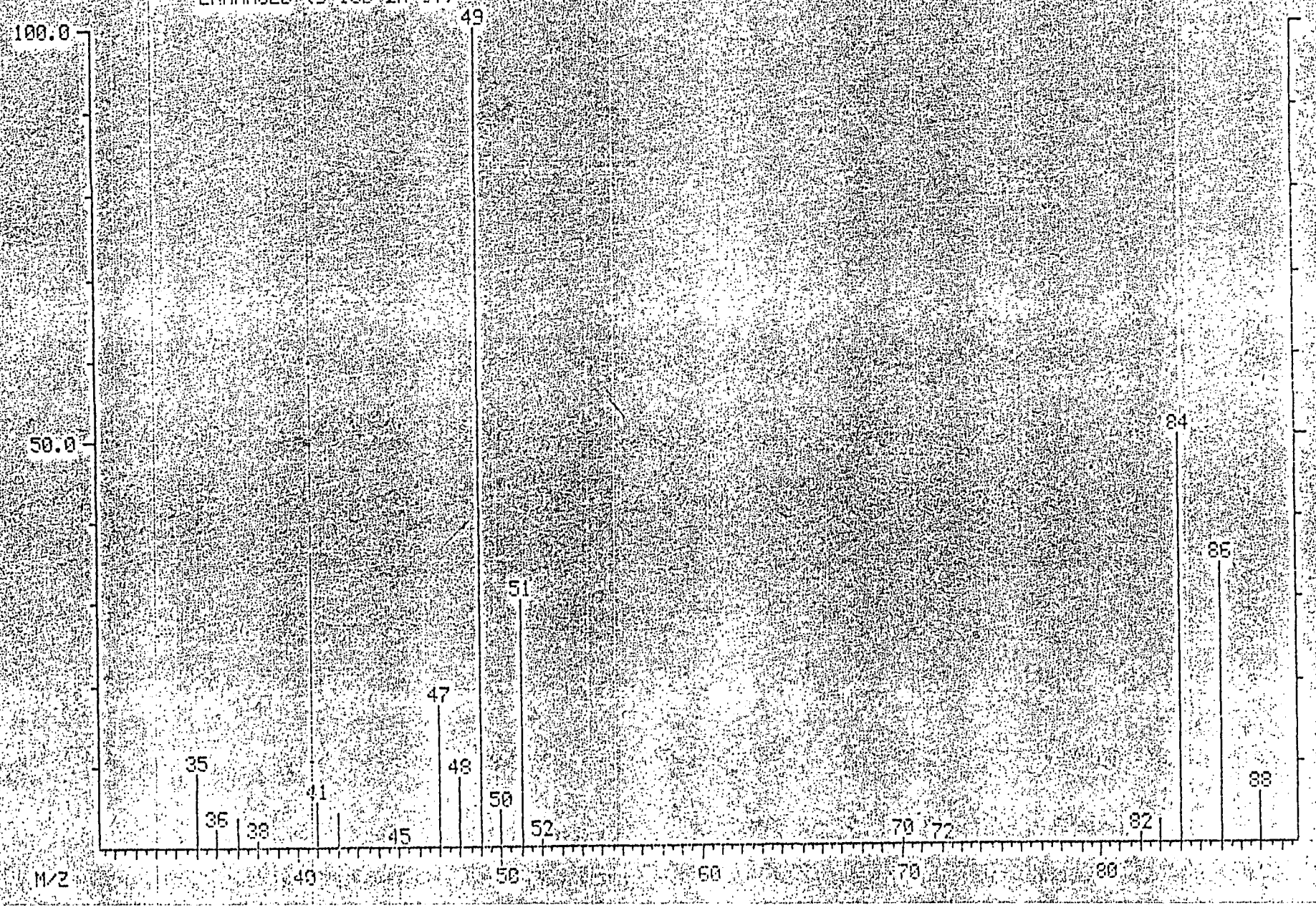
221

MID MASS SPECTRUM
10/07/85 23:21:00 + 5:07
SAMPLE: Vol. Std.
CONDS.: EI
GC TEMP: 61 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: VSB107P5 #163
CALI: VSB107P5 #2

BASE M/Z: 49
RIC: 450560.

METHYLENE CHLORIDE

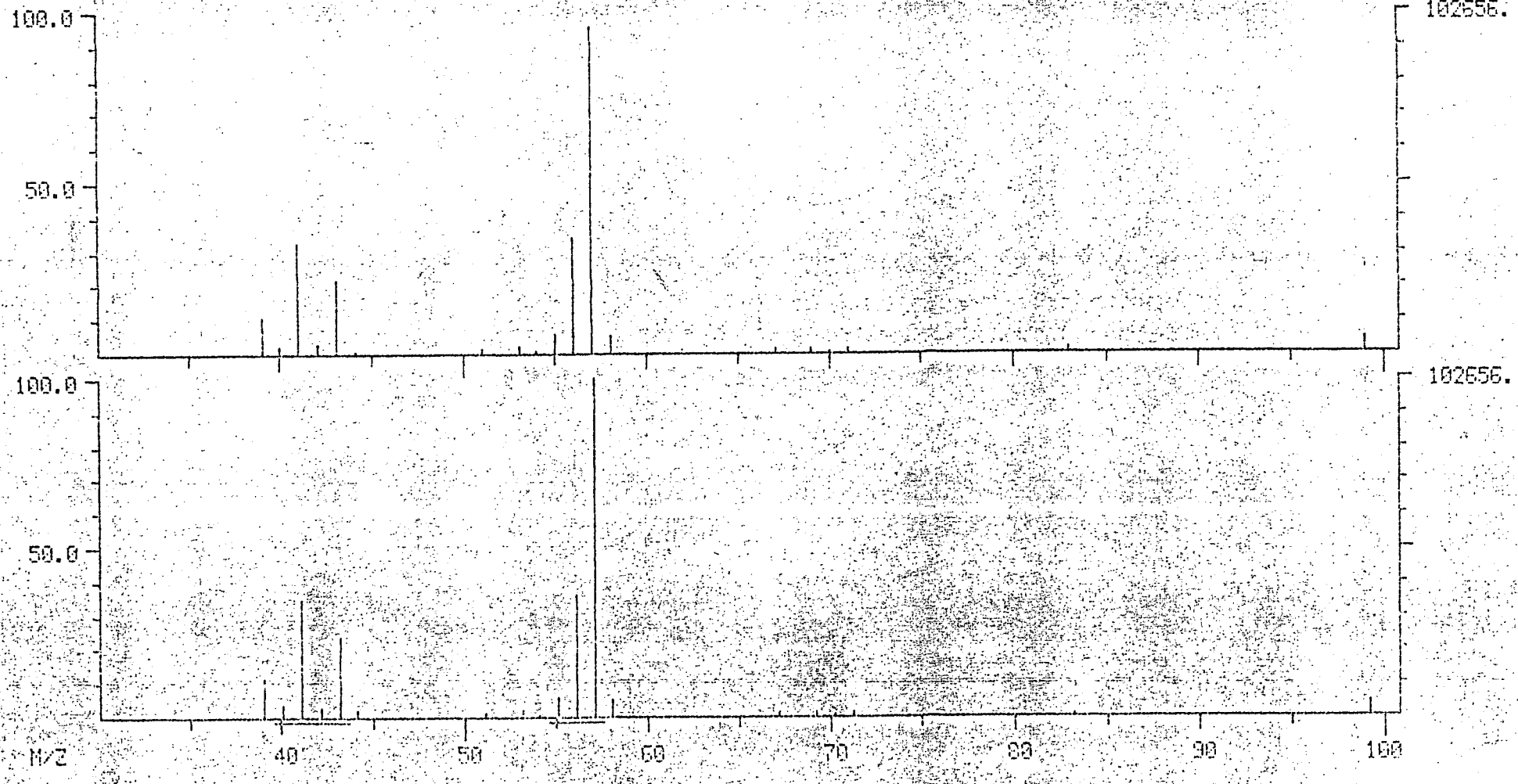


222

MID DUAL MASS SPECTRUM
10/18/85 22:59:00 + 23:06
SAMPLE: 12237-9
CONDS.: 4.10G / 10ML, 100 UL INJ
GC TEMP: 206 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: 12237V9 #736
CALI: 12237V9 #2

BASE M/Z: 57/ 57
RIC: 230911./ 247039.

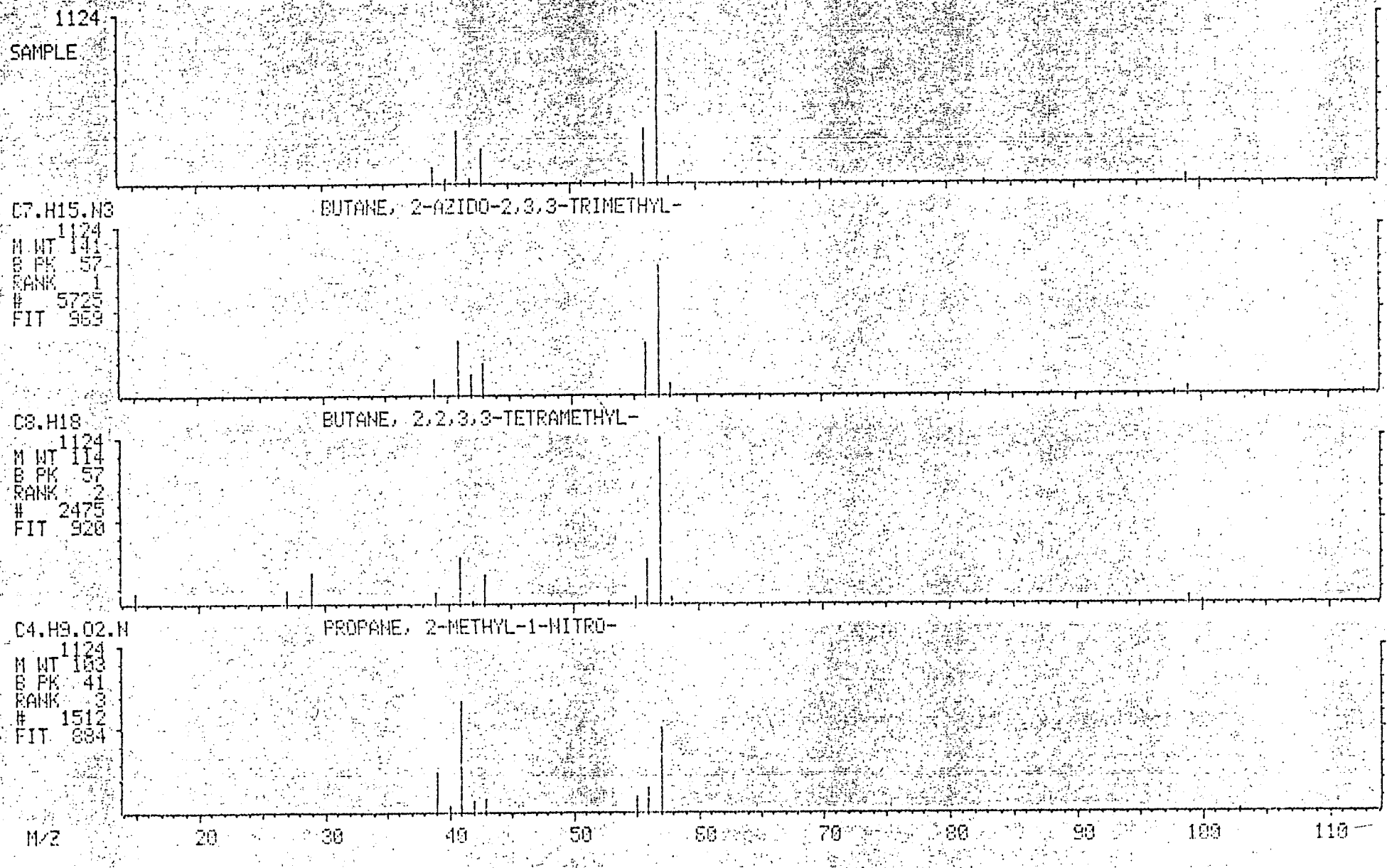


223

MID LIBRARY SEARCH
10/18/85 22:59:00 + 23:06
SAMPLE: 12237-9
CONDS.: 4.10G / 10ML, 100 UL INJ
ENHANCED (S 15B 2N 0T)

DATA: 12237V9 # 736
CALI: 12237V9 # 2

BASE M/Z: 57
RIC: 229375.



224

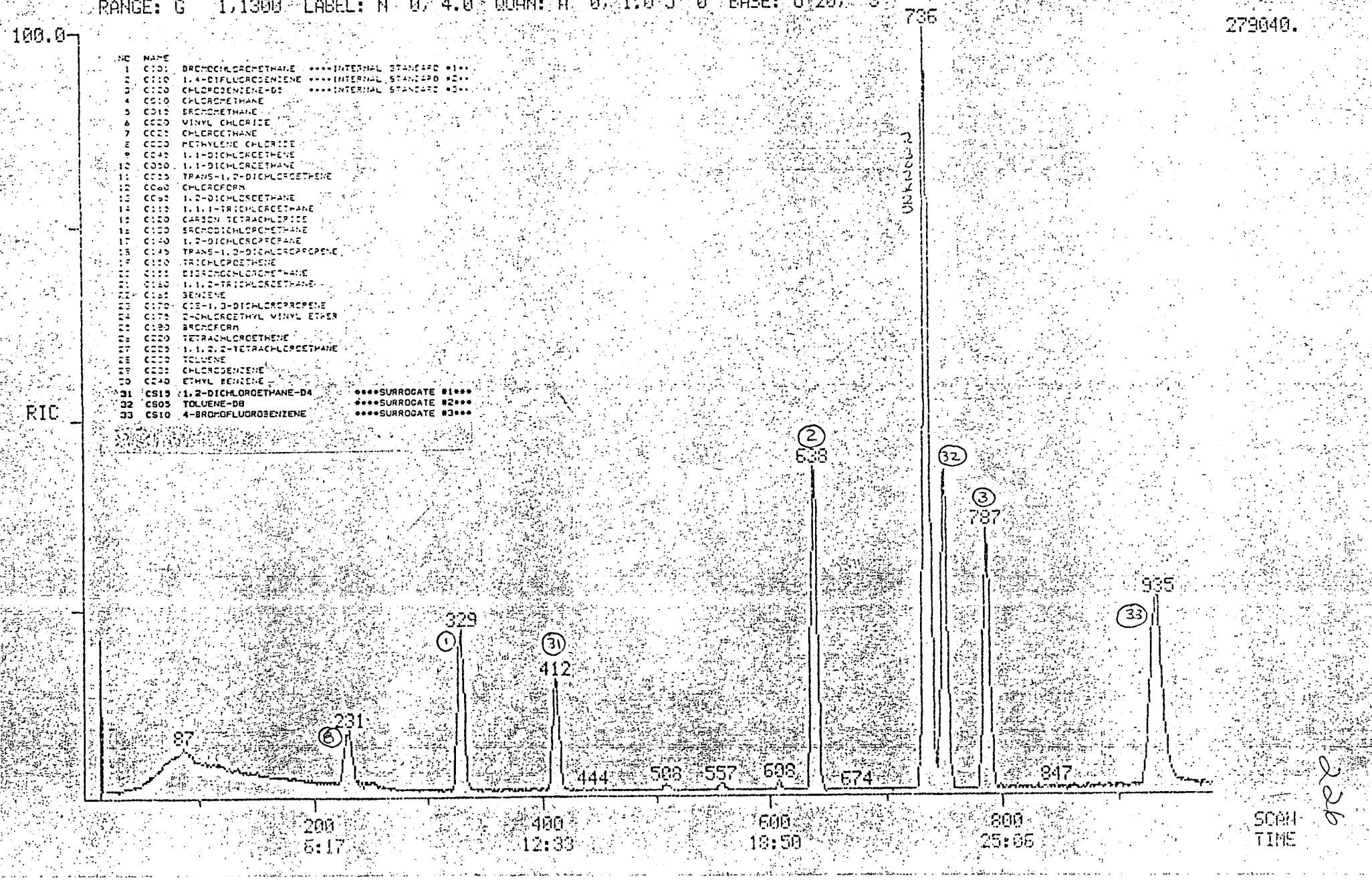
MID Library Search Data: 12237V9 # 736 Base m/z: 57 225
10/18/85 22:59:00 + 23:06 Cali: 12237V9 # 2 RIC: 229375.
Sample: 12237-9
Conds. 4.10G / 10ML, 100 UL INJ
Enhanced (S 15B 2N OT)

Rank	In.	Name
1	5725	BUTANE, 2-AZIDO-2,3,3-TRIMETHYL-
2	2475	BUTANE, 2,2,3,3-TETRAMETHYL-
3	1512	PROPANE, 2-METHYL-1-NITRO-
4	5779	HEXANE, 2,2,5,5-TETRAMETHYL-
5	12014	HEPTANE, 2-BROMO-

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C7.H15.N3	141	57	896	969	909
2	C8.H18	114	57	891	920	963
3	C4.H9.O2.N	103	41	788	884	794
4	C10.H22	142	57	817	865	851
5	C7.H15.BR	178	57	835	860	887

MIDRIC
10/18/85 23:50:00
SAMPLE: 12237-10
CONDS.: 4.01G / 10ML,100 UL INJ
RANGE: G 1,1300 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

DATA: 12237V10 #1 SCANS 1 TO 980
CALI: 12237V9 #2



NO	NAME	
1	C101 BROMOCHLOROMETHANE	****INTERNAL STANDARD #1**
2	C110 1,4-DIFLUOROBENZENE	****INTERNAL STANDARD #2**
3	C120 CHLOROBENZENE-D5	****INTERNAL STANDARD #3**
4	C010 CHLOROMETHANE	
5	C015 BROMOMETHANE	
6	C020 VINYL CHLORIDE	
7	C025 CHLOROETHANE	
8	C030 METHYLENE CHLORIDE	
9	C045 1,1-DICHLOROETHENE	
10	C050 1,1-DICHLOROETHANE	
11	C055 TRANS-1,2-DICHLOROETHENE	
12	C060 CHLOROFORM	
13	C065 1,2-DICHLOROETHANE	
14	C115 1,1,1-TRICHLOROETHANE	
15	C120 CARBON TETRACHLORIDE	
16	C130 BROMODICHLOROMETHANE	
17	C140 1,2-DICHLOROPROPANE	
18	C145 TRANS-1,3-DICHLOROPROPENE	
19	C150 TRICHLOROETHENE	
20	C155 DIBROMOCHLOROMETHANE	
21	C160 1,1,2-TRICHLOROETHANE	
22	C165 BENZENE	
23	C170 CIS-1,3-DICHLOROPROPENE	
24	C175 2-CHLOROETHYL VINYL ETHER	
25	C180 BROMOFORM	
26	C220 TETRACHLOROETHENE	
27	C225 1,1,2,2-TETRACHLOROETHANE	
28	C230 TOLUENE	
29	C235 CHLOROBENZENE	
30	C240 ETHYL BENZENE	
31	CS15 1,2-DICHLOROETHANE-D4	****SURROGATE #1***
32	CS05 TOLUENE-D8	****SURROGATE #2***
33	CS10 4-BROMOFLUOROBENZENE	****SURROGATE #3***

226

Quantitation Report File: 12237V10

Data: 12237V10.TI
10/18/85 23:50:00
Sample: 12237-10
Submitted by: HSMA Analyst: PAT

AMOUNT=AREA * REF.AMNT/(REF.AREA)* RESP.FACT)
Resp. fac. from Library Entry

NO	NAME		
1	CI01	BROMOCHLOROMETHANE	****INTERNAL STANDARD #1****
2	CI10	1,4-DIFLUOROBENZENE	****INTERNAL STANDARD #2****
3	CI20	CHLOROBENZENE-D5	****INTERNAL STANDARD #3****
4	C010	CHLOROMETHANE	
5	C015	BROMOMETHANE	
6	C020	VINYL CHLORIDE	
7	C025	CHLOROETHANE	
8	C030	METHYLENE CHLORIDE	
9	C045	1,1-DICHLOROETHENE	
10	C050	1,1-DICHLOROETHANE	
11	C055	TRANS-1,2-DICHLOROETHENE	
12	C060	CHLOROFORM	
13	C065	1,2-DICHLOROETHANE	
14	C115	1,1,1-TRICHLOROETHANE	
15	C120	CARBON TETRACHLORIDE	
16	C130	BROMODICHLOROMETHANE	
17	C140	1,2-DICHLOROPROPANE	
18	C145	TRANS-1,3-DICHLOROPROPENE	
19	C150	TRICHLOROETHENE	
20	C155	DIBROMOCHLOROMETHANE	
21	C160	1,1,2-TRICHLOROETHANE	
22	C165	BENZENE	
23	C170	CIS-1,3-DICHLOROPROPENE	
24	C175	2-CHLOROETHYL VINYL ETHER	
25	C180	BROMOFORM	
26	C220	TETRACHLOROETHENE	
27	C225	1,1,2,2-TETRACHLOROETHANE	
28	C230	TOLUENE	
29	C235	CHLOROBENZENE	
30	C240	ETHYL BENZENE	
31	CS15	1,2-DICHLOROETHANE-D4	****SURROGATE #1****
32	CS05	TOLUENE-D8	****SURROGATE #2****
33	CS10	4-BROMOFLUOROBENZENE	****SURROGATE #3****

228

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	128	328	10:18	1	1.000	A BB	41288.	50.000 UG/L	16.01
2	114	638	20:01	2	1.000	A BB	245016.	50.000 UG/L	16.01
3	117	787	24:42	3	1.000	A BB	147384.	50.000 UG/L	16.01
4	NOT FOUND								
5	NOT FOUND								
6	NOT FOUND								
7	NOT FOUND								
8	84	230	7:13	1	0.701	A BB	30128.	15.204 UG/L	4.87 yes Ltrc
9	NOT FOUND								
10	NOT FOUND								
11	NOT FOUND								
12	NOT FOUND								
13	NOT FOUND								
14	NOT FOUND								
15	NOT FOUND								
16	NOT FOUND								
17	NOT FOUND								
18	NOT FOUND								
19	NOT FOUND								
20	NOT FOUND								
21	NOT FOUND								
22	NOT FOUND								
23	NOT FOUND								
24	NOT FOUND								
25	NOT FOUND								
26	NOT FOUND								
27	NOT FOUND								
28	NOT FOUND								
29	NOT FOUND								
30	NOT FOUND								
31	65	412	12:56	1	1.256	A BB	70296.	43.370 UG/L	13.88
32	98	750	23:32	3	0.953	A BB	229000.	54.560 UG/L	17.47
33	95	933	29:16	3	1.186	A BB	132000.	49.251 UG/L	15.77

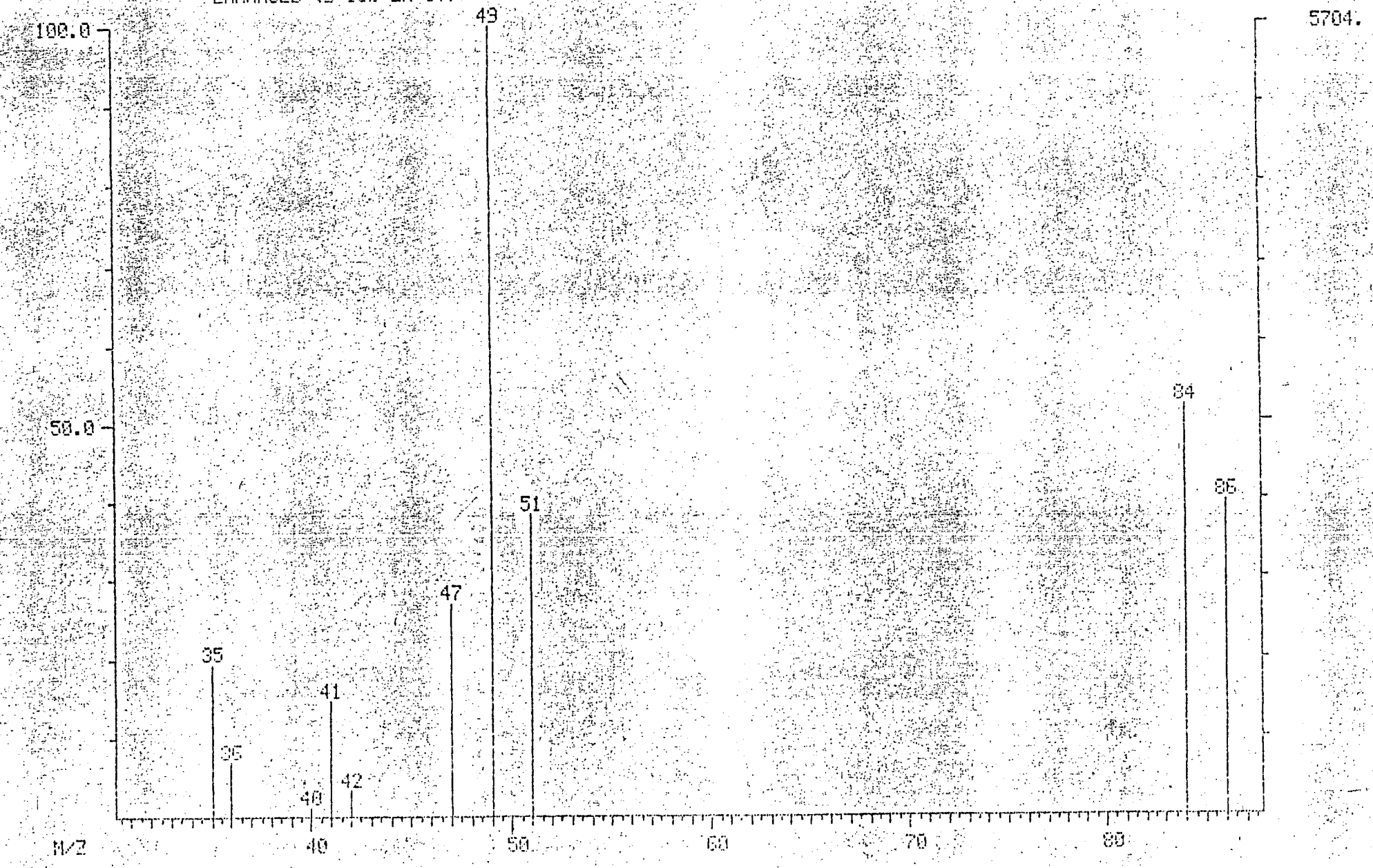
No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	10:16	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	19:59	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
3	24:38	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
4	1:53		0.183			200.00		3.118	
5	3:04		0.300			200.00		2.472	
6	3:59		0.388			200.00		3.081	
7	5:01		0.489			200.00		2.056	
8	7:13	1.00	0.703	1.00	15.20	200.00	0.182	2.400	0.08
9	9:53		0.963			200.00		1.948	
10	11:05		1.080			200.00		4.202	
11	11:46		1.147			200.00		1.934	
12	12:16		1.196			200.00		3.723	
13	12:59		1.266			200.00		1.738	
14	14:15		0.713			200.00		0.508	
15	14:35		0.730			200.00		0.481	
16	15:04		0.754			200.00		0.571	
17	16:21		0.818			200.00		0.487	
18	16:34		0.829			200.00		0.221	
19	17:06		0.856			200.00		0.426	
20	17:40		0.884			200.00		0.308	
21	17:46		0.889			200.00		0.222	
22	17:36		0.881			200.00		1.094	
23	17:46		0.889			200.00		0.491	
24	18:46		0.939			200.00		0.011	
25	20:11		1.009			200.00		0.117	
26	22:26		0.911			200.00		0.573	
27	22:22		0.908			200.00		0.405	
28	23:40		0.961			200.00		0.944	
29	24:44		1.004			200.00		1.125	
30	26:40		1.083			200.00		0.593	
31	12:54	1.00	1.257	1.00	43.37	50.00	1.703	1.963	0.87
32	23:30	1.00	0.954	1.00	54.56	50.00	1.554	1.424	1.09
33	29:11	1.00	1.185	1.00	49.25	50.00	0.896	0.909	0.99

MID MASS SPECTRUM
10/18/85 23:50:00 + 7:13
SAMPLE: 12237-10
CONDS.: 4.01G / 10ML,100 UL INJ
GC TEMP: 78 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: 12237V10 #230
CALI: 12237V10 #2

BASE M/Z: 49
RIC: 17280.

METHYLENE CHLORIDE



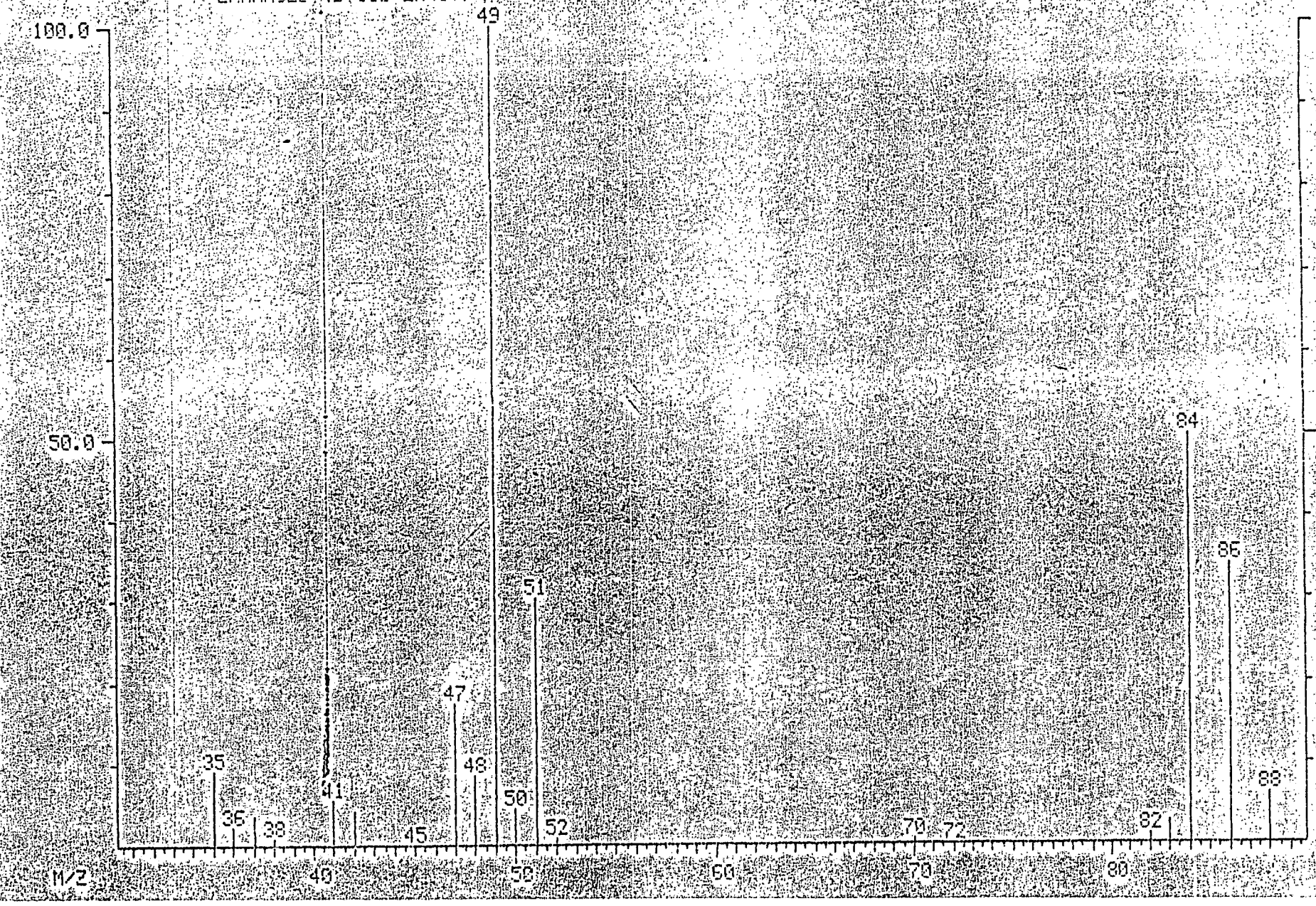
230

MID MASS SPECTRUM
10/07/85 23:21:00 + 5:07
SAMPLE: Vol. std.
CONDS.: EI
GC TEMP: 61 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: VSB107P5 #163
CALI: VSB107P5 #2

BASE M/Z: 49
RIC: 450560.

METHYLENE CHLORIDE



231

MID DUAL MASS SPECTRUM
10/18/85 23:50:00 + 23:06
SAMPLE: 12237-10
CONDS.: 4.01G / 10ML 100 UL INJ
GC TEMP: 206 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: 12237V10 #736
CALI: 12237V10 #2

BASE M/Z: 57/ 57
RIC: 263167./ 279551.

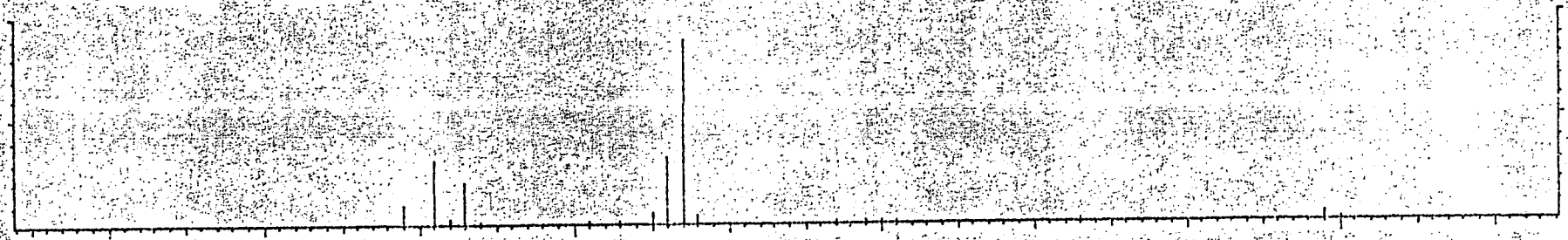
232

MID LIBRARY SEARCH
10/18/85 23:50:00 + 23:06
SAMPLE: 12237-10
CONDS.: 4.01G / 10ML/100 UL INJ
ENHANCED (S 15B 2N 0T)

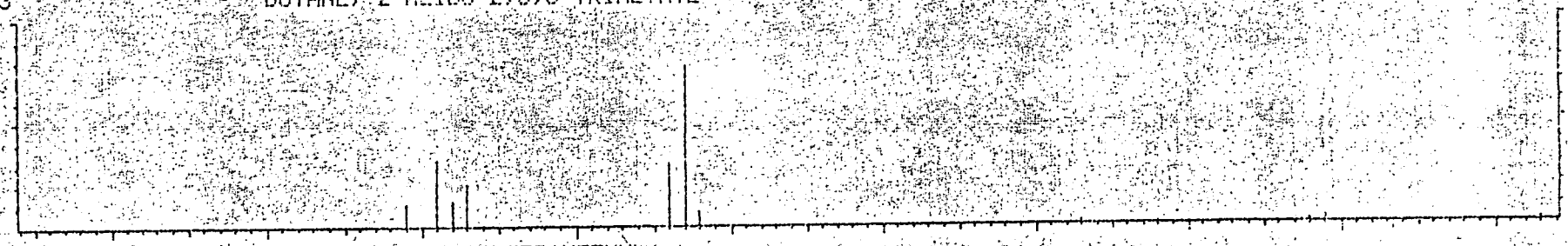
DATA: 12237V10 # 736
CALI: 12237V10 # 2

BASE M/Z: 57
RIC: 261631.

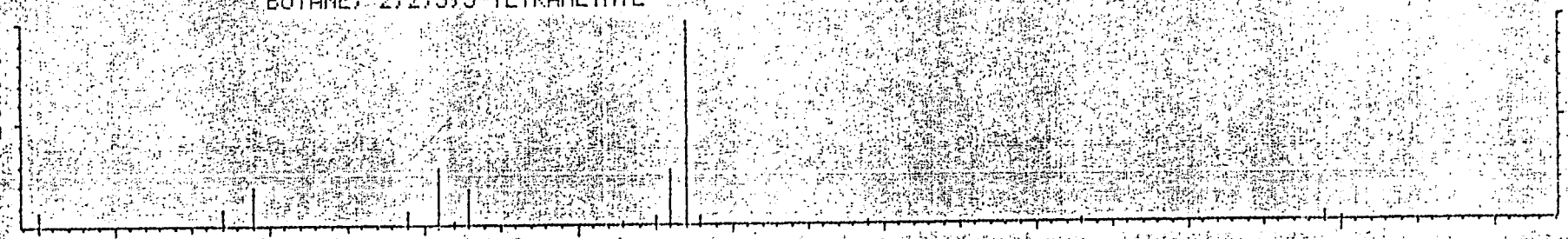
1128
SAMPLE



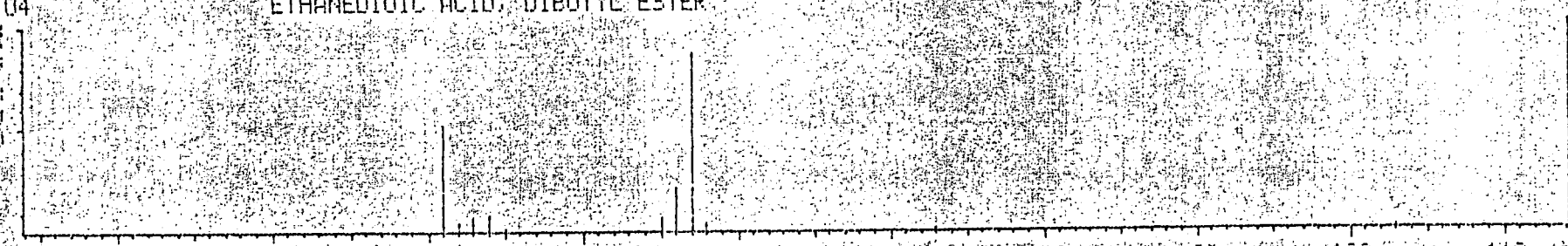
C7.H15.N3 BUTANE, 2-AZIDO-2,3,3-TRIMETHYL-
1128
M WT 141
B PK 57
RANK 1
5725
FIT 969



C8.H18 BUTANE, 2,2,3,3-TETRAMETHYL-
1129
M WT 114
B PK 57
RANK 2
2475
FIT 920



C10.H18.O4 ETHANEDIOIC ACID, DIBUTYL ESTER
1128
M WT 202
B PK 57
RANK 3
15620
FIT 910



M/Z 20 30 40 50 60 70 80 90 100 110

233

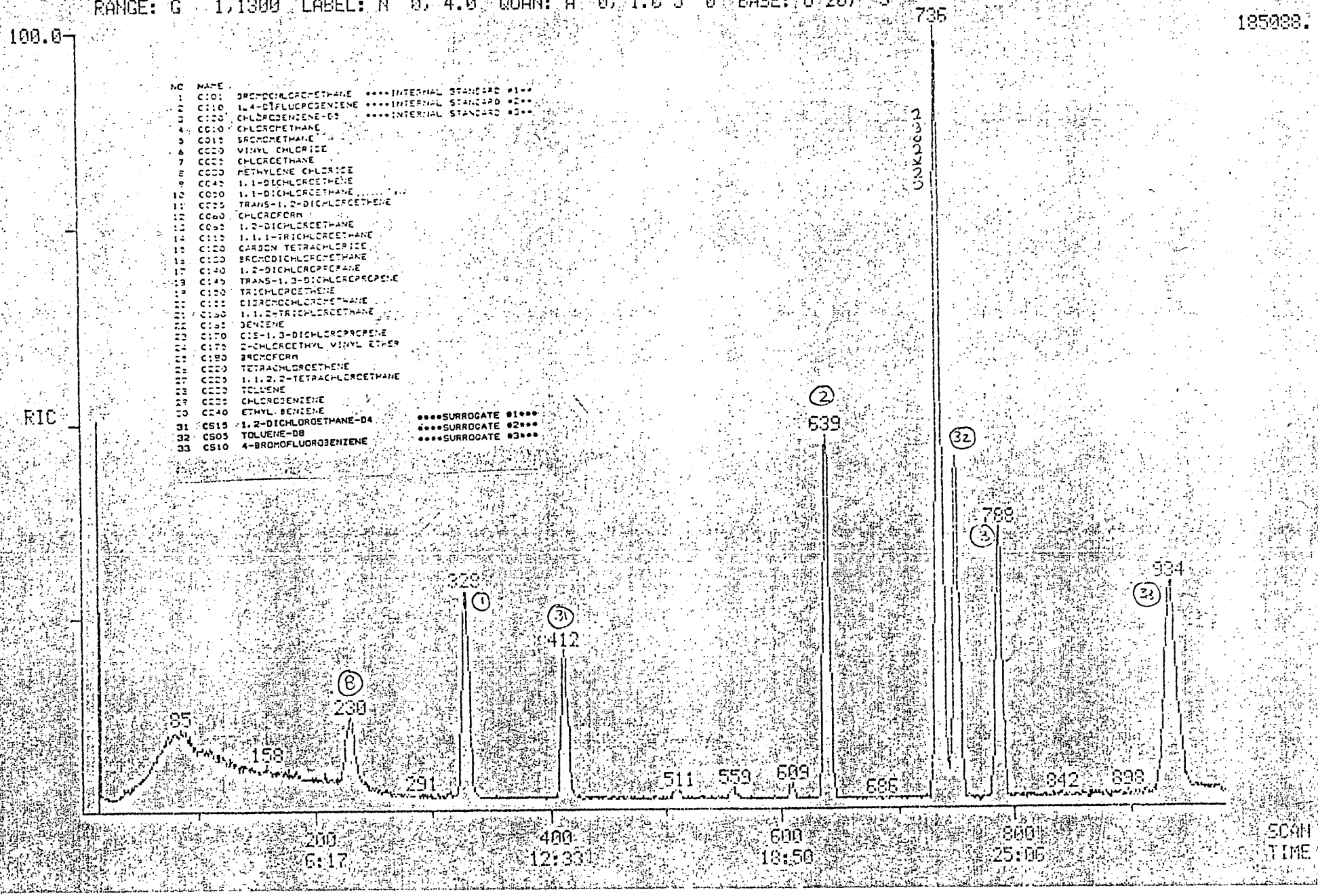
MID Library Search Data: 12237V10 # 736 Base m/z: 57 234
10/18/85 23:50:00 + 23:06 Cali: 12237V10 # 2 RIC: 261631
Sample: 12237-10
Conds.: 4.01G / 10ML,100 UL INJ
Enhanced (S 15B 2N OT)

Rank	In.	Name
1	5725	BUTANE, 2-AZIDO-2,3,3-TRIMETHYL-
2	2475	BUTANE, 2,2,3,3-TETRAMETHYL-
3	15620	ETHANEDIOIC ACID, DIBUTYL ESTER
4	1512	PROPANE, 2-METHYL-1-NITRO-
5	5779	HEXANE, 2,2,5,5-TETRAMETHYL-

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C7.H15.N3	141	57	905	969	918
2	C8.H18	114	57	898	920	970
3	C10.H18.O4	202	57	808	910	840
4	C4.H9.O2.N	103	41	776	868	796
5	C10.H22	142	57	809	857	846

MIDRIC
10/19/85 0:41:00
SAMPLE: 12237-11
CONDS.: 4.18G / 10ML,100 UL INJ
RANGE: G 1,1300 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

DATA: 12237V11 #1 SCANS 1 TO 930
CALI: 12237V10 #2



NO	NAME	
1	C101 BROMOCHLOROMETHANE	****INTERNAL STANDARD #1**
2	C110 1,4-DIFLUOROBENZENE	****INTERNAL STANDARD #2**
3	C120 CHLOROBENZENE-D5	****INTERNAL STANDARD #3**
4	C010 CHLOROMETHANE	
5	C015 BROMOMETHANE	
6	C020 VINYL CHLORIDE	
7	C025 CHLOROETHANE	
8	C030 METHYLENE CHLORIDE	
9	C045 1,1-DICHLOROETHENE	
10	C050 1,1-DICHLOROETHANE	
11	C055 TRANS-1,2-DICHLOROETHENE	
12	C060 CHLOROFORM	
13	C065 1,2-DICHLOROETHANE	
14	C115 1,1,1-TRICHLOROETHANE	
15	C120 CARBON TETRACHLORIDE	
16	C130 BROMODICHLOROMETHANE	
17	C140 1,2-DICHLOROPROPANE	
18	C145 TRANS-1,3-DICHLOROPROPENE	
19	C150 TRICHLOROETHENE	
20	C155 DIBROMOCHLOROMETHANE	
21	C160 1,1,2-TRICHLOROETHANE	
22	C165 BENZENE	
23	C170 CIS-1,3-DICHLOROPROPENE	
24	C175 2-CHLOROETHYL VINYL ETHER	
25	C180 BROMOFORM	
26	C200 TETRACHLOROETHENE	
27	C205 1,1,2,2-TETRACHLOROETHANE	
28	C210 TOLUENE	
29	C225 CHLOROBENZENE	
30	C240 ETHYL BENZENE	
31	CS15 1,2-DICHLOROETHANE-D4	****SURROGATE #1***
32	CS05 TOLUENE-D8	****SURROGATE #2***
33	CS10 4-BROMOFLUOROBENZENE	****SURROGATE #3***

235

236

Quantitation Report File: 12237V11

Data: 12237V11.TI
10/19/85 0:41:00
Sample: 12237-11
Submitted by: HSMA Analyst: PAT

AMOUNT=AREA * REF.AMNT/(REF.AREA)* RESP.FACT)
Resp. fac. from Library Entry

NO	NAME		
1	CI01	BROMOCHLOROMETHANE	****INTERNAL STANDARD #1****
2	CI10	1,4-DIFLUOROBENZENE	****INTERNAL STANDARD #2****
3	CI20	CHLOROBENZENE-D5	****INTERNAL STANDARD #3****
4	C010	CHLOROMETHANE	
5	C015	BROMOMETHANE	
6	C020	VINYL CHLORIDE	
7	C025	CHLOROETHANE	
8	C030	METHYLENE CHLORIDE	
9	C045	1,1-DICHLOROETHENE	
10	C050	1,1-DICHLOROETHANE	
11	C055	TRANS-1,2-DICHLOROETHENE	
12	C060	CHLOROFORM	
13	C065	1,2-DICHLOROETHANE	
14	C115	1,1,1-TRICHLOROETHANE	
15	C120	CARBON TETRACHLORIDE	
16	C130	BROMODICHLOROMETHANE	
17	C140	1,2-DICHLOROPROPANE	
18	C145	TRANS-1,3-DICHLOROPROPENE	
19	C150	TRICHLOROETHENE	
20	C155	DIBROMOCHLOROMETHANE	
21	C160	1,1,2-TRICHLOROETHANE	
22	C165	BENZENE	
23	C170	CIS-1,3-DICHLOROPROPENE	
24	C175	2-CHLOROETHYL VINYL ETHER	
25	C180	BROMOFORM	
26	C220	TETRACHLOROETHENE	
27	C225	1,1,2,2-TETRACHLOROETHANE	
28	C230	TOLUENE	
29	C235	CHLOROBENZENE	
30	C240	ETHYL BENZENE	
31	CS15	1,2-DICHLOROETHANE-D4	****SURROGATE #1****
32	CS05	TOLUENE-D8	****SURROGATE #2****
33	CS10	4-BROMOFLUOROBENZENE	****SURROGATE #3****

237

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	128	329	10:19	1	1.000	A BB	33352.	50.000 UG/L	16.09
2	114	639	20:03	2	1.000	A BB	168288.	50.000 UG/L	16.09
3	117	787	24:42	3	1.000	A BB	102960.	50.000 UG/L	16.09
4	NOT FOUND								
5	NOT FOUND								
6	NOT FOUND								
7	NOT FOUND								
8	84	230	7:13	1	0.699	A BB	23032.	14.389 UG/L	4.63
9	NOT FOUND								
10	NOT FOUND								
11	NOT FOUND								
12	NOT FOUND								
13	NOT FOUND								
14	NOT FOUND								
15	NOT FOUND								
16	NOT FOUND								
17	NOT FOUND								
18	NOT FOUND								
19	NOT FOUND								
20	NOT FOUND								
21	NOT FOUND								
22	NOT FOUND								
23	NOT FOUND								
24	NOT FOUND								
25	NOT FOUND								
26	NOT FOUND								
27	NOT FOUND								
28	NOT FOUND								
29	NOT FOUND								
30	NOT FOUND								
31	65	412	12:56	1	1.252	A BB	55360.	42.282 UG/L	13.60
32	98	751	23:34	3	0.954	A BB	155320.	52.972 UG/L	17.04
33	95	932	29:16	3	1.186	A BB	95952.	51.248 UG/L	16.49

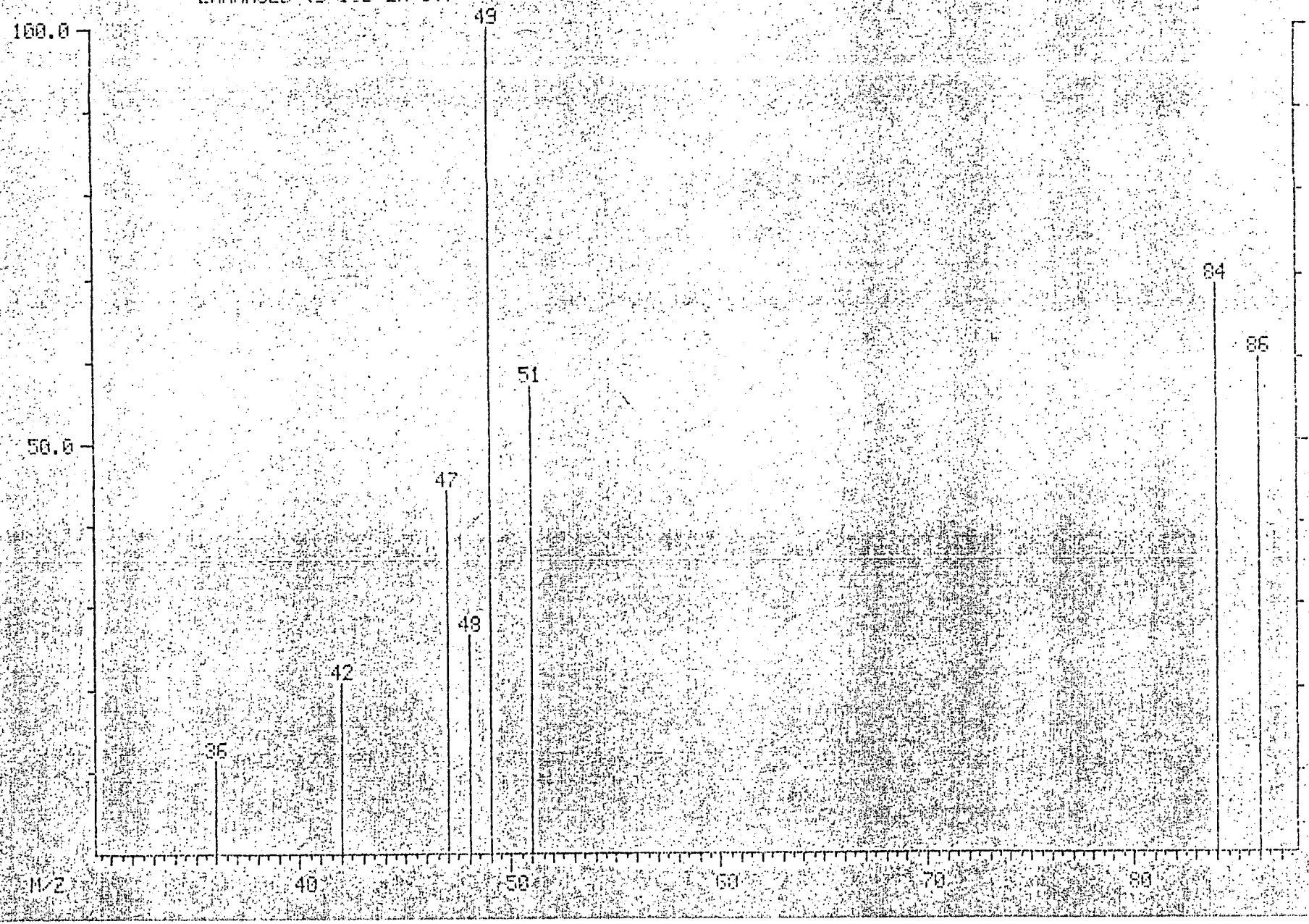
No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	10:16	1.01	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	19:59	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
3	24:38	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
4	1:53		0.123			200.00		3.118	
5	3:04		0.300			200.00		2.472	
6	3:59		0.386			200.00		3.081	
7	5:01		0.489			200.00		2.056	
8	7:13	1.00	0.703	0.99	14.39	200.00	0.173	2.400	0.07
9	9:53		0.963			200.00		1.948	
10	11:05		1.080			200.00		4.202	
11	11:46		1.147			200.00		1.934	
12	12:16		1.196			200.00		3.723	
13	12:59		1.266			200.00		1.738	
14	14:15		0.713			200.00		0.508	
15	14:35		0.730			200.00		0.481	
16	15:04		0.754			200.00		0.571	
17	16:21		0.818			200.00		0.487	
18	16:34		0.829			200.00		0.221	
19	17:06		0.856			200.00		0.426	
20	17:40		0.884			200.00		0.308	
21	17:46		0.889			200.00		0.222	
22	17:36		0.881			200.00		1.094	
23	17:46		0.889			200.00		0.491	
24	18:46		0.939			200.00		0.011	
25	20:11		1.009			200.00		0.117	
26	22:26		0.911			200.00		0.573	
27	22:22		0.908			200.00		0.405	
28	23:40		0.961			200.00		0.944	
29	24:44		1.004			200.00		1.125	
30	26:40		1.083			200.00		0.593	
31	12:54	1.00	1.257	1.00	42.28	50.00	1.660	1.963	0.85
32	23:30	1.00	0.954	1.00	52.97	50.00	1.509	1.424	1.06
33	29:11	1.00	1.185	1.00	51.25	50.00	0.932	0.909	1.02

MID MASS SPECTRUM
10/19/85 0:41:00 + 7:13
SAMPLE: 12237-11
CONDS.: 4.18G / 10ML,100 UL INJ
GC TEMP: 78 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: 12237V11 #230
CALI: 12237V11 #2

BASE M/Z: 49
RIC: 11648.

METHYLENE CHLORIDE



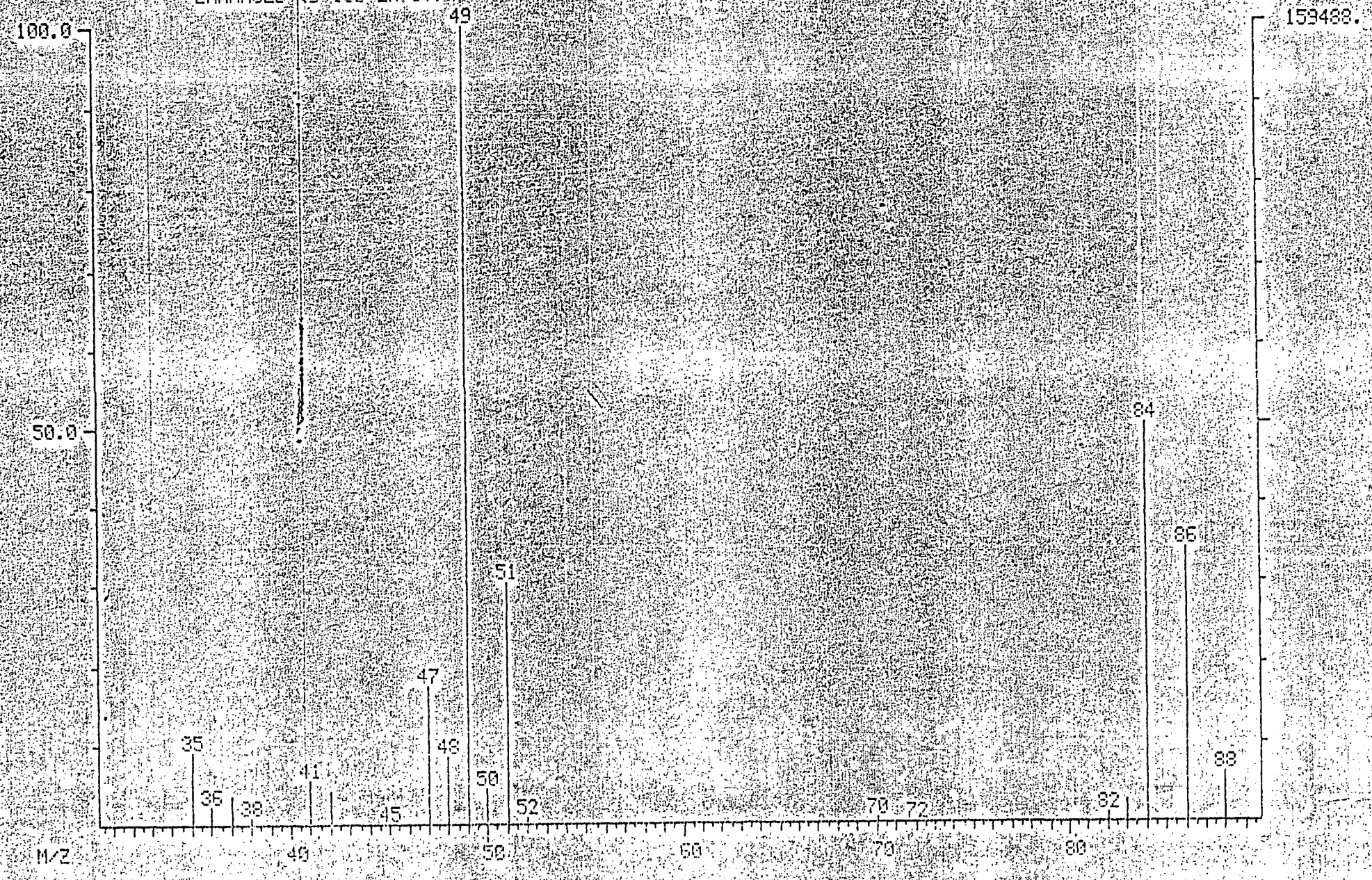
239

MID MASS SPECTRUM
10/07/85 23:21:00 + 5:07
SAMPLE: Volstd
CONDS.: EI
GC TEMP: 61 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: VSB107P5 #163
CALI: VSB107P5 #2

BASE M/Z: 49
RIC: 450560.

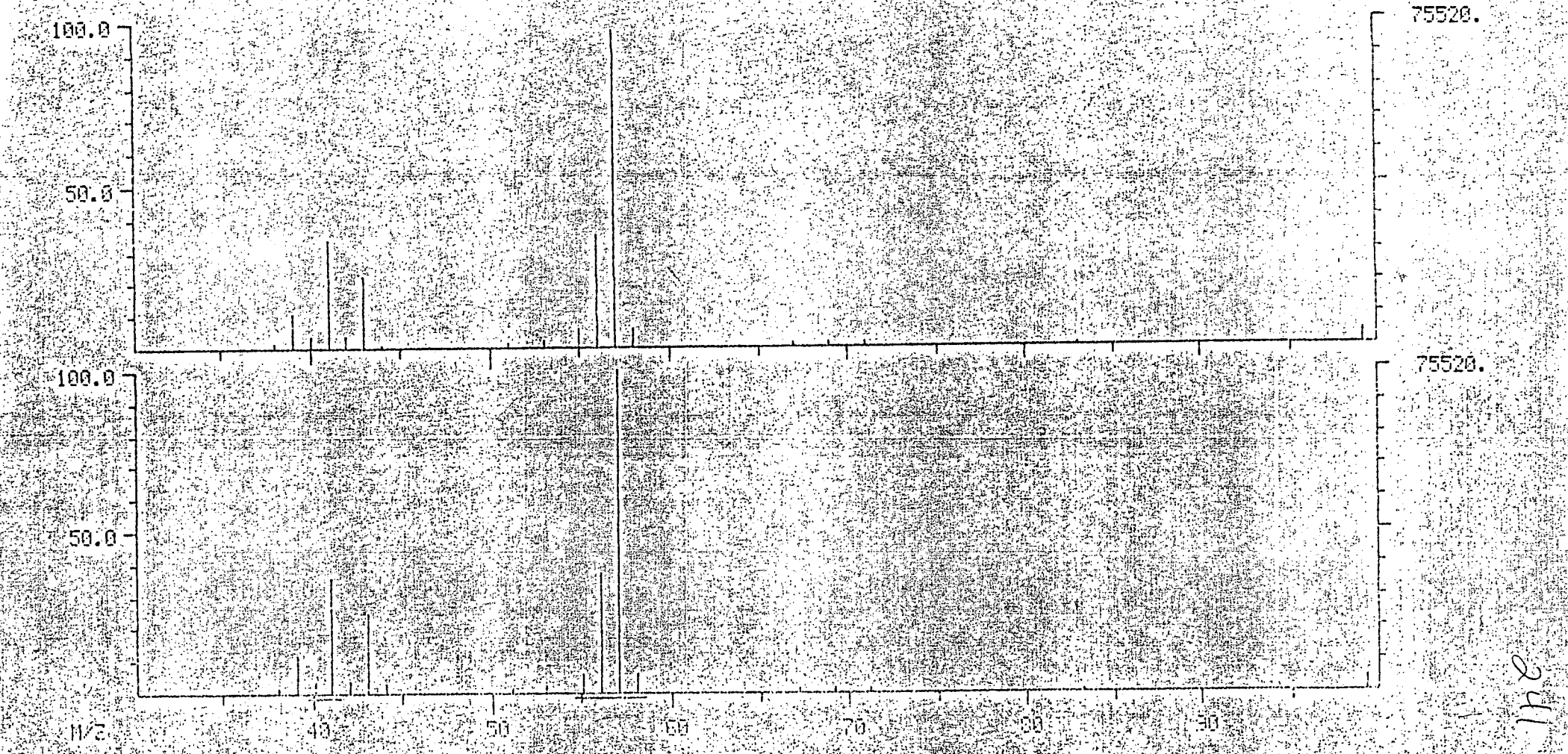
METHYLENE CHLORIDE



2-40

MID DUAL MASS SPECTRUM
10/19/85 0:41:00 + 23:06
SAMPLE: 12237-11
CONDS.: 4.18G / 10ML,100 UL INJ
GC TEMP: 206 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: 12237V11 #736 BASE M/Z: 57/ 57
CALI: 12237V11 #2 RIC: 175359./ 185343.

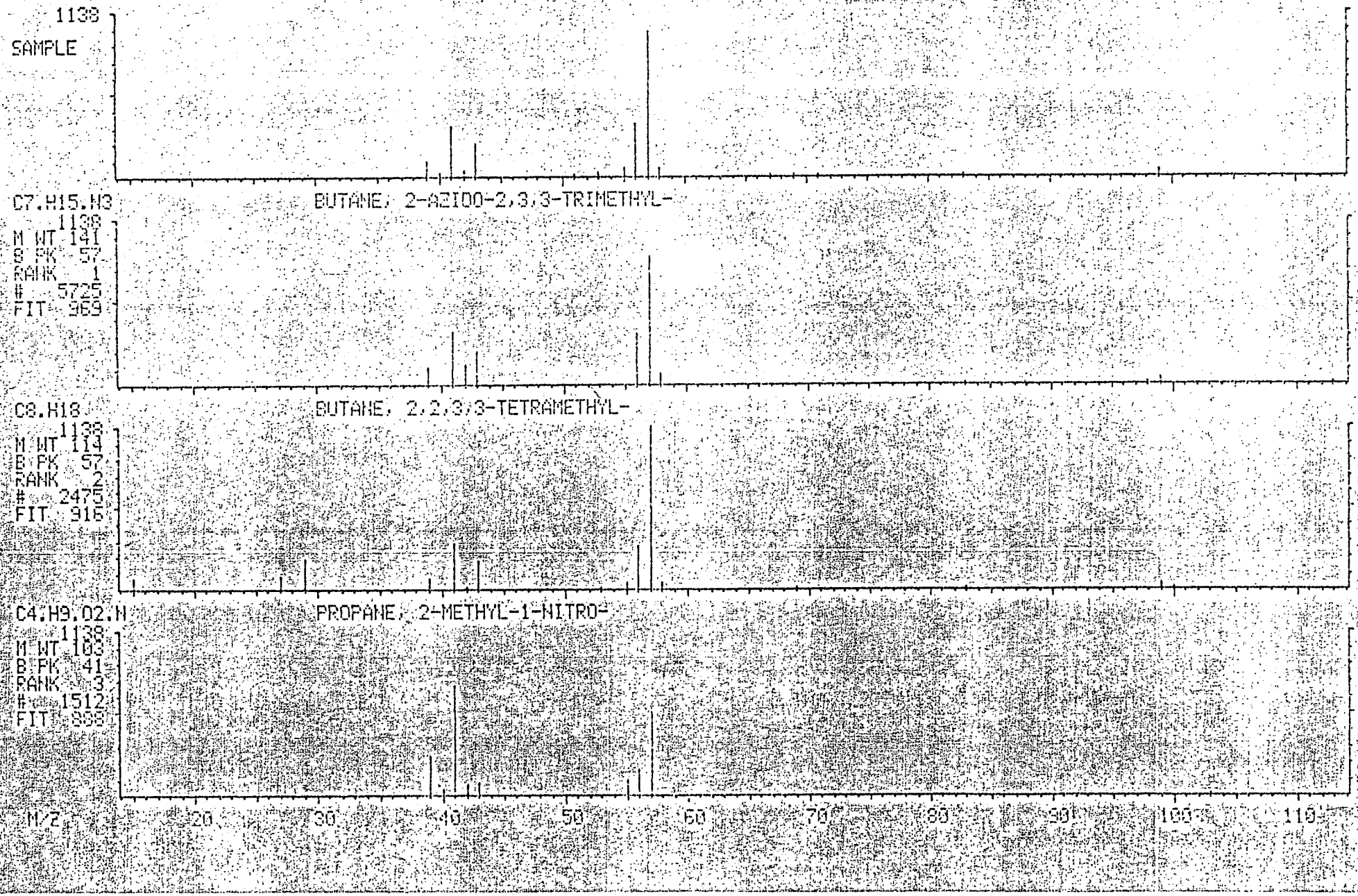


2 of 4

MID LIBRARY SEARCH
10/19/85 0:41:00 + 23:06
SAMPLE: 12237-11
CONDS.: 4.18G / 10ML,100 UL INJ
ENHANCED (S 15B 2N 0T)

DATA: 12237V11 # 736
CALI: 12237V11 # 2

BASE M/Z: 57
RIC: 173823.

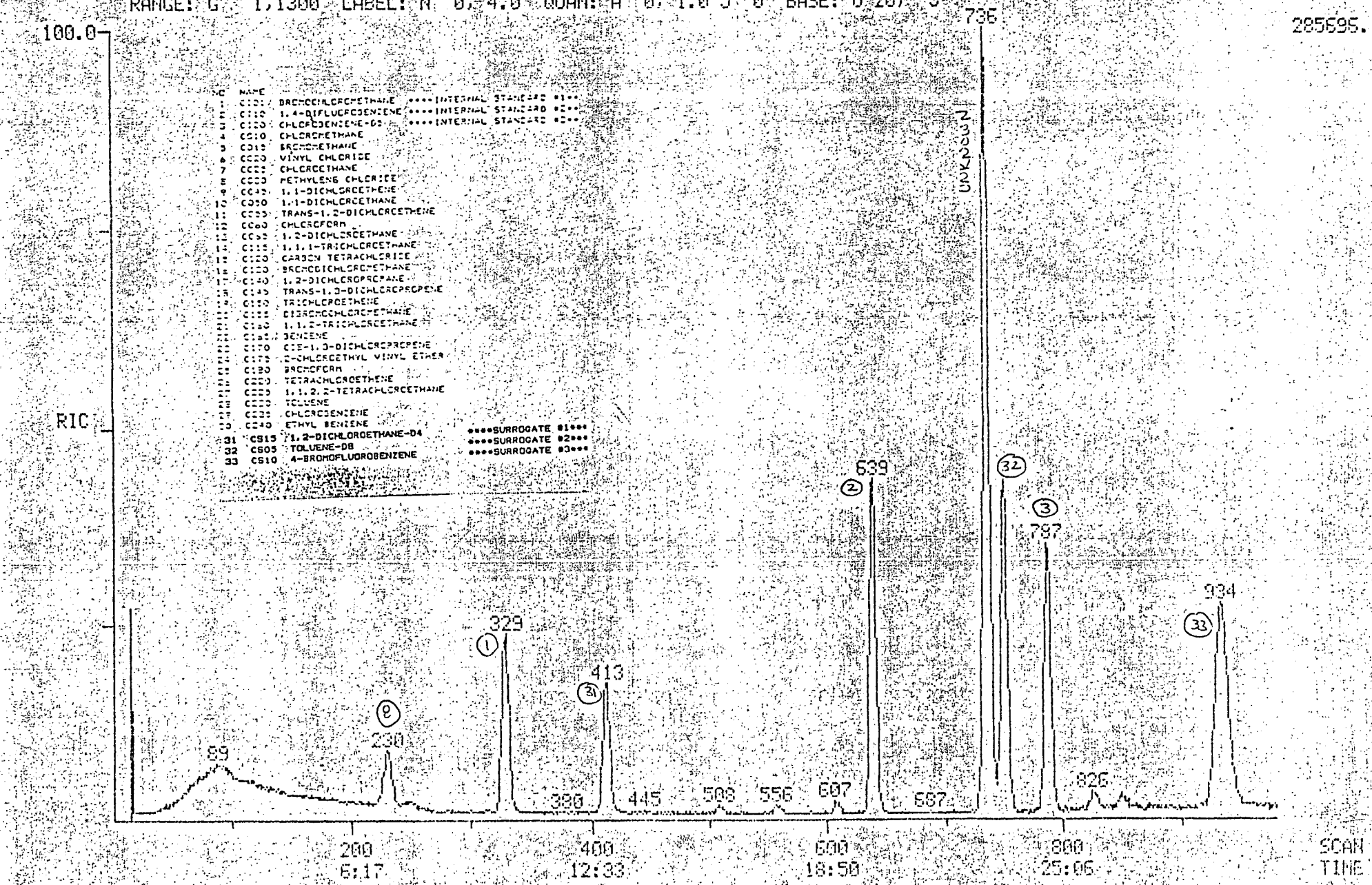


MID Library Search Data: 12237V11 # 736 Base m/z: 57 243
10/19/85 0:41:00 + 23:06 Cali: 12237V11 # 2 RIC: 173823
Sample: 12237-11
Conds.: 4.18G / 10ML,100 UL INJ
Enhanced (S 15B 2N OT)

Rank	In.	Name
1	5725	BUTANE, 2-AZIDO-2,3,3-TRIMETHYL-
2	2475	BUTANE, 2,2,3,3-TETRAMETHYL-
3	1513	PROPANE, 2-METHYL-1-NITRO-
4	5779	HEXANE, 2,2,5,5-TETRAMETHYL-
5	12014	HEPTANE, 2-BROMO-

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C7.H15.N3	141	57	894	969	909
2	C8.H18	114	57	886	916	961
3	C4.H9.O2.N	103	41	790	888	796
4	C10.H22	142	57	810	859	848
5	C7.H15.BR	178	57	825	850	896

MIDRIC DATA: 12237V12 #1 SCANS 1 TO 980
10/19/85 1:32:00 CALI: 12237V11 #2
SAMPLE: 12237-12
CONDS.: 4.45G / 10ML, 100 UL INJ
RANGE: G 1,1300 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3



NO	NAME	
1	CI01	BROMOCHLOROMETHANE ****INTERNAL STANDARD #1**
2	CI10	1,4-DIFLUOROBENZENE ****INTERNAL STANDARD #2**
3	CI20	CHLOROBENZENE-D5 ****INTERNAL STANDARD #3**
4	CS10	CHLOROMETHANE
5	CS15	BROMOMETHANE
6	CS20	VINYL CHLORIDE
7	CS25	CHLOROETHANE
8	CS30	METHYLENE CHLORIDE
9	CS45	1,1-DICHLOROETHENE
10	CS50	1,1-DICHLOROETHANE
11	CS55	TRANS-1,2-DICHLOROETHENE
12	CS60	CHLOROFORM
13	CS65	1,2-DICHLOROETHANE
14	CI15	1,1,1-TRICHLOROETHANE
15	CI20	CARBON TETRACHLORIDE
16	CI30	BROMODICHLOROMETHANE
17	CI40	1,2-DICHLOROPROPANE
18	CI45	TRANS-1,3-DICHLOROPROPENE
19	CI50	TRICHLOROETHENE
20	CI55	DIBROMOCHLOROMETHANE
21	CI60	1,1,2-TRICHLOROETHANE
22	CI65	BENZENE
23	CI70	CIS-1,3-DICHLOROPROPENE
24	CI75	2-CHLOROETHYL VINYL ETHER
25	CI80	BROMOFORM
26	CI90	TETRACHLOROETHENE
27	CI95	1,1,2,2-TETRACHLOROETHANE
28	CI00	TOLUENE
29	CI05	CHLOROBENZENE
30	CI40	ETHYL BENZENE
31	CS15	1,2-DICHLOROETHANE-D4 ****SURROGATE #1***
32	CS05	TOLUENE-D8 ****SURROGATE #2***
33	CS10	4-BROMOFLUOROBENZENE ****SURROGATE #3***

244

Quantitation Report File: 12237V12

245

Data: 12237V12.TI
10/19/85 1:32:00
Sample: 12237-12
Submitted by: HSMA Analyst: PAT

AMOUNT=AREA * REF.AMNT/(REF.AREA)* RESP.FACT)
Resp. fac. from Library Entry

NO	NAME		
1	CI01	BROMOCHLOROMETHANE	****INTERNAL STANDARD #1****
2	CI10	1,4-DIFLUOROBENZENE	****INTERNAL STANDARD #2****
3	CI20	CHLOROBENZENE-D5	****INTERNAL STANDARD #3****
4	C010	CHLOROMETHANE	
5	C015	BROMOMETHANE	
6	C020	VINYL CHLORIDE	
7	C025	CHLOROETHANE	
8	C030	METHYLENE CHLORIDE	
9	C045	1,1-DICHLOROETHENE	
10	C050	1,1-DICHLOROETHANE	
11	C055	TRANS-1,2-DICHLOROETHENE	
12	C060	CHLOROFORM	
13	C065	1,2-DICHLOROETHANE	
14	C115	1,1,1-TRICHLOROETHANE	
15	C120	CARBON TETRACHLORIDE	
16	C130	BROMODICHLOROMETHANE	
17	C140	1,2-DICHLOROPROPANE	
18	C145	TRANS-1,3-DICHLOROPROPENE	
19	C150	TRICHLOROETHENE	
20	C155	DIBROMOCHLOROMETHANE	
21	C160	1,1,2-TRICHLOROETHANE	
22	C165	BENZENE	
23	C170	CIS-1,3-DICHLOROPROPENE	
24	C175	2-CHLOROETHYL VINYL ETHER	
25	C180	BROMOFORM	
26	C220	TETRACHLOROETHENE	
27	C225	1,1,2,2-TETRACHLOROETHANE	
28	C230	TOLUENE	
29	C235	CHLOROBENZENE	
30	C240	ETHYL BENZENE	
31	CS15	1,2-DICHLOROETHANE-D4	****SURROGATE #1****
32	CS05	TOLUENE-D8	****SURROGATE #2****
33	CS10	4-BROMOFLUOROBENZENE	****SURROGATE #3****

24b

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	128	328	10:18	1	1.000	A BB	45192.	50.000 UG/L	15.95
2	114	638	20:01	2	1.000	A BB	237664.	50.000 UG/L	15.95
3	117	787	24:42	3	1.000	A BB	146640.	50.000 UG/L	15.95
4	NOT FOUND								
5	NOT FOUND								
6	NOT FOUND								
7	NOT FOUND								
8	84	231	7:15	1	0.704	A BB	27840.	12.836 UG/L	4.10
9	NOT FOUND								
10	NOT FOUND								
11	NOT FOUND								
12	NOT FOUND								
13	NOT FOUND								
14	NOT FOUND								
15	NOT FOUND								
16	NOT FOUND								
17	NOT FOUND								
18	NOT FOUND								
19	NOT FOUND								
20	NOT FOUND								
21	NOT FOUND								
22	NOT FOUND								
23	NOT FOUND								
24	NOT FOUND								
25	NOT FOUND								
26	NOT FOUND								
27	NOT FOUND								
28	NOT FOUND								
29	NOT FOUND								
30	NOT FOUND								
31	65	412	13:56	1	1.256	A BB	78032.	43.984 UG/L	14.03
32	98	750	23:32	3	0.953	A BB	224928.	53.861 UG/L	17.19
33	95	932	29:15	3	1.184	A BB	140648.	52.744 UG/L	16.83

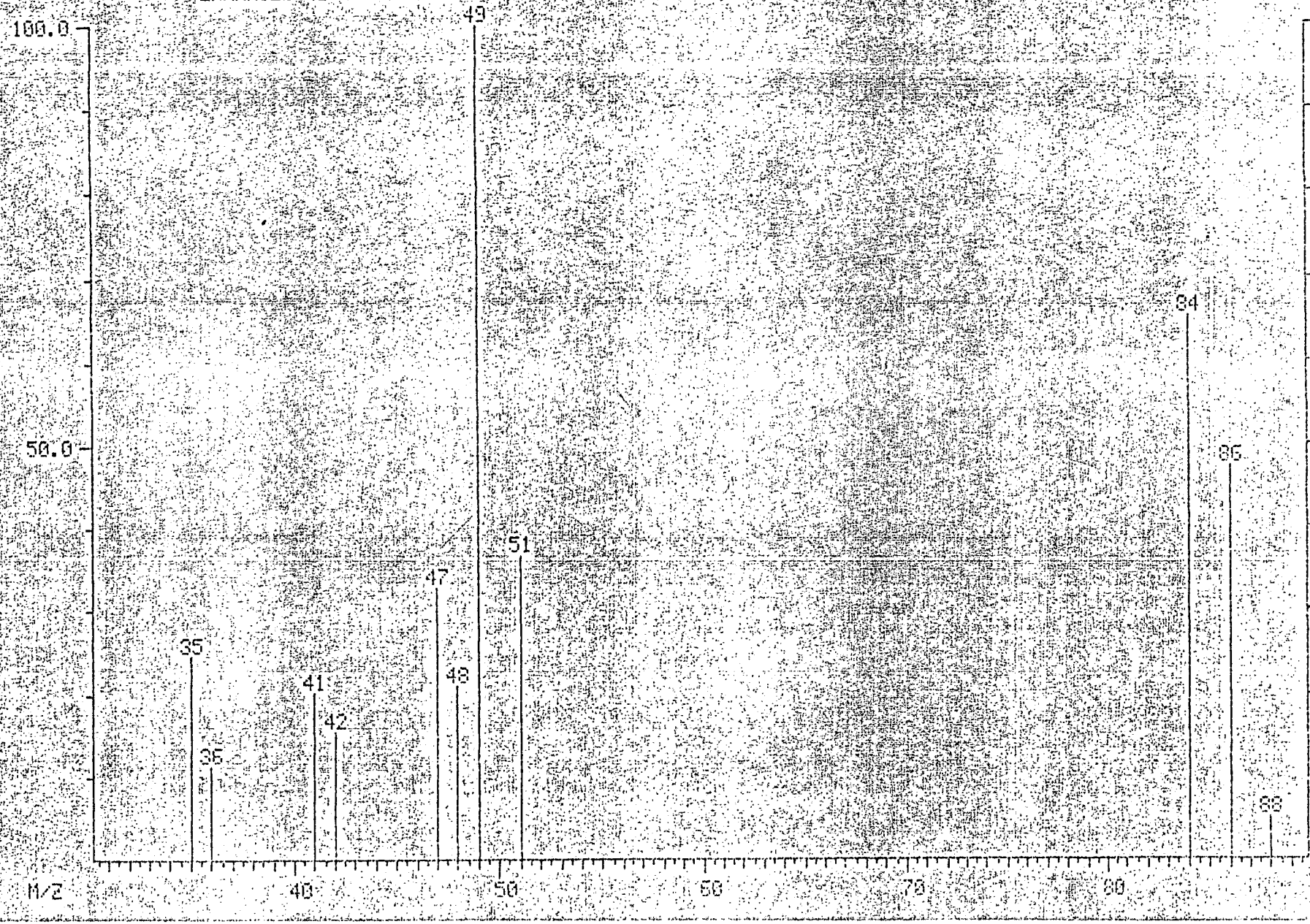
No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	10:16	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	19:59	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
3	24:38	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
4	1:53		0.183			200.00		3.118	
5	3:04		0.300			200.00		2.472	
6	3:59		0.388			200.00		3.081	
7	5:01		0.489			200.00		2.056	
8	7:13	1.00	0.703	1.00	12.84	200.00	0.154	2.400	0.06
9	9:53		0.963			200.00		1.948	
10	11:03		1.080			200.00		4.202	
11	11:46		1.147			200.00		1.934	
12	12:16		1.196			200.00		3.723	
13	12:59		1.266			200.00		1.738	
14	14:15		0.713			200.00		0.508	
15	14:35		0.730			200.00		0.481	
16	15:04		0.754			200.00		0.571	
17	16:21		0.818			200.00		0.487	
18	16:34		0.829			200.00		0.221	
19	17:06		0.856			200.00		0.426	
20	17:40		0.884			200.00		0.308	
21	17:46		0.889			200.00		0.222	
22	17:36		0.881			200.00		1.094	
23	17:46		0.889			200.00		0.491	
24	18:46		0.939			200.00		0.011	
25	20:11		1.009			200.00		0.117	
26	22:26		0.911			200.00		0.573	
27	22:22		0.906			200.00		0.405	
28	23:40		0.961			200.00		0.944	
29	24:44		1.004			200.00		1.125	
30	26:40		1.083			200.00		0.593	
31	12:54	1.00	1.257	1.00	43.98	50.00	1.727	1.963	0.88
32	23:30	1.00	0.954	1.00	53.86	50.00	1.534	1.424	1.08
33	29:11	1.00	1.185	1.00	52.74	50.00	0.959	0.909	1.05

MID MASS SPECTRUM
10/19/85 1:32:00 + 7:13
SAMPLE: 12237-12
CONDS.: 4.45G / 10ML, 100 UL INJ
GC TEMP: 78 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: 12237V12 #230
CALI: 12237V12 #2

BASE M/Z: 49
RIC: 17632.

METHYLENE CHLORIDE



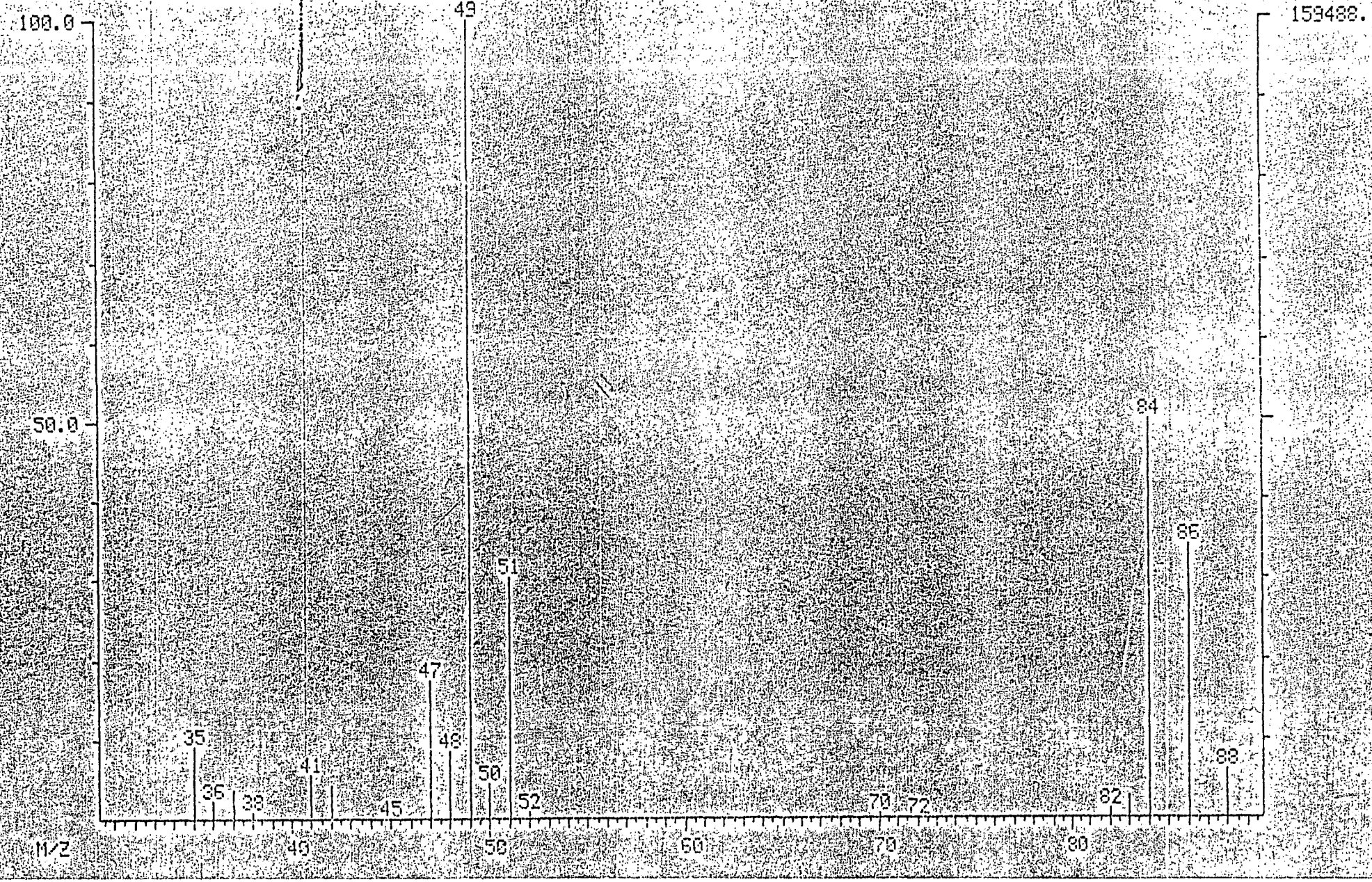
2-18

MID MASS SPECTRUM
10/07/85 23:21:00 + 5:07
SAMPLE: Vol. Std.
CONDS.: EI
GC TEMP: 61 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: VSB107P5 #163
CALI: VSB107P5 #2

BASE M/Z: 49
RIC: 450560.

METHYLENE CHLORIDE



8-49

MID DUAL MASS SPECTRUM
10/19/85 1:32:00 + 23:06
SAMPLE: 12237-12
CONDS.: 4.45G / 10ML) 100 UL INJ
GC TEMP: 206 DEG. C
ENHANCED (S 15B 2N 0T)

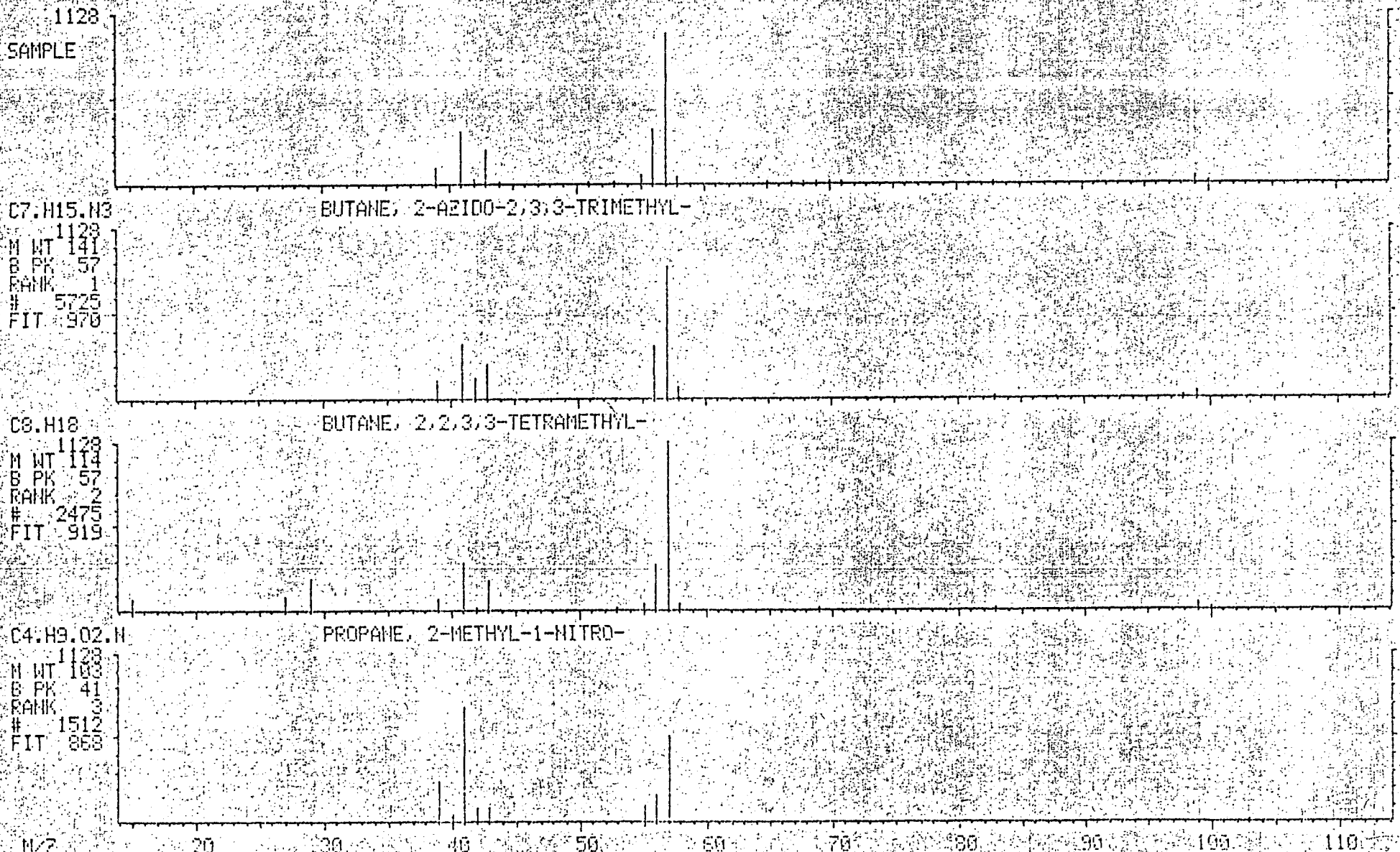
DATA: 12237V12 #736 BASE M/Z: 57/ 57
CALI: 12237V12 #2 RIC: 287263./ 285183.

252

MID LIBRARY SEARCH
10/19/85 1:32:00 + 23:05
SAMPLE: 12237-12
CONDS.: 4.45G / 10ML, 100 UL INJ
ENHANCED (S 15B 2N 0T)

DATA: 12237V12 #: 736
CALI: 12237V12 #: 2

BASE M/Z: 57
RIC: 263679.

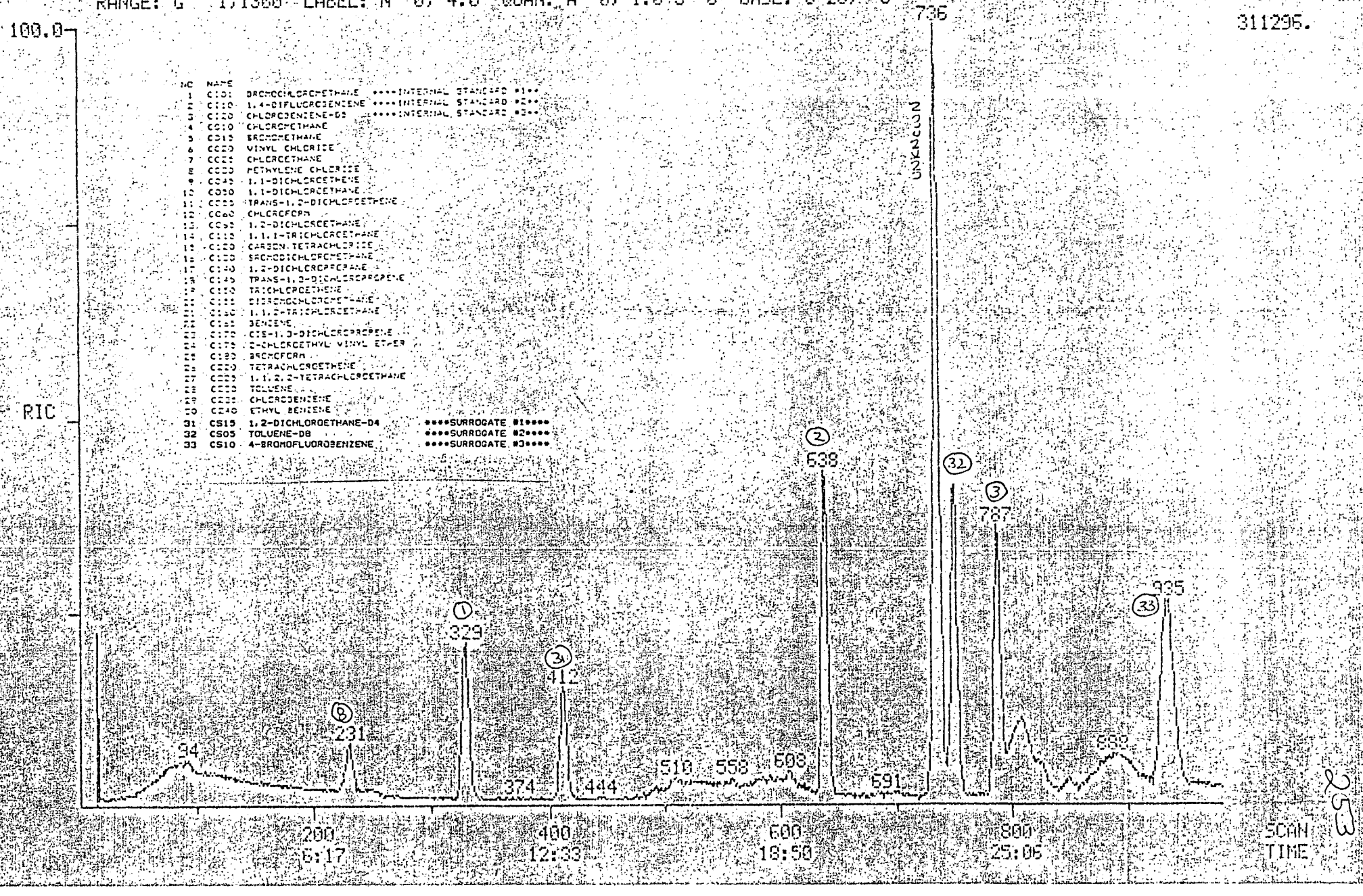


MID Library Search Data: 12237V12 # 736 Base m/z: 57 252
10/19/85 1:32:00 + 23:06 Cali: 12237V12 # 2 RIC: 263679
Sample: 12237-12
Conds.: 4.45G / 10ML, 100 UL INJ
Enhanced (S 15B 2N OT)

Rank	In.	Name
1	5725	BUTANE, 2-AZIDO-2,3,3-TRIMETHYL-
2	2475	BUTANE, 2,2,3,3-TETRAMETHYL-
3	1512	PROPANE, 2-METHYL-1-NITRO-
4	5779	HEXANE, 2,2,5,5-TETRAMETHYL-
5	6017	2-PENTENE, 5-BUTOXY-, (E)-

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C7.H15.N3	141	57	896	970	909
2	C8.H18	114	57	891	919	963
3	C4.H9.O2.N	103	41	765	868	786
4	C10.H22	142	57	800	857	838
5	C9.H18.O	142	57	754	855	780

MIDRIC DATA: 12237V12D #1 SCANS 1 TO 990
10/19/85 2:23:00 CALI: 12237V12D #2
SAMPLE: 12237-12 DUPLICATE
CONDS.: 4.45G / 10ML,100UL INJ
RANGE: G 1,1300 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3



NO	NAME	
1	C101 BROMOCHLOROMETHANE	****INTERNAL STANDARD #1**
2	C110 1,4-DIFLUOROBENZENE	****INTERNAL STANDARD #2**
3	C120 CHLOROBENZENE-D5	****INTERNAL STANDARD #3**
4	C010 CHLOROMETHANE	
5	C015 BROMOMETHANE	
6	C020 VINYL CHLORIDE	
7	C025 CHLOROETHANE	
8	C030 METHYLENE CHLORIDE	
9	C045 1,1-DICHLOROETHENE	
10	C050 1,1-DICHLOROETHANE	
11	C055 TRANS-1,2-DICHLOROETHENE	
12	C060 CHLOROFORM	
13	C065 1,2-DICHLOROETHANE	
14	C115 1,1,1-TRICHLOROETHANE	
15	C120 CARBON TETRACHLORIDE	
16	C125 BROMODICHLOROMETHANE	
17	C140 1,2-DICHLOROPROPANE	
18	C145 TRANS-1,3-DICHLOROPROPENE	
19	C150 TRICHLOROETHENE	
20	C155 DIBROMOCHLOROMETHANE	
21	C160 1,1,2-TRICHLOROETHANE	
22	C165 BENZENE	
23	C170 CIS-1,3-DICHLOROPROPENE	
24	C175 2-CHLOROETHYL VINYL ETHER	
25	C180 BROMOFORM	
26	C200 TETRACHLOROETHENE	
27	C205 1,1,2,2-TETRACHLOROETHANE	
28	C220 TOLUENE	
29	C235 CHLOROBENZENE	
30	C240 ETHYL BENZENE	
31	CS15 1,2-DICHLOROETHANE-D4	****SURROGATE #1****
32	CS05 TOLUENE-D8	****SURROGATE #2****
33	CS10 4-BROMOFLUOROBENZENE	****SURROGATE #3****

83

Quantitation Report File: 12237V12D

254

Data: 12237V12D.TI
10/19/85 2:23:00
Sample: 12237-12 DUPLICATE
Submitted by: HSMA Analyst: PAT

AMOUNT=AREA * REF.AMNT/(REF.AREA)* RESP.FACT)
Resp. fac. from Library Entry

NO	NAME		
1	CI01	BROMOCHLOROMETHANE	****INTERNAL STANDARD #1****
2	CI10	1,4-DIFLUOROBENZENE	****INTERNAL STANDARD #2****
3	CI20	CHLOROBENZENE-D5	****INTERNAL STANDARD #3****
4	CO10	CHLOROMETHANE	
5	CO15	BROMOMETHANE	
6	CO20	VINYL CHLORIDE	
7	CO25	CHLOROETHANE	
8	CO30	METHYLENE CHLORIDE	
9	CO45	1,1-DICHLOROETHENE	
10	CO50	1,1-DICHLOROETHANE	
11	CO55	TRANS-1,2-DICHLOROETHENE	
12	CO60	CHLOROFORM	
13	CO65	1,2-DICHLOROETHANE	
14	C115	1,1,1-TRICHLOROETHANE	
15	C120	CARBON TETRACHLORIDE	
16	C130	BROMODICHLOROMETHANE	
17	C140	1,2-DICHLOROPROPANE	
18	C145	TRANS-1,3-DICHLOROPROPENE	
19	C150	TRICHLOROETHENE	
20	C155	DIBROMOCHLOROMETHANE	
21	C160	1,1,2-TRICHLOROETHANE	
22	C165	BENZENE	
23	C170	CIS-1,3-DICHLOROPROPENE	
24	C175	2-CHLOROETHYL VINYL ETHER	
25	C180	BROMOFORM	
26	C220	TETRACHLOROETHENE	
27	C225	1,1,2,2-TETRACHLOROETHANE	
28	C230	TOLUENE	
29	C235	CHLOROBENZENE	
30	C240	ETHYL BENZENE	
31	CS15	1,2-DICHLOROETHANE-D4	****SURROGATE #1****
32	CS05	TOLUENE-D8	****SURROGATE #2****
33	CS10	4-BROMOFLUOROBENZENE	****SURROGATE #3****

255

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	128	329	10:19	1	1.000	A BB	44984	50.000 UG/L	16.20
2	114	636	20:01	2	1.000	A BB	252296.	50.000 UG/L	16.20
3	117	787	24:42	3	1.000	A BB	155976.	50.000 UG/L	16.20
4	NOT FOUND								
5	NOT FOUND								
6	NOT FOUND								
7	NOT FOUND								
8	84	230	7:13	1	0.699	A BB	26712.	12.373 UG/L	4.01
9	NOT FOUND								
10	NOT FOUND								
11	NOT FOUND								
12	NOT FOUND								
13	NOT FOUND								
14	NOT FOUND								
15	NOT FOUND								
16	NOT FOUND								
17	NOT FOUND								
18	NOT FOUND								
19	NOT FOUND								
20	NOT FOUND								
21	NOT FOUND								
22	NOT FOUND								
23	NOT FOUND								
24	NOT FOUND								
25	NOT FOUND								
26	NOT FOUND								
27	NOT FOUND								
28	NOT FOUND								
29	NOT FOUND								
30	NOT FOUND								
31	65	412	12:56	1	1.252	A BB	74352.	42.103 UG/L	13.64
32	98	750	23:32	3	0.953	A BB	238152.	53.615 UG/L	17.37
33	95	934	29:18	3	1.187	A BB	143576.	50.619 UG/L	16.40

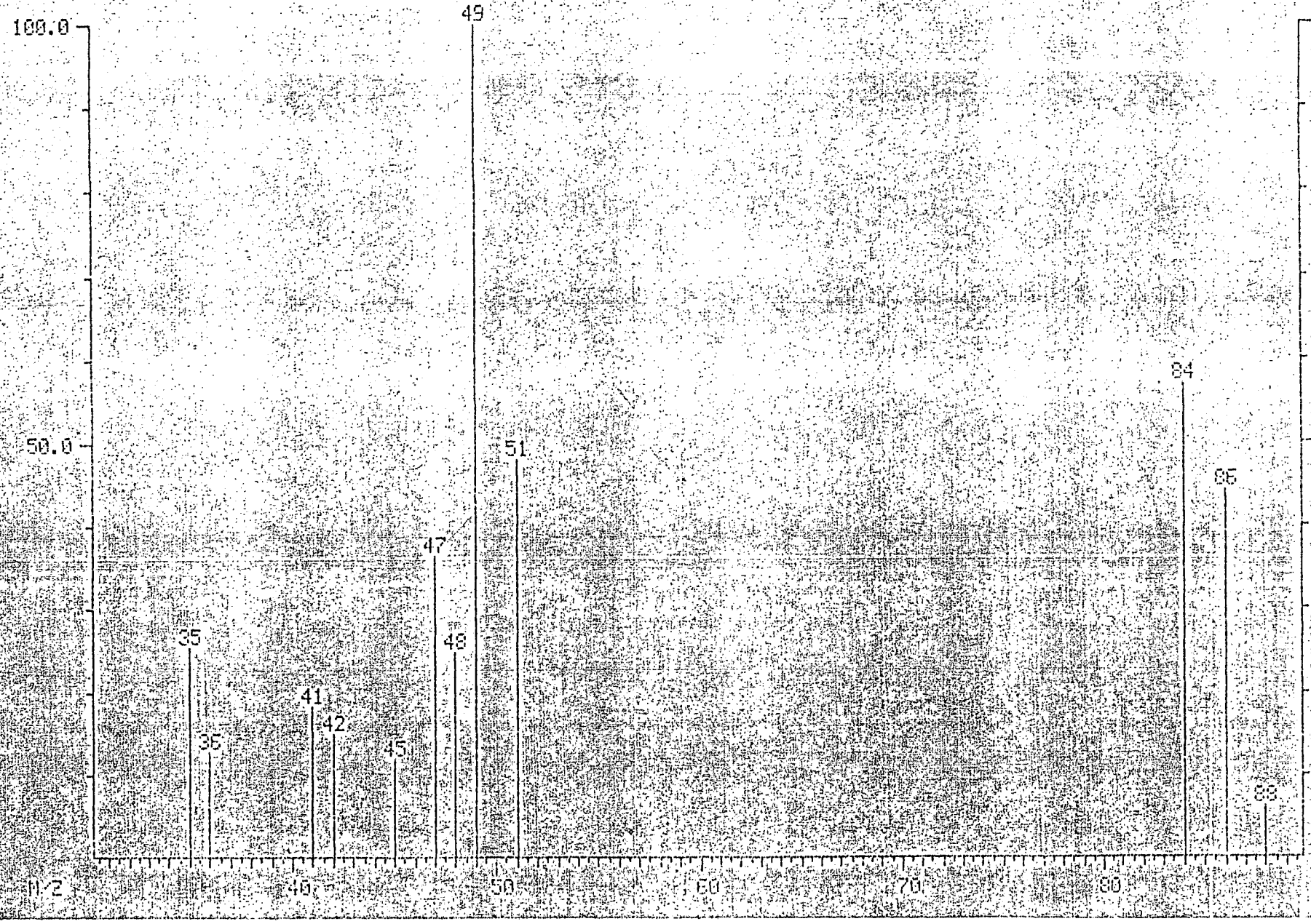
No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	10:16	1.01	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	19:59	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
3	24:38	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
4	1:53		0.183			200.00		3.118	
5	3:04		0.300			200.00		2.472	
6	3:59		0.388			200.00		3.081	
7	5:01		0.489			200.00		2.056	
8	7:13	1.00	0.703	0.99	12.37	200.00	0.148	2.400	0.06
9	9:53		0.963			200.00		1.948	
10	11:05		1.080			200.00		4.202	
11	11:46		1.147			200.00		1.934	
12	12:16		1.196			200.00		3.723	
13	12:59		1.266			200.00		1.738	
14	14:15		0.713			200.00		0.508	
15	14:35		0.730			200.00		0.481	
16	15:04		0.754			200.00		0.571	
17	16:21		0.818			200.00		0.487	
18	16:34		0.829			200.00		0.221	
19	17:06		0.856			200.00		0.426	
20	17:40		0.884			200.00		0.308	
21	17:46		0.889			200.00		0.222	
22	17:36		0.881			200.00		1.094	
23	17:46		0.889			200.00		0.491	
24	18:46		0.939			200.00		0.011	
25	20:11		1.009			200.00		0.117	
26	22:26		0.911			200.00		0.573	
27	22:22		0.908			200.00		0.405	
28	23:40		0.961			200.00		0.944	
29	24:44		1.004			200.00		1.125	
30	26:40		1.083			200.00		0.593	
31	12:54	1.00	1.257	1.00	42.10	50.00	1.653	1.963	0.84
32	23:30	1.00	0.954	1.00	53.61	50.00	1.527	1.424	1.07
33	29:11	1.00	1.185	1.00	50.62	50.00	0.920	0.909	1.01

MID MASS SPECTRUM
10/19/85 2:23:00 + 7:15
SAMPLE: 12237-12 DUPLICATE
CONDS.: 4.45G / 10ML,100UL INJ
GC TEMP: 78 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: 12237V12D #231
CALI: 12237V12D #2

BASE M/Z: 49
RIC: 16736.

METHYLENE CHLORIDE



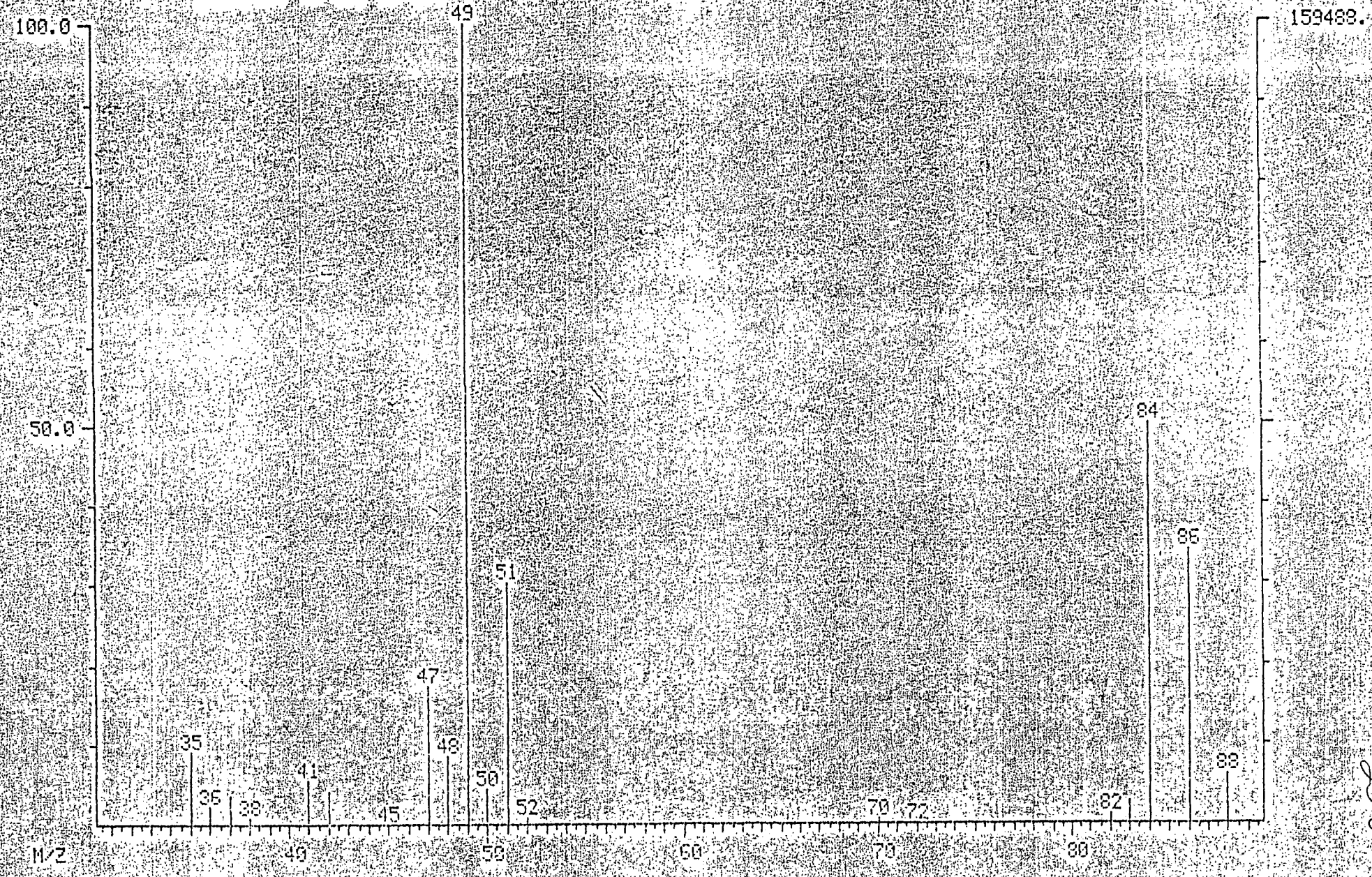
GG7

MID MASS SPECTRUM
10/07/85 23:21:00 + 5:07
SAMPLE: Vol/std
CONDS.: EI
GC TEMP: 61 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: VSB107P5 #163
CALI: VSB107P5 #2

BASE M/Z: 49
RIC: 450560.

METHYLENE CHLORIDE



MID DUAL MASS SPECTRUM
10/19/85 2:23:00 + 23:06
SAMPLE: 12237-12 DUPLICATE
CONDS.: 4.45G / 10ML,100UL INJ
GC TEMP: 206 DEG. C
ENHANCED (S 15S 2N 0T)

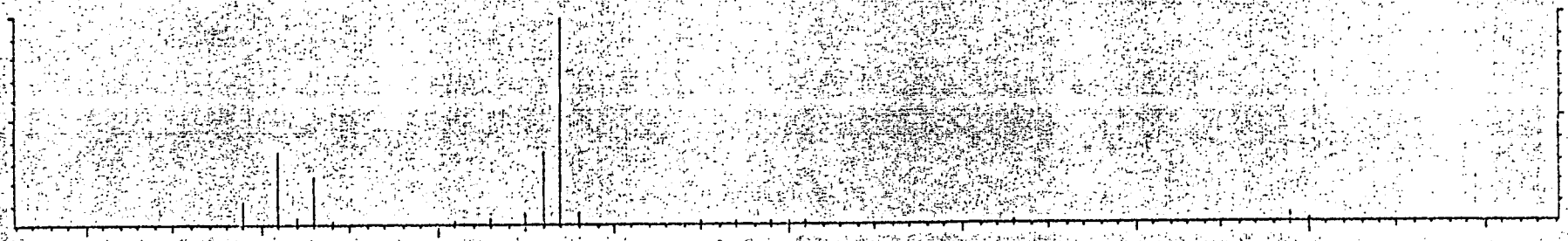
DATA: 12237V12D #736 BASE M/Z: 57/ 57
CALI: 12237V12D #2 RIC: 291327./ 311807.

255

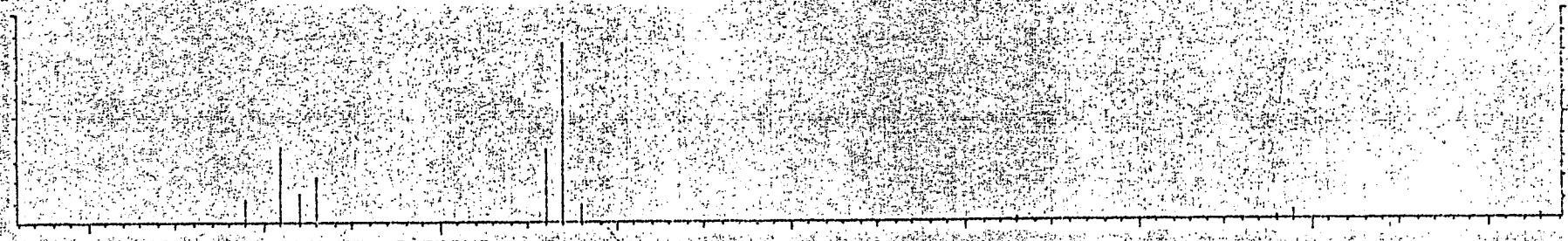
MID LIBRARY SEARCH
10/19/85 2:23:00 + 23:06
SAMPLE: 12237-12 DUPLICATE
CONDS.: 4.45G / 10ML,100UL INJ
ENHANCED (S 15B 2N 0T)

DATA: 12237V12D # 736 BASE M/Z: 57
CALI: 12237V12D # 2 RIC: 288767.

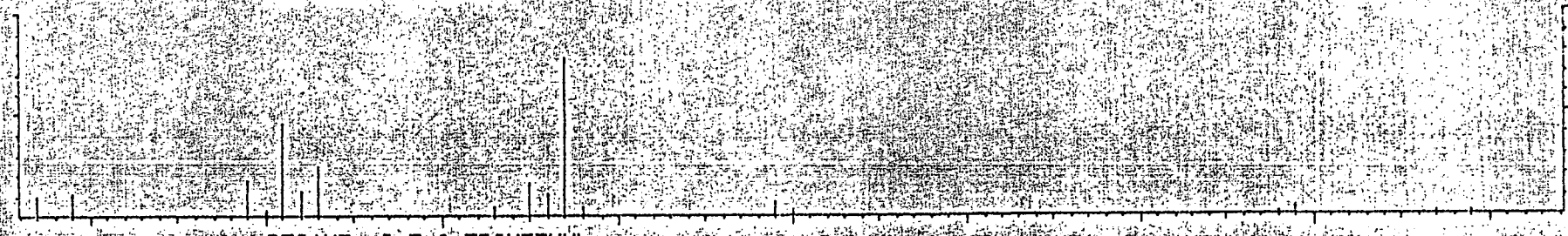
1014
SAMPLE



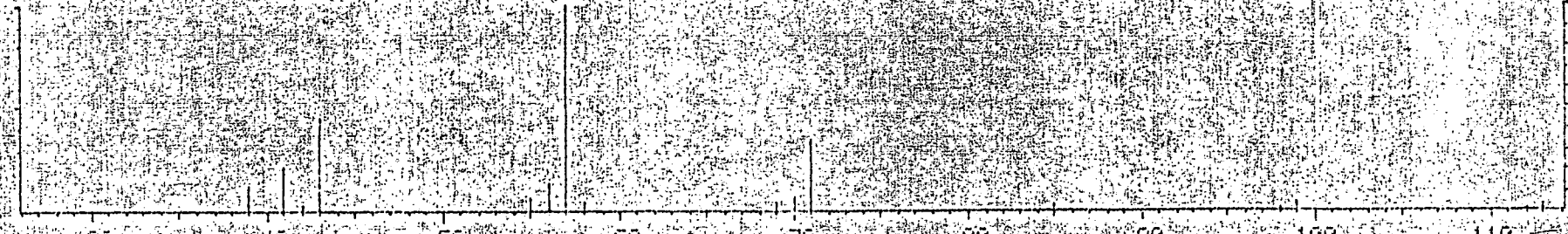
C7.H15.N3 BUTANE, 2-AZIDO-2,3,3-TRIMETHYL-
1014
M.WT 141
B.PK 57
RANK 1
5725
FIT 969



C7.H15.BR HEPTANE, 2-BROMO-
1014
M.WT 178
B.PK 57
RANK 2
12014
FIT 850



C13.H28 DECANE, 2,5,9-TRIMETHYL-
1014
M.WT 184
B.PK 57
RANK 3
13024
FIT 776



M/Z 30 40 50 60 70 80 90 100 110

208

MID Library Search Data: 12237V12D # 736 Base m/z: 57 261
10/19/85 2:23:00 + 23:06 Cali: 12237V12D # 2 RIC: 288767
Sample: 12237-12 DUPLICATE
Conds.: 4.45G / 10ML,100UL INJ
Enhanced (S 15D 2N OT)

Rank	In.	Name
1	5725	BUTANE, 2-AZIDO-2,3,3-TRIMETHYL-
2	12014	HEPTANE, 2-BROMO-
3	13024	DECANE, 2,5,9-TRIMETHYL-
4	2473	HEXANE, 2,5-DIMETHYL-
5	1087	4-PENTENAL, 2-METHYL-

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C7.H15.N3	141	57	899	969	913
2	C7.H15.BR	178	57	819	850	880
3	C13.H28	184	57	747	776	797
4	C8.H18	114	57	705	738	734
5	C6.H10.O	98	41	334	725	382