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Office of Air Quality
Planning and Standards
Research Triangle Park, NC 27711

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AIR

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Final Report

Hot Mix Asphalt Plants
Truck Loading and Silo Filling
Manual Methods Testing

Asphalt Plant C
Los Angeles, California

Volume 7 of 8

Office of Air Quality
Clean Air
OAQPS
Planning and Standards

FINAL REPORT

HOT MIX ASPHALT PLANTS
TRUCK LOADING AND SILO FILLING
MANUAL METHODS TESTING
ASPHALT PLANT C, LOS ANGELES, CALIFORNIA

VOLUME 7 OF 8
APPENDIX G.4

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Work Assignment No. 3-02

Prepared for:

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May 2000

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GLOSSARY OF TERMS

ASTM – American Society for Testing and Materials
CEMS – Continuous Emissions Monitoring System
CTS – Calibration Transfer Standard
EMC – Emissions Measurement Center
EMAD – Emission Monitoring and Analysis Division
ESP – Electrostatic Precipitator
FID – Flame Ionization Detector
FTIR – Fourier Transform Infrared Spectroscopy
HAP – Hazardous Air Pollutant
MCEM – Methylene Chloride Extractable Matter
MRI – Midwest Research Institute
PES – Pacific Environmental Services
PM – Particulate Matter
PTE – Permanent Total Enclosure
RAP – Recycled Asphalt
RTFOT – Rolling Thin Film Oven Test
SED – Silo Exhaust Duct

GLOSSARY OF TERMS (CONTINUED)

SMTG – Source Measurement Technology Group
SVOHAP – Semi-Volatile Organic Hazardous Air Pollutant
TED – Tunnel Emissions Duct
TFOT – Thin Film Oven Test
THC – Total Hydrocarbons
VOHAP – Volatile Organic Hazardous Air Pollutant
VOST – Volatile Organic Sampling Train

VOLUME 7

APPENDIX G

ANALYTICAL DATA (CONTINUED)

G.4 VOHAPS DATA

APPENDIX G.4

VOHAPS DATA

1c

TRIANGLE LABS

CASE NARRATIVE

Analysis of Samples for the Presence of

Volatile Analytes by

High-Resolution Gas Chromatography / Low-Resolution Mass Spectrometry

METHOD 8260

Date : August 24, 1998

Client ID : Pacific Environmental Services

TLI Project Number : **46297**

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le

Triangle Laboratories, Inc. **August 24, 1998**
Case Narrative **46297**

Objective: Analysis of four VOST tube pairs (T-V-l-l-A&-B, T-V-1-2-A&-B, T-V-1-3-A&-B, T-V-1-4-A&-B) for a client specified list of volatile compounds, using Method 8260.

Method:

Eight VOST tube pairs were received at Triangle Laboratories, Inc. on July 25, 1998 on ice at 6°C in good condition. The samples were stored in a refrigerator at 4°C prior to 'analysis. The VOST tube sample pairs were analyzed according to the guidelines of Methods 8260 and 5040. * {Per client request, the compounds 1,3-butadiene, vinyl bromide, methyl-t-butylether (MTBE), n-hexane, 1,2-epoxybutane, iso-octane, and ethyl acrylate were additional target compounds. A one point calibration was analyzed for these additional compounds and the resulting response factor used for quantitation.} The internal standards and surrogate standards were added in the amount of 0.25 micrograms (ug) immediately prior to analysis by GC/MS. The internal standards are pentafluorobenzene, 1,4-difluorobenzene, and chlorobenzene-d_5 and 1,4-dichlorobenzene-d_4. The surrogate standards reported are dibromofluoromethane, toluene-d_8, and 4-bromofluorobenzene. The results reported relate only to the items tested.

The GC/MS analysis conditions are listed below:

Purge and trap:	Tekmar LSC-2000
Purge:	11 min.
Desorb Temperature:	250 c
Desorb Time:	4 min.
GC Conditions:	
Column:	30 m x .53 mm x 0.3u J&W DB624
	0 C hold .5 min, 10 C/min to 45C, 6 C/min to 90C, hold 1.5 min, 50 C/min to 200C.
MS Conditions:	
Instrument:	VG-TRIO-1 Lab Base data system
Scan:	35-350 amu at .6s/scan
Interface:	Jet Separator, 200 C

Report:

Enclosed with the case narrative are copies of the sample identification index, the project summary sheets, client paperwork, sample log-in sheets, and log book pages. A sample identification index summarizes the client sample name, TLI sample number, and analytical file name for each sample and blank. The project summary lists the amounts for detected analytes in gray. The estimated detection limits will be listed in parentheses when the target analytes are not detected.

The data are reported as quantitation reports, chromatograms. interim reports, and spectra of detected target. The quantitation report header lists the TLI project number, analysis method,

instrument sample tile name, client sample name, client project number, TLI sample number, calibration tile, date received, and analysis date. The response factors used for all calculations are from the calibration file listed in the header. All initial and continuing calibration data are located in the back of the data package. The amount is reported in total ug for the VOST tubes. The retention time (RT) will be listed for all internal standards and analytes which are detected. If a target analyte is not detected, it will be flagged with a "U" and a detection limit will be listed. Estimated detection limits are calculated for all analytes which were not found in the samples by using an area of 2000. The estimated detection limits reported are the average detection limits achievable over time on an instrument type. The actual detection limit for a given compound on a given day may vary from the estimate reported. The quantitation limit for all analytes is half of the low point of the initial calibration. Below this point the calibration cannot be considered to be linear. Any amount reported at a level below the quantitation limit will be flagged with a "J" and should be considered estimated. If any compounds are found at a level above the upper calibration range, the analyte will be flagged with an "E" and the amounts reported should be considered estimated. If any target analytes found in the laboratory blanks are detected in the associated samples, they will be flagged with a "B" on each sample topsheet. All analytes are quantitated against the internal standard preceding them on the target analyte list. Surrogate standards are quantitated against the internal standard with the matching internal standard reference number. For example, toluene-d_8 has 2 in the IS Ref column and would be quantitated against the internal standard which has IS2 listed in the flag column. If an internal standard area is above or below the quality control limits as defined by the continuing calibration, it will be flagged with "High" or "Low" in the flag column.

RESULTS ARE POTENTIALLY BIASED HIGH

Results:

The VOST tube pairs were analyzed ten days outside the fourteen day sampling to analysis holding time. The VOST tubes were analyzed separately per client request.

The surrogate percent recoveries met all quality control criteria for all sample and blank analyses with the exception of samples T-V-1-1-A and T-V-l-2-A. ACCEPTABLE RANGE 50 - 150 %
162 % 170 %

The area for internal standard met quality control criteria for all sample and blank analyses with the exception of sample T-V-l-3-B. In this sample the area of pentafluorobenzene was high in comparison to the one point calibration standard.

Sample T-V-l-2-A was analyzed one minute outside the instrument's twelve hour tune time criteria. No IMPACT ON RESULTS (ONE MINUTE OVER 720 MINUTE WINDOW)

No data was collected for sample T-V-1-4-A, due to GC oven shutting off and not ramping, during the acquisition.

The laboratory blanks contained several target analytes at amounts below the quantitation limit. The target analytes in the laboratory blank should not be considered as truly present in the native samples unless found at a level at least five times the amount found in the associated blank. In the event that the amount of a target analyte found in the samples is twenty times the amount found in the associated blank, the contribution from the blank can be considered negligible.

Sample Calculations:

Response Factor (RF) = $\frac{[\text{area analyte}) \times (\text{amt IS})}{(\text{area IS}) \times (\text{amt analyte})}$

Amount (ug) = $\frac{(\text{area analyte in sample}) \times (\text{amt IS})}{(\text{area IS}) \times (\text{avg ical RF})}$

Where:

amt IS = amount of internal standard = 0.25 ug
ical = initial calibration

The data in this package has been judged to be valid according to the guidelines of Methods 8260 and 5040 except as noted above. Should you have any questions, please feel free to contact our Project Scientist, Deb. Smith, at (919) 544-5729, ext. 267.

For Triangle Laboratories, Inc.,

Report Preparation:

Valgena Respass

Valgena Respass
Report Preparation Chemist

Quality Control:

Penny A. Brock

Penny A. Brock
Report Preparation Chemist

The total number of pages in this data package is 203

Triangle Laboratories, Inc.
Sample Identification Index for Project: 46297

Client Id:	TLI Id:	File Name:
T-V-I-l-AT	214-1-6A	FX883
T-V-I-I-B TC	214-1-6B	FX879
T-V-1-2-A T	214-1-7A	FX895
T-V-l-2-B TC	214-l-78	FX880
T-V-l-3-A T	214-1-8A	HW713
T-V-l-3-B TC	214-l-88	FX882
T-V-1-4-B TC	214-1-9B	FX881
VOSTBLK081798	VOSTBLKO8179	FX878
VOSTBLK081898	VOSTBLK08189	FX894
VOSTBLK081998	VOSTBLK08199	HW705

Triangle Laboratories, Inc.

Project Summary for Project 46297

Client ID:	T-V-l-1-A T	T-V-l-I-B T C	T-V-1-2-A T	T-V-l-2-B T C	T-V-l-3-A T
Filename :	FX883	FX879	FX895	FX880	HW713
TLI Id :	214-1-6A	214-1-6B	214-1-7A	214-1-7B	214-1-8A
Matrix :	VOST	VOST	VOST	VOST	VOST
Units :	ug	ug	ug	ug	ug
Chloromethane	(0.001)	0.075	(0.001)	0.080	(0.001)
Vinyl Chloride	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Bromomethane	(0.001)	0.056	0.007	0.068	0.005
Chloroethane	(0.001)	(0.001)	(0.001)	(0.001)	0.007
Trichlorofluoromethane	0.008	(0.001)	(0.001)	(0.001)	0.009
1,1-Dichloroethene	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Methylene chloride	0.303	0.153	0.078	0.248	0.058
trans-1,2-Dichloroethene	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
1,1-Dichloroethane	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
cis-1,2-Dichloroethene	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Chloroform	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
1,1,1-Trichloroethane	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Iodomethane	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Carbon disulfide	0.015	(0.001)	0.013	0.004	0.012
Acetone	0.137	(0.004)	0.204	0.039	0.589
Allyl chloride	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Acrylonitrile	(0.015)	(0.016)	(0.017)	(0.015)	(0.003)
Vinyl acetate	(0.002)	(0.002)	(0.002)	(0.002)	(0.001)
2-Butanone	0.061	(0.004)	(0.004)	(0.004)	0.509
Carbon tetrachloride	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Benzene	0.106	(0.001)	0.129	(0.001)	0.516
1,2-Dichloroethane	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Trichloroethene	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
1,2-Dichloropropane	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Bromodichloromethane	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
cis-1,3-Dichloropropene	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Toluene	0.360	0.020	0.377	0.059	0.455
trans-1,3-Dichloropropene	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
1,1,2-Trichloroethane	(0.001)	(0.002)	(0.002)	(0.001)	(0.001)
Methyl methacrylate	(0.005)	(0.006)	(0.006)	(0.006)	(0.001)
4-Methyl-2-pentanone	(0.004)	(0.004)	(0.005)	(0.004)	(0.001)
Tetrachloroethene	(0.001)	(0.001)	0.054	(0.001)	0.038
Dibromochloromethane	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
1,2-Dibromoethane	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Chlorobenzene	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)

()-Estimated Detection Limit

Triangle Laboratories, Inc.
801 Capitola Drive • Durham, North Carolina 27713
Phone: (919) 5445729 . Fax: (919) 544-5491

Triangle Laboratories, Inc.

Project Summary for Project 46297

Client ID:	T-V-1-1-A	T-V-1-1-B	T-V-I-2-A	T-V-I-2-B	T-V-l-3-A
	T	TC	T	TC	T
Filename :	FX883	FX879	FX895	FX880	HW713
TLI Id :	214-1-6A	214-1-6B	214-1-7A	214-1-7B	214-1-8A
Matrix :	VOST	VOST	VOST	VOST	VOST
Units :	ug	ug	ug	ug	ug
Ethylbenzene	0.137	(0.001)	0.128	(0.001)	0.105
m-/p-Xylene	0.720	(0.001)	0.677	0.001	0.758
o-Xylene	0.251	(0.001)	0.235	(0.001)	0.181
Styrene	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Bromoform	(0.002)	(0.003)	(0.003)	(0.003)	(0.001)
2-Hexanone	(0.005)	(0.006)	(0.006)	(0.006)	(0.001)
Cumene	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
1,1,2,2-Tetrachloroethane	(0.002)	(0.003)	(0.002)	(0.002)	(0.001)

( )-Estimated Detection Limit

Triangle Laboratories, Inc.
801 Capitola Drive • Durham, North Carolina 27713
Phone: (919) 544-5729 • Fax: (919) 544-5491

Triangle Laboratories, Inc.

Project summary for Project 46297

Client ID:	T-V-l-3-B TC	T-V-l-4-B TC	VOSTBLK081 798	VOSTBLK081 898	VOSTBLK081 998
Filename :	FX882	FX881	FX878	FX894	HW705
TLI Id :	214-l-88	214-I-98	VOSTBLK08179	VOSTBLK08189	VOSTBLKD8199
Matrix :	VOST	VOST	VOST	VOST	VOST
Units :	ug	ug	ug	ug	ug
Chloromethane	0.083	0.073	(0.001)	(0.001)	0.003
Vinyl Chloride	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Bromomethane	0.109	0.045	(0.001)	(0.001)	(0.001)
Chloroethane	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Trichlorofluoromethane	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
1,1-Dichloroethene	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Methylene chloride	0.026	0.048	(0.001)	(0.001)	0.002
trans-1,2-Dichloroethene	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
1,1-Dichloroethane	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
cis-1,2-Dichloroethene	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Chloroform	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
1,1,1-Trichloroethane	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Iodomethane	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Carbon disuifide	0.006	(0.001)	(0.001)	(0.001)	(0.001)
Acetone	0.077	0.092	(0.004)	(0.006)	(0.004)
Allyl chloride	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Acrylonitrile	(0.016)	(0.016)	(0.016)	(0.021)	(0.006)
Vinyl acetate	(0.002)	(0.002)	(0.002)	(0.002)	(0.001)
2-Butanone	(0.004)	(0.004)	(0.004)	(0.005)	(0.003)
Carbon tetrachloride	(0.001)	(0.001)	(0.001)	(0.031)	(0.001)
Benzene	(0.001)	(0.001)	0.013	0.023	(0.001)
1,2-Dichloroethane	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Trichloroethene	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
1,2-Dichloropropane	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Bromodichloromethane	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
cis-1,3-Dichloropropene	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Toluene	0.005	0.017	0.005	0.008	0.003
trans-1,3-Dichloropropene	(0.001)	(0.001)	(0.001)	(0.002)	(0.001)
1,1,2-Trichloroethane	(0.002)	(0.002)	(0.001)	(0.002)	(0.001)
Methyl methacrylate	(0.006)	(0.006)	(0.006)	(0.007)	(0.002)
4-Methyl-2-pentanone	(0.005)	(0.005)	(0.004)	(0.006)	(0.001)
Tetrachloroethene	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Dibromochloromethane	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
1,2-Dibromoethane	(0.002)	(0.001)	(0.001)	(0.002)	(0.001)
Chlorobenzene	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)

( )-Estimated Detection Limit

Triangle Laboratories, Inc.
801 Capitola Drive • Durham, North Carolina 27713
Phone: (919) 544-5729 • Fax: (919) 544-5491

Triangle Laboratories, Inc.

Project Summary for Project 46297

Client ID:	T-V-l-3-B TC	T-V-l-4-B TC	VOSTBLK081 798	VOSTBLK081 898	VOSTBLK081 998
Filename :	FX882	FX881	FX878	FX894	HW705
TLI Id :	214-l-88	214-1-9B	VOSTBLK08179	VOSTBLK08189	VOSTBLK08199
Matrix :	VOST	VOST	VOST	VOST	VOST
Units :	ug	ug	ug	ug	ug
Ethylbenzene	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
m-/p-Xylene	(0.001)	(0.001)	(0.001)	(0.001)	0.001
o-Xylene	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Styrene	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Bromoform	(0.003)	(0.002)	(0.003)	(0.004)	(0.001)
2-Hexanone	(0.006)	(0.006)	(0.006)	(0.008)	(0.002)
Cumene	(0.001)	(0.001)	(0.001)	(0.001)	0.001
1,1,2,2-Tetrachloroethane	(0.003)	(0.002)	(0.003)	(0.004)	(0.001)

( )-Estimated Detection Limit

Triangle Laboratories, inc.
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Triangle Laboratories, Inc.

Project Summary for Project 46297

Client ID:	T-V-1-1-A TC	T-V-1-1-B TC	T-V-l-2-A T	T-V-l-2-B TC	T-V-l-3-A T
Filename :	FX883	FX879	FX895	FX880	Hw713
TLI Id :	214-1-6A	214-l-68	214-1-7A	214-l-78	214-1-8A
Matrix :	VOST	VOST	VOST	VOST	VOST
Units :	ug	ug	ug	ug	ug
1,3-Butadiene	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Vinyl bromide	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
MTBE	(0.001)	(0.001)	(0.001)	(0.001)	0.019
n-Hexane	0.127	0.001	0.147	0.001	0.111
1,2-Epoxybutane	(0.010)	(0.011)	(0.015)	(0.010)	(0.011)
Iso-Octane	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Ethyl acrylate	(0.002)	(0.003)	(0.004)	(0.002)	(0.001)

( )-Estimated Detection Limit

Triangle Laboratories, Inc.
801 Capitola Drive • Durham, North Carolina 27713
Phone: (919) 5445729 • Fax: (919) 544-5491

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Triangle Laboratories, Inc.

Project **Summary** for Project **46297**

Client ID:	T-V-l-3-B TC	T-V-l-4-B TC	VOSTBLK081 798	VOSTBLKO81 898	VOSTBLK081 998
Filename :	FX882	FX881	FX878	FX894	HW705
TLI Id :	214-l-88	214-1-9B	VOSTBLKO8179	VOSTBLK08189	VOSTBLK08199
Matrix :	VOST	VOST	VOST	VOST	VOST
Units :	ug	ug	ug	ug	ug
1,3-Butadiene	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Vinyl bromide	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
MTBE	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
n-Hexane	0.001	0.004	(0.001)	(0.001)	0.001
1,2-Epoxybutane	(0.011)	(0.011)	(0.011)	(0.020)	(0.017)
Iso-Octane	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Ethyl acrylate	(0.003)	(0.003)	(0.002)	(0.004)	(0.001)

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( )-Estimated Detection Limit

Triangle Laboratories, Inc.
801 Capitola Drive • Durham, North Carolina 27713
Phone: (919) 544-5729 • Fax: (919) 544-5491

TRIANGLE LABORATORIES, INC.

LIST OF CERTIFICATIONS AND ACCREDITATIONS

ENVIRONMENTAL

American Association for Laboratory Accreditation. Accredidation pending. Certificate Number 0226-01. Accreditation for technical competence in Environmental Testing. (Including Waste Water, Sol/Haz Waste, Pulp/Paper, and Air Matrices) Parameters are AOX/TOX, and Dioxin/Furan. Method 1613 for Drinking Water **Currently re-applying.**.

State of Alabama, Department of Environmental Management. Expires December 31, 1998. Laboratory I.D. # 40950. Dioxin in drinking water.

State of Alaska, Department of Environmental Conservation. Expires December 21, 1998. Certificate number OS-006-98. Dioxin in drinking water.

State of Arizona, Department of Health Services. Expires May 26, 1998. Certificate #AZ0423. Drinking Water for Dioxin, Dioxin in WW and S/H Waste. Currently appying for renewal.

State of Arkansas, Department of Pollution Control and Ecology. Expires February 19, 1999. Pulp/paper, soil, water, and Hazardous Waste for Dioxin/Furan; AOX/TOX, Volatiles, Semi-volatiles, and Metals.

State of California, Department of Health Services. Expires August 31, 1999. Certificate #1922. Selected Metals in Waste Water; Volatiles, Semi-volatiles, and Dioxin/furan in WW and Sol/Haz Waste. Dioxin in drinking water.

State of Connecticut, Department of Health Services. Expires September 30, 1999. Registration # PH-0117. Dioxin in drinking water.

Delaware Health and Social Services. Expires December 31, 1998. Certificate #NC 140. Dioxin in drinking water.

Florida Department of Health and Rehabilitative Services. Expires June 30, 1998. Dioxin in SDW. Drinking Water ID HRS# 87424. Pending new certificate.

Triangle Laboratories, Inc.
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919-544-5729
P.O. Box 13485
Research Triangle Park, NC 27709-3485
Fax # 919-544-5491

Hawaii Department of Health. Expires March 1, 1999. Dioxin in drinking water. "Accepted" status for regulatory purposes.

Idaho Department of Health and Welfare. Expires December 31, 1998. Dioxin in drinking water.

State of Kansas, Department of Health and Environment. Expires January 31, 1999. Method 1613 for drinking water. ID #'s - Drinking water and/or pollution control - E-10215. Solid or Hazardous Waste - E-101209.

Commonwealth of Kentucky, Department for Environmental Protection. Expires December 31, 1998. ID#90060. Dioxin in drinking water.

Maryland Department of Health and Mental Hygiene. Expires September 30, 1998. Certification #235 Drinking water by Method 1613A. Currently applying for renewal.

State of Michigan, Department of Public Health. Expires June 30, 1999. Drinking water by Method 1613. Current certification is extended, based on New York certificate renewal.

Mississippi State Department of Health. No expiration date. Dioxin in drinking water.

Montana Department of Health and Environmental Services. Expires December 31, 1998. Dioxin in drinking water.

State of New Jersey, Department of Environmental Protection and Energy. Expires June 30, 1998. Extended until July 31, 1998 per letter dated May 29, 1998. ID #67851. BNAs and Volatiles. Dioxin in drinking water. Currently applying for renewal.

State of New Mexico, Environment Department. Still certified, awaiting information from A2LA Dioxin in drinking water.

New York State Department of Health. Received updated certificates. ID #11026. Environmental Analyses of potable water, non-potable Water, Solid and Hazardous Waste. Method 1613 in DW.

State of North Carolina, Department of Environment Health and Natural Resources Expires. August 31, 1998. Certificate # 37751. Dioxin in drinking water.

State of North Carolina, Department of Environment, Health, and Natural Resources, Division of Environmental Management. Expires December 31, 2000. Certificate # 485. Metals, pesticides & PCBs, semi-volatiles and volatiles; TCLP.

Revised 8/3/98 dss
y:certific\certlist.mem

North Dakota State Department of Health and Consolidated Laboratories. Expires December 31, 1998. Certificate # R-076. Effective October 4, 1993. Dioxin in drinking water.

Oklahoma Department of Environmental Quality. Expires August 31, 1998. Laboratory #9612. Dioxin by 1613A, 8290 and 8280. Submitted renewal application 7/1.

State of South Carolina, Department of Health and Environmental Control. Expires June 30, 1998. Extended August 31, 1999. Certificate number #99040001 (drinking water). Expires August 31, 1999. Certificate number #99040002 (other parameters). Dioxin/Furans, BNA, Volatiles, and PCBs/pesticides under Clean Water Act, 2,3,7,8-TCDD for Drinking Water, and Organic extractables for Solid and Hazardous Waste.

State of Tennessee. Department of Environment and Conservation. Expires February 5, 1999. ID #02992. Method 1613 Drinking water only.

U.S. Department of Agriculture Soil Permit. Expires September 30, 2001. Permit No. S-3790. Under the authority of the Federal Plant Pest Act, permission is granted to receive foreign soil samples for use in laboratory analysis.

U.S. Army Corps of Engineers. Expires October 19, 1999. Validated to perform analyses for the Fort Belvoir, VA (Contract Number DACA31-97-D-0029), Vint Hill Farms Station, Vint Hill, VA (Contract Number DACA31-95-D-0083), and Selma Pressure Treating Superfund Site, Selma, CA (Contract number DACW45-94-D-0054).

U.S. EPA Region V. Expires November 14, 1999. Dioxin in drinking water.

U.S. EPA Region VIII, for the State of Wyoming. Expires November 12, 1998. Dioxin in drinking water.

State of Utah, Department of Health. Expires May 30,2000. Certificate Number E-166. Certification for the following parameters: Semi-Volatiles and Volatiles under RCRA; Volatiles under Clean Water Act; Dioxin/furans by Method 8280; Drinking water for Dioxin by Method 1613; Metals including Mercury and Microwave Digestion.

Commonwealth of Virginia, Department of General Services, Division of Consolidated Laboratory Services. Expires June 30, 1999. ID # 00341. Dioxin in drinking water.

State of Washington, Department of Ecology. Expires September 11, 1998. Lab Accreditation Number C067. Scope of Accreditation applies to water analyses for

Polychlorinated Dibenzo-p-dioxins and Polychlorinated Dibenzofurans, BNA Extr (Semivolatile) Organics and Purgeable (Volatile) Organics.
State of Washington, Department of Health. Expires April 30, 1999. Dioxin in drinking water. Lab I.D. 129.

State of West Virginia, Department of Health. Expires December 31, 1998. Certificate No. 9923(C). Dioxin in drinking water.

State of Wisconsin, Department of Natural Resources. Expires August 31, 1998. Laboratory ID Number 999869530. Certification for the following categories of Organics: Purgeable, Base/Neutral, Acid, PCBs, and Dioxin. Expires November 14, 1999. Laboratory ID 999869530. Dioxin in drinking water.

PHARMACEUTICAL

Drug Enforcement Agency (DEA). Expires November 30, 1998. Registration number RT01195835. Controlled substance registration for schedules 1,2,3,3N,4,5.

N.C. Department of Human Resources. Expires October 31, 1998. Registration number NC-PT 0000 0031. North Carolina controlled substances registration. Application submitted for renewal.

Food & Drug Administration (FDA) Registration. Expires June 1998. ID #'s 001500 1053481. Annual registration of drug establishment.

OTHER

Clinical Laboratory Improvement Amendments (CLIA) Registration. Expires May 30, 1999. ID # 34D0705123. Department of Health & Human Services, Health Care Financing Administration.

U.S. EPA Large Quantity Hazardous Waste Generator. No expiration date. EPA ID #NCD982156879. Permit indicates that the laboratory is a large generator of hazardous waste.

North Carolina General License for Radiation Protection. No expiration date. No License. 032-875-OG. The general license applies only to radioactive material contained in devices which have been manufactured and labeled in accordance with specific requirements.

TRIANGLE LABS

DOCUMENT CONTROL

Triangle Laboratories, Inc.
801 Capitola Drive
Durham, NC 27713-4411
919-544-5729

P.O. Box 13485
Research Triangle Park, NC 27709-34
Fax # 919-544-5491

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PACIFIC ENVIRONMENTAL SERVICES, INC.

Central Park West
5001 South Miami Boulevard, P.O. Box 12077
Research Triangle Park, North Carolina 27709-2077
(919) 941-0333 FAX: (919) 941-0234

17

Sample Chain of Custody Record

7/7

Sample Identification	Collection Date	Collection Time	Sample Name	Number of Containers	Analytical Request: Volitile organics per FP					Comments
S-V-1-1-A	7/24/98		Silo 2 Run 1 Set1	1	X					Tenax
S-V-1-1-B	7/24/98		Silo 2 Run 1 Set1	1	X					Tenax/Charcoal
S-V-1-2-A	7/24/98		Silo 2 Run 1 Set2	1	X					Tenax
S-V-1-2-B	7/24/98		Silo 2 Run 1 Set2	1	X					Tenax/Charcoal
S-V-1-3-A	7/24/98		Silo 2 Run 1 Set3	1	X					Tenax
S-V-1-3-B	7/24/98		Silo 2 Run 1 Set3	1	X					Tenax/Charcoal
S-V-1-4-A	7/24/98		Silo 2 Run 1 Set4	1	X					Tenax
S-V-1-4-B	7/24/98		Silo 2 Run 1 Set4	1	X					Tenax/Charcoal
T-V-1-1-A	7/24/98		Tunnel Run 1 Set 1	1	X					Tenax
T-V-1-1-B	7/24/98		Tunnel Run 1 Set 1	1	X					Tenax/Charcoal
T-V-1-2-A	7/24/98		Tunnel Run 1 Set 2	1	X					Tenax
T-V-1-2-B	7/24/98		Tunnel Run 1 Set 2	1	X					Tenax/Charcoal
T-V-1-3-A	7/24/98		Tunnel Run 1 Set 3	1	X					Tenax
T-V-1-3-B	7/24/98		Tunnel Run 1 Set 3	1	X					Tenax/Charcoal
T-V-1-4-A	7/24/98		Tunnel Run 1 Set 4	1	X					Tenax
T-V-1-4-B	7/24/98		Tunnel Run 1 Set 4	1	X					Tenax/Charcoal

Relinquished by:	Date	Time	Received by:
[signature]	7/24/98	1437	
Relinquished by:	Date	Time	Received for Lab by:
	7/25/98	1000	[signature]

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TRIANGLE LABORATORIES, INC. -- LOG IN RECORD/CHAIN OF CUSTODY

COPY

TLI Project Number 46297
Client: PES03 - Pacific Environmental Services

Book 214

Page 1 of 1

Custody Seal : Absent
Chain of Custody : Present
Sample Tags : Absent
Sample Tag Numbers: Not Listed on Chain of Custody
SMO Forms : N/A

Sample Seals: Absent
Container...: Intact

Date Received 07/25/98 By

Carrier and Number FedEx/

Ice Chest ICE/ICE PACKS Temp 6.0 C

TLI Number.. mR/H:CPM.	Client Sample ID..... Client COC ID.....*	Location.....	Matrix	To LAB Date/Init	To STORAGE Date/Init	To LAB Date/Init	To STORAGE Date/Init	To LAB Date/Init	To STORAGE Date/Init	To LAB Date/Init	To STORAGE Date/Init	DISPOSED Date/Init
214-1-1A	S-V-1-1-A S-V-1-1-A	R03	TENAX									
214-1-1B	S-V-1-1-B S-V-1-1-B	R03	TNX/CHAR									
214-1-2A	S-V-1-2-A S-V-1-2-A	R03	TENAX									
214-1-2B	S-V-1-2-B S-V-1-2-B	R03	TNX/CHAR									
214-1-3A	S-V-1-3-A S-V-1-3-A	R03	TENAX									
214-1-3B	S-V-1-3-B S-V-1-3-B	R03	TNX/CHAR									
214-1-4A	S-V-1-4-A S-V-1-4-A	R03	TENAX									
214-1-4B	S-V-1-4-B S-V-1-4-B	R03	TNX/CHAR									
214-1-5A	S-V-1-3-A (Typed label) S-V-1-3-A (Typed label)	R03	TENAX									
214-1-5B	S-V-1-3-B (Typed label) S-V-1-3-B (Typed label)	R03	TNX/CHAR									
214-1-6A	T-V-1-1-A T-V-1-1-A	R03	TENAX									
214-1-6B	T-V-1-1-B T-V-1-1-B	R03	TNX/CHAR									
214-1-7A	T-V-1-2-A T-V-1-2-A	R03	TENAX									
214-1-7B	T-V-1-2-B T-V-1-2-B	R03	TNX/CHAR									

Receiving Remarks: 2 set of samples labelled S-V-1-3-A & S-V-1-3-B arrived.ID'S were hand printed on 1 set and Typed on the other.

Archive Remarks:

TRIANGLE LABORATORIES, INC. -- LOG IN RECORD/CHAIN OF CUSTODY

Custody Seal : Absent
Chain of Custody : Present
Sample Tags : Absent
Sample Tag Numbers: Not Listed on Chain of Custody
SMO Forms : N/A

Sample Seals: Absent
Container...: Intact

TLI Project Number 46297
Client: PES03 - Pacific Environmental Services

Book 214

Date Received 07/25/98 By

Carrier and Number FedEx/

Page 1

Ice Chest ICE/ICE PACKS Temp 6.0 C

TLI Number.. mR/H:CPM.	Client Sample ID..... Client COC ID.....*	Location.....	Matrix	To LAB Date/Init	To STORAGE Date/Init	To LAB Date/Init	To STORAGE Date/Init	To LAB Date/Init	To STORAGE Date/Init	To LAB Date/Init	To STORAGE Date/Init	DISPOSED Date/Init
214-1-8A	T-V-1-3-A T-V-1-3-A	R03	TENAX									
214-1-8B	T-V-1-3-B T-V-1-3-B	R03	TNX/CHAR									
214-1-9A	T-V-1-4-A T-V-1-4-A	R03	TENAX									
214-1-9B	T-V-1-4-B T-V-1-4-B	R03	TNX/CHAR									

Receiving Remarks: 2 set of samples labelled S-V-1-3-A & S-V-1-3-B arrived.ID`S were hand printed on 1 set and Typed on the other.

Archive Remarks:

Form Revised 05/27/1997 -- Page 2 OF 2

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Triangle Laboratories, Inc.
Run Log

Column Type	Column #	Analysis*	Acquisition Method	GC Method*	Find DBs*	Other*
DB624	6252663	8260	VOA	VOA3	8260B	

Standards		
Internal / Surrogate / Recovery	Internal / Surrogate / Recovery	Analyte
VSG-92-3 exp. 8/22/98 @ 25ug/ml	VSG-92-2 exp. 8/20/98	

Extract / Sample volume _____ µL mL (Circle unit)

Signature: Tonya C. Ayrell Date: 8/11

Date**	Time**	Project	Sample#	Client ID	Filename	pH*	Operator/Date	Backup*	Proc	Comments***
8/12/98	13:39	—	2ml VSG-92-3 exp 8/22/98	BFB	FX850	N/A			16	
8/13/98	00:01	—	2ml VSG-92-3 exp 8/22/98	BFB	FX851	N/A	16 8/13/98		16	
8/13/98	00:40	—	10ml VSG-93-1 exp 8/22/98	VOSTD0.10 T/TC	FX852	N/A	16 8/13/98		16	
8/13/98	1:25	—	10ml VSG-93-1 exp 8/22/98	VOSTD0.10 T/TC	FX853	N/A	16 8/13/98		16	Ical pt.
8/13/98	3:02	—	10ml VSG-93-2 exp 8/22/98	VOSTD0.25 T/TC	FX854	N/A	16 8/13/98		16	Ical pt.
8/13/98	3:50	—	10ml VSG-93-3 exp 8/22/98	VOSTD0.50 T/TC	FX855	N/A	16 8/13/98		16	Ical pt.
8/13/98	4:51	—	10ml VSG-93-4 exp 8/22/98	VOSTD0.75 T/TC	FX856	N/A	16 8/13/98		16	Ical pt.
8/13/98	5:34	—	10ml VSG-94-1 exp 8/22/98	VOSTD1.00 T/TC	FX857	N/A	16 8/13/98		16	Ical pt.
8/13/98		—	10ml VSG-92-2 exp 8/20/98	VOSTBLK T/TC	FX858	N/A	16 8/13/98		16	
8/13/98		—	10ml VSG-94-1 exp 8/22/98	VOSTD1.00 T/TC	FX859	N/A	16 8/13/98		16	

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Triangle Laboratories, Inc.
Run Log

Column Type	Column #	Analysis*	Acquisition Method	GC Method*	Find DBs*	Other*
DB624	6052663	8260	VOA	VOA3	8260B	

Standards		
Internal / Surrogate / Recovery	Internal / Surrogate / Recovery	Analyte
VS9-92-3 exp. 8/22/98 @ 25ug/ml	VS9-92-2 exp. 8/20/98 @ 25ug/ml	

Extract / Sample volume _____ µL mL (Circle unit)

Tony C. Spurell 8/17/98
Signature Date

Date**	Time**	Project	Sample#	Client ID	Filename	pH*	Operator/Date	Backup*	Proc	Comments***
8/17/98	08:58	—	2.0 ml VS9-92-3 exp 8/22/98	BFB	FX870	N/A	[illegible] 8/17/98	[illegible] 8/18/98	[illegible]	only 95/75 ions displayed raised multiplier [illegible] 8/17/98
8/17/98	09:48	—	2.0 ml VS9-92-3 exp. 8/22/98	BFB	FX871	N/A	[illegible] 8/17/98		[illegible]	OK Scan # 483 [illegible] 8/17/98
8/17/98	10:23	—	10 ml VS9-92-4 exp. 8/22/98	VOSTD0.25 T/TC	FX872	N/A	[illegible] 8/17/98		[illegible]	bb22TCA <.3 OK per D. Harvin 8/17/98 [illegible]
8/17/98	11:24	—	10 ml VS9-92-3 exp. 8/22/98	VOSTD0.10 T/TC	FX873	N/A	[illegible] 8/17/98		[illegible]	ICAL point not used
8/17/98	12:07	—	10 ml VS9-93-1 exp. 8/22/98	VOSTD0.50 T/TC	FX874	N/A	[illegible] 8/17/98		[illegible]	ICAL point not used
8/17/98	13:33	—	10 µl VS9-94-3 exp 8	VOSTBLK	FX875	N/A	VR 8/17/98		VR	leaked during purge cycle
8/17/98	14:12	10 ml VS9-90-2 exp. 8/20/98	10 ml VS9-94-3 exp. 8/26/98	Additionals VOSTD0.50	FX876	N/A	VR 8/17/98		[illegible]	single pt
8/17/98	15:01	—	10 ml VS9-94-3 exp. 8/26/98	VOSTBLK T/TC	FX877	N/A	[illegible] 8/17/98		[illegible]	
8/17/98	1551	—	10 µl VS9-94-3 exp 8/26/98	VOSTBLK T/TC	FX878	N/A	VR 8/17/98		VR	
8/17/98	1647	46297	214-1-6B	T-V-1-1-B	FX879	N/A	VR 8/17/98	[illegible] 8/18/98	VR	

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Triangle Laboratories, Inc.
Run Log

Column Type	Column #	Analysis*	Acquisition Method	GC Method*	Find DBs*	Other*
DB624	6252663	8260	VOA	VOA3	8260B	8260BX

Standards		
Internal / Surrogate / Recovery	Internal / Surrogate / Recovery	Analyte
YS9-92-3 @25ug/ml exp 8/22/98	~~YSTD~~ 8/17/98 YS9-92-2 exp 8/20/98 @25ug/ml	

Extract / Sample volume _____ µL mL (Circle unit)

Signature _____ Date

Date**	Time**	Project	Sample#	Client ID	Filename	pH*	Operator/Date	Backup*	Proc	Comments***
8/17/98	1730	46297	214-1-7B	T-V-1-2-B	FX880	N/A	MC 8/17/98	8/18/98	YR	
8/17/98	1830	46297	214-1-9B	T-V-1-4-B	FX881	N/A	MC 8/17/98		YR	
8/17/98	1917	46297	214-1-8B	T-V-1-3B	FX882	N/A	MC 8/17/98		YR	
8/17/98	1955	46297	214-1-6A	T-V-1-1-A	FX883	N/A	MC 8/17/98		16	
8/18/98	00:19	—	20ul VS9-92-3 exp 8/26/98	~~BFB~~ VBLK 16 8/18/98	FX884	N/A	16 8/18/98		16	
8/18/98	00:47	—	16ul VS9-94-1 exp 8/22/98	VSTD200	FX885	N/A	16 8/18/98		16	
8/18/98	1:29	—	10ul VS9-94-3 exp 8/26/98	VBLK	FX886	N/A	16 8/18/98		16	
8/18/98	2:16	—	2ul VS9-92-3 exp 8/22/98	BFB	FX887	N/A	16 8/18/98		16	
8/18/98	3:02	—	10ul VS9-92-4 exp 8/22/98	VOSTD0.25 T/TC	FX888	N/A	16 8/18/98		16	tube leak 16 8/22/98
8/18/98	3:52	—	10ul VS9-92-4 exp 8/22/98	VOSTD0.25 T/TC	FX889	N/A	16 8/18/98	8/18/98	16	~~Gases low~~ 16 8/18/98 16 8/18/98

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Triangle Laboratories, Inc.
Run Log

Column Type	Column #	Analysis*	Acquisition Method	GC Method*	Find DBs*	Other*
DB624	6252663	8260	VOA	VOA3	8260B	

Standards		
Internal / Surrogate / Recovery	Internal / Surrogate / Recovery	Analyte
VSG-92-3 exp 8/26/98 @ 25 ug/ml	VSG-94-3 exp 8/26/98 @ 25 ug/ml	

Extract / Sample volume _____ µL mL (Circle unit)

Larry Gall 8/18/98
Signature Date

Date**	Time**	Project	Sample#	Client ID	Filename	pH*	Operator/Date	Backup*	Proc	Comments***
8/18/98	4:44	—	10ul VSG-94-3 exp 8/26/98	VOSTBLK T/TC	FX890	N/A	LG 8/18/98	8/18/98	LG	
8/18/98	5:26	10ul VSG-90-2 exp 8/26/98	10ul VSG-94-3 exp 8/26/98	Additionals VOSTD0.50 T/TC	FX891	N/A	LG 8/18/98		LG	
8/18/98	7:03	—	10ul VSG-94-3 exp 8/26/98	VOSTBLK T/TC	FX892	N/A	LG 8/18/98		LG	
8/18/98	7:47	—	10ul VSG-94-3 exp 8/26/98	VOSTBLK T/TC	FX893	N/A	LG 8/18/98		L	
8/18/98	12:46	—	10ul VSG-94-3 exp 8/26/98	VOSTBLK T/TC	FX894	N/A	LG 8/18/98		LG	Had to replace fitting and line on cryo valve
8/18/98	14:17	46297	214-1-7A	@ 8/18/98 T-V-1-2A T	FX895	N/A	LG 8/18/98	LG 8/18/98	LG	Check and instrument off Analysis started 1 min outside of clock time LG 8/18/98
8/18/98	23:59	—	10ul VSG-94-3 exp 8/26/98	VBLK	FX896	N/A	LG 8/18/98	L	LG	
8/19/98	1:15	—	10ul VSG-94-1 exp 8/22/98	VSTD200	FX897	N/A	LG 8/19/98		LG	
8/19/98	1:46	—	2ul VSG-92-3 exp 8/22/98	BFB	FX898	N/A	LG 8/19/98		LG	
8/19/98	3:35	—	10ul VSG-92-4 exp 8/22/98	VOSTD0.25 T/TC	FX900	N/A	LG 8/19/98		LG	Sensitivity too Low LG 8/19/98

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Triangle Laboratories, Inc.
Run Log

Column Type	Column #	Analysis*	Acquisition Method	GC Method*	Find DBs*	Other*
DB624	327 4056	8260	VOA	VOA3	8260B	826BX

Standards		
Internal / Surrogate / Recovery	Internal / Surrogate / Recovery	Analyte
VSG-92-3 exp. 8/22/98 @ 25ug/ml	VSG-92-2 exp. 8/20/98 @ 25ug/ml	

Extract / Sample volume _____ µL mL (Circle unit)

Tony C. Spurell 8/9/98
Signature Date

Date**	Time**	Project	Sample#	Client ID	Filename	pH*	Operator/Date	Backup*	Proc	Comments***
8/9/98	01:57	—	2.0ul VSG-92-3 exp. 8/22/98	BFB	HW549	N/A	Jcl 8/9/98	10 8/10/98	Jcl	
8/9/98	02:26	—	10ul VSG-92-4 exp. 8/22/98	VOSTD0.10 T/TC	HW550	N/A	Jcl 8/9/98		Jcl	
8/9/98	03:17	—	10ul VSG-92-4 exp. 8/22/98	VOSTD0.10 T/TC	HW551	N/A	Jcl 8/9/98		Jcl	
8/9/98	03:52	—	10ul VSG-93-2 exp. 8/22/98	VOSTD0.25 T/TC	HW552	N/A	Jcl 8/9/98		Jcl	
8/9/98	04:23	—	10ul VSG-93-2 exp. 8/22/98	VOSTD0.50 T/TC	HW553	N/A	Jcl 8/9/98		Jcl	
8/9/98	04:55	—	10ul VSG-93-4 exp. 8/22/98	VOSTD0.75 T/TC	HW554	N/A	Jcl 8/9/98		Jcl	
8/9/98	05:27	—	10ul VSG-94-1 exp. 8/22/98	VOSTD1.00 T/TC	HW555	N/A	Jcl 8/9/98		Jcl	
8/9/98	06:01	—	10ul VSG-92-2 exp. 8/20/98	VBIK	HW556	N/A	Jcl 8/9/98		Jcl	
8/9/98	06:40	—	10ul VSG-90-2 exp. 8/20/98	VOSTD0.50 Additional T/TC	HW557	N/A	Jcl 8/9/98		Jcl	Single Pt.
8/9/98	07:49	—	10ul VSG-92-2 exp. 8/20/98	VOSTBIK T/TC	HW558	N/A	Jcl 8/9/98	10 8/10/98	Jcl	

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Triangle Laboratories, Inc.
Run Log

Column Type	Column #	Analysis*	Acquisition Method	GC Method*	Find DBs*	Other*
DB624	3274056	8260	VOA	VOA3	8260B	

Standards		
Internal / Surrogate / Recovery	Internal / Surrogate / Recovery	Analyte
VSG-92-3 exp. 8/22/98 @ 25ug/ml	VSG-94-3 exp. 8/26/98 @ 25ug/ml	

Extract / Sample volume _____ µL mL (Circle unit)

Tony C. Spinelli 8/18/98
Signature Date

Date**	Time**	Project	Sample#	Client ID	Filename	pH*	Operator/Date	Backup*	Proc	Comments***
8/18/98	10:47	46415A	215-19-8A	Con1-M0030-TX-R2C	HW698	N/A	8/18/98	8/18/98		moisture from Tube 8/18/98
8/18/98	12:22	—	10ul VSG 94-3 exp. 8/26/98	VOSTBLK T/TC	HW699	N/A	8/18/98			
8/18/98	13:45	46415A	215-19-9B	Con1-M0030-TX/C-R2D TC	HW700	N/A	8/18/98			Archive analysis moisture from tube 8/18/98
8/18/98	14:25	46415A	215-19-9A	Con1-M0030-TX-R2D T	HW701	N/a	8/18/98	8/18/98		Archive analysis moisture from reduction in flow
8/19/98	00:47	—	2ul VSG-92-3 exp 8/22/98	BFB	HW702	N/A	16 8/19/98	8/20/98	16	
8/19/98	1:18	—	10ul VSG-93 2 exp 8/22/98	VOSTD0.25 T/TC	HW703	N/A	16 8/19/98		16	
8/19/98	1:57	—	10ul VSG 94-3 exp 8/26/98	VOSTBLK T/TC	HW704	N/A	16 8/19/98		16	
8/19/98	2:36	—	10ul VSG 94-3 exp 8/26/98	VOSTBLK T/TC	HW705	N/A	16 8/19/98		16	
8/19/98	3:58	5ul VSG-94-2 exp 8/23/98	10ul VSG-94-3 exp 8/26/98	LCS T/TC	HW706	N/A	16 8/19/98		16	
8/19/98		5ul VSG-94-2 exp 8/23/98	10ul VSG-94-3 exp 8/26/98	LCSD T/TC	HW707	N/A	16 8/19/98	8/20/98	16	Did not Aquire 8/19/98

* Volatile Data Only ** Transcribed Data *** Dated Signature/Initials Required

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Triangle Laboratories, Inc.
Run Log

Column Type	Column #	Analysis*	Acquisition Method	GC Method*	Find DBs*	Other*
DB624	3274056	8260	VOA	VOA3	8260B	

Standards		
Internal / Surrogate / Recovery	Internal / Surrogate / Recovery	Analyte
VSA-92-3 exp 8/22/98 @ 25ug/ml	VSA-94-3 exp 8/26/98 @ 25ug/ml	

Extract / Sample volume _____ Circle unit µL mL

Signature: [signature] Date: 8/19/98

Date**	Time**	Project	Sample#	Client ID	Filename	pH*	Operator/Date	Backup*	Proc	Comments***
8/19/98	5:20	10ml VSA-90-2 exp 8/20/98	10ml VSA-94-3 exp 8/26/98	Additionals VOSTD0.50 T/TC	HW708	N/A	LG 8/19/98	[initials] 8/20/98	LG	
8/19/98	6:27	5ml VSA-94-2 exp 8/23/98	10ml VSA-94-3 exp 8/26/98	LCSD T/TC	HW709	N/A	LG 8/19/98		LG	
8/19/98	07:17	5ml VSA-94-2 exp. 8/23/98	10ml VSA-94-3 exp. 8/26/98	LCSD T/TC	HW710	N/A	[initials] 8/19/98		[initials]	
8/19/98	08:14	—	10ml VSA-94-3 exp. 8/26/98	VOSTBIK T/TC	HW711	N/A	[initials] 8/19/98		[initials]	
8/19/98	08:55	—	10ml VSA-94-3 exp. 8/26/98	VOSTBIK T/TC	HW712	N/A	[initials] 8/19/98		[initials]	
8/19/98	10:06	46297	214-1-8A	T-V-1-3-A T	HW713	N/A	[initials] 8/19/98		[initials]	
8/19/98	10:56	46297	214-1-9A	T-V-1-4-A T	HW714	N/A	[initials] 8/19/98	[initials] 8/19/98	[initials]	aquisition default no peaks for IS sample dost to instrument failure [initials] 8/19/98
										[initials] 8/19/98

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TRIANGLE LABS

SAMPLE DATA

Triangle Laboratories, Inc.
801 Capitola Drive
Durham, NC 27713-4411
919-544-5729

P.O. Box 13485
Research Triangle Park, NC 27709-34
Fax # 919-544-5491

Pacific Environmental Services

Project Number: 46297
Sample File: FX883

Method 8260 VOST
Sample ID: T-V-1-1-A T

Client Project: Hotmix
TLI ID: 214-1-6A

Date Received: 07/25/98
Date Analyzed : 08/17/98

Response File: ICALF814

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Pentafluorobenzene		IS 1	5.30		
Chloromethane		U		0.001	0.05
Vinyl Chloride		U		0.001	0.05
Bromomethane		U		0.001	0.05
Chloroethane		U		0.001	0.05
Trichlorofluoromethane	0.008	J	2.03		0.05
1,1-Dichloroethene		U		0.001	0.05
Iodomethane		U		0.001	0.05
Carbon disulfide	0.015	J	2.77		0.05
Acetone	0.137		2.82		0.05
Allyl chloride		U		0.001	0.05
Methylene chloride	0.303		3.26		0.05
Acrylonitrile		U		0.015	0.05
trans-1,2-Dichloroethene		U		0.001	0.05
1,1-Dichloroethane		U		0.001	0.05
Vinyl acetate		U		0.002	0.05
cis-1,2-Dichloroethene		U		0.001	0.05
2-Butanone	0.061		4.75		0.05
Chloroform		U		0.001	0.05
1,1,1-Trichloroethane		U		0.001	0.05
1,4-Difluorobenzene		IS 2	6.07		
Carbon tetrachloride		U		0.001	0.05
Benzene	0.106	B	5.52		0.05
1,2-Dichloroethane		U		0.001	0.05
Trichloroethene		U		0.001	0.05
1,2-Dichloropropane		U		0.001	0.05

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

Triangle Laboratories, Inc.
801 Capitola Drive • Durham, North Carolina 27713
Phone: (919) 544-5729 • Fax: (919) 544-5491

Savar v3.7
Printed: 17:46 08/24/1998

Pacific Environmental Services

Project Number: 46297
Sample File: FX883

Method 8260 VOST
Sample ID: T-V-1-1-A T

Client Project: Hotmix
TLI ID: 214-1-6A

Date Received: 07/25/98
Date Analyzed : 08/17/98

Response File: ICALF814

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Methyl methacrylate		U		0.005	0.05
Bromodichloromethane		U		0.001	0.05
cis-1,3-Dichloropropene		U		0.001	0.05
4-Methyl-2-pentanone		U		0.004	0.05
Toluene	0.360	B	8.09		0.05
trans-1,3-Dichloropropene		U		0.001	0.05
1,1,2-Trichloroethane		U		0.001	0.05
Chlorobenzene-d_5		IS 3	10.35		
Tetrachloroethene		U		0.001	0.05
2-Hexanone		U		0.005	0.05
Dibromochloromethane		U		0.001	0.05
1,2-Dibromoethane		U		0.001	0.05
Chlorobenzene		U		0.001	0.05
Ethylbenzene	0.137		10.68		0.05
m-/p-Xylene	0.720		10.92		0.10
o-Xylene	0.251		11.63		0.05
Styrene		U		0.001	0.05
Bromoform		U		0.002	0.05
1,4-Dichlorobenzene-d_4		IS 4	15.73		
Cumene		U		0.001	0.05
1,1,2,2-Tetrachloroethane		U		0.002	0.05

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

Triangle Laboratories, Inc.
801 Capitola Drive • Durham, North Carolina 27713
Phone: (919) 544-5729 • Fax: (919) 544-5491

Savar v3.7
Printed: 17:46 08/24/1998

Pacific Environmental Services

Project Number: 46297
Sample File: FX883

Method 8260 VOST
Sample ID: T-V-1-1-A T

Client Project: Hotmix
TLI ID: 214-1-6A

Date Received: 07/25/98
Date Analyzed : 08/17/98

Response File: ICALF814

Surrogate Summary	Amount (ug)	RT	IS Ref	%REC
Dibromofluoromethane	0.231	5.18	1	92
Toluene-d_8	0.339	8.00	2	136
4-Bromofluorobenzene	0.404	12.65	2	162

Reviewed by YR Date 8/24/98

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit

IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

Triangle Laboratories, Inc.
801 Capitola Drive • Durham, North Carolina 27713
Phone: (919) 544-5729 • Fax: (919) 544-5491

Savar v3.7
Printed: 17:46 08/24/1998

Pacific Environmental Services

Project Number: 46297
Sample File: FX883

Method 8260 VOST
Sample ID: T-V-1-1-A TC

Client Project: Hotmix
TLI ID: 214-1-6A

Date Received: 07/25/98

Date Analyzed : 08/17/98

Response File: ICALF817

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Pentafluorobenzene		IS 1	5.30		
1,3-Butadiene		U		0.001	0.25
Vinyl bromide		U		0.001	0.25
MTBE		U		0.001	0.25
n-Hexane	0.127	J	3.88		0.25
1,2-Epoxybutane		U		0.010	0.25
Iso-Octane		U		0.001	0.25
1,4-Difluorobenzene		IS 2	6.07		
Ethyl acrylate		U		0.002	0.25

Reviewed by YR Date 8/24/98

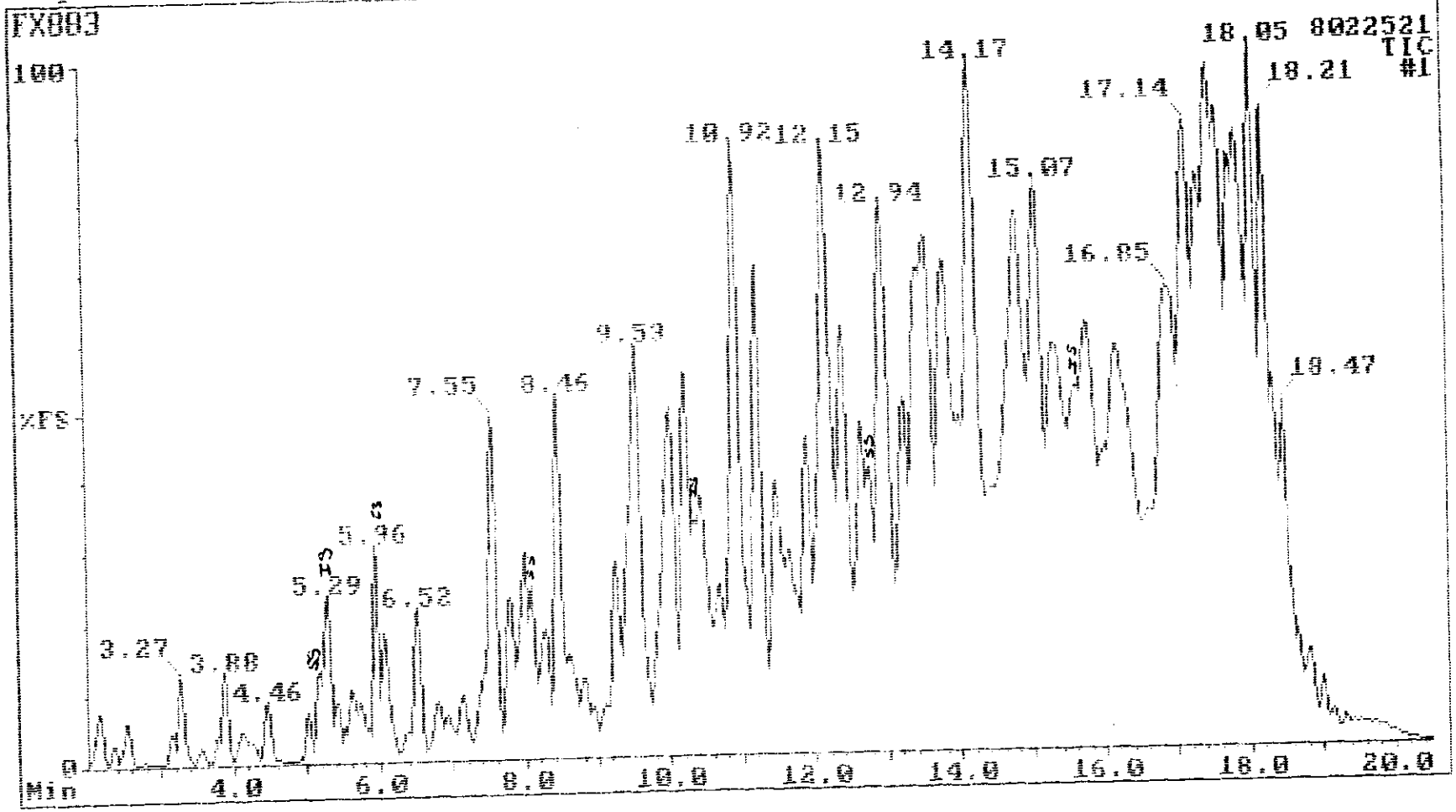
NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

Triangle Laboratories, Inc.
801 Capitola Drive • Durham, North Carolina 27713
Phone: (919) 544-5729 • Fax: (919) 544-5491

Savar v3.7
Printed: 18:00 08/24/1998

17-Aug-98 19:55 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-1-1-A T 214-1-6A TLI#46297 Instrument F



Data Review: YK
Date: 8/19/98

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QUAN DB : FX88.D LAB-BASE QUAN 18-Aug-98 01:37

No.	MAT	FOR	REV	Delta	Area	P.Flags	RT	QM	Name
1	92	54	93	1	2785456	bb	5.301	168	Pentafluorobenzene
2	100	80	93	0	3023020	bv	6.071	114	1,4-Difluorobenzene
3	81	54	76	0	2569344	bv	10.351	117	Chlorobenzene-d5
4	57	15	77	2	1463753	bv	15.732	152	1,4-Dichlorobenzene-d4
5	93	50	99	0	1083278	bb	5.181	113	Dibromofluoromethane
6	95	68	87	1	4134235	bv	8.001	98	Toluene-d8
7	61	36	61	0	1659809	vv	12.651	95	4-Bromofluorobenzene
8	0	0	0	0	0		0.000	85	Dichlorodifluoromethane
9	0	0	0	0	0		0.000	50	Chloromethane
10	0	0	0	0	0		0.000	62	Vinyl Chloride
11	0	0	0	0	0		0.000	94	Bromomethane
12	0	0	0	0	0		0.000	64	Chloroethane
13	73	40	85	-2	639552	bb	2.036	101	Trichlorofluoromethane
14	0	0	0	0	0		0.000	96	1,1-Dichloroethene
15	0	0	0	0	0		0.000	142	Iodomethane
16	78	51	73	0	141760	mb	2.270	76	Carbon disulfide
17	85	47	92	-1	70390	b	2.820	43	Acetone
18	0	0	0	0	0		0.000	41	Ethyl ether
19	70	45	66	-1	[illegible]	bb	[illegible]	84	Methylene chloride
20	79	12	59	-4	[illegible]		[illegible]	53	Acrylonitrile
21	0	0	0	0	0		0.000	96	trans-1,2-Dichloroethene
22	0	0	0	0	0		0.000	63	1,1-Dichloroethane
23	0	0	0	0	0		0.000	43	Vinyl acetate
24	0	0	0	0	0		0.000	77	2,2-Dichloropropane
25	0	0	0	0	0		0.000	96	cis-1,2-Dichloroethene
26	59	44	53	2	338804	b	4.751	43	2-Butanone
27	0	0	0	0	0		0.000	83	Chloroform
28	0	0	0	0	0		0.000	128	Bromochloromethane
29	0	0	0	0	0		0.000	97	1,1,1-Trichloroethane
30	0	0	0	0	0		0.000	117	Carbon tetrachloride
31	0	0	0	0	0		0.000	75	1,1-Dichloropropene
32	100	91	99	0	1253466	bv	5.521	78	Benzene
33	0	0	0	0	0		0.000	62	1,2-Dichloroethane
34	0	0	0	0	0		0.000	130	Trichloroethene
35	0	0	0	0	0		0.000	63	1,2-Dichloropropane
36	0	0	0	0	0		0.000	93	Dibromomethane
37	47	45	56	-11	~~[illegible]~~	~~b~~	~~[illegible]~~ FP	41	Methyl methacrylate
38	0	0	0	0	0		0.000	83	Bromodichloromethane
39	0	0	0	0	0		0.000	75	cis-1,3-Dichloropropene
40	34	15	47	5	~~[illegible]~~	~~b~~	~~[illegible]~~ FP	43	4-Methyl-2-pentanone
41	100	87	98	0	3128788	vv	8.091	92	Toluene
42	0	0	0	0	0		0.000	75	trans-1,3-Dichloropropene
43	0	0	0	0	0		0.000	97	1,1,2-Trichloroethane
44	0	0	0	0	0		0.000	69	Ethyl methacrylate
45	0	0	0	0	0		0.000	164	Tetrachloroethene
46	0	0	0	0	0		0.000	76	1,3-Dichloropropane
47	42	24	64	-10	~~[illegible]~~	~~vv~~	~~[illegible]~~ FP	43	2-Hexanone
48	0	0	0	0	0		0.000	129	Dibromochloromethane
49	0	0	0	0	0		0.000	107	1,2-Dibromoethane
50	0	0	0	0	0		0.000	112	Chlorobenzene

7991060 M 8/19/98 3,262 FP

Data Review: MC
Date: 8/19/98

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No.	MAT	FOR	REV	Delta	Area	P Flags	RT	QM	Name
51	0	0	0	0	0		0.000	131	1,1,1,2-Tetrachloroethane
52	87	53	86	0	861070	bv	10.681	106	Ethylbenzene
53	97	66	89	0	5563136	vv	10.921	106	m-/p-Xylene
54	92	61	89	0	1619648	bv	11.651	106	o-Xylene
55	0	0	0	0	0		0.000	104	Styrene
56	0	0	0	0	0		0.000	173	Bromoform
57	0	0	0	0	0		0.000	105	Cumene
58	0	0	0	0	0		0.000	83	1,1,2,2-Tetrachloroethane
59	0	0	0	0	0		0.000	156	Bromobenzene
60	0	0	0	0	0		0.000	75	1,2,3-Trichloropropane
61	0	0	0	0	0		0.000	120	n-Propylbenzene
62	0	0	0	0	0		0.000	75	trans-1,4-Dichloro-2-butene
63	0	0	0	0	0		0.000	126	2-Chlorotoluene
64	0	0	0	0	0		0.000	126	4-Chlorotoluene
65	40	46	92	-24	9975965	vv	13.571	105	1,3,5-Trimethylbenzene
66	0	0	0	0	0		0.000	119	tert-Butylbenzene
67	90	51	93	0	10394200	vv	14.802	105	1,2,4-Trimethylbenzene
68	0	0	0	0	0		0.000	105	sec-Butylbenzene
69	0	0	0	0	0		0.000	119	p-Cymene
70	0	0	0	0	0		0.000	146	1,3-Dichlorobenzene
71	0	0	0	0	0		0.000	146	1,4-Dichlorobenzene
72	0	0	0	0	0		0.000	91	Benzyl chloride
73	0	0	0	0	0		0.000	91	n-Butylbenzene
74	0	0	0	0	0		0.000	146	1,2-Dichlorobenzene
75	0	0	0	0	0		0.000	75	1,2-Dibromo-3-chloropropane
76	0	0	0	0	0		0.000	180	1,2,4-Trichlorobenzene
77	0	0	0	0	0		0.000	225	Hexachlorobutadiene
78	0	0	0	0	0		0.000	128	Naphthalene
79	0	0	0	0	0		0.000	180	1,2,3-Trichlorobenzene

QUAN OR : FX883 LAB-BASE QUAN 13-Aug-98 01:55

No.	MAT	FOR	REV	Delta	Area	P.Flags	RT	QM	Name
1	92	54	93	1	2785456	bb	5.301	168	Pentafluorobenzene
2	100	80	93	0	3023020	bv	6.071	114	1,4-Difluorobenzene
3	81	54	76	-1	2569344	bv	10.351	117	Chlorobenzene-d5
4	58	15	77	0	1463755	bv	15.732	152	1,4-Dichlorobenzene-d4
5	93	50	99	0	1083228	bb	5.181	113	Dibromofluoromethane
6	97	68	87	0	4184235	bv	8.001	98	Toluene-d8
7	59	36	61	-1	1659809	vv	12.651	95	4-Bromofluorobenzene
8	65	41	72	5	~~51208~~	~~vb~~	~~1.270~~ FP	39	1,3-Butadiene
9	0	0	0	0	0		0.000	106	Vinyl bromide
10	68	50	59	0	~~1896[illegible]~~	~~A~~	~~3.[illegible]~~ FP	73	MTBE
11	100	95	99	5	1917848	bv	3.880	57	n-Hexane
12	54	40	57	7	~~251[illegible]~~	~~bv~~	~~[illegible]~~ FP	42	1,2-Epoxybutane
13	61	43	54	0	~~357[illegible]~~	~~A~~	~~3.[illegible]~~ FP	57	Iso-Octane
14	43	28	70	-13	~~[illegible]~~	~~vb~~	~~[illegible]~~ FP	55	Ethyl acrylate

M 8/19/98

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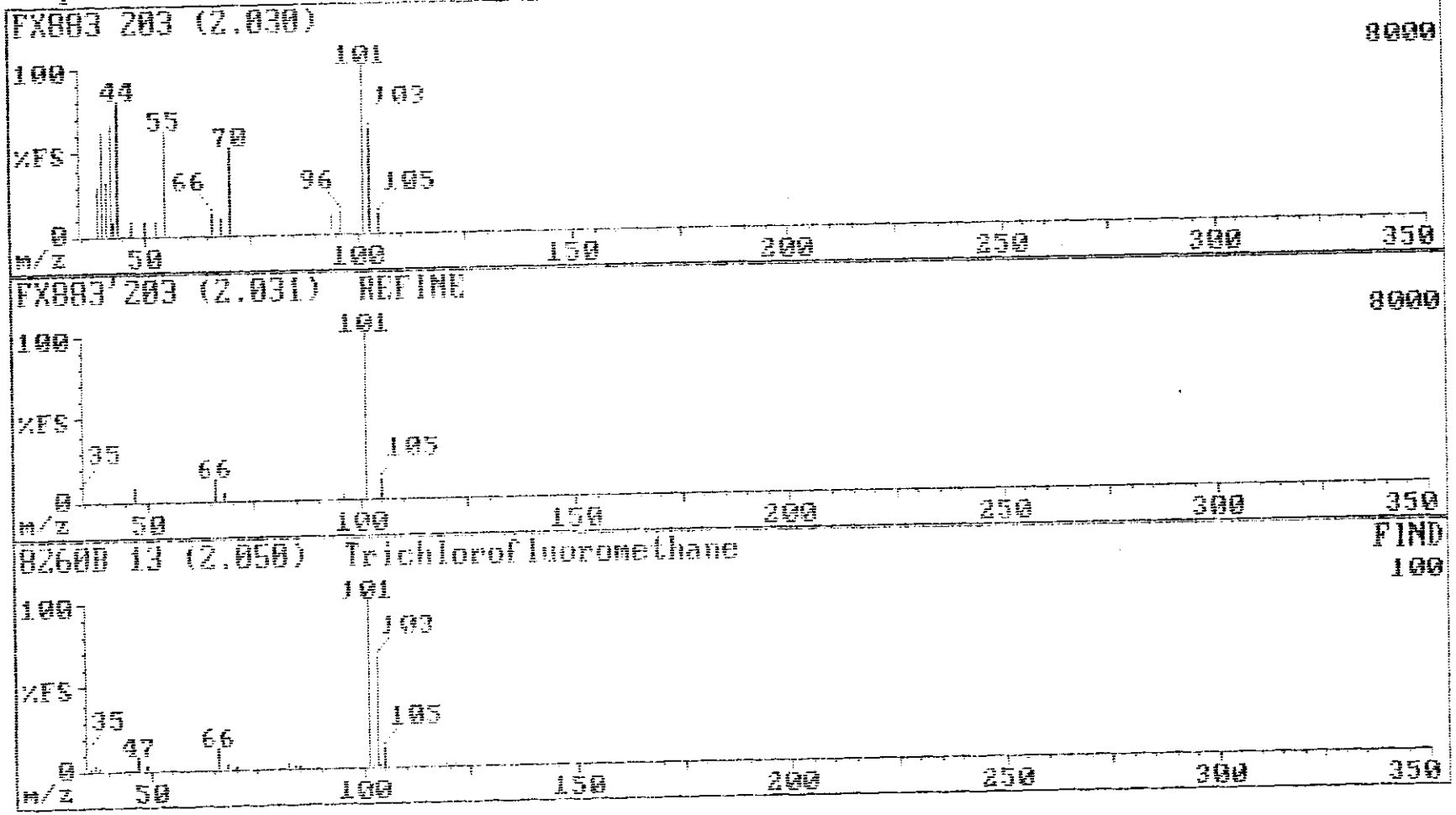
17-Aug-98 19:55 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-1-1-A T 214-1-6A TL1#46297 Instrument F



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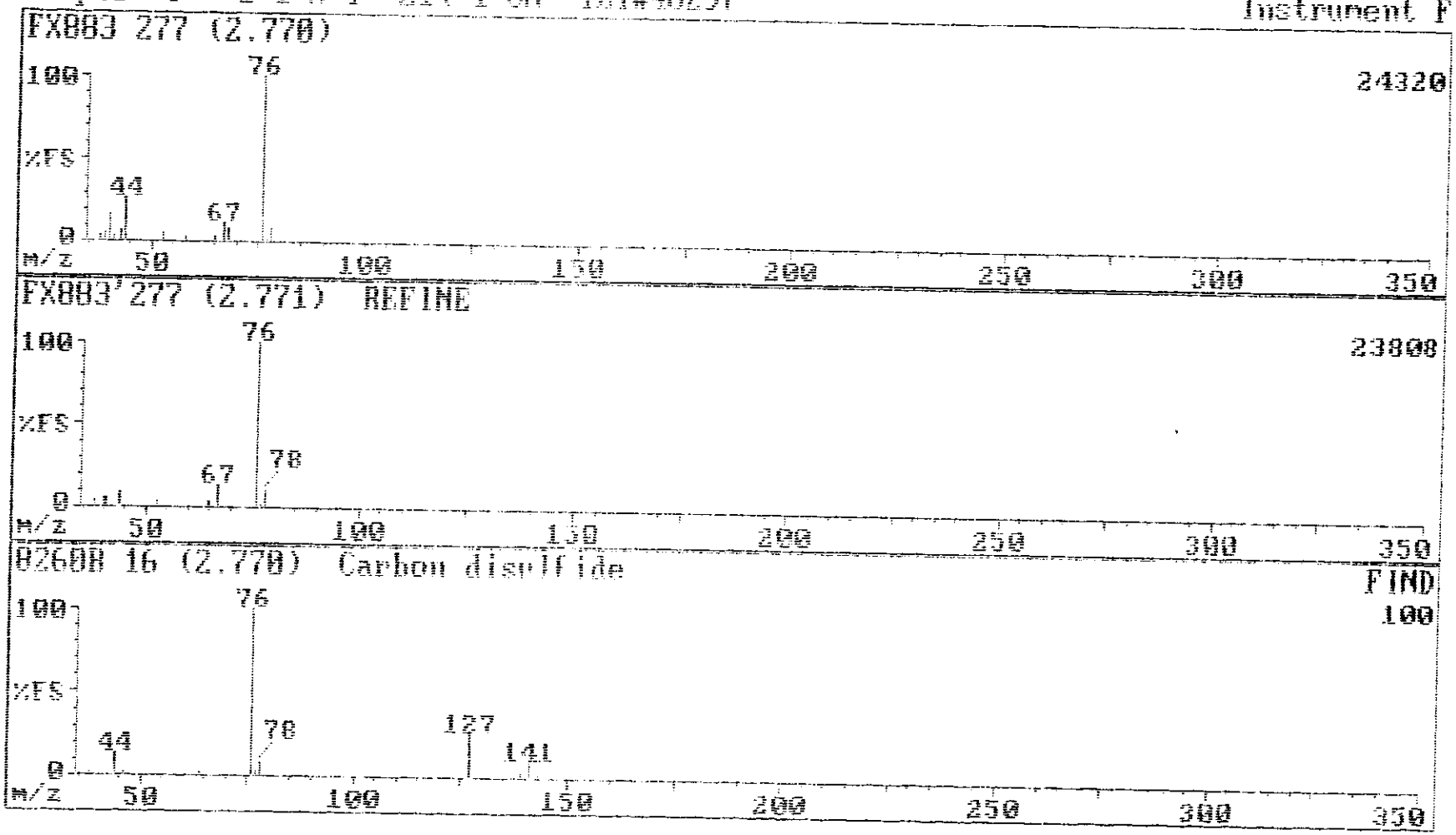
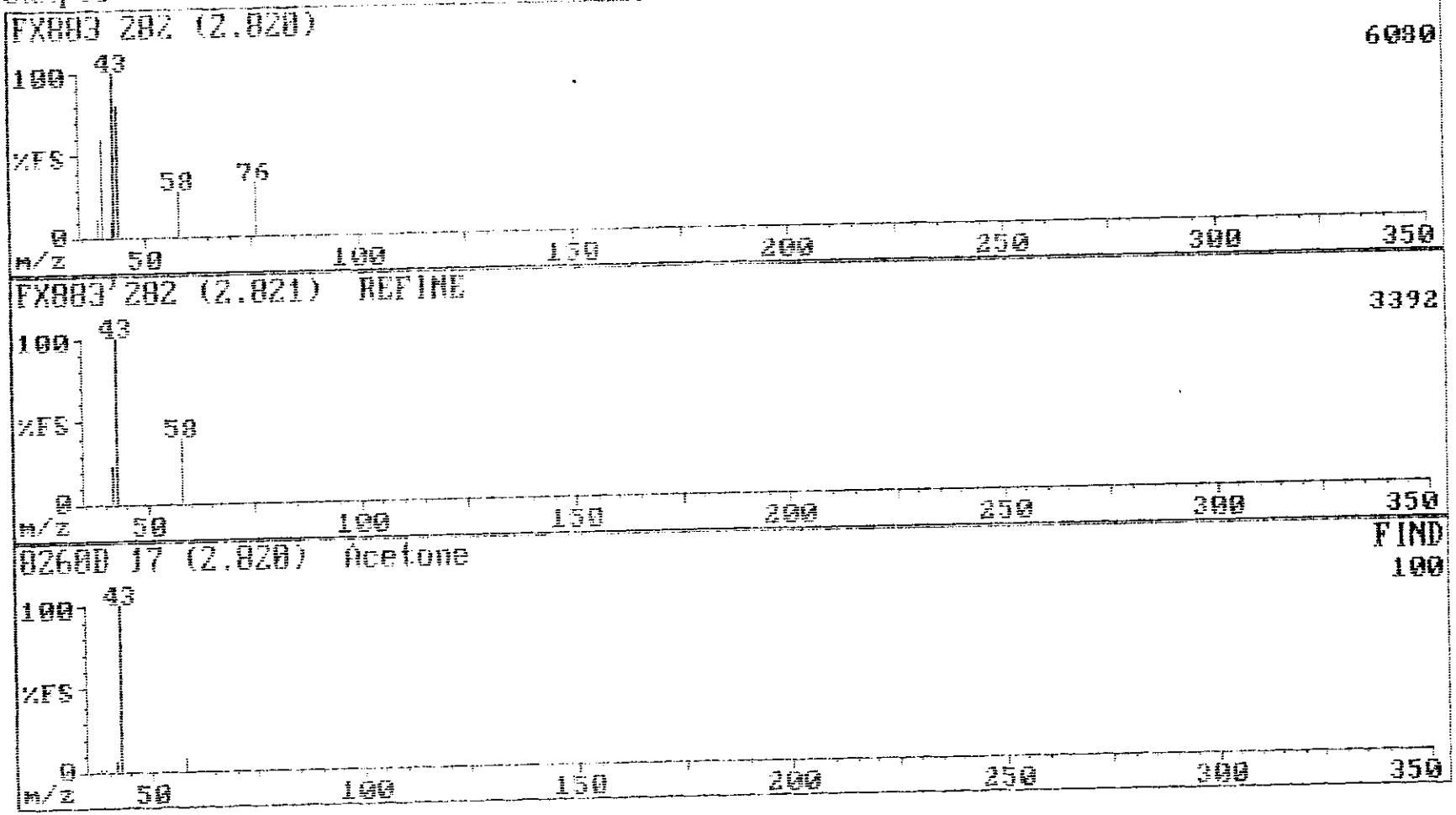
17-Aug-98 19:55 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-1-1-0 T 214-1-60 TL1#46297 Instrument F



17-Aug-98 19:55 Triangle Laboratories, Inc. (919) 544-5729

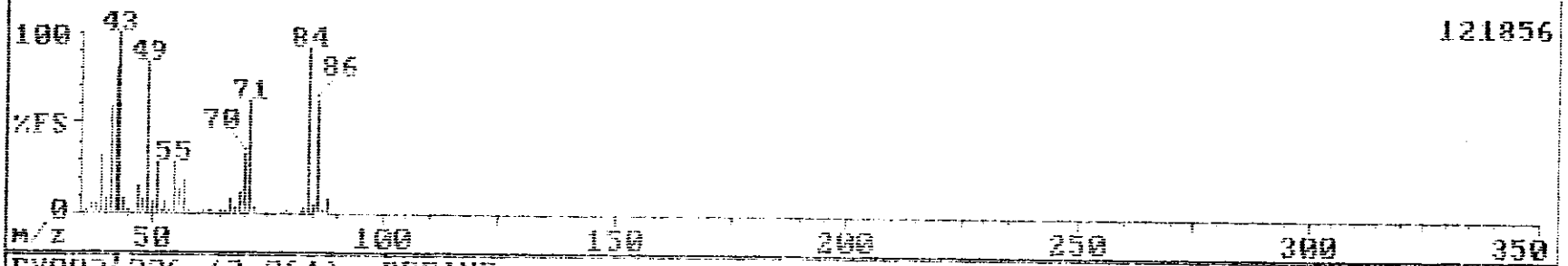
Sample: T-V-1-1-A T 214-1-6A TL1#46297 Instrument F



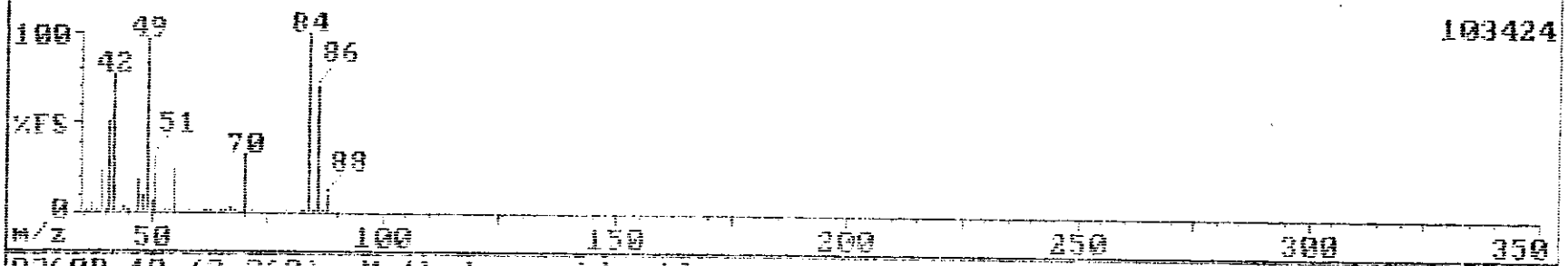
17-Aug-98 19:55 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-1-1-A T 214-1-6A TL1#16297 Instrument F

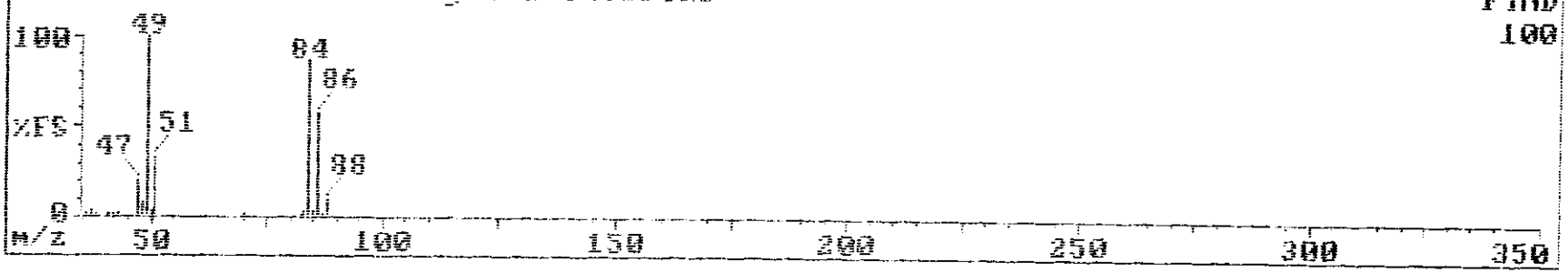
FX883 326 (3.260) 121856



FX883'326 (3.261) REFINE 103424



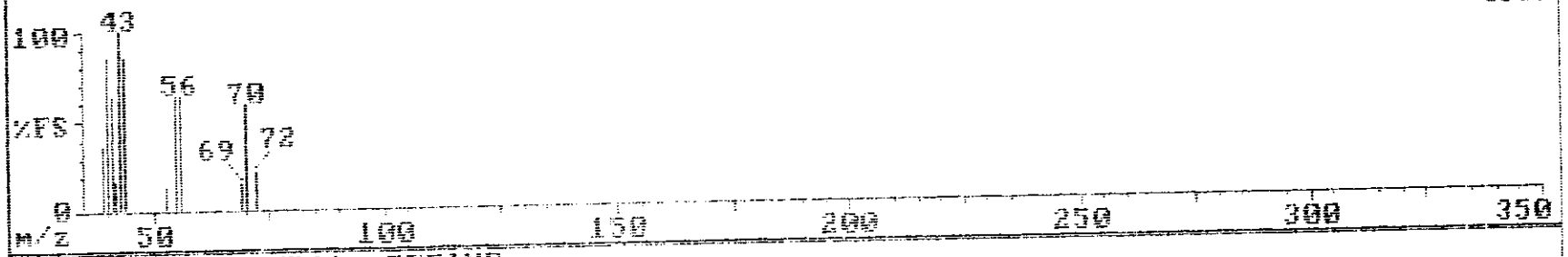
8260B 19 (3.260) Methylene chloride FIND 100



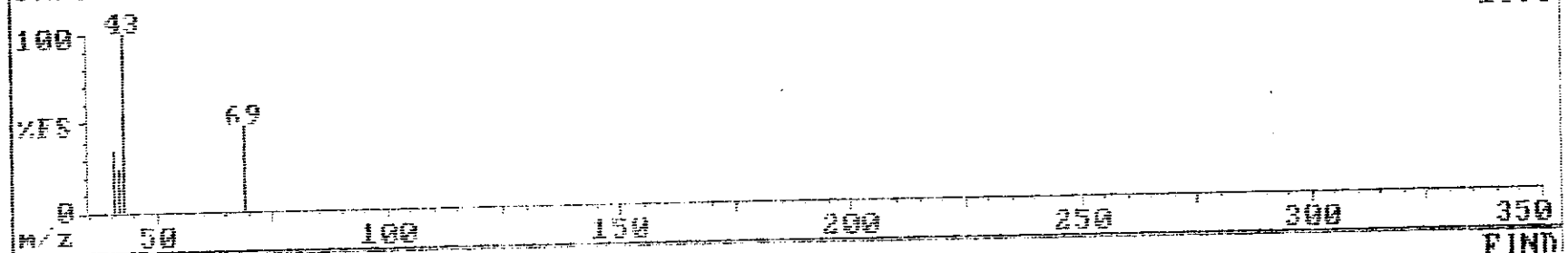
17-Aug-98 19:55 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-1-1-0 T 214-1-60 TL1#46297 Instrument F

FX883 475 (4.751) 4352

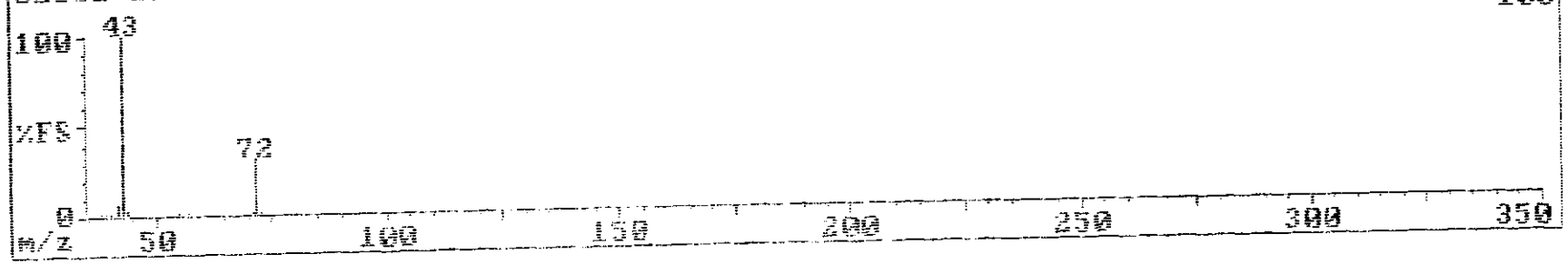


FX883'475 (4.751) REFINE 1696



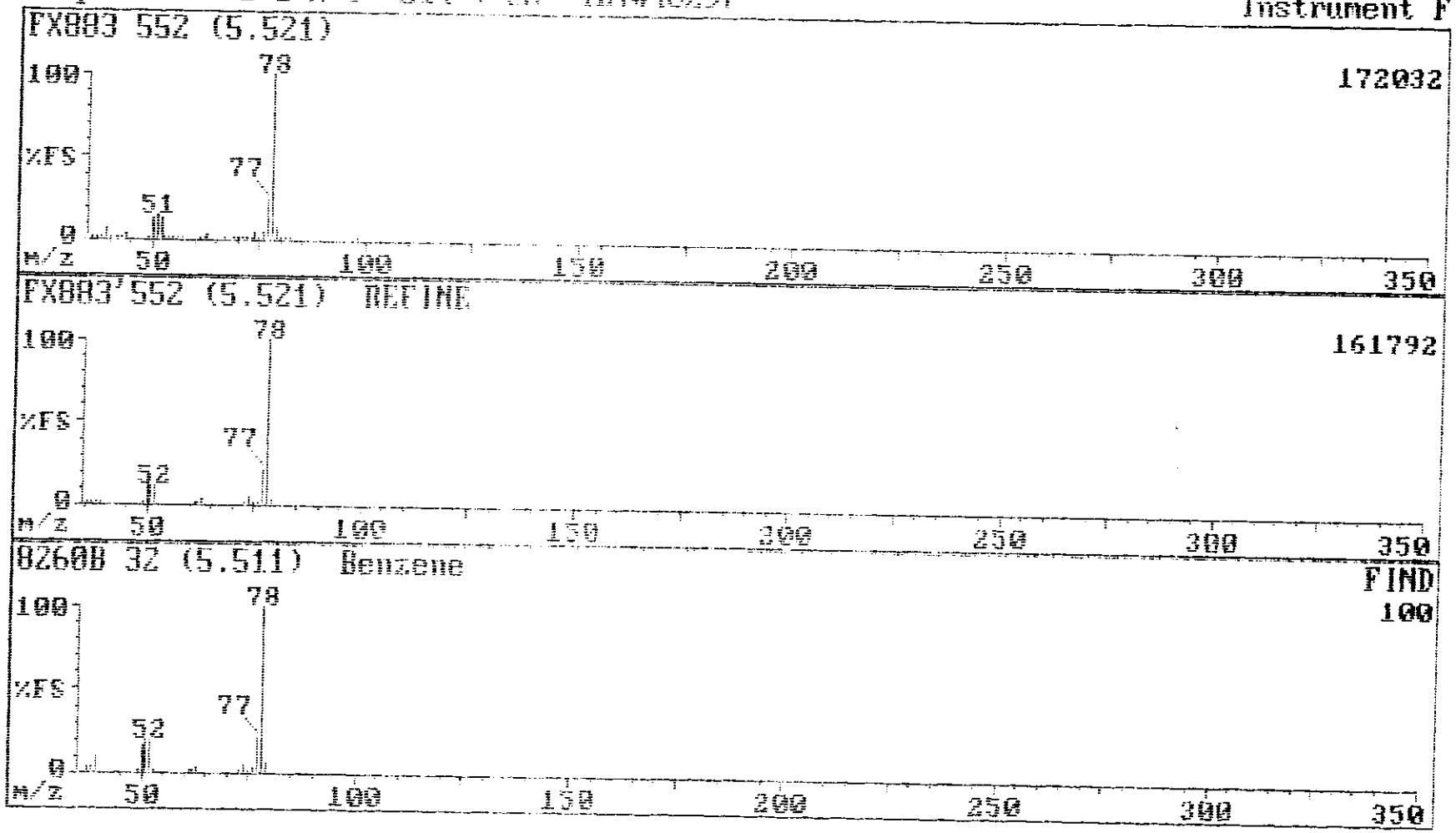
FIND

8260B 26 (4.711) 2-Butanone 100



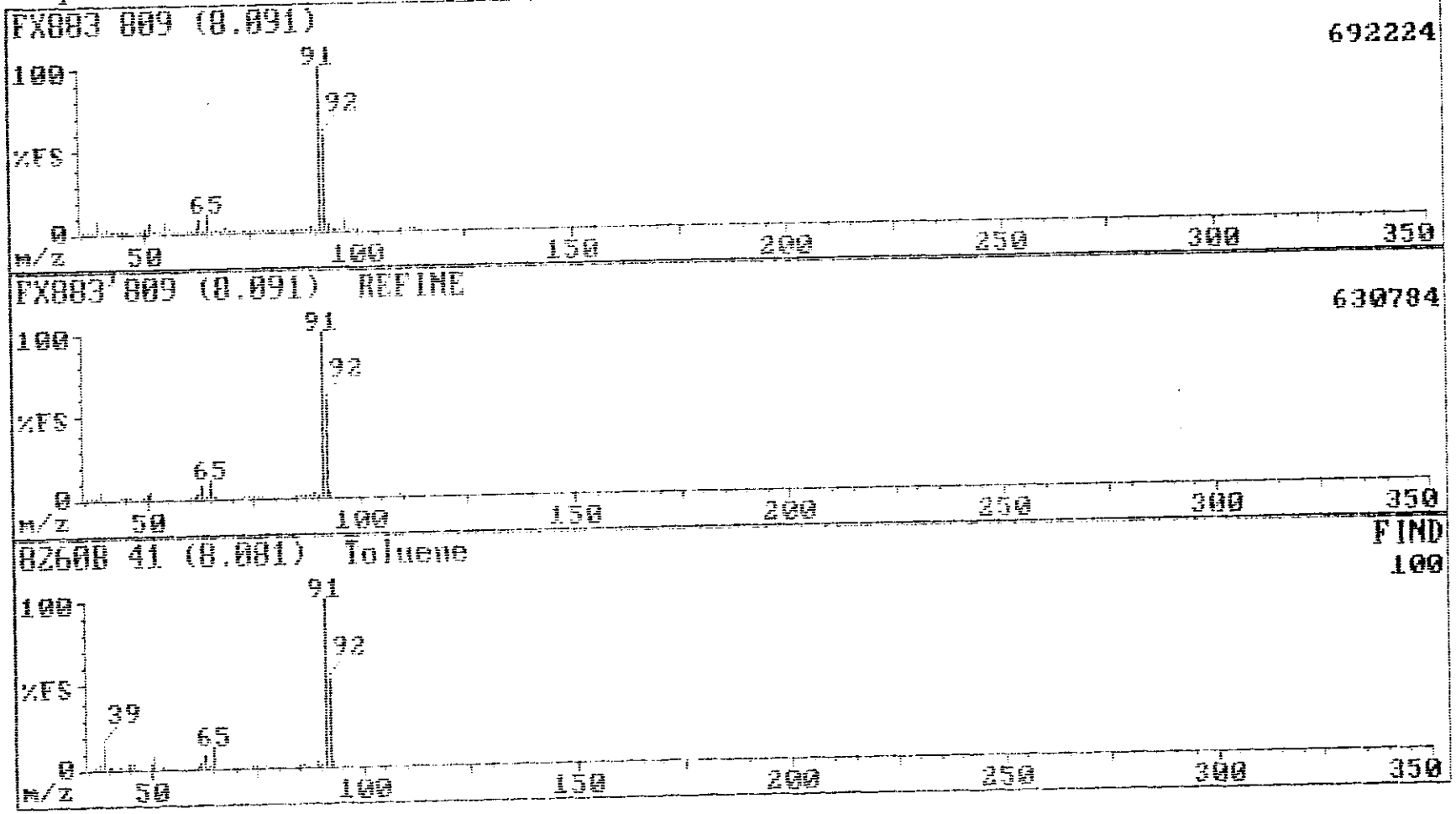
17-Aug-98 19:55 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-1-1-A T 214-1-60 TLI#46297 Instrument F



17-Aug-98 19:55 Triangle Laboratories, Inc. (919) 544-5729

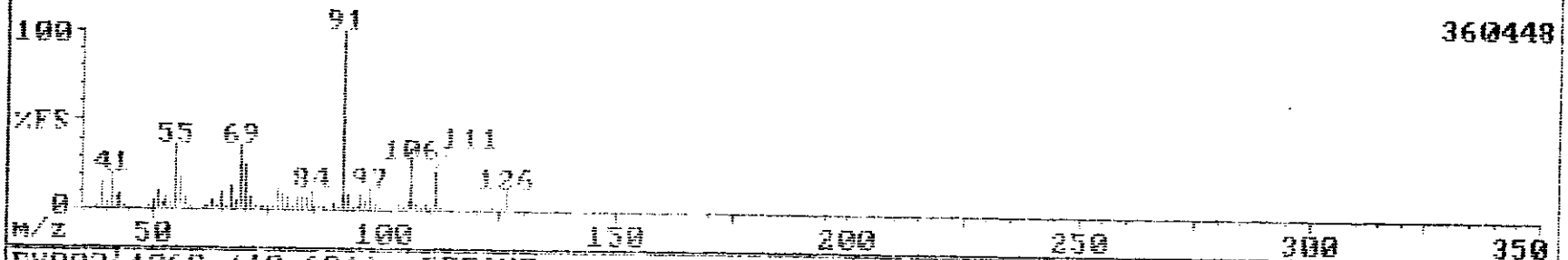
Sample: T-V-1-1-A T 214-1-6A TLI#46297 Instrument F



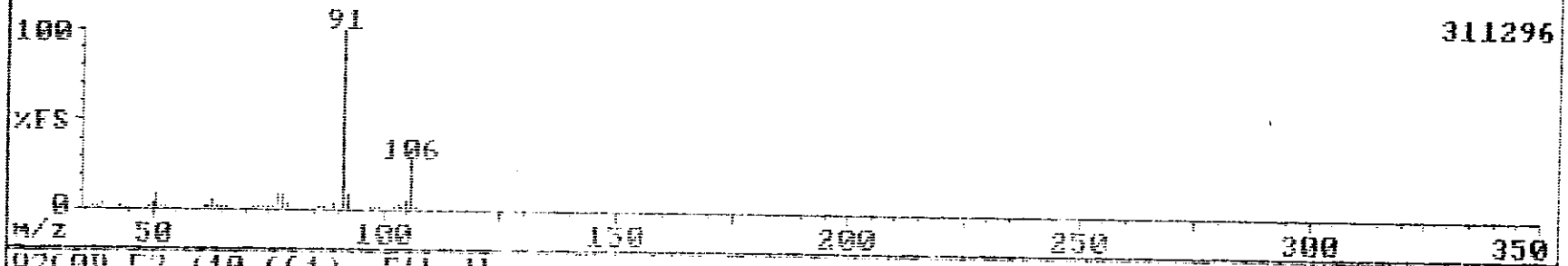
17-Aug-98 19:55 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-1-1-A T 214-1-60 TL1#46297 Instrument F

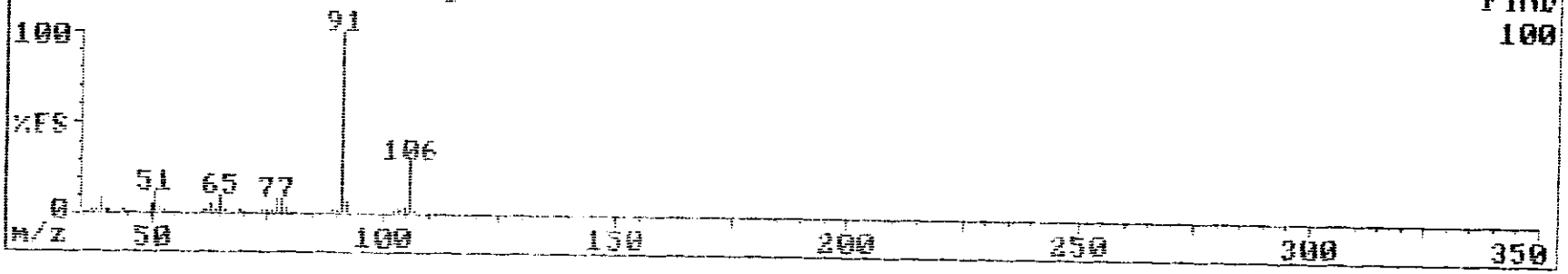
FX883 1068 (10.681)



FX883' 1068 (10.681) REFINE



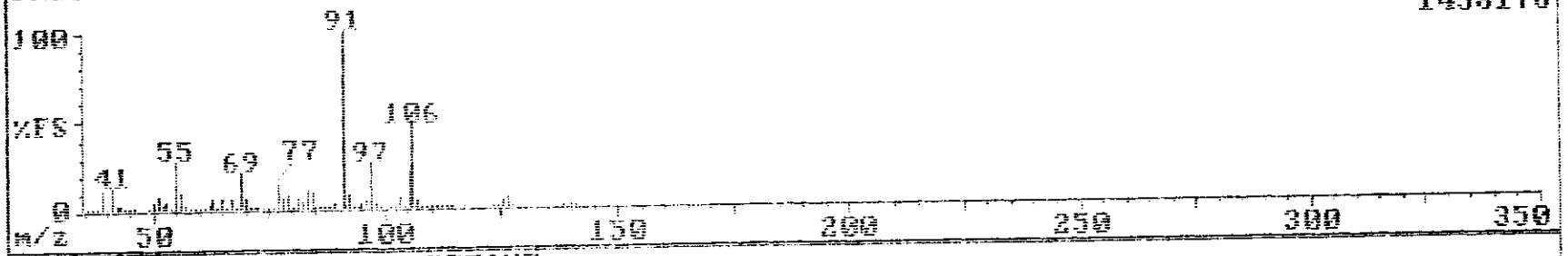
82608 52 (10.661) Ethylbenzene



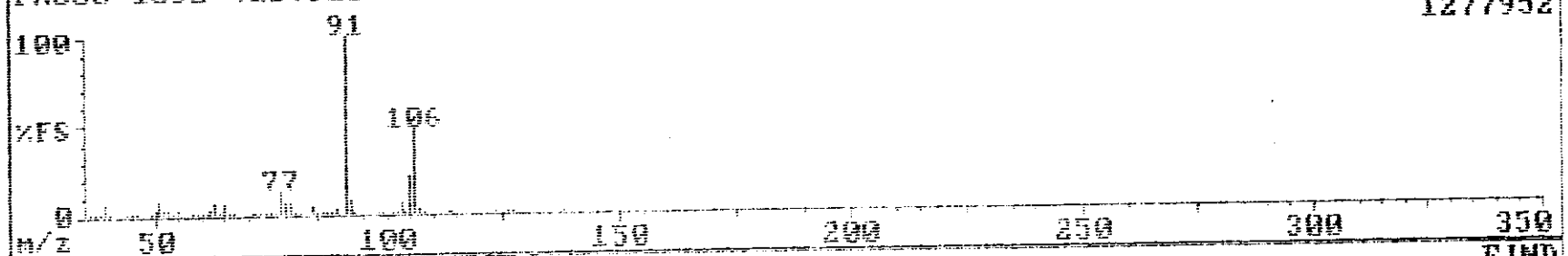
17-Aug-98 19:55 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-1-1-A T 214-1-6A TLI#46297 Instrument F

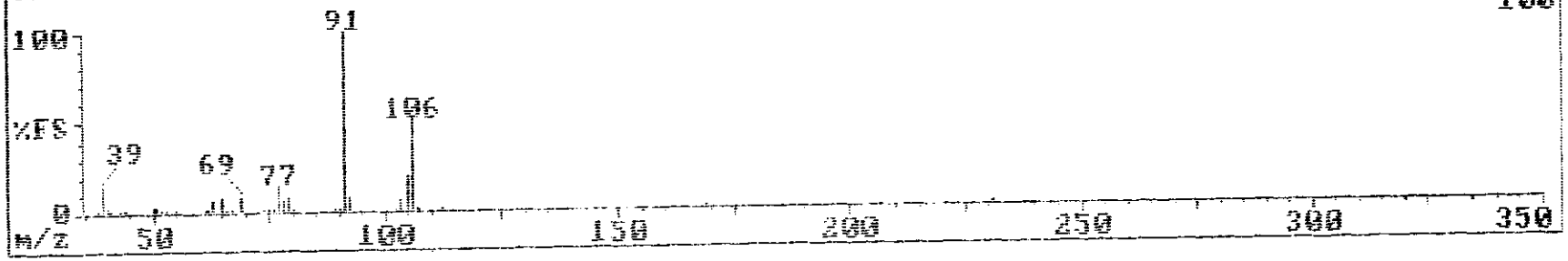
FX883 1092 (10.921) 1458176



FX883'1092 (10.921) REFINE 1277952

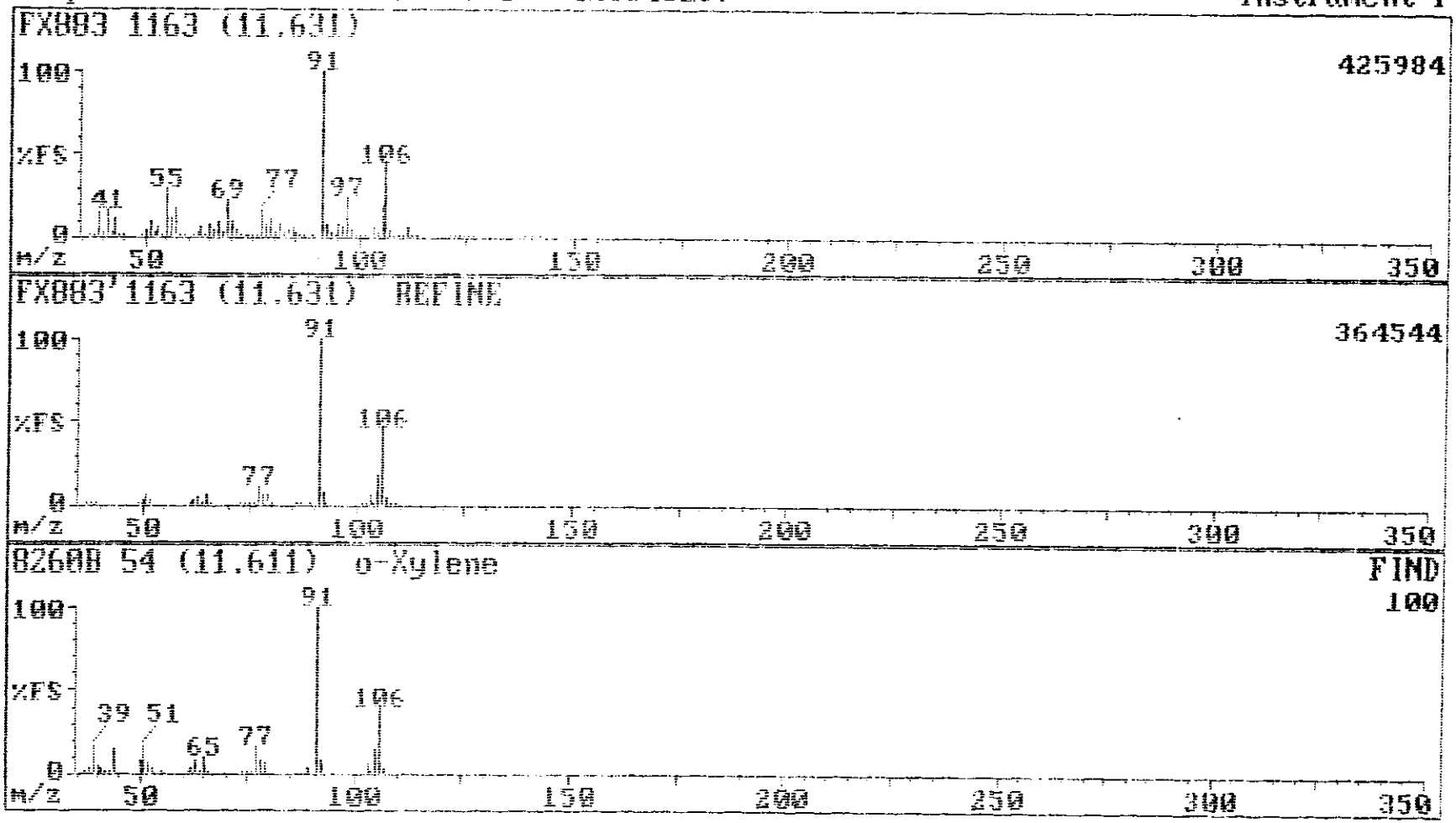


8260B 53 (10.981) m-/p-Xylene FIND 100



17-Aug-98 19:55 Triangle Laboratories, Inc. (919) 544-5729

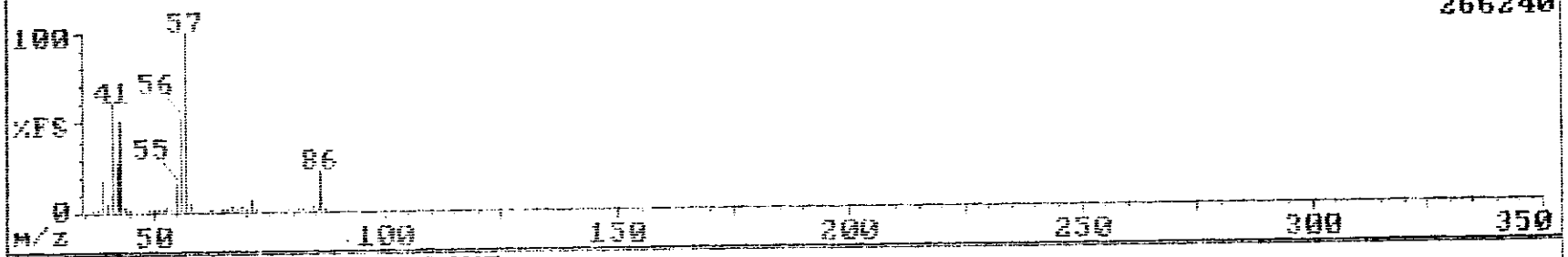
Sample: T-U-1-1-A T 214-1-60 TLI#46297 Instrument F



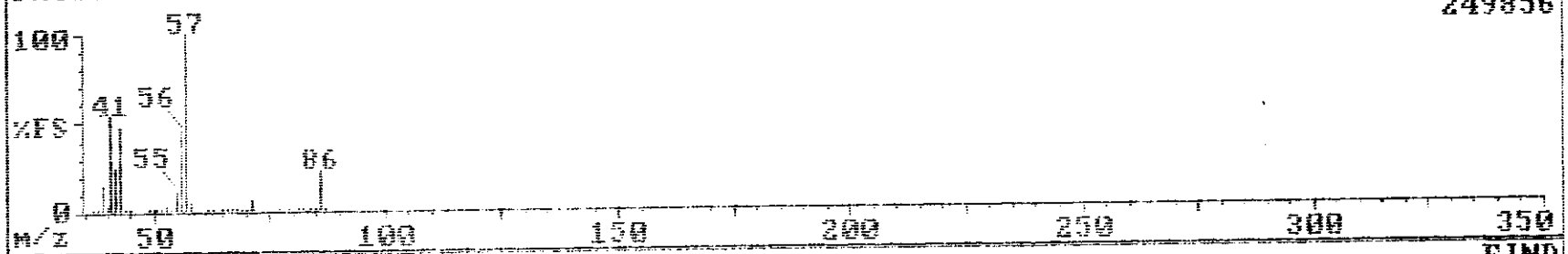
17-Aug-90 19:55 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-1-1-A T 214-1-6A TLI#46297 Instrument F

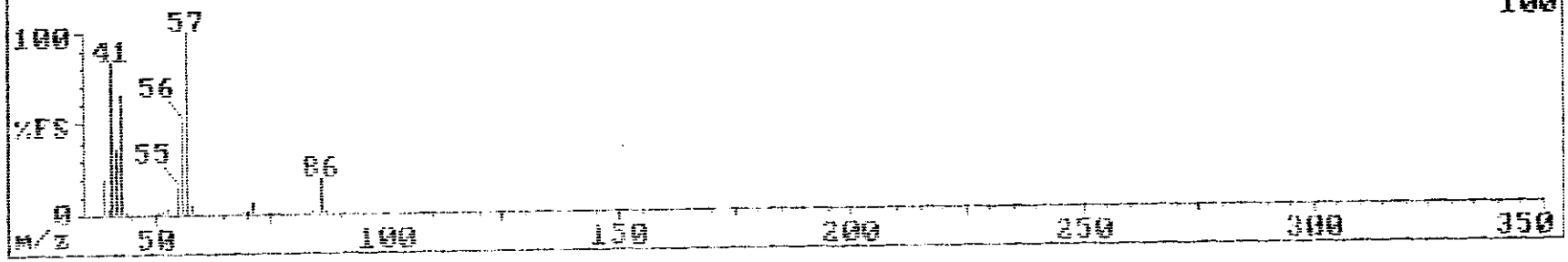
FX883 388 (3.880) 266240



FX883' 388 (3.881) REFINE 249856



826BX 11 (3.870) n-Hexane FIND 100



Pacific Environmental Services

Project Number: 46297
Sample File: FX879

Method 8260 VOST
Sample ID: T-V-1-1-B TC

Client Project: Hotmix
TLI ID: 214-1-6B

Date Received: 07/25/98

Date Analyzed : 08/17/98

Response File: ICALF814

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Pentafluorobenzene		IS 1	5.30		
Chloromethane	0.075		1.08		0.05
Vinyl Chloride		U		0.001	0.05
Bromomethane	0.056		1.65		0.05
Chloroethane		U		0.001	0.05
Trichlorofluoromethane		U		0.001	0.05
1,1-Dichloroethene		U		0.001	0.05
Iodomethane		U		0.001	0.05
Carbon disulfide		U		0.001	0.05
Acetone		U		0.004	0.05
Allyl chloride		U		0.001	0.05
Methylene chloride	0.153		3.27		0.05
Acrylonitrile		U		0.016	0.05
trans-1,2-Dichloroethene		U		0.001	0.05
1,1-Dichloroethane		U		0.001	0.05
Vinyl acetate		U		0.002	0.05
cis-1,2-Dichloroethene		U		0.001	0.05
2-Butanone		U		0.004	0.05
Chloroform		U		0.001	0.05
1,1,1-Trichloroethane		U		0.001	0.05
1,4-Difluorobenzene		IS 2	6.07		
Carbon tetrachloride		U		0.001	0.05
Benzene		U		0.001	0.05
1,2-Dichloroethane		U		0.001	0.05
Trichloroethene		U		0.001	0.05
1,2-Dichloropropane		U		0.001	0.05

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

Triangle Laboratories, Inc.
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Printed: 17:44 08/24/1998

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Pacific Environmental Services

Project Number: 46297
Sample File: FX879

Method 8260 VOST
Sample ID: T-V-1-1-B TC

Client Project: Hotmix
TLI ID: 214-1-6B

Date Received: 07/25/98
Date Analyzed : 08/17/98

Response File: ICALF814

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Methyl methacrylate		U		0.006	0.05
Bromodichloromethane		U		0.001	0.05
cis-1,3-Dichloropropene		U		0.001	0.05
4-Methyl-2-pentanone		U		0.004	0.05
Toluene	0.020	BJ	8.09		0.05
trans-1,3-Dichloropropene		U		0.001	0.05
1,1,2-Trichloroethane		U		0.002	0.05
Chlorobenzene-d_5		IS 3	10.35		
Tetrachloroethene		U		0.001	0.05
2-Hexanone		U		0.006	0.05
Dibromochloromethane		U		0.001	0.05
1,2-Dibromoethane		U		0.001	0.05
Chlorobenzene		U		0.001	0.05
Ethylbenzene		U		0.001	0.05
m-/p-Xylene		U		0.001	0.10
o-Xylene		U		0.001	0.05
Styrene		U		0.001	0.05
Bromoform		U		0.003	0.05
1,4-Dichlorobenzene-d_4		IS 4	15.71		
Cumene		U		0.001	0.05
1,1,2,2-Tetrachloroethane		U		0.003	0.05

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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Savar v3.7
Printed: 17:44 08/24/1998

Pacific Environmental Services

Project Number: 46297
Sample File: FX879

Method 8260 VOST
Sample ID: T-V-1-1-B TC

Client Project: Hotmix
TLI ID: 214-1-6B

Date Received: 07/25/98

Date Analyzed : 08/17/98

Response File: ICALF814

Surrogate Summary	Amount (ug)	RT	IS Ref	%REC
Dibromofluoromethane	0.249	5.18	1	100
Toluene-d_8	0.305	8.00	2	122
4-Bromofluorobenzene	0.282	12.65	2	113

Reviewed by YR Date 8/24/98

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

Triangle Laboratories, Inc.
801 Capitola Drive • Durham, North Carolina 27713
Phone: (919) 544-5729 • Fax: (919) 544-5491

Savar v3.7
Printed: 17:44 08/24/1998

Pacific Environmental Services

Project Number: 46297
Sample File: FX879

Method 8260 VOST
Sample ID: T-V-1-1-B TC

Client Project: Hotmix
TLI ID: 214-1-6B

Date Received: 07/25/98
Date Analyzed : 08/17/98

Response File: ICALF817

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Pentafluorobenzene		IS 1	5.30		
1,3-Butadiene		U		0.001	0.25
Vinyl bromide		U		0.001	0.25
MTBE		U		0.001	0.25
n-Hexane	0.001	J	3.90		0.25
1,2-Epoxybutane		U		0.011	0.25
Iso-Octane		U		0.001	0.25
1,4-Difluorobenzene		IS 2	6.07		
Ethyl acrylate		U		0.003	0.25

Reviewed by YR Date 8/24/98

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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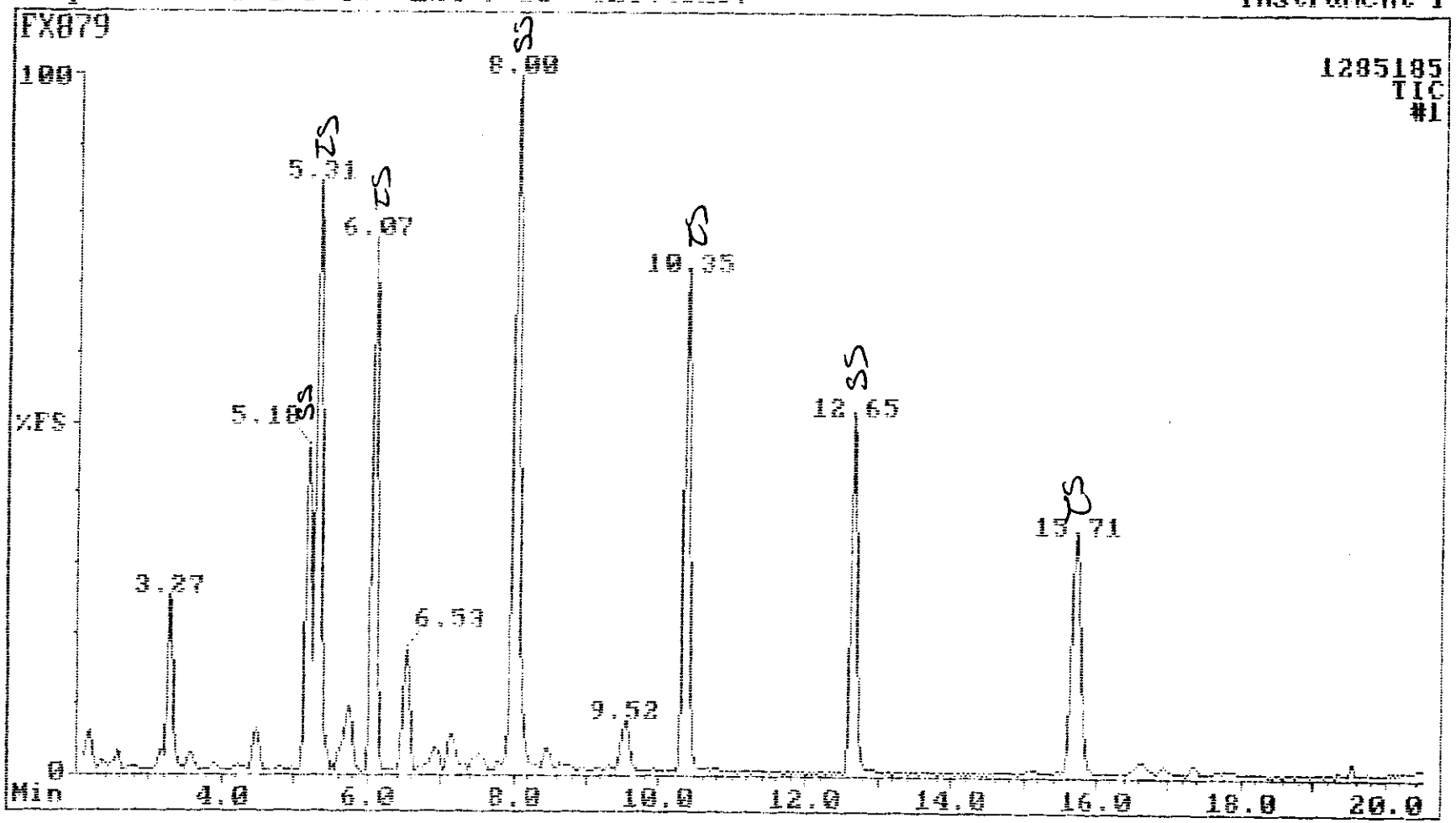
Savar v3.7
Printed: 18:00 08/24/1998

17-Aug-98 16:47 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-1-1-B TC 214-1-6B TLI#46297 Instrument F



Data Review: ML
Date: 8/19/98

QUAN DB : FX879 LAB-BAGE QUAN 17-Aug-98 12:25

No.	MAT	FOR	REV	Delta	Area	P.Flags	RT	QM	Name
1	100	78	99	1	2574448	bb	5.301	168	Pentafluorobenzene
2	100	97	99	0	2726140	bv	6.071	114	1,4-Difluorobenzene
3	100	95	95	0	2355716	bv	10.331	117	Chlorobenzene-d5
4	100	76	100	0	860176	bv	15.712	152	1,4-Dichlorobenzene-d4
5	100	84	99	0	1077964	bv	5.181	113	Dibromofluoromethane
6	100	91	97	1	3394004	bv	8.001	98	Toluene-d8
7	100	91	93	0	1044408	bv	12.651	95	4-Bromofluorobenzene
8	0	0	0	0	0		0.000	85	Dichlorodifluoromethane
9	97	77	82	1	263316	A	1.080	50	Chloromethane
10	0	0	0	0	0		0.000	62	Vinyl Chloride
11	86	62	86	3	101590	bv	1.630	94	Bromomethane
12	0	0	0	0	0		0.000	64	Chloroethane
13	0	0	0	0	0		0.000	101	Trichlorofluoromethane
14	0	0	0	0	0		0.000	96	1,1-Dichloroethene
15	0	0	0	0	0		0.000	142	Iodomethane
16	0	0	0	0	0		0.000	76	Carbon disulfide
17	39	12	85	2	~~12408~~	~~A~~	~~[illegible]~~	43	Acetone
18	0	0	0	0	0		0.000	41	Allyl chloride
19	100	76	89	0	372588	bv	3.270	84	Methylene chloride
20	7	2	9	-2	~~1584~~	~~A~~	~~[illegible]~~	53	Acrylonitrile
21	0	0	0	0	0		0.000	96	trans-1,2-Dichloroethene
22	0	0	0	0	0		0.000	63	1,1-Dichloroethane
23	0	0	0	0	0		0.000	43	Vinyl acetate
24	0	0	0	0	0		0.000	77	2,2-Dichloropropane
25	0	0	0	0	0		0.000	96	cis-1,2-Dichloroethene
26	21	13	13	4	~~4422~~	~~A~~	~~[illegible]~~	43	2-Butanone
27	0	0	0	0	0		0.000	83	Chloroform
28	0	0	0	0	0		0.000	128	Bromochloromethane
29	0	0	0	0	0		0.000	97	1,1,1-Trichloroethane
30	0	0	0	0	0		0.000	117	Carbon tetrachloride
31	0	0	0	0	0		0.000	75	1,1-Dichloropropene
32	0	0	0	0	0		0.000	78	Benzene
33	0	0	0	0	0		0.000	62	1,2-Dichloroethane
34	0	0	0	0	0		0.000	130	Trichloroethene
35	0	0	0	0	0		0.000	63	1,2-Dichloropropane
36	0	0	0	0	0		0.000	93	Dibromomethane
37	0	0	0	0	0		0.000	41	Methyl methacrylate
38	0	0	0	0	0		0.000	83	Bromodichloromethane
39	0	0	0	0	0		0.000	75	cis-1,3-Dichloropropene
40	36	4	61	5	~~21340~~	~~bv~~	~~[illegible]~~	43	4-Methyl-2-pentanone
41	100	74	92	0	158852	bb	8.091	92	Toluene
42	0	0	0	0	0		0.000	75	trans-1,3-Dichloropropene
43	0	0	0	0	0		0.000	97	1,1,2-Trichloroethane
44	0	0	0	0	0		0.000	69	Ethyl methacrylate
45	0	0	0	0	0		0.000	164	Tetrachloroethene
46	0	0	0	0	0		0.000	76	1,3-Dichloropropane
47	0	0	0	0	0		0.000	43	2-Hexanone
48	0	0	0	0	0		0.000	129	Dibromochloromethane
49	0	0	0	0	0		0.000	107	1,2-Dibromoethane
50	0	0	0	0	0		0.000	112	Chlorobenzene

FP FP FP FP

MC 8/17/98

Data Review: JM
Date: 8/19/98

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No.	MAT	FOR	REV	Delta	Area	P.Flags	RT	QM	Name
51	0	0	0	0	0		0.000	131	1,1,1,2-Tetrachloroethane
52	0	0	0	0	0		0.000	106	Ethylbenzene
53	0	0	0	0	0		0.000	106	m-/p-Xylene
54	0	0	0	0	0		0.000	106	o-Xylene
55	0	0	0	0	0		0.000	104	Styrene
56	0	0	0	0	0		0.000	173	Bromoform
57	0	0	0	0	0		0.000	105	Cumene
58	0	0	0	0	0		0.000	33	1,1,2,2-Tetrachloroethane
59	0	0	0	0	0		0.000	156	Bromobenzene
60	0	0	0	0	0		0.000	75	1,2,3-Trichloropropane
61	0	0	0	0	0		0.000	120	n-Propylbenzene
62	0	0	0	0	0		0.000	75	trans-1,4-Dichloro-2-butan
63	0	0	0	0	0		0.000	126	2-Chlorotoluene
64	0	0	0	0	0		0.000	126	4-Chlorotoluene
65	0	0	0	0	0		0.000	105	1,3,5-Trimethylbenzene
66	0	0	0	0	0		0.000	119	tert-Butylbenzene
67	0	0	0	0	0		0.000	105	1,2,4-Trimethylbenzene
68	0	0	0	0	0		0.000	105	sec-Butylbenzene
69	0	0	0	0	0		0.000	119	p-Cymene
70	0	0	0	0	0		0.000	146	1,3-Dichlorobenzene
71	0	0	0	0	0		0.000	146	1,4-Dichlorobenzene
72	0	0	0	0	0		0.000	91	Benzyl chloride
73	0	0	0	0	0		0.000	91	n-Butylbenzene
74	0	0	0	0	0		0.000	146	1,2-Dichlorobenzene
75	0	0	0	0	0		0.000	75	1,2-Dibromo-3-chloropropan
76	0	0	0	0	0		0.000	180	1,2,4-Trichlorobenzene
77	78	50	87	-4	18948	bb	19.592	225	Hexachlorobutadiene
78	0	0	0	0	0		0.000	128	Naphthalene
79	0	0	0	0	0		0.000	180	1,2,3-Trichlorobenzene

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QUAN DB : FX879 LAB-BASE QUAN 18-Aug-98 00:54

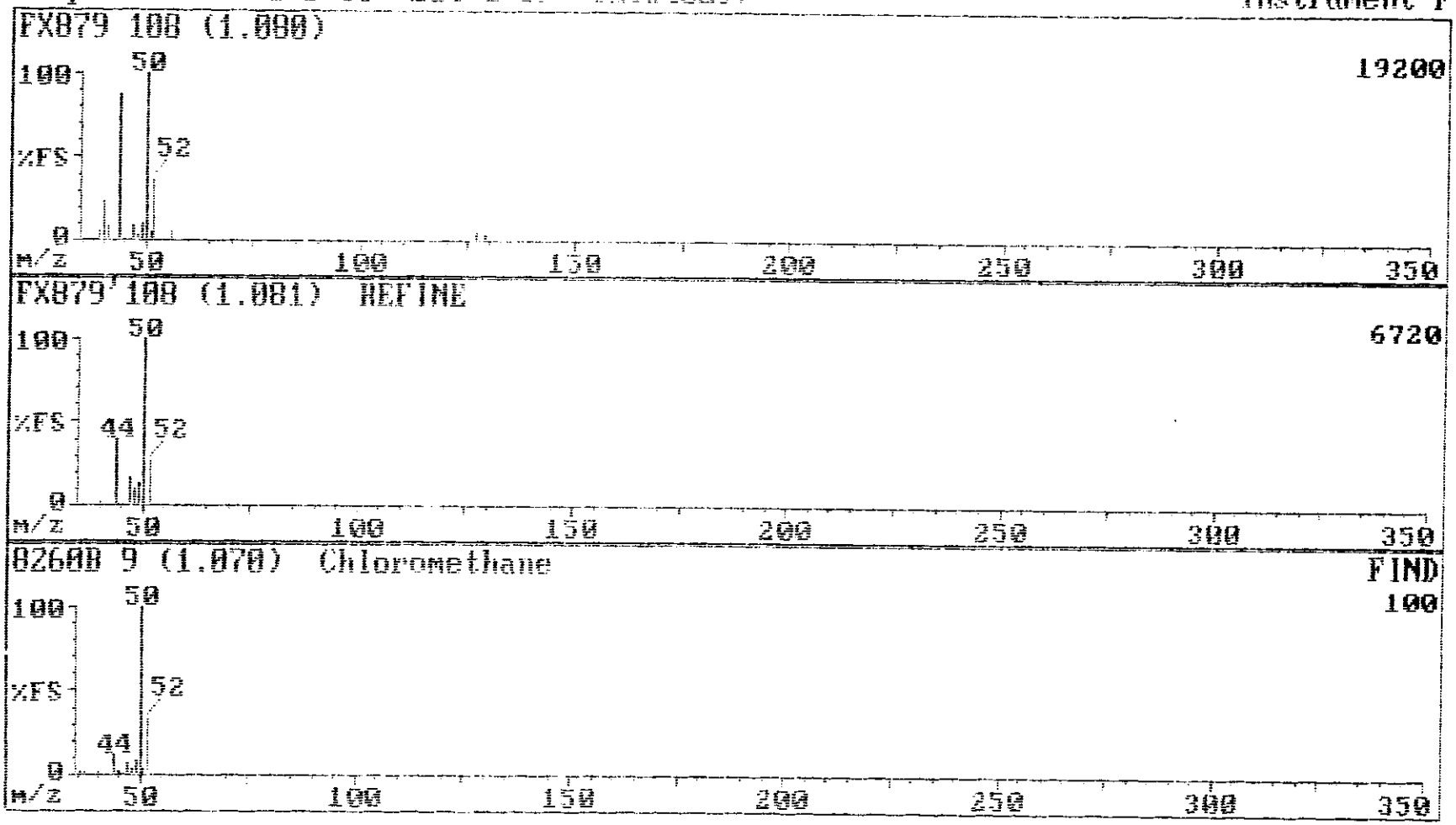
No.	MAT	FOR	REV	Delta	Area	P.Flags	RT	QM	Name
1	100	78	99	1	2574448	bb	5.301	168	Pentafluorobenzene
2	100	97	99	0	2726140	bv	6.071	114	1,4-Difluorobenzene
3	100	95	95	-1	2355716	bv	10.351	117	Chlorobenzene-d5
4	100	76	100	-2	860176	bv	15.712	152	1,4-Dichlorobenzene-d4
5	100	84	99	0	1077964	bv	5.181	113	Dibromofluoromethane
6	100	91	97	0	3394004	bv	8.001	98	Toluene-d8
7	100	91	93	-1	1044408	bv	12.651	95	4-Bromofluorobenzene
8	57	33	66	5	~~26612~~	~~vv~~	~~1.270~~ FP	39	1,3-Butadiene
9	0	0	0	0	0		0.000	106	Vinyl bromide
10	57	40	55	4	~~8612~~	~~A~~	~~3.650~~ FP	73	MTBE
11	69	57	59	2	17896	bb	3.900	57	n-Hexane
12	55	48	62	13	~~23408~~	~~A~~	~~4.470~~ FP	42	1,2-Epoxybutane
13	64	47	57	1	~~[illegible]~~	~~A~~	~~[illegible]~~ FP	57	Iso-Octane
14	44	28	69	-12	~~[illegible]~~	~~bb~~	~~6.531~~ FP	55	Ethyl acrylate

WR 8/19/98

54

17-Aug-98 16:47 Triangle Laboratories, Inc. (919) 544-5729

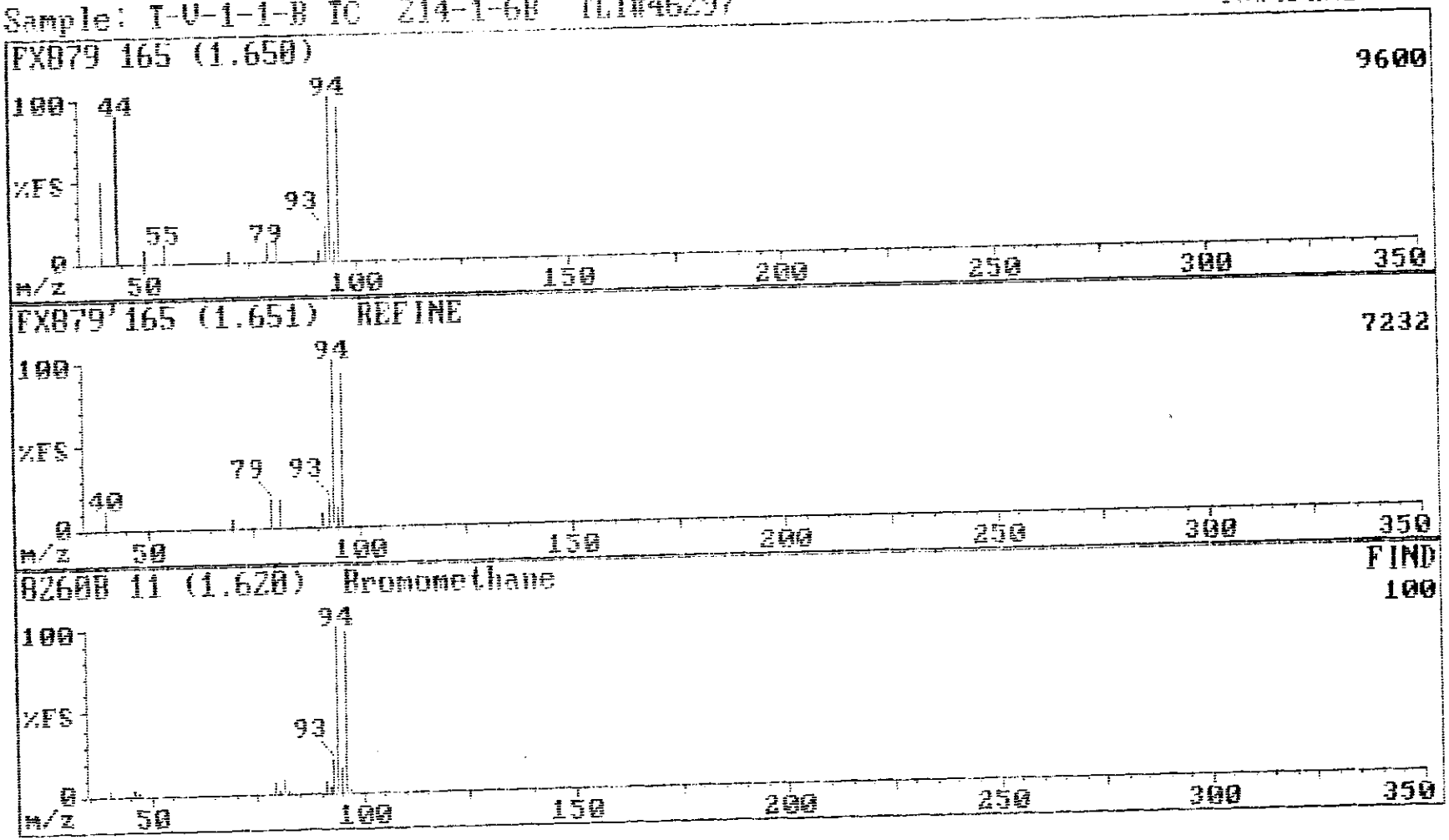
Sample: T-V-1-1-B TC 214-1-6B TLI#46297 Instrument F



17-Aug-98 16:47 Triangle Laboratories, Inc. (919) 544-5729

Instrument F

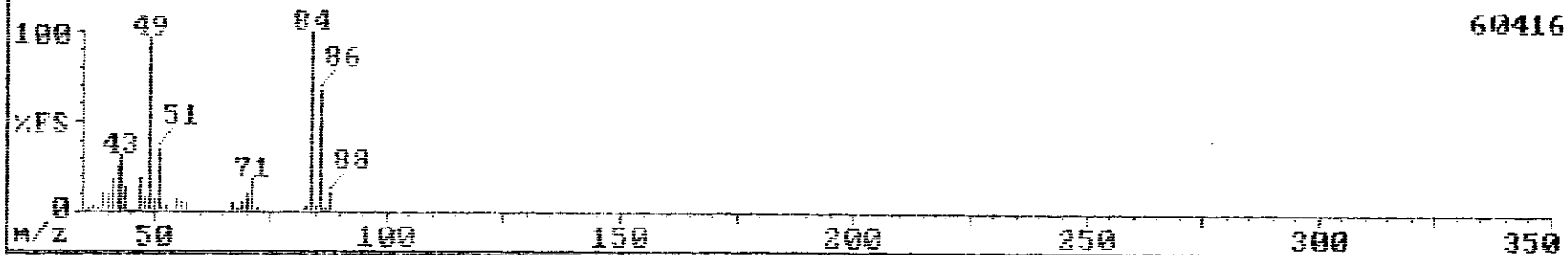
Sample: T-V-1-1-B TC 214-1-6B TLI#46297



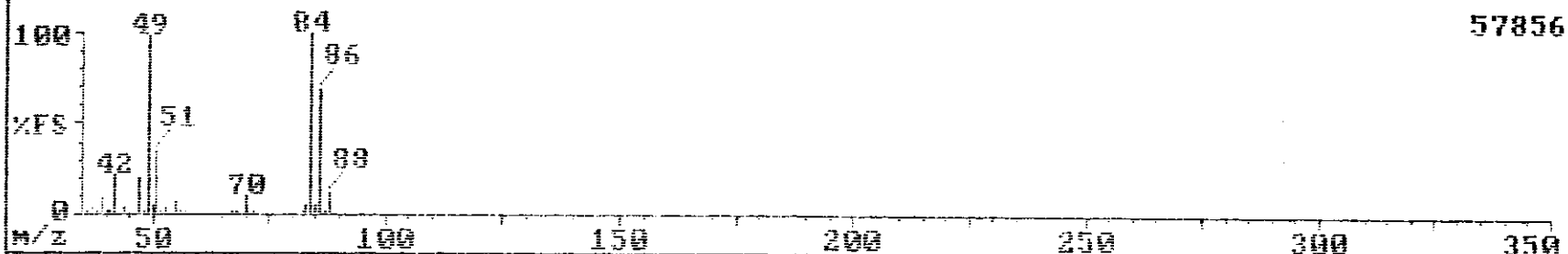
17-Aug-98 16:47 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-1-1-B TC Z14-1-6B TLI#46297 Instrument F

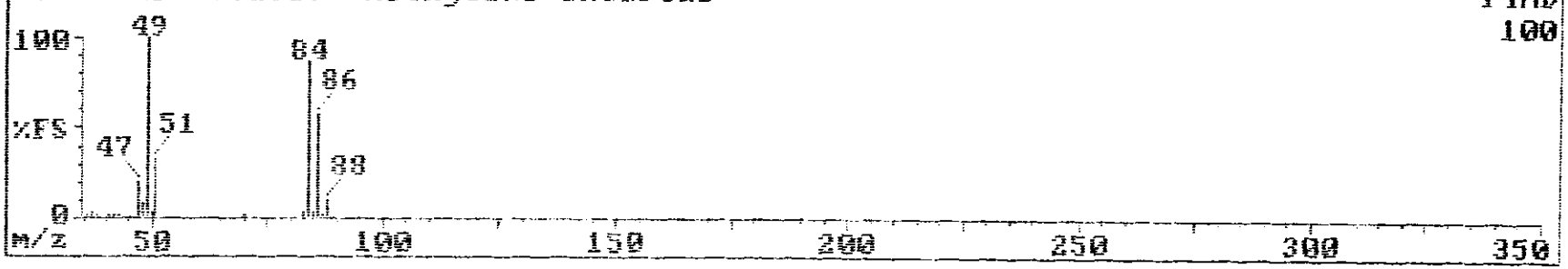
FX879 327 (3.270) 60416



FX879 327 (3.271) REFINE 57856

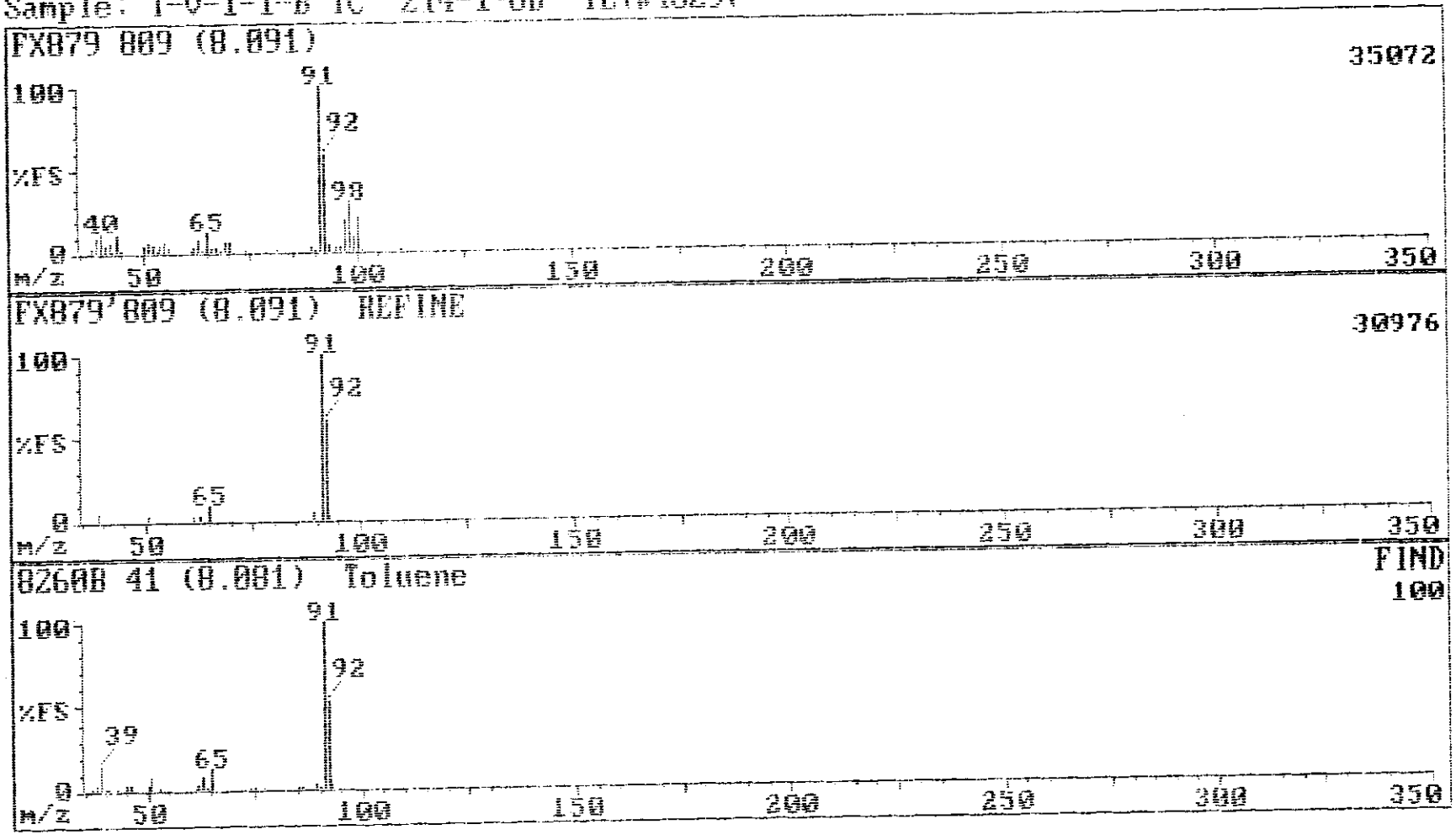


8260B 19 (3.268) Methylene chloride FIND 100



17-Aug-98 16:47 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-1-1-B TC 214-1-6B TLI#46297 Instrument F



7/14/86 16:47
Sample: 1-0-1-1-1-0
Instrument 1
Z/5
0
25
50
75
100
%TS
%EC
%TC
%VOLA
%VOLC
%VOLT
0
25
50
75
100
%TS
%EC
%TC
%VOLA
%VOLC
%VOLT
0
25
50
75
100
%TS
%EC
%TC
%VOLA
%VOLC
%VOLT
350
300
250
200
150
100
50
0
FIND
100
2592
4736

Pacific Environmental Services

Project Number: 46297
Sample File: FX895

Method 8260 VOST
Sample ID: T-V-1-2-A T

Client Project: Hotmix
TLI ID: 214-1-7A

Date Received: 07/25/98
Date Analyzed : 08/18/98

Response File: ICALF814

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Pentafluorobenzene		IS 1	5.30		
Chloromethane		U		0.001	0.05
Vinyl Chloride		U		0.001	0.05
Bromomethane	0.007	J	1.61		0.05
Chloroethane		U		0.001	0.05
Trichlorofluoromethane		U		0.001	0.05
1,1-Dichloroethene		U		0.001	0.05
Iodomethane		U		0.001	0.05
Carbon disulfide	0.013	J	2.78		0.05
Acetone	0.204		2.82		0.05
Allyl chloride		U		0.001	0.05
Methylene chloride	0.078		3.27		0.05
Acrylonitrile		U		0.017	0.05
trans-1,2-Dichloroethene		U		0.001	0.05
1,1-Dichloroethane		U		0.001	0.05
Vinyl acetate		U		0.002	0.05
cis-1,2-Dichloroethene		U		0.001	0.05
2-Butanone		U		0.004	0.05
Chloroform		U		0.001	0.05
1,1,1-Trichloroethane		U		0.001	0.05
1,4-Difluorobenzene		IS 2	6.07		
Carbon tetrachloride		U		0.001	0.05
Benzene	0.129	B	5.52		0.05
1,2-Dichloroethane		U		0.001	0.05
Trichloroethene		U		0.001	0.05
1,2-Dichloropropane		U		0.001	0.05

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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Printed: 18:03 08/24/1998

Pacific Environmental Services

Project Number: 46297
Sample File: FX895

Method 8260 VOST
Sample ID: T-V-1-2-A T

Client Project: Hotmix
TLI ID: 214-1-7A

Date Received: 07/25/98
Date Analyzed : 08/18/98

Response File: ICALF814

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Methyl methacrylate		U		0.006	0.05
Bromodichloromethane		U		0.001	0.05
cis-1,3-Dichloropropene		U		0.001	0.05
4-Methyl-2-pentanone		U		0.005	0.05
Toluene	0.377	B	8.10		0.05
trans-1,3-Dichloropropene		U		0.001	0.05
1,1,2-Trichloroethane		U		0.002	0.05
Chlorobenzene-d_5		IS 3	10.36		
Tetrachloroethene	0.054		8.93		0.05
2-Hexanone		U		0.006	0.05
Dibromochloromethane		U		0.001	0.05
1,2-Dibromoethane		U		0.001	0.05
Chlorobenzene		U		0.001	0.05
Ethylbenzene	0.128		10.68		0.05
m-/p-Xylene	0.677		10.92		0.10
o-Xylene	0.235		11.64		0.05
Styrene		U		0.001	0.05
Bromoform		U		0.003	0.05
1,4-Dichlorobenzene-d_4		IS 4	15.77		
Cumene		U		0.001	0.05
1,1,2,2-Tetrachloroethane		U		0.002	0.05

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Printed: 18:03 08/24/1998

Pacific Environmental Services

Project Number: 46297
Sample File: FX895

Method 8260 VOST
Sample ID: T-V-1-2-A T

Client Project: Hotmix
TLI ID: 214-1-7A

Date Received: 07/25/98
Date Analyzed : 08/18/98

Response File: ICALF814

Surrogate Summary	Amount (ug)	RT	IS Ref	%REC
Dibromofluoromethane	0.229	5.18	1	92
Toluene-d_8	0.350	8.00	2	140
4-Bromofluorobenzene	0.425	12.66	2	170

Reviewed by YR Date 8/24/98

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IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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Printed: 18:03 08/24/1998

Pacific Environmental Services

Project Number: 46297
Sample File: FX895

Method 8260 VOST
Sample ID: T-V-1-2-A T

Client Project: Hotmix
TLI ID: 214-1-7A

Date Received: 07/25/98
Date Analyzed : 08/18/98

Response File: ICALF818

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Pentafluorobenzene		IS 1	5.30		
1,3-Butadiene		U		0.001	0.25
Vinyl bromide		U		0.001	0.25
MTBE		U		0.001	0.25
n-Hexane	0.147	J	3.89		0.25
1,2-Epoxybutane		U		0.015	0.25
Iso-Octane		U		0.001	0.25
1,4-Difluorobenzene		IS 2	6.07		
Ethyl acrylate		U		0.004	0.25

Reviewed by VR Date 8/24/98

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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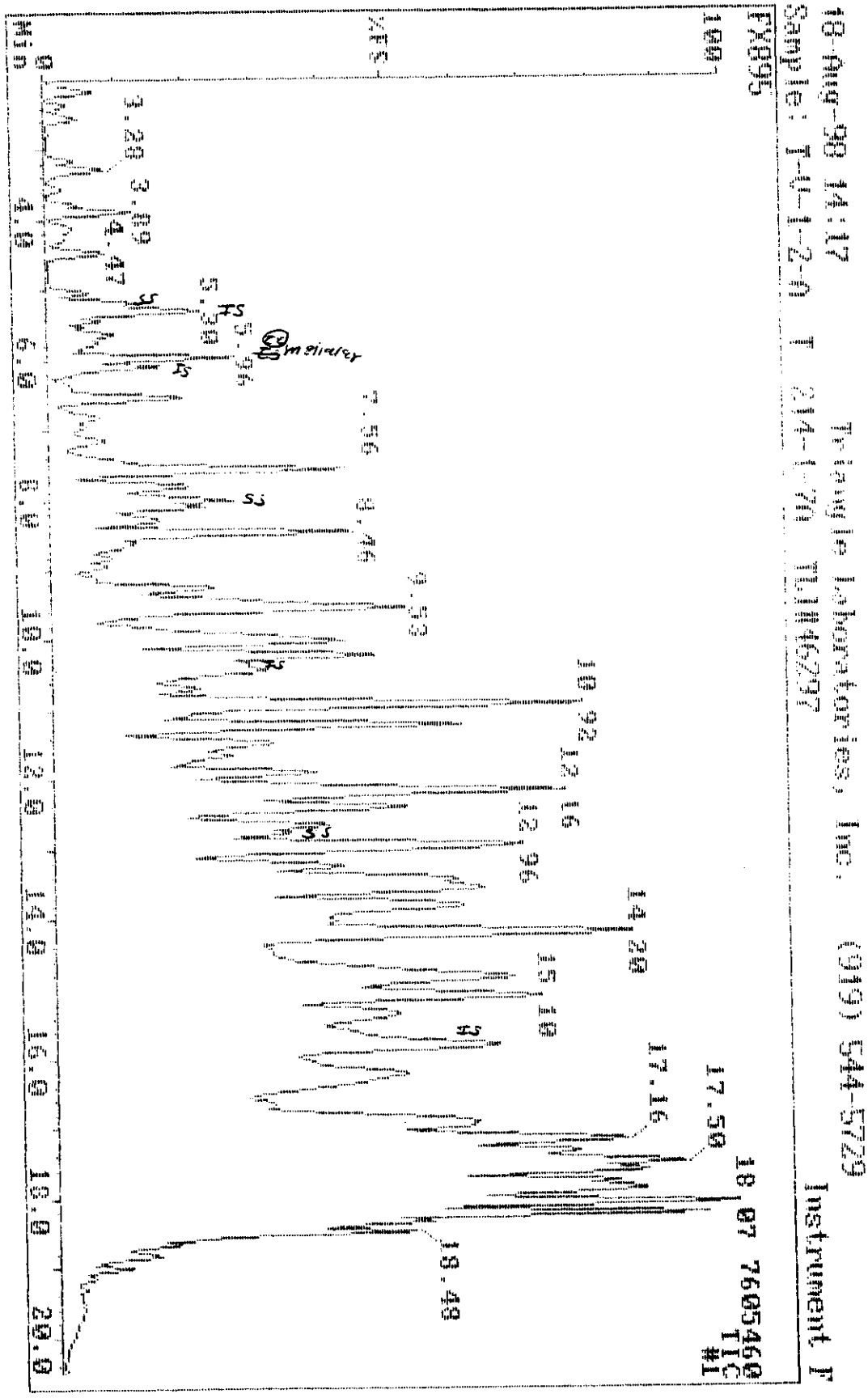
Printed: 18:00 08/24/1998



Data Review: YR
Date: 8/19/97

QUAN DB : FX895 LAB-BASE QUAN 13-Aug-98 12:47

No.	MAT	FOR	REV	Delta	Area	P.Flags	RT	QM	Name
1	93	96	94	1	2483712	bb	5.301	168	Pentafluorobenzene
2	100	83	95	0	2639904	bv	6.037	114	1,4-Difluorobenzene
3	83	57	79	1	2522196	bv	10.601	117	Chlorobenzene-d5
4	52	14	71	4	1211712	bv	15.772	152	1,4-Dichlorobenzene-d4
5	93	49	99	0	956260	bv	5.181	113	Dibromofluoromethane
6	96	70	88	1	3770622	bv	8.001	98	Toluene-d8
7	62	38	63	1	1525120	vv	12.661	95	4-Bromofluorobenzene
8	0	0	0	0	0		0.000	85	Dichlorodifluoromethane
9	0	0	0	0	0		0.000	50	Chloromethane
10	0	0	0	0	0		0.000	62	Vinyl chloride
11	53	34	90	-1	1259[illegible]	A	1.540	94	Bromomethane
12	0	0	0	0	0		0.000	64	Chloroethane
13	0	0	0	0	0		0.000	101	Trichlorofluoromethane
14	0	0	0	0	0		0.000	84	1,1-Dichloroethene
15	0	0	0	0	0		0.000	142	Iodomethane
16	67	40	74	1	1120[illegible]	bb	2.430	76	Carbon disulfide
17	42	63	92	1	9[illegible]	vv	2.820	43	Acetone
18	0	0	0	0	0		0.000	44	Allyl chloride
19	0	0	0	0	181336		~~[illegible]~~ 327	84	Methylene chloride
20	30	[illegible]	79	-5	~~[illegible]~~		~~[illegible]~~ FP	53	Acrylonitrile
21	0	0	0	0	0		0.000	96	trans-1,2-Dichloroethene
22	0	0	0	0	0		0.000	63	1,1-Dichloroethane
23	0	0	0	0	0		0.000	43	Vinyl acetate
24	0	0	0	0	0		0.000	73	2,2-Dichloropropane
25	0	0	0	0	0		0.000	96	cis-1,2-Dichloroethene
26	79	9	70	1	~~[illegible]~~	bv	~~[illegible]~~ FP	43	2-Butanone
27	0	0	0	0	0		0.000	83	Chloroform
28	0	0	0	0	0		0.000	129	Bromochloromethane
29	0	0	0	0	0		0.000	97	1,1,1-Trichloroethane
30	0	0	0	0	0		0.000	117	Carbon tetrachloride
31	0	0	0	0	0		0.000	75	1,1-Dichloropropene
32	100	92	99	0	1323264	bv	5.521	78	Benzene
33	0	0	0	0	0		0.000	62	1,2-Dichloroethane
34	0	0	0	0	0		0.000	130	Trichloroethene
35	0	0	0	0	0		0.000	63	1,2-Dichloropropane
36	0	0	0	0	0		0.000	93	Dibromomethane
37	47	45	56	-11	~~[illegible]~~		~~[illegible]~~ FP	41	Methyl methacrylate
38	0	0	0	0	0		0.000	83	Bromodichloromethane
39	0	0	0	0	0		0.000	75	cis-1,3-Dichloropropene
40	35	32	68	-19	~~[illegible]~~		~~[illegible]~~ FP	43	4-Methyl-2-pentanone
41	100	83	99	1	2860720	vv	8.101	92	Toluene
42	0	0	0	0	0		0.000	75	trans-1,3-Dichloropropene
43	0	0	0	0	0		0.000	97	1,1,2-Trichloroethane
44	0	0	0	0	0		0.000	69	Ethyl methacrylate
45	67	65	77	-1	236300	bb	8.931	164	Tetrachloroethene
46	0	0	0	0	0		0.000	76	1,3-Dichloropropane
47	42	74	64	-10	~~[illegible]~~		~~[illegible]~~ FP	43	2-Hexanone
48	0	0	0	0	0		0.000	129	Dibromochloromethane
49	0	0	0	0	0		0.000	107	1,2-Dibromoethane
50	0	0	0	0	0		0.000	112	Chlorobenzene

Data Review: M
Date: 8/19/98

65

No.	MAT	FOR	REV	Delta	Area	P.Flags	RT	QM	Name
51	0	0	0	0	0		0.000	131	1,1,1,2-Tetrachloroethane
52	85	54	86	-1	726255	bv	10.631	106	Ethylbenzene
53	96	67	90	-1	4729632	vv	10.921	106	m-/p-Xylene
54	92	62	89	0	1569024	bv	11.041	106	o-Xylene
55	0	0	0	0	0		0.000	104	Styrene
56	0	0	0	0	0		0.000	173	Bromoform
57	0	0	0	0	0		0.000	105	Cumene
58	0	0	0	0	0		0.000	83	1,1,2,2-Tetrachloroethane
59	0	0	0	0	0		0.000	156	Bromobenzene
60	0	0	0	0	0		0.000	75	1,2,3-Trichloropropane
61	0	0	0	0	0		0.000	120	n-Propylbenzene
62	0	0	0	0	0		0.000	75	trans-1,4-Dichloro-2-butene
63	0	0	0	0	0		0.000	126	2-Chlorotoluene
64	0	0	0	0	0		0.000	126	4-Chlorotoluene
65	38	45	95	-25	3368411	vv	13.601	105	1,3,5-Trimethylbenzene
66	0	0	0	0	0		0.000	177	tert-Butylbenzene
67	87	57	94	-2	9117632	bv	13.255	105	1,2,4-Trimethylbenzene
68	39	10	56	-2	[illegible]		[illegible]	105	sec-Butylbenzene
69	0	0	0	0	0		0.000	146	p-Isopropyltoluene
70	0	0	0	0	0		0.000	146	1,3-Dichlorobenzene
71	0	0	0	0	0		0.000	146	1,4-Dichlorobenzene
72	0	0	0	0	0		0.000	91	Benzyl chloride
73	0	0	0	0	0		0.000	91	n-Butylbenzene
74	0	0	0	0	0		0.000	146	1,2-Dichlorobenzene
75	0	0	0	0	0		0.000	75	1,2-Dibromo-3-chloropropane
76	0	0	0	0	0		0.000	180	1,2,4-Trichlorobenzene
77	0	0	0	0	0		0.000	225	Hexachlorobutadiene
78	0	0	0	0	0		0.000	128	Naphthalene
79	0	0	0	0	0		0.000	180	1,2,3-Trichlorobenzene

FP

YR 8/19/98

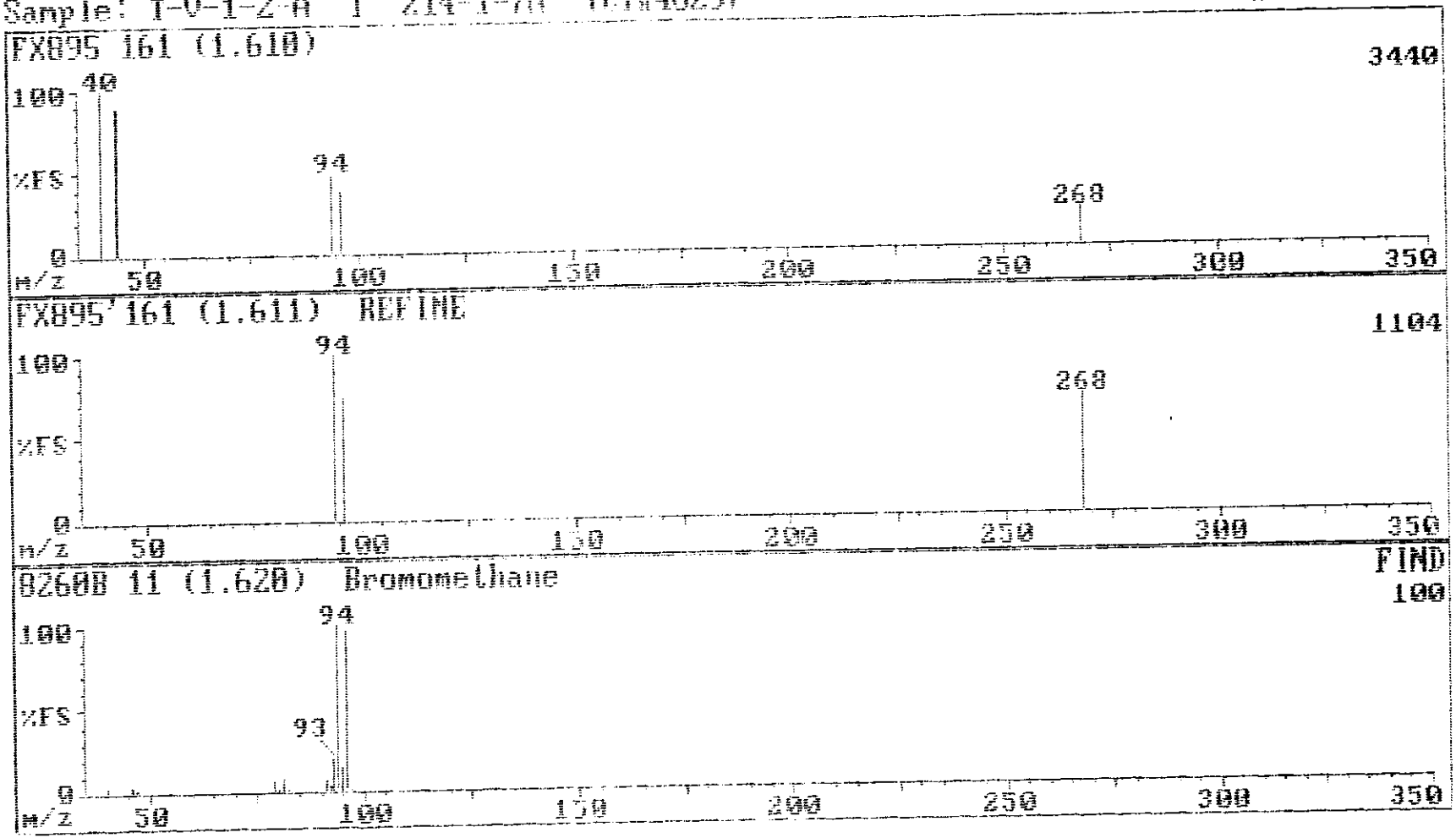
QUAN DB : FX895 LAB-BASE QUAN 18-Aug-98 15:51

No.	MAT	FOR	REV	Delta	Area	P.Flags	RT	QM	Name
1	93	56	94	1	2483712	bb	5.301	68	Pentafluorobenzene
2	100	83	95	0	2639904	bv	6.071	114	1,4-Difluorobenzene
3	85	57	79	0	2322196	bv	10.361	117	Chlorobenzene-d5
4	52	14	71	3	1211712	bv	15.772	152	1,4-Dichlorobenzene-d4
5	93	49	99	0	956260	bv	5.181	113	Dibromofluoromethane
6	99	70	88	0	3770622	bv	8.001	98	Toluene-d8
7	63	38	63	0	1525120	vv	12.661	95	4-Bromofluorobenzene
8	55	36	63	7	~~[illegible]~~	~~[illegible]~~	~~1.160~~ FP	39	1,3-Butadiene
9	0	0	0	0	0		0.000	106	Vinyl bromide
10	71	53	63	1	~~[illegible]~~	~~bb~~	~~[illegible]~~ FP	73	MTBE
11	100	95	99	1	1696232	bb	3.290	57	n-Hexane
12	59	45	64	3	~~[illegible]~~	~~bv~~	~~4.471~~ FP	42	1,2-Epoxybutane
13	62	45	57	2	~~[illegible]~~	~~[illegible]~~	~~5.791~~ FP	57	Iso-Octane
14	43	28	70	-13	~~[illegible]~~	~~vb~~	~~[illegible]~~ FP	55	Ethyl acrylate

VR 8/19/98

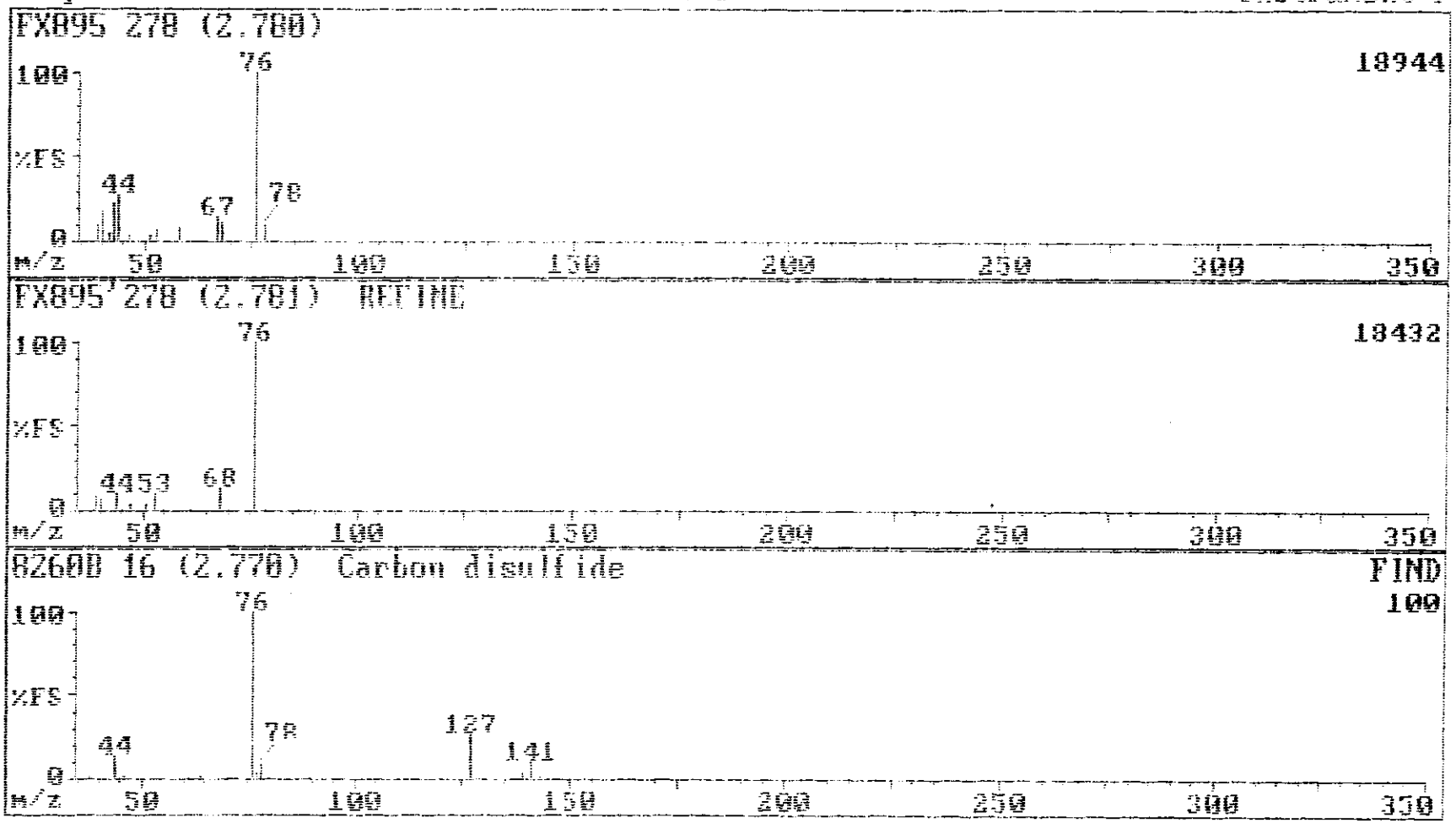
18-Aug-98 14:17 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-1-2-A T 214-1-70 TLI#46297 Instrument F



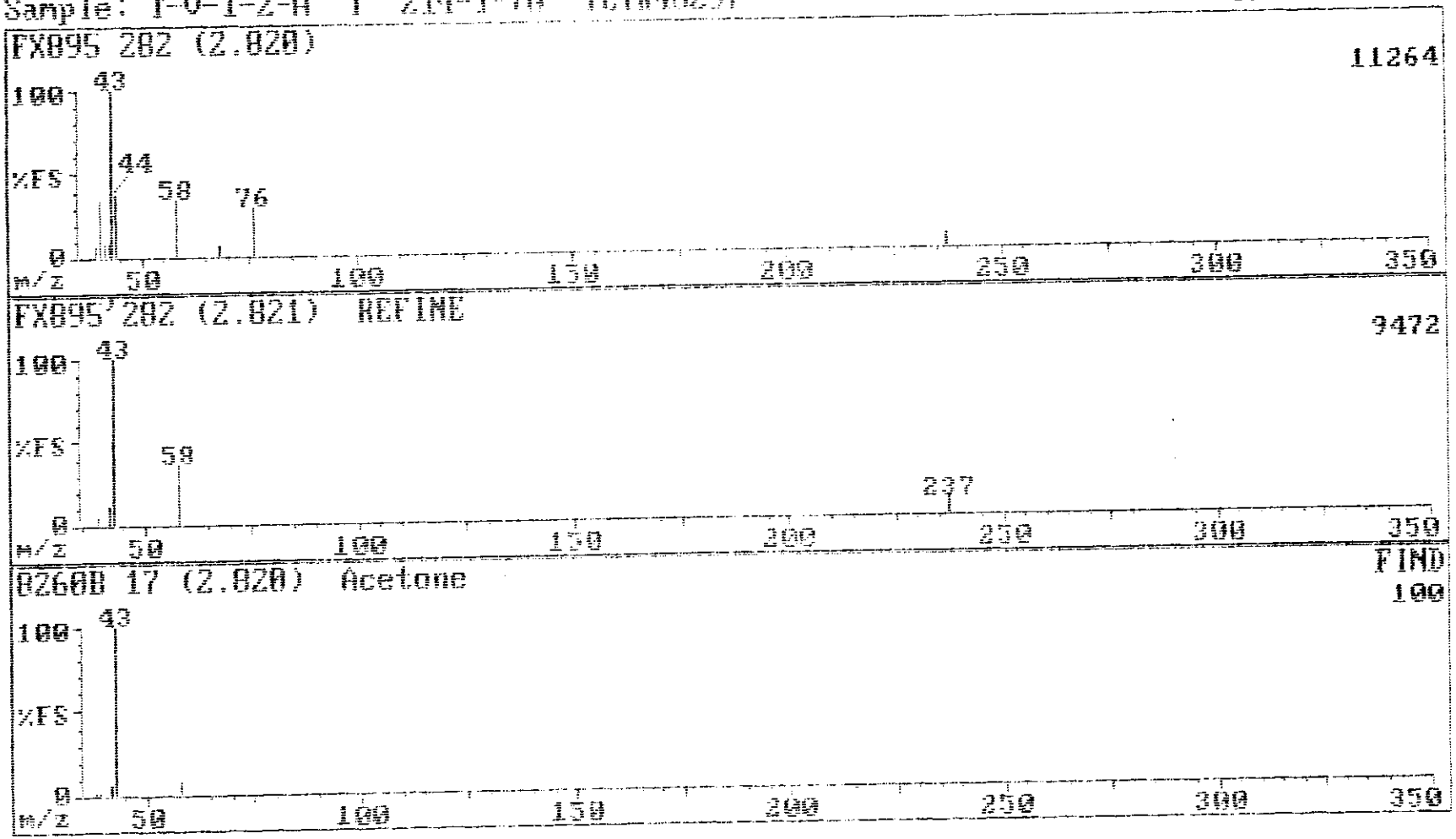
18-Aug-98 14:17 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-1-2-A T Z14-1-7A TLI#46297 Instrument F



18-Aug-98 14:17 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-U-1-2-A T 214-1-70 TL1U46297 Instrument F



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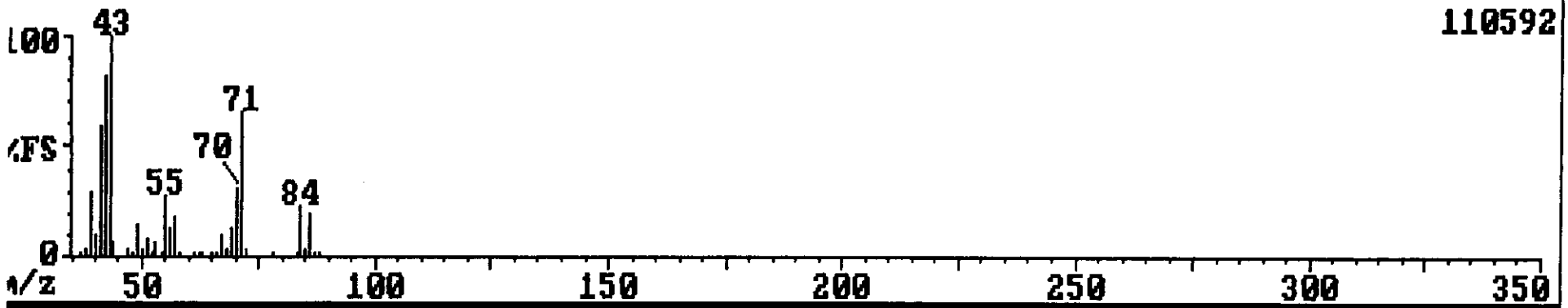
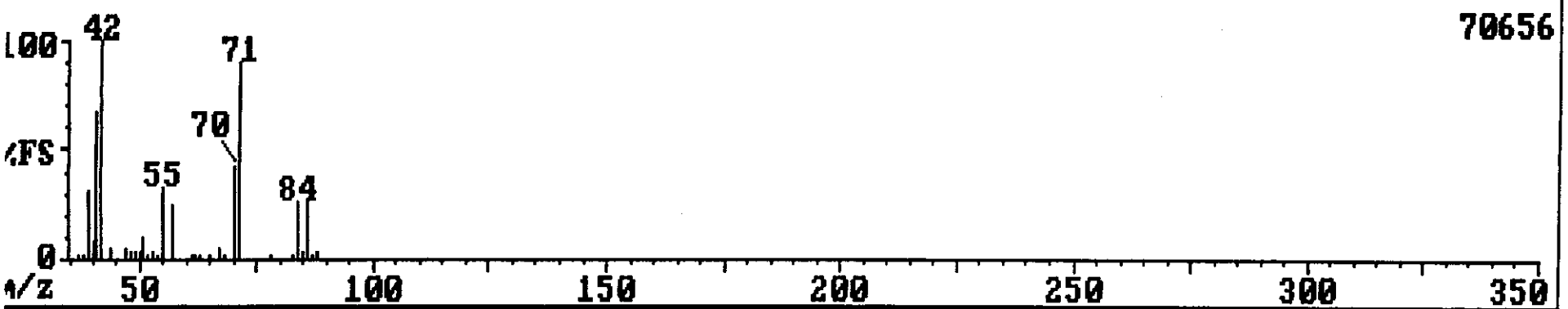
8-Aug-98 14:17 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-1-2-A T 214-1-7A TLI#46297 Instrument F

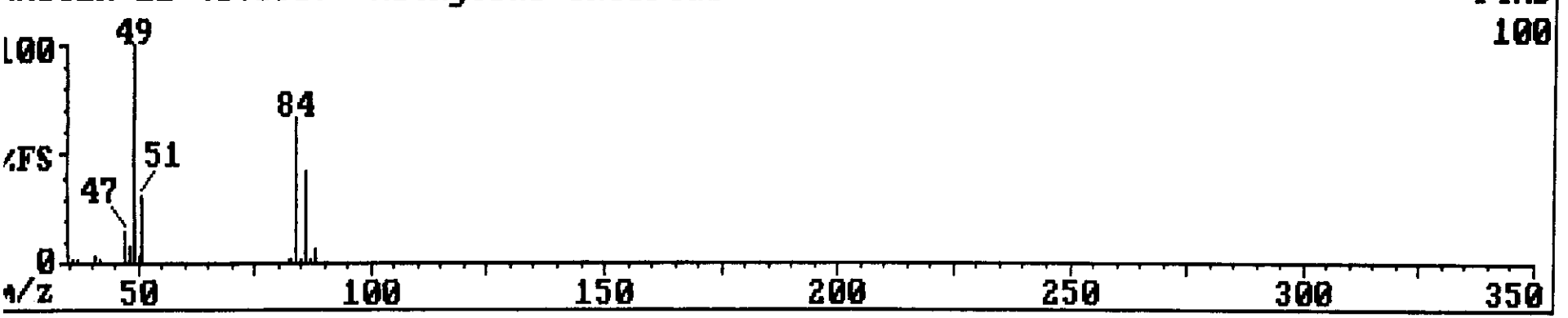
FX895 327 (3.270)



FX895 327 (3.271) REFINE



MASTER 22 (3.590) Methylene chloride FIND



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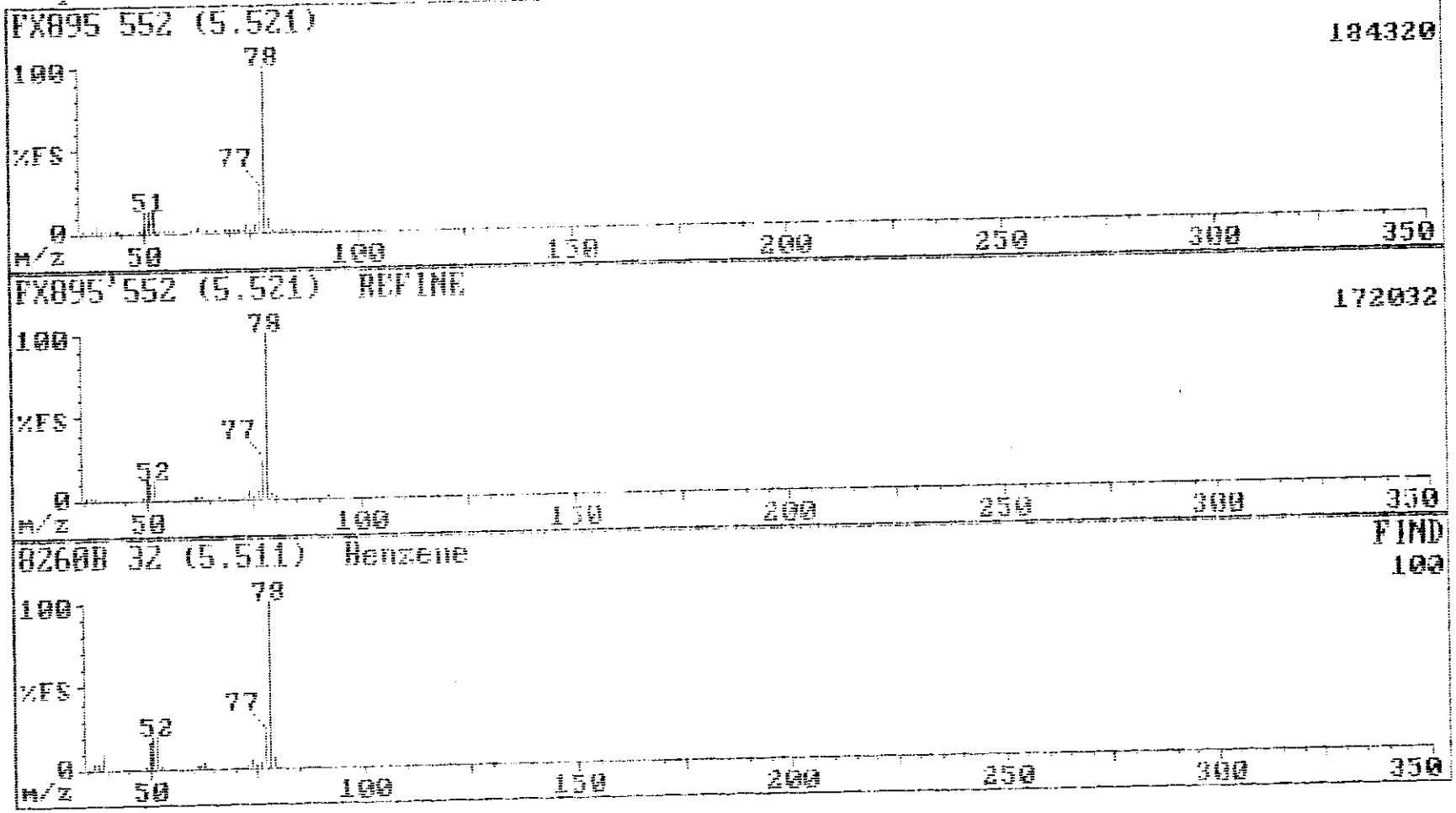
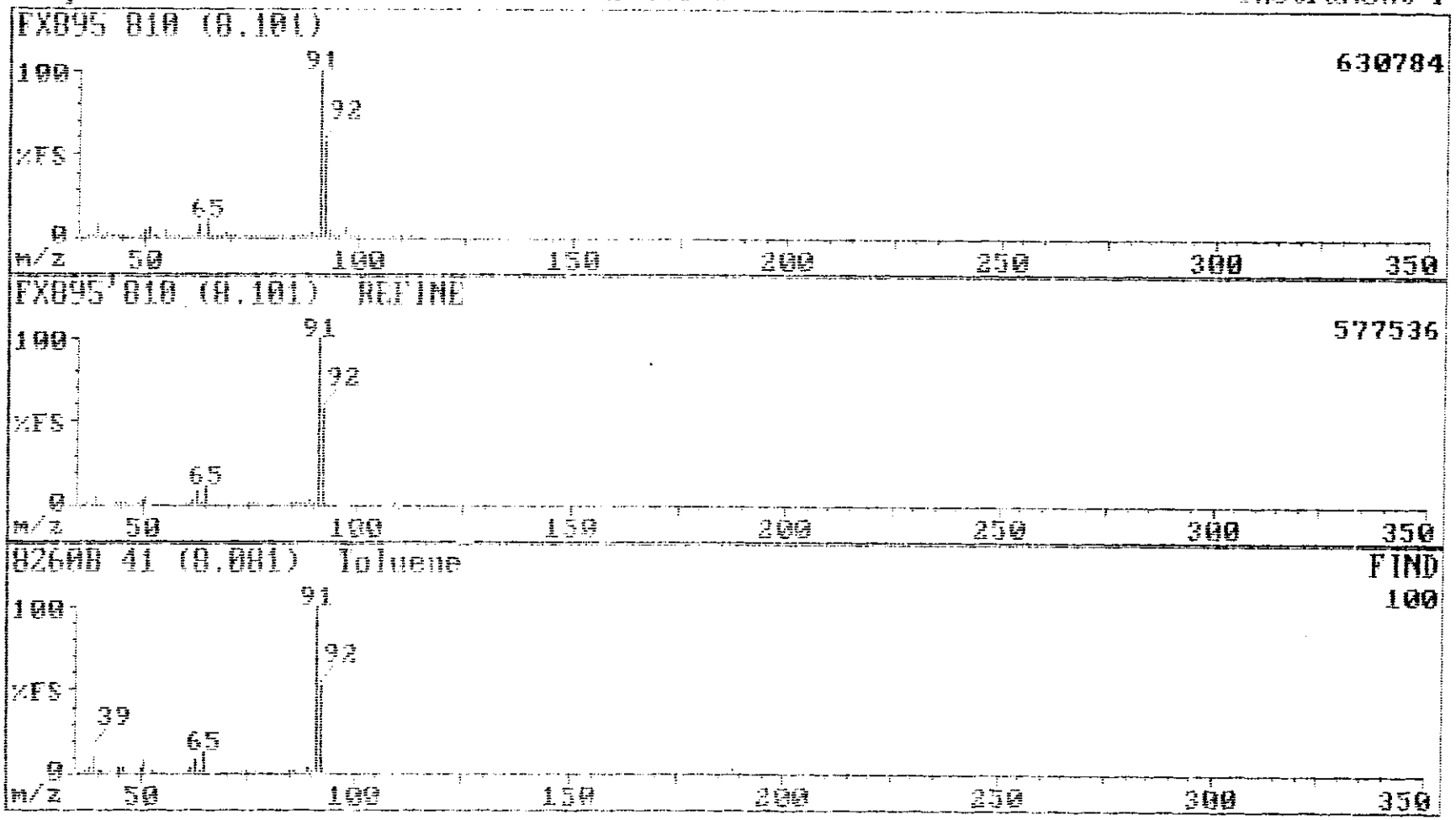


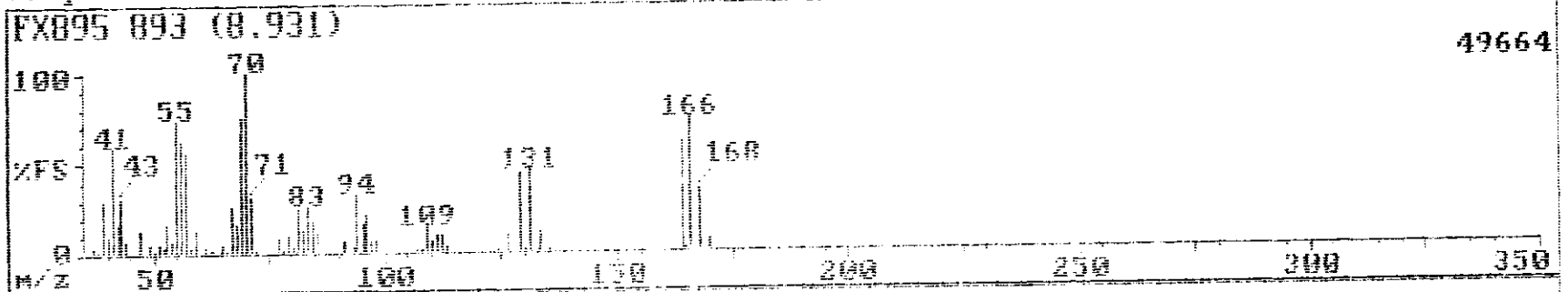
18-Aug-98 14:17 Triangle Laboratories, Inc. (919) 544-5729

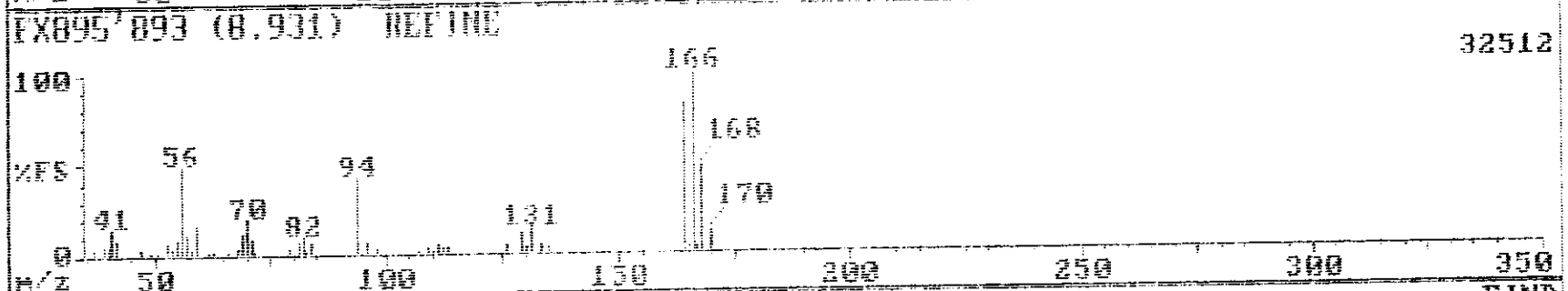
Sample: T-V-1-2-A T 214-1-Y1 TLI#46297 Instrument F

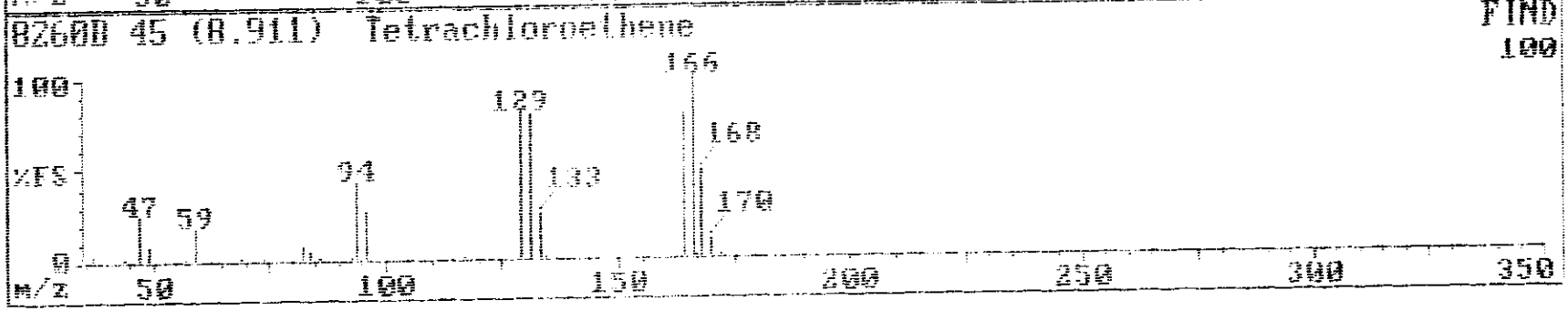


18-Aug-98 14:17 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-1-2-A T 214-1-7A TLI#46237 Instrument F



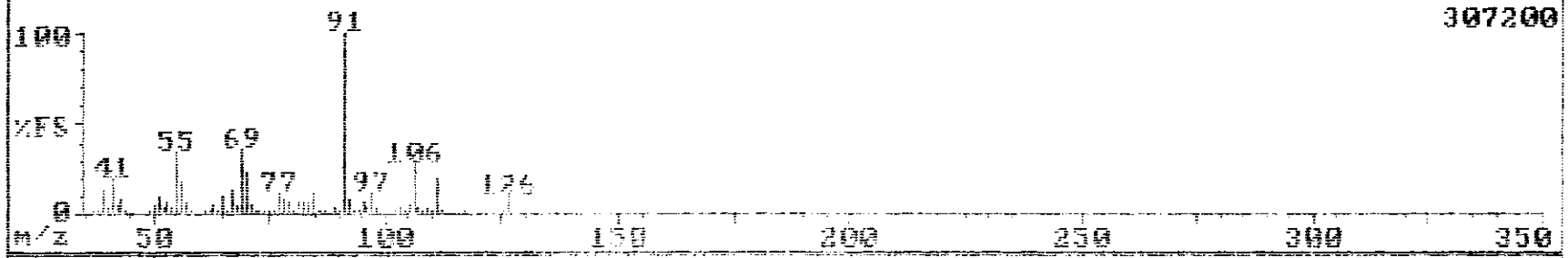




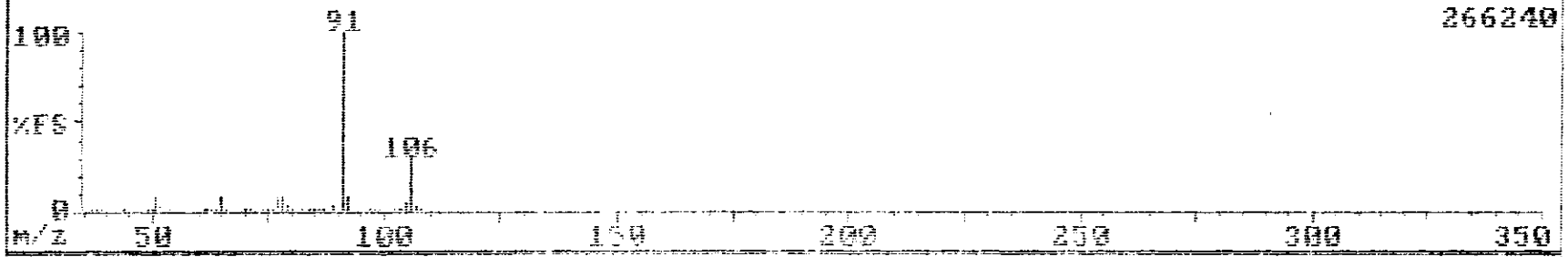
18-Aug-98 14:17 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-1-2-A I 214-1-7A TLI#46297 Instrument F

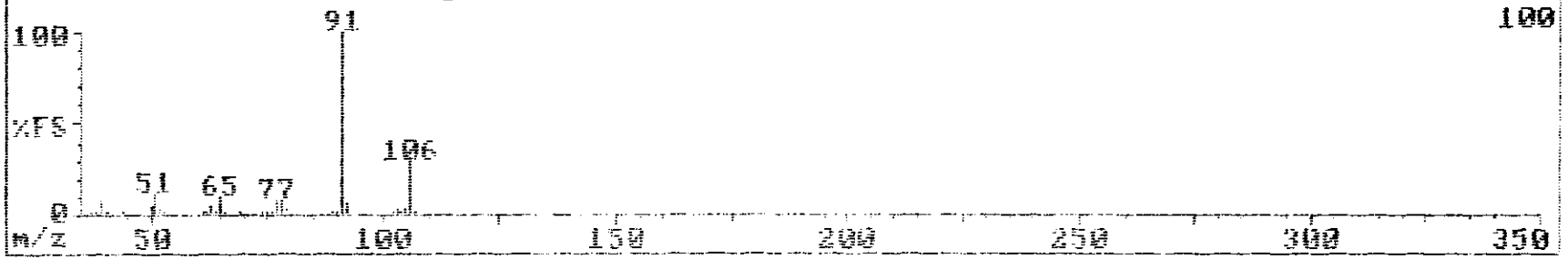
FX895 1068 (10.681) 307200



FX895 1068 (10.681) REFINE 266240

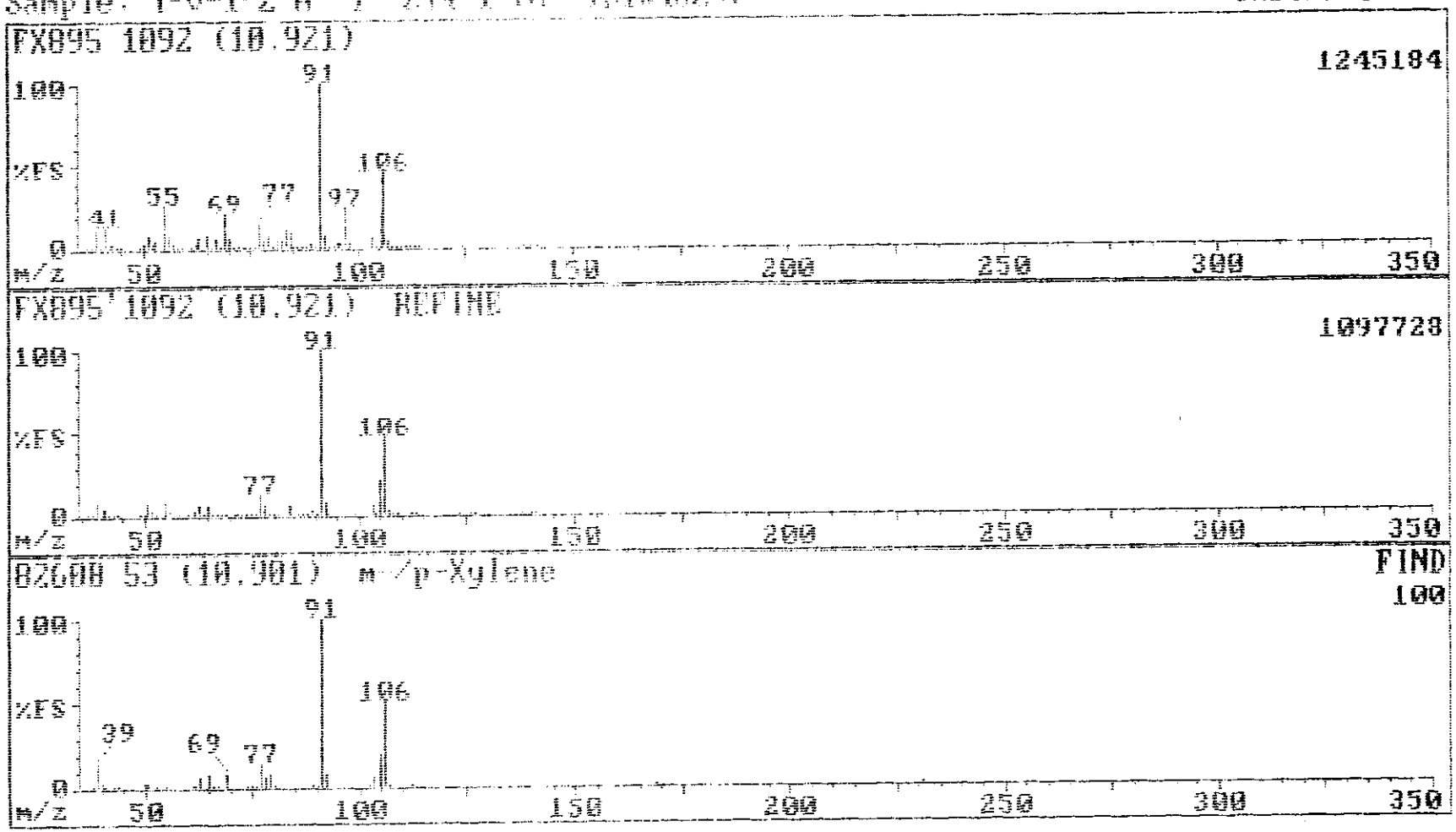


82608 52 (10.661) Ethylbenzene FIND 100



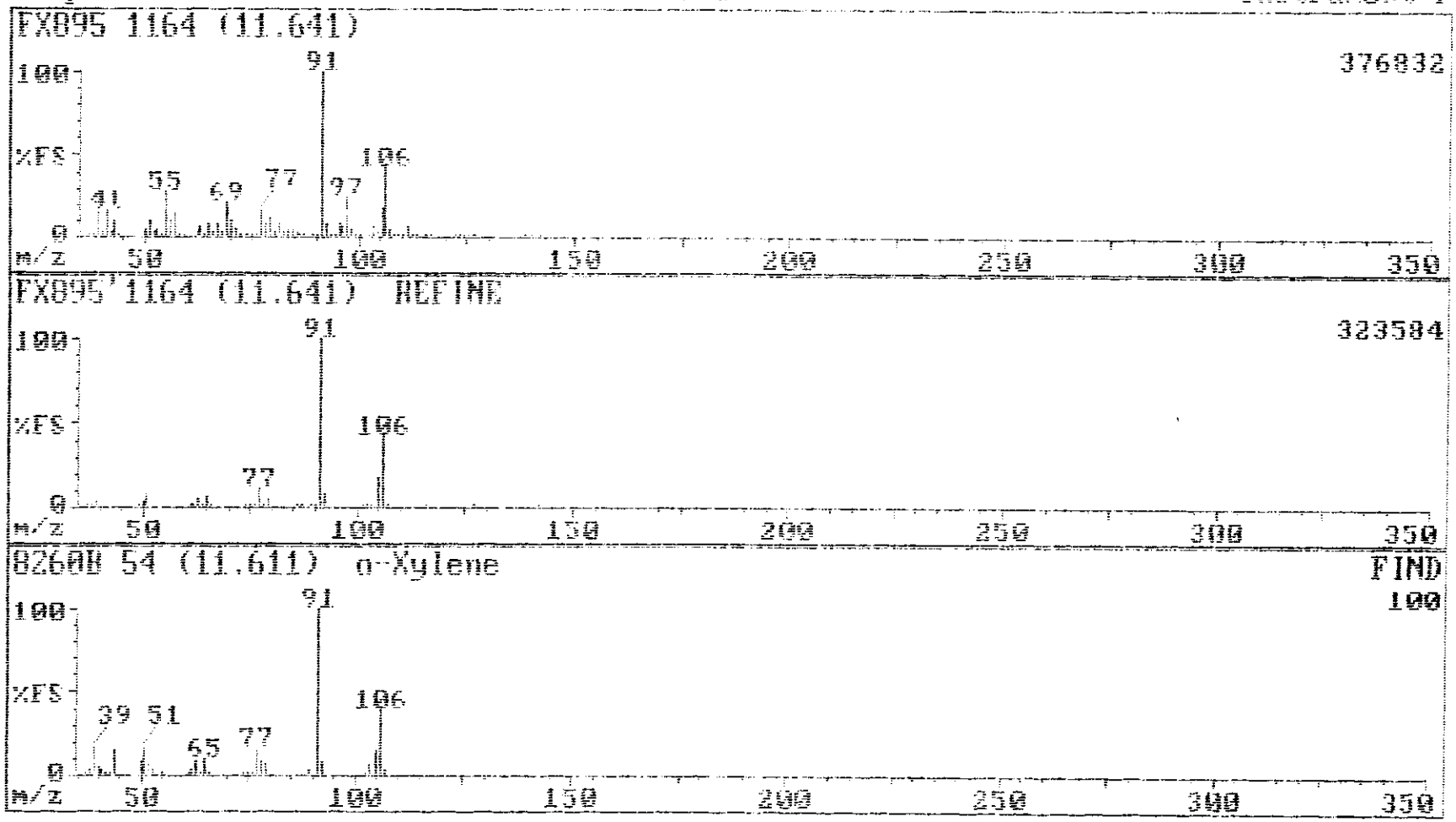
18-Aug-98 14:17 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-1-2-A T 214-1-7A TLI#46297 Instrument F



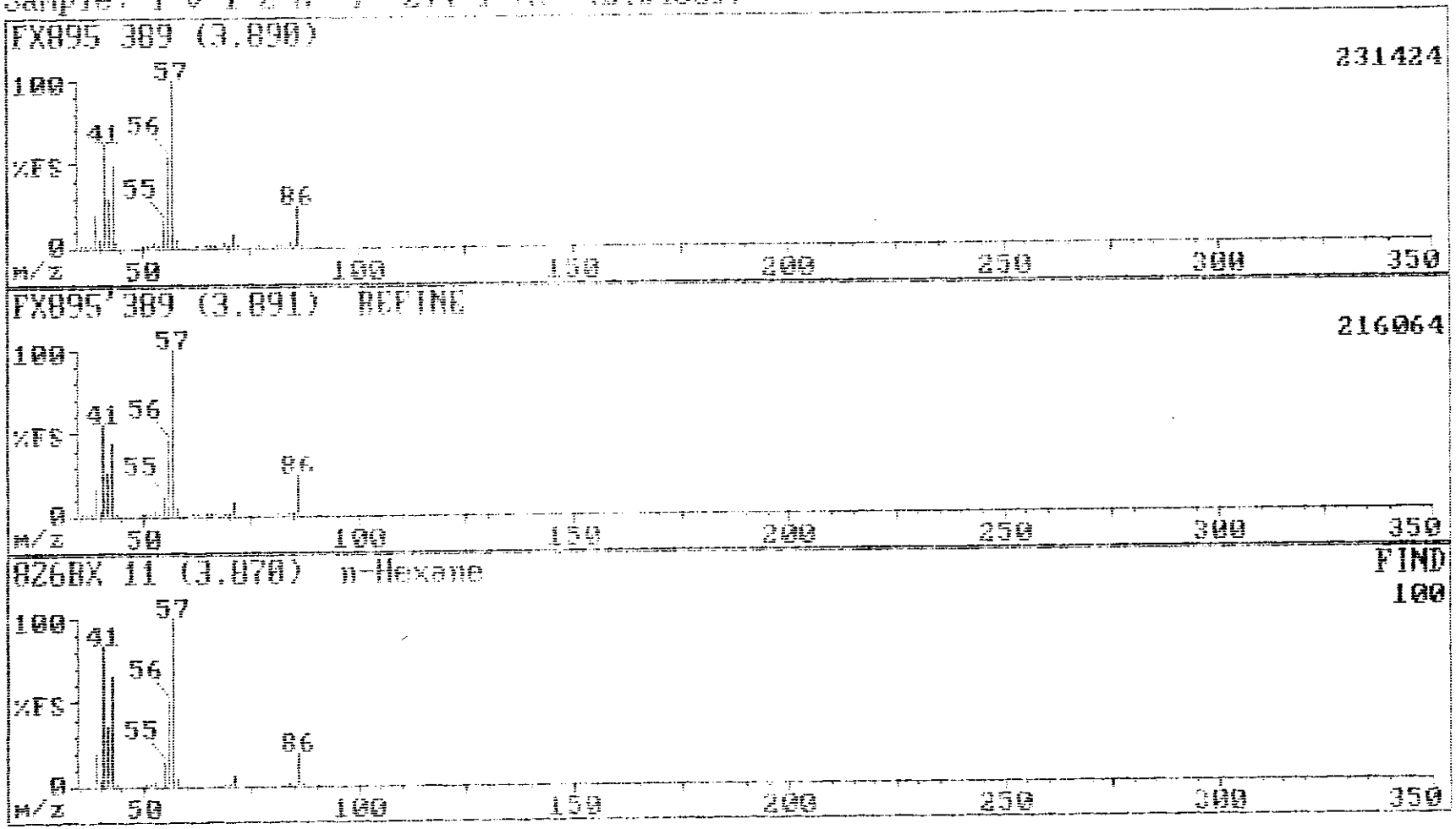
08-Aug-98 14:17 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-1-2-0 I 214-1-70 TLU#46297 Instrument F



18-Aug-90 14:17 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-1-2-0 T 214-1-70 TL1U46297 Instrument F



Pacific Environmental Services

Project Number: 46297
Sample File: FX880

Method 8260 VOST
Sample ID: T-V-1-2-B TC

Client Project: Hotmix
TLI ID: 214-1-7B

Date Received: 07/25/98
Date Analyzed : 08/17/98

Response File: ICALF814

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Pentafluorobenzene		IS 1	5.30		
Chloromethane	0.080		1.09		0.05
Vinyl Chloride		U		0.001	0.05
Bromomethane	0.068		1.65		0.05
Chloroethane		U		0.001	0.05
Trichlorofluoromethane		U		0.001	0.05
1,1-Dichloroethene		U		0.001	0.05
Iodomethane		U		0.001	0.05
Carbon disulfide	0.004	J	2.78		0.05
Acetone	0.039	J	2.86		0.05
Allyl chloride		U		0.001	0.05
Methylene chloride	0.248		3.27		0.05
Acrylonitrile		U		0.015	0.05
trans-1,2-Dichloroethene		U		0.001	0.05
1,1-Dichloroethane		U		0.001	0.05
Vinyl acetate		U		0.002	0.05
cis-1,2-Dichloroethene		U		0.001	0.05
2-Butanone		U		0.004	0.05
Chloroform		U		0.001	0.05
1,1,1-Trichloroethane		U		0.001	0.05
1,4-Difluorobenzene		IS 2	6.07		
Carbon tetrachloride		U		0.001	0.05
Benzene		U		0.001	0.05
1,2-Dichloroethane		U		0.001	0.05
Trichloroethene		U		0.001	0.05
1,2-Dichloropropane		U		0.001	0.05

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

Triangle Laboratories, Inc.
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Printed: 17:44 08/24/1998

Pacific Environmental Services

Project Number: 46297
Sample File: FX880

Method 8260 VOST
Sample ID: T-V-1-2-B TC

Client Project: Hofmix
TLI ID: 214-1-7B

Date Received: 07/25/98
Date Analyzed : 08/17/98

Response File: ICALF814

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Methyl methacrylate		U		0.006	0.05
Bromodichloromethane		U		0.001	0.05
cis-1,3-Dichloropropene		U		0.001	0.05
4-Methyl-2-pentanone		U		0.004	0.05
Toluene	0.059	B	8.09		0.05
trans-1,3-Dichloropropene		U		0.001	0.05
1,1,2-Trichloroethane		U		0.001	0.05
Chlorobenzene-d_5		IS 3	10.35		
Tetrachloroethene		U		0.001	0.05
2-Hexanone		U		0.006	0.05
Dibromochloromethane		U		0.001	0.05
1,2-Dibromoethane		U		0.001	0.05
Chlorobenzene		U		0.001	0.05
Ethylbenzene		U		0.001	0.05
m-/p-Xylene	0.001	J	10.91		0.10
o-Xylene		U		0.001	0.05
Styrene		U		0.001	0.05
Bromoform		U		0.003	0.05
1,4-Dichlorobenzene-d_4		IS 4	15.71		
Cumene		U		0.001	0.05
1,1,2,2-Tetrachloroethane		U		0.002	0.05

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
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Printed: 17:44 08/24/1998

Pacific Environmental Services

Project Number: 46297
Sample File: FX880

Method 8260 VOST
Sample ID: T-V-1-2-B TC

Client Project: Hotmix
TLI ID: 214-1-7B

Date Received: 07/25/98
Date Analyzed : 08/17/98

Response File: ICALF814

Surrogate Summary	Amount (ug)	RT	IS Ref	%REC
Dibromofluoromethane	0.246	5.18	1	98
Toluene-d_8	0.315	8.00	2	126
4-Bromofluorobenzene	0.278	12.65	2	111

Reviewed by _____ Date 8/24/98

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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Savar v3.7
Printed: 17:44 08/24/1998

Pacific Environmental Services

Project Number: 46297
Sample File: FX880

Method 8260 VOST
Sample ID: T-V-1-2-B TC

Client Project: Hotmix
TLI ID: 214-1-7B

Date Received: 07/25/98
Date Analyzed : 08/17/98

Response File: ICALF817

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Pentafluorobenzene		IS 1	5.30		
1,3-Butadiene		U		0.001	0.25
Vinyl bromide		U		0.001	0.25
MTBE		U		0.001	0.25
n-Hexane	0.001	J	3.90		0.25
1,2-Epoxybutane		U		0.010	0.25
Iso-Octane		U		0.001	0.25
1,4-Difluorobenzene		IS 2	6.07		
Ethyl acrylate		U		0.002	0.25

Reviewed by YR Date 8/24/98

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit

IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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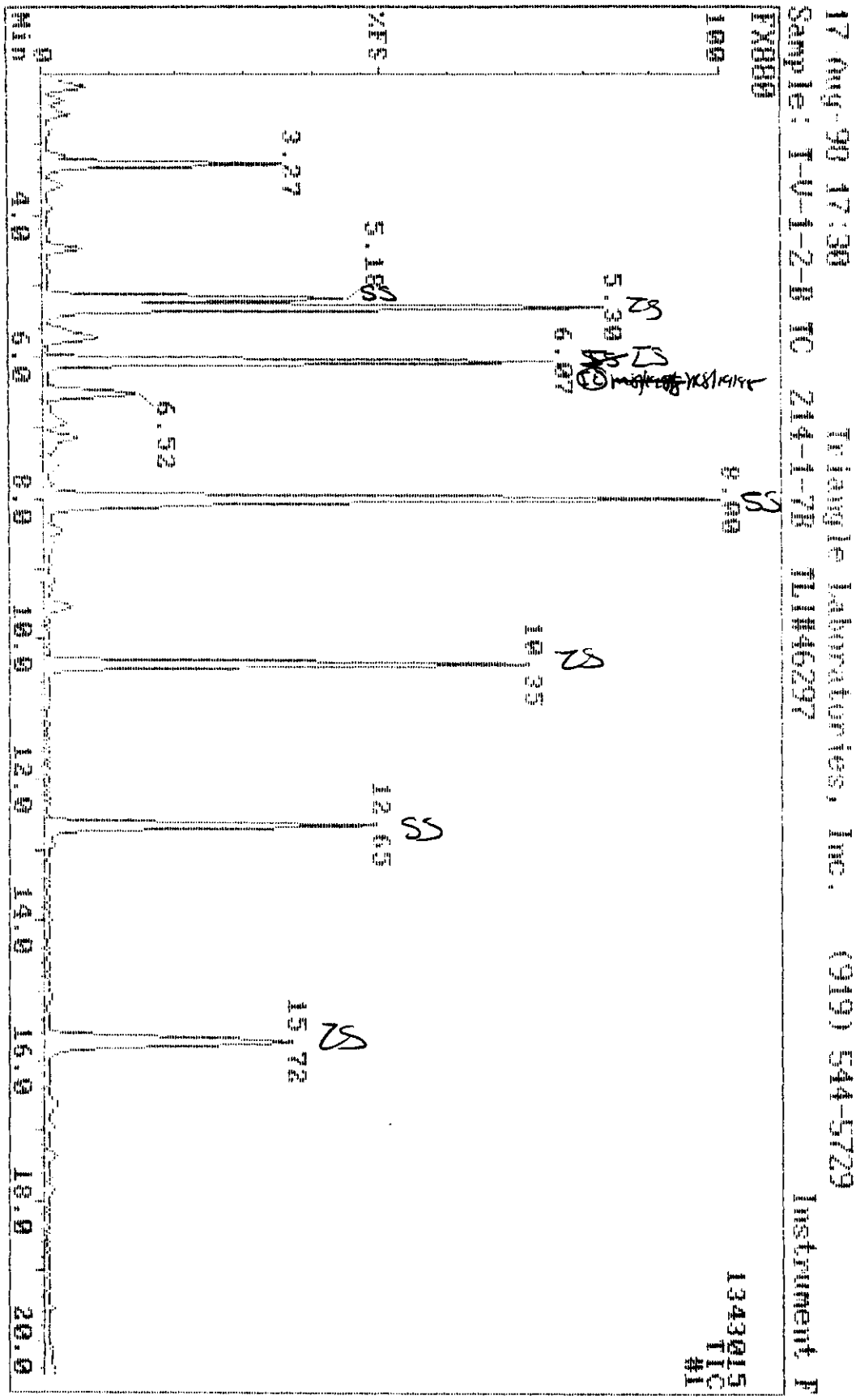
Printed: 18:00 08/24/1998



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Data Review: YK
Date: 8/19/98

QUAN OR · FX980 LAB-BASE QUAN 17-Aug-98 13:46

No.	MAT	FOR	REV	Delta	Area	P.Flags	RT	QM	Name
1	100	79	99	1	2703112	bb	5.301	168	Pentafluorobenzene
2	100	97	99	0	2784596	bv	6.071	114	1,4-Difluorobenzene
3	100	95	95	0	2355776	bv	10.331	117	Chlorobenzene-d5
4	100	77	99	0	947784	bv	15.712	152	1,4-Dichlorobenzene-d4
5	100	86	99	0	1120164	bv	5.181	113	Dibromofluoromethane
6	100	91	97	1	3581752	bv	8.001	98	Toluene-d8
7	100	91	93	0	1052804	bv	12.651	95	4-Bromofluorobenzene
8	0	0	0	0	0		0.000	85	Dichlorodifluoromethane
9	91	73	79	2	297726	A	1.090	50	Chloromethane
10	0	0	0	0	0		0.000	62	Vinyl Chloride
11	84	59	85	3	129598	A	1.630	94	Bromomethane
12	0	0	0	0	0		0.000	64	Chloroethane
13	0	0	0	0	0		0.000	101	Trichlorofluoromethane
14	0	0	0	0	0		0.000	96	1,1-Dichloroethene
15	0	0	0	0	0		0.000	142	Iodomethane
16	60	41	57	1	34728	bb	2.780	76	Carbon disulfide
17	64	20	90	3	19264	bv	2.360	43	Acetone
18	0	0	0	0	0		0.000	41	Allyl chloride
19	100	86	95	0	636016	bb	3.270	84	Methylene chloride
20	7	2	10	-4	~~1258 bb~~		~~3.540~~ FP	53	Acrylonitrile
21	0	0	0	0	0		0.000	96	trans-1,2-Dichloroethene
22	0	0	0	0	0		0.000	63	1,1-Dichloroethane
23	0	0	0	0	0		0.000	43	Vinyl acetate
24	0	0	0	0	0		0.000	77	2,2-Dichloropropane
25	0	0	0	0	0		0.000	96	cis-1,2-Dichloroethene
26	15	13	17	8	~~6434 bb~~		~~4.201~~ FP	43	2-Butanone
27	0	0	0	0	0		0.000	83	Chloroform
28	0	0	0	0	0		0.000	128	Bromochloromethane
29	0	0	0	0	0		0.000	97	1,1,1-Trichloroethane
30	0	0	0	0	0		0.000	117	Carbon tetrachloride
31	0	0	0	0	0		0.000	75	1,1-Dichloropropene
32	0	0	0	0	0		0.000	78	Benzene
33	0	0	0	0	0		0.000	62	1,2-Dichloroethane
34	0	0	0	0	0		0.000	130	Trichloroethene
35	0	0	0	0	0		0.000	63	1,2-Dichloropropane
36	0	0	0	0	0		0.000	93	Dibromomethane
37	0	0	0	0	0		0.000	41	Methyl methacrylate
38	0	0	0	0	0		0.000	83	Bromodichloromethane
39	0	0	0	0	0		0.000	75	cis-1,3-Dichloropropene
40	39	4	62	3	~~16203 bv~~		~~7.971~~ FP	43	4-Methyl-2-pentanone
41	100	88	98	0	473704	bb	8.091	92	Toluene
42	0	0	0	0	0		0.000	75	trans-1,3-Dichloropropene
43	0	0	0	0	0		0.000	97	1,1,2-Trichloroethane
44	0	0	0	0	0		0.000	69	Ethyl methacrylate
45	0	0	0	0	0		0.000	164	Tetrachloroethene
46	0	0	0	0	0		0.000	76	1,3-Dichloropropane
47	0	0	0	0	0		0.000	43	2-Hexanone
48	0	0	0	0	0		0.000	129	Dibromochloromethane
49	0	0	0	0	0		0.000	107	1,2-Dibromoethane
50	0	0	0	0	0		0.000	112	Chlorobenzene

Data Review: YM
Date: 8/19/97

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8.

No.	MAT	FOR	REV	Delta	Area	P.Flags	RT	QM	Name
51	0	0	0	0	0		0.000	131	1,1,1,2-Tetrachloroethane
52	20	34	34	23	~~3763~~	~~A~~	~~10.851~~ FP	106	Ethylbenzene
53	0	0	0	0	10524	A	10.911	106	m-/p-Xylene
54	0	0	0	0	0		0.000	106	o-Xylene
55	0	0	0	0	0		0.000	104	Styrene
56	0	0	0	0	0		0.000	173	Bromoform
57	0	0	0	0	0		0.000	105	Cumene
58	0	0	0	0	0		0.000	83	1,1,2,2-Tetrachloroethane
59	0	0	0	0	0		0.000	156	Bromobenzene
60	0	0	0	0	0		0.000	75	1,2,3-Trichloropropane
61	0	0	0	0	0		0.000	120	n-Propylbenzene
62	0	0	0	0	0		0.000	75	trans-1,4-Dichloro-2-buten
63	0	0	0	0	0		0.000	126	2-Chlorotoluene
64	0	0	0	0	0		0.000	126	4-Chlorotoluene
65	0	0	0	0	0		0.000	105	1,3,5-Trimethylbenzene
66	0	0	0	0	0		0.000	119	tert-Butylbenzene
67	0	0	0	0	0		0.000	105	1,2,4-Trimethylbenzene
68	0	0	0	0	0		0.000	105	sec-Butylbenzene
69	0	0	0	0	0		0.000	119	p-Cymene
70	0	0	0	0	0		0.000	146	1,3-Dichlorobenzene
71	0	0	0	0	0		0.000	146	1,4-Dichlorobenzene
72	0	0	0	0	0		0.000	91	Benzyl chloride
73	0	0	0	0	0		0.000	91	n-Butylbenzene
74	0	0	0	0	0		0.000	146	1,2-Dichlorobenzene
75	0	0	0	0	0		0.000	75	1,2-Dibromo-3-chloropropan
76	0	0	0	0	0		0.000	180	1,2,4-Trichlorobenzene
77	46	22	57	-3	10468	bb	19.532	225	Hexachlorobutadiene
78	0	0	0	0	0		0.000	128	Naphthalene
79	0	0	0	0	0		0.000	180	1,2,3-Trichlorobenzene

VR 8/19/98

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QUAN 08 : FX880 LAB-BASE QUAN 18-Aug-98 01:03

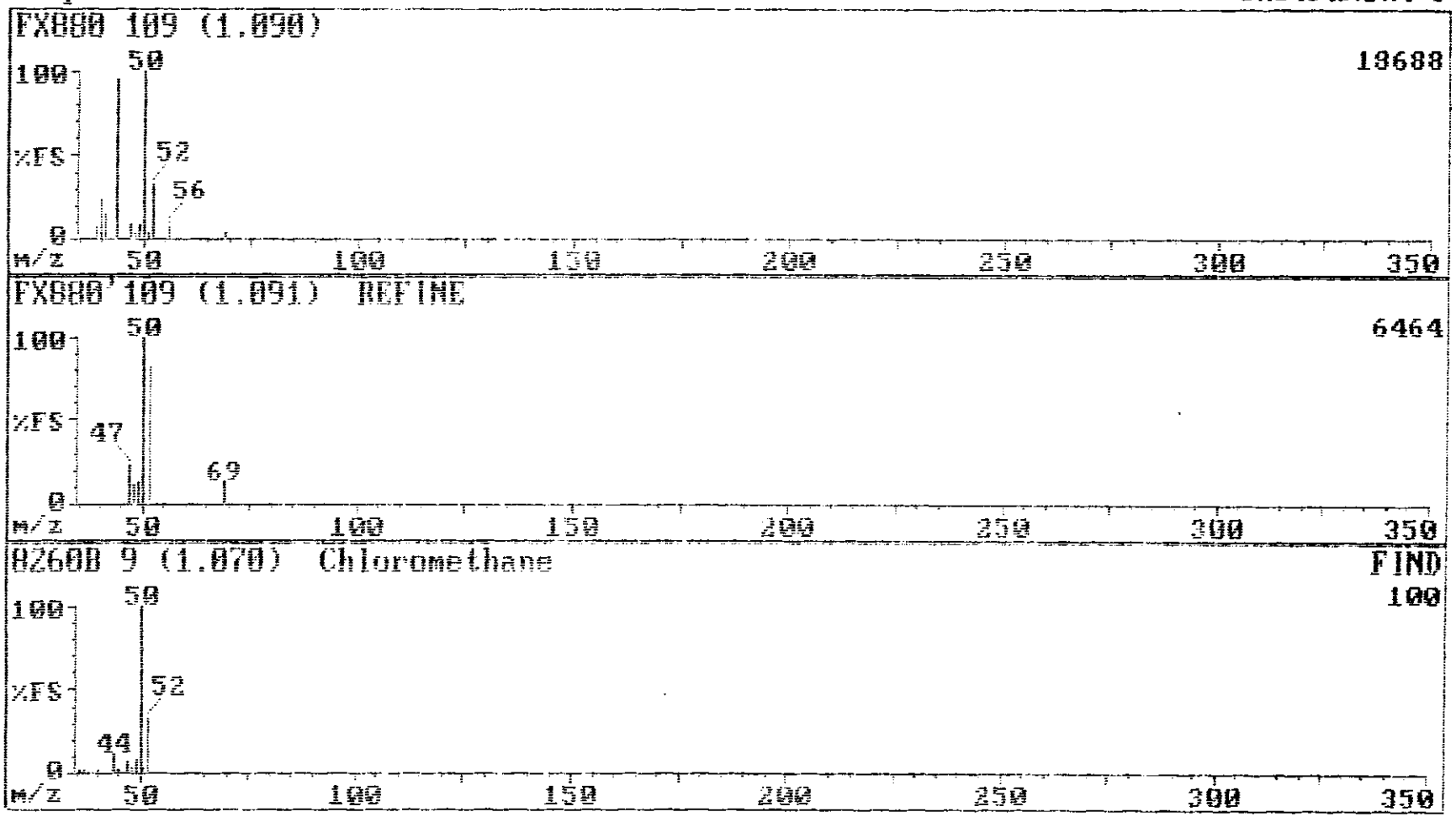
No.	MAT	FOR	REV	Delta	Area	P.Flags	RT	QM	Name
1	100	79	99	1	2703112	bb	5.301	168	Pentafluorobenzene
2	100	97	99	0	2784596	bv	6.071	114	1,4-Difluorobenzene
3	100	95	95	-1	2355776	bv	10.351	117	Chlorobenzene-d5
4	100	77	99	-2	947784	bv	15.712	152	1,4-Dichlorobenzene-d4
5	100	86	99	0	1120164	bv	5.181	113	Dibromofluoromethane
6	100	91	97	0	3581752	bv	8.001	98	Toluene-d8
7	100	91	93	-1	1052804	bv	12.651	95	4-Bromofluorobenzene
8	56	32	64	4	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~ FP	39	1,3-Butadiene
9	0	0	0	0	0		0.000	106	Vinyl bromide
10	55	38	54	3	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~73~~	~~MTBE~~ FP
11	76	62	62	2	19408	bb	3.900	57	n-Hexane
12	55	40	61	8	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~ FP	42	1,2-Epoxybutane
13	63	47	59	3	~~84596~~	~~bv~~	~~5.711~~ FP	57	Iso-Octane
14	43	27	69	0?	~~221056~~	~~bb~~	~~[illegible]~~ FP	55	Ethyl Acrylate

MS 19/98

86

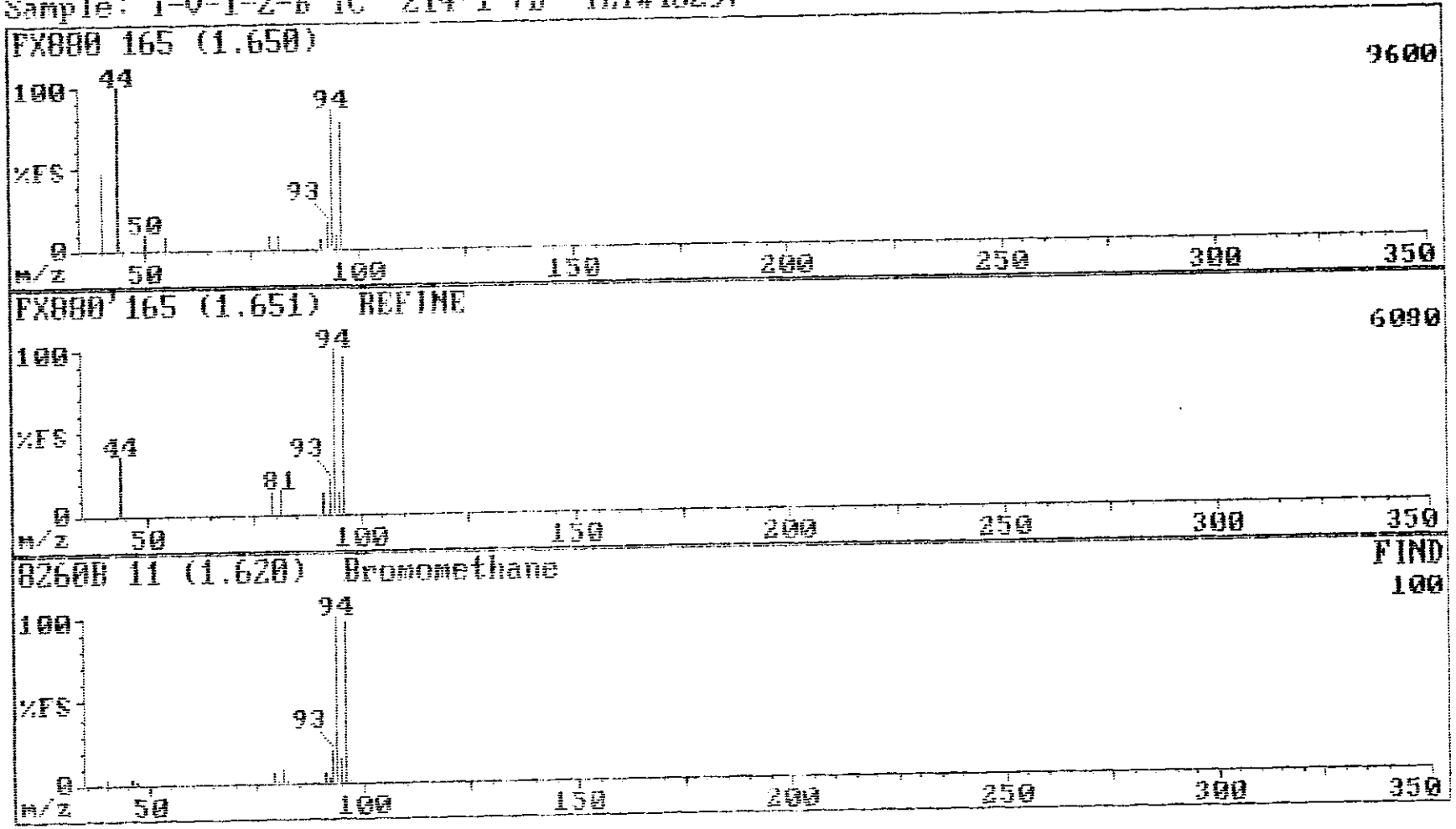
17-Aug-98 17:30 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-1-2-B TC 214-1-7B TLI#46297 Instrument F



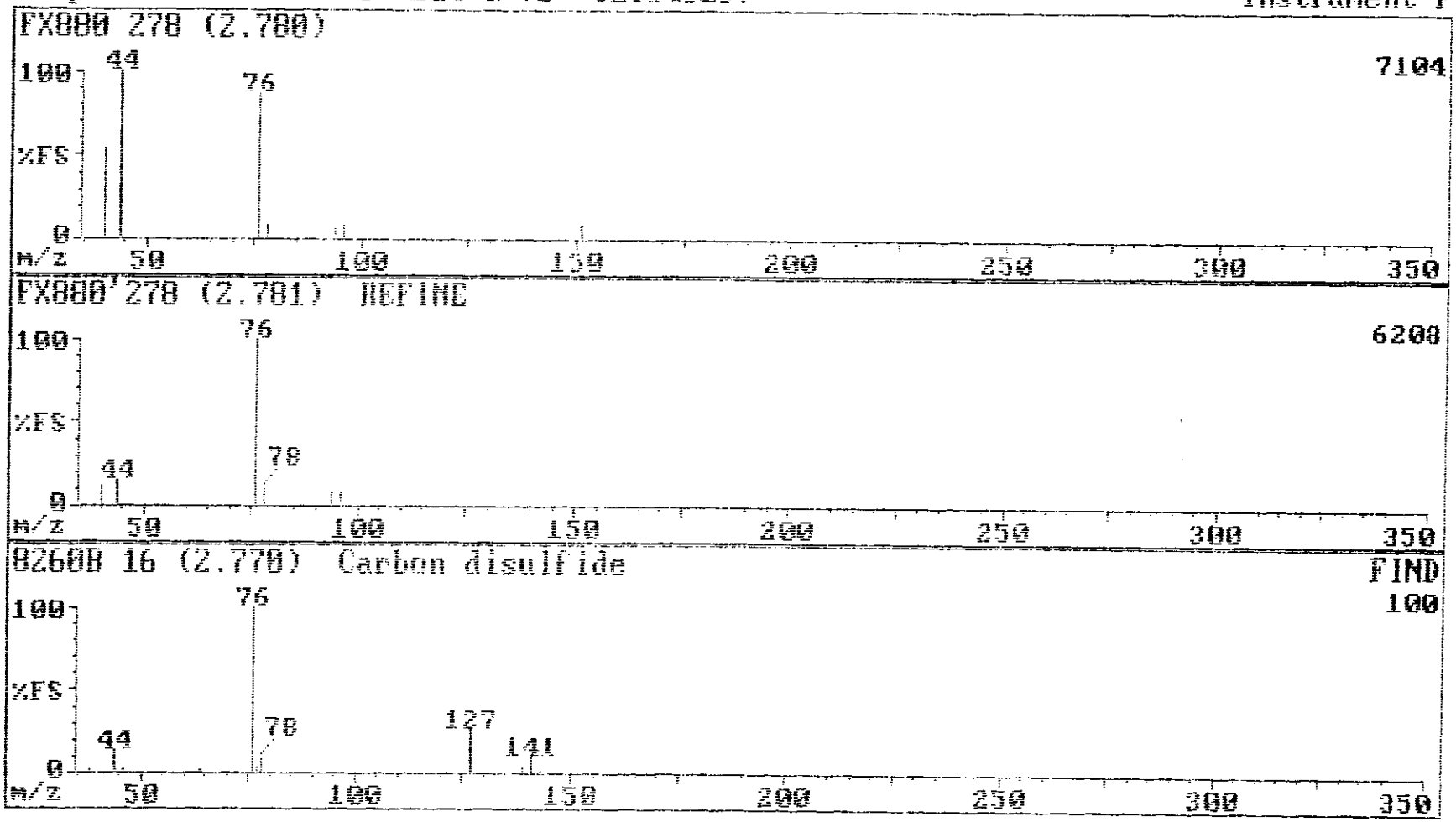
17-Aug-98 17:30 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-1-2-B TC 214-1-7B TLI#46297 Instrument F



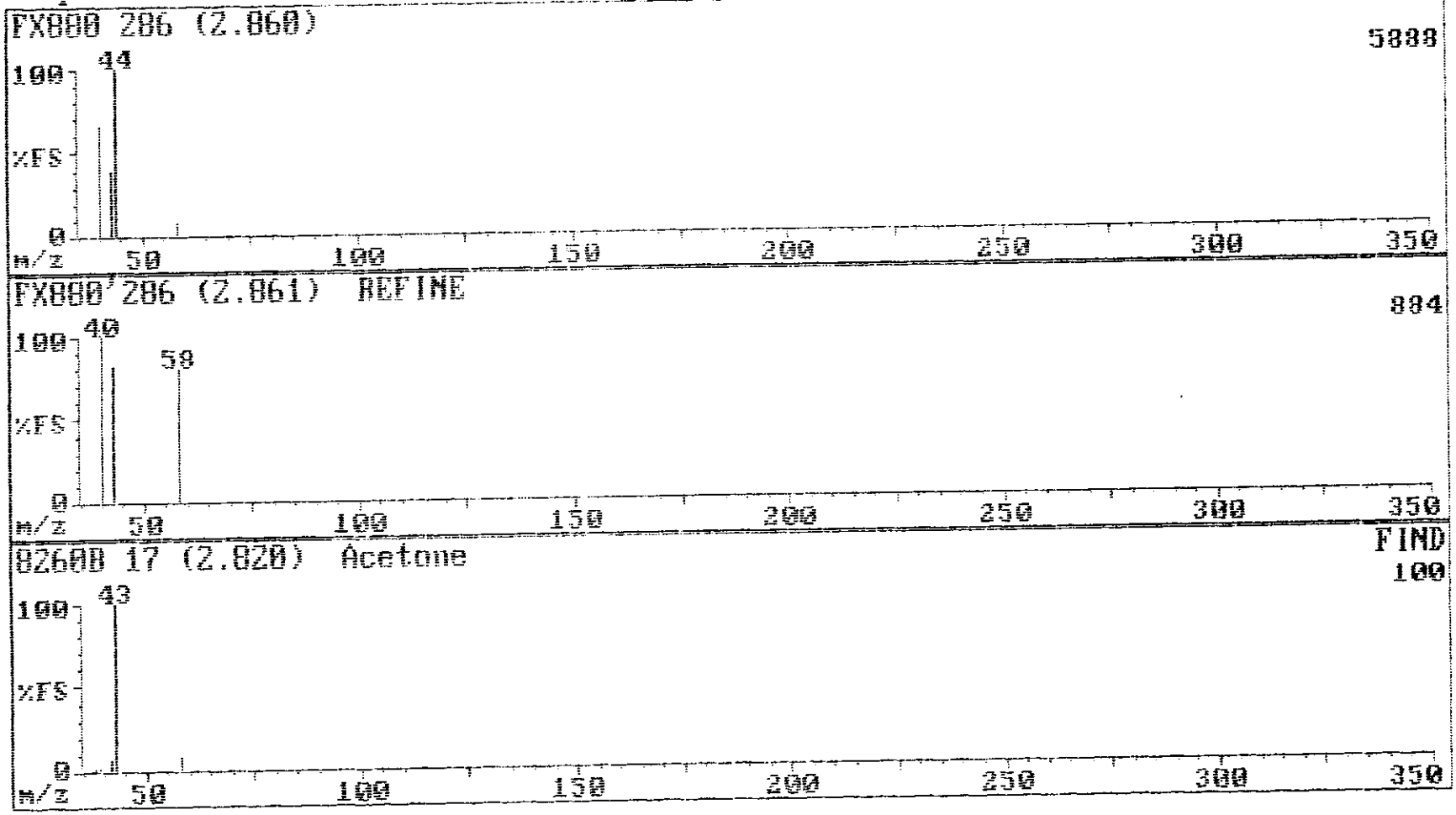
17-Aug-98 17:30 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-1-2-B TC 214-1-7B TLI#46297 Instrument F



17-Aug-98 17:30 Triangle Laboratories, Inc. (919) 544-5729

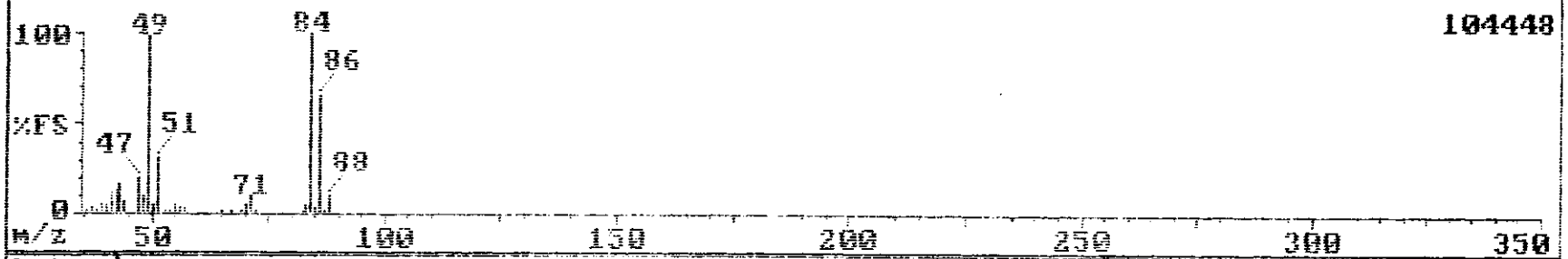
Sample: T-V-1-2-B TC Z14-1-7B TLI#46297 Instrument F



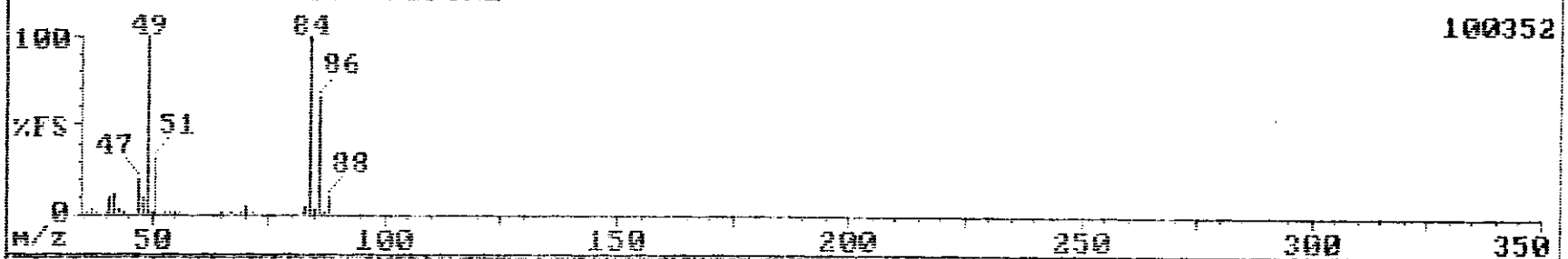
17-Aug-98 17:30 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-1-2-B TC 214-1-7D TLI#46297 Instrument F

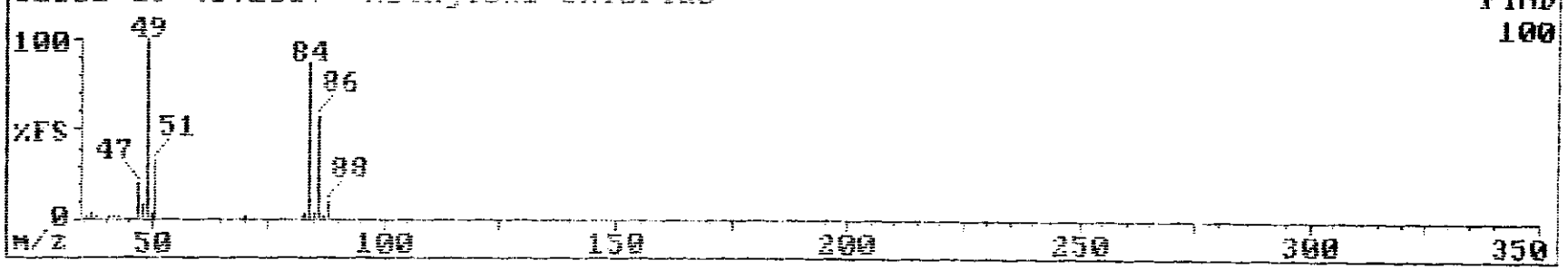
FX880 327 (3.270) 104448



FX880' 327 (3.271) REFINE 100352



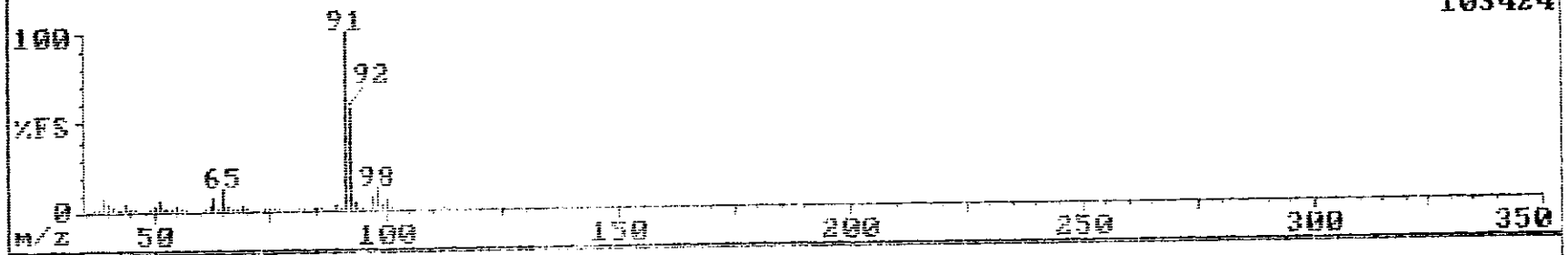
8260B 19 (3.260) Methylene chloride FIND 100



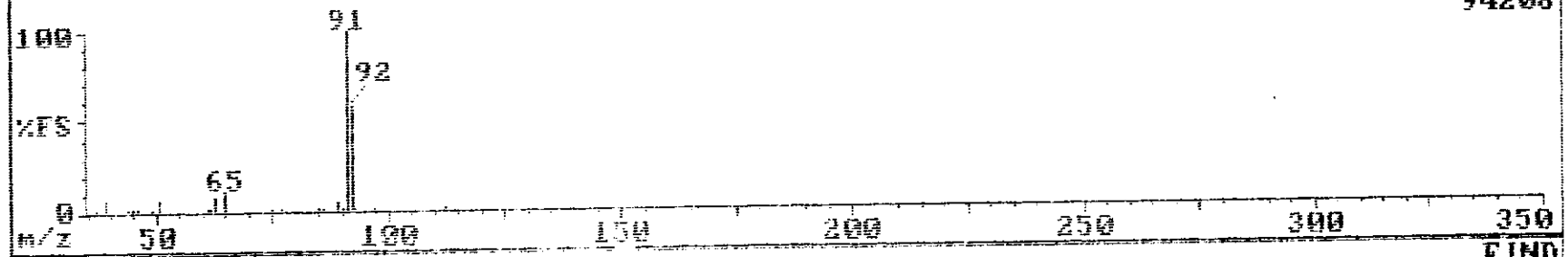
17-Aug-98 17:30 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-U-1-2-B TC 214-1-7B TL1#46297 Instrument F

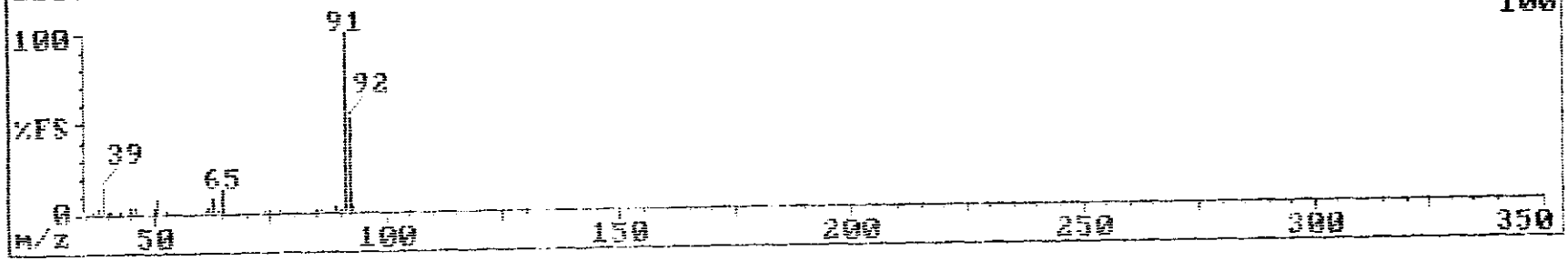
FX880 809 (8.091) 103424



FX880'809 (8.091) REFINE 94208

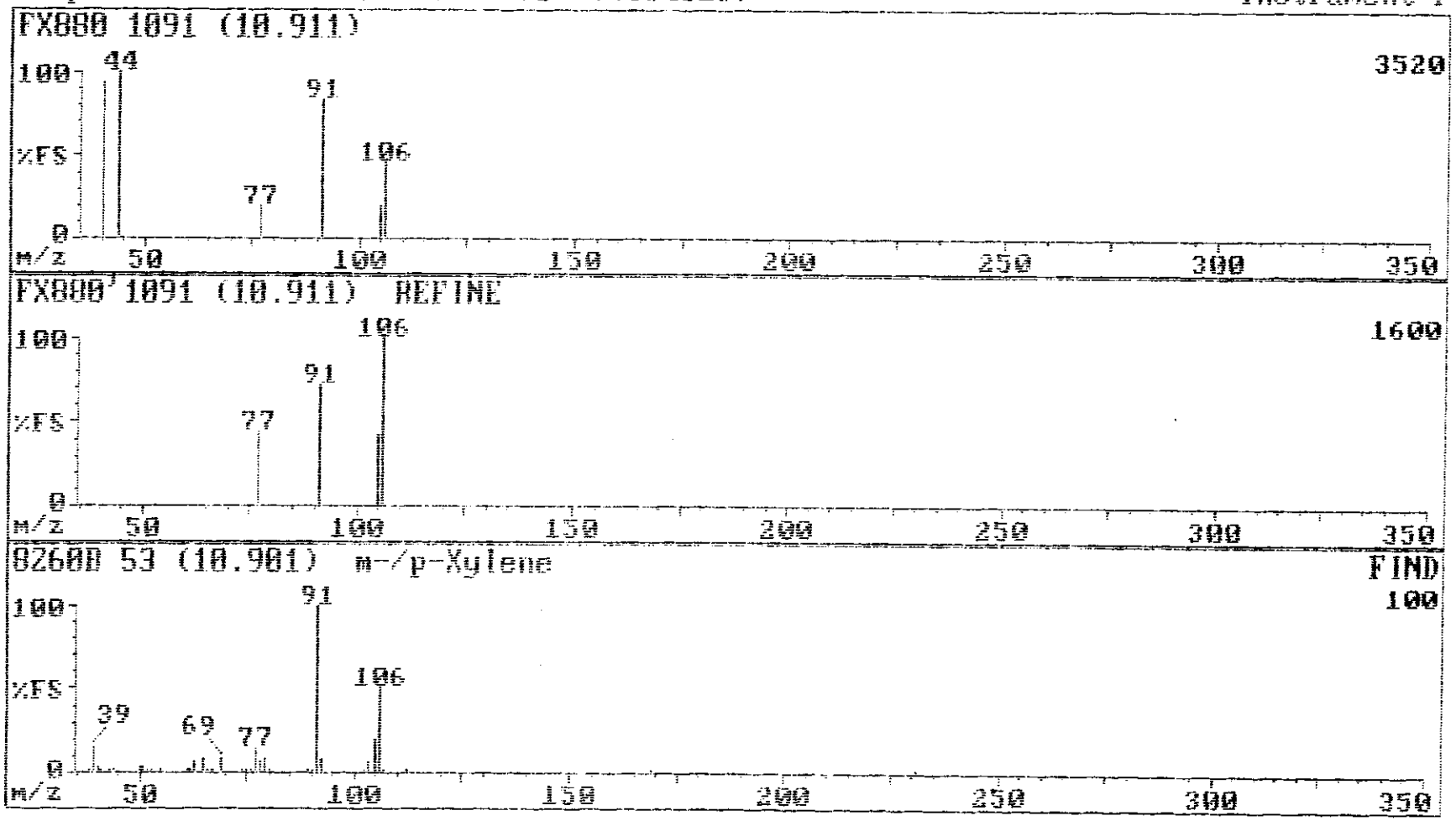


8260B 41 (8.081) Toluene FIND 100



17-Aug-98 17:30 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-1-2-B TC 214-1-7B TLI#46297 Instrument F



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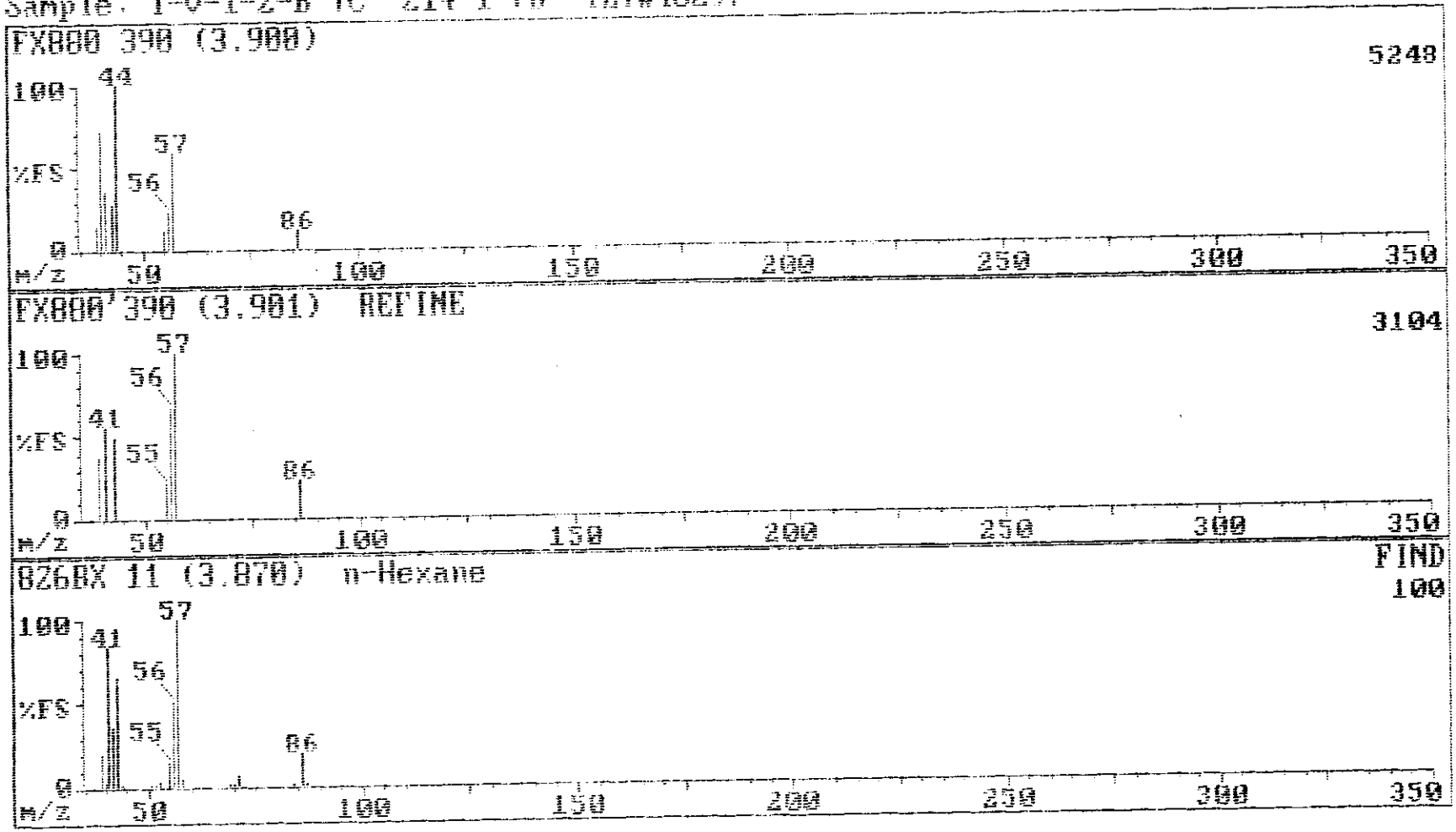
Sample: T-V-1-2-B TC 214-1-7B TL1#46297 Instrument F



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Pacific Environmental Services

Project Number: 46297
Sample File: HW713

Method 8260 VOST
Sample ID: T-V-1-3-A T

Client Project: Holmix
TLI ID: 214-1-8A

Date Received: 07/25/98

Date Analyzed : 08/19/98

Response File: ICALH809

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Pentafluorobenzene		IS 1	5.05		
Chloromethane		U		0.001	0.05
Vinyl Chloride		U		0.001	0.05
Bromomethane	0.005	J	1.47		0.05
Chloroethane	0.007	J	1.59		0.05
Trichlorofluoromethane	0.009	J	1.89		0.05
1,1-Dichloroethene		U		0.001	0.05
Iodomethane		U		0.001	0.05
Carbon disulfide	0.012	J	2.58		0.05
Acetone	0.589		2.73		0.05
Allyl chloride		U		0.001	0.05
Methylene chloride	0.058	B	3.06		0.05
Acrylonitrile		U		0.003	0.05
trans-1,2-Dichloroethene		U		0.001	0.05
1,1-Dichloroethane		U		0.001	0.05
Vinyl acetate		U		0.001	0.05
cis-1,2-Dichloroethene		U		0.001	0.05
2-Butanone	0.509		4.52		0.05
Chloroform		U		0.001	0.05
1,1,1-Trichloroethane		U		0.001	0.05
1,4-Difluorobenzene		IS 2	5.78		
Carbon tetrachloride		U		0.001	0.05
Benzene	0.516		5.25		0.05
1,2-Dichloroethane		U		0.001	0.05
Trichloroethene		U		0.001	0.05
1,2-Dichloropropane		U		0.001	0.05

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

Triangle Laboratories, Inc.
801 Capitola Drive • Durham, North Carolina 27713
Phone: (919) 544-5729 • Fax: (919) 544-5491

Savar v3.7
Printed: 18:03 08/24/1998

Pacific Environmental Services

Project Number: 46297
Sample File: HW713

Method 8260 VOST
Sample ID: T-V-1-3-A T

Client Project: Hotmix
TLI ID: 214-1-8A

Date Received: 07/25/98
Date Analyzed : 08/19/98

Response File: ICALH809

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Methyl methacrylate		U		0.001	0.05
Bromodichloromethane		U		0.001	0.05
cis-1,3-Dichloropropene		U		0.001	0.05
4-Methyl-2-pentanone		U		0.001	0.05
Toluene	0.455	B	7.76		0.05
trans-1,3-Dichloropropene		U		0.001	0.05
1,1,2-Trichloroethane		U		0.001	0.05
Chlorobenzene-d_5		IS 3	10.00		
Tetrachloroethene	0.038	J	8.59		0.05
2-Hexanone		U		0.001	0.05
Dibromochloromethane		U		0.001	0.05
1,2-Dibromoethane		U		0.001	0.05
Chlorobenzene		U		0.001	0.05
Ethylbenzene	0.105		10.33		0.05
m-/p-Xylene	0.758	B	10.57		0.10
o-Xylene	0.181		11.28		0.05
Styrene		U		0.001	0.05
Bromoform		U		0.001	0.05
1,4-Dichlorobenzene-d_4		IS 4	15.18		
Cumene		U		0.001	0.05
1,1,2,2-Tetrachloroethane		U		0.001	0.05

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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Printed: 18:03 08/24/1998

Pacific Environmental Services

Project Number: 46297
Sample File: HW713

Method 8260 VOST
Sample ID: T-V-1-3-A T

Client Project: Hotmix
TLI ID: 214-1-8A

Date Received: 07/25/98

Date Analyzed : 08/19/98

Response File: ICALH809

Surrogate Summary	Amount (ug)	RT	IS Ref	%REC
Dibromofluoromethane	0.258	4.92	1	103
Toluene-d_8	0.338	7.67	2	135
4-Bromofluorobenzene	0.341	12.29	2	136

Reviewed by YR Date 8/24/98

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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Savar v3.7
Printed: 18:03 08/24/1998

Pacific Environmental Services

Project Number: 46297
Sample File: HW713

Method 8260 VOST
Sample ID: T-V-1-3-A T

Client Project: Hotmix
TLI ID: 214-1-8A

Date Received: 07/25/98
Date Analyzed : 08/19/98

Response File: ICALH819

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Pentafluorobenzene		IS 1 High	5.05		
1,3-Butadiene		U		0.001	0.25
Vinyl bromide		U		0.001	0.25
MTBE	0.019	J	3.41		0.25
n-Hexane	0.111	BJ	3.67		0.25
1,2-Epoxybutane		U		0.011	0.25
Iso-Octane		U		0.001	0.25
1,4-Difluorobenzene		IS 2	5.78		
Ethyl acrylate		U		0.001	0.25

Reviewed by M Date 8/24/98

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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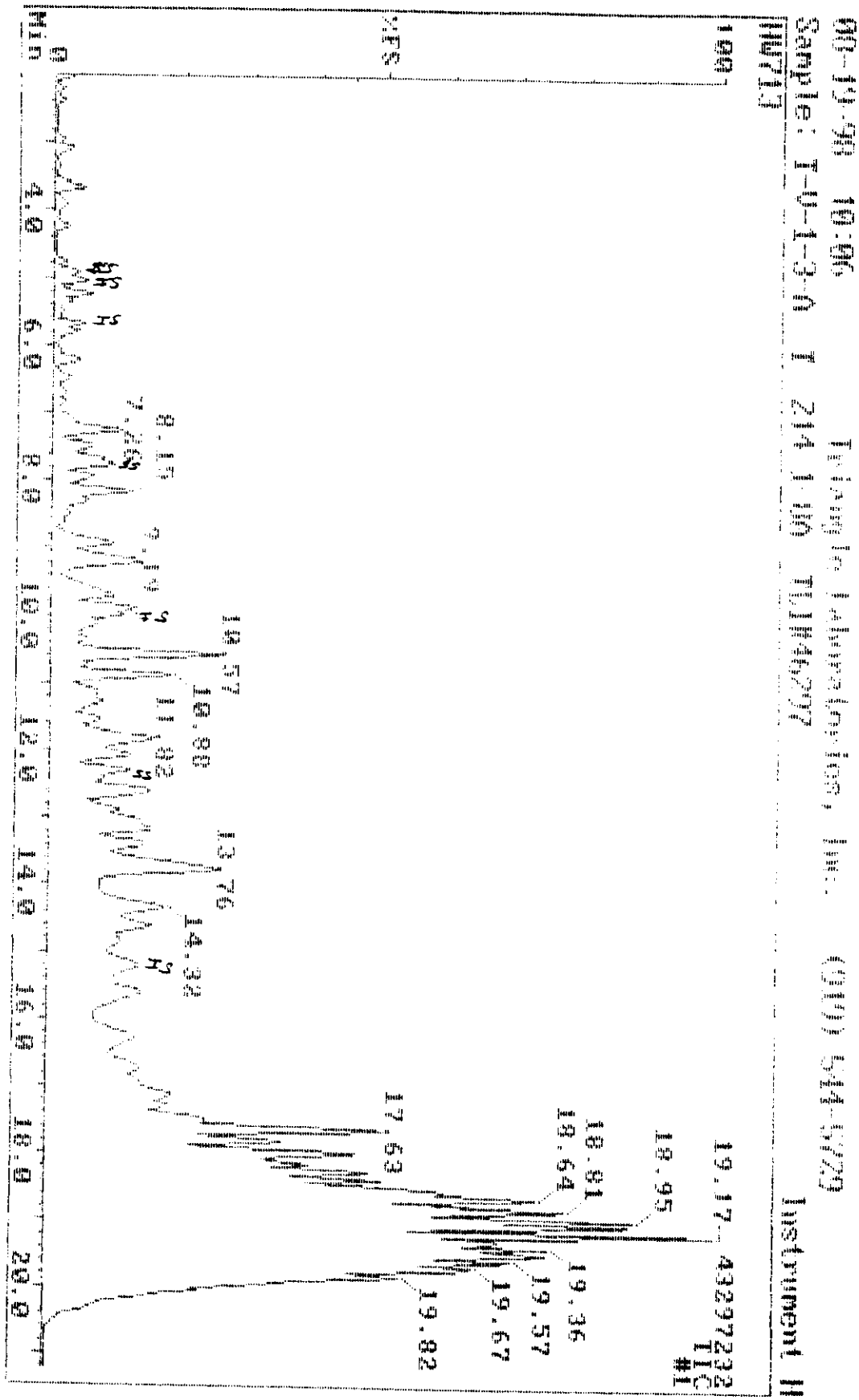
Printed: 18:34 08/24/1998



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Data Review: ML
Date: 8/19/97

QUAN DB : HW715 LAB-BASE QUAN 08-19-98 10:52

No.	MAT	FOR	REV	Delta	Area	P.Flags	RT	QM	Name
1	99	64	96	1	3804232	bb	5.05	168	Pentafluorobenzene
2	100	79	94	0	3448160	bv	5.78	114	1,4-Difluorobenzene
3	84	59	77	2	5510642	bv	10.00	117	Chlorobenzene-d5
4	70	25	89	4	5201178	bv	15.13	152	1,4-Dichlorobenzene-d4
5	100	55	99	0	2133723	bv	4.92	113	Dibromofluoromethane
6	98	71	89	1	5526336	bb	7.67	98	Toluene-d8
7	73	49	75	2	3534592	vv	12.99	95	4-Bromofluorobenzene
8	0	0	0	0	0		0.00	85	Dichlorodifluoromethane
9	0	0	0	0	0		0.00	50	Chloromethane
10	0	0	0	0	0		0.00	62	Vinyl Chloride
11	95	70	90	-2	31540	bb	1.47	94	Bromomethane
12	61	32	71	-3	29444	bb	1.59	64	Chloroethane
13	92	64	94	-2	141896	bb	1.89	101	Trichlorofluoromethane
14	0	0	0	0	0		0.00	96	1,1-Dichloroethene
15	0	0	0	0	0		0.00	142	Iodomethane
16	74	30	81	-1	190930	bb	2.53	76	Carbon Disulfide
17	97	82	95	5	457469	vv	2.75	42	Acetone
18	0	0	0	0	0		0.00	41	Allyl Chloride
19	0	0	0	0	316736 m		~~[illegible]~~ 306	84	Methylene Chloride
20	28	10	38	-4	~~[illegible]~~		~~[illegible]~~ FP	65	Acrylonitrile
21	0	0	0	0	0		0.00	96	trans-1,2-Dichloroethene
22	0	0	0	0	0		0.00	[illegible]	[illegible]
23	0	0	0	0	0		0.00	87	Vinyl Acetate
24	0	0	0	0	0		0.00	[illegible]	1,1-Dichloroethane
25	0	0	0	0	0		0.00	96	cis-1,2-Dichloroethene
26	100	80	98	2	4979217	bv	1.[illegible]	43	2-Butanone
27	0	0	0	0	0		0.00	83	Chloroform
28	0	0	0	0	0		0.00	128	Bromochloromethane
29	0	0	0	0	0		0.00	97	1,1,1-Trichloroethane
30	0	0	0	0	0		0.00	117	Carbon Tetrachloride
31	0	0	0	0	0		0.00	75	1,1-Dichloropropene
32	100	97	99	1	8344602	bv	5.25	78	Benzene
33	0	0	0	0	0		0.00	62	1,2-Dichloroethane
34	0	0	0	0	0		0.00	130	Trichloroethene
35	0	0	0	0	0		0.00	63	1,2-Dichloropropane
36	0	0	0	0	0		0.00	93	Dibromomethane
37	42	44	56	-14	~~[illegible]~~		~~[illegible]~~ FP	41	Methyl methacrylate
38	0	0	0	0	0		0.00	83	Bromodichloromethane
39	0	0	0	0	0		0.00	75	cis-1,3-Dichloropropene
40	30	23	63	3	~~[illegible]~~		~~[illegible]~~ FP	43	4-Methyl-2-pentanone
41	100	88	99	0	6375234	bb	7.76	92	Toluene
42	0	0	0	0	0		0.00	75	trans-1,3-Dichloropropene
43	0	0	0	0	0		0.00	97	1,1,2-Trichloroethane
44	0	0	0	0	0		0.00	69	Ethyl methacrylate
45	71	63	80	0	321832	bb	8.39	164	Tetrachloroethene
46	0	0	0	0	0		0.00	76	1,3-Dichloropropane
47	44	26	67	-10	~~[illegible]~~		~~[illegible]~~ FP	43	2-Hexanone
48	0	0	0	0	0		0.00	129	Dibromochloromethane
49	0	0	0	0	0		0.00	107	1,2-Dibromoethane
50	0	0	0	0	0		0.00	112	Chlorobenzene

Data Review: YM
Date: 8/19/98

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No.	MAT	FOR	RFV	Delta	Area	P.Flags	RT	QM	Name
51	0	0	0	0	0		0.00	131	1,1,2-Tetrachloroethan
52	88	57	88	-1	1249020	bv	10.33	106	Ethylbenzene
53	100	74	91	-1	1128750	vv	10.57	106	m/p-Xylene
54	72	64	87	0	2551878	vv	11.23	106	o-Xylene
55	0	0	0	0	0		0.00	104	Styrene
56	0	0	0	0	0		0.00	173	Bromoform
57	0	0	0	0	0		0.00	105	Cumene
58	0	0	0	0	0		0.00	83	1,1,2,2-Tetrachloroethan
59	0	0	0	0	0		0.00	156	Bromobenzene
60	0	0	0	0	0		0.00	75	1,2,3-Trichloropropane
61	0	0	0	0	0		0.00	120	n-Propylbenzene
62	0	0	0	0	0		0.00	75	trans-1,4-Dichloro-2-but
63	0	0	0	0	0		0.00	126	2-Chlorotoluene
64	0	0	0	0	0		0.00	126	4-Chlorotoluene
65	41	51	72	-24	1284920	vv	13.18	105	1,3,5-Trimethylbenzene
66	0	0	0	0	0		0.00	119	tert-Butylbenzene
67	96	59	95	0	1552730	vv	14.33	105	1,2,4-Trimethylbenzene
68	39	10	55	-2	[illegible]	[illegible]	[illegible]	105	sec-Butylbenzene
69	65	31	7[illegible]	1	6726034	[illegible]	15.45	119	p-Cymene
70	0	0	0	0	0		0.00	146	1,3-Dichlorobenzene
71	0	0	0	0	0		0.00	146	1,4-Dichlorobenzene
72	0	0	0	0	0		0.00	[illegible]	[illegible]
73	0	0	0	0	0		0.00	91	n-Butylbenzene
74	0	0	0	0	0		0.00	146	1,2-Dichlorobenzene
75	0	0	0	0	0		0.00	75	1,2-Dibromo-3-chloroprop
76	0	0	0	0	0		0.00	180	1,2,4-Trichlorobenzene
77	0	0	0	0	0		0.00	225	Hexachlorobutadiene
78	0	0	0	0	0		0.00	128	Naphthalene
79	0	0	0	0	0		0.00	180	1,2,3-Trichlorobenzene

FP

YR 8/19/95

101

QUAN DB : HW7L3 LAR-BASE QUAN 08-19-98 [illegible]

No.	MAT	FOR	REV	Delta	Area	P	Flags	RT	QM	Name
1	99	64	96	1	3884272	bb		5.05	168	Pentafluorobenzene
2	100	79	94	1	5448160	bv		5.73	114	1,4-Difluorobenzene
3	84	59	77	3	5510642	bv		10.00	117	Chlorobenzene-d5
4	69	25	89	7	3201178	bv		15.13	152	1,4-Dichlorobenzene-d4
5	98	65	99	1	2133728	bv		4.92	113	Dibromofluoromethane
6	100	71	89	0	6526836	bb		7.67	98	Toluene-d8
7	69	49	75	4	3534592	vv		12.89	95	4-Bromofluorobenzene
8	66	43	74	6	[illegible]	vv		[illegible]	39	1,3-Butadiene
9	0	0	0	0	0			0.00	106	Vinyl bromide
10	93	72	79	0	90520	bv		3.41	73	MTBE
11	100	97	100	0	3996291	vv		3.67	57	n-Hexane
12	82	59	75	-2	[illegible]	bv		[illegible]	42	1,2-Epoxybutane
13	70	51	64	1	[illegible]	bv		[illegible]	57	Iso-Octane
14	41	30	60	-14	[illegible]	bv		[illegible]	53	Ethyl acrylate

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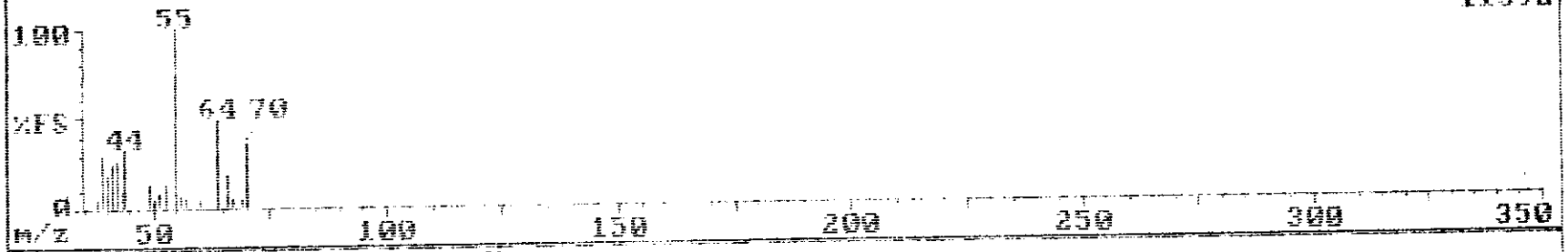
MC 8/19/98

103

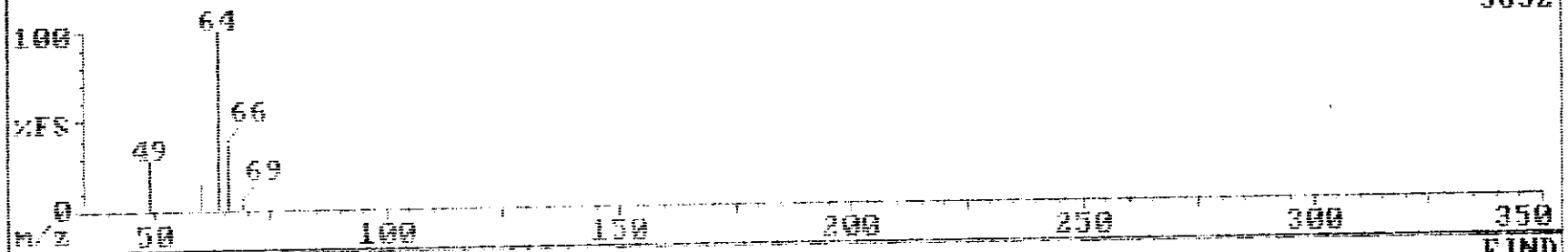
08-19-98 10:06 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-1-3-A T 214-1-00 TLI#46297 Instrument H

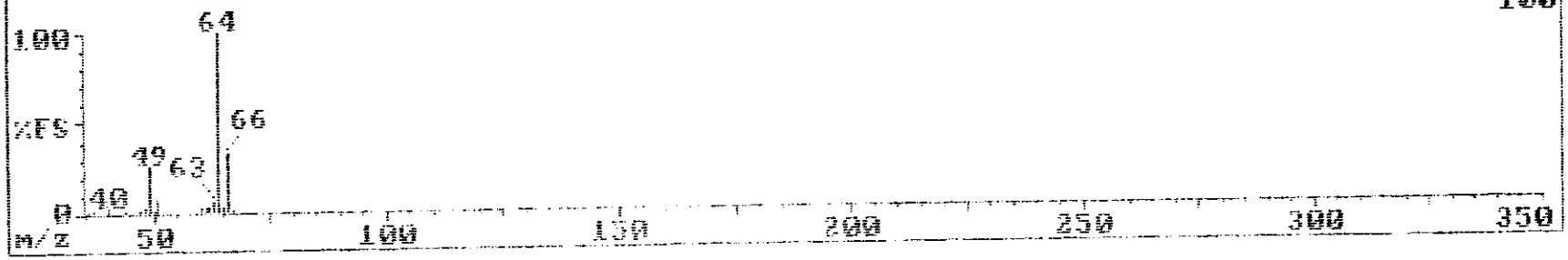
HW713 159 (1.590) 11392



HW713' 159 (1.591) REFINE 5632



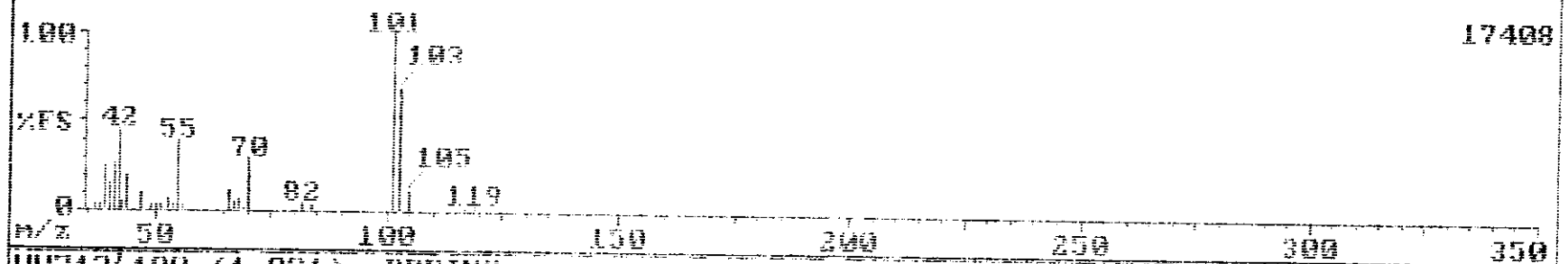
8260B 12 (1.620) Chloroethane FIND 100



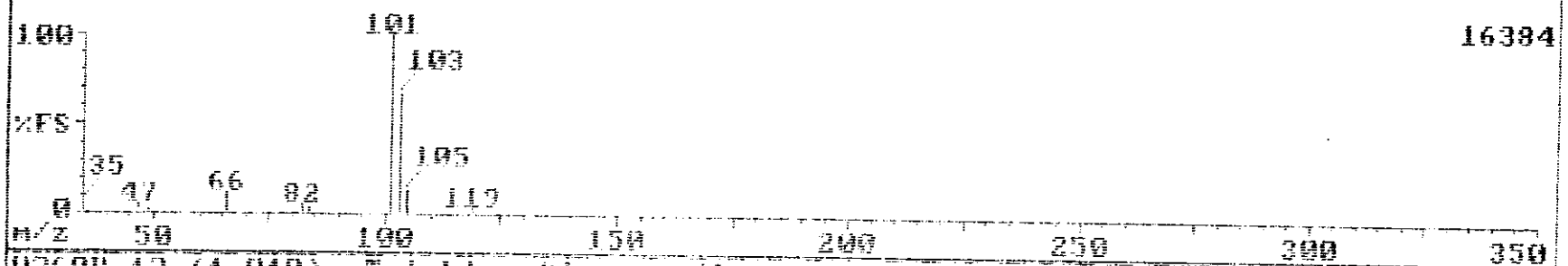
08-19-98 10:06 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-1-3-A T 214 1-80 TLI#46297 Instrument H

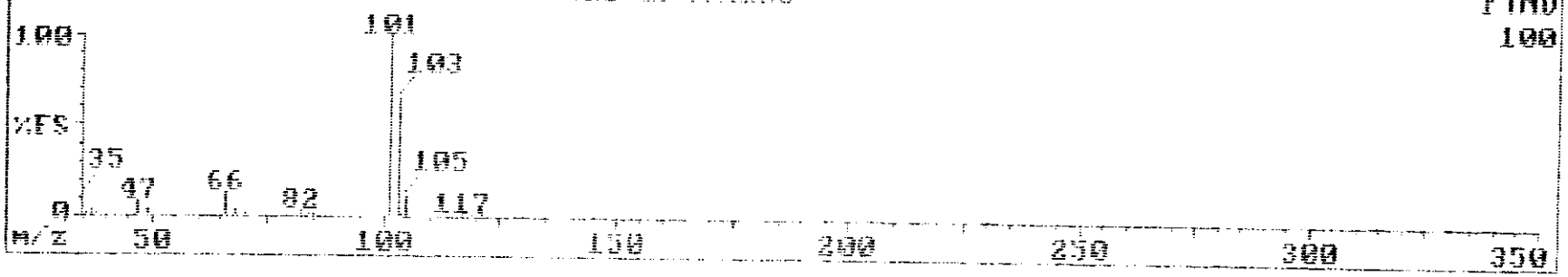
HW713 109 (1.890)



HW713' 109 (1.891) REFINE



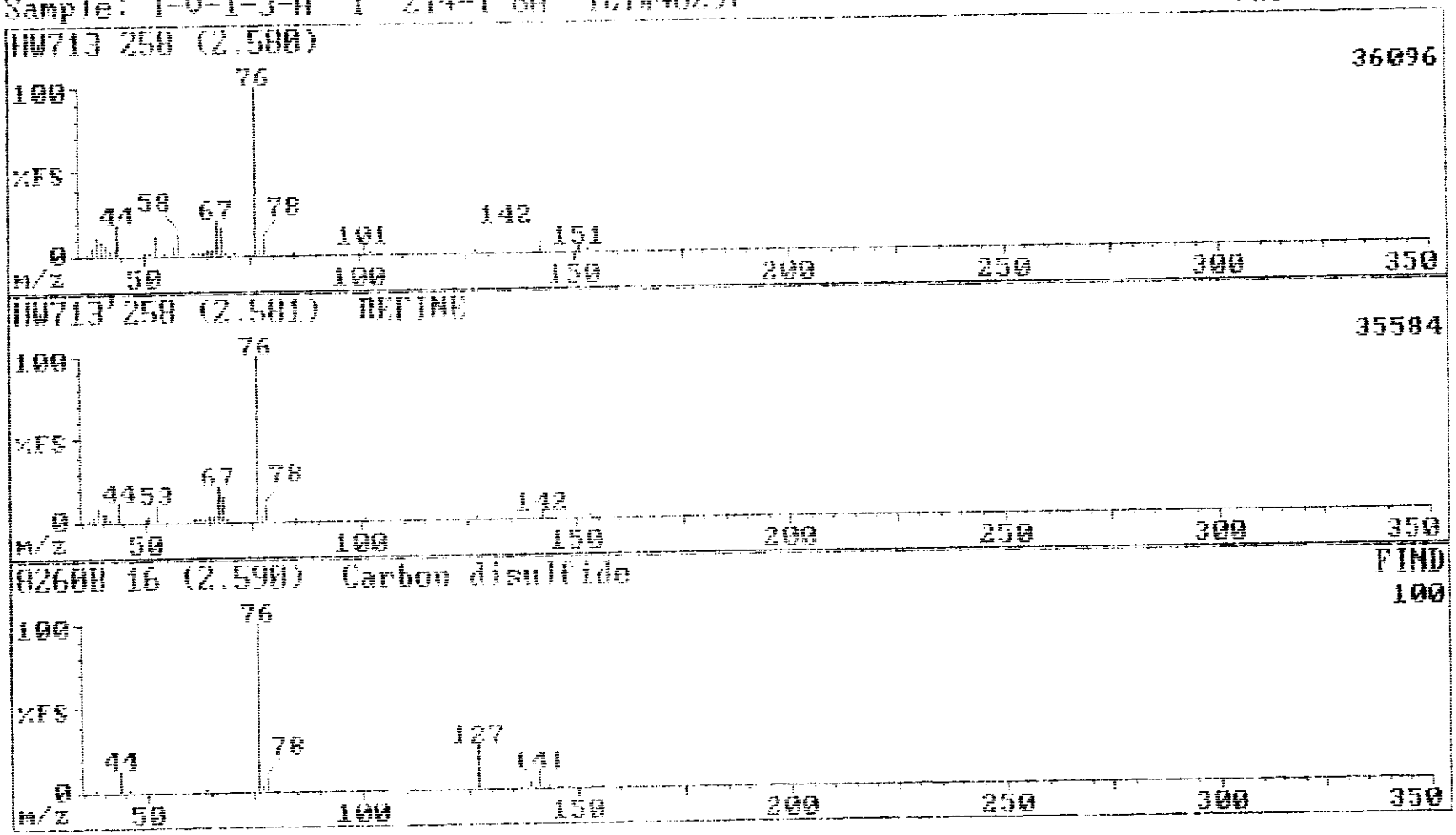
02608 13 (1.910) Trichlorofluoromethane FIND



105

08-19-98 10:06 Triangle Laboratories, Inc. (919) 544-5729

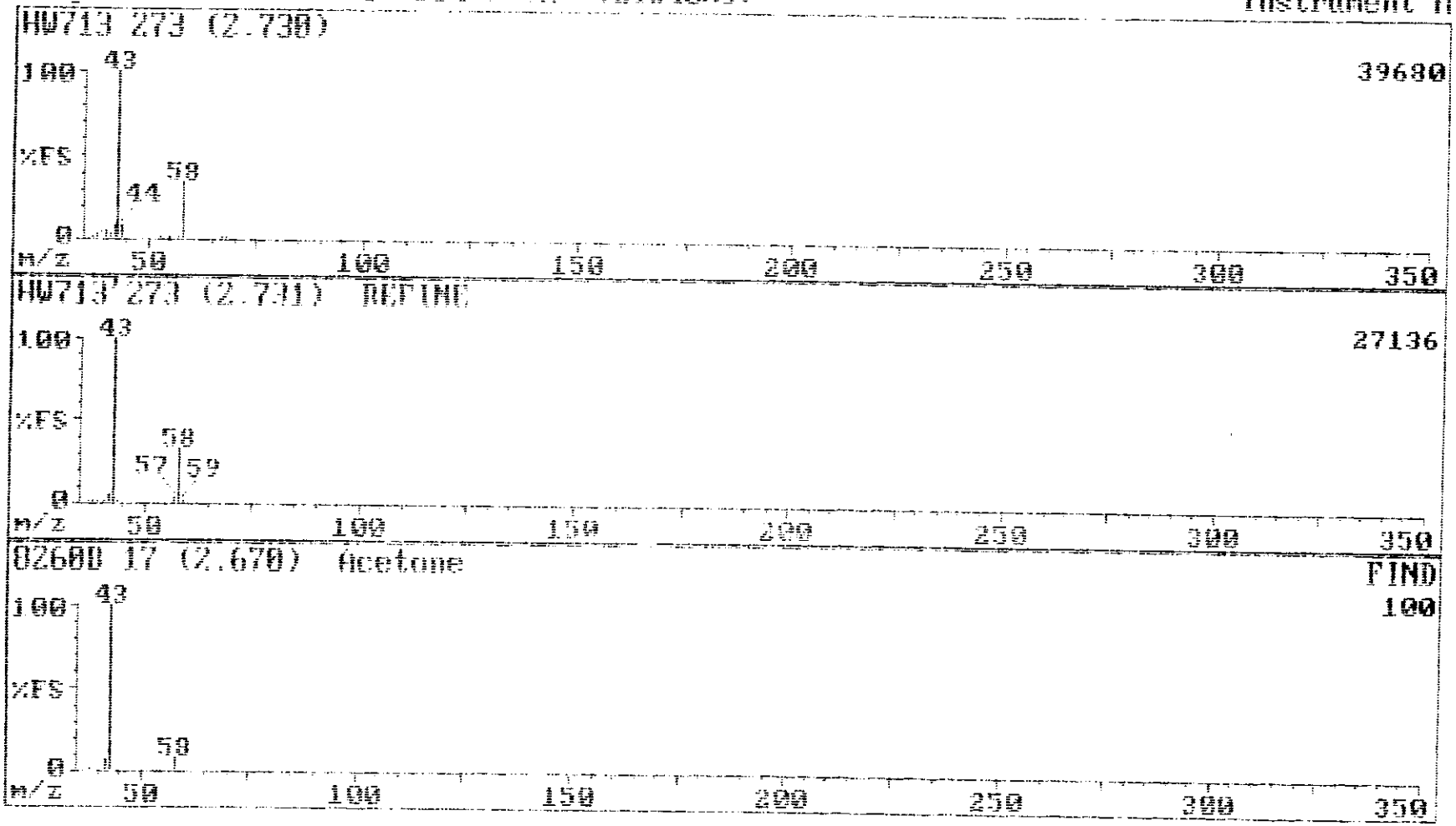
Sample: T-V-1-3-A T 214-1 8A TLI#46297 Instrument H



106

00-19-90 10:06 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-1-3-A T 214-1-00 TL1#46297 Instrument II

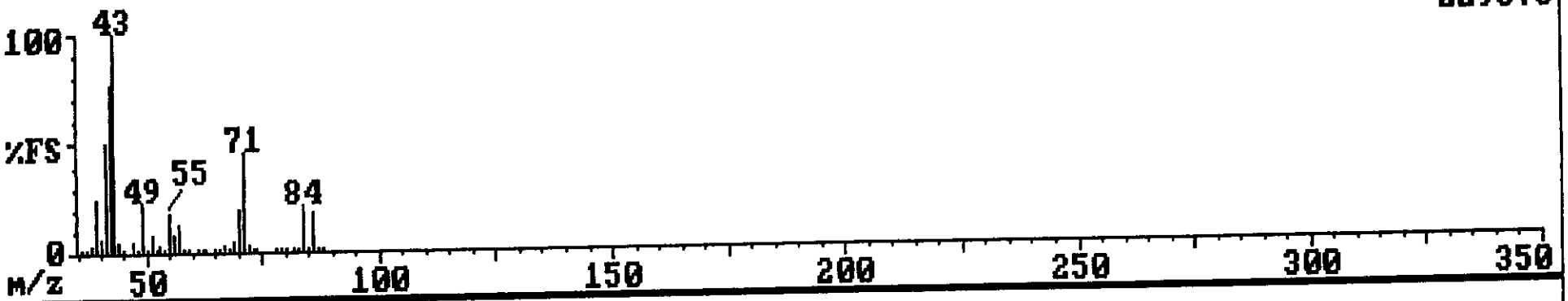


19-Aug-98 10:06 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-1-3-A T 214-1-8A TLI#46297 Instrument H

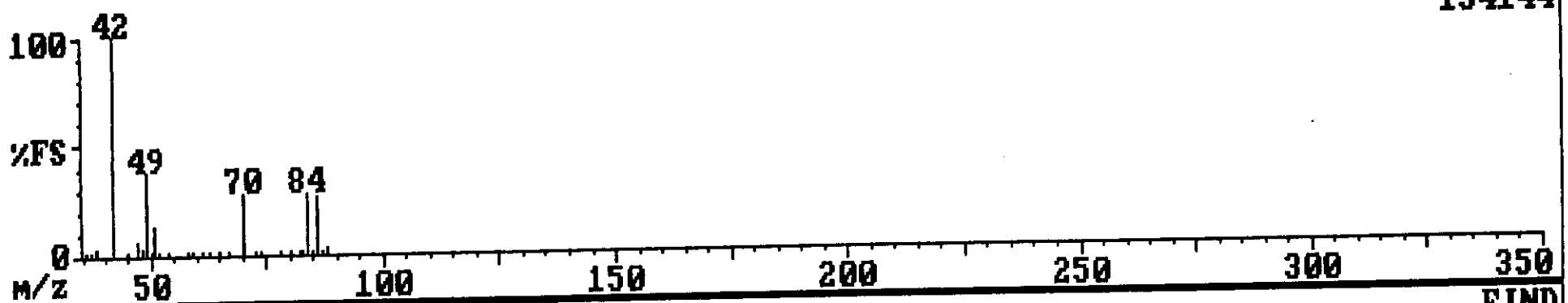
HW713 306 (3.060)

229376



HW713'306 (3.061) REFINE

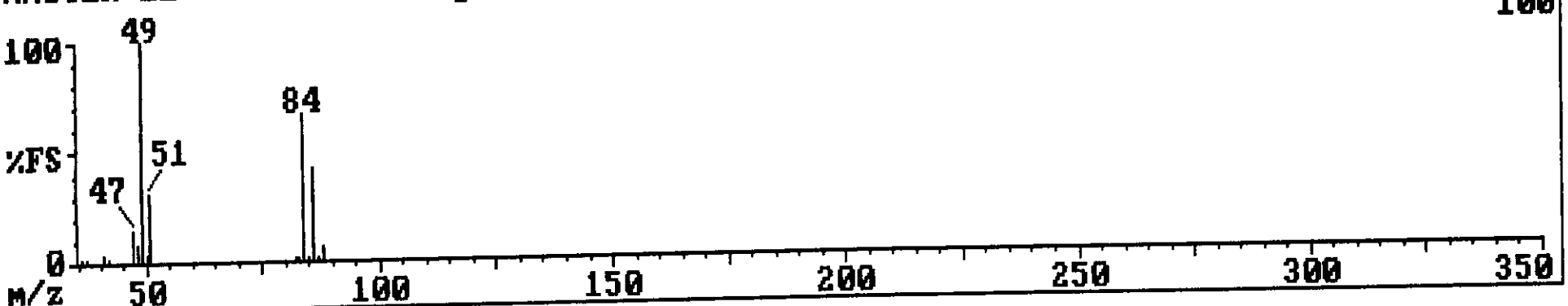
134144



MASTER 22 (3.590) Methylene chloride

FIND

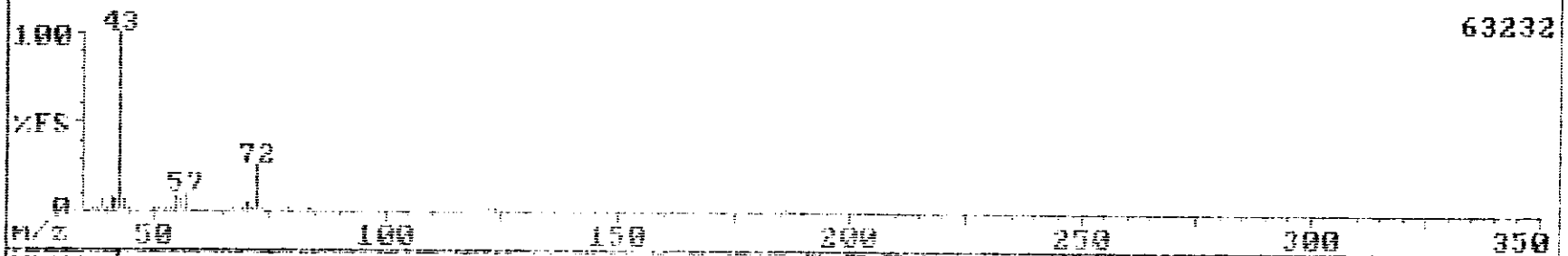
100



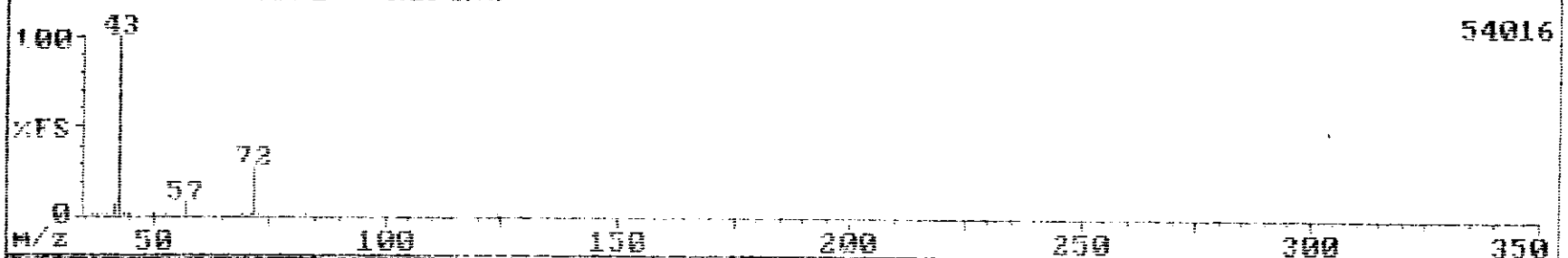
08-19-98 10:06 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-1-3-A T 214-1-0A TLI#46297 Instrument H

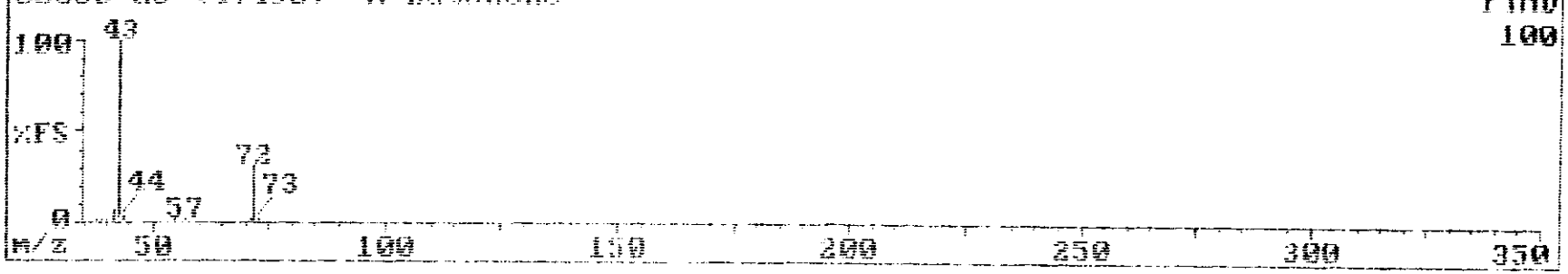
HW713 452 (4.521)



HW713 452 (4.521) REFINE



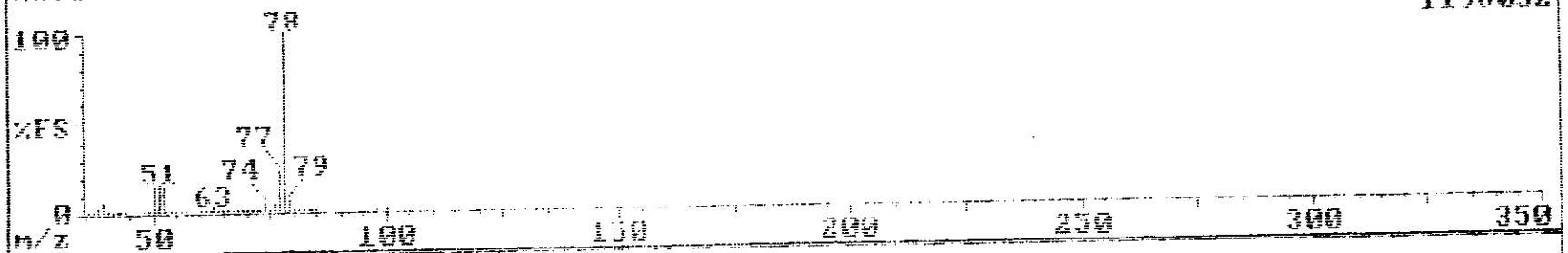
82600 26 (4.490) 2-Butanone



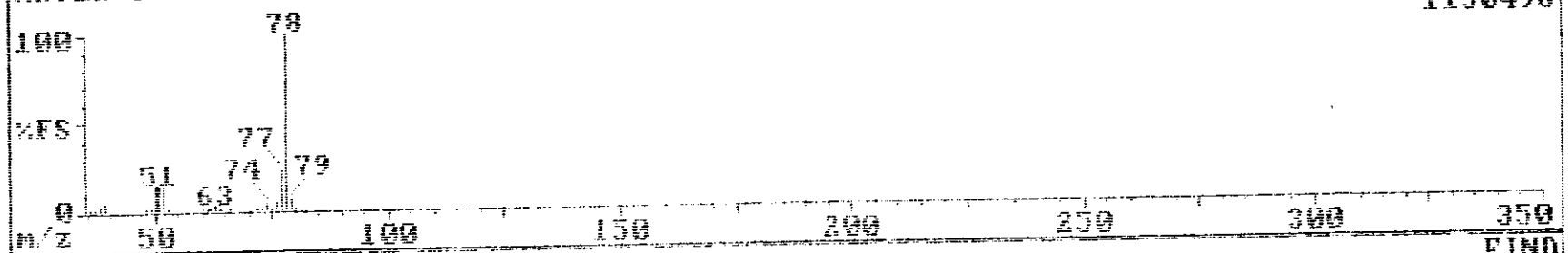
08-19-98 10:06 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-1-3-A T Z14-1-90 TLJ#46297 Instrument H

HW713 525 (5.251) 1196032

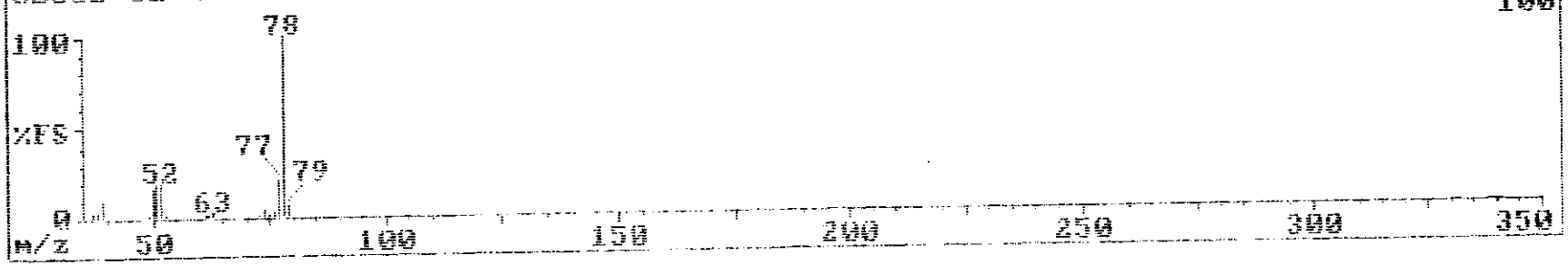


HW713'525 (5.251) REFINC 1130496



FIND 100

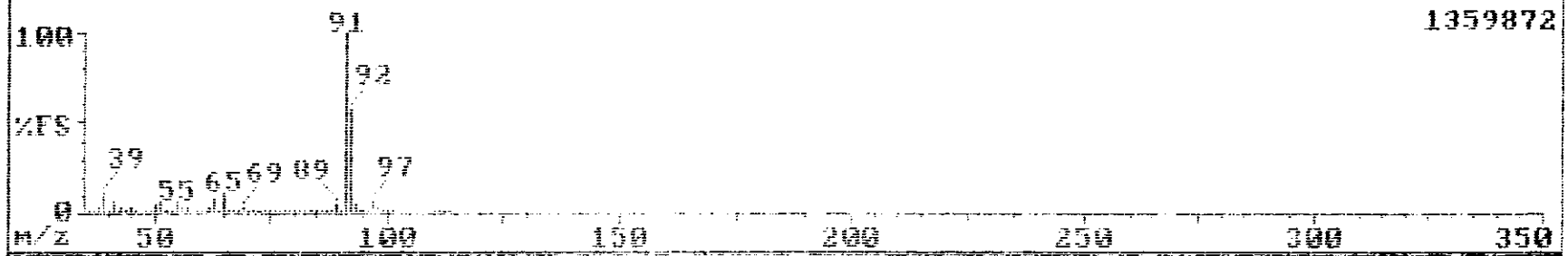
8260B 32 (5.231) Benzene



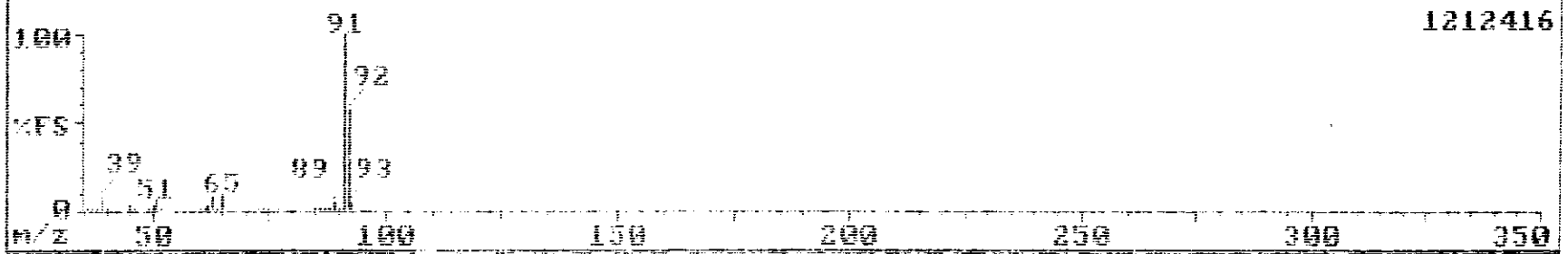
08-19-90 10:06 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-1-3-A T 214-1-0A TL1W46297 Instrument H

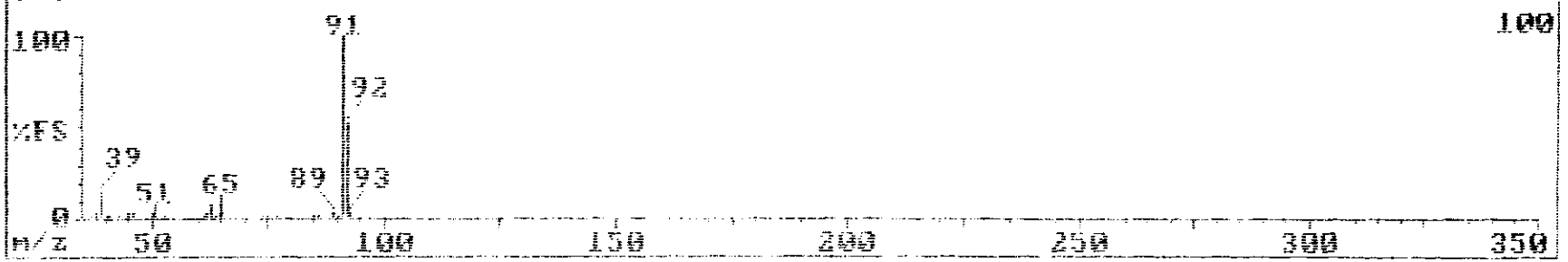
HW713 776 (7.761) 1359872



HW713 776 (7.761) REFINE 1212416



8260R 41 (7.751) Toluene FIND 100

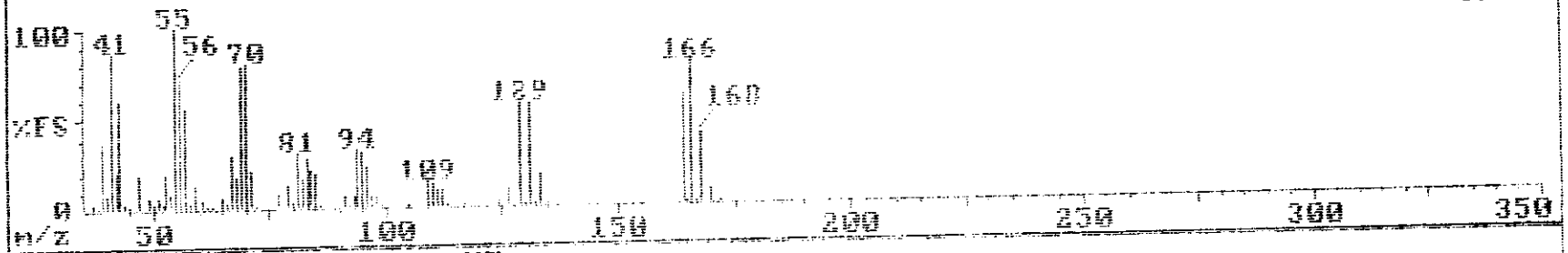


111

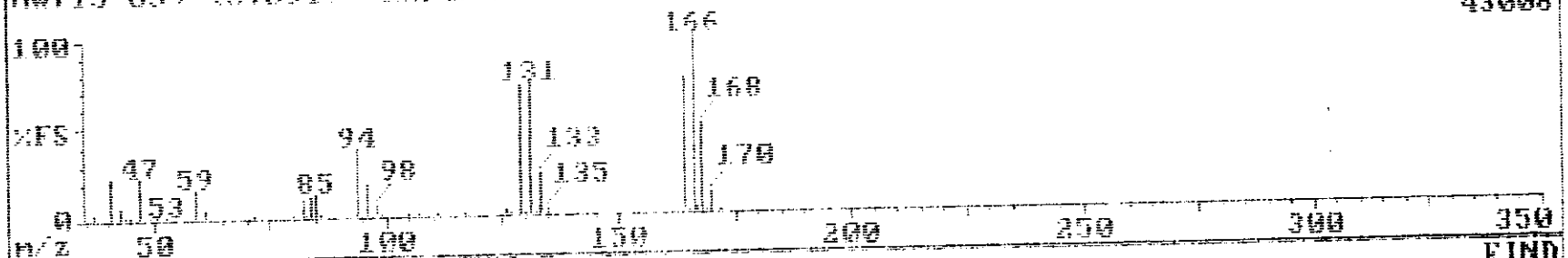
08-19-98 10:06 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-1-3-A T Z14-1-00 TLI#46297 Instrument H

HW713 059 (8.591) 62464

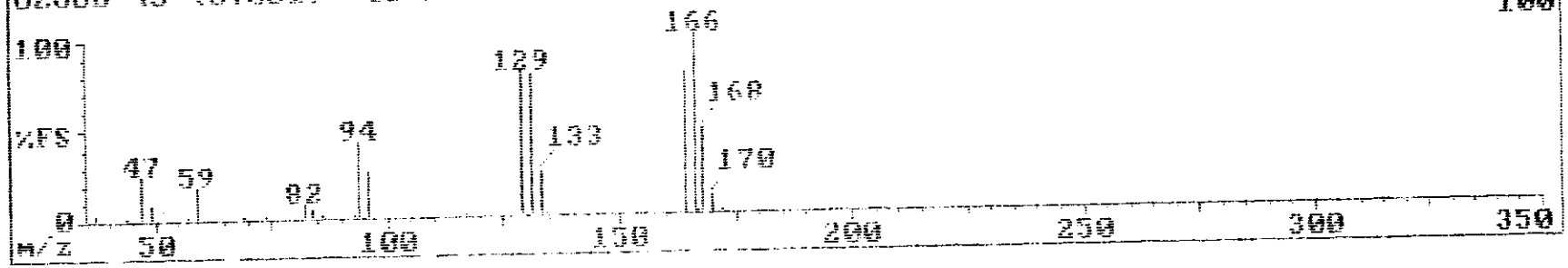


HW713'059 (8.591) MDPINC 43008



FIND

82608 45 (8.561) Tetrachloroethene 100



SYNOPTIC CHART
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NO
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ADVANCED
MEASUREMENTS, INC.
CAMBRIDGE, MASS.
02139
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DATE
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TEMPERATURE
DEW POINT
WIND SPEED
WIND DIRECTION
PRECIPITATION
CLOUDS
VISIBILITY
WEATHER
PRESENT
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DIRECTION
PERIOD
HEIGHT
SEA TEMP
AIR TEMP
SEA LEVEL
PRESSURE
TENDENCY
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AMOUNT
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DIRECTION
SPEED
VISIBILITY
WEATHER
CLOUDS
DEW POINT
TEMPERATURE
PRESSURE
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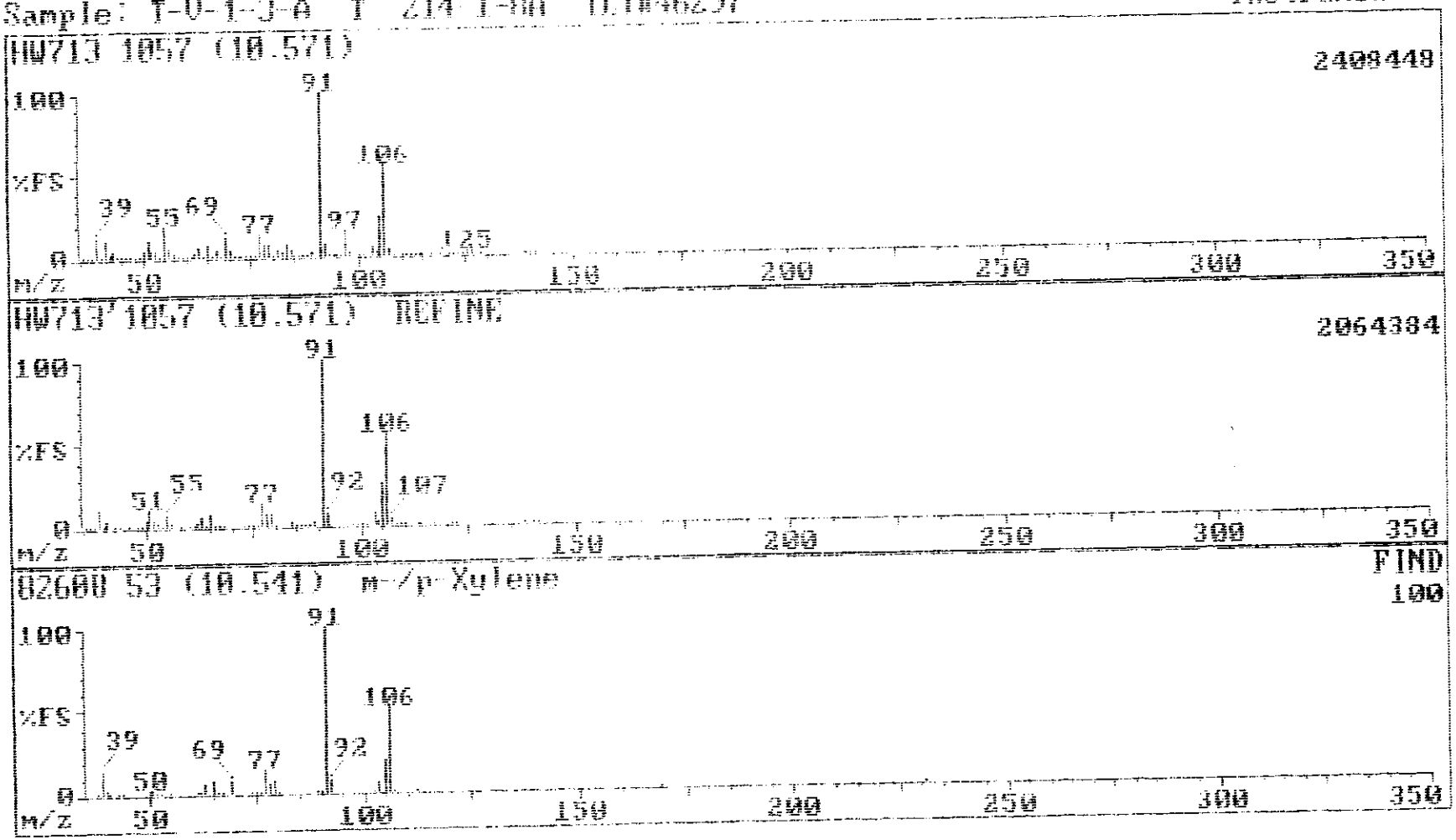
INSTRUMENT
ATMOSPHERIC
ADVANCED
MEASUREMENTS, INC.
CAMBRIDGE, MASS.
02139
333216
010440

113

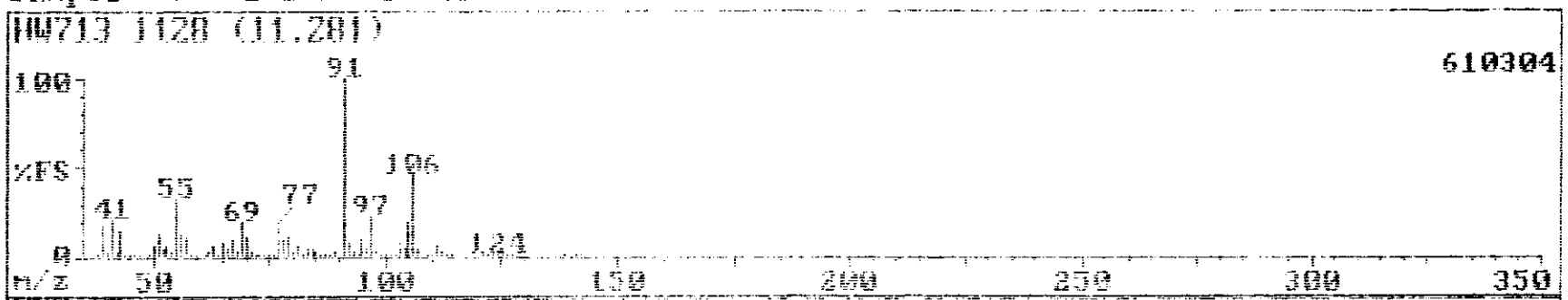
08-19-98 10:06 Triangle Laboratories, Inc. (919) 544-5729

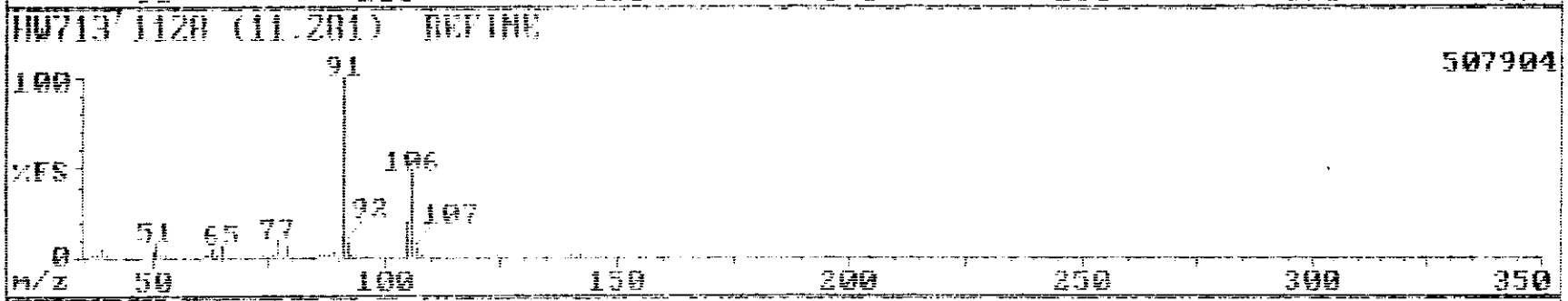
Sample: T-V-1-3-A T 214 1-8A TLI#46297 Instrument H

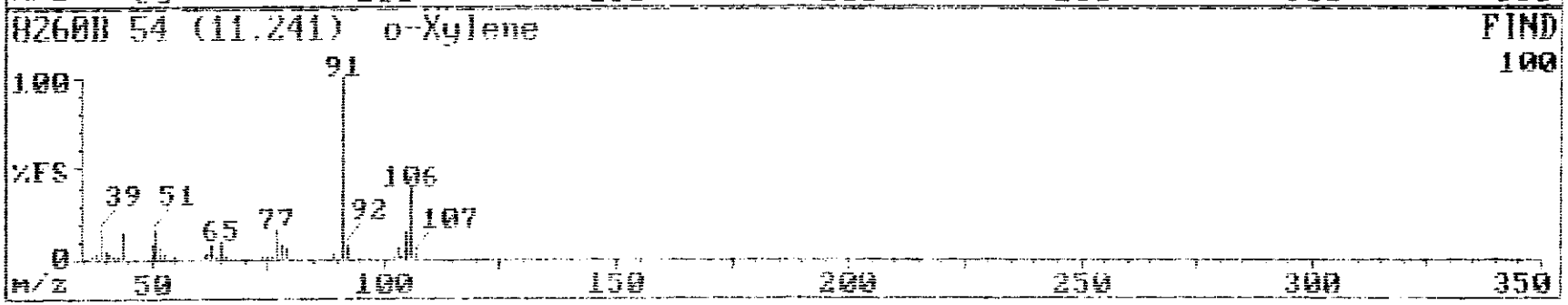


08-19-90 10:06 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-1-3 A I 214 1 00 TLI#46297 Instrument H





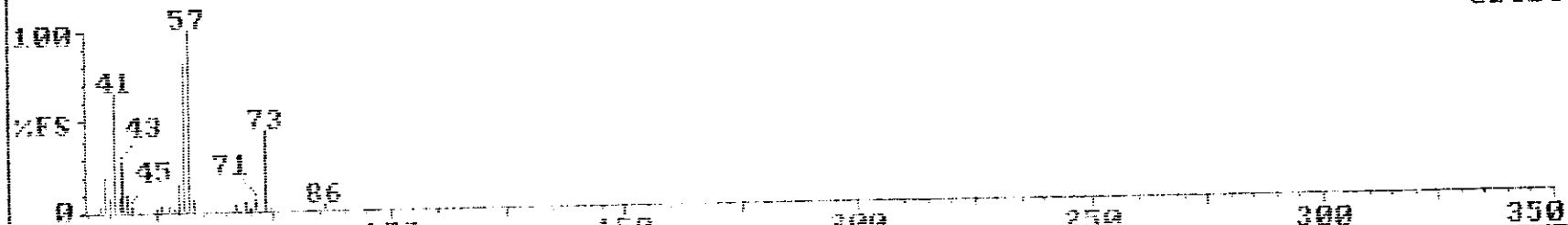


115

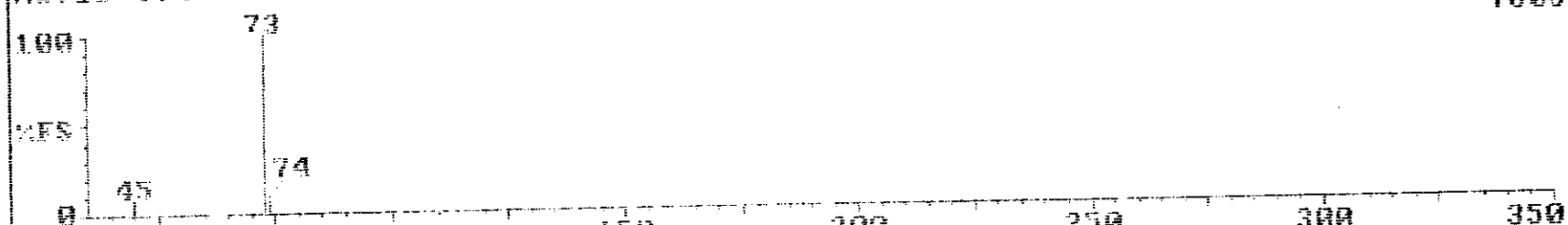
08-19-98 10:06 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-1-3-A I 214-1-0A TLI#46297 Instrument II

HW713 341 (3.410) 22016

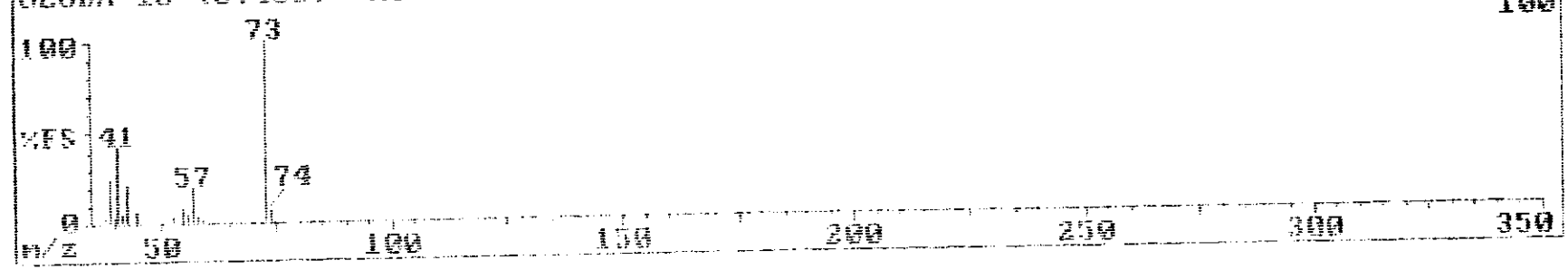


HW713 341 (3.411) REFINE 7808



FIND

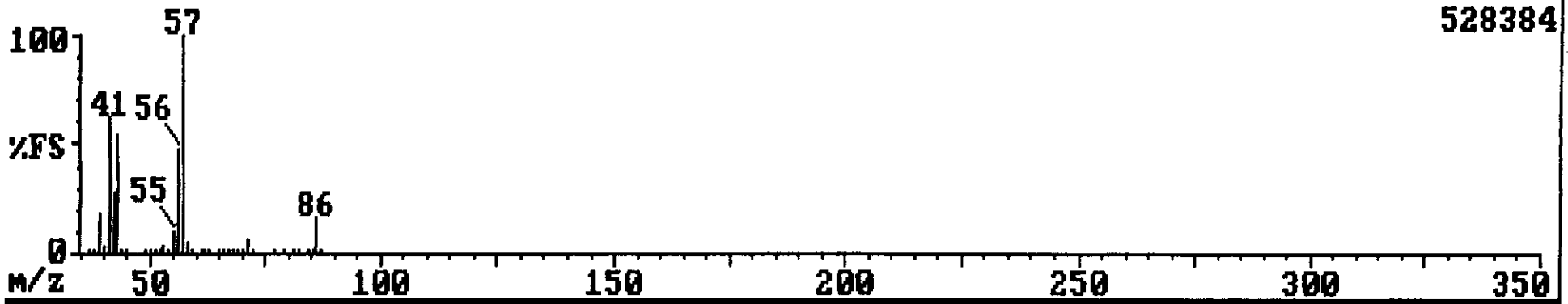
826BX 10 (3.400) MTHE 100



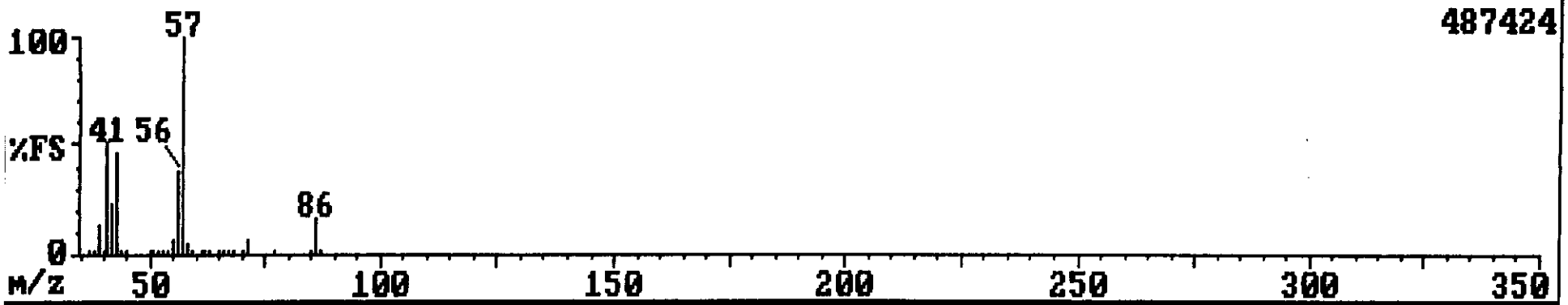
19-Aug-98 10:06 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-1-3-A T 214-1-8A TLI#46297 Instrument H

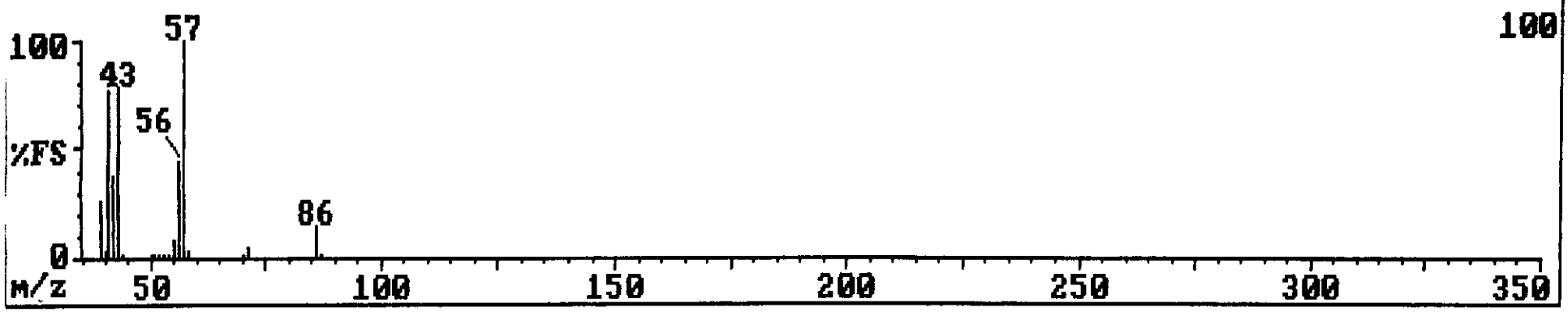
HW713 367 (3.670)



HW713 367 (3.671) REFINE



MASTER 26 (4.240) n-Hexane FIND



Pacific Environmental Services

Project Number: 46297
Sample File: FX882

Method 8260 VOST
Sample ID: T-V-1-3-B TC

Client Project: Hotmix
TLI ID: 214-1-8B

Date Received: 07/25/98
Date Analyzed : 08/17/98

Response File: ICALF814

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Pentafluorobenzene		IS 1	5.30		
Chloromethane	0.083		1.12		0.05
Vinyl Chloride		U		0.001	0.05
Bromomethane	0.109		1.64		0.05
Chloroethane		U		0.001	0.05
Trichlorofluoromethane		U		0.001	0.05
1,1-Dichloroethene		U		0.001	0.05
Iodomethane		U		0.001	0.05
Carbon disulfide	0.006	J	2.76		0.05
Acetone	0.077		2.83		0.05
Allyl chloride		U		0.001	0.05
Methylene chloride	0.026	J	3.26		0.05
Acrylonitrile		U		0.016	0.05
trans-1,2-Dichloroethene		U		0.001	0.05
1,1-Dichloroethane		U		0.001	0.05
Vinyl acetate		U		0.002	0.05
cis-1,2-Dichloroethene		U		0.001	0.05
2-Butanone		U		0.004	0.05
Chloroform		U		0.001	0.05
1,1,1-Trichloroethane		U		0.001	0.05
1,4-Difluorobenzene		IS 2	6.07		
Carbon tetrachloride		U		0.001	0.05
Benzene		U		0.001	0.05
1,2-Dichloroethane		U		0.001	0.05
Trichloroethene		U		0.001	0.05
1,2-Dichloropropane		U		0.001	0.05

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

Triangle Laboratories, Inc.
801 Capitola Drive • Durham, North Carolina 27713
Phone: (919) 544-5729 • Fax: (919) 544-5491

Savar v3.7
Printed: 17:44 08/24/1998

Pacific Environmental Services

Project Number: 46297
Sample File: FX882

Method 8260 VOST
Sample ID: T-V-1-3-B TC

Client Project: Hotmix
TLI ID: 214-1-8B

Date Received: 07/25/98
Date Analyzed : 08/17/98

Response File: ICALF814

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Methyl methacrylate		U		0.006	0.05
Bromodichloromethane		U		0.001	0.05
cis-1,3-Dichloropropene		U		0.001	0.05
4-Methyl-2-pentanone		U		0.005	0.05
Toluene	0.005	BJ	8.08		0.05
trans-1,3-Dichloropropene		U		0.001	0.05
1,1,2-Trichloroethane		U		0.002	0.05
Chlorobenzene-d_5		IS 3	10.35		
Tetrachloroethene		U		0.001	0.05
2-Hexanone		U		0.006	0.05
Dibromochloromethane		U		0.001	0.05
1,2-Dibromoethane		U		0.002	0.05
Chlorobenzene		U		0.001	0.05
Ethylbenzene		U		0.001	0.05
m-/p-Xylene		U		0.001	0.10
o-Xylene		U		0.001	0.05
Styrene		U		0.001	0.05
Bromoform		U		0.003	0.05
1,4-Dichlorobenzene-d_4		IS 4	15.72		
Cumene		U		0.001	0.05
1,1,2,2-Tetrachloroethane		U		0.003	0.05

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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Pacific Environmental Services

Project Number: 46297
Sample File: FX882

Method 8260 VOST
Sample ID: T-V-1-3-B TC

Client Project: Hotmix
TLI ID: 214-1-8B

Date Received: 07/25/98
Date Analyzed : 08/17/98

Response File: ICALF814

Surrogate Summary	Amount (ug)	RT	IS Ref	%REC
Dibromofluoromethane	0.242	5.18	1	97
Toluene-d_8	0.312	8.00	2	125
4-Bromofluorobenzene	0.284	12.65	2	114

Reviewed by YR Date 8/24/98

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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Savar v3.7
Printed: 17:44 08/24/1998

Pacific Environmental Services

Project Number: 46297
Sample File: FX882

Method 8260 VOST
Sample ID: T-V-1-3-B TC

Client Project: Hotmix
TLI ID: 214-1-8B

Date Received: 07/25/98
Date Analyzed : 08/17/98

Response File: ICALF817

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Pentafluorobenzene		IS 1	5.30		
1,3-Butadiene		U		0.001	0.25
Vinyl bromide		U		0.001	0.25
MTBE		U		0.001	0.25
n-Hexane	0.001	J	3.88		0.25
1,2-Epoxybutane		U		0.011	0.25
Iso-Octane		U		0.001	0.25
1,4-Difluorobenzene		IS 2	6.07		
Ethyl acrylate		U		0.003	0.25

Reviewed by YR Date 8/24/98

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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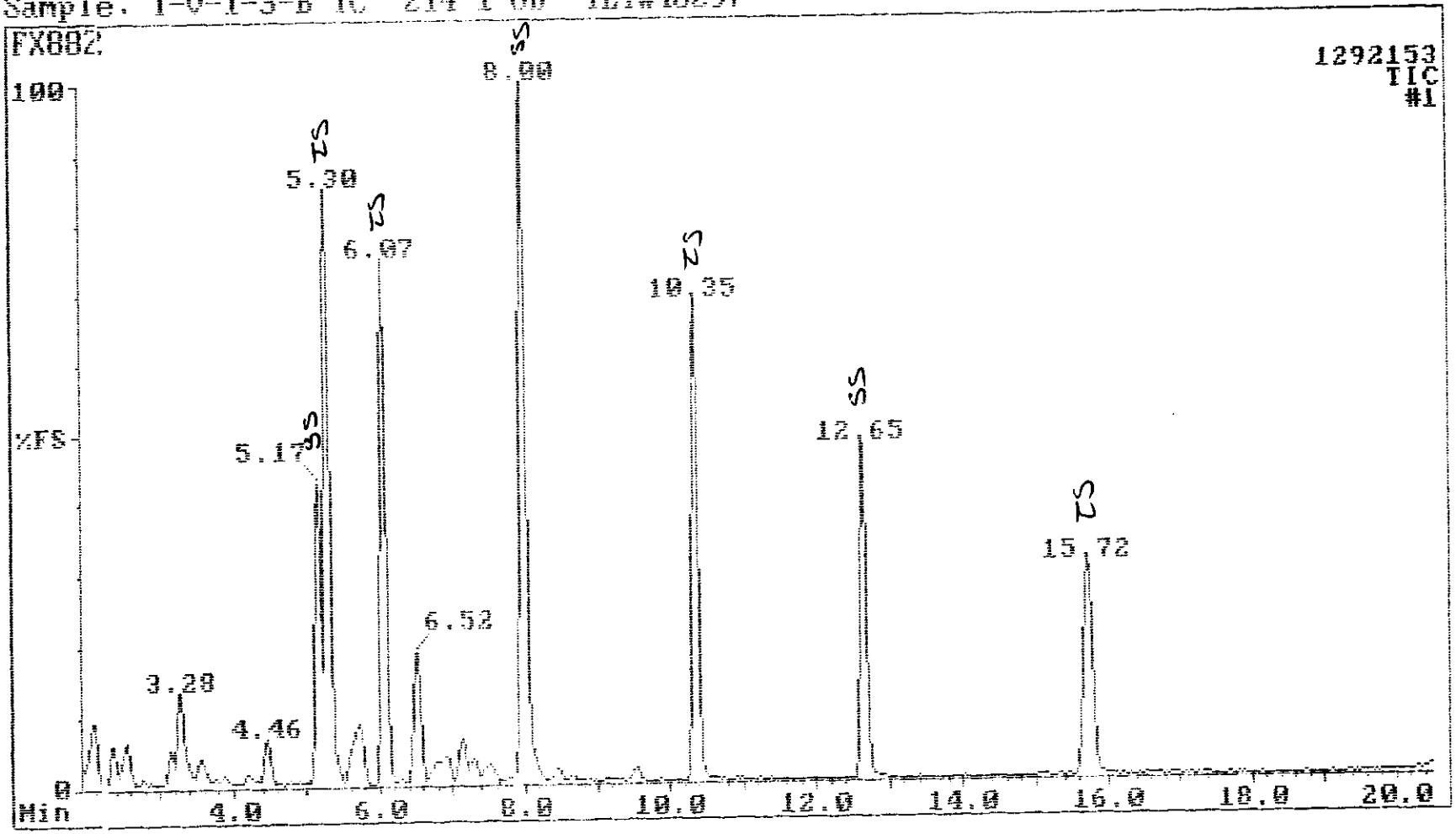
Printed: 18:00 08/24/1998

17-Aug-98 19:17 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-1-3-B TC 214-1-8B TLI#46297 Instrument F



Data Review: YK
Date: 8/19/98

122

QUAN DB : FX382 LAB-BASE QUAN 17-Aug-98 20:10

No.	MAT	FOR	REV	Delta	Area	P.Flags	RT	QM	Name
1	100	77	99	1	2565532	bv	5.501	168	Pentafluorobenzene
2	100	97	99	0	2643408	bv	6.071	114	1,4-Difluorobenzene
3	100	95	93	0	2211964	bv	10.551	117	Chlorobenzene-d5
4	100	79	88	1	836188	bv	15.723	152	1,4-Dichlorobenzene-d4
5	100	87	99	0	1043964	bb	5.181	113	Dibromofluoromethane
6	100	92	97	1	3367004	bv	8.001	98	Toluene-d8
7	100	91	93	0	1021344	bv	12.651	95	4-Bromofluorobenzene
8	0	0	0	0	0		0.000	85	Dichlorodifluoromethane
9	0	0	0	0	291176	A	1.120	50	Chloromethane
10	0	0	0	0	0		0.000	62	Vinyl Chloride
11	89	60	90	2	197520	A	1.[illegible]	94	Bromomethane
12	0	0	0	0	0		0.000	64	Chloroethane
13	0	0	0	0	0		0.000	101	Trichlorofluoromethane
14	0	0	0	0	0		0.000	96	1,1-Dichloroethene
15	0	0	0	0	0		0.000	142	Iodomethane
16	72	53	65	-1	53396	bb	2.[illegible]	76	Carbon disulfide
17	71	25	88	0	36296	A	2.[illegible]	43	Acetone
18	0	0	0	0	0		0.000	41	Allyl chloride
19	0	0	0	0	6344 ~~m~~		~~[illegible]~~ 3.26	84	Methylene chloride
20	2	1	9	-2	~~[illegible]~~		[illegible] FP	53	Acrylonitrile
21	0	0	0	0	0		0.000	96	trans-1,2-Dichloroethene
22	0	0	0	0	0		0.000	63	1,1-Dichloroethane
23	0	0	0	0	0		0.000	43	Vinyl acetate
24	0	0	0	0	0		0.000	77	2,2-Dichloropropane
25	0	0	0	0	0		0.000	96	cis-1,2-Dichloroethene
26	18	16	20	8	~~[illegible]~~		~~[illegible]~~ FP	43	2-Butanone
27	0	0	0	0	0	MSTKA	0.000	83	Chloroform
28	0	0	0	0	0		0.000	128	Bromochloromethane
29	0	0	0	0	0		0.000	97	1,1,1-Trichloroethane
30	0	0	0	0	0		0.000	117	Carbon tetrachloride
31	0	0	0	0	0		0.000	75	1,1-Dichloropropene
32	0	0	0	0	0		0.000	78	Benzene
33	0	0	0	0	0		0.000	62	1,2-Dichloroethane
34	0	0	0	0	0		0.000	130	Trichloroethene
35	0	0	0	0	0		0.000	63	1,2-Dichloropropane
36	0	0	0	0	0		0.000	93	Dibromomethane
37	0	0	0	0	0		0.000	41	Methyl methacrylate
38	0	0	0	0	0		0.000	83	Bromodichloromethane
39	0	0	0	0	0		0.000	75	cis-1,3-Dichloropropene
40	38	3	64	4	~~18990~~	A	~~[illegible]~~ FP	43	4-Methyl-2-pentanone
41	70	42	73	-1	41356	bb	8.081	92	Toluene
42	0	0	0	0	0		0.000	75	trans-1,3-Dichloropropene
43	0	0	0	0	0		0.000	97	1,1,2-Trichloroethane
44	0	0	0	0	0		0.000	69	Ethyl methacrylate
45	0	0	0	0	0		0.000	164	Tetrachloroethene
46	0	0	0	0	0		0.000	76	1,3-Dichloropropane
47	0	0	0	0	0		0.000	43	2-Hexanone
48	0	0	0	0	0		0.000	129	Dibromochloromethane
49	0	0	0	0	0		0.000	107	1,2-Dibromoethane
50	0	0	0	0	0		0.000	112	Chlorobenzene

Data Review: YK
Date: 8/19/98

No.	MAT	FOR	REV	Delta	Area	P.Flags	RT	QM	Name
51	0	0	0	0	0		0.000	131	1,1,1,2-Tetrachloroethane
52	0	0	0	0	0		0.000	106	Ethylbenzene
53	0	0	0	0	0		0.000	106	m-/p-Xylene
54	0	0	0	0	0		0.000	106	o-Xylene
55	0	0	0	0	0		0.000	104	Styrene
56	0	0	0	0	0		0.000	173	Bromoform
57	0	0	0	0	0		0.000	105	Cumene
58	0	0	0	0	0		0.000	83	1,1,2,2-Tetrachloroethane
59	0	0	0	0	0		0.000	156	Bromobenzene
60	0	0	0	0	0		0.000	75	1,2,3-Trichloropropane
61	0	0	0	0	0		0.000	120	n-Propylbenzene
62	0	0	0	0	0		0.000	75	trans-1,4-Dichloro-2-butene
63	0	0	0	0	0		0.000	126	2-Chlorotoluene
64	0	0	0	0	0		0.000	126	4-Chlorotoluene
65	0	0	0	0	0		0.000	105	1,3,5-Trimethylbenzene
66	0	0	0	0	0		0.000	119	tert-Butylbenzene
67	0	0	0	0	0		0.000	105	1,2,4-Trimethylbenzene
68	0	0	0	0	0		0.000	105	sec-Butylbenzene
69	0	0	0	0	0		0.000	119	p-Cymene
70	0	0	0	0	0		0.000	146	1,3-Dichlorobenzene
71	0	0	0	0	0		0.000	146	1,4-Dichlorobenzene
72	0	0	0	0	0		0.000	91	Benzyl chloride
73	0	0	0	0	0		0.000	91	n-Butylbenzene
74	0	0	0	0	0		0.000	146	1,2-Dichlorobenzene
75	0	0	0	0	0		0.000	75	1,2-Dibromo-3-chloropropane
76	0	0	0	0	0		0.000	180	1,2,4-Trichlorobenzene
77	39	17	51	-4	4816	bb	19.572	225	Hexachlorobutadiene
78	0	0	0	0	0		0.000	128	Naphthalene
79	0	0	0	0	0		0.000	180	1,2,3-Trichlorobenzene

QUAN DB : FX882 LAB-BASE QUAN 18-Aug-98 01.20

No.	MAT	FOR	REV	Delta	Area	P.Flags	RT	QM	Name
1	100	77	99	1	2565532	bv	5.301	168	Pentafluorobenzene
2	100	97	99	0	2643408	bv	6.071	114	1,4-Difluorobenzene
3	100	95	95	-1	2211964	bv	10.351	117	Chlorobenzene-d5
4	100	79	98	-1	836188	bv	15.722	152	1,4-Dichlorobenzene-d4
5	100	87	99	0	1043964	bb	5.181	113	Dibromofluoromethane
6	100	92	97	0	3367004	bv	8.001	98	Toluene-d8
7	100	91	93	-1	1021344	bv	12.651	95	4-Bromofluorobenzene
8	66	40	73	4	~~41804~~	~~vv~~	~~1.260~~ FP	39	1,3-Butadiene
9	0	0	0	0	0		0.000	106	Vinyl bromide
10	79	60	70	2	~~22056~~	~~A~~	~~3.610~~ FP	73	MTBE
11	83	64	69	0	17868	bv	3.880	57	n-Hexane
12	59	42	62	6	~~88004~~	~~A~~	~~4.450~~ FP	42	1,2-Epoxybutane
13	86	64	76	-1	167952	bb	5.671	57	Iso-Octane
14	44	28	69	-13	~~286360~~	~~bv~~	~~6.521~~ FP	55	Ethyl acrylate

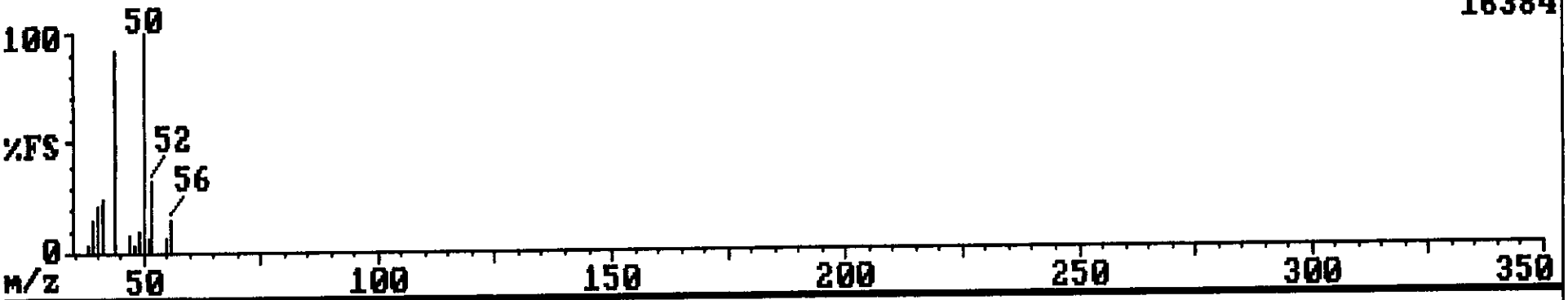
VR 8/19/98

17-Aug-98 19:17 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-1-3-B TC 214-1-8B TLI#46297 Instrument F

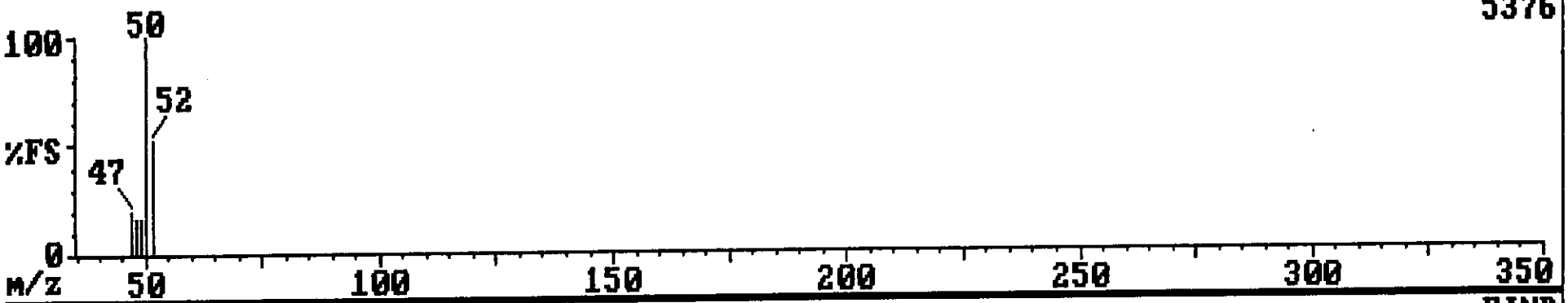
FX882 108 (1.080)

16384



FX882 108 (1.081) REFINE

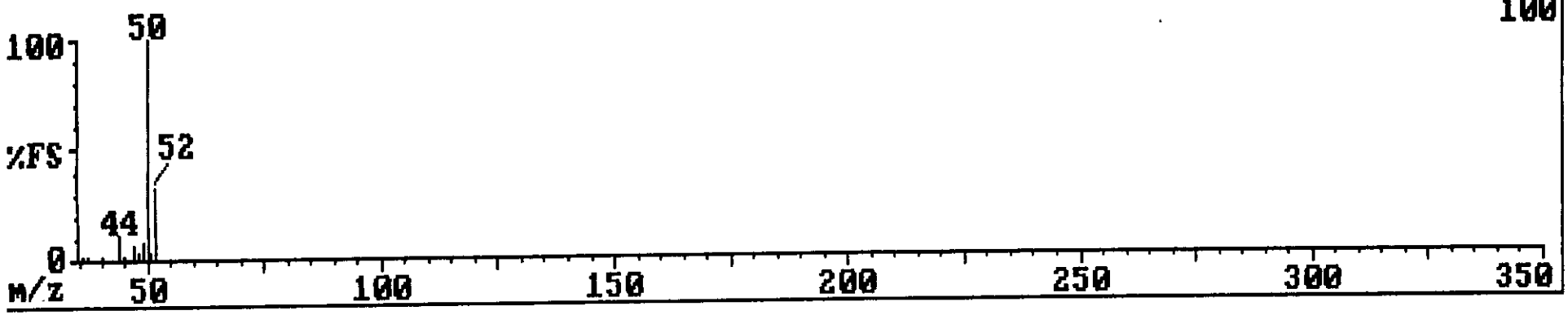
5376



8260 9 (1.230) Chloromethane

FIND

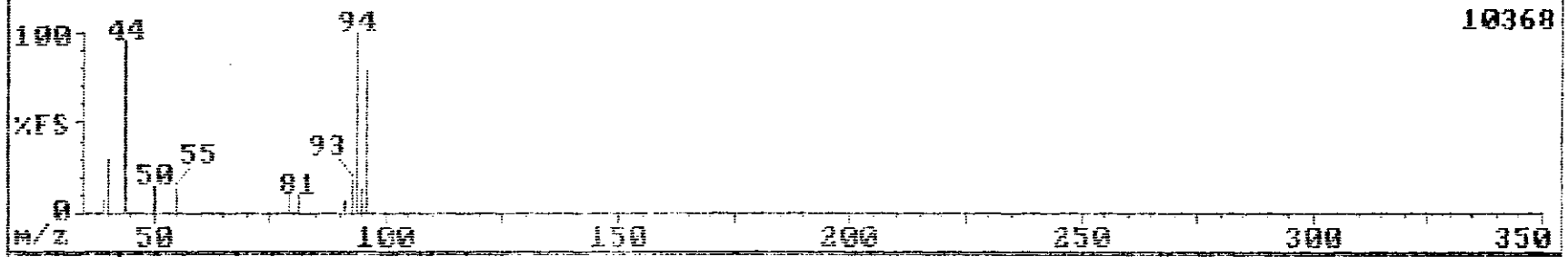
100



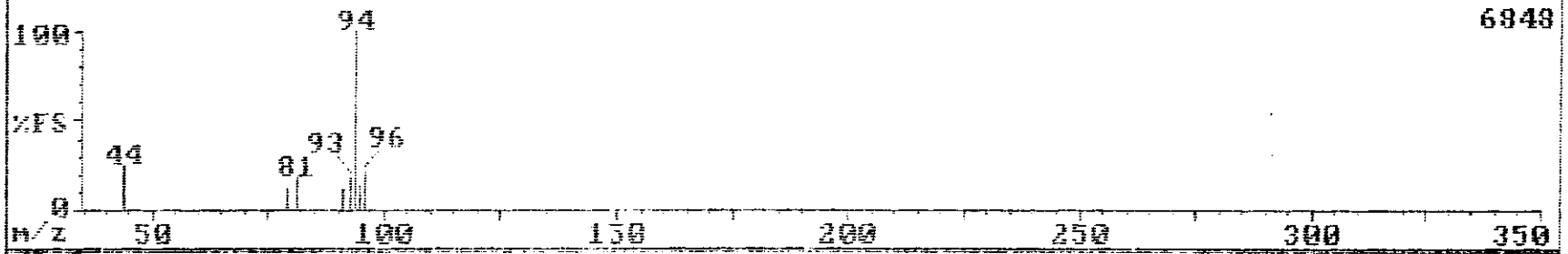
17-Aug-98 19:17 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-1-3-B TC 214-1-8B TLI#46297 Instrument F

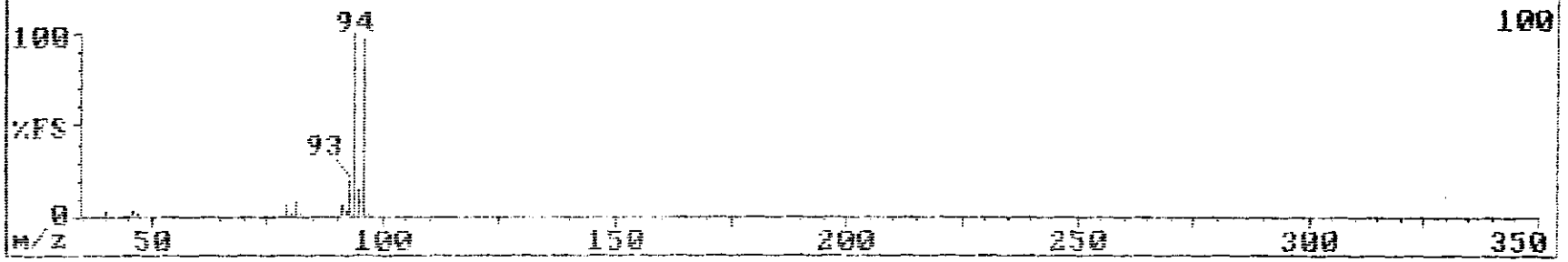
FX882 164 (1.640) 10368



FX882' 164 (1.641) REFINE 6948

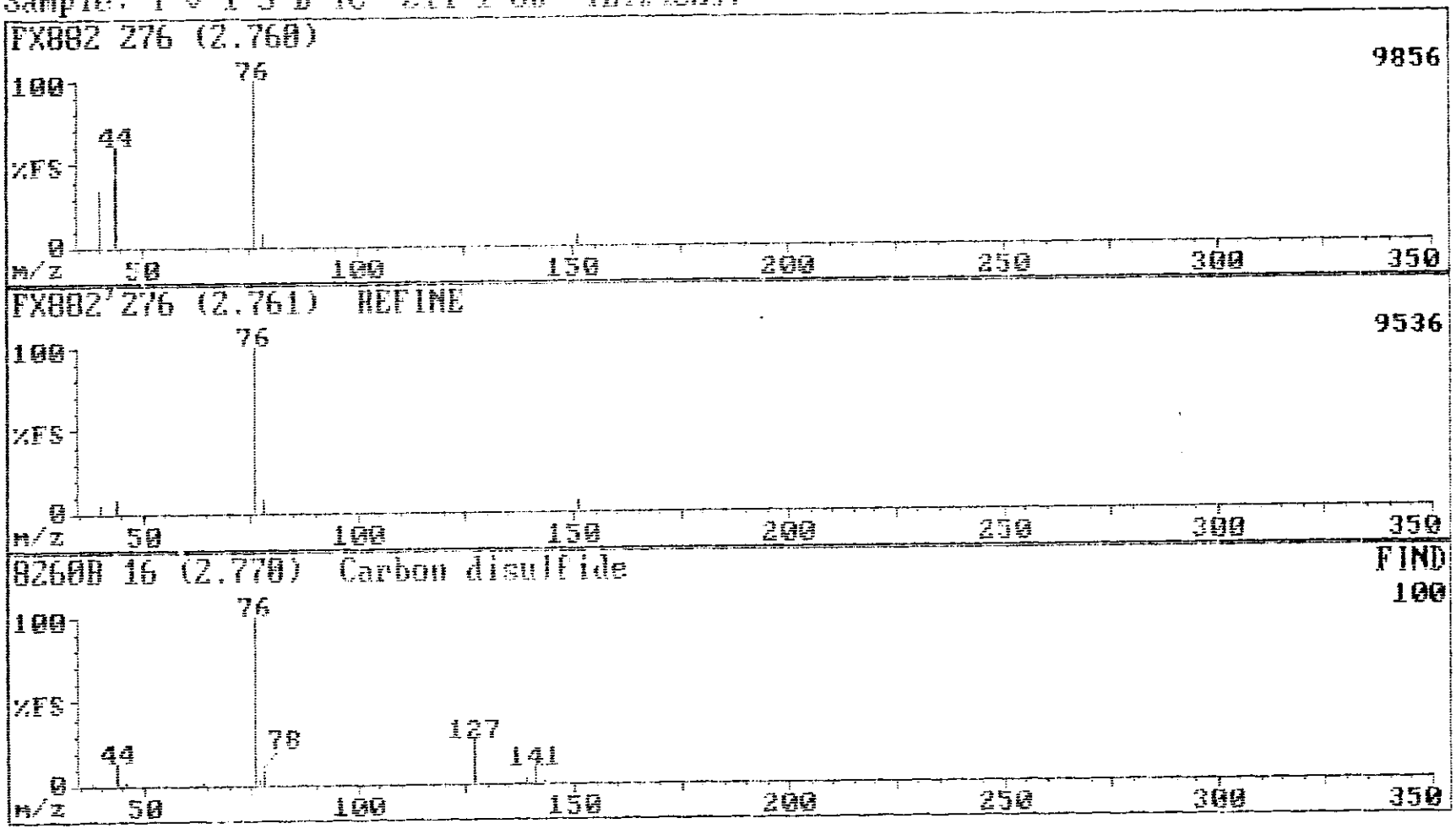


8260B 11 (1.620) Bromomethane FIND 100



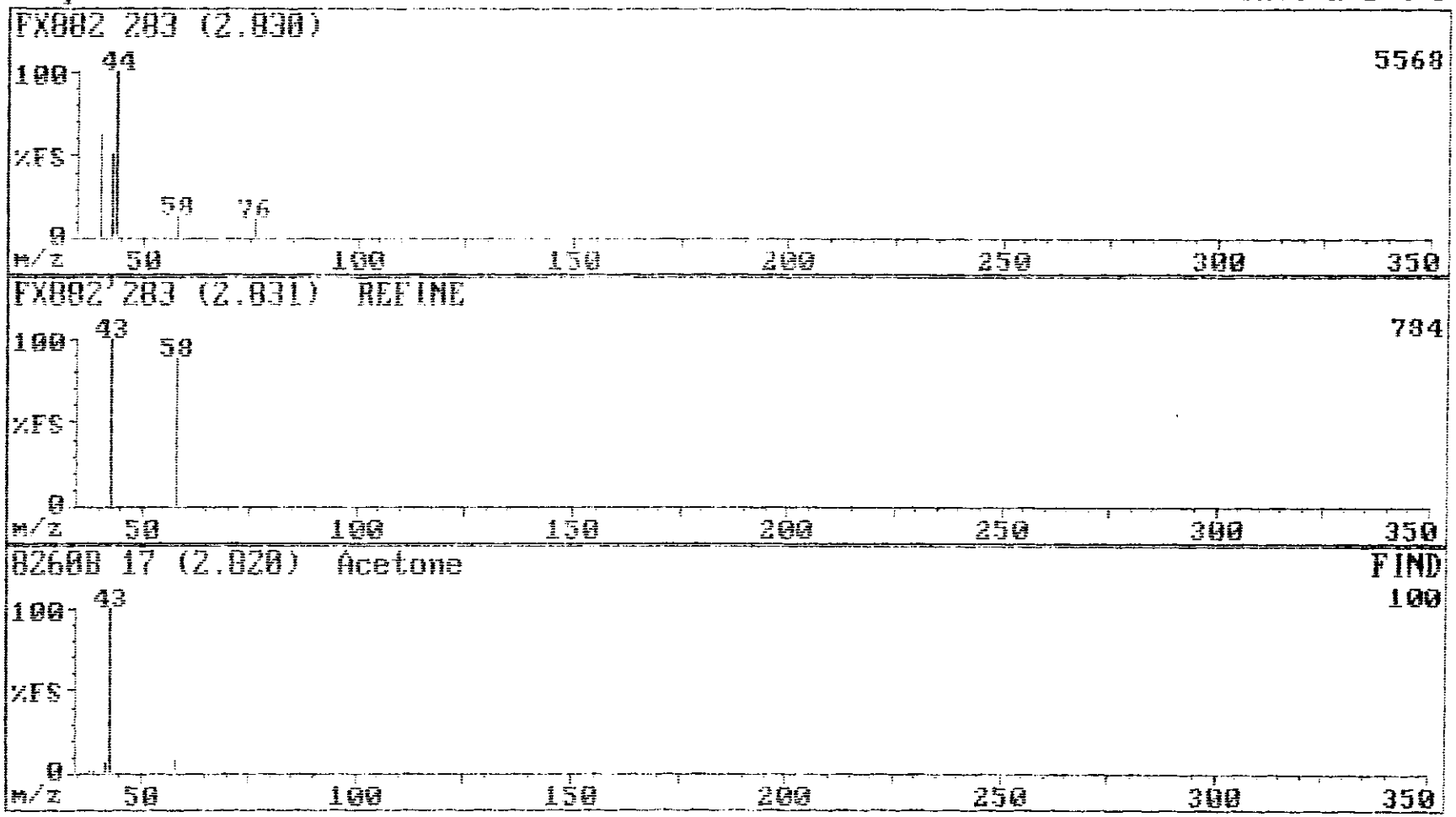
17-Aug-98 10:17 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-1-3-B TC 214-1-8B TLI#46297 Instrument F



17-Aug-98 19:17 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-1-3-B TC 214-1-8B TLI#46297 Instrument F

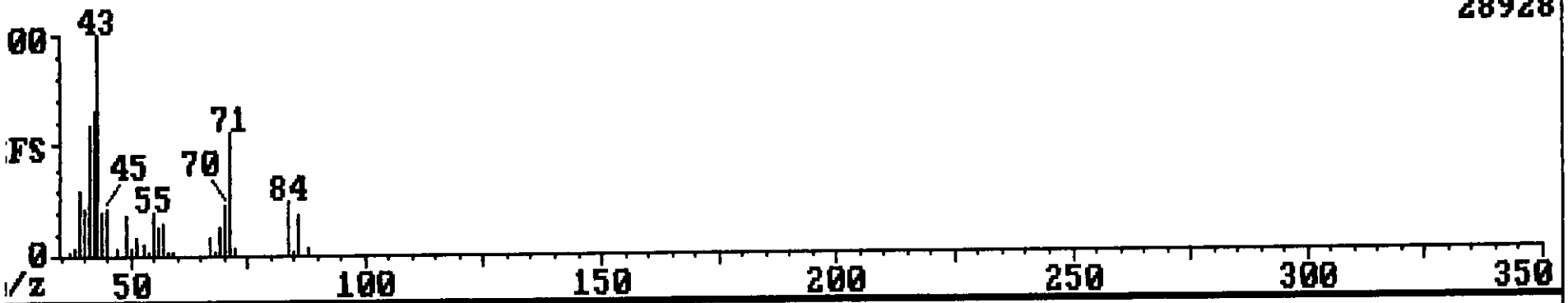


7-Aug-98 19:17 Triangle Laboratories, Inc. (919) 544-5729

ample: T-V-1-3-B TC 214-1-8B TLI#46297 Instrument F

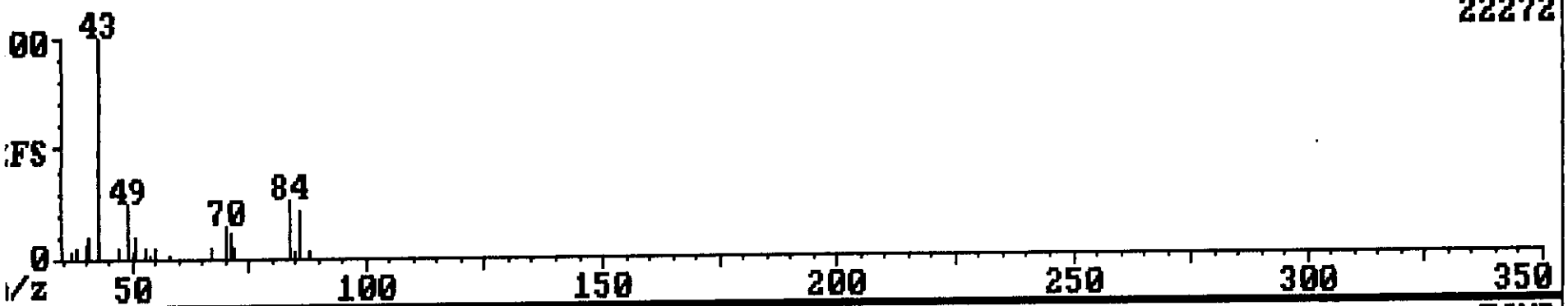
X882 326 (3.260)

28928



X882 326 (3.261) REFINE

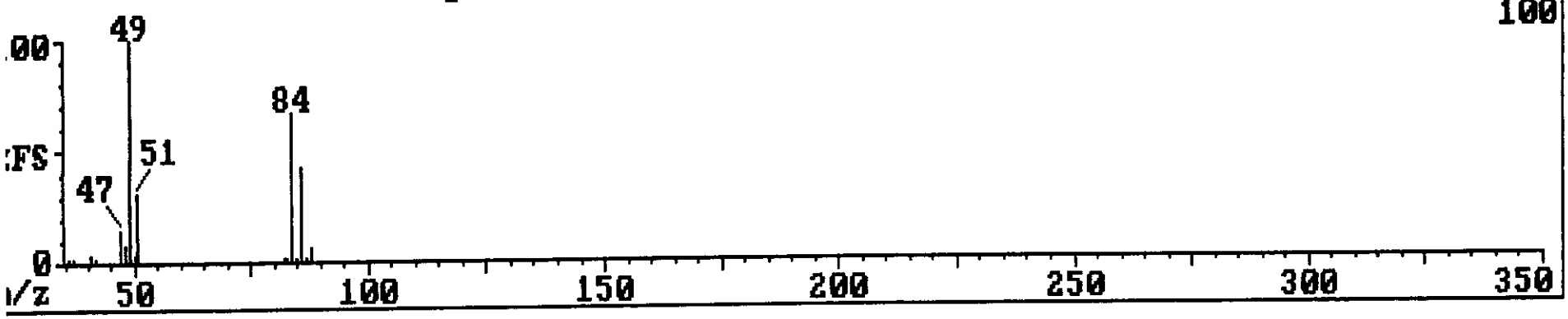
22272



ASTER 22 (3.590) Methylene chloride

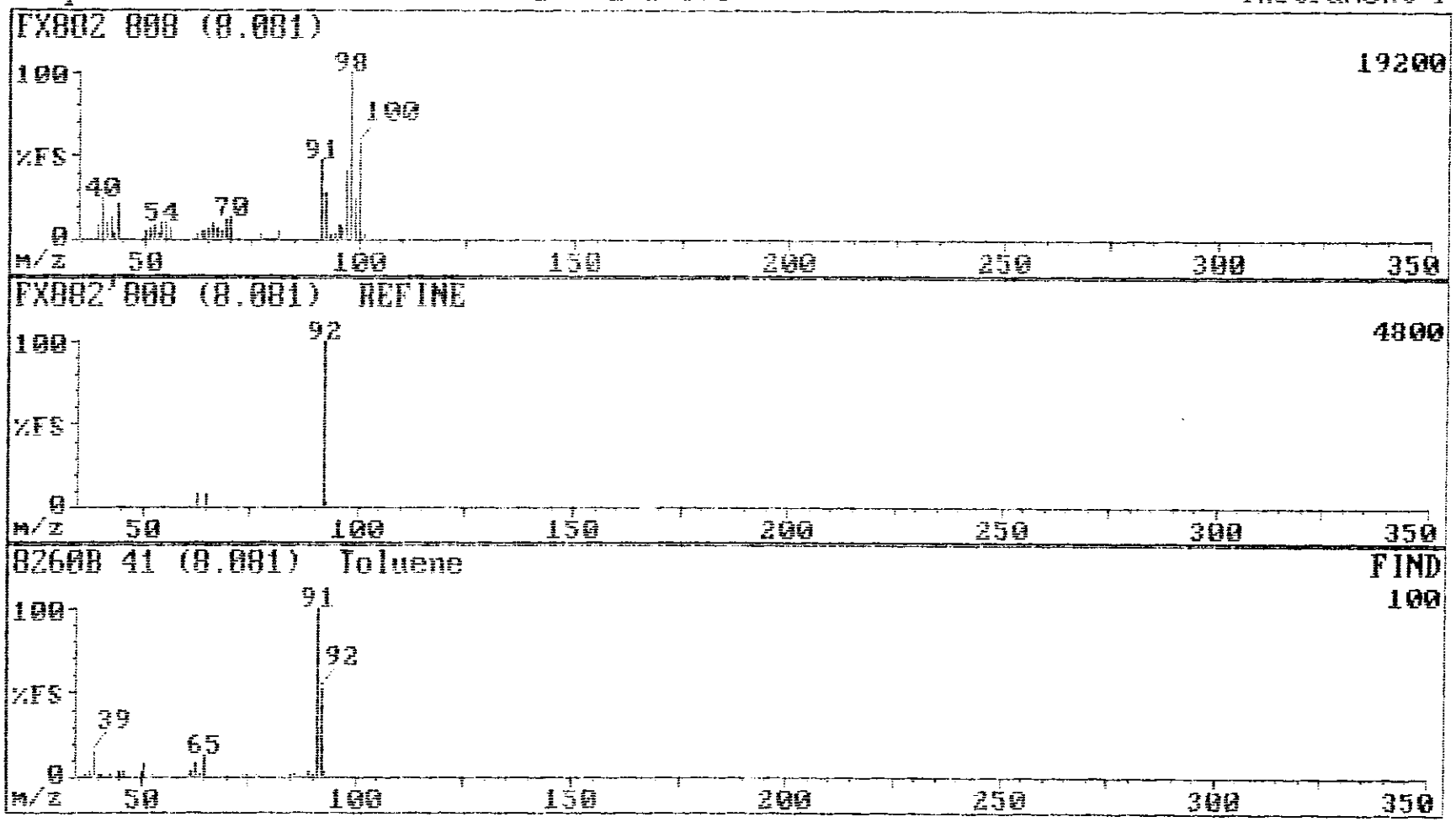
FIND

100



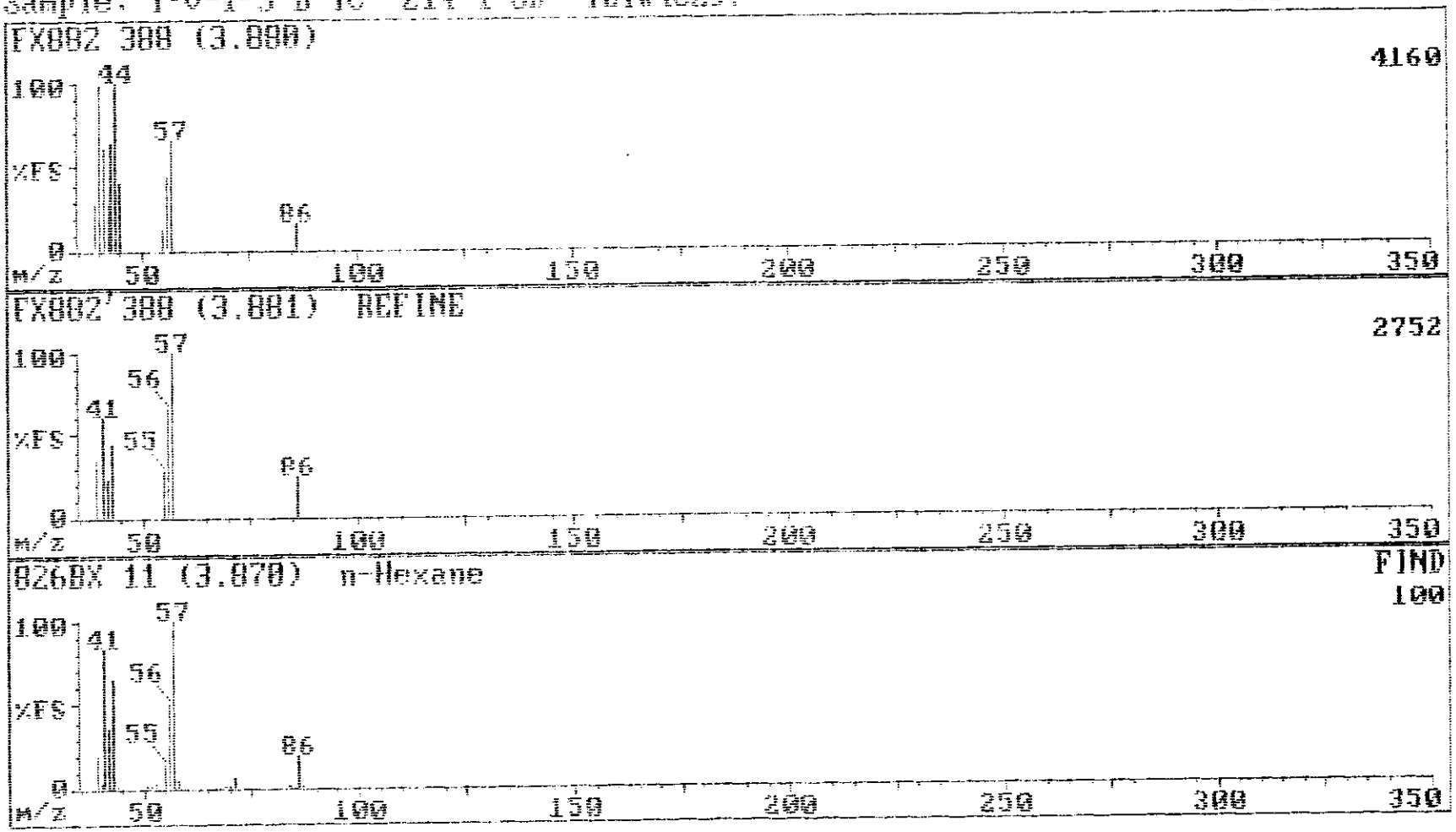
17-Aug-98 19:17 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-1-3-B TC Z14-1-8B TLI#46297 Instrument F



17-Aug-98 19:17 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-1-3-B TC 214-1-0B TLI#46297 Instrument F



Pacific Environmental Services

Project Number: 46297
Sample File: FX881

Method 8260 VOST
Sample ID: T-V-1-4-B TC

Client Project: Hotmix
TLI ID: 214-1-9B

Date Received: 07/25/98
Date Analyzed : 08/17/98

Response File: ICALF814

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Pentafluorobenzene		IS 1	5.31		
Chloromethane	0.073		1.08		0.05
Vinyl Chloride		U		0.001	0.05
Bromomethane	0.045	J	1.64		0.05
Chloroethane		U		0.001	0.05
Trichlorofluoromethane		U		0.001	0.05
1,1-Dichloroethene		U		0.001	0.05
Iodomethane		U		0.001	0.05
Carbon disulfide		U		0.001	0.05
Acetone	0.092		2.86		0.05
Allyl chloride		U		0.001	0.05
Methylene chloride	0.048	J	3.27		0.05
Acrylonitrile		U		0.016	0.05
trans-1,2-Dichloroethene		U		0.001	0.05
1,1-Dichloroethane		U		0.001	0.05
Vinyl acetate		U		0.002	0.05
cis-1,2-Dichloroethene		U		0.001	0.05
2-Butanone		U		0.004	0.05
Chloroform		U		0.001	0.05
1,1,1-Trichloroethane		U		0.001	0.05
1,4-Difluorobenzene		IS 2	6.07		
Carbon tetrachloride		U		0.001	0.05
Benzene		U		0.001	0.05
1,2-Dichloroethane		U		0.001	0.05
Trichloroethene		U		0.001	0.05
1,2-Dichloropropane		U		0.001	0.05

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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Pacific Environmental Services

Project Number: 46297 | **Method 8260 VOST**
Sample File: FX881 | **Sample ID: T-V-1-4-B TC**

Client Project: Hotmix | **Date Received: 07/25/98** | **Response File: ICALF814**
TLI ID: 214-1-9B
Date Analyzed : 08/17/98

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Methyl methacrylate		U		0.006	0.05
Bromodichloromethane		U		0.001	0.05
cis-1,3-Dichloropropene		U		0.001	0.05
4-Methyl-2-pentanone		U		0.005	0.05
Toluene	0.017	BJ	8.09		0.05
trans-1,3-Dichloropropene		U		0.001	0.05
1,1,2-Trichloroethane		U		0.002	0.05
Chlorobenzene-d_5		IS 3	10.35		
Tetrachloroethene		U		0.001	0.05
2-Hexanone		U		0.006	0.05
Dibromochloromethane		U		0.001	0.05
1,2-Dibromoethane		U		0.001	0.05
Chlorobenzene		U		0.001	0.05
Ethylbenzene		U		0.001	0.05
m-/p-Xylene		U		0.001	0.10
o-Xylene		U		0.001	0.05
Styrene		U		0.001	0.05
Bromoform		U		0.002	0.05
1,4-Dichlorobenzene-d_4		IS 4	15.72		
Cumene		U		0.001	0.05
1,1,2,2-Tetrachloroethane		U		0.002	0.05

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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Printed: 17:44 08/24/1998

Pacific Environmental Services

Project Number: 46297
Sample File: FX881

Method 8260 VOST
Sample ID: T-V-1-4-B TC

Client Project: Hotmix
TLI ID: 214-1-9B

Date Received: 07/25/98
Date Analyzed : 08/17/98

Response File: ICALF814

Surrogate Summary	Amount (ug)	RT	IS Ref	%REC
Dibromofluoromethane	0.240	5.18	1	96
Toluene-d_8	0.320	8.00	2	128
4-Bromofluorobenzene	0.326	12.65	2	130

Reviewed by YR Date 8/24/98

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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Phone: (919) 544-5729 • Fax: (919) 544-5491

Savar v3.7
Printed: 17:44 08/24/1998

Pacific Environmental Services

Project Number: 46297
Sample File: FX881

Method 8260 VOST
Sample ID: T-V-1-4-B TC

Client Project: Hotmix
TLI ID: 214-1-9B

Date Received: 07/25/98
Date Analyzed : 08/17/98

Response File: ICALF817

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Pentafluorobenzene		IS 1	5.31		
1,3-Butadiene		U		0.001	0.25
Vinyl bromide		U		0.001	0.25
MTBE		U		0.001	0.25
n-Hexane	0.004	J	3.88		0.25
1,2-Epoxybutane		U		0.011	0.25
Iso-Octane		U		0.001	0.25
1,4-Difluorobenzene		IS 2	6.07		
Ethyl acrylate		U		0.003	0.25

Reviewed by VR Date 8/24/98

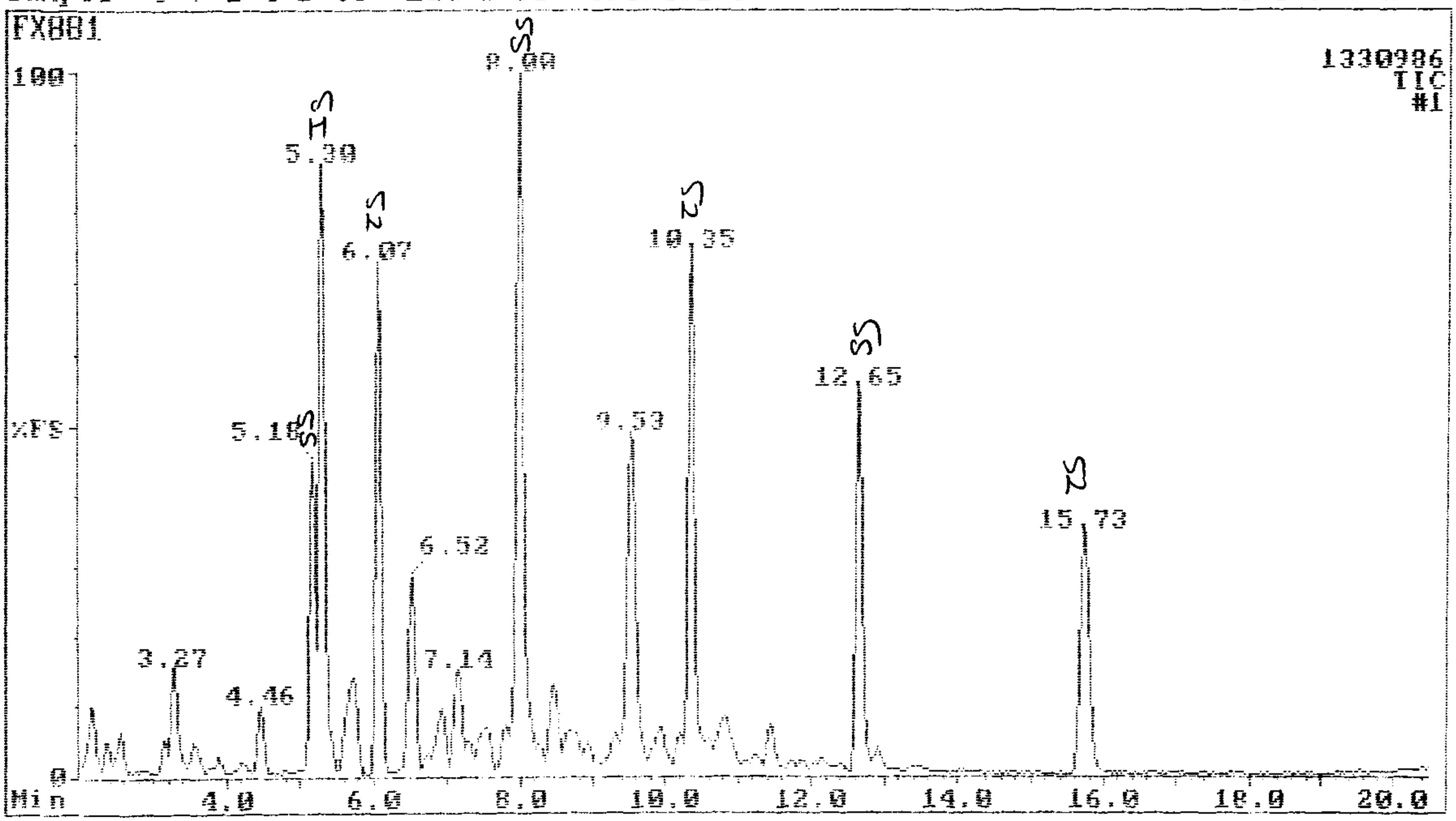
NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

Triangle Laboratories, Inc.
801 Capitola Drive • Durham, North Carolina 27713
Phone: (919) 544-5729 • Fax: (919) 544-5491

Savar v3.7
Printed: 18:00 08/24/1998

17-Aug-98 10:30 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-1-4-B TC 214-1-98 TLI#46297 Instrument F



Data Review: YM
Date: 8/19/94

137

QUAN DB : FX881 LAB-BASE QUAN 19-Aug-98 16:20

No.	MAT	FOR	REV	Delta	Area	P.Flags	RT	QM	Name
1	100	76	98	2	2628980	bb	5.311	168	Pentafluorobenzene
2	100	97	99	-1	2692040	bb	6.071	114	1,4-Difluorobenzene
3	100	94	96	0	2455926	bv	10.351	117	Chlorobenzene-d5
4	100	79	98	1	977776	A	15.722	152	1,4-Dichlorobenzene-d4
5	100	82	99	-1	1061712	bv	5.181	113	Dibromofluoromethane
6	100	90	97	1	3511416	bv	8.001	98	Toluene-d8
7	100	90	94	0	1195316	bv	12.651	95	4-Bromofluorobenzene
8	0	0	0	0	0		0.000	85	Dichlorodifluoromethane
9	95	75	82	1	264480	A	1.030	50	Chloromethane
10	0	0	0	0	0		0.000	62	Vinyl Chloride
11	92	87	87	1	83521	bv	1.640	94	Bromomethane
12	0	0	0	0	0		0.000	64	Chloroethane
13	0	0	0	0	0		0.000	101	Trichlorofluoromethane
14	0	0	0	0	0		0.000	96	1,1-Dichloroethene
15	0	0	0	0	0		0.000	102	Iodomethane
16	0	0	0	0	0		0.000	54	Carbon Disulfide
17	44	25	38	3	44600	A	2.860	43	Acetone
18	0	0	0	0	0		0.000	41	Allyl Chloride
19	0	0	0	0	118388 — m		~~[illegible]~~ 3.27	84	Methylene Chloride
20	10	4	13	0	~~[illegible]~~		~~[illegible]~~ FP	53	Acrylonitrile
21	0	0	0	0	0		0.000	96	trans-1,2-Dichloroethene
22	0	0	0	0	0		0.000	63	1,1-Dichloroethane
23	0	0	0	0	0		0.000	43	Vinyl Acetate
24	0	0	0	0	0		0.000	77	2,2-Dichloropropane
25	0	0	0	0	0		0.000	96	cis-1,2-Dichloroethene
26	20	16	21	6	~~[illegible]~~		~~[illegible]~~ FP	43	2-Butanone
27	0	0	0	0	0		0.000	83	Chloroform
28	0	0	0	0	0		0.000	128	Bromochloromethane
29	0	0	0	0	0		0.000	97	1,1,1-Trichloroethane
30	0	0	0	0	0		0.000	117	Carbon Tetrachloride
31	0	0	0	0	0		0.000	75	1,1-Dichloropropene
32	0	0	0	0	0		0.000	78	Benzene
33	0	0	0	0	0		0.000	62	1,2-Dichloroethane
34	0	0	0	0	0		0.000	130	Trichloroethene
35	0	0	0	0	0		0.000	63	1,2-Dichloropropane
36	0	0	0	0	0		0.000	93	Dibromomethane
37	0	0	0	0	0		0.000	41	Methyl Methacrylate
38	0	0	0	0	0		0.000	83	Bromodichloromethane
39	0	0	0	0	0		0.000	75	cis-1,3-Dichloropropene
40	35	5	57	4	~~[illegible]~~		~~[illegible]~~ FP	43	4-Methyl-2-pentanone
41	92	50	88	0	129620	A	8.091	92	Toluene
42	0	0	0	0	0		0.000	75	trans-1,3-Dichloropropene
43	0	0	0	0	0		0.000	97	1,1,2-Trichloroethane
44	0	0	0	0	0		0.000	69	Ethyl Methacrylate
45	0	0	0	0	0		0.000	164	Tetrachloroethene
46	0	0	0	0	0		0.000	76	1,3-Dichloropropane
47	0	0	0	0	0		0.000	43	2-Hexanone
48	0	0	0	0	0		0.000	129	Dibromochloromethane
49	0	0	0	0	0		0.000	107	1,2-Dibromoethane
50	0	0	0	0	0		0.000	112	Chlorobenzene

Data Review: MC
Date: 8/19/98

No.	MAT	FOR	REV	Delta	Area	P Flags	RT	QM	Name
51	0	0	0	0	0		0.000	131	1,1,1,2-Tetrachloroethane
52	0	0	0	0	0		0.000	106	Ethylbenzene
53	0	0	0	0	0		0.000	106	m-/p-Xylene
54	0	0	0	0	0		0.000	106	o-Xylene
55	0	0	0	0	0		0.000	104	Styrene
56	0	0	0	0	0		0.000	173	Bromoform
57	0	0	0	0	0		0.000	105	Cumene
58	0	0	0	0	0		0.000	83	1,1,2,2-Tetrachloroethane
59	0	0	0	0	0		0.000	156	Bromobenzene
60	0	0	0	0	0		0.000	75	1,2,3-Trichloropropane
61	0	0	0	0	0		0.000	120	n-Propylbenzene
62	43	10	69	-8	~~14096 a~~		~~12.651~~ FP	75	trans-1,4-Dichloro-2-buten
63	0	0	0	0	0		0.000	126	2-Chlorotoluene
64	0	0	0	0	0		0.000	126	4-Chlorotoluene
65	0	0	0	0	0		0.000	105	1,3,5-Trimethylbenzene
66	0	0	0	0	0		0.000	119	tert-Butylbenzene
67	0	0	0	0	0		0.000	105	1,2,4-Trimethylbenzene
68	0	0	0	0	0		0.000	105	sec-Butylbenzene
69	0	0	0	0	0		0.000	119	p-Cymene
70	0	0	0	0	0		0.000	146	1,3-Dichlorobenzene
71	0	0	0	0	0		0.000	146	1,4-Dichlorobenzene
72	0	0	0	0	0		0.000	91	Benzyl chloride
73	0	0	0	0	0		0.000	91	n-Butylbenzene
74	0	0	0	0	0		0.000	146	1,2-Dichlorobenzene
75	0	0	0	0	0		0.000	75	1,2-Dibromo-3-chloropropan
76	0	0	0	0	0		0.000	180	1,2,4-Trichlorobenzene
77	48	25	61	-4	8504	bb	12.532	225	Hexachlorobutadiene
78	0	0	0	0	0		0.000	128	Naphthalene
79	0	0	0	0	0		0.000	180	1,2,3-Trichlorobenzene

M8/19/98

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No.	MAT	FOR	REV	Delta	Area	P.Flags	RT	QM	Name
51	0	0	0	0	0		0.000	131	1,1,1,2-Tetrachloroethane
52	0	0	0	0	0		0.000	106	Ethylbenzene
53	0	0	0	0	0		0.000	106	m-/p-Xylene
54	0	0	0	0	0		0.000	106	o-Xylene
55	0	0	0	0	0		0.000	104	Styrene
56	0	0	0	0	0		0.000	173	Bromoform
57	0	0	0	0	0		0.000	105	Cumene
58	0	0	0	0	0		0.000	83	1,1,2,2-Tetrachloroethane
59	0	0	0	0	0		0.000	156	Bromobenzene
60	0	0	0	0	0		0.000	75	1,2,3-Trichloropropane
61	0	0	0	0	0		0.000	120	n-Propylbenzene
62	43	10	69	-8	~~6000~~	~~11~~	~~12.781~~ FP	75	trans-1,4-Dichloro-2-buten
63	0	0	0	0	0	M8/17/98	0.000	126	2-Chlorotoluene
64	0	0	0	0	0		0.000	126	4-Chlorotoluene
65	0	0	0	0	0		0.000	105	1,3,5-Trimethylbenzene
66	0	0	0	0	0		0.000	119	tert-Butylbenzene
67	0	0	0	0	0		0.000	105	1,2,4-Trimethylbenzene
68	0	0	0	0	0		0.000	105	sec-Butylbenzene
69	0	0	0	0	0		0.000	119	p-Cymene
70	0	0	0	0	0		0.000	146	1,3-Dichlorobenzene
71	0	0	0	0	0		0.000	146	1,4-Dichlorobenzene
72	0	0	0	0	0		0.000	91	Benzyl chloride
73	0	0	0	0	0		0.000	91	n-Butylbenzene
74	0	0	0	0	0		0.000	146	1,2-Dichlorobenzene
75	0	0	0	0	0		0.000	75	1,2-Dibromo-3-chloropropan
76	0	0	0	0	0		0.000	180	1,2,4-Trichlorobenzene
77	48	23	61	-4	8504	bb	19.532	225	Hexachlorobutadiene
78	0	0	0	0	0		0.000	128	Naphthalene
79	0	0	0	0	0		0.000	180	1,2,3-Trichlorobenzene

QUAN 08 : FX881 LAB-BASE QUAN 13-Aug-98 01:14

No.	MAT	FOR	REV	Delta	Area	P.Flags	RT	QM	Name
1	100	76	98	2	2628980	bb	5.311	168	Pentafluorobenzene
2	100	97	99	-1	2692040	bb	6.071	114	1,4-Difluorobenzene
3	100	94	96	-1	2455926	bv	10.351	117	Chlorobenzene-d5
4	100	79	98	-1	977776	A	15.722	152	1,4-Dichlorobenzene-d4
5	100	82	99	-1	1061712	bv	5.181	113	Dibromofluoromethane
6	100	90	97	0	3511416	bv	8.001	98	Toluene-d8
7	100	90	94	-1	1195316	bv	12.651	95	4-Bromofluorobenzene
8	60	35	67	4	~~25741~~	~~vb~~	~~1.267~~ FP	39	1,3-Butadiene
9	0	0	0	0	0		0.000	106	Vinyl bromide
10	81	61	75	3	~~72652~~	~~bb~~	~~3.625~~ FP	73	MTBE
11	100	81	83	0	50692	bb	3.880	57	n-Hexane
12	56	38	61	6	~~42972~~	~~bv~~	~~4.160~~ FP	42	1,2-Epoxybutane
13	87	65	76	0	~~285728~~	~~bb~~	~~5.691~~ FP	57	Iso-Octane
14	41	28	70	-13	~~[illegible]~~	~~bb~~	~~[illegible]~~ FP	55	Ethyl acrylate

M8/19/98

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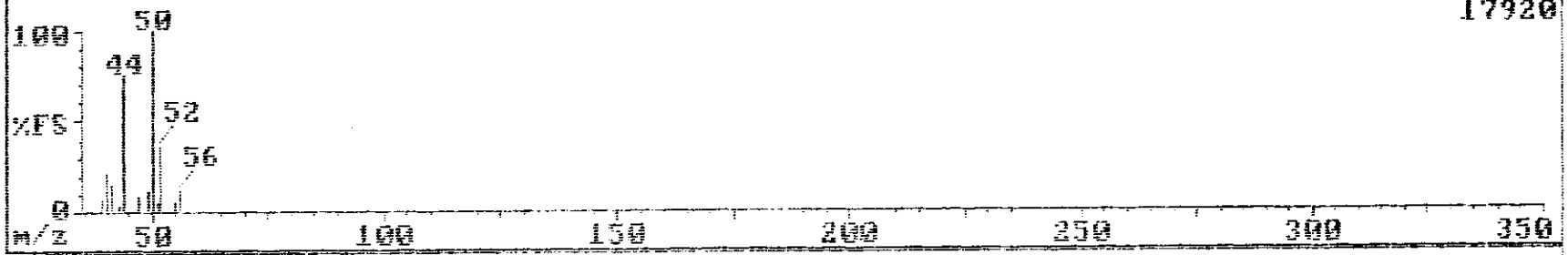
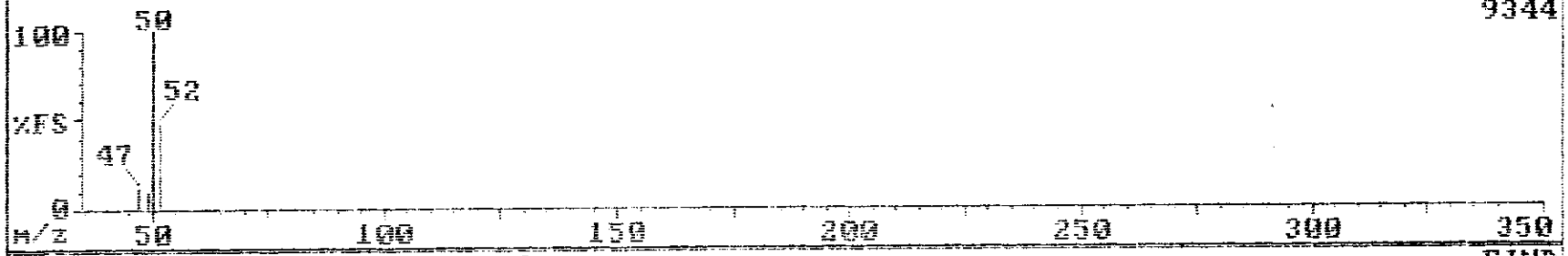
17-Aug-98 18:30 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-1-4-B TC Z14-1-9R TLI#46297 Instrument F

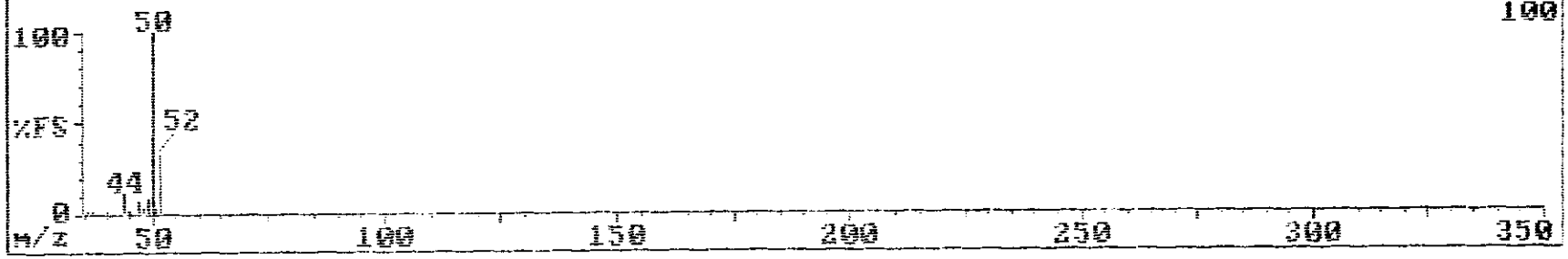
FX881 100 (1.080) 17920



FX881'100 (1.081) REFINE 9344

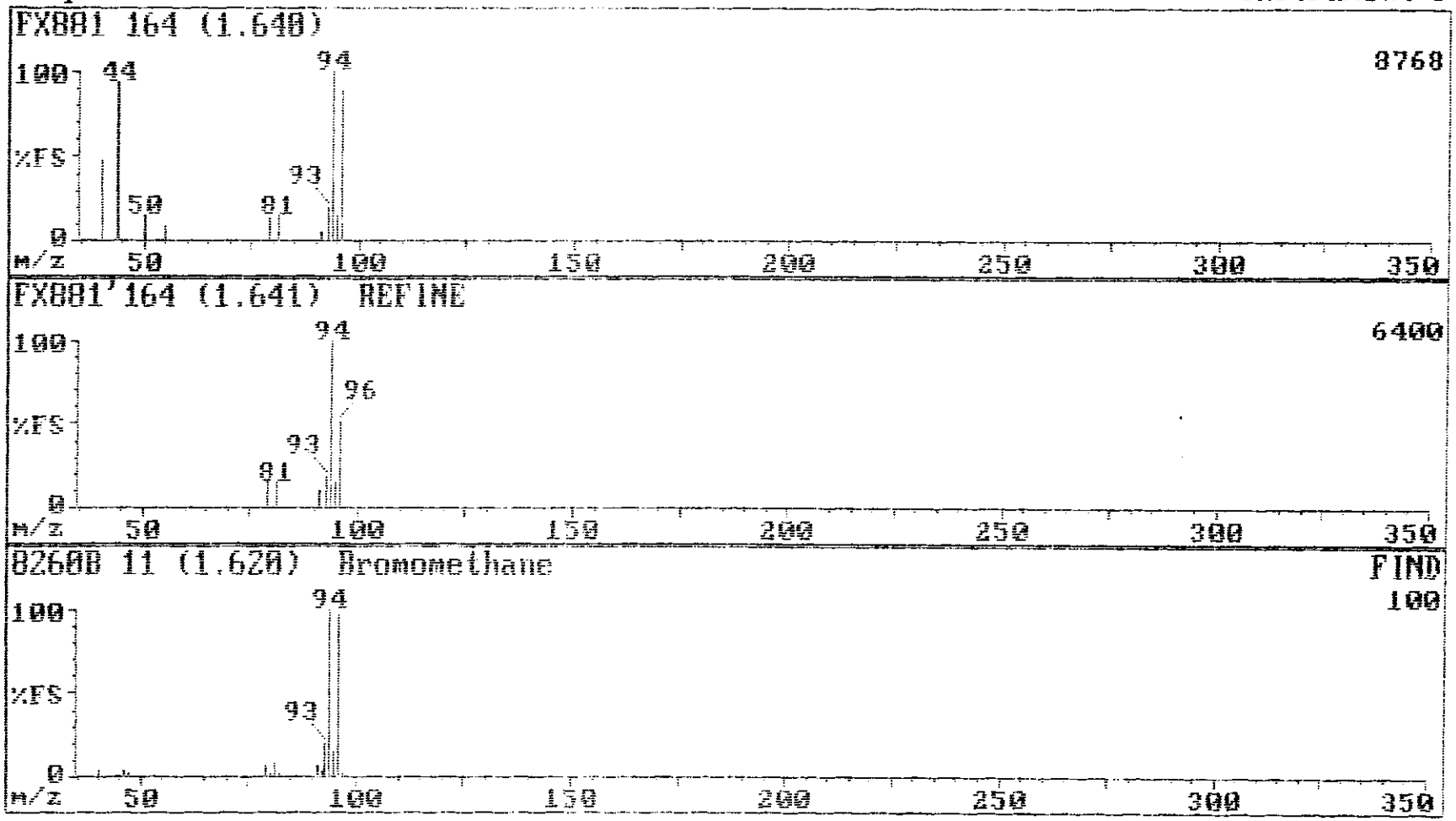


8260B 9 (1.070) Chloromethane FIND 100



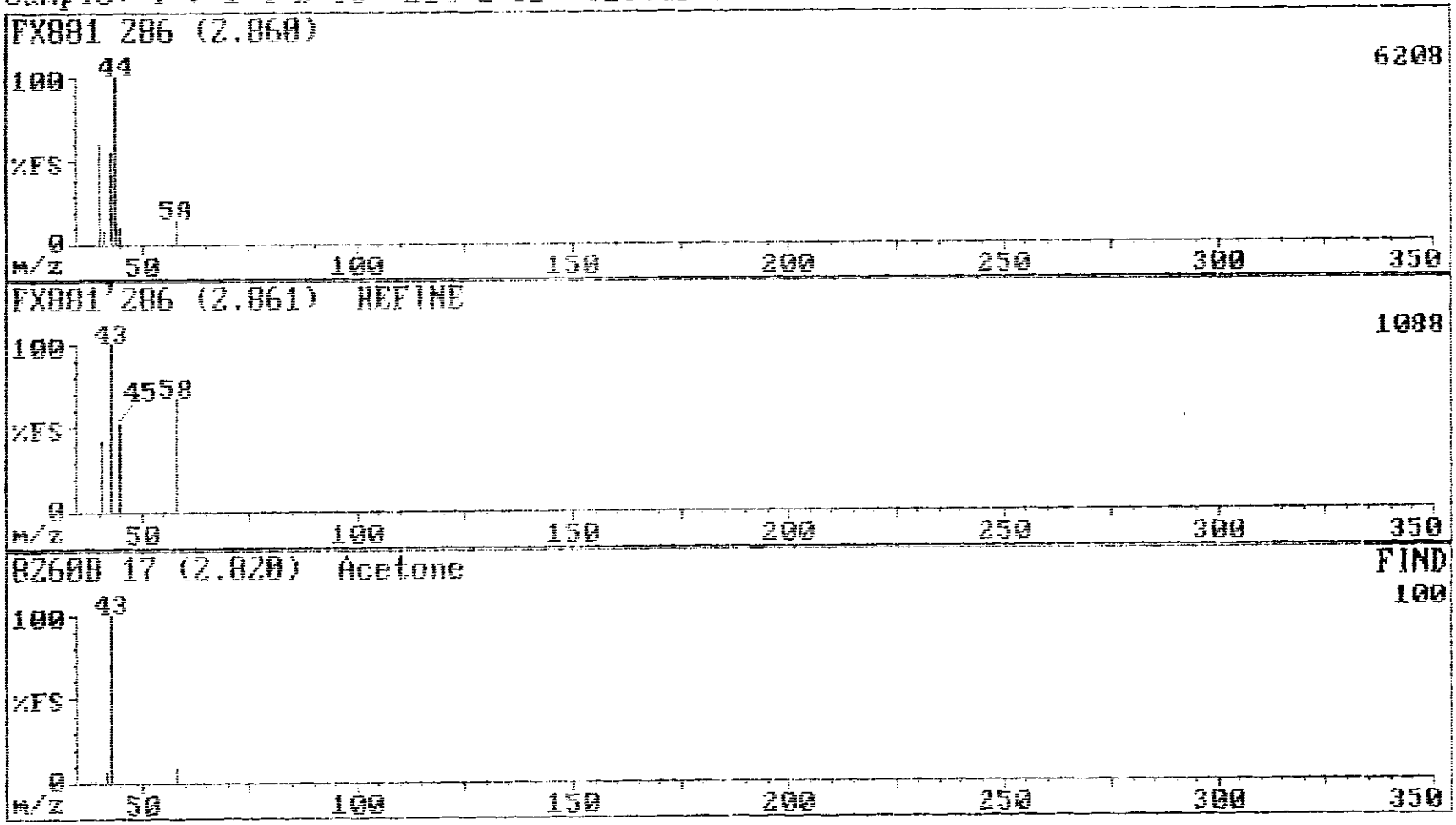
17-Aug-90 18:30 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-1-4-B TC 214-1-9B TLI#46297 Instrument F



17-Aug-98 18:30 Triangle Laboratories, Inc. (919) 544-5729

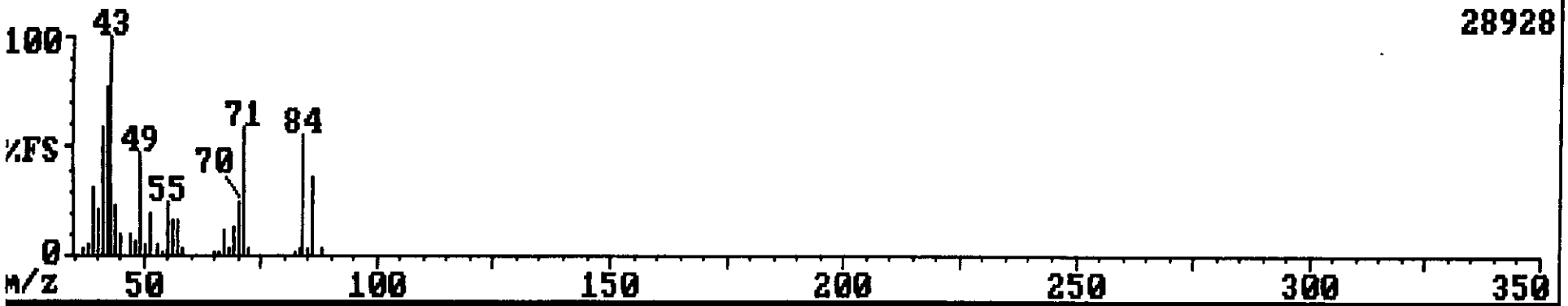
Sample: T-V-1-4-B TC 214-1-9B TLI#46297 Instrument F



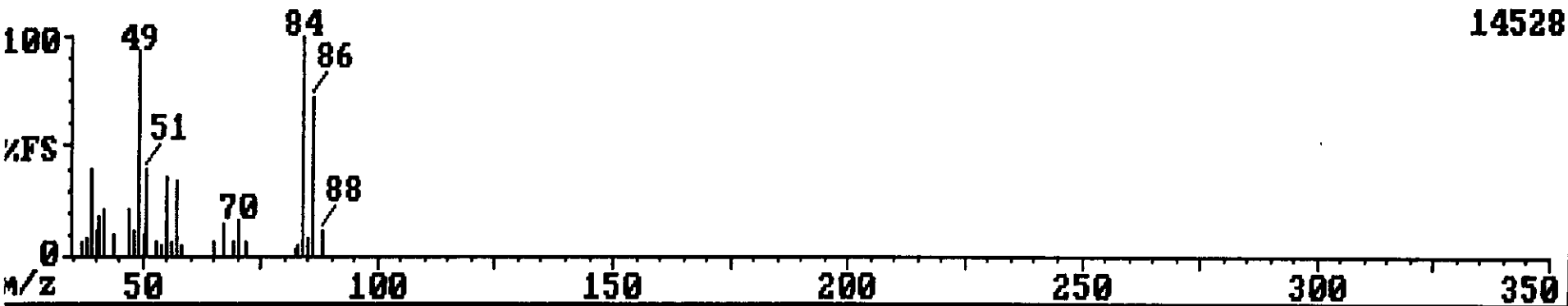
17-Aug-98 18:30 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-1-4-B TC 214-1-9B TLI#46297 Instrument F

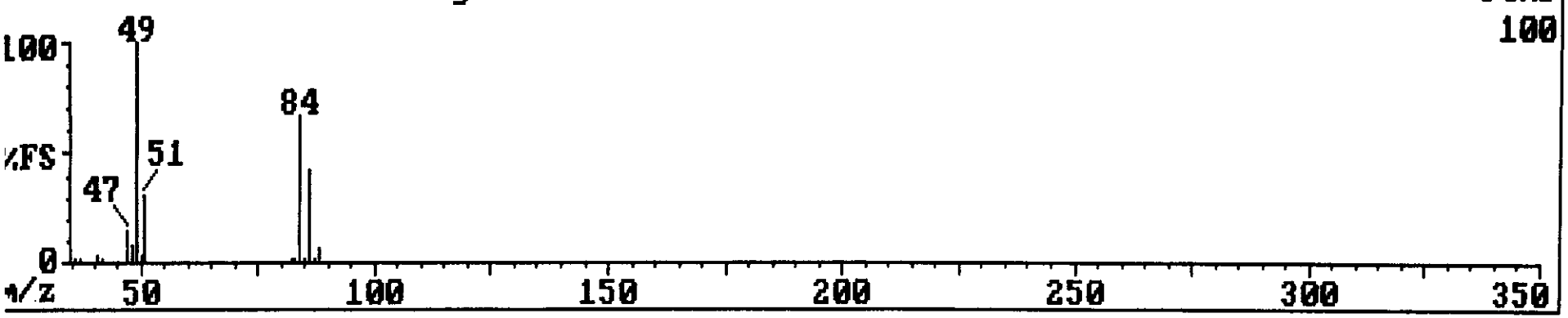
FX881 327 (3.270)



FX881 327 (3.271) REFINE

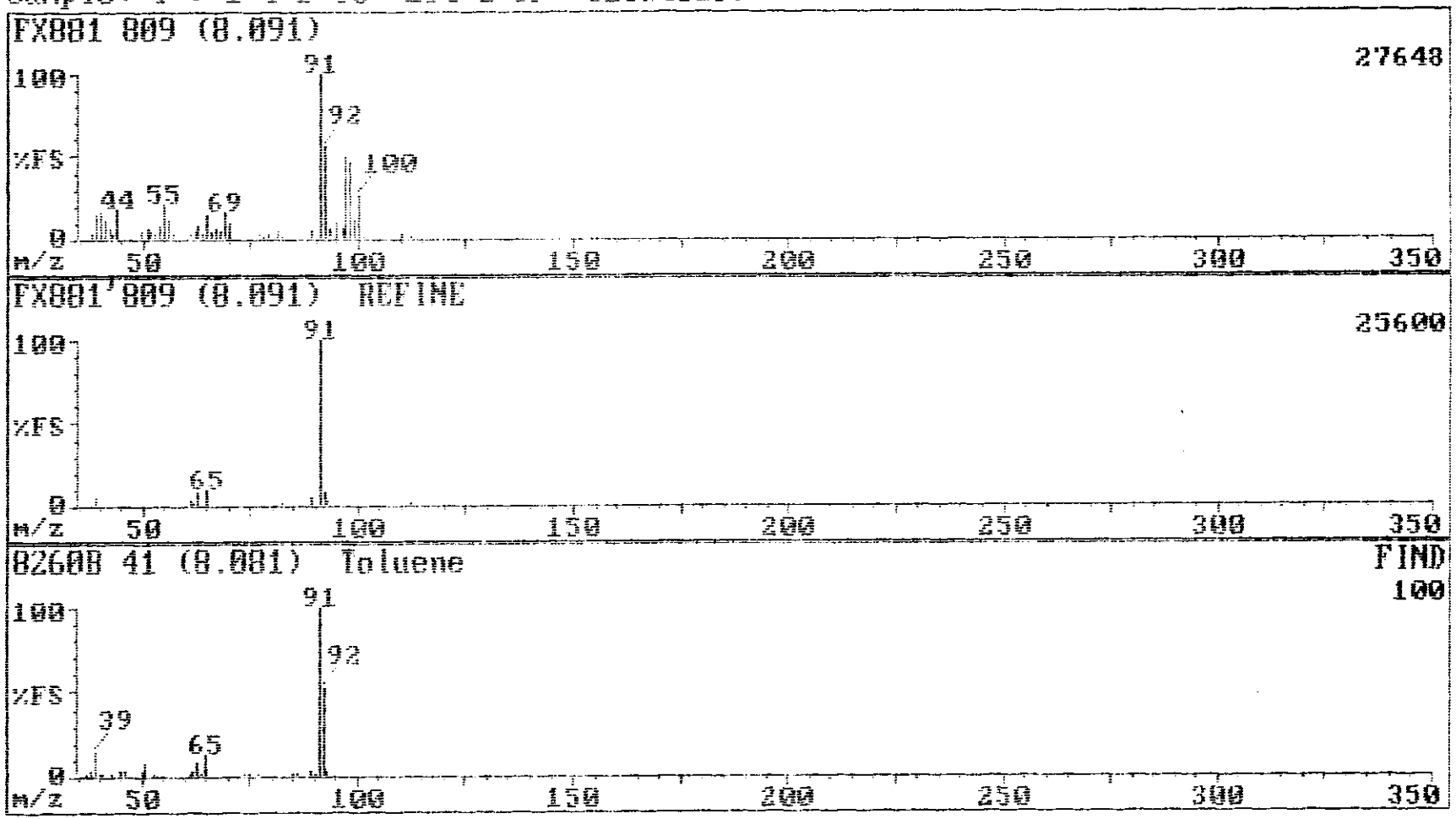


MASTER 22 (3.590) Methylene chloride FIND



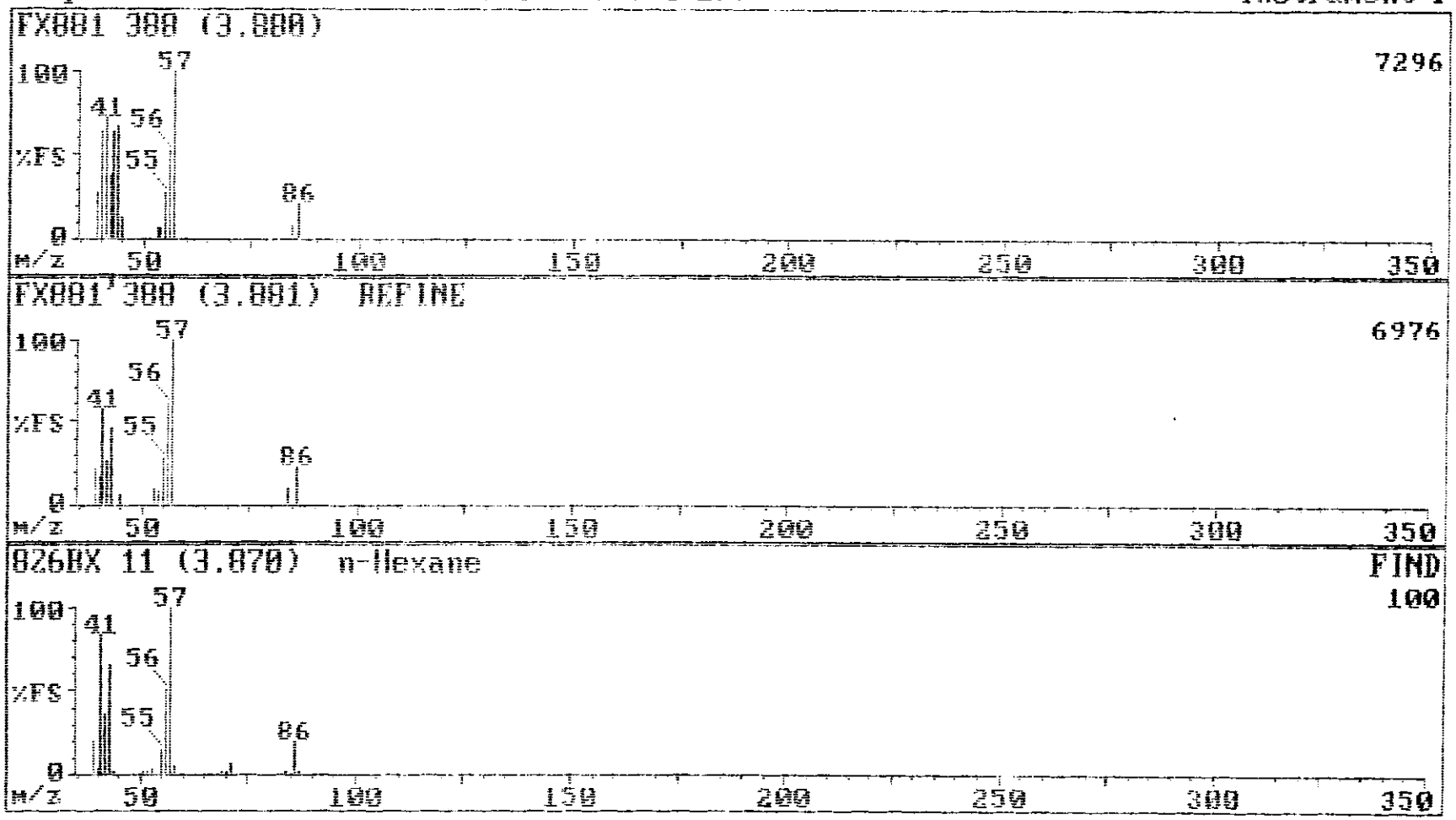
17-Aug-98 18:30 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-1-4-B TC 214-1-9B TLI#46297 Instrument F



17-Aug-98 18:30 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-1-4-B TC 214-1-98 TLI#46297 Instrument F



Pacific Environmental Services

Project Number: 46297
Sample File: FX878

Method 8260 VOST
Sample ID: VOSTBLK081798

Client Project: Hotmix | **Date Received: / /** | **Response File: ICALF814**
TLI ID: VOSTBLK081798
Date Analyzed : 08/17/98

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Pentafluorobenzene		IS 1	5.32		
Chloromethane		U		0.001	0.05
Vinyl Chloride		U		0.001	0.05
Bromomethane		U		0.001	0.05
Chloroethane		U		0.001	0.05
Trichlorofluoromethane		U		0.001	0.05
1,1-Dichloroethene		U		0.001	0.05
Iodomethane		U		0.001	0.05
Carbon disulfide		U		0.001	0.05
Acetone		U		0.004	0.05
Allyl chloride		U		0.001	0.05
Methylene chloride		U		0.001	0.05
Acrylonitrile		U		0.016	0.05
trans-1,2-Dichloroethene		U		0.001	0.05
1,1-Dichloroethane		U		0.001	0.05
Vinyl acetate		U		0.002	0.05
cis-1,2-Dichloroethene		U		0.001	0.05
2-Butanone		U		0.004	0.05
Chloroform		U		0.001	0.05
1,1,1-Trichloroethane		U		0.001	0.05
1,4-Difluorobenzene		IS 2	6.08		
Carbon tetrachloride		U		0.001	0.05
Benzene	0.013	J	5.54		0.05
1,2-Dichloroethane		U		0.001	0.05
Trichloroethene		U		0.001	0.05
1,2-Dichloropropane		U		0.001	0.05

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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Savar v3.7
Printed: 17:44 08/24/1998

Pacific Environmental Services

Project Number: 46297
Sample File: FX878

Method 8260 VOST
Sample ID: VOSTBLK081798

Client Project: Hotmix **Date Received: / /** **Response File: ICALF814**
TLI ID: VOSTBLK081798
Date Analyzed : 08/17/98

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Methyl methacrylate		U		0.006	0.05
Bromodichloromethane		U		0.001	0.05
cis-1,3-Dichloropropene		U		0.001	0.05
4-Methyl-2-pentanone		U		0.004	0.05
Toluene	0.005	J	8.10		0.05
trans-1,3-Dichloropropene		U		0.001	0.05
1,1,2-Trichloroethane		U		0.001	0.05
Chlorobenzene-d_5		IS 3	10.36		
Tetrachloroethene		U		0.001	0.05
2-Hexanone		U		0.006	0.05
Dibromochloromethane		U		0.001	0.05
1,2-Dibromoethane		U		0.001	0.05
Chlorobenzene		U		0.001	0.05
Ethylbenzene		U		0.001	0.05
m-/p-Xylene		U		0.001	0.10
o-Xylene		U		0.001	0.05
Styrene		U		0.001	0.05
Bromoform		U		0.003	0.05
1,4-Dichlorobenzene-d_4		IS 4	15.73		
Cumene		U		0.001	0.05
1,1,2,2-Tetrachloroethane		U		0.003	0.05

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

Triangle Laboratories, Inc.
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Savar v3.7
Printed: 17:44 08/24/1998

Pacific Environmental Services

Project Number: 46297
Sample File: FX878

Method 8260 VOST
Sample ID: VOSTBLK081798

Client Project: Hotmix
TLI ID: VOSTBLK081798

Date Received: / /

Date Analyzed : 08/17/98

Response File: ICALF814

Surrogate Summary	Amount (ug)	RT	IS Ref	%REC
Dibromofluoromethane	0.267	5.19	1	107
Toluene-d_8	0.296	8.01	2	118
4-Bromofluorobenzene	0.256	12.66	2	102

Reviewed by VR Date 8/24/98

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit

IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

Triangle Laboratories, Inc.
801 Capitola Drive • Durham, North Carolina 27713
Phone: (919) 544-5729 • Fax: (919) 544-5491

Savar v3.7
Printed: 17:44 08/24/1998

Pacific Environmental Services

Project Number: 46297
Sample File: FX878

Method 8260 VOST
Sample ID: VOSTBLK081798

Client Project: Hotmix
TLI ID: VOSTBLK081798

Date Received: / /

Date Analyzed : 08/17/98

Response File: ICALF817

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Pentafluorobenzene		IS 1	5.32		
1,3-Butadiene		U		0.001	0.25
Vinyl bromide		U		0.001	0.25
MTBE		U		0.001	0.25
n-Hexane		U		0.001	0.25
1,2-Epoxybutane		U		0.011	0.25
Iso-Octane		U		0.001	0.25
1,4-Difluorobenzene		IS 2	6.08		
Ethyl acrylate		U		0.002	0.25

Reviewed by YR Date 8/24/98

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

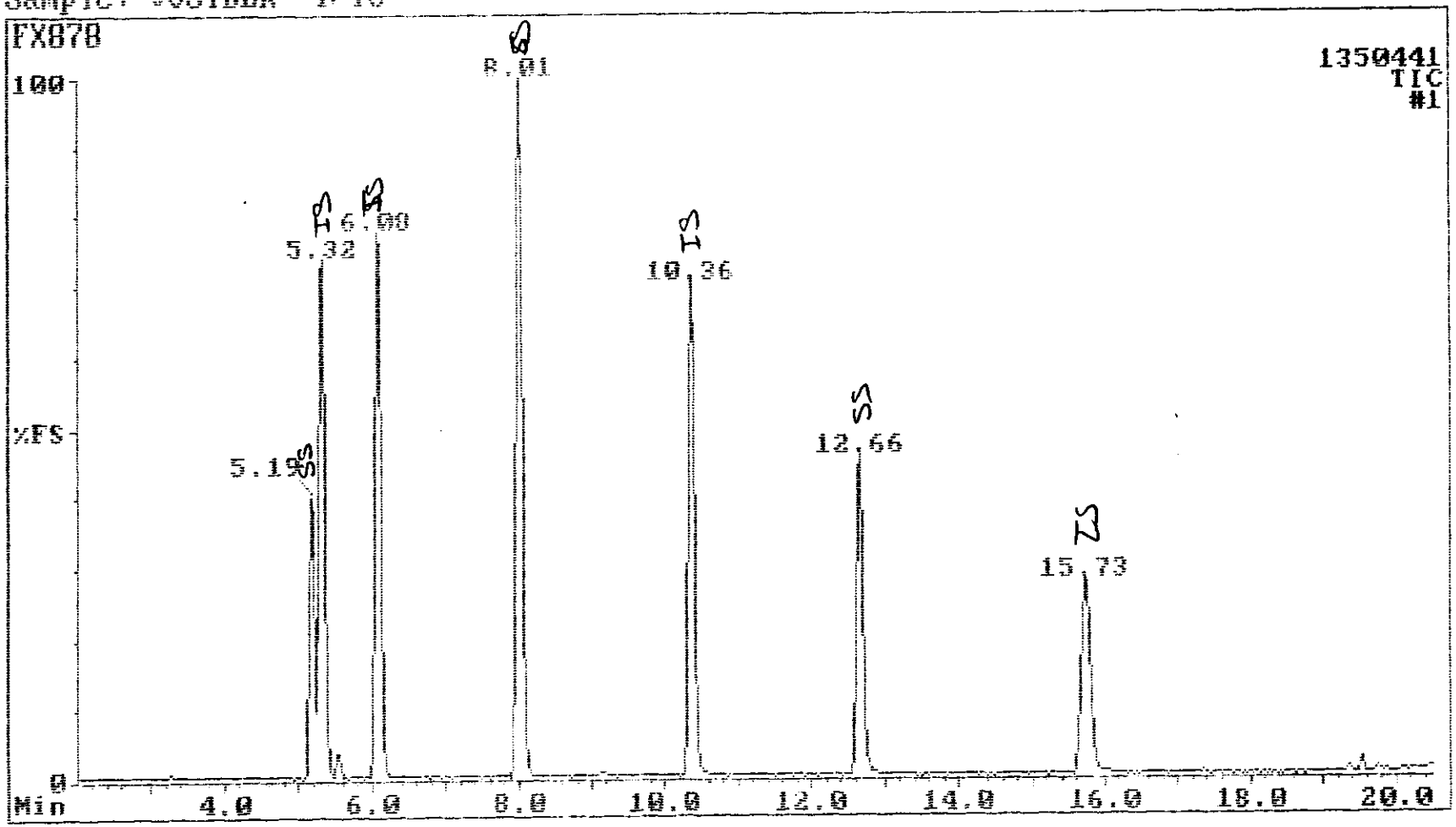
Triangle Laboratories, Inc.
801 Capitola Drive • Durham, North Carolina 27713
Phone: (919) 544-5729 • Fax: (919) 544-5491

Savar v3.7
Printed: 18:00 08/24/1998

150

17-Aug-98 15:51 Triangle Laboratories, Inc. (919) 544-5729

Sample: VOSTBLK T/TC Instrument F



Data Review: MC
Date: 8/19/98

QUAN DB : FX878 LAB-BASE QUAN 17-Aug-98 16:31

No.	MAT	FOR	REV	Delta	Area	P.Flags	RT	QM	Name
1	100	85	99	3	2578248	bv	5.321	168	Pentafluorobenzene
2	100	97	99	-1	2921264	bv	6.081	114	1,4-Difluorobenzene
3	100	95	96	0	2423024	bv	10.361	117	Chlorobenzene-d5
4	100	79	98	0	799240	bv	15.732	152	1,4-Dichlorobenzene-d4
5	100	97	99	-1	1157096	bb	5.191	113	Dibromofluoromethane
6	100	92	97	0	3532432	bv	8.011	98	Toluene-d8
7	100	91	93	-1	1017440	bv	12.661	95	4-Bromofluorobenzene
8	0	0	0	0	0		0.000	85	Dichlorodifluoromethane
9	0	0	0	0	0		0.000	50	Chloromethane
10	0	0	0	0	0		0.000	62	Vinyl Chloride
11	0	0	0	0	0		0.000	94	Bromomethane
12	0	0	0	0	0		0.000	64	Chloroethane
13	0	0	0	0	0		0.000	101	Trichlorofluoromethane
14	0	0	0	0	0		0.000	96	1,1-Dichloroethene
15	0	0	0	0	0		0.000	142	Iodomethane
16	0	0	0	0	0		0.000	76	Carbon disulfide
17	0	0	0	0	0		0.000	43	Acetone
18	0	0	0	0	0		0.000	41	Allyl chloride
19	0	0	0	0	0		0.000	84	Methylene chloride
20	0	0	0	0	0		0.000	53	Acrylonitrile
21	0	0	0	0	0		0.000	96	trans-1,2-Dichloroethene
22	0	0	0	0	0		0.000	63	1,1-Dichloroethane
23	0	0	0	0	0		0.000	43	Vinyl acetate
24	0	0	0	0	0		0.000	77	2,2-Dichloropropane
25	0	0	0	0	0		0.000	96	cis-1,2-Dichloroethene
26	17	15	15	3	~~1800~~	~~bb~~	~~4.771~~	43	2-Butanone FP
27	0	0	0	0	0		0.000	83	Chloroform
28	0	0	0	0	0		0.000	128	Bromochloromethane
29	0	0	0	0	0		0.000	97	1,1,1-Trichloroethane
30	0	0	0	0	0		0.000	117	Carbon tetrachloride
31	0	0	0	0	0		0.000	75	1,1-Dichloropropene
32	100	79	95	1	146244	bb	5.541	78	Benzene
33	0	0	0	0	0		0.000	62	1,2-Dichloroethane
34	0	0	0	0	0		0.000	130	Trichloroethene
35	0	0	0	0	0		0.000	63	1,2-Dichloropropane
36	0	0	0	0	0		0.000	93	Dibromomethane
37	0	0	0	0	0		0.000	41	Methyl methacrylate
38	0	0	0	0	0		0.000	83	Bromodichloromethane
39	0	0	0	0	0		0.000	75	cis-1,3-Dichloropropene
40	39	3	66	4	~~14176~~	~~bv~~	~~8.021~~	43	4-Methyl-2-pentanone FP
41	66	34	72	-1	38868	bb	8.101	92	Toluene
42	0	0	0	0	0		0.000	75	trans-1,3-Dichloropropene
43	0	0	0	0	0		0.000	97	1,1,2-Trichloroethane
44	0	0	0	0	0		0.000	69	Ethyl methacrylate
45	0	0	0	0	0		0.000	164	Tetrachloroethene
46	0	0	0	0	0		0.000	76	1,3-Dichloropropane
47	0	0	0	0	0		0.000	43	2-Hexanone
48	0	0	0	0	0		0.000	129	Dibromochloromethane
49	0	0	0	0	0		0.000	107	1,2-Dibromoethane
50	0	0	0	0	0		0.000	112	Chlorobenzene

Data Review: MC
Date: 8/19/98

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No.	MAT	FOR	REV	Delta	Area	P.Flags	RT	QM	Name
51	0	0	0	0	0		0.000	131	1,1,1,2-Tetrachloroethane
52	0	0	0	0	0		0.000	106	Ethylbenzene
53	0	0	0	0	0		0.000	106	m-/p-Xylene
54	0	0	0	0	0		0.000	106	o-Xylene
55	0	0	0	0	0		0.000	104	Styrene
56	0	0	0	0	0		0.000	173	Bromoform
57	0	0	0	0	0		0.000	105	Cumene
58	0	0	0	0	0		0.000	83	1,1,2,2-Tetrachloroethane
59	0	0	0	0	0		0.000	156	Bromobenzene
60	0	0	0	0	0		0.000	75	1,2,3-Trichloropropane
61	0	0	0	0	0		0.000	120	n-Propylbenzene
62	0	0	0	0	0		0.000	75	trans-1,4-Dichloro-2-buten
63	0	0	0	0	0		0.000	126	2-Chlorotoluene
64	0	0	0	0	0		0.000	126	4-Chlorotoluene
65	0	0	0	0	0		0.000	105	1,3,5-Trimethylbenzene
66	0	0	0	0	0		0.000	119	tert-Butylbenzene
67	0	0	0	0	0		0.000	105	1,2,4-Trimethylbenzene
68	0	0	0	0	0		0.000	105	sec-Butylbenzene
69	0	0	0	0	0		0.000	119	p-Cymene
70	0	0	0	0	0		0.000	146	1,3-Dichlorobenzene
71	0	0	0	0	0		0.000	146	1,4-Dichlorobenzene
72	0	0	0	0	0		0.000	91	Benzyl chloride
73	0	0	0	0	0		0.000	91	n-Butylbenzene
74	0	0	0	0	0		0.000	146	1,2-Dichlorobenzene
75	0	0	0	0	0		0.000	75	1,2-Dibromo-3-chloropropan
76	57	33	65	-3	16904	bv	19.352	180	1,2,4-Trichlorobenzene
77	76	51	87	-5	17800	bb	19.532	225	Hexachlorobutadiene
78	0	0	0	0	0		0.000	128	Naphthalene
79	0	0	0	0	19356 ~~v~~ m		19.762 ~~0.000~~	180	1,2,3-Trichlorobenzene

YR 8/19/94

QUAN DB : FX878 LAB-BASE QUAN 17-Aug-98 13:04

No.	MAT	FOR	REV	Delta	Area	P.Flags	RT	QM	Name
1	100	78	99	1	2574448	bb	5.301	168	Pentafluorobenzene
2	100	97	99	0	2726140	bv	6.071	114	1,4-Difluorobenzene
3	100	95	95	-1	2355716	bv	10.351	117	Chlorobenzene-d5
4	100	76	100	-2	860176	bv	15.712	152	1,4-Dichlorobenzene-d4
5	100	84	99	0	1077964	bv	5.181	113	Dibromofluoromethane
6	100	91	97	0	3394004	bv	8.001	98	Toluene-d8
7	100	91	93	-1	1044408	bv	12.651	95	4-Bromofluorobenzene
8	~~57~~	~~33~~	~~66~~	~~5~~	~~26612~~	~~vv~~	~~1.270~~ FP	39	1,3-Butadiene
9	0	0	0	0	0		0.000	106	Vinyl bromide
10	57	40	55	4	~~8612~~	~~A~~	~~3.630~~ FP	73	MTBE
11	69	57	59	2	~~17896~~	~~bb~~	~~3.900~~ FP	57	n-Hexane
12	55	48	62	13	~~23408~~	~~A~~	~~4.470~~ FP	42	1,2-Epoxybutane
13	64	47	57	1	~~66292~~	~~A~~	~~5.691~~ FP	57	Iso-Octane
14	44	28	69	-12	~~266764~~	~~bb~~	~~6.531~~ FP	55	Ethyl acrylate

M 8/19/98

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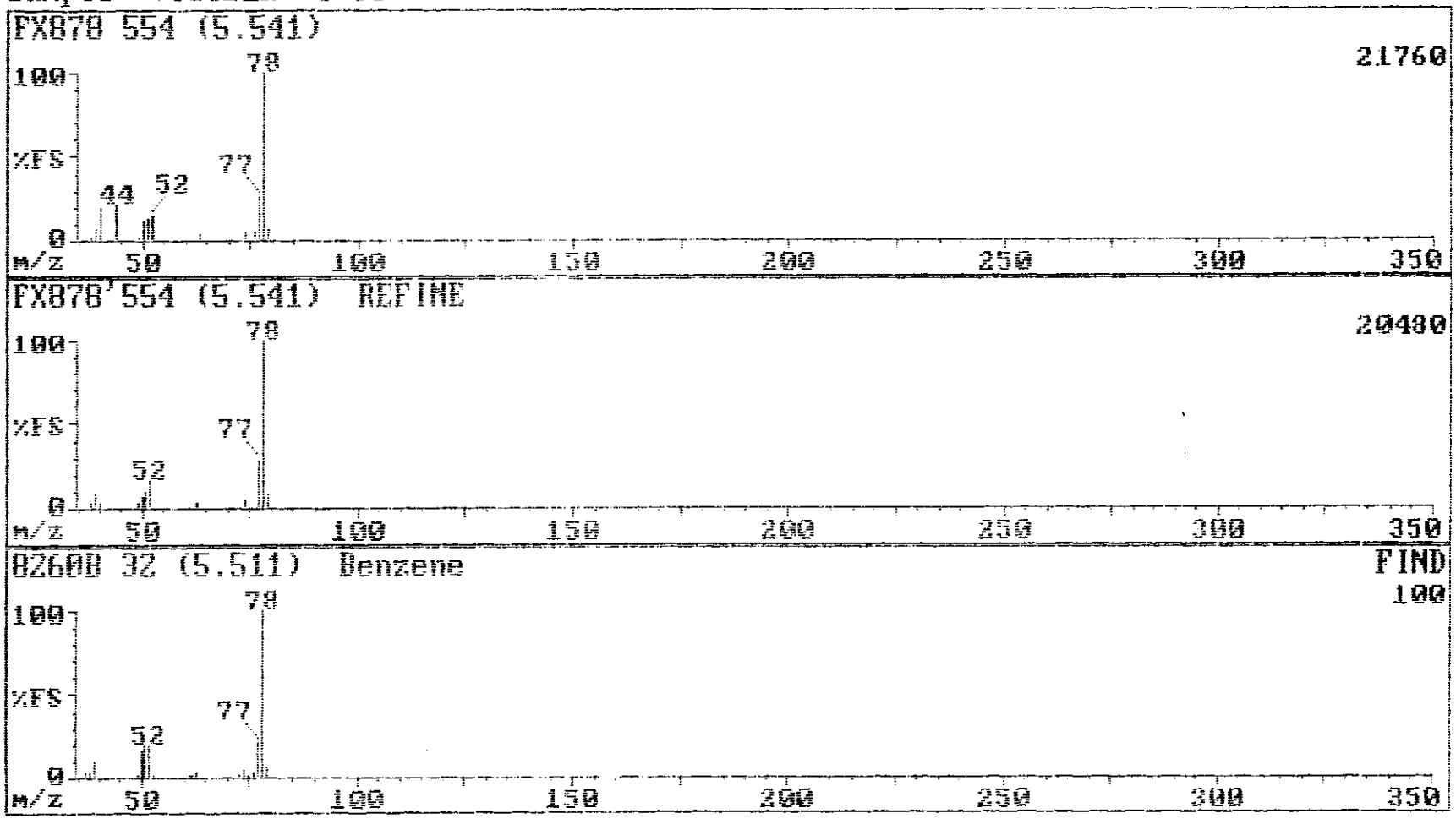
17-Aug-98 15:51 Triangle Laboratories, Inc. (919) 544-5729

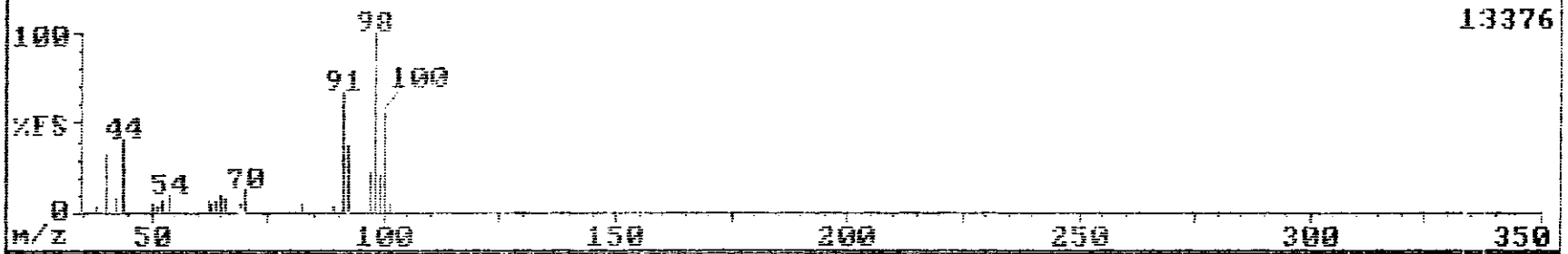
Sample: VOSTBLK T/TC Instrument F



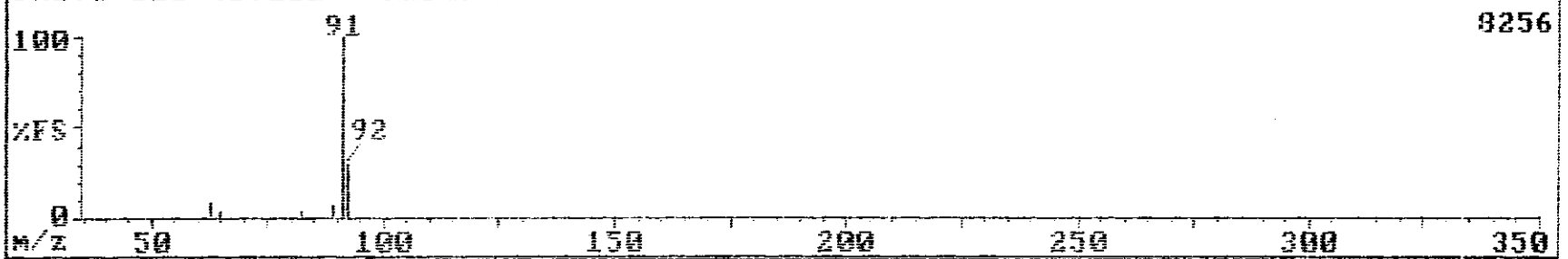
17-Aug-98 15:51 Triangle Laboratories, Inc. (919) 544-5729

Sample: VOSTBLK T/TC Instrument F

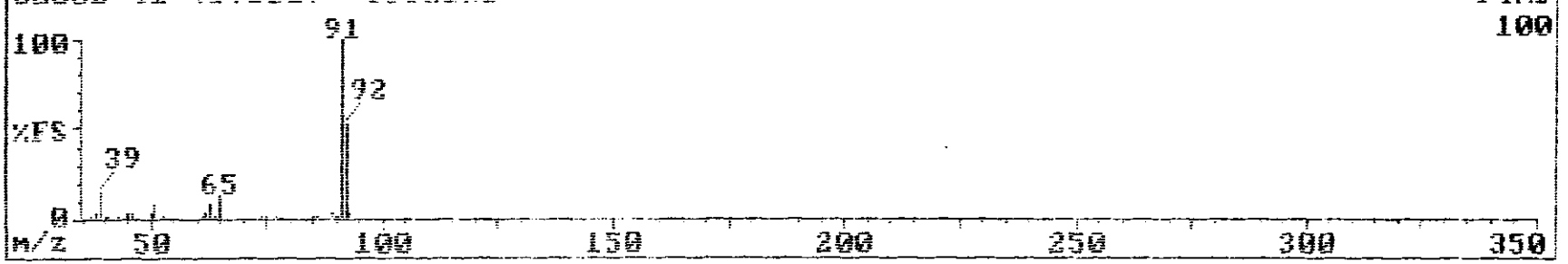
FX878 810 (8.101) 13376



FX878'810 (8.101) REFINE 8256



8260B 41 (8.081) Toluene FIND 100



Pacific Environmental Services

Project Number: 46297
Sample File: FX894

Method 8260 VOST
Sample ID: VOSTBLK081898

Client Project: Hotmix | **Date Received: / /** | **Response File: ICALF814**
TLI ID: VOSTBLK081898
Date Analyzed : 08/18/98

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Pentafluorobenzene		IS 1	5.29		
Chloromethane		U		0.001	0.05
Vinyl Chloride		U		0.001	0.05
Bromomethane		U		0.001	0.05
Chloroethane		U		0.001	0.05
Trichlorofluoromethane		U		0.001	0.05
1,1-Dichloroethene		U		0.001	0.05
Iodomethane		U		0.001	0.05
Carbon disulfide		U		0.001	0.05
Acetone		U		0.006	0.05
Allyl chloride		U		0.001	0.05
Methylene chloride		U		0.001	0.05
Acrylonitrile		U		0.021	0.05
trans-1,2-Dichloroethene		U		0.001	0.05
1,1-Dichloroethane		U		0.001	0.05
Vinyl acetate		U		0.002	0.05
cis-1,2-Dichloroethene		U		0.001	0.05
2-Butanone		U		0.005	0.05
Chloroform		U		0.001	0.05
1,1,1-Trichloroethane		U		0.001	0.05
1,4-Difluorobenzene		IS 2	6.06		
Carbon tetrachloride		U		0.001	0.05
Benzene	0.023	J	5.51		0.05
1,2-Dichloroethane		U		0.001	0.05
Trichloroethene		U		0.001	0.05
1,2-Dichloropropane		U		0.001	0.05

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

Triangle Laboratories, Inc.
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Printed: 17:44 08/24/1998

Pacific Environmental Services

Project Number: 46297
Sample File: FX894

Method 8260 VOST
Sample ID: VOSTBLK081898

Client Project: Hotmix
TLI ID: VOSTBLK081898

Date Received: / /

Date Analyzed : 08/18/98

Response File: ICALF814

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Methyl methacrylate		U		0.007	0.05
Bromodichloromethane		U		0.001	0.05
cis-1,3-Dichloropropene		U		0.001	0.05
4-Methyl-2-pentanone		U		0.006	0.05
Toluene	0.008	J	8.07		0.05
trans-1,3-Dichloropropene		U		0.002	0.05
1,1,2-Trichloroethane		U		0.002	0.05
Chlorobenzene-d_5		IS 3	10.33		
Tetrachloroethene		U		0.001	0.05
2-Hexanone		U		0.008	0.05
Dibromochloromethane		U		0.001	0.05
1,2-Dibromoethane		U		0.002	0.05
Chlorobenzene		U		0.001	0.05
Ethylbenzene		U		0.001	0.05
m-/p-Xylene		U		0.001	0.10
o-Xylene		U		0.001	0.05
Styrene		U		0.001	0.05
Bromoform		U		0.004	0.05
1,4-Dichlorobenzene-d_4		IS 4	15.67		
Cumene		U		0.001	0.05
1,1,2,2-Tetrachloroethane		U		0.004	0.05

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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Savar v3.7
Printed: 17:44 08/24/1998

Pacific Environmental Services

Project Number: 46297
Sample File: FX894

Method 8260 VOST
Sample ID: VOSTBLK081898

Client Project: Hotmix
TLI ID: VOSTBLK081898

Date Received: / /

Date Analyzed : 08/18/98

Response File: ICALF814

Surrogate Summary	Amount (ug)	RT	IS Ref	%REC
Dibromofluoromethane	0.255	5.16	1	102
Toluene-d_8	0.317	7.98	2	127
4-Bromofluorobenzene	0.265	12.63	2	106

Reviewed by YR Date 8/24/98

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit

IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

Triangle Laboratories, Inc.
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Savar v3.7
Printed: 17:44 08/24/1998

Pacific Environmental Services

Project Number: 46297
Sample File: FX894

Method 8260 VOST
Sample ID: VOSTBLK081898

Client Project: Hotmix
TLI ID: VOSTBLK081898

Date Received: / /

Date Analyzed : 08/18/98

Response File: ICALF818

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Pentafluorobenzene		IS 1	5.29		
1,3-Butadiene		U		0.001	0.25
Vinyl bromide		U		0.001	0.25
MTBE		U		0.001	0.25
n-Hexane		U		0.001	0.25
1,2-Epoxybutane		U		0.020	0.25
Iso-Octane		U		0.001	0.25
1,4-Difluorobenzene		IS 2	6.06		
Ethyl acrylate		U		0.004	0.25

Reviewed by YR Date 8/24/98

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

Triangle Laboratories, Inc.
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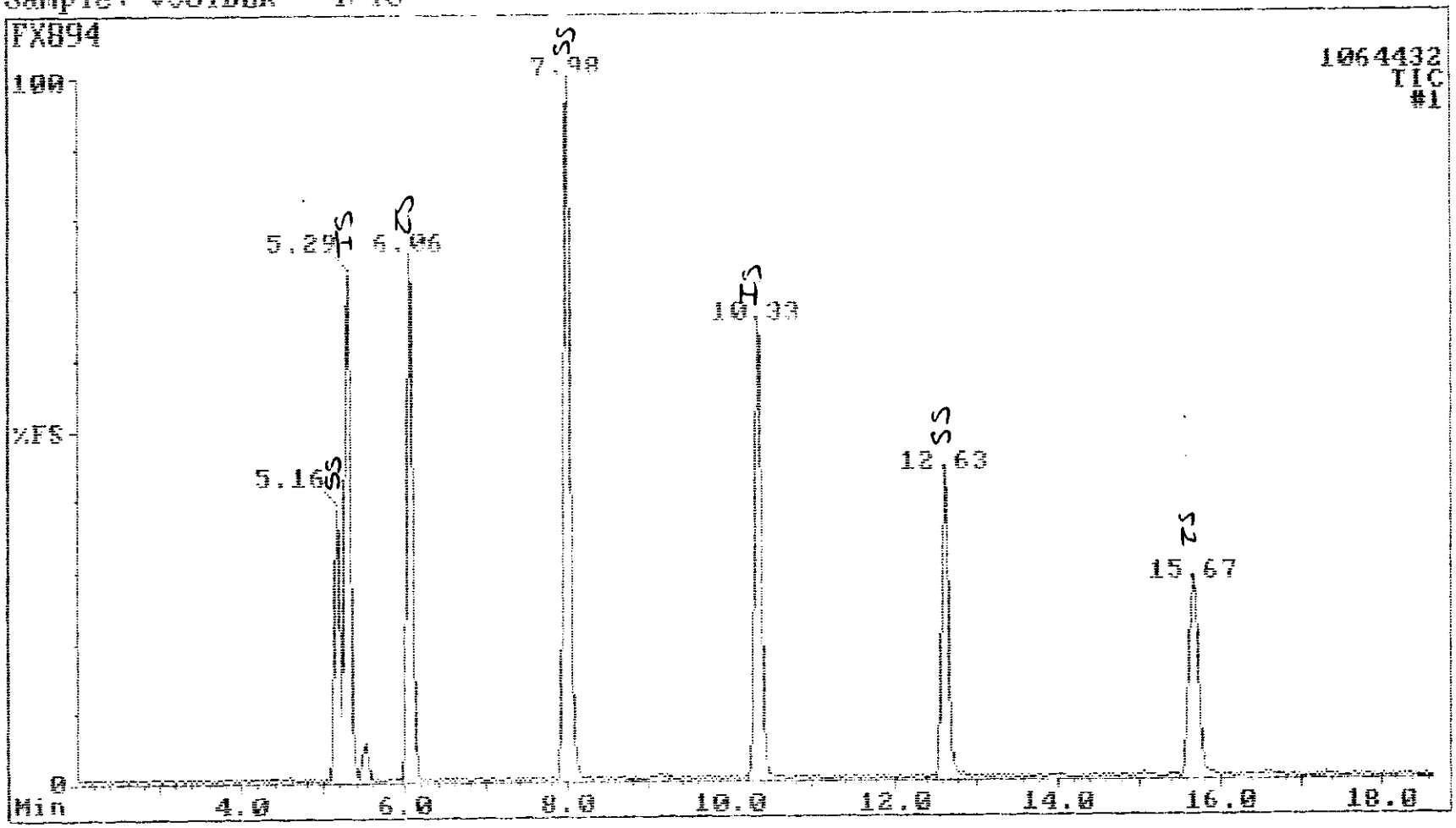
Phone: (919) 544-5729 • Fax: (919) 544-5491

Savar v3.7
Printed: 18:00 08/24/1998

18-Aug-98 12:46 Triangle Laboratories, Inc. (919) 544-5729

Sample: VOSTBLK T/TC Instrument F



Data Review: WC
Date: 8/19/98

QUAN OB : FX894 LAB-BASE QUAN 03-Aug-98 14:14

No.	MAT	FOR	REV	Delta	Area	P.Flags	RT	QM	Name
1	100	85	99	0	1969692	bb	5.291	168	Pentafluorobenzene
2	100	97	98	0	2162904	bv	6.061	114	1,4-Difluorobenzene
3	100	95	95	0	1665360	bv	10.331	117	Chlorobenzene-d5
4	100	77	97	-1	600868	bv	15.677	152	1,4-Dichlorobenzene-d4
5	100	97	99	-1	846372	bb	5.161	113	Dibromofluoromethane
6	100	93	97	0	2796248	bv	7.981	98	Toluene-d8
7	100	91	93	0	778432	mv	12.631	95	4-Bromofluorobenzene
8	0	0	0	0	0		0.000	85	Dichlorodifluoromethane
9	0	0	0	0	0		0.000	50	Chloromethane
10	0	0	0	0	0		0.000	62	Vinyl Chloride
11	0	0	0	0	0		0.000	94	Bromomethane
12	0	0	0	0	0		0.000	64	Chloroethane
13	0	0	0	0	0		0.000	101	Trichlorofluoromethane
14	0	0	0	0	0		0.000	96	1,1-Dichloroethene
15	0	0	0	0	0		0.000	142	Iodomethane
16	0	0	0	0	0		0.000	76	Carbon disulfide
17	60	15	35	2	~~[illegible]~~		~~[illegible]~~	43	Acetone FP
18	0	0	0	0	0		0.000	61	Allyl Chloride
19	0	0	0	0	0		0.000	84	Methylene chloride
20	0	0	0	0	0		0.000	53	Acrylonitrile
21	0	0	0	0	0		0.000	96	trans-1,2-Dichloroethene
22	0	0	0	0	0		0.000	63	1,1-Dichloroethane
23	0	0	0	0	0		0.000	43	Vinyl acetate
24	0	0	0	0	0		0.000	77	2,2-Dichloropropane
25	0	0	0	0	0		0.000	96	cis-1,2-Dichloroethene
26	0	0	0	0	0		0.000	43	2-Butanone
27	0	0	0	0	0		0.000	83	Chloroform
28	0	0	0	0	0		0.000	128	Bromochloromethane
29	0	0	0	0	0		0.000	97	1,1,1-Trichloroethane
30	0	0	0	0	0		0.000	117	Carbon tetrachloride
31	0	0	0	0	0		0.000	75	1,1-Dichloropropene
32	100	85	95	0	192064	bb	5.511	78	Benzene
33	0	0	0	0	0		0.000	62	1,2-Dichloroethane
34	0	0	0	0	0		0.000	130	Trichloroethene
35	0	0	0	0	0		0.000	63	1,2-Dichloropropane
36	0	0	0	0	0		0.000	93	Dibromomethane
37	0	0	0	0	0		0.000	41	Methyl methacrylate
38	0	0	0	0	0		0.000	83	Bromodichloromethane
39	0	0	0	0	0		0.000	75	cis-1,3-Dichloropropene
40	35	2	33	3	~~[illegible]~~	~~bb~~	~~7.[illegible]~~	43	4-Methyl-2-pentanone FP
41	70	39	73	-1	51592	bb	8.071	92	Toluene
42	0	0	0	0	0		0.000	75	trans-1,3-Dichloropropene
43	0	0	0	0	0		0.000	97	1,1,2-Trichloroethane
44	0	0	0	0	0		0.000	69	Ethyl methacrylate
45	0	0	0	0	0		0.000	164	Tetrachloroethene
46	0	0	0	0	0		0.000	76	1,3-Dichloropropane
47	0	0	0	0	0		0.000	43	2-Hexanone
48	0	0	0	0	0		0.000	129	Dibromochloromethane
49	0	0	0	0	0		0.000	107	1,2-Dibromoethane
50	0	0	0	0	0		0.000	112	Chlorobenzene

Data Review: YM
Date: 8/19/98

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No.	MAT	FOR	REV	Delta	Area	P. Flags	RT	QM	Name
51	0	0	0	0	0		0.000	131	1,1,1,2-Tetrachloroethane
52	0	0	0	0	0		0.000	106	Ethylbenzene
53	0	0	0	0	0		0.000	106	m-/p-Xylene
54	0	0	0	0	0		0.000	106	o-Xylene
55	0	0	0	0	0		0.000	104	Styrene
56	0	0	0	0	0		0.000	173	Bromoform
57	0	0	0	0	0		0.000	105	Cumene
58	0	0	0	0	0		0.000	83	1,1,2,2-Tetrachloroethane
59	0	0	0	0	0		0.000	156	Bromobenzene
60	0	0	0	0	0		0.000	75	1,2,3-Trichloropropane
61	0	0	0	0	0		0.000	120	n-Propylbenzene
62	0	0	0	0	0		0.000	75	trans-1,4-Dichloro-2-butene
63	0	0	0	0	0		0.000	126	2-Chlorotoluene
64	0	0	0	0	0		0.000	126	4-Chlorotoluene
65	0	0	0	0	0		0.000	120	1,3,5-Trimethylbenzene
66	0	0	0	0	0		0.000	119	tert-Butylbenzene
67	0	0	0	0	0		0.000	105	1,2,4-Trimethylbenzene
68	0	0	0	0	0		0.000	105	sec-Butylbenzene
69	0	0	0	0	0		0.000	119	p-Cymene
70	0	0	0	0	0		0.000	146	1,3-Dichlorobenzene
71	0	0	0	0	0		0.000	146	1,4-Dichlorobenzene
72	0	0	0	0	0		0.000	91	Benzyl chloride
73	0	0	0	0	0		0.000	91	n-Butylbenzene
74	0	0	0	0	0		0.000	146	1,2-Dichlorobenzene
75	0	0	0	0	0		0.000	75	1,2-Dibromo-3-chloropropan
76	0	0	0	0	0		0.000	180	1,2,4-Trichlorobenzene
77	0	0	0	0	0		0.000	225	Hexachlorobutadiene
78	0	0	0	0	0		0.000	128	Naphthalene
79	0	0	0	0	0		0.000	180	1,2,3-Trichlorobenzene

QUAN DB : FX894 LAB-BASE QUAN 18-Aug-98 14:36

No.	MAT	FOR	REV	Delta	Area	P.Flags	RT	QM	Name
1	100	85	99	0	1969692	bb	5.291	168	Pentafluorobenzene
2	100	97	98	0	2162904	bv	6.061	114	1,4-Difluorobenzene
3	100	95	95	-1	1663360	bv	10.331	117	Chlorobenzene-d5
4	100	77	97	-3	600863	bv	15.672	152	1,4-Dichlorobenzene-d4
5	100	97	99	-1	846379	bb	5.161	113	Dibromofluoromethane
6	100	93	97	-1	2796248	bv	7.981	98	Toluene-d8
7	100	91	93	-1	778432	bv	12.631	95	4-Bromofluorobenzene
8	0	0	0	0	0		0.000	39	1,3-Butadiene
9	0	0	0	0	0		0.000	106	Vinyl bromide
10	0	0	0	0	0		0.000	73	MTBE
11	31	25	25	-1	[illegible]		[illegible] FP	57	n-Hexane
12	0	0	0	0	0		0.000	42	1,2-Epoxybutane
13	0	0	0	0	0		0.000	57	Iso-Octane
14	0	0	0	0	0		0.000	55	Ethyl acrylate

MS 8/19/98

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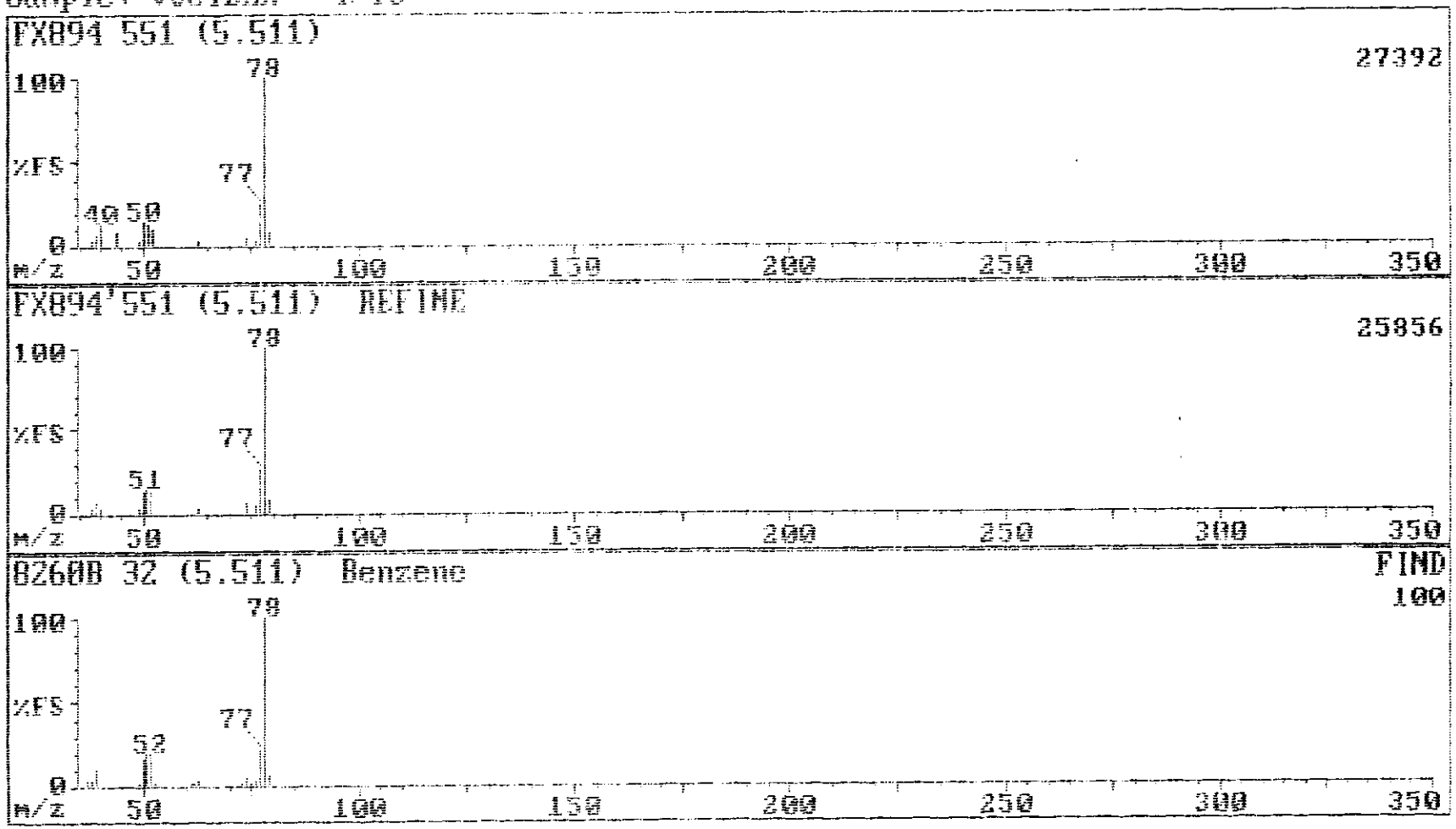
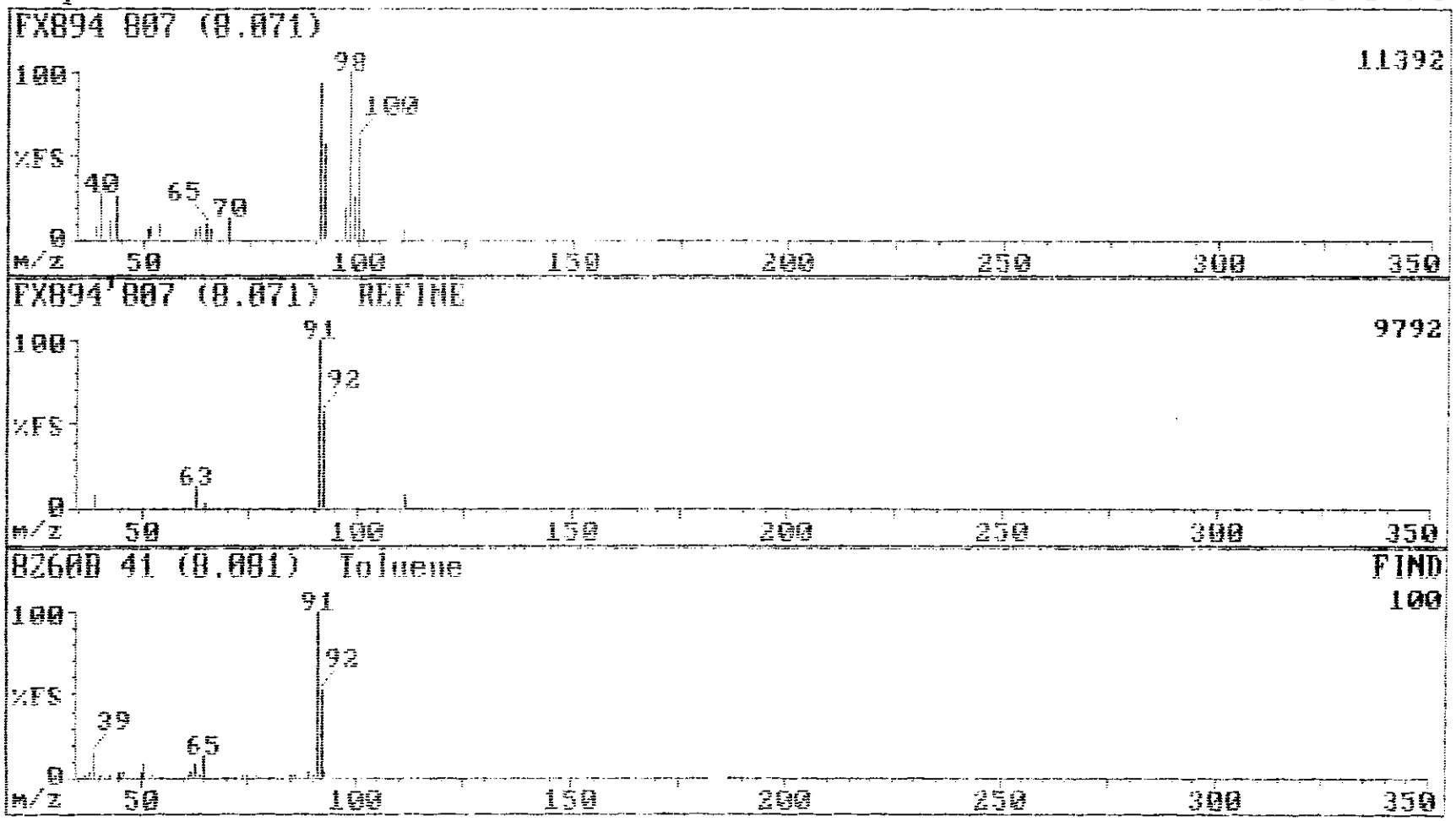
18-Aug-90 12:46 Triangle Laboratories, Inc. (919) 544-5729

Sample: VOSTBLK T/TC Instrument F



18-Aug-98 12:46 Triangle Laboratories, Inc. (919) 544-5729

Sample: VOSTBLK T/TC Instrument F



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Pacific Environmental Services

Project Number: 46297 | **Method 8260 VOST**
Sample File: HW705 | **Sample ID: VOSTBLK081998**

Client Project: Hotmix | **Date Received: / /** | **Response File: ICALH809**
TLI ID: VOSTBLK081998
Date Analyzed : 08/19/98

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Pentafluorobenzene		IS 1	5.04		
Chloromethane	0.003	J	0.96		0.05
Vinyl Chloride		U		0.001	0.05
Bromomethane		U		0.001	0.05
Chloroethane		U		0.001	0.05
Trichlorofluoromethane		U		0.001	0.05
1,1-Dichloroethene		U		0.001	0.05
Iodomethane		U		0.001	0.05
Carbon disulfide		U		0.001	0.05
Acetone		U		0.004	0.05
Allyl chloride		U		0.001	0.05
Methylene chloride	0.002	J	3.06		0.05
Acrylonitrile		U		0.006	0.05
trans-1,2-Dichloroethene		U		0.001	0.05
1,1-Dichloroethane		U		0.001	0.05
Vinyl acetate		U		0.001	0.05
cis-1,2-Dichloroethene		U		0.001	0.05
2-Butanone		U		0.003	0.05
Chloroform		U		0.001	0.05
1,1,1-Trichloroethane		U		0.001	0.05
1,4-Difluorobenzene		IS 2	5.77		
Carbon tetrachloride		U		0.001	0.05
Benzene		U		0.001	0.05
1,2-Dichloroethane		U		0.001	0.05
Trichloroethene		U		0.001	0.05
1,2-Dichloropropane		U		0.001	0.05

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

Triangle Laboratories, Inc.
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Savar v3.7
Printed: 18:08 08/24/1998

Pacific Environmental Services

Project Number: 46297
Sample File: HW705

Method 8260 VOST
Sample ID: VOSTBLK081998

Client Project: Hotmix
TLI ID: VOSTBLK081998

Date Received: / /

Date Analyzed : 08/19/98

Response File: ICALH809

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Methyl methacrylate		U		0.002	0.05
Bromodichloromethane		U		0.001	0.05
cis-1,3-Dichloropropene		U		0.001	0.05
4-Methyl-2-pentanone		U		0.001	0.05
Toluene	0.003	J	7.74		0.05
trans-1,3-Dichloropropene		U		0.001	0.05
1,1,2-Trichloroethane		U		0.001	0.05
Chlorobenzene-d_5		IS 3	9.96		
Tetrachloroethene		U		0.001	0.05
2-Hexanone		U		0.002	0.05
Dibromochloromethane		U		0.001	0.05
1,2-Dibromoethane		U		0.001	0.05
Chlorobenzene		U		0.001	0.05
Ethylbenzene		U		0.001	0.05
m-/p-Xylene	0.001	J	10.56		0.10
o-Xylene		U		0.001	0.05
Styrene		U		0.001	0.05
Bromoform		U		0.001	0.05
1,4-Dichlorobenzene-d_4		IS 4	15.10		
Cumene	0.001	J	12.03		0.05
1,1,2,2-Tetrachloroethane		U		0.001	0.05

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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Printed: 18:08 08/24/1998

Pacific Environmental Services

Project Number: 46297
Sample File: HW705

Method 8260 VOST
Sample ID: VOSTBLK081998

Client Project: Hotmix | **Date Received: / /** | **Response File: ICALH809**
TLI ID: VOSTBLK081998
Date Analyzed : 08/19/98

Surrogate Summary	Amount (ug)	RT	IS Ref	%REC
Dibromofluoromethane	0.273	4.92	1	109
Toluene-d_8	0.280	7.66	2	112
4-Bromofluorobenzene	0.293	12.25	2	117

Reviewed by YR Date 8/24/98

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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Savar v3.7
Printed: 18:08 08/24/1998

Pacific Environmental Services

Project Number: 46297
Sample File: HW705

Method 8260 VOST
Sample ID: VOSTBLK081998

Client Project: Hotmix
TLI ID: VOSTBLK081998

Date Received: / /

Date Analyzed : 08/19/98

Response File: ICALH819

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Pentafluorobenzene		IS 1	5.04		
1,3-Butadiene		U		0.001	0.25
Vinyl bromide		U		0.001	0.25
MTBE		U		0.001	0.25
n-Hexane	0.001	J	3.67		0.25
1,2-Epoxybutane		U		0.017	0.25
Iso-Octane		U		0.001	0.25
1,4-Difluorobenzene		IS 2	5.77		
Ethyl acrylate		U		0.001	0.25

Reviewed by YR Date 8/24/98

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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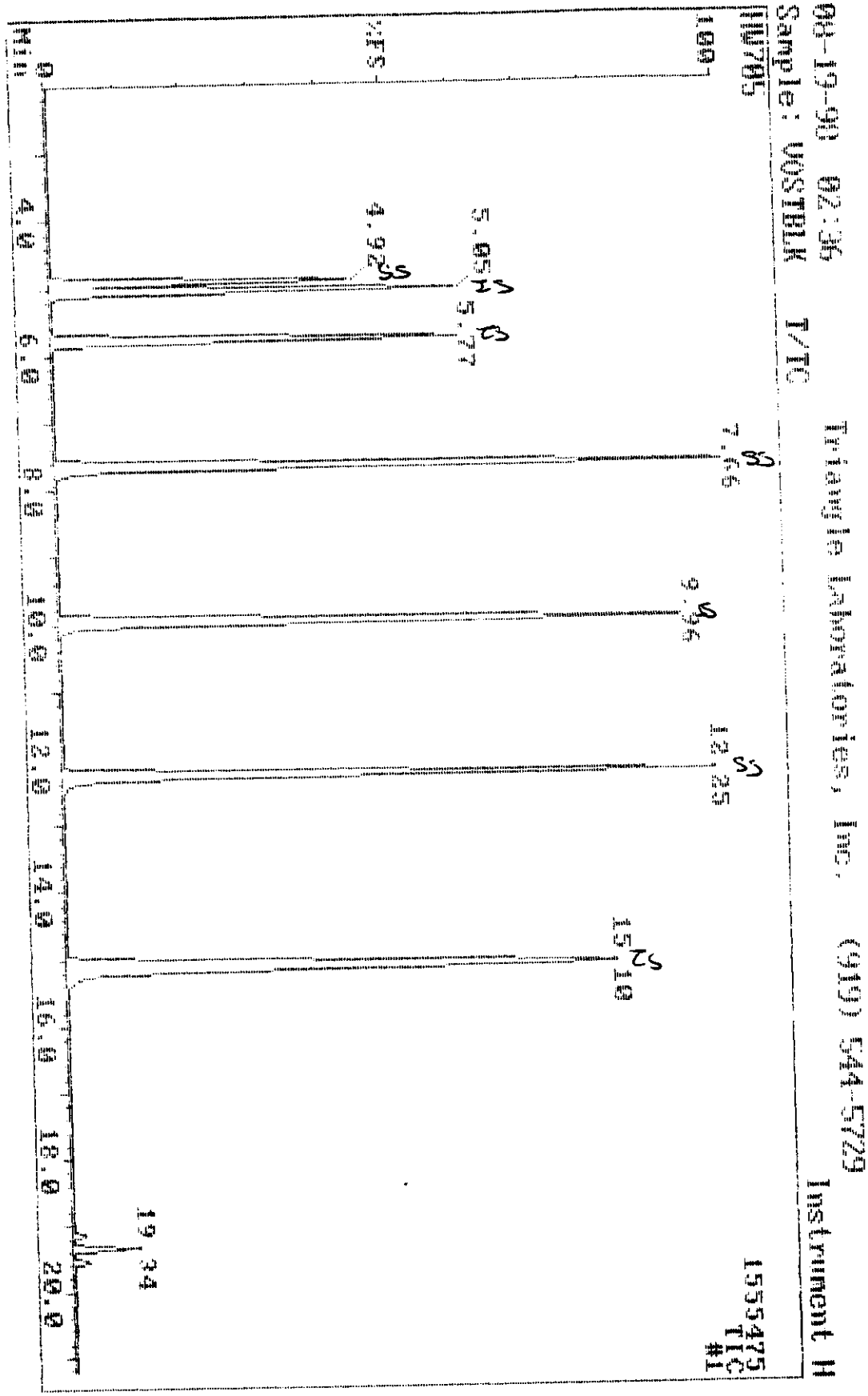
Printed: 18:00 08/24/1998



Data Review: YC
Date: 8/19/98

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QUAN OR · HW70S LAB-BASE QUAN 08-12-98 01:56

No.	MAT	FOR	REV	Delta	Area	P.Flags	RT	QM	Name
1	100	85	98	0	2415996	bb	5.04	168	Pentafluorobenzene
2	100	97	99	0	2874730	bv	5.77	114	1,4-Difluorobenzene
3	100	95	95	0	4260740	bv	9.96	117	Chlorobenzene-d5
4	100	82	98	2	2872176	bv	13.10	152	1,4-Dichlorobenzene-d4
5	100	98	100	1	1407888	bb	4.92	113	Dibromofluoromethane
6	100	93	97	1	4508104	bv	7.66	98	Toluene-d8
7	100	89	93	0	2533348	bv	12.25	95	4-Bromofluorobenzene
8	0	0	0	0	0		0.00	85	Dichlorodifluoromethane
9	0	0	0	0	1054 ~~[illegible]~~ m		0.96 ~~[illegible]~~	50	Chloromethane
10	0	0	0	0	0		0.00	62	Vinyl Chloride
11	0	0	0	0	0		0.00	94	Bromomethane
12	0	0	0	0	0		0.00	64	Chloroethane
13	0	0	0	0	0		0.00	101	Trichlorofluoromethane
14	0	0	0	0	0		0.00	96	1,1-Dichloroethene
15	0	0	0	0	0		0.00	142	Iodomethane
16	0	0	0	0	0		0.00	76	Carbon disulfide
17	92	18	35	8	~~[illegible]~~		~~[illegible]~~ FP	43	Acetone
18	0	0	0	0	0		0.00	41	Allyl chloride
19	35	59	30	-1	6220	bb	3.06	84	Methylene chloride
20	0	0	0	0	0		0.00	53	Acrylonitrile
21	0	0	0	0	0		0.00	96	trans-1,2-Dichloroethene
22	0	0	0	0	0		0.00	63	1,1-Dichloroethane
23	0	0	0	0	0		0.00	43	Vinyl acetate
24	0	0	0	0	0		0.00	77	2,2-Dichloropropane
25	0	0	0	0	0		0.00	96	cis-1,2-Dichloroethene
26	0	0	0	0	0		0.00	43	2-Butanone
27	0	0	0	0	0		0.00	83	Chloroform
28	0	0	0	0	0		0.00	128	Bromochloromethane
29	0	0	0	0	0		0.00	97	1,1,1-Trichloroethane
30	0	0	0	0	0		0.00	117	Carbon tetrachloride
31	0	0	0	0	0		0.00	75	1,1-Dichloropropene
32	0	0	0	0	0		0.00	78	Benzene
33	0	0	0	0	0		0.00	62	1,2-Dichloroethane
34	0	0	0	0	0		0.00	130	Trichloroethene
35	0	0	0	0	0		0.00	63	1,2-Dichloropropane
36	0	0	0	0	0		0.00	93	Dibromomethane
37	0	0	0	0	0		0.00	41	Methyl methacrylate
38	0	0	0	0	0		0.00	83	Bromodichloromethane
39	0	0	0	0	0		0.00	75	cis-1,3-Dichloropropene
40	43	3	70	2	~~[illegible]~~		~~[illegible]~~ FP	43	4-Methyl-2-pentanone
41	76	43	81	-1	33028	bb	7.74	92	Toluene
42	0	0	0	0	0		0.00	75	trans-1,3-Dichloropropene
43	0	0	0	0	0		0.00	97	1,1,2-Trichloroethane
44	0	0	0	0	0		0.00	69	Ethyl methacrylate
45	0	0	0	0	0		0.00	164	Tetrachloroethene
46	0	0	0	0	0		0.00	76	1,3-Dichloropropane
47	0	0	0	0	0		0.00	43	2-Hexanone
48	0	0	0	0	0		0.00	129	Dibromochloromethane
49	0	0	0	0	0		0.00	107	1,2-Dibromoethane
50	0	0	0	0	0		0.00	112	Chlorobenzene

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No.	MAT	FOR	REV	Delta	Area	P.Flags	RT	QM	Name
51	0	0	0	0	0		0.00	131	1,1,1,2-Tetrachloroethan
52	0	0	0	0	0		0.00✓	106	Ethylbenzene
53	51	43	43	2	5212	bb	10.56	106	m-/p-Xylene
54	0	0	0	0	0		0.00	106	o-Xylene
55	0	0	0	0	0		0.00	104	Styrene
56	0	0	0	0	0		0.00	173	Bromoform
57	63	45	59	0	12144	bb	12.03	105	Cumene
58	0	0	0	0	0		0.00	83	1,1,2,2-Tetrachloroethan
59	0	0	0	0	0		0.00	156	Bromobenzene
60	0	0	0	0	0		0.00	75	1,2,3-Trichloropropane
61	68	56	56	-2	~~3064~~	~~m~~	~~12.83~~ FP	120	n-Propylbenzene
62	16	11	23	-15	~~156~~	~~bb~~	~~12.73~~ FP	75	trans-1,4-Dichloro-2-but
63	57	47	47	0	~~27~~	~~bb~~	~~[illegible]~~ FP	126	2-Chlorotoluene
64	0	0	0	0	0		0.00	126	4-Chlorotoluene
65	70	57	57	1	~~12772~~	~~m~~	~~13.3~~ FP	105	1,3,5-Trimethylbenzene
66	86	69	69	1	27023	a	14.13	119	tert-Butylbenzene
67	63	52	52	0	12672	a	14.27	105	1,2,4-Trimethylbenzene
68	88	70	70	0	48380	bv	14.77	105	sec-Butylbenzene
69	52	31	52	0	45240	a	15.36	119	p-Cymene
70	71	52	64	1	18108	a	15.87	146	1,3-Dichlorobenzene
71	0	0	0	0	24648 m		15.71	146	1,4-Dichlorobenzene
72	0	0	0	0	0		0.00	91	Benzyl chloride
73	78	64	64	2	38504	a	16.39	91	n-Butylbenzene
74	63	54	54	2	15808	a	16.47	146	1,2-Dichlorobenzene
75	0	0	0	0	0		0.00	75	1,2-Dibromo-3-chloroprop
76	100	83	83	-2	34652	bb	19.13	180	1,2,4-Trichlorobenzene
77	89	58	95	-3	73944	bb	19.34	225	Hexachlorobutadiene
78	94	73	81	-1	55164	bv	19.34	128	Naphthalene
79	100	88	88	-2	44124	cb	19.59	180	1,2,3-Trichlorobenzene

MC 8/19/98

174

QUAN DB : HW705 LAB-BASE QUAN 08-19-93 12:03

No.	MAT	FOR	REV	Delta	Area	P.Flags	RT	QM	Name
1	100	85	98	0	2412996	bb	5.04	168	Pentafluorobenzene
2	100	97	99	1	2874780	bv	5.77	114	1,4-Difluorobenzene
3	100	95	95	0	4260740	bv	9.96	117	Chlorobenzene-d5
4	100	82	98	5	2872176	bv	15.10	152	1,4-Dichlorobenzene-d4
5	100	98	100	2	1407888	bb	4.92	113	Dibromofluoromethane
6	100	93	97	1	4508104	bv	7.66	98	Toluene-d8
7	100	89	93	2	2533348	bv	12.25	95	4-Bromofluorobenzene
8	0	0	0	0	0		0.00	79	1,3-Butadiene
9	0	0	0	0	0		0.00	106	Vinyl bromide
10	0	0	0	0	0		0.00	73	MTBE
11	62	50	50	1	3692	bb	3.67	57	n-Hexane
12	0	0	0	0	0		0.00	42	1,2-Epoxybutane
13	0	0	0	0	0		0.00	57	Iso-Octane
14	0	0	0	0	0		0.00	55	Ethyl Acrylate

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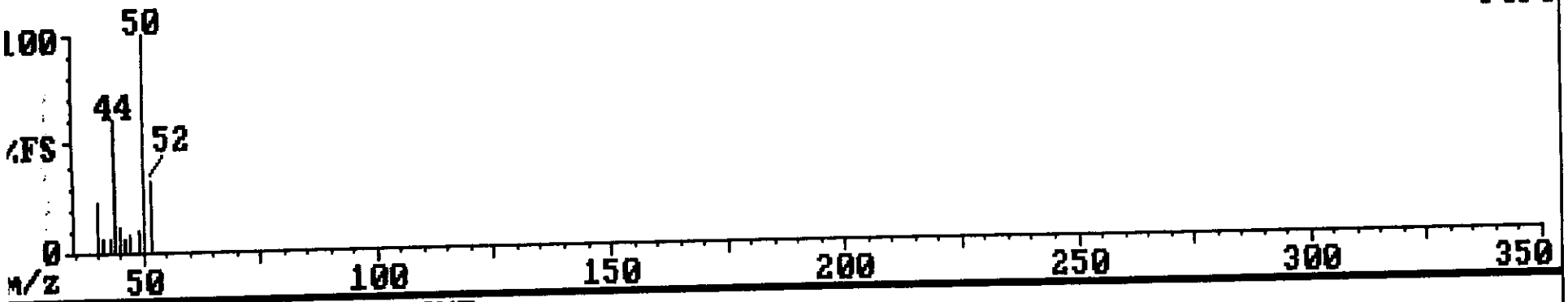
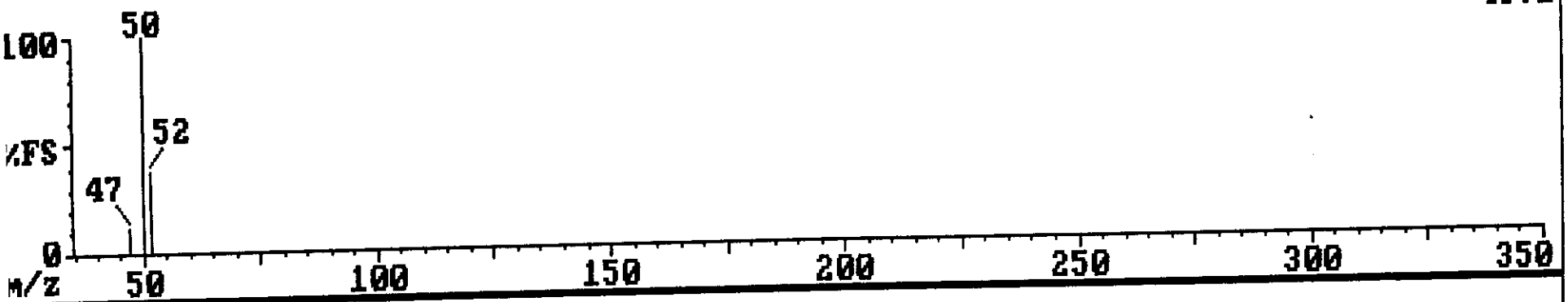
.9-Aug-98 10:06 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-1-3-A T 214-1-8A TLI#46297 Instrument H

HW713 96 (0.960) 6464



HW713'96 (0.961) REFINE 4672



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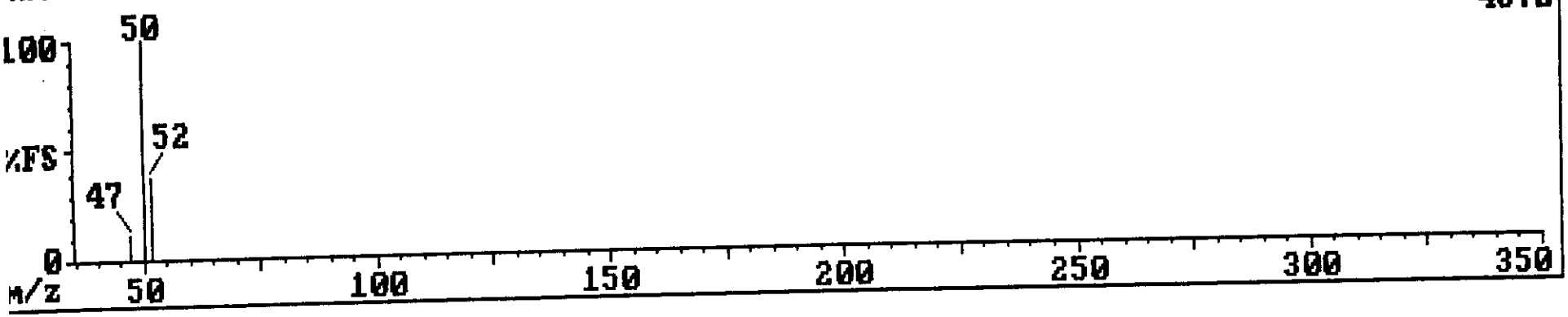
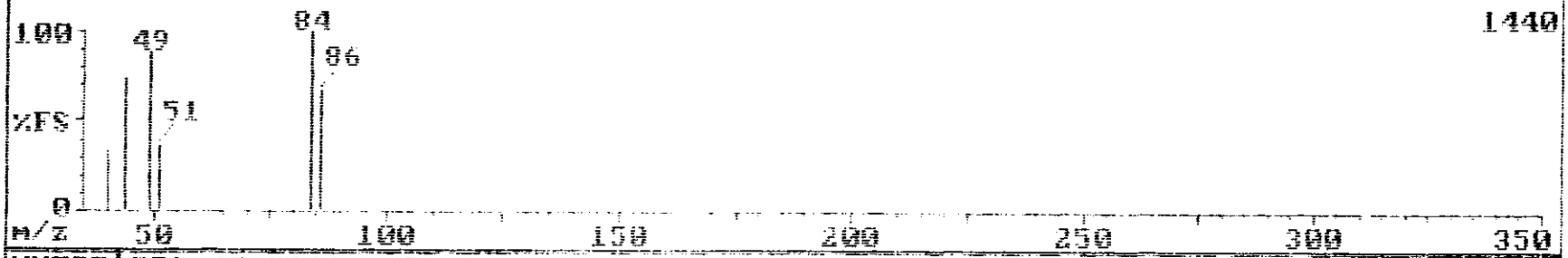


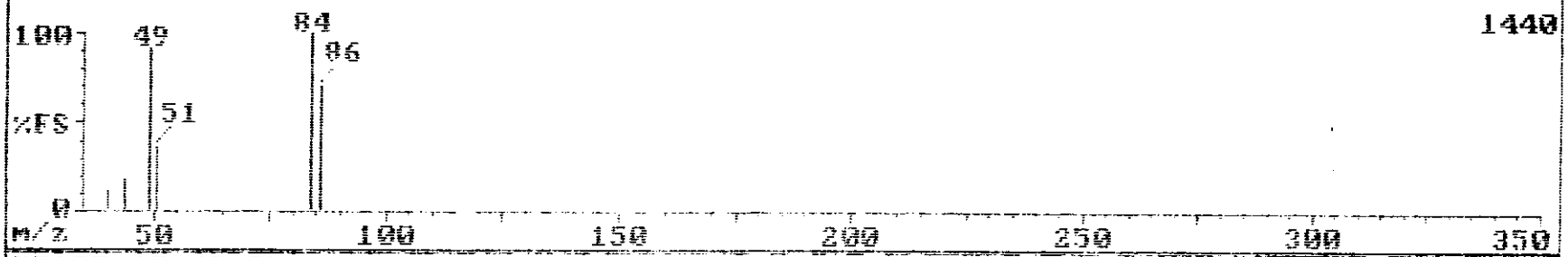
08-19-98 02:36 Triangle Laboratories, Inc. (919) 544-5729

Sample: VOSTBLK T/TC Instrument II

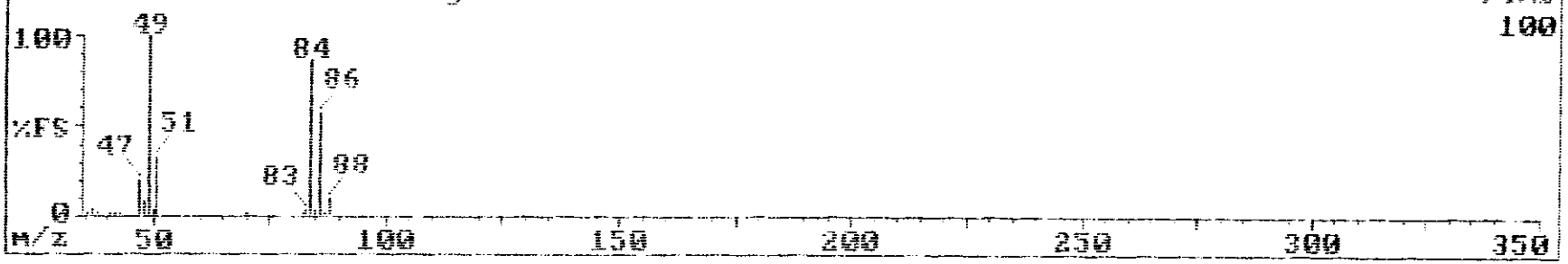
HW705 306 (3.060) 1440



HW705 306 (3.061) REFINE 1440



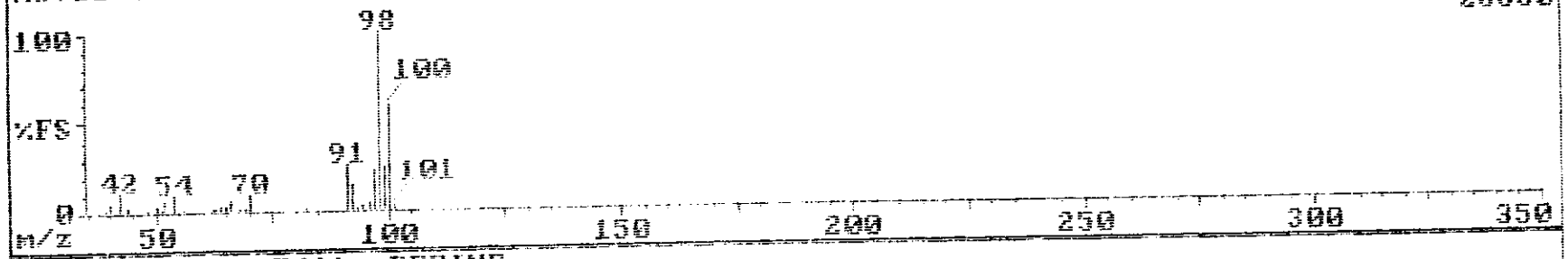
8260B 19 (3.070) Methylene chloride FIND 100



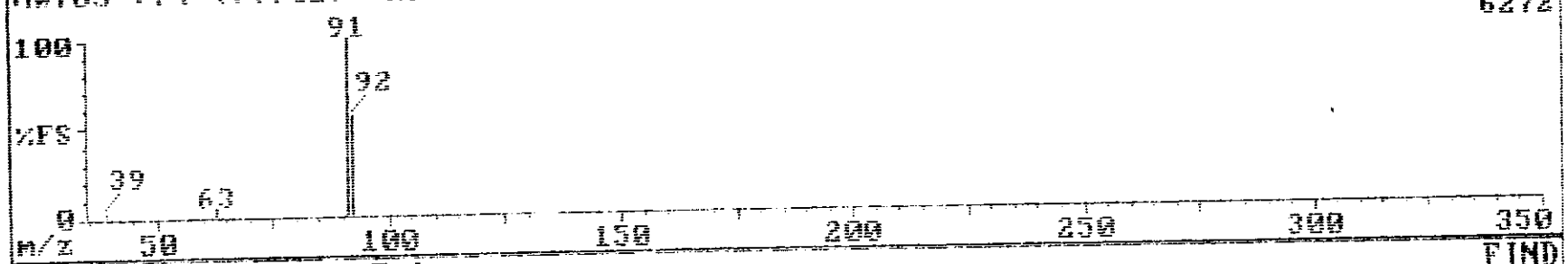
08-19-98 02:36 Triangle Laboratories, Inc. (919) 544-5729

Sample: VOSTBLK T/TC Instrument H

HW705 774 (7.741) 26880

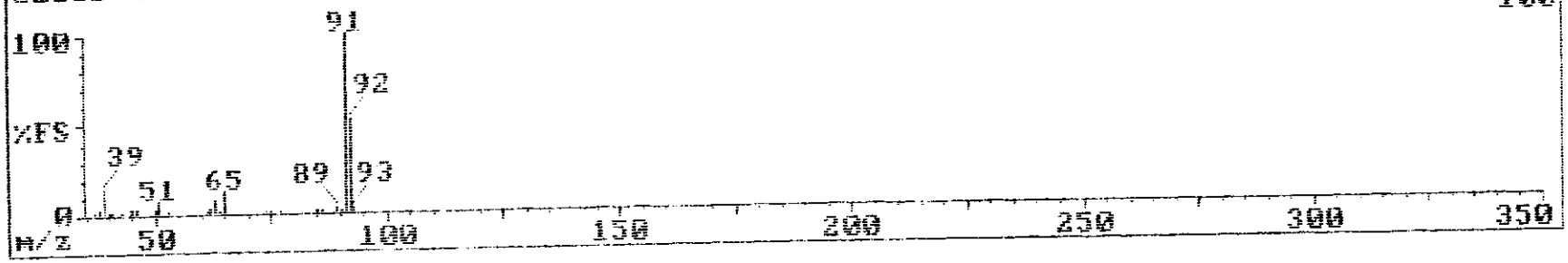


HW705 774 (7.741) REFINE 6272



FIND

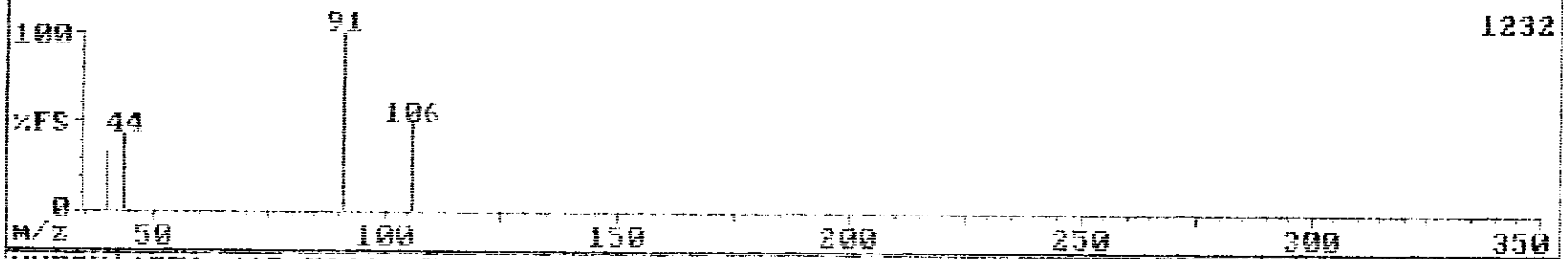
8260B 41 (7.751) Toluene 100



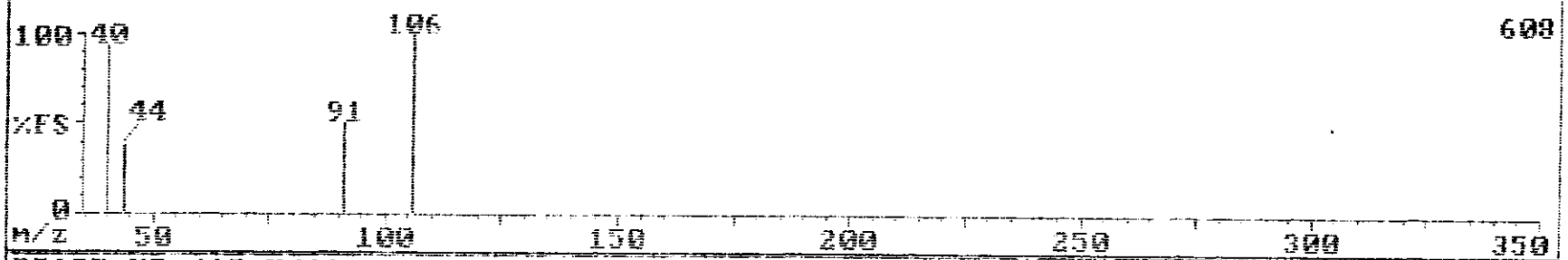
08-19-90 02:36 Triangle Laboratories, Inc. (919) 544-5729

Sample: VOSTBLK T/TC Instrument H

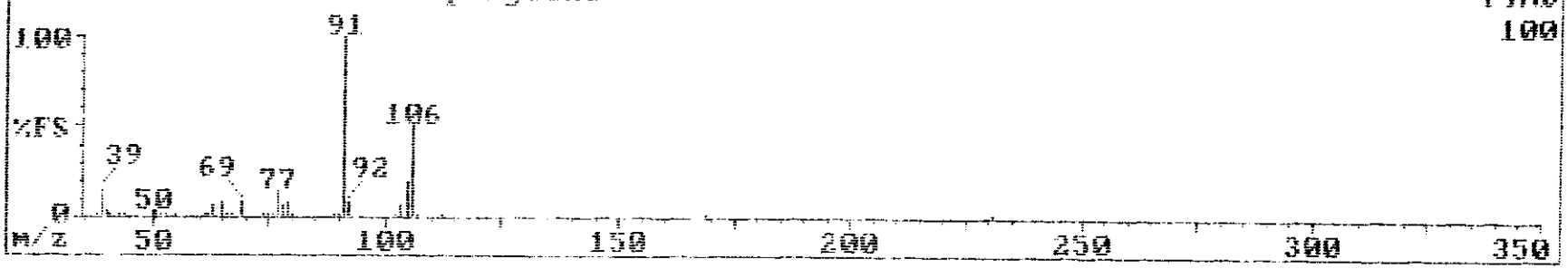
HW705 1056 (10.561)



HW705 1056 (10.561) REFINE

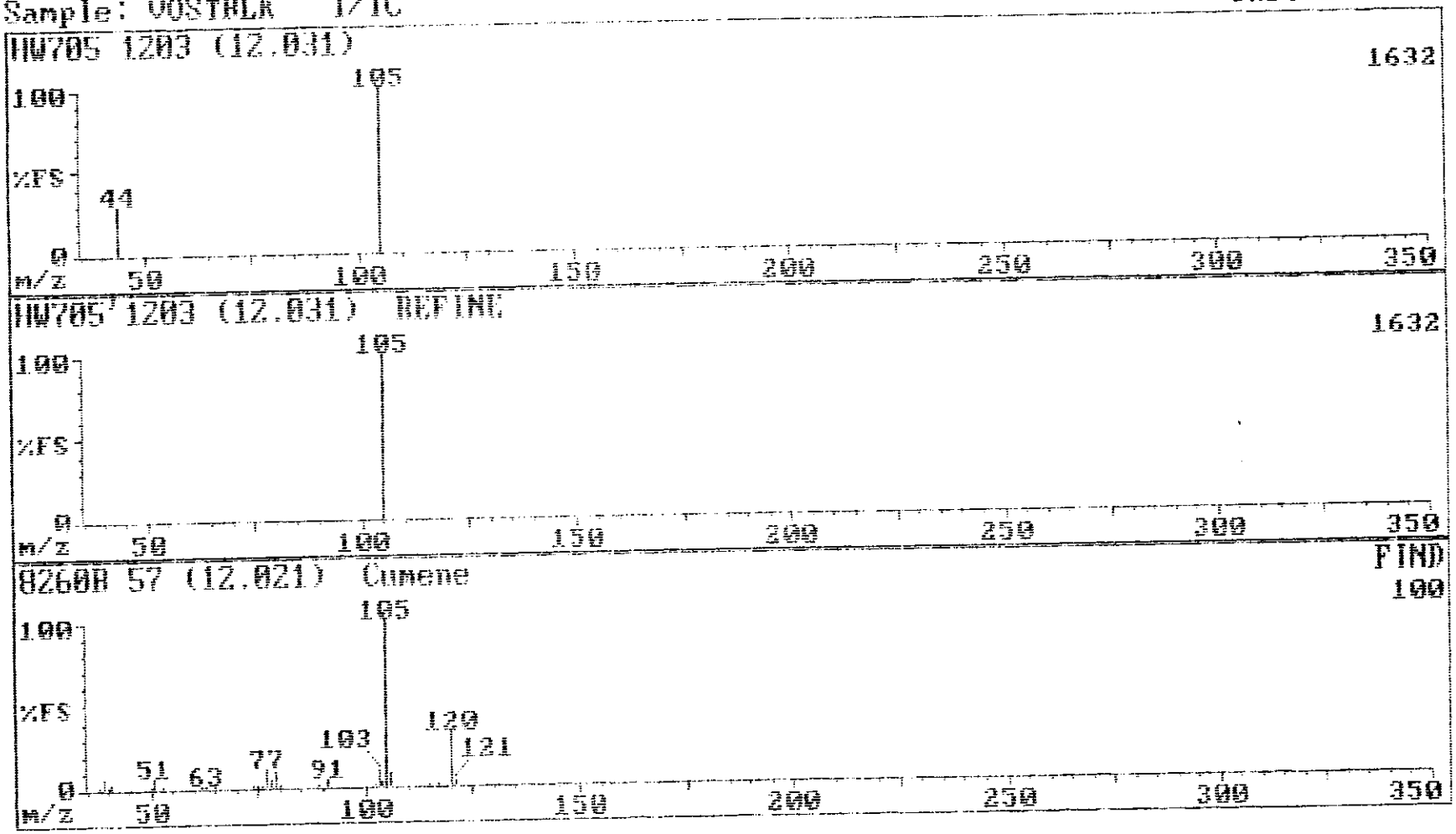


82608 53 (10.541) m-/p-Xylene FIND



08-19-98 02:36 Triangle Laboratories, Inc. (919) 544-5729

Sample: VOSTBLK T/TC Instrument H

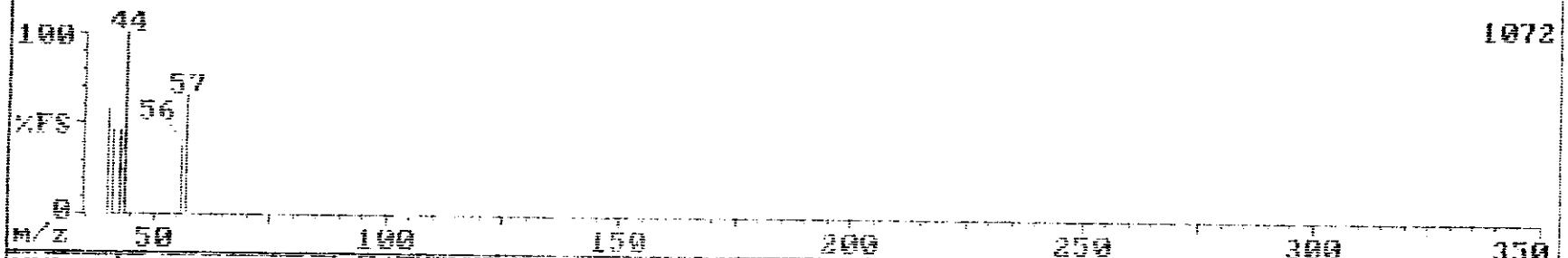


180

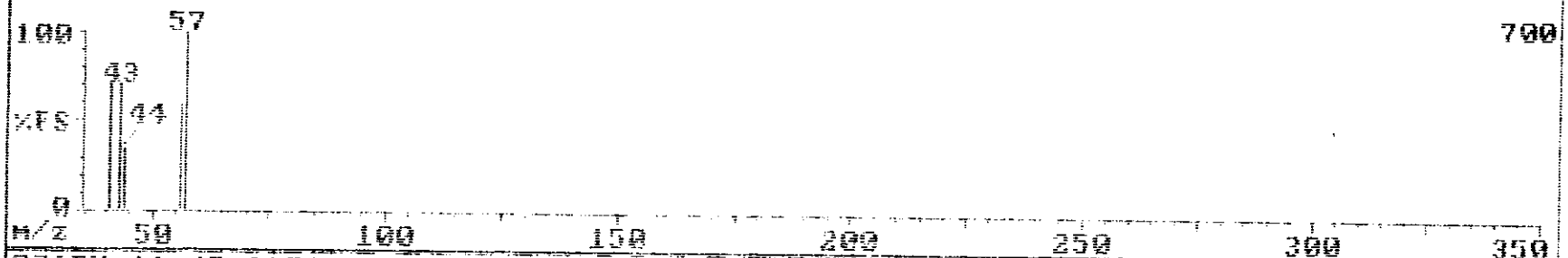
08-19-90 02:36 Triangle Laboratories, Inc. (919) 544 5729

Sample: VOSTBLK T/TC Instrument H

HW705 367 (3.670)

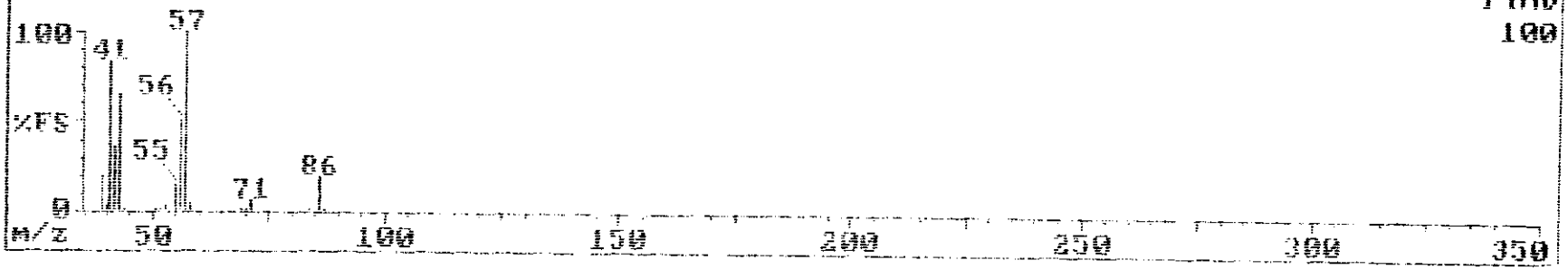


HW705 367 (3.671) REFINE



826BX 11 (3.660) n-Hexane

FIND



TRIANGLE LABS

CALIBRATION DATA

Triangle Laboratories, Inc.
801 Capitola Drive
Durham, NC 27713-4411
919-544-5729

P.O. Box 13485
Research Triangle Park, NC 27709-3485
Fax # 919-544-5491

Triangle Laboratories, Inc.
Initial Calibration Curve

ICAL File: ICALH809	Date of Analysis :08/09/98	Analyte List: 8260
RF.10 HW551	RF.25 HW552	RF.50 HW553
RF.75 HW554	RF1.00 HW555	

VOST Calibration.

Analyte	Flag	RF.10	RF.25	RF.50	RF.75	RF1.00	MEAN	%RSD
Pentafluorobenzene	I							
Dichlorodifluoromethane		0.617	0.695	0.639	0.610	0.715	0.655	7.2
Chloromethane	P	0.387	0.407	0.363	0.343	0.388	0.377	6.6
Vinyl Chloride	C	0.439	0.497	0.449	0.438	0.517	0.468	7.8
Bromomethane		0.412	0.450	0.351	0.421	0.512	0.429	13.7
Chloroethane		0.248	0.276	0.215	0.239	0.292	0.254	11.9
Trichlorofluoromethane		1.009	1.058	0.965	1.028	1.245	1.061	10.2
1,1-Dichloroethene	C	0.442	0.502	0.482	0.381	0.515	0.464	11.7
Iodomethane		0.950	1.061	1.070	0.881	0.944	0.981	8.3
Carbon disulfide		1.060	1.160	1.129	0.896	1.018	1.053	9.9
Acetone		0.055	0.047	0.049	0.036	0.063	0.050	20.3
Allyl chloride		0.386	0.416	0.415	0.309	0.370	0.379	11.6
Methylene chloride		0.392	0.412	0.388	0.289	0.287	0.354	17.2
Acrylonitrile		0.045	0.039	0.041	0.035	0.026	0.037	19.7
trans-1,2-Dichloroethene		0.463	0.488	0.471	0.437	0.366	0.445	10.8
1,1-Dichloroethane	P	0.739	0.762	0.709	0.730	0.723	0.733	2.7
Vinyl acetate		0.409	0.391	0.405	0.395	0.391	0.398	2.1
2,2-Dichloropropane		0.631	0.686	0.667	0.662	0.686	0.667	3.4
cis-1,2-Dichloroethene		0.429	0.462	0.444	0.448	0.472	0.451	3.6
2-Butanone		0.073	0.059	0.061	0.060	0.064	0.063	8.8
Chloroform	C	0.756	0.799	0.759	0.751	0.790	0.771	2.8
Bromochloromethane		0.227	0.234	0.237	0.233	0.239	0.234	1.8
1,1,1-Trichloroethane		0.699	0.745	0.721	0.717	0.732	0.723	2.4
1,4-Difluorobenzene	I							
Carbon tetrachloride		0.641	0.532	0.501	0.628	0.704	0.601	13.9
1,1-Dichloropropene		0.659	0.513	0.491	0.606	0.673	0.589	14.2
Benzene		1.457	0.985	0.984	1.171	1.270	1.173	17.1
1,2-Dichloroethane		0.328	0.296	0.299	0.360	0.412	0.339	14.2
Trichloroethene		0.436	0.443	0.455	0.496	0.384	0.443	9.1
1,2-Dichloropropane	C	0.450	0.426	0.426	0.480	0.344	0.425	11.9
Dibromomethane		0.290	0.267	0.275	0.317	0.223	0.274	12.5
Methyl methacrylate		0.120	0.111	0.116	0.123	0.063	0.107	23.4
Bromodichloromethane		0.667	0.644	0.667	0.796	0.490	0.653	16.7
cis-1,3-Dichloropropene		0.635	0.623	0.609	0.712	0.509	0.618	11.8
4-Methyl-2-pentanone		0.204	0.150	0.159	0.179	0.166	0.172	12.1
Toluene	C	1.054	0.948	0.938	1.133	1.009	1.016	7.9
trans-1,3-Dichloropropene		0.522	0.462	0.461	0.539	0.552	0.507	8.5
1,1,2-Trichloroethane		0.381	0.321	0.305	0.364	0.362	0.347	9.2

***- Fails QC Criteria for %RSD; << - RF less than minimum QC RF; >> - RF greater than maximum QC RF**

Triangle Laboratories, Inc.
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Triangle Laboratories, Inc.
Initial Calibration Curve

ICAL File: ICALH809	Date of Analysis :08/09/98	Analyte List: 8260
RF.10 HW551	RF.25 HW552	RF.50 HW553
RF.75 HW554	RF1.00 HW555	

VOST Calibration.

Analyte	Flag	RF.10	RF.25	RF.50	RF.75	RF1.00	MEAN	%RSD
Ethyl methacrylate		0.394	0.326	0.335	0.387	0.434	0.375	11.9
Chlorobenzene-d5	I							
Tetrachloroethene		0.388	0.381	0.398	0.403	0.347	0.383	5.7
1,3-Dichloropropane		0.408	0.366	0.373	0.361	0.337	0.369	7.0
2-Hexanone	1	0.079	0.061	0.070	0.070	0.081	0.072	11.1
Dibromochloromethane		0.399	0.381	0.408	0.390	0.355	0.387	5.2
1,2-Dibromoethane		0.326	0.297	0.310	0.292	0.277	0.300	6.2
Chlorobenzene	P	0.930	0.929	0.979	0.960	0.978	0.955	2.6
1,1,1,2-Tetrachloroethane		0.393	0.394	0.423	0.429	0.436	0.415	4.9
Ethylbenzene	C	0.509	0.525	0.542	0.555	0.572	0.541	4.5
m-/p-Xylene		0.628	0.646	0.679	0.697	0.730	0.676	6.0
o-Xylene		0.601	0.605	0.641	0.653	0.701	0.640	6.4
Styrene		0.925	0.957	1.012	1.036	1.121	1.010	7.5
Bromoform	P	0.211	0.193	0.205	0.217	0.215	0.208	4.6
1,4-Dichlorobenzene-d4	I							
Cumene		3.195	2.902	3.063	3.038	2.980	3.036	3.6
1,1,2,2-Tetrachloroethane	P	0.518	0.357	0.362	0.368	0.390	0.399	17.0
Bromobenzene		0.853	0.789	0.832	0.838	0.831	0.828	2.9
1,2,3-Trichloropropane		0.369	0.133	0.247	0.241	0.255	0.249	33.7
n-Propylbenzene		0.929	0.879	0.938	0.966	0.994	0.941	4.6
trans-1,4-Dichloro-2-butene		0.363	0.249	0.247	0.241	0.255	0.271	19.0
2-Chlorotoluene		0.803	0.750	0.787	0.803	0.839	0.796	4.1
4-Chlorotoluene		0.784	0.737	0.755	0.759	0.781	0.763	2.5
1,3,5-Trimethylbenzene		2.403	2.315	2.356	2.339	2.414	2.365	1.8
tert-Butylbenzene		2.796	2.638	2.690	2.772	2.753	2.730	2.4
1,2,4-Trimethylbenzene		2.336	2.275	2.358	2.337	2.373	2.336	1.6
sec-Butylbenzene		3.659	3.447	3.569	3.661	3.663	3.600	2.6
p-Cymene		2.902	2.729	2.829	2.977	2.808	2.849	3.3
1,3-Dichlorobenzene		1.485	1.370	1.417	1.473	1.509	1.451	3.9
1,4-Dichlorobenzene		1.505	1.349	1.400	1.431	1.480	1.433	4.4
Benzyl chloride		0.504	0.409	0.452	0.494	0.521	0.476	9.5
n-Butylbenzene		2.839	2.762	2.859	2.978	2.994	2.886	3.4
1,2-Dichlorobenzene		1.223	1.061	1.091	1.149	1.170	1.139	5.6
1,2-Dibromo-3-chloropropane		0.076	0.037	0.040	0.048	0.049	0.050	31.4
1,2,4-Trichlorobenzene		1.195	0.588	0.615	0.767	0.791	0.791	30.7
Hexachlorobutadiene		1.011	0.760	0.911	1.099	1.062	0.969	14.1
Naphthalene		1.639	0.581	0.547	0.768	0.782	0.863	51.7
1,2,3-Trichlorobenzene		1.002	0.394	0.373	0.478	0.478	0.545	47.7
Average %RSD								10.6

***- Fails QC Criteria for %RSD; << - RF less than minimum QC RF; >> - RF greater than maximum QC RF**

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Triangle Laboratories, Inc.
Initial Calibration Curve

ICAL File: ICALH809	Date of Analysis :08/09/98	Analyte List: 8260
RF.10 HW551	RF.25 HW552	RF.50 HW553
RF.75 HW554	RF1.00 HW555	

VOST Calibration.

Surrogate	Flag	RF.10	RF.25	RF.50	RF.75	RF1.00	Mean	%RSD
Dibromofluoromethane	S	0.523	0.538	0.522	0.530	0.552	0.533	2.4
Toluene-d8	S	1.422	1.357	1.310	1.625	1.290	1.401	9.7
4-Bromofluorobenzene	S	0.702	0.656	0.636	0.788	0.974	0.751	18.3

Approved by: YR Date 8/24/98

*- Fails QC Criteria for %RSD; << - RF less than minimum QC RF; >> - RF greater than maximum QC RF

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Triangle Laboratories, Inc.
Initial Calibration Curve

ICAL File: ICALF814	Date of Analysis :08/13/98	Analyte List: 8260
RF.1 FX853	RF.25 FX854	RF.50 FX855
RF.75 FX856	RF1.0 FX857	

VOST Calibration.

Analyte	Flag	RF.1	RF.25	RF.50	RF.75	RF1.0	MEAN	%RSD
Pentafluorobenzene	I							
Dichlorodifluoromethane		0.354	0.432	0.385	0.326	0.267	0.353	17.5
Chloromethane	P	0.418	0.391	0.321	0.313	0.270	0.343	17.6
Vinyl Chloride	C	0.306	0.339	0.342	0.329	0.310	0.325	5.0
Bromomethane		0.161	0.169	0.197	0.175	0.181	0.176	7.7
Chloroethane		0.267	0.254	0.231	0.232	0.215	0.240	8.7
Trichlorofluoromethane		0.921	0.862	0.777	0.737	0.690	0.797	11.7
1,1-Dichloroethene	C	0.362	0.331	0.305	0.301	0.296	0.319	8.7
Iodomethane		0.559	0.549	0.520	0.535	0.523	0.537	3.1
Carbon disulfide		0.971	0.888	0.861	0.833	0.788	0.868	7.9
Acetone		0.024	0.019	0.028	0.046	0.111	0.046	82.9
Allyl chloride		0.414	0.398	0.421	0.430	0.435	0.420	3.5
Methylene chloride		0.277	0.253	0.230	0.217	0.209	0.237	11.8
Acrylonitrile		0.012	0.012	0.011	0.012	0.012	0.012	3.1
trans-1,2-Dichloroethene		0.387	0.361	0.350	0.335	0.336	0.354	6.0
1,1-Dichloroethane	P	0.827	0.793	0.752	0.731	0.710	0.763	6.2
Vinyl acetate		0.106	0.099	0.104	0.109	0.120	0.108	7.0
2,2-Dichloropropane		0.237	0.280	0.327	0.359	0.387	0.318	19.0
cis-1,2-Dichloroethene		0.340	0.346	0.339	0.331	0.331	0.337	1.9
2-Butanone		0.026	0.020	0.035	0.051	0.120	0.050	80.5
Chloroform	C	0.755	0.701	0.661	0.619	0.597	0.667	9.5
Bromochloromethane		0.148	0.144	0.141	0.129	0.126	0.138	7.1
1,1,1-Trichloroethane		0.777	0.784	0.775	0.743	0.741	0.764	2.7
1,4-Difluorobenzene	I							
Carbon tetrachloride		0.802	0.737	0.718	0.740	0.697	0.739	5.3
1,1-Dichloropropene		0.600	0.562	0.550	0.558	0.533	0.561	4.4
Benzene		0.941	1.001	0.989	1.014	0.923	0.974	4.1
1,2-Dichloroethane		0.271	0.295	0.304	0.281	0.255	0.281	6.9
Trichloroethene		0.402	0.460	0.505	0.520	0.505	0.478	10.1
1,2-Dichloropropane	C	0.285	0.307	0.328	0.329	0.315	0.313	5.8
Dibromomethane		0.105	0.105	0.112	0.101	0.096	0.104	5.8
Methyl methacrylate		0.028	0.028	0.032	0.032	0.033	0.031	8.5
Bromodichloromethane		0.353	0.367	0.386	0.375	0.355	0.367	3.7
cis-1,3-Dichloropropene		0.193	0.236	0.264	0.288	0.293	0.255	16.2
4-Methyl-2-pentanone		0.029	0.034	0.039	0.046	0.054	0.041	23.6
Toluene	C	0.672	0.740	0.725	0.742	0.711	0.718	4.0
trans-1,3-Dichloropropene		0.094	0.119	0.139	0.157	0.159	0.134	20.5
1,1,2-Trichloroethane		0.118	0.117	0.138	0.115	0.111	0.120	8.6

***- Fails QC Criteria for %RSD; << - RF less than minimum QC RF; >> - RF greater than maximum QC RF**

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Triangle Laboratories, Inc.
Initial Calibration Curve

ICAL File: ICALF814	Date of Analysis :08/13/98	Analyte List: 8260
RF.1 FX853	RF.25 FX854	RF.50 FX855
RF.75 FX856	RF1.0 FX857	

VOST Calibration.

Analyte	Flag	RF.1	RF.25	RF.50	RF.75	RF1.0	MEAN	%RSD
Ethyl methacrylate		0.065	0.062	0.074	0.082	0.088	0.074	14.8
Chlorobenzene-d5	I							
Tetrachloroethene		0.401	0.455	0.462	0.533	0.515	0.473	11.1
1,3-Dichloropropane		0.221	0.240	0.251	0.246	0.238	0.239	4.8
2-Hexanone	1	0.009	0.010	0.020	0.040	0.103	0.037	107.5
Dibromochloromethane		0.222	0.228	0.238	0.248	0.240	0.235	4.4
1,2-Dibromoethane		0.143	0.143	0.148	0.147	0.144	0.145	1.6
Chlorobenzene	P	0.989	1.024	0.965	1.031	0.967	0.995	3.1
1,1,1,2-Tetrachloroethane		0.352	0.360	0.340	0.392	0.368	0.363	5.4
Ethylbenzene	C	0.538	0.619	0.611	0.661	0.636	0.613	7.5
m-/p-Xylene		0.700	0.776	0.741	0.817	0.725	0.752	6.1
o-Xylene		0.528	0.646	0.626	0.690	0.645	0.627	9.6
Styrene		0.690	0.840	0.814	0.874	0.847	0.813	8.9
Bromoform	P	0.082	0.074	0.086	0.087	0.083	0.082	6.4
1,4-Dichlorobenzene-d4	I							
Cumene		5.060	5.674	4.650	5.625	4.866	5.175	8.8
1,1,2,2-Tetrachloroethane	P	0.264	0.199	0.213	0.222	0.210	0.221	11.3
Bromobenzene		0.716	0.799	0.686	0.806	0.810	0.763	7.6
1,2,3-Trichloropropane		0.192	0.171	0.178	0.175	0.166	0.176	5.6
n-Propylbenzene		1.404	1.619	1.299	1.660	1.693	1.535	11.3
trans-1,4-Dichloro-2-butene		0.127	0.132	0.107	0.116	0.112	0.119	8.9
2-Chlorotoluene		1.064	1.181	0.884	1.135	1.140	1.081	10.9
4-Chlorotoluene		0.915	1.046	0.867	1.048	1.053	0.986	9.0
1,3,5-Trimethylbenzene		3.783	4.371	3.318	4.220	4.258	3.990	11.0
tert-Butylbenzene		3.908	5.199	3.798	4.955	5.436	4.659	16.2
1,2,4-Trimethylbenzene		3.367	3.736	3.006	3.756	3.798	3.533	9.7
sec-Butylbenzene		5.951	6.596	5.325	6.751	6.395	6.204	9.3
p-Cymene		4.811	5.375	4.431	5.686	5.714	5.203	10.8
1,3-Dichlorobenzene		1.602	1.707	1.427	1.712	1.695	1.629	7.4
1,4-Dichlorobenzene		1.584	1.553	1.360	1.557	1.519	1.514	5.9
Benzyl chloride		0.062	0.043	0.054	0.071	0.083	0.063	24.3
n-Butylbenzene		4.254	4.250	3.673	4.626	4.329	4.226	8.2
1,2-Dichlorobenzene		0.997	0.905	0.983	1.135	1.113	1.027	9.3
1,2-Dibromo-3-chloropropane		0.016	0.006	0.016	0.016	0.016	0.014	32.8
1,2,4-Trichlorobenzene		0.270	0.200	0.309	0.335	0.348	0.293	20.3
Hexachlorobutadiene		1.234	0.808	0.970	1.193	1.180	1.077	16.9
Naphthalene		0.161	0.101	0.191	0.204	0.249	0.181	30.2
1,2,3-Trichlorobenzene		0.157	0.107	0.186	0.203	0.212	0.173	24.5
Average %RSD								13.3

***- Fails QC Criteria for %RSD; << - RF less than minimum QC RF; >> - RF greater than maximum QC RF**

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Triangle Laboratories, Inc.
Initial Calibration Curve

ICAL File: ICALF814	Date of Analysis :08/13/98	Analyte List: 8260
RF.1 FX853	RF.25 FX854	RF.50 FX855
RF.75 FX856	RF1.0 FX857	

VOST Calibration.

Surrogate	Flag	RF.1	RF.25	RF.50	RF.75	RF1.0	Mean	%RSD
Dibromofluoromethane	S	0.458	0.441	0.417	0.403	0.388	0.421	6.7
Toluene-d8	S	0.891	1.036	1.050	1.112	1.011	1.020	8.0
4-Bromofluorobenzene	S	0.308	0.344	0.366	0.354	0.329	0.340	6.7

Approved by: YR Date 8/24/98

*- Fails QC Criteria for %RSD; << - RF less than minimum QC RF; >> - RF greater than maximum QC RF

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Savar v3.7

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Triangle Laboratories, Inc.
Continuing Calibration Curve

CCAL File: FX872	Date of Analysis :08/17/98	Analyte List: 8260
ICAL File: ICALF814		

VOST Calibration.

Analyte	Flag	RF0.25	RFMEAN	%D
Pentafluorobenzene	I			
Dichlorodifluoromethane		0.294	0.353	16.7
Chloromethane	P	0.247	0.343	28.0
Vinyl Chloride	C	0.284	0.325	12.6
Bromomethane		0.208	0.176	-18.2
Chloroethane		0.216	0.240	10.0
Trichlorofluoromethane		0.685	0.797	14.1
1,1-Dichloroethene	C	0.281	0.319	11.9
Iodomethane		0.457	0.537	14.9
Carbon disulfide		0.833	0.868	4.0
Acetone		0.019	0.046	58.7
Allyl chloride		0.283	0.420	32.6
Methylene chloride		0.246	0.237	-3.8
Acrylonitrile		0.009	0.012	25.0
trans-1,2-Dichloroethene		0.335	0.354	5.4
1,1-Dichloroethane	P	0.704	0.763	7.7
Vinyl acetate		0.082	0.108	24.1
2,2-Dichloropropane		0.289	0.318	9.1
cis-1,2-Dichloroethene		0.330	0.337	2.1
2-Butanone		0.017	0.050	66.0
Chloroform	C	0.650	0.667	2.5
Bromochloromethane		0.131	0.138	5.1
1,1,1-Trichloroethane		0.686	0.764	10.2
1,4-Difluorobenzene	I			
Carbon tetrachloride		0.691	0.739	6.5
1,1-Dichloropropene		0.598	0.561	-6.6
Benzene		1.113	0.974	-14.3
1,2-Dichloroethane		0.276	0.281	1.8
Trichloroethene		0.447	0.478	6.5
1,2-Dichloropropane	C	0.341	0.313	-8.9
Dibromomethane		0.115	0.104	-10.6
Methyl methacrylate		0.026	0.031	16.1
Bromodichloromethane		0.415	0.367	-13.1
cis-1,3-Dichloropropene		0.294	0.255	-15.3
4-Methyl-2-pentanone		0.047	0.041	-14.6
Toluene	C	0.839	0.718	-16.9
trans-1,3-Dichloropropene		0.159	0.134	-18.7
1,1,2-Trichloroethane		0.144	0.120	-20.0

***- Fails QC Criteria for %D; << - Rf less than minimum QC RF; >>- RF greater than maximum QC RF**

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Continuing Calibration Curve

CCAL File: FX872	Date of Analysis :08/17/98	Analyte List: 8260
ICAL File: ICALF814		

VOST Calibration.

Analyte	Flag	RF0.25	RFMEAN	%D
Ethyl methacrylate		0.100	0.074	-35.1
Chlorobenzene-d5	I			
Tetrachloroethene		0.482	0.473	-1.9
1,3-Dichloropropane		0.281	0.239	-17.6
2-Hexanone	1	0.013	0.037	64.9
Dibromochloromethane		0.250	0.235	-6.4
1,2-Dibromoethane		0.157	0.145	-8.3
Chlorobenzene	P	1.006	0.995	-1.1
1,1,1,2-Tetrachloroethane		0.390	0.363	-7.4
Ethylbenzene	C	0.626	0.613	-2.1
m-/p-Xylene		0.812	0.752	-8.0
o-Xylene		0.666	0.627	-6.2
Styrene		0.931	0.813	-14.5
Bromoform	P	0.104	0.082	-26.8
1,4-Dichlorobenzene-d4	I			
Cumene		4.886	5.175	5.6
1,1,2,2-Tetrachloroethane	P	0.269	0.221	-21.7
Bromobenzene		0.803	0.763	-5.2
1,2,3-Trichloropropane		0.203	0.176	-15.3
n-Propylbenzene		1.359	1.535	11.5
trans-1,4-Dichloro-2-butene		0.098	0.119	17.6
2-Chlorotoluene		1.044	1.081	3.4
4-Chlorotoluene		0.901	0.986	8.6
1,3,5-Trimethylbenzene		3.746	3.990	6.1
tert-Butylbenzene		3.981	4.659	14.6
1,2,4-Trimethylbenzene		3.390	3.533	4.0
sec-Butylbenzene		5.714	6.204	7.9
p-Cymene		4.523	5.203	13.1
1,3-Dichlorobenzene		1.639	1.629	-0.6
1,4-Dichlorobenzene		1.545	1.514	-2.0
Benzyl chloride		0.082	0.063	-30.2
n-Butylbenzene		3.954	4.226	6.4
1,2-Dichlorobenzene		1.070	1.027	-4.2
1,2-Dibromo-3-chloropropane		0.012	0.014	14.3
1,2,4-Trichlorobenzene		0.303	0.293	-3.4
Hexachlorobutadiene		0.876	1.077	18.7
Naphthalene		0.124	0.181	31.5
1,2,3-Trichlorobenzene		0.174	0.173	-0.6

***- Fails QC Criteria for %D; << - Rf less than minimum QC RF; >>- RF greater than maximum QC RF**

Triangle Laboratories, Inc.
Continuing Calibration Curve

CCAL File: FX872 ICAL File: ICALF814	Date of Analysis :08/17/98	Analyte List: 8260

VOST Calibration.

Surrogate	Flag	RF0.25	RFMEAN	%D
Dibromofluoromethane	S	0.391	0.421	7.1
Toluene-d8	S	1.115	1.020	-9.3
4-Bromofluorobenzene	S	0.399	0.340	-17.4

Approved by: YR Date 8/24/98

*- Fails QC Criteria for %D; << - Rf less than minimum QC RF; >>- RF greater than maximum QC RF

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Triangle Laboratories, Inc.
Continuing Calibration Curve

CCAL File: FX889	Date of Analysis :08/18/98	Analyte List: 8260
ICAL File: ICALF814		

VOST Calibration.

Analyte	Flag	RF0.25	RFMEAN	%D
Pentafluorobenzene	I			
Dichlorodifluoromethane		0.438	0.353	-24.1
Chloromethane	P	0.228	0.343	33.5
Vinyl Chloride	C	0.296	0.325	8.9
Bromomethane		0.207	0.176	-17.6
Chloroethane		0.197	0.240	17.9
Trichlorofluoromethane		0.668	0.797	16.2
1,1-Dichloroethene	C	0.312	0.319	2.2
Iodomethane		0.425	0.537	20.9
Carbon disulfide		0.896	0.868	-3.2
Acetone		0.015	0.046	67.4
Allyl chloride		0.227	0.420	46.0
Methylene chloride		0.242	0.237	-2.1
Acrylonitrile		0.006	0.012	50.0
trans-1,2-Dichloroethene		0.349	0.354	1.4
1,1-Dichloroethane	P	0.623	0.763	18.3
Vinyl acetate		0.050	0.108	53.7
2,2-Dichloropropane		0.379	0.318	-19.2
cis-1,2-Dichloroethene		0.318	0.337	5.6
2-Butanone		0.014	0.050	72.0
Chloroform	C	0.675	0.667	-1.2
Bromochloromethane		0.101	0.138	26.8
1,1,1-Trichloroethane		0.708	0.764	7.3
1,4-Difluorobenzene	I			
Carbon tetrachloride		0.699	0.739	5.4
1,1-Dichloropropene		0.699	0.561	-24.6
Benzene		1.286	0.974	-32.0
1,2-Dichloroethane		0.264	0.281	6.0
Trichloroethene		0.463	0.478	3.1
1,2-Dichloropropane	C	0.301	0.313	3.8
Dibromomethane		0.113	0.104	-8.7
Methyl methacrylate		0.020	0.031	35.5
Bromodichloromethane		0.431	0.367	-17.4
cis-1,3-Dichloropropene		0.314	0.255	-23.1
4-Methyl-2-pentanone		0.031	0.041	24.4
Toluene	C	0.853	0.718	-18.8
trans-1,3-Dichloropropene		0.168	0.134	-25.4
1,1,2-Trichloroethane		0.139	0.120	-15.8

***- Fails QC Criteria for %D; << - Rf less than minimum QC RF; >>- RF greater than maximum QC RF**

Triangle Laboratories, Inc.
Continuing Calibration Curve

CCAL File: FX889	Date of Analysis :08/18/98	Analyte List: 8260
ICAL File: ICALF814		

VOST Calibration.

Analyte	Flag	RF0.25	RFMEAN	%D
Ethyl methacrylate		0.078	0.074	-5.4
Chlorobenzene-d5	I			
Tetrachloroethene		0.606	0.473	-28.1
1,3-Dichloropropane		0.312	0.239	-30.5
2-Hexanone	1	0.010	0.037	73.0
Dibromochloromethane		0.224	0.235	4.7
1,2-Dibromoethane		0.154	0.145	-6.2
Chlorobenzene	P	1.058	0.995	-6.3
1,1,1,2-Tetrachloroethane		0.355	0.363	2.2
Ethylbenzene	C	0.711	0.613	-16.0
m-/p-Xylene		0.914	0.752	-21.5
o-Xylene		0.740	0.627	-18.0
Styrene		0.968	0.813	-19.1
Bromoform	P	0.104	0.082	-26.8
1,4-Dichlorobenzene-d4	I			
Cumene		6.007	5.175	-16.1
1,1,2,2-Tetrachloroethane	P	0.266	0.221	-20.4
Bromobenzene		0.846	0.763	-10.9
1,2,3-Trichloropropane		0.219	0.176	-24.4
n-Propylbenzene		1.505	1.535	2.0
trans-1,4-Dichloro-2-butene		0.121	0.119	-1.7
2-Chlorotoluene		1.059	1.081	2.0
4-Chlorotoluene		0.925	0.986	6.2
1,3,5-Trimethylbenzene		4.471	3.990	-12.1
tert-Butylbenzene		4.863	4.659	-4.4
1,2,4-Trimethylbenzene		3.903	3.533	-10.5
sec-Butylbenzene		6.900	6.204	-11.2
p-Cymene		5.056	5.203	2.8
1,3-Dichlorobenzene		1.652	1.629	-1.4
1,4-Dichlorobenzene		1.517	1.514	-0.2
Benzyl chloride		0.063	0.063	0.0
n-Butylbenzene		5.115	4.226	-21.0
1,2-Dichlorobenzene		1.051	1.027	-2.3
1,2-Dibromo-3-chloropropane		0.019	0.014	-35.7
1,2,4-Trichlorobenzene		0.367	0.293	-25.3
Hexachlorobutadiene		1.188	1.077	-10.3
Naphthalene		0.158	0.181	12.7
1,2,3-Trichlorobenzene		0.218	0.173	-26.0

*- Fails QC Criteria for %D; << - Rf less than minimum QC RF; >>- RF greater than maximum QC RF

Triangle Laboratories, Inc.
Continuing Calibration Curve

CCAL File: FX889	Date of Analysis :08/18/98	Analyte List: 8260
ICAL File: ICALF814		

VOST Calibration.

Surrogate	Flag	RF0.25	REMEAN	%D
Dibromofluoromethane	S	0.332	0.421	21.1
Toluene-d8	S	1.041	1.020	-2.1
4-Bromofluorobenzene	S	0.399	0.340	-17.4

Approved by: YR Date 8 / 21 / 98

*- Fails QC Criteria for %D; << - Rf less than minimum QC RF; >>- RF greater than maximum QC RF

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Continuing Calibration Curve

CCAL File: HW703	Date of Analysis :08/19/98	Analyte List: 8260
ICAL File: ICALH809		

VOST Calibration.

Analyte	Flag	RF0.25	RFMEAN	%D
Pentafluorobenzene	I			
Dichlorodifluoromethane		0.758	0.655	-15.7
Chloromethane	P	0.399	0.377	-5.8
Vinyl Chloride	C	0.515	0.468	-10.0
Bromomethane		0.453	0.429	-5.6
Chloroethane		0.304	0.254	-19.7
Trichlorofluoromethane		1.124	1.061	-5.9
1,1-Dichloroethene	C	0.524	0.464	-12.9
Iodomethane		1.009	0.981	-2.9
Carbon disulfide		1.285	1.053	-22.0
Acetone		0.046	0.050	8.0
Allyl chloride		0.354	0.379	6.6
Methylene chloride		0.453	0.354	-28.0
Acrylonitrile		0.028	0.037	24.3
trans-1,2-Dichloroethene		0.508	0.445	-14.2
1,1-Dichloroethane	P	0.770	0.733	-5.0
Vinyl acetate		0.216	0.398	45.7
2,2-Dichloropropane		0.580	0.667	13.0
cis-1,2-Dichloroethene		0.438	0.451	2.9
2-Butanone		0.030	0.063	52.4
Chloroform	C	0.798	0.771	-3.5
Bromochloromethane		0.226	0.234	3.4
1,1,1-Trichloroethane		0.735	0.723	-1.7
1,4-Difluorobenzene	I			
Carbon tetrachloride		0.524	0.601	12.8
1,1-Dichloropropene		0.468	0.589	20.5
Benzene		0.949	1.173	19.1
1,2-Dichloroethane		0.265	0.339	21.8
Trichloroethene		0.451	0.443	-1.8
1,2-Dichloropropane	C	0.385	0.425	9.4
Dibromomethane		0.230	0.274	16.1
Methyl methacrylate		0.059	0.107	44.9
Bromodichloromethane		0.617	0.653	5.5
cis-1,3-Dichloropropene		0.535	0.618	13.4
4-Methyl-2-pentanone		0.101	0.172	41.3
Toluene	C	0.943	1.016	7.2
trans-1,3-Dichloropropene		0.376	0.507	25.8
1,1,2-Trichloroethane		0.289	0.347	16.7

*- Fails QC Criteria for %D; << - Rf less than minimum QC RF; >>- RF greater than maximum QC RF

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CCAL File: HW703	Date of Analysis :08/19/98	Analyte List: 8260
ICAL File: ICALH809		

VOST Calibration.

Analyte	Flag	RF0.25	RFMEAN	%D
Ethyl methacrylate		0.195	0.375	48.0
Chlorobenzene-d5	I			
Tetrachloroethene		0.397	0.383	-3.7
1,3-Dichloropropane		0.314	0.369	14.9
2-Hexanone	1	0.031	0.072	56.9
Dibromochloromethane		0.353	0.387	8.8
1,2-Dibromoethane		0.250	0.300	16.7
Chlorobenzene	P	0.966	0.955	-1.2
1,1,1,2-Tetrachloroethane		0.409	0.415	1.4
Ethylbenzene	C	0.517	0.541	4.4
m-/p-Xylene		0.650	0.676	3.8
o-Xylene		0.628	0.640	1.9
Styrene		0.999	1.010	1.1
Bromoform	P	0.165	0.208	20.7
1,4-Dichlorobenzene-d4	I			
Cumene		3.129	3.036	-3.1
1,1,2,2-Tetrachloroethane	P	0.326	0.399	18.3
Bromobenzene		0.794	0.828	4.1
1,2,3-Trichloropropane		0.222	0.249	10.8
n-Propylbenzene		0.962	0.941	-2.2
trans-1,4-Dichloro-2-butene		0.222	0.271	18.1
2-Chlorotoluene		0.840	0.796	-5.5
4-Chlorotoluene		0.817	0.763	-7.1
1,3,5-Trimethylbenzene		2.649	2.365	-12.0
tert-Butylbenzene		2.895	2.730	-6.0
1,2,4-Trimethylbenzene		2.531	2.336	-8.3
sec-Butylbenzene		3.731	3.600	-3.6
p-Cymene		3.096	2.849	-8.7
1,3-Dichlorobenzene		1.518	1.451	-4.6
1,4-Dichlorobenzene		1.506	1.433	-5.1
Benzyl chloride		0.371	0.476	22.1
n-Butylbenzene		3.152	2.886	-9.2
1,2-Dichlorobenzene		1.146	1.139	-0.6
1,2-Dibromo-3-chloropropane		0.029	0.050	42.0
1,2,4-Trichlorobenzene		0.813	0.791	-2.8
Hexachlorobutadiene		1.211	0.969	-25.0
Naphthalene		0.484	0.863	43.9
1,2,3-Trichlorobenzene		0.474	0.545	13.0

***- Fails QC Criteria for %D; << - Rf less than minimum QC RF; >>- RF greater than maximum QC RF**

Triangle Laboratories, Inc.
Continuing Calibration Curve

CCAL File: HW703 ICAL File: ICALH809	Date of Analysis :08/19/98	Analyte List: 8260

VOST Calibration.

Surrogate	Flag	RF0.25	RFMEAN	%D
Dibromofluoromethane	S	0.544	0.533	-2.1
Toluene-d8	S	1.343	1.401	4.1
4-Bromofluorobenzene	S	0.697	0.751	7.2

Approved by: YR Date 8/24/98

*- Fails QC Criteria for %D; << - Rf less than minimum QC RF; >>- RF greater than maximum QC RF

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Triangle Laboratories, Inc.
Initial Calibration Curve

ICAL File: ICALF817 Date of Analysis :08/17/98 Analyte List: 8260
RF.5 FX876

VOST Calibration.

Analyte	Flag	RF.5	MEAN	%RSD
Pentafluorobenzene	I			
1,3-Butadiene		0.385	0.385	0.0
Vinyl bromide		0.565	0.565	0.0
MTBE		0.599	0.599	0.0
n-Hexane		1.358	1.358	0.0
1,2-Epoxybutane		0.018	0.018	0.0
Iso-Octane		4.663	4.663	0.0
1,4-Difluorobenzene	I			
Ethyl acrylate		0.072	0.072	0.0
Chlorobenzene-d5	I			
1,4-Dichlorobenzene-d4	I			
Average %RSD				0.0

Approved by: YR Date 8/24/98

*- Fails QC Criteria for %RSD; << - RF less than minimum QC RF; >> - RF greater than maximum QC RF

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Triangle Laboratories, Inc.
Initial Calibration Curve

ICAL File: ICALF818 Date of Analysis :08/18/98 Analyte List: 8260
RF.5 FX891

VOST Calibration.

Analyte	Flag	RF.5	MEAN	%RSD
Pentafluorobenzene	I			
1,3-Butadiene		0.353	0.353	0.0
Vinyl bromide		0.610	0.610	0.0
MTBE		0.543	0.543	0.0
n-Hexane		1.159	1.159	0.0
1,2-Epoxybutane		0.013	0.013	0.0
Iso-Octane		4.217	4.217	0.0
1,4-Difluorobenzene	I			
Ethyl acrylate		0.052	0.052	0.0
Chlorobenzene-d5	I			
1,4-Dichlorobenzene-d4	I			
Average %RSD				0.0

Approved by: YR Date 8 / 24/98

*- Fails QC Criteria for %RSD; << - RF less than minimum QC RF; >> - RF greater than maximum QC RF

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Triangle Laboratories, Inc.
Initial Calibration Curve

ICAL File: ICALH819 Date of Analysis :08/19/98 Analyte List: 8260
RF.5 HW708

VOST Calibration.

Analyte	Flag	RF.5	MEAN	%RSD
Pentafluorobenzene	I			
1,3-Butadiene		1.582	1.582	0.0
Vinyl bromide		1.657	1.657	0.0
MTBE		0.314	0.314	0.0
n-Hexane		2.319	2.319	0.0
1,2-Epoxybutane		0.012	0.012	0.0
Iso-Octane		4.441	4.441	0.0
1,4-Difluorobenzene	I			
Ethyl acrylate		0.364	0.364	0.0
Chlorobenzene-d5	I			
1,4-Dichlorobenzene-d4	I			
Average %RSD				0.0

Approved by: YR Date 8/24/98

*- Fails QC Criteria for %RSD; << - RF less than minimum QC RF; >> - RF greater than maximum QC RF

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Triangle Laboratories, Inc.
Continuing Calibration Curve

CCAL File: FX876	Date of Analysis :08/17/98	Analyte List: 8260
ICAL File: ICALF817		

VOST Calibration.

Analyte	Flag	RF0.50	RFMEAN	%D
Pentafluorobenzene	I			
1,3-Butadiene		0.385	0.385	0.0
Vinyl bromide		0.565	0.565	0.0
MTBE		0.599	0.599	0.0
n-Hexane		1.358	1.358	0.0
1,2-Epoxybutane		0.018	0.018	0.0
Iso-Octane		4.663	4.663	0.0
1,4-Difluorobenzene	I			
Ethyl acrylate		0.072	0.072	0.0
Chlorobenzene-d5	I			
1,4-Dichlorobenzene-d4	I			

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*- Fails QC Criteria for %D; << - Rf less than minimum QC RF; >>- RF greater than maximum QC RF

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Continuing Calibration Curve

CCAL File: FX891	Date of Analysis :08/18/98	Analyte List: 8260
ICAL File: ICALF818		

VOST Calibration.

Analyte	Flag	RF0.50	RFMEAN	%D
Pentafluorobenzene	I			
1,3-Butadiene		0.353	0.353	0.0
Vinyl bromide		0.610	0.610	0.0
MTBE		0.543	0.543	0.0
n-Hexane		1.159	1.159	0.0
1,2-Epoxybutane		0.013	0.013	0.0
Iso-Octane		4.217	4.217	0.0
1,4-Difluorobenzene	I			
Ethyl acrylate		0.052	0.052	0.0
Chlorobenzene-d5	I			
1,4-Dichlorobenzene-d4	I			

Approved by: YC Date 8/24/98

*- Fails QC Criteria for %D; << - Rf less than minimum QC RF; >>- RF greater than maximum QC RF

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Continuing Calibration Curve

CCAL File: HW708	Date of Analysis :08/19/98	Analyte List: 8260
ICAL File: ICALH819		

VOST Calibration.

Analyte	Flag	RF0.50	RFMEAN	%D
Pentafluorobenzene	I			
1,3-Butadiene		1.582	1.582	0.0
Vinyl bromide		1.657	1.657	0.0
MTBE		0.314	0.314	0.0
n-Hexane		2.319	2.319	0.0
1,2-Epoxybutane		0.012	0.012	0.0
Iso-Octane		4.441	4.441	0.0
1,4-Difluorobenzene	I			
Ethyl acrylate		0.364	0.364	0.0
Chlorobenzene-d5	I			
1,4-Dichlorobenzene-d4	I			

Approved by: YL Date 8 24 98

*- Fails QC Criteria for %D; << - Rf less than minimum QC RF; >>- RF greater than maximum QC RF

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TRIANGLE LABS

CASE NARRATIVE

Analysis of Samples for the Presence of

Volatile Analytes by

High-Resolution Gas Chromatography / Low-Resolution Mass Spectrometry

METHOD 8260 (7/92)

Date : August 26, 1998

Client ID : Pacific Environmental Services

TLI Project Number : 46323

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Triangle Laboratories, Inc.
Case Narrative

August 26, 1998
46323

Objective: Analysis of twelve VOST tube pairs for a client-specified list of volatile compounds, using Method 8260.

Method:

Twenty three VOST tube pairs were received at Triangle Laboratories, Inc. on July 29, 1998 at 6°C. Analytical results reported in this data package pertain to the analysis of the "Tunnel" (T) samples. The VOST tube pairs were analyzed according to the guidelines of Methods 8260 and 5040. The internal standards and surrogate standards were added in the amount of 0.25 micrograms (ug) immediately prior to analysis by GC/MS. The internal standards are pentafluorobenzene, 1,4-difluorobenzene, chlorobenzene-d_5 , and 1,4-dichlorobenzene-d_4, and the surrogate standards reported are dibromofluoromethane, toluene-d_8, and 4-bromofluorobenzene. The results reported relate only to the items tested.

The GC/MS analysis conditions are listed below:

Purge and trap:	Tekmar LSC-2000
Purge:	11 min.
Desorb Temperature:	250 C
Desorb Time:	4 min.

GC Conditions:

Column:	30 m x .53 mm x 0.3*u* J&W DB624 0 C hold .5 min, 10 C/min to 45C, 6 C/min to 90C, hold 1.5 min, 50 C/min to 200C.

MS Conditions:

Instrument:	VG-TRIO-1 Lab Base data system
Scan:	35-350 amu at .6s/scan
Interface:	Jet Separator, 200 C

Report:

Enclosed with the case narrative are copies of the sample identification index, the project summary sheets, client paperwork, sample log-in sheets, and log book pages. A sample identification index summarizes the client sample name, TLI sample number, and analytical file name for each sample and blank. The project summary lists the amounts for detected analytes in gray. The estimated detection limits will be listed in parentheses when the target analytes are not detected.

The data are reported as quantitation reports, chromatograms, interim reports, and spectra of detected target analytes. The quantitation report header lists the TLI project number, analysis method, instrument sample file name, client sample name, client project number, TLI sample number, calibration file, date received, and analysis date. The response factors used for all calculations are from the calibration file listed in the header. All initial and continuing calibration

data are located in the back of the data package. The amount is reported in total ug for the VOST tubes. The retention time (RT) will be listed for all internal standards and analytes which are detected. If a target analyte is not detected, it will be flagged with a "U" and a detection limit will be listed. Estimated detection limits are calculated for all analytes which were not found in the samples by using an area of 2000. The estimated detection limits reported are the average detection limits achievable over time on an instrument type. The actual detection limit for a given compound on a given day may vary from the estimate reported. The quantitation limit for all analytes is half of the low point of the initial calibration. Below this point the calibration cannot be considered to be linear. Any amount reported at a level below the quantitation limit will be flagged with a "J" and should be considered estimated. If any compounds are found at a level above the upper calibration range, the analyte will be flagged with an "E" and the amounts reported should be considered estimated. If any target analytes found in the laboratory blanks are detected in the associated samples, they will be flagged with a "B" on each sample topsheet. All analytes are quantitated against the internal standard preceding them on the target analyte list. Surrogate standards are quantitated against the internal standard with the matching internal standard reference number. For example, toluene-d_8 has 2 in the IS Ref column and would be quantitated against the internal standard which has IS2 listed in the flag column. If an internal standard area is above or below the quality control limits as defined by the continuing calibration, it will be flagged with "High" or "Low" in the flag column.

Results:

Two of the VOST tube pairs were analyzed within the fourteen-day sampling to analysis holding time. The remainder of the samples were analyzed thirteen to sixteen days past the last day of the holding time.

As per client request, VOST tube pairs T-V-4-1-A and -B and T-V-4-2-A and -B were analyzed separately. All other VOST tube pairs were analyzed in tandem, with the exception of sample T-V-4-4-A, which was run separately because the tenax/charcoal portion was lost.

COMMUNICATION PROBLEM BETWEEN PURGE & TRAP & DATA ACQUISITION SYSTEM

The following observations were made by the analyst. No data is available for sample T-V-4-3-A,B due to an acquisition failure. The tenax/charcoal tube, sample T-V-4-4-B, was found to be broken. The contents had leaked into the outer container and could not be salvaged.

Each sample was processed twice, once against the calibrations containing compounds that are normally found in our Method 8260 standard solutions, and once against special single point calibrations containing seven compounds. Therefore, each sample reported contains two sets of topsheets and interim reports, as well as a chromatogram and spectra for all analytes. Please note that the surrogate standards have been reported only on the first target analyte list. Results for the seven analytes processed against single point calibrations should be considered estimates.

See Page # 13

Methylene chloride was found at an amount above the upper calibration limit of one microgram in sample T-V-4-2-B. This compound is flagged with "E" and the amount reported should be considered estimated. The field samples also contained very high levels of hydrocarbons.

All internal standard areas were within quality control limits for all samples and blanks, with the exception of a low area for 1,4-dichlorobenzene-d_4 in one laboratory blank.

Surrogate standard percent recoveries were within quality control limits, with the exception of one high recovery for 4-bromofluorobenzene in sample T-V-4-1-A.

The laboratory blanks contained several analytes at amounts below the quantitation limit. The target analytes in a laboratory blank should not be considered as truly present in the native samples unless found at a level at least five times the amount found in the associated blank. In the event that the amount of a target analyte found in the samples is twenty times the amount found in the associated blank, the contribution from the blank can be considered negligible.

Sample Calculations:

Response Factor (RF) = $\frac{\text{(area analyte) x (amt IS)}}{\text{(area IS) x (amt analyte)}}$

Amount (ug) = $\frac{\text{(area analyte in sample) x (amt IS)}}{\text{(area IS) x (avg ical RF)}}$

Where:

amt IS = amount of internal standard = 0.25 ug
ical = initial calibration

The data in this package has been judged to be valid according to the guidelines of Methods 8260 and 5040 except as noted above. Should you have any questions, please feel free to contact our Project Scientist, Deb Smith, at (919) 544-5729, ext. 267.

For Triangle Laboratories, Inc.,

Report Preparation:

Penny A. Brock

Penny A. Brock
Report Preparation Chemist

Quality Control:

Sarah A Hubbard

Sarah A. Hubbard
Report Preparation Chemist

The total number of pages in this data package is 357.

amended data
SAH 9/3/98

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TRIANGLE LABORATORIES, INC.

LIST OF CERTIFICATIONS AND ACCREDITATIONS

ENVIRONMENTAL

American Association for Laboratory Accreditation. Accredidation pending. Certificate Number 0226-01. Accreditation for technical competence in Environmental Testing. (Including Waste Water, Sol/Haz Waste, Pulp/Paper, and Air Matrices) Parameters are AOX/TOX, and Dioxin/Furan. Method 1613 for Drinking Water **Currently re-applying.**.

State of Alabama, Department of Environmental Management. Expires December 31, 1998. Laboratory I.D. # 40950. Dioxin in drinking water.

State of Alaska, Department of Environmental Conservation. Expires December 21, 1998. Certificate number OS-006-98. Dioxin in drinking water.

State of Arizona, Department of Health Services. Expires May 26, 1998. Certificate #AZ0423. Drinking Water for Dioxin, Dioxin in WW and S/H Waste. Currently appying for renewal.

State of Arkansas, Department of Pollution Control and Ecology. Expires February 19, 1999. Pulp/paper, soil, water, and Hazardous Waste for Dioxin/Furan; AOX/TOX, Volatiles, Semi-volatiles, and Metals.

State of California, Department of Health Services. Expires August 31, 1999. Certificate #1922. Selected Metals in Waste Water; Volatiles, Semi-volatiles, and Dioxin/furan in WW and Sol/Haz Waste. Dioxin in drinking water.

State of Connecticut, Department of Health Services. Expires September 30, 1999. Registration # PH-0117. Dioxin in drinking water.

Delaware Health and Social Services. Expires December 31, 1998. Certificate #NC 140. Dioxin in drinking water.

Florida Department of Health and Rehabilitative Services. Expires June 30, 1998. Dioxin in SDW. Drinking Water ID HRS# 87424. Pending new certificate.

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Hawaii Department of Health. Expires March 1, 1999. Dioxin in drinking water. "Accepted" status for regulatory purposes.

Idaho Department of Health and Welfare. Expires December 31, 1998. Dioxin in drinking water.

State of Kansas, Department of Health and Environment. Expires January 31, 1999. Method 1613 for drinking water. ID #'s - Drinking water and/or pollution control - E-10215. Solid or Hazardous Waste - E-101209.

Commonwealth of Kentucky, Department for Environmental Protection. Expires December 31, 1998. ID#90060. Dioxin in drinking water.

Maryland Department of Health and Mental Hygiene. Expires September 30, 1998. Certification #235 Drinking water by Method 1613A. Currently applying for renewal.

State of Michigan, Department of Public Health. Expires June 30, 1999. Drinking water by Method 1613. Current certification is extended, based on New York certificate renewal.

Mississippi State Department of Health. No expiration date. Dioxin in drinking water.

Montana Department of Health and Environmental Services. Expires December 31, 1998. Dioxin in drinking water.

State of New Jersey, Department of Environmental Protection and Energy. Expires June 30, 1998. Extended until July 31, 1998 per letter dated May 29, 1998. ID #67851. BNAs and Volatiles. Dioxin in drinking water. Currently applying for renewal.

State of New Mexico, Environment Department. Still certified, awaiting information from A2LA Dioxin in drinking water.

New York State Department of Health. Received updated certificates. ID #11026. Environmental Analyses of potable water, non-potable Water, Solid and Hazardous Waste. Method 1613 in DW.

State of North Carolina, Department of Environment Health and Natural Resources Expires. August 31, 1998. Certificate # 37751. Dioxin in drinking water.

State of North Carolina, Department of Environment, Health, and Natural Resources, Division of Environmental Management. Expires December 31, 2000. Certificate # 485. Metals, pesticides & PCBs, semi-volatiles and volatiles; TCLP.

North Dakota State Department of Health and Consolidated Laboratories. Expires December 31, 1998. Certificate # R-076. Effective October 4, 1993. Dioxin in drinking water.

Oklahoma Department of Environmental Quality. Expires August 31, 1998. Laboratory #9612. Dioxin by 1613A, 8290 and 8280. Submitted renewal application 7/1.

State of South Carolina, Department of Health and Environmental Control. Expires June 30, 1998. Extended August 31, 1999. Certificate number #99040001 (drinking water). Expires August 31, 1999. Certificate number #99040002 (other parameters). Dioxin/Furans, BNA, Volatiles, and PCBs/pesticides under Clean Water Act, 2,3,7,8-TCDD for Drinking Water, and Organic extractables for Solid and Hazardous Waste.

State of Tennessee. Department of Environment and Conservation. Expires February 5, 1999. ID #02992. Method 1613 Drinking water only.

U.S. Department of Agriculture Soil Permit. Expires September 30, 2001. Permit No. S-3790. Under the authority of the Federal Plant Pest Act, permission is granted to receive foreign soil samples for use in laboratory analysis.

U.S. Army Corps of Engineers. Expires October 19, 1999. Validated to perform analyses for the Fort Belvoir, VA (Contract Number DACA31-97-D-0029), Vint Hill Farms Station, Vint Hill, VA (Contract Number DACA31-95-D-0083), and Selma Pressure Treating Superfund Site, Selma, CA (Contract number DACW45-94-D-0054).

U.S. EPA Region V. Expires November 14, 1999. Dioxin in drinking water.

U.S. EPA Region VIII, for the State of Wyoming. Expires November 12, 1998. Dioxin in drinking water.

State of Utah, Department of Health. Expires May 30,2000. Certificate Number E-166. Certification for the following parameters: Semi-Volatiles and Volatiles under RCRA; Volatiles under Clean Water Act; Dioxin/furans by Method 8280; Drinking water for Dioxin by Method 1613; Metals including Mercury and Microwave Digestion.

Commonwealth of Virginia, Department of General Services, Division of Consolidated Laboratory Services. Expires June 30, 1999. ID # 00341. Dioxin in drinking water.

State of Washington, Department of Ecology. Expires September 11, 1998. Lab Accreditation Number C067. Scope of Accreditation applies to water analyses for

Polychlorinated Dibenzo-p-dioxins and Polychlorinated Dibenzofurans, BNA Extr (Semivolatile) Organics and Purgeable (Volatile) Organics.
State of Washington, Department of Health. Expires April 30, 1999. Dioxin in drinking water. Lab I.D. 129.

State of West Virginia, Department of Health. Expires December 31, 1998. Certificate No. 9923(C). Dioxin in drinking water.

State of Wisconsin, Department of Natural Resources. Expires August 31, 1998. Laboratory ID Number 999869530. Certification for the following categories of Organics: Purgeable, Base/Neutral, Acid, PCBs, and Dioxin. Expires November 14, 1999. Laboratory ID 999869530. Dioxin in drinking water.

PHARMACEUTICAL

Drug Enforcement Agency (DEA). Expires November 30, 1998. Registration number RT01195835. Controlled substance registration for schedules 1,2,3,3N,4,5.

N.C. Department of Human Resources. Expires October 31, 1998. Registration number NC-PT 0000 0031. North Carolina controlled substances registration. Application submitted for renewal.

Food & Drug Administration (FDA) Registration. Expires June 1998. ID #'s 001500 1053481. Annual registration of drug establishment.

OTHER

Clinical Laboratory Improvement Amendments (CLIA) Registration. Expires May 30, 1999. ID # 34D0705123. Department of Health & Human Services, Health Care Financing Administration.

U.S. EPA Large Quantity Hazardous Waste Generator. No expiration date. EPA ID #NCD982156879. Permit indicates that the laboratory is a large generator of hazardous waste.

North Carolina General License for Radiation Protection. No expiration date. No License. 032-875-OG. The general license applies only to radioactive material contained in devices which have been manufactured and labeled in accordance with specific requirements.

TRIANGLE LABS

DOCUMENT CONTROL

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Triangle Laboratories, Inc.
Sample Identification Index for Project: 46323

Client Id:	TLI Id:	File Name:
T-V-2-1-A,B T/TC	214-27-5A,B	FX975
T-V-2-2-A,B T/TC	214-27-6A,B	FX976
T-V-2-3-A,B T/TC	214-27-7A,B	FX977
T-V-2-4-A,B T/TC	214-27-8A,B	FX978
T-V-3-1-A,B T/TC	214-27-16A,B	FX979
T-V-3-2-A,B T/TC	214-27-17A,B	FX980
T-V-3-3-A,B T/TC	214-27-18A,B	FX981
T-V-4-1-A T	214-27-20A	HW562
T-V-4-1-B TC	214-27-20B	HW560
T-V-4-2-A T	214-27-21A	HW563
T-V-4-2-B TC	214-27-21B	HW561
T-V-4-4-A T	214-27-23A	FX983
T-V-FB-A,B T/TC	214-27-9A,B	FX953
VOSTBLK 080998 T/TC	VOSTBLK 080998	HW559
VOSTBLK 082198 T/TC	VOSTBLK 082198	FX952
VOSTBLK 082498 T/TC	VOSTBLK 082498	FX974

Triangle Laboratories, Inc.
Project Summary for Project 46323

Client ID:	T-V-2-1-A, B T/TC	T-V-2-2-A, B T/TC	T-V-2-3-A, B T/TC	T-V-2-4-A, B T/TC	T-V-3-1-A, B T/TC
Filename :	FX975	FX976	FX977	FX978	FX979
TLI Id :	214-27-5A,B	214-27-6A,B	214-27-7A,B	214-27-8A,B	214-27-16A,B
Matrix :	VOST	VOST	VOST	VOST	VOST
Units :	ug	ug	ug	ug	ug
Chloromethane	0.056	0.092	0.042	0.040	0.030
Vinyl Chloride	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Bromomethane	0.036	0.035	0.035	(0.001)	0.005
Chloroethane	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Trichlorofluoromethane	0.014	0.011	(0.001)	0.009	0.011
1,1-Dichloroethene	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Methylene chloride	0.488	(0.001)	0.081	0.064	0.508
trans-1,2-Dichloroethene	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
1,1-Dichloroethane	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
cis-1,2-Dichloroethene	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Chloroform	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
1,1,1-Trichloroethane	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Iodomethane	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Carbon disulfide	0.104	0.093	0.026	0.044	0.015
Acetone	0.193	0.232	0.137	0.296	0.183
Allyl chloride	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Acrylonitrile	(0.026)	(0.024)	(0.021)	(0.021)	(0.020)
Vinyl acetate	(0.002)	(0.002)	(0.001)	(0.001)	(0.001)
2-Butanone	(0.005)	0.312	0.161	0.342	0.166
Carbon tetrachloride	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Benzene	0.263	0.238	0.156	0.108	0.096
1,2-Dichloroethane	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Trichloroethene	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
1,2-Dichloropropane	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Bromodichloromethane	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
cis-1,3-Dichloropropene	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Toluene	0.132	0.247	0.218	0.144	0.212
trans-1,3-Dichloropropene	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
1,1,2-Trichloroethane	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Methyl methacrylate	(0.008)	(0.007)	(0.006)	(0.006)	(0.006)
4-Methyl-2-pentanone	(0.006)	(0.005)	(0.005)	(0.005)	(0.004)
Tetrachloroethene	0.017	0.035	0.035	0.031	0.023
Dibromochloromethane	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
1,2-Dibromoethane	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Chlorobenzene	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)

( )-Estimated Detection Limit

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Triangle Laboratories, Inc.

Project Summary for Project 46323

Client ID:	T-V-2-1-A, B T/TC	T-V-2-2-A, B T/TC	T-V-2-3-A, B T/TC	T-V-2-4-A, B T/TC	T-V-3-1-A, B T/TC
Filename :	FX975	FX976	FX977	FX978	FX979
TLI Id :	214-27-5A,B	214-27-6A,B	214-27-7A,B	214-27-8A,B	214-27-16A,B
Matrix :	VOST	VOST	VOST	VOST	VOST
Units :	ug	ug	ug	ug	ug
Ethylbenzene	0.015	0.069	0.050	0.027	0.075
m-/p-Xylene	0.078	0.428	0.255	0.149	0.335
o-Xylene	0.012	0.119	0.088	0.042	0.131
Styrene	(0.001)	0.052	0.038	0.017	0.029
Bromoform	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
2-Hexanone	(0.011)	(0.010)	(0.008)	(0.008)	(0.008)
Cumene	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
1,1,2,2-Tetrachloroethane	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)

( )-Estimated Detection Limit

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Triangle Laboratories, Inc.
Project Summary for Project 46323

Client ID:	T-V-2-1-A, B T/TC	T-V-2-2-A, B T/TC	T-V-2-3-A, B T/TC	T-V-2-4-A, B T/TC	T-V-3-1-A, B T/TC
Filename :	FX975	FX976	FX977	FX978	FX979
TLI Id :	214-27-5A,B	214-27-6A,B	214-27-7A,B	214-27-8A,B	214-27-16A,B
Matrix :	VOST	VOST	VOST	VOST	VOST
Units :	ug	ug	ug	ug	ug
1,3-Butadiene	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Vinyl bromide	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
MTBE	**0.033**	**0.022**	**0.039**	**0.036**	**0.028**
n-Hexane	**0.266**	**0.176**	**0.145**	**0.083**	**0.107**
1,2-Epoxybutane	(0.032)	(0.029)	(0.025)	(0.025)	(0.024)
Iso-Octane	**0.029**	**0.016**	**0.019**	**0.021**	**0.012**
Ethyl acrylate	(0.008)	(0.008)	(0.007)	(0.007)	(0.007)

( )-Estimated Detection Limit

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Triangle Laboratories, Inc.
Project Summary for Project 46323

Client ID:	T-V-3-2-A, B T/TC	T-V-3-3-A, B T/TC	T-V-4-1-A T	T-V-4-1-B TC	T-V-4-2-A T
Filename :	FX980	FX981	HW562	HW560	HW563
TLI Id :	214-27-17A,B	214-27-18A,B	214-27-20A	214-27-20B	214-27-21A
Matrix :	VOST	VOST	VOST	VOST	VOST
Units :	ug	ug	ug	ug	ug
Chloromethane	(0.001)	0.043	0.010	0.020	0.005
Vinyl Chloride	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Bromomethane	(0.001)	(0.001)	0.010	0.003	0.006
Chloroethane	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Trichlorofluoromethane	0.011	0.006	0.009	0.015	(0.001)
1,1-Dichloroethene	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Methylene chloride	0.828	0.049	0.038	0.327	0.674
trans-1,2-Dichloroethene	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
1,1-Dichloroethane	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
cis-1,2-Dichloroethene	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Chloroform	(0.001)	(0.001)	0.006	(0.001)	(0.001)
1,1,1-Trichloroethane	(0.001)	(0.001)	0.012	(0.001)	(0.001)
Iodomethane	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Carbon disulfide	0.017	0.020	(0.001)	(0.001)	(0.001)
Acetone	(0.004)	(0.004)	0.151	0.087	0.036
Allyl chloride	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Acrylonitrile	(0.020)	(0.019)	(0.007)	(0.006)	(0.006)
Vinyl acetate	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
2-Butanone	(0.004)	(0.004)	0.051	(0.004)	(0.003)
Carbon tetrachloride	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Benzene	0.131	0.129	0.091	0.010	0.034
1,2-Dichloroethane	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Trichloroethene	(0.001)	(0.001)	0.001	(0.001)	(0.001)
1,2-Dichloropropane	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Bromodichloromethane	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
cis-1,3-Dichloropropene	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Toluene	0.200	0.217	0.133	0.016	0.010
trans-1,3-Dichloropropene	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
1,1,2-Trichloroethane	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Methyl methacrylate	(0.006)	(0.006)	(0.003)	(0.002)	(0.002)
4-Methyl-2-pentanone	(0.005)	(0.004)	(0.002)	(0.001)	(0.001)
Tetrachloroethene	0.015	0.028	0.016	(0.001)	(0.001)
Dibromochloromethane	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
1,2-Dibromoethane	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Chlorobenzene	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)

( )-Estimated Detection Limit

Triangle Laboratories, Inc.
801 Capitola Drive • Durham, North Carolina 27713
Phone: (919) 544-5729 • Fax: (919) 544-5491

Triangle Laboratories, Inc.
Project Summary for Project 46323

Client ID:	T-V-3-2-A, B T/TC	T-V-3-3-A, B T/TC	T-V-4-1-A T	T-V-4-1-B TC	T-V-4-2-A T
Filename :	FX980	FX981	HW562	HW560	HW563
TLI Id :	214-27-17A,B	214-27-18A,B	214-27-20A	214-27-20B	214-27-21A
Matrix :	VOST	VOST	VOST	VOST	VOST
Units :	ug	ug	ug	ug	ug
Ethylbenzene	0.065	0.071	0.018	0.001	(0.001)
m-/p-Xylene	0.314	0.378	0.056	0.002	(0.001)
o-Xylene	0.118	0.124	0.024	0.001	(0.001)
Styrene	0.036	0.037	0.025	0.002	0.003
Bromoform	(0.002)	(0.002)	(0.001)	(0.001)	(0.001)
2-Hexanone	(0.008)	(0.008)	(0.002)	(0.002)	(0.002)
Cumene	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
1,1,2,2-Tetrachloroethane	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)

( )-Estimated Detection Limit

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Triangle Laboratories, Inc.

Project Summary for Project 46323

Client ID:	T-V-3-2-A, B T/TC	T-V-3-3-A, B T/TC	T-V-4-1-A T	T-V-4-1-B TC	T-V-4-2-A T
Filename :	FX980	FX981	HW562	HW560	HW563
TLI Id :	214-27-17A,B	214-27-18A,B	214-27-20A	214-27-20B	214-27-21A
Matrix :	VOST	VOST	VOST	VOST	VOST
Units :	ug	ug	ug	ug	ug
1,3-Butadiene	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Vinyl bromide	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
MTBE	0.022	0.015	0.114	0.014	(0.002)
n-Hexane	0.135	0.142	0.034	0.005	0.006
1,2-Epoxybutane	(0.024)	(0.023)	(0.055)	(0.046)	(0.041)
Iso-Octane	(0.001)	(0.001)	0.012	0.010	(0.001)
Ethyl acrylate	(0.007)	(0.006)	(0.001)	(0.001)	(0.001)

( )-Estimated Detection Limit

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Triangle Laboratories, Inc.
Project Summary for Project 46323

Client ID:	T-V-4-2-B TC	T-V-4-4-A T	T-V-FB-A,B T/TC	VOSTBLK 08 0998 T/TC	VOSTBLK 08 2198 T/TC
Filename :	HW561	FX983	FX953	HW559	FX952
TLI Id :	214-27-21B	214-27-23A	214-27-9A,B	VOSTBLK 0809	VOSTBLK 0821
Matrix :	VOST	VOST	VOST	VOST	VOST
Units :	ug	ug	ug	ug	ug
Chloromethane	0.015	(0.001)	(0.001)	0.015	(0.001)
Vinyl Chloride	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Bromomethane	0.004	(0.001)	(0.001)	0.010	(0.001)
Chloroethane	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Trichlorofluoromethane	0.003	(0.001)	(0.001)	(0.001)	(0.001)
1,1-Dichloroethene	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Methylene chloride	1.666	0.009	0.054	0.001	(0.001)
trans-1,2-Dichloroethene	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
1,1-Dichloroethane	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
cis-1,2-Dichloroethene	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Chloroform	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
1,1,1-Trichloroethane	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Iodomethane	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Carbon disulfide	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Acetone	0.033	(0.004)	(0.005)	(0.004)	(0.005)
Allyl chloride	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Acrylonitrile	(0.006)	(0.021)	(0.025)	(0.006)	(0.024)
Vinyl acetate	(0.001)	(0.001)	(0.002)	(0.001)	(0.002)
2-Butanone	(0.004)	(0.004)	(0.005)	(0.003)	(0.004)
Carbon tetrachloride	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Benzene	0.015	0.071	0.006	0.048	0.039
1,2-Dichloroethane	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Trichloroethene	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
1,2-Dichloropropane	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Bromodichloromethane	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
cis-1,3-Dichloropropene	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Toluene	0.007	0.158	0.006	0.003	(0.001)
trans-1,3-Dichloropropene	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
1,1,2-Trichloroethane	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Methyl methacrylate	(0.002)	(0.006)	(0.006)	(0.002)	(0.006)
4-Methyl-2-pentanone	(0.001)	(0.005)	(0.004)	(0.001)	(0.004)
Tetrachloroethene	(0.001)	0.022	(0.001)	(0.001)	(0.001)
Dibromochloromethane	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
1,2-Dibromoethane	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Chlorobenzene	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)

( )-Estimated Detection Limit

Triangle Laboratories, Inc.
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Triangle Laboratories, Inc.

Project Summary for Project 46323

Client ID:	T-V-4-2-B TC	T-V-4-4-A T	T-V-FB-A,B T/TC	VOSTBLK 08 0998 T/TC	VOSTBLK 08 2198 T/TC
Filename :	HW561	FX983	FX953	HW559	FX952
TLI Id :	214-27-21B	214-27-23A	214-27-9A,B	VOSTBLK 0809	VOSTBLK 0821
Matrix :	VOST	VOST	VOST	VOST	VOST
Units :	ug	ug	ug	ug	ug
Ethylbenzene	(0.001)	0.022	(0.001)	(0.001)	(0.001)
m-/p-Xylene	(0.001)	0.057	(0.001)	(0.001)	(0.001)
o-Xylene	(0.001)	0.024	(0.001)	(0.001)	(0.001)
Styrene	0.001	0.009	(0.001)	0.001	(0.001)
Bromoform	(0.001)	(0.002)	(0.002)	(0.001)	(0.002)
2-Hexanone	(0.002)	(0.008)	(0.008)	(0.002)	(0.009)
Cumene	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
1,1,2,2-Tetrachloroethane	(0.001)	(0.002)	(0.001)	(0.001)	(0.003)

( )-Estimated Detection Limit

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Triangle Laboratories, Inc.
Project Summary for Project 46323

Client ID:	T-V-4-2-B TC	T-V-4-~~3~~-4-A T cmc	T-V-FB-A,B T/TC	VOSTBLK 08 0998 T/TC	VOSTBLK 08 2198 T/TC
Filename :	HW561	FX983	FX953	HW559	FX952
TLI Id :	214-27-21B	214-27-23A	214-27-9A,B	VOSTBLK 0809	VOSTBLK 0821
Matrix :	VOST	VOST	VOST	VOST	VOST
Units :	ug	ug	ug	ug	ug
1,3-Butadiene	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Vinyl bromide	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
MTBE	(0.002)	0.037	(0.001)	(0.002)	(0.001)
n-Hexane	0.003	0.041	(0.001)	(0.001)	(0.001)
1,2-Epoxybutane	(0.045)	(0.025)	(0.025)	(0.041)	(0.024)
Iso-Octane	(0.001)	0.010	(0.001)	(0.001)	(0.001)
Ethyl acrylate	(0.001)	(0.007)	(0.004)	(0.001)	(0.004)

( )-Estimated Detection Limit

Triangle Laboratories, Inc.
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Client ID:	VOSTBLK 08 2498 T/TC
Filename :	FX974
TLI Id :	VOSTBLK 0824
Matrix :	VOST
Units :	ug

Chloromethane	(0.001)
Vinyl Chloride	(0.001)
Bromomethane	(0.001)
Chloroethane	(0.001)
Trichlorofluoromethane	(0.001)
1,1-Dichloroethene	(0.001)
Methylene chloride	(0.001)
trans-1,2-Dichloroethene	(0.001)
1,1-Dichloroethane	(0.001)
cis-1,2-Dichloroethene	(0.001)
Chloroform	(0.001)
1,1,1-Trichloroethane	(0.001)
Iodomethane	(0.001)
Carbon disulfide	(0.001)
Acetone	(0.006)
Allyl chloride	(0.001)
Acrylonitrile	(0.029)
Vinyl acetate	(0.002)
2-Butanone	(0.005)
Carbon tetrachloride	(0.001)
Benzene	(0.001)
1,2-Dichloroethane	(0.001)
Trichloroethene	(0.001)
1,2-Dichloropropane	(0.001)
Bromodichloromethane	(0.001)
cis-1,3-Dichloropropene	(0.001)
Toluene	(0.001)
trans-1,3-Dichloropropene	(0.001)
1,1,2-Trichloroethane	(0.001)
Methyl methacrylate	(0.008)
4-Methyl-2-pentanone	(0.006)
Tetrachloroethene	(0.001)
Dibromochloromethane	(0.001)
1,2-Dibromoethane	(0.001)
Chlorobenzene	(0.001)

( )-Estimated Detection Limit

Triangle Laboratories, Inc.
801 Capitola Drive • Durham, North Carolina 27713
Phone: (919) 544-5729 • Fax: (919) 544-5491

Client ID:	VOSTBLK 08
	2498 T/TC
Filename :	FX974
TLI Id :	VOSTBLK 0824
Matrix :	VOST
Units :	ug

Ethylbenzene	(0.001)
m-/p-Xylene	(0.001)
o-Xylene	(0.001)
Styrene	(0.001)
Bromoform	(0.003)
2-Hexanone	(0.013)
Cumene	(0.001)
1,1,2,2-Tetrachloroethane	(0.002)

( )-Estimated Detection Limit

Triangle Laboratories, Inc.
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Triangle Laboratories, Inc.
Project Summary for Project 46323

Client ID:	VOSTBLK 08 2498 T/TC
Filename :	FX974
TLI Id :	VOSTBLK 0824
Matrix :	VOST
Units :	ug

1,3-Butadiene	(0.001)
Vinyl bromide	(0.001)
MTBE	(0.001)
n-Hexane	(0.001)
1,2-Epoxybutane	(0.035)
Iso-Octane	(0.001)
Ethyl acrylate	(0.009)

( )-Estimated Detection Limit

Triangle Laboratories, Inc.
801 Capitola Drive • Durham, North Carolina 27713
Phone: (919) 544-5729 • Fax: (919) 544-5491

PACIFIC ENVIRONMENTAL SERVICES, INC.

Central Park West
5001 South Miami Boulevard, P.O. Box 12077
Research Triangle Park, North Carolina 27709-2077
(919) 941-0333 FAX: (919) 941-0234

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Sample Chain of Custody Record

PLANT: US EPA HOT MIX ASPHALT PLANT C	PROJECT NO.: R012.001
RECOVERY PERSON: Abernathy, Maret	SAMPLERS: Abernathy, Maret

Sample Identification	Collection Date	Collection Time	Sample Name	Number of Containers	Analytical Request					Comments
S-V-2-1-A	7/25/98		Silo 2 Run 2 Set 1	1						Tenax
S-V-2-1-B	7/25/98		Silo 2 Run 2 Set 1	1						Tenax/Charcoal
S-V-2-2-A	7/25/98		Silo 2 Run 2 Set 2	1						Tenax
S-V-2-2-B	7/25/98		Silo 2 Run 2 Set 2	1						Tenax/Charcoal
S-V-2-3-A	7/25/98		Silo 2 Run 2 Set 3	1						Tenax
S-V-2-3-B	7/25/98		Silo 2 Run 2 Set 3	1						Tenax/Charcoal
S-V-2-4-A	7/25/98		Silo 2 Run 2 Set 4	1						Tenax
S-V-2-4-B	7/25/98		Silo 2 Run 2 Set 4	1						Tenax/Charcoal
T-V-2-1-A	7/25/98		Tunnel Run 2 Set 1	1						Tenax
T-V-2-1-B	7/25/98		Tunnel Run 2 Set 1	1						Tenax/Charcoal
T-V-2-2-A	7/25/98		Tunnel Run 2 Set 2	1						Tenax
T-V-2-2-B	7/25/98		Tunnel Run 2 Set 2	1						Tenax/Charcoal
T-V-2-3-A	7/25/98		Tunnel Run 2 Set 3	1						Tenax
T-V-2-3-B	7/25/98		Tunnel Run 2 Set 3	1						Tenax/Charcoal
T-V-2-4-A	7/25/98		Tunnel Run 2 Set 4	1						Tenax
T-V-2-4-B	7/25/98		Tunnel Run 2 Set 4	1						Tenax/Charcoal
T-V-FB-A	7/25/98		Tunnel Field Blank	1						Tenax
T-V-FB-B	7/25/98		Tunnel Field Blank	1						Tenax/Charcoal
S-V-3-1-A	7/27/98		Silo 2 Run 3 Set 1	1						Tenax
S-V-3-1-B	7/27/98		Silo 2 Run 3 Set 1	1						Tenax/Charcoal
S-V-3-2-A	7/27/98		Silo 2 Run 3 Set 2	1						Tenax
S-V-3-2-B	7/27/98		Silo 2 Run 3 Set 2	1						Tenax/Charcoal
S-V-3-3-A	7/27/98		Silo 2 Run 3 Set 3	1						Tenax
S-V-3-3-B	7/27/98		Silo 2 Run 3 Set 3	1						Tenax/Charcoal
S-V-3-4-A	7/27/98		Silo 2 Run 3 Set 4	1						Tenax
S-V-3-4-B	7/27/98		Silo 2 Run 3 Set 4	1						Tenax/Charcoal
S-V-3-5-A	7/27/98		Silo 2 Run 3 Set 5	1						Tenax
S-V-3-5-B	7/27/98		Silo 2 Run 3 Set 5	1						Tenax/Charcoal
S-V-3-6-A	7/27/98		Silo 2 Run 3 Set 6	1						Tenax
S-V-3-6-B	7/27/98		Silo 2 Run 3 Set 6	1						Tenax/Charcoal
T-V-3-1-A	7/27/98		Tunnel Run 3 Set 1	1						Tenax

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PACIFIC ENVIRONMENTAL SERVICES, INC.

Central Park West
5001 South Miami Boulevard, P.O. Box 12077
Research Triangle Park, North Carolina 27709-2077
(919) 941-0333 FAX: (919) 941-0234

24

Sample Chain of Custody Record

PLANT: US EPA HOT MIX ASPHALT PLANT C
RECOVERY PERSON: Abernathy, Maret

PROJECT NO.: R012.001
SAMPLERS: Abernathy, Maret

Sample Identification	Collection Date	Collection Time	Sample Name	Number of Containers	Analytical Request					Comments
T-V-3-1-B	7/27/98		Tunnel Run 3 Set 1	1						Tenax/Charcoal
T-V-3-2-A	7/27/98		Tunnel Run 3 Set 2	1						Tenax
T-V-3-2-B	7/27/98		Tunnel Run 3 Set 2	1						Tenax/Charcoal
T-V-3-3-A	7/27/98		Tunnel Run 3 Set 3	1						Tenax
T-V-3-3-B	7/27/98		Tunnel Run 3 Set 3	1						Tenax/Charcoal
S-V-FB-A	7/26/98		Silo Field Blank	1						Tenax
S-V-FB-B	7/26/98		Silo Field Blank	1						Tenax/Charcoal
T-V-4-1-A	7/26/98		Tunnel Run 4 Set 1	1						Tenax
T-V-4-1-B	7/26/98		Tunnel Run 4 Set 1	1						Tenax/Charcoal
T-V-4-2-A	7/26/98		Tunnel Run 4 Set 2	1						Tenax
T-V-4-2-B	7/26/98		Tunnel Run 4 Set 2	1						Tenax/Charcoal
T-V-4-3-A	7/26/98		Tunnel Run 4 Set 3	1						Tenax
T-V-4-3-B	7/26/98		Tunnel Run 4 Set 3	1						Tenax/Charcoal
T-V-4-4-A	7/26/98		Tunnel Run 4 Set 4	1						Tenax
T-V-4-4-B	7/26/98		Tunnel Run 4 Set 4	1						Tenax/Charcoal

Relinquished by:	Date	Time	Received by:
Michael D. Maret	7/28/98	1020	

Relinquished by:	Date	Time	Received for Lab by:
	7/29/98	1000	Bill Hurst

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TRIANGLE LABORATORIES, INC. -- LOG IN RECORD/CHAIN OF CUSTODY

Custody Seal : Absent
Chain of Custody : Present
Sample Tags : Absent
Sample Tag Numbers: Not Listed on Chain of Custody
SMO Forms : N/A

Sample Seals: Absent
Container...: Intact

COPY 7/29/98

TLI Project Number 46323
Client: PES03 - Pacific Environmental Services

Date Received 07/29/98 By

Carrier and Number FedEx/

Book 214
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Ice Chest ICE PACKS Temp 6.0 C

TLI Number.. mR/H:CPM.	Client Sample ID..... Client COC ID.....*	Location.....	Matrix	To LAB Date/Init	To STORAGE Date/Init	To LAB Date/Init	To STORAGE Date/Init	To LAB Date/Init	To STORAGE Date/Init	To LAB Date/Init	To STORAGE Date/Init	DISPOSED Date/Init
214-27-1A	S-V-2-1-A		TENAX									
	S-V-2-1-A	R026										
214-27-1B	S-V-2-1-B		TNX/CHAR									
	S-V-2-1-B	R026										
214-27-2A	S-V-2-2-A		TENAX									
	S-V-2-2-A	R026										
214-27-2B	S-V-2-2-B		TNX/CHAR									
	S-V-2-2-B	R026										
214-27-3A	S-V-2-3-A		TENAX									
	S-V-2-3-A	R026										
214-27-3B	S-V-2-3-B		TNX/CHAR									
	S-V-2-3-B	R026										
214-27-4A	S-V-2-4-A		TENAX									
	S-V-2-4-A	R026										
214-27-4B	S-V-2-4-B		TNX/CHAR									
	S-V-2-4-B	R026										
214-27-5A	T-V-2-1-A		TENAX									
	T-V-2-1-A	R026										
214-27-5B	T-V-2-1-B		TNX/CHAR									
	T-V-2-1-B	R026										
214-27-6A	T-V-2-2-A		TENAX									
	T-V-2-2-A	R026										
214-27-6B	T-V-2-2-B		TNX/CHAR									
	T-V-2-2-B	R026										
214-27-7A	T-V-2-3-A		TENAX									
	T-V-2-3-A	R026										
214-27-7B	T-V-2-3-B		TNX/CHAR									
	T-V-2-3-B	R026										

Receiving Remarks:

Archive Remarks:

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228

TRIANGLE LABORATORIES, INC. -- LOG IN RECORD/CHAIN OF CUSTODY

Custody Seal : Absent
Chain of Custody : Present
Sample Tags : Absent
Sample Tag Numbers: Not Listed on Chain of Custody
SMO Forms : N/A

Sample Seals: Absent
Container...: Intact

TLI Project Number 46323
Client: PES03 - Pacific Environmental Services

Date Received 07/29/98 By

Carrier and Number FedEx/

Book 214 Page 27

Ice Chest ICE PACKS Temp 6.0 C

TLI Number.. mR/H:CPM.	Client Sample ID..... Client COC ID.....*	Location.....	Matrix	To LAB Date/Init	To STORAGE Date/Init	To LAB Date/Init	To STORAGE Date/Init	To LAB Date/Init	To STORAGE Date/Init	To LAB Date/Init	To STORAGE Date/Init	DISPOSED Date/Init
214-27-8A	T-V-2-4-A T-V-2-4-A	R026	TENAX									
214-27-8B	T-V-2-4-B T-V-2-4-B	R026	TNX/CHAR									
214-27-9A	T-V-FB-A T-V-FB-A	R026	TENAX									
214-27-9B	T-V-FB-B T-V-FB-B	R026	TNX/CHAR									
214-27-10A	S-V-3-1-A S-V-3-1-A	R026	TENAX									
214-27-10B	S-V-3-1-B S-V-3-1-B	R026	TNX/CHAR									
214-27-11A	S-V-3-2-A S-V-3-2-A	R026	TENAX									
214-27-11B	S-V-3-2-B S-V-3-2-B	R026	TNX/CHAR									
214-27-12A	S-V-3-3-A S-V-3-3-A	R026	TENAX									
214-27-12B	S-V-3-3-B S-V-3-3-B	R026	TNX/CHAR									
214-27-13A	S-V-3-4-A S-V-3-4-A	R026	TENAX									
214-27-13B	S-V-3-4-B S-V-3-4-B	R026	TNX/CHAR									
214-27-14A	S-V-3-5-A S-V-3-5-A	R026	TENAX									
214-27-14B	S-V-3-5-B S-V-3-5-B	R026	TNX/CHAR									

Receiving Remarks:

Archive Remarks:

TRIANGLE LABORATORIES, INC. -- LOG IN RECORD/CHAIN OF CUSTODY

Custody Seal : Absent
Chain of Custody : Present
Sample Tags : Absent
Sample Tag Numbers: Not Listed on Chain of Custody
SMO Forms : N/A

Sample Seals: Absent
Container...: Intact

TLI Project Number 46323
Client: PES03 - Pacific Environmental Services

Date Received 07/29/98 By

Carrier and Number FedEx/

Book 214

Page 27

Ice Chest ICE PACKS Temp 6.0 C

TLI Number.. mR/H:CPM.	Client Sample ID..... Client COC ID.....*	Location.....	Matrix	To LAB Date/Init	To STORAGE Date/Init	To LAB Date/Init	To STORAGE Date/Init	To LAB Date/Init	To STORAGE Date/Init	To LAB Date/Init	To STORAGE Date/Init	DISPOSED Date/Init
214-27-15A	S-V-3-6-A S-V-3-6-A	 R026	TENAX									
214-27-15B	S-V-3-6-B S-V-3-6-B	 R026	TNX/CHAR									
214-27-16A	T-V-3-1-A T-V-3-1-A	 R026	TENAX									
214-27-16B	T-V-3-1-B T-V-3-1-B	 R026	TNX/CHAR									
214-27-17A	T-V-3-2-A T-V-3-2-A	 R026	TENAX									
214-27-17B	T-V-3-2-B T-V-3-2-B	 R026	TNX/CHAR									
214-27-18A	T-V-3-3-A T-V-3-3-A	 R026	TENAX									
214-27-18B	T-V-3-3-B T-V-3-3-B	 R026	TNX/CHAR									
214-27-19A	S-V-FB-A S-V-FB-A	 R026	TENAX									
214-27-19B	S-V-FB-B S-V-FB-B	 R026	TNX/CHAR									
214-27-20A	T-V-4-1-A T-V-4-1-A	 R026	TENAX									
214-27-20B	T-V-4-1-B T-V-4-1-B	 R026	TNX/CHAR									
214-27-21A	T-V-4-2-A T-V-4-2-A	 R026	TENAX									
214-27-21B	T-V-4-2-B T-V-4-2-B	 R026	TNX/CHAR									

Receiving Remarks:

Archive Remarks:

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230

TRIANGLE LABORATORIES, INC. -- LOG IN RECORD/CHAIN OF CUSTODY

Custody Seal : Absent
Chain of Custody : Present
Sample Tags : Absent
Sample Tag Numbers: Not Listed on Chain of Custody
SMO Forms : N/A

Sample Seals: Absent
Container...: Intact

TLI Project Number 46323
Client: PES03 - Pacific Environmental Services

Date Received 07/29/98 By

Carrier and Number FedEx/

Book 214

Page 27

Ice Chest ICE PACKS Temp 6.0 C

TLI Number.. mR/H:CPM.	Client Sample ID..... Client COC ID.....*	Location.....	Matrix	To LAB Date/Init	To STORAGE Date/Init	To LAB Date/Init	To STORAGE Date/Init	To LAB Date/Init	To STORAGE Date/Init	To LAB Date/Init	To STORAGE Date/Init	DISPOSED Date/Init
214-27-22A	T-V-4-3-A T-V-4-3-A	R026	TENAX									
214-27-22B	T-V-4-3-B T-V-4-3-B	R026	TNX/CHAR									
214-27-23A	T-V-4-4-A T-V-4-4-A	R026	TENAX									
214-27-23B	T-V-4-4-B T-V-4-4-B	R026	TNX/CHAR									

Receiving Remarks:

Archive Remarks:

Form Revised 05/27/1997 -- Page 4 OF 4

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231

Triangle Laboratories, Inc.
Run Log

Column Type	Column #	Analysis*	Acquisition Method	GC Method*	Find DBs*	Other*
DB624	327 4056	8260	VOA	VOA3	8260B	826BX

Standards		
Internal / Surrogate / Recovery	Internal / Surrogate / Recovery	Analyte
VSG-92-3 exp. 8/22/98 @ 25ng/ml	VSG-92-2 exp. 8/20/98 @ 25ng/ml	

Extract / Sample volume _____ µL mL (Circle unit)

Tony C. Hynell 8/9/98
Signature Date

Date**	Time**	Project	Sample#	Client ID	Filename	pH*	Operator/Date	Backup*	Proc	Comments***
8/9/98	01:57	—	2.0 ml VSG-92-3 exp. 8/22/98	BFB	HW549	N/A	TCL 8/9/98	to 8/10/98	TCL	
8/9/98	02:26	—	10 ml VSG-92-4 exp. 8/22/98	VOSTD0.10 TITC	HW550	N/A	TCL 8/9/98		TCL	
8/9/98	03:17	—	10 ml VSG-92-4 exp. 8/22/98	VOSTD0.10 TITC	HW551	N/A	TCL 8/9/98		TCL	
8/9/98	03:52	—	10 ml VSG-93-2 exp. 8/22/98	VOSTD0.25 TITC	HW552	N/A	TCL 8/9/98		TCL	
8/9/98	04:23	—	10 ml VSG-93-2 exp. 8/22/98	VOSTD0.50 TITC	HW553	N/A	TCL 8/9/98		TCL	
8/9/98	04:55	—	10 ml VSG-93-4 exp. 8/22/98	VOSTD0.75 TITC	HW554	N/A	TCL 8/9/98		TCL	
8/9/98	05:27	—	10 ml VSG-94-1 exp. 8/22/98	VOSTD1.00 TITC	HW555	N/A	TCL 8/9/98		TCL	
8/9/98	06:01	—	10 ml VSG-92-2 exp. 8/20/98	VBLK	HW556	N/A	TCL 8/9/98		TCL	
8/9/98	06:40	—	10 ml VSG-90-2 exp. 8/20/98	Additional VOSTD0.50 TITC	HW557	N/A	TCL 8/9/98		TCL	Single Pt.
8/9/98	07:49	—	10 ml VSG-92-2 exp. 8/20/98	VOSTBLK TITC	HW558	N/A	TCL 8/9/98	to 8/10/98	TCL	

* Volatile Data Only ** Transcribed Data *** Dated Signature/Initials Required

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Triangle Laboratories, Inc.
Run Log

Column Type	Column #	Analysis*	Acquisition Method	GC Method*	Find DBs*	Other*
DB624	3274056	8260	VOA	VOA3	8260B	8260X

Standards		
Internal / Surrogate / Recovery	Internal / Surrogate / Recovery	Analyte
VS9-92-3 exp. 8/22/98 @25ug/ml	VS9-92-2 exp 8/20/98 @25ug/ml	

Extract / Sample volume _____ µL mL (Circle unit)

Tony C. Spinell 8/9/98
Signature Date

Date**	Time**	Project	Sample#	Client ID	Filename	pH*	Operator/Date	Backup*	Proc	Comments***
8/9/98	08:28	—	10 ml VS9-92-2 exp. 8/20/98	VOSTRIK TITC	HW559	N/A	[illegible] 8/9/98	16 8/10/98	[illegible]	
8/9/98	09:11	46323	214-27-20B	T-V-4-1-B TIC	HW560	N/A	[illegible] 8/9/98		[illegible]	
8/9/98	09:46	46323	214-27-21B	T-V-4-2-B TIC	HW561	N/A	[illegible] 8/9/98		[illegible]	
8/9/98	10:37	46323	214-27-20A	T-V-4-1-A T	HW562	N/A	[illegible] 8/9/98		[illegible]	
8/9/98	11:11	46323	214-27-21A	T-V-4-2-A T	HW563	N/A	[illegible] 8/9/98	16 8/10/98	[illegible]	

* Volatile Data Only ** Transcribed Data *** Dated Signature/Initials Required

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Triangle Laboratories, Inc.
Run Log

Column Type	Column #	Analysis*	Acquisition Method	GC Method*	Find DBs*	Other*
DB624	6252663	8260	VOA	VOA3	8260B	

Standards		
Internal / Surrogate / Recovery	Internal / Surrogate / Recovery	Analyte
VSG-92-3 exp 8/22/98 @ 25ug/ml	VSG-94-3 exp 8/26/98 @ 25ug/ml	

Extract / Sample volume _____ µL mL (Circle unit)

Lenny Gall 8/21/98
Signature Date

Date**	Time**	Project	Sample#	Client ID	Filename	pH*	Operator/Date	Backup*	Proc	Comments***
8/21/98	5:22	—	10ul VSG-92-4 exp 8/22/98	VOSTD0.25 T/TC	FX941	N/A	LG 8/21/98		LG	low sensitivity 8/21/98
8/21/98	6:15	—	2ul VSG-92-3 exp 8/22/98	BFB	FX942	N/A	LG 8/21/98		LG	
8/21/98	6:48	—	10ul VSG-92-3 exp 8/22/98	VOSTD0.10 T/TC	FX943	N/A	LG 8/21/98		LG	ICal pt. 8/21/98
8/21/98	07:55	—	10ul VSG-92-2 exp 8/22/98	VOSTD0.25 T/TC	FX944	N/A	LG 8/21/98		LG	ICal pt. 8/21/98
8/21/98	08:58	—	10ul VSG-93-2 exp 8/22/98	VOSTD0.50 T/TC	FX945	N/A	LG 8/21/98		LG	ICal pt. 8/21/98
8/21/98	09:39	—	10ul VSG-93-1 exp 8/22/98	VOSTD0.75 T/TC	FX946	N/A	LG 8/21/98		LG	ICal pt. 8/21/98
8/21/98	10:22	—	10ul VSG-94-1 exp 8/22/98	VOSTD1.00 T/TC	FX947	N/A	LG 8/21/98		LG	
8/21/98	11:10	—	10ul VSG-95-4 exp 8/4/98	VOSTD1K T/TC	FX948	N/A	LG 8/21/98		LG	
8/21/98	11:56	—	10ul VSG-94-1 exp 8/22/98	VOSTD100 T/TC	FX949	N/A	LG 8/21/98		LG	ICal pt 8/21/98
8/21/98	12:50	10ul VSG-96-1 exp 9/4/98	10ul VSG-95-2 exp 8/4/98	Additionals VOSTD0.50 T/TC	FX950	N/A	LG 8/21/98		LG	

* Volatile Data Only ** Transcribed Data *** Dated Signature/Initials Required

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Triangle Laboratories, Inc.
Run Log

Column Type	Column #	Analysis*	Acquisition Method	GC Method*	Find DBs*	Other*
DB624	6251633	8260	VOA	VOA3	8260A	8260X

Standards		
Internal / Surrogate / Recovery	Internal / Surrogate / Recovery	Analyte
VS9-93-2 exp 8/22/98 @ 25 ug/ml	VS9-95-4 exp. 9/4/98 @ 25 ug/ml	

Extract / Sample volume _____ Circle unit µL mL

Tony C. Spurell 8/21/98
Signature Date

Date**	Time**	Project	Sample#	Client ID	Filename	pH*	Operator/Date	Backup*	Proc	Comments***
8/21/98	13:40	—	10ul VS9-95-4 exp. 9/4/98	VOSTBLK T/TC	FX951	N/A	[illegible] 8/21/98		[illegible]	
8/21/98	14:23	—	10ul VS9-95-4 exp. 9/4/98	VOSTBLK T/TC	FX952	N/A	[illegible] 8/21/98		[illegible]	
8/21/98		46323	214-27-9A,B	F-V-FB-A,B T/TC	FX953	N/A	[illegible] 8/21/98		[illegible]	
8/22/98	00:30	—	2ul VS9-93-2 exp 8/22/98	BFB	FX954	N/A	16 8/22/98		16	Sensitivity low 16 8/22/98
8/22/98	00:55	—	2ul VS9-93-2 exp 8/22/98	BFB	FX955	N/A	16 8/22/98		16	
8/22/98	1:22	—	10ul VS9-92-4 exp 8/22/98	VOSTD0.25 T/TC	FX956	N/A	16 8/22/98		16	
8/22/98	2:12	—	10ul VS9-92-4 exp 8/22/98	VOSTD0.25 T/TC	FX957	N/A	16 8/22/98		16	
8/22/98	2:54	10ul VS9-96-1 exp 9/4/98	10ul VS9-92-4 exp 8/22/98	Additionals VOSTD0.50 T/TC	FX958	N/A	16 8/22/98		16	Sensitivity Dropped out 16 8/22/98
8/22/98	3:39	10ul VS9-96-1 exp 9/4/98	10ul VS9-92-4 exp 8/22/98	VOSTD0.50 T/TC	FX959	N/A	16 8/22/98		16	" " " changed tube 16 8/22/98
8/22/98	4:20	—	10ul VS9-92-4 exp 8/22/98	VOSTBLK T/TC	FX960	N/A	16 8/22/98		16	

* Volatile Data Only ** Transcribed Data *** Dated Signature/Initials Required

SRVR4\\AP\MSRL\LRRUNLOG.DOC (10/16/97)

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Triangle Laboratories, Inc.
Run Log

Column Type	Column #	Analysis*	Acquisition Method	GC Method*	Find DBs*	Other*
DB624	6252663	8260	VOA	VOA3	8260B	

Standards		
Internal / Surrogate / Recovery	Internal / Surrogate / Recovery	Analyte
VSG-93-2 exp 8/22/98 @ 25 ug/ml	VSG-95-4 exp 9/4/98 @ 25 ug/ml	

Extract / Sample volume _____ µL mL (Circle unit)

Lucy Gall 8/22/98
Signature Date

Date**	Time**	Project	Sample#	Client ID	Filename	pH*	Operator/Date	Backup*	Proc	Comments***
8/22/98	5:03	—	10ul VSG-95-11 exp 9/4/98	VOSTBLK T/TC	FX961	N/A	LG 8/22/98		LG	Changed lines LG 8/22/98
8/22/98	6:24	—	10ul VSG-95-4 exp 9/4/98	VOSTBLK T/TC	FX962	N/A	LG 8/22/98		LG	low sensitivity at end
8/22/98	7:16	—	10ul VSG-95-4 exp 9/4/98	VOSTBLK T/TC	FX963	N/A	LG 8/22/98		LG	Checked tekmar - flow OK. maybe electronical LG 8/22/98
8/23/98	23:52	—	2ul VSG-96-2 exp 9/2/98	BFB	FX964	N/A	LG 8/23/98		LG	
8/24/98	00:43	—	10ul VSG-95-3 exp 9/2/98	VOSTD0.25 T/TC	FX965	N/A	LG 8/24/98		LG	
8/24/98	1:34	—	10ul VSG-95-3 exp 9/2/98	VOSTD0.25 T/TC	FX966	N/A	LG 8/24/98		LG	low sensitivity LG 8/24/98
8/24/98	2:28	—	2ul VSG-96-2 exp 9/2/98	BFB	FX967	N/A	LG 8/24/98		LG	" " LG 8/24/98
8/24/98	2:59	—	10ul VSG-95-3 exp 9/2/98	VOSTD0.25 T/TC	FX968	N/A	LG 8/24/98		LG	
8/24/98	3:46	—	10ul VSG-95-3 exp 9/2/98	VOSTD0.25 T/TC	FX969	N/A	LG 8/24/98		LG	Returns missing LG 8/24/98
8/24/98	4:42	—	2ul VSG-96-2 exp 9/2/98	BFB	FX970	N/A	LG 8/24/98		LG	

* Volatile Data Only ** Transcribed Data *** Dated Signature/Initials Required

SRVR4\\AP\MSRL\LRRUNLOG.DOC (10/16/97)

Triangle Laboratories, Inc.
Run Log

Column Type	Column #	Analysis*	Acquisition Method	GC Method*	Find DBs*	Other*
DB624	6252663	8260	VOA	VOA3	826DB	826BX

Standards		
Internal / Surrogate / Recovery	Internal / Surrogate / Recovery	Analyte
VS9-96-2 exp 9/7/98 @ 25 ug/ml	VS9-95-4 exp 9/4/98 @ 25 ug/ml	

Extract / Sample volume _____ Circle unit µL mL

Signature: [signature] Date: 8/24/98

Date**	Time**	Project	Sample#	Client ID	Filename	pH*	Operator/Date	Backup*	Proc	Comments***
8/24/98	5:12	—	10 ul VS9-95-3 exp 9/2/98	VOSTD0.25 T/TC	FX971	N/A	LG 8/24/98		LG	
8/24/98	5:58	10 ul VS9-96-1 exp 9/4/98	10 ul VS9-95-4 exp 9/4/98	VOSTD0.50 T/TC Additional	FX972	N/A	LG 8/24/98		LG	
8/24/98		10 ul VS9-96-1 exp 9/4/98	10 ul VS9-95-4 exp 9/4/98	Additionals VOSTD0.50 T/TC	FX973	N/A	LG 8/24/98		LG	
8/24/98	08:04	—	10 ul VS9-95-4 exp 9/4/98	VOSTBLK T/TC	FX974	N/A	LG 8/24/98		[illegible]	
8/24/98	09:15	46323	214-27-5A,B	T-V-2-1-A,B T/TC	FX975	N/A	[illegible] 8/24/98		[illegible]	
8/24/98	10:02	46323	214-27-6A,B	T-V-2-2-A,B T/TC	FX976	N/A	[illegible] 8/24/98		[illegible]	
8/24/98	10:49	46323	214-27-7A,B	T-V-2-3-A,B T/TC	FX977	N/A	[illegible] 8/24/98		[illegible]	
8/24/98	11:35	46323	214-27-8A,B	T-V-2-4A,B T/TC	FX978	N/A	[illegible] 8/24/98		[illegible]	
8/24/98	12:14	46323	214-27-16A,B	T-V-3-1-A,B T/TC	FX979	N/A	[illegible] 8/24/98		[illegible]	
8/24/98	13:02	46323	214-27-17A,B	T-V-3-2-A,B T/TC	FX980	N/A	[illegible] 8/24/98		[illegible]	

* Volatile Data Only ** Transcribed Data *** Dated Signature/Initials Required

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SRVR4\\AP\MSRL\LRRUNLOG.DOC (10/16/97)

Triangle Laboratories, Inc.
Run Log

Column Type	Column #	Analysis*	Acquisition Method	GC Method*	Find DBs*	Other*
DB624	6252663	8260	VOA	VOA3	8260B	826BX

Standards		
Internal / Surrogate / Recovery	Internal / Surrogate / Recovery	Analyte
VSS-96-2 exp. 9/7/98 @ 25ug/ml	VSS-95-4 exp. 9/4/98 @ 25ug/ml	

Extract / Sample volume _____ µL mL (Circle unit)

Lowery C. Spurrell 8/24/98
Signature Date

Date**	Time**	Project	Sample#	Client ID	Filename	pH*	Operator/Date	Backup*	Proc	Comments***
8/24/98	13:52	46323	214-27-18A,B	T-V-3-3-A,B TITC	FX981	N/A	[illegible] 8/24/98		[illegible]	
8/24/98	not started	46323	214-27-22A,B	T-V-4-3 A,B TITC	FX982	N/A	[illegible] 8/24/98		[illegible]	Acquisition Failure No DATA
8/24/98	15:31	46323	214-27-23A,B	T-V-4-4 A,B TITC	FX983	N/A	[illegible] 8/24/98		[illegible]	Tenax/tube broken all charcoal and tenax out in container [illegible] 8/24/98 Tenax (Front end only)

* Volatile Data Only ** Transcribed Data *** Dated Signature/Initials Required

SRVR4\\AP\MSRL\LRRUNLOG.DOC (10/16/97)

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TRIANGLE LABS

SAMPLE DATA

Triangle Laboratories, Inc.
801 Capitola Drive
Durham, NC 27713-4411
919-544-5729
P.O. Box 13485
Research Triangle Park, NC 27709-34
Fax # 919-544-5491

Pacific Environmental Services

Project Number: 46323
Sample File: FX975

Method 8260 VOST
Sample ID: T-V-2-1-A,B T/TC

Client Project: R012.001
TLI ID: 214-27-5A,B

Date Received: 07/29/98

Date Analyzed : 08/24/98

Response File: ICALF821

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Pentafluorobenzene		IS 1	5.30		
Chloromethane	0.056		1.09		0.05
Vinyl Chloride		U		0.001	0.05
Bromomethane	0.036	J	1.64		0.05
Chloroethane		U		0.001	0.05
Trichlorofluoromethane	0.014	J	2.06		0.05
1,1-Dichloroethene		U		0.001	0.05
Iodomethane		U		0.001	0.05
Carbon disulfide	0.104		2.77		0.05
Acetone	0.193		2.87		0.05
Allyl chloride		U		0.001	0.05
Methylene chloride	0.488		3.26		0.05
Acrylonitrile		U		0.026	0.05
trans-1,2-Dichloroethene		U		0.001	0.05
1,1-Dichloroethane		U		0.001	0.05
Vinyl acetate		U		0.002	0.05
cis-1,2-Dichloroethene		U		0.001	0.05
2-Butanone		U		0.005	0.05
Chloroform		U		0.001	0.05
1,1,1-Trichloroethane		U		0.001	0.05
1,4-Difluorobenzene		IS 2	6.07		
Carbon tetrachloride		U		0.001	0.05
Benzene	0.263		5.52		0.05
1,2-Dichloroethane		U		0.001	0.05
Trichloroethene		U		0.001	0.05
1,2-Dichloropropane		U		0.001	0.05

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

Triangle Laboratories, Inc.
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Phone: (919) 544-5729 • Fax: (919) 544-5491

Savar v3.7
Printed: 16:48 08/25/1998

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Pacific Environmental Services

Project Number: 46323
Sample File: FX975

Method 8260 VOST
Sample ID: T-V-2-1-A,B T/TC

Client Project: R012.001
TLI ID: 214-27-5A,B

Date Received: 07/29/98
Date Analyzed : 08/24/98

Response File: ICALF821

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Methyl methacrylate		U		0.008	0.05
Bromodichloromethane		U		0.001	0.05
cis-1,3-Dichloropropene		U		0.001	0.05
4-Methyl-2-pentanone		U		0.006	0.05
Toluene	0.132		8.10		0.05
trans-1,3-Dichloropropene		U		0.001	0.05
1,1,2-Trichloroethane		U		0.001	0.05
Chlorobenzene-d_5		IS 3	10.36		
Tetrachloroethene	0.017	J	8.92		0.05
2-Hexanone		U		0.011	0.05
Dibromochloromethane		U		0.001	0.05
1,2-Dibromoethane		U		0.001	0.05
Chlorobenzene		U		0.001	0.05
Ethylbenzene	0.015	J	10.69		0.05
m-/p-Xylene	0.078	J	10.93		0.10
o-Xylene	0.012	J	11.64		0.05
Styrene		U		0.001	0.05
Bromoform		U		0.002	0.05
1,4-Dichlorobenzene-d_4		IS 4	15.74		
Cumene		U		0.001	0.05
1,1,2,2-Tetrachloroethane		U		0.001	0.05

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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Printed: 16:48 08/25/1998

Pacific Environmental Services

Project Number: 46323
Sample File: FX975

Method 8260 VOST
Sample ID: T-V-2-1-A,B T/TC

Client Project: R012.001
TLI ID: 214-27-5A,B

Date Received: 07/29/98
Date Analyzed : 08/24/98

Response File: ICALF821

Surrogate Summary	Amount (ug)	RT	IS Ref	%REC
Dibromofluoromethane	0.219	5.18	1	88
Toluene-d_8	0.277	8.00	2	111
4-Bromofluorobenzene	0.319	12.67	2	128

Reviewed by BaB Date 8/25/98

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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Savar v3.7
Printed: 16:48 08/25/1998

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Pacific Environmental Services

Project Number: 46323
Sample File: FX975

Method 8260 VOST
Sample ID: T-V-2-1-A,B T/TC

Client Project: R012.001
TLI ID: 214-27-5A,B

Date Received: 07/29/98
Date Analyzed : 08/24/98

Response File: ICALF824

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Pentafluorobenzene		IS 1	5.30		
1,3-Butadiene		U		0.001	0.25
Vinyl bromide		U		0.001	0.25
MTBE	0.033	J	3.62		0.25
n-Hexane	0.266		3.87		0.25
1,2-Epoxybutane		U		0.032	0.25
Iso-Octane	0.029	J	5.68		0.25
1,4-Difluorobenzene		IS 2	6.07		
Ethyl acrylate		U		0.008	0.25

Reviewed by BAB Date 8/25/98

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

Triangle Laboratories, Inc.
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Savar v3.7
Printed: 17:21 08/25/1998

Data Review: GAB
Date: 8/24/98

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QUAN DB - FX275 | LIST SORT QUAN | [illegible] | [illegible]

No	[illegible]	[illegible]	[illegible]	Dell Ex	[illegible]	RT	[illegible]	Name
1	100	[illegible]	[illegible]	-5	[illegible]	[illegible]	[illegible]	[illegible]
2	100	[illegible]	[illegible]	0	[illegible]	[illegible]	[illegible]	[illegible]
3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	[illegible]	[illegible]	[illegible]	-1	[illegible]	[illegible]	[illegible]	[illegible]
5	[illegible]	[illegible]	[illegible]	1	[illegible]	[illegible]	[illegible]	[illegible]
6	[illegible]	[illegible]	[illegible]	1	[illegible]	[illegible]	[illegible]	[illegible]
7	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
8	0	0	0	0	0	0.000	[illegible]	[illegible]
9	0	[illegible]	0	0	108609 — (M) PaB	1.09	30	[illegible]
10	0	0	0	0	0	[illegible]	62	[illegible]
11	[illegible]	[illegible]	[illegible]	[illegible]	105968	[illegible]	[illegible]	[illegible]
12	0	0	0	0	0	[illegible]	[illegible]	[illegible]
13	0	0	0	0	140672 — (M) PaB	2.06	[illegible]	[illegible]
14	0	0	0	[illegible]	0	[illegible]	[illegible]	[illegible]
15	0	0	0	0	0	[illegible]	[illegible]	[illegible]
16	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
17	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
18	0	0	0	0	0	[illegible]	[illegible]	[illegible]
19	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
20					(P) PaB			
21	[illegible]	[illegible]	0	0	[illegible]	[illegible]	[illegible]	[illegible]
22	0	[illegible]	[illegible]	0	0	[illegible]	[illegible]	[illegible]
23	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
24	0	[illegible]	[illegible]	[illegible]	0	[illegible]	[illegible]	[illegible]
25	0	[illegible]	[illegible]	[illegible]	0	[illegible]	[illegible]	[illegible]
26					(A) PaB			
27	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
28	0	[illegible]	0	0	0	[illegible]	[illegible]	[illegible]
29	[illegible]	[illegible]	[illegible]	0	[illegible]	[illegible]	[illegible]	[illegible]
30	[illegible]	[illegible]	0	[illegible]	[illegible]	0.000	[illegible]	[illegible]
31	0	[illegible]	[illegible]	[illegible]	0	[illegible]	[illegible]	[illegible]
32	[illegible]	[illegible]	[illegible]	0	[illegible]	0.000	[illegible]	[illegible]
33	100	[illegible]	[illegible]	0	[illegible]	[illegible]	78	Benzene
34	0	0	0	0	0	[illegible]	[illegible]	[illegible]
35	0	0	0	0	0	0.000	130	[illegible]
36	0	0	0	0	0	0.000	63	[illegible]
37	0	0	0	0	0	0.000	95	[illegible]
38	0	0	0	0	0	0.000	41	[illegible]
39	0	0	0	0	0	0.000	87	[illegible]
40					(P) PaB		75	[illegible]
41	100	[illegible]	[illegible]	1	[illegible]	[illegible]	43	[illegible]
42	0	0	0	0	0	0.000	92	[illegible]
43	0	0	0	0	0	0.000	73	[illegible]
44	0	0	0	0	0	0.000	97	[illegible]
45	0	0	0	0	93520 — (M) PaB	8.92	60	[illegible]
46	0	0	0	0	0	0.000	164	[illegible]
47					(P) PaB		76	[illegible]
48	0	0	0	0	0	0.000	43	[illegible]
49	0	0	0	0	0	0.000	129	[illegible]
50	0	0	0	0	0	0.000	107	[illegible]
							112	[illegible]

Data Review: PaB
Date: 8/24/98

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No.	MCF	PRP	DPV	[illegible]	[illegible]	Flags	RT	GM	Name
51	0	0	0	0	0		0.000	[illegible]	[illegible]
52	41	20	47	0	[illegible]	bb	[illegible]	[illegible]	Ethylbenzene
53	0	0	0	0	689472	M PAB	10.93	[illegible]	m/p Xylene
54	0	0	0	0	92880	M PAB	11.64	[illegible]	o Xylene
55	0	0	0	0	0		0.000	[illegible]	Styrene
56	0	0	0	0	0		0.000	[illegible]	Bromoform
57	0	0	0	0	0		0.000	[illegible]	Cumene
58	0	0	0	0	0		0.000	[illegible]	[illegible]
59	0	0	0	0	0		0.000	[illegible]	[illegible]
60	0	0	0	0	0		0.000	[illegible]	[illegible]
61	0	0	0	0	0		0.000	[illegible]	[illegible]
62	0	0	0	0	0		0.000	[illegible]	[illegible]
63	0	0	0	0	0		0.000	[illegible]	[illegible]
64	0	0	0	0	0		0.000	[illegible]	[illegible]
65	0	0	0	0	0		0.000	[illegible]	[illegible]
66	0	0	0	0	0		[illegible]	[illegible]	[illegible]
67	0	0	0	0	0		[illegible]	[illegible]	[illegible]
68	0	0	0	0	0		[illegible]	[illegible]	[illegible]
69	0	0	0	0	0		[illegible]	[illegible]	[illegible]
70	0	0	0	0	0		[illegible]	[illegible]	[illegible]
71	0	0	0	0	0		[illegible]	[illegible]	[illegible]
72	0	0	0	0	0		[illegible]	[illegible]	[illegible]
73	0	0	0	0	0		[illegible]	[illegible]	[illegible]
74	0	0	0	0	0		[illegible]	[illegible]	[illegible]
75	0	0	0	0	0		[illegible]	[illegible]	[illegible]
76	0	0	0	0	0		[illegible]	[illegible]	[illegible]
77	0	0	0	0	0		[illegible]	[illegible]	[illegible]
78	0	0	0	0	0		[illegible]	[illegible]	[illegible]
79	0	0	0	0	0		[illegible]	[illegible]	[illegible]

QUAN DB : FX275 LAB-BASE QUAN 24-Aug-98 [illegible]

No.	MAT	FOR	REV	Delta	Area	P.Flags	RT	QM	Name
1	100	64	97	1	3152208	bb	5.301	168	Pentafluorobenzene
2	100	85	96	0	3295184	bv	6.071	114	1,4-Difluorobenzene
3	97	69	86	0	2600840	bv	10.661	117	Chlorobenzene-d5
4	82	37	95	0	1528568	A	15.742	152	1,4-Dichlorobenzene-d4
5	96	55	98	0	1085120	bb	5.181	113	Dibromofluoromethane
6	100	75	91	0	4222856	bv	8.001	98	Toluene-d8
7	75	46	70	1	1667254	vv	12.671	95	4-Bromofluorobenzene
8	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	39	1,3-Butadiene
9	0	0	0	0	0		0.000	106	Vinyl bromide
10	82	66	71	3	97888	bb	3.620	73	MTBE
11	100	97	99	-1	1636880	bb	3.870	57	n-Hexane
12	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1,2-Epoxybutane
13	80	57	71	0	[illegible]	bv	5.681	[illegible]	[illegible]
14	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

PAB

PAB

PAB

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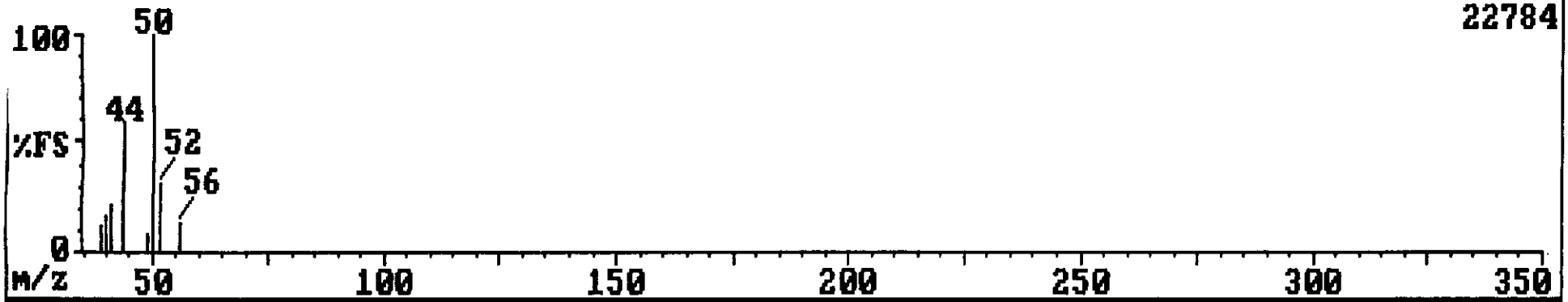
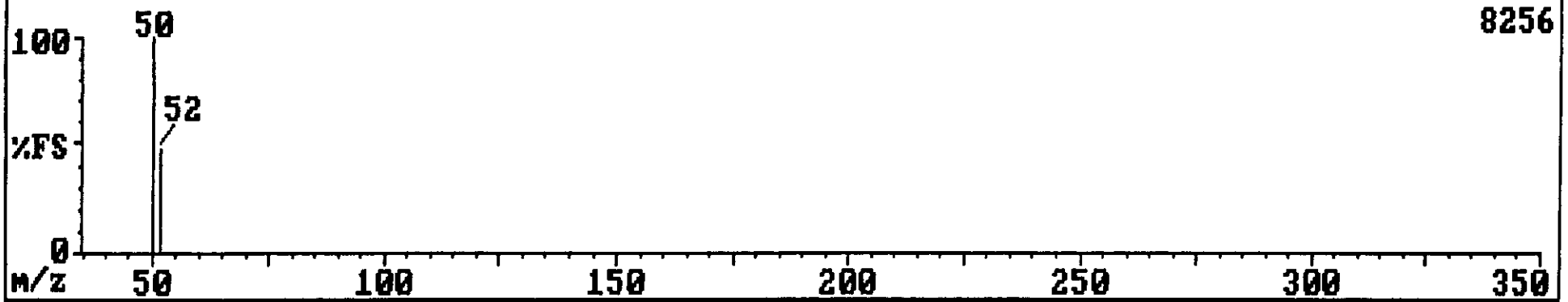
24-Aug-98 09:15 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-2-1-A,B T/TC 214-27-5A,B TLI#46323 Instrument F

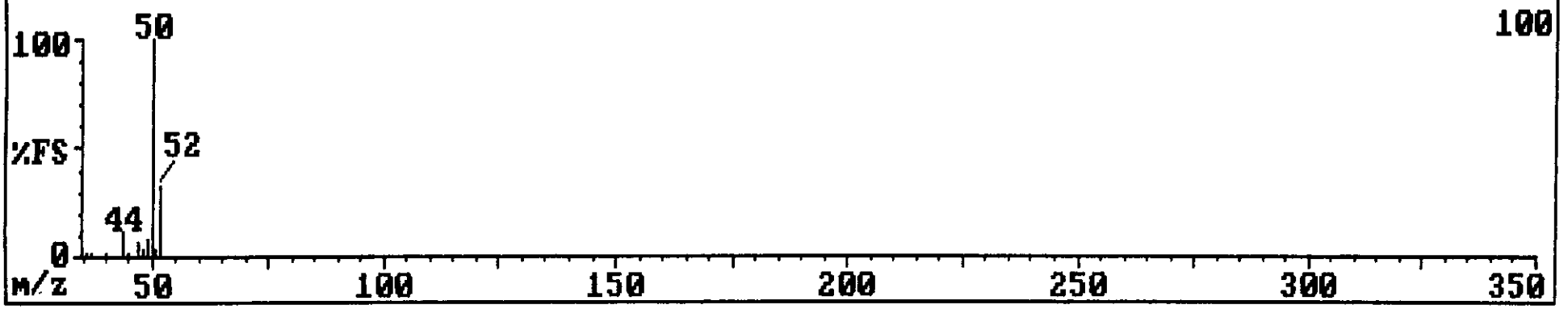
FX975 109 (1.090)



FX975' 109 (1.091) REFINE



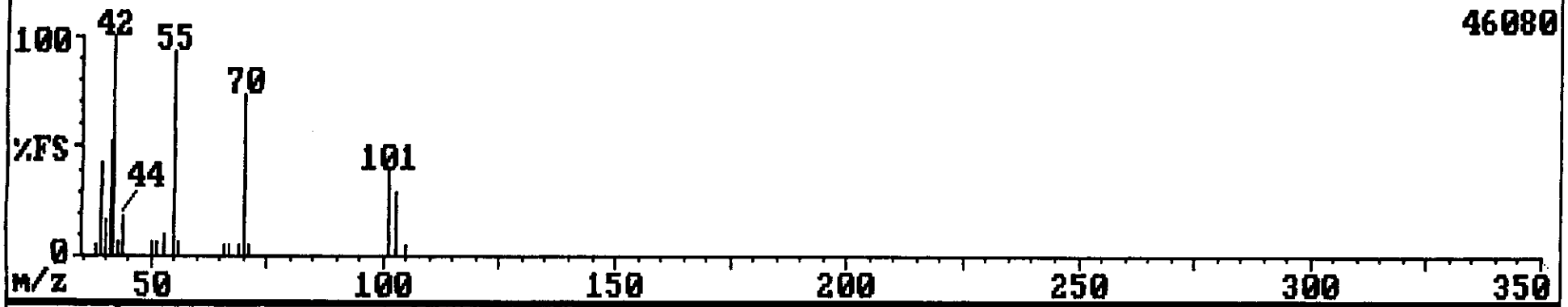
8260 9 (1.230) Chloromethane FIND



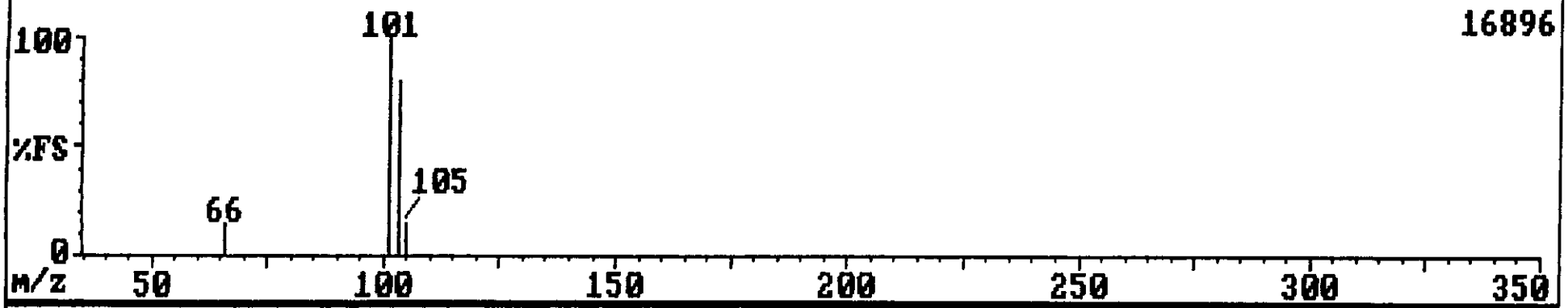
24-Aug-98 09:15 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-2-1-A,B T/TC 214-27-5A,B TLI#46323 Instrument F

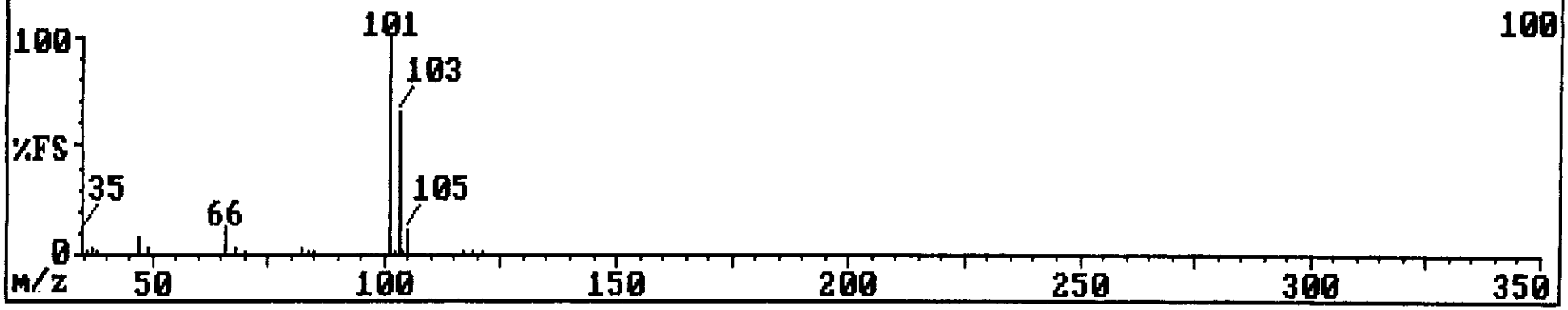
FX975 206 (2.060)



FX975'206 (2.061) REFINE



8260 13 (2.300) Trichlorofluoromethane FIND



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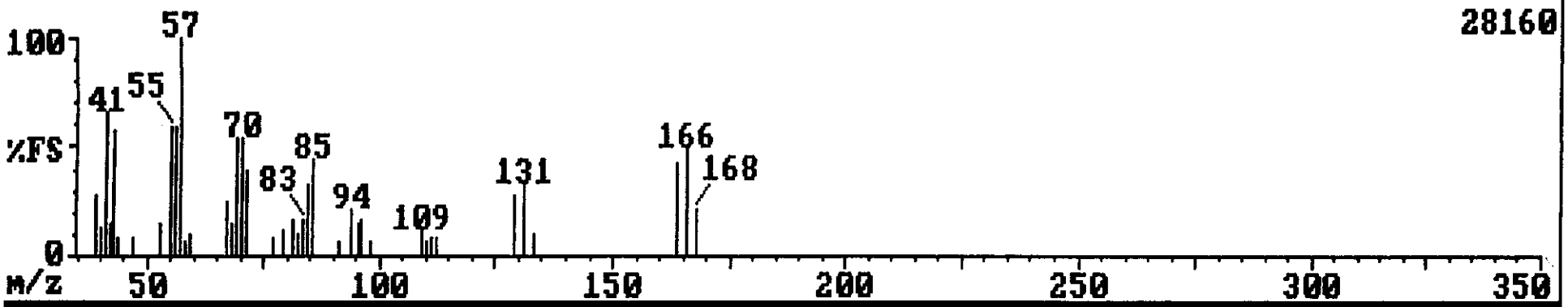
254

255

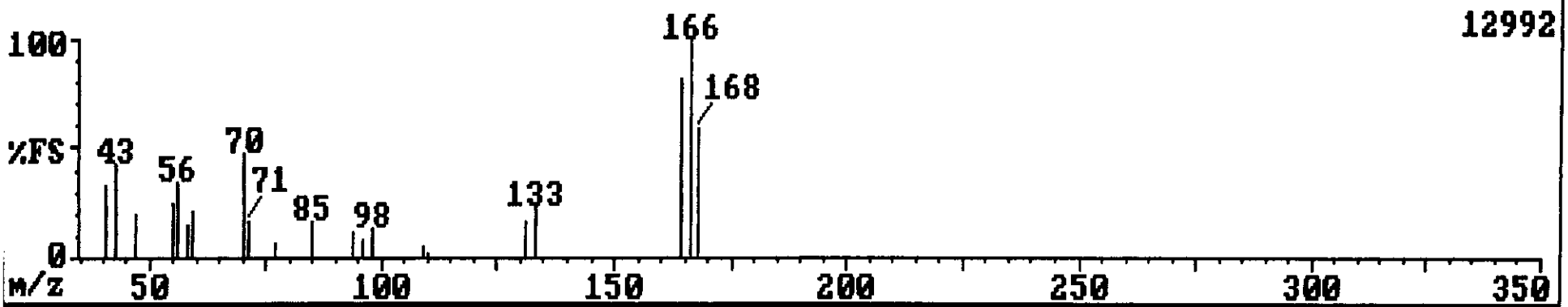
24-Aug-98 09:15 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-2-1-A,B T/TC Z14-27-5A,B TLI#46323 Instrument F

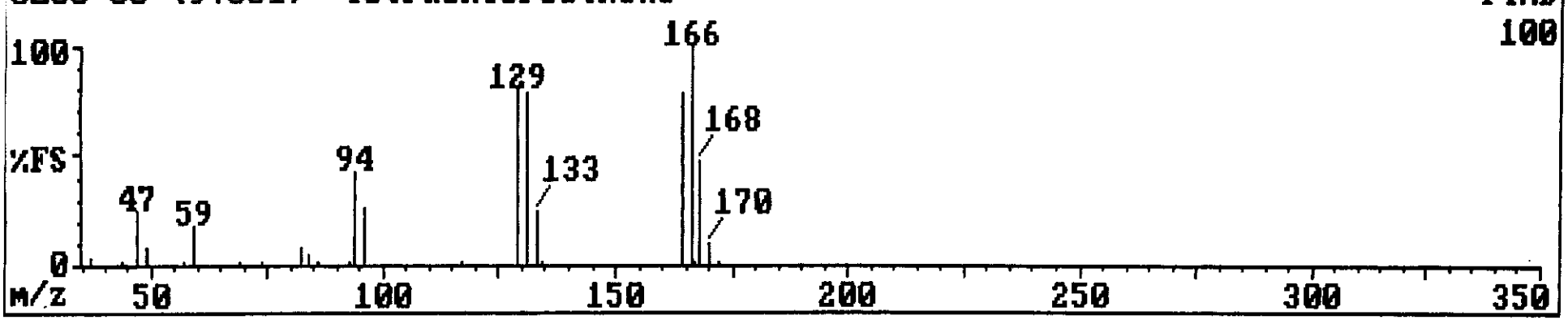
FX975 892 (8.921)



FX975 892 (8.921) REFINE



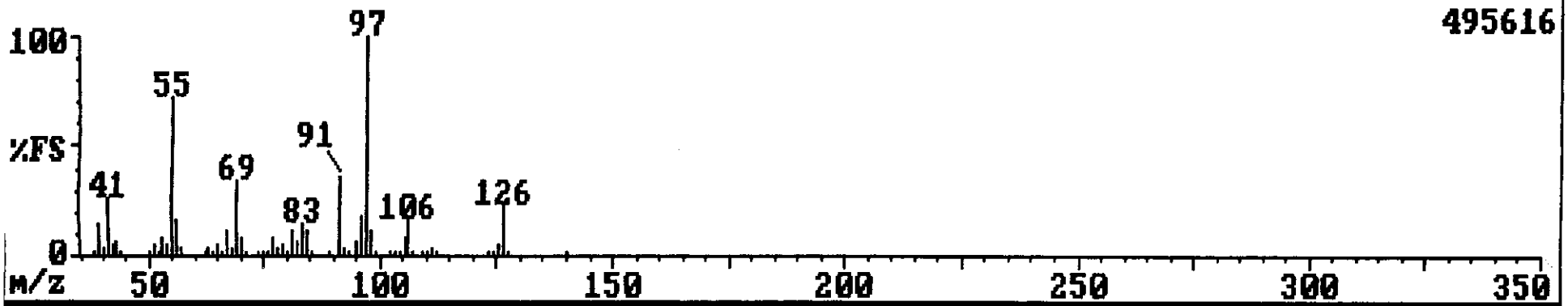
8260 35 (9.531) Tetrachloroethene FIND



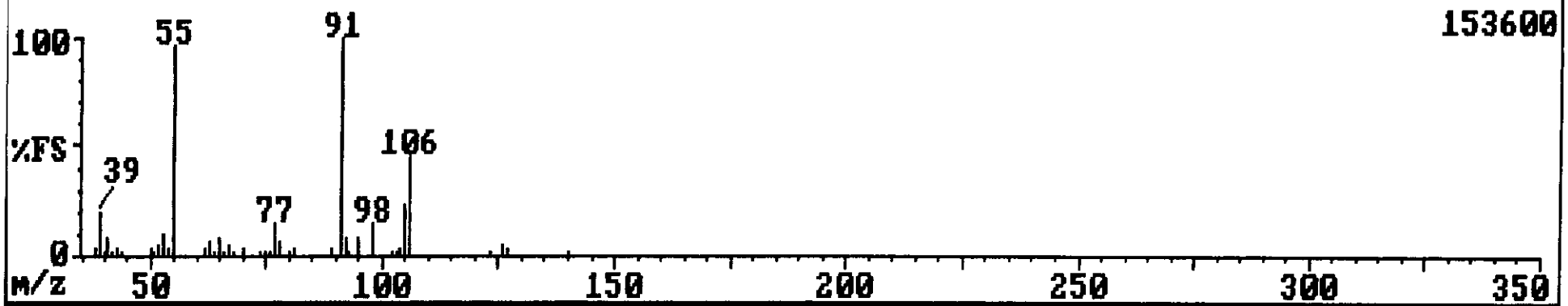
24-Aug-98 09:15 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-2-1-A,B T/TC 214-27-5A,B TLI#46323 Instrument F

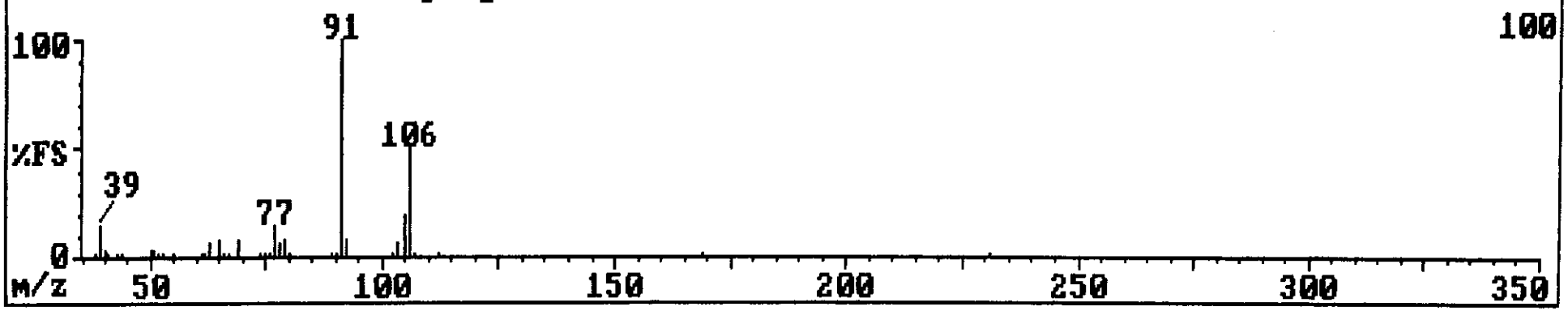
FX975 1093 (10.931)



FX975 1093 (10.931) REFINE



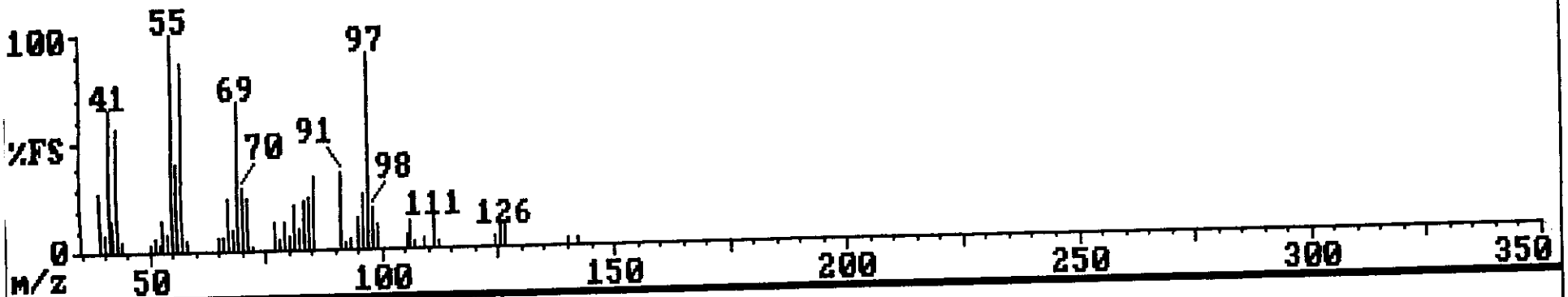
8260 42 (11.581) m-/p-Xylene FIND



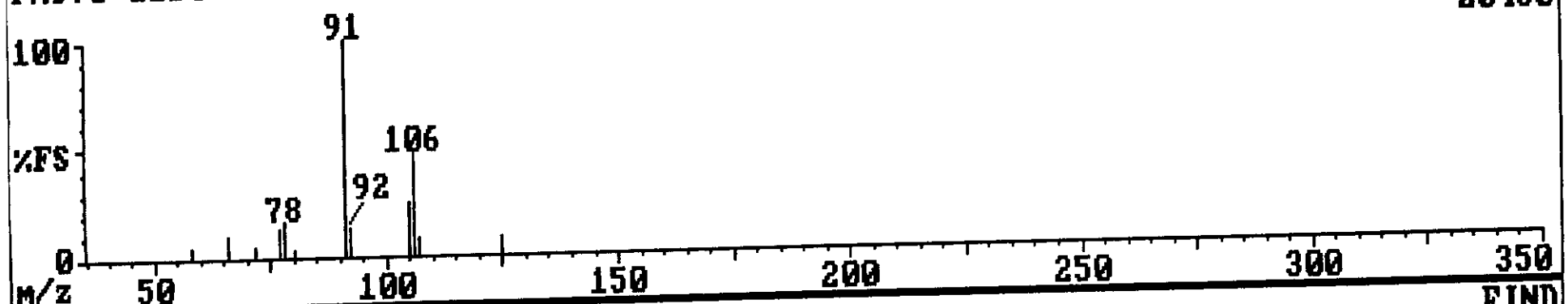
24-Aug-98 09:15 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-2-1-A,B T/TC 214-27-5A,B TLI#46323 Instrument F

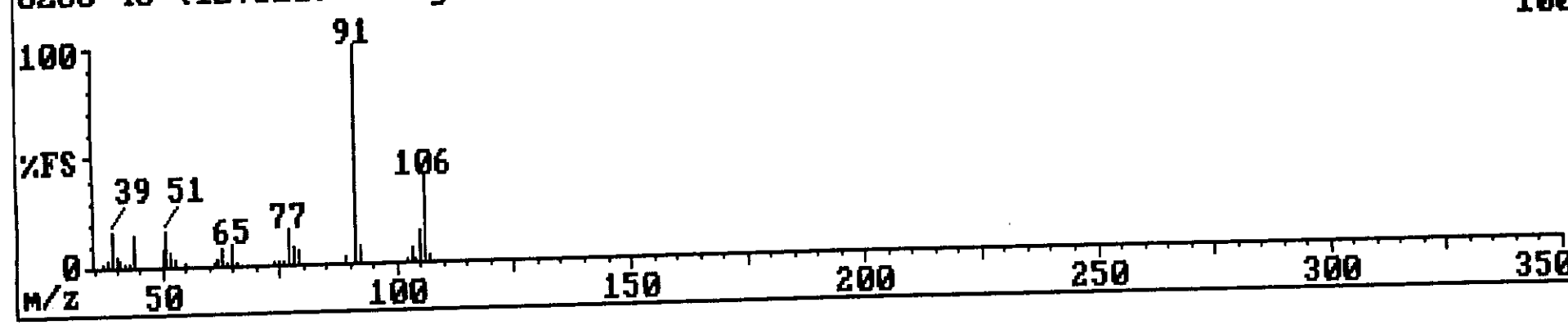
FX975 1164 (11.641) 77824



FX975 1164 (11.641) REFINE 20480



8260 43 (12.321) o-Xylene FIND 100



Pacific Environmental Services

Project Number: 46323
Sample File: FX976

Method 8260 VOST
Sample ID: T-V-2-2-A,B T/TC

Client Project: R012.001
TLI ID: 214-27-6A,B

Date Received: 07/29/98
Date Analyzed : 08/24/98

Response File: ICALF821

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Pentafluorobenzene		IS 1	5.32		
Chloromethane	0.092		1.09		0.05
Vinyl Chloride		U		0.001	0.05
Bromomethane	0.035	J	1.66		0.05
Chloroethane		U		0.001	0.05
Trichlorofluoromethane	0.011	J	2.07		0.05
1,1-Dichloroethene		U		0.001	0.05
Iodomethane		U		0.001	0.05
Carbon disulfide	0.093		2.79		0.05
Acetone	0.232		2.87		0.05
Allyl chloride		U		0.001	0.05
Methylene chloride		U		0.001	0.05
Acrylonitrile		U		0.024	0.05
trans-1,2-Dichloroethene		U		0.001	0.05
1,1-Dichloroethane		U		0.001	0.05
Vinyl acetate		U		0.002	0.05
cis-1,2-Dichloroethene		U		0.001	0.05
2-Butanone	0.312		4.74		0.05
Chloroform		U		0.001	0.05
1,1,1-Trichloroethane		U		0.001	0.05
1,4-Difluorobenzene		IS 2	6.09		
Carbon tetrachloride		U		0.001	0.05
Benzene	0.238		5.54		0.05
1,2-Dichloroethane		U		0.001	0.05
Trichloroethene		U		0.001	0.05
1,2-Dichloropropane		U		0.001	0.05

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

Triangle Laboratories, Inc.
801 Capitola Drive • Durham, North Carolina 27713
Phone: (919) 544-5729 • Fax: (919) 544-5491

Pacific Environmental Services

Project Number: 46323
Sample File: FX976

Method 8260 VOST
Sample ID: T-V-2-2-A,B T/TC

Client Project: R012.001
TLI ID: 214-27-6A,B

Date Received: 07/29/98
Date Analyzed : 08/24/98

Response File: ICALF821

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Methyl methacrylate		U		0.007	0.05
Bromodichloromethane		U		0.001	0.05
cis-1,3-Dichloropropene		U		0.001	0.05
4-Methyl-2-pentanone		U		0.005	0.05
Toluene	0.247		8.12		0.05
trans-1,3-Dichloropropene		U		0.001	0.05
1,1,2-Trichloroethane		U		0.001	0.05
Chlorobenzene-d_5		IS 3	10.39		
Tetrachloroethene	0.035	J	8.96		0.05
2-Hexanone		U		0.010	0.05
Dibromochloromethane		U		0.001	0.05
1,2-Dibromoethane		U		0.001	0.05
Chlorobenzene		U		0.001	0.05
Ethylbenzene	0.069		10.72		0.05
m-/p-Xylene	0.428		10.95		0.10
o-Xylene	0.119		11.68		0.05
Styrene	0.052		11.73		0.05
Bromoform		U		0.002	0.05
1,4-Dichlorobenzene-d_4		IS 4	15.81		
Cumene		U		0.001	0.05
1,1,2,2-Tetrachloroethane		U		0.001	0.05

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

Triangle Laboratories, Inc.
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Savar v3.7
Printed: 16:49 08/25/1998

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Pacific Environmental Services

Project Number: 46323
Sample File: FX976

Method 8260 VOST
Sample ID: T-V-2-2-A,B T/TC

Client Project: R012.001
TLI ID: 214-27-6A,B

Date Received: 07/29/98
Date Analyzed : 08/24/98

Response File: ICALF821

Surrogate Summary	Amount (ug)	RT	IS Ref	%REC
Dibromofluoromethane	0.212	5.20	1	85
Toluene-d_8	0.268	8.03	2	107
4-Bromofluorobenzene	0.316	12.70	2	126

Reviewed by Pab Date 8/25/98

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

Triangle Laboratories, Inc.
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Phone: (919) 544-5729 • Fax: (919) 544-5491

Savar v3.7
Printed: 16:49 08/25/1998

Pacific Environmental Services

Project Number: 46323
Sample File: FX976

Method 8260 VOST
Sample ID: T-V-2-2-A,B T/TC

Client Project: R012.001
TLI ID: 214-27-6A,B

Date Received: 07/29/98

Date Analyzed : 08/24/98

Response File: ICALF824

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Pentafluorobenzene		IS 1	5.32		
1,3-Butadiene		U		0.001	0.25
Vinyl bromide		U		0.001	0.25
MTBE	0.022	J	3.63		0.25
n-Hexane	0.176	J	3.90		0.25
1,2-Epoxybutane		U		0.029	0.25
Iso-Octane	0.016	J	5.70		0.25
1,4-Difluorobenzene		IS 2	6.09		
Ethyl acrylate		U		0.008	0.25

Reviewed by PaB Date 8/25/98

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

Triangle Laboratories, Inc.
801 Capitola Drive • Durham, North Carolina 27713
Phone: (919) 544-5729 • Fax: (919) 544-5491

Savar v3.7
Printed: 17:21 08/25/1998

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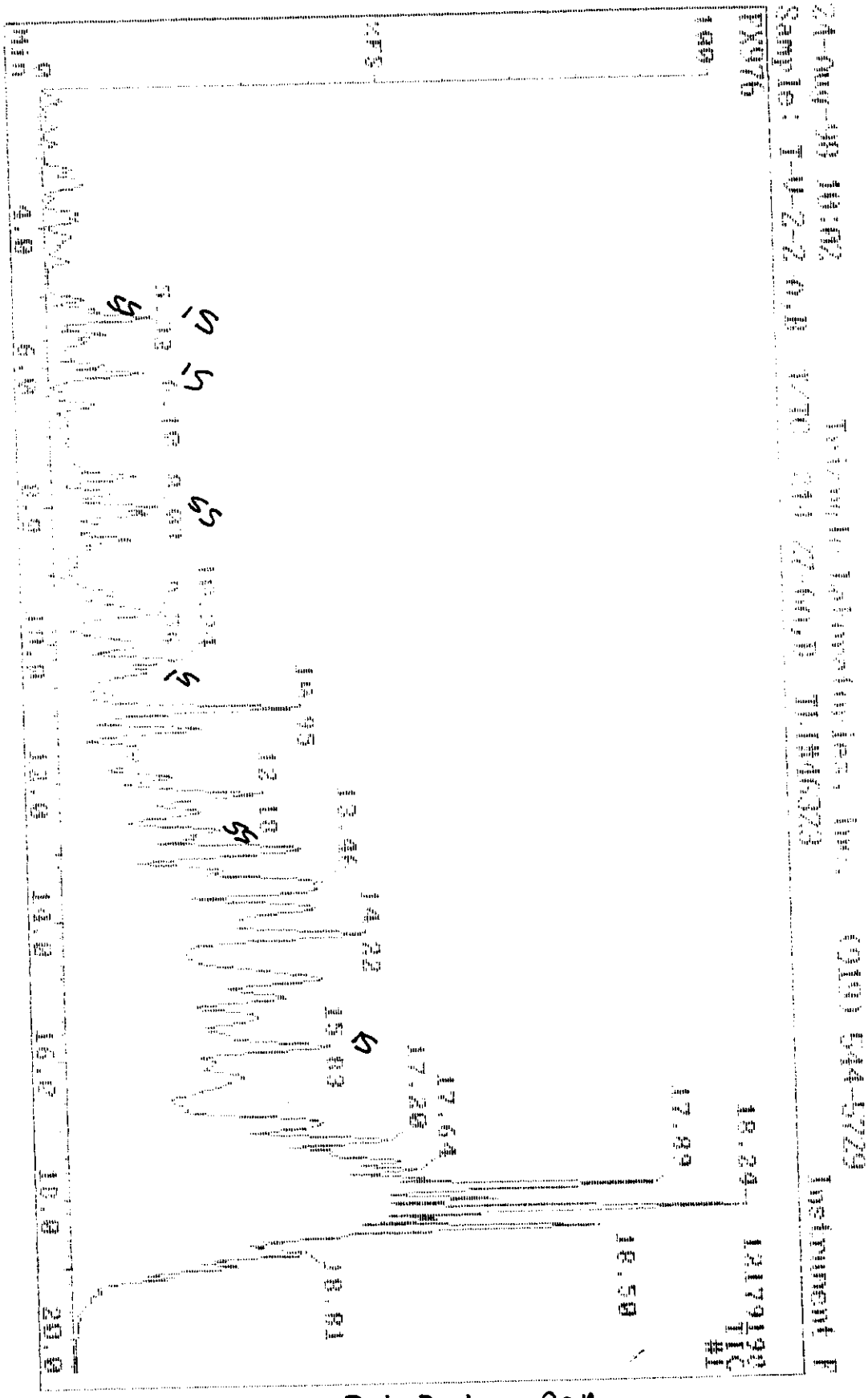

Data Review: PAB
Date: 8/24/98

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QUAN DB : FX01 [illegible] QUAN [illegible]

No	MAT	FOR	RSV	Delta	[illegible]	Flags	RT	QN	Name
1	100	85	96	0	[illegible]	BB	5.[illegible]	108	[illegible]
2	100	87	94	0	[illegible]	BB	6.[illegible]	114	1,4-Dichlorobenzene
3	93	77	87	0	[illegible]	BB	10.[illegible]	112	[illegible]
4	97	86	96	0	[illegible]	BV	15.[illegible]	153	1,4-Dichlorobenzene-d4
5	98	67	92	0	[illegible]	BB	5.[illegible]	114	[illegible]
6	100	78	95		[illegible]	BV	8.[illegible]	98	[illegible]
7	[illegible]	[illegible]	[illegible]	0	[illegible]	BV	13.[illegible]	95	[illegible]
8	0	0	0	0	0		0.000	85	[illegible]
9	0	0	0	0	196794 — (M) PAB		[illegible] 1.09	51	Chloromethane
10	0	0	0	0	0		0.000	62	Vinyl Chloride
11	92	78	85	0	[illegible]	B	[illegible]	94	[illegible]
12	0	0	0	0	0		0.000	84	Chloroethane
13	0	0	0	0	117504 — (M) PAB		2.07	85	[illegible]
14	0	0	0	0	0		0.000	96	[illegible]
15	0	0	0	0	0		0.000	107	[illegible]
16	87	65	[illegible]	0	[illegible]	BB	[illegible]	[illegible]	[illegible]
17	90	64	[illegible]	0	[illegible]	B	[illegible]	61	[illegible]
18	0	0	0	0	0		0.000	61	[illegible]
19	0	0	0	0	0	(P) PAB	[illegible]	[illegible]	[illegible]
20	0	0	0	0	0		0.000	5	[illegible]
21	0	0	0	0	0		0.000	[illegible]	[illegible]
22	0	0	0	0	0		0.000	67	[illegible]
23	0	0	0	0	0		0.000	77	[illegible]
24	0	0	0	0	0		0.000	85	[illegible]
25	0	0	0	0	0		0.000	10	[illegible]
26	96	[illegible]	72	0	[illegible]	B	4.[illegible]	10	[illegible]
27	0	0	0	0	0		0.000	97	[illegible]
28	0	0	0	0	0		0.000	131	[illegible]
29	0	0	0	0	0		0.000	97	[illegible]
30	0	0	0	0	0		0.000	117	[illegible]
31	0	0	0		0		0.000	7	[illegible]
32	100	98	99	0	[illegible]	BV	3.[illegible]	78	[illegible]
33	0	0	0	0	0		0.000	62	1,2-Dichloroethane
34	0	0	0	0	0		0.000	130	[illegible]
35	0	0	0	0	0		0.000	63	1,2-Dibromoethane
36	0	0	0	0	0		0.000	93	[illegible]
37	0	0	0	0	0		0.000	81	[illegible]
38	0	0	0	0	0		0.000	83	Bromochloromethane
39	0	0	0	0	0	(P) PAB	0.000	75	[illegible]
40	0	0	0	0	0		0.000	43	[illegible]
41	100	77	93	0	[illegible]	BV	8.[illegible]	92	Toluene
42	0	0	0	0	0		0.000	75	[illegible]
43	0	0	0	0	0		0.000	97	[illegible]
44	0	0	0	0	0		0.000	69	[illegible]
45	91	47	83	0	[illegible]	BB	8.[illegible]	164	[illegible]
46	0	0	0	0	0		0.000	76	[illegible]
47	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	(P) PAB	[illegible]	43	2-Hexanone
48	0	0	0	0	0		0.000	127	[illegible]
49	0	0	0	0	0		0.000	107	1,2-Dibromoethane
50	0	0	0	0	0		0.000	112	Chlorobenzene

Data Review: PAB
Date: 8/24/98

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No.	MAT	FOR	REV	Delta	Area	Flags	RT	QA	Name
51	0	0	0	0	0		0.000	151	1,1,1,2-Tetrachloroethane
52	[illegible]	[illegible]	[illegible]	0	[illegible]	bv	10.[illegible]	106	Ethylbenzene
53	100	[illegible]	[illegible]	-1	[illegible]	vv	10.[illegible]	106	m/p-Xylene
54	[illegible]	[illegible]	[illegible]	1	[illegible]	bb	11.[illegible]	106	o-Xylene
55	0	0	0	0	560928	M PAB	~~[illegible]~~ 11.73	[illegible]	Styrene
56	0	0	0	0	0		0.000	173	Bromoform
57	0	0	0	0	0		0.000	105	Cumene
58	0	0	0	0	0		0.000	83	1,1,2,2-Tetrachloroethane
59	0	0	0	0	0		0.000	156	Bromobenzene
60	0	0	0	0	0		0.000	75	1,2,3-Trichloropropane
61	0	0	0	0	0		0.000	120	n-Propylbenzene
62	[illegible]	10	[illegible]	-22	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
63	0	[illegible]	0	0	0		0.000	[illegible]	[illegible]
64	0	[illegible]	0	0	[illegible]		0.000	[illegible]	[illegible]
[illegible]	40	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	0	0	[illegible]	[illegible]	[illegible]		0.000	[illegible]	[illegible]
67	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
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[illegible]	0	0	0	0	[illegible]		0.000	[illegible]	[illegible]
[illegible]	0	[illegible]	0	0	[illegible]		0.000	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]
[illegible]	0	[illegible]	0	0	[illegible]		0.000	[illegible]	[illegible]
[illegible]	0	0	0	0	[illegible]		0.000	180	1,2,3-Trichlorobenzene

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1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	100	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
5	100	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
6	100	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
7	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
8	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
9	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
10	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
11	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
12	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
13	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
14	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

PAB

PAB

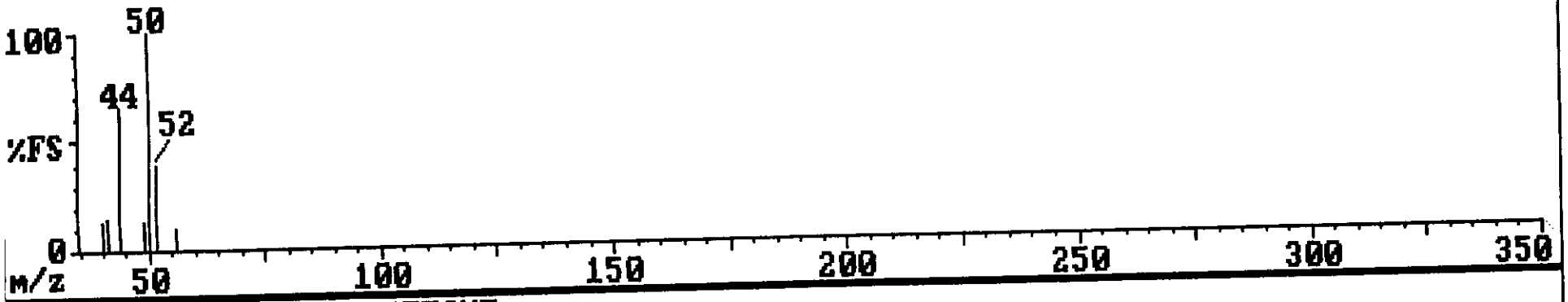
PAB

270

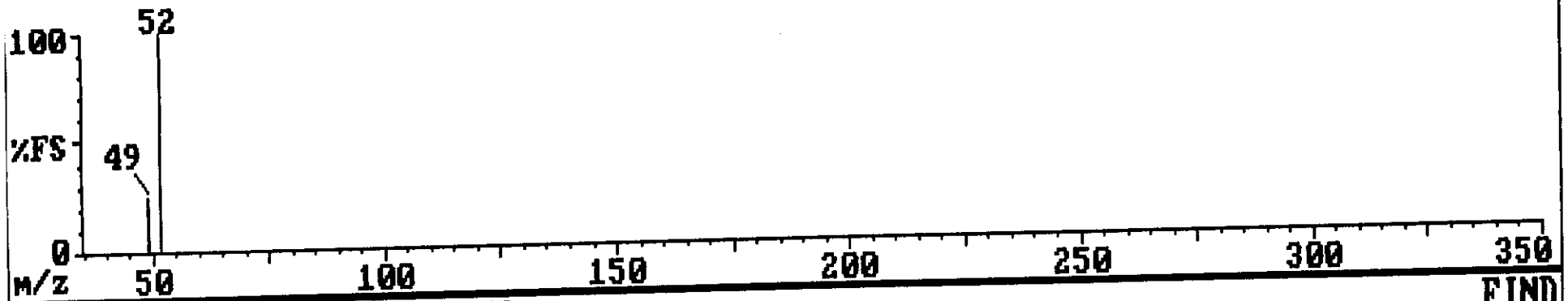
24-Aug-98 10:02 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-2-2-A,B T/TC 214-27-6A,B TLI#46323 Instrument F

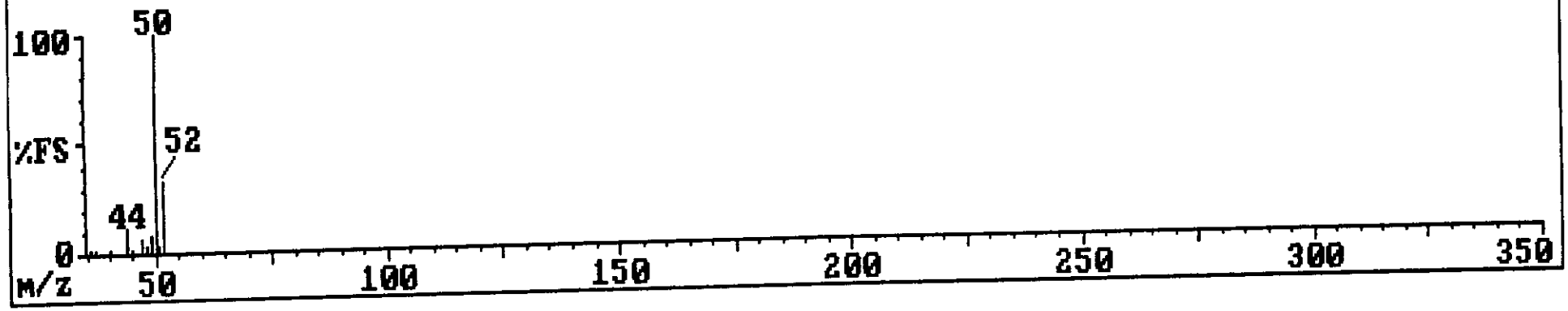
FX976 109 (1.090) 27136



FX976 109 (1.091) REFINE 7616



8260 9 (1.230) Chloromethane FIND 100



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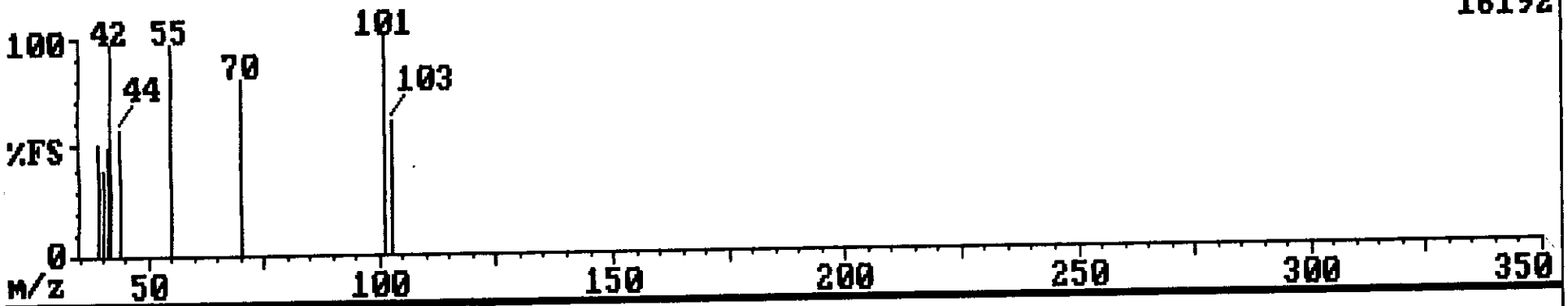
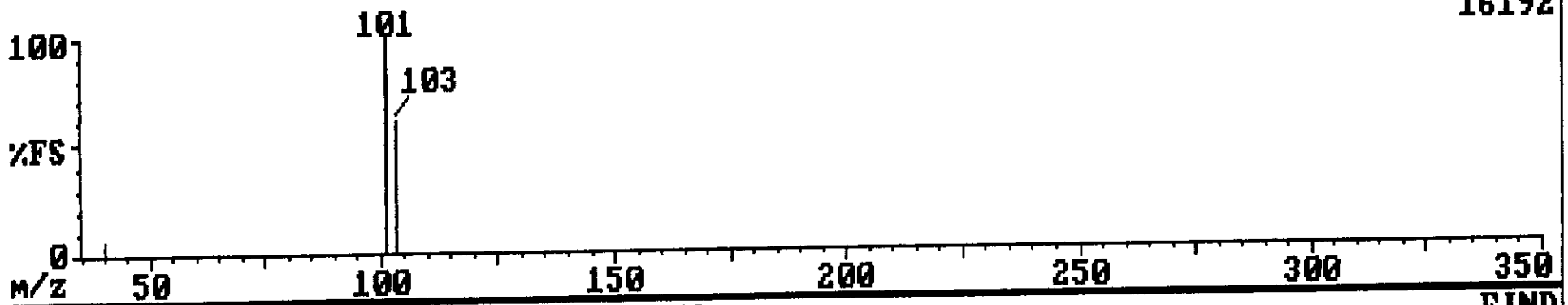
24-Aug-98 10:02 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-2-2-A,B T/TC 214-27-6A,B TLI#46323 Instrument F

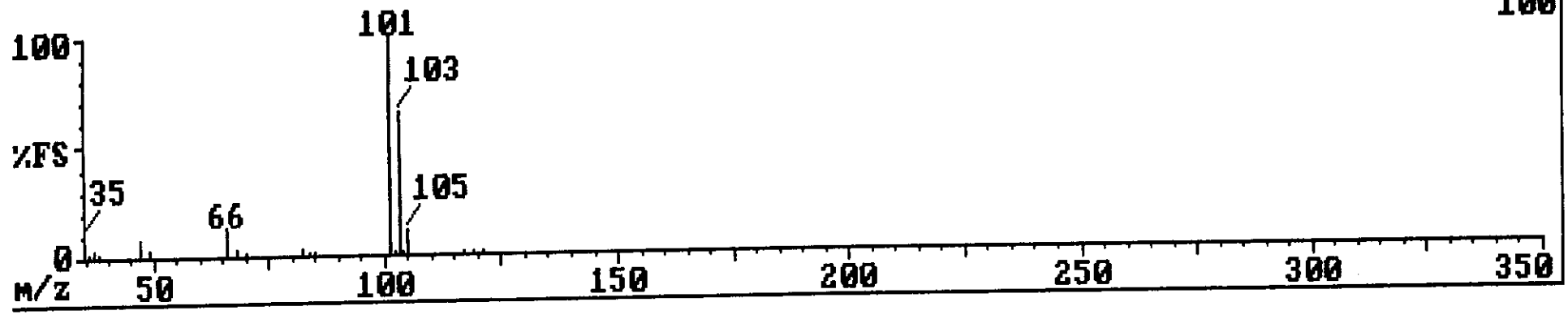
FX976 207 (2.070) 16192



FX976'207 (2.071) REFINE 16192



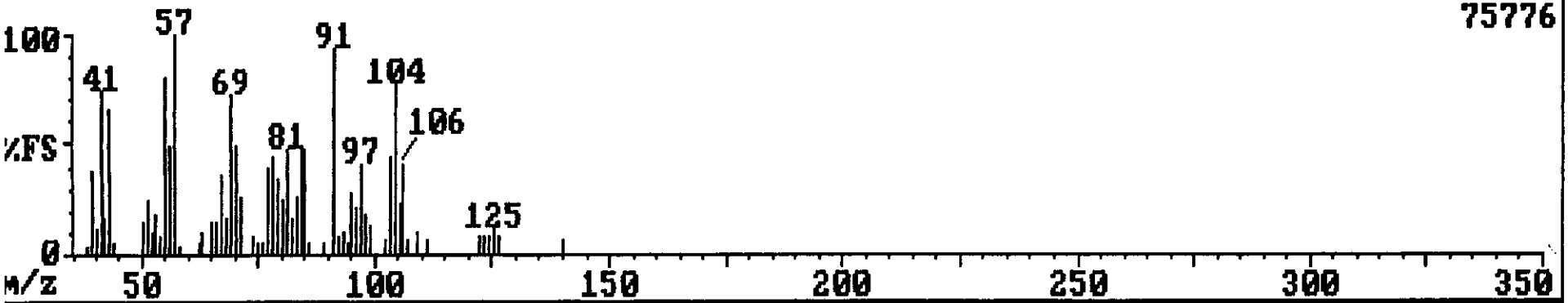
8260 13 (2.300) Trichlorofluoromethane FIND 100



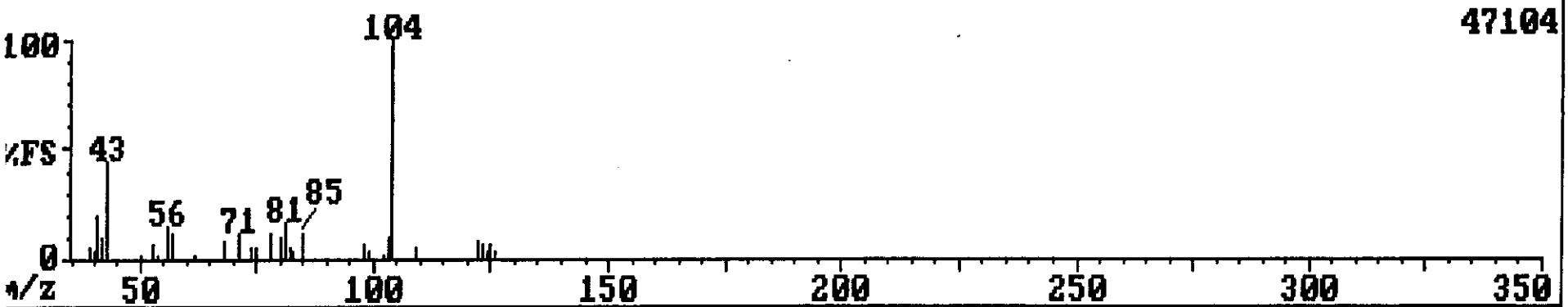
24-Aug-98 10:02 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-2-2-A,B T/TC 214-27-6A,B TLI#46323 Instrument F

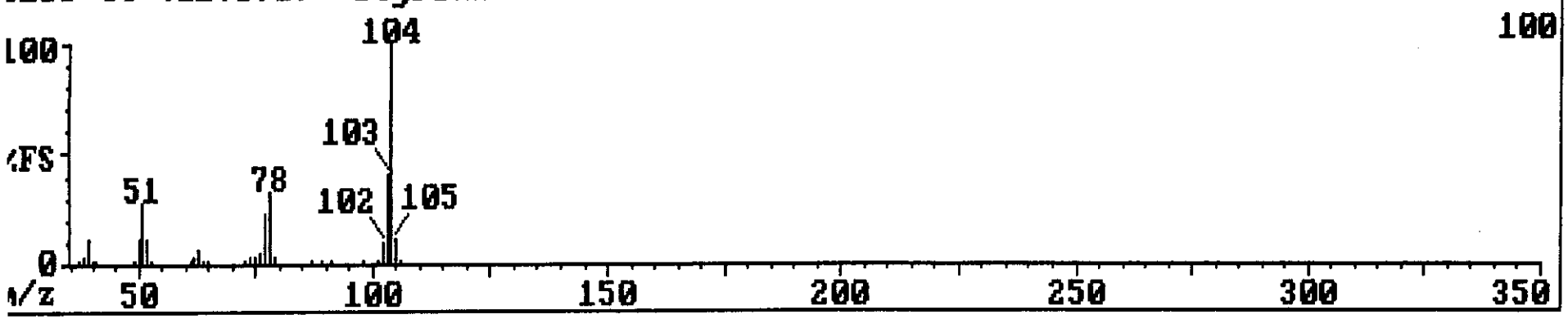
FX976 1173 (11.731)



FX976 1173 (11.731) REFINE



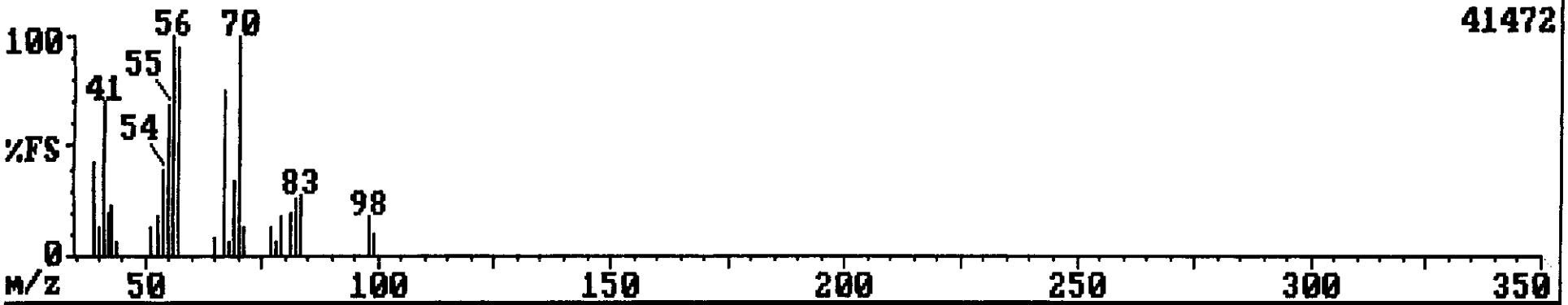
3260 44 (12.371) Styrene FIND



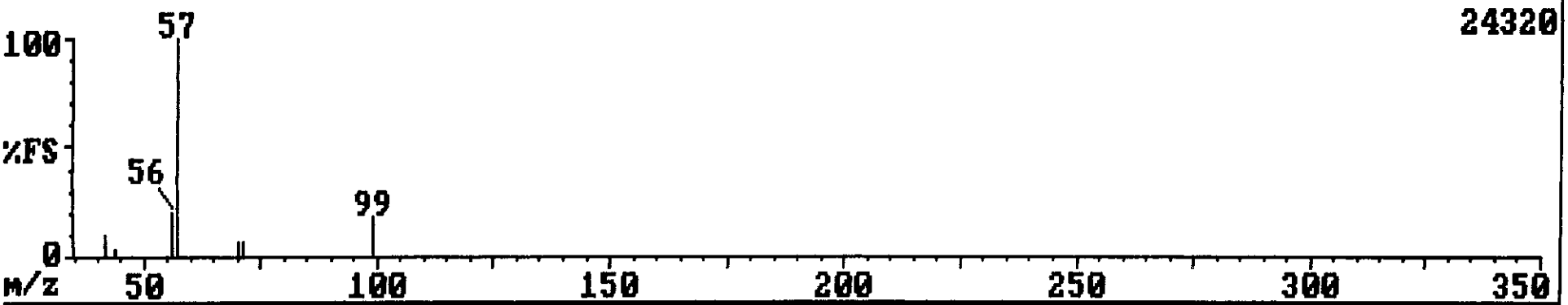
24-Aug-98 10:02 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-2-2-A,B T/TC 214-27-6A,B TLI#46323 Instrument F

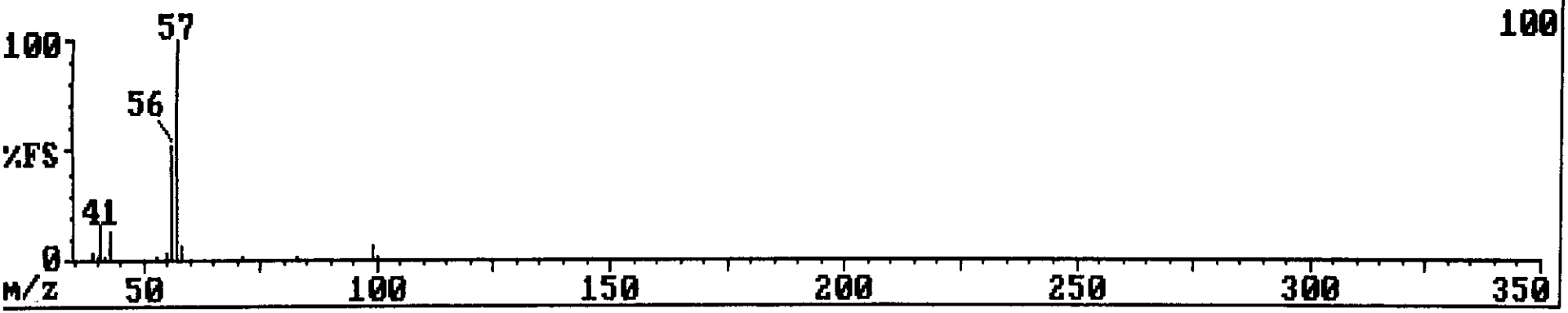
FX976 570 (5.701)



FX976 570 (5.701) REFINE



MASTER 32 (6.110) Isooctane FIND



Pacific Environmental Services

Project Number: 46323
Sample File: FX977

Method 8260 VOST
Sample ID: T-V-2-3-A,B T/TC

Client Project: R012.001
TLI ID: 214-27-7A,B

Date Received: 07/29/98
Date Analyzed : 08/24/98

Response File: ICALF821

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Pentafluorobenzene		IS 1	5.30		
Chloromethane	0.042	J	1.08		0.05
Vinyl Chloride		U		0.001	0.05
Bromomethane	0.035	J	2.05		0.05
Chloroethane		U		0.001	0.05
Trichlorofluoromethane		U		0.001	0.05
1,1-Dichloroethene		U		0.001	0.05
Iodomethane		U		0.001	0.05
Carbon disulfide	0.026	J	2.77		0.05
Acetone	0.137		2.87		0.05
Allyl chloride		U		0.001	0.05
Methylene chloride	0.081		3.26		0.05
Acrylonitrile		U		0.021	0.05
trans-1,2-Dichloroethene		U		0.001	0.05
1,1-Dichloroethane		U		0.001	0.05
Vinyl acetate		U		0.001	0.05
cis-1,2-Dichloroethene		U		0.001	0.05
2-Butanone	0.161		4.73		0.05
Chloroform		U		0.001	0.05
1,1,1-Trichloroethane		U		0.001	0.05
1,4-Difluorobenzene		IS 2	6.06		
Carbon tetrachloride		U		0.001	0.05
Benzene	0.156		5.51		0.05
1,2-Dichloroethane		U		0.001	0.05
Trichloroethene		U		0.001	0.05
1,2-Dichloropropane		U		0.001	0.05

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

Triangle Laboratories, Inc.
801 Capitola Drive • Durham, North Carolina 27713
Phone: (919) 544-5729 • Fax: (919) 544-5491

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Printed: 16:49 08/25/1998

Pacific Environmental Services

Project Number: 46323 | **Method 8260 VOST**
Sample File: FX977 | **Sample ID: T-V-2-3-A,B T/TC**

Client Project: R012.001 | **Date Received: 07/29/98** | **Response File: ICALF821**
TLI ID: 214-27-7A,B
Date Analyzed : 08/24/98

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Methyl methacrylate		U		0.006	0.05
Bromodichloromethane		U		0.001	0.05
cis-1,3-Dichloropropene		U		0.001	0.05
4-Methyl-2-pentanone		U		0.005	0.05
Toluene	0.218		8.08		0.05
trans-1,3-Dichloropropene		U		0.001	0.05
1,1,2-Trichloroethane		U		0.001	0.05
Chlorobenzene-d_5		IS 3	10.33		
Tetrachloroethene	0.035	J	8.92		0.05
2-Hexanone		U		0.008	0.05
Dibromochloromethane		U		0.001	0.05
1,2-Dibromoethane		U		0.001	0.05
Chlorobenzene		U		0.001	0.05
Ethylbenzene	0.050		10.66		0.05
m-/p-Xylene	0.255		10.89		0.10
o-Xylene	0.088		11.62		0.05
Styrene	0.038	J	11.68		0.05
Bromoform		U		0.002	0.05
1,4-Dichlorobenzene-d_4		IS 4	15.70		
Cumene		U		0.001	0.05
1,1,2,2-Tetrachloroethane		U		0.001	0.05

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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Printed: 16:49 08/25/1998

Pacific Environmental Services

Project Number: 46323
Sample File: FX977

Method 8260 VOST
Sample ID: T-V-2-3-A,B T/TC

Client Project: R012.001
TLI ID: 214-27-7A,B

Date Received: 07/29/98
Date Analyzed : 08/24/98

Response File: ICALF821

Surrogate Summary	Amount (ug)	RT	IS Ref	%REC
Dibromofluoromethane	0.208	5.17	1	83
Toluene-d_8	0.261	7.99	2	104
4-Bromofluorobenzene	0.297	12.64	2	119

Reviewed by PAB Date 8/25/98

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit

IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

Pacific Environmental Services

Project Number: 46323
Sample File: FX977

Method 8260 VOST
Sample ID: T-V-2-3-A,B T/TC

Client Project: R012.001
TLI ID: 214-27-7A,B

Date Received: 07/29/98
Date Analyzed : 08/24/98

Response File: ICALF824

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Pentafluorobenzene		IS 1	5.30		
1,3-Butadiene		U		0.001	0.25
Vinyl bromide		U		0.001	0.25
MTBE	0.039	J	3.60		0.25
n-Hexane	0.145	J	3.88		0.25
1,2-Epoxybutane		U		0.025	0.25
Iso-Octane	0.019	J	5.66		0.25
1,4-Difluorobenzene		IS 2	6.06		
Ethyl acrylate		U		0.007	0.25

Reviewed by PAB Date 8/25/98

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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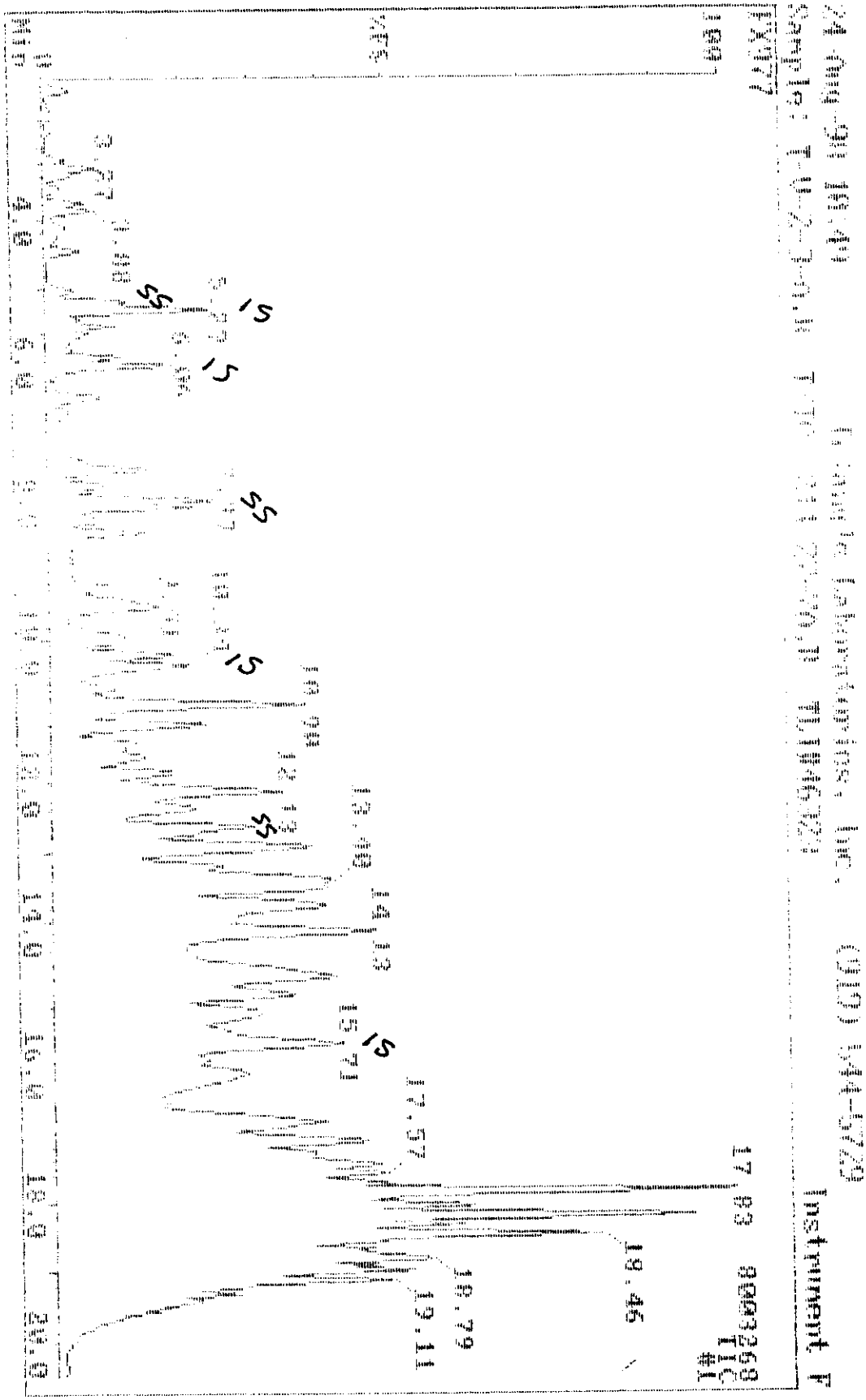
Printed: 17:21 08/25/1998



Data Review: PAB
Date: 8/24/98

GUAM 08 - FX377 LAB-[illegible] GUAM [illegible]

No	MAT	FOR	REV	DELTA	[illegible]	Flags	RF	CAS	Name
1	100	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	100	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	100	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
5	100	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
6	100	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
7	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
8	0	0	0	0			0.000	[illegible]	[illegible]
9	0	0	0	0	102440 — (M) PAB		→ 1.08	[illegible]	[illegible]
10	0	0	0	0	0		0.000	[illegible]	[illegible]
11	0	0	0	0	0		0.000	[illegible]	[illegible]
12	0	0	0	0	0		0.000	[illegible]	[illegible]
13	0	0	0	0	128512 — (M) PAB		→ 2.05	[illegible]	[illegible]
14	0	0	0	0	0		0.000	[illegible]	[illegible]
15	0	0	0	0	0		0.000	[illegible]	[illegible]
16	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
17	0	0	0	0	0	Keep PAB	0.000	[illegible]	[illegible]
18	0	0	0	0	336352 — (M) PAB		→ 326	[illegible]	[illegible]
19						(M) PAB			
20	0	0	0	0	0		0.000	[illegible]	[illegible]
21	0	0	0	0	0		0.000	[illegible]	[illegible]
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27	0	0	0	0	0		0.000	[illegible]	[illegible]
28	0	0	0	0	0		0.000	[illegible]	[illegible]
29	0	0	0	0	0		0.000	[illegible]	[illegible]
30	0	0	0	0	0		0.000	[illegible]	[illegible]
31	100	[illegible]	[illegible]	0	[illegible]	Mb	[illegible]	[illegible]	[illegible]
32	0	0	0	0	0		0.000	[illegible]	[illegible]
33	0	0	0	0	0		0.000	[illegible]	[illegible]
34	0	0	0	0	0		0.000	[illegible]	[illegible]
35	0	0	0	0	0		0.000	[illegible]	[illegible]
36	0	0	0	0	0		0.000	[illegible]	[illegible]
37	0	0	0	0	0		0.000	[illegible]	[illegible]
38	0	0	0	0	0		0.000	[illegible]	[illegible]
39	0	0	0	0	0		0.000	[illegible]	[illegible]
40						(M) PAB			
41	100	[illegible]	[illegible]	0	[illegible]	Bw	[illegible]	[illegible]	[illegible]
42	0	0	0	0	0		0.000	[illegible]	[illegible]
43	0	0	0	0	0		0.000	[illegible]	[illegible]
44	0	0	0	0	0		0.000	[illegible]	[illegible]
45	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	Mb	[illegible]	[illegible]	[illegible]
46	0	0	0	0	0		0.000	[illegible]	[illegible]
47						(M) PAB			
48	0	0	0	0	0		0.000	179	Dibromochloromethane
49	0	0	0	0	0		0.000	107	1,2-Dibromoethane
50	0	0	0	0	0		0.000	112	Chlorobenzene

Data Review: PAB
Date: 8/24/98

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No.	Mat	FOR	REV	Delta	Height Flags	RT	QM Name
51	0	0	0	0	0	0.000	131 1,1,1,2-Tetrachloroethane
52	90	65	90	0	4710904 bv	10.[illegible]	106 Ethylbenzene
53	90	74	83	-1	2914917 vv	10.[illegible]	106 m+p-Xylene
54	92	64	90	2	3420984 bb	11.[illegible]	106 o-Xylene
55	0	0	0	0	474544 — ⓜ PAB	~~[illegible]~~ 11.68	104 Styrene
56	0	0	0	0	0	0.000	173 Bromoform
57	0	0	0	0	0	0.000	105 Cumene
58	0	0	0	0		0.000	83 1,1,2,2-Tetrachloroethane
59	0	0	0	0	0	0.000	156 Bromobenzene
60	0	0	0	0	0	0.000	75 1,2,3-Trichloropropane
61	0	0	0	0	0	0.000	120 n-Propylbenzene
62	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
63	0	[illegible]	[illegible]	0	0	0.000	[illegible]
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[illegible]	0	[illegible]	0	0	[illegible]	0.000	[illegible]
[illegible]	0	[illegible]	0	0	[illegible]	0.000	180 1,2,3-Trichlorobenzene

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[illegible]	MAT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	QM Name
1	100	[illegible]	[illegible]	1	[illegible]	[illegible]	[illegible]	[illegible]
2	100	[illegible]	[illegible]	-1	[illegible]	[illegible]	[illegible]	[illegible]
3	100	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	[illegible]	[illegible]	[illegible]	0	[illegible]	[illegible]	[illegible]	[illegible]
5	100	[illegible]	[illegible]	1	[illegible]	[illegible]	[illegible]	[illegible]
6	100	[illegible]	[illegible]	0	[illegible]	[illegible]	[illegible]	[illegible]
7	[illegible]	[illegible]	[illegible]	0	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	0	0	0	0	[illegible]	[illegible]
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(70) PAB

(70) PAB

(70) PAB

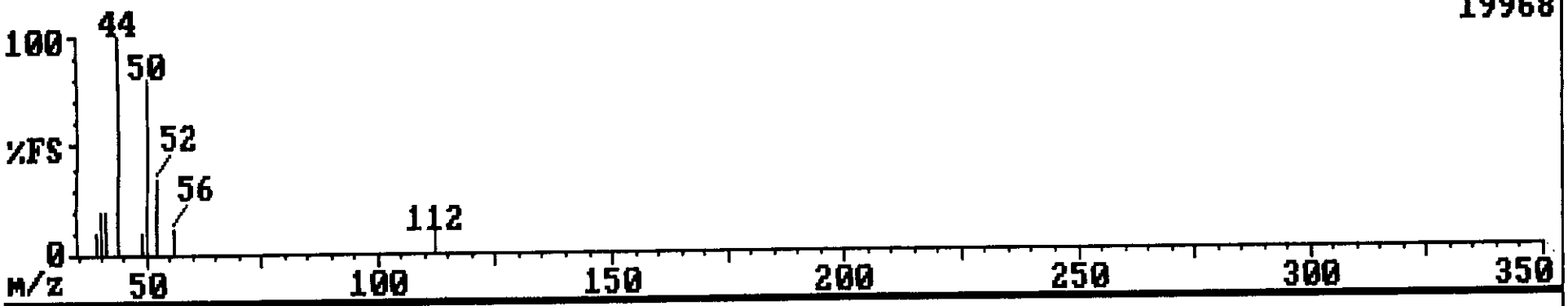
294

0.. 91

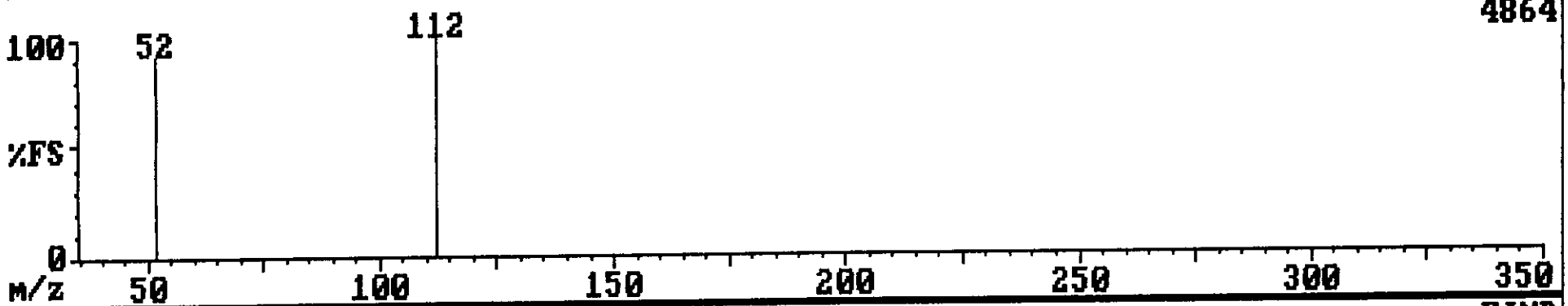
24-Aug-98 10:49 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-2-3-A,B T/TC 214-27-7A,B TLI#46323 Instrument F

FX977 108 (1.080)



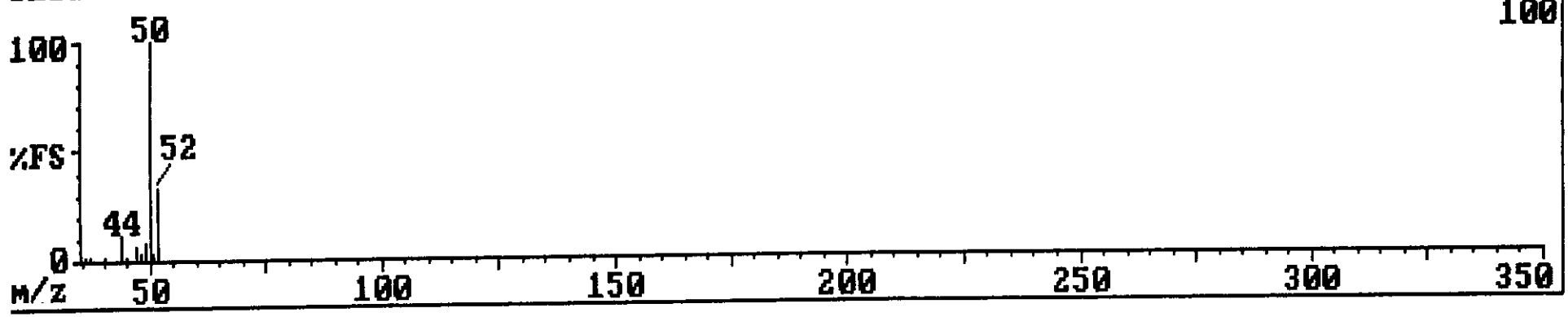
FX977' 108 (1.081) REFINE



8260 9 (1.230) Chloromethane

FIND

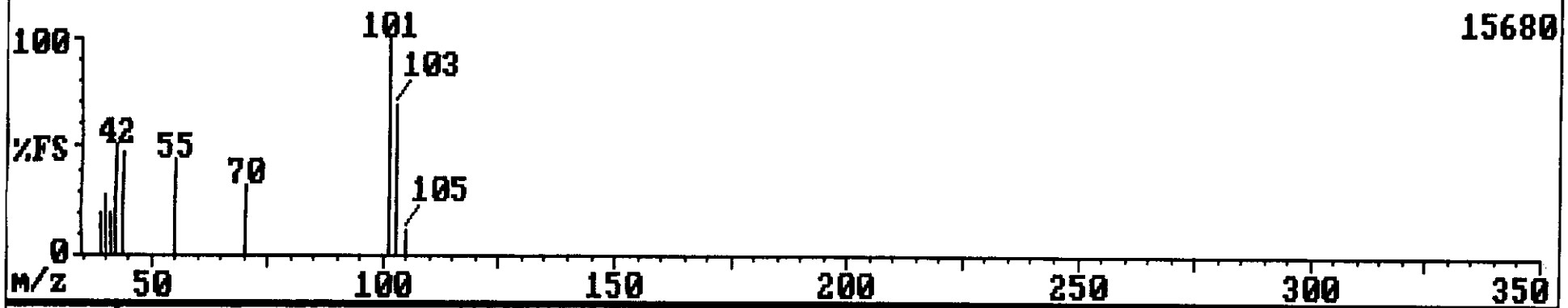
100



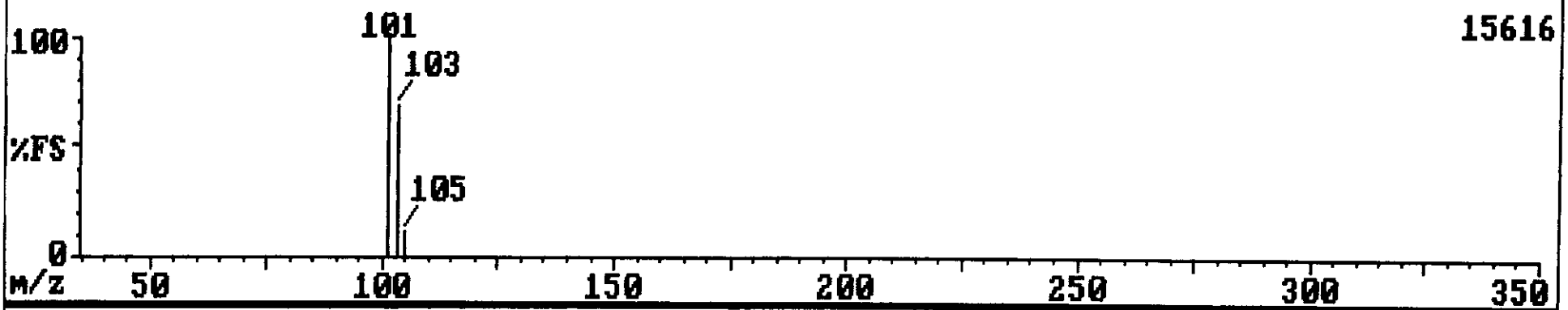
24-Aug-98 10:49 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-2-3-A,B T/TC 214-27-7A,B TLI#46323 Instrument F

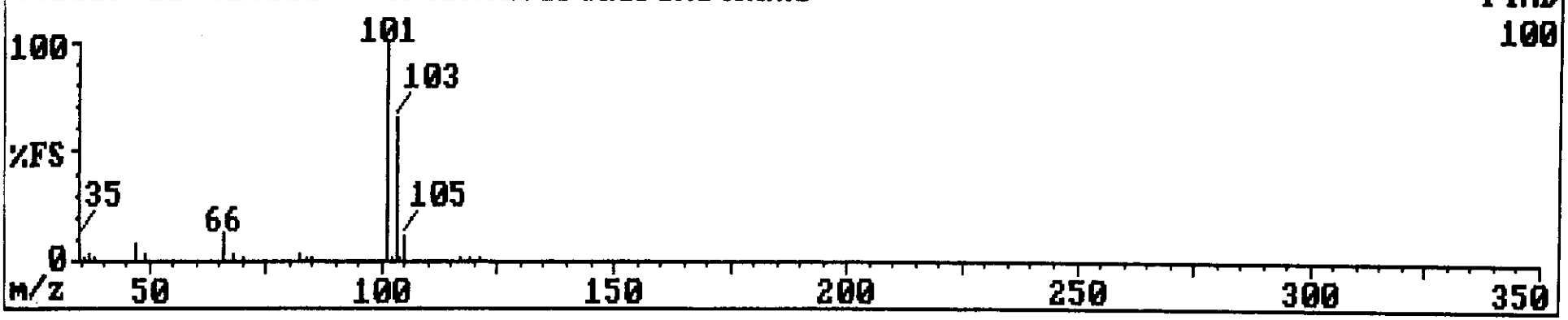
FX977 205 (2.050)



FX977 205 (2.051) REFINE



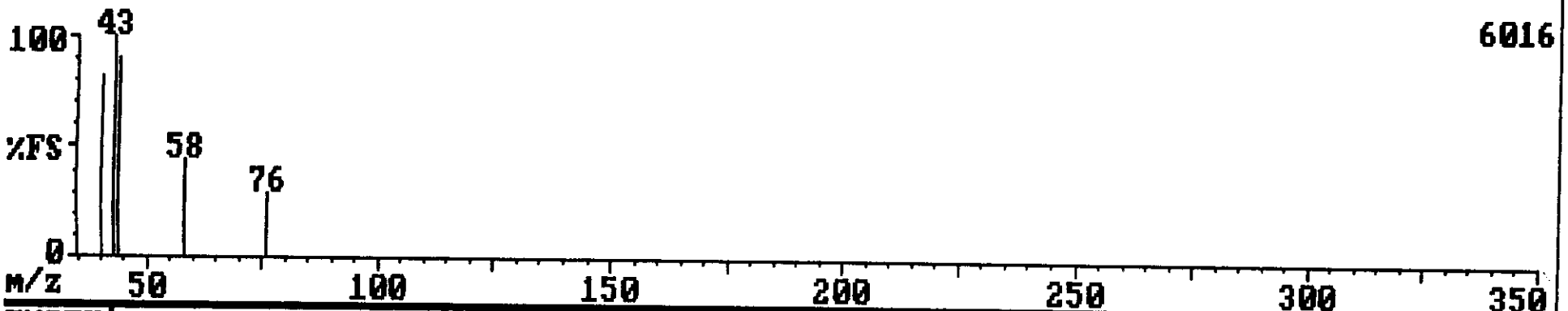
MASTER 15 (2.330) Trichlorofluoromethane FIND



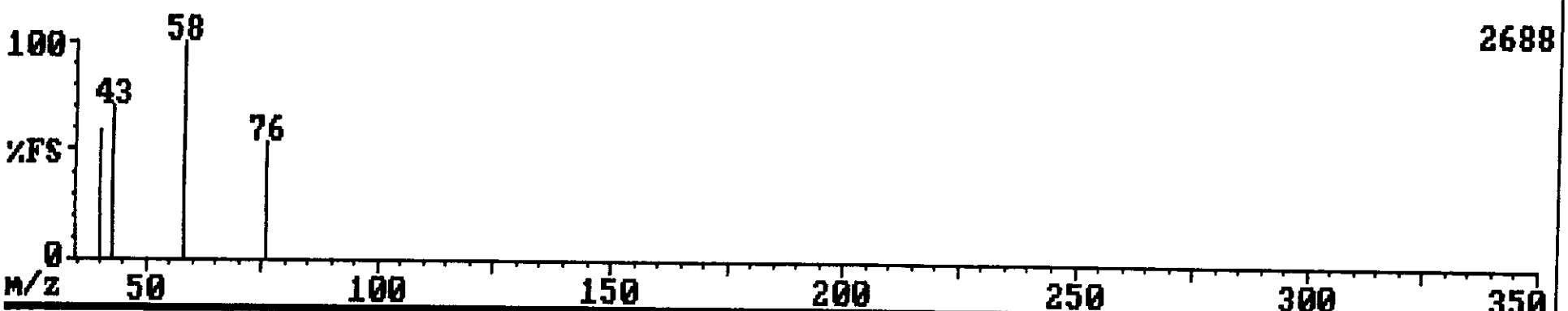
24-Aug-98 10:49 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-2-3-A,B T/TC 214-27-7A,B TLI#46323 Instrument F

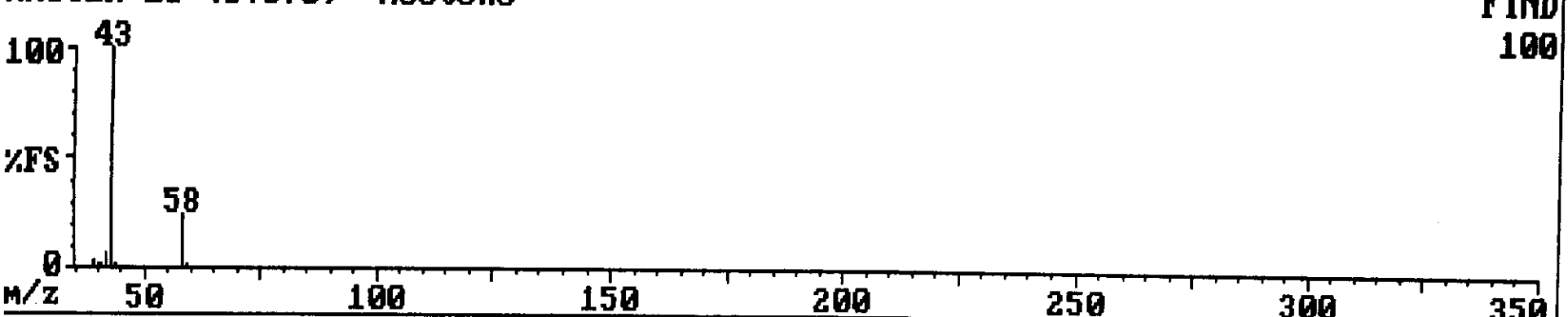
FX977 285 (2.850)



FX977'285 (2.851) REFINE



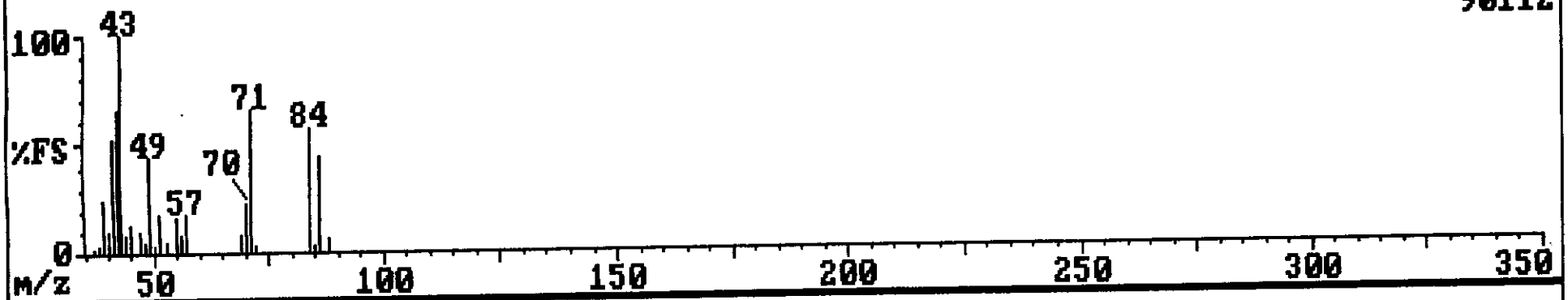
MASTER 20 (3.370) Acetone



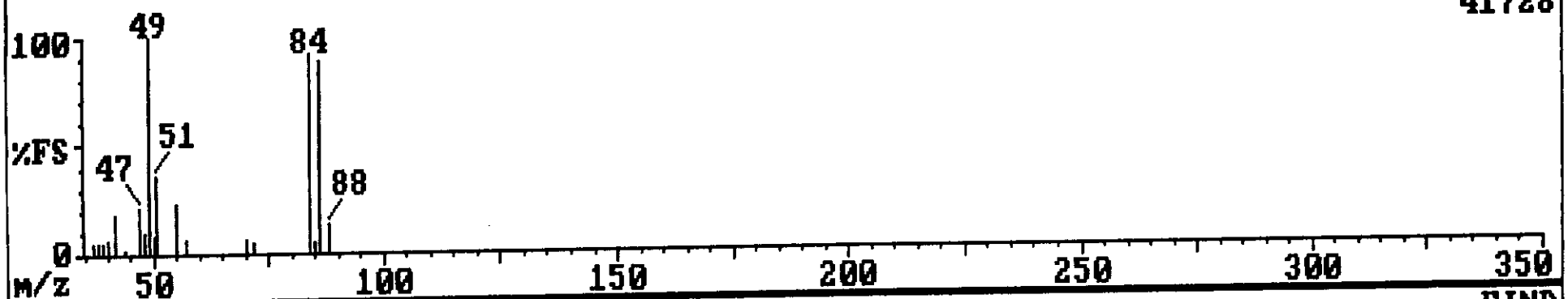
24-Aug-98 10:49 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-2-3-A,B T/TC 214-27-7A,B TLI#46323 Instrument F

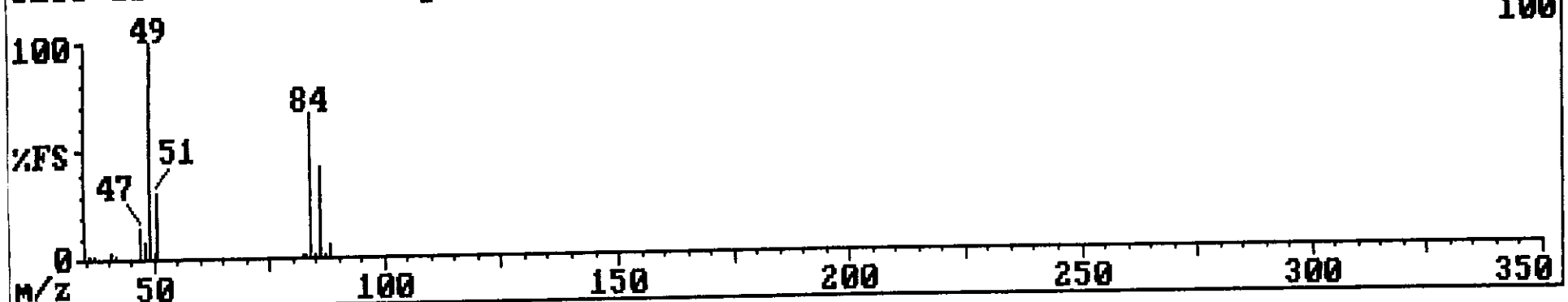
FX977 326 (3.260) 90112



FX977 326 (3.261) REFINE 41728



8260 15 (3.550) Methylene chloride FIND 100



300

302

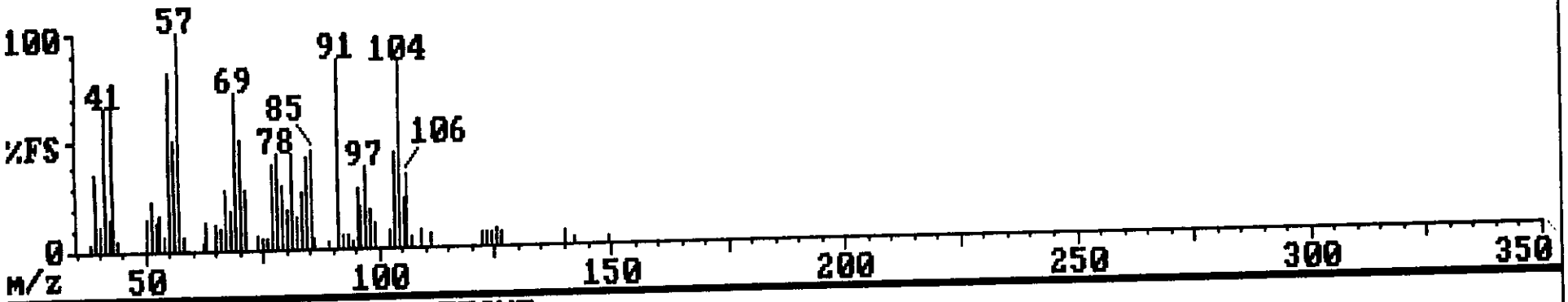
304

306

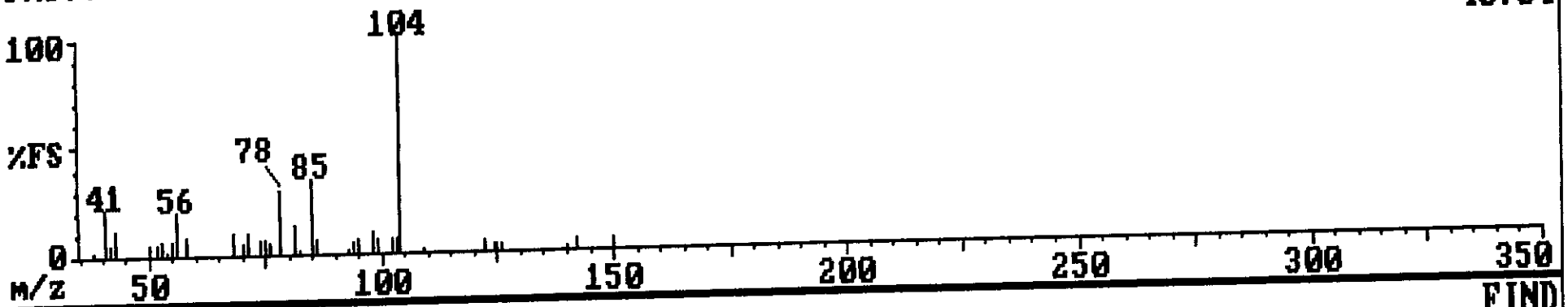
24-Aug-98 10:49 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-2-3-A,B T/TC Z14-27-7A,B TLI#46323 Instrument F

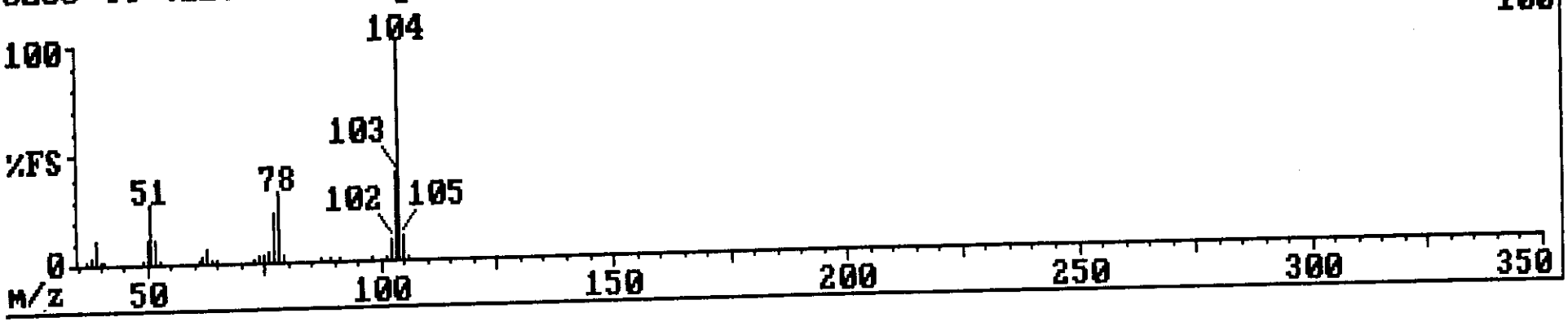
FX977 1168 (11.681) 59136



FX977 1168 (11.681) REFINE 40704



8260 44 (12.371) Styrene FIND 100



308

309

310

Pacific Environmental Services

Project Number: 46323
Sample File: FX978

Method 8260 VOST
Sample ID: T-V-2-4-A,B T/TC

Client Project: R012.001
TLI ID: 214-27-8A,B

Date Received: 07/29/98
Date Analyzed : 08/24/98

Response File: ICALF821

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Pentafluorobenzene		IS 1	5.30		
Chloromethane	0.040	J	1.09		0.05
Vinyl Chloride		U		0.001	0.05
Bromomethane		U		0.001	0.05
Chloroethane		U		0.001	0.05
Trichlorofluoromethane	0.009	J	2.07		0.05
1,1-Dichloroethene		U		0.001	0.05
Iodomethane		U		0.001	0.05
Carbon disulfide	0.044	J	2.78		0.05
Acetone	0.296		2.86		0.05
Allyl chloride		U		0.001	0.05
Methylene chloride	0.064		3.27		0.05
Acrylonitrile		U		0.021	0.05
trans-1,2-Dichloroethene		U		0.001	0.05
1,1-Dichloroethane		U		0.001	0.05
Vinyl acetate		U		0.001	0.05
cis-1,2-Dichloroethene		U		0.001	0.05
2-Butanone	0.342		4.73		0.05
Chloroform		U		0.001	0.05
1,1,1-Trichloroethane		U		0.001	0.05
1,4-Difluorobenzene		IS 2	6.07		
Carbon tetrachloride		U		0.001	0.05
Benzene	0.108		5.52		0.05
1,2-Dichloroethane		U		0.001	0.05
Trichloroethene		U		0.001	0.05
1,2-Dichloropropane		U		0.001	0.05

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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Triangle Laboratories, Inc.
801 Capitola Drive • Durham, North Carolina 27713
Phone: (919) 544-5729 • Fax: (919) 544-5491

Pacific Environmental Services

Project Number: 46323
Sample File: FX978

Method 8260 VOST
Sample ID: T-V-2-4-A,B T/TC

Client Project: R012.001
TLI ID: 214-27-8A,B

Date Received: 07/29/98
Date Analyzed : 08/24/98

Response File: ICALF821

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Methyl methacrylate		U		0.006	0.05
Bromodichloromethane		U		0.001	0.05
cis-1,3-Dichloropropene		U		0.001	0.05
4-Methyl-2-pentanone		U		0.005	0.05
Toluene	0.144		8.09		0.05
trans-1,3-Dichloropropene		U		0.001	0.05
1,1,2-Trichloroethane		U		0.001	0.05
Chlorobenzene-d_5		IS 3	10.35		
Tetrachloroethene	0.031	J	8.91		0.05
2-Hexanone		U		0.008	0.05
Dibromochloromethane		U		0.001	0.05
1,2-Dibromoethane		U		0.001	0.05
Chlorobenzene		U		0.001	0.05
Ethylbenzene	0.027	J	10.67		0.05
m-/p-Xylene	0.149		10.91		0.10
o-Xylene	0.042	J	11.63		0.05
Styrene	0.017	J	11.70		0.05
Bromoform		U		0.002	0.05
1,4-Dichlorobenzene-d_4		IS 4	15.72		
Cumene		U		0.001	0.05
1,1,2,2-Tetrachloroethane		U		0.001	0.05

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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Printed: 16:49 08/25/1998

Pacific Environmental Services

Project Number: 46323
Sample File: FX978

Method 8260 VOST
Sample ID: T-V-2-4-A,B T/TC

Client Project: R012.001
TLI ID: 214-27-8A,B

Date Received: 07/29/98
Date Analyzed : 08/24/98

Response File: ICALF821

Surrogate Summary	Amount (ng)	RT	IS Ref	%REC
Dibromofluoromethane	0.208	5.18	1	83
Toluene-d_8	0.259	8.00	2	104
4-Bromofluorobenzene	0.295	12.65	2	118

Reviewed by PAB Date 8/25/98

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

Triangle Laboratories, Inc.
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Phone: (919) 544-5729 • Fax: (919) 544-5491

Savar v3.7
Printed: 16:49 08/25/1998

Pacific Environmental Services

Project Number: 46323
Sample File: FX978

Method 8260 VOST
Sample ID: T-V-2-4-A,B T/TC

Client Project: R012.001
TLI ID: 214-27-8A,B

Date Received: 07/29/98

Date Analyzed : 08/24/98

Response File: ICALF824

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Pentafluorobenzene		IS 1	5.30		
1,3-Butadiene		U		0.001	0.25
Vinyl bromide		U		0.001	0.25
MTBE	0.036	J	3.61		0.25
n-Hexane	0.083	J	3.88		0.25
1,2-Epoxybutane		U		0.025	0.25
Iso-Octane	0.021	J	5.68		0.25
1,4-Difluorobenzene		IS 2	6.07		
Ethyl acrylate		U		0.007	0.25

Reviewed by PaB Date 8/25/98

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

Triangle Laboratories, Inc.
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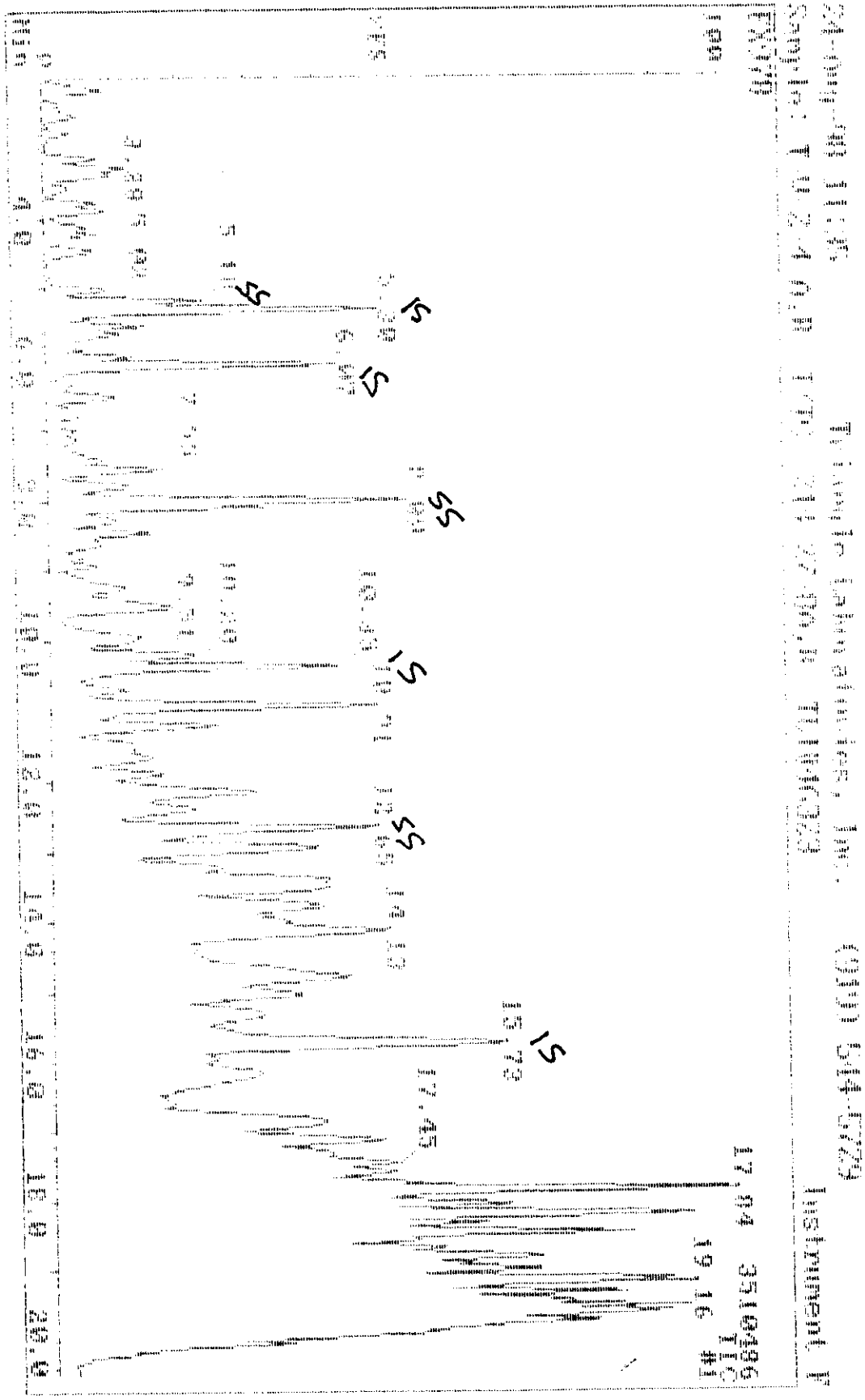
Printed: 17:21 08/25/1998



315

Data Review: PaB
Date: 8|24|98

98640 — (M) PAB — 1.09

116992 — (M) PAB — 2.07

271296 — (M) PAB
(7P) PAB — 3.27

(7P) PAB

(7P) PAB

(7P) PAB

Data Review: PAB
Date: 8/24/98

316

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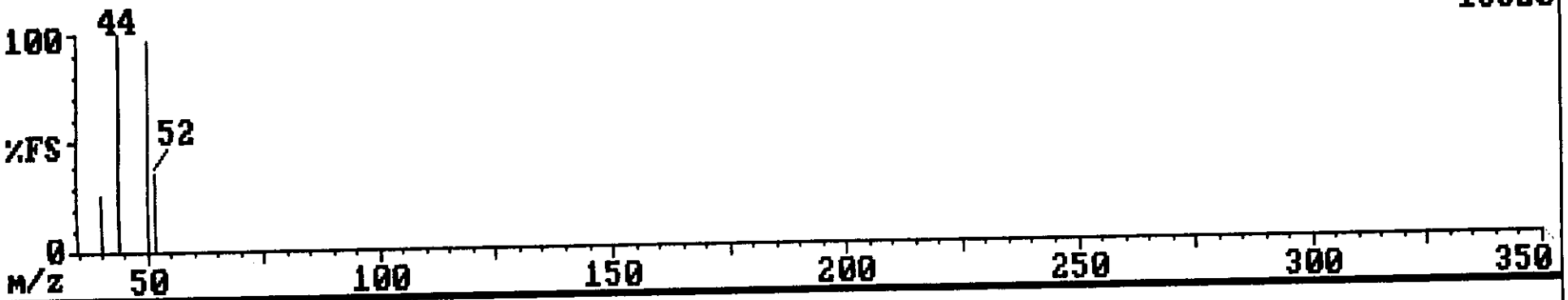
24-Aug-98 11:35 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-2-4-A,B T/TC 214-27-8A,B TLI#46323 Instrument F

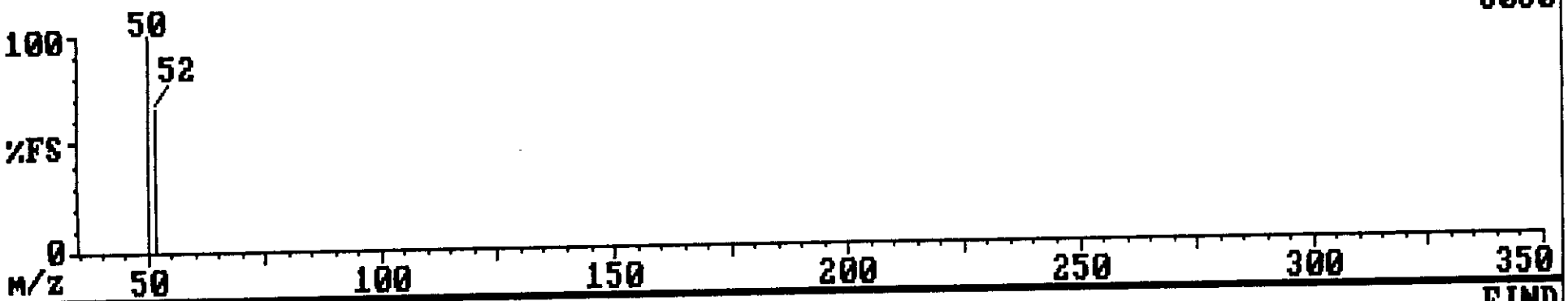
FX978 109 (1.090)

16320



FX978'109 (1.091) REFINE

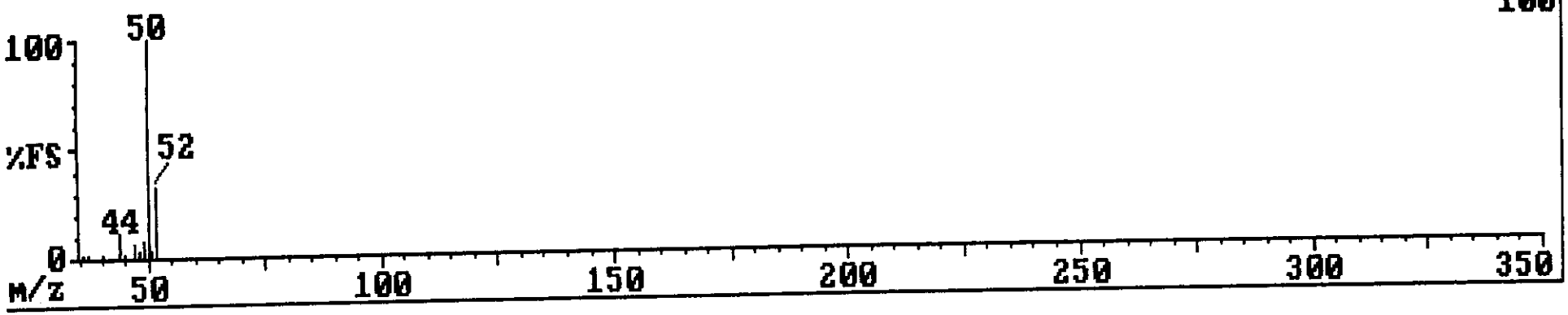
6080



8260 9 (1.230) Chloromethane

FIND

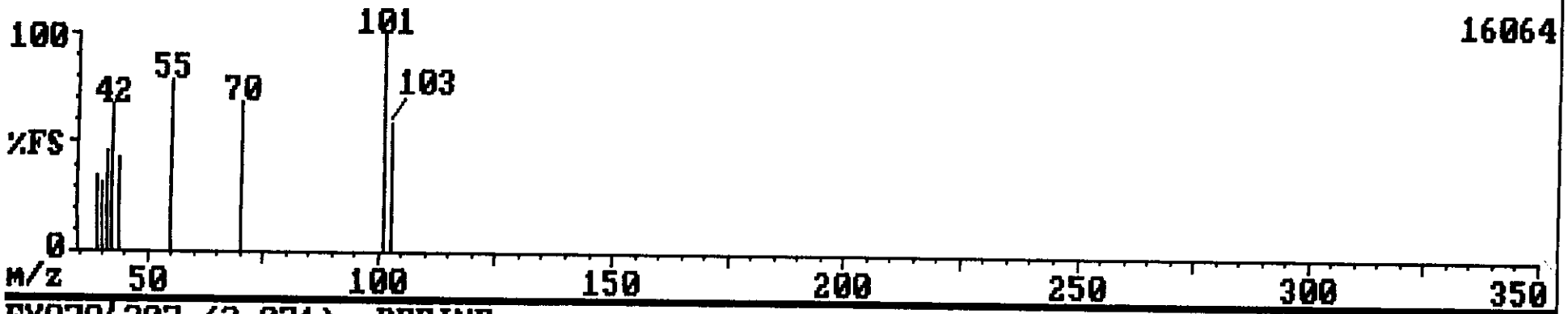
100



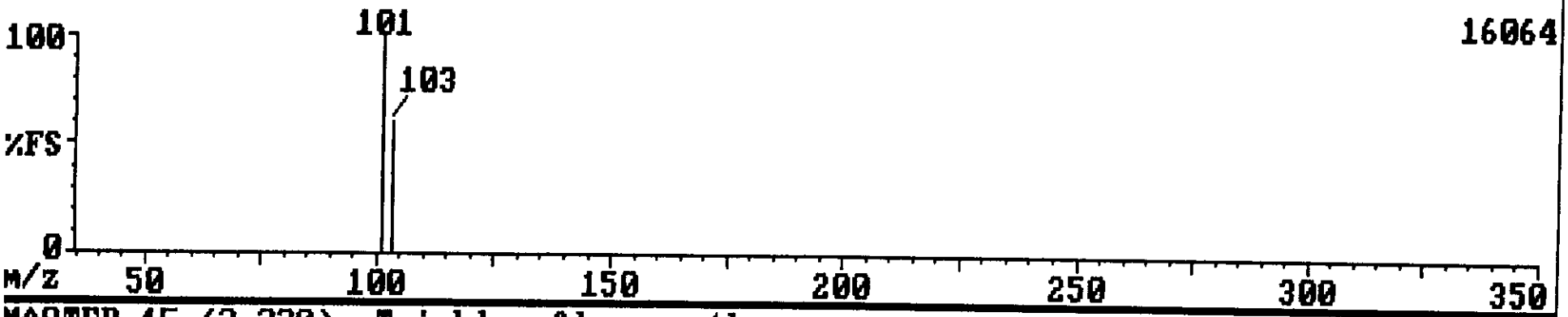
24-Aug-98 11:35 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-2-4-A,B T/TC 214-27-8A,B TLI#46323 Instrument F

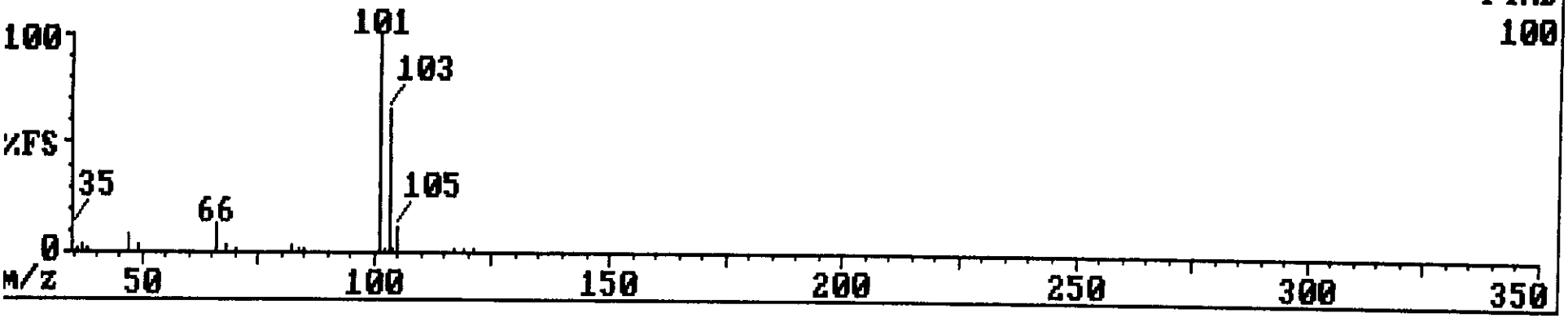
FX978 207 (2.070)



FX978 207 (2.071) REFINE



MASTER 15 (2.330) Trichlorofluoromethane FIND 100



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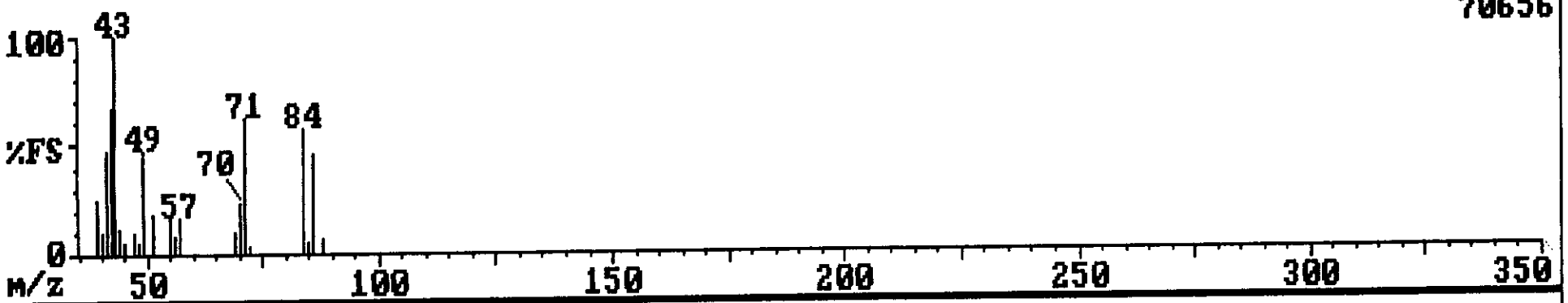
C 117

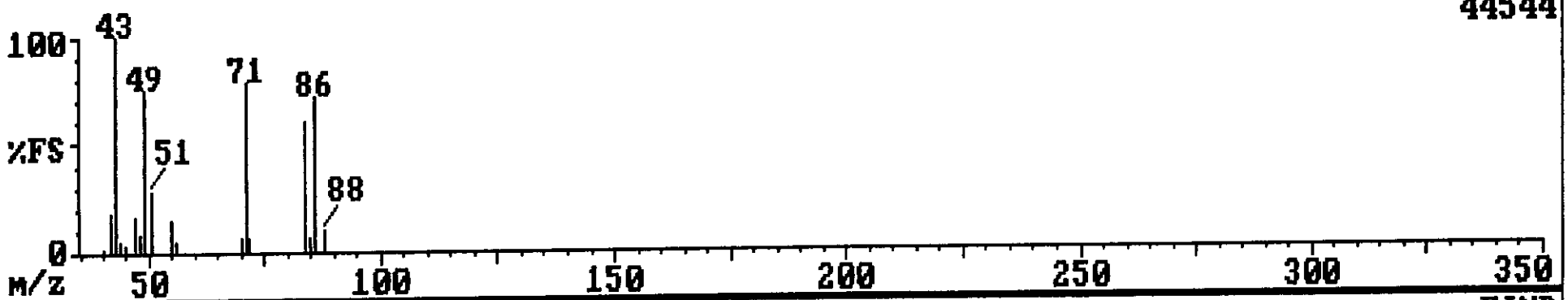
24-Aug-98 11:35 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-2-4-A,B T/TC 214-27-8A,B TLI#46323 Instrument F

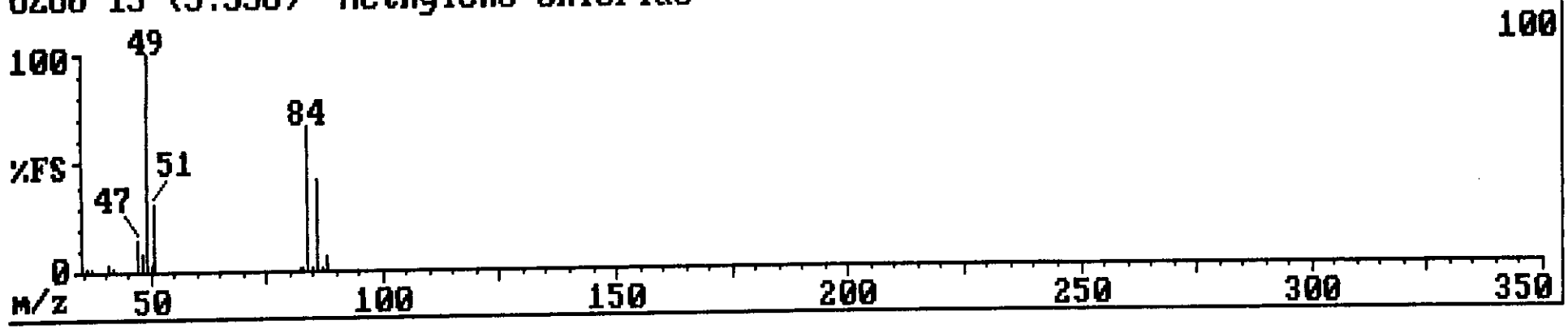
FX978 327 (3.270)



FX978 327 (3.271) REFINE

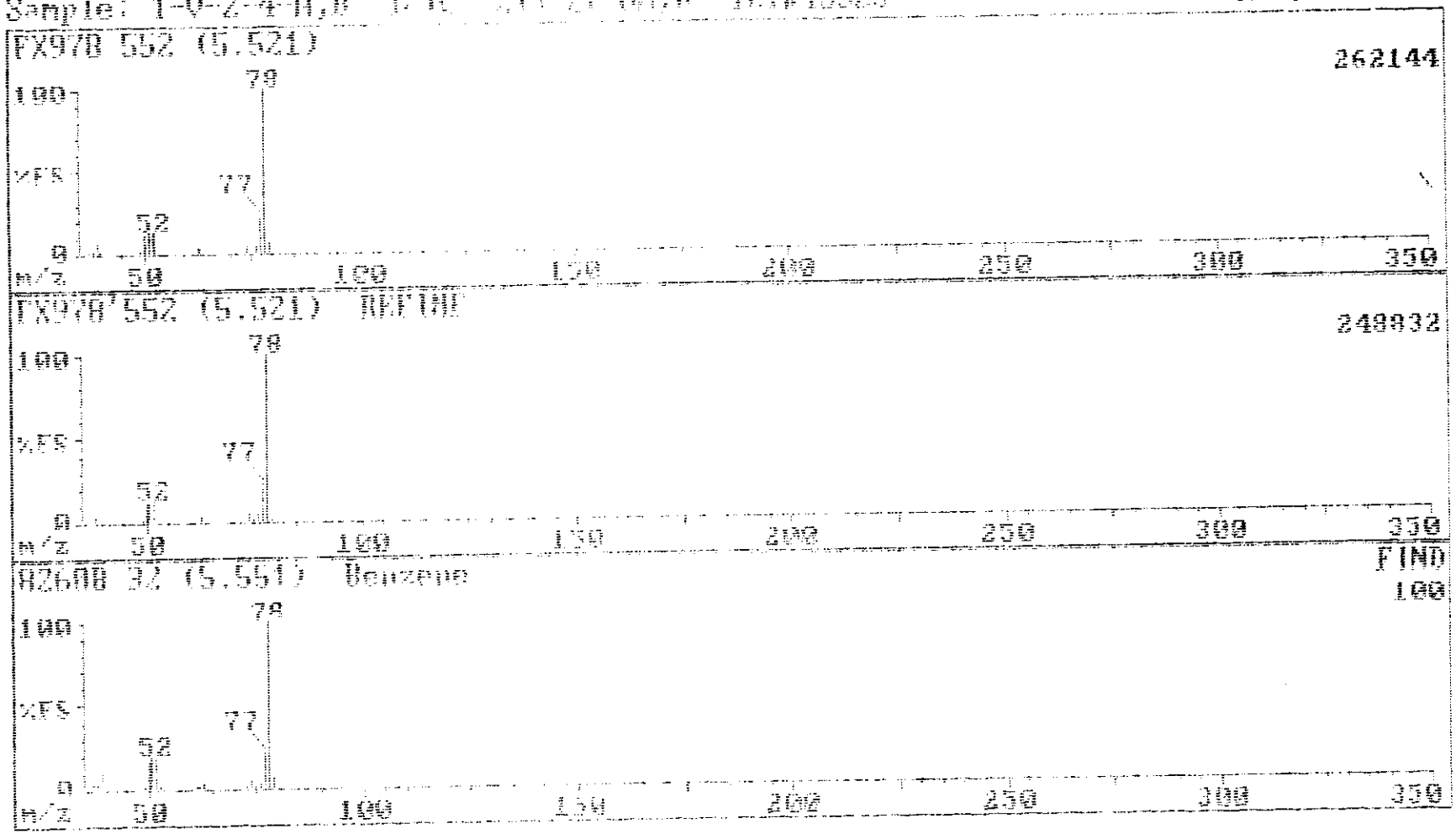


8260 15 (3.550) Methylene chloride



24-Aug-98 11:35 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-2-4-A,B T/TC 211 27 4A,B TLI#46323 Instrument F



325

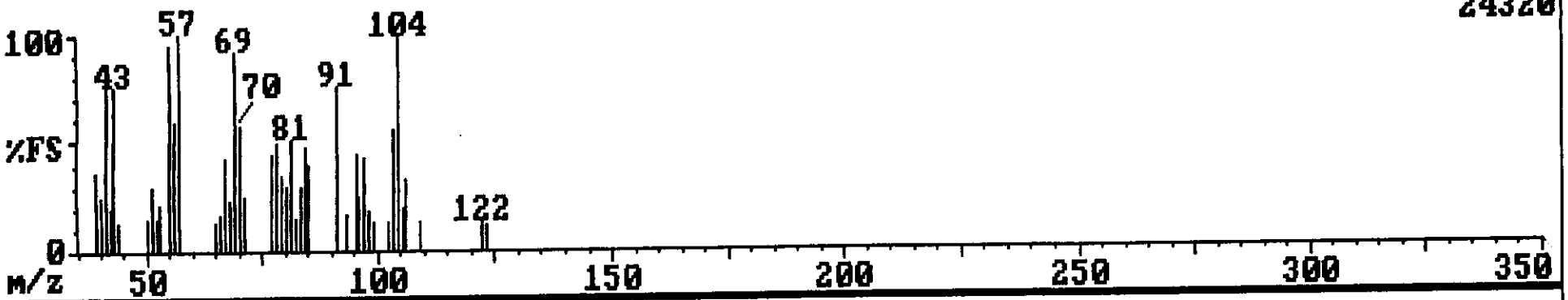
327

330

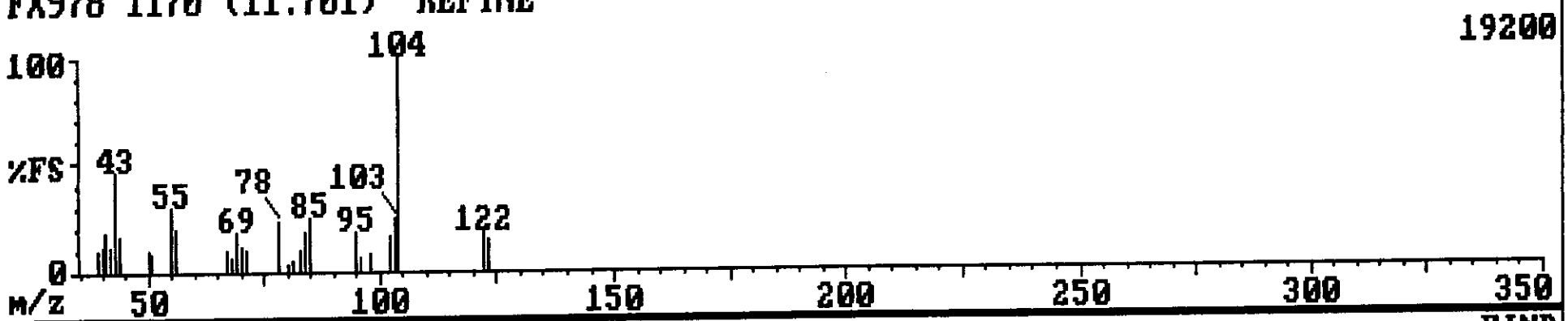
24-Aug-98 11:35 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-2-4-A,B T/TC 214-27-8A,B TLI#46323 Instrument F

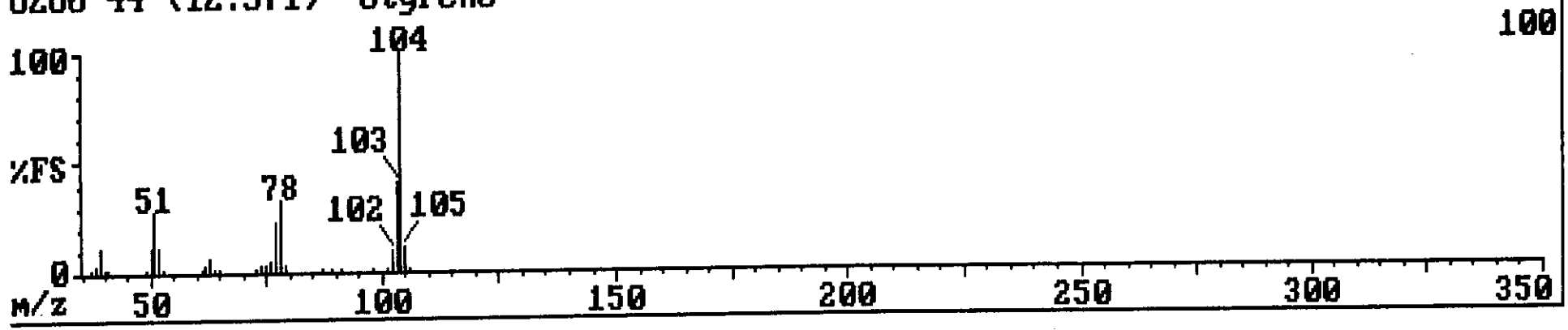
FX978 1170 (11.701)



FX978 1170 (11.701) REFINE



8260 44 (12.371) Styrene



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Pacific Environmental Services

Project Number: 46323
Sample File: FX979

Method 8260 VOST
Sample ID: T-V-3-1-A,B T/TC

Client Project: R012.001
TLI ID: 214-27-16A,B

Date Received: 07/29/98
Date Analyzed : 08/24/98

Response File: ICALF821

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Pentafluorobenzene		IS 1	5.31		
Chloromethane	0.030	J	1.08		0.05
Vinyl Chloride		U		0.001	0.05
Bromomethane	0.005	J	1.66		0.05
Chloroethane		U		0.001	0.05
Trichlorofluoromethane	0.011	J	2.06		0.05
1,1-Dichloroethene		U		0.001	0.05
Iodomethane		U		0.001	0.05
Carbon disulfide	0.015	J	2.78		0.05
Acetone	0.183		2.87		0.05
Allyl chloride		U		0.001	0.05
Methylene chloride	0.508		3.27		0.05
Acrylonitrile		U		0.020	0.05
trans-1,2-Dichloroethene		U		0.001	0.05
1,1-Dichloroethane		U		0.001	0.05
Vinyl acetate		U		0.001	0.05
cis-1,2-Dichloroethene		U		0.001	0.05
2-Butanone	0.166		4.75		0.05
Chloroform		U		0.001	0.05
1,1,1-Trichloroethane		U		0.001	0.05
1,4-Difluorobenzene		IS 2	6.08		
Carbon tetrachloride		U		0.001	0.05
Benzene	0.096		5.53		0.05
1,2-Dichloroethane		U		0.001	0.05
Trichloroethene		U		0.001	0.05
1,2-Dichloropropane		U		0.001	0.05

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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Pacific Environmental Services

Project Number: 46323
Sample File: FX979

Method 8260 VOST
Sample ID: T-V-3-1-A,B T/TC

Client Project: R012.001
TLI ID: 214-27-16A,B

Date Received: 07/29/98
Date Analyzed : 08/24/98

Response File: ICALF821

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Methyl methacrylate		U		0.006	0.05
Bromodichloromethane		U		0.001	0.05
cis-1,3-Dichloropropene		U		0.001	0.05
4-Methyl-2-pentanone		U		0.004	0.05
Toluene	0.212		8.12		0.05
trans-1,3-Dichloropropene		U		0.001	0.05
1,1,2-Trichloroethane		U		0.001	0.05
Chlorobenzene-d_5		IS 3	10.38		
Tetrachloroethene	0.023	J	8.96		0.05
2-Hexanone		U		0.008	0.05
Dibromochloromethane		U		0.001	0.05
1,2-Dibromoethane		U		0.001	0.05
Chlorobenzene		U		0.001	0.05
Ethylbenzene	0.075		10.71		0.05
m-/p-Xylene	0.335		10.94		0.10
o-Xylene	0.131		11.66		0.05
Styrene	0.029	J	11.72		0.05
Bromoform		U		0.002	0.05
1,4-Dichlorobenzene-d_4		IS 4	15.78		
Cumene		U		0.001	0.05
1,1,2,2-Tetrachloroethane		U		0.001	0.05

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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Printed: 16:49 08/25/1998

Pacific Environmental Services

Project Number: 46323
Sample File: FX979

Method 8260 VOST
Sample ID: T-V-3-1-A,B T/TC

Client Project: R012.001
TLI ID: 214-27-16A,B

Date Received: 07/29/98
Date Analyzed : 08/24/98

Response File: ICALF821

Surrogate Summary	Amount (ug)	RT	IS Ref	%REC
Dibromofluoromethane	0.209	5.19	1	84
Toluene-d_8	0.256	8.02	2	102
4-Bromofluorobenzene	0.283	12.69	2	113

Reviewed by PAB Date 8/25/98

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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Printed: 16:49 08/25/1998

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Pacific Environmental Services

Project Number: 46323
Sample File: FX979

Method 8260 VOST
Sample ID: T-V-3-1-A,B T/TC

Client Project: R012.001
TLI ID: 214-27-16A,B

Date Received: 07/29/98
Date Analyzed : 08/24/98

Response File: ICALF824

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Pentafluorobenzene		IS 1	5.31		
1,3-Butadiene		U		0.001	0.25
Vinyl bromide		U		0.001	0.25
MTBE	0.028	J	3.61		0.25
n-Hexane	0.107	J	3.89		0.25
1,2-Epoxybutane		U		0.024	0.25
Iso-Octane	0.012	J	5.68		0.25
1,4-Difluorobenzene		IS 2	6.08		
Ethyl acrylate		U		0.007	0.25

Reviewed by PAB Date 8/25/98

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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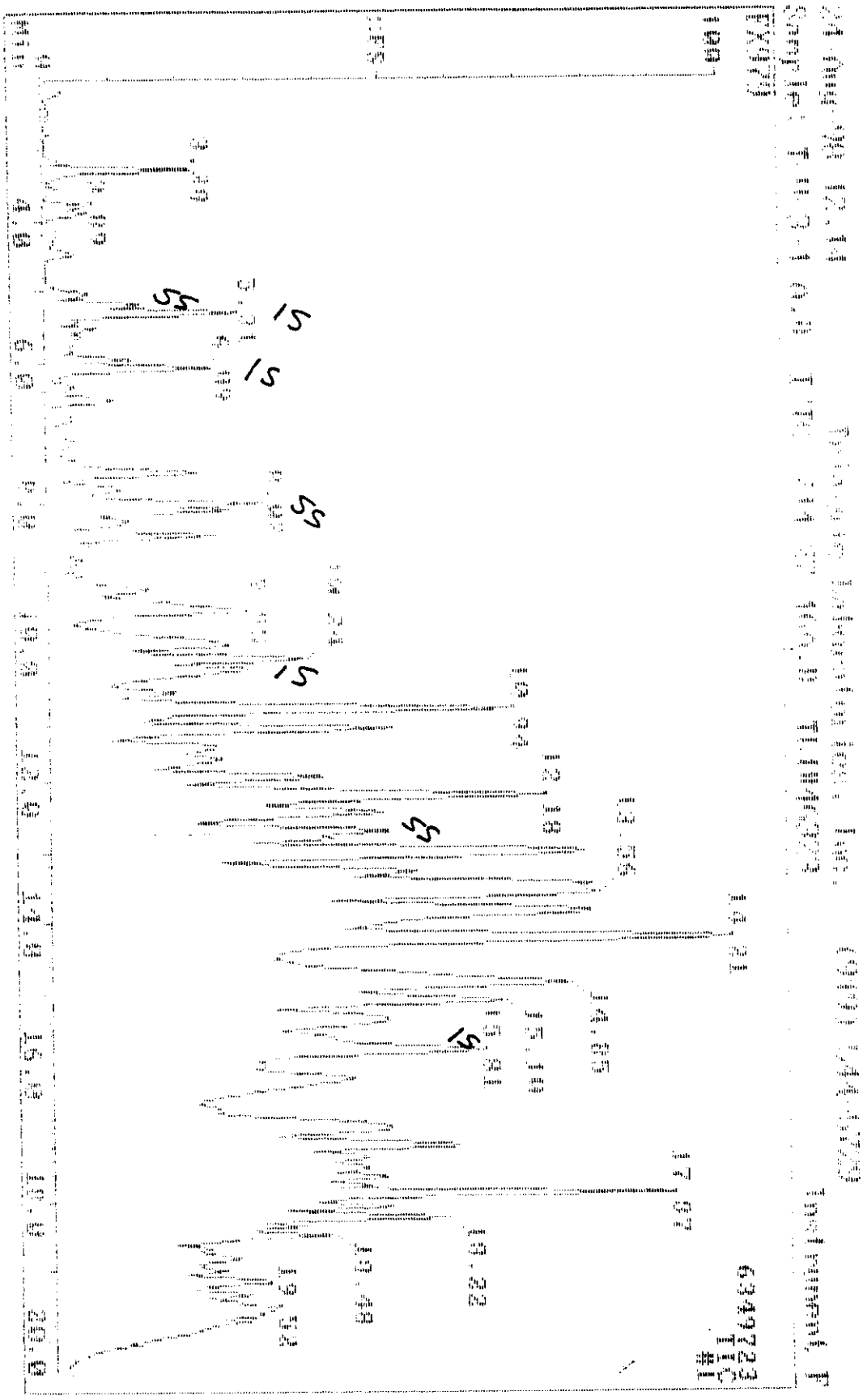
Printed: 17:21 08/25/1998



Data Review: PaB
Date: 8/24/98

77092 — (M) PaB — 1.08

21136 — (M) PaB — 1.66

(7P) PaB

(7P) PaB

(7P) PaB

(7P) PaB

Data Review: PaB
Date: 8/24/98

340

356320 — (M) PAB —— 11.72

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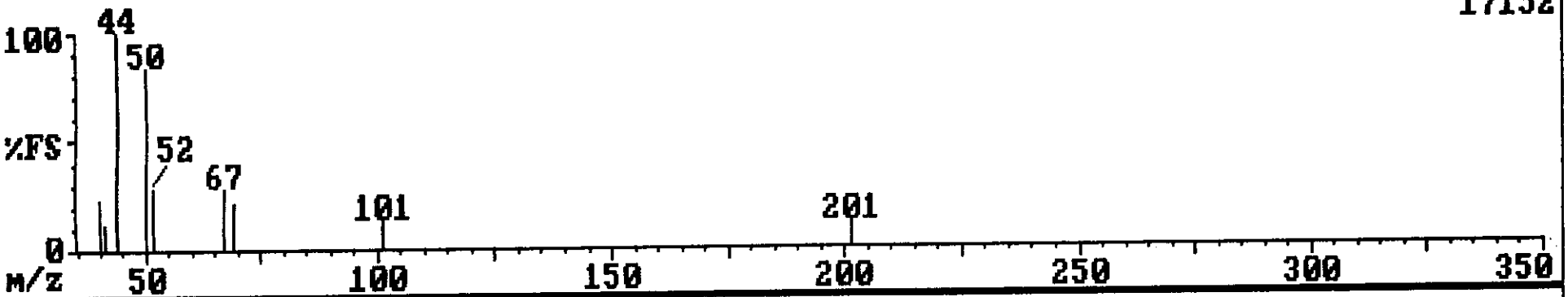
24-Aug-98 12:14 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-3-1-A,B T/TC 214-27-16A,B TLI#46323 Instrument F

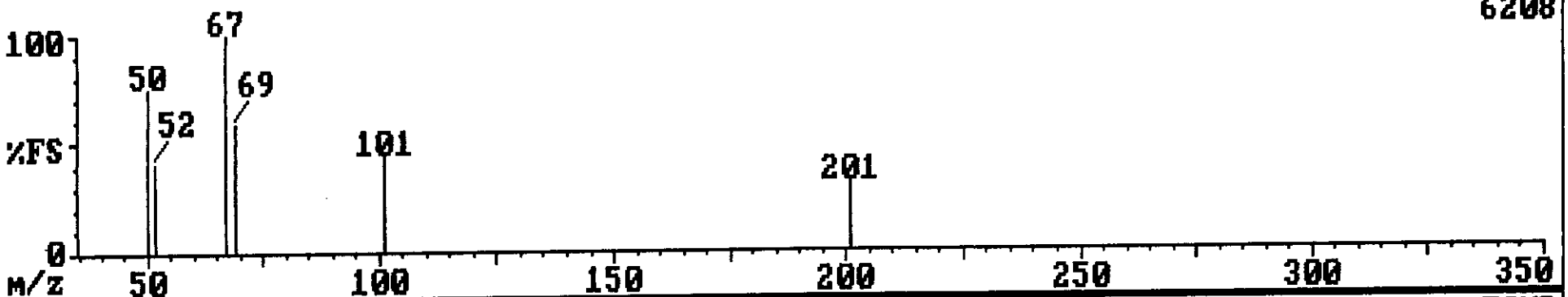
FX979 108 (1.080)

17152



FX979' 108 (1.081) REFINE

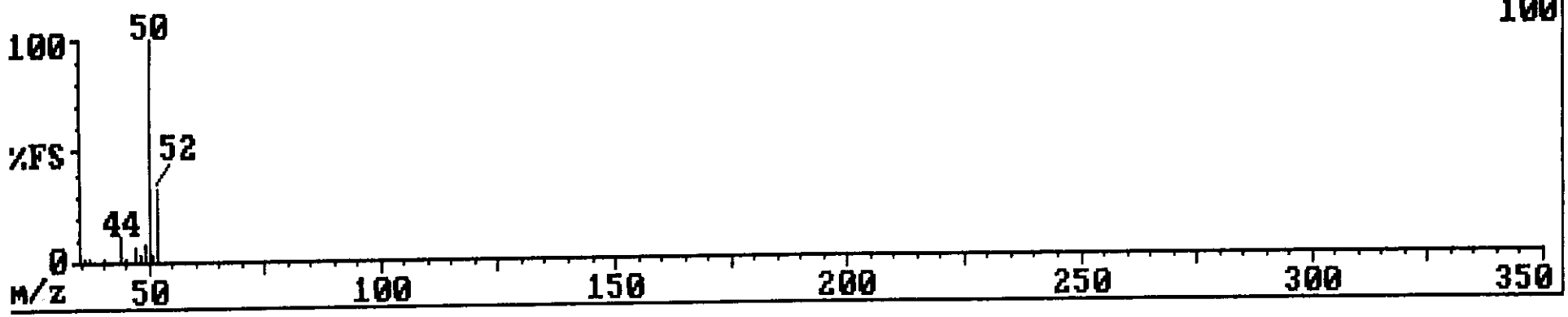
6208



8260 9 (1.230) Chloromethane

FIND

100



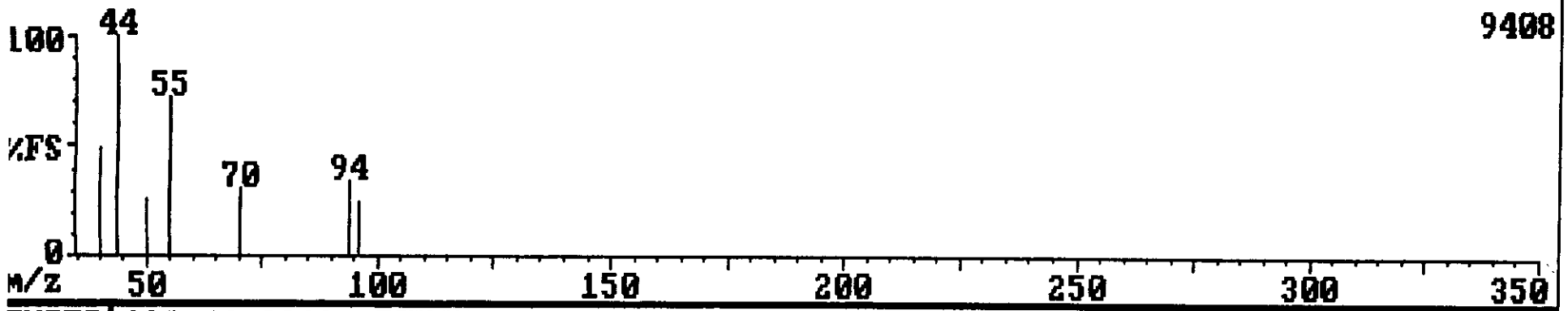
141

343

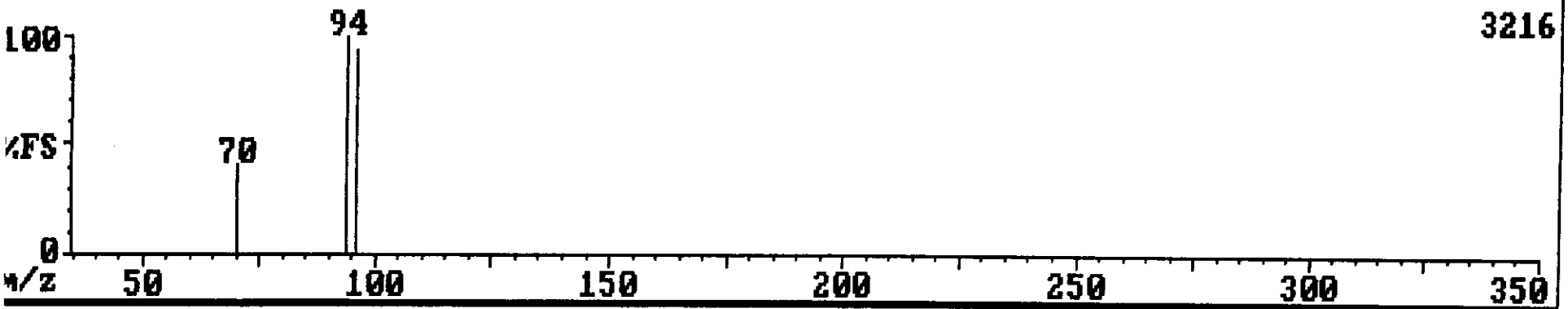
:4-Aug-98 12:14 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-3-1-A,B T/TC 214-27-16A,B TLI#46323 Instrument F

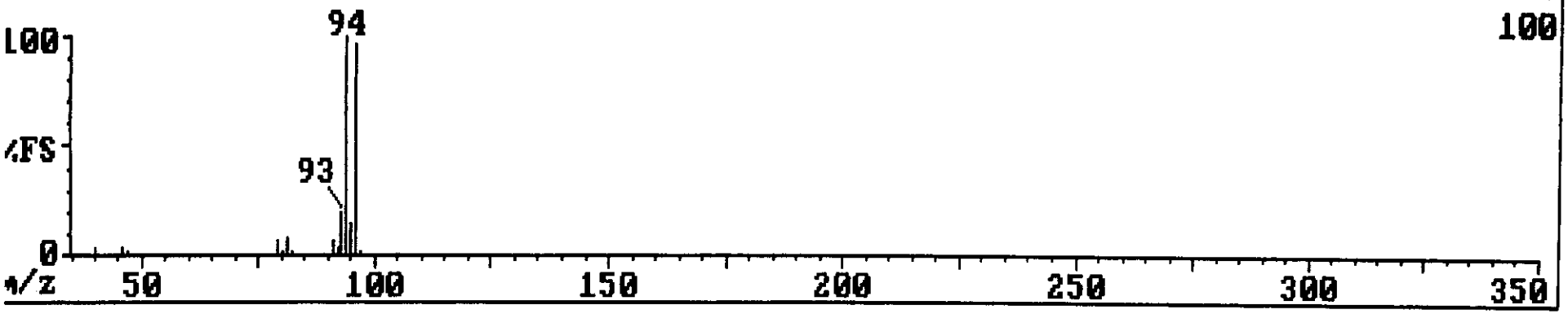
FX979 166 (1.660)



FX979 166 (1.661) REFINE



3260 11 (1.830) Bromomethane FIND



346

350

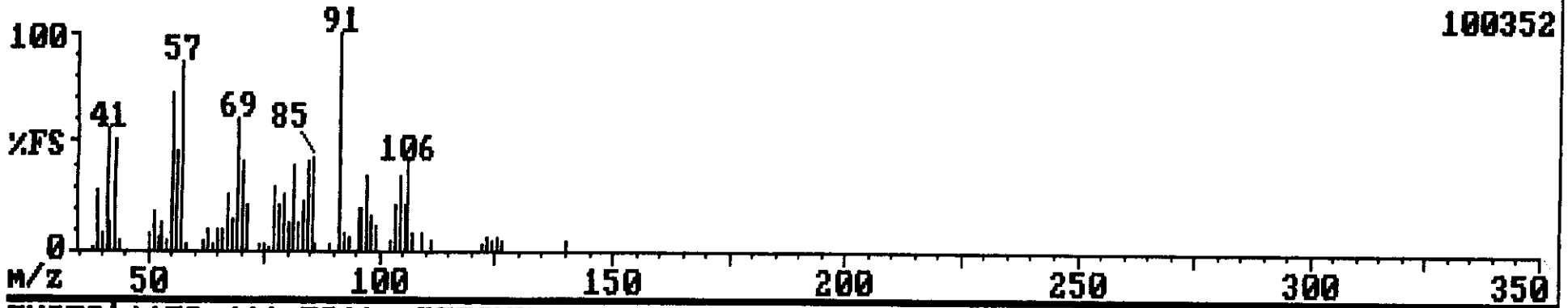
357

355

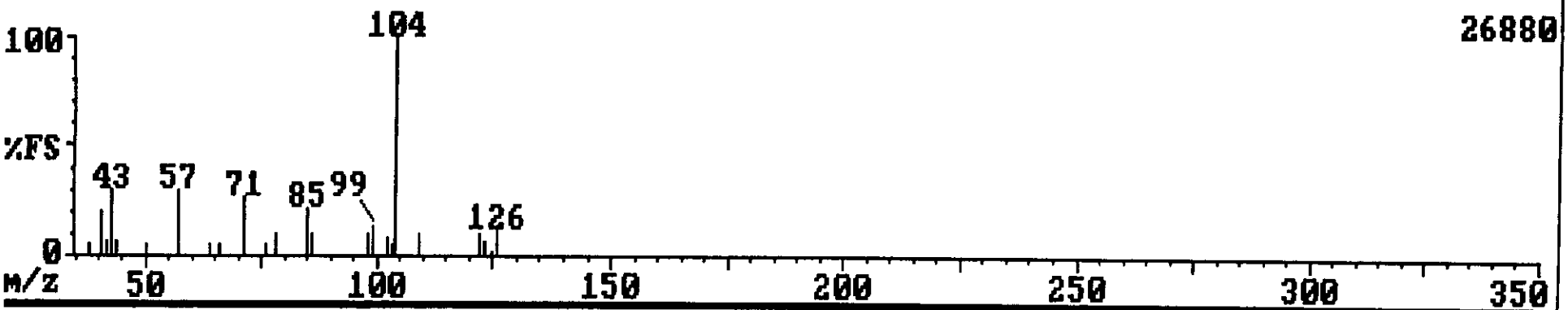
24-Aug-98 12:14 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-3-1-A,B T/TC 214-27-16A,B TLI#46323 Instrument F

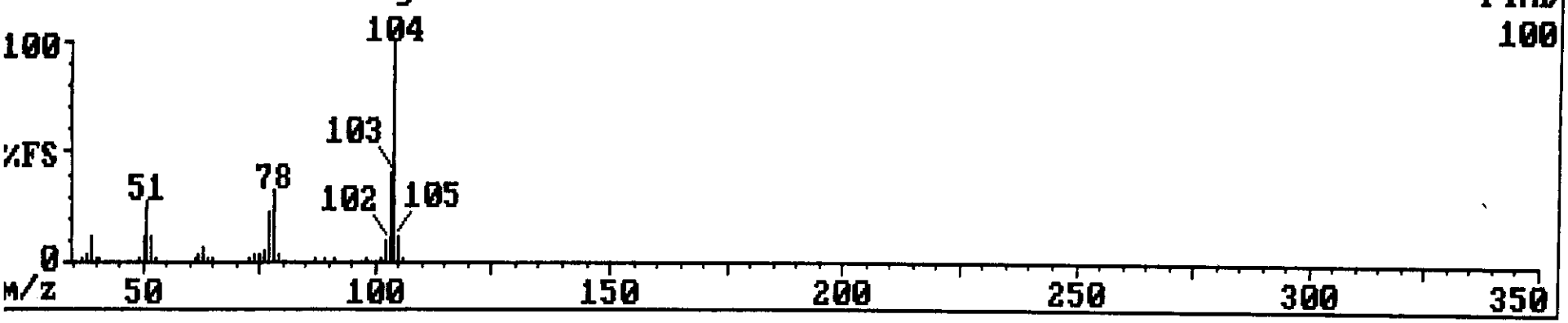
FX979 1172 (11.721)



FX979' 1172 (11.721) REFINE



8260 44 (12.371) Styrene



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Pacific Environmental Services

Project Number: 46323
Sample File: FX980

Method 8260 VOST
Sample ID: T-V-3-2-A,B T/TC

Client Project: R012.001
TLI ID: 214-27-17A,B

Date Received: 07/29/98
Date Analyzed : 08/24/98

Response File: ICALF821

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Pentafluorobenzene		IS 1	5.30		
Chloromethane		U		0.001	0.05
Vinyl Chloride		U		0.001	0.05
Bromomethane		U		0.001	0.05
Chloroethane		U		0.001	0.05
Trichlorofluoromethane	0.011	J	2.07		0.05
1,1-Dichloroethene		U		0.001	0.05
Iodomethane		U		0.001	0.05
Carbon disulfide	0.017	J	2.78		0.05
Acetone		U		0.004	0.05
Allyl chloride		U		0.001	0.05
Methylene chloride	0.828		3.27		0.05
Acrylonitrile		U		0.020	0.05
trans-1,2-Dichloroethene		U		0.001	0.05
1,1-Dichloroethane		U		0.001	0.05
Vinyl acetate		U		0.001	0.05
cis-1,2-Dichloroethene		U		0.001	0.05
2-Butanone		U		0.004	0.05
Chloroform		U		0.001	0.05
1,1,1-Trichloroethane		U		0.001	0.05
1,4-Difluorobenzene		IS 2	6.07		
Carbon tetrachloride		U		0.001	0.05
Benzene	0.131		5.52		0.05
1,2-Dichloroethane		U		0.001	0.05
Trichloroethene		U		0.001	0.05
1,2-Dichloropropane		U		0.001	0.05

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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Pacific Environmental Services

Project Number: 46323 | **Method 8260 VOST**
Sample File: FX980 | **Sample ID: T-V-3-2-A,B T/TC**

Client Project: R012.001 | **Date Received: 07/29/98** | **Response File: ICALF821**
TLI ID: 214-27-17A,B
Date Analyzed : 08/24/98

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Methyl methacrylate		U		0.006	0.05
Bromodichloromethane		U		0.001	0.05
cis-1,3-Dichloropropene		U		0.001	0.05
4-Methyl-2-pentanone		U		0.005	0.05
Toluene	0.200		8.10		0.05
trans-1,3-Dichloropropene		U		0.001	0.05
1,1,2-Trichloroethane		U		0.001	0.05
Chlorobenzene-d_5		IS 3	10.35		
Tetrachloroethene	0.015	J	8.93		0.05
2-Hexanone		U		0.008	0.05
Dibromochloromethane		U		0.001	0.05
1,2-Dibromoethane		U		0.001	0.05
Chlorobenzene		U		0.001	0.05
Ethylbenzene	0.065		10.67		0.05
m-/p-Xylene	0.314		10.91		0.10
o-Xylene	0.118		11.63		0.05
Styrene	0.036	J	11.69		0.05
Bromoform		U		0.002	0.05
1,4-Dichlorobenzene-d_4		IS 4	15.73		
Cumene		U		0.001	0.05
1,1,2,2-Tetrachloroethane		U		0.001	0.05

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IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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Printed: 16:49 08/25/1998

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Pacific Environmental Services

Project Number: 46323
Sample File: FX980

Method 8260 VOST
Sample ID: T-V-3-2-A,B T/TC

Client Project: R012.001
TLI ID: 214-27-17A,B

Date Received: 07/29/98

Date Analyzed : 08/24/98

Response File: ICALF821

Surrogate Summary	Amount (ng)	RT	IS Ref	%REC
Dibromofluoromethane	0.205	5.18	1	82
Toluene-d_8	0.260	8.00	2	104
4-Bromofluorobenzene	0.333	12.66	2	133

Reviewed by GAB Date 8/25/98

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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Savar v3.7
Printed: 16:49 08/25/1998

Pacific Environmental Services

Project Number: 46323
Sample File: FX980

Method 8260 VOST
Sample ID: T-V-3-2-A,B T/TC

Client Project: R012.001
TLI ID: 214-27-17A,B

Date Received: 07/29/98
Date Analyzed : 08/24/98

Response File: ICALF824

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Pentafluorobenzene		IS 1	5.30		
1,3-Butadiene		U		0.001	0.25
Vinyl bromide		U		0.001	0.25
MTBE	0.022	J	3.60		0.25
n-Hexane	0.135	J	3.89		0.25
1,2-Epoxybutane		U		0.024	0.25
Iso-Octane		U		0.001	0.25
1,4-Difluorobenzene		IS 2	6.07		
Ethyl acrylate		U		0.007	0.25

Reviewed by RAB Date 8/25/98

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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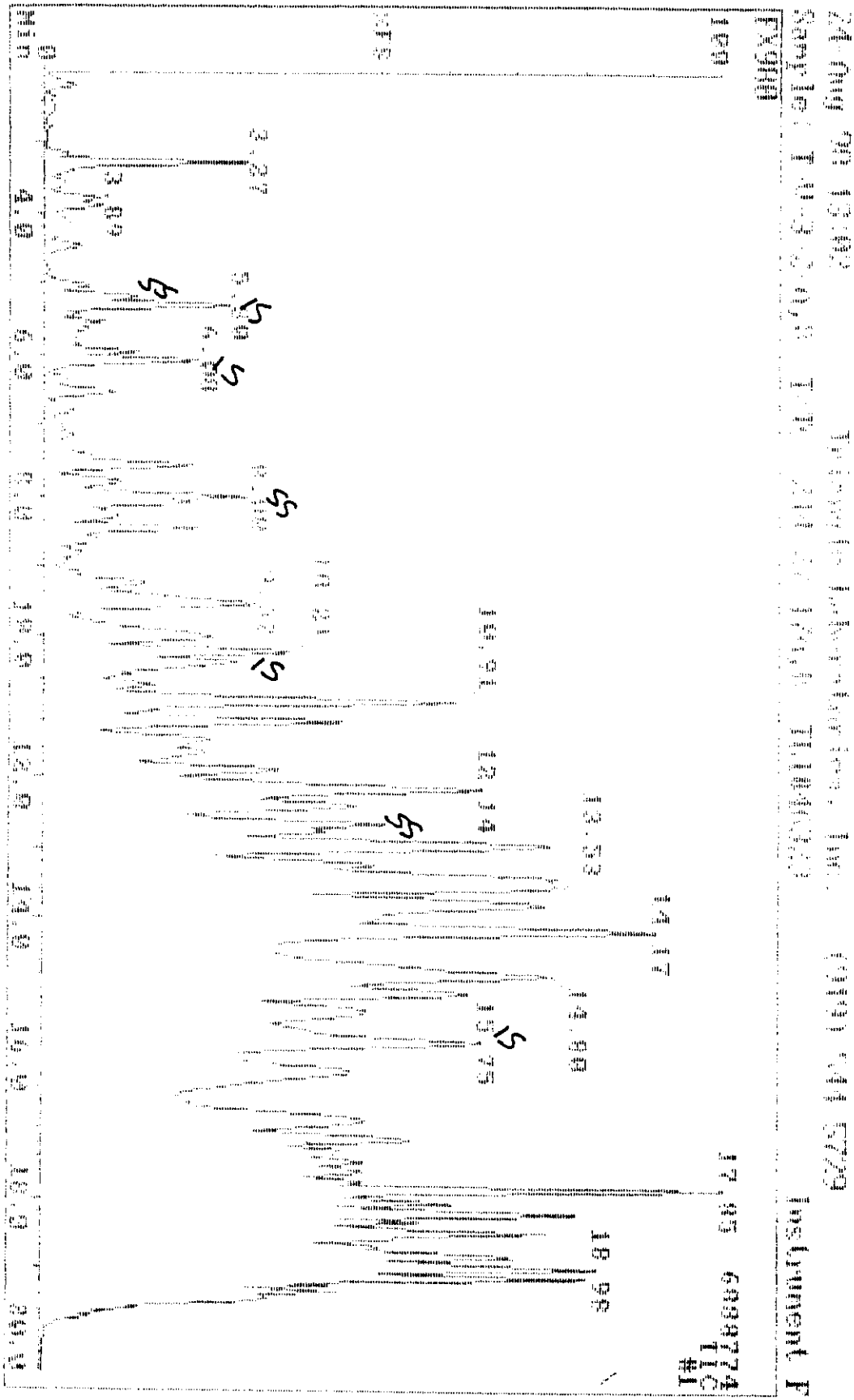
Savar v3.7
Printed: 17:21 08/25/1998



Data Review: PaB
Date: 8/24/98

138560 — PAB — 207

PAB

PAB

PAB

PAB

PAB

PAB

Data Review: PAB
Date: 8/24/98

No.	MA	PAB	MFV	Deleted	Name	P1	SM	Name
51	0	0	0	0	0	0.000	161	1,1,1,2-Tetrachloroethane
52	[illegible]	[illegible]	[illegible]	0	[illegible]	[illegible]	106	[illegible]
53	[illegible]	[illegible]	0	0	[illegible]	[illegible]	106	[illegible]
54	[illegible]	[illegible]	[illegible]	1	[illegible]	[illegible]	106	[illegible]
55	1	0	0	0	461056 ~ (M) PAB	——— 1169	104	[illegible]
56	0	0	0	0	0	0.000	173	[illegible]
57	0	0	0	0	0	0.000	105	[illegible]
58	0	0	0	0	0	0.000	[illegible]	1,1,2,2-Tetrachloroethane
59	0	0	0	0	0	0.000	156	[illegible]
60	0	0	0	0	0	0.000	[illegible]	1,2,3-Trichloropropane
61	0	0	0	0	0	0.000	120	[illegible]
62	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
63	0	0	0	0	0	0.000	[illegible]	[illegible]
64	0	0	0	0	0	[illegible]	[illegible]	[illegible]
65	[illegible]	[illegible]	[illegible]	1	[illegible]	[illegible]	[illegible]	[illegible]
66	0	0	0	0	0	[illegible]	[illegible]	[illegible]
67	[illegible]	0	0	0	[illegible]	[illegible]	[illegible]	[illegible]
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U 16*

QUAN DB : EX280 LAB-BASE QUAN 24-Aug-98 [illegible] 47

No.	MAT	FOR	REV	Delta	Area	H.Flags	RT	QM	Name
1	100	70	97	1	[illegible]	bb	5.301	168	Pentafluorobenzene
2	100	87	95	0	[illegible]	bb	6.071	114	1,4-Difluorobenzene
3	99	[illegible]	37	-1	[illegible]	bv	10.351	117	Chlorobenzene-d5
4	64	20	82	0	[illegible]	bv	[illegible]	152	1,4-Dichlorobenzene-d4
5	100	[illegible]	97	0	[illegible]	bb	[illegible]	113	Dibromofluoromethane
6	100	82	94	0	[illegible]	bv	8.001	98	Toluene-d8
7	[illegible]	[illegible]	21	0	[illegible]	[illegible]	[illegible]	95	4-Bromofluorobenzene
8	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	(7P) PAB	[illegible]	[illegible]	1,2-Butadiene
9	[illegible]	[illegible]	[illegible]	[illegible]	0		0.000	106	Vinyl Bromide
10	60	[illegible]	[illegible]	1	[illegible]	bb	[illegible]	[illegible]	MTBE
11	100	91	91	[illegible]	[illegible]	bb	[illegible]	[illegible]	[illegible]
12	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	(7P) PAB	[illegible]	[illegible]	1,3-Epoxybutane
13	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	(7P) PAB	[illegible]	[illegible]	[illegible]
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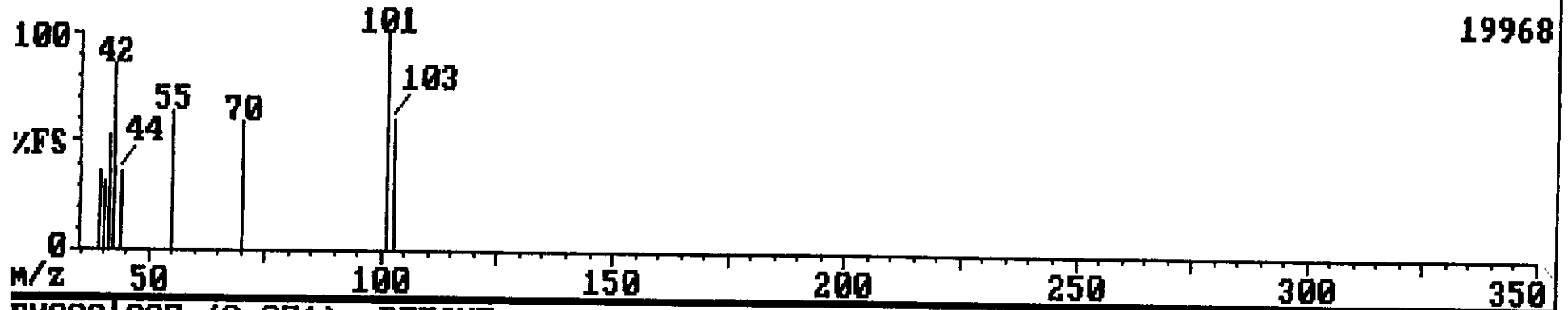
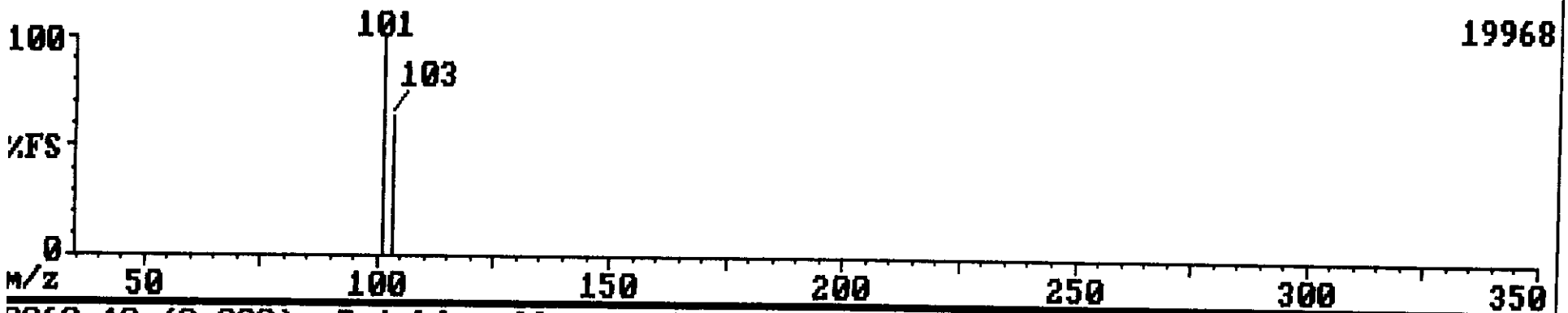
24-Aug-98 13:02 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-3-2-A,B T/TC 214-27-17A,B TLI#46323 Instrument F

FX980 207 (2.070)

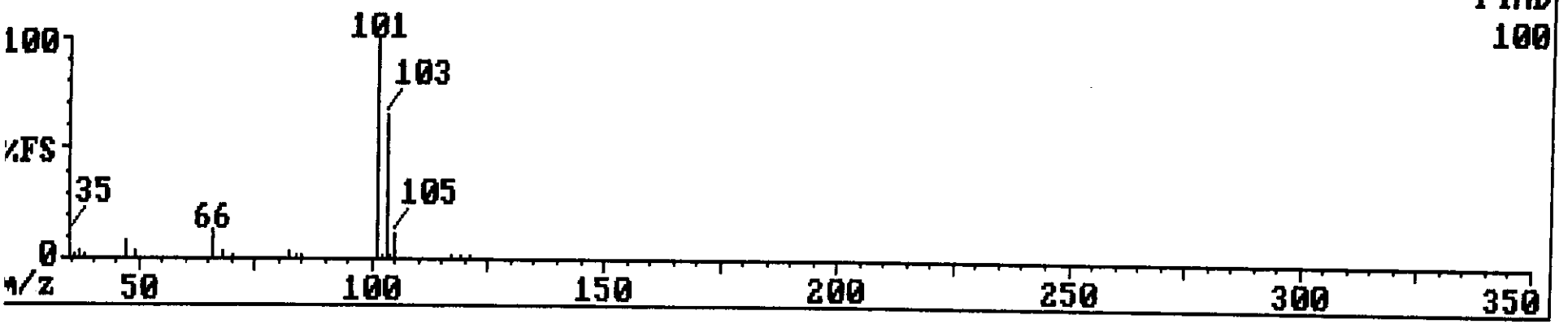


FX980 207 (2.071) REFINE



8260 13 (2.300) Trichlorofluoromethane

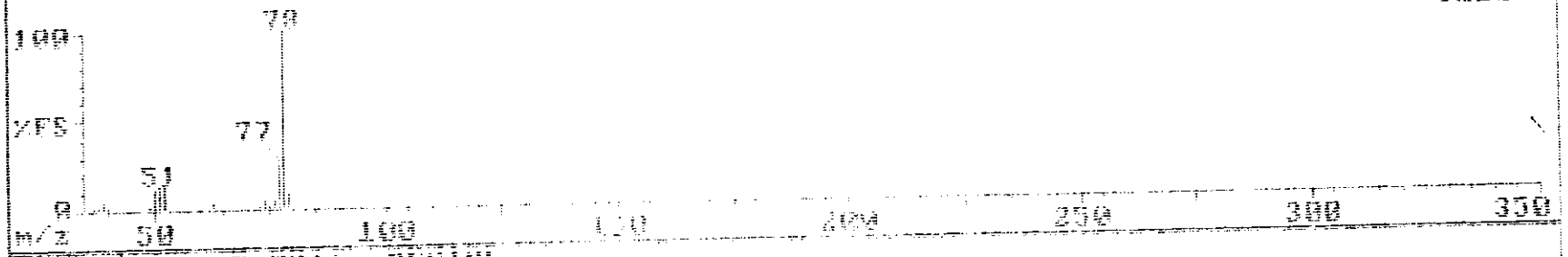
FIND 100



24-Aug-90 10:02 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-U-3-2-0,R T TC [illegible] Instrument F

FX900 552 (5.521) 311296



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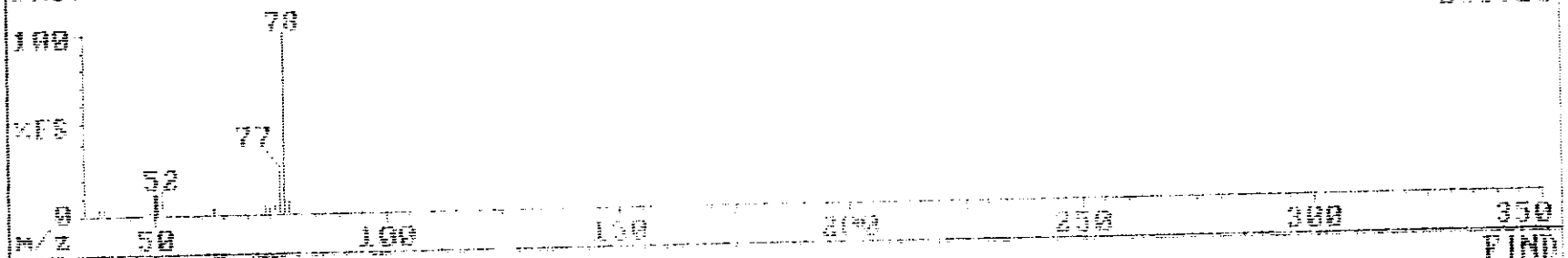


FIND

826HB 32 (5.551) Background 100

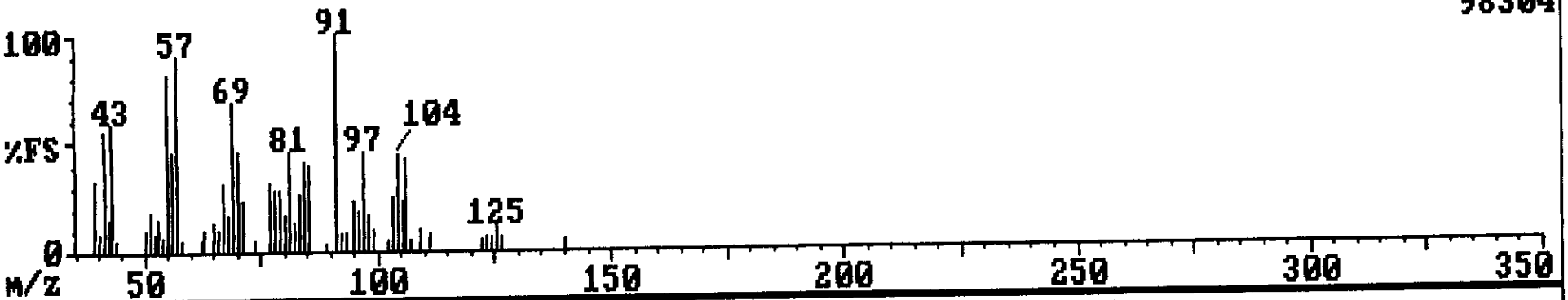
372

376

24-Aug-98 13:02 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-3-2-A,B T/TC 214-27-17A,B TLI#46323 Instrument F

FX980 1169 (11.691) 98304



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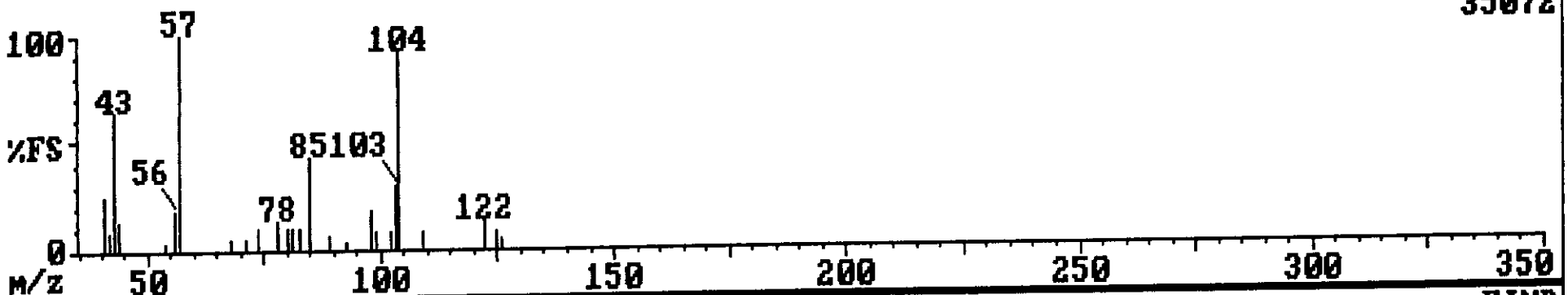
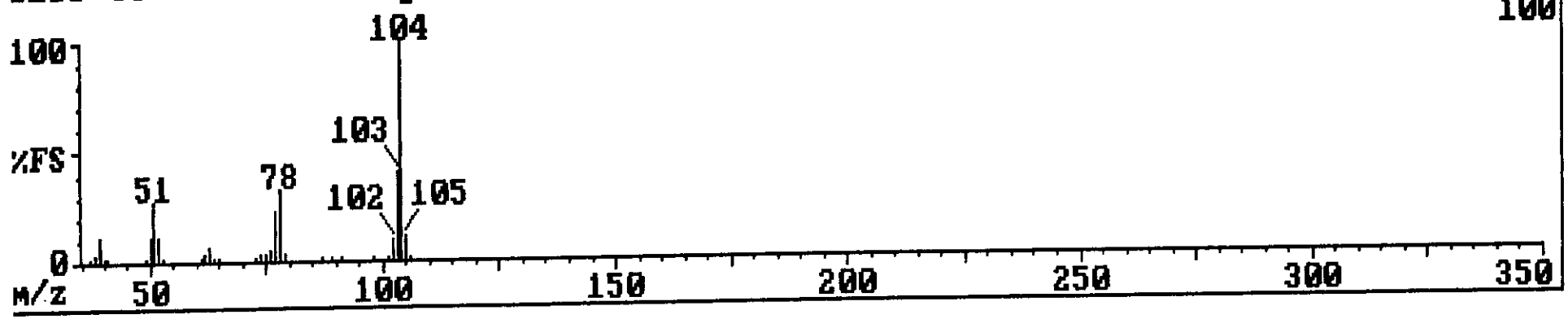


8260 44 (12.371) Styrene FIND 100



370

Pacific Environmental Services

Project Number: 46323
Sample File: FX981

Method 8260 VOST
Sample ID: T-V-3-3-A,B T/TC

Client Project: R012.001
TLI ID: 214-27-18A,B

Date Received: 07/29/98

Date Analyzed : 08/24/98

Response File: ICALF821

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Pentafluorobenzene		IS 1	5.31		
Chloromethane	0.043	J	1.09		0.05
Vinyl Chloride		U		0.001	0.05
Bromomethane		U		0.001	0.05
Chloroethane		U		0.001	0.05
Trichlorofluoromethane	0.006	J	2.08		0.05
1,1-Dichloroethene		U		0.001	0.05
Iodomethane		U		0.001	0.05
Carbon disulfide	0.020	J	2.79		0.05
Acetone		U		0.004	0.05
Allyl chloride		U		0.001	0.05
Methylene chloride	0.049	J	3.28		0.05
Acrylonitrile		U		0.019	0.05
trans-1,2-Dichloroethene		U		0.001	0.05
1,1-Dichloroethane		U		0.001	0.05
Vinyl acetate		U		0.001	0.05
cis-1,2-Dichloroethene		U		0.001	0.05
2-Butanone		U		0.004	0.05
Chloroform		U		0.001	0.05
1,1,1-Trichloroethane		U		0.001	0.05
1,4-Difluorobenzene		IS 2	6.08		
Carbon tetrachloride		U		0.001	0.05
Benzene	0.129		5.53		0.05
1,2-Dichloroethane		U		0.001	0.05
Trichloroethene		U		0.001	0.05
1,2-Dichloropropane		U		0.001	0.05

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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Printed: 16:49 08/25/1998

380

Pacific Environmental Services

Project Number: 46323
Sample File: FX981

Method 8260 VOST
Sample ID: T-V-3-3-A,B T/TC

Client Project: R012.001
TLI ID: 214-27-18A,B

Date Received: 07/29/98
Date Analyzed : 08/24/98

Response File: ICALF821

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Methyl methacrylate		U		0.006	0.05
Bromodichloromethane		U		0.001	0.05
cis-1,3-Dichloropropene		U		0.001	0.05
4-Methyl-2-pentanone		U		0.004	0.05
Toluene	0.217		8.11		0.05
trans-1,3-Dichloropropene		U		0.001	0.05
1,1,2-Trichloroethane		U		0.001	0.05
Chlorobenzene-d_5		IS 3	10.38		
Tetrachloroethene	0.028	J	8.95		0.05
2-Hexanone		U		0.008	0.05
Dibromochloromethane		U		0.001	0.05
1,2-Dibromoethane		U		0.001	0.05
Chlorobenzene		U		0.001	0.05
Ethylbenzene	0.071		10.70		0.05
m-/p-Xylene	0.378		10.94		0.10
o-Xylene	0.124		11.66		0.05
Styrene	0.037	J	11.73		0.05
Bromoform		U		0.002	0.05
1,4-Dichlorobenzene-d_4		IS 4	15.78		
Cumene		U		0.001	0.05
1,1,2,2-Tetrachloroethane		U		0.001	0.05

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
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Pacific Environmental Services

Project Number: 46323
Sample File: FX981

Method 8260 VOST
Sample ID: T-V-3-3-A,B T/TC

Client Project: R012.001
TLI ID: 214-27-18A,B

Date Received: 07/29/98

Date Analyzed : 08/24/98

Response File: ICALF821

Surrogate Summary	Amount (ug)	RT	IS Ref	%REC
Dibromofluoromethane	0.210	5.19	1	84
Toluene-d_8	0.265	8.02	2	106
4-Bromofluorobenzene	0.268	12.69	2	107

Reviewed by PAB Date 8/25/98

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
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Printed: 16:49 08/25/1998

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Pacific Environmental Services

Project Number: 46323
Sample File: FX981

Method 8260 VOST
Sample ID: T-V-3-3-A,B T/TC

Client Project: R012.001
TLI ID: 214-27-18A,B

Date Received: 07/29/98
Date Analyzed : 08/24/98

Response File: ICALF824

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Pentafluorobenzene		IS 1	5.31		
1,3-Butadiene		U		0.001	0.25
Vinyl bromide		U		0.001	0.25
MTBE	0.015	J	3.63		0.25
n-Hexane	0.142	J	3.90		0.25
1,2-Epoxybutane		U		0.023	0.25
Iso-Octane		U		0.001	0.25
1,4-Difluorobenzene		IS 2	6.08		
Ethyl acrylate		U		0.006	0.25

Reviewed by PaB Date 8/25/98

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit

IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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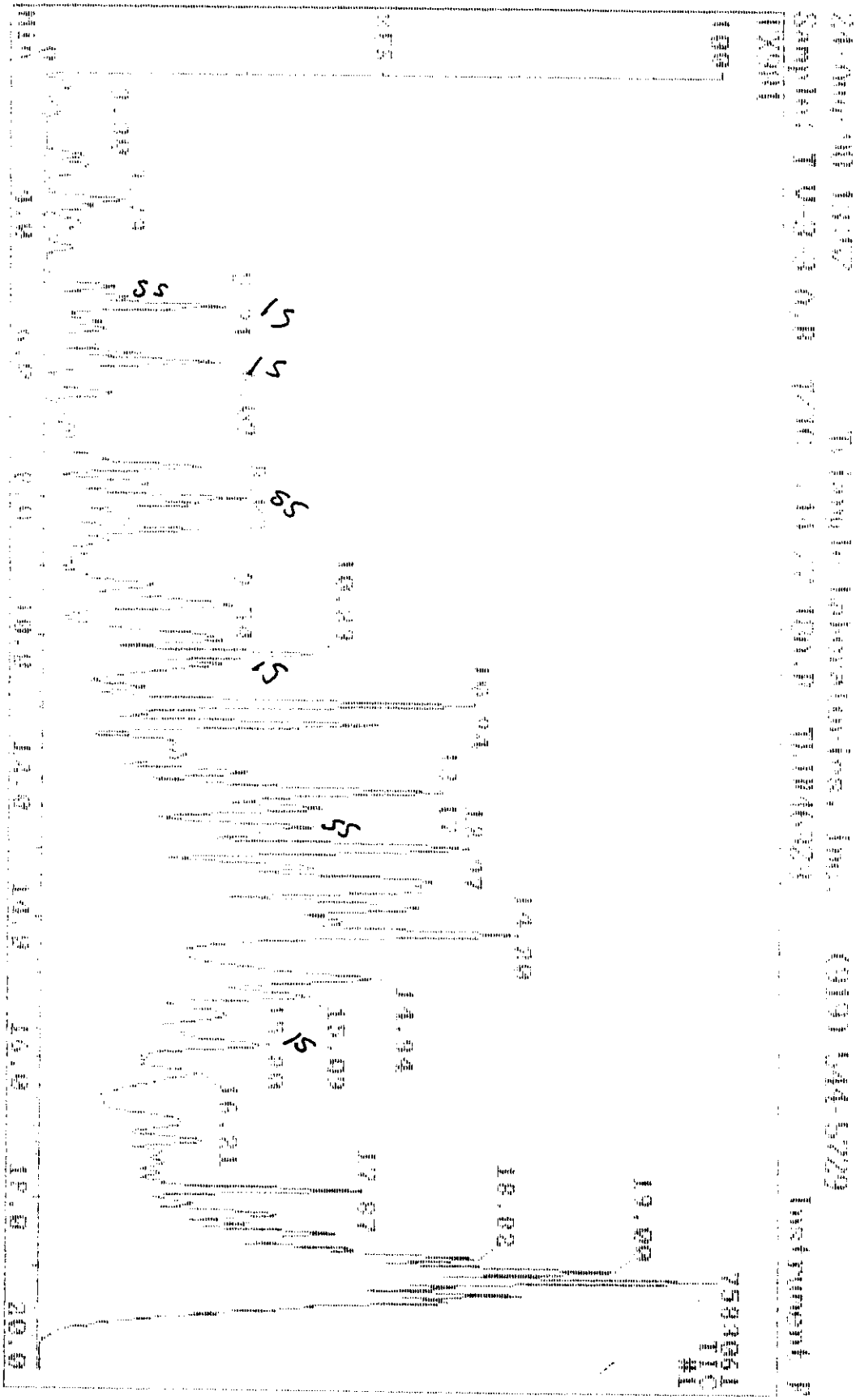
Savar v3.7
Printed: 17:21 08/25/1998



384

Data Review: PaB
Date: 8/24/98

114797 — (M) PAB — 1.09

88384 — (M) PAB — 2.08

(7P) PAB

223744 — (M) PAB — 3.28

(7P) PAB

(7P) PAB

(7P) PAB

(7P) PAB

(7P) PAB

Data Review: PAB
Date: 8/24/98

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QUAN OB : EX981 LAB-BASE QUAN 24-Aug-93 [illegible]

No.	MAT	FOR	REV	Delta	Area	Flags	RT	QM	Name
1	100	67	95	2	4352064	bb	5.311	168	Pentafluorobenzene
2	100	80	91	0	4277304	bb	6.081	114	1,4-Difluorobenzene
3	93	67	82	1	3495160	bb	10.381	117	Chlorobenzene-d5
4	63	99	83	1	1387456	bb	15.382	152	1,3-Dichlorobenzene-d4
5	100	66	95	0	1437957	bb	5.191	113	Dibromofluoromethane
6	100	81	94	0	5231252	bb	8.021	98	Toluene-d8
7	70	44	68	1	1315221	vv	12.621	95	4-Bromofluorobenzene
8	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	(7P) PAB	[illegible]	39	1,3-Butadiene
9	0	0	0	0	0		0.000	106	Vinyl bromide
10	64	55	55	4	58176	bb	7.650	71	MTBE
11	100	96	96	2	1205304	vv	3.900	57	[illegible]
12	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	(7P) PAB	[illegible]	[illegible]	1,2-Epoxybutane
13	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	(7P) PAB	[illegible]	[illegible]	[illegible]
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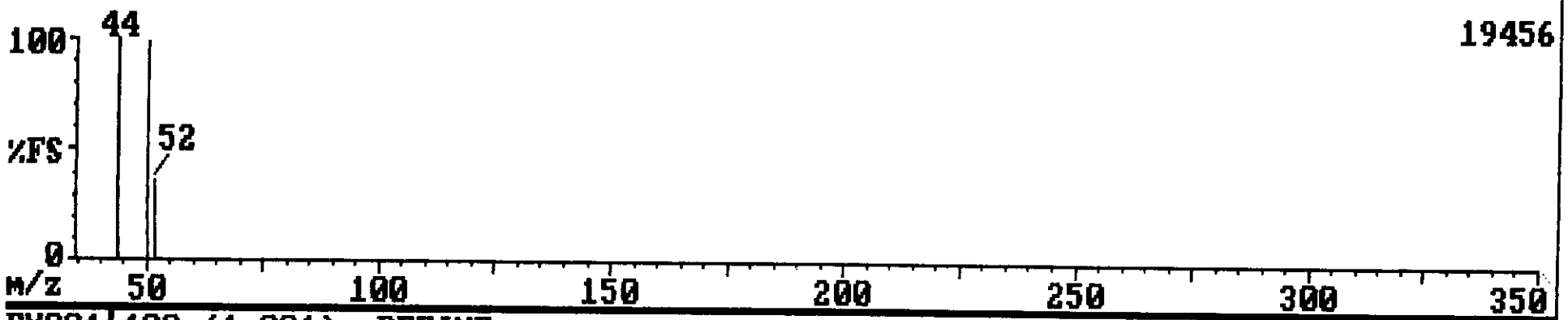
387

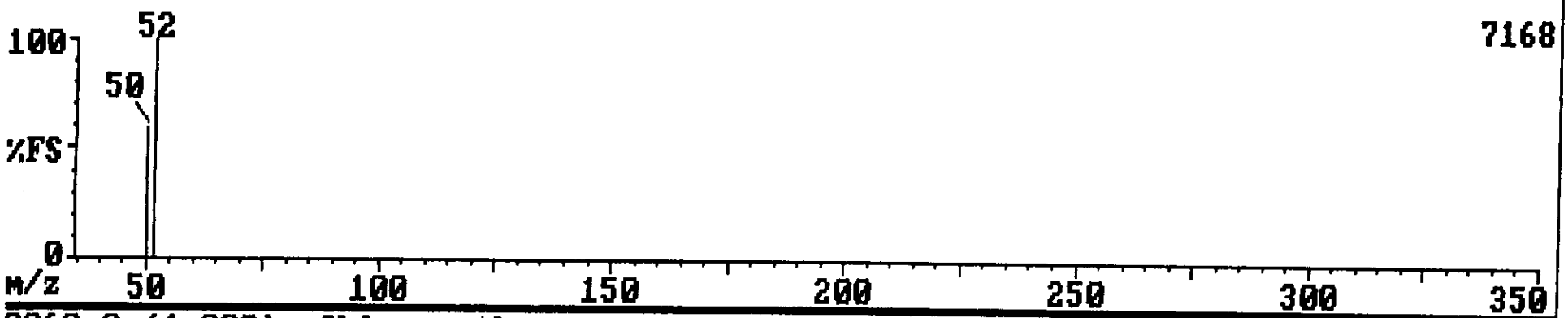
24-Aug-98 13:52 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-3-3-A,B T/TC 214-27-18A,B TLI#46323 Instrument F

FX981 109 (1.090)

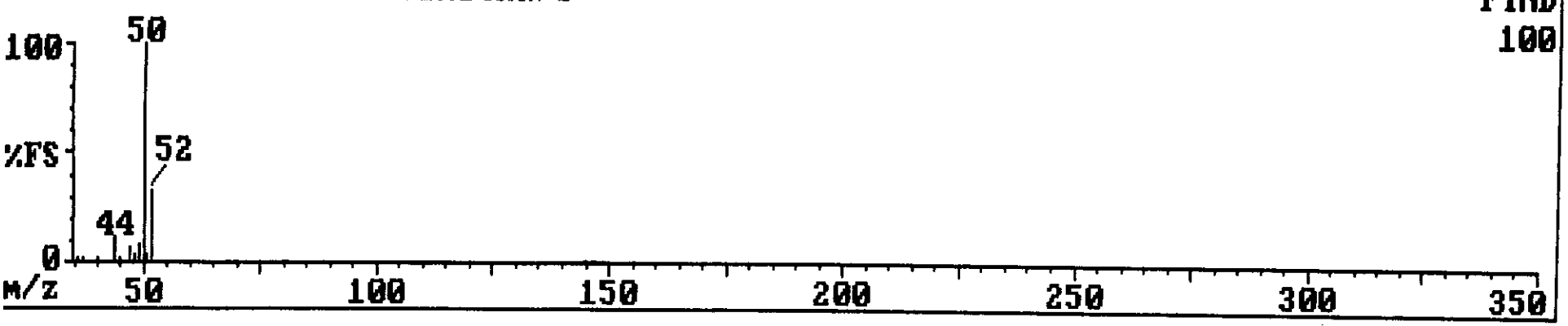


FX981 109 (1.091) REFINE



8260 9 (1.230) Chloromethane

FIND



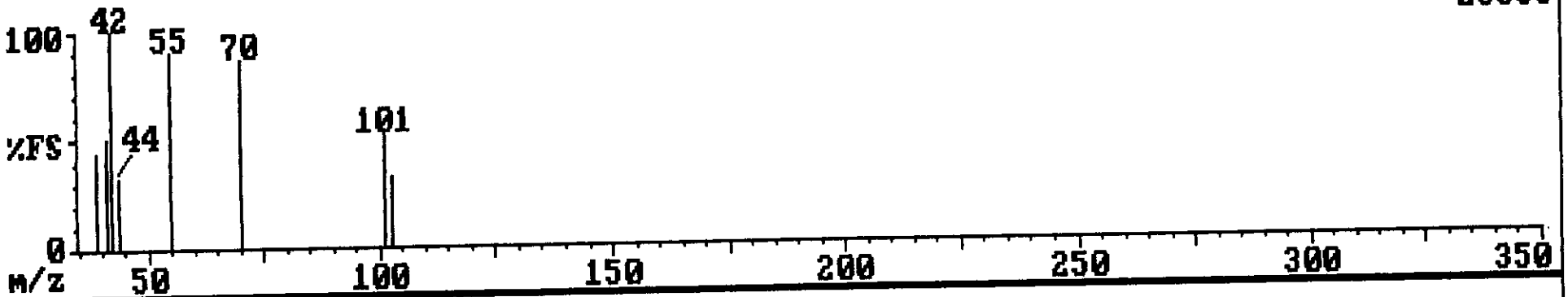
135

300

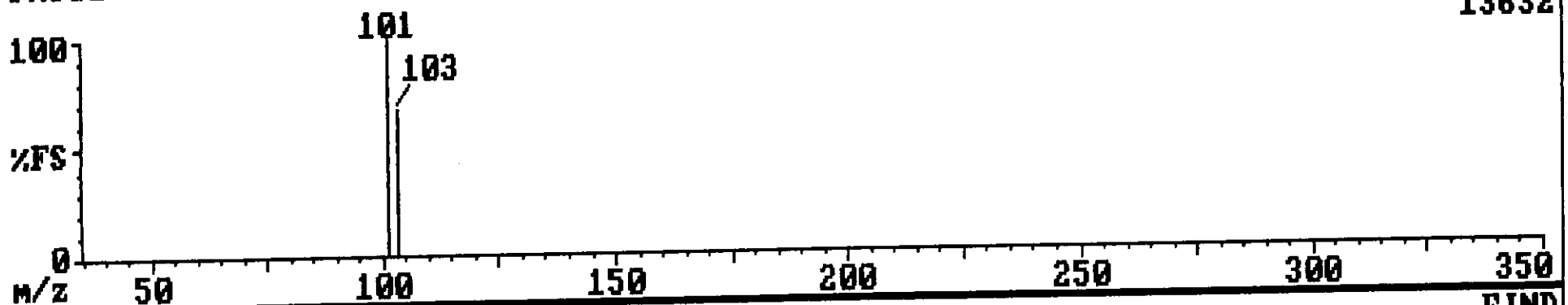
24-Aug-98 13:52 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-3-3-A,B T/TC 214-27-18A,B TLI#46323 Instrument F

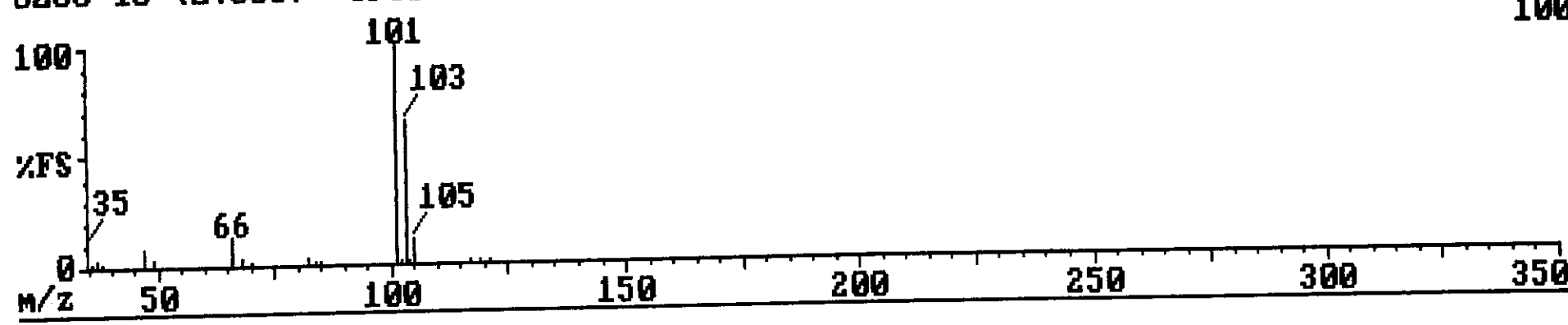
FX981 208 (2.080) 26368



FX981'208 (2.081) REFINE 13632



8260 13 (2.300) Trichlorofluoromethane FIND 100

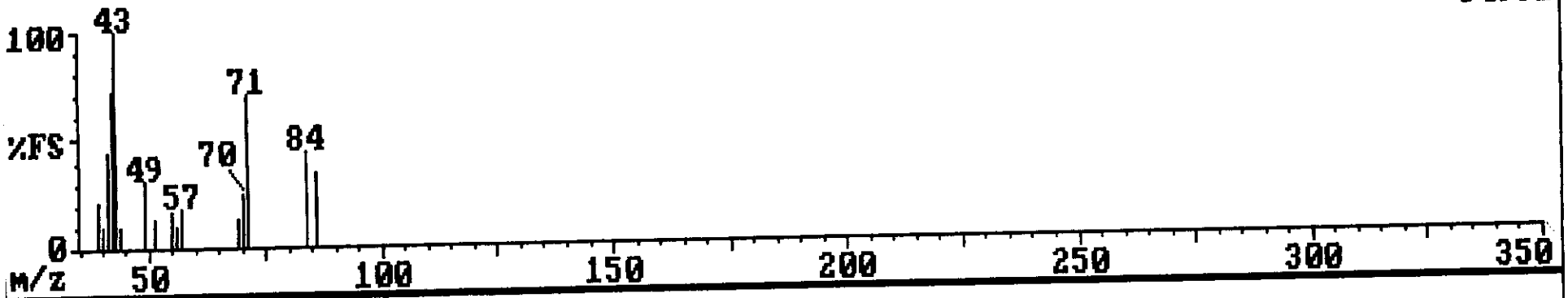


390

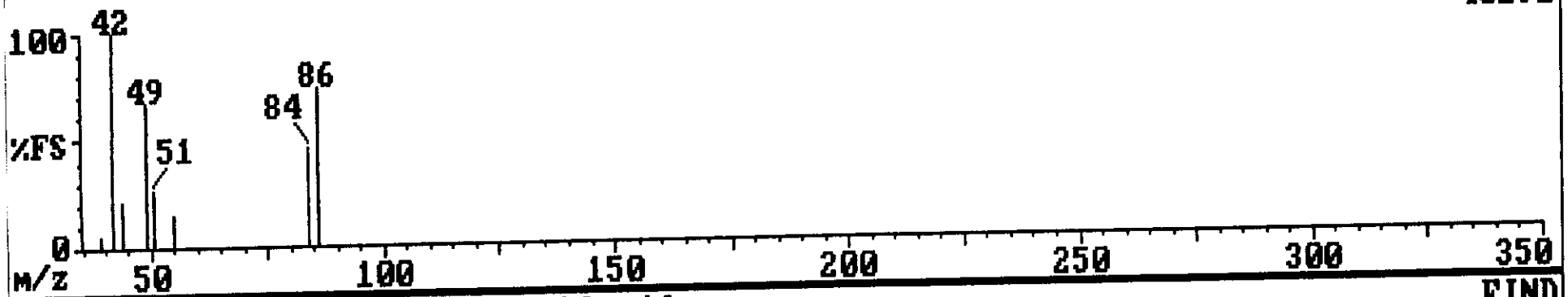
24-Aug-98 13:52 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-3-3-A,B T/TC 214-27-18A,B TLI#46323 Instrument F

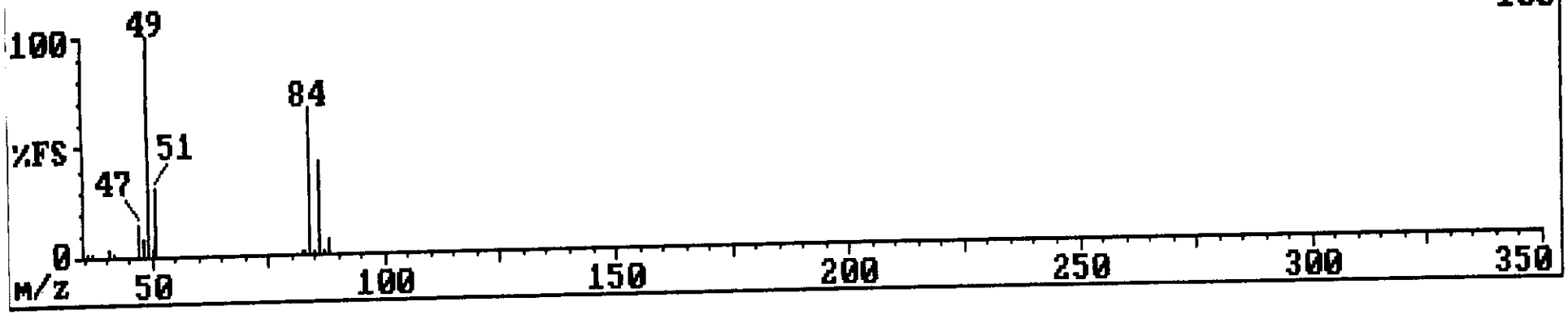
FX981 328 (3.280) 84992



FX981 328 (3.281) REFINE 40192



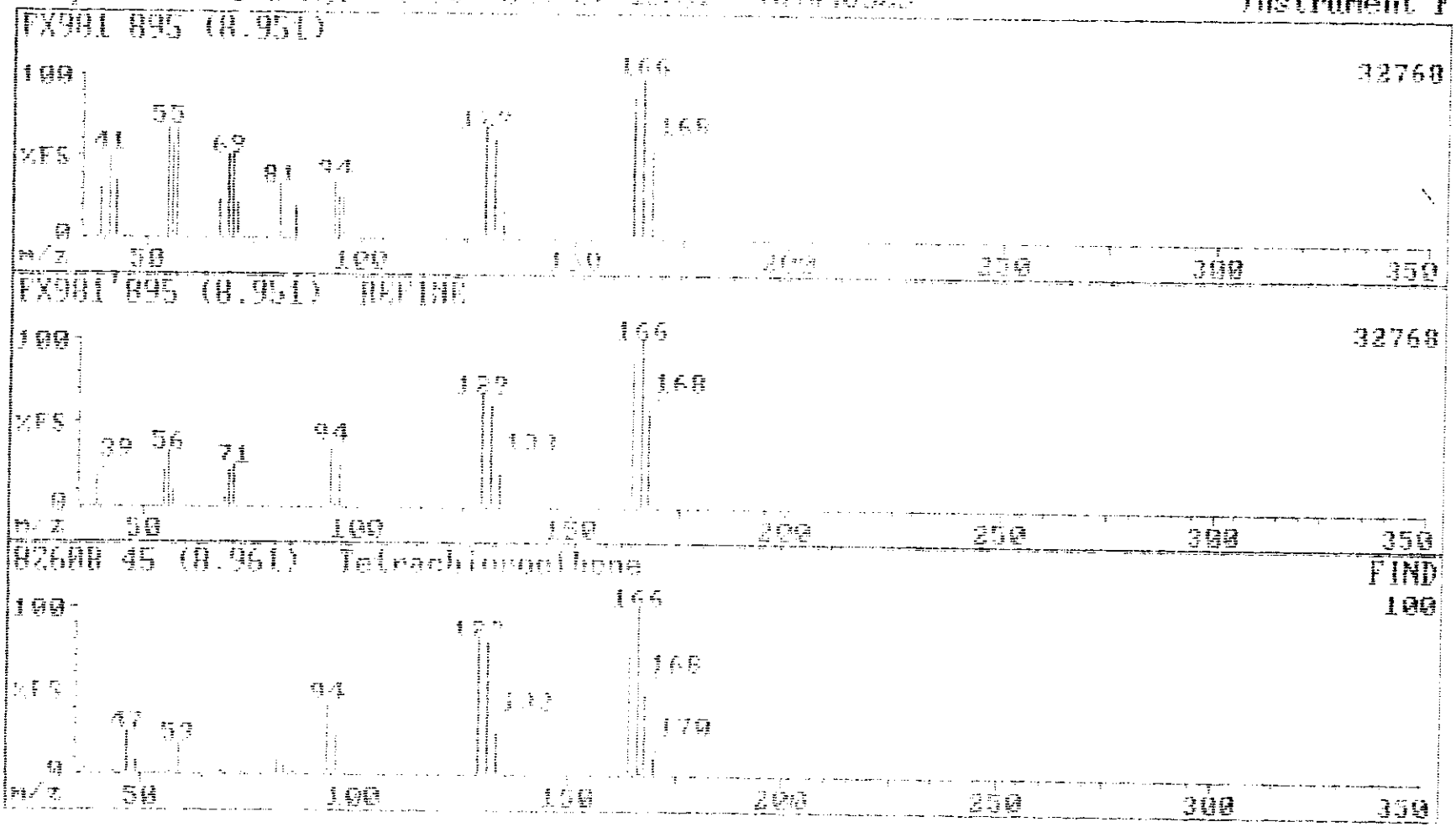
8260 15 (3.550) Methylene chloride FIND 100



392

24-Aug-98 13:52 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-3-3-A,B T/TC 214-27 10A,B TLI#46323 Instrument F

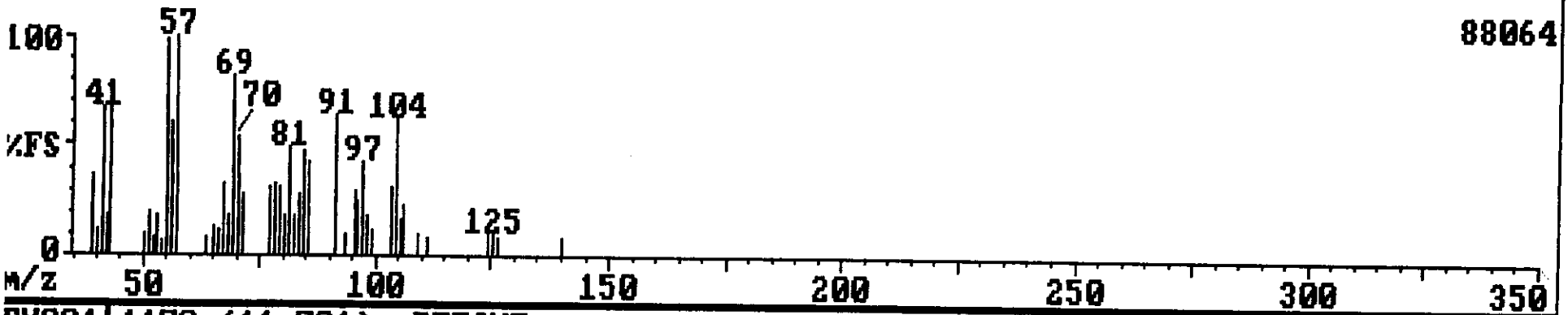


394

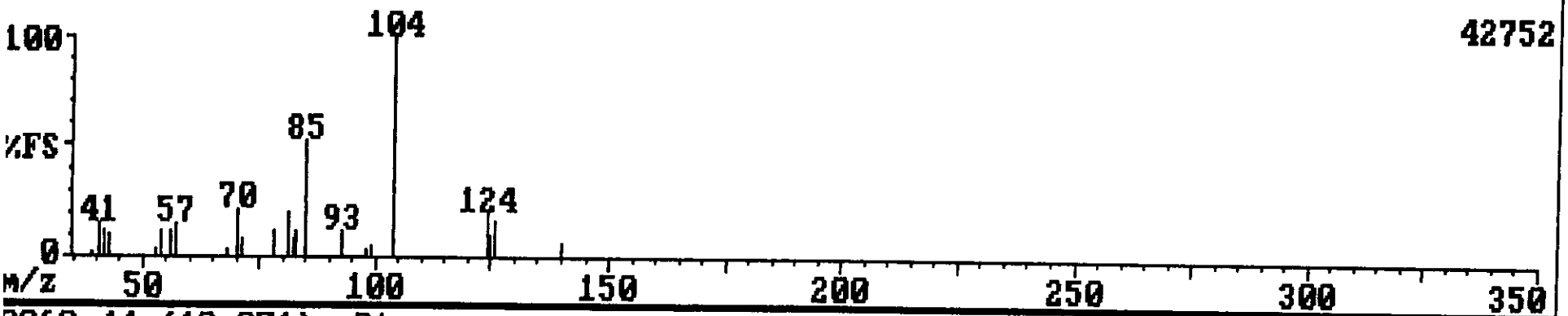
24-Aug-98 13:52 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-3-3-A,B T/TC 214-27-18A,B TLI#46323 Instrument F

FX981 1173 (11.731)

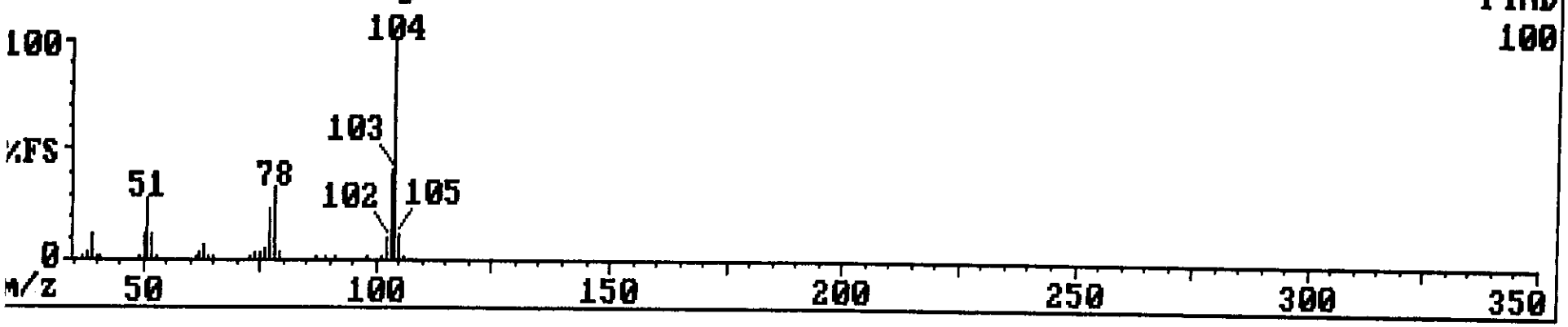


FX981 1173 (11.731) REFINE



8260 44 (12.371) Styrene

FIND



400

Pacific Environmental Services

Project Number: 46323
Sample File: HW562

Method 8260 VOST
Sample ID: T-V-4-1-A T

Client Project: R012.001
TLI ID: 214-27-20A

Date Received: 07/29/98
Date Analyzed : 08/09/98

Response File: ICALH809

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Pentafluorobenzene		IS 1	5.03		
Chloromethane	0.010	BJ	0.97		0.05
Vinyl Chloride		U		0.001	0.05
Bromomethane	0.010	BJ	1.48		0.05
Chloroethane		U		0.001	0.05
Trichlorofluoromethane	0.009	J	1.91		0.05
1,1-Dichloroethene		U		0.001	0.05
Iodomethane		U		0.001	0.05
Carbon disulfide		U		0.001	0.05
Acetone	0.151		2.74		0.05
Allyl chloride		U		0.001	0.05
Methylene chloride	0.038	BJ	3.06		0.05
Acrylonitrile		U		0.007	0.05
trans-1,2-Dichloroethene		U		0.001	0.05
1,1-Dichloroethane		U		0.001	0.05
Vinyl acetate		U		0.001	0.05
cis-1,2-Dichloroethene		U		0.001	0.05
2-Butanone	0.051		4.51		0.05
Chloroform	0.006	J	4.75		0.05
1,1,1-Trichloroethane	0.012	J	4.84		0.05
1,4-Difluorobenzene		IS 2	5.75		
Carbon tetrachloride		U		0.001	0.05
Benzene	0.091	B	5.22		0.05
1,2-Dichloroethane		U		0.001	0.05
Trichloroethene	0.001	J	5.99		0.05
1,2-Dichloropropane		U		0.001	0.05

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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Printed: 16:11 08/10/1998

Pacific Environmental Services

Project Number: 46323
Sample File: HW562

Method 8260 VOST
Sample ID: T-V-4-1-A T

Client Project: R012.001
TLI ID: 214-27-20A

Date Received: 07/29/98

Date Analyzed : 08/09/98

Response File: ICALH809

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Methyl methacrylate		U		0.003	0.05
Bromodichloromethane		U		0.001	0.05
cis-1,3-Dichloropropene		U		0.001	0.05
4-Methyl-2-pentanone		U		0.002	0.05
Toluene	0.133	B	7.70		0.05
trans-1,3-Dichloropropene		U		0.001	0.05
1,1,2-Trichloroethane		U		0.001	0.05
Chlorobenzene-d_5		IS 3	9.94		
Tetrachloroethene	0.016	J	8.53		0.05
2-Hexanone		U		0.002	0.05
Dibromochloromethane		U		0.001	0.05
1,2-Dibromoethane		U		0.001	0.05
Chlorobenzene		U		0.001	0.05
Ethylbenzene	0.018	J	10.28		0.05
m-/p-Xylene	0.056	J	10.52		0.10
o-Xylene	0.024	J	11.23		0.05
Styrene	0.025	BJ	11.28		0.05
Bromoform		U		0.001	0.05
1,4-Dichlorobenzene-d_4		IS 4	15.07		
Cumene		U		0.001	0.05
1,1,2,2-Tetrachloroethane		U		0.001	0.05

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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Pacific Environmental Services

Project Number: 46323
Sample File: HW562

Method 8260 VOST
Sample ID: T-V-4-1-A T

Client Project: R012.001
TLI ID: 214-27-20A

Date Received: 07/29/98
Date Analyzed : 08/09/98

Response File: ICALH809

Surrogate Summary	Amount (ug)	RT	IS Ref	%REC
Dibromofluoromethane	0.262	4.91	1	105
Toluene-d_8	0.282	7.60	2	113
4-Bromofluorobenzene	0.384	12.24	2	154

1 PAB 8/10/98

Reviewed by PAB Date 8/10/98

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit

IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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Savar v3.7
Printed: 16:11 08/10/1998

Pacific Environmental Services

Project Number: 46323
Sample File: HW562

Method 8260 VOST
Sample ID: T-V-4-1-A T

Client Project: R012.001
TLI ID: 214-27-20A

Date Received: 07/29/98

Date Analyzed : 08/09/98

Response File: ICALH809

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Pentafluorobenzene		IS 1	5.03		
1,3-Butadiene		U		0.001	0.25
Vinyl bromide		U		0.001	0.25
MTBE	0.114	J	3.41		0.25
n-Hexane	0.034	J	3.66		0.25
1,2-Epoxybutane		U		0.055	0.25
Iso-Octane	0.012	J	5.38		0.25
1,4-Difluorobenzene		IS 2	5.75		
Ethyl acrylate		U		0.001	0.25

Reviewed by GAB Date 8/10/98

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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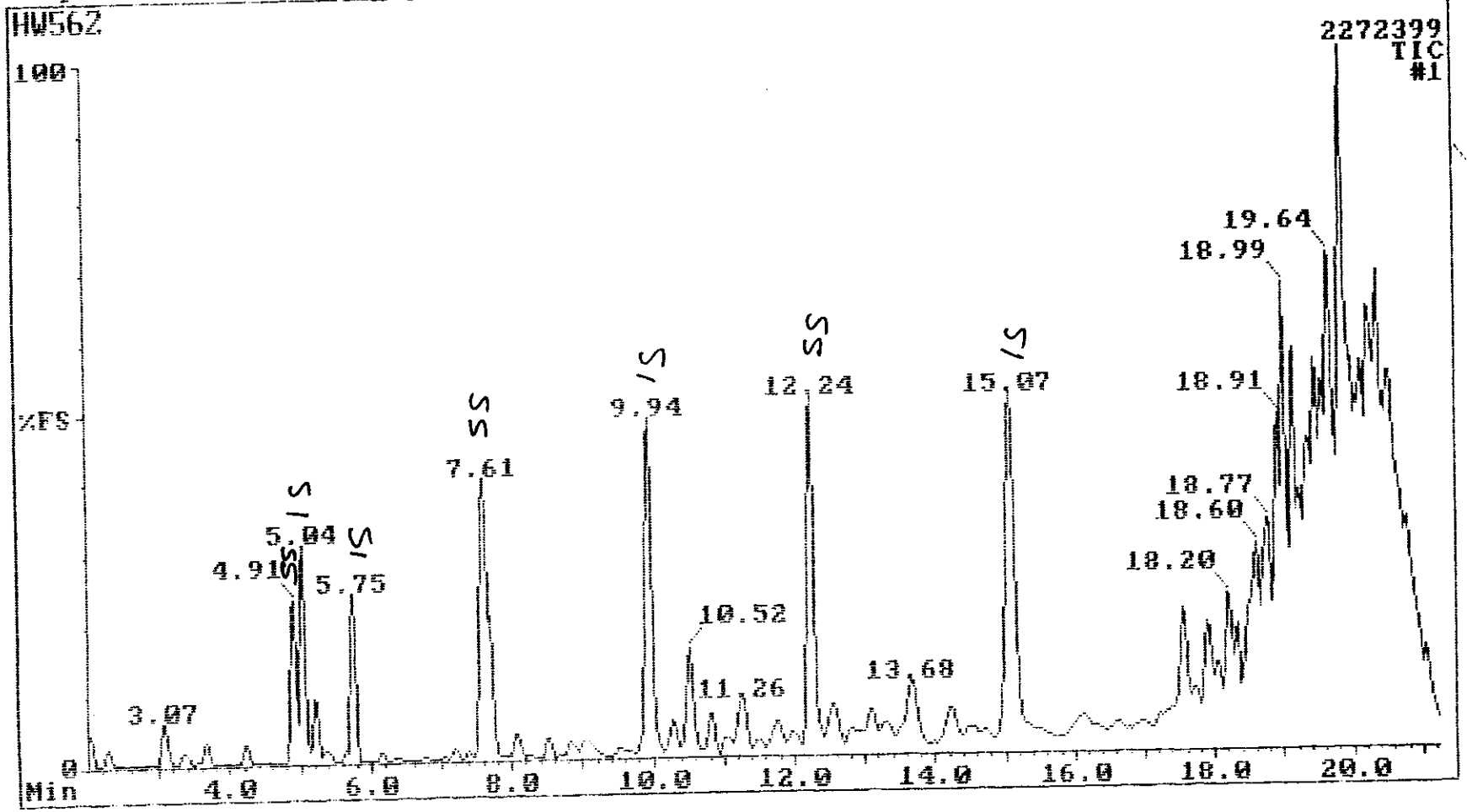
Savar v3.7
Printed: 16:48 08/10/1998

08-09-98 10:37 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-4-1-A T 214-27-20A TLI#46323 Instrument H



Data Review: [illegible]
Date: 8/10/98

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QUAN DB : HW562 LAB-BASE QUAN 08-09-98 11:14

No.	MAT	FOR	REV	Delta	Area	P.Flags	RT	QM	Name
1	100	84	99	-6	1824832	bb	5.03	168	Pentafluorobenzene
2	100	97	98	-1	1672116	bv	5.75	114	1,4-Difluorobenzene
3	100	94	95	4	3173136	bv	9.94	117	Chlorobenzene-d5
4	100	75	99	-4	2324848	bv	15.07	152	1,4-Dichlorobenzene-d4
5	100	94	100	1	1018220	bv	4.91	113	Dibromofluoromethane
6	100	91	98	-1	2642836	bv	7.60	98	Toluene-d8
7	96	89	94	7	1931123	vv	12.24	95	4-Bromofluorobenzene
8	0	0	0	0	0		0.00	85	Dichlorodifluoromethane
9	100	82	82	-1	26264	bv	0.97	50	Chloromethane
10	0	0	0	0	0		0.00	62	Vinyl Chloride
11	100	78	91	0	30116	bv	1.48	94	Bromomethane
12	0	0	0	0	0		0.00	64	Chloroethane
13	100	77	91	0	70572	bb	1.91	101	Trichlorofluoromethane
14	0	0	0	0	0		0.00	96	1,1-Dichloroethene
15	0	0	0	0	0		0.00	142	Iodomethane
16	0	0	0	0	0		0.00	76	Carbon disulfide
17	85	74	93	8	55188	bv	2.74	43	Acetone
18	0	0	0	0	0		0.00	41	Allyl chloride
19	81	58	71	0	97924	bv	3.06	84	Methylene chloride
20	~~9~~	~~1~~	~~16~~	~~5~~	~~368~~	~~bb~~	~~3.55~~	53	Acrylonitrile
21	0	0	0	0	0		0.00	96	trans-1,2-Dichloroethene
22	0	0	0	0	0		0.00	63	1,1-Dichloroethane
23	0	0	0	0	0		0.00	43	Vinyl acetate
24	0	0	0	0	0		0.00	77	2,2-Dichloropropane
25	0	0	0	0	0		0.00	96	cis-1,2-Dichloroethene
26	100	87	87	2	23632	bv	4.51	43	2-Butanone
27	100	82	92	0	32932	bb	4.75	83	Chloroform
28	0	0	0	0	0		0.00	128	Bromochloromethane
29	81	58	78	-1	65932	bb	4.84	97	1,1,1-Trichloroethane
30	0	0	0	0	0		0.00	117	Carbon tetrachloride
31	0	0	0	0	0		0.00	75	1,1-Dichloropropene
32	100	96	98	0	711096	bv	5.22	78	Benzene
33	0	0	0	0	0		0.00	62	1,2-Dichloroethane
34	81	66	66	-1	1604	bb	5.99	130	Trichloroethene
35	0	0	0	0	0		0.00	63	1,2-Dichloropropane
36	0	0	0	0	0		0.00	93	Dibromomethane
37	0	0	0	0	0		0.00	41	Methyl methacrylate
38	0	0	0	0	0		0.00	83	Bromodichloromethane
39	0	0	0	0	0		0.00	75	cis-1,3-Dichloropropene
40	~~50~~	~~2~~	~~73~~	~~1~~	~~38864~~	~~bv~~	~~7.61~~	43	4-Methyl-2-pentanone
41	100	94	99	0	900812	bv	7.70	92	Toluene
42	0	0	0	0	0		0.00	75	trans-1,3-Dichloropropen
43	0	0	0	0	0		0.00	97	1,1,2-Trichloroethane
44	62	51	51	-1	9220	A	8.43	69	Ethyl methacrylate
45	100	84	96	-2	75744	bb	8.53	164	Tetrachloroethene
46	0	0	0	0	0		0.00	76	1,3-Dichloropropane
47	~~34~~	~~15~~	~~56~~	~~-11~~	~~32192~~	~~vv~~	~~8.86~~	43	2-Hexanone
48	0	0	0	0	0		0.00	129	Dibromochloromethane
49	0	0	0	0	0		0.00	107	1,2-Dibromoethane
50	0	0	0	0	0		0.00	112	Chlorobenzene

FP FAB 8/10/98

FP FAB 8/10/98

FP FAB 8/10/98

Data Review: FAB
Date: 8/10/98

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No.	MAT	FOR	REV	Delta	Area	P.Flags	RT	QM	Name
51	0	0	0	0	0		0.00	131	1,1,1,2-Tetrachloroethan
52	100	80	93	0	125776	bv	10.28	106	Ethylbenzene
53	100	83	93	2	480652	vv	10.52	106	m-/p-Xylene
54	100	82	87	1	194588	bv	11.23	106	o-Xylene
55	98	77	88	1	326848	bb	11.28	104	Styrene
56	0	0	0	0	0		0.00	173	Bromoform
57	0	0	0	0	0		0.00	105	Cumene
58	0	0	0	0	0		0.00	83	1,1,2,2-Tetrachloroethan
59	0	0	0	0	0		0.00	156	Bromobenzene
60	0	0	0	0	0		0.00	75	1,2,3-Trichloropropane
61	61	38	72	6	37644	bb	12.87	120	n-Propylbenzene
62	0	0	0	0	0		0.00	75	trans-1,4-Dichloro-2-but
63	0	0	0	0	0		0.00	126	2-Chlorotoluene
64	0	0	0	0	0		0.00	126	4-Chlorotoluene
65	61	71	92	-17	512200	bv	13.11	105	1,3,5-Trimethylbenzene
66	0	0	0	0	0		0.00	119	tert-Butylbenzene
67	96	69	93	2	447208	bv	14.23	105	1,2,4-Trimethylbenzene
68	46	12	61	-1	53228	A	14.72	105	sec-Butylbenzene
69	71	41	75	0	209044	bv	15.32	119	p-Cymene
70	0	0	0	0	0		0.00	146	1,3-Dichlorobenzene
71	0	0	0	0	0		0.00	146	1,4-Dichlorobenzene
72	0	0	0	0	0		0.00	91	Benzyl chloride
73	61	35	72	4	110413	vv	16.85	91	n-Butylbenzene
74	0	0	0	0	0		0.00	146	1,2-Dichlorobenzene
75	0	0	0	0	0		0.00	75	1,2-Dibromo-3-chloroprop
76	0	0	0	0	0		0.00	180	1,2,4-Trichlorobenzene
77	0	0	0	0	0		0.00	225	Hexachlorobutadiene
78	0	0	0	0	0		0.00	128	Naphthalene
79	0	0	0	0	0		0.00	180	1,2,3-Trichlorobenzene

QUAN DB : HW562 LAB-BASE QUAN 08-10-98 14:26

No.	MAT	FOR	REV	Delta	Area	P.Flags	RT	QM	Name
1	100	84	99	-1	1824832	bb	5.03	168	Pentafluorobenzene
2	100	97	98	0	1672116	bv	5.75	114	1,4-Difluorobenzene
3	100	94	95	2	3173136	bv	9.94	117	Chlorobenzene-d5
4	100	75	99	5	2324848	bv	15.07	152	1,4-Dichlorobenzene-d4
5	100	94	100	2	1018220	bv	4.91	113	Dibromofluoromethane
6	100	91	98	-3	2642836	bv	7.60	98	Toluene-d8
7	100	89	94	5	1931123	vv	12.24	95	4-Bromofluorobenzene
8	~~75~~	~~43~~	~~77~~	~~2~~	~~55292~~	~~n~~	~~1.06~~	39	1,3-Butadiene
9	0	0	0	0	0		0.00	106	Vinyl bromide
10	100	87	90	2	103404	bb	3.41	73	MTBE
11	100	98	98	1	169304	bb	3.66	57	n-Hexane
12	~~62~~	~~44~~	~~57~~	~~-2~~	~~33172~~	~~bb~~	~~4.22~~	42	1,2-Epoxybutane
13	100	84	87	0	137300	bv	5.38	57	Iso-Octane
14	~~40~~	~~33~~	~~56~~	~~15~~	~~45472~~	~~bb~~	~~7.17~~	55	Ethyl acrylate

Data Review: PaB
Date: 8/10/98

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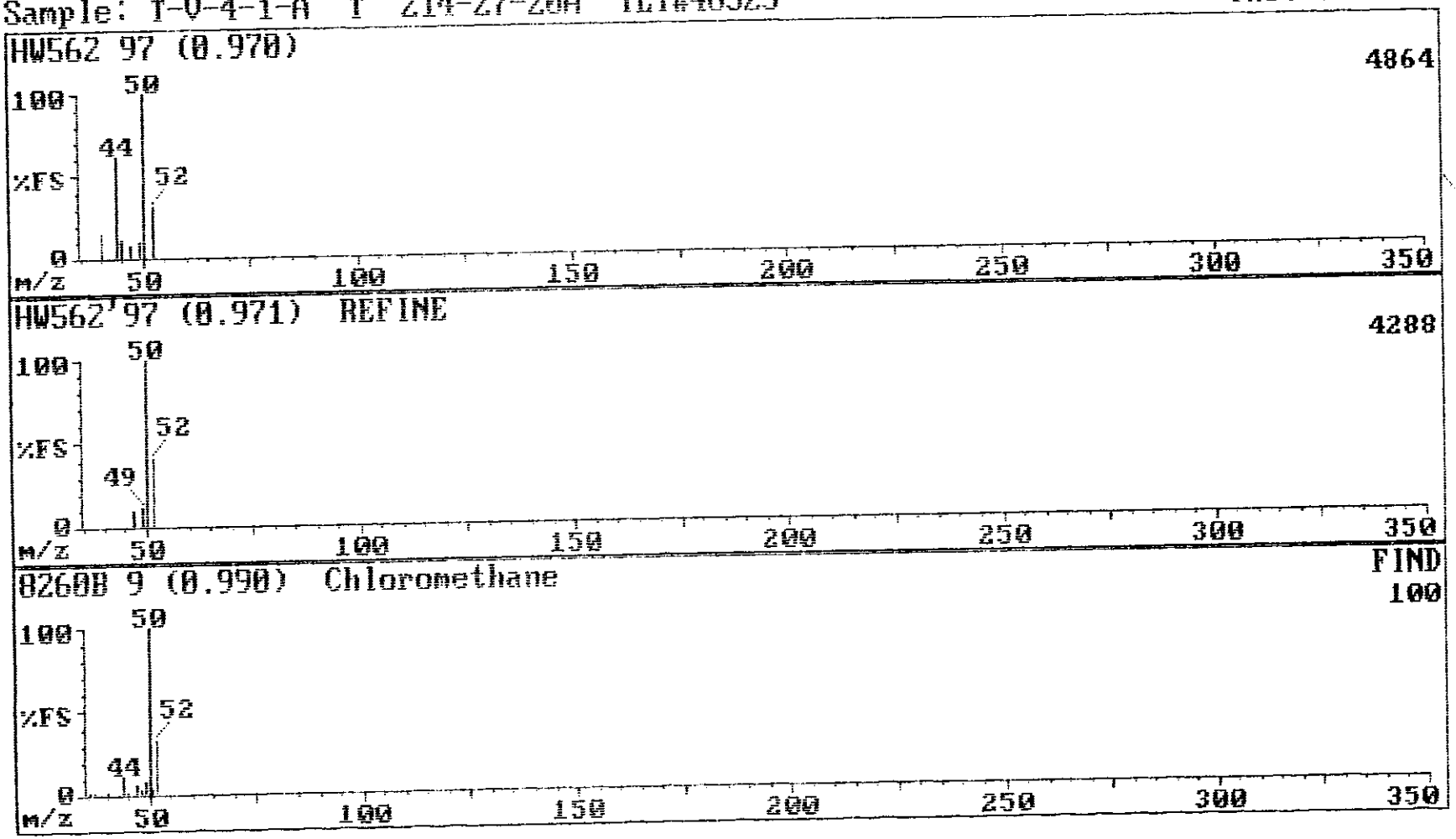
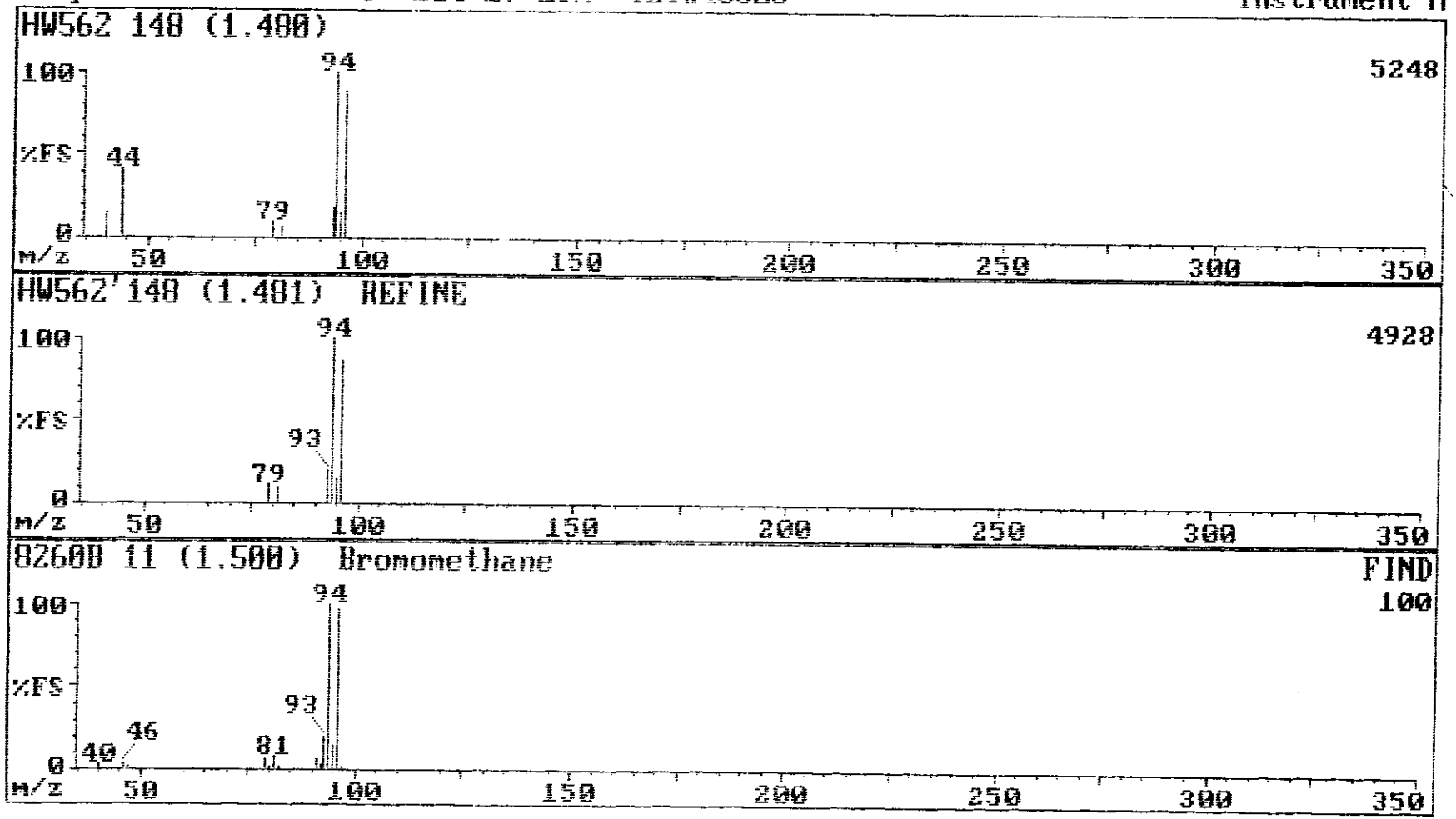
08-09-98 10:37 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-4-1-A T Z14-Z7-Z0A TLI#46323 Instrument H



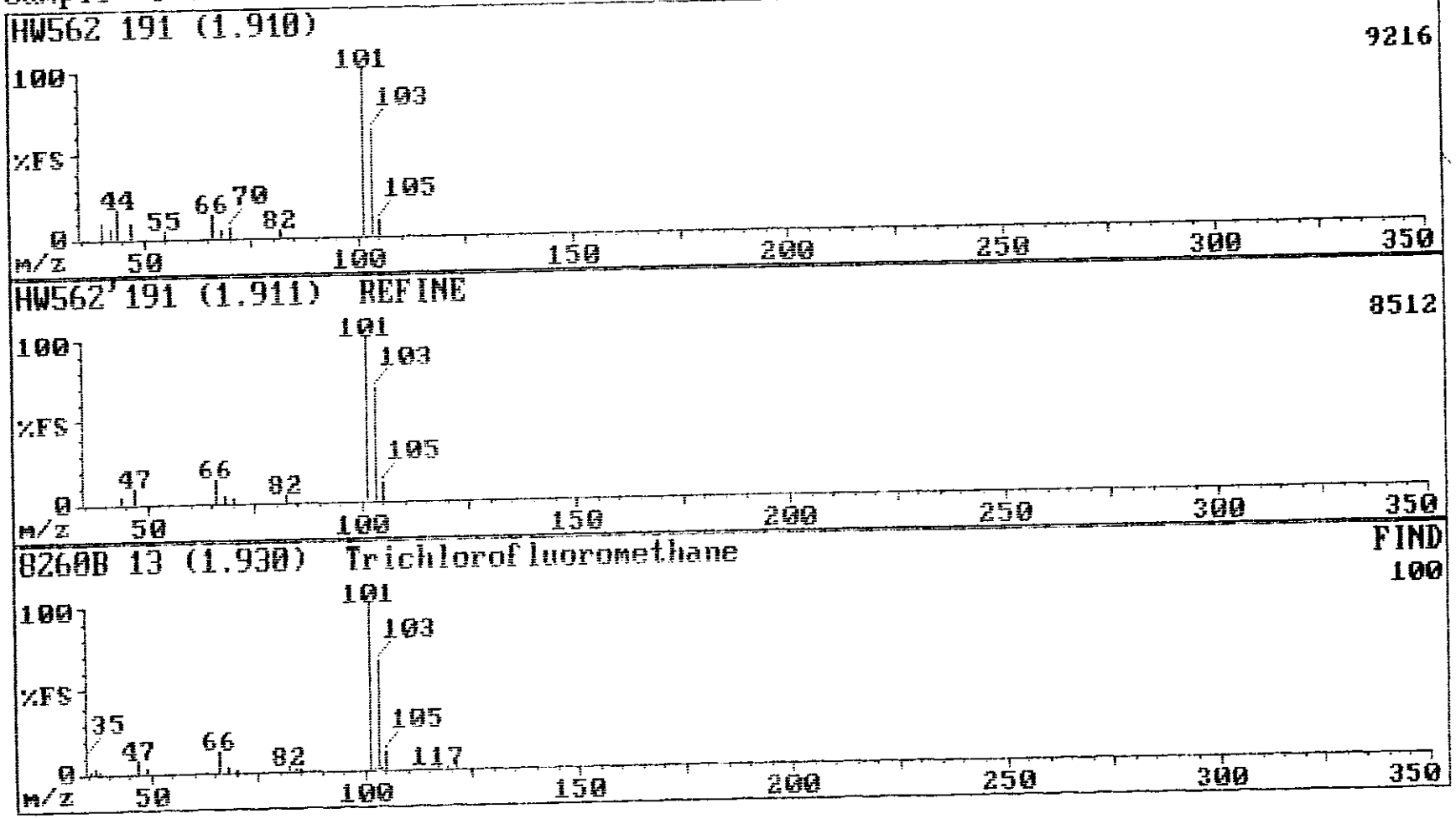
08-09-98 10:37 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-4-1-A T 214-27-20A TLI#46323 Instrument H



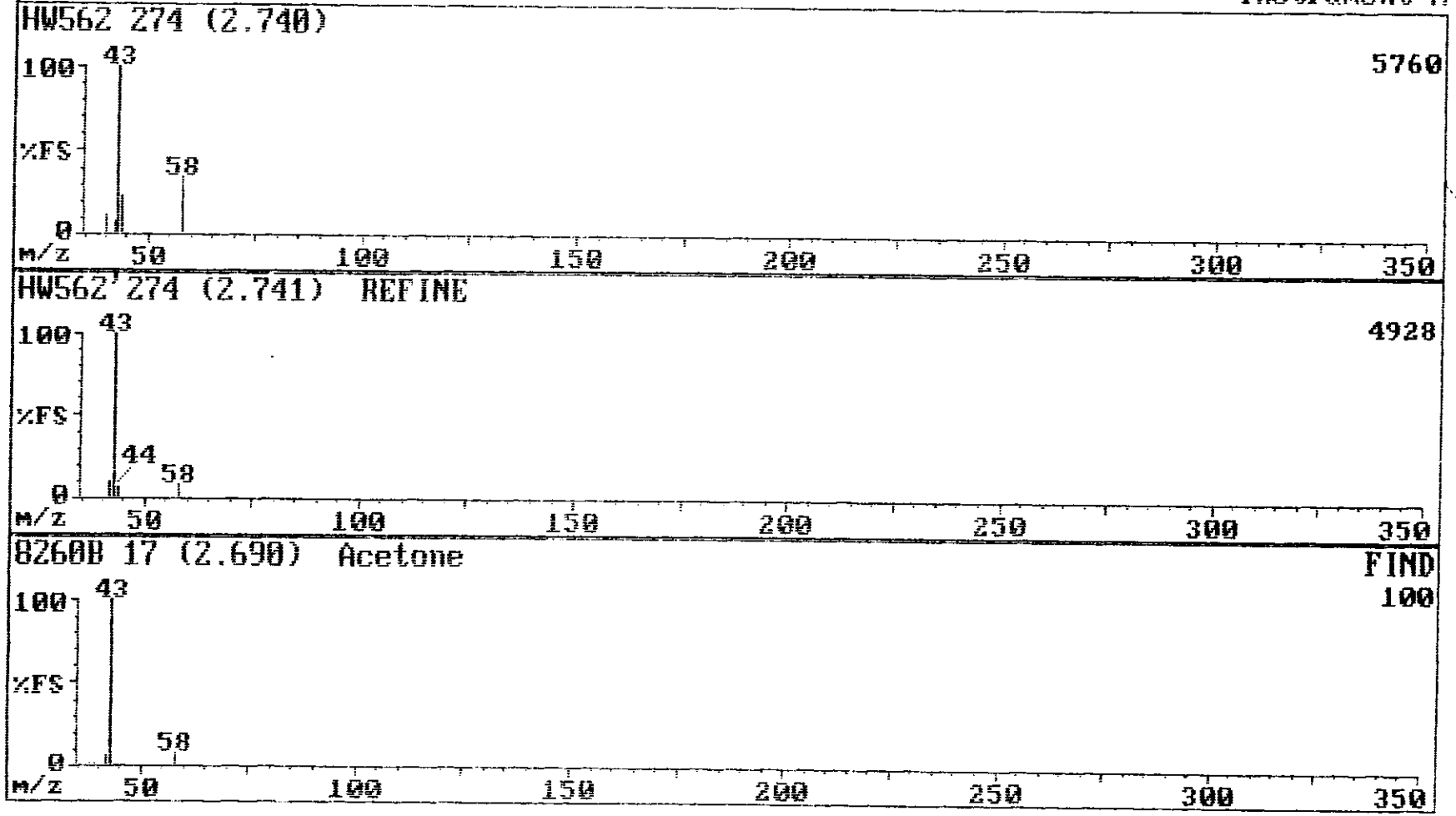
08-09-98 10:37 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-4-1-A T 214-27-20A TLI#46323 Instrument H



08-09-98 10:37 Triangle Laboratories, Inc. (919) 544-5729

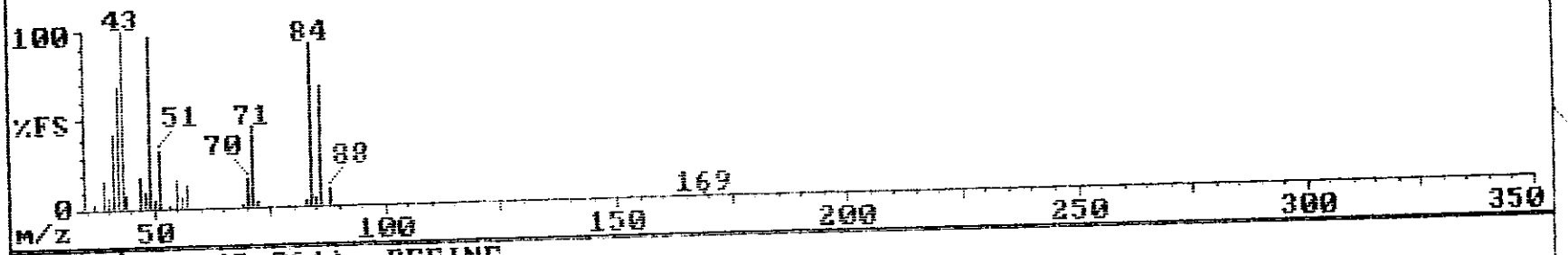
Sample: T-V-4-1-A T Z14-Z7-Z0A TLI#46323 Instrument H



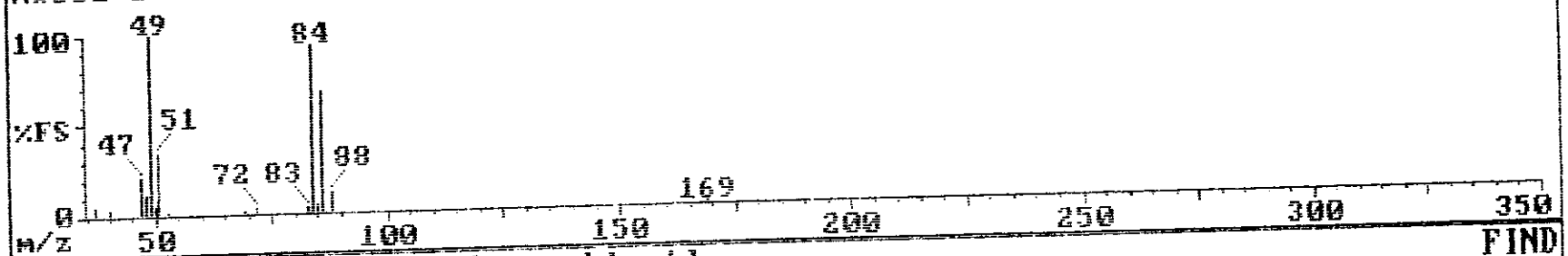
08-09-98 10:37 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-4-1-A T 214-27-20A TLI#46323 Instrument H

HW562 306 (3.060) 18688

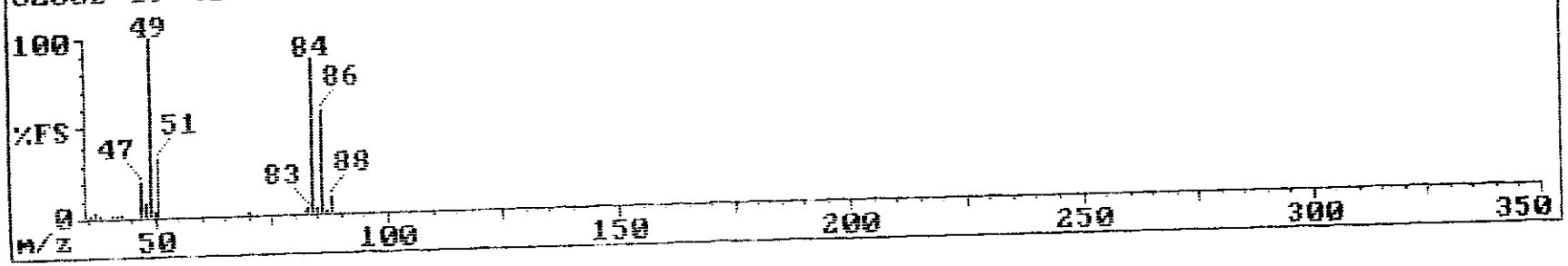


HW562 306 (3.061) REFINE 17664



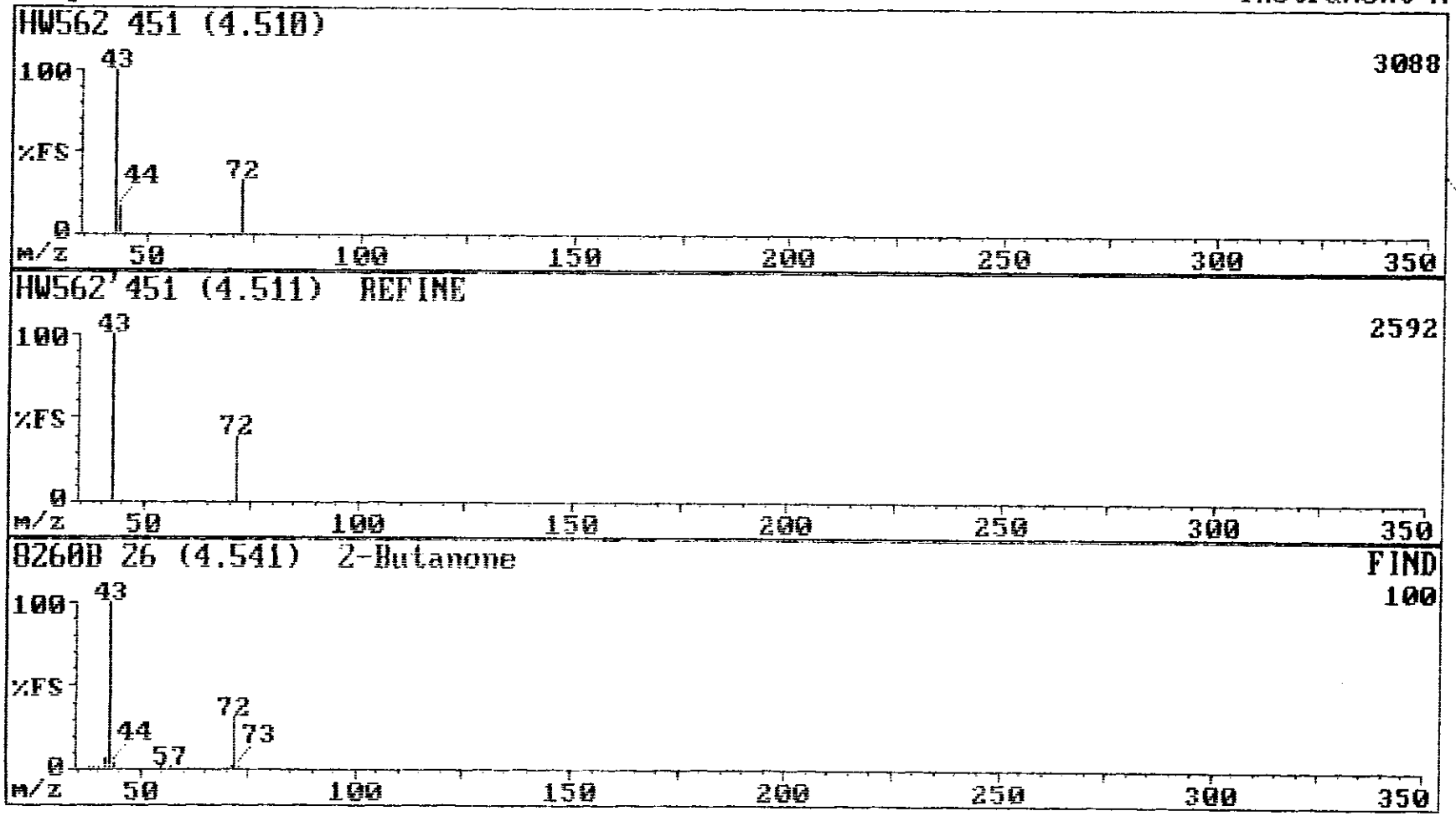
FIND

8260B 19 (3.100) Methylene chloride 100



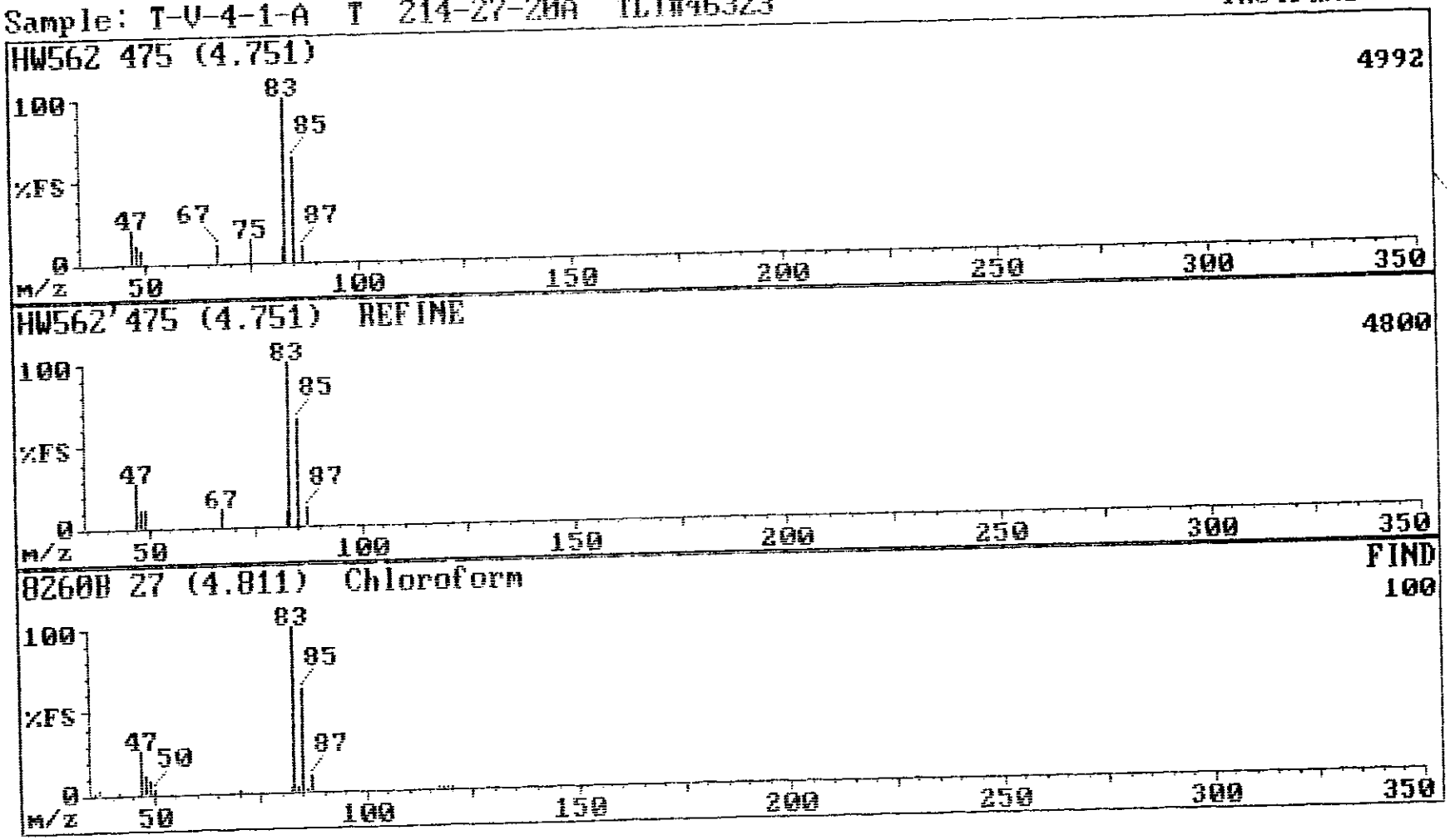
08-09-98 10:37 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-4-1-A T 214-27-20A TLI#46323 Instrument H



08-09-98 10:37 Triangle Laboratories, Inc. (919) 544-5729

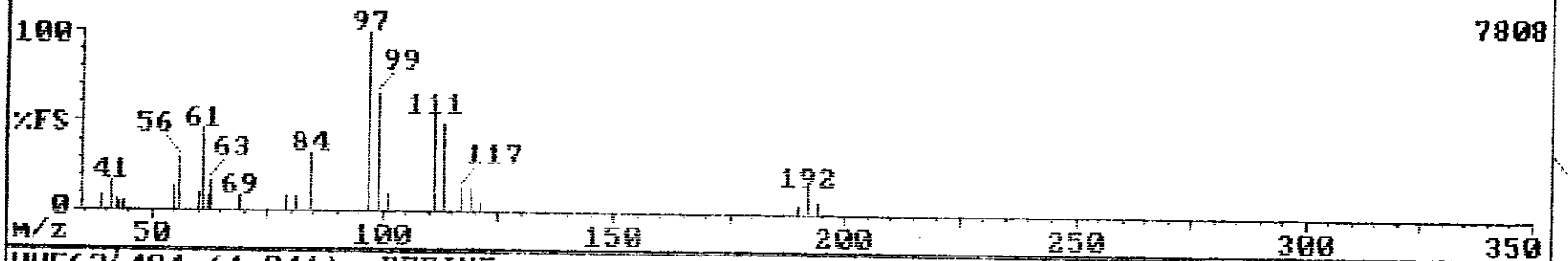
Sample: T-V-4-1-A T 214-27-20A TLI#46323 Instrument H



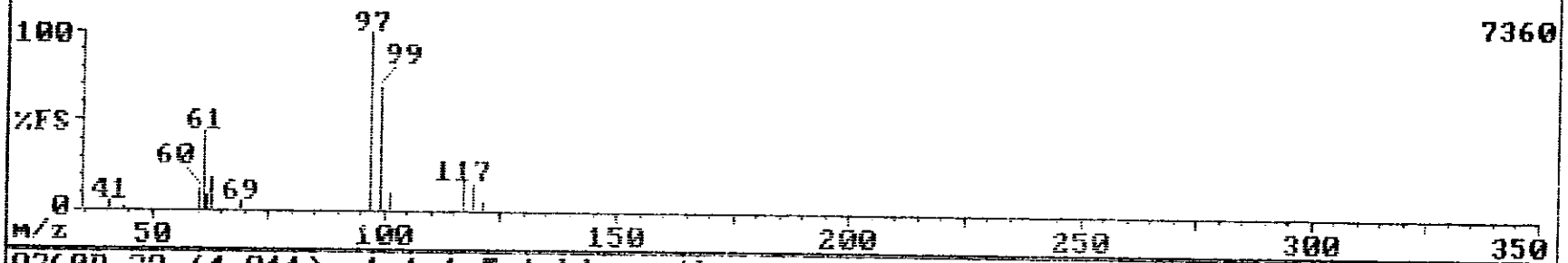
08-09-98 10:37 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-4-1-A T 214-27-20A TLI#46323 Instrument H

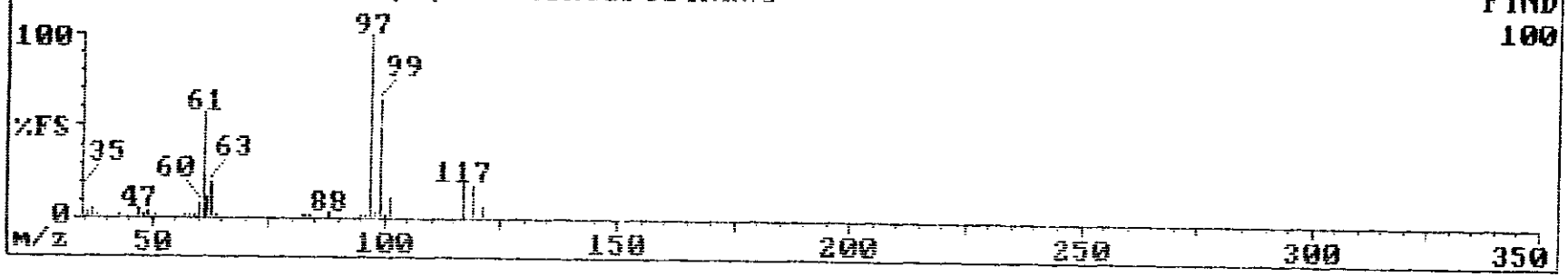
HW562 484 (4.841) 7808



HW562 484 (4.841) REFINE 7360

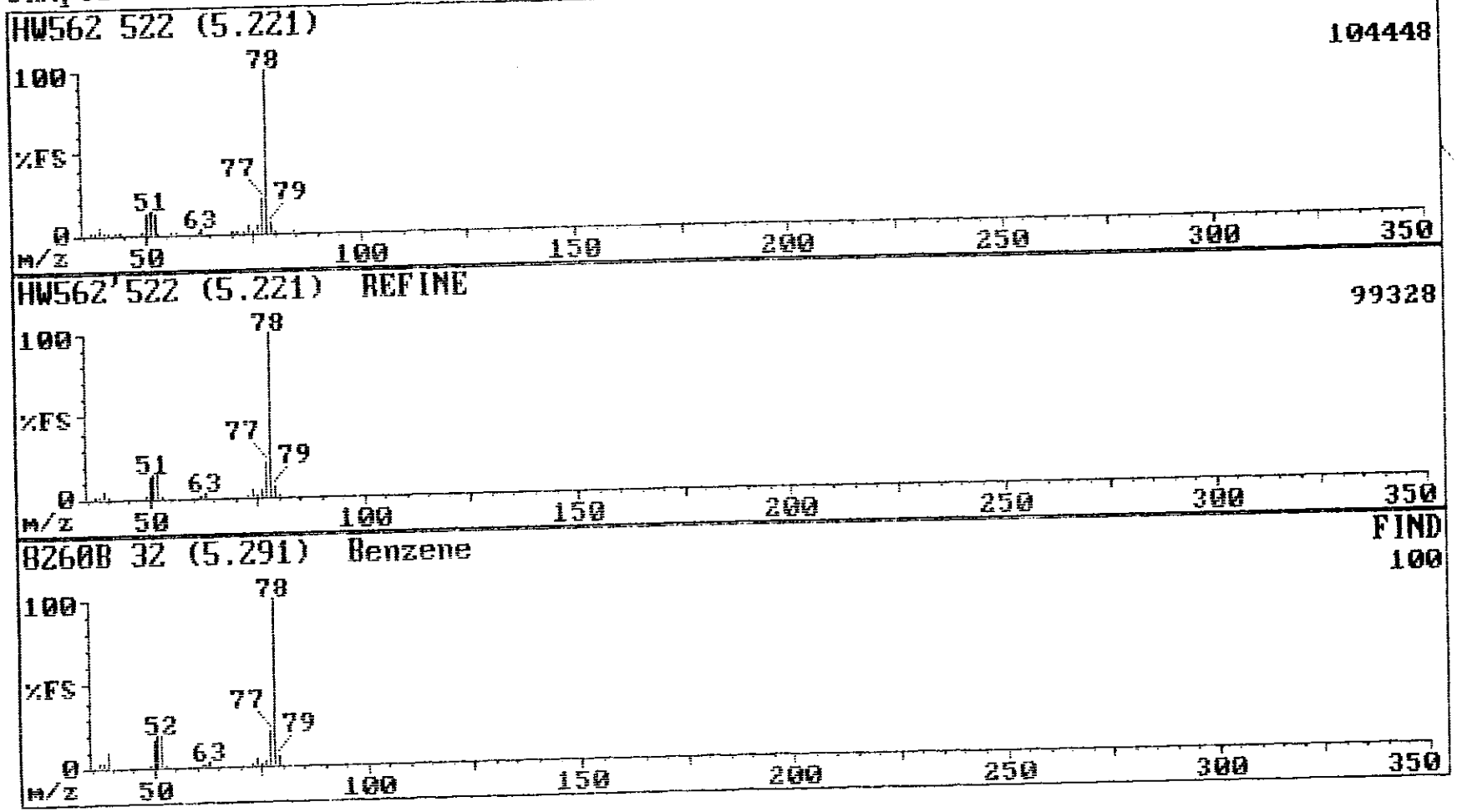


82608 29 (4.911) 1,1,1-Trichloroethane FIND 100



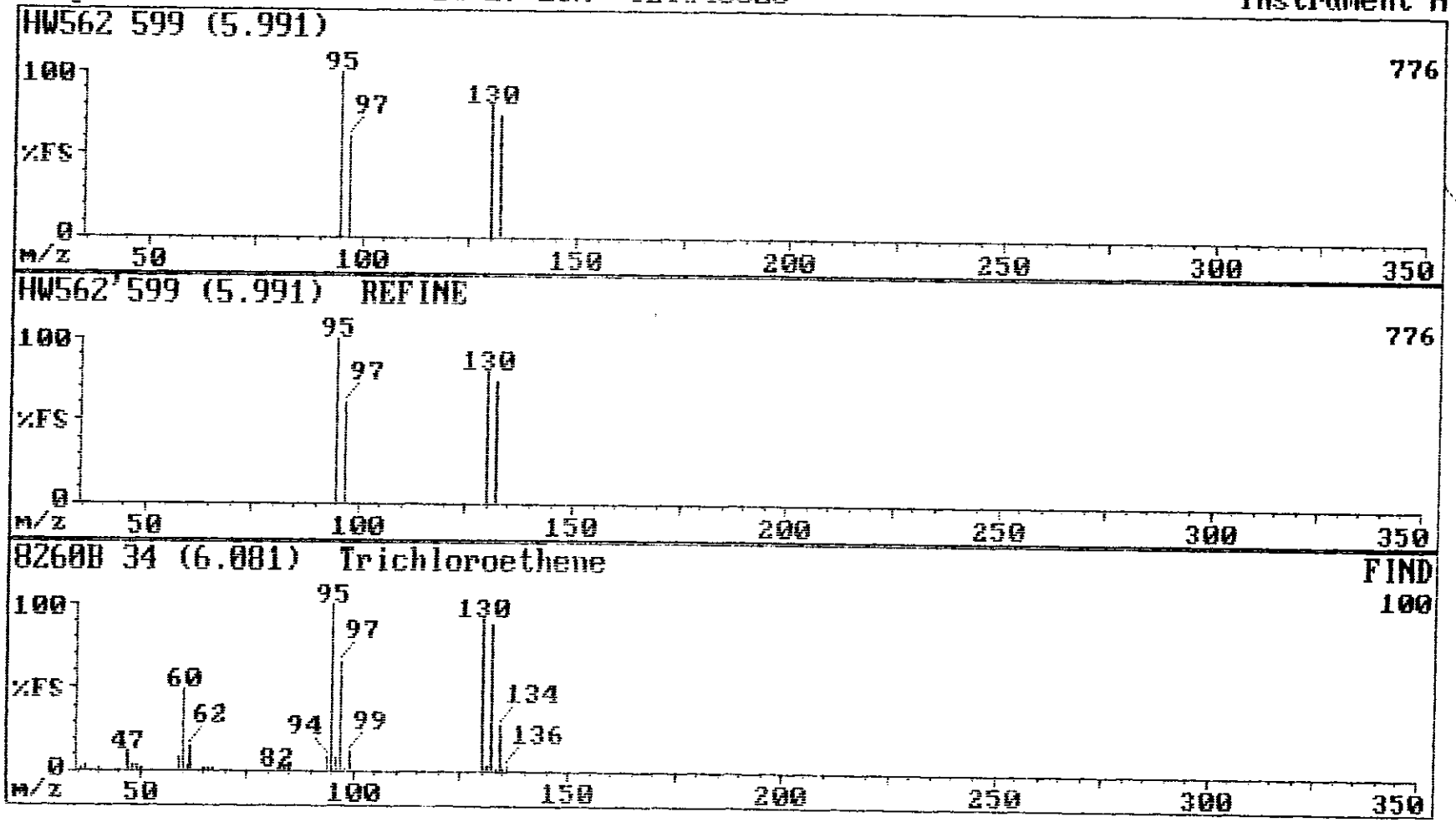
08-09-98 10:37 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-4-1-A T 214-27-20A TLI#46323 Instrument H



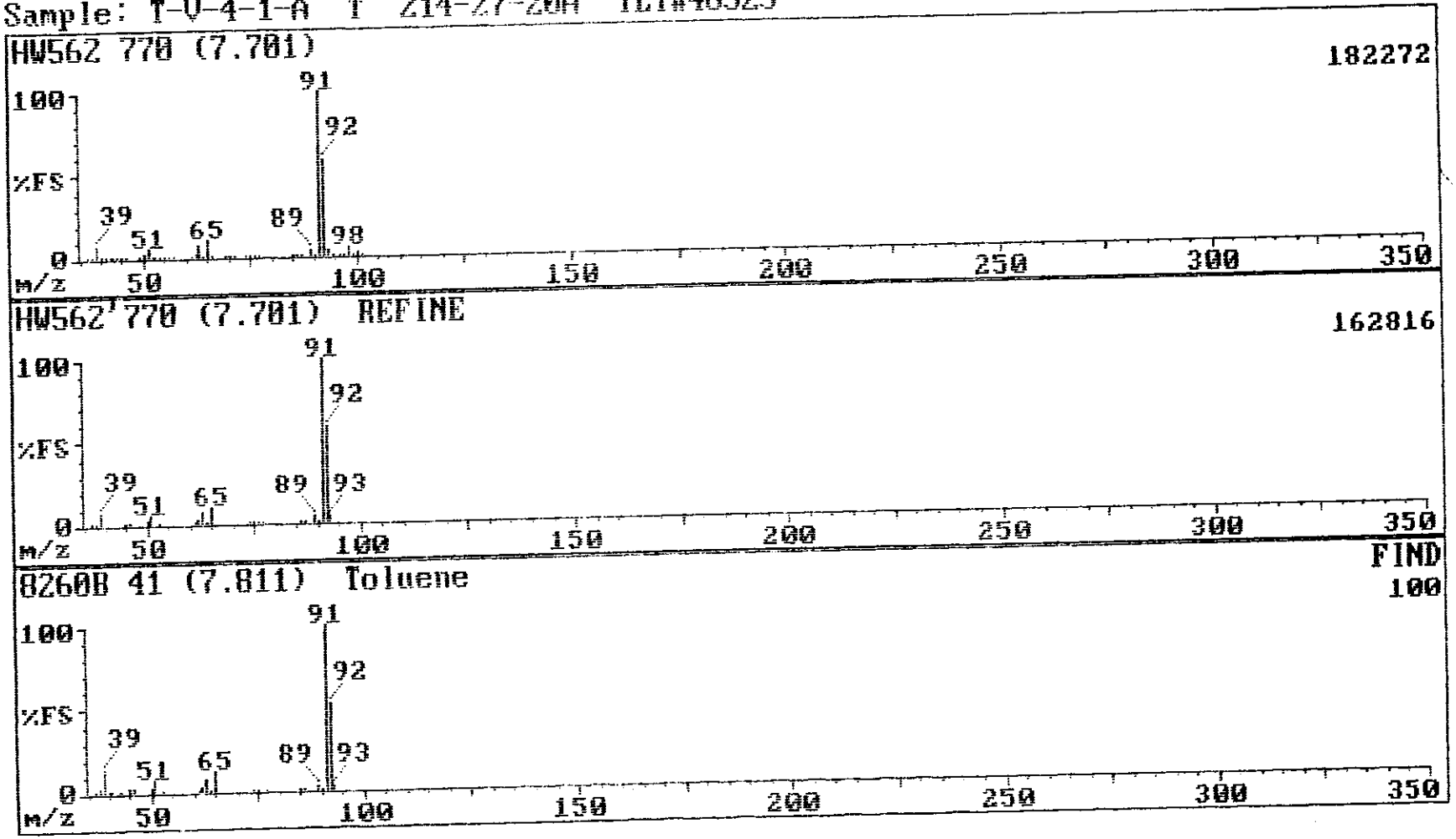
08-09-98 10:37 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-4-1-A T 214-27-20A TLI#46323 Instrument H



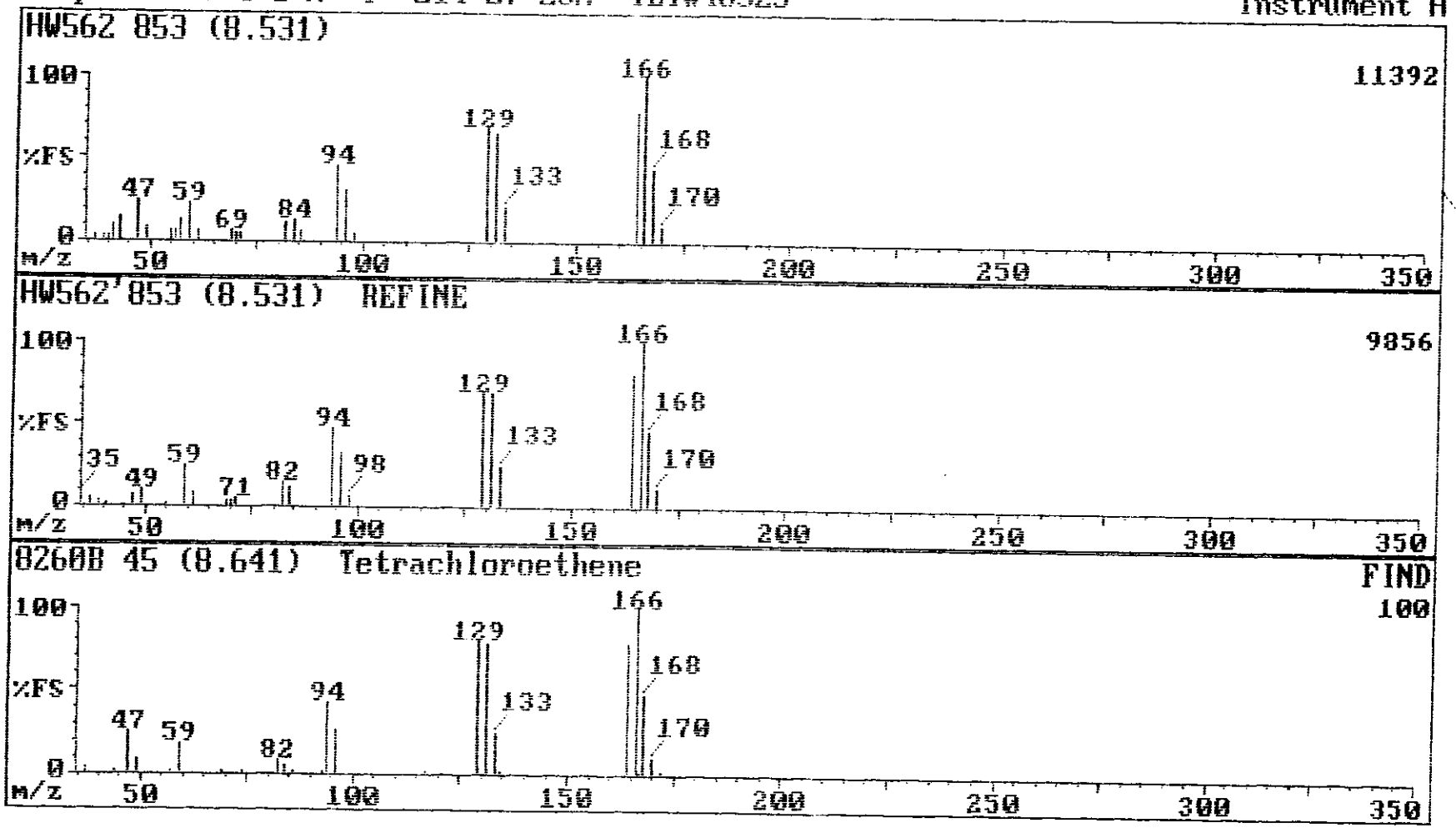
08-09-98 10:37 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-4-1-A T 214-27-20A TLI#46323 Instrument H



08-09-98 10:37 Triangle Laboratories, Inc. (919) 544-5729

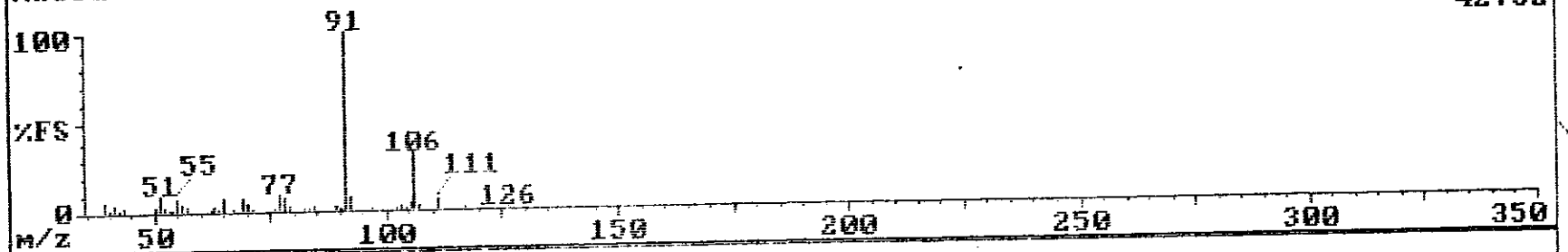
Sample: T-V-4-1-A T 214-27-20A TLI#46323 Instrument H



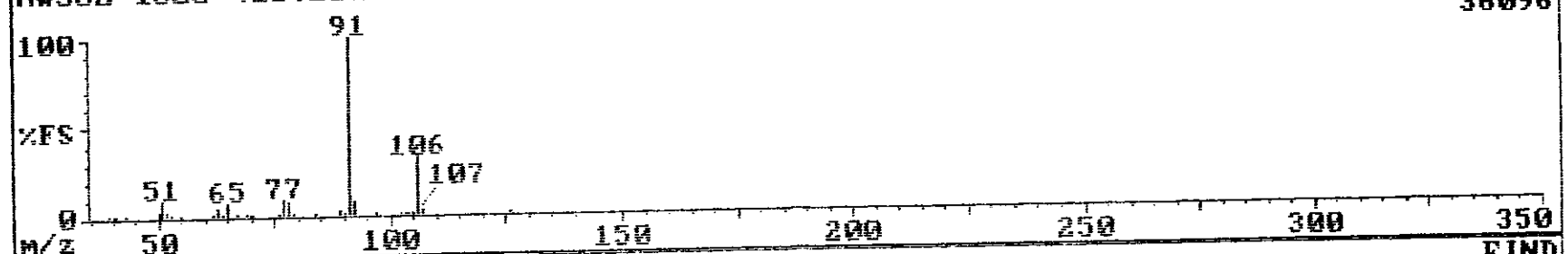
08-09-98 10:37 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-4-1-A T 214-27-20A TLI#46323 Instrument H

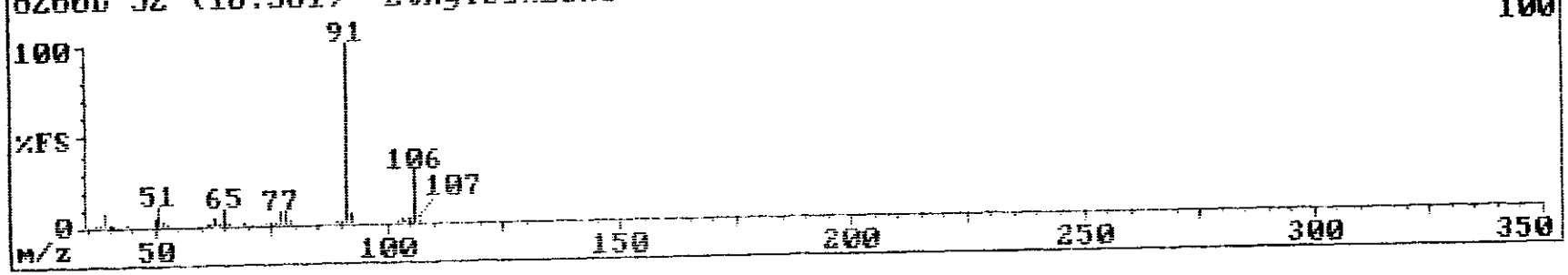
HW562 1028 (10.281) 42752



HW562 1028 (10.281) REFINE 36096



8260B 52 (10.381) Ethylbenzene FIND 100



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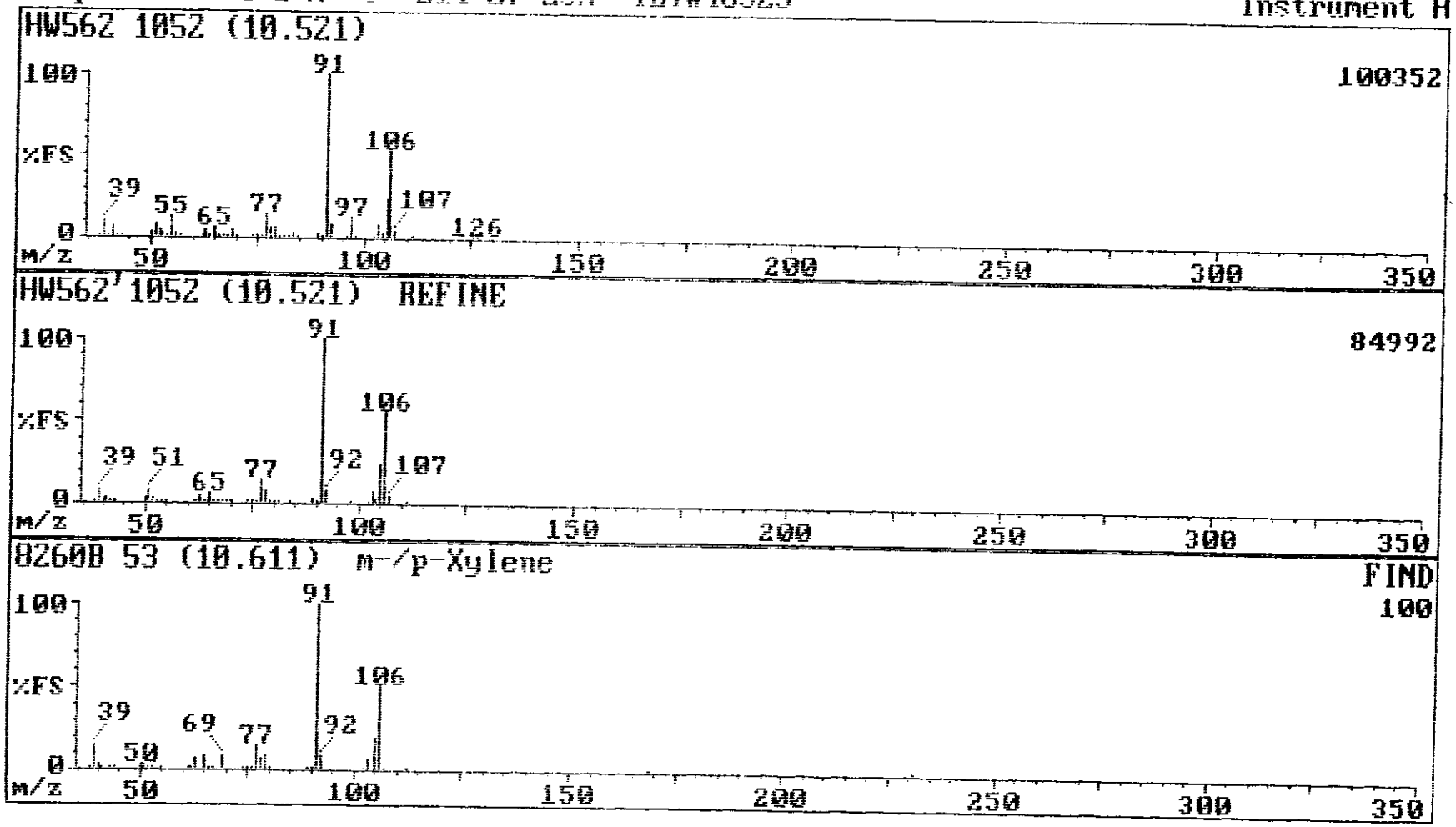
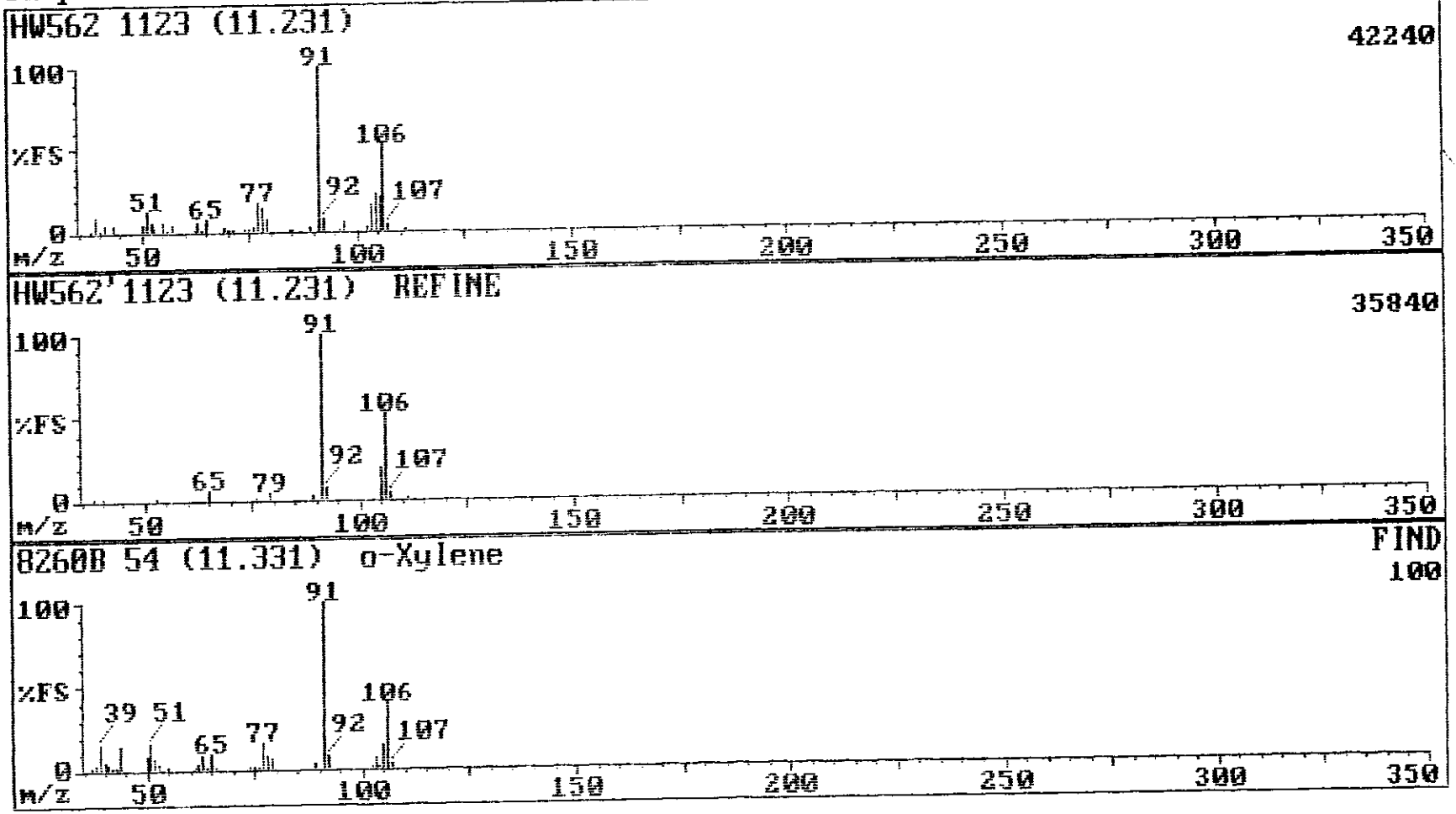
Sample: T-V-4-1-A T 214-27-20A TLI#46323 Instrument H



08-09-98 10:37 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-4-1-A T Z14-27-20A TLI#46323 Instrument H



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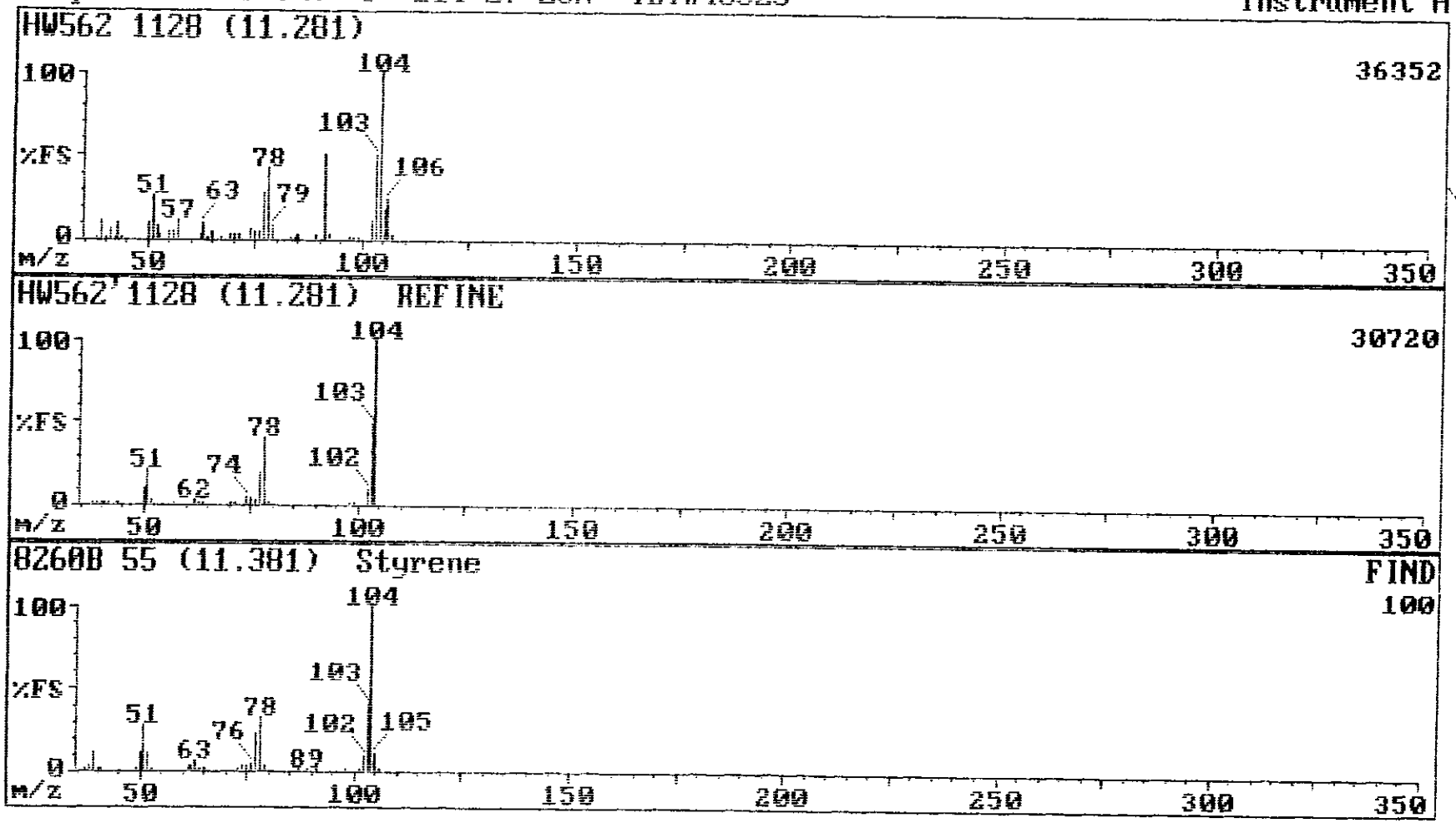
Sample: T-V-4-1-A T 214-27-20A TLI#46323 Instrument H



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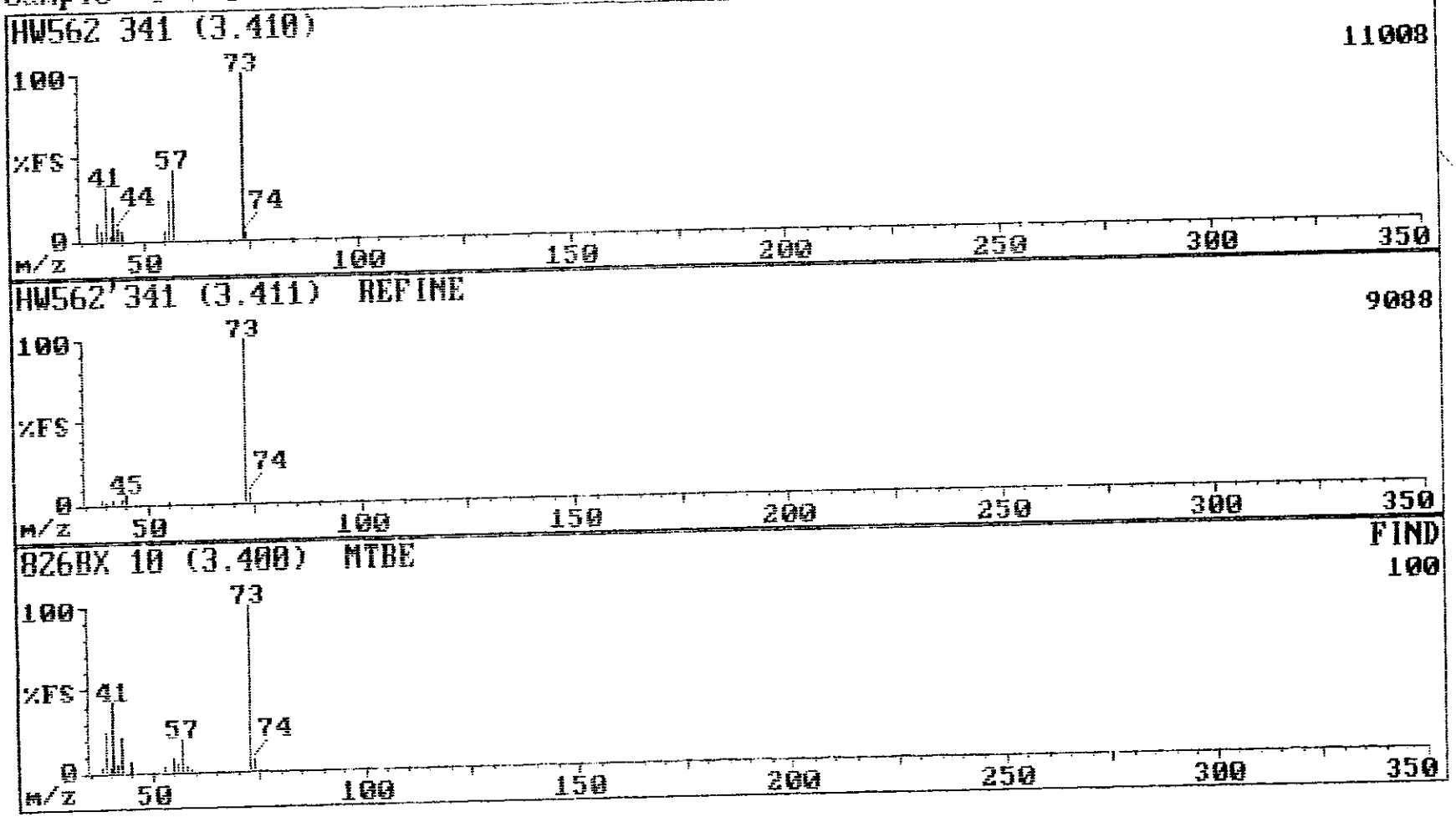
Sample: T-V-4-1-A T 214-27-20A TLI#46323 Instrument H



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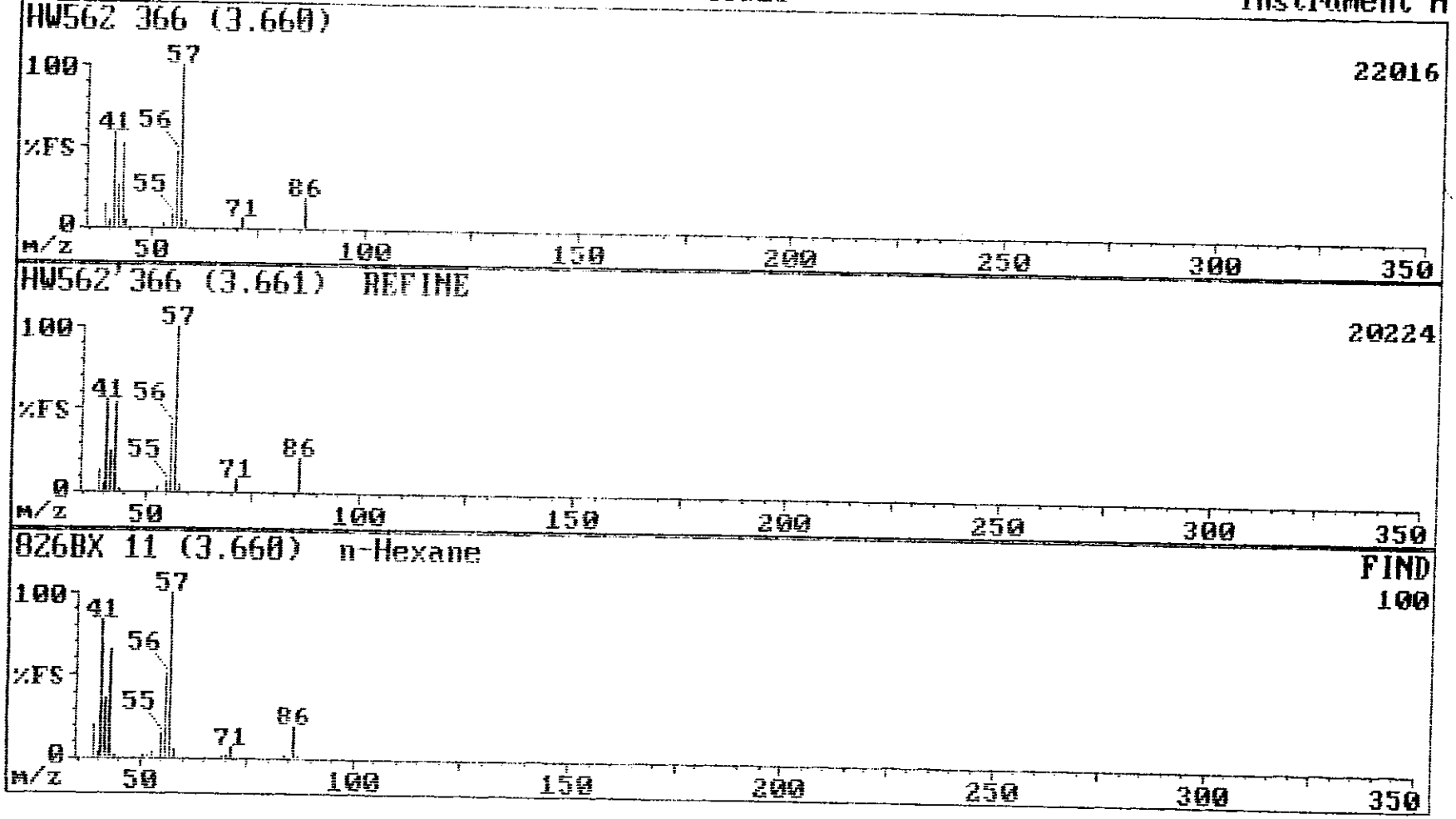
Sample: T-V-4-1-A T 214-27-20A TLI#46323 Instrument H



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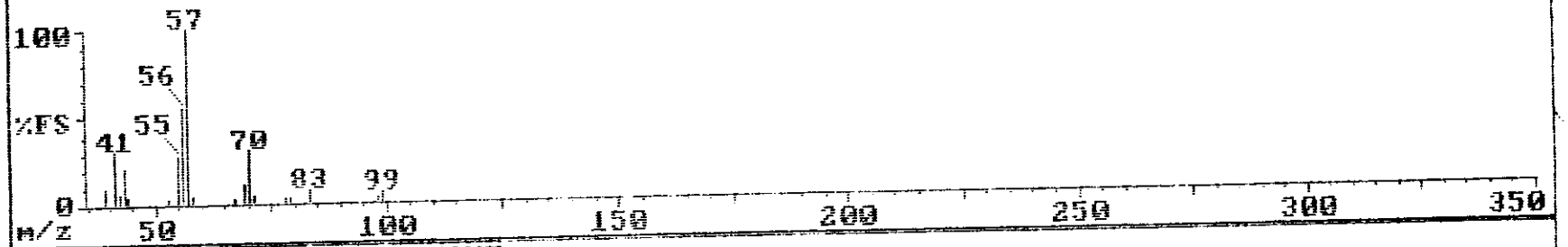
926

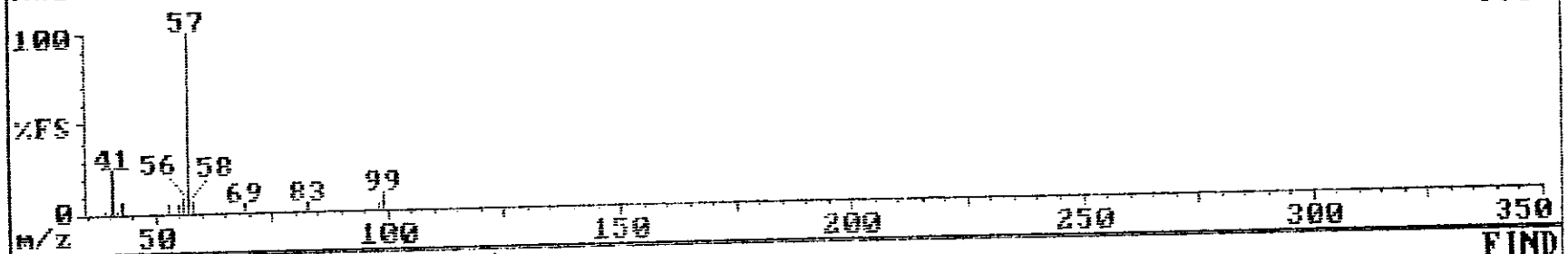
08-09-98 10:37 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-4-1-A T 214-27-20A TLI#46323 Instrument H

HW562 538 (5.381) 13184

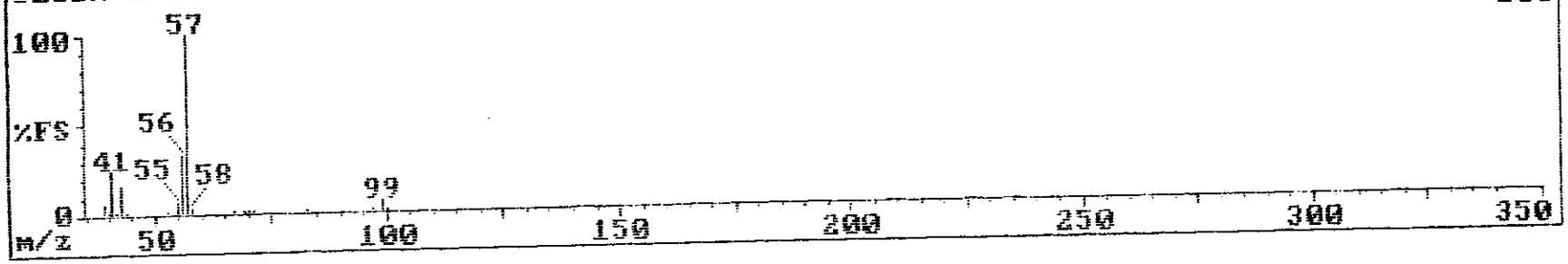


HW562'538 (5.381) REFINE 9984



FIND

826BX 13 (5.391) Iso-Octane 100



Pacific Environmental Services

Project Number: 46323
Sample File: HW560

Method 8260 VOST
Sample ID: T-V-4-1-B TC

Client Project: R012.001
TLI ID: 214-27-20B

Date Received: 07/29/98

Date Analyzed : 08/09/98

Response File: ICALH809

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Pentafluorobenzene		IS 1	5.04		
Chloromethane	0.020	BJ	0.97		0.05
Vinyl Chloride		U		0.001	0.05
Bromomethane	0.003	BJ	1.48		0.05
Chloroethane		U		0.001	0.05
Trichlorofluoromethane	0.015	J	1.90		0.05
1,1-Dichloroethene		U		0.001	0.05
Iodomethane		U		0.001	0.05
Carbon disulfide		U		0.001	0.05
Acetone	0.087		2.77		0.05
Allyl chloride		U		0.001	0.05
Methylene chloride	0.327	B	3.06		0.05
Acrylonitrile		U		0.006	0.05
trans-1,2-Dichloroethene		U		0.001	0.05
1,1-Dichloroethane		U		0.001	0.05
Vinyl acetate		U		0.001	0.05
cis-1,2-Dichloroethene		U		0.001	0.05
2-Butanone		U		0.004	0.05
Chloroform		U		0.001	0.05
1,1,1-Trichloroethane		U		0.001	0.05
1,4-Difluorobenzene		IS 2	5.77		
Carbon tetrachloride		U		0.001	0.05
Benzene	0.010	BJ	5.24		0.05
1,2-Dichloroethane		U		0.001	0.05
Trichloroethene		U		0.001	0.05
1,2-Dichloropropane		U		0.001	0.05

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

Triangle Laboratories, Inc.
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Pacific Environmental Services

Project Number: 46323
Sample File: HW560

Method 8260 VOST
Sample ID: T-V-4-1-B TC

Client Project: R012.001
TLI ID: 214-27-20B

Date Received: 07/29/98
Date Analyzed : 08/09/98

Response File: ICALH809

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Methyl methacrylate		U		0.002	0.05
Bromodichloromethane		U		0.001	0.05
cis-1,3-Dichloropropene		U		0.001	0.05
4-Methyl-2-pentanone		U		0.001	0.05
Toluene	0.016	BJ	7.74		0.05
trans-1,3-Dichloropropene		U		0.001	0.05
1,1,2-Trichloroethane		U		0.001	0.05
Chlorobenzene-d_5		IS 3	9.96		
Tetrachloroethene		U		0.001	0.05
2-Hexanone		U		0.002	0.05
Dibromochloromethane		U		0.001	0.05
1,2-Dibromoethane		U		0.001	0.05
Chlorobenzene		U		0.001	0.05
Ethylbenzene	0.001	J	10.31		0.05
m-/p-Xylene	0.002	J	10.54		0.10
o-Xylene	0.001	J	11.26		0.05
Styrene	0.002	BJ	11.31		0.05
Bromoform		U		0.001	0.05
1,4-Dichlorobenzene-d_4		IS 4	15.08		
Cumene		U		0.001	0.05
1,1,2,2-Tetrachloroethane		U		0.001	0.05

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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Pacific Environmental Services

Project Number: 46323
Sample File: HW560

Method 8260 VOST
Sample ID: T-V-4-1-B TC

Client Project: R012.001
TLI ID: 214-27-20B

Date Received: 07/29/98

Date Analyzed : 08/09/98

Response File: ICALH809

Surrogate Summary	Amount (ug)	RT	IS Ref	%REC
Dibromofluoromethane	0.257	4.91	1	103
Toluene-d_8	0.289	7.65	2	116
4-Bromofluorobenzene	0.291	12.25	2	116

Reviewed by PAB Date 8/10/98

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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Printed: 16:11 08/10/1998

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Pacific Environmental Services

Project Number: 46323
Sample File: HW560

Method 8260 VOST
Sample ID: T-V-4-1-B TC

Client Project: R012.001 **Date Received: 07/29/98** **Response File: ICALH809**
TLI ID: 214-27-20B
Date Analyzed : 08/09/98

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Pentafluorobenzene		IS 1	5.04		
1,3-Butadiene		U		0.001	0.25
Vinyl bromide		U		0.001	0.25
MTBE	0.014	J	3.41		0.25
n-Hexane	0.005	J	3.67		0.25
1,2-Epoxybutane		U		0.046	0.25
Iso-Octane	0.010	J	5.40		0.25
1,4-Difluorobenzene		IS 2	5.77		
Ethyl acrylate		U		0.001	0.25

Reviewed by PaB Date 8/10/98

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

Triangle Laboratories, Inc.
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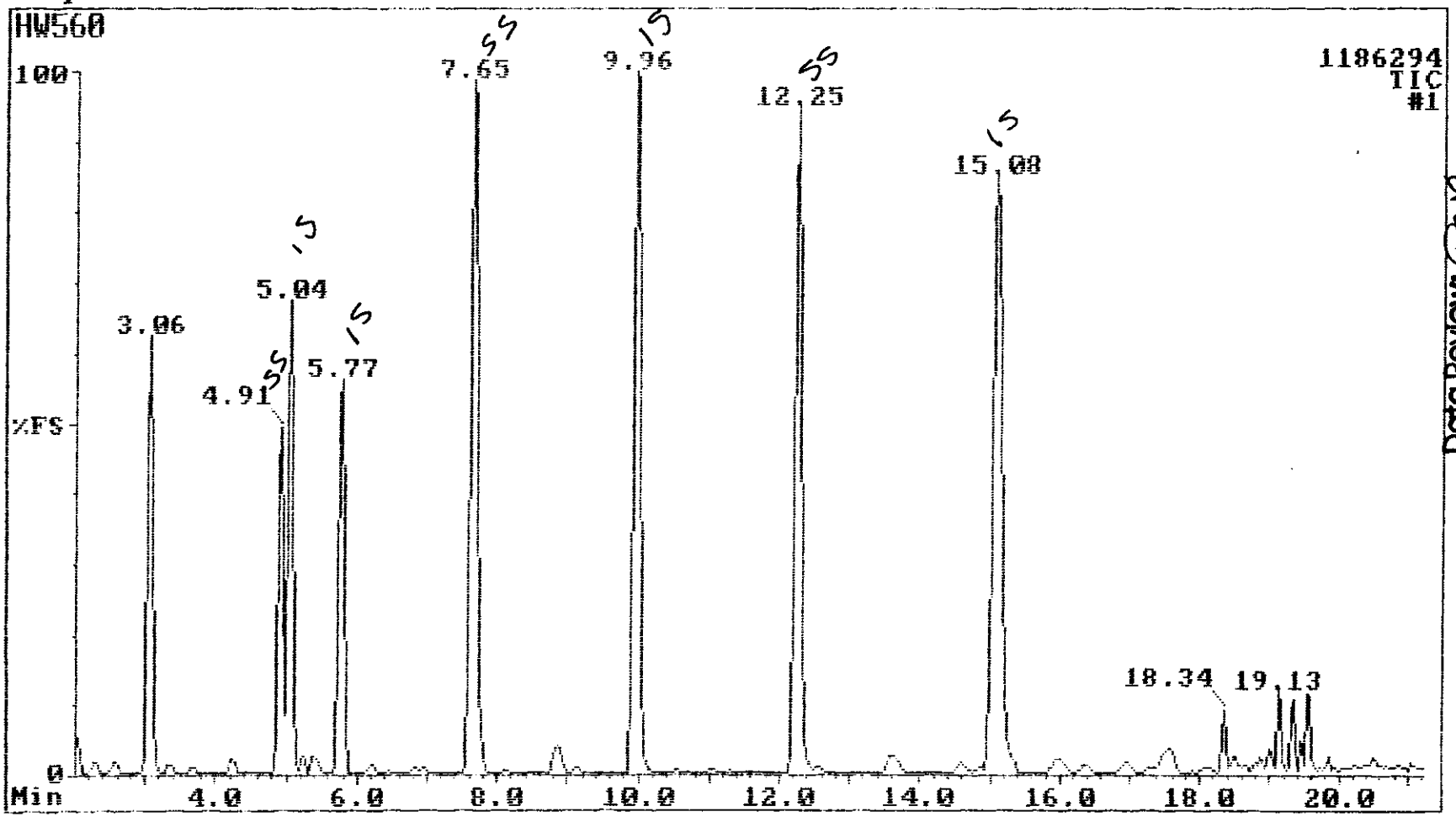
Savar v3.7
Printed: 16:39 08/10/1998

08-09-98 09:11 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-4-1-B T/C 214-27-20B TLI#46323 Instrument H



Data Review: GWB
Date: 8/10/98

QUAN DB : HW560 LAB-BASE QUAN 08-09-98 09:57

No.	MAT	FOR	REV	Delta	Area	P.Flags	RT	QM	Name
1	100	85	99	-5	2171720	bb	5.04	168	Pentafluorobenzene
2	100	97	98	0	2135508	bv	5.77	114	1,4-Difluorobenzene
3	100	95	95	2	3400236	bv	9.96	117	Chlorobenzene-d5
4	100	81	99	-6	2191016	bv	15.08	152	1,4-Dichlorobenzene-d4
5	100	97	100	0	1187804	bv	4.91	113	Dibromofluoromethane
6	100	93	97	1	3458992	bv	7.65	98	Toluene-d8
7	100	90	93	4	1869376	bv	12.25	95	4-Bromofluorobenzene
8	88	44	96	-1	621716	bv	0.75	85	Dichlorodifluoromethane
9	100	85	90	-1	67132	vv	0.97	50	Chloromethane
10	0	0	0	0	0		0.00	62	Vinyl Chloride
11	71	39	74	0	12992	bv	1.48	94	Bromomethane
12	0	0	0	0	0		0.00	64	Chloroethane
13	100	87	96	-1	135796	bb	1.90	101	Trichlorofluoromethane
14	0	0	0	0	0		0.00	96	1,1-Dichloroethene
15	0	0	0	0	0		0.00	142	Iodomethane
16	0	0	0	0	0		0.00	76	Carbon disulfide
17	63	52	34	11	37590	A	2.77	43	Acetone
18	0	0	0	0	0		0.00	41	Allyl chloride
19	100	98	99	-1	1006848	bv	3.06	84	Methylene chloride
20	0	0	0	0	0		0.00	53	Acrylonitrile
21	0	0	0	0	0		0.00	96	trans-1,2-Dichloroethene
22	0	0	0	0	0		0.00	63	1,1-Dichloroethane
23	0	0	0	0	0		0.00	43	Vinyl acetate
24	0	0	0	0	0		0.00	77	2,2-Dichloropropane
25	0	0	0	0	0		0.00	96	cis-1,2-Dichloroethene
26	~~57~~	~~49~~	~~49~~	~~3~~	~~3284~~	~~bb~~ (JP) PAB 8/10/98	~~4.53~~	43	2-Butanone
27	0	0	0	0	0		0.00	83	Chloroform
28	0	0	0	0	0		0.00	128	Bromochloromethane
29	0	0	0	0	0		0.00	97	1,1,1-Trichloroethane
30	0	0	0	0	0		0.00	117	Carbon tetrachloride
31	0	0	0	0	0		0.00	75	1,1-Dichloropropene
32	100	89	92	0	101484	bb	5.24	78	Benzene
33	0	0	0	0	0		0.00	62	1,2-Dichloroethane
34	0	0	0	0	0		0.00	130	Trichloroethene
35	0	0	0	0	0		0.00	63	1,2-Dichloropropane
36	0	0	0	0	0		0.00	93	Dibromomethane
37	0	0	0	0	0		0.00	41	Methyl methacrylate
38	0	0	0	0	0		0.00	83	Bromodichloromethane
39	0	0	0	0	0		0.00	75	cis-1,3-Dichloropropene
40	~~45~~	~~4~~	~~70~~	~~1~~	~~20568~~	~~A~~ (JP) PAB 8/10/98	~~7.64~~	43	4-Methyl-2-pentanone
41	100	86	95	1	139400	bb	7.74	92	Toluene
42	0	0	0	0	0		0.00	75	trans-1,3-Dichloropropen
43	0	0	0	0	0		0.00	97	1,1,2-Trichloroethane
44	0	0	0	0	0		0.00	69	Ethyl methacrylate
45	0	0	0	0	0		0.00	164	Tetrachloroethene
46	0	0	0	0	0		0.00	76	1,3-Dichloropropane
47	~~23~~	~~10~~	~~40~~	~~11~~	~~11248~~	~~A~~ (JP) PAB 8/10/98	~~9.13~~	43	2-Hexanone
48	0	0	0	0	0		0.00	129	Dibromochloromethane
49	0	0	0	0	0		0.00	107	1,2-Dibromoethane
50	0	0	0	0	0		0.00	112	Chlorobenzene

Data Review: PAB
Date: 8/10/98

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No.	MAT	FOR	REV	Delta	Area	P.Flags	RT	QM	Name
51	0	0	0	0	0		0.00	131	1,1,1,2-Tetrachloroethan
52	55	36	56	1	4492	A	10.31	106	Ethylbenzene
53	85	68	72	1	17724	bb	10.54	106	m-/p-Xylene
54	58	49	49	2	5568	A	11.26	106	o-Xylene
55	81	68	68	2	24040	bb	11.31	104	Styrene
56	0	0	0	0	0		0.00	173	Bromoform
57	~~46~~	~~44~~	~~44~~	~~7~~	~~4404~~	~~bb~~ FP FAB 8/10/98	~~12.04~~	105	Cumene
58	0	0	0	0	0		0.00	83	1,1,2,2-Tetrachloroetnan
59	0	0	0	0	0		0.00	156	Bromobenzene
60	0	0	0	0	0		0.00	75	1,2,3-Trichloropropane
61	0	0	0	0	0		0.00	120	n-Propylbenzene
62	0	0	0	0	0		0.00	75	trans-1,4-Dichloro-2-but
63	0	0	0	0	0		0.00	126	2-Chlorotoluene
64	0	0	0	0	0		0.00	126	4-Chlorotoluene
65	~~61~~	~~57~~	~~57~~	~~5~~	~~7204~~	~~A~~ FP FAB 8/10/98	~~13.34~~	105	1,3,5-Trimethylbenzene
66	0	0	0	0	0		0.00	119	tert-Butylbenzene
67	33	41	48	3	20336	A	14.25	105	1,2,4-Trimethylbenzene
68	37	16	46	1	12136	A	14.75	105	sec-Butylbenzene
69	0	0	0	0	0		0.00	119	p-Cymene
70	0	0	0	0	0		0.00	146	1,3-Dichlorobenzene
71	0	0	0	0	0		0.00	146	1,4-Dichlorobenzene
72	0	0	0	0	0		0.00	91	Benzyl chloride
73	0	0	0	0	0		0.00	91	n-Butylbenzene
74	0	0	0	0	0		0.00	146	1,2-Dichlorobenzene
75	0	0	0	0	0		0.00	75	1,2-Dibromo-3-chloroprop
76	69	86	97	17	108488	bv	19.13	180	1,2,4-Trichlorobenzene
77	39	20	89	17	14820	bb	19.34	225	Hexachlorobutadiene
78	57	68	84	17	221824	bv	19.33	128	Naphthalene
79	69	88	96	17	105276	bv	19.54	180	1,2,3-Trichlorobenzene

434

QUAN DB : HW560 LAB-BASE QUAN 08-10-98 14:57

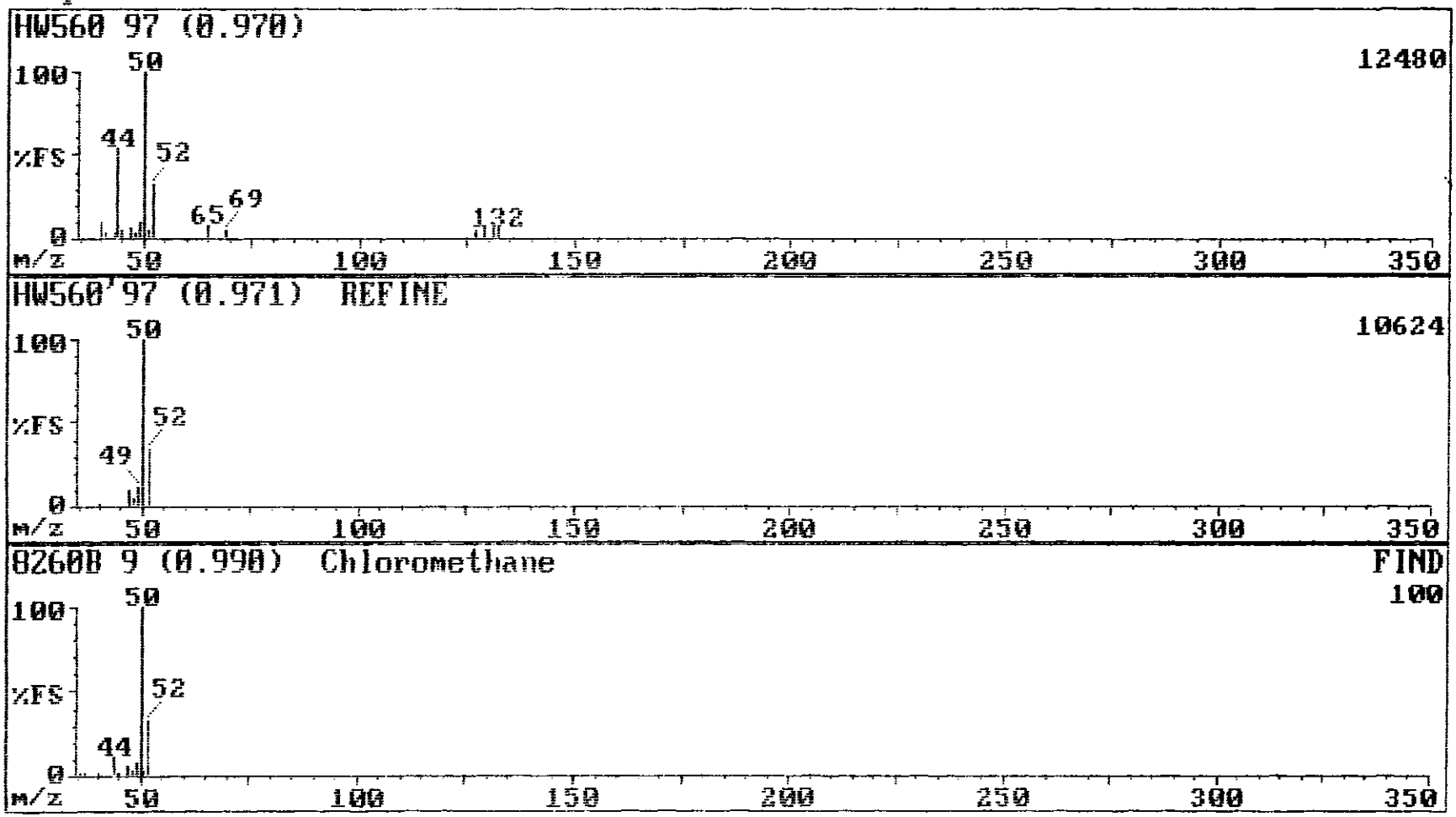
No.	MAT	FOR	REV	Delta	Area	P.Flags	RT	QM	Name
1	100	85	99	0	2171720	bb	5.04	168	Pentafluorobenzene
2	100	97	98	1	2135508	bv	5.77	114	1,4-Difluorobenzene
3	100	95	95	0	3400236	bv	9.96	117	Chlorobenzene-d5
4	100	81	99	3	2191016	bv	15.08	152	1,4-Dichlorobenzene-d4
5	100	97	100	1	1187804	bv	4.91	113	Dibromofluoromethane
6	100	93	97	0	3458992	bv	7.65	98	Toluene-d8
7	100	90	93	2	1869376	bv	12.25	95	4-Bromofluorobenzene
8	0	0	0	0	0		0.00	39	1,3-Butadiene
9	0	0	0	0	0		0.00	106	Vinyl bromide
10	81	61	72	1	14804	bb	3.41	73	MTBE
11	100	89	89	1	27508	bb	3.67	57	n-Hexane
12	~~74~~	~~55~~	~~65~~	~~1~~	~~15396~~	~~bb~~ QP PAB	~~4.24~~	42	1,2-Epoxybutane
13	100	91	92	1	133384	bb	5.40	57	Iso-Octane
14	~~35~~	~~26~~	~~53~~	~~-13~~	~~30256~~	~~n~~ QP PAB	~~6.19~~	55	Ethyl acrylate

Data Review: PAB
Date: 8/10/98

435

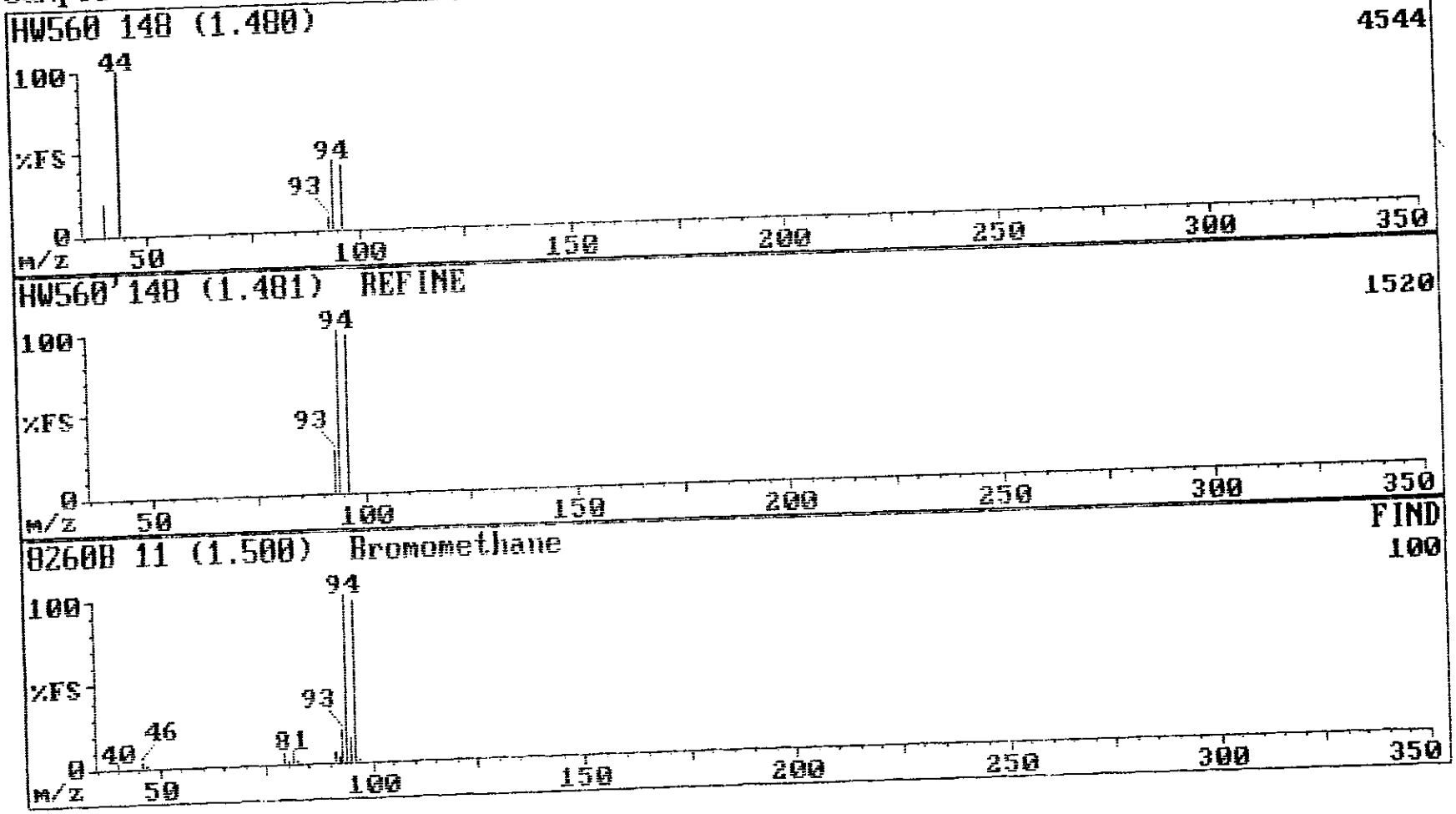
08-09-90 09:11 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-4-1-B T/C 214-27-20B TLI#46323 Instrument H



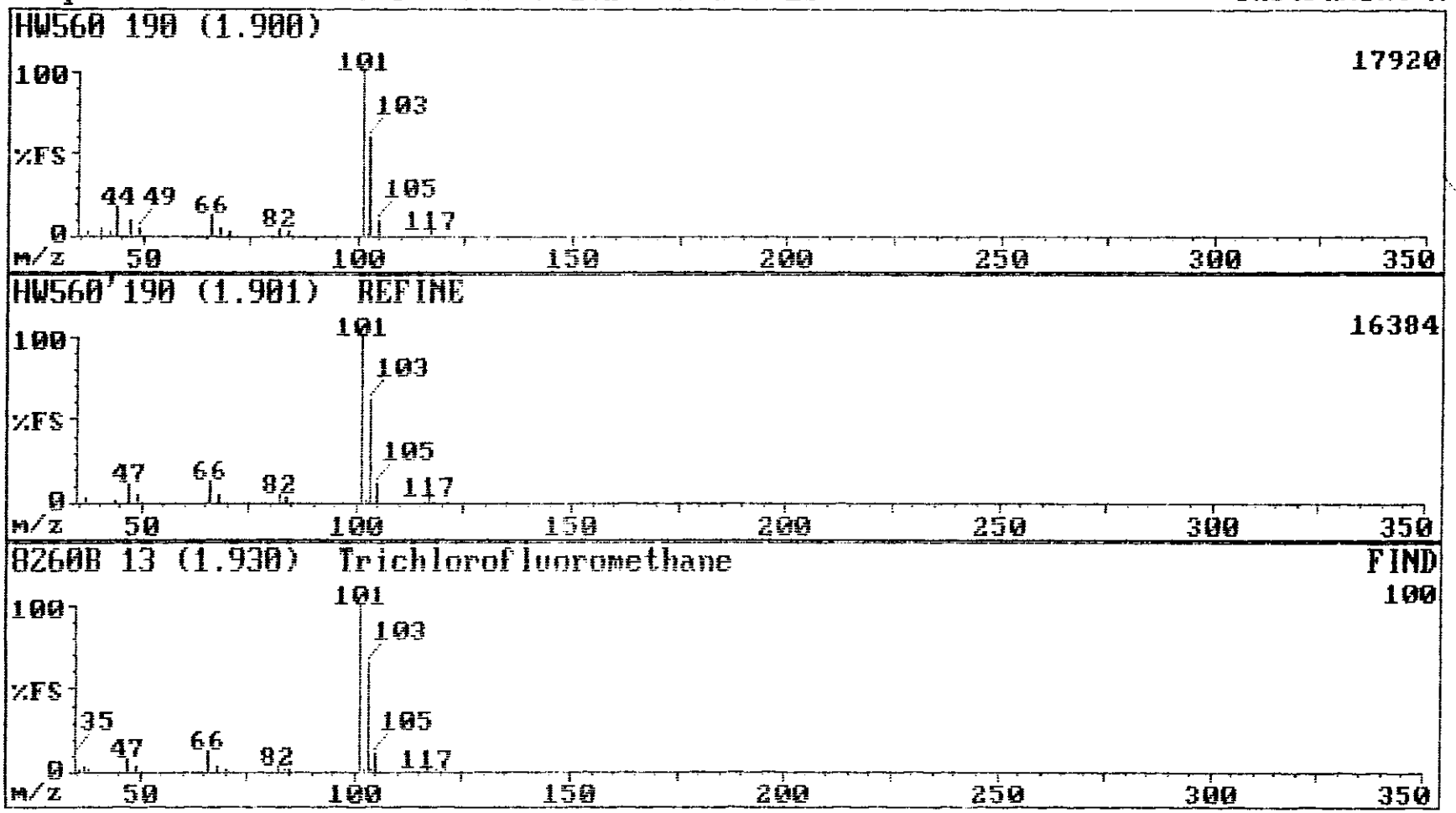
08-09-98 09:11 Triangle Laboratories, Inc. (919) 544-5729 Instrument H

Sample: T-V-4-1-B T/C Z14-27-20B TLI#46323



08-09-98 09:11 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-4-1-B T/C 214-27-20B TLI#46323 Instrument H

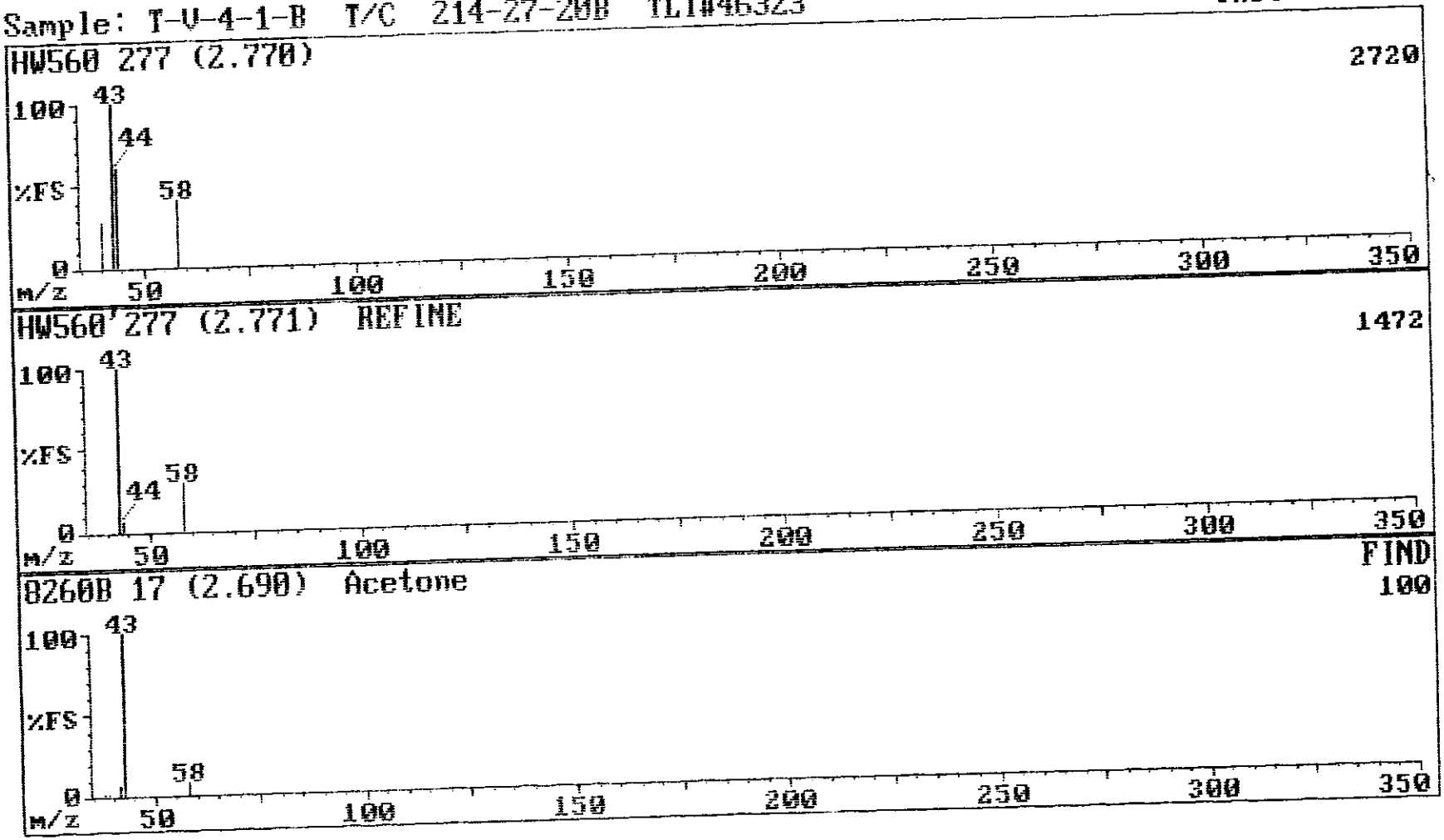


235

438

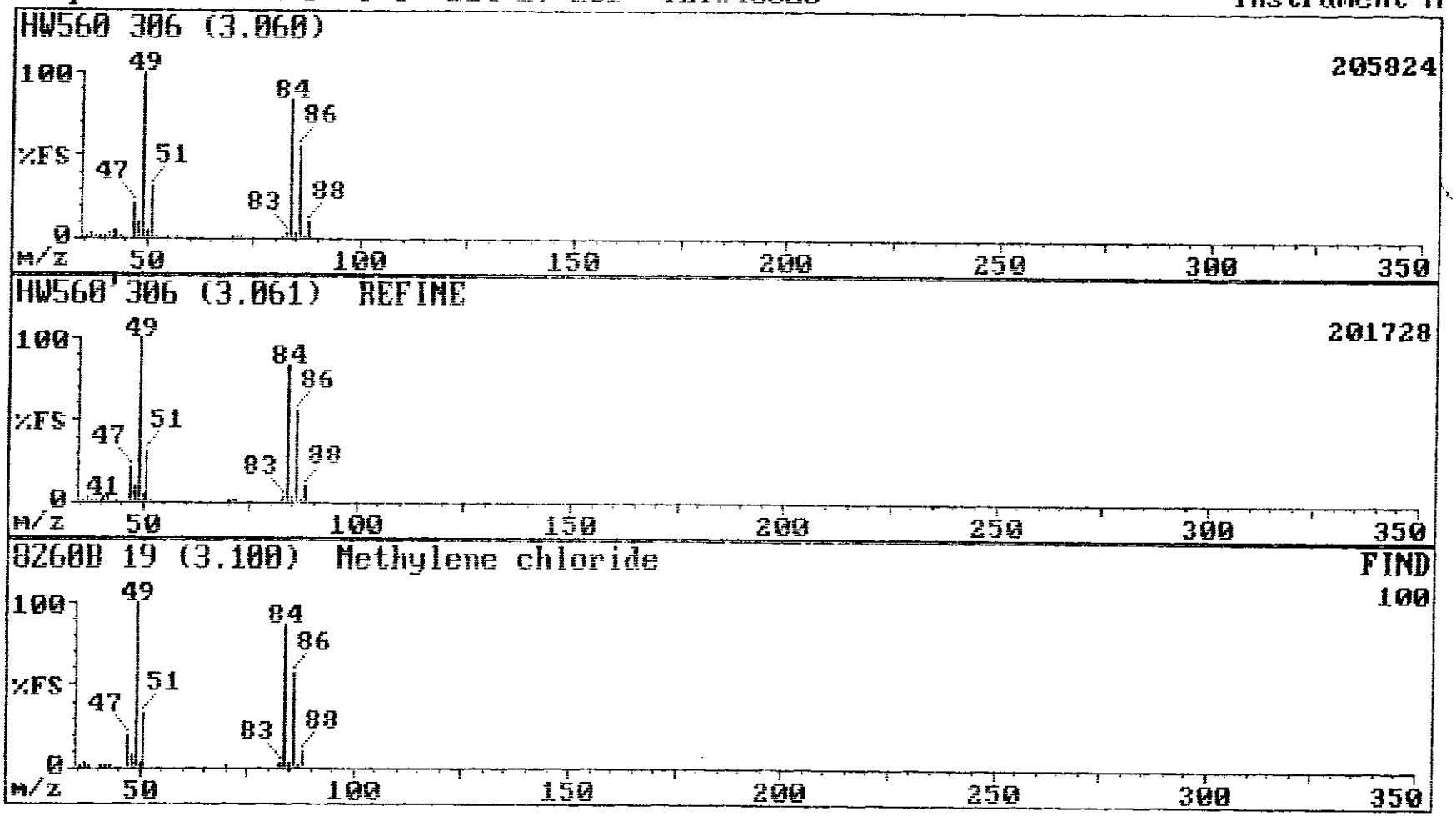
08-09-98 09:11 Triangle Laboratories, Inc. (919) 544-5729 Instrument H

Sample: T-V-4-1-B T/C 214-27-20B TLI#46323



08-09-98 09:11 Triangle Laboratories, Inc. (919) 544-5729

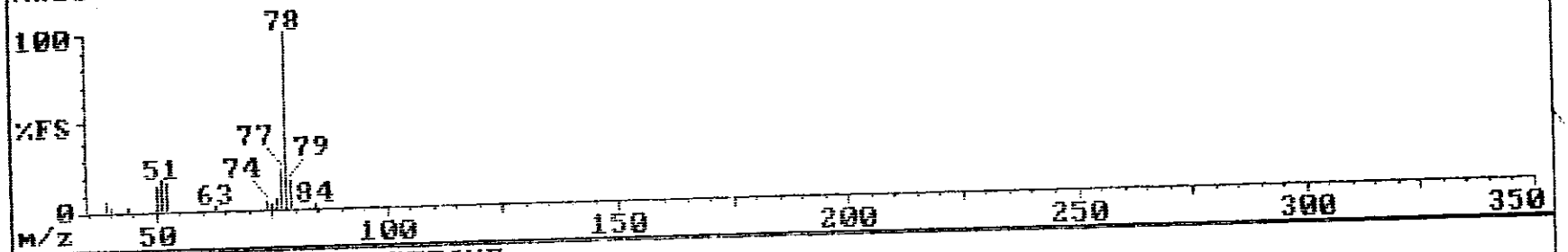
Sample: T-V-4-1-B T/C 214-27-20B TLI#46323 Instrument H



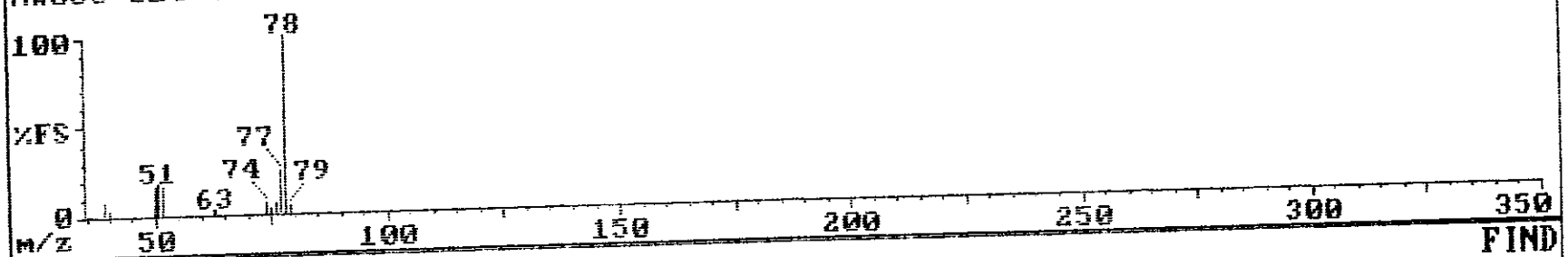
08-09-98 09:11 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-4-1-B T/C 214-27-20B TLI#46323 Instrument H

HW560 524 (5.241) 14912

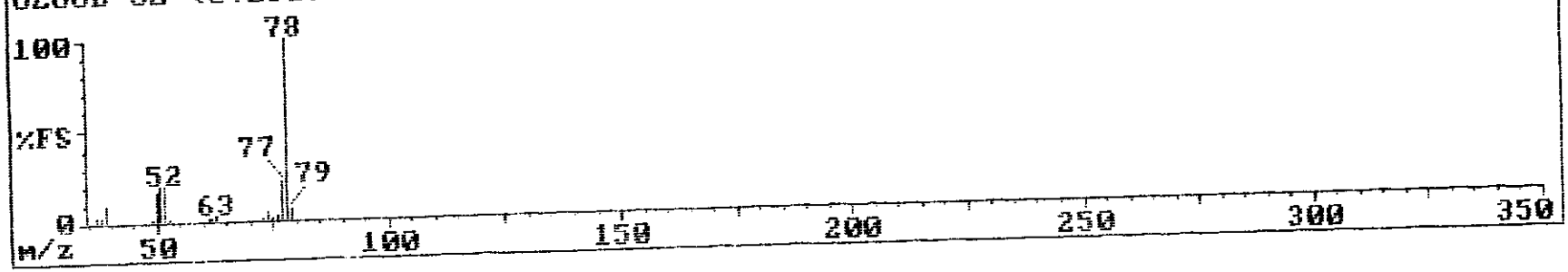


HW560'524 (5.241) REFINE 14144



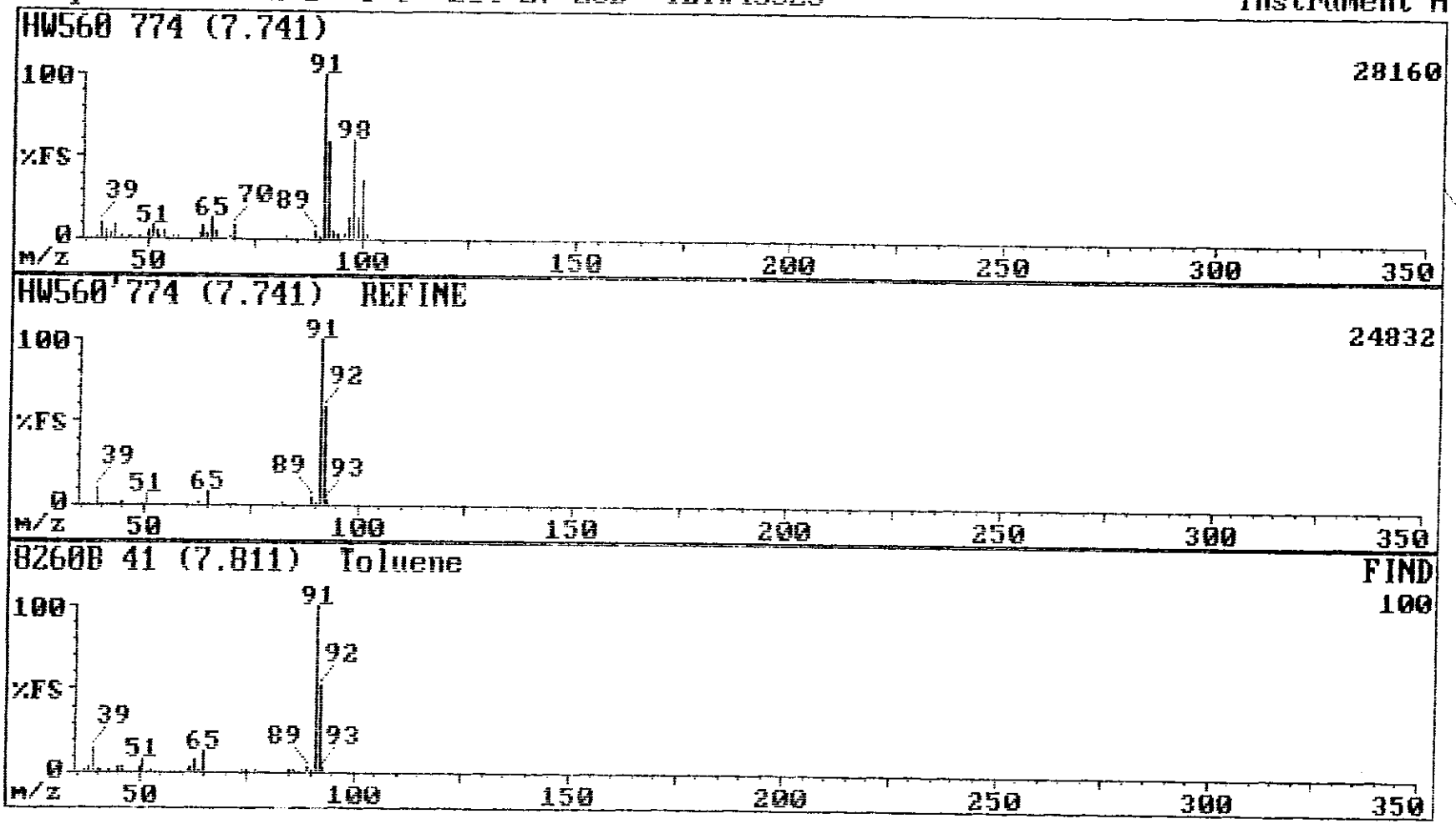
FIND

8260B 32 (5.291) Benzene 100



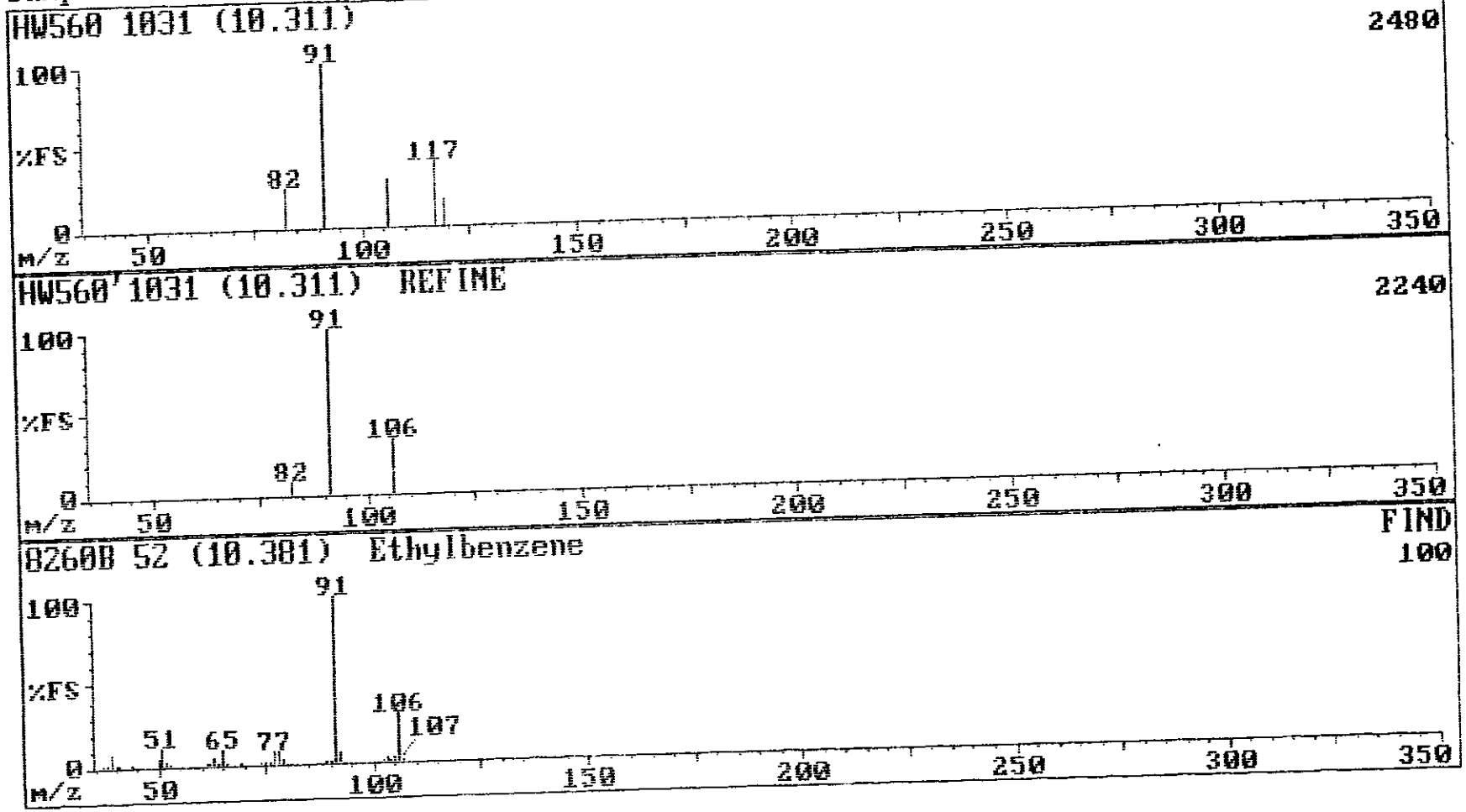
08-09-98 09:11 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-4-1-B T/C 214-27-20B TLI#46323 Instrument H



08-09-98 09:11 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-4-1-B T/C 214-27-20B TLI#46323 Instrument H



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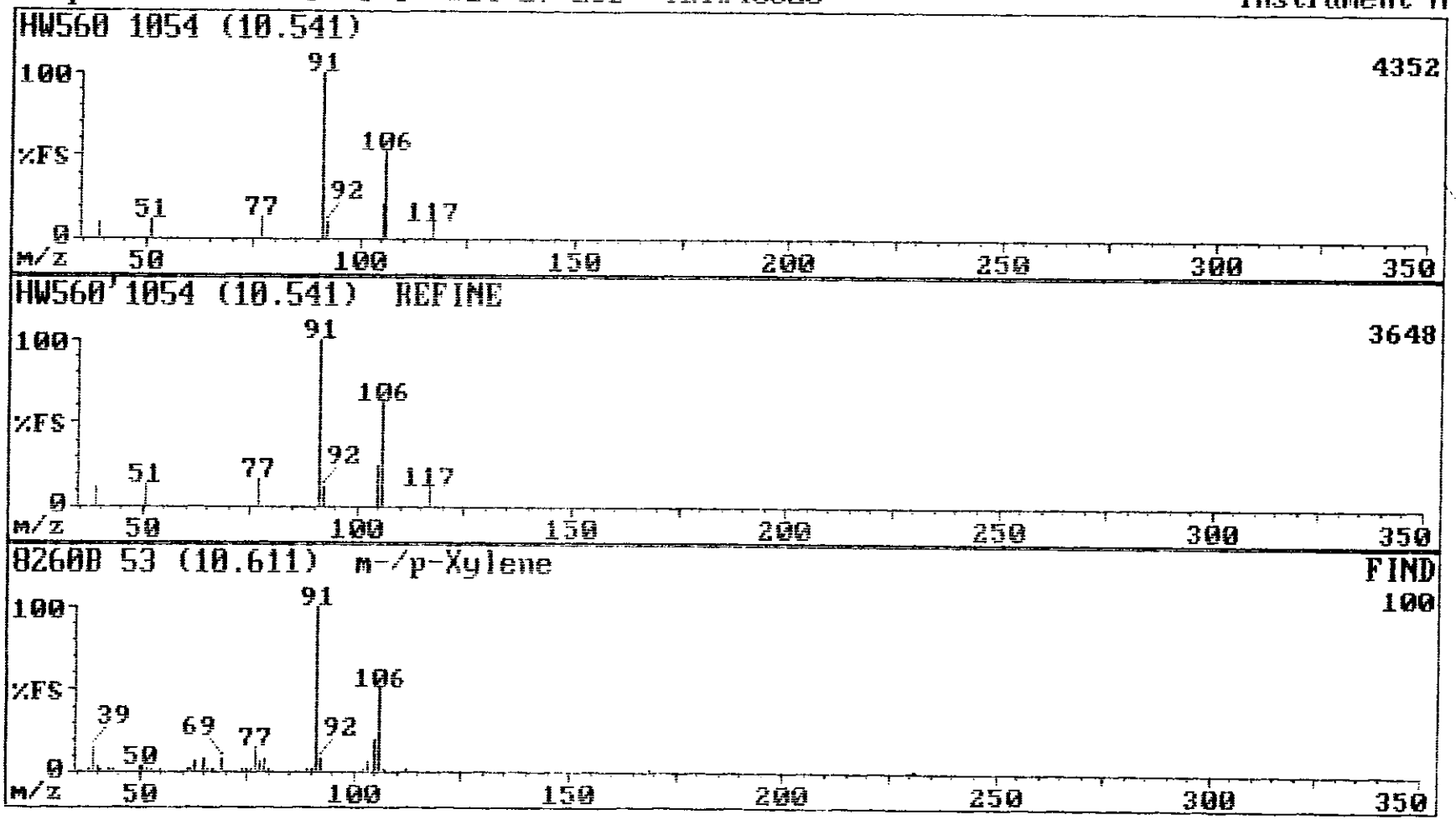
Sample: T-V-4-1-B T/C 214-27-20B TLI#46323 Instrument H



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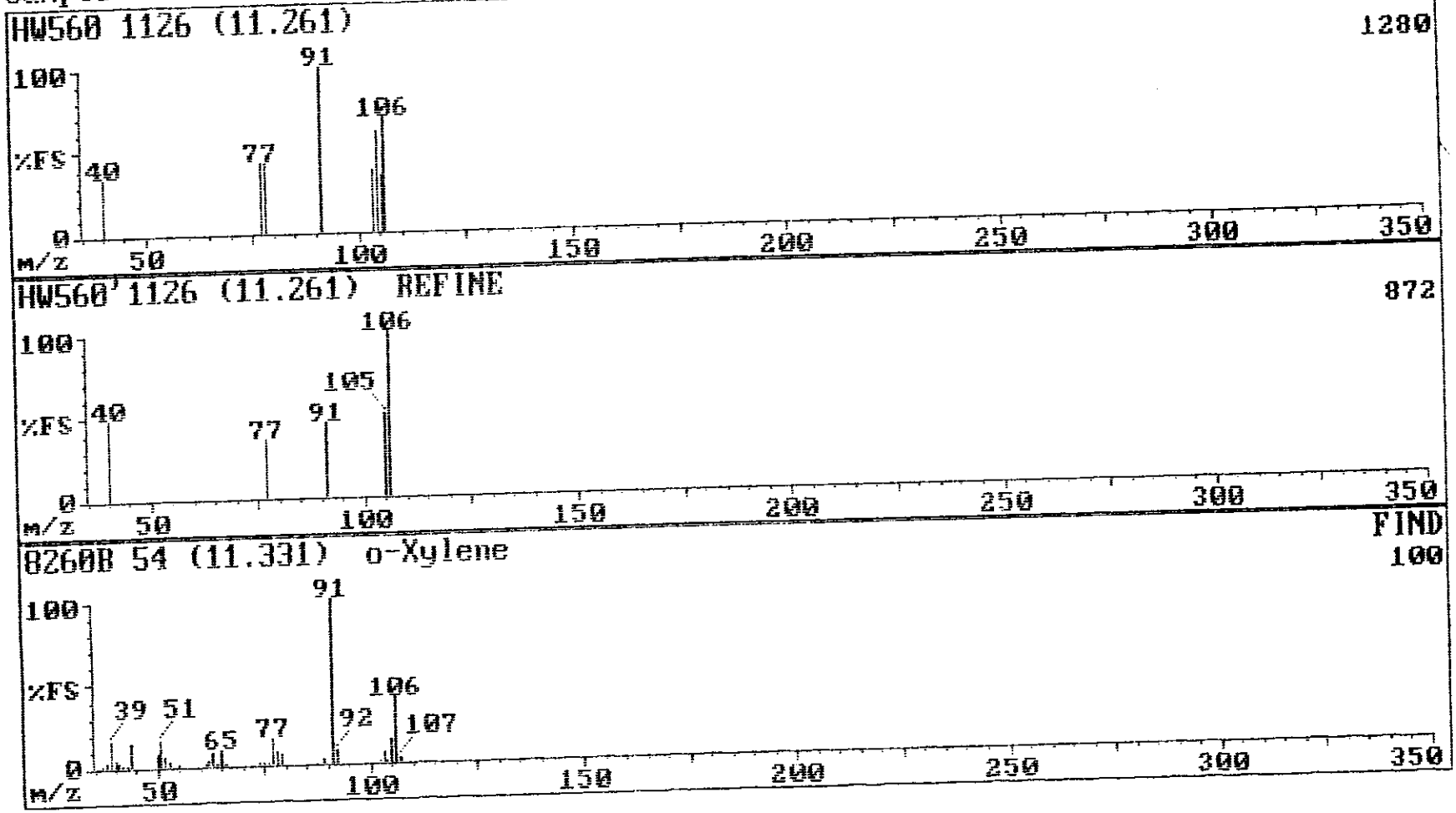
08-09-98 09:11 Triangle Laboratories, Inc. (919) 544-5729

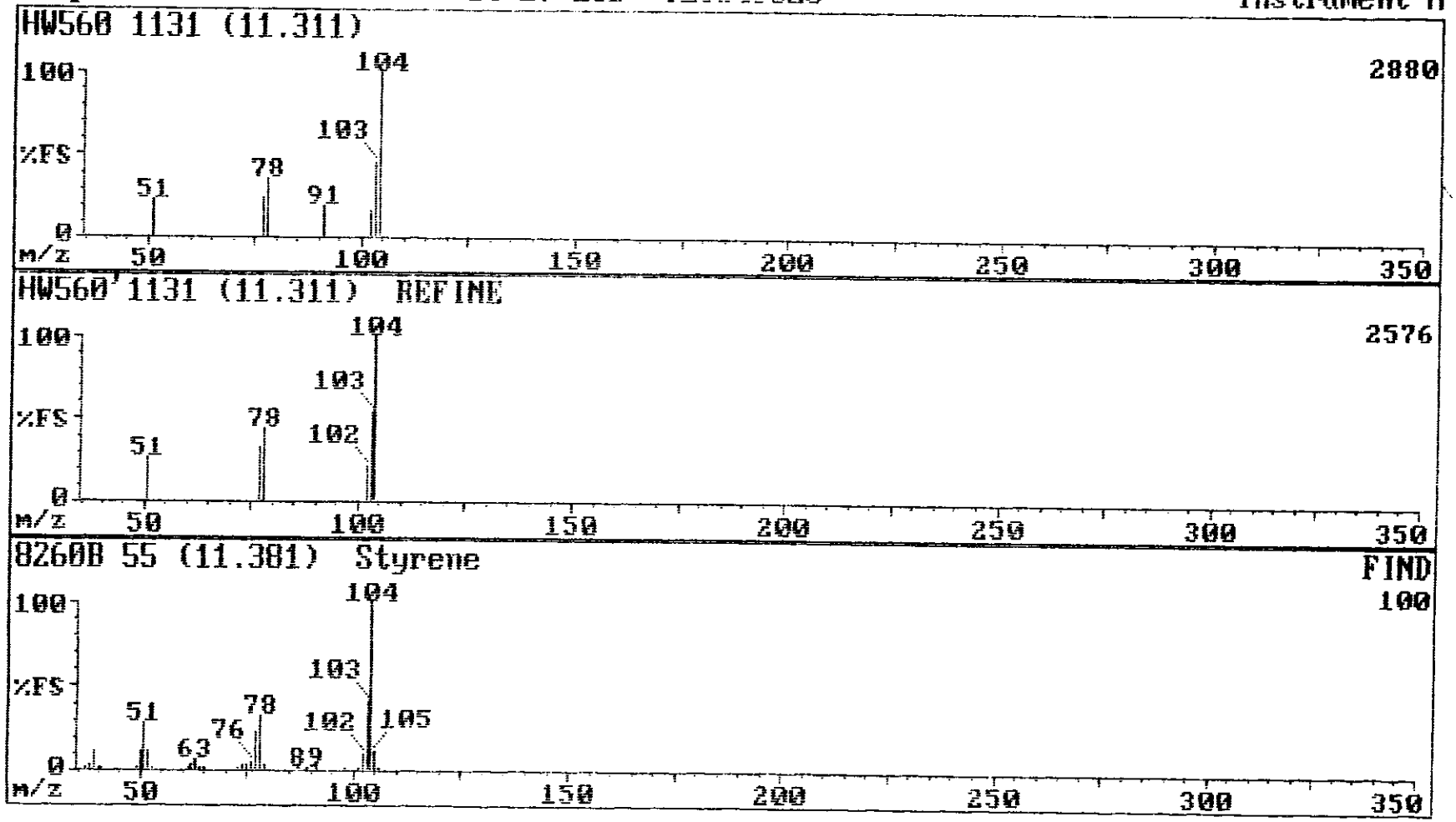
Instrument H

Sample: T-V-4-1-B T/C 214-27-20B TLI#46323



08-09-98 09:11 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-4-1-B T/C Z14-Z7-20B TLI#46323 Instrument H



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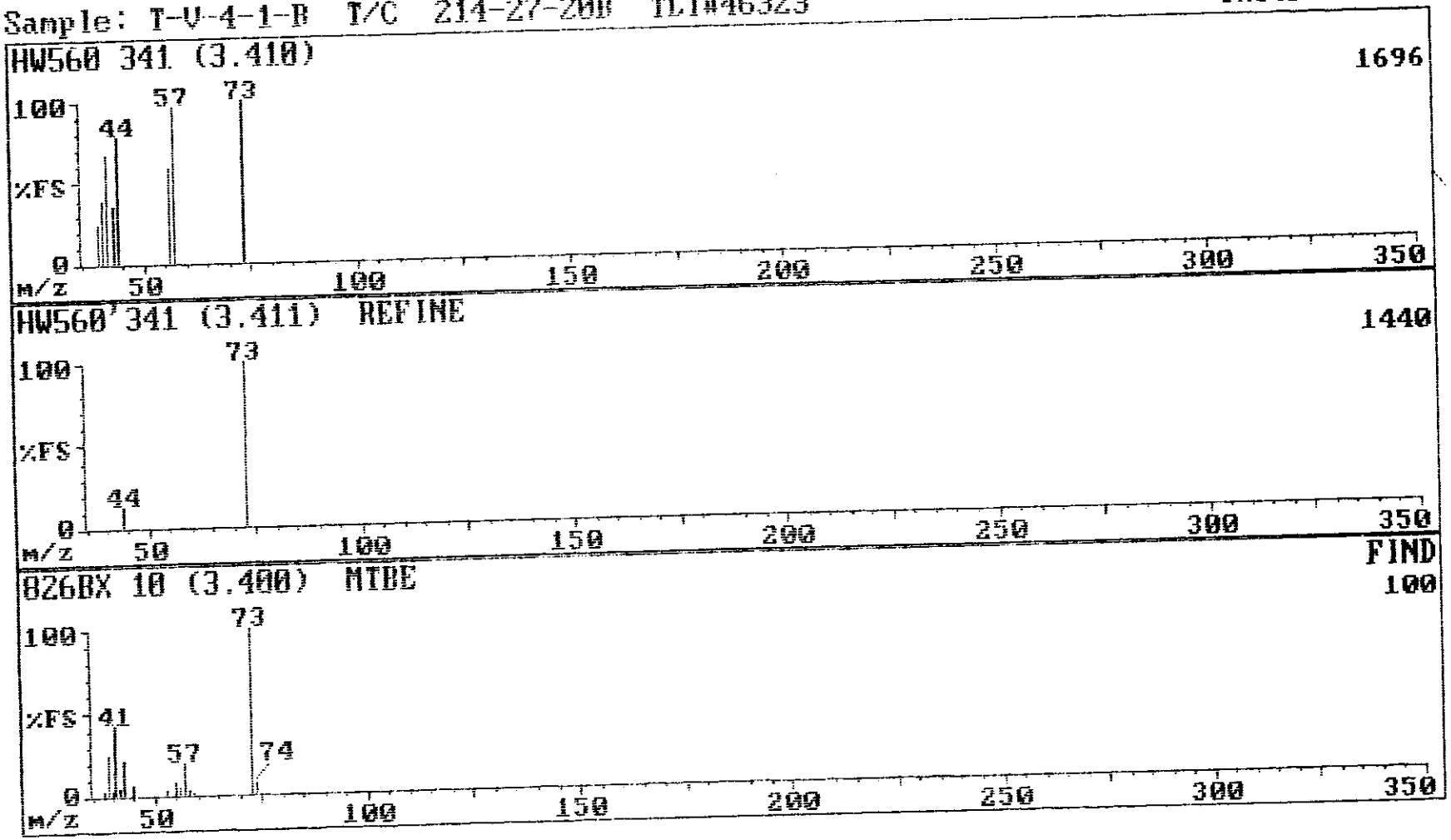
Sample: T-V-4-1-B T/C 214-27-20D TLI#46323 Instrument H



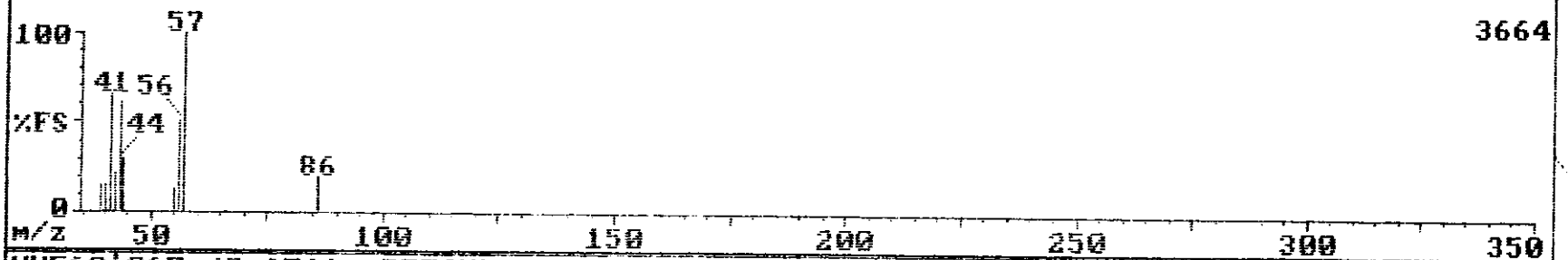
2:14

947

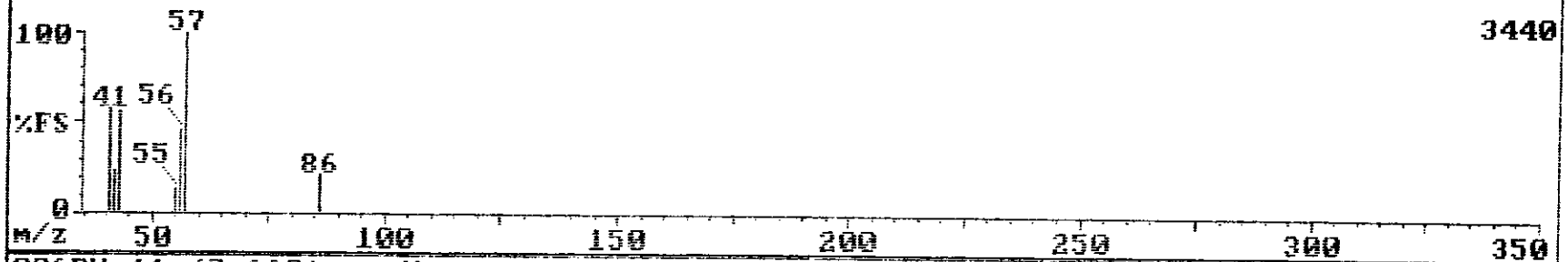
08-09-98 09:11 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-4-1-B T/C 214-27-20B TLI#46323 Instrument H

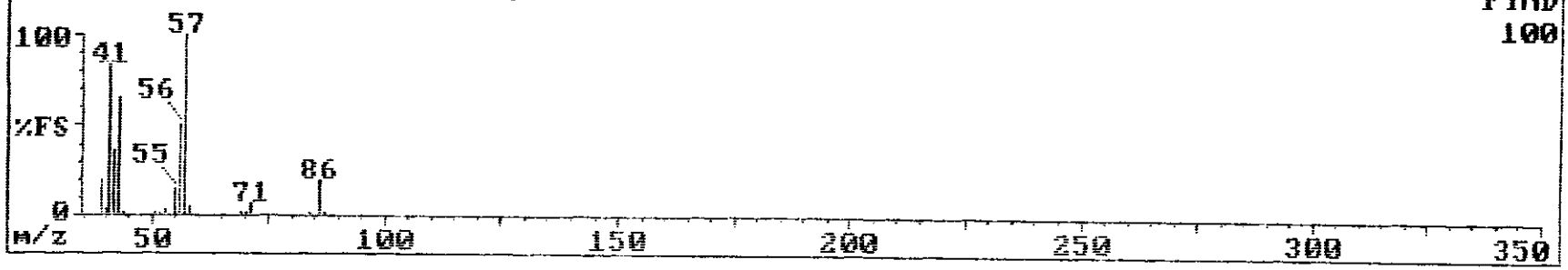
HW560 367 (3.670)



HW560 367 (3.671) REFINE



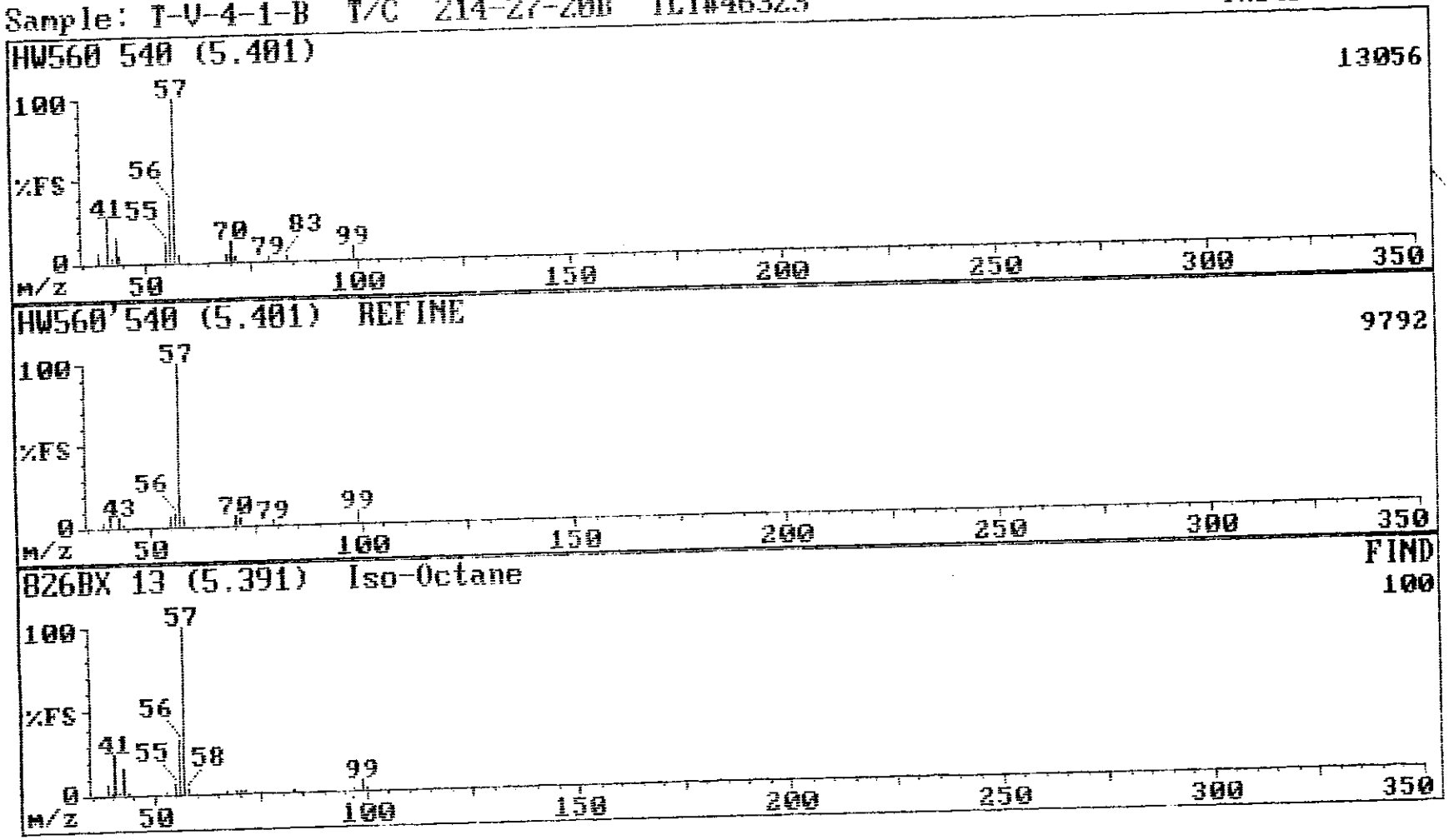
826BX 11 (3.660) n-Hexane



448

08-09-98 09:11 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-4-1-B T/C 214-27-20B TLI#46323 Instrument H



Pacific Environmental Services

Project Number: 46323
Sample File: HW563

Method 8260 VOST
Sample ID: T-V-4-2-A T

Client Project: R012.001
TLI ID: 214-27-21A

Date Received: 07/29/98

Date Analyzed : 08/09/98

Response File: ICALH809

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Pentafluorobenzene		IS 1	5.02		
Chloromethane	0.005	BJ	0.93		0.05
Vinyl Chloride		U		0.001	0.05
Bromomethane	0.006	BJ	1.43		0.05
Chloroethane		U		0.001	0.05
Trichlorofluoromethane		U		0.001	0.05
1,1-Dichloroethene		U		0.001	0.05
Iodomethane		U		0.001	0.05
Carbon disulfide		U		0.001	0.05
Acetone	0.036	J	2.69		0.05
Allyl chloride		U		0.001	0.05
Methylene chloride	0.674	B	3.01		0.05
Acrylonitrile		U		0.006	0.05
trans-1,2-Dichloroethene		U		0.001	0.05
1,1-Dichloroethane		U		0.001	0.05
Vinyl acetate		U		0.001	0.05
cis-1,2-Dichloroethene		U		0.001	0.05
2-Butanone		U		0.003	0.05
Chloroform		U		0.001	0.05
1,1,1-Trichloroethane		U		0.001	0.05
1,4-Difluorobenzene		IS 2	5.74		
Carbon tetrachloride		U		0.001	0.05
Benzene	0.034	BJ	5.21		0.05
1,2-Dichloroethane		U		0.001	0.05
Trichloroethene		U		0.001	0.05
1,2-Dichloropropane		U		0.001	0.05

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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Pacific Environmental Services

Project Number: 46323
Sample File: HW563

Method 8260 VOST
Sample ID: T-V-4-2-A T

Client Project: R012.001
TLI ID: 214-27-21A

Date Received: 07/29/98
Date Analyzed : 08/09/98

Response File: ICALH809

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Methyl methacrylate		U		0.002	0.05
Bromodichloromethane		U		0.001	0.05
cis-1,3-Dichloropropene		U		0.001	0.05
4-Methyl-2-pentanone		U		0.001	0.05
Toluene	0.010	BJ	7.71		0.05
trans-1,3-Dichloropropene		U		0.001	0.05
1,1,2-Trichloroethane		U		0.001	0.05
Chlorobenzene-d_5		IS 3	9.95		
Tetrachloroethene		U		0.001	0.05
2-Hexanone		U		0.002	0.05
Dibromochloromethane		U		0.001	0.05
1,2-Dibromoethane		U		0.001	0.05
Chlorobenzene		U		0.001	0.05
Ethylbenzene		U		0.001	0.05
m-/p-Xylene		U		0.001	0.10
o-Xylene		U		0.001	0.05
Styrene	0.003	BJ	11.30		0.05
Bromoform		U		0.001	0.05
1,4-Dichlorobenzene-d_4		IS 4	15.08		
Cumene		U		0.001	0.05
1,1,2,2-Tetrachloroethane		U		0.001	0.05

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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Pacific Environmental Services

Project Number: 46323
Sample File: HW563

Method 8260 VOST
Sample ID: T-V-4-2-A T

Client Project: R012.001
TLI ID: 214-27-21A

Date Received: 07/29/98

Date Analyzed : 08/09/98

Response File: ICALH809

Surrogate Summary	Amount (ug)	RT	IS Ref	%REC
Dibromofluoromethane	0.242	4.89	1	97
Toluene-d_8	0.244	7.62	2	98
4-Bromofluorobenzene	0.271	12.25	2	108

Reviewed by PAB Date 8/10/98

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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Printed: 16:11 08/10/1998

Pacific Environmental Services

Project Number: 46323
Sample File: HW563

Method 8260 VOST
Sample ID: T-V-4-2-A T

Client Project: R012.001
TLI ID: 214-27-21A

Date Received: 07/29/98
Date Analyzed : 08/09/98

Response File: ICALH809

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Pentafluorobenzene		IS 1	5.02		
1,3-Butadiene		U		0.001	0.25
Vinyl bromide		U		0.001	0.25
MTBE		U		0.002	0.25
n-Hexane	0.006	J	3.63		0.25
1,2-Epoxybutane		U		0.041	0.25
Iso-Octane		U		0.001	0.25
1,4-Difluorobenzene		IS 2	5.74		
Ethyl acrylate		U		0.001	0.25

Reviewed by PAB Date 8/10/98

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit

IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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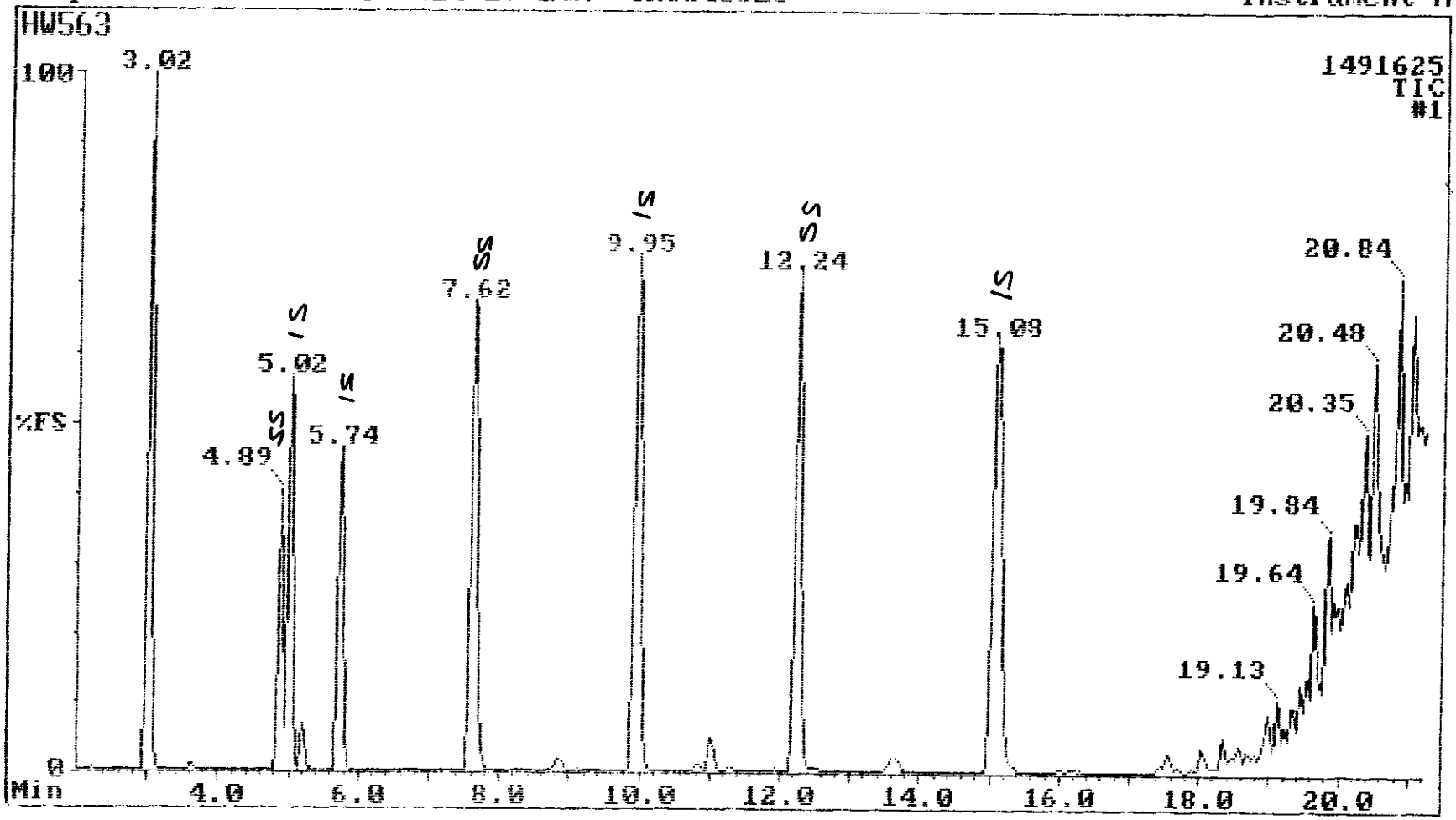
Savar v3.7
Printed: 16:39 08/10/1998

453

250

08-09-98 11:11 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-4-2-A T 214-27-21A TLI#46323 Instrument H



Data Review: GAB
Date: 8/10/98

QUAN DB : HW563 LAB-BASE QUAN 08-10-98 03:12

No.	MAT	FOR	REV	Delta	Area	P.Flags	RT	QM	Name
1	100	86	98	-7	2423308	bv	5.02	168	Pentafluorobenzene
2	100	97	98	-1	2207752	bb	5.74	114	1,4-Difluorobenzene
3	100	94	94	7	3233076	bv	9.95	117	Chlorobenzene-d5
4	100	82	98	-4	2122609	bv	15.08	152	1,4-Dichlorobenzene-d4
5	100	98	100	0	1249872	bv	4.89	113	Dibromofluoromethane
6	100	94	98	2	3014892	bv	7.62	98	Toluene-d8
7	87	90	93	10	1794012	bv	12.25	95	4-Bromofluorobenzene
8	0	0	0	0	0		0.00	85	Dichlorodifluoromethane
9	76	69	69	-5	17996	bb	0.93	50	Chloromethane
10	0	0	0	0	0		0.00	62	Vinyl Chloride
11	88	70	86	-5	24592	bb	1.43	94	Bromomethane
12	0	0	0	0	0		0.00	64	Chloroethane
13	0	0	0	0	0		0.00	101	Trichlorofluoromethane
14	0	0	0	0	0		0.00	96	1,1-Dichloroethene
15	~~59~~	~~42~~	~~52~~	~~0~~	~~3036~~	~~bb~~	~~2.56~~	142	Iodomethane
16	0	0	0	0	0		0.00	76	Carbon disulfide
17	80	55	87	4	17292	bv	2.69	43	Acetone
18	0	0	0	0	0		0.00	41	Allyl chloride
19	100	99	100	-5	2311952	bv	3.01	84	Methylene chloride
20	0	0	0	0	0		0.00	53	Acrylonitrile
21	0	0	0	0	0		0.00	96	trans-1,2-Dichloroethene
22	0	0	0	0	0		0.00	63	1,1-Dichloroethane
23	0	0	0	0	0		0.00	43	Vinyl acetate
24	0	0	0	0	0		0.00	77	2,2-Dichloropropane
25	0	0	0	0	0		0.00	96	cis-1,2-Dichloroethene
26	~~79~~	~~56~~	~~56~~	~~0~~	~~8592~~	~~A~~	~~4.45~~	43	2-Butanone
27	0	0	0	0	0		0.00	83	Chloroform
28	0	0	0	0	0		0.00	128	Bromochloromethane
29	0	0	0	0	0		0.00	97	1,1,1-Trichloroethane
30	0	0	0	0	0		0.00	117	Carbon tetrachloride
31	0	0	0	0	0		0.00	75	1,1-Dichloropropene
32	100	97	97	0	355744	bv	5.21	78	Benzene
33	0	0	0	0	0		0.00	62	1,2-Dichloroethane
34	0	0	0	0	0		0.00	130	Trichloroethene
35	0	0	0	0	0		0.00	63	1,2-Dichloropropane
36	0	0	0	0	0		0.00	93	Dibromomethane
37	0	0	0	0	0		0.00	41	Methyl methacrylate
38	0	0	0	0	0		0.00	83	Bromodichloromethane
39	0	0	0	0	0		0.00	75	cis-1,3-Dichloropropene
40	~~44~~	~~1~~	~~73~~	~~2~~	~~30293~~	~~A~~	~~7.61~~	43	4-Methyl-2-pentanone
41	98	78	90	2	87876	bb	7.71	92	Toluene
42	0	0	0	0	0		0.00	75	trans-1,3-Dichloropropen
43	0	0	0	0	0		0.00	97	1,1,2-Trichloroethane
44	0	0	0	0	0		0.00	69	Ethyl methacrylate
45	0	0	0	0	0		0.00	164	Tetrachloroethene
46	0	0	0	0	0		0.00	76	1,3-Dichloropropane
47	~~56~~	~~51~~	~~51~~	~~5~~	~~14938~~	~~A~~	~~9.11~~	43	2-Hexanone
48	0	0	0	0	0		0.00	129	Dibromochloromethane
49	0	0	0	0	0		0.00	107	1,2-Dibromoethane
50	0	0	0	0	0		0.00	112	Chlorobenzene

PAB 8/10/98

PAB 8/10/98

PAB 8/10/98

PAB 8/10/98

Data Review: PAB
Date: 8/10/98

485

No.	MAT	FOR	REV	Delta	Area	P.Flags	RT	QM	Name
51	0	0	0	0	0		0.00	131	1,1,1,2-Tetrachloroethan
52	~~89~~	~~53~~	~~53~~	~~24~~	~~2628~~	~~bb~~ GP/RAB 8/6/98	~~10.53~~	106	Ethylbenzene
53	~~63~~	~~52~~	~~52~~	~~1~~	~~2628~~	~~bb~~ GP/RAB 8/6/98	~~10.53~~	106	m-/p-Xylene
54	0	0	0	0	0		0.00	106	o-Xylene
55	98	78	83	2	39804	bb	11.30	104	Styrene
56	0	0	0	0	0		0.00	173	Bromoform
57	0	0	0	0	0		0.00	105	Cumene
58	0	0	0	0	0		0.00	83	1,1,2,2-Tetrachloroethan
59	0	0	0	0	0		0.00	156	Bromobenzene
60	0	0	0	0	0		0.00	75	1,2,3-Trichloropropane
61	0	0	0	0	0		0.00	120	n-Propylbenzene
62	23	10	46	-23	932608	A	12.25	75	trans-1,4-Dichloro-2-but
63	0	0	0	0	0		0.00	126	2-Chlorotoluene
64	0	0	0	0	0		0.00	126	4-Chlorotoluene
65	30	39	39	-16	880	bb	13.13	105	1,3,5-Trimethylbenzene
66	0	0	0	0	0		0.00	119	tert-Butylbenzene
67	54	39	50	2	28548	A	14.21	105	1,2,4-Trimethylbenzene
68	0	0	0	0	0		0.00	105	sec-Butylbenzene
69	0	0	0	0	0		0.00	119	p-Cymene
70	0	0	0	0	0		0.00	146	1,3-Dichlorobenzene
71	0	0	0	0	0		0.00	146	1,4-Dichlorobenzene
72	0	0	0	0	0		0.00	91	Benzyl chloride
73	0	0	0	0	0		0.00	91	n-Butylbenzene
74	0	0	0	0	0		0.00	146	1,2-Dichlorobenzene
75	0	0	0	0	0		0.00	75	1,2-Dibromo-3-chloroprop
76	0	0	0	0	0		0.00	180	1,2,4-Trichlorobenzene
77	0	0	0	0	0		0.00	225	Hexachlorobutadiene
78	41	31	73	16	101048	bv	19.32	128	Naphthalene
79	0	0	0	0	0		0.00	180	1,2,3-Trichlorobenzene

456

QUAN DB : HW563 LAB-BASE QUAN 08-10-98 14:24

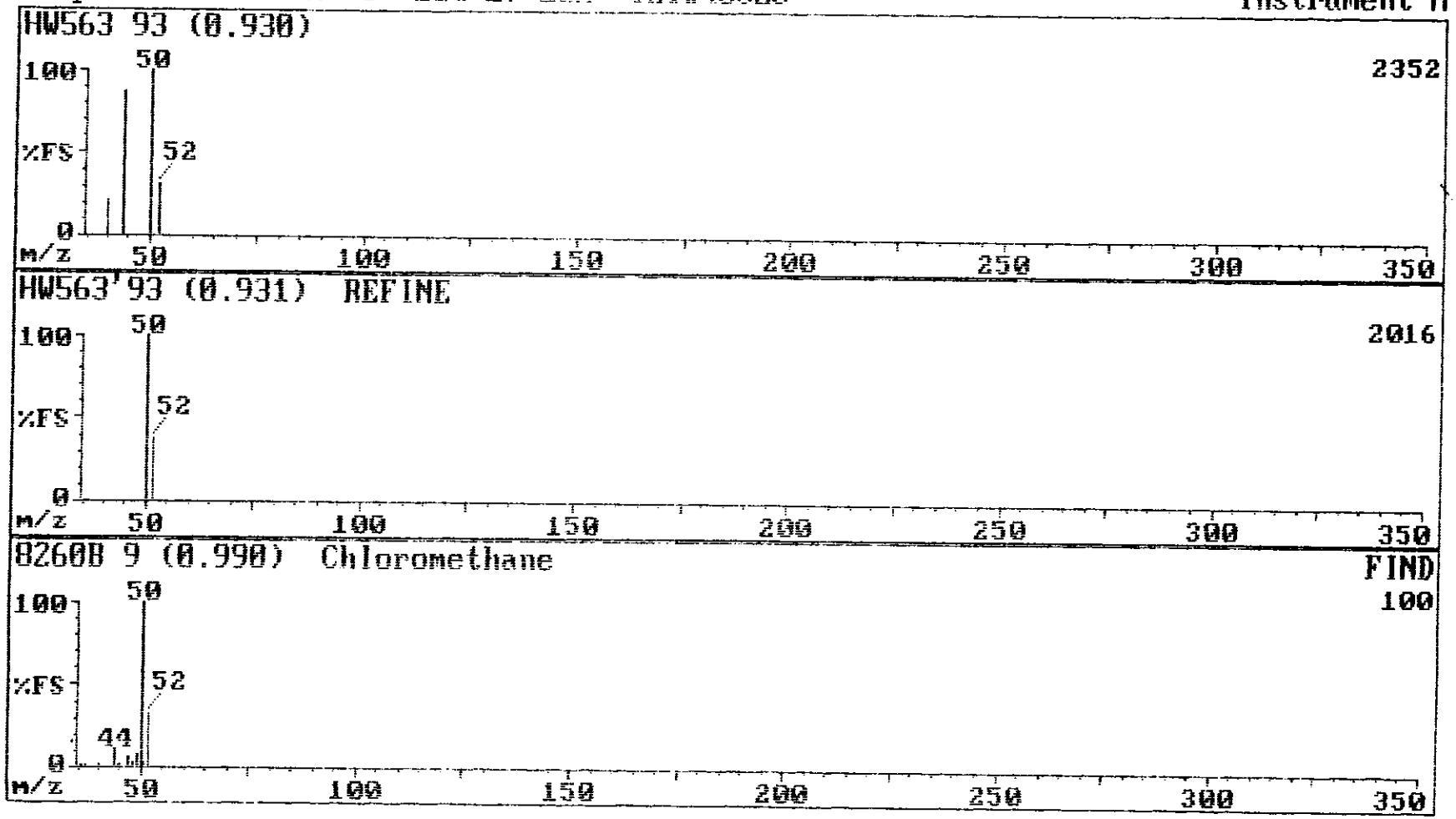
No.	MAT	FOR	REV	Delta	Area	P.Flags	RT	QM	Name
1	100	86	98	-2	2423308	bv	5.02	168	Pentafluorobenzene
2	100	97	98	0	2207752	bb	5.74	114	1,4-Difluorobenzene
3	100	94	94	4	3233076	bv	9.95	117	Chlorobenzene-d5
4	100	82	98	4	2122609	bv	15.08	152	1,4-Dichlorobenzene-d4
5	100	98	100	1	1249872	bv	4.89	113	Dibromofluoromethane
6	100	94	98	1	3014892	bv	7.62	98	Toluene-d8
7	93	90	93	8	1794012	bv	12.25	95	4-Bromofluorobenzene
8	0	0	0	0	0		0.00	39	1,3-Butadiene
9	0	0	0	0	0		0.00	106	Vinyl bromide
10	0	0	0	0	0		0.00	73	MTBE
11	100	94	94	-1	38900	bb	3.63	57	n-Hexane
12	0	0	0	0	0		0.00	42	1,2-Epoxybutane
13	0	0	0	0	0		0.00	57	Iso-Octane
14	0	0	0	0	0		0.00	55	Ethyl acrylate

Data Review: PaB
Date: 8/10/98

457

08-09-98 11:11 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-4-2-A T 214-27-21A TLI#46323 Instrument H



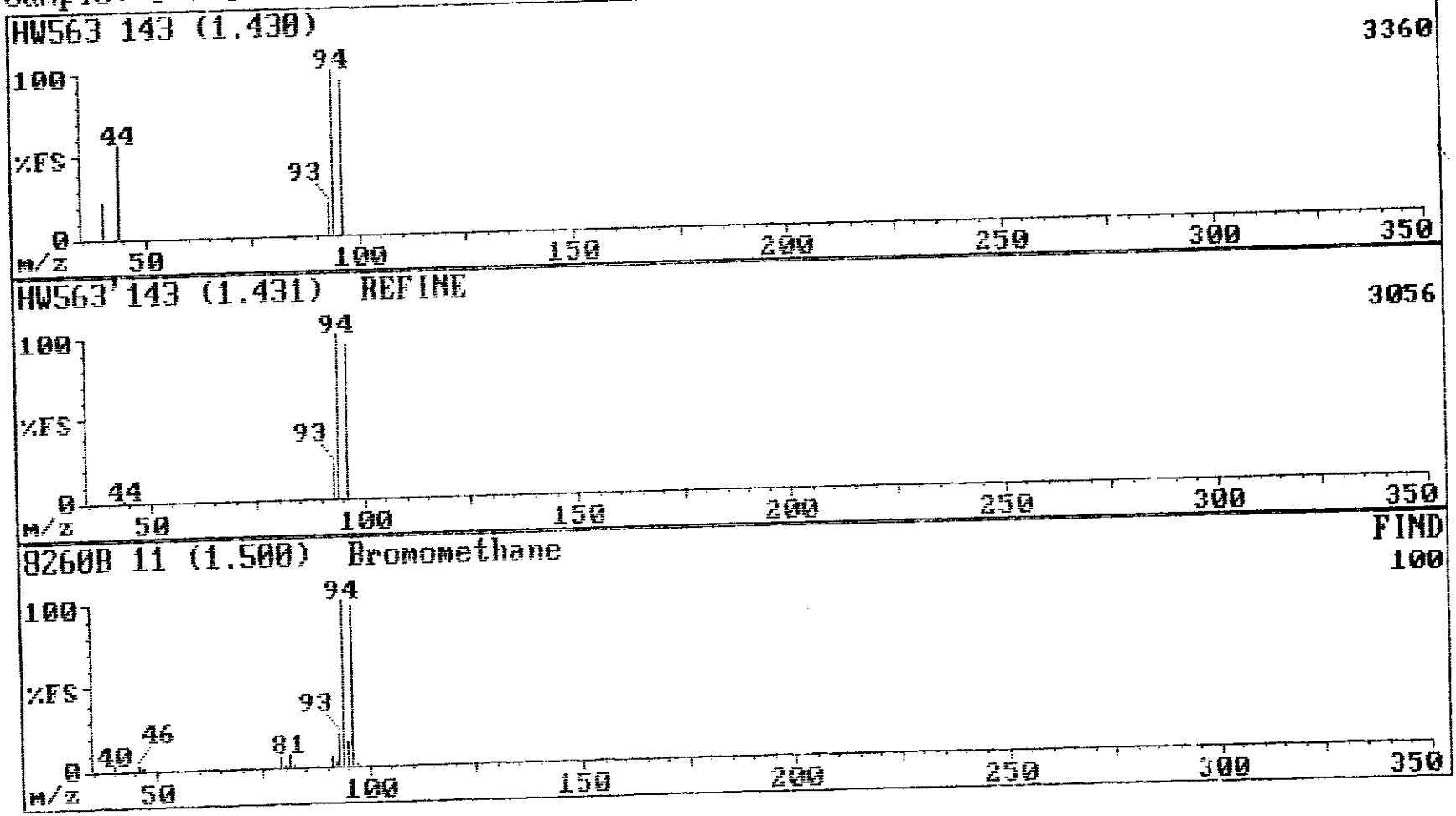
232

458

08-09-98 11:11 Triangle Laboratories, Inc. (919) 544-5729

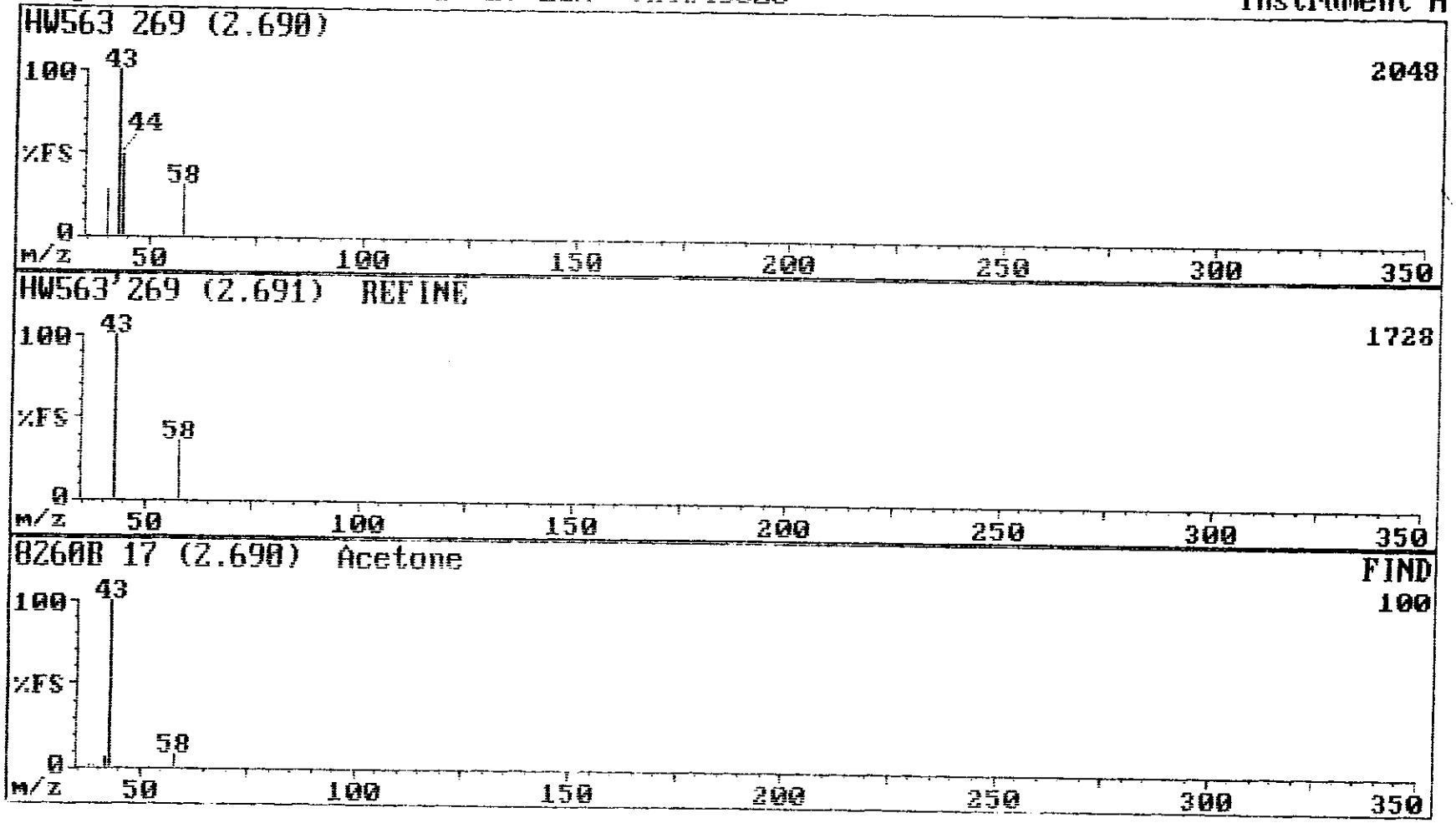
Instrument H

Sample: T-V-4-2-A T 214-27-21A TLI#46323



08-09-98 11:11 Triangle Laboratories, Inc. (919) 544-5729

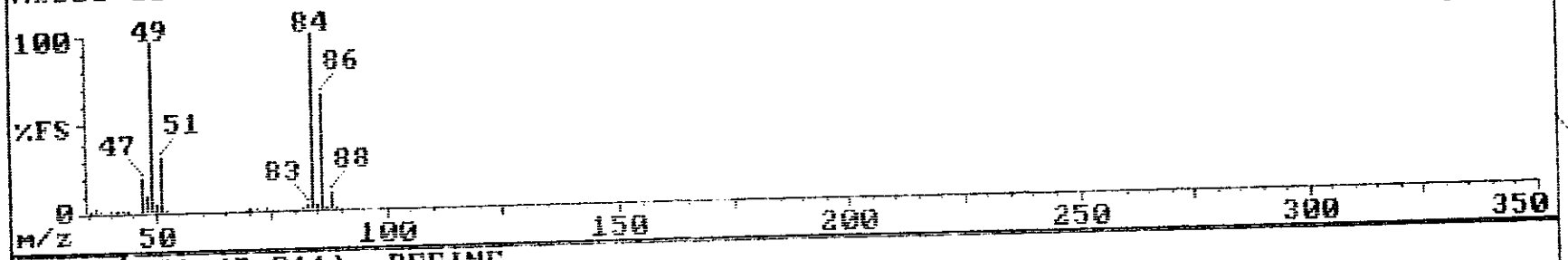
Sample: T-V-4-2-A T 214-27-21A TLI#46323 Instrument H



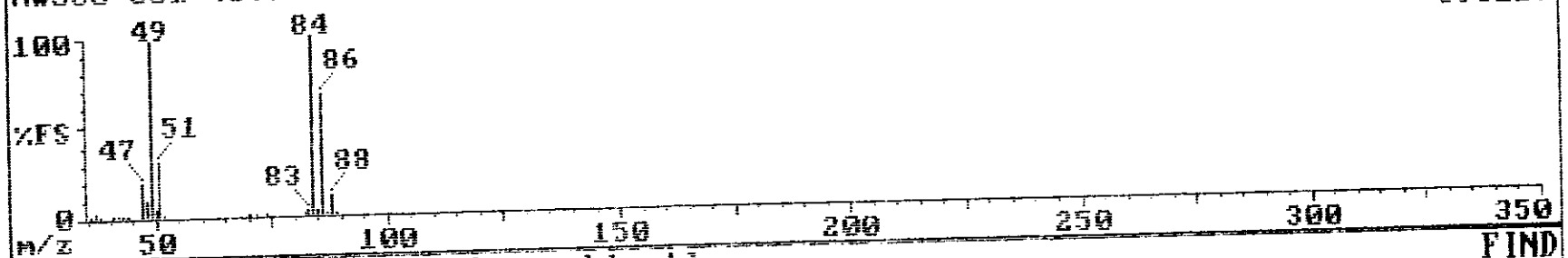
08-09-98 11:11 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-4-2-A T 214-27-21A TLI#46323 Instrument H

HW563 301 (3.010) 401408

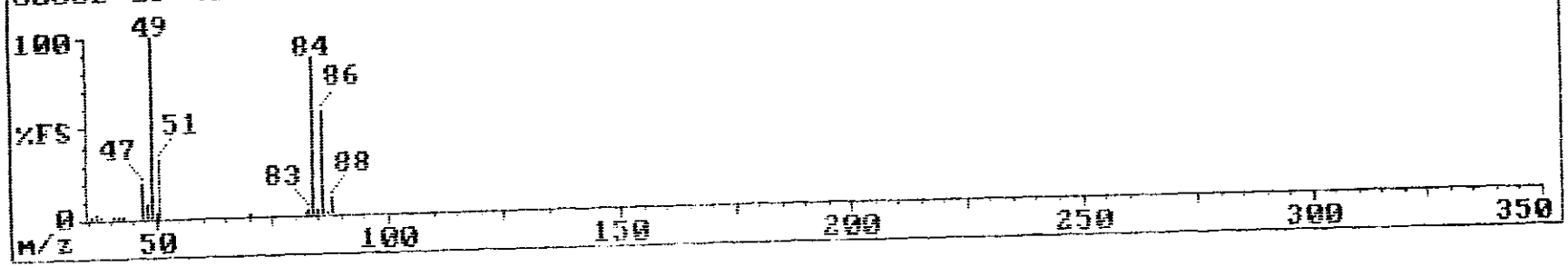


HW563 301 (3.011) REFINE 393216



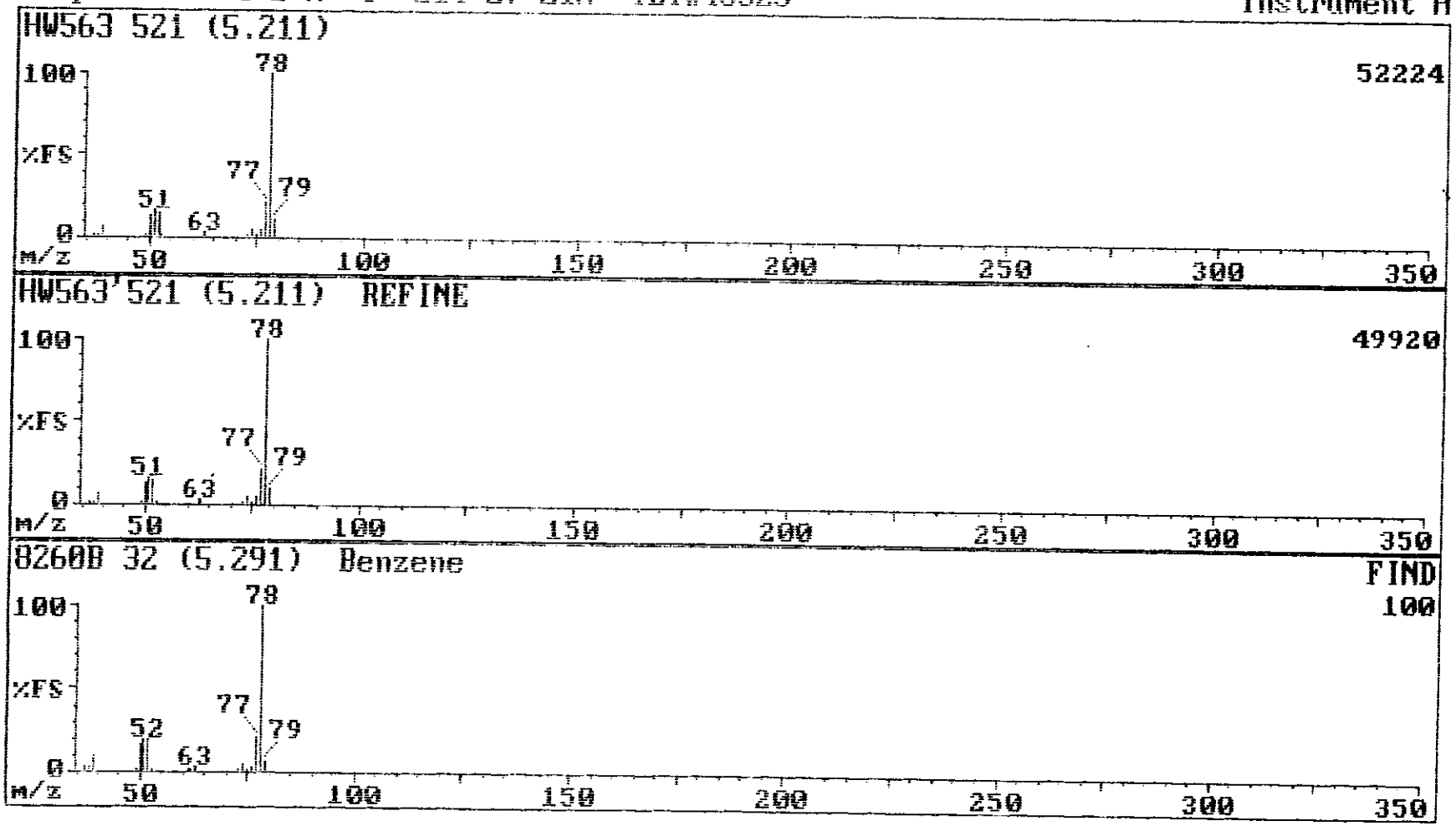
FIND

8260B 19 (3.100) Methylene chloride 100



08-09-98 11:11 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-4-2-A T 214-27-21A TLI#46323 Instrument H



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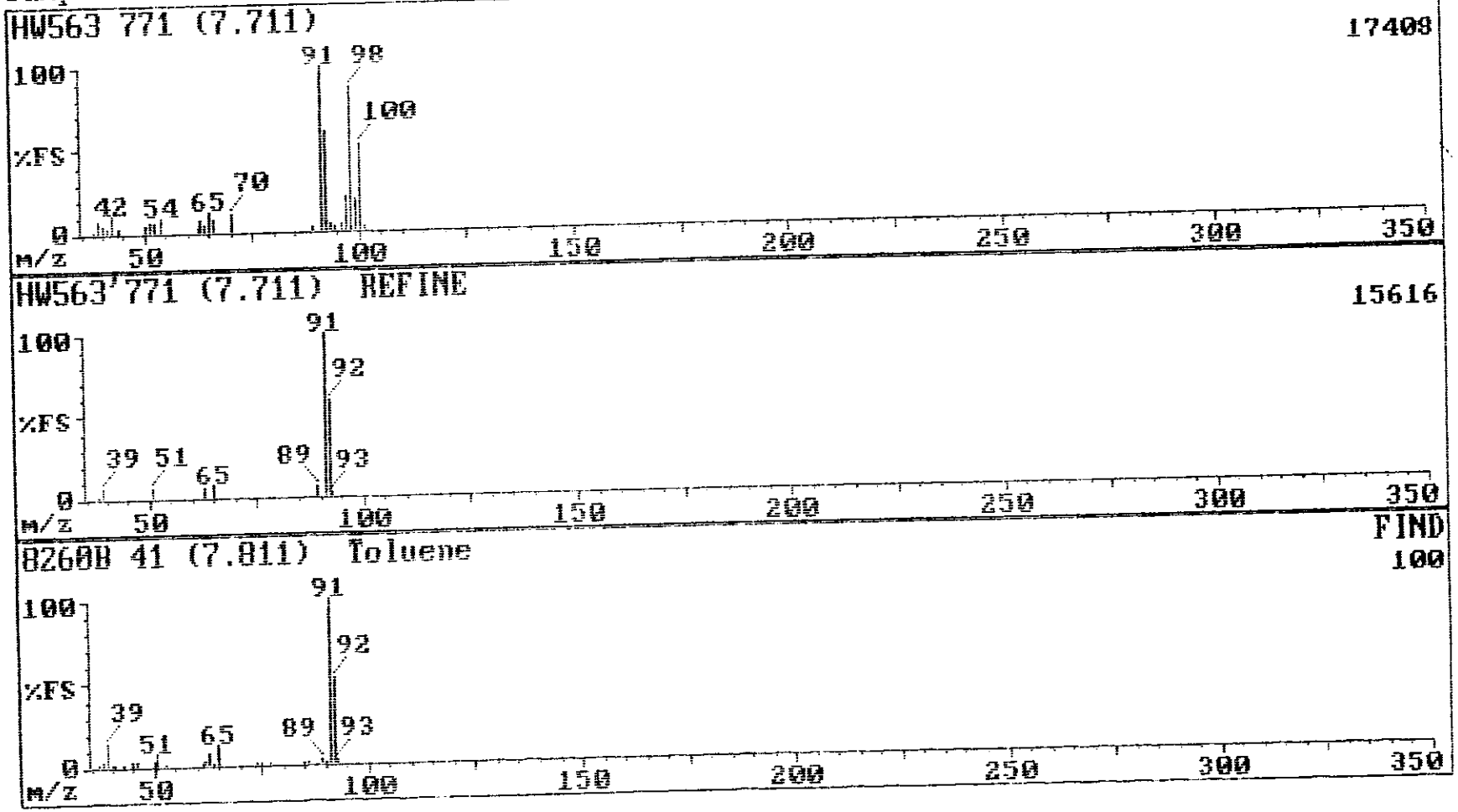
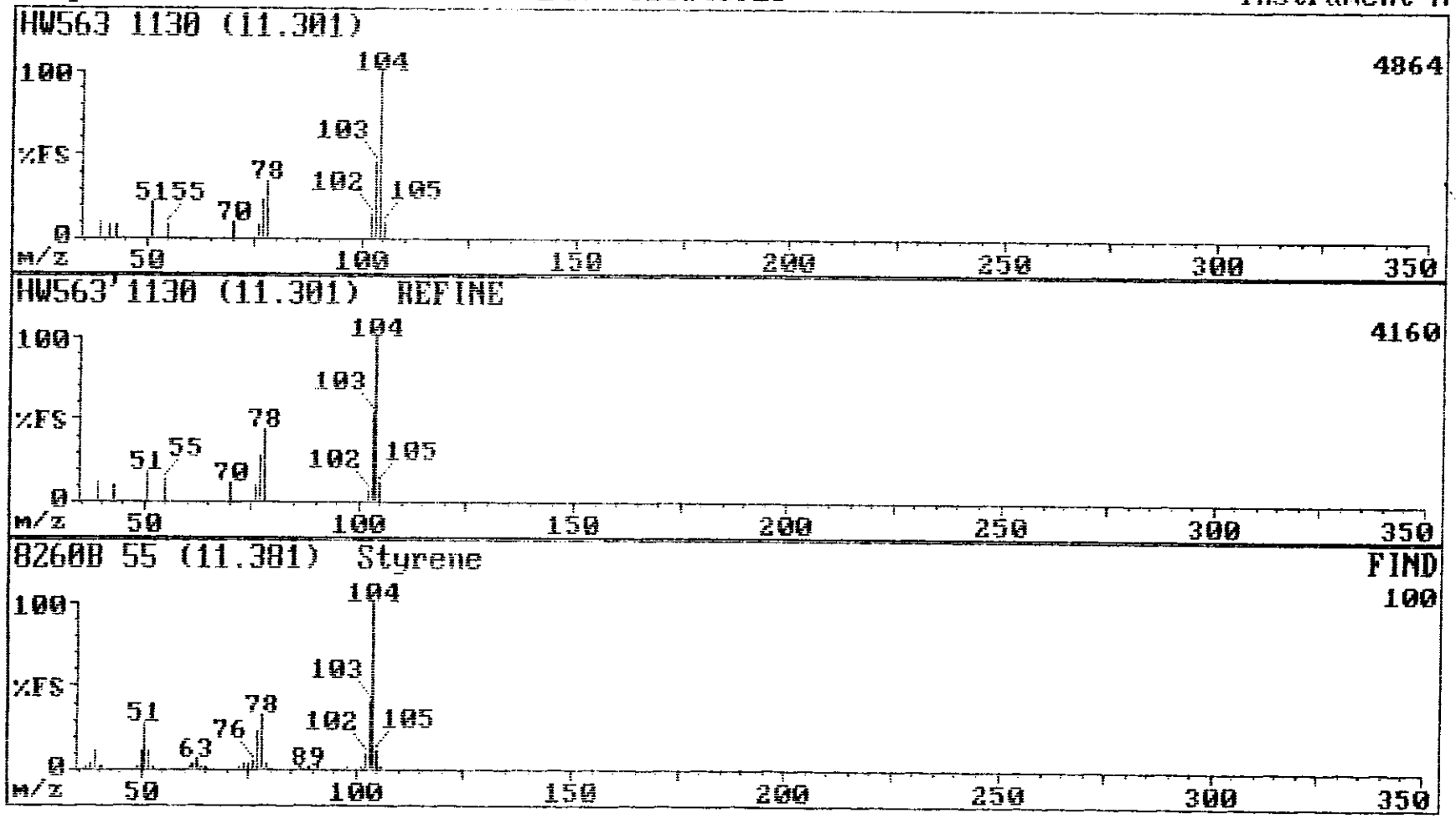
Sample: T-V-4-2-A T 214-27-21A TLI#46323 Instrument H



08-09-98 11:11 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-4-2-A T Z14-27-21A TLI#46323 Instrument H



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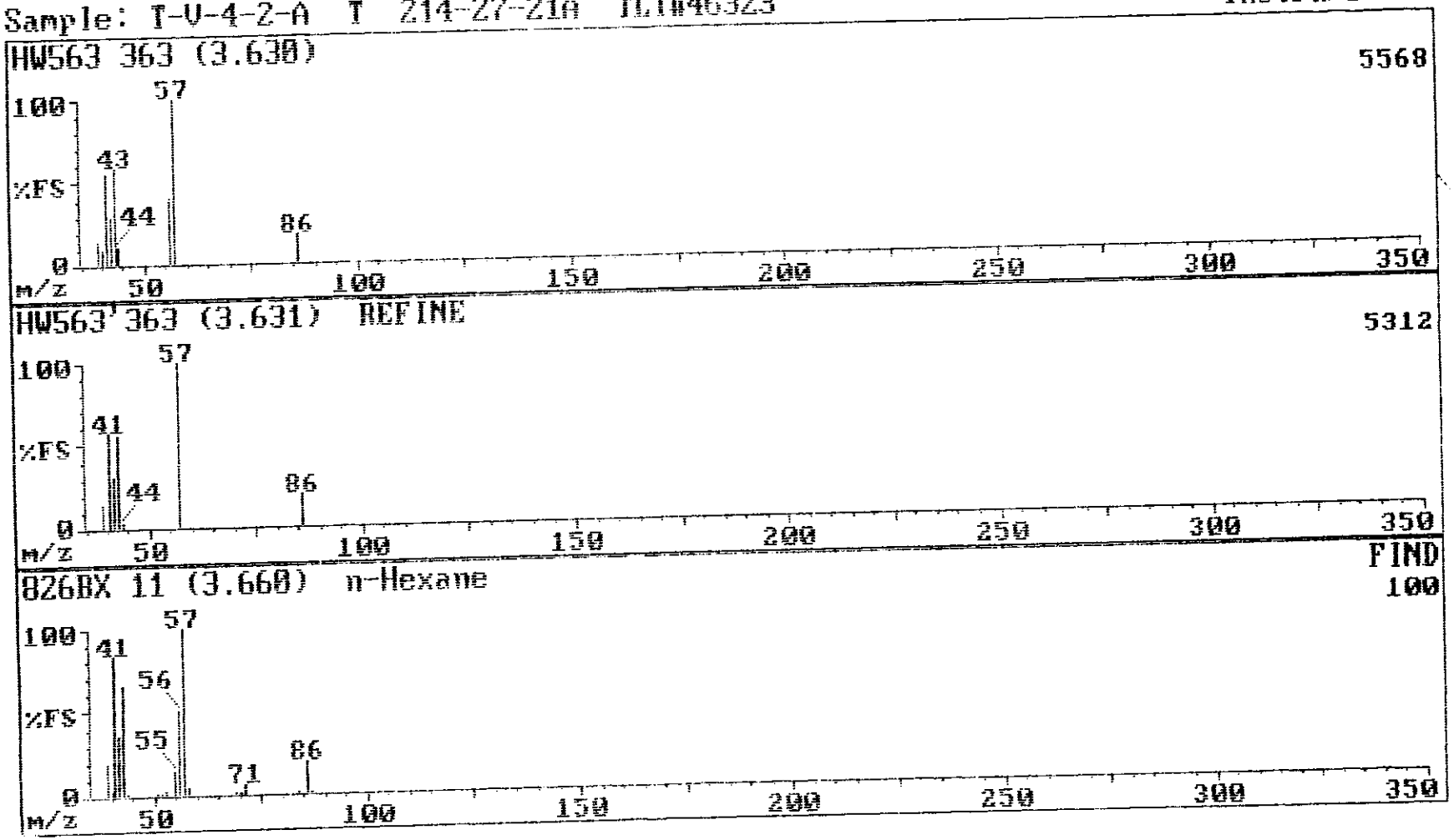
08-09-98 11:11 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-4-2-A T 214-27-21A TLI#46323 Instrument H



465

Pacific Environmental Services

Project Number: 46323
Sample File: HW561

Method 8260 VOST
Sample ID: T-V-4-2-B TC

Client Project: R012.001
TLI ID: 214-27-21B

Date Received: 07/29/98
Date Analyzed : 08/09/98

Response File: ICALH809

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Pentafluorobenzene		IS 1	5.04		
Chloromethane	0.015	BJ	0.97		0.05
Vinyl Chloride		U		0.001	0.05
Bromomethane	0.004	BJ	1.46		0.05
Chloroethane		U		0.001	0.05
Trichlorofluoromethane	0.003	J	1.90		0.05
1,1-Dichloroethene		U		0.001	0.05
Iodomethane		U		0.001	0.05
Carbon disulfide		U		0.001	0.05
Acetone	0.033	J	2.79		0.05
Allyl chloride		U		0.001	0.05
Methylene chloride	1.666	BE	3.06		0.05
Acrylonitrile		U		0.006	0.05
trans-1,2-Dichloroethene		U		0.001	0.05
1,1-Dichloroethane		U		0.001	0.05
Vinyl acetate		U		0.001	0.05
cis-1,2-Dichloroethene		U		0.001	0.05
2-Butanone		U		0.004	0.05
Chloroform		U		0.001	0.05
1,1,1-Trichloroethane		U		0.001	0.05
1,4-Difluorobenzene		IS 2	5.77		
Carbon tetrachloride		U		0.001	0.05
Benzene	0.015	BJ	5.23		0.05
1,2-Dichloroethane		U		0.001	0.05
Trichloroethene		U		0.001	0.05
1,2-Dichloropropane		U		0.001	0.05

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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Pacific Environmental Services

Project Number: 46323
Sample File: HW561

Method 8260 VOST
Sample ID: T-V-4-2-B TC

Client Project: R012.001
TLI ID: 214-27-21B

Date Received: 07/29/98
Date Analyzed : 08/09/98

Response File: ICALH809

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Methyl methacrylate		U		0.002	0.05
Bromodichloromethane		U		0.001	0.05
cis-1,3-Dichloropropene		U		0.001	0.05
4-Methyl-2-pentanone		U		0.001	0.05
Toluene	0.007	BJ	7.75		0.05
trans-1,3-Dichloropropene		U		0.001	0.05
1,1,2-Trichloroethane		U		0.001	0.05
Chlorobenzene-d_5		IS 3	9.96		
Tetrachloroethene		U		0.001	0.05
2-Hexanone		U		0.002	0.05
Dibromochloromethane		U		0.001	0.05
1,2-Dibromoethane		U		0.001	0.05
Chlorobenzene		U		0.001	0.05
Ethylbenzene		U		0.001	0.05
m-/p-Xylene		U		0.001	0.10
o-Xylene		U		0.001	0.05
Styrene	0.001	BJ	11.31		0.05
Bromoform		U		0.001	0.05
1,4-Dichlorobenzene-d_4		IS 4	15.07		
Cumene		U		0.001	0.05
1,1,2,2-Tetrachloroethane		U		0.001	0.05

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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Pacific Environmental Services

Project Number: 46323
Sample File: HW561

Method 8260 VOST
Sample ID: T-V-4-2-B TC

Client Project: R012.001
TLI ID: 214-27-21B

Date Received: 07/29/98

Date Analyzed : 08/09/98

Response File: ICALH809

Surrogate Summary	Amount (ug)	RT	IS Ref	%REC
Dibromofluoromethane	0.252	4.91	1	101
Toluene-d_8	0.267	7.65	2	107
4-Bromofluorobenzene	0.268	12.24	2	107

Reviewed by RAB Date 8/10/98

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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Savar v3.7
Printed: 16:11 08/10/1998

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Pacific Environmental Services

Project Number: 46323
Sample File: HW561

Method 8260 VOST
Sample ID: T-V-4-2-B TC

Client Project: R012.001
TLI ID: 214-27-21B

Date Received: 07/29/98
Date Analyzed : 08/09/98

Response File: ICALH809

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Pentafluorobenzene		IS 1	5.04		
1,3-Butadiene		U		0.001	0.25
Vinyl bromide		U		0.001	0.25
MTBE		U		0.002	0.25
n-Hexane	0.003	J	3.67		0.25
1,2-Epoxybutane		U		0.045	0.25
Iso-Octane		U		0.001	0.25
1,4-Difluorobenzene		IS 2	5.77		
Ethyl acrylate		U		0.001	0.25

Reviewed by BAB Date 8/10/98

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit

IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

Savar v3.7

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Printed: 16:39 08/10/1998

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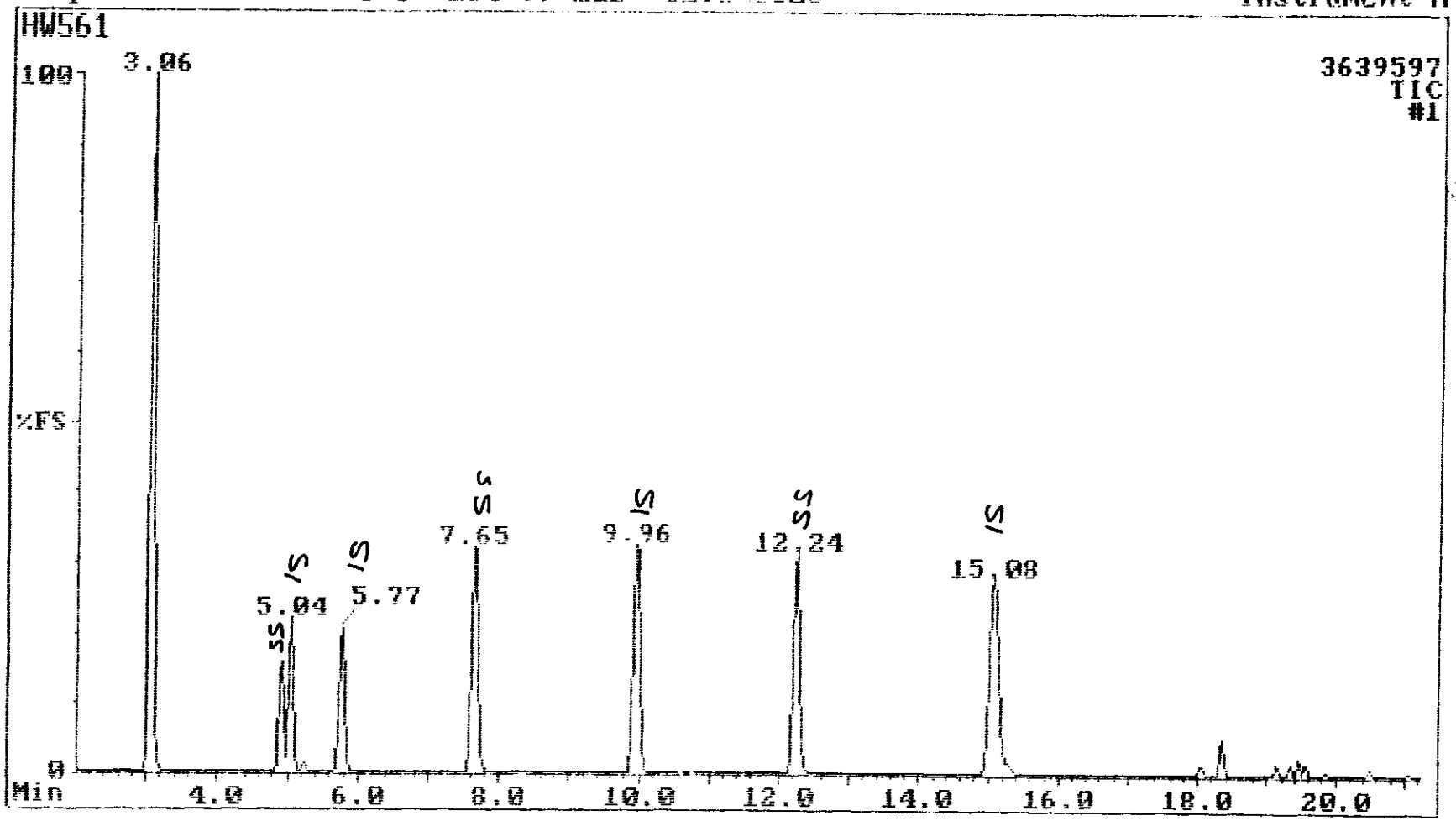
08-09-98 09:46 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-4-2-B T/C 214-27-21B TLI#46323 Instrument H



Data Review: PAB
Date: 8/10/98

470

QUAN DB : HW561 LAB-BASE QUAN 08-09-98 10:40

No.	MAT	FOR	REV	Delta	Area	P.Flags	RT	QM	Name
1	100	86	98	-5	2231920	bv	5.04	168	Pentafluorobenzene
2	100	97	98	0	2360532	bv	5.77	114	1,4-Difluorobenzene
3	100	94	94	2	3394483	bv	9.96	117	Chlorobenzene-d5
4	100	82	98	-7	2297468	bv	15.07	152	1,4-Dichlorobenzene-d4
5	100	98	100	0	1196840	bv	4.91	113	Dibromofluoromethane
6	100	93	98	1	3536848	bv	7.65	98	Toluene-d8
7	100	89	92	3	1901224	bv	12.24	95	4-Bromofluorobenzene
8	100	65	99	-1	1172140	vv	0.75	85	Dichlorodifluoromethane
9	100	84	87	-1	49364	bv	0.97	50	Chloromethane
10	0	0	0	0	0		0.00	62	Vinyl Chloride
11	76	50	78	-2	14012	bb	1.46	94	Bromomethane
12	0	0	0	0	0		0.00	64	Chloroethane
13	87	59	83	-1	30852	bb	1.90	101	Trichlorofluoromethane
14	0	0	0	0	0		0.00	96	1,1-Dichloroethene
15	0	0	0	0	0		0.00	142	Iodomethane
16	~~62~~	~~53~~	~~60~~	~~-1~~	~~17572~~	~~bb~~ PAB 8/10/98	~~2.53~~	76	Carbon disulfide
17	~~50~~	~~31~~	~~84~~	~~13~~	~~14906~~	~~a~~ OK PAB 8/10/98 (Keep)	~~2.79~~	43	Acetone
18	0	0	0	0	0		0.00	41	Allyl chloride
19	100	99	100	-1	5265536	bv	3.06	84	Methylene chloride
20	0	0	0	0	0		0.00	53	Acrylonitrile
21	0	0	0	0	0		0.00	96	trans-1,2-Dichloroethene
22	0	0	0	0	0		0.00	63	1,1-Dichloroethane
23	0	0	0	0	0		0.00	43	Vinyl acetate
24	0	0	0	0	0		0.00	77	2,2-Dichloropropane
25	0	0	0	0	0		0.00	96	cis-1,2-Dichloroethene
26	~~65~~	~~57~~	~~57~~	~~3~~	~~6092~~	~~bv~~ PAB 8/10/98	~~4.53~~	43	2-Butanone
27	0	0	0	0	0		0.00	83	Chloroform
28	0	0	0	0	0		0.00	128	Bromochloromethane
29	0	0	0	0	0		0.00	97	1,1,1-Trichloroethane
30	0	0	0	0	0		0.00	117	Carbon tetrachloride
31	0	0	0	0	0		0.00	75	1,1-Dichloropropene
32	100	95	95	-1	166824	bb	5.23	78	Benzene
33	0	0	0	0	0		0.00	62	1,2-Dichloroethane
34	0	0	0	0	0		0.00	130	Trichloroethene
35	0	0	0	0	0		0.00	63	1,2-Dichloropropane
36	0	0	0	0	0		0.00	93	Dibromomethane
37	0	0	0	0	0		0.00	41	Methyl methacrylate
38	0	0	0	0	0		0.00	83	Bromodichloromethane
39	0	0	0	0	0		0.00	75	cis-1,3-Dichloropropene
40	~~44~~	~~3~~	~~71~~	~~2~~	~~16480~~	~~bb~~ PAB 8/10/98	~~7.65~~	43	4-Methyl-2-pentanone
41	98	74	90	2	65004	bb	7.75	92	Toluene
42	0	0	0	0	0		0.00	75	trans-1,3-Dichloropropen
43	0	0	0	0	0		0.00	97	1,1,2-Trichloroethane
44	0	0	0	0	0		0.00	69	Ethyl methacrylate
45	0	0	0	0	0		0.00	164	Tetrachloroethene
46	0	0	0	0	0		0.00	76	1,3-Dichloropropane
47	~~23~~	~~12~~	~~44~~	~~14~~	~~14352~~	~~bb~~ PAB 8/10/98	~~9.13~~	43	2-Hexanone
48	0	0	0	0	0		0.00	129	Dibromochloromethane
49	0	0	0	0	0		0.00	107	1,2-Dibromoethane
50	0	0	0	0	0		0.00	112	Chlorobenzene

Data Review: PAB
Date: 8/10/98

No.	MAT	FOR	REV	Delta	Area	P.Flags	RT	QM	Name
51	0	0	0	0	0		0.00	131	1,1,1,2-Tetrachloroethar
52	~~29~~	~~54~~	~~54~~	~~23~~	~~2152~~	~~A~~ (JP) FAB 8/10/98	~~10.52~~	106	Ethylbenzene
53	~~63~~	~~52~~	~~52~~	~~1~~	~~2152~~	~~A~~ (JP) FAB 8/10/98	~~10.52~~	106	m-/p-Xylene
54	0	0	0	0	0		0.00	106	o-Xylene
55	83	70	70	2	15088	bb	11.31	104	Styrene
56	0	0	0	0	0		0.00	173	Bromoform
57	0	0	0	0	0		0.00	105	Cumene
58	0	0	0	0	0		0.00	83	1,1,2,2-Tetrachloroethar
59	0	0	0	0	0		0.00	156	Bromobenzene
60	0	0	0	0	0		0.00	75	1,2,3-Trichloropropane
61	0	0	0	0	0		0.00	120	n-Propylbenzene
62	0	0	0	0	0		0.00	75	trans-1,4-Dichloro-2-but
63	0	0	0	0	0		0.00	126	2-Chlorotoluene
64	0	0	0	0	0		0.00	126	4-Chlorotoluene
65	30	39	39	-16	1164	bb	13.12	105	1,3,5-Trimethylbenzene
66	0	0	0	0	0		0.00	119	tert-Butylbenzene
67	60	53	53	4	15736	A	14.21	105	1,2,4-Trimethylbenzene
68	64	54	54	2	408	bb	14.75	105	sec-Butylbenzene
69	0	0	0	0	0		0.00	119	p-Cymene
70	0	0	0	0	0		0.00	146	1,3-Dichlorobenzene
71	0	0	0	0	0		0.00	146	1,4-Dichlorobenzene
72	0	0	0	0	0		0.00	91	Benzyl chloride
73	0	0	0	0	0		0.00	91	n-Butylbenzene
74	0	0	0	0	0		0.00	146	1,2-Dichlorobenzene
75	0	0	0	0	0		0.00	75	1,2-Dibromo-3-chloroprop
76	62	81	91	18	56220	bb	19.13	180	1,2,4-Trichlorobenzene
77	31	10	75	18	6272	bb	19.34	225	Hexachlorobutadiene
78	53	68	78	18	135676	bv	19.33	128	Naphthalene
79	61	79	90	18	53196	bb	19.54	180	1,2,3-Trichlorobenzene

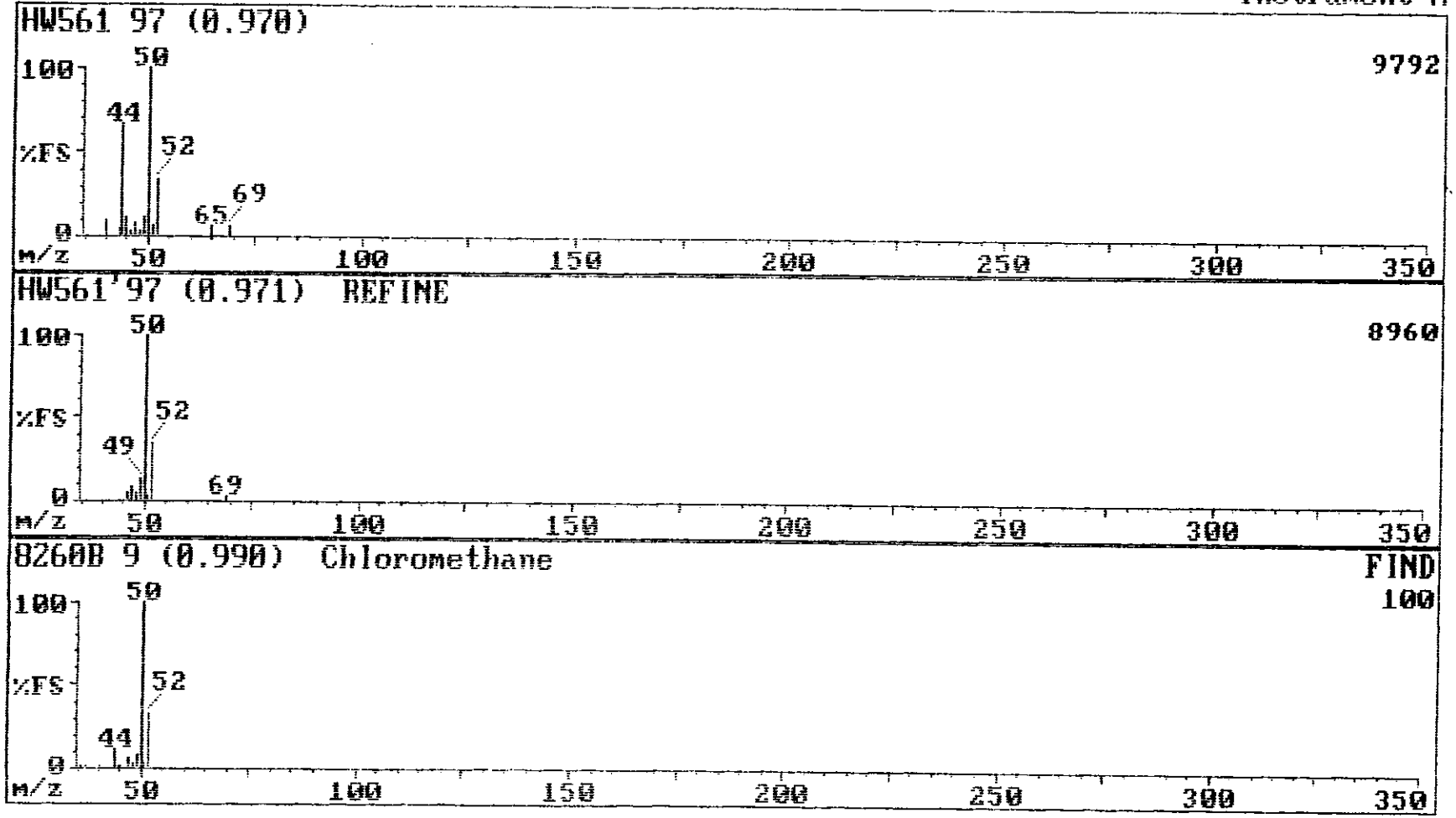
QUAN DB : HW561 LAB-BASE QUAN 08-10-98 14:34

No.	MAT	FOR	REV	Delta	Area	P.Flags	RT	QM	Name
1	100	86	98	0	2231920	bv	5.04	168	Pentafluorobenzene
2	100	97	98	1	2360532	bv	5.77	114	1,4-Difluorobenzene
3	100	94	94	0	3394483	bv	9.96	117	Chlorobenzene-d5
4	100	82	98	2	2297468	bv	15.07	152	1,4-Dichlorobenzene-d4
5	100	98	100	1	1196840	bv	4.91	113	Dibromofluoromethane
6	100	93	98	0	3536848	bv	7.65	98	Toluene-d8
7	100	89	92	1	1901224	bv	12.24	95	4-Bromofluorobenzene
8	0	0	0	0	0		0.00	39	1,3-Butadiene
9	0	0	0	0	0		0.00	106	Vinyl bromide
10	0	0	0	0	0		0.00	73	MTBE
11	100	84	84	1	19384	bb	3.67	57	n-Hexane
12	0	0	0	0	0		0.00	42	1,2-Epoxybutane
13	0	0	0	0	0		0.00	57	Iso-Octane
14	0	0	0	0	0		0.00	55	Ethyl acrylate

473

08-09-98 09:46 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-4-2-B T/C 214-27-21B TLI#46323 Instrument H



274

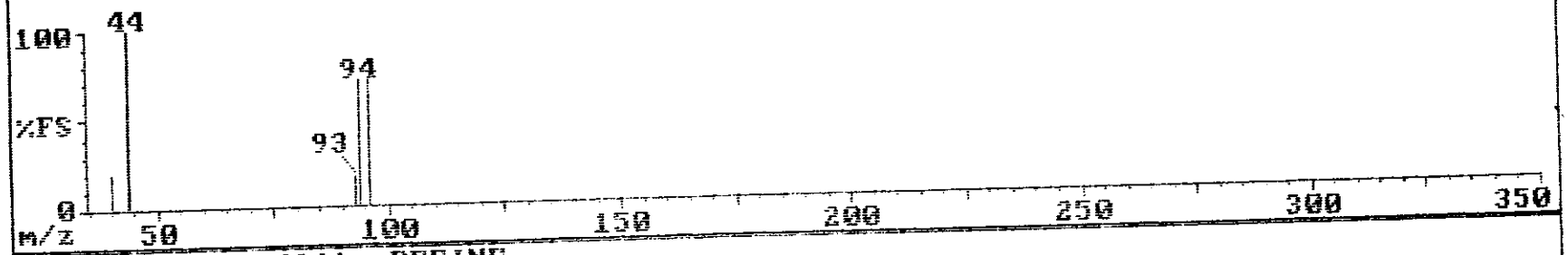
474

08-09-98 09:46 Triangle Laboratories, Inc. (919) 544-5729

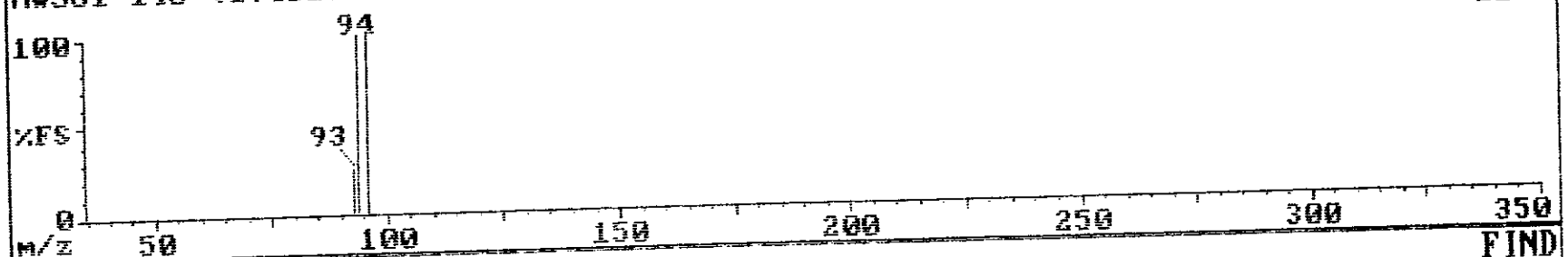
Instrument H

Sample: T-V-4-2-B T/C 214-27-21B TLI#46323

HW561 146 (1.460) 3328

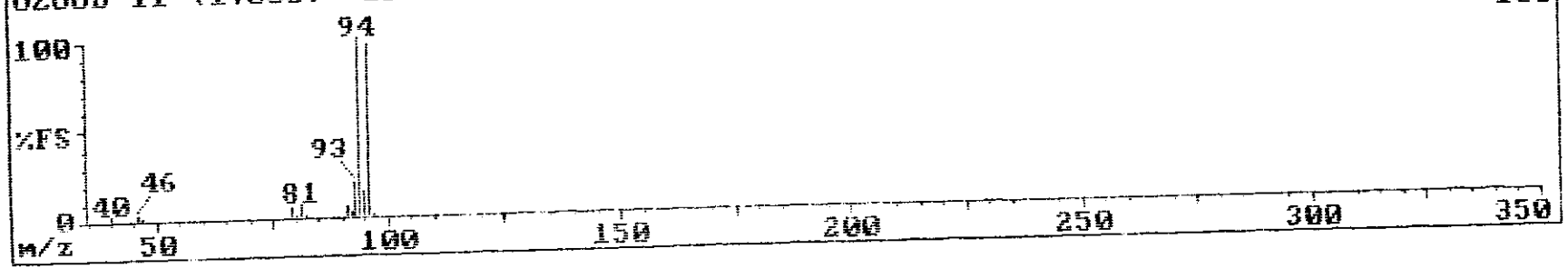


HW561 146 (1.461) REFINE 2176



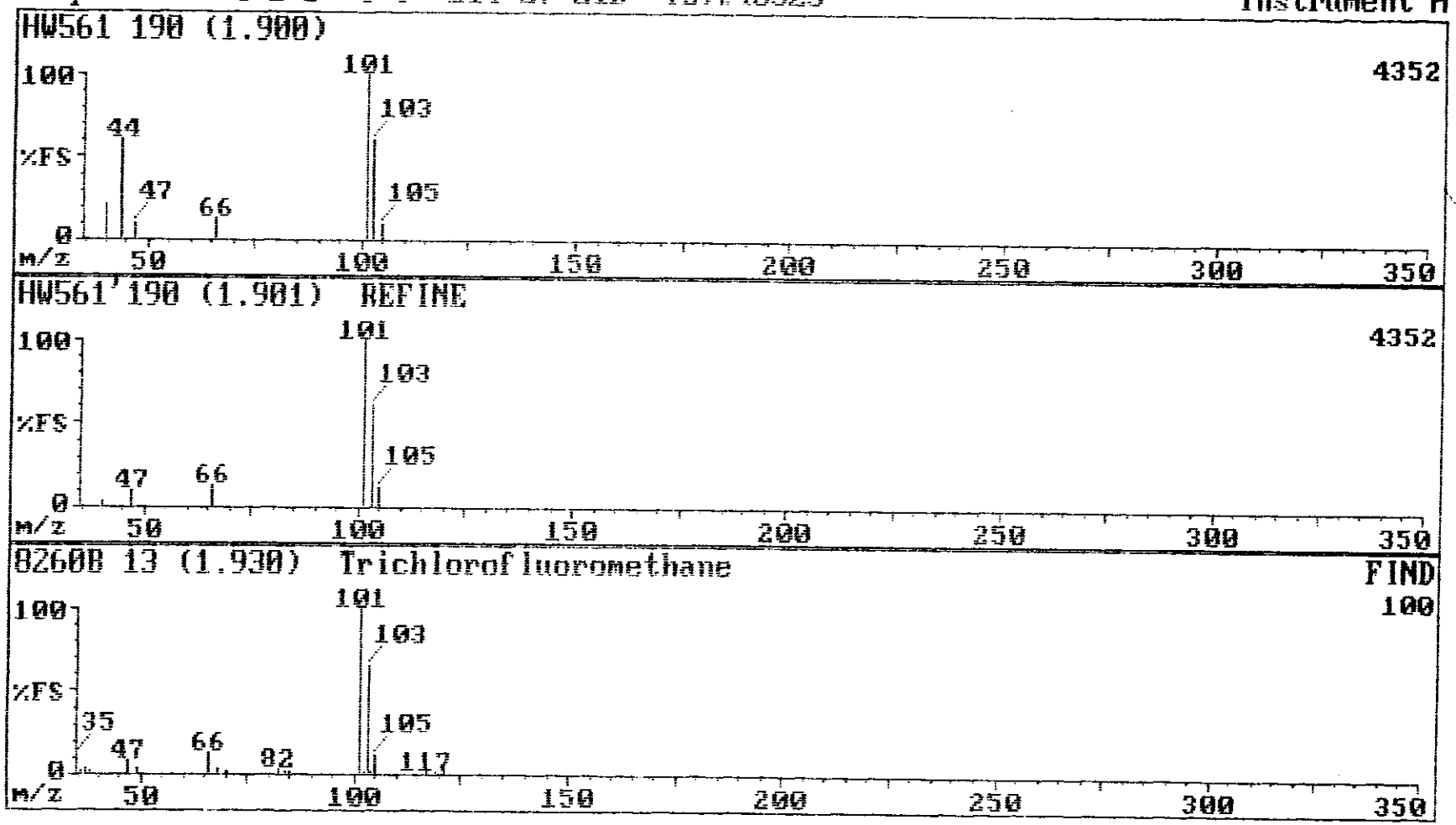
FIND

8260B 11 (1.500) Bromomethane 100



08-09-98 09:46 Triangle Laboratories, Inc. (919) 544-5729

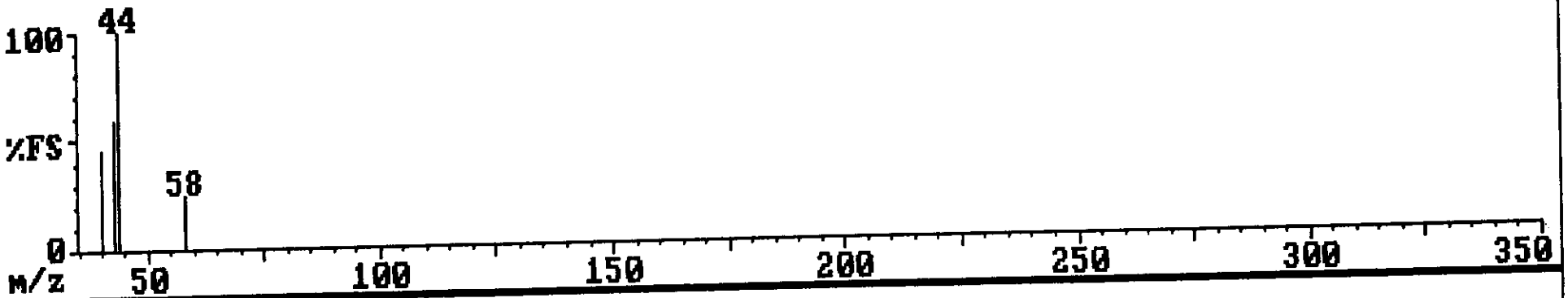
Sample: T-V-4-2-B T/C 214-27-21B TLI#46323 Instrument H



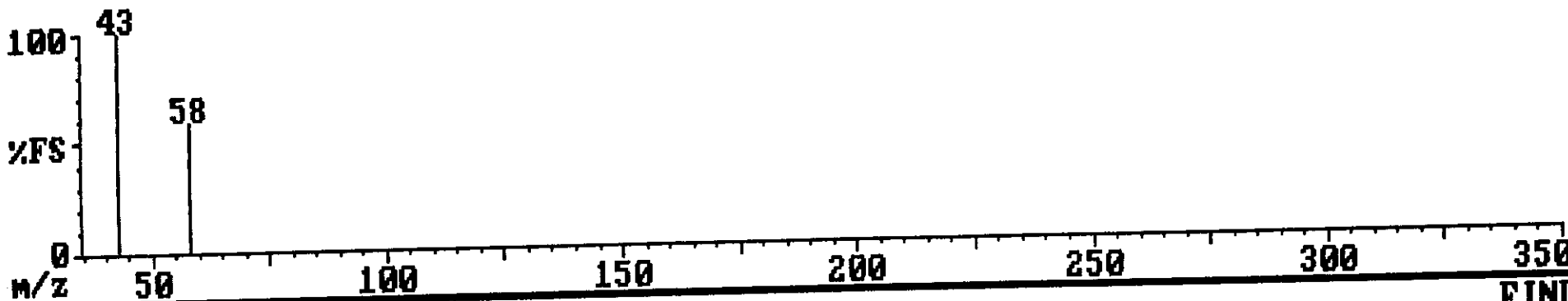
09-Aug-98 09:46 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-4-2-B T/C 214-27-21B TLI#46323 Instrument H

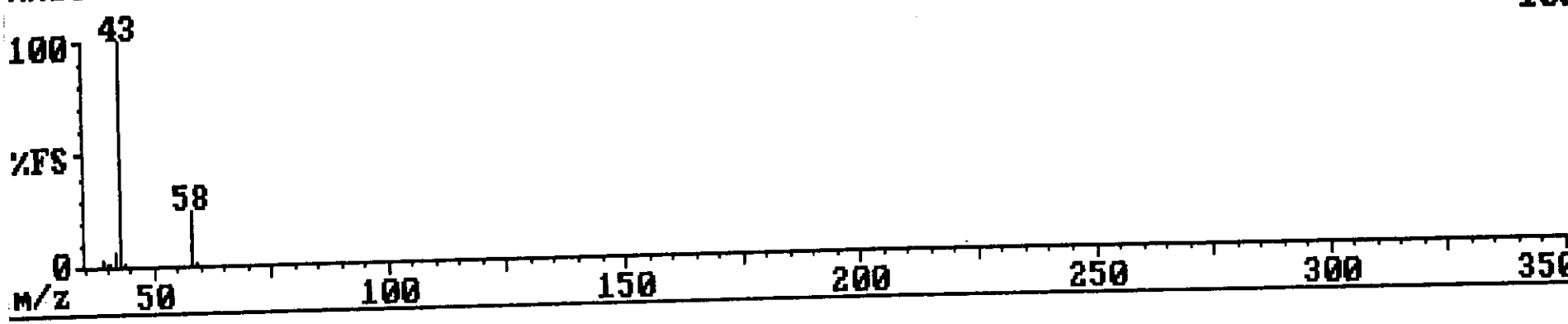
HW561 277 (2.770) 1600



HW561'277 (2.771) REFINE 660



MASTER 20 (3.370) Acetone FIND 100



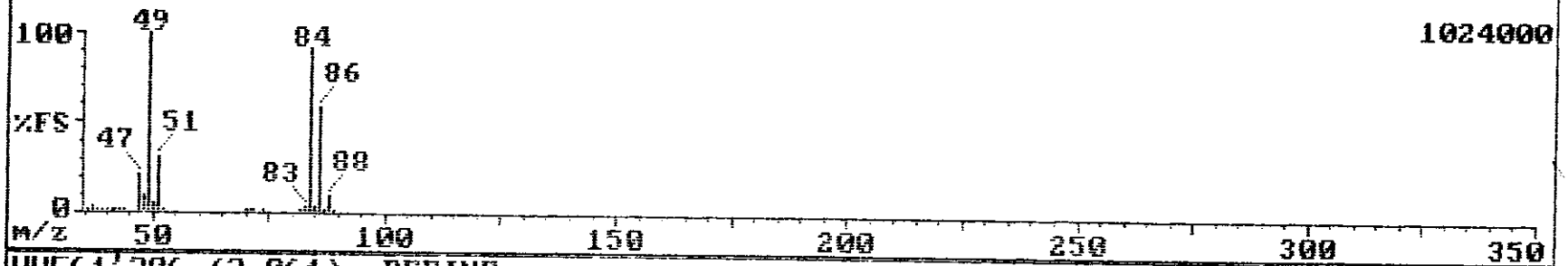
274

477

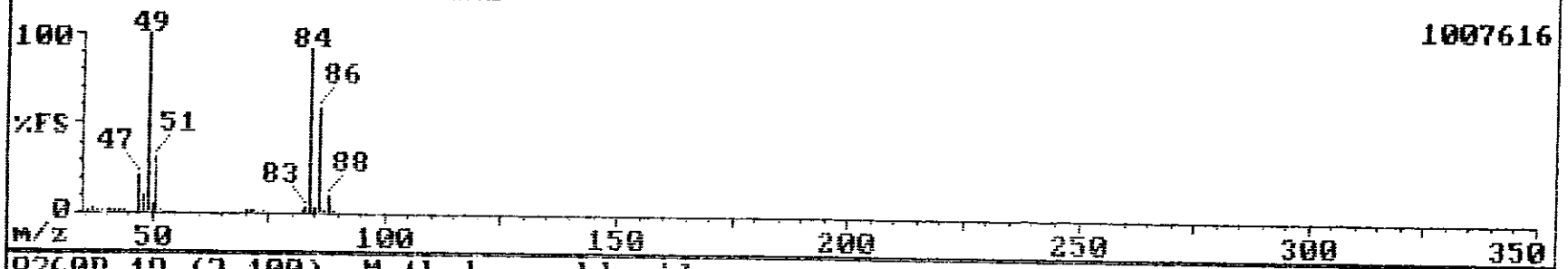
08-09-98 09:46 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-4-2-B T/C 214-27-21B TLI#46323 Instrument H

HW561 306 (3.060)

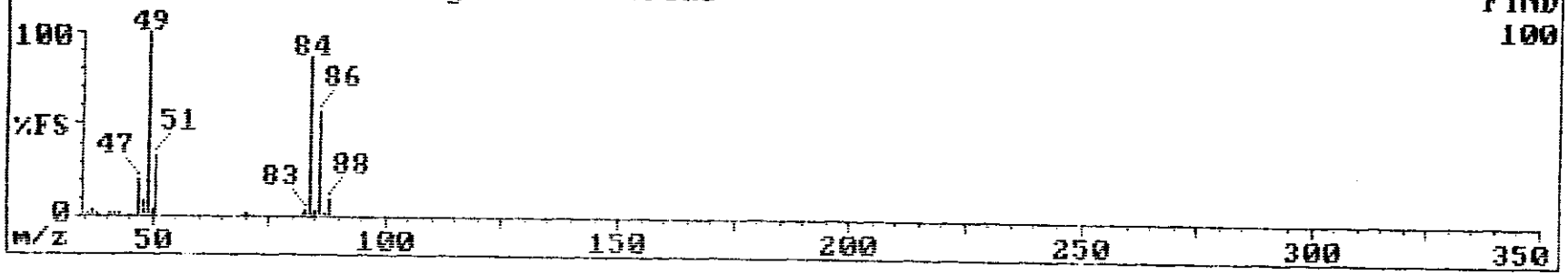


HW561 306 (3.061) REFINE



8260B 19 (3.100) Methylene chloride

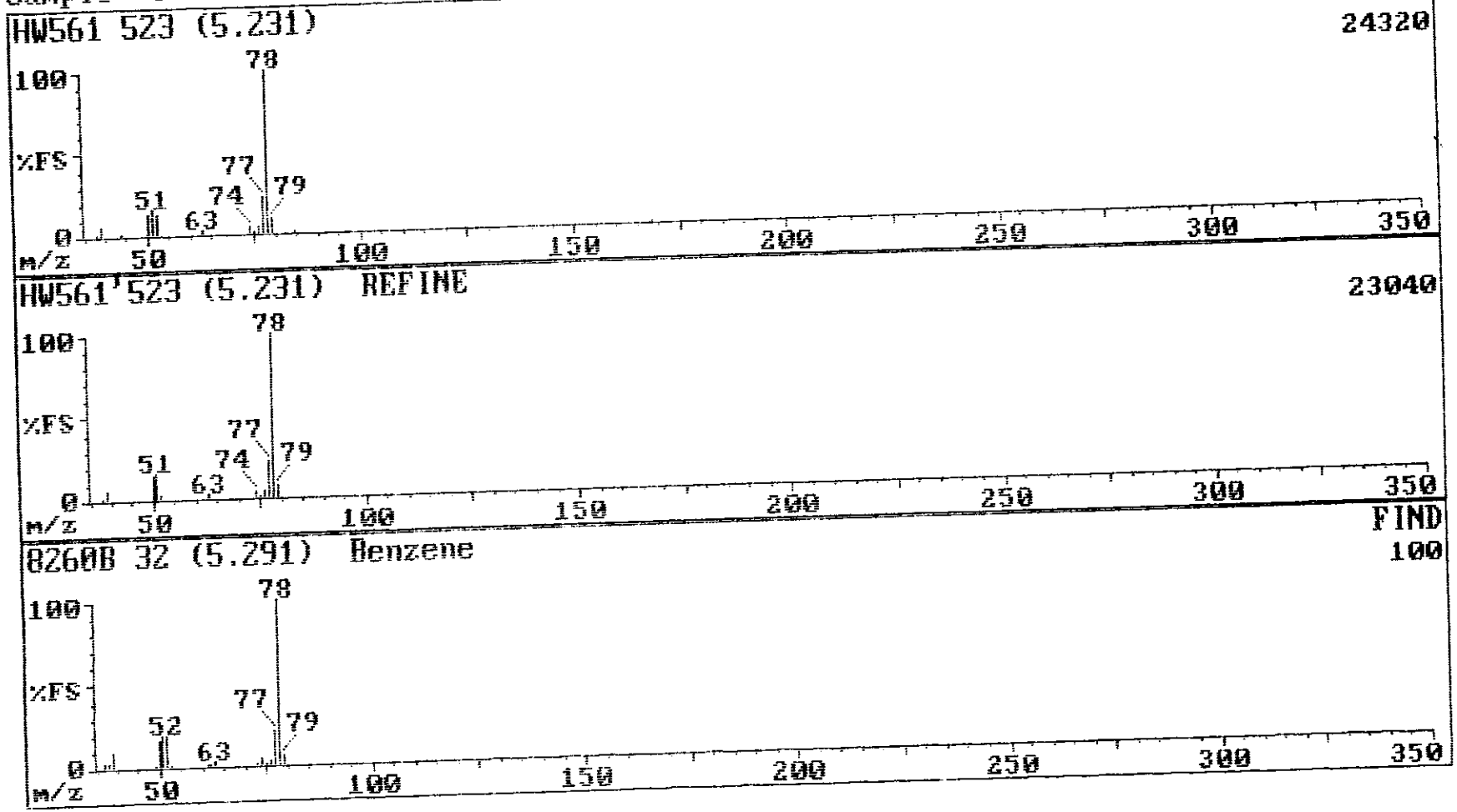
FIND 100



08-09-98 09:46 Triangle Laboratories, Inc. (919) 544-5729

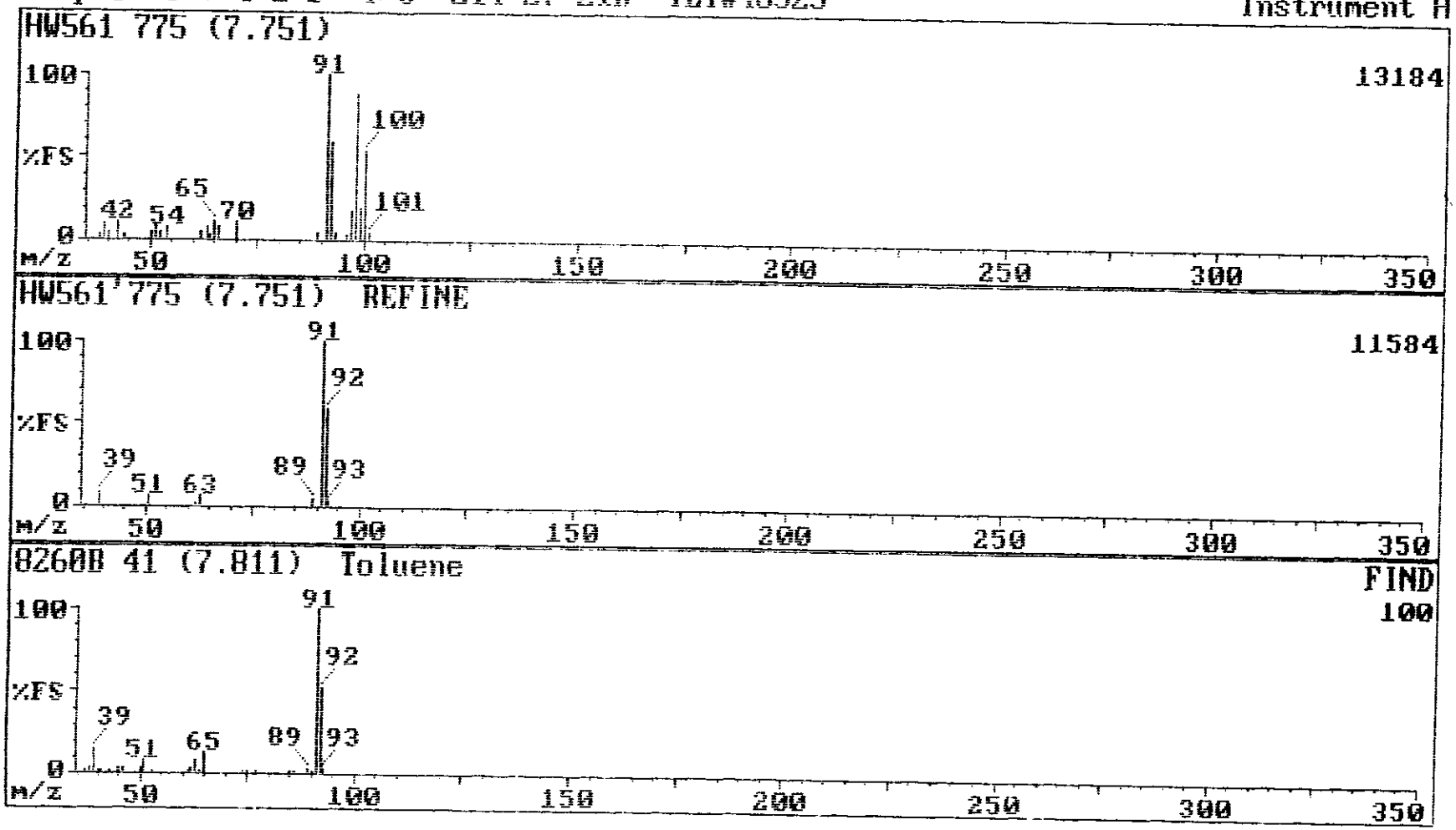
Instrument H

Sample: T-V-4-2-B T/C 214-27-21B TLI#46323



08-09-98 09:46 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-4-Z-B T/C 214-27-21B TLI#46323 Instrument H

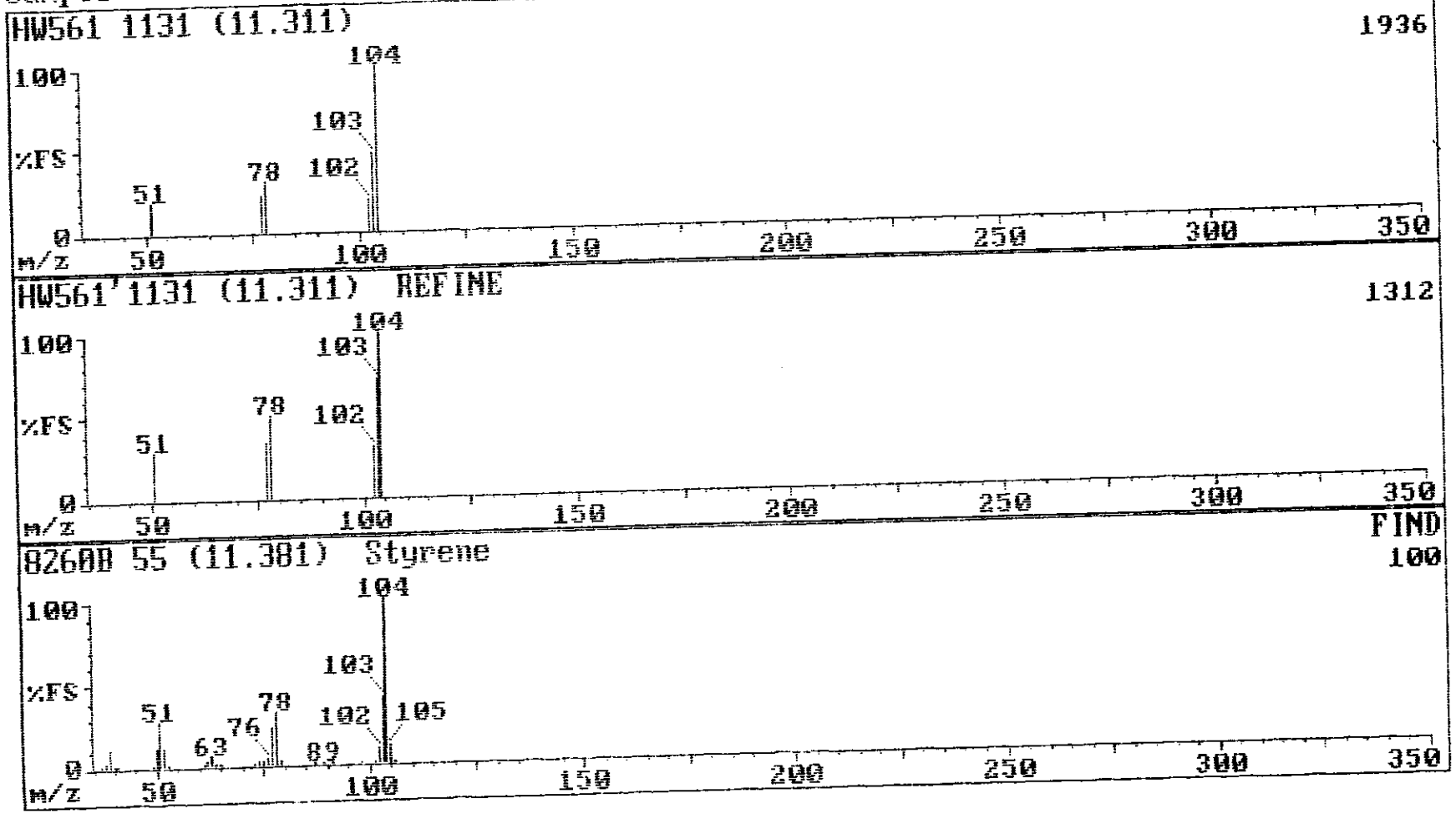


277

480

08-09-98 09:46 Triangle Laboratories, Inc. (919) 544-5729 Instrument H

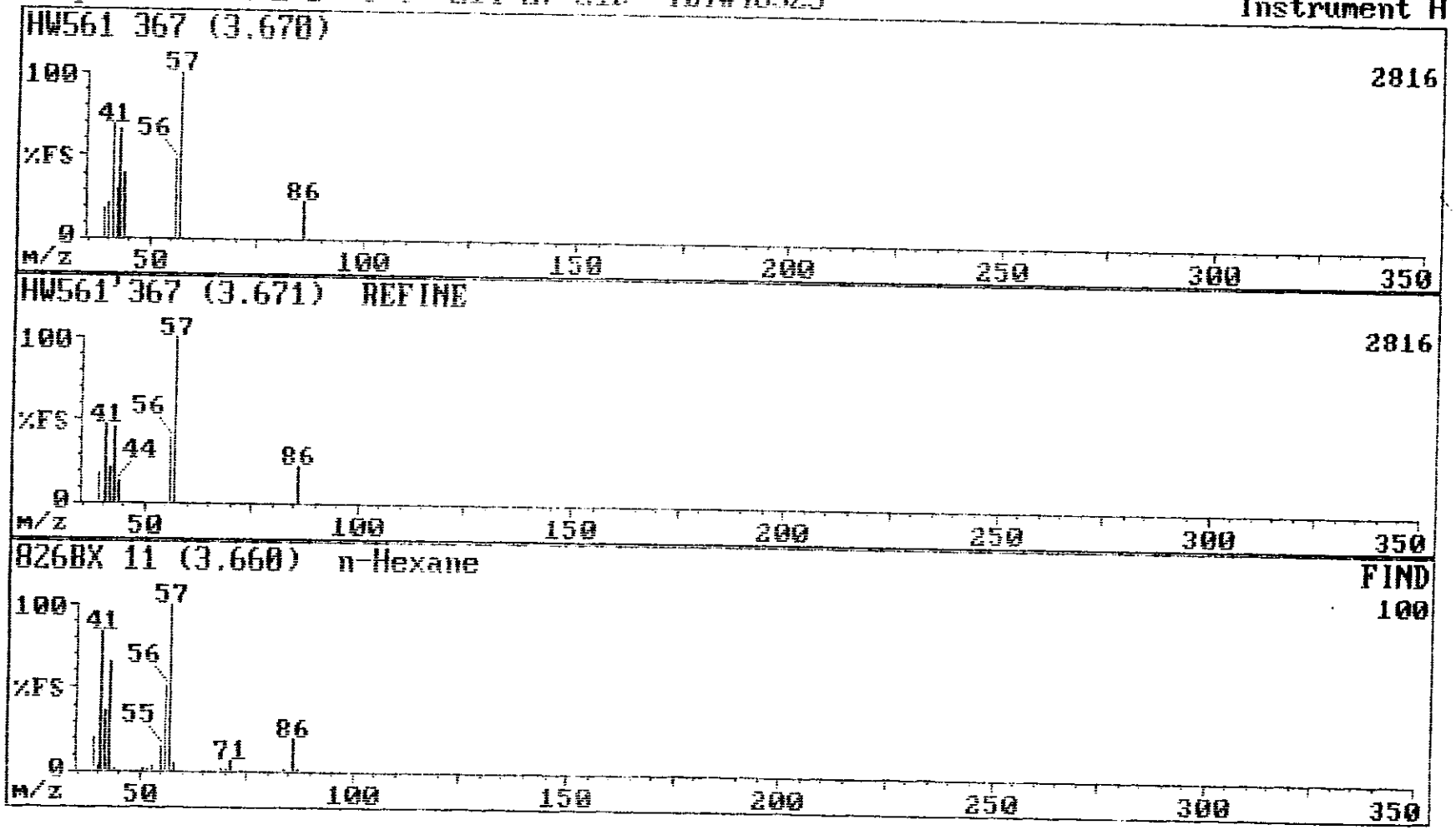
Sample: T-V-4-2-B T/C 214-27-21B TLI#46323



08-09-98 09:46 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-4-2-B T/C 214-27-21B TLI#46323

Instrument H



Pacific Environmental Services

Project Number: 46323
Sample File: FX983

Method 8260 VOST
Sample ID: T-V-4-4-A T

Client Project: R012.001
TLI ID: 214-27-23A

Date Received: 07/29/98
Date Analyzed : 08/24/98

Response File: ICALF821

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Pentafluorobenzene		IS 1	5.30		
Chloromethane		U		0.001	0.05
Vinyl Chloride		U		0.001	0.05
Bromomethane		U		0.001	0.05
Chloroethane		U		0.001	0.05
Trichlorofluoromethane		U		0.001	0.05
1,1-Dichloroethene		U		0.001	0.05
Iodomethane		U		0.001	0.05
Carbon disulfide		U		0.001	0.05
Acetone		U		0.004	0.05
Allyl chloride		U		0.001	0.05
Methylene chloride	0.009	J	3.28		0.05
Acrylonitrile		U		0.021	0.05
trans-1,2-Dichloroethene		U		0.001	0.05
1,1-Dichloroethane		U		0.001	0.05
Vinyl acetate		U		0.001	0.05
cis-1,2-Dichloroethene		U		0.001	0.05
2-Butanone		U		0.004	0.05
Chloroform		U		0.001	0.05
1,1,1-Trichloroethane		U		0.001	0.05
1,4-Difluorobenzene		IS 2	6.07		
Carbon tetrachloride		U		0.001	0.05
Benzene	0.071		5.52		0.05
1,2-Dichloroethane		U		0.001	0.05
Trichloroethene		U		0.001	0.05
1,2-Dichloropropane		U		0.001	0.05

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

Triangle Laboratories, Inc.
801 Capitola Drive • Durham, North Carolina 27713
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Savar v3.7
Printed: 16:49 08/25/1998

Pacific Environmental Services

Project Number: 46323
Sample File: FX983

Method 8260 VOST
Sample ID: T-V-4-4-A T

Client Project: R012.001
TLI ID: 214-27-23A

Date Received: 07/29/98

Date Analyzed : 08/24/98

Response File: ICALF821

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Methyl methacrylate		U		0.006	0.05
Bromodichloromethane		U		0.001	0.05
cis-1,3-Dichloropropene		U		0.001	0.05
4-Methyl-2-pentanone		U		0.005	0.05
Toluene	0.158		8.09		0.05
trans-1,3-Dichloropropene		U		0.001	0.05
1,1,2-Trichloroethane		U		0.001	0.05
Chlorobenzene-d_5		IS 3	10.35		
Tetrachloroethene	0.022	J	8.92		0.05
2-Hexanone		U		0.008	0.05
Dibromochloromethane		U		0.001	0.05
1,2-Dibromoethane		U		0.001	0.05
Chlorobenzene		U		0.001	0.05
Ethylbenzene	0.022	J	10.67		0.05
m-/p-Xylene	0.057	J	10.91		0.10
o-Xylene	0.024	J	11.62		0.05
Styrene	0.009	J	11.69		0.05
Bromoform		U		0.002	0.05
1,4-Dichlorobenzene-d_4		IS 4	15.71		
Cumene		U		0.001	0.05
1,1,2,2-Tetrachloroethane		U		0.002	0.05

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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Printed: 16:49 08/25/1998

Pacific Environmental Services

Project Number: 46323
Sample File: FX983

Method 8260 VOST
Sample ID: T-V-4-4-A T

Client Project: R012.001
TLI ID: 214-27-23A

Date Received: 07/29/98
Date Analyzed : 08/24/98

Response File: ICALF821

Surrogate Summary	Amount (ug)	RT	IS Ref	%REC
Dibromofluoromethane	0.208	5.18	1	83
Toluene-d_8	0.259	8.00	2	104
4-Bromofluorobenzene	0.256	12.65	2	102

Reviewed by PaB Date 8/25/98

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit

IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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Savar v3.7
Printed: 16:49 08/25/1998

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Pacific Environmental Services

Project Number: 46323
Sample File: FX983

Method 8260 VOST
Sample ID: T-V-4-~~3~~-4T (emc)

Client Project: R012.001
TLI ID: 214-27-23A

Date Received: 07/29/98

Date Analyzed : 08/24/98

Response File: ICALF824

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Pentafluorobenzene		IS 1	5.30		
1,3-Butadiene		U		0.001	0.25
Vinyl bromide		U		0.001	0.25
MTBE	0.037	J	3.63		0.25
n-Hexane	0.041	J	3.90		0.25
1,2-Epoxybutane		U		0.025	0.25
Iso-Octane	0.010	J	5.67		0.25
1,4-Difluorobenzene		IS 2	6.07		
Ethyl acrylate		U		0.007	0.25

Reviewed by PAB Date 8/25/98

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

Triangle Laboratories, Inc.
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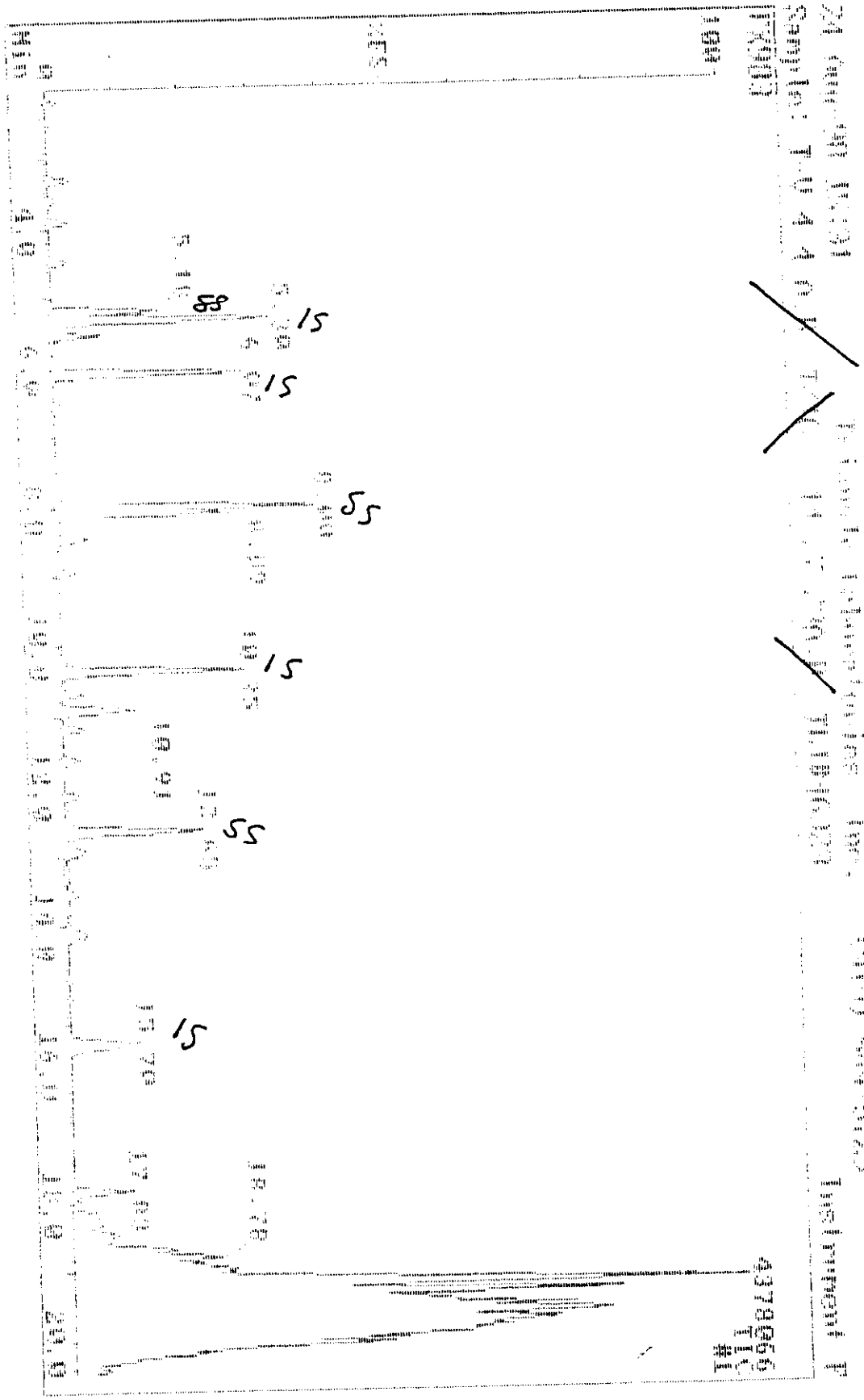
Savar v3.7
Printed: 17:27 08/25/1998

486



tenax only PaB 8/24/98

Data Review: PaB
Date: 8/24/98

[illegible]

(7P) PaB

39168 — (10) PaB —— 3.28

(7P) PaB

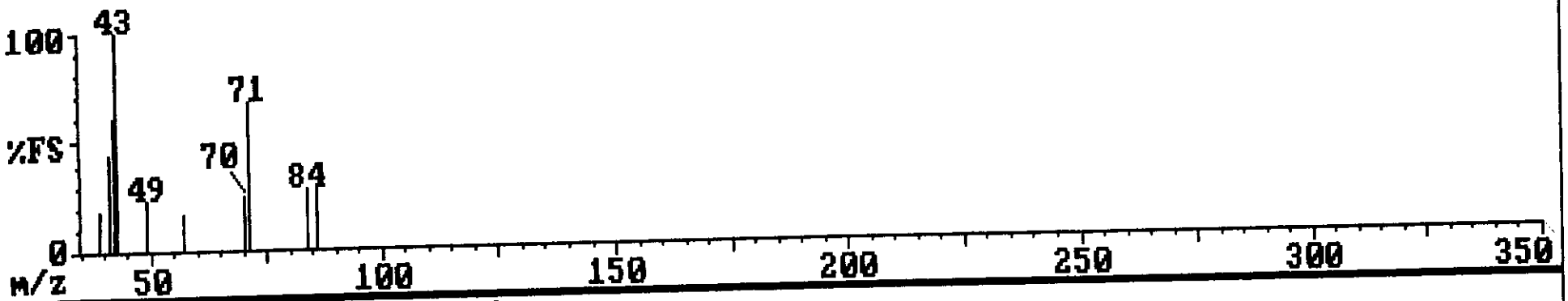
Data Review: PaB
Date: 8/24/98

115136 → (M) PAIS ——— 11.69

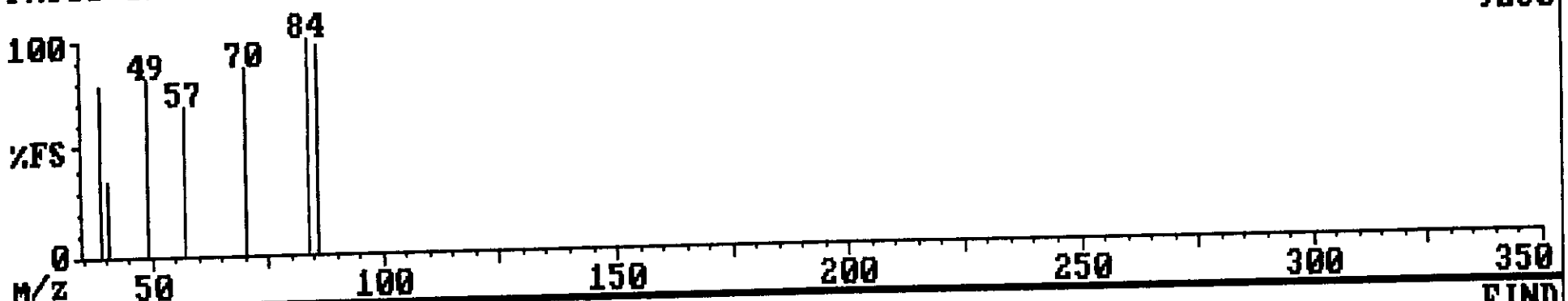
24-Aug-98 15:31 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-4-4-A,B T/TC 214-27-23A,B TLI#46323 Instrument F

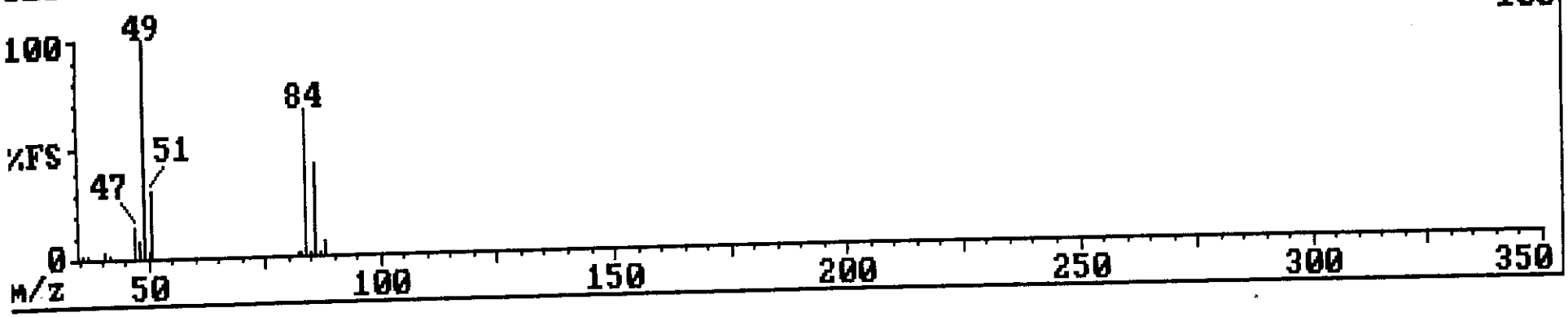
FX983 328 (3.281) tenax only PAB 8/25/98 33280



FX983 328 (3.281) REFINE 9280



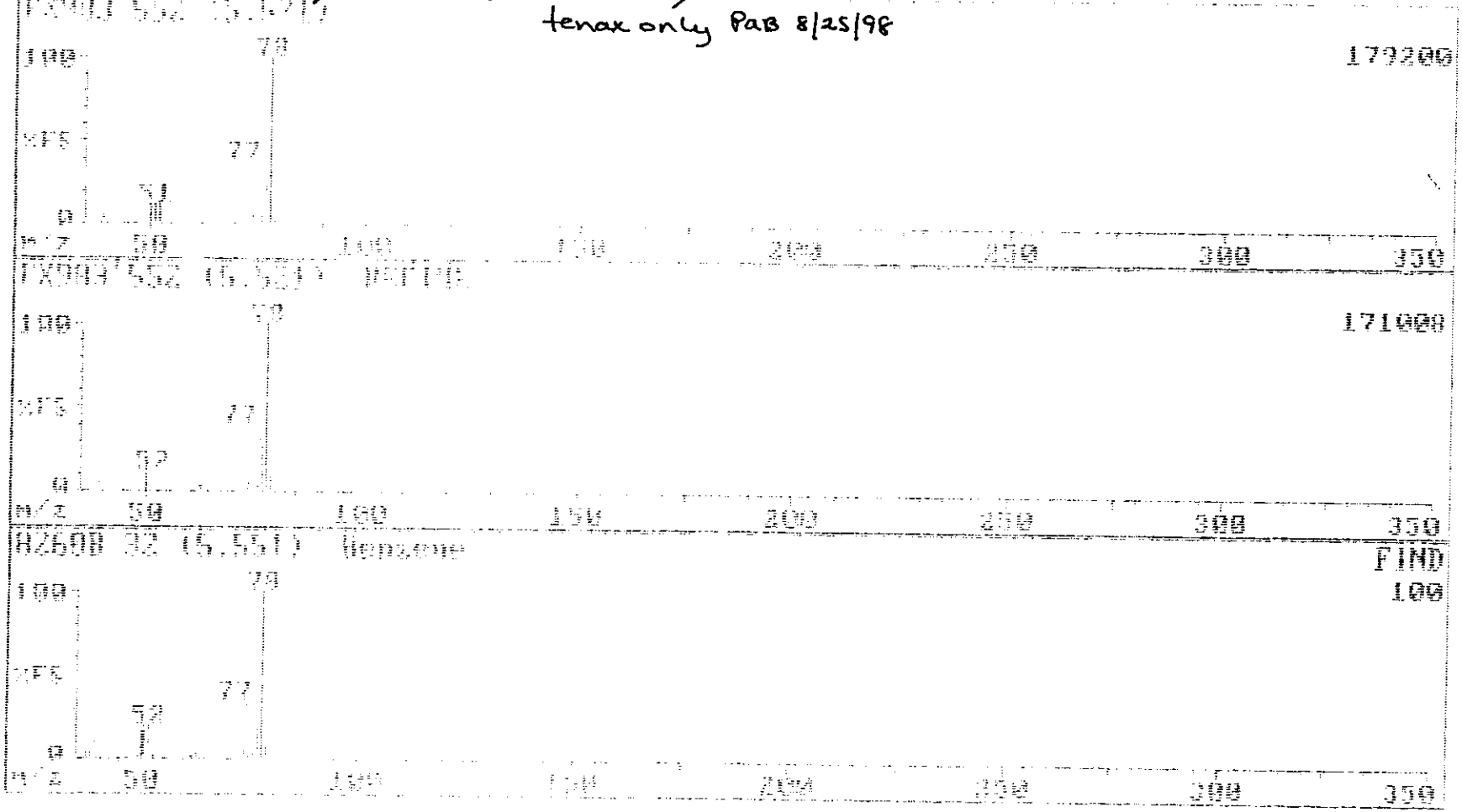
8260 15 (3.550) Methylene chloride FIND 100



24-Aug-98 15:31 Triangle Laboratories, Inc. (919) 544-5729

Sample: [illegible] Instrument F

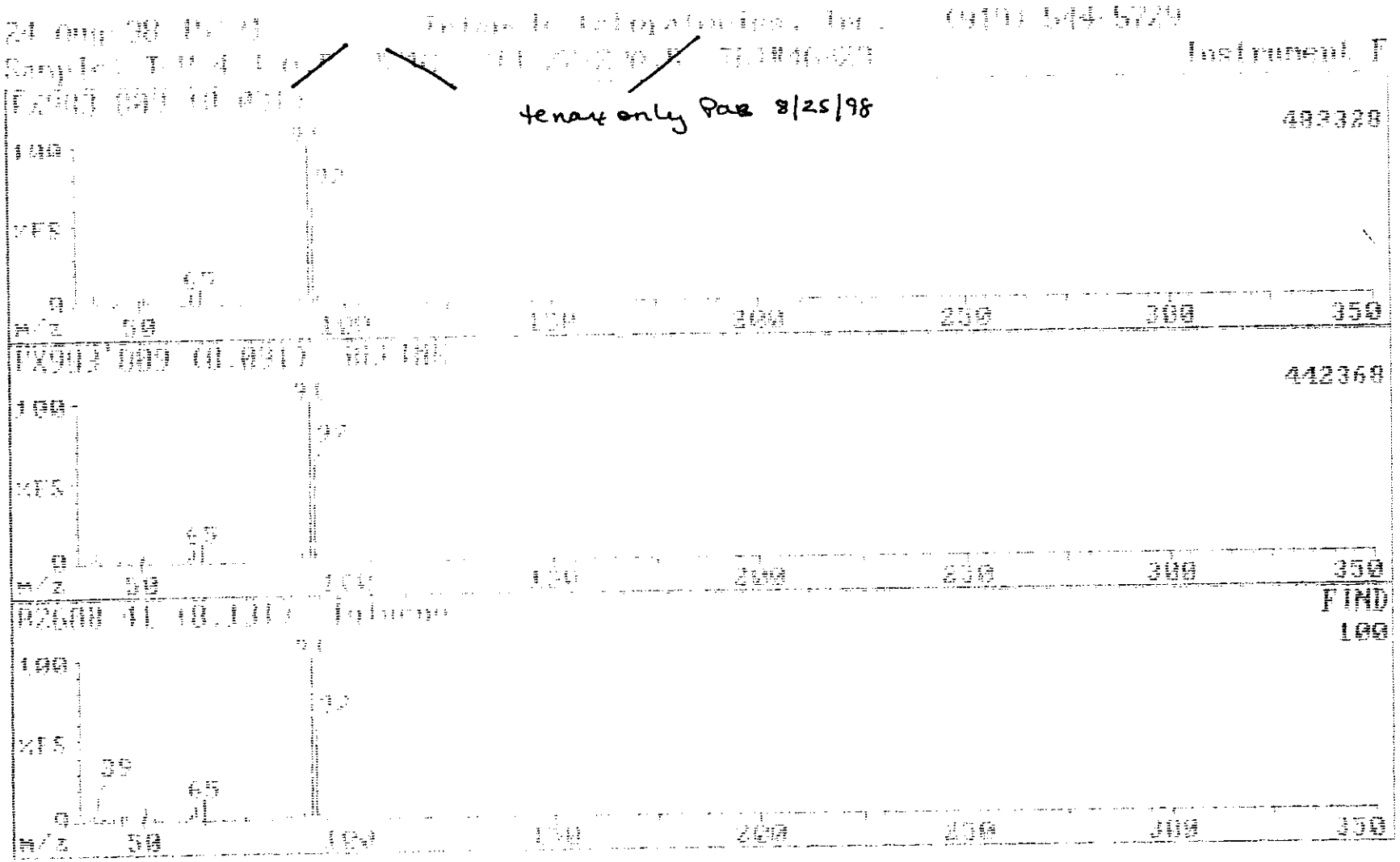
tenax only PAB 8/25/98

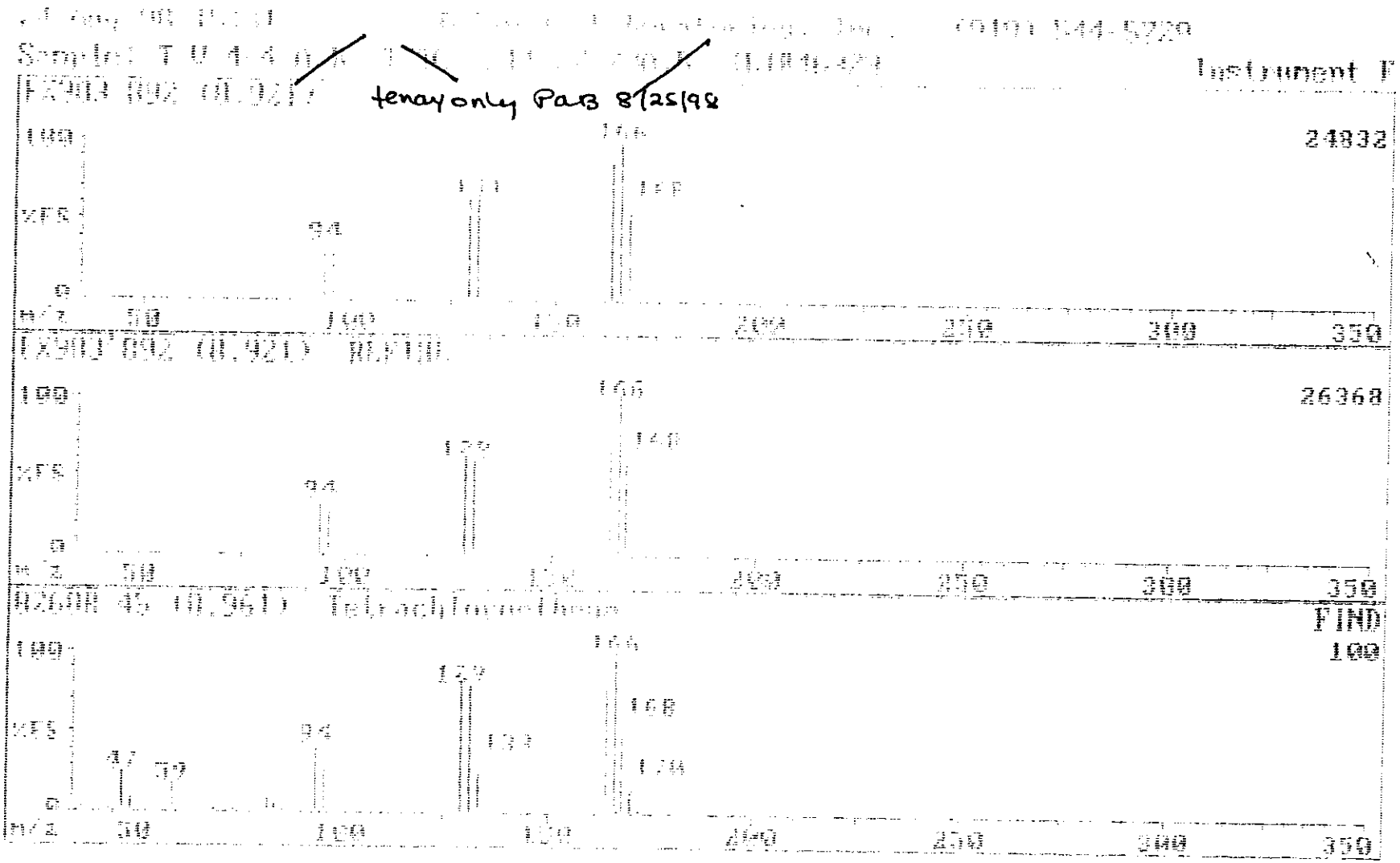


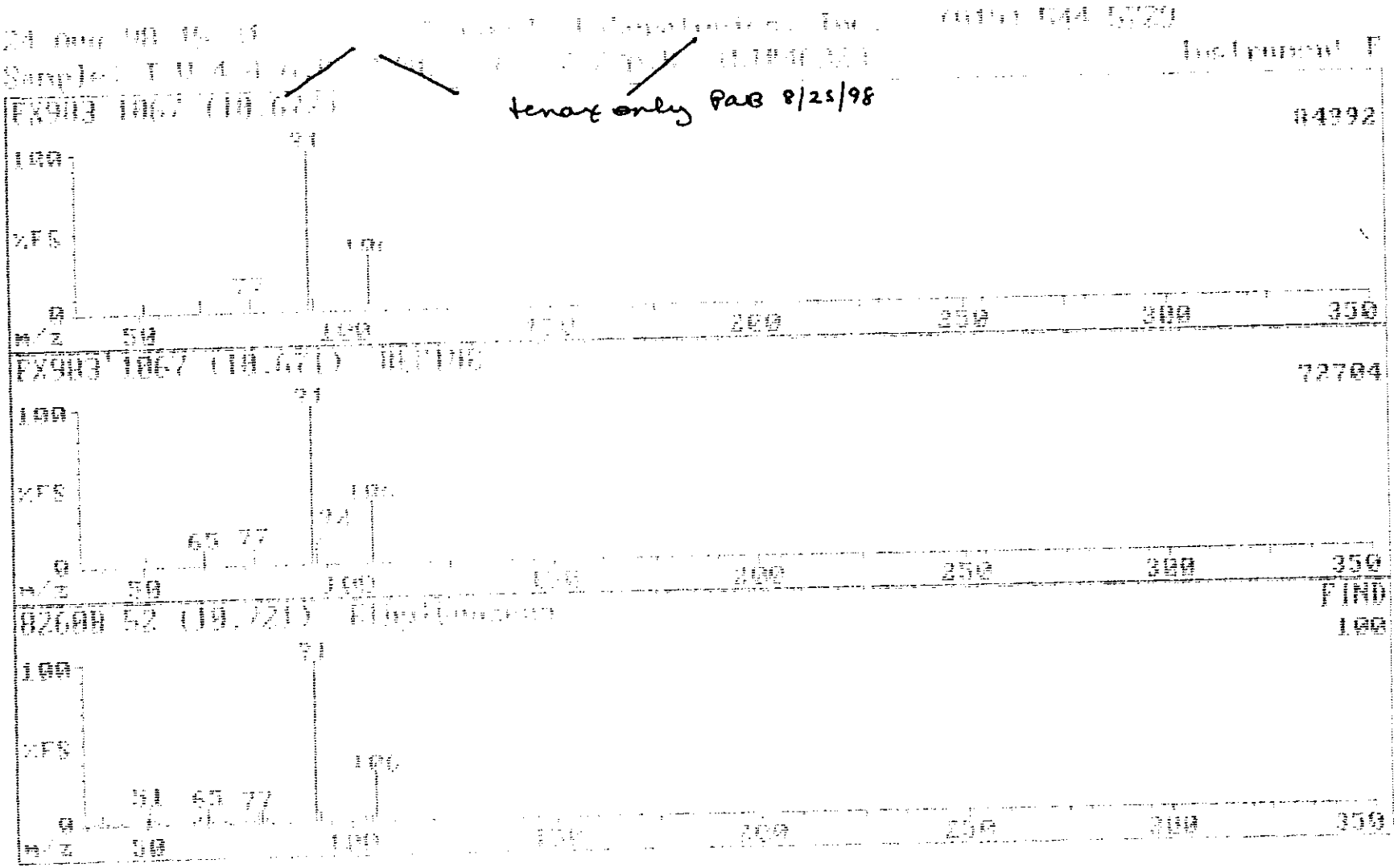
24 Aug 98 [illegible] Intersection Laboratories, Inc. (919) 544-5729

Sample: [illegible] Instrument F

tenax only PAB 8/25/98




Instrument F
tenax only PaB 8/25/98
24832
26368
FIND
100
%FS
m/z
50
100
150
200
250
300
350


Instrument F
tenax only PaB 8/25/98
84992
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m/z
50
100
200
250
300
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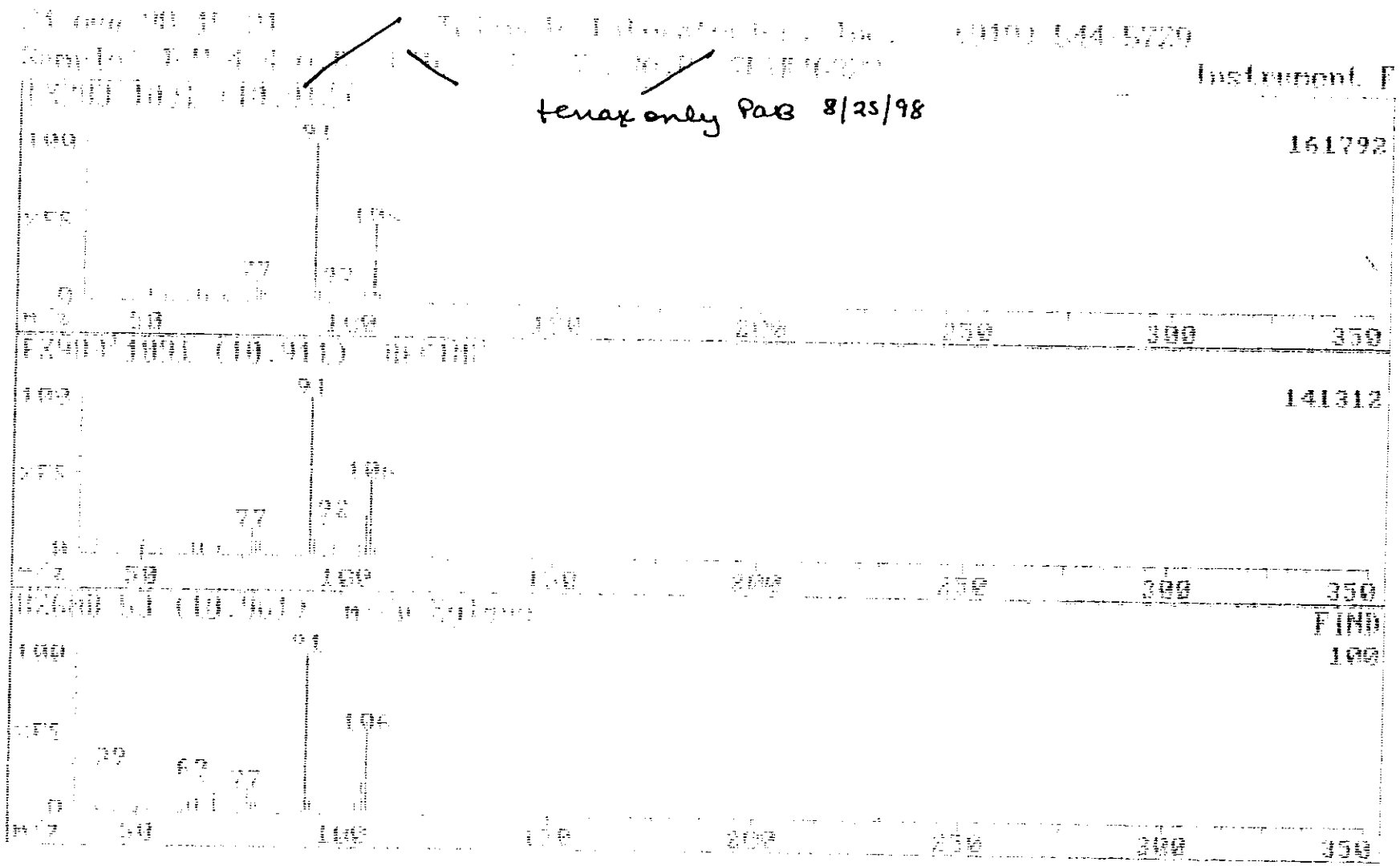
72704
65
77
FIND
100
51
65
77



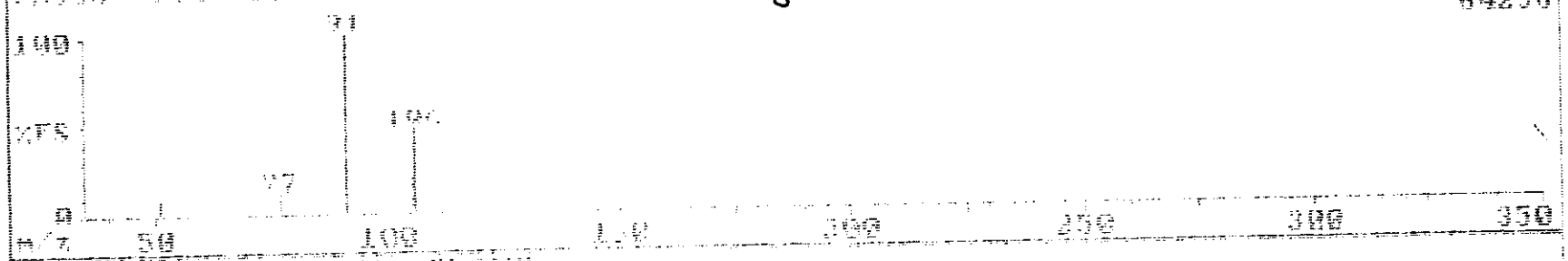
tenax only PaB 8/25/98

24-Aug-98 15:31 Triangle Laboratories, Inc. (919) 544-5729

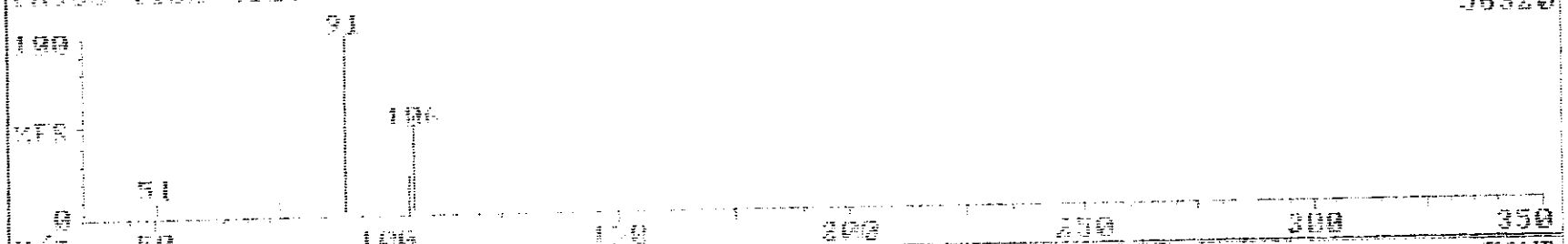
Sample: T U 4 4 6 P T 2 2 5 P 0.1846323 Instrument F

tenax only PAB 8/25/98

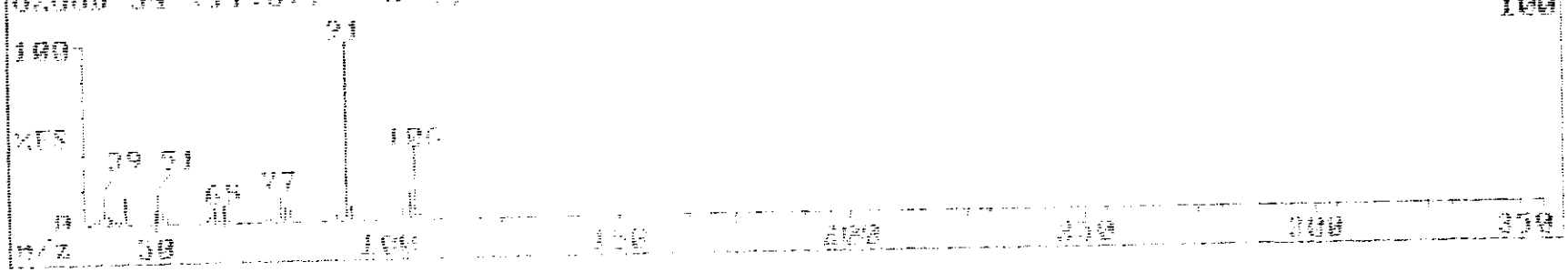
FX903 1162 (11.622)



FX903 1162 (11.624) REFINE



82608 54 (11.671) o Xylene

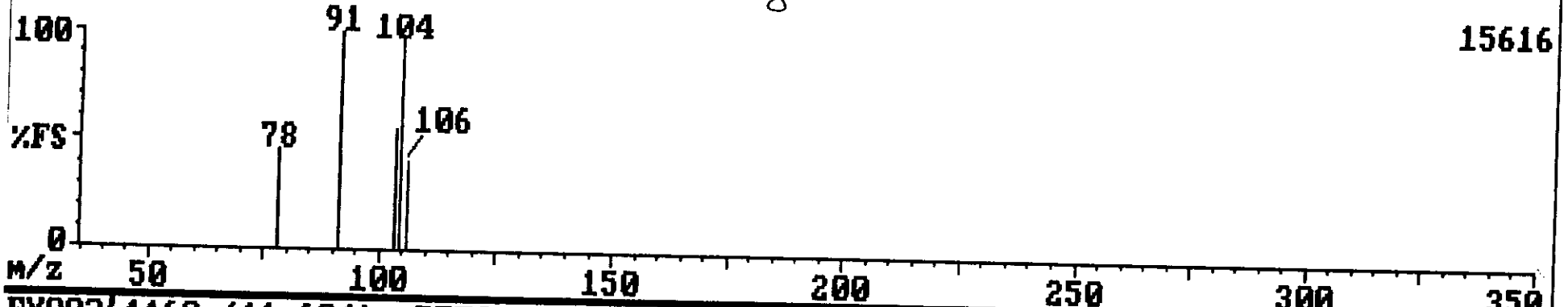


24-Aug-98 15:31 Triangle Laboratories, Inc. (919) 544-5729

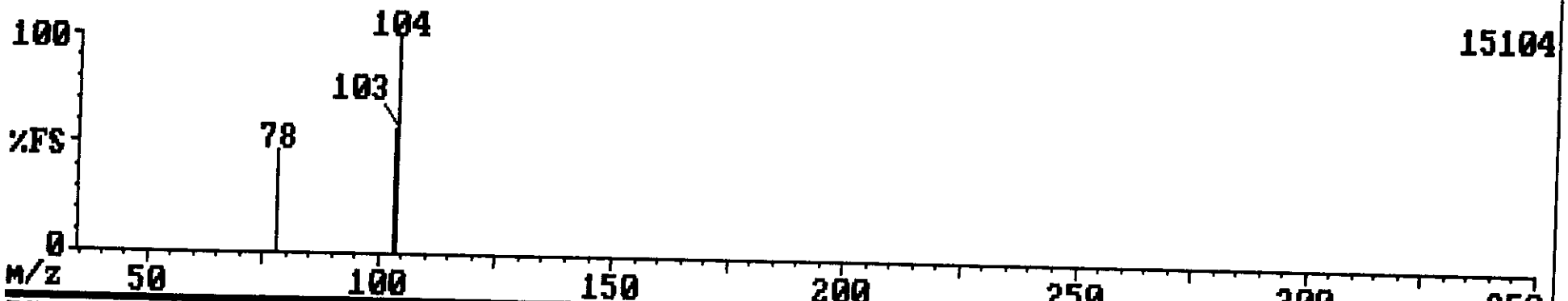
Sample: T-V-4-4-A,B T/TC 214-27-23A,B TLI#46323 Instrument F

tenax only PAB 8/25/98

FX983 1169 (11.692)

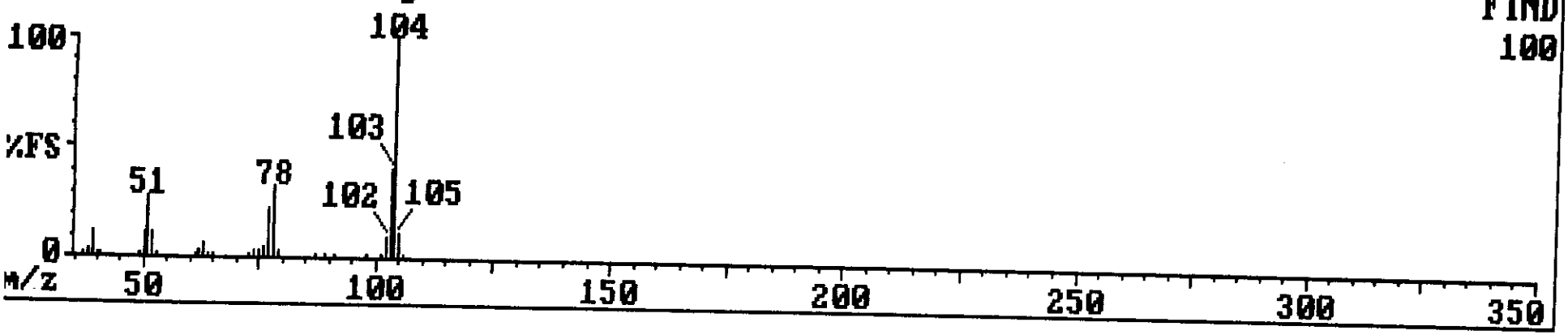


FX983' 1169 (11.694) REFINE



8260 44 (12.371) Styrene

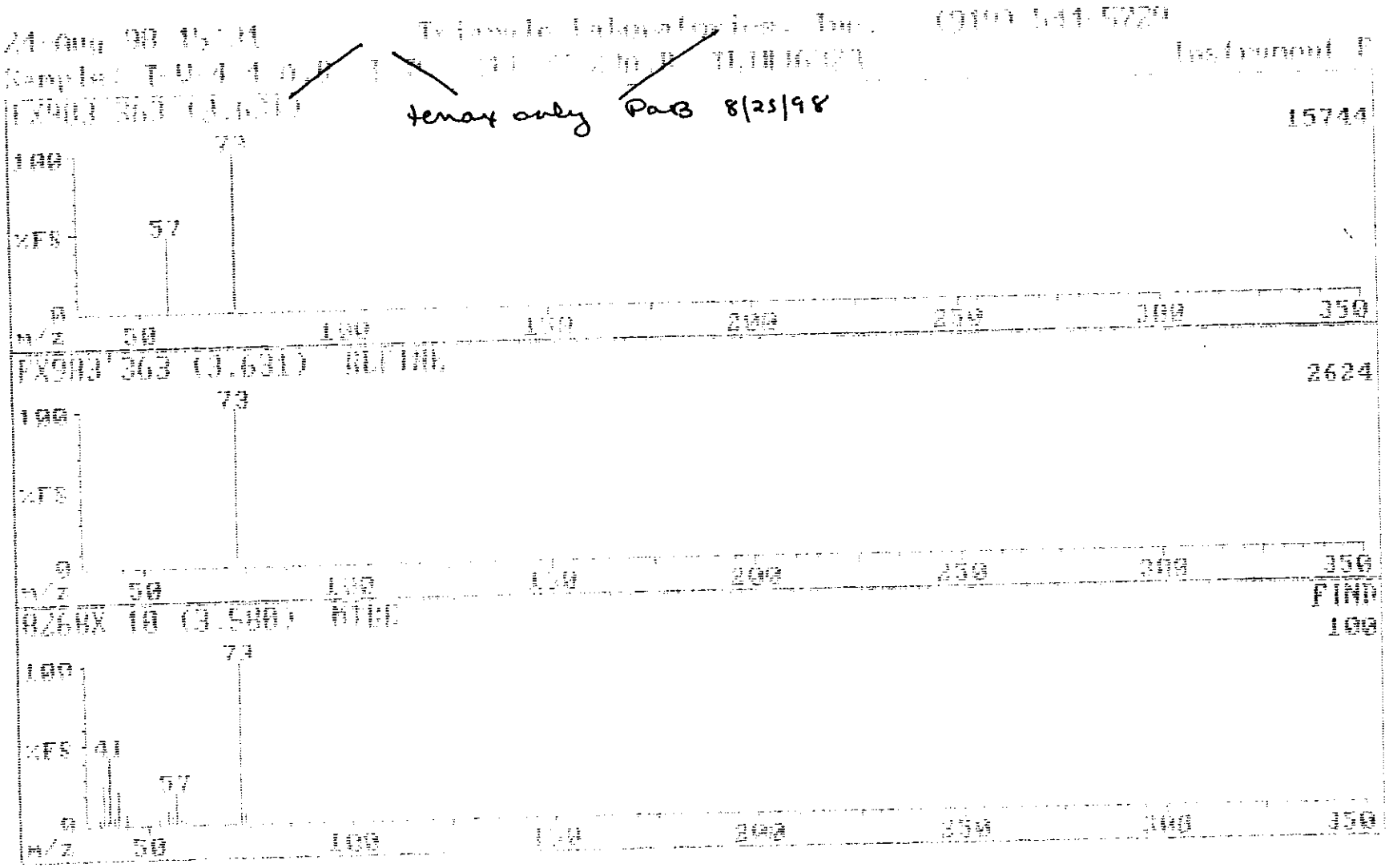
FIND 100



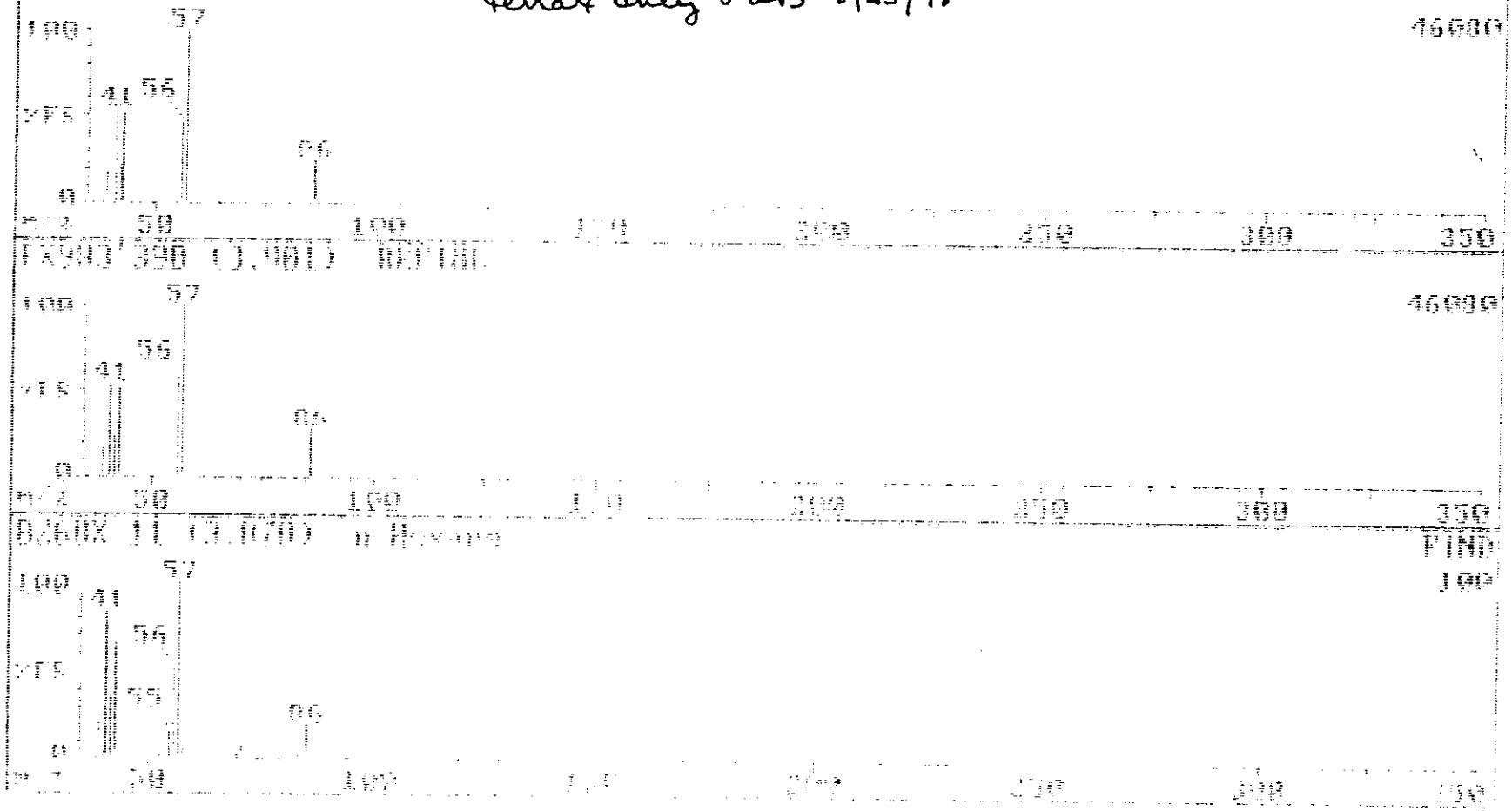
295

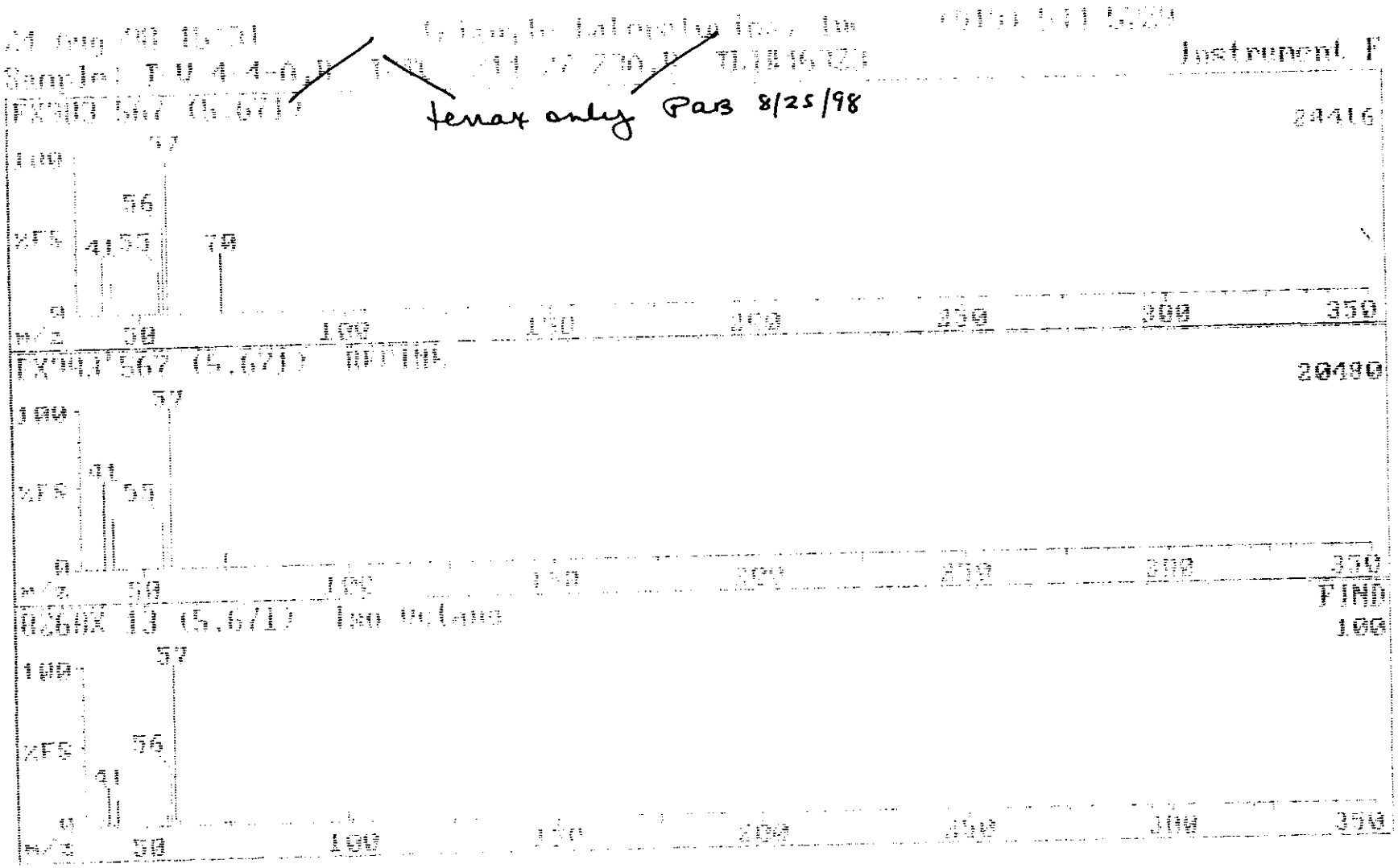
498

Tenax only PaB 8/25/98



Tenax only PaB 8/25/98




Instrument F
terrax only PAB 8/25/98
24416
100
%FS
0
m/z
50
100
150
200
250
300
350
57
56
41
55
70
20490
FIND
100

105

Pacific Environmental Services

Project Number: 46323
Sample File: FX953

Method 8260 VOST
Sample ID: T-V-FB-A,B T/TC

Client Project: R012.001
TLI ID: 214-27-9A,B

Date Received: 07/29/98
Date Analyzed : 08/21/98

Response File: ICALF821

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Pentafluorobenzene		IS 1	5.30		
Chloromethane		U		0.001	0.05
Vinyl Chloride		U		0.001	0.05
Bromomethane		U		0.001	0.05
Chloroethane		U		0.001	0.05
Trichlorofluoromethane		U		0.001	0.05
1,1-Dichloroethene		U		0.001	0.05
Iodomethane		U		0.001	0.05
Carbon disulfide		U		0.001	0.05
Acetone		U		0.005	0.05
Allyl chloride		U		0.001	0.05
Methylene chloride	0.054		3.27		0.05
Acrylonitrile		U		0.025	0.05
trans-1,2-Dichloroethene		U		0.001	0.05
1,1-Dichloroethane		U		0.001	0.05
Vinyl acetate		U		0.002	0.05
cis-1,2-Dichloroethene		U		0.001	0.05
2-Butanone		U		0.005	0.05
Chloroform		U		0.001	0.05
1,1,1-Trichloroethane		U		0.001	0.05
1,4-Difluorobenzene		IS 2	6.07		
Carbon tetrachloride		U		0.001	0.05
Benzene	0.006	BJ	5.52		0.05
1,2-Dichloroethane		U		0.001	0.05
Trichloroethene		U		0.001	0.05
1,2-Dichloropropane		U		0.001	0.05

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

Pacific Environmental Services

Project Number: 46323
Sample File: FX953

Method 8260 VOST
Sample ID: T-V-FB-A,B T/TC

Client Project: R012.001
TLI ID: 214-27-9A,B

Date Received: 07/29/98
Date Analyzed : 08/21/98

Response File: ICALF821

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Methyl methacrylate		U		0.006	0.05
Bromodichloromethane		U		0.001	0.05
cis-1,3-Dichloropropene		U		0.001	0.05
4-Methyl-2-pentanone		U		0.004	0.05
Toluene	0.006	J	8.08		0.05
trans-1,3-Dichloropropene		U		0.001	0.05
1,1,2-Trichloroethane		U		0.001	0.05
Chlorobenzene-d_5		IS 3	10.36		
Tetrachloroethene		U		0.001	0.05
2-Hexanone		U		0.008	0.05
Dibromochloromethane		U		0.001	0.05
1,2-Dibromoethane		U		0.001	0.05
Chlorobenzene		U		0.001	0.05
Ethylbenzene		U		0.001	0.05
m-/p-Xylene		U		0.001	0.10
o-Xylene		U		0.001	0.05
Styrene		U		0.001	0.05
Bromoform		U		0.002	0.05
1,4-Dichlorobenzene-d_4		IS 4	15.74		
Cumene		U		0.001	0.05
1,1,2,2-Tetrachloroethane		U		0.001	0.05

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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Pacific Environmental Services

Project Number: 46323
Sample File: FX953

Method 8260 VOST
Sample ID: T-V-FB-A,B T/TC

Client Project: R012.001
TLI ID: 214-27-9A,B

Date Received: 07/29/98

Date Analyzed : 08/21/98

Response File: ICALF821

Surrogate Summary	Amount (ug)	RT	IS Ref	%REC
Dibromofluoromethane	0.293	5.18	1	117
Toluene-d_8	0.263	8.00	2	105
4-Bromofluorobenzene	0.238	12.66	2	95

Reviewed by PAB Date 8/25/98

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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Pacific Environmental Services

Project Number: 46323
Sample File: FX953

Method 8260 VOST
Sample ID: T-V-FB-A,B T/TC

Client Project: R012.001
TLI ID: 214-27-9A,B

Date Received: 07/29/98
Date Analyzed : 08/21/98

Response File: ICALF821

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Pentafluorobenzene		IS 1	5.30		
1,3-Butadiene		U		0.001	0.25
Vinyl bromide		U		0.001	0.25
MTBE		U		0.001	0.25
n-Hexane		U		0.001	0.25
1,2-Epoxybutane		U		0.025	0.25
Iso-Octane		U		0.001	0.25
1,4-Difluorobenzene		IS 2	6.07		
Ethyl acrylate		U		0.004	0.25

Reviewed by BAB Date 8/25/98

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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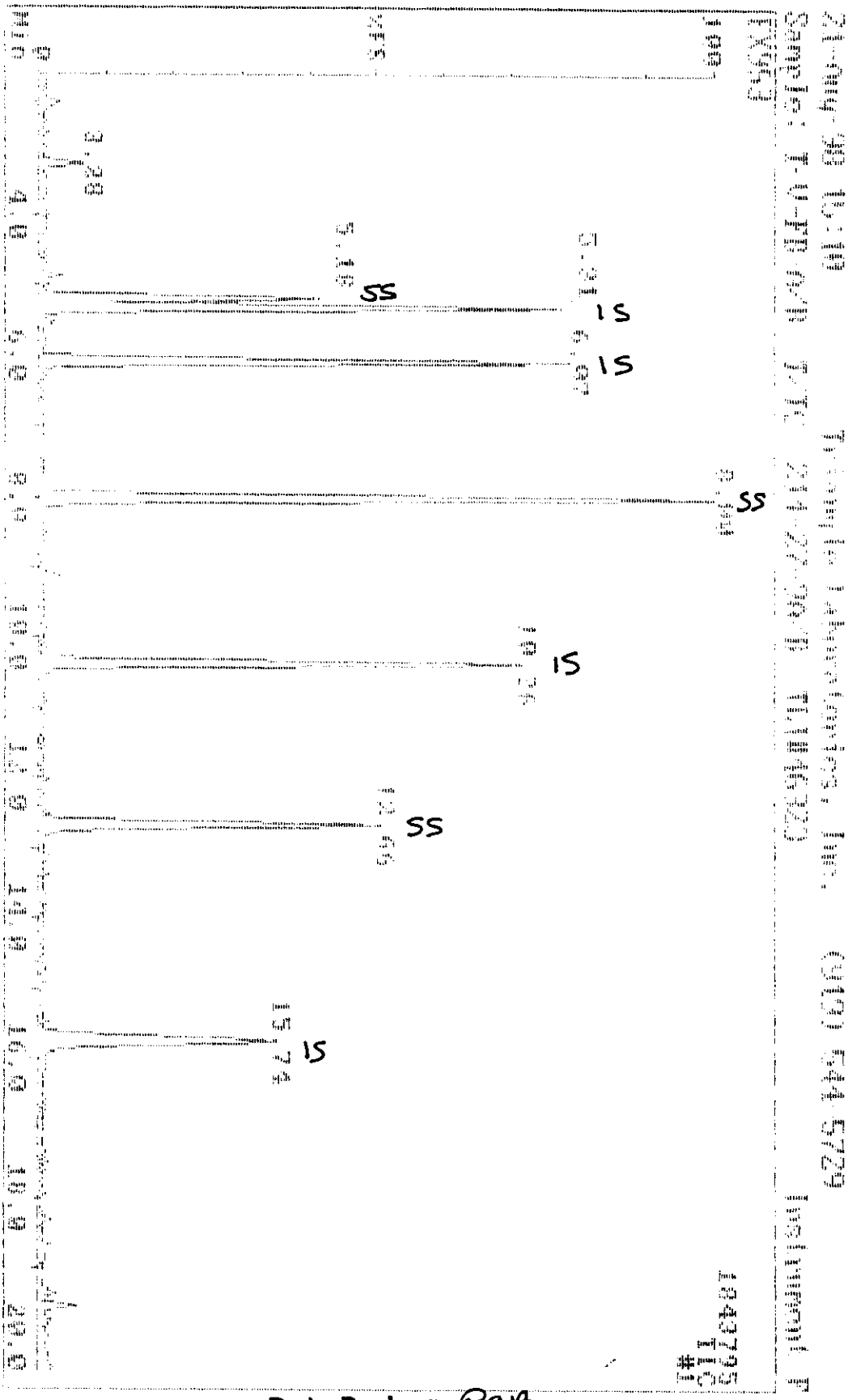

Data Review: PAB
Date: 8/24/98

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QUAN 03 [illegible] LAB-BASE QUAN [illegible]

No.	MAT	FOR	REV	Delta	Area	Flags	RT	QM	Name
1	100	85	99	-1	3296528	bv	5.301	168	Perfluorobenzene
2	100	92	99	0	4217424	bv	[illegible]	114	1,4-Difluorobenzene
3	100	95	99	2	5383074	bv	10.[illegible]	117	Chlorobenzene-d5
4	100	98	98	0	1243702	bv	15.147	152	1,4-Dichlorobenzene-d4
5	100	92	99	1	1562040	bv	5.181	117	Chloromethane-Bromide-Iodide
6	100	95	97	0	1131080	bv	[illegible]	98	Toluene-d8
7	100	91	94	0	1292174	bv	19.[illegible]	95	[illegible]
8	0	1	1	0	0		[illegible]	85	[illegible]
9	0	1	0	0	0		0.000	50	Chloromethane
10	0	0	0	0	0		0.000	62	Vinyl chloride
11	0	0	1	0	0		[illegible]	94	[illegible]
12	0	0	1	0	0		0.000	84	Bromomethane
13	0	0	0	0	0		0.000	114	[illegible]
14	0	0	0	0	0		[illegible]	96	[illegible]
15	0	0	0	0	0		[illegible]	127	[illegible]
16	0	0	0	0	0		[illegible]	[illegible]	[illegible]
17	0	0	0	0	0		[illegible]	[illegible]	[illegible]
18	0	0	0	0	0		[illegible]	[illegible]	[illegible]
19	0	0	0	0	0		[illegible]	[illegible]	[illegible]
20	100	[illegible]	[illegible]	[illegible]	[illegible]	bv	[illegible]	95	[illegible]
21	0	0	0	0	0		[illegible]	[illegible]	[illegible]
22	0	0	0	0	0		[illegible]	[illegible]	[illegible]
23	0	0	0	0	0		[illegible]	[illegible]	[illegible]
24	0	0	0	0	0		[illegible]	62	Vinyl chloride
25	0	0	0	0	0		[illegible]	[illegible]	[illegible]
26	0	0	0	0	0		[illegible]	96	[illegible]
27	0	0	0	0	0		[illegible]	63	[illegible]
28	0	0	0	0	0		[illegible]	63	[illegible]
29	0	0	0	0	0		0.000	123	[illegible]
30	0	0	0	0	0		0.000	97	[illegible]
31	0	0	0	0	0		0.000	117	Carbon tetrachloride
32	0	0	0	0	0		0.000	75	[illegible]
33	96	69	92	0	1156603	bb	5.[illegible]	78	Benzene
34	0	0	0	0	0		[illegible]	63	[illegible]
35	0	0	0	0	0		0.000	130	[illegible]
36	0	0	0	0	0		0.000	63	[illegible]
37	0	0	0	0	0		0.000	93	[illegible]
38	0	0	0	0	0		0.000	41	[illegible]
39	0	0	0	0	0		0.000	33	[illegible]
40	0	0	0	0	0		[illegible]	[illegible]	[illegible]
41	81	50	79	2	3594[illegible]	0	[illegible]	43	4-Methyl-2-pentanone
42	0	0	0	0	0		[illegible]	93	[illegible]
43	0	0	0	0	0		0.000	75	[illegible]
44	0	0	0	0	0		0.000	97	1,1,2-Trichloroethane
45	0	0	0	0	0		0.000	43	Ethyl methacrylate
46	0	0	0	0	0		0.000	154	[illegible]
47	0	0	0	0	0		0.000	75	1,3-Dichloropropene
48	0	0	0	0	0		0.000	43	[illegible]
49	0	0	0	0	0		0.000	129	Dibromochloromethane
50	0	0	0	0	0		0.000	107	1,2-Dibromoethane
							0.000	112	Chlorobenzene

PAB

PAB

Data Review: PAB
Date: 8/24/98

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No	MAT	FOR	NEV	Calibration	Area	Flags	RT	RM	Name
51	0	0	0	0	0		0.000	171	1,1,1,2-Tetrachloroethane
52	0	0	0	0	0		0.000	106	P-Xylene
53	0	0	0	0	0		0.000	106	m-Xylene
54	0	0	0	0	0		0.000	106	o-Xylene
55	0	0	0	0	0		0.000	104	Styrene
56	0	0	0	0	0		0.000	173	Bromoform
57	0	0	0	0	0		0.000	105	Cumene
58	0	0	0	0	0		0.000	83	1,1,2,2-Tetrachloroethane
59	0	0	0	0	0		0.000	156	Bromobenzene
60	0	0	0	0	0		0.000	75	1,2,3-Trichloropropane
61	0	0	0	0	0		0.000	119	n-Propylbenzene
62	0	0	0	0	0		0.000	75	2-Chloro-1,3-butadiene
63	0	0	0	0	0		0.000	126	2-Chloro-2-butene
64	0	0	0	0	0		0.000	176	1,4-Dichlorobutane
65	0	0	0	0	0		0.000	104	[illegible]
66	0	0	0	0	0		0.000	[illegible]	[illegible]
67	0	0	0	0	0		0.000	[illegible]	[illegible]
68	[illegible]	[illegible]	[illegible]	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
69	0	0	0	0	0		0.000	117	[illegible]
70	0	0	0	0	0		0.000	[illegible]	[illegible]
71	0	0	0	0	0		0.000	[illegible]	[illegible]
72	0	0	0	0	0		0.000	[illegible]	[illegible]
73	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]	[illegible]	[illegible]
74	0	0	0	0	0		0.000	[illegible]	[illegible]
75	0	0	0	0	0		0.000	[illegible]	[illegible]
76	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
77	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
78	0	0	0	0	0		0.000	142	Naphthalene
79	[illegible]	[illegible]	[illegible]	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

QUAN DB : EX95[illegible] LAB-BASE QUAN 2-Aug-[illegible] [illegible]

No	MAT	FOR	REV	Delta	Area	N.Flags	RT	Qm	Name
1	100	85	99	1	3396[illegible]	bv	5.301	1[illegible]	Pentafluorobenzene
2	100	97	99	0	4217424	bv	6.071	114	1,4-Difluorobenzene
3	100	95	95	0	[illegible]	bv	10.361	117	Chlorobenzene-d5
4	100	78	98	0	1243792	bv	15.742	152	1,4-Dichlorobenzene-d4
5	100	97	99	0	1562640	bv	5.181	113	Dibromofluoromethane
6	100	93	97	0	5131680	bv	8.001	98	Toluene-d8
7	100	91	94	0	1592176	bv	12.661	95	4-Bromofluorobenzene
8	0	0	0	0	0		0.000	[illegible]	1,3-Butadiene
9	0	0	0	0	0		0.000	106	Vinyl bromide
10	0	0	0	0	0		0.000	73	MTBE
11	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	57	n-Hexane
12	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	4[illegible]	1,2-Epoxybutane
13	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	[illegible]	Iso-Octane
14	0	0	0	0	0		0.000	[illegible]	Ethyl acrylate

(7P) PAB
(7P) PAB
(7P) PAB

308

509

510

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Pacific Environmental Services

Project Number: 46323
Sample File: HW559

Method 8260 VOST
Sample ID: VOSTBLK 080998 T/TC

Client Project: R012.001
TLI ID: VOSTBLK080998

Date Received: / /
Date Analyzed : 08/09/98

Response File: ICALH809

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Pentafluorobenzene		IS 1	5.04		
Chloromethane	0.015	J	0.97		0.05
Vinyl Chloride		U		0.001	0.05
Bromomethane	0.010	J	1.47		0.05
Chloroethane		U		0.001	0.05
Trichlorofluoromethane		U		0.001	0.05
1,1-Dichloroethene		U		0.001	0.05
Iodomethane		U		0.001	0.05
Carbon disulfide		U		0.001	0.05
Acetone		U		0.004	0.05
Allyl chloride		U		0.001	0.05
Methylene chloride	0.001	J	3.06		0.05
Acrylonitrile		U		0.006	0.05
trans-1,2-Dichloroethene		U		0.001	0.05
1,1-Dichloroethane		U		0.001	0.05
Vinyl acetate		U		0.001	0.05
cis-1,2-Dichloroethene		U		0.001	0.05
2-Butanone		U		0.003	0.05
Chloroform		U		0.001	0.05
1,1,1-Trichloroethane		U		0.001	0.05
1,4-Difluorobenzene		IS 2	5.76		
Carbon tetrachloride		U		0.001	0.05
Benzene	0.048	J	5.24		0.05
1,2-Dichloroethane		U		0.001	0.05
Trichloroethene		U		0.001	0.05
1,2-Dichloropropane		U		0.001	0.05

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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Pacific Environmental Services

Project Number: 46323
Sample File: HW559

Method 8260 VOST
Sample ID: VOSTBLK 080998 T/TC

Client Project: R012.001
TLI ID: VOSTBLK080998

Date Received: / /

Date Analyzed : 08/09/98

Response File: ICALH809

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Methyl methacrylate		U		0.002	0.05
Bromodichloromethane		U		0.001	0.05
cis-1,3-Dichloropropene		U		0.001	0.05
4-Methyl-2-pentanone		U		0.001	0.05
Toluene	0.003	J	7.75		0.05
trans-1,3-Dichloropropene		U		0.001	0.05
1,1,2-Trichloroethane		U		0.001	0.05
Chlorobenzene-d_5		IS 3	9.97		
Tetrachloroethene		U		0.001	0.05
2-Hexanone		U		0.002	0.05
Dibromochloromethane		U		0.001	0.05
1,2-Dibromoethane		U		0.001	0.05
Chlorobenzene		U		0.001	0.05
Ethylbenzene		U		0.001	0.05
m-/p-Xylene		U		0.001	0.10
o-Xylene		U		0.001	0.05
Styrene	0.001	J	11.32		0.05
Bromoform		U		0.001	0.05
1,4-Dichlorobenzene-d_4		IS 4	15.09		
Cumene		U		0.001	0.05
1,1,2,2-Tetrachloroethane		U		0.001	0.05

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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Pacific Environmental Services

Project Number: 46323
Sample File: HW559

Method 8260 VOST
Sample ID: VOSTBLK 080998 T/TC

Client Project: R012.001
TLI ID: VOSTBLK080998

Date Received: / /
Date Analyzed : 08/09/98

Response File: ICALH809

Surrogate Summary	Amount (ng)	RT	IS Ref	%REC
Dibromofluoromethane	0.247	4.92	1	99
Toluene-d_8	0.259	7.65	2	104
4-Bromofluorobenzene	0.273	12.25	2	109

Reviewed by PaB Date 8/10/98

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit

IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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Pacific Environmental Services

Project Number: 46323
Sample File: HW559

Method 8260 VOST
Sample ID: VOSTBLK 080998 T/TC

Client Project: R012.001
TLI ID: VOSTBLK080998

Date Received: / /

Response File: ICALH809

Date Analyzed : 08/09/98

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Pentafluorobenzene		IS 1	5.04		
1,3-Butadiene		U		0.001	0.25
Vinyl bromide		U		0.001	0.25
MTBE		U		0.002	0.25
n-Hexane		U		0.001	0.25
1,2-Epoxybutane		U		0.041	0.25
Iso-Octane		U		0.001	0.25
1,4-Difluorobenzene		IS 2	5.76		
Ethyl acrylate		U		0.001	0.25

Reviewed by PaB Date 8/10/98

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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Sample: VOSTBLK T/TC

HW559

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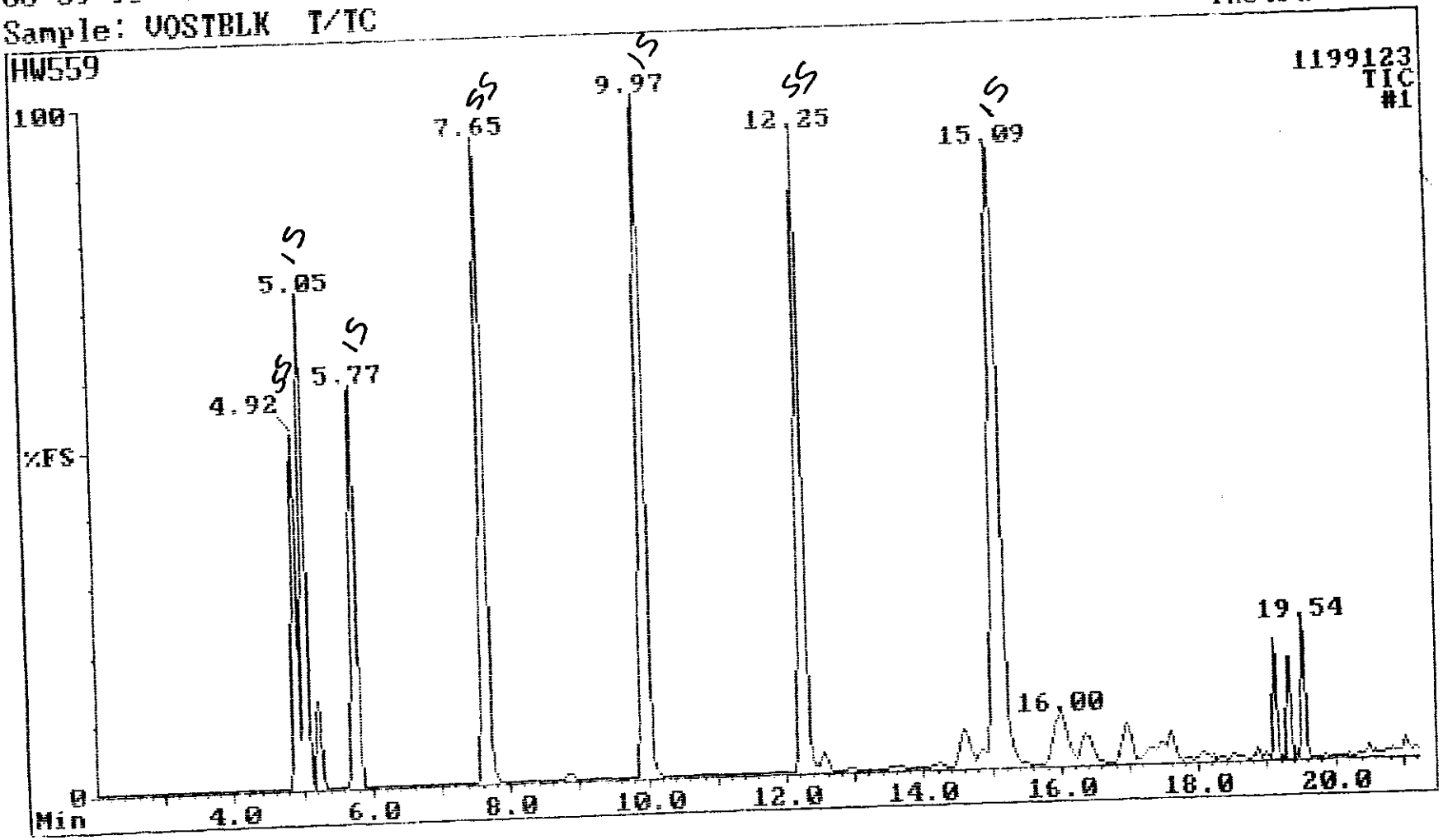

Data Review: GaB
Date: 8/10/98

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QUAN DB : HW559 LAB-BASE QUAN 08-09-98 09:06

No.	MAT	FOR	REV	Delta	Area	P.Flags	RT	QM	Name
1	100	86	98	-5	2448904	bv	5.04	168	Pentafluorobenzene
2	100	97	98	-1	2301120	bv	5.76	114	1,4-Difluorobenzene
3	100	94	95	5	3459840	bv	9.97	117	Chlorobenzene-d5
4	100	73	98	-6	2223264	bv	15.09	152	1,4-Dichlorobenzene-d4
5	100	98	100	1	1291580	bb	4.92	113	Dibromofluoromethane
6	100	93	98	2	3344656	bv	7.65	98	Toluene-d8
7	97	89	92	6	1884336	bv	12.25	95	4-Bromofluorobenzene
8	0	0	0	0	0		0.00	85	Dichlorodifluoromethane
9	100	83	89	-1	57172	bb	0.97	50	Chloromethane
10	0	0	0	0	0		0.00	62	Vinyl Chloride
11	100	86	94	-1	41628	bb	1.47	94	Bromomethane
12	0	0	0	0	0		0.00	64	Chloroethane
13	0	0	0	0	0		0.00	101	Trichlorofluoromethane
14	0	0	0	0	0		0.00	96	1,1-Dichloroethene
15	~~64~~	~~47~~	~~60~~	~~2~~	~~6663~~	~~bb~~ FP FAB 8/10/98	~~2.59~~	142	Iodomethane
16	0	0	0	0	0		0.00	76	Carbon disulfide
17	~~59~~	~~32~~	~~33~~	~~8~~	~~5524~~	~~m~~ FP FAB 8/10/98	~~2.74~~	43	Acetone
18	0	0	0	0	0		0.00	41	Allyl chloride
19	73	49	71	-1	3620	bb	3.06	84	Methylene chloride
20	0	0	0	0	0		0.00	53	Acrylonitrile
21	0	0	0	0	0		0.00	96	trans-1,2-Dichloroethene
22	0	0	0	0	0		0.00	63	1,1-Dichloroethane
23	0	0	0	0	0		0.00	43	Vinyl acetate
24	0	0	0	0	0		0.00	77	2,2-Dichloropropane
25	0	0	0	0	0		0.00	96	cis-1,2-Dichloroethene
26	~~52~~	~~43~~	~~45~~	~~3~~	~~1453~~	~~bb~~ FP FAB 8/10/98	~~4.55~~	43	2-Butanone
27	0	0	0	0	0		0.00	83	Chloroform
28	0	0	0	0	0		0.00	128	Bromochloromethane
29	0	0	0	0	0		0.00	97	1,1,1-Trichloroethane
30	0	0	0	0	0		0.00	117	Carbon tetrachloride
31	0	0	0	0	0		0.00	75	1,1-Dichloropropene
32	100	98	98	1	522048	bb	5.24	78	Benzene
33	0	0	0	0	0		0.00	62	1,2-Dichloroethane
34	0	0	0	0	0		0.00	130	Trichloroethene
35	0	0	0	0	0		0.00	63	1,2-Dichloropropane
36	0	0	0	0	0		0.00	93	Dibromomethane
37	0	0	0	0	0		0.00	41	Methyl methacrylate
38	0	0	0	0	0		0.00	83	Bromodichloromethane
39	0	0	0	0	0		0.00	75	cis-1,3-Dichloropropene
40	~~40~~	~~3~~	~~69~~	~~4~~	~~16648~~	~~bb~~ FP FAB 8/10/98	~~7.66~~	43	4-Methyl-2-pentanone
41	63	32	79	3	30300	bb	7.75	92	Toluene
42	0	0	0	0	0		0.00	75	trans-1,3-Dichloropropen
43	0	0	0	0	0		0.00	97	1,1,2-Trichloroethane
44	0	0	0	0	0		0.00	69	Ethyl methacrylate
45	0	0	0	0	0		0.00	164	Tetrachloroethene
46	0	0	0	0	0		0.00	76	1,3-Dichloropropane
47	0	0	0	0	0		0.00	43	2-Hexanone
48	0	0	0	0	0		0.00	129	Dibromochloromethane
49	0	0	0	0	0		0.00	107	1,2-Dibromoethane
50	0	0	0	0	0		0.00	112	Chlorobenzene

Data Review: FAB
Date: 8/10/98

518

No.	MAT	FOR	REV	Delta	Area	P.Flags	RT	QM	Name
							0.00	131	1,1,1,2-Tetrachloroethan
x51	0	0	0	0	0		0.00	106	Ethylbenzene
✓52	0	0	0	0	0		0.00	106	m-/p-Xylene
✓53	0	0	0	0	0		0.00	106	o-Xylene
✓54	0	0	0	0	0		11.32	104	Styrene
✓55	62	52	52	2	9172	A	0.00	173	Bromoform
✓56	0	0	0	0	0		~~12.03~~	105	Cumene
✓57	~~47~~	~~44~~	~~44~~	~~6~~	~~364~~	~~bb~~ SP PAB 8/10/98	0.00	83	1,1,2,2-Tetrachloroethan
✓58	0	0	0	0	0		0.00	156	Bromobenzene
x59	0	0	0	0	0		0.00	75	1,2,3-Trichloropropane
x60	0	0	0	0	0		0.00	120	n-Propylbenzene
x61	0	0	0	0	0		~~12.69~~	75	trans-1,4-Dichloro-2-but
x 62	~~13~~	~~12~~	~~18~~	~~4~~	~~816~~	~~bb~~ SP PAB 8/10/98	0.00	126	2-Chlorotoluene
x 63	0	0	0	0	0		~~13.21~~	126	4-Chlorotoluene
x 64	~~45~~	~~30~~	~~54~~	~~8~~	~~1230~~	~~bb~~ SP PAB 8/10/98	~~13.32~~	105	1,3,5-Trimethylbenzene
x 65	~~65~~	~~57~~	~~57~~	~~4~~	~~5100~~	~~A~~ SP PAB 8/10/98	0.00	119	tert-Butylbenzene
66	0	0	0	0	0		0.00	105	1,2,4-Trimethylbenzene
67	0	0	0	0	0		0.00	105	sec-Butylbenzene
68	0	0	0	0	0		0.00	119	p-Cymene
69	0	0	0	0	0		0.00	146	1,3-Dichlorobenzene
70	0	0	0	0	0		0.00	146	1,4-Dichlorobenzene
71	0	0	0	0	0		0.00	91	Benzyl chloride
72	0	0	0	0	0		0.00	91	n-Butylbenzene
73	0	0	0	0	0		0.00	146	1,2-Dichlorobenzene
74	0	0	0	0	0		0.00	75	1,2-Dibromo-3-chloroprop
75	0	0	0	0	0		19.12	180	1,2,4-Trichlorobenzene
x 76	81	95	98	14	193788	bv	19.34	225	Hexachlorobutadiene
x 77	44	21	91	16	26148	bb	19.32	128	Naphthalene
x 78	67	84	88	15	339164	bv	19.54	180	1,2,3-Trichlorobenzene
x 79	75	95	98	16	197024	bv			

QUAN DB : HW559 LAB-BASE QUAN 08-10-98 14:31

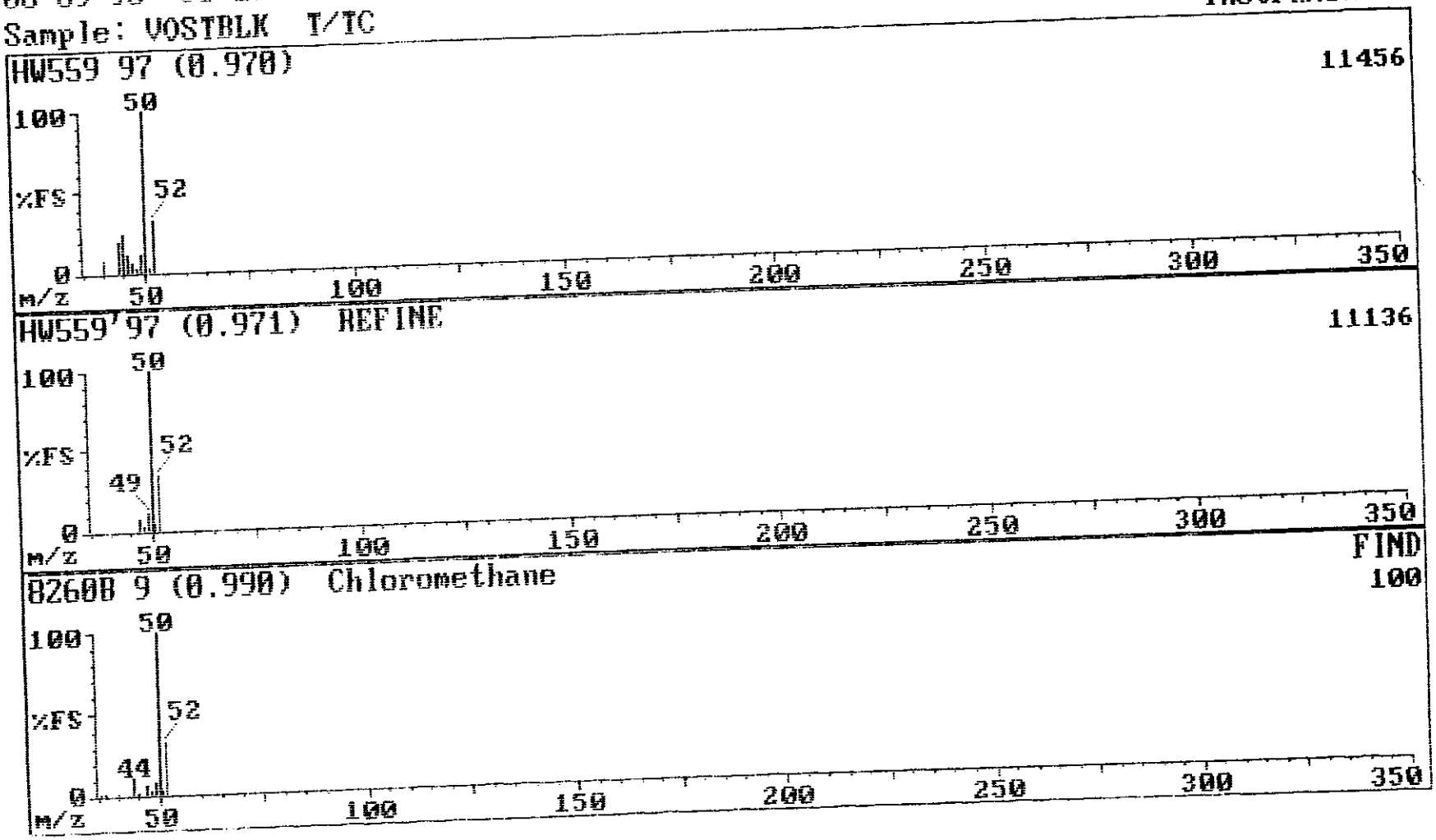
No.	MAT	FOR	REV	Delta	Area	P.Flags	RT	QM	Name
1	100	86	98	0	2448904	bv	5.04	168	Pentafluorobenzene
2	100	97	98	0	2301120	bv	5.76	114	1,4-Difluorobenzene
3	100	94	95	3	3459840	bv	9.97	117	Chlorobenzene-d5
4	100	73	98	2	2223264	bv	15.09	152	1,4-Dichlorobenzene-d4
5	100	98	100	2	1291580	bb	4.92	113	Dibromofluoromethane
6	100	93	98	1	3344656	bv	7.65	98	Toluene-d8
7	100	89	92	4	1884336	bv	12.25	95	4-Bromofluorobenzene
8	0	0	0	0	0		0.00	39	1,3-Butadiene
9	0	0	0	0	0		0.00	106	Vinyl bromide
10	0	0	0	0	0		0.00	73	MTBE
11	~~89~~	~~71~~	~~71~~	~~1~~	~~3568~~	~~bb~~ (7r) PAB 8/10/98	~~3.67~~	57	n-Hexane
12	0	0	0	0	0		0.00	42	1,2-Epoxybutane
13	0	0	0	0	0		0.00	57	Iso-Octane
14	0	0	0	0	0		0.00	55	Ethyl acrylate

Data Review: PAB
Date: 8/10/98

520

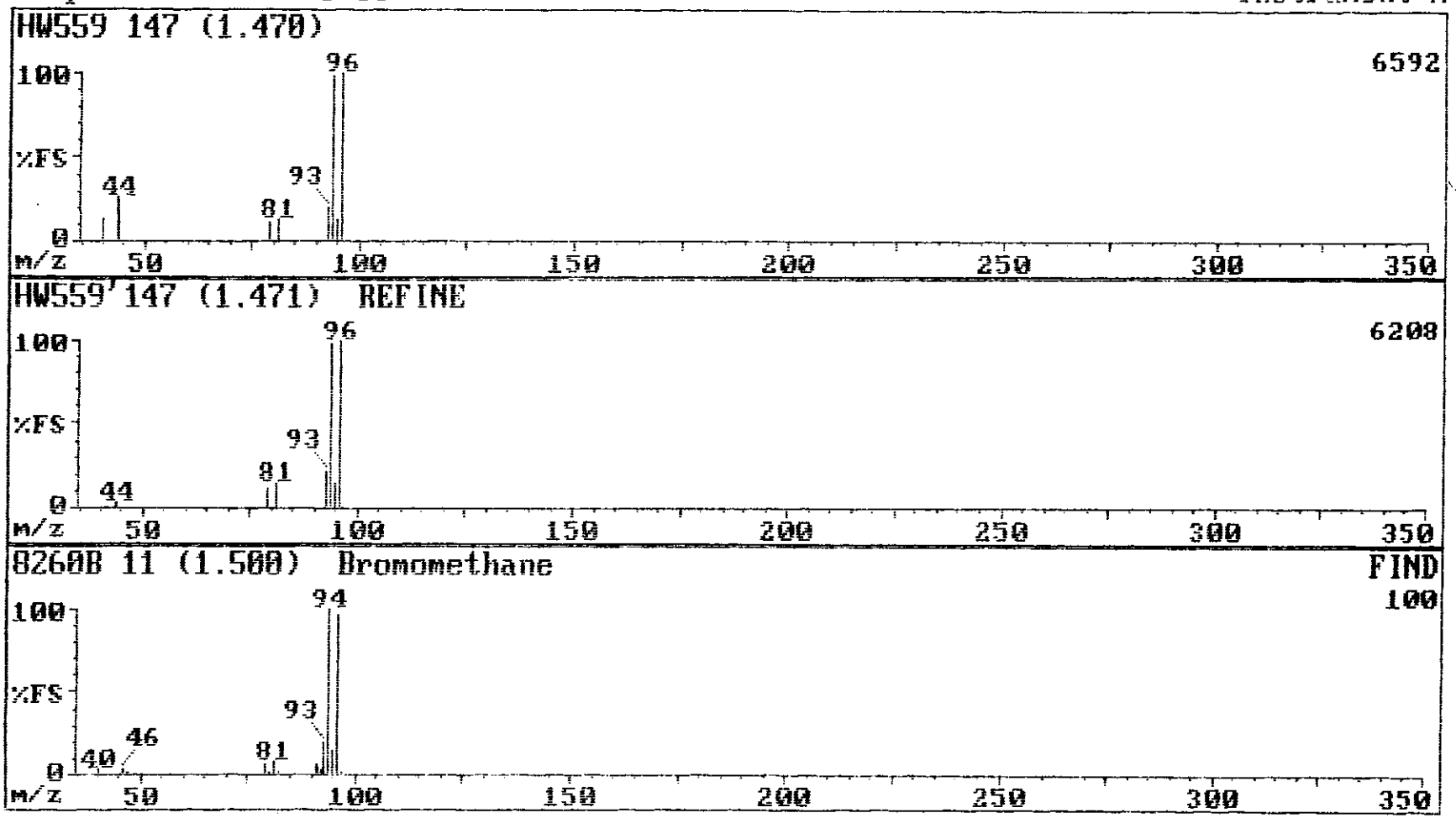
08-09-98 08:28 Triangle Laboratories, Inc. (919) 544-5729 Instrument H

Sample: VOSTBLK T/TC



08-09-98 08:28 Triangle Laboratories, Inc. (919) 544-5729

Sample: VOSTBLK T/TC Instrument H



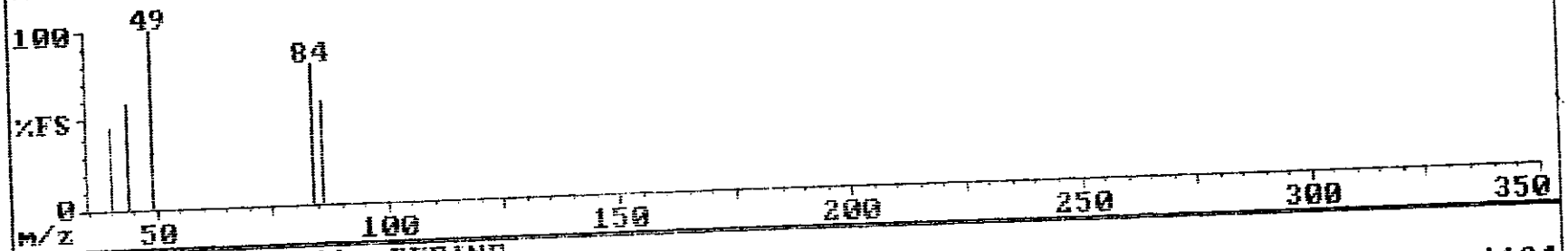
313

223

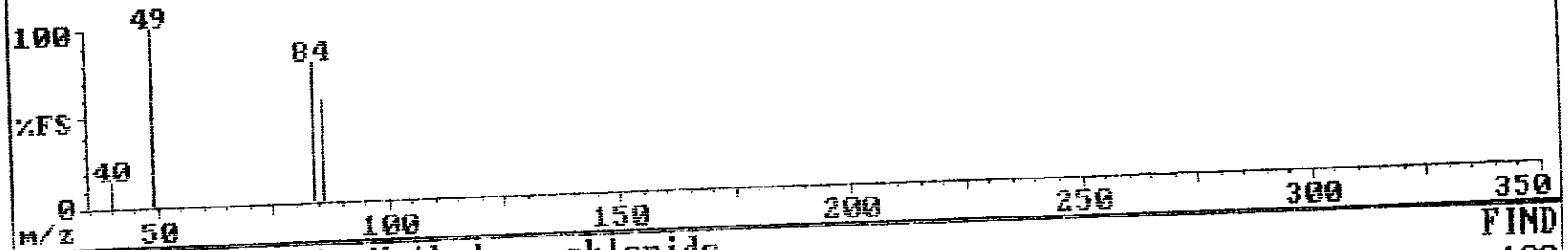
08-09-98 08:28 Triangle Laboratories, Inc. (919) 544-5729 Instrument H

Sample: VOSTBLK T/TC

HW559 306 (3.060) 1184

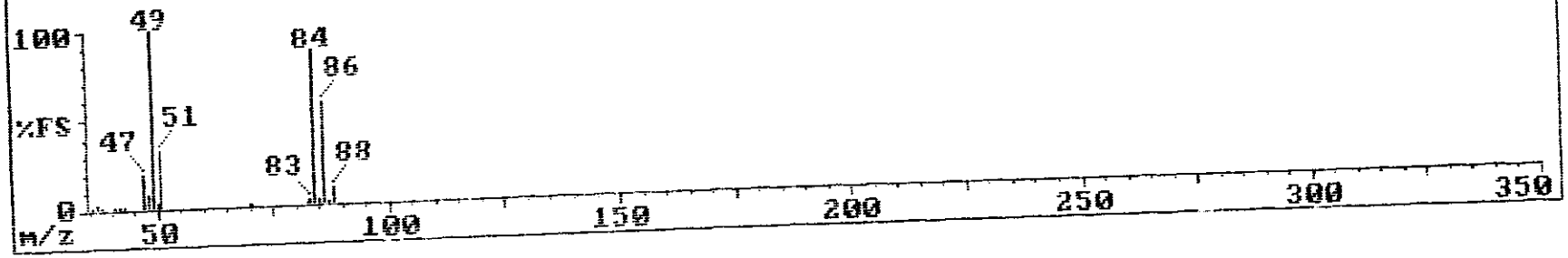


HW559 306 (3.061) REFINE 1184



FIND

8260B 19 (3.100) Methylene chloride 100

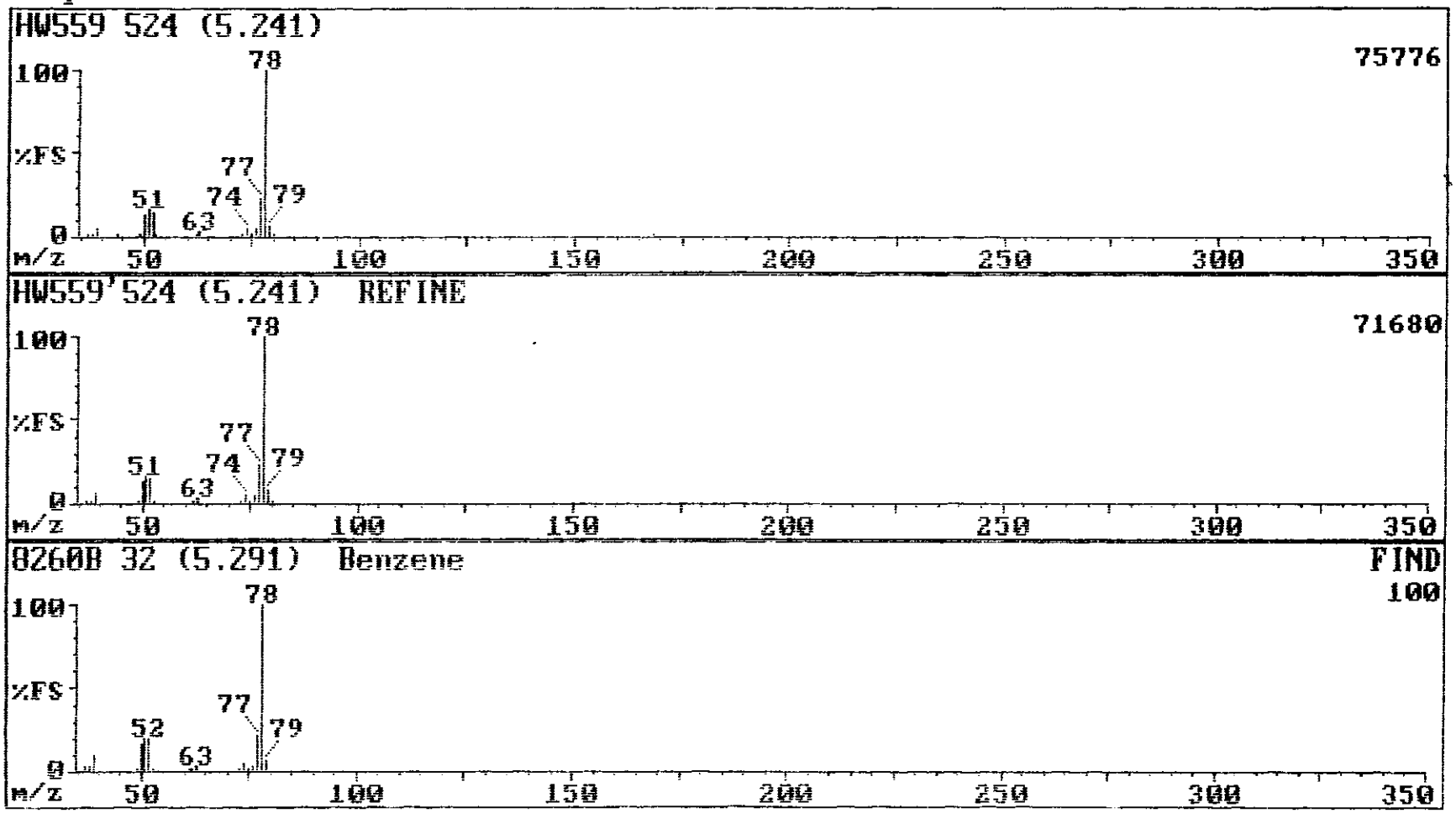


322

323

08-09-98 08:28 Triangle Laboratories, Inc. (919) 544-5729

Sample: VOSTBLK T/TC Instrument H

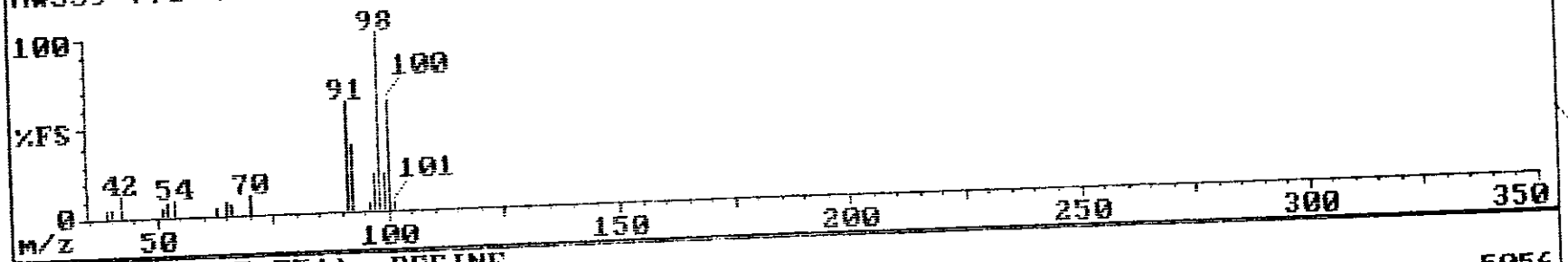


08-09-98 08:28 Triangle Laboratories, Inc. (919) 544-5729

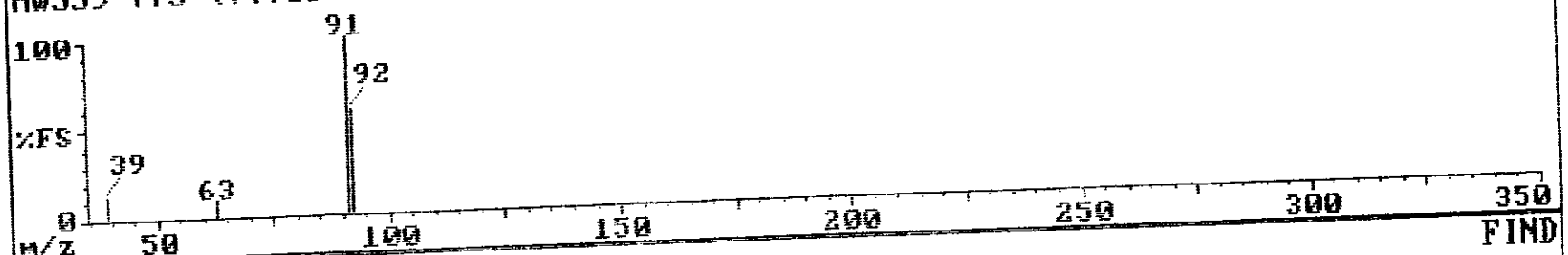
Instrument H

Sample: VOSTBLK T/TC

HW559 775 (7.751) 9536

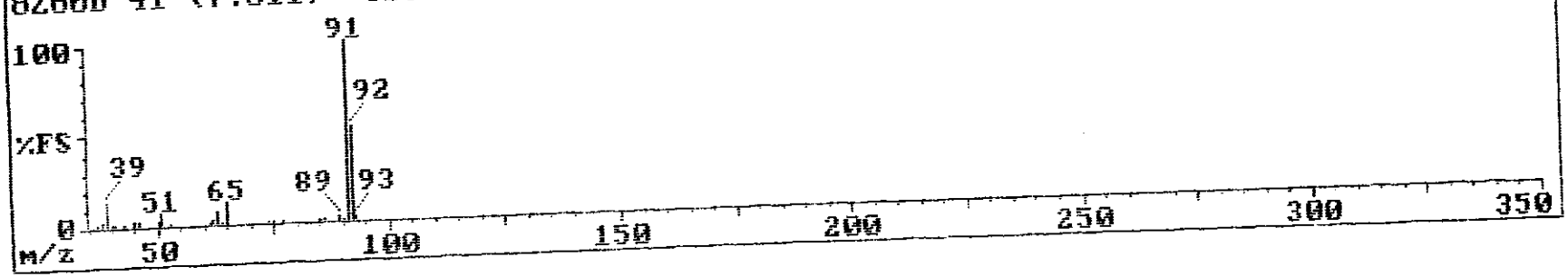


HW559 775 (7.751) REFINE 5056



FIND

8260B 41 (7.811) Toluene 100

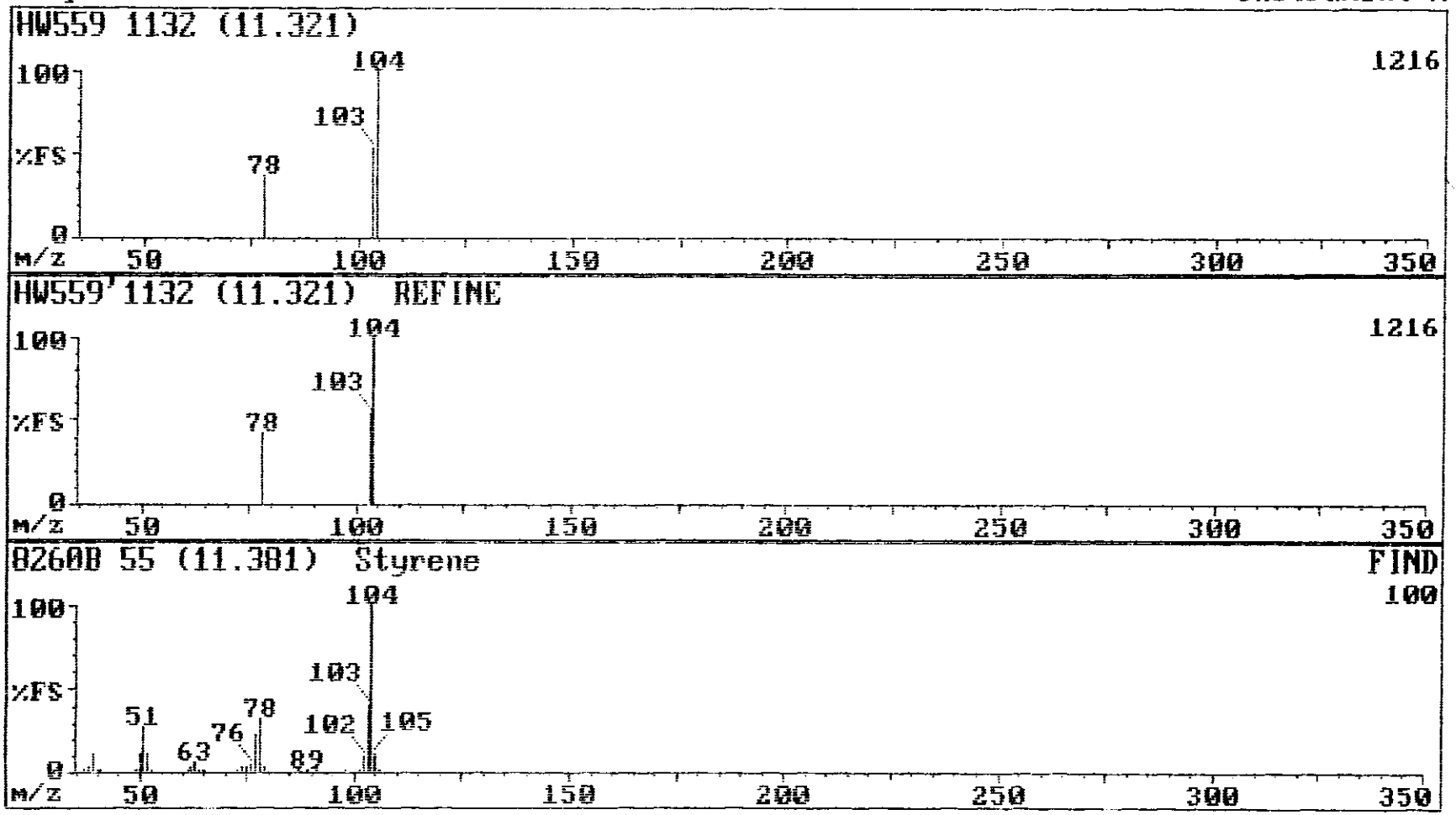


323

525

08-09-98 08:28 Triangle Laboratories, Inc. (919) 544-5729

Sample: VOSTBLK T/TC Instrument H



Pacific Environmental Services

Project Number: 46323
Sample File: FX952

Method 8260 VOST
Sample ID: VOSTBLK 082198 T/TC

Client Project: R012.001
TLI ID: VOSTBLK082198

Date Received: / /
Date Analyzed : 08/21/98

Response File: ICALF821

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Pentafluorobenzene		IS 1	5.31		
Chloromethane		U		0.001	0.05
Vinyl Chloride		U		0.001	0.05
Bromomethane		U		0.001	0.05
Chloroethane		U		0.001	0.05
Trichlorofluoromethane		U		0.001	0.05
1,1-Dichloroethene		U		0.001	0.05
Iodomethane		U		0.001	0.05
Carbon disulfide		U		0.005	0.05
Acetone		U		0.001	0.05
Allyl chloride		U		0.001	0.05
Methylene chloride		U		0.024	0.05
Acrylonitrile		U		0.001	0.05
trans-1,2-Dichloroethene		U		0.001	0.05
1,1-Dichloroethane		U		0.002	0.05
Vinyl acetate		U		0.001	0.05
cis-1,2-Dichloroethene		U		0.004	0.05
2-Butanone		U		0.001	0.05
Chloroform		U		0.001	0.05
1,1,1-Trichloroethane		IS 2	6.08		
1,4-Difluorobenzene		U		0.001	0.05
Carbon tetrachloride	0.039	J	5.66		0.05
Benzene		U		0.001	0.05
1,2-Dichloroethane		U		0.001	0.05
Trichloroethene		U		0.001	0.05
1,2-Dichloropropane					

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

Savar v3.7
Printed: 12:31 08/25/1998

Triangle Laboratories, Inc.
801 Capitola Drive • Durham, North Carolina 27713
Phone: (919) 544-5729 • Fax: (919) 544-5491

527

Pacific Environmental Services

Project Number: 46323
Sample File: FX952

Method 8260 VOST
Sample ID: VOSTBLK 082198 T/TC

Client Project: R012.001
TLI ID: VOSTBLK082198

Date Received: / /

Date Analyzed : 08/21/98

Response File: ICALF821

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Methyl methacrylate		U		0.006	0.05
Bromodichloromethane		U		0.001	0.05
cis-1,3-Dichloropropene		U		0.001	0.05
4-Methyl-2-pentanone		U		0.004	0.05
Toluene		U		0.001	0.05
trans-1,3-Dichloropropene		U		0.001	0.05
1,1,2-Trichloroethane		U		0.001	0.05
Chlorobenzene-d_5		IS 3	10.36		
Tetrachloroethene		U		0.001	0.05
2-Hexanone		U		0.009	0.05
Dibromochloromethane		U		0.001	0.05
1,2-Dibromoethane		U		0.001	0.05
Chlorobenzene		U		0.001	0.05
Ethylbenzene		U		0.001	0.05
m-/p-Xylene		U		0.001	0.10
o-Xylene		U		0.001	0.05
Styrene		U		0.001	0.05
Bromoform		U		0.002	0.05
1,4-Dichlorobenzene-d_4		IS 4 Low	15.73		
Cumene		U		0.001	0.05
1,1,2,2-Tetrachloroethane		U		0.003	0.05

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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Savar v3.7
Printed: 12:31 08/25/1998

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Pacific Environmental Services

Method 8260 VOST

Project Number: 46323
Sample File: FX952

Sample ID: VOSTBLK 082198 T/TC

Client Project: R012.001
TLI ID: VOSTBLK082198

Date Received: / /

Date Analyzed : 08/21/98

Response File: ICALF821

Surrogate Summary	Amount (ug)	RT	IS Ref	%REC
Dibromofluoromethane	0.272	5.18	1	109
Toluene-d_8	0.260	8.00	2	104
4-Bromofluorobenzene	0.203	12.66	2	81

Reviewed by GAB Date 8/25/98

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit

IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

Savar v3.7

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Printed: 12:31 08/25/1998

Pacific Environmental Services

Project Number: 46323
Sample File: FX952

Method 8260 VOST
Sample ID: VOSTBLK 082198 T/TC

Client Project: R012.001
TLI ID: VOSTBLK082198

Date Received: / /

Date Analyzed : 08/21/98

Response File: ICALF821

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Pentafluorobenzene		IS 1	5.31		
1,3-Butadiene		U		0.001	0.25
Vinyl bromide		U		0.001	0.25
MTBE		U		0.001	0.25
n-Hexane		U		0.001	0.25
1,2-Epoxybutane		U		0.024	0.25
Iso-Octane		U		0.001	0.25
1,4-Difluorobenzene		IS 2	6.08		
Ethyl acrylate		U		0.004	0.25

Reviewed by CaB Date 8/25/98

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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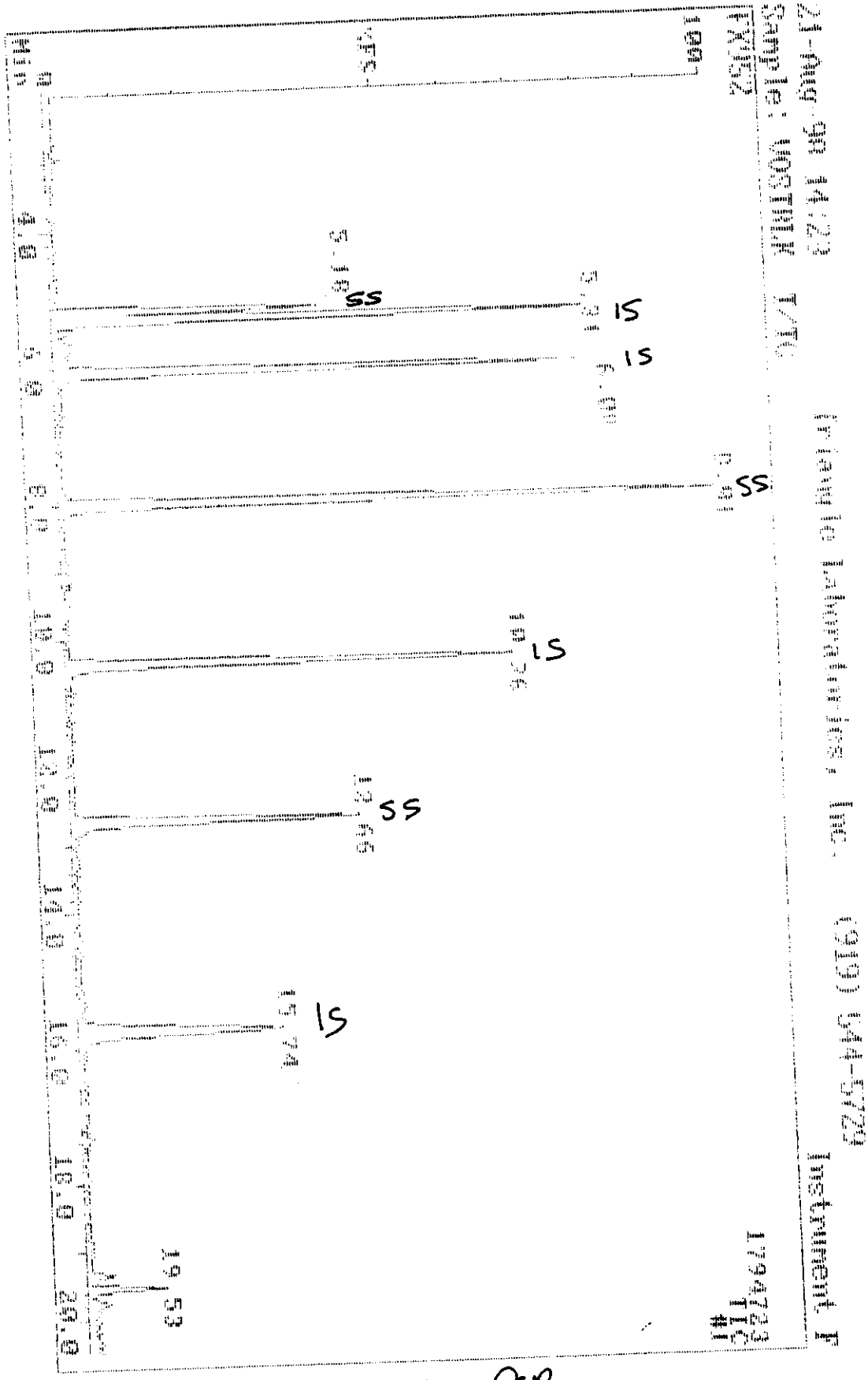
Savar v3.7
Printed: 17:21 08/25/1998

530



Data Review: PAB
Date: 8/24/98

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14	0	0	0	0	0	[illegible]	[illegible]	[illegible]
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16	0	0	0	0	0	[illegible]	[illegible]	[illegible]
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Data Review: PAB
Date: 8/24/98

532

No.	Hit for 285V Device				Area %	Flags	RT	MW	Name
50	0	0	0	0	0		0.000	131	1,1,1,2-Tetrachloroethane
51	0	0	0	0	0		0.000	106	Ethylbenzene
52	0	0	0	0	0		0.000	106	m/p-Xylene
53	0	0	0	0	0		0.000	106	o-Xylene
54	0	0	0	0	0		0.000	104	Styrene
55	0	0	0	0	0		0.000	173	Bromoform
56	0	0	0	0	0		0.000	105	Cumene
57	0	0	0	0	0		0.000	33	1,1,2,2-Tetrachloroethane
58	0	0	0	0	0		0.000	156	Bromobenzene
59	0	0	0	0	0		0.000	28	1,2,3-Trichloropropane
60	0	0	0	0	0		0.000	120	n-Propylbenzene
61	0	0	0	0	0		0.000	75	2-Chloro-1,4-Dichlorobenzene
62	0	0	0	0	0		0.000	126	2-Chlorotoluene
63	0	0	0	0	0		0.000	126	4-Chlorotoluene
64	0	0	0	0	0		0.000	105	1,3,5-Trimethylbenzene
65	0	0	0	0	0		0.000	119	tert-Butylbenzene
66	0	0	0	0	0		0.000	105	1,2,4-Trimethylbenzene
67	0	0	0	0	0		0.000	119	sec-Butylbenzene
68	38	17	49	1	0.0246	A	0.000	146	p-Cymene
69	0	0	0	0	0		0.000	146	1,3-Dichlorobenzene
70	30	25	57	5	1.2987		0.000	146	1,4-Dichlorobenzene
71	0	0	0	0	0		0.000	91	n-Butylbenzene
72	0	0	0	0	0		0.000	91	1,2-Dichlorobenzene
73	[illegible]	[illegible]	[illegible]	2	0.0784	A	0.000	[illegible]	[illegible]
74	0	0	0	0	0		0.000	75	1,2-Dibromo-3-chloropropane
75	0	0	0	0	0		0.000	192	1,2,4-Trichlorobenzene
76	23	62	53	3	1.0647	A	19.540	154	Hexachlorobutadiene
77	24	26	36	2	1.0347	bv	19.570	154	Naphthalene
78	30	40	51	2	0.930	A	19.670	180	1,2,3-Trichlorobenzene
79	21	49	77	3	1.0200	A	19.755		

PAB

PAB

534

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Pacific Environmental Services

Project Number: 46323
Sample File: FX974

Method 8260 VOST
Sample ID: VOSTBLK 082498 T/TC

Client Project: R012.001
TLI ID: VOSTBLK082498

Date Received: / /

Date Analyzed : 08/24/98

Response File: ICALF821

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Pentafluorobenzene		IS 1	5.33		
Chloromethane		U		0.001	0.05
Vinyl Chloride		U		0.001	0.05
Bromomethane		U		0.001	0.05
Chloroethane		U		0.001	0.05
Trichlorofluoromethane		U		0.001	0.05
1,1-Dichloroethene		U		0.001	0.05
Iodomethane		U		0.001	0.05
Carbon disulfide		U		0.001	0.05
Acetone		U		0.006	0.05
Allyl chloride		U		0.001	0.05
Methylene chloride		U		0.001	0.05
Acrylonitrile		U		0.029	0.05
trans-1,2-Dichloroethene		U		0.001	0.05
1,1-Dichloroethane		U		0.001	0.05
Vinyl acetate		U		0.002	0.05
cis-1,2-Dichloroethene		U		0.001	0.05
2-Butanone		U		0.005	0.05
Chloroform		U		0.001	0.05
1,1,1-Trichloroethane		U		0.001	0.05
1,4-Difluorobenzene		IS 2	6.10		
Carbon tetrachloride		U		0.001	0.05
Benzene		U		0.001	0.05
1,2-Dichloroethane		U		0.001	0.05
Trichloroethene		U		0.001	0.05
1,2-Dichloropropane		U		0.001	0.05

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

Triangle Laboratories, Inc.
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Pacific Environmental Services

Project Number: 46323
Sample File: FX974

Method 8260 VOST
Sample ID: VOSTBLK 082498 T/TC

Client Project: R012.001
TLI ID: VOSTBLK082498

Date Received: / /
Date Analyzed : 08/24/98

Response File: ICALF821

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Methyl methacrylate		U		0.008	0.05
Bromodichloromethane		U		0.001	0.05
cis-1,3-Dichloropropene		U		0.001	0.05
4-Methyl-2-pentanone		U		0.006	0.05
Toluene		U		0.001	0.05
trans-1,3-Dichloropropene		U		0.001	0.05
1,1,2-Trichloroethane		U		0.001	0.05
Chlorobenzene-d_5		IS 3	10.39		
Tetrachloroethene		U		0.001	0.05
2-Hexanone		U		0.013	0.05
Dibromochloromethane		U		0.001	0.05
1,2-Dibromoethane		U		0.001	0.05
Chlorobenzene		U		0.001	0.05
Ethylbenzene		U		0.001	0.05
m-/p-Xylene		U		0.001	0.10
o-Xylene		U		0.001	0.05
Styrene		U		0.001	0.05
Bromoform		U		0.003	0.05
1,4-Dichlorobenzene-d_4		IS 4	15.79		
Cumene		U		0.001	0.05
1,1,2,2-Tetrachloroethane		U		0.002	0.05

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
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Pacific Environmental Services

Project Number: 46323
Sample File: FX974

Method 8260 VOST
Sample ID: VOSTBLK 082498 T/TC

Client Project: R012.001
TLI ID: VOSTBLK082498

Date Received: / /

Date Analyzed : 08/24/98

Response File: ICALF821

Surrogate Summary	Amount (ug)	RT	IS Ref	%REC
Dibromofluoromethane	0.232	5.21	1	93
Toluene-d_8	0.256	8.03	2	102
4-Bromofluorobenzene	0.198	12.69	2	79

Reviewed by RaB Date 8/25/98

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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Printed: 12:31 08/25/1998

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Pacific Environmental Services

Project Number: 46323
Sample File: FX974

Method 8260 VOST
Sample ID: VOSTBLK 082498 T/TC

Client Project: R012.001
TLI ID: VOSTBLK082498

Date Received: / /
Date Analyzed : 08/24/98

Response File: ICALF824

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Pentafluorobenzene		IS 1	5.33		
1,3-Butadiene		U		0.001	0.25
Vinyl bromide		U		0.001	0.25
MTBE		U		0.001	0.25
n-Hexane		U		0.001	0.25
1,2-Epoxybutane		U		0.035	0.25
Iso-Octane		U		0.001	0.25
1,4-Difluorobenzene		IS 2	6.10		
Ethyl acrylate		U		0.009	0.25

Reviewed by PAB Date 8/25/98

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit

IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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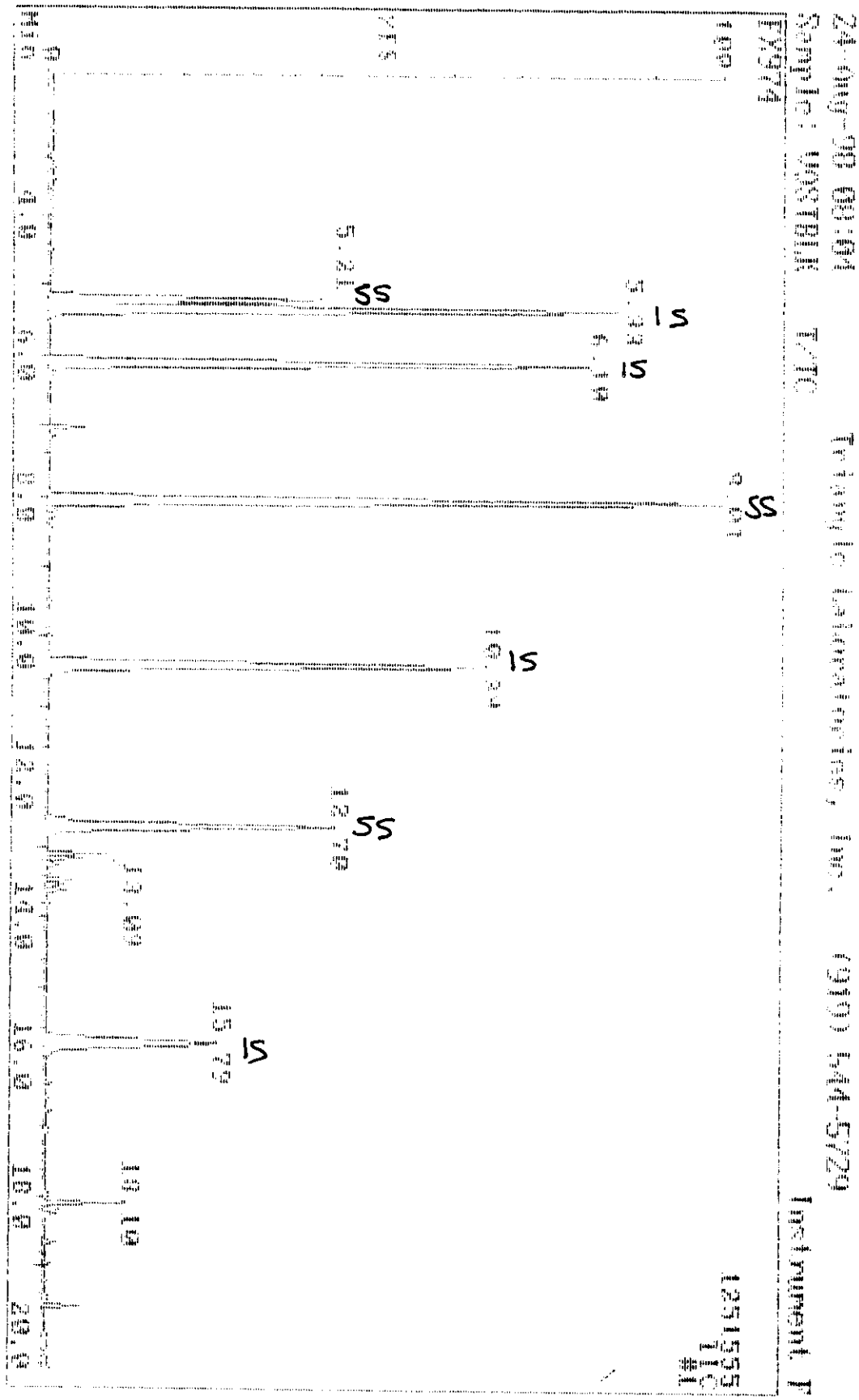
Printed: 17:21 08/25/1998



Data Review: PaB
Date: 8/24/98

No	MAT	FOR	SFV	Delta	Area	Flags	RT	Name
1	100	98	99	0	2847952	NB	5.771	168 [illegible]
2	100	97	97	0	3019301	NB	5.101	114 [illegible]
3	100	89	92	0	2030832	BM	11.291	112 [illegible]
4	100	95	96	1	748992	BM	15.799	152 [illegible]
5	100	96	97	1	1357024	BM	5.211	112 [illegible]
6	100	94	94	0	3465152	NB	8.021	98 [illegible]
7	100	92	92	-1	1437920	NB	13.671	94 [illegible]
8	0	0	0	0	0		0.000	85 [illegible]
9	0	0	0	0	0		0.000	50 [illegible]
10	0	0	0	0	0		0.000	62 [illegible]
11	0	0	0	0	0		0.000	94 [illegible]
12	0	0	0	0	0		0.000	[illegible]
13	0	0	0	0	0		0.000	144 [illegible]
14	0	0	0	0	0		0.000	[illegible]
15	0	0	0	0	0		0.000	[illegible]
16	0	0	0	0	0		0.000	[illegible]
17	0	0	0	0	0		0.000	16 [illegible]
18	0	0	0	0	0		0.000	[illegible]
19	0	0	0	0	0		0.000	[illegible]
20	0	0	0	0	0		0.000	[illegible]
21	0	0	0	0	0		0.000	[illegible]
22	0	0	0	0	0		0.000	[illegible]
23	0	0	0	0	0		0.000	[illegible]
24	0	0	0	0	0		0.000	[illegible]
25	0	0	0	0	0		0.000	43 [illegible]
26	0	0	0	0	0		0.000	93 [illegible]
27	0	0	0	0	0		0.000	123 [illegible]
28	0	0	0	0	0		0.000	97 [illegible]
29	0	0	0	0	0		0.000	117 [illegible]
30	0	0	0	0	0		0.000	75 [illegible]
31	0	0	0	0	0		0.000	78 [illegible]
32	0	0	0	0	0		0.000	62 [illegible]
33	0	0	0	0	0		0.000	130 [illegible]
34	0	0	0	0	0		0.000	63 [illegible]
35	0	0	0	0	0		0.000	93 [illegible]
36	0	0	0	0	0		0.000	41 [illegible]
37	0	0	0	0	0		0.000	83 [illegible]
38	0	0	0	0	0		0.000	75 [illegible]
39	0	0	0	0	0		0.000	43 [illegible]
40	0	0	0	0	0		0.000	92 [illegible]
41	0	0	0	0	0		0.000	75 [illegible]
42	0	0	0	0	0		0.000	97 [illegible]
43	0	0	0	0	0		0.000	63 [illegible]
44	0	0	0	0	0		0.000	164 [illegible]
45	0	0	0	0	0		0.000	76 [illegible]
46	0	0	0	0	0		0.000	45 [illegible]
47	0	0	0	0	0		0.000	129 [illegible]
48	0	0	0	0	0		0.000	107 [illegible]
49	0	0	0	0	0		0.000	112 [illegible]
50	0	0	0	0	0		0.000	[illegible]

Data Review: PAB
Date: 8/24/98

No	MRT	FOR	SEV	Defect	Area	Volume	RT	GM	Name
51	0	0	0	0	0	0	0.000	[illegible]	[illegible]
52	1	1	0	0	1	1	0.000	[illegible]	[illegible]
53	0	[illegible]	0	0	1	0	0.000	[illegible]	[illegible]
54	0	0	0	0	0	0	0.000	[illegible]	[illegible]
55	0	1	0	0	0	0	0.000	[illegible]	[illegible]
56	0	0	0	0	0	0	0.000	[illegible]	[illegible]
57	0	0	0	0	0	0	0.000	[illegible]	[illegible]
58	0	0	0	0	0	0	0.000	[illegible]	[illegible]
59	0	0	0	0	0	0	0.000	[illegible]	[illegible]
60	0	0	0	1	0	0	0.000	[illegible]	[illegible]
61	0	0	1	0	0	0	[illegible]	[illegible]	[illegible]
62	1	[illegible]	0	0	0	[illegible]	[illegible]	[illegible]	[illegible]
63	0	0	0	0	0	[illegible]	[illegible]	[illegible]	[illegible]
64	0	0	0	0	0	[illegible]	[illegible]	[illegible]	[illegible]
65	0	0	0	0	0	[illegible]	[illegible]	[illegible]	[illegible]
66	0	[illegible]	0	0	0	[illegible]	[illegible]	[illegible]	[illegible]
67	1	1	0	1	0	[illegible]	[illegible]	[illegible]	[illegible]
68	0	1	1	0	0	[illegible]	[illegible]	[illegible]	[illegible]
69	0	[illegible]	[illegible]	0	0	[illegible]	[illegible]	[illegible]	[illegible]
70	0	0	[illegible]	0	0	[illegible]	[illegible]	[illegible]	[illegible]
71	0	[illegible]	0	1	1	[illegible]	[illegible]	[illegible]	[illegible]
72	1	[illegible]	1	0	0	[illegible]	[illegible]	[illegible]	[illegible]
73	0	[illegible]	1	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
74	0	1	0	0	0	[illegible]	[illegible]	[illegible]	[illegible]
75	0	1	0	1	0	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	0	1	0	0	1	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	0	[illegible]	0	0	0	[illegible]	[illegible]	[illegible]	[illegible]
78	0	0	1	0	1	[illegible]	[illegible]	[illegible]	[illegible]
79	0	1	0	0	0	[illegible]	[illegible]	[illegible]	[illegible]

542

QUAN DB : FX974 LAB-BASE QUAN [illegible]

No.	MAT	FOR	REV	Delta	Area	P.Flags	RT	QM	Name
1	100	88	99	4	2947952	bb	5.331	168	Pentafluorobenzene
2	100	97	97	-1	3010304	bb	6.101	114	1,4-Difluorobenzene
3	100	88	88	-2	2182832	bv	10.391	117	Chlorobenzene-d5
4	100	85	94	0	748592	bv	15.792	152	1,4-Dichlorobenzene-d4
5	100	96	97	0	1039024	bb	5.211	113	Dibromofluoromethane
6	100	94	96	-1	3565152	bb	8.031	98	Toluene-d8
7	100	92	92	-3	943920	bb	12.691	95	4-Bromofluorobenzene
8	0	0	0	0	0		0.000	39	1,3-Butadiene
9	0	0	0	0	0		0.000	106	Vinyl bromide
10	0	0	0	0	0		0.000	73	MTBE
11	0	0	0	0	0		0.000	[illegible]	[illegible]
12	0	0	0	0	0		0.000	[illegible]	[illegible]
13	0	0	0	0	0		0.000	[illegible]	[illegible]
14	0	0	0	0	0		0.000	[illegible]	[illegible]

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TRIANGLE LABS

CALIBRATION DATA

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Research Triangle Park, NC 27709-3485
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544

Triangle Laboratories, Inc.
Initial Calibration Curve

ICAL File: ICALH809	Date of Analysis :08/09/98	Analyte List: special
RF0.10 HW551	RF0.25 HW552	RF0.50 HW553
RF0.75 HW554	RF1.00 HW555	

VOST Calibration.

Analyte	Flag	RF0.10	RF0.25	RF0.50	RF0.75	RF1.00	MEAN	%RSD
Pentafluorobenzene	I							
Chloromethane	P	0.387	0.407	0.363	0.343	0.388	0.377	6.6
Vinyl Chloride	C	0.439	0.497	0.449	0.438	0.517	0.468	7.8
Bromomethane		0.412	0.450	0.351	0.421	0.512	0.429	13.7
Chloroethane		0.248	0.276	0.215	0.239	0.292	0.254	11.9
Trichlorofluoromethane		1.009	1.058	0.965	1.028	1.245	1.061	10.2
1,1-Dichloroethene	C	0.442	0.502	0.482	0.381	0.515	0.464	11.7
Iodomethane		0.950	1.061	1.070	0.881	0.944	0.981	8.3
Carbon disulfide		1.060	1.160	1.129	0.896	1.018	1.053	9.9
Acetone		0.055	0.047	0.049	0.036	0.063	0.050	20.3
Allyl chloride		0.386	0.416	0.415	0.309	0.370	0.379	11.6
Methylene chloride		0.392	0.412	0.388	0.289	0.287	0.354	17.2
Acrylonitrile		0.045	0.039	0.041	0.035	0.026	0.037	19.7
trans-1,2-Dichloroethene		0.463	0.488	0.471	0.437	0.366	0.445	10.8
1,1-Dichloroethane	P	0.739	0.762	0.709	0.730	0.723	0.733	2.7
Vinyl acetate		0.409	0.391	0.405	0.395	0.391	0.398	2.1
cis-1,2-Dichloroethene		0.429	0.462	0.444	0.448	0.472	0.451	3.6
2-Butanone		0.073	0.059	0.061	0.060	0.064	0.063	8.8
Chloroform	C	0.756	0.799	0.759	0.751	0.790	0.771	2.8
1,1,1-Trichloroethane		0.699	0.745	0.721	0.717	0.732	0.723	2.4
1,4-Difluorobenzene	I							
Carbon tetrachloride		0.641	0.532	0.501	0.628	0.704	0.601	13.9
Benzene		1.457	0.985	0.984	1.171	1.270	1.173	17.1
1,2-Dichloroethane		0.328	0.296	0.299	0.360	0.412	0.339	14.2
Trichloroethene		0.436	0.443	0.455	0.496	0.384	0.443	9.1
1,2-Dichloropropane	C	0.450	0.426	0.426	0.480	0.344	0.425	11.9
Methyl methacrylate		0.120	0.111	0.116	0.123	0.063	0.107	23.4
Bromodichloromethane		0.667	0.644	0.667	0.796	0.490	0.653	16.7
cis-1,3-Dichloropropene		0.635	0.623	0.609	0.712	0.509	0.618	11.8
4-Methyl-2-pentanone		0.204	0.150	0.159	0.179	0.166	0.172	12.1
Toluene	C	1.054	0.948	0.938	1.133	1.009	1.016	7.9
trans-1,3-Dichloropropene		0.522	0.462	0.461	0.539	0.552	0.507	8.5
1,1,2-Trichloroethane		0.381	0.321	0.305	0.364	0.362	0.347	9.2
Chlorobenzene-d5	I							
Tetrachloroethene		0.388	0.381	0.398	0.403	0.347	0.383	5.7
2-Hexanone	1	0.079	0.061	0.070	0.070	0.081	0.072	11.1
Dibromochloromethane		0.399	0.381	0.408	0.390	0.355	0.387	5.2
1,2-Dibromoethane		0.326	0.297	0.310	0.292	0.277	0.300	6.2

***- Fails QC Criteria for %RSD; << - RF less than minimum QC RF; >> - RF greater than maximum QC RF**

Savar v3.7

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Phone: (919) 544-5729 • Fax: (919) 544-5491

545

Triangle Laboratories, Inc.
Initial Calibration Curve

ICAL File: ICALH809	Date of Analysis :08/09/98	Analyte List: special
RF0.10 HW551	RF0.25 HW552	RF0.50 HW553
RF0.75 HW554	RF1.00 HW555	

VOST Calibration.

Analyte	Flag	RF0.10	RF0.25	RF0.50	RF0.75	RF1.00	MEAN	%RSD
Chlorobenzene	P	0.930	0.929	0.979	0.960	0.978	0.955	2.6
Ethylbenzene	C	0.509	0.525	0.542	0.555	0.572	0.541	4.5
m-/p-Xylene		0.628	0.646	0.679	0.697	0.730	0.676	6.0
o-Xylene		0.601	0.605	0.641	0.653	0.701	0.640	6.4
Styrene		0.925	0.957	1.012	1.036	1.121	1.010	7.5
Bromoform	P	0.211	0.193	0.205	0.217	0.215	0.208	4.6
1,4-Dichlorobenzene-d4	I							
Cumene		3.195	2.902	3.063	3.038	2.980	3.036	3.6
1,1,2,2-Tetrachloroethane	P	0.518	0.357	0.362	0.368	0.390	0.399	17.0
Average %RSD								9.7

Surrogate	Flag	RF0.10	RF0.25	RF0.50	RF0.75	RF1.00	Mean	%RSD
Dibromofluoromethane	S	0.523	0.538	0.522	0.530	0.552	0.533	2.4
Toluene-d8	S	1.422	1.357	1.310	1.625	1.290	1.401	9.7
4-Bromofluorobenzene	S	0.702	0.656	0.636	0.788	0.974	0.751	18.3

Approved by: BaB Date 8/10/98

*- Fails QC Criteria for %RSD; << - RF less than minimum QC RF; >> - RF greater than maximum QC RF

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Continuing Calibration Curve

CCAL File: HW552 Date of Analysis :08/09/98 Analyte List: special
ICAL File: ICALH809

VOST Calibration.

Analyte	Flag	RF0.25	RFMEAN	%D
Pentafluorobenzene	I			
Chloromethane	P	0.407	0.377	-8.0
Vinyl Chloride	C	0.497	0.468	-6.2
Bromomethane		0.450	0.429	-4.9
Chloroethane		0.276	0.254	-8.7
Trichlorofluoromethane		1.058	1.061	0.3
1,1-Dichloroethene	C	0.502	0.464	-8.2
Iodomethane		1.061	0.981	-8.2
Carbon disulfide		1.160	1.053	-10.2
Acetone		0.047	0.050	6.0
Allyl chloride		0.416	0.379	-9.8
Methylene chloride		0.412	0.354	-16.4
Acrylonitrile		0.039	0.037	-5.4
trans-1,2-Dichloroethene		0.488	0.445	-9.7
1,1-Dichloroethane	P	0.762	0.733	-4.0
Vinyl acetate		0.391	0.398	1.8
cis-1,2-Dichloroethene		0.462	0.451	-2.4
2-Butanone		0.059	0.063	6.3
Chloroform	C	0.799	0.771	-3.6
1,1,1-Trichloroethane		0.745	0.723	-3.0
1,4-Difluorobenzene	I			
Carbon tetrachloride		0.532	0.601	11.5
Benzene		0.985	1.173	16.0
1,2-Dichloroethane		0.296	0.339	12.7
Trichloroethene		0.443	0.443	0.0
1,2-Dichloropropane	C	0.426	0.425	-0.2
Methyl methacrylate		0.111	0.107	-3.7
Bromodichloromethane		0.644	0.653	1.4
cis-1,3-Dichloropropene		0.623	0.618	-0.8
4-Methyl-2-pentanone		0.150	0.172	12.8
Toluene	C	0.948	1.016	6.7
trans-1,3-Dichloropropene		0.462	0.507	8.9
1,1,2-Trichloroethane		0.321	0.347	7.5
Chlorobenzene-d5	I			
Tetrachloroethene		0.381	0.383	0.5
2-Hexanone	1	0.061	0.072	15.3
Dibromochloromethane		0.381	0.387	1.6
1,2-Dibromoethane		0.297	0.300	1.0

*- Fails QC Criteria for %D; << - Rf less than minimum QC RF; >>- RF greater than maximum QC RF

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Triangle Laboratories, Inc.
Continuing Calibration Curve

CCAL File: HW552	Date of Analysis :08/09/98	Analyte List: special
ICAL File: ICALH809		

VOST Calibration.

Analyte	Flag	RF0.25	RFMEAN	%D
Chlorobenzene	P	0.929	0.955	2.7
Ethylbenzene	C	0.525	0.541	3.0
m-/p-Xylene		0.646	0.676	4.4
o-Xylene		0.605	0.640	5.5
Styrene		0.957	1.010	5.2
Bromoform	P	0.193	0.208	7.2
1,4-Dichlorobenzene-d4	I			
Cumene		2.902	3.036	4.4
1,1,2,2-Tetrachloroethane	P	0.357	0.399	10.5

Surrogate	Flag	RF0.25	RFMEAN	%D
Dibromofluoromethane	S	0.538	0.533	-0.9
Toluene-d8	S	1.357	1.401	3.1
4-Bromofluorobenzene	S	0.656	0.751	12.6

Approved by: GAB Date 8/10/98

*- Fails QC Criteria for %D; << - Rf less than minimum QC RF; >>- RF greater than maximum QC RF

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Triangle Laboratories, Inc.
Initial Calibration Curve

ICAL File: ICALF821	Date of Analysis :08/21/98	Analyte List: special
RF0.10 FX943	RF0.25 FX944	RF0.50 FX945
RF0.75 FX946	RF1.00 FX949	

VOST Calibration.

Analyte	Flag	RF0.10	RF0.25	RF0.50	RF0.75	RF1.00	MEAN	%RSD
Pentafluorobenzene	I							
Chloromethane	P	0.135	0.191	0.176	0.154	0.115	0.154	19.9
Vinyl Chloride	C	0.184	0.230	0.231	0.226	0.185	0.211	11.6
Bromomethane		0.292	0.238	0.237	0.224	0.188	0.236	15.8
Chloroethane		0.166	0.186	0.177	0.166	0.143	0.168	9.5
Trichlorofluoromethane		0.827	0.854	0.831	0.773	0.673	0.792	9.2
1,1-Dichloroethene	C	0.356	0.369	0.361	0.337	0.311	0.347	6.7
Iodomethane		0.457	0.443	0.462	0.463	0.441	0.453	2.3
Carbon disulfide		0.900	0.869	0.888	0.849	0.709	0.843	9.2
Acetone		0.014	0.017	0.038	0.035	0.051	0.031	50.5
Allyl chloride		0.245	0.276	0.290	0.265	0.240	0.263	8.0
Methylene chloride		0.271	0.268	0.270	0.258	0.252	0.264	3.1
Acrylonitrile		0.002	0.006	0.009	0.007	0.008	0.006	39.9
trans-1,2-Dichloroethene		0.416	0.429	0.409	0.395	0.361	0.402	6.4
1,1-Dichloroethane	P	0.581	0.592	0.596	0.572	0.540	0.576	3.9
Vinyl acetate		0.064	0.069	0.091	0.099	0.104	0.085	21.1
cis-1,2-Dichloroethene		0.346	0.369	0.376	0.371	0.360	0.365	3.2
2-Butanone		0.017	0.015	0.031	0.035	0.062	0.032	58.6
Chloroform	C	0.761	0.739	0.744	0.721	0.678	0.729	4.4
1,1,1-Trichloroethane		0.848	0.861	0.844	0.832	0.772	0.831	4.2
1,4-Difluorobenzene	I							
Carbon tetrachloride		0.812	0.729	0.709	0.724	0.686	0.732	6.5
Benzene		1.077	1.127	1.136	1.120	0.972	1.086	6.2
1,2-Dichloroethane		0.220	0.231	0.253	0.256	0.252	0.242	6.6
Trichloroethene		0.404	0.426	0.431	0.436	0.434	0.426	3.1
1,2-Dichloropropane	C	0.216	0.225	0.245	0.262	0.264	0.242	8.9
Methyl methacrylate		0.016	0.015	0.020	0.023	0.026	0.020	23.1
Bromodichloromethane		0.383	0.403	0.428	0.462	0.466	0.428	8.4
cis-1,3-Dichloropropene		0.224	0.267	0.307	0.370	0.386	0.311	22.0
4-Methyl-2-pentanone		0.013	0.026	0.035	0.026	0.032	0.027	31.9
Toluene	C	0.822	0.901	0.900	0.920	0.872	0.883	4.4
trans-1,3-Dichloropropene		0.118	0.147	0.174	0.229	0.230	0.180	27.7
1,1,2-Trichloroethane		0.117	0.123	0.133	0.146	0.150	0.134	10.5
Chlorobenzene-d5	I							
Tetrachloroethene		0.515	0.532	0.516	0.521	0.526	0.522	1.3
2-Hexanone	1	0.002	0.004	0.016	0.011	0.058	0.018	127.2
Dibromochloromethane		0.200	0.201	0.215	0.227	0.246	0.218	8.8
1,2-Dibromoethane		0.147	0.151	0.163	0.187	0.181	0.166	10.7

***- Fails QC Criteria for %RSD; << - RF less than minimum QC RF; >> - RF greater than maximum QC RF**

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Triangle Laboratories, Inc.
Initial Calibration Curve

ICAL File: ICALF821	Date of Analysis :08/21/98	Analyte List: special
RF0.10 FX943	RF0.25 FX944	RF0.50 FX945
RF0.75 FX946	RF1.00 FX949	

VOST Calibration.

Analyte	Flag	RF0.10	RF0.25	RF0.50	RF0.75	RF1.00	MEAN	%RSD
Chlorobenzene	P	1.092	1.046	1.061	1.063	1.032	1.059	2.1
Ethylbenzene	C	0.660	0.721	0.727	0.719	0.687	0.703	4.1
m-/p-Xylene		0.880	0.897	0.897	0.855	0.731	0.852	8.2
o-Xylene		0.649	0.712	0.755	0.747	0.725	0.718	5.8
Styrene		0.800	0.901	0.946	0.982	0.983	0.922	8.2
Bromoform	P	0.082	0.077	0.084	0.078	0.091	0.082	7.1
1,4-Dichlorobenzene-d4	I							
Cumene		7.662	6.642	6.797	6.157	4.138	6.279	20.9
1,1,2,2-Tetrachloroethane	P	0.360	0.255	0.254	0.267	0.225	0.272	18.9
Average %RSD								15.6

Surrogate	Flag	RF0.10	RF0.25	RF0.50	RF0.75	RF1.00	Mean	%RSD
Dibromofluoromethane	S	0.394	0.391	0.392	0.397	0.392	0.393	0.6
Toluene-d8	S	1.020	1.146	1.236	1.260	1.112	1.155	8.4
4-Bromofluorobenzene	S	0.377	0.362	0.414	0.399	0.427	0.396	6.7

Approved by: PAB Date 8/26/98

***- Fails QC Criteria for %RSD; << - RF less than minimum QC RF; >> - RF greater than maximum QC RF**

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Continuing Calibration Curve

CCAL File: FX944 Date of Analysis :08/21/98 Analyte List: special
ICAL File: ICALF821
VOST Calibration.

Analyte	Flag	RF0.25	RFMEAN	%D
Pentafluorobenzene	I			
Chloromethane	P	0.191	0.154	-24.0
Vinyl Chloride	C	0.230	0.211	-9.0
Bromomethane		0.238	0.236	-0.8
Chloroethane		0.186	0.168	-10.7
Trichlorofluoromethane		0.854	0.792	-7.8
1,1-Dichloroethene	C	0.369	0.347	-6.3
Iodomethane		0.443	0.453	2.2
Carbon disulfide		0.869	0.843	-3.1
Acetone		0.017	0.031	45.2
Allyl chloride		0.276	0.263	-4.9
Methylene chloride		0.268	0.264	-1.5
Acrylonitrile		0.006	0.006	0.0
trans-1,2-Dichloroethene		0.429	0.402	-6.7
1,1-Dichloroethane	P	0.592	0.576	-2.8
Vinyl acetate		0.069	0.085	18.8
cis-1,2-Dichloroethene		0.369	0.365	-1.1
2-Butanone		0.015	0.032	53.1
Chloroform	C	0.739	0.729	-1.4
1,1,1-Trichloroethane		0.861	0.831	-3.6
1,4-Difluorobenzene	I			
Carbon tetrachloride		0.729	0.732	0.4
Benzene		1.127	1.086	-3.8
1,2-Dichloroethane		0.231	0.242	4.5
Trichloroethene		0.426	0.426	0.0
1,2-Dichloropropane	C	0.225	0.242	7.0
Methyl methacrylate		0.015	0.020	25.0
Bromodichloromethane		0.403	0.428	5.8
cis-1,3-Dichloropropene		0.267	0.311	14.1
4-Methyl-2-pentanone		0.026	0.027	3.7
Toluene	C	0.901	0.883	-2.0
trans-1,3-Dichloropropene		0.147	0.180	18.3
1,1,2-Trichloroethane		0.123	0.134	8.2
Chlorobenzene-d5	I			
Tetrachloroethene		0.532	0.522	-1.9
2-Hexanone	1	0.004	0.018	77.8
Dibromochloromethane		0.201	0.218	7.8
1,2-Dibromoethane		0.151	0.166	9.0

***- Fails QC Criteria for %D; << - Rf less than minimum QC RF; >>- RF greater than maximum QC RF**

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Triangle Laboratories, Inc.
Continuing Calibration Curve

CCAL File: FX944	Date of Analysis :08/21/98	Analyte List: special
ICAL File: ICALF821		

VOST Calibration.

Analyte	Flag	RF0.25	RFMEAN	%D
Chlorobenzene	P	1.046	1.059	1.2
Ethylbenzene	C	0.721	0.703	-2.6
m-/p-Xylene		0.897	0.852	-5.3
o-Xylene		0.712	0.718	0.8
Styrene		0.901	0.922	2.3
Bromoform	P	0.077	0.082	6.1
1,4-Dichlorobenzene-d4	I			
Cumene		6.642	6.279	-5.8
1,1,2,2-Tetrachloroethane	P	0.255	0.272	6.2

Surrogate	Flag	RF0.25	RFMEAN	%D
Dibromofluoromethane	S	0.391	0.393	0.5
Toluene-d8	S	1.146	1.155	0.8
4-Bromofluorobenzene	S	0.362	0.396	8.6

Approved by: PAB Date 8/26/98

*- Fails QC Criteria for %D; << - Rf less than minimum QC RF; >>- RF greater than maximum QC RF

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Continuing Calibration Curve

CCAL File: FX971 Date of Analysis :08/24/98 Analyte List: special
ICAL File: ICALF821

VOST Calibration.

Analyte	Flag	RF0.25	RFMEAN	%D
Pentafluorobenzene	I			
Chloromethane	P	0.123	0.154	20.1
Vinyl Chloride	C	0.212	0.211	-0.5
Bromomethane		0.233	0.236	1.3
Chloroethane		0.166	0.168	1.2
Trichlorofluoromethane		0.616	0.792	22.2
1,1-Dichloroethene	C	0.306	0.347	11.8
Iodomethane		0.567	0.453	-25.2
Carbon disulfide		1.007	0.843	-19.5
Acetone		0.014	0.031	54.8
Allyl chloride		0.226	0.263	14.1
Methylene chloride		0.234	0.264	11.4
Acrylonitrile		0.005	0.006	16.7
trans-1,2-Dichloroethene		0.326	0.402	18.9
1,1-Dichloroethane	P	0.561	0.576	2.6
Vinyl acetate		0.050	0.085	41.2
cis-1,2-Dichloroethene		0.297	0.365	18.6
2-Butanone		0.008	0.032	75.0
Chloroform	C	0.605	0.729	17.0
1,1,1-Trichloroethane		0.643	0.831	22.6
1,4-Difluorobenzene	I			
Carbon tetrachloride		0.802	0.732	-9.6
Benzene		1.365	1.086	-25.7
1,2-Dichloroethane		0.260	0.242	-7.4
Trichloroethene		0.514	0.426	-20.7
1,2-Dichloropropane	C	0.261	0.242	-7.9
Methyl methacrylate		0.016	0.020	20.0
Bromodichloromethane		0.433	0.428	-1.2
cis-1,3-Dichloropropene		0.312	0.311	-0.3
4-Methyl-2-pentanone		0.029	0.027	-7.4
Toluene	C	0.967	0.883	-9.5
trans-1,3-Dichloropropene		0.162	0.180	10.0
1,1,2-Trichloroethane		0.130	0.134	3.0
Chlorobenzene-d5	I			
Tetrachloroethene		0.773	0.522	-48.1
2-Hexanone	1	0.003	0.018	83.3
Dibromochloromethane		0.276	0.218	-26.6
1,2-Dibromoethane		0.184	0.166	-10.8

***- Fails QC Criteria for %D; << - Rf less than minimum QC RF; >>- RF greater than maximum QC RF**

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Continuing Calibration Curve

CCAL File: FX971 ICAL File: ICALF821	Date of Analysis :08/24/98	Analyte List: special

VOST Calibration.

Analyte	Flag	RF0.25	RFMEAN	%D
Chlorobenzene	P	1.149	1.059	-8.5
Ethylbenzene	C	0.791	0.703	-12.5
m-/p-Xylene		0.986	0.852	-15.7
o-Xylene		0.801	0.718	-11.6
Styrene		0.998	0.922	-8.2
Bromoform	P	0.109	0.082	-32.9
1,4-Dichlorobenzene-d4	I			
Cumene		6.434	6.279	-2.5
1,1,2,2-Tetrachloroethane	P	0.257	0.272	5.5

Surrogate	Flag	RF0.25	RFMEAN	%D
Dibromofluoromethane	S	0.308	0.393	21.6
Toluene-d8	S	1.230	1.155	-6.5
4-Bromofluorobenzene	S	0.379	0.396	4.3

Approved by: PAB Date 8/26/98

*- Fails QC Criteria for %D; << - Rf less than minimum QC RF; >>- RF greater than maximum QC RF

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Triangle Laboratories, Inc.
Initial Calibration Curve

ICAL File: ICALH809 Date of Analysis :08/09/98 Analyte List: short
RF0.50 HW557

VOST Calibration.

Analyte	Flag	RF0.50	MEAN	%RSD	
Pentafluorobenzene	I				
1,3-Butadiene		0.446	0.446	0.0	
Vinyl bromide		0.502	0.502	0.0	
MTBE		0.124	0.124	0.0	
n-Hexane		0.692	0.692	0.0	
1,2-Epoxybutane		0.005	0.005	0.0	<<
Iso-Octane		1.536	1.536	0.0	
1,4-Difluorobenzene	I				
Ethyl acrylate		0.230	0.230	0.0	
Average %RSD				0.0	

Approved by: EWB Date 8/10/98

*- Fails QC Criteria for %RSD; << - RF less than minimum QC RF; >> - RF greater than maximum QC RF

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Triangle Laboratories, Inc.
Continuing Calibration Curve

CCAL File: HW557	Date of Analysis :08/09/98	Analyte List: short
ICAL File: ICALH809		

VOST Calibration.

Analyte	Flag	RF0.50	RFMEAN	%D	
Pentafluorobenzene	I				
1,3-Butadiene		0.446	0.446	0.0	
Vinyl bromide		0.502	0.502	0.0	
MTBE		0.124	0.124	0.0	
n-Hexane		0.692	0.692	0.0	
1,2-Epoxybutane		0.005	0.005	0.0	<<
Iso-Octane		1.536	1.536	0.0	
1,4-Difluorobenzene	I				
Ethyl acrylate		0.230	0.230	0.0	

Approved by: GaB Date 8 / 10 / 98

*- Fails QC Criteria for %D; << - Rf less than minimum QC RF; >>- RF greater than maximum QC RF

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Triangle Laboratories, Inc.
Initial Calibration Curve

ICAL File: ICALF821 Date of Analysis :08/21/98 Analyte List: short
RF0.50 FX950

VOST Calibration.

Analyte	Flag	RF0.50	MEAN	%RSD	
Pentafluorobenzene	I				
1,3-Butadiene		0.163	0.163	0.0	
Vinyl bromide		0.321	0.321	0.0	
MTBE		0.362	0.362	0.0	
n-Hexane		0.500	0.500	0.0	
1,2-Epoxybutane		0.006	0.006	0.0	<<
Iso-Octane		1.726	1.726	0.0	
1,4-Difluorobenzene	I				
Ethyl acrylate		0.032	0.032	0.0	
Average %RSD				0.0	

Approved by: PaB Date 8/25/98

*- Fails QC Criteria for %RSD; << - RF less than minimum QC RF; >> - RF greater than maximum QC RF

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Triangle Laboratories, Inc.
Continuing Calibration Curve

CCAL File: FX950	Date of Analysis :08/21/98	Analyte List: short
ICAL File: ICALF821		

VOST Calibration.

Analyte	Flag	RF0.50	RFMEAN	%D	
Pentafluorobenzene	I				
1,3-Butadiene		0.163	0.163	0.0	
Vinyl bromide		0.321	0.321	0.0	
MTBE		0.362	0.362	0.0	
n-Hexane		0.500	0.500	0.0	
1,2-Epoxybutane		0.006	0.006	0.0	<<
Iso-Octane		1.726	1.726	0.0	
1,4-Difluorobenzene	I				
Ethyl acrylate		0.032	0.032	0.0	
Chlorobenzene-d5	I				
1,4-Dichlorobenzene-d4	I				

Surrogate	Flag	RF0.50	RFMEAN	%D
Dibromofluoromethane	S	0.202	0.202	0.0
Toluene-d8	S	0.593	0.593	0.0
4-Bromofluorobenzene	S	0.091	0.091	0.0

Approved by: PAB Date 8/25/98

*- Fails QC Criteria for %D; << - Rf less than minimum QC RF; >>- RF greater than maximum QC RF

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Initial Calibration Curve

ICAL File: ICALF824 Date of Analysis :08/24/98 Analyte List: short
RF0.50 FX972

VOST Calibration.

Analyte	Flag	RF0.50	MEAN	%RSD	
Pentafluorobenzene	I				
1,3-Butadiene		0.140	0.140	0.0	
Vinyl bromide		0.272	0.272	0.0	
MTBE		0.225	0.225	0.0	
n-Hexane		0.488	0.488	0.0	
1,2-Epoxybutane		0.005	0.005	0.0	<<
Iso-Octane		1.687	1.687	0.0	
1,4-Difluorobenzene	I				
Ethyl acrylate		0.018	0.018	0.0	
Average %RSD				0.0	

Approved by: GAB Date 8/25/98

*- Fails QC Criteria for %RSD; << - RF less than minimum QC RF; >> - RF greater than maximum QC RF

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Continuing Calibration Curve

CCAL File: FX972	Date of Analysis :08/24/98	Analyte List: short
ICAL File: ICALF824		

VOST Calibration.

Analyte	Flag	RF0.50	RFMEAN	%D	
Pentafluorobenzene	I				
1,3-Butadiene		0.140	0.140	0.0	
Vinyl bromide		0.272	0.272	0.0	
MTBE		0.225	0.225	0.0	
n-Hexane		0.488	0.488	0.0	
1,2-Epoxybutane		0.005	0.005	0.0	<<
Iso-Octane		1.687	1.687	0.0	
1,4-Difluorobenzene	I				
Ethyl acrylate		0.018	0.018	0.0	

Approved by: PaB Date 8/25/98

***- Fails QC Criteria for %D; << - Rf less than minimum QC RF; >>- RF greater than maximum QC RF**

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TECHNICAL REPORT DATA

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4. TITLE AND SUBTITLE Final Report Hot Mix Asphalt Plants, Truck Loading and Silo Filling, Manual Methods Testing, Asphalt Plant C, Los Angeles, California Volume 7 of 8		5. REPORT DATE May 2000 6. PERFORMING ORGANIZATION CODE
7. AUTHOR(S) Frank J. Phoenix		8. PERFORMING ORGANIZATION REPORT NO.
9. PERFORMING ORGANIZATION NAME AND ADDRESS Pacific Environmental Services, Inc. Post Office Box 12077 Research Triangle Park, North Carolina 27709-2077		10. PROGRAM ELEMENT NO. 11. CONTRACT/GRANT NO. 68-D-98004
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15. SUPPLEMENTARY NOTES

16. ABSTRACT

The United States Environmental Protection Agency (EPA) Office of Air Quality Planning and Standards (OAQPS) is investigating hot mix asphalt plants to identify and quantify particulate matter (PM), methylene chloride extractable matter (MCEM), and organic hazardous air pollutant (HAP) emissions during asphalt concrete loading operations. In support of this investigation, the OAQPS issued Pacific Environmental Services, Inc. (PES) a series of work assignments to conduct emissions testing at a hot mix asphalt plant during load-out operations.

The primary objective of the emissions testing was to characterize the uncontrolled emissions of PM, MCEM, polynuclear aromatic hydrocarbons (PAHs), semi-volatile organic hazardous air pollutants (SVOHAPS), and volatile organic hazardous air pollutants (VOHAPS) from a hox mix production plant during loading operations. An asphalt plant south of Los Angeles, California was selected by EPA as the host facility. Testing was performed over five consecutive days beginning on July 24, 1998. Testing was performed under two conditions. Under normal operations, testing was performed to characterize load-out emissions from the tunnel exhaust and load-in emissions from the asphalt concrete storage silo. Under background conditions, testing was performed to characterize emissions from the combustion of diesel fuel in transport trucks.

The entire report consists of eight volumes totaling 4,234 pages, Vol. 1 (388 pages), Vol. 2 (308 pages), Vol. 3 (573 pages), Vol. 4 (694 pages), Vol. 5 (606 pages), Vol. 6 (564 pages), Vol. 7 (570 pages), and Vol. 8 (531 pages).

17. KEY WORDS AND DOCUMENT ANALYSIS

a. DESCRIPTIONS	b. IDENTIFIERS/OPEN ENDED TERMS	c. COASTI Field/Group
Hazardous Air Pollutants Methylene Chloride Extractable Matter Particulate Matter Polynuclear Aromatic Hydrocarbons Semi-volatile Organic Hazardous Air Pollutants Volatile Organic Hazardous Air Pollutants		

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