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# SITE INVESTIGATION REPORT FOR THE CLOSURE OF TWO UNDERGROUND STORAGE TANKS NWS EARLE NJ

9/20/1993

ROY F. WESTON, INC.

# SITE INVESTIGATION REPORT FOR THE CLOSURE OF TWO UNDERGROUND STORAGE TANKS NAVAL WEAPONS STATION EARLE COLTS NECK, NEW JERSEY

20 September 1993

Prepared for:

DEPARTMENT OF THE NAVY
Officer in Charge
NAVFAC Contracts
Naval Weapons Station Earle
Building C-23
Colts Neck, New Jersey 07722-5000

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NAVFAC CONTRACTS
EARLE

W.O. # 10240-001-001

George R. Weiss
Senior Project Manager
NJDEPE UST Registration No. 0002112

Richard M. Leuser, P.E.
New Jersey P.E. Registration No. 23275

Prepared by:
ROY F. WESTON, INC.
One Weston Way
West Chester, Pennsylvania 19380

000000288

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# SECTION 1
# INTRODUCTION

## 1.1 Project Description

The United States Navy has abandoned one 18-year-old (1) 1,000 gallon and one 28-year-old (1) 5,000 gallon coated steel underground storage tank (UST) that contained No. 2 fuel oil at their Colts Neck, New Jersey facility, Naval Weapons Station Earle (NWS Earle). The facility registration number for NWS Earle is UST-0151003. On behalf of the United States Navy, Roy F. Weston, Inc. (WESTON) performed the closure in accordance with the approved tank closure plan (TMS Nos. C-93-1297 and C-93-1298) dated 29 March 1993. Copies of the closure approvals are located in Appendix A. This report addresses the closure of the tanks located adjacent to Buildings C7 and C8.

WESTON is submitting this Site Investigation Report in accordance with the New Jersey Department of Environmental Protection and Energy (NJDEPE) Bureau of Underground Storage Tanks (BUST) guidelines entitled "Interim Closure Requirements for Underground Storage Tank Systems" dated September 1990 and N.J.A.C. 7:26E, "The Technical Requirements for Site Remediation".

## 1.2 Site Description and History

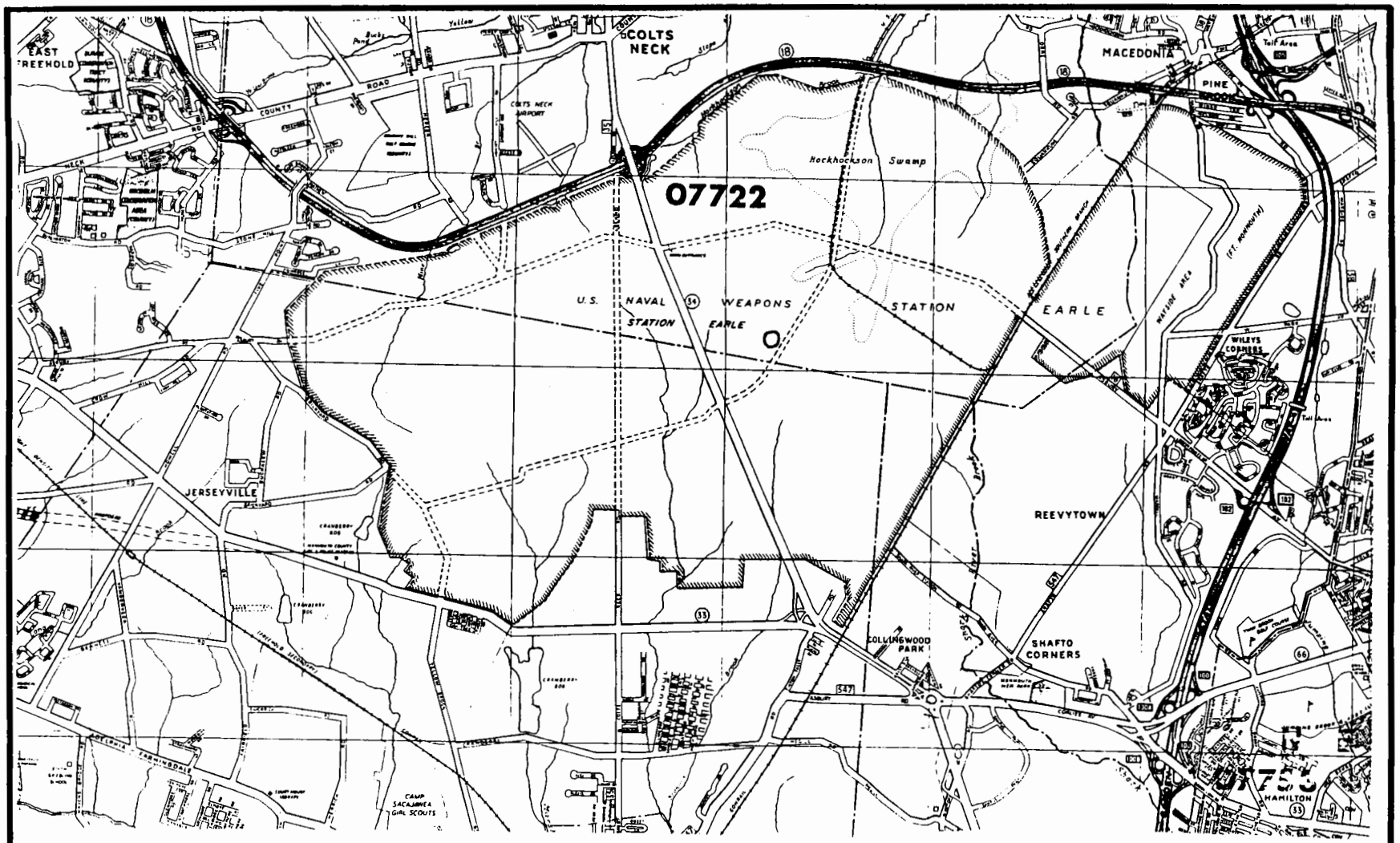
The NWS Earle consists of two geographical areas. The main section (referred to as the Inland Area), of NWS Earle is located in Colts Neck, New Jersey and encompasses an area of approximately 9 square miles (Figure 1-1). The other section of NWS Earle is located adjacent to Leonardo, New Jersey and is referred to as the Waterfront Area (Figure 1-2). Both sections of NWS Earle are in Monmouth County and are connected by a government road approximately 13 miles in length. The tanks addressed in this summary (C7 and C8) are located at the Inland Area facility.

The tank removals and closures are being conducted as a result of a Navy Program to convert existing fuel oil heating processes to natural gas. This effort is expected to last several years.

## 1.3 Regional Geology

The NWS Earle sites are located in Monmouth County, New Jersey. Monmouth County lies within the New Jersey Coastal Plain province. The NWS Earle sites are located in what may be referred to as the Outer Coastal Plain subprovince, or the Outer Lowlands.

In general, the sediments of the New Jersey, or "Atlantic" Coastal Plain consist of a seaward-dipping wedge of unconsolidated deposits of sand with some clay, silt and gravel. These sediments, predominantly derived from deltaic, shallow marine, and continental shelf environments, date from Cretaceous through the Quaternary Periods. The formations



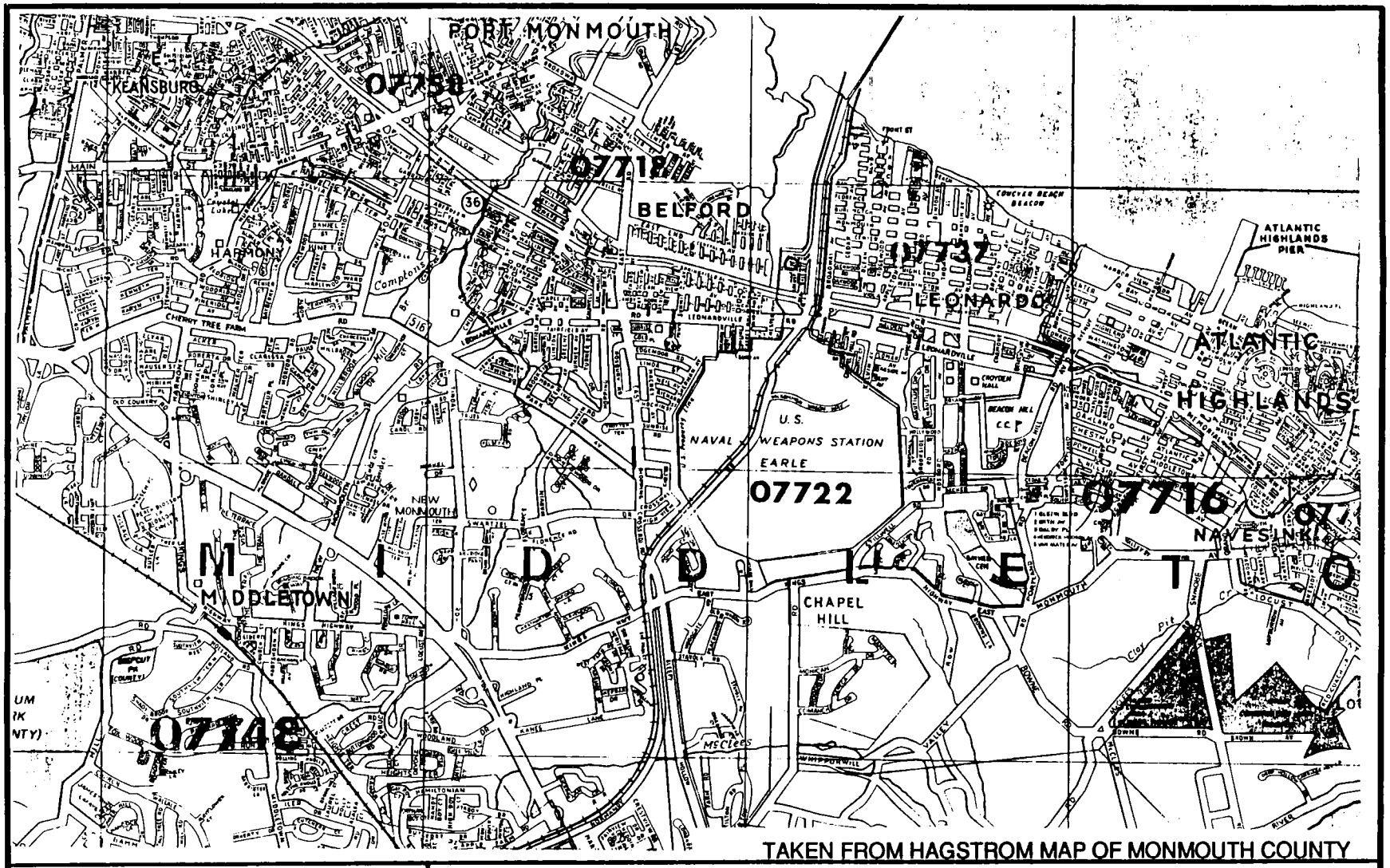

TAKEN FROM HAGSTROM MAP OF MONMOUTH COUNTY

FIGURE 1-1

WESTON
MANAGERS DESIGNERS/CONSULTANTS

SITE LOCATION MAP
INLAND AREA - COLTS NECK, NEW JERSEY

NAVAL WEAPONS STATION EARLE




TAKEN FROM HAGSTROM MAP OF MONMOUTH COUNTY

FIGURE 1-2

WESTON
MANAGERS DESIGNERS/CONSULTANTS

SITE LOCATION MAP
WATERFRONT AREA - LEONARDO, NEW JERSEY

NAVAL WEAPONS STATION EARLE

## SECTION 2
## TANK CLOSURE ACTIVITIES

### 2.1 Tank Closure Activities - General

The activities described in this report represent the closure of USTs adjacent to Buildings C7 and C8; 1,000 gallons and 5,000 gallons , respectively. The tanks were used to store No. 2 heating oil and oriented as illustrated in Figures 2-1 and 2-2. Both buildings are located at the Inland Area.

Prior to removal activities, tank liquid measurements were taken. On 25 May 1993, the pumping of liquids from both tanks C7 and C8 began. Approximately 600 gallons of virgin No. 2 fuel oil was pumped from tank C7 and 3500 gallons from tank C8. At this time, the occupants of both buildings were notified of the removal activities. Also, underground and overhead utilities were surveyed and marked.

Removal activities began on 27 May 1993 with the breaking of the concrete overlaying C7 tank and at C8 on 28 May 1993. Additional sludge and oil/water mixture was removed from the tanks prior to removal of soils above the tanks. Upon receipt of hot work and excavation permits, both tanks were uncovered, inerted with nitrogen, and the openings widened.

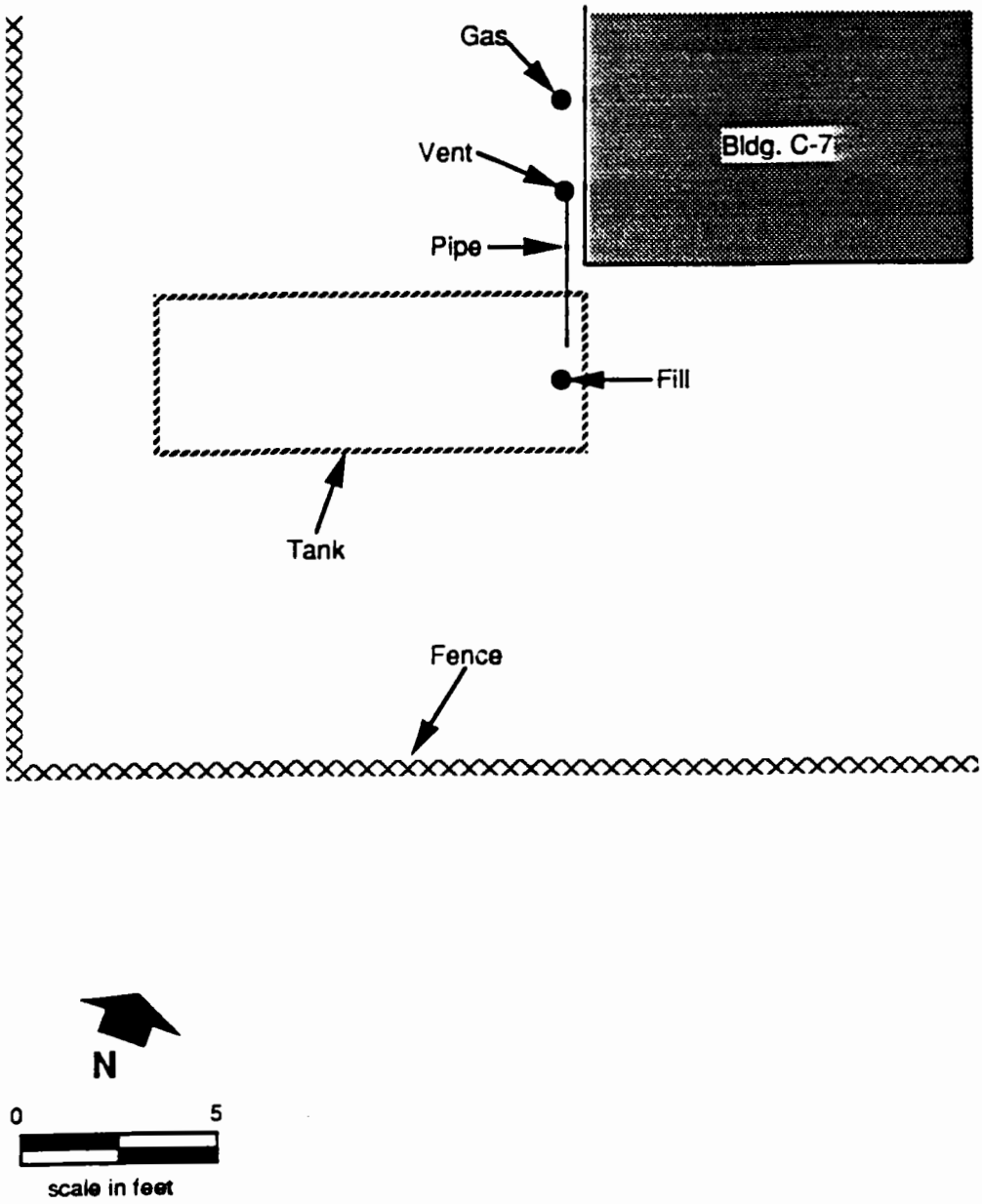
As Tank C8 was uncovered, it was discovered that the orientation differed from that which was reported in the facility's documents. Utility gas lines and a fenced high voltage area were located adjacent to the excavation zone. The section of fence closest to the excavation was removed and the gas company was called to inspect the gas lines and advise on safely continuing excavation.

All piping associated with the tanks was flushed and capped at the edge of the excavation prior to cleaning of the tanks. After pressure washing of the tanks, the resulting liquids and sludge were removed. Approximately 93 gallons of oil/water mixture was removed from Tank C7 and approximately 684 gallons from Tank C8. The oil/water mixture was transported to the Naval facility's oil/water separator located at Building R9.

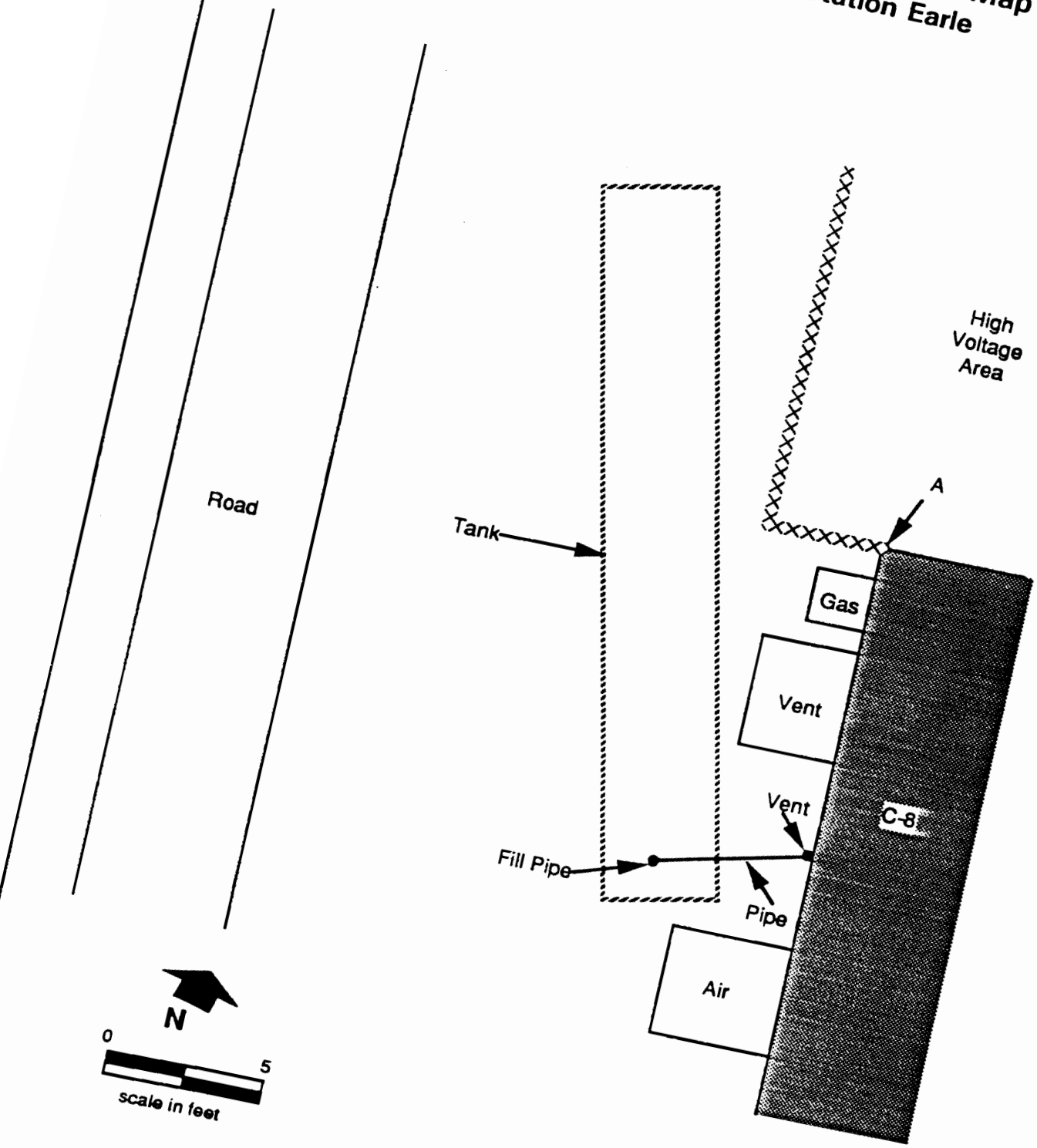
Visual contamination was observed during excavation of both tanks. Contaminated soil was excavated to a depth of approximately 8 feet at Tank C7, generating at least 15 $yd^3$ of contaminated soil. Approximately 80-90 $yd^3$ of contaminated soil was removed from the Tank C8 excavation prior to reaching the groundwater level at 10 feet. All contaminated soils were staged on polysheeting and covered.

It was apparent that both tanks were rusted and pitted but no holes or breaks were observed. It is suspected that any release to the environment was due to spillage during filling.

# FIGURE 2-1
## Building C7 UST Location Map
## Naval Weapons Station Earle



# FIGURE 2-2
## Building C8/02 UST Location Map
## Naval Weapons Station Earle



Both excavations were back-filled with 3/4 inch crushed stone compacted in 6 inch lifts to grade level. At Tank C8, utility lines were replaced as per the instructions from the gas company. All paving and concrete was replaced as in original conditions.

## 2.2 Excavated Material Management

### 2.2.1 Tank and Piping

The removed tanks and piping were cleaned by pressure washing, rendered unusable, and disposed of through a licensed scrap metal recycler. The tanks were labeled with the origin, disposal destination, and contents prior to leaving the site. The receipts from the metal recycler are included in Appendix B.

### 2.2.2 Excavated Soil

During excavation, all overburden soils (that which was removed from above the tank) were considered clean and staged separately for later use as backfill. The soils were screened for volatile organic vapors to confirm the absence of contamination.

All soils removed from the top of the tank level and below were considered contaminated. All contaminated soils were staged on poly-sheeting and covered to await disposal. Contaminated soils were transported to a facility in Mt. Hope, NJ for treatment through a rotary kiln and recycling. The manifests can be found in Appendix B.

### 2.2.3 Tank Fluids

Prior to cleaning of the tanks, the remaining No. 2 fuel oil was collected by a fuel oil recycler. Approximately 600 gallons of No. 2 fuel oil was collected from Tank C7 and 3500 gallons from Tank C8. After tank cleaning, approximately 800 gallons (Tanks C7 and C8 combined) of the oil/water mixture was transported to the Naval facility's oil water separator.

## 2.3 Site Assessment

**Building C7**

The removal activities for the Building C7 underground storage tank occurred on 9 June, 1993. After the tank had been thoroughly cleaned and removed from the excavation, an inspection of the hole was completed. Using field monitoring instruments (HNu 10.2 eV), visual inspection, and the soil/water agitation test, it was determined that there had been a release to the environment and the NJDEPE was immediately notified (Incident #93-6-10-1328-10). The letter reporting the release is included in Appendix C. The identified contamination was limited to one end of the excavation where the fill port was located. Visually contaminated soil was removed from the excavation until structural constraints from

the adjacent building were encountered. Groundwater was also starting to enter the excavation from the sidewall at a depth of approximately 5 feet.

Five (5) soil samples were collected, on 9 June 1993, following the removal activities. Three of the soil samples were collected along the center line of the excavation at 5 foot intervals and two additional samples were collected in areas of suspected highest concentration. All samples were collected using field decontaminated stainless steel sampling equipment. Two laboratory prepared sample bottles were filled for each sample location. The volatile organics sample bottle was filled and sealed before collection of the Total Petroleum Hydrocarbons sample. The location and depths of these samples are illustrated in Figure 2-3. A field blank was collected by running laboratory prepared deionized water over the decontaminated sampling equipment.

All samples were analyzed for Total Petroleum Hydrocarbons (TPHC), with 25% to be analyzed for VOA's if any sample exceeded 1,000 ppm for TPHC. The samples were placed on ice and delivered overnight to a NJDEPE-certified laboratory, American Environmental Network, Inc. (Certification Number 60056), located in Columbia, Maryland.

**Building C8**

The removal activities for the Building C8 underground storage tank occurred on 10 June 1993 after the tank had been thoroughly cleaned and removed from the excavation and inspection of the hole was completed. Using a field monitoring instrument (HNu 10.2 eV), and visual inspection, and it was determined that there had been a release to the environment, the NJDEPE was immediately notified (Incident #93-6-11-0756-05). The letter reporting the release is included in Appendix C. Identifiable contamination was noticed all along the excavation. Visually contaminated soil was removed from the excavation until structural constraints from the adjacent building were encountered. Groundwater was also starting to enter the excavation from the sidewalls at a depth of approximately 10 feet. Groundwater was measured at 8 feet below surface at SS1 and 10 feet six inches at SS6 sampling points.

Seven (7) soil samples were collected, on 10 June 1993, following the removal activities. Five (5) of these soil samples were collected along the center line of the excavation at five foot intervals and two additional samples were collected in areas of suspected highest concentration. The locations and depths of these samples are illustrated in Figure 2-4. All samples were collected using decontaminated stainless steel sampling equipment. Two (2) laboratory prepared sample bottles were filled for each sample location with the VOA sample bottle being filled prior to mixing for the TPHC sample bottle. A field blank was also collected by running laboratory prepared deionized water over the decontaminated sampling equipment.

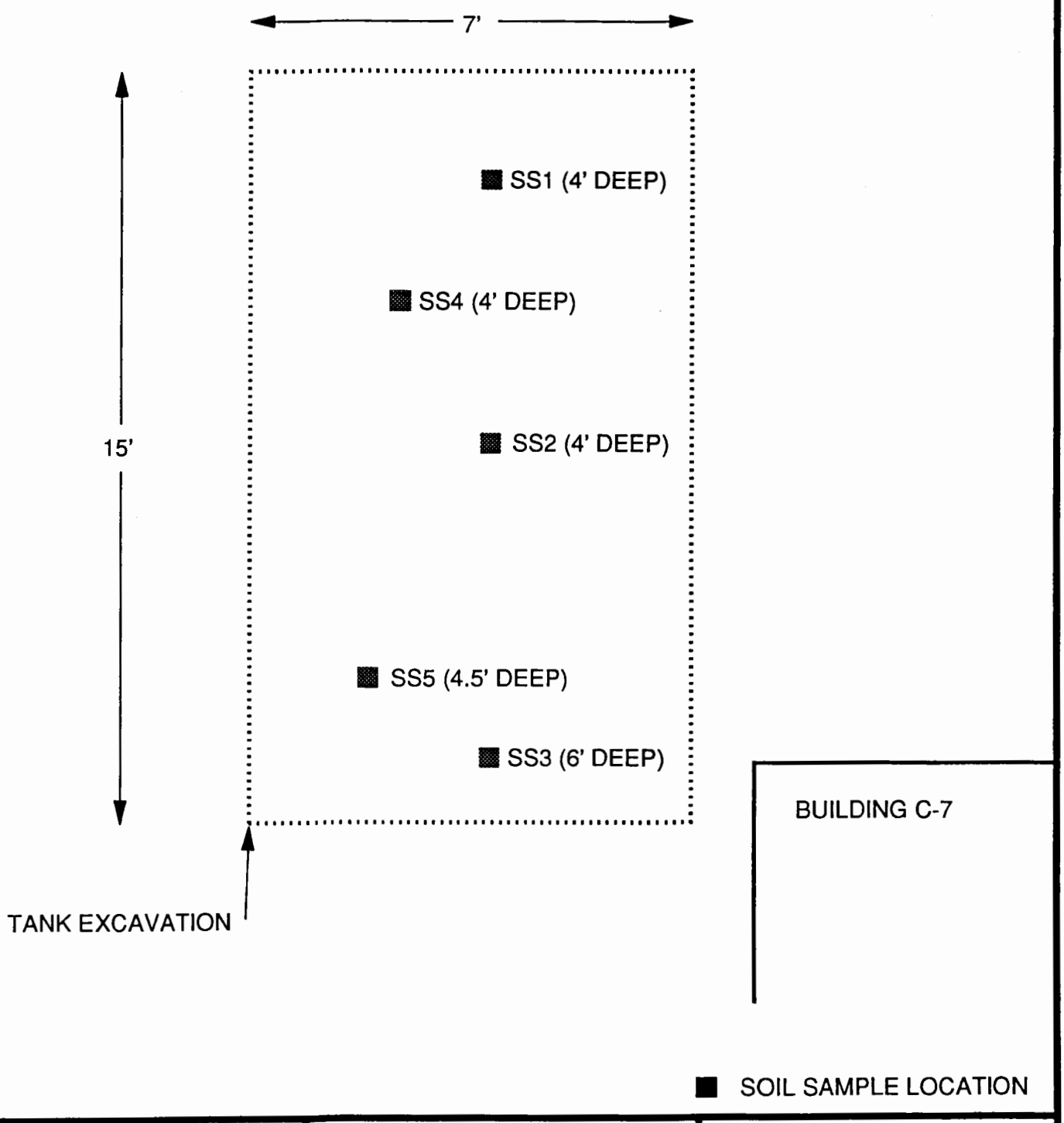
All samples were analyzed for Total Petroleum Hydrocarbons (TPHC) with 25% to be analyzed for VO+10 if any of the seven samples exceeded 1,000 ppm for TPHC. The

samples were placed on ice and delivered overnight to American Environmental Network, Inc.

**Table 2-1**
**Summary of Sampling and Analysis**

| UST System | Size (gal) | Contents | Number of QC Samples | Number of Post Excavation Samples | Analytical Parameter |
|---|---|---|---|---|---|
| C7 | 1000 Coated Steel | No. 2 Fuel Oil | 1 Field Blank | 5 | TPHC* |
| C8 | 5000 Coated Steel | No. 2 Fuel Oil | 1 Field Blank | 7 | TPHC* |

* Total Petroleum Hydrocarbons analysis of soil using EPA Method 418, modified for soils.

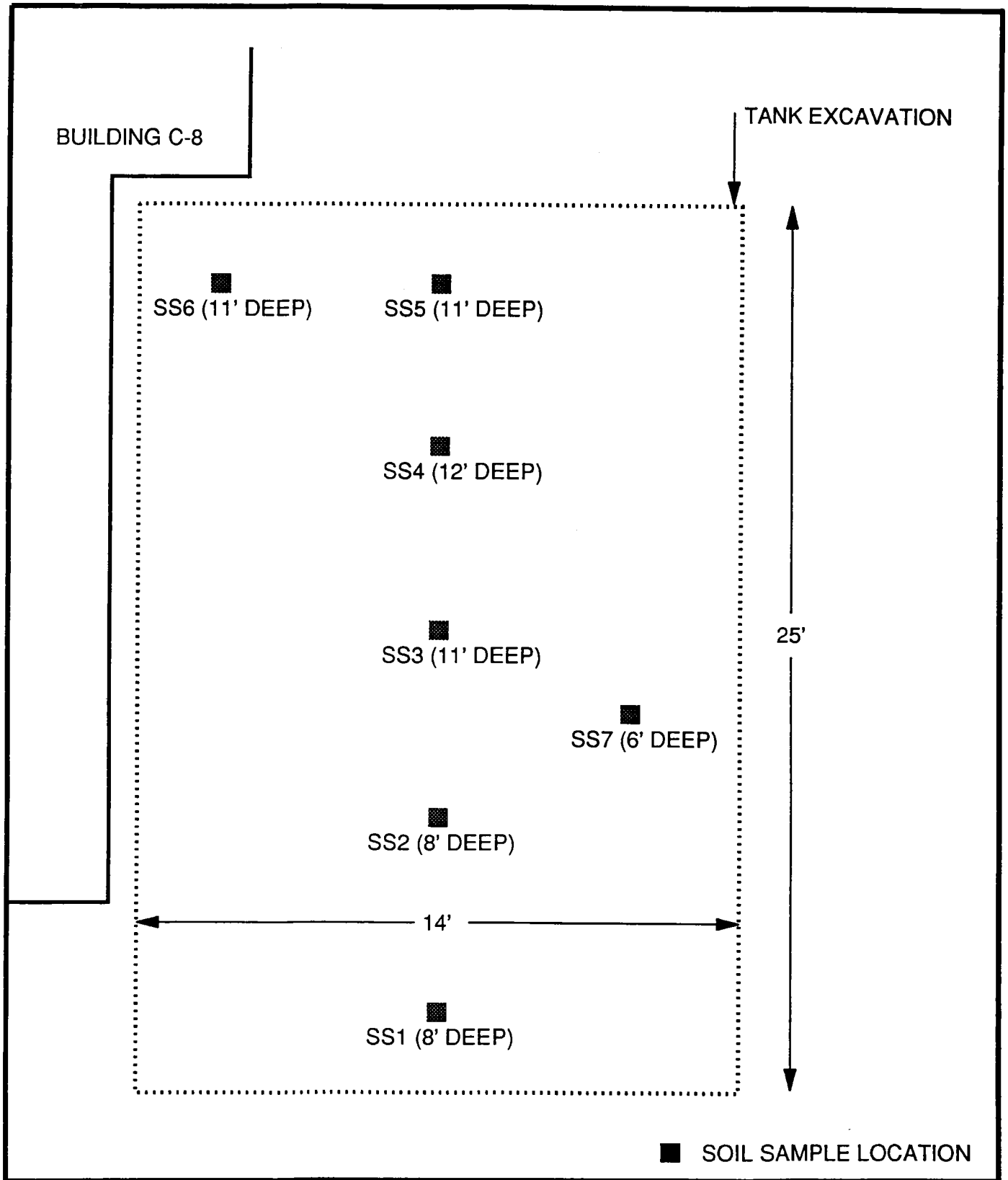



WESTON MANAGERS DESIGNERS/CONSULTANTS

SOIL SAMPLE LOCATIONS

FIGURE 2-3

BUILDING C-7
NWS-EARLE
COLTS NECK, N.J.




WESTON MANAGERS DESIGNERS/CONSULTANTS

SOIL SAMPLE LOCATIONS

FIGURE 2-4

BUILDING C-8
NWS-EARLE
COLTS NECK, N.J.

# SECTION 3

# SAMPLING RESULTS

## 3.1 Soil Sampling Results

Soil samples for Tanks C7 and C8 were collected on 9 June 1993 and 10 June 1993, respectively and sent, via common carrier, to American Environmental Network, Inc. in Columbia, Maryland. A summary of sample identification, locations, and analysis performed is provided in Table 3-1. All sample results were reported by July 6 July 1993 and are presented in Table 3-2. The full data packages are provided in Appendix D.

In the Tank C7 excavation, no TPHC levels were detected above the detection limit, which was 30 ppm (30 mg/kg). Two samples (SS1 and SS5) from the Tank C8 excavation contained TPHC concentrations above 1,000 ppm. The detected sample concentrations for TPHC ranged form 80 ppm in Sample SS6 to 9190 ppm in Sample SS5. The two samples exceeding 1,000 ppm TPHC were then analyzed for volatile organics (VO+10). The results are presented in Table 3-2. Many volatile organic compounds were reported as either having been detected in the samples or as an estimated value due to being below detection limits.

**TABLE 3-1**

**SAMPLE IDENTIFICATION, LOCATIONS, AND ANALYSIS SUMMARY**

| Sample Name | Location Description | Date Collected | Matrix | Analysis Performed |
|---|---|---|---|---|
| Tank C7 | | | | |
| NEC7-69-SS1 | West end centerline @ 4' depth | 6-09-93 | SOIL | TPHC |
| NEC7-69-SS2 | Middle of centerline @ 4' depth | 6-09-93 | SOIL | TPHC |
| NEC7-69-SS3 | East end centerline @ 6' depth | 6-09-93 | SOIL | TPHC |
| NEC7-69-SS4 | Midpoint between SS1 and SS2, south of centerline @ 4' depth | 6-09-93 | SOIL | TPHC |
| NEC7-69-SS5 | South of centerline near SS3 @ 4.5' depth | 6-09-93 | SOIL | TPHC |
| Tank C8 | | | | |
| NEC8-610-SS1 | Center Line @ 8' depth | 6-10-93 | SOIL | TPHC<br>VO+10 |
| NEC8-610-SS2 | Center Line @ 8' depth | 6-10-93 | SOIL | TPHC |
| NEC8-610-SS3 | Center Line @ 11' depth | 6-10-93 | SOIL | TPHC |
| NEC8-610-SS4 | Center Line @ 12' depth | 6-10-93 | SOIL | TPHC |
| NEC8-610-SS5 | Center Line @ 11' depth | 6-10-93 | SOIL | TPHC<br>VO+10 |
| NEC8-610-SS6 | Southeast corner of excavation @ 11' depth | 6-10-93 | SOIL | TPHC |
| NEC8-610-SS7 | West wall of excavation @ 6' depth | 6-10-93 | SOIL | TPHC |
| NEC8-610-SSFB | Field Blank | 6-10-93 | WATER | VO+10 |

**TABLE 3-1**

**SAMPLE IDENTIFICATION, LOCATIONS, AND ANALYSIS SUMMARY**

| Sample Name | Location Description | Date Collected | Matrix | Analysis Performed |
|---|---|---|---|---|
| C8 *Continued* | | | | |
| NEC7C8-610-DIS | C7 and C8 Soil Composite for Disposal | 6-10-93 | SOIL | TPHC<br>VO+10<br>Flash Pt.<br>pH<br>CN,S-<br>Reactivity<br>PCB<br>TCLP-Metals |

**TABLE 3-2**

**TPHC ANALYTICAL RESULTS**

| Sample Number | Detection Limit | TPHC Concentration |
|---|---|---|
| C7 Excavation Samples | | |
| NEC7-69-SS1 | 30 mg/Kg | <DL |
| NEC7-69-SS2 | 30 mg/Kg | <DL |
| NEC7-69-SS3 | 30 mg/Kg | <DL |
| NEC7-69-SS4 | 30 mg/Kg | <DL |
| NEC7-69-SS5 | 30 mg/Kg | <DL |
| BLANK | 30 mg/Kg | <DL |
| C8 Excavation Samples | | |
| NEC8-610-SS1 | 30 | 1910 |
| NEC8-610-SS2 | 30 | 210 |
| NEC8-610-SS3 | 40 | ND |
| NEC8-610-SS4 | 30 | ND |
| NEC8-610-SS5 | 650 | 9190 |
| NEC8-610-SS6 | 40 | 80 |
| NEC8-610-SS7 | 30 | ND |
| NEC8-610-SSFB | 30 | ND |

## TABLE 3-3

## VOLATILE ORGANICS ANALYTICAL RESULTS

| Volatile Organic Compound | NEC8-610-SS1 (ug/Kg) | NEC8-610-SS1 (1:10) (ug/Kg) | NEC8-610-SS5 (ug/Kg) | NEC8-610-SSFB (ug/L) |
|---|---|---|---|---|
| Methylene Chloride | | | 1600 B | 12 B |
| Acetone | 2100 B | 470000 JB | 2000 JB | 56 JB |
| Carbon Disulfide | | | 1000 B | 17 B |
| 1,2-Dichloroethane | | | 520 J | |
| Trichloroethene | | | 350 J | |
| Benzene | 400 J | | | |
| 4-Methyl-2-Pentanone | 240000 | 1500000 | 2500 J | |
| 2-Hexanone | 47000 | 300000J | 930 J | |
| 1,1,2,2-Tetrachloroethane | 4400 | | 180 J | |
| Toluene | 18000 | 110000 | | |
| Ethylbenzene | 69000 | 540000 | 780 | |
| Styrene | | | 490 J | |
| m + p-Xylenes | 310000 | 2100000 | 1100 | |
| o-Xylene | 28000 | 180000 | 560 J | |
| VO + 10 Tentatively Identified Compounds | | | | |
| 2-Methyl-Pentane | 10000 J | | | |
| Unknown | 29000 J | | | |
| Unknown | 31000 J | | | |
| Octane (DOT) | 38000 J | | | |
| 4-Methyl-octane | 14000 J | | | |
| Nonane | 7100 J | | | |
| 1-Ethyl-2-methyl-benzene | 18000 J | | | |
| 1,3,5-Trimethyl-9-benzene | 14000 J | | | |
| 1-Methyl-3-Propylbenzene | 6000 J | | 15000 J | |
| 2-Ethyl-1,4-dimethylbenzene | 6000 J | | | |

| Volatile Organic Compound | NEC8-610-SS1 (ug/Kg) | NEC8-610-SS1 (1:10) (ug/Kg) | NEC8-610-SS5 (ug/Kg) | NEC8-610-SSFB (ug/L) |
|---|---|---|---|---|
| Methylcyclohexane | | 1500000 J | | |
| Unknown | | 1500000 J | | |
| Unknown | | 2000000 J | | |
| 4,5-Dimethylnonane | | 2700000 J | | |
| 1,2-Dibromoethane | | 2500000 JB | | |
| 1-Ethyl-3-methylbenzene | | 4800000 J | 16000 J | |
| 1,2,3-Trimethylbenzene | | 4000000 J | 16000 J | |
| 1-Methylethylbenzene | | 1700000 JB | | |
| 1-Ethyl-3,5-dimethylbenzene | | 1700000 J | | |
| 2,3-Dihydro-1,2-d1H-Indene | | 1600000 J | | |
| 1-Methylnaphthalene | | | 12000 J | |
| 1-Methyl-3,1-methylbenzene | | | 14000 J | |
| 2-Ethyl-1,3-Dimethylbenzene | | | 30000 J | |
| 2,3-Dihydro-1-methyl-1H-Indene | | | 14000 J | |
| 2,3-Dihydro-1,3-d-1H-Indene | | | 280000 J | |
| Naphthalene (ACN)(DOT) | | | 20000 J | |
| 2,3-Dihydro-4,7-d-1H-Indene | | | 19000 J | |
| Unknown | | | | 170 B |
| 3-Methylpentane | | | | 5 J |
| 1,4-Dichlorobenzene d-4 | | | | 21 J |
| 1,4-Dichlorobenzene d-4 | | | | 8 JB |
| Nonanal | | | | 6 J |
| Unknown | | | | 7 J |

J = Indicates an estimated value. The mass spectral data indicate the presence of the compound that meets the identification criteria. However, the result is less than the sample quantitation limit but greater than zero.

B = Indicates that the compound is found in the associated blank as well as in the sample, a possible indication of blank contamination.

## 3.2 Reliability of Analytical Data

In order to generate analytical data of known and defensible quality, adherence to established quality assurance protocols were used. To ensure that the samples obtained in the field represented the particular environment from which they were collected and were of satisfactory quality, field sampling and laboratory analysis were performed in accordance with NJDEPE's Field Sampling Procedure Manual (May 1992) and the Technical Requirements for Site Remediation (N.J.A.C. 7:26E-1 et seq.) The following sections discuss the sampling and handling procedures used.

### 3.2.1 Sampling Methods

Verification soil samples were obtained in accordance with NJDEPE sampling protocols. Stainless steel bucket augers were decontaminated and used to collect the samples from the excavation. The decontamination steps were as follows:

1. Detergent scrub
2. Tap water rinse
3. Distilled water rinse
4. Methyl alcohol rinse
5. Distilled water rinse
6. Air dry

### 3.2.2 Sample Handling and Preservation

Soil was removed from the hand auger and place into laboratory cleaned jars. The type and size of the jars were matched to the intended analytical procedure. Soil sample were then labeled and placed into a cooler filled with ice. The samples were maintained at approximately 4 degrees Centigrade using ice until being transported to the lab. At the lab, the samples were transferred to a refrigerator until analysis was begun.

The field blank was obtained by pouring analyte-free water, supplied by the lab through a field decontaminated split spoon sample.

### 3.2.3 Sample Handling Times

From a comparison of the sampling and analysis dates, all analyses were performed within the NJDEPE's prescribed sample holding times.

### 3.2.4 Quality Assurance Samples

Field blanks were collected for the soil samples as required by the NJDEPE's Field Sampling Procedures Manual. Since only twelve (12) samples were collected, one field blank was collected. The field blank was analyzed for all of the parameters being tested.

The Field Sampling Procedures Manual does not require trip blanks for soil (non-aqueous) samples. No trip blanks were taken. Duplicate samples were not obtained as part of this sampling effort.

### 3.2.5 Method Detection Limits

All of the analyses performed had method detection limits (MDLs) that were at or below the NJDEPE's proposed Soil Cleanup Criteria levels.

## SECTION 4

## DISCUSSION AND RECOMMENDATIONS

Based on the analytical results indicating that no contamination was found in the Tank C7 excavation, it can be concluded that the integrity of Tank C7 was good and no release to the environment occurred. It can be concluded that no further remedial action is required for Tank C7.

Though the TPHC results of Tank C8 post-excavation samples were below NJDEPE limits, the VO+10 analysis results indicated levels of several VOC's which exceed NJ cleanup criteria. Due to the levels at which VOC's where found, it is recommended that further subsurface investigation be pursued.

# APPENDIX A

# UNDERGROUND STORAGE TANK SYSTEM
# CLOSURE APPROVAL

**NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION AND ENERGY**

DIVISION OF RESPONSIBLE PARTY SITE REMEDIATION
BUREAU OF UNDERGROUND STORAGE TANKS
CN-029, TRENTON, NJ 08625-0029

**TMS #** C-93-1297 **UST #** 0151003

Naval Weapons Earle

Colts Neck, NJ

Monmouth

THE ABOVE LISTED FACILITY IS HEREBY GRANTED APPROVAL TO PERFORM THE FOLLOWING ACTIVITY IN ACCORDANCE WITH N.J.A.C. 7:14B-1 et. seq.:

Removal: one 1,000 gallon #2 fuel oil UST(s) and appurtenant piping.
SITE ASSESSMENT: Soil samples will be taken every five (5) feet along the center line of each tank and one (1) soil sample for every 15 feet along all associated piping. Two (2) additional samples will be taken from around the tank and biased to the areas of highest field screened readings. Samples will be analyzed for TPHC. If sample results are greater than 1,000ppm than samples will be analyzed for VO+10.

ON-SITE MANAGER: G. Weiss TELEPHONE: 908-577-2515

OWNER: TELEPHONE:

EFFECTIVE DATE: APR 28 1993

THIS FORM MUST BE DISPLAYED AT THE SITE DURING THE APPROVED ACTIVITY AND MUST BE MADE AVAILABLE FOR INSPECTION AT ALL TIMES.

KEVIN F. KRATINA, ACTING BUREAU CHIEF
BUREAU OF UNDERGROUND STORAGE TANKS

# APPENDIX B

State of New Jersey
Department of Environmental Protection and Energy
Hazardous Waste Regulation Program
Manifest Section
CN 028, Trenton, NJ 08625-0028

Print in block letters. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039. Expires 9-30-94

# UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. NJD170[illegible]
Manifest Document No.

2. Page 1 of 1

Information in the shaded areas is not required by Federal law.

Generator's Name and Mailing Address

Generator's Phone ( )

A. State Manifest Document Number NJA 1701669

B. State Generator's ID

C. State Trans. ID

D. Transporter's Phone ( )

E. State Trans. ID

F. Transporter's Phone ( )

G. State Facility's ID

H. Facility's Phone ( )

5. Transporter 1 Company Name: [illegible] OIL SERVICES INC.
6. US EPA ID Number: N J D [illegible]

7. Transporter 2 Company Name
8. US EPA ID Number

9. Designated Facility Name and Site Address: LIBERTY OIL RECOVERY CO., INC. [illegible] & CHEESEQUAKE RDS. [illegible] BRIDGE NJ 08857
10. US EPA ID Number: N J D 0 8 0 4 4 0 1 4

| US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number) | 12. Containers No. | Type | 13. Total Quantity | 14. Unit Wt/Vol | I. Waste No. |
|---|---|---|---|---|---|
| PETROLEUM OIL NOS COMBUSTIBLE LIQUID NA 1270 (PETROLEUM OIL) ERG# 27 | 001 | TT | 1500 | G | X722 |
| | | | | | |
| | | | | | |
| | | | | | |

Additional Descriptions for Materials Listed Above: PETROLEUM OIL [illegible] WATER [illegible]

K. Handling Codes for Wastes Listed Above: a. NOA-FILTRATION b. c. d.

Special Handling Instructions and Additional Information: [illegible] REGULATED AS A HAZARDOUS WASTE IN NEW JERSEY [illegible] 576
[illegible] RESPONSE # (908)721-0900

GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: JOHN J. PAWLUS
Signature: John Pawlus
Month Day Year: 05 [illegible] 92

Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: [illegible]
Signature: [illegible]
Month Day Year: 05 [illegible] 92

Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name
Signature
Month Day Year

Discrepancy Indication Space

Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name
Signature
Month Day Year

NJA 1701669

700-22 (Rev. 9/88) Previous editions are obsolete.

SIGNATURE AND INFORMATION *MUST* BE LEGIBLE ON ALL COPIES

GENERATOR COPY

P.O. BOX 246
OAKHURST, N.J. 07755
YARD: TINTON FALLS

2046

**Mazza and Sons, Inc.**

DEMOLITION - EXCAVATORS
METAL RECYCLERS
922-9292

TRUCK # 73
XN68X4

Job _____ Date 8/26 1993

Name Weston Sew.

| | Material Used | Tons | Yards | | |
|---|---|---|---|---|---|
| | FILL DIRT | | | | |
| 1- | Tank | 9000 | GAL | FROM | |
| | TOP SOIL | BLDG | 29 | | |
| | DUMP TRAILER | | | | |
| | CONTAINER | | | | |
| | | | | | |
| | BACKHOE | | | | |
| | 977 CAT LOADER | | | | |
| | | | | | |
| | CRANES | | | | |
| | Equipment Rental | | Hours | | |
| | | | | | |

Accepted by Adam Bethea

P.O. BOX 246
OAKHURST, N.J. 07755
YARD: TINTON FALLS

2045

**Mazza and Sons, Inc.**

TRUCK # 73
XN68X4

DEMOLITION - EXCAVATORS
METAL RECYCLERS
922-9292

Job _____ Date 8/24 1993

Name Weston Sew.

| | Material Used | Tons | Yards | GAL. | |
|---|---|---|---|---|---|
| | FILL DIRT | | | | |
| 1- | TANK | | | 5000 | R. |
| | TOP SOIL | | | | |
| | DUMP TRAILER | | | | |
| | CONTAINER | | | | |
| | | | | | |
| | BACKHOE | | | | |
| | 977 CAT LOADER | | | | |
| | | | | | |
| | CRANES | | | | |
| | Equipment Rental | | Hours | | |
| | | | | | |

Accepted by Adam Bethea

P.O. BOX 246
OAKHURST, N.J. 07755
YARD: TINTON FALLS

2008

**Mazza and Sons, Inc.**

DEMOLITION - EXCAVATORS
METAL RECYCLERS
922-9292

Job EARL Date 6/14 1993

Name Weston

| | Material Used | Tons | Yards |
|---|---|---|---|
| | FILL DIRT | | |
| 1- | 5000 + 1- 1000 Gal | | Tanks |
| | TOP SOIL | | |
| | DUMP TRAILER | | |
| | CONTAINER | | |
| | | | |
| | BACKHOE | | |
| | 977 CAT LOADER | Dump | Truck |
| | | | |
| | CRANES | | |
| | Equipment Rental | | Hours |
| | | | |

Accepted by Elmer Karch

# MT. Hope Recycling, Inc.

625 Mt. Hope Rd. • Wharton, NJ 07885 • Tel (201) 366-7741 Fax (201) 366-3486

1

Spill #: 0793004

Ticket #: 32

Customer:
Roy F. Weston, Inc.

Date: 07/20/9

Time: 11:0

Generator:
U.S. Naval Weapons Station Earle
Rt. 34 North
Building C19
Colts Neck, NJ 07722

Spill Location:
Building C7 & C8
Rt. 34 North
Colts Neck, NJ 07722

N.J.D.E.P.E.
Spill Response
Resource

Waste Type: N816

Fuel Type:

Contamination Method:

Trucking Company:
TF Transportation
625 Mount Hope Ro
Wharton, NJ 07885

364 Hauler Permit #: TFT100

Tel: (201) 366-6415

Trailer Plate #: T253BX

Contact: J.P.

Driver's Name: Harrison, C.

License #: NJ H0670 12477 06632

Operator's ID: SCHL
Operator's Name: Scale House

Gross Weight: 47.10

Tare Weight: 17.12

Net Weight: 29.98

Disclaimer paragraph to be supplied

Driver's Signature:

# MT. Hope Recycling, Inc.

625 Mt. Hope Rd. • Wharton, NJ 07885 • Tel (201) 366-7741 Fax (201) 366-3486

(2)

Spill #: 0793004

Ticket #: 33

Customer:
Roy F. Weston, Inc.

Date: 07/20/9

Time: 11:2

Generator:
U.S. Naval Weapons Station
Rt. 34 North
Building C1[illegible]
Colts Neck, NJ 07722

Spill Location:
Building 107 & CB
Rt. 34 North
Colts Neck, NJ 0772

N.J.D.E.P.E.
Recycling Permit
Issued by

Waste Type: NB16

Fuel Type:

Contamination Method:

Trucking Company:
TF Transportation
625 Mount Hope Road
Wharton, NJ 07885

364 Haulers Permit #: TFT10

Tel #: (201) 366-6415

Truck License Plate #: T260BX

Contact: J.P.

Driver's Name: McGlynn, Marylin

License #: NJ M1254[illegible]97157422

Operator's ID: SCML
Operator's Name: Scale House

Gross Weight: [illegible] 45.0

Tare Weight: [illegible] 17.1

Net Weight: 27.9

Disclaimer paragraph to be supplied

Driver's Signature: Marilyn McGlynn

# MT. Hope Recycling, Inc.

625 Mt. Hope Rd. • Wharton, NJ 07885 • Tel (201) 366-7741 Fax (201) 366-3486

(3)

Spill #: 0793004 Ticket #:

Customer: Date: 07/20/

Roy F. Weston, Inc. Time: 11:

N.J.E.P.E.
Recycling Permit
1435001657

Generator:
U.S. Naval Weapons Stati
Rt. 34 North
Building C19
Colts Neck, NJ 07722

Location:
Building C7 & C8
Rt. 34 North
Colts Neck, NJ 07722

Waste Type: N816 Fuel Type: Contamination Method:

Trucking Company: 364 Hauler Permit #: TFT1
TF Transportation
625 Mount Hope Ro Tel: (201) 366-6415
Wharton, NJ 07885 Trailer Plate #: T401DC

Contact: J.P.

Driver's Name: Tiger, J. License #: PA 20383033

Operator's ID: SCAL Gross Weight: 40.
Operator's Name: Scale House Tare Weight: 17.
Net Weight: 23.

Disclaimer paragraph to be supplied

Driver's Signature:

# MT. Hope Recycling, Inc.

625 Mt. Hope Rd. • Wharton, NJ 07885 • Tel (201) 366-7741 Fax (201) 366-3486

(4)

Spill #: 0793004

Ticket #:

Customer:
Roy F. Weston, Inc.

Date: 07/2

Time: 1

Generator:
U.S. Naval Weapons Station Earle
Rt. 34 North
Building C19
Colts Neck, NJ 07722

Spill Location:
Building C7 & C8
Rt. 34 North
Colts Neck, NJ 07722

Waste Type: N816

Fuel Type:

Contamination Method

Trucking Company:
TF Transportation
625 Mount Hope Road

Haulor Permit #: TFT

Tel #: (201) 366-6415

Wharton, NJ 07885

Trailer Plate #: T253BX

Contact: J.P.

Driver's Name: Harrison, C.

License #: NJ H0670 12477 0663

Operator's ID: 5GH
Operator's Name: Scale House

Gross Weight: 37

Tare Weight: 16

Net Weight:

37.41
−16.99
= 20.42

Disclaimer paragraph to be supplied

Driver's Signature:

...pe Recycling, Inc.
625 Mt. Hope Rd. • Wharton, NJ 07885 • Tel (201) 366-7741 Fax (201) 366-3486

(5)

N.J.D.E.P.E.
Recycled Product
14500187

Spill #: 0793004

Ticket #: 33

Customer:
Roy F. Weston, Inc.

Date: 07/20/9

Time: 16:2

Generator:
U.S. Naval Weapons Station
Rt. 34 North
Building C19
Colts Neck, NJ 07722

Spill Location:
Building 407 & CB
Rt. 34 North
Colts Neck, NJ 07722

Waste Type: NA16

Fuel Type:

Contamination Method:

Trucking Company:
TI Transportation
625 Mount Hope Road
Wharton, NJ 07885

364 Haul Permit #: TFT10

Tel (201) 366-6415

Truck Plate #: T260BX

Contact: J.P.

Driver's Name: McGlynn, Marylin

License #: NJ M12545197157422

Operator's ID: SCAL
Operator's Name: Scale House

Gross Weight: 41.1

Tare Weight: 17.01

Net Weight: 24.09

Disclaimer paragraph to be supplied

Driver's Signature: Marylin McGlynn

FRANCIS M. PER
PUBLIC
WEIGHER
NEW JERSEY

# APPENDIX C

9439 COPIER

DEPARTMENT OF THE NAVY
NAVAL WEAPONS STATION EARLE
COLTS NECK, NEW JERSEY 07722-5000

IN REPLY REFER TO
5090
096JP

State of New Jersey
Department of Environmental Protection & Energy
Bureau of Underground Storage Tanks
CN-028
Trenton, New Jersey 08625
Attn: Kevin Kratina, Bureau Chief

Gentlemen:

Naval Weapons Station Earle reported two (2) discharge incidents on 10 and 11 June 1993 from #2 fuel oil underground storage tanks. The following is a list of the discharge incidents which describes the remedial activity that has taken place and further site investigation/remedial activity to follow.

- incident #93-6-10-1328-10, reported on 10 June 1993. Site C-7, remedial action taken - five (5) cubic yards of contaminated soil was excavated. Enclosure (1) contains results of laboratory sampling analysis in the excavation. TPHC results are below NJDEPE action levels. TMS # C-93-1797

- incident #93-6-11-0755-05, reported on 11 June 1993. Site C-8, remedial action - fifty-five (55) cubic yards of contaminated soil was excavated. An oil sheen was observed on the ground water. TPHC results are in enclosure (2). Further site investigation shall continue under the Navy clean contract. TMS #C-93-1798.

Should this case be referred to another office, please contact John Pawlus, Environmental Engineer, at (908) 577-2515.

Sincerely,

J. P. BELL
Lieutenant Commander, CEC.
U. S. Navy
Public Works Officer
By direction

Encl:
(1) and (2) Laboratory Results

# APPENDIX D

# AMERICAN ENVIRONMENTAL NETWORK, INC.

AMERICAN ENVIRONMENTAL NETWORK, INC.
9151 Rumsey Road, Columbia, MD 21045
(410) 730-8525

## CHAIN OF CUSTODY RECORD

PROJECT: ROY F. WESTON INC
NWS EARLE

SAMPLERS: (Signature) [signature]

| SAMPLE NUMBER | DATE | TIME | MATRIX | CONTAINERS NO. | TPHC | VOA+10 * | FLASH PT | pH | CN'S | REACTIVITY | PCB'S | TCLP METALS | Cd | Ni | REMARKS OR SAMPLE LOCATION | ICED | SPECIFY CHEMICALS ADDED AND FINAL pH IF KNOWN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NEC8-610-SS1 | 6/10/93 | | SOIL | 2 | X | X | | | | | | | 87 | 29 | SOIL SAMPLE EX C. | X | NONE |
| NEC8-610-SS2 | 6/10/93 | | SOIL | 2 | X | X | | | | | | | 87 | 30 | | X | |
| NEC8-610-SS3 | 6/10/93 | | SOIL | 2 | X | X | | | | | | | 87 | 31 | | X | |
| NEC8-610-SS4 | 6/10/93 | | SOIL | 2 | X | X | | | | | | | 87 | 32 | | X | |
| NEC8-610-SS5 | 6/10/93 | | SOIL | 2 | X | X | | | | | | | 87 | 33 | | X | |
| NEC8-610-SS6 | 6/10/93 | | SOIL | 2 | X | X | | | | | | | 87 | 34 | | X | |
| NEC8-610-SS7 | 6/10/93 | | SOIL | 2 | X | X | | | | | | | 87 | 35 | | X | |
| NEC8-610-SSFB | 6/10/93 | | WATER | 2 | | X | | | | | | | 87 | 36 | FIELD BLANK | X | |
| NEC8-610-DIS | 6/10/93 | | SOIL | 2 | X | X | X | X | X | X | X | | 87 | 37 | SS DISPOSAL | X | |

WEST-0103
R. 6/11/93
D. 6/12/93
RL-4 LOC-VR/13

| Relinquished by: (Signature) | Date / Time | Received by: (Signature) | Relinquished by: (Signature) | Date / Time | Shipped via: |
|---|---|---|---|---|---|
| ① [signature] | 6/10/93 1000 | | ④ | | |
| Relinquished by: (Signature) ② | Date / Time | Received by: (Signature) | Received for Laboratory by: (Signature) [signature] | 6/11/93 1070 | Shipping Ticket No. |
| Relinquished by: (Signature) ③ | Date / Time | Received by: (Signature) | Remarks: SS1-SS7 VOA+10 IF TPHC >1000ppm. [illegible] | | |

# AMERICAN ENVIRONMENTAL NETWORK, INC.

AMERICAN ENVIRONMENTAL NETWORK, INC
9151 Rumsey Road, Columbia, MD 21045
(410) 730-8525

## CHAIN OF CUSTODY RECORD

PROJECT: ROY F. WESTON, INC
NWS - EARLE C-7

SAMPLERS: (Signature) David Montiu

| SAMPLE NUMBER | DATE | TIME | MATRIX | NO. CONTAINERS | TPHC-IR | VOTIO * ON HOLD | | | | | | | | | | REMARKS OR SAMPLE LOCATION | PRESERVATION: ICED | PRESERVATION: SPECIFY CHEMICALS ADDED AND FINAL pH IF KNOWN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NEC7-69-SS1 | 6/9/93 | 1030 | SOIL | 2 | X | X | | 86 | 33 | | | | | | | | X | |
| NEC7-69-SS2 | 6/9/93 | 1050 | SOIL | 2 | X | X | | 86 | 34 | | | | | | | | X | |
| NEC7-69-SS3 | 6/9/93 | 1245 | SOIL | 2 | X | X | | 86 | 35 | | | | | | | | X | |
| NEC7-69-SS4 | 6/9/93 | 1135 | SOIL | 2 | X | X | | 86 | 36 | | | | | | | | X | |
| NEC7-69-SS5 | 6/9/93 | 1120 | SOIL | 2 | X | X | | 86 | 37 | | | | | | | | X | |
| NEC7-69-FB | 6/9/93 | 1015 | WATER | 2 | | X | | 86 | 38 | | | | | | | | X | |
| | | | | | | | | | | | | | | | | WEST-0102 | | |
| | | | | | | | | | | | | | | | | B. 6/10/93 | | |
| | | | | | | | | | | | | | | | | D. 6/11/93 | | |
| | | | | | | | | | | | | | | | | BC-4 LOC-V2/38 | | |

| Relinquished by: (Signature) | Date / Time | Received by: (Signature) | Relinquished by: (Signature) | Date / Time | Shipped via: |
|---|---|---|---|---|---|
| ① David Montiu | 6/9/93 1700 | | ④ | | |
| **Relinquished by: (Signature)** | **Date / Time** | **Received by: (Signature)** | **Received for Laboratory by: (Signature)** | **Date / Time** | **Shipping Ticket No.** |
| ② | | | Jerry Goldberg | 6/10/93 12:10 | |
| **Relinquished by: (Signature)** | **Date / Time** | **Received by: (Signature)** | **Remarks:** | | |
| ③ | | | | | |

Remarks: NJDEPE BUST FORMAT

* ANALYZE FOR VOTIO IF TPHC > 1000ppm FOR THAT SAMPLE

# TPHC RESULTS
# TANK C7

AMERICAN ENVIRONMENTAL NETWORK, INC.

9151 Rumsey Road Suite 150, Columbia, MD 21045-1992
(410) 730-8525 Fax (410) 997-2586

October 5, 1993

Mr. David Montanari
Roy F. Weston, Inc.
Raritan Plaza I
Edison, NJ 08837

Dear Mr. Montanari:

Enclosed please find results of the TPH-IR analyses performed on samples received 6/10/93 from the NWS-Earle project.

The samples were analyzed in accordance with EPA-approved methods.

Please feel free to call me at (410) 730-8525 if you have any questions concerning this report.

Sincerely,

Kristina

Kristina C. Yamarik
Project Manager

west-0102
Enclosures
kcy

**AMERICAN ENVIRONMENTAL NETWORK, INC.**

July 6, 1993

Client: ROY F. WESTON

Project: NWS-EARL C-7

Case: WEST0102

Analysis: Total Petroleum Hydrocarbons by IR

| Client ID | AENI# | Date Sampled | Date Received | Date Analyzed |
|---|---|---|---|---|
| NEC7-69-SS1 | 8633 | 06/09/93 | 06/10/93 | 06/11/93 |
| NEC7-69-SS2 | 8634 | 06/09/93 | 06/10/93 | 06/11/93 |
| NEC7-69-SS3 | 8635 | 06/09/93 | 06/10/93 | 06/11/93 |
| NEC7-69-SS4 | 8636 | 06/09/93 | 06/10/93 | 06/11/93 |
| NEC7-69-SS5 | 8637 | 06/09/93 | 06/10/93 | 06/11/93 |

Five samples were received for analysis of Total Petroleum Hydrocarbons by EPA method 418.1.

All quality control met standard laboratory criteria.

Report Released By Noble Agyei-Nemieboka for TLN
Minh-Thuy L. Nguyen
Organic Laboratory Manager

AMERICAN ENVIRONMENTAL NETWORK, INC.
ANALYTICAL REPORT
TPH (IR) RESULTS

Report Date: 06/11/93
Date Received: 06/10/93
Client: ROY F. WESTON INC.
Project: NWS-EARLE C-7
Contract Number: WEST0102

REPORT PREPARED BY: SS
DATA RELEASED BY:

UNITS: mg/Kg for soil
mg/L for water

**********

| CLIENT ID | AENI ID | CONC. OF TPH | DETECTION LIMIT | MATRIX |
|---|---|---|---|---|
| BLANK | 0610LC | < DL | 30 | SOIL |
| NEC7-69-SS1 | 8633 | < DL | 30 | SOIL |
| NEC7-69-SS2 | 8634 | < DL | 30 | SOIL |
| NEC7-69-SS3 | 8635 | < DL | 30 | SOIL |
| NEC7-69-SS4 | 8636 | < DL | 30 | SOIL |
| NEC7-69-SS5 | 8637 | < DL | 30 | SOIL |

AMERICAN ENVIRONMENTAL NETWORK, INC.
TPH (IR) SOIL
Q.C. FORM 3

CLIENT: ROY F. WESTON
CONTR.#: WEST0102
DATE: 06\11\93

(mg/ml)
SPIKE CONC.
**********
5.81

| SAMPLE CLIENT ID | SAMPLE AENI ID | (g) SAMPLE EXTRACTED | (ml) SPIKE ADDED | RECOVERED CONC. (mg/Kg) | SPIKED CONC. (mg/Kg) | % RECOVERY | RPD |
|---|---|---|---|---|---|---|---|
| NEC7-69-SS5 | 8637 | 21.08 | | 0 | | | |
| NEC-69-SS5 | MS8637 | 21.61 | 2 | 650 | 537.71 | 120.9 | |
| NEC-69-SS5 | MSD8637 | 21.21 | 2 | 660 | 547.85 | 120.5 | 0.2 |

| CALIBRATION CURVE | | | |
|---|---|---|---|
| ml stock in 100 ml | mg oil | Height (mm) | midpoint (mm) |
| 0.00 | 0.00 | 0 | 2 |
| 0.13 | 0.55 | 2 | 4 |
| 0.25 | 1.05 | 6 | 9 |
| 0.50 | 2.10 | 13 | 20 |
| 1.00 | 4.20 | 27 | 38 |
| 2.00 | 8.40 | 50 | 68 |
| 4.00 | 16.80 | 86 | 96 |
| 6.00 | 25.20 | 107 | 113 |
| 8.00 | 33.60 | 120 | 125 |
| 10.00 | 42.00 | 130 | 135 |

AMERICAN ENVIRONMENTAL NETWORK
TPH IR

REPORTING DATE 06/11

ANALYST INITIALS SS

1 ml of reference oil was diluted to 200 ml.
This is the standard stock used to prepared calibration standards.
Oil weight 0.84 g

| INPUT Q.C. DATA | | Q.C. SUMMARY | |
|---|---|---|---|
| Accepted Cal ck.(pk ht) | 63 | % of accepted calibration | 100 |
| LCS Spiked (extract conc) | 581 | LCS percent recovery | 99 |

curve 5-13-93

| SAMPLE | MATRIX | VOL MASS ml or g | DILUT. X | FINAL VOL(ml) | % SOLIDS | PEAK HT. (mm) | CALC ON HT | CALC ON MG | CONC | DRY WT CONC | DL |
|---|---|---|---|---|---|---|---|---|---|---|---|
| CAL CK. | N/A | N/A | N/A | N/A | N/A | 63 | | | | | |
| LCS | SOIL | 20 | 1 | 200 | 100 | 37 | 27 | 4.2 | 575.56 | | |
| 0610LC | SOIL | 20 | 1 | 100 | 100 | 0 | 0 | 0 | ERR | ERR | 27.30 |
| 8633 | SOIL | 20.58 | 1 | 100 | 83 | 0 | 0 | 0 | ERR | ERR | 26.53 |
| 8634 | SOIL | 20.73 | 1 | 100 | 84 | 0 | 0 | 0 | ERR | ERR | 26.34 |
| 8635 | SOIL | 20.34 | 1 | 100 | 83 | 0 | 0 | 0 | ERR | ERR | 26.84 |
| 8636 | SOIL | 21.44 | 1 | 100 | 82 | 0 | 0 | 0 | ERR | ERR | 25.47 |
| 8637 | SOIL | 21.08 | 1 | 100 | 80 | 0 | 0 | 0 | ERR | ERR | 25.90 |
| MS8637 | SOIL | 21.61 | 1 | 100 | 100 | 72 | 86 | 16.8 | 650.86 | 650.86 | 25.27 |
| MSD8637 | SOIL | 21.21 | 1 | 100 | 100 | 72 | 86 | 16.8 | 663.14 | 663.14 | 25.74 |

AMERICAN ENVIRONMENTAL NETWORK, INC

% SOLIDS

NOTEBOOK 2384

PAGE

CHECKED

| CLIENT NAME | CONTRACT NUMBER | CASE | DATE | TECH |
|---|---|---|---|---|
| WESTinghouse | | | 6/10 | SS |

| AENI # | CLIENT # | WEIGHT OF PAN (gm) | WEIGHT OF SAMPLE (gm) | WEIGHT OF DRY SAMPLE (gm) | % SOLID | pH |
|---|---|---|---|---|---|---|
| 8633 | | 1.58 | 5.33 | 5.99 | 83 | |
| 8634 | | 1.59 | 5.34 | 6.05 | 84 | |
| 8635 | | 1.58 | 5.62 | 6.23 | 83 | |
| 8636 | | 1.58 | 5.21 | 5.83 | 82 | |
| 8637 | | 1.58 | 5.87 | 6.29 | 80 | |
| 8630 | | 1.58 | 6.45 | 4.15 | 40 | |

WEIGHT OF SAMPLE DOES NOT INCLUDE WEIGHT OF PAN

% SOLID = (WEIGHT OF DRY SAMPLE - WEIGHT OF PAN / WEIGHT OF SAMPLE) X 100

COMMENTS

AMERICAN ENVIRONMENTAL NETWORK, INC. NOTEBOOK: 2357

TPH SOILS PAGE:

CLIENT NAME: West Dido2

CHECKED: JL

CONTRACT NUMBER: DATE: 6/10/93 TECH: NF BB

GC METHOD [ ] IR METHOD [✓] SOLVENT: Freon

| AENI # | CLIENT # | WEIGHT (gm) | INITIAL VOLUME (ml) | CONCENTRATE | FINAL VOLUME (ml) | COMMENTS |
|---|---|---|---|---|---|---|
| Blk | BlkOb10L2 | | 115 MLs | ~19 | 100 ml | ~~580~~ |
| 8633 | | 20.58 | | | | |
| 8634 | | 20.73 | | | | |
| 8635 | | 20.34 | | | | |
| 8636 | | 21.44 | | | | |
| 8637 | | 21.08 | | | | |
| ~~8638~~ 8637 MS | | 21.61 | | | | 580 20 MLs |
| ~~8638 MS~~ 8637 MSD | | 21.21 | | | | |
| ~~8638 MSD~~ | | | | | | |

COMMENTS:

NOTEBOOK # 2388

AMERICAN ENVIRONMENTAL NETWORK, INC.

INFRARED INJECTION LOG

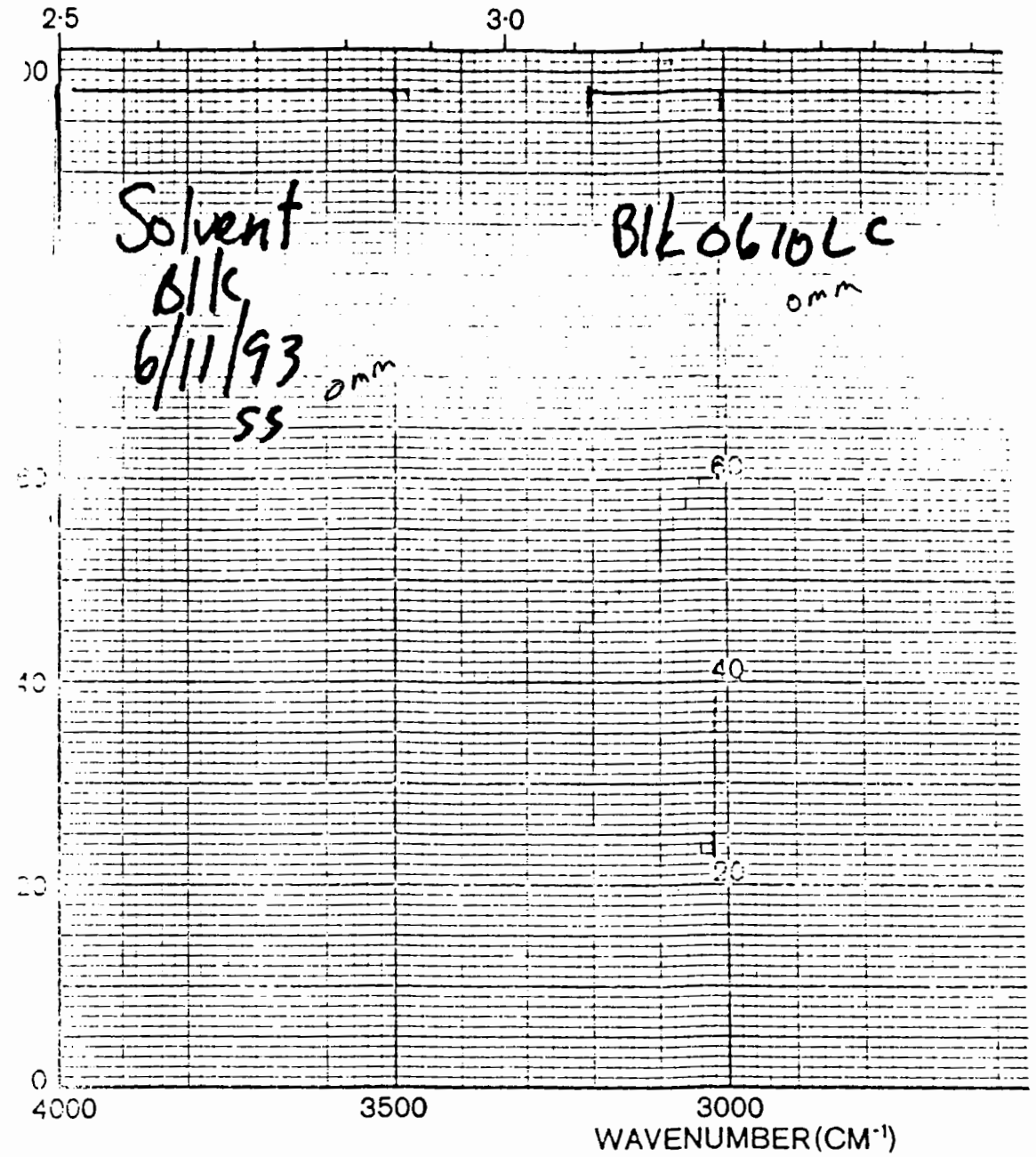
| | |
|---|---|
| ANALYST | SS |
| DATE | 6/11/93 |
| CLIENT | West |
| QC LOT # | |
| QC CONC | |
| RECOVERY RANGE | |
| EXTRACTED DATE | |

| mls of STD./100ml | PEAK(mm) |
|---|---|
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |

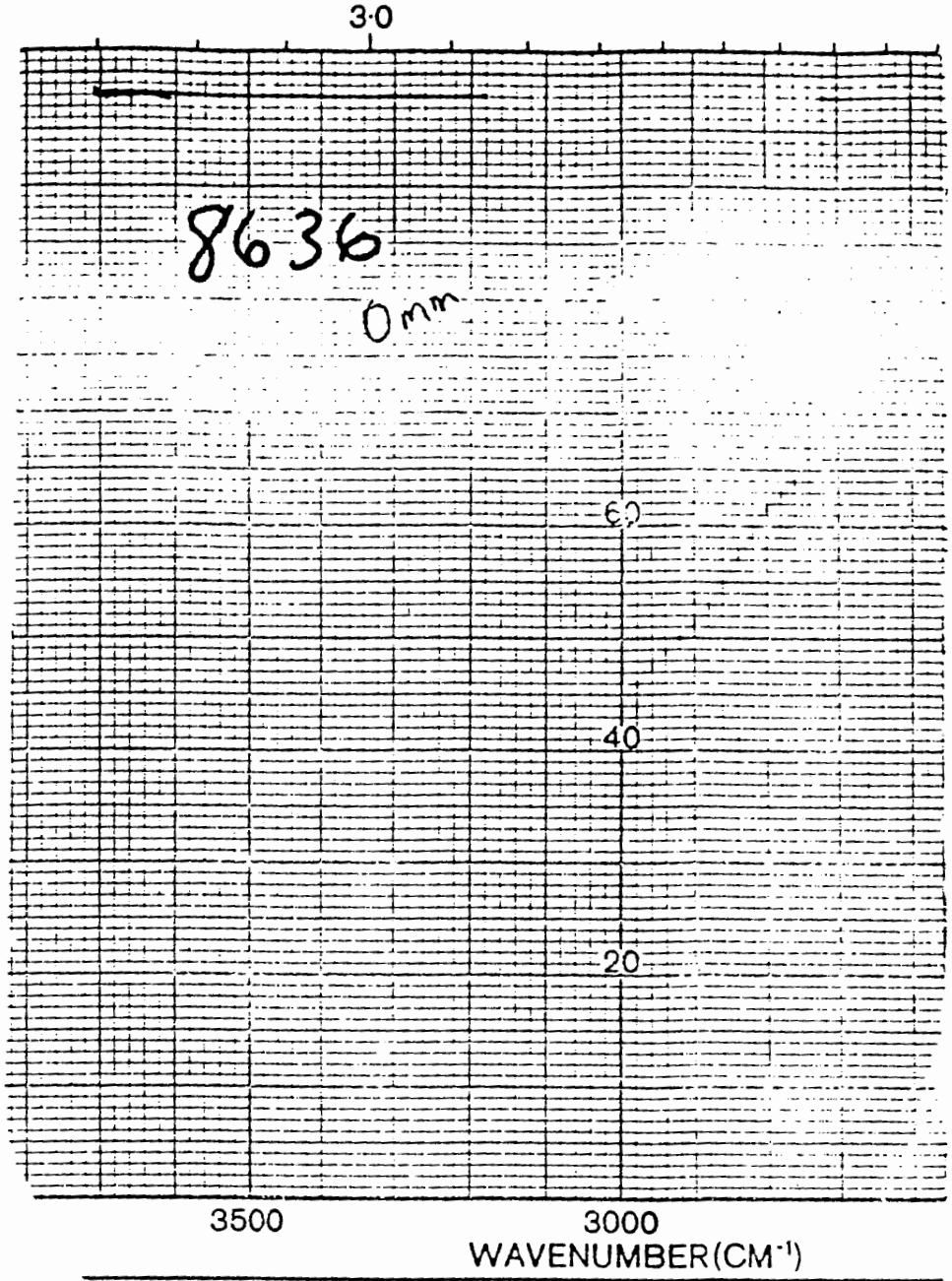
STOCK CONC.of STD. _____/200ml

| RUN# | SAMPLE # | PEAK HT. (mm) |
|---|---|---|
| 1 | Solv. Blk | 0 |
| 2 | Blank 0610LC | 0 |
| 3 | MS 8637 | 72 |
| 4 | MSD 8637 | 72 |
| 5 | 8637 | 0 |
| 6 | 8633 | 0 |
| 7 | 8634 | 0 |
| 8 | 8635 | 0 |
| 9 | 8636 | 0 |
| * 10 | Blank 0610RA | 0 |
| 11 | Blk 0610RA | 0 |
| 12 | 8632 | 9 |
| 13 | QC | 63 |

| RUN# | SAMPLE # | PEAK HT. (mm) |
|---|---|---|
| 14 | | |
| 15 | | |
| 16 | | |
| 17 | | |
| 18 | | |
| 19 | | |
| 20 | | |
| 21 | | |
| 22 | | |
| 23 | | |
| 24 | | |
| 25 | | |
| 26 | | |




| SAMPLE | SOLVENT |
|---|---|
| | CONCENTRATION |
| | CELL PATH |
| ORIGIN | REFERENCE |

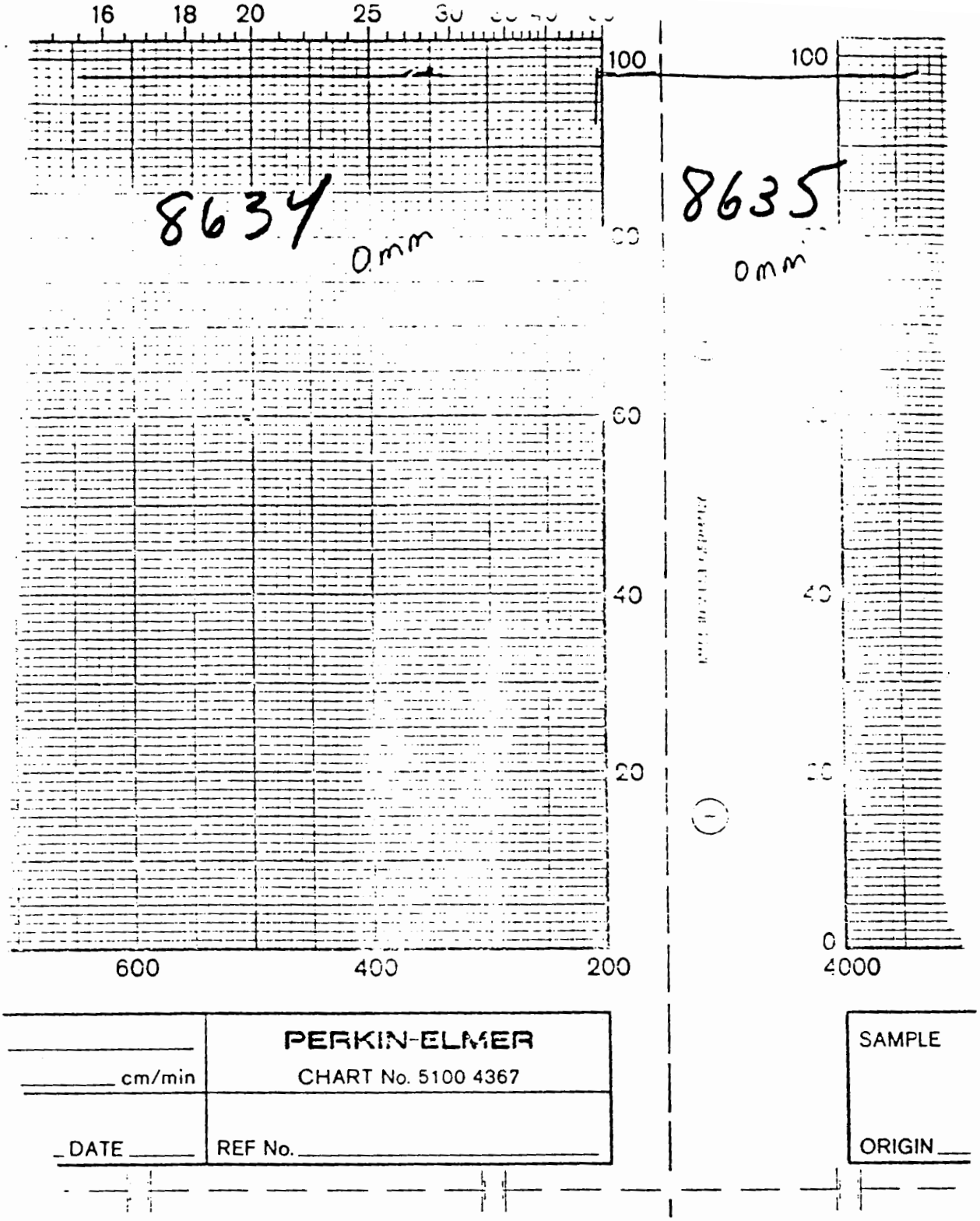


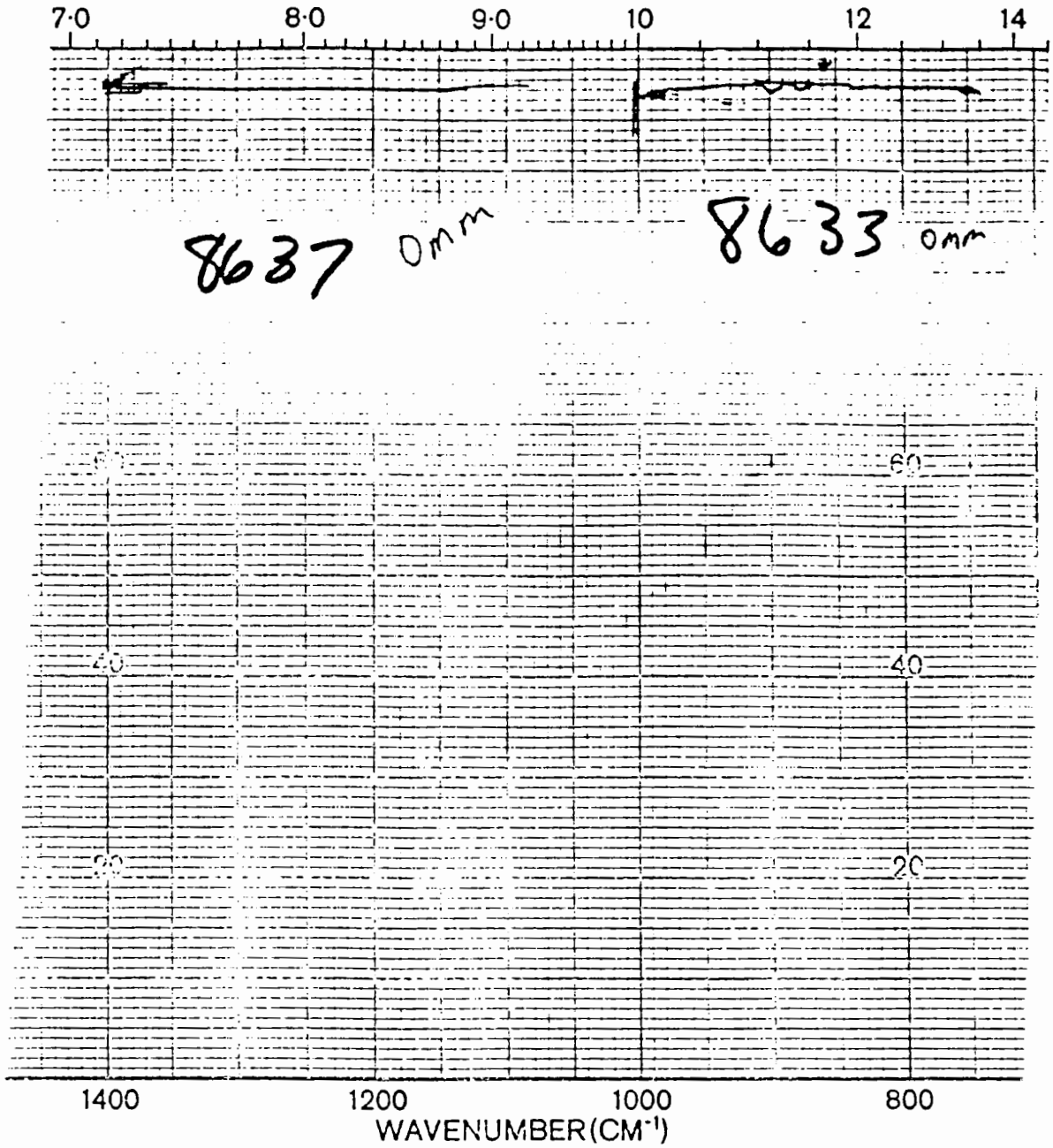

SOLVENT _____

CONCENTRATION _____

CELL PATH _____

REFERENCE _____


16
18
20
25
100
100
8634
0mm
8635
0mm
60
40
20
0
600
400
200
4000
PERKIN-ELMER
CHART No. 5100 4367
cm/min
DATE
REF No.
SAMPLE
ORIGIN




| | | |
|---|---|---|
| GRAM _____ | T _____ A _____ SB _____ | ABSCISSA EXP _____ |
| IE _____ | | TIME DRIVE _____ |
| R _____ | ORDINATE EXP _____ | |
| TANT _____ | | OPERATOR _____ |

| | REMARKS | SLIT PRO |
|---|---|---|
| | | SCAN TIM |
| | | MULTIPLI. |
| | | TIME CO |

# TPHC, METALS AND WET CHEMISTRY RESULTS
# TANK C8

AMERICAN ENVIRONMENTAL NETWORK, INC.

9151 Rumsey Road Suite 150, Columbia, MD 21045-1992
(410) 730-8525 Fax (410) 997-2586

July 21, 1993

Mr. David Montanari
Roy F. Weston, Inc.
Raritan Plaza I
Edison, NJ

Dear Mr. Montanari:

Enclosed please find results of the analyses performed on samples received 6/11/93.

The samples were analyzed in accordance with EPA-approved methods.

Please feel free to call me at (410) 730-8525 if you have any questions concerning this report.

Sincerely,

Kristina

Kristina C. Yamarik
Project Manager

west-0103
Enclosures
kcy

**AMERICAN ENVIRONMENTAL NETWORK OF MARYLAND**
**ANALYTICAL REPORT**
**ROY F. WESTON**
**PROJECT: NWS-EARLE**
**TCLP METALS AND WET CHEMISTRY PARAMETERS**
**WEST-0103**
**June 15, 1993**

**AMERICAN ENVIRONMENTAL NETWORK, INC.**

9151 Rumsey Road Suite 150, Columbia, MD 21045-1992
(410) 730-8525 Fax (410) 997-2586

June 15, 1993

Client: Roy F. Weston

Project: NWS-Earle

Case: WEST-0103

Analysis: TCLP Metals and Wet Chemistry Parameters

| Client ID | AENI ID | Date Sampled | Date Received | Date Analyzed |
|---|---|---|---|---|
| NEC8-610-DIS | 8737 | 06/10/93 | 06/11/93 | 06/11-06/14/93 |

One soil sample was received and analyzed for TCLP Metals and Wet Chemistry Parameters. TCLP results are reported in units of $\mu g/l$ in the Leachate.

All quality control met standard laboratory criteria.

This report consists specifically of tabulated sample and QC results.

Report Released By _____
Joseph Dembowski
Inorganic Laboratory Manager

West-[illegible]

# CHECKLIST FOR DELIVERABLES

## LEVEL II DELIVERABLES
### METALS SECTION

| REQUIREMENT | FORM NUMBER | DATE/INITIALS |
|---|---|---|
| Inorganic Analysis Data Sheet | I | ✓ |
| Blanks | III | ✓ |
| Spike Sample Recovery | V | ✓ |
| Post Digest Spike Sample Recovery | V | N/A |
| Duplicates | VI | N/A |
| Laboratory Control Sample | VII | ✓ |
| Typos/Client ID | | ✓ |
| Other Information | | |
| Cover Letter | | ✓ |

Peer Review: _____
Supervisor: _____
Project Manager: _____

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# METHODS TABLE

| PARAMETER | METHOD NUMBER |
|---|---|
| TCLP Sample Preparation | SW 846 1311 |
| **TCLP METALS** | |
| Arsenic | 6010 |
| Barium | 6010 |
| Cadmium | 6010 |
| Chromium | 6010 |
| Lead | 6010 |
| Mercury | 7470 |
| Selenium | 6010 |
| Silver | 6010 |
| **WET CHEMISTRY** | |
| Reactive Cyanide | SW 846 Chapter 7.3 |
| Reactive Sulfide | SW 846 Chapter 7.3 |
| pH | SW 846 9045 |
| Flashpoint | SW 846 1010 |

AMERICAN ENVIRONMENTAL NETWORK OF MARYLAND
METHOD BLANK AND %RECOVERY LCS

QCLEVEL: 3
CLIENT: ROY F. WESTON
DATE: 15-Jun-93

UNITS: ug/L IN LEACHATE

| ANALYTE | METHOD | METHOD BLANK | % RECOVERY LABORATORY CONTROL SAMPLE |
|---|---|---|---|
| ARSENIC | 6010 | <500 | 110 |
| BARIUM | 6010 | <100 | 107 |
| CADMIUM | 6010 | <40 | 107 |
| CHROMIUM | 6010 | <100 | 106 |
| LEAD | 6010 | <100 | 106 |
| MERCURY | 7470 | <1.0 | 97 |
| SELENIUM | 6010 | <500 | 106 |
| SILVER | 6010 | <500 | 107 |

AMERICAN ENVIRONMENTAL NETWORK OF MARYLAND

TCLP METALS

QCLEVEL 3

CLIENT: ROY F. WESTON

DATE: 14-Jun-93

AENM SAMPLE #: 8737

CLIENT SAMPLE #: NEC8-610-DIS

UNITS: ug/L in LEACHATE

| ANALYTE | METHOD | REPORT LIMIT | SAMPLE RESULT |
|---|---|---|---|
| ARSENIC | 6010 | 500 | <500 |
| BARIUM | 6010 | 100 | 116 |
| CADMIUM | 6010 | 40 | <40 |
| CHROMIUM | 6010 | 100 | <100 |
| LEAD | 6010 | 100 | 3077 |
| MERCURY | 7470 | 1 | <1 |
| SELENIUM | 6010 | 500 | <500 |
| SILVER | 6010 | 500 | <500 |
| NICKEL | 6010 | 40 | 75 |

AMERICAN ENVIRONMENTAL NETWORK OF MARYLAND
INORGANIC DATA ANALYSIS
TCLP SPIKED SAMPLE RECOVERY

QCLEV 3

CLIENT: ROY F. WESTON
AENM SAMPLE #: 8737
CLIENT SAMPLE #: NEC8-610-DIS

DATE:15-Jun-93

UNITS: ug/L IN LEACHATE

| ANALYTE | SAMPLE RESULT | SPIKED SAMPLE RESULT | SPIKE ADDED | %RECOVERY |
|---|---|---|---|---|
| ARSENIC | <500 | 2840 | 2500 | 114 |
| BARIUM | 116 | 5237 | 5000 | 102 |
| CADMIUM | <40 | 520 | 500 | 104 |
| CHROMIUM | <100 | 2732 | 2500 | 109 |
| LEAD | 3077 | 5856 | 2500 | 111 |
| MERCURY | <1 | 2 | 2 | 100 |
| SELENIUM | <500 | 532 | 500 | 106 |
| SILVER | <500 | 2528 | 2500 | 101 |

*NR = (NOT REQUIRED) BECAUSE SAMPLE CONCENTRATION > 4 TIMES SPIKE LEVEL

AMERICAN ENVIRONMENTAL NETWORK OF MARYLAND
ANALYTICAL REPORT

CLIENT: ROY F. WESTON

PROJECT: NWS-EARLE

REPORT PREPARED BY

CONTRACT NO: WEST-0103

DATA RELEASED BY

REPORTING DATE: 14-Jun-93

MATRIX: SOIL

**********

CLIENT ID:NEC8-610-DIS
AENM ID: 8737

| PARAMETERS | DETECTION LIMIT & UNITS | SAMPLE RESULTS |
|---|---|---|
| REACTIVE CYANIDE | 5 MG/KG | < 5 |
| REACTIVE SULFIDE | 10 MG/KG | < 10 |
| pH | --pH UNITS | 6.32 |
| FLASHPOINT | --140 DEG F | NO FLASH |

**AMERICAN ENVIRONMENTAL NETWORK, INC.**

June 18, 1993

Client: ROY F. WESTON

Project: NWS-EARLE

Case: WEST0103

Analysis: Total Petroleum Hydrocarbons by IR

| Client ID | AENI# | Date Sampled | Date Received | Date Analyzed |
|---|---|---|---|---|
| NEC8-610-SS1 | 8729 | 06/10/93 | 06/11/93 | 06/14/93 |
| NEC8-610-SS2 | 8730 | 06/10/93 | 06/11/93 | 06/14/93 |
| NEC8-610-SS3 | 8731 | 06/10/93 | 06/11/93 | 06/14/93 |
| NEC8-610-SS4 | 8732 | 06/10/93 | 06/11/93 | 06/14/93 |
| NEC8-610-SS5 | 8733 | 06/10/93 | 06/11/93 | 06/14/93 |
| NEC8-610-SS6 | 8734 | 06/10/93 | 06/11/93 | 06/14/93 |
| NEC8-610-SS7 | 8735 | 06/10/93 | 06/11/93 | 06/14/93 |
| NEC8-610-DIS | 8737 | 06/10/93 | 06/11/93 | 06/14/93 |

Eight samples were received for analysis of Total Petroleum Hydrocarbons by EPA method 418.1.

All quality control met standard laboratory criteria.

If you have any further questions or if more information is needed, please feel free to contact Ms. Mary Jane Letaw or Mrs. Thuy Nguyen at (410)730-8525.

Report Released By [signature] For TLN
Minh-Thuy L. Nguyen
Organic Laboratory Manager

West-01c

# CHECKLIST FOR DELIVERABLES

## LEVEL IV
## REDUCED DELIVERABLES
### PETROLEUM HYDROCARBONS SECTION

| REQUIREMENT | FORM NUMBER | DATE/INITIALS |
|---|---|---|
| Sample Results | | ✓ |
| Blank Results | | ✓ |
| Spike Results | | ✓ |
| Duplicate Results | | ✓ |
| Raw Data: | | |
| IR Spectra for samples, blanks, and standards | | ✓ |
| GC Chromatograms for samples, blanks, and standards | | N/A |
| Typos/Client ID | | ✓ |
| Other Information: | | |
| General Information | | ✓ |

Peer Review: _____
Supervisor: _____
Project Manager: _____
QA/GM: _____

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AMERICAN ENVIRONMENTAL NETWORK, INC.
ANALYTICAL REPORT
TPH (IR) RESULTS

Report Date: 06/14/93
Date Received: 06/11/93
Client: ROY F. WESTON INC
Project: NWS-EARLE
Contract Number: WEST0103

REPORT PREPARED BY: SS

DATA RELEASED BY: [illegible]

UNITS: mg/Kg for soil
mg/L for water

**********

| CLIENT ID | AENI ID | CONC. OF TPH | DETECTION LIMIT | MATRIX |
|---|---|---|---|---|
| BLANK | 0611BD | < DL | 30 | SOIL |
| NEC8-610-SS1 | 8729 | 1910 | 30 | SOIL |
| NEC8-610-SS2 | 8730 | 210 | 30 | SOIL |
| NEC8-610-SS3 | 8731 | < DL | 40 | SOIL |
| NEC8-610-SS4 | 8732 | < DL | 30 | SOIL |
| NEC8-610-SS5 | 8733 | 9190 | 650 | SOIL |
| NEC8-610-SS6 | 8734 | 80 | 40 | SOIL |
| NEC8-610-SS7 | 8735 | < DL | 30 | SOIL |
| NEC8-610-DIS | 8737 | 1330 | 30 | SOIL |

AMERICAN ENVIRONMENTAL NETWORK, INC.
TPH (IR) SOIL
Q.C. FORM 3

CLIENT: ROY F. WESTON
CONTR.#: WEST-0103
DATE: 06/14/93

| (mg/ml) SPIKE CONC. |
|---|
| 5.81 |

| SAMPLE CLIENT ID | SAMPLE AENI ID | (g) SAMPLE EXTRACTED | (ml) SPIKE ADDED | RECOVERED CONC. (mg/Kg) | SPIKED CONC. (mg/Kg) | % RECOVERY |
|---|---|---|---|---|---|---|
| NEC8-610-DIS | 8737 | 22.67 | | 110 | | |
| NEC8-610-DIS | MS8737 | 20.25 | 2 | 790 | 573.83 | 118.5 |
| NEC8-610-DIS | MSD8737 | 20.06 | 2 | 700 | 579.26 | 101.9 |

| RPD |
|---|
| 9.8 |

| CALIBRATION CURVE | | | |
|---|---|---|---|
| ml stock in 100 ml | mg oil | Height (mm) | midpoint (mm) |
| 0.00 | 0.00 | 0 | 2 |
| 0.13 | 0.55 | 2 | 4 |
| 0.25 | 1.05 | 6 | 9 |
| 0.50 | 2.10 | 13 | 20 |
| 1.00 | 4.20 | 27 | 38 |
| 2.00 | 8.40 | 50 | 68 |
| 4.00 | 16.80 | 86 | 96 |
| 6.00 | 25.20 | 107 | 113 |
| 8.00 | 33.60 | 120 | 125 |
| 10.00 | 42.00 | 130 | 135 |

curve 5-13-93

AMERICAN ENVIRONMENTAL NETWORK
TPH IR

REPORTING DATE 06/14/93

ANALYST INITIALS SS

1 ml of reference oil was diluted to 200 ml.
This is the standard stock used to prepared calibration standards.
Oil weight 0.84 g

| INPUT Q.C. DATA | | Q.C. SUMMARY | |
|---|---|---|---|
| Accepted Cal ck.(pk ht) | 63 | % of accepted calibration | 90 |
| LCS Spiked (extract conc) | 581 | LCS percent recovery | 127 |

| SAMPLE | MATRIX | VOL MASS ml or g | DILUT. X | FINAL VOL(ml) | % SOLIDS | PEAK HT. (mm) | CALC ON HT | CALC ON MG | CONC | DRY WT CONC | DL |
|---|---|---|---|---|---|---|---|---|---|---|---|
| CAL CK. | N/A | N/A | N/A | N/A | N/A | 57 | | | | | |
| LCS | SOIL | 20 | 1 | 200 | 100 | 44 | 50 | 8.4 | 739.20 | | |
| 0611BD | SOIL | 20 | 1 | 100 | 100 | 0 | 0 | 0 | ERR | ERR | 27.30 |
| 8729 | SOIL | 21.02 | 1 | 100 | 80 | 115 | 120 | 33.6 | 1531.87 | 1914.84 | 25.98 |
| 8730 | SOIL | 20.23 | 1 | 100 | 85 | 23 | 27 | 4.2 | 176.86 | 208.06 | 26.99 |
| 8731 | SOIL | 20.81 | 1 | 100 | 74 | 0 | 0 | 0 | ERR | ERR | 26.24 |
| 8732 | SOIL | 21.72 | 1 | 100 | 75 | 0 | 0 | 0 | ERR | ERR | 25.14 |
| 8733 | SOIL | 20.27 | 20 | 100 | 83 | 46 | 50 | 8.4 | 7625.06 | 9186.82 | 538.73 |
| 8734 | SOIL | 20.36 | 1 | 100 | 74 | 7 | 6 | 1.05 | 60.17 | 81.31 | 26.82 |
| 8735 | SOIL | 20.66 | 1 | 100 | 85 | 0 | 0 | 0 | ERR | ERR | 26.43 |

| SAMPLE | MATRIX | G OR ML | DIL | F.VOL | % SOL | PEAK HT | co HT | co MG | CONC | DW CONC | DL |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 8737 | SOIL | 22.67 | 1 | 100 | 86 | 110 | 107 | 25.2 | 1142.77 | 1328.80 | 24.08 |
| MS8737 | SOIL | 20.25 | 1 | 200 | 100 | 94 | 86 | 16.8 | 1813.61 | 1813.61 | 53.93 |
| MSD8737 | SOIL | 20.06 | 1 | 200 | 100 | 83 | 86 | 16.8 | 1616.55 | 1616.55 | 54.44 |
| | | | 1 | 100 | | | 0 | 0 | | | |
| | | | 1 | 100 | | | 0 | 0 | | | |
| | | | 1 | 100 | | | 0 | 0 | | | |
| | | | 1 | 100 | | | 0 | 0 | | | |
| | | | 1 | 100 | | | 0 | 0 | | | |
| | | | 1 | 100 | | | 0 | 0 | | | |
| | | | 1 | 100 | | | 0 | 0 | | | |
| | | | 1 | 100 | | | 0 | 0 | | | |
| | | | 1 | 100 | | | 0 | 0 | | | |
| | | | 1 | 100 | | | 0 | 0 | | | |

sample table page 2

AMERICAN ENVIRONMENTAL NETWORK, INC

WESTON / AUTO. IND. % SOLIDS

CLIENT NAME

NOTEBOOK 2384

PAGE

CHECKED

CONTRACT NUMBER | CASE | 6/11/93 DATE | EMP TECH

| AENI # | CLIENT # | WEIGHT OF PAN (gm) | WEIGHT OF SAMPLE (gm) | WEIGHT OF DRY SAMPLE (gm) | % SOLID | pH |
|---|---|---|---|---|---|---|
| 8729 | | 1.57 | 5.10 | 5.67 | 80 | |
| 8730 | | 1.57 | 5.90 | 6.59 | 85 | |
| 8731 | | 1.57 | 6.84 | 6.64 | 74 | |
| 8732 | | 1.59 | 5.89 | 6.03 | 75 | |
| 8733 | | 1.58 | 6.18 | 6.72 | 83 | |
| 8734 | | 1.57 | 5.80 | 5.84 | 74 | |
| 8735 | | 1.56 | 6.14 | 6.79 | 85 | |
| 8737 | | 1.56 | 6.10 | 6.81 | 86 | |
| 8738 | | 1.58 | 5.64 | 6.36 | 85 | |
| 8739 | | 1.58 | 5.71 | 6.27 | 82 | |
| 8740 | | 1.57 | 6.39 | 6.94 | 84 | |
| 8741 | | 1.58 | 5.75 | ~~5.~~ A.K. 6.00 | 77 | |
| 8780 | | 1.56 | 5.44 | 5.62 | 75 | |
| 8781 | | 1.56 | 5.66 | 5.86 | 76 | |
| 8782 | | 1.55 | 5.24 | 5.80 | 81 | |
| 8783 | | 1.56 | 5.47 | 5.95 | 80 | |

WEIGHT OF SAMPLE DOES NOT INCLUDE WEIGHT OF PAN

% SOLID = (WEIGHT OF DRY SAMPLE - WEIGHT OF PAN / WEIGHT OF SAMPLE) X 100

COMMENTS

AMERICAN ENVIRONMENTAL NETWORK, INC.

NOTEBOOK: 2357

TPH SOILS

PAGE:

CLIENT NAME: WESTON AUTOMOTIVE INDUSTRIES

CHECKED:

CONTRACT NUMBER:

DATE: 6/11/93

TECH: EAP BO

GC METHOD [ ] IR METHOD [X]

SOLVENT: FREON

| AENI # | CLIENT # | WEIGHT (gm) | INITIAL VOLUME (ml) | CONCENTRATE | FINAL VOLUME (ml) | COMMENTS |
|---|---|---|---|---|---|---|
| BLANK | BLK 0611BD | | 120 ~~100~~ EAP | N/A | 100 ml | |
| 8729 | | 21.02 | | | | |
| 8730 | | 20.23 | | | | |
| 8731 | | 20.81 | | | | |
| 8732 | | 21.72 | | | | |
| 8733 | | 20.27 | | | | |
| 8734 | | 20.36 | | | | |
| 8735 | | 20.66 | | | | |
| 8737 | | 22.67 | | | | |
| 8737 MS | | 20.25 | 250 | | 200 ml | +2ml 5810 |
| 8737 MSD | | 20.06 | | | | |
| 8738 | | 20.05 | 120 | | 100 ml | |
| 8739 | | 20.92 | 250 | | 200 ml | |
| 8740 | | 22.14 | | | | |
| 8741 | | 21.15 | | | | |
| LCS#1 | | — | | | | +2 ml 5810 |
| LCS#2 | | — | | | | |
| 8780 | | 20.08 | | | | |
| 8781 | | 20.5 | | | | |
| 8782 | | 20.91 | | | | |
| 8783 | | 20.84 | | | | |

COMMENTS:

NOTEBOOK # 2388

AMERICAN ENVIRONMENTAL NETWORK, INC.

INFRARED INJECTION LOG

| | |
|---|---|
| ANALYST | SS |
| DATE | 6/14/93 |
| CLIENT | Weston, AI |
| QC LOT # | |
| QC CONC | |
| RECOVERY RANGE | |
| EXTRACTED DATE | |

| mls of STD./100ml | PEAK(mm) |
|---|---|
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |

STOCK CONC.of STD. _____/200ml

* = dilution

| RUN# | SAMPLE # | PEAK HT. (mm) |
|---|---|---|
| 1 | Blk (Solvent) | 0 |
| 2 | Blk061193D | 0 |
| 3 | LCS#1 | 44 |
| 4 | LCS#2 | 45 |
| 5 | 8737MS | 94 |
| 6 | 8737MSD | 83 |
| 7 | 8737 | 110 |
| 8 * | 8738/1:100 | 33 |
| 9 * | 8739/1:10 | 75 |
| 10 * | 8740/1:10 | 95 |
| 11 | 8741 | 26 |
| 12 | 8729 | 115mm |
| 13 | 8730 | 23 |

| RUN# | SAMPLE # | PEAK HT. (mm) |
|---|---|---|
| 14 | 8731 | 0 |
| 15 | 8732 | 0 |
| 16 * | 1:20/8733 | 46 |
| 17 | 8734 | 7 |
| 18 | 8735 | 0 |
| 19 | 8780 | 0 |
| 20 | 8781 | 0 |
| 21 | 8782 | 0 |
| 22 | 8783 | 0 |
| 23 | QC | 57 |
| 24 | 8742 | 10 |
| 25 | 8743 | 10 |
| 26 | 8744 | 7 |

water

# AMERICAN ENVIRONMENTAL NETWORK, INC.

AMERICAN ENVIRONMENTAL NETWORK, INC.
9151 Rumsey Road, Columbia, MD 21045
(410) 730-8525

## CHAIN OF CUSTODY RECORD

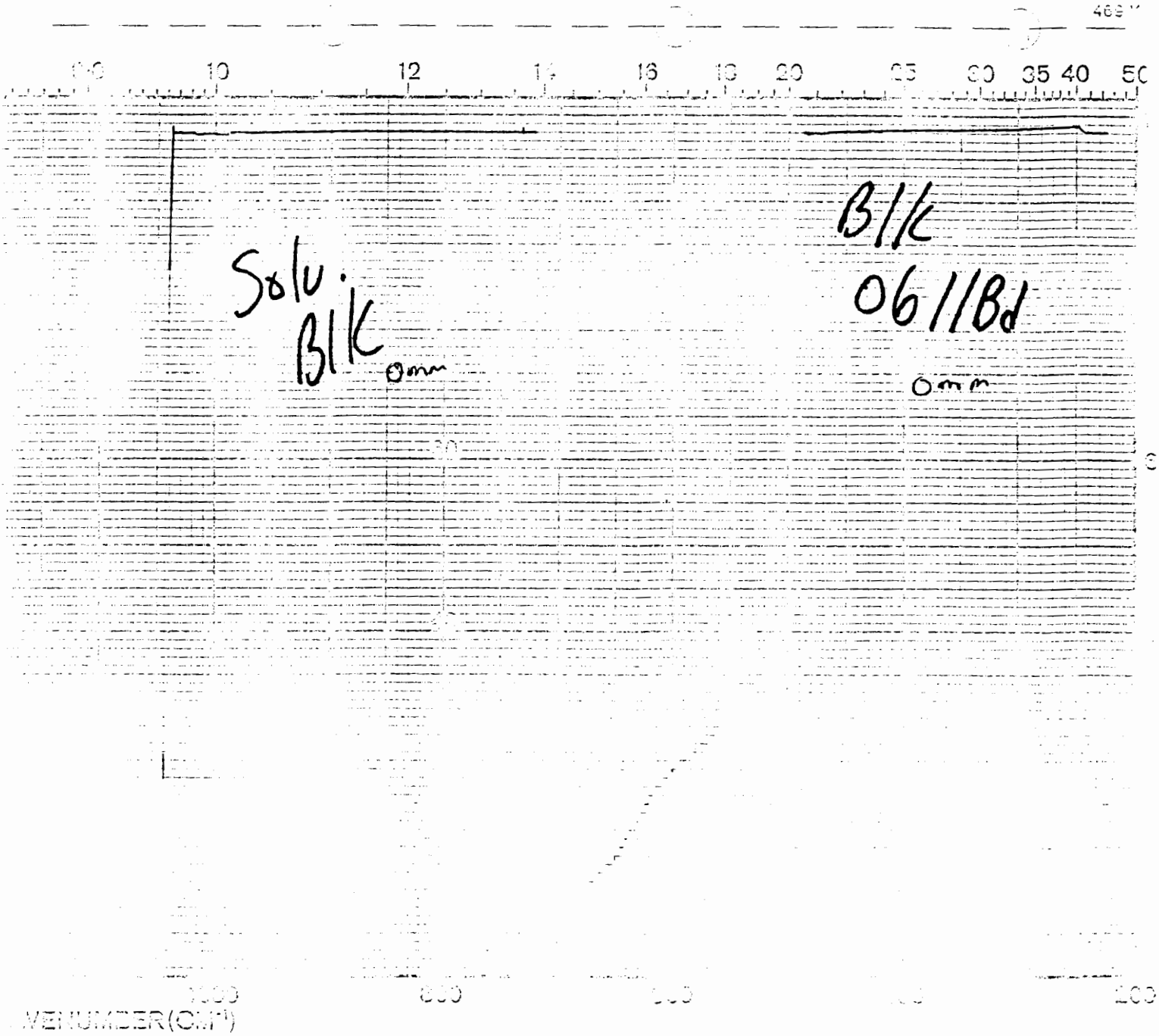
PROJECT: ROY F. WESTON INC. NWS - EARLE

SAMPLERS: (Signature) David Martin

| SAMPLE NUMBER | DATE | TIME | MATRIX | NO. CONTAINERS | TPHC | VOA 10 * | FLASH PT | pH | CN S | REACTIVITY | PCB'S | TCL METALS & TAL | | | REMARKS OR SAMPLE LOCATION | ICED | SPECIFY CHEMICALS ADDED AND FINAL pH IF KNOWN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NEC8-610-SS1 | 6/10/93 | | SOIL | 2 | X | X | | | | | | | 87 | 29 | SOIL SAMPLE EX C. | X | NONE |
| NEC8-610-SS2 | 6/10/93 | | SOIL | 2 | X | X | | | | | | | 87 | 30 | | X | |
| NEC8-610-SS3 | 6/10/93 | | SOIL | 2 | X | X | | | | | | | 87 | 31 | | X | |
| NEC8-610-SS4 | 6/10/93 | | SOIL | 2 | X | X | | | | | | | 87 | 32 | | X | |
| NEC8-610-SS5 | 6/10/93 | | SOIL | 2 | X | X | | | | | | | 87 | 33 | | X | |
| NEC8-610-SS6 | 6/10/93 | | SOIL | 2 | X | X | | | | | | | 87 | 34 | | X | |
| NEC8-610-SS7 | 6/10/93 | | SOIL | 2 | X | X | | | | | | | 87 | 35 | | X | |
| NEC8-610-SSFB | 6/10/93 | | WATER | 2 | | X | | | | | | | 87 | 36 | FIELD BLANK | X | |
| NEC8-610-DIS | 6/10/93 | | SOIL | 2 | X | X | X | X | X | X | X | | 87 | 37 | SS DISPOSAL | X | |
| | | | | | | | | | | | | | | | WEST-0103 | | |
| | | | | | | | | | | | | | | | R-6/11/93 | | |
| | | | | | | | | | | | | | | | D-6/12/93 | | |
| | | | | | | | | | | | | | | | RL-4 LOC-VR | | |

| Relinquished by: (Signature) | Date / Time | Received by: (Signature) | Relinquished by: (Signature) | Date / Time | Shipped via: |
|---|---|---|---|---|---|
| ① David Martin | 6/10/93 1000 | | ④ | | |
| **Relinquished by: (Signature)** | **Date / Time** | **Received by: (Signature)** | **Received for Laboratory by: (Signature)** | **Date / Time** | **Shipping Ticket No.** |
| ② | | | Tony Goldy | 6/11/93 1070 | |
| **Relinquished by: (Signature)** | **Date / Time** | **Received by: (Signature)** | **Remarks:** | | |
| ③ | | | SS1-SS7 VOA 10 IF TPHC > 1000 ppm. | | |

CALL 908-417-5856 IF ANY QUESTIONS.

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| A SB | ABSCISSA EXP | PERKIN-ELMER |
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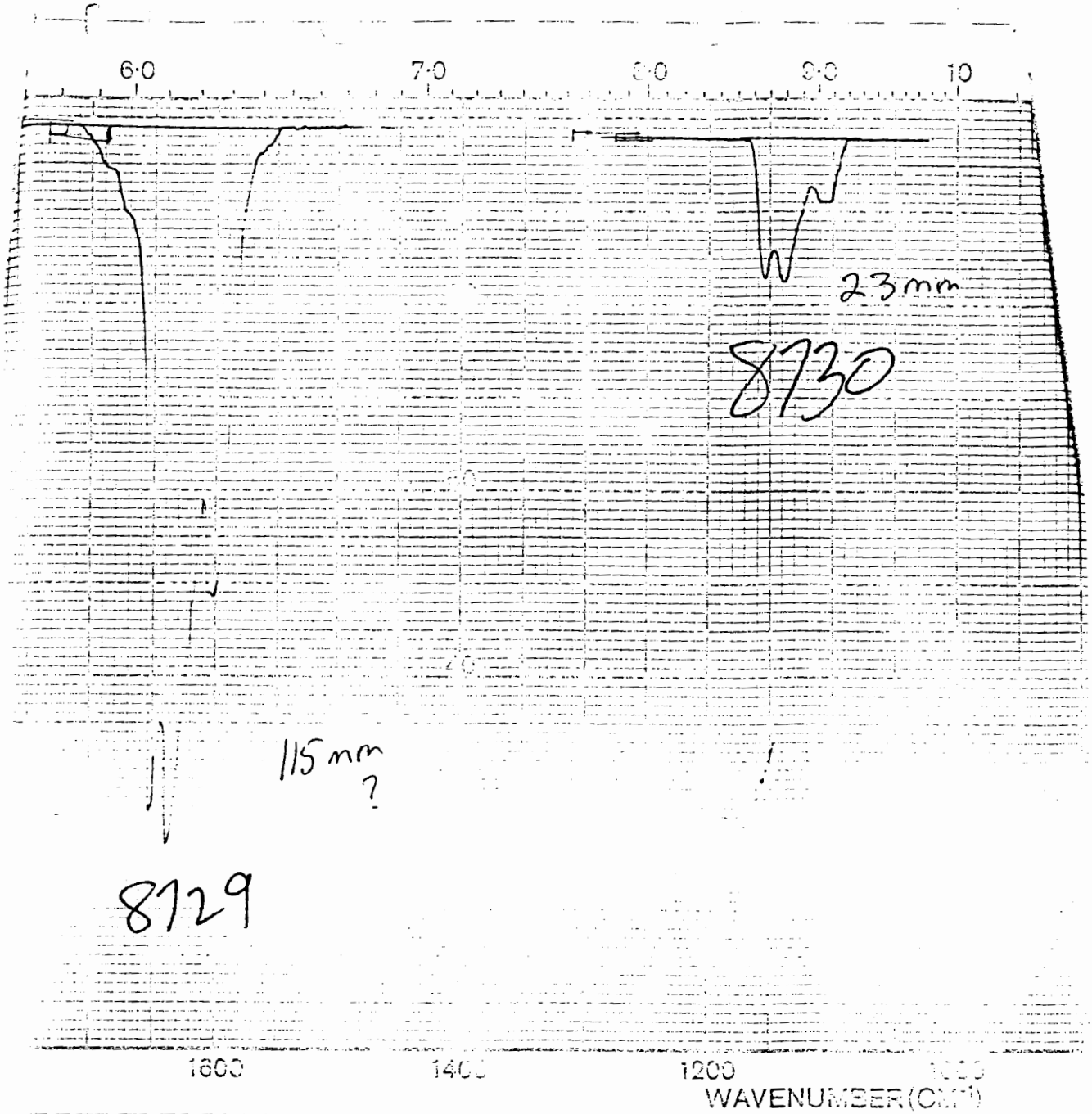
| NATE EXP | OPERATOR DATE | REF No. |

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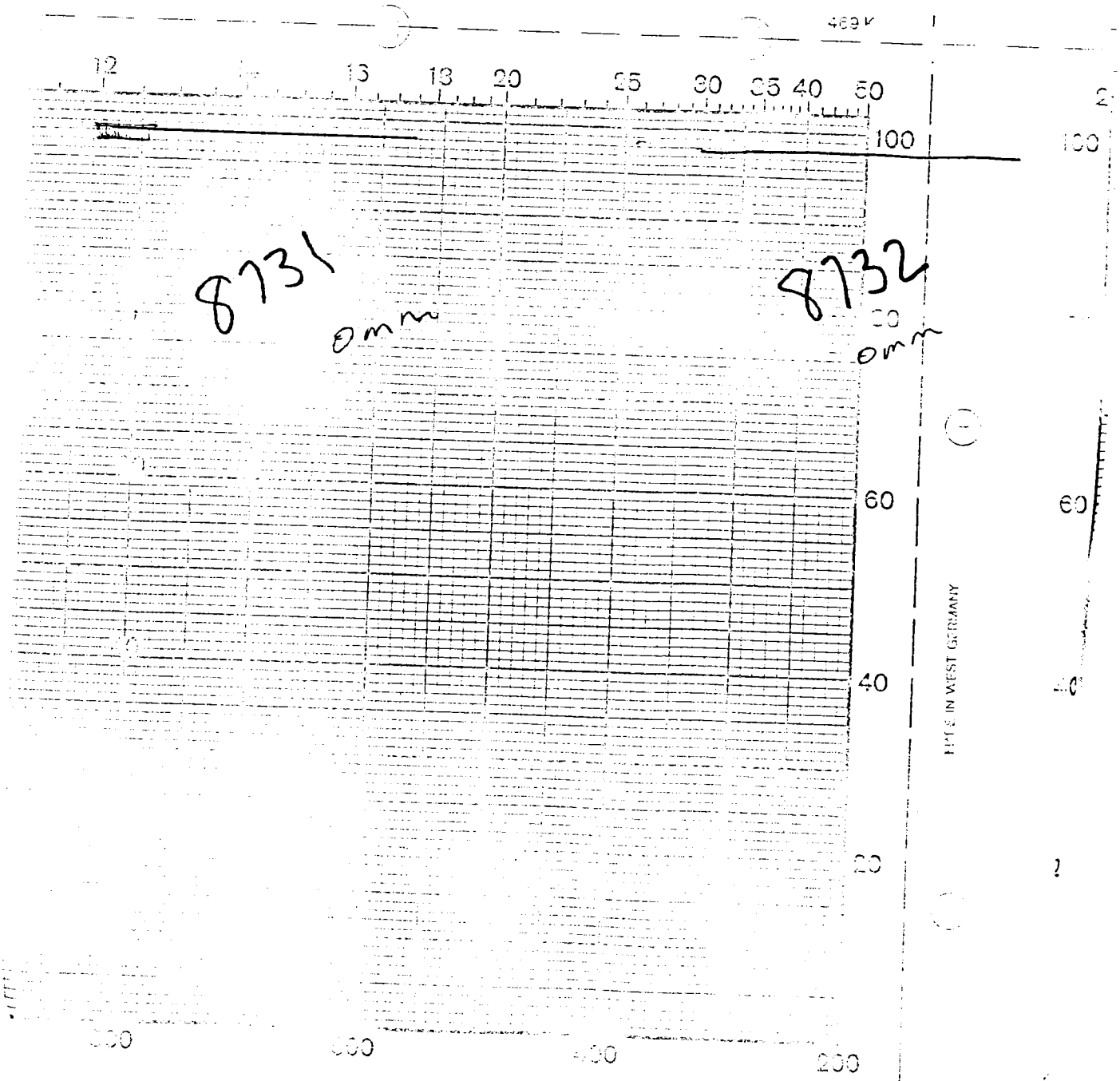
| | SLIT PROGRAM _____ | T _____ A _____ SB _____ |
| | SCAN TIME _____ | |
| | MULTIPLIER _____ | ORDINATE EXP _____ |
| | TIME CONSTANT _____ | |

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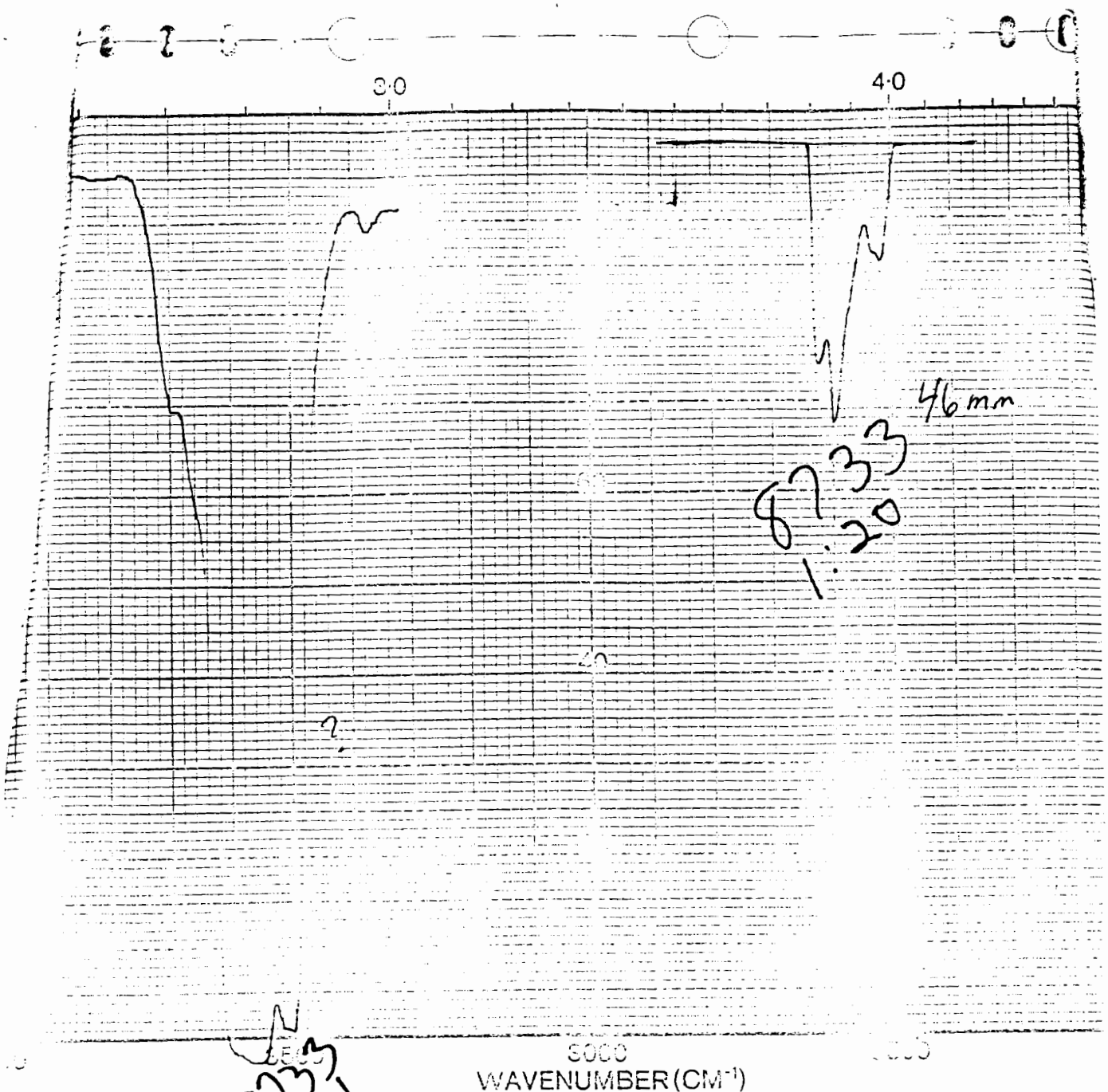
| MEDOISSA EXP _____ | PERIMED HELMER |
| TIME DRIVE _____ cm/min | CHART No. 5100 4367 |
| OPERATOR _____ DATE _____ | REF No. _____ |




SAMPLE

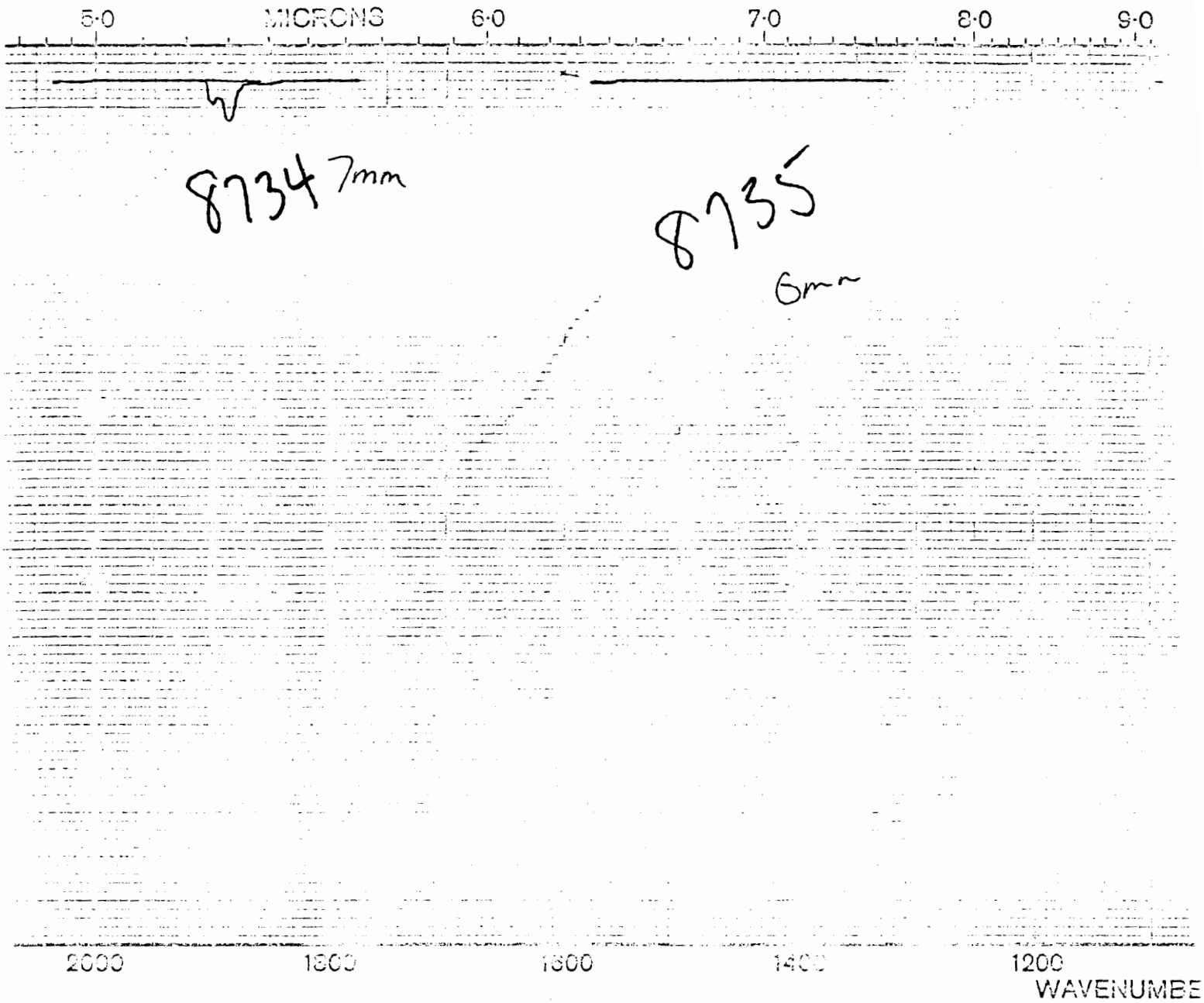
ORIGIN

SOLVENT

CONCENTRATION

CELL PATH

REFERENCE

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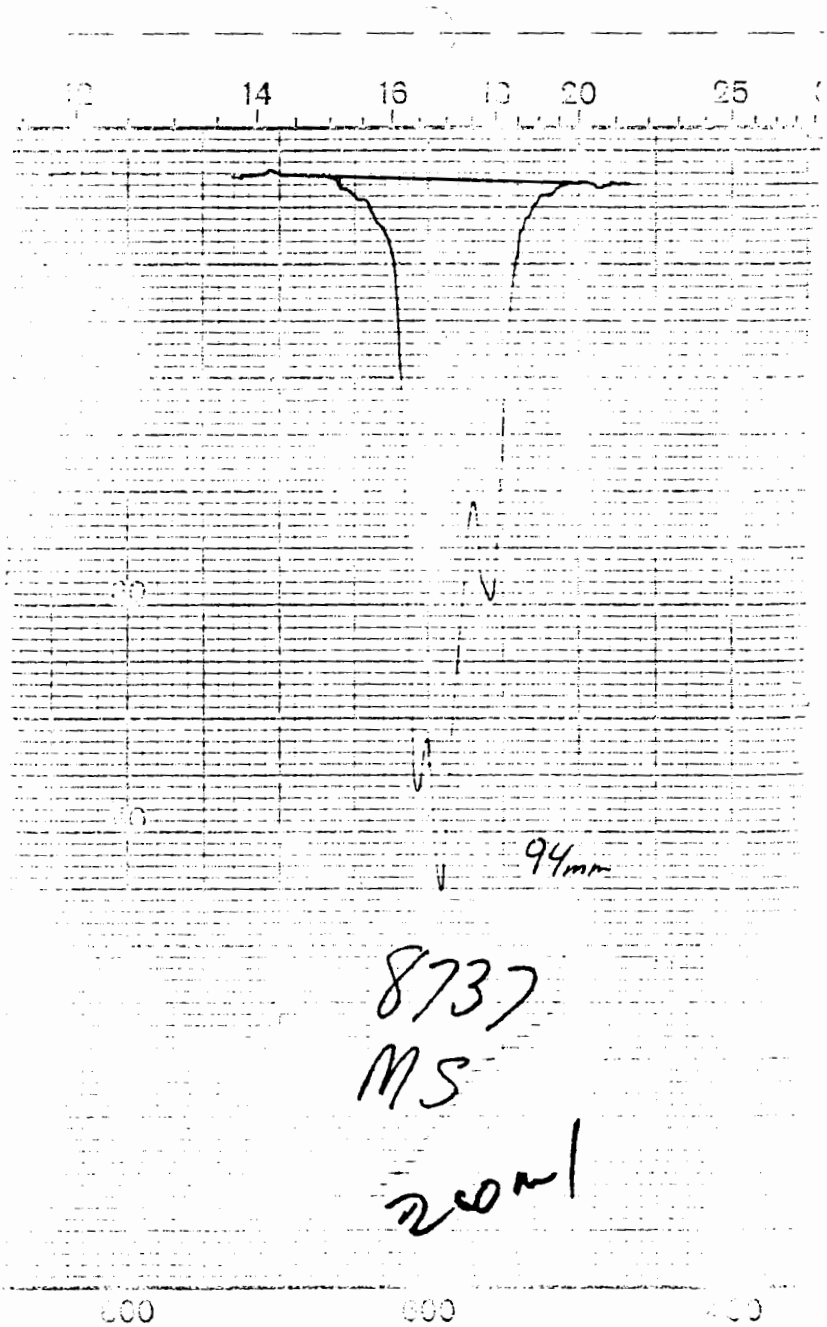
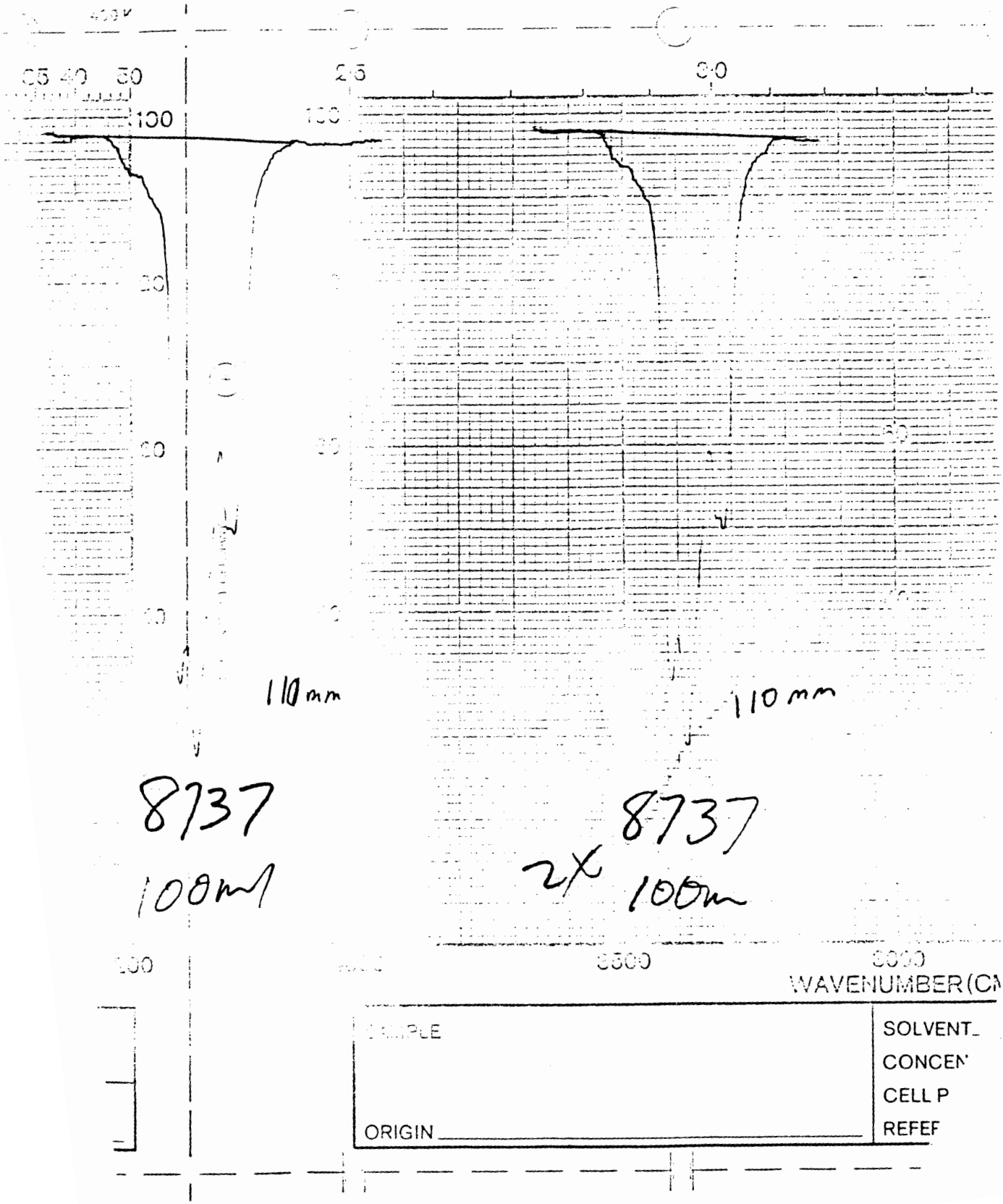
|---|---|---|
| REMARKS | SLIT PROGRAM _____ | T _____ A _____ |
| | SCAN TIME _____ | |
| | MULTIPLIER _____ | ORDINATE EXP _____ |
| | TIME CONSTANT _____ | |




| | |
|---|---|
| ABSCISSA EXP. _____ | PERKIN- |
| TIME DRIVE _____ cm/min | CHART No. |
| OPERATOR _____ DATE _____ | REF No. _____ |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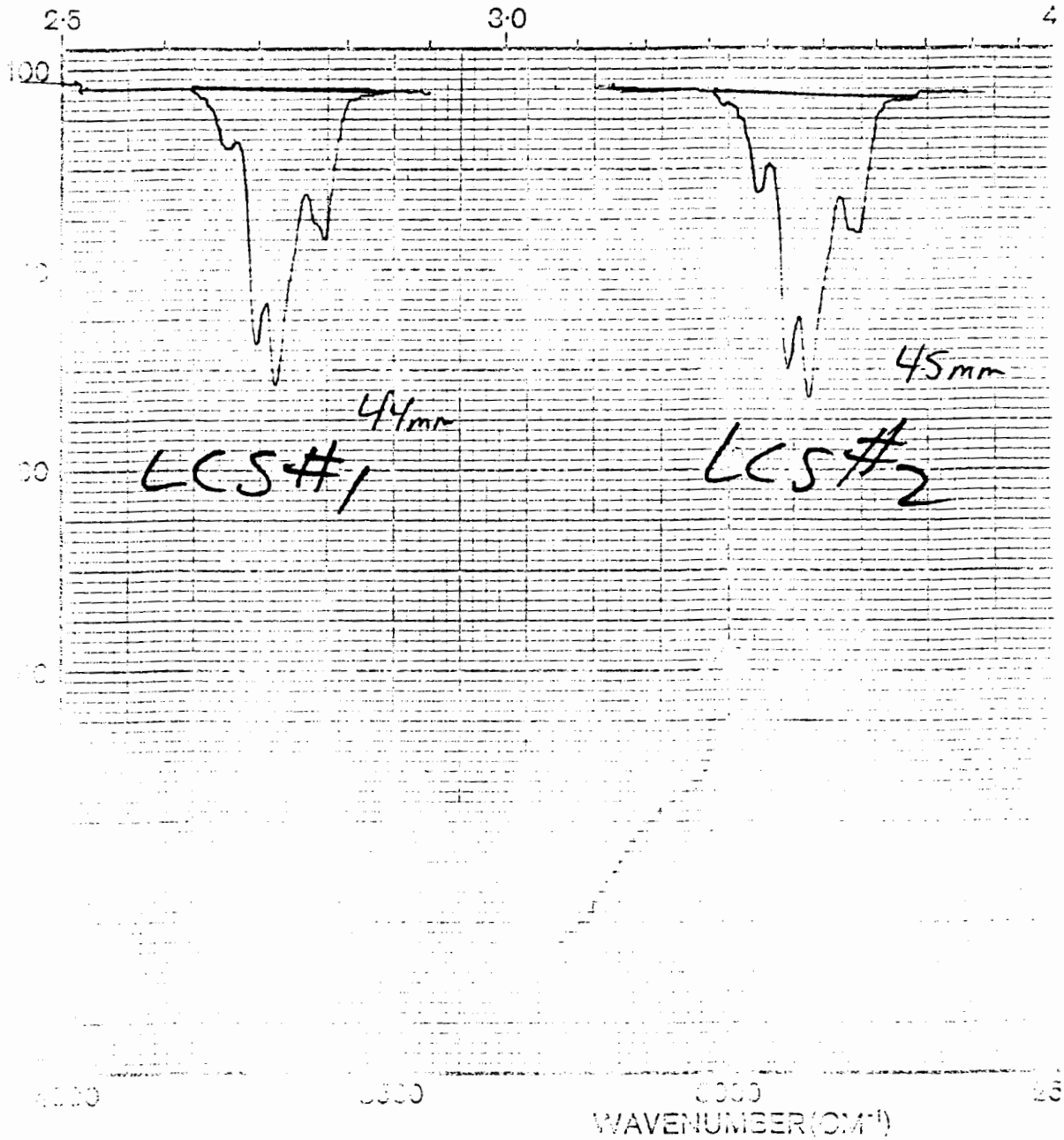


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|---|---|
| SAMPLE | SOLVENT |
| | CONCENTRATION |
| | CELL PATH |
| ORIGIN | REFERENCE |

# AMERICAN ENVIRONMENTAL NETWORK, INC.

June 17, 1993

Client: Roy F. Weston, Inc.

Case: WEST-0103

Project: NWS-EARLE

Analysis: PCBs by SW-846 Method 8080

| Client ID | AENI ID | Date Sampled | Date Received | Date Analyzed |
|---|---|---|---|---|
| NEC8-610-DIS | 8737 | 06/10/93 | 06/11/93 | 06/14/93 |

One soil sample was analyzed for PCBs by SW-846 method 8080.

The enclosed package consists specifically of tabulated results (Form I), surrogate spike recoveries (Form II), matrix spike recoveries (Form III), method blank summary (Form IV), and case narrative.

Please call Ms Mary Jane Letaw or Mrs Thuy Nguyen if more information is needed or if questions arise.

Data Released By CLEJ for MTLN

Minh-Thuy L. Nguyen 6/18/93
Organic Lab Manager

**WEST-0103**
Case Narrative

Form I(Tabulated Results)

The qualifier "U" indicates that a compound was analyzed for but not detected above the detection limit. All samples were extracted and analyzed within holding times.

Form II(Surrogate Spike Recoveries)

All recoveries are based on a single column analysis. The blank surrogate recovery was outside EPA CLP criteria (60-150%). Sample surrogate recovery was within EPA CLP criteria.

Form III(Matrix Spike Recoveries)

All recoveries were within SW-846 Method 8080 criteria (8-127%).
QC included is batch QC from ESI0-0555.

Form IV ( Method Blank Summary)

No PCBs were detected in the blank.

WST-0703

# CHECKLIST FOR DELIVERABLES

## LEVEL II DELIVERABLES
### GC SECTION

| REQUIREMENT | FORM NUMBER | DATE/INITIALS |
|---|---|---|
| Sample Results | I-A | ✓ |
| Blank Results | I-B | ✓ |
| Surrogates/Monitoring Compounds | II | ✓ |
| MS/MSD Results | III | ✓ |
| Typos/Client ID | | ✓ |
| Other Information | | ✓ |
| Cover Letter | | |

Peer Review: _____
Supervisor: _____
Project Manager: _____

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AMERICAN ENVIRONMENTAL NETWORK, INC.
ORGANIC ANALYSIS DATA SHEET
PCBs

Contract Number: WEST-0103
Client Name: ROY F. WESTON INC.
Project: NWS-EARLE

CLIENT NUMBER: NEC8-610-DIS

AENI #: 8737

Concentration: Low
Date Sampled : 06/10/93
Date Received : 06/11/93
Date Extract Prepared : 06/11/93
Date Analyzed: 06/14/93
Conc/Dil Factor: 1

GPC Cleanup: Yes[ ] No[X]
Sonication Ext: [X]
Soxhlett Ext: [ ]
Matrix SOIL
Percent Moisture: 13.1

| COMPOUND | CONCENTRATION (ug/Kg) | DETECTION LIMIT (ug/Kg) | QUALIFIER |
|---|---|---|---|
| AR1016 | | 22 | U |
| AR1221 | | 22 | U |
| AR1232 | | 22 | U |
| AR1242 | | 22 | U |
| AR1248 | | 22 | U |
| AR1254 | | 45 | U |
| AR1260 | | 45 | U |

U-Indicates that a compound was analyzed for but not detected at or above the detection limit.

Vi - Volume of extract injected (ul) - 1

Vs - Volume of water extracted (ml) - N/A

Ws - Mass of soil extracted (g) - 30.91

Vt - Volume of total extract (ul) - 10000

FORM I

AMERICAN ENVIRONMENTAL NETWORK, INC.
ORGANIC ANALYSIS DATA SHEET
PCBs

Contract Number: WEST-0103
Client Name: ROY F. WESTON INC.
Project: NWS-EARLE

CLIENT NUMBER: BLANK

AENI #: 0611RX

Concentration: Low
Date Sampled : N/A
Date Received : N/A
Date Extract Prepared : 06/11/93
Date Analyzed: 06/14/93
Conc/Dil Factor: 1

GPC Cleanup: Yes[ ] No[X]
Sonication Ext: [X]
Soxhlett Ext: [ ]
Matrix SOIL
Percent Moisture: 0

| COMPOUND | CONCENTRATION (ug/Kg) | DETECTION LIMIT (ug/Kg) | QUALIFIER |
|---|---|---|---|
| AR1016 | | 20 | U |
| AR1221 | | 20 | U |
| AR1232 | | 20 | U |
| AR1242 | | 20 | U |
| AR1248 | | 20 | U |
| AR1254 | | 40 | U |
| AR1260 | | 40 | U |

U-Indicates that a compound was analyzed for but not detected at or above the detection limit.

Vi - Volume of extract injected (ul) - 1

Vs - Volume of water extracted (ml) - N/A

Ws - Mass of soil extracted (g) - 30

Vt - Volume of total extract (ul) - 10000

FORM I

ORGANIC ANALYSIS DATA SHEET

AMERICAN ENVIRONMENTAL NETWORK, Inc.

Case Number: WEST-0103

Method: PCB

Report Date: 6/17/93

Units of PCB in ug/kg

| CLIENT ID. | AENI ID. | Spike Added | Sample Results | Conc. BS | % Rec. | Conc. BSD | % Rec. | % RPD |
|---|---|---|---|---|---|---|---|---|
| SPIKE | 0610RA | 154.00 | 0 | 138.17 | 90 | 106.27 | 69 | 26 |
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FORM III

# METHOD BLANK SUMMARY

Case Number: WEST-0103 Region: _____ Contractor: American Environmental Network,Inc. Contract No: _____

| File ID | Date of Analysis | Fraction | Matrix | Conc. Level | Inst. ID | CAS Number | Compound (HSL,TIC or Unknown) | Conc. | Units | CRDL |
|---|---|---|---|---|---|---|---|---|---|---|
| BLANK 0611RX | 06/14/93 | PCBs | Soil | Low | GC-G | | No PCBs detected | | | |
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Comments _____

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FORM IV

# VOLATILE ORGANICS RESULTS
# TANK C8

AMERICAN ENVIRONMENTAL NETWORK, INC.
9151 RUMSEY ROAD
COLUMBIA, MD. 21045
(410) 730-8525

**Project Number:** WEST-0103
**Client Name:** ROY F. WESTON
**Project Title:** NWS-EARLE

One water and three soil samples were analyzed for the volatile organic compounds in the SW-846 list by method 8240. Two of the soil samples had levels sufficiently high in target and non-target analytes analytes to require medium level protocol for this project.

This package consists of the EPA/CLP forms I, I(E), II, III, IV, V, VI, VII, and VIII. The chromatograms, spectra and raw data for the samples and method blanks are also included.

Data Released for TLN 6/8/93
Minh-Thuy L. Nguyen
Organic Lab Manager

**VOLATILES Section:**

| Client ID | AENI ID | Matrix | Date Sampled | Date Received | Date Analyzed (Original) |
|---|---|---|---|---|---|
| NEC8-610-SSFB | 8736 | WATER | 06/10/93 | 06/11/93 | 06/17/93 |
| DIS 1:10 | 8737 | SOIL | 06/10/93 | 06/11/93 | 06/17/93 |
| 610-SS1 | 8729 | SOIL | 06/10/93 | 06/11/93 | 06/18/93 |
| 610-SS5 | 8733 | SOIL | 06/10/93 | 06/11/93 | 06/19/93 |

Form I(Sample Results)
Sample 610-SS1 (#8729) and 610-SS5 (#8733) were analyzed by the SW-846 medium level method. Sample 610-SS1 was further diluted 1:10 because of high target analytes. The soil samples are being reported on the basis of dry weights.

Form II (Surrogate Recoveries)
Please note that surrogate recovery criteria is based on lab generated limits for the method blanks and SW-846 contract limits for the samples and QC. All surrogate recoveries were within criteria for the water and low level soil methods. The medium level blank failed the in-house criteria for BFB, but passed the method criteria. Both sets of limits are listed on the forms. The water sample and blank passed all criteria. The low level soil recoveries passed for the sample and the blank. The initial analysis of 610-SS1 had two surrogates outside the control limits. The sample was reanalyzed at 1:10 and its recoveries were within control limits. Sample 610-SS5 had low recovery for Toluene-d8 for the sample, MS, and MSD, indicating a matrix related effect.

Form III (MS/MS/MSD Analyses)
The MS/MSD was performed on sample 610-SS5. All recoveries and percent RPDs were within QC limits.

Form IV (Method Blank Summary)
Methylene chloride, acetone, and carbon disulfide are common laboratory artifacts and should be viewed with suspicion if found around the method blank levels.

Form V (Tuning and Mass Calibration)
All calibration standards, blanks, MS/MSD, and samples were performed within the method specified mass calibration and 12-hr tune criteria.

Form VI (Initial Calibration)
The initial calibration curve met the method specified Min mean RRF for SPCC and Max %RSD for the CCC compounds.

Form VII (Continuing Calibration)
For this project, all CCC compounds were within the specified criteria. All SPCC compounds also met their specified minimum RRF50.

Form VIII (Internal Standard Summary)
The internal standards for all analyses were within the method specified criteria for retention time shifts and areas.

General Comments
All analyses and reanalyses met the required holding time criteria.

WAST 0103

# CHECKLIST FOR DELIVERABLES

## LEVEL IV
## REDUCED NON-CLP DELIVERABLES
## AND REDUCED CLP DELIVERABLES
### GC/MS SECTION

| REQUIREMENT | FORM NUMBER | DATE/INITIALS |
|---|---|---|
| Sample Results | I-A | ✓ |
| Raw Data | | ✓ |
| TIC Form | I-E | ✓ |
| Raw Data | | ✓ |
| Blank Results | I-B | ✓ |
| Raw Data | | ✓ |
| Surrogates/Monitoring Compounds | II | ✓ |
| MS/MSD Results | I-C, III | ✓ |
| Method Blank Summary | IV | ✓ |
| GC/MS Instrument Performance Check/Tune Criteria | V | ✓ |
| Raw Data (CLP only) | | N/A |
| GC/MS Initial Calibration | VI | ✓ |
| Continuing Calibration | VII | ✓ |
| Internal Standard Summary | VIII | ✓ |
| Typos/Client ID | | ✓ |

Other Information :

| | |
|---|---|
| General Information (Non-CLP) | N/A |
| Cover Letter/Case Narrative (CLP) | ✓ |
| Sample Login Sheet (CLP) | ✓ |
| Document Inventory Sheet (CLP) | N/A |

Peer Review: _____
Supervisor: _____
Project Manager: _____
QA/GM: _____

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*Section II*

# VOLATILES DATA

*Section a).*

# QC SUMMARY

Surrogate Recovery (form II)
MS/MSD Recovery (form III)
Daily Blank Summary (form IV)
GC/MS Tuning and Calibration (form V)
Internal Standard Area Summary (form VIII)

2A
WATER VOLATILE SURROGATE RECOVERY

Lab Name: AMER.ENV.NTWK. Contract: WEST-0103

Lab Code: AENI Case No: NWS-EARL SAS No: N.A. SDG No: N.A.

| | EPA / CLIENT SAMPLE ID | S1 (TOL) # | S2 (BFB) # | S3 (DCE) # | OTHER | TOT OUT |
|---|---|---|---|---|---|---|
| 01 | 0617VBLK A1 | 99 | 98 | 96 | | 0 |
| 02 | 610-SSFB | 93 | 104 | 114 | | 0 |
| 03 | | | | | | |
| 04 | | | | | | |
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| | QC LIMITS 2/88 | LAB |
|---|---|---|
| S1 (TOL) = Toluene-d8 | (88-110) | (89-108) |
| S2 (BFB) = Bromofluorobenzene | (86-115) | (89-107) |
| S3 (DCE) = 1,2-Dichloroethane-d4 | (76-114) | (84-103) |

# Column to be used to flag recovery values

+ Values outside of contract required QC limits
* Values outside of LAB generated QC limits

D Surrogates diluted out

2B
SOIL VOLATILE SURROGATE RECOVERY

Lab Name: AMER.ENV.NTWK. Contract: WEST-0103

Lab Code: AENI Case No: NWS-EARL SAS No: N.A. SDG No: N.A.

Level: LOW

| | EPA / CLIENT SAMPLE ID | S1 (TOL)# | S2 (BFB)# | S3 (DCE)# | OTHER | TOT OUT |
|---|---|---|---|---|---|---|
| 01 | 0617HBLK C1 | 97 | 95 | 87 | | 0 |
| 02 | DIS 1:10 | 100 | 116 | 91 | | 0 |
| 03 | | | | | | |
| 04 | | | | | | |
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| | QC LIMITS 2/88 | LAB |
|---|---|---|
| S1 (TOL) = Toluene-d8 | (81-117) | (86-117) |
| S2 (BFB) = Bromofluorobenzene | (74-121) | (82-118) |
| S3 (DCE) = 1,2-Dichloroethane-d4 | (70-121) | (86-109) |

# Column to be used to flag recovery values

+ Values outside of contract required QC limits
* Values outside of LAB generated QC limits

D Surrogates diluted out

2B
SOIL VOLATILE SURROGATE RECOVERY

Lab Name: AMER.ENV.NTWK. Contract: WEST-0103

Lab Code: AENI Case No: NWS-EARL SAS No: N.A. SDG No: N.A.

Level: MED

| | EPA / CLIENT SAMPLE ID | S1 (TOL) # | S2 (BFB) # | S3 (DCE) # | OTHER | TOT OUT |
|---|---|---|---|---|---|---|
| 01 | 0618VBLKML A1 | 105 | 108 * | 98 | | 1 |
| 02 | 610-SS1 | 157 + | 257 + | 121 | | 2 |
| 03 | 610-SS5 | 71 + | 91 | 96 | | 1 |
| 04 | 610-SS5 MS | 71 + | 87 | 78 | | 1 |
| 05 | 610-SS5 MSD | 66 + | 85 | 90 | | 1 |
| 06 | 0622VBLKML A2 | 96 | 96 | 91 | | 0 |
| 07 | 610-SS1 1:10 | 81 | 82 | 98 | | 0 |
| 08 | | | | | | |
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| | | QC LIMITS 2/88 | LAB |
|---|---|---|---|
| S1 (TOL) | = Toluene-d8 | (81-117) | (89-108) |
| S2 (BFB) | = Bromofluorobenzene | (74-121) | (89-107) |
| S3 (DCE) | = 1,2-Dichloroethane-d4 | (70-121) | (84-103) |

# Column to be used to flag recovery values

+ Values outside of contract required QC limits
* Values outside of LAB generated QC limits

D Surrogates diluted out

3B

# SOIL VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: AMER.ENV.NTWK. Contract: WEST-0103

Lab Code: AENI Case No: NWS-EARL SAS No: N.A. SDG No: N.A.

Matrix Spike - EPA / CLIENT ID: 610-SS5 Level: MED

| COMPOUND | SPIKE ADDED (ug/Kg) | SAMPLE CONCENTRATION (ug/Kg) | MS CONCENTRATION (ug/Kg) | MS % REC # | QC LIMITS REC. |
|---|---|---|---|---|---|
| 1,1-Dichloroethene | 50.00 | 0.00 | 36.00 | 72 | 59-172 |
| Trichloroethene | 50.00 | 2.30 | 46.00 | 86 | 62-137 |
| Benzene | 50.00 | 0.00 | 50.00 | 99 | 66-142 |
| Toluene | 50.00 | 0.00 | 38.00 | 76 | 59-139 |
| Chlorobenzene | 50.00 | 0.00 | 33.00 | 65 | 60-133 |

| COMPOUND | SPIKE ADDED (ug/Kg) | MSD CONCENTRATION (ug/Kg) | MSD % REC # | % RPD # | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | 50.00 | 45.00 | 89 | 21 | 22 | 59-172 |
| Trichloroethene | 50.00 | 48.00 | 91 | 5 | 24 | 62-137 |
| Benzene | 50.00 | 48.00 | 95 | 4 | 21 | 66-142 |
| Toluene | 50.00 | 35.00 | 70 | 8 | 21 | 59-139 |
| Chlorobenzene | 50.00 | 34.00 | 67 | 3 | 21 | 60-133 |

# Column to be used to flag recovery and RPD values with an asterisk

* Values outside of qc limits

RPD: 0 out of 5 outside limits
Spike Recovery: 0 out of 10 outside limits

COMMENTS: _____

4A
VOLATILE METHOD BLANK SUMMARY

Lab Name: AMER.ENV.NTWK. Contract: WEST-0103

Lab Code: AENI Case No: NWS-EARL SAS No: N.A. SDG No: N.A.

Lab File ID: >AF268 Lab Sample ID: 0617VBLK A1

Date Analyzed: 6/17/93 Time Analyzed: 19:19

Matrix: WATER Level: LOW

Instrument ID: HP5985-A

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

| | LAB SAMPLE ID | EPA / CLIENT SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|---|
| 01 | AE#8736 | 610-SSFB | >AF269 | 6/17/93 |
| 02 | | | | |
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COMMENTS:



FORM IV VOA

2/88 Rev.

4A
VOLATILE METHOD BLANK SUMMARY

Lab Name: AMER.ENV.NTWK. Contract: WEST-0103

Lab Code: AENI Case No: NWS-EARL SAS No: N.A. SDG No: N.A.

Lab File ID: >CF190 Lab Sample ID: 0617HBLK C1

Date Analyzed: 6/17/93 Time Analyzed: 11:48

Matrix: SOIL Level: LOW

Instrument ID: HP5970-C

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

| | LAB SAMPLE ID. | EPA / CLIENT SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|---|
| 01 | AE#8737 | DIS 1:10 | >CF194 | 6/17/93 |
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COMMENTS:



FORM IV VOA 2/88 Rev.

4A
VOLATILE METHOD BLANK SUMMARY

Lab Name: AMER.ENV.NTWK. Contract: WEST-0103

Lab Code: AENI Case No: NWS-EARL SAS No: N.A. SDG No: N.A.

Lab File ID: >AF296 Lab Sample ID: 0618VBLKML

Date Analyzed: 6/18/93 Time Analyzed: 18:29

Matrix: SOIL Level: MED

Instrument ID: HP5985-A

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

| | LAB SAMPLE ID | EPA / CLIENT SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|---|
| 01 | AE#8729 | 610-SS1 | >AF303 | 6/18/93 |
| 02 | AE#8733 | 610-SS5 | >AF304 | 6/19/93 |
| 03 | AE#8733 | 610-SS5 MS | >AF305 | 6/19/93 |
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COMMENTS:



FORM IV VOA

2/88 Rev.

4A
VOLATILE METHOD BLANK SUMMARY

Lab Name: AMER.ENV.NTWK. Contract: WEST-0103

Lab Code: AENI Case No: NWS-EARL SAS No: N.A. SDG No: N.A.

Lab File ID: >AF330 Lab Sample ID: 0622VBLKML

Date Analyzed: 6/22/93 Time Analyzed: 15:26

Matrix: SOIL Level: MED

Instrument ID: HP5985-A

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

| | LAB SAMPLE ID | EPA / CLIENT SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|---|
| 01 | AE#8729 | 610-SS1 1:10 | >AF332 | 6/22/93 |
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COMMENTS:



FORM IV VOA 2/88 Rev.

5A

# VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: AMER.ENV.NTWK. Contract: N.A.

Lab Code: AENI Case No: N.A. SAS No: N.A. SDG No: N.A.

Lab File ID: >AF010 BFB Injection Date: 6/02/93

Instrument ID: HP5985-A BFB Injection Time: 23:32

Matrix: WATER Level: LOW Column: CAP

| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| 50 | 15.0 - 40.0% OF MASS 95 | 18.0 |
| 75 | 30.0 - 60.0% OF MASS 95 | 44.2 |
| 95 | Base peak, 100% relative abundance | 100. |
| 96 | 5.0 - 9.0% of mass 95 | 6.8 |
| 173 | Less than 2.0% of mass 174 | 0.0( 0.0)1 |
| 174 | Greater than 50.0% of mass 95 | 88.5 |
| 175 | 5.0 - 9.0% of mass 174 | 6.5( 7.4)1 |
| 176 | Greater than 95.0%, but less than 101.0% of mass 174 | 85.6( 96.8)1 |
| 177 | 5.0 - 9.0% of mass 176 | 5.9( 6.9)2 |

1-Value is % mass 174 2-Value is % mass 176

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

| | LAB SAMPLE ID | EPA / CLIENT SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|---|---|---|---|---|---|
| 01 | 0602VSTD20 | 0602VSTD20 A1 | >AF012 | 6/03/93 | 0:43 |
| 02 | 0602VSTD50 | 0602VSTD50 A1 | >AF013 | 6/03/93 | 1:26 |
| 03 | 0602VSTD100 | 0602VSTD100 A1 | >AF014 | 6/03/93 | 2:09 |
| 04 | 0602VSTD150 | 0602VSTD150 A1 | >AF015 | 6/03/93 | 2:51 |
| 05 | 0602VSTD200 | 0602VSTD200 A1 | >AF016 | 6/03/93 | 3:34 |
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5A
VOLATILE ORGANIC GC/MS TUNING AND MASS
CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: AMER.ENV.NTWK. Contract: WEST-0103

Lab Code: AENI Case No: NWS-EARL SAS No: N.A. SDG No: N.A.

Lab File ID: >AF266 BFB Injection Date: 6/17/93

Instrument ID: HP5985-A BFB Injection Time: 15:37

Matrix: WATER Level: LOW Column: CAP

| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| 50 | 15.0 - 40.0% OF MASS 95 | 19.0 |
| 75 | 30.0 - 60.0% OF MASS 95 | 49.9 |
| 95 | Base peak, 100% relative abundance | 100. |
| 96 | 5.0 - 9.0% of mass 95 | 8.0 |
| 173 | Less than 2.0% of mass 174 | 0.0( 0.0)1 |
| 174 | Greater than 50.0% of mass 95 | 76.0 |
| 175 | 5.0 - 9.0% of mass 174 | 5.9( 7.8)1 |
| 176 | Greater than 95.0%, but less than 101.0% of mass 174 | 74.0( 97.3)1 |
| 177 | 5.0 - 9.0% of mass 176 | 5.7( 7.7)2 |

1-Value is % mass 174 2-Value is % mass 176

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

| | LAB SAMPLE ID | EPA / CLIENT SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|---|---|---|---|---|---|
| 01 | 0617VSTD50 | 0617VSTD50 A1 | >AF267 | 6/17/93 | 16:32 |
| 02 | 0617VBLK A1 | 0617VBLK A1 | >AF268 | 6/17/93 | 19:19 |
| 03 | AE#8736 | 610-SSFB | >AF269 | 6/17/93 | 20:27 |
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FORM V VOA 2/88 Rev.

5A
VOLATILE ORGANIC GC/MS TUNING AND MASS
CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: AMER.ENV.NTWK. Contract: WEST-0103

Lab Code: AENI Case No: NWS-EARL SAS No: N.A. SDG No: N.A.

Lab File ID: >AF293 BFB Injection Date: 6/18/93

Instrument ID: HP5985-A BFB Injection Time: 16:32

Matrix: SOIL Level: MED Column: CAP

| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| 50 | 15.0 - 40.0% OF MASS 95 | 15.5 |
| 75 | 30.0 - 60.0% OF MASS 95 | 43.7 |
| 95 | Base peak, 100% relative abundance | 100. |
| 96 | 5.0 - 9.0% of mass 95 | 7.6 |
| 173 | Less than 2.0% of mass 174 | 0.0( 0.0)1 |
| 174 | Greater than 50.0% of mass 95 | 85.7 |
| 175 | 5.0 - 9.0% of mass 174 | 6.9( 8.0)1 |
| 176 | Greater than 95.0%, but less than 101.0% of mass 174 | 82.4( 96.2)1 |
| 177 | 5.0 - 9.0% of mass 176 | 6.4( 7.7)2 |

1-Value is % mass 174 2-Value is % mass 176

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

| | LAB SAMPLE ID | EPA / CLIENT SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|---|---|---|---|---|---|
| 01 | 0618VSTD50 | 0618VSTD50 A1 | >AF294 | 6/18/93 | 17:04 |
| 02 | 0618VBLKML | 0618VBLKML A1 | >AF296 | 6/18/93 | 18:29 |
| 03 | AE#8729 | 610-SS1 | >AF303 | 6/18/93 | 23:38 |
| 04 | AE#8733 | 610-SS5 | >AF304 | 6/19/93 | 0:21 |
| 05 | AE#8733 | 610-SS5 MS | >AF305 | 6/19/93 | 1:03 |
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FORM V VOA 2/88 Rev.

5A

# VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: AMER.ENV.NTWK. Contract: WEST-0103

Lab Code: AENI Case No: NWS-EARL SAS No: N.A. SDG No: N.A.

Lab File ID: >AF327 BFB Injection Date: 6/22/93

Instrument ID: HP5985-A BFB Injection Time: 13:22

Matrix: SOIL Level: MED Column: CAP

| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| 50 | 15.0 - 40.0% OF MASS 95 | 17.5 |
| 75 | 30.0 - 60.0% OF MASS 95 | 47.4 |
| 95 | Base peak, 100% relative abundance | 100. |
| 96 | 5.0 - 9.0% of mass 95 | 6.8 |
| 173 | Less than 2.0% of mass 174 | 0.0( 0.0)1 |
| 174 | Greater than 50.0% of mass 95 | 78.4 |
| 175 | 5.0 - 9.0% of mass 174 | 6.7( 8.6)1 |
| 176 | Greater than 95.0%, but less than 101.0% of mass 174 | 78.8(100.5)1 |
| 177 | 5.0 - 9.0% of mass 176 | 5.9( 7.5)2 |

1-Value is % mass 174 2-Value is % mass 176

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

| | LAB SAMPLE ID | EPA / CLIENT SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|---|---|---|---|---|---|
| 01 | 0622VSTD50 | 0622VSTD50 A1 | >AF328 | 6/22/93 | 13:52 |
| 02 | 0622VBLKML | 0622VBLKML A2 | >AF330 | 6/22/93 | 15:26 |
| 03 | AE#8729 | 610-SS1 1:10 | >AF332 | 6/22/93 | 17:41 |
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FORM V VOA 2/88 Rev.

VOLATILE ORGANIC GC/MS TUNING AND MASS
CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: AMER.ENV.NTWK. Contract: N.A.

Lab Code: AENI Case No: N.A. SAS No: N.A. SDG No: N.A.

Lab File ID: >CF074 BFB Injection Date: 6/04/93

Instrument ID: HP5970-C BFB Injection Time: 15:42

Matrix: SOIL Level: LOW Column: PACK

| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| 50 | 15.0 - 40.0% OF MASS 95 | 26.2 |
| 75 | 30.0 - 60.0% OF MASS 95 | 51.5 |
| 95 | Base peak, 100% relative abundance | 100. |
| 96 | 5.0 - 9.0% of mass 95 | 7.9 |
| 173 | Less than 2.0% of mass 174 | 0.0( 0.0)1 |
| 174 | Greater than 50.0% of mass 95 | 65.9 |
| 175 | 5.0 - 9.0% of mass 174 | 5.0( 7.6)1 |
| 176 | Greater than 95.0%, but less than 101.0% of mass 174 | 65.3( 99.0)1 |
| 177 | 5.0 - 9.0% of mass 176 | 3.9( 5.9)2 |

1-Value is % mass 174 2-Value is % mass 176

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

| | LAB SAMPLE ID | EPA / CLIENT SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|---|---|---|---|---|---|
| 01 | 0604HSTD 20 | 0604HSTD 20 | >CF077 | 6/04/93 | 19:57 |
| 02 | 0604HSTD 50 | 0604HSTD 50 | >CF078 | 6/04/93 | 20:45 |
| 03 | 0604HSTD 10 | 0604HSTD 100 | >CF079 | 6/04/93 | 21:33 |
| 04 | 0604HSTD 15 | 0604HSTD 150 | >CF080 | 6/04/93 | 22:21 |
| 05 | 0604HSTD 20 | 0604HSTD 200 | >CF081 | 6/04/93 | 23:09 |
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FORM V VOA 2/88 Rev.

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# VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: AMER.ENV.NTWK. Contract: WEST-0103

Lab Code: AENI Case No: NWS-EARL SAS No: N.A. SDG No: N.A.

Lab File ID: >CF188 BFB Injection Date: 6/17/93

Instrument ID: HP5970-C BFB Injection Time: 9:57

Matrix: SOIL Level: LOW Column: PACK

| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| 50 | 15.0 - 40.0% OF MASS 95 | 26.6 |
| 75 | 30.0 - 60.0% OF MASS 95 | 52.8 |
| 95 | Base peak, 100% relative abundance | 100. |
| 96 | 5.0 - 9.0% of mass 95 | 8.0 |
| 173 | Less than 2.0% of mass 174 | 0.0( 0.0)1 |
| 174 | Greater than 50.0% of mass 95 | 64.2 |
| 175 | 5.0 - 9.0% of mass 174 | 5.0( 7.7)1 |
| 176 | Greater than 95.0%, but less than 101.0% of mass 174 | 63.9( 99.5)1 |
| 177 | 5.0 - 9.0% of mass 176 | 4.3( 6.7)2 |

1-Value is % mass 174 2-Value is % mass 176

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

| | LAB SAMPLE ID | EPA / CLIENT SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|---|---|---|---|---|---|
| 01 | 0617HSTD50 | 0617HSTD50 C1 | >CF189 | 6/17/93 | 10:42 |
| 02 | 0617HBLK C1 | 0617HBLK C1 | >CF190 | 6/17/93 | 11:48 |
| 03 | AE#8737 | DIS 1:10 | >CF194 | 6/17/93 | 15:00 |
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FORM V VOA 2/88 Rev.

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8A
VOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: AMER.ENV.NTWK. Contract: WEST-0103

Lab Code: AENI Case No: NWS-EARL SAS No: N.A. SDG No: N.A.

Lab File ID (Standard): >AF267 Date Analyzed: 6/17/93

Instrument ID: HP5985-A Time Analyzed: 16:32

Matrix: WATER Level: LOW Column: CAP

| | | IS1(BCM) AREA # | RT | IS2(DFB) AREA # | RT | IS3(CBZ) AREA # | RT |
|---|---|---|---|---|---|---|---|
| | 12 HOUR STD | 20978. | 10.27 | 94592. | 11.77 | 35947. | 17.18 |
| | UPPER LIMIT | 41956. | | 189184. | | 71894. | |
| | LOWER LIMIT | 10489. | | 47296. | | 17973. | |
| | EPA / CLIENT SAMPLE ID | | | | | | |
| 01 | 0617VBLK A1 | 20328. | 10.26 | 90803. | 11.76 | 34580. | 17.21 |
| 02 | 610-SSFB | 20880. | 10.29 | 92199. | 11.75 | 37596. | 17.20 |
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IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-d5

UPPER LIMIT = + 100%
of internal standard area.
LOWER LIMIT = - 50%
of internal standard area.

# Column used to flag internal standard area values with an asterisk



FORM VIII VOA 2/88 Rev.

# VOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: AMER.ENV.NTWK. Contract: WEST-0103

Lab Code: AENI Case No: NWS-EARL SAS No: N.A. SDG No: N.A.

Lab File ID (Standard): >CF189 Date Analyzed: 6/17/93

Instrument ID: HP5970-C Time Analyzed: 10:42

Matrix: SOIL Level: LOW Column: PACK

| | | IS1(BCM) AREA # | RT | IS2(DFB) AREA # | RT | IS3(CBZ) AREA # | RT |
|---|---|---|---|---|---|---|---|
| | 12 HOUR STD | 15805. | 11.09 | 63026. | 21.48 | 38348. | 26.29 |
| | UPPER LIMIT | 31610. | | 126052. | | 76696. | |
| | LOWER LIMIT | 7903. | | 31513. | | 19174. | |
| | EPA / CLIENT SAMPLE ID | | | | | | |
| 01 | 0617HBLK C1 | 15086. | 11.11 | 61238. | 21.45 | 35680. | 26.30 |
| 02 | DIS 1:10 | 14264. | 10.97 | 56531. | 21.35 | 32873. | 26.16 |
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IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-d5

UPPER LIMIT = + 100% of internal standard area.
LOWER LIMIT = - 50% of internal standard area.

# Column used to flag internal standard area values with an asterisk



FORM VIII VOA 2/88 Rev.

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8A
VOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: AMER.ENV.NTWK. Contract: WEST-0103

Lab Code: AENI Case No: NWS-EARL SAS No: N.A. SDG No: N.A.

Lab File ID (Standard): >AF294 Date Analyzed: 6/18/93

Instrument ID: HP5985-A Time Analyzed: 17:04

Matrix: SOIL Level: MED Column: CAP

| | | IS1(BCM) AREA # | RT | IS2(DFB) AREA # | RT | IS3(CBZ) AREA # | RT |
|---|---|---|---|---|---|---|---|
| | 12 HOUR STD | 21610. | 10.33 | 97358. | 11.83 | 37711. | 17.25 |
| | UPPER LIMIT | 43220. | | 194716. | | 75422. | |
| | LOWER LIMIT | 10805. | | 48679. | | 18856. | |
| | EPA / CLIENT SAMPLE ID | | | | | | |
| 01 | 0618VBLKML A | 21377. | 10.29 | 95686. | 11.79 | 36687. | 17.24 |
| 02 | 610-SS1 | 19183. | 10.25 | 90101. | 11.76 | 21510. | 17.18 |
| 03 | 610-SS5 | 21739. | 10.26 | 94343. | 11.73 | 52264. | 17.15 |
| 04 | 610-SS5 MS | 25919. | 10.22 | 94105. | 11.73 | 53163. | 17.15 |
| 05 | 610-SS5 MSD | 21262. | 10.22 | 94916. | 11.73 | 54101. | 17.15 |
| 06 | | | | | | | |
| 07 | | | | | | | |
| 08 | | | | | | | |
| 09 | | | | | | | |
| 10 | | | | | | | |
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| 19 | | | | | | | |
| 20 | | | | | | | |
| 21 | | | | | | | |
| 22 | | | | | | | |

IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-d5

UPPER LIMIT = + 100% of internal standard area.
LOWER LIMIT = - 50% of internal standard area.

# Column used to flag internal standard area values with an asterisk



FORM VIII VOA 2/88 Rev.

0000_5

8A
VOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: AMER.ENV.NTWK. Contract: WEST-0103

Lab Code: AENI Case No: NWS-EARL SAS No: N.A. SDG No: N.A.

Lab File ID (Standard): >AF328 Date Analyzed: 6/22/93

Instrument ID: HP5985-A Time Analyzed: 13:52

Matrix: SOIL Level: MED Column: CAP

| | | IS1(BCM) AREA # | RT | IS2(DFB) AREA # | RT | IS3(CBZ) AREA # | RT |
|---|---|---|---|---|---|---|---|
| | 12 HOUR STD | 20076. | 10.18 | 91386. | 11.68 | 37088. | 17.10 |
| | UPPER LIMIT | 40152. | | 182772. | | 74176. | |
| | LOWER LIMIT | 10038. | | 45693. | | 18544. | |
| | EPA / CLIENT SAMPLE ID | | | | | | |
| 01 | 0622VBLKML A | 20067. | 10.18 | 93510. | 11.68 | 37918. | 17.13 |
| 02 | 610-SS1 1:10 | 17000. | 10.19 | 82812. | 11.69 | 40770. | 17.15 |
| 03 | | | | | | | |
| 04 | | | | | | | |
| 05 | | | | | | | |
| 06 | | | | | | | |
| 07 | | | | | | | |
| 08 | | | | | | | |
| 09 | | | | | | | |
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| 18 | | | | | | | |
| 19 | | | | | | | |
| 20 | | | | | | | |
| 21 | | | | | | | |
| 22 | | | | | | | |

IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-d5

UPPER LIMIT = + 100%
of internal standard area.
LOWER LIMIT = - 50%
of internal standard area.

# Column used to flag internal standard area values with an asterisk



FORM VIII VOA 2/88 Rev.

*Section b).*

# SAMPLE DATA

TCL Results - Organic Analysis Data Sheet
Tentatively Identified Compounds
Sample Raw Data

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA / CLIENT ID

610-SS1

Lab Name: AMER.ENV.NTWK. Contract: WEST-0103

Lab Code: AENI Case No: NWS-EARLE SAS No: N.A. SDG No: N.A.

Matrix: SOIL Lab Sample ID: AE#8729

Sample (wt/vol): 4 G Lab File ID: >AF303

Level: MED Date Received: 06/11/93

% Moisture: not dec. 20 Date Analyzed: 6/18/93

Column: CAP Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 1600. | U |
| 74-83-9 | Bromomethane | 1600. | U |
| 75-01-4 | Vinyl Chloride | 1600. | U |
| 75-00-3 | Chloroethane | 1600. | U |
| 75-09-2 | Methylene Chloride | 780. | U |
| 67-64-1 | Acetone | 21000. | B |
| 75-15-0 | Carbon Disulfide | 780. | U |
| 75-35-4 | 1,1-Dichloroethene | 780. | U |
| 75-34-3 | 1,1-Dichloroethane | 780. | U |
| 156-60-5 | trans-1,2-Dichloroethene | 780. | U |
| 67-66-3 | Chloroform | 780. | U |
| 107-02-2 | 1,2-Dichloroethane | 780. | U |
| 78-93-3 | 2-Butanone | 16000. | U |
| 71-55-6 | 1,1,1-Trichloroethane | 780. | U |
| 56-23-5 | Carbon Tetrachloride | 780. | U |
| 108-05-4 | Vinyl Acetate | 7800. | U |
| 75-27-4 | Bromodichloromethane | 780. | U |
| 78-87-5 | 1,2-Dichloropropane | 780. | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 780. | U |
| 79-01-6 | Trichloroethene | 780. | U |
| 124-48-1 | Dibromochloromethane | 780. | U |
| 79-00-5 | 1,1,2-Trichloroethane | 780. | U |
| 71-43-2 | Benzene | 400. | J |
| 10061-02-6 | trans-1,3-Dichloropropene | 780. | U |
| 110-75-8 | 2-Chloroethylvinylether | 1600. | U |
| 75-25-2 | Bromoform | 780. | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 240000. | |
| 591-78-6 | 2-Hexanone | 47000. | |
| 127-18-4 | Tetrachloroethene | 780. | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 4400. | |
| 108-88-3 | Toluene | 18000. | |
| 108-90-7 | Chlorobenzene | 780. | U |
| 100-41-4 | Ethylbenzene | 69000. | |
| 100-42-5 | Styrene | 780. | U |
| 133-02-7 | m + p-Xylenes | 310000. | |
| 95-47-6 | o-Xylene | 28000. | |

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

610-SS1

Lab Name: AMER.ENV.NTWK. Contract: WEST-0103

Lab Code: AENI Case No: NWS-EARL SAS No: N.A. SDG No: N.A.

Matrix: SOIL Lab Sample ID: AE#8729

Sample wt/vol: 4 G Lab File ID: >AF303

Level: MED Date Received: 06/11/93

% Moisture: not dec. 20 Date Analyzed: 6/18/93

Column: CAP Dilution Factor: 1.0

Number TICs found: 10

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|---|
| 1. | 107835 | Pentane, 2-methyl- (8CI9CI) | 7.36 | 10000. | J |
| 2. | | Unknown | 12.53 | 29000. | J |
| 3. | | Unknown | 13.40 | 31000. | J |
| 4. | 111659 | Octane (DOT)(8CI9CI) | 14.14 | 38000. | J |
| 5. | 2216344 | Octane, 4-methyl- (8CI9CI) | 15.93 | 14000. | J |
| 6. | 111842 | Nonane (8CI9CI) | 16.92 | 7100. | J |
| 7. | 611143 | Benzene, 1-ethyl-2-methyl- ( | 19.93 | 18000. | J |
| 8. | 108678 | Benzene, 1,3,5-trimethyl- (9 | 20.81 | 14000. | J |
| 9. | 1074437 | Benzene, 1-methyl-3-propyl- | 22.05 | 6000. | J |
| 10. | 1758889 | Benzene, 2-ethyl-1,4-dimethy | 22.20 | 6000. | J |
| 11. | | | | | |
| 12. | | | | | |
| 13. | | | | | |
| 14. | | | | | |
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| 23. | | | | | |
| 24. | | | | | |
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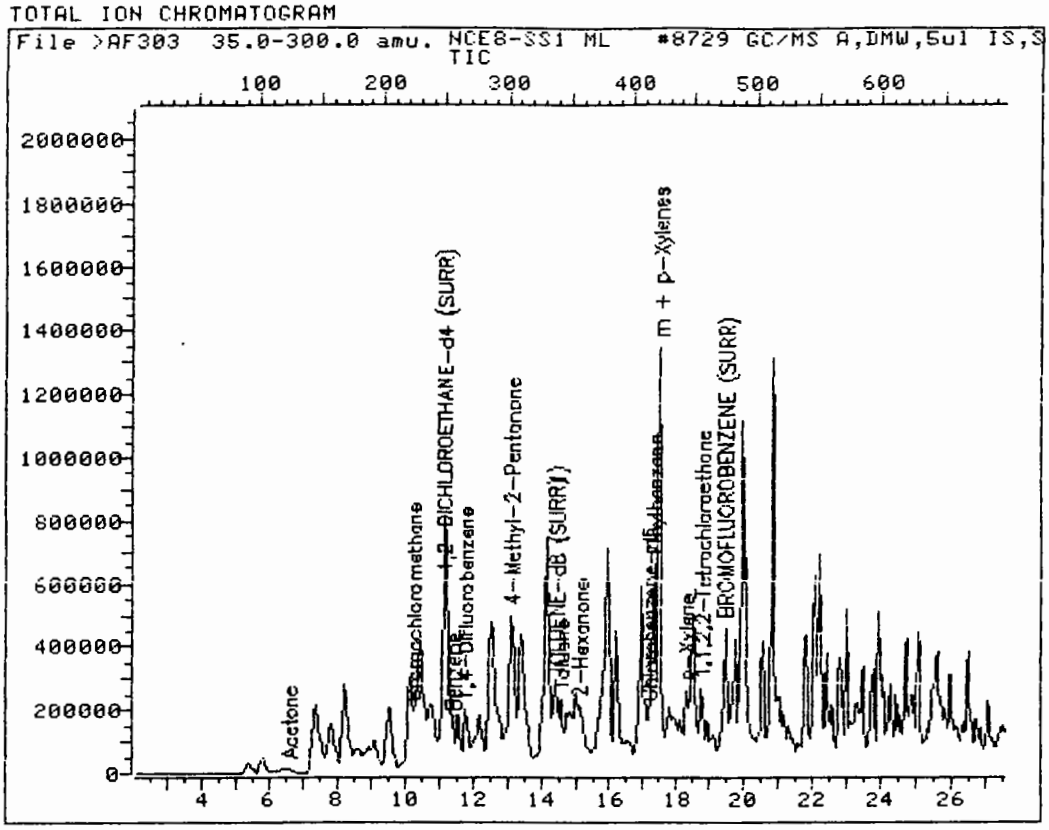
| 26. | | | | | |
| 27. | | | | | |
| 28. | | | | | |
| 29. | | | | | |
| 30. | | | | | |

000049

NR = Not Reviewed

TOTAL ION CHROMATOGRAM




Data File: >AF303::C2 Quant Output File: ^AF303::OU
Name: NCE8-SS1 ML #8729
Misc: GC/MS A,DMW,5ul IS,SS/5ML,WEST-0103

Id File: IDVAFD::ID
Title: HSL VOLATILES
Last Calibration: 930618 18:40

Operator ID: ZIPPY
Quant Time: 930619 00:06
Injected at: 930618 23:38

QUANT REPORT

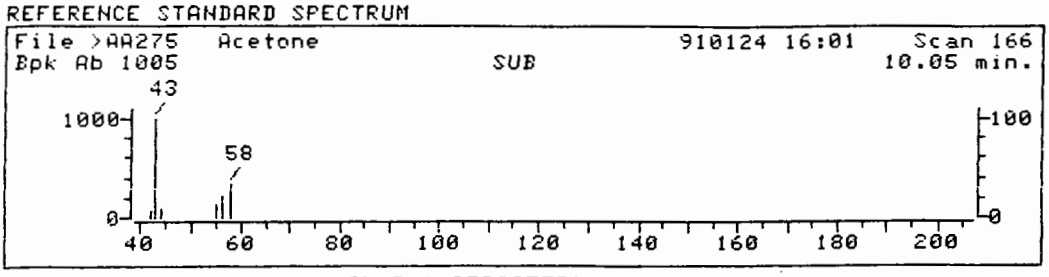
Operator ID: ZIPPY  Quant Rev: 6  Quant Time: 930619 00:06
Output File: ^AF303::OU  Injected at: 930618 23:38
Data File: >AF303::C2  Dilution Factor: 1.00000
Name: NCE8-SS1 ML #8729
Misc: GC/MS A,DMW,5ul IS,SS/5ML,WEST-0103

ID File: IDVAFD::ID
Title: HSL VOLATILES
Last Calibration: 930618 18:40

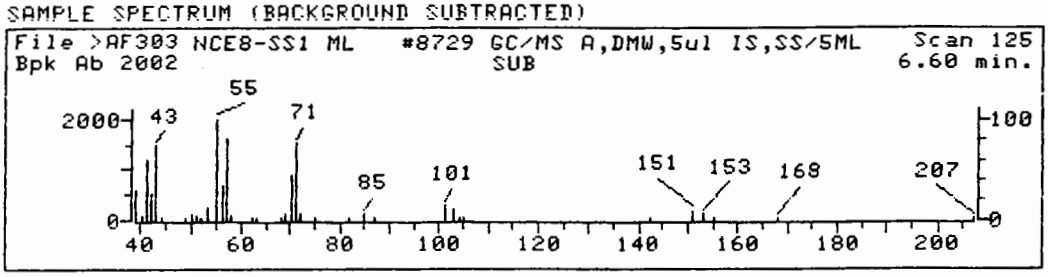
| | Compound | Q ion | Scan# | Area | Conc | Units | q |
|---|---|---|---|---|---|---|---|
| 1) | *Bromochloromethane | 128.0 | 225 | 19183 | 50.00 | ng/mL | |
| 7) | Acetone | 43.0 | 125 | 24981 | 133.54 | ng/mL | [illegible] |
| 18) | 1,2-DICHLOROETHANE-d4 (SURR) | 65.0 | 249 | 35031 | 60.27 | ng/mL | 10 |
| 20) | *1,4-Difluorobenzene | 114.0 | 266 | 90101 | 50.00 | ng/mL | |
| 24) | Benzene | 78.0 | 256 | 6951 | 2.57 | ng/mL | 1 |
| 30) | TOLUENE-d8 (SURR1) | 98.0 | 339 | 114851 | 48.53 | ng/mL | 9 |
| 35) | *Chlorobenzene-d5 | 82.0 | 414 | 21510 | 50.00 | ng/mL | [illegible] |
| 36) | 4-Methyl-2-Pentanone | 43.0 | 303 | 1094547 | 1528.55 | ng/mL | |
| 37) | Toluene | 92.0 | 343 | 127014 | 117.88 | ng/mL | 9 |
| 38) | 2-Hexanone | 43.0 | 358 | 137100 | 298.28 | ng/mL | 5 |
| 41) | Ethylbenzene | 91.0 | 418 | 1056144 | 441.93 | ng/mL | |
| 42) | m + p-Xylenes | 106.0 | 422 | 1541593 | 1984.23 | ng/mL | [illegible] |
| 43) | o-Xylene | 106.0 | 444 | 147482 | 182.05 | ng/mL | 9 |
| 45) | 1,1,2,2-Tetrachloroethane | 83.0 | 457 | 31478 | 28.42 | ng/mL | [illegible] |
| 46) | BROMOFLUOROBENZENE (SURR) | 95.0 | 476 | 95942 | 128.33 | ng/mL | |
| 50) | TOLUENE-d8 (SURR) | 98.0 | 339 | 114851 | 78.74 | ng/mL | 9 |

* Compound is ISTD

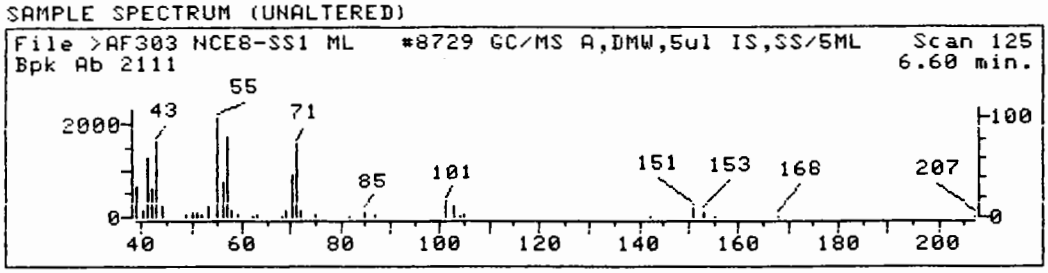
REFERENCE STANDARD SPECTRUM




SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



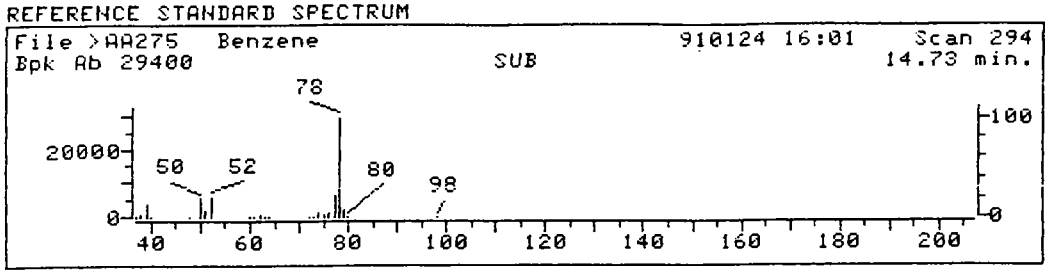

SAMPLE SPECTRUM (UNALTERED)



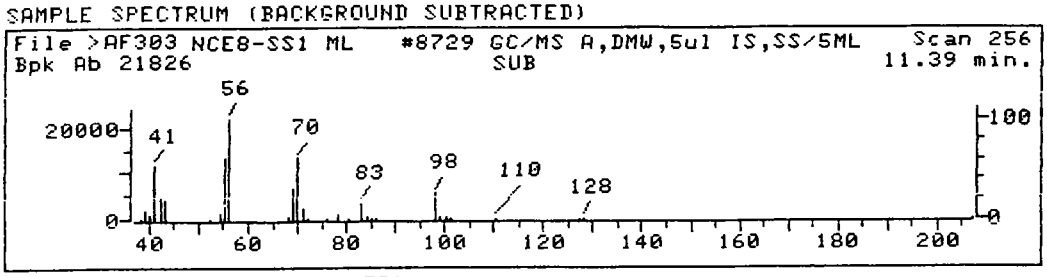

Data File: >AF303::C2 Quant Output File: ^AF303::OU
Name: NCE8-SS1 ML #8729
Misc: GC/MS A,DMW,5ul IS,SS/5ML,WEST-0103
Quant Time: 930619 00:06 Quant ID File: IDVAFD::ID
Injected at: 930618 23:38 Last Calibration: 930618 18:40

Compound No: 7
Compound Name: Acetone
Scan Number: 125
Retention Time: 6.60 min.
Quant Ion: 43.0
Area: 24981
Concentration: 133.54 ng/mL
q-value: 59

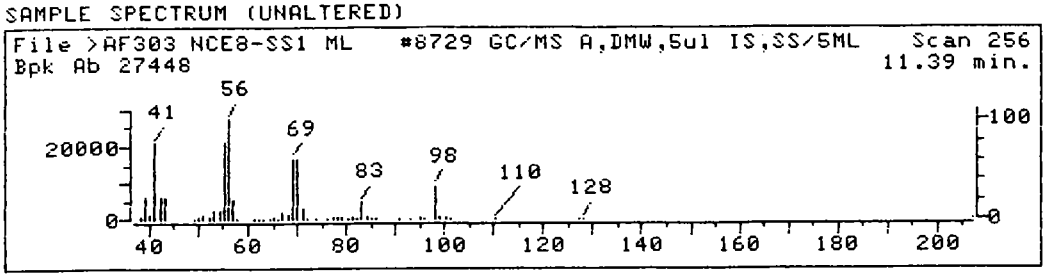
REFERENCE STANDARD SPECTRUM




SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



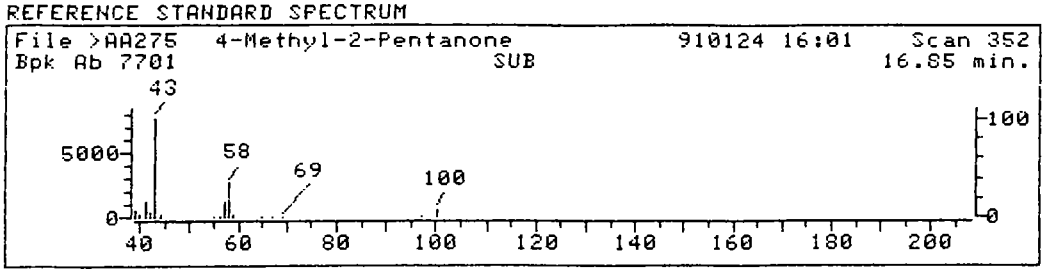

SAMPLE SPECTRUM (UNALTERED)



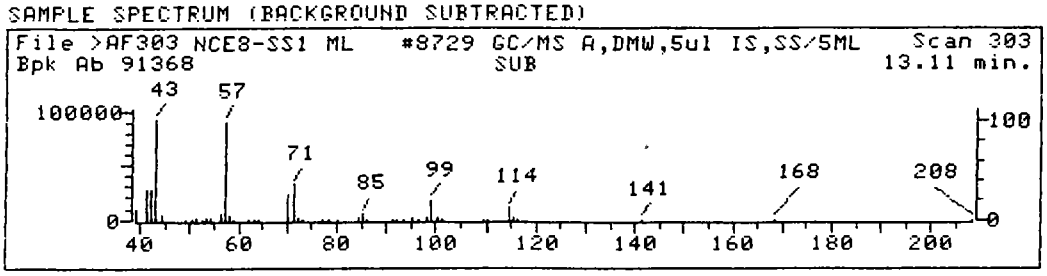

Data File: >AF303::C2 Quant Output File: ^AF303::OU
Name: NCE8-SS1 ML #8729
Misc: GC/MS A,DMW,5ul IS,SS/5ML,WEST-0103
Quant Time: 930619 00:06 Quant ID File: IDVAFD::ID
Injected at: 930618 23:38 Last Calibration: 930618 18:40

Compound No: 24
Compound Name: Benzene
Scan Number: 256
Retention Time: 11.39 min.
Quant Ion: 78.0
Area: 6951
Concentration: 2.57 ng/mL
q-value: 100

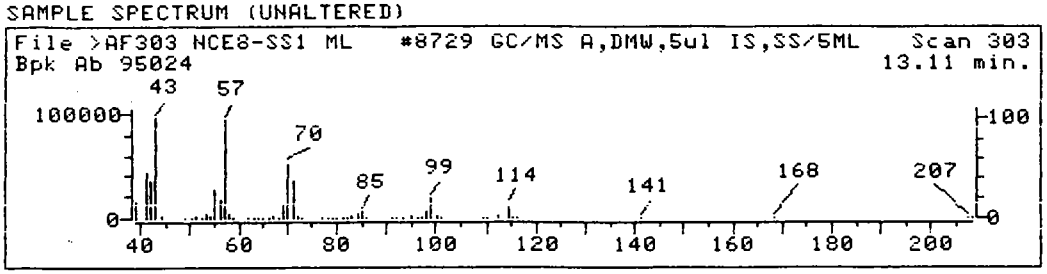
REFERENCE STANDARD SPECTRUM




SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



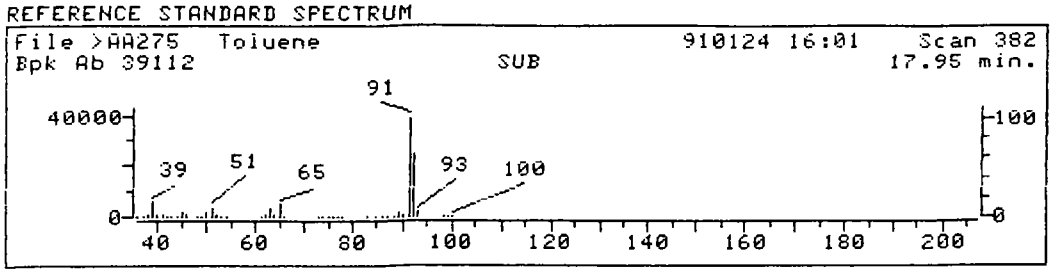

SAMPLE SPECTRUM (UNALTERED)



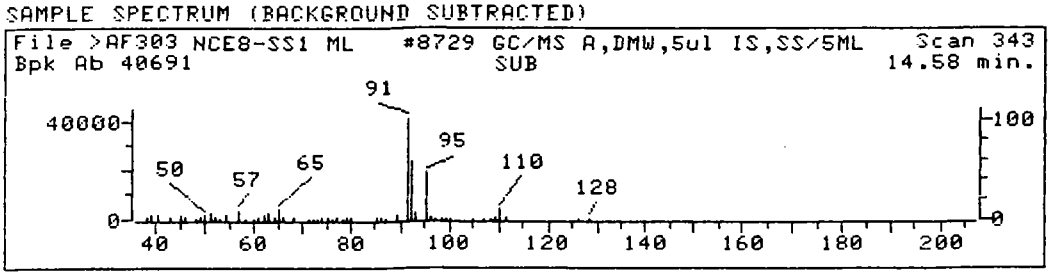

Data File: >AF303::C2 Quant Output File: ^AF303::OU
Name: NCE8-SS1 ML #8729
Misc: GC/MS A,DMW,5ul IS,SS/5ML,WEST-0103
Quant Time: 930619 00:06 Quant ID File: IDVAFD::ID
Injected at: 930618 23:38 Last Calibration: 930618 18:40

Compound No: 36
Compound Name: 4-Methyl-2-Pentanone
Scan Number: 303
Retention Time: 13.11 min.
Quant Ion: 43.0
Area: 1094547
Concentration: 1528.55 ng/mL
q-value: 48

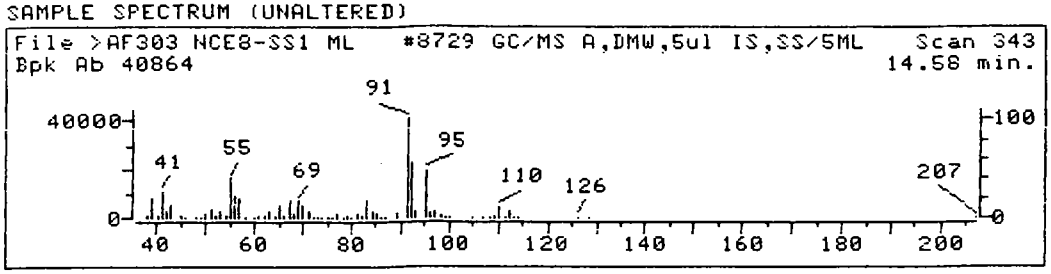
REFERENCE STANDARD SPECTRUM




SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



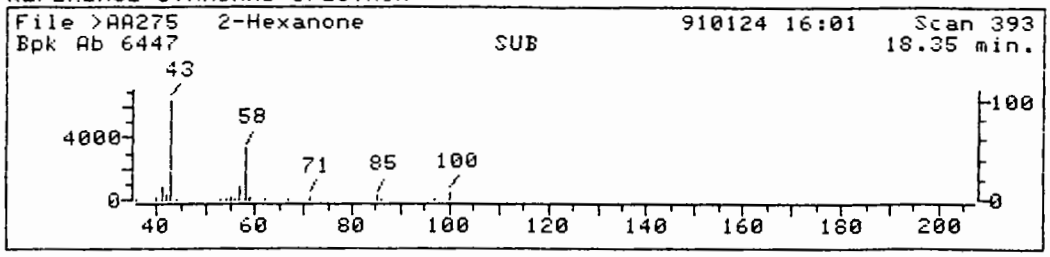

SAMPLE SPECTRUM (UNALTERED)



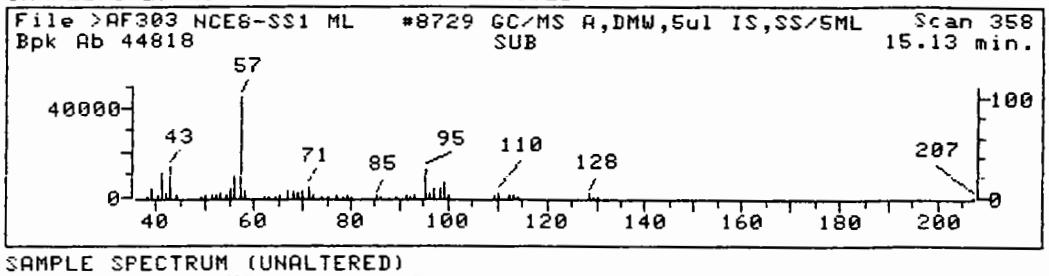

Data File: >AF303::C2 Quant Output File: ^AF303::OU
Name: NCE8-SS1 ML #8729
Misc: GC/MS A,DMW,5ul IS,SS/5ML,WEST-0103
Quant Time: 930619 00:06 Quant ID File: IDVAFD::ID
Injected at: 930618 23:38 Last Calibration: 930618 18:40

Compound No: 37
Compound Name: Toluene
Scan Number: 343
Retention Time: 14.58 min.
Quant Ion: 92.0
Area: 127014
Concentration: 117.88 ng/mL
q-value: 91

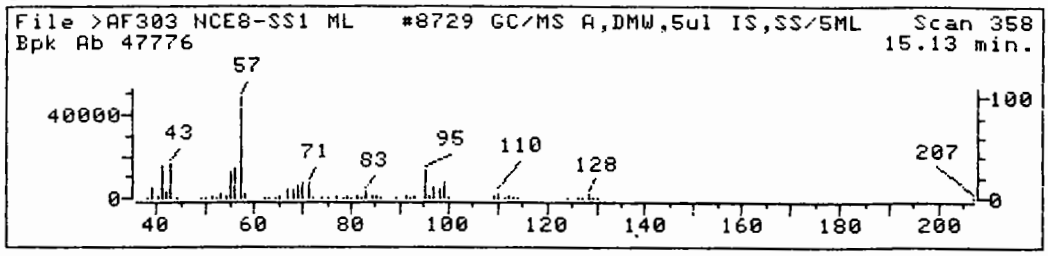
REFERENCE STANDARD SPECTRUM




SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



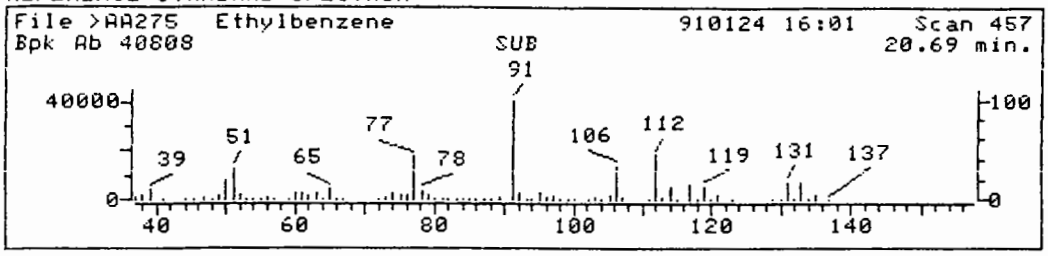

SAMPLE SPECTRUM (UNALTERED)



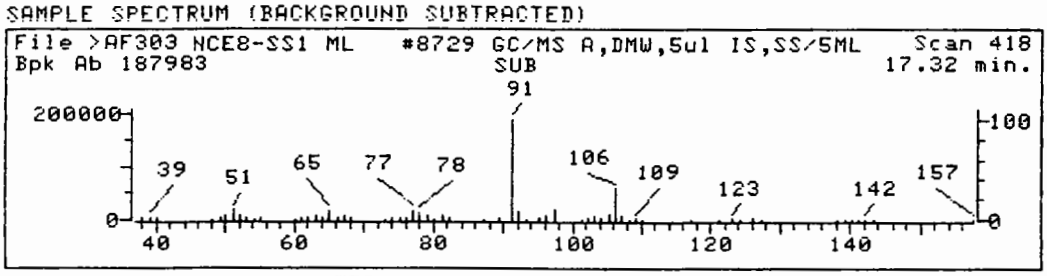

Data File: >AF303::C2 Quant Output File: ^AF303::OU
Name: NCE8-SS1 ML #8729
Misc: GC/MS A,DMW,5ul IS,SS/5ML,WEST-0103
Quant Time: 930619 00:06 Quant ID File: IDVAFD::ID
Injected at: 930618 23:38 Last Calibration: 930618 18:40

Compound No: 38
Compound Name: 2-Hexanone
Scan Number: 358
Retention Time: 15.13 min.
Quant Ion: 43.0
Area: 137100
Concentration: 298.28 ng/mL
q-value: 56

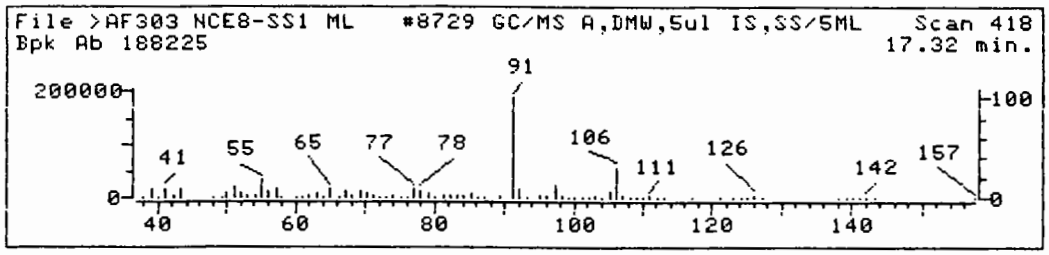
REFERENCE STANDARD SPECTRUM




SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



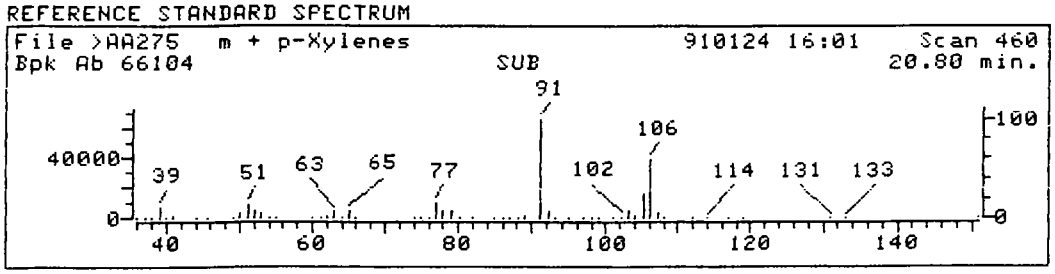

SAMPLE SPECTRUM (UNALTERED)



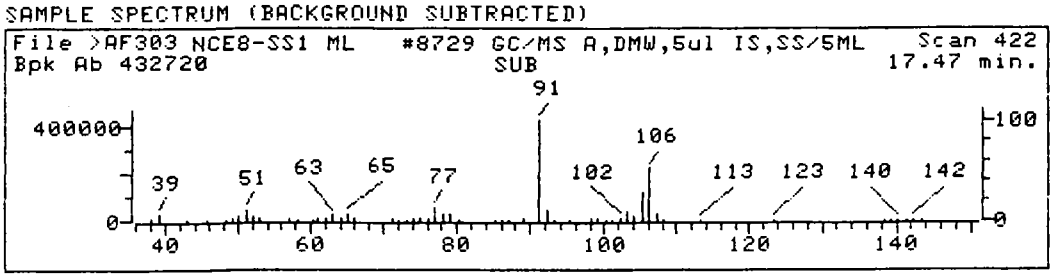

Data File: >AF303::C2 Quant Output File: ^AF303::OU
Name: NCE8-SS1 ML #8729
Misc: GC/MS A,DMW,5ul IS,SS/5ML,WEST-0103
Quant Time: 930619 00:06 Quant ID File: IDVAFD::ID
Injected at: 930618 23:38 Last Calibration: 930618 18:40

Compound No: 41
Compound Name: Ethylbenzene
Scan Number: 418
Retention Time: 17.32 min.
Quant Ion: 91.0
Area: 1056144
Concentration: 441.93 ng/mL
q-value: 72

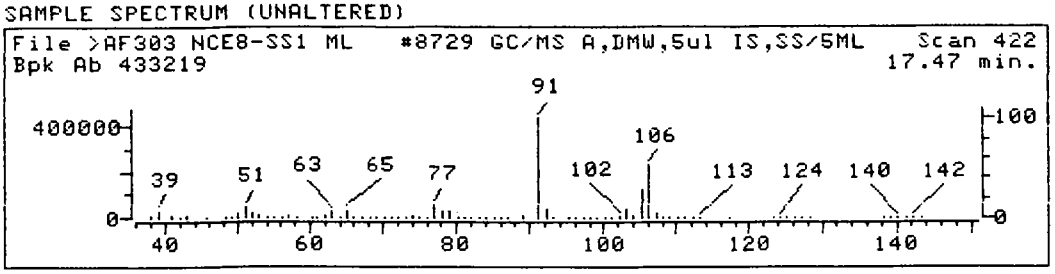
REFERENCE STANDARD SPECTRUM




SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



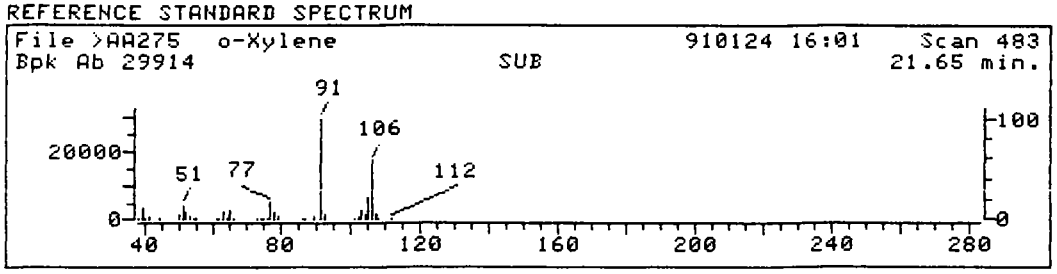

SAMPLE SPECTRUM (UNALTERED)



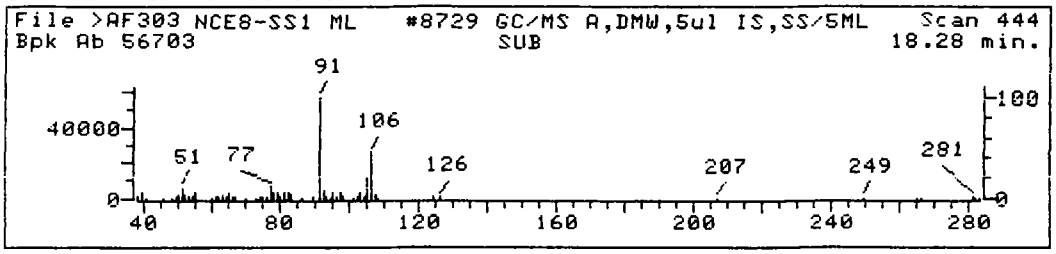

Data File: >AF303::C2 Quant Output File: ^AF303::OU
Name: NCE8-SS1 ML #8729
Misc: GC/MS A,DMW,5ul IS,SS/5ML,WEST-0103
Quant Time: 930619 00:06 Quant ID File: IDVAFD::ID
Injected at: 930618 23:38 Last Calibration: 930618 18:40

Compound No: 42
Compound Name: m + p-Xylenes
Scan Number: 422
Retention Time: 17.47 min.
Quant Ion: 106.0
Area: 1541593
Concentration: 1984.23 ng/mL
q-value: 90

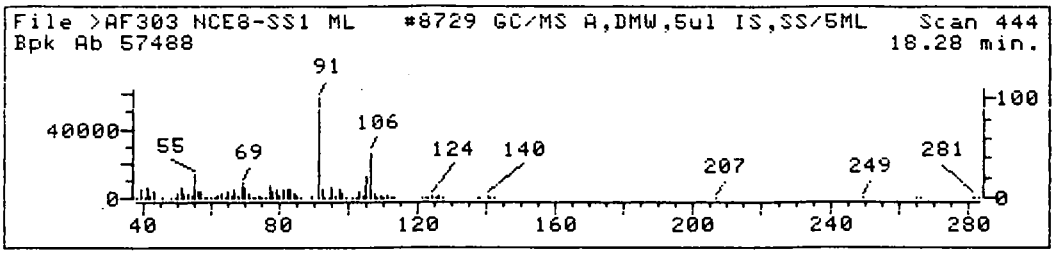
REFERENCE STANDARD SPECTRUM




SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



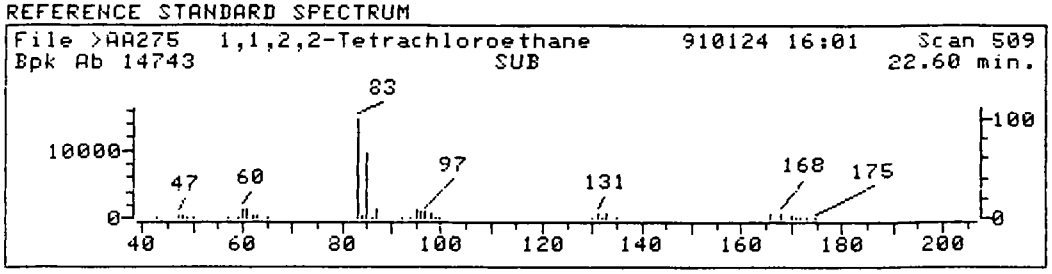

SAMPLE SPECTRUM (UNALTERED)



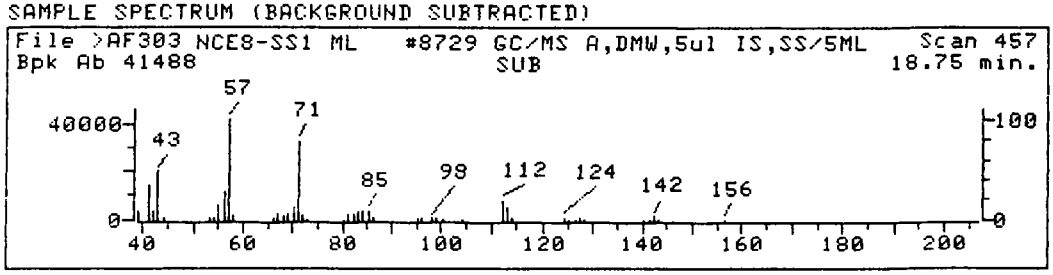

Data File: >AF303::C2 Quant Output File: ^AF303::OU
Name: NCE8-SS1 ML #8729
Misc: GC/MS A,DMW,5ul IS,SS/5ML,WEST-0103
Quant Time: 930619 00:06 Quant ID File: IDVAFD::ID
Injected at: 930618 23:38 Last Calibration: 930618 18:40

Compound No: 43
Compound Name: o-Xylene
Scan Number: 444
Retention Time: 18.28 min.
Quant Ion: 106.0
Area: 147482
Concentration: 182.05 ng/mL
q-value: 93

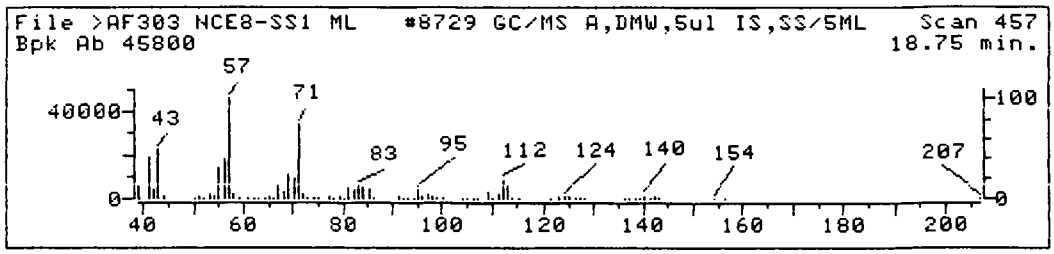
REFERENCE STANDARD SPECTRUM




SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)




SAMPLE SPECTRUM (UNALTERED)




Data File: >AF303::C2 Quant Output File: ^AF303::OU
Name: NCE8-SS1 ML #8729
Misc: GC/MS A,DMW,5ul IS,SS/5ML,WEST-0103
Quant Time: 930619 00:06 Quant ID File: IDVAFD::ID
Injected at: 930618 23:38 Last Calibration: 930618 18:40

Compound No: 45
Compound Name: 1,1,2,2-Tetrachloroethane
Scan Number: 457
Retention Time: 18.75 min.
Quant Ion: 83.0
Area: 31478
Concentration: 28.42 ng/mL
q-value: 74

MS data file header from : >AF303

Sample: NCE8-SS1 ML #8729 Operator: ZIPPY MS 6/18/93 23:38
Misc : GC/MS A,DMW,5ul IS,SS/5ML,WEST-0103
Sys. #: 1 MS model: 87 SW/HW rev.: IA ALS # : 0
Method file: HE8501 Tuning file: MT8501 No. of extra records: 2
Source temp.: 200 Analyzer temp.: 0 Transfer line temp. : 0

| | | | | | |
|---|---|---|---|---|---|
| Chromatographic temperatures : | 0. | 0. | 0. | 0. | 0. |
| Chromatographic times, min. : | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Chromatographic rate, deg/min: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

>AF303 NCE8-SS1 ML #8729 GC/MS A,DMW,5ul IS,SS/5ML,WEST-0103
35.01 300.0 CLP ADC TIC
Upslope: .20 Area Reject: 123701. Max Peaks: 10 Bunching: 1
Dnslope: 0.00 Results File IAF303 Sorted by Time/Area INT

| Peak # | R.T. min. | first scan | max scan | last scan | peak height | raw area | corr. area | corr. % max. | % of total |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 7.36 | 137 | 146 | 153 | 212833 | 3459491 | 3421864 | 37.47 | 6.60 |
| 2 | 12.53 | 282 | 287 | 292 | 403747 | 6116916 | 4582398 | 50.18 | 8.84 |
| 3 | 13.40 | 308 | 311 | 321 | 390982 | 6243908 | 4962831 | 54.34 | 9.57 |
| 4 | 14.14 | 325 | 331 | 335 | 685035 | 7276154 | 6050720 | 66.26 | 11.67 |
| 5 | 15.93 | 369 | 380 | 384 | 631556 | 9583454 | 6997793 | 76.63 | 13.50 |
| 6 | 16.92 | 400 | 407 | 408 | 529399 | 4725072 | 3610026 | 39.53 | 6.96 |
| 7 | 19.93 | 486 | 489 | 500 | 1012982 | 12315182 | 9132314 | 100.00 | 17.62 |
| 8 | 20.81 | 510 | 513 | 517 | 1182048 | 8852822 | 6910278 | 75.67 | 13.33 |
| 9 | 22.05 | 543 | 547 | 549 | 515253 | 4484790 | 3075645 | 33.68 | 5.93 |
| 10 | 22.20 | 549 | 551 | 554 | 562616 | 4488872 | 3078822 | 33.71 | 5.94 |

Sum of corrected areas: 51822704.

Summary of Unknowns PBM Library Search and Quantitation

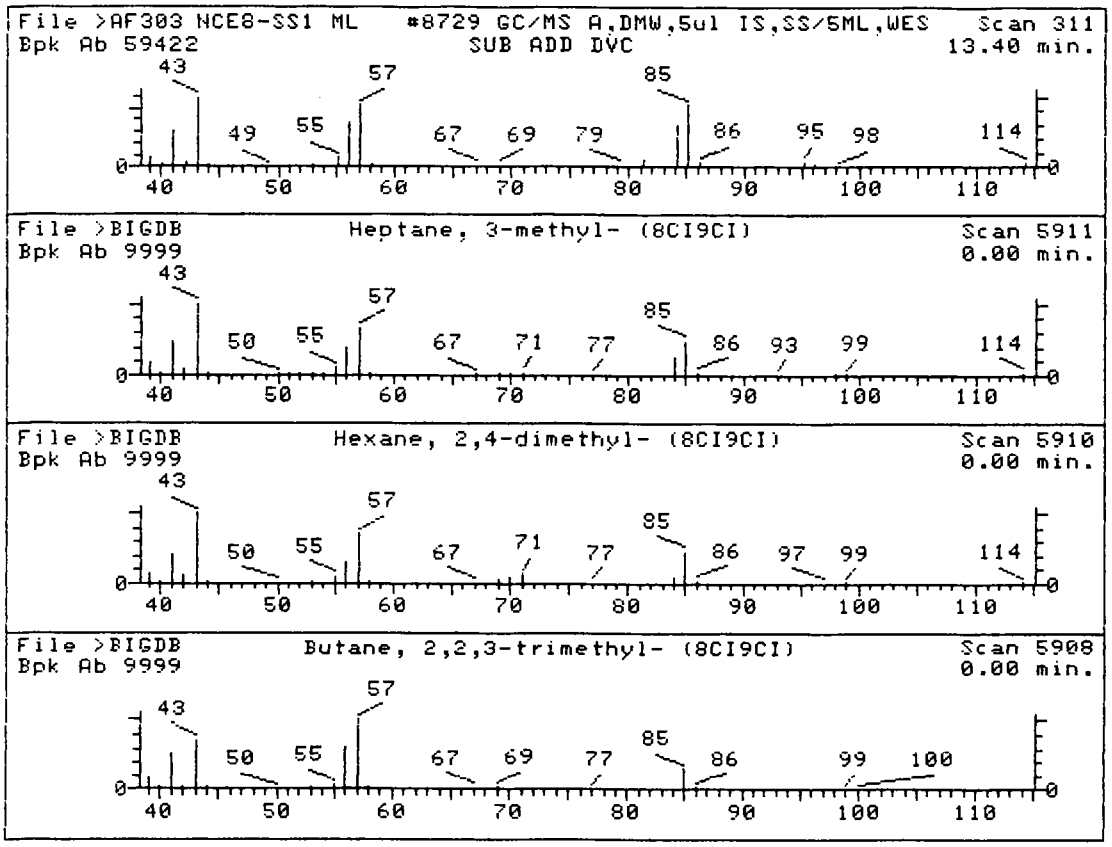
| Standard | Concentration | Area | Retention Time | Unknown Window |
|---|---|---|---|---|
| 1 | 50.0 | 2663770. | 10.25 | 2.06 - 11.01 |
| 2 | 50.0 | 1237009. | 11.76 | 11.01 - 14.47 |
| 3 | 50.0 | 3978694. | 17.18 | 14.47 - 27.56 |

Dilution Factor (DF) = .01 Fractional Solids (FS) = .80
Amount Method (AM) = 5.00 Amount Used (AU) = 4.00

Correction Factor = 156.25 = (AM / AU) / (DF * FS)

$$\text{Unknown Concentration} = \frac{\text{Conc Int Std}}{\text{Area Int Std}} * \text{Area Unk} * \text{Correction Factor}$$

11:32 AM THU., 24 JUNE, 1993



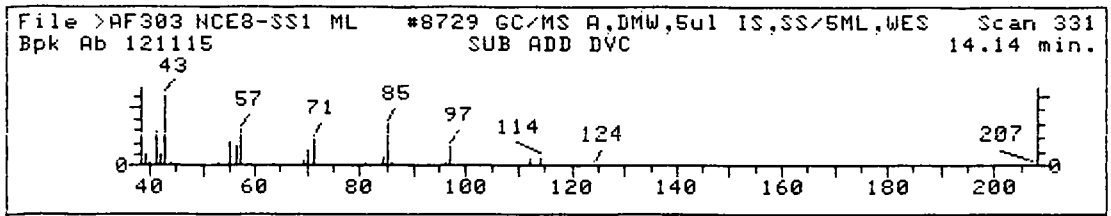

. Unknown #,3
Area = 4962831. Tentative Concentration is 31000.00

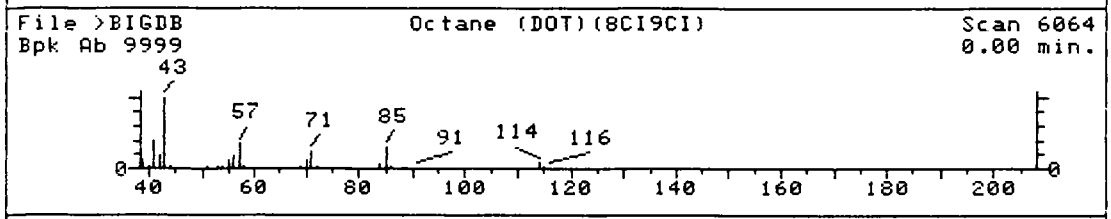
| | | | |
|---|---|---|---|
| 1. | Heptane, 3-methyl- (8CI9CI) | 114 | C8H18 |
| 2. | Hexane, 2,4-dimethyl- (8CI9CI) | 114 | C8H18 |
| 3. | Butane, 2,2,3-trimethyl- (8CI9CI) | 100 | C7H16 |
| 4. | Pentane, 2,2,3,4-tetramethyl- (8CI9CI) | 128 | C9H20 |
| 5. | Cyclobutanone, oxime (8CI9CI) | 85 | C4H7NO |
| 6. | Azetidine, 1,2-dimethyl- (9CI) | 85 | C5H11N |
| 7. | Pentane, 2,2-dimethyl- (8CI9CI) | 100 | C7H16 |

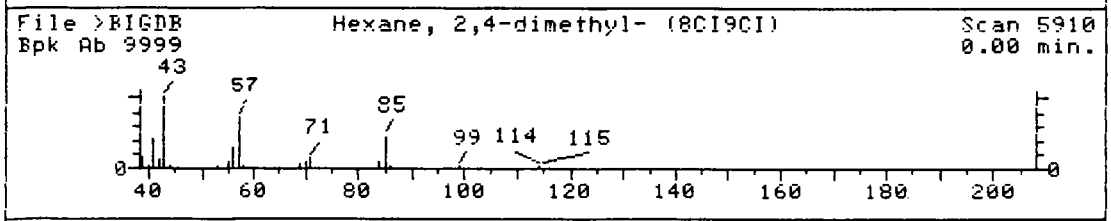
000046

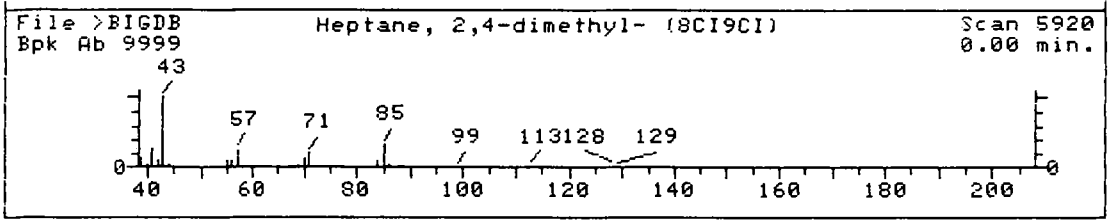
Sample file: >AF303 Spectrum #: 311
Search speed: 2 Tilting option: F No. of ion ranges searched: 42

| | Prob. | CAS # | CON # | ROOT | K | DK | #FLG | TILT | % | CON | C_I | R_I |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. | 36* | 589811 | 5911 | "BIGDB | 22 | 69 | 2 | 0 | 100 | 29 | 14 | 1 |
| 2. | 30* | 589435 | 5910 | "BIGDB | 22 | 76 | 2 | 0 | 100 | 32 | 12 | 1 |
| 3. | 25 | 464062 | 5908 | "BIGDB | 38 | 46 | 0 | 0 | 87 | 46 | 7 | 1 |
| 4. | 25 | 1186534 | 1016 | "BIGDB | 37 | 49 | 2 | 0 | 89 | 48 | 7 | 1 |
| 5. | 25* | 2972056 | 5957 | "BIGDB | 26 | 70 | 3 | 0 | 89 | 49 | 7 | 1 |
| 6. | 25* | 51764320 | 5940 | "BIGDB | 23 | 68 | 2 | 0 | 444 | 50 | 7 | 1 |
| 7. | 20 | 590352 | 5912 | "BIGDB | 28 | 56 | 0 | 0 | 89 | 52 | 5 | 1 |



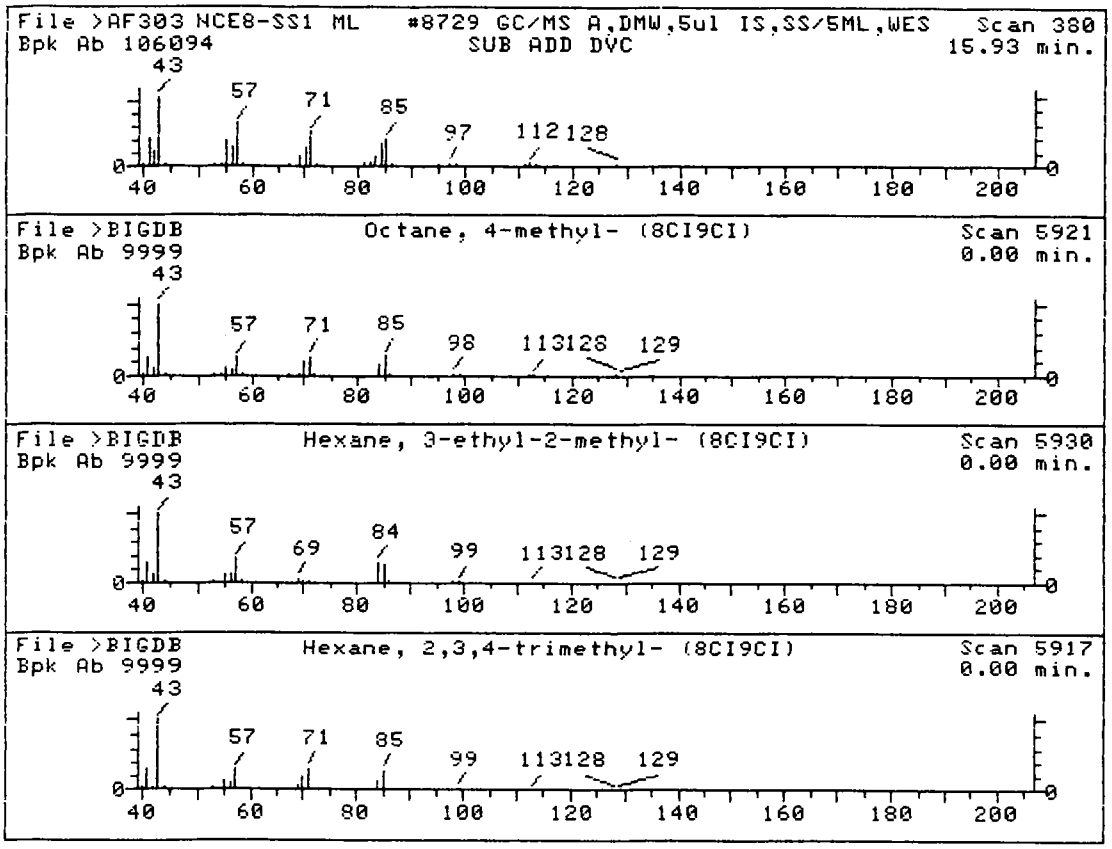

. Unknown #,4
Area = 6050720. Tentative Concentration is 38000.00

| | | | |
|---|---|---|---|
| 1. | Octane (DOT)(8CI9CI) | 114 | C8H18 |
| 2. | Hexane, 2,4-dimethyl- (8CI9CI) | 114 | C8H18 |
| 3. | Heptane, 2,4-dimethyl- (8CI9CI) | 128 | C9H20 |
| 4. | Hexane, 3-ethyl- (8CI9CI) | 114 | C8H18 |
| 5. | 2-Octene, (Z)- (8CI9CI) | 112 | C8H16 |
| 6. | Hexane, 2,3,4-trimethyl- (8CI9CI) | 128 | C9H20 |
| 7. | 2-Propenamide, N-methyl- (9CI) | 85 | C4H7NO |

000016

Sample file: >AF303 Spectrum #: 331
Search speed: 2 Tilting option: F No. of ion ranges searched: 46

| | Prob. | CAS # | CON # | ROOT | K | DK | #FLG | TILT | % | CON | C_I | R_I |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. | 75* | 111659 | 6064 | "BIGDB | 74 | 19 | 1 | -2 | 100 | 16 | 35 | 6 |
| 2. | 46* | 589435 | 5910 | "BIGDB | 58 | 40 | 2 | 0 | 100 | 36 | 17 | 3 |
| 3. | 43 | 2213232 | 5920 | "BIGDB | 61 | 31 | 2 | 0 | 141 | 29 | 19 | 2. |
| 4. | 30* | 619998 | 5913 | "BIGDB | 32 | 58 | 2 | 0 | 169 | 36 | 10 | 1 |
| 5. | 30* | 7642048 | 3663 | "BIGDB | 52 | 33 | 2 | -2 | 32 | 42 | 8 | 1 |
| 6. | 27 | 921471 | 5917 | "BIGDB | 42 | 48 | 1 | 0 | 100 | 44 | 8 | 1 |
| 7. | 26* | 1187593 | 5723 | "BIGDB | 23 | 77 | 3 | 0 | 301 | 37 | 10 | 1 |



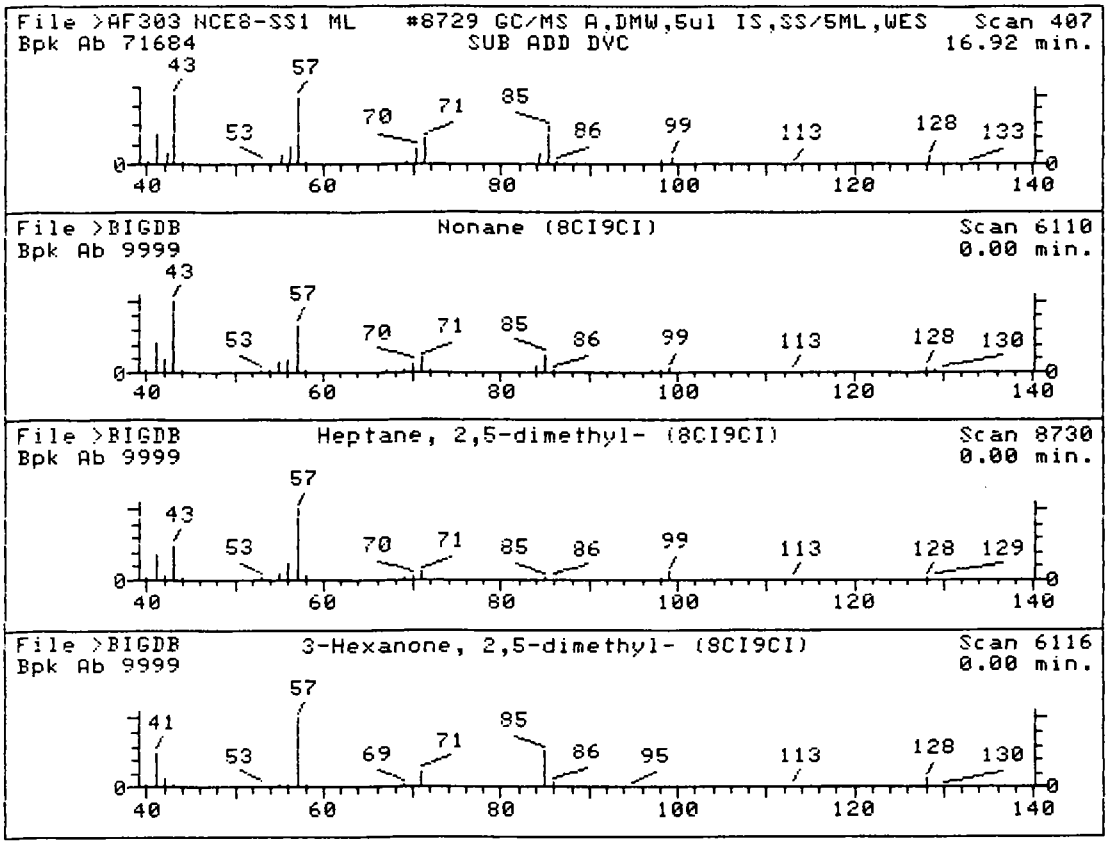

. Unknown #,5
Area = 6997793. Tentative Concentration is 14000.00

| | | | |
|---|---|---|---|
| 1. | Octane, 4-methyl- (8CI9CI) | 128 | C9H20 |
| 2. | Hexane, 3-ethyl-2-methyl- (8CI9CI) | 128 | C9H20 |
| 3. | Hexane, 2,3,4-trimethyl- (8CI9CI) | 128 | C9H20 |
| 4. | Hexane, 2,3,5-trimethyl- (8CI9CI) | 128 | C9H20 |
| 5. | Heptane, 2,4-dimethyl- (8CI9CI) | 128 | C9H20 |
| 6. | Decane, 2,4-dimethyl- (8CI9CI) | 170 | C12H26 |
| 7. | Pentane, 3-ethyl-2,4-dimethyl- (8CI9CI) | 128 | C9H20 |

00004Y

Sample file: >AF303 Spectrum #: 380
Search speed: 2 Tilting option: F No. of ion ranges searched: 46

| | Prob. | CAS # | CON # | ROOT | K | DK | #FLG | TILT | % | CON | C_I | R_I |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. | 66* | 2216344 | 5921 | "BIGDB | 55 | 36 | 1 | 0 | 130 | 16 | 31 | 4 |
| 2. | 40* | 16789461 | 5930 | "BIGDB | 41 | 46 | 0 | 0 | 100 | 50 | 12 | 4 |
| 3. | 37* | 921471 | 5917 | "BIGDB | 31 | 59 | 0 | 0 | 100 | 36 | 14 | 2 |
| 4. | 35* | 1069530 | 5919 | "BIGDB | 33 | 58 | 0 | 0 | 97 | 46 | 11 | 3 |
| 5. | 35* | 2213232 | 5920 | "BIGDB | 46 | 46 | 2 | 0 | 197 | 43 | 12 | 2 |
| 6. | 30 | 2801845 | 6054 | "BIGDB | 45 | 42 | 1 | 0 | 90 | 36 | 10 | 1 |
| 7. | 28* | 1068877 | 5918 | "BIGDB | 35 | 48 | 0 | 0 | 91 | 53 | 8 | 3 |



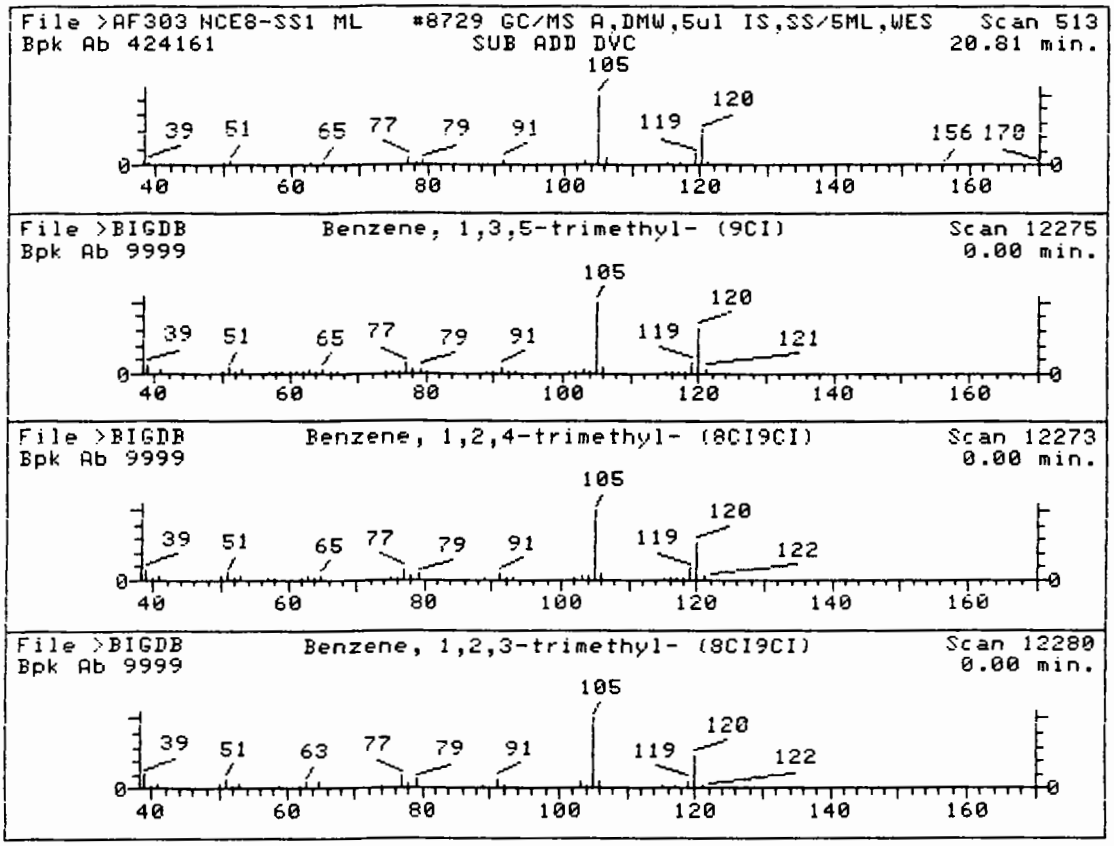

. Unknown #,6
Area = 3610026. Tentative Concentration is 7100.00

| | | | |
|---|---|---|---|
| 1. | Nonane (8CI9CI) | 128 | C9H20 |
| 2. | Heptane, 2,5-dimethyl- (8CI9CI) | 128 | C9H20 |
| 3. | 3-Hexanone, 2,5-dimethyl- (8CI9CI) | 128 | C8H16O |
| 4. | Heptane, 2,4-dimethyl- (8CI9CI) | 128 | C9H20 |
| 5. | Hexane, 2,2,3,3-tetramethyl- (8CI9CI) | 142 | C10H22 |
| 6. | 3-Hexanone, 2,2-dimethyl- (8CI9CI) | 128 | C8H16O |
| 7. | Heptane, 3,5-dimethyl- (8CI9CI) | 128 | C9H20 |

000048

Sample file: >AF303 Spectrum #: 407
Search speed: 2 Tilting option: F No. of ion ranges searched: 47

| | Prob. | CAS # | CON # | ROOT | K | DK | #FLG | TILT | % | CON | C_I | R_I |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. | 81* | 111842 | 6110 | "BIGDB | 64 | 32 | 1 | -2 | 100 | 9 | 53 | 4 |
| 2. | 59* | 2216300 | 8730 | "BIGDB | 45 | 41 | 0 | 0 | 97 | 38 | 21 | 5 |
| 3. | 58* | 1888579 | 6116 | "BIGDB | 44 | 49 | 0 | 0 | 67 | 40 | 19 | 4 |
| 4. | 49* | 2213232 | 5920 | "BIGDB | 51 | 41 | 2 | 0 | 147 | 32 | 20 | 3 |
| 5. | 48 | 13475815 | 5994 | "BIGDB | 59 | 36 | 2 | 0 | 83 | 25 | 17 | 1 |
| 6. | 47* | 5405798 | 3989 | "BIGDB | 40 | 45 | 0 | 0 | 74 | 44 | 16 | 4 |
| 7. | 47* | 926829 | 8724 | "BIGDB | 37 | 45 | 0 | 0 | 97 | 44 | 16 | 4 |

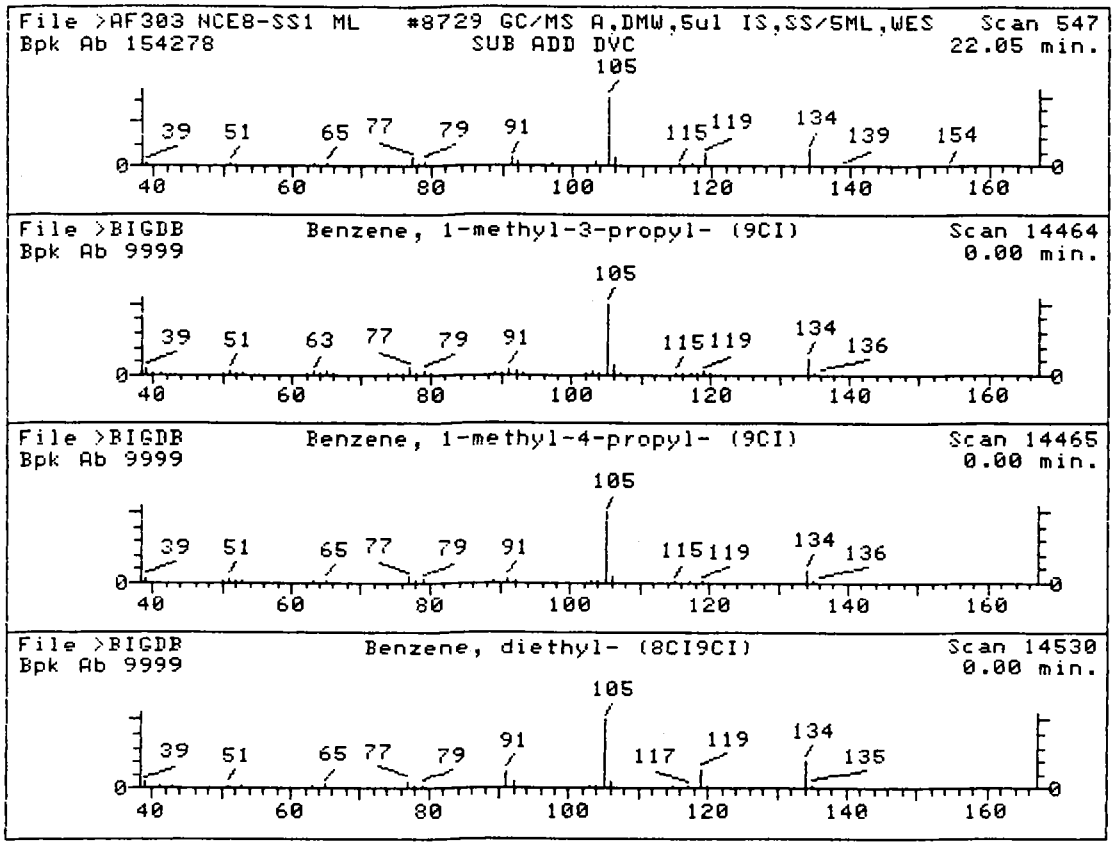



. Unknown #,8
Area = 6910278. Tentative Concentration is 14000.00

| | | | |
|---|---|---|---|
| 1. | Benzene, 1,3,5-trimethyl- (9CI) | 120 | C9H12 |
| 2. | Benzene, 1,2,4-trimethyl- (8CI9CI) | 120 | C9H12 |
| 3. | Benzene, 1,2,3-trimethyl- (8CI9CI) | 120 | C9H12 |
| 4. | Benzene, 1-ethyl-4-methyl- (9CI) | 120 | C9H12 |
| 5. | Benzene, 1-ethyl-3-methyl- (9CI) | 120 | C9H12 |
| 6. | 1,3-Cyclopentadiene, 5-(1-methylpropylidene)- (9CI) | 120 | C9H12 |
| 7. | 2,3-Heptadien-5-yne, 2,4-dimethyl- (9CI) | 120 | C9H12 |

Sample file: >AF303 Spectrum #: 513
Search speed: 2 Tilting option: F No. of ion ranges searched: 43

| | Prob. | CAS # | CON # | ROOT | K | DK | #FLG | TILT | % | CON | C_I | R_I |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. | 89* | 108678 | 12275 | "BIGDB | 73 | 15 | 1 | 0 | 77 | 6 | 62 | 8 |
| 2. | 84* | 95636 | 12273 | "BIGDB | 74 | 21 | 2 | 0 | 74 | 6 | 55 | 6 |
| 3. | 79* | 526738 | 12280 | "BIGDB | 65 | 35 | 2 | -4 | 85 | 6 | 48 | 3 |
| 4. | 76* | 622968 | 12268 | "BIGDB | 68 | 17 | 1 | -4 | 94 | 12 | 40 | 5 |
| 5. | 74* | 620144 | 12267 | "BIGDB | 63 | 24 | 1 | -4 | 88 | 12 | 39 | 4 |
| 6. | 70* | 3141024 | 12286 | "BIGDB | 40 | 64 | 3 | 0 | 80 | 6 | 42 | 1 |
| 7. | 70* | 41898899 | 12296 | "BIGDB | 41 | 68 | 3 | 0 | 67 | 7 | 42 | 1 |



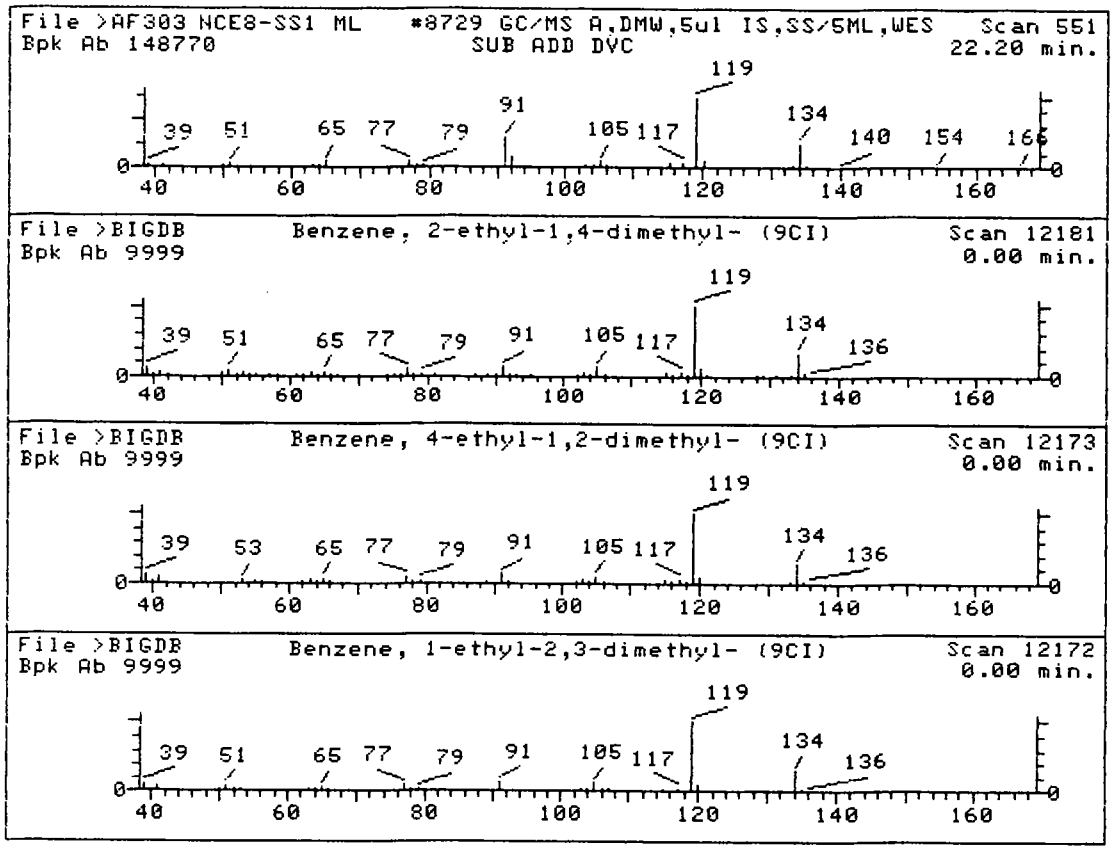

. Unknown #,9
Area = 3075645. Tentative Concentration is 6000.00

| | | | |
|---|---|---|---|
| 1. | Benzene, 1-methyl-3-propyl- (9CI) | 134 | C10H14 |
| 2. | Benzene, 1-methyl-4-propyl- (9CI) | 134 | C10H14 |
| 3. | Benzene, diethyl- (8CI9CI) | 134 | C10H14 |
| 4. | Benzene, 1-methyl-2-propyl- (9CI) | 134 | C10H14 |
| 5. | Benzene, (1-methylpropyl)- (9CI) | 134 | C10H14 |
| 6. | Benzene, (1-methyl-3-butenyl)- (9CI) | 146 | C11H14 |
| 7. | 2,4-Heptadien-6-ynal, (E,E)- (8CI9CI) | 106 | C7H6O |

000051

Sample file: >AF303 Spectrum #: 547
Search speed: 2 Tilting option: F No. of ion ranges searched: 42

| | Prob. | CAS # | CON # | ROOT | K | DK | #FLG | TILT | % | CON | C_I | R_I |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. | 95* | 1074437 | 14464 | "BIGDB | 76 | 11 | 1 | 0 | 93 | 10 | 68 | 9 |
| 2. | 83* | 1074551 | 14465 | "BIGDB | 62 | 21 | 1 | 0 | 91 | 13 | 51 | 7 |
| 3. | 74* | 25340174 | 14530 | "BIGDB | 64 | 31 | 2 | 4 | 78 | 13 | 39 | 4 |
| 4. | 63* | 1074175 | 14463 | "BIGDB | 57 | 28 | 2 | 1 | 100 | 18 | 30 | 3 |
| 5. | 58* | 135988 | 14459 | "BIGDB | 46 | 40 | 2 | 0 | 87 | 20 | 25 | 2 |
| 6. | 37 | 10340495 | 9870 | "BIGDB | 41 | 39 | 2 | 0 | 100 | 28 | 14 | 1 |
| 7. | 29* | 7200046 | 9911 | "BIGDB | 30 | 58 | 2 | 0 | 74 | 38 | 10 | 1 |




. Unknown #,10
Area = 3078822. Tentative Concentration is 6000.00

| | | | |
|---|---|---|---|
| 1. | Benzene, 2-ethyl-1,4-dimethyl- (9CI) | 134 | C10H14 |
| 2. | Benzene, 4-ethyl-1,2-dimethyl- (9CI) | 134 | C10H14 |
| 3. | Benzene, 1-ethyl-2,3-dimethyl- (9CI) | 134 | C10H14 |
| 4. | Benzene, 1-ethyl-2,4-dimethyl- (9CI) | 134 | C10H14 |
| 5. | Benzene, 2-ethyl-1,3-dimethyl- (9CI) | 134 | C10H14 |
| 6. | Benzene, methyl(1-methylethyl)- (9CI) | 134 | C10H14 |
| 7. | Benzene, 1,2,3,4-tetramethyl- (8CI9CI) | 134 | C10H14 |

000082

Sample file: >AF303 Spectrum #: 551
Search speed: 2 Tilting option: F No. of ion ranges searched: 42

| | Prob. | CAS # | CON # | ROOT | K | DK | #FLG | TILT | % | CON | C_I | R_I |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. | 86* | 1758889 | 12181 | "BIGDB | 80 | 14 | 1 | -1 | 76 | 8 | 59 | 76 |
| 2. | 86* | 934805 | 12173 | "BIGDB | 74 | 19 | 1 | 0 | 100 | 8 | 59 | 76 |
| 3. | 84* | 933982 | 12172 | "BIGDB | 68 | 23 | 1 | 0 | 87 | 10 | 55 | 67 |
| 4. | 84* | 874419 | 12171 | "BIGDB | 66 | 22 | 1 | 0 | 100 | 8 | 55 | 69 |
| 5. | 84* | 2870044 | 12174 | "BIGDB | 62 | 27 | 1 | 0 | 100 | 10 | 55 | 60 |
| 6. | 81* | 25155151 | 12177 | "BIGDB | 56 | 34 | 2 | 0 | 100 | 10 | 53 | 42 |
| 7. | 79* | 488233 | 14484 | "BIGDB | 52 | 42 | 2 | 0 | 72 | 10 | 48 | 32 |

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA / CLIENT ID

610-SS1 1:10

Lab Name: AMER.ENV.NTWK. Contract: WEST-0103

Lab Code: AENI Case No: NWS-EARLE SAS No: N.A. SDG No: N.A.

Matrix: SOIL Lab Sample ID: AE#8729

Sample (wt/vol): .4 G Lab File ID: >AF332

Level: MED Date Received: 06/11/93

% Moisture: not dec. 20 Date Analyzed: 6/22/93

Column: CAP Dilution Factor: 10.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 160000. | U |
| 74-83-9 | Bromomethane | 160000. | U |
| 75-01-4 | Vinyl Chloride | 160000. | U |
| 75-00-3 | Chloroethane | 160000. | U |
| 75-09-2 | Methylene Chloride | 78000. | U |
| 67-64-1 | Acetone | 470000. | JB |
| 75-15-0 | Carbon Disulfide | 78000. | U |
| 75-35-4 | 1,1-Dichloroethene | 78000. | U |
| 75-34-3 | 1,1-Dichloroethane | 78000. | U |
| 156-60-5 | trans-1,2-Dichloroethene | 78000. | U |
| 67-66-3 | Chloroform | 78000. | U |
| 107-02-2 | 1,2-Dichloroethane | 78000. | U |
| 78-93-3 | 2-Butanone | 1600000. | U |
| 71-55-6 | 1,1,1-Trichloroethane | 78000. | U |
| 56-23-5 | Carbon Tetrachloride | 78000. | U |
| 108-05-4 | Vinyl Acetate | 780000. | U |
| 75-27-4 | Bromodichloromethane | 78000. | U |
| 78-87-5 | 1,2-Dichloropropane | 78000. | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 78000. | U |
| 79-01-6 | Trichloroethene | 78000. | U |
| 124-48-1 | Dibromochloromethane | 78000. | U |
| 79-00-5 | 1,1,2-Trichloroethane | 78000. | U |
| 71-43-2 | Benzene | 78000. | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 78000. | U |
| 110-75-8 | 2-Chloroethylvinylether | 150000. | U |
| 75-25-2 | Bromoform | 78000. | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 1500000. | |
| 591-78-6 | 2-Hexanone | 300000. | J |
| 127-18-4 | Tetrachloroethene | 78000. | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 78000. | U |
| 108-88-3 | Toluene | 110000. | |
| 108-90-7 | Chlorobenzene | 78000. | U |
| 100-41-4 | Ethylbenzene | 540000. | |
| 100-42-5 | Styrene | 78000. | U |
| 133-02-7 | m + p-Xylenes | 2100000. | |
| 95-47-6 | o-Xylene | 180000. | |

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

610-SS1 1:10

Lab Name: AMER.ENV.NTWK. Contract: WEST-0103

Lab Code: AENI Case No: NWS-EARL SAS No: N.A. SDG No: N.A.

Matrix: SOIL Lab Sample ID: AE#8729

Sample wt/vol: .4 G Lab File ID: >AF332

Level: MED Date Received: 06/11/93

% Moisture: not dec. 20 Date Analyzed: 6/22/93

Column: CAP Dilution Factor: 10.0

Number TICs found: 10

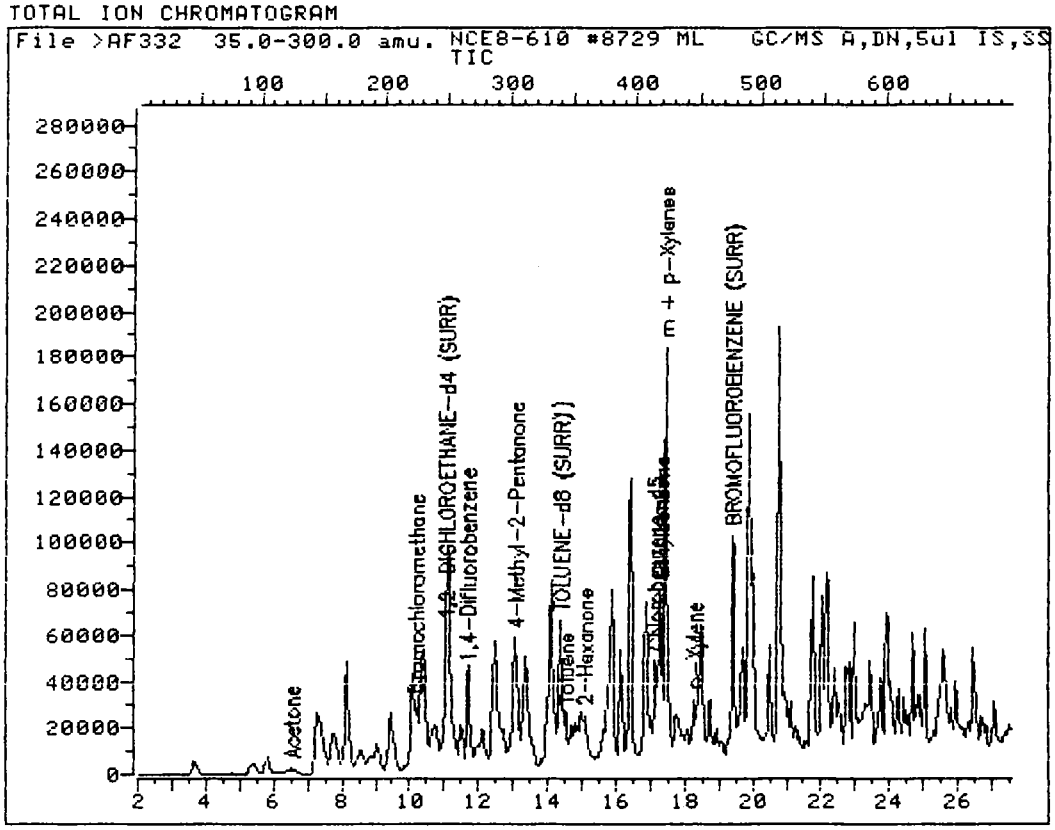
CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|---|
| 1. | 108872 | Cyclohexane, methyl- (8CI9CI | 12.46 | 1500000. | J |
| 2. | | Unknown | 13.37 | 1500000. | J |
| 3. | | Unknown | 14.11 | 2000000. | J |
| 4. | 17302237 | Nonane, 4,5-dimethyl- (8CI9C | 15.90 | 2700000. | J |
| 5. | 106934 | Ethane, 1,2-dibromo- (8CI9CI | 16.45 | 2500000. | JB |
| 6. | 620144 | Benzene, 1-ethyl-3-methyl- ( | 19.89 | 4800000. | J |
| 7. | 526738 | Benzene, 1,2,3-trimethyl- (8 | 20.81 | 4000000. | J |
| 8. | 98828 | Benzene, (1-methylethyl)- (9 | 21.76 | 1700000. | JB |
| 9. | 934747 | Benzene, 1-ethyl-3,5-dimethy | 22.16 | 1700000. | J |
| 10. | 17057828 | 1H-Indene, 2,3-dihydro-1,2-d | 25.58 | 1600000. | J |
| 11. | | | | | |
| 12. | | | | | |
| 13. | | | | | |
| 14. | | | | | |
| 15. | | | | | |
| 16. | | | | | |
| 17. | | | | | |
| 18. | | | | | |
| 19. | | | | | |
| 20. | | | | | |
| 21. | | | | | |
| 22. | | | | | |
| 23. | | | | | |
| 24. | | | | | |
| 25. | | | | | |
| 26. | | | | | |
| 27. | | | | | |
| 28. | | | | | |
| 29. | | | | | |
| 30. | | | | | |



NR = Not Reviewed FORM I VOA-TIC 2/88 Rev.

TOTAL ION CHROMATOGRAM




Data File: >AF332::C1 Quant Output File: ^AF332::OU
Name: NCE8-610 #8729 ML
Misc: GC/MS A,DN,5ul IS,SS/5ML,WEST-0102, 1:10 DIL

Id File: IDVAFD::ID
Title: HSL VOLATILES
Last Calibration: 930622 14:36

Operator ID: ZIPPY
Quant Time: 930622 18:10
Injected at: 930622 17:41

QUANT REPORT

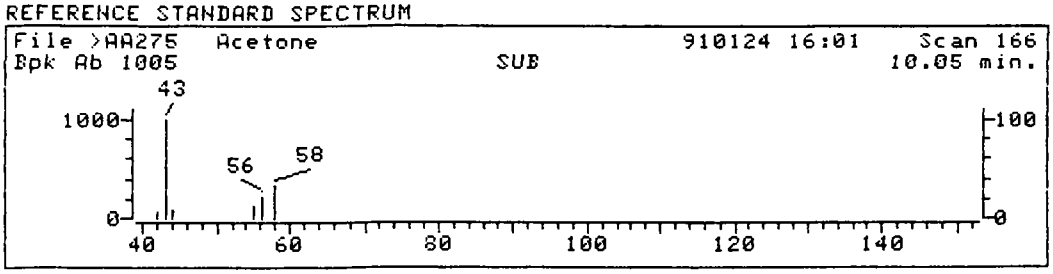
Operator ID: ZIPPY  Quant Rev: 6  Quant Time: 930622 18:10
Output File: ^AF332::OU  Injected at: 930622 17:41
Data File: >AF332::C1  Dilution Factor: 1.00000
Name: NCE8-610 #8729 ML
Misc: GC/MS A,DN,5ul IS,SS/5ML,WEST-0102, 1:10 DIL

ID File: IDVAFD::ID
Title: HSL VOLATILES
Last Calibration: 930622 14:36

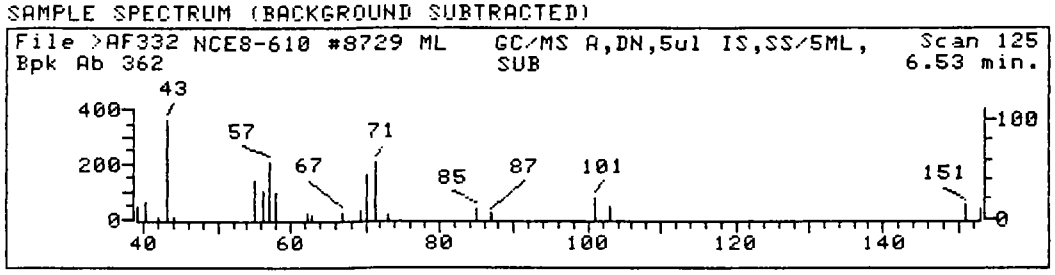
| | Compound | Q ion | Scan# | Area | Conc | Units | q |
|---|---|---|---|---|---|---|---|
| 1) | *Bromochloromethane | 128.0 | 225 | 17000 | 50.00 | ng/mL | 6 |
| 7) | Acetone | 43.0 | 125 | 5004 | 30.02 | ng/mL | 9 |
| 18) | 1,2-DICHLOROETHANE-d4 (SURR) | 65.0 | 249 | 25691 | 49.07 | ng/mL | 10 |
| 20) | *1,4-Difluorobenzene | 114.0 | 266 | 82812 | 50.00 | ng/mL | 9 |
| 30) | TOLUENE-d8 (SURR1) | 98.0 | 340 | 110544 | 49.33 | ng/mL | 9 |
| 35) | *Chlorobenzene-d5 | 82.0 | 415 | 40770 | 50.00 | ng/mL | 9 |
| 36) | 4-Methyl-2-Pentanone | 43.0 | 304 | 118375 | 98.93 | ng/mL | 4 |
| 37) | Toluene | 92.0 | 344 | 14167 | 7.07 | ng/mL | 9 |
| 38) | 2-Hexanone | 43.0 | 359 | 14207 | 19.34 | ng/mL | 5 |
| 41) | Ethylbenzene | 91.0 | 419 | 135872 | 34.35 | ng/mL | 6 |
| 42) | m + p-Xylenes | 106.0 | 423 | 197795 | 132.64 | ng/mL | 8 |
| 43) | o-Xylene | 106.0 | 446 | 17652 | 11.34 | ng/mL | 9 |
| 46) | BROMOFLUOROBENZENE (SURR) | 95.0 | 477 | 61280 | 40.89 | ng/mL | 8 |
| 50) | TOLUENE-d8 (SURR) | 98.0 | 340 | 110544 | 40.66 | ng/mL | 9 |

* Compound is ISTD

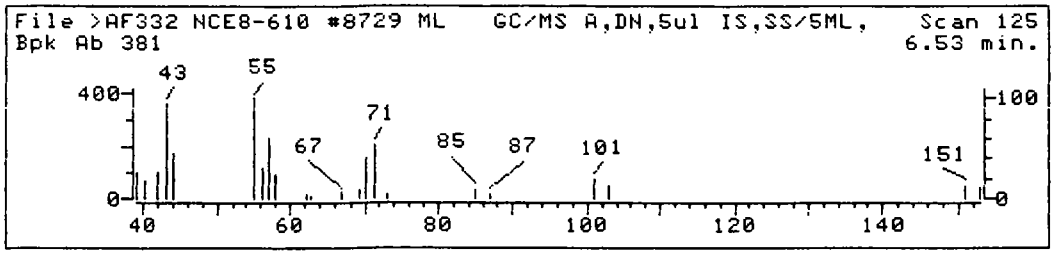
REFERENCE STANDARD SPECTRUM




SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



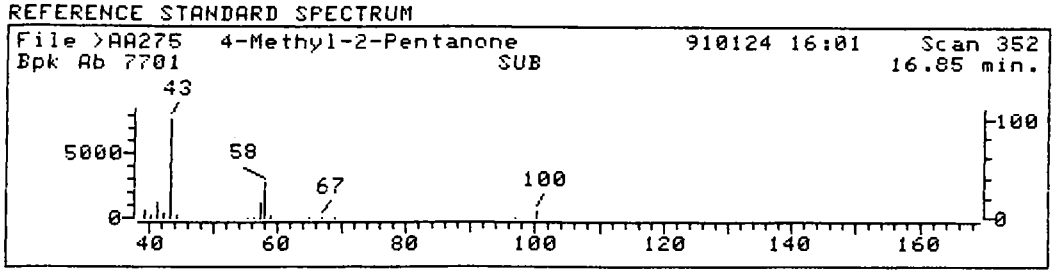

SAMPLE SPECTRUM (UNALTERED)



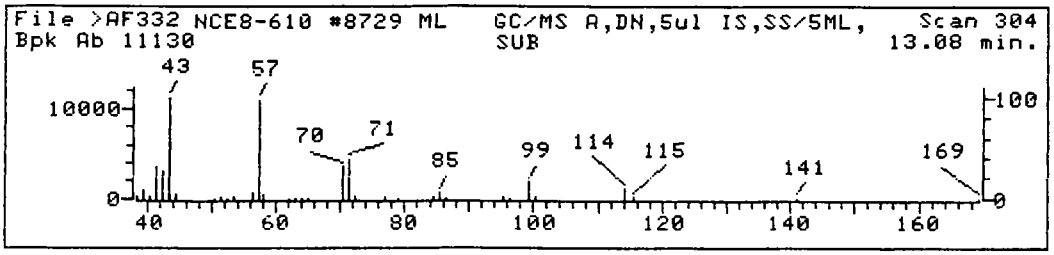

Data File: >AF332::C1 Quant Output File: ^AF332::OU
Name: NCE8-610 #8729 ML
Misc: GC/MS A,DN,5ul IS,SS/5ML,WEST-0102, 1:10 DIL
Quant Time: 930622 18:10 Quant ID File: IDVAFD::ID
Injected at: 930622 17:41 Last Calibration: 930622 14:36

Compound No: 7
Compound Name: Acetone
Scan Number: 125
Retention Time: 6.53 min.
Quant Ion: 43.0
Area: 5004
Concentration: 30.02 ng/mL
q-value: 92

REFERENCE STANDARD SPECTRUM




SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)

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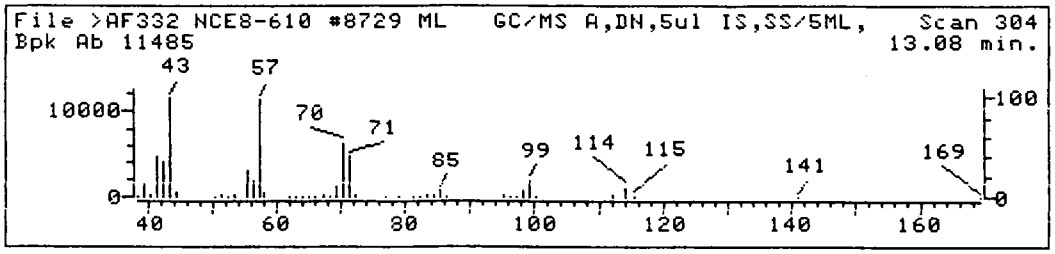
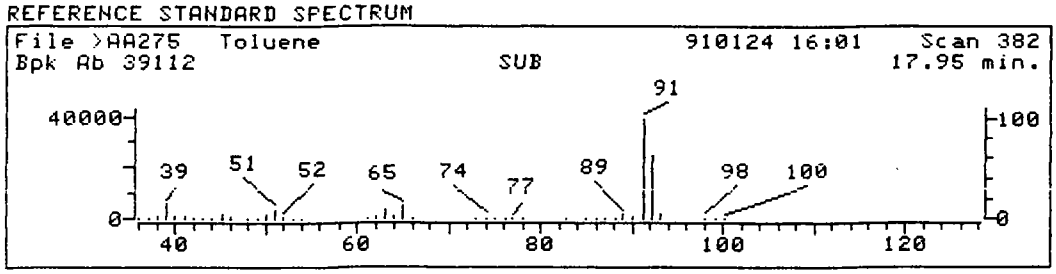


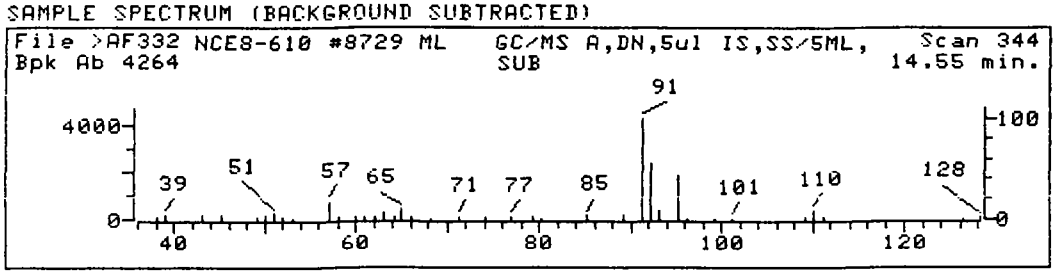

Data File: >AF332::C1 Quant Output File: ^AF332::OU
Name: NCE8-610 #8729 ML
Misc: GC/MS A,DN,5ul IS,SS/5ML,WEST-0102, 1:10 DIL
Quant Time: 930622 18:10 Quant ID File: IDVAFD::ID
Injected at: 930622 17:41 Last Calibration: 930622 14:36

Compound No: 36
Compound Name: 4-Methyl-2-Pentanone
Scan Number: 304
Retention Time: 13.08 min.
Quant Ion: 43.0
Area: 118375
Concentration: 98.93 ng/mL
q-value: 47

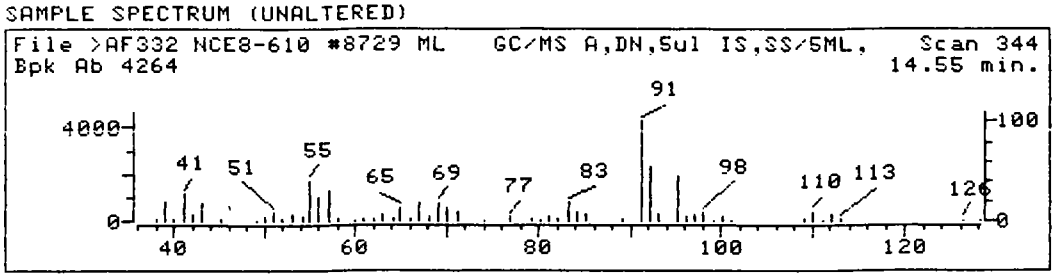
REFERENCE STANDARD SPECTRUM




SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



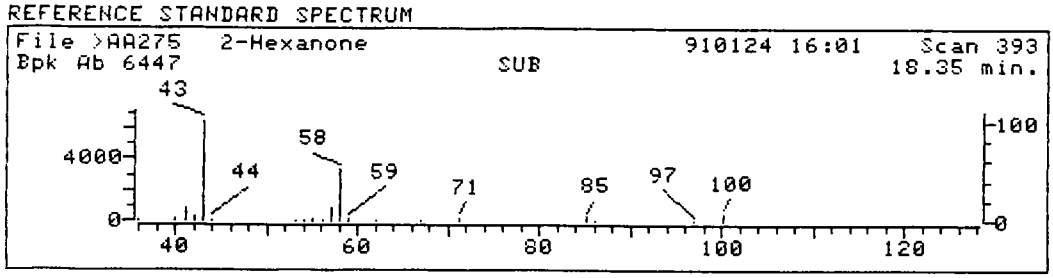

SAMPLE SPECTRUM (UNALTERED)



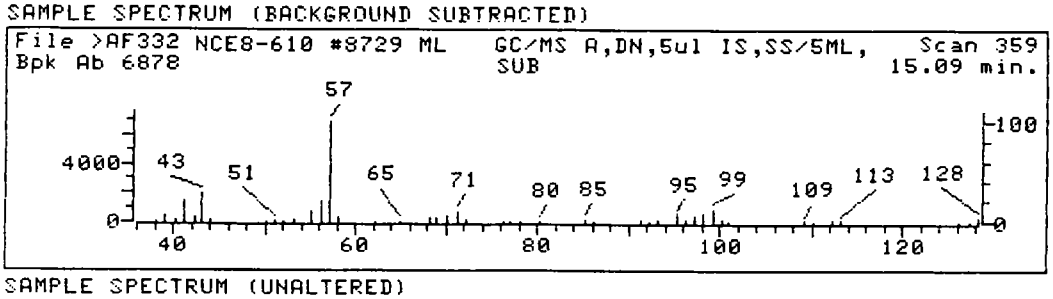

Data File: >AF332::C1 Quant Output File: ^AF332::OU
Name: NCE8-610 #8729 ML
Misc: GC/MS A,DN,5ul IS,SS/5ML,WEST-0102, 1:10 DIL
Quant Time: 930622 18:10 Quant ID File: IDVAFD::ID
Injected at: 930622 17:41 Last Calibration: 930622 14:36

Compound No: 37
Compound Name: Toluene
Scan Number: 344
Retention Time: 14.55 min.
Quant Ion: 92.0
Area: 14167
Concentration: 7.07 ng/mL
q-value: 91

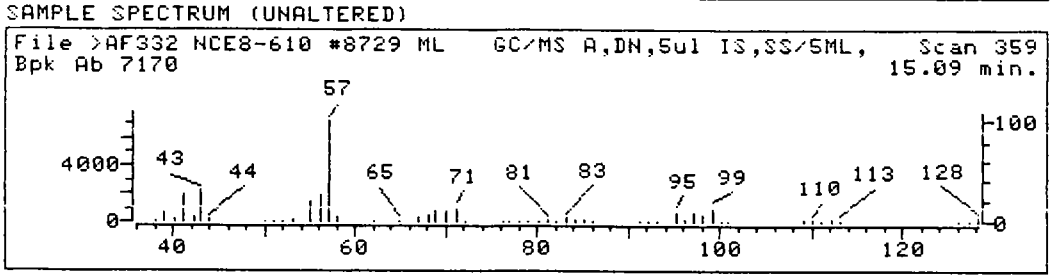
REFERENCE STANDARD SPECTRUM




SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



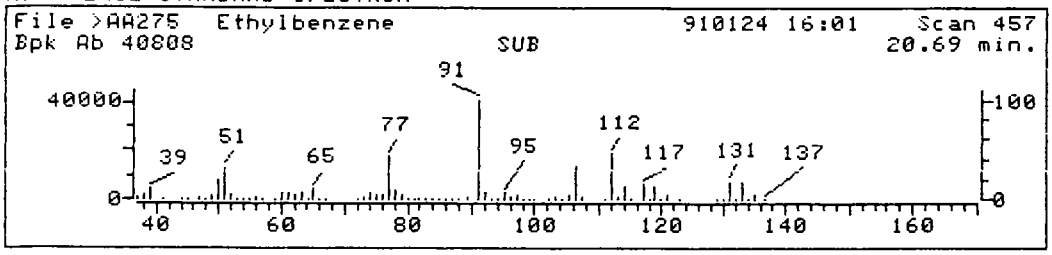

SAMPLE SPECTRUM (UNALTERED)



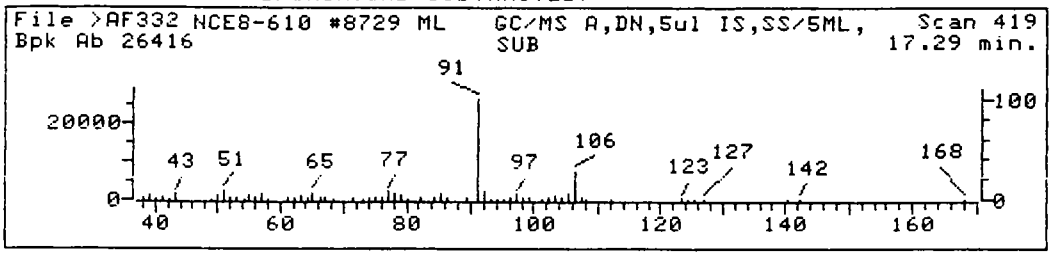

Data File: >AF332::C1 Quant Output File: ^AF332::OU
Name: NCE8-610 #8729 ML
Misc: GC/MS A,DN,5ul IS,SS/5ML,WEST-0102, 1:10 DIL
Quant Time: 930622 18:10 Quant ID File: IDVAFD::ID
Injected at: 930622 17:41 Last Calibration: 930622 14:36

Compound No: 38
Compound Name: 2-Hexanone
Scan Number: 359
Retention Time: 15.09 min.
Quant Ion: 43.0
Area: 14207
Concentration: 19.34 ng/mL
q-value: 59

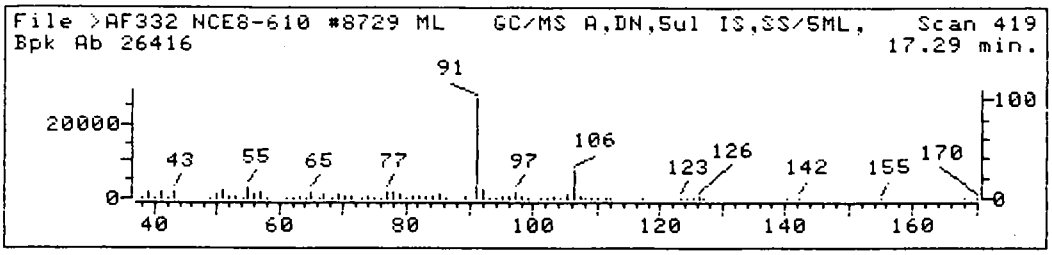
REFERENCE STANDARD SPECTRUM




SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



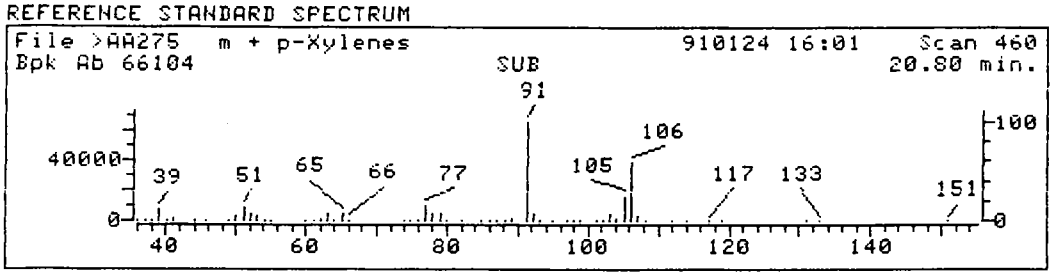

SAMPLE SPECTRUM (UNALTERED)



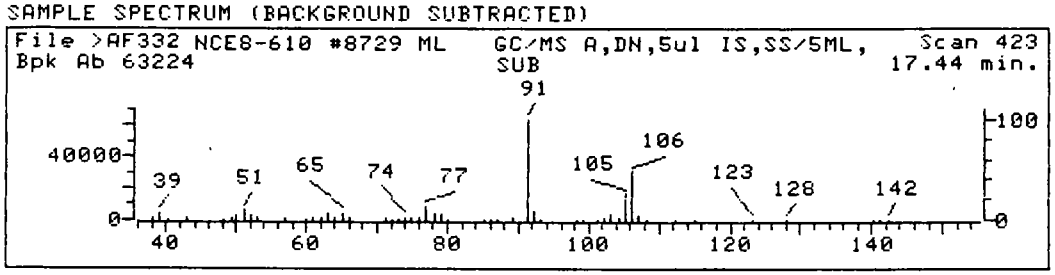

Data File: >AF332::C1 Quant Output File: ^AF332::OU
Name: NCE8-610 #8729 ML
Misc: GC/MS A,DN,5ul IS,SS/5ML,WEST-0102, 1:10 DIL
Quant Time: 930622 18:10 Quant ID File: IDVAFD::ID
Injected at: 930622 17:41 Last Calibration: 930622 14:36

Compound No: 41
Compound Name: Ethylbenzene
Scan Number: 419
Retention Time: 17.29 min.
Quant Ion: 91.0
Area: 135872
Concentration: 34.35 ng/mL
q-value: 67

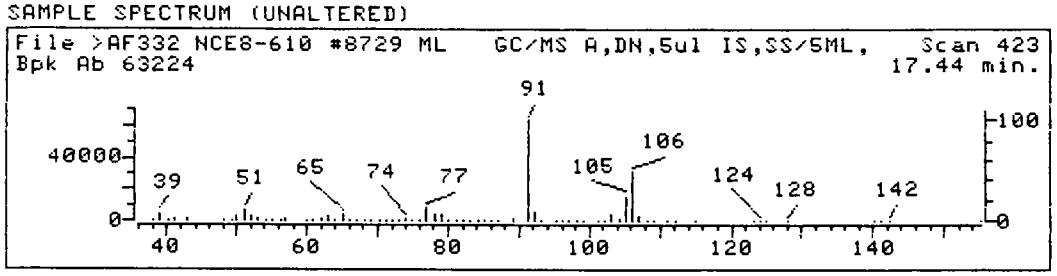
REFERENCE STANDARD SPECTRUM




SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



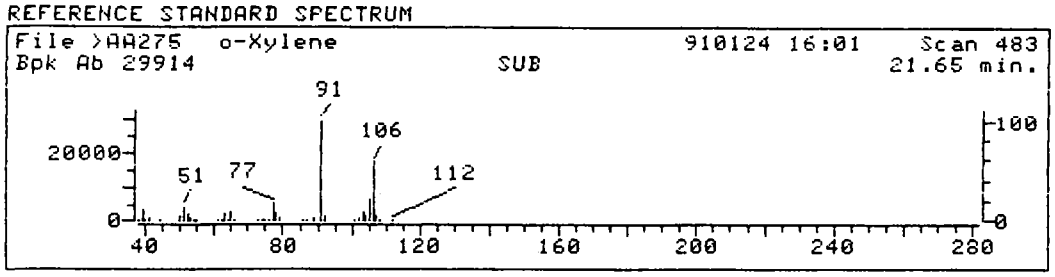

SAMPLE SPECTRUM (UNALTERED)



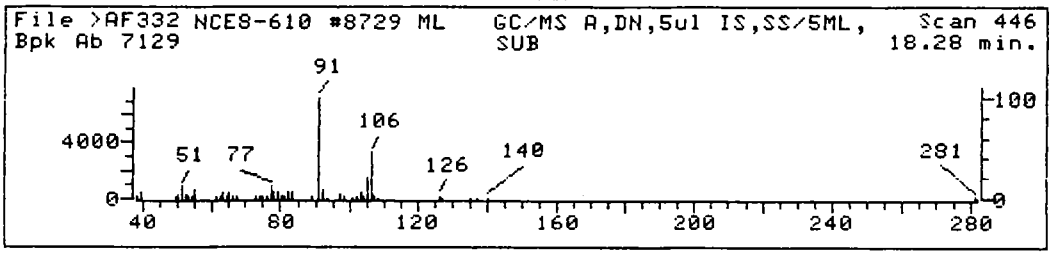

Data File: >AF332::C1 Quant Output File: ^AF332::OU
Name: NCE8-610 #8729 ML
Misc: GC/MS A,DN,5ul IS,SS/5ML,WEST-0102, 1:10 DIL
Quant Time: 930622 18:10 Quant ID File: IDVAFD::ID
Injected at: 930622 17:41 Last Calibration: 930622 14:36

Compound No: 42
Compound Name: m + p-Xylenes
Scan Number: 423
Retention Time: 17.44 min.
Quant Ion: 106.0
Area: 197795
Concentration: 132.64 ng/mL
q-value: 84

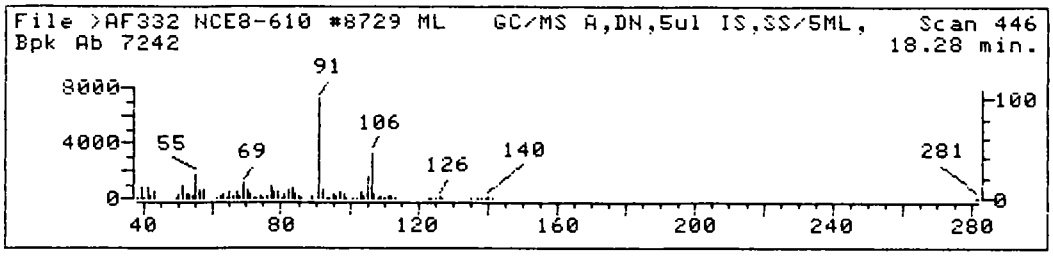
REFERENCE STANDARD SPECTRUM




SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)




SAMPLE SPECTRUM (UNALTERED)




Data File: >AF332::C1 Quant Output File: ^AF332::OU
Name: NCE8-610 #8729 ML
Misc: GC/MS A,DN,5ul IS,SS/5ML,WEST-0102, 1:10 DIL
Quant Time: 930622 18:10 Quant ID File: IDVAFD::ID
Injected at: 930622 17:41 Last Calibration: 930622 14:36

Compound No: 43
Compound Name: o-Xylene
Scan Number: 446
Retention Time: 18.28 min.
Quant Ion: 106.0
Area: 17652
Concentration: 11.34 ng/mL
q-value: 93

MS data file header from : >AF332

Sample: NCE8-610 #8729 ML  Operator: ZIPPY  MS  6/22/93 17:41
Misc : GC/MS A,DN,5ul IS,SS/5ML,WEST-0102, 1:10 DIL
Sys. #: 1 MS model: 87 SW/HW rev.: IA ALS # : 0
Method file: HE8501  Tuning file: MT8501  No. of extra records: 2
Source temp.: 200  Analyzer temp.: 0  Transfer line temp. : 0

| | | | | | |
|---|---|---|---|---|---|
| Chromatographic temperatures : | 0. | 0. | 0. | 0. | 0. |
| Chromatographic times, min. : | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Chromatographic rate, deg/min: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

>AF332  NCE8-610 #8729 ML  GC/MS A,DN,5ul IS,SS/5ML,WEST-0102, 1:10

35.01 300.0 CLP ADC TIC
Upslope: .20  Area Reject: 20283.  Max Peaks: 10  Bunching: 1
Dnslope: 0.00  Results File IAF332  Sorted by Time/Area INT

| Peak # | R.T. min. | first scan | max scan | last scan | peak height | raw area | corr. area | corr. % max. | % of total |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 12.46 | 283 | 287 | 292 | 50075 | 646486 | 512769 | 40.75 | 7.73 |
| 2 | 13.37 | 309 | 312 | 322 | 46294 | 632469 | 516902 | 41.08 | 7.79 |
| 3 | 14.11 | 326 | 332 | 335 | 78071 | 776057 | 665964 | 52.93 | 10.04 |
| 4 | 15.90 | 375 | 381 | 385 | 71074 | 884119 | 695182 | 55.25 | 10.48 |
| 5 | 16.45 | 392 | 396 | 401 | 119343 | 813446 | 642998 | 51.10 | 9.69 |
| 6 | 19.89 | 487 | 490 | 499 | 145237 | 1597830 | 1258216 | 100.00 | 18.97 |
| 7 | 20.81 | 511 | 515 | 518 | 178017 | 1282443 | 1038783 | 82.56 | 15.66 |
| 8 | 21.76 | 538 | 541 | 545 | 73862 | 634684 | 447860 | 35.59 | 6.75 |
| 9 | 22.16 | 550 | 552 | 556 | 71375 | 664801 | 446485 | 35.49 | 6.73 |
| 10 | 25.58 | 639 | 645 | 649 | 37329 | 773390 | 407322 | 32.37 | 6.14 |

Sum of corrected areas: 6632481.

Summary of Unknowns PBM Library Search and Quantitation

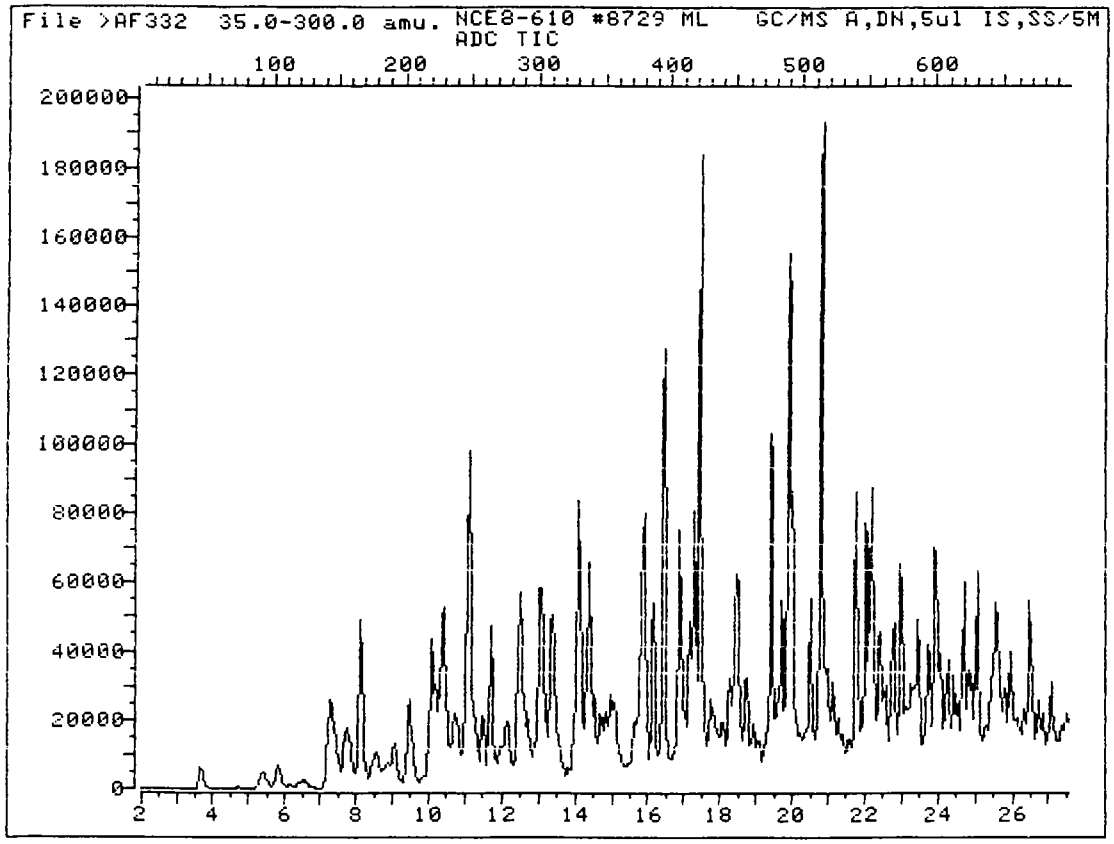
| Standard | Concentration | Area | Retention Time | Unknown Window |
|---|---|---|---|---|
| 1 | 50.0 | 301392. | 10.19 | 2.00 - 10.94 |
| 2 | 50.0 | 264751. | 11.69 | 10.94 - 14.42 |
| 3 | 50.0 | 202825. | 17.15 | 14.42 - 27.56 |

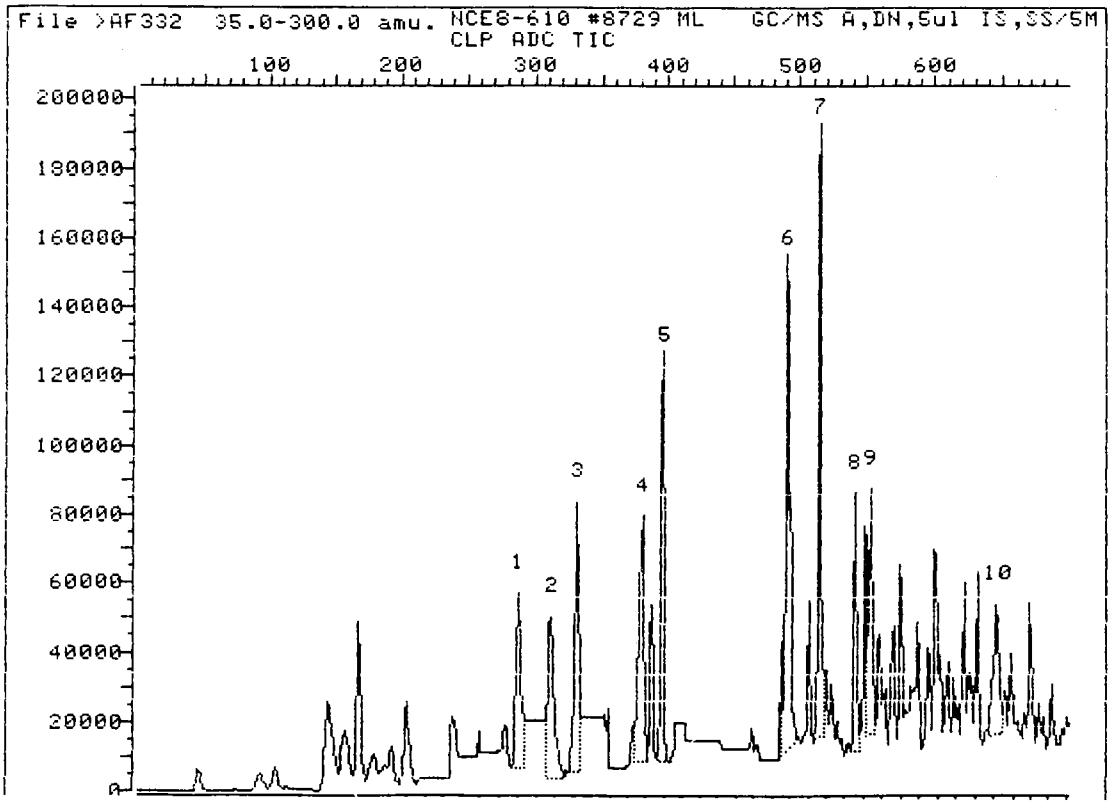
Dilution Factor (DF) = .00  Fractional Solids (FS) = .80
Amount Method (AM) = 5.00  Amount Used (AU) = .40

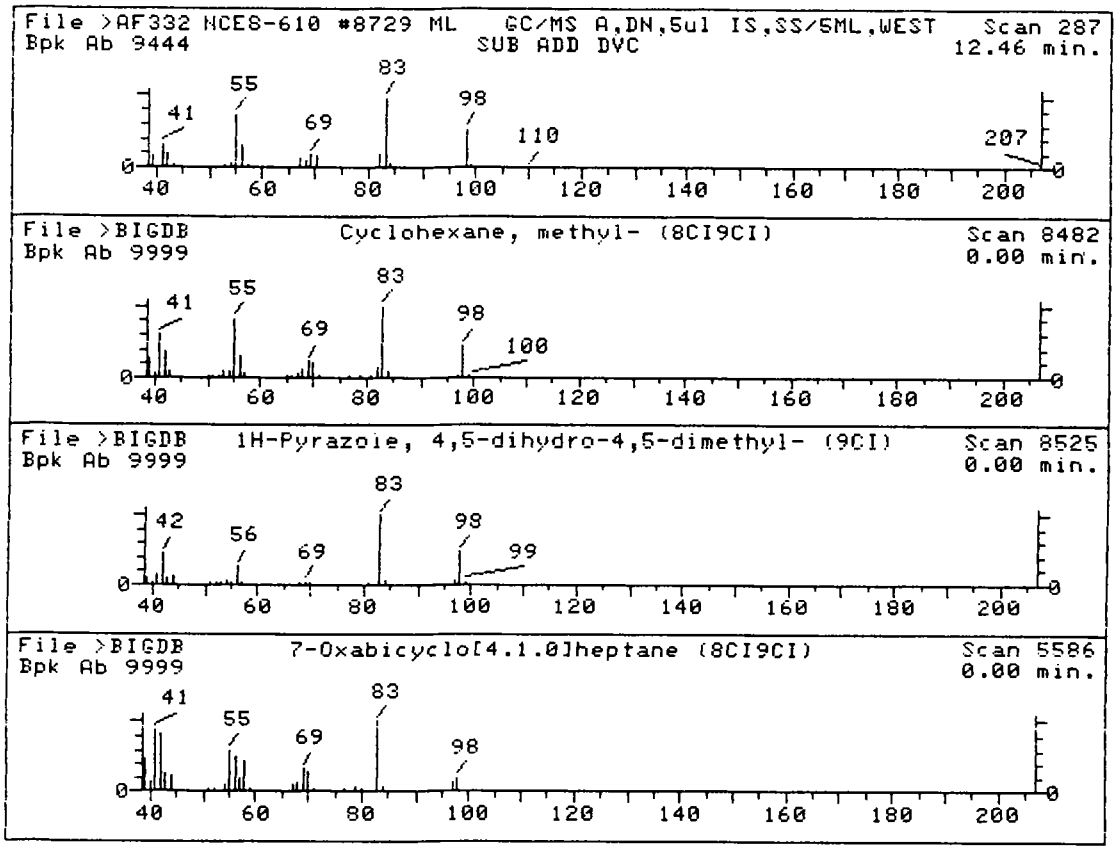
Correction Factor = 15625.00 = (AM / AU) / (DF * FS)

$$\text{Unknown Concentration} = \frac{\text{Conc Int Std}}{\text{Area Int Std}} * \text{Area Unk} * \text{Correction Factor}$$

2:33 PM THU., 24 JUNE, 1993  000002


File >AF332 35.0-300.0 amu. NCE8-610 #8729 ML GC/MS A,DN,5ul IS,SS/5M
ADC TIC
100 200 300 400 500 600
200000 180000 160000 140000 120000 100000 80000 60000 40000 20000 0
2 4 6 8 10 12 14 16 18 20 22 24 26


File >AF332 35.0-300.0 amu. NCE8-610 #8729 ML GC/MS A,DN,5ul IS,SS/5M
CLP ADC TIC
100 200 300 400 500 600
200000 180000 160000 140000 120000 100000 80000 60000 40000 20000 0
1
2
3
4
5
6
7
8
9
10

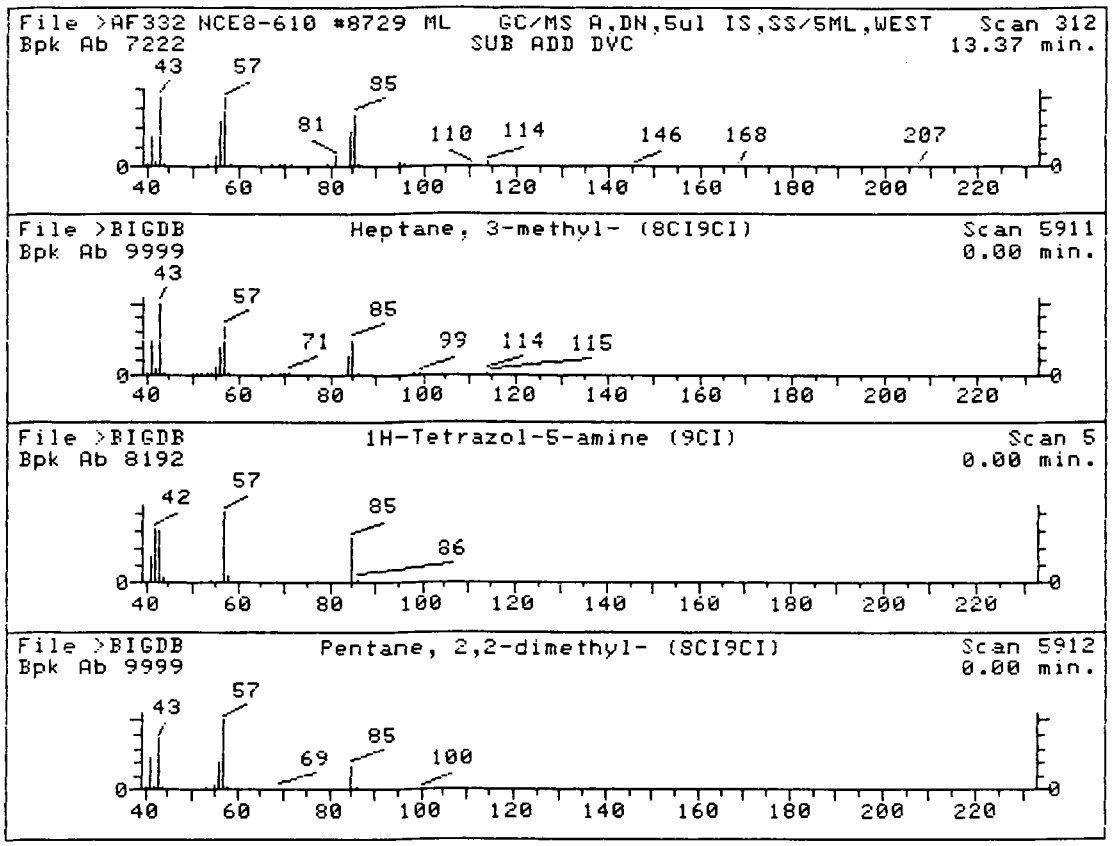



. Unknown #,1
Area = 512769.0 Tentative Concentration is 1500000.

| | | | |
|---|---|---|---|
| 1. | Cyclohexane, methyl- (8CI9CI) | 98 | C7H14 |
| 2. | 1H-Pyrazole, 4,5-dihydro-4,5-dimethyl- (9CI) | 98 | C5H10N2 |
| 3. | 7-Oxabicyclo[4.1.0]heptane (8CI9CI) | 98 | C6H10O |
| 4. | 1,3-Cyclopentanedione (8CI9CI) | 98 | C5H6O2 |
| 5. | 1H-Pyrazole, 4,5-dihydro-5,5-dimethyl- (9CI) | 98 | C5H10N2 |
| 6. | Furan, 2,5-dihydro-2,5-dimethyl- (9CI) | 98 | C6H10O |
| 7. | 2H-Pyran, 3,4-dihydro-4-methyl- (8CI9CI) | 98 | C6H10O |

Sample file: >AF332 Spectrum #: 287 000038
Search speed: 2 Tilting option: F No. of ion ranges searched: 44

| | Prob. | CAS # | CON # | ROOT | K | DK | #FLG | TILT | % | CON | C_I | R_I |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. | 74* | 108872 | 8482 | "BIGDB | 76 | 27 | 2 | -4 | 81 | 14 | 39 | 4 |
| 2. | 52* | 28019945 | 8525 | "BIGDB | 45 | 48 | 3 | 0 | 100 | 19 | 20 | 1 |
| 3. | 52* | 286204 | 5586 | "BIGDB | 27 | 88 | 3 | 0 | 100 | 19 | 20 | 1 |
| 4. | 43* | 3859414 | 8553 | "BIGDB | 41 | 48 | 2 | 2 | 54 | 25 | 17 | 1 |
| 5. | 43* | 4320858 | 5594 | "BIGDB | 38 | 47 | 1 | 0 | 100 | 29 | 19 | 2 |
| 6. | 42* | 59242272 | 8591 | "BIGDB | 44 | 61 | 3 | 0 | 100 | 22 | 17 | 1 |
| 7. | 42* | 2270613 | 8548 | "BIGDB | 30 | 71 | 3 | 0 | 100 | 24 | 17 | 1 |

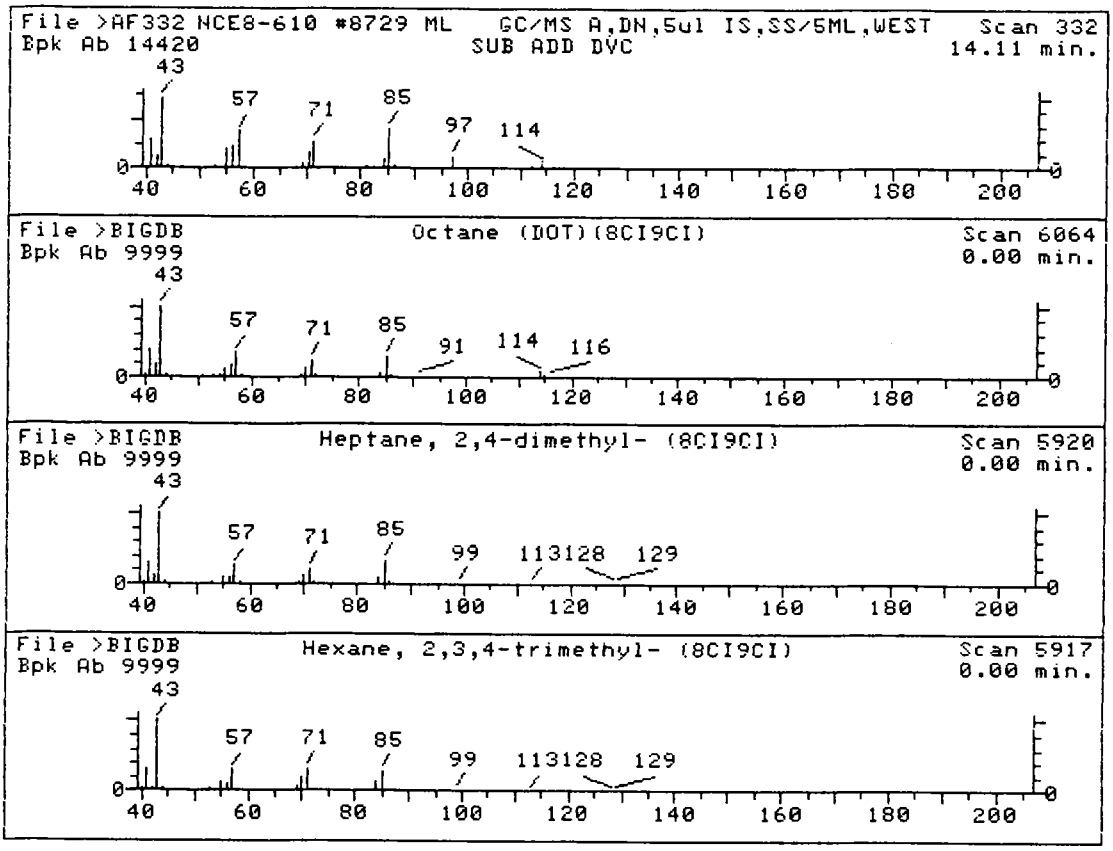



. Unknown #,2
Area = 516902.0 Tentative Concentration is 1500000.

| | | | |
|---|---|---|---|
| 1. | Heptane, 3-methyl- (8CI9CI) | 114 | C8H18 |
| 2. | 1H-Tetrazol-5-amine (9CI) | 85 | CH3N5 |
| 3. | Pentane, 2,2-dimethyl- (8CI9CI) | 100 | C7H16 |
| 4. | Hexane, 3,4-dimethyl- (8CI9CI) | 114 | C8H18 |
| 5. | Pentane, 2,2,3,4-tetramethyl- (8CI9CI) | 128 | C9H20 |
| 6. | Pentane, 3-ethyl-2,4-dimethyl- (8CI9CI) | 128 | C9H20 |
| 7. | Butane, 2,2,3-trimethyl- (8CI9CI) | 100 | C7H16 |

Sample file: >AF332 Spectrum #: 312
Search speed: 2 Tilting option: F No. of ion ranges searched: 43

| | Prob. | CAS # | CON # | ROOT | K | DK | #FLG | TILT | % | CON | C_I | R_I |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. | 40* | 589811 | 5911 | "BIGDB | 32 | 59 | 0 | 0 | 91 | 40 | 14 | 2 |
| 2. | 37* | 4418615 | 5 | "BIGDB | 28 | 97 | 2 | 0 | 98 | 30 | 14 | 1 |
| 3. | 35 | 590352 | 5912 | "BIGDB | 34 | 50 | 0 | 0 | 94 | 35 | 12 | 1 |
| 4. | 28* | 583482 | 5909 | "BIGDB | 25 | 65 | 2 | 0 | 124 | 37 | 10 | 1 |
| 5. | 25 | 1186534 | 1016 | "BIGDB | 37 | 49 | 2 | 0 | 98 | 48 | 7 | 1 |
| 6. | 25 | 1068877 | 5918 | "BIGDB | 35 | 48 | 2 | 0 | 175 | 49 | 7 | 1 |
| 7. | 25 | 464062 | 5908 | "BIGDB | 33 | 51 | 0 | 0 | 81 | 46 | 7 | 1 |



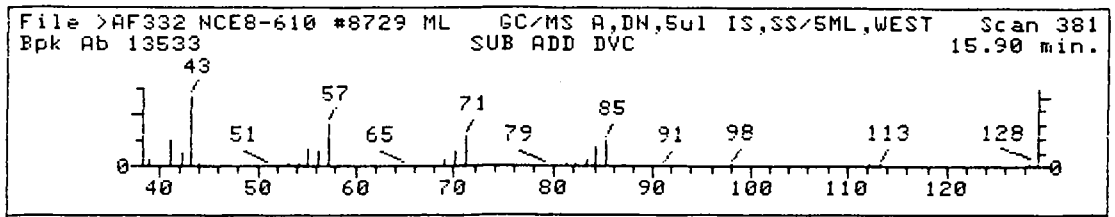

. Unknown #,3
Area = 665964.0 Tentative Concentration is 2000000.

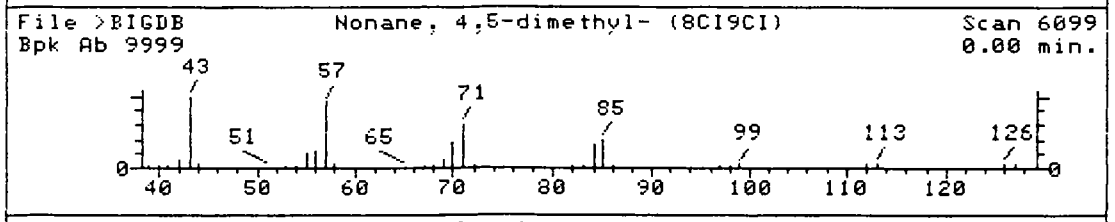
| | | | |
|---|---|---|---|
| 1. | Octane (DOT)(8CI9CI) | 114 | C8H18 |
| 2. | Heptane, 2,4-dimethyl- (8CI9CI) | 128 | C9H20 |
| 3. | Hexane, 2,3,4-trimethyl- (8CI9CI) | 128 | C9H20 |
| 4. | Hexane, 3-ethyl- (8CI9CI) | 114 | C8H18 |
| 5. | Hexane, 2,4-dimethyl- (8CI9CI) | 114 | C8H18 |
| 6. | Decane, 2,4-dimethyl- (8CI9CI) | 170 | C12H26 |
| 7. | Piperidine (8CI9CI) | 85 | C5H11N |

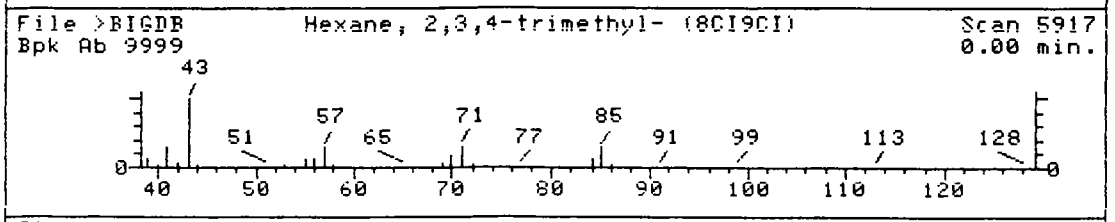
000058

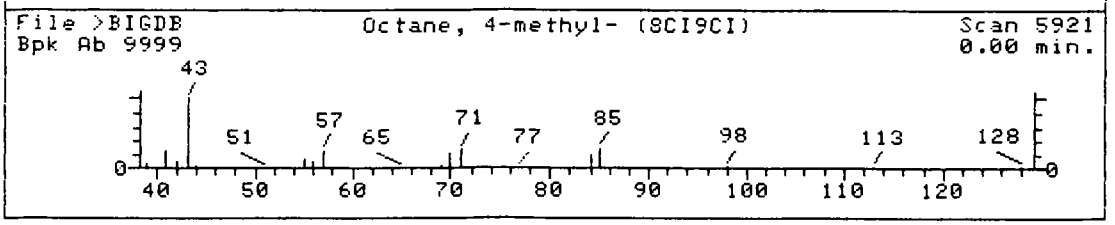
Sample file: >AF332 Spectrum #: 332
Search speed: 2 Tilting option: F No. of ion ranges searched: 47

| | Prob. | CAS # | CON # | ROOT | K | DK | #FLG | TILT | % | CON | C_I | R_I |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. | 40* | 111659 | 6064 | "BIGDB | 44 | 49 | 0 | 0 | 100 | 46 | 12 | 4 |
| 2. | 37 | 2213232 | 5920 | "BIGDB | 48 | 44 | 2 | 0 | 133 | 27 | 14 | 1 |
| 3. | 32 | 921471 | 5917 | "BIGDB | 42 | 48 | 1 | 0 | 96 | 35 | 12 | 1 |
| 4. | 30* | 619998 | 5913 | "BIGDB | 33 | 57 | 2 | 0 | 181 | 40 | 10 | 1 |
| 5. | 28* | 589435 | 5910 | "BIGDB | 53 | 45 | 1 | 0 | 71 | 55 | 8 | 3 |
| 6. | 26 | 2801845 | 6054 | "BIGDB | 42 | 45 | 2 | 0 | 74 | 44 | 8 | 1 |
| 7. | 25* | 110894 | 5714 | "BIGDB | 26 | 73 | 3 | 0 | 122 | 47 | 7 | 1 |



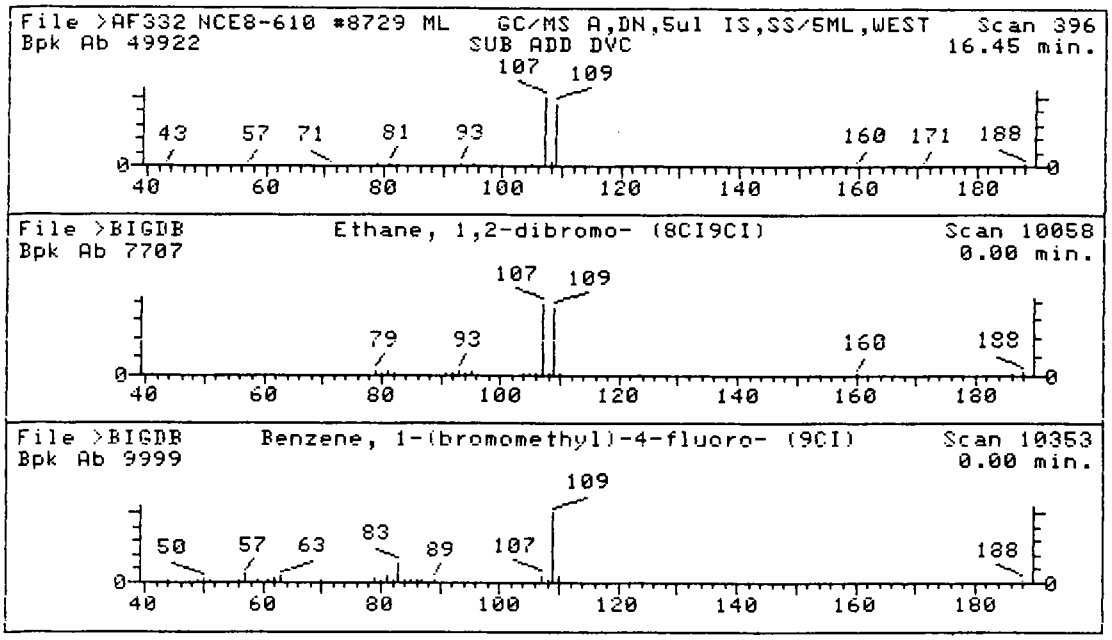

. Unknown #,4
Area = 695182.0 Tentative Concentration is 2700000.

| | | | |
|---|---|---|---|
| 1. | Nonane, 4,5-dimethyl- (8CI9CI) | 156 | C11H24 |
| 2. | Hexane, 2,3,4-trimethyl- (8CI9CI) | 128 | C9H20 |
| 3. | Octane, 4-methyl- (8CI9CI) | 128 | C9H20 |
| 4. | Heptane, 2,4-dimethyl- (8CI9CI) | 128 | C9H20 |
| 5. | Undecane, 2,7-dimethyl- (8CI) | 184 | C13H28 |
| 6. | Decane, 2,4-dimethyl- (8CI9CI) | 170 | C12H26 |
| 7. | Hexane, 3,3-dimethyl- (8CI9CI) | 114 | C8H18 |

000089

Sample file: >AF332 Spectrum #: 381
Search speed: 2 Tilting option: F No. of ion ranges searched: 54

| | Prob. | CAS # | CON # | ROOT | K | DK | #FLG | TILT | % | CON | C_I | R_I |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. | 67 | 17302237 | 6099 | "BIGDB | 71 | 34 | 2 | 0 | 64 | 12 | 34 | 2 |
| 2. | 67* | 921471 | 5917 | "BIGDB | 48 | 42 | 0 | 0 | 100 | 26 | 27 | 5 |
| 3. | 66* | 2216344 | 5921 | "BIGDB | 55 | 36 | 1 | 0 | 106 | 19 | 31 | 4 |
| 4. | 43* | 2213232 | 5920 | "BIGDB | 46 | 46 | 2 | 0 | 166 | 33 | 16 | 2 |
| 5. | 35 | 17301245 | 6096 | "BIGDB | 56 | 44 | 2 | 1 | 100 | 28 | 14 | 1 |
| 6. | 33 | 2801845 | 6054 | "BIGDB | 55 | 32 | 2 | 0 | 86 | 39 | 10 | 1 |
| 7. | 32 | 563166 | 5991 | "BIGDB | 43 | 47 | 1 | 0 | 92 | 35 | 12 | 1 |

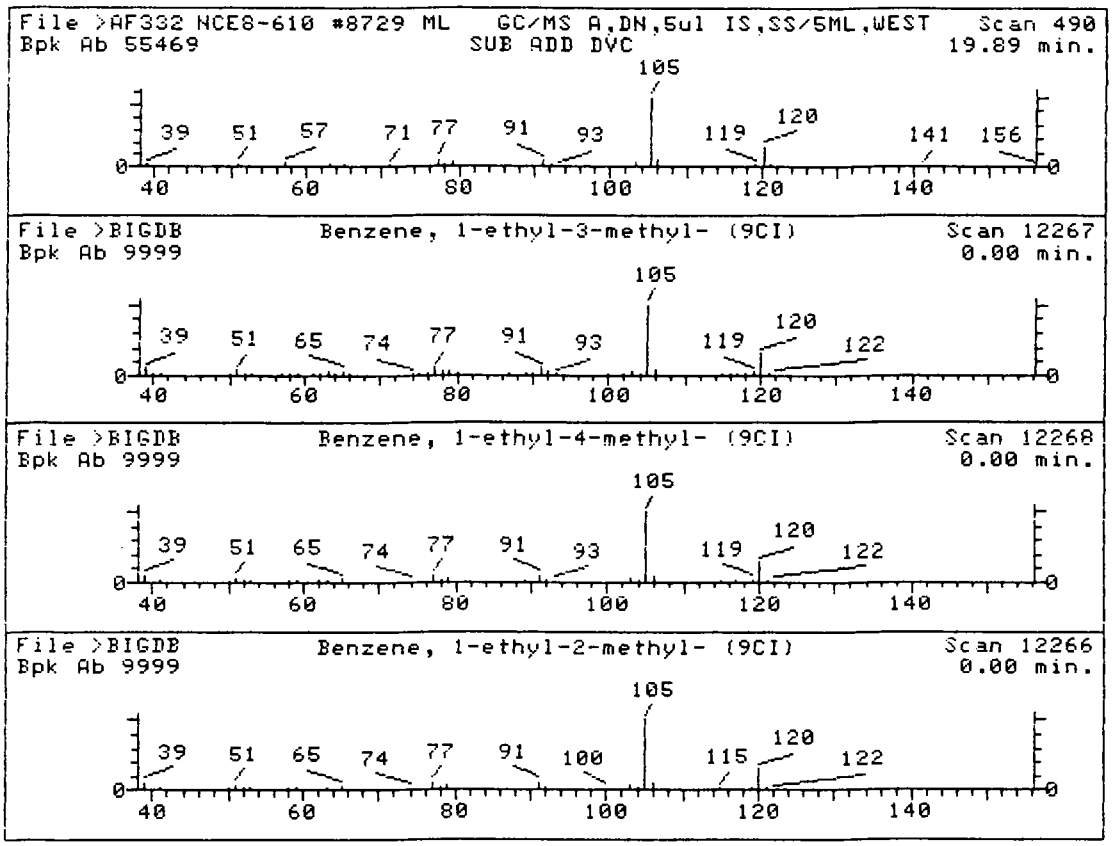



. Unknown #,5
Area = 642998.0 Tentative Concentration is 2500000.

1. Ethane, 1,2-dibromo- (8CI9CI) 186 C2H4Br2
2. Benzene, 1-(bromomethyl)-4-fluoro- (9CI) 188 C7H6BrF

Sample file: >AF332 Spectrum #: 396
Search speed: 2 Tilting option: F No. of ion ranges searched: 43

| | Prob. | CAS # | CON # | ROOT | K | DK | #FLG | TILT | % | CON | C_I | R_I |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. | 89* | 106934 | 10058 | "BIGDB | 66 | 36 | 1 | 0 | 91 | 4 | 66 | 6 |
| 2. | 25* | 459461 | 10353 | "BIGDB | 25 | 80 | 3 | 0 | 91 | 45 | 8 | 1. |



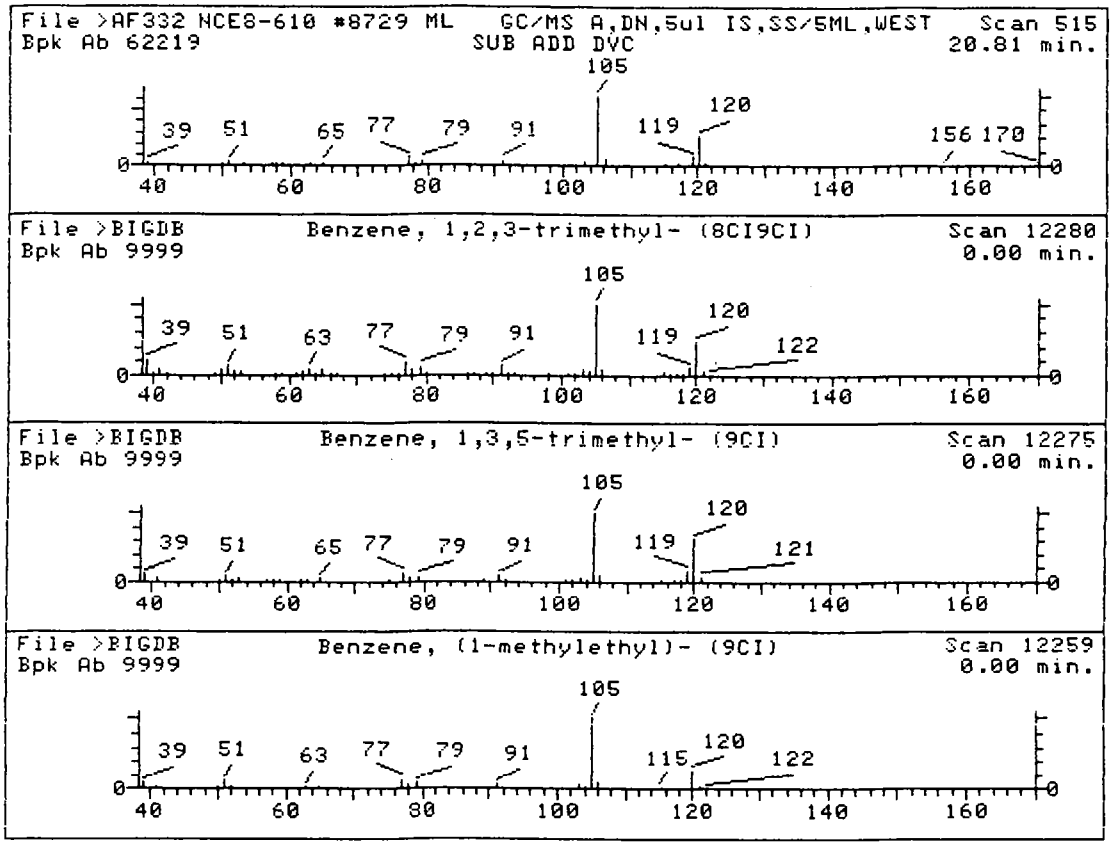

. Unknown #,6
Area = 1258216. Tentative Concentration is 4800000.

| | | | |
|---|---|---|---|
| 1. | Benzene, 1-ethyl-3-methyl- (9CI) | 120 | C9H12 |
| 2. | Benzene, 1-ethyl-4-methyl- (9CI) | 120 | C9H12 |
| 3. | Benzene, 1-ethyl-2-methyl- (9CI) | 120 | C9H12 |
| 4. | Benzene, (1-methylethyl)- (9CI) | 120 | C9H12 |
| 5. | Benzene, 1,3,5-trimethyl- (9CI) | 120 | C9H12 |
| 6. | Benzene, 1,2,3-trimethyl- (8CI9CI) | 120 | C9H12 |
| 7. | Benzene, (1,3-dimethyl-3-butenyl)- (9CI) | 160 | C12H16 |

000071

Sample file: >AF332 Spectrum #: 490
Search speed: 2 Tilting option: F No. of ion ranges searched: 46

| | Prob. | CAS # | CON # | ROOT | K | DK | #FLG | TILT | % | CON | C_I | R_I |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. | 96* | 620144 | 12267 | "BIGDB | 80 | 7 | 1 | 0 | 78 | 5 | 72 | 9 |
| 2. | 95* | 622968 | 12268 | "BIGDB | 78 | 7 | 1 | 0 | 88 | 9 | 68 | 9 |
| 3. | 95* | 611143 | 12266 | "BIGDB | 78 | 7 | 1 | 0 | 83 | 5 | 72 | 9 |
| 4. | 88* | 98828 | 12259 | "BIGDB | 64 | 23 | 2 | 0 | 85 | 5 | 65 | 5 |
| 5. | 51* | 108678 | 12275 | "BIGDB | 56 | 32 | 2 | 4 | 57 | 35 | 20 | 3 |
| 6. | 47* | 526738 | 12280 | "BIGDB | 66 | 34 | 2 | -4 | 50 | 38 | 17 | 3 |
| 7. | 42 | 56851515 | 9933 | "BIGDB | 39 | 39 | 2 | 0 | 100 | 25 | 17 | 1 |



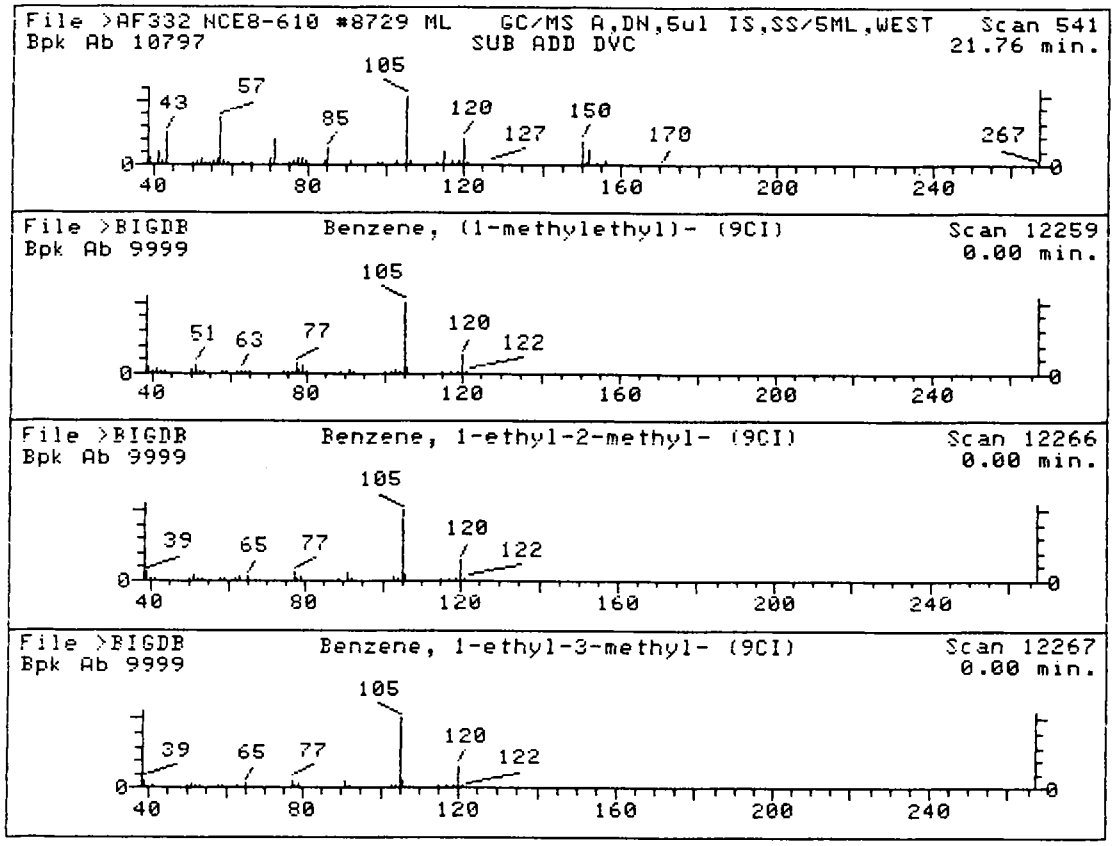

. Unknown #,7
Area = 1038783. Tentative Concentration is 4000000.

| | | | |
|---|---|---|---|
| 1. | Benzene, 1,2,3-trimethyl- (8CI9CI) | 120 | C9H12 |
| 2. | Benzene, 1,3,5-trimethyl- (9CI) | 120 | C9H12 |
| 3. | Benzene, (1-methylethyl)- (9CI) | 120 | C9H12 |
| 4. | Benzene, 1-ethyl-3-methyl- (9CI) | 120 | C9H12 |
| 5. | Benzene, 1-ethyl-2-methyl- (9CI) | 120 | C9H12 |
| 6. | Benzene, 1-ethyl-4-methyl- (9CI) | 120 | C9H12 |
| 7. | Benzene, 1,2,4-trimethyl- (8CI9CI) | 120 | C9H12 |

000072

Sample file: >AF332 Spectrum #: 515
Search speed: 2 Tilting option: F No. of ion ranges searched: 42

| | Prob. | CAS # | CON # | ROOT | K | DK | #FLG | TILT | % | CON | C_I | R_I |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. | 87* | 526738 | 12280 | "BIGDB | 71 | 29 | 2 | -4 | 73 | 3 | 63 | 4 |
| 2. | 83* | 108678 | 12275 | "BIGDB | 73 | 15 | 2 | 3 | 72 | 6 | 54 | 5 |
| 3. | 83* | 98828 | 12259 | "BIGDB | 72 | 15 | 1 | -3 | 99 | 9 | 54 | 5 |
| 4. | 81* | 620144 | 12267 | "BIGDB | 58 | 29 | 2 | 0 | 100 | 9 | 53 | 4 |
| 5. | 74* | 611143 | 12266 | "BIGDB | 58 | 27 | 2 | 0 | 100 | 11 | 39 | 4 |
| 6. | 71* | 622968 | 12268 | "BIGDB | 53 | 32 | 2 | 0 | 100 | 11 | 38 | 3 |
| 7. | 70* | 95636 | 12273 | "BIGDB | 72 | 23 | 1 | 0 | 64 | 31 | 32 | 7 |



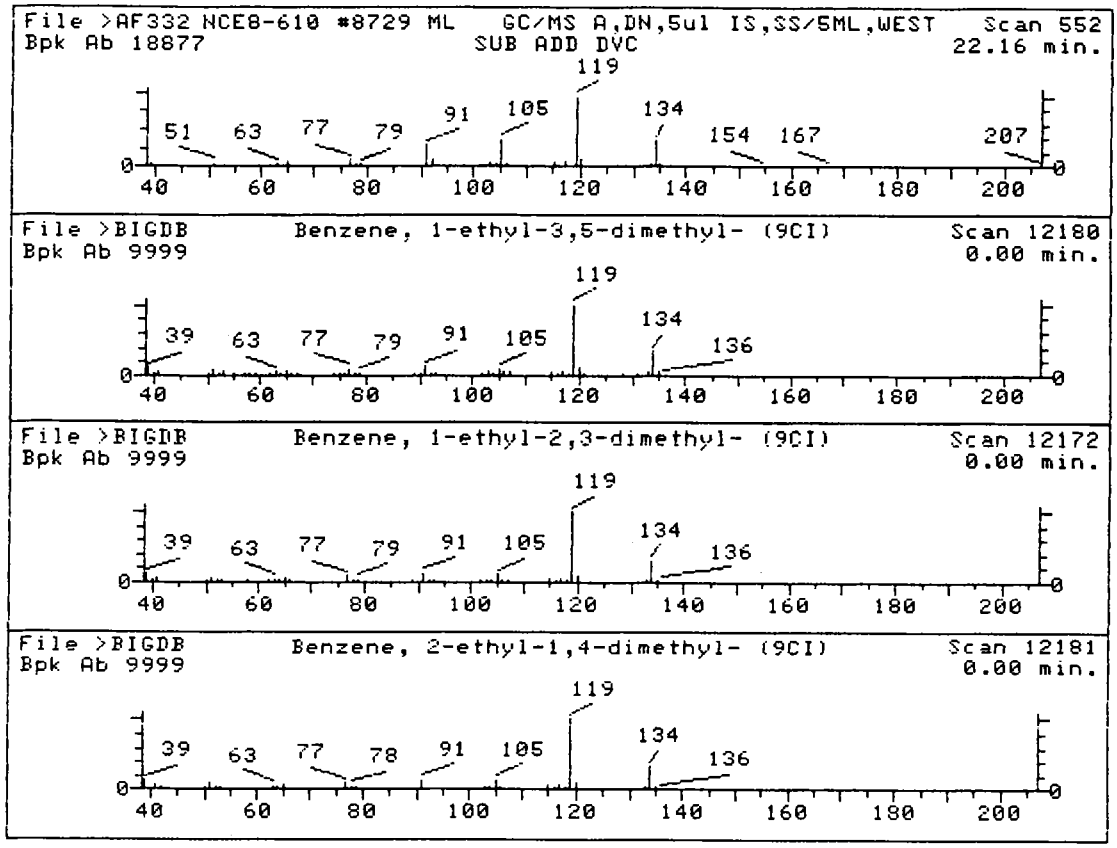

. Unknown #,8
Area = 447860.0 Tentative Concentration is 1700000.

| | | | |
|---|---|---|---|
| 1. | Benzene, (1-methylethyl)- (9CI) | 120 | C9H12 |
| 2. | Benzene, 1-ethyl-2-methyl- (9CI) | 120 | C9H12 |
| 3. | Benzene, 1-ethyl-3-methyl- (9CI) | 120 | C9H12 |
| 4. | Benzene, 1-ethyl-4-methyl- (9CI) | 120 | C9H12 |
| 5. | 1,3,5-Cycloheptatriene, 7-ethyl- (8CI9CI) | 120 | C9H12 |
| 6. | Tridecane (8CI9CI) | 184 | C13H28 |
| 7. | Benzene, 1,2,4-trimethyl- (8CI9CI) | 120 | C9H12 |

000078

Sample file: >AF332 Spectrum #: 541
Search speed: 2 Tilting option: F No. of ion ranges searched: 54

| | Prob. | CAS # | CON # | ROOT | K | DK | #FLG | TILT | % | CON | C_I | R_I |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. | 61* | 98828 | 12259 | "BIGDB | 61 | 26 | 1 | -3 | 78 | 34 | 22 | 4 |
| 2. | 41* | 611143 | 12266 | "BIGDB | 53 | 32 | 2 | 0 | 100 | 44 | 14 | 3 |
| 3. | 41* | 620144 | 12267 | "BIGDB | 53 | 34 | 2 | 0 | 100 | 44 | 14 | 3 |
| 4. | 33* | 622968 | 12268 | "BIGDB | 53 | 32 | 2 | -1 | 100 | 39 | 10 | 1 |
| 5. | 25* | 17634514 | 12269 | "BIGDB | 31 | 70 | 3 | 0 | 135 | 44 | 8 | 1 |
| 6. | 25 | 629505 | 6250 | "BIGDB | 67 | 29 | 3 | 1 | 38 | 45 | 8 | 1 |
| 7. | 17* | 95636 | 12273 | "BIGDB | 60 | 35 | 1 | 0 | 51 | 63 | 4 | 5 |



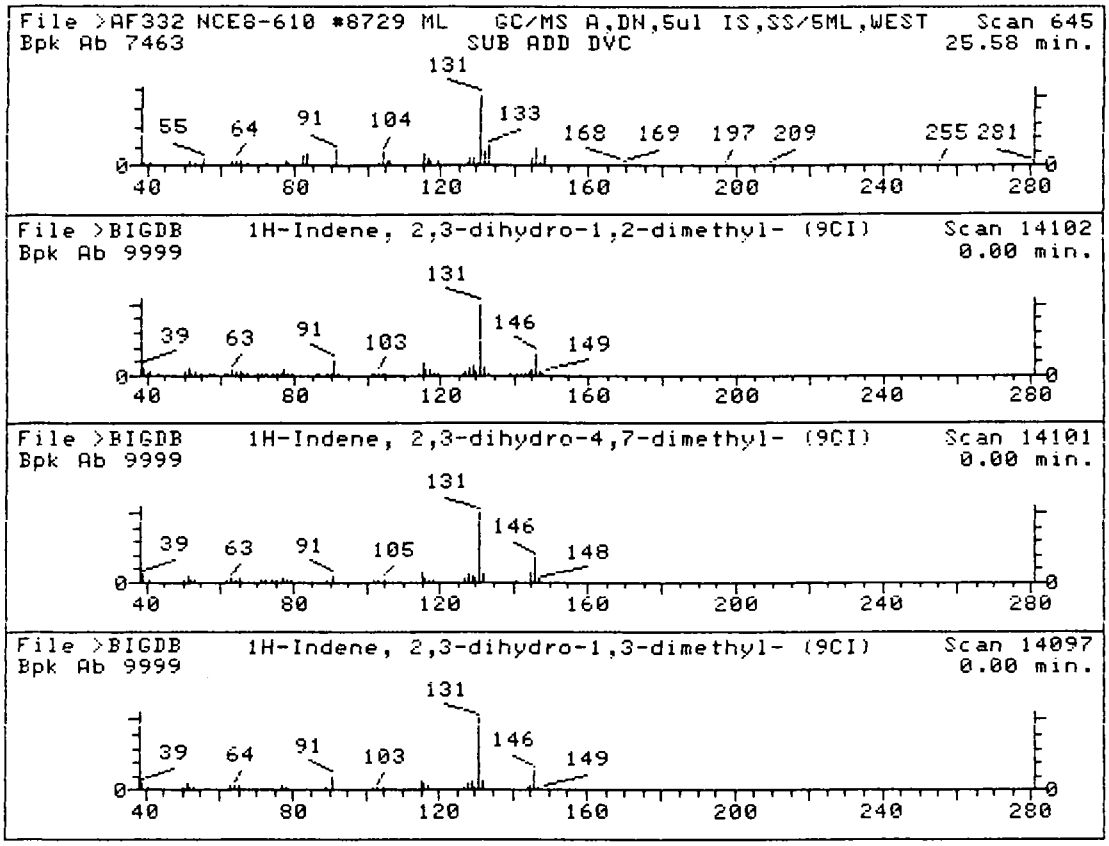

. Unknown #,9
Area = 446485.0 Tentative Concentration is 1700000.

| | | |
|---|---|---|
| 1. | Benzene, 1-ethyl-3,5-dimethyl- (9CI) | 134 C10H14 |
| 2. | Benzene, 1-ethyl-2,3-dimethyl- (9CI) | 134 C10H14 |
| 3. | Benzene, 2-ethyl-1,4-dimethyl- (9CI) | 134 C10H14 |
| 4. | Benzene, 1-ethyl-2,4-dimethyl- (9CI) | 134 C10H14 |
| 5. | Benzene, 4-ethyl-1,2-dimethyl- (9CI) | 134 C10H14 |
| 6. | Benzene, 1-methyl-3-(1-methylethyl)- (9CI) | 134 C10H14 |
| 7. | Benzene, 2-ethyl-1,3-dimethyl- (9CI) | 134 C10H14 |

000074

Sample file: >AF332 Spectrum #: 552
Search speed: 2 Tilting option: F No. of ion ranges searched: 42

| | Prob. | CAS # | CON # | ROOT | K | DK | #FLG | TILT | % | CON | C_I | R_I |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. | 88* | 934747 | 12180 | "BIGDB | 70 | 25 | 2 | 4 | 100 | 5 | 65 | 5 |
| 2. | 84* | 933982 | 12172 | "BIGDB | 67 | 24 | 1 | 3 | 100 | 8 | 55 | 6 |
| 3. | 84* | 1758889 | 12181 | "BIGDB | 68 | 26 | 1 | 0 | 85 | 8 | 55 | 6 |
| 4. | 84* | 874419 | 12171 | "BIGDB | 61 | 27 | 1 | 0 | 100 | 8 | 55 | 6 |
| 5. | 84* | 934805 | 12173 | "BIGDB | 62 | 31 | 1 | 0 | 100 | 8 | 55 | 6 |
| 6. | 83* | 535773 | 12170 | "BIGDB | 67 | 22 | 1 | -2 | 96 | 6 | 54 | 5 |
| 7. | 83* | 2870044 | 12174 | "BIGDB | 57 | 32 | 1 | 0 | 100 | 8 | 54 | 5 |




. Unknown #,10
Area = 407322.0 Tentative Concentration is 1600000.

| | | | |
|---|---|---|---|
| 1. | 1H-Indene, 2,3-dihydro-1,2-dimethyl- (9CI) | 146 | C11H14 |
| 2. | 1H-Indene, 2,3-dihydro-4,7-dimethyl- (9CI) | 146 | C11H14 |
| 3. | 1H-Indene, 2,3-dihydro-1,3-dimethyl- (9CI) | 146 | C11H14 |
| 4. | 1H-Indene, 2,3-dihydro-1,6-dimethyl- (9CI) | 146 | C11H14 |
| 5. | Naphthalene, 1,2,3,4-tetrahydro-1-methyl- (8CI9CI) | 146 | C11H14 |
| 6. | Benzene, 2-ethenyl-1,3,5-trimethyl- (9CI) | 146 | C11H14 |
| 7. | Benzene, (1,1-dimethyl-2-propenyl)- (9CI) | 146 | C11H14 |

000075

Sample file: >AF332 Spectrum #: 645
Search speed: 2 Tilting option: F No. of ion ranges searched: 44

| | Prob. | CAS # | CON # | ROOT | K | DK | #FLG | TILT | % | CON | C_I | R_I |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. | 81* | 17057828 | 14102 | "BIGDB | 88 | 16 | 1 | 3 | 67 | 18 | 45 | 7 |
| 2. | 81* | 6682719 | 14101 | "BIGDB | 87 | 18 | 1 | 4 | 75 | 18 | 45 | 7 |
| 3. | 81* | 4175535 | 14097 | "BIGDB | 78 | 23 | 1 | 0 | 76 | 16 | 45 | 7 |
| 4. | 81* | 17059482 | 14099 | "BIGDB | 72 | 27 | 1 | 0 | 90 | 16 | 45 | 7 |
| 5. | 70* | 1559815 | 14100 | "BIGDB | 74 | 30 | 2 | 0 | 80 | 18 | 32 | 5 |
| 6. | 68* | 769255 | 16639 | "BIGDB | 77 | 33 | 0 | 0 | 29 | 51 | 35 | 9 |
| 7. | 63* | 18321363 | 14103 | "BIGDB | 56 | 46 | 2 | 0 | 77 | 18 | 30 | 3 |

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA / CLIENT ID

610-SS5

Lab Name: AMER.ENV.NTWK. Contract: WEST-0103

Lab Code: AENI Case No: NWS-EARLE SAS No: N.A. SDG No: N.A.

Matrix: SOIL Lab Sample ID: AE#8733

Sample (wt/vol): 4 G Lab File ID: >AF304

Level: MED Date Received: 06/11/93

% Moisture: not dec. 17 Date Analyzed: 6/19/93

Column: CAP Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 1500. | U |
| 74-83-9 | Bromomethane | 1500. | U |
| 75-01-4 | Vinyl Chloride | 1500. | U |
| 75-00-3 | Chloroethane | 1500. | U |
| 75-09-2 | Methylene Chloride | 1600. | B |
| 67-64-1 | Acetone | 2000. | JB |
| 75-15-0 | Carbon Disulfide | 1000. | B |
| 75-35-4 | 1,1-Dichloroethene | 750. | U |
| 75-34-3 | 1,1-Dichloroethane | 750. | U |
| 156-60-5 | trans-1,2-Dichloroethene | 750. | U |
| 67-66-3 | Chloroform | 750. | U |
| 107-02-2 | 1,2-Dichloroethane | 520. | J |
| 78-93-3 | 2-Butanone | 15000. | U |
| 71-55-6 | 1,1,1-Trichloroethane | 750. | U |
| 56-23-5 | Carbon Tetrachloride | 750. | U |
| 108-05-4 | Vinyl Acetate | 7500. | U |
| 75-27-4 | Bromodichloromethane | 750. | U |
| 78-87-5 | 1,2-Dichloropropane | 750. | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 750. | U |
| 79-01-6 | Trichloroethene | 350. | J |
| 124-48-1 | Dibromochloromethane | 750. | U |
| 79-00-5 | 1,1,2-Trichloroethane | 750. | U |
| 71-43-2 | Benzene | 750. | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 750. | U |
| 110-75-8 | 2-Chloroethylvinylether | 1500. | U |
| 75-25-2 | Bromoform | 750. | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 2500. | J |
| 591-78-6 | 2-Hexanone | 930. | J |
| 127-18-4 | Tetrachloroethene | 750. | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 180. | J |
| 108-88-3 | Toluene | 750. | U |
| 108-90-7 | Chlorobenzene | 750. | U |
| 100-41-4 | Ethylbenzene | 780. | |
| 100-42-5 | Styrene | 490. | J |
| 133-02-7 | m + p-Xylenes | 1100. | |
| 95-47-6 | o-Xylene | 560. | J |

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

610-SS5

Lab Name: AMER.ENV.NTWK. Contract: WEST-0103

Lab Code: AENI Case No: NWS-EARL SAS No: N.A. SDG No: N.A.

Matrix: SOIL Lab Sample ID: AE#8733

Sample wt/vol: 4 G Lab File ID: >AF304

Level: MED Date Received: 06/11/93

% Moisture: not dec. 17 Date Analyzed: 6/19/93

Column: CAP Dilution Factor: 1.0

Number TICs found: 10

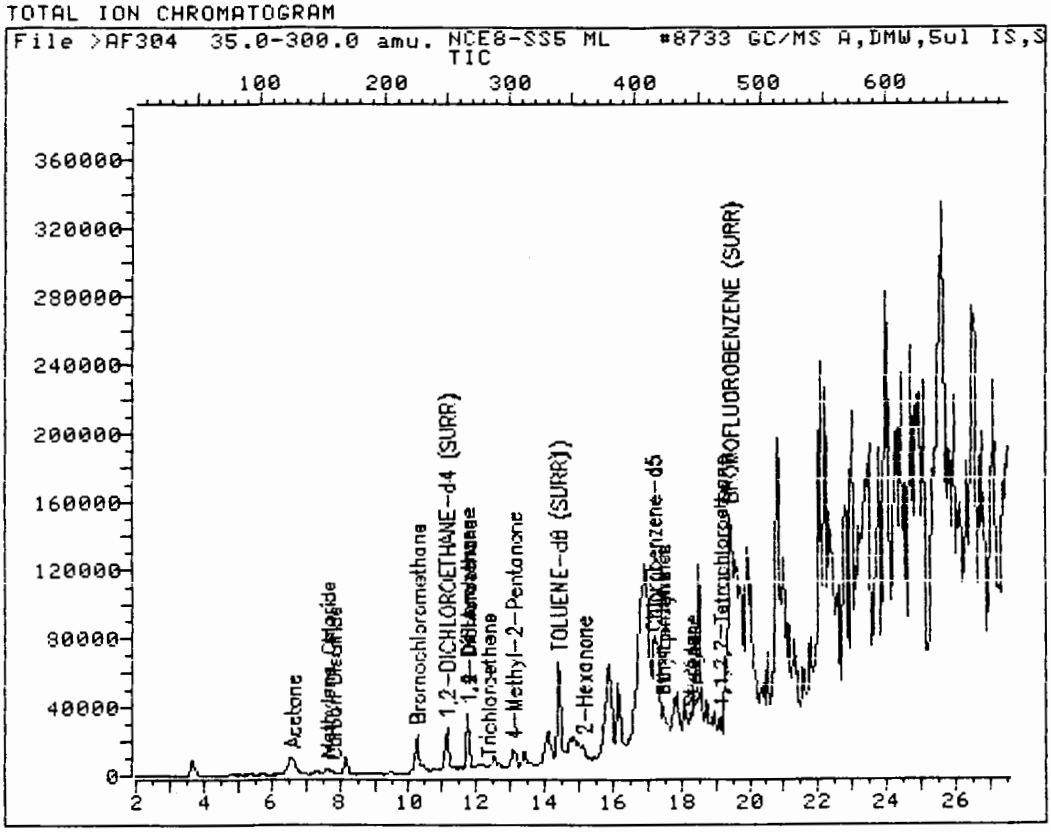
CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|---|
| 1. | 90120 | Naphthalene, 1-methyl- (8CI9 | 16.82 | 12000. | J |
| 2. | 620144 | Benzene, 1-ethyl-3-methyl- ( | 19.90 | 16000. | J |
| 3. | 526738 | Benzene, 1,2,3-trimethyl- (8 | 20.78 | 16000. | J |
| 4. | 1074437 | Benzene, 1-methyl-3-propyl- | 22.03 | 15000. | J |
| 5. | 535773 | Benzene, 1-methyl-3-(1-methy | 22.80 | 14000. | J |
| 6. | 2870044 | Benzene, 2-ethyl-1,3-dimethy | 23.94 | 30000. | J |
| 7. | 767588 | 1H-Indene, 2,3-dihydro-1-met | 24.71 | 14000. | J |
| 8. | 4175535 | 1H-Indene, 2,3-dihydro-1,3-d | 25.59 | 28000. | J |
| 9. | 91203 | Naphthalene (ACN)(DOT)(8CI9C | 26.47 | 20000. | J |
| 10. | 6682719 | 1H-Indene, 2,3-dihydro-4,7-d | 27.10 | 19000. | J |
| 11. | | | | | |
| 12. | | | | | |
| 13. | | | | | |
| 14. | | | | | |
| 15. | | | | | |
| 16. | | | | | |
| 17. | | | | | |
| 18. | | | | | |
| 19. | | | | | |
| 20. | | | | | |
| 21. | | | | | |
| 22. | | | | | |
| 23. | | | | | |
| 24. | | | | | |
| 25. | | | | | |
| 26. | | | | | |
| 27. | | | | | |
| 28. | | | | | |
| 29. | | | | | |
| 30. | | | | | |

000077

NR = Not Reviewed

TOTAL ION CHROMATOGRAM




Data File: >AF304::C2 Quant Output File: ^AF304::OU
Name: NCE8-SS5 ML #8733
Misc: GC/MS A,DMW,5ul IS,SS/5ML,WEST-0103

Id File: IDVAFD::ID
Title: HSL VOLATILES
Last Calibration: 930618 18:40

Operator ID: ZIPPY
Quant Time: 930619 00:49
Injected at: 930619 00:21

QUANT REPORT

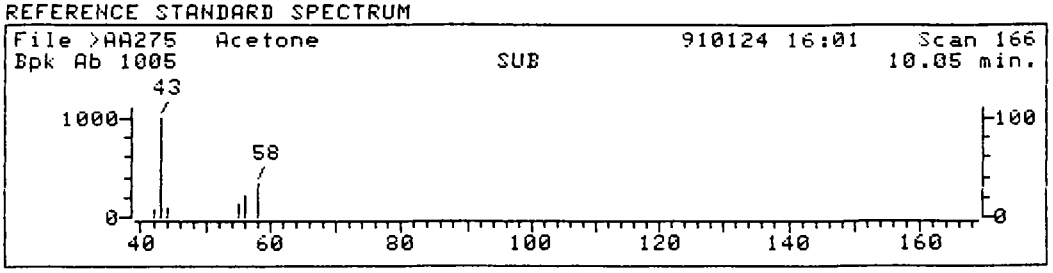
Operator ID: ZIPPY  Quant Rev: 6  Quant Time: 930619 00:49
Output File: ^AF304::OU  Injected at: 930619 00:21
Data File: >AF304::C2  Dilution Factor: 1.00000
Name: NCE8-SS5 ML #8733
Misc: GC/MS A,DMW,5ul IS,SS/5ML,WEST-0103

ID File: IDVAFD::ID
Title: HSL VOLATILES
Last Calibration: 930618 18:40

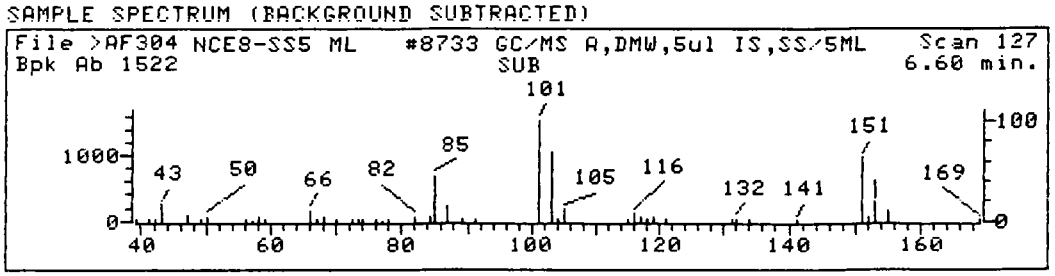
| | Compound | Q ion | Scan# | Area | Conc | Units | q |
|---|---|---|---|---|---|---|---|
| 1) | *Bromochloromethane | 128.0 | 227 | 21739 | 50.00 | ng/mL | 7 |
| 7) | Acetone | 43.0 | 127 | 2793 | 13.17 | ng/mL | 7 |
| 11) | Methylene Chloride | 84.0 | 155 | 10492 | 10.34 | ng/mL | 4 |
| 12) | Carbon Disulfide | 76.0 | 160 | 2623 | 6.69 | ng/mL | 10 |
| 18) | 1,2-DICHLOROETHANE-d4 (SURR) | 65.0 | 251 | 31737 | 48.18 | ng/mL | 10 |
| 19) | 1,2-Dichloroethane | 62.0 | 268 | 2995 | 3.46 | ng/mL | 7 |
| 20) | *1,4-Difluorobenzene | 114.0 | 267 | 94343 | 50.00 | ng/mL | 9 |
| 25) | Trichloroethene | 95.0 | 284 | 2353 | 2.29 | ng/mL | 6 |
| 30) | TOLUENE-d8 (SURR1) | 98.0 | 340 | 125579 | 50.68 | ng/mL | 9 |
| 35) | *Chlorobenzene-d5 | 82.0 | 415 | 52264 | 50.00 | ng/mL | 9 |
| 36) | 4-Methyl-2-Pentanone | 43.0 | 304 | 29358 | 16.87 | ng/mL | 4 |
| 38) | 2-Hexanone | 43.0 | 360 | 6867 | 6.15 | ng/mL | 5 |
| 41) | Ethylbenzene | 91.0 | 423 | 30254 | 5.21 | ng/mL | 8 |
| 42) | m + p-Xylenes | 106.0 | 423 | 13180 | 6.98 | ng/mL | 7 |
| 43) | o-Xylene | 106.0 | 446 | 7305 | 3.71 | ng/mL | 8 |
| 44) | Styrene | 104.0 | 445 | 11625 | 3.23 | ng/mL | 8 |
| 45) | 1,1,2,2-Tetrachloroethane | 83.0 | 469 | 3235 | 1.20 | ng/mL | 4 |
| 46) | BROMOFLUOROBENZENE (SURR) | 95.0 | 477 | 82757 | 45.56 | ng/mL | 9 |
| 50) | TOLUENE-d8 (SURR) | 98.0 | 340 | 125579 | 35.43 | ng/mL | 9 |

* Compound is ISTD

REFERENCE STANDARD SPECTRUM




SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)

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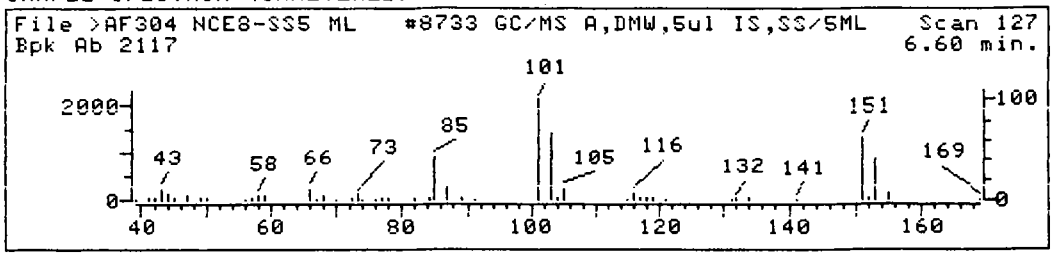
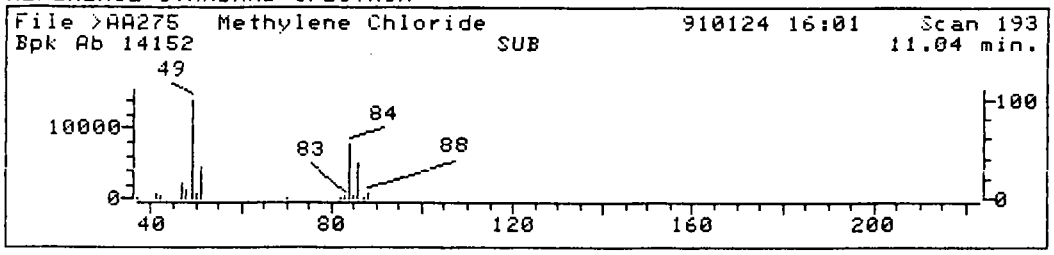



Data File: >AF304::C2 Quant Output File: ^AF304::OU
Name: NCE8-SS5 ML #8733
Misc: GC/MS A,DMW,5ul IS,SS/5ML,WEST-0103
Quant Time: 930619 00:49 Quant ID File: IDVAFD::ID
Injected at: 930619 00:21 Last Calibration: 930618 18:40

Compound No: 7
Compound Name: Acetone
Scan Number: 127
Retention Time: 6.60 min.
Quant Ion: 43.0
Area: 2793
Concentration: 13.17 ng/mL
q-value: 73

REFERENCE STANDARD SPECTRUM

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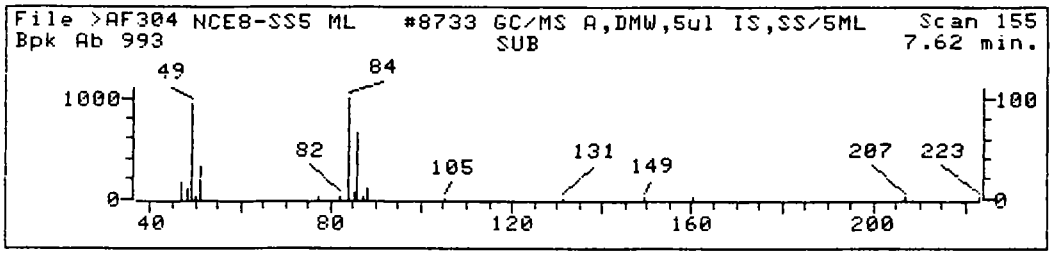


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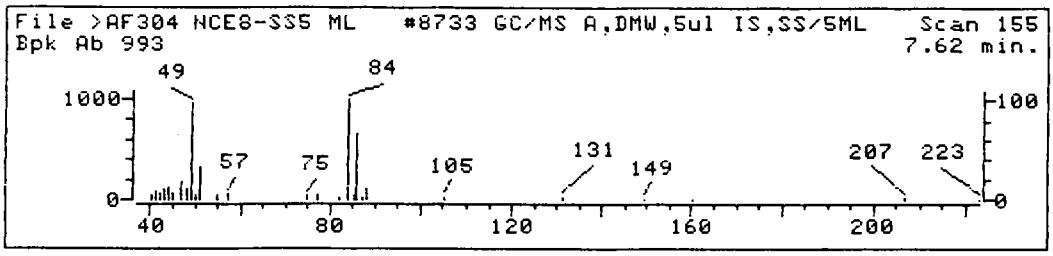
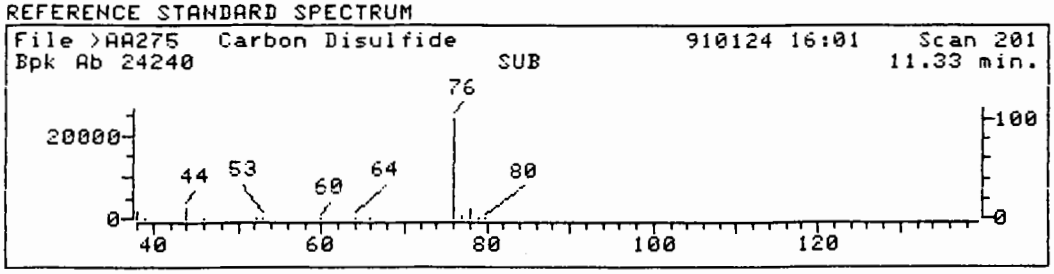



Data File: >AF304::C2 Quant Output File: ^AF304::OU
Name: NCE8-SS5 ML #8733
Misc: GC/MS A,DMW,5ul IS,SS/5ML,WEST-0103
Quant Time: 930619 00:49 Quant ID File: IDVAFD::ID
Injected at: 930619 00:21 Last Calibration: 930618 18:40

Compound No: 11
Compound Name: Methylene Chloride
Scan Number: 155
Retention Time: 7.62 min.
Quant Ion: 84.0
Area: 10492
Concentration: 10.34 ng/mL
q-value: 40

REFERENCE STANDARD SPECTRUM

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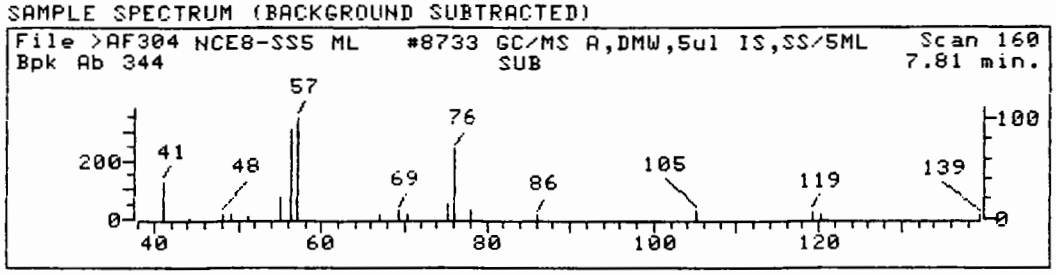


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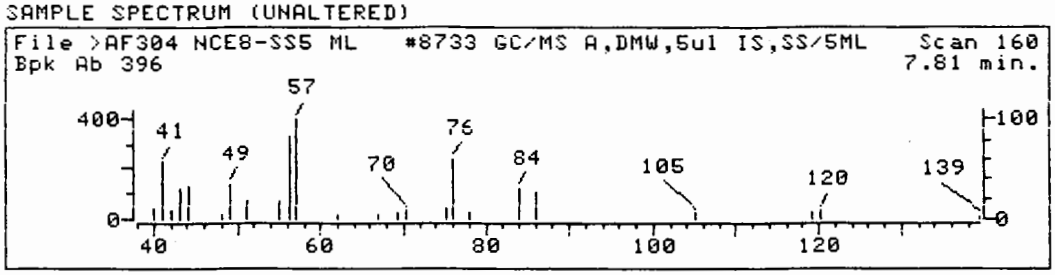
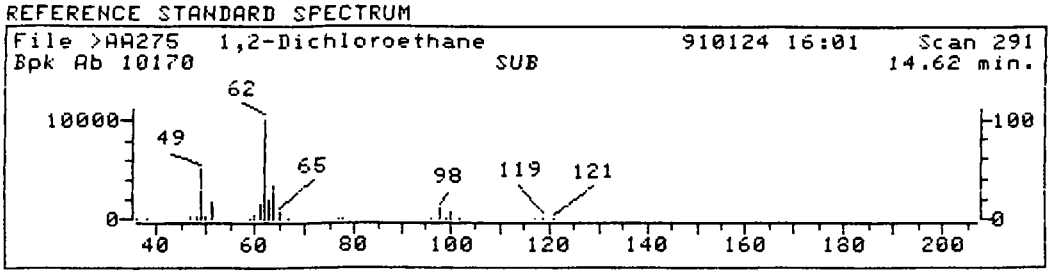



Data File: >AF304::C2 Quant Output File: ^AF304::OU
Name: NCE8-SS5 ML #8733
Misc: GC/MS A,DMW,5ul IS,SS/5ML,WEST-0103
Quant Time: 930619 00:49 Quant ID File: IDVAFD::ID
Injected at: 930619 00:21 Last Calibration: 930618 18:40

Compound No: 12
Compound Name: Carbon Disulfide
Scan Number: 160
Retention Time: 7.81 min.
Quant Ion: 76.0
Area: 2623
Concentration: 6.69 ng/mL
q-value: 100

REFERENCE STANDARD SPECTRUM

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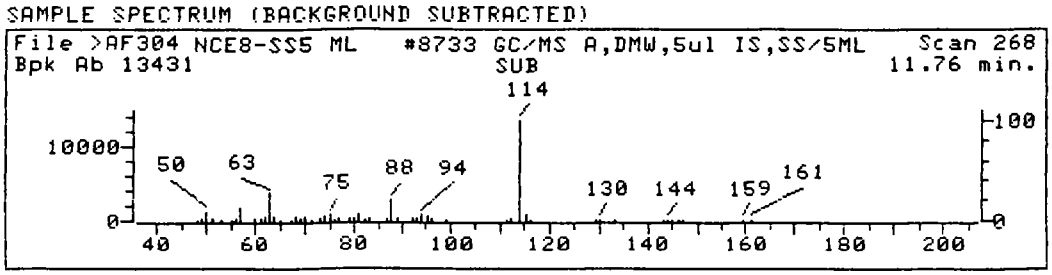
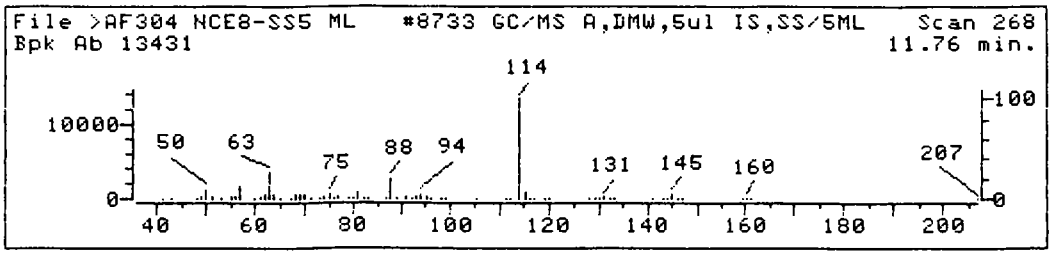


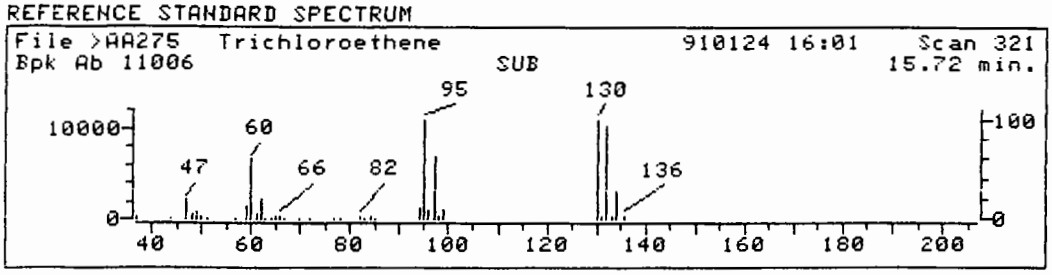

SAMPLE SPECTRUM (UNALTERED)




Data File: >AF304::C2 Quant Output File: ^AF304::OU
Name: NCE8-SS5 ML #8733
Misc: GC/MS A,DMW,5ul IS,SS/5ML,WEST-0103
Quant Time: 930619 00:49 Quant ID File: IDVAFD::ID
Injected at: 930619 00:21 Last Calibration: 930618 18:40

Compound No: 19
Compound Name: 1,2-Dichloroethane
Scan Number: 268
Retention Time: 11.76 min.
Quant Ion: 62.0
Area: 2995
Concentration: 3.46 ng/mL
q-value: 72

REFERENCE STANDARD SPECTRUM

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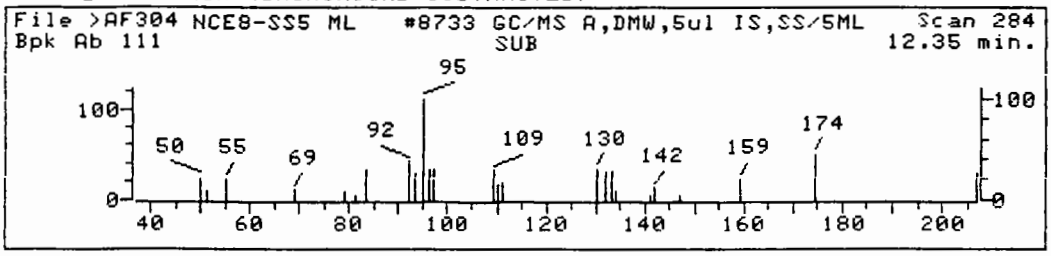


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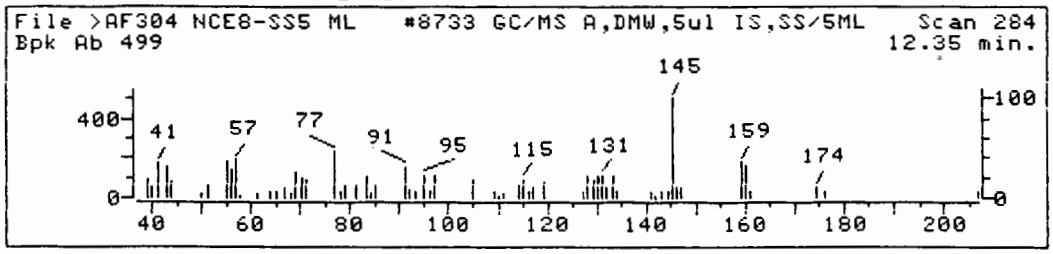
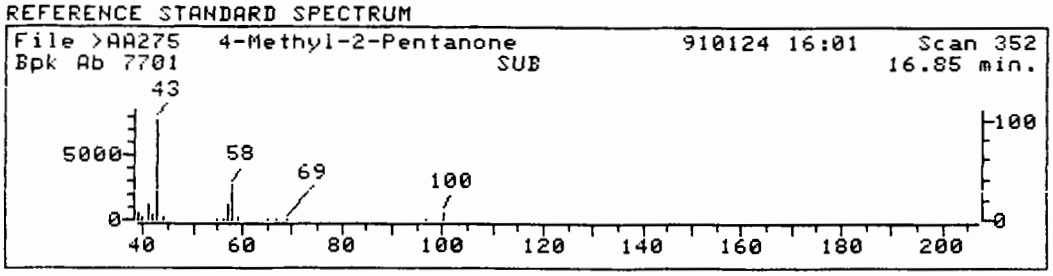


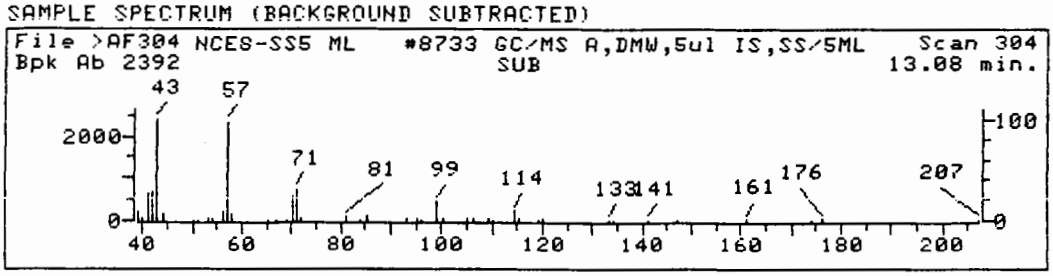

Data File: >AF304::C2 Quant Output File: ^AF304::OU
Name: NCE8-SS5 ML #8733
Misc: GC/MS A,DMW,5ul IS,SS/5ML,WEST-0103
Quant Time: 930619 00:49 Quant ID File: IDVAFD::ID
Injected at: 930619 00:21 Last Calibration: 930618 18:40

Compound No: 25
Compound Name: Trichloroethene
Scan Number: 284
Retention Time: 12.35 min.
Quant Ion: 95.0
Area: 2353
Concentration: 2.29 ng/mL
q-value: 68

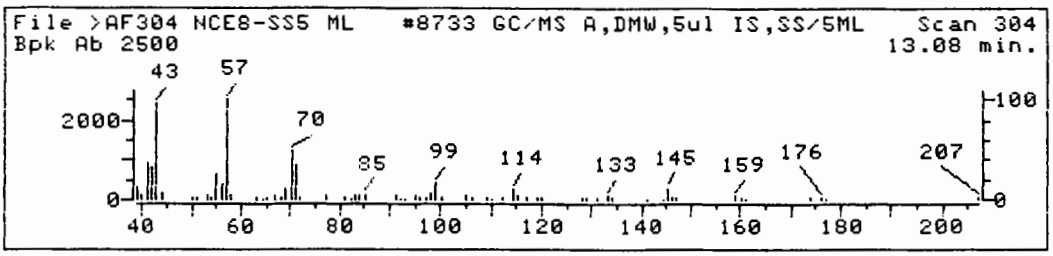
REFERENCE STANDARD SPECTRUM




SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



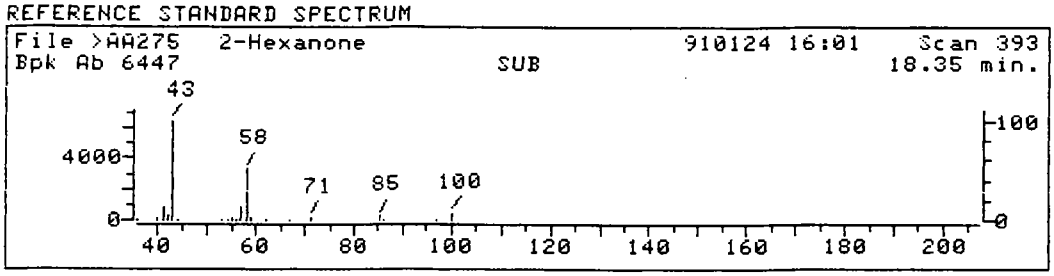

SAMPLE SPECTRUM (UNALTERED)



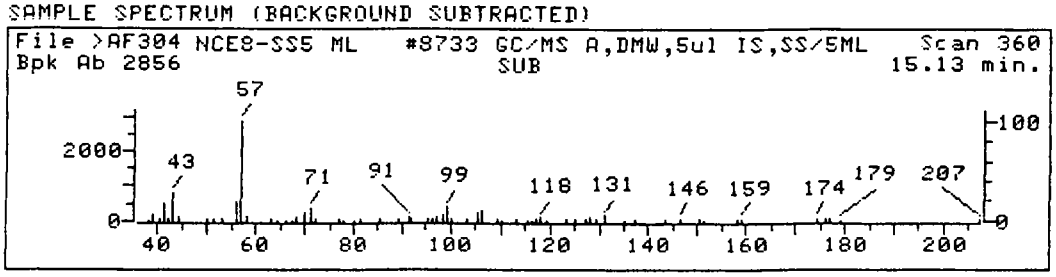

Data File: >AF304::C2 Quant Output File: ^AF304::OU
Name: NCE8-SS5 ML #8733
Misc: GC/MS A,DMW,5ul IS,SS/5ML,WEST-0103
Quant Time: 930619 00:49 Quant ID File: IDVAFD::ID
Injected at: 930619 00:21 Last Calibration: 930618 18:40

Compound No: 36
Compound Name: 4-Methyl-2-Pentanone
Scan Number: 304
Retention Time: 13.08 min.
Quant Ion: 43.0
Area: 29358
Concentration: 16.87 ng/mL
q-value: 48

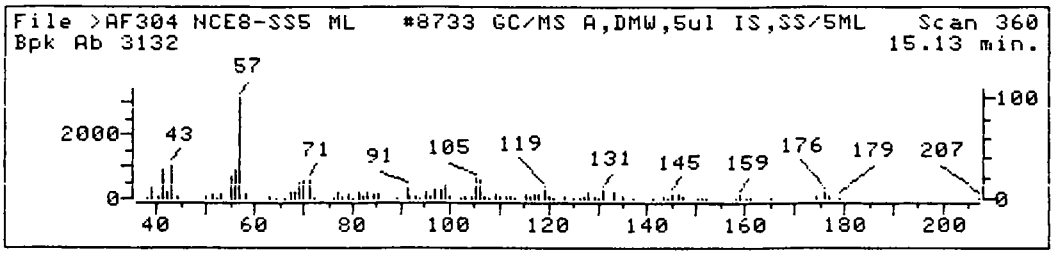
REFERENCE STANDARD SPECTRUM




SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



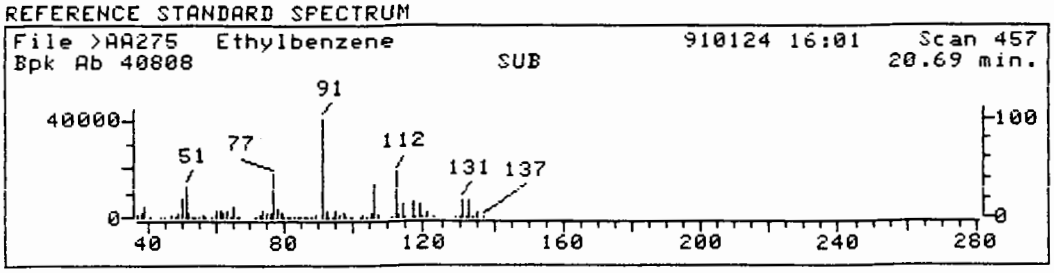

SAMPLE SPECTRUM (UNALTERED)



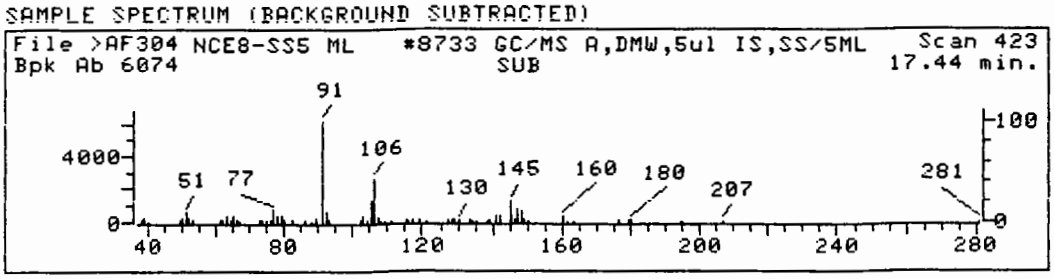

Data File: >AF304::C2 Quant Output File: ^AF304::OU
Name: NCE8-SS5 ML #8733
Misc: GC/MS A,DMW,5ul IS,SS/5ML,WEST-0103
Quant Time: 930619 00:49 Quant ID File: IDVAFD::ID
Injected at: 930619 00:21 Last Calibration: 930618 18:40

Compound No: 38
Compound Name: 2-Hexanone
Scan Number: 360
Retention Time: 15.13 min.
Quant Ion: 43.0
Area: 6867
Concentration: 6.15 ng/mL
q-value: 59

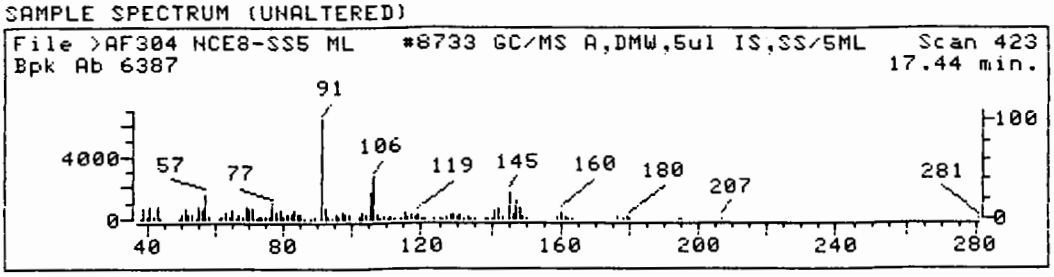
REFERENCE STANDARD SPECTRUM




SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



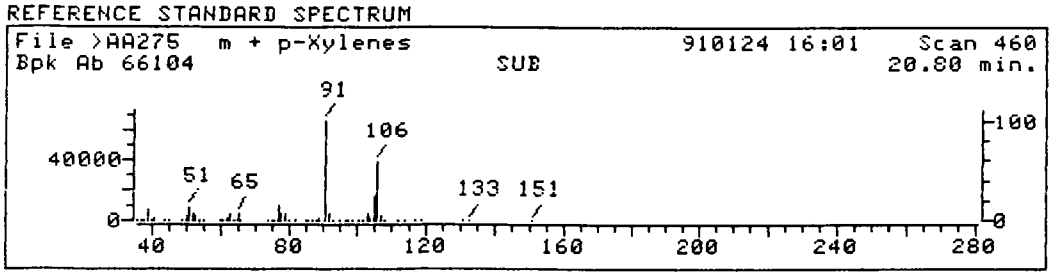

SAMPLE SPECTRUM (UNALTERED)



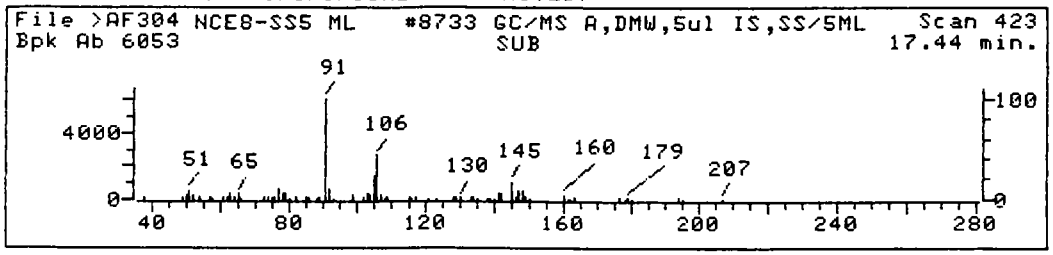

Data File: >AF304::C2 Quant Output File: ^AF304::OU
Name: NCE8-SS5 ML #8733
Misc: GC/MS A,DMW,5ul IS,SS/5ML,WEST-0103
Quant Time: 930619 00:49 Quant ID File: IDVAFD::ID
Injected at: 930619 00:21 Last Calibration: 930618 18:40

Compound No: 41
Compound Name: Ethylbenzene
Scan Number: 423
Retention Time: 17.44 min.
Quant Ion: 91.0
Area: 30254
Concentration: 5.21 ng/mL
q-value: 89

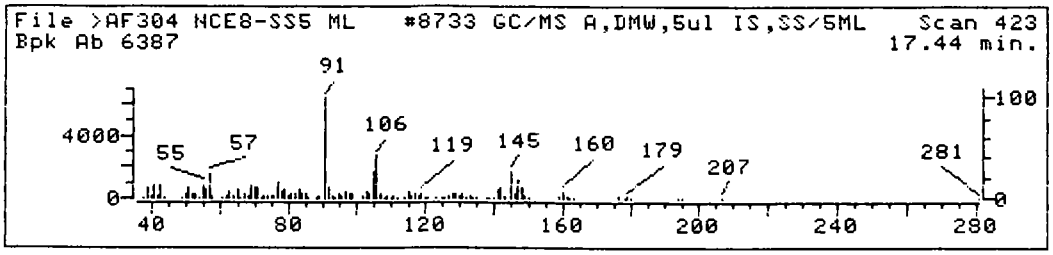
REFERENCE STANDARD SPECTRUM




SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



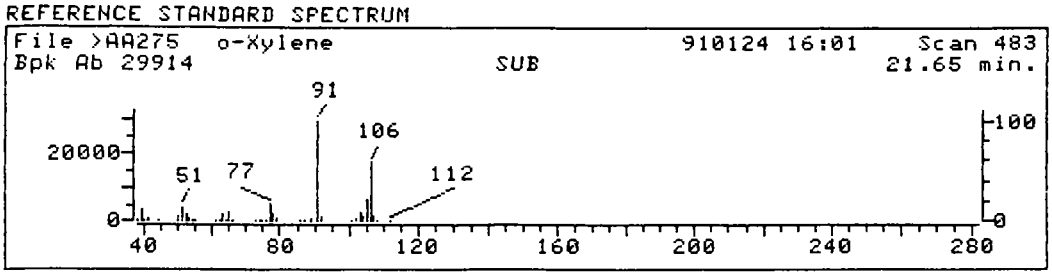

SAMPLE SPECTRUM (UNALTERED)



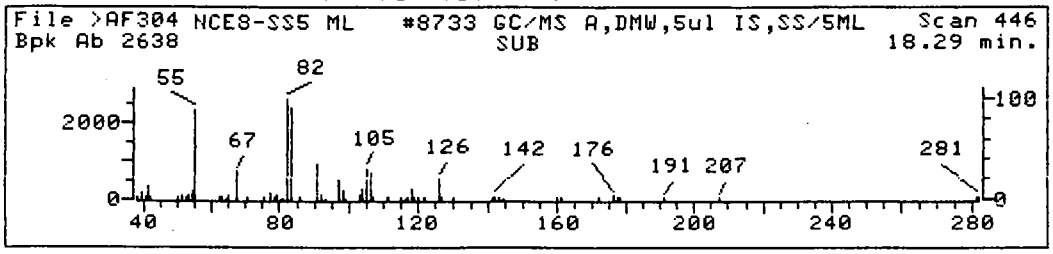

Data File: >AF304::C2 Quant Output File: ^AF304::OU
Name: NCE8-SS5 ML #8733
Misc: GC/MS A,DMW,5ul IS,SS/5ML,WEST-0103
Quant Time: 930619 00:49 Quant ID File: IDVAFD::ID
Injected at: 930619 00:21 Last Calibration: 930618 18:40

Compound No: 42
Compound Name: m + p-Xylenes
Scan Number: 423
Retention Time: 17.44 min.
Quant Ion: 106.0
Area: 13180
Concentration: 6.98 ng/mL
q-value: 77

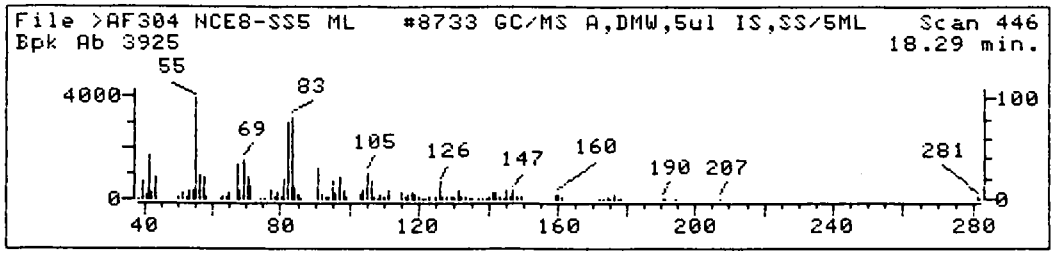
REFERENCE STANDARD SPECTRUM




SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



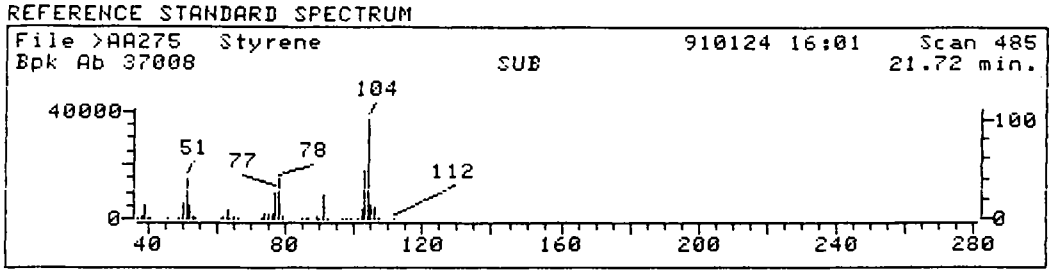

SAMPLE SPECTRUM (UNALTERED)



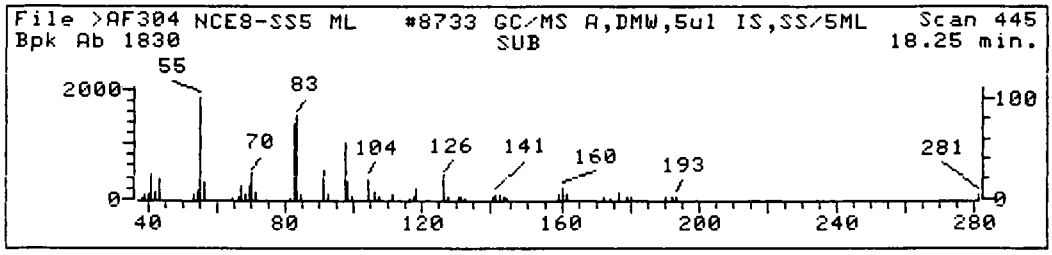

Data File: >AF304::C2 Quant Output File: ^AF304::OU
Name: NCE8-SS5 ML #8733
Misc: GC/MS A,DMW,5ul IS,SS/5ML,WEST-0103
Quant Time: 930619 00:49 Quant ID File: IDVAFD::ID
Injected at: 930619 00:21 Last Calibration: 930618 18:40

Compound No: 43
Compound Name: o-Xylene
Scan Number: 446
Retention Time: 18.29 min.
Quant Ion: 106.0
Area: 7305
Concentration: 3.71 ng/mL
q-value: 85

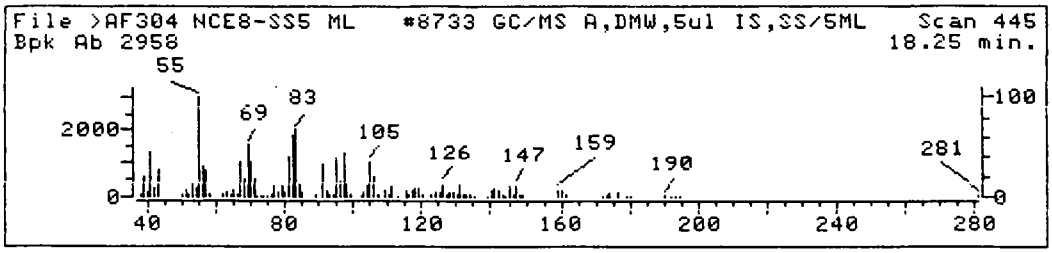
REFERENCE STANDARD SPECTRUM




SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



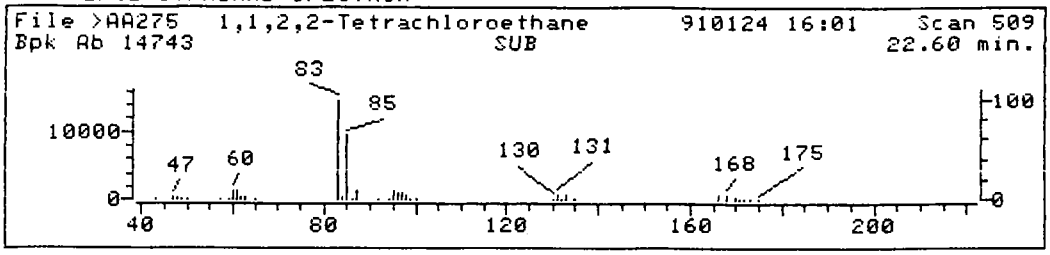

SAMPLE SPECTRUM (UNALTERED)



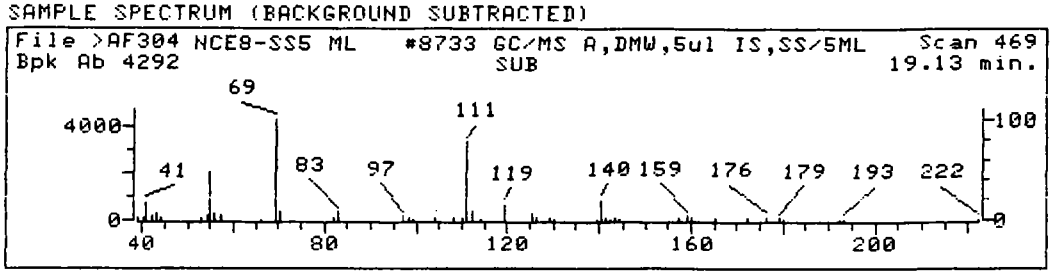

Data File: >AF304::C2 Quant Output File: ^AF304::OU
Name: NCE8-SS5 ML #8733
Misc: GC/MS A,DMW,5ul IS,SS/5ML,WEST-0103
Quant Time: 930619 00:49 Quant ID File: IDVAFD::ID
Injected at: 930619 00:21 Last Calibration: 930618 18:40

Compound No: 44
Compound Name: Styrene
Scan Number: 445
Retention Time: 18.25 min.
Quant Ion: 104.0
Area: 11625
Concentration: 3.23 ng/mL
q-value: 81

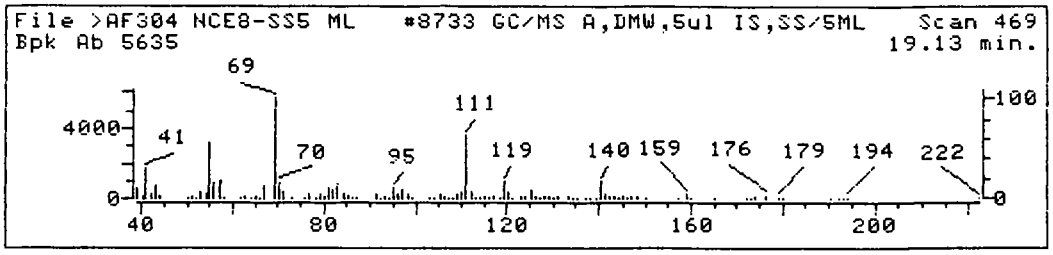
REFERENCE STANDARD SPECTRUM




SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)




SAMPLE SPECTRUM (UNALTERED)




Data File: >AF304::C2 Quant Output File: ^AF304::OU
Name: NCE8-SS5 ML #8733
Misc: GC/MS A,DMW,5ul IS,SS/5ML,WEST-0103
Quant Time: 930619 00:49 Quant ID File: IDVAFD::ID
Injected at: 930619 00:21 Last Calibration: 930618 18:40

Compound No: 45
Compound Name: 1,1,2,2-Tetrachloroethane
Scan Number: 469
Retention Time: 19.13 min.
Quant Ion: 83.0
Area: 3235
Concentration: 1.20 ng/mL
q-value: 48

MS data file header from : >AF304

Sample: NCE8-SS5 ML #8733 Operator: ZIPPY MS 6/19/93 0:21
Misc : GC/MS A,DMW,5ul IS,SS/5ML,WEST-0103
Sys. #: 1 MS model: 87 SW/HW rev.: IA ALS # : 0
Method file: HE8501 Tuning file: MT8501 No. of extra records: 2
Source temp.: 200 Analyzer temp.: 0 Transfer line temp. : 0

| | | | | | |
|---|---|---|---|---|---|
| Chromatographic temperatures : | 0. | 0. | 0. | 0. | 0. |
| Chromatographic times, min. : | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Chromatographic rate, deg/min: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

>AF304 NCE8-SS5 ML #8733 GC/MS A,DMW,5ul IS,SS/5ML,WEST-0103
35.01 300.0 CLP ADC TIC
Upslope: .20 Area Reject: 17968. Max Peaks: 10 Bunching: 1
Dnslope: 0.00 Results File IAF304 Sorted by Time/Area INT

| Peak # | R.T. min. | first scan | max scan | last scan | peak height | raw area | corr. area | corr. % max. | % of total |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 16.82 | 397 | 406 | 407 | 86722 | 1304694 | 829477 | 40.76 | 6.53 |
| 2 | 19.90 | 488 | 490 | 500 | 97825 | 2157356 | 1130029 | 55.53 | 8.90 |
| 3 | 20.78 | 509 | 514 | 517 | 155890 | 1864529 | 1131394 | 55.60 | 8.91 |
| 4 | 22.03 | 544 | 548 | 550 | 179712 | 1818714 | 1008027 | 49.53 | 7.94 |
| 5 | 22.80 | 565 | 569 | 572 | 102718 | 1779774 | 931683 | 45.78 | 7.34 |
| 6 | 23.94 | 597 | 600 | 605 | 200550 | 3472785 | 2035032 | 100.00 | 16.03 |
| 7 | 24.71 | 618 | 621 | 623 | 157872 | 1996241 | 982433 | 48.28 | 7.74 |
| 8 | 25.59 | 639 | 645 | 649 | 181651 | 5389847 | 1935835 | 95.13 | 15.25 |
| 9 | 26.47 | 667 | 669 | 674 | 163098 | 3116828 | 1398147 | 68.70 | 11.01 |
| 10 | 27.10 | 681 | 686 | 690 | 146180 | 2968676 | 1310052 | 64.38 | 10.32 |

Sum of corrected areas: 12692110.

Summary of Unknowns PBM Library Search and Quantitation

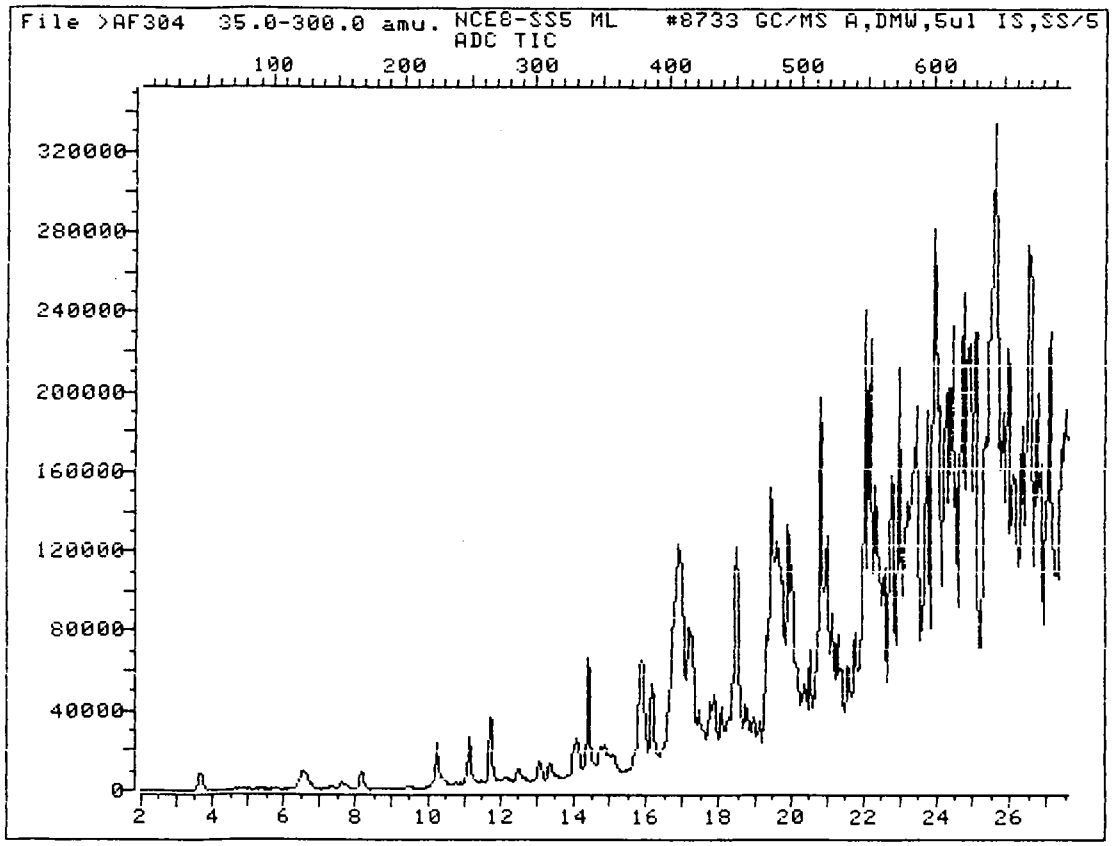
| Standard | Concentration | Area | Retention Time | Unknown Window |
|---|---|---|---|---|
| 1 | 50.0 | 179680. | 10.26 | 1.99 - 10.99 |
| 2 | 50.0 | 201081. | 11.73 | 10.99 - 14.44 |
| 3 | 50.0 | 517024. | 17.15 | 14.44 - 27.57 |

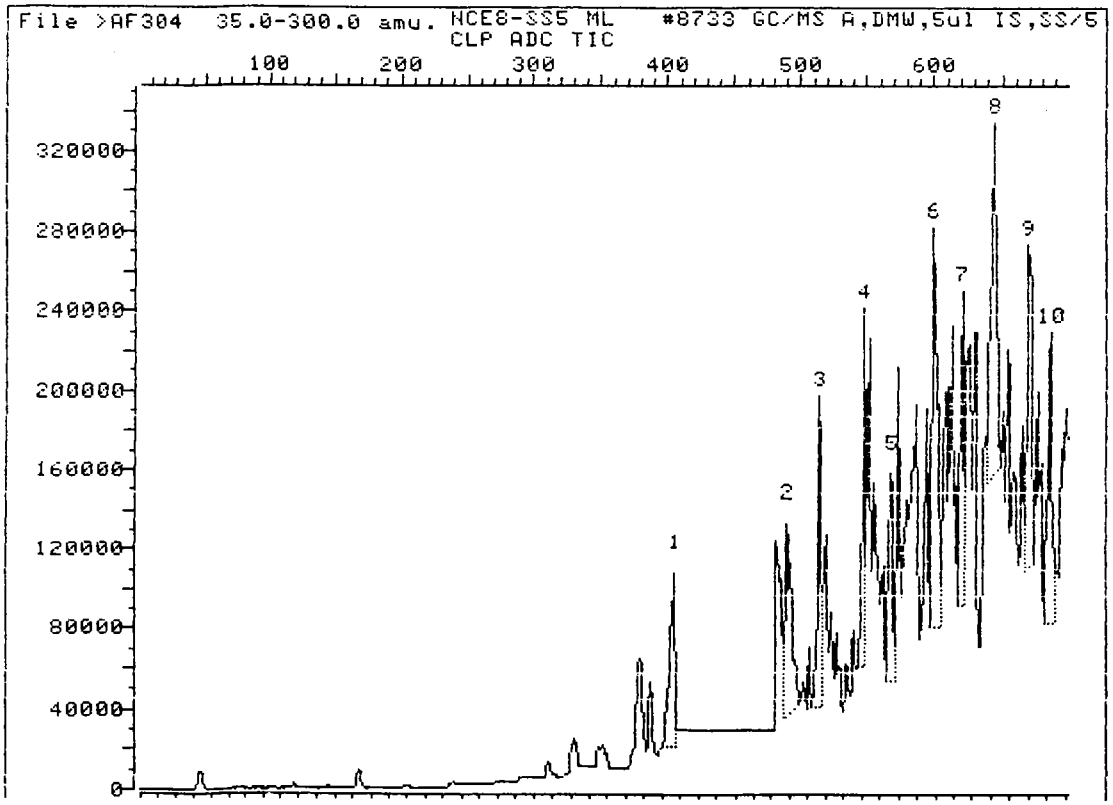
Dilution Factor (DF) = .01 Fractional Solids (FS) = .83
Amount Method (AM) = 5.00 Amount Used (AU) = 4.00

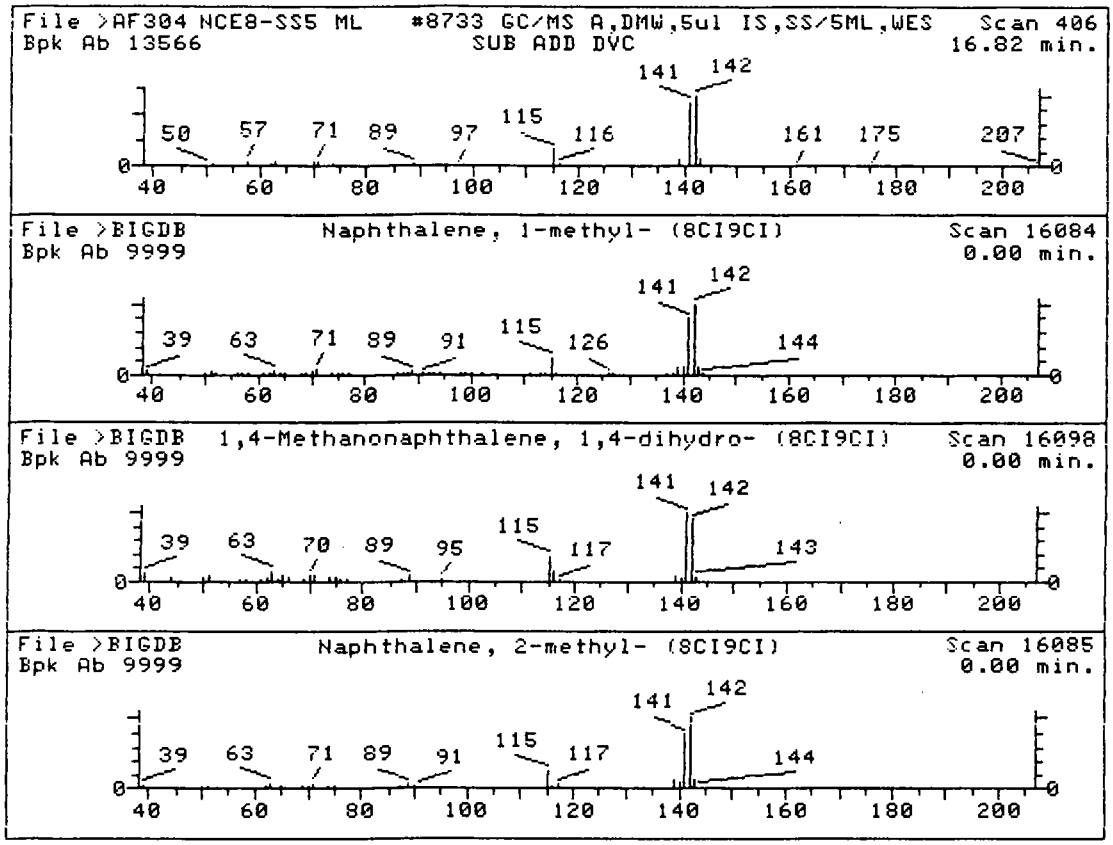
Correction Factor = 150.60 = (AM / AU) / (DF * FS)

$$\text{Unknown Concentration} = \frac{\text{Conc Int Std}}{\text{Area Int Std}} * \text{Area Unk} * \text{Correction Factor}$$

12:24 PM THU., 24 JUNE, 1993


File >AF304 35.0-300.0 amu. NCE8-SS5 ML #8733 GC/MS A,DMW,5ul IS,SS/5
ADC TIC
100 200 300 400 500 600
320000
280000
240000
200000
160000
120000
80000
40000
0
2 4 6 8 10 12 14 16 18 20 22 24 26


File >AF304 35.0-300.0 amu. NCE8-SS5 ML #8733 GC/MS A,DMW,5ul IS,SS/5
CLP ADC TIC
100 200 300 400 500 600
320000
280000
240000
200000
160000
120000
80000
40000
0
1
2
3
4
5
6
7
8
9
10

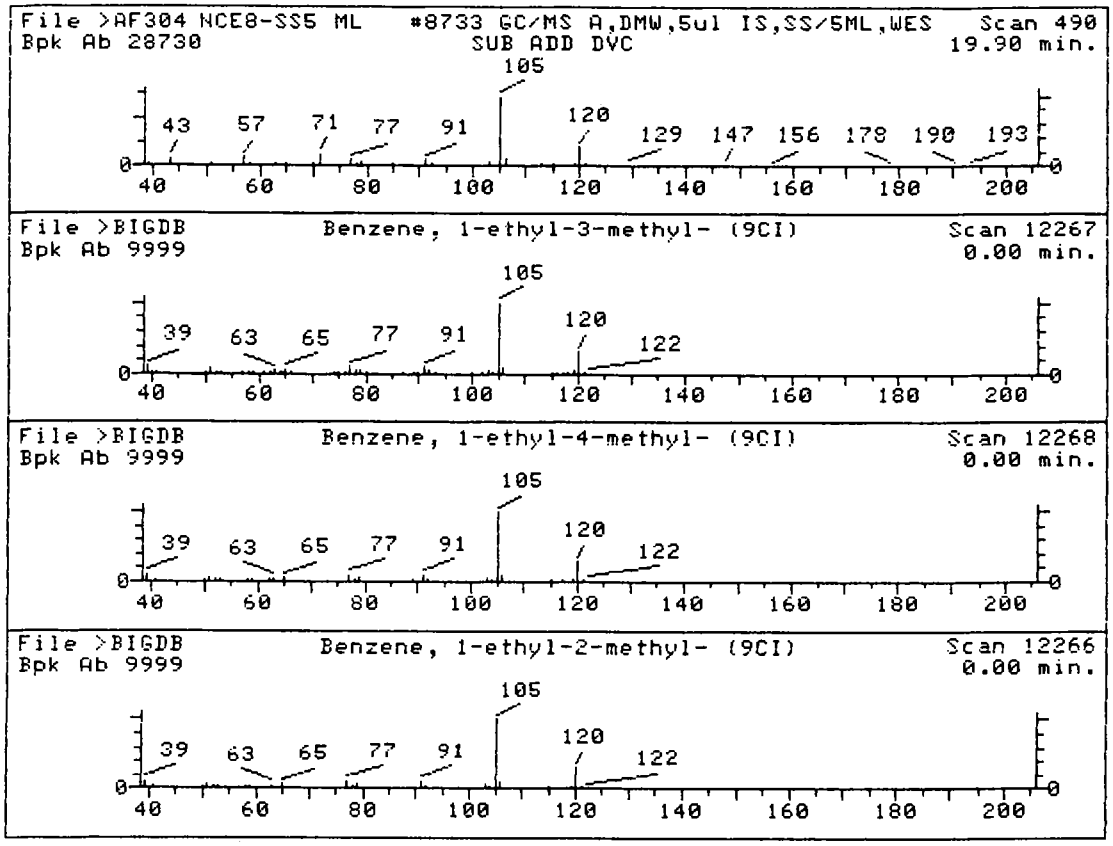



. Unknown #,1
Area = 829477.0 Tentative Concentration is 12000.00

| | | | |
|---|---|---|---|
| 1. | Naphthalene, 1-methyl- (8CI9CI) | 142 | C11H10 |
| 2. | 1,4-Methanonaphthalene, 1,4-dihydro- (8CI9CI) | 142 | C11H10 |
| 3. | Naphthalene, 2-methyl- (8CI9CI) | 142 | C11H10 |
| 4. | 1H-Indene, 1-ethylidene- (9CI) | 142 | C11H10 |

Sample file: >AF304 Spectrum #: 406
Search speed: 2 Tilting option: F No. of ion ranges searched: 42

| | Prob. | CAS # | CON # | ROOT | K | DK | #FLG | TILT | % | CON | C_I | R_I |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. | 87* | 90120 | 16084 | "BIGDB | 69 | 31 | 2 | 0 | 76 | 2 | 63 | 4 |
| 2. | 86* | 4453901 | 16098 | "BIGDB | 64 | 38 | 2 | -4 | 91 | 3 | 60 | 3 |
| 3. | 78* | 91576 | 16085 | "BIGDB | 30 | 68 | 3 | 0 | 100 | 2 | 55 | 1 |
| 4. | 59* | 2471832 | 16096 | "BIGDB | 64 | 36 | 2 | -1 | 61 | 22 | 27 | 3 |



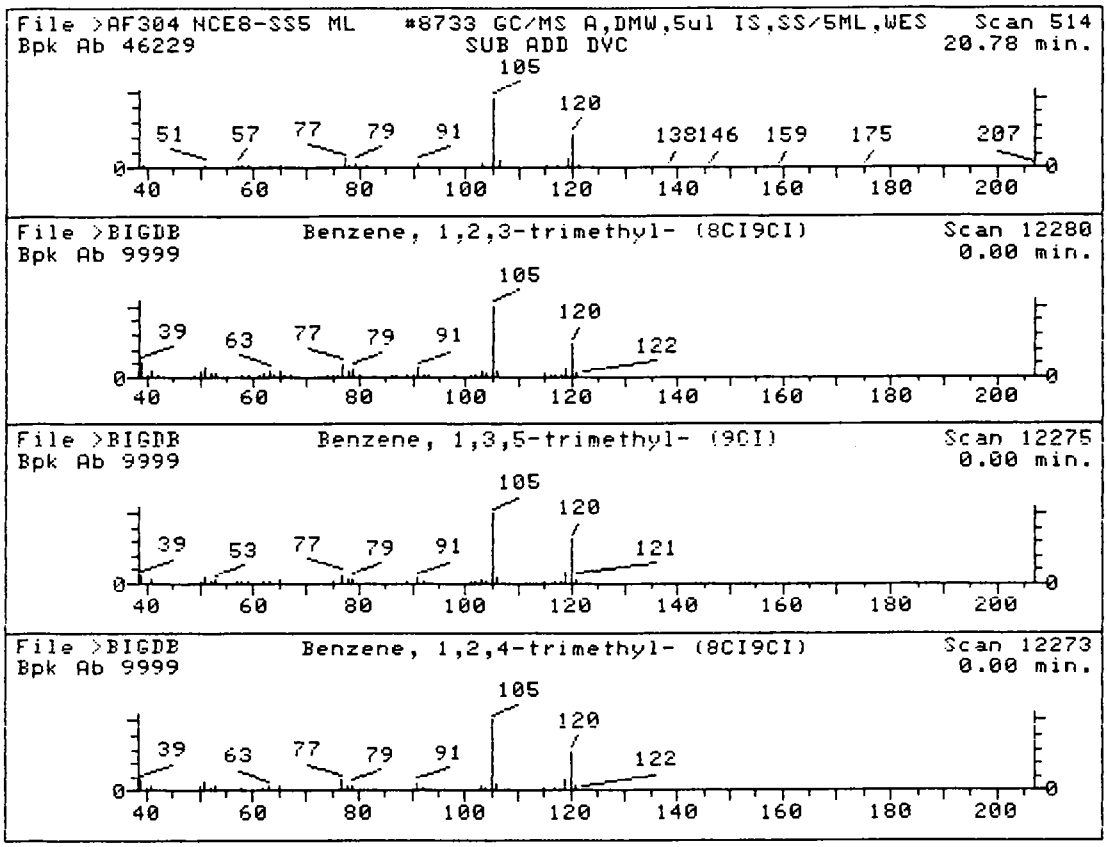

. Unknown #,2
Area = 1130029. Tentative Concentration is 16000.00

| | | | |
|---|---|---|---|
| 1. | Benzene, 1-ethyl-3-methyl- (9CI) | 120 | C9H12 |
| 2. | Benzene, 1-ethyl-4-methyl- (9CI) | 120 | C9H12 |
| 3. | Benzene, 1-ethyl-2-methyl- (9CI) | 120 | C9H12 |
| 4. | Benzene, (1-methylethyl)- (9CI) | 120 | C9H12 |
| 5. | Benzene, 1,2,3-trimethyl- (8CI9CI) | 120 | C9H12 |
| 6. | Benzene, (1-methyl-3-butenyl)- (9CI) | 146 | C11H14 |
| 7. | Benzene, 1,3,5-trimethyl- (9CI) | 120 | C9H12 |

000005

Sample file: >AF304 Spectrum #: 490
Search speed: 2 Tilting option: F No. of ion ranges searched: 54

| | Prob. | CAS # | CON # | ROOT | K | DK | #FLG | TILT | % | CON | C_I | R_I |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. | 95* | 620144 | 12267 | "BIGDB | 80 | 7 | 1 | 0 | 69 | 12 | 64 | 9 |
| 2. | 94* | 622968 | 12268 | "BIGDB | 78 | 7 | 1 | 0 | 76 | 12 | 64 | 9 |
| 3. | 94* | 611143 | 12266 | "BIGDB | 78 | 7 | 1 | 0 | 83 | 12 | 64 | 9 |
| 4. | 83* | 98828 | 12259 | "BIGDB | 66 | 21 | 1 | -4 | 75 | 10 | 54 | 5 |
| 5. | 41* | 526738 | 12280 | "BIGDB | 66 | 34 | 2 | -3 | 50 | 42 | 14 | 3 |
| 6. | 37 | 10340495 | 9870 | "BIGDB | 41 | 39 | 2 | 0 | 78 | 28 | 14 | 1 |
| 7. | 35* | 108678 | 12275 | "BIGDB | 55 | 33 | 2 | 3 | 51 | 48 | 11 | 3 |



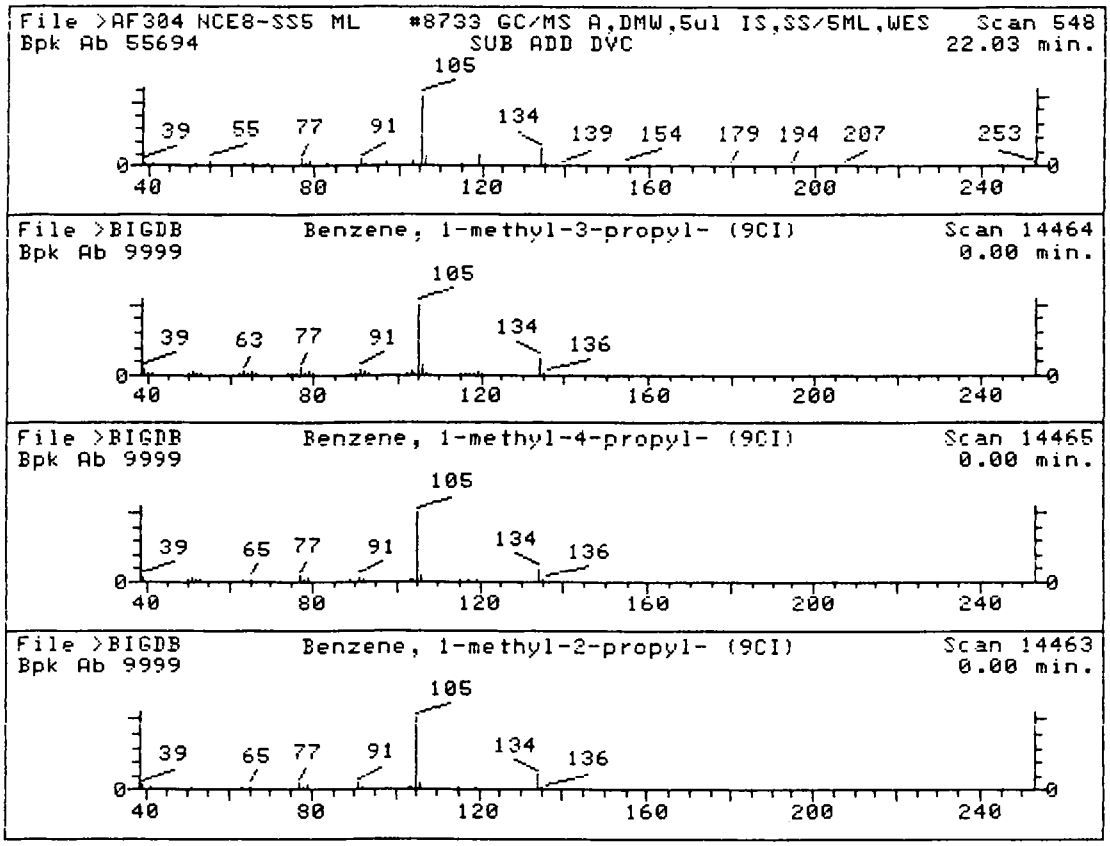

. Unknown #,3
Area = 1131394. Tentative Concentration is 16000.00

| | | | |
|---|---|---|---|
| 1. | Benzene, 1,2,3-trimethyl- (8CI9CI) | 120 | C9H12 |
| 2. | Benzene, 1,3,5-trimethyl- (9CI) | 120 | C9H12 |
| 3. | Benzene, 1,2,4-trimethyl- (8CI9CI) | 120 | C9H12 |
| 4. | Benzene, 1-ethyl-4-methyl- (9CI) | 120 | C9H12 |
| 5. | Benzene, (1-methylethyl)- (9CI) | 120 | C9H12 |
| 6. | Benzene, 1-ethyl-2-methyl- (9CI) | 120 | C9H12 |
| 7. | Benzene, 1-ethyl-3-methyl- (9CI) | 120 | C9H12 |

000035

Sample file: >AF304 Spectrum #: 514
Search speed: 2 Tilting option: F No. of ion ranges searched: 43

| | Prob. | CAS # | CON # | ROOT | K | DK | #FLG | TILT | % | CON | C_I | R_I |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. | 86* | 526738 | 12280 | "BIGDB | 67 | 33 | 2 | -4 | 83 | 4 | 60 | 3 |
| 2. | 84* | 108678 | 12275 | "BIGDB | 73 | 15 | 2 | 0 | 75 | 6 | 55 | 6 |
| 3. | 83* | 95636 | 12273 | "BIGDB | 69 | 26 | 2 | 1 | 69 | 6 | 54 | 5 |
| 4. | 76* | 622968 | 12268 | "BIGDB | 58 | 27 | 2 | -3 | 100 | 10 | 45 | 2 |
| 5. | 64* | 98828 | 12259 | "BIGDB | 63 | 24 | 1 | -4 | 96 | 23 | 28 | 4 |
| 6. | 59* | 611143 | 12266 | "BIGDB | 49 | 36 | 2 | 0 | 100 | 25 | 27 | 3 |
| 7. | 59* | 620144 | 12267 | "BIGDB | 49 | 38 | 2 | 0 | 100 | 23 | 27 | 3 |



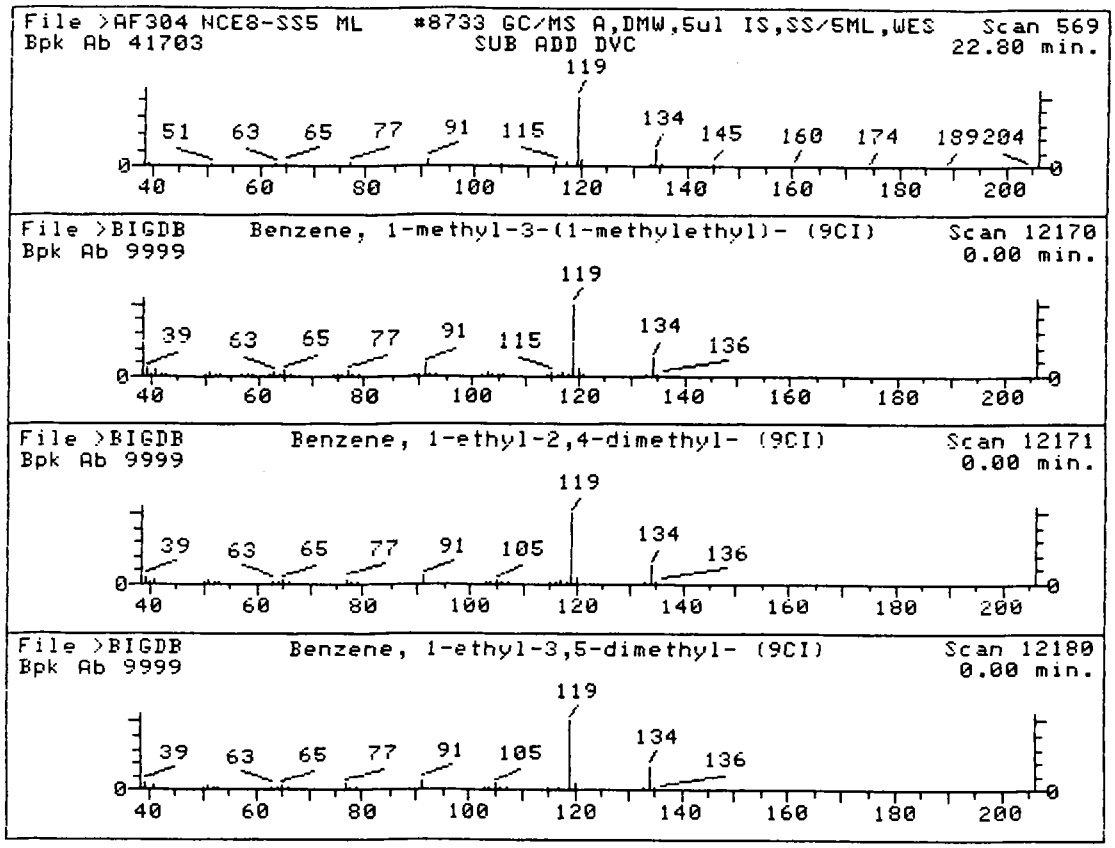

. Unknown #,4
Area = 1008027. Tentative Concentration is 15000.00

| | | | |
|---|---|---|---|
| 1. | Benzene, 1-methyl-3-propyl- (9CI) | 134 | C10H14 |
| 2. | Benzene, 1-methyl-4-propyl- (9CI) | 134 | C10H14 |
| 3. | Benzene, 1-methyl-2-propyl- (9CI) | 134 | C10H14 |
| 4. | Benzene, (1-methylpropyl)- (9CI) | 134 | C10H14 |
| 5. | Benzene, diethyl- (8CI9CI) | 134 | C10H14 |
| 6. | Benzene, (1-methyl-3-butenyl)- (9CI) | 146 | C11H14 |
| 7. | Ethanone, 2-chloro-1-phenyl- (9CI) | 154 | C8H7ClO |

000097

Sample file: >AF304 Spectrum #: 548
Search speed: 2 Tilting option: F No. of ion ranges searched: 42

| | Prob. | CAS # | CON # | ROOT | K | DK | #FLG | TILT | % | CON | C_I | R_I |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. | 95* | 1074437 | 14464 | "BIGDB | 76 | 11 | 1 | 0 | 95 | 10 | 68 | 9 |
| 2. | 76* | 1074551 | 14465 | "BIGDB | 68 | 15 | 1 | -2 | 100 | 13 | 40 | 5 |
| 3. | 74* | 1074175 | 14463 | "BIGDB | 60 | 25 | 2 | 0 | 100 | 11 | 39 | 4 |
| 4. | 67* | 135988 | 14459 | "BIGDB | 58 | 28 | 2 | -2 | 82 | 13 | 34 | 2 |
| 5. | 41* | 25340174 | 14530 | "BIGDB | 55 | 40 | 2 | 1 | 57 | 41 | 14 | 3 |
| 6. | 31 | 10340495 | 9870 | "BIGDB | 41 | 39 | 2 | 0 | 82 | 33 | 12 | 1 |
| 7. | 30* | 532274 | 9851 | "BIGDB | 20 | 58 | 2 | 0 | 100 | 35 | 12 | 1 |

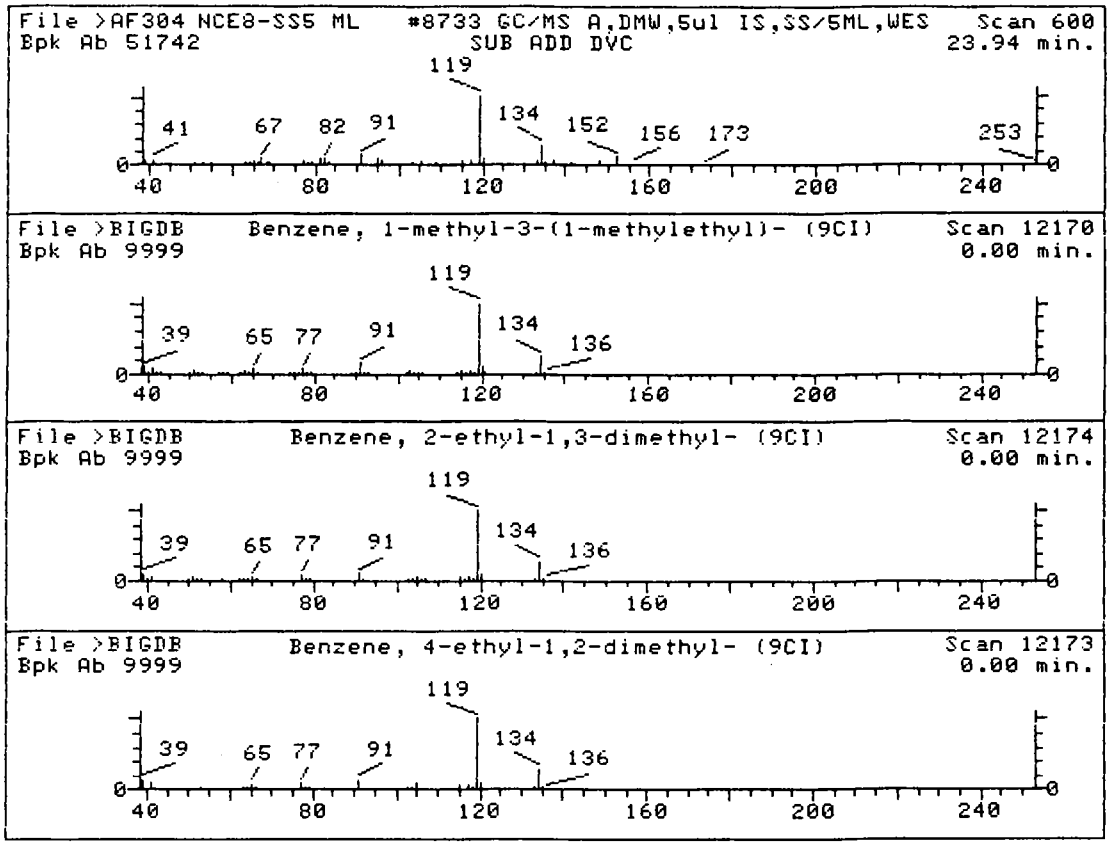



. Unknown #,5
Area = 931683.0 Tentative Concentration is 14000.00

| | | | |
|---|---|---|---|
| 1. | Benzene, 1-methyl-3-(1-methylethyl)- (9CI) | 134 | C10H14 |
| 2. | Benzene, 1-ethyl-2,4-dimethyl- (9CI) | 134 | C10H14 |
| 3. | Benzene, 1-ethyl-3,5-dimethyl- (9CI) | 134 | C10H14 |
| 4. | Benzene, 2-ethyl-1,4-dimethyl- (9CI) | 134 | C10H14 |
| 5. | Benzene, 2-ethyl-1,3-dimethyl- (9CI) | 134 | C10H14 |
| 6. | Benzene, 4-ethyl-1,2-dimethyl- (9CI) | 134 | C10H14 |
| 7. | Benzene, 1-ethyl-2,3-dimethyl- (9CI) | 134 | C10H14 |

Sample file: >AF304 Spectrum #: 569
Search speed: 2 Tilting option: F No. of ion ranges searched: 42

| | Prob. | CAS # | CON # | ROOT | K | DK | #FLG | TILT | % | CON | C_I | R_I |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. | 89* | 535773 | 12170 | "BIGDB | 78 | 11 | 1 | -4 | 80 | 5 | 66 | 6 |
| 2. | 83* | 874419 | 12171 | "BIGDB | 71 | 17 | 1 | -3 | 81 | 7 | 54 | 5 |
| 3. | 83* | 934747 | 12180 | "BIGDB | 70 | 25 | 2 | 0 | 72 | 7 | 54 | 5 |
| 4. | 81* | 1758889 | 12181 | "BIGDB | 64 | 30 | 2 | 0 | 77 | 7 | 53 | 4 |
| 5. | 81* | 2870044 | 12174 | "BIGDB | 61 | 28 | 1 | -4 | 73 | 7 | 53 | 4 |
| 6. | 81* | 934805 | 12173 | "BIGDB | 63 | 30 | 2 | 2 | 68 | 7 | 53 | 4 |
| 7. | 81* | 933982 | 12172 | "BIGDB | 58 | 33 | 2 | 0 | 84 | 9 | 53 | 4 |



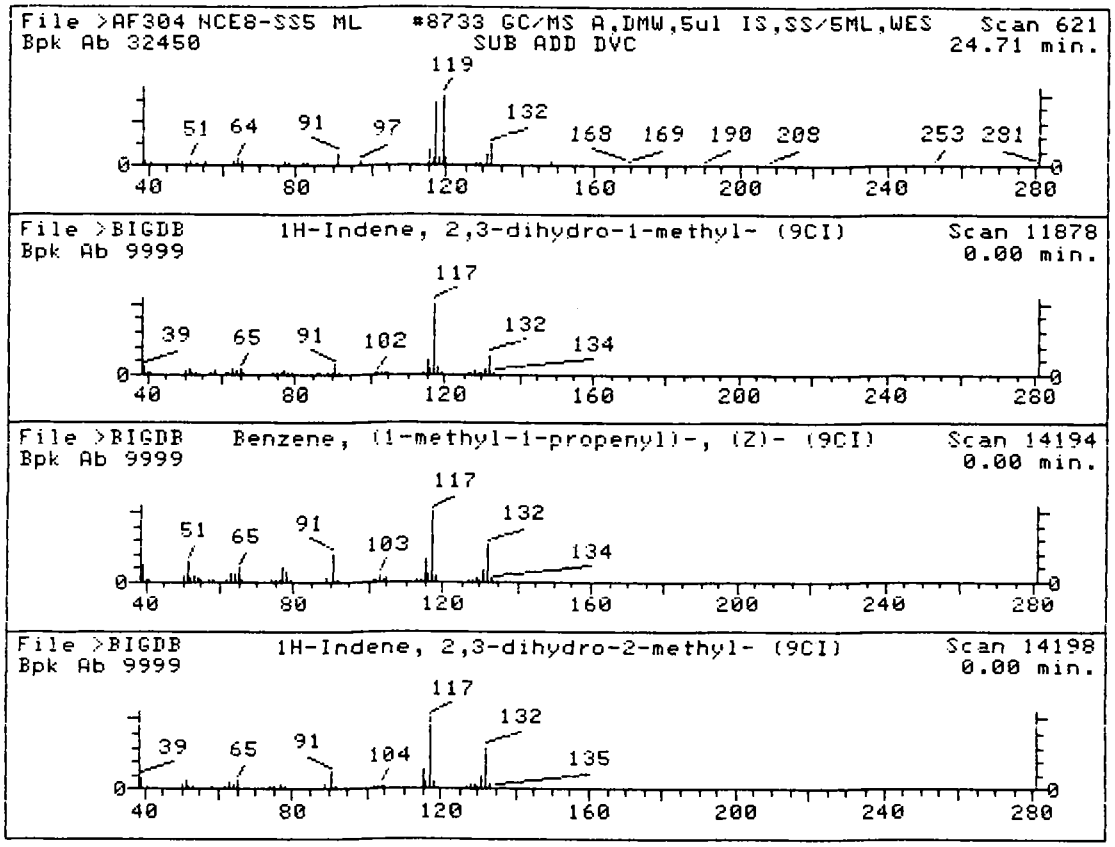

. Unknown #,6
Area = 2035032. Tentative Concentration is 30000.00

| | | | |
|---|---|---|---|
| 1. | Benzene, 1-methyl-3-(1-methylethyl)- (9CI) | 134 | C10H14 |
| 2. | Benzene, 2-ethyl-1,3-dimethyl- (9CI) | 134 | C10H14 |
| 3. | Benzene, 4-ethyl-1,2-dimethyl- (9CI) | 134 | C10H14 |
| 4. | Benzene, methyl(1-methylethyl)- (9CI) | 134 | C10H14 |
| 5. | Benzene, 1-ethyl-2,4-dimethyl- (9CI) | 134 | C10H14 |
| 6. | Benzene, 1-ethyl-3,5-dimethyl- (9CI) | 134 | C10H14 |
| 7. | Benzene, 1-methyl-2-(1-methylethyl)- (9CI) | 134 | C10H14 |

000030

Sample file: >AF304 Spectrum #: 600
Search speed: 2 Tilting option: F No. of ion ranges searched: 42

| | Prob. | CAS # | CON # | ROOT | K | DK | #FLG | TILT | % | CON | C_I | R_I |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. | 72* | 535773 | 12170 | "BIGDB | 69 | 20 | 1 | 0 | 70 | 33 | 32 | 7 |
| 2. | 71* | 2870044 | 12174 | "BIGDB | 69 | 20 | 2 | 0 | 100 | 26 | 29 | 6 |
| 3. | 71* | 934805 | 12173 | "BIGDB | 67 | 26 | 1 | 0 | 70 | 26 | 29 | 6 |
| 4. | 69* | 25155151 | 12177 | "BIGDB | 64 | 26 | 1 | 0 | 66 | 33 | 26 | 6 |
| 5. | 67* | 874419 | 12171 | "BIGDB | 68 | 20 | 2 | 1 | 100 | 30 | 27 | 5 |
| 6. | 62* | 934747 | 12180 | "BIGDB | 64 | 31 | 2 | 0 | 83 | 26 | 25 | 4 |
| 7. | 59* | 527844 | 12169 | "BIGDB | 68 | 24 | 2 | -4 | 100 | 26 | 24 | 3 |



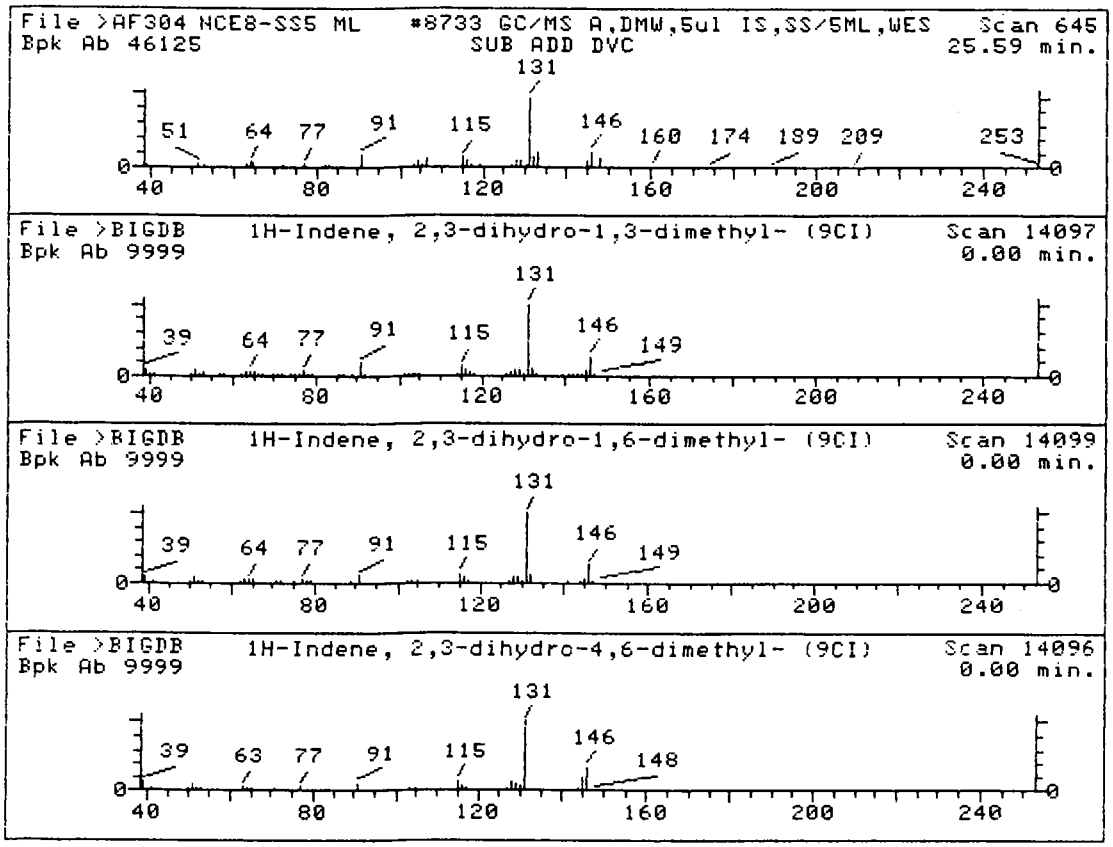

. Unknown #,7
Area = 982433.0 Tentative Concentration is 14000.00

| | | | |
|---|---|---|---|
| 1. | 1H-Indene, 2,3-dihydro-1-methyl- (9CI) | 132 | C10H12 |
| 2. | Benzene, (1-methyl-1-propenyl)-, (Z)- (9CI) | 132 | C10H12 |
| 3. | 1H-Indene, 2,3-dihydro-2-methyl- (9CI) | 132 | C10H12 |
| 4. | Benzene, 1-methyl-2-(2-propenyl)- (9CI) | 132 | C10H12 |
| 5. | 1H-Indene, 2,3-dihydro-5-methyl- (9CI) | 132 | C10H12 |
| 6. | Benzene, (1-methyl-1-propenyl)-, (E)- (9CI) | 132 | C10H12 |
| 7. | 1H-Indene, 2,3-dihydro-4-methyl- (9CI) | 132 | C10H12 |

000100

Sample file: >AF304 Spectrum #: 621
Search speed: 2 Tilting option: F No. of ion ranges searched: 44

| | Prob. | CAS # | CON # | ROOT | K | DK | #FLG | TILT | % | CON | C_I | R_I |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. | 87* | 767588 | 11878 | "BIGDB | 63 | 34 | 2 | 2 | 87 | 4 | 63 | 4 |
| 2. | 86* | 767997 | 14194 | "BIGDB | 61 | 52 | 2 | 1 | 59 | 4 | 60 | 3 |
| 3. | 83* | 824635 | 14198 | "BIGDB | 58 | 48 | 2 | 4 | 59 | 3 | 57 | 2 |
| 4. | 63* | 1587048 | 14203 | "BIGDB | 59 | 48 | 2 | 2 | 54 | 20 | 30 | 3 |
| 5. | 59* | 874351 | 14199 | "BIGDB | 76 | 30 | 2 | 0 | 60 | 39 | 21 | 5 |
| 6. | 59* | 768003 | 14195 | "BIGDB | 61 | 45 | 2 | 1 | 50 | 21 | 27 | 3 |
| 7. | 52* | 824226 | 14197 | "BIGDB | 64 | 43 | 2 | 0 | 70 | 40 | 19 | 4 |



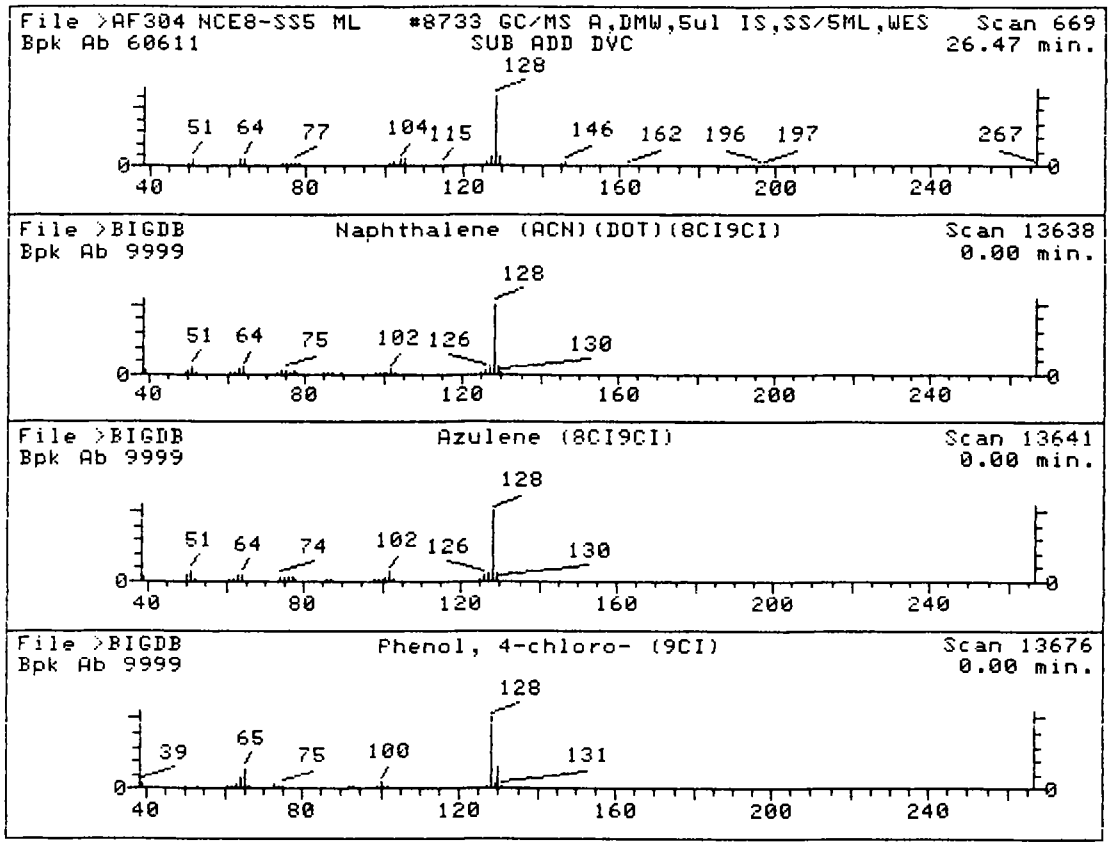

. Unknown #,8
Area = 1935835. Tentative Concentration is 28000.00

1. 1H-Indene, 2,3-dihydro-1,3-dimethyl- (9CI) 146 C11H14
2. 1H-Indene, 2,3-dihydro-1,6-dimethyl- (9CI) 146 C11H14
3. 1H-Indene, 2,3-dihydro-4,6-dimethyl- (9CI) 146 C11H14
4. 1H-Indene, 2,3-dihydro-1,2-dimethyl- (9CI) 146 C11H14
5. Naphthalene, 1,2,3,4-tetrahydro-1-methyl- (8CI9CI) 146 C11H14
6. Benzene, 2-ethenyl-1,3,5-trimethyl- (9CI) 146 C11H14
7. 1H-Indene, 2,3-dihydro-4,7-dimethyl- (9CI) 146 C11H14

000101

Sample file: >AF304 Spectrum #: 645
Search speed: 2 Tilting option: F No. of ion ranges searched: 44

| | Prob. | CAS # | CON # | ROOT | K | DK | #FLG | TILT | % | CON | C_I | R_I |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. | 86* | 4175535 | 14097 | "BIGDB | 85 | 16 | 1 | 0 | 74 | 16 | 50 | 8 |
| 2. | 81* | 17059482 | 14099 | "BIGDB | 72 | 27 | 1 | 0 | 78 | 16 | 45 | 7 |
| 3. | 71* | 1685821 | 14096 | "BIGDB | 62 | 38 | 2 | 4 | 79 | 11 | 38 | 3 |
| 4. | 70* | 17057828 | 14102 | "BIGDB | 77 | 27 | 2 | 0 | 73 | 16 | 32 | 5 |
| 5. | 70* | 1559815 | 14100 | "BIGDB | 74 | 30 | 2 | 0 | 75 | 19 | 32 | 5 |
| 6. | 68* | 769255 | 16639 | "BIGDB | 77 | 33 | 0 | 0 | 25 | 54 | 35 | 9 |
| 7. | 62* | 6682719 | 14101 | "BIGDB | 56 | 49 | 0 | 0 | 52 | 44 | 18 | 6 |



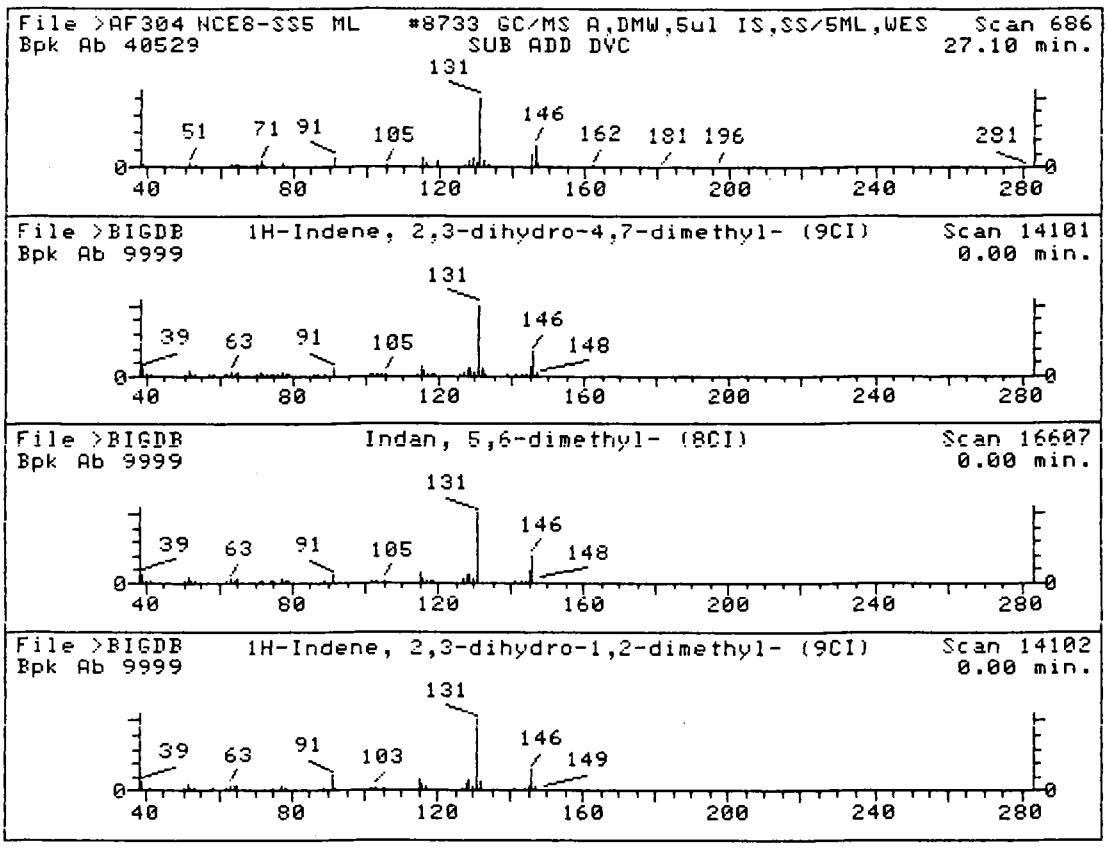

. Unknown #,9
Area = 1398147. Tentative Concentration is 20000.00

| | | | |
|---|---|---|---|
| 1. | Naphthalene (ACN)(DOT)(8CI9CI) | 128 | C10H8 |
| 2. | Azulene (8CI9CI) | 128 | C10H8 |
| 3. | Phenol, 4-chloro- (9CI) | 128 | C6H5ClO |
| 4. | 1,4-Benzenedicarbonitrile (9CI) | 128 | C8H4N2 |
| 5. | 1,2-Benzenedicarbonitrile (9CI) | 128 | C8H4N2 |
| 6. | 1H-Indene, 1-methylene- (9CI) | 128 | C10H8 |

000102

Sample file: >AF304 Spectrum #: 669
Search speed: 2 Tilting option: F No. of ion ranges searched: 42

| | Prob. | CAS # | CON # | ROOT | K | DK | #FLG | TILT | % | CON | C_I | R_I |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. | 96* | 91203 | 13638 | "BIGDB | 90 | 1 | 0 | 0 | 87 | 11 | 64 | 9 |
| 2. | 59* | 275514 | 13641 | "BIGDB | 71 | 30 | 0 | -1 | 56 | 40 | 21 | 5 |
| 3. | 42* | 106489 | 13676 | "BIGDB | 25 | 69 | 3 | 0 | 100 | 25 | 17 | 1 |
| 4. | 40* | 623267 | 13643 | "BIGDB | 38 | 57 | 2 | 0 | 100 | 27 | 14 | 1 |
| 5. | 30* | 91156 | 13637 | "BIGDB | 20 | 70 | 2 | 0 | 100 | 33 | 12 | 1 |
| 6. | 17* | 2471843 | 13646 | "BIGDB | 47 | 39 | 0 | 0 | 35 | 62 | 4 | 5 |




. Unknown #,10
Area = 1310052. Tentative Concentration is 19000.00

| | | | |
|---|---|---|---|
| 1. | 1H-Indene, 2,3-dihydro-4,7-dimethyl- (9CI) | 146 | C11H14 |
| 2. | Indan, 5,6-dimethyl- (8CI) | 146 | C11H14 |
| 3. | 1H-Indene, 2,3-dihydro-1,2-dimethyl- (9CI) | 146 | C11H14 |
| 4. | 1H-Indene, 2,3-dihydro-4,6-dimethyl- (9CI) | 146 | C11H14 |
| 5. | 1H-Indene, 2,3-dihydro-1,3-dimethyl- (9CI) | 146 | C11H14 |
| 6. | 1H-Indene, 2,3-dihydro-1,6-dimethyl- (9CI) | 146 | C11H14 |
| 7. | Benzene, (1,1-dimethyl-2-propenyl)- (9CI) | 146 | C11H14 |

000106

Sample file: >AF304 Spectrum #: 686
Search speed: 2 Tilting option: F No. of ion ranges searched: 42

| | Prob. | CAS # | CON # | ROOT | K | DK | #FLG | TILT | % | CON | C_I | R_I |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. | 96* | 6682719 | 14101 | "BIGDB | 88 | 17 | 0 | 0 | 83 | 5 | 72 | 9 |
| 2. | 93* | 1075225 | 16607 | "BIGDB | 83 | 20 | 1 | 0 | 80 | 5 | 68 | 8 |
| 3. | 89* | 17057828 | 14102 | "BIGDB | 83 | 21 | 1 | -2 | 76 | 2 | 66 | 6 |
| 4. | 89* | 1685821 | 14096 | "BIGDB | 77 | 23 | 1 | 0 | 91 | 5 | 66 | 7 |
| 5. | 83* | 4175535 | 14097 | "BIGDB | 76 | 25 | 1 | -1 | 85 | 10 | 54 | 5 |
| 6. | 83* | 17059482 | 14099 | "BIGDB | 59 | 40 | 1 | 0 | 77 | 10 | 54 | 5 |
| 7. | 67* | 18321363 | 14103 | "BIGDB | 50 | 52 | 2 | 0 | 97 | 14 | 34 | 2 |

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

610-SSFB

Lab Name: AMER.ENV.NTWK. Contract: WEST-0103

Lab Code: AENI Case No: NWS-EARL SAS No: N.A. SDG No: N.A.

Matrix: WATER Lab Sample ID: AE#8736

Sample wt/vol: 5 mL Lab File ID: >AF269

Level: LOW Date Received: 06/11/93

% Moisture: not dec. N.A. Date Analyzed: 6/17/93

Column: CAP Dilution Factor: 1.0

Number TICs found: 6

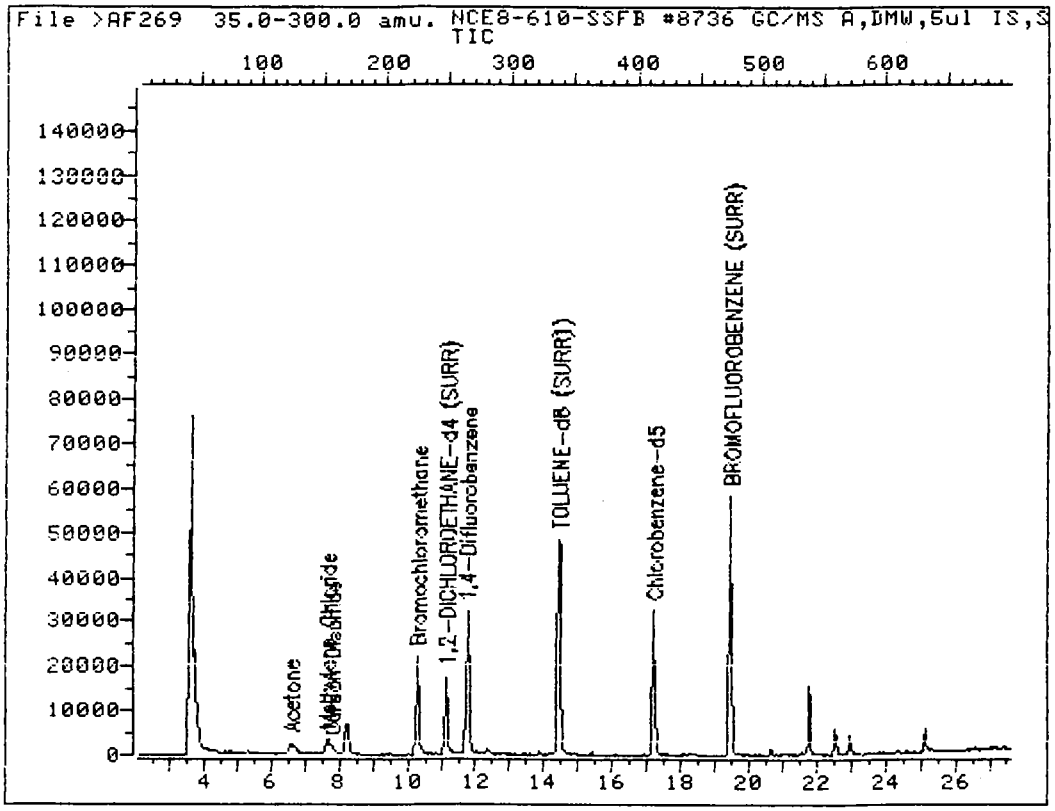
CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|---|
| 1. | | Unknown | 3.60 | 170. | JB |
| 2. | | Pentane, 3-methyl- (8CI9CI) | 8.28 | 5. | J |
| 3. | 439 | 1,4-Dichlorobenzene d-4 | 21.77 | 21. | JB |
| 4. | 439 | 1,4-Dichlorobenzene d-4 | 22.54 | 8. | JB |
| 5. | 124196 | Nonanal (8CI9CI) | 22.98 | 6. | J |
| 6. | | Unknown | 25.14 | 7. | J |
| 7. | | | | | |
| 8. | | | | | |
| 9. | | | | | |
| 10. | | | | | |
| 11. | | | | | |
| 12. | | | | | |
| 13. | | | | | |
| 14. | | | | | |
| 15. | | | | | |
| 16. | | | | | |
| 17. | | | | | |
| 18. | | | | | |
| 19. | | | | | |
| 20. | | | | | |
| 21. | | | | | |
| 22. | | | | | |
| 23. | | | | | |
| 24. | | | | | |
| 25. | | | | | |
| 26. | | | | | |
| 27. | | | | | |
| 28. | | | | | |
| 29. | | | | | |
| 30. | | | | | |

000100

NR = Not Reviewed

TOTAL ION CHROMATOGRAM




Data File: >AF269::C1 Quant Output File: ^AF269::OU
Name: NCE8-610-SSFB #8736
Misc: GC/MS A,DMW,5ul IS,SS/5ML,WEST-0103

Id File: IDVAF1::ID
Title: HSL VOLATILES
Last Calibration: 930507 17:34

Operator ID: ZIPPY
Quant Time: 930617 20:55
Injected at: 930617 20:27

QUANT REPORT

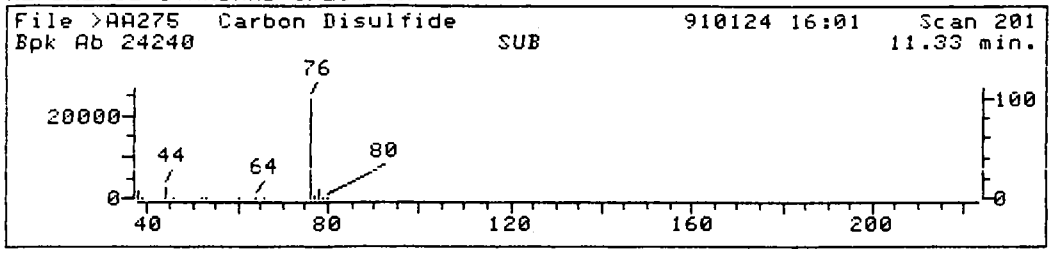
Operator ID: ZIPPY  Quant Rev: 6  Quant Time: 930617 20:55
Output File: ^AF269::OU  Injected at: 930617 20:27
Data File: >AF269::C1  Dilution Factor: 1.00000
Name: NCE8-610-SSFB #8736
Misc: GC/MS A,DMW,5ul IS,SS/5ML,WEST-0103

ID File: IDVAF1::ID
Title: HSL VOLATILES
Last Calibration: 930507 17:34

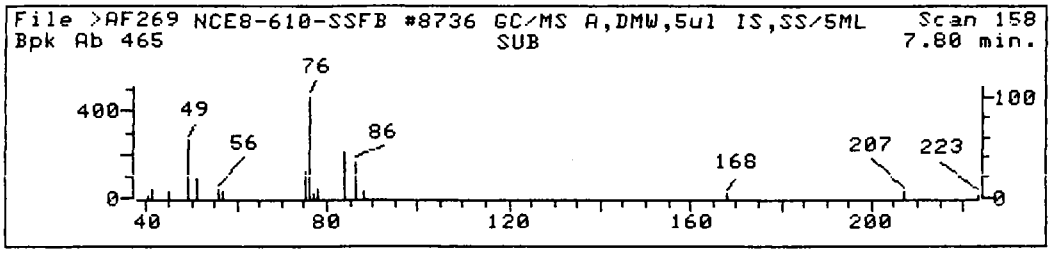
| | Compound | Q ion | Scan# | Area | Conc | Units | q |
|---|---|---|---|---|---|---|---|
| 1) | *Bromochloromethane | 128.0 | 226 | 20880 | 50.00 | ng/mL | 7 |
| 7) | Acetone | 43.0 | 125 | 7297 | 56.33 | ng/mL | 9 |
| 11) | Methylene Chloride | 84.0 | 154 | 9470 | 11.91 | ng/mL | 5 |
| 12) | Carbon Disulfide | 76.0 | 158 | 5600 | 16.99 | ng/mL | 10 |
| 18) | 1,2-DICHLOROETHANE-d4 (SURR) | 65.0 | 250 | 29285M | 56.77 | ng/mL | 10 |
| 20) | *1,4-Difluorobenzene | 114.0 | 266 | 92199 | 50.00 | ng/mL | 9 |
| 30) | TOLUENE-d8 (SURR1) | 98.0 | 339 | 129250 | 57.08 | ng/mL | 9 |
| 35) | *Chlorobenzene-d5 | 82.0 | 415 | 37596 | 50.00 | ng/mL | 9 |
| 46) | BROMOFLUOROBENZENE (SURR) | 95.0 | 477 | 63595 | 51.89 | ng/mL | 8 |
| 50) | TOLUENE-d8 (SURR) | 98.0 | 339 | 129250 | 46.56 | ng/mL | 9 |

* Compound is ISTD

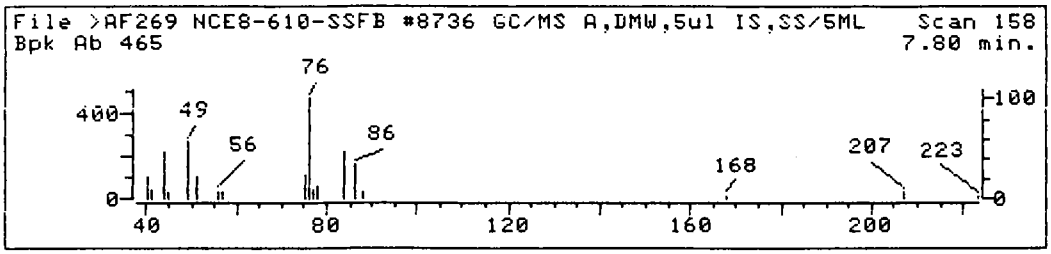
REFERENCE STANDARD SPECTRUM




SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)




SAMPLE SPECTRUM (UNALTERED)




Data File: >AF269::C1 Quant Output File: ^AF269::OU
Name: NCE8-610-SSFB #8736
Misc: GC/MS A,DMW,5ul IS,SS/5ML,WEST-0103
Quant Time: 930617 20:55 Quant ID File: IDVAF1::ID
Injected at: 930617 20:27 Last Calibration: 930507 17:34

Compound No: 12
Compound Name: Carbon Disulfide
Scan Number: 158
Retention Time: 7.80 min.
Quant Ion: 76.0
Area: 5600
Concentration: 16.99 ng/mL
q-value: 100

MS data file header from : >AF269

Sample: NCE8-610-SSFB #8736 Operator: ZIPPY MS 6/17/93 20:27
Misc : GC/MS A,DMW,5ul IS,SS/5ML,WEST-0103
Sys. #: 1 MS model: 87 SW/HW rev.: IA ALS # : 0
Method file: HE8501 Tuning file: MT8501 No. of extra records: 2
Source temp.: 200 Analyzer temp.: 0 Transfer line temp. : 0

| | | | | | |
|---|---|---|---|---|---|
| Chromatographic temperatures : | 0. | 0. | 0. | 0. | 0. |
| Chromatographic times, min. : | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Chromatographic rate, deg/min: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

>AF269 NCE8-610-SSFB #8736 GC/MS A,DMW,5ul IS,SS/5ML,WEST-0103
35.01 300.0 CLP ADC TIC
Upslope: .20 Area Reject: 12901. Max Peaks: 6 Bunching: 1
Dnslope: 0.00 Results File IAF269 Sorted by Time/Area INT

| Peak # | R.T. min. | first scan | max scan | last scan | peak height | raw area | corr. area | corr. % max. | % of total |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 3.60 | 40 | 43 | 46 | 75990 | 428364 | 427811 | 100.00 | 73.43 |
| 2 | 8.28 | 170 | 171 | 177 | 3627 | 17778 | 13830 | 3.23 | 2.37 |
| 3 | 21.77 | 537 | 540 | 544 | 15428 | 77722 | 71005 | 16.60 | 12.18 |
| 4 | 22.54 | 557 | 561 | 565 | 5675 | 30905 | 27357 | 6.39 | 4.69 |
| 5 | 22.98 | 569 | 573 | 575 | 4180 | 22455 | 18234 | 4.26 | 3.13 |
| 6 | 25.14 | 629 | 632 | 635 | 5081 | 34596 | 24343 | 5.69 | 4.17 |

Sum of corrected areas: 582580.

Summary of Unknowns PBM Library Search and Quantitation

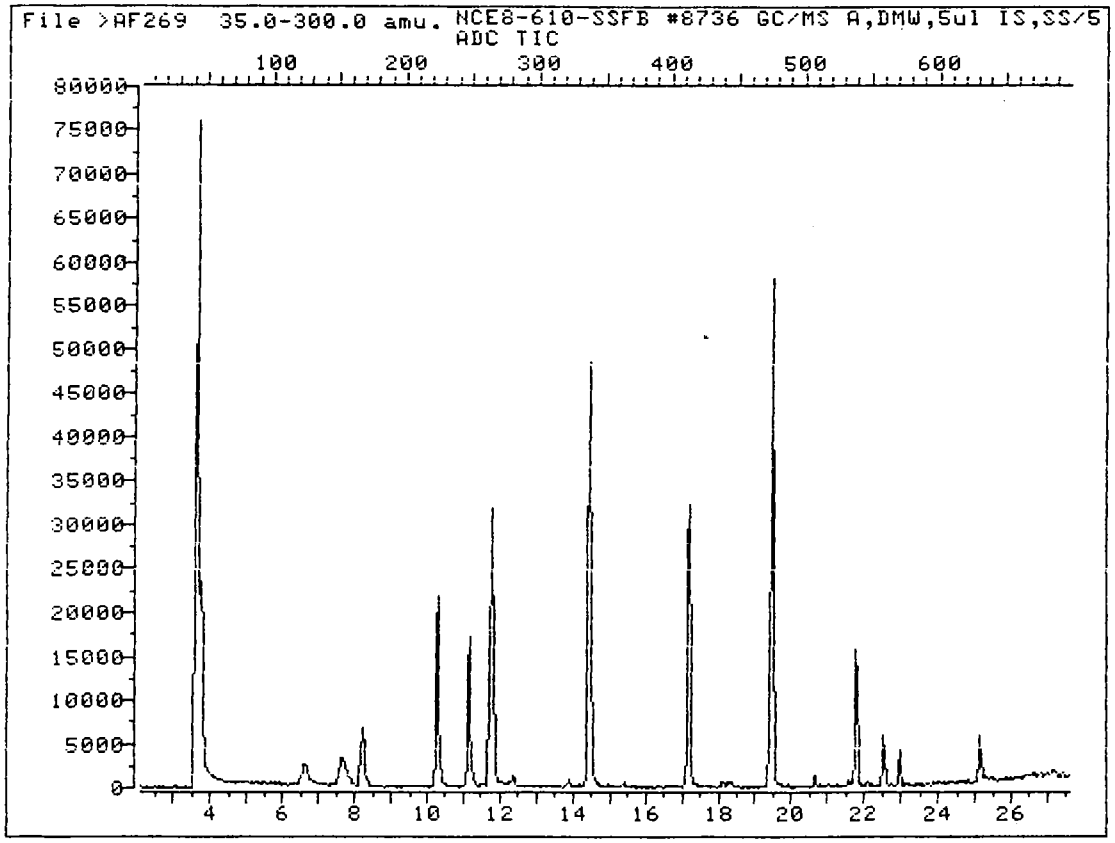
| Standard | Concentration | Area | Retention Time | Unknown Window |
|---|---|---|---|---|
| 1 | 50.0 | 129012. | 10.29 | 2.06 - 11.02 |
| 2 | 50.0 | 199150. | 11.75 | 11.02 - 14.47 |
| 3 | 50.0 | 165467. | 17.20 | 14.47 - 27.59 |

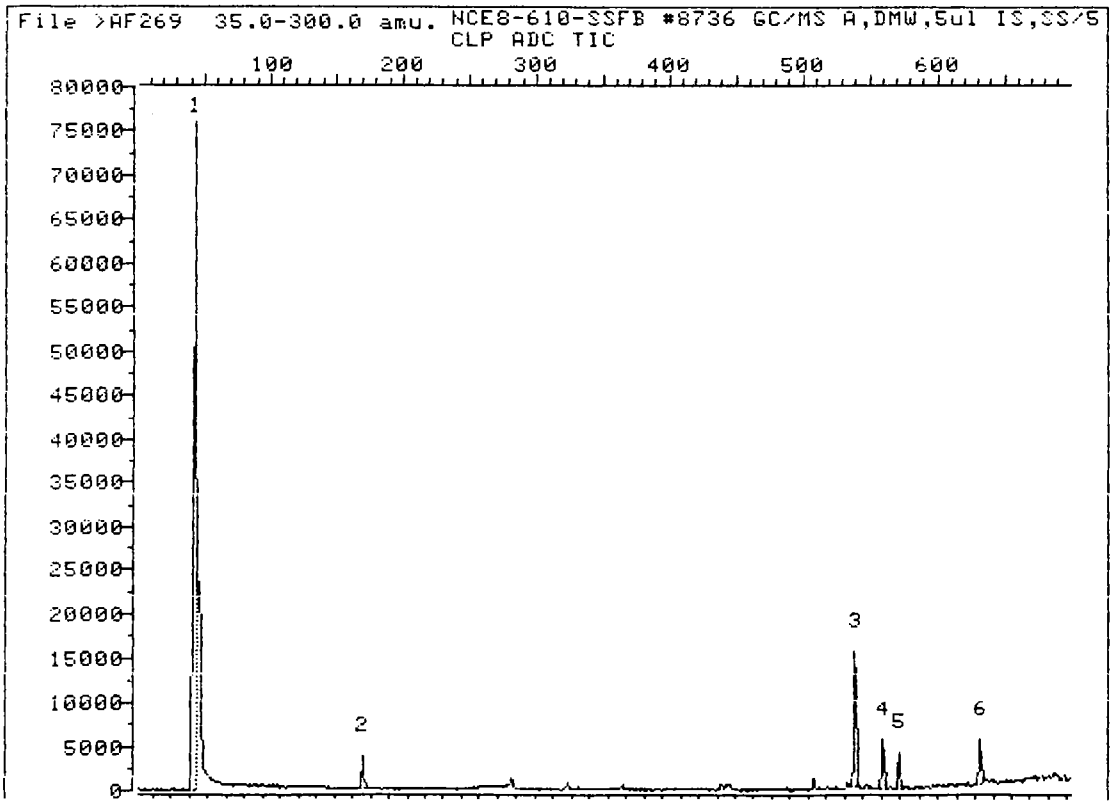
Dilution Factor (DF) = 1.00 Fractional Solids (FS) = 1.00
Amount Method (AM) = 5.00 Amount Used (AU) = 5.00

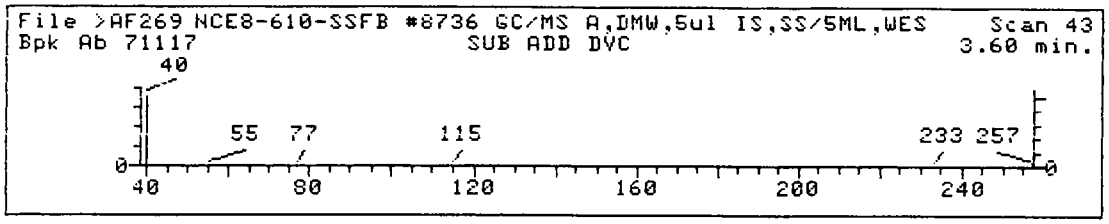
Correction Factor = 1.00 = (AM / AU) / (DF * FS)

$$\text{Unknown Concentration} = \frac{\text{Conc Int Std}}{\text{Area Int Std}} * \text{Area Unk} * \text{Correction Factor}$$

4:18 PM THU., 24 JUNE, 1993


File >AF269 35.0-300.0 amu. NCE8-610-SSFB #8736 GC/MS A,DMW,5ul IS,SS/5
ADC TIC
100 200 300 400 500 600
80000 75000 70000 65000 60000 55000 50000 45000 40000 35000 30000 25000 20000 15000 10000 5000 0
4 6 8 10 12 14 16 18 20 22 24 26

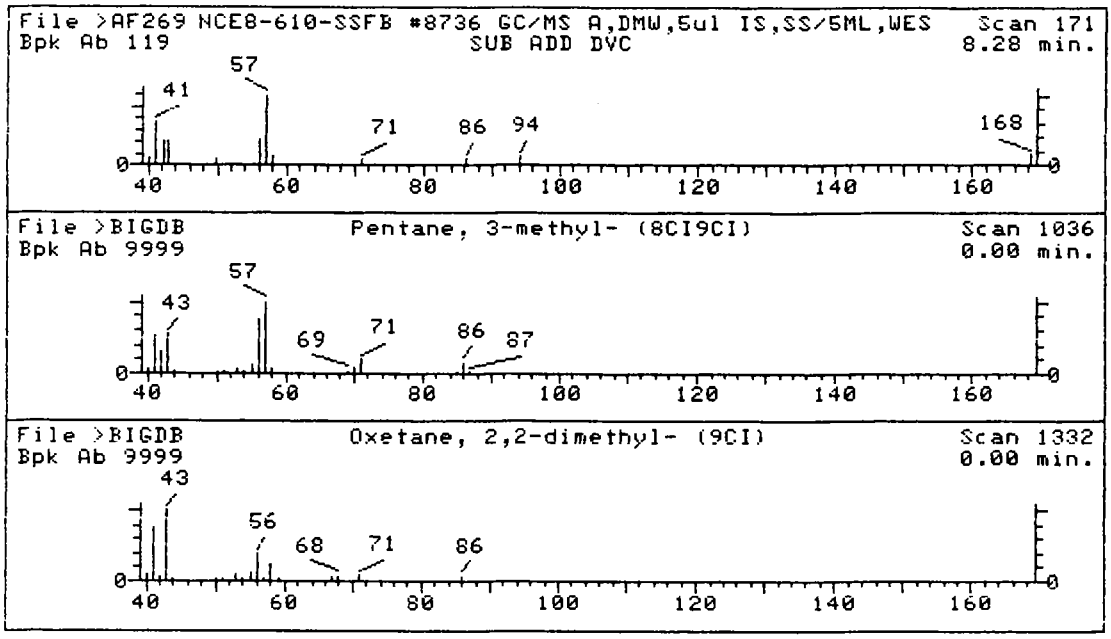

File >AF269 35.0-300.0 amu. NCE8-610-SSFB #8736 GC/MS A,DMW,5ul IS,SS/5
CLP ADC TIC
100 200 300 400 500 600
80000 75000 70000 65000 60000 55000 50000 45000 40000 35000 30000 25000 20000 15000 10000 5000 0
1
2
3
4
5
6




. Unknown #,1
Area = 427811.0 Tentative Concentration is 170.00

Sample file: >AF269 Spectrum #: 43

No data base entries were retrieved.

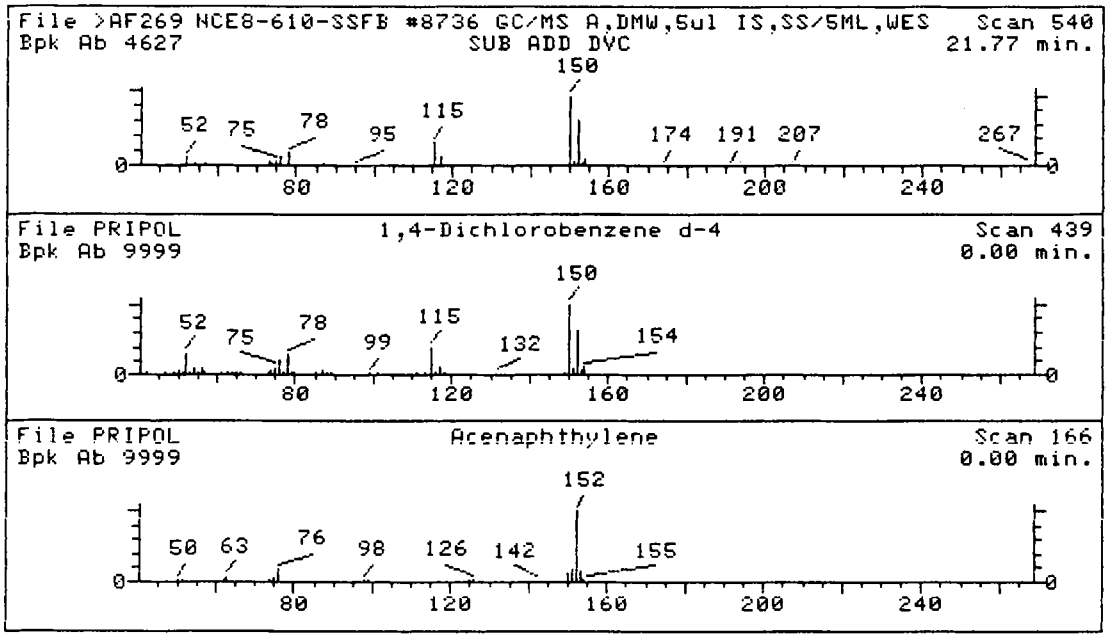



. Unknown #,2
Area = 13830.00 Tentative Concentration is 5.00

1. Pentane, 3-methyl- (8CI9CI) 86 C6H14
2. Oxetane, 2,2-dimethyl- (9CI) 86 C5H10O

Sample file: >AF269 Spectrum #: 171
Search speed: 2 Tilting option: F No. of ion ranges searched: 49

| | Prob. | CAS # | CON # | ROOT | K | DK | #FLG | TILT | % | CON | C_I | R_I |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. | 25* | 96140 | 1036 | "BIGDB | 24 | 54 | 2 | 0 | 48 | 46 | 7 | 1 |
| 2. | 11* | 6245994 | 1332 | "BIGDB | 24 | 66 | 3 | 0 | 80 | 64 | 2 | 1 |



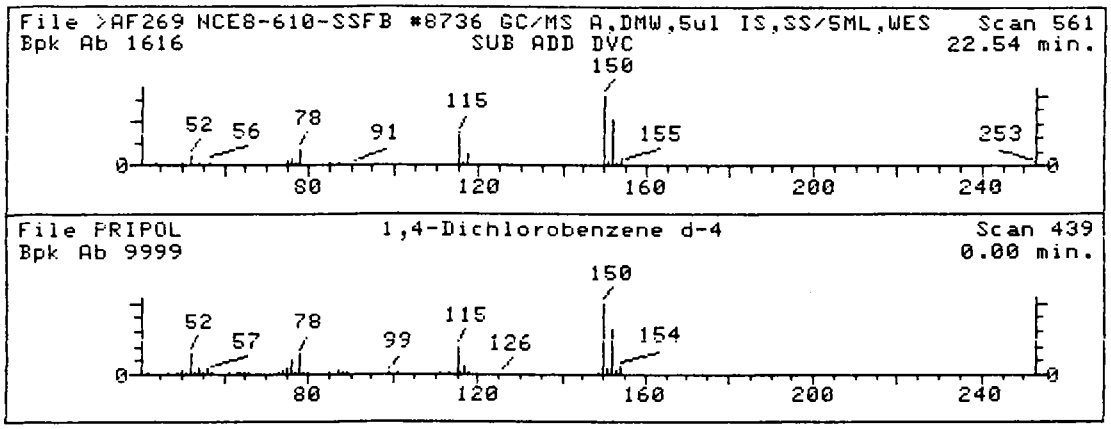

. Unknown #,3
Area = 71005.00 Tentative Concentration is 21.00

1. 1,4-Dichlorobenzene d-4 150 C6.D4.CL2

2. Acenaphthylene 152 C12H8

Sample file: >AF269 Spectrum #: 540
Search speed: 2 Tilting option: F No. of ion ranges searched: 44

| | Prob. | CAS # | CON # | ROOT | K | DK | #FLG | TILT | % | CON | C_I | R_I |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. | 86* | 439 | 257 | PRIPOL | 95 | 12 | 2 | -2 | 87 | 10 | 59 | 7 |
| 2. | 11* | 166 | 258 | PRIPOL | 21 | 68 | 2 | 0 | 65 | 65 | 2 | 1. |

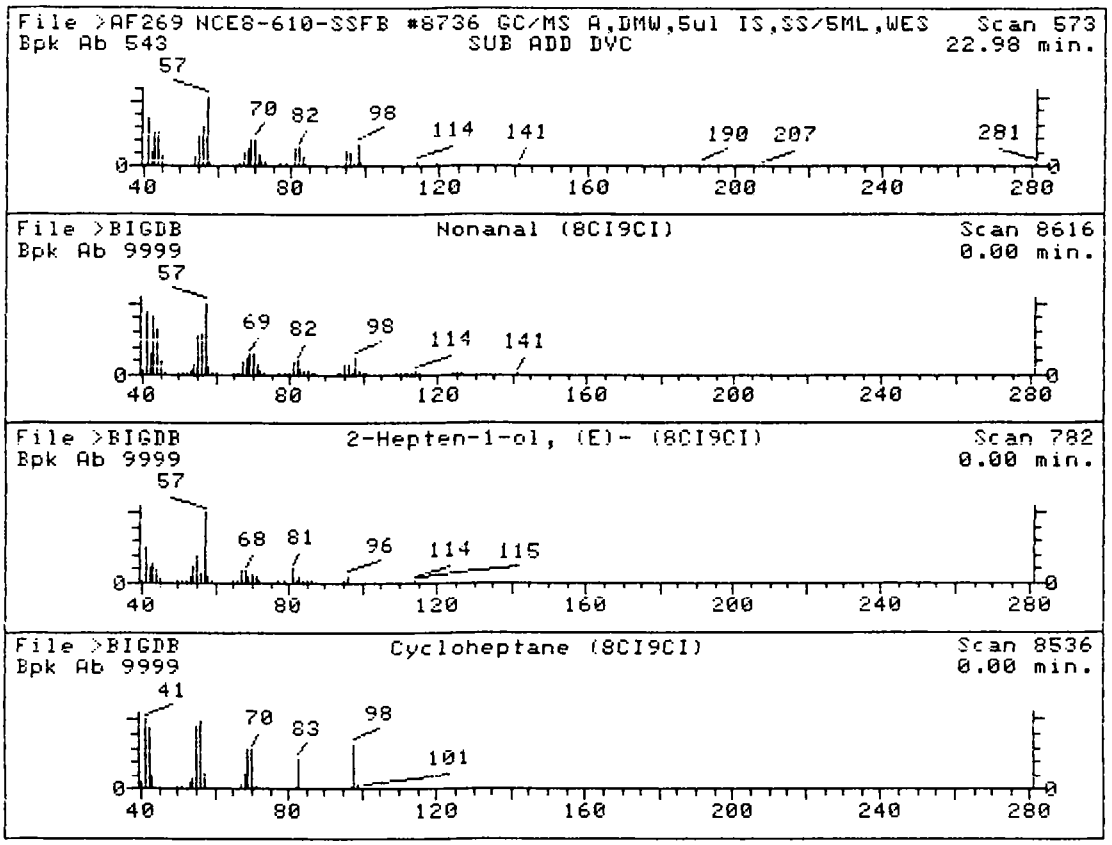



. Unknown #,4
Area = 27357.00 Tentative Concentration is 8.00

1. 1,4-Dichlorobenzene d-4 150 C6.D4.CL2

Sample file: >AF269 Spectrum #: 561
Search speed: 2 Tilting option: F No. of ion ranges searched: 44

| | Prob. | CAS # | CON # | ROOT | K | DK | #FLG | TILT | % | CON | C_I | R_I |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. | 67* | 439 | 257 | PRIPOL | 65 | 42 | 2 | -2 | 88 | 15 | 34 | 2 |



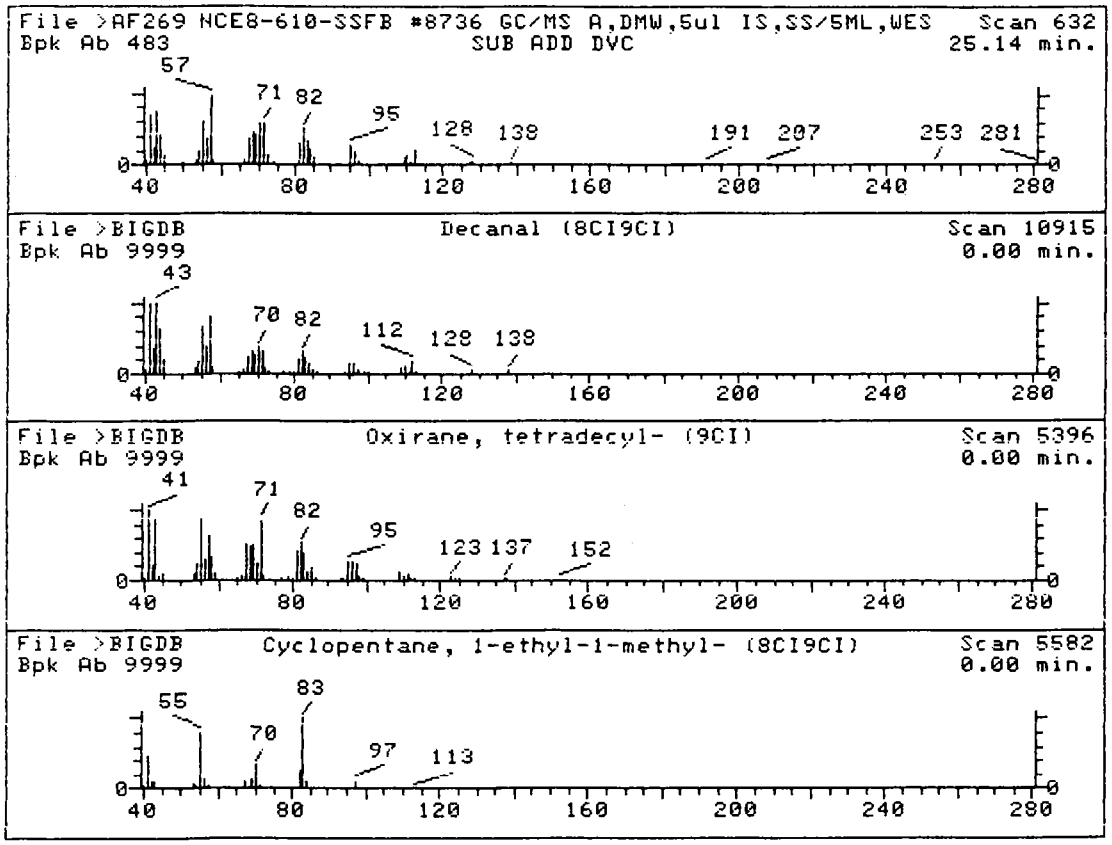

. Unknown #,5
Area = 18234.00 Tentative Concentration is 6.00

| | | | |
|---|---|---|---|
| 1. | Nonanal (8CI9CI) | 142 | C9H18O |
| 2. | 2-Hepten-1-ol, (E)- (8CI9CI) | 114 | C7H14O |
| 3. | Cycloheptane (8CI9CI) | 98 | C7H14 |
| 4. | Hexanal, 5-methyl- (8CI9CI) | 114 | C7H14O |
| 5. | Aziridine, 2-ethyl- (8CI9CI) | 71 | C4H9N |
| 6. | Cyclopentane, 1,2-dimethyl-, cis- (8CI9CI) | 98 | C7H14 |
| 7. | Cyclopentane, 1,2-dimethyl-, trans- (8CI9CI) | 98 | C7H14 |

000117

Sample file: >AF269 Spectrum #: 573
Search speed: 2 Tilting option: F No. of ion ranges searched: 54

| | Prob. | CAS # | CON # | ROOT | K | DK | #FLG | TILT | % | CON | C_I | R_I |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. | 83 | 124196 | 8616 | "BIGDB | 86 | 28 | 2 | -4 | 77 | 2 | 57 | 2 |
| 2. | 28* | 33467764 | 782 | "BIGDB | 68 | 37 | 2 | -3 | 98 | 54 | 8 | 3 |
| 3. | 25* | 291645 | 8536 | "BIGDB | 47 | 55 | 3 | 0 | 47 | 47 | 7 | 1 |
| 4. | 24* | 1860395 | 3564 | "BIGDB | 57 | 47 | 3 | 0 | 64 | 51 | 7 | 2 |
| 5. | 21* | 2549679 | 3510 | "BIGDB | 37 | 61 | 0 | 0 | 50 | 59 | 5 | 3 |
| 6. | 20* | 1192183 | 3585 | "BIGDB | 34 | 53 | 1 | 0 | 41 | 55 | 5 | 1 |
| 7. | 20* | 822504 | 3582 | "BIGDB | 37 | 62 | 1 | 0 | 57 | 55 | 5 | 1 |




. Unknown #,6
Area = 24343.00 Tentative Concentration is 7.00

| | | | |
|---|---|---|---|
| 1. | Decanal (8CI9CI) | 156 | C10H20O |
| 2. | Oxirane, tetradecyl- (9CI) | 240 | C16H32O |
| 3. | Cyclopentane, 1-ethyl-1-methyl- (8CI9CI) | 112 | C8H16 |
| 4. | 7-Azabicyclo[4.1.0]heptane (8CI9CI) | 97 | C6H11N |
| 5. | Bicyclo[4.1.0]heptan-2-ol, (1.alpha.,2.beta.,6.alpha .)- (9CI) | 112 | C7H12O |
| 6. | Bicyclo[2.2.1]heptan-7-ol (9CI) | 112 | C7H12O |
| 7. | Cyclohexanol, 2,6-dimethyl- (8CI9CI) | 128 | C8H16O |

Sample file: >AF269 Spectrum #: 632
Search speed: 2 Tilting option: F No. of ion ranges searched: 61

| | Prob. | CAS # | CON # | ROOT | K | DK | #FLG | TILT | % | CON | C_I | R_I |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. | 52 | 112312 | 10915 | "BIGDB | 77 | 42 | 2 | 0 | 126 | 19 | 20 | 1 |
| 2. | 27 | 7320378 | 5396 | "BIGDB | 82 | 73 | 3 | 0 | 69 | 43 | 8 | 1 |
| 3. | 15* | 16747505 | 5582 | "BIGDB | 27 | 77 | 2 | 0 | 153 | 60 | 3 | 1 |
| 4. | 11* | 286180 | 5346 | "BIGDB | 32 | 64 | 3 | 0 | 172 | 63 | 2 | 1 |
| 5. | 11* | 7432497 | 2855 | "BIGDB | 31 | 101 | 3 | 0 | 89 | 61 | 2 | 1 |
| 6. | 11* | 2566485 | 2853 | "BIGDB | 23 | 102 | 3 | 0 | 78 | 63 | 2 | 1 |
| 7. | 11 | 5337724 | 13648 | "BIGDB | 69 | 50 | 2 | 0 | 59 | 65 | 2 | 1 |

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA / CLIENT ID

DIS 1:10

Lab Name: AMER.ENV.NTWK. Contract: WEST-0103

Lab Code: AENI Case No: NWS-EARLE SAS No: N.A. SDG No: N.A.

Matrix: SOIL Lab Sample ID: AE#8737

Sample (wt/vol): .5 G Lab File ID: >CF194

Level: LOW Date Received: 06/11/93

% Moisture: not dec. 14 Date Analyzed: 6/17/93

Column: PACK Dilution Factor: 10.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 120. | U |
| 74-83-9 | Bromomethane | 120. | U |
| 75-01-4 | Vinyl Chloride | 120. | U |
| 75-00-3 | Chloroethane | 120. | U |
| 75-09-2 | Methylene Chloride | 170. | B |
| 67-64-1 | Acetone | 150. | JB |
| 75-15-0 | Carbon Disulfide | 180. | |
| 75-35-4 | 1,1-Dichloroethene | 58. | U |
| 75-34-3 | 1,1-Dichloroethane | 58. | U |
| 540-59-0 | 1,2-Dichloroethene (Total) | 58. | U |
| 67-66-3 | Chloroform | 58. | U |
| 107-02-2 | 1,2-Dichloroethane | 58. | U |
| 78-93-3 | 2-Butanone | 1200. | U |
| 71-55-6 | 1,1,1-Trichloroethane | 58. | U |
| 56-23-5 | Carbon Tetrachloride | 58. | U |
| 108-05-4 | Vinyl Acetate | 580. | U |
| 75-27-4 | Bromodichloromethane | 58. | U |
| 78-87-5 | 1,2-Dichloropropane | 58. | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 58. | U |
| 79-01-6 | Trichloroethene | 58. | U |
| 124-48-1 | Dibromochloromethane | 58. | U |
| 79-00-5 | 1,1,2-Trichloroethane | 58. | U |
| 71-43-2 | Benzene | 2. | J |
| 10061-01-5 | cis-1,3-Dichloropropene | 58. | U |
| 110-75-8 | 2-Chloroethylvinylether | 120. | U |
| 75-25-2 | Bromoform | 58. | U |
| 108-10-1 | 4-Methyl-2-pentanone | 580. | U |
| 591-78-6 | 2-Hexanone | 260. | J |
| 127-18-4 | Tetrachloroethene | 58. | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 58. | U |
| 108-88-3 | Toluene | 58. | U |
| 108-90-7 | Chlorobenzene | 62. | |
| 100-41-4 | Ethylbenzene | 15. | J |
| 100-42-5 | Styrene | 58. | U |
| 133-02-7 | Xylene (Total) | 20. | J |

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

DIS 1:10

Lab Name: AMER.ENV.NTWK. Contract: WEST-0103

Lab Code: AENI Case No: NWS-EARLE SAS No: N.A. SDG No: N.A.

Matrix: SOIL Lab Sample ID: AE#8737

Sample wt/vol: .5 G Lab File ID: >CF194

Level: LOW Date Received: 06/11/93

% Moisture: (not dec) 14 Date Analyzed: 6/17/93

Column: PACK Dilution Factor: 10.0

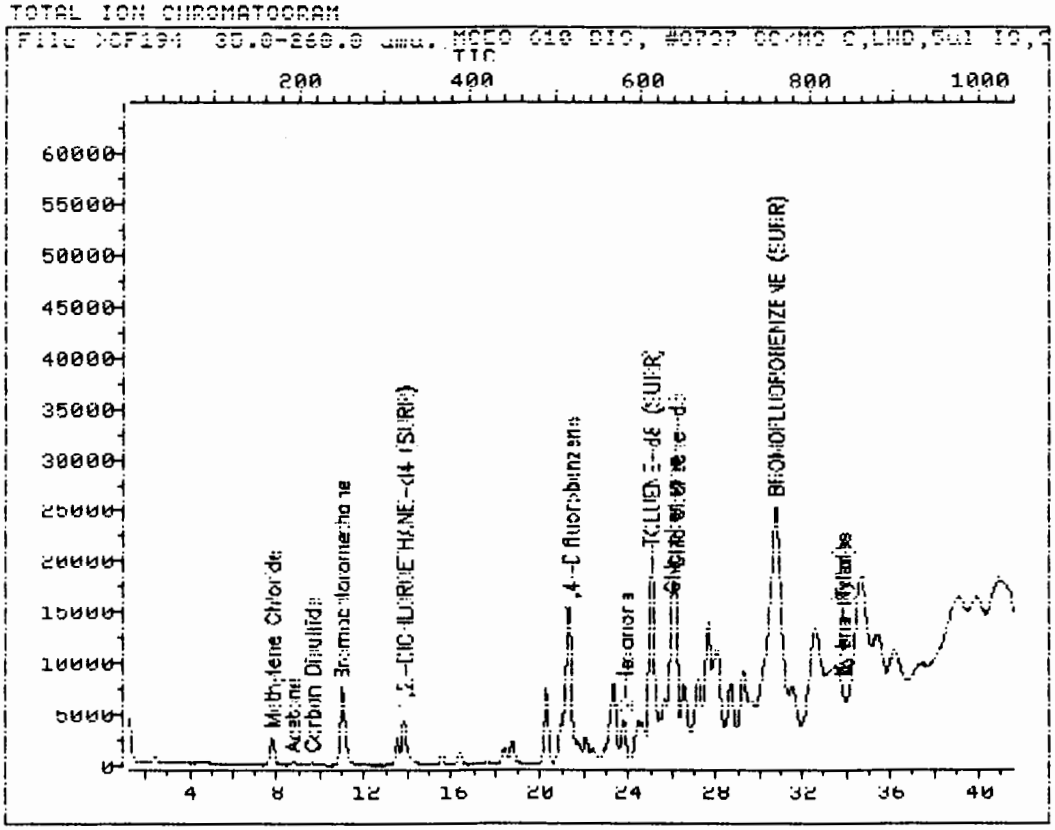
Number TICs found: 10

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|---|
| 1. | 110543 | Hexane | 20.31 | 250. | JB |
| 2. | 589344 | Hexane, 3-methyl- | 23.33 | 400. | J |
| 3. | 3073663 | Cyclohexane, 1,1,3-trimethyl | 27.63 | 330. | J |
| 4. | | Unknown | 28.06 | 190. | J |
| 5. | | Unknown | 29.26 | 240. | J |
| 6. | | Unknown | 30.31 | 200. | J |
| 7. | 1678928 | Cyclohexane, propyl- | 32.44 | 230. | J |
| 8. | | Unknown | 34.65 | 950. | J |
| 9. | | Unknown | 35.43 | 280. | J |
| 10. | | Unknown | 39.08 | 600. | J |
| 11. | | | | | |
| 12. | | | | | |
| 13. | | | | | |
| 14. | | | | | |
| 15. | | | | | |
| 16. | | | | | |
| 17. | | | | | |
| 18. | | | | | |
| 19. | | | | | |
| 20. | | | | | |
| 21. | | | | | |
| 22. | | | | | |
| 23. | | | | | |
| 24. | | | | | |
| 25. | | | | | |
| 26. | | | | | |
| 27. | | | | | |
| 28. | | | | | |
| 29. | | | | | |
| 30. | | | | | |

NR = Not Reviewed

TOTAL ION CHROMATOGRAM




Data File: >CF194::C1 Quant Output File: ^CF194::OU
Name: MCE8-610-DIS, #8737
Misc: GC/MS C,LWB,5ul IS,SS/5ams/ WEST-0103

Id File: IDHCFD::IC
Title: HSL VOLATILES
Last Calibration: 930617 11:48

Operator ID: LEE
Quant Time: 930617 15:43
Injected at: 930617 15:00

QUANT REPORT

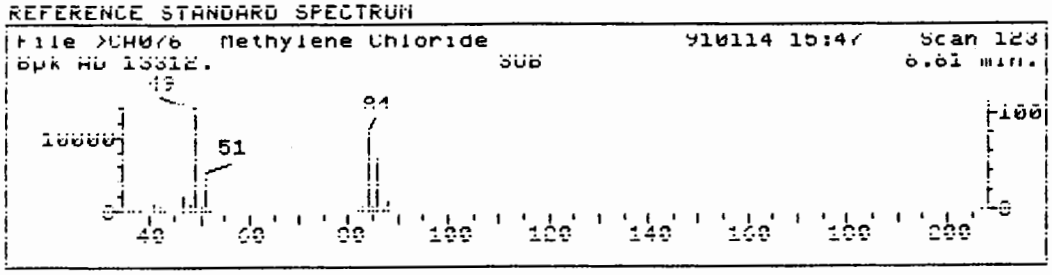
Operator ID: LEE  Quant Rev: 6  Quant Time: 930617 15:43
Output File: ^CF194::OU  Injected at: 930617 15:00
Data File: >CF194::C1  Dilution Factor: 1.00000
Name: MCE8-610-DIS, #8737
Misc: GC/MS C,LWB,5ul IS,SS/5qms/ WEST-0103

ID File: IDHCFD::IC
Title: HSL VOLATILES
Last Calibration: 930617 11:48

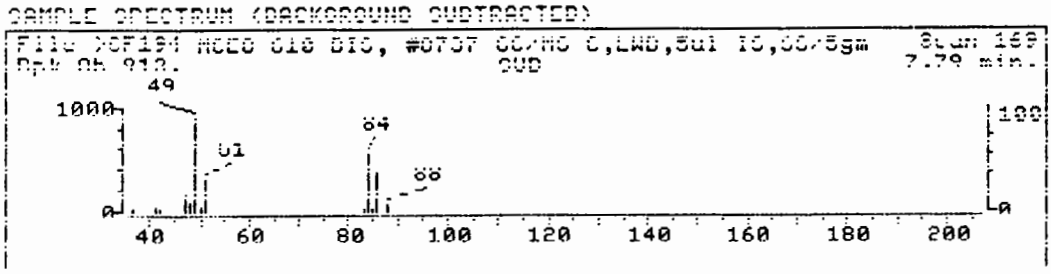
| | Compound | Q ion | Scan# | Area | Conc | Units | q |
|---|---|---|---|---|---|---|---|
| 1) | *Bromochloromethane | 128.0 | 251 | 14264 | 50.00 | ug/L | 90 |
| 6) | Methylene Chloride | 84.0 | 169 | 8717 | 14.26 | ug/L | 92 |
| 7) | Acetone | 43.0 | 193 | 4376 | 12.53 | ug/L | 83 |
| 11) | Carbon Disulfide | 76.0 | 216 | 3209 | 15.09 | ug/L | 91 |
| 17) | 1,2-DICHLOROETHANE-d4 (SURR) | 65.0 | 325 | 26650 | 45.47 | ug/L | 99 |
| 19) | *1,4-Diflnorobenzene | 114.0 | 519 | 56531 | 50.00 | ug/L | 100 |
| 33) | *Chlorobenzene-d5 | 117.0 | 643 | 32873 | 50.00 | ug/L | 94 |
| 35) | 2-Hexanone | 43.0 | 583 | 14405 | 22.42 | ug/L | 40 |
| 39) | Chlorobenzene | 112.0 | 638 | 6192 | 5.35 | ug/L | 46 |
| 42) | Xylene (Total) | 106.0 | 840 | 1121 | 1.75 | ug/L | 84 |
| 44) | o + p-Xylenes | 106.0 | 840 | 1121 | 1.77 | ug/L | 100 |
| 45) | BROMOFLUOROBENZENE (SURR) | 95.0 | 761 | 56028M | 57.91 | ug/L | 76 |
| 46) | TOLUENE-d8 (SURR) | 98.0 | 613 | 58609 | 50.11 | ug/L | 88 |

* Compound is ISTD

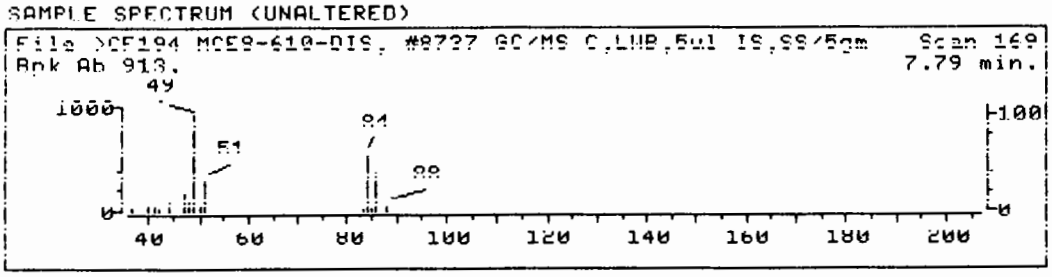
REFERENCE STANDARD SPECTRUM




SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



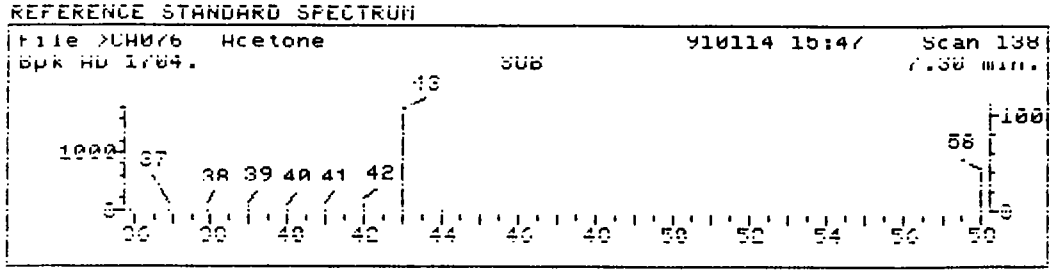

SAMPLE SPECTRUM (UNALTERED)



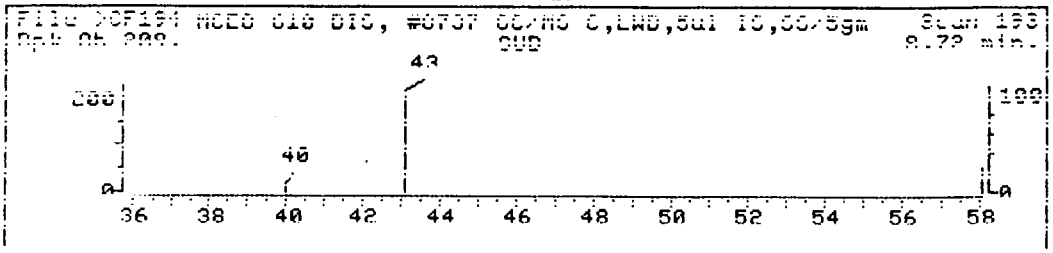

Data File: >CF194::C1 Quant Output File: ^CF194::OU
Name: MCE8-610-DIS, #8737
Misc: GC/MS C,LWB,5ul IS,SS/5gms/ WEST-0103
Quant Time: 930617 15:43 Quant ID File: IDHCFD::IC
Injected at: 930617 15:00 Last Calibration: 930617 11:48

Compound No: 6
Compound Name: Methylene Chloride
Scan Number: 169
Retention Time: 7.79 min.
Quant Ion: 84.0
Area: 8717
Concentration: 14.26 ug/L
q-value: 92

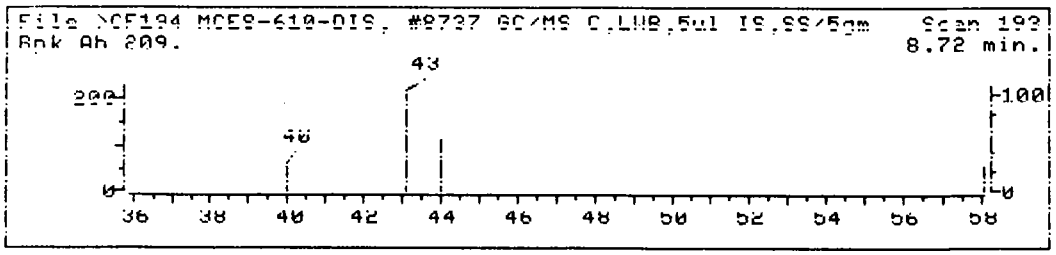
REFERENCE STANDARD SPECTRUM




SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



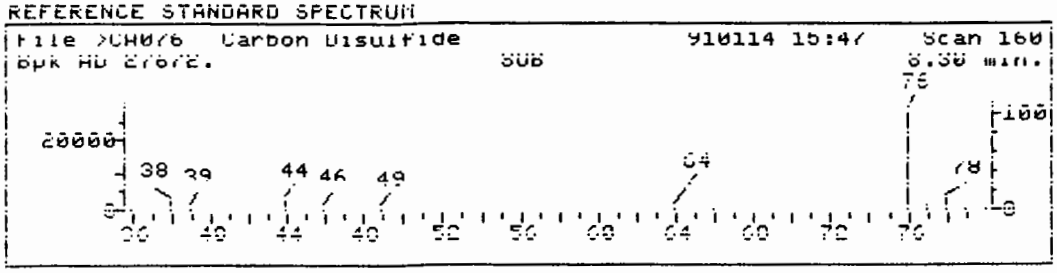

SAMPLE SPECTRUM (UNALTERED)



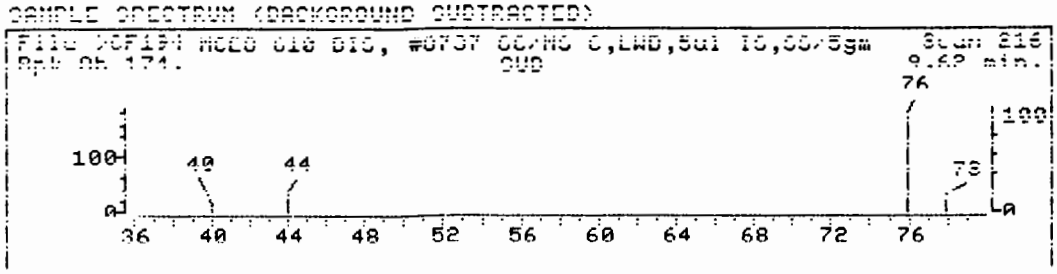

Data File: >CF194::C1 Quant Output File: ^CF194::OU
Name: MCE8-610-DIS, #8737
Misc: GC/MS C,LWB,5ul IS,SS/5gms/ WEST-0103
Quant Time: 930617 15:43 Quant ID File: IDHCFD::IC
Injected at: 930617 15:00 Last Calibration: 930617 11:48

Compound No: 7
Compound Name: Acetone
Scan Number: 193
Retention Time: 8.72 min.
Quant Ion: 43.0
Area: 4376
Concentration: 12.53 ug/L
q-value: 83

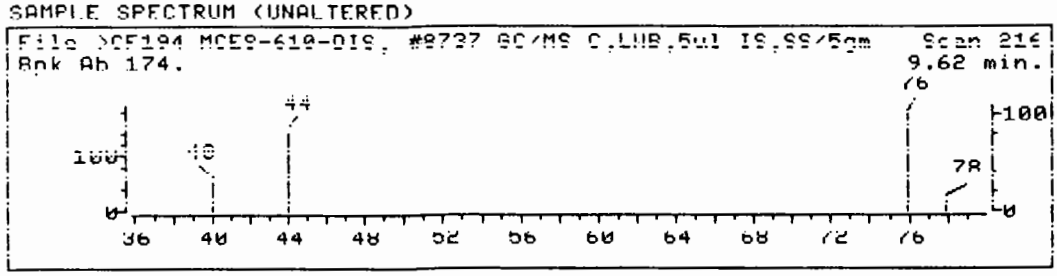
REFERENCE STANDARD SPECTRUM




SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



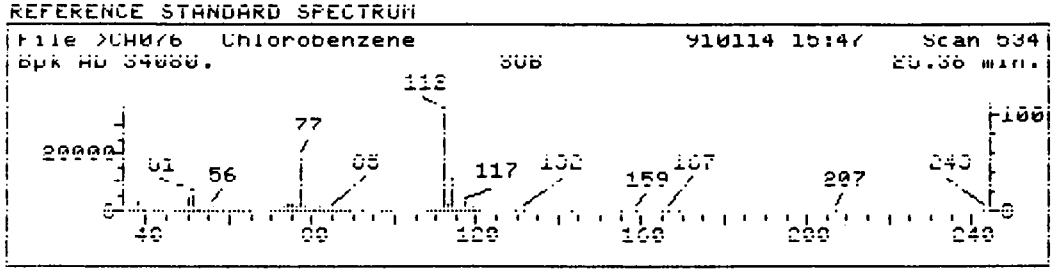

SAMPLE SPECTRUM (UNALTERED)



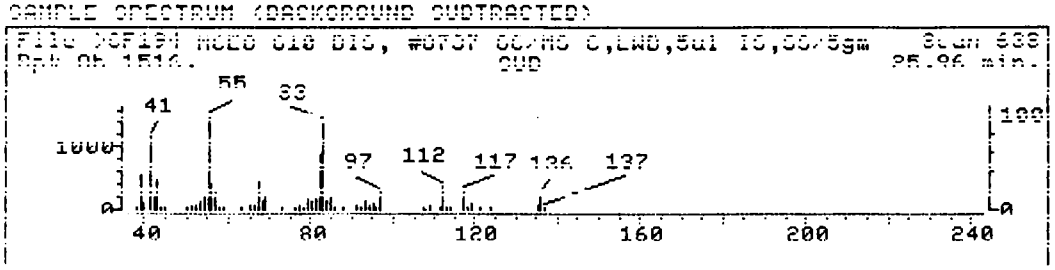

Data File: >CF194::C1 Quant Output File: ^CF194::OU
Name: MCE8-610-DIS, #8737
Misc: GC/MS C,LWB,5ul IS,SS/5gms/ WEST-0103
Quant Time: 930617 15:43 Quant ID File: IDHCFD::IC
Injected at: 930617 15:00 Last Calibration: 930617 11:48

Compound No: 11
Compound Name: Carbon Disulfide
Scan Number: 216
Retention Time: 9.62 min.
Quant Ion: 76.0
Area: 3209
Concentration: 15.09 ug/L
q-value: 91

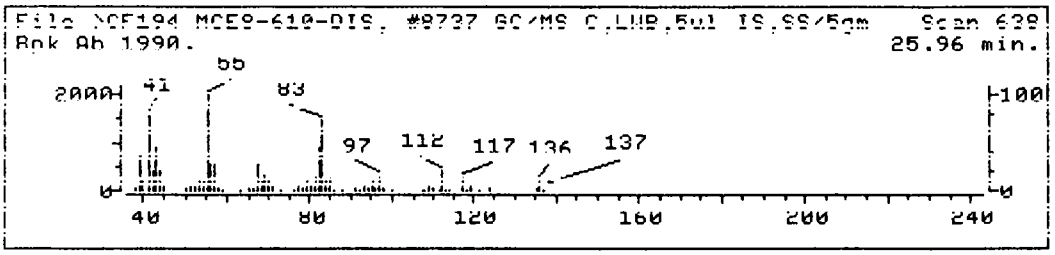
REFERENCE STANDARD SPECTRUM




SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



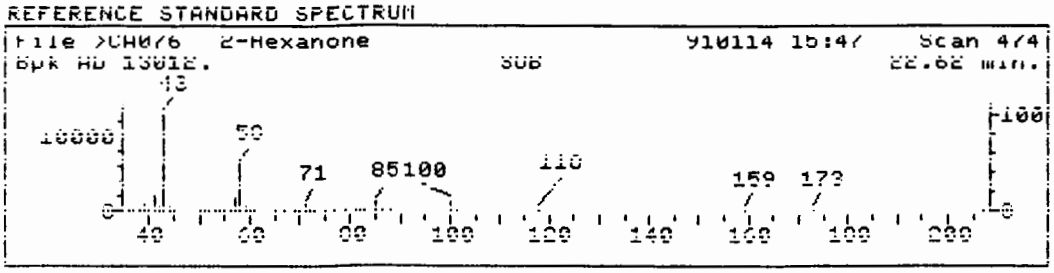

SAMPLE SPECTRUM (UNALTERED)



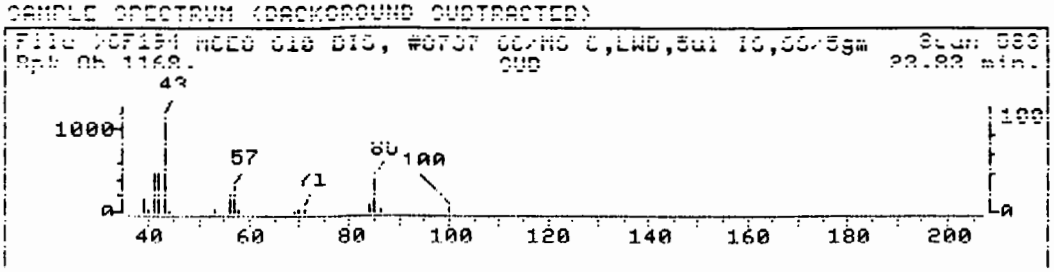

Data File: >CF194::C1 Quant Output File: ^CF194::OU
Name: MCE8-610-DIS, #8737
Misc: GC/MS C,LWB,5ul IS,SS/5gms/ WEST-0103
Quant Time: 930617 15:43 Quant ID File: IDHCFD::IC
Injected at: 930617 15:00 Last Calibration: 930617 11:48

Compound No: 39
Compound Name: Chlorobenzene
Scan Number: 638
Retention Time: 25.96 min.
Quant Ion: 112.0
Area: 6192
Concentration: 5.35 ug/L
q-value: 46

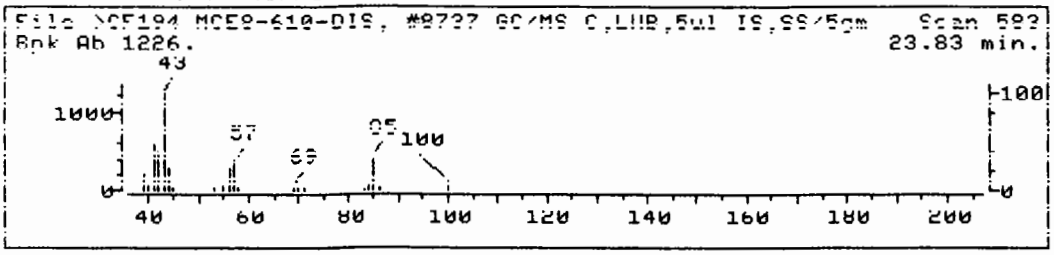
REFERENCE STANDARD SPECTRUM




SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



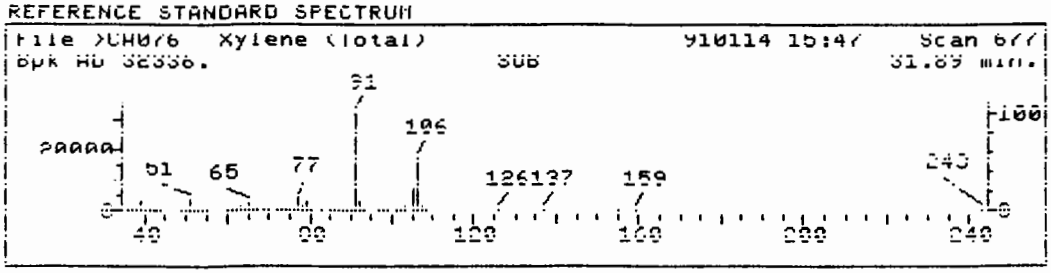

SAMPLE SPECTRUM (UNALTERED)



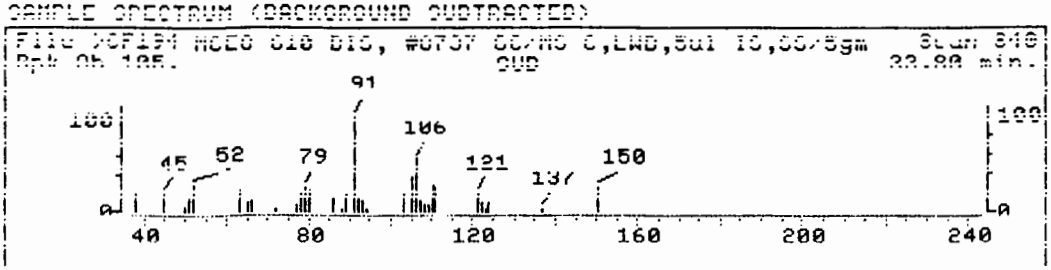

Data File: >CF194::C1 Quant Output File: ^CF194::OU
Name: MCE8-610-DIS, #8737
Misc: GC/MS C,LWB,5ul IS,SS/5gms/ WEST-0103
Quant Time: 930617 15:43 Quant ID File: TDHCFD::IC
Injected at: 930617 15:00 Last Calibration: 930617 11:48

Compound No: 35
Compound Name: 2-Hexanone
Scan Number: 583
Retention Time: 23.83 min.
Quant Ion: 43.0
Area: 14405
Concentration: 22.42 ug/L
q-value: 40

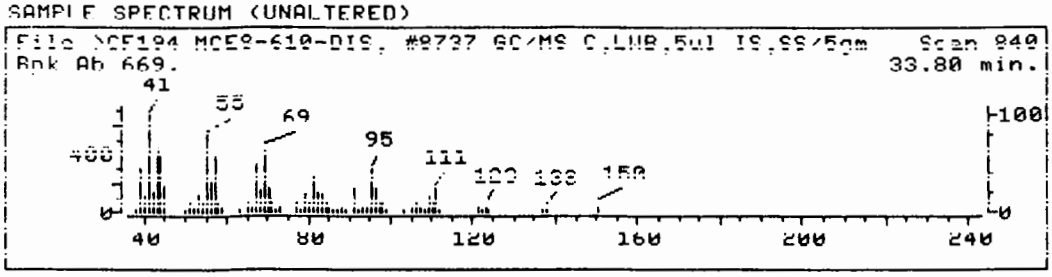
REFERENCE STANDARD SPECTRUM




SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



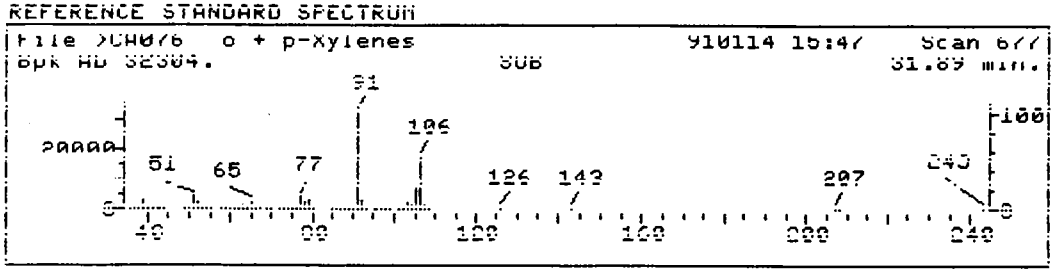

SAMPLE SPECTRUM (UNALTERED)



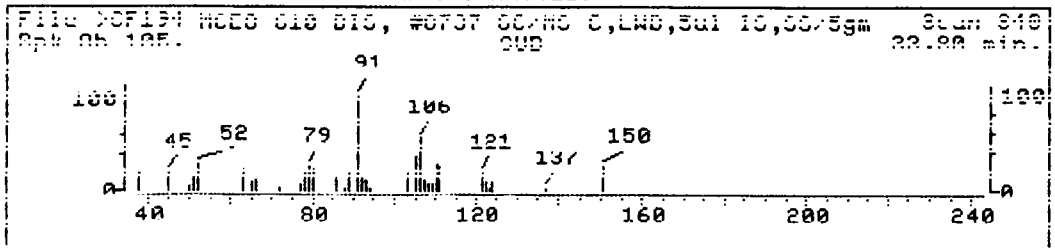

Data File: >CF194::C1 Quant Output File: ^CF194::OU
Name: MCE8-610-DIS, #8737
Misc: GC/MS C,LWB,5ul IS,SS/5gms/ WEST-0103
Quant Time: 930617 15:43 Quant ID File: IDHCFD::IC
Injected at: 930617 15:00 Last Calibration: 930617 11:48

Compound No: 42
Compound Name: Xylene (Total)
Scan Number: 840
Retention Time: 33.80 min.
Quant Ion: 106.0
Area: 1121
Concentration: 1.75 ug/L
q-value: 84

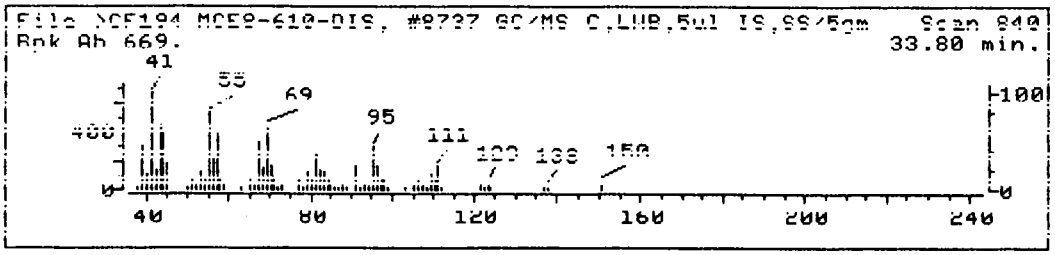
REFERENCE STANDARD SPECTRUM




SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)




SAMPLE SPECTRUM (UNALTERED)




Data File: >CF194::C1 Quant Output File: ^CF194::OU
Name: MCE8-610-DIS, #8737
Misc: GC/MS C,LWB,5ul IS,SS/5gms/ WEST-0103
Quant Time: 930617 15:43 Quant ID File: IDHCFD::IC
Injected at: 930617 15:00 Last Calibration: 930617 11:48

Compound No: 44
Compound Name: o + p-Xylenes
Scan Number: 840
Retention Time: 33.80 min.
Quant Ion: 106.0
Area: 1121
Concentration: 1.77 ug/L
q-value: 100

MS data file header from : >CF194

ample: MCE8-610-DIS, #8737 Operator: LEE REG. GRP. 6/17/93 15:00
Misc : GC/MS C,LWB,5ul IS,SS/5gms/ WEST-0103
Sys. #: 2 MS model: 70 SW/HW rev.: IA ALS # : 0
Method file: HE7001 Tuning file: MT7001 No. of extra records: 2
Source temp.: 0 Analyzer temp.: 250 Transfer line temp. : 0

| | | | | | |
|---|---|---|---|---|---|
| Chromatographic temperatures : | 45. | 220. | 0. | 0. | 0. |
| Chromatographic times, min. : | 4.0 | 40.0 | 0.0 | 0.0 | 0.0 |
| Chromatographic rate, deg/min: | 8.0 | 0.0 | 0.0 | .5 | 0.0 |

CF194 MCE8-610-DIS, #8737 GC/MS C,LWB,5ul IS,SS/5gms/ WEST-0103
35.01 260.0 CLP ADC TIC
Upslope: .05 Area Reject: 11188. Max Peaks: 10 Bunching: 1
Inslope: 0.00 Results File ICF194 Sorted by Time/Area INT

| Peak # | R.T. min. | first scan | max scan | last scan | peak height | raw area | corr. area | corr. % max. | % of total |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 20.31 | 481 | 492 | 500 | 7292 | 98051 | 95225 | 20.37 | 5.506 |
| 2 | 23.33 | 554 | 570 | 577 | 7605 | 176208 | 151179 | 32.35 | 8.742 |
| 3 | 27.63 | 675 | 681 | 686 | 9712 | 271676 | 159991 | 34.23 | 9.252 |
| 4 | 28.06 | 686 | 692 | 694 | 6617 | 183615 | 94305 | 20.18 | 5.453 |
| 5 | 29.26 | 715 | 723 | 730 | 5625 | 235205 | 117129 | 25.06 | 6.773 |
| 6 | 30.31 | 738 | 750 | 751 | 6633 | 246266 | 99916 | 21.38 | 5.778 |
| 7 | 32.44 | 792 | 805 | 806 | 7958 | 236991 | 113854 | 24.36 | 6.584 |
| 8 | 34.65 | 846 | 862 | 875 | 12090 | 897195 | 467375 | 100.00 | 27.026 |
| 9 | 35.43 | 875 | 882 | 892 | 5176 | 446398 | 137281 | 29.37 | 7.938 |
| 10 | 39.08 | 953 | 976 | 988 | 5472 | 1179508 | 293082 | 62.71 | 16.948 |

Sum of corrected areas: 1729337.

Summary of Unknowns PBM Library Search and Quantitation

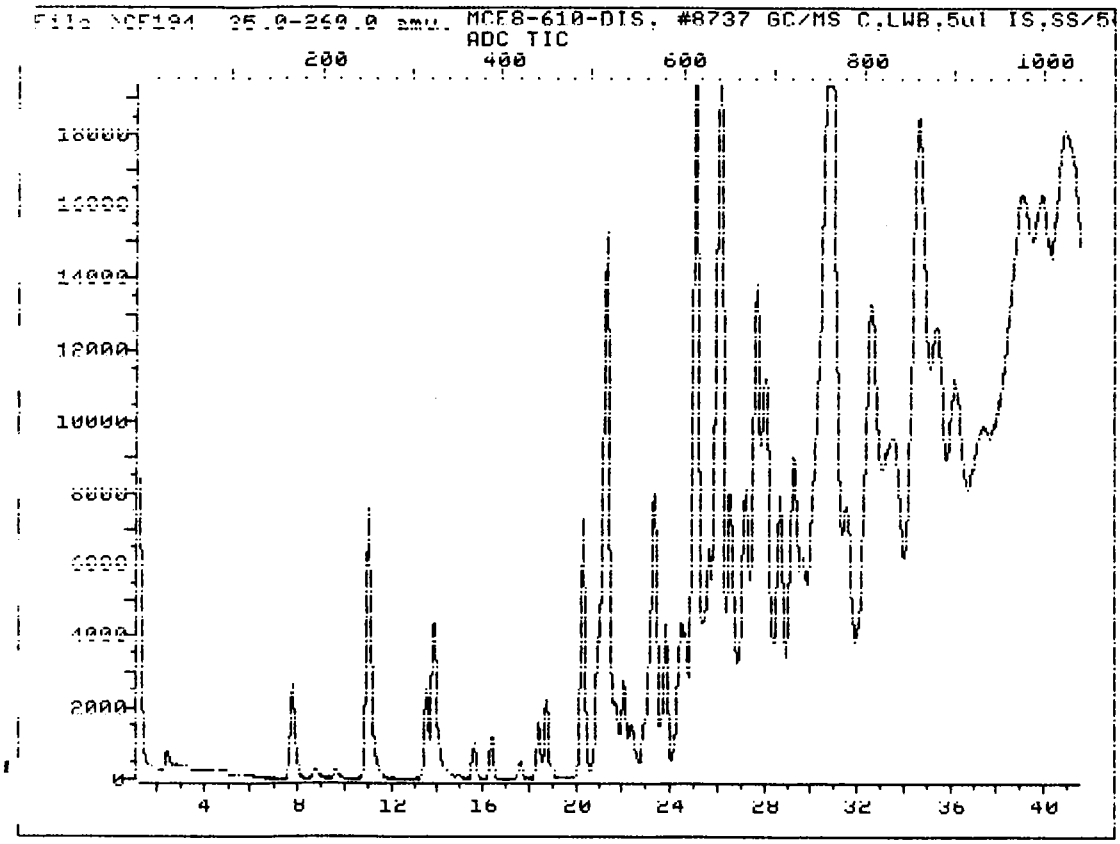
| Standard | Concentration | Area | Retention Time | Unknown Window |
|---|---|---|---|---|
| 1 | 50.0 | 111885. | 10.97 | 1.29 - 16.16 |
| 2 | 50.0 | 222173. | 21.35 | 16.16 - 23.76 |
| 3 | 50.0 | 286037. | 26.16 | 23.76 - 41.56 |

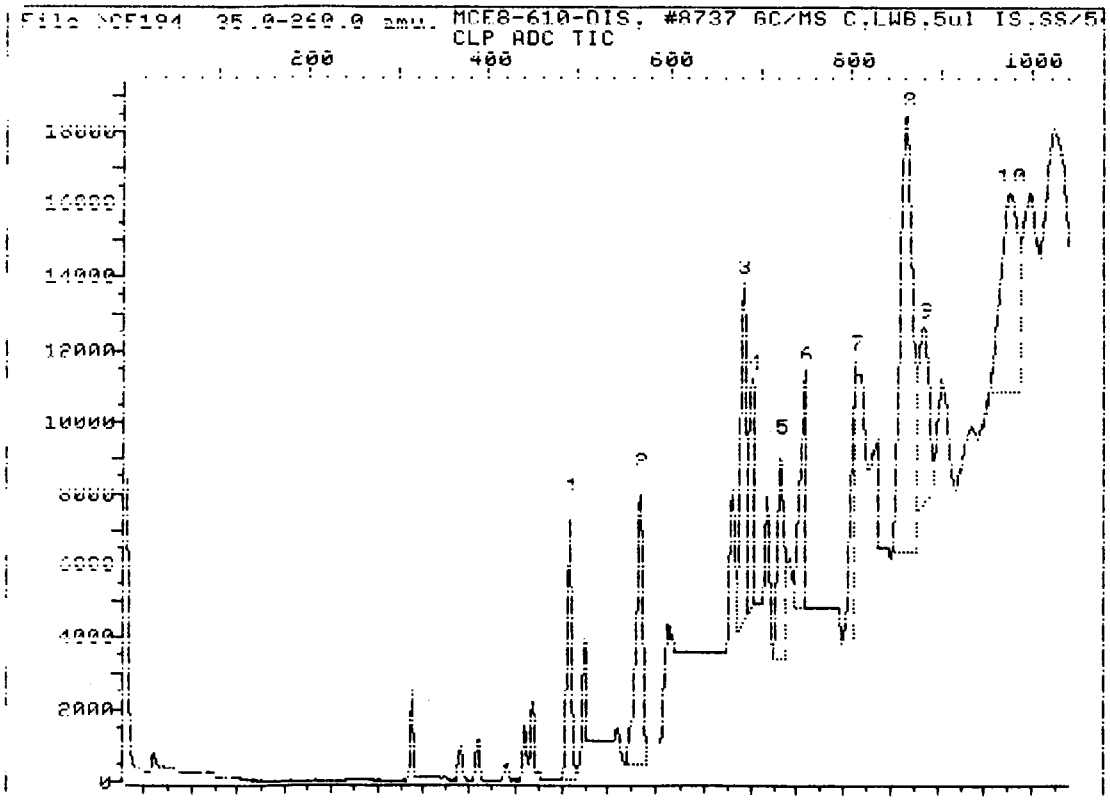
Dilution Factor (DF) = 1.00 Fractional Solids (FS) = .86
Amount Method (AM) = 5.00 Amount Used (AU) = .50

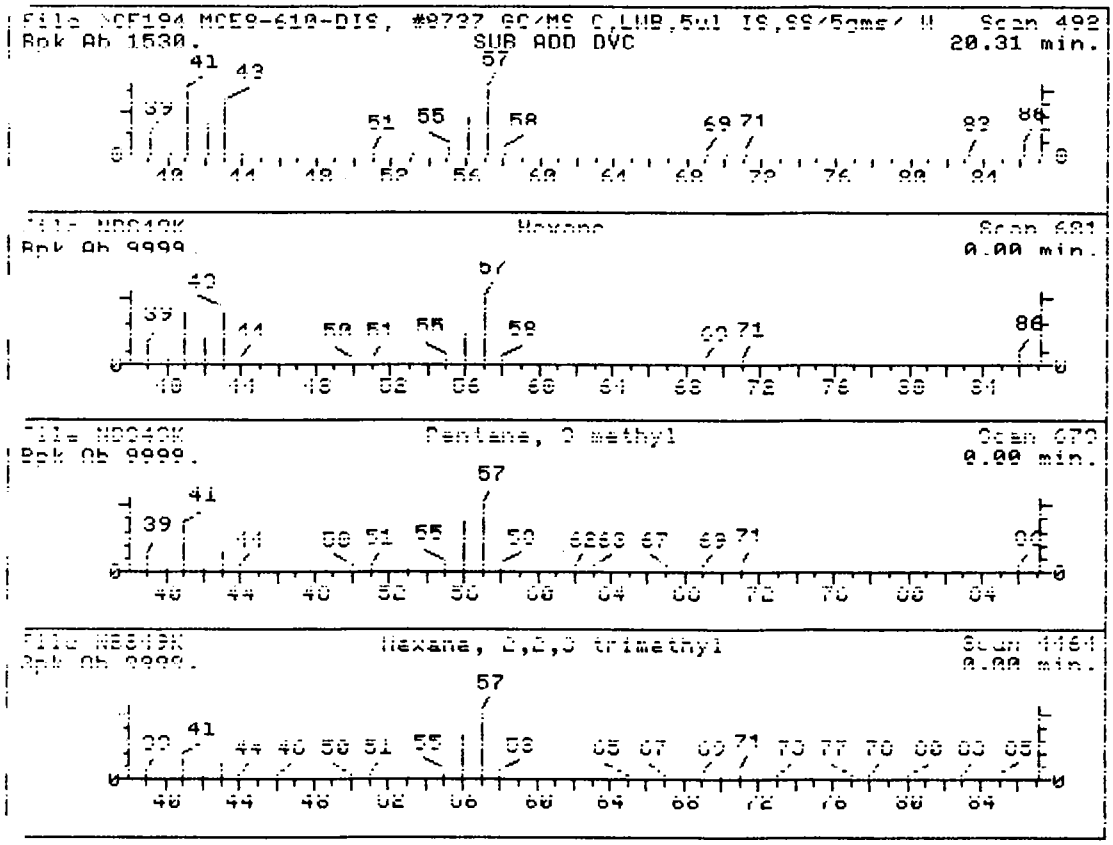
Correction Factor = 11.63 = (AM * DF) / (AU * FS)

$$\text{Unknown Concentration} = \frac{\text{Conc Int Std}}{\text{Area Int Std}} * \text{Area Unk} * \text{Correction Factor}$$

3:47 PM THU., 24 JUNE, 1993


File NCF194 35.0-260.0 amu. MCE8-610-DIS, #8737 GC/MS C,LWB,5ul IS,SS/5
ADC TIC
200
400
600
800
1000
16000
14000
12000
10000
8000
6000
4000
2000
0
4
8
12
16
20
24
28
32
36
40


File NCF194 35.0-260.0 amu. MCE8-610-DIS, #8737 GC/MS C,LWB,5ul IS,SS/5
CLP ADC TIC
200
400
600
800
1000
16000
14000
12000
10000
8000
6000
4000
2000
0
1
2
3
4
5
6
7
8
9
10




UNKNOWN #,1

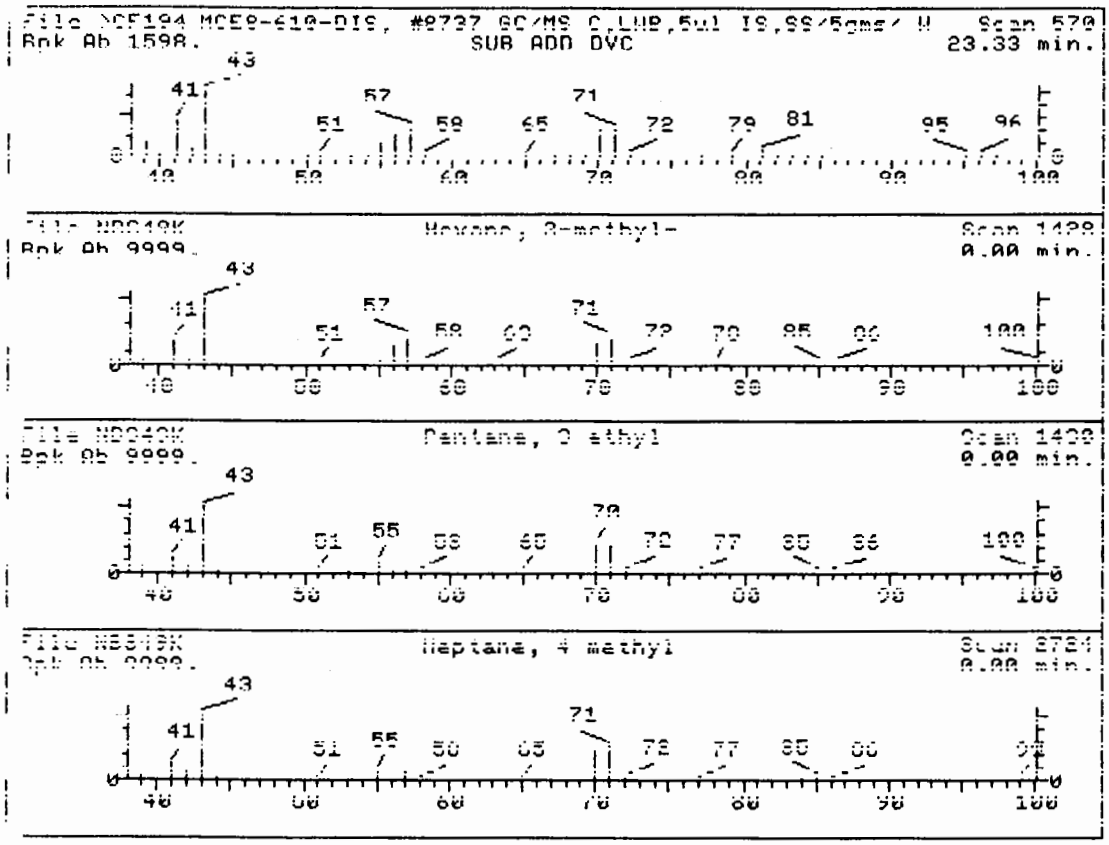
AREA = 95225.00 TENTATIVE CONCENTRATION IS 250.00

| | | | |
|---|---|---|---|
| 1. | Hexane | 86 | C6H14 |
| 2. | Pentane, 3-methyl- | 86 | C6H14 |
| 3. | Hexane, 2,2,3-trimethyl- | 128 | C9H20 |
| 4. | Methane, isocyanato- | 57 | C2H3NO |
| 5. | Diazene, bis(1,1-dimethylethyl)- | 142 | C8H18N2 |
| 6. | 2-Butanone, 3-methyl- | 86 | C5H10O |

Sample file: >CF194 Spectrum #: 492

Search speed: 1 Tilting option: S No. of ion ranges searched: 42

| | Prob. | CAS # | CON # | ROOT | K | DK | #FLG | TILT | % | CON | C_I | R_IV |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. | 89* | 110543 | 6971 | NBS49K | 64 | 32 | 0 | 0 | 100 | 4 | 66 | 77 |
| 2. | 35* | 96140 | 1025 | NBS49K | 34 | 50 | 0 | 0 | 76 | 48 | 11 | 33 |
| 3. | 24 | 16747254 | 1122 | NBS49K | 37 | 43 | 2 | 0 | 85 | 42 | 8 | 12 |
| 4. | 20* | 624839 | 1000 | NBS49K | 27 | 37 | 1 | 0 | 100 | 52 | 5 | 15 |
| 5. | 15 | 927833 | 1270 | NBS49K | 27 | 44 | 0 | 0 | 87 | 59 | 3 | 14 |
| 6. | 11* | 563804 | 6960 | NBS49K | 22 | 51 | 1 | 0 | 77 | 61 | 2 | 14 |

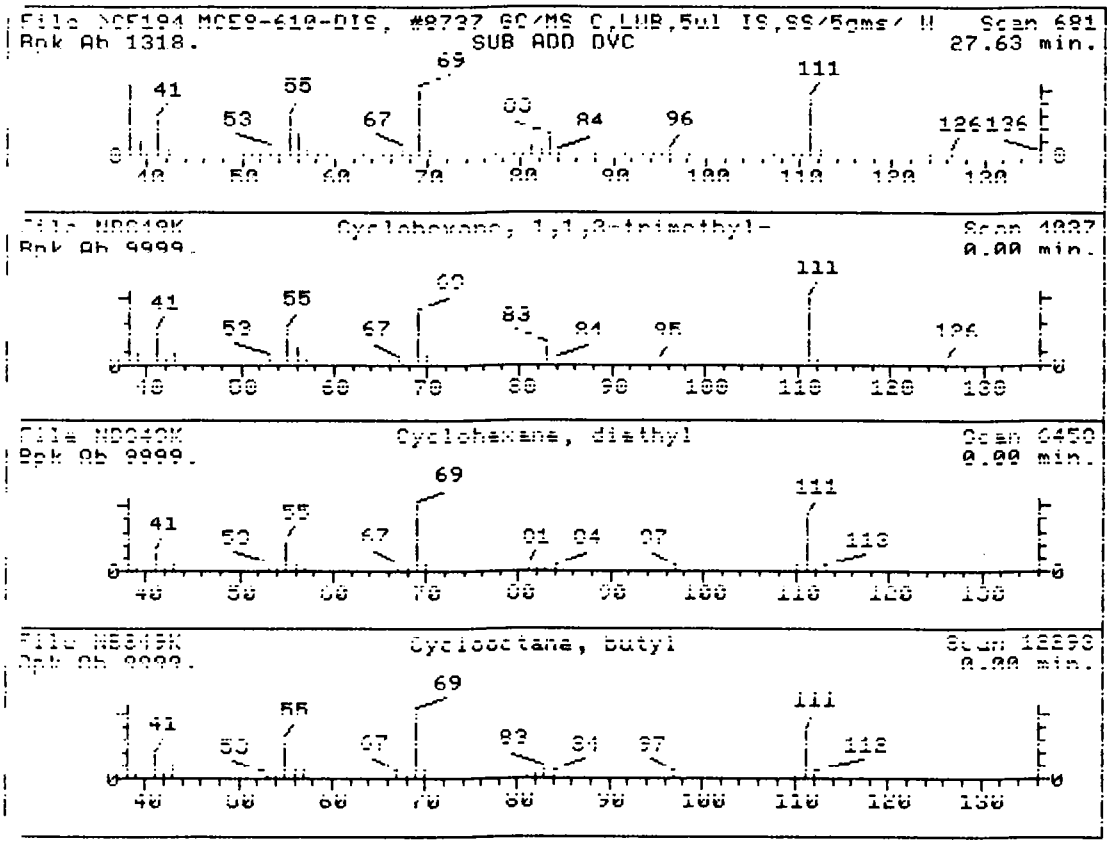



UNKNOWN #,2
AREA = 151179.0 TENTATIVE CONCENTRATION IS 400.00

| | | | |
|---|---|---|---|
| 1. | Hexane, 3-methyl- | 100 | C7H16 |
| 2. | Pentane, 3-ethyl- | 100 | C7H16 |
| 3. | Heptane, 4-methyl- | 114 | C8H18 |
| 4. | Hexane, 2,3-dimethyl- | 114 | C8H18 |
| 5. | Butane, 2,2-dimethyl- | 86 | C6H14 |
| 6. | Ethane, isocyanato- | 71 | C3H5NO |
| 7. | Pentane, 2,3-dimethyl- | 100 | C7H16 |

Sample file: >CF194 Spectrum #: 570
Search speed: 1 Tilting option: S No. of ion ranges searched: 42

| | Prob. | CAS # | CON # | ROOT | K | DK | #FLG | TILT | % | CON | C_I | R_IV |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. | 73* | 589344 | 4274 | NBS49K | 57 | 29 | 0 | 0 | 84 | 23 | 32 | 69 |
| 2. | 44* | 617787 | 3867 | NBS49K | 42 | 41 | 0 | 0 | 92 | 50 | 13 | 54 |
| 3. | 25 | 589537 | 3915 | NBS49K | 38 | 49 | 2 | 0 | 83 | 50 | 7 | 12 |
| 4. | 25 | 584941 | 3916 | NBS49K | 38 | 49 | 1 | 0 | 67 | 50 | 7 | 14 |
| 5. | 25 | 75832 | 4259 | NBS49K | 26 | 51 | 0 | 0 | 45 | 50 | 7 | 13 |
| 6. | 20* | 109900 | 4251 | NBS49K | 22 | 37 | 0 | 0 | 38 | 51 | 5 | 16 |
| 7. | 15* | 565593 | 1064 | NBS49K | 20 | 56 | 1 | 0 | 38 | 58 | 3 | 14 |

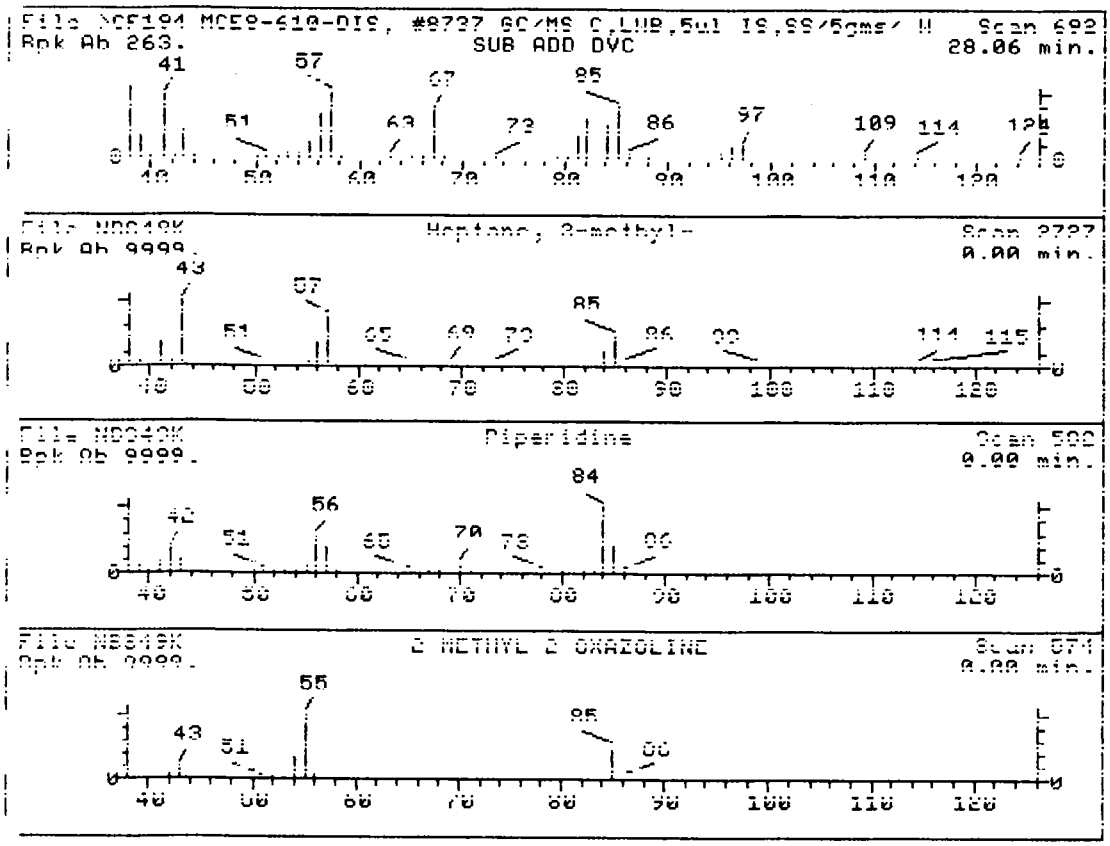



UNKNOWN #.3
AREA = 159991.0 TENTATIVE CONCENTRATION IS 330.00

| | | | |
|---|---|---|---|
| 1. | Cyclohexane, 1,1,3-trimethyl- | 126 | C9H18 |
| 2. | Cyclohexane, diethyl- | 140 | C10H20 |
| 3. | Cyclooctane, butyl- | 168 | C12H24 |
| 4. | Cyclohexane, 1-ethyl-2,4-dimethyl- | 140 | C10H20 |
| 5. | Cyclopentane, 1,1,3-trimethyl-3-(2-methyl-2-propenyl | 166 | C12H22 |
| 6. | 2-Cyclopenten-1-one, 3-amino-2-methyl- | 111 | C6H9NO |
| 7. | Cyclopentane, 1,1,3,4-tetramethyl-, trans- | 126 | C9H18 |

Sample file: >CF194 Spectrum #: 681
Search speed: 1 Tilting option: S No. of ion ranges searched: 42

| | Prob. | CAS # | CON # | ROOT | K | DK | #FLG | TILT | % | CON | C_I | R_IV |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. | 83* | 3073663 | 11838 | NBS49K | 72 | 26 | 2 | 2 | 94 | 8 | 54 | 50 |
| 2. | 52 | 1331437 | 11866 | NBS49K | 46 | 48 | 2 | 0 | 100 | 20 | 20 | 12 |
| 3. | 52 | 16538935 | 11900 | NBS49K | 46 | 49 | 2 | 0 | 100 | 18 | 20 | 12 |
| 4. | 52 | 61142696 | 11865 | NBS49K | 45 | 45 | 2 | 0 | 100 | 20 | 20 | 14 |
| 5. | 48 | 74421093 | 11891 | NBS49K | 56 | 37 | 2 | 0 | 100 | 23 | 17 | 19 |
| 6. | 28* | 69687850 | 11815 | NBS49K | 25 | 69 | 2 | 0 | 246 | 40 | 10 | 14 |
| 7. | 27* | 20309777 | 11837 | NBS49K | 27 | 84 | 3 | 0 | 73 | 39 | 10 | 13 |




UNKNOWN # 4

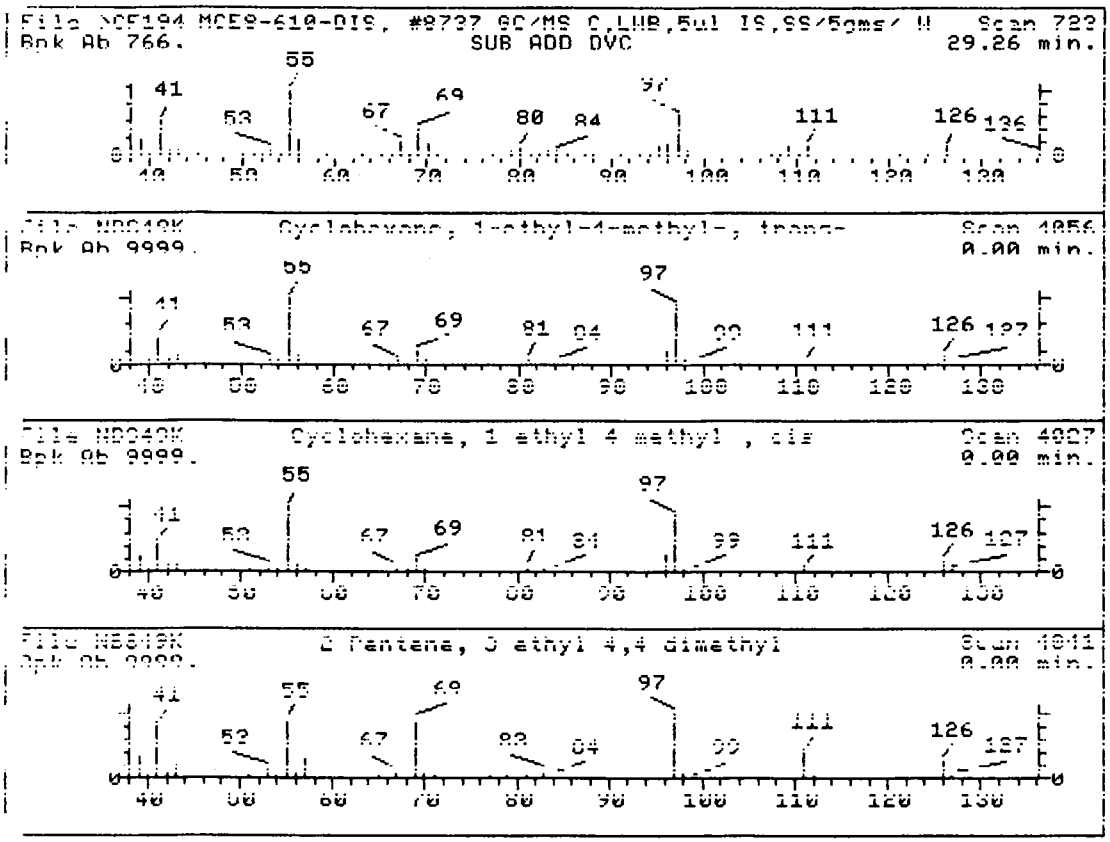
AREA = 94305.00 TENTATIVE CONCENTRATION IS 190.00

| | | |
|---|---|---|
| 1. Heptane, 3-methyl- | 114 | C8H18 |
| 2. Piperidine | 85 | C5H11N |
| 3. 2-METHYL-2-OXAZOLINE | 85 | C4H7NO |

Sample file: >CF194 Spectrum #: 692

Search speed: 1 Tilting option: S No. of ion ranges searched: 42

| | Prob. | CAS # | CON # | ROOT | K | DK | #FLG | TILT | %. | CON | C_I | R_IV |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. | 25* | 589811 | 6561 | NBS49K | 34 | 56 | 3 | 0 | 134 | 49 | 7 | 13 |
| 2. | 20* | 110894 | 6307 | NBS49K | 36 | 63 | 3 | 0 | 119 | 55 | 5 | 13 |
| 3. | 11* | 1120645 | 6512 | NBS49K | 20 | 44 | 2 | 0 | 157 | 63 | 2 | 13 |

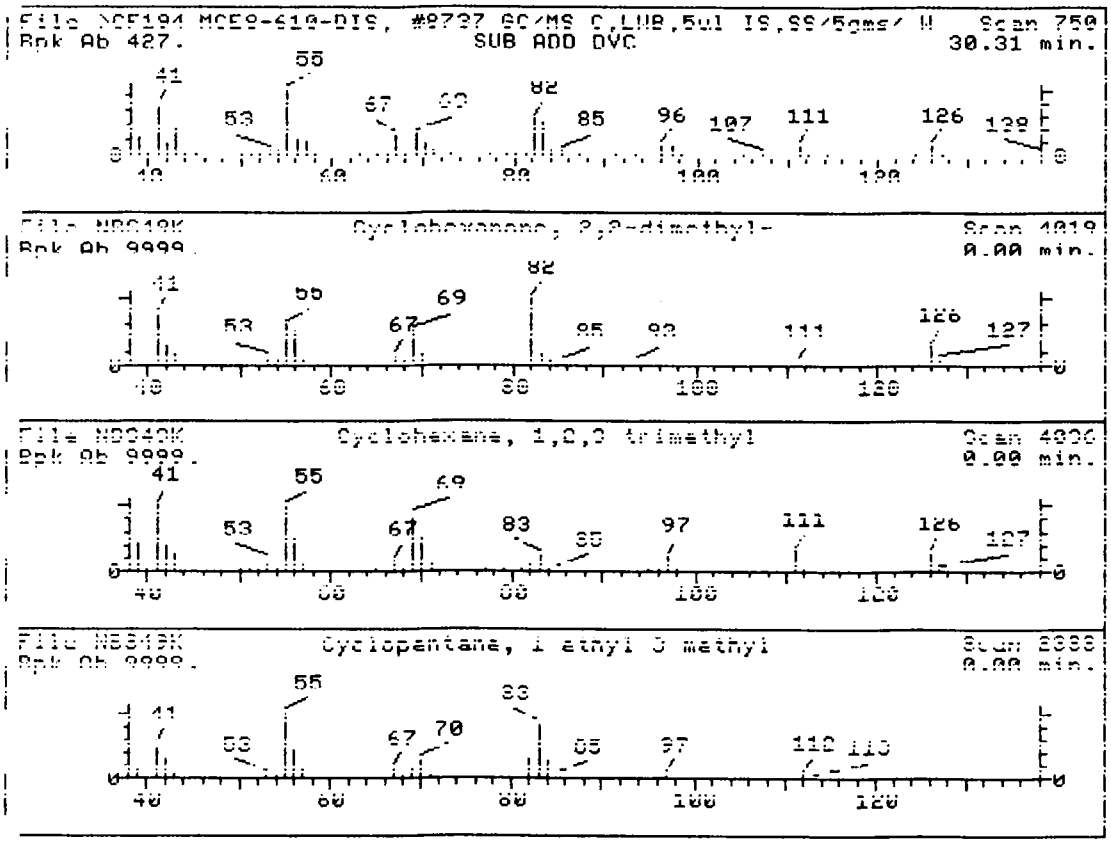



UNKNOWN #,5
AREA = 117129.0 TENTATIVE CONCENTRATION IS 240.00

| | | | |
|---|---|---|---|
| 1. | Cyclohexane, 1-ethyl-4-methyl-, trans- | 126 | C9H18 |
| 2. | Cyclohexane, 1-ethyl-4-methyl-, cis- | 126 | C9H18 |
| 3. | 2-Pentene, 3-ethyl-4,4-dimethyl- | 126 | C9H18 |
| 4. | 3-Heptanone, 5-methylene- | 126 | C8H14O |
| 5. | 2-Pyrroline, 1,2-dimethyl- | 97 | C6H11N |
| 6. | Cyclohexane, 1-ethyl-2-methyl-, cis- | 126 | C9H18 |
| 7. | 1H-Pyrazole, 5-ethyl-4,5-dihydro-3,5-dimethyl- | 126 | C7H14N2 |

Sample file: >CF194 Spectrum #: 723
Search speed: 1 Tilting option: S No. of ion ranges searched: 42

| | Prob. | CAS # | CON # | ROOT | K | DK | #FLG | TILT | % | CON | C_I | R_IV |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. | 41* | 6236880 | 9137 | NBS49K | 50 | 44 | 2 | 0 | 70 | 42 | 14 | 30 |
| 2. | 41* | 4926787 | 9131 | NBS49K | 49 | 47 | 1 | 0 | 73 | 42 | 14 | 31 |
| 3. | 25* | 53907598 | 9134 | NBS49K | 33 | 61 | 2 | 0 | 41 | 48 | 7 | 15 |
| 4. | 25* | 20690704 | 9122 | NBS49K | 21 | 53 | 2 | 0 | 557 | 50 | 7 | 13 |
| 5. | 25* | 5370570 | 9079 | NBS49K | 40 | 93 | 3 | 0 | 65 | 50 | 7 | 13 |
| 6. | 24* | 4923777 | 9132 | NBS49K | 31 | 61 | 0 | 0 | 62 | 55 | 7 | 24 |
| 7. | 20* | 21981226 | 9120 | NBS49K | 43 | 54 | 2 | 0 | 63 | 55 | 5 | 19 |



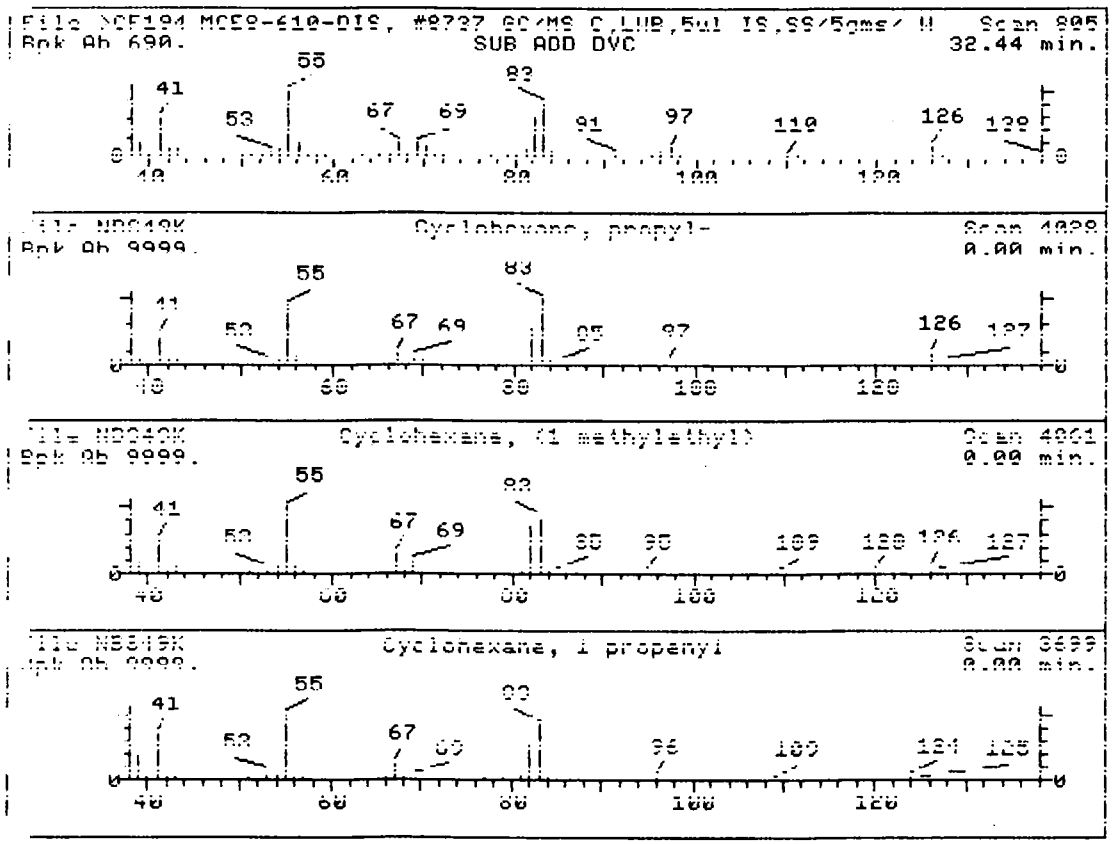

UNKNOWN #.6
AREA = 99916.00 TENTATIVE CONCENTRATION IS 200.00

| | | | |
|---|---|---|---|
| 1. | Cyclohexanone, 2,2-dimethyl- | 126 | C8H14O |
| 2. | Cyclohexane, 1,2,3-trimethyl- | 126 | C9H18 |
| 3. | Cyclopentane, 1-ethyl-3-methyl- | 112 | C8H16 |
| 4. | Cyclopentane, 1-hexyl-3-methyl- | 168 | C12H24 |
| 5. | Cyclohexanone, 2,3-dimethyl- | 126 | C8H14O |
| 6. | Cyclohexane, (1-methylpropyl)- | 140 | C10H20 |
| 7. | Heptanenitrile | 111 | C7H13N |

Sample file: >CF194 Spectrum #: 750
Search speed: 1 Tilting option: S No. of ion ranges searched: 42

000187

| | Prob. | CAS # | CON # | ROOT | K | DK | #FLG | TILT | % | CON | C_I | R_IU |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. | 34* | 1193471 | 5909 | NBS49K | 45 | 43 | 0 | 0 | 46 | 54 | 10 | 53 |
| 2. | 31* | 1678973 | 14775 | NBS49K | 58 | 46 | 0 | 0 | 37 | 60 | 12 | 71 |
| 3. | 30* | 3726474 | 6162 | NBS49K | 38 | 69 | 1 | 0 | 55 | 49 | 10 | 21 |
| 4. | 30 | 61142685 | 6214 | NBS49K | 58 | 48 | 1 | 0 | 50 | 40 | 10 | 16 |
| 5. | 29* | 13395761 | 14758 | NBS49K | 31 | 64 | 1 | 0 | 38 | 45 | 8 | 17 |
| 6. | 28 | 7058017 | 6187 | NBS49K | 51 | 50 | 1 | 0 | 65 | 37 | 10 | 14 |
| 7. | 27* | 629083 | 5887 | NBS49K | 30 | 72 | 3 | 0 | 55 | 37 | 10 | 13 |

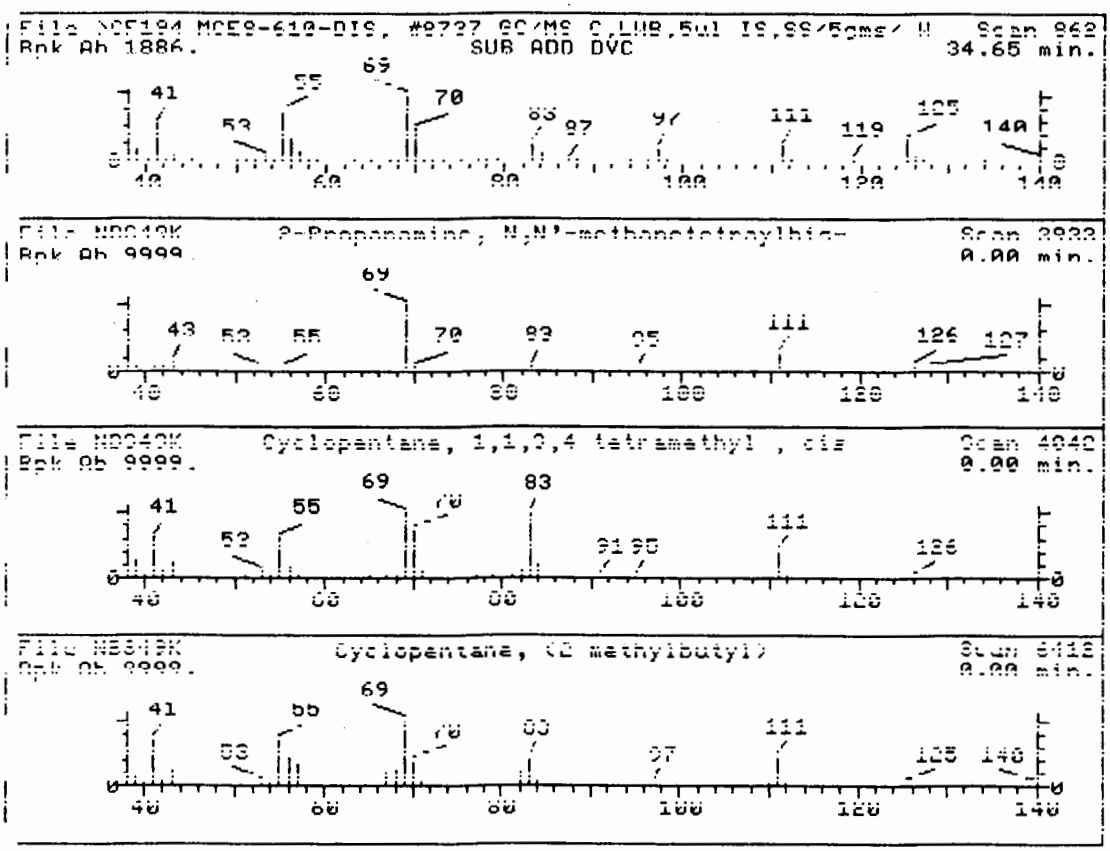



UNKNOWN #.7
AREA = 113854.0 TENTATIVE CONCENTRATION IS 230.00

| | | | |
|---|---|---|---|
| 1. | Cyclohexane, propyl- | 126 | C9H18 |
| 2. | Cyclohexane, (1-methylethyl)- | 126 | C9H18 |
| 3. | Cyclohexane, 1-propenyl- | 124 | C9H16 |
| 4. | Cyclohexane, 2-propenyl- | 124 | C9H16 |
| 5. | TRANS-7-OXABICYCLO[4.3.0]NONANE | 126 | C8H14O |
| 6. | Puridine, 2,3,4,5-tetrahydro- | 83 | C5H9N |
| 7. | Cyclopentane, (2-methylpropyl)- | 126 | C9H18 |

Sample file: >CF194 Spectrum #: 805
Search speed: 1 Tilting option: S No. of ion ranges searched: 42

| | Prob. | CAS # | CON # | ROOT | K | DK | #FLG | TILT | % | CON | C_I | R_IV |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. | 81* | 1678928 | 6179 | NBS49K | 59 | 38 | 0 | 0 | 81 | 17 | 45 | 72 |
| 2. | 73* | 696297 | 6181 | NBS49K | 52 | 42 | 0 | 0 | 67 | 21 | 32 | 63 |
| 3. | 44 | 5364830 | 6171 | NBS49K | 63 | 36 | 2 | 0 | 86 | 26 | 19 | 22 |
| 4. | 43 | 2114423 | 6172 | NBS49K | 62 | 37 | 2 | 0 | 81 | 26 | 19 | 21 |
| 5. | 31* | 27345706 | 14757 | NBS49K | 45 | 44 | 2 | 2 | 98 | 40 | 10 | 17 |
| 6. | 25* | 505180 | 6132 | NBS49K | 31 | 62 | 3 | 0 | 100 | 45 | 8 | 13 |
| 7. | 25* | 3788327 | 5910 | NBS49K | 33 | 85 | 3 | 0 | 57 | 48 | 7 | 13 |



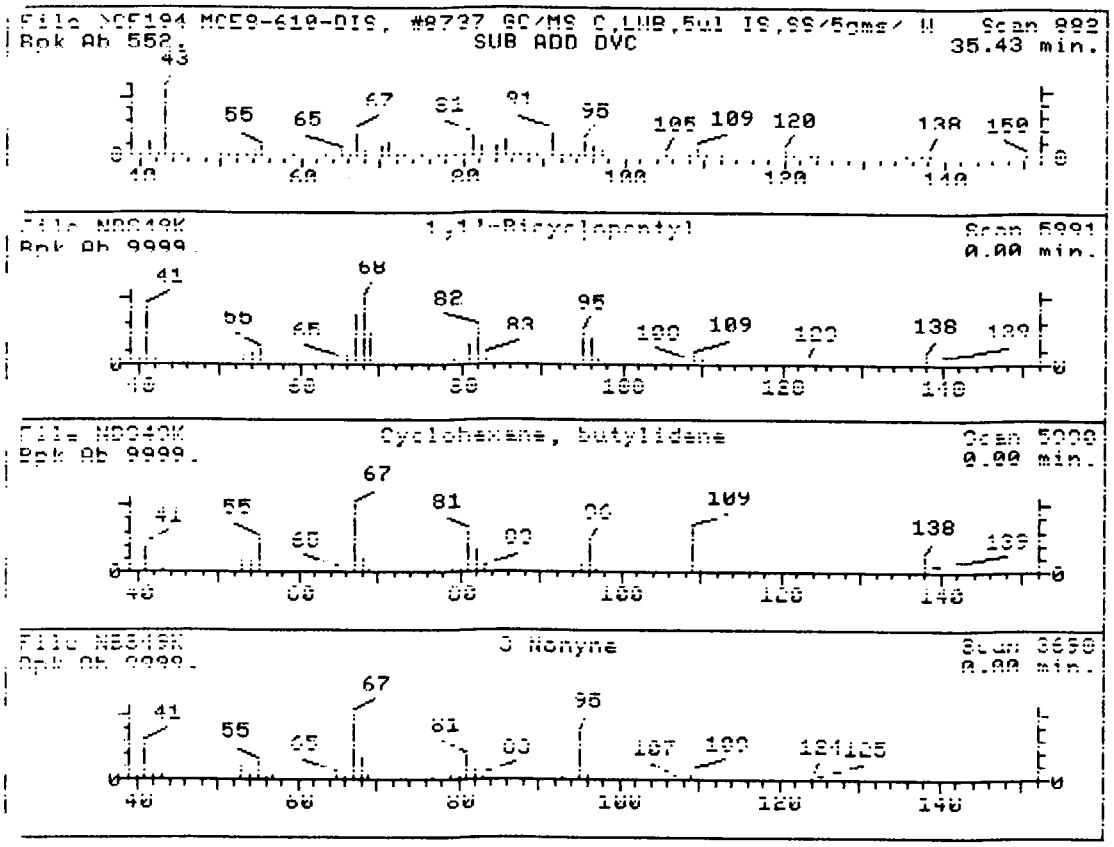

UNKNOWN #.8
AREA = 467375.0 TENTATIVE CONCENTRATION IS 950.00

| | | | |
|---|---|---|---|
| 1. | 2-Propanamine, N,N'-methanetetraylbis- | 126 | C7H14N2 |
| 2. | Cyclopentane, 1,1,3,4-tetramethyl-, cis- | 126 | C9H18 |
| 3. | Cyclopentane, (2-methylbutyl)- | 140 | C10H20 |
| 4. | 1-Hexene, 3,3,5-trimethyl- | 126 | C9H18 |
| 5. | Cyclohexane, 1,1,2,3-tetramethyl- | 140 | C10H20 |
| 6. | Cyanamide, dimethyl- | 70 | C3H6N2 |
| 7. | 1-Hexene, 2,5,5-trimethyl- | 126 | C9H18 |

Sample file: >CF194 Spectrum #: 862
Search speed: 1 Tilting option: S No. of ion ranges searched: 42

000139

| | Prob. | CAS # | CON # | ROOT | K | DK | #FLG | TILT | % | CON | C_I | R_IV |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. | 55* | 693130 | 11826 | NBS49K | 44 | 30 | 0 | 0 | 93 | 44 | 18 | 60 |
| 2. | 52* | 53907601 | 11840 | NBS49K | 28 | 80 | 3 | 0 | 68 | 17 | 20 | 13 |
| 3. | 52* | 53366384 | 11862 | NBS49K | 29 | 83 | 3 | 0 | 100 | 17 | 20 | 13 |
| 4. | 33* | 13427435 | 3954 | NBS49K | 35 | 58 | 2 | 0 | 100 | 32 | 12 | 16 |
| 5. | 31* | 6783922 | 4002 | NBS49K | 41 | 59 | 1 | 0 | 43 | 43 | 12 | 22 |
| 6. | 26* | 1467794 | 3798 | NBS49K | 28 | 55 | 2 | 0 | 100 | 44 | 8 | 14 |
| 7. | 25* | 62185562 | 3946 | NBS49K | 35 | 54 | 2 | 0 | 109 | 46 | 7 | 17 |



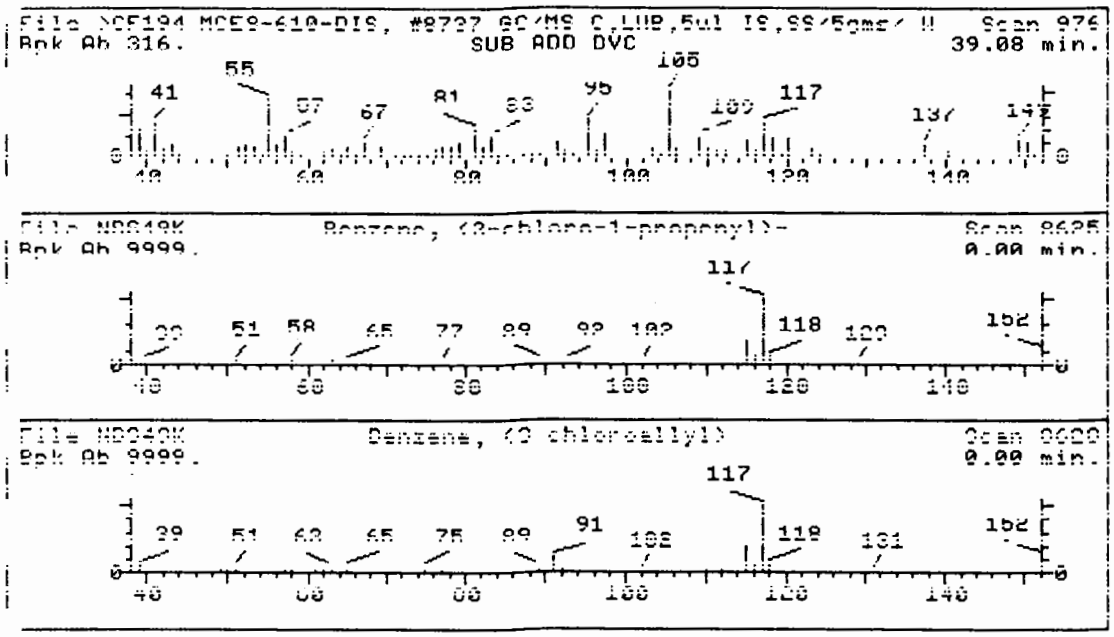

UNKNOWN #.9
AREA = 137281.0 TENTATIVE CONCENTRATION IS 280.00

| | | | |
|---|---|---|---|
| 1. | 1,1'-Bicyclopentyl | 138 | C10H18 |
| 2. | Cyclohexane, butylidene- | 138 | C10H18 |
| 3. | 3-Nonyne | 124 | C9H16 |
| 4. | 4,5-Nonadiene | 124 | C9H16 |
| 5. | 4-Decyne | 138 | C10H18 |
| 6. | 4,6-Decadiene | 138 | C10H18 |
| 7. | 3,4-Octadiene, 7-methyl- | 124 | C9H16 |

Sample file: >CF194 Spectrum #: 882
Search speed: 1 Tilting option: S No. of ion ranges searched: 51

000110

| | Prob. | CAS # | CON # | ROOT | K | DK | #FLG | TILT | % | CON | C_I | R_IV |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. | 36* | 1636391 | 3645 | NBS49K | 27 | 91 | 3 | 0 | 50 | 28 | 14 | 13 |
| 2. | 35* | 2272039 | 17231 | NBS49K | 53 | 40 | 1 | 0 | 26 | 47 | 11 | 39 |
| 3. | 35* | 20184898 | 3481 | NBS49K | 47 | 37 | 1 | 0 | 26 | 47 | 11 | 32 |
| 4. | 35* | 821749 | 8962 | NBS49K | 49 | 44 | 1 | 0 | 26 | 47 | 11 | 35 |
| 5. | 31* | 2384863 | 3495 | NBS49K | 38 | 57 | 2 | 0 | 38 | 37 | 10 | 17 |
| 6. | 30* | 55682650 | 17237 | NBS49K | 40 | 50 | 1 | 0 | 27 | 49 | 10 | 23 |
| 7. | 30 | 37050058 | 3485 | NBS49K | 54 | 42 | 2 | 0 | 35 | 37 | 10 | 16 |




UNKNOWN # 10

AREA = 293082.0 TENTATIVE CONCENTRATION IS 600.00

1. Benzene, (3-chloro-1-propenyl)- 152 C9H9Cl
2. Benzene, (3-chloroallyl)- 152 C9H9Cl

Sample file: >CF194 Spectrum #: 976

Search speed: 1 Tilting option: S No. of ion ranges searched: 51

| | Prob. | CAS # | CON # | ROOT | K | DK | #FLG | TILT | % | CON | C_I | R_IU |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. | 11* | 2687129 | 13224 | NBS49K | 23 | 70 | 1 | 0 | 51 | 62 | 2 | 14 |
| 2. | 11* | 6268377 | 13226 | NBS49K | 24 | 73 | 1 | 0 | 51 | 61 | 2 | 14 |

*Section c).*

# STANDARDS DATA

Initial Calibrations (form VI)
Continuing Calibrations (form VII)

6A

# VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: AMER.ENV.NTWK. Contract: N.A.
Lab Code: AENI Case No: N.A. SAS No: N.A. SDG No: N.A.
Instrument ID: HP5985-A Calibration Date(s):06/02/93 N.A.
Matrix: WATER Level: LOW Column: CAP

Min $\overline{RRF}$ for SPCC(#) = 0.300 (0.250 for Bromoform)
Max %RSD for CCC(*) = 30.0%

LAB FILE ID: RRF20 =>AF012 RRF50 =>AF013
RRF100=>AF014 RRF150=>AF015 RRF200=>AF016

| COMPOUND | | RRF20 | RRF50 | RRF100 | RRF150 | RRF200 | $\overline{RRF}$ | % RSD |
|---|---|---|---|---|---|---|---|---|
| Chloromethane | # | 1.467 | 1.447 | 1.428 | 1.497 | 1.548 | 1.477 | 3.2# |
| Bromomethane | | 1.610 | 1.583 | 1.526 | 1.441 | 1.423 | 1.517 | 5.5 |
| Vinyl_Chloride | * | 1.440 | 1.466 | 1.317 | 1.351 | 1.345 | 1.384 | 4.7* |
| Chloroethane | | 1.158 | 1.216 | 1.131 | 1.091 | 1.072 | 1.134 | 5.0 |
| Methylene_Chloride | | 2.047 | 1.936 | 1.899 | 2.005 | 1.846 | 1.947 | 4.1 |
| Acetone | | .379 | .401 | .389 | .378 | .382 | .386 | 2.5 |
| Carbon_Disulfide | | .918 | .838 | .840 | .902 | .839 | .867 | 4.6 |
| 1,1-Dichloroethene | * | 1.795 | 1.762 | 1.735 | 1.855 | 1.688 | 1.767 | 3.5* |
| 1,1-Dichloroethane | # | 3.497 | 3.372 | 3.269 | 3.543 | 3.208 | 3.378 | 4.2# |
| trans-1,2-Dichloroethene | | 1.892 | 1.869 | 1.852 | 2.006 | 1.839 | 1.892 | 3.5 |
| Chloroform | * | 3.081 | 2.981 | 2.873 | 3.127 | 2.828 | 2.978 | 4.3* |
| 1,2-Dichloroethane | | 1.654 | 1.624 | 1.593 | 1.689 | 1.572 | 1.626 | 2.9 |
| 2-Butanone | | .222 | .230 | .251 | .288 | .264 | .251 | 10.6 |
| 1,1,1-Trichloroethane | | .444 | .424 | .410 | .451 | .400 | .426 | 5.0 |
| Carbon_Tetrachloride | | .354 | .344 | .328 | .357 | .326 | .342 | 4.2 |
| Vinyl_Acetate | | 1.016 | .916 | .957 | .941 | .814 | .929 | 8.0 |
| Bromodichloromethane | | .574 | .573 | .561 | .610 | .577 | .579 | 3.2 |
| 1,2-Dichloropropane | * | .546 | .525 | .516 | .568 | .507 | .532 | 4.6* |
| cis-1,3-Dichloropropene | | .598 | .604 | .572 | .624 | .571 | .594 | 3.8 |
| Trichloroethene | | .453 | .455 | .436 | .481 | .436 | .452 | 4.1 |
| Dibromochloromethane | | .544 | .570 | .513 | .569 | .517 | .543 | 5.0 |
| 1,1,2-Trichloroethane | | .463 | .440 | .429 | .463 | .424 | .444 | 4.2 |
| Benzene | | 1.398 | 1.329 | 1.288 | 1.361 | 1.227 | 1.320 | 5.0 |
| trans-1,3-Dichloropropene | | .738 | .731 | .702 | .749 | .682 | .720 | 3.8 |
| 2-Chloroethylvinylether | | .075 | 0.000 | .130 | .132 | .139 | .119 | 24.9 |
| Bromoform | # | .446 | .460 | .437 | .462 | .423 | .446 | 3.6# |
| 4-Methyl-2-Pentanone | | 1.740 | 1.525 | 1.888 | 1.902 | 1.872 | 1.785 | 8.9 |
| 2-Hexanone | | 1.069 | 1.137 | 1.186 | 1.213 | 1.114 | 1.144 | 5.0 |
| Tetrachloroethene | | 1.191 | 1.127 | 1.118 | 1.158 | 1.026 | 1.124 | 5.5 |
| 1,1,2,2-Tetrachloroethane | # | 2.404 | 2.466 | 2.502 | 2.601 | 2.375 | 2.470 | 3.6# |
| Toluene | * | 2.635 | 2.365 | 2.384 | 2.482 | 2.245 | 2.422 | 6.0* |
| Chlorobenzene | # | 2.932 | 2.915 | 2.796 | 2.899 | 2.621 | 2.833 | 4.6# |
| Ethylbenzene | * | 5.305 | 4.623 | 4.967 | 5.006 | 4.317 | 4.844 | 7.9* |
| Styrene | | 3.383 | 3.065 | 3.098 | 3.209 | 2.894 | 3.130 | 5.8 |
| m + p-Xylenes | | 1.867 | 1.712 | 1.590 | 1.599 | 1.493 | 1.652 | 8.7 |
| o-Xylene | | 1.839 | 1.720 | 1.720 | 1.763 | 1.585 | 1.725 | 5.4 |
| TOLUENE-d8_(SURR) | | 4.108 | 3.829 | 3.927 | 3.583 | 3.568 | 3.803 | 6.1 |
| BROMOFLUOROBENZENE_(SURR) | | 1.985 | 1.759 | 1.800 | 1.695 | 1.625 | 1.773 | 7.7 |
| 1,2-DICHLOROETHANE-d4_(SURR | | 1.597 | 1.445 | 1.490 | 1.431 | 1.430 | 1.479 | 4.8 |

6A

# VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: AMER.ENV.NTWK. Contract: N.A.

Lab Code: AENI Case No: N.A. SAS No: N.A. SDG No: N.A.

Instrument ID: HP5970-C Calibration Date(s):06/04/93 N.A.

Matrix: SOIL Level: LOW Column: PACK

Min $\overline{RRF}$ for SPCC(#) = 0.3 (0.25 for Bromoform) Max %RSD for CCC(*) = 30%

LAB FILE ID: RRF20 =>CF077 RRF50 =>CF078
RRF100=>CF079 RRF150=>CF080 RRF200=>CF081

| COMPOUND | RRF20 | RRF50 | RRF100 | RRF150 | RRF200 | $\overline{RRF}$ | % RSD |
|---|---|---|---|---|---|---|---|
| Chloromethane # | 1.763 | 1.737 | 1.718 | 1.699 | 1.687 | 1.721 | 1.8# |
| Bromomethane | 1.349 | 1.261 | 1.274 | 1.271 | 1.285 | 1.288 | 2.7 |
| Vinyl_Chloride * | 1.314 | 1.368 | 1.100 | 1.069 | 1.066 | 1.183 | 12.3* |
| Chloroethane | .997 | 1.015 | 1.016 | .898 | .655 | .916 | 16.8 |
| Methylene_Chloride | 3.033 | 2.165 | 2.012 | 1.857 | 1.822 | 2.178 | 22.8 |
| Acetone | 2.302 | 1.583 | 1.257 | 1.240 | 1.088 | 1.494 | 32.5 |
| Carbon_Disulfide | 1.173 | .931 | .798 | .739 | .704 | .869 | 22.0 |
| 1,1-Dichloroethene * | 1.389 | 1.544 | 1.516 | 1.474 | 1.442 | 1.473 | 4.1* |
| 1,1-Dichloroethane # | 3.352 | 3.719 | 3.607 | 3.537 | 3.502 | 3.543 | 3.8# |
| 1,2-Dichloroethene_(Total) | 1.521 | 1.667 | 1.649 | 1.593 | 1.574 | 1.601 | 3.7 |
| Chloroform * | 3.308 | 3.634 | 3.564 | 3.525 | 3.463 | 3.499 | 3.5* |
| 1,2-Dichloroethane | 2.211 | 2.484 | 2.421 | 2.400 | 2.386 | 2.380 | 4.3 |
| 2-Butanone | .312 | .356 | .345 | .348 | .341 | .340 | 4.9 |
| 1,1,1-Trichloroethane | .602 | .674 | .673 | .679 | .671 | .660 | 4.9 |
| Carbon_Tetrachloride | .480 | .551 | .562 | .560 | .558 | .542 | 6.4 |
| Vinyl_Acetate | .758 | .939 | .975 | .823 | .843 | .867 | 10.2 |
| Bromodichloromethane | .799 | .915 | .873 | .923 | .933 | .888 | 6.2 |
| 1,2-Dichloropropane * | .592 | .661 | .648 | .662 | .664 | .646 | 4.7* |
| cis-1,3-Dichloropropene | .590 | .652 | .607 | .659 | .653 | .632 | 5.0 |
| Trichloroethene | .486 | .542 | .519 | .532 | .543 | .525 | 4.5 |
| Dibromochloromethane | .669 | .791 | .753 | .845 | .852 | .782 | 9.6 |
| 1,1,2-Trichloroethane | .517 | .536 | .508 | .543 | .552 | .531 | 3.4 |
| Benzene | 1.209 | 1.306 | 1.275 | 1.282 | 1.280 | 1.270 | 2.9 |
| trans-1,3-Dichloropropene | .680 | .787 | .749 | .791 | .786 | .759 | 6.2 |
| 2-Choroethylvinylether | .082 | .124 | .111 | .132 | .141 | .118 | 19.3 |
| Bromoform # | .459 | .555 | .533 | .625 | .632 | .561 | 12.7# |
| 4-Methyl-2-pentanone | 2.193 | 2.603 | 2.705 | 2.516 | 2.441 | 2.492 | 7.8 |
| 2-Hexanone | 1.797 | 2.069 | 2.117 | 1.966 | 1.884 | 1.967 | 6.7 |
| Tetrachloroethene | 1.297 | .779 | .806 | .757 | .787 | .885 | 26.1 |
| 1,1,2,2-Tetrachloroethane | 1.840 | 2.046 | 2.059 | 2.055 | 2.039 | 2.008 | 4.7 |
| Toluene * | 1.291 | 1.456 | 1.493 | 1.369 | 1.369 | 1.396 | 5.7* |
| Chlorobenzene # | 1.667 | 1.824 | 1.773 | 1.789 | 1.804 | 1.771 | 3.5# |
| Ethylbenzene * | .732 | .808 | .808 | .771 | .793 | .782 | 4.1* |
| Styrene | 1.602 | 1.761 | 1.633 | 1.681 | 1.696 | 1.675 | 3.7 |
| Xylene_(Total) | .906 | .996 | .987 | .948 | .960 | .959 | 3.7 |
| TOLUENE-d8_(SURR) | 1.992 | 2.153 | 2.102 | 2.020 | 1.985 | 2.050 | 3.6 |
| BROMOFLUOROBENZENE_(SURR) | 1.532 | 1.566 | 1.370 | 1.479 | 1.457 | 1.481 | 5.1 |
| 1,2-DICHLOROETHANE-d4_(SURR | 2.095 | 2.226 | 2.081 | 2.102 | 2.082 | 2.117 | 2.9 |

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: AMER.ENV.NTWK. Contract: WEST-0103

Lab Code: AENI Case No: NWS-EARL SAS No: N.A. SDG No: N.A.

Instrument ID: HP5985-A Calibration Date: 6/17/93 Time: 16:32

Lab File ID: >AF267 Init. Calib. Date(s): 06/03/93 N.A.

Matrix: WATER Level: LOW Column: CAP

Min RRF50 for SPCC(#) = 0.300 (0.250 for Bromoform)

Max %D for CCC(*) = 25.0%

| COMPOUND | | $\overline{RRF}$ | RRF50 | %D | |
|---|---|---|---|---|---|
| Chloromethane | # | 1.477 | .990 | 33.0 | # |
| Bromomethane | | 1.517 | 1.445 | 4.7 | |
| Vinyl Chloride | * | 1.384 | 1.138 | 17.8 | * |
| Chloroethane | | 1.134 | 1.119 | 1.3 | |
| Methylene Chloride | | 1.947 | 2.291 | 17.7 | |
| Acetone | | .386 | .625 | 61.9 | |
| Carbon Disulfide | | .867 | 1.019 | 17.5 | |
| 1,1-Dichloroethene | * | 1.767 | 1.933 | 9.4 | * |
| 1,1-Dichloroethane | # | 3.378 | 3.750 | 11.0 | # |
| trans-1,2-Dichloroethene | | 1.892 | 2.106 | 11.3 | |
| Chloroform | * | 2.978 | 3.563 | 19.6 | * |
| 1,2-Dichloroethane | | 1.626 | 1.941 | 19.3 | |
| 2-Butanone | | .251 | .281 | 11.9 | |
| 1,1,1-Trichloroethane | | .426 | .509 | 19.6 | |
| Carbon Tetrachloride | | .342 | .432 | 26.5 | |
| Vinyl Acetate | | .929 | .966 | 4.0 | |
| Bromodichloromethane | | .579 | .656 | 13.3 | |
| 1,2-Dichloropropane | * | .532 | .621 | 16.6 | * |
| cis-1,3-Dichloropropene | | .594 | .716 | 20.5 | |
| Trichloroethene | | .452 | .532 | 17.7 | |
| Dibromochloromethane | | .543 | .647 | 19.2 | |
| 1,1,2-Trichloroethane | | .444 | .501 | 12.9 | |
| Benzene | | 1.320 | 1.413 | 7.0 | |
| trans-1,3-Dichloropropene | | .720 | .850 | 18.1 | |
| 2-Chloroethylvinylether | | .119 | .158 | 32.6 | |
| Bromoform | # | .446 | .522 | 17.2 | # |
| 4-Methyl-2-Pentanone | | 1.785 | 1.640 | 8.2 | |
| 2-Hexanone | | 1.144 | 1.028 | 10.1 | |
| Tetrachloroethene | | 1.124 | 1.125 | .1 | |
| 1,1,2,2-Tetrachloroethane | # | 2.470 | 2.539 | 2.8 | # |
| Toluene | * | 2.422 | 2.415 | .3 | * |
| Chlorobenzene | # | 2.833 | 2.830 | .1 | # |
| Ethylbenzene | * | 4.844 | 4.702 | 2.9 | * |
| Styrene | | 3.130 | 3.251 | 3.9 | |
| m + p-Xylenes | | 1.652 | 1.730 | 4.7 | |
| o-Xylene | | 1.725 | 1.809 | 4.8 | |
| TOLUENE-d8 (SURR) | | 3.803 | 3.534 | 7.1 | |
| BROMOFLUOROBENZENE (SURR) | | 1.773 | 1.819 | 2.6 | |
| 1,2-DICHLOROETHANE-d4 (SURR | | 1.479 | 1.505 | 1.8 | |

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: AMER.ENV.NTWK. Contract: WEST-0103

Lab Code: AENI Case No: NWS-EARL SAS No: N.A. SDG No: N.A.

Instrument ID: HP5985-A Calibration Date: 6/18/93 Time: 17:04

Lab File ID: >AF294 Init. Calib. Date(s): 06/02/93 N.A.

Matrix: SOIL Level: MED Column: CAP

Min RRF50 for SPCC(#) = 0.300 (0.250 for Bromoform)

Max %D for CCC(*) = 25.0%

| COMPOUND | | $\overline{RRF}$ | RRF50 | %D | |
|---|---|---|---|---|---|
| Chloromethane | # | 1.477 | .973 | 34.2 | # |
| Bromomethane | | 1.517 | 1.406 | 7.3 | |
| Vinyl Chloride | * | 1.384 | 1.132 | 18.2 | * |
| Chloroethane | | 1.134 | 1.104 | 2.6 | |
| Methylene Chloride | | 1.947 | 2.333 | 19.8 | |
| Acetone | | .386 | .488 | 26.4 | |
| Carbon Disulfide | | .867 | .902 | 4.0 | |
| 1,1-Dichloroethene | * | 1.767 | 2.003 | 13.4 | * |
| 1,1-Dichloroethane | # | 3.378 | 3.843 | 13.8 | # |
| trans-1,2-Dichloroethene | | 1.892 | 2.154 | 13.9 | |
| Chloroform | * | 2.978 | 3.677 | 23.5 | * |
| 1,2-Dichloroethane | | 1.626 | 1.992 | 22.5 | |
| 2-Butanone | | .251 | .298 | 18.8 | |
| 1,1,1-Trichloroethane | | .426 | .518 | 21.7 | |
| Carbon Tetrachloride | | .342 | .439 | 28.5 | |
| Vinyl Acetate | | .929 | .964 | 3.8 | |
| Bromodichloromethane | | .579 | .722 | 24.7 | |
| 1,2-Dichloropropane | * | .532 | .619 | 16.3 | * |
| cis-1,3-Dichloropropene | | .594 | .736 | 24.0 | |
| Trichloroethene | | .452 | .544 | 20.3 | |
| Dibromochloromethane | | .543 | .653 | 20.3 | |
| 1,1,2-Trichloroethane | | .444 | .534 | 20.2 | |
| Benzene | | 1.320 | 1.499 | 13.5 | |
| trans-1,3-Dichloropropene | | .720 | .876 | 21.6 | |
| 2-Chloroethylvinylether | | .119 | .158 | 32.3 | |
| Bromoform | # | .446 | .531 | 19.2 | # |
| 4-Methyl-2-Pentanone | | 1.785 | 1.664 | 6.8 | |
| 2-Hexanone | | 1.144 | 1.068 | 6.6 | |
| Tetrachloroethene | | 1.124 | 1.144 | 1.8 | |
| 1,1,2,2-Tetrachloroethane | # | 2.470 | 2.575 | 4.3 | # |
| Toluene | * | 2.422 | 2.505 | 3.4 | * |
| Chlorobenzene | # | 2.833 | 2.906 | 2.6 | # |
| Ethylbenzene | * | 4.844 | 5.555 | 14.7 | * |
| Styrene | | 3.130 | 3.439 | 9.9 | |
| m + p-Xylenes | | 1.652 | 1.806 | 9.3 | |
| o-Xylene | | 1.725 | 1.883 | 9.1 | |
| TOLUENE-d8 (SURR) | | 3.803 | 3.391 | 10.8 | |
| BROMOFLUOROBENZENE (SURR) | | 1.773 | 1.738 | 2.0 | |
| 1,2-DICHLOROETHANE-d4 (SURR | | 1.479 | 1.515 | 2.4 | |

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: AMER.ENV.NTWK. Contract: WEST-0103

Lab Code: AENI Case No: NWS-EARL SAS No: N.A. SDG No: N.A.

Instrument ID: HP5985-A Calibration Date: 6/22/93 Time: 13:52

Lab File ID: >AF328 Init. Calib. Date(s): 06/02/93 N.A.

Matrix: SOIL Level: MED Column: CAP

Min RRF50 for SPCC(#) = 0.300 (0.250 for Bromoform)

Max %D for CCC(*) = 25.0%

| COMPOUND | | $\overline{RRF}$ | RRF50 | %D | |
|---|---|---|---|---|---|
| Chloromethane | # | 1.477 | 1.261 | 14.6 | # |
| Bromomethane | | 1.517 | 1.909 | 25.9 | |
| Vinyl Chloride | * | 1.384 | 1.471 | 6.3 | * |
| Chloroethane | | 1.134 | 1.511 | 33.3 | |
| Methylene Chloride | | 1.947 | 2.375 | 22.0 | |
| Acetone | | .386 | .490 | 27.1 | |
| Carbon Disulfide | | .867 | .880 | 1.4 | |
| 1,1-Dichloroethene | * | 1.767 | 2.077 | 17.6 | * |
| 1,1-Dichloroethane | # | 3.378 | 4.139 | 22.5 | # |
| trans-1,2-Dichloroethene | | 1.892 | 2.263 | 19.6 | |
| Chloroform | * | 2.978 | 3.710 | 24.6 | * |
| 1,2-Dichloroethane | | 1.626 | 2.126 | 30.7 | |
| 2-Butanone | | .251 | .278 | 10.8 | |
| 1,1,1-Trichloroethane | | .426 | .557 | 30.8 | |
| Carbon Tetrachloride | | .342 | .463 | 35.5 | |
| Vinyl Acetate | | .929 | 1.013 | 9.0 | |
| Bromodichloromethane | | .579 | .764 | 31.9 | |
| 1,2-Dichloropropane | * | .532 | .657 | 23.3 | * |
| cis-1,3-Dichloropropene | | .594 | .776 | 30.6 | |
| Trichloroethene | | .452 | .567 | 25.4 | |
| Dibromochloromethane | | .543 | .681 | 25.5 | |
| 1,1,2-Trichloroethane | | .444 | .559 | 26.0 | |
| Benzene | | 1.320 | 1.536 | 16.3 | |
| trans-1,3-Dichloropropene | | .720 | .934 | 29.7 | |
| 2-Chloroethylvinylether | | .119 | .164 | 37.7 | |
| Bromoform | # | .446 | .579 | 29.8 | # |
| 4-Methyl-2-Pentanone | | 1.785 | 1.467 | 17.8 | |
| 2-Hexanone | | 1.144 | .901 | 21.3 | |
| Tetrachloroethene | | 1.124 | 1.155 | 2.7 | |
| 1,1,2,2-Tetrachloroethane | # | 2.470 | 2.532 | 2.5 | # |
| Toluene | * | 2.422 | 2.456 | 1.4 | * |
| Chlorobenzene | # | 2.833 | 2.961 | 4.5 | # |
| Ethylbenzene | * | 4.844 | 4.851 | .2 | * |
| Styrene | | 3.130 | 3.299 | 5.4 | |
| m + p-Xylenes | | 1.652 | 1.829 | 10.7 | |
| o-Xylene | | 1.725 | 1.909 | 10.7 | |
| TOLUENE-d8 (SURR) | | 3.803 | 3.334 | 12.3 | |
| BROMOFLUOROBENZENE (SURR) | | 1.773 | 1.838 | 3.7 | |
| 1,2-DICHLOROETHANE-d4 (SURR | | 1.479 | 1.540 | 4.1 | |

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: AMER.ENV.NTWK. Contract: WEST-0103

Lab Code: AENI Case No: NWS-EARL SAS No: N.A. SDG No: N.A.

Instrument ID: HP5970-C Calibration Date: 6/17/93 10:42

Lab File ID: >CF189 Init. Calib. Date(s): 06/04/93 N.A.

Matrix: SOIL Level: LOW Column: PACK

Min RRF50 for SPCC(#) = 0.300 (0.250 for Bromoform)
Max %D for CCC(*) = 25.0%

| COMPOUND | | $\overline{RRF}$ | RRF50 | %D | |
|---|---|---|---|---|---|
| Chloromethane | # | 1.721 | 1.386 | 19.4 | # |
| Bromomethane | | 1.288 | 1.264 | 1.9 | |
| Vinyl Chloride | * | 1.183 | 1.208 | 2.1 | * |
| Chloroethane | | .916 | 1.024 | 11.8 | |
| Methylene Chloride | | 2.178 | 2.143 | 1.6 | |
| Acetone | | 1.494 | 1.224 | 18.0 | |
| Carbon Disulfide | | .869 | .746 | 14.2 | |
| 1,1-Dichloroethene | * | 1.473 | 1.623 | 10.2 | * |
| 1,1-Dichloroethane | # | 3.543 | 3.769 | 6.4 | # |
| 1,2-Dichloroethene (Total) | | 1.601 | 1.785 | 11.5 | |
| Chloroform | * | 3.499 | 3.851 | 10.1 | * |
| 1,2-Dichloroethane | | 2.380 | 2.536 | 6.6 | |
| 2-Butanone | | .340 | .079 | 76.7 | |
| 1,1,1-Trichloroethane | | .660 | .704 | 6.7 | |
| Carbon Tetrachloride | | .542 | .591 | 9.1 | |
| Vinyl Acetate | | .867 | .493 | 43.2 | |
| Bromodichloromethane | | .888 | .920 | 3.6 | |
| 1,2-Dichloropropane | * | .646 | .626 | 3.1 | * |
| cis-1,3-Dichloropropene | | .632 | .536 | 15.2 | |
| Trichloroethene | | .525 | .574 | 9.4 | |
| Dibromochloromethane | | .782 | .780 | .2 | |
| 1,1,2-Trichloroethane | | .531 | .529 | .5 | |
| Benzene | | 1.270 | 1.311 | 3.2 | |
| trans-1,3-Dichloropropene | | .759 | .745 | 1.8 | |
| 2-Choroethylvinylether | | 0.118 | 0.034 | 71.4 | |
| Bromoform | # | .561 | .532 | 5.2 | # |
| 4-Methyl-2-pentanone | | 2.492 | 1.680 | 32.6 | |
| 2-Hexanone | | 1.967 | .977 | 50.3 | |
| Tetrachloroethene | | .885 | .772 | 12.8 | |
| 1,1,2,2-Tetrachloroethane | | 2.008 | 1.929 | 3.9 | |
| Toluene | * | 1.396 | 1.320 | 5.4 | * |
| Chlorobenzene | # | 1.771 | 1.761 | .6 | # |
| Ethylbenzene | * | .782 | .779 | .4 | * |
| Styrene | | 1.675 | 1.689 | .8 | |
| Xylene (Total) | | .959 | .973 | 1.4 | |
| TOLUENE-d8 (SURR) | | 2.050 | 1.779 | 13.2 | |
| BROMOFLUOROBENZENE (SURR) | | 1.481 | 1.471 | .6 | |
| 1,2-DICHLOROETHANE-d4 (SURR | | 2.117 | 2.055 | 2.9 | |

*Section d).*

# RAW QC DATA

Method Blank Data

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA / CLIENT ID

0617VBLK A1

Lab Name: AMER.ENV.NTWK. Contract: WEST-0103

Lab Code: AENI Case No: NWS-EARLE SAS No: N.A. SDG No: N.A.

Matrix: WATER Lab Sample ID: 0617VBLK A1

Sample (wt/vol): 5 mL Lab File ID: >AF268

Level: LOW Date Received: N.A.

% Moisture: not dec. N.A. Date Analyzed: 6/17/93

Column: CAP Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 10. | U |
| 74-83-9 | Bromomethane | 10. | U |
| 75-01-4 | Vinyl Chloride | 10. | U |
| 75-00-3 | Chloroethane | 10. | U |
| 75-09-2 | Methylene Chloride | 2. | J |
| 67-64-1 | Acetone | 5. | J |
| 75-15-0 | Carbon Disulfide | 3. | J |
| 75-35-4 | 1,1-Dichloroethene | 5. | U |
| 75-34-3 | 1,1-Dichloroethane | 5. | U |
| 156-60-5 | trans-1,2-Dichloroethene | 5. | U |
| 67-66-3 | Chloroform | 5. | U |
| 107-02-2 | 1,2-Dichloroethane | 5. | U |
| 78-93-3 | 2-Butanone | 100. | U |
| 71-55-6 | 1,1,1-Trichloroethane | 5. | U |
| 56-23-5 | Carbon Tetrachloride | 5. | U |
| 108-05-4 | Vinyl Acetate | 50. | U |
| 75-27-4 | Bromodichloromethane | 5. | U |
| 78-87-5 | 1,2-Dichloropropane | 5. | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 5. | U |
| 79-01-6 | Trichloroethene | 5. | U |
| 124-48-1 | Dibromochloromethane | 5. | U |
| 79-00-5 | 1,1,2-Trichloroethane | 5. | U |
| 71-43-2 | Benzene | 5. | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 5. | U |
| 110-75-8 | 2-Chloroethylvinylether | 10. | U |
| 75-25-2 | Bromoform | 5. | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 50. | U |
| 591-78-6 | 2-Hexanone | 50. | U |
| 127-18-4 | Tetrachloroethene | 5. | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 5. | U |
| 108-88-3 | Toluene | 5. | U |
| 108-90-7 | Chlorobenzene | 5. | U |
| 100-41-4 | Ethylbenzene | 5. | U |
| 100-42-5 | Styrene | 5. | U |
| 133-02-7 | m + p-Xylenes | 5. | U |
| 95-47-6 | o-Xylene | 5. | U |

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

0617VBLK A1

Lab Name: AMER.ENV.NTWK. Contract: WEST-0103

Lab Code: AENI Case No: NWS-EARL SAS No: N.A. SDG No: N.A.

Matrix: WATER Lab Sample ID: 0617VBLK A1

Sample wt/vol: 5 mL Lab File ID: >AF268

Level: LOW Date Received: N.A.

% Moisture: not dec. N.A. Date Analyzed: 6/17/93

Column: CAP Dilution Factor: 1.0

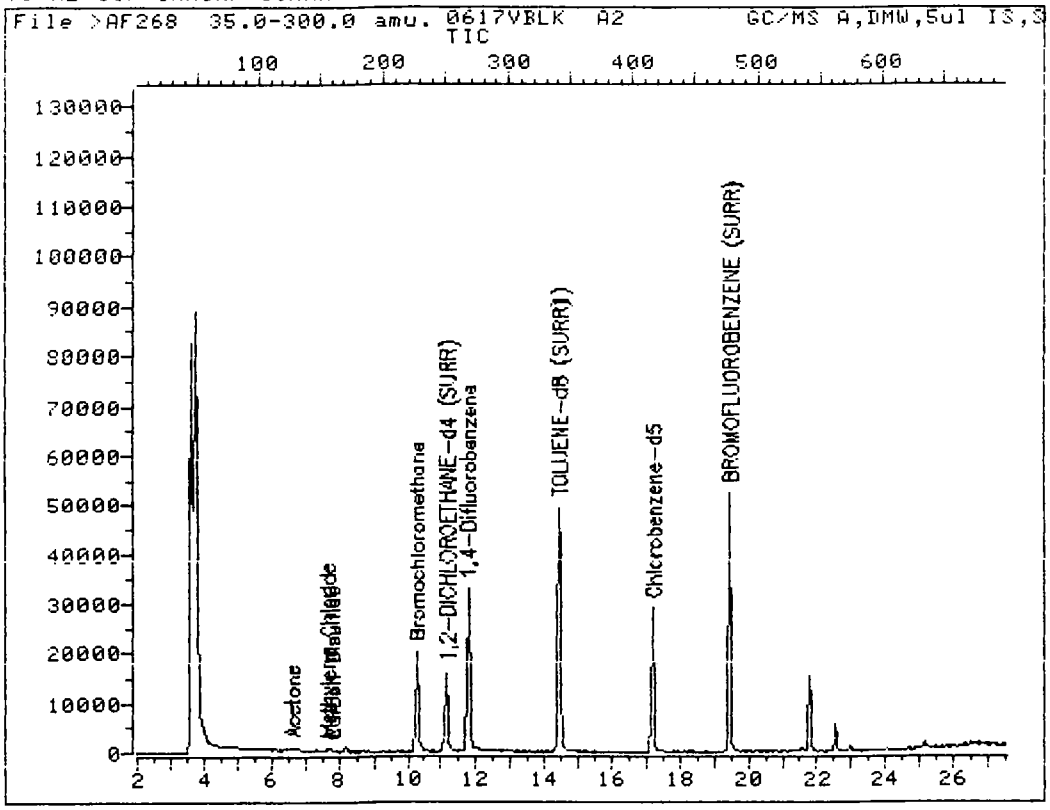
Number TICs found: 4

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|---|
| 1. | | Unknown | 3.60 | 190. | J |
| 2. | | Unknown | 3.75 | 250. | J |
| 3. | 439 | 1,4-Dichlorobenzene d-4 | 21.78 | 21. | J |
| 4. | 439 | 1,4-Dichlorobenzene d-4 | 22.55 | 8. | J |
| 5. | | | | | |
| 6. | | | | | |
| 7. | | | | | |
| 8. | | | | | |
| 9. | | | | | |
| 10. | | | | | |
| 11. | | | | | |
| 12. | | | | | |
| 13. | | | | | |
| 14. | | | | | |
| 15. | | | | | |
| 16. | | | | | |
| 17. | | | | | |
| 18. | | | | | |
| 19. | | | | | |
| 20. | | | | | |
| 21. | | | | | |
| 22. | | | | | |
| 23. | | | | | |
| 24. | | | | | |
| 25. | | | | | |
| 26. | | | | | |
| 27. | | | | | |
| 28. | | | | | |
| 29. | | | | | |
| 30. | | | | | |

NR = Not Reviewed

TOTAL ION CHROMATOGRAM




Data File: >AF268::C2 Quant Output File: ^AF268::OU
Name: 0617VBLK A2
Misc: GC/MS A,DMW,5ul IS,SS/5mls

Id File: IDVAFD::ID
Title: HSL VOLATILES
Last Calibration: 930617 17:36

Operator ID: ZIPPY
Quant Time: 930617 19:47
Injected at: 930617 19:19

QUANT REPORT

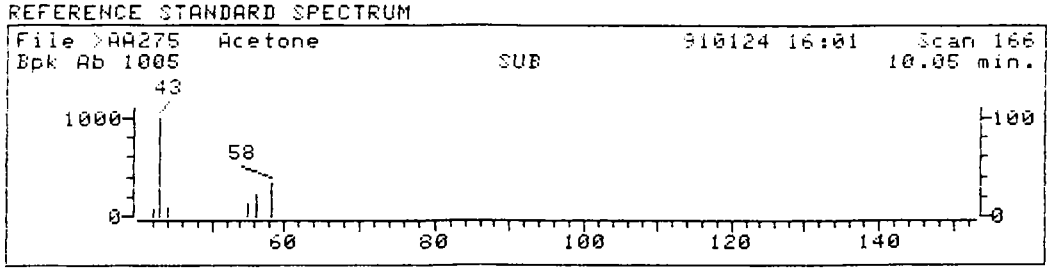
Operator ID: ZIPPY  Quant Rev: 6  Quant Time: 930617 19:47
Output File: ^AF268::OU  Injected at: 930617 19:19
Data File: >AF268::C2  Dilution Factor: 1.00000
Name: 0617VBLK A2
Misc: GC/MS A,DMW,5ul IS,SS/5mls

ID File: IDVAFD::ID
Title: HSL VOLATILES
Last Calibration: 930617 17:36

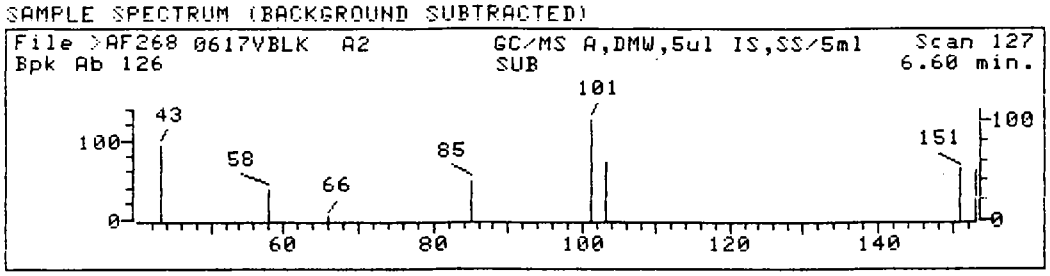
| | Compound | Q ion | Scan# | Area | Conc | Units | q |
|---|---|---|---|---|---|---|---|
| 1) | *Bromochloromethane | 128.0 | 227 | 20328 | 50.00 | ng/mL | 64 |
| 7) | Acetone | 43.0 | 127 | 1151 | 4.53 | ng/mL | 80 |
| 11) | Methylene Chloride | 84.0 | 156 | 1413 | 1.52 | ng/mL | 40 |
| 12) | Carbon Disulfide | 76.0 | 160 | 1138 | 2.75 | ng/mL | 100 |
| 18) | 1,2-DICHLOROETHANE-d4 (SURR) | 65.0 | 252 | 29294 | 47.87 | ng/mL | 100 |
| 20) | *1,4-Difluorobenzene | 114.0 | 268 | 90803 | 50.00 | ng/mL | 99 |
| 30) | TOLUENE-d8 (SURR1) | 98.0 | 341 | 121208 | 49.70 | ng/mL | 93 |
| 35) | *Chlorobenzene-d5 | 82.0 | 417 | 34580 | 50.00 | ng/mL | 95 |
| 46) | BROMOFLUOROBENZENE (SURR) | 95.0 | 479 | 61673 | 49.04 | ng/mL | 82 |
| 50) | TOLUENE-d8 (SURR) | 98.0 | 341 | 121208 | 49.59 | ng/mL | 93 |

* Compound is ISTD

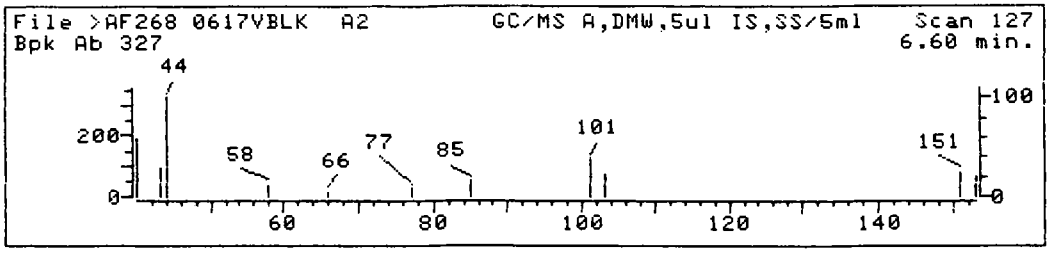
REFERENCE STANDARD SPECTRUM




SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



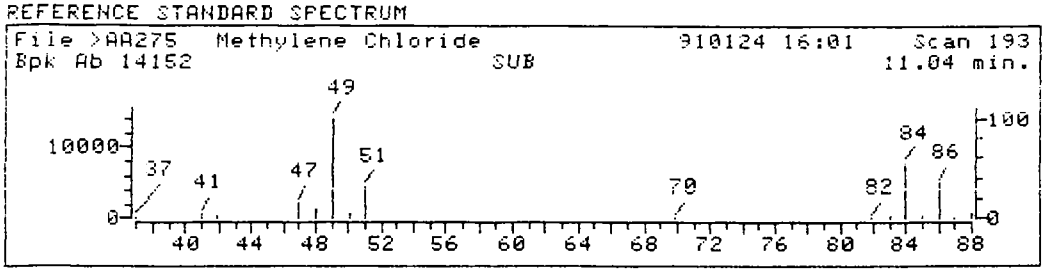

SAMPLE SPECTRUM (UNALTERED)



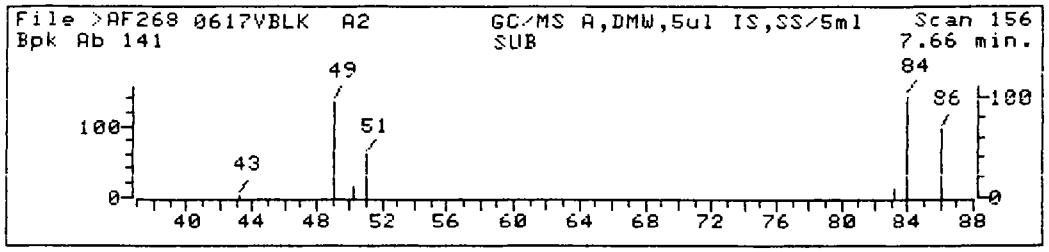

Data File: >AF268::C2 Quant Output File: ^AF268::OU
Name: 0617VBLK A2
Misc: GC/MS A,DMW,5ul IS,SS/5mls
Quant Time: 930617 19:47 Quant ID File: IDVAFD::ID
Injected at: 930617 19:19 Last Calibration: 930617 17:36

Compound No: 7
Compound Name: Acetone
Scan Number: 127
Retention Time: 6.60 min.
Quant Ion: 43.0
Area: 1151
Concentration: 4.53 ng/mL
q-value: 80

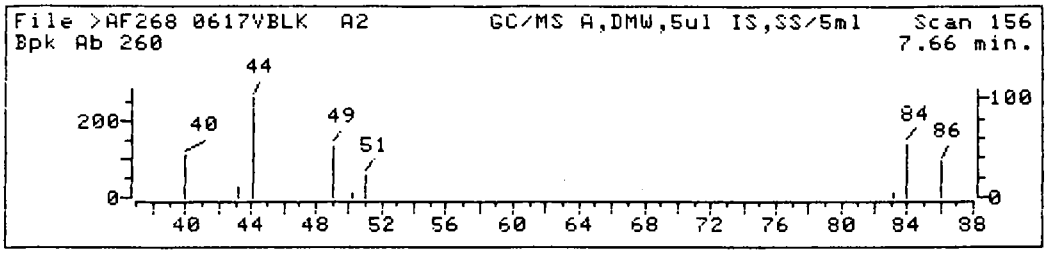
REFERENCE STANDARD SPECTRUM




SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



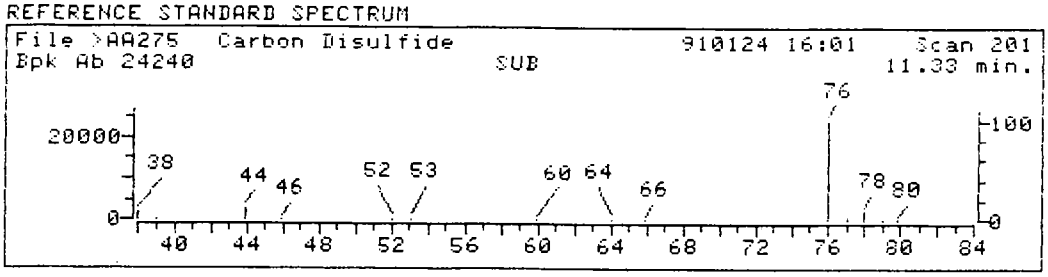

SAMPLE SPECTRUM (UNALTERED)



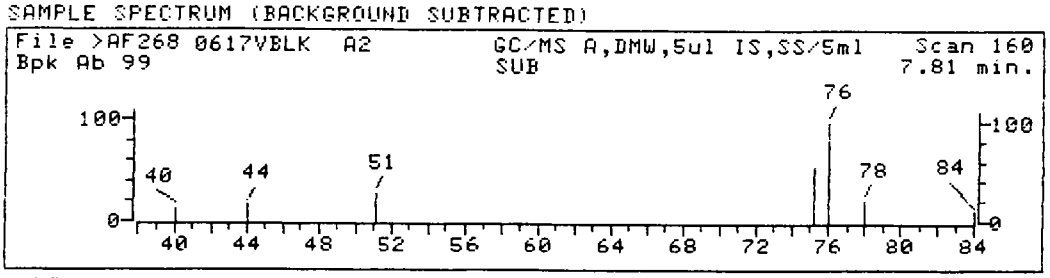

Data File: >AF268::C2 Quant Output File: ^AF268::OU
Name: 0617VBLK A2
Misc: GC/MS A,DMW,5ul IS,SS/5mls
Quant Time: 930617 19:47 Quant ID File: IDVAFD::ID
Injected at: 930617 19:19 Last Calibration: 930617 17:36

Compound No: 11
Compound Name: Methylene Chloride
Scan Number: 156
Retention Time: 7.66 min.
Quant Ion: 84.0
Area: 1413
Concentration: 1.52 ng/mL
q-value: 40

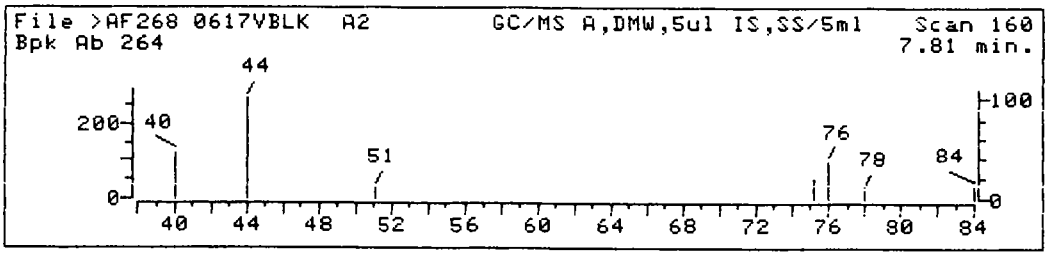
REFERENCE STANDARD SPECTRUM




SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)




SAMPLE SPECTRUM (UNALTERED)




Data File: >AF268::C2 Quant Output File: ^AF268::OU
Name: 0617VBLK A2
Misc: GC/MS A,DMW,5ul IS,SS/5mls
Quant Time: 930617 19:47 Quant ID File: IDVAFD::ID
Injected at: 930617 19:19 Last Calibration: 930617 17:36

Compound No: 12
Compound Name: Carbon Disulfide
Scan Number: 160
Retention Time: 7.81 min.
Quant Ion: 76.0
Area: 1138
Concentration: 2.75 ng/mL
q-value: 100

MS data file header from : >AF268

Sample: 0617VBLK A2 Operator: ZIPPY MS 6/17/93 19:19
Misc : GC/MS A,DMW,5ul IS,SS/5mls
Sys. #: 1 MS model: 87 SW/HW rev.: IA ALS # : 0
Method file: HE8501 Tuning file: MT8501 No. of extra records: 2
Source temp.: 200 Analyzer temp.: 0 Transfer line temp. : 0

| | | | | | |
|---|---|---|---|---|---|
| Chromatographic temperatures : | 0. | 0. | 0. | 0. | 0. |
| Chromatographic times, min. : | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Chromatographic rate, deg/min: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

>AF268 0617VBLK A2 GC/MS A,DMW,5ul IS,SS/5mls
35.01 300.0 CLP ADC TIC
Upslope: .20 Area Reject: 12976. Max Peaks: 4 Bunching: 1
Dnslope: 0.00 Results File IAF268 Sorted by Time/Area INT

| Peak # | R.T. min. | first scan | max scan | last scan | peak height | raw area | corr. area | corr. % max. | % of total |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 3.60 | 42 | 45 | 47 | 82594 | 490505 | 489035 | 76.36 | 40.038 |
| 2 | 3.75 | 47 | 49 | 70 | 88599 | 682604 | 640441 | 100.00 | 52.434 |
| 3 | 21.78 | 539 | 542 | 547 | 15323 | 71303 | 67000 | 10.46 | 5.485 |
| 4 | 22.55 | 560 | 563 | 566 | 5433 | 28548 | 24938 | 3.89 | 2.042 |

Sum of corrected areas: 1221414.

Summary of Unknowns PBM Library Search and Quantitation

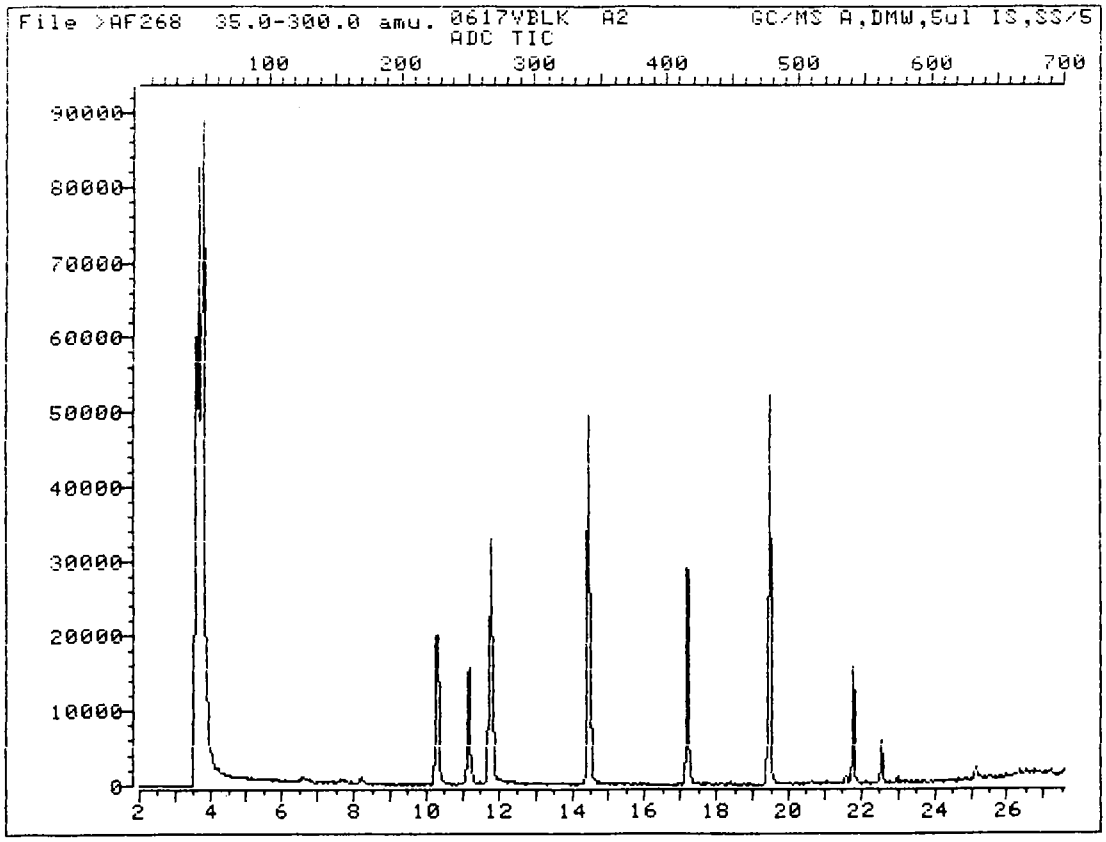
| Standard | Concentration | Area | Retention Time | Unknown Window |
|---|---|---|---|---|
| 1 | 50.0 | 129764. | 10.26 | 1.99 - 11.01 |
| 2 | 50.0 | 202611. | 11.76 | 11.01 - 14.48 |
| 3 | 50.0 | 162614. | 17.21 | 14.48 - 27.56 |

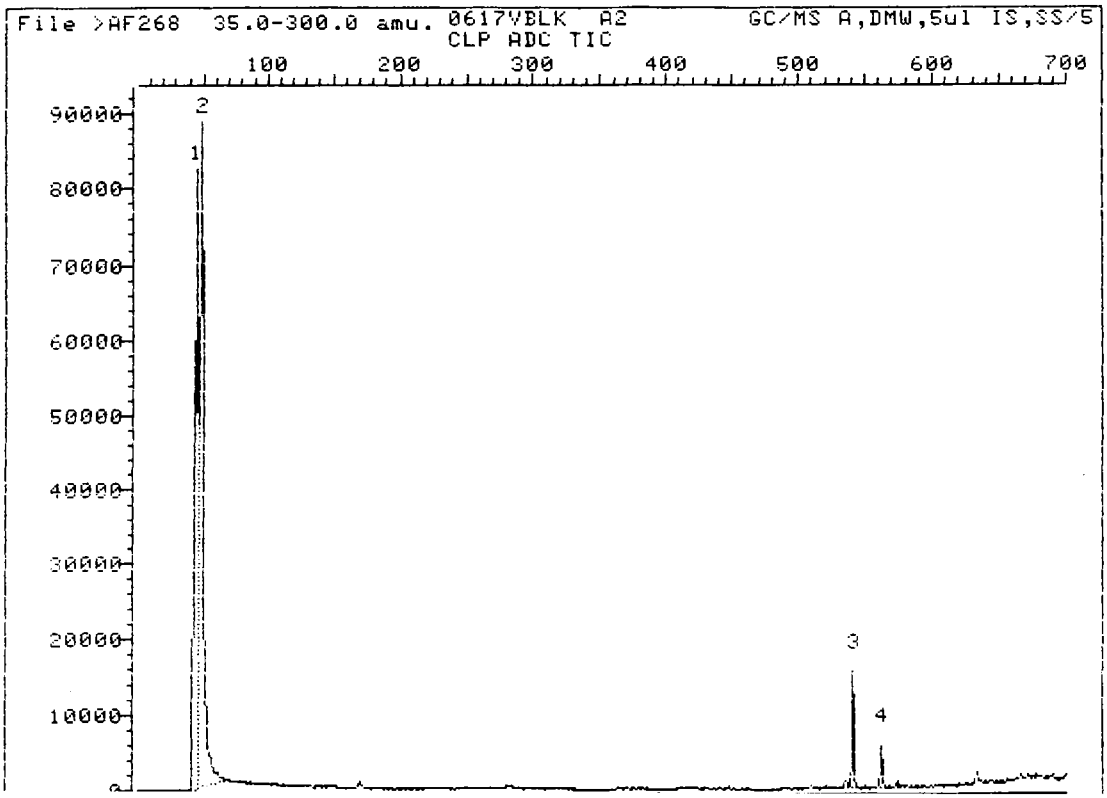
Dilution Factor (DF) = 1.00 Fractional Solids (FS) = 1.00
Amount Method (AM) = 5.00 Amount Used (AU) = 5.00

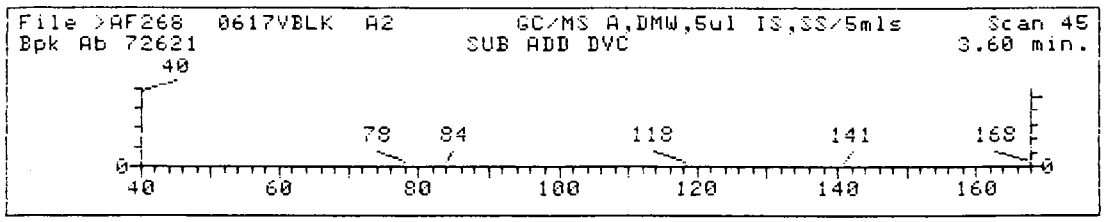
Correction Factor = 1.00 = (AM / AU) / (DF * FS)

$$\text{Unknown Concentration} = \frac{\text{Conc Int Std}}{\text{Area Int Std}} * \text{Area Unk} * \text{Correction Factor}$$

4:04 PM THU., 24 JUNE, 1993


File >AF268 35.0-300.0 amu. 0617VBLK A2 GC/MS A,DMW,5ul IS,SS/5
ADC TIC
100 200 300 400 500 600 700
90000
80000
70000
60000
50000
40000
30000
20000
10000
0
2 4 6 8 10 12 14 16 18 20 22 24 26

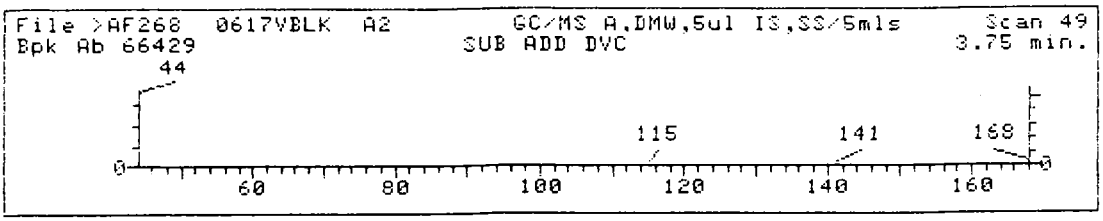

File >AF268 35.0-300.0 amu. 0617VBLK A2 GC/MS A,DMW,5ul IS,SS/5
CLP ADC TIC
100 200 300 400 500 600 700
90000
80000
70000
60000
50000
40000
30000
20000
10000
0
1
2
3
4




. Unknown #,1
Area = 489035.0 Tentative Concentration is 190.00

Sample file: >AF268 Spectrum #: 45

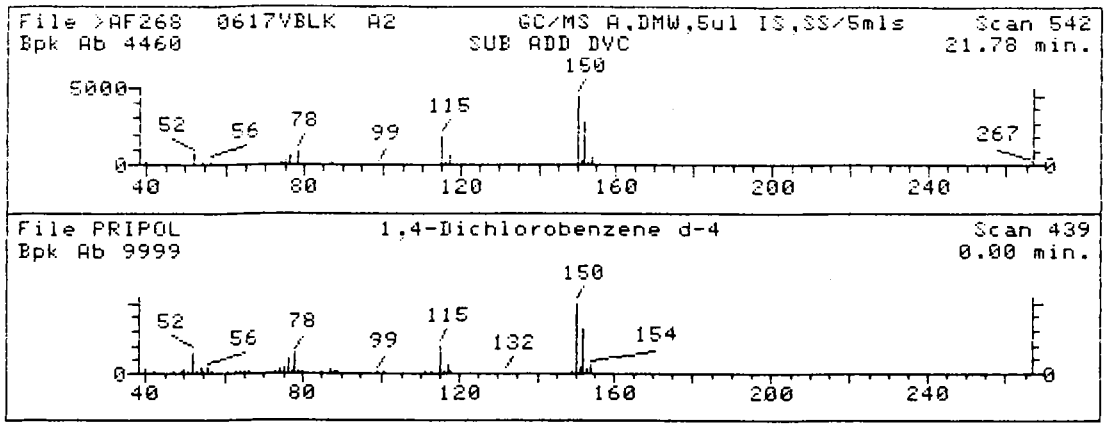
No data base entries were retrieved.




. Unknown #,2
Area = 640441.0 Tentative Concentration is 250.00

Sample file: >AF268 Spectrum #: 49

No data base entries were retrieved.

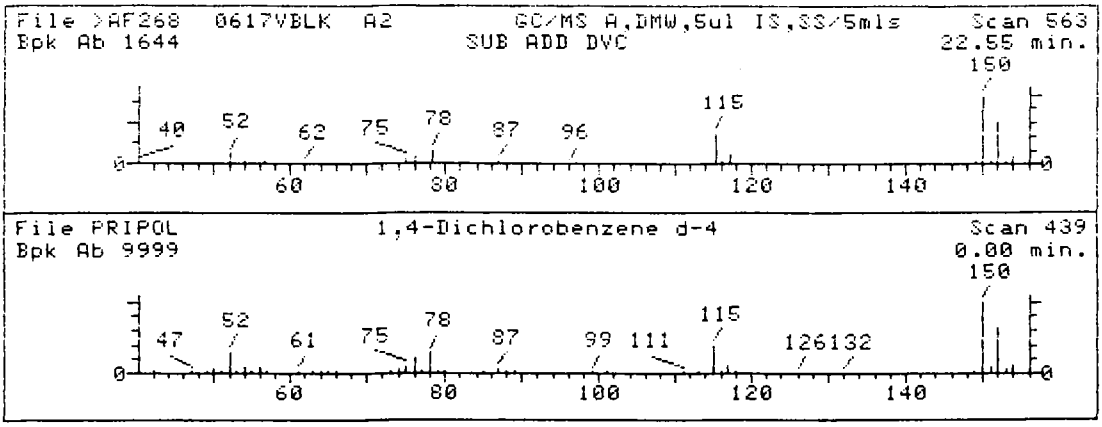



. Unknown #,3
Area = 67000.00 Tentative Concentration is 21.00

1. 1,4-Dichlorobenzene d-4 150 C6.D4.CL2

Sample file: >AF268 Spectrum #: 542
Search speed: 2 Tilting option: F No. of ion ranges searched: 42

| | Prob. | CAS # | CON # | ROOT | K | DK | #FLG | TILT | % | CON | C_I | R_IV |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. | 84* | 439 | 257 | PRIPOL | 91 | 16 | 2 | -2 | 97 | 7 | 55 | 63 |




. Unknown #,4
Area = 24938.00 Tentative Concentration is 8.00

1. 1,4-Dichlorobenzene d-4 150 C6.D4.CL2

Sample file: >AF268 Spectrum #: 563
Search speed: 2 Tilting option: F No. of ion ranges searched: 44

| | Prob. | CAS # | CON # | ROOT | K | DK | #FLG | TILT | % | CON | C_I | R_IV |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. | 70* | 439 | 257 | PRIPOL | 80 | 27 | 2 | -1 | 70 | 16 | 32 | 50 |

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA / CLIENT ID

0617HBLK C1

Lab Name: AMER.ENV.NTWK. Contract: WEST-0103

Lab Code: AENI Case No: NWS-EARLE SAS No: N.A. SDG No: N.A.

Matrix: SOIL Lab Sample ID: 0617HBLK C1

Sample (wt/vol): 5 G Lab File ID: >CF190

Level: LOW Date Received: N.A.

% Moisture: not dec. N.A. Date Analyzed: 6/17/93

Column: PACK Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 10. | U |
| 74-83-9 | Bromomethane | 10. | U |
| 75-01-4 | Vinyl Chloride | 10. | U |
| 75-00-3 | Chloroethane | 10. | U |
| 75-09-2 | Methylene Chloride | 5. | J |
| 67-64-1 | Acetone | 4. | J |
| 75-15-0 | Carbon Disulfide | 5. | U |
| 75-35-4 | 1,1-Dichloroethene | 5. | U |
| 75-34-3 | 1,1-Dichloroethane | 5. | U |
| 540-59-0 | 1,2-Dichloroethene (Total) | 5. | U |
| 67-66-3 | Chloroform | 5. | U |
| 107-02-2 | 1,2-Dichloroethane | 5. | U |
| 78-93-3 | 2-Butanone | 100. | U |
| 71-55-6 | 1,1,1-Trichloroethane | 5. | U |
| 56-23-5 | Carbon Tetrachloride | 5. | U |
| 108-05-4 | Vinyl Acetate | 50. | U |
| 75-27-4 | Bromodichloromethane | 5. | U |
| 78-87-5 | 1,2-Dichloropropane | 5. | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 5. | U |
| 79-01-6 | Trichloroethene | 5. | U |
| 124-48-1 | Dibromochloromethane | 5. | U |
| 79-00-5 | 1,1,2-Trichloroethane | 5. | U |
| 71-43-2 | Benzene | 5. | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 5. | U |
| 110-75-8 | 2-Chloroethylvinylether | 10. | U |
| 75-25-2 | Bromoform | 5. | U |
| 108-10-1 | 4-Methyl-2-pentanone | 50. | U |
| 591-78-6 | 2-Hexanone | 50. | U |
| 127-18-4 | Tetrachloroethene | 4. | J |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 5. | U |
| 108-88-3 | Toluene | 5. | U |
| 108-90-7 | Chlorobenzene | 5. | U |
| 100-41-4 | Ethylbenzene | 5. | U |
| 100-42-5 | Styrene | 5. | U |
| 133-02-7 | Xylene (Total) | 5. | U |

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

0617HBLK C1

Lab Name: AMER.ENV.NTWK. Contract: WEST-0103

Lab Code: AENI Case No: NWS-EARLE SAS No: N.A. SDG No: N.A.

Matrix: SOIL Lab Sample ID: 0617HBLK C1

Sample wt/vol: 5 G Lab File ID: >CF190

Level: LOW Date Received: N.A.

% Moisture: (not dec) N.A. Date Analyzed: 6/17/93

Column: PACK Dilution Factor: 1.0

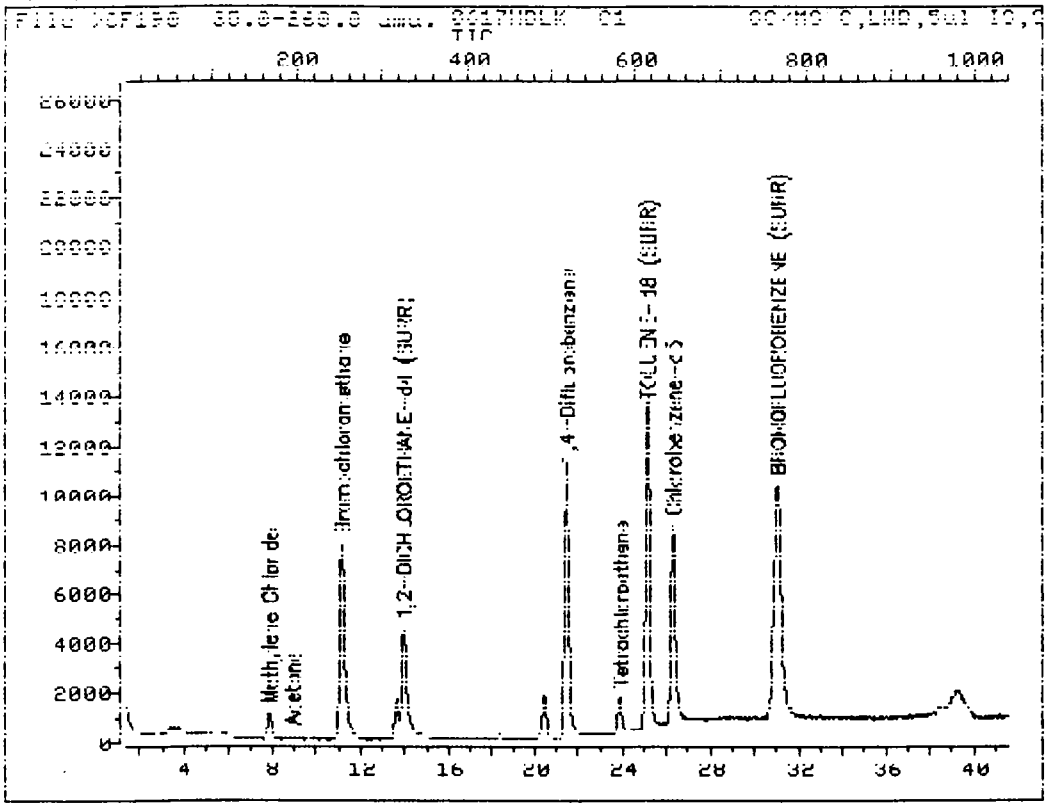
Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|---|
| 1. | 110543 | Hexane | 20.45 | 7. | J |
| 2. | | | | | |
| 3. | | | | | |
| 4. | | | | | |
| 5. | | | | | |
| 6. | | | | | |
| 7. | | | | | |
| 8. | | | | | |
| 9. | | | | | |
| 10. | | | | | |
| 11. | | | | | |
| 12. | | | | | |
| 13. | | | | | |
| 14. | | | | | |
| 15. | | | | | |
| 16. | | | | | |
| 17. | | | | | |
| 18. | | | | | |
| 19. | | | | | |
| 20. | | | | | |
| 21. | | | | | |
| 22. | | | | | |
| 23. | | | | | |
| 24. | | | | | |
| 25. | | | | | |
| 26. | | | | | |
| 27. | | | | | |
| 28. | | | | | |
| 29. | | | | | |
| 30. | | | | | |

NR = Not Reviewed

TOTAL ION CHROMATOGRAM




Data File: >CF190::C1 Quant Output File: ^CF190::OU
Name: 0617HBLK C1
Misc: GC/MS C,LWB,5ul IS,SS/5mls

Id File: IDHCFD::IC
Title: HSL VOLATILES
Last Calibration: 930617 11:48

Operator ID: LEE
Quant Time: 930617 12:31
Injected at: 930617 11:48

QUANT REPORT

Operator ID: LEE
Output File: ^CF190::OU
Data File: >CF190::C1
Name: 0617HBLK C1
Misc: GC/MS C,LWR,5ul IS,SS/5mls

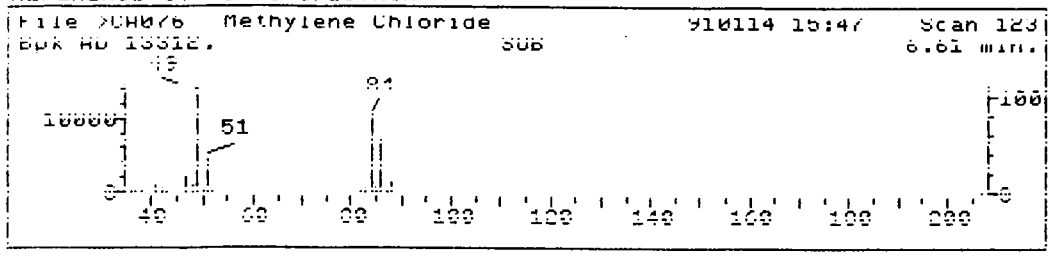
Quant Rev: 6
Quant Time: 930617 12:31
Injected at: 930617 11:48
Dilution Factor: 1.00000

ID File: IDHCFD::IC
Title: HSL VOLATILES
Last Calibration: 930617 11:48

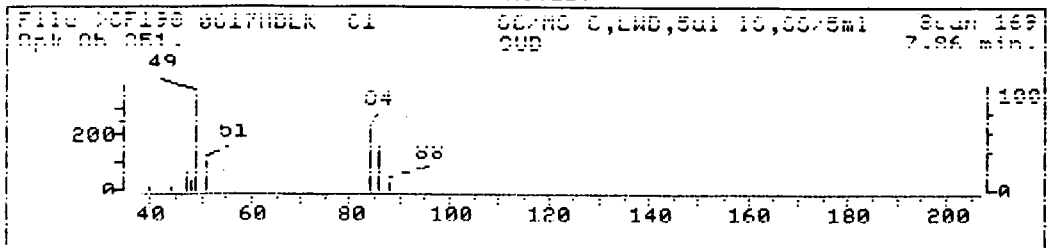
| | Compound | Q ion | Scan# | Area | Conc | Units | q |
|---|---|---|---|---|---|---|---|
| 1) | *Bromochloromethane | 128.0 | 253 | 15086 | 50.00 | ug/L | 86 |
| 6) | Methylene Chloride | 84.0 | 169 | 2998 | 4.64 | ug/L | 91 |
| 7) | Acetone | 43.0 | 196 | 1589 | 4.30 | ug/L | 91 |
| 17) | 1,2-DICHLOROETHANE-d4 (SURR) | 65.0 | 326 | 27115 | 43.74 | ug/L | 97 |
| 19) | *1,4-Difluorobenzene | 114.0 | 520 | 61238 | 50.00 | ug/L | 100 |
| 33) | *Chlorobenzene-d5 | 117.0 | 645 | 35680 | 50.00 | ug/L | 96 |
| 36) | Tetrachloroethene | 164.0 | 583 | 2165 | 3.93 | ug/L | 90 |
| 45) | BROMOFLUOROBENZENE (SURR) | 95.0 | 767 | 50009 | 47.62 | ug/L | 82 |
| 46) | TOLUENE-d8 (SURR) | 98.0 | 615 | 61529 | 48.47 | ug/L | 93 |

* Compound is ISTD

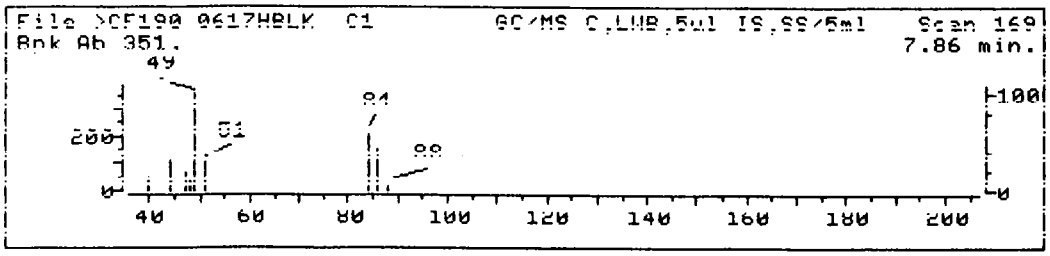
REFERENCE STANDARD SPECTRUM




SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



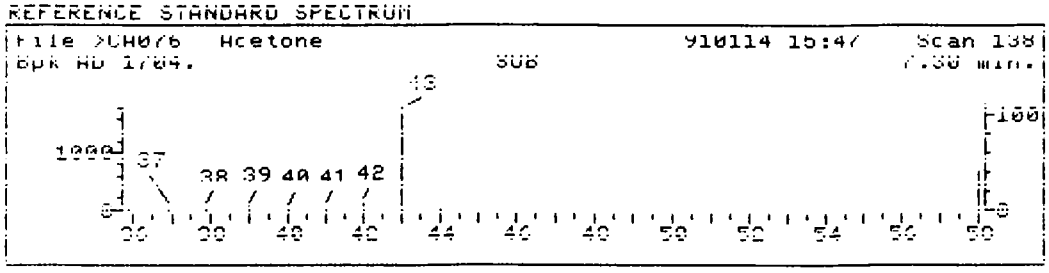

SAMPLE SPECTRUM (UNALTERED)



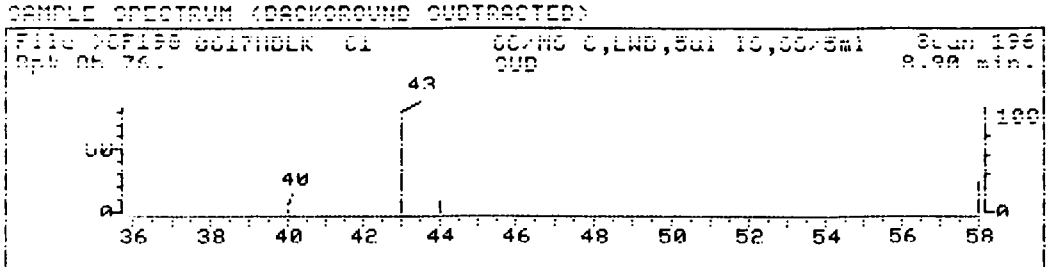

Data File: >CF190::C1 Quant Output File: ^CF190::OU
Name: 0617HBLK C1
Misc: GC/MS C,LWB,5ul IS,SS/5mls
Quant Time: 930617 12:31 Quant ID File: IDHCFD::IC
Injected at: 930617 11:48 Last Calibration: 930617 11:48

Compound No: 6
Compound Name: Methylene Chloride
Scan Number: 169
Retention Time: 7.86 min.
Quant Ion: 84.0
Area: 2998
Concentration: 4.64 ug/L
q-value: 91

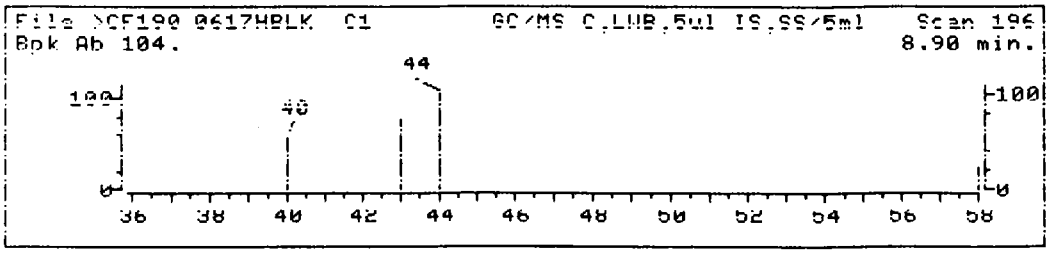
REFERENCE STANDARD SPECTRUM




SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



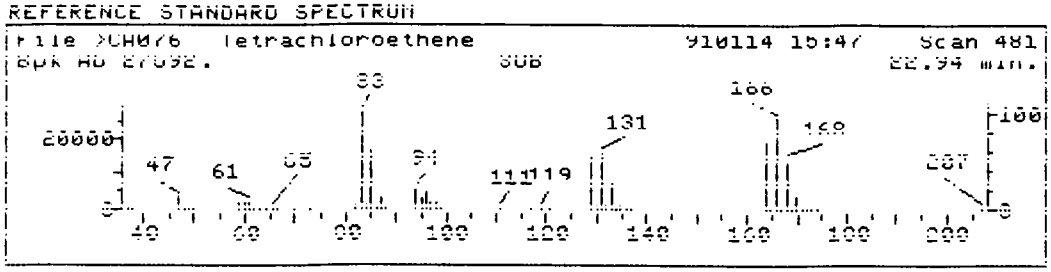

SAMPLE SPECTRUM (UNALTERED)



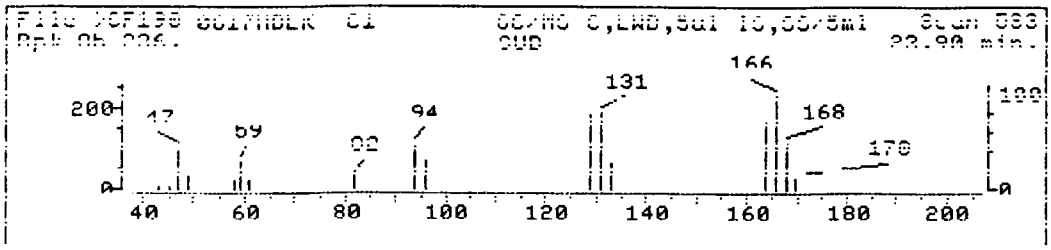

Data File: >CF190::C1 Quant Output File: ^CF190::OU
Name: 0617HBLK C1
Misc: GC/MS C,LWB,5ul IS,SS/5mls
Quant Time: 930617 12:31 Quant ID File: IDHCFD::IC
Injected at: 930617 11:48 Last Calibration: 930617 11:48

Compound No: 7
Compound Name: Acetone
Scan Number: 196
Retention Time: 8.90 min.
Quant Ion: 43.0
Area: 1589
Concentration: 4.30 ug/L
q-value: 91

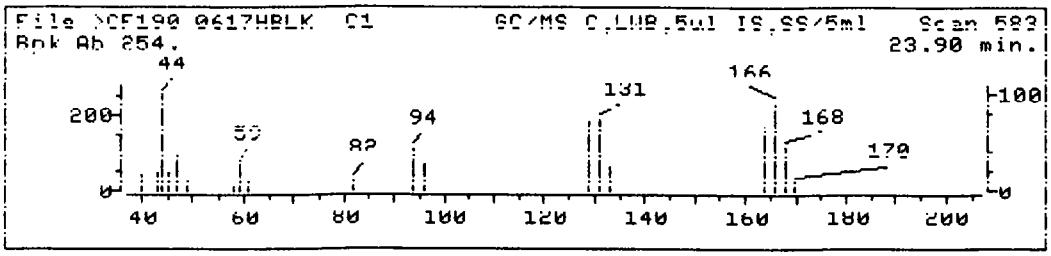
REFERENCE STANDARD SPECTRUM




SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)




SAMPLE SPECTRUM (UNALTERED)




Data File: >CF190::C1 Quant Output File: ^CF190::OU
Name: 0617HBLK C1
Misc: GC/MS C,LWB,5ul IS,SS/5mls
Quant Time: 930617 12:31 Quant ID File: IDHCFD::IC
Injected at: 930617 11:48 Last Calibration: 930617 11:48

Compound No: 36
Compound Name: Tetrachloroethene
Scan Number: 583
Retention Time: 23.90 min.
Quant Ion: 164.0
Area: 2165
Concentration: 3.93 ug/L
q-value: 90

MS data file header from : >CF190

ample: 0617HBLK C1 Operator: LEE REG. GRP. 6/17/93 11:48
Misc : GC/MS C,LWB,5ul IS,SS/5mls
ns. #: 2 MS model: 70 SW/HW rev.: IA ALS # : 0
Method file: HE7001 Tuning file: MT7001 No. of extra records: 2
Source temp.: 0 Analyzer temp.: 250 Transfer line temp. : 0

| | | | | | |
|---|---|---|---|---|---|
| Chromatographic temperatures : | 45. | 220. | 0. | 0. | 0. |
| Chromatographic times, min. : | 4.0 | 40.0 | 0.0 | 0.0 | 0.0 |
| Chromatographic rate, deg/min: | 8.0 | 0.0 | 0.0 | .5 | 0.0 |

CF190 0617HBLK C1 GC/MS C,LWB,5ul IS,SS/5mls
35.01 260.0 CLP ADC TIC
Mslope: .05 Area Reject: 11924. Max Peaks: 1 Bunching: 1
nslope: 0.00 Results File ICF190 Sorted by Time/Area INT

| Peak # | R.T. min. | first scan | max scan | last scan | peak height | raw area | corr. area | corr. % max. | % of total |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 20.45 | 486 | 494 | 501 | 1725 | 23363 | 21445 | 100.00 | 100.000 |

Sum of corrected areas: 21445.

Summary of Unknowns PBM Library Search and Quantitation

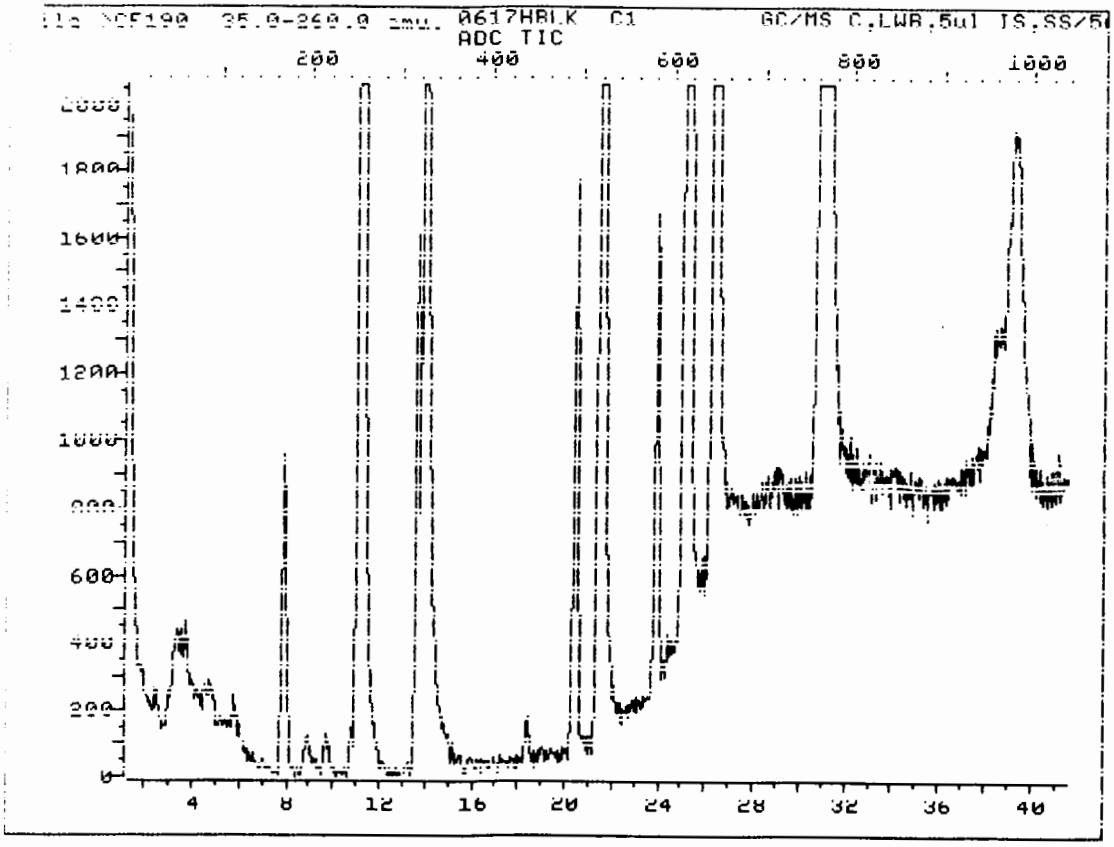
| Standard | Concentration | Area | Retention Time | Unknown Window |
|---|---|---|---|---|
| 1 | 50.0 | 121947. | 11.11 | 1.35 - 16.28 |
| 2 | 50.0 | 154111. | 21.45 | 16.28 - 23.88 |
| 3 | 50.0 | 119243. | 26.30 | 23.88 - 41.61 |

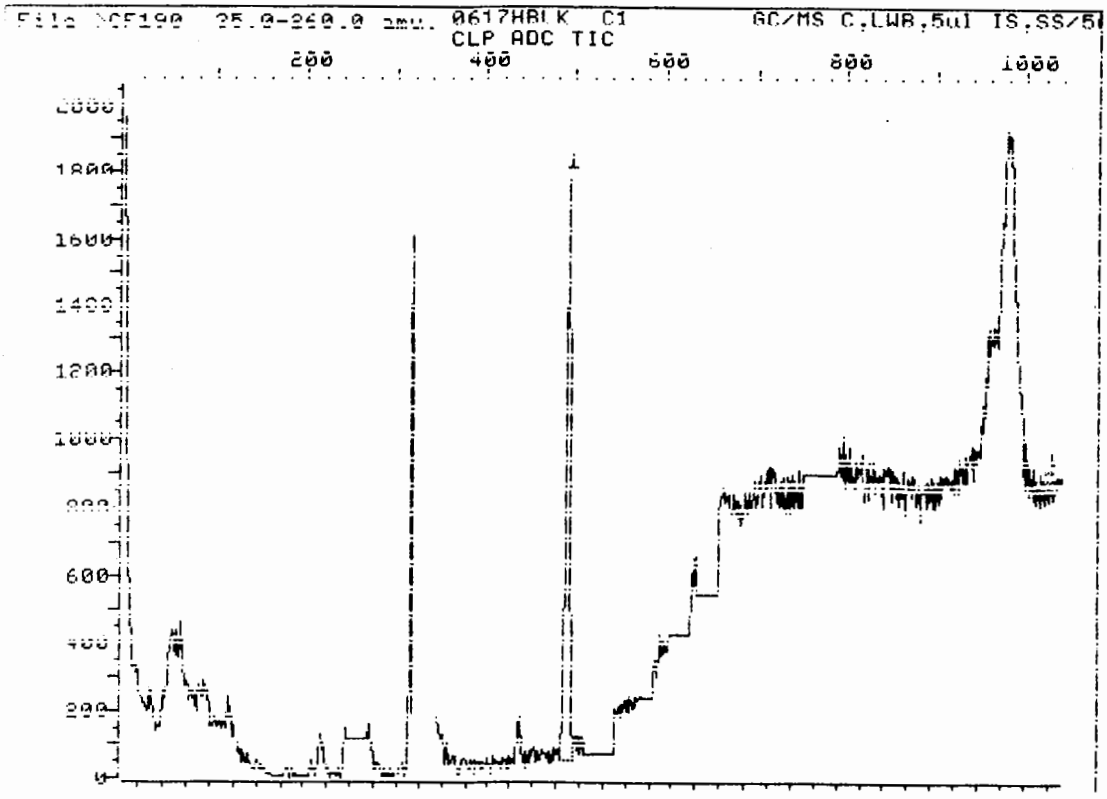
Dilution Factor (DF) = 1.00 Fractional Solids (FS) = 1.00
Amount Method (AM) = 5.00 Amount Used (AU) = 5.00

Correction Factor = 1.00 = (AM * DF) / (AU * FS)

$$\text{Unknown Concentration} = \frac{\text{Conc Int Std}}{\text{Area Int Std}} * \text{Area Unk} * \text{Correction Factor}$$

3:36 PM THU., 24 JUNE, 1993


File NCF190 35.0-260.0 amu. 0617HBLK C1
ADC TIC
GC/MS C,LWB,5ul IS,SS/5
200
400
600
800
1000
2000
1800
1600
1400
1200
1000
800
600
400
200
0
4
8
12
16
20
24
28
32
36
40


File NCF190 35.0-260.0 amu. 0617HBLK C1
CLP ADC TIC
GC/MS C,LWB,5ul IS,SS/5
200
400
600
800
1000
2000
1800
1600
1400
1200
1000
800
600
400
200
0

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA / CLIENT ID

0618VBLKML A1

Lab Name: AMER.ENV.NTWK. Contract: WEST-0103

Lab Code: AENI Case No: NWS-EARLE SAS No: N.A. SDG No: N.A.

Matrix: SOIL Lab Sample ID: 0618VBLKML

Sample (wt/vol): 4 G Lab File ID: >AF296

Level: MED Date Received: N.A.

% Moisture: not dec. N.A. Date Analyzed: 6/18/93

Column: CAP Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 1300. | U |
| 74-83-9 | Bromomethane | 1300. | U |
| 75-01-4 | Vinyl Chloride | 1300. | U |
| 75-00-3 | Chloroethane | 1300. | U |
| 75-09-2 | Methylene Chloride | 1200. | |
| 67-64-1 | Acetone | 1500. | J |
| 75-15-0 | Carbon Disulfide | 560. | J |
| 75-35-4 | 1,1-Dichloroethene | 630. | U |
| 75-34-3 | 1,1-Dichloroethane | 630. | U |
| 156-60-5 | trans-1,2-Dichloroethene | 630. | U |
| 67-66-3 | Chloroform | 630. | U |
| 107-02-2 | 1,2-Dichloroethane | 630. | U |
| 78-93-3 | 2-Butanone | 13000. | U |
| 71-55-6 | 1,1,1-Trichloroethane | 630. | U |
| 56-23-5 | Carbon Tetrachloride | 630. | U |
| 108-05-4 | Vinyl Acetate | 6300. | U |
| 75-27-4 | Bromodichloromethane | 630. | U |
| 78-87-5 | 1,2-Dichloropropane | 630. | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 630. | U |
| 79-01-6 | Trichloroethene | 630. | U |
| 124-48-1 | Dibromochloromethane | 630. | U |
| 79-00-5 | 1,1,2-Trichloroethane | 630. | U |
| 71-43-2 | Benzene | 630. | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 630. | U |
| 110-75-8 | 2-Chloroethylvinylether | 1300. | U |
| 75-25-2 | Bromoform | 630. | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 6300. | U |
| 591-78-6 | 2-Hexanone | 6300. | U |
| 127-18-4 | Tetrachloroethene | 630. | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 630. | U |
| 108-88-3 | Toluene | 630. | U |
| 108-90-7 | Chlorobenzene | 630. | U |
| 100-41-4 | Ethylbenzene | 630. | U |
| 100-42-5 | Styrene | 630. | U |
| 133-02-7 | m + p-Xylenes | 630. | U |
| 95-47-6 | o-Xylene | 630. | U |

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

0618VBLKML A1

Lab Name: AMER.ENV.NTWK. Contract: WEST-0103

Lab Code: AENI Case No: NWS-EARL SAS No: N.A. SDG No: N.A.

Matrix: SOIL Lab Sample ID: 0618VBLKML

Sample wt/vol: 4 G Lab File ID: >AF296

Level: MED Date Received: N.A.

% Moisture: not dec. N.A. Date Analyzed: 6/18/93

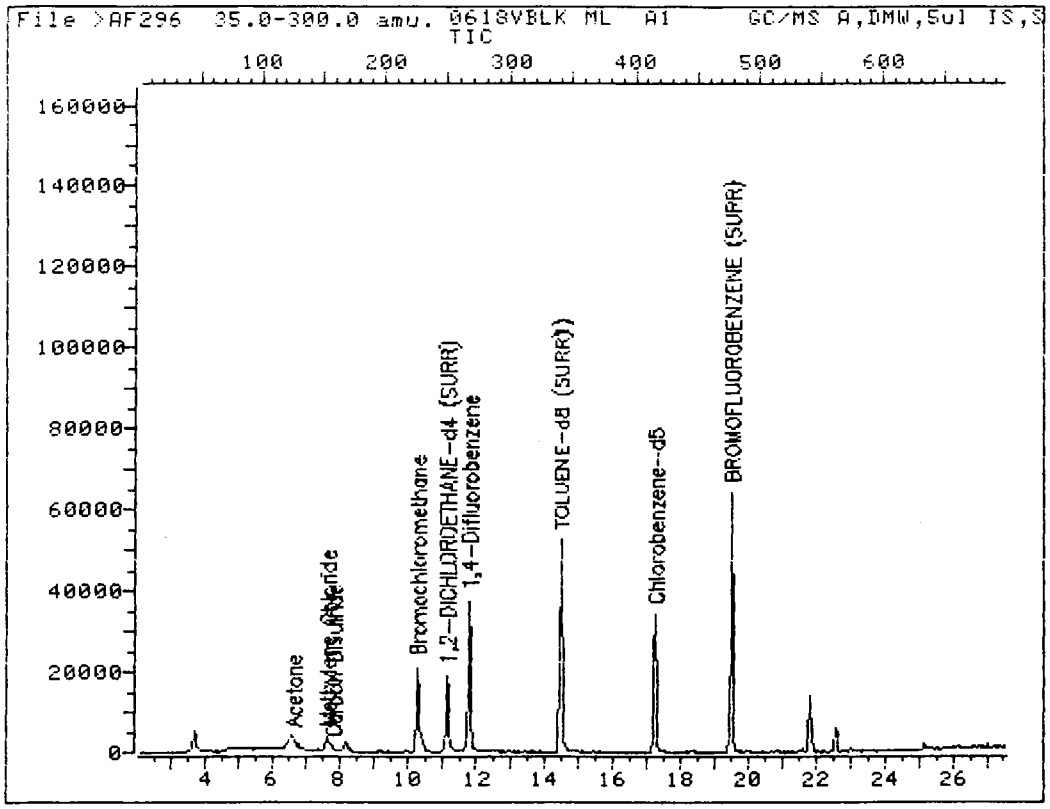
Column: CAP Dilution Factor: 1.0

Number TICs found: 4

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|---|
| 1. | | Unknown | 3.70 | 2500. | J |
| 2. | 110543 | Hexane (DOT)(8CI9CI) | 8.20 | 850. | J |
| 3. | | Unknown | 21.81 | 2800. | J |
| 4. | 439 | 1,4-Dichlorobenzene d-4 | 22.58 | 940. | J |
| 5. | | | | | |
| 6. | | | | | |
| 7. | | | | | |
| 8. | | | | | |
| 9. | | | | | |
| 10. | | | | | |
| 11. | | | | | |
| 12. | | | | | |
| 13. | | | | | |
| 14. | | | | | |
| 15. | | | | | |
| 16. | | | | | |
| 17. | | | | | |
| 18. | | | | | |
| 19. | | | | | |
| 20. | | | | | |
| 21. | | | | | |
| 22. | | | | | |
| 23. | | | | | |
| 24. | | | | | |
| 25. | | | | | |
| 26. | | | | | |
| 27. | | | | | |
| 28. | | | | | |
| 29. | | | | | |
| 30. | | | | | |

TOTAL ION CHROMATOGRAM




Data File: >AF296::C2 Quant Output File: ^AF296::OU
Name: 0618VBLK ML A1
Misc: GC/MS A,DMW,5ul IS,SS/5mls

Id File: IDVAFD::ID
Title: HSL VOLATILES
Last Calibration: 930618 18:40

Operator ID: DAVE
Quant Time: 930618 18:58
Injected at: 930618 18:29

QUANT REPORT

Operator ID: DAVE
Output File: ^AF296::OU
Data File: >AF296::C2
Name: 0618VBLK ML A1
Misc: GC/MS A,DMW,5ul IS,SS/5mls

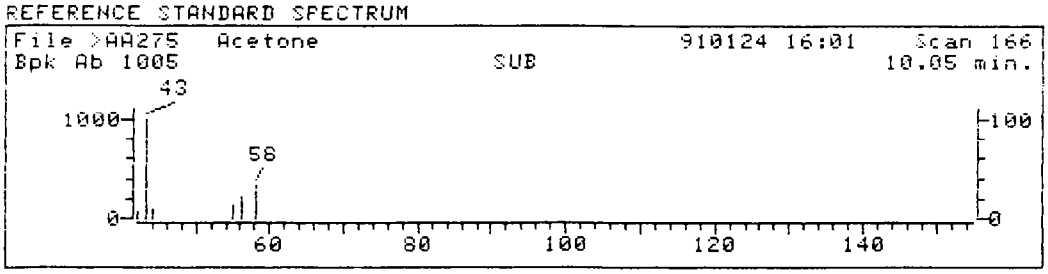
Quant Rev: 6
Quant Time: 930618 18:58
Injected at: 930618 18:29
Dilution Factor: 1.00000

ID File: IDVAFD::ID
Title: HSL VOLATILES
Last Calibration: 930618 18:40

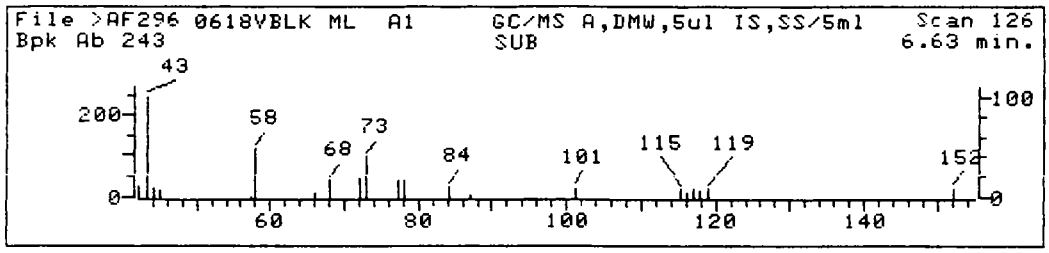
| | Compound | Q ion | Scan# | Area | Conc | Units | q |
|---|---|---|---|---|---|---|---|
| 1) | *Bromochloromethane | 128.0 | 226 | 21377 | 50.00 | ng/mL | 81 |
| 7) | Acetone | 43.0 | 126 | 2505 | 12.02 | ng/mL | 65 |
| 11) | Methylene Chloride | 84.0 | 154 | 9468 | 9.49 | ng/mL | 65 |
| 12) | Carbon Disulfide | 76.0 | 159 | 1718 | 4.45 | ng/mL | 100 |
| 18) | 1,2-DICHLOROETHANE-d4 (SURR) | 65.0 | 250 | 31667 | 48.89 | ng/mL | 100 |
| 20) | *1,4-Difluorobenzene | 114.0 | 267 | 95686 | 50.00 | ng/mL | 95 |
| 30) | TOLUENE-d8 (SURR1) | 98.0 | 340 | 130837 | 52.06 | ng/mL | 93 |
| 35) | *Chlorobenzene-d5 | 82.0 | 416 | 36687 | 50.00 | ng/mL | 95 |
| 46) | BROMOFLUOROBENZENE (SURR) | 95.0 | 478 | 68940 | 54.07 | ng/mL | 88 |
| 50) | TOLUENE-d8 (SURR) | 98.0 | 340 | 130837 | 52.59 | ng/mL | 93 |

* Compound is ISTD

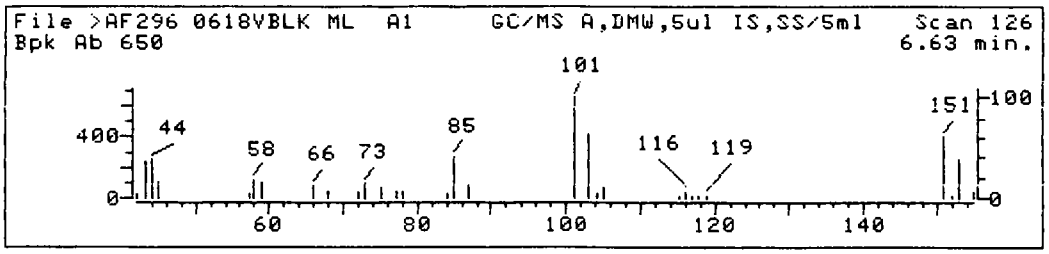
REFERENCE STANDARD SPECTRUM




SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



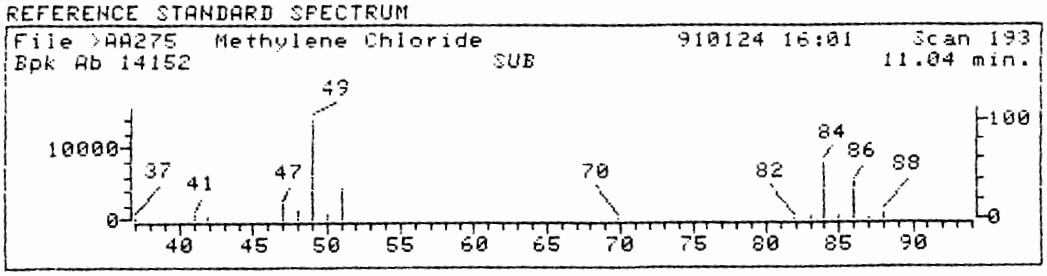

SAMPLE SPECTRUM (UNALTERED)



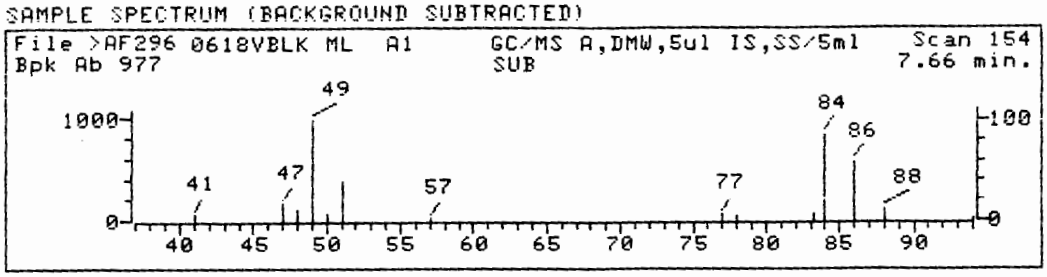

Data File: >AF296::C2 Quant Output File: ^AF296::OU
Name: 0618VBLK ML A1
Misc: GC/MS A,DMW,5ul IS,SS/5mls
Quant Time: 930618 18:58 Quant ID File: IDVAFD::ID
Injected at: 930618 18:29 Last Calibration: 930618 18:40

Compound No: 7
Compound Name: Acetone
Scan Number: 126
Retention Time: 6.63 min.
Quant Ion: 43.0
Area: 2505
Concentration: 12.02 ng/mL
q-value: 65

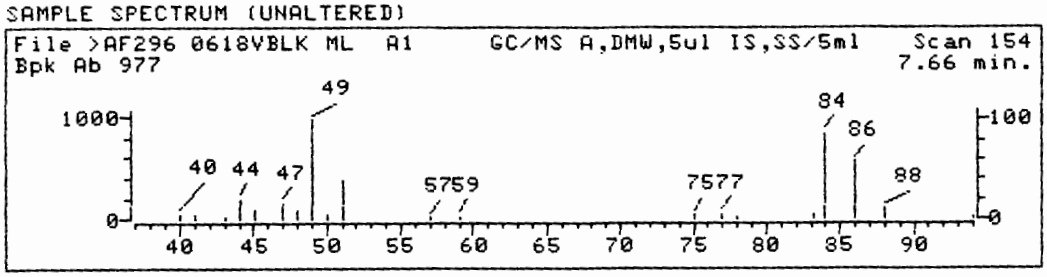
REFERENCE STANDARD SPECTRUM




SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



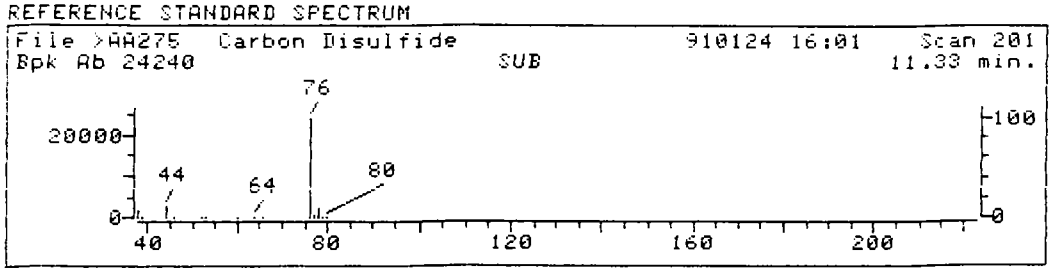

SAMPLE SPECTRUM (UNALTERED)



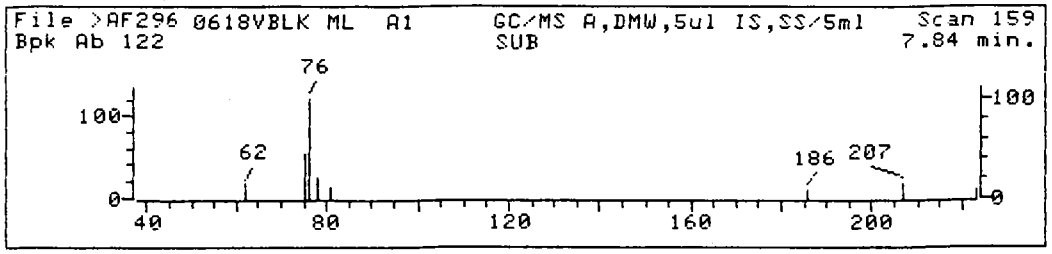

Data File: >AF296::C2 Quant Output File: ^AF296::OU
Name: 0618VBLK ML A1
Misc: GC/MS A,DMW,5ul IS,SS/5mls
Quant Time: 930618 18:58 Quant ID File: IDVAFD::ID
Injected at: 930618 18:29 Last Calibration: 930618 18:40

Compound No: 11
Compound Name: Methylene Chloride
Scan Number: 154
Retention Time: 7.66 min.
Quant Ion: 84.0
Area: 9468
Concentration: 9.49 ng/mL
q-value: 65

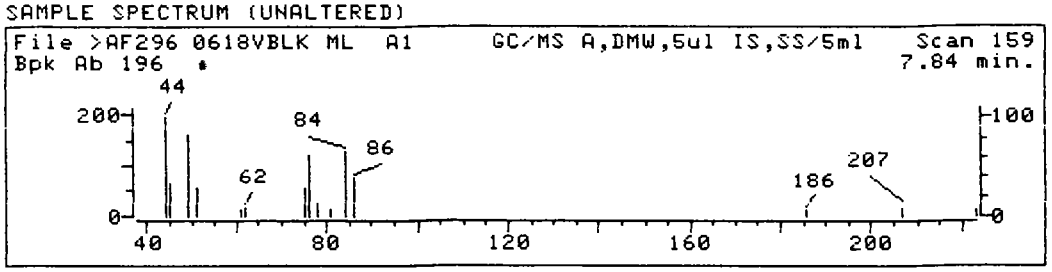
REFERENCE STANDARD SPECTRUM




SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)




SAMPLE SPECTRUM (UNALTERED)




Data File: >AF296::C2 Quant Output File: ^AF296::OU
Name: 0618VBLK ML A1
Misc: GC/MS A,DMW,5ul IS,SS/5mls
Quant Time: 930618 18:58 Quant ID File: IDVAFD::ID
Injected at: 930618 18:29 Last Calibration: 930618 18:40

Compound No: 12
Compound Name: Carbon Disulfide
Scan Number: 159
Retention Time: 7.84 min.
Quant Ion: 76.0
Area: 1718
Concentration: 4.45 ng/mL
q-value: 100

MS data file header from : >AF296

Sample: 0618VBLK ML A1 Operator: DAVE MS 6/18/93 18:29
Misc : GC/MS A,DMW,5ul IS,SS/5mls
Sys. #: 1 MS model: 87 SW/HW rev.: IA ALS # : 0
Method file: HE8501 Tuning file: MT8501 No. of extra records: 2
Source temp.: 200 Analyzer temp.: 0 Transfer line temp. : 0

| | | | | | |
|---|---|---|---|---|---|
| Chromatographic temperatures : | 0. | 0. | 0. | 0. | 0. |
| Chromatographic times, min. : | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Chromatographic rate, deg/min: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

>AF296 0618VBLK ML A1 GC/MS A,DMW,5ul IS,SS/5mls
35.01 300.0 CLP ADC TIC
Upslope: .20 Area Reject: 13504. Max Peaks: 4 Bunching: 1
Dnslope: 0.00 Results File IAF296 Sorted by Time/Area INT

| Peak # | R.T. min. | first scan | max scan | last scan | peak height | raw area | corr. area | corr. % max. | % of total |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 3.70 | 39 | 46 | 56 | 5471 | 54268 | 53858 | 71.45 | 31.119 |
| 2 | 8.20 | 166 | 169 | 174 | 2318 | 23336 | 18332 | 24.32 | 10.592 |
| 3 | 21.81 | 538 | 541 | 546 | 13927 | 79119 | 75378 | 100.00 | 43.553 |
| 4 | 22.58 | 560 | 562 | 566 | 5763 | 28927 | 25503 | 33.83 | 14.736 |

Sum of corrected areas: 173071.

Summary of Unknowns PBM Library Search and Quantitation

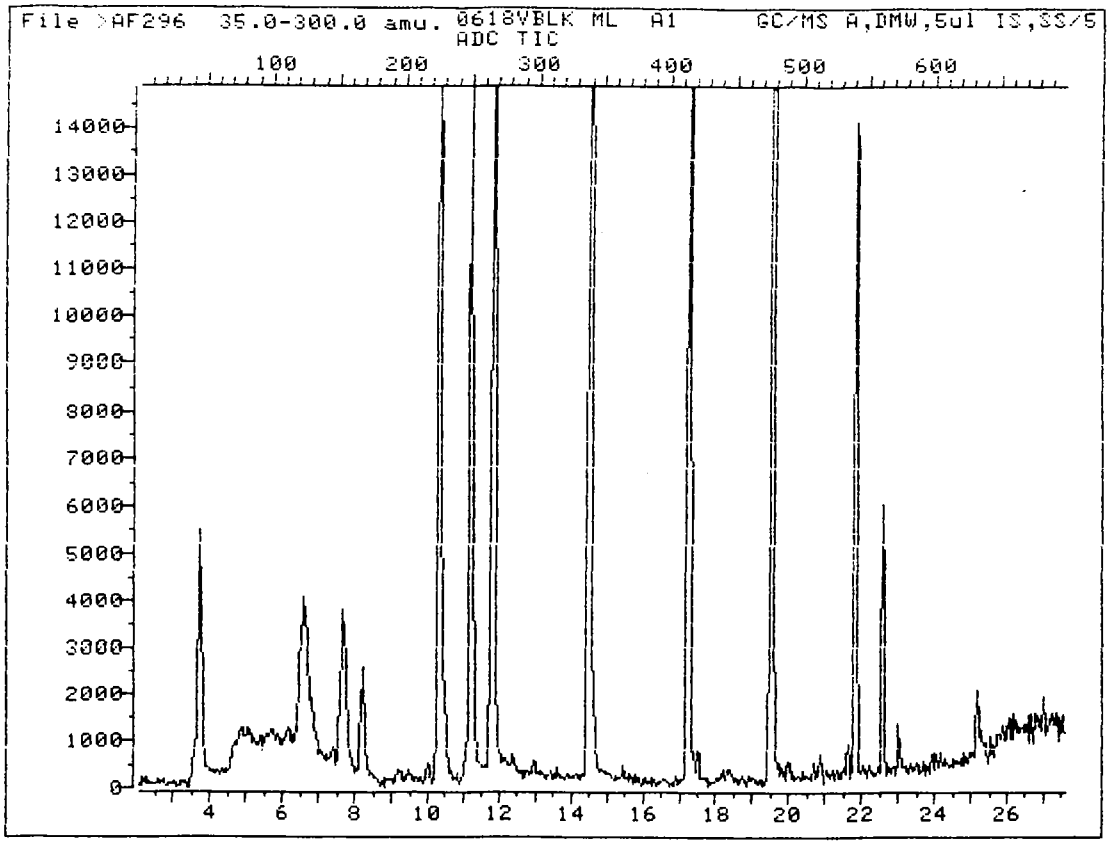
| Standard | Concentration | Area | Retention Time | Unknown Window |
|---|---|---|---|---|
| 1 | 50.0 | 135040. | 10.29 | 2.06 - 11.04 |
| 2 | 50.0 | 205057. | 11.79 | 11.04 - 14.51 |
| 3 | 50.0 | 168816. | 17.24 | 14.51 - 27.59 |

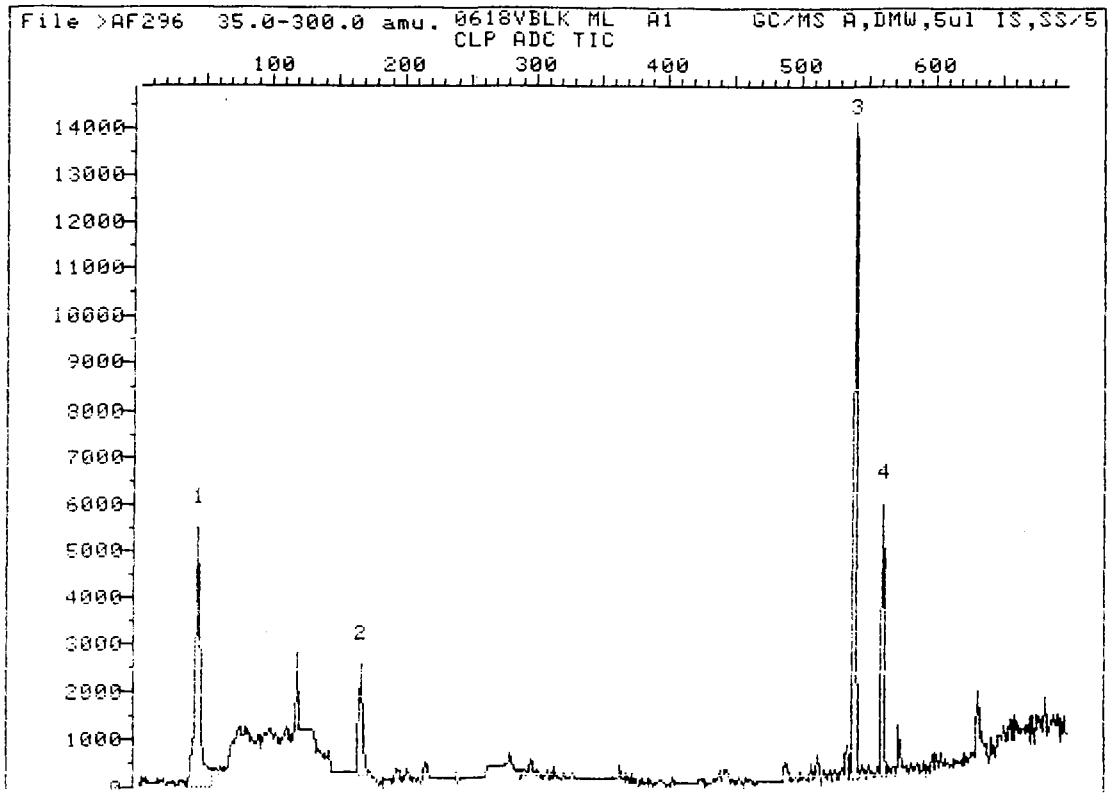
Dilution Factor (DF) = .01 Fractional Solids (FS) = 1.00
Amount Method (AM) = 5.00 Amount Used (AU) = 4.00

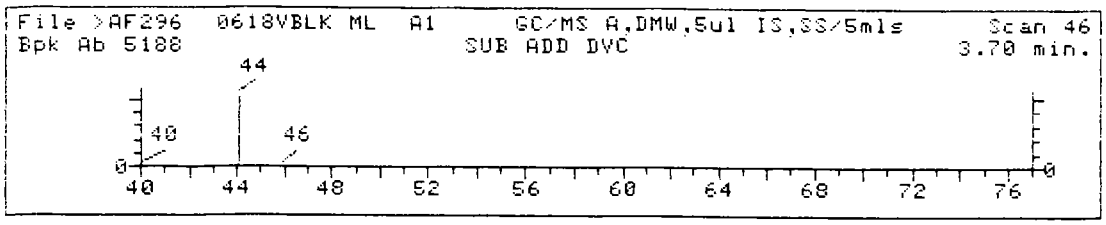
Correction Factor = 125.00 = (AM / AU) / (DF * FS)

$$\text{Unknown Concentration} = \frac{\text{Conc Int Std}}{\text{Area Int Std}} * \text{Area Unk} * \text{Correction Factor}$$

11:20 AM THU., 24 JUNE, 1993


File >AF296 35.0-300.0 amu. 0618VBLK ML A1 GC/MS A,DMW,5ul IS,SS/5
ADC TIC
100 200 300 400 500 600
14000 13000 12000 11000 10000 9000 8000 7000 6000 5000 4000 3000 2000 1000 0
4 6 8 10 12 14 16 18 20 22 24 26

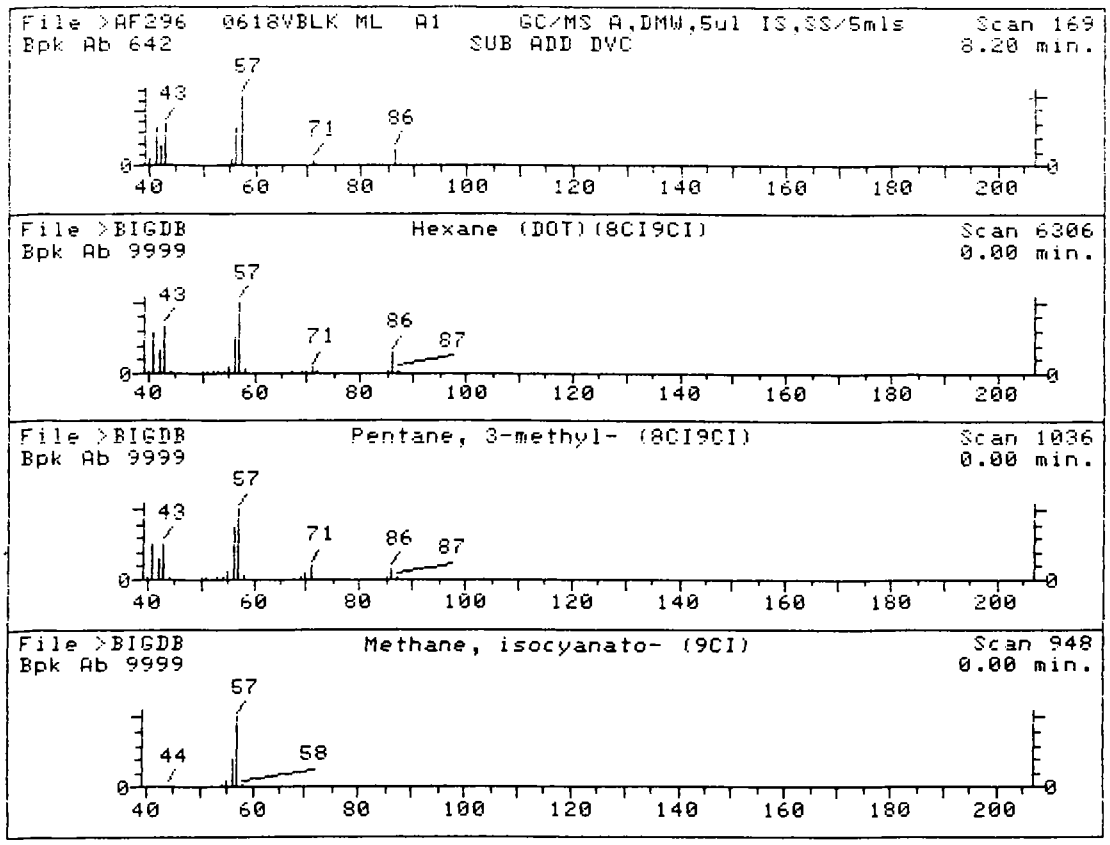

File >AF296 35.0-300.0 amu. 0618VBLK ML A1 GC/MS A,DMW,5ul IS,SS/5
CLP ADC TIC
100 200 300 400 500 600
14000 13000 12000 11000 10000 9000 8000 7000 6000 5000 4000 3000 2000 1000 0
1
2
3
4




. Unknown #,1
Area = 53858.00 Tentative Concentration is 2500.00

Sample file: >AF296 Spectrum #: 46

No data base entries were retrieved.

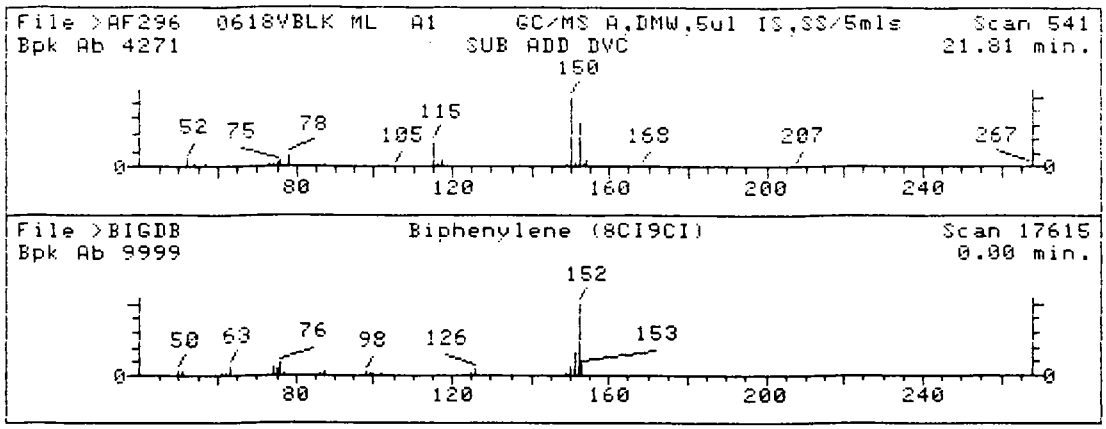



. Unknown #,2
Area = 18332.00 Tentative Concentration is 850.00

| | | |
|---|---|---|
| 1. Hexane (DOT)(8CI9CI) | 86 | C6H14 |
| 2. Pentane, 3-methyl- (8CI9CI) | 86 | C6H14 |
| 3. Methane, isocyanato- (9CI) | 57 | C2H3NO |
| 4. Oxirane, (1-methylethyl)- (9CI) | 86 | C5H10O |

Sample file: >AF296 Spectrum #: 169
Search speed: 2 Tilting option: F No. of ion ranges searched: 43

| | Prob. | CAS # | CON # | ROOT | K | DK | #FLG | TILT | % | CON | C_I | R_IV |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. | 86* | 110543 | 6306 | "BIGDB | 53 | 36 | 2 | 0 | 81 | 5 | 60 | 36 |
| 2. | 42* | 96140 | 1036 | "BIGDB | 23 | 70 | 2 | 0 | 68 | 25 | 17 | 13 |
| 3. | 20* | 624839 | 948 | "BIGDB | 23 | 41 | 2 | 0 | 100 | 51 | 5 | 13 |
| 4. | 11* | 1438148 | 969 | "BIGDB | 24 | 52 | 2 | 0 | 51 | 62 | 2 | 14 |

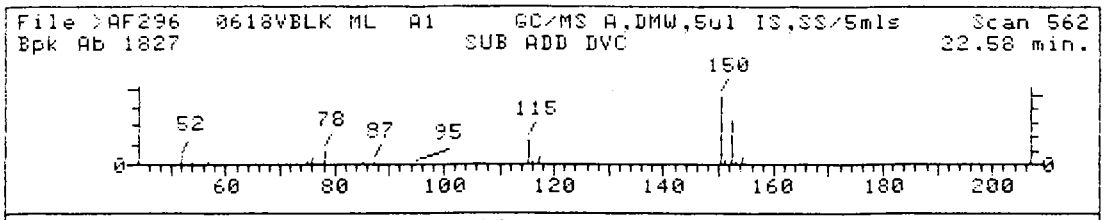


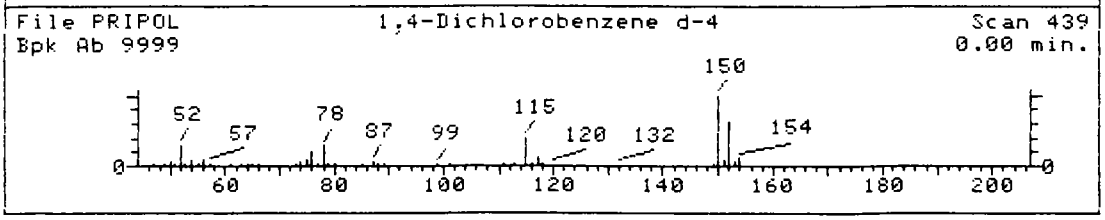

. Unknown #,3
Area = 75378.00 Tentative Concentration is 2800.00

1. Biphenylene (8CI9CI) 152 C12H8

Sample file: >AF296 Spectrum #: 541
Search speed: 2 Tilting option: F No. of ion ranges searched: 44

| | Prob. | CAS # | CON # | ROOT | K | DK | #FLG | TILT | % | CON | C_I | R_IV |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. | 11* | 259790 | 17615 | "BIGDB | 28 | 71 | 3 | 0 | 62 | 64 | 2 | 13 |




. Unknown #,4
Area = 25503.00 Tentative Concentration is 940.00

1. 1,4-Dichlorobenzene d-4 150 C6.D4.CL2

Sample file: >AF296 Spectrum #: 562
Search speed: 2 Tilting option: F No. of ion ranges searched: 48

| | Prob. | CAS # | CON # | ROOT | K | DK | #FLG | TILT | % | CON | C_I | R_IV |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. | 84* | 439 | 257 | PRIPOL | 90 | 17 | 2 | -2 | 83 | 7 | 55 | 60 |

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA / CLIENT ID

0622VBLKML A2

Lab Name: AMER.ENV.NTWK. Contract: WEST-0103

Lab Code: AENI Case No: NWS-EARLE SAS No: N.A. SDG No: N.A.

Matrix: SOIL Lab Sample ID: 0622VBLKML

Sample (wt/vol): 4 G Lab File ID: >AF330

Level: MED Date Received: N.A.

% Moisture: not dec. N.A. Date Analyzed: 6/22/93

Column: CAP Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 1300. | U |
| 74-83-9 | Bromomethane | 1300. | U |
| 75-01-4 | Vinyl Chloride | 1300. | U |
| 75-00-3 | Chloroethane | 1300. | U |
| 75-09-2 | Methylene Chloride | 1100. | |
| 67-64-1 | Acetone | 1000. | J |
| 75-15-0 | Carbon Disulfide | 490. | J |
| 75-35-4 | 1,1-Dichloroethene | 630. | U |
| 75-34-3 | 1,1-Dichloroethane | 630. | U |
| 156-60-5 | trans-1,2-Dichloroethene | 630. | U |
| 67-66-3 | Chloroform | 630. | U |
| 107-02-2 | 1,2-Dichloroethane | 630. | U |
| 78-93-3 | 2-Butanone | 13000. | U |
| 71-55-6 | 1,1,1-Trichloroethane | 630. | U |
| 56-23-5 | Carbon Tetrachloride | 630. | U |
| 108-05-4 | Vinyl Acetate | 6300. | U |
| 75-27-4 | Bromodichloromethane | 630. | U |
| 78-87-5 | 1,2-Dichloropropane | 630. | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 630. | U |
| 79-01-6 | Trichloroethene | 630. | U |
| 124-48-1 | Dibromochloromethane | 630. | U |
| 79-00-5 | 1,1,2-Trichloroethane | 630. | U |
| 71-43-2 | Benzene | 630. | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 630. | U |
| 110-75-8 | 2-Chloroethylvinylether | 1300. | U |
| 75-25-2 | Bromoform | 630. | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 6300. | U |
| 591-78-6 | 2-Hexanone | 6300. | U |
| 127-18-4 | Tetrachloroethene | 630. | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 630. | U |
| 108-88-3 | Toluene | 630. | U |
| 108-90-7 | Chlorobenzene | 630. | U |
| 100-41-4 | Ethylbenzene | 630. | U |
| 100-42-5 | Styrene | 630. | U |
| 133-02-7 | m + p-Xylenes | 630. | U |
| 95-47-6 | o-Xylene | 630. | U |

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

0622VBLKML A2

Lab Name: AMER.ENV.NTWK. Contract: WEST-0103

Lab Code: AENI Case No: NWS-EARL SAS No: N.A. SDG No: N.A.

Matrix: SOIL Lab Sample ID: 0622VBLKML

Sample wt/vol: 4 G Lab File ID: >AF330

Level: MED Date Received: N.A.

% Moisture: not dec. N.A. Date Analyzed: 6/22/93

Column: CAP Dilution Factor: 1.0

Number TICs found: 10

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

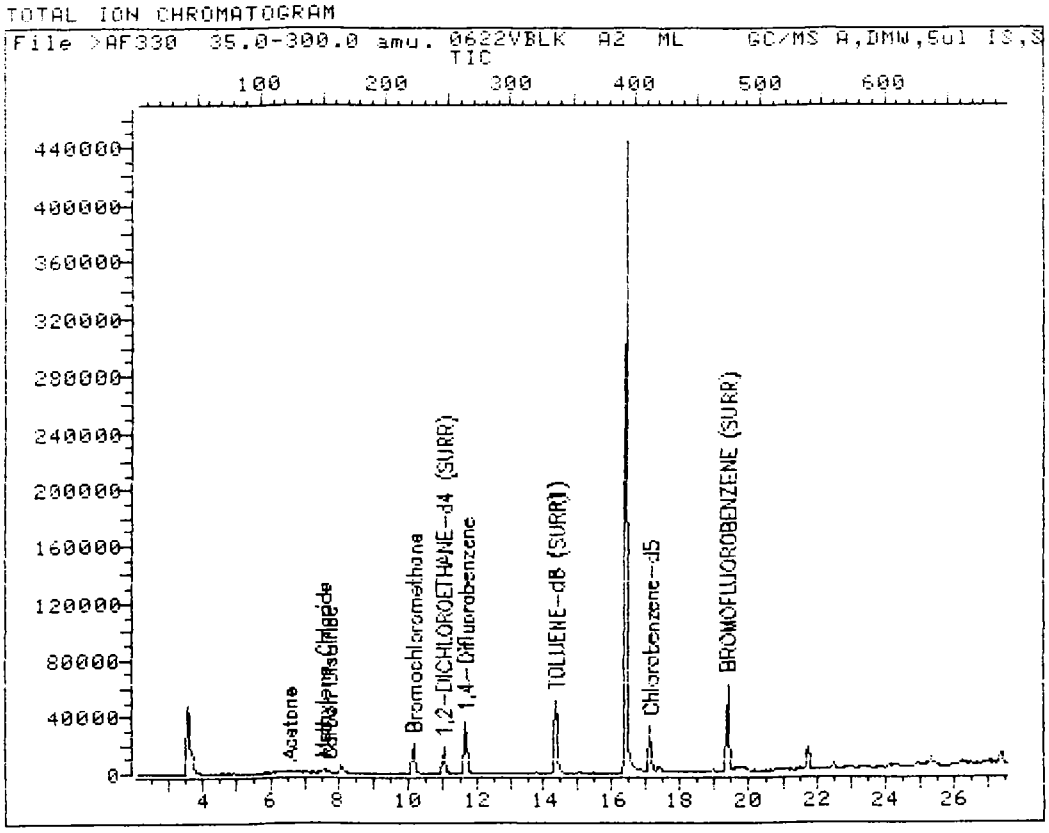
| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|---|
| 1. | | Unknown | 3.56 | 14000. | J |
| 2. | 110543 | Hexane (DOT)(8CI9CI) | 8.09 | 2300. | J |
| 3. | 106934 | Ethane, 1,2-dibromo- (8CI9CI | 16.40 | 82000. | J |
| 4. | | Unknown | 19.80 | 1700. | J |
| 5. | 439 | 1,4-Dichlorobenzene d-4 | 21.74 | 2700. | J |
| 6. | 439 | 1,4-Dichlorobenzene d-4 | 22.47 | 1000. | J |
| 7. | 582161 | Naphthalene, 2,7-dimethyl- ( | 24.31 | 1000. | J |
| 8. | 2847725 | Decane, 4-methyl- (8CI9CI) | 25.30 | 1100. | J |
| 9. | | Unknown | 26.87 | 820. | J |
| 10. | 74645980 | Dodecane, 2,7,10-trimethyl- | 27.39 | 1600. | J |
| 11. | | | | | |
| 12. | | | | | |
| 13. | | | | | |
| 14. | | | | | |
| 15. | | | | | |
| 16. | | | | | |
| 17. | | | | | |
| 18. | | | | | |
| 19. | | | | | |
| 20. | | | | | |
| 21. | | | | | |
| 22. | | | | | |
| 23. | | | | | |
| 24. | | | | | |
| 25. | | | | | |
| 26. | | | | | |
| 27. | | | | | |
| 28. | | | | | |
| 29. | | | | | |
| 30. | | | | | |

NR = Not Reviewed

FORM I VOA-TIC

2/88 Rev.

TOTAL ION CHROMATOGRAM




Data File: >AF330::C3 Quant Output File: ^AF330::OU
Name: 0622VBLK A2 ML
Misc: GC/MS A,DMW,5ul IS,SS/5mls

Id File: IDVAFD::ID
Title: HSL VOLATILES
Last Calibration: 930622 14:36

Operator ID: ZIPPY
Quant Time: 930622 15:54
Injected at: 930622 15:26

QUANT REPORT

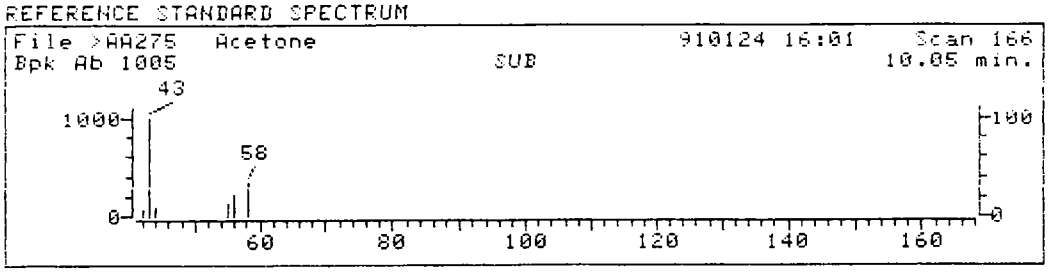
Operator ID: ZIPPY  Quant Rev: 6  Quant Time: 930622 15:54
Output File: ^AF330::OU  Injected at: 930622 15:26
Data File: >AF330::C3  Dilution Factor: 1.00000
Name: 0622VBLK A2 ML
Misc: GC/MS A,DMW,5ul IS,SS/5mls

ID File: IDVAFD::ID
Title: HSL VOLATILES
Last Calibration: 930622 14:36

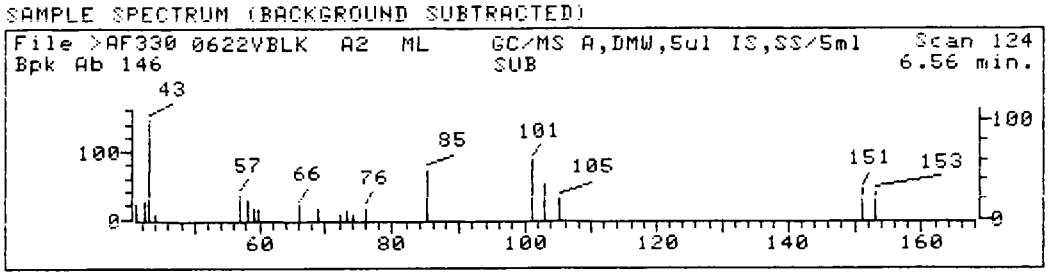
| | Compound | Q ion | Scan# | Area | Conc | Units | q |
|---|---|---|---|---|---|---|---|
| 1) | *Bromochloromethane | 128.0 | 223 | 20067 | 50.00 | ng/mL | 71 |
| 7) | Acetone | 43.0 | 124 | 1582 | 8.04 | ng/mL | 56 |
| 11) | Methylene Chloride | 84.0 | 151 | 8173 | 8.58 | ng/mL | 49 |
| 12) | Carbon Disulfide | 76.0 | 156 | 1387M | 3.93 | ng/mL | 100 |
| 18) | 1,2-DICHLOROETHANE-d4 (SURR) | 65.0 | 247 | 28215 | 45.66 | ng/mL | 100 |
| 20) | *1,4-Difluorobenzene | 114.0 | 264 | 93510 | 50.00 | ng/mL | 96 |
| 30) | TOLUENE-d8 (SURR1) | 98.0 | 337 | 121193 | 47.89 | ng/mL | 93 |
| 35) | *Chlorobenzene-d5 | 82.0 | 413 | 37918 | 50.00 | ng/mL | 91 |
| 46) | BROMOFLUOROBENZENE (SURR) | 95.0 | 475 | 67164 | 48.18 | ng/mL | 89 |
| 50) | TOLUENE-d8 (SURR) | 98.0 | 337 | 121193 | 47.94 | ng/mL | 93 |

* Compound is ISTD

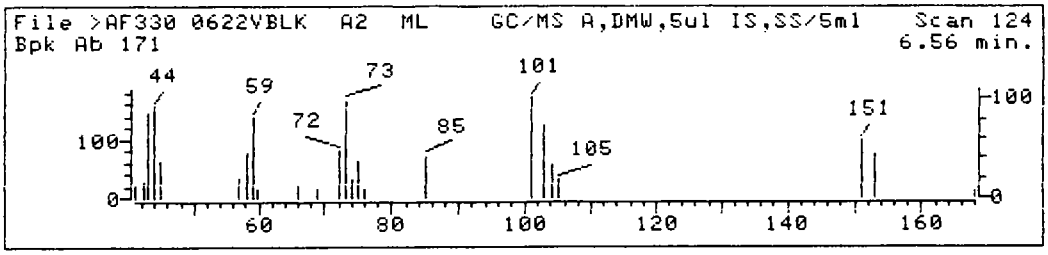
REFERENCE STANDARD SPECTRUM




SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



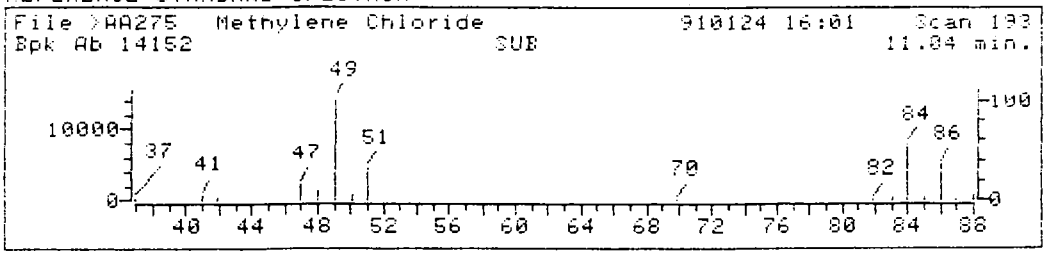

SAMPLE SPECTRUM (UNALTERED)



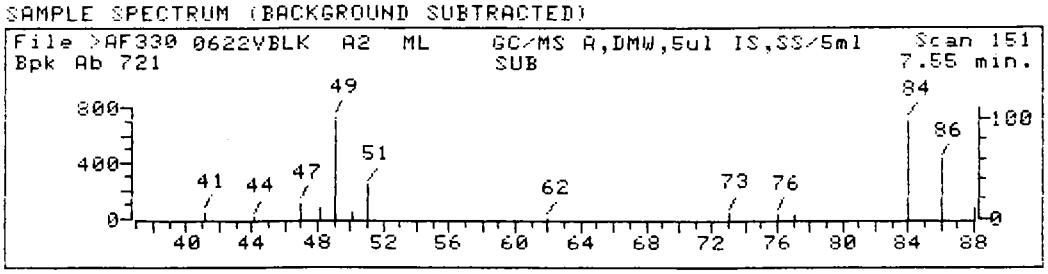

Data File: >AF330::C3 Quant Output File: ^AF330::OU
Name: 0622VBLK A2 ML
Misc: GC/MS A,DMW,5ul IS,SS/5mls
Quant Time: 930622 15:54 Quant ID File: IDVAFD::ID
Injected at: 930622 15:26 Last Calibration: 930622 14:36

Compound No: 7
Compound Name: Acetone
Scan Number: 124
Retention Time: 6.56 min.
Quant Ion: 43.0
Area: 1582
Concentration: 8.04 ng/mL
q-value: 56

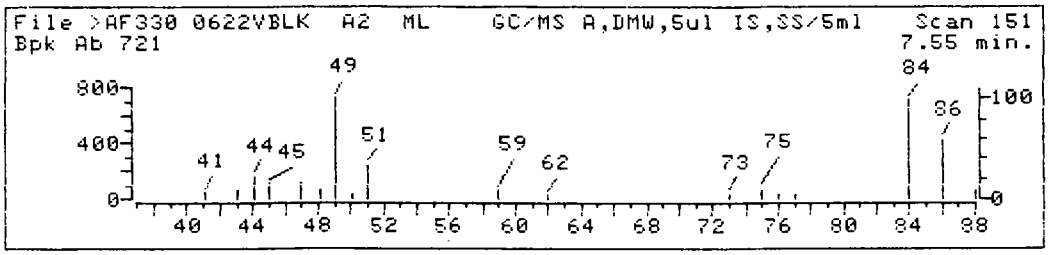
REFERENCE STANDARD SPECTRUM




SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



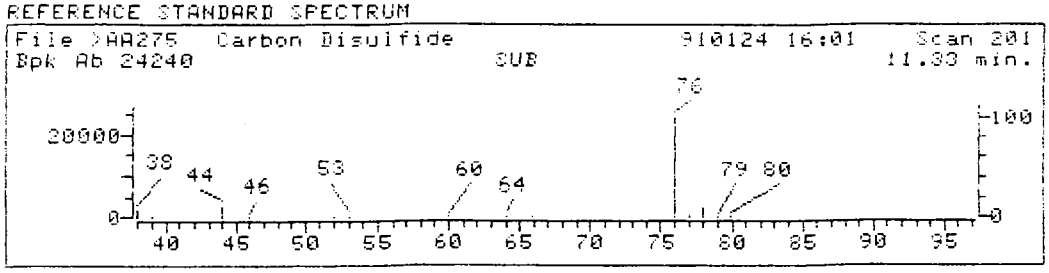

SAMPLE SPECTRUM (UNALTERED)



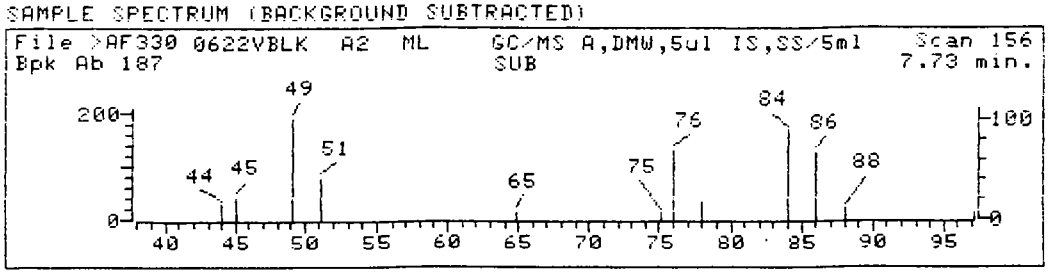

Data File: >AF330::C3 Quant Output File: ^AF330::OU
Name: 0622VBLK A2 ML
Misc: GC/MS A,DMW,5ul IS,SS/5mls
Quant Time: 930622 15:54 Quant ID File: IDVAFD::ID
Injected at: 930622 15:26 Last Calibration: 930622 14:36

Compound No: 11
Compound Name: Methylene Chloride
Scan Number: 151
Retention Time: 7.55 min.
Quant Ion: 84.0
Area: 8173
Concentration: 8.58 ng/mL
q-value: 49

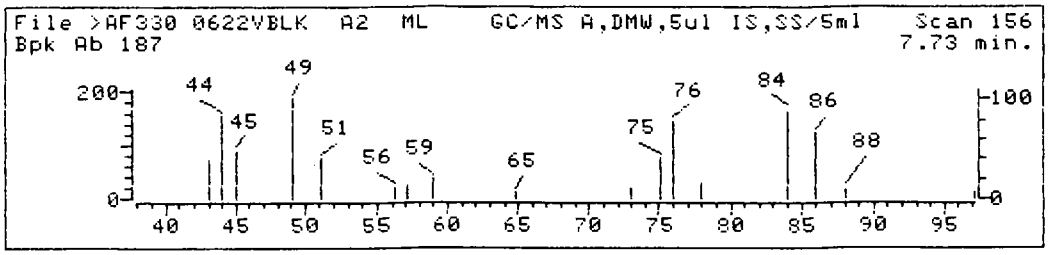
REFERENCE STANDARD SPECTRUM




SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)




SAMPLE SPECTRUM (UNALTERED)




Data File: >AF330::C3 Quant Output File: ^AF330::OU
Name: 0622VBLK A2 ML
Misc: GC/MS A,DMW,5ul IS,SS/5mls
Quant Time: 930622 15:54 Quant ID File: IDVAFD::ID
Injected at: 930622 15:26 Last Calibration: 930622 14:36

Compound No: 12
Compound Name: Carbon Disulfide
Scan Number: 156
Retention Time: 7.73 min.
Quant Ion: 76.0
Area: 1387M
Concentration: 3.93 ng/mL
q-value: 100

MS data file header from : >AF330

Sample: 0622VBLK A2 ML Operator: ZIPPY MS 6/22/93 15:26
Misc : GC/MS A,DMW,5ul IS,SS/5mls
Sys. #: 1 MS model: 87 SW/HW rev.: IA ALS # : 0
Method file: HE8501 Tuning file: MT8501 No. of extra records: 2
Source temp.: 200 Analyzer temp.: 0 Transfer line temp. : 0

| | | | | | |
|---|---|---|---|---|---|
| Chromatographic temperatures : | 0. | 0. | 0. | 0. | 0. |
| Chromatographic times, min. : | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Chromatographic rate, deg/min: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

>AF330 0622VBLK A2 ML GC/MS A,DMW,5ul IS,SS/5mls
35.01 300.0 CLP ADC TIC
Upslope: .20 Area Reject: 12493. Max Peaks: 10 Bunching: 1
Dnslope: 0.00 Results File IAF330 Sorted by Time/Area INT

| Peak # | R.T. min. | first scan | max scan | last scan | peak height | raw area | corr. area | corr. % max. | % of total |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 3.56 | 40 | 42 | 45 | 48340 | 283203 | 281261 | 12.46 | 9.846 |
| 2 | 8.09 | 163 | 166 | 176 | 5451 | 51179 | 46101 | 2.04 | 1.614 |
| 3 | 16.40 | 390 | 393 | 407 | 443796 | 2282680 | 2256733 | 100.00 | 79.000 |
| 4 | 19.80 | 485 | 486 | 494 | 4134 | 71058 | 46721 | 2.07 | 1.636 |
| 5 | 21.74 | 536 | 539 | 542 | 14827 | 112513 | 74614 | 3.31 | 2.612 |
| 6 | 22.47 | 557 | 559 | 562 | 5509 | 55708 | 28359 | 1.26 | .993 |
| 7 | 24.31 | 606 | 609 | 613 | 2886 | 89498 | 28044 | 1.24 | .982 |
| 8 | 25.30 | 634 | 636 | 641 | 4560 | 126820 | 29332 | 1.30 | 1.027 |
| 9 | 26.87 | 677 | 679 | 683 | 2164 | 101681 | 22449 | .99 | .786 |
| 10 | 27.39 | 690 | 693 | 695 | 7343 | 115630 | 43027 | 1.91 | 1.506 |

Sum of corrected areas: 2856641.

Summary of Unknowns PBM Library Search and Quantitation

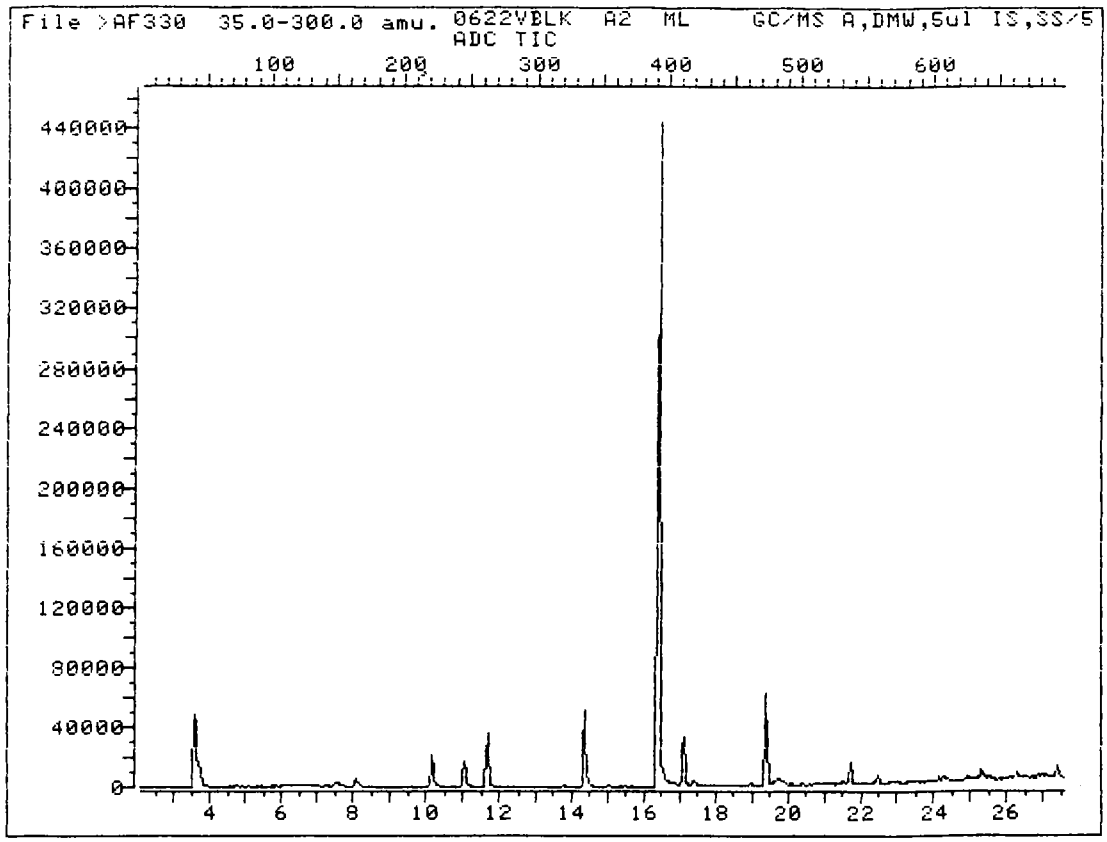
| Standard | Concentration | Area | Retention Time | Unknown Window |
|---|---|---|---|---|
| 1 | 50.0 | 124931. | 10.18 | 2.06 - 10.93 |
| 2 | 50.0 | 199200. | 11.68 | 10.93 - 14.40 |
| 3 | 50.0 | 171936. | 17.13 | 14.40 - 27.57 |

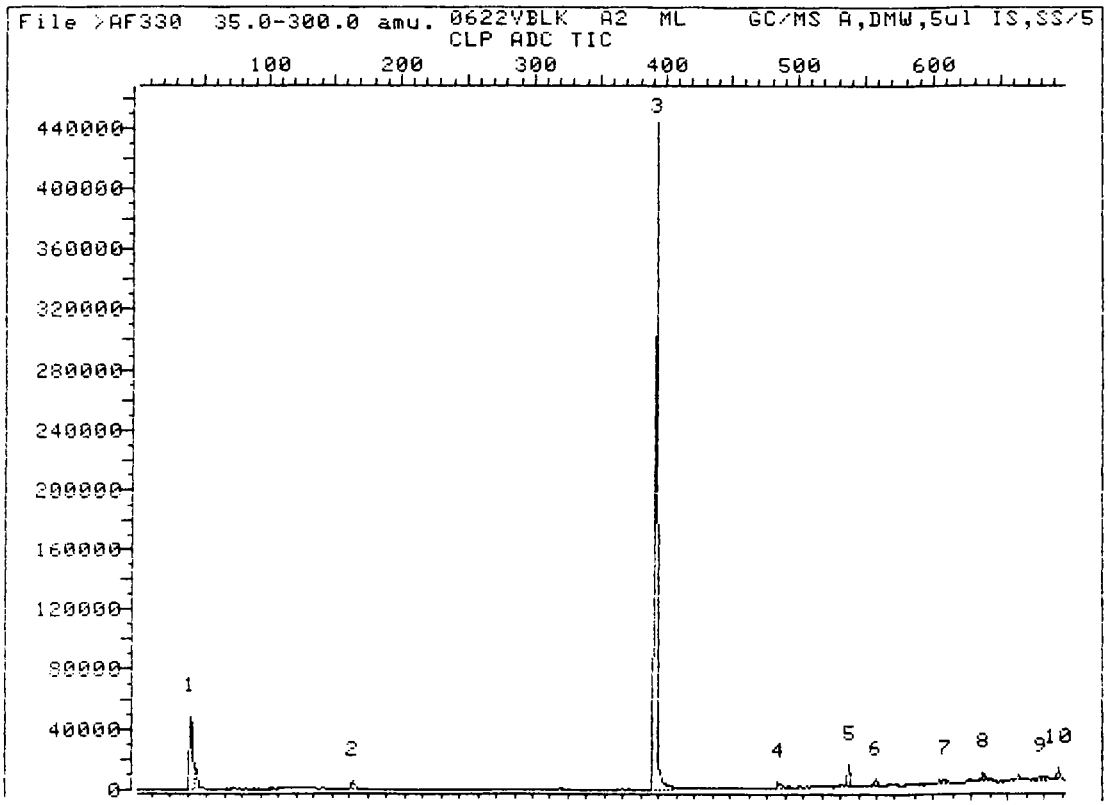
Dilution Factor (DF) = .01 Fractional Solids (FS) = 1.00
Amount Method (AM) = 5.00 Amount Used (AU) = 4.00

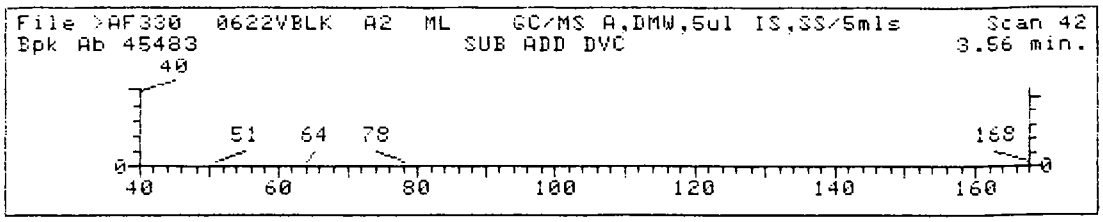
Correction Factor = 125.00 = (AM / AU) / (DF * FS)

$$\text{Unknown Concentration} = \frac{\text{Conc Int Std}}{\text{Area Int Std}} * \text{Area Unk} * \text{Correction Factor}$$

1:49 PM THU., 24 JUNE, 1993


File >AF330 35.0-300.0 amu. 0622VBLK A2 ML GC/MS A,DMW,5ul IS,SS/5
ADC TIC
100 200 300 400 500 600
440000
400000
360000
320000
280000
240000
200000
160000
120000
80000
40000
0
4 6 8 10 12 14 16 18 20 22 24 26

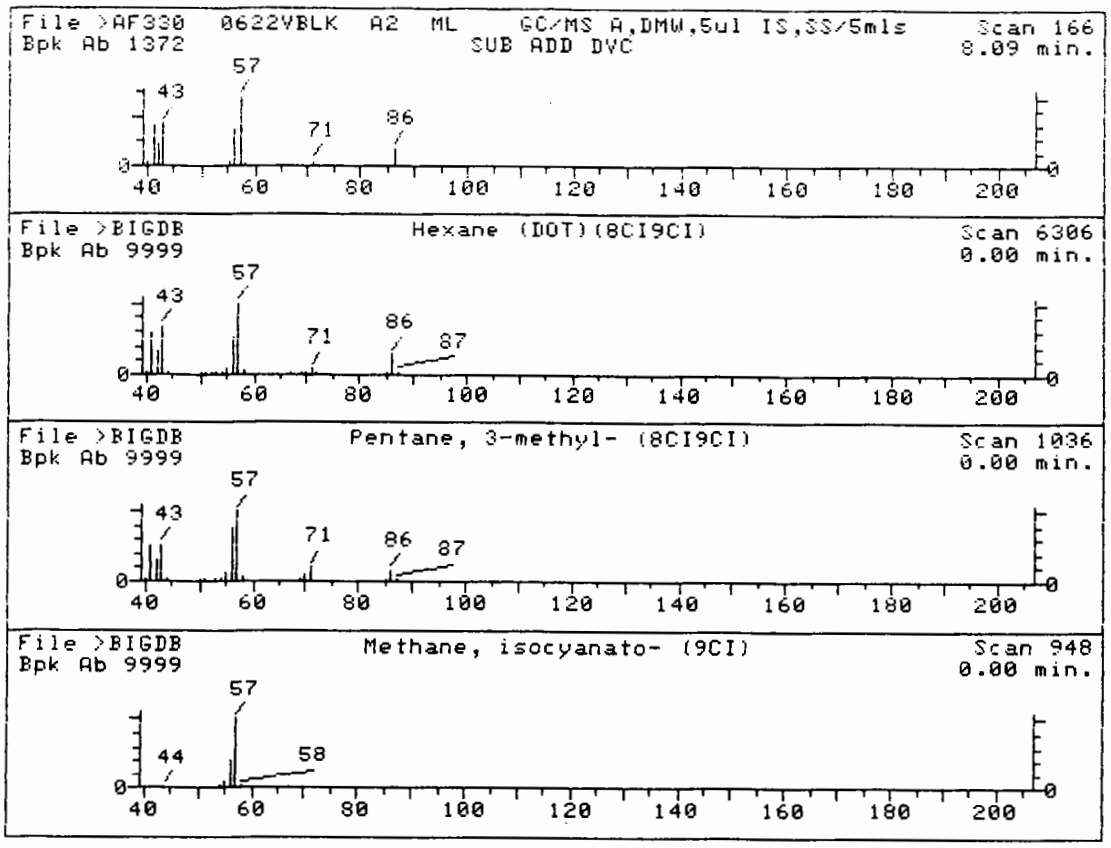

File >AF330 35.0-300.0 amu. 0622VBLK A2 ML GC/MS A,DMW,5ul IS,SS/5
CLP ADC TIC
100 200 300 400 500 600
440000
400000
360000
320000
280000
240000
200000
160000
120000
80000
40000
0
1
2
3
4
5
6
7
8
9
10




. Unknown #,1
Area = 281261.0 Tentative Concentration is 14000.00

Sample file: >AF330 Spectrum #: 42

No data base entries were retrieved.

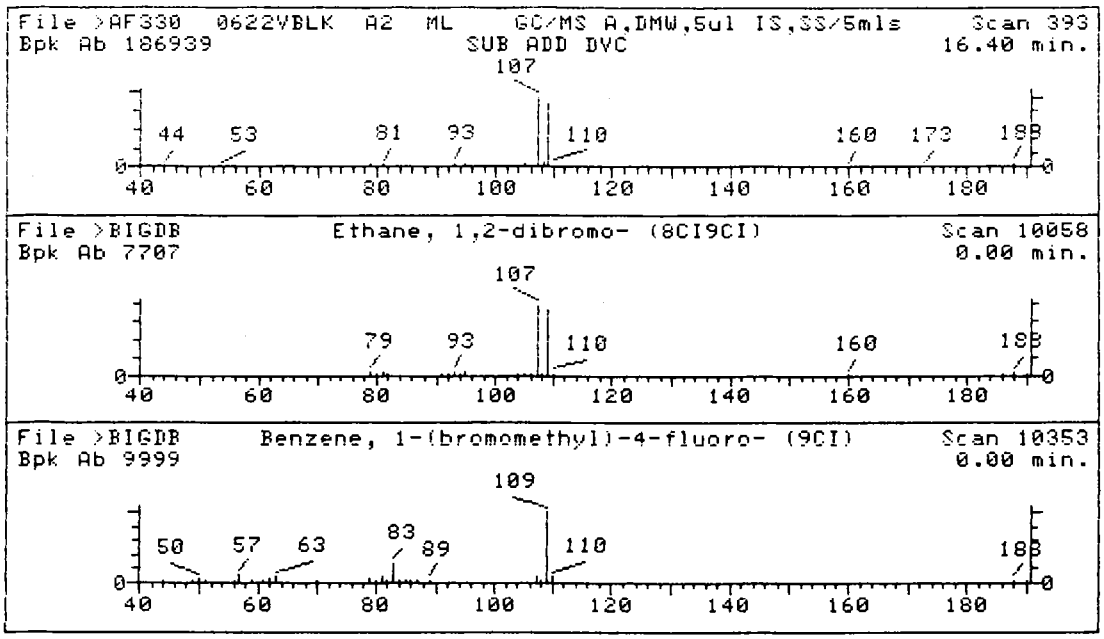



. Unknown #,2
Area = 46101.00 Tentative Concentration is 2300.00

| | | |
|---|---|---|
| 1. Hexane (DOT)(8CI9CI) | 86 | C6H14 |
| 2. Pentane, 3-methyl- (8CI9CI) | 86 | C6H14 |
| 3. Methane, isocyanato- (9CI) | 57 | C2H3NO |
| 4. Propanal, 2,2-dimethyl- (9CI) | 86 | C5H10O |
| 5. Aziridine, 2-methyl- (8CI9CI) | 57 | C3H7N |
| 6. 1-Butanol (9CI) | 74 | C4H10O |

Sample file: >AF330 Spectrum #: 166
Search speed: 2 Tilting option: F No. of ion ranges searched: 43

| | Prob. | CAS # | CON # | ROOT | K | DK | #FLG | TILT | % | CON | C_I | R_IV |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. | 79* | 110543 | 6306 | "BIGDB | 53 | 36 | 2 | 0 | 91 | 6 | 48 | 36 |
| 2. | 60* | 96140 | 1036 | "BIGDB | 33 | 60 | 2 | 0 | 71 | 12 | 30 | 15 |
| 3. | 37* | 624839 | 948 | "BIGDB | 23 | 41 | 1 | 0 | 92 | 27 | 14 | 14 |
| 4. | 33* | 630193 | 6315 | "BIGDB | 35 | 47 | 1 | 0 | 70 | 36 | 10 | 19 |
| 5. | 25* | 75558 | 946 | "BIGDB | 20 | 47 | 2 | 0 | 106 | 41 | 8 | 13 |
| 6. | 11* | 71363 | 945 | "BIGDB | 21 | 71 | 1 | 0 | 67 | 62 | 2 | 14 |

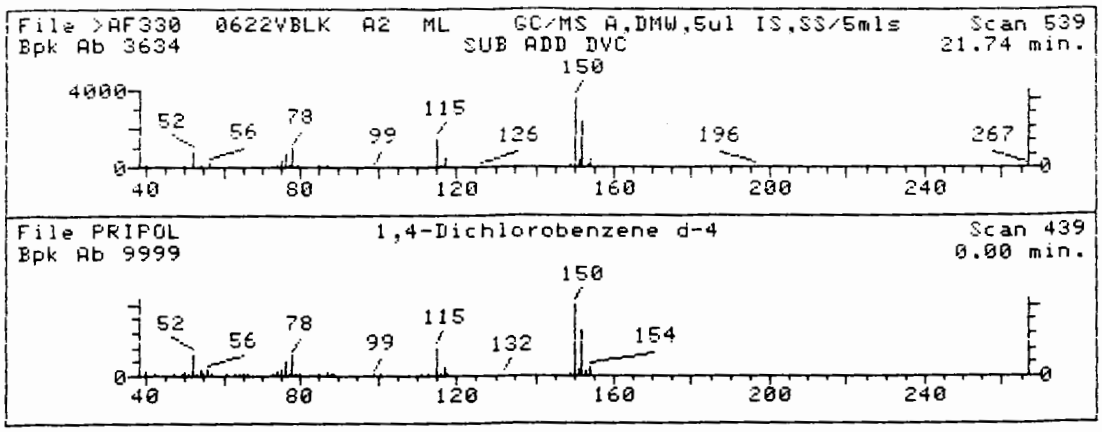



. Unknown #,3
Area = 2256733. Tentative Concentration is 82000.00

1. Ethane, 1,2-dibromo- (8CI9CI) 186 C2H4Br2
2. Benzene, 1-(bromomethyl)-4-fluoro- (9CI) 188 C7H6BrF

Sample file: >AF330 Spectrum #: 393
Search speed: 2 Tilting option: F No. of ion ranges searched: 44

| | Prob. | CAS # | CON # | ROOT | K | DK | #FLG | TILT | % | CON | C_I | R_IV |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. | 64* | 106934 | 10058 | "BIGDB | 58 | 44 | 1 | 0 | 84 | 25 | 28 | 49 |
| 2. | 25* | 459461 | 10353 | "BIGDB | 25 | 80 | 3 | 0 | 90 | 45 | 8 | 13 |

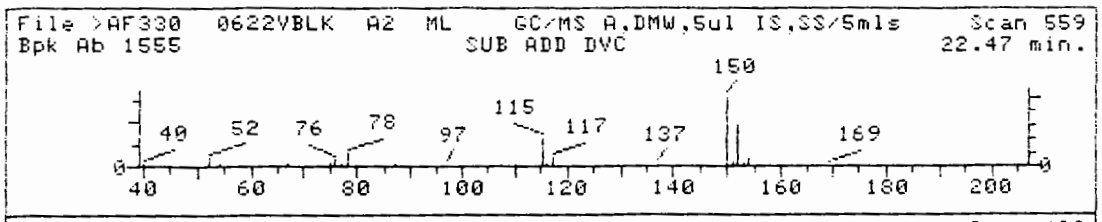


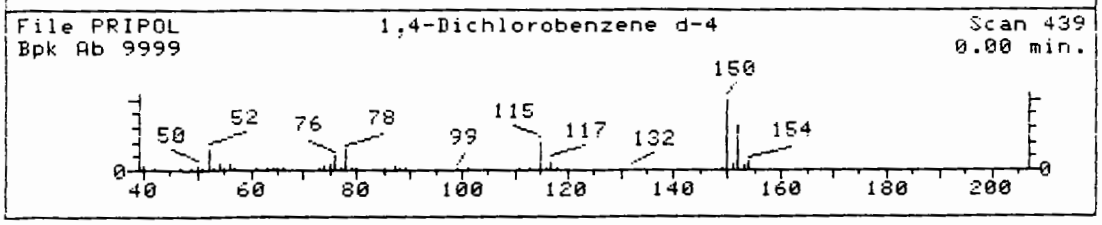

. Unknown #,5
Area = 74614.00 Tentative Concentration is 2700.00

1. 1,4-Dichlorobenzene d-4 150 C6.D4.CL2

Sample file: >AF330 Spectrum #: 539
Search speed: 2 Tilting option: F No. of ion ranges searched: 42

| | Prob. | CAS # | CON # | ROOT | K | DK | #FLG | TILT | % | CON | C_I | R_IU |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. | 94* | 439 | 257 | PRIPOL | 95 | 12 | 1 | 0 | 73 | 7 | 68 | 93 |



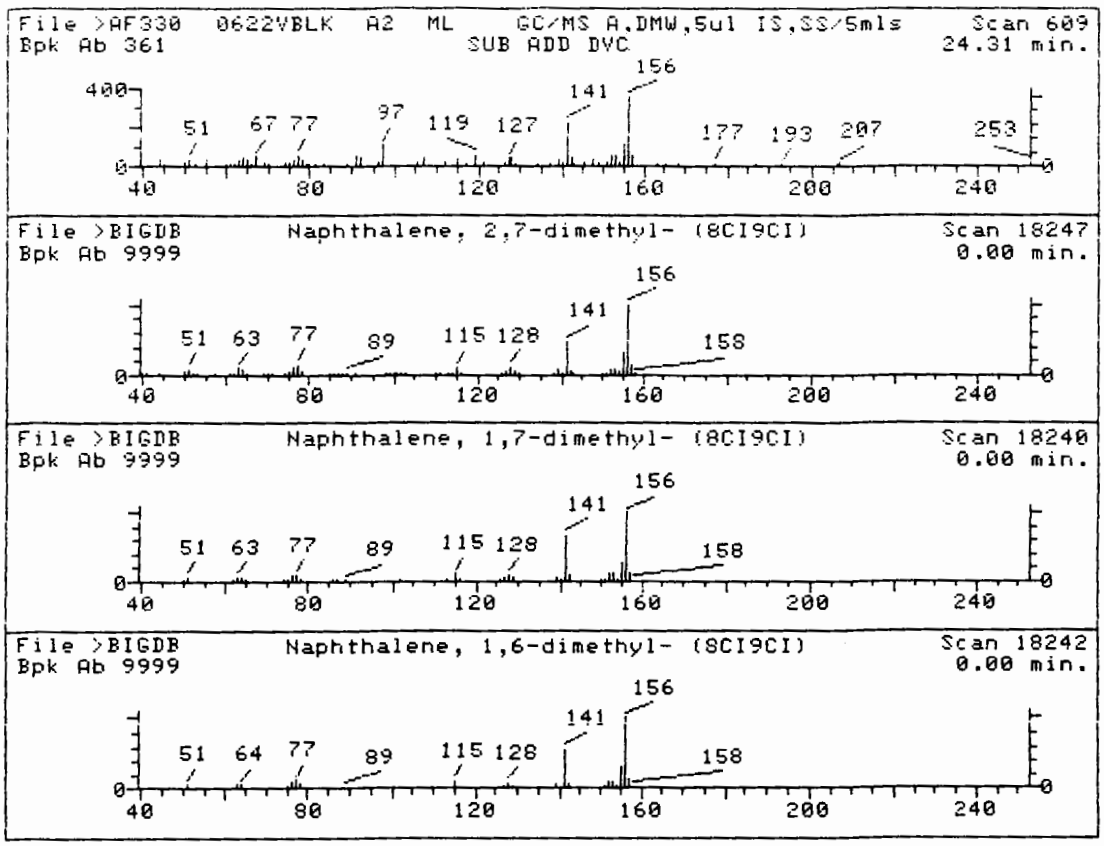




. Unknown #,6
Area = 28359.00 Tentative Concentration is 1000.00

1. 1,4-Dichlorobenzene d-4 150 C6.D4.CL2

Sample file: >AF330 Spectrum #: 559
Search speed: 2 Tilting option: F No. of ion ranges searched: 43

| | Prob. | CAS # | CON # | ROOT | K | DK | #FLG | TILT | % | CON | C_I | R_IU |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. | 63* | 439 | 257 | PRIPOL | 68 | 39 | 2 | -2 | 78 | 17 | 30 | 31 |



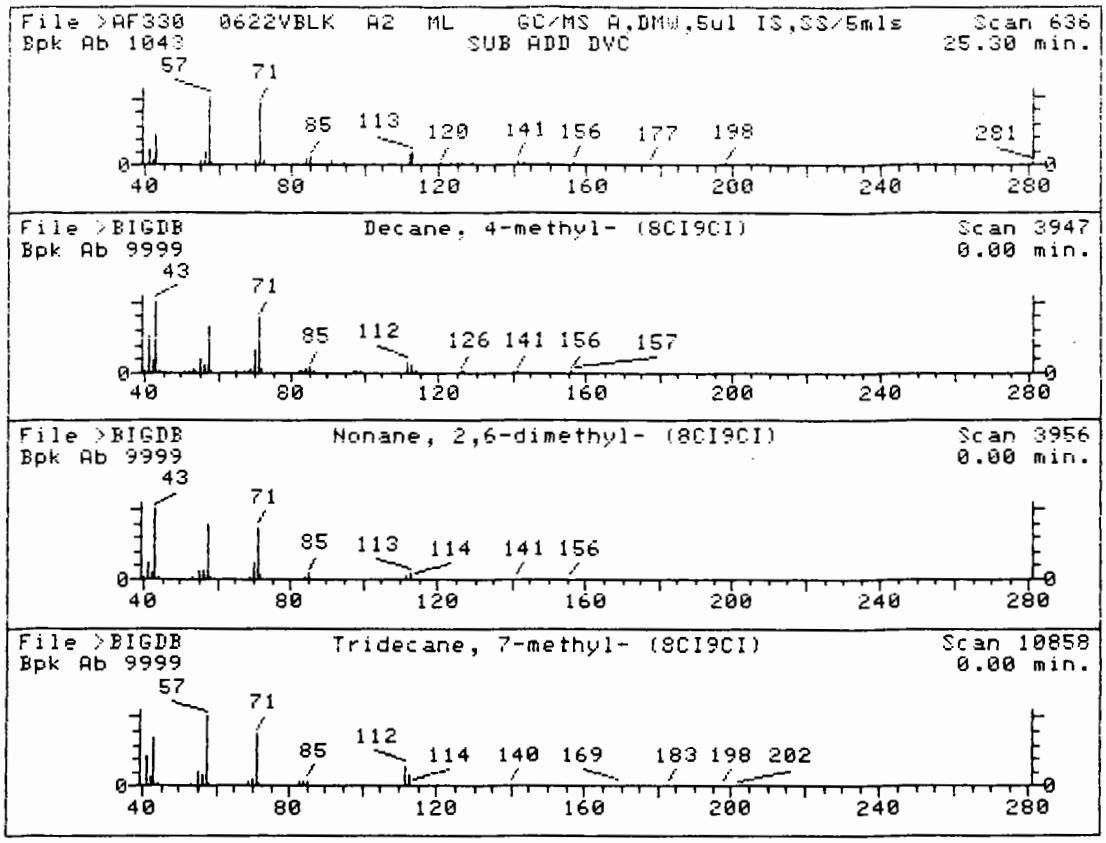

. Unknown #,7
Area = 28044.00 Tentative Concentration is 1000.00

1. Naphthalene, 2,7-dimethyl- (8CI9CI) 156 C12H12
2. Naphthalene, 1,7-dimethyl- (8CI9CI) 156 C12H12
3. Naphthalene, 1,6-dimethyl- (8CI9CI) 156 C12H12
4. Naphthalene, 2,6-dimethyl- (8CI9CI) 156 C12H12
5. Naphthalene, 1,5-dimethyl- (8CI9CI) 156 C12H12
6. Naphthalene, 1,8-dimethyl- (8CI9CI) 156 C12H12
7. Naphthalene, 2,3-dimethyl- (8CI9CI) 156 C12H12

600201

Sample file: >AF330 Spectrum #: 609
Search speed: 2 Tilting option: F No. of ion ranges searched: 43

| | Prob. | CAS # | CON # | ROOT | K | DK | #FLG | TILT | % | CON | C_I | R_IU |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. | 95* | 582161 | 18247 | "BIGDB | 90 | 18 | 0 | 0 | 95 | 12 | 64 | 96 |
| 2. | 95* | 575371 | 18240 | "BIGDB | 86 | 22 | 0 | 0 | 93 | 10 | 68 | 95 |
| 3. | 95* | 575439 | 18242 | "BIGDB | 81 | 27 | 0 | 0 | 100 | 10 | 68 | 94 |
| 4. | 93* | 581420 | 18244 | "BIGDB | 92 | 13 | 0 | 1 | 91 | 10 | 68 | 92 |
| 5. | 89* | 571619 | 18238 | "BIGDB | 88 | 21 | 1 | 0 | 89 | 10 | 62 | 86 |
| 6. | 86* | 569415 | 18235 | "BIGDB | 60 | 50 | 0 | 0 | 78 | 10 | 59 | 73 |
| 7. | 83* | 581408 | 18243 | "BIGDB | 59 | 47 | 0 | 0 | 83 | 12 | 51 | 72 |

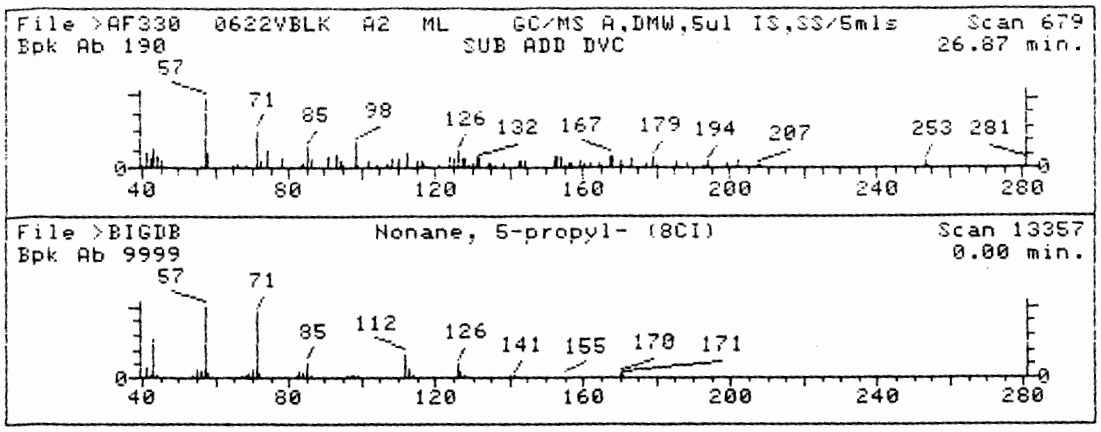



. Unknown #,8
Area = 29332.00 Tentative Concentration is 1100.00

| | | | |
|---|---|---|---|
| 1. | Decane, 4-methyl- (8CI9CI) | 156 | C11H24 |
| 2. | Nonane, 2,6-dimethyl- (8CI9CI) | 156 | C11H24 |
| 3. | Tridecane, 7-methyl- (8CI9CI) | 198 | C14H30 |
| 4. | Nonane, 2,3-dimethyl- (8CI9CI) | 156 | C11H24 |
| 5. | Propanal, 2-propenylhydrazone (9CI) | 112 | C6H12N2 |
| 6. | Heptane, 3-[(ethenyloxy)methyl]- (9CI) | 156 | C10H20O |
| 7. | Octane, 3-ethyl- (8CI9CI) | 142 | C10H22 |

Sample file: >AF330 Spectrum #: 636
Search speed: 2 Tilting option: F No. of ion ranges searched: 50

| | Prob. | CAS # | CON # | ROOT | K | DK | #FLG | TILT | % | CON | C_I | R_IV |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. | 70* | 2847725 | 3947 | "BIGDB | 52 | 49 | 3 | 0 | 112 | 10 | 42 | 16 |
| 2. | 58* | 17302282 | 3956 | "BIGDB | 46 | 45 | 2 | 0 | 120 | 19 | 25 | 26 |
| 3. | 52* | 26730143 | 10858 | "BIGDB | 53 | 58 | 3 | 0 | 100 | 19 | 20 | 16 |
| 4. | 52* | 2884062 | 10835 | "BIGDB | 27 | 74 | 3 | 0 | 98 | 16 | 20 | 13 |
| 5. | 43* | 19031788 | 3944 | "BIGDB | 33 | 66 | 2 | 0 | 88 | 25 | 17 | 14 |
| 6. | 42* | 103446 | 15912 | "BIGDB | 33 | 70 | 3 | 0 | 100 | 23 | 17 | 13 |
| 7. | 38* | 5881174 | 3951 | "BIGDB | 34 | 59 | 2 | 0 | 108 | 28 | 14 | 15 |

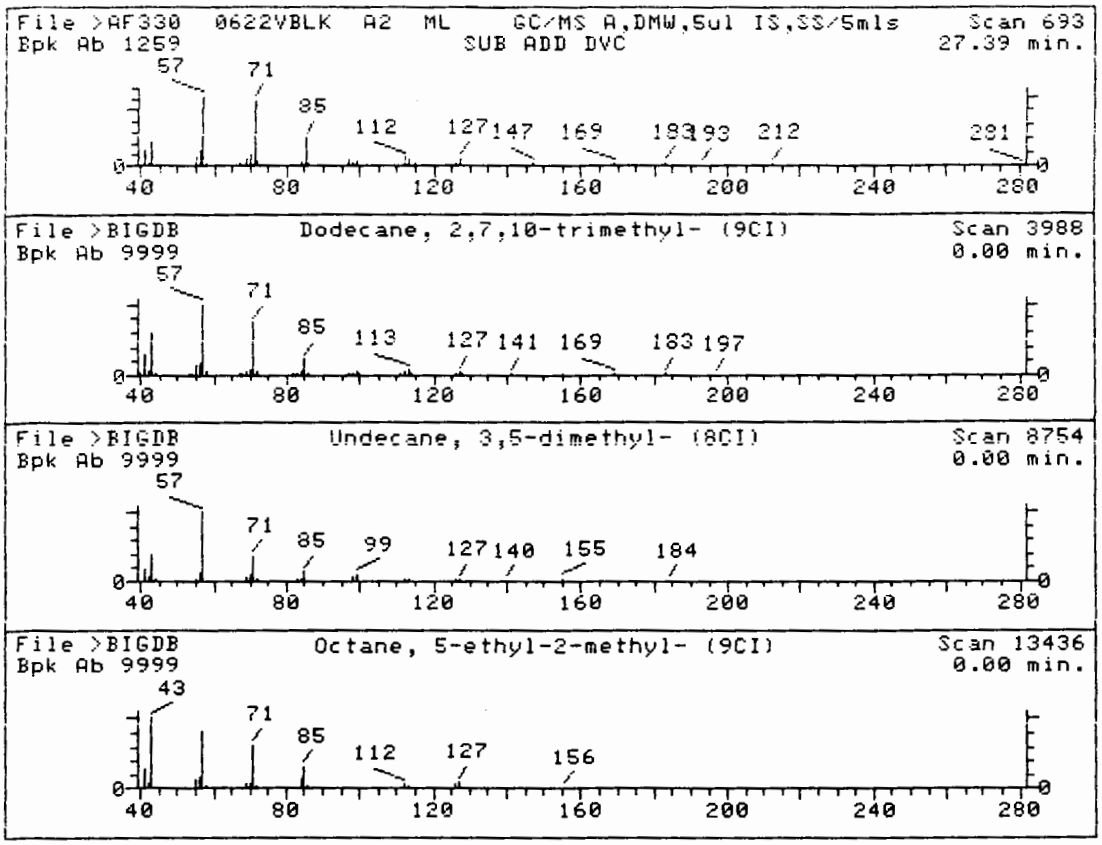



. Unknown #,9
Area = 22449.00 Tentative Concentration is 820.00

1. Nonane, 5-propyl- (8CI) 170 C12H26

Sample file: >AF330 Spectrum #: 679
Search speed: 2 Tilting option: F No. of ion ranges searched: 10

| | Prob. | CAS # | CON # | ROOT | K | DK | #FLG | TILT | % | CON | C_I | R_ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. | 25* | 998356 | 13357 | "BIGDB | 41 | 63 | 3 | 0 | 100 | 50 | > | |




. Unknown #,10
Area = 43027.00 Tentative Concentration is 1600.00

| | | | |
|---|---|---|---|
| 1. | Dodecane, 2,7,10-trimethyl- (9CI) | 212 | C15H32 |
| 2. | Undecane, 3,5-dimethyl- (8CI) | 184 | C13H28 |
| 3. | Octane, 5-ethyl-2-methyl- (9CI) | 156 | C11H24 |
| 4. | Nonane, 3-methyl-5-propyl- (8CI) | 184 | C13H28 |
| 5. | Iron, tricarbonyl[N-(phenyl-2-pyridinylmethylene)benzenamine-N,N']- (9CI) | 398 | C21H14FeN2O3 |
| 6. | Decane, 5-propyl- (8CI) | 184 | C13H28 |
| 7. | Tetradecane, 4-methyl- (8CI9CI) | 212 | C15H32 |

Sample file: >AF330 Spectrum #: 693
Search speed: 2 Tilting option: F No. of ion ranges searched: 59

| | Prob. | CAS # | CON # | ROOT | K | DK | #FLG | TILT | % | CON | C_I | R_IU |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. | 79 | 74645980 | 3988 | "BIGDB | 82 | 27 | 1 | -2 | 91 | 9 | 48 | 32 |
| 2. | 70* | 17312811 | 8754 | "BIGDB | 43 | 55 | 3 | 0 | 255 | 9 | 42 | 13 |
| 3. | 70 | 62016186 | 13436 | "BIGDB | 60 | 38 | 2 | 0 | 118 | 7 | 42 | 19 |
| 4. | 67 | 31081182 | 6159 | "BIGDB | 73 | 32 | 2 | 0 | 99 | 12 | 34 | 26 |
| 5. | 60 | 74764117 | 6168 | "BIGDB | 64 | 73 | 2 | 0 | 100 | 13 | 30 | 14 |
| 6. | 60* | 17312628 | 4003 | "BIGDB | 50 | 61 | 2 | 1 | 100 | 15 | 30 | 16 |
| 7. | 60* | 25117242 | 6225 | "BIGDB | 37 | 92 | 3 | 0 | 99 | 15 | 30 | 13 |

DISTRIBUTION:
THOY, LEE, MOBLE, DUCK, EXTRACTIONS
REMARKS:

**********PROJECT: NWS EARLE
NON - REPORTED SAMPLES COMPANY: ROY F. WESTON INC
ORGANIC - SPECIFIC CONTRACT REPORT PROJECT MGR: MARTJANE
**********

| AENI ID | CLIENT ID | CLIENT | CON NUM | TAS NUM | DATE REC | DATE DUE | DATE SAMPLED | MATRIX | pH | TYPE | ACD | BN | PST (UCL) | PST (OP) | VOA | PCB | HRB | EXP | TPH IR | TPH GC | PHEN | O&G | GAS | OTH | VOA GC | BTEX | OTHER | COMMENTS | LOC | HOLD DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 8729 | NEC8-610-SS1 | WEST | 0103 | | 06/11/93 | 06/12/93 | 06/10/93 | SOIL | | TCL | | | | | H | | | | E | | | | | | | | | VOA+10 ON HOLD | VR/1307/08/93 | |
| 8730 | NEC8-610-SS2 | WEST | 0103 | | 06/11/93 | 06/12/93 | 06/10/93 | SOIL | | TCL | | | | | H | | | | E | | | | | | | | | VOA+10 ON HOLD | VR/1307/08/93 | |
| 8731 | NEC8-610-SS3 | WEST | 0103 | | 06/11/93 | 06/12/93 | 06/10/93 | SOIL | | TCL | | | | | H | | | | E | | | | | | | | | VOA+10 ON HOLD | VR/1307/08/93 | |
| 8732 | NEC8-610-SS4 | WEST | 0103 | | 06/11/93 | 06/12/93 | 06/10/93 | SOIL | | TCL | | | | | H | | | | E | | | | | | | | | VOA+10 ON HOLD | VR/1307/08/93 | |
| 8733 | NEC8-610-SS5 | WEST | 0103 | | 06/11/93 | 06/12/93 | 06/10/93 | SOIL | | TCL | | | | | H | | | | E | | | | | | | | | VOA+10 ON HOLD | VR/1307/08/93 | |
| 8734 | NEC8-610-SS6 | WEST | 0103 | | 06/11/93 | 06/12/93 | 06/10/93 | SOIL | | TCL | | | | | H | | | | E | | | | | | | | | VOA+10 ON HOLD | VR/1307/08/93 | |
| 8735 | NEC8-610-SS7 | WEST | 0103 | | 06/11/93 | 06/12/93 | 06/10/93 | SOIL | | TCL | | | | | H | | | | E | | | | | | | | | VOA+10 ON HOLD | VR/1307/08/93 | |
| 8736 | NEC8-610-SSFB | WEST | 0103 | | 06/11/93 | 06/12/93 | 06/10/93 | WATER | | TCL | | | | | H | | | | | | | | | | | | | VOA+10 ON HOLD | VR 06/12/93 | |
| 8737 | NEC8-610-DIS | WEST | 0103 | | 06/11/93 | 06/12/93 | 06/10/93 | SOIL | | TCL | | | | | H | E | | | E | | | | | | | | | VOA+10 OH HOLD | VR/1306/20/93 | |

9 ORGANIC RECORDS
L = LEACH E = EXTRACT A = ANALYZE C = CHECK DATA Q = DO QA

(AED) H 37371 = Rw:1 II