

United States Army
Fort Monmouth, New Jersey

**Underground Storage Tank
Closure and Site Investigation
Report**

***Building 290
Main Post***

**NJDEP UST Registration No. 081533-64
NJDEP Closure Approval No. C-93-3179**

May 2000

VOLUME 1 OF 3

**UNDERGROUND STORAGE TANK
CLOSURE AND SITE INVESTIGATION REPORT**

BUILDING 290

**MAIN POST
NJDEP UST REGISTRATION NO. 081533-64
NJDEP CLOSURE APPROVAL NO. C-93-3179**

MAY 2000

**PROJECT NO.: 09-5004-08
CONTRACT NO.: DACA51-94-D-0014**

PREPARED FOR:

**UNITED STATES ARMY, FORT MONMOUTH, NEW JERSEY
DIRECTORATE OF PUBLIC WORKS
BUILDING 167
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EXECUTIVE SUMMARY

UST Closure

On September 12, 1994, a fiberglass underground storage tank (UST) was closed by removal in accordance with the New Jersey Department of Environmental Protection (NJDEP) Closure Approval No. C-93-3179 at U.S. Army Fort Monmouth, Fort Monmouth, New Jersey. The UST, NJDEP Registration No. 081533-64, was located immediately adjacent to Building 290 in the Main Post area of U.S. Army, Fort Monmouth. UST No. 081533-64 was a 2,000-gallon No. 2 diesel oil UST. The UST fill port was located directly above the tank. The tank closure was performed by Cleaning Up The Environment Inc. (CUTE Inc.).

Site Assessment - Soil

The site assessment was performed by U.S. Army personnel in accordance with the NJDEP *Technical Requirements for Site Remediation* (N.J.A.C. 7:26E) and the NJDEP *Field Sampling Procedures Manual*. Soils surrounding the tank were screened visually and with air monitoring equipment for evidence of contamination. Following removal, the UST was inspected for corrosion holes. No holes were noted in the UST, however, evidence of potentially contaminated soils was observed surrounding the tank.

On September 12, 1994, following the removal of the UST, approximately 40 cubic yards of potentially contaminated soil was removed from the excavation due to visual contamination.

On September 13, 1994, following removal of approximately 10 cubic yards of potentially contaminated soil, post-excavation soil samples A, B, C, D, E, F, and DUP A were collected from a total of a total of six (6) locations along the sidewalls of the excavation. The samples were collected at a depth of 5.5 feet below ground surface (bgs). Sample H was collected along the former piping length of the excavation, which was approximately 15 feet in length. The piping samples were collected at a depth of 5.5 feet bgs. All samples were analyzed for total petroleum hydrocarbons (TPHC).

On September 21, 1994, due to elevated TPHC levels, a sample was collected from the north sidewall of the excavation in the vicinity of sample A, and was analyzed for volatile organic compounds plus 15 tentatively identified compounds (VOCs). The sample was collected at a depth of 5.5 feet bgs.

Findings - Soil

Post-excavation soil samples (samples C, D, and H) collected from the UST excavation and from below piping associated with the former UST at Building 290 contained TPHC concentrations below the NJDEP residential direct contact total organic contaminants soil cleanup criteria of

10,000 milligrams per kilogram (mg/kg) (N.J.A.C. 7:26D and revisions dated February 3, 1994). Samples C, D, and H, contained levels of TPHC ranging in concentration from 57.3 mg/kg to 730.0 mg/kg. Samples E, and F contained TPHC concentrations of 3,110.0 mg/kg and 9,670.0 mg/kg, respectively. Samples A, B, and DUP A contained levels of TPHC ranging in concentration from 10,400.0 mg/kg to 16,200.0 mg/kg, which exceeded the NJDEP soil cleanup criteria for 10,000 mg/kg. Post-excavation soil sample A, collected on September 21, 1994, contained methylene chloride at 0.46 mg/kg, and 2-butanone at 1.5 mg/kg. No other compounds were detected.

Based on field screening of subsurface soils, the DPW has concluded that an historical discharge was associated with the UST and associated piping. On September 13, 1994, a spill was reported to the NJDEP "Hotline" for UST No. 081533-64 and was assigned Spill Case No. 94-9-13-1503-57.

Site Restoration

Following receipt of all post-excavation soil sampling results, the excavation was backfilled to grade with a combination of uncontaminated excavated soil and certified clean fill. The excavation site was then restored to its original condition.

Site Assessment - Groundwater

One shallow overburden monitoring well (MW-1) was installed at the Building 290 area on July 15, 1994. It was installed approximately 30 feet south off the southeastern corner of Building 290 in the assumed downgradient direction of the former excavation. It was screened in the 2.0- to 12.5- foot depth interval, across the water table, which is approximately 3 feet below grade surface.

A second shallow overburden monitoring well (MW-2) was installed at the Building 290 area on August 16, 1995. It was installed approximately 8 feet north off the northwestern corner of Building 290 in the assumed downgradient direction of the former excavation. It was screened in the 1.5- to 11.5- foot depth interval, across the water table, which is approximately 4 feet below grade surface.

Monitoring well MW-1 was sampled on November 8, 1994, November 29, 1994, and December 18, 1995, and analyzed for volatile organic compounds with xylenes (VOCs), tertiary butyl alcohol (TBA), methyl tertiary butyl ether (MTBE), and total lead.

Monitoring well MW-2 was sampled on November 18, 1995, and analyzed for volatile organic compounds with xylenes (VOCs), tertiary butyl alcohol, methyl tertiary butyl ether (MTBE), and total lead.

All sampling and analyses were performed in accordance with the NJDEP *Field Sampling Procedures Manual*, and the *Technical Requirements for Site Remediation*, N.J.A.C. 7:26E (*Technical Requirements*).

Findings - Groundwater

The sample collected from MW-1 on November 8, 1994, contained lead at 17.0 micrograms per liter (ug/l). This exceeded the Ground Water Quality Criteria (GWQC) for lead of 10 ug/l. All other groundwater analytical results were either below the detection limit or in compliance with the New Jersey Groundwater Quality Criteria (GWQC).

The sample collected on November 29, 1994, contained lead at 3.0 ug/l, which complies with the GWQC for lead. No other compounds were detected.

The sample collected on December 18, 1995, contained methylene chloride at 1.1 ug/l, and cis-1,2-Dichloroethene at 1.1 ug/l. The sample also contained aluminum at 2,200.0 ug/l, barium at 55.0 ug/l, calcium at 4,100.0 ug/l, copper at 60.0 ug/l, iron at 6,400.0 ug/l, potassium at 5,000.0 ug/l, magnesium at 4,500.0 ug/l, manganese at 23.0 ug/l, sodium at 9,200.0 ug/l, and zinc at 180.0 ug/l. This exceeds the GWQC for aluminum of 200.0 ug/l, and iron of 300.0 ug/l. The trip blank and the field blank contained methylene chloride at 1.4 ug/l. No other compounds were detected.

The sample collected from MW-2 on November 28, 1995 contained methylene chloride at 2.3 ug/l, cis-1,2-Dichloroethene at 1.3 ug/l, and chloroform at 0.50 ug/l. The sample also contained silver at 440.0 ug/l, aluminum at 360.0 ug/l, barium at 74.0 ug/l, calcium at 5,300.0 ug/l, iron at 1,100.0 ug/l, magnesium at 4,700.0 ug/l, manganese at 30.0 ug/l, sodium at 11,000.0 ug/l, lead at 1.5 ug/l, and zinc at 100.0 ug/l. This exceeds the GWQC for aluminum of 200.0 ug/l, and iron of 300.0 ug/l. The trip blank and the field blank contained methylene chloride at 0.70 ug/l, and 0.60 ug/l, respectively. The field blank also contained manganese at 32.0 ug/l, lead at 2.8 ug/l, and zinc at 27.0 ug/l. No other compounds were detected.

No product or sheen was observed in MW-1 or MW-2 on any of the sampling dates. The depth to the water table in MW-1 on November 8, 1994 was 8.14 feet below grade, 7.15 feet on November 29, 1994, and 3.06 feet below grade on December 18, 1995. The depth to the water table in MW-2 was 3.18 feet below grade on November 28, 1995.

Site Assessment Quality Assurance

The sampling and laboratory analysis conducted during the site assessment were performed in accordance with Section 7:26E-2.1 of the *Technical Requirements*.

Conclusions and Recommendations

Based on the post-excavation soil sampling results, soils with TPHC concentrations exceeding the NJDEP soil cleanup criteria for total organic contaminants of 10,000 mg/kg, do exist in the former location of the UST or associated piping.

The groundwater sample collected on November 8, 1994, contained a lead concentration which exceeded the New Jersey GWQC of 10 ug/l. However, lead was detected below the GWQC during the second round of groundwater sampling on November 29, 1994. Based on the analytical results of the groundwater samples collected on November 29, 1994, November 28, 1995, and December 18, 1995, groundwater quality at the Building 290 UST closure site complies with the New Jersey GWQC.

No further action is proposed in regard to the closure and site assessment of UST No. 081533-64 at Building 290.

1.0 UNDERGROUND STORAGE TANK DECOMMISSIONING ACTIVITIES

1.1 OVERVIEW

One underground storage tank (UST), New Jersey Department of Environmental Protection (NJDEP) Registration No. 081533-64, was closed at Building 290 at U.S. Army Fort Monmouth, Fort Monmouth, New Jersey on September 12, 1994. Refer to site location map on Figure 1. This report presents the results of the DPW's implementation of the UST Decommissioning/Closure Plan submitted to the NJDEP on June 28, 1993. The plan was approved on August 26, 1993 and assigned TMS No. C-93-3179. The UST was a fiberglass 2,000-gallon tank containing No. 2 diesel oil.

Decommissioning activities for UST No. 081533-64 complied with all applicable Federal, State and Local laws and ordinances in effect at the date of decommissioning. These laws included but were not limited to: N.J.A.C. 7:14B-1 et seq., N.J.A.C. 5:23-1 et seq., and Occupational Safety and Health Administration (OSHA) 1910.146 & 1910.120. All permits including but not limited to the NJDEP-approved Decommissioning/Closure Plan were posted onsite for inspection. CUTE Inc., the contractor that conducted the decommissioning activities, is registered and certified by the NJDEP for performing UST closure activities. Closure of UST No. 081533-64 proceeded under the approval of the NJDEP Bureau of Underground Storage Tanks (NJDEP-BUST). The NJDEP-BUST closure approval and signed certifications for UST No. 081533-64 are included in Appendices A and B, respectively.

Based on field screening of subsurface soils, the DPW has concluded that an historical discharge was associated with the UST and associated piping. On September 13, 1994, a spill was reported to the NJDEP "Hotline" for UST No. 081533-64 and was assigned Spill Case No. 94-9-13-1503-57.

This UST Closure and Site Investigation Report has been prepared by Smith Technology Corporation, to assist the United States Army Directorate of Public Works (DPW) in complying with the NJDEP Bureau of Underground Storage Tanks (NJDEP-BUST) regulations. The applicable NJDEP-BUST regulations at the date of closure were the *Interim Closure Requirements for Underground Storage Tank Systems* (N.J.A.C. 7:14B-1 et seq. September 1990 and revisions dated November 1, 1991).

This report was prepared using information required at the time of closure. Section 1 of this UST Closure and Site Investigation Report provides a summary of the UST decommissioning activities. Section 2 of this report describes the site investigation activities. Conclusions and recommendations, including the results of the soil sampling investigation, are presented in the final section of this report.

1.2 Site Description

Building 290 is located in the central portion of the Main Post area of Fort Monmouth, as shown on Figure 1. UST No. 081533-64 was located southwest of Building 290 and appurtenant piping ran approximately 15 feet northeast from the excavation to Building 290. The fill port area was located directly above the tank. A site map is provided on Figure 2.

1.2.1 Geological/Hydrogeological Setting

The following is a description of the geological/hydrogeological setting of the area surrounding Building 290. Included is a description of the regional geology of the area surrounding Fort Monmouth as well as descriptions of the local geology and hydrogeology of the Main Post area.

Regional Geology

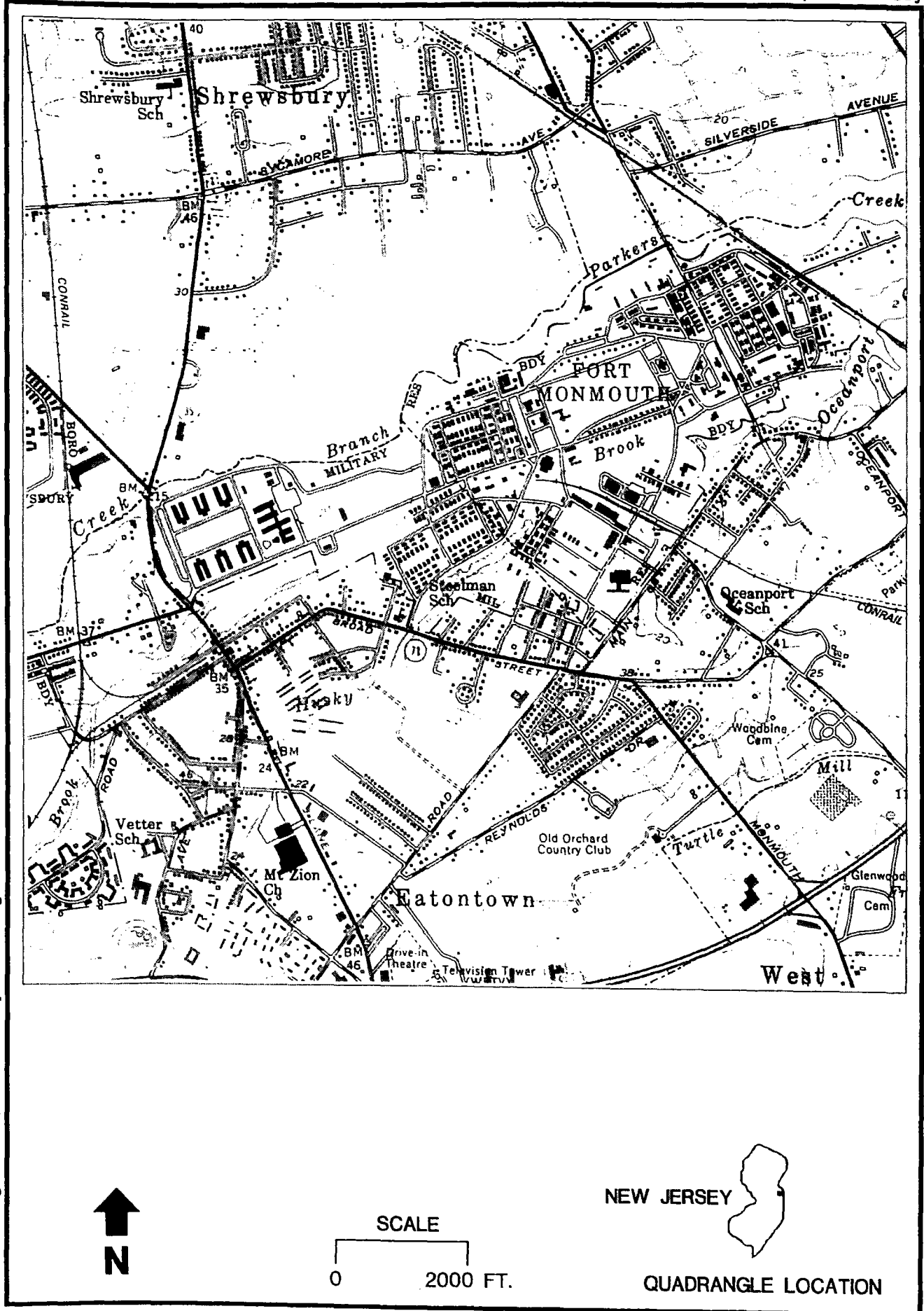
Monmouth County lies within the New Jersey Section of the Atlantic Coastal Plain physiographic province. The Main Post, Charles Wood, and the Evans areas are located in what may be referred to as the Outer Coastal Plain subprovince, or the Outer Lowlands.

In general, New Jersey Coastal Plain formations consist of a seaward-dipping wedge of unconsolidated deposits of clay, silt, and gravel. These formations typically strike northeast-southwest with a dip ranging from 10 to 60 feet per mile and were deposited on Precambrian and lower Paleozoic rocks (Zapeczka, 1989). These sediments, predominantly derived from deltaic, shallow marine, and continental shelf environments, date from Cretaceous through the Quaternary Periods. The mineralogy ranges from quartz to glauconite.

The formations record several major transgressive/regressive cycles and contain units which are generally thicker to the southeast and reflect a deeper water environment. Over 20 regional geologic units are present within the sediments of the Coastal Plain. Regressive, upward coarsening deposits are usually aquifers (e.g., Englishtown and Kirkwood Formations, and the Cohansey Sand) while the transgressive deposits act as confining units (e.g., the Merchantville, Marshalltown, and Navesink Formations). The individual thicknesses for these units vary greatly (i.e., from several feet to several hundred feet). The Coastal Plain deposits thicken to the southeast from the Fall Line to greater than 6,500 feet in Cape May County (Brown and Zapeczka, 1990).

Local Geology

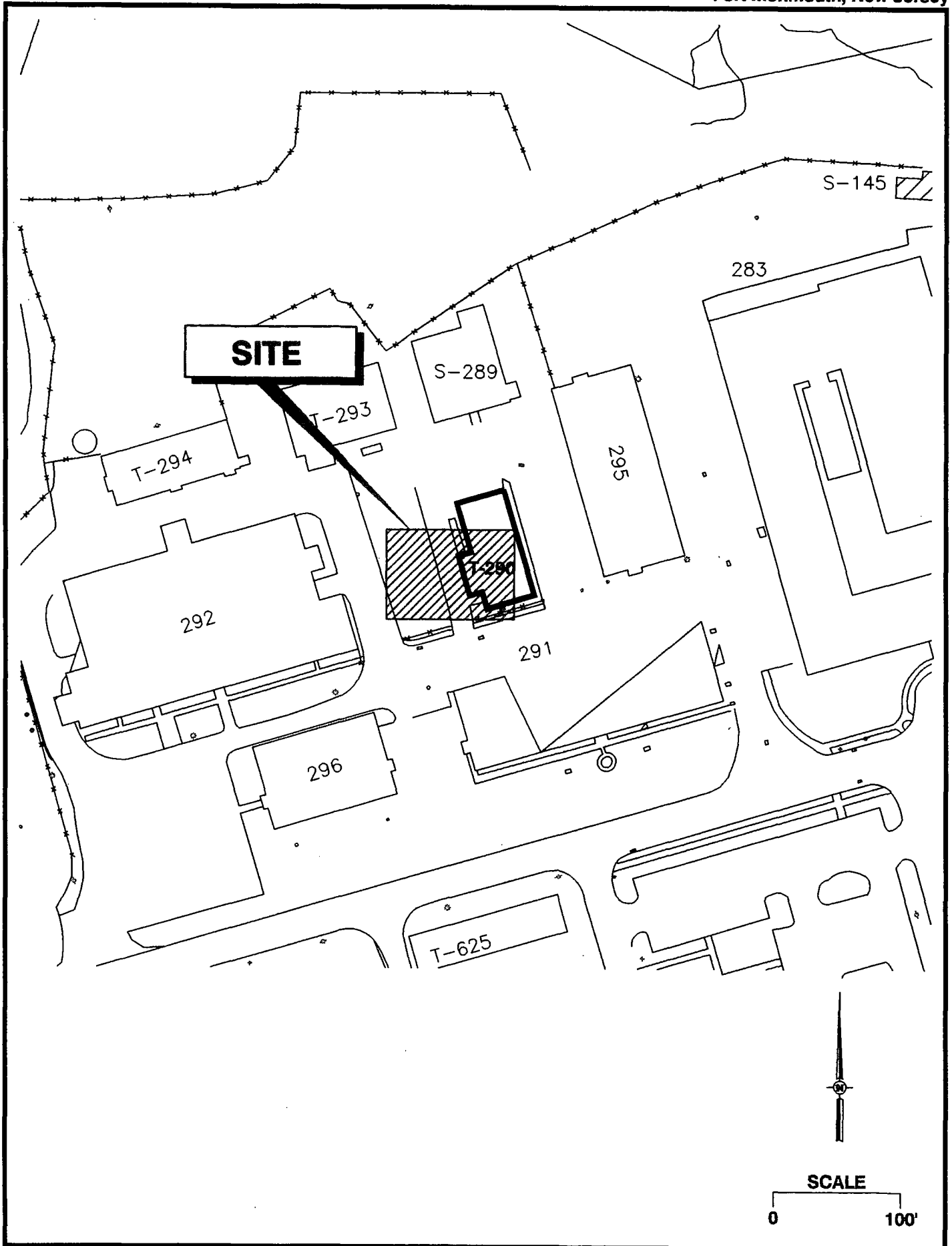
Based on the regional geologic map (Jablonski, 1968), the Cretaceous age Red Bank and Tinton Sands outcrop at the Main Post area. The Red Bank sand conformably overlies the Navesink Formation and dips to the southeast at 35 feet per mile. The upper member (Shrewsbury) of the Red Bank sand is a yellowish-gray to reddish brown clayey, medium-to-



Source: Long Branch, New Jersey Quadrangle

Project No. 09-5004-14

Figure 1
Site Location Map



coarse-grained sand that contains abundant rock fragments, minor mica and glauconite (Jablonski). The lower member (Sandy Hook) is a dark gray to black, medium-to-fine grained sand with abundant clay, mica, and glauconite.

The Tinton sand conformably overlies the Red Bank Sand and ranges from a clayey medium to very coarse grained feldspathic quartz and glauconite sand to a glauconitic coarse sand. The color varies from dark yellowish orange or light brown to moderate brown and from light olive to grayish olive. Glauconite may constitute 60 to 80 percent of the sand fraction in the upper part of the unit (Minard, 1969). The upper part of the Tinton is often highly oxidized and iron oxide encrusted (Minard).

Hydrogeology

The water table aquifer in the Main Post area is identified as part of the "composite confining units," or minor aquifers. The minor aquifers include the Navesink formation, Red Bank Sand, Tinton Sand, Hornerstown Sand, Vincentown Formation, Manasquan Formation, Shark River Formation, Piney Point Formation, and the basal clay of the Kirkwood Formation.

Based on records of wells drilled in the Main Post area, water is typically encountered at depths of 2 to 9 feet below ground surface (bgs). According to Jablonski, wells drilled in the Red Bank and Tinton Sands may produce 2 to 25 gallons per minute (gpm). Some well owners have reported acidic water that requires treatment to remove iron.

Due to the proximity of the Atlantic Ocean to Fort Monmouth, shallow groundwater may be tidally influenced and may flow toward creeks and brooks as the tide goes out, and away from creeks and brooks as the tide comes in. However, an abundance of clay lenses and sand deposits were noted in borings installed throughout Fort Monmouth. Therefore the direction of shallow groundwater should be determined on a case by case basis.

1.3 HEALTH AND SAFETY

Before, during, and after all decommissioning activities, hazards at the work site which may have posed a threat to the Health and Safety of all personnel who were involve with, or were affected by, the decommissioning of the UST system were minimized. All areas which posed, or may have been suspected to pose a vapor hazard were monitored by a qualified individual utilizing an organic vapor analyzer (OVA). The individual ascertained if the area was properly vented to render the area safe, as defined by OSHA.

1.4 REMOVAL OF UNDERGROUND STORAGE TANK

1.4.1 General Procedures

- All underground obstructions (utilities, etc.) were marked out by the contractor performing the closure prior to excavation activities.
- All activities were carried out with the greatest regard to safety and health and the safeguarding of the environment.
- All excavated soils were visually examined and screened with an OVA for evidence of contamination. Potentially contaminated soils were identified and logged during closure activities.
- Surface materials (i.e., asphalt, concrete, etc.) were excavated and staged separately from all soil and recycled in accordance with all applicable regulations and laws.
- A Sub-Surface Evaluator from the DPW was present during all site assessment activities.

1.4.2 Underground Storage Tank Excavation and Cleaning

Prior to UST decommissioning activities, surficial soil was removed to expose the UST and associated piping. All free product present in the piping was drained into the UST, and the UST was purged to remove vapors prior to cutting and removal of the piping. After removal of the associated piping, a manway was made in the UST to allow for proper cleaning. The UST was completely emptied of all liquids prior to removal from the ground. Approximately 20 gallons of liquid were transported by Freehold Cartage Inc. to Lionetti Oil Recovery Co. Inc., a NJDEP-approved petroleum recycling and disposal company located in Old Bridge, New Jersey. Refer to Appendix C for the waste manifest (NJA-1907275).

The UST was cleaned prior to removal from the excavation in accordance with the NJDEP-BUST regulations. After the UST was removed from the excavation, it was staged on polyethylene sheeting and examined for holes. No holes or punctures were observed during the inspection by the Sub-Surface Evaluator. Soils surrounding the UST were screened visually and with an OVA for evidence of contamination. Evidence of contamination was observed surrounding the UST.

Soil screening was also performed along the piping associated with the UST. No contamination was noted anywhere along the piping length.

1.5 UNDERGROUND STORAGE TANK TRANSPORTATION AND DISPOSAL

The tank was transported by CUTE Inc. to Monmouth County Reclamation Center for disposal in compliance with all applicable regulations and laws. The UST Disposal Certificate was not available.

The removal contractor labeled the UST prior to transport with the following information:

- site of origin
- contact person
- NJDEP UST Facility ID number
- name of transporter/contact person
- destination site/contact person

1.6 MANAGEMENT OF EXCAVATED SOILS

Based on visual observations, approximately 40 cubic yards of potentially contaminated soil was removed from the excavation on September 12, 1994. On September 13, 1994, approximately 10 additional cubic yards of potentially contaminated soil was removed. All potentially contaminated soils were stockpiled separately from other excavated material and were placed on and covered with polyethylene sheets. Potentially contaminated soils were transported to 490 storage area on Main Post prior to ultimate disposal at Soil Remediation of Philadelphia. Soils that did not exhibit signs of contamination were used as backfill following removal of the UST.

2.0 SITE INVESTIGATION ACTIVITIES

2.1 OVERVIEW

The Site Investigation was managed and carried out by U.S. Army DPW personnel. All TPHC analyses were performed and reported by U.S. Army Fort Monmouth Environmental Laboratory. The VOC, SVOC, and metal analyses were performed and reported by Princeton Laboratory and EMSL Laboratory. All three laboratories are NJDEP-certified testing laboratories. All sampling was performed under the direct supervision of a NJDEP Certified Sub-Surface Evaluator according to the methods described in the NJDEP *Field Sampling Procedures Manual* (1992). Sampling frequency and parameters analyzed complied with the NJDEP-BUST document *Interim Closure Requirements for Underground Storage Tank Systems* (September 1990 and revisions dated November 1, 1991) which was the applicable regulation at the date of the closure. All records of the Site Investigation activities are maintained by the Fort Monmouth DPW Environmental Office.

The following Parties participated in Closure and Site Investigation Activities.

- Closure Contractor: Cleaning Up The Environment Inc. (CUTE Inc.)
Closure Supervisor: George Bernotsky
Phone Number: (201)427-2881
NJDEP Company Certification No.:
- Subsurface Evaluator: Dinkerrai M. Desai
Employer: U.S. Army, Fort Monmouth
Phone Number: (908)532-1475
NJDEP Certification No.: E0002266
- Analytical Laboratory: U.S. Army Fort Monmouth Environmental Laboratory
Contact Person: Brian K. McKee
Phone Number: (908)532-4359
NJDEP Company Certification No.: 13461
- Analytical Laboratory: Princeton Laboratory
Contact Person: Allan Volk
Phone Number: (609)452-9050
NJDEP Company Certification No.: 11118
- Analytical Laboratory: EMSL Analytical, INC.
Contact Person: Paul Laria
Phone Number: (908)981-0550
NJDEP Company Certification No.: 04653

- Hazardous Waste Hauler: Freehold Cartage Inc.
Contact Person: Barry Olsen
Phone Number: (908)721-0900
NJDEP Hazardous Waste Hauler No.: 2265

2.2 FIELD SCREENING/MONITORING

Field screening was performed by a NJDEP Certified Sub-Surface Evaluator using an OVA and visual observations to identify potentially contaminated material. Soil excavated from around the tank and appurtenant piping, as well as the UST excavation sidewalls and bottom, did exhibit evidence of potential contamination. On September 12, 1994, approximately 40 cubic yards of potentially contaminated soil was removed from the excavation due to visual contamination. On September 13, 1994, approximately 10 cubic yards of potentially contaminated soil was removed from the excavation and was stockpiled for disposal.

2.3 SOIL SAMPLING

On September 13, 1994, post-excavation soil samples samples A, B, C, D, E, F, and DUP A were collected from a total of a total of six (6) locations along the sidewalls of the excavation, at a depth of 5.5 feet below ground surface (bgs). Sample H was collected from along the former piping length of the excavation, which was approximately 15 feet in length. The piping samples were collected at a depth of 5.5 feet bgs. All samples were analyzed for total petroleum hydrocarbons (TPHC).

On September 21, 1994, due to elevated TPHC levels, a sample was collected from the north sidewall of the excavation in the vicinity of sample A, and was analyzed for volatile organic compounds plus 15 tentatively identified compounds (VOCs). The sample was collected at a depth of 5.5 feet bgs.

The site assessment was performed by U.S. Army personnel in accordance with the NJDEP *Technical Requirements* and the NJDEP *Field Sampling Procedures Manual*. A summary of sampling activities including parameters analyzed is provided in Table 1. The post-excavation soil samples were collected using polystyrene scoops. Actual soil TPHC values may be higher than reported, due to sample utensil absorbency. If absorbency resulted in reducing the actual soil TPHC concentration by 50 %, the highest soil contaminant would have been 32,400.0 mg/kg, which exceeds the applicable NJDEP soil cleanup standard for total organic contaminants of 10,000 mg/kg. Following soil sampling activities, the samples were chilled and delivered to U.S. Army Fort Monmouth Environmental Laboratory located in Fort Monmouth, New Jersey, for analysis.

2.4 GROUNDWATER SAMPLING

2.4.1 Monitoring Well Installation

One shallow overburden monitoring well (MW-1) was installed at the Building 290 area on July 15, 1994. It was installed approximately 30 feet south off the southeastern corner of Building 290 in the assumed downgradient direction of the former excavation. It was screened in the 2- to- 12.5 foot depth interval, across the water table, which is approximately 3 feet below grade surface.

A second monitoring well (MW-2) was installed at the Building 290 area on August 16, 1994. A monitoring well location map is provided on Figure 4. It was installed approximately 8 feet north off the northwestern corner of Building 290 in the assumed downgradient direction of the former excavation. It was screened in the 1.5- to 11.5- foot depth interval, across the water table, which is approximately 4 feet below grade surface.

The two wells were constructed in accordance with the NJDEP's well construction protocols outlined in its May 1992 *Field Sampling Procedures Manual*. The NJDEP well permits and well construction logs are presented in Appendix D.

Monitoring well MW-1 was constructed with 4-inch (ID) PVC riser and 0.020 slotted PVC well screen. A silica sand pack was installed in the annulus between the borehole wall and the screen. The sand pack was extended approximately 1 foot above the top of the screen. The sand pack above the well screen was graded down to a fine sand to minimize grout intrusion.

The borehole was tremie-grouted with bentonite-cement grout from the top of the sand pack to grade. The well was secured with a water-tight, steel protective casing with a stickup that is approximately 3 feet above ground surface. The steel protective casing was set in place with concrete, which was placed in the remaining open borehole. The elevation of the well riser was surveyed to the nearest 0.01 feet by a New Jersey-licensed surveyor. The well permit number was marked on the well casing as required.

Monitoring well MW-2 was constructed with 4-inch (ID) PVC riser and 0.020 slotted PVC well screen. A silica sand pack was installed in the annulus between the borehole wall and the screen. The sand pack was extended approximately 1 foot above the top of the screen. The sand pack above the well screen was graded down to a fine sand to minimize grout intrusion.

The borehole was tremie-grouted with bentonite-cement grout from the top of the sand pack to grade. The well was secured with a water-tight, flush-mounted locking road box. The locking road box was set in place with concrete, which was placed in the remaining open borehole. The elevation of the well riser was surveyed to the nearest 0.01 feet by a New Jersey-licensed surveyor. The well permit number was marked on the well casing as required.

The monitoring wells were developed using a submersible pump. The wells were pumped for 1 hour or until silt free. All residual soils and liquids generated during monitoring well installation and development program were collected in New Jersey Department of Transportation-approved 55-gallon drums. The drums were placed in a designated secure location for waste characterization and offsite disposal.

2.4.2 Monitoring Well Sampling

Monitoring well MW-1 was sampled on November 8, 1994, November 29, 1994, and December 18, 1995, and analyzed for volatile organic compounds with xylenes (VOCs), tertiary butyl alcohol (TBA), methyl tertiary butyl ether (MTBE), and total lead.

Monitoring well MW-2 was sampled on November 18, 1995, and analyzed for volatile organic compounds with xylenes (VOCs), tertiary butyl alcohol, methyl tertiary butyl ether (MTBE), and total lead.

All sampling and analyses were performed in accordance with the NJDEP *Field Sampling Procedures Manual*, and the *Technical Requirements for Site Remediation*, N.J.A.C. 7:26E (*Technical Requirements*).

Prior to sampling each well, the water level was measured to the nearest 0.01 feet, and the distance to the bottom of the well was measured to the nearest 0.1 feet. The well was checked for floating product (light non-aqueous phase liquids). The well was then purged of three to five well volumes of standing water. Sample volume was then collected using a dedicated decontaminated Teflon bottom-fill bailer attached to PTFE (Teflon)-coated stainless steel.

TABLE 1

SUMMARY OF SAMPLING ACTIVITIES
BUILDING 290, MAIN POST
FORT MONMOUTH, NEW JERSEY

| Sample ID | Date of Collection | Matrix | Sample Type | Analytical Parameters (and USEPA Methods) * | Sampling Method |
|-----------|--------------------|---------|-----------------|--|----------------------|
| A | 9/13/94 | Soil | Post-Excavation | TPHC | Polystyrene Scoop |
| B | 9/13/94 | Soil | Post-Excavation | TPHC | Polystyrene Scoop |
| C | 9/13/94 | Soil | Post-Excavation | TPHC | Polystyrene Scoop |
| D | 9/13/94 | Soil | Post-Excavation | TPHC | Polystyrene Scoop |
| E | 9/13/94 | Soil | Post-Excavation | TPHC | Polystyrene Scoop |
| F | 9/13/94 | Soil | Post-Excavation | TPHC | Polystyrene Scoop |
| Dup A | 9/13/94 | Soil | Post-Excavation | TPHC | Polystyrene Scoop |
| H | 9/13/94 | Soil | Post-Excavation | TPHC | Polystyrene Scoop |
| Site A | 9/21/94 | Soil | Post-Excavation | VOCs | Polystyrene Scoop |
| 290-B-1 | 3/26/98 | Soil | Boring | TPHC | Split Spoon |
| 290-B-2 | 3/26/98 | Soil | Boring | TPHC | Split Spoon |
| 290-B-3 | 3/26/98 | Soil | Boring | TPHC | Split Spoon |
| 290-B-4 | 3/26/98 | Soil | Boring | TPHC | Split Spoon |
| 290-B-5 | 3/27/98 | Soil | Boring | TPHC | Split Spoon |
| MW-1 | 11/08/94 | Aqueous | Groundwater | Lead, VOCs | Teflon Bottom Bailer |
| MW-1 | 11/29/94 | Aqueous | Groundwater | Lead, VOCs | Teflon Bottom Bailer |
| MW-1 | 12/18/95 | Aqueous | Groundwater | VOCs, SVOCs, Metals | Teflon Bottom Bailer |
| MW-2 | 11/28/95 | Aqueous | Groundwater | VOCs, SVOCs, Metals, Pesticides/PCBs | Teflon Bottom Bailer |
| MW-1 | 6/13/97 | Aqueous | Groundwater | VOCs, SVOCs, Metals, Pesticides/PCBs | Teflon Bottom Bailer |

* Note:

TPHC Total Petroleum Hydrocarbons (Method 418.1 / soil and aqueous)
VOCs Volatile Organic Compounds calibrated for xylenes plus 15 tentatively identified compounds (Method 524.2 / aqueous)
SVOCs Semivolatile Organic Compounds plus 15 tentatively identified compounds (Method 625 / aqueous)
Metals (Method SW-846 / aqueous)
Pesticides/PCBs (Method 608 / aqueous)

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3.0 CONCLUSIONS AND RECOMMENDATIONS

3.1 SOIL SAMPLING RESULTS

To evaluate soil conditions following removal of the UST and associated piping, post-excavation soil samples were collected from a total of seven (7) locations on September 13, 1994. All samples were analyzed for TPHC. The post-excavation sampling results were compared to the NJDEP residential direct contact total organic contaminants soil cleanup criteria of 10,000 mg/kg (N.J.A.C. 7:26D and revisions dated February 3, 1994). One sample was collected on September 21, 1994 from the north sidewall of the excavation in the vicinity of sample A and was analyzed for VOCs. The results were compared to the NJDEP Soil Cleanup Criteria. A summary of the analytical results and comparison to the NJDEP soil cleanup criteria is provided in Table 2 and the soil sampling results are shown on Figure 3. The analytical data package is provided in Appendix E.

Post-excavation soil samples (samples C, D, and H) collected from the UST excavation and from below piping associated with the former UST at Building 290 contained TPHC concentrations below the NJDEP residential direct contact total organic contaminants soil cleanup criteria of 10,000 milligrams per kilogram (mg/kg) (N.J.A.C. 7:26D and revisions dated February 3, 1994). Samples C, D, and H, contained levels of TPHC ranging in concentration from 57.3 mg/kg to 730.0 mg/kg. Samples E, and F contained TPHC concentrations of 3,110.0 mg/kg and 9,670.0 mg/kg, respectively. Samples A, B, and DUP A contained levels of TPHC ranging in concentration from 10,400.0 mg/kg to 16,200.0 mg/kg, which exceeded the NJDEP soil cleanup criteria for 10,000 mg/kg. Post-excavation soil sample Site A, collected on September 21, 1994, contained methylene chloride at 0.46 mg/kg, and 2-butanone at 1.5 mg/kg. No other compounds were detected.

3.2 GROUNDWATER SAMPLING RESULTS

The sample collected from MW-1 on November 8, 1994, contained lead at 17.0 micrograms per liter (ug/l). This exceeded the Ground Water Quality Criteria (GWQC) for lead of 10 ug/l. All other groundwater analytical results were either below the detection limit or in compliance with the New Jersey GWQC.

The sample collected on November 29, 1994, contained lead at 3.0 ug/l, which complies with the GWQC for lead. No other compounds were detected.

The sample collected on December 18, 1995, contained methylene chloride at 1.1 ug/l, and cis-1,2-Dichloroethene at 1.1 ug/l. The sample also contained aluminum at 2,200.0 ug/l, barium at 55.0 ug/l, calcium at 4,100.0 ug/l, copper at 60.0 ug/l, iron at 6,400.0 ug/l, potassium at 5,000.0 ug/l, magnesium at 4,500.0 ug/l, manganese at 23.0 ug/l, sodium at 9,200.0 ug/l, and zinc

at 180.0 ug/l. This exceeds the GWQC for aluminum of 200.0 ug/l, and iron of 300.0 ug/l. The trip blank and the field blank contained methylene chloride at 1.4 ug/l. No other compounds were detected.

The sample collected from MW-2 on November 28, 1995 contained methylene chloride at 2.3 ug/l, cis-1,2-Dichloroethene at 1.3 ug/l, and chloroform at 0.50 ug/l. The sample also contained silver at 440.0 ug/l, aluminum at 360.0 ug/l, barium at 74.0 ug/l, calcium at 5,300.0 ug/l, iron at 1,100.0 ug/l, magnesium at 4,700.0 ug/l, manganese at 30.0 ug/l, sodium at 11,000.0 ug/l, lead at 1.5 ug/l, and zinc at 100.0 ug/l. This exceeds the GWQC for aluminum of 200.0 ug/l, and iron of 300.0 ug/l. The trip blank and the field blank contained methylene chloride at 0.70 ug/l, and 0.60 ug/l, respectively. The field blank also contained manganese at 32.0 ug/l, lead at 2.8 ug/l, and zinc at 27.0 ug/l. No other compounds were detected.

No product or sheen was observed in MW-1 or MW-2 on any of the sampling dates. The depth to the water table in MW-1 on November 8, 1994 was 8.14 feet below grade, 7.15 feet on November 29, 1994, and 3.06 feet below grade on December 18, 1995. The depth to the water table in MW-2 was 3.18 feet below grade on November 28, 1995.

3.3 CONCLUSIONS AND RECOMMENDATIONS

The analytical results for all post-excavation soil samples collected from the UST closure excavation at Building 290 were below the NJDEP soil cleanup criteria for total organic contaminants.

Based on the post-excavation sampling results, soils with TPHC concentrations exceeding the NJDEP soil cleanup criteria for total organic contaminants of 10,000 mg/kg, do exist in the former location of the UST or associated piping.

The groundwater sample collected on November 8, 1994, contained a lead concentration which exceeded the New Jersey GWQC of 10 ug/l. However, lead was detected at a concentration below the GWQC during a second round of groundwater sampling on November 29, 1994. Based on the analytical results of the groundwater samples collected on November 29, 1994, November 28, 1995, and December 18, 1995, groundwater quality at the Building 290 UST closure site complies with the New Jersey GWQC.

No further action is proposed in regard to the closure and site assessment of UST No. 081533-64 at Building 290.

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
 BUILDING 290
 FT. MONMOUTH, NEW JERSEY

PAGE 1 OF 3

| Sample ID/Depth | Sample Laboratory ID | Sample Date | Analysis Date | Compound Name | Sample Quantitation Limit (mg/kg) | Compound of Concern | Result (mg/kg) | NJDEP Soil Cleanup Criteria * (mg/kg) | Exceeds Cleanup Criteria |
|-----------------|----------------------|-------------|---------------|---------------|-----------------------------------|---------------------|----------------|---------------------------------------|--------------------------|
| A/5.5-6.0' | 1641.1 | 9/13/94 | 9/14/94 | Total Solid | -- | -- | 86 % | -- | -- |
| | | | | TPHC | 130.0 | yes | 16,200.0 | 10,000 | -- |
| B/5.5-6.0' | 1641.2 | 9/13/94 | 9/14/94 | Total Solid | -- | -- | 88 % | -- | -- |
| | | | | TPHC | 130.0 | yes | 11,900.0 | 10,000 | yes |
| C/5.5-6.0' | 1641.3 | 9/13/94 | 9/14/94 | Total Solid | -- | -- | 83 % | -- | -- |
| | | | | TPHC | 6.6 | yes | 730.0 | 10,000 | -- |
| D/5.5-6.0' | 1641.4 | 9/13/94 | 9/14/94 | Total Solid | -- | -- | 82 % | -- | -- |
| | | | | TPHC | 6.6 | yes | 126.0 | 10,000 | -- |
| E/5.5-6.0' | 1641.5 | 9/13/94 | 9/14/94 | Total Solid | -- | -- | 84 % | -- | -- |
| | | | | TPHC | 46.0 | yes | 3,110.0 | 10,000 | -- |
| F/5.5-6.0' | 1641.6 | 9/13/94 | 9/14/94 | Total Solid | -- | -- | 85 % | -- | -- |
| | | | | TPHC | 46.0 | yes | 9,670.0 | 10,000 | -- |
| Dup A/5.5-6.0' | 1641.7 | 9/13/94 | 9/14/94 | Total Solid | -- | -- | 85 % | -- | -- |
| | | | | TPHC | 46.0 | yes | 10,400 | 10,000 | yes |
| H/5.5-6.0' | 1641.8 | 9/13/94 | 9/14/94 | Total Solid | -- | -- | 83 % | -- | -- |
| | | | | TPHC | 9.9 | yes | 57.3 | 10,000 | -- |
| 290-B-1 | 3437.02 | 3/26/98 | 3/27/98 | Total Solid | -- | -- | 92.81 % | -- | -- |
| | | | | TPHC | 169.0 | yes | 317.67 | 10,000 | -- |
| 290-B-2 | 3437.03 | 3/26/98 | 3/27/98 | Total Solid | -- | -- | 84.28 % | -- | -- |
| | | | | TPHC | 185.0 | yes | ND | 10,000 | -- |
| 290-B-3 | 3437.04 | 3/26/98 | 3/27/98 | Total Solid | -- | -- | 78.81 % | -- | -- |
| | | | | TPHC | 196.0 | yes | 224.45 | 10,000 | -- |
| 290-B-4 | 3437.06 | 3/26/98 | 3/27/98 | Total Solid | -- | -- | 74.89 % | -- | -- |
| | | | | TPHC | 196.0 | yes | ND | 10,000 | -- |
| 290-B-5 | 3442.02 | 3/27/98 | 3/30/98 | Total Solid | -- | -- | 82.86 % | -- | -- |
| | | | | TPHC | 184.0 | yes | ND | 10,000 | -- |

Notes:

- * Cleanup criteria for total organics
- Not applicable / does not exceed criteria
- ND Not detected above method detection limit
- TPHC Total Petroleum Hydrocarbons

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TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
 BUILDING 290
 FT. MONMOUTH, NEW JERSEY
 VOLATILE ORGANIC COMPOUNDS

PAGE 2 OF 3

| Sample ID/Depth | Sample Date | Analysis Date | Compound Name | Sample Quantitation Limit (mg/kg) | Compound of Concern | Result (mg/kg) | NJDEP Soil Cleanup Criteria * | Exceeds Cleanup Criteria |
|-----------------|-------------|---------------|----------------------------|-----------------------------------|---------------------|----------------|-------------------------------|--------------------------|
| Site A/5.5-6.0' | 9/21/94 | 9/23/94 | Chloromethane | 1.2 | -- | ND | 520/10 | -- |
| | | | Bromomethane | 1.2 | -- | ND | 79/1 | -- |
| | | | Vinyl chloride | 1.2 | -- | ND | 2/10 | -- |
| | | | Chloroethane | 1.2 | -- | ND | -- | -- |
| | | | Methylene chloride | 0.46 | -- | 0.46 J | 49/1 | -- |
| | | | Acetone | 0.62 | -- | ND | 1,000/100 | -- |
| | | | Carbon Disulfide | 0.62 | -- | ND | -- | -- |
| | | | 1,1-Dichloroethene | 0.62 | -- | ND | 8/10 | -- |
| | | | 1,1-Dichloroethane | 0.62 | -- | ND | 570/10 | -- |
| | | | 1,2-Dichloroethene (total) | 0.62 | -- | ND | 79/1 | -- |
| | | | Chloroform | 0.62 | -- | ND | 19/1 | -- |
| | | | 1,2-Dichloroethane | 0.62 | -- | ND | 6/1 | -- |
| | | | 2-Butanone | 1.5 | -- | 1.5 | 1,000/50 | -- |
| | | | 1,1,1-Trichloroethane | 0.62 | -- | ND | 210/50 | -- |
| | | | Carbon Tetrachloride | 0.62 | -- | ND | 2/1 | -- |
| | | | Bromodichloromethane | 0.62 | -- | ND | 11/1 | -- |
| | | | 1,1,2,2-Tetrachloroethane | 0.62 | -- | ND | 34/1 | -- |
| | | | 1,2-Dichloropropane | 0.62 | -- | ND | 10/-- | -- |
| | | | trans-1,3-Dichloropropene | 0.62 | -- | ND | 4/1 | -- |
| | | | Trichloroethene | 0.62 | -- | ND | 23/1 | -- |
| | | | Dibromochloromethane | 0.62 | -- | ND | 110/1 | -- |
| | | | 1,1,2-Trichloroethane | 0.62 | -- | ND | 22/1 | -- |
| | | | Benzene | 0.62 | -- | ND | 3/1 | -- |
| | | | cis-1,3-Dichloropropene | 0.62 | -- | ND | 4/1 | -- |
| | | | Bromoform | 0.62 | -- | ND | 86/1 | -- |
| | | | 2-Hexanone | 0.62 | -- | ND | -- | -- |
| | | | 4-Methyl-2-Pentanone | 0.62 | -- | ND | 1,000/50 | -- |
| | | | Tetrachloroethene | 0.62 | -- | ND | 4/1 | -- |
| | | | Toluene | 0.62 | -- | ND | 1,000/500 | -- |
| | | | Chlorobenzene | 0.62 | -- | ND | 37/1 | -- |
| Ethylbenzene | 0.62 | -- | ND | 1,000/100 | -- | | | |
| Styrene | 0.62 | -- | ND | 23/100 | -- | | | |
| Total Xylenes | 0.62 | -- | ND | 410/10 | -- | | | |

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
 BUILDING 290
 FT. MONMOUTH, NEW JERSEY
 VOLATILE ORGANIC COMPOUNDS

PAGE 3 OF 3

| Sample ID/Depth | Sample Date | Analysis Date | Compound Name | Sample Quantitation Limit (mg/kg) | Compound of Concern | Result (mg/kg) | NJDEP Soil Cleanup Criteria * (mg/kg) | Exceeds Cleanup Criteria |
|-----------------|-------------|---------------|----------------------------|-----------------------------------|---------------------|----------------|---------------------------------------|--------------------------|
| Field Blank | 9/21/94 | 9/23/94 | Chloromethane | 0.01 | -- | ND | 520/10 | -- |
| | | | Bromomethane | 0.01 | -- | ND | 79/1 | -- |
| | | | Vinyl chloride | 0.01 | -- | ND | 2/10 | -- |
| | | | Chloroethane | 0.01 | -- | ND | -- | -- |
| | | | Methylene chloride | 0.005 | -- | ND | 49/1 | -- |
| | | | Acetone | 0.005 | -- | ND | 1,000/100 | -- |
| | | | Carbon Disulfide | 0.005 | -- | ND | -- | -- |
| | | | 1,1-Dichloroethene | 0.005 | -- | ND | 8/10 | -- |
| | | | 1,1-Dichloroethane | 0.005 | -- | ND | 570/10 | -- |
| | | | 1,2-Dichloroethene (total) | 0.005 | -- | ND | 79/1 | -- |
| | | | Chloroform | 0.005 | -- | ND | 19/1 | -- |
| | | | 1,2-Dichloroethane | 0.005 | -- | ND | 6/1 | -- |
| | | | 2-Butanone | 0.005 | -- | ND | 1,000/50 | -- |
| | | | 1,1,1-Trichloroethane | 0.005 | -- | ND | 210/50 | -- |
| | | | Carbon Tetrachloride | 0.005 | -- | ND | 2/1 | -- |
| | | | Bromodichloromethane | 0.005 | -- | ND | 11/1 | -- |
| | | | 1,1,2,2-Tetrachloroethane | 0.005 | -- | ND | 34/1 | -- |
| | | | 1,2-Dichloropropane | 0.005 | -- | ND | 10/-- | -- |
| | | | trans-1,3-Dichloropropene | 0.005 | -- | ND | 4/1 | -- |
| | | | Trichloroethene | 0.005 | -- | ND | 23/1 | -- |
| | | | Dibromochloromethane | 0.005 | -- | ND | 110/1 | -- |
| | | | 1,1,2-Trichloroethane | 0.005 | -- | ND | 22/1 | -- |
| | | | Benzene | 0.005 | -- | ND | 3/1 | -- |
| | | | cis-1,3-Dichloropropene | 0.005 | -- | ND | 4/1 | -- |
| | | | Bromoform | 0.005 | -- | ND | 86/1 | -- |
| | | | 2-Hexanone | 0.005 | -- | ND | -- | -- |
| | | | 4-Methyl-2-Pentanone | 0.005 | -- | ND | 1,000/50 | -- |
| | | | Tetrachloroethene | 0.005 | -- | ND | 4/1 | -- |
| | | | Toluene | 0.005 | -- | ND | 1,000/500 | -- |
| | | | Chlorobenzene | 0.005 | -- | ND | 37/1 | -- |
| | | | Ethylbenzene | 0.005 | -- | ND | 1,000/100 | -- |
| | | | Styrene | 0.005 | -- | ND | 23/100 | -- |
| | | | Total Xylenes | 0.005 | -- | ND | 410/10 | -- |

Notes:

- * Residential Direct Contact / Impact to Groundwater
- Not applicable / does not exceed criteria
- (ND) Indicates compound is not detected

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TABLE 3

GROUNDWATER SAMPLING RESULTS
 BUILDING 290, MAIN POST, MW-1
 FORT MONMOUTH, NEW JERSEY

PAGE 1 OF 35

| Sample ID/Depth | Sample Date | Analysis Date | Compound Name | Sample Quantitation Limit (ug/l) | Compound of Concern | Result (ug/l) | GWQC (ug/l) | Exceeds Cleanup Criteria |
|-----------------|-------------|---------------|-----------------------------|----------------------------------|---------------------|---------------|-------------|--------------------------|
| MW-1 | 6/13/97 | 6/19/97 | Lead | 17.0 | -- | 17.0 | 10 | YES |
| | | | VOLATILE ORGANICS: | | | | | |
| | | | Chloromethane | ND | -- | ND | -- | -- |
| | | | Bromomethane | ND | -- | ND | -- | -- |
| | | | Vinyl chloride | ND | -- | ND | 5 | -- |
| | | | Chloroethane | ND | -- | ND | -- | -- |
| | | | Methylene chloride | ND | -- | ND | 2 | -- |
| | | | 1,1-Dichloroethene | ND | -- | ND | 2 | -- |
| | | | 1,1-Dichloroethane | ND | -- | ND | 70 | -- |
| | | | Chloroform | ND | -- | ND | 6 | -- |
| | | | 1,2-Dichloroethane | ND | -- | ND | 2 | -- |
| | | | 1,1,1-Trichloroethane | ND | -- | ND | 30 | -- |
| | | | Carbon Tetrachloride | ND | -- | ND | 2 | -- |
| | | | Bromodichloromethane | ND | -- | ND | 1 | -- |
| | | | 1,2-Dichloropropane | ND | -- | ND | 1 | -- |
| | | | cis-1,3-Dichloropropene | ND | -- | ND | NA | -- |
| | | | Trichloroethene | ND | -- | ND | 1 | -- |
| | | | Dibromochloromethane | ND | -- | ND | 10 | -- |
| | | | 1,1,2-Trichloroethane | ND | -- | ND | 3 | -- |
| | | | Benzene | ND | -- | ND | 1 | -- |
| | | | trans-1,3-Dichloropropene | ND | -- | ND | NA | -- |
| | | | Bromoform | ND | -- | ND | 4 | -- |
| | | | Tetrachloroethene | ND | -- | ND | 1 | -- |
| | | | 1,1,2,2-Tetrachloroethane | ND | -- | ND | 2 | -- |
| | | | Toluene | ND | -- | ND | 1,000 | -- |
| | | | Chlorobenzene | ND | -- | ND | 4 | -- |
| | | | Ethylbenzene | ND | -- | ND | 700 | -- |
| | | | Xylene (total) | ND | -- | ND | 40 | -- |
| | | | Trichloromonofluoromethane | ND | -- | ND | -- | -- |
| | | | Acrolein | ND | -- | ND | NA | -- |
| | | | Acrylonitrile | ND | -- | ND | 50 | -- |
| | | | Tertiary Butyl Alcohol | ND | -- | ND | -- | -- |
| | | | Methyl Tertiary Butyl Ether | ND | -- | ND | -- | -- |
| | | | 1,3-Dichlorobenzene | ND | -- | ND | 600 | -- |
| | | | 1,4-Dichlorobenzene | ND | -- | ND | 75 | -- |
| | | | 1,2-Dichlorobenzene | ND | -- | ND | 600 | -- |
| | | | 2-Chloroethylvinyl Ether | ND | -- | ND | -- | -- |
| | | | Trans,1,2-Dichloroethene | ND | -- | ND | 100 | -- |
| | | | VOLATILE TICS: | | | | | |
| | | | Unknown Siloxane | -- | -- | 29 J | -- | -- |
| | | | Unknown Siloxane | -- | -- | 110 J | -- | -- |
| | | | Unknown Siloxane | -- | -- | 52 J | -- | -- |
| | | | TOTAL TICS: | -- | -- | 191 | -- | -- |

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 290, MAIN POST, TRIP BLANK
FORT MONMOUTH, NEW JERSEY

PAGE 2 OF 35

| Sample ID/Depth | Sample Date | Analysis Date | Compound Name | Sample Quantitation Limit (ug/l) | Compound of Concern | Result (ug/l) | GWQC (ug/l) | Exceeds Cleanup Criteria |
|-----------------|-------------|---------------|-----------------------------|----------------------------------|---------------------|---------------|-------------|--------------------------|
| TRIP BLANK | 6/13/97 | 6/19/97 | Lead | -- | -- | NT | 10 | -- |
| | | | VOLATILE ORGANICS: | | | | | |
| | | | Chloromethane | ND | -- | ND | -- | -- |
| | | | Bromomethane | ND | -- | ND | -- | -- |
| | | | Vinyl chloride | ND | -- | ND | 5 | -- |
| | | | Chloroethane | ND | -- | ND | -- | -- |
| | | | Methylene chloride | ND | -- | ND | 2 | -- |
| | | | 1,1-Dichloroethene | ND | -- | ND | 2 | -- |
| | | | 1,1-Dichloroethane | ND | -- | ND | 70 | -- |
| | | | Chloroform | ND | -- | ND | 6 | -- |
| | | | 1,2-Dichloroethane | ND | -- | ND | 2 | -- |
| | | | 1,1,1-Trichloroethane | ND | -- | ND | 30 | -- |
| | | | Carbon Tetrachloride | ND | -- | ND | 2 | -- |
| | | | Bromodichloromethane | ND | -- | ND | 1 | -- |
| | | | 1,2-Dichloropropane | ND | -- | ND | 1 | -- |
| | | | cis-1,3-Dichloropropene | ND | -- | ND | NA | -- |
| | | | Trichloroethene | ND | -- | ND | 1 | -- |
| | | | Dibromochloromethane | ND | -- | ND | 10 | -- |
| | | | 1,1,2-Trichloroethane | ND | -- | ND | 3 | -- |
| | | | Benzene | ND | -- | ND | 1 | -- |
| | | | trans-1,3-Dichloropropene | ND | -- | ND | NA | -- |
| | | | Bromoform | ND | -- | ND | 4 | -- |
| | | | Tetrachloroethene | ND | -- | ND | 1 | -- |
| | | | 1,1,2,2-Tetrachloroethane | ND | -- | ND | 2 | -- |
| | | | Toluene | ND | -- | ND | 1,000 | -- |
| | | | Chlorobenzene | ND | -- | ND | 4 | -- |
| | | | Ethylbenzene | ND | -- | ND | 700 | -- |
| | | | Xylene (total) | ND | -- | ND | 40 | -- |
| | | | Trichloromonofluoromethane | ND | -- | ND | -- | -- |
| | | | Acrolein | ND | -- | ND | NA | -- |
| | | | Acrylonitrile | ND | -- | ND | 50 | -- |
| | | | Tertiary Butyl Alcohol | ND | -- | ND | -- | -- |
| | | | Methyl Tertiary Butyl Ether | ND | -- | ND | -- | -- |
| | | | 1,3-Dichlorobenzene | ND | -- | ND | 600 | -- |
| | | | 1,4-Dichlorobenzene | ND | -- | ND | 75 | -- |
| | | | 1,2-Dichlorobenzene | ND | -- | ND | 600 | -- |
| | | | 2-Chloroethylvinyl Ether | ND | -- | ND | -- | -- |
| | | | Trans,1,2-Dichloroethene | ND | -- | ND | 100 | -- |
| | | | VOLATILE TICS: | | | | | |
| | | | NONE FOUND | -- | -- | -- | -- | -- |

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 290, MAIN POST, FIELD BLANK
FORT MONMOUTH, NEW JERSEY

PAGE 3 OF 35

| Sample ID/Depth | Sample Date | Analysis Date | Compound Name | Sample Quantitation Limit (ug/l) | Compound of Concern | Result (ug/l) | GWQC (ug/l) | Exceeds Cleanup Criteria |
|-----------------|-------------|---------------|-----------------------------|----------------------------------|---------------------|---------------|-------------|--------------------------|
| FIELD BLANK | 6/13/97 | 6/19/97 | Lead | 4.1 | -- | 4.1 B | 10 | -- |
| | | | VOLATILE ORGANICS: | | | | | |
| | | | Chloromethane | ND | -- | ND | -- | -- |
| | | | Bromomethane | ND | -- | ND | -- | -- |
| | | | Vinyl chloride | ND | -- | ND | 5 | -- |
| | | | Chloroethane | ND | -- | ND | -- | -- |
| | | | Methylene chloride | ND | -- | 4 | 2 | YES |
| | | | 1,1-Dichloroethene | ND | -- | ND | 2 | -- |
| | | | 1,1-Dichloroethane | ND | -- | ND | 70 | -- |
| | | | Chloroform | ND | -- | ND | 6 | -- |
| | | | 1,2-Dichloroethane | ND | -- | ND | 2 | -- |
| | | | 1,1,1-Trichloroethane | ND | -- | ND | 30 | -- |
| | | | Carbon Tetrachloride | ND | -- | ND | 2 | -- |
| | | | Bromodichloromethane | ND | -- | ND | 1 | -- |
| | | | 1,2-Dichloropropane | ND | -- | ND | 1 | -- |
| | | | cis-1,3-Dichloropropene | ND | -- | ND | NA | -- |
| | | | Trichloroethene | ND | -- | ND | 1 | -- |
| | | | Dibromochloromethane | ND | -- | ND | 10 | -- |
| | | | 1,1,2-Trichloroethane | ND | -- | ND | 3 | -- |
| | | | Benzene | ND | -- | ND | 1 | -- |
| | | | trans-1,3-Dichloropropene | ND | -- | ND | NA | -- |
| | | | Bromoform | ND | -- | ND | 4 | -- |
| | | | Tetrachloroethene | ND | -- | ND | 1 | -- |
| | | | 1,1,2,2-Tetrachloroethane | ND | -- | ND | 2 | -- |
| | | | Toluene | ND | -- | ND | 1,000 | -- |
| | | | Chlorobenzene | ND | -- | ND | 4 | -- |
| | | | Ethylbenzene | ND | -- | ND | 700 | -- |
| | | | Xylene (total) | ND | -- | ND | 40 | -- |
| | | | Trichloromonofluoromethane | ND | -- | ND | -- | -- |
| | | | Acrolein | ND | -- | ND | NA | -- |
| | | | Acrylonitrile | ND | -- | ND | 50 | -- |
| | | | Tertiary Butyl Alcohol | ND | -- | ND | -- | -- |
| | | | Methyl Tertiary Butyl Ether | ND | -- | ND | -- | -- |
| | | | 1,3-Dichlorobenzene | ND | -- | ND | 600 | -- |
| | | | 1,4-Dichlorobenzene | ND | -- | ND | 75 | -- |
| | | | 1,2-Dichlorobenzene | ND | -- | ND | 600 | -- |
| | | | 2-Chloroethylvinyl Ether | ND | -- | ND | -- | -- |
| | | | Trans,1,2-Dichloroethene | ND | -- | ND | 100 | -- |
| | | | VOLATILE TICS: | | | | | |
| | | | Unknown Hydrocarbon | -- | -- | 3 | -- | -- |

TABLE 3

GROUNDWATER SAMPLING RESULTS
 BUILDING 290, MAIN POST, MW-1
 FORT MONMOUTH, NEW JERSEY

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| Sample ID/Depth | Sample Date | Analysis Date | Compound Name | Sample Quantitation Limit (ug/l) | Compound of Concern | Result (ug/l) | GWQC (ug/l) | Exceeds Cleanup Criteria |
|-----------------|-------------|---------------|-----------------------------|----------------------------------|---------------------|---------------|-------------|--------------------------|
| MW-1 | 6/13/97 | 6/19/97 | Lead | 3.0 | -- | ND | 10 | -- |
| | | | VOLATILE ORGANICS: | | | | | |
| | | | Chloromethane | 2 | -- | ND | -- | -- |
| | | | Bromomethane | 1 | -- | ND | -- | -- |
| | | | Vinyl chloride | 1 | -- | ND | 5 | -- |
| | | | Chloroethane | 1 | -- | ND | -- | -- |
| | | | Methylene chloride | 3 | -- | ND | 2 | -- |
| | | | 1,1-Dichloroethene | ND | -- | ND | 2 | -- |
| | | | 1,1-Dichloroethane | ND | -- | ND | 70 | -- |
| | | | Chloroform | ND | -- | ND | 6 | -- |
| | | | 1,2-Dichloroethane | ND | -- | ND | 2 | -- |
| | | | 1,1,1-Trichloroethane | ND | -- | ND | 30 | -- |
| | | | Carbon Tetrachloride | ND | -- | ND | 2 | -- |
| | | | Bromodichloromethane | ND | -- | ND | 1 | -- |
| | | | 1,2-Dichloropropane | ND | -- | ND | 1 | -- |
| | | | cis-1,3-Dichloropropene | ND | -- | ND | NA | -- |
| | | | Trichloroethene | ND | -- | ND | 1 | -- |
| | | | Dibromochloromethane | ND | -- | ND | 10 | -- |
| | | | 1,1,2-Trichloroethane | ND | -- | ND | 3 | -- |
| | | | Benzene | ND | -- | ND | 1 | -- |
| | | | trans-1,3-Dichloropropene | ND | -- | ND | NA | -- |
| | | | Bromoform | ND | -- | ND | 4 | -- |
| | | | Tetrachloroethene | ND | -- | ND | 1 | -- |
| | | | 1,1,2,2-Tetrachloroethane | ND | -- | ND | 2 | -- |
| | | | Toluene | ND | -- | ND | 1,000 | -- |
| | | | Chlorobenzene | ND | -- | ND | 4 | -- |
| | | | Ethylbenzene | ND | -- | ND | 700 | -- |
| | | | Xylene (total) | ND | -- | ND | 40 | -- |
| | | | Trichloromonofluoromethane | ND | -- | ND | -- | -- |
| | | | Acrolein | ND | -- | ND | NA | -- |
| | | | Acrylonitrile | ND | -- | ND | 50 | -- |
| | | | Tertiary Butyl Alcohol | ND | -- | ND | -- | -- |
| | | | Methyl Tertiary Butyl Ether | ND | -- | ND | -- | -- |
| | | | 1,3-Dichlorobenzene | ND | -- | ND | 600 | -- |
| | | | 1,4-Dichlorobenzene | ND | -- | ND | 75 | -- |
| | | | 1,2-Dichlorobenzene | ND | -- | ND | 600 | -- |
| | | | 2-Chloroethylvinyl Ether | ND | -- | ND | -- | -- |
| | | | Trans,1,2-Dichloroethene | ND | -- | ND | 100 | -- |
| | | | VOLATILE TICS: | | | | | |
| | | | Unknown | -- | -- | 9 J | -- | -- |

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 290, MAIN POST, TRIP BLANK
FORT MONMOUTH, NEW JERSEY

PAGE 5 OF 35

| Sample ID/Depth | Sample Date | Analysis Date | Compound Name | Sample Quantitation Limit (ug/L) | Compound of Concern | Result (ug/L) | GWQC (ug/L) | Exceeds Cleanup Criteria |
|-----------------|-------------|---------------|-----------------------------|----------------------------------|---------------------|---------------|-------------|--------------------------|
| Trip Blank | 11/29/94 | 12/01/94 | VOLATILE ORGANICS: | | | | | |
| | | | Chloromethane | ND | -- | ND | -- | -- |
| | | | Bromomethane | ND | -- | ND | -- | -- |
| | | | Vinyl chloride | ND | -- | ND | 5 | -- |
| | | | Chloroethane | ND | -- | ND | -- | -- |
| | | | Methylene chloride | ND | -- | 3.0 | 2 | YES |
| | | | 1,1-Dichloroethene | ND | -- | ND | 2 | -- |
| | | | 1,1-Dichloroethane | ND | -- | ND | 70 | -- |
| | | | Chloroform | ND | -- | ND | 6 | -- |
| | | | 1,2-Dichloroethane | ND | -- | ND | 2 | -- |
| | | | 1,1,1-Trichloroethane | ND | -- | ND | 30 | -- |
| | | | Carbon Tetrachloride | ND | -- | ND | 2 | -- |
| | | | Bromodichloromethane | ND | -- | ND | 1 | -- |
| | | | 1,2-Dichloropropane | ND | -- | ND | 1 | -- |
| | | | cis-1,3-Dichloropropene | ND | -- | ND | NA | -- |
| | | | Trichloroethene | ND | -- | ND | 1 | -- |
| | | | Dibromochloromethane | ND | -- | ND | 10 | -- |
| | | | 1,1,2-Trichloroethane | ND | -- | ND | 3 | -- |
| | | | Benzene | ND | -- | ND | 1 | -- |
| | | | trans-1,3-Dichloropropene | ND | -- | ND | NA | -- |
| | | | Bromoform | ND | -- | ND | 4 | -- |
| | | | Tetrachloroethene | ND | -- | ND | 1 | -- |
| | | | 1,1,2,2-Tetrachloroethane | ND | -- | ND | 2 | -- |
| | | | Toluene | ND | -- | ND | 1,000 | -- |
| | | | Chlorobenzene | ND | -- | ND | 4 | -- |
| | | | Ethylbenzene | ND | -- | ND | 700 | -- |
| | | | Xylene (total) | ND | -- | ND | 40 | -- |
| | | | Trichloromonofluoromethane | ND | -- | ND | -- | -- |
| | | | Acrolein | ND | -- | ND | NA | -- |
| | | | Acrylonitrile | ND | -- | ND | 50 | -- |
| | | | Tertiary Butyl Alcohol | ND | -- | ND | -- | -- |
| | | | Methyl Tertiary Butyl Ether | ND | -- | ND | -- | -- |
| | | | 1,3-Dichlorobenzene | ND | -- | ND | 600 | -- |
| | | | 1,4-Dichlorobenzene | ND | -- | ND | 75 | -- |
| | | | 1,2-Dichlorobenzene | ND | -- | ND | 600 | -- |
| | | | 2-Chloroethylvinyl Ether | ND | -- | ND | -- | -- |
| | | | Trans,1,2-Dichloroethene | ND | -- | ND | 100 | -- |
| | | | VOLATILE TICS: | | | | | |
| | | | Unknown Hydrocarbon | -- | -- | 13.0 J | -- | -- |

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 290, MAIN POST, FIELD BLANK
FORT MONMOUTH, NEW JERSEY

PAGE 6 OF 35

| Sample ID/Depth | Sample Date | Analysis Date | Compound Name | Sample Quantitation Limit (ug/L) | Compound of Concern | Result (ug/L) | GWQC (ug/L) | Exceeds Cleanup Criteria |
|-----------------|-------------|---------------|-----------------------------|----------------------------------|---------------------|---------------|-------------|--------------------------|
| Field Blank | 11/29/94 | 12/01/94 | Lead | 3.0 | -- | ND | 10 | -- |
| | | | VOLATILE ORGANICS: | | | | | |
| | | | Chloromethane | ND | -- | ND | -- | -- |
| | | | Bromomethane | ND | -- | ND | -- | -- |
| | | | Vinyl chloride | ND | -- | ND | 5 | -- |
| | | | Chloroethane | ND | -- | ND | -- | -- |
| | | | Methylene chloride | ND | -- | ND | 2 | -- |
| | | | 1,1-Dichloroethene | ND | -- | ND | 2 | -- |
| | | | 1,1-Dichloroethane | ND | -- | ND | 70 | -- |
| | | | Chloroform | ND | -- | ND | 6 | -- |
| | | | 1,2-Dichloroethane | ND | -- | ND | 2 | -- |
| | | | 1,1,1-Trichloroethane | ND | -- | ND | 30 | -- |
| | | | Carbon Tetrachloride | ND | -- | ND | 2 | -- |
| | | | Bromodichloromethane | ND | -- | ND | 1 | -- |
| | | | 1,2-Dichloropropane | ND | -- | ND | 1 | -- |
| | | | cis-1,3-Dichloropropene | ND | -- | ND | NA | -- |
| | | | Trichloroethene | ND | -- | ND | 1 | -- |
| | | | Dibromochloromethane | ND | -- | ND | 10 | -- |
| | | | 1,1,2-Trichloroethane | ND | -- | ND | 3 | -- |
| | | | Benzene | ND | -- | ND | 1 | -- |
| | | | trans-1,3-Dichloropropene | ND | -- | ND | NA | -- |
| | | | Bromoform | ND | -- | ND | 4 | -- |
| | | | Tetrachloroethene | ND | -- | ND | 1 | -- |
| | | | 1,1,2,2-Tetrachloroethane | ND | -- | ND | 2 | -- |
| | | | Toluene | ND | -- | ND | 1,000 | -- |
| | | | Chlorobenzene | ND | -- | ND | 4 | -- |
| | | | Ethylbenzene | ND | -- | ND | 700 | -- |
| | | | Xylene (total) | ND | -- | ND | 40 | -- |
| | | | Trichloromonofluoromethane | ND | -- | ND | -- | -- |
| | | | Acrolein | ND | -- | ND | NA | -- |
| | | | Acrylonitrile | ND | -- | ND | 50 | -- |
| | | | Tertiary Butyl Alcohol | ND | -- | ND | -- | -- |
| | | | Methyl Tertiary Butyl Ether | ND | -- | ND | -- | -- |
| | | | 1,3-Dichlorobenzene | ND | -- | ND | 600 | -- |
| | | | 1,4-Dichlorobenzene | ND | -- | ND | 75 | -- |
| | | | 1,2-Dichlorobenzene | ND | -- | ND | 600 | -- |
| | | | 2-Chloroethylvinyl Ether | ND | -- | ND | -- | -- |
| | | | Trans,1,2-Dichloroethene | ND | -- | ND | 100 | -- |
| | | | VOLATILE TICS: | | | | | |
| | | | Unknown Hydrocarbon | -- | -- | 3.0 J | -- | -- |
| | | | Unknown Hydrocarbon | -- | -- | 12.0 J | -- | -- |
| | | | TOTAL TICS: | -- | -- | 15.0 | -- | -- |

TABLE 3

GROUNDWATER SAMPLING RESULTS
 BUILDING 290, MAIN POST, MW-2
 FT. MONMOUTH, NEW JERSEY

PAGE 7 OF 35

| Sample ID | Sample Date | Analysis Date | Compound Name | Sample Quantitation Limit (ug/L) | Compound of Concern | Result (ug/L) | GWQC (ug/L) | Exceeds Criteria | |
|-----------|-------------|---------------|----------------------------|----------------------------------|---------------------|---------------|-------------|------------------|--|
| MW-2 | 11/28/95 | 12/11/95 | VOLATILE ORGANICS: | | | | | | |
| | | | Dichlorodifluoromethane | 0.50 | -- | ND | -- | -- | |
| | | | Chloromethane | 0.50 | -- | ND | -- | -- | |
| | | | Vinyl Chloride | 0.50 | -- | ND | -- | -- | |
| | | | Bromomethane | 0.50 | -- | ND | 5 | -- | |
| | | | Chloroethane | 0.50 | -- | ND | -- | -- | |
| | | | Trichlorofluoromethane | 0.50 | -- | ND | -- | -- | |
| | | | 1,1-Dichloroethene | 0.50 | -- | ND | 2 | -- | |
| | | | Methylene Chloride | 2.3 | -- | 2.3 B | 100 | -- | |
| | | | 1,2-Dichloroethene (trans) | 0.50 | -- | ND | 2 | -- | |
| | | | 1,1 Dichloroethane | 0.50 | -- | ND | 70 | -- | |
| | | | 2,2-Dichloropropane | 0.50 | -- | ND | -- | -- | |
| | | | cis-1,2-Dichloroethene | 1.3 | -- | 1.3 | -- | -- | |
| | | | Bromochloromethane | 0.50 | -- | ND | 10 | -- | |
| | | | Chloroform | 0.50 | -- | ND | 6 | -- | |
| | | | 1,1,1-Trichloroethane | 0.50 | -- | ND | -- | -- | |
| | | | Carbon Tetrachloride | 0.50 | -- | ND | 2 | -- | |
| | | | 1,1-Dichloropropene | 0.50 | -- | ND | 30 | -- | |
| | | | Benzene | 0.50 | -- | ND | -- | -- | |
| | | | 1,2-Dichloroethane | 0.50 | -- | ND | 2 | -- | |
| | | | Trichloroethene | 0.50 | -- | ND | 1 | -- | |
| | | | 1,2-Dichloropropane | 0.50 | -- | ND | 1 | -- | |
| | | | Dibromomethane | 0.50 | -- | ND | NA | -- | |
| | | | Bromodichloromethane | 0.50 | -- | ND | -- | -- | |
| | | | cis-1,3-Dichloropropene | 0.50 | -- | ND | 1 | -- | |
| | | | Toluene | 0.50 | -- | ND | 10 | -- | |
| | | | trans-1,3-Dichloropropene | 0.50 | -- | ND | 3 | -- | |
| | | | 1,1,2-Trichloroethane | 0.50 | -- | ND | 1 | -- | |
| | | | Tetrachloroethene | 0.50 | -- | ND | NA | -- | |
| | | | 1,3-Dichloropropane | 0.50 | -- | ND | 4 | -- | |
| | | | Dibromochloromethane | 0.50 | -- | ND | 10 | -- | |
| | | | 1,2-Dibromomethane | 0.50 | -- | ND | 1 | -- | |
| | | | Chlorobenzene | 0.50 | -- | ND | 2 | -- | |
| | | | 1,1,2,2-Tetrachloroethane | 0.50 | -- | ND | 1,000 | -- | |
| | | | Ethylbenzene | 0.50 | -- | ND | -- | -- | |
| | | | Xylenes (Total) | 0.50 | -- | ND | 4 | -- | |
| | | | Styrene | 0.50 | -- | ND | 700 | -- | |
| | | | Bromoform | 0.50 | -- | ND | 40 | -- | |
| | | | Isopropylbenzene | 0.50 | -- | ND | 100 | -- | |
| | | | Bromobenzene | 0.50 | -- | ND | -- | -- | |
| | | | 1,1,2,2-Tetrachloroethane | 0.50 | -- | ND | -- | -- | |
| | | | 1,2,3-Trichloropropane | 0.50 | -- | ND | -- | -- | |
| | | | n-Propylbenzene | 0.50 | -- | ND | -- | -- | |
| | | | 2-Chlorotoluene | 0.50 | -- | ND | -- | -- | |

TABLE 3

GROUNDWATER SAMPLING RESULTS
 BUILDING 290, MAIN POST, MW-2
 FORT MONMOUTH, NEW JERSEY
 VOLATILE ORGANICS (Continued)

PAGE 8 OF 35

| Sample ID | Sample Date | Analysis Date | Compound Name | Sample Quantitation Limit (ug/l) | Compound of Concern | Result (ug/l) | GWQC (ug/l) | Exceeds Criteria |
|-----------|-------------|---------------|-----------------------------|----------------------------------|---------------------|---------------|-------------|------------------|
| MW-2 | 11/28/95 | 12/11/95 | VOLATILES (CONTINUED) | | | | | |
| | | | 4-Chlorotoluene | 0.50 | -- | ND | -- | -- |
| | | | 1,3,5-Trimethylbenzene | 0.50 | -- | ND | -- | -- |
| | | | tert-Butylbenzene | 0.50 | -- | ND | -- | -- |
| | | | 1,2,4-Trimethylbenzene | 0.50 | -- | ND | -- | -- |
| | | | sec-Butylbenzene | 0.50 | -- | ND | -- | -- |
| | | | 1,3-Dichlorobenzene | 0.50 | -- | ND | 600 | -- |
| | | | 4-Isopropyltoluene | 0.50 | -- | ND | 75 | -- |
| | | | 1,4-Dichlorobenzene | 0.50 | -- | ND | -- | -- |
| | | | 1,2-Dichlorobenzene | 0.50 | -- | ND | 600 | -- |
| | | | N-Butylbenzene | 0.50 | -- | ND | -- | -- |
| | | | 1,2-Dibromo-3-chloropropane | 0.50 | -- | ND | NA | -- |
| | | | 1,2,4-Trichlorobenzene | 0.50 | -- | ND | 9 | -- |
| | | | Hexachlorobutadiene | 0.50 | -- | ND | 1 | -- |
| | | | Naphthalene | 0.50 | -- | ND | -- | -- |
| | | | 1,2,3-Trichlorobenzene | 0.50 | -- | ND | -- | -- |
| | | | Methy-tertiary butyl ether | 0.50 | -- | ND | -- | -- |
| | | | tertiary-Butyl alcohol | 2.0 | -- | ND | -- | -- |
| | | | VOLATILE TICS: | | | | | |
| | | | Column Bleed | -- | -- | 1 J | -- | -- |
| | | | Column Bleed | -- | -- | 1 J | -- | -- |
| | | | TOTAL TICS: | -- | -- | 2 | -- | -- |

TABLE 3

GROUNDWATER SAMPLING RESULTS
 BUILDING 290, MAIN POST, MW-2
 FORT MONMOUTH, NEW JERSEY

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| Sample ID | Sample Date | Analysis Date | Compound Name | Sample Quantitation Limit (ug/l) | Compound of Concern | Result (ug/l) | GWQC (ug/l) | Exceeds Criteria |
|-----------|-------------|---------------|-----------------------------|----------------------------------|---------------------|---------------|-------------|------------------|
| MW-2 | 11/28/95 | 12/11/95 | SEMIVOLATILES: | | | | | |
| | | | Phenol | 10 | -- | ND | 4000 | -- |
| | | | bis(2 chloroethyl)Ether | 10 | -- | ND | 20 | -- |
| | | | 2-Chlorophenol | 10 | -- | ND | 40 | -- |
| | | | 1,3-Dichlorobenzene | 10 | -- | ND | 600 | -- |
| | | | 1,4-Dichlorobenzene | 10 | -- | ND | 75 | -- |
| | | | 1,2-Dichlorobenzene | 10 | -- | ND | 600 | -- |
| | | | 2-Methylphenol | 10 | -- | ND | -- | -- |
| | | | bis(2-chloroisopropyl)Ether | 10 | -- | ND | 300 | -- |
| | | | 4-Methylphenol | 10 | -- | ND | -- | -- |
| | | | N-Nitroso-Di-n-propylamine | 10 | -- | ND | 20 | -- |
| | | | Hexachloroethane | 10 | -- | ND | 10 | -- |
| | | | Nitrobenzene | 10 | -- | ND | 10 | -- |
| | | | Isophorone | 10 | -- | ND | 100 | -- |
| | | | 2-Nitrophenol | 10 | -- | ND | -- | -- |
| | | | 2,4-Dimethylphenol | 10 | -- | ND | 100 | -- |
| | | | bis(2-Chloroethoxy)Methane | 10 | -- | ND | -- | -- |
| | | | 2,4-Dichlorophenol | 10 | -- | ND | 20 | -- |
| | | | 1,2,4-Trichlorobenzene | 10 | -- | ND | 9 | -- |
| | | | Naphthalene | 10 | -- | ND | -- | -- |
| | | | 4-Chloroaniline | 10 | -- | ND | -- | -- |
| | | | Hexachlorobutadiene | 10 | -- | ND | 1 | -- |
| | | | 4-Chloro-3-methylphenol | 10 | -- | ND | -- | -- |
| | | | 2-methylnaphthanene | 10 | -- | ND | -- | -- |
| | | | Hexachlorocyclopentadiene | 10 | -- | ND | 50 | -- |
| | | | 2,4,6-Trichlorophenol | 10 | -- | ND | 20 | -- |
| | | | 2,4,5-Trichlorophenol | 25 | -- | ND | 700 | -- |
| | | | 2-Chloronaphthalene | 10 | -- | ND | -- | -- |
| | | | 2-Nitroaniline | 25 | -- | ND | -- | -- |
| | | | Dimethyl Phthalate | 10 | -- | ND | -- | -- |
| | | | Acenaphthylene | 10 | -- | ND | NA | -- |
| | | | 2,6-Dinitrotoluene | 10 | -- | ND | NA | -- |
| | | | 3-Nitroaniline | 25 | -- | ND | -- | -- |
| | | | Acenaphthene | 10 | -- | ND | 400 | -- |
| | | | 2,4-Dinitrophenol | 25 | -- | ND | 40 | -- |
| | | | 4-Nitrophenol | 25 | -- | ND | -- | -- |
| | | | Dibenzofuran | 10 | -- | ND | -- | -- |
| | | | 2,4-Dinitrotoluene | 10 | -- | ND | 10 | -- |
| | | | Diethylphthalate | 10 | -- | ND | 5,000 | -- |
| | | | Fluorene | 10 | -- | ND | 300 | -- |
| | | | 4-Chlorophenyl-phenlyether | 10 | -- | ND | -- | -- |
| | | | 4-Nitroaniline | 25 | -- | ND | -- | -- |
| | | | 4,6-Dinitro-2-methylphenol | 25 | -- | ND | -- | -- |

TABLE 3
GROUNDWATER SAMPLING RESULTS
BUILDING 290, MAIN POST, MW-2
FORT MONMOUTH, NEW JERSEY

| Sample ID | Sample Date | Analysis Date | Compound Name | Sample Quantitation Limit (ug/l) | Compound of Concern | Result (ug/l) | GWQC (ug/l) | Exceeds Criteria |
|-----------|-------------|---------------|----------------------------|----------------------------------|---------------------|---------------|-------------|------------------|
| MW-2 | 11/28/95 | 12/11/95 | SEMIVOLATILES (Continued) | | | | | |
| | | | N-Nitrosodiphenylamine | 10 | -- | ND | 20 | -- |
| | | | 4-Bromophenyl-phenylether | 10 | -- | ND | -- | -- |
| | | | Hexachlorobenzene | 10 | -- | ND | 10 | -- |
| | | | Pentachlorophenol | 25 | -- | ND | 1 | -- |
| | | | Phenanthrene | 10 | -- | ND | NA | -- |
| | | | Anthracene | 10 | -- | ND | 2,000 | -- |
| | | | Carbazole | 10 | -- | ND | -- | -- |
| | | | Di-n-butylphthalate | 10 | -- | ND | 900 | -- |
| | | | Fluoranthene | 10 | -- | ND | 300 | -- |
| | | | Pyrene | 10 | -- | ND | 200 | -- |
| | | | Butylbenzylphthalate | 10 | -- | ND | 100 | -- |
| | | | Benzo(a)Anthracene | 10 | -- | ND | NA | -- |
| | | | 3,3-Dichlorobenzidine | 20 | -- | ND | 60 | -- |
| | | | Chrysene | 10 | -- | ND | NA | -- |
| | | | bis(2-Ethylhexyl)Phthalate | 10 | -- | ND | 30 | -- |
| | | | Di-n-Octyl Phthalate | 10 | -- | ND | 100 | -- |
| | | | Benzo(b)Fluoranthene | 10 | -- | ND | NA | -- |
| | | | Benzo(k)Fluoranthene | 10 | -- | ND | NA | -- |
| | | | Benzo(a)Pyrene | 10 | -- | ND | NA | -- |
| | | | Indeno(1,2,3-cd)pyrene | 10 | -- | ND | NA | -- |
| | | | Dibenzo(a,h)anthracene | 10 | -- | ND | NA | -- |
| | | | Benzo(g,h,i)perylene | 10 | -- | ND | NA | -- |
| | | | SEMIVOLATILE TICS: | | | | | |
| | | | Hexadecanoic acid | -- | -- | 28 J | -- | -- |
| | | | Unknown Hydrocarbon | -- | -- | 4 J | -- | -- |
| | | | TOTAL TICS: | -- | -- | 32 | -- | -- |

TABLE 3
 GROUNDWATER SAMPLING RESULTS
 BUILDING 290, MAIN POST, MW-2
 FORT MONMOUTH, NEW JERSEY

| Sample ID | Sample Date | Analysis Date | Compound Name | Sample Quantitation Limit (ug/L) | Compound of Concern | Result (ug/L) | GWQC (ug/L) | Exceeds Criteria |
|-----------|-------------|---------------|-----------------|----------------------------------|---------------------|---------------|-------------|------------------|
| MW-2 | 11/28/95 | 12/07/95 | METALS | | | | | |
| | | | Silver | 440 | -- | 440 | NA | -- |
| | | | Aluminum | 360 | -- | 360 | 200 | YES |
| | | | Arsenic | 5 | -- | ND | 8 | -- |
| | | | Barium | 74 | -- | 74 | 2,000 | -- |
| | | | Beryllium | 5 | -- | ND | 20 | -- |
| | | | Calcium | 5,300 | -- | 5,300 | -- | -- |
| | | | Cadmium | 10 | -- | ND | 4 | -- |
| | | | Cobalt | 50 | -- | ND | -- | -- |
| | | | Chromium | 50 | -- | ND | 100 | -- |
| | | | Copper | 50 | -- | ND | 1,000 | -- |
| | | | Iron | 1,100 | -- | 1,100 | 300 | YES |
| | | | Mercury | 1 | -- | ND | 2 | -- |
| | | | Potassium | 3,000 | -- | ND | -- | -- |
| | | | Magnesium | 4,700 | -- | 4,700 | -- | -- |
| | | | Manganese | 30 | -- | 30 | 50 | -- |
| | | | Sodium | 11,000 | -- | 11,000 | 50,000 | -- |
| | | | Nickel | 50 | -- | ND | 100 | -- |
| | | | Lead | 1.5 | -- | 1.5 | 10 | -- |
| | | | Antimony | 5 | -- | ND | 20 | -- |
| | | | Selenium | 5 | -- | ND | 50 | -- |
| | | | Thallium | 2 | -- | ND | 10 | -- |
| | | | Vanadium | 50 | -- | ND | -- | -- |
| | | | Zinc | 100 | -- | 100 | 5,000 | -- |
| | | | Cyanide (Total) | 10 | -- | ND | 200 | -- |

TABLE 3
 GROUNDWATER SAMPLING RESULTS
 BUILDING 290, MAIN POST, MW-2
 FORT MONMOUTH, NEW JERSEY

| Sample ID | Sample Date | Analysis Date | Compound Name | Sample Quantitation Limit (ug/l) | Compound of Concern | Result (ug/l) | GWQC (ug/l) | Exceeds Criteria |
|-----------|-------------|---------------|---------------------|----------------------------------|---------------------|---------------|-------------|------------------|
| MW-2 | 11/28/95 | 12/07/95 | PESTICIDES/PCBs | | | | | |
| | | | alpha-BHC | 0.02 | -- | ND | 0.02 | -- |
| | | | beta-BHC | 0.04 | -- | ND | 0.2 | -- |
| | | | delta-BHC | 0.02 | -- | ND | -- | -- |
| | | | gamma-BHC (Lindane) | 0.03 | -- | ND | 0.2 | -- |
| | | | Heptachlor | 0.02 | -- | ND | 0.4 | -- |
| | | | Aldrin | 0.04 | -- | ND | 0.04 | -- |
| | | | Heptachlor epoxide | 0.05 | -- | ND | 0.2 | -- |
| | | | Endosulfan I | 0.02 | -- | ND | 0.4 | -- |
| | | | Dieldrin | 0.03 | -- | ND | 0.03 | -- |
| | | | 4,4'-DDE | 0.04 | -- | ND | 0.1 | -- |
| | | | Endrin | 0.04 | -- | ND | 2.0 | -- |
| | | | Endosulfan II | 0.04 | -- | ND | 0.4 | -- |
| | | | 4,4'-DDD | 0.04 | -- | ND | 0.1 | -- |
| | | | Endosulfan sulfate | 0.08 | -- | ND | 0.4 | -- |
| | | | 4,4'-DDT | 0.04 | -- | ND | 0.1 | -- |
| | | | Endrin aldehyde | 0.1 | -- | ND | -- | -- |
| | | | Chlordane | 0.1 | -- | ND | 0.5 | -- |
| | | | Toxaphene | 1.0 | -- | ND | 3.0 | -- |
| | | | Aroclor-1016 | 1.0 | -- | ND | -- | -- |
| | | | Aroclor-1221 | 1.0 | -- | ND | -- | -- |
| | | | Aroclor-1232 | 1.0 | -- | ND | -- | -- |
| | | | Aroclor-1242 | 1.0 | -- | ND | -- | -- |
| | | | Aroclor-1248 | 1.0 | -- | ND | -- | -- |
| | | | Aroclor-1254 | 1.0 | -- | ND | -- | -- |
| | | | Aroclor-1260 | 1.0 | -- | ND | -- | -- |

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 290, MAIN POST, TRIP BLANK
FT. MONMOUTH, NEW JERSEY

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| Sample ID | Sample Date | Analysis Date | Compound Name | Sample Quantitation Limit (ug/L) | Compound of Concern | Result (ug/L) | GWQC (ug/L) | Exceeds Criteria |
|------------|-------------|---------------|----------------------------|----------------------------------|---------------------|---------------|-------------|------------------|
| Trip Blank | 11/28/95 | 12/11/95 | VOLATILE ORGANICS | | | | | |
| | | | Dichlorodifluoromethane | 0.50 | -- | ND | -- | -- |
| | | | Chloromethane | 0.50 | -- | ND | -- | -- |
| | | | Vinyl Chloride | 0.50 | -- | ND | -- | -- |
| | | | Bromomethane | 0.50 | -- | ND | 5 | -- |
| | | | Chloroethane | 0.50 | -- | ND | -- | -- |
| | | | Trichlorofluoromethane | 0.50 | -- | ND | -- | -- |
| | | | 1,1-Dichloroethene | 0.50 | -- | ND | 2 | -- |
| | | | Methylene Chloride | 3.0 | -- | 3.0 B | 100 | -- |
| | | | 1,2-Dichloroethene (trans) | 0.50 | -- | ND | 2 | -- |
| | | | 1,1 Dichloroethane | 0.50 | -- | ND | 70 | -- |
| | | | 2,2-Dichloropropane | 0.50 | -- | ND | -- | -- |
| | | | cis-1,2-Dichloroethene | 0.50 | -- | ND | -- | -- |
| | | | Bromochloromethane | 0.50 | -- | ND | 10 | -- |
| | | | Chloroform | 0.50 | -- | ND | 6 | -- |
| | | | 1,1,1-Trichloroethane | 0.50 | -- | ND | -- | -- |
| | | | Carbon Tetrachloride | 0.50 | -- | ND | 2 | -- |
| | | | 1,1-Dichloropropene | 0.50 | -- | ND | 30 | -- |
| | | | Benzene | 0.50 | -- | ND | -- | -- |
| | | | 1,2-Dichloroethane | 0.50 | -- | ND | 2 | -- |
| | | | Trichloroethene | 0.50 | -- | ND | 1 | -- |
| | | | 1,2-Dichloropropane | 0.50 | -- | ND | 1 | -- |
| | | | Dibromomethane | 0.50 | -- | ND | NA | -- |
| | | | Bromodichloromethane | 0.50 | -- | ND | -- | -- |
| | | | cis-1,3-Dichloropropene | 0.50 | -- | ND | 1 | -- |
| | | | Toluene | 0.50 | -- | ND | 10 | -- |
| | | | trans-1,3-Dichloropropene | 0.50 | -- | ND | 3 | -- |
| | | | 1,1,2-Trichloroethane | 0.50 | -- | ND | 1 | -- |
| | | | Tetrachloroethene | 0.50 | -- | ND | NA | -- |
| | | | 1,3-Dichloropropane | 0.50 | -- | ND | 4 | -- |
| | | | Dibromochloromethane | 0.50 | -- | ND | 10 | -- |
| | | | 1,2-Dibromomethane | 0.50 | -- | ND | 1 | -- |
| | | | Chlorobenzene | 0.50 | -- | ND | 2 | -- |
| | | | 1,1,2,2-Tetrachloroethane | 0.50 | -- | ND | 1,000 | -- |
| | | | Ethylbenzene | 0.50 | -- | ND | -- | -- |
| | | | Xylenes (Total) | 0.50 | -- | ND | 4 | -- |
| | | | Styrene | 0.50 | -- | ND | 700 | -- |
| | | | Bromoform | 0.50 | -- | ND | 40 | -- |
| | | | Isopropylbenzene | 0.50 | -- | ND | 100 | -- |
| | | | Bromobenzene | 0.50 | -- | ND | -- | -- |
| | | | 1,1,2,2-Tetrachloroethane | 0.50 | -- | ND | -- | -- |
| | | | 1,2,3-Trichloropropane | 0.50 | -- | ND | -- | -- |
| | | | n-Propylbenzene | 0.50 | -- | ND | -- | -- |
| | | | 2-Chlorotoluene | 0.50 | -- | ND | -- | -- |

TABLE 3
 GROUNDWATER SAMPLING RESULTS
 BUILDING 290, MAIN POST, TRIP BLANK
 FORT MONMOUTH, NEW JERSEY

| Sample ID | Sample Date | Analysis Date | Compound Name | Sample Quantitation Limit (ug/L) | Compound of Concern | Result (ug/L) | GWQC (ug/L) | Exceeds Criteria |
|------------|-------------|---------------|-------------------------------|----------------------------------|---------------------|---------------|-------------|------------------|
| Trip Blank | 11/28/95 | 12/11/95 | VOLATILE ORGANICS (Continued) | | | | | |
| | | | 4-Chlorotoluene | 0.50 | -- | ND | -- | -- |
| | | | 1,3,5-Trimethylbenzene | 0.50 | -- | ND | -- | -- |
| | | | tert-Butylbenzene | 0.50 | -- | ND | -- | -- |
| | | | 1,2,4-Trimethylbenzene | 0.50 | -- | ND | -- | -- |
| | | | sec-Butylbenzene | 0.50 | -- | ND | -- | -- |
| | | | 1,3-Dichlorobenzene | 0.50 | -- | ND | 600 | -- |
| | | | 4-Isopropyltoluene | 0.50 | -- | ND | 75 | -- |
| | | | 1,4-Dichlorobenzene | 0.50 | -- | ND | -- | -- |
| | | | 1,2-Dichlorobenzene | 0.50 | -- | ND | 600 | -- |
| | | | N-Butylbenzene | 0.50 | -- | ND | -- | -- |
| | | | 1,2-Dibromo-3-chloropropane | 0.50 | -- | ND | NA | -- |
| | | | 1,2,4-Trichlorobenzene | 0.50 | -- | ND | 9 | -- |
| | | | Hexachlorobutadiene | 0.50 | -- | ND | 1 | -- |
| | | | Naphthalene | 0.50 | -- | ND | -- | -- |
| | | | 1,2,3-Trichlorobenzene | 0.50 | -- | ND | -- | -- |
| | | | Methy-tertiary butyl ether | 0.50 | -- | ND | -- | -- |
| | | | tertiary-Butyl alcohol | 2.0 | -- | ND | -- | -- |
| | | | VOLATILE TICS: | | | | | |
| | | | Furan, tetrahydro- | -- | -- | 3 J | -- | -- |
| | | | Column Bleed | -- | -- | 1 J | -- | -- |
| | | | TOTAL TICS: | -- | -- | 4 | -- | -- |

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 290, MAIN POST, FIELD BLANK
FT. MONMOUTH, NEW JERSEY

PAGE 15 OF 35

| Sample ID | Sample Date | Analysis Date | Compound Name | Sample Quantitation Limit (ug/L) | Compound of Concern | Result (ug/L) | GWQC (ug/L) | Exceeds Criteria |
|-------------|-------------|---------------|----------------------------|----------------------------------|---------------------|---------------|-------------|------------------|
| Field Blank | 11/28/95 | 12/11/95 | VOLATILE ORGANICS | | | | | |
| | | | Dichlorodifluoromethane | 0.50 | -- | ND | -- | -- |
| | | | Chloromethane | 0.50 | -- | ND | -- | -- |
| | | | Vinyl Chloride | 0.50 | -- | ND | -- | -- |
| | | | Bromomethane | 0.50 | -- | ND | 5 | -- |
| | | | Chloroethane | 0.50 | -- | ND | -- | -- |
| | | | Trichlorofluoromethane | 0.50 | -- | ND | -- | -- |
| | | | 1,1-Dichloroethene | 0.50 | -- | ND | 2 | -- |
| | | | Methylene Chloride | 3.1 | -- | 3.1 B | 100 | -- |
| | | | 1,2-Dichloroethene (trans) | 0.50 | -- | ND | 2 | -- |
| | | | 1,1 Dichloroethane | 0.50 | -- | ND | 70 | -- |
| | | | 2,2-Dichloropropane | 0.50 | -- | ND | -- | -- |
| | | | cis-1,2-Dichloroethene | 0.50 | -- | ND | -- | -- |
| | | | Bromochloromethane | 0.50 | -- | ND | 10 | -- |
| | | | Chloroform | 0.50 | -- | ND | 6 | -- |
| | | | 1,1,1-Trichloroethane | 0.50 | -- | ND | -- | -- |
| | | | Carbon Tetrachloride | 0.50 | -- | ND | 2 | -- |
| | | | 1,1-Dichloropropene | 0.50 | -- | ND | 30 | -- |
| | | | Benzene | 0.50 | -- | ND | -- | -- |
| | | | 1,2-Dichloroethane | 0.50 | -- | ND | 2 | -- |
| | | | Trichloroethene | 0.50 | -- | ND | 1 | -- |
| | | | 1,2-Dichloropropane | 0.50 | -- | ND | 1 | -- |
| | | | Dibromomethane | 0.50 | -- | ND | NA | -- |
| | | | Bromodichloromethane | 0.50 | -- | ND | -- | -- |
| | | | cis-1,3-Dichloropropene | 0.50 | -- | ND | 1 | -- |
| | | | Toluene | 0.50 | -- | ND | 10 | -- |
| | | | trans-1,3-Dichloropropene | 0.50 | -- | ND | 3 | -- |
| | | | 1,1,2-Trichloroethane | 0.50 | -- | ND | 1 | -- |
| | | | Tetrachloroethene | 0.50 | -- | ND | NA | -- |
| | | | 1,3-Dichloropropane | 0.50 | -- | ND | 4 | -- |
| | | | Dibromochloromethane | 0.50 | -- | ND | 10 | -- |
| | | | 1,2-Dibromomethane | 0.50 | -- | ND | 1 | -- |
| | | | Chlorobenzene | 0.50 | -- | ND | 2 | -- |
| | | | 1,1,2,2-Tetrachloroethane | 0.50 | -- | ND | 1,000 | -- |
| | | | Ethylbenzene | 0.50 | -- | ND | -- | -- |
| | | | Xylenes (Total) | 0.50 | -- | ND | 4 | -- |
| | | | Styrene | 0.50 | -- | ND | 700 | -- |
| | | | Bromoform | 0.50 | -- | ND | 40 | -- |
| | | | Isopropylbenzene | 0.50 | -- | ND | 100 | -- |
| | | | Bromobenzene | 0.50 | -- | ND | -- | -- |
| | | | 1,1,2,2-Tetrachloroethane | 0.50 | -- | ND | -- | -- |
| | | | 1,2,3-Trichloropropane | 0.50 | -- | ND | -- | -- |
| | | | n-Propylbenzene | 0.50 | -- | ND | -- | -- |
| | | | 2-Chlorotoluene | 0.50 | -- | ND | -- | -- |

TABLE 3

GROUNDWATER SAMPLING RESULTS
 BUILDING 290, MAIN POST, FIELD BLANK
 FORT MONMOUTH, NEW JERSEY

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| Sample ID | Sample Date | Analysis Date | Compound Name | Sample Quantitation Limit (ug/L) | Compound of Concern | Result (ug/L) | GWQC (ug/L) | Exceeds Criteria |
|-------------|-------------|---------------|-------------------------------|----------------------------------|---------------------|---------------|-------------|------------------|
| Field Blank | 11/28/95 | 12/11/95 | VOLATILE ORGANICS (Continued) | | | | | |
| | | | 4-Chlorotoluene | 0.50 | -- | ND | -- | -- |
| | | | 1,3,5-Trimethylbenzene | 0.50 | -- | ND | -- | -- |
| | | | tert-Butylbenzene | 0.50 | -- | ND | -- | -- |
| | | | 1,2,4-Trimethylbenzene | 0.50 | -- | ND | -- | -- |
| | | | sec-Butylbenzene | 0.50 | -- | ND | -- | -- |
| | | | 1,3-Dichlorobenzene | 0.50 | -- | ND | 600 | -- |
| | | | 4-Isopropyltoluene | 0.50 | -- | ND | 75 | -- |
| | | | 1,4-Dichlorobenzene | 0.50 | -- | ND | -- | -- |
| | | | 1,2-Dichlorobenzene | 0.50 | -- | ND | 600 | -- |
| | | | N-Butylbenzene | 0.50 | -- | ND | -- | -- |
| | | | 1,2-Dibromo-3-chloropropane | 0.50 | -- | ND | NA | -- |
| | | | 1,2,4-Trichlorobenzene | 0.50 | -- | ND | 9 | -- |
| | | | Hexachlorobutadiene | 0.50 | -- | ND | 1 | -- |
| | | | Naphthalene | 0.50 | -- | ND | -- | -- |
| | | | 1,2,3-Trichlorobenzene | 0.50 | -- | ND | -- | -- |
| | | | Methy-tertiary butyl ether | 0.50 | -- | ND | -- | -- |
| | | | tertiary-Butyl alcohol | 2.0 | -- | ND | -- | -- |
| | | | VOLATILE TICS: | | | | | |
| | | | Column Bleed | -- | -- | 1 J | -- | -- |
| | | | Unknown | -- | -- | 3 J | -- | -- |
| | | | Column Bleed | -- | -- | 1 J | -- | -- |
| | | | Unknown Hydrocarbon | -- | -- | 1 J | -- | -- |
| | | | TOTAL TICS: | -- | -- | 6 | -- | -- |

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 290, MAIN POST, FIELD BLANK
FORT MONMOUTH, NEW JERSEY

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| Sample ID | Sample Date | Analysis Date | Compound Name | Sample Quantitation Limit (ug/l) | Compound of Concern | Result (ug/l) | GWQC (ug/l) | Exceeds Criteria |
|-------------|-------------|---------------|-----------------------------|----------------------------------|---------------------|---------------|-------------|------------------|
| FIELD BLANK | 11/28/95 | 12/11/95 | SEMIVOLATILES | | | | | |
| | | | Phenol | 10 | -- | ND | 4000 | -- |
| | | | bis(2 chloroethyl)Ether | 10 | -- | ND | 20 | -- |
| | | | 2-Chlorophenol | 10 | -- | ND | 40 | -- |
| | | | 1,3-Dichlorobenzene | 10 | -- | ND | 600 | -- |
| | | | 1,4-Dichlorobenzene | 10 | -- | ND | 75 | -- |
| | | | 1,2-Dichlorobenzene | 10 | -- | ND | 600 | -- |
| | | | 2-Methylphenol | 10 | -- | ND | -- | -- |
| | | | bis(2-chloroisopropyl)Ether | 10 | -- | ND | 300 | -- |
| | | | 4-Methylphenol | 10 | -- | ND | -- | -- |
| | | | N-Nitroso-Di-n-propylamine | 10 | -- | ND | 20 | -- |
| | | | Hexachloroethane | 10 | -- | ND | 10 | -- |
| | | | Nitrobenzene | 10 | -- | ND | 10 | -- |
| | | | Isophorone | 10 | -- | ND | 100 | -- |
| | | | 2-Nitrophenol | 10 | -- | ND | -- | -- |
| | | | 2,4-Dimethylphenol | 10 | -- | ND | 100 | -- |
| | | | bis(2-Chloroethoxy)Methane | 10 | -- | ND | -- | -- |
| | | | 2,4-Dichlorophenol | 10 | -- | ND | 20 | -- |
| | | | 1,2,4-Trichlorobenzene | 10 | -- | ND | 9 | -- |
| | | | Naphthalene | 10 | -- | ND | -- | -- |
| | | | 4-Chloroaniline | 10 | -- | ND | -- | -- |
| | | | Hexachlorobutadiene | 10 | -- | ND | 1 | -- |
| | | | 4-Chloro-3-methylphenol | 10 | -- | ND | -- | -- |
| | | | 2-methylnaphthanene | 10 | -- | ND | -- | -- |
| | | | Hexachlorocyclopentadiene | 10 | -- | ND | 50 | -- |
| | | | 2,4,6-Trichlorophenol | 10 | -- | ND | 20 | -- |
| | | | 2,4,5-Trichlorophenol | 25 | -- | ND | 700 | -- |
| | | | 2-Chloronaphthalene | 10 | -- | ND | -- | -- |
| | | | 2-Nitroaniline | 25 | -- | ND | -- | -- |
| | | | Dimethyl Phthalate | 10 | -- | ND | -- | -- |
| | | | Acenaphthylene | 10 | -- | ND | NA | -- |
| | | | 2,6-Dinitrotoluene | 10 | -- | ND | NA | -- |
| | | | 3-Nitroaniline | 25 | -- | ND | -- | -- |
| | | | Acenaphthene | 10 | -- | ND | 400 | -- |
| | | | 2,4-Dinitrophenol | 25 | -- | ND | 40 | -- |
| | | | 4-Nitrophenol | 25 | -- | ND | -- | -- |
| | | | Dibenzofuran | 10 | -- | ND | -- | -- |
| | | | 2,4-Dinitrotoluene | 10 | -- | ND | 10 | -- |
| | | | Diethylphthalate | 10 | -- | ND | 5,000 | -- |
| | | | Fluorene | 10 | -- | ND | 300 | -- |
| | | | 4-Chlorophenyl-phenlyether | 10 | -- | ND | -- | -- |
| | | | 4-Nitroaniline | 25 | -- | ND | -- | -- |
| | | | 4,6-Dinitro-2-methylphenol | 25 | -- | ND | -- | -- |
| | | | N-Nitrosodiphenylamine | 10 | -- | ND | 20 | -- |

TABLE 3

GROUNDWATER SAMPLING RESULTS
 BUILDING 290, MAIN POST, FIELD BLANK
 FORT MONMOUTH, NEW JERSEY

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| Sample ID | Sample Date | Analysis Date | Compound Name | Sample Quantitation Limit (ug/L) | Compound of Concern | Result (ug/L) | GWQC (ug/L) | Exceeds Criteria |
|-------------|-------------|---------------|----------------------------|----------------------------------|---------------------|---------------|-------------|------------------|
| FIELD BLANK | 11/28/95 | 12/11/95 | SEMIVOLATILES (Continued) | | | | | |
| | | | 4-Bromophenyl-phenylether | 10 | -- | ND | -- | -- |
| | | | Hexachlorobenzene | 10 | -- | ND | 10 | -- |
| | | | Pentachlorophenol | 25 | -- | ND | 1 | -- |
| | | | Phenanthrene | 10 | -- | ND | NA | -- |
| | | | Anthracene | 10 | -- | ND | 2,000 | -- |
| | | | Carbazole | 10 | -- | ND | -- | -- |
| | | | Di-n-butylphthalate | 10 | -- | ND | 900 | -- |
| | | | Fluoranthene | 10 | -- | ND | 300 | -- |
| | | | Pyrene | 10 | -- | ND | 200 | -- |
| | | | Butylbenzylphthalate | 10 | -- | ND | 100 | -- |
| | | | Benzo(a)Anthracene | 10 | -- | ND | NA | -- |
| | | | 3,3-Dichlorobenzidine | 20 | -- | ND | 60 | -- |
| | | | Chrysene | 10 | -- | ND | NA | -- |
| | | | bis(2-Ethylhexyl)Phthalate | 10 | -- | ND | 30 | -- |
| | | | Di-n-Octyl Phthalate | 10 | -- | ND | 100 | -- |
| | | | Benzo(b)Fluoranthene | 10 | -- | ND | NA | -- |
| | | | Benzo(k)Fluoranthene | 10 | -- | ND | NA | -- |
| | | | Benzo(a)Pyrene | 10 | -- | ND | NA | -- |
| | | | Indeno(1,2,3-cd)pyrene | 10 | -- | ND | NA | -- |
| | | | Dibenzo(a,h)anthracene | 10 | -- | ND | NA | -- |
| | | | Benzo(g,h,i)perylene | 10 | -- | ND | NA | -- |
| | | | SEMIVOLATILE TICS: | | | | | |
| | | | Benzene,1-chloro-2-methyl- | -- | -- | 9 J | -- | -- |
| | | | Benzene,1-chloro-4-methyl- | -- | -- | 2 J | -- | -- |
| | | | Unknown Hydrocarbon | | | 5 J | -- | -- |
| | | | Hexadecanoic | | | 12 J | -- | -- |
| | | | Unknown Hydrocarbon | | | 2 J | -- | -- |
| | | | TOTAL TICS: | -- | -- | 35 | -- | -- |

TABLE 3
 GROUNDWATER SAMPLING RESULTS
 BUILDING 290, MAIN POST, FIELD BLANK
 FORT MONMOUTH, NEW JERSEY

| Sample ID | Sample Date | Analysis Date | Compound Name | Sample Quantitation Limit (ug/l) | Compound of Concern | Result (ug/l) | GWQC (ug/l) | Exceeds Criteria |
|-------------|-------------|---------------|-----------------|----------------------------------|---------------------|---------------|-------------|------------------|
| Field Blank | 11/28/95 | 12/07/95 | METALS | | | | | |
| | | | Silver | 110 | -- | 110 | NA | -- |
| | | | Aluminum | 200 | -- | ND | 200 | -- |
| | | | Arsenic | 5 | -- | ND | 8 | -- |
| | | | Barium | 20 | -- | ND | 2,000 | -- |
| | | | Beryllium | 5 | -- | ND | 20 | -- |
| | | | Calcium | 400 | -- | ND | -- | -- |
| | | | Cadmium | 10 | -- | ND | 4 | -- |
| | | | Cobalt | 50 | -- | ND | -- | -- |
| | | | Chromium | 50 | -- | ND | 100 | -- |
| | | | Copper | 50 | -- | ND | 1,000 | -- |
| | | | Iron | 100 | -- | ND | 300 | -- |
| | | | Mercury | 1 | -- | ND | 2 | -- |
| | | | Potassium | 3,000 | -- | ND | -- | -- |
| | | | Magnesium | 200 | -- | ND | -- | -- |
| | | | Manganese | 33 | -- | 32 | 50 | -- |
| | | | Sodium | 400 | -- | ND | 50,000 | -- |
| | | | Nickel | 50 | -- | ND | 100 | -- |
| | | | Lead | 2.8 | -- | 2.8 | 10 | -- |
| | | | Antimony | 5 | -- | ND | 20 | -- |
| | | | Selenium | 5 | -- | ND | 50 | -- |
| | | | Thallium | 2 | -- | ND | 10 | -- |
| | | | Vanadium | 50 | -- | ND | -- | -- |
| | | | Zinc | 27 | -- | 27 | 5,000 | -- |
| | | | Cyanide (Total) | 10 | -- | ND | 200 | -- |

TABLE 3

GROUNDWATER SAMPLING RESULTS
 BUILDING 290, MAIN POST, FIELD BLANK
 FORT MONMOUTH, NEW JERSEY

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| Sample ID | Sample Date | Analysis Date | Compound Name | Sample Quantitation Limit (ug/l) | Compound of Concern | Result (ug/l) | GWQC (ug/l) | Exceeds Criteria |
|-------------|-------------|---------------|---------------------|----------------------------------|---------------------|---------------|-------------|------------------|
| Field Blank | 11/28/95 | 12/07/95 | PESTICIDES/PCBs | | | | | |
| | | | alpha-BHC | 0.02 | -- | ND | 0.02 | -- |
| | | | beta-BHC | 0.04 | -- | ND | 0.2 | -- |
| | | | delta-BHC | 0.02 | -- | ND | -- | -- |
| | | | gamma-BHC (Lindane) | 0.03 | -- | ND | 0.2 | -- |
| | | | Heptachlor | 0.02 | -- | ND | 0.4 | -- |
| | | | Aldrin | 0.04 | -- | ND | 0.04 | -- |
| | | | Heptachlor epoxide | 0.05 | -- | ND | 0.2 | -- |
| | | | Endosulfan I | 0.04 | -- | ND | 0.4 | -- |
| | | | Dieldrin | 0.03 | -- | ND | 0.03 | -- |
| | | | 4,4'-DDE | 0.04 | -- | ND | 0.1 | -- |
| | | | Endrin | 0.04 | -- | ND | 2.0 | -- |
| | | | Endosulfan II | 0.04 | -- | ND | 0.4 | -- |
| | | | 4,4'-DDD | 0.04 | -- | ND | 0.1 | -- |
| | | | Endosulfan sulfate | 0.08 | -- | ND | 0.4 | -- |
| | | | 4,4'-DDT | 0.04 | -- | ND | 0.1 | -- |
| | | | Endrin aldehyde | 0.1 | -- | ND | -- | -- |
| | | | Chlordane | 0.1 | -- | ND | 0.5 | -- |
| | | | Toxaphene | 1.0 | -- | ND | 3.0 | -- |
| | | | Aroclor-1016 | 1.0 | -- | ND | -- | -- |
| | | | Aroclor-1221 | 1.0 | -- | ND | -- | -- |
| | | | Aroclor-1232 | 1.0 | -- | ND | -- | -- |
| | | | Aroclor-1242 | 1.0 | -- | ND | -- | -- |
| | | | Aroclor-1248 | 1.0 | -- | ND | -- | -- |
| | | | Aroclor-1254 | 1.0 | -- | ND | -- | -- |
| | | | Aroclor-1260 | 1.0 | -- | ND | -- | -- |

TABLE 3

 GROUNDWATER SAMPLING RESULTS
 BUILDING 290, MAIN POST, MW-1
 FT. MONMOUTH, NEW JERSEY

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| Sample ID | Sample Date | Analysis Date | Compound Name | Sample Quantitation Limit (ug/l) | Compound of Concern | Result (ug/l) | GWQC (ug/l) | Exceeds Criteria |
|-----------|-------------|---------------|----------------------------|----------------------------------|---------------------|---------------|-------------|------------------|
| MW-1 | 12/18/95 | 12/29/95 | VOLATILE ORGANICS | | | | | |
| | | | Dichlorodifluoromethane | 0.50 | -- | ND | -- | -- |
| | | | Chloromethane | 0.50 | -- | ND | -- | -- |
| | | | Vinyl Chloride | 0.50 | -- | ND | -- | -- |
| | | | Bromomethane | 0.50 | -- | ND | 5 | -- |
| | | | Chloroethane | 0.50 | -- | ND | -- | -- |
| | | | Trichlorofluoromethane | 0.50 | -- | ND | -- | -- |
| | | | 1,1-Dichloroethene | 0.50 | -- | ND | 2 | -- |
| | | | Methylene Chloride | 1.1 | -- | 1.1 B | 100 | -- |
| | | | 1,2-Dichloroethene (trans) | 0.50 | -- | ND | 2 | -- |
| | | | 1,1 Dichloroethane | 0.50 | -- | ND | 70 | -- |
| | | | 2,2-Dichloropropane | 0.50 | -- | ND | -- | -- |
| | | | cis-1,2-Dichloroethene | 1.1 | -- | 1.1 | -- | -- |
| | | | Bromochloromethane | 0.50 | -- | ND | 10 | -- |
| | | | Chloroform | 0.50 | -- | ND | 6 | -- |
| | | | 1,1,1-Trichloroethane | 0.50 | -- | ND | -- | -- |
| | | | Carbon Tetrachloride | 0.50 | -- | ND | 2 | -- |
| | | | 1,1-Dichloropropene | 0.50 | -- | ND | 30 | -- |
| | | | Benzene | 0.50 | -- | ND | -- | -- |
| | | | 1,2-Dichloroethane | 0.50 | -- | ND | 2 | -- |
| | | | Trichloroethene | 0.50 | -- | ND | 1 | -- |
| | | | 1,2-Dichloropropane | 0.50 | -- | ND | 1 | -- |
| | | | Dibromomethane | 0.50 | -- | ND | NA | -- |
| | | | Bromodichloromethane | 0.50 | -- | ND | -- | -- |
| | | | cis-1,3-Dichloropropene | 0.50 | -- | ND | 1 | -- |
| | | | Toluene | 0.50 | -- | ND | 10 | -- |
| | | | trans-1,3-Dichloropropene | 0.50 | -- | ND | 3 | -- |
| | | | 1,1,2-Trichloroethane | 0.50 | -- | ND | 1 | -- |
| | | | Tetrachloroethene | 0.50 | -- | ND | NA | -- |
| | | | 1,3-Dichloropropane | 0.50 | -- | ND | 4 | -- |
| | | | Dibromochloromethane | 0.50 | -- | ND | 10 | -- |
| | | | 1,2-Dibromomethane | 0.50 | -- | ND | 1 | -- |
| | | | Chlorobenzene | 0.50 | -- | ND | 2 | -- |
| | | | 1,1,2,2-Tetrachloroethane | 0.50 | -- | ND | 1,000 | -- |
| | | | Ethylbenzene | 0.50 | -- | ND | -- | -- |
| | | | Xylenes (Total) | 0.50 | -- | ND | 4 | -- |
| | | | Styrene | 0.50 | -- | ND | 700 | -- |
| | | | Bromoform | 0.50 | -- | ND | 40 | -- |
| | | | Isopropylbenzene | 0.50 | -- | ND | 100 | -- |
| | | | Bromobenzene | 0.50 | -- | ND | -- | -- |
| | | | 1,1,2,2-Tetrachloroethane | 0.50 | -- | ND | -- | -- |
| | | | 1,2,3-Trichloropropane | 0.50 | -- | ND | -- | -- |
| | | | n-Propylbenzene | 0.50 | -- | ND | -- | -- |
| | | | 2-Chlorotoluene | 0.50 | -- | ND | -- | -- |

TABLE 3

 GROUNDWATER SAMPLING RESULTS
 BUILDING 290, MAIN POST, MW-1
 FORT MONMOUTH, NEW JERSEY

| Sample ID | Sample Date | Analysis Date | Compound Name | Sample Quantitation Limit (ug/l) | Compound of Concern | Result (ug/l) | GWQC (ug/l) | Exceeds Criteria |
|-----------|-------------|---------------|-------------------------------|----------------------------------|---------------------|---------------|-------------|------------------|
| MW-1 | 12/18/95 | 12/29/95 | VOLATILE ORGANICS (Continued) | | | | | |
| | | | 4-Chlorotoluene | 0.50 | -- | ND | -- | -- |
| | | | 1,3,5-Trimethylbenzene | 0.50 | -- | ND | -- | -- |
| | | | tert-Butylbenzene | 0.50 | -- | ND | -- | -- |
| | | | 1,2,4-Trimethylbenzene | 0.50 | -- | ND | -- | -- |
| | | | sec-Butylbenzene | 0.50 | -- | ND | -- | -- |
| | | | 1,3-Dichlorobenzene | 0.50 | -- | ND | 600 | -- |
| | | | 4-Isopropyltoluene | 0.50 | -- | ND | 75 | -- |
| | | | 1,4-Dichlorobenzene | 0.50 | -- | ND | -- | -- |
| | | | 1,2-Dichlorobenzene | 0.50 | -- | ND | 600 | -- |
| | | | N-Butylbenzene | 0.50 | -- | ND | -- | -- |
| | | | 1,2-Dibromo-3-chloropropane | 0.50 | -- | ND | NA | -- |
| | | | 1,2,4-Trichlorobenzene | 0.50 | -- | ND | 9 | -- |
| | | | Hexachlorobutadiene | 0.50 | -- | ND | 1 | -- |
| | | | Naphthalene | 0.50 | -- | ND | -- | -- |
| | | | 1,2,3-Trichlorobenzene | 0.50 | -- | ND | -- | -- |
| | | | Methy-tertiary butyl ether | 0.50 | -- | ND | -- | -- |
| | | | tertiary-Butyl alcohol | 2.0 | -- | ND | -- | -- |
| | | | VOLATILE TICS: | | | | | |
| | | | Column Bleed | -- | -- | 3 J | -- | -- |
| | | | Column Bleed | -- | -- | 5 J | -- | -- |
| | | | TOTAL TICS: | -- | -- | 8 | -- | -- |

TABLE 3

GROUNDWATER SAMPLING RESULTS
 BUILDING 290, MAIN POST, MW-1
 FORT MONMOUTH, NEW JERSEY

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| Sample ID | Sample Date | Analysis Date | Compound Name | Sample Quantitation Limit (ug/l) | Compound of Concern | Result (ug/l) | GWQC (ug/l) | Exceeds Criteria |
|-----------|-------------|---------------|-----------------------------|----------------------------------|---------------------|---------------|-------------|------------------|
| MW-1 | 12/18/95 | 12/26/95 | SEMIVOLATILES | | | | | |
| | | | Phenol | 10 | -- | ND | 4000 | -- |
| | | | bis(2 chloroethyl)Ether | 10 | -- | ND | 20 | -- |
| | | | 2-Chlorophenol | 10 | -- | ND | 40 | -- |
| | | | 1,3-Dichlorobenzene | 10 | -- | ND | 600 | -- |
| | | | 1,4-Dichlorobenzene | 10 | -- | ND | 75 | -- |
| | | | 1,2-Dichlorobenzene | 10 | -- | ND | 600 | -- |
| | | | 2-Methylphenol | 10 | -- | ND | -- | -- |
| | | | bis(2-chloroisopropyl)Ether | 10 | -- | ND | 300 | -- |
| | | | 4-Methylphenol | 10 | -- | ND | -- | -- |
| | | | N-Nitroso-Di-n-propylamine | 10 | -- | ND | 20 | -- |
| | | | Hexachloroethane | 10 | -- | ND | 10 | -- |
| | | | Nitrobenzene | 10 | -- | ND | 10 | -- |
| | | | Isophorone | 10 | -- | ND | 100 | -- |
| | | | 2-Nitrophenol | 10 | -- | ND | -- | -- |
| | | | 2,4-Dimethylphenol | 10 | -- | ND | 100 | -- |
| | | | bis(2-Chloroethoxy)Methane | 10 | -- | ND | -- | -- |
| | | | 2,4-Dichlorophenol | 10 | -- | ND | 20 | -- |
| | | | 1,2,4-Trichlorobenzene | 10 | -- | ND | 9 | -- |
| | | | Naphthalene | 10 | -- | ND | -- | -- |
| | | | 4-Chloroaniline | 10 | -- | ND | -- | -- |
| | | | Hexachlorobutadiene | 10 | -- | ND | 1 | -- |
| | | | 4-Chloro-3-methylphenol | 10 | -- | ND | -- | -- |
| | | | 2-methylnaphthanene | 10 | -- | ND | -- | -- |
| | | | Hexachlorocyclopentadiene | 10 | -- | ND | 50 | -- |
| | | | 2,4,6-Trichlorophenol | 10 | -- | ND | 20 | -- |
| | | | 2,4,5-Trichlorophenol | 25 | -- | ND | 700 | -- |
| | | | 2-Chloronaphthalene | 10 | -- | ND | -- | -- |
| | | | 2-Nitroaniline | 25 | -- | ND | -- | -- |
| | | | Dimethyl Phthalate | 10 | -- | ND | -- | -- |
| | | | Acenaphthylene | 10 | -- | ND | NA | -- |
| | | | 2,6-Dinitrotoluene | 10 | -- | ND | NA | -- |
| | | | 3-Nitroaniline | 25 | -- | ND | -- | -- |
| | | | Acenaphthene | 10 | -- | ND | 400 | -- |
| | | | 2,4-Dinitrophenol | 25 | -- | ND | 40 | -- |
| | | | 4-Nitrophenol | 25 | -- | ND | -- | -- |
| | | | Dibenzofuran | 10 | -- | ND | -- | -- |
| | | | 2,4-Dinitrotoluene | 10 | -- | ND | 10 | -- |
| | | | Diethylphthalate | 10 | -- | ND | 5,000 | -- |
| | | | Fluorene | 10 | -- | ND | 300 | -- |
| | | | 4-Chlorophenyl-phenlyether | 10 | -- | ND | -- | -- |
| | | | 4-Nitroaniline | 25 | -- | ND | -- | -- |
| | | | 4,6-Dinitro-2-methylphenol | 25 | -- | ND | -- | -- |
| | | | N-Nitrosodiphenylamine | 10 | -- | ND | 20 | -- |

TABLE 3

 GROUNDWATER SAMPLING RESULTS
 BUILDING 290, MAIN POST, MW-1
 FORT MONMOUTH, NEW JERSEY

| Sample ID | Sample Date | Analysis Date | Compound Name | Sample Quantitation Limit (ug/l) | Compound of Concern | Result (ug/l) | GWQC (ug/l) | Exceeds Criteria |
|-----------|-------------|---------------|----------------------------|----------------------------------|---------------------|---------------|-------------|------------------|
| MW-1 | 12/18/95 | 12/26/95 | SEMIVOLATILES (Continued) | | | | | |
| | | | 4-Bromophenyl-phenylether | 10 | -- | ND | -- | -- |
| | | | Hexachlorobenzene | 10 | -- | ND | 10 | -- |
| | | | Pentachlorophenol | 25 | -- | ND | 1 | -- |
| | | | Phenanthrene | 10 | -- | ND | NA | -- |
| | | | Anthracene | 10 | -- | ND | 2,000 | -- |
| | | | Carbazole | 10 | -- | ND | -- | -- |
| | | | Di-n-butylphthalate | 10 | -- | ND | 900 | -- |
| | | | Fluoranthene | 10 | -- | ND | 300 | -- |
| | | | Pyrene | 10 | -- | ND | 200 | -- |
| | | | Butylbenzylphthalate | 10 | -- | ND | 100 | -- |
| | | | Benzo(a)Anthracene | 10 | -- | ND | NA | -- |
| | | | 3,3-Dichlorobenzidine | 20 | -- | ND | 60 | -- |
| | | | Chrysene | 10 | -- | ND | NA | -- |
| | | | bis(2-Ethylhexyl)Phthalate | 10 | -- | ND | 30 | -- |
| | | | Di-n-Octyl Phthalate | 10 | -- | ND | 100 | -- |
| | | | Benzo(b)Fluoranthene | 10 | -- | ND | NA | -- |
| | | | Benzo(k)Fluoranthene | 10 | -- | ND | NA | -- |
| | | | Benzo(a)Pyrene | 10 | -- | ND | NA | -- |
| | | | Indeno(1,2,3-cd)pyrene | 10 | -- | ND | NA | -- |
| | | | Dibenzo(a,h)anthracene | 10 | -- | ND | NA | -- |
| | | | Benzo(g,h,i)perylene | 10 | -- | ND | NA | -- |
| | | | SEMIVOLATILE TICS: | | | | | |
| | | | NONE FOUND | -- | -- | -- | -- | -- |

TABLE 3

GROUNDWATER SAMPLING RESULTS
 BUILDING 290, MAIN POST, MW-1
 FORT MONMOUTH, NEW JERSEY

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| Sample ID | Sample Date | Analysis Date | Compound Name | Sample Quantitation Limit (ug/l) | Compound of Concern | Result (ug/l) | GWQC (ug/l) | Exceeds Criteria |
|-----------|-------------|---------------|-----------------|----------------------------------|---------------------|---------------|-------------|------------------|
| MW-1 | 12/18/95 | 12/29/95 | METALS | | | | | |
| | | | Silver | 50 | -- | ND | NA | -- |
| | | | Aluminum | 2,200 | -- | 2,200 | 200 | YES |
| | | | Arsenic | 1 | -- | ND | 8 | -- |
| | | | Barium | 55 | -- | 55 | 2,000 | -- |
| | | | Beryllium | 5 | -- | ND | 20 | -- |
| | | | Calcium | 4,100 | -- | 4,100 | -- | -- |
| | | | Cadmium | 10 | -- | ND | 4 | -- |
| | | | Cobalt | 50 | -- | ND | -- | -- |
| | | | Chromium | 50 | -- | ND | 100 | -- |
| | | | Copper | 60 | -- | 60 | 1,000 | -- |
| | | | Iron | 6,400 | -- | 6,400 | 300 | YES |
| | | | Mercury | 0.2 | -- | ND | 2 | -- |
| | | | Potassium | 5,000 | -- | 5,000 | -- | -- |
| | | | Magnesium | 4,500 | -- | 4,500 | -- | -- |
| | | | Manganese | 23 | -- | 23 | 50 | -- |
| | | | Sodium | 9,200 | -- | 9,200 | 50,000 | -- |
| | | | Nickel | 50 | -- | ND | 100 | -- |
| | | | Lead | 2 | -- | ND | 10 | -- |
| | | | Antimony | 5 | -- | ND | 20 | -- |
| | | | Selenium | 5 | -- | ND | 50 | -- |
| | | | Thallium | 2 | -- | ND | 10 | -- |
| | | | Vanadium | 50 | -- | ND | -- | -- |
| | | | Zinc | 180 | -- | 180 | 5,000 | -- |
| | | | Cyanide (Total) | 10 | -- | ND | 200 | -- |

TABLE 3

GROUNDWATER SAMPLING RESULTS
 BUILDING 290, MAIN POST, MW-1
 FORT MONMOUTH, NEW JERSEY

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| Sample ID | Sample Date | Analysis Date | Compound Name | Sample Quantitation Limit (ug/L) | Compound of Concern | Result (ug/L) | GWQC (ug/L) | Exceeds Criteria |
|-----------|-------------|---------------|---------------------|----------------------------------|---------------------|---------------|-------------|------------------|
| MW-1 | 12/18/95 | 12/29/95 | PESTICIDES/PCBs | | | | | |
| | | | alpha-BHC | 0.02 | -- | ND | 0.02 | -- |
| | | | beta-BHC | 0.04 | -- | ND | 0.2 | -- |
| | | | delta-BHC | 0.02 | -- | ND | -- | -- |
| | | | gamma-BHC (Lindane) | 0.03 | -- | ND | 0.2 | -- |
| | | | Heptachlor | 0.02 | -- | ND | 0.4 | -- |
| | | | Aldrin | 0.04 | -- | ND | 0.04 | -- |
| | | | Heptachlor epoxide | 0.05 | -- | ND | 0.2 | -- |
| | | | Endosulfan I | 0.04 | -- | ND | 0.4 | -- |
| | | | Dieldrin | 0.03 | -- | ND | 0.03 | -- |
| | | | 4,4'-DDE | 0.04 | -- | ND | 0.1 | -- |
| | | | Endrin | 0.04 | -- | ND | 2.0 | -- |
| | | | Endosulfan II | 0.04 | -- | ND | 0.4 | -- |
| | | | 4,4'-DDD | 0.04 | -- | ND | 0.1 | -- |
| | | | Endosulfan sulfate | 0.08 | -- | ND | 0.4 | -- |
| | | | 4,4'-DDT | 0.04 | -- | ND | 0.1 | -- |
| | | | Endrin aldehyde | 0.1 | -- | ND | -- | -- |
| | | | Chlordane | 0.1 | -- | ND | 0.5 | -- |
| | | | Toxaphene | 1.0 | -- | ND | 3.0 | -- |
| | | | Aroclor-1016 | 1.0 | -- | ND | -- | -- |
| | | | Aroclor-1221 | 1.0 | -- | ND | -- | -- |
| | | | Aroclor-1232 | 1.0 | -- | ND | -- | -- |
| | | | Aroclor-1242 | 1.0 | -- | ND | -- | -- |
| | | | Aroclor-1248 | 1.0 | -- | ND | -- | -- |
| | | | Aroclor-1254 | 1.0 | -- | ND | -- | -- |
| | | | Aroclor-1260 | 1.0 | -- | ND | -- | -- |

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GROUNDWATER SAMPLING RESULTS
BUILDING 290, MAIN POST, TRIP BLANK
FT. MONMOUTH, NEW JERSEY

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| Sample ID | Sample Date | Analysis Date | Compound Name | Sample Quantitation Limit (ug/l) | Compound of Concern | Result (ug/l) | GWQC (ug/l) | Exceeds Criteria |
|------------|-------------|---------------|----------------------------|----------------------------------|---------------------|---------------|-------------|------------------|
| Trip Blank | 12/18/95 | 12/29/95 | VOLATILE ORGANICS | | | | | |
| | | | Dichlorodifluoromethane | 0.50 | -- | ND | -- | -- |
| | | | Chloromethane | 0.50 | -- | ND | -- | -- |
| | | | Vinyl Chloride | 0.50 | -- | ND | -- | -- |
| | | | Bromomethane | 0.50 | -- | ND | 5 | -- |
| | | | Chloroethane | 0.50 | -- | ND | -- | -- |
| | | | Trichlorofluoromethane | 0.50 | -- | ND | -- | -- |
| | | | 1,1-Dichloroethene | 0.50 | -- | ND | 2 | -- |
| | | | Methylene Chloride | 1.4 | -- | 1.4 B | 100 | -- |
| | | | 1,2-Dichloroethene (trans) | 0.50 | -- | ND | 2 | -- |
| | | | 1,1 Dichloroethane | 0.50 | -- | ND | 70 | -- |
| | | | 2,2-Dichloropropane | 0.50 | -- | ND | -- | -- |
| | | | cis-1,2-Dichloroethene | 0.50 | -- | ND | -- | -- |
| | | | Bromochloromethane | 0.50 | -- | ND | 10 | -- |
| | | | Chloroform | 0.50 | -- | ND | 6 | -- |
| | | | 1,1,1-Trichloroethane | 0.50 | -- | ND | -- | -- |
| | | | Carbon Tetrachloride | 0.50 | -- | ND | 2 | -- |
| | | | 1,1-Dichloropropene | 0.50 | -- | ND | 30 | -- |
| | | | Benzene | 0.50 | -- | ND | -- | -- |
| | | | 1,2-Dichloroethane | 0.50 | -- | ND | 2 | -- |
| | | | Trichloroethene | 0.50 | -- | ND | 1 | -- |
| | | | 1,2-Dichloropropane | 0.50 | -- | ND | 1 | -- |
| | | | Dibromomethane | 0.50 | -- | ND | NA | -- |
| | | | Bromodichloromethane | 0.50 | -- | ND | -- | -- |
| | | | cis-1,3-Dichloropropene | 0.50 | -- | ND | 1 | -- |
| | | | Toluene | 0.50 | -- | ND | 10 | -- |
| | | | trans-1,3-Dichloropropene | 0.50 | -- | ND | 3 | -- |
| | | | 1,1,2-Trichloroethane | 0.50 | -- | ND | 1 | -- |
| | | | Tetrachloroethene | 0.50 | -- | ND | NA | -- |
| | | | 1,3-Dichloropropane | 0.50 | -- | ND | 4 | -- |
| | | | Dibromochloromethane | 0.50 | -- | ND | 10 | -- |
| | | | 1,2-Dibromomethane | 0.50 | -- | ND | 1 | -- |
| | | | Chlorobenzene | 0.50 | -- | ND | 2 | -- |
| | | | 1,1,2,2-Tetrachloroethane | 0.50 | -- | ND | 1,000 | -- |
| | | | Ethylbenzene | 0.50 | -- | ND | -- | -- |
| | | | Xylenes (Total) | 0.50 | -- | ND | 4 | -- |
| | | | Styrene | 0.50 | -- | ND | 700 | -- |
| | | | Bromoform | 0.50 | -- | ND | 40 | -- |
| | | | Isopropylbenzene | 0.50 | -- | ND | 100 | -- |
| | | | Bromobenzene | 0.50 | -- | ND | -- | -- |
| | | | 1,1,2,2-Tetrachloroethane | 0.50 | -- | ND | -- | -- |
| | | | 1,2,3-Trichloropropane | 0.50 | -- | ND | -- | -- |
| | | | n-Propylbenzene | 0.50 | -- | ND | -- | -- |
| | | | 2-Chlorotoluene | 0.50 | -- | ND | -- | -- |

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GROUNDWATER SAMPLING RESULTS
 BUILDING 290, MAIN POST, TRIP BLANK
 FORT MONMOUTH, NEW JERSEY

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| Sample ID | Sample Date | Analysis Date | Compound Name | Sample Quantitation Limit (ug/L) | Compound of Concern | Result (ug/l) | GWQC (ug/l) | Exceeds Criteria |
|------------|-------------|---------------|-------------------------------|----------------------------------|---------------------|---------------|-------------|------------------|
| Trip Blank | 12/18/95 | 12/29/95 | VOLATILE ORGANICS (Continued) | | | | | |
| | | | 4-Chlorotoluene | 0.50 | -- | ND | -- | -- |
| | | | 1,3,5-Trimethylbenzene | 0.50 | -- | ND | -- | -- |
| | | | tert-Butylbenzene | 0.50 | -- | ND | -- | -- |
| | | | 1,2,4-Trimethylbenzene | 0.50 | -- | ND | -- | -- |
| | | | sec-Butylbenzene | 0.50 | -- | ND | -- | -- |
| | | | 1,3-Dichlorobenzene | 0.50 | -- | ND | 600 | -- |
| | | | 4-Isopropyltoluene | 0.50 | -- | ND | 75 | -- |
| | | | 1,4-Dichlorobenzene | 0.50 | -- | ND | -- | -- |
| | | | 1,2-Dichlorobenzene | 0.50 | -- | ND | 600 | -- |
| | | | N-Butylbenzene | 0.50 | -- | ND | -- | -- |
| | | | 1,2-Dibromo-3-chloropropane | 0.50 | -- | ND | NA | -- |
| | | | 1,2,4-Trichlorobenzene | 0.50 | -- | ND | 9 | -- |
| | | | Hexachlorobutadiene | 0.50 | -- | ND | 1 | -- |
| | | | Naphthalene | 0.50 | -- | ND | -- | -- |
| | | | 1,2,3-Trichlorobenzene | 0.50 | -- | ND | -- | -- |
| | | | Methy-tertiary butyl ether | 0.50 | -- | ND | -- | -- |
| | | | tertiary-Butyl alcohol | 2.0 | -- | ND | -- | -- |
| | | | VOLATILE TICS: | | | | | |
| | | | Furan, tetrahydro- | -- | -- | 2 J | -- | -- |
| | | | Column Bleed | -- | -- | 2 J | -- | -- |
| | | | Column Bleed | -- | -- | 1 J | -- | -- |

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GROUNDWATER SAMPLING RESULTS
BUILDING 290, MAIN POST, FIELD BLANK
FT. MONMOUTH, NEW JERSEY

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| Sample ID | Sample Date | Analysis Date | Compound Name | Sample Quantitation Limit (ug/l) | Compound of Concern | Result (ug/l) | GWQC (ug/l) | Exceeds Criteria |
|-------------|-------------|---------------|----------------------------|----------------------------------|---------------------|---------------|-------------|------------------|
| Field Blank | 12/18/95 | 12/29/95 | VOLATILE ORGANICS | | | | | |
| | | | Dichlorodifluoromethane | 0.50 | -- | ND | -- | -- |
| | | | Chloromethane | 0.50 | -- | ND | -- | -- |
| | | | Vinyl Chloride | 0.50 | -- | ND | -- | -- |
| | | | Bromomethane | 0.50 | -- | ND | 5 | -- |
| | | | Chloroethane | 0.50 | -- | ND | -- | -- |
| | | | Trichlorofluoromethane | 0.50 | -- | ND | -- | -- |
| | | | 1,1-Dichloroethene | 0.50 | -- | ND | 2 | -- |
| | | | Methylene Chloride | 1.4 | -- | 1.4 B | 100 | -- |
| | | | 1,2-Dichloroethene (trans) | 0.50 | -- | ND | 2 | -- |
| | | | 1,1 Dichloroethane | 0.50 | -- | ND | 70 | -- |
| | | | 2,2-Dichloropropane | 0.50 | -- | ND | -- | -- |
| | | | cis-1,2-Dichloroethene | 0.50 | -- | ND | -- | -- |
| | | | Bromochloromethane | 0.50 | -- | ND | 10 | -- |
| | | | Chloroform | 0.50 | -- | ND | 6 | -- |
| | | | 1,1,1-Trichloroethane | 0.50 | -- | ND | -- | -- |
| | | | Carbon Tetrachloride | 0.50 | -- | ND | 2 | -- |
| | | | 1,1-Dichloropropene | 0.50 | -- | ND | 30 | -- |
| | | | Benzene | 0.50 | -- | ND | -- | -- |
| | | | 1,2-Dichloroethane | 0.50 | -- | ND | 2 | -- |
| | | | Trichloroethene | 0.50 | -- | ND | 1 | -- |
| | | | 1,2-Dichloropropane | 0.50 | -- | ND | 1 | -- |
| | | | Dibromomethane | 0.50 | -- | ND | NA | -- |
| | | | Bromodichloromethane | 0.50 | -- | ND | -- | -- |
| | | | cis-1,3-Dichloropropene | 0.50 | -- | ND | 1 | -- |
| | | | Toluene | 0.50 | -- | ND | 10 | -- |
| | | | trans-1,3-Dichloropropene | 0.50 | -- | ND | 3 | -- |
| | | | 1,1,2-Trichloroethane | 0.50 | -- | ND | 1 | -- |
| | | | Tetrachloroethene | 0.50 | -- | ND | NA | -- |
| | | | 1,3-Dichloropropane | 0.50 | -- | ND | 4 | -- |
| | | | Dibromochloromethane | 0.50 | -- | ND | 10 | -- |
| | | | 1,2-Dibromomethane | 0.50 | -- | ND | 1 | -- |
| | | | Chlorobenzene | 0.50 | -- | ND | 2 | -- |
| | | | 1,1,2,2-Tetrachloroethane | 0.50 | -- | ND | 1,000 | -- |
| | | | Ethylbenzene | 0.50 | -- | ND | -- | -- |
| | | | Xylenes (Total) | 0.50 | -- | ND | 4 | -- |
| | | | Styrene | 0.50 | -- | ND | 700 | -- |
| | | | Bromoform | 0.50 | -- | ND | 40 | -- |
| | | | Isopropylbenzene | 0.50 | -- | ND | 100 | -- |
| | | | Bromobenzene | 0.50 | -- | ND | -- | -- |
| | | | 1,1,2,2-Tetrachloroethane | 0.50 | -- | ND | -- | -- |
| | | | 1,2,3-Trichloropropane | 0.50 | -- | ND | -- | -- |
| | | | n-Propylbenzene | 0.50 | -- | ND | -- | -- |
| | | | 2-Chlorotoluene | 0.50 | -- | ND | -- | -- |

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 290, MAIN POST, FIELD BLANK
FORT MONMOUTH, NEW JERSEY

PAGE 30 OF 35

| Sample ID | Sample Date | Analysis Date | Compound Name | Sample Quantitation Limit (ug/l) | Compound of Concern | Result (ug/l) | GWQC (ug/l) | Exceeds Criteria |
|-------------|-------------|---------------|-------------------------------|----------------------------------|---------------------|---------------|-------------|------------------|
| Field Blank | 12/18/95 | 12/29/95 | VOLATILE ORGANICS (Continued) | | | | | |
| | | | 4-Chlorotoluene | 0.50 | -- | ND | -- | -- |
| | | | 1,3,5-Trimethylbenzene | 0.50 | -- | ND | -- | -- |
| | | | tert-Butylbenzene | 0.50 | -- | ND | -- | -- |
| | | | 1,2,4-Trimethylbenzene | 0.50 | -- | ND | -- | -- |
| | | | sec-Butylbenzene | 0.50 | -- | ND | -- | -- |
| | | | 1,3-Dichlorobenzene | 0.50 | -- | ND | 600 | -- |
| | | | 4-Isopropyltoluene | 0.50 | -- | ND | 75 | -- |
| | | | 1,4-Dichlorobenzene | 0.50 | -- | ND | -- | -- |
| | | | 1,2-Dichlorobenzene | 0.50 | -- | ND | 600 | -- |
| | | | N-Butylbenzene | 0.50 | -- | ND | -- | -- |
| | | | 1,2-Dibromo-3-chloropropane | 0.50 | -- | ND | NA | -- |
| | | | 1,2,4-Trichlorobenzene | 0.50 | -- | ND | 9 | -- |
| | | | Hexachlorobutadiene | 0.50 | -- | ND | 1 | -- |
| | | | Naphthalene | 0.50 | -- | ND | -- | -- |
| | | | 1,2,3-Trichlorobenzene | 0.50 | -- | ND | -- | -- |
| | | | Methy-tertiary butyl ether | 0.50 | -- | ND | -- | -- |
| | | | tertiary-Butyl alcohol | 2.0 | -- | ND | -- | -- |
| | | | VOLATILE TICS: | | | | | |
| | | | Column Bleed | -- | -- | 1 J | -- | -- |
| | | | Furan, tetrahydro- | -- | -- | 2 J | -- | -- |

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 290, MAIN POST, FIELD BLANK
FORT MONMOUTH, NEW JERSEY

PAGE 31 OF 35

| Sample ID | Sample Date | Analysis Date | Compound Name | Sample Quantitation Limit (ug/l) | Compound of Concern | Result (ug/l) | GWQC (ug/l) | Exceeds Criteria |
|-------------|-------------|---------------|-----------------------------|----------------------------------|---------------------|---------------|-------------|------------------|
| Field Blank | 12/18/95 | 12/26/95 | SEMIVOLATILES | | | | | |
| | | | Phenol | 10 | -- | ND | 4000 | -- |
| | | | bis(2 chloroethyl)Ether | 10 | -- | ND | 20 | -- |
| | | | 2-Chlorophenol | 10 | -- | ND | 40 | -- |
| | | | 1,3-Dichlorobenzene | 10 | -- | ND | 600 | -- |
| | | | 1,4-Dichlorobenzene | 10 | -- | ND | 75 | -- |
| | | | 1,2-Dichlorobenzene | 10 | -- | ND | 600 | -- |
| | | | 2-Methylphenol | 10 | -- | ND | -- | -- |
| | | | bis(2-chloroisopropyl)Ether | 10 | -- | ND | 300 | -- |
| | | | 4-Methylphenol | 10 | - | ND | -- | -- |
| | | | N-Nitroso-Di-n-propylamine | 10 | -- | ND | 20 | -- |
| | | | Hexachloroethane | 10 | -- | ND | 10 | -- |
| | | | Nitrobenzene | 10 | -- | ND | 10 | -- |
| | | | Isophorone | 10 | -- | ND | 100 | -- |
| | | | 2-Nitrophenol | 10 | -- | ND | -- | -- |
| | | | 2,4-Dimethylphenol | 10 | -- | ND | 100 | -- |
| | | | bis(2-Chloroethoxy)Methane | 10 | -- | ND | -- | -- |
| | | | 2,4-Dichlorophenol | 10 | -- | ND | 20 | -- |
| | | | 1,2,4-Trichlorobenzene | 10 | -- | ND | 9 | -- |
| | | | Naphthalene | 10 | -- | ND | -- | -- |
| | | | 4-Chloroaniline | 10 | -- | ND | -- | -- |
| | | | Hexachlorobutadiene | 10 | -- | ND | 1 | -- |
| | | | 4-Chloro-3-methylphenol | 10 | -- | ND | -- | -- |
| | | | 2-methylnaphthanene | 10 | -- | ND | -- | -- |
| | | | Hexachlorocyclopentadiene | 10 | -- | ND | 50 | -- |
| | | | 2,4,6-Trichlorophenol | 10 | -- | ND | 20 | -- |
| | | | 2,4,5-Trichlorophenol | 25 | -- | ND | 700 | -- |
| | | | 2-Chloronaphthalene | 10 | -- | ND | -- | -- |
| | | | 2-Nitroanline | 25 | -- | ND | -- | -- |
| | | | Dimethyl Phthalate | 10 | -- | ND | -- | -- |
| | | | Acenaphthylene | 10 | -- | ND | NA | -- |
| | | | 2,6-Dinitrotoluene | 10 | -- | ND | NA | -- |
| | | | 3-Nitroaniline | 25 | -- | ND | -- | -- |
| | | | Acenaphthene | 10 | -- | ND | 400 | -- |
| | | | 2,4-Dinitrophenol | 25 | -- | ND | 40 | -- |
| | | | 4-Nitrophenol | 25 | -- | ND | -- | -- |
| | | | Dibenzofuran | 10 | -- | ND | -- | -- |
| | | | 2,4-Dinitrotoluene | 10 | -- | ND | 10 | -- |
| | | | Diethylphthalate | 10 | -- | ND | 5,000 | -- |
| | | | Fluorene | 10 | -- | ND | 300 | -- |
| | | | 4-Chlorophenyl-phenlyether | 10 | -- | ND | -- | -- |
| | | | 4-Nitroaniline | 25 | -- | ND | -- | -- |
| | | | 4,6-Dinitro-2-methylphenol | 25 | -- | ND | -- | -- |
| | | | N-Nitrosodiphenylamine | 10 | -- | ND | 20 | -- |

TABLE 3

GROUNDWATER SAMPLING RESULTS
 BUILDING 290, MAIN POST, FIELD BLANK
 FORT MONMOUTH, NEW JERSEY

PAGE 32 OF 35

| Sample ID | Sample Date | Analysis Date | Compound Name | Sample Quantitation Limit (ug/l) | Compound of Concern | Result (ug/l) | GWQC (ug/l) | Exceeds Criteria |
|-------------|-------------|---------------|----------------------------|----------------------------------|---------------------|---------------|-------------|------------------|
| Field Blank | 12/18/95 | 12/26/95 | SEMIVOLATILES (Continued) | | | | | |
| | | | 4-Bromophenyl-phenylether | 10 | -- | ND | -- | -- |
| | | | Hexachlorobenzene | 10 | -- | ND | 10 | -- |
| | | | Pentachlorophenol | 25 | -- | ND | 1 | -- |
| | | | Phenanthrene | 10 | -- | ND | NA | -- |
| | | | Anthracene | 10 | -- | ND | 2,000 | -- |
| | | | Carbazole | 10 | -- | ND | -- | -- |
| | | | Di-n-butylphthalate | 10 | -- | ND | 900 | -- |
| | | | Fluoranthene | 10 | -- | ND | 300 | -- |
| | | | Pyrene | 10 | -- | ND | 200 | -- |
| | | | Butylbenzylphthalate | 10 | -- | ND | 100 | -- |
| | | | Benzo(a)Anthracene | 10 | -- | ND | NA | -- |
| | | | 3,3-Dichlorobenzidine | 20 | -- | ND | 60 | -- |
| | | | Chrysene | 10 | -- | ND | NA | -- |
| | | | bis(2-Ethylhexyl)Phthalate | 10 | -- | ND | 30 | -- |
| | | | Di-n-Octyl Phthalate | 10 | -- | ND | 100 | -- |
| | | | Benzo(b)Fluoranthene | 10 | -- | ND | NA | -- |
| | | | Benzo(k)Fluoranthene | 10 | -- | ND | NA | -- |
| | | | Benzo(a)Pyrene | 10 | -- | ND | NA | -- |
| | | | Indeno(1,2,3-cd)pyrene | 10 | -- | ND | NA | -- |
| | | | Dibenzo(a,h)anthracene | 10 | -- | ND | NA | -- |
| | | | Benzo(g,h,i)perylene | 10 | -- | ND | NA | -- |
| | | | SEMIVOLATILE TICS: | | | | | |
| | | | Unkown Hydrocarbon | -- | -- | 6 J | -- | -- |

TABLE 3

GROUNDWATER SAMPLING RESULTS
 BUILDING 290, MAIN POST, FIELD BLANK
 FORT MONMOUTH, NEW JERSEY

PAGE 33 OF 35

| Sample ID | Sample Date | Analysis Date | Compound Name | Sample Quantitation Limit (ug/l) | Compound of Concern | Result (ug/l) | GWQC (ug/l) | Exceeds Criteria |
|-------------|-------------|---------------|-----------------|----------------------------------|---------------------|---------------|-------------|------------------|
| Field Blank | 12/18/95 | 12/29/95 | METALS | | | | | |
| | | | Silver | 50 | -- | ND | NA | -- |
| | | | Aluminum | 200 | -- | ND | 200 | -- |
| | | | Arsenic | 1 | -- | ND | 8 | -- |
| | | | Barium | 20 | -- | ND | 2,000 | -- |
| | | | Beryllium | 5 | -- | ND | 20 | -- |
| | | | Calcium | 400 | -- | ND | -- | -- |
| | | | Cadmium | 10 | -- | ND | 4 | -- |
| | | | Cobalt | 50 | -- | ND | -- | -- |
| | | | Chromium | 50 | -- | ND | 100 | -- |
| | | | Copper | 50 | -- | ND | 1,000 | -- |
| | | | Iron | 100 | -- | ND | 300 | -- |
| | | | Mercury | 0.2 | -- | ND | 2 | -- |
| | | | Potassium | 3,000 | -- | ND | -- | -- |
| | | | Magnesium | 200 | -- | ND | -- | -- |
| | | | Manganese | 20 | -- | ND | 50 | -- |
| | | | Sodium | 400 | -- | ND | 50,000 | -- |
| | | | Nickel | 50 | -- | ND | 100 | -- |
| | | | Lead | 2 | -- | ND | 10 | -- |
| | | | Antimony | 10 | -- | ND | 20 | -- |
| | | | Selenium | 5 | -- | ND | 50 | -- |
| | | | Thallium | 2 | -- | ND | 10 | -- |
| | | | Vanadium | 50 | -- | ND | -- | -- |
| | | | Zinc | 65 | -- | 65 | 5,000 | -- |
| | | | Cyanide (Total) | 10 | -- | ND | 200 | -- |

TABLE 3

GROUNDWATER SAMPLING RESULTS
 BUILDING 290, MAIN POST, FIELD BLANK
 FORT MONMOUTH, NEW JERSEY

PAGE 34 OF 35

| Sample ID | Sample Date | Analysis Date | Compound Name | Sample Quantitation Limit (ug/l) | Compound of Concern | Result (ug/l) | GWQC (ug/l) | Exceeds Criteria |
|-------------|-------------|---------------|---------------------|----------------------------------|---------------------|---------------|-------------|------------------|
| Field Blank | 12/28/95 | 12/29/95 | PESTICIDES/PCBs | | | | | |
| | | | alpha-BHC | 0.02 | -- | ND | 0.02 | -- |
| | | | beta-BHC | 0.04 | -- | ND | 0.2 | -- |
| | | | delta-BHC | 0.02 | -- | ND | -- | -- |
| | | | gamma-BHC (Lindane) | 0.03 | -- | ND | 0.2 | -- |
| | | | Heptachlor | 0.02 | -- | ND | 0.4 | -- |
| | | | Aldrin | 0.04 | -- | ND | 0.04 | -- |
| | | | Heptachlor epoxide | 0.05 | -- | ND | 0.2 | -- |
| | | | Endosulfan I | 0.04 | -- | ND | 0.4 | -- |
| | | | Dieldrin | 0.03 | -- | ND | 0.03 | -- |
| | | | 4,4'-DDE | 0.04 | -- | ND | 0.1 | -- |
| | | | Endrin | 0.04 | -- | ND | 2.0 | -- |
| | | | Endosulfan II | 0.04 | -- | ND | 0.4 | -- |
| | | | 4,4'-DDD | 0.04 | -- | ND | 0.1 | -- |
| | | | Endosulfan sulfate | 0.08 | -- | ND | 0.4 | -- |
| | | | 4,4'-DDT | 0.04 | -- | ND | 0.1 | -- |
| | | | Endrin aldehyde | 0.1 | -- | ND | -- | -- |
| | | | Chlordane | 0.1 | -- | ND | 0.5 | -- |
| | | | Toxaphene | 1.0 | -- | ND | 3.0 | -- |
| | | | Aroclor-1016 | 1.0 | -- | ND | -- | -- |
| | | | Aroclor-1221 | 1.0 | -- | ND | -- | -- |
| | | | Aroclor-1232 | 1.0 | -- | ND | -- | -- |
| | | | Aroclor-1242 | 1.0 | -- | ND | -- | -- |
| | | | Aroclor-1248 | 1.0 | -- | ND | -- | -- |
| | | | Aroclor-1254 | 1.0 | -- | ND | -- | -- |
| | | | Aroclor-1260 | 1.0 | -- | ND | -- | -- |

SOURCE: SMITH TECHNOLOGY CORPORATION (PROJECT NO. 09-5004-08)

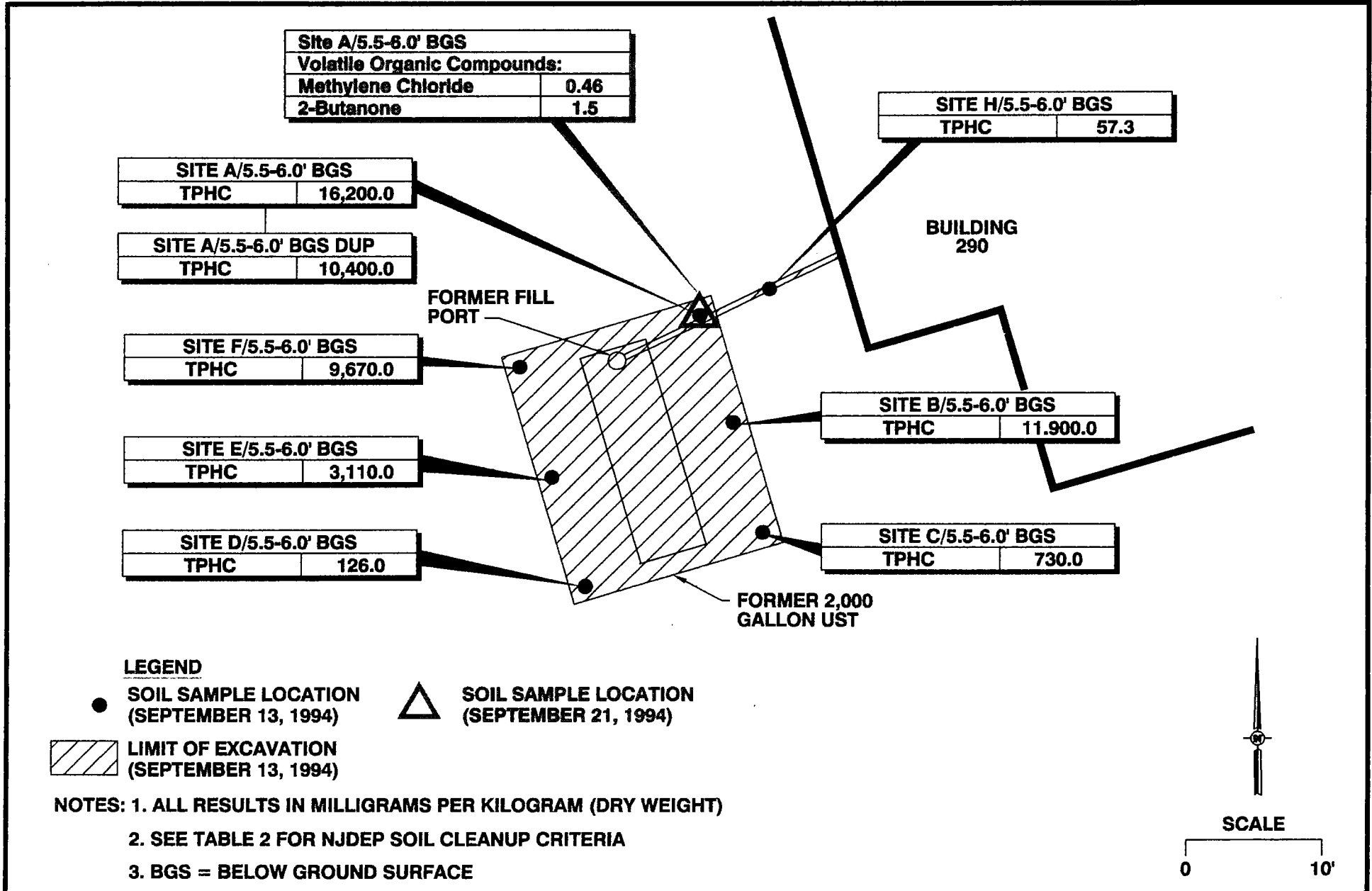
ge290.doc

TABLE 3

DATA ANALYSIS QUALIFIER DEFINITIONS
GROUNDWATER SAMPLING
FORT MONMOUTH, NEW JERSEY
PAGE 35 OF 35

PAGE 35 OF 35

| | |
|-------|--|
| --: | Not applicable / does not exceed criteria |
| J: | Indicates detected below sample quantitation limit |
| B: | Indicates also present in blank |
| ND: | Indicates compound not detected |
| NT | Not tested |
| NA: | Not available for this constituent |
| GWQS: | Groundwater Quality Standards |



APPENDIX A
NJDEP BUST CLOSURE APPROVAL

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 #

UST #

C-93-3179

0081533

US Army
BLDG. 290
Ft. Monmouth, 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 of: one 2,000 gallon #2 diesel 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 25% of the samples will be analyzed for VO+10.

ON-SITE MANAGER: C. Appleby

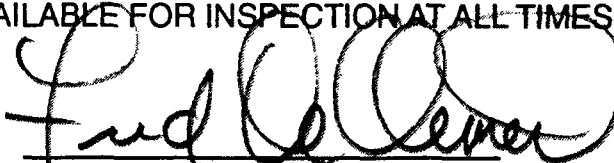
TELEPHONE: 908-532-1475

OWNER:

TELEPHONE:

EFFECTIVE DATE: **AUG 26 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, BUREAU CHIEF
BUREAU OF UNDERGROUND STORAGE TANKS

APPENDIX B
CERTIFICATIONS



State of New Jersey
Department of Environmental Protection and Energy
Division of Responsible Party Site Remediation
CN 028
Trenton, NJ 08625-0029

ATTN: UST Program
(609) 984-3156

For State Use Only

Date Rec'd. _____
Auth. _____
Routing _____
UST NO. _____

STANDARD REPORTING FORM
for reporting activities at an UST facility:

- | | |
|--|---|
| <input type="checkbox"/> General Facility Information Changes | <input type="checkbox"/> Sale or Transfer |
| <input checked="" type="checkbox"/> Closure (Abandonment or Removal) | <input type="checkbox"/> Substantial Modification |
| <input type="checkbox"/> Temporary Closure | <input type="checkbox"/> Financial Responsibility |
| <input type="checkbox"/> Change in Service | <input type="checkbox"/> Address Change Only |

Check ONLY One Type of Activity - Complete Form For That Activity

(More than one tank can be listed per activity)

*** NOTE *** ALL NEW tank installations at existing registered facilities must submit a Registration Questionnaire for the new tanks.

Answer questions 1 through 5 and others as applicable.

1. Company name and address (as it appears on registration questionnaire):
 U.S. ARMY Fort Monmouth
 DEH Bldg 167, DEPT OF PUBLIC WORK
 Fort Monmouth NJ 07703
 ATTN: DINKER DESAI
2. Facility name and location (if different from above):

3. Contact person for this activity:
 DINKER DESAI
 Telephone Number: (908) 532-1475
4. The identification number of the affected tank as it appears in Question Number 12 on the Registration Questionnaire:
 BLDG 290 64
5. Registration Number (if known):
 UST - 0081533 - ~~6~~
6. For GENERAL FACILITY INFORMATION changes (address, telephone, contact person, etc. - supply NEW information only):
 - a. Facility name: _____
 - b. Facility location: _____
 - c. Owner's mailing address: _____

 _____ NJ _____
 - d. Block: _____ Lot: _____
 - e. Contact person (facility operator): _____
 - f. Contact telephone number: () _____ - _____
 - g. Other (Specify): _____

(OVER)

7. For CLOSURE (abandonment or removal - check all that apply):
 a. Abandonment Date: / / Case No:
 Attach the necessary implementation schedule (3 copies) and all documentation needed for abandonment per N.J.A.C. 7:14B-9.1 (d).
 b. Removal Date: 9/12/94 Case No. TMS # C-92-3179
 Attach the necessary implementation schedule (3 copies). 9-4-9-13-1503-5

8. For CHANGES IN HAZARDOUS SUBSTANCES STORED (check all that apply):
 a. Temporary Closure (12 month maximum time - see N.J.A.C. 7:14B-9.1(b)). Remove all hazardous substances; leave tank in place.
 b. Change in service from a regulated substance to a non-regulated substance. Tank must be cleaned and site assessment performed per N.J.A.C. 7:14B-9.1(e).
 c. Changes in service from one regulated hazardous substance to another regulated hazardous substance.
 Tank No. Old New
 Tank No. Old New
 Tank No. Old New
 (Attach additional sheets if more space is needed)

9. For TRANSFER OF OWNERSHIP: Effective Date: / /
 a. New Owner (operator)
 b. New Facility Name

 NJ
 County
 c. Closing Attorney Tels: () -

10. For SUBSTANTIAL MODIFICATIONS (to include any retrofitted activity - e.g. the addition of spill/overfill protection, monitoring systems, cathodic protection, etc.):
 a. Type of Modification Date: / /
 b. * NOTE * Substantial modifications require a permit under N.J.A.C. 7:14B-10.

11. For changes in FINANCIAL RESPONSIBILITY to (check appropriate changes and attach copies of new information):
 a. Policy Type: d. Company/Carrier:
 b. Policy Number: e. Expiration Date:
 c. Other:

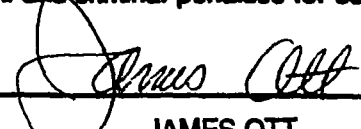
 (Specify)

NOTE: ALL appropriate and applicable permits, licenses and certificates required by the above activity(ies) from any local, state and/or federal agencies must be obtained separately from this notification.

CERTIFICATION

This registration form shall be signed by the highest ranking individual at the facility with overall responsibility for that facility (N.J.A.C. 7:14B-2.3 (a) 1).

"I certify under penalty of law that the information provided in this document is true, accurate and complete. I am aware that there are significant civil and criminal penalties for submitting false, inaccurate or incomplete information, including fines and/or imprisonment."

Signature: 
 Name (print or type): JAMES OTT
Acting Director
 Title: Directorate of Public Works Date: 9/20/94

APPENDIX C
WASTE MANIFEST

UNDERGROUND STORAGE TANK REMOVAL (UST)

(Submit one form for each tank)

Building No. 290 NJDEPE UST Reg. No. 0081533 - 64

IJO No. 91-0148 Date Tank Removed 9/12/94

| ITEM NO. | ITEM OF WORK | UNIT | UNIT PRICE | QUANTITY | TOTAL PRICE |
|----------------------|---|------|------------|------------|----------------|
| 01100-1.1 | Rmv ID#27 soil to stockpile | TN | \$14.50 | 75.17 | \$1,089.97 |
| 01100-1.2 | Supply, fill & relocate 55 Gal containers to storage | CT | \$47.50 | | \$ |
| 01100-1.4 | Rmv & dispose of #2 fuel mixed with water Manifest #:NJA | GL | \$ 0.69 | 5415 20 | \$ 3,750.15 |
| 01100-1.5 | Rmv & dispose of #2 fuel mixed with solvent Manifest #:NJA | GL | \$ 4.50 | | \$ |
| 01100-1.6 | Rmv & dispose of diesel fuel | GL | \$ 0.69 | | \$ |
| 01100-1.7 | Rmv & dispose of diesel fuel mixed with water Manifest #:NJA | GL | \$ 0.69 | | \$ |
| 02050-1 & 02050-4 | Tank removal | GL | \$ 0.975 | 2000 | \$ 1,950.00 |
| 02050-5.1 | Sawcut blacktop * | TN | \$27.50 | 16.48 | \$ 453.20 |
| 02050-5.2 | Sawcut concrete * | TN | \$29.50 | 20.69 | \$ 610.36 |
| 02050-5.3 | Sawcut reinforced concrete | TN | \$32.50 | | \$ |
| 02222-1.1 | Backfill cert. clean fill * | TN | \$16.25 | 48.75 | \$ 792.19 |
| 02222-1.2 | 3/4" clean stone * | TN | \$17.50 | 26.42 | \$ 462.35 |
| 02511-1.1 | Concrete slab 4" thick | SY | \$19.80 | | \$ |
| 02511-1.2 | Concrete slab 6" thick | SY | \$21.80 | | \$ |
| 02511-1.3 | Concrete slab 8" thick | SY | \$24.50 | | \$ |
| 02511-1.4 | 6" Concrete curb | LF | \$16.00 | | \$ |
| 02551-1.1 | 6" Base course of 3/4" dirty blend stone | SY | \$ 6.40 | | \$ |
| 02551-1.2 | 4" stabilized base | SY | 8.00 | | \$ |
| 02551-1.3 | 2" top course | SY | \$ 5.50 | | \$ |
| 02935-1.1 | 4" top soil & sod | SY | \$ 7.80 | | \$ |
| 02935-1.2 | 4" top soil & hydressed | SY | \$ 5.40 | | \$ |

* Supply certified weight tickets to Contracting Officer at time of request for payment.

9,108.22

I certify under penalty of law that tank decommissioning activities were performed in compliance with NJAC 7:14B-9.2(b)3. I am aware that there are significant penalties for submitting false, inaccurate, or incomplete information, including fines and/or imprisonment.

NAME (Print or Type): John Lonergan

SIGNATURE: *John J. Lonergan*

NJDEPE UST Closure Cert. #: 000324B

DATE: 9/26/94

COMPANY NAME: GUTE Inc
(Performer of Tank Decommissioning)

NJDEPE UST Closure Corp. Cert. #: 0200128

List of Abbreviations:

CT = 55 Gallon Container GL = Gallon TN = Tons
EA = Each SY = Square Yard



FREEHOLD CARTAGE, INC.

P.O. BOX 5010
FREEHOLD, NJ 07728-5010
PHONE: (908) 462-1001
FAX: (908) 308-0924

175 BARTOW MUN. AIRPORT
BARTOW, FL 33830
PHONE: (813) 533-4599
FAX: (813) 533-1613

108 MONAHAN AVENUE
DUNMORE, PA 18512
PHONE: (717) 342-7232
FAX: (717) 342-7367

350 PIGEON POINT RD.
NEW CASTLE, DE 19720
PHONE: (302) 658-2005
FAX: (302) 658-6229

MANIFEST

FCI EPA ID NO.:
NJ054126164

G 59303

| | | | | | |
|--|-------------------------|--------------------------------|--|----------------|---|
| GENERATOR NAME/ADDRESS <i>US Army Communications Electronics Command Main Post Fort Monmouth NJ</i> | | PHONE <i>(908) 533-6224</i> | GENERATOR EPA ID NO. _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ | | |
| | | (AREA CODE) | | | |
| | | TRACTOR <i>63</i> | TRAILER <i>252</i> | | APPOINTMENT TIME |
| FCI REP. LOADING (PRINT) <i>David Smith</i> | PROCEDURE <i>JAC</i> | BOX SPOTTED <i>*</i> | BOX REMOVED <i>*</i> | | TIME AT GENERATOR (MILITARY TIME ONLY) <i>07:30</i> <i>09:00</i> ARRIVAL TIME DEPARTURE TIME |
| COMMENTS OR DELAYS AT GENERATOR | | | | EQUIPMENT USED | |

STATE MANIFEST NO.:

| BROKER: | | | | | | | | | | | |
|----------|----------------------------------|-----------------------------|-------------------|------------|------------|---------------|------------|----------|--------------|--------------|--|
| PO. NO#: | | | | | | | | | | | |
| (X) HM | PROPER U.S. DOT SHIPPING NAME | U.S. D.O.T. HAZARDOUS CLASS | NO. CONT. | CONT. TYPE | WASTE NO. | PACKING GROUP | NA-UN/NO. | FORM | NET QUANTITY | UNIT MEASURE | |
| 1 | <i>NON-HAZARDOUS WASTE-WATER</i> | <i>N/A</i> | <i>1</i> | <i>TT</i> | <i>N/A</i> | <i>N/A</i> | <i>N/A</i> | <i>L</i> | <i>5415</i> | <i>G</i> | |
| 2 | <i>From Bldg 290</i> | <i>45T#</i> | <i>0081533-64</i> | | | | | | | | |
| 3 | | | | | | | | | | | |

SPECIAL HANDLING INSTRUCTIONS INCLUDING CONTAINER EXEMPTION (I.E., IDENTIFICATION SHIPMENT OF A NON-HAZARDOUS NATURE WHICH DOES NOT HAVE TO BE MANIFESTED).

OW-1905 Rel-16 *NJDEPE 15939-25213*

GENERATOR'S CERTIFICATION: This is to certify that the above named materials are properly classified, described, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation, U.S. EPA and the State. The wastes described above were consigned to the Transporter named. The Treatment, Storage or Disposal Facility can and will accept the shipment of hazardous waste, and has a valid permit to do so. I certify that the foregoing is true and correct to the best of my knowledge.

Payment to the contractor for waste removal does not constitute payment to the carrier and if the contractor does not pay the carrier, the generator is obligated to pay the agreed rate offered to the contractor.

| | | |
|---|--|---|
| GENERATOR'S SIGNATURE <i>[Signature]</i> | PLEASE PRINT NAME/TITLE <i>Charles H. Appleby - Self on the Job</i> | DATE LOADED <i>09/28/94</i> MO. DAY YR. |
|---|--|---|

I HAVE READ THE ABOVE AND UNDERSTAND AND AGREE TO ALL OF ITS CONTENT.

| | | | | | |
|--|-----------------------------|------------------------------|---|----------------|--|
| TSDF NAME/ADDRESS <i>EI DUPONT COMPANY CHAMBERS WORKS RT#130 DEEPWATER NJ 08033</i> | | PHONE <i>609 540-2773</i> | TSDF EPA ID NO. <i>NJ00002385730</i> | | |
| | | (AREA CODE) | | | |
| | | TRACTOR <i>63</i> | TRAILER <i>252</i> | | APPOINTMENT TIME |
| FCI REP. UNLOADING (PRINT) <i>David Smith</i> | PROCEDURE <i>Gravity</i> | BOX SPOTTED <i>*</i> | BOX REMOVED <i>*</i> | | TIME AT TSDF (MILITARY TIME ONLY) : : : : : ARRIVAL TIME DEPARTURE TIME |
| COMMENTS OR DELAYS AT TSDF | | | | EQUIPMENT USED | |
| TSDF SIGNATURE <i>X</i> | | PLEASE PRINT NAME/TITLE | | | DATE UNLOADED <i>09/28/94</i> MO. DAY YR. |

| | | | | |
|---------------------------|---------------------------|--------------------|---------------------------------|---------------------------|
| AR H-0257 PC 944 | ME ME-HWT-47 ME-WOT-47 | MO H-1490 | NOVA SCOTIA, CANADA NSC 000 147 | QUEBEC, CANADA QC-6ML-047 |
| CT CT-HW-307 | MD HWH-167 91-OP-1785 | ND WH-429 | OH 333-HW | RI RI-535 |
| DE DE-HW-203 DE-SW-203 | MA MA-294 | NH TNH-0047 | OK 3358 | TX 40705 |
| IL SWH-1540 | MN 61572 | NJ S-2265 15939 | ONTARIO, CANADA A 840943 | WI 11602 |
| | | NY JA-113 | PA PA-AH-0067 | |

White - FCI Original
Yellow - FCI Billing
Blue - FCI Office/Customer
Green - Retained by TSDF
Gold - Retained by Generator

G 59303

STAVOLA ASPHALT CO. - TINTON FALLS

OFFICE COPY



Stavola Asphalt Co., Inc.
ASPHALT PLANTS

CONTROL NO.
B374334

Old Bergen Mill Rd.
Millstone, NJ
(908) 446-7700

Hamilton Rd.
Tinton Falls, NJ
(908) 542-2328

Yellowbrook Rd.
Farmingdale, NJ
(908) 938-2801

*Asphalt from
Bldg 290*

THESE AREAS MUST BE SIGNED PRIOR TO UNLOADING OF MATERIAL

NOTE

**ATTENTION DRIVER:
CUSTOMER MUST SIGN BELOW
AND RETURN YELLOW COPY TO SCALE**

X Don Ellis
DRIVER'S SIGNATURE

RECEIVED & ACCEPTED BY:

X
CUSTOMER'S SIGNATURE

EXECUTIVE OFFICE
HAMILTON ROAD
TINTON FALLS, NJ
908 / 542-2328

• ASPHALT
CRUSHED STONE • SAND
• GRAVEL

ADDRESS REPLY TO
P.O. BOX 482
RED BANK, N.J. 07701

THIS COMPANY WILL NOT BE RESPONSIBLE FOR DAMAGE CAUSED BY VEHICLES DELIVERING MATERIALS OFF PUBLIC ROADS.

EXPLANATION OF DELIVERY CODES

- 1 - F.O.B.
- 2 - DELIVERED
- 3 - NET DELIVERED

| | | | | | | | |
|---|--------------------------|------------|-------------------|------------|------------|----------------------------|-----------|
| DATE | 09/12/94 | CUST. NO. | 08888 | JOB NO. | 13:32 | TICKET NO. | 374334 |
| CUSTOMER | | | | DELIVER TO | | GROSS | |
| CLEAN UP ENVIRONMENT | | | | ZONE: | | 3.00 ⁵⁹¹⁵ 60380 | |
| | | | | | | TARE | |
| | | | | | | 2.00 27420 | |
| | | | | | | NET | |
| | | | | | | 1.00 32960 | |
| TRUCKER | TRUCK NO. | DRIVER NO. | METHOD OF PAYMENT | | | DELIVERY CODE | ZONE |
| 08888 | 0 | | CHARGE | | | 1 | 16.485 |
| QUANTITY | PRODUCT CODE/DESCRIPTION | | UNIT OF MEASURE | UNIT PRICE | EXTENDED | FREIGHT | SALES TAX |
| 1.00 | 48 RAP INCOMING | | LD. | | | | |
| WAITING TIME OVER 20 MINUTES MUST BE SIGNED BELOW BY CUSTOMER | | | | | | H/T WAIT TIME | |
| TIME ON JOB | TIME OFF JOB | | LOADS | | RECU. TONS | GRAND TOTAL | |
| | | | 2 | | 2.00 | | |

blacktop



Concrete
292+290

STAVOLA ASPHALT CO. - TIN. FALLS

Stavola Asphalt Co., Inc.

ASPHALT PLANTS

Old Bergen Mill Rd.
Millstone, NJ
(908) 446-7700


Hamilton Rd.
Tinton Falls, NJ
(908) 542-2328

Yellowbrook Rd.
Farmingdale, NJ
(908) 938-2801

OFFICE COPY

CONTROL NO.
B374716

THESE AREAS MUST BE SIGNED PRIOR TO UNLOADING OF MATERIAL

NOTE  **ATTENTION DRIVER:
CUSTOMER MUST SIGN BELOW
AND RETURN YELLOW COPY TO SCALE**

X *Don Ellis*
DRIVER'S SIGNATURE

RECEIVED & ACCEPTED BY:
X *[Signature]*
CUSTOMER'S SIGNATURE

EXECUTIVE OFFICE
HAMILTON ROAD
TINTON FALLS, NJ
908 / 542-2328

- ASPHALT
- CRUSHED STONE
- SAND
- GRAVEL

ADDRESS REPLY TO
P.O. BOX 482
RED BANK, N.J. 07701

THIS COMPANY WILL NOT BE RESPONSIBLE FOR DAMAGE CAUSED BY VEHICLES DELIVERING MATERIALS OFF PUBLIC ROADS.

- EXPLANATION OF DELIVERY CODES**
- 1 - F.O.B.
 - 2 - DELIVERED
 - 3 - NET DELIVERED

| | | | | | | | |
|--|--------------------------|------------|-------------------|------------------|--------------------|--------------------|-----------|
| DATE | 09/15/94 | CUST. NO. | 08888 | JOB NO. | 11:21 | TICKET NO. | 374716 |
| CUSTOMER | | | | DELIVER TO ZONE: | | GROSS | |
| CLEAN UP ENVIRONMENT | | | | <i>Concrete</i> | | 3.00 68,800 | |
| | | | | | | TARE | |
| | | | | | | 2.00 27,420 | |
| | | | | | | NET | |
| | | | | | | 1.00 20,690 | |
| TRUCKER | TRUCK NO. | DRIVER NO. | METHOD OF PAYMENT | | | DELIVERY CODE | |
| 08888 | 0 | | CHARGE | | | 1 | |
| QUANTITY | PRODUCT CODE/DESCRIPTION | | UNIT OF MEASURE | UNIT PRICE | EXTENDED | FREIGHT | SALES TAX |
| 1.00 | 48 RAP INCOMING | | LD. | | | | |
| WAITING TIME OVER 20 MINUTES MUST BE SIGNED BELOW BY CUSTOMER | | | | | | H/WAIT TIME | |
| TIME ON JOB | TIME OFF JOB | | LOADS | ACCU. TONS | GRAND TOTAL | | |
| | | | 2 | 2.00 | | | |

CALCULATION SHEET

Building No. 290

NJDEPE Reg. No. 0081533 - 64

Tank Size 2000 gal

Tank Void 15 tons

CLEAN FILL

| ITEM NO. | DESCRIPTION | QUANTITY | TICKET # |
|----------|-------------|----------|----------|
| | Fill | 22.86 | 18820 |
| | | 20.93 | 18821 |
| | | 19.96 | 18822 |

TOTAL 63.75

STONE

| ITEM NO. | DESCRIPTION | QUANTITY | TICKET # |
|----------|-------------|----------|----------|
| | STONE | 21.55 | 941555 |
| | | 4.87 | 946850 |

TOTAL 26.42

ID#27 soil to stockpile $(63.75 + 26.42) - 15 = 75.17$ tons

Chargeable clean fill $63.75 - 15 = 48.75$

Chargeable stone 26.42

S.C.M.I. - BOUND BROOK



OFFICE COPY

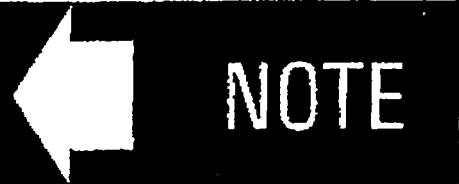
CONTROL NO.
A-941555

Stavola Construction Materials, Inc.

PLANT: CHIMNEY ROCK ROAD, BOUND BROOK, N.J. • 908/356-5700

ATTENTION DRIVER:

PLEASE SIGN BELOW & RETURN
GREEN OFFICE COPY TO SCALE
BEFORE DEPARTING.



X. Henry
DRIVER'S SIGNATURE

EXECUTIVE OFFICE
HAMILTON ROAD
TINTON FALLS, N.J.
908/542-2328

CRUSHED STONE • SAND
• GRAVEL

ADDRESS REPLY TO
P.O. BOX 482
RED BANK, N.J. 07701

THIS COMPANY WILL NOT BE RESPONSIBLE FOR DAMAGE CAUSED BY VEHICLES DELIVERING MATERIALS OFF PUBLIC ROADS.

EXPLANATION OF DELIVERY CODES

- 1 - F.O.B.
- 2 - DELIVERED
- 3 - NET DELIVERED

| | | | | | | | |
|---|-----------|--------------------------|----------------|--|-------|---------------|--------|
| DATE | 06/23/94. | CUST. NO. | 08888 | JOB NO. | 14:53 | TICKET NO. | 941555 |
| CUSTOMER | | | | DELIVER TO | | GROSS | |
| CLEANING UP THE ENVIRONMENT 183 GODWIN AVE. P.O. BOX 237 MIDLAND PARK NJ 07432 | | | | ZONE: FT MONMOUTH CHARLES WOOD AREA | | 35.55 | |
| | | | | | | TARE | |
| | | | | | | 14.08 | |
| | | | | | | NET | |
| | | | | | | 21.55 | |
| TRUCK NO. | 03498 | TRUCK NO. | 6 | METHOD OF PAYMENT | | DELIVERY CODE | |
| | | | | CHARGE | | 2 | |
| | | | | | | ZONE | |
| | | | | | | 030 | |
| QUANTITY | 21.55 | PRODUCT CODE/DESCRIPTION | 20 3/4 QPS-DGA | UNIT OF MEASURE | T | FREIGHT | 4.35 |
| | | | | UNIT PRICE | | SALES TAX | |
| | | | | EXTENDED | | TOTAL | |
| | | | | | | WAIT TIME | |
| | | | | | | GRAND TOTAL | |
| | | | | LOADS | 4 | ACCU. TONS | 94.33 |

P. 02

FAX NO. 19083894834

MATERIALS DEPT. ESTHIE

BOUND BROOK



CUSTOMER'S COPY

CONTROL NO.
A-946850

Stavola Construction Materials, Inc.

PLANT: CHIMNEY ROCK ROAD, BOUND BROOK, N.J. • 908/358-5700

X *[Signature]*
DRIVER'S SIGNATURE

X *[Signature]*
CUSTOMER'S SIGNATURE

EXECUTIVE OFFICE
HAMILTON ROAD
TINTON FALLS, N.J.
908/542-2926

CRUSHED STONE • SAND

ADDRESS REPLY TO
P.O. BOX 482
RED BANK, N.J. 07701

THIS COMPANY WILL NOT BE RESPONSIBLE FOR DAMAGE CAUSED BY VEHICLES DELIVERING MATERIALS OFF PUBLIC ROADS.

EXPLANATION OF DELIVERY CODES

- 1 - F.O.B.
- 2 - DELIVERED
- 3 - NET DELIVERED

| | | | |
|---|--------------------|--|----------------------|
| 07/08/94 | CUST. NO. 08888 | JOB NO. 07138 | TICKET NO. 346850 |
| TOMER LEANING UP THE ENVIRONMENT. 203 BODWIN AVE. P.O. BOX 237 MIDLAND PARK, NJ 07432 | | DELIVER TO ZONE NET. MONMOUTH BLDG 296 | |
| TRUCK NO. 14010 | DRIVER NO. 39 | METHOD OF PAYMENT CHARGE | DELIVERY CODE 2 |
| QUANTITY 11 1/2" CLEAN STO | | UNIT PRICE T | FREIGHT 4.35 |
| GROSS 33.87 | | TARR 14.00 | |
| NET 19.87 | | ZONE 030 | |
| UNITS 2 | | ACCU. TONS 40.82 | |
| WAIT TIME 45 min | | GRAND TOTAL | |

BLDG 108 7.5 tons
 BLDG 443 7.5 tons
~~BLDG 290~~ 4.87 tons *Left*
 Bldg 290



1455 W. Park Ave., Wayside
Asbury Park, N.J. 07712
908-493-3335

296

18820

Order Date Sept 19, 94

Name Big A Trucking

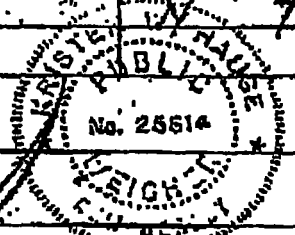
Deliver Date _____

Address _____
Fill

Delivered C.O.D.

F.O.B./P.U. Charge

| Item(s) | Quantity / Measure (tons, lbs., yds., ea.) | Unit Price | Total |
|-----------|---|--------------|-------|
| | <u>67 70121</u> | <u>22.86</u> | |
| | <u>7 24400</u> | | |
| | <u>11 45721</u> | | |
| Sub Total | | | |
| Delivery | | | |
| N.J. Tax | | | |
| Total | | | |



Driver _____

Received _____

* Company not responsible for damage done on public roads. Color not guaranteed

Have gravel will travel!
since 1925



1453 W. Park Ave., Wayate
Asbury Park, N.J. 07712
908-483-3333

276

18821

Order Date Sept. 18, 94

Name Big A Trucking

Deliver Date _____

Address _____

Delivered

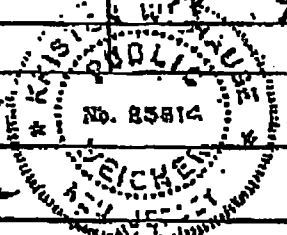
G.O.D.

Fill

F.O.B./P.U.

Charge

| Item(s) | Quantity / Measure (tons, lbs., yds., ea.) | Unit Price | Total |
|----------|---|-------------------|-------|
| | 6: 70260 | | |
| | 7: 38400 | | |
| | AN 41860 | | |
| | | <u>26.93 tons</u> | |
| Driver | | Sub Total | |
| Received | | Delivery | |
| | | N.J. Tax | |
| | | Total | |



* Company not responsible for damage done on public roads. Color not guaranteed!

*Have gravel will travel!
since 1925*



1453 W. Park Ave., Wayside
Asbury Park, N.J. 07712
908-493-3333

296

18822
Sept 18, 99

Name Big A Trucking

Order Date

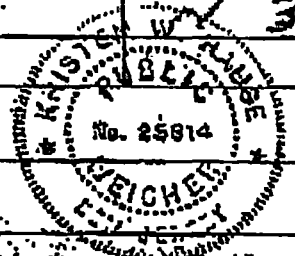
Address Fill

Deliver Date

Delivered C.O.D.

F.O.B./P.U. Charge

| Item(s) | Quantity / Measure (tons, lbs., yds., ea.) | Unit Price | Total |
|----------|---|------------|-------|
| | 68335 | | |
| | 28400 | | |
| | 39925 | | |
| | | 19.96 tons | |
| Driver | | Sub Total | |
| Received | | Delivery | |
| | | N.J. Tax | |
| | | Total | |



* Company not responsible for damage done on public roads. Color not guaranteed!

Have gravel with gravel
since 1925!

APPENDIX D
UST DISPOSAL CERTIFICATE



TINTON FALLS, NJ
 MAILING ADDRESS: 5 ASBURY AVE.
 NEPTUNE, NJ 07753

FACILITY ID NO: 1336F | SP0

RECEIPT DOCUMENT NUMBER

MARP508937
 MARPAL COMPANY
 PO BOX 188

LINCROFT NJ 07738

TARE WEIGHT 01413600
 GROSS WEIGHT 18.1000 (36200)
 20.4900 (40980)

58523

| DATE | CORRECTION | ENTRY TIME | DEP NO | PLATE NO | TIME | WEIGHT | UNIT | PRICE | TOTAL |
|--|------------|------------|--------|----------|-------|----------------|------|-------|--------|
| 10/24/94 | JJJ | 09:21 | 2065ZZ | XX77PH | 09:38 | 18.1000 | Tons | 36200 | 655820 |
| Description: Bulky Waste MONMOUTH COUNTY EATONTOWN BOROUGH | | | | | | 95.70 | Tons | 22872 | 22872 |
| *** Prepayment Balance Remaining: 68740.04 *** | | | | | | DOCUMENT TOTAL | | 22872 | |
| TRANSPORTER'S SIGNATURE | | | | | | CUSTOMER COPY | | | |

1,000 GAL FIBER GLASS TANK FROM BIDG 1106
 3,000 GAL FIBER GLASS TANK FROM BIDG 290

MONITORING WELL CERTIFICATION-FORM B-LOCATION CERTIFICATION

Name of Permittee: U.S. ARMY
Name of Facility: FORT MONMOUTH
Location: MONMOUTH COUNTY, NJ
Case NJPDES Number: 93-11-30-1246-27

LAND SURVEYOR'S CERTIFICATION

Well Permit Number:
This number must be permanently affixed to the well casing.

29-30961-

Longitude (to nearest second):

West 74° 02' 48.14"

Latitude (to nearest second):

North 40° 18' 56.27"

Elevation of Top of Inner Casing (cap off) (one-hundredth of a foot):

13.90

Elevation of ground level (1/100th ft.)

10.42

Source of elevation datum (benchmark, nail, etc.) and year. (If an alternate datum has been approved by the Department, identify here, assume datum of 100', and give approximated actual elevation.)

Source: FM-106

1927 1983

Elev.: 17.80

Owners Well Number (As shown on application or plans):

BLDG 290 MW-1

Elevations are to be determined by double run, three wire leveling methods using balanced sights, commencing from a well marked and described point. This beginning point shall either be derived from Federal or State benchmarks if not more than 1000 feet from the site or from an alternate datum approved by the Department. Tolerances should meet third order standards, which are 0.05 ft x (mile)^{1/2}. For sections less than 0.1 mile, let miles = 0.1.

AUTHENTICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment.

Wayne W. Burgett
PROFESSIONAL LAND SURVEYOR'S SIGNATURE

WAYNE W. BURGETT
PROFESSIONAL LAND SURVEYOR'S NAME
(Please print or type)

SEAL

31654
PROFESSIONAL LAND SURVEYOR'S LICENSE #

MONITORING WELL RECORD

Well Permit No. _____
Atlas Sheet Coordinates _____

OWNER IDENTIFICATION - Owner _____
Address _____
City _____ State _____ Zip Code _____

WELL LOCATION - If not the same as owner please give address, Owner's Well No. HW-210 MW-1
County _____ Municipality _____ Lot No. _____ Block No. _____
Address _____

TYPE OF WELL (as per Well Permit Categories) _____ Date well completed 7/15/94
Regulatory Program Requiring Well _____ Case I.D. # _____

CONSULTING FIRM/FIELD SUPERVISOR (if applicable) _____ Tele. # _____

WELL CONSTRUCTION

Total depth drilled 17' ft.
Well finished to 17' ft.
Borehole diameter:
Top _____ in.
Bottom _____ in.
Well was finished: above grade
 flush mounted
If finished above grade, casing
height (stick up) above land
surface 3' ft.

| | Depth to Top (ft.) [From land surface] | Depth to Bottom (ft.) | Diameter (inches) | Type and Material |
|---|---|-----------------------|-------------------|-------------------|
| Inner Casing | 0 | 7' | 4" | PVC |
| Outer Casing (Not Protective Casing) | | | | |
| Screen (Note slot size) | 2' | 12 1/2' | 4" | 35-167 PVC |
| Tail Piece | | | | |
| Gravel Pack | 1' | 12 1/2' | | #2 |
| Annular Seal/Grout | | 1' | | Concrete |
| Method of Grouting | Pneum | | | |

Was steel protective casing installed?
 Yes No

Static water level after drilling 3' ft.
Water level was measured using Tap
Well was developed for 1 hours at 10 gpm
Method of development Tap
Was permanent pumping equipment installed? Yes No
Pump capacity _____ gpm
Pump type: _____
Drilling Method Tap
Drilling Fluid _____ Type of Rig R-80
Name of Driller Michael E. Beck
Health and Safety Plan submitted? Yes No
Level of Protection used on site (circle one) None D C B A
N.J. License No. 1421
Name of Drilling Company _____

GEOLOGIC LOG (Copies of other geologic logs and/or geophysical logs should be attached.)

3'-7' clay - brown clay
1'-9' brown sand - silt
1'-12' brown top - silt

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable State rules and regulations.

Driller's Signature Michael E. Beck Date 7-12-94

FIELD LOG OF BORING

SHEET ___ OF ___

LOCATION OF BORING: US Army Ft Monmouth
Bldg 290 MW1

PROJECT: US Army
Ft Monmouth

BORING NO: MW1
TOTAL DEPTH: 12.5'

292
290
296
• MW1

JOB NO: SELF RW EV LOGGED BY: V Swann

PROJ. MGR.: J Capriotti EDITED BY:

DRILLING CONTRACTOR: Tyree

DRILL RIG TYPE: Mobil B80

DRILLERS NAME: Mike Beck

SAMPLING METHODS: split spoon

HAMMER WT.: 140 lb DROP: 30"

STARTED, TIME: 10:30 DATE: 7/15/94

COMPLETED, TIME: 13:30 DATE: 7/15/94

BORING DEPTH (ft): 12.5

CASING DEPTH (ft): 2

WATER DEPTH (ft): 2

TIME: 1330

DATE: 7/15/94

BACKFILLED, TIME: 1330 DATE: 7/15/94 BY: Tyree

SURFACE ELEV: DATUM:

CONDITIONS:

| SAMPLE DEPTH | SAMPLER TYPE | BLOWS / 6 IN. | INCHES DRIVEN | INCHES RECOVERED | SAMPLE CONDITION | DRILLING RATE (min./ft.) | PID READING (ppm) | ODOR (Y/N?) | GRAPHIC WELL CONST. | DEPTH IN FEET | GRAPHIC LOG |
|--------------|--------------|---------------|---------------|------------------|------------------|--------------------------|-------------------|-------------|----------------------------------|---------------|-------------|
| 0.5 | SS | 1 | 6 | 12 | | | 0 | N | Casing root of spontaneous | 1 | SC |
| 1.5 | | 2 | 6 | | | | 0 | N | | 2 | |
| 2.5 | | 3 | 6 | | | | 0 | N | | 3 | |
| 3.5 | | | | | | | 0 | N | Screen | 4 | |
| 4.5 | | | | | | | 0 | N | | 5 | |
| 5.5 | | | | | | | 0 | N | to (2.5) | 6 | |
| 6.5 | | | | | | | 0 | N | | 7 | |
| 7.5 | | | | | | | 0 | N | | 8 | |
| 8.5 | | | | | | | 0 | N | | 9 | |
| 9.5 | | | | | | | 0 | N | | 10 | |
| 10.5 | | | | | | | 0 | N | | 11 | |
| 11.5 | | | | | | | 0 | N | | 12 | |

SAND, grey-brown, medium and clay, till, trace

hit water at 2 ft did 0-2' bars twice because of no recovery the first time due to hitting a small root

NO15 Sample

APPENDIX F
SOIL ANALYTICAL DATA PACKAGE

Report of Analysis
 U.S. Army, Fort Monmouth Environmental Laboratory
 NJDEPE Certification # 13461

Client: U.S. Army
 DPW, SELFM-PW-EV
 Bldg. 167
 Ft. Monmouth, NJ 07703

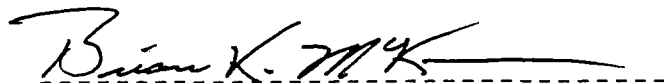
Lab. ID #: 1641.1-.8
 Sample Rec'd: 09/13/94
 Analysis Start: 09/14/94
 Analysis Comp: 09/14/94

Analysis: 418.1 (TPH)
 Matrix: Soil
 Analyst: S. Hubbard
 Ext. Meth: Sonc.

NJDEPE UST Reg.#: 0081533-64
 Closure #: C93-3179
 DICAR #: 9-4-9-13-1503-57
 Location #: Bldg. 290

| Lab ID. | Description | %Solid | Result (mg/Kg) | MDL |
|---------|-------------------------------|--------|-------------------|-----|
| 1641.1 | Site A, Sidewall N. OVA= 30. | 86 | 16200. | 130 |
| 1641.2 | Site B, Sidewall NE. OVA= 20. | 88 | 11900. | 130 |
| 1641.3 | Site C, Sidewall SE. OVA= 10. | 83 | 730. | 6.6 |
| 1641.4 | Site D, Sidewall SO. OVA= 3. | 82 | 126. | 6.6 |
| 1641.5 | Site E, Sidewall SW. OVA= 14. | 84 | 3110. | 46. |
| 1641.6 | Site F, Sidewall SE. OVA= 16. | 85 | 9670. | 46. |
| 1641.7 | Site G, Dup OVA= 30. | 85 | 10400. | 46. |
| 1641.8 | Site H, Pipe OVA= ND | 83 | 57.3 | 9.9 |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| M. Bl. | Method Blank | 100 | ND | 3.3 |

Notes: ND = Not Detected, MDL = Method Detection Limit
 * = Silica Gel Added, NA = Not Applicable
 1641.3dup= 98% 1641.3s= 61% 1641.3sd= 63% RPD= 3.2%
 Cal Chk = 102%



 Brian K. McKee
 Laboratory Director


Report of Analysis
U.S. Army, Fort Monmouth Environmental Laboratory
NJDEPE Certification # 13461

Client: U.S. Army
DPW, SELFM-PW-EV
Bldg. 167
Ft. Monmouth, NJ 07703

Lab. ID #: 1641.1-.8
Sample Rec'd: 09/13/94
Analysis Start: 09/14/94
Analysis Comp: 09/14/94

Analysis: Munsel

| Lab ID# | Soil Color |
|---------|------------------------|
| 1641.1 | 5Y 3/2 Dark Olive Gray |
| 1641.2 | 5Y 3/2 Dark Olive Gray |
| 1641.3 | 5Y 3/2 Dark Olive Gray |
| 1641.4 | 5Y 3/2 Dark Olive Gray |
| 1641.5 | 5Y 2.5/1 Black |
| 1641.6 | 5Y 2.5/1 Black |
| 1641.7 | 5Y 2.5/1 Black |
| 1641.8 | 5Y 4/3 Olive |
| | |
| | |
| | |
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| | |
| | |
| | |
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| | |
| | |
| | |
| | |
| | |


Brian K. McKee
Laboratory Director

U.S. ARMY FORT MONMOUTH

P.O. #: 1437 TPMC

Chain of Custody

| Project #: <u>093-3179</u> | | Sampler: <u>George / cube</u> | | Date / Time: <u>9/13 9-50</u> | | Analysis Parameters | | Start: | | | | | | |
|--|-------------|--|------------------------------------|-------------------------------|---|---|----------|--------------------------------|----------|----------|----------|----------|-----------|---|
| Customer: <u>Dinker Dader</u> <u>DPW-ENVIRO</u> | | Site Name: <u>BLDG 290</u> <small>piece #</small> | | | | <div style="display: flex; justify-content: space-around;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">TMA</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">97.5% full</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">no shell</div> </div> | | Finish: | | | | | | |
| Phone: <u>X 21457</u> | | <u>081533-GA</u> <small>9-4-9-13</small> <u>093-3179</u> <small>1503-57</small> | | | | | | Preservation Method | | | | | | |
| Lab Sample ID Number | Date/Time | | Customer Sample Location/ID Number | Sample Matrix | # of Bottles | Analysis Parameters | | | | | | Remarks | | |
| | | | | | | | | | | | | | | |
| <u>1641.1</u> | <u>9/13</u> | <u>10-14</u> | <u>Site A (NE) Sidwall</u> | <u>5.11</u> | <u>1</u> | <u>X</u> | <u>X</u> | <u>X</u> | <u>X</u> | <u>X</u> | <u>X</u> | <u>X</u> | <u>30</u> | <u>Leak -</u> <u>11/23/02</u> <u>24°C</u> |
| <u>.2</u> | <u>"</u> | <u>10-09</u> | <u>Site B NE</u> | <u>"</u> | <u>"</u> | <u>X</u> | <u>X</u> | <u>X</u> | <u>X</u> | <u>X</u> | <u>X</u> | <u>X</u> | <u>20</u> | <u>"</u> |
| <u>.3</u> | <u>"</u> | <u>10-18</u> | <u>Site C (SE)</u> | <u>"</u> | <u>"</u> | <u>X</u> | <u>X</u> | <u>X</u> | <u>X</u> | <u>X</u> | <u>X</u> | <u>X</u> | <u>10</u> | <u>Used -</u> |
| <u>.4</u> | <u>"</u> | <u>10-21</u> | <u>Site D (SO)</u> | <u>"</u> | <u>"</u> | <u>X</u> | <u>X</u> | <u>X</u> | <u>X</u> | <u>X</u> | <u>X</u> | <u>X</u> | <u>3</u> | <u>H-new</u> <u>collected</u> |
| <u>.5</u> | <u>"</u> | <u>10-25</u> | <u>Site E (SE)</u> | <u>"</u> | <u>"</u> | <u>X</u> | <u>X</u> | <u>X</u> | <u>X</u> | <u>X</u> | <u>X</u> | <u>X</u> | <u>14</u> | <u>"</u> |
| <u>.6</u> | <u>"</u> | <u>10-26</u> | <u>Site F (SE)</u> | <u>"</u> | <u>"</u> | <u>X</u> | <u>X</u> | <u>X</u> | <u>X</u> | <u>X</u> | <u>X</u> | <u>X</u> | <u>16</u> | <u>Out was</u> <u>lost w/ 14</u> |
| <u>.7</u> | <u>"</u> | <u>10-12</u> | <u>Site G (DUMP) ↓</u> | <u>"</u> | <u>"</u> | <u>X</u> | <u>X</u> | <u>X</u> | <u>X</u> | <u>X</u> | <u>X</u> | <u>X</u> | <u>30</u> | <u>"</u> |
| <u>✓ .8</u> | <u>"</u> | <u>10-05</u> | <u>Site H (Pipe)</u> | <u>"</u> | <u>"</u> | <u>X</u> | <u>X</u> | <u>X</u> | <u>X</u> | <u>X</u> | <u>X</u> | <u>X</u> | <u>ND</u> | <u>"</u> |
| SN# <u>270136</u> | | | | | | | | | | | | | | |
| Relinquished By (signature): <u>[Signature]</u> | | | Date / Time: <u>9/13 14:30</u> | | Received By (signature): <u>[Signature]</u> | | | Shipped By: <u>Hand</u> | | | | | | |
| Relinquished By (signature): <u>[Signature]</u> | | | Date / Time: <u>9/13 14:30</u> | | Received for Lab by (signature): <u>[Signature]</u> | | | Date / Time: <u>9/13/14:30</u> | | | | | | |
| Note: A drawing depicting sample location should be attached or drawn on the reverse side of this chain of custody. <u>Site map attached</u> | | | | | | | | | | | | | | |

DIRECTORATE OF ENGINEERING AND HOUSING
FORT MONMOUTH, NEW JERSEY 07703-5108

DATE: 11/23

Building Number: 290

Tank Number: 81533 10th 64

Tank Size: 2000 gal

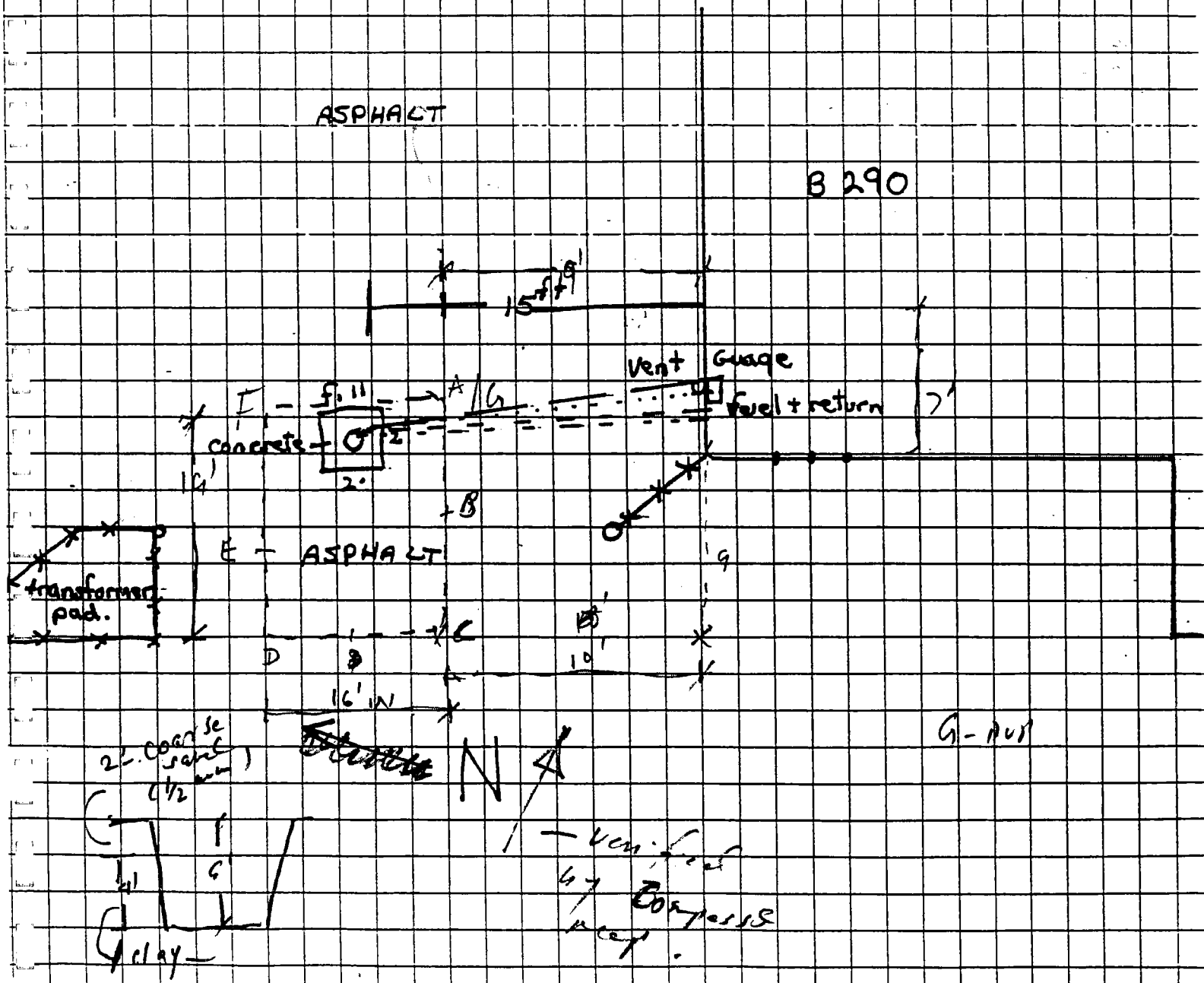
Contents: #2 Fuel oil

Remarks:

- 1. All lines 15'
- 2.
- 3.
- 4.

ASPHALT

B 290



195-6070-00

Sept 14 1994 Sarah J. DeLuca
1900

Blank 0 MV

40.75 59 MV

81.5 115 MV

163 234 MV

Method Blank 0 MV Building 292

1640.1 5 MV

1640.2 53 MV

1640.3 5 MV

1640.4 8 MV

1640.5 15 MV

1640.6 17 MV

1640.7 4 MV

1640.8 8 MV

1640.9 7 MV

40.75 Std 60 MV

Method Blank Building 290

1641.1 153 (dil 13)

1641.2 155 (dil 13)

1641.3 130 MV

1641.3 127 MV Dup

1641.3 191 MV Spk

1641.3 193 MV Dup Spk

1641.24 22 MV

1641.25 80 MV

195-6070-00

195-6970-00

1641.5 ¹⁰⁴ 22 MV
1641.5 ¹⁰⁴ 80 MV

1641.6 168 dil 7

1641.7 180 dil 7

1641.8 10 MV

Method Blank Building 289

40.75 Standard 63 MV

1642.1 9 MV

1642.2 4 MV

1642.3 4 MV

1642.4 26 MV

1642.5 247 MV

1642.6 4 MV

1642.7 2 MV

1642.8 46 dil 7

40.75 Standard Ck 57 MV

Method Blank Bldg 618

1634.1 175 MV

1634.2 187 MV

1634.3 237 MV

1634.4 109 dil 7

1634.5 133 MV dil 7

1634.6 122 dil 7

1634.7 196

1634.7 199 dup

1634.8 390 Spk

1634.7 391 Dup Spk

PROPERTY OF U.S.A.

195

PRINTED IN U.S.A.

1642.8 46 (dil 7)

40.75 Standard Ck 57MV

Method Blank Bldg 618

1634.1 175 MV

1634.2 187 MV

1634.3 237 MV

1634.4 109 dil 7

1634.5 133 MV dil 7

1634.6 122 dil 7

1634.7 196

1634.7 199 dup

1634.8 390 Spk

1634.7 391 Dup Spk

1634.8 21

Method Blk Bldg 619

1638.1 9 dil 7

1638.2 22

1638.3 8

1638.4 15

195-0370-00

PHC Conformance/Non-conformance Summary Report

No Yes

1. Blank Contamination - If yes, list the sample and the corresponding concentrations in each blank ✓

2. Matrix Spike/Matrix Sp Dup. Recoveries Meet Criteria (If not met, list the sample and corresponding recovery which falls outside the acceptable range) ✓

3. IR Spectra submitted for standards, blanks, & samples ✓

4. Chromatograms submitted for standards, blanks, and samples if GC fingerprinting was conducted. ✓

5. Extraction holding time met. (If not met, list number of days exceeded for each sample) ✓

6. Analysis holding time met. (If not met, list number of days exceeded for each sample) ✓

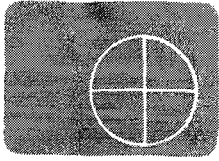
Comments: _____

Laboratory Authentication Statement

I certify under penalty of law, where applicable, that this laboratory meets the Laboratory Performance Standards and Quality Control requirements specified in N.J.A.C. 7:18 and 40 CFR Part 136 for Water and Wastewater Analyses and SW 846 for Solid Waste Analysis. I have personally examined the information contained in this report, and to the best of my knowledge, I believe that the submitted information is true, accurate, complete, and meets the above referenced standards where applicable. I am aware that there are significant penalties for purposefully submitting falsified information, including the possibility of a fine and imprisonment.

Project #1641

Brian K. McKee
Brian K. McKee
Laboratory Manager



princeton t
laboratory inc.

P.O. Box 3108
3490 U.S. Route 1
Princeton, NJ 08543-3108
(609) 452-9050
FAX (609) 452-0347

U.S. ARMY, FORT MONMOUTH
ATTN: SELFM-PW
Building 167
Fort Monmouth, New Jersey 07703-5108

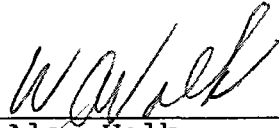
Attn: Charles Appleby

Project # 94-8-11-1345-43
Building 482

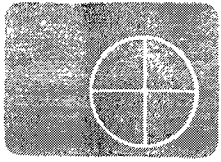
JOB # 9404760-001

Laboratory Certification # 11118

Reviewed by:


W. Alan Volk

11/4/94



princeton testing
laboratory inc.

P.O. Box 3108
3490 U.S. Route 1
Princeton, NJ 08543-3108
(609) 452-9050
FAX (609) 452-0347

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9404760

LABORATORY DELIVERABLES

THIS FORM MUST BE COMPLETED BY THE LABORATORY OR ENVIRONMENTAL CONSULTANT AND ACCOMPANY ALL DATA SUBMISSIONS

The following laboratory deliverables shall be included in the data submission. All deviations from the accepted methodology and procedures, or performance values outside acceptable ranges shall be summarized in the Non-Conformance Summary. The proposed "Technical Requirements for Site Remediation" rules, which appeared in the May 4, 1992 New Jersey Register, provides further details. The document shall be bound and paginated, contain a table of contents, and all pages shall be legible. Incomplete packages will be returned or held without review until the data package is completed.

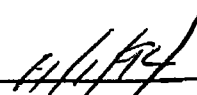
It is recommended that the analytical results summary sheets listing all targeted and non-targeted compounds with the method detection limits be included in one section of the data package and in the main body of the report.

Check if Complete

- 1. Cover Page, Title Page listing Lab Certification #, facility name & address, & date of report
- 2. Table of Contents
- 3. Summary Sheets listing analytical results for all targeted and non-targeted compounds
- 4. Summary Table cross-referencing field ID #'s vs. Lab ID #'s
- 5. Document bound, paginated and legible
- 6. Chain of Custody
- 7. Methodology Summary
- 8. Laboratory Chronicle and Holding Time Check
- 9. Results submitted on a dry weight basis (if applicable)
- 10. Method Detection Limits
- 11. Lab certified by NJDEP for parameters or appropriate category of parameters or a member of the USEPA CLP
- 12. Non-Conformance Summary



Laboratory Manager or Environmental Consultant's Signature



Date

ORGANICS COMPLETE SDG FILE (CSF) INVENTORY SHEET

LABORATORY NAME PRINCETON TESTING LABORATORY
 CITY/STATE PRINCETON, NJ
 CASE NO. 4760 SDG NO. 1544.1 SDG NOS. TO FOLLOW _____
 SAS NO. _____
 CONTRACT NO. FORT MONMOUTH
 SOW NO. OLMPL8

All documents delivered in the complete SDG file must be original documents where possible. (REFERENCE EXHIBIT B, SECTION II and SECTION III.)

| | PAGE NOS | | CHECK | |
|---|----------|-----|-------|-----|
| | FROM | TO | LAS | EPA |
| 1. <u>Inventory Sheet (Form DC-2) (Do not number)</u> | --- | --- | ✓ | --- |
| 2. <u>SDG Case Narrative</u> | --- | --- | ✓ | --- |
| 3. <u>SDG Cover Sheet/Traffic Report</u> | --- | --- | ✓ | --- |
| 4. <u>Volatiles Data</u> | | | | |
| a. <u>QC Summary</u> | | | | |
| System Monitoring Compound Summary (Form II VOA) | --- | --- | ✓ | --- |
| Matrix Spike/Matrix Spike Duplicate Summary (Form III VOA) | --- | --- | ✓ | --- |
| Method Blank Summary (Form IV VOA) | --- | --- | ✓ | --- |
| GC/MS Instrument Performance Check (Form V VOA) | --- | --- | ✓ | --- |
| Internal Standard Area and RT Summary (Form VIII VOA) | --- | --- | ✓ | --- |
| b. <u>Sample Data</u> | | | | |
| TCL Results - (Form I VOA) | --- | --- | ✓ | --- |
| Tentatively Identified Compounds (Form I VOA-TIC) | --- | --- | ✓ | --- |
| Reconstructed total ion chromatograms (RIC) for each sample | --- | --- | ✓ | --- |
| For each sample: | | | | |
| Raw spectra and background-subtracted mass spectra of target compounds identified | --- | --- | ✓ | --- |
| Quantitation reports | --- | --- | ✓ | --- |
| Mass spectra of all reported TICs with three best library matches | --- | --- | ✓ | --- |
| c. <u>Standards Data (All Instruments)</u> | | | | |
| Initial Calibration Data (Form VI VOA) | --- | --- | ✓ | --- |
| RIGs and Quan Reports for all Standards | --- | --- | ✓ | --- |
| Continuing Calibration Data (Form VII VOA) | --- | --- | ✓ | --- |
| RIGs and Quantitation Reports for all Standards | --- | --- | ✓ | --- |
| d. <u>Raw QC Data</u> | | | | |
| BFB | --- | --- | ✓ | --- |
| Blank Data | --- | --- | ✓ | --- |
| Matrix Spike/Matrix Spike Duplicate Data | --- | --- | ✓ | --- |

ORGANICS COMPLETE SDG FILE (CSF) INVENTORY SHEET (Cont.)

| | | |
|----------------------|-----------------------|--------------------------|
| CASH NO. <u>4760</u> | SDG NO. <u>1544.1</u> | SDG NOS. TO FOLLOW _____ |
| SAS NO. _____ | | |

PAGE NOS
FROM TO CHECK
LAB EPA

7. Miscellaneous Data

Original preparation and analysis forms or copies of preparation and analysis logbook pages
 Internal sample and sample extract transfer chain-of-custody records
 Screening records
 All instrument output, including strip charts from screening activities (describe or list)

| | | | |
|-------|-------|-------|-------|
| _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ |

8. EPA Shipping/Receiving Documents

Airbills (No. of shipments _____)
 Chain-of-Custody Records
 Sample Tags
 Sample Log-In Sheet (Lab & DCI)
 Miscellaneous Shipping/Receiving Records (describe or list)

| | | | |
|-------|-------|-------|-------|
| _____ | _____ | _____ | _____ |
| _____ | ✓ | _____ | _____ |
| _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ |

9. Internal Lab Sample Transfer Records and Tracking Sheets
(describe or list)

| | | | |
|-------|-------|-------|-------|
| _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ |

10. Other Records (describe or list)

Telephone Communication Log

| | | | |
|-------|-------|-------|-------|
| _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ |

11. Comments:

Completed by: _____
(GLP Lab)

[Signature]
(Signature)

W. A. VOLK, QMPC COORDINATOR
(Printed Name/Title)

11/1/94
(Date)

Reviewed by: _____
(EPA)

(Signature)

(Printed Name/Title)

(Date)

APPROVED SAMPLE ANALYSIS REQUEST

U.S. Army, Fort Monmouth N.J.
 ATTN: SELFM-PW
 Building 167
 Fort Monmouth, New Jersey 07703-5108
 Attention: Charles Appleby
 Phone:(908) 532-6224 FAX:(908) 532-2367

Temp. Cust#: L9094
 P.O. Number: E03-94U
 Standard Tests

Project No.: 9404760-001M

Client Job#: 1644/1645
 Date Received: 09/23/94
 Analysis Due : 10/12/94

Number Of Samples : 3
 Number Of Containers: 3

Approved By: Steven Burns

Reports: Custom Report Format

| Sample I.D.'s | Code | Requested Analytical Services | Sampled |
|--|----------------|--|----------|
| 001 1645.1 Bldg 290 Site A Sidewall 9/21/94 | VMS0B VMS0A | Volatile Organics Library Search Volatile Organics, SW, SW-846 8240 | 09/21/94 |
| 002 1644.1 Bldg 482 Site C-2 9/21/94 Sidewall SE | VMS0B VMS0A | Volatile Organics Library Search Volatile Organics, SW, SW-846 8240 | 09/21/94 |
| 003 1644.2 Fld Blk Bldgs 482/290 09/21/94 | VMW0B VMW0A | Volatile Organics Library Search Volatile Organics, WW, SW-846 8240 | 09/21/94 |

Project Notes:

*** Results must be sent with ASCII disk. ***

Customer Notes:

Three Copies of Packages. See Data Mgmt for Details

Initials/Date

Received By Lab: _____
 Reviewed By: _____
 Q.A. Approved: _____

Printed By: Gene Dennison
 Date: 11/01/94
 Time: 12:31:29

740, 260 001 M

U.S. ARMY FORT MONMOUTH

P.O. #: Princeton Lab 94-0551

Chain of Custody

| Project #: <u>9-4-9-13-1503-57</u> | | Sampler: <u>George / Cute</u> | | Date / Time: <u>9/21/94 0900</u> | | Analysis Parameters | | | | Start: | |
|---|---------------------|--|---------------|---|-------------------------------------|----------------------------------|--------------------------|--------------------------|-----------------------|---------------------|--|
| Customer: <u>D. Desai</u> <u>Self - PW - EV</u> | | Site Name: <u>dicar 9-4-9-13</u> <u>Bldg. 290 - 1503-57</u> | | VOA+15 | | | | Finish: | | Preservation Method | |
| Phone: <u>(908) 532-1475</u> | | USF <u>81533-64</u> TMS# <u>C-93-3179</u> | | | | | | | | | |
| Lab Sample ID Number | Date/Time | Customer Sample Location/ID Number | Sample Matrix | # of Bottles | | | | | Remarks | | |
| <u>1645.1</u> | <u>9/21/94 0945</u> | <u>Site A, Sidewall</u> | <u>soil</u> | <u>1</u> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <u>Shipped w/ ice</u> | | |
| <u>1644.2</u> | <u>9/21/94 0940</u> | <u>Field Blank</u> | <u>agua</u> | <u>1</u> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | |
| Relinquished By (signature): <u>[Signature]</u> | | Date / Time: <u>9/21/94 1100</u> | | Received By (signature): <u>Sarah J Hubbard</u> | | Shipped By: <u>Hand</u> | | | | | |
| Relinquished By (signature): <u>[Signature]</u> | | Date / Time: <u>9/23/94 1000</u> | | Received for Lab by (signature): <u>[Signature]</u> | | Date / Time: <u>9/23/94 1000</u> | | | | | |
| Note: A drawing depicting sample location should be attached or drawn on the reverse side of this chain of custody. <u>Map Attached</u> | | | | | | | | | | | |



princeton testing laboratory inc.

P.O. Box 3108
3490 U.S. Route 1
Princeton, NJ 08543-3108
(609) 452-9050
FAX (609) 452-0347

LABORATORY CHRONICLE ORGANIC ANALYSIS

Company: US Army, Fort Monmouth NJ Job #: 9404760-001M

Date Received & Refrigerated: 09/23/94

EXTRACTION INFORMATION

Base-Neutral Extractables

___ / ___ / ___
___ / ___ / ___
___ / ___ / ___

Acid Extractables

___ / ___ / ___
___ / ___ / ___
___ / ___ / ___

Pesticides/ PCBs

___ / ___ / ___
___ / ___ / ___

PCBs only

___ / ___ / ___
___ / ___ / ___

Herbicides

___ / ___ / ___
___ / ___ / ___

Pesticides (EPTOX)

___ / ___ / ___

Other: _____

___ / ___ / ___

ANALYSIS INFORMATION

Base-Neutral Extractables

___ / ___ / ___
___ / ___ / ___
___ / ___ / ___

Acid Extractables

___ / ___ / ___
___ / ___ / ___
___ / ___ / ___

Pesticides/ PCBs

___ / ___ / ___
___ / ___ / ___

PCBs only

___ / ___ / ___
___ / ___ / ___

Herbicides

___ / ___ / ___
___ / ___ / ___

Pesticides (EPTOX)

___ / ___ / ___

Volatiles - 601/602

___ / ___ / ___
___ / ___ / ___

Volatiles - 624/8240

1/2 09/23/94
09/29/94
10/04/94

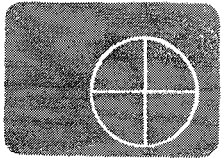
Other: _____

___ / ___ / ___

Dept. Manager Review and Approval: _____

QC Supervisor Review and Approval: _____

W. Wash 10/24/94
W. Wash 11/14/94



princeton testing
laboratory inc.

P.O. Box 3108
3490 U.S. Route 1
Princeton, NJ 08543-3108
(609) 452-9050
FAX (609) 452-0347

METHODOLOGY SUMMARY

Laboratory: Princeton Testing Lab. Case Name: U.S. Army
Ft. Monmouth

Location: Princeton, New Jersey Case Number: 9404760-001

VOLATILE ORGANIC ANALYSES:

EPA SW 846 8240

SEMIVOLATILE ORGANIC ANALYSES (ABN EXTRACTABLES):

PESTICIDES/PCBs and CHLORINATED HERBICIDES:

METALS ANALYSES:

TOTAL CYANIDE ANALYSES:

TOTAL PHENOL ANALYSES:

OTHER ANALYSES (SPECIFY):

NOTE: Only methods actually used in the performance of analyses
for this data package may be entered on this form:
NJDEPE Form A-3 (9/91)

GCMS ANALYSIS NON CONFORMANCE SUMMARY

| | <u>NO</u> | <u>YES</u> |
|--|-----------|------------|
| 1. <u>GCMS TUNE SPECIFICATION.</u> | | |
| a. BFB Passed | ___ | ___ ✓ |
| b. DFTPP Passed | ___ | ___ |
| 2. <u>GCMS TUNING FREQUENCY.</u> | | |
| a. Performed every 12 hours. | ___ | ___ ✓ |
| b. Performed every 24 hours. | ___ | ___ |
| 3. <u>GCMS Calibration.</u> | | |
| a. Initial calibration performed w/i 30 days of sample analysis. | ___ | ___ ✓ |
| b. Continuing calibration w/i 12 hours. | ___ | ___ ✓ |
| c. Continuing calibration w/i 24 hours. | ___ | ___ |
| 4. <u>GCMS Calibration requirements.</u> | | |
| a. Calibration check compounds. | ___ | ___ ✓ |
| b. System performance check compounds. | ___ | ___ ✓ |
| 5. <u>Blank Contamination.</u> | | |
| a. VOA Fraction <u>10/04/94 Blank and Acetone below 100ppb</u> | ___ | ___ |
| b. B/N Fraction | ___ | ___ |
| c. Acid Fraction | ___ | ___ |
| 6. <u>Surrogate Recoveries Within Limits.</u> | | |
| a. VOA Fraction | ___ | ___ ✓ |
| b. B/N Fraction | ___ | ___ |
| c. Acid Fraction | ___ | ___ |
| 7. Extraction Holding Time Met. | ___ | ___ ✓ |
| 8. Analysis Holding Time Met. | | |
| a. VOA Fraction | ___ | ___ ✓ |
| b. BNA Fraction | ___ | ___ |

Comments:

Laboratory Manager *[Signature]* Date 10/24/94



princeton testing
laboratory inc.

P.O. Box 3108
3490 U.S. Route 1
Princeton, NJ 08543-3108
(609) 452-9050
FAX (609) 452-0347

October 21, 1994.

U.S. Army, Fort Monmouth N.J
ATTN: SELFM-PW
Building 167
Fort Monmouth, New Jersey 07703-5108
Attention: Charles Appleby

Job Number: 9404760

CASE NARRATIVE

The following package contains analytical data pertaining to samples received by Princeton Testing Laboratory on 09/23/94. The samples were analyzed for volatile organics using SW-846, 8240 Methodologies.

VOLATILE ORGANICS

BLANKS: No contamination found in the blanks except 10/04 blank had acetone below Mdls.

SAMPLES: Methylene chloride and 2-butanone was found in samples 1645.1 and 1644.1.

SURROGATES: All surrogate recoveries were within QC limits.

MS/MSD: Sample 1639.1 Bldg 697 from the PTL Job# 9404683 was used for matrix spike and duplicate. All recoveries were within the QC limits.

If you have any further questions please do not hesitate to call me.

Khaja Eazazuddin.
GC/MS Supervisor.

S T A N D A R D T E S T L I S T

Test Name: Volatile Organics, SW, SW-846 8240
 SPEC CODE: VMSOA

Lab Code: M
 Manager : KE
 Units : ug/kg

Short Name: VO.SW.8240
 List Price:
 Report Type:

Description

| # Compound | MDL | CAS# | KEY# | CLIENT KEY# |
|-------------------------------|-----|-----------|----------|-------------|
| 1 Chloromethane | 10 | 00074873 | C010 | 1454 |
| 2 Bromomethane | 10 | 00074839 | C015 | 1462 |
| 3 Vinyl chloride | 10 | 00075014 | | 1531 |
| 4 Chloroethane | 10 | 00075003 | | 1452 |
| 5 Methylene chloride | 5 | 00075092 | | 1172 |
| 6 Acetone | 5 | 00067641 | | 1498 |
| 7 Carbon disulfide | 5 | 00075150 | | 1646 |
| 8 1,1-Dichloroethene | 5 | 00075354 | | 1442 |
| 9 1,1-Dichloroethane | 5 | 00075343 | | 1580 |
| 10 1,2-Dichloroethene (Total) | 5 | 00540590 | | 1583 |
| 11 Chloroform | 5 | 00067663 | | 1078 |
| 12 1,2-Dichloroethane | 5 | 00107062 | | 1383 |
| 13 2-Butanone | 5 | 00078933 | | 1278 |
| 14 1,1,1-Trichloroethane | 5 | 00071556 | | 1068 |
| 15 Carbon tetrachloride | 5 | 00056235 | | 1384 |
| 16 Bromodichloromethane | 5 | 00075274 | | 1480 |
| 17 1,1,2,2-Tetrachloroethane | 5 | 00079345 | | 1200 |
| 18 1,2-Dichloropropane | 5 | 00078875 | | 1368 |
| 19 trans-1,3-Dichloropropene | 5 | 10061026 | | 1364 |
| 20 Trichloroethene | 5 | 00079016 | | 1074 |
| 21 Dibromochloromethane | 5 | 00124481 | | 1390 |
| 22 1,1,2-Trichloroethane | 5 | 00079005 | | 1070 |
| 23 Benzene | 5 | 00071432 | | 1466 |
| 24 cis-1,3-Dichloropropene | 5 | 10061015 | | 1362 |
| 25 Bromoform | 5 | 00075252 | | 1124 |
| 26 2-Hexanone | 5 | 00591786 | | 1324 |
| 27 4-Methyl-2-Pentanone | 5 | 00108101 | | 1158 |
| 28 Tetrachloroethene | 5 | 00127184 | | 1096 |
| 29 Toluene | 5 | 00108333 | | 1426 |
| 30 Chlorobenzene | 5 | 00108907 | | 1564 |
| 31 Ethylbenzene | 5 | 00100414 | | 1394 |
| 32 Styrene | 5 | 00100425 | | 1120 |
| 33 Total Xylenes | 5 | 01330207 | | 1677 |
| 34 . | | | | |
| 35 . | | | | |
| 36 RECOVERY DATA | | QC LIMITS | | |
| 37 . | | | | |
| 38 1,2-Dichloroethane-D4 | | 70-121% | | 1577 |
| 39 Toluene-d8 | | 84-138% | 02037265 | 1579 |
| 40 4-Bromofluorobenzene | | 59-113% | 00460004 | 1433 |

2B
VOLATILE SURROGATE SUMMARY

Lab Name: Princeton Testing Lab. Contract: US Army, Fort
Monmouth.
Lab Code: PTL Case No.: 4760 SAS No.: _____ SDG No.: _____
Instrument ID: INCOS-500

| SAMPLE NO. | (1,2-DCE) | (TOL-D8) | (4-BFB) |
|------------------|-----------|----------|---------|
| M. BLANK 9/23/94 | 111 | 104 | 101 |

(1,2-DCE) = 1,2-DICHLOROETHANE-d4 (76-114)
(TOL-d8) = TOLUENE-d8 (84-110)
(4-BFB) = 4-BROMOFLUOROBENZENE (86-115)

COMMENTS:

page 1 of 1

FORM II VOA-2

2B
VOLATILE SURROGATE SUMMARY

Lab Name: Princeton Testing Lab. Contract: US Army, Fort Monmouth.
Lab Code: PTL Case No.: 4760 SAS No.: _____ SDG No.: _____
Instrument ID: INCOS-500

| SAMPLE NO. | (1,2-DCE) | (TOL-D8) | (4-BFB) |
|--------------------|-----------|----------|---------|
| 1639.1 MS Bldg 697 | 71 | 93 | 77 |
| 1639.1 MSDBldg 697 | 72 | 88 | 79 |

(1,2-DCE) = 1,2-DICHLOROETHANE-d4 (70-121)
(TOL-d8) = TOLUENE-d8 (84-138)
(4-BFB) = 4-BROMOFLUOROBENZENE (59-113)

COMMENTS:

page 1 of 1

FORM II VOA-2

2B
VOLATILE SURROGATE SUMMARY

Lab Name: Princeton Testing Lab. Contract: US Army, Fort Monmouth.
Lab Code: PTL Case No.: 4760 SAS No.: _____ SDG No.: _____
Instrument ID: INCOS-500

| SAMPLE NO. | (1,2-DCE) | (TOL-D8) | (4-BFB) |
|------------------|-----------|----------|---------|
| M. BLANK 9/29/94 | 90 | 95 | 86 |
| 1645.1 9/21/94 | 80 | 90 | 86 |
| 1644.1 9/21/94 | 106 | 90 | 92 |

(1,2-DCE) = 1,2-DICHLOROETHANE-d4 (70-121)
(TOL-d8) = TOLUENE-d8 (84-138)
(4-BFB) = 4-BROMOFLUOROBENZENE (59-113)

COMMENTS:

page 1 of 1

FORM II VOA-2

2B
VOLATILE SURROGATE SUMMARY

Lab Name: Princeton Testing Lab. Contract: US Army, Fort Monmouth.
Lab Code: PTL Case No.: 4760 SAS No.: _____ SDG No.: _____
Instrument ID: INCOS-500

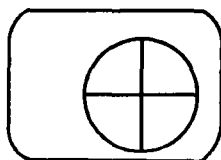
| SAMPLE NO. | (1,2-DCE) | (TOL-D8) | (4-BFB) |
|-------------------|-----------|----------|---------|
| M. BLANK 10/04/94 | 88 | 108 | 104 |
| 1644.2 09/21/94 | 96 | 105 | 92 |

(1,2-DCE) = 1,2-DICHLOROETHANE-d4 (76-114)
(TOL-d8) = TOLUENE-d8 (84-110)
(4-BFB) = 4-BROMOFLUOROBENZENE (86-115)

COMMENTS:

page 1 of 1

FORM II VOA-2



Princeton Testing Laboratory Inc.

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(609) 452-9050
(FAX) (609) 452-0347

Matrix Spike/Matrix Spike Duplicate Recovery Data Test: Volatile Organics, Method 8240

Client: U.S. Army, Fort Monmouth N.J.

Project No.: 9404683-001

Lab Sample I.D.: 001

Client Sample I.D.: 1639.1 Bldg 697
MW 1
09/13/94

Analyst: Uma Chaudhary
Instrument: Incos 500 Volatiles
Units: ug/kg

QC Batch Number: 940923SV

| COMPOUND | SPIKE ADDED | SAMPLE CONCENTRATION | MATRIX SPIKE CONCENTRATION | MS % REC | QC LIMITS REC |
|--------------------|----------------|-------------------------|-------------------------------|-------------|------------------|
| 1,1-Dichloroethene | 50 | 0 | 44.1 | 88.20 | 59-172 |
| Trichloroethene | 50 | 0 | 45.1 | 90.20 | 62-137 |
| Benzene | 50 | 0 | 44.3 | 88.60 | 66-142 |
| Toluene | 50 | 0 | 41.1 | 82.20 | 59-139 |
| Chlorobenzene | 50 | 0 | 46.6 | 93.20 | 60-133 |

| COMPOUND | SPIKE ADDED | MSD CONCENTRATION | RPD | MSD % REC | QC LIMITS RPD |
|--------------------|----------------|----------------------|------|--------------|------------------|
| 1,1-Dichloroethene | 50 | 44.1 | .00 | 88.20 | 0-22 |
| Trichloroethene | 50 | 48.7 | 7.68 | 97.40 | 0-24 |
| Benzene | 50 | 47.1 | 6.13 | 94.20 | 0-21 |
| Toluene | 50 | 43.3 | 5.21 | 86.60 | 0-21 |
| Chlorobenzene | 50 | 50.6 | 8.23 | 101.20 | 0-21 |

4A

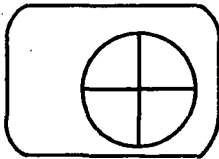
VOLATILE METHOD BLANK SUMMARY

Lab Name: PTL, INC. Contract: US Army, Fort Monmouth.
Lab Code: PTL Case No.: 4760-001 SAS No.: xxxx SDG. No xxxx
Lab File ID: CBLK923 Lab Sample ID: LAB BLANK
Date Analyzed: 09/23/94 Time Analyzed: 12:08
Matrix (soil/water) SOIL Level: (low/med) LOW
Instrument ID: FINN

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

| | EPA SAMPLE NO. | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|----|-------------------|--------------------|----------------|------------------|
| 01 | <u>1639_1_MS</u> | <u>4683-001-01</u> | <u>C8667</u> | <u>09/23/94</u> |
| 02 | <u>1639_1_MSD</u> | <u>4683-001-01</u> | <u>C8668</u> | <u>09/23/94</u> |
| 04 | <u>_____</u> | <u>_____</u> | <u>_____</u> | <u>_____</u> |
| 05 | <u>_____</u> | <u>_____</u> | <u>_____</u> | <u>_____</u> |

COMMENTS:



Princeton Testing Laboratory Inc.

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3490 U.S. Route 1
Princeton, NJ 08543-3108
(609) 452-9050
(FAX) (609) 452-1959

U.S. Army, Fort Monmouth N.J.
ATTN: SELFM-PW
Building 167
Fort Monmouth, New Jersey 07703-5108
Attention: Charles Appleby

Report Date: 10/20/94
Job Number: 9404760-001
Date Received: 09/23/94

Page: 1

Analysis: Volatile Organics, SW, SW-846 8240
Units: ug/kg

Parameters

Sample I.D.: Blank 09/23/94

| | |
|----------------------------|------|
| Chloromethane | <10 |
| Bromomethane | <10 |
| Vinyl chloride | <10 |
| Chloroethane | <10 |
| Methylene chloride | <5.0 |
| Acetone | <5.0 |
| Carbon disulfide | <5.0 |
| 1,1-Dichloroethene | <5.0 |
| 1,1-Dichloroethane | <5.0 |
| 1,2-Dichloroethene (Total) | <5.0 |
| Chloroform | <5.0 |
| 1,2-Dichloroethane | <5.0 |
| 2-Butanone | <5.0 |
| 1,1,1-Trichloroethane | <5.0 |
| Carbon tetrachloride | <5.0 |
| Bromodichloromethane | <5.0 |
| 1,1,2,2-Tetrachloroethane | <5.0 |
| 1,2-Dichloropropane | <5.0 |
| trans-1,3-Dichloropropene | <5.0 |
| Trichloroethene | <5.0 |
| Dibromochloromethane | <5.0 |
| 1,1,2-Trichloroethane | <5.0 |
| Benzene | <5.0 |
| cis-1,3-Dichloropropene | <5.0 |
| Bromoform | <5.0 |
| 2-Hexanone | <5.0 |
| 4-Methyl-2-Pentanone | <5.0 |
| Tetrachloroethene | <5.0 |
| Toluene | <5.0 |
| Chlorobenzene | <5.0 |
| Ethylbenzene | <5.0 |
| Styrene | <5.0 |
| Total Xylenes | <5.0 |

RECOVERY DATA

QC LIMITS

| | | |
|-----------------------------------|---------|-----|
| 1,2-Dichloroethane-d4 (Surrogate) | 70-121% | 111 |
| Toluene-d8 (Surrogate) | 84-138% | 104 |
| 4-Bromofluorobenzene (Surrogate) | 59-113% | 101 |

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
LAB BLK 9/23

Lab Name: Princeton Testing Lab US ARMY, FORT MONMOUTH

Lab Code: PTL Case No.: 4760-001 SAS No.: XXX SDG No.: XXX

Matrix: (Soil/Water) Soil Lab Sample ID: LAB_BLK

Sample wt/vol: 5 (g/mL) g Lab File ID: CBLK923

Level: (low/med) LOW Date Received: _____

%Moisture: not dec. _____ Date Analyzed: 09/23/94

GC Column: VOCOL ID: 0.53 mm Dilution Factor: 1

Soil Extract Vol: _____ ul Soil Aliquot Vol: _____ ul

Number TICs found: 0 CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

| #S | CAS NUMB | COMPOUND NAME | RT | EST. CONC. | SCAN |
|----|----------|---------------|----|------------|------|
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4A

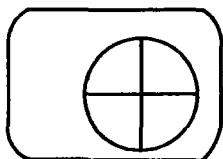
VOLATILE METHOD BLANK SUMMARY

Lab Name: PTL, INC. Contract: US Army, Fort Monmouth
Lab Code: PTL Case No.: 4760-001SAS No.: xxxx SDG.No xxxx
Lab File ID: CBLK929A Lab Sample ID: LAB BLANK
Date Analyzed: 09/29/94 Time Analyzed: 10:26
Matrix (soil/water) SOIL Level: (low/med) LOW
Instrument ID: FINN

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

| | EPA SAMPLE NO. | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|----|-------------------|--------------------|----------------|------------------|
| 01 | <u>1645.1</u> | <u>4760-001-01</u> | <u>C8694</u> | <u>09/26/94</u> |
| 02 | <u>1644.1</u> | <u>4760-001-02</u> | <u>C8695</u> | <u>09/26/94</u> |
| 04 | _____ | _____ | _____ | _____ |
| 05 | _____ | _____ | _____ | _____ |

COMMENTS:



Princeton Testing Laboratory Inc.

P.O. Box 3108
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Princeton, NJ 08543-3108
(609) 452-9050
(FAX) (609) 452-1959

U.S. Army, Fort Monmouth N.J.
ATTN: SELFM-PW
Building 167
Fort Monmouth, New Jersey 07703-5108
Attention: Charles Appleby

Report Date: 10/20/94
Job Number: 9404760-001
Date Received: 09/23/94

Page: 1

Analysis: Volatile Organics, SW, SW-846 8240
Units: ug/kg

Parameters

Sample I.D.: Blank 09/29/94

| | |
|----------------------------|-----|
| Chloromethane | <10 |
| Bromomethane | <10 |
| Vinyl chloride | <10 |
| Chloroethane | <10 |
| Methylene chloride | 5.0 |
| Acetone | 5.0 |
| Carbon disulfide | 5.0 |
| 1,1-Dichloroethene | 5.0 |
| 1,1-Dichloroethane | 5.0 |
| 1,2-Dichloroethene (Total) | 5.0 |
| Chloroform | 5.0 |
| 1,2-Dichloroethane | 5.0 |
| 2-Butanone | 5.0 |
| 1,1,1-Trichloroethane | 5.0 |
| Carbon tetrachloride | 5.0 |
| Bromodichloromethane | 5.0 |
| 1,1,2,2-Tetrachloroethane | 5.0 |
| 1,2-Dichloropropane | 5.0 |
| trans-1,3-Dichloropropene | 5.0 |
| Trichloroethene | 5.0 |
| Dibromochloromethane | 5.0 |
| 1,1,2-Trichloroethane | 5.0 |
| Benzene | 5.0 |
| cis-1,3-Dichloropropene | 5.0 |
| Bromoform | 5.0 |
| 2-Hexanone | 5.0 |
| 4-Methyl-2-Pentanone | 5.0 |
| Tetrachloroethene | 5.0 |
| Toluene | 5.0 |
| Chlorobenzene | 5.0 |
| Ethylbenzene | 5.0 |
| Styrene | 5.0 |
| Total Xylenes | 5.0 |

RECOVERY DATA

QC LIMITS

| | | |
|-----------------------------------|---------|----|
| 1,2-Dichloroethane-d4 (Surrogate) | 70-121% | 90 |
| Toluene-d8 (Surrogate) | 84-138% | 95 |
| 4-Bromofluorobenzene (Surrogate) | 59-113% | 86 |

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

| |
|--------------------------------|
| EPA SAMPLE NO. LAB BLK 9/29 |
|--------------------------------|

Lab Name: Princeton Testing Lab US ARMY, FORT MONMOUTH

Lab Code: PTL Case No.: 4760-001 SAS No.: XXX SDG No.: XXX

Matrix: (Soil/Water) Soil Lab Sample ID: LAB_BLK

Sample wt/vol: 5 (g/mL) g Lab File ID: CBLK929A

Level: (low/med) LOW Date Received: _____

%Moisture: not dec. _____ Date Analyzed: 09/29/94

GC Column: VOCOL ID: 0.53 mm Dilution Factor: 1

Soil Extract Vol: _____ ul Soil Aliquot Vol: _____ ul

Number TICs found: 0 CONCENTRATION UNITS:
 (ug/L or ug/Kg) ug/Kg

| #S | CAS NUMB | COMPOUND NAME | RT | EST. CONC. | SCAN |
|----|-----------|----------------------------|-------|------------|------|
| 1 | 1073-06-9 | BENZENE, 1-BROMO-3-FLUORO- | 20:06 | 56 | 798 |
| | | | | | |
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4A

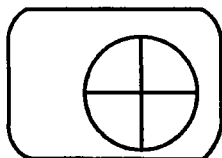
VOLATILE METHOD BLANK SUMMARY

Lab Name: PTL, INC. Contract: US Army, Fort Monmouth.
Lab Code: PTL Case No.: 4760-001 SAS No.: xxxx SDG. No xxxx
Lab File ID: CBLK1004. Lab Sample ID: LAB BLANK
Date Analyzed: 10/04/94 Time Analyzed: 13:33
Matrix (soil/water) WATER. Level: (low/med) LOW
Instrument ID: FINN

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

| | EPA SAMPLE NO. | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|----|--------------------|---------------------|----------------|------------------|
| 01 | <u>1644.2.9/21</u> | <u>4760-001-03.</u> | <u>C8711.</u> | <u>10/04/94.</u> |
| 02 | _____ | _____ | _____ | _____ |
| 03 | _____ | _____ | _____ | _____ |

COMMENTS:



Princeton Testing Laboratory Inc.

P.O. Box 3108
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(609) 452-9050
(FAX) (609) 452-1959

U.S. Army, Fort Monmouth N.J.
ATTN: SELFM-PW
Building 167
Fort Monmouth, New Jersey 07703-5108
Attention: Charles Appleby

Report Date: 11/02/94
Job Number: 9404760-001
Date Received: 09/23/94
Client Job No.: 1644/1645
Page: 1

Analysis: Volatile Organics, WW, SW-846 8240 Units: ug/liter

Parameters

Sample I.D.: Blank 10/04/94

| | |
|----------------------------|-------|
| Chloromethane | <10 |
| Bromomethane | <10 |
| Vinyl chloride | <10 |
| Chloroethane | <10 |
| Methylene chloride | <5.0 |
| Acetone | 2.6 J |
| Carbon disulfide | <5.0 |
| 1,1-Dichloroethene | <5.0 |
| 1,1-Dichloroethane | <5.0 |
| 1,2-Dichloroethene (Total) | <5.0 |
| Chloroform | <5.0 |
| 1,2-Dichloroethane | <5.0 |
| 2-Butanone | <5.0 |
| 1,1,1-Trichloroethane | <5.0 |
| Carbon tetrachloride | <5.0 |
| Bromodichloromethane | <5.0 |
| 1,1,2,2-Tetrachloroethane | <5.0 |
| 1,2-Dichloropropane | <5.0 |
| trans-1,3-Dichloropropene | <5.0 |
| Trichloroethene | <5.0 |
| Dibromochloromethane | <5.0 |
| 1,1,2-Trichloroethane | <5.0 |
| Benzene | <5.0 |
| cis-1,3-Dichloropropene | <5.0 |
| Bromoform | <5.0 |
| 2-Hexanone | <5.0 |
| 4-Methyl-2-Pentanone | <5.0 |
| Tetrachloroethene | <5.0 |
| Toluene | <5.0 |
| Chlorobenzene | <5.0 |
| Ethylbenzene | <5.0 |
| Styrene | <5.0 |
| Total Xylenes | <5.0 |

RECOVERY DATA

QC LIMITS

| | | |
|-----------------------------------|---------|-----|
| 1,2-Dichloroethane-d4 (Surrogate) | 76-114% | 88 |
| Toluene-d8 (Surrogate) | 88-110% | 108 |
| 4-Bromofluorobenzene (Surrogate) | 86-115% | 104 |

J - Estimated Value Detected Below MDL

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

| |
|---------------------------------|
| EPA SAMPLE NO. LAB BLK 10/04 |
|---------------------------------|

Lab Name: Princeton Testing Lab US ARMY, FORT MONMOUTH

Lab Code: PTL Case No.: 4760-001 SAS No.: XXX SDG No.: XXX

Matrix: (Soil/Water) WATER Lab Sample ID: LAB_BLK

Sample wt/vol: 5 (g/mL) mL Lab File ID: CBLK1004

Level: (low/med) LOW Date Received: _____

%Moisture: not dec. _____ Date Analyzed: 10/04/94

GC Column: VOCOL ID: 0.53 mm Dilution Factor: 1

Soil Extract Vol: _____ ul Soil Aliquot Vol: _____ ul

Number TICs found: 0 CONCENTRATION UNITS:
 (ug/L or ug/Kg) ug/L

| #S | CAS NUMB | COMPOUND NAME | RT | EST. CONC. | SCAN |
|----|----------|---------------|----|------------|------|
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5A
VOLATILE ORGANIC GC/MS TUNING AND MASS
CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: Princeton Testing Lab. Contract: US ARMY, FORT MONMOUTH
 Lab Code: PTL Case No.: 4760 SAS No.: _____ SDG No.: _____
 Lab File ID: BFB914 BFB Injection Date: 9/14/94
 Instrument ID: FINN500V BFB Injection Time: 1200
 Matrix: (soil/water) WATER Level: (low/med) Low Column: (pack/cap) Cap

| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|-----|--|----------------------|
| 50 | 15.0 - 40.0% of mass 95 | 18.3 |
| 75 | 30.0 - 60.0% of mass 95 | 48.5 |
| 95 | Base peak, 100% relative abundance | 100.0 |
| 96 | 5.0 - 9.0% of mass 95 | 8.3 |
| 173 | Less than 2.0% of mass 174 | 0.0 |
| 174 | Greater than 50.0% of mass 95 | 86.4 |
| 175 | 5.0 - 9.0% of mass 174 | 7.4 |
| 176 | Greater than 95.0%, but less than 101.0% of mass 174 | 99.3 |
| 177 | 5.0 - 9.0% of mass 176 | 6.9 |

1-Value is % mass 174

2-Value is % mass 176

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

| EPA SAMPLE NO. | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|----------------|---------------|-------------|---------------|---------------|
| 50 PPB STD | 50 PPB STD | CV91450A | 9/14/94 | 1943 |
| 10 PPB STD | 10 PPB STD | CV91410A | 9/14/94 | 2123 |
| 20 PPB STD | 20 PPB STD | CV91420A | 9/14/94 | 2034 |
| 100 PPB STD | 100 PPB STD | CV914100B | 9/14/94 | 1853 |
| 200 PPB STD | 200 PPB STD | CV914200 | 9/14/94 | 1803 |

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

Lab Name: Princeton Testing Lab. Contract: US ARMY, FORT MONMOUTH
 Lab Code: PTL Case No.: 4760 SAS No.: SDG No.:
 Lab File ID: BFB923 BFB Injection Date: 9/23/94
 Instrument ID: FINN500V BFB Injection Time: 1055
 Matrix: (soil/water)SOIL Level: (low/med) Low Column: (pack/cap) Cap

| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|-----|--|----------------------|
| 50 | 15.0 - 40.0% of mass 95 | 20.7 |
| 75 | 30.0 - 60.0% of mass 95 | 53.9 |
| 95 | Base peak, 100% relative abundance | 100.0 |
| 96 | 5.0 - 9.0% of mass 95 | 7.3 |
| 173 | Less than 2.0% of mass 174 | 0.0 |
| 174 | Greater than 50.0% of mass 95 | 52.7 |
| 175 | 5.0 - 9.0% of mass 174 | 7.2 |
| 176 | Greater than 95.0%, but less than 101.0% of mass 174 | 99.3 |
| 177 | 5.0 - 9.0% of mass 176 | 7.0 |

1-Value is % mass 174

2-Value is % mass 176

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

| EPA SAMPLE NO. | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|----------------|---------------|-------------|---------------|---------------|
| 50 PPB STD | 50 PPB STD | CV0923 | 9/23/94 | 1107 |
| LAB BLANK | M. BLK | CBLK923 | 9/23/94 | 1208 |
| 1639.1 MS | 4683-001-01 | C8667 | 9/23/94 | 1633 |
| 1639.1 MSD | 4683-001-01 | C8668 | 9/23/94 | 1723 |

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

Lab Name: Princeton Testing Lab. Contract: US ARMY, FORT MONMOUTH
 Lab Code: PTL Case No.: 4760 SAS No.: SDG No.:
 Lab File ID: BFB929 BFB Injection Date: 9/29/94
 Instrument ID: FINN500V BFB Injection Time: 08:45
 Matrix: (soil/water)SOIL Level: (low/med) Low Column: (pack/cap) Cap

| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|-----|--|----------------------|
| 50 | 15.0 - 40.0% of mass 95 | 19.9 |
| 75 | 30.0 - 60.0% of mass 95 | 52.4 |
| 95 | Base peak, 100% relative abundance | 100.0 |
| 96 | 5.0 - 9.0% of mass 95 | 7.1 |
| 173 | Less than 2.0% of mass 174 | 0.0 |
| 174 | Greater than 50.0% of mass 95 | 65.2 |
| 175 | 5.0 - 9.0% of mass 174 | 7.1 |
| 176 | Greater than 95.0%, but less than 101.0% of mass 174 | 97.8 |
| 177 | 5.0 - 9.0% of mass 176 | 6.8 |

1-Value is % mass 174

2-Value is % mass 176

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

| EPA SAMPLE NO. | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|----------------|---------------|-------------|---------------|---------------|
| 50 PPB STD | 50 PPB STD | CV0929 | 9/29/94 | 0856 |
| LAB BLANK | M. BLK | CBLK929A | 9/29/94 | 1026 |
| 1645.1 | 4760-001-01 | C8694 | 9/29/94 | 1746 |
| 1644.1 | 4760-001-02 | C8696 | 9/29/94 | 1928 |

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

Lab Name: Princeton Testing Lab. Contract: US ARMY, FORT MONMOUTH
 Lab Code: PTL Case No.: 4760 SAS No.: XXX SDG No.: XXX
 Lab File ID: BFB1004B BFB Injection Date: 10/04/94
 Instrument ID: FINN500V BFB Injection Time: 11:42
 Matrix: (soil/water)WATER Level: (low/med) Low Column: (pack/cap) Cap

| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|-----|--|----------------------|
| 50 | 15.0 - 40.0% of mass 95 | 21.3 |
| 75 | 30.0 - 60.0% of mass 95 | 52.7 |
| 95 | Base peak, 100% relative abundance | 100.0 |
| 96 | 5.0 - 9.0% of mass 95 | 7.3 |
| 173 | Less than 2.0% of mass 174 | 0.0 |
| 174 | Greater than 50.0% of mass 95 | 57.7 |
| 175 | 5.0 - 9.0% of mass 174 | 7.6 |
| 176 | Greater than 95.0%, but less than 101.0% of mass 174 | 95.3 |
| 177 | 5.0 - 9.0% of mass 176 | 7.4 |

1-Value is % mass 174

2-Value is % mass 176

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

| EPA SAMPLE NO. | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|----------------|---------------|-------------|---------------|---------------|
| 50 PPB STD | 50 PPB STD | CV0104 | 10/04/94 | 1234 |
| LAB BLANK | M.BLK | CBLK1004 | 10/04/94 | 1333 |
| 1644.2 | 4760-001-03 | C8711 | 10/04/94 | 1421 |

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Princeton Testing Lab. Contract: US Army, Fort Monmouth.
 Case No.: 4760 Lab File ID (standard): CVO923 Instrument ID: FINN
 Date Analyzed: 09/23/94 Time Analyzed: 11:07

| | IS1(BCM) | RT | IS2(DFB) | RT | IS3(CB) | RT |
|--------------------|----------|-------|----------|-------|---------|-------|
| 12hr. STD | 12697 | 07:35 | 158172 | 09:52 | 106406 | 22:18 |
| Upper Limit | 25394 | 07:85 | 316344 | 10:02 | 21281 | 22:68 |
| Lower Limit | 6348 | 06:85 | 79086 | 09:02 | 53203 | 21:68 |
| <u>EPA Sample.</u> | | | | | | |
| 1 M. BLANK 9/23 | 12703 | 07:29 | 121792 | 09:48 | 88184 | 22:01 |
| 2 1639.1 MS | 8847 | 07:33 | 101972 | 09:49 | 74708 | 22:02 |
| 3 1639.1 MSD | 8993 | 07:33 | 96476 | 09:49 | 72942 | 22:02 |

IS1=BROMOCHLOROMETHANE
 IS2=1,4-DIFLUOROBENZENE
 IS3=CHLOROBENZENE-D5

Area Upper Limit = +100% of Internal Standard area.
 Area Lower Limit = - 50% of Internal Standard area.
 RT Upper Limit = +0.50 minutes of Internal Standard RT.
 RT Lower Limit = -0.50 minutes of Internal Standard RT.

* Values outside of QC limits. FORM VIII V-1

PAGE 1 of 1.

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Princeton Testing Lab. Contract: US Army, Fort Monmouth.
 Case No.: 4760 Lab File ID (standard): CV0929 Instrument ID: FINN
 Date Analyzed: 09/29/94 Time Analyzed: 08:56

| | IS1(BCM) | RT | IS2(DFB) | RT | IS3(CB) | RT |
|-----------------|----------|-------|----------|-------|---------|-------|
| 12hr. STD | 17120 | 07:30 | 142012 | 09:46 | 99603 | 21:58 |
| Upper Limit | 34240 | 07:80 | 284024 | 09:96 | 199206 | 22:08 |
| Lower Limit | 8560 | 06:80 | 71006 | 08:96 | 49801 | 21:08 |
| EPA Sample | | | | | | |
| 1 M. BLANK 9/29 | 10486 | 07:33 | 121433 | 09:48 | 89390 | 21:59 |
| 2 1645.1 | 10152 | 07:30 | 68901 | 09:46 | 56616 | 22:01 |
| 3 1644.1 | 8235 | 07:32 | 144726 | 09:48 | 114280 | 21:59 |

IS1=BROMOCHLOROMETHANE
 IS2=1,4-DIFLUOROBENZENE
 IS3=CHLOROBENZENE-D5

Area Upper Limit = +100% of Internal Standard area.
 Area Lower Limit = - 50% of Internal Standard area.
 RT Upper Limit = +0.50 minutes of Internal Standard RT.
 RT Lower Limit = -0.50 minutes of Internal Standard RT.

* Values outside of QC limits. FORM VIII V-1

PAGE 1 of 1.

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Princeton Testing Lab. Contract: US Army, Fort Monmouth.
 Case No.: 4760 Lab File ID (standard): CVO104 Instrument ID: FINN
 Date Analyzed: 10/04/94 Time Analyzed: 12:34

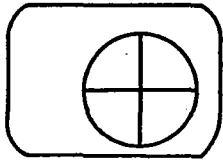
| | IS1(BCM) | RT | IS2(DFB) | RT | IS3(CB) | RT |
|-----------------|----------|-------|----------|-------|---------|-------|
| 12hr. STD | 15702 | 07:22 | 113786 | 09:38 | 82666 | 21:48 |
| Upper Limit | 31404 | 07:22 | 227572 | 09:38 | 165332 | 21:48 |
| Lower Limit | 7851 | 06:22 | 56893 | 08:38 | 41333 | 20:48 |
| EPA Sample | | | | | | |
| 1 M.BLANK 10/04 | 10934 | 07:24 | 102320 | 09:38 | 73456 | 21:53 |
| 2 1644.2 | 11875 | 07:22 | 87995 | 09:40 | 47327 | 21:53 |
| | | | | | | |

IS1=BROMOCHLOROMETHANE
 IS2=1,4-DIFLUOROBENZENE
 IS3=CHLOROBENZENE-D5

Area Upper Limit = +100% of Internal Standard area.
 Area Lower Limit = - 50% of Internal Standard area.
 RT Upper Limit = +0.50 minutes of Internal Standard RT.
 RT Lower Limit = -0.50 minutes of Internal Standard RT.

* Values outside of QC limits. FORM VIII V-1

PAGE 1 of 1.



Princeton Testing Laboratory Inc.

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3490 U.S. Route 1
Princeton, NJ 08543-3108
(609) 452-9050
(FAX) (609) 452-1959

U.S. Army, Fort Monmouth N.J.
ATTN: SELFM-PW
Building 167
Fort Monmouth, New Jersey 07703-5108
Attention: Charles Appleby

Report Date: 11/01/94
Job Number: 9404760-001
Date Received: 09/23/94
Client Job No.: 1644/1645
Page: 1

Analysis: Volatile Organics, SW, SW-846 8240
Units: ug/kg

Parameters

Sample I.D.: 1645.1 Bldg 290
Site A Sidewall
9/21/94

| | |
|----------------------------|-------|
| Chloromethane | <1200 |
| Bromomethane | <1200 |
| Vinyl chloride | <1200 |
| Chloroethane | <1200 |
| Methylene chloride | 460 J |
| Acetone | <620 |
| Carbon disulfide | <620 |
| 1,1-Dichloroethene | <620 |
| 1,1-Dichloroethane | <620 |
| 1,2-Dichloroethene (Total) | <620 |
| Chloroform | <620 |
| 1,2-Dichloroethane | <620 |
| 2-Butanone | 1500 |
| 1,1,1-Trichloroethane | <620 |
| Carbon tetrachloride | <620 |
| Bromodichloromethane | <620 |
| 1,1,2,2-Tetrachloroethane | <620 |
| 1,2-Dichloropropane | <620 |
| trans-1,3-Dichloropropene | <620 |
| Trichloroethene | <620 |
| Dibromochloromethane | <620 |
| 1,1,2-Trichloroethane | <620 |
| Benzene | <620 |
| cis-1,3-Dichloropropene | <620 |
| Bromoform | <620 |
| 2-Hexanone | <620 |
| 4-Methyl-2-Pentanone | <620 |
| Tetrachloroethene | <620 |
| Toluene | <620 |
| Chlorobenzene | <620 |
| Ethylbenzene | <620 |
| Styrene | <620 |
| Total Xylenes | <620 |

RECOVERY DATA **QC LIMITS**

| | | |
|-----------------------------------|---------|----|
| 1,2-Dichloroethane-d4 (Surrogate) | 70-121% | 80 |
| Toluene-d8 (Surrogate) | 84-138% | 90 |
| 4-Bromofluorobenzene (Surrogate) | 59-113% | 86 |

J = Estimated Value Detected Below MDL

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

| |
|-------------------------------|
| EPA SAMPLE NO. 1645.1 9/21 |
|-------------------------------|

Lab Name: Princeton Testing Lab US ARMY, FORT MONMOUTH

Lab Code: PTL Case No.: 4760-001 SAS No.: XXX SDG No.: XXX

Matrix: (Soil/Water) Soil Lab Sample ID: 01

Sample wt/vol: 5 (g/mL) g Lab File ID: C8694

Level: (low/med) med Date Received: 09/23/94

%Moisture: not dec. 19 Date Analyzed: 09/29/94

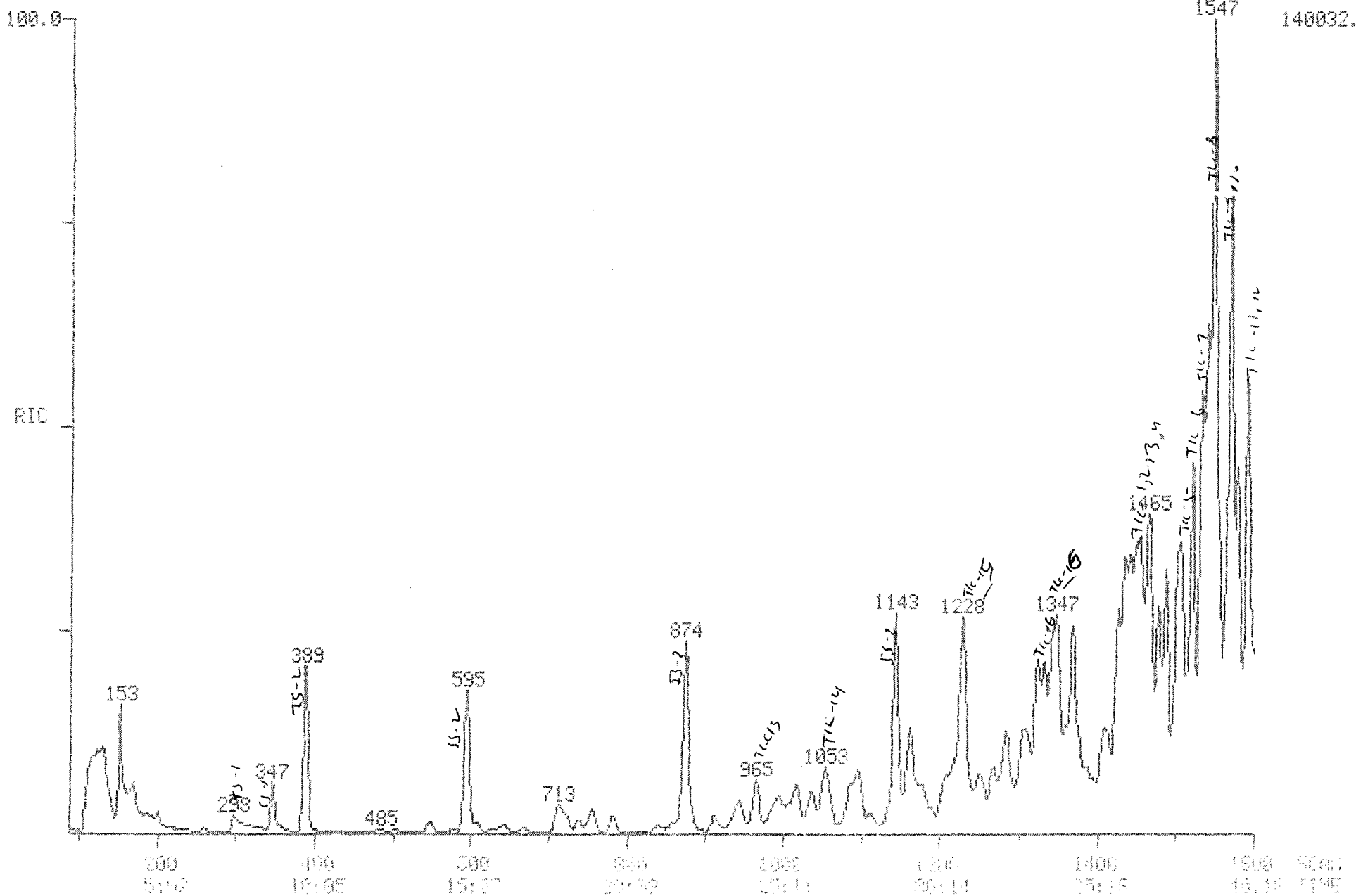
GC Column: VOCOL ID: 0.53 mm Dilution Factor: 100

Soil Extract Vol: ul Soil Aliquot Vol: ul

Number TICs found: 16 CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

| #S | CAS NUMB | COMPOUND NAME | RT | EST. CONC. | SCAN |
|----|-----------|-------------------------------|-------|------------|------|
| 1 | 0-00-0 | UNKNOWN | 36:30 | 4200 | 1449 |
| 2 | 1758-88-9 | BENZENE, 2-ETHYL-1,4-DIME | 36:39 | 5300 | 1455 |
| 3 | 17301-325 | UNDECANE, 4,7-DIMETHYL- | 36:53 | 9200 | 1464 |
| 4 | 16519-689 | CYCLOHEXANONE, 2,6-DIETHYL | 36:56 | 6500 | 1466 |
| 5 | 1758-88-9 | BENZENE, 2-ETHYL-1,4-DIME | 37:53 | 9900 | 1504 |
| 6 | 0-00-0 | UNKNOWN HYDROCARBON | 38:17 | 6400 | 1520 |
| 7 | 2958-76-1 | NAPHTHALENE, DECAHYDRO-2ME | 38:34 | 9300 | 1531 |
| 8 | 62108-230 | DECANE, 2,5,6-TRIMETHYL- | 38:45 | 16000 | 1538 |
| 9 | 0-00-0 | UNKNOWN | 38:58 | 19000 | 1547 |
| 10 | 0-00-0 | UNKNOWN | 39:30 | 14000 | 1568 |
| 11 | 527-53-7 | BENZENE, 1,2,3,5-TETRAMETHYL- | 39:45 | 5300 | 1578 |
| 12 | 1758-88-9 | BENZENE, 2-ETHYL-1,4-DIME | 40:03 | 8600 | 1590 |
| 13 | 0-00-0 | UNKNOWN HYDROCARBON | 24:18 | 2800 | 965 |
| 14 | 0-00-0 | UNKNOWN HYDROCARBON | 26:33 | 4800 | 1054 |
| 15 | 0-00-0 | UNKNOWN HYDROCARBON | 30:56 | 16000 | 1228 |
| 16 | 0-00-0 | UNKNOWN HYDROCARBON | 33:56 | 11000 | 1347 |

RIC DATA: C8694 #1 SCANS 88 TO 1600
 09/29/94 17:46:00 CALI: C8694 #3
 SAMPLE: 4760-001-01 1645.1 09/21/94
 CONDS.: EPA METHOD 8240
 RANGE: G 1,1600 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3



Date: C8694.TI

Time: 07/29/94 17:46:00

Sample: 4760-001-01 1645 1 09/21/94

Method: EPA METHOD 8240

Volume: 5G/10ML:100ULX100DIL Instrument: FINN

Weight: 0.000

Submitted by: USARMY Analyst: UC

Acct. No.: 4760-001

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

| No | Name |
|----|---|
| 1 | CI01 BROMOCHLOROMETHANE **INT. STD. ** |
| 2 | CI10 1,4-DIFLUOROBENZENE **INT. STD. ** |
| 3 | CI20 CHLORO BENZENE-D5 **INT. STD. ** |
| 4 | CS15 1,2-DICHLOROETHANE-D4 **S. STD. ** |
| 5 | CS05 TOLUENE-D8 **S. STD. ** |
| 6 | CS10 4-BROMOFLUOROBENZENE **S. STD. ** |
| 7 | CO10 CHLOROMETHANE ** |
| 8 | CO15 BROMOMETHANE |
| 9 | CO20 VINYL CHLORIDE * |
| 10 | CO25 CHLOROETHANE |
| 11 | CO30 METHYLENE CHLORIDE |
| 12 | C251 ACROLIN |
| 13 | CO35 ACETONE |
| 14 | C252 ACRYLONITRILE |
| 15 | CO40 CARBON DISULFIDE |
| 16 | CO45 1,1-DICHLOROETHENE * |
| 17 | CO50 1,1-DICHLOROETHANE ** |
| 18 | CO55 TRANS-1,2-DICHLOROETHENE |
| 19 | CO00 TRICHLOROFLUOROMETHANE |
| 20 | CO60 CHLOROFORM * |
| 21 | CO65 1,2-DICHLOROETHANE |
| 22 | C110 2-BUTANONE |
| 23 | C115 1,1,1-TRICHLOROETHANE |
| 24 | C120 CARBON TETRACHLORIDE |
| 25 | C125 VINYL ACETATE |
| 26 | C130 BROMO DICHLOROMETHANE |
| 27 | C140 1,2-DICHLOROPROPANE * |
| 28 | C145 TRANS-1,3 DICHLOROPROPENE |
| 29 | C150 TRICHLOROETHENE |
| 30 | C155 DIBROMOCHLOROMETHANE |
| 31 | C160 1,1,2-TRICHLOROETHANE |
| 32 | C165 BENZENE |
| 33 | C143 CIS-1,3-DICHLOROPROPENE |
| 34 | C175 2-CHLOROETHYL VINYL ETHER |
| 35 | C180 BROMOFORM ** |
| 36 | C220 TETRACHLOROETHENE |
| 37 | C210 2-HEXANONE |
| 38 | C205 4-METHYL 2-PENTANONE |
| 39 | C225 1,1,2,2-TETRACHLOROETHANE ** |
| 40 | C230 TOLUENE * |
| 41 | C235 CHLORO BENZENE ** |
| 42 | C240 ETHYL BENZENE * |
| 43 | C245 STYRENE |
| 44 | C250 M+P-XYLENES |
| 45 | C253 1,3-DICHLORO BENZENE |
| 46 | C254 1,4-DICHLORO BENZENE |
| 47 | C255 1,2-DICHLORO BENZENE |

18694

No Name
48 C250 O-XYLENE
49 BENZENE-D6 **S. STD.**

| No | m/z | Scan | Time | Ref | RRT | Meth | Area(Hght) | Amount | %Tot |
|----|-----------|------|-------|-----|-------|------|------------|---------------------|-------|
| 1 | 49 | 298 | 7:30 | 1 | 1.000 | M XX | 10152. | 50.000 NG | 17.00 |
| 2 | 114 | 388 | 9:46 | 2 | 1.000 | A BB | 68901. | 50.000 NG | 17.00 |
| 3 | 117 | 874 | 22:01 | 3 | 1.000 | A BB | 56616. | 50.000 NG | 17.00 |
| 4 | 65 | 347 | 8:44 | 1 | 1.164 | A BB | 13805. | 40.204 NG | 13.67 |
| 5 | 98 | 595 | 14:59 | 3 | 0.681 | A BB | 67904. | 44.753 NG | 15.22 |
| 6 | 95 | 1143 | 28:48 | 3 | 1.308 | A BB | 47236. | 43.084 NG | 14.65 |
| 7 | NOT FOUND | | | | | | | | |
| 8 | NOT FOUND | | | | | | | | |
| 9 | NOT FOUND | | | | | | | | |
| 10 | NOT FOUND | | | | | | | | |
| 11 | 49 | 190 | 4:47 | 1 | 0.638 | A BV | 1830. | 3.692 NG | 1.26 |
| 12 | NOT FOUND | | | | | | | | |
| 13 | NOT FOUND | | | | | | | | |
| 14 | NOT FOUND | | | | | | | | |
| 15 | NOT FOUND | | | | | | | | |
| 16 | NOT FOUND | | | | | | | | |
| 17 | NOT FOUND | | | | | | | | |
| 18 | NOT FOUND | | | | | | | | |
| 19 | NOT FOUND | | | | | | | | |
| 20 | NOT FOUND | | | | | | | | |
| 21 | NOT FOUND | | | | | | | | |
| 22 | 43 | 259 | 6:31 | 2 | 0.668 | A BB | 2487. | 11.804 NG | 4.01 |
| 23 | NOT FOUND | | | | | | | | |
| 24 | NOT FOUND | | | | | | | | |
| 25 | 43 | 225 | 5:40 | 2 | 0.580 | A BV | 121. | 0.126 NG | 0.04 |
| 26 | NOT FOUND | | | | | | | | |
| 27 | NOT FOUND | | | | | | | | |
| 28 | NOT FOUND | | | | | | | | |
| 29 | NOT FOUND | | | | | | | | |
| 30 | NOT FOUND | | | | | | | | |
| 31 | NOT FOUND | | | | | | | | |
| 32 | NOT FOUND | | | | | | | | |
| 33 | NOT FOUND | | | | | | | | |
| 34 | NOT FOUND | | | | | | | | |
| 35 | NOT FOUND | | | | | | | | |
| 36 | NOT FOUND | | | | | | | | |
| 37 | NOT FOUND | | | | | | | | |
| 38 | NOT FOUND | | | | | | | | |
| 39 | NOT FOUND | | | | | | | | |
| 40 | 91 | 607 | 15:17 | 3 | 0.695 | A BB | 1107. | 0.431 NG | 0.21 |
| 41 | NOT FOUND | | | | | | | | |
| 42 | NOT FOUND | | | | | | | | |
| 43 | NOT FOUND | | | | | | | | |
| 44 | NOT FOUND | | | | | | | | |
| 45 | NOT FOUND | | | | | | | | |
| 46 | NOT FOUND | | | | | | | | |
| 47 | NOT FOUND | | | | | | | | |
| 48 | NOT FOUND | | | | | | | | |
| 49 | NOT FOUND | | | | | | | | |

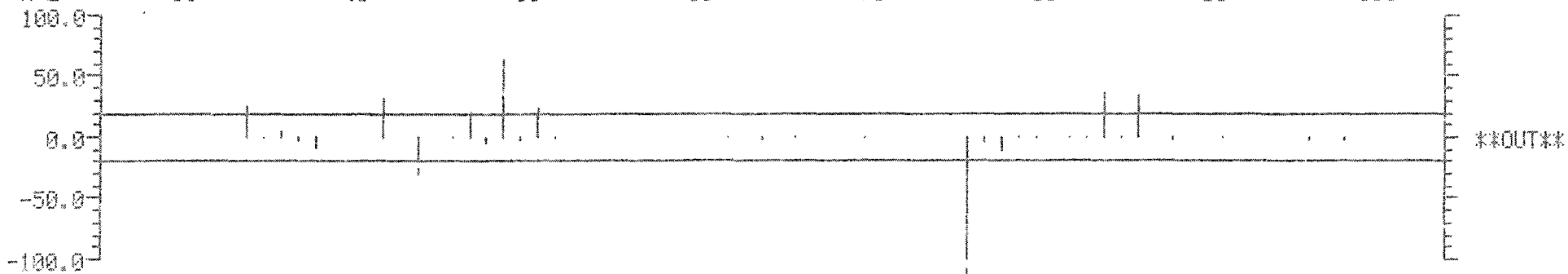
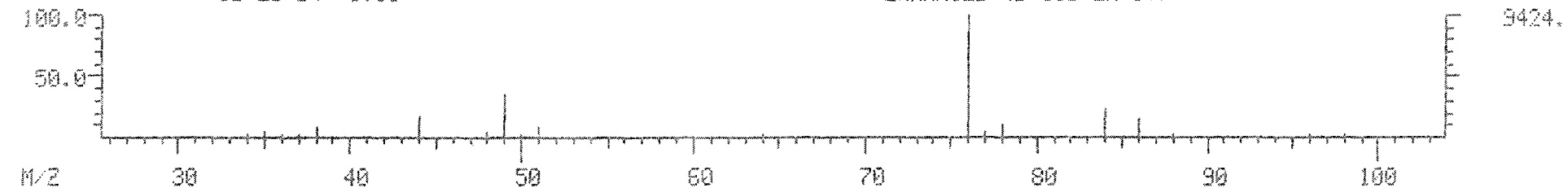
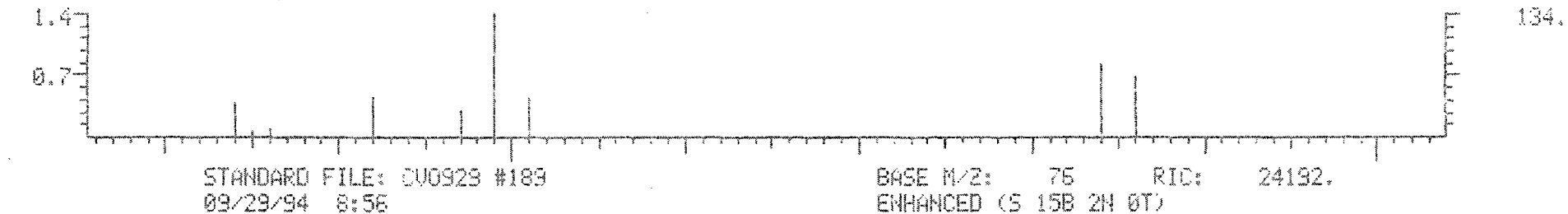
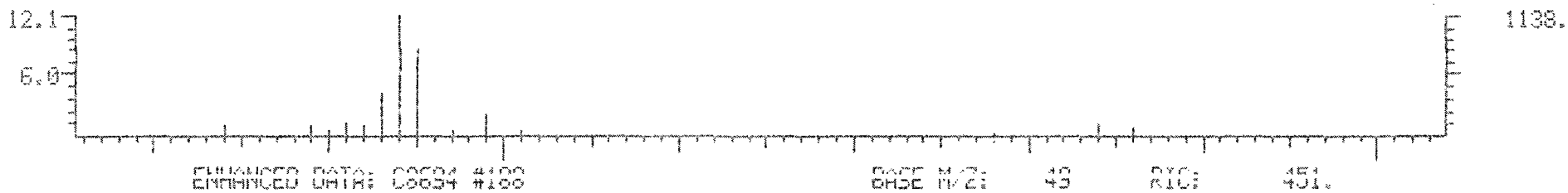
80
90
86

DATA FILE: C8694 #188
TARGET COMPOUND COMPARISON
COMPOUND: C030 METHYLENE CHLORIDE

STANDARD FILE: CV0929 #189
CALI: C8694 #3

RAW DATA: C8694 #188
09/29/94 17:46

BASE M/Z: 44 RIC: 3276.



DATA FILE: C8694 #250
TARGET COMPOUND COMPARISON
COMPOUND: C110 2-BUTANONE

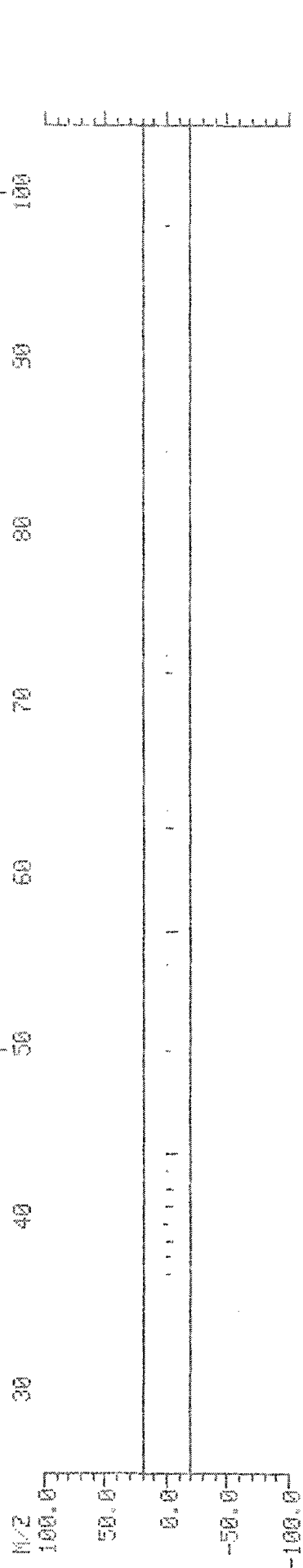
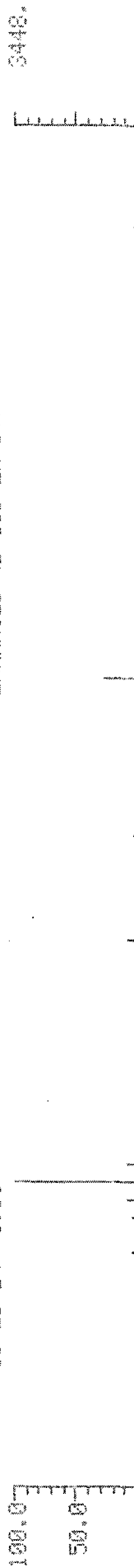
STANDARD FILE: CU0929 #259
CALI: C8694 #3

RAW DATA: C8694 #250
09/29/94 17:45

BASE M/Z: 43 RIC: 1154.



BASE M/Z: 43 RIC: 6032.
ENHANCED (S 158 2N 0T)



DATA FILE: 08694

USER SCAN PARAMETERS

NUMBER TICs: 15
 TABLE ENTRIES: 539
 MAX TOLERANCE: 2
 RIC HT. [%]: 10
 FIRST SCAN: 1
 LAST SCAN: 1600
 TIC THRESHOLD: 600

METHOD LIBRARY & LISTS

TIC I.S. LIBRARY: LIBRARYLS
 NBS SEARCH PROC: SERLIB
 PEAK FINDER PROC: VOME
 TCA I.S. LL: LS
 FILE NAME LIST: TCAREF2

TARGET COMPOUND ANALYSIS:

| TARGETS (QUAN LIST) | IS PEAKS | TOTAL TARGET PEAKS |
|------------------------|-------------|-----------------------|
| 7 | 3 | 10 |

FILTER PROCESSING:

| TOTAL PEAKS | < 1ST SCAN | > LAST SCAN | < MIN RIC HT | < SCAN TOL | > MAX # PEAKS | TOTAL REJECTS | TOTAL TICS |
|----------------|---------------|----------------|-----------------|---------------|------------------|------------------|---------------|
| 46 | 0 | 0 | 0 | 6 | 25 | 31 | 15 |

PROCESSING:

| NO | SCAN# | PURITY | FIT | MW | COMPOUND NAME [BEFORE TIC THRESHOLD] |
|----|-------|--------|------|-----|--------------------------------------|
| 1 | 82 | 431 | 453 | 42 | BORON, CARBONYLTRIHYDRO-, (T-4 |
| 2 | 84 | 994 | 1000 | 44 | CARBON DIOXIDE (ACN) |
| 3 | 1449 | 495 | 861 | 168 | 1-NONENE, 4,6,8-TRIMETHYL- |
| 4 | 1454 | 732 | 865 | 134 | BENZENE, 2-ETHYL-1,4-DIMETHYL- |
| 5 | 1463 | 823 | 917 | 184 | UNDECANE, 4,7-DIMETHYL- |
| 6 | 1467 | 682 | 810 | 154 | CYCLOHEXANONE, 2,6-DIETHYL- |
| 7 | 1506 | 838 | 968 | 134 | BENZENE, 2-ETHYL-1,4-DIMETHYL- |
| 8 | 1520 | 846 | 990 | 134 | BENZENE, 2-ETHYL-1,4-DIMETHYL- |
| 9 | 1531 | 608 | 936 | 152 | NAPHTHALENE, DECAHYDRO-2-METHY |
| 10 | 1533 | 432 | 891 | 152 | NAPHTHALENE, DECAHYDRO-2-METHY |
| 11 | 1539 | 649 | 910 | 184 | DECANE, 2,5,6-TRIMETHYL- |
| 12 | 1547 | 511 | 860 | 256 | 1-HEPTADECANOL |
| 13 | 1568 | 495 | 902 | 240 | OXIRANE, TETRADECYL- |
| 14 | 1578 | 712 | 958 | 134 | BENZENE, 1,2,3,5-TETRAMETHYL- |
| 15 | 1590 | 842 | 975 | 134 | BENZENE, 2-ETHYL-1,4-DIMETHYL- |

Sample: CB694.TI
 Date: 07/29/94 17:46:00
 Sample: 4760-001-01 1645.1 09/21/94

Method: EPA METHOD 8240
 Formula: 50/10ML:100ULX100DIL Instrument: FINN Weight: 0.000
 Submitted by: USARMY Analyst: UC Acct. No.: 4760-001

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

| No | CAS # | Name |
|----|------------|--|
| 1 | 0-00-0 | CI01 BROMOCHLOROMETHANE **INT. STD.** |
| 2 | 0-00-0 | CI10 1,4-DIFLUOROBENZENE **INT. STD.** |
| 3 | 0-00-0 | CI20 CHLOROBENZENE-D5 **INT. STD.** |
| 4 | 0-00-0 | UNKNOWN |
| 5 | 124-38-9 | CARBON DIOXIDE (ACN) |
| 6 | 0-00-0 | UNKNOWN |
| 7 | 1758-88-9 | BENZENE, 2-ETHYL-1,4-DIMETHYL- |
| 8 | 17301-32-5 | UNDECANE, 4,7-DIMETHYL- |
| 9 | 16519-68-9 | CYCLOHEXANONE, 2,6-DIETHYL- |
| 10 | 1758-88-9 | BENZENE, 2-ETHYL-1,4-DIMETHYL- |
| 11 | 1758-88-9 | BENZENE, 2-ETHYL-1,4-DIMETHYL- |
| 12 | 2958-76-1 | NAPHTHALENE, DECAHYDRO-2-METHYL- |
| 13 | 0-00-0 | UNKNOWN |
| 14 | 62108-23-0 | DECANE, 2,5,6-TRIMETHYL- |
| 15 | 0-00-0 | UNKNOWN |
| 16 | 0-00-0 | UNKNOWN |
| 17 | 527-53-7 | BENZENE, 1,2,3,5-TETRAMETHYL- |
| 18 | 1758-88-9 | BENZENE, 2-ETHYL-1,4-DIMETHYL- |

| No | m/z | Scan | Time | Ref | RRT | Meth | Area(Hght) | Amount | %Tot |
|----|-----|------|-------|-----|-------|------|------------|--------------------------|-------|
| 1 | TOT | 298 | 7:30 | 0 | ISINV | A BB | 27554. | ***** UG/L | 00.00 |
| 2 | TOT | 388 | 9:46 | 0 | ISINV | A BB | 152265. | ***** UG/L | 00.00 |
| 3 | TOT | 874 | 22:01 | 0 | ISINV | A BB | 147116. | ***** UG/L | 00.00 |
| 4 | TOT | 82 | 2:04 | 1 | 0.275 | A BB | 368441. | 668.568 | 36.95 |
| 5 | TOT | 84 | 2:07 | 1 | 0.282 | A BB | 83163. | 150.908 ⁴²⁰⁰ | 8.34 |
| 6 | TOT | 1449 | 36:30 | 3 | 1.658 | A VB | 99170. | 33.705 | 1.86 |
| 7 | TOT | 1455 | 36:39 | 3 | 1.665 | A VB | 126607. | 43.030 ⁵³⁰⁰ | 2.38 |
| 8 | TOT | 1464 | 36:53 | 3 | 1.675 | A BV | 218076. | 74.117 ⁹²⁰⁰ | 4.10 |
| 9 | TOT | 1466 | 36:56 | 3 | 1.677 | A BV | 155584. | 52.878 ⁶⁵⁰⁰ | 2.92 |
| 10 | TOT | 1504 | 37:53 | 3 | 1.721 | A BB | 235829. | 80.151 ⁹⁹⁰⁰ | 4.43 |
| 11 | TOT | 1520 | 38:17 | 3 | 1.739 | A BB | 152142. | 51.708 ⁶⁴⁰⁰ | 2.86 |
| 12 | TOT | 1531 | 38:34 | 3 | 1.752 | A BV | 221133. | 75.156 ⁹³⁰⁰ | 4.15 |
| 13 | TOT | 1531 | 38:34 | 3 | 1.752 | A BV | 221133. | 75.156 | 4.15 |
| 14 | TOT | 1538 | 38:45 | 3 | 1.760 | A BV | 377421. | 128.274 ¹⁶⁰⁰⁰ | 7.09 |
| 15 | TOT | 1547 | 38:53 | 3 | 1.770 | A VB | 450144. | 152.990 ¹⁹⁰⁰⁰ | 8.46 |
| 16 | TOT | 1568 | 39:30 | 3 | 1.794 | A BV | 322966. | 109.766 ¹⁸⁰⁰⁰ | 6.07 |
| 17 | TOT | 1578 | 39:45 | 3 | 1.805 | A VB | 127205. | 43.233 ⁵³⁰⁰ | 2.39 |
| 18 | TOT | 1590 | 40:03 | 3 | 1.819 | A BB | 205032. | 69.684 ⁸⁶⁰⁰ | 3.85 |

| No | Ret(L) | Ratio | RRT(L) | Ratio | Amnt | Amnt(L) | R. Fac | R. Fac(L) | Ratio |
|----|--------|-------|--------|-------|------|---------|--------|-----------|-------|
| 1 | 9:13 | 0.81 | 1.000 | | | | | | |
| 2 | 19:21 | 0.51 | 1.000 | | | | | | |
| 3 | 23:54 | 0.92 | 1.000 | | | | | | |

| No | Ret(L) | Ratio | RRT(L) | Ratio | Amnt | Amnt(L) | R. Fac | R. Fac(L) | Ratio |
|----|--------|-------|--------|-------|--------|---------|---------|-----------|--------|
| 4 | | | | | 668.57 | 1.00 | 668.570 | 1.000 | 668.57 |
| 5 | | | | | 150.91 | 1.00 | 150.908 | 1.000 | 150.91 |
| 6 | | | | | 33.70 | 1.00 | 33.705 | 1.000 | 33.70 |
| 7 | | | | | 43.03 | 1.00 | 43.030 | 1.000 | 43.03 |
| 8 | | | | | 74.12 | 1.00 | 74.117 | 1.000 | 74.12 |
| 9 | | | | | 52.88 | 1.00 | 52.878 | 1.000 | 52.88 |
| 10 | | | | | 80.15 | 1.00 | 80.151 | 1.000 | 80.15 |
| 11 | | | | | 51.71 | 1.00 | 51.708 | 1.000 | 51.71 |
| 12 | | | | | 75.16 | 1.00 | 75.156 | 1.000 | 75.16 |
| 13 | | | | | 75.16 | 1.00 | 75.156 | 1.000 | 75.16 |
| 14 | | | | | 128.27 | 1.00 | 128.274 | 1.000 | 128.27 |
| 15 | | | | | 152.99 | 1.00 | 152.990 | 1.000 | 152.99 |
| 16 | | | | | 109.77 | 1.00 | 109.766 | 1.000 | 109.77 |
| 17 | | | | | 43.23 | 1.00 | 43.233 | 1.000 | 43.23 |
| 18 | | | | | 69.68 | 1.00 | 69.684 | 1.000 | 69.68 |

MID LIBRARY SEARCH (LIBRARY#B)
09/29/94 17:46:00 + 35:30
SAMPLE: 4760-001-01 1645.1 09/21/94
CONDOS.: EPA METHOD 8240
ENHANCED (5 158 2H 0T)

DATA: 08694 #1449
CALL: 08694 # 3

BASE M/Z: 105
RIC: 15712.

1000
SAMPLE

C12.H24
10000

N MT 158
B PK 43
RANK 1
11932
PUR 495

1-NOBENE, 4,5,8-TRIMETHYL-

CAS# 54410-98-9

C11.H22
10000

N MT 154
B PK 69
RANK 2
95338
PUR 451

CYCLOHEXANE, (1,2-DIMETHYLPROPYL)-

CAS# 51284-29-8

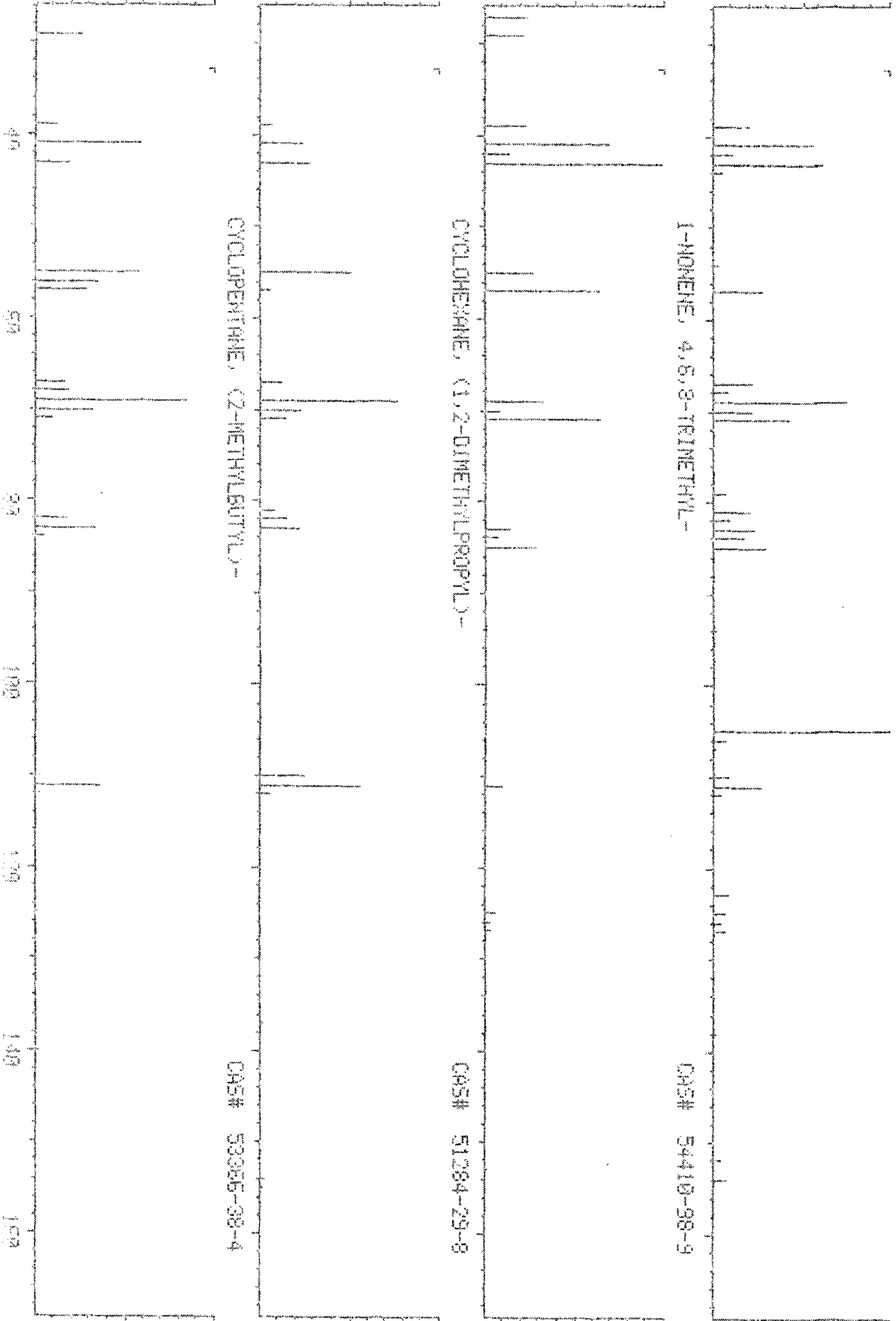
C10.H20
10000

N MT 140
B PK 69
RANK 3
57112
PUR 429

CYCLOPENTANE, (2-METHYLBUTYL)-

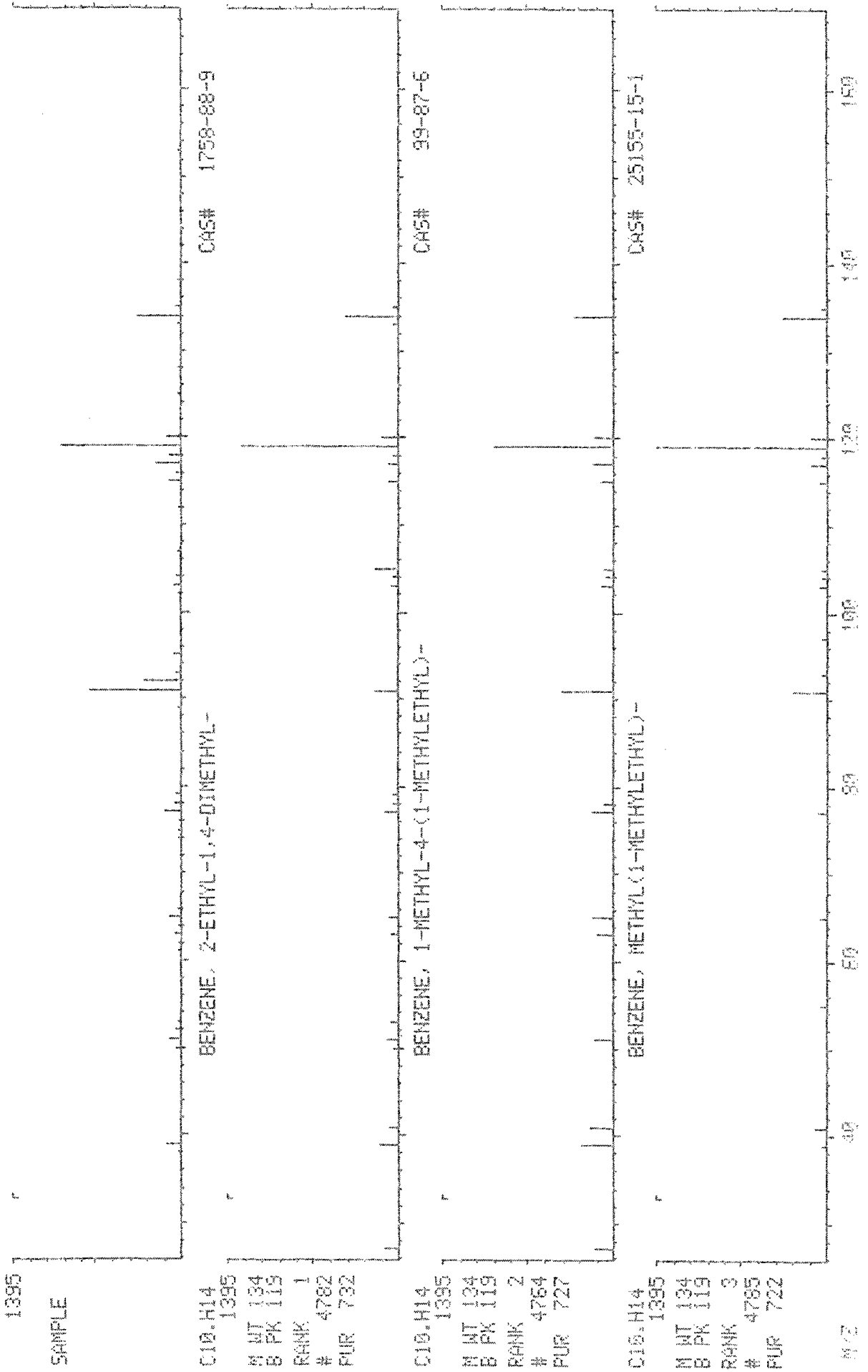
CAS# 53365-38-4

M/Z



MID LIBRARY SEARCH (LIBRARY) 09/29/94 17:45:00 + 36:38
SAMPLE: 4750-001-01 1645.1 09/21/94
CONDOS.: EPA METHOD 8240
ENHANCED (S 15B 2N 0T)

DATA: C8694 #1454
CALI: C8694 # 3
BASE N/Z: 119
RIC: 19584.



SAMPLE

C10.H14
1395
M WT 134
B PK 119
RANK 1
4782
PUR 732

C10.H14
1395
M WT 134
B PK 119
RANK 2
4764
PUR 727

C10.H14
1395
M WT 134
B PK 119
RANK 3
4765
PUR 722

M/Z

MID LIBRARY SEARCH (LIBRARYNB)
09/29/94 17:45:00 + 36:51
SAMPLE: 4760-001-01 1645.1 09/21/94
CONDS.: EPA METHOD 8240
ENHANCED (S 15B 2N 0T)

DATA: C8694 #1463
CALI: C8694 # 3

BASE M/Z: 57
RIC: 22848.



C13.H28 UNDECANE, 4,7-DIMETHYL- CAS# 17301-32-5
1416



C12.H26 DECANE, 3,6-DIMETHYL- CAS# 17312-53-7
1416



C13.H28 UNDECANE, 3,5-DIMETHYL- CAS# 17312-81-1
1416

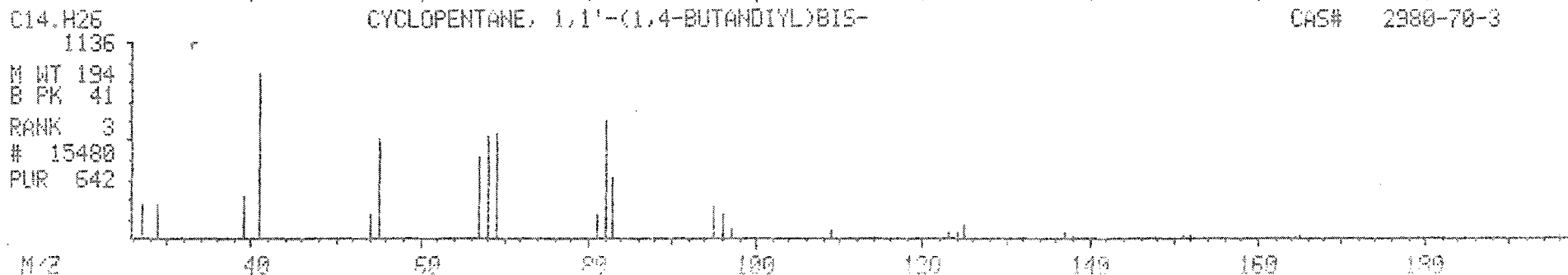
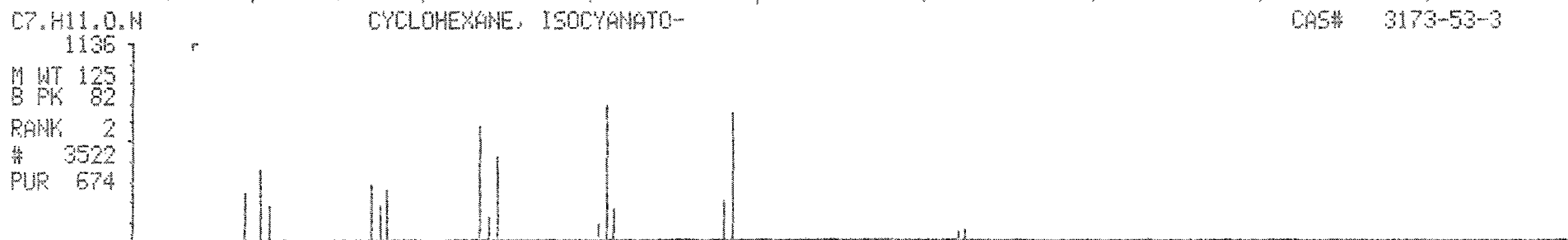
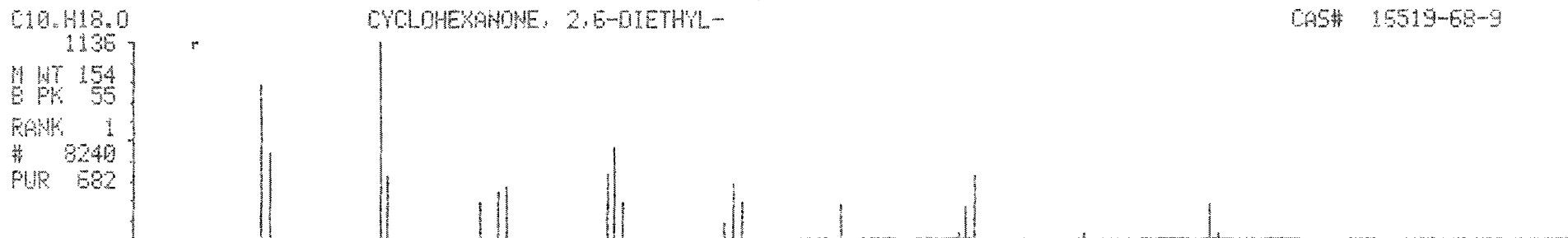
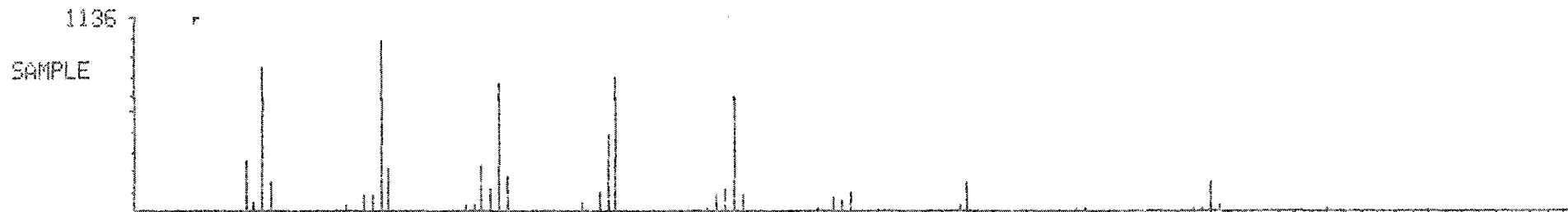


m/z 40 50 60 70 80 90 100 110 120 130 140 150 160

MID LIBRARY SEARCH (LIBRARYNB)
09/29/94 17:45:00 + 36:57
SAMPLE: 4760-001-01 1645.1 09/21/94
CONDS.: EPA METHOD 8240
ENHANCED (S 15B 2N 0T)

DATA: C8E94 #1467
CALI: C8E94 # 3

BASE M/Z: 55
RIC: 18784.

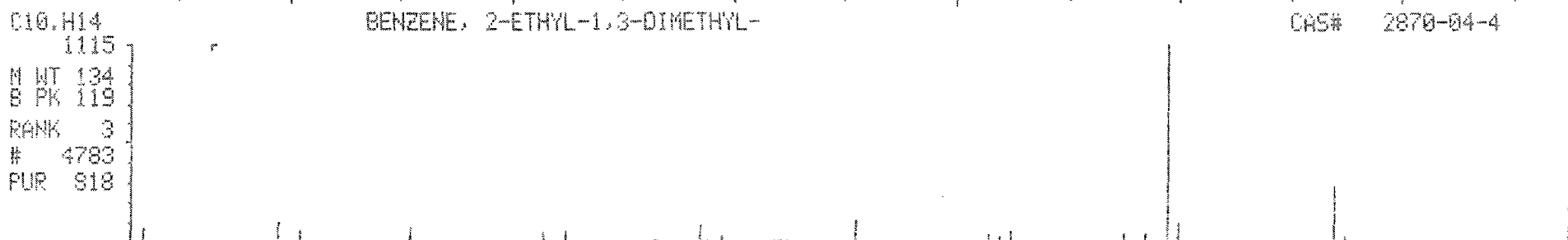
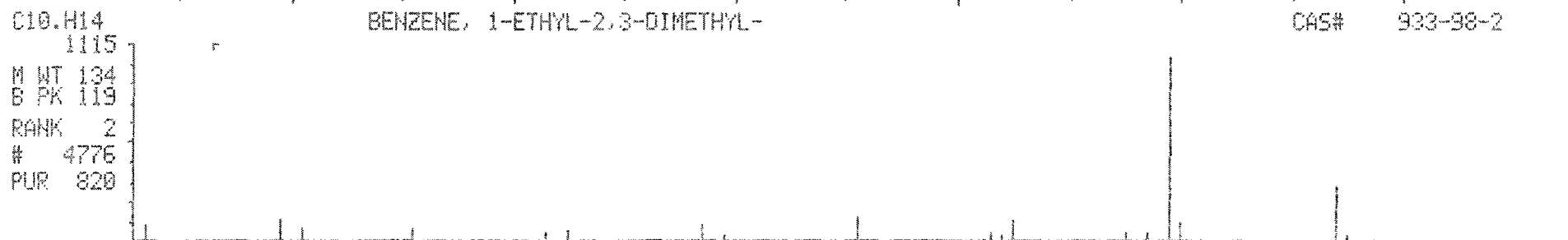
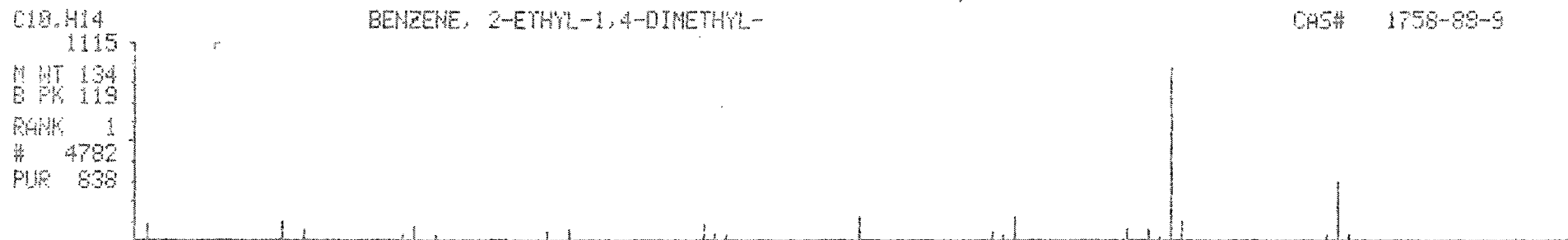
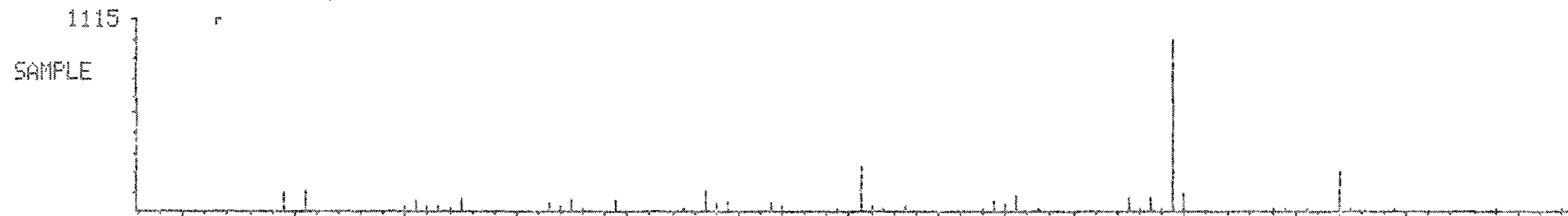


M/Z 40 50 60 70 80 90 100 110 120 130 140 150 160 170

MID LIBRARY SEARCH (LIBRARYNB)
09/29/94 17:46:00 + 37:56
SAMPLE: 4760-001-01 1645.1 09/21/94
CONDS.: EPA METHOD 8240
ENHANCED (S 15B 2N 0T)

DATA: C8694 #1506
CALI: C8694 # 3

BASE M/Z: 119
RIC: 19648.



M/Z

40

60

80

100

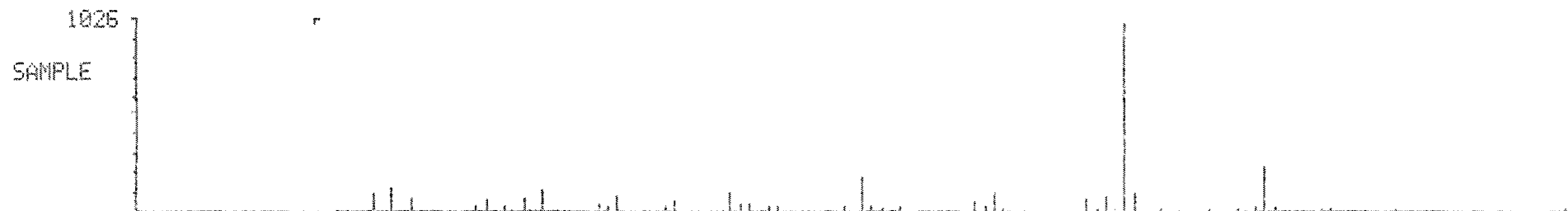
120

140

MID LIBRARY SEARCH (LIBRARYNB)
09/29/94 17:46:00 + 38:17
SAMPLE: 4760-001-01 1645.1 09/21/94
CONDS.: EPA METHOD 8240
ENHANCED (S 15B 2N 0T)

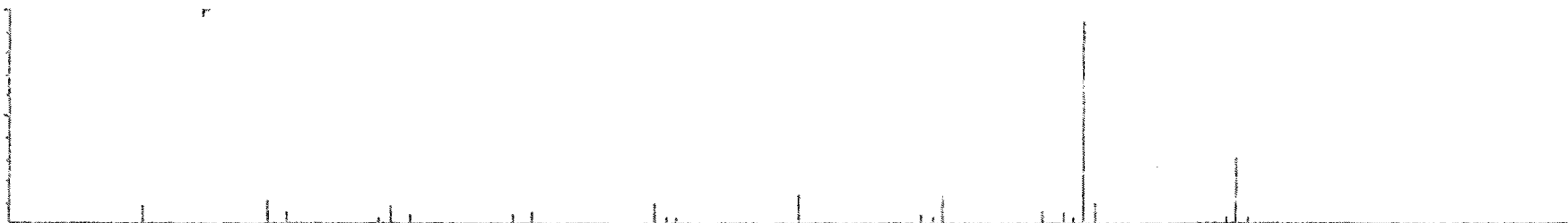
DATA: 08694 #1520
CALI: 08694 # 3

BASE M/Z: 119
RIC: 35392.



C10.H14 BENZENE, 2-ETHYL-1,4-DIMETHYL- CAS# 1758-88-9
1026

M WT 134
B PK 119
RANK 1
4782
PUR 846



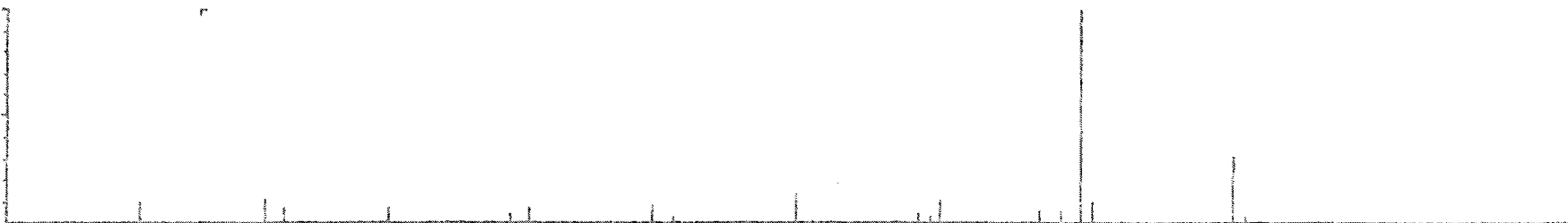
C10.H14 BENZENE, 4-ETHYL-1,2-DIMETHYL- CAS# 934-88-5
1026

M WT 134
B PK 119
RANK 2
4778
PUR 807



C10.H14 BENZENE, 1-ETHYL-2,3-DIMETHYL- CAS# 933-98-2
1026

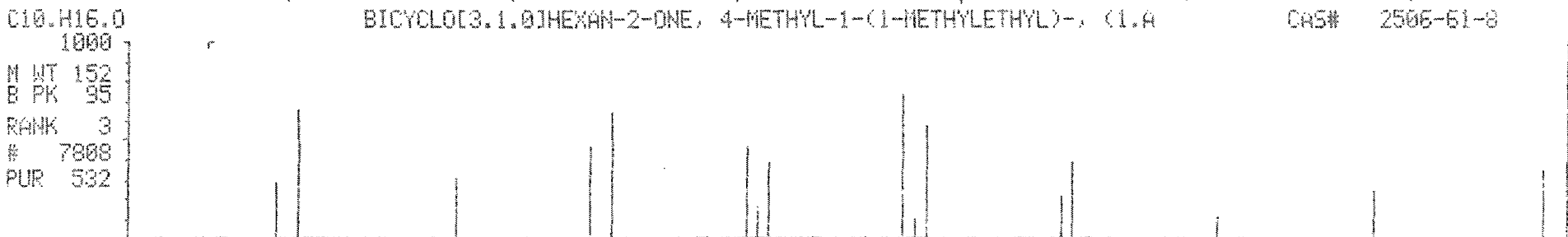
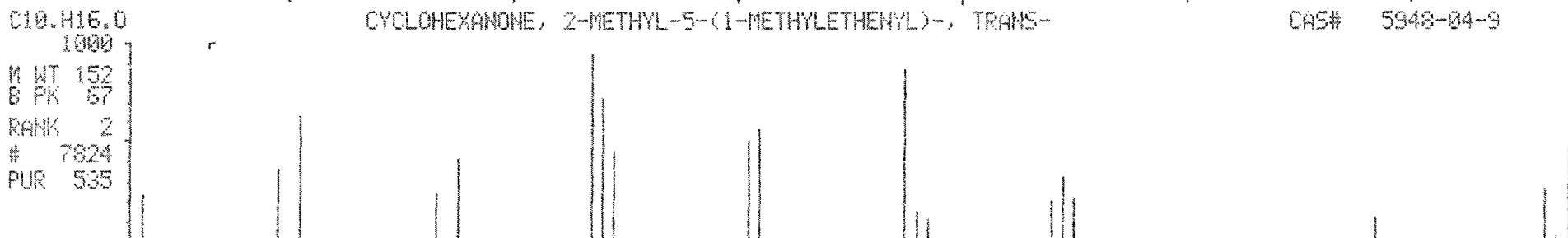
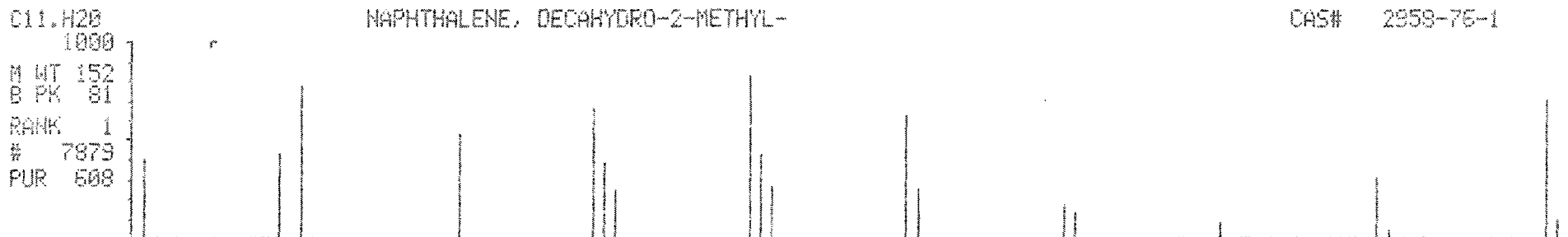
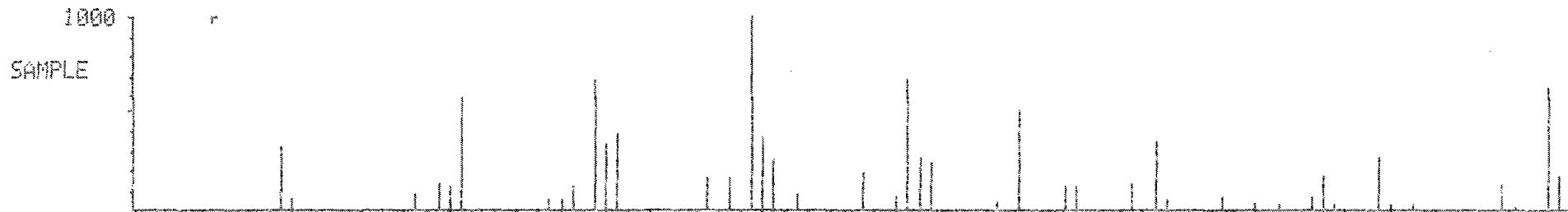
M WT 134
B PK 119
RANK 3
4776
PUR 805



MID LIBRARY SEARCH (LIBRARY#B)
09/29/94 17:46:00 + 38:34
SAMPLE: 4760-001-01 1645.1 09/21/94
CONDS.: EPA METHOD 8240
ENHANCED (S 15B 2N 0T)

DATA: C8694 #1531
CALI: C8694 # 3

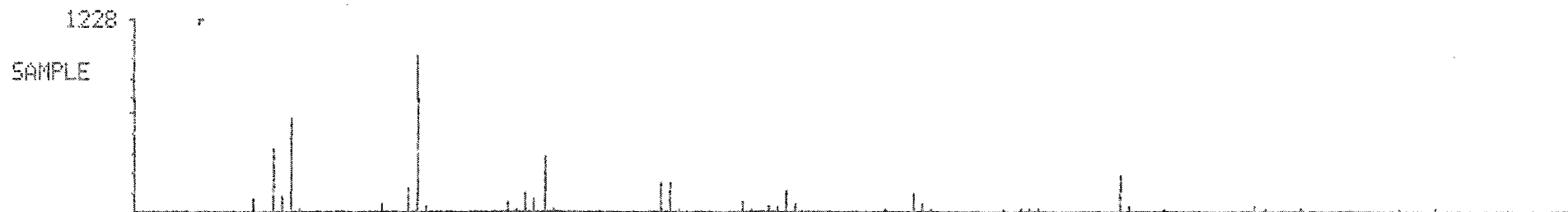
BASE M/Z: 81
RIC: 27456.



MID LIBRARY SEARCH (LIBRARYNB)
09/29/94 17:46:00 + 38:46
SAMPLE: 4760-001-01 1645.1 09/21/94
CONDS.: EPA METHOD 8240
ENHANCED (S 15B 2N 0T)

DATA: C8694 #1539
CALI: C8694 # 3

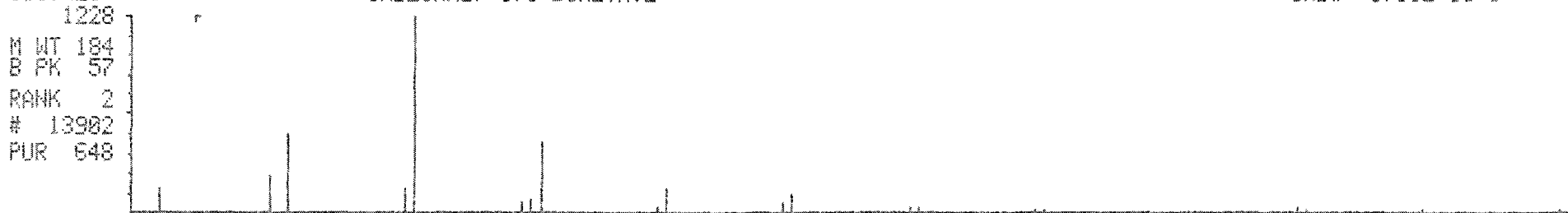
BASE M/Z: 57
RIC: 28928.



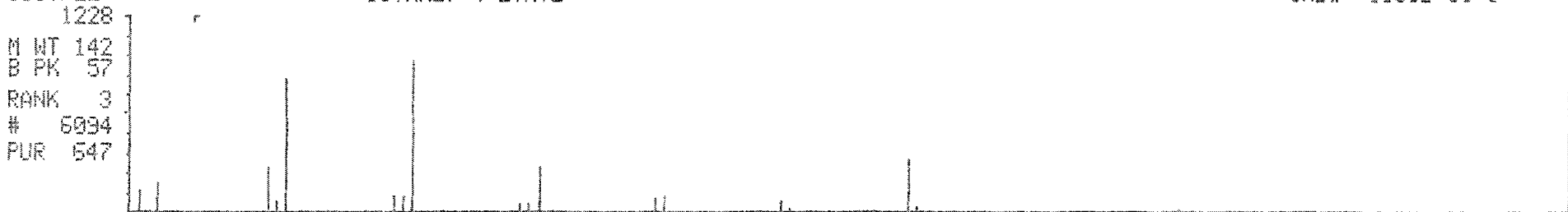
C13.H28 DECANE, 2,5,6-TRIMETHYL- CAS# 62108-23-0



C13.H28 UNDECANE, 3,5-DIMETHYL- CAS# 17312-81-1



C10.H22 OCTANE, 4-ETHYL- CAS# 15869-86-0

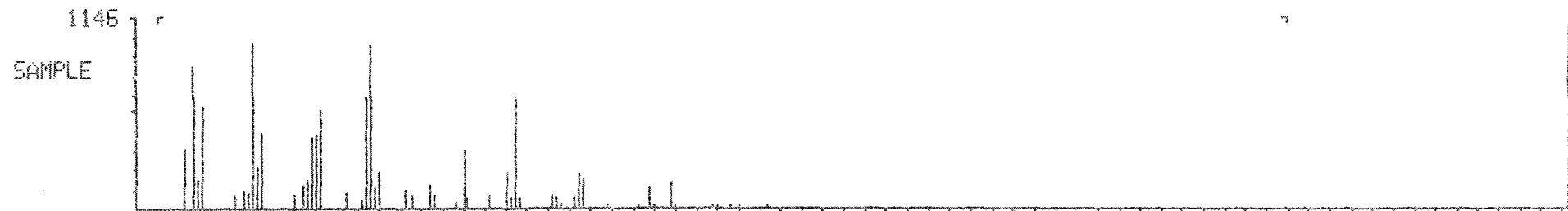


M/Z 40 50 60 70 80 90 100 110 120 130 140 150 160

MID LIBRARY SEARCH (LIBRARYNB)
09/29/94 17:46:00 + 38:58
SAMPLE: 4760-001-01 1645.1 09/21/94
CONDS.: EPA METHOD 8240
ENHANCED (S 15B 2N 0T)

DATA: C8694 #1547
CALI: C8694 # 3

BASE M/Z: 55
RIC: 77056.



C17.H36.0 1-HEPTADECANOL CAS# 1454-85-9

1146
M WT 256
B PK 43
RANK 1
24472
PUR 511



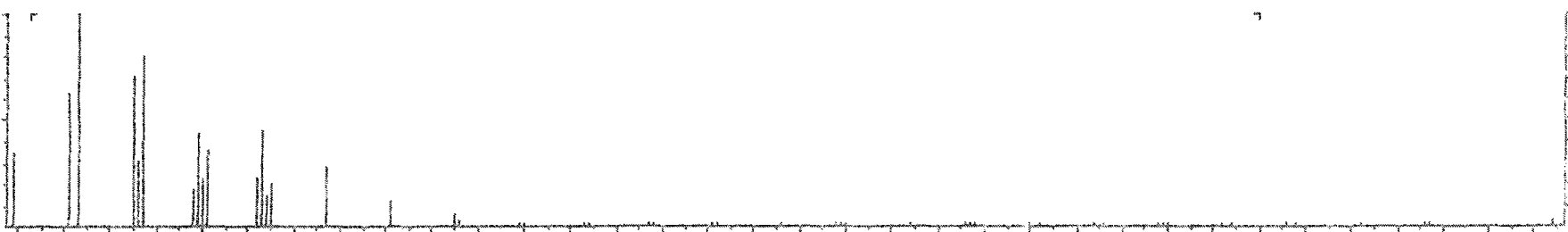
C24.H50.0 1-TETRACOSANOL CAS# 506-51-4

1146
M WT 354
B PK 43
RANK 2
33678
PUR 501



C26.H54.0 1-HEXACOSANOL CAS# 506-52-5

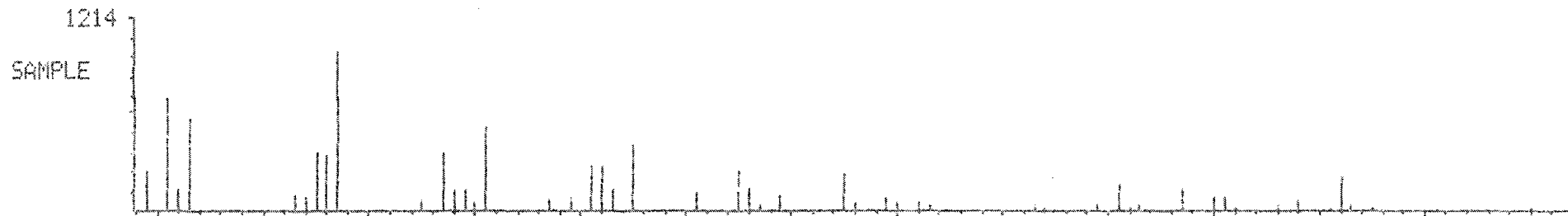
1146
M WT 382
B PK 43
RANK 3
35344
PUR 497



MID LIBRARY SEARCH (LIBRARYMS)
 09/29/94 17:46:00 + 39:30
 SAMPLE: 4760-001-01 1645.1 09/21/94
 CONDS.: EPA METHOD 8240
 ENHANCED (S 158 2N 0T)

DATA: 08694 #1568
 CALI: 08694 # 3

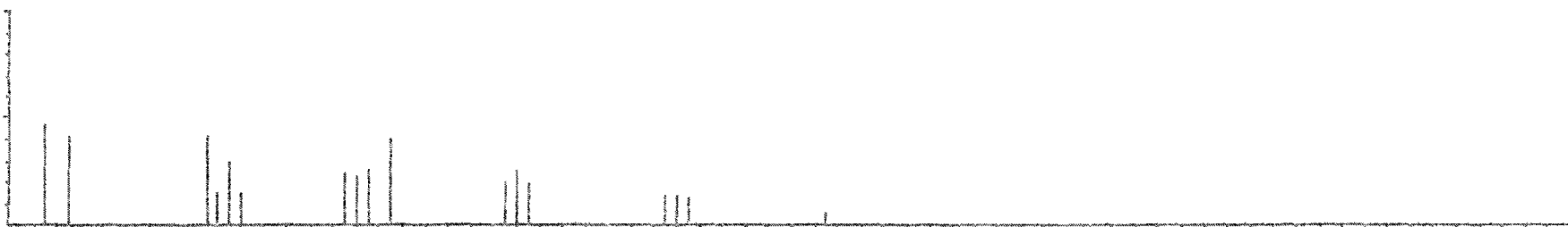
BASE M/Z: 57
 RIC: 62144.



C16.H32.O
 1214
 M WT 240
 B PK 41
 RANK 1
 # 22446
 PUR 495

OXIRANE, TETRADECYL-

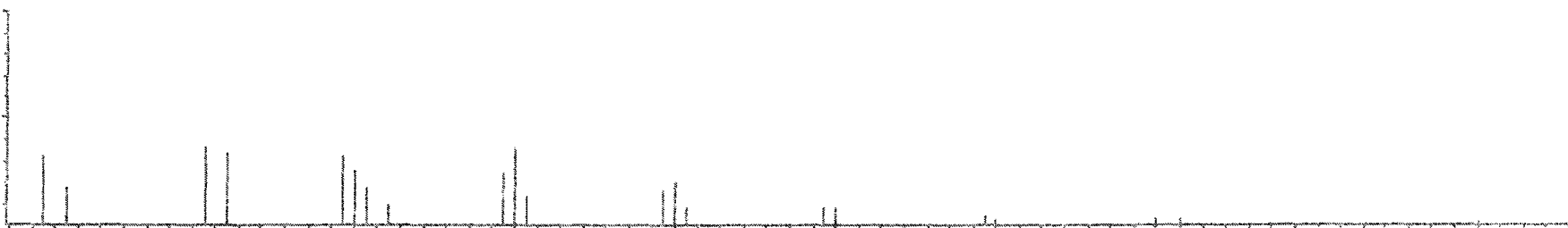
CAS# 7320-37-8



C12.H24.O
 1214
 M WT 184
 B PK 82
 RANK 2
 # 13835
 PUR 487

CYCLODODECANOL

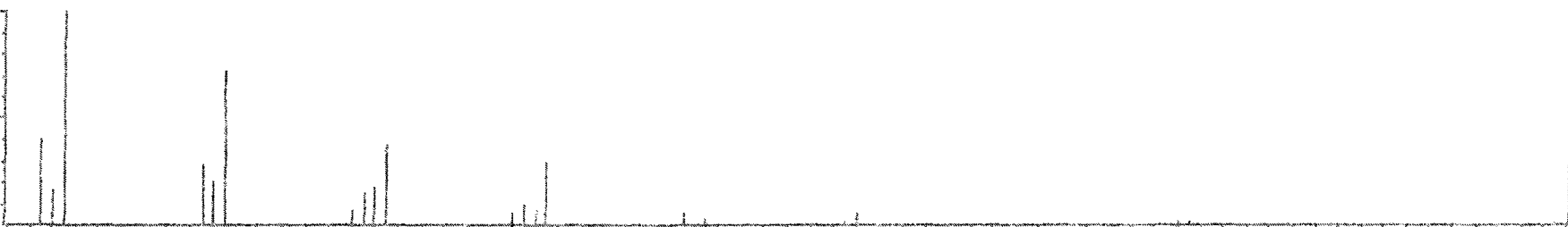
CAS# 1724-39-6



C18.H38.O.N
 1214
 M WT 173
 B PK 43
 RANK 3
 # 11940
 PUR 470

HYDROXYLAMINE, O-DECYL-

CAS# 29812-79-1

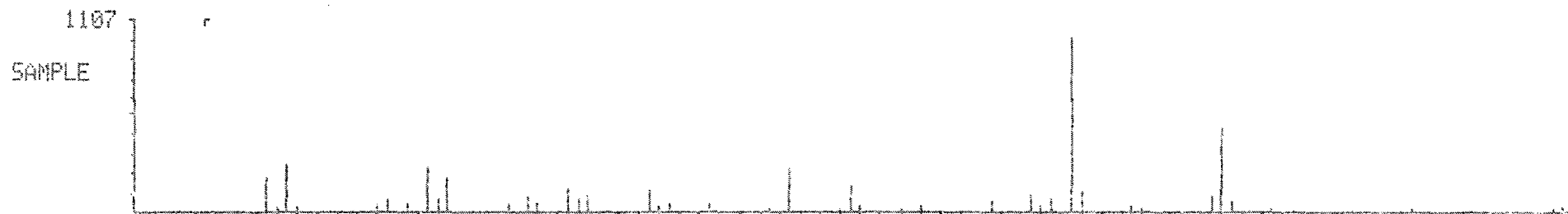


M/Z 40 50 60 70 80 90 100 110 120 130 140 150 160

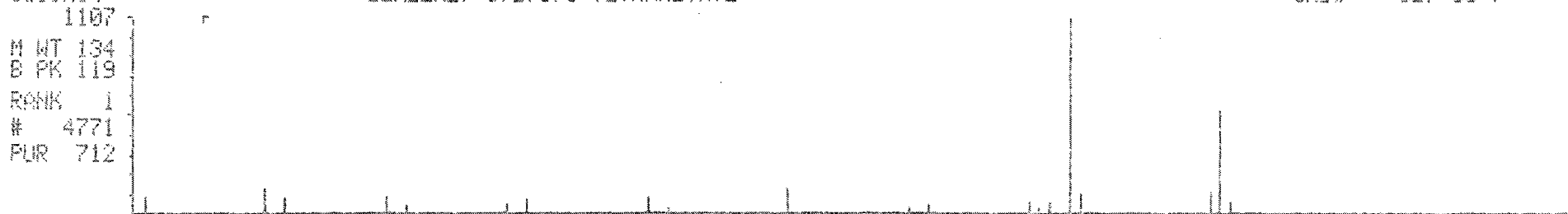
MID LIBRARY SEARCH (LIBRARYNB)
09/29/94 17:46:00 + 39:45
SAMPLE: 4760-001-01 1645.1 09/21/94
CONDS.: EPA METHOD 8240
ENHANCED (S 15B 2N 0T)

DATA: C8694 #1578
CALI: C8694 # 3

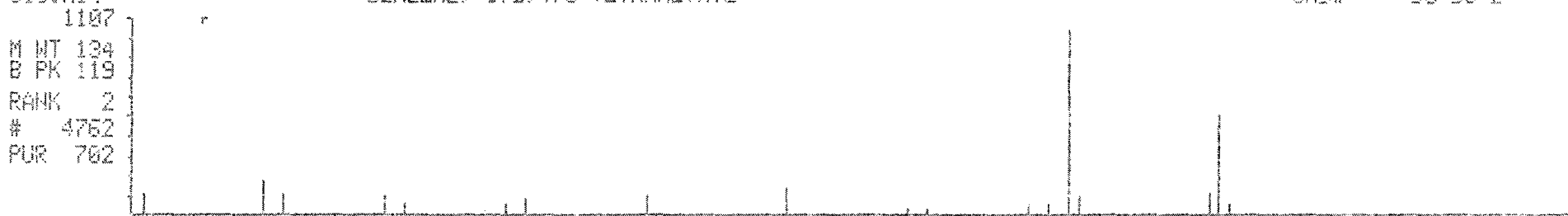
BASE M/Z: 119
RIC: 25920.



C10.H14 BENZENE, 1,2,3,5-TETRAMETHYL- CAS# 527-53-7



C10.H14 BENZENE, 1,2,4,5-TETRAMETHYL- CAS# 95-93-2



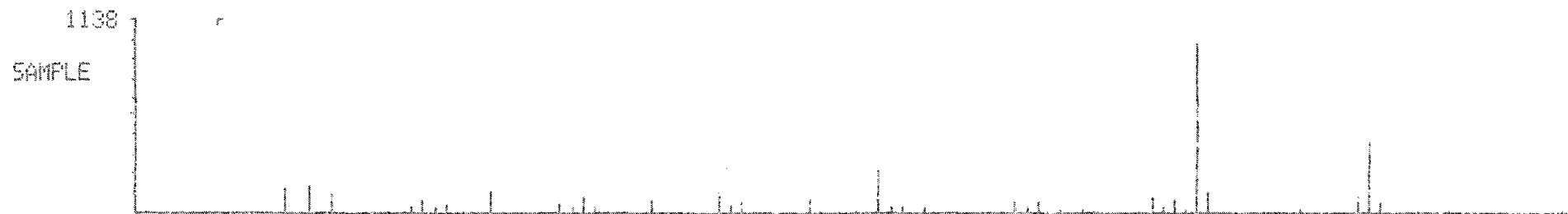
C10.H14 BENZENE, 1,2,3,4-TETRAMETHYL- CAS# 488-23-3



MID LIBRARY SEARCH (LIBRARYNB)
09/29/94 17:46:00 + 40:03
SAMPLE: 4760-001-01 1645.1 09/21/94
CONDS.: EPA METHOD 8240
ENHANCED (S 15B 2M 0T)

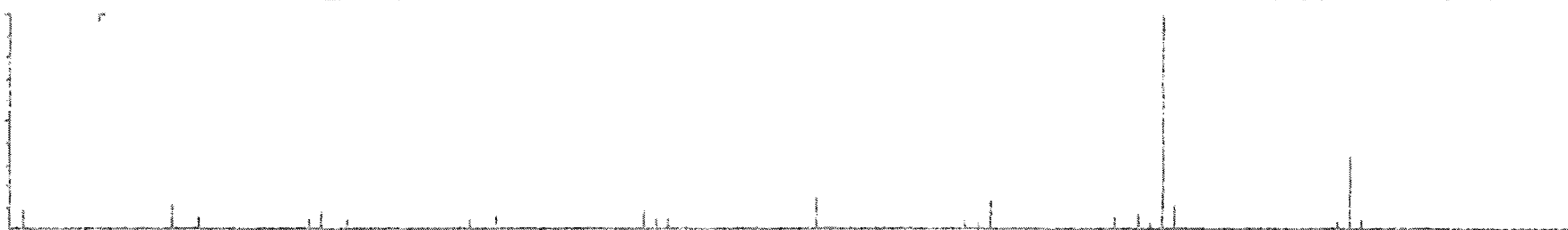
DATA: 08694 #1590
CALI: 08694 # 3

BASE M/Z: 119
RIC: 43264.



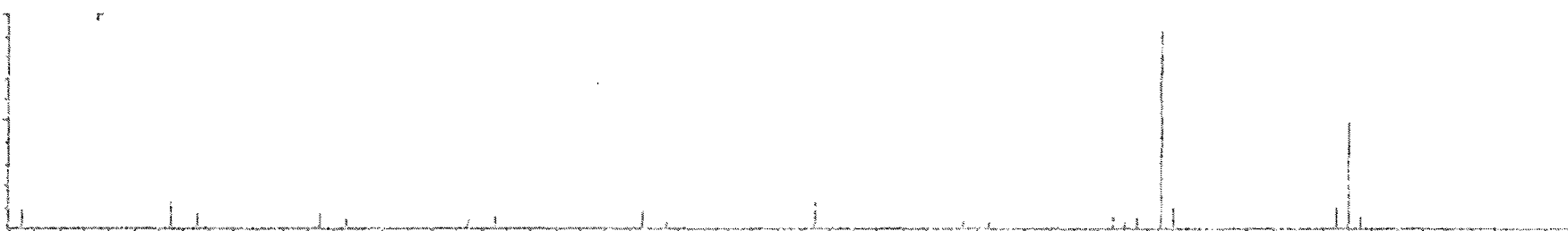
C10.H14 BENZENE, 2-ETHYL-1,4-DIMETHYL- CAS# 1759-88-9

1138
M WT 134
B PK 119
RANK 1
4782
PUR 842



C10.H14 BENZENE, 1,2,3,5-TETRAMETHYL- CAS# 527-53-7

1138
M WT 134
B PK 119
RANK 2
4771
PUR 827



C10.H14 BENZENE, 1,2,3,4-TETRAMETHYL- CAS# 488-23-3

1138
M WT 134
B PK 119
RANK 3
4770
PUR 817



M/Z 40 80 100 120 140

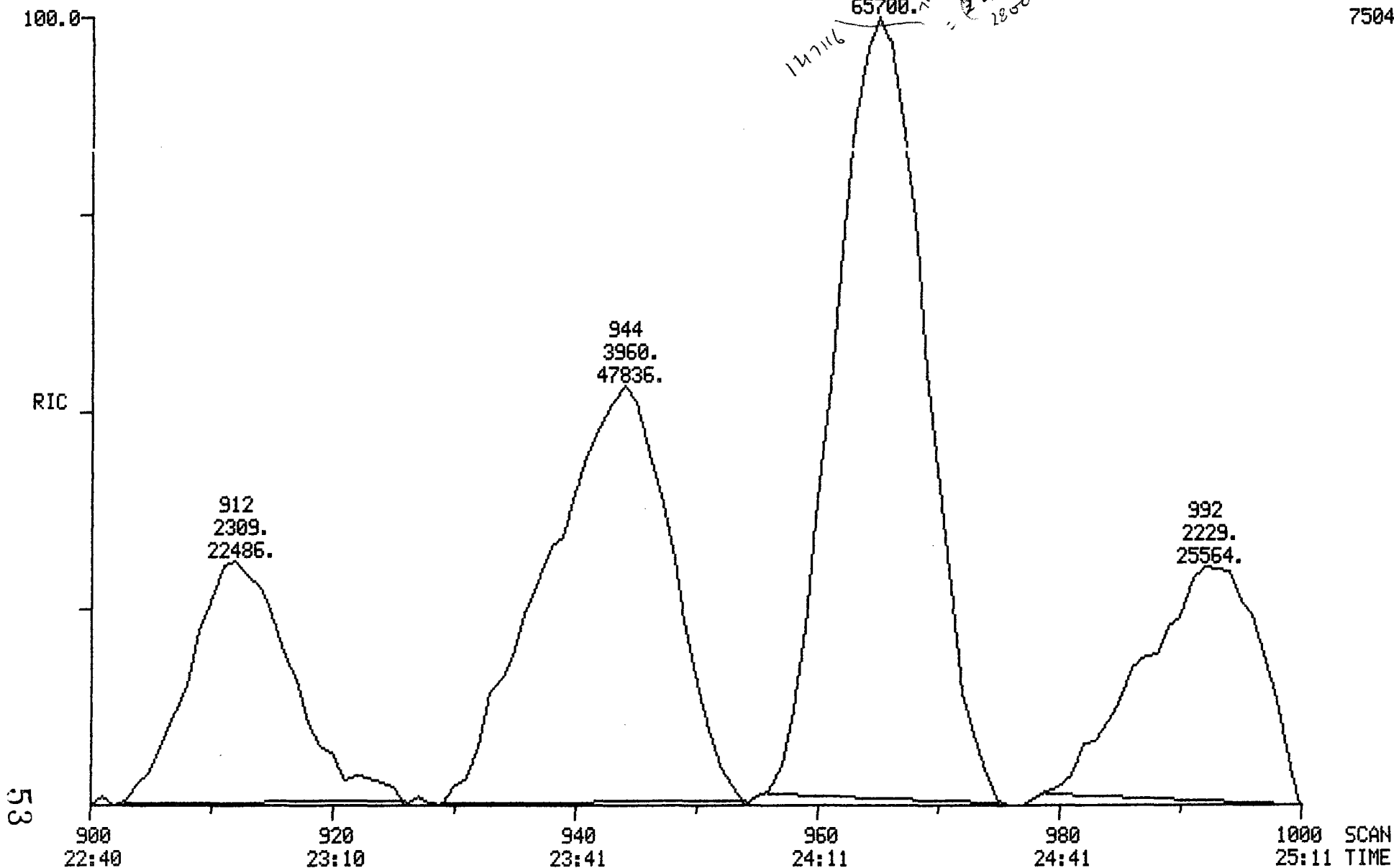
RIC
09/29/94 17:46:00
SAMPLE: 4760-001-01 1645.1 09/21/94
CONDS.: EPA METHOD 8240
RANGE: G 1.1600 LABEL: N 2, 4.0

DATA: C8694 #1228
CALI: C8694 #3

SCANS 900 TO 1000

965
7437.
65700.
147116
22302
1800

7504.



Library Search Data: CB694 # 965 Base m/z: 57
09/29/94 17:46:00 + 24:18 Cali: CB694 # 3 RIC: 5640.
Sample: 4760-001-01 1645.1 09/21/94
Conds.: EPA METHOD 8240
Enhanced (S 15B 2N OT)

42223 spectra in LIBRARYNB searched for maximum FIT
171 matched at least 8 of the 16 largest peaks in the unknown

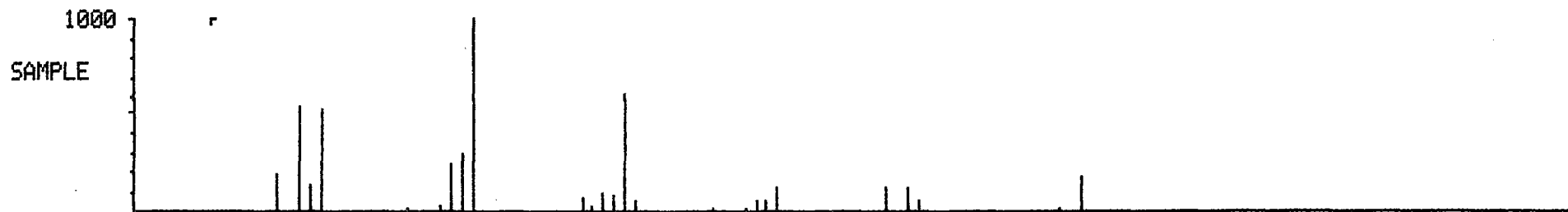
| Rank In. | Name |
|----------|--------------------------------------|
| 1 | 16565 ETHER, HEPTYL HEXYL |
| 2 | 15188 OCTANE, 2-BROMO- |
| 3 | 16571 HEXANE, 1-(HEXYLOXY)-5-METHYL- |
| 4 | 6650 1-PENTANOL, 4-METHYL-2-PROPYL- |
| 5 | 9069 1-HEPTANOL, 2-PROPYL- |

| Rank | Formula | M. Wt | B. Pk | Purity | Fit | RFit |
|------|-------------|-------|-------|--------|-----|------|
| 1 | C13. H28. O | 200 | 57 | 635 | 955 | 641 |
| 2 | C8. H17. BR | 192 | 57 | 775 | 955 | 791 |
| 3 | C13. H28. O | 200 | 57 | 619 | 938 | 638 |
| 4 | C9. H20. O | 144 | 57 | 780 | 930 | 783 |
| 5 | C10. H22. O | 158 | 43 | 755 | 920 | 773 |

MID LIBRARY SEARCH (LIBRARYNB)
09/29/94 17:46:00 + 24:18
SAMPLE: 4760-001-01 1645.1 09/21/94
CONDS.: EPA METHOD 8240
ENHANCED (S 15B 2N 0T)

DATA: C8694 # 965
CALI: C8694 # 3

BASE M/Z: 57
RIC: 5640.



C13.H28.0
1000

ETHER, HEPTYL HEXYL

M WT 200
B PK 57
RANK 1
16565
FIT 955



C8.H17.BR
1000

OCTANE, 2-BROMO-

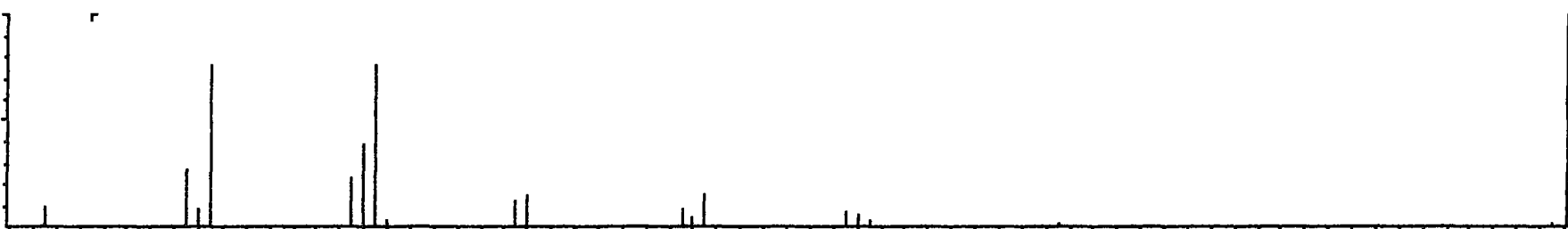
M WT 192
B PK 57
RANK 2
15188
FIT 955



C13.H28.0
1000

HEXANE, 1-(HEXYLOXY)-5-METHYL-

M WT 200
B PK 57
RANK 3
16571
FIT 938



57 M/Z
57

40

50

80

100

120

140

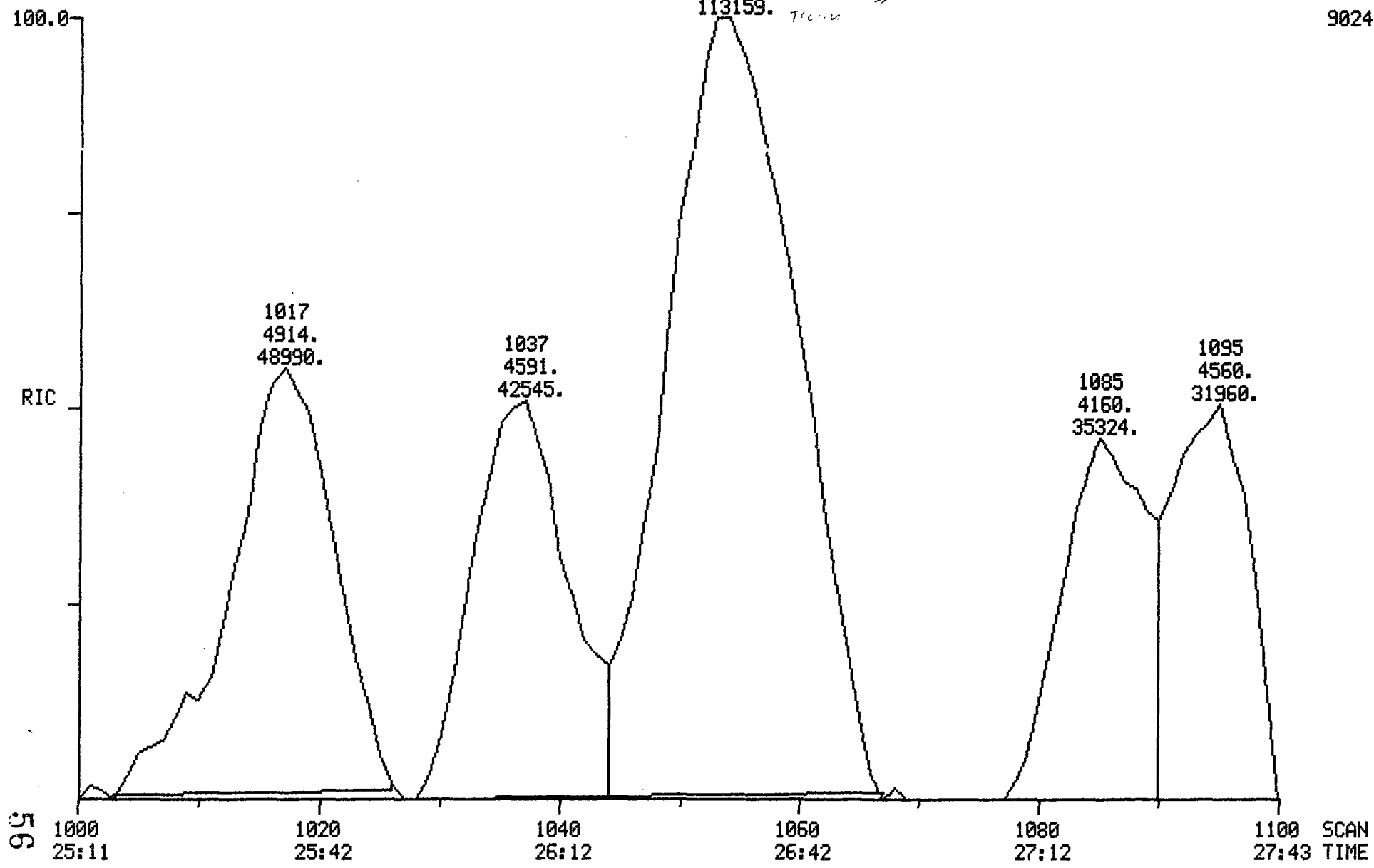
RIC
09/29/94 17:46:00
SAMPLE: 4760-001-01 1645.1 09/21/94
CONDS.: EPA METHOD 8240
RANGE: G 1.1600 LABEL: N 2, 4.0

DATA: C8694 #1228
CALI: C8694 #3

SCANS 1000 TO 1100

1054
8978. ✓
113159. *TIC*
78.41 *u/w*

9024.



Library Search Data: C8694 #1054 Base m/z: 57
09/29/94 17:46:00 + 26:33 Cali: C8694 # 3 RIC: 5120.
Sample: 4760-001-01 1645.1 09/21/94
Conds.: EPA METHOD 8240
Enhanced (S 15B 2N OT)

42223 spectra in LIBRARYNB searched for maximum FIT
279 matched at least 7 of the 16 largest peaks in the unknown

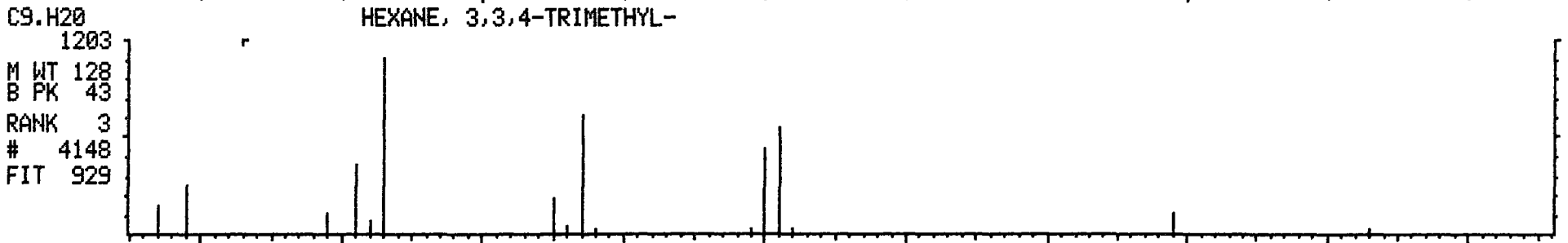
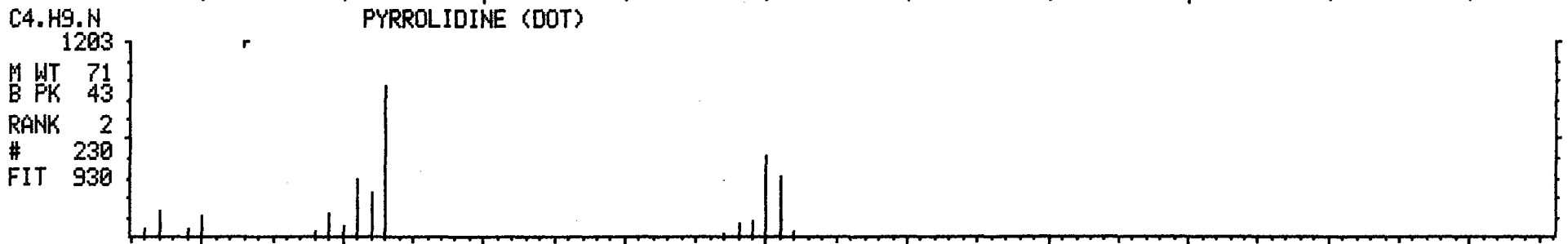
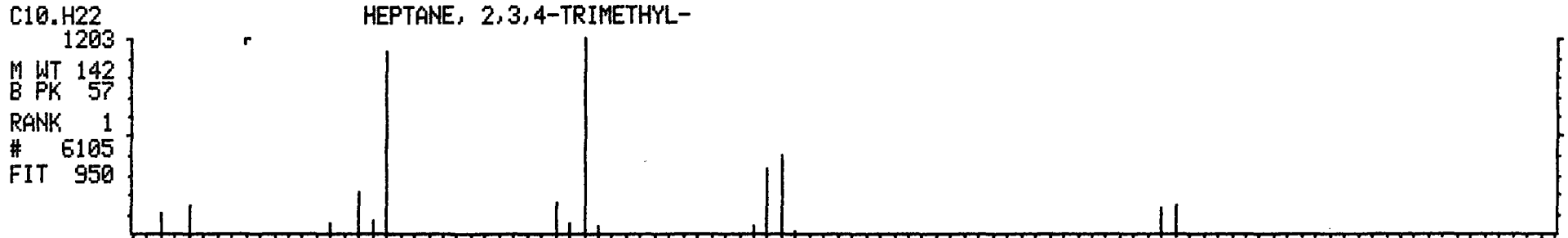
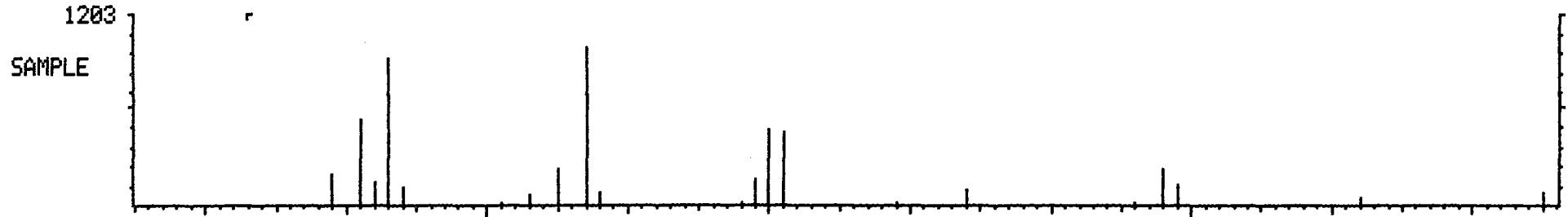
| Rank In. | Name |
|----------|------------------------------------|
| 1 | 6105 HEPTANE, 2,3,4-TRIMETHYL- |
| 2 | 230 PYRROLIDINE (DOT) |
| 3 | 4148 HEXANE, 3,3,4-TRIMETHYL- |
| 4 | 4142 PENTANE, 2,2,3,3-TETRAMETHYL- |
| 5 | 4147 HEXANE, 2,4,4-TRIMETHYL- |

| Rank | Formula | M. Wt | B. Pk | Purity | Fit | RFit |
|------|-----------|-------|-------|--------|-----|------|
| 1 | C10. H22 | 142 | 57 | 837 | 950 | 854 |
| 2 | C4. H9. N | 71 | 43 | 481 | 930 | 504 |
| 3 | C9. H20 | 128 | 43 | 749 | 929 | 777 |
| 4 | C9. H20 | 128 | 57 | 716 | 912 | 766 |
| 5 | C9. H20 | 128 | 43 | 764 | 907 | 788 |

MID LIBRARY SEARCH (LIBRARYNB)
09/29/94 17:46:00 + 26:33
SAMPLE: 4750-001-01 1645.1 09/21/94
CONDS.: EPA METHOD 8240
ENHANCED (S 15B 2N 0T)

DATA: C8694 #1054
CALI: C8694 # 3

BASE M/Z: 57
RIC: 5120.

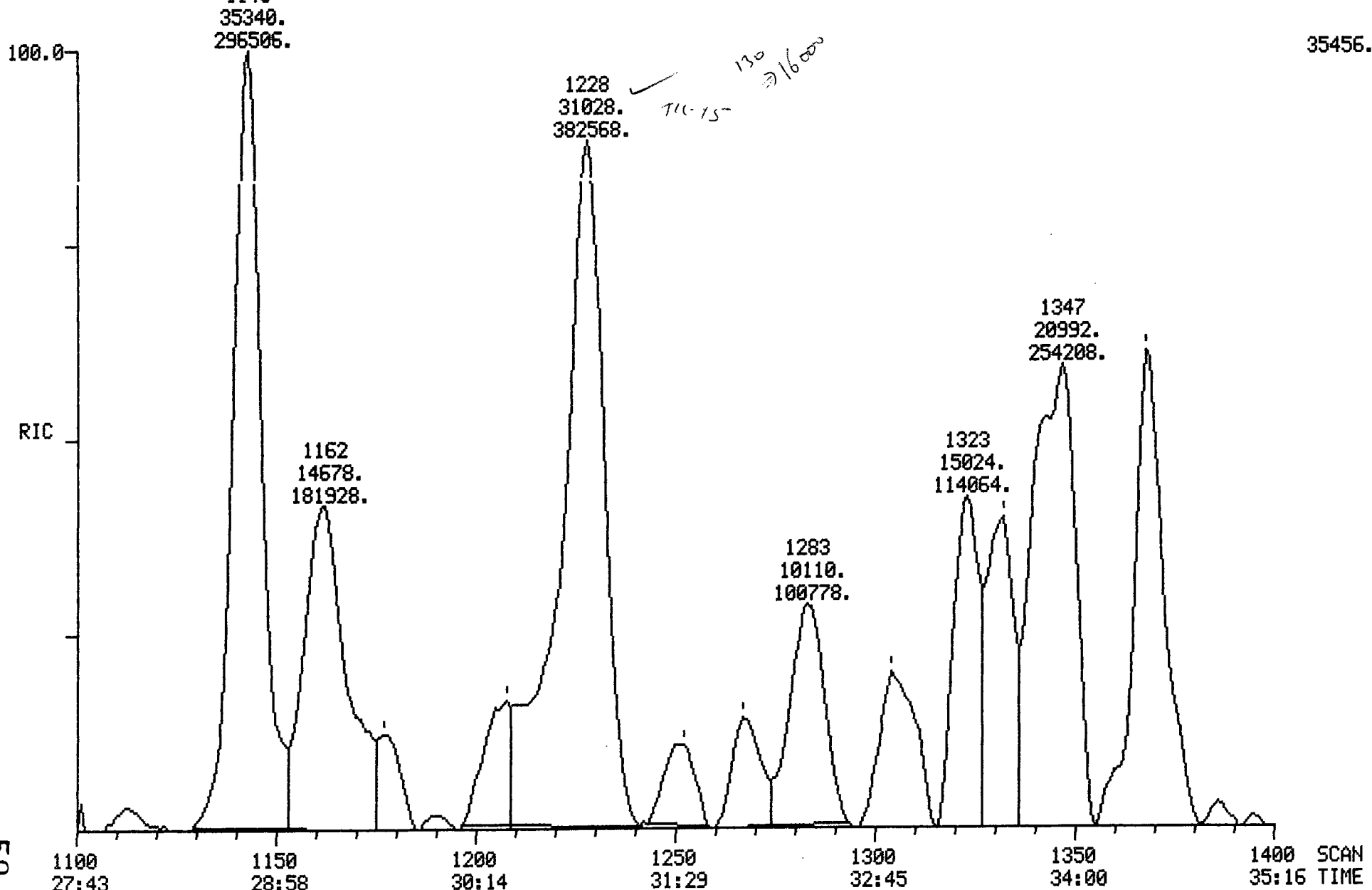


50 M/Z
30 40 50 60 70 80 90 100 110 120

RIC
09/29/94 17:46:00
SAMPLE: 4760-001-01 1645.1 09/21/94
CONDS.: EPA METHOD 8240
RANGE: G 1,1600 LABEL: N 2, 4.0 QUAN: A 2, 1.0 J 0 BASE: U 20, 3

DATA: C8694 #1347
CALI: C8694 #3

SCANS 1100 TO 1400



59

Library Search Data: C8694 #1228 Base m/z: 43
09/29/94 17:46:00 + 30:56 Cali: C8694 # 3 RIC: 21920.
Sample: 4760-001-01 1645.1 09/21/94
Conds.: EPA METHOD 8240
Enhanced (S 15B 2N OT)

42223 spectra in LIBRARYNB searched for maximum FIT
130 matched at least 8 of the 16 largest peaks in the unknown

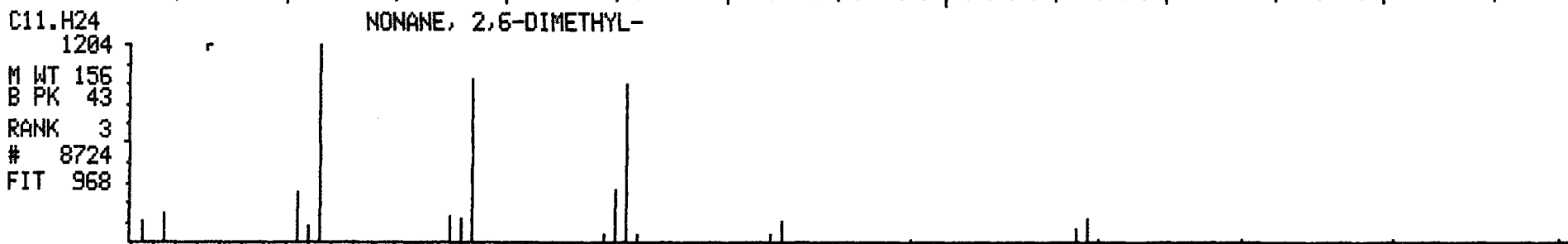
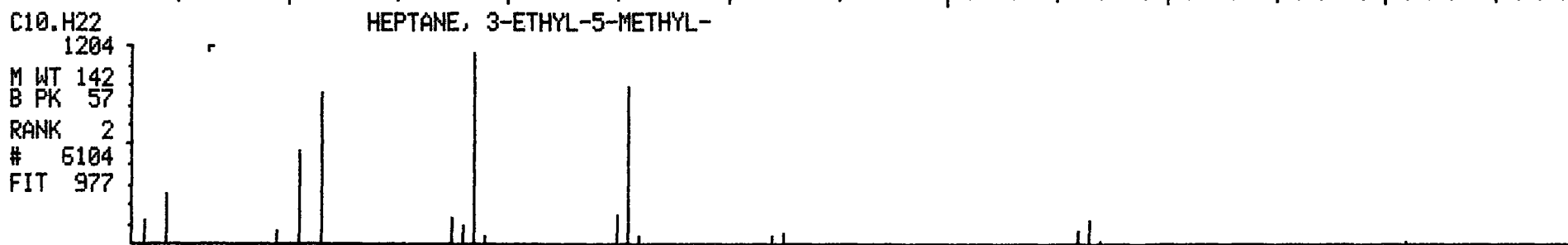
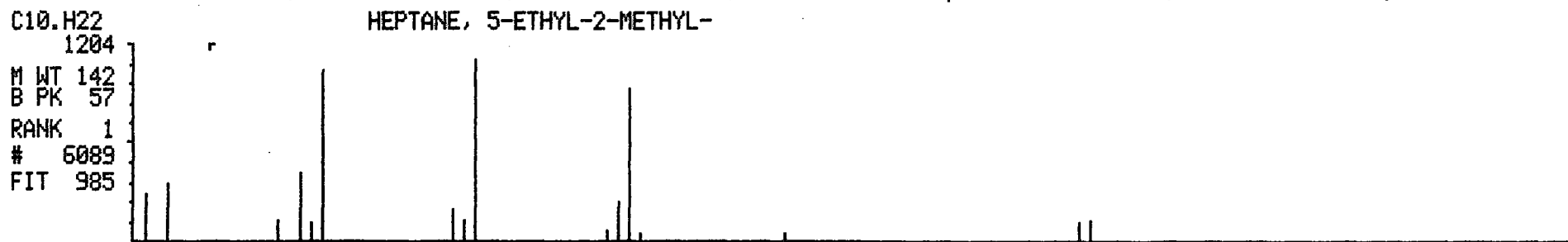
| Rank In. | Name |
|----------|---------------------------------|
| 1 | 6089 HEPTANE, 5-ETHYL-2-METHYL- |
| 2 | 6104 HEPTANE, 3-ETHYL-5-METHYL- |
| 3 | 8724 NONANE, 2,6-DIMETHYL- |
| 4 | 8732 OCTANE, 2,3,7-TRIMETHYL- |
| 5 | 6085 OCTANE, 3-ETHYL- |

| Rank | Formula | M. Wt | B. Pk | Purity | Fit | RFit |
|------|----------|-------|-------|--------|-----|------|
| 1 | C10. H22 | 142 | 57 | 874 | 985 | 874 |
| 2 | C10. H22 | 142 | 57 | 857 | 977 | 859 |
| 3 | C11. H24 | 156 | 43 | 892 | 968 | 898 |
| 4 | C11. H24 | 156 | 57 | 847 | 964 | 847 |
| 5 | C10. H22 | 142 | 57 | 820 | 962 | 834 |

MID LIBRARY SEARCH (LIBRARYNB)
09/29/94 17:46:00 + 30:56
SAMPLE: 4750-001-01 1645.1 09/21/94
CONDS.: EPA METHOD 8240
ENHANCED (S 15B 2N 0T)

DATA: C8694 #1228
CALI: C8694 # 3

BASE M/Z: 43
RIC: 21920.



1204

40

60

80

100

120

140

RIC
09/29/94 17:46:00
SAMPLE: 4760-001-01 1645.1 09/21/94
CONDS.: EPA METHOD 8240
RANGE: G 1.1600 LABEL: N 2, 4.0

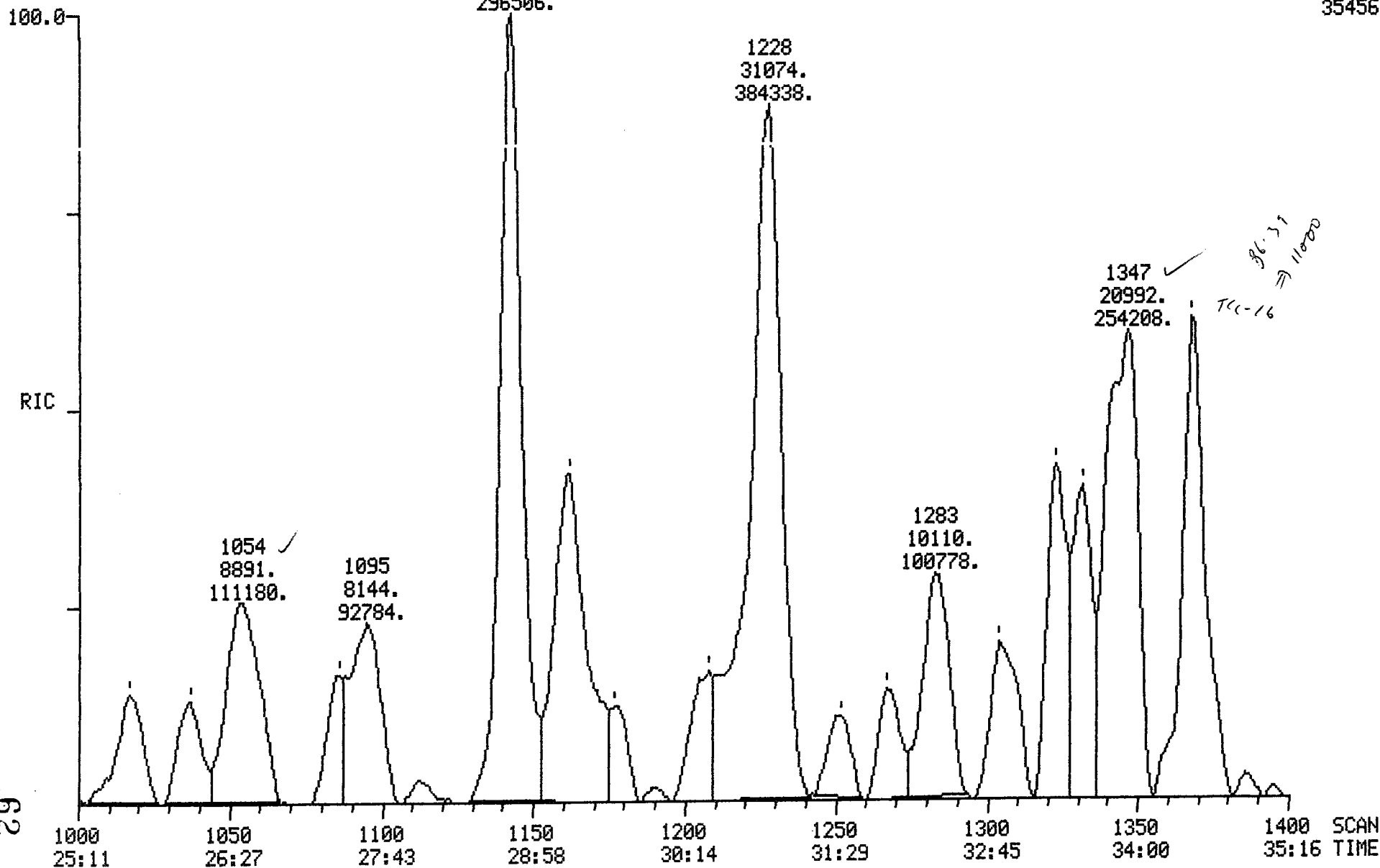
DATA: C8694 #1
CALI: C8694 #3

SCANS 1000 TO 1400

QUAN: A 2, 1.0 J 0 BASE: U 20, 3

1143
35340.
296506.

35456.



Library Search Data: C8694 #1347 Base m/z: 43
09/29/94 17:46:00 + 33:56 Cali: C8694 # 3 RIC: 17088.
Sample: 4760-001-01 1645.1 09/21/94
Conds.: EPA METHOD 8240
Enhanced (S 15B 2N OT)

42223 spectra in LIBRARYNB searched for maximum FIT
448 matched at least 7 of the 16 largest peaks in the unknown

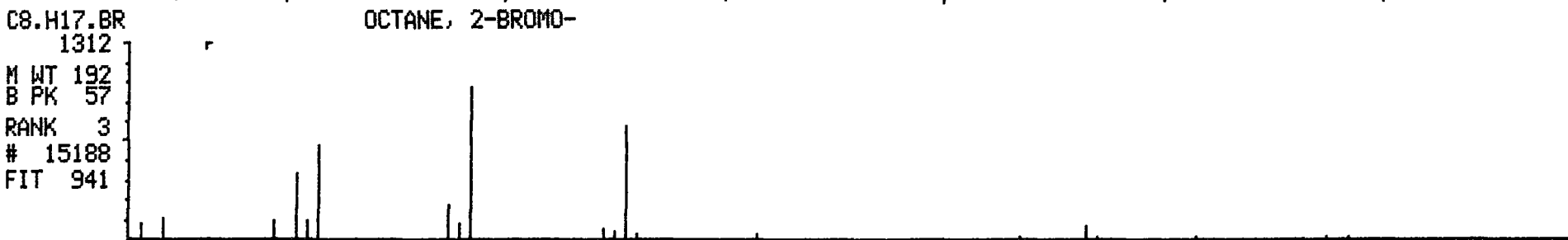
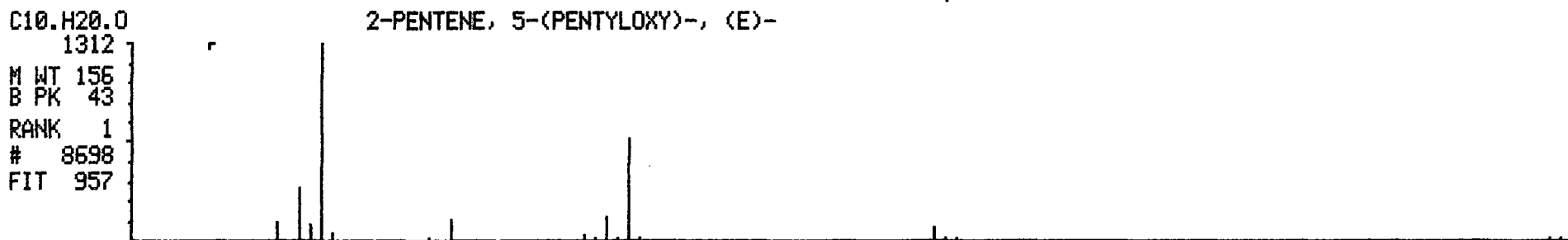
Rank In. Name
1 8698 2-PENTENE, 5-(PENTYLOXY)-, (E)-
2 8719 DECANE, 2-METHYL-
3 15188 OCTANE, 2-BROMO-
4 4128 HEPTANE, 2,6-DIMETHYL-
5 13877 UNDECANE, 2,10-DIMETHYL-

| Rank | Formula | M. Wt | B. Pk | Purity | Fit | RFit |
|------|-------------|-------|-------|--------|-----|------|
| 1 | C10. H20. O | 156 | 43 | 516 | 957 | 524 |
| 2 | C11. H24 | 156 | 43 | 788 | 954 | 819 |
| 3 | C8. H17. BR | 192 | 57 | 674 | 941 | 696 |
| 4 | C9. H20 | 128 | 43 | 727 | 935 | 757 |
| 5 | C13. H28 | 184 | 57 | 728 | 930 | 763 |

MID LIBRARY SEARCH (LIBRARYNB)
09/29/94 17:46:00 + 33:56
SAMPLE: 4760-001-01 1645.1 09/21/94
CONDS.: EPA METHOD 8240
ENHANCED (S 15B 2N 0T)

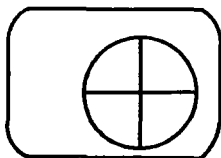
DATA: C8694 #1347
CALI: C8694 # 3

BASE M/Z: 43
RIC: 17088.



M/Z
A

40 50 60 70 80 90 100 110 120 130 140



Princeton Testing Laboratory Inc.

P.O. Box 3108
3490 U.S. Route 1
Princeton, NJ 08543-3108
(609) 452-9050
(FAX) (609) 452-1959

U.S. Army, Fort Monmouth N.J.
ATTN: SELFM-PW
Building 167
Fort Monmouth, New Jersey 07703-5108
Attention: Charles Appleby

Report Date: 11/01/94
Job Number: 9404760-001
Date Received: 09/23/94
Client Job No.: 1644/1645
Page: 1

Analysis: Volatile Organics, SW, SW-846 8240
Units: ug/kg

Parameters

Sample I.D.: 1644.1 Bldg 482
Site C-2 9/21/94
Sidewall SE

| | |
|----------------------------|------|
| Chloromethane | <600 |
| Bromomethane | <600 |
| Vinyl chloride | <600 |
| Chloroethane | <600 |
| Methylene chloride | 470 |
| Acetone | <300 |
| Carbon disulfide | <300 |
| 1,1-Dichloroethene | <300 |
| 1,1-Dichloroethane | <300 |
| 1,2-Dichloroethene (Total) | <300 |
| Chloroform | <300 |
| 1,2-Dichloroethane | <300 |
| 2-Butanone | 1200 |
| 1,1,1-Trichloroethane | <300 |
| Carbon tetrachloride | <300 |
| Bromodichloromethane | <300 |
| 1,1,2,2-Tetrachloroethane | <300 |
| 1,2-Dichloropropane | <300 |
| trans-1,3-Dichloropropene | <300 |
| Trichloroethene | <300 |
| Dibromochloromethane | <300 |
| 1,1,2-Trichloroethane | <300 |
| Benzene | <300 |
| cis-1,3-Dichloropropene | <300 |
| Bromoform | <300 |
| 2-Hexanone | <300 |
| 4-Methyl-2-Pentanone | <300 |
| Tetrachloroethene | <300 |
| Toluene | <300 |
| Chlorobenzene | <300 |
| Ethylbenzene | <300 |
| Styrene | <300 |
| Total Xylenes | <300 |

RECOVERY DATA

QC LIMITS

| | | |
|-----------------------------------|---------|-----|
| 1,2-Dichloroethane-d4 (Surrogate) | 70-121% | 106 |
| Toluene-d8 (Surrogate) | 84-138% | 90 |
| 4-Bromofluorobenzene (Surrogate) | 59-113% | 92 |

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

| |
|--------------------------------------|
| KPA SAMPLE NO. 1644.1 9/21 |
|--------------------------------------|

Lab Name: Princeton Testing Lab US ARMY, FORT MONMOUTH

Lab Code: PTL Case No.: 4760-001 SAS No.: XXX SDG No.: XXX

Matrix: (Soil/Water) Soil Lab Sample ID: 02

Sample wt/vol: 5 (g/mL) g Lab File ID: C8696

Level: (low/med) med Date Received: 09/23/94

%Moisture: not dec. 16 Date Analyzed: 09/29/94

GC Column: VOCOL ID: 0.53 mm Dilution Factor: 50

Soil Extract Vol: ul Soil Aliquot Vol: ul

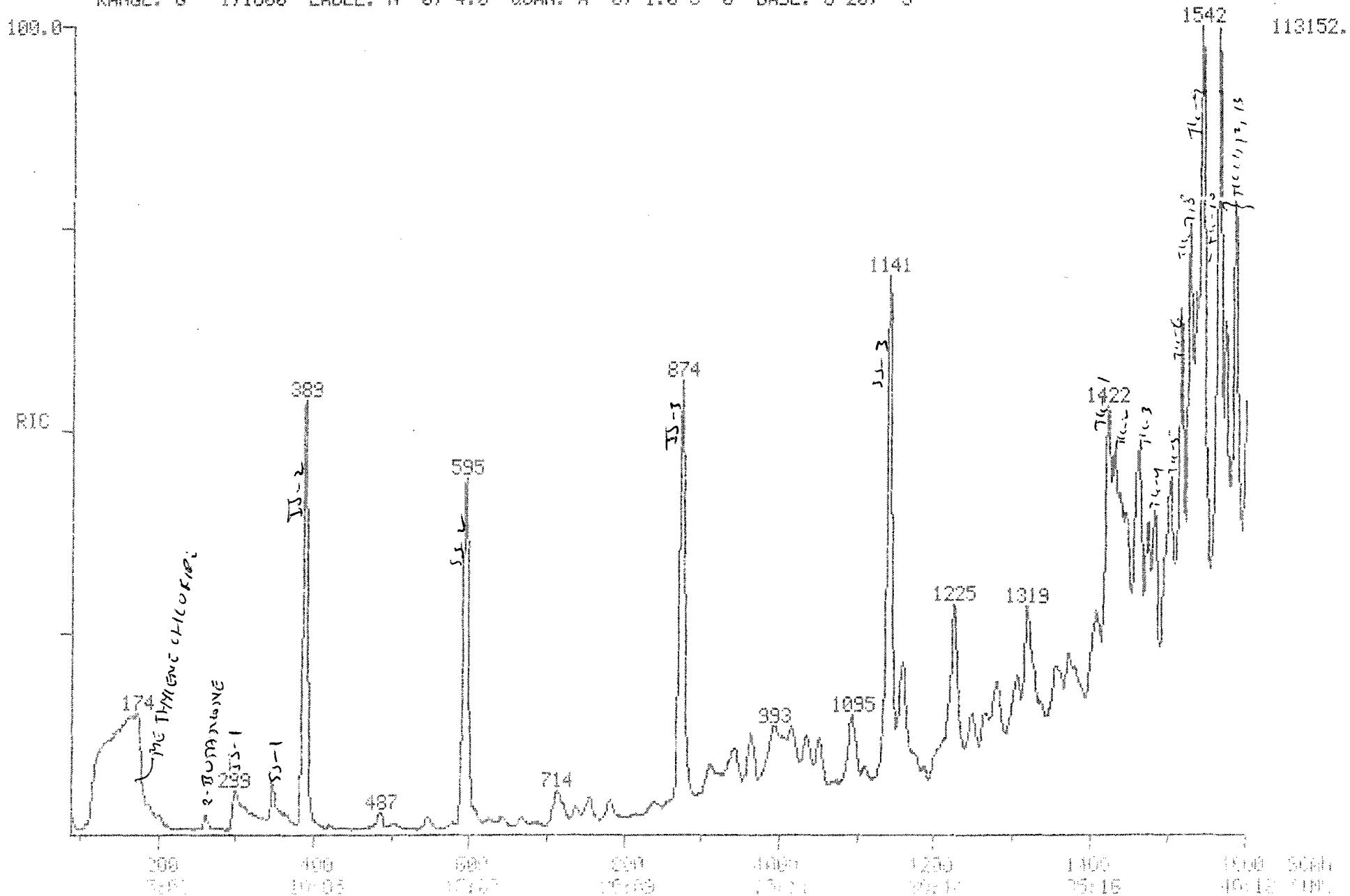
Number TICs found: 15 CONCENTRATION UNITS:
 (ug/L or ug/Kg) ug/Kg

| #S | CAS NUMB | COMPOUND NAME | RT | EST. CONC. | SCAN |
|----|-----------|------------------------------|-------|------------|------|
| 1 | 493-01-6 | UNKNOWN_HYDROCARBON | 35:49 | 1900 | 1422 |
| 2 | 29053-041 | UNKNOWN_HYDROCARBON | 36:01 | 2800 | 1430 |
| 3 | 17312-811 | UNDECANE, 3,5-DIMETHYL- | 36:45 | 1400 | 1459 |
| 4 | 2980-70-3 | UNKNOWN_HYDROCARBON | 36:51 | 990 | 1463 |
| 5 | 98-06-6 | BENZENE, (1,1-DIMETHYLETHYL | 37:49 | 1100 | 1501 |
| 6 | 1758-88-9 | UNKNOWN_HYDROCARBON | 38:11 | 1300 | 1516 |
| 7 | 2958-76-1 | NAPHTHALENE, DECAHYDRO-2ME | 38:26 | 2300 | 1526 |
| 8 | 0-00-0 | UNKNOWN | 38:38 | 1800 | 1534 |
| 9 | 0-00-0 | UNKNOWN | 38:51 | 2200 | 1542 |
| 10 | 2958-76-1 | NAPHTHALENE, DECAHYDRO-2ME | 39:24 | 2800 | 1564 |
| 11 | 25155-151 | BENZENE, METHYL(1-METHYLETH | 39:37 | 1100 | 1573 |
| 12 | 527-53-7 | BENZENE, 1,2,3,5-TETRAMETHYL | 39:56 | 1700 | 1585 |
| 13 | 0-00-0 | UNKNOWN | 39:59 | -750 | 1587 |
| 14 | 0-00-0 | UNKNOWN_HYDROCARBON | 30:51 | 2100 | 1225 |
| 15 | 0-00-0 | UNKNOWN_HYDROCARBON | 33:14 | 1900 | 1319 |

RIC
09/29/94 19:28:00
SAMPLE: 4750-001-02 1644.1 09/21/94
CONDS.: EPA METHOD 8240
RANGE: G 1,1600 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

DATA: C8696 #1
CALI: C8696 #3

SCANS 88 TO 1600



79

Quantitation Report File: C8696

Date: C8696.TI

07/29/94 19:28:00

Sample: 4760-001-02 1644.1 09/21/94

Cond.: EPA METHOD 8240

Formula: X50DIL

Instrument: FINN

Weight: 0.000

Submitted by: USARMY

Analyst: UC

Acct. No.: 4760-001

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)

Resp. fac. from Library Entry

| No | Name |
|----|--|
| 1 | CI01 BROMOCHLOROMETHANE **INT. STD.** |
| 2 | CI10 1,4-DIFLUOROBENZENE **INT. STD.** |
| 3 | CI20 CHLOROBENZENE-D5 **INT. STD.** |
| 4 | CS15 1,2-DICHLOROETHANE-D4 **S. STD.** |
| 5 | CS05 TOLUENE-DB **S. STD.** |
| 6 | CS10 4-BROMOFLUOROBENZENE **S. STD.** |
| 7 | CO10 CHLOROMETHANE ** |
| 8 | CO15 BROMOMETHANE |
| 9 | CO20 VINYL CHLORIDE * |
| 10 | CO25 CHLOROETHANE |
| 11 | CO30 METHYLENE CHLORIDE |
| 12 | C251 ACROLIN |
| 13 | CO35 ACETONE |
| 14 | C252 ACRYLONITRILE |
| 15 | CO40 CARBON DISULFIDE |
| 16 | CO45 1,1-DICHLOROETHENE * |
| 17 | CO50 1,1-DICHLOROETHANE ** |
| 18 | CO55 TRANS-1,2-DICHLOROETHENE |
| 19 | CO00 TRICHLOROFLUOROMETHANE |
| 20 | CO60 CHLOROFORM * |
| 21 | CO65 1,2-DICHLOROETHANE |
| 22 | C110 2-BUTANONE |
| 23 | C115 1,1,1-TRICHLOROETHANE |
| 24 | C120 CARBON TETRACHLORIDE |
| 25 | C125 VINYL ACETATE |
| 26 | C130 BROMO DICHLOROMETHANE |
| 27 | C140 1,2-DICHLOROPROPANE * |
| 28 | C145 TRANS-1,3 DICHLOROPROPENE |
| 29 | C150 TRICHLOROETHENE |
| 30 | C155 DIBROMOCHLOROMETHANE |
| 31 | C160 1,1,2-TRICHLOROETHANE |
| 32 | C165 BENZENE |
| 33 | C143 CIS-1,3-DICHLOROPROPENE |
| 34 | C175 2-CHLOROETHYL VINYL ETHER |
| 35 | C180 BROMOFORM ** |
| 36 | C220 TETRACHLOROETHENE |
| 37 | C210 2-HEXANONE |
| 38 | C205 4-METHYL 2-PENTANONE |
| 39 | C225 1,1,2,2-TETRACHLOROETHANE ** |
| 40 | C230 TOLUENE * |
| 41 | C235 CHLOROBENZENE ** |
| 42 | C240 ETHYL BENZENE * |
| 43 | C245 STYRENE |
| 44 | C250 M+P-XYLENES |
| 45 | C253 1,3-DICHLOROBENZENE |
| 46 | C254 1,4-DICHLOROBENZENE |
| 47 | C255 1,2-DICHLOROBENZENE |

69696

No Name
15 C250 D-XYLENE
16 BENZENE-D6 **S. STD. **

| No | m/z | Scan | Time | Ref | RRT | Meth | Area(Hght) | Amount | %Tot |
|----|-----|-----------|-------|-----|-------|------|------------|---------------------|-------|
| 1 | 49 | 299 | 7:32 | 1 | 1.000 | A BB | 8235. | 50.000 NG | 15.51 |
| 2 | 114 | 389 | 9:48 | 2 | 1.000 | A BB | 144726. | 50.000 NG | 15.51 |
| 3 | 117 | 873 | 21:59 | 3 | 1.000 | A BB | 114280. | 50.000 NG | 15.51 |
| 4 | 65 | 347 | 8:44 | 1 | 1.161 | M XX | 14700. | 52.773 NG | 16.37 |
| 5 | 98 | 595 | 14:59 | 3 | 0.682 | A BB | 138340. | 45.169 NG | 14.01 |
| 6 | 95 | 1141 | 28:45 | 3 | 1.307 | A BB | 101483. | 45.857 NG | 14.23 |
| 7 | | NOT FOUND | | | | | | | |
| 8 | | NOT FOUND | | | | | | | |
| 9 | | NOT FOUND | | | | | | | |
| 10 | | NOT FOUND | | | | | | | |
| 11 | 49 | 189 | 4:46 | 1 | 0.632 | A BB | 3159. | 7.854 NG | 2.44 |
| 12 | | NOT FOUND | | | | | | | |
| 13 | | NOT FOUND | | | | | | | |
| 14 | | NOT FOUND | | | | | | | |
| 15 | | NOT FOUND | | | | | | | |
| 16 | | NOT FOUND | | | | | | | |
| 17 | | NOT FOUND | | | | | | | |
| 18 | | NOT FOUND | | | | | | | |
| 19 | | NOT FOUND | | | | | | | |
| 20 | | NOT FOUND | | | | | | | |
| 21 | | NOT FOUND | | | | | | | |
| 22 | 43 | 261 | 6:34 | 2 | 0.671 | A BB | 3965. | 20.258 NG | 6.28 |
| 23 | | NOT FOUND | | | | | | | |
| 24 | | NOT FOUND | | | | | | | |
| 25 | | NOT FOUND | | | | | | | |
| 26 | | NOT FOUND | | | | | | | |
| 27 | | NOT FOUND | | | | | | | |
| 28 | | NOT FOUND | | | | | | | |
| 29 | | NOT FOUND | | | | | | | |
| 30 | | NOT FOUND | | | | | | | |
| 31 | | NOT FOUND | | | | | | | |
| 32 | | NOT FOUND | | | | | | | |
| 33 | | NOT FOUND | | | | | | | |
| 34 | | NOT FOUND | | | | | | | |
| 35 | | NOT FOUND | | | | | | | |
| 36 | | NOT FOUND | | | | | | | |
| 37 | | NOT FOUND | | | | | | | |
| 38 | | NOT FOUND | | | | | | | |
| 39 | | NOT FOUND | | | | | | | |
| 40 | 91 | 607 | 15:17 | 3 | 0.695 | A BB | 1971. | 0.557 NG | 0.17 |
| 41 | | NOT FOUND | | | | | | | |
| 42 | 106 | 914 | 23:01 | 3 | 1.047 | A BB | 34. | 0.035 NG | 0.01 |
| 43 | | NOT FOUND | | | | | | | |
| 44 | | NOT FOUND | | | | | | | |
| 45 | | NOT FOUND | | | | | | | |
| 46 | | NOT FOUND | | | | | | | |
| 47 | | NOT FOUND | | | | | | | |
| 48 | | NOT FOUND | | | | | | | |
| 49 | | NOT FOUND | | | | | | | |

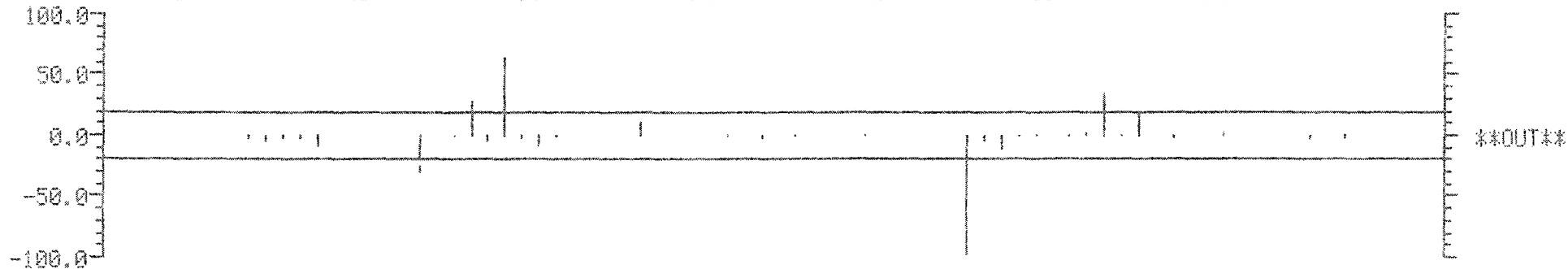
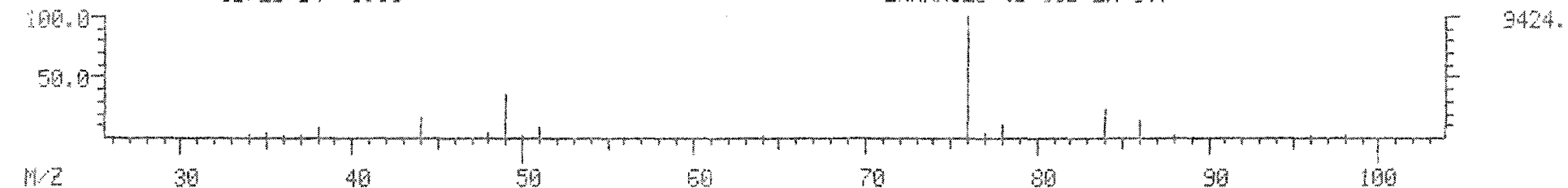
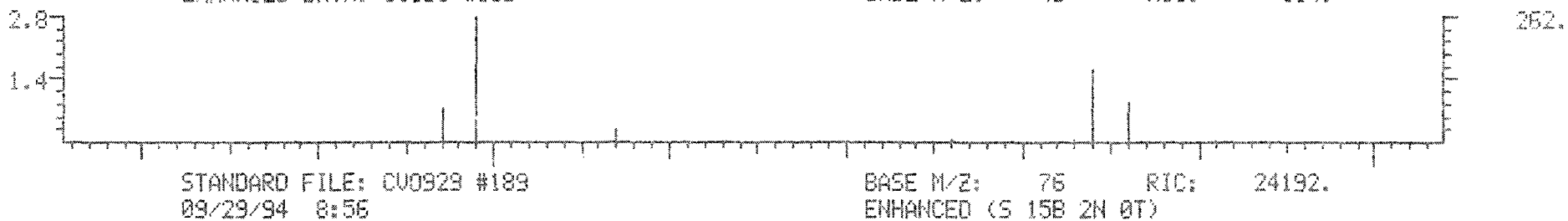
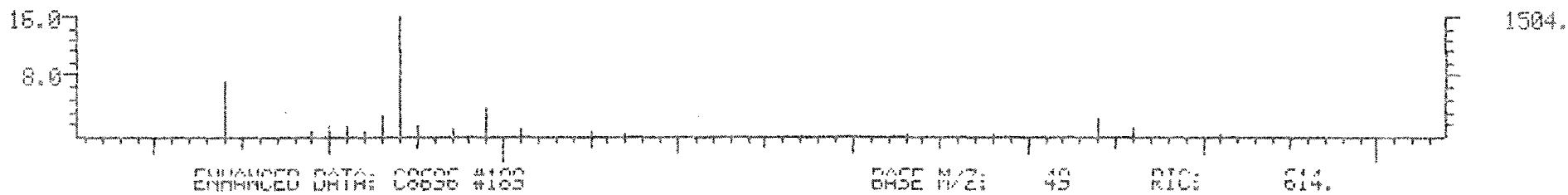
106
90
92

DATA FILE: C8696 #189
TARGET COMPOUND COMPARISON
COMPOUND: C030 METHYLENE CHLORIDE

STANDARD FILE: CV0923 #189
CALI: C8696 #3

RAW DATA: C8696 #189
09/29/94 19:28

BASE M/Z: 44 RIC: 4044.

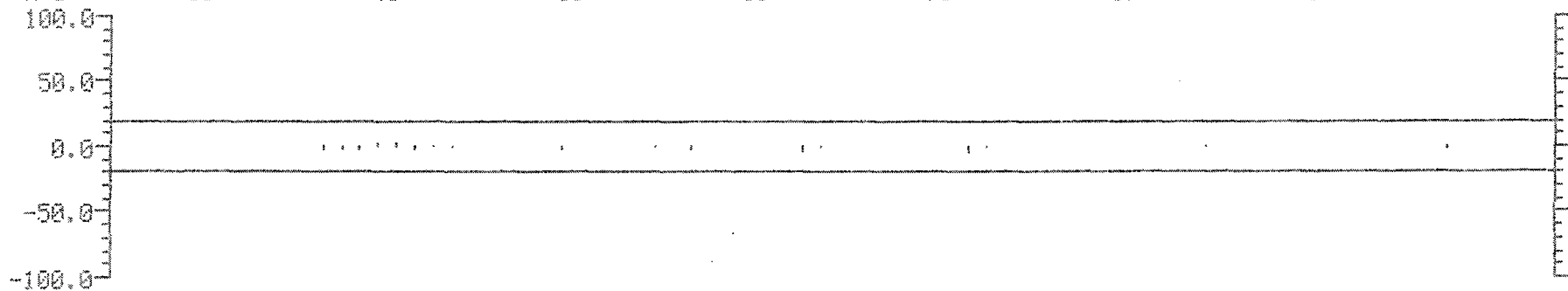
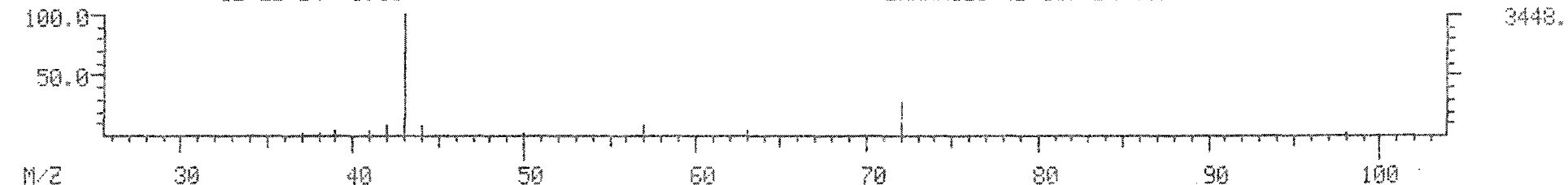
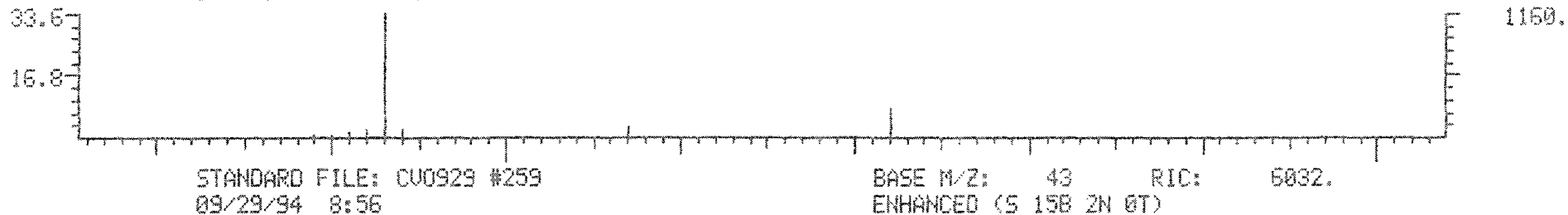
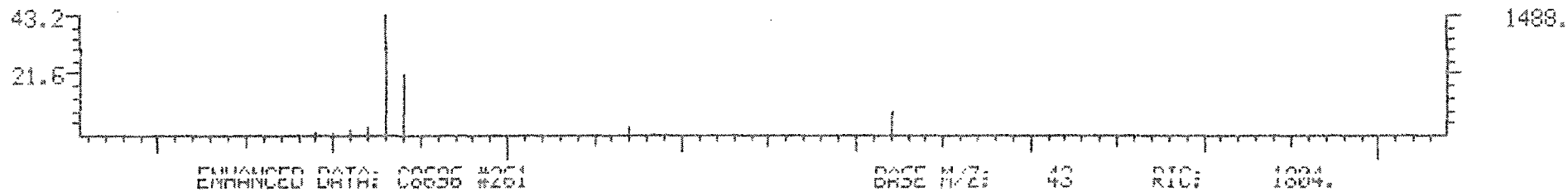


DATA FILE: C8696 #261
TARGET COMPOUND COMPARISON
COMPOUND: C110 2-BUTANONE

STANDARD FILE: CV0929 #259
CALI: C8696 #3

RAW DATA: C8696 #261
09/29/94 19:28

BASE M/Z: 43 RIC: 2796.



PROCEDURE: FILTER/TIC

DIAGNOSTIC REPORT

9/29/94 20:36:22

DATA FILE: CB696

FILTER SCAN PARAMETERS

METHOD LIBRARY & LISTS

NUMBER TICS: 15
 TABLE ENTRIES: 539
 CLEAN TOLERANCE : 2
 MIN RIC HT. [%]: 10
 FIRST SCAN : 1
 LAST SCAN : 1600
 TIC THRESHOLD : 600

TIC I.S. LIBRARY: LIBRARYLS
 NBS SEARCH PROC : SERLIB
 PEAK FINDER PROC: VOME
 TCA I.S. LL : LS
 FILE NAME LIST : TCAREF2

TARGET COMPOUND ANALYSIS:

| TARGETS (QUAN LIST) | IS PEAKS | TOTAL TARGET PEAKS |
|------------------------|-------------|-----------------------|
| 7 | 3 | 10 |

FILTER PROCESSING:

←-----REJECT PEAKS----->

| TOTAL PEAKS | < 1ST SCAN | > LAST SCAN | < MIN RIC HT | < SCAN TOL | > MAX # PEAKS | TOTAL REJECTS | TOTAL TICS |
|----------------|---------------|----------------|-----------------|---------------|------------------|------------------|---------------|
| 31 | 0 | 0 | 1 | 6 | 9 | 16 | 15 |

TIC PROCESSING:

| ID | SCAN# | PURITY | FIT | MW | COMPOUND NAME [BEFORE TIC THRESHOLD] |
|----|-------|--------|-----|-----|--------------------------------------|
| 1 | 83 | 408 | 426 | 85 | ACETIC ACID, CYANO- |
| 2 | 1422 | 834 | 965 | 138 | NAPHTHALENE, DECAHYDRO-, CIS- |
| 3 | 1431 | 639 | 861 | 140 | CYCLOPENTANE, 1-METHYL-3-(2-ME |
| 4 | 1459 | 761 | 906 | 184 | UNDECANE, 3,5-DIMETHYL- |
| 5 | 1463 | 683 | 854 | 194 | CYCLOPENTANE, 1,1'-(1,4-BUTAND |
| 6 | 1501 | 777 | 952 | 134 | BENZENE, (1,1-DIMETHYLETHYL)- |
| 7 | 1516 | 753 | 969 | 134 | BENZENE, 2-ETHYL-1,4-DIMETHYL- |
| 8 | 1526 | 786 | 989 | 152 | NAPHTHALENE, DECAHYDRO-2-METHY |
| 9 | 1534 | 487 | 698 | 247 | AZIRIDINONE, 1-(1,1-DIMETHYLET |
| 10 | 1542 | 449 | 878 | 238 | CYCLOHEXANE, UNDECYL- |
| 11 | 1562 | 624 | 992 | 152 | NAPHTHALENE, DECAHYDRO-2-METHY |
| 12 | 1564 | 651 | 986 | 152 | NAPHTHALENE, DECAHYDRO-2-METHY |
| 13 | 1573 | 715 | 917 | 134 | BENZENE, METHYL(1-METHYLETHYL) |
| 14 | 1585 | 741 | 979 | 134 | BENZENE, 1,2,3,5-TETRAMETHYL- |
| 15 | 1587 | 500 | 909 | 184 | UNDECANE, 4,8-DIMETHYL- |

Date: C8696.TI
 09/29/94 19:28:00
 Sample: 4760-001-02 1644.1 09/21/94

Cond.: EPA METHOD 8240

Formula: X50DIL Instrument: FINN Weight: 0.000
 Submitted by: USARMY Analyst: UC Acct. No.: 4760-001

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

| No | CAS # | Name |
|----|----------------------|--|
| 1 | 0-00-0 | CI01 BROMOCHLORDMETHANE **INT. STD. ** |
| 2 | 0-00-0 | CI10 1,4-DIFLUOROBENZENE **INT. STD. ** |
| 3 | 0-00-0 | CI20 CHLOROBENZENE-D5 **INT. STD. ** |
| 4 | 0-00-0 | UNKNOWN |
| 5 | 493-01-6 | 1 NAPHTHALENE, DECAHYDRO-, CIS- |
| 6 | 29053-04-1 | 2 CYCLOPENTANE, 1-METHYL-3-(2-METHYLPROPYL)- |
| 7 | 17312-81-1 | 3 UNDECANE, 3,5-DIMETHYL- |
| 8 | 2980-70-3 | 4 CYCLOPENTANE, 1,1'-(1,4-BUTANDIYL)BIS- |
| 9 | 98-06-6 | 5 BENZENE, (1,1-DIMETHYLETHYL)- |
| 10 | 1758-88-9 | 6 BENZENE, 2-ETHYL-1,4-DIMETHYL- |
| 11 | 2958-76-1 | 7 NAPHTHALENE, DECAHYDRO-2-METHYL- |
| 12 | 0-00-0 | 8 UNKNOWN |
| 13 | 0-00-0 | 9 UNKNOWN |
| 14 | 2958-76-1 | 10 NAPHTHALENE, DECAHYDRO-2-METHYL- |
| 15 | 2958-76-1 | NAPHTHALENE, DECAHYDRO-2-METHYL- |
| 16 | 25155-15-1 | 11 BENZENE, METHYL(1-METHYLETHYL)- |
| 17 | 527-53-7 | 12 BENZENE, 1,2,3,5-TETRAMETHYL- |
| 18 | 0-00-0 | 13 UNKNOWN |

| No | m/z | Scan | Time | Ref | RRT | Meth | Area(Hght) | Amount | %Tot |
|----|----------------|-----------------|------------------|--------------|------------------|-----------------|--------------------|--------------------------|-----------------|
| 1 | TOT | 299 | 7:32 | 0 | ISINV | A BB | 51988. | ***** UG/L | 00.00 |
| 2 | TOT | 389 | 9:48 | 0 | ISINV | A BB | 319250. | ***** UG/L | 00.00 |
| 3 | TOT | 873 | 21:59 | 0 | ISINV | A BB | 299992. | ***** UG/L | 00.00 |
| 4 | TOT | 83 | 2:05 | 1 | 0.278 | A BB | 621550. | 597.787 | 58.89 |
| 5 | TOT | 1422 | 35:49 | 3 | 1.629 | A BV | 189679. | 31.6141 ¹⁹⁰⁰ | 3.11 |
| 6 | TOT | 1430 | 36:01 | 3 | 1.638 | A VB | 282162. | 47.028 ²²⁸⁰⁰ | 4.63 |
| 7 | TOT | 1459 | 36:45 | 3 | 1.671 | A BV | 137024. | 22.838 ¹⁴⁰⁰⁰ | 2.25 |
| 8 | TOT | 1463 | 36:51 | 3 | 1.676 | A BV | 99619. | 16.604 ⁹⁹⁰ | 1.64 |
| 9 | TOT | 1501 | 37:49 | 3 | 1.719 | A BB | 109252. | 18.209 ¹¹⁰⁰⁰ | 1.79 |
| 10 | TOT | 1516 | 38:11 | 3 | 1.737 | A BB | 125960. | 20.994 ¹³⁰⁰⁰ | 2.07 |
| 11 | TOT | 1526 | 38:26 | 3 | 1.748 | A BV | 230368. | 38.396 ⁷²³⁰⁰ | 3.78 |
| 12 | TOT | 1534 | 38:38 | 3 | 1.757 | A BV | 178871. | 29.813 ⁸¹⁸⁰⁰ | 2.94 |
| 13 | TOT | 1542 | 38:51 | 3 | 1.766 | A VB | 219472. | 36.580 ⁴²²⁰⁰ | 3.60 |
| 14 | TOT | 1564 | 39:24 | 3 | 1.792 | A BV | 284616. | 47.437 ¹⁰²⁸⁰⁰ | 4.67 |
| 15 | TOT | 1564 | 39:24 | 3 | 1.792 | A BV | 284616. | 47.437 | 4.67 |
| 16 | TOT | 1573 | 39:37 | 3 | 1.802 | A VV | 115508. | 19.252 ¹¹⁰⁰⁰ | 1.90 |
| 17 | TOT | 1585 | 39:56 | 3 | 1.816 | A VB | 171501. | 28.584 ¹⁰¹⁷⁰⁰ | 2.82 |
| 18 | TOT | 1587 | 39:59 | 3 | 1.818 | A BB | 75168. | 12.528 ¹³⁷⁵⁰ | 1.23 |

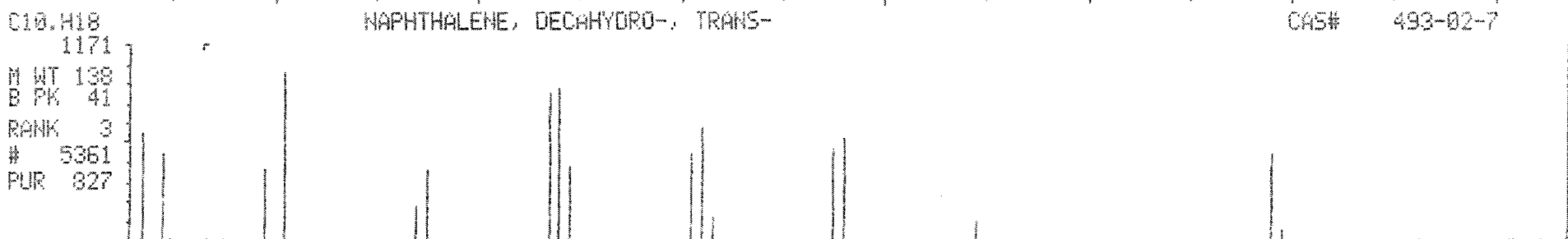
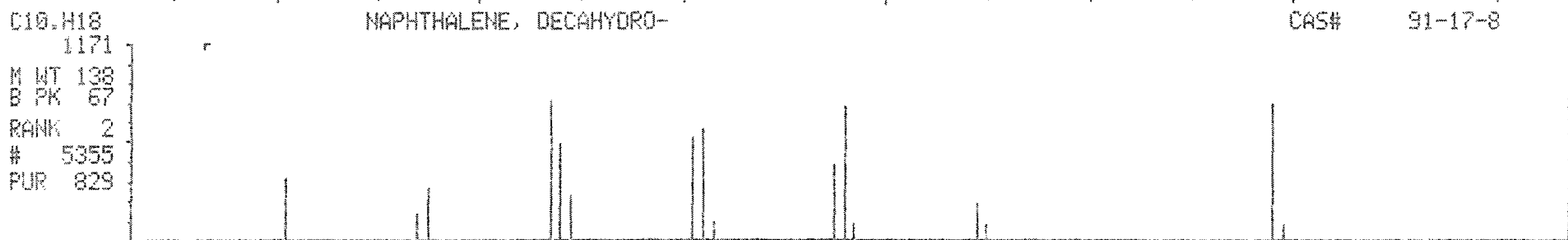
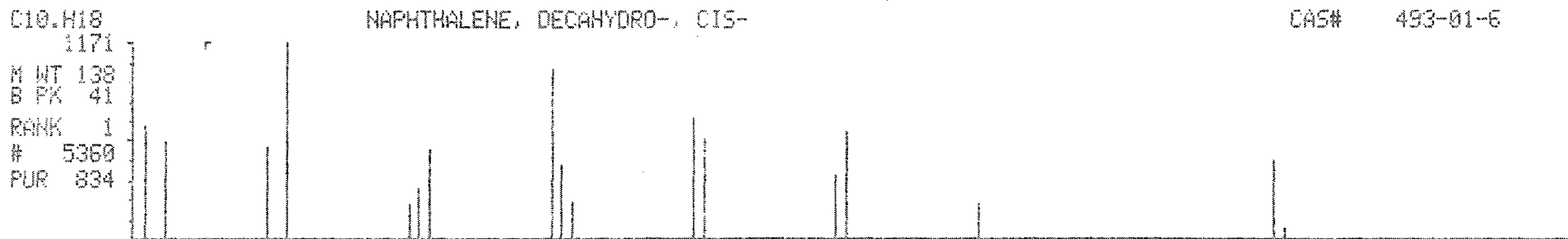
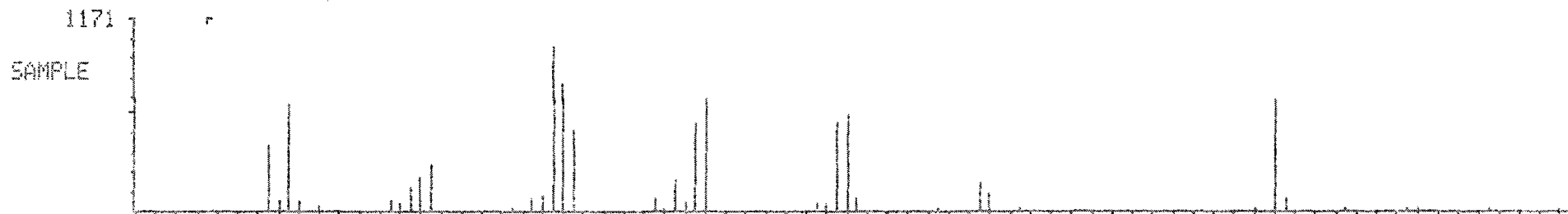
| No | Ret(L) | Ratio | RRT(L) | Ratio | Amnt | Amnt(L) | R. Fac | R. Fac(L) | Ratio |
|----|--------|-------|--------|-------|------|---------|--------|-----------|-------|
| 1 | 9:13 | 0.82 | 1.000 | | | | | | |
| 2 | 19:21 | 0.51 | 1.000 | | | | | | |
| 3 | 23:54 | 0.92 | 1.000 | | | | | | |

| No | Ret(L) | Ratio | RRT(L) | Ratio | Amnt | Amnt(L) | R. Fac | R. Fac(L) | Ratio |
|----|--------|-------|--------|-------|--------|---------|---------|-----------|--------|
| 4 | | | | | 597.79 | 1.00 | 597.787 | 1.000 | 597.79 |
| 5 | | | | | 31.61 | 1.00 | 31.614 | 1.000 | 31.61 |
| 6 | | | | | 47.03 | 1.00 | 47.028 | 1.000 | 47.03 |
| 7 | | | | | 22.84 | 1.00 | 22.838 | 1.000 | 22.84 |
| 8 | | | | | 16.60 | 1.00 | 16.604 | 1.000 | 16.60 |
| 9 | | | | | 18.21 | 1.00 | 18.209 | 1.000 | 18.21 |
| 10 | | | | | 20.99 | 1.00 | 20.994 | 1.000 | 20.99 |
| 11 | | | | | 38.40 | 1.00 | 38.396 | 1.000 | 38.40 |
| 12 | | | | | 29.81 | 1.00 | 29.813 | 1.000 | 29.81 |
| 13 | | | | | 36.58 | 1.00 | 36.580 | 1.000 | 36.58 |
| 14 | | | | | 47.44 | 1.00 | 47.437 | 1.000 | 47.44 |
| 15 | | | | | 47.44 | 1.00 | 47.437 | 1.000 | 47.44 |
| 16 | | | | | 19.25 | 1.00 | 19.252 | 1.000 | 19.25 |
| 17 | | | | | 28.58 | 1.00 | 28.584 | 1.000 | 28.58 |
| 18 | | | | | 12.53 | 1.00 | 12.528 | 1.000 | 12.53 |

MID LIBRARY SEARCH (LIBRARYNB)
09/29/94 19:28:00 + 35:49
SAMPLE: 4760-001-02 1644.1 09/21/94
CONDOS.: EPA METHOD 8240
ENHANCED (S 15B 2N 0T)

DATA: 08696 #1422
CALI: 08696 # 3

BASE M/Z: 67
RIC: 22016.

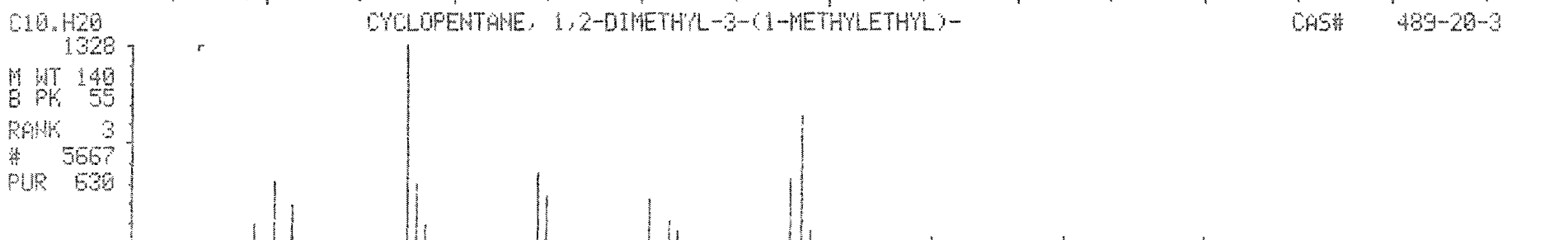
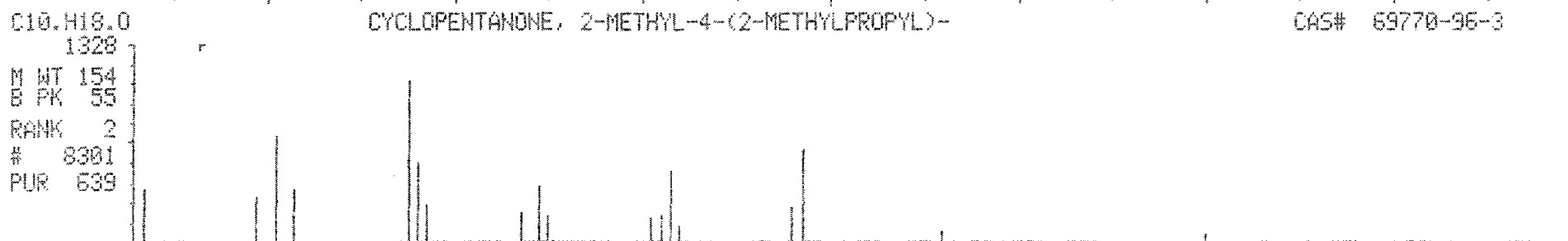
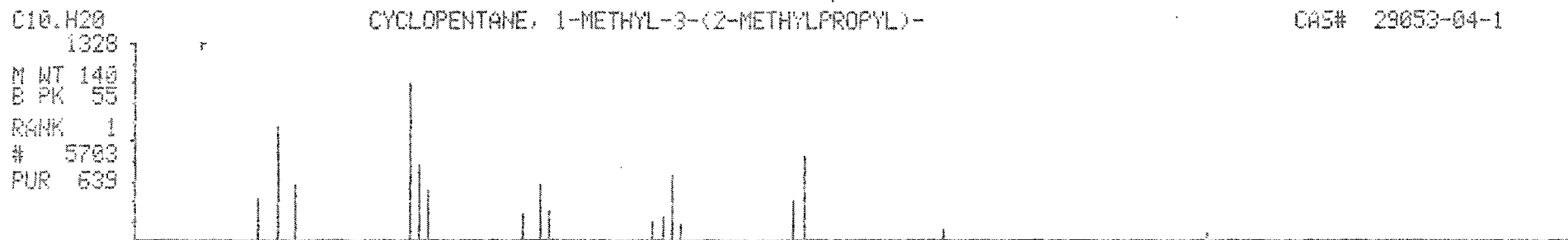
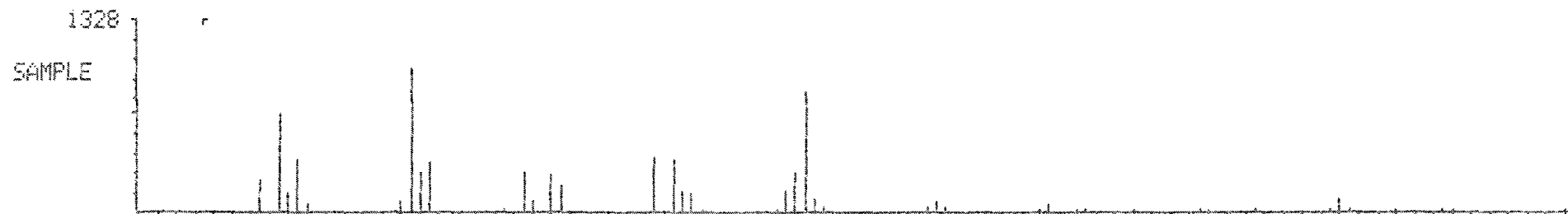


m/z 40 50 60 70 80 90 100 110 120 130 140 150

MID LIBRARY SEARCH (LIBRARYNB)
09/29/94 19:28:00 + 36:03
SAMPLE: 4760-001-02 1644.1 09/21/94
CONDS.: EPA METHOD 8240
ENHANCED (S 15B 2N 0T)

DATA: 08696 #1431
CALI: 08696 # 3

BASE M/Z: 55
RIC: 17088.

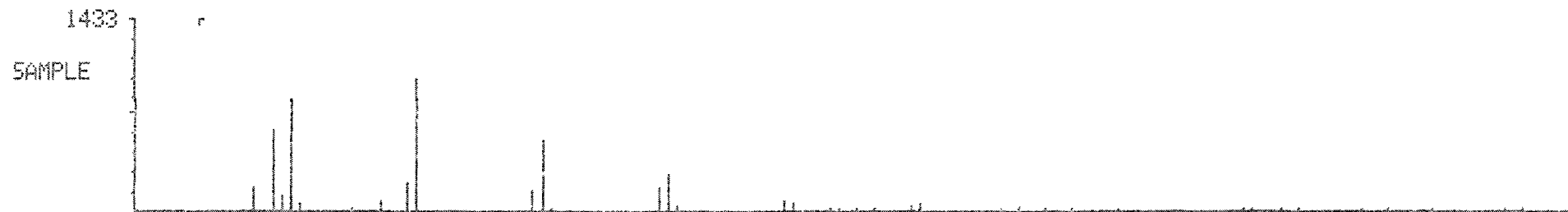


M/Z 40 50 60 70 80 90 100 110 120 130 140 150

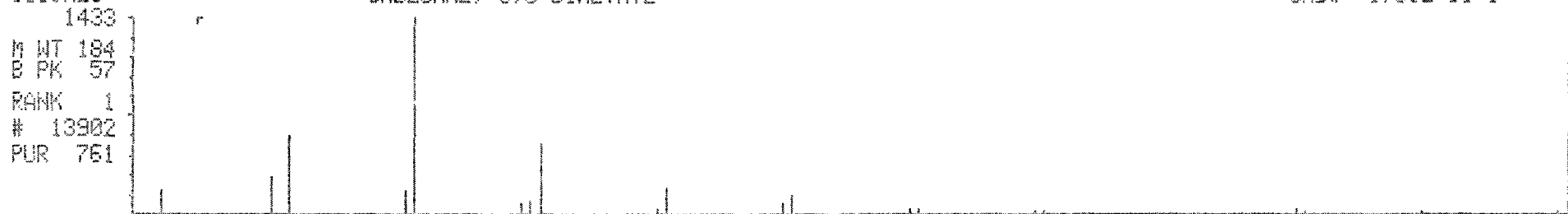
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09/29/94 19:28:00 + 36:45
SAMPLE: 4750-001-02 1644.1 09/21/94
CONDS.: EPA METHOD 8240
ENHANCED (S 15B 2N 0T)

DATA: C8696 #1459
CALI: C8696 # 3

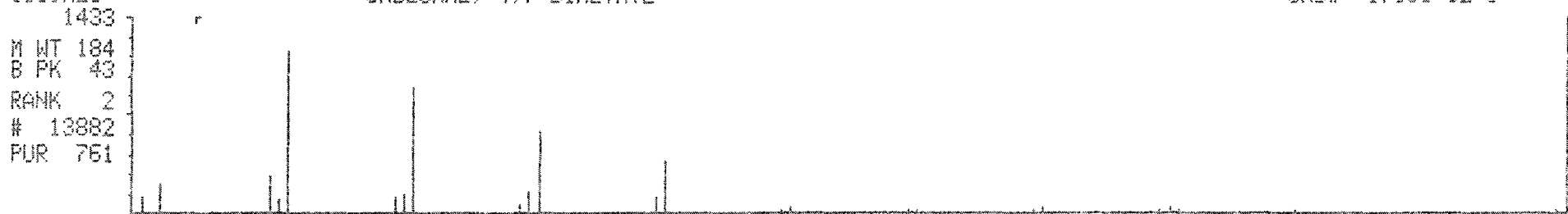
BASE M/Z: 57
RIC: 16608.



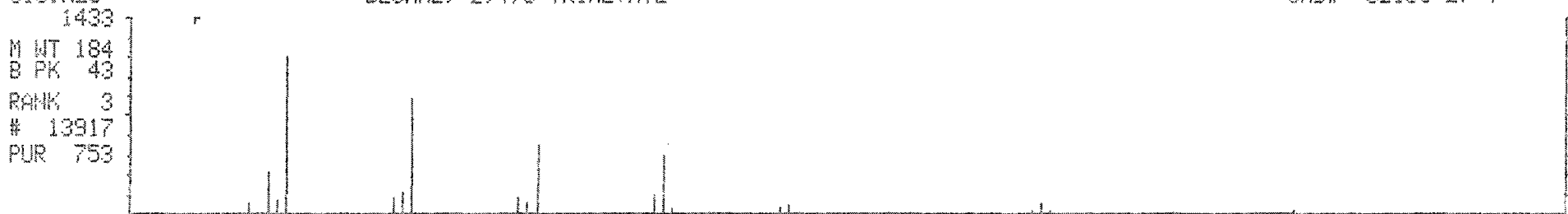
C13.H28 UNDECANE, 3,5-DIMETHYL- CAS# 17312-81-1



C13.H28 UNDECANE, 4,7-DIMETHYL- CAS# 17301-32-5



C13.H28 DECANE, 2,4,6-TRIMETHYL- CAS# 62108-27-4

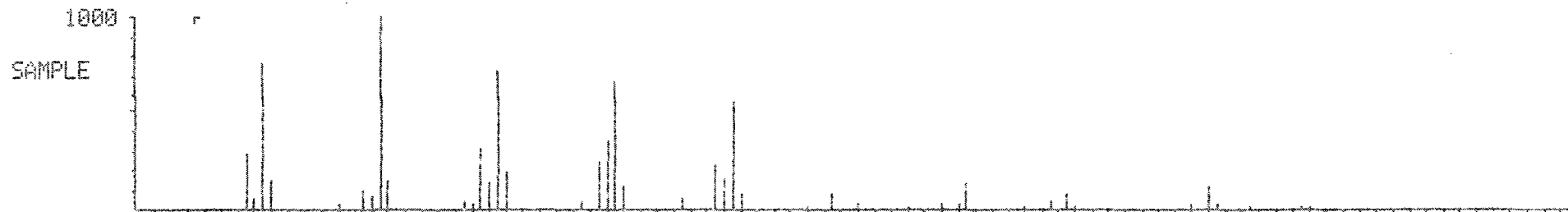


M/Z 40 52 64 76 88 100 112 124 136 148 160 172 184 196

MID LIBRARY SEARCH (LIBRARYNB)
09/29/94 19:28:00 + 36:51
SAMPLE: 4760-001-02 1644.1 09/21/94
CONDS.: EPA METHOD 8240
ENHANCED (S 15B 2N 0T)

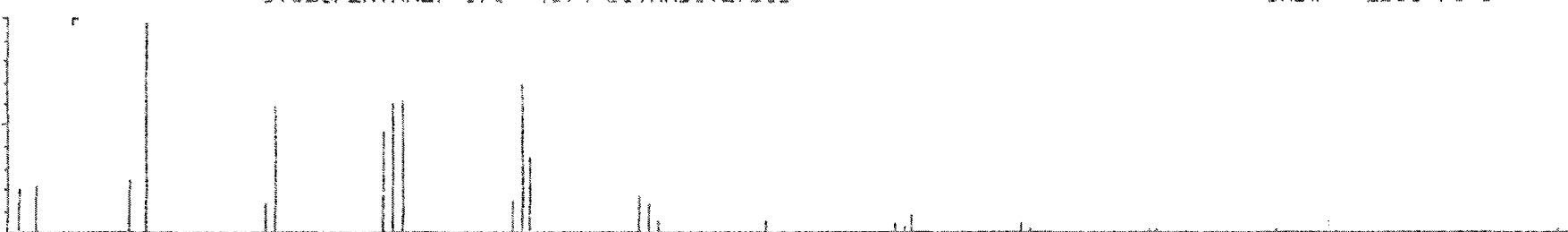
DATA: C8696 #1463
CALI: C8696 # 3

BASE M/Z: 55
RIC: 16992.



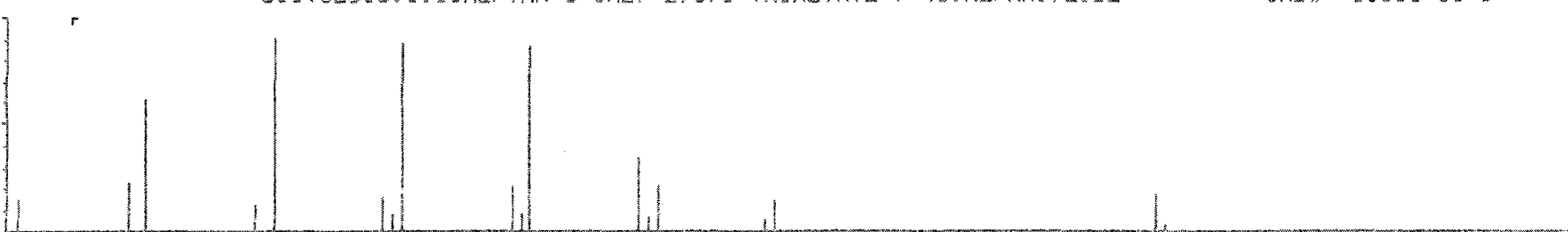
C14.H25
CYCLOPENTANE, 1,1'-(1,4-BUTANDIYL)BIS- CAS# 2980-70-3

1000
M WT 194
B PK 41
RANK 1
15480
PUR 683



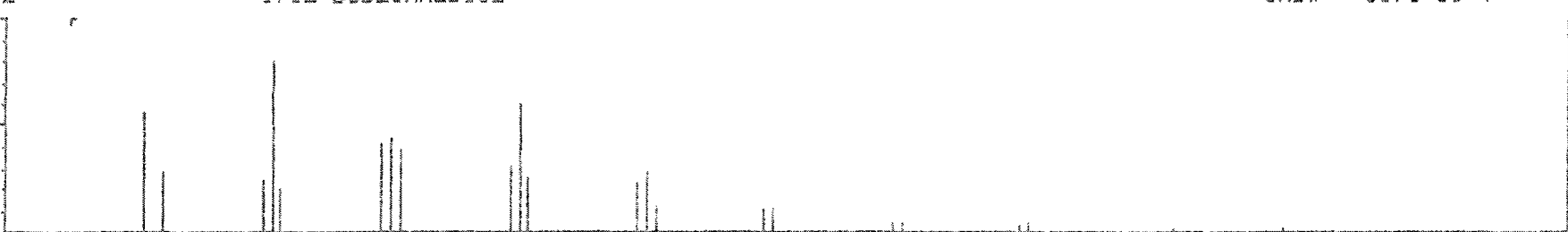
C10.H16.0
BICYCLO[3.1.1]HEPTAN-3-ONE, 2,6,6-TRIMETHYL-, (1.ALPHA.,2.BE CAS# 15358-88-0

1000
M WT 152
B PK 55
RANK 2
7836
PUR 641



C12.H26.02
1,12-DODECANEDIOL CAS# 5675-51-4

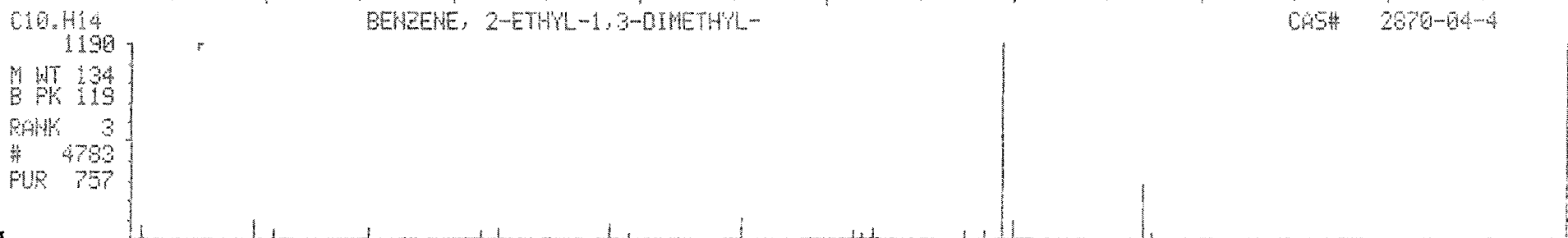
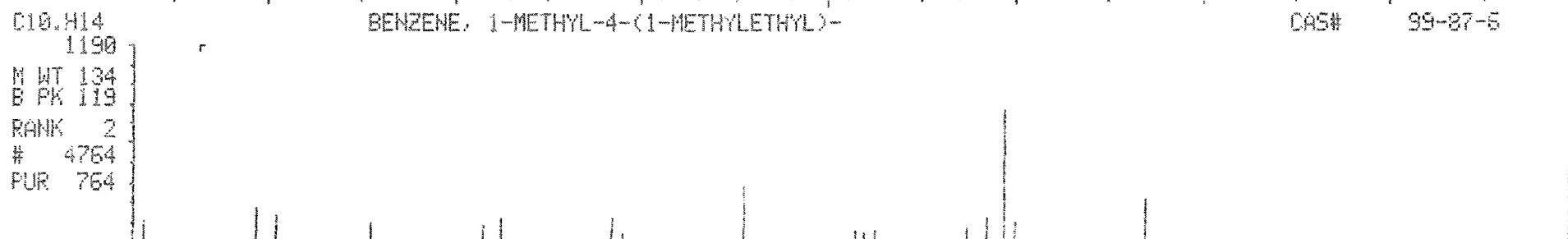
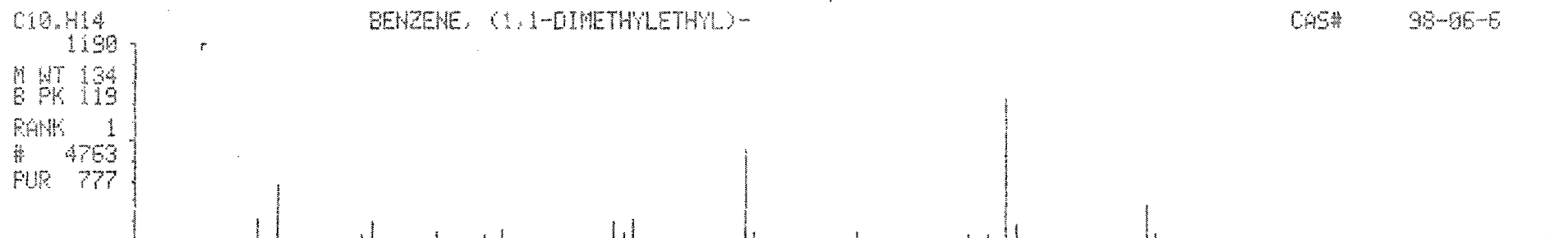
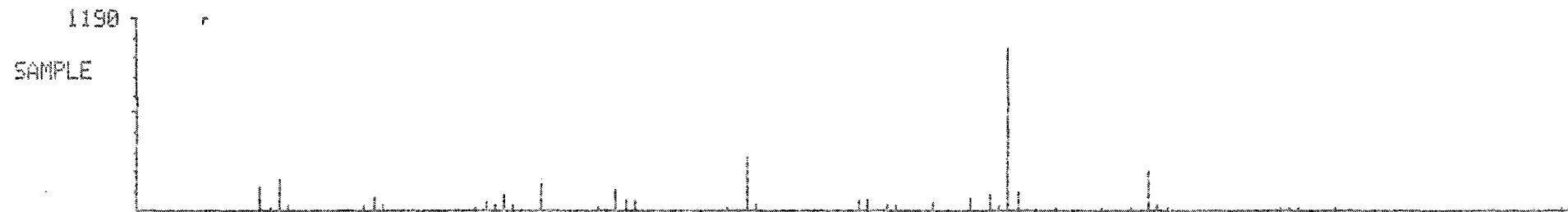
1000
M WT 202
B PK 55
RANK 3
16818
PUR 634



MID LIBRARY SEARCH (LIBRARYNE)
09/29/94 19:28:00 + 37:49
SAMPLE: 4760-001-02 1644.1 09/21/94
CONDS.: EPA METHOD 8240
ENHANCED (S 15B 2N 0T)

DATA: C8696 #1501
CALI: C8696 # 3

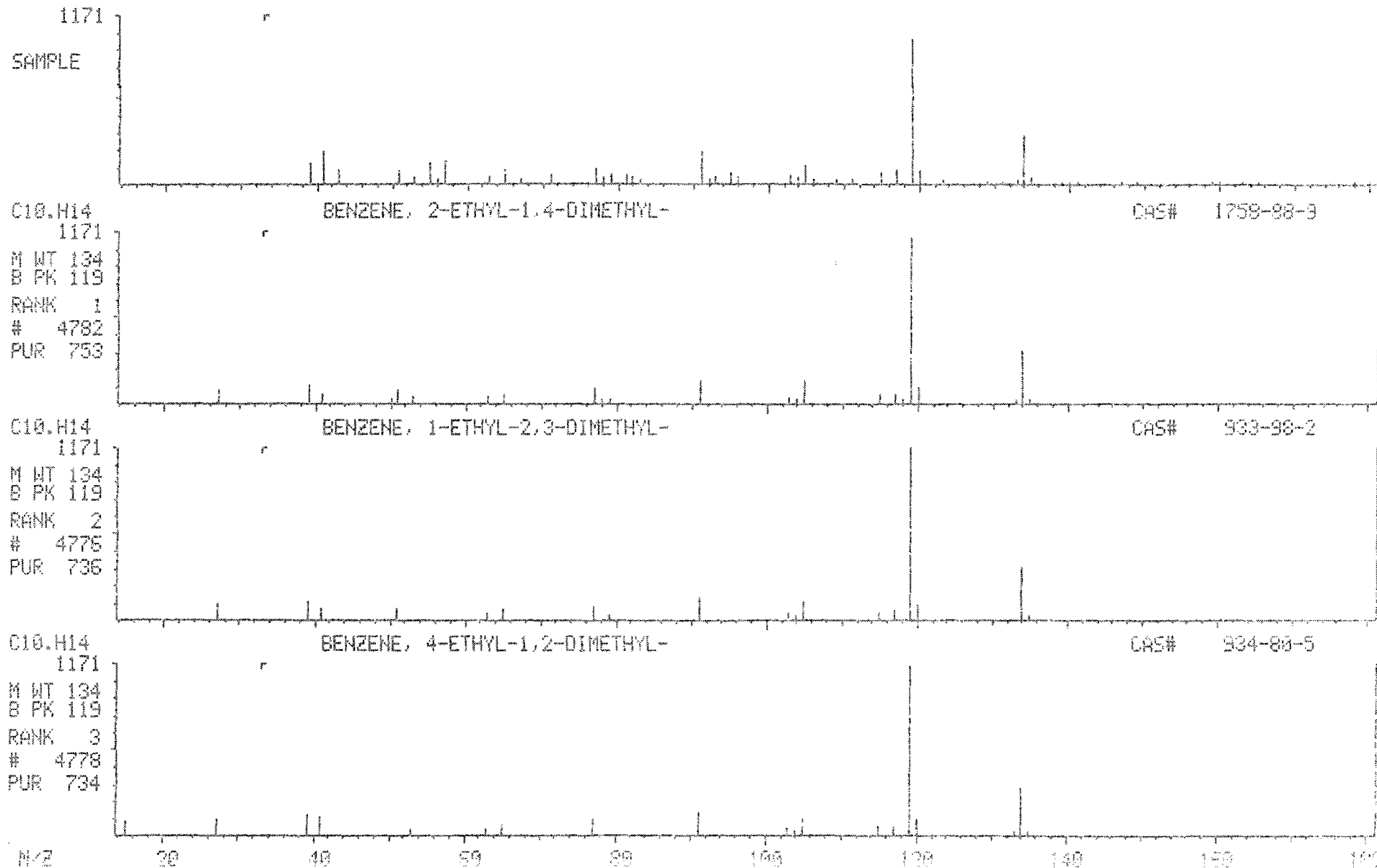
BASE M/2: 119
RIC: 13920.



MID LIBRARY SEARCH (LIBRARY.MB)
09/29/94 19:28:00 + 38:11
SAMPLE: 4760-001-02 1644.1 09/21/94
CONDS.: EPA METHOD 8240
ENHANCED (S 15B 2N 0T)

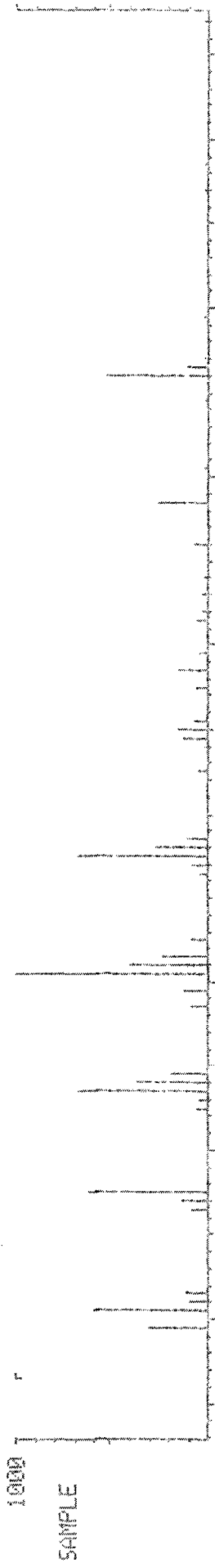
DATA: C8696 #1516
CALI: C8696 # 3

BASE M/Z: 119
RIC: 30816.



MID LIBRARY SEARCH (LIBRARY#)
 09/29/94 19:28:00 + 38:26
 SAMPLE: 4760-001-02 1644.1 09/21/94
 CONDOS.: EPA METHOD 8240
 ENHANCED (S 15B 2N 6T)

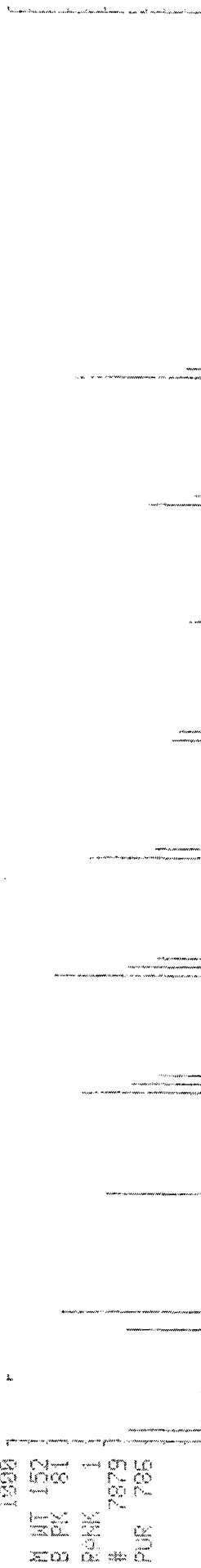
DATA: C8696 #1526
 CALL: C8696 # 3
 BASE N/2: 81
 RIC: 34384.



CAS# 2958-76-1

NAPHTHALENE, DECAHYDRO-2-METHYL-

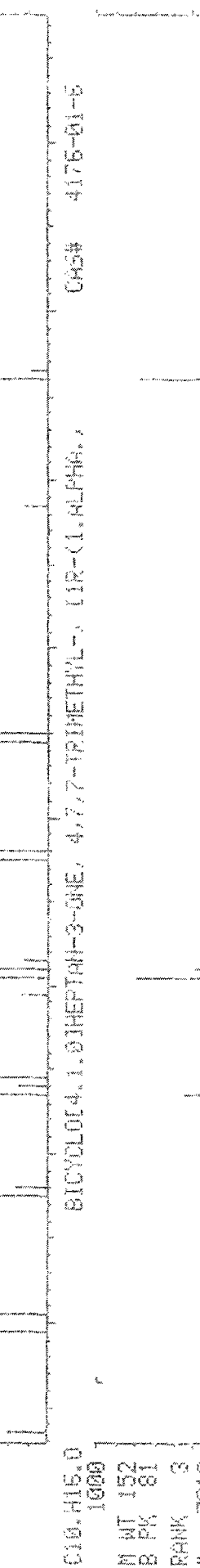
C11.H20
 1000
 M WT 152
 B PK 81
 RANK 1
 # 7879
 PUR 785



CAS# 4175-84-9

BICYCLO[4.1.0]HEPTAN-3-ONE, 4,7,7-TRIMETHYL-, [1R-(1.ALPHA.)]

C10.H16.O
 1000
 M WT 152
 B PK 81
 RANK 2
 # 7814
 PUR 735



CAS# 4175-84-9

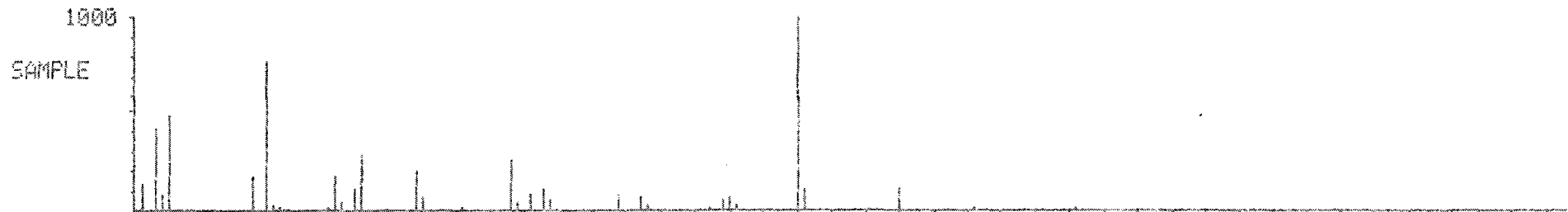
BICYCLO[4.1.0]HEPTAN-3-ONE, 4,7,7-TRIMETHYL-, [1R-(1.ALPHA.)]

C10.H16.O
 1000
 M WT 152
 B PK 81
 RANK 3
 # 7813
 PUR 731

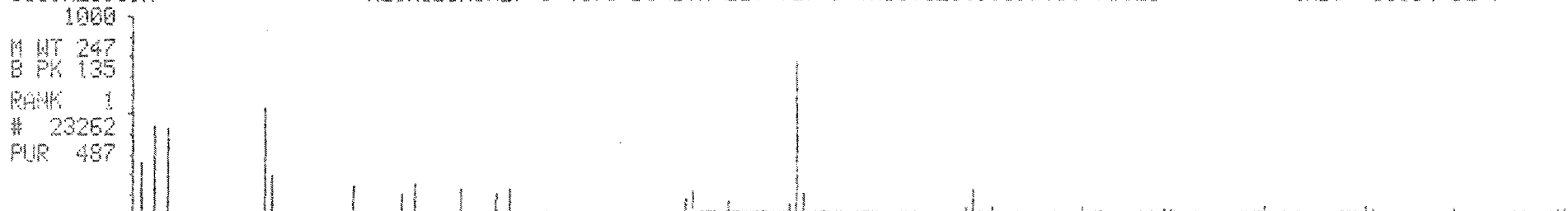
MID LIBRARY SEARCH (LIBRARY#8)
09/29/94 19:28:00 + 38:38
SAMPLE: 4760-001-02 1644.1 09/21/94
CONDS.: EPA METHOD 8240
ENHANCED (S 15B 2N 0T)

DATA: C8696 #1534
CALI: C8696 # 3

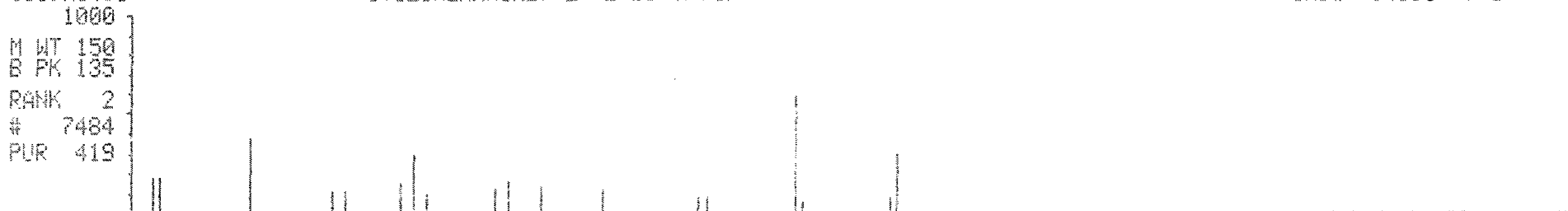
BASE M/Z: 135
RIC: 17664.



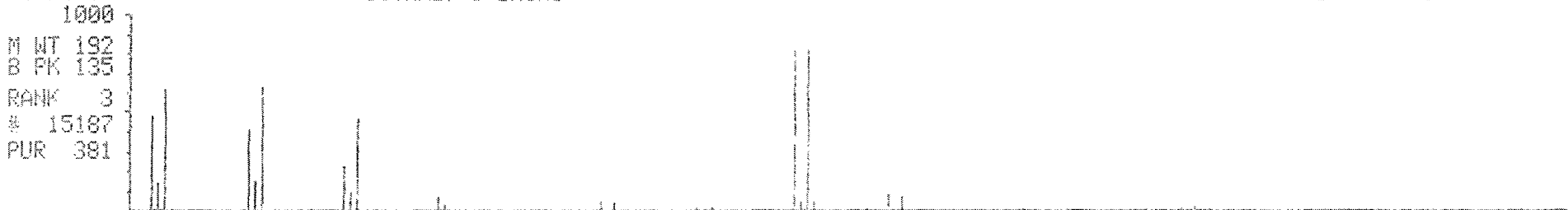
C15.H25.O.N AZTRIDINONE, 1-(1,1-DIMETHYLETHYL)-3-TRICYCLO[3.3.1.1^{3,7}]DEC CAS# 16654-32-7



C10.H14.O CYCLOHEXANONE, 2-(2-BUTYNYL)- CAS# 54166-48-2



C8.H17.BR OCTANE, 1-BROMO- CAS# 111-83-1

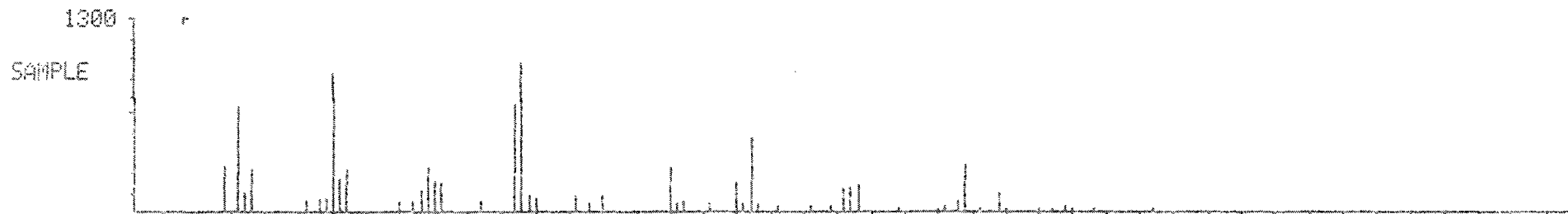


m/z 50 100 150 200

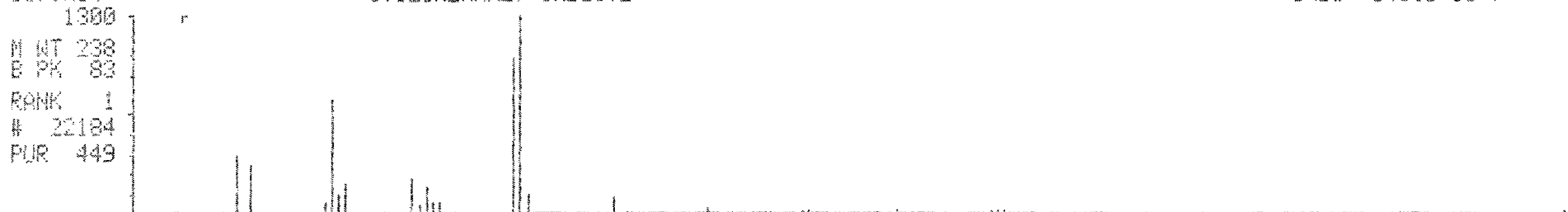
MID LIBRARY SEARCH (LIBRARYNB)
09/29/94 19:28:00 + 38:51
SAMPLE: 4760-001-02 1644.1 09/21/94
CONDS.: EPA METHOD 8240
ENHANCED (S 15B 2N 0T)

DATA: C8696 #1542
CALI: C8696 # 3

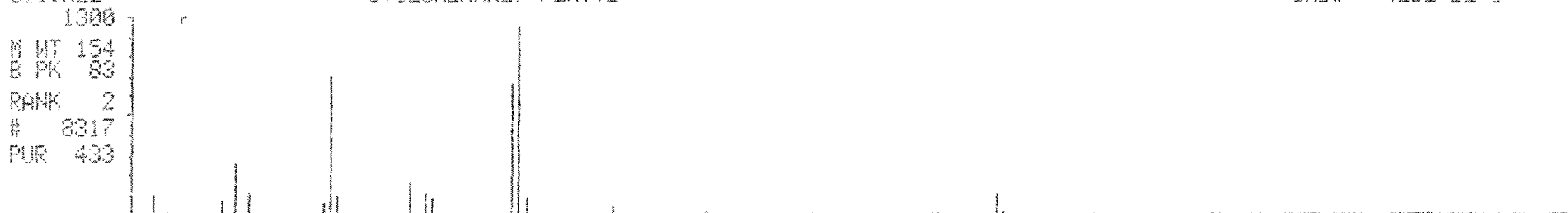
BASE M/Z: 83
RIC: 54080.



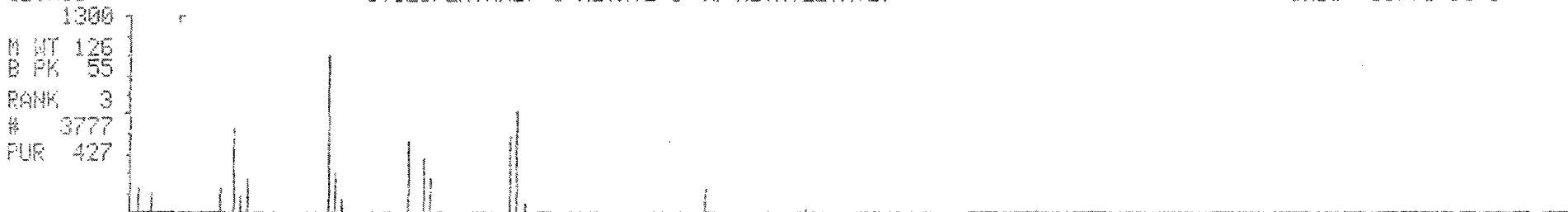
017.H34 CYCLOHEXANE, UNDECYL- CAS# 54105-66-7



011.H22 CYCLOHEXANE, PENTYL- CAS# 4292-92-6



09.H18 CYCLOPENTANE, 1-METHYL-3-(1-METHYLETHYL)- CAS# 53771-88-3

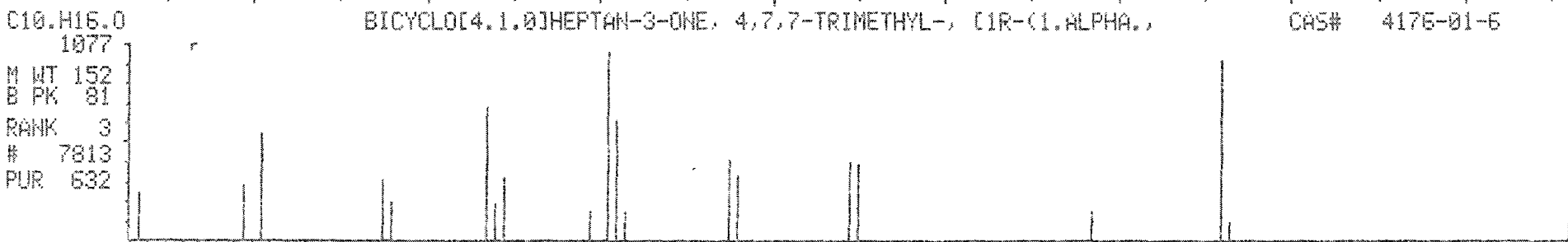
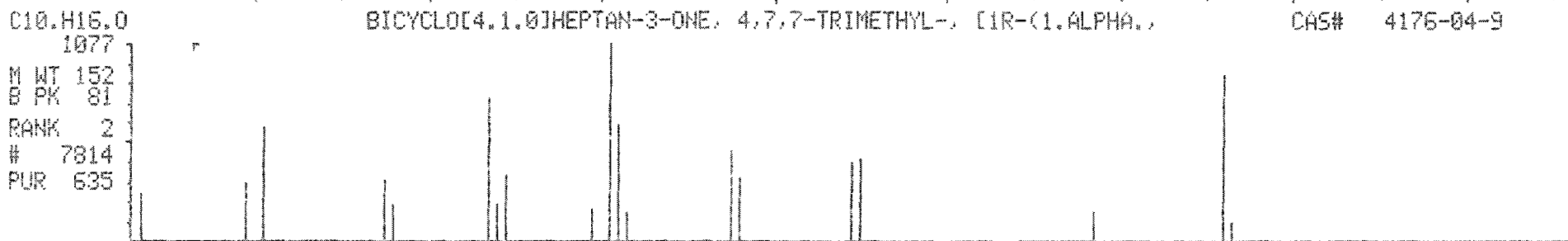
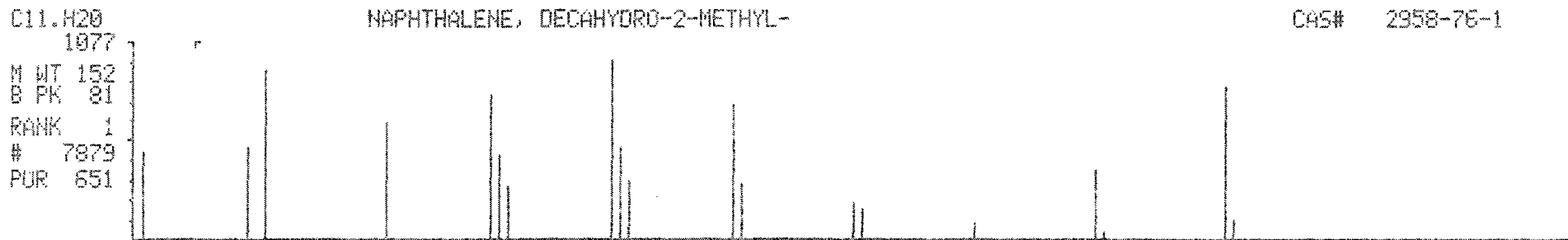
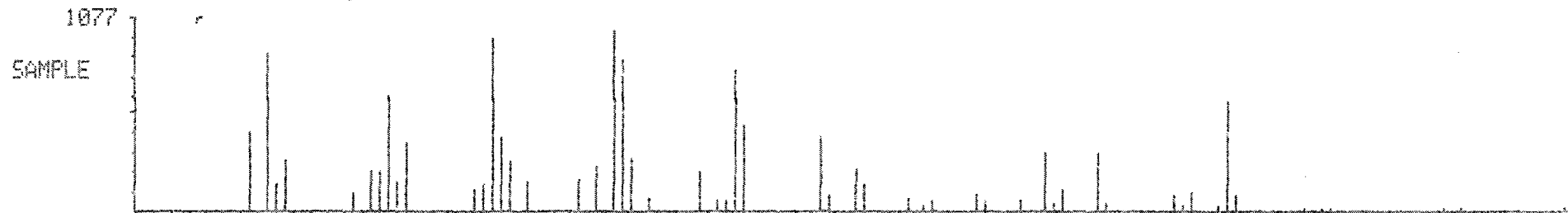


M/Z 50 100 150 200

MID LIBRARY SEARCH (LIBRARYNE)
09/29/94 19:28:00 + 39:24
SAMPLE: 4760-001-02 1644.1 09/21/94
CONDS.: EPA METHOD 8240
ENHANCED (S 15B 2N 0T)

DATA: C8696 #1564
CALI: C8696 # 3

BASE M/Z: 81
RIC: 58048.

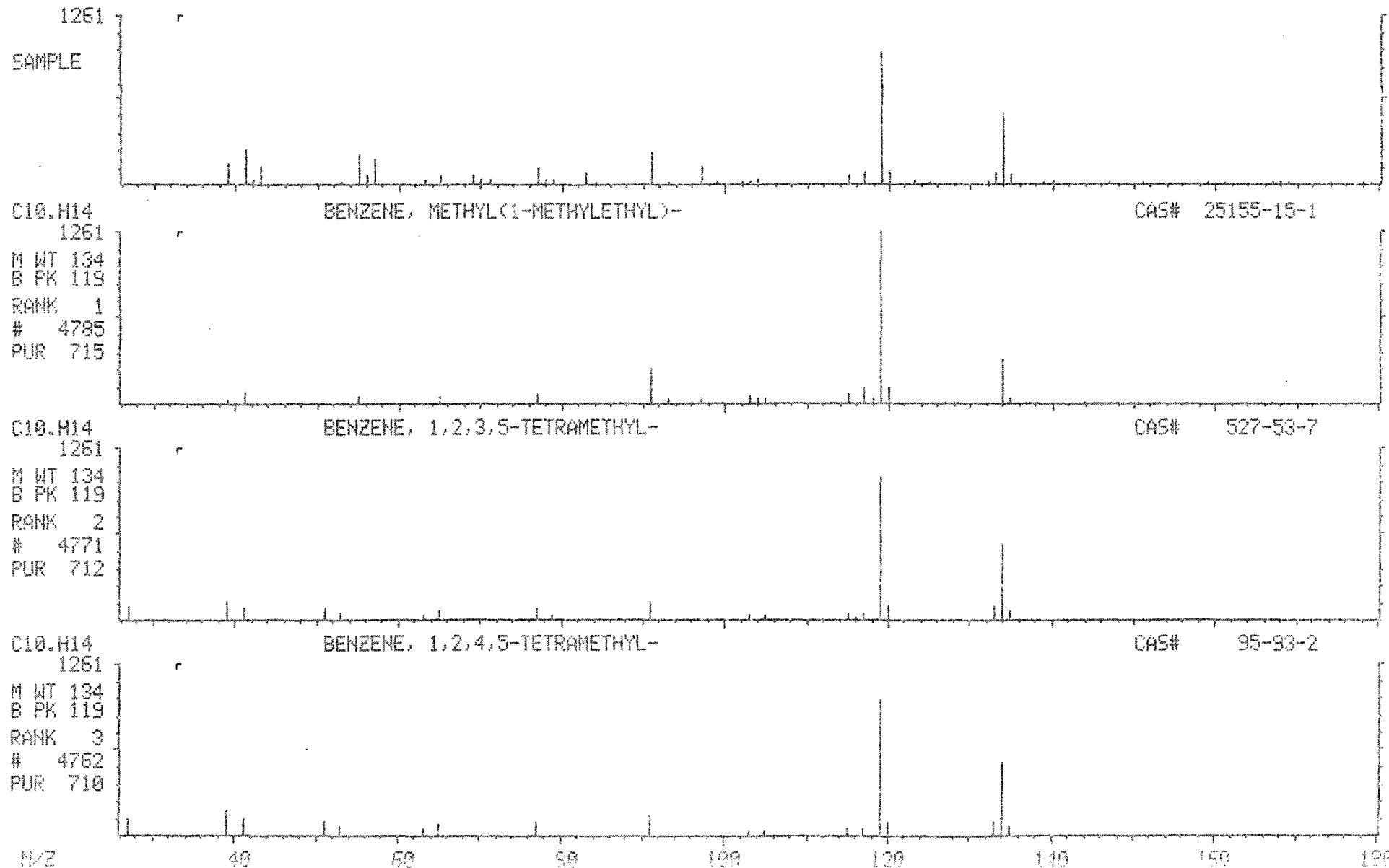


M/Z 40 50 60 80 100 120 140 160 180

MID LIBRARY SEARCH (LIBRARYNB)
09/29/94 19:28:00 + 39:37
SAMPLE: 4760-001-02 1644.1 09/21/94
CONDS.: EPA METHOD 8240
ENHANCED (S 15B 2N 0T)

DATA: C8696 #1573
CALI: C8696 # 3

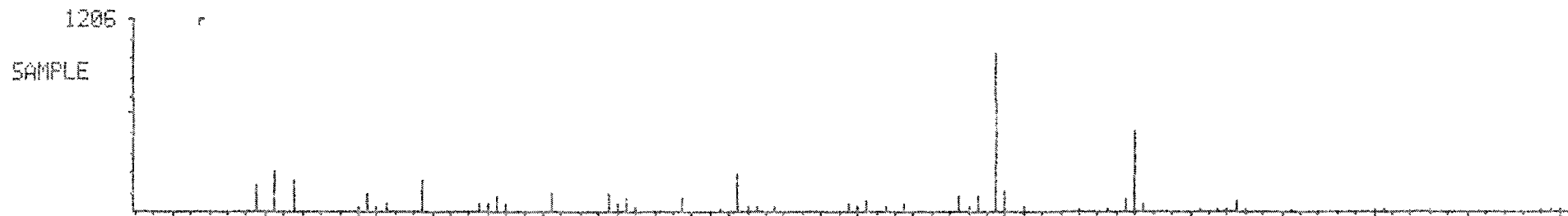
BASE M/Z: 119
RIC: 24704.



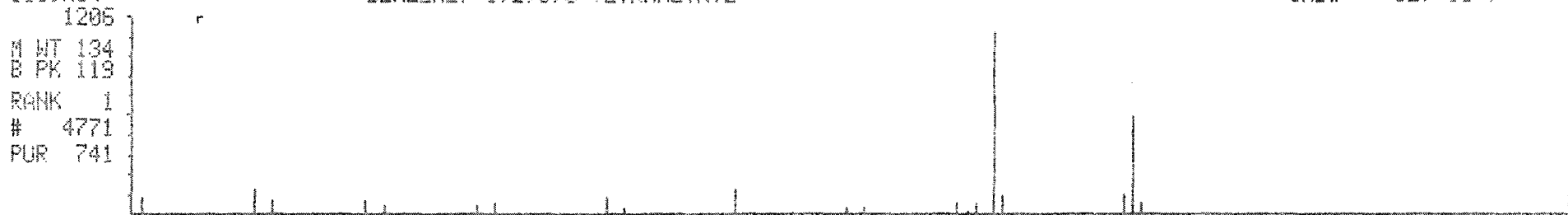
MID LIBRARY SEARCH (LIBRARYNB)
09/29/94 19:28:00 + 39:56
SAMPLE: 4760-001-02 1644.1 09/21/94
CONDS.: EPA METHOD 8240
ENHANCED (S 15B 2N 0T)

DATA: 08696 #1585
CALI: 08695 # 3

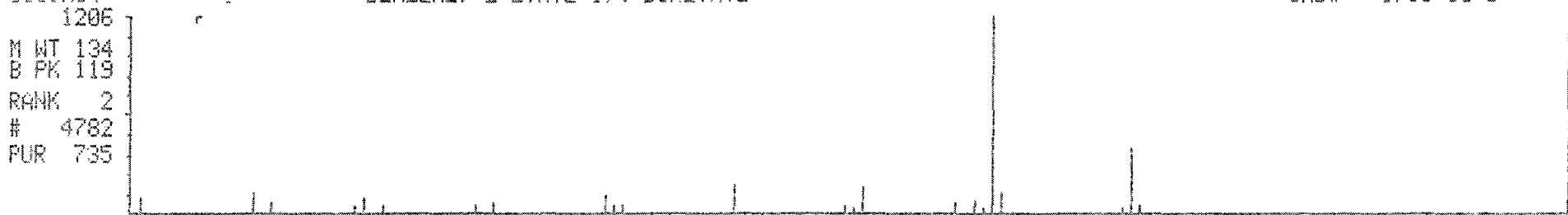
BASE M/Z: 119
RIC: 39488.



C10.H14 BENZENE, 1,2,3,5-TETRAMETHYL- CAS# 527-53-7



C10.H14 BENZENE, 2-ETHYL-1,4-DIMETHYL- CAS# 1758-88-9



C10.H14 BENZENE, 1,2,3,4-TETRAMETHYL- CAS# 488-23-3



M/Z 40 50 60 70 80 90 100 110 120 130 140 150 160

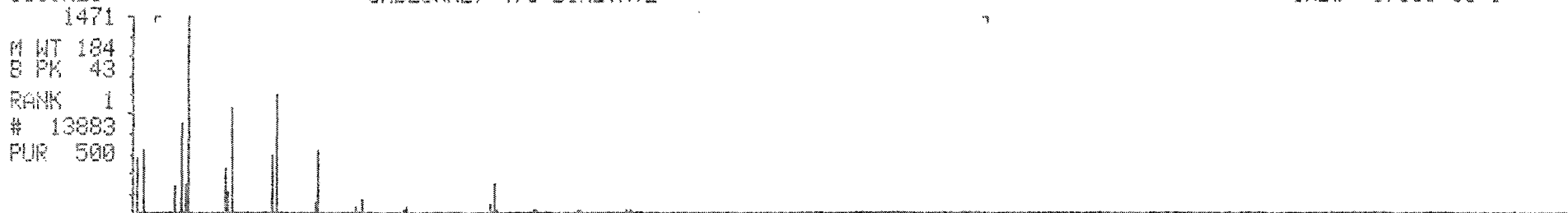
MID LIBRARY SEARCH (LIBRARY#B)
09/29/94 19:28:00 + 39:59
SAMPLE: 4760-001-02 1644.1 09/21/94
CONDS.: EPA METHOD 8240
ENHANCED (S 15B 2N 0T)

DATA: 08696 #1587
CALI: 08696 # 3

BASE M/Z: 43
RIC: 22176.



C13.H28 UNDECANE, 4,8-DIMETHYL- CAS# 17301-33-5



C13.H28 DECANE, 2,3,7-TRIMETHYL- CAS# 62238-13-5



C21.H40.O.N.CL PYRIDINIUM, 1-HEXADECYL-, CHLORIDE, MONOHYDRATE CAS# 6004-24-6



m/z 50 100 150 200 250 300 350 400 450

RIC

09/29/94 19:28:00

SAMPLE: 4750-001-02 1644.1 09/21/94

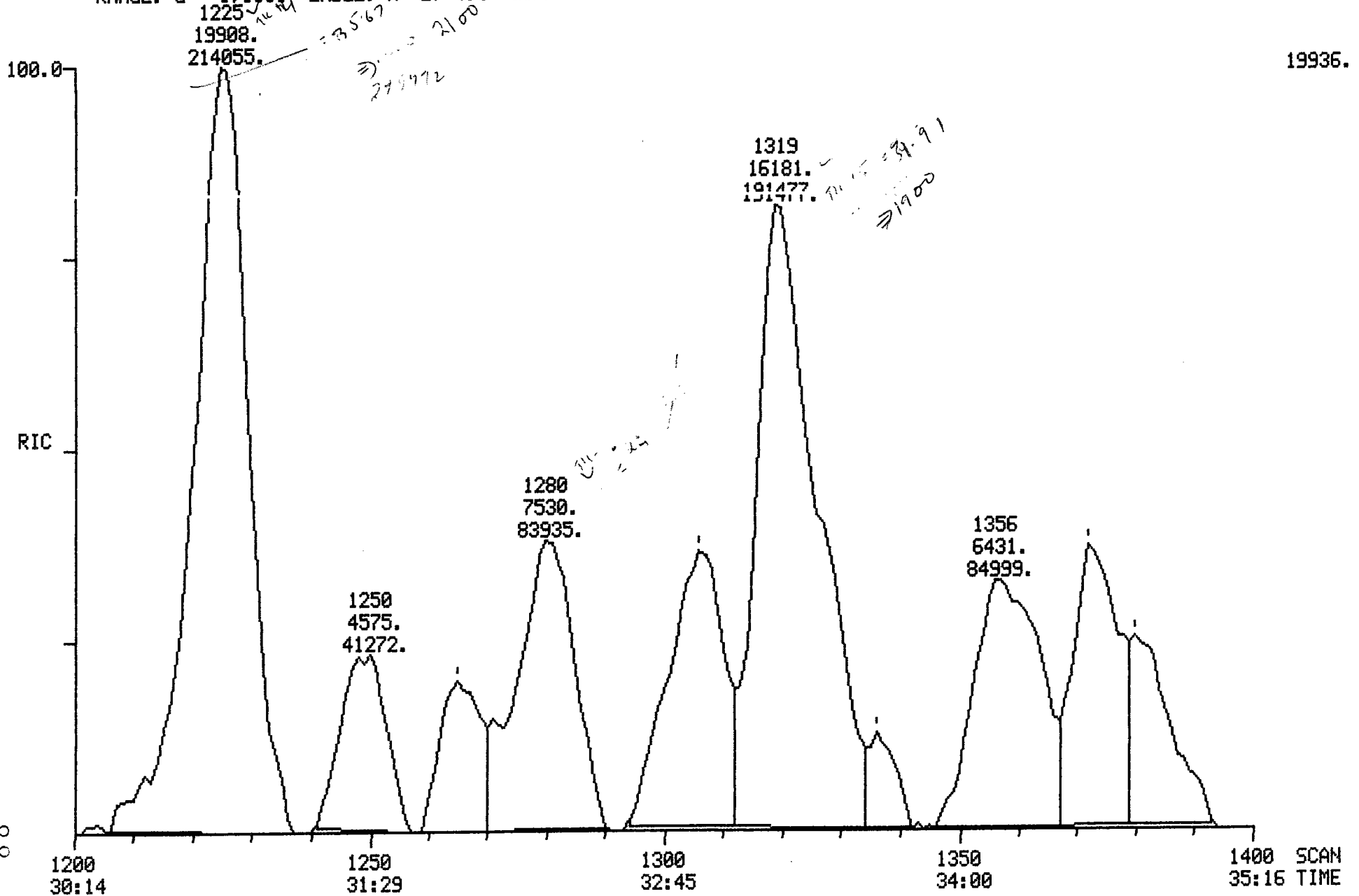
CONDS.: EPA METHOD 8240

RANGE: G 1.1600 LABEL: N 2, 4.0 QUAN: A 2, 1.0 J 0 BASE: U 20, 3

DATA: C8696 #1

SCANS 1200 TO 1400

CALI: C8696 #3



Library Search Data: CB696 #1225 Base m/z: 43
09/29/94 19:28:00 + 30:51 Cali: CB696 # 3 RIC: 15104.
Sample: 4760-001-02 1644.1 09/21/94
Conds.: EPA METHOD 8240
Enhanced (S 15B 2N OT)

42223 spectra in LIBRARYNB searched for maximum FIT
176 matched at least 7 of the 16 largest peaks in the unknown

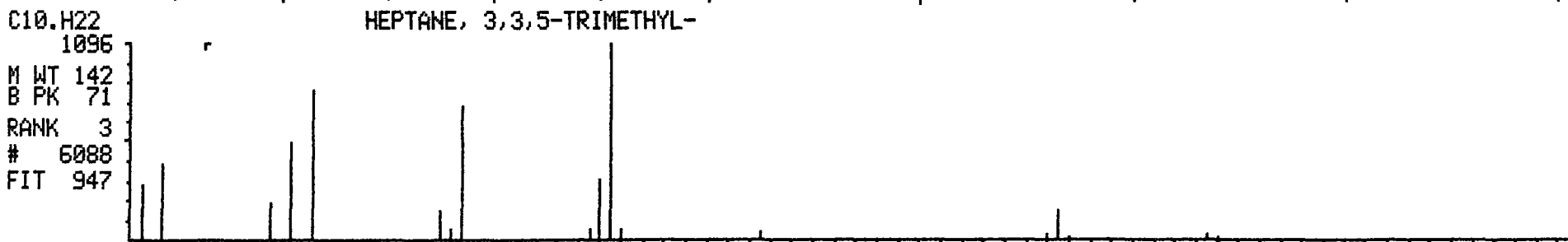
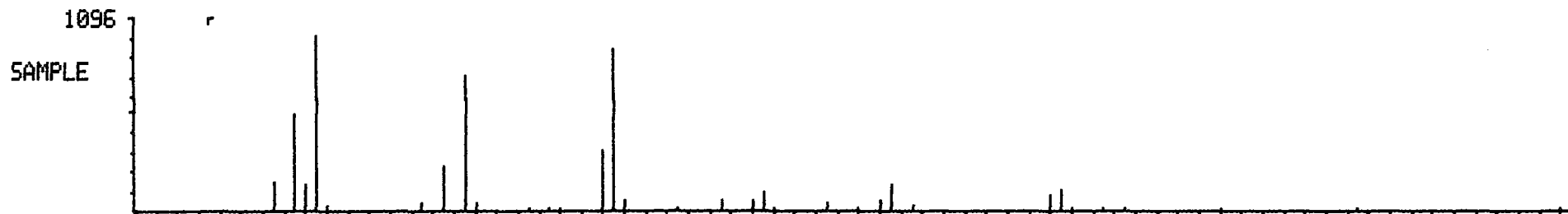
| Rank In. | Name |
|----------|---------------------------------|
| 1 | 6104 HEPTANE, 3-ETHYL-5-METHYL- |
| 2 | 6083 OCTANE, 3,3-DIMETHYL- |
| 3 | 6088 HEPTANE, 3,3,5-TRIMETHYL- |
| 4 | 6079 HEPTANE, 2,5,5-TRIMETHYL- |
| 5 | 6089 HEPTANE, 5-ETHYL-2-METHYL- |

| Rank | Formula | M. Wt | B. Pk | Purity | Fit | RFit |
|------|----------|-------|-------|--------|-----|------|
| 1 | C10. H22 | 142 | 57 | 795 | 952 | 817 |
| 2 | C10. H22 | 142 | 43 | 792 | 951 | 827 |
| 3 | C10. H22 | 142 | 71 | 770 | 947 | 802 |
| 4 | C10. H22 | 142 | 43 | 781 | 943 | 812 |
| 5 | C10. H22 | 142 | 57 | 780 | 942 | 816 |

MID LIBRARY SEARCH (LIBRARYNB)
09/29/94 19:28:00 + 30:51
SAMPLE: 4760-001-02 1644.1 09/21/94
CONDS.: EPA METHOD 8240
ENHANCED (S 15B 2N 0T)

DATA: C8696 #1225
CALI: C8696 # 3

BASE M/Z: 43
RIC: 15104.



06

M/Z

40

60

80

100

120

140

160

Library Search Data: CB696 #1319 Base m/z: 83
 09/29/94 19:28:00 + 33:14 Cali: CB696 # 3 RIC: 12256.
 Sample: 4760-001-02 1644.1 09/21/94
 Conds.: EPA METHOD 8240
 Enhanced (S 15B 2N 0T)

42223 spectra in LIBRARYNB searched for maximum FIT
 319 matched at least 7 of the 16 largest peaks in the unknown

| Rank In. | Name |
|----------|---|
| 1 | 21514 2,5-PYRROLIDINEDIONE, 3-[[1-(ETHYLSULFONYL)ETHYL]-4-METHYL- |
| 2 | 5688 CYCLOHEXANE, (1-METHYLPROPYL)- |
| 3 | 3777 CYCLOPENTANE, 1-METHYL-3-(1-METHYLETHYL)- |
| 4 | 9936 CYCLOHEXANE, BROMO- |
| 5 | 470 1-AZABICYCLO[3.1.0]HEXANE |

| Rank | Formula | M. Wt | B. Pk | Purity | Fit | RFit |
|------|-------------------|-------|-------|--------|------|------|
| 1 | C9. H15. O4. N. S | 233 | 41 | 218 | 1000 | 218 |
| 2 | C10. H20 | 140 | 55 | 790 | 948 | 820 |
| 3 | C9. H18 | 126 | 55 | 744 | 931 | 779 |
| 4 | C6. H11. BR | 162 | 83 | 502 | 930 | 526 |
| 5 | C5. H9. N | 83 | 55 | 600 | 926 | 608 |

MID LIBRARY SEARCH (LIBRARYNB)
09/29/94 19:28:00 + 33:14
SAMPLE: 4750-001-02 1644.1 09/21/94
CONDS.: EPA METHOD 8240
ENHANCED (S 15B 2N 0T)

DATA: C8696 #1319
CALI: C8696 # 3

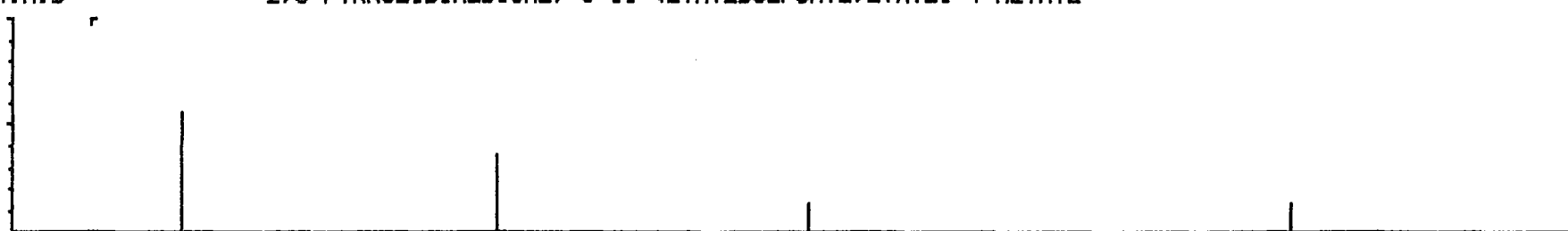
BASE M/Z: 83
RIC: 12256.



C9.H15.04.N.S

2,5-PYRROLIDINEDIONE, 3-[1-(ETHYLSULFONYL)ETHYL]-4-METHYL-

1000
M WT 233
B PK 41
RANK 1
21514
FIT 1000



C10.H20

CYCLOHEXANE, (1-METHYLPROPYL)-

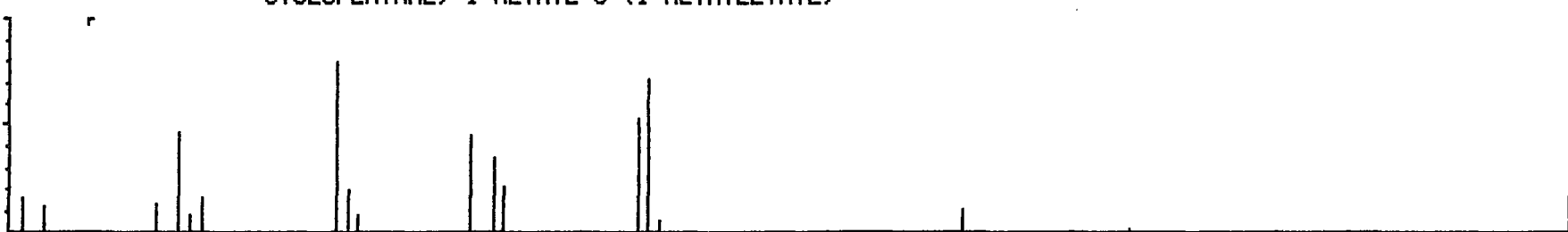
1000
M WT 140
B PK 55
RANK 2
5688
FIT 948



C9.H18

CYCLOPENTANE, 1-METHYL-3-(1-METHYLETHYL)-

1000
M WT 126
B PK 55
RANK 3
3777
FIT 931



M/Z

40

60

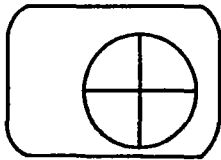
80

100

120

140

160



Princeton Testing Laboratory Inc.

P.O. Box 3108
3490 U.S. Route 1
Princeton, NJ 08543-3108
(609) 452-9050
(FAX) (609) 452-1959

U.S. Army, Fort Monmouth N.J.
ATTN: SELFM-PW
Building 167
Fort Monmouth, New Jersey 07703-5108
Attention: Charles Appleby

Report Date: 11/01/94
Job Number: 9404760-001
Date Received: 09/23/94
Client Job No.: 1644/1645
Page: 1

Analysis: Volatile Organics, WW, SW-846 8240
Units: ug/liter

Parameters Sample I.D.: 1644.2 Fld Blk
Bldgs 482/290
09/21/94

| | |
|----------------------------|------|
| Chloromethane | <10 |
| Bromomethane | <10 |
| Vinyl chloride | <10 |
| Chloroethane | <10 |
| Methylene chloride | <5.0 |
| Acetone | <5.0 |
| Carbon disulfide | <5.0 |
| 1,1-Dichloroethene | <5.0 |
| 1,1-Dichloroethane | <5.0 |
| 1,2-Dichloroethene (Total) | <5.0 |
| Chloroform | <5.0 |
| 1,2-Dichloroethane | <5.0 |
| 2-Butanone | <5.0 |
| 1,1,1-Trichloroethane | <5.0 |
| Carbon tetrachloride | <5.0 |
| Bromodichloromethane | <5.0 |
| 1,1,2,2-Tetrachloroethane | <5.0 |
| 1,2-Dichloropropane | <5.0 |
| trans-1,3-Dichloropropene | <5.0 |
| Trichloroethene | <5.0 |
| Dibromochloromethane | <5.0 |
| 1,1,2-Trichloroethane | <5.0 |
| Benzene | <5.0 |
| cis-1,3-Dichloropropene | <5.0 |
| Bromoform | <5.0 |
| 2-Hexanone | <5.0 |
| 4-Methyl-2-Pentanone | <5.0 |
| Tetrachloroethene | <5.0 |
| Toluene | <5.0 |
| Chlorobenzene | <5.0 |
| Ethylbenzene | <5.0 |
| Styrene | <5.0 |
| Total Xylenes | <5.0 |

RECOVERY DATA

QC LIMITS

| | | |
|-----------------------------------|---------|-----|
| 1,2-Dichloroethane-d4 (Surrogate) | 76-114% | 96 |
| Toluene-d8 (Surrogate) | 88-110% | 105 |
| 4-Bromofluorobenzene (Surrogate) | 86-115% | 92 |

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

| |
|--------------------------------|
| EPA SAMPLE NO. 1644.2 09/21 |
|--------------------------------|

Lab Name: Princeton Testing Lab US ARMY, FORT MONMOUTH

Lab Code: PTL Case No.: 4760-001 SAS No.: XXX SDG No.: XXX

Matrix: (Soil/Water) WATER Lab Sample ID: 03

Sample wt/vol: 5 (g/mL) mL Lab File ID: C8711

Level: (low/med) LOW Date Received: 09/23/94

%Moisture: not dec. Date Analyzed: 10/04/94

GC Column: VOCOL ID: 0.53 mm Dilution Factor: 1

Soil Extract Vol: _____ ul Soil Aliquot Vol: _____ ul

Number TICs found: 4 CONCENTRATION UNITS:
 (ug/L or ug/Kg) ug/L

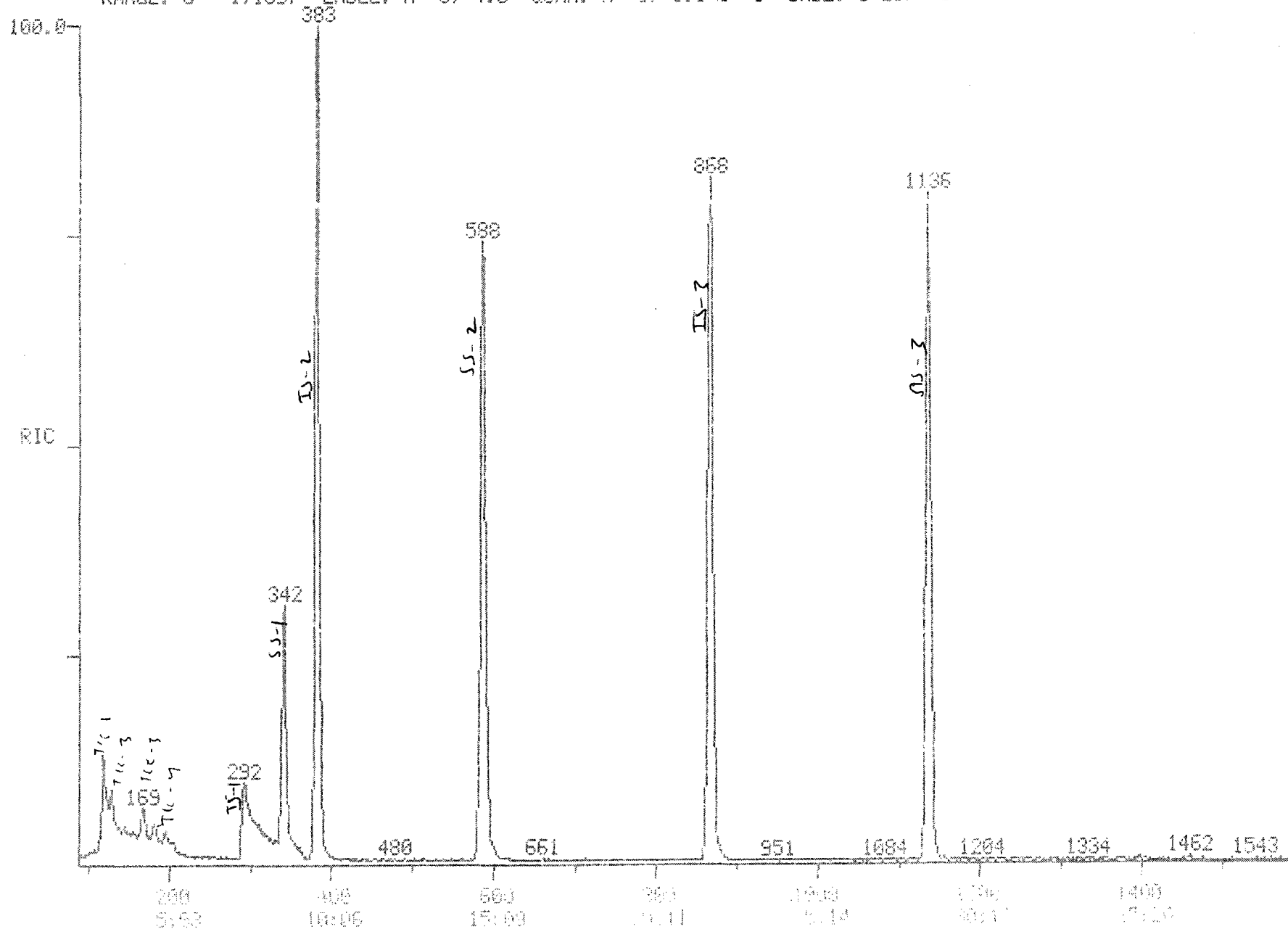
| #S | CAS NUMB | COMPOUND NAME | RT | EST. CONC. | SCAN |
|----|-----------|---------------------|------|------------|------|
| 1 | 34419-766 | UNKNOWN HYDROCARBON | 3:00 | 27 | 119 |
| 2 | 109-66-0 | PENTANE (ACN) (DOT) | 3:17 | 13 | 130 |
| 3 | 107-83-5 | PENTANE, 2-METHYL- | 4:16 | 11 | 169 |
| 4 | 557-11-9 | UREA, 2-PROPENYL- | 4:36 | 4.5 | 182 |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

RIC
10/04/94 14:21:00
SAMPLE: 4750-001-03 1644.2
CONDS.: EPA METHOD 8240
RANGE: G 1.1597 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

DATA: C8711 #1
CALI: C8711 #3

SCANS 88 TO 1597

35520.



Quantitation Report File: C8711

Data: C8711.TI

10/04/94 14:21:00

Sample: 4760-001-03 1644.2

Conds.: EPA METHOD 8240

Formula: 5ML

Instrument: FINN

Weight: 0.000

Submitted by: USARMY

Analyst: UC

Acct. No.: 4760-001

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)

Resp. fac. from Library Entry

| No | Name |
|----|---|
| 1 | CI01 BROMOCHLOROMETHANE **INT. STD. ** |
| 2 | CI10 1,4-DIFLUOROBENZENE **INT. STD. ** |
| 3 | CI20 CHLOROBENZENE-D5 **INT. STD. ** |
| 4 | CS15 1,2-DICHLOROETHANE-D4 **S. STD. ** |
| 5 | CS05 TOLUENE-D8 **S. STD. ** |
| 6 | CS10 4-BROMOFLUOROBENZENE **S. STD. ** |
| 7 | CO10 CHLOROMETHANE ** |
| 8 | CO15 BROMOMETHANE |
| 9 | CO20 VINYL CHLORIDE * |
| 10 | CO25 CHLOROETHANE |
| 11 | CO30 METHYLENE CHLORIDE |
| 12 | C251 ACROLIN |
| 13 | CO35 ACETONE |
| 14 | C252 ACRYLONITRILE |
| 15 | CO40 CARBON DISULFIDE |
| 16 | CO45 1,1-DICHLOROETHENE * |
| 17 | CO50 1,1-DICHLOROETHANE ** |
| 18 | CO55 TRANS-1,2-DICHLOROETHENE |
| 19 | CO00 TRICHLOROFLUOROMETHANE |
| 20 | CO60 CHLOROFORM * |
| 21 | CO65 1,2-DICHLOROETHANE |
| 22 | C110 2-BUTANONE |
| 23 | C115 1,1,1-TRICHLOROETHANE |
| 24 | C120 CARBON TETRACHLORIDE |
| 25 | C125 VINYL ACETATE |
| 26 | C130 BROMO DICHLOROMETHANE |
| 27 | C140 1,2-DICHLOROPROPANE * |
| 28 | C145 TRANS-1,3 DICHLOROPROPENE |
| 29 | C150 TRICHLOROETHENE |
| 30 | C155 DIBROMOCHLOROMETHANE |
| 31 | C160 1,1,2-TRICHLOROETHANE |
| 32 | C165 BENZENE |
| 33 | C143 CIS-1,3-DICHLOROPROPENE |
| 34 | C175 2-CHLOROETHYL VINYL ETHER |
| 35 | C180 BROMOFORM ** |
| 36 | C220 TETRACHLOROETHENE |
| 37 | C210 2-HEXANONE |
| 38 | C205 4-METHYL 2-PENTANONE |
| 39 | C225 1,1,2,2-TETRACHLOROETHANE ** |
| 40 | C230 TOLUENE * |
| 41 | C235 CHLOROBENZENE ** |
| 42 | C240 ETHYL BENZENE * |
| 43 | C245 STYRENE |
| 44 | C250 M+P-XYLENES |
| 45 | C253 1,3-DICHLOROETHANE |
| 46 | C254 1,4-DICHLOROETHANE |
| 47 | C255 1,2-DICHLOROETHANE |

No Name
 48 C250 O-XYLENE
 49 BENZENE-D6 **S. STD. **

| No | m/z | Scan | Time | Ref | RRT | Meth | Area(Hght) | Amount | %Tot |
|----|-----------|------|-------|-----|-------|------|------------|------------|-------|
| 1 | 49 | 292 | 7:22 | 1 | 1.000 | M XX | 11875. | 50.000 NG | 12.50 |
| 2 | 114 | 383 | 9:40 | 2 | 1.000 | M XX | 87995. | 50.000 NG | 12.50 |
| 3 | 117 | 867 | 21:53 | 3 | 1.000 | A BB | 47327. | 50.000 NG | 12.50 |
| 4 | 65 | 342 | 8:38 | 1 | 1.171 | M XX | 20700. | 47.860 NG | 11.97 |
| 5 | 98 | 588 | 14:50 | 3 | 0.678 | A BB | 60957. | 52.312 NG | 13.08 |
| 6 | 95 | 1136 | 28:40 | 3 | 1.310 | A BB | 42206. | 46.126 NG | 11.53 |
| 7 | NOT FOUND | | | | | | | | |
| 8 | NOT FOUND | | | | | | | | |
| 9 | NOT FOUND | | | | | | | | |
| 10 | NOT FOUND | | | | | | | | |
| 11 | NOT FOUND | | | | | | | | |
| 12 | NOT FOUND | | | | | | | | |
| 13 | NOT FOUND | | | | | | | | |
| 14 | NOT FOUND | | | | | | | | |
| 15 | NOT FOUND | | | | | | | | |
| 16 | NOT FOUND | | | | | | | | |
| 17 | 63 | 383 | 9:40 | 1 | 1.312 | A BB | 17758. | 103.738 NG | 25.94 |
| 18 | NOT FOUND | | | | | | | | |
| 19 | NOT FOUND | | | | | | | | |
| 20 | NOT FOUND | | | | | | | | |
| 21 | NOT FOUND | | | | | | | | |
| 22 | NOT FOUND | | | | | | | | |
| 23 | NOT FOUND | | | | | | | | |
| 24 | NOT FOUND | | | | | | | | |
| 25 | NOT FOUND | | | | | | | | |
| 26 | NOT FOUND | | | | | | | | |
| 27 | NOT FOUND | | | | | | | | |
| 28 | NOT FOUND | | | | | | | | |
| 29 | NOT FOUND | | | | | | | | |
| 30 | NOT FOUND | | | | | | | | |
| 31 | NOT FOUND | | | | | | | | |
| 32 | NOT FOUND | | | | | | | | |
| 33 | NOT FOUND | | | | | | | | |
| 34 | NOT FOUND | | | | | | | | |
| 35 | NOT FOUND | | | | | | | | |
| 36 | NOT FOUND | | | | | | | | |
| 37 | NOT FOUND | | | | | | | | |
| 38 | NOT FOUND | | | | | | | | |
| 39 | NOT FOUND | | | | | | | | |
| 40 | NOT FOUND | | | | | | | | |
| 41 | NOT FOUND | | | | | | | | |
| 42 | NOT FOUND | | | | | | | | |
| 43 | NOT FOUND | | | | | | | | |
| 44 | NOT FOUND | | | | | | | | |
| 45 | NOT FOUND | | | | | | | | |
| 46 | NOT FOUND | | | | | | | | |
| 47 | NOT FOUND | | | | | | | | |
| 48 | NOT FOUND | | | | | | | | |
| 49 | NOT FOUND | | | | | | | | |

96
 105
 92

CM

DATA FILE: C8711

FILTER SCAN PARAMETERS

METHOD LIBRARY & LISTS

NO. NUMBER TICS: 15
 TABLE ENTRIES: 539
 CLEAR TOLERANCE : 2
 RIC HT. [%]: 10
 FIRST SCAN : 1
 LAST SCAN : 1600
 TIC THRESHOLD : 600

TIC I. S. LIBRARY: LIBRARYLS
 NBS SEARCH PROC : SERLIB
 PEAK FINDER PROC: VOME
 TCA I. S. LL : LS
 FILE NAME LIST : TCAREF2

TARGET COMPOUND ANALYSIS:

| TARGETS (QUAN LIST) | IS PEAKS | TOTAL TARGET PEAKS |
|------------------------|-------------|-----------------------|
| 4 | 3 | 7 |

PEAK PROCESSING:

| TOTAL PEAKS | ←-----REJECT PEAKS-----→ | | | | | TOTAL REJECTS | TOTAL TICS |
|----------------|--------------------------|----------------|-----------------|---------------|------------------|------------------|---------------|
| | < 1ST SCAN | > LAST SCAN | < MIN RIC HT | < SCAN TOL | > MAX # PEAKS | | |
| 10 | 0 | 0 | 0 | 6 | 0 | 6 | 4 |

PEAK PROCESSING:

| SCAN# | PURITY | FIT | MW | COMPOUND NAME (BEFORE TIC THRESHOLD) |
|-------|--------|-----|-----|--------------------------------------|
| 119 | 647 | 778 | 116 | 1-PROPANAMINE, N, 2-DIMETHYL-N- |
| 130 | 907 | 912 | 72 | PENTANE (ACN)(DOT) |
| 169 | 886 | 886 | 86 | PENTANE, 2-METHYL- |
| 182 | 689 | 756 | 100 | UREA, 2-PROPENYL- |

Identification Report File: C8711

Sample: C8711.11

Date: 10/24/94 14:21:00

File: 4760-001-03 1644.2

Method: EPA METHOD 8240

Volume: 5ML

Instrument: FINN

Weight: 0.000

Submitted by: USARMY

Analyst: UC

Acct. No.: 4760-001

AMNT=AREA * REF AMNT/(REF AREA * RESP FACT)

Resp. fac. from Library Entry

| Peak | CAS # | Name |
|------|------------|---|
| 1 | 0-00-0 | CI01 BROMOCHLOROMETHANE **INT. STD. ** |
| 2 | 0-00-0 | CI10 1,4-DIFLUOROBENZENE **INT. STD. ** |
| 3 | 0-00-0 | CI20 CHLOROBENZENE-D5 **INT. STD. ** |
| 4 | 34419-76-6 | 1-PROPANAMINE, N, 2-DIMETHYL-N-NITROSO- |
| 5 | 109-66-0 | PENTANE (ACN)(DOT) |
| 6 | 107-83-5 | PENTANE, 2-METHYL- |
| 7 | 557-11-9 | UREA, 2-PROPENYL- |

| Peak | m/z | Scan | Time | Ref | RRT | Meth | Area(Hght) | Amount | %Tot |
|------|-----|------|-------|-----|-------|------|------------|------------|-------|
| 1 | TOT | 292 | 7:22 | 0 | ISINV | A BB | 29649. | ***** UG/L | 00.00 |
| 2 | TOT | 383 | 9:40 | 0 | ISINV | A BB | 183960. | ***** UG/L | 00.00 |
| 3 | TOT | 867 | 21:53 | 0 | ISINV | A BB | 157797. | ***** UG/L | 00.00 |
| 4 | TOT | 119 | 3:00 | 1 | 0.408 | A BV | 15753. | 26.565 | 48.81 |
| 5 | TOT | 130 | 3:17 | 1 | 0.445 | A VB | 7476. | 12.608 | 23.16 |
| 6 | TOT | 169 | 4:16 | 1 | 0.579 | A BB | 6390. | 10.776 | 19.80 |
| 7 | TOT | 182 | 4:36 | 1 | 0.623 | A BB | 2657. | 4.481 | 8.23 |

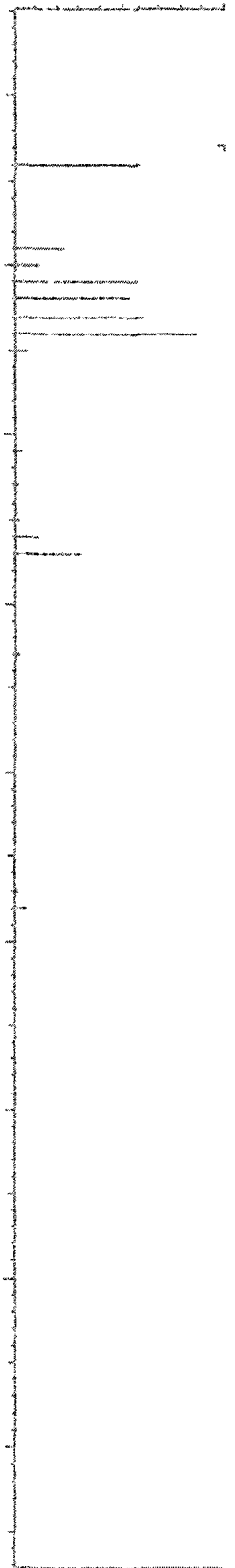
| Peak | Ret(L) | Ratio | RRT(L) | Ratio | Amnt | Amnt(L) | R. Fac | R. Fac(L) | Ratio |
|------|--------|-------|--------|-------|-------|---------|--------|-----------|-------|
| 1 | 9:13 | 0.80 | 1.000 | | | | | | |
| 2 | 19:21 | 0.50 | 1.000 | | | | | | |
| 3 | 23:54 | 0.92 | 1.000 | | | | | | |
| 4 | | | | | 26.57 | 1.00 | 26.565 | 1.000 | 26.57 |
| 5 | | | | | 12.61 | 1.00 | 12.608 | 1.000 | 12.61 |
| 6 | | | | | 10.78 | 1.00 | 10.776 | 1.000 | 10.78 |
| 7 | | | | | 4.48 | 1.00 | 4.481 | 1.000 | 4.48 |

MID LIBRARY SEARCH (LIBRARYNB)
 10/04/94 14:21:00 + 3:00
 SAMPLE: 4760-001-03 1644.2
 COND.S.: EPA METHOD 8240
 ENHANCED (S 158 2N 0T)

DATA: C8711 # 119
 CALL: C8711 # 3

BASE M/Z: 44
 RIC: 3135.

1154
 SAMPLE



OS.H12.0.M2
 1154

M.WT 116
 B.PK 42
 RANK 1
 # 2651
 PUR 647

CRS# 34419-76-6

OS.H12
 1154

M.WT 72
 B.PK 43
 RANK 2
 # 264
 PUR 645

BUTANE, 2-METHYL-

CRS# 78-78-4

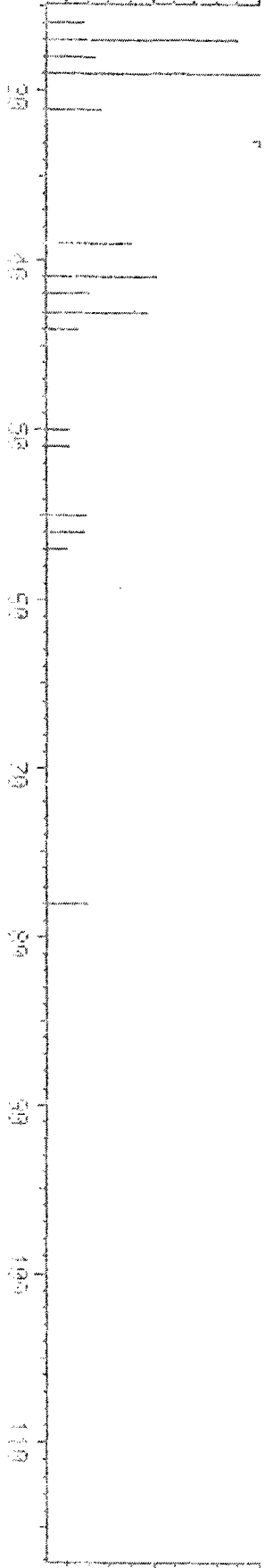
DE.H14.02
 1154

M.WT 118
 B.PK 29
 RANK 3
 # 2509
 PUR 627

HYDROPEROXIDE, HEXYL

CRS# 4312-76-9

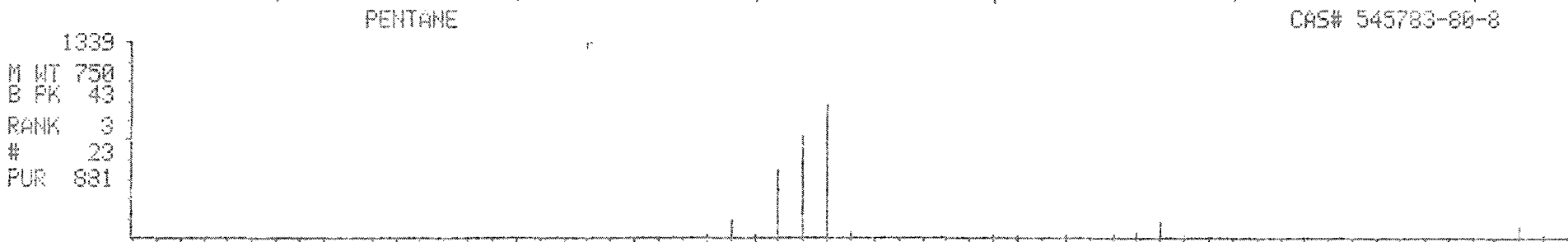
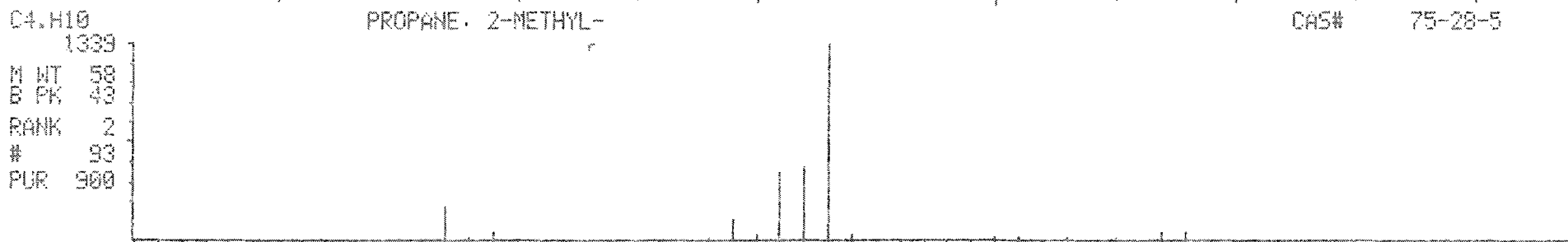
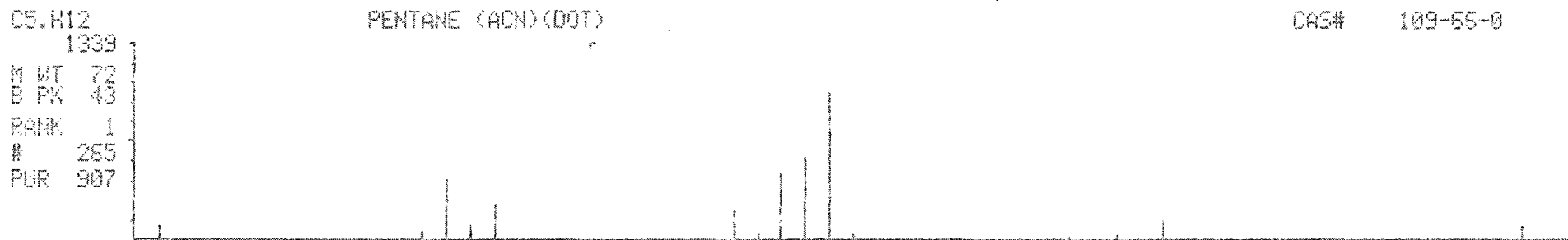
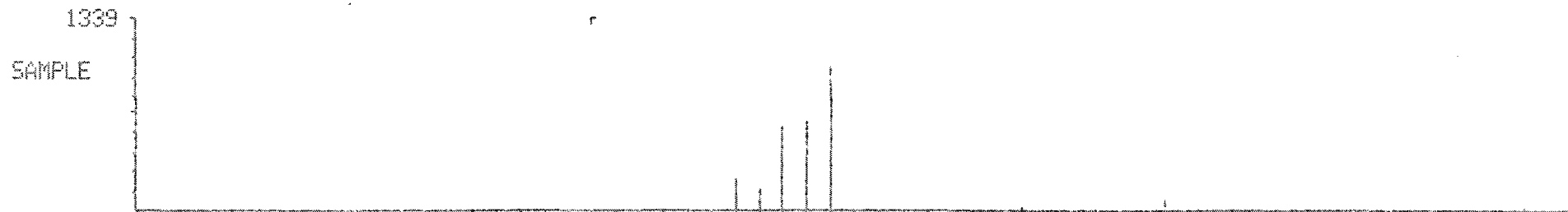
M/Z



MID LIBRARY SEARCH (LIBRARY#B)
10/04/94 14:21:00 + 3:17
SAMPLE: 4760-001-03 1644.2
CONDS.: EPA METHOD 8240
ENHANCED (S 15B 2N 0T)

DATA: C8711 # 130
CALI: C8711 # 3

BASE M/Z: 43
RIC: 1262.



M/Z

20

30

40

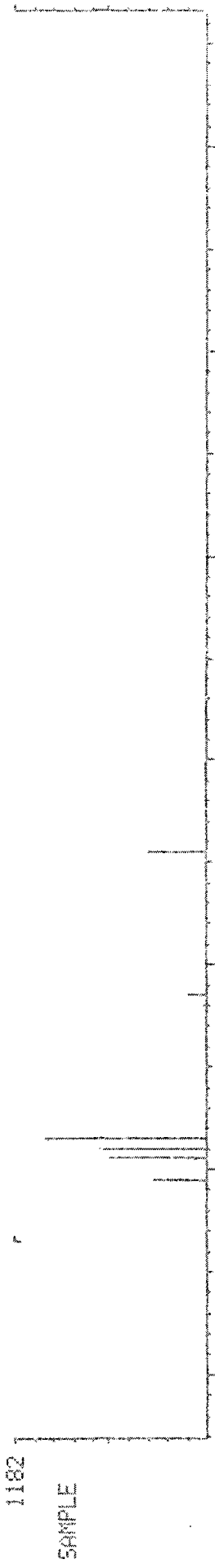
50

60

70

MID LIBRARY SEARCH (LIBRARYNE)
 10/04/94 14:21:00 + 4:15
 SAMPLE: 4750-001-03 1644.2
 COND.: EPA METHOD 8240
 ENHANCED (S 15B 2N 0T)

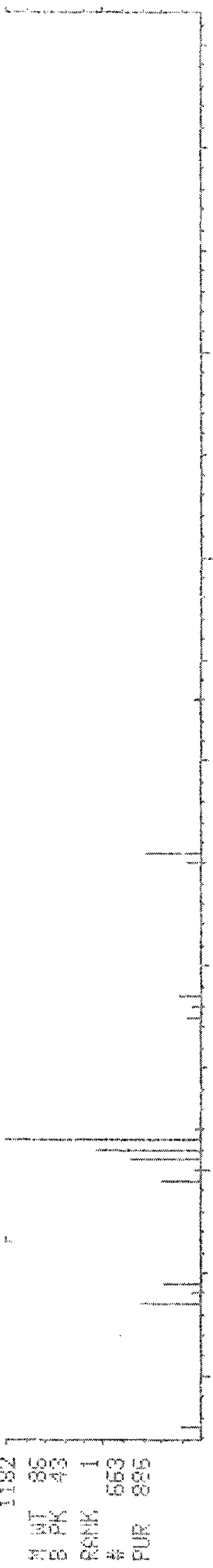
DATA: C8711 # 159 BASE M/Z: 43
 CALI: C8711 # 3 RIC: 1044.



CAS# 107-93-5

PENTANE, 2-METHYL-

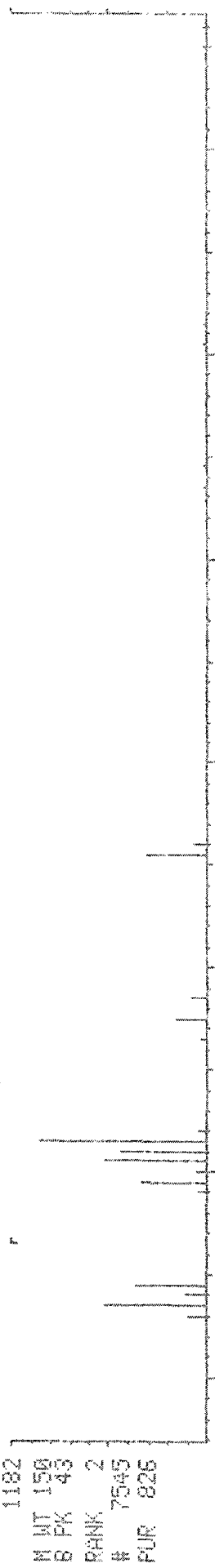
CE.H14
 1182
 M WT 86
 B PK 43
 RANK 1
 # 563
 PUR 895



CAS# 107-81-3

PENTANE, 2-BROMO-

CE.H11.BR
 1182
 M WT 150
 B PK 43
 RANK 2
 # 7545
 PUR 825



CAS# 79-29-8

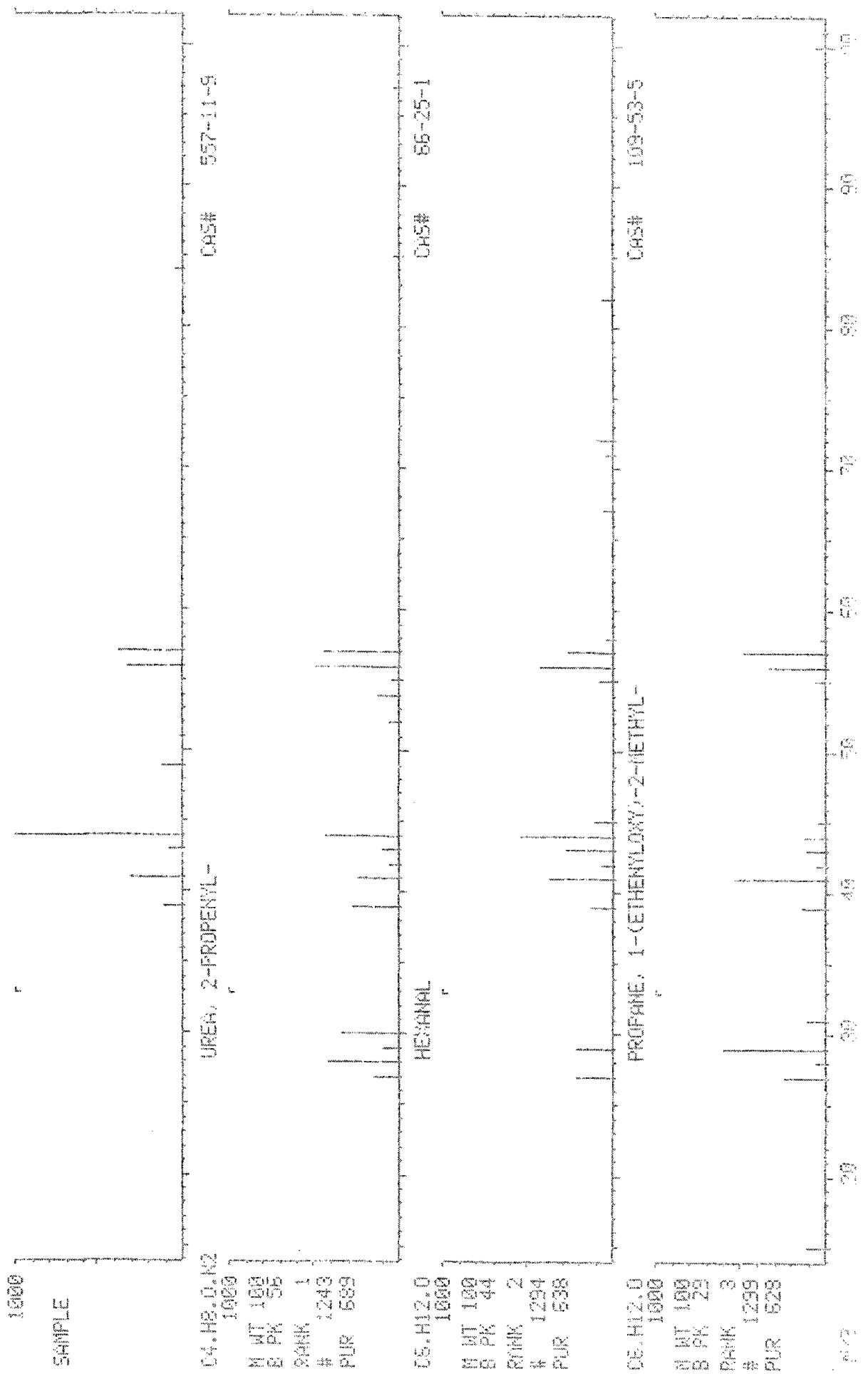
BUTANE, 2,3-DIMETHYL-

CE.H14
 1182
 M WT 86
 B PK 43
 RANK 3
 # 561
 PUR 781

DATA: C8711 # 182
CALL: C8711 # 3

BASE M/Z: 44
RIC: 953.

WID LIBRARY SEARCH (LIBRARY#B)
10/04/94 14:21:00 + 4:36
SAMPLE: 4750-001-03 1644.2
CONDS.: EPA METHOD 8240
ENHANCED (S 15B 2N 0T)



SAMPLE

C4.H8.O.N2
1000
M WT 100
B PK 55
RANK 1
1243
PUR 589

C6.H12.O
1000
M WT 100
B PK 44
RANK 2
1294
PUR 538

C6.H12.O
1000
M WT 100
B PK 29
RANK 3
1299
PUR 528

Initial Calibration Data

Instrument Identifier: FINN

Calibration Date: 09/14/94

5% RSD - 8240.

MIN RF FOR SPCC (**) = 0.30

| Compound | RF | | | | | Mean RF | %RSD |
|------------------------------|-------|-------|-------|-------|-------|---------|--------|
| | 10 | 20 | 50 | 100 | 200 | | |
| C010 CHLOROMETHANE ** | 1.686 | 2.462 | 2.506 | 2.683 | 2.223 | 2.312 | 16.727 |
| C015 BROMOMETHANE | 2.211 | 2.079 | 2.357 | 3.058 | 2.719 | 2.485 | 16.092 |
| C020 VINYL CHLORIDE * | 2.611 | 2.681 | 2.617 | 2.465 | 1.693 | 2.413 | 17.003 |
| C025 CHLOROETHANE | 0.714 | 0.669 | 0.817 | 1.245 | 1.155 | 0.920 | 28.576 |
| C030 METHYLENE CHLORIDE | 4.443 | 3.771 | 3.290 | 3.207 | 3.887 | 3.720 | 13.455 |
| C251 ACROLIN | 0.346 | 0.139 | 0.081 | 0.119 | 0.267 | 0.190 | 58.625 |
| C035 ACETONE | 1.737 | 1.058 | 1.339 | 1.617 | 1.333 | 1.417 | 18.830 |
| C252 ACRYLONITRILE | 0.342 | 0.518 | 0.525 | 0.612 | 0.568 | 0.513 | 20.021 |
| C040 CARBON DISULFIDE | 7.147 | 7.850 | 7.536 | 8.086 | 9.395 | 8.003 | 10.673 |
| C045 1,1-DICHLOROETHENE * | 0.706 | 0.553 | 0.594 | 0.720 | 0.815 | 0.678 | 15.527 |
| C050 1,1-DICHLOROETHANE ** | 1.042 | 0.684 | 0.721 | 0.736 | 0.851 | 0.807 | 18.036 |
| C055 TRANS-1,2-DICHLOROETHEN | 2.335 | 2.026 | 2.153 | 2.326 | 2.518 | 2.272 | 8.296 |
| C000 TRICHLOROFLUOROMETHA | 0.722 | 0.511 | 0.524 | 0.524 | 0.724 | 0.601 | 18.590 |
| C060 CHLOROFORM * | 1.605 | 0.970 | 0.945 | 0.935 | 1.164 | 1.124 | 25.345 |
| C065 1,2-DICHLOROETHANE | 3.583 | 2.634 | 2.330 | 2.424 | 2.650 | 2.724 | 18.322 |
| C110 2-BUTANONE | 0.185 | 0.109 | 0.108 | 0.119 | 0.144 | 0.133 | 24.410 |
| C115 1,1,1-TRICHLOROETHANE | 0.674 | 0.680 | 0.712 | 0.728 | 0.759 | 0.711 | 4.965 |
| C120 CARBON TETRACHLORIDE | 0.541 | 0.544 | 0.545 | 0.571 | 0.604 | 0.561 | 4.811 |
| C125 VINYL ACETATE | 0.343 | 0.279 | 0.504 | 0.618 | 0.586 | 0.466 | 32.005 |
| C130 BROMO DICHLOROMETHANE | 0.583 | 0.634 | 0.697 | 0.697 | 0.727 | 0.668 | 8.680 |
| C140 1,2-DICHLOROPROPANE | 0.322 | 0.350 | 0.357 | 0.363 | 0.368 | 0.352 | 5.194 |
| C145 TRANS-1,3 DICHLOROPROPE | 0.407 | 0.483 | 0.539 | 0.552 | 0.568 | 0.510 | 12.924 |
| C150 TRICHLOROETHENE | 0.418 | 0.433 | 0.460 | 0.439 | 0.451 | 0.440 | 3.707 |
| C155 DIBROMOCHLOROMETHANE | 0.437 | 0.447 | 0.497 | 0.509 | 0.522 | 0.482 | 7.922 |
| C160 1,1,2-TRICHLOROETHANE | 0.315 | 0.319 | 0.336 | 0.331 | 0.342 | 0.329 | 3.427 |
| C165 BENZENE | 0.924 | 0.984 | 1.010 | 1.041 | 1.014 | 0.994 | 4.447 |
| C143 CIS-1,2-DICHLOROPROPENE | 0.377 | 0.429 | 0.486 | 0.501 | 0.497 | 0.458 | 11.752 |
| C175 2-CHLOROETHYL VINYL ETH | 0.000 | 0.000 | 0.180 | 0.194 | 0.204 | 0.193 | 6.26 |
| C180 BROMOFORM ** | 0.271 | 0.293 | 0.303 | 0.308 | 0.356 | 0.306 | 10.221 |
| C220 TETRACHLOROETHENE | 0.507 | 0.489 | 0.517 | 0.490 | 0.500 | 0.501 | 2.380 |
| C210 2-HEXANONE | 0.419 | 0.508 | 0.497 | 0.528 | 0.291 | 0.449 | 21.730 |
| C205 4-METHYL 2-PENTANONE | 0.320 | 0.226 | 0.223 | 0.247 | 0.229 | 0.249 | 16.299 |
| C225 1,1,2,2-TETRACHLOROETHA | 0.617 | 0.632 | 0.606 | 0.504 | 0.621 | 0.596 | 8.764 |
| C230 TOLUENE * | 1.375 | 1.326 | 1.446 | 1.405 | 1.408 | 1.392 | 3.215 |
| C235 CHLOROBENZENE ** | 0.957 | 0.940 | 0.985 | 0.984 | 0.976 | 0.968 | 2.018 |
| C240 ETHYL BENZENE * | 0.388 | 0.409 | 0.426 | 0.446 | 0.452 | 0.424 | 6.268 |
| C245 STYRENE | 0.812 | 0.845 | 0.942 | 0.990 | 1.035 | 0.925 | 10.206 |
| C250 M+P-XYLENES | 0.988 | 1.058 | 1.138 | 1.199 | 1.127 | 1.102 | 7.337 |
| C253 1,3-DICHLOROBENZENE | 0.867 | 0.916 | 0.947 | 0.860 | 0.905 | 0.899 | 4.027 |
| C254 1,4-DICHLOROBENZENE | 0.888 | 0.927 | 0.961 | 0.857 | 0.915 | 0.909 | 4.330 |
| C255 1,2-DICHLOROBENZENE | 0.832 | 0.921 | 0.880 | 0.770 | 0.849 | 0.850 | 6.617 |
| C250 O-XYLENE | 0.512 | 0.572 | 0.557 | 0.595 | 0.558 | 0.559 | 5.462 |

RIC

09/14/94 21:23:00

SAMPLE: 10 PPB VOA STD

CONDS.: EPA METHOD 8240

RANGE: G 1.1600 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

DATA: CV91410A #49

SCANS 30 TO 1600

CALI: CV91410A #3

191488.

100.0

87

RIC

180

395

354

486

603

724

882

1012

1151

1233

1338

1411

1553

200
5:02

400
10:05

600
15:07

800
20:09

1000
25:11

1200
30:14

1400
35:16

1600 SCAN
40:18 TIME

106

Quantitation Report File: CV91410A

Data: CV91410A.TI

7/14/94 21:23:00

Sample: 10 PPB VOA STD

Conds.: EPA METHOD 8240

Formula: 5ML

Instrument: FINN

Weight: 0.000

Submitted by: PTL

Analyst: UC

Acct. No.: 5-PT

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)

Resp. fac. from Library Entry

| No | Name |
|----|---|
| 1 | CI01 BROMOCHLOROMETHANE **INT. STD. ** |
| 2 | CI10 1,4-DIFLUOROBENZENE **INT. STD. ** |
| 3 | CI20 CHLOROBENZENE-D5 **INT. STD. ** |
| 4 | CS15 1,2-DICHLOROETHANE-D4 **S. STD. ** |
| 5 | CS05 TOLUENE-DB **S. STD. ** |
| 6 | CS10 4-BROMOFLUOROBENZENE **S. STD. ** |
| 7 | CO10 CHLOROMETHANE ** |
| 8 | CO15 BROMOMETHANE |
| 9 | CO20 VINYL CHLORIDE * |
| 10 | CO25 CHLOROETHANE |
| 11 | CO30 METHYLENE CHLORIDE |
| 12 | C251 ACROLIN |
| 13 | CO35 ACETONE |
| 14 | C252 ACRYLONITRILE |
| 15 | CO40 CARBON DISULFIDE |
| 16 | CO45 1,1-DICHLOROETHENE * |
| 17 | CO50 1,1-DICHLOROETHANE ** |
| 18 | CO55 TRANS-1,2-DICHLOROETHENE |
| 19 | CO00 TRICHLOROFLUOROMETHANE |
| 20 | CO60 CHLOROFORM * |
| 21 | CO65 1,2-DICHLOROETHANE |
| 22 | C110 2-BUTANONE |
| 23 | C115 1,1,1-TRICHLOROETHANE |
| 24 | C120 CARBON TETRACHLORIDE |
| 25 | C125 VINYL ACETATE |
| 26 | C130 BROMO DICHLOROMETHANE |
| 27 | C140 1,2-DICHLOROPROPANE * |
| 28 | C145 TRANS-1,3 DICHLOROPROPENE |
| 29 | C150 TRICHLOROETHENE |
| 30 | C155 DIBROMOCHLOROMETHANE |
| 31 | C160 1,1,2-TRICHLOROETHANE |
| 32 | C165 BENZENE |
| 33 | C143 CIS-1,3-DICHLOROPROPENE |
| 34 | C175 2-CHLOROETHYL VINYL ETHER |
| 35 | C180 BROMOFORM ** |
| 36 | C220 TETRACHLOROETHENE |
| 37 | C210 2-HEXANONE |
| 38 | C205 4-METHYL 2-PENTANONE |
| 39 | C225 1,1,2,2-TETRACHLOROETHANE ** |
| 40 | C230 TOLUENE * |
| 41 | C235 CHLOROBENZENE ** |
| 42 | C240 ETHYL BENZENE * |
| 43 | C245 STYRENE |
| 44 | C250 M+P-XYLENES |
| 45 | C253 1,3-DICHLOROETHANE |
| 46 | C254 1,4-DICHLOROETHANE |
| 47 | C255 1,2-DICHLOROETHANE |

No Name
 48 C250 O-XYLENE
 49 BENZENE-D6 **S. STD. **

| No | m/z | Scan | Time | Ref | RRT | Meth | Area(Hght) | Amount | ZTot |
|----|-----------|------|-------|-----|-------|------|------------|-----------|-------|
| 1 | 49 | 305 | 7:41 | 1 | 1.000 | A BB | 6750. | 50.000 NG | 6.46 |
| 2 | 114 | 395 | 9:57 | 2 | 1.000 | A BB | 64012. | 50.000 NG | 6.46 |
| 3 | 117 | 882 | 22:13 | 3 | 1.000 | A BB | 49854. | 50.000 NG | 6.46 |
| 4 | 65 | 354 | 8:55 | 1 | 1.161 | A BB | 19365. | 78.771 NG | 10.17 |
| 5 | 98 | 603 | 15:11 | 3 | 0.684 | A BB | 61090. | 49.768 NG | 6.43 |
| 6 | 95 | 1151 | 29:00 | 3 | 1.305 | A BB | 43458. | 45.086 NG | 5.82 |
| 7 | 50 | 107 | 2:42 | 1 | 0.351 | A BV | 2275. | 6.725 NG | 0.87 |
| 8 | 94 | 130 | 3:16 | 1 | 0.426 | M XX | 2984. | 9.381 NG | 1.21 |
| 9 | 62 | 114 | 2:52 | 1 | 0.374 | A BB | 3524. | 9.975 NG | 1.29 |
| 10 | 64 | 136 | 3:26 | 1 | 0.446 | M XX | 964. | 8.742 NG | 1.13 |
| 11 | 49 | 194 | 4:53 | 1 | 0.636 | A BB | 5997. | 13.505 NG | 1.74 |
| 12 | 56 | 164 | 4:08 | 1 | 0.538 | M XX | 466. | 43.114 NG | 5.57 |
| 13 | 43 | 166 | 4:11 | 1 | 0.544 | A BB | 2344. | 12.977 NG | 1.68 |
| 14 | 53 | 203 | 5:07 | 1 | 0.666 | A BB | 461. | 6.516 NG | 0.84 |
| 15 | 76 | 194 | 4:53 | 1 | 0.636 | A BB | 9648. | 9.484 NG | 1.22 |
| 16 | 96 | 169 | 4:15 | 1 | 0.554 | M XX | 953. | 11.897 NG | 1.54 |
| 17 | 63 | 233 | 5:52 | 1 | 0.764 | M XX | 1406. | 14.447 NG | 1.87 |
| 18 | 61 | 208 | 5:14 | 1 | 0.682 | M XX | 3151. | 10.847 NG | 1.40 |
| 19 | 101 | 142 | 3:35 | 1 | 0.466 | A BB | 974. | 13.783 NG | 1.78 |
| 20 | 83 | 288 | 7:15 | 1 | 0.944 | M XX | 2166. | 16.991 NG | 2.19 |
| 21 | 62 | 364 | 9:10 | 1 | 1.193 | A BB | 4836. | 15.381 NG | 1.99 |
| 22 | 43 | 266 | 6:42 | 2 | 0.673 | A BB | 2358. | 17.212 NG | 2.22 |
| 23 | 97 | 320 | 8:04 | 2 | 0.810 | A BB | 8617. | 9.454 NG | 1.22 |
| 24 | 117 | 341 | 8:35 | 2 | 0.863 | A BB | 6919. | 9.920 NG | 1.28 |
| 25 | 43 | 235 | 5:55 | 2 | 0.595 | A BV | 4389. | 6.810 NG | 0.88 |
| 26 | 83 | 486 | 12:15 | 2 | 1.230 | A BB | 7464. | 8.372 NG | 1.08 |
| 27 | 63 | 455 | 11:28 | 2 | 1.152 | A BB | 4110. | 9.006 NG | 1.16 |
| 28 | 75 | 572 | 14:25 | 2 | 1.448 | A BB | 5202. | 7.542 NG | 0.97 |
| 29 | 95 | 429 | 10:48 | 2 | 1.086 | A BB | 5348. | 9.083 NG | 1.17 |
| 30 | 129 | 770 | 19:24 | 2 | 1.949 | M XX | 5582. | 8.782 NG | 1.13 |
| 31 | 97 | 685 | 17:15 | 2 | 1.734 | A BB | 4027. | 9.387 NG | 1.21 |
| 32 | 78 | 362 | 9:07 | 2 | 0.916 | A BB | 11823. | 9.146 NG | 1.18 |
| 33 | 75 | 662 | 16:41 | 2 | 1.676 | A BB | 4814. | 7.749 NG | 1.00 |
| 34 | NOT FOUND | | | | | | | | |
| 35 | 173 | 1089 | 27:26 | 2 | 2.757 | A BB | 3461. | 8.937 NG | 1.15 |
| 36 | 166 | 724 | 18:14 | 3 | 0.821 | A BB | 5054. | 9.811 NG | 1.27 |
| 37 | 43 | 545 | 13:44 | 3 | 0.618 | M XX | 4175. | 8.426 NG | 1.09 |
| 38 | 43 | 697 | 17:33 | 3 | 0.790 | A BB | 3182. | 14.343 NG | 1.85 |
| 39 | 83 | 1149 | 28:57 | 3 | 1.303 | A BB | 6143. | 10.181 NG | 1.32 |
| 40 | 91 | 615 | 15:30 | 3 | 0.697 | A BB | 13701. | 9.507 NG | 1.23 |
| 41 | 112 | 889 | 22:24 | 3 | 1.008 | A BB | 9538. | 9.716 NG | 1.25 |
| 42 | 106 | 906 | 22:49 | 3 | 1.027 | A BB | 3859. | 9.092 NG | 1.17 |
| 43 | 104 | 1026 | 25:51 | 3 | 1.163 | A BB | 8093. | 8.624 NG | 1.11 |
| 44 | 106 | 922 | 23:14 | 3 | 1.045 | A BB | 9845. | 8.684 NG | 1.12 |
| 45 | 146 | 1387 | 34:56 | 3 | 1.573 | A BB | 8636. | 9.150 NG | 1.18 |
| 46 | 146 | 1411 | 35:33 | 3 | 1.600 | A BB | 8848. | 9.240 NG | 1.19 |
| 47 | 146 | 1474 | 37:08 | 3 | 1.671 | A BB | 8295. | 9.459 NG | 1.22 |
| 48 | 106 | 1012 | 25:30 | 3 | 1.147 | A BB | 5096. | 9.182 NG | 1.19 |
| 49 | NOT FOUND | | | | | | | | |

RIC

09/14/94 20:34:00

SAMPLE: 20 PPB UOA STD

CONDS.: EPA METHOD 8240

RANGE: G 1.1600 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

DATA: CU91420A #49

SCANS 30 TO 1600

CALI: CU91420A #3

156672.

100.0

87

RIC

181

395

601

877

1141

320

485

721

1005

1080

1259

1395

1532

200
5:02

400
10:05

600
15:07

800
20:09

1000
25:11

1200
30:14

1400
35:16

1600 SCAN
40:18 TIME

601 109

Quantitation Report File: CV91420A

Data: CV91420A.TI

7/14/94 20:34:00

Sample: 20 PPB VOA STD

Conds.: EPA METHOD 8240

Formula: 5ML

Instrument: FINN

Weight: 0.000

Submitted by: PTL

Analyst: UC

Acct. No.: 5-PT

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)

Resp. fac. from Library Entry

| No | Name |
|----|---|
| 1 | CI01 BROMOCHLOROMETHANE **INT. STD. ** |
| 2 | CI10 1,4-DIFLUOROBENZENE **INT. STD. ** |
| 3 | CI20 CHLOROBENZENE-D5 **INT. STD. ** |
| 4 | CS15 1,2-DICHLOROETHANE-D4 **S. STD. ** |
| 5 | CS05 TOLUENE-D8 **S. STD. ** |
| 6 | CS10 4-BROMOFLUOROBENZENE **S. STD. ** |
| 7 | C010 CHLOROMETHANE ** |
| 8 | C015 BROMOMETHANE ** |
| 9 | C020 VINYL CHLORIDE * |
| 10 | C025 CHLOROETHANE |
| 11 | C030 METHYLENE CHLORIDE |
| 12 | C251 ACROLIN |
| 13 | C035 ACETONE |
| 14 | C252 ACRYLONITRILE |
| 15 | C040 CARBON DISULFIDE |
| 16 | C045 1,1-DICHLOROETHENE * |
| 17 | C050 1,1-DICHLOROETHANE ** |
| 18 | C055 TRANS-1,2-DICHLOROETHENE |
| 19 | C000 TRICHLOROFLUOROMETHANE |
| 20 | C060 CHLOROFORM * |
| 21 | C065 1,2-DICHLOROETHANE |
| 22 | C110 2-BUTANONE |
| 23 | C115 1,1,1-TRICHLOROETHANE |
| 24 | C120 CARBON TETRACHLORIDE |
| 25 | C125 VINYL ACETATE |
| 26 | C130 BROMO DICHLOROMETHANE |
| 27 | C140 1,2-DICHLOROPROPANE * |
| 28 | C145 TRANS-1,3 DICHLOROPROPENE |
| 29 | C150 TRICHLOROETHENE |
| 30 | C155 DIBROMOCHLOROMETHANE |
| 31 | C160 1,1,2-TRICHLOROETHANE |
| 32 | C165 BENZENE |
| 33 | C143 CIS-1,3-DICHLOROPROPENE |
| 34 | C175 2-CHLOROETHYL VINYL ETHER |
| 35 | C180 BROMOFORM ** |
| 36 | C220 TETRACHLOROETHENE |
| 37 | C210 2-HEXANONE |
| 38 | C205 4-METHYL 2-PENTANONE |
| 39 | C225 1,1,2,2-TETRACHLOROETHANE ** |
| 40 | C230 TOLUENE * |
| 41 | C235 CHLOROBENZENE ** |
| 42 | C240 ETHYL BENZENE * |
| 43 | C245 STYRENE |
| 44 | C250 M+P-XYLENES |
| 45 | C253 1,3-DICHLOROENZENE |
| 46 | C254 1,4-DICHLOROENZENE |
| 47 | C255 1,2-DICHLOROENZENE |

No Name
 48 C250 O-XYLENE
 49 BENZENE-D6 **S. STD. **

| No | m/z | Scan | Time | Ref | RRT | Meth | Area(Hght) | Amount | %Tot |
|----|-----------|------|-------|-----|-------|------|------------|-----------|------|
| 1 | 49 | 305 | 7:41 | 1 | 1.000 | A BB | 8332. | 50.000 NG | 4.47 |
| 2 | 114 | 395 | 9:57 | 2 | 1.000 | A BB | 86467. | 50.000 NG | 4.47 |
| 3 | 117 | 877 | 22:05 | 3 | 1.000 | A BB | 68587. | 50.000 NG | 4.47 |
| 4 | 65 | 354 | 8:55 | 1 | 1.161 | A BB | 16583. | 54.642 NG | 4.88 |
| 5 | 98 | 601 | 15:08 | 3 | 0.685 | A BB | 84786. | 50.208 NG | 4.49 |
| 6 | 95 | 1141 | 28:45 | 3 | 1.301 | A BB | 60905. | 45.929 NG | 4.11 |
| 7 | 50 | 108 | 2:43 | 1 | 0.354 | A BB | 8204. | 19.646 NG | 1.76 |
| 8 | 94 | 131 | 3:18 | 1 | 0.430 | A BB | 6928. | 17.643 NG | 1.58 |
| 9 | 62 | 114 | 2:52 | 1 | 0.374 | A BB | 8934. | 20.487 NG | 1.83 |
| 10 | 64 | 134 | 3:23 | 1 | 0.439 | A BB | 2229. | 16.376 NG | 1.46 |
| 11 | 49 | 195 | 4:55 | 1 | 0.639 | A BB | 12567. | 22.924 NG | 2.05 |
| 12 | 56 | 164 | 4:08 | 1 | 0.538 | A BV | 461. | 34.562 NG | 3.09 |
| 13 | 43 | 167 | 4:12 | 1 | 0.548 | A BB | 3524. | 15.804 NG | 1.41 |
| 14 | 53 | 203 | 5:07 | 1 | 0.666 | A BB | 1726. | 19.762 NG | 1.77 |
| 15 | 76 | 195 | 4:55 | 1 | 0.639 | A BB | 26162. | 20.832 NG | 1.86 |
| 16 | 96 | 170 | 4:17 | 1 | 0.557 | A BB | 1840. | 18.617 NG | 1.66 |
| 17 | 63 | 234 | 5:54 | 1 | 0.767 | A BB | 2276. | 18.952 NG | 1.69 |
| 18 | 61 | 210 | 5:17 | 1 | 0.689 | A BB | 6752. | 18.826 NG | 1.68 |
| 19 | 101 | 142 | 3:35 | 1 | 0.466 | A BB | 1700. | 19.487 NG | 1.74 |
| 20 | 83 | 289 | 7:17 | 1 | 0.948 | A BB | 3232. | 20.536 NG | 1.84 |
| 21 | 62 | 363 | 9:09 | 1 | 1.190 | A BB | 8777. | 22.613 NG | 2.02 |
| 22 | 43 | 266 | 6:42 | 2 | 0.673 | A BB | 3756. | 20.297 NG | 1.81 |
| 23 | 97 | 320 | 8:04 | 2 | 0.810 | A BB | 23504. | 19.089 NG | 1.71 |
| 24 | 117 | 342 | 8:37 | 2 | 0.866 | A BB | 18813. | 19.969 NG | 1.79 |
| 25 | 43 | 235 | 5:55 | 2 | 0.595 | A BB | 9631. | 11.061 NG | 0.99 |
| 26 | 83 | 485 | 12:13 | 2 | 1.228 | A BB | 21901. | 18.185 NG | 1.63 |
| 27 | 63 | 454 | 11:26 | 2 | 1.149 | A BB | 12100. | 19.626 NG | 1.75 |
| 28 | 75 | 570 | 14:21 | 2 | 1.443 | A BB | 16673. | 17.896 NG | 1.60 |
| 29 | 95 | 428 | 10:47 | 2 | 1.084 | A BB | 14968. | 18.819 NG | 1.68 |
| 30 | 129 | 767 | 19:19 | 2 | 1.942 | A BB | 15438. | 17.980 NG | 1.61 |
| 31 | 97 | 682 | 17:11 | 2 | 1.727 | A BB | 11018. | 19.013 NG | 1.70 |
| 32 | 78 | 362 | 9:07 | 2 | 0.916 | A BB | 34012. | 19.476 NG | 1.74 |
| 33 | 75 | 659 | 16:36 | 2 | 1.668 | A BB | 14830. | 17.673 NG | 1.58 |
| 34 | 63 | 541 | 13:38 | 2 | 1.370 | A BB | 6204. | 18.544 NG | 1.66 |
| 35 | 173 | 1080 | 27:12 | 2 | 2.734 | A BB | 10122. | 19.350 NG | 1.73 |
| 36 | 166 | 721 | 18:10 | 3 | 0.822 | A BB | 13408. | 18.919 NG | 1.69 |
| 37 | 43 | 542 | 13:39 | 3 | 0.618 | A BB | 13931. | 20.435 NG | 1.83 |
| 38 | 43 | 695 | 17:30 | 3 | 0.792 | A BB | 6197. | 20.305 NG | 1.82 |
| 39 | 83 | 1140 | 28:43 | 3 | 1.300 | A BB | 17335. | 20.883 NG | 1.87 |
| 40 | 91 | 614 | 15:28 | 3 | 0.700 | A BB | 36363. | 18.340 NG | 1.64 |
| 41 | 112 | 884 | 22:16 | 3 | 1.008 | A BB | 25768. | 19.079 NG | 1.71 |
| 42 | 106 | 900 | 22:40 | 3 | 1.026 | A BB | 11196. | 19.172 NG | 1.71 |
| 43 | 104 | 1018 | 25:39 | 3 | 1.161 | A BB | 23182. | 17.956 NG | 1.61 |
| 44 | 106 | 916 | 23:04 | 3 | 1.044 | A BB | 29024. | 18.608 NG | 1.66 |
| 45 | 146 | 1372 | 34:34 | 3 | 1.564 | A BB | 25115. | 19.342 NG | 1.73 |
| 46 | 146 | 1395 | 35:08 | 3 | 1.591 | A BB | 25414. | 19.290 NG | 1.72 |
| 47 | 146 | 1456 | 36:41 | 3 | 1.660 | A BV | 25253. | 20.933 NG | 1.87 |
| 48 | 106 | 1005 | 25:19 | 3 | 1.146 | A BB | 15691. | 20.551 NG | 1.84 |
| 49 | NOT FOUND | | | | | | | | |

RIC

09/14/94 19:43:00

SAMPLE: 50 PPB UOA STD

CONDS.: EPA METHOD 8240

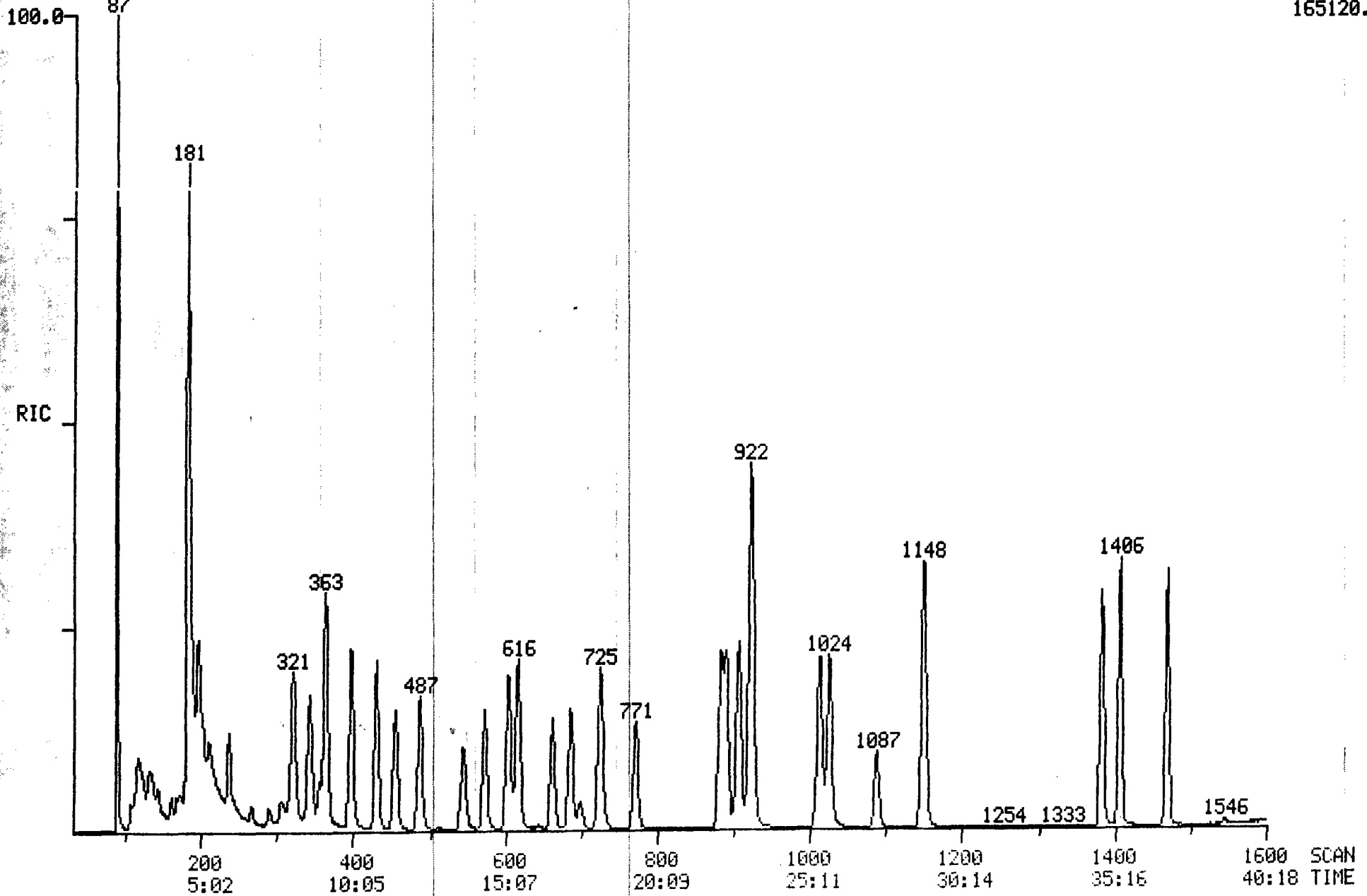
RANGE: G 1.1600 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

DATA: CV91450A #49

SCANS 30 TO 1600

CALI: CV91450A #3

165120.



Quantitation Report File: CV91450A

Data: CV91450A.TI

9/14/94 19:43:00

Sample: 50 PPB VOA STD

Conds.: EPA METHOD 8240

Formula: 5ML

Instrument: FINN

Weight: 0.000

Submitted by: PTL

Analyst: UC

Acct. No.: 5-PT

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)

Resp. fac. from Library Entry

| No | Name |
|----|--|
| 1 | CI01 BROMOCHLOROMETHANE **INT. STD.** |
| 2 | CI10 1,4-DIFLUOROBENZENE **INT. STD.** |
| 3 | CI20 CHLOROBENZENE-D5 **INT. STD.** |
| 4 | CS15 1,2-DICHLOROETHANE-D4 **S. STD.** |
| 5 | CS05 TOLUENE-D8 **S. STD.** |
| 6 | CS10 4-BROMOFLUOROBENZENE **S. STD.** |
| 7 | CO10 CHLOROMETHANE ** |
| 8 | CO15 BROMOMETHANE |
| 9 | CO20 VINYL CHLORIDE * |
| 10 | CO25 CHLOROETHANE |
| 11 | CO30 METHYLENE CHLORIDE |
| 12 | C251 ACROLIN |
| 13 | CO35 ACETONE |
| 14 | C252 ACRYLONITRILE |
| 15 | CO40 CARBON DISULFIDE |
| 16 | CO45 1,1-DICHLOROETHENE * |
| 17 | CO50 1,1-DICHLOROETHANE ** |
| 18 | CO55 TRANS-1,2-DICHLOROETHENE |
| 19 | CO00 TRICHLOROFLUOROMETHANE |
| 20 | CO60 CHLOROFORM * |
| 21 | CO65 1,2-DICHLOROETHANE |
| 22 | C110 2-BUTANONE |
| 23 | C115 1,1,1-TRICHLOROETHANE |
| 24 | C120 CARBON TETRACHLORIDE |
| 25 | C125 VINYL ACETATE |
| 26 | CI30 BROMO-DICHLOROMETHANE |
| 27 | C140 1,2-DICHLOROPROPANE * |
| 28 | C145 TRANS-1,3 DICHLOROPROPENE |
| 29 | C150 TRICHLOROETHENE |
| 30 | C155 DIBROMOCHLOROMETHANE |
| 31 | C160 1,1,2-TRICHLOROETHANE |
| 32 | C165 BENZENE |
| 33 | C143 CIS-1,3-DICHLOROPROPENE |
| 34 | C175 2-CHLOROETHYL VINYL ETHER |
| 35 | C180 BROMOFORM ** |
| 36 | C220 TETRACHLOROETHENE |
| 37 | C210 2-HEXANONE |
| 38 | C205 4-METHYL 2-PENTANONE |
| 39 | C225 1,1,2,2-TETRACHLOROETHANE ** |
| 40 | C230 TOLUENE * |
| 41 | C235 CHLOROBENZENE ** |
| 42 | C240 ETHYL BENZENE * |
| 43 | C245 STYRENE |
| 44 | C250 M+P-XYLENES |
| 45 | C253 1,3-DICHLOROETHANE |
| 46 | C254 1,4-DICHLOROETHANE |
| 47 | C255 1,2-DICHLOROETHANE |

No Name
 48 C250 O-XYLENE
 49 BENZENE-D6 **S. STD. **

| No | m/z | Scan | Time | Ref | RRT | Meth | Area(Hght) | Amount | %Tot |
|----|-----------|------|-------|-----|-------|------|------------|-----------|------|
| 1 | 49 | 305 | 7:41 | 1 | 1.000 | A BB | 9202. | 50.000 NG | 2.08 |
| 2 | 114 | 396 | 9:59 | 2 | 1.000 | A BB | 88266. | 50.000 NG | 2.08 |
| 3 | 117 | 882 | 22:13 | 3 | 1.000 | A BB | 71581. | 50.000 NG | 2.08 |
| 4 | 65 | 355 | 8:57 | 1 | 1.164 | A BB | 16758. | 50.000 NG | 2.08 |
| 5 | 98 | 603 | 15:11 | 3 | 0.684 | A BB | 88121. | 50.000 NG | 2.08 |
| 6 | 95 | 1149 | 28:57 | 3 | 1.303 | A BB | 69198. | 50.000 NG | 2.08 |
| 7 | 50 | 107 | 2:42 | 1 | 0.351 | A BB | 23060. | 50.000 NG | 2.08 |
| 8 | 94 | 130 | 3:16 | 1 | 0.426 | A BB | 21684. | 50.000 NG | 2.08 |
| 9 | 62 | 114 | 2:52 | 1 | 0.374 | A BB | 24081. | 50.000 NG | 2.08 |
| 10 | 64 | 134 | 3:23 | 1 | 0.439 | A BB | 7516. | 50.000 NG | 2.08 |
| 11 | 49 | 195 | 4:55 | 1 | 0.639 | A BB | 30271. | 50.000 NG | 2.08 |
| 12 | 56 | 164 | 4:08 | 1 | 0.538 | M XX | 737. | 50.000 NG | 2.08 |
| 13 | 43 | 166 | 4:11 | 1 | 0.544 | A BB | 12313. | 50.000 NG | 2.08 |
| 14 | 53 | 203 | 5:07 | 1 | 0.666 | A BB | 4823. | 50.000 NG | 2.08 |
| 15 | 76 | 195 | 4:55 | 1 | 0.639 | A BB | 69349. | 50.000 NG | 2.08 |
| 16 | 96 | 171 | 4:18 | 1 | 0.561 | A BB | 5458. | 50.000 NG | 2.08 |
| 17 | 63 | 235 | 5:55 | 1 | 0.770 | A BB | 6633. | 50.000 NG | 2.08 |
| 18 | 61 | 210 | 5:17 | 1 | 0.689 | A BB | 19804. | 50.000 NG | 2.08 |
| 19 | 101 | 142 | 3:35 | 1 | 0.466 | A BB | 4817. | 50.000 NG | 2.08 |
| 20 | 83 | 289 | 7:17 | 1 | 0.948 | A BB | 8690. | 50.000 NG | 2.08 |
| 21 | 62 | 365 | 9:12 | 1 | 1.197 | A BB | 21433. | 50.000 NG | 2.08 |
| 22 | 43 | 266 | 6:42 | 2 | 0.672 | A BB | 9445. | 50.000 NG | 2.08 |
| 23 | 97 | 321 | 8:05 | 2 | 0.811 | A BB | 62845. | 50.000 NG | 2.08 |
| 24 | 117 | 343 | 8:38 | 2 | 0.866 | A BB | 48086. | 50.000 NG | 2.08 |
| 25 | 43 | 235 | 5:55 | 2 | 0.593 | A BB | 44440. | 50.000 NG | 2.08 |
| 26 | 83 | 487 | 12:16 | 2 | 1.230 | A BB | 61468. | 50.000 NG | 2.08 |
| 27 | 63 | 455 | 11:28 | 2 | 1.149 | A BB | 31466. | 50.000 NG | 2.08 |
| 28 | 75 | 572 | 14:25 | 2 | 1.444 | A BB | 47551. | 50.000 NG | 2.08 |
| 29 | 95 | 429 | 10:48 | 2 | 1.083 | A BB | 40595. | 50.000 NG | 2.08 |
| 30 | 129 | 771 | 19:25 | 2 | 1.947 | A BB | 43823. | 50.000 NG | 2.08 |
| 31 | 97 | 685 | 17:15 | 2 | 1.730 | A BB | 29578. | 50.000 NG | 2.08 |
| 32 | 78 | 363 | 9:09 | 2 | 0.917 | A BB | 89133. | 50.000 NG | 2.08 |
| 33 | 75 | 662 | 16:41 | 2 | 1.672 | A BB | 42829. | 50.000 NG | 2.08 |
| 34 | 63 | 543 | 13:41 | 2 | 1.371 | M XX | 17076. | 50.000 NG | 2.08 |
| 35 | 173 | 1087 | 27:23 | 2 | 2.745 | A BB | 26699. | 50.000 NG | 2.08 |
| 36 | 166 | 725 | 18:16 | 3 | 0.822 | A BB | 36983. | 50.000 NG | 2.08 |
| 37 | 43 | 544 | 13:42 | 3 | 0.617 | A BB | 35575. | 50.000 NG | 2.08 |
| 38 | 43 | 698 | 17:35 | 3 | 0.791 | A BB | 15926. | 50.000 NG | 2.08 |
| 39 | 83 | 1148 | 28:55 | 3 | 1.302 | A BB | 43317. | 50.000 NG | 2.08 |
| 40 | 91 | 616 | 15:31 | 3 | 0.698 | A BB | 103464. | 50.000 NG | 2.08 |
| 41 | 112 | 889 | 22:24 | 3 | 1.008 | A BB | 70477. | 50.000 NG | 2.08 |
| 42 | 106 | 905 | 22:48 | 3 | 1.026 | A BB | 30472. | 50.000 NG | 2.08 |
| 43 | 104 | 1024 | 25:48 | 3 | 1.161 | A BB | 67372. | 50.000 NG | 2.08 |
| 44 | 106 | 922 | 23:14 | 3 | 1.045 | A BB | 81395. | 50.000 NG | 2.08 |
| 45 | 146 | 1382 | 34:49 | 3 | 1.567 | A BB | 67759. | 50.000 NG | 2.08 |
| 46 | 146 | 1406 | 35:25 | 3 | 1.594 | A BB | 68748. | 50.000 NG | 2.08 |
| 47 | 146 | 1468 | 36:59 | 3 | 1.664 | A BB | 62953. | 50.000 NG | 2.08 |
| 48 | 106 | 1011 | 25:28 | 3 | 1.146 | A BB | 39843. | 50.000 NG | 2.08 |
| 49 | NOT FOUND | | | | | | | | |

RIC

09/14/94 18:53:00

SAMPLE: 100 PPB VD ASTD

CONDS.: EPA METHOD 8240

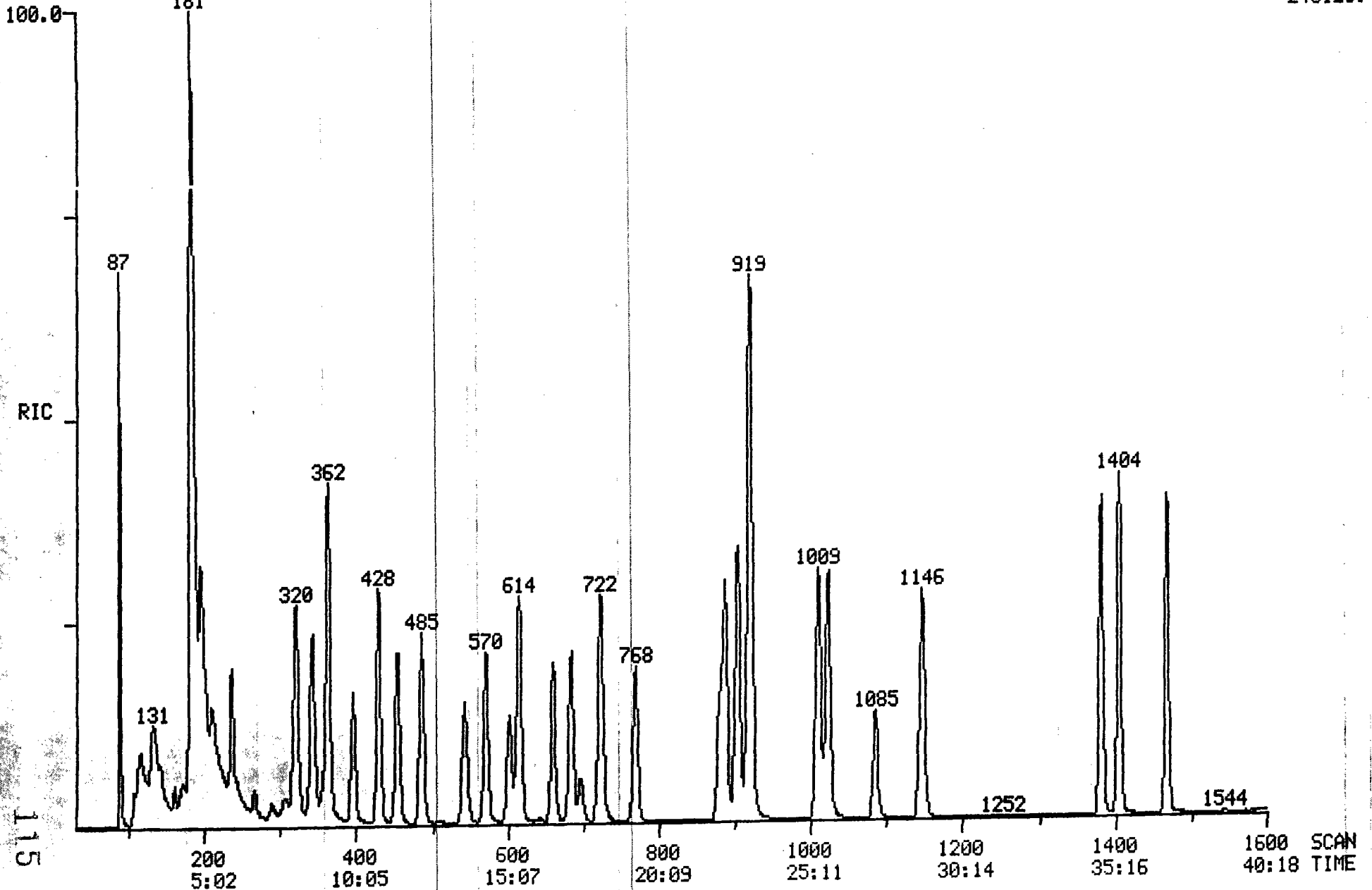
RANGE: G 1.1500 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

DATA: CV914100B #49

SCANS 30 TO 1600

CALI: CV914100B #3

240128.



Quantitation Report File: CV914100B

Data: CV914100B.TI

7/14/94 18:53:00

Sample: 100 PPB VO ASTD

Conds.: EPA METHOD 8240

Formula: 5ML

Instrument: FINN

Weight: 0.000

Submitted by: PTL

Analyst: UC

Acct. No.: 5-PT.

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)

Resp. fac. from Library Entry

| No | Name |
|----|--|
| 1 | CI01 BROMOCHLOROMETHANE **INT. STD.** |
| 2 | CI10 1,4-DIFLUOROBENZENE **INT. STD.** |
| 3 | CI20 CHLOROBENZENE-D5 **INT. STD.** |
| 4 | CS15 1,2-DICHLOROETHANE-D4 **S. STD.** |
| 5 | CS05 TOLUENE-DB **S. STD.** |
| 6 | CS10 4-BROMOFLUOROBENZENE **S. STD.** |
| 7 | CO10 CHLOROMETHANE ** |
| 8 | CO15 BROMOMETHANE |
| 9 | CO20 VINYL CHLORIDE * |
| 10 | CO25 CHLOROETHANE |
| 11 | CO30 METHYLENE CHLORIDE |
| 12 | C251 ACROLIN |
| 13 | CO35 ACETONE |
| 14 | C252 ACRYLONITRILE |
| 15 | CO40 CARBON DISULFIDE |
| 16 | CO45 1,1-DICHLOROETHENE * |
| 17 | CO50 1,1-DICHLOROETHANE ** |
| 18 | CO55 TRANS-1,2-DICHLOROETHENE |
| 19 | CO00 TRICHLOROFLUOROMETHANE |
| 20 | CO60 CHLOROFORM * |
| 21 | CO65 1,2-DICHLOROETHANE |
| 22 | C110 2-BUTANONE |
| 23 | C115 1,1,1-TRICHLOROETHANE |
| 24 | C120 CARBON TETRACHLORIDE |
| 25 | C125 VINYL ACETATE |
| 26 | C130 BROMO DICHLOROMETHANE |
| 27 | C140 1,2-DICHLOROPROPANE * |
| 28 | C145 TRANS-1,3 DICHLOROPROPENE |
| 29 | C150 TRICHLOROETHENE |
| 30 | C155 DIBROMOCHLOROMETHANE |
| 31 | C160 1,1,2-TRICHLOROETHANE |
| 32 | C165 BENZENE |
| 33 | C143 CIS-1,3-DICHLOROPROPENE |
| 34 | C175 2-CHLOROETHYL VINYL ETHER |
| 35 | C180 BROMOFORM ** |
| 36 | C220 TETRACHLOROETHENE |
| 37 | C210 2-HEXANONE |
| 38 | C205 4-METHYL 2-PENTANONE |
| 39 | C225 1,1,2,2-TETRACHLOROETHANE ** |
| 40 | C230 TOLUENE * |
| 41 | C235 CHLOROBENZENE ** |
| 42 | C240 ETHYL BENZENE * |
| 43 | C245 STYRENE |
| 44 | C250 M+P-XYLENES |
| 45 | C253 1,3-DICHLOROENZENE |
| 46 | C254 1,4-DICHLOROENZENE |
| 47 | C255 1,2-DICHLOROENZENE |

No Name
 48 C250 O-XYLENE
 19 BENZENE-D6 **S. STD.**

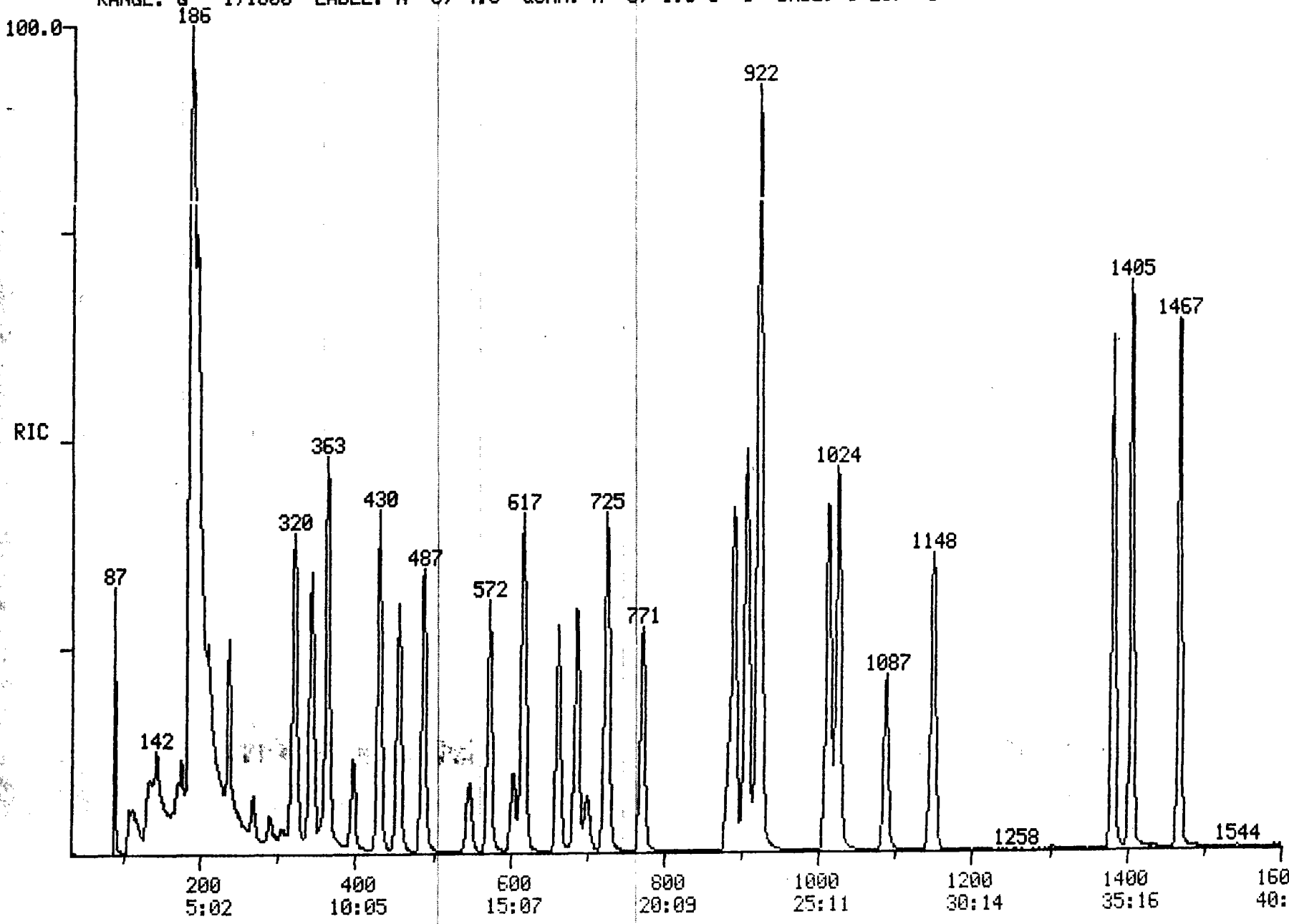
| No | m/z | Scan | Time | Ref | RRT | Meth | Area(Hght) | Amount | %Tot |
|----|-----------|------|-------|-----|-------|------|------------|------------|------|
| 1 | 49 | 305 | 7:41 | 1 | 1.000 | A BV | 8332. | 50.000 NG | 1.05 |
| 2 | 114 | 395 | 9:57 | 2 | 1.000 | A BB | 90012. | 50.000 NG | 1.05 |
| 3 | 117 | 879 | 22:09 | 3 | 1.000 | A BB | 73739. | 50.000 NG | 1.05 |
| 4 | 65 | 354 | 8:55 | 1 | 1.161 | A BV | 13901. | 45.807 NG | 0.97 |
| 5 | 98 | 601 | 15:08 | 3 | 0.684 | A BB | 91027. | 50.136 NG | 1.06 |
| 6 | 95 | 1146 | 28:52 | 3 | 1.304 | A BB | 74302. | 52.116 NG | 1.10 |
| 7 | 50 | 107 | 2:42 | 1 | 0.351 | A BB | 44707. | 107.064 NG | 2.26 |
| 8 | 94 | 130 | 3:16 | 1 | 0.426 | A BB | 50957. | 129.774 NG | 2.74 |
| 9 | 62 | 113 | 2:51 | 1 | 0.370 | A BB | 41066. | 94.172 NG | 1.99 |
| 10 | 64 | 133 | 3:21 | 1 | 0.436 | A BB | 20736. | 152.352 NG | 3.21 |
| 11 | 49 | 195 | 4:55 | 1 | 0.639 | A BB | 53428. | 97.468 NG | 2.06 |
| 12 | 56 | 163 | 4:06 | 1 | 0.534 | M XX | 1978. | 148.278 NG | 3.13 |
| 13 | 43 | 166 | 4:11 | 1 | 0.544 | M XX | 26942. | 120.835 NG | 2.55 |
| 14 | 53 | 203 | 5:07 | 1 | 0.666 | A BB | 10186. | 116.630 NG | 2.46 |
| 15 | 76 | 194 | 4:53 | 1 | 0.636 | A BB | 134740. | 107.296 NG | 2.26 |
| 16 | 96 | 171 | 4:18 | 1 | 0.561 | A BB | 11993. | 121.333 NG | 2.56 |
| 17 | 63 | 234 | 5:54 | 1 | 0.767 | A BB | 12259. | 102.063 NG | 2.15 |
| 18 | 61 | 210 | 5:17 | 1 | 0.689 | A BB | 38757. | 108.073 NG | 2.28 |
| 19 | 101 | 142 | 3:35 | 1 | 0.466 | A BB | 8717. | 99.929 NG | 2.11 |
| 20 | 83 | 289 | 7:17 | 1 | 0.948 | A BB | 15570. | 98.942 NG | 2.09 |
| 21 | 62 | 363 | 9:09 | 1 | 1.190 | A BB | 40391. | 104.070 NG | 2.19 |
| 22 | 43 | 266 | 6:42 | 2 | 0.673 | A BB | 21363. | 110.897 NG | 2.34 |
| 23 | 97 | 320 | 8:04 | 2 | 0.810 | A BB | 130938. | 102.154 NG | 2.15 |
| 24 | 117 | 342 | 8:37 | 2 | 0.866 | A BB | 102726. | 104.742 NG | 2.21 |
| 25 | 43 | 235 | 5:55 | 2 | 0.595 | A BB | 111183. | 122.666 NG | 2.59 |
| 26 | 83 | 485 | 12:13 | 2 | 1.228 | A BB | 125361. | 99.993 NG | 2.11 |
| 27 | 63 | 454 | 11:26 | 2 | 1.149 | A BB | 65276. | 101.710 NG | 2.15 |
| 28 | 75 | 570 | 14:21 | 2 | 1.443 | A BB | 99226. | 102.311 NG | 2.16 |
| 29 | 95 | 428 | 10:47 | 2 | 1.084 | A BB | 78860. | 95.245 NG | 2.01 |
| 30 | 129 | 768 | 19:21 | 2 | 1.944 | A BB | 91532. | 102.407 NG | 2.16 |
| 31 | 97 | 683 | 17:12 | 2 | 1.729 | A BB | 59509. | 98.645 NG | 2.08 |
| 32 | 78 | 362 | 9:07 | 2 | 0.916 | A BB | 187257. | 103.006 NG | 2.17 |
| 33 | 75 | 660 | 16:38 | 2 | 1.671 | A BB | 90090. | 103.133 NG | 2.18 |
| 34 | 63 | 541 | 13:38 | 2 | 1.370 | M XX | 36547. | 104.940 NG | 2.21 |
| 35 | 173 | 1085 | 27:20 | 2 | 2.747 | A BB | 55334. | 101.615 NG | 2.14 |
| 36 | 166 | 722 | 18:11 | 3 | 0.821 | A BB | 72157. | 94.697 NG | 2.00 |
| 37 | 43 | 542 | 13:39 | 3 | 0.617 | A BB | 77799. | 106.143 NG | 2.24 |
| 38 | 43 | 696 | 17:32 | 3 | 0.792 | A BB | 36416. | 110.980 NG | 2.34 |
| 39 | 83 | 1145 | 28:51 | 3 | 1.303 | A BB | 74267. | 83.216 NG | 1.76 |
| 40 | 91 | 614 | 15:28 | 3 | 0.699 | A BB | 207169. | 97.186 NG | 2.05 |
| 41 | 112 | 886 | 22:19 | 3 | 1.008 | A BB | 145047. | 99.891 NG | 2.11 |
| 42 | 106 | 903 | 22:45 | 3 | 1.027 | A BB | 65735. | 104.704 NG | 2.21 |
| 43 | 104 | 1022 | 25:45 | 3 | 1.163 | A VB | 145925. | 105.128 NG | 2.22 |
| 44 | 106 | 919 | 23:09 | 3 | 1.046 | A BB | 176711. | 105.374 NG | 2.22 |
| 45 | 146 | 1381 | 34:47 | 3 | 1.571 | A BB | 126695. | 90.753 NG | 1.91 |
| 46 | 146 | 1404 | 35:22 | 3 | 1.597 | A BB | 126306. | 89.172 NG | 1.88 |
| 47 | 146 | 1467 | 36:57 | 3 | 1.669 | A BB | 113466. | 87.482 NG | 1.85 |
| 48 | 106 | 1009 | 25:25 | 3 | 1.148 | A BB | 87673. | 106.802 NG | 2.25 |
| 49 | NOT FOUND | | | | | | | | |

RIC
09/14/94 18:03:00
SAMPLE: 200 PPB UOA STD
CONDS.: EPA METHOD 8240
RANGE: G 1.1600 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

DATA: CV914200 #49
CALI: CV914200 #3

SCANS 30 TO 1600

342016.



118

Quantitation Report File: CV914200

Data: CV914200.TI

7/14/94 18:03:00

Sample: 200 PPB VOA STD

Conds.: EPA METHOD 8240

Formula: 5ML

Submitted by: PTL

Instrument: FINN

Analyst: UC

Weight: 0.000

Acct. No.: 5-PT

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)

Resp. fac. from Library Entry

| No | Name |
|----|---|
| 1 | CI01 BROMOCHLOROMETHANE **INT. STD. ** |
| 2 | CI10 1,4-DIFLUOROBENZENE **INT. STD. ** |
| 3 | CI20 CHLOROENZENE-D5 **INT. STD. ** |
| 4 | CS15 1,2-DICHLOROETHANE-D4 **S. STD. ** |
| 5 | CS05 TOLUENE-D8 **S. STD. ** |
| 6 | CS10 4-BROMOFLUOROBENZENE **S. STD. ** |
| 7 | C010 CHLOROMETHANE ** |
| 8 | C015 BROMOMETHANE ** |
| 9 | C020 VINYL CHLORIDE * |
| 10 | C025 CHLOROETHANE |
| 11 | C030 METHYLENE CHLORIDE |
| 12 | C251 ACROLIN |
| 13 | C035 ACETONE |
| 14 | C252 ACRYLONITRILE |
| 15 | C040 CARBON DISULFIDE |
| 16 | C045 1,1-DICHLOROETHENE * |
| 17 | C050 1,1-DICHLOROETHANE ** |
| 18 | C055 TRANS-1,2-DICHLOROETHENE |
| 19 | C000 TRICHLOROFLUOROMETHANE |
| 20 | C060 CHLOROFORM * |
| 21 | C065 1,2-DICHLOROETHANE |
| 22 | C110 2-BUTANONE |
| 23 | C115 1,1,1-TRICHLOROETHANE |
| 24 | C120 CARBON TETRACHLORIDE |
| 25 | C125 VINYL ACETATE |
| 26 | C130 BROMO DICHLOROMETHANE |
| 27 | C140 1,2-DICHLOROPROPANE * |
| 28 | C145 TRANS-1,3 DICHLOROPROPENE |
| 29 | C150 TRICHLOROETHENE |
| 30 | C155 DIBROMOCHLOROMETHANE |
| 31 | C160 1,1,2-TRICHLOROETHANE |
| 32 | C165 BENZENE |
| 33 | C143 CIS-1,3-DICHLOROPROPENE |
| 34 | C175 2-CHLOROETHYL VINYL ETHER |
| 35 | C180 BROMOFORM ** |
| 36 | C220 TETRACHLOROETHENE |
| 37 | C210 2-HEXANONE |
| 38 | C205 4-METHYL 2-PENTANONE |
| 39 | C225 1,1,2,2-TETRACHLOROETHANE ** |
| 40 | C230 TOLUENE * |
| 41 | C235 CHLOROENZENE ** |
| 42 | C240 ETHYL BENZENE * |
| 43 | C245 STYRENE |
| 44 | C250 M+P-XYLENES |
| 45 | C253 1,3-DICHLOROENZENE |
| 46 | C254 1,4-DICHLOROENZENE |
| 47 | C255 1,2-DICHLOROENZENE |

No Name
 48 C250 O-XYLENE
 49 BENZENE-D6 **S. STD. **

| No | m/z | Scan | Time | Ref | RRT | Meth | Area(Hght) | Amount | %Tot |
|----|-----------|------|-------|-----|-------|------|------------|------------|------|
| 1 | 49 | 306 | 7:42 | 1 | 1.000 | A BV | 7806. | 50.000 NG | 0.52 |
| 2 | 114 | 396 | 9:59 | 2 | 1.000 | A BB | 88807. | 50.000 NG | 0.52 |
| 3 | 117 | 882 | 22:13 | 3 | 1.000 | A BB | 75395. | 50.000 NG | 0.52 |
| 4 | 65 | 355 | 8:57 | 1 | 1.160 | A BV | 13515. | 47.539 NG | 0.50 |
| 5 | 98 | 603 | 15:11 | 3 | 0.684 | A BB | 92800. | 49.991 NG | 0.52 |
| 6 | 95 | 1148 | 28:55 | 3 | 1.302 | A BB | 102798. | 70.521 NG | 0.74 |
| 7 | 50 | 107 | 2:42 | 1 | 0.350 | A BB | 69405. | 177.418 NG | 1.86 |
| 8 | 94 | 131 | 3:18 | 1 | 0.428 | A BB | 84863. | 230.699 NG | 2.42 |
| 9 | 62 | 112 | 2:49 | 1 | 0.366 | A BB | 52850. | 129.369 NG | 1.36 |
| 10 | 64 | 135 | 3:24 | 1 | 0.441 | M XX | 36061. | 282.812 NG | 2.97 |
| 11 | 49 | 195 | 4:55 | 1 | 0.637 | A BB | 121356. | 236.319 NG | 2.48 |
| 12 | 56 | 164 | 4:08 | 1 | 0.536 | A BV | 8317. | 665.676 NG | 6.98 |
| 13 | 43 | 175 | 4:24 | 1 | 0.572 | M XX | 41602. | 199.167 NG | 2.09 |
| 14 | 53 | 205 | 5:10 | 1 | 0.670 | A BB | 17717. | 216.540 NG | 2.27 |
| 15 | 76 | 194 | 4:53 | 1 | 0.634 | A BB | 293321. | 249.329 NG | 2.62 |
| 16 | 96 | 174 | 4:23 | 1 | 0.569 | A BB | 25442. | 274.760 NG | 2.88 |
| 17 | 63 | 235 | 5:55 | 1 | 0.768 | A BB | 26555. | 235.996 NG | 2.48 |
| 18 | 61 | 209 | 5:16 | 1 | 0.683 | A BB | 78604. | 233.963 NG | 2.45 |
| 19 | 101 | 142 | 3:35 | 1 | 0.464 | A BB | 22594. | 276.477 NG | 2.90 |
| 20 | 83 | 289 | 7:17 | 1 | 0.944 | A BB | 36333. | 246.447 NG | 2.59 |
| 21 | 62 | 364 | 9:10 | 1 | 1.190 | A BB | 82722. | 227.512 NG | 2.39 |
| 22 | 43 | 267 | 6:44 | 2 | 0.674 | A BB | 51123. | 268.984 NG | 2.82 |
| 23 | 97 | 320 | 8:04 | 2 | 0.808 | A BB | 269582. | 213.173 NG | 2.24 |
| 24 | 117 | 342 | 8:37 | 2 | 0.864 | A BB | 214553. | 221.732 NG | 2.33 |
| 25 | 43 | 235 | 5:55 | 2 | 0.593 | A BB | 207998. | 232.594 NG | 2.44 |
| 26 | 83 | 487 | 12:16 | 2 | 1.230 | A BB | 257963. | 208.554 NG | 2.19 |
| 27 | 63 | 455 | 11:28 | 2 | 1.149 | A BB | 130599. | 206.255 NG | 2.16 |
| 28 | 75 | 572 | 14:25 | 2 | 1.444 | A BB | 201586. | 210.673 NG | 2.21 |
| 29 | 95 | 430 | 10:50 | 2 | 1.086 | A BB | 160149. | 196.048 NG | 2.06 |
| 30 | 129 | 771 | 19:25 | 2 | 1.947 | A BB | 185177. | 209.989 NG | 2.20 |
| 31 | 97 | 685 | 17:15 | 2 | 1.730 | A BB | 121282. | 203.771 NG | 2.14 |
| 32 | 78 | 362 | 9:07 | 2 | 0.914 | A BB | 359869. | 200.641 NG | 2.11 |
| 33 | 75 | 662 | 16:41 | 2 | 1.672 | A BB | 176297. | 204.561 NG | 2.15 |
| 34 | NOT FOUND | | | | | | | | |
| 35 | 173 | 1087 | 27:23 | 2 | 2.745 | A BB | 126297. | 235.078 NG | 2.47 |
| 36 | 166 | 725 | 18:16 | 3 | 0.822 | A BB | 150600. | 193.304 NG | 2.03 |
| 37 | 43 | 546 | 13:45 | 3 | 0.619 | A BB | 87537. | 116.807 NG | 1.23 |
| 38 | 43 | 699 | 17:36 | 3 | 0.793 | A BB | 68826. | 205.148 NG | 2.15 |
| 39 | 83 | 1147 | 28:54 | 3 | 1.300 | A BB | 187103. | 205.045 NG | 2.15 |
| 40 | 91 | 616 | 15:31 | 3 | 0.698 | A BB | 424538. | 194.784 NG | 2.04 |
| 41 | 112 | 889 | 22:24 | 3 | 1.008 | A BB | 294155. | 198.131 NG | 2.08 |
| 42 | 106 | 905 | 22:48 | 3 | 1.026 | A BB | 136028. | 211.911 NG | 2.22 |
| 43 | 104 | 1024 | 25:48 | 3 | 1.161 | A VB | 311960. | 219.809 NG | 2.31 |
| 44 | 106 | 922 | 23:14 | 3 | 1.045 | A BB | 339687. | 198.111 NG | 2.08 |
| 45 | 146 | 1382 | 34:49 | 3 | 1.567 | A BB | 272771. | 191.099 NG | 2.01 |
| 46 | 146 | 1405 | 35:24 | 3 | 1.593 | A BB | 275728. | 190.392 NG | 2.00 |
| 47 | 146 | 1467 | 36:57 | 3 | 1.663 | A BB | 255873. | 192.945 NG | 2.02 |
| 48 | 106 | 1011 | 25:28 | 3 | 1.146 | A BB | 168185. | 200.384 NG | 2.10 |
| 49 | NOT FOUND | | | | | | | | |

DATAFILE: CVD923

Calibration Check

Instrument Identifier: FINN

Calibration Date: 09/14/94

Standard File: CVD923

Date: 09/23/94 Time: 11:07:00

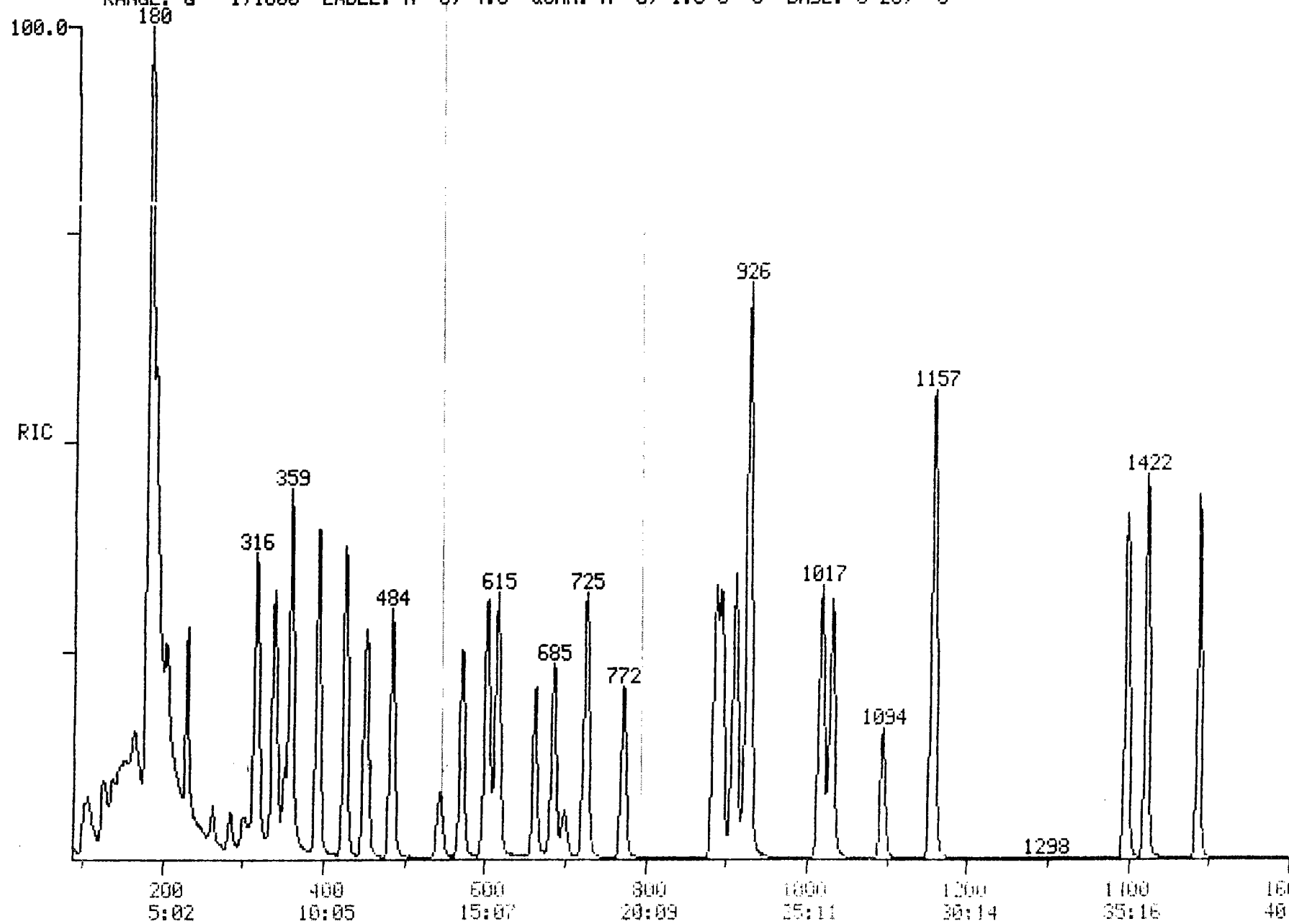
25% D

MIN RF FOR SPCC (**) = 0.300

| | Compound | Mean RF(I) | RF(O) | % D |
|------------------|------------------------------------|------------------|------------------|-------------------|
| CS15 | 1,2-DICHLOROETHANE-D4 * | 2.017 | 2.528 | 0.000 |
| CS05 | TOLUENE-D8 **S. STD. ** | 1.232 | 1.339 | 0.000 |
| CS10 | 4-BROMOFLUOROBENZENE ** | 1.020 | 1.035 | 0.000 |
| CO10 | CHLOROMETHANE ** | 2.312 | 2.971 | 28.489 |
| CO15 | BROMOMETHANE | 2.485 | 2.560 | 3.036 |
| CO20 | VINYL CHLORIDE * | 2.413 | 2.186 | 9.414 |
| CO25 | CHLOROETHANE | 0.920 | 0.714 | 22.364 |
| CO30 | METHYLENE CHLORIDE | 3.720 | 3.623 | 2.599 |
| C251 | ACROLIN | 0.190 | 0.547 | 187.463 |
| CO35 | ACETONE | 1.417 | 1.737 | 22.628 |
| C252 | ACRYLONITRILE | 0.513 | 0.643 | 25.311 |
| CO40 | CARBON DISULFIDE | 8.003 | 9.790 | 22.337 |
| CO45 | 1,1-DICHLOROETHENE * | 0.678 | 0.733 | 8.243 |
| CO50 | 1,1-DICHLOROETHANE ** | 0.807 | 1.192 | 47.796 |
| CO55 | TRANS-1,2-DICHLOROETHEN | 2.272 | 2.987 | 31.471 |
| CO00 | TRICHLOROFLUORMETHA | 0.601 | 0.586 | 2.414 |
| CO60 | CHLOROFORM * | 1.124 | 1.329 | 18.213 |
| 065 | 1,2-DICHLOROETHANE | 2.724 | 3.305 | 21.309 |
| 110 | 2-BUTANONE | 0.133 | 0.148 | 11.402 |
| CO115 | 1,1,1-TRICHLOROETHANE | 0.711 | 0.748 | 5.236 |
| C120 | CARBON TETRACHLORIDE | 0.561 | 0.601 | 7.108 |
| C125 | VINYL ACETATE | 0.466 | 0.691 | 48.160 |
| CO130 | BROMO DICHLOROMETHANE | 0.668 | 0.689 | 3.235 |
| C140 | 1,2-DICHLOROPROPANE | 0.352 | 0.356 | 1.218 |
| C145 | TRANS-1,3-DICHLOROPROPE | 0.510 | 0.489 | 4.124 |
| C150 | TRICHLOROETHENE | 0.440 | 0.435 | 1.303 |
| C155 | DIBROMOCHLOROMETHANE | 0.482 | 0.429 | 11.015 |
| C160 | 1,1,2-TRICHLOROETHANE | 0.329 | 0.288 | 12.256 |
| C165 | BENZENE | 0.994 | 0.959 | 3.583 |
| CO143 | CIS-1,3-DICHLOROPROPENE | 0.458 | 0.392 | 14.322 |
| C175 | 2-CHLOROETHYL VINYL ETH | 0.144 | 0.015 | 89.347 |
| C180 | BROMOFORM ** | 0.306 | 0.285 | 6.792 |
| CO220 | TETRACHLOROETHENE | 0.501 | 0.523 | 4.394 |
| CO210 | 2-HEXANONE | 0.449 | 0.390 | 13.127 |
| CO205 | 4-METHYL 2-PENTANONE | 0.249 | 0.278 | 11.505 |
| CO225 | 1,1,2,2-TETRACHLOROETHA | 0.596 | 0.685 | 14.898 |
| CO230 | TOLUENE * | 1.392 | 1.465 | 5.331 |
| CO235 | CHLOROBENZENE ** | 0.968 | 0.937 | 3.226 |
| CO240 | ETHYL BENZENE * | 0.424 | 0.408 | 3.785 |
| CO245 | STYRENE | 0.925 | 0.944 | 2.036 |
| CO250 | M+P-XYLENES | 1.102 | 1.167 | 5.884 |
| 053 | 1,3-DICHLOROBENZENE | 0.899 | 0.904 | 0.586 |
| 0254 | 1,4-DICHLOROBENZENE | 0.909 | 0.906 | 0.369 |
| CO255 | 1,2-DICHLOROBENZENE | 0.850 | 0.816 | 4.068 |
| CO250 | O-XYLENE | 0.559 | 0.587 | 4.990 |

RIC DATA: CV0923 #1 SCANS 88 TO 1600
09/23/94 11:07:00 CALI: CV0923 #3
SAMPLE: 50 PPB UOA STD
CONDS.: EPA METHOD 8240
RANGE: G 1.1600 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

163872.



122

200 5:02 400 10:05 600 15:07 800 20:09 1000 25:11 1200 30:14 1400 35:16 1600 40:18 SCAN TIME

Quantitation Report File: CV0923

Data: CV0923.TI

9/23/94 11:07:00

Sample: 50 PPB VOA STD

Cons.: EPA METHOD 8240

Formula: 5ML

Submitted by: PTL

Instrument: FINN

Analyst: UC

Weight: 0.000

Acct. No.:

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

| No | Name |
|----|---|
| 1 | CI01 BROMOCHLOROMETHANE **INT. STD. ** |
| 2 | CI10 1,4-DIFLUOROBENZENE **INT. STD. ** |
| 3 | CI20 CHLOROBENZENE-D5 **INT. STD. ** |
| 4 | CS15 1,2-DICHLOROETHANE-D4 **S. STD. ** |
| 5 | CS05 TOLUENE-D8 **S. STD. ** |
| 6 | CS10 4-BROMOFLUOROBENZENE **S. STD. ** |
| 7 | CO10 CHLOROMETHANE ** |
| 8 | CO15 BROMOMETHANE |
| 9 | CO20 VINYL CHLORIDE * |
| 10 | CO25 CHLOROETHANE |
| 11 | CO30 METHYLENE CHLORIDE |
| 12 | C251 ACROLIN |
| 13 | CO35 ACETONE |
| 14 | C252 ACRYLONITRILE |
| 15 | CO40 CARBON DISULFIDE |
| 16 | CO45 1,1-DICHLOROETHENE * |
| 17 | CO50 1,1-DICHLOROETHANE ** |
| 18 | CO55 TRANS-1,2-DICHLOROETHENE |
| 19 | CO00 TRICHLOROFLUOROMETHANE |
| 20 | CO60 CHLOROFORM * |
| 21 | CO65 1,2-DICHLOROETHANE |
| 22 | C110 2-BUTANONE |
| 23 | C115 1,1,1-TRICHLOROETHANE |
| 24 | C120 CARBON TETRACHLORIDE |
| 25 | C125 VINYL ACETATE |
| 26 | C130 BROMO-DICHLOROMETHANE |
| 27 | C140 1,2-DICHLOROPROPANE * |
| 28 | C145 TRANS-1,3 DICHLOROPROPENE |
| 29 | C150 TRICHLOROETHENE |
| 30 | C155 DIBROMOCHLOROMETHANE |
| 31 | C160 1,1,2-TRICHLOROETHANE |
| 32 | C165 BENZENE |
| 33 | C143 CIS-1,3-DICHLOROPROPENE |
| 34 | C175 2-CHLOROETHYL VINYL ETHER |
| 35 | C180 BROMOFORM ** |
| 36 | C220 TETRACHLOROETHENE |
| 37 | C210 2-HEXANONE |
| 38 | C205 4-METHYL 2-PENTANONE |
| 39 | C225 1,1,2,2-TETRACHLOROETHANE ** |
| 40 | C230 TOLUENE * |
| 41 | C235 CHLOROBENZENE ** |
| 42 | C240 ETHYL BENZENE * |
| 43 | C245 STYRENE |
| 44 | C250 M+P-XYLENES |
| 45 | C253 1,3-DICHLOROBENZENE |
| 46 | C254 1,4-DICHLOROBENZENE |
| 47 | C255 1,2-DICHLOROBENZENE |

No Name
48 C250 O-XYLENE
-9 BENZENE-D6 **S. STD. **

| No | m/z | Scan | Time | Ref | RRT | Meth | Area(Hght) | Amount | %Tot |
|----|-----|-------|-------|-----|-------|------|------------|------------|------|
| 1 | 49 | 301 | 7:35 | 1 | 1.000 | A BV | 12697. | 50.000 NG | 1.89 |
| 2 | 114 | 392 | 9:52 | 2 | 1.000 | A BB | 158172. | 50.000 NG | 1.89 |
| 3 | 117 | 885 | 22:18 | 3 | 1.000 | A BB | 106406. | 50.000 NG | 1.89 |
| 4 | 65 | 350 | 8:49 | 1 | 1.163 | A BB | 32098. | 75.118 NG | 2.85 |
| 5 | 98 | 601 | 15:08 | 3 | 0.679 | A BB | 142422. | 50.830 NG | 1.93 |
| 6 | 95 | 1157 | 29:09 | 3 | 1.307 | A BB | 110045. | 50.254 NG | 1.90 |
| 7 | 50 | 102 | 2:34 | 1 | 0.339 | A BB | 37716. | 81.895 NG | 3.10 |
| 8 | 94 | 125 | 3:09 | 1 | 0.415 | M XX | 32502. | 33.746 NG | 1.28 |
| 9 | 62 | 107 | 2:42 | 1 | 0.355 | A BB | 27754. | 71.606 NG | 2.71 |
| 10 | 64 | 128 | 3:13 | 1 | 0.425 | A BB | 9065. | 29.633 NG | 1.12 |
| 11 | 49 | 190 | 4:47 | 1 | 0.631 | A BB | 45995. | 62.920 NG | 2.38 |
| 12 | 56 | 159 | 4:00 | 1 | 0.528 | M XX | 6936. | 100.602 NG | 3.81 |
| 13 | 43 | 162 | 4:05 | 1 | 0.538 | M XX | 29646. | 99.713 NG | 3.78 |
| 14 | 53 | 199 | 5:01 | 1 | 0.661 | A BB | 8155. | 71.113 NG | 2.69 |
| 15 | 76 | 189 | 4:46 | 1 | 0.628 | A BB | 124308. | 66.442 NG | 2.52 |
| 16 | 96 | 165 | 4:09 | 1 | 0.548 | A BB | 9307. | 61.837 NG | 2.34 |
| 17 | 63 | 229 | 5:46 | 1 | 0.761 | A BB | 15133. | 76.189 NG | 2.89 |
| 18 | 61 | 205 | 5:10 | 1 | 0.681 | A BB | 37915. | 90.428 NG | 3.43 |
| 19 | 101 | 136 | 3:26 | 1 | 0.452 | A BB | 7439. | 18.782 NG | 0.71 |
| 20 | 83 | 284 | 7:09 | 1 | 0.944 | A BB | 16862. | 62.470 NG | 2.37 |
| 21 | 62 | 360 | 9:04 | 1 | 1.196 | A BB | 41953. | 76.491 NG | 2.90 |
| 22 | 43 | 262 | 6:36 | 2 | 0.668 | A BB | 23352. | 55.556 NG | 2.11 |
| 23 | 97 | 316 | 7:58 | 2 | 0.806 | A BB | 118217. | 51.396 NG | 1.95 |
| 24 | 117 | 338 | 8:31 | 2 | 0.862 | A BB | 95005. | 51.509 NG | 1.95 |
| 25 | 43 | 230 | 5:48 | 2 | 0.587 | A BB | 109147. | 59.098 NG | 2.24 |
| 26 | 83 | 484 | 12:12 | 2 | 1.235 | A BB | 108921. | 49.332 NG | 1.87 |
| 27 | 63 | 451 | 11:22 | 2 | 1.151 | A BB | 56281. | 51.507 NG | 1.95 |
| 28 | 75 | 571 | 14:23 | 2 | 1.457 | A BB | 77210. | 49.924 NG | 1.89 |
| 29 | 95 | 426 | 10:44 | 2 | 1.087 | A BB | 68666. | 49.133 NG | 1.86 |
| 30 | 129 | 772 | 19:27 | 2 | 1.969 | A BB | 67793. | 41.771 NG | 1.58 |
| 31 | 97 | 685 | 17:15 | 2 | 1.747 | A BB | 45517. | 42.502 NG | 1.61 |
| 32 | 78 | 358 | 9:01 | 2 | 0.913 | A BB | 151586. | 49.225 NG | 1.87 |
| 33 | 75 | 662 | 16:41 | 2 | 1.689 | A BB | 61968. | 47.574 NG | 1.80 |
| 34 | 63 | 541 | 13:38 | 2 | 1.380 | M XX | 2353. | 41.846 NG | 1.59 |
| 35 | 173 | 1094 | 27:33 | 2 | 2.791 | A BB | 45060. | 38.430 NG | 1.46 |
| 36 | 166 | 725 | 18:16 | 3 | 0.819 | A BB | 55565. | 40.081 NG | 1.52 |
| 37 | 43 | 543 | 13:41 | 3 | 0.614 | A BB | 41430. | 61.146 NG | 2.32 |
| 38 | 43 | 699 | 17:36 | 3 | 0.790 | A BB | 29494. | 59.870 NG | 2.27 |
| 39 | 83 | 1156 | 29:07 | 3 | 1.306 | A BB | 72803. | 48.981 NG | 1.86 |
| 40 | 91 | 615 | 15:30 | 3 | 0.695 | A BB | 155960. | 49.191 NG | 1.86 |
| 41 | 112 | 893 | 22:30 | 3 | 1.009 | A BB | 99663. | 48.438 NG | 1.84 |
| 42 | 106 | 910 | 22:55 | 3 | 1.028 | A BB | 43357. | 50.360 NG | 1.91 |
| 43 | 104 | 1031 | 25:58 | 3 | 1.165 | A VB | 100359. | 51.435 NG | 1.95 |
| 44 | 106 | 926 | 23:20 | 3 | 1.046 | A BB | 124095. | 49.812 NG | 1.89 |
| 45 | 146 | 1397 | 35:11 | 3 | 1.579 | A BB | 96150. | 40.664 NG | 1.54 |
| 46 | 146 | 1422 | 35:49 | 3 | 1.607 | A BB | 96364. | 39.443 NG | 1.49 |
| 47 | 146 | 1487 | 37:27 | 3 | 1.680 | A BB | 86757. | 39.822 NG | 1.51 |
| 48 | 106 | 1017 | 25:37 | 3 | 1.149 | A BB | 62380. | 50.776 NG | 1.92 |
| 49 | NOT | FOUND | | | | | | | |

DATAFILE: CVD929

Calibration Check

Instrument Identifier: FINN
 Calibration Date: 09/14/94
 Standard File: CVD929
 Date: 09/29/94 Time: 08:56:00
 25% D
 MIN RF FOR SPCC (**) = 0.300

| Compound | Mean RF(I) | RF(O) | % D |
|------------------------------|---------------|-------|--------|
| CS15 1,2-DICHLOROETHANE-D4 * | 2.017 | 1.692 | 0.000 |
| CS05 TOLUENE-D8 **S. STD. ** | 1.232 | 1.340 | 0.000 |
| CS10 4-BROMOFLUOROBENZENE ** | 1.020 | 0.969 | 0.000 |
| CO10 CHLROMETHANE ** | 2.312 | 1.942 | 16.015 |
| CO15 BROMOMETHANE | 2.485 | 3.271 | 31.658 |
| CO20 VINYL CHLORIDE * | 2.413 | 2.388 | 1.073 |
| CO25 CHLOROETHANE | 0.920 | 1.145 | 24.396 |
| CO30 METHYLENE CHLORIDE | 3.720 | 2.442 | 34.336 |
| CO51 ACROLIN | 0.190 | 0.096 | 49.341 |
| CO35 ACETONE | 1.417 | 0.990 | 30.147 |
| CO52 ACRYLONITRILE | 0.513 | 0.448 | 12.592 |
| CO40 CARBON DISULFIDE | 8.003 | 7.054 | 11.859 |
| CO45 1,1-DICHLOROETHENE * | 0.678 | 0.549 | 18.916 |
| CO50 1,1-DICHLOROETHANE ** | 0.807 | 1.092 | 35.310 |
| CO55 TRANS-1,2-DICHLOROETHEN | 2.272 | 1.779 | 21.668 |
| CO00 TRICHLOROFLUOROMETHA | 0.601 | 0.546 | 9.158 |
| CO60 CHLOROFORM * | 1.124 | 1.079 | 3.999 |
| CO65 1,2-DICHLOROETHANE | 2.724 | 2.269 | 16.724 |
| CO110 2-BUTANONE | 0.133 | 0.153 | 15.353 |
| C115 1,1,1-TRICHLOROETHANE | 0.711 | 0.735 | 3.486 |
| C120 CARBON TETRACHLORIDE | 0.561 | 0.594 | 5.892 |
| C125 VINYL ACETATE | 0.466 | 0.696 | 49.265 |
| C130 BROMO DICHLOROMETHANE | 0.668 | 0.703 | 5.373 |
| C140 1,2-DICHLOROPROPANE | 0.352 | 0.364 | 3.367 |
| C145 TRANS-1,3 DICHLOROPROPE | 0.510 | 0.512 | 0.516 |
| C150 TRICHLOROETHENE | 0.440 | 0.428 | 2.797 |
| C155 DIBROMOCHLOROMETHANE | 0.482 | 0.466 | 3.415 |
| C160 1,1,2-TRICHLOROETHANE | 0.329 | 0.314 | 4.311 |
| C165 BENZENE | 0.994 | 0.982 | 1.259 |
| C143 CIS-1,3-DICHLOROPROPENE | 0.458 | 0.433 | 5.528 |
| C175 2-CHLOROETHYL VINYL ETH | 0.144 | 0.017 | 87.994 |
| C180 BROMOFORM ** | 0.306 | 0.329 | 7.321 |
| C220 TETRACHLOROETHENE | 0.501 | 0.593 | 18.461 |
| C210 2-HEXANONE | 0.449 | 0.383 | 14.689 |
| C205 4-METHYL 2-PENTANONE | 0.249 | 0.277 | 11.134 |
| C225 1,1,2,2-TETRACHLOROETHA | 0.596 | 0.676 | 13.414 |
| C230 TOLUENE * | 1.392 | 1.549 | 11.273 |
| C235 CHLOROBENZENE ** | 0.968 | 0.962 | 0.670 |
| C240 ETHYL BENZENE * | 0.424 | 0.423 | 0.218 |
| C245 STYRENE | 0.925 | 0.984 | 6.402 |
| C250 M+P-XYLENES | 1.102 | 1.200 | 8.908 |
| C253 1,3-DICHLOROBENZENE | 0.899 | 0.934 | 3.967 |
| C254 1,4-DICHLOROBENZENE | 0.909 | 0.932 | 2.522 |
| C255 1,2-DICHLOROBENZENE | 0.850 | 0.820 | 3.624 |
| C250 O-XYLENE | 0.559 | 0.585 | 4.663 |

RIC

09/29/94 8:56:00

SAMPLE: 50 PPB UOA STD

CONDS.: EPA METHOD 8240

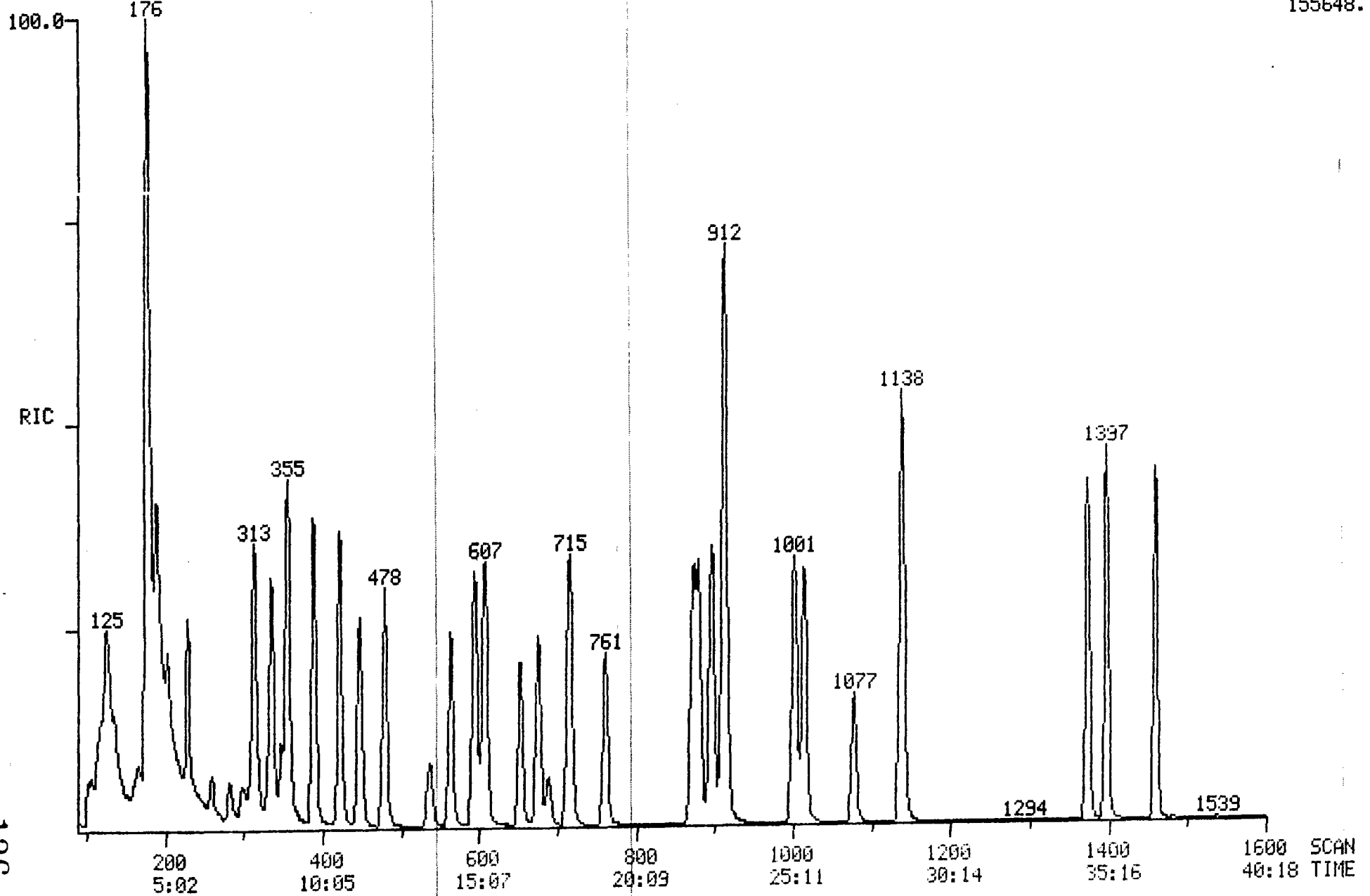
RANGE: G 1.1600 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

DATA: CV0929 #1

SCANS 88 TO 1600

CALI: CV0929 #3

155648.



Quantitation Report File: CVD929

Data: CVD929.TI

3/29/94 8:56:00

Sample: 50 PPB VOA STD

Cond.: EPA METHOD 8240

Formula: 5ML

Submitted by: PTL

Instrument: FINN

Analyst: UC

Weight: 0.000

Acct. No.:

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

| No | Name |
|----|--|
| 1 | CI01 BROMOCHLOROMETHANE **INT. STD.** |
| 2 | CI10 1,4-DIFLUOROBENZENE **INT. STD.** |
| 3 | CI20 CHLOROBENZENE-D5 **INT. STD.** |
| 4 | CS15 1,2-DICHLOROETHANE-D4 **S. STD.** |
| 5 | CS05 TOLUENE-D8 **S. STD.** |
| 6 | CS10 4-BROMOFLUOROBENZENE **S. STD.** |
| 7 | CO10 CHLOROMETHANE ** |
| 8 | CO15 BROMOMETHANE |
| 9 | CO20 VINYL CHLORIDE * |
| 10 | CO25 CHLOROETHANE |
| 11 | CO30 METHYLENE CHLORIDE |
| 12 | C251 ACROLIN |
| 13 | CO35 ACETONE |
| 14 | C252 ACRYLONITRILE |
| 15 | CO40 CARBON DISULFIDE |
| 16 | CO45 1,1-DICHLOROETHENE * |
| 17 | CO50 1,1-DICHLOROETHANE ** |
| 18 | CO55 TRANS-1,2-DICHLOROETHENE |
| 19 | CO00 TRICHLOROFLUOROMETHANE |
| 20 | CO60 CHLOROFORM * |
| 21 | CO65 1,2-DICHLOROETHANE |
| 22 | C110 2-BUTANONE |
| 23 | C115 1,1,1-TRICHLOROETHANE |
| 24 | C120 CARBON TETRACHLORIDE |
| 25 | C125 VINYL ACETATE |
| 26 | CO30 BROMO DICHLOROMETHANE |
| 27 | C140 1,2-DICHLOROPROPANE * |
| 28 | C145 TRANS-1,3 DICHLOROPROPENE |
| 29 | C150 TRICHLOROETHENE |
| 30 | C155 DIBROMOCHLOROMETHANE |
| 31 | C160 1,1,2-TRICHLOROETHANE |
| 32 | C165 BENZENE |
| 33 | C143 CIS-1,3-DICHLOROPROPENE |
| 34 | C175 2-CHLOROETHYL VINYL ETHER |
| 35 | C180 BROMOFORM ** |
| 36 | C220 TETRACHLOROETHENE |
| 37 | C210 2-HEXANONE |
| 38 | C205 4-METHYL 2-PENTANONE |
| 39 | C225 1,1,2,2-TETRACHLOROETHANE ** |
| 40 | C230 TOLUENE * |
| 41 | C235 CHLOROBENZENE ** |
| 42 | C240 ETHYL BENZENE * |
| 43 | C245 STYRENE |
| 44 | C250 M+P-XYLENES |
| 45 | C253 1,3-DICHLOROENZENE |
| 46 | C254 1,4-DICHLOROENZENE |
| 47 | C255 1,2-DICHLOROENZENE |

(no 929

No Name
48 C250 O-XYLENE
49 BENZENE-D6 **S. STD. **

| No | m/z | Scan | Time | Ref | RRT | Meth | Area (Hght) | Amount | %Tot |
|----|-----------|------|-------|-----|-------|------|-------------|-----------|------|
| 1 | 49 | 298 | 7:30 | 1 | 1.000 | M XX | 17120. | 50.000 NG | 2.08 |
| 2 | 114 | 388 | 9:46 | 2 | 1.000 | A BB | 142012. | 50.000 NG | 2.08 |
| 3 | 117 | 872 | 21:58 | 3 | 1.000 | A BB | 99603. | 50.000 NG | 2.08 |
| 4 | 65 | 347 | 8:44 | 1 | 1.164 | A BB | 28952. | 50.000 NG | 2.08 |
| 5 | 98 | 594 | 14:58 | 3 | 0.681 | A BB | 133468. | 50.000 NG | 2.08 |
| 6 | 95 | 1139 | 28:41 | 3 | 1.306 | A BB | 96440. | 50.000 NG | 2.08 |
| 7 | 50 | 102 | 2:34 | 1 | 0.342 | A BB | 33236. | 50.000 NG | 2.08 |
| 8 | 94 | 125 | 3:09 | 1 | 0.419 | M XX | 55998. | 50.000 NG | 2.08 |
| 9 | 62 | 107 | 2:42 | 1 | 0.359 | M XX | 40867. | 50.000 NG | 2.08 |
| 10 | 64 | 128 | 3:13 | 1 | 0.430 | M XX | 19590. | 50.000 NG | 2.08 |
| 11 | 49 | 189 | 4:46 | 1 | 0.634 | A BB | 41806. | 50.000 NG | 2.08 |
| 12 | 56 | 158 | 3:59 | 1 | 0.530 | A BB | 1641. | 50.000 NG | 2.08 |
| 13 | 43 | 160 | 4:02 | 1 | 0.537 | M XX | 16933. | 50.000 NG | 2.08 |
| 14 | 53 | 198 | 4:59 | 1 | 0.664 | A BB | 7667. | 50.000 NG | 2.08 |
| 15 | 76 | 189 | 4:46 | 1 | 0.634 | A BB | 120753. | 50.000 NG | 2.08 |
| 16 | 96 | 165 | 4:09 | 1 | 0.554 | A BB | 9398. | 50.000 NG | 2.08 |
| 17 | 63 | 228 | 5:45 | 1 | 0.765 | M XX | 18680. | 50.000 NG | 2.08 |
| 18 | 61 | 203 | 5:07 | 1 | 0.681 | A BB | 30455. | 50.000 NG | 2.08 |
| 19 | 101 | 136 | 3:26 | 1 | 0.456 | A BB | 9336. | 50.000 NG | 2.08 |
| 20 | 83 | 282 | 7:06 | 1 | 0.946 | A BB | 18462. | 50.000 NG | 2.08 |
| 21 | 62 | 357 | 9:00 | 1 | 1.198 | A BB | 38828. | 50.000 NG | 2.08 |
| 22 | 43 | 259 | 6:31 | 2 | 0.668 | A BB | 21712. | 50.000 NG | 2.08 |
| 23 | 97 | 313 | 7:53 | 2 | 0.807 | A BB | 104374. | 50.000 NG | 2.08 |
| 24 | 117 | 335 | 8:26 | 2 | 0.863 | A BB | 84330. | 50.000 NG | 2.08 |
| 25 | 43 | 229 | 5:46 | 2 | 0.590 | M XX | 98727. | 50.000 NG | 2.08 |
| 26 | 83 | 478 | 12:02 | 2 | 1.232 | A BB | 99820. | 50.000 NG | 2.08 |
| 27 | 63 | 446 | 11:14 | 2 | 1.149 | A BB | 51605. | 50.000 NG | 2.08 |
| 28 | 75 | 563 | 14:11 | 2 | 1.451 | A BB | 72680. | 50.000 NG | 2.08 |
| 29 | 95 | 421 | 10:36 | 2 | 1.085 | A BB | 60716. | 50.000 NG | 2.08 |
| 30 | 129 | 761 | 19:10 | 2 | 1.961 | A BB | 66071. | 50.000 NG | 2.08 |
| 31 | 97 | 676 | 17:02 | 2 | 1.742 | A BB | 44574. | 50.000 NG | 2.08 |
| 32 | 78 | 355 | 8:57 | 2 | 0.915 | A BB | 139382. | 50.000 NG | 2.08 |
| 33 | 75 | 652 | 16:25 | 2 | 1.680 | A BB | 61355. | 50.000 NG | 2.08 |
| 34 | 63 | 533 | 13:26 | 2 | 1.374 | M XX | 2390. | 50.000 NG | 2.08 |
| 35 | 173 | 1077 | 27:08 | 2 | 2.776 | A BB | 46593. | 50.000 NG | 2.08 |
| 36 | 166 | 715 | 18:01 | 3 | 0.820 | A BB | 59028. | 50.000 NG | 2.08 |
| 37 | 43 | 536 | 13:30 | 3 | 0.615 | A BB | 38083. | 50.000 NG | 2.08 |
| 38 | 43 | 689 | 17:21 | 3 | 0.790 | A BB | 27516. | 50.000 NG | 2.08 |
| 39 | 83 | 1138 | 28:40 | 3 | 1.305 | M XX | 67268. | 50.000 NG | 2.08 |
| 40 | 91 | 607 | 15:17 | 3 | 0.696 | A BB | 154227. | 50.000 NG | 2.08 |
| 41 | 112 | 879 | 22:09 | 3 | 1.008 | A BB | 95756. | 50.000 NG | 2.08 |
| 42 | 106 | 896 | 22:34 | 3 | 1.028 | A BB | 42092. | 50.000 NG | 2.08 |
| 43 | 104 | 1014 | 25:33 | 3 | 1.163 | A VB | 97966. | 50.000 NG | 2.08 |
| 44 | 106 | 912 | 22:58 | 3 | 1.046 | A BB | 119481. | 50.000 NG | 2.08 |
| 45 | 146 | 1373 | 34:35 | 3 | 1.575 | A BB | 93029. | 50.000 NG | 2.08 |
| 46 | 146 | 1397 | 35:11 | 3 | 1.602 | A BB | 92822. | 50.000 NG | 2.08 |
| 47 | 146 | 1460 | 36:47 | 3 | 1.674 | A BB | 81587. | 50.000 NG | 2.08 |
| 48 | 106 | 1001 | 25:13 | 3 | 1.148 | A BB | 58210. | 50.000 NG | 2.08 |
| 49 | NOT FOUND | | | | | | | | |

DATAFILE: CVD104

Calibration Check

Instrument Identifier: FINN

Calibration Date: 09/14/94

Standard File: CVD104

Date: 10/04/94 Time: 12:34:00

ES4 D

MIN RF FOR SPCC (**) = 0.300

| Compound | Mean RF(I) | RF(O) | % D |
|--------------------------------|------------|-------|--------|
| 0015 1,2-DICHLOROETHANE-D4 * | 2.017 | 1.424 | 0.000 |
| 0030 TOLUENE-D8 **S. STD. ** | 1.232 | 1.226 | 0.000 |
| 0010 4-BROMOFLUOROBENZENE ** | 1.020 | 0.939 | 0.000 |
| 0010 CHLOROMETHANE ** | 2.312 | 1.160 | 49.825 |
| 0015 BROMOMETHANE | 2.485 | 3.164 | 27.344 |
| 0020 VINYL CHLORIDE * | 2.413 | 1.987 | 17.663 |
| 0025 CHLOROETHANE | 0.920 | 1.598 | 73.625 |
| 0030 METHYLENE CHLORIDE | 3.720 | 1.884 | 49.361 |
| 0051 ACROLIN | 0.190 | 0.310 | 63.029 |
| 0055 ACETONE | 1.417 | 0.930 | 34.357 |
| 0052 ACRYLONITRILE | 0.513 | 0.415 | 19.048 |
| 0040 CARBON DISULFIDE | 8.003 | 5.123 | 35.983 |
| 0045 1,1-DICHLOROETHENE * | 0.678 | 0.456 | 32.766 |
| 0050 1,1-DICHLOROETHANE ** | 0.807 | 0.860 | 6.593 |
| 0055 TRANS-1,2-DICHLOROETHENE | 2.272 | 1.593 | 29.892 |
| 0000 TRICHLOROFLUOROMETHANE | 0.601 | 0.608 | 1.222 |
| 0060 CHLOROFORM * | 1.124 | 0.849 | 24.467 |
| 0065 1,2-DICHLOROETHANE | 2.724 | 1.762 | 35.334 |
| 0110 2-BUTANONE | 0.133 | 0.123 | 7.555 |
| 0115 1,1,1-TRICHLOROETHANE | 0.711 | 0.615 | 13.430 |
| 0120 CARBON TETRACHLORIDE | 0.561 | 0.512 | 8.801 |
| 0125 VINYL ACETATE | 0.466 | 0.527 | 12.984 |
| 0130 BROMO DICHLOROMETHANE | 0.668 | 0.605 | 9.353 |
| 0140 1,2-DICHLOROPROPANE | 0.352 | 0.289 | 17.838 |
| 0145 TRANS-1,3 DICHLOROPROPE | 0.510 | 0.421 | 17.419 |
| 0150 TRICHLOROETHENE | 0.440 | 0.375 | 14.780 |
| 0155 DIBROMOCHLOROMETHANE | 0.482 | 0.451 | 6.551 |
| 0160 1,1,2-TRICHLOROETHANE | 0.329 | 0.282 | 14.060 |
| 0165 BENZENE | 0.994 | 0.804 | 19.191 |
| 0143 CIS-1,3-DICHLOROPROPENE | 0.458 | 0.354 | 22.676 |
| 0175 2-CHLOROETHYL VINYL ETH | 0.144 | 0.020 | 85.807 |
| 0180 BROMOFORM ** | 0.306 | 0.335 | 9.358 |
| 0220 TETRACHLOROETHENE | 0.501 | 0.568 | 13.511 |
| 0210 2-HEXANONE | 0.449 | 0.284 | 36.811 |
| 0205 4-METHYL 2-PENTANONE | 0.249 | 0.212 | 14.731 |
| 0225 1,1,2,2-TETRACHLOROETHANE | 0.596 | 0.627 | 5.186 |
| 0230 TOLUENE * | 1.392 | 1.281 | 7.960 |
| 0235 CHLOROBENZENE ** | 0.968 | 0.824 | 14.950 |
| 0240 ETHYL BENZENE * | 0.424 | 0.355 | 16.274 |
| 0245 STYRENE | 0.925 | 0.840 | 9.181 |
| 0250 M+P-XYLENES | 1.102 | 1.060 | 3.819 |
| 0253 1,3-DICHLOROBENZENE | 0.899 | 0.943 | 4.960 |
| 0254 1,4-DICHLOROBENZENE | 0.909 | 0.957 | 5.176 |
| 0255 1,2-DICHLOROBENZENE | 0.850 | 0.853 | 0.313 |
| 0250 O-XYLENE | 0.559 | 0.541 | 3.242 |

RIC

10/04/94 12:34:00

SAMPLE: 50 PPB UOA STD

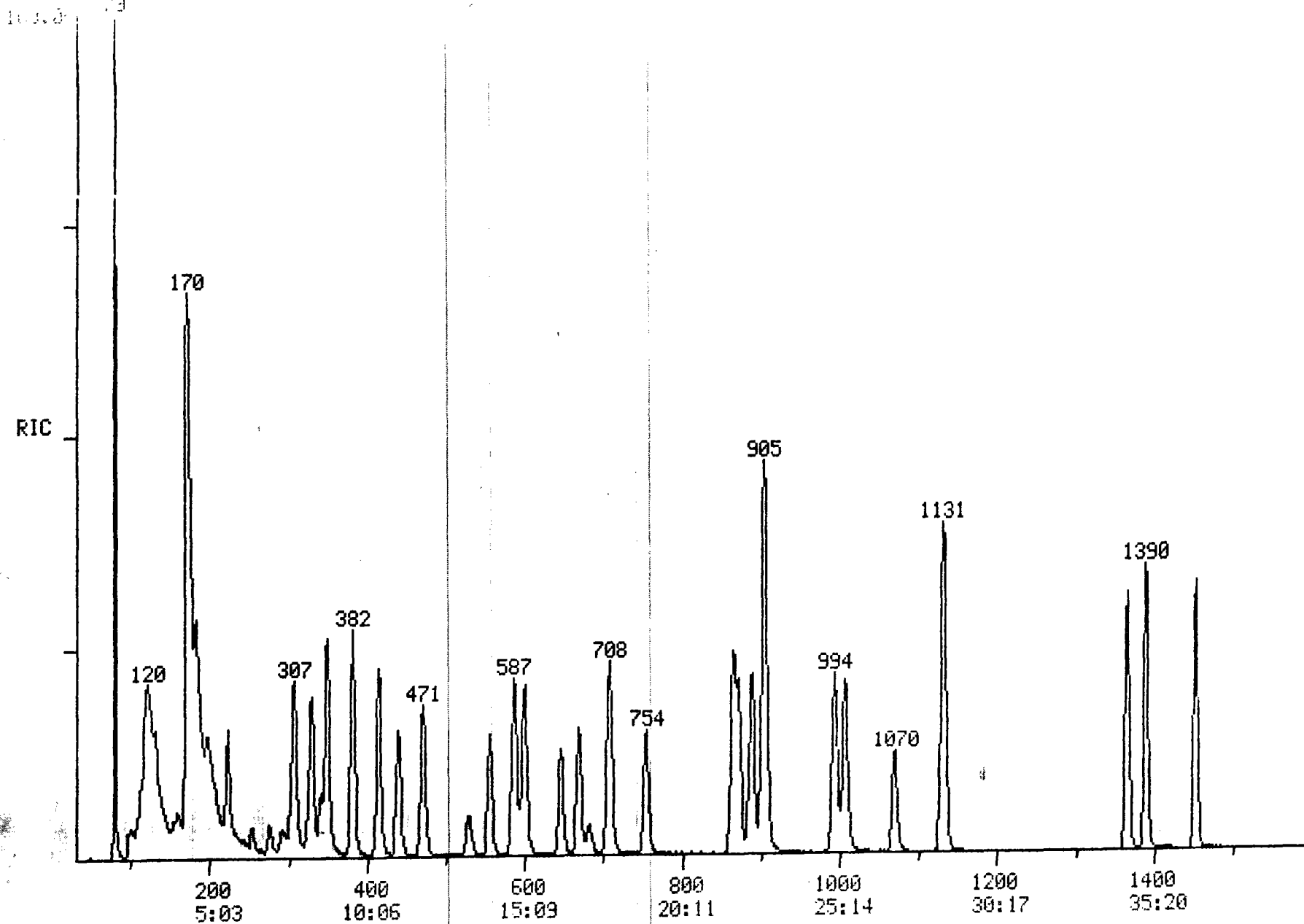
COND.: EPA METHOD 8240

DATE: 10/04/94 LABEL: 11 0.4.0 0.000 0.0 1.0 0.0 0.0 0.0 0.0

DATA: CV0104 #49

SCANS 30 TO 1597

CALI: CV0104 #3



130

SCAN TIME

Quantitat: Report File: CVO104

Data: CVO104
0/04/94 1000

Sample: S... VOA STD
Conds.: EP... MCHOD 8240

Formula:
Submitted: ... TL Instrument: FINN
Analyst: UC

Weight: 0.000
Acct. No.: -

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

| No | Name |
|----|--|
| 1 | CI01 CHLOROMETHANE **INT. STD. ** |
| 2 | CI10 1,2-DIFLUOROBENZENE **INT. STD. ** |
| 3 | CI20 1,4-DIBROMOBENZENE-D5 **INT. STD. ** |
| 4 | CS15 1,1-DICHLOROETHANE-D4 **S. STD. ** |
| 5 | CS05 1,2-DICHLOROETHANE-D8 **S. STD. ** |
| 6 | CS10 1,3-DIBROMOFLUOROBENZENE **S. STD. ** |
| 7 | CO10 CHLOROMETHANE ** |
| 8 | CO15 CHLOROMETHANE |
| 9 | CO20 CARBON CHLORIDE * |
| 10 | CO25 CHLOROETHANE |
| 11 | CO30 ETHYLENE CHLORIDE |
| 12 | C251 ACETALDEHYDE |
| 13 | CO35 ACETONE |
| 14 | C252 ACRYLONITRILE |
| 15 | CO40 CARBON DISULFIDE |
| 16 | CO45 1,1-DICHLOROETHENE * |
| 17 | CO50 1,1-DICHLOROETHANE ** |
| 18 | CO55 TRANS-1,2-DICHLOROETHENE |
| 19 | CO00 TRICHLOROFLUOROMETHANE |
| 20 | CO60 CARBON TETRACHLORIDE * |
| 21 | CO65 1,1,2-DICHLOROETHANE |
| 22 | C110 BUTANONE |
| 23 | C115 1,1,1-TRICHLOROETHANE |
| 24 | C120 CARBON TETRACHLORIDE |
| 25 | C125 ETHYL ACETATE |
| 26 | C130 1,1,2-DICHLOROMETHANE |
| 27 | C140 1,2-DICHLOROPROPANE * |
| 28 | C145 TRANS-1,3-DICHLOROPROPENE |
| 29 | C150 1,1-DICHLOROETHENE |
| 30 | C155 BROMOCHLOROMETHANE |
| 31 | C160 1,1,2-TRICHLOROETHANE |
| 32 | C165 STYRENE |
| 33 | C143 TRANS-1,3-DICHLOROPROPENE |
| 34 | C175 1,2-DICHLOROETHYL VINYL ETHER |
| 35 | C180 CARBON DIOXIDE ** |
| 36 | C220 TETRACHLOROETHENE |
| 37 | C210 2-HEXANONE |
| 38 | C205 ETHYL 2-PENTANONE |
| 39 | C225 1,1,2,2-TETRACHLOROETHANE ** |
| 40 | C230 BENZENE * |
| 41 | C235 1,4-DIBROMOBENZENE ** |
| 42 | C240 ETHYL BENZENE * |
| 43 | C245 STYRENE |
| 44 | C250 1,3-DIENE |
| 45 | C253 1,3-DICHLOROENZENE |
| 46 | C254 1,4-DICHLOROENZENE |
| 47 | C255 1,2-DICHLOROENZENE |

No Name
48 C250 POLYETHYLENE
49 POLYETHYLENE-D6 **S. STD. **

| No | m/z | Time | Ref | RRT | Meth | Area (Hght) | Amount | %Tot |
|----|-----------|-------|-----|-------|------|-------------|-----------|------|
| 1 | 49 | 7:22 | 1 | 1.000 | M XX | 15702. | 50.000 NG | 2.08 |
| 2 | 114 | 9:38 | 2 | 1.000 | A BB | 113786. | 50.000 NG | 2.08 |
| 3 | 117 | 21:48 | 3 | 1.000 | A BB | 82666. | 50.000 NG | 2.08 |
| 4 | 65 | 8:36 | 1 | 1.168 | A BB | 22356. | 50.000 NG | 2.08 |
| 5 | 98 | 14:49 | 3 | 0.679 | A BB | 101320. | 50.000 NG | 2.08 |
| 6 | 95 | 28:33 | 3 | 1.309 | A BB | 77589. | 50.000 NG | 2.08 |
| 7 | 50 | 2:28 | 1 | 0.336 | A BV | 18209. | 50.000 NG | 2.08 |
| 8 | 94 | 3:00 | 1 | 0.408 | M XX | 49677. | 50.000 NG | 2.08 |
| 9 | 62 | 2:36 | 1 | 0.353 | M XX | 31195. | 50.000 NG | 2.08 |
| 10 | 64 | 3:05 | 1 | 0.418 | M XX | 25081. | 50.000 NG | 2.08 |
| 11 | 49 | 4:37 | 1 | 0.627 | A BB | 29568. | 50.000 NG | 2.08 |
| 12 | 56 | 3:50 | 1 | 0.521 | M XX | 4861. | 50.000 NG | 2.08 |
| 13 | 43 | 3:53 | 1 | 0.527 | M XX | 14594. | 50.000 NG | 2.08 |
| 14 | 53 | 4:51 | 1 | 0.658 | A BB | 6512. | 50.000 NG | 2.08 |
| 15 | 76 | 4:37 | 1 | 0.627 | A BB | 80436. | 50.000 NG | 2.08 |
| 16 | 96 | 4:01 | 1 | 0.545 | A BB | 7146. | 50.000 NG | 2.08 |
| 17 | 63 | 5:36 | 1 | 0.760 | M XX | 13495. | 50.000 NG | 2.08 |
| 18 | 61 | 5:00 | 1 | 0.678 | A BB | 24999. | 50.000 NG | 2.08 |
| 19 | 101 | 3:17 | 1 | 0.445 | A BB | 9542. | 50.000 NG | 2.08 |
| 20 | 83 | 6:58 | 1 | 0.945 | A BB | 13321. | 50.000 NG | 2.08 |
| 21 | 62 | 8:50 | 1 | 1.199 | A BB | 27652. | 50.000 NG | 2.08 |
| 22 | 43 | 6:23 | 2 | 0.662 | A BB | 13930. | 50.000 NG | 2.08 |
| 23 | 97 | 7:45 | 2 | 0.804 | A BB | 69949. | 50.000 NG | 2.08 |
| 24 | 117 | 8:18 | 2 | 0.861 | A BB | 58185. | 50.000 NG | 2.08 |
| 25 | 43 | 5:38 | 2 | 0.584 | A BB | 59862. | 50.000 NG | 2.08 |
| 26 | 83 | 11:53 | 2 | 1.233 | A BB | 68794. | 50.000 NG | 2.08 |
| 27 | 63 | 11:06 | 2 | 1.152 | A BB | 32854. | 50.000 NG | 2.08 |
| 28 | 75 | 14:02 | 2 | 1.455 | A BB | 47833. | 50.000 NG | 2.08 |
| 29 | 95 | 10:28 | 2 | 1.086 | A BB | 42644. | 50.000 NG | 2.08 |
| 30 | 129 | 19:02 | 2 | 1.974 | A BB | 51218. | 50.000 NG | 2.08 |
| 31 | 97 | 16:53 | 2 | 1.751 | A BB | 32070. | 50.000 NG | 2.08 |
| 32 | 78 | 8:47 | 2 | 0.911 | A BB | 91386. | 50.000 NG | 2.08 |
| 33 | 75 | 16:17 | 2 | 1.688 | A BB | 40226. | 50.000 NG | 2.08 |
| 34 | 63 | 13:18 | 2 | 1.380 | M XX | 2274. | 50.000 NG | 2.08 |
| 35 | 173 | 27:00 | 2 | 2.801 | A BB | 38042. | 50.000 NG | 2.08 |
| 36 | 166 | 17:52 | 3 | 0.819 | A BB | 46941. | 50.000 NG | 2.08 |
| 37 | 43 | 13:21 | 3 | 0.612 | A BB | 23400. | 50.000 NG | 2.08 |
| 38 | 43 | 17:13 | 3 | 0.789 | A BB | 17512. | 50.000 NG | 2.08 |
| 39 | 83 | 28:31 | 3 | 1.308 | A BB | 51776. | 50.000 NG | 2.08 |
| 40 | 91 | 15:09 | 3 | 0.694 | A BB | 105869. | 50.000 NG | 2.08 |
| 41 | 112 | 22:00 | 3 | 1.009 | A BB | 68042. | 50.000 NG | 2.08 |
| 42 | 106 | 22:25 | 3 | 1.028 | A BB | 29306. | 50.000 NG | 2.08 |
| 43 | 104 | 25:25 | 3 | 1.166 | A BB | 69393. | 50.000 NG | 2.08 |
| 44 | 106 | 22:49 | 3 | 1.046 | A BB | 87571. | 50.000 NG | 2.08 |
| 45 | 146 | 34:29 | 3 | 1.581 | A BB | 77948. | 50.000 NG | 2.08 |
| 46 | 146 | 35:05 | 3 | 1.609 | A BB | 79034. | 50.000 NG | 2.08 |
| 47 | 146 | 36:40 | 3 | 1.682 | A BB | 70481. | 50.000 NG | 2.08 |
| 48 | 106 | 25:05 | 3 | 1.150 | A BB | 44660. | 50.000 NG | 2.08 |
| 49 | NOT FOUND | | | | | | | |

BROMOFLUOROBENZENE

Tuning Report

9/14/94 12:00:00 + 3:47
Instrument: FINN
#150 to #152 summed - #145
Case Number:

Data: BFB914 # 151
Cali: CALTAB # 3
Analyst: UC

Base m/z: 95
RIC: 44736.
Acct. No.: GC

Laboratory:

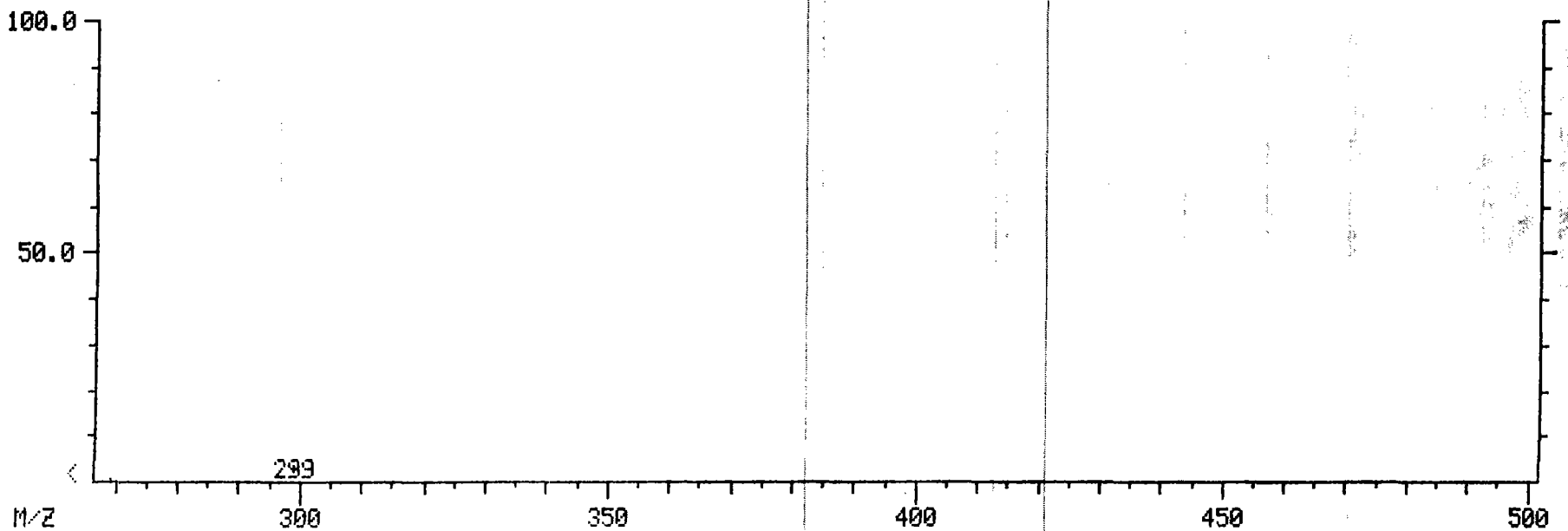
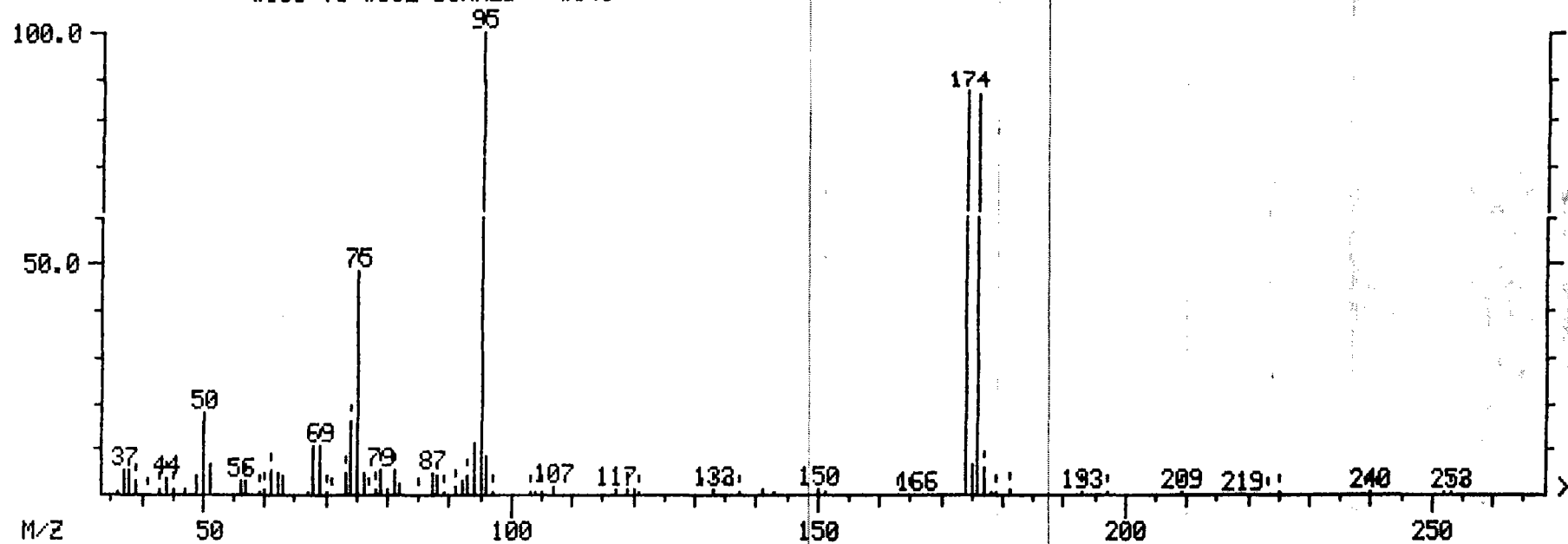
Contract:

| m/z | Intensity | % RA | Ion Abundance Criteria | | | Actual | Status |
|-----|-----------|-------|------------------------|-------|------|--------|--------|
| | | | Min % | Max % | Mass | | |
| 50 | 1542. | 18.3 | 15.0 | 40.0 | 95 | 18.3 | PASS |
| 75 | 4096. | 48.5 | 30.0 | 60.0 | 95 | 48.5 | PASS |
| 95 | 8448. | 100.0 | 100.0 | --- | --- | 100.0 | PASS |
| 96 | 697. | 8.3 | 5.0 | 9.0 | 95 | 8.3 | PASS |
| 173 | 0. | 0.0 | --- | 2.0 | 174 | 0.0 | PASS |
| 174 | 7296. | 86.4 | 50.0 | --- | 95 | 86.4 | PASS |
| 175 | 542. | 6.4 | 5.0 | 9.0 | 174 | 7.4 | PASS |
| 176 | 7248. | 85.8 | 95.0 | 101.0 | 174 | 99.3 | PASS |
| 177 | 503. | 6.0 | 5.0 | 9.0 | 176 | 6.9 | PASS |

MASS SPECTRUM
09/14/94 12:00:00 + 3:47
SAMPLE: 50NG BFB MASS SPECTROMETER TUNE CHECK
CONDS.: EPA METHOD 8240
TEMP: 160 DEG. C
#150 TO #152 SUMMED - #145

DATA: BFB914 #151
CALI: CALTAB #3

BASE M/Z: 95
RIC: 44736.



Mass List
 09/14/94 12:00:00 + 3:47
 Sample: 50NG BFB MASS SPECTROMETER TUNE CHECK
 nds.: EPA METHOD 8240
 #150 to #152 summed - #145

Data: BFB914 # 151
 Cali: CALTAB # 3
 Base m/z: 95
 RIC: 44736.

| Mass | % RA | Inten. | Minima Maxima Mass | Min # | Inten: 0 | % RA | Inten. |
|------|----------|--------|--------------------|-------|----------|------|--------|
| 36 | 0.00 | 0. | | | | | 0. |
| 299 | | | | | | | |
| 36? | 0.37 | 31. | 111 | | 0.19 | | 16. |
| 37? | 5.68 | 480. | 117 | | 1.11 | | 94. |
| 38? | 5.35 | 452. | 119 | S | 0.91 | | 77. |
| 39? | 2.70 | 228. | 120 | | 0.91 | | 77. |
| 41? | 0.25 | 21. | 121 | S | 0.31 | | 26. |
| 43? | 0.96 | 81. | 122 | | 0.22 | | 19. |
| 44? | 3.53 | 298. | 123 | | 0.22 | | 19. |
| 45? | 1.02 | 86. | 131 | S | 0.25 | | 21. |
| 47? | 1.02 | 86. | 133 | S | 1.43 | | 121. |
| 48? | 0.19 | 16. | 135 | S | 0.27 | | 23. |
| 49? | 4.21 | 356. | 136 | S | 0.26 | | 22. |
| 50? | 18.25 | 1542. | 137 | S | 0.46 | | 39. |
| 51? | 6.37 | 538. | 141 | | 1.20 | | 101. |
| 56? | 3.29 | 278. | 143 | | 0.85 | | 72. |
| 57? | 3.10 | 262. | 150 | | 0.91 | | 77. |
| 59? | 0.76 | 64. | 151 | | 0.52 | | 44. |
| 60? | 1.01 | 85. | 163 | S | 0.09 | | 8. |
| 61? | 5.66 | 478. | 165 | S | 0.02 | | 2. |
| 62? | 4.59 | 388. | 166 | | 0.18 | | 15. |
| 63? | 4.06 | 343. | 174 | | 86.36 | | 7296. |
| 67? | 0.60 | 51. | 175 | | 6.42 | | 542. |
| 68? | 10.52 | 889. | 176 | | 85.80 | | 7248. |
| 69 | S 10.89 | 920. | 177 | S | 5.95 | | 503. |
| 70 | S 0.62 | 52. | 178 | | 0.54 | | 46. |
| 71 | S 0.21 | 18. | 179 | S | 0.53 | | 45. |
| 73 | S 4.92 | 416. | 181 | S | 1.12 | | 95. |
| 74 | S 16.29 | 1376. | 193 | S | 0.51 | | 43. |
| 75 | S 48.48 | 4096. | 197 | S | 0.46 | | 39. |
| 76 | 4.64 | 392. | 209 | S | 0.44 | | 37. |
| 77 | S 0.30 | 25. | 219 | S | 0.26 | | 22. |
| 78 | S 0.91 | 77. | 223 | S | 0.24 | | 20. |
| 79 | S 5.23 | 442. | 225 | S | 0.45 | | 38. |
| 80 | 1.16 | 98. | 239 | S | 0.01 | | 1. |
| 81 | S 5.15 | 435. | 240 | S | 0.34 | | 29. |
| 82 | 2.21 | 187. | 241 | S | 0.27 | | 23. |
| 85 | S 0.09 | 8. | 252 | | 0.40 | | 34. |
| 87 | 4.69 | 396. | 253 | S | 0.60 | | 51. |
| 88 | 3.89 | 329. | 255 | S | 0.01 | | 1. |
| 89 | S 0.33 | 28. | 269 | | 0.50 | | 42. |
| 91 | S 1.57 | 133. | 299 | S | 0.22 | | 19. |
| 92 | 3.03 | 256. | | | | | |
| 93 | S 4.38 | 370. | | | | | |
| 94 | 11.35 | 959. | | | | | |
| 95 | S 100.00 | 8448. | | | | | |
| 96 | 8.25 | 697. | | | | | |
| 97 | S 0.50 | 42. | | | | | |
| 103 | S 0.71 | 60. | | | | | |
| 104 | 0.31 | 26. | | | | | |
| 105 | S 0.85 | 72. | | | | | |
| 107 | 1.73 | 146. | | | | | |

RIC+MASS CHROMATOGRAM

DATA: BFB914 #150

SCANS 140 TO 160

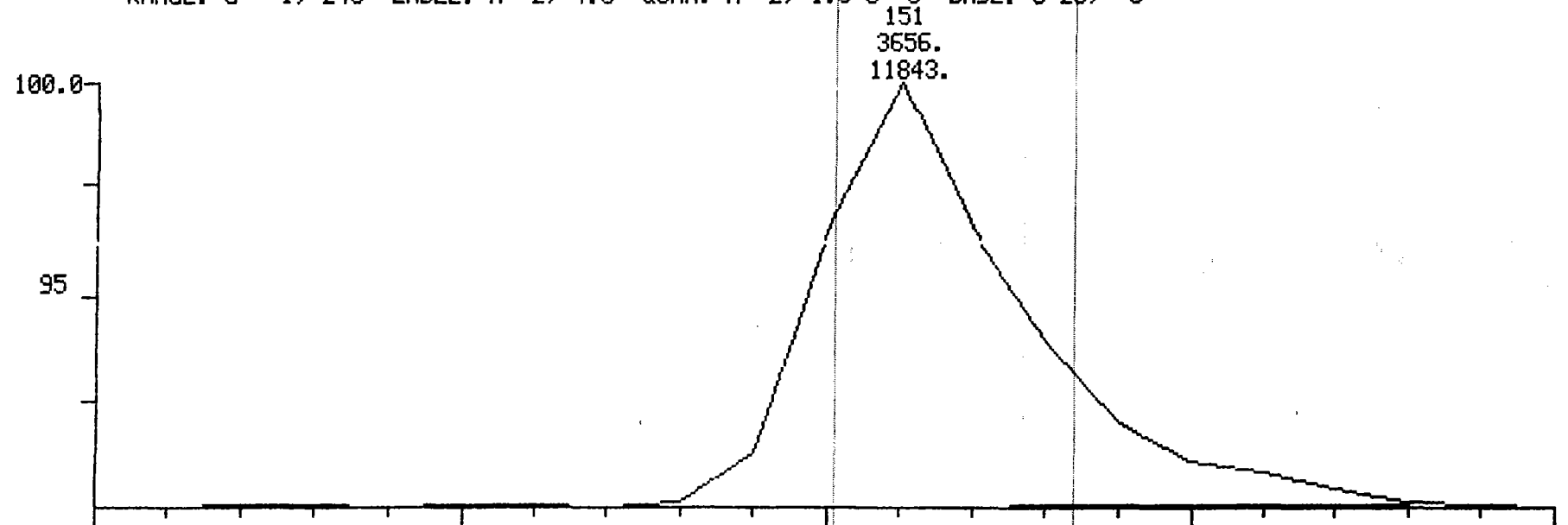
09/14/94 12:00:00

CALI: CALTAB #3

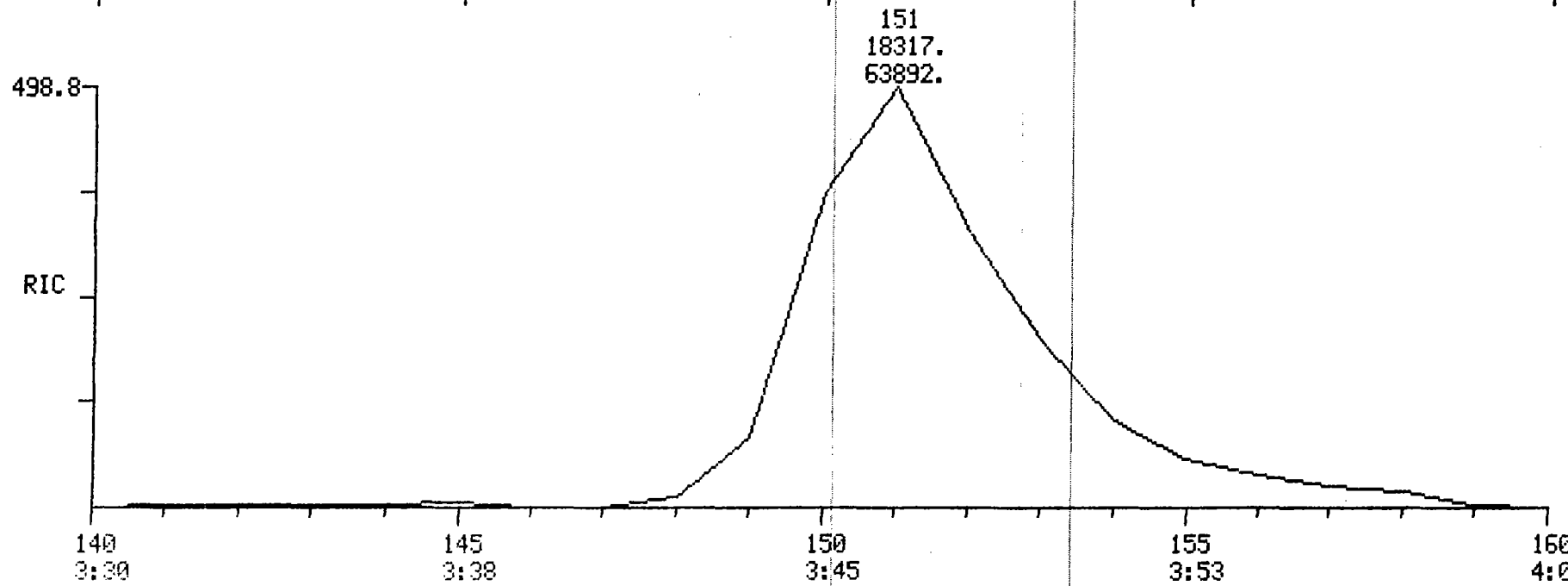
SAMPLE: 50NG BFB MASS SPECTROMETER TUNE CHECK

CONDS.: EPA METHOD 8240

RANGE: G 1, 240 LABEL: N 2, 4.0 QUAN: A 2, 1.0 J 0 BASE: U 20, 3



3676.
95.028
± 0.500



18335.

137

BROMOFLUOROBENZENE

Tuning Report

Data: BFB923 # 150

Base m/z: 95

11/23/94 10:55:00 + 3:45

Cali: CALTAB # 3

RIC: 146176.

Document: FINN

Analyst: UC

Acct. No.: 4667-001

#149 to #151 summed

Case Number:

Laboratory:

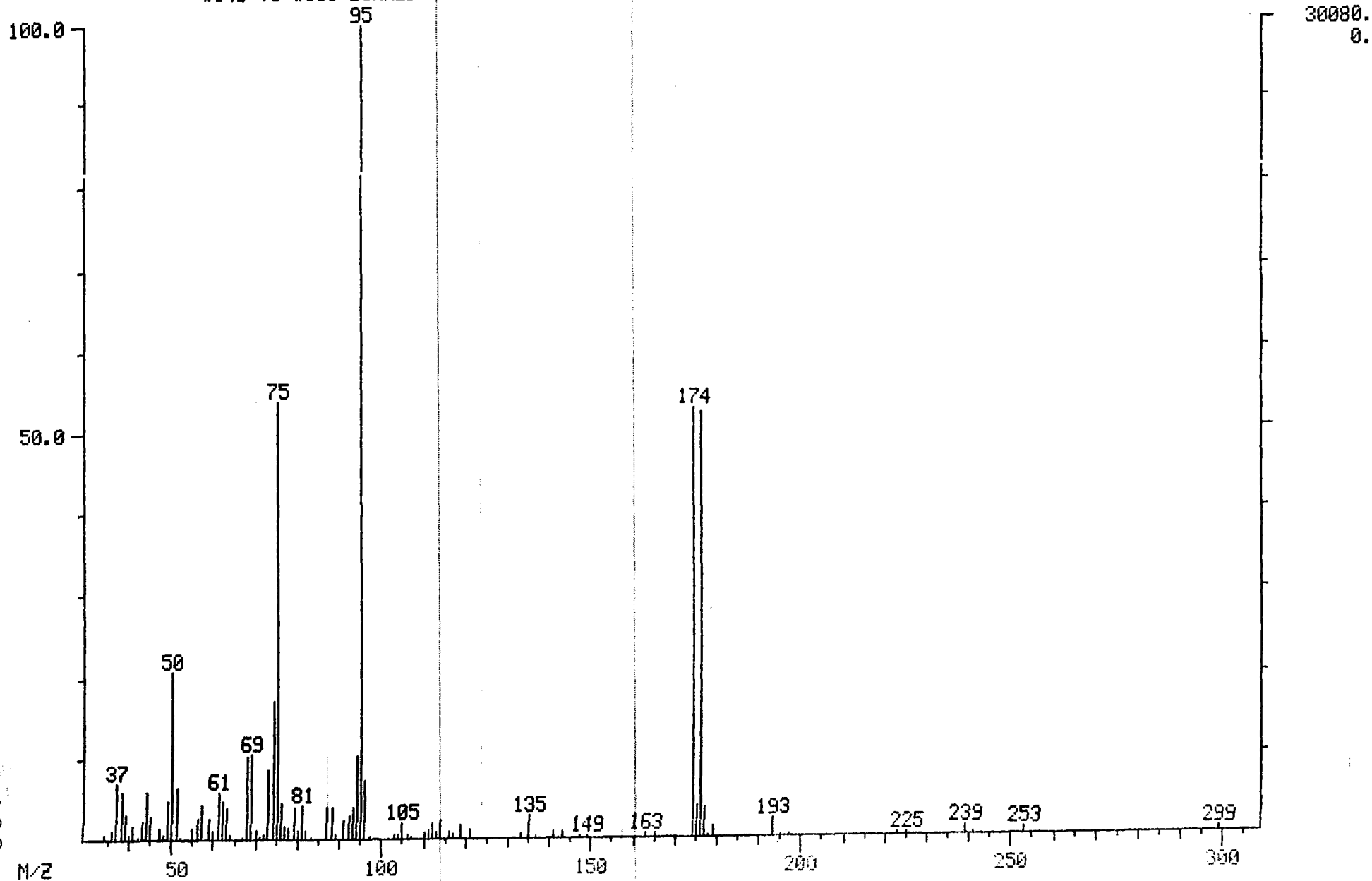
Contract:

| m/z | Intensity | % RA | Ion Abundance Criteria | | | Actual | Status |
|-----|-----------|-------|------------------------|-------|------|--------|--------|
| | | | Min % | Max % | Mass | | |
| 50 | 6224. | 20.7 | 15.0 | 40.0 | 95 | 20.7 | PASS |
| 75 | 16208. | 53.9 | 30.0 | 60.0 | 95 | 53.9 | PASS |
| 95 | 30080. | 100.0 | 100.0 | --- | --- | 100.0 | PASS |
| 96 | 2200. | 7.3 | 5.0 | 9.0 | 95 | 7.3 | PASS |
| 173 | 0. | 0.0 | --- | 2.0 | 174 | 0.0 | PASS |
| 174 | 15856. | 52.7 | 50.0 | --- | 95 | 52.7 | PASS |
| 175 | 1144. | 3.8 | 5.0 | 9.0 | 174 | 7.2 | PASS |
| 176 | 15744. | 52.3 | 95.0 | 101.0 | 174 | 99.3 | PASS |
| 177 | 1100. | 3.7 | 5.0 | 9.0 | 176 | 7.0 | PASS |

MASS SPECTRUM
09/23/94 10:55:00 + 3:45
SAMPLE: 50NG BFB MASS SPECTROMETER TUNE CHECK
CONDS.: EPA METHOD 8240
TEMP: 160 DEG. C
#149 TO #151 SUMMED

DATA: BFB923 #150
CALI: CALTAB #3

BASE M/Z: 95
RIC: 146176.



139

Mass List

Data: BFB923 # 150

Base m/z: 95

09/23/94 10:55:00 + 3:45

Cal: CALTAB # 3

RIC: 146176.

Sample: SONG BFB MASS SPECTROMETER TUNE CHECK

Conditions: EPA METHOD 8240

#149 to #151 summed

| Mass | % RA | Inten. | Minima Maxima Mass | Min Inten: # | % RA | Inten. |
|------|-------|--------|--------------------|--------------|------|--------|
| 34 | 0.00 | 0. | | | | 0. |
| 299 | | | | | | |
| 34? | 0.60 | 179. | 94 | 10.31 | | 3100. |
| 36? | 1.22 | 368. | 95 | 100.00 | | 30080. |
| 37? | 6.87 | 2068. | 96 | 7.31 | | 2200. |
| 38? | 5.66 | 1704. | 97 | 0.18 | | 54. |
| 39? | 3.07 | 922. | 103 | 0.58 | | 175. |
| 40? | 0.45 | 136. | 104 | 0.54 | | 161. |
| 41? | 1.78 | 534. | 105 | 1.96 | | 589. |
| 42? | 0.27 | 82. | 106 | 0.55 | | 166. |
| 43? | 2.16 | 651. | 107 | 0.39 | | 116. |
| 44? | 5.74 | 1726. | 110 | 0.88 | | 265. |
| 45? | 2.77 | 833. | 111 | 1.09 | | 328. |
| 47? | 1.39 | 417. | 112 | 1.90 | | 572. |
| 48? | 0.44 | 131. | 113 | 0.96 | | 289. |
| 49? | 4.64 | 1396. | 114 | 2.12 | | 637. |
| 50? | 20.69 | 6224. | 116 | 0.82 | | 247. |
| 51? | 6.46 | 1944. | 117 | 0.59 | | 178. |
| 52? | 0.23 | 69. | 118 | 0.13 | | 40. |
| 53? | 0.05 | 15. | 119 | 1.77 | | 533. |
| 55? | 1.38 | 415. | 121 | 1.21 | | 363. |
| 56? | 2.44 | 734. | 128 | 0.05 | | 15. |
| 57? | 4.06 | 1222. | 133 | 0.45 | | 136. |
| 59? | 2.47 | 742. | 135 | 2.69 | | 809. |
| 60? | 1.24 | 374. | 137 | 0.21 | | 63. |
| 61? | 5.70 | 1714. | 141 | 0.81 | | 244. |
| 62? | 4.61 | 1388. | 143 | 0.86 | | 260. |
| 63? | 3.86 | 1162. | 145 | 0.13 | | 38. |
| 64? | 0.64 | 194. | 147 | 0.15 | | 46. |
| 67? | 0.26 | 78. | 149 | 0.25 | | 74. |
| 68? | 10.17 | 3060. | 163 | 0.64 | | 192. |
| 69 | 10.45 | 3144. | 165 | 0.56 | | 167. |
| 70 | 1.06 | 320. | 174 | 52.71 | | 15856. |
| 71 | 0.25 | 76. | 175 | 3.80 | | 1144. |
| 72 | 0.52 | 155. | 176 | 52.34 | | 15744. |
| 73 | 8.70 | 2616. | 177 | 3.66 | | 1100. |
| 74 | 17.21 | 5176. | 178 | 0.15 | | 45. |
| 75 | 53.88 | 16208. | 179 | 1.38 | | 415. |
| 76 | 4.53 | 1364. | 180 | 0.05 | | 15. |
| 77 | 1.55 | 466. | 181 | 0.08 | | 23. |
| 78 | 1.26 | 380. | 193 | 2.19 | | 660. |
| 79 | 3.95 | 1188. | 194 | 0.13 | | 40. |
| 80 | 1.18 | 354. | 195 | 0.31 | | 94. |
| 81 | 4.13 | 1242. | 197 | 0.25 | | 74. |
| 82 | 1.10 | 330. | 223 | 0.26 | | 78. |
| 83 | 0.20 | 61. | 225 | 0.35 | | 104. |
| 87 | 3.86 | 1162. | 237 | 0.05 | | 16. |
| 88 | 3.91 | 1176. | 239 | 1.20 | | 360. |
| 89 | 0.61 | 182. | 241 | 0.25 | | 74. |
| 91 | 2.26 | 680. | 253 | 0.95 | | 287. |
| 92 | 2.70 | 811. | 299 | 0.56 | | 167. |
| 93 | 3.95 | 1188. | | | | |

MASS CHROMATOGRAMS

09/23/94 10:55:00

SAMPLE: 50NG BFB MASS SPECTROMETER TUNE CHECK

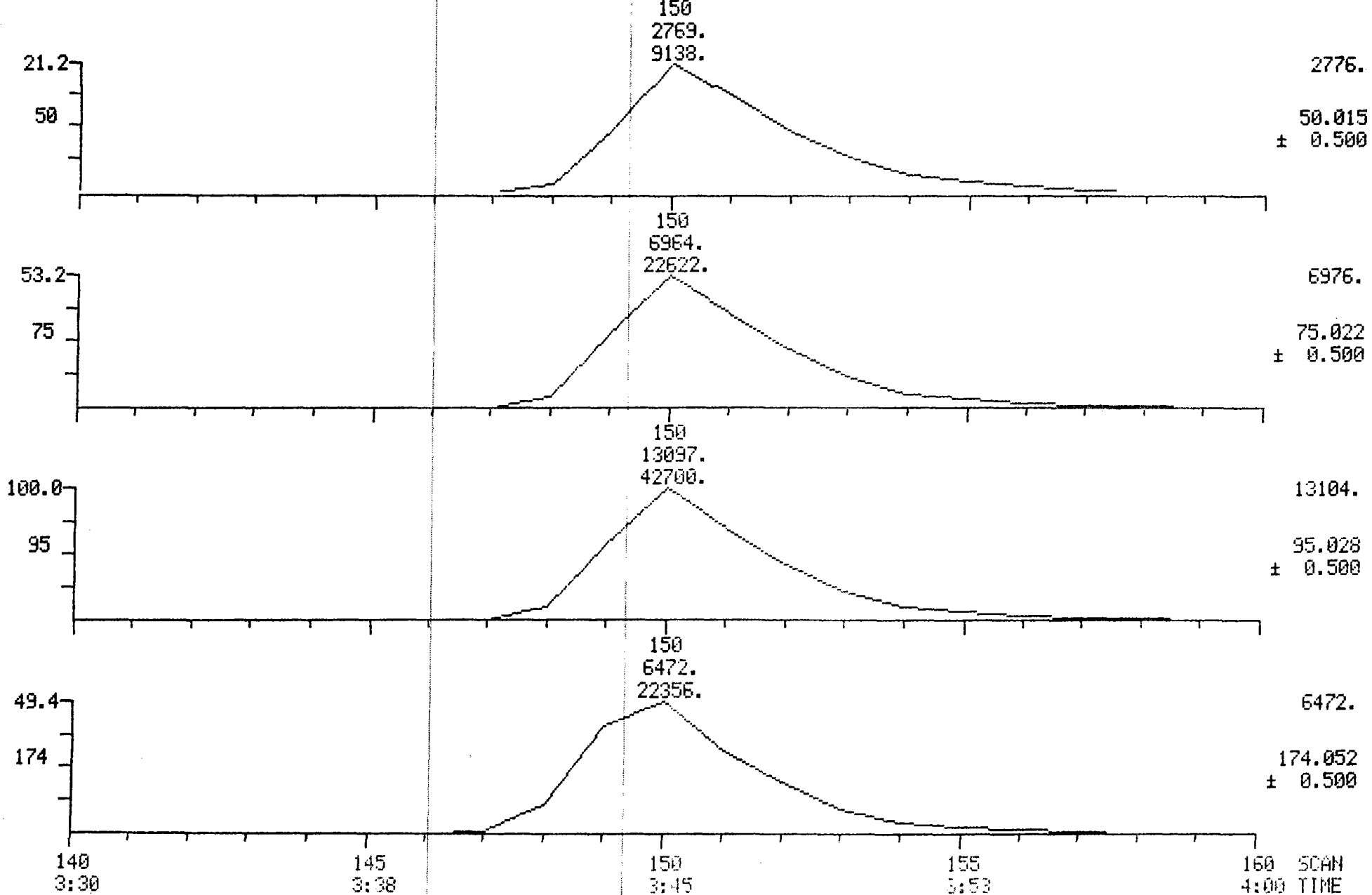
CONDS.: EPA METHOD 8240

RANGE: G 1, 240 LABEL: N 3, 4.0 QUAN: A 3, 1.0 J 0 BASE: U 20, 3

DATA: BFB923 #149

CALI: CALTAB #3

SCANS 140 TO 160



BROMOFLUOROBENZENE

Summary Report
09/29/94 8:45:00 + 3:44
Instrument: FINN
#148 to #150 summed
Case Number:

Data: BFB929 # 149
Cali: CALTAB # 3
Analyst: UC

Base m/z: 95
RIC: 136448.
Acct. No.: INTERNAL

Laboratory:

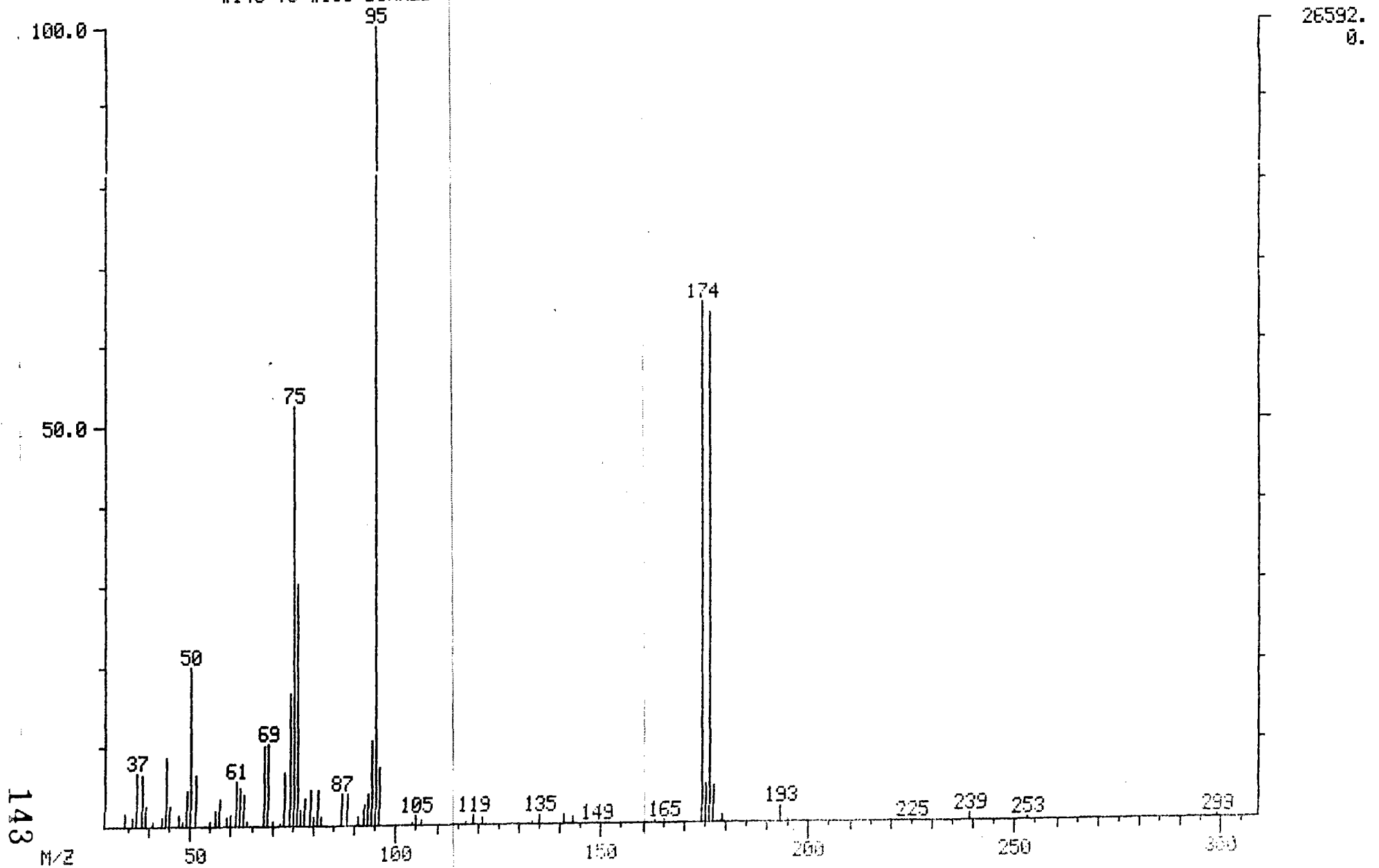
Contract:

| m/z | Intensity | % RA | Ion Abundance Criteria | | | Actual | Status |
|-----|-----------|-------|------------------------|-------|------|--------|--------|
| | | | Min % | Max % | Mass | | |
| 50 | 5304. | 19.9 | 15.0 | 40.0 | 95 | 19.9 | PASS |
| 75 | 13936. | 52.4 | 30.0 | 60.0 | 95 | 52.4 | PASS |
| 95 | 26592. | 100.0 | 100.0 | --- | --- | 100.0 | PASS |
| 96 | 1876. | 7.1 | 5.0 | 9.0 | 95 | 7.1 | PASS |
| 173 | 0. | 0.0 | --- | 2.0 | 174 | 0.0 | PASS |
| 174 | 17344. | 65.2 | 50.0 | --- | 95 | 65.2 | PASS |
| 175 | 1234. | 4.6 | 5.0 | 9.0 | 174 | 7.1 | PASS |
| 176 | 16960. | 63.8 | 95.0 | 101.0 | 174 | 97.8 | PASS |
| 177 | 1146. | 4.3 | 5.0 | 9.0 | 176 | 6.8 | PASS |

MASS SPECTRUM
09/29/94 8:45:00 + 3:44
SAMPLE: 50NG BFB MASS SPECTROMETER TUNE CHECK
CONDS.: EPA METHOD 624
TEMP: 150 DEG. C
#148 TO #150 SUMMED

DATA: BFB929 #149
CALI: CALTAB #3

BASE M/Z: 95
RIC: 136448.



Mass List

Data: BFB929 # 149

Base m/z: 95

9/29/94 8:45:00 + 3:44

Cal: CALTAB # 3

RIC: 136448.

Sample: SONG BFB MASS SPECTROMETER TUNE CHECK

Units: EPA METHOD 624

#148 to #150 summed

| Mass | % RA | Inten. | Minima Maxima Mass | Min Inten: # | % RA | Inten. |
|------|--------|--------|--------------------|--------------|--------|--------|
| 34 | 0.00 | 0. | 117 | 0 | 0. | 0. |
| 299 | | | 118 | | | |
| 34? | 1.65 | 440. | 119 | 0.36 | 95. | |
| 36? | 1.14 | 304. | 121 | 0.12 | 32. | |
| 37? | 6.57 | 1746. | 133 | 1.24 | 330. | |
| 38? | 6.26 | 1664. | 135 | 0.72 | 192. | |
| 39? | 2.47 | 657. | 141 | 0.14 | 37. | |
| 40? | 0.07 | 19. | 143 | 1.08 | 286. | |
| 41? | 0.46 | 121. | 149 | 1.00 | 266. | |
| 43? | 0.99 | 263. | 163 | 0.88 | 235. | |
| 44? | 3.47 | 2252. | 165 | 0.06 | 17. | |
| 45? | 2.35 | 626. | 174 | 0.15 | 41. | |
| 47? | 1.50 | 399. | 175 | 0.34 | 91. | |
| 48? | 0.51 | 135. | 176 | 65.22 | 17344. | |
| 49? | 4.52 | 1202. | 177 | 4.64 | 1234. | |
| 50? | 19.95 | 5304. | 179 | 63.78 | 16960. | |
| 51? | 5.27 | 1668. | 225 | 4.31 | 1146. | |
| 55? | 0.61 | 162. | 239 | 0.94 | 249. | |
| 56? | 1.80 | 479. | 253 | 1.85 | 491. | |
| 57? | 3.29 | 875. | 299 | 0.19 | 51. | |
| 59? | 1.20 | 320. | | 0.07 | 19. | |
| 60? | 1.33 | 353. | | 0.95 | 252. | |
| 61? | 5.40 | 1436. | | 0.33 | 87. | |
| 62? | 4.82 | 1282. | | 0.15 | 41. | |
| 63? | 3.90 | 1036. | | | | |
| 64? | 0.64 | 169. | | | | |
| 67? | 0.06 | 17. | | | | |
| 68? | 9.94 | 2644. | | | | |
| 69 | 10.35 | 2752. | | | | |
| 70 | 0.63 | 167. | | | | |
| 72 | 0.33 | 89. | | | | |
| 73 | 6.51 | 1732. | | | | |
| 74 | 16.70 | 4440. | | | | |
| 75 | 52.41 | 13936. | | | | |
| 76 | 30.26 | 8048. | | | | |
| 77 | 1.82 | 483. | | | | |
| 78 | 3.26 | 867. | | | | |
| 79 | 4.53 | 1204. | | | | |
| 80 | 1.23 | 328. | | | | |
| 81 | 4.38 | 1166. | | | | |
| 82 | 1.06 | 283. | | | | |
| 87 | 3.90 | 1036. | | | | |
| 88 | 3.89 | 1034. | | | | |
| 91 | 1.24 | 329. | | | | |
| 92 | 2.54 | 675. | | | | |
| 93 | 4.00 | 1064. | | | | |
| 94 | 10.57 | 2812. | | | | |
| 95 | 100.00 | 26592. | | | | |
| 96 | 7.05 | 1876. | | | | |
| 104 | 0.19 | 51. | | | | |
| 105 | 0.98 | 261. | | | | |
| 106 | 0.42 | 111. | | | | |

MASS CHROMATOGRAMS

09/29/94 8:45:00

SAMPLE: 50NG BFB MASS SPECTROMETER TUNE CHECK

CONDS.: EPA METHOD 624

RANGE: G 1, 240 LABEL: N 3, 4.0 QUAN: A 3, 1.0 J 0 BASE: U 20, 3

DATA: BFB929 #148

SCANS 139 TO 159

CALI: CALTAB #3

149

2365.

7131.

2368.

50.015

± 0.500

20.2

50

149

6049.

18190.

6056.

75.022

± 0.500

51.8

75

149

11696.

35161.

11696.

95.028

± 0.500

100.0

95

149

6840.

22939.

6840.

174.052

± 0.500

58.5

174

145

140
3:30

145
3:38

150
3:45

155
3:53

SCAN
TIME

BROMOFLUOROBENZENE

Printing Report
04/94 11:42:00 + 3:43
Instrument: FINN
#146 to #148 summed
Case Number:

Data: BFB1004B # 147
Cali: CALTAB # 3
Analyst: KE

Base m/z: 95
RIC: 128512.
Acct. No.: -

Laboratory:

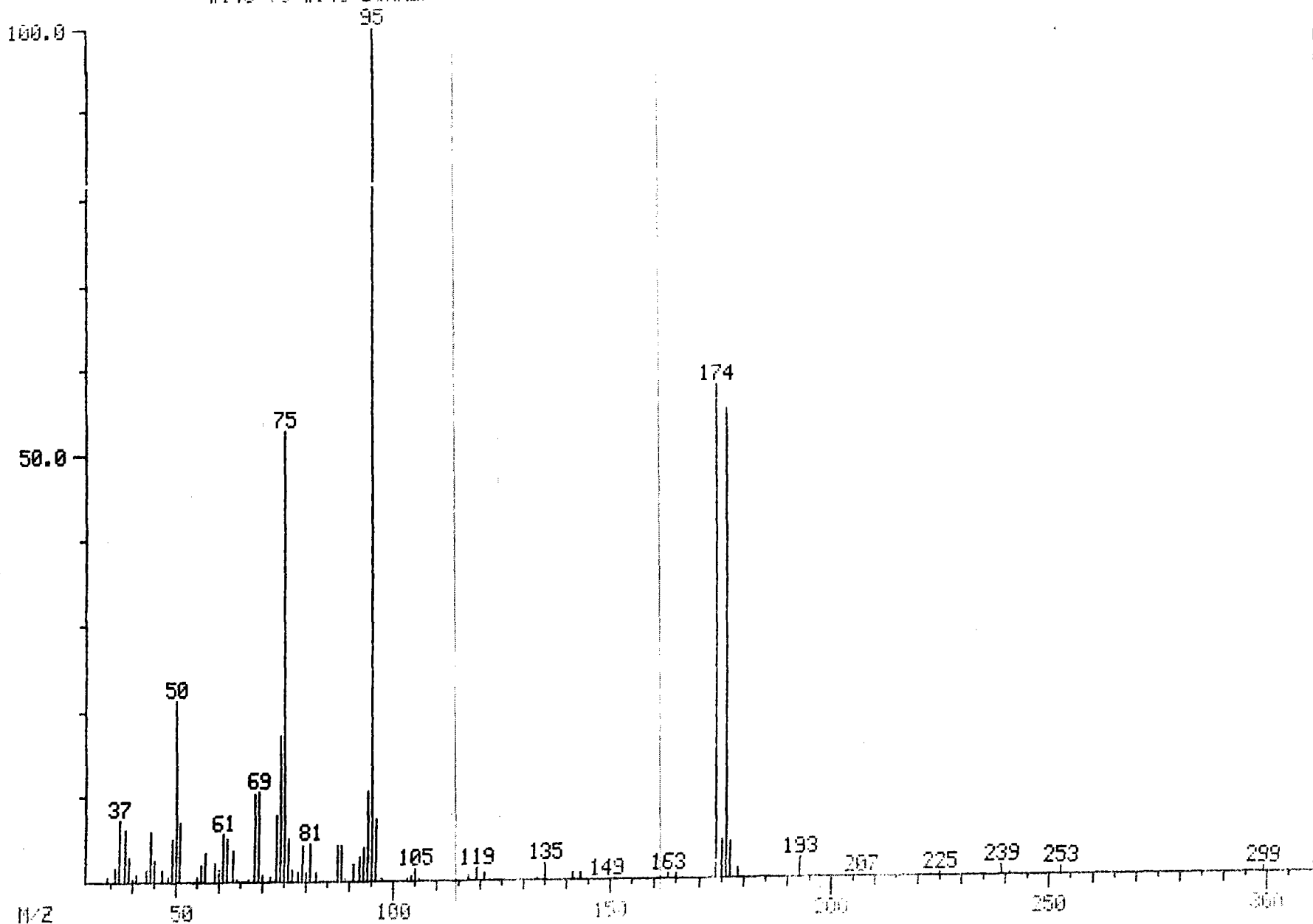
Contract:

| m/z | Intensity | % RA | Ion Abundance Criteria | | | Actual | Status |
|-----|-----------|-------|------------------------|-------|------|--------|--------|
| | | | Min % | Max % | Mass | | |
| 90 | 5704. | 21.3 | 15.0 | 40.0 | 95 | 21.3 | PASS |
| 95 | 14128. | 52.7 | 30.0 | 60.0 | 95 | 52.7 | PASS |
| 95 | 26816. | 100.0 | 100.0 | --- | --- | 100.0 | PASS |
| 96 | 1948. | 7.3 | 5.0 | 9.0 | 95 | 7.3 | PASS |
| 97 | 0. | 0.0 | --- | 2.0 | 174 | 0.0 | PASS |
| 174 | 15472. | 57.7 | 50.0 | --- | 95 | 57.7 | PASS |
| 175 | 1174. | 4.4 | 5.0 | 9.0 | 174 | 7.6 | PASS |
| 176 | 14752. | 55.0 | 95.0 | 101.0 | 174 | 95.3 | PASS |
| 177 | 1088. | 4.1 | 5.0 | 9.0 | 176 | 7.4 | PASS |

MASS SPECTRUM
10/04/94 11:42:00 + 3:43
SAMPLE: 50NG BFB MASS SPECTROMETER TUNE CHECK
CONDS.: EPA METHOD 8240
TEMP: 160 DEG. C
#145 TO #148 SUMMED

DATA: BFB1004B #147
CALI: CALTAB #3

BASE M/Z: 95
RIC: 128512.



28816.
0.

147

Mass List
 10/04/94 11:42:00 + 3:43
 Sample: SONG BFB MASS SPECTROMETER TUNE CHECK
 Method: EPA METHOD 8240
 #1-6 to #148 summed

Data: BFB1004B # 147
 Cali: CALTAB # 3

Base m/z: 95
 RIC: 128512.

| Mass | % RA | Inten. | Minima Maxima Mass | Min # | Inten: O | % RA | Inten. |
|------|--------|--------|--------------------|-------|----------|------|--------|
| 34 | 0.00 | 0. | | | | | 0. |
| 36 | | | | | | | |
| 37 | | | | | | | |
| 38 | | | | | | | |
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| 91 | | | | | | | |
| 92 | | | | | | | |
| 93 | | | | | | | |
| 94 | | | | | | | |
| 95 | 100.00 | 26816. | | | | | |

MASS CHROMATOGRAMS

10/04/94 11:42:00

SAMPLE: 50NG BFB

CONDS.: EPA METHOD 8240

RANGE: G 1: 181

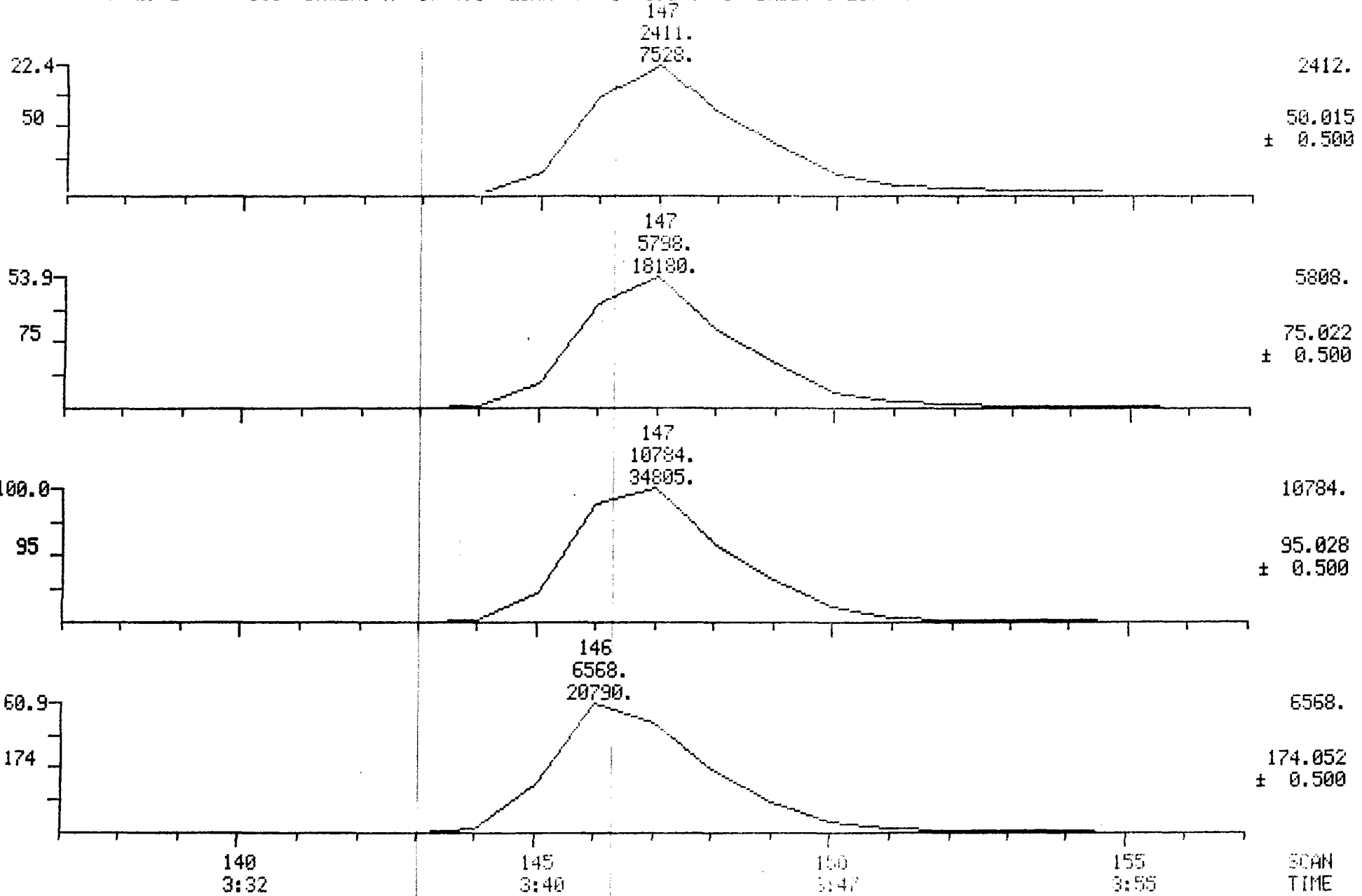
DATA: BFB1004B #146

CALI: CALTAB #3

MASS SPECTROMETER TUNE CHECK

LABEL: N 3, 4.0 QUAN: A 3, 1.0 J 0 BASE: U 20, 3

SCANS 137 TO 157



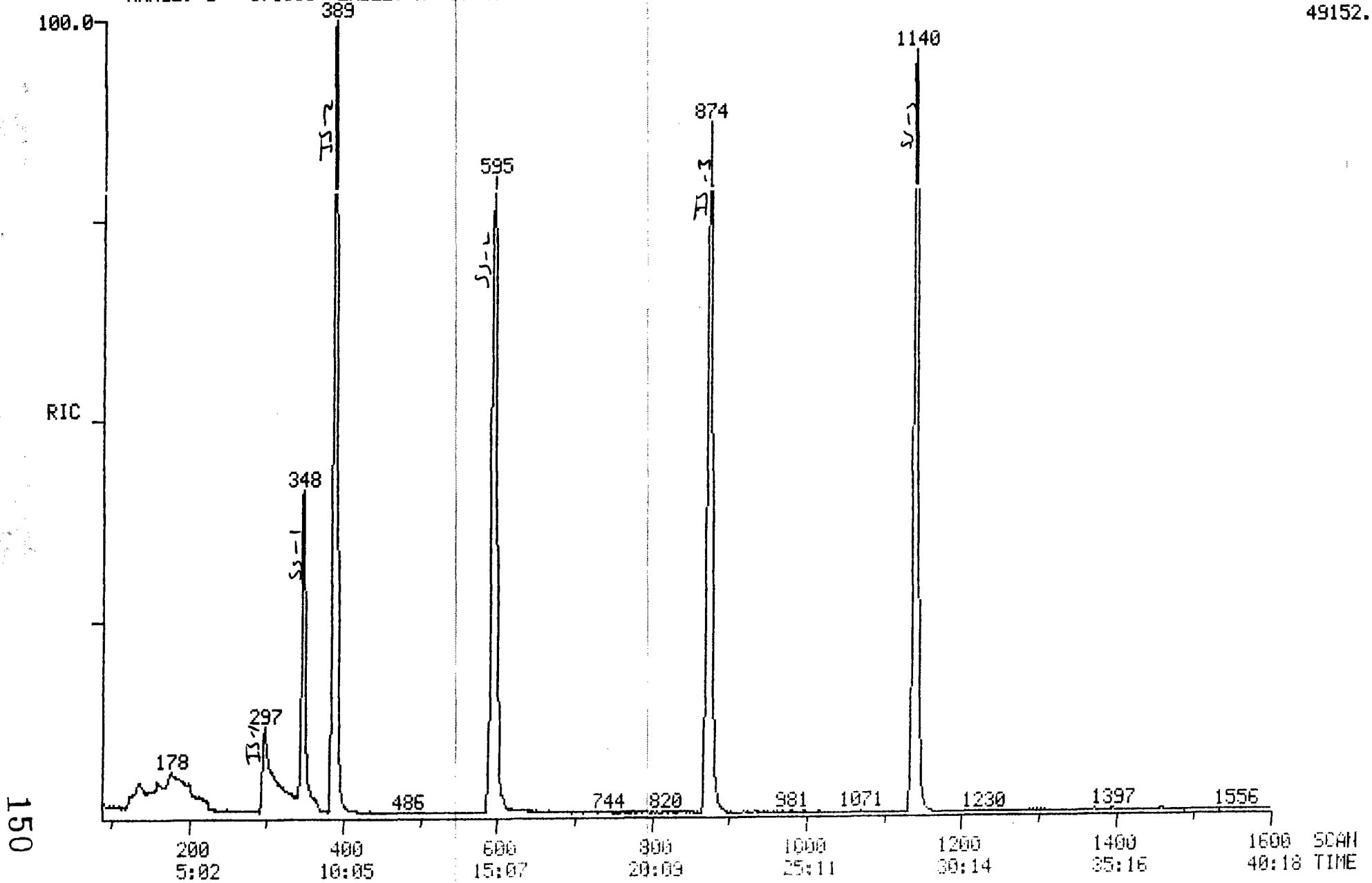
RIC
09/23/94 12:08:00
SAMPLE: M.BLK
CONDS.: EPA METHOD 8240
RANGE: G 1.1600

DATA: CBLK923 #1
CALI: CBLK923 #3

SCANS 88 TO 1600

LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

49152.



Quantitation Report File: CBLK923

Data: CBLK923.TI
9/23/94 12:08:00

Sample: M. BLK

Conds.: EPA METHOD 8240

Formula: 5ML

Submitted by: PTL

Instrument: FINN

Analyst: UC

Weight: 0.000

Acct. No.:

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)

Resp. fac. from Library Entry

| No | Name |
|----|--|
| 1 | CI01 BROMOCHLOROMETHANE **INT. STD.** |
| 2 | CI10 1,4-DIFLUOROBENZENE **INT. STD.** |
| 3 | CI20 CHLOROBENZENE-D5 **INT. STD.** |
| 4 | CS15 1,2-DICHLOROETHANE-D4 **S. STD.** |
| 5 | CS05 TOLUENE-D8 **S. STD.** |
| 6 | CS10 4-BROMOFLUOROBENZENE **S. STD.** |
| 7 | CO10 CHLOROMETHANE ** |
| 8 | CO15 BROMOMETHANE |
| 9 | CO20 VINYL CHLORIDE * |
| 10 | CO25 CHLOROETHANE |
| 11 | CO30 METHYLENE CHLORIDE |
| 12 | C251 ACROLIN |
| 13 | CO35 ACETONE |
| 14 | C252 ACRYLONITRILE |
| 15 | CO40 CARBON DISULFIDE |
| 16 | CO45 1,1-DICHLOROETHENE * |
| 17 | CO50 1,1-DICHLOROETHANE ** |
| 18 | CO55 TRANS-1,2-DICHLOROETHENE |
| 19 | CO00 TRICHLOROFLUOROMETHANE |
| 20 | CO60 CHLOROFORM * |
| 21 | CO65 1,2-DICHLOROETHANE |
| 22 | C110 2-BUTANONE |
| 23 | C115 1,1,1-TRICHLOROETHANE |
| 24 | C120 CARBON TETRACHLORIDE |
| 25 | C125 VINYL ACETATE |
| 26 | C130 BROMO DICHLOROMETHANE |
| 27 | C140 1,2-DICHLOROPROPANE * |
| 28 | C145 TRANS-1,3 DICHLOROPROPENE |
| 29 | C150 TRICHLOROETHENE |
| 30 | C155 DIBROMOCHLOROMETHANE |
| 31 | C160 1,1,2-TRICHLOROETHANE |
| 32 | C165 BENZENE |
| 33 | C143 CIS-1,3-DICHLOROPROPENE |
| 34 | C175 2-CHLOROETHYL VINYL ETHER |
| 35 | C180 BROMOFORM ** |
| 36 | C220 TETRACHLOROETHENE |
| 37 | C210 2-HEXANONE |
| 38 | C205 4-METHYL 2-PENTANONE |
| 39 | C225 1,1,2,2-TETRACHLOROETHANE ** |
| 40 | C230 TOLUENE * |
| 41 | C235 CHLOROBENZENE ** |
| 42 | C240 ETHYL BENZENE * |
| 43 | C245 STYRENE |
| 44 | C250 M+P-XYLENES |
| 45 | C253 1,3-DICHLOROENZENE |
| 46 | C254 1,4-DICHLOROENZENE |
| 47 | C255 1,2-DICHLOROENZENE |

No Name
 48 C250 O-XYLENE
 49 BENZENE-D6 **S. STD. **

| No | m/z | Scan | Time | Ref | RRT | Meth | Area(Hght) | Amount | ZTot |
|----|-----------|------|-------|-----|-------|------|------------|-----------|-------|
| 1 | 49 | 297 | 7:29 | 1 | 1.000 | M XX | 12703. | 50.000 NG | 16.18 |
| 2 | 114 | 389 | 9:48 | 2 | 1.000 | A BB | 121792. | 50.000 NG | 16.18 |
| 3 | 117 | 874 | 22:01 | 3 | 1.000 | A BB | 70127. | 50.000 NG | 16.18 |
| 4 | 65 | 348 | 8:46 | 1 | 1.172 | A BB | 35778. | 55.708 NG | 18.03 |
| 5 | 98 | 595 | 14:59 | 3 | 0.681 | A BB | 97779. | 52.086 NG | 16.86 |
| 6 | 95 | 1140 | 28:43 | 3 | 1.304 | M XX | 72910. | 50.265 NG | 16.27 |
| 7 | NOT FOUND | | | | | | | | |
| 8 | NOT FOUND | | | | | | | | |
| 9 | NOT FOUND | | | | | | | | |
| 10 | NOT FOUND | | | | | | | | |
| 11 | NOT FOUND | | | | | | | | |
| 12 | NOT FOUND | | | | | | | | |
| 13 | NOT FOUND | | | | | | | | |
| 14 | NOT FOUND | | | | | | | | |
| 15 | NOT FOUND | | | | | | | | |
| 16 | NOT FOUND | | | | | | | | |
| 17 | NOT FOUND | | | | | | | | |
| 18 | NOT FOUND | | | | | | | | |
| 19 | NOT FOUND | | | | | | | | |
| 20 | NOT FOUND | | | | | | | | |
| 21 | NOT FOUND | | | | | | | | |
| 22 | NOT FOUND | | | | | | | | |
| 23 | NOT FOUND | | | | | | | | |
| 24 | NOT FOUND | | | | | | | | |
| 25 | 43 | 223 | 5:37 | 2 | 0.573 | A VB | 1017. | 0.605 NG | 0.20 |
| 26 | NOT FOUND | | | | | | | | |
| 27 | NOT FOUND | | | | | | | | |
| 28 | NOT FOUND | | | | | | | | |
| 29 | NOT FOUND | | | | | | | | |
| 30 | NOT FOUND | | | | | | | | |
| 31 | NOT FOUND | | | | | | | | |
| 32 | NOT FOUND | | | | | | | | |
| 33 | NOT FOUND | | | | | | | | |
| 34 | NOT FOUND | | | | | | | | |
| 35 | NOT FOUND | | | | | | | | |
| 36 | NOT FOUND | | | | | | | | |
| 37 | NOT FOUND | | | | | | | | |
| 38 | NOT FOUND | | | | | | | | |
| 39 | NOT FOUND | | | | | | | | |
| 40 | 91 | 608 | 15:19 | 3 | 0.696 | A BB | 851. | 0.414 NG | 0.13 |
| 41 | NOT FOUND | | | | | | | | |
| 42 | NOT FOUND | | | | | | | | |
| 43 | NOT FOUND | | | | | | | | |
| 44 | NOT FOUND | | | | | | | | |
| 45 | NOT FOUND | | | | | | | | |
| 46 | NOT FOUND | | | | | | | | |
| 47 | NOT FOUND | | | | | | | | |
| 48 | NOT FOUND | | | | | | | | |
| 49 | NOT FOUND | | | | | | | | |

PROCEDURE: FILTER/TIC

DIAGNOSTIC REPORT

9/23/94 12:59:48

DATA FILE: CBLK923

FILTER SCAN PARAMETERS

MAX. NUMBER TICS: 15
11-TABLE ENTRIES: 539
SCAN TOLERANCE : 2
MIN. RIC HT. [%]: 10
FIRST SCAN : 1
LAST SCAN : 1600
TIC THRESHOLD : 600

METHOD LIBRARY & LISTS

TIC I.S. LIBRARY: LIBRARYLS
NBS SEARCH PROC : SERLIB
PEAK FINDER PROC: VOME
TCA I.S. LL : LS
FILE NAME LIST : TCAREF2

TARGET COMPOUND ANALYSIS:

| TARGETS (QUAN LIST) | IS PEAKS | TOTAL TARGET PEAKS |
|------------------------|-------------|-----------------------|
| 5 | 3 | 8 |

FILTER PROCESSING:

| ←-----REJECT PEAKS-----> | | | | | | | TOTAL |
|--------------------------|---------------|----------------|-----------------|---------------|------------------|------------------|---------------|
| TOTAL PEAKS | < 1ST SCAN | > LAST SCAN | < MIN RIC HT | < SCAN TOL | > MAX # PEAKS | TOTAL REJECTS | TOTAL TICS |
| 6 | 0 | 0 | 0 | 6 | 0 | 6 | 0 |

NO UNKNOWN PEAKS TO BE IDENTIFIED.

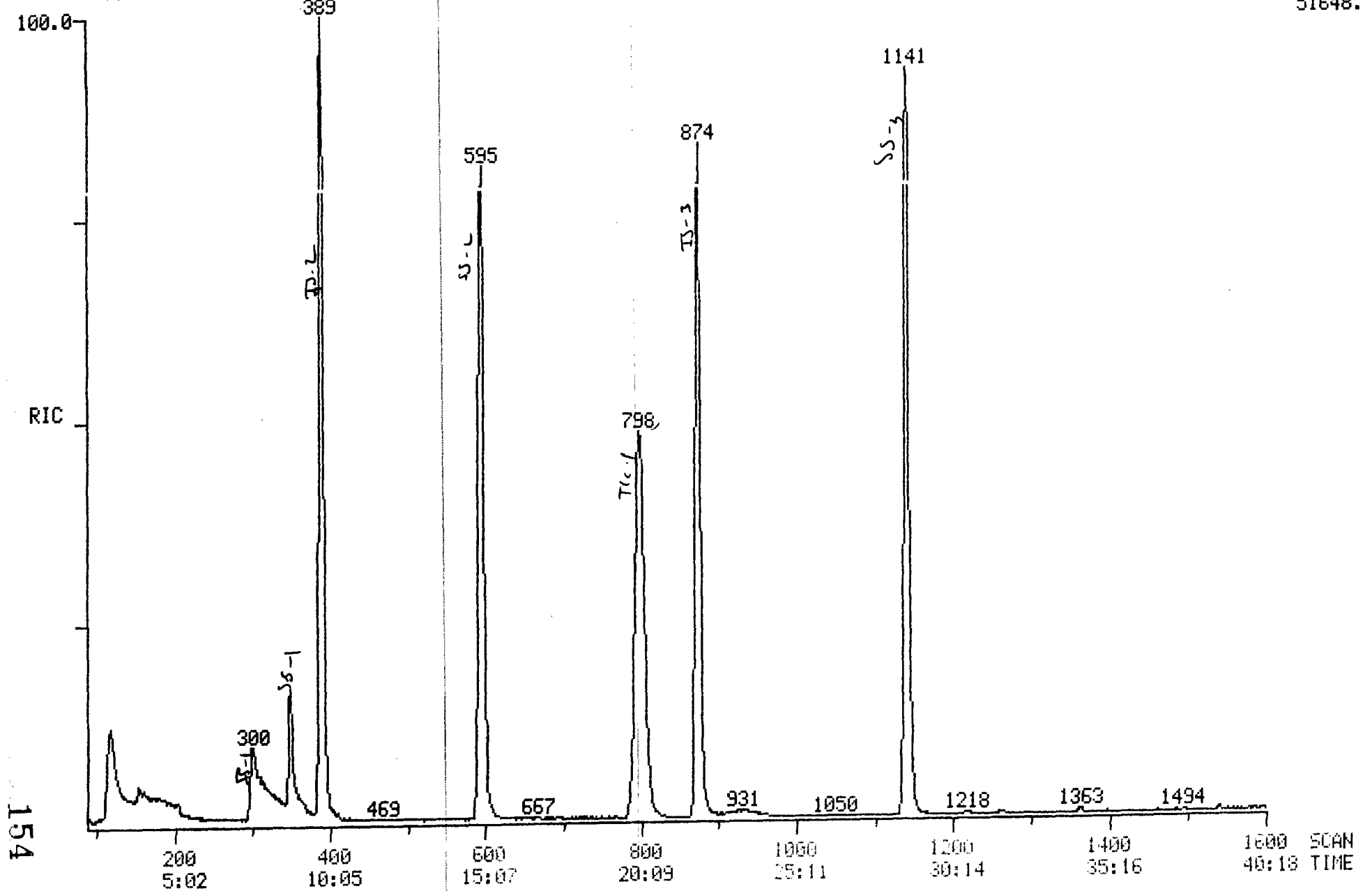
RIC
09/29/94 10:26:00
SAMPLE: M.BLK
CONDS.: EPA METHOD 8240
RANGE: G 1,1600

DATA: CBLK929A #1
CALI: CBLK929A #3

SCANS 88 TO 1600

LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

51648.



154

Quantitation Report File: CBLK929A

Data: CBLK929A.TI

7/29/94 10:26:00

Sample: M. BLK

Conds.: EPA METHOD 8240

Formula: SML

Instrument: FINN

Weight: 0.000

Submitted by: PTL

Analyst: UC

Acct. No.:

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)

Resp. fac. from Library Entry

| No | Name |
|----|---|
| 1 | CI01 BROMOCHLOROMETHANE **INT. STD. ** |
| 2 | CI10 1,4-DIFLUOROBENZENE **INT. STD. ** |
| 3 | CI20 CHLOROBENZENE-D5 **INT. STD. ** |
| 4 | CS15 1,2-DICHLOROETHANE-D4 **S. STD. ** |
| 5 | CS05 TOLUENE-D8 **S. STD. ** |
| 6 | CS10 4-BROMOFLUOROBENZENE **S. STD. ** |
| 7 | CO10 CHLOROMETHANE ** |
| 8 | CO15 BROMOMETHANE |
| 9 | CO20 VINYL CHLORIDE * |
| 10 | CO25 CHLOROETHANE |
| 11 | CO30 METHYLENE CHLORIDE |
| 12 | C251 ACROLIN |
| 13 | CO35 ACETONE |
| 14 | C252 ACRYLONITRILE |
| 15 | CO40 CARBON DISULFIDE |
| 16 | CO45 1,1-DICHLOROETHENE * |
| 17 | CO50 1,1-DICHLOROETHANE ** |
| 18 | CO55 TRANS-1,2-DICHLOROETHENE |
| 19 | CO00 TRICHLOROFLUOROMETHANE |
| 20 | CO60 CHLOROFORM * |
| 21 | CO65 1,2-DICHLOROETHANE |
| 22 | C110 2-BUTANONE |
| 23 | C115 1,1,1-TRICHLOROETHANE |
| 24 | C120 CARBON TETRACHLORIDE |
| 25 | C125 VINYL ACETATE |
| 26 | C130 BROMO-DICHLOROMETHANE |
| 27 | C140 1,2-DICHLOROPROPANE * |
| 28 | C145 TRANS-1,3 DICHLOROPROPENE |
| 29 | C150 TRICHLOROETHENE |
| 30 | C155 DIBROMOCHLOROMETHANE |
| 31 | C160 1,1,2-TRICHLOROETHANE |
| 32 | C165 BENZENE |
| 33 | C143 CIS-1,3-DICHLOROPROPENE |
| 34 | C175 2-CHLOROETHYL VINYL ETHER |
| 35 | C180 BROMOFORM ** |
| 36 | C220 TETRACHLOROETHENE |
| 37 | C210 2-HEXANONE |
| 38 | C205 4-METHYL 2-PENTANONE |
| 39 | C225 1,1,2,2-TETRACHLOROETHANE ** |
| 40 | C230 TOLUENE * |
| 41 | C235 CHLOROBENZENE ** |
| 42 | C240 ETHYL BENZENE * |
| 43 | C245 STYRENE |
| 44 | C250 M+P-XYLENES |
| 45 | C253 1,3-DICHLOROENZENE |
| 46 | C254 1,4-DICHLOROENZENE |
| 47 | C255 1,2-DICHLOROENZENE |

No Name
 48 C250 O-XYLENE
 49 BENZENE-D6 **S. STD. **

| NO | m/z | Scan | Time | Ref | RRT | Meth | Area(Hght) | Amount | %Tot |
|----|-----------|------|-------|-----|-------|------|------------|-----------|-------|
| 1 | 49 | 300 | 7:33 | 1 | 1.000 | A BB | 10486. | 50.000 NG | 17.49 |
| 2 | 114 | 389 | 9:48 | 2 | 1.000 | A BB | 121433. | 50.000 NG | 17.49 |
| 3 | 117 | 873 | 21:59 | 3 | 1.000 | A BB | 89390. | 50.000 NG | 17.49 |
| 4 | 65 | 348 | 8:46 | 1 | 1.160 | A BB | 16010. | 45.142 NG | 15.79 |
| 5 | 98 | 595 | 14:59 | 3 | 0.682 | A BB | 113897. | 47.543 NG | 16.63 |
| 6 | 95 | 1140 | 28:43 | 3 | 1.306 | A BB | 74554. | 43.069 NG | 15.06 |
| 7 | NOT FOUND | | | | | | | | |
| 8 | NOT FOUND | | | | | | | | |
| 9 | NOT FOUND | | | | | | | | |
| 10 | NOT FOUND | | | | | | | | |
| 11 | NOT FOUND | | | | | | | | |
| 12 | NOT FOUND | | | | | | | | |
| 13 | NOT FOUND | | | | | | | | |
| 14 | NOT FOUND | | | | | | | | |
| 15 | NOT FOUND | | | | | | | | |
| 16 | NOT FOUND | | | | | | | | |
| 17 | NOT FOUND | | | | | | | | |
| 18 | NOT FOUND | | | | | | | | |
| 19 | NOT FOUND | | | | | | | | |
| 20 | NOT FOUND | | | | | | | | |
| 21 | NOT FOUND | | | | | | | | |
| 22 | NOT FOUND | | | | | | | | |
| 23 | NOT FOUND | | | | | | | | |
| 24 | NOT FOUND | | | | | | | | |
| 25 | NOT FOUND | | | | | | | | |
| 26 | NOT FOUND | | | | | | | | |
| 27 | NOT FOUND | | | | | | | | |
| 28 | NOT FOUND | | | | | | | | |
| 29 | NOT FOUND | | | | | | | | |
| 30 | NOT FOUND | | | | | | | | |
| 31 | NOT FOUND | | | | | | | | |
| 32 | NOT FOUND | | | | | | | | |
| 33 | NOT FOUND | | | | | | | | |
| 34 | NOT FOUND | | | | | | | | |
| 35 | NOT FOUND | | | | | | | | |
| 36 | NOT FOUND | | | | | | | | |
| 37 | NOT FOUND | | | | | | | | |
| 38 | NOT FOUND | | | | | | | | |
| 39 | NOT FOUND | | | | | | | | |
| 40 | 91 | 608 | 15:19 | 3 | 0.696 | A BB | 855. | 0.309 NG | 0.11 |
| 41 | NOT FOUND | | | | | | | | |
| 42 | NOT FOUND | | | | | | | | |
| 43 | NOT FOUND | | | | | | | | |
| 44 | NOT FOUND | | | | | | | | |
| 45 | NOT FOUND | | | | | | | | |
| 46 | NOT FOUND | | | | | | | | |
| 47 | NOT FOUND | | | | | | | | |
| 48 | NOT FOUND | | | | | | | | |
| 49 | NOT FOUND | | | | | | | | |

90
 91
 96

PROCEDURE: FILTER/TIC

DIAGNOSTIC REPORT

9/29/94 11:39:31

DATA FILE: 03BLK929A

FILTER SCAN PARAMETERS

MAX. NUMBER TICS: 15
11-TABLE ENTRIES: 539
SCAN TOLERANCE : 2
MIN. RIC HT [X]: 10
FIRST SCAN : 1
LAST SCAN : 1600
TIC THRESHOLD : 600

METHOD LIBRARY & LISTS

TIC I. S. LIBRARY: LIBRARYLS
NBS SEARCH PROC : SERLIB
PEAK FINDER PROC: VOME
TCA I. S. LL : LS
FILE NAME LIST : TCAREF2

TARGET COMPOUND ANALYSIS:

| TARGETS (QUAN LIST) | IS PEAKS | TOTAL TARGET PEAKS |
|------------------------|-------------|-----------------------|
| 4 | 3 | 7 |

FILTER PROCESSING:

| TOTAL PEAKS | < 1ST SCAN | > LAST SCAN | < MIN RIC HT | < SCAN TOL | > MAX # PEAKS | TOTAL REJECTS | TOTAL TICS |
|----------------|---------------|----------------|-----------------|---------------|------------------|------------------|---------------|
| 7 | 0 | 0 | 0 | 6 | 0 | 6 | 1 |

TIC PROCESSING:

| NO. | SCAN# | PURITY | FIT | MW | COMPOUND NAME [BEFORE TIC THRESHOLD] |
|-----|-------|--------|-----|-----|--------------------------------------|
| 1 | 798 | 897 | 964 | 174 | BENZENE, 1-BROMO-3-FLUORO- |

Quantitation report File: CBLK929A

Data: CBLK929A.TI

9/29/94 10:00:00

Sample: M.L.L.

Conds.: EPA METHOD 8240

Formula: SML

Instrument: FINN

Weight: 0.000

Submitted by: PTL

Analyst: UC

Acct. No.:

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)

Resp. fac. from Library Entry

| No | CAS | Name |
|----|-----------|--|
| 1 | 0-00-0 | CI01 BROMOCHLOROMETHANE **INT. STD.** |
| 2 | 0-00-0 | CI10 1,4-DIFLUOROBENZENE **INT. STD.** |
| 3 | 0-00-0 | CI20 CHLOROBENZENE-D5 **INT. STD.** |
| 4 | 1073-46-9 | BENZENE, 1-BROMO-3-FLUORO- |

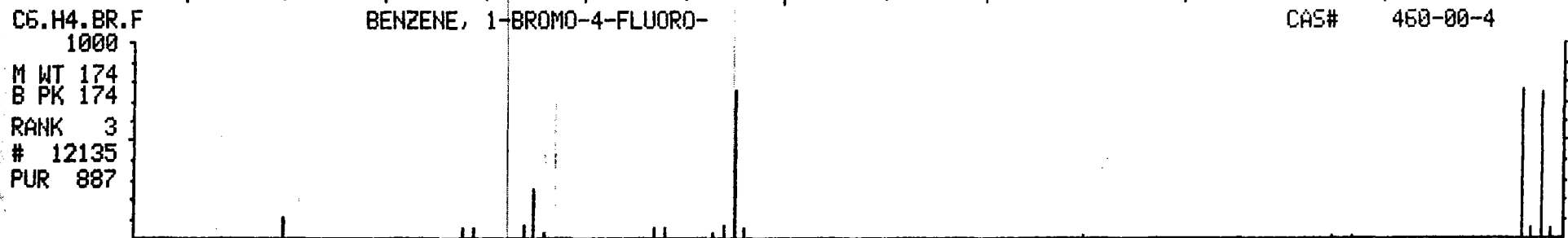
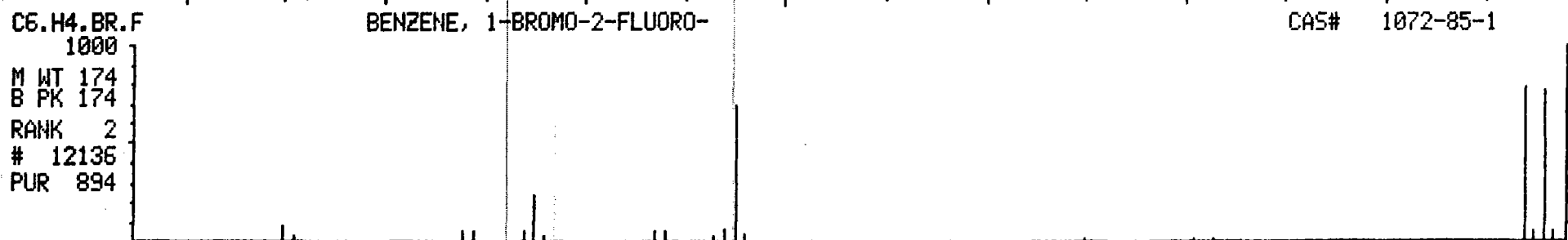
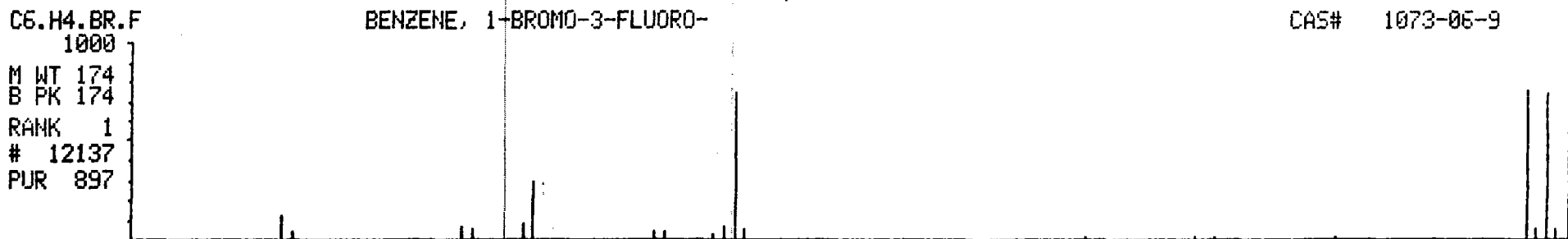
| No | m/z | Scan | Time | Ref | RRT | Meth | Area(Hght) | Amount | %Tot |
|----|-----|------|-------|-----|-------|------|------------|------------|-------|
| 1 | TOT | 129 | 7:32 | 0 | ISINV | A BB | 33933. | ***** UG/L | 00.00 |
| 2 | TOT | 148 | 9:48 | 0 | ISINV | A BB | 266301. | ***** UG/L | 00.00 |
| 3 | TOT | 273 | 21:59 | 0 | ISINV | A BB | 229777. | ***** UG/L | 00.00 |
| 4 | TOT | 152 | 20:06 | 3 | 0.914 | A BB | 256698. | 55.858 | *100. |

| No | Ret(L) | Ratio | RRT(L) | Ratio | Amnt | Amnt(L) | R. Fac | R. Fac(L) | Ratio |
|----|--------|-------|--------|-------|-------|---------|--------|-----------|-------|
| 1 | 9:13 | 82 | 1.000 | | | | | | |
| 2 | 19:21 | 51 | 1.000 | | | | | | |
| 3 | 23:54 | 92 | 1.000 | | | | | | |
| 4 | | | | | 55.86 | 1.00 | 55.858 | 1.000 | 55.86 |

MID LIBRARY SEARCH (LIBRARYNB)
09/29/94 10:25:00 + 20:06
SAMPLE: M.BLK
CONDS.: EPA METHOD 8240
ENHANCED (S 15B 2N 0T)

DATA: CELK929A # 798
CALI: CBLK929A # 3

BASE M/Z: 95
RIC: 12192.

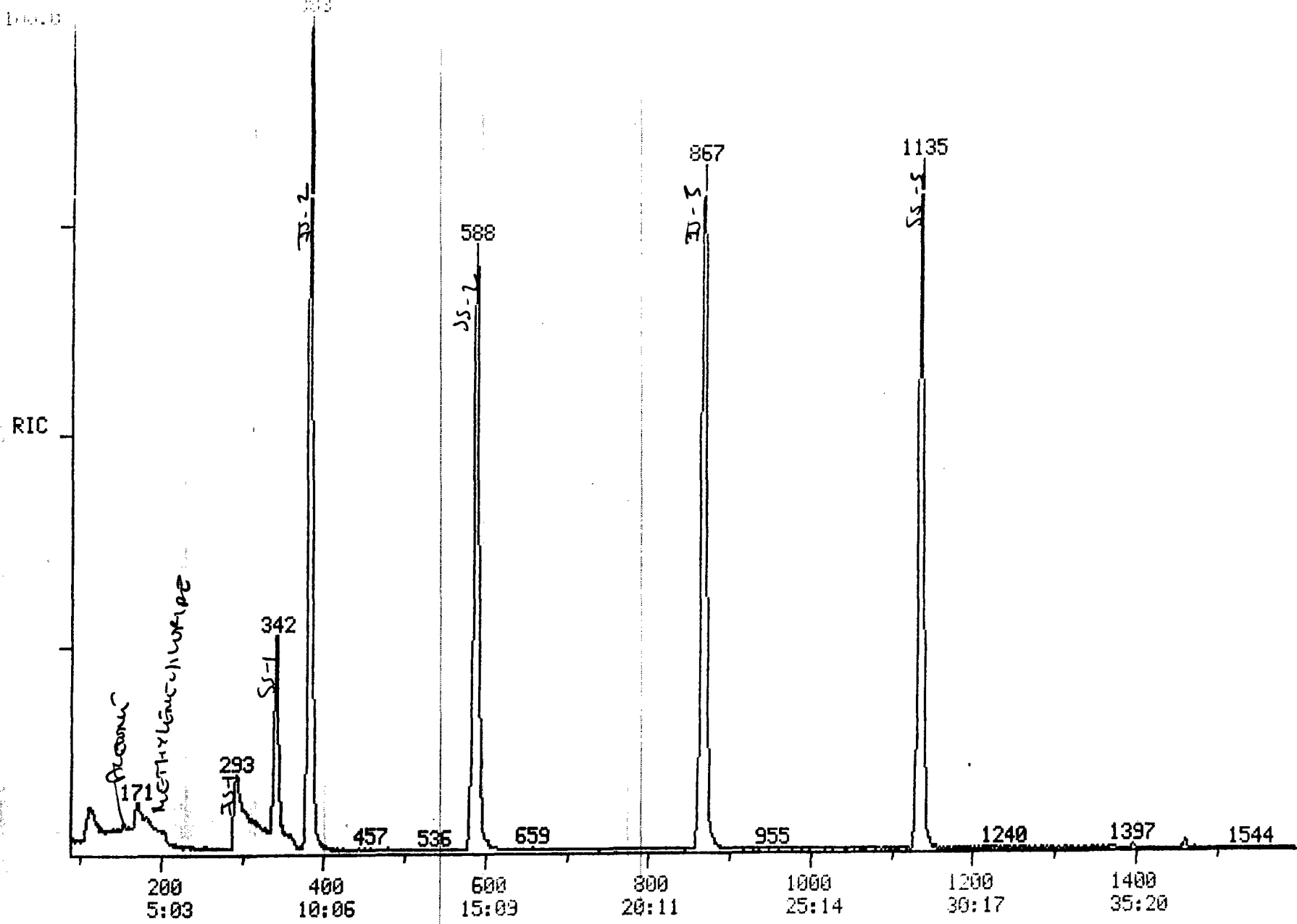


159

RIC
10/04/94 13:33:00
SAMPLE: M. BLK
CONDS.: EPA METHOD 8240
RANGE: G 1.1597 LABEL: N 0. 4.0 QUAN: N 0. 1.0 1.0 BASE: 0.00. 0

DATA: CBLK1004 #1
CALI: CBLK1004 #3

SCANS 88 TO 1597



160

SCAN TIME

Quantitation Report File: CBLK1004

Data: CBLK1004.TI

07/04/94 13:33:00

Sample: M. BLK

Ops.: EPA METHOD 8240

Formula:

Instrument: FINN

Weight: 0.000

Submitted by: PTL

Analyst: UC

Acct. No.: -

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)

Resp. fac. from Library Entry

| No | Name |
|----|---|
| 1 | CI01 BROMOCHLOROMETHANE **INT. STD. ** |
| 2 | CI10 1,4-DIFLUOROBENZENE **INT. STD. ** |
| 2 | CI20 CHLORO BENZENE-D5 **INT. STD. ** |
| 4 | CS15 1,2-DICHLOROETHANE-D4 **S. STD. ** |
| 5 | CS05 TOLUENE-D8 **S. STD. ** |
| 5 | CS10 4-BROMOFLUOROBENZENE **S. STD. ** |
| 7 | CO10 CHLOROMETHANE ** |
| 8 | CO15 BROMOMETHANE |
| 9 | CO20 VINYL CHLORIDE * |
| 10 | CO25 CHLOROETHANE |
| 11 | CO30 METHYLENE CHLORIDE |
| 12 | C251 ACROLIN |
| 13 | CO35 ACETONE |
| 14 | C252 ACRYLONITRILE |
| 15 | CO40 CARBON DISULFIDE |
| 16 | CO45 1,1-DICHLOROETHENE * |
| 17 | CO50 1,1-DICHLOROETHANE ** |
| 18 | CO55 TRANS-1,2-DICHLOROETHENE |
| 19 | CO00 TRICHLOROFLUOROMETHANE |
| 20 | CO60 CHLOROFORM * |
| 21 | CO65 1,2-DICHLOROETHANE |
| 22 | C110 2-BUTANONE |
| 23 | C115 1,1,1-TRICHLOROETHANE |
| 24 | C120 CARBON TETRACHLORIDE |
| 25 | C125 VINYL ACETATE |
| 26 | C130 BROMO DICHLOROMETHANE |
| 27 | C140 1,2-DICHLOROPROPANE * |
| 28 | C145 TRANS-1,3 DICHLOROPROPENE |
| 29 | C150 TRICHLOROETHENE |
| 30 | C155 DIBROMOCHLOROMETHANE |
| 31 | C160 1,1,2-TRICHLOROETHANE |
| 32 | C165 BENZENE |
| 33 | C143 CIS-1,3-DICHLOROPROPENE |
| 34 | C175 2-CHLOROETHYL VINYL ETHER |
| 35 | C180 BROMOFORM ** |
| 36 | C220 TETRACHLOROETHENE |
| 37 | C210 2-HEXANONE |
| 38 | C205 4-METHYL 2-PENTANONE |
| 39 | C225 1,1,2,2-TETRACHLOROETHANE ** |
| 40 | C230 TOLUENE * |
| 41 | C235 CHLORO BENZENE ** |
| 42 | C240 ETHYL BENZENE * |
| 43 | C245 STYRENE |
| 44 | C250 M+P-XYLENES |
| 45 | C253 1,3-DICHLORO BENZENE |
| 46 | C254 1,4-DICHLORO BENZENE |
| 47 | C255 1,2-DICHLORO BENZENE |

No Name
48 C250 D-XYLENE
49 BENZENE-D6 **S. STD. **

| No | m/z | Scan | Time | Ref | RRT | Meth | Area(Hght) | Amount | %Tot |
|----|-----------|------|-------|-----|-------|------|------------|---------------------|-------|
| 1 | 49 | 293 | 7:24 | 1 | 1.000 | M XX | 10934. | 50.000 NG | 16.48 |
| 2 | 114 | 382 | 9:38 | 2 | 1.000 | A BB | 102320. | 50.000 NG | 16.48 |
| 3 | 117 | 867 | 21:53 | 3 | 1.000 | A BB | 53294. | 50.000 NG | 16.48 |
| 4 | 65 | 341 | 8:36 | 1 | 1.164 | A BB | 17544. | 44.054 NG | 14.52 |
| 5 | 98 | 588 | 14:50 | 3 | 0.678 | A BB | 71077. | 54.167 NG | 17.85 |
| 6 | 95 | 1135 | 28:39 | 3 | 1.309 | A BB | 53377. | 51.802 NG | 17.07 |
| 7 | NOT FOUND | | | | | | | | |
| 8 | NOT FOUND | | | | | | | | |
| 9 | NOT FOUND | | | | | | | | |
| 10 | NOT FOUND | | | | | | | | |
| 11 | 49 | 182 | 4:36 | 1 | 0.621 | A BB | 480. | 0.667 NG | 0.22 |
| 12 | NOT FOUND | | | | | | | | |
| 13 | 43 | 156 | 3:56 | 1 | 0.532 | M XX | 749. | 2.560 NG | 0.84 |
| 14 | NOT FOUND | | | | | | | | |
| 15 | NOT FOUND | | | | | | | | |
| 16 | NOT FOUND | | | | | | | | |
| 17 | NOT FOUND | | | | | | | | |
| 18 | NOT FOUND | | | | | | | | |
| 19 | NOT FOUND | | | | | | | | |
| 20 | NOT FOUND | | | | | | | | |
| 21 | NOT FOUND | | | | | | | | |
| 22 | NOT FOUND | | | | | | | | |
| 23 | NOT FOUND | | | | | | | | |
| 24 | NOT FOUND | | | | | | | | |
| 25 | NOT FOUND | | | | | | | | |
| 26 | NOT FOUND | | | | | | | | |
| 27 | NOT FOUND | | | | | | | | |
| 28 | NOT FOUND | | | | | | | | |
| 29 | NOT FOUND | | | | | | | | |
| 30 | NOT FOUND | | | | | | | | |
| 31 | NOT FOUND | | | | | | | | |
| 32 | NOT FOUND | | | | | | | | |
| 33 | NOT FOUND | | | | | | | | |
| 34 | NOT FOUND | | | | | | | | |
| 35 | NOT FOUND | | | | | | | | |
| 36 | NOT FOUND | | | | | | | | |
| 37 | NOT FOUND | | | | | | | | |
| 38 | NOT FOUND | | | | | | | | |
| 39 | NOT FOUND | | | | | | | | |
| 40 | 91 | 601 | 15:10 | 3 | 0.693 | A BB | 587. | 0.381 NG | 0.13 |
| 41 | NOT FOUND | | | | | | | | |
| 42 | NOT FOUND | | | | | | | | |
| 43 | NOT FOUND | | | | | | | | |
| 44 | NOT FOUND | | | | | | | | |
| 45 | NOT FOUND | | | | | | | | |
| 46 | NOT FOUND | | | | | | | | |
| 47 | NOT FOUND | | | | | | | | |
| 48 | NOT FOUND | | | | | | | | |
| 49 | NOT FOUND | | | | | | | | |

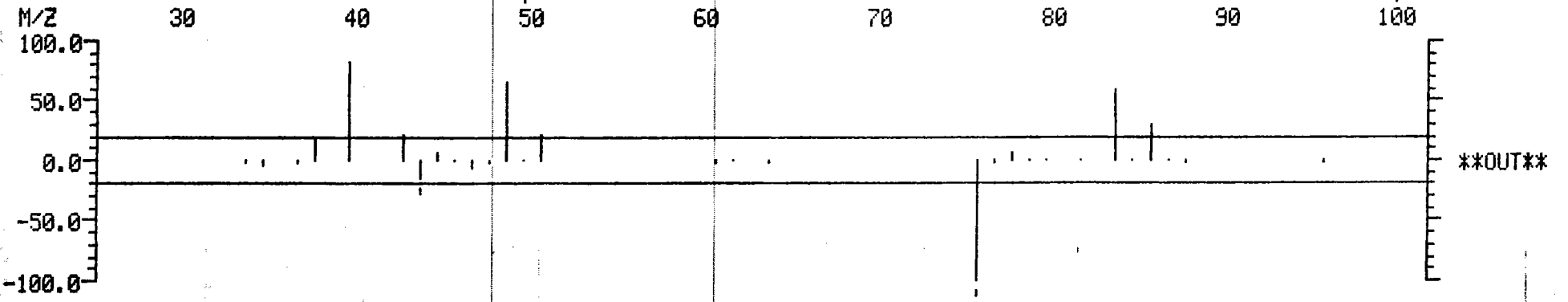
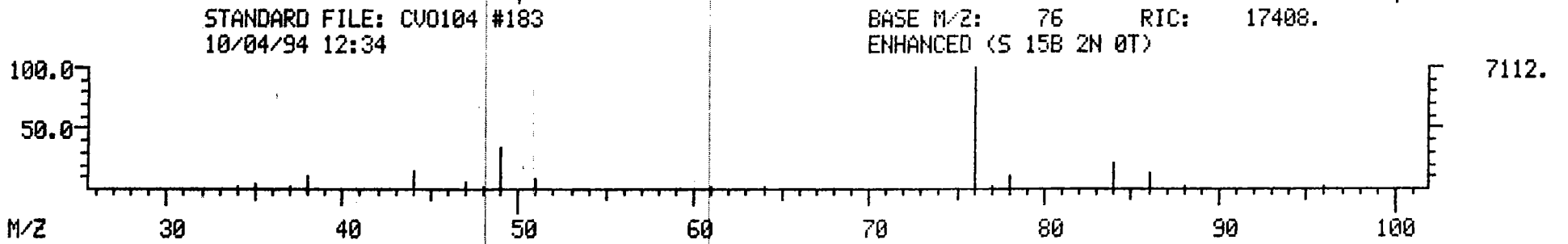
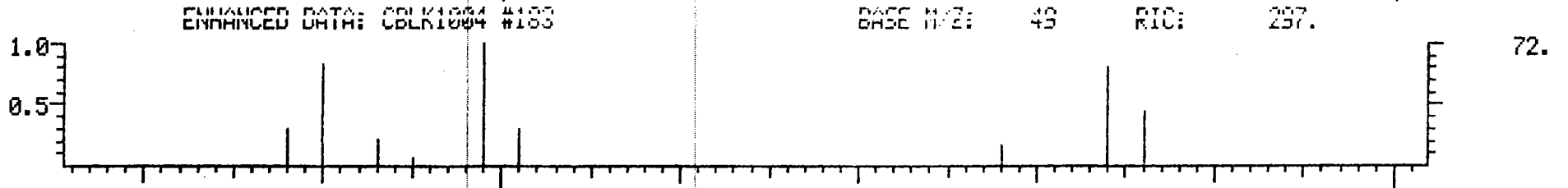
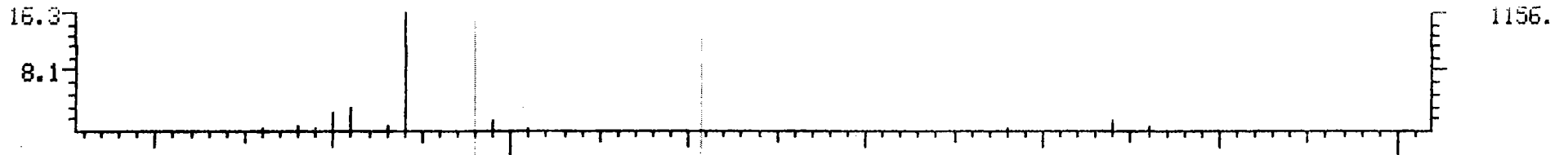
SB
108
104

DATA FILE: CBLK1004 #183
TARGET COMPOUND COMPARISON
COMPOUND: C030 METHYLENE CHLORIDE

STANDARD FILE: CU0104 #183
CALI: CBLK1004 #3

RAW DATA: CBLK1004 #183
10/04/94 13:03

BASE M/Z: 44 RIC: 1923.

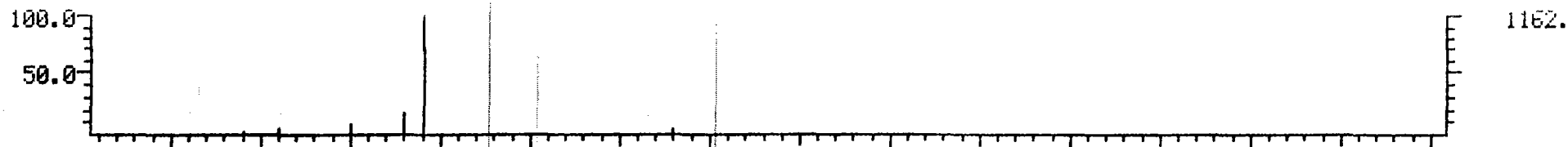


DATA FILE: CBLK1004 #156
TARGET COMPOUND COMPARISON
COMPOUND: C035 ACETONE

STANDARD FILE: CU0104 #154
CALI: CBLK1004 #3

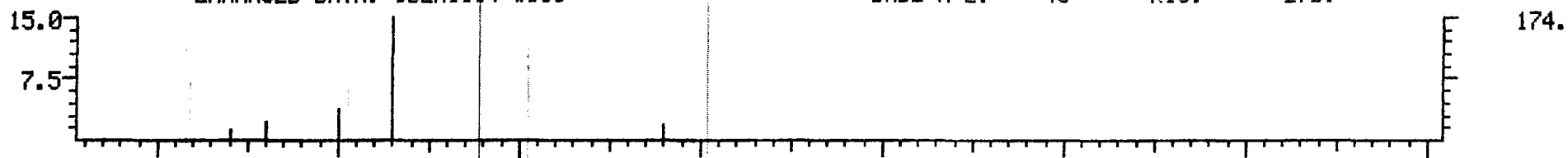
RAW DATA: CBLK1004 #156
10/04/94 13:33

BASE M/Z: 44 RIC: 1574.



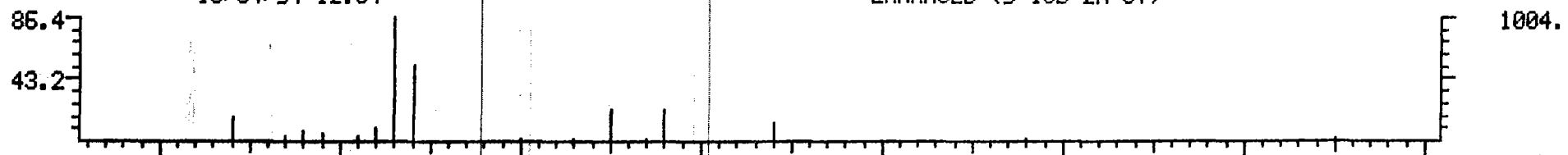
ENHANCED DATA: CBLK1004 #156

BASE M/Z: 43 RIC: 279.

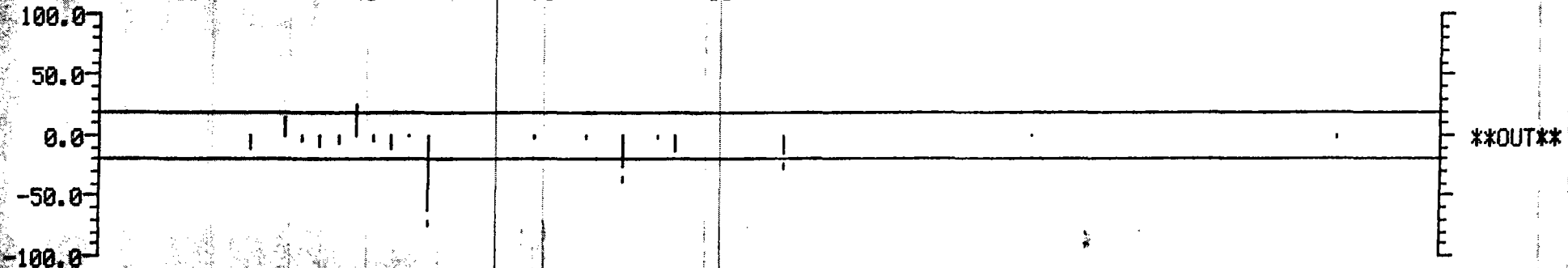


STANDARD FILE: CU0104 #154
10/04/94 12:34

BASE M/Z: 43 RIC: 2916.
ENHANCED (S 158 2N 0T)



M/Z 30 40 50 60 70 80 90 100



PROCEDURE: TER/TIC

DIAGNOSTIC REPORT

10/05/94 8:28:28

DATA FILE: X1004

FILTER SCANS PARAMETERS

MAX. NUMBER OF SCANS: 15
 11-TABLE ENTRIES: 539
 SCAN TOLERANCE: 2
 MIN. RIC HEIGHT: 10
 FIRST SCAN: 1
 LAST SCAN: 1600
 TIC THRESHOLD: 600

METHOD LIBRARY & LISTS

TIC I.S. LIBRARY: LIBRARYLS
 NBS SEARCH PROC: SERLIB
 PEAK FINDER PROC: VOME
 TCA I.S. LL: LS
 FILE NAME LIST: TCAREF2

TARGET COMPOUND ANALYSIS:

| TARGETS (QUAN LIST) | IS PEAKS | TOTAL TARGET PEAKS |
|------------------------|-------------|-----------------------|
| 6 | 3 | 9 |

FILTER PREDEFINING:

| TOTAL PEAKS | -----REJECT PEAKS-----> | | | | TOTAL REJECTS | TOTAL TICS |
|----------------|-------------------------|-----------------|---------------|------------------|------------------|---------------|
| | > LAST SCAN | < MIN RIC HT | < SCAN TOL | > MAX # PEAKS | | |
| 8 | 0 | 1 | 6 | 0 | 7 | 1 |

TIC PROCESSING:

| NO. | SCANS | PURITY | FIT | MW | COMPOUND NAME [BEFORE TIC THRESHOLD] |
|-----|-------|--------|-----|----|--------------------------------------|
| 1 | 85 | 410 | 427 | 85 | ACETIC ACID, CYANO- |

Quantitative Report File: CBLK1004

Data: CBLK1004.TI

07/04/94 13:00

Sample: M. 200

Conds.: EPA METHOD 8240

Formula:

Instrument: FINN

Weight: 0.000

Submitted as: PTL

Analyst: UC

Acct. No.: -

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)

Resp. fac. from Library Entry

| No | CAS | Name |
|----|-------|--|
| 1 | 0-0-0 | CI01 BROMOCHLOROMETHANE **INT. STD.** |
| 2 | 0-0-0 | CI10 1,4-DIFLUOROBENZENE **INT. STD.** |
| 3 | 0-0-0 | CI20 CHLORO BENZENE-D5 **INT. STD.** |
| 4 | 0-0-0 | UNKNOWN |

| No | m/z | Time | Ref | RRT | Meth | Area(Hght) | Amount | %Tot |
|----|-----|-------|-----|-------|------|------------|------------|-------|
| 1 | TOT | 7:22 | 0 | ISINV | A BB | 26158. | ***** UG/L | 00.00 |
| 2 | TOT | 9:40 | 0 | ISINV | A BB | 217284. | ***** UG/L | 00.00 |
| 3 | TOT | 21:53 | 0 | ISINV | A BB | 183485. | ***** UG/L | 00.00 |
| 4 | TOT | 2:01 | 1 | 0.274 | A BB | 641968. | 1227.100 | *100. |

| No | Ret(L) | Ratio | RRT(L) | Ratio | Amnt | Amnt(L) | R. Fac | R. Fac(L) | Ratio |
|----|--------|-------|--------|-------|---------|--------------|--------|-----------|-------|
| 1 | 9:13 | 1.90 | 1.000 | | | | | | |
| 2 | 19:21 | 1.50 | 1.000 | | | | | | |
| 3 | 23:54 | 1.92 | 1.000 | | | | | | |
| 4 | | | | | 1227.10 | 1.001227.100 | 1.000 | 1227.10 | |

MID LIBRARY SEARCH (LIBRARY)

10/04/94 13:33:00 + 2:01

SAMPLE: M.BLK

CONDS.: EPA METHOD 8240

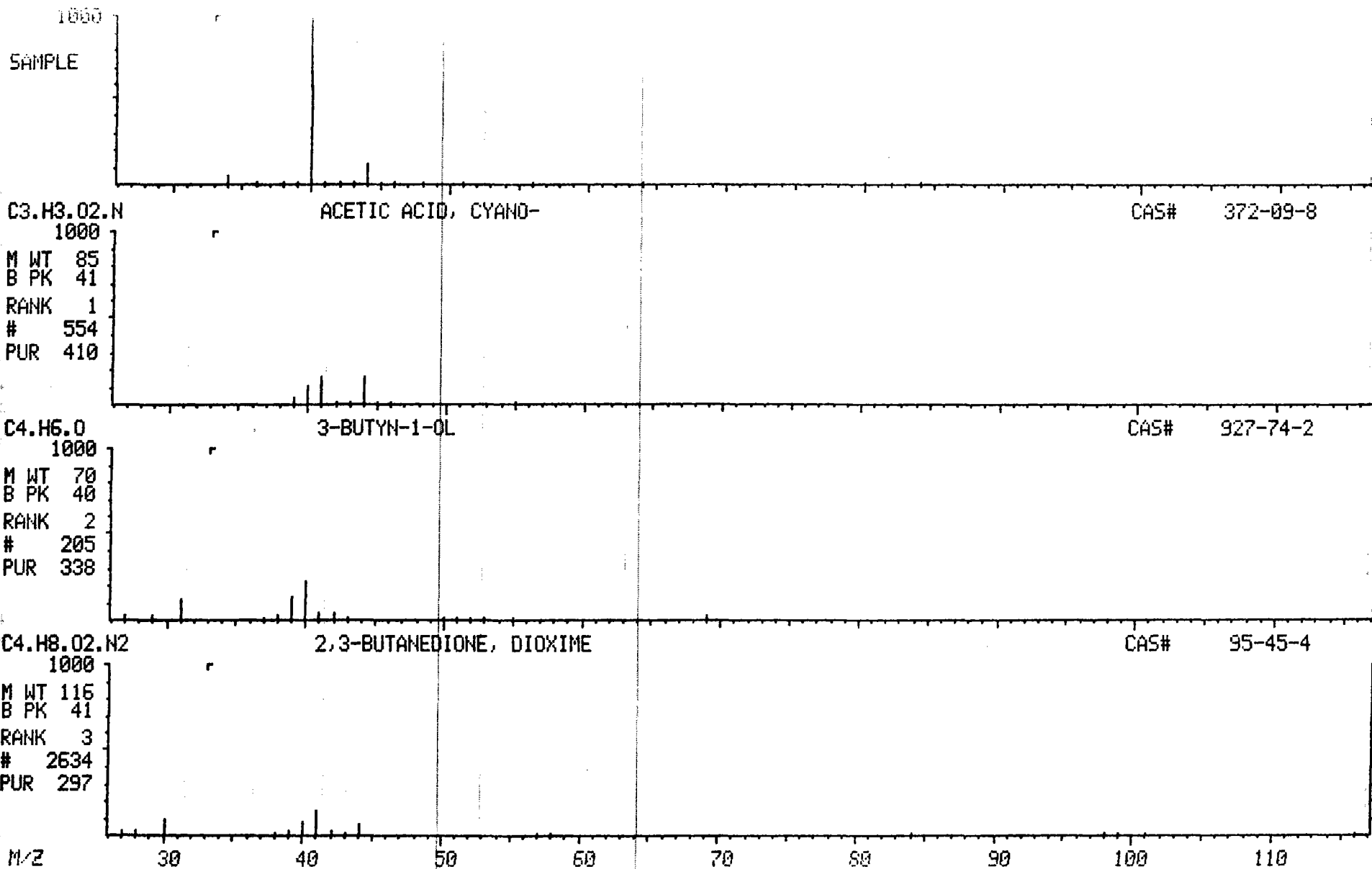
ENHANCED (S 150 2H 0T)

DATA: CBLK1004 # 80

CALI: CBLK1004 # 3

BASE M/Z: 40

RIC: 241654.



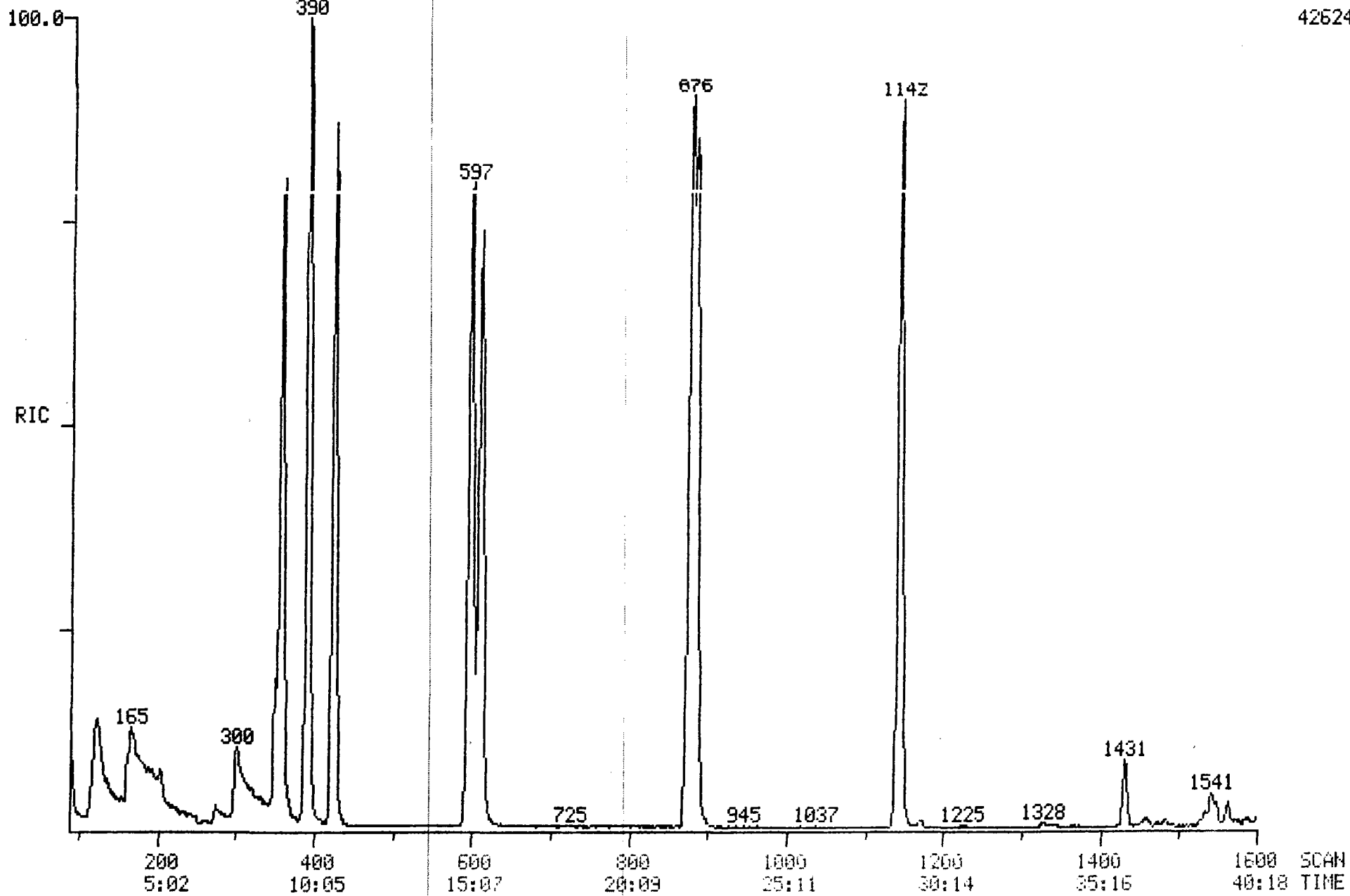
RIC
09/23/94 16:33:00
SAMPLE: 4683-00101 MS
CONDS.: EPA METHOD 8240
RANGE: G 1.1600 LABEL: N 0, 4.0

DATA: C8667 #1
CALI: C8667 #3

SCANS 88 TO 1600

QUAN: A 0, 1.0 J 0 BASE: U 20, 3

42524.



168

Quantitation Report File: C8667

Data: C8667.TI

9/23/94 16:33:00

Sample: 4683-00101 MS

Conds.: EPA METHOD 8240

Formula: 2.50/5ML

Submitted by: USARMY

Instrument: FINN

Analyst: UC

Weight: 0.000

Acct. No.: 4683-001

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)

Resp. fac. from Library Entry

| No | Name |
|----|--|
| 1 | CI01 BROMOCHLOROMETHANE **INT. STD.** |
| 2 | CI10 1,4-DIFLUOROBENZENE **INT. STD.** |
| 3 | CI20 CHLOROBENZENE-D5 **INT. STD.** |
| 4 | CS15 1,2-DICHLOROETHANE-D4 **S. STD.** |
| 5 | CS05 TOLUENE-D8 **S. STD.** |
| 6 | CS10 4-BROMOFLUOROBENZENE **S. STD.** |
| 7 | CO10 CHLOROMETHANE ** |
| 8 | CO15 BROMOMETHANE |
| 9 | CO20 VINYL CHLORIDE * |
| 10 | CO25 CHLOROETHANE |
| 11 | CO30 METHYLENE CHLORIDE |
| 12 | C251 ACROLIN |
| 13 | CO35 ACETONE |
| 14 | C252 ACRYLONITRILE |
| 15 | CO40 CARBON DISULFIDE |
| 16 | CO45 1,1-DICHLOROETHENE * |
| 17 | CO50 1,1-DICHLOROETHANE ** |
| 18 | CO55 TRANS-1,2-DICHLOROETHENE |
| 19 | CO00 TRICHLOROFLUOROMETHANE |
| 20 | CO60 CHLOROFORM * |
| 21 | CO65 1,2-DICHLOROETHANE |
| 22 | C110 2-BUTANONE |
| 23 | C115 1,1,1-TRICHLOROETHANE |
| 24 | C120 CARBON TETRACHLORIDE |
| 25 | C125 VINYL ACETATE |
| 26 | C130 BROMO-DICHLOROMETHANE |
| 27 | C140 1,2-DICHLOROPROPANE * |
| 28 | C145 TRANS-1,3 DICHLOROPROPENE |
| 29 | C150 TRICHLOROETHENE |
| 30 | C155 DIBROMOCHLOROMETHANE |
| 31 | C160 1,1,2-TRICHLOROETHANE |
| 32 | C165 BENZENE |
| 33 | C143 CIS-1,3-DICHLOROPROPENE |
| 34 | C175 2-CHLOROETHYL VINYL ETHER |
| 35 | C180 BROMOFORM ** |
| 36 | C220 TETRACHLOROETHENE |
| 37 | C210 2-HEXANONE |
| 38 | C205 4-METHYL 2-PENTANONE |
| 39 | C225 1,1,2,2-TETRACHLOROETHANE ** |
| 40 | C230 TOLUENE * |
| 41 | C235 CHLOROBENZENE ** |
| 42 | C240 ETHYL BENZENE * |
| 43 | C245 STYRENE |
| 44 | C250 M+P-XYLENES |
| 45 | C253 1,3-DICHLOROENZENE |
| 46 | C254 1,4-DICHLOROENZENE |
| 47 | C255 1,2-DICHLOROENZENE |

No Name
48 C250 O-XYLENE
49 BENZENE-D6 **S. STD. **

| No | m/z | Scan | Time | Ref | RRT | Meth | Area(Hght) | Amount | %Tot |
|----|-----------|------|-------|-----|-------|------|------------|-----------|-------|
| 1 | 49 | 300 | 7:33 | 1 | 1.000 | A BB | 8847. | 50.000 NG | 10.12 |
| 2 | 114 | 390 | 9:49 | 2 | 1.000 | A BB | 101972. | 50.000 NG | 10.12 |
| 3 | 117 | 875 | 22:02 | 3 | 1.000 | A BB | 74708. | 50.000 NG | 10.12 |
| 4 | 65 | 349 | 8:47 | 1 | 1.163 | M XX | 15979. | 35.725 NG | 7.23 |
| 5 | 98 | 597 | 15:02 | 3 | 0.682 | A BB | 93124. | 46.564 NG | 9.42 |
| 6 | 95 | 1142 | 28:46 | 3 | 1.305 | A BB | 59844. | 38.727 NG | 7.84 |
| 7 | NOT FOUND | | | | | | | | |
| 8 | NOT FOUND | | | | | | | | |
| 9 | NOT FOUND | | | | | | | | |
| 10 | NOT FOUND | | | | | | | | |
| 11 | 49 | 189 | 4:46 | 1 | 0.630 | A BV | 1220. | 1.903 NG | 0.39 |
| 12 | NOT FOUND | | | | | | | | |
| 13 | NOT FOUND | | | | | | | | |
| 14 | NOT FOUND | | | | | | | | |
| 15 | NOT FOUND | | | | | | | | |
| 16 | 96 | 166 | 4:11 | 1 | 0.553 | A BB | 5724. | 44.136 NG | 8.93 |
| 17 | NOT FOUND | | | | | | | | |
| 18 | NOT FOUND | | | | | | | | |
| 19 | NOT FOUND | | | | | | | | |
| 20 | NOT FOUND | | | | | | | | |
| 21 | NOT FOUND | | | | | | | | |
| 22 | NOT FOUND | | | | | | | | |
| 23 | NOT FOUND | | | | | | | | |
| 24 | NOT FOUND | | | | | | | | |
| 25 | NOT FOUND | | | | | | | | |
| 26 | NOT FOUND | | | | | | | | |
| 27 | NOT FOUND | | | | | | | | |
| 28 | NOT FOUND | | | | | | | | |
| 29 | 95 | 424 | 10:41 | 2 | 1.087 | A BB | 39899. | 45.065 NG | 9.12 |
| 30 | NOT FOUND | | | | | | | | |
| 31 | NOT FOUND | | | | | | | | |
| 32 | 78 | 357 | 9:00 | 2 | 0.915 | A BB | 86662. | 44.339 NG | 8.97 |
| 33 | NOT FOUND | | | | | | | | |
| 34 | NOT FOUND | | | | | | | | |
| 35 | NOT FOUND | | | | | | | | |
| 36 | NOT FOUND | | | | | | | | |
| 37 | NOT FOUND | | | | | | | | |
| 38 | NOT FOUND | | | | | | | | |
| 39 | NOT FOUND | | | | | | | | |
| 40 | 91 | 610 | 15:22 | 3 | 0.697 | A BB | 90072. | 41.129 NG | 8.32 |
| 41 | 112 | 882 | 22:13 | 3 | 1.008 | A BB | 65297. | 46.658 NG | 9.44 |
| 42 | NOT FOUND | | | | | | | | |
| 43 | NOT FOUND | | | | | | | | |
| 44 | NOT FOUND | | | | | | | | |
| 45 | NOT FOUND | | | | | | | | |
| 46 | NOT FOUND | | | | | | | | |
| 47 | NOT FOUND | | | | | | | | |
| 48 | NOT FOUND | | | | | | | | |
| 49 | NOT FOUND | | | | | | | | |

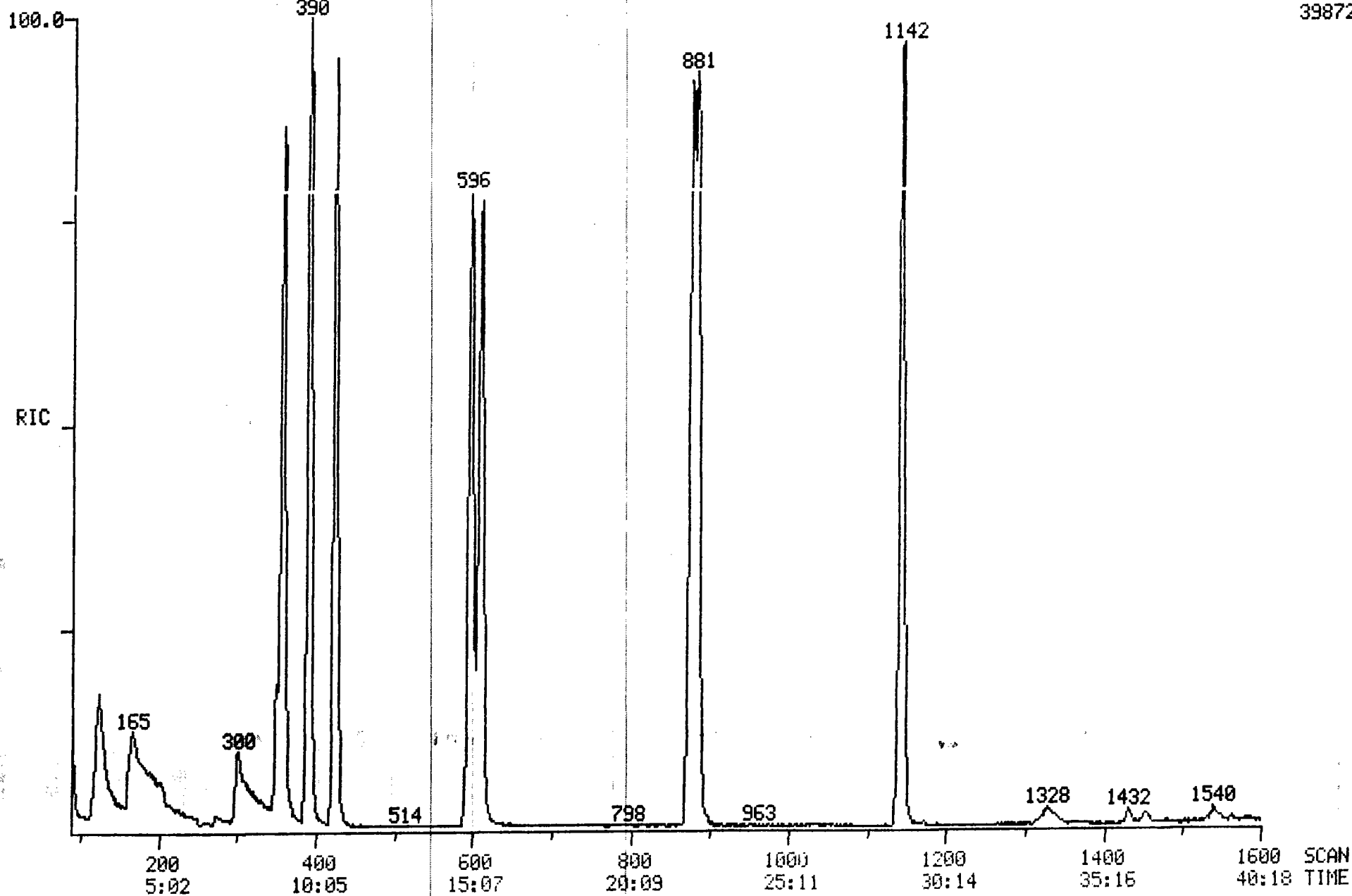
RIC
09/23/94 17:23:00
SAMPLE: 4683-00101 MSD
CONDS.: EPA METHOD 8240
RANGE: G 1.1600

DATA: C8668 #1
CALI: C8668 #3

SCANS 88 TO 1500

LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

39872.



171

Quantitation Report File: C8668

Data: C8668.TI

9/23/94 17:23:00

Sample: 4683-00101 MSD

Conds.: EPA METHOD 8240

Formula: 2.5G/5ML

Submitted by: USARMY

Instrument: FINN

Analyst: UC

Weight: 0.000

Acct. No.: 4683-001

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)

Resp. fac. from Library Entry

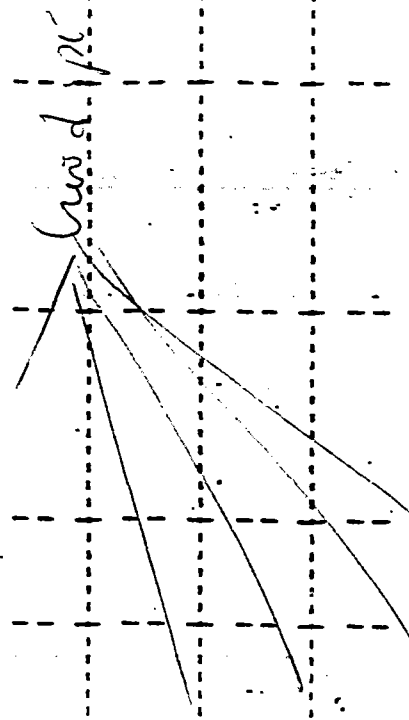
| No | Name |
|----|--|
| 1 | CI01 BROMOCHLOROMETHANE **INT. STD.** |
| 2 | CI10 1,4-DIFLUOROBENZENE **INT. STD.** |
| 3 | CI20 CHLOROBENZENE-D5 **INT. STD.** |
| 4 | CS15 1,2-DICHLOROETHANE-D4 **S. STD.** |
| 5 | CS05 TOLUENE-DB **S. STD.** |
| 6 | CS10 4-BROMOFLUOROBENZENE **S. STD.** |
| 7 | CO10 CHLOROMETHANE ** |
| 8 | CO15 BROMOMETHANE |
| 9 | CO20 VINYL CHLORIDE * |
| 10 | CO25 CHLOROETHANE |
| 11 | CO30 METHYLENE CHLORIDE |
| 12 | C251 ACROLIN |
| 13 | CO35 ACETONE |
| 14 | C252 ACRYLONITRILE |
| 15 | CO40 CARBON DISULFIDE |
| 16 | CO45 1,1-DICHLOROETHENE * |
| 17 | CO50 1,1-DICHLOROETHANE ** |
| 18 | CO55 TRANS-1,2-DICHLOROETHENE |
| 19 | CO00 TRICHLOROFLUOROMETHANE |
| 20 | CO60 CHLOROFORM * |
| 21 | CO65 1,2-DICHLOROETHANE |
| 22 | C110 2-BUTANONE |
| 23 | C115 1,1,1-TRICHLOROETHANE |
| 24 | C120 CARBON TETRACHLORIDE |
| 25 | C125 VINYL ACETATE |
| 26 | C130 BROMO-DICHLOROMETHANE |
| 27 | C140 1,2-DICHLOROPROPANE * |
| 28 | C145 TRANS-1,3 DICHLOROPROPENE |
| 29 | C150 TRICHLOROETHENE |
| 30 | C155 DIBROMOCHLOROMETHANE |
| 31 | C160 1,1,2-TRICHLOROETHANE |
| 32 | C165 BENZENE |
| 33 | C143 CIS-1,3-DICHLOROPROPENE |
| 34 | C175 2-CHLOROETHYL VINYL ETHER |
| 35 | C180 BROMOFORM ** |
| 36 | C220 TETRACHLOROETHENE |
| 37 | C210 2-HEXANONE |
| 38 | C205 4-METHYL 2-PENTANONE |
| 39 | C225 1,1,2,2-TETRACHLOROETHANE ** |
| 40 | C230 TOLUENE * |
| 41 | C235 CHLOROBENZENE ** |
| 42 | C240 ETHYL BENZENE * |
| 43 | C245 STYRENE |
| 44 | C250 M+P-XYLENES |
| 45 | C253 1,3-DICHLOROETHANE |
| 46 | C254 1,4-DICHLOROETHANE |
| 47 | C255 1,2-DICHLOROETHANE |

MSD 61

No Name
48 C250 O-XYLENE
49 BENZENE-D6 **S. STD.**

| No | m/z | Scan | Time | Ref | RRT | Meth | Area(Hght) | Amount | %Tot |
|----|-----------|------|-------|-----|-------|------|------------|-----------|-------|
| 1 | 49 | 300 | 7:33 | 1 | 1.000 | A BB | 8993. | 50.000 NG | 9.93 |
| 2 | 114 | 390 | 9:49 | 2 | 1.000 | A BB | 96476. | 50.000 NG | 9.93 |
| 3 | 117 | 875 | 22:02 | 3 | 1.000 | A BB | 72942. | 50.000 NG | 9.93 |
| 4 | 65 | 349 | 8:47 | 1 | 1.163 | M XX | 16470. | 36.225 NG | 7.19 |
| 5 | 98 | 596 | 15:01 | 3 | 0.681 | A BB | 86242. | 44.167 NG | 8.77 |
| 6 | 95 | 1142 | 28:46 | 3 | 1.305 | A BB | 59490. | 39.431 NG | 7.83 |
| 7 | NOT FOUND | | | | | | | | |
| 8 | NOT FOUND | | | | | | | | |
| 9 | NOT FOUND | | | | | | | | |
| 10 | NOT FOUND | | | | | | | | |
| 11 | NOT FOUND | | | | | | | | |
| 12 | NOT FOUND | | | | | | | | |
| 13 | NOT FOUND | | | | | | | | |
| 14 | NOT FOUND | | | | | | | | |
| 15 | NOT FOUND | | | | | | | | |
| 16 | 96 | 165 | 4:09 | 1 | 0.550 | A BB | 5812. | 44.087 NG | 8.75 |
| 17 | NOT FOUND | | | | | | | | |
| 18 | NOT FOUND | | | | | | | | |
| 19 | NOT FOUND | | | | | | | | |
| 20 | NOT FOUND | | | | | | | | |
| 21 | NOT FOUND | | | | | | | | |
| 22 | NOT FOUND | | | | | | | | |
| 23 | NOT FOUND | | | | | | | | |
| 24 | NOT FOUND | | | | | | | | |
| 25 | NOT FOUND | | | | | | | | |
| 26 | NOT FOUND | | | | | | | | |
| 27 | NOT FOUND | | | | | | | | |
| 28 | NOT FOUND | | | | | | | | |
| 29 | 95 | 423 | 10:39 | 2 | 1.085 | A BB | 40842. | 48.758 NG | 9.68 |
| 30 | NOT FOUND | | | | | | | | |
| 31 | NOT FOUND | | | | | | | | |
| 32 | 78 | 356 | 8:58 | 2 | 0.913 | A BB | 87207. | 47.160 NG | 9.36 |
| 33 | NOT FOUND | | | | | | | | |
| 34 | NOT FOUND | | | | | | | | |
| 35 | NOT FOUND | | | | | | | | |
| 36 | NOT FOUND | | | | | | | | |
| 37 | NOT FOUND | | | | | | | | |
| 38 | NOT FOUND | | | | | | | | |
| 39 | NOT FOUND | | | | | | | | |
| 40 | 91 | 609 | 15:20 | 3 | 0.696 | A BB | 92584. | 43.300 NG | 8.60 |
| 41 | 112 | 882 | 22:13 | 3 | 1.008 | A BB | 69143. | 50.603 NG | 10.05 |
| 42 | NOT FOUND | | | | | | | | |
| 43 | NOT FOUND | | | | | | | | |
| 44 | NOT FOUND | | | | | | | | |
| 45 | NOT FOUND | | | | | | | | |
| 46 | NOT FOUND | | | | | | | | |
| 47 | NOT FOUND | | | | | | | | |
| 48 | NOT FOUND | | | | | | | | |
| 49 | NOT FOUND | | | | | | | | |

| D/T ANALYZED | DATA FILE | JOB NUMBER | PITL ID | CLIENT | DILUTION | NON | SURROGATE | COMMENTS | UNITS |
|--------------|-------------|------------|---------|--------|----------|-----|-----------|---------------------|-------|
| 01/14/94 | B5B914 | Gains | 5 | 12:00 | | | | #12 | |
| 9 | ✓ CV91410 | SP | SP | SP | SP | SP | | no spec #34 missing | |
| 3 | ✓ CV91410 | SP | SP | SP | SP | SP | | #34 | |
| 3 | ✓ CV91410 | SP | SP | SP | SP | SP | | #34 | |
| 3 | ✓ CV91410A | SP | SP | SP | SP | SP | | #34 | |
| 4 | CV914100 | ✓ | SP | SP | SP | SP | | | |
| 3 | ✓ CV9141050 | ✓ | SP | SP | SP | SP | | | |
| 5 | CV914100B | ✓ | SP | SP | SP | SP | | | |
| 6 | CV914100A | ✓ | SP | SP | SP | SP | | | |
| 7 | CV914100A | ✓ | SP | SP | SP | SP | | | |



| D/T ANALYZED | DATA FILE | JOB NUMBER | PTG ID | CLIENT | DILUTION | MON | SURROGATE | COMMENTS | INITS |
|--------------|-----------|------------|-----------|---------------|------------|----------|-----------|----------|-------|
| 9/23/99 | B18923 | Revised | 10.55 | 10.55 | | | 192.151 | | W |
| 3 | C90923 | SD | CRB | not stat | | | | OK | W |
| 4 | CR45923 | M. Blanks | | | 0.5/25 | | | OK | W |
| 5 | C8663 | 4714 | 00101 | Zenith | (cont) 500 | X123 dip | | OK | W |
| 6 | C8664 | 4683 | 00101 | US Army | 500 | | | OK | W |
| 7 | C8665 | 4683 | 00101 | | | | | OK | W |
| 8 | C8666 | 4747 | 01 | Environmental | 2.5/500 | | | OK | W |
| 9 | C8667 | 4683 | 00101 | US Army | | | | OK | W |
| 10 | C8668 | | MSD 00101 | | | | | OK | W |
| 1 | C8669 | 4601 | 00301 | DelCorra | 1000/500 | | | OK | W |
| 2 | C8670 | | 00401 | | | | | OK | W |

| D/T | DATA FILE | JOB NUMBER | PTG ID | CLIENT | DILUTION | IS KON | SURROGATE | COMMENTS | INITS |
|---------|-----------|---------------|--------|--------|----------|--------|-----------|------------|-------|
| 9/21/94 | BF3929 | paired @ 8:45 | | | | | | 1/18, 1/6 | 22 |
| 3 | CVO929 | 50 PCB | VOA | STH | | | | OK | 22 |
| 4 | CB41939A | M. Blanks | | | | | | OK | 22 |
| | C8686 | 4632 | BLC | | 1.5 | | | not loaded | 22 |
| 5 | C8687 | 4632 | 01 | Briggs | | | | OK | 22 |
| 6 | C8688 | -02 | | ↓ | | | | OK | 22 |
| 7 | C8689 | 4508 | 01 | Naved | | | | OK | 22 |
| 8 | C8690 | -02 | | ↓ | | | | OK | 22 |
| 9 | C8691 | -03 | | ↓ | | | | OK | 22 |
| 10 | C8692 | -04 | | ↓ | | | | OK | 22 |
| 11 | C8693 | 4739 | 01 | System | | | | OK | 22 |

| ANALYZED | D/T | DATA FILE | JOB NUMBER | ID | PTG | CLIENT | DILUTION | IS KON | SURROGATE | COMMENTS | UNITS |
|----------|-----|-----------|------------|----|-----|---------|----------------|--------|----------------|----------|-------|
| 9/29/97 | 2 | C8694 | 4760 | 01 | | US Army | 53/10ml = 2 | | 1000d | OK | u |
| | 3 | C8695 | -03 | | | | 53/10ml = 2 | | 750 d | OK | u |
| | 4 | C8696 | 4760 | 02 | | | 200ml/5ml = 35 | | | OK | u |
| | 5 | C8697 | -01 | | | | | | | OK | u |
| | 6 | C8698 | 4755 | 02 | | CW | 5ml | | | OK | u |
| | 7 | C8699 | 4632 | 01 | | Briggs | 1.5 | | | OK | u |
| 9/20/97 | 3 | C8700 | 4820 | | | Briggs | 10ml | | 10ml Av Sample | | |
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| D/T ANALYZED | DATA FILE | JOB NUMBER | PTL ID | CLIENT | DILUTION | IS KON | SURROGATE <u>method</u> | COMMENTS | INITS |
|--------------|-----------|------------|--------|-----------------|---------------------|--------|-------------------------|----------|-------|
| | BBB1004B | | | Painted @ 11:42 | | | | 146,145 | nr |
| 3 | CV01004 | 59 | BPB | VQA std | | | | nr | nr |
| 4 | CBK1004 | | | Ch. Blank | | | | nr | nr |
| 5 | C8711 | 4760-00103 | | U.S. Army | 5ml | | | nr | nr |
| 6 | C8712 | 4899-00101 | | ↓ | 13/5ml | | | nr | nr |
| 7 | C8713 | 4652-00101 | | Aguilar | 10ml/5ml x 1000 dil | 1:5 | Back 100ml/10ml | nr | nr |
| 8 | C8714 | | | ↓ | front 5ml/5ml | | | nr | nr |
| 9 | C8715 | 4871-00102 | | CW | 5ml/10ml | | | nr | nr |
| 10 | C8716 | 4842-00103 | | Burlington | 10ml/5ml x 1000 dil | | | nr | nr |
| 1 | C8717 | | ms | ↓ | | | | nr | nr |
| 2 | C8718 | | MSD | ↓ | | | | nr | nr |

| D/T ANALYZED | DATA FILE | JOB NUMBER | PTL ID | CLIENT | DILUTION | IS NON | SURROGATE | COMMENTS | UNITS |
|--------------|-----------------|------------|--------|---------|----------|--------|-----------|----------|-------|
| 3 | 16511 C 8719 | 4899 | 00101 | US Army | 255/5M | | | 2K | 5M |
| 4 | 8720 | | 00102 | ↓ | 5M | | | 5K | 5M |
| 5 | 8721 | J.H.P. | | | 5M | | | 5K | 5M |
| | | | | | | | | | |
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US ARMY FT. MONMOUTH ENVIRONMENTAL LABORATORY
NJDEPE # 13461

REPORT OF ANALYSIS

Client: U.S. Army
DPW, SELFM-PW-EV
Bldg. 173
Ft. Monmouth, NJ 07703

Project: Total Petroleum Hydrocarbons
98-0001
Bldg.290

Project # 3437
Date Rec. 03/26/98
Date Compl. 03/27/98
Released by:



Daniel K. Wright
Laboratory Director

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Method Summary

NJDEP Method OQA-QAM-025-10/97

Gas Chromatographic Determination of Total Petroleum Hydrocarbons in Soil

Fifteen grams (15g)(wet weight) of a soil sample is added to a 125 mL acid cleaned, solvent rinsed, capped Erlenmeyer flask. 15g anhydrous sodium sulfate is added to dry sample. Surrogate standard spiking solution is then added to the flask.

Twenty five milliliters(25mL) Methylene Chloride is added to the flask and it is secured on a gyrotory shaker table. The agitation rate is set to 400rpm and the sample is shaken for 30 minutes. The flask is the removed from the table and the particulate matter is allowed to settle. The extract is transferred to a Teflon capped vial. A second 25mL of Methylene Chloride is added to the flask and shaken for an additional 30 minutes. The flask is again removed and allowed to settle. The extracts are combined in the vial then transferred to a 1mL autosampler vial.

The extract is then injected directly into a GC-FID for analysis. The sample is analyzed for petroleum hydrocarbons covering a range of C8-C42 including pristane and phytane. Total Petroleum Hydrocarbon concentration is determined by integrating between 5 minutes and 22 minutes. The baseline is established by starting the integration after the end of the solvent peak and stopping after the last peak.


The final concentration of Total Petroleum Hydrocarbons is calculated using percent solid, sample weight and concentration.

PHC Conformance/Non-conformance Summary Report

| | <u>No</u> | <u>Yes</u> |
|---|-----------|------------|
| 1. Method Detection Limits provided. | — | ✓ |
| 2. Method Blank Contamination - If yes, list the sample and the corresponding concentrations in each blank. _____ _____ | ✓ | — |
| 3. Matrix Spike Results Summary Meet Criteria. (If not met, list the sample and corresponding recovery which falls outside the acceptable range). _____ _____ | — | ✓ |
| 4. Duplicate Results Summary Meet Criteria. (If not met, list the sample and corresponding recovery which falls outside the acceptable range). _____ _____ | — | ✓ |
| 5. IR Spectra submitted for standards, blanks, & samples | — | NA |
| 6. Chromatograms submitted for standards, blanks, and samples if GC fingerprinting was conducted. | — | ✓ |
| 7. Analysis holding time met. (If not met, list number of days exceeded for each sample) _____ _____ | — | ✓ |
| Additional Comments: _____ _____ _____ | | |

Laboratory Authentication Statement

I certify under penalty of law, where applicable, that this laboratory meets the Laboratory Performance Standards and Quality Control requirements specified in N.J.A.C. 7:18 and 40 CFR Part 136 for Water and Wastewater Analyses and SW 846 for Solid Waste Analysis. I have personally examined the information contained in this report, and to the best of my knowledge, I believe that the submitted information is true, accurate, complete, and meets the above referenced standards where applicable. I am aware that there are significant penalties for purposefully submitting falsified information, including the possibility of a fine and imprisonment.



Daniel K. Wright
Laboratory Manager

Fort Monmouth Environmental Testing Laboratory

Bldg. 173, SELFM-PW-EV, Fort Monmouth, NJ 07703

Tel (732)532-4359 Fax (732)532-3484 EMail: appleby@doim6.monmouth.army.mil

NJDEP Certification #13461

Chain of Custody Record


| | | | | | | | | | | | | | |
|--|---------------------------|--------------------------------|-------------|---|---------------------|------------------------------|---------------------|------------|--|--------------------------|-------------------------------|--|----------------------------|
| Customer: <u>C. Appleby</u> | | Project No: <u>U51/98-0001</u> | | Analysis Parameters | | | | | | Comments: | | | |
| Phone #: <u>2162240</u> | | Location: <u>Bldg 290</u> | | | | | | | | OVA #2-AS1903 | | | |
| () DERA (X) OMA () Other: _____ | | | | | | | | | | | | | |
| Samplers Name / Company : | | | | Sample # | | | | | | | Remarks / Preservation Method | | |
| Lab Sample I.D. | Sample Location | Date | Time | Type | bottles | V O A + 15 | T P H | | | | | | |
| <u>3437.01</u> | <u>TRIP BLANK</u> | <u>3-26-98</u> | <u>1348</u> | <u>AQ</u> | <u>2</u> | <u>X</u> | | | | | | | <u>HCL</u> |
| <u>02</u> | <u>290-B-1</u> | | <u>1348</u> | <u>SOIL</u> | <u>1</u> | | <u>X</u> | | | | | | <u>9 PPM) 24-30" (ACL)</u> |
| <u>03</u> | <u>290-B-2</u> | | <u>1433</u> | <u>SOIL</u> | <u>1</u> | | <u>X</u> | | | | | | <u>100 PPM) 22-26" (M)</u> |
| <u>04</u> | <u>290-B-3</u> | | <u>1507</u> | <u>SOIL</u> | <u>1</u> | | <u>X</u> | | | | | | <u>90 PPM)</u> |
| <u>(M) 05</u> | <u>290-B-4</u> | | | <u>SOIL</u> | <u>1</u> | | <u>X</u> | | | | | | |
| <u>05</u> | <u>290-B-2-W</u> | | <u>1550</u> | <u>AQ</u> | <u>2</u> | <u>X</u> | | | | | | | |
| <u>06</u> | <u>290-B-4</u> | | <u>1625</u> | <u>SOIL</u> | <u>1</u> | | <u>X</u> | | | | | | |
| Relinquished by (signature): <u>May June</u> | | Date/Time: <u>3-26-98 1640</u> | | Received by (signature): <u>[Signature]</u> | | Relinquished by (signature): | | Date/Time: | | Received by (signature): | | | |
| Relinquished by (signature): | | Date/Time: | | Received by (signature): | | Relinquished by (signature): | | Date/Time: | | Received by (signature): | | | |
| Report Type: () Full, () Reduced, () Standard, () Screen / non-certified | | | | | | Remarks: | | | | | | | |
| Turnaround time: () Standard 4 wks, () Rush ___ Days, () ASAP Verbal ___ Hrs. | | | | | | | | | | | | | |

Report of Analysis
U.S. Army, Fort Monmouth Environmental Laboratory
NJDEP Certification # 13461

| | | | |
|-------------------|------------------------|---------------------------|-----------|
| Client : | U.S. Army | Lab. ID # : | 3437 |
| | DPW. SELFM-PW-EV | Date Rec'd: | 26-Mar-98 |
| | Bldg. 173 | Analysis Start: | 27-Mar-98 |
| | Ft. Monmouth, NJ 07703 | Analysis Complete: | 27-Mar-98 |
| Analysis: | OQA-QAM-025 | UST Reg. #: | |
| Matrix: | Soil | Closure #: | |
| Analyst: | D.DEINHARDT | DICAR #: | |
| Ext. Meth: | Shake | Location #: | BLDG. 290 |

| Sample | Field ID | Dilution Factor | Weight (g) | % Solid | MDL (mg/kg) | TPHC Result (mg/kg) |
|---------------------|-----------------|------------------------|-------------------|----------------|--------------------|----------------------------|
| 3437.02 | 290-B-1 | 1.00 | 14.98 | 92.81 | 169 | 317.67 |
| 3437.03 | 290-B-2 | 1.00 | 15.11 | 84.28 | 185 | ND |
| 3437.04 | 290-B-3 | 1.00 | 15.22 | 78.81 | 196 | 224.45 |
| 3437.06 | 290-B-4 | 1.00 | 16.04 | 74.89 | 196 | ND |
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| | | | | | | |
| METHOD BLANK | 27-Mar-98 | 1.00 | 15.00 | 100.00 | 157 | ND |

ND = Not Detected
MDL = Method Detection Limit


Daniel K. Wright
Laboratory Director

le

Response Factor Report FID/TCD

Method : C:\HPCHEM\1\METHODS\TPH27.M (Chemstation Integrator)
 Title : TPHC Calibration 06/05/97 21 peaks
 Last Update : Thu Mar 19 07:39:01 1998

Calibration Files

200 =T04649.D 100 =T04654.D 50 =T04651.D
 10 =T04652.D 5 =T04653.D

| Compound | 200 | 100 | 50 | 10 | 5 | Avg | %RSD |
|---------------------|-------|-------|-------|-------|-------|----------|-------|
| 1) tC C8 | 1.801 | 2.041 | 1.835 | 1.725 | 1.727 | 1.826 E4 | 7.10 |
| 2) tC C10 | 1.933 | 2.259 | 1.974 | 1.798 | 1.804 | 1.953 E4 | 9.60 |
| 3) TC C12 | 2.116 | 2.476 | 2.169 | 1.953 | 1.968 | 2.136 E4 | 9.89 |
| 4) tC C14 | 2.185 | 2.559 | 2.270 | 2.025 | 2.004 | 2.209 E4 | 10.19 |
| 5) tC C16 | 2.233 | 2.625 | 2.327 | 2.097 | 2.075 | 2.271 E4 | 9.81 |
| 6) tC C18 | 2.504 | 2.926 | 2.710 | 2.444 | 2.375 | 2.592 E4 | 8.67 |
| 7) tC C20 | 2.415 | 2.851 | 2.515 | 2.261 | 2.228 | 2.454 E4 | 10.22 |
| 8) tC C22 | 2.423 | 2.840 | 2.510 | 2.200 | 2.209 | 2.436 E4 | 10.80 |
| 9) tC C24 | 2.432 | 2.772 | 2.450 | 2.161 | 2.155 | 2.394 E4 | 10.62 |
| 10) tC C26 | 2.319 | 2.709 | 2.406 | 2.137 | 2.015 | 2.317 E4 | 11.53 |
| 11) tC C28 | 2.021 | 2.356 | 2.104 | 1.873 | 1.841 | 2.039 E4 | 10.16 |
| 12) tC C30 | 1.799 | 2.063 | 1.863 | 2.013 | 1.652 | 1.878 E4 | 8.83 |
| 13) tC C32 | 1.643 | 1.872 | 1.718 | 1.186 | 1.254 | 1.535 E4 | 19.53 |
| 14) tC C34 | 1.367 | 1.551 | 1.502 | 1.141 | 1.378 | 1.388 E4 | 11.46 |
| 15) tC C36 | 1.034 | 1.168 | 1.188 | 0.925 | 0.988 | 1.060 E4 | 10.76 |
| 16) tC C38 | 7.201 | 8.395 | 8.389 | 6.574 | 7.621 | 7.636 E3 | 10.27 |
| 17) tC C40 | 5.866 | 6.687 | 6.507 | 5.147 | 6.028 | 6.047 E3 | 10.00 |
| 18) tC c42 | 4.967 | 5.805 | 5.464 | 4.397 | 5.259 | 5.178 E3 | 10.29 |
| 19) TC Pristane | 2.592 | 2.935 | 2.513 | 2.288 | 2.304 | 2.526 E4 | 10.43 |
| 20) TC Phytane | 2.414 | 2.957 | 2.616 | 2.363 | 2.356 | 2.541 E4 | 10.06 |
| 21) sC o-terphenyl | 2.709 | 3.183 | 2.823 | 2.559 | 2.556 | 2.766 E4 | 9.35 |
| 22) tC TPHC - total | 2.282 | 2.624 | 2.440 | 2.600 | 2.736 | 2.536 E4 | 6.98 |

(#) = Out of Range
 TPH27.M

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\980327\T04706.D
 Acq On : 27 Mar 98 3:16 pm
 Sample : 50 PPM STANDARD
 Misc :
 IntFile : TPHCINT.E

Vial: 2
 Operator: DEINHARDT
 Inst : FID/TCD
 Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\TPH27.M (Chemstation Integrator)
 Title : TPHC Calibration 06/05/97 21 peaks
 Last Update : Thu Mar 19 07:39:01 1998
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 200%

| Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|--------------------|--------|-----------|-------|-------|----------|
| 1 tC C8 | 18.259 | 16.651 E3 | 8.8 | 94 | 0.01 |
| 2 tC C10 | 19.534 | 18.921 E3 | 3.1 | 101 | 0.00 |
| 3 TC C12 | 21.365 | 20.448 E3 | 4.3 | 101 | 0.00 |
| 4 tC C14 | 22.088 | 20.910 E3 | 5.3 | 101 | 0.00 |
| 5 tC C16 | 22.714 | 21.256 E3 | 6.4 | 101 | 0.00 |
| 6 tC C18 | 25.919 | 23.759 E3 | 8.3 | 103 | 0.01 |
| 7 tC C20 | 24.542 | 22.762 E3 | 7.3 | 102 | 0.01 |
| 8 tC C22 | 24.364 | 22.827 E3 | 6.3 | 103 | 0.01 |
| 9 tC C24 | 23.940 | 22.386 E3 | 6.5 | 102 | 0.01 |
| 10 tC C26 | 23.170 | 22.081 E3 | 4.7 | 106 | 0.01 |
| 11 tC C28 | 20.391 | 19.317 E3 | 5.3 | 109 | 0.01 |
| 12 tC C30 | 18.781 | 17.288 E3 | 7.9 | 112 | 0.01 |
| 13 tC C32 | 15.348 | 15.035 E3 | 2.0 | 107 | 0.01 |
| 14 tC C34 | 13.879 | 14.158 E3 | -2.0 | 120 | 0.02 |
| 15 tC C36 | 10.605 | 11.317 E3 | -6.7 | 125 | 0.02 |
| 16 tC C38 | 7.636 | 8.520 E3 | -11.6 | 126 | 0.03 |
| 17 tC C40 | 6.047 | 6.617 E3 | -9.4 | 125 | 0.03 |
| 18 tC c42 | 5.178 | 5.405 E3 | -4.4 | 122 | 0.05 |
| 19 TC Pristane | 25.262 | 22.814 E3 | 9.7 | 101 | 0.01 |
| 20 TC Phytane | 25.410 | 23.954 E3 | 5.7 | 102 | 0.01 |
| 21 sC o-terphenyl | 27.662 | 25.952 E3 | 6.2 | 103 | 0.01 |
| 22 tC TPHC - total | 25.364 | 22.924 E3 | 9.6 | 101 | 2.56# |

(#) = Out of Range
 T04706.D TPH27.M

SPCC's out = 0 CCC's out = 0
 Tue Mar 31 14:22:38 1998

Surrogate Recovery Report

Lab. ID #: 3437

Location #: BLDG. 290

| Sample | | Surrogate Added (ppm) | Amount Recovered (ppm) | Percent Recovery |
|--------------|-----------|-----------------------|------------------------|------------------|
| 3437.02 | | 10.00 | 10.38 | 103.84 |
| 3437.03 | | 10.00 | 10.11 | 101.09 |
| 3437.04 | | 10.00 | 10.70 | 107.01 |
| 3437.06 | | 10.00 | 10.56 | 105.56 |
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| METHOD BLANK | 27-Mar-98 | 10.00 | 10.31 | 103.10 |

Surrogate Added : o-Terphenyl

Matrix Spike Recovery Report

Lab. ID #: 3437

Location #: BLDG. 290

| Sample | Spike Amount Added (ppm) | Sample Amount (ppm) | Matrix Spike Amount (ppm) | Percent Recovery | QC Limits % |
|---------------|---------------------------------|----------------------------|----------------------------------|-------------------------|--------------------|
| 3437.04MS | 1000 | 53.85 | 1016.39 | 96.25 | 75-125 |
| 3437.04MSD | 1000 | 53.85 | 1049.29 | 99.54 | 75-125 |

| | | |
|-----|------|-------|
| RPD | 3.36 | 20.00 |
|-----|------|-------|

3/31/98

Blank Spike Recovery Report

Lab. ID #: 3437

Location #: BLDG. 290

| Sample | Date Extracted | Spike Amount Added (ppm) | Matrix Spike Amount (ppm) | Percent Recovery | QC Limits % |
|-------------|----------------|--------------------------|---------------------------|------------------|-------------|
| Blank Spike | 27-Mar-98 | 1000 | 1062.16 | 106.22 | 75-125 |

Data File : C:\HPCHEM\1\DATA\980327\T04709.D
 Acq On : 27 Mar 98 5:39 pm
 Sample : 3437.02
 Misc :
 IntFile : TPHCINT.E
 Quant Time: Mar 30 8:10 1998

Vial: 5
 Operator: DEINHARDT
 Inst : FID/TCD
 Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\TPH27.M (Chemstation Integrator)
 Title : TPHC Calibration 06/05/97 21 peaks
 Last Update : Thu Mar 19 07:39:01 1998
 Response via : Initial Calibration
 DataAcq Meth : TPH27.M

Volume Inj. : 1 ul
 Signal Phase : HP-5
 Signal Info : 30m x 0.32mm

| Compound | R.T. | Response | Conc Units |
|-----------------------------|--------|------------|---------------|
| System Monitoring Compounds | | | |
| 21) sC o-terphenyl | 13.95 | 287224 | 10.384 mg/L |
| Spiked Amount 10.000 Range | 8 - 13 | Recovery = | 103.84%# |
| Target Compounds | | | |
| 2) tC C10 | 8.82 | 1083 | 0.055 mg/L |
| 3) TC C12 | 10.36 | 35514 | 1.662 mg/L |
| 4) tC C14 | 11.52 | 1818 | 0.082 mg/L |
| 5) tC C16 | 12.41 | 3407 | 0.150 mg/L |
| 6) tC C18 | 12.99 | 1384 | 0.053 mg/L |
| 7) tC C20 | 13.44 | 2963 | 0.121 mg/L |
| 8) tC C22 | 14.15 | 3911 | 0.161 mg/L |
| 9) tC C24 | 14.95 | 10982 | 0.459 mg/L |
| 10) tC C26 | 15.72 | 2575 | 0.111 mg/L |
| 11) tC C28 | 16.17 | 3597 | 0.176 mg/L |
| 12) tC C30 | 17.01 | 1357 | 0.072 mg/L |
| 13) tC C32 | 17.43 | 1705 | 0.111 mg/L |
| 14) tC C34 | 17.83 | 1209 | 0.087 mg/L |
| 15) tC C36 | 18.52 | 1229 | 0.116 mg/L |
| 19) TC Pristane | 12.99 | 1384 | 0.055 mg/L |
| 20) TC Phytane | 13.44 | 2963 | 0.117 mg/L |
| 22) tC TPHC - total | 13.95 | 2240429 | 88.331 mg/L m |

(f)=RT Delta > 1/2 Window

(m)=manual int.

T04709.D TPH27.M

Mon Mar 30 08:21:43 1998

Page 1

Quantitation Report

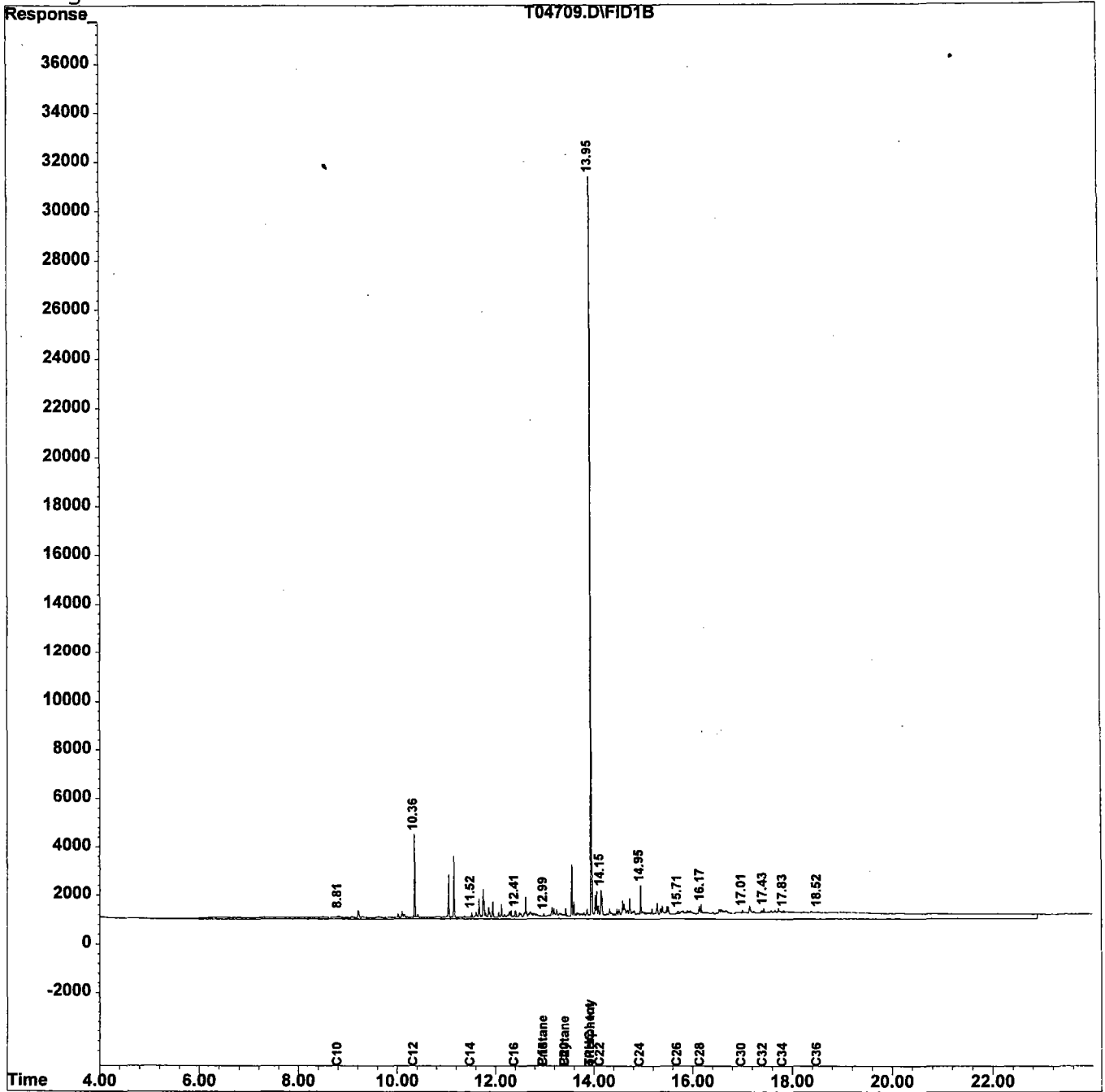
Data File : C:\HPCHEM\1\DATA\980327\T04709.D
Acq On : 27 Mar 98 5:39 pm
Sample : 3437.02
Misc :
IntFile : TPHCINT.E
Quant Time: Mar 30 8:10 1998

Vial: 5
Operator: DEINHARDT
Inst : FID/TCD
Multiplr: 1.00

Quant Results File: TPH27.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH27.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Thu Mar 19 07:39:01 1998
Response via : Multiple Level Calibration
DataAcq Meth : TPH27.M

Volume Inj. : 1 ul
Signal Phase : HP-5
Signal Info : 30m x 0.32mm



Data File : C:\HPCHEM\1\DATA\980327\T04710.D
Acq On : 27 Mar 98 6:26 pm
Sample : 3437.03
Misc :
IntFile : TPHCINT.E
Quant Time: Mar 30 8:10 1998

Vial: 6
Operator: DEINHARDT
Inst : FID/TCD
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\TPH27.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Thu Mar 19 07:39:01 1998
Response via : Initial Calibration
DataAcq Meth : TPH27.M

Volume Inj. : 1 ul
Signal Phase : HP-5
Signal Info : 30m x 0.32mm

| Compound | R.T. | Response | Conc Units |
|-----------------------------|--------|--------------|---------------------|
| ----- | | | |
| System Monitoring Compounds | | | |
| 21) sC o-terphenyl | 13.95 | 279625 | 10.109 mg/L |
| Spiked Amount | 10.000 | Range 8 - 13 | Recovery = 101.09%# |

Target Compounds

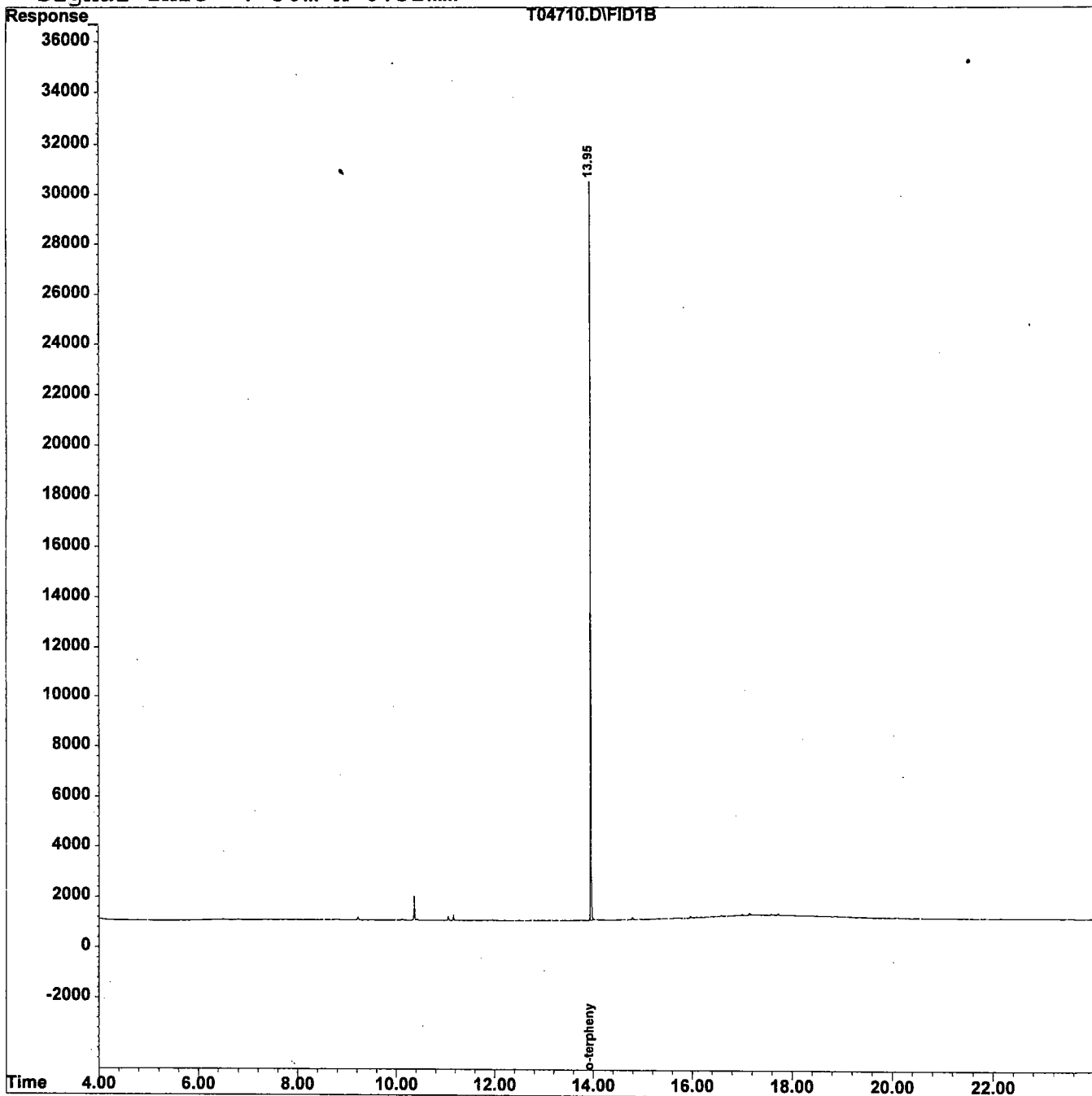
14

Data File : C:\HPCHEM\1\DATA\980327\T04710.D
Acq On : 27 Mar 98 6:26 pm
Sample : 3437.03
Misc :
IntFile : TPHCINT.E
Quant Time: Mar 30 8:10 1998

Vial: 6
Operator: DEINHARDT
Inst : FID/TCD
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\TPH27.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Thu Mar 19 07:39:01 1998
Response via : Multiple Level Calibration
DataAcq Meth : TPH27.M

Volume Inj. : 1 ul
Signal Phase : HP-5
Signal Info : 30m x 0.32mm



Data File : C:\HPCHEM\1\DATA\980327\T04711.D Vial: 7
 Acq On : 27 Mar 98 7:11 pm Operator: DEINHARDT
 Sample : 3437.04 Inst : FID/TCD
 Misc : Multiplr: 1.00
 IntFile : TPHCINT.E
 Quant Time: Mar 30 8:11 1998 Quant Results File: TPH27.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH27.M (Chemstation Integrator)
 Title : TPHC Calibration 06/05/97 21 peaks
 Last Update : Thu Mar 19 07:39:01 1998
 Response via : Initial Calibration
 DataAcq Meth : TPH27.M

Volume Inj. : 1 ul
 Signal Phase : HP-5
 Signal Info : 30m x 0.32mm

| Compound | R.T. | Response | Conc Units |
|------------------------------------|--------------|----------|---------------|
| System Monitoring Compounds | | | |
| 21) sC o-terphenyl | 13.95 | 296019 | 10.701 mg/L |
| Spiked Amount 10.000 | Range 8 - 13 | Recovery | = 107.01%# |
| Target Compounds | | | |
| 11) tC C28 | 16.40 | 1460 | 0.072 mg/L |
| 12) tC C30 | 16.88 | 1165 | 0.062 mg/L |
| 13) tC C32 | 17.59 | 1126 | 0.073 mg/L |
| 15) tC C36 | 18.74 | 2322 | 0.219 mg/L |
| 22) tC TPHC - total | 13.95 | 1365739 | 53.846 mg/L m |

16

Quantitation Report

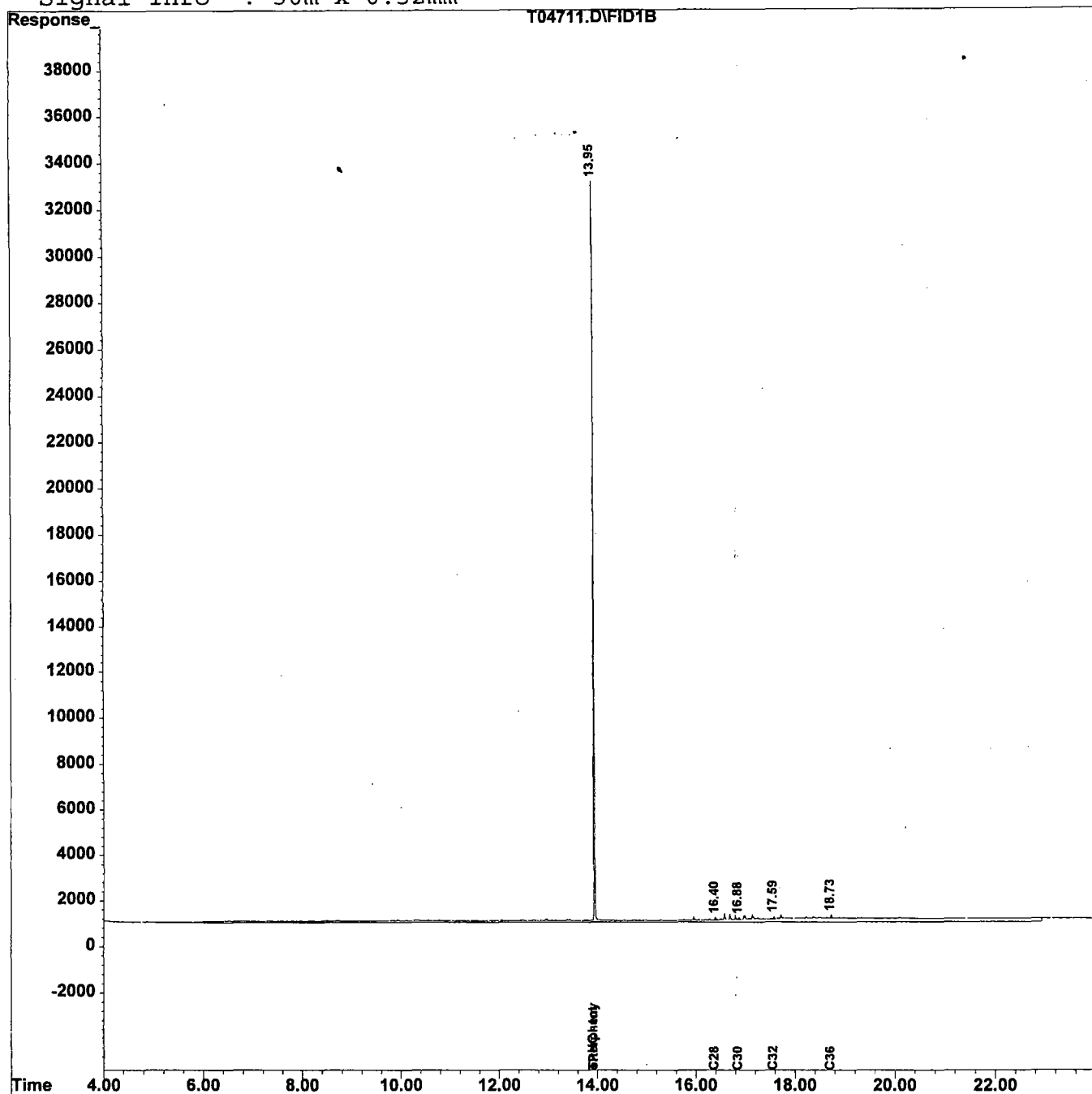
Data File : C:\HPCHEM\1\DATA\980327\T04711.D
Acq On : 27 Mar 98 7:11 pm
Sample : 3437.04
Misc :
IntFile : TPHCINT.E
Quant Time: Mar 30 8:11 1998

Vial: 7
Operator: DEINHARDT
Inst : FID/TCD
Multiplr: 1.00

Quant Results File: TPH27.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH27.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Thu Mar 19 07:39:01 1998
Response via : Multiple Level Calibration
DataAcq Meth : TPH27.M

Volume Inj. : 1 ul
Signal Phase : HP-5
Signal Info : 30m x 0.32mm



17

Data File : C:\HPCHEM\1\DATA\980327\T04714.D Vial: 10
 Acq On : 27 Mar 98 9:25 pm Operator: DEINHARDT
 Sample : 3437.06 Inst : FID/TCD
 Misc : Multiplr: 1.00
 IntFile : TPHCINT.E
 Quant Time: Mar 30 8:13 1998 Quant Results File: TPH27.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH27.M (Chemstation Integrator)
 Title : TPHC Calibration 06/05/97 21 peaks
 Last Update : Thu Mar 19 07:39:01 1998
 Response via : Initial Calibration
 DataAcq Meth : TPH27.M

Volume Inj. : 1 ul
 Signal Phase : HP-5
 Signal Info : 30m x 0.32mm

| Compound | R.T. | Response | Conc Units |
|-----------------------------|---------|--------------|---------------------|
| System Monitoring Compounds | | | |
| 21) sC o-terphenyl | 13.95 | 291994 | 10.556 mg/L |
| Spiked Amount | 10.000` | Range 8 - 13 | Recovery = 105.56%# |
| Target Compounds | | | |

18

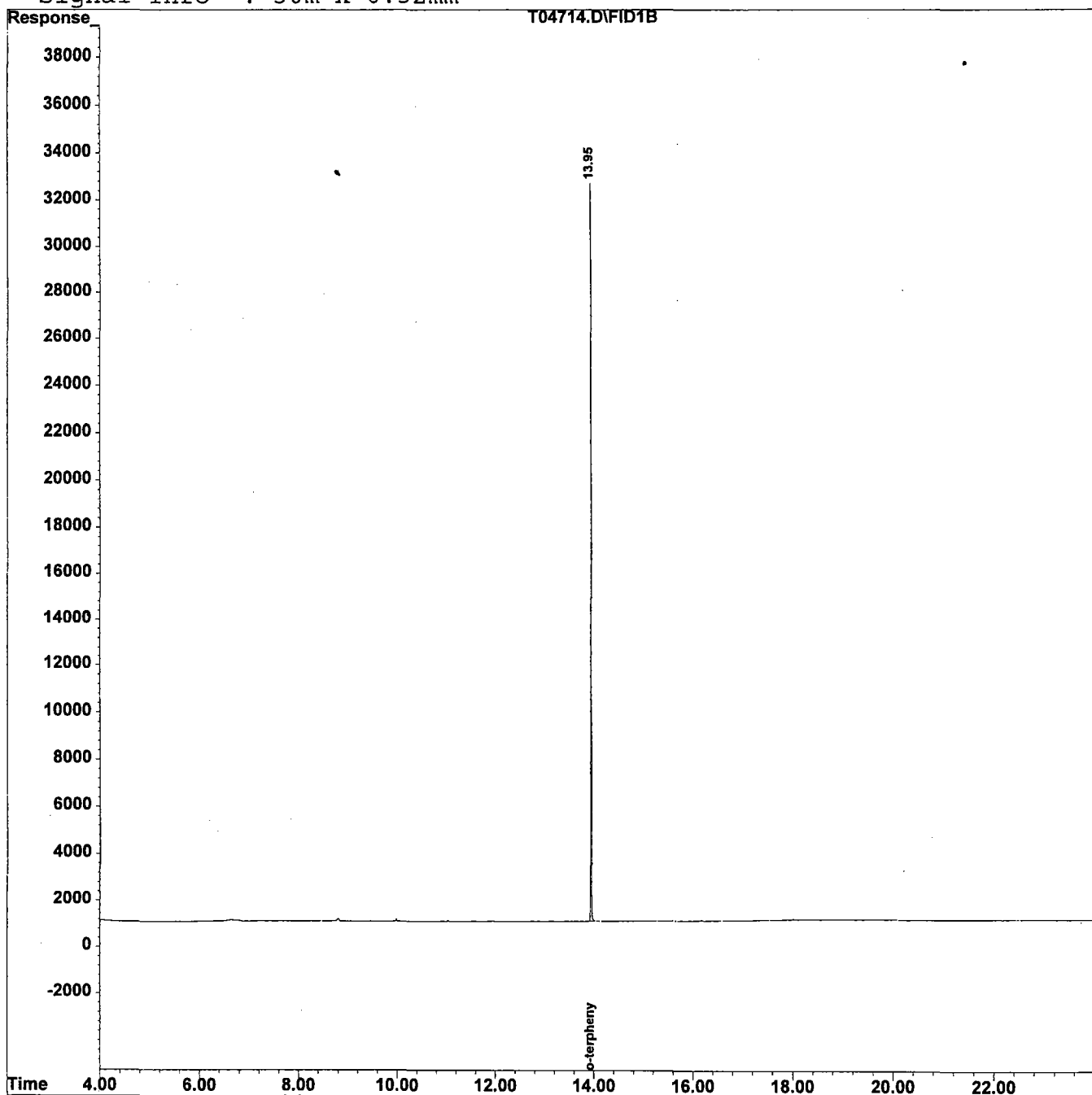
Quantitation Report

Data File : C:\HPCHEM\1\DATA\980327\T04714.D
Acq On : 27 Mar 98 9:25 pm
Sample : 3437.06
Misc :
IntFile : TPHCINT.E
Quant Time: Mar 30 8:13 1998

Vial: 10
Operator: DEINHARDT
Inst : FID/TCD
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\TPH27.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Thu Mar 19 07:39:01 1998
Response via : Multiple Level Calibration
DataAcq Meth : TPH27.M

Volume Inj. : 1 ul
Signal Phase : HP-5
Signal Info : 30m x 0.32mm



19

LABORATORY DELIVERABLES CHECKLIST AND NON-CONFORMANCE SUMMARY

THIS FORM MUST BE COMPLETED BY THE LABORATORY OR ENVIRONMENTAL CONSULTANT AND ACCOMPANY ALL DATA SUBMISSIONS

The following Laboratory Deliverables checklist and Non-Conformance Summary shall be included in the data submission. All deviations from the accepted methodology and procedures, of performance values outside acceptable ranges shall be summarized in the Non-Conformance Summary. The Technical Requirements for Site Remediation, effective June 7, 1993, provides further details. The document shall be bound and paginated, contain a table of contents, and all pages shall be legible. Incomplete packages will be returned or held without review until the data package is completed.

It is recommended that the analytical results summary sheets listing all targeted and non-targeted compounds with the method detection limits, practical quantitation limits, and the laboratory and/or sample numbers be included in one section of the data package and in the main body of the report.

- 1. Cover page, Title Page listing Lab Certification #, facility name and address, & date of report submitted
- 2. Table of Contents submitted
- 3. Summary Sheets listing analytical results for all targeted and non-targeted compounds submitted
- 4. Document paginated and legible
- 5. Chain of Custody submitted
- 6. Samples submitted to lab within 48 hours of sample collection
- 7. Methodology Summary submitted
- 8. Laboratory Chronicle and Holding Time Check submitted
- 9. Results submitted on a dry weight basis
- 10. Method Detection Limits submitted
- 11. Lab certified by NJDEP for parameters of appropriate category of parameters or a member of the USEPA CLP

Laboratory Manager or Environmental Consultant's Signature _____

Date 4/6/93

Laboratory Certification #13461

*Refer to NJAC 7:26E - Appendix A, Section IV - Reduced Data Deliverables - Non-USEPA/CLP Methods for further guidance

**US ARMY FT. MONMOUTH ENVIRONMENTAL LABORATORY
NJDEPE # 13461**

REPORT OF ANALYSIS

Client: U.S. Army
DPW, SELFM-PW-EV
Bldg. 173
Ft. Monmouth, NJ 07703

Project: Volatiles - EPA Method 624
Bldg. 290

Project # 3437
Date Rec. 03/26/98
Date Compl. 03/30/98
Released by:



**Daniel K. Wright
Laboratory Director**

Fort Monmouth Environmental Testing Laboratory

Bldg. 173, SELFM-PW-EV, Fort Monmouth, NJ 07703

Tel (732)532-4359 Fax (732)532-3484 EMail:appleby@doim6.monmouth.army.mil

NJDEP Certification #13461

Chain of Custody Record

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---------------------------|--------------------------------|--|---|------------------------------|----------|---------------------|--------------------------|--|-----------|---|-------------------------------|--|--|--|--|--|---|---|--|--|--|--|--|--|---|---|--|--|--|--|--|--|---|--|--|--|--|--|--|--|----|--|--|--|--|--|--|--|---------------|--|
| Customer: | | Project No: | | Analysis Parameters | | | | | | Comments: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Phone #: | | Location: <i>Bldg 290</i> | | <table border="1"> <tr> <td>V</td> <td>T</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>D</td> <td>P</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>A</td> <td>H</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>+</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>15</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table> | | | | | | V | T | | | | | | | D | P | | | | | | | A | H | | | | | | | + | | | | | | | | 15 | | | | | | | | OVA #2-AS1903 | |
| V | T | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| D | P | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| A | H | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| + | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 15 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ()DERA ()OMA ()Other: _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Samplers Name / Company : | | | | Sample # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lab Sample I.D. | Sample Location | Date | Time | Type | bottles | | | | | | | Remarks / Preservation Method | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <i>3437.01</i> | <i>TRIP BLANK</i> | <i>3-26-98</i> | <i>1340 AM</i> | <i>AQ</i> | <i>2</i> | <i>X</i> | | | | | | <i>HCL</i> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <i>02</i> | <i>290-B-1</i> | | <i>1343</i> | <i>SOIL</i> | <i>1</i> | | <i>X</i> | | | | | <i>9 PPM) 24-30" (AQL)</i> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <i>03</i> | <i>290-B-2</i> | | <i>1433</i> | <i>SOIL</i> | <i>1</i> | | <i>X</i> | | | | | <i>100 PPM) 22-26" (AQL)</i> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <i>04</i> | <i>290-B-3</i> | | <i>1507</i> | <i>SOIL</i> | <i>1</i> | | <i>X</i> | | | | | <i>90 PPM)</i> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <i>(NU) 5</i> | <i>290-B-4</i> | | | <i>SOIL</i> | <i>1</i> | | <i>X</i> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <i>05</i> | <i>290-B-2-W</i> | | <i>1550</i> | <i>AQ</i> | <i>2</i> | <i>X</i> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <i>06</i> | <i>290-B-4</i> | | <i>1625</i> | <i>SOIL</i> | <i>1</i> | | <i>X</i> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Relinquished by (signature): <i>May...</i> | | Date/Time: <i>3-26-98 1640</i> | Received by (signature): <i>J. Appleby</i> | | Relinquished by (signature): | | Date/Time: | Received by (signature): | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Relinquished by (signature): | | Date/Time: | Received by (signature): | | Relinquished by (signature): | | Date/Time: | Received by (signature): | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Report Type: () Full, () Reduced, () Standard, () Screen / non-certified | | | | | Remarks: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Turnaround time: () Standard 4 wks, () Rush ___ Days, () ASAP Verbal ___ Hrs. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Volatile Analysis Report
U.S. Army, Fort Monmouth Environmental Laboratory
NJDEP Certification #13461

Data File Name **V03392.D**
 Operator **Skelton**
 Date Acquired **30 Mar 1998 20:22**

Sample Name **VBLK41**
 Field ID **VBLK41**
 Sample Multiplier **1**

| CAS# | Compound Name | R.T. | Response | Result | GW Criteria | MDL | Qualifiers |
|------------|---------------------------|------|----------|--------------|----------------|------------|------------|
| 107028 | Acrolein | | | not detected | nle | 6.25 ug/L | |
| 107131 | Acrylonitrile | | | not detected | nle | 6.25 ug/L | |
| 75650 | tert-Butyl alcohol | | | not detected | nle | 12.50 ug/L | |
| 1634044 | Methyl-tert-Butyl ether | | | not detected | nle | 2.50 ug/L | |
| 108203 | Di-isopropyl ether | | | not detected | nle | 1.25 ug/L | |
| | Dichlorodifluoromethane | | | not detected | nle | 3.63 ug/L | |
| 74-87-3 | Chloromethane | | | not detected | 30 | 0.79 ug/L | |
| 75-01-4 | Vinyl Chloride | | | not detected | 5 | 2.61 ug/L | |
| 74-83-9 | Bromomethane | | | not detected | 10 | 1.45 ug/L | |
| 75-00-3 | Chloroethane | | | not detected | nle | 2.20 ug/L | |
| 75-69-4 | Trichlorofluoromethane | | | not detected | nle | 1.31 ug/L | |
| 75-35-4 | 1,1-Dichloroethene | | | not detected | 2 | 0.74 ug/L | |
| 67-64-1 | Acetone | | | not detected | 700 | 1.57 ug/L | |
| 75-15-0 | Carbon Disulfide | | | not detected | nle | 0.54 ug/L | |
| 75-09-2 | Methylene Chloride | | | not detected | 2 | 1.66 ug/L | |
| 156-60-5 | trans-1,2-Dichloroethene | | | not detected | 100 | 0.50 ug/L | |
| 75-35-3 | 1,1-Dichloroethane | | | not detected | 70 | 0.83 ug/L | |
| 108-05-4 | Vinyl Acetate | | | not detected | nle | 2.07 ug/L | |
| 78-93-3 | 2-Butanone | | | not detected | 300 | 2.06 ug/L | |
| | cis-1,2-Dichloroethene | | | not detected | 10 | 0.65 ug/L | |
| 67-66-3 | Chloroform | | | not detected | 6 | 0.43 ug/L | |
| 75-55-6 | 1,1,1-Trichloroethane | | | not detected | 30 | 0.81 ug/L | |
| 56-23-5 | Carbon Tetrachloride | | | not detected | 2 | 1.20 ug/L | |
| 71-43-2 | Benzene | | | not detected | 1 | 0.51 ug/L | |
| 107-06-2 | 1,2-Dichloroethane | | | not detected | 2 | 1.27 ug/L | |
| 79-01-6 | Trichloroethene | | | not detected | 1 | 0.94 ug/L | |
| 78-87-5 | 1,2-Dichloropropane | | | not detected | 1 | 0.78 ug/L | |
| 75-27-4 | Bromodichloromethane | | | not detected | 1 | 0.77 ug/L | |
| 110-75-8 | 2-Chloroethyl vinyl ether | | | not detected | nle | 1.05 ug/L | |
| 10061-01-5 | cis-1,3-Dichloropropene | | | not detected | nle | 0.60 ug/L | |
| 108-10-1 | 4-Methyl-2-Pentanone | | | not detected | 400 | 1.33 ug/L | |
| 108-88-3 | Toluene | | | not detected | 1000 | 0.73 ug/L | |
| 10061-02-6 | trans-1,3-Dichloropropene | | | not detected | nle | 1.43 ug/L | |
| 79-00-5 | 1,1,2-Trichloroethane | | | not detected | 3 | 1.49 ug/L | |
| 127-18-4 | Tetrachloroethene | | | not detected | 1 | 0.92 ug/L | |
| 591-78-6 | 2-Hexanone | | | not detected | nle | 1.12 ug/L | |
| 126-48-1 | Dibromochloromethane | | | not detected | 10 | 1.36 ug/L | |
| 108-90-7 | Chlorobenzene | | | not detected | 4 | 0.66 ug/L | |
| 100-41-4 | Ethylbenzene | | | not detected | 700 | 1.14 ug/L | |
| 1330-20-7 | m+p-Xylenes | | | not detected | nle | 2.53 ug/L | |
| 1330-20-7 | o-Xylene | | | not detected | nle | 1.92 ug/L | |
| 100-42-5 | Styrene | | | not detected | 100 | 1.57 ug/L | |
| 75-25-2 | Bromoform | | | not detected | 4 | 1.68 ug/L | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | | | not detected | 2 | 1.71 ug/L | |
| 541-73-1 | 1,3-Dichlorobenzene | | | not detected | 600 | 2.51 ug/L | |
| 106-46-7 | 1,4-Dichlorobenzene | | | not detected | 74 | 3.08 ug/L | |
| 95-50-1 | 1,2-Dichlorobenzene | | | not detected | 600 | 2.75 ug/L | |

Qualifiers

B = Compound found in related blank
 E = Value above linear range
 D = Value from dilution
 MDL = Method Detection Limit
 NLE = No Limit Established
 R.T. = Retention Time

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID.

VBLK41

Lab Name: FMETL NJDEP # 13461
Project: _____ Case No.: 3437 Location: B.290 SDG No.: _____
Matrix: (soil/water) WATER Lab Sample ID: VBLK41
Sample wt/vol: 5.0 (g/ml) ML Lab File ID: V03392.D
Level: (low/med) LOW Date Received: 03/26/98
% Moisture: not dec. _____ Date Analyzed: 03/30/98
GC Column: Rtx502.2 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

Number TICs found: 1 (ug/L or ug/Kg) UG/L

| CAS NO. | COMPOUND | RT | EST. CONC. | Q |
|---------|----------|-------|------------|---|
| 1. | unknown | 12.16 | 27 | J |

Volatile Analysis Report
U.S. Army, Fort Monmouth Environmental Laboratory
NJDEP Certification #13461

Data File Name v03408.d
 Operator Skelton
 Date Acquired 31 Mar 1998 8:57

Sample Name 3437.01
 Field ID Trip Blank
 Sample Multiplier 1

| CAS# | Compound Name | R.T. | Response | Result | GW Criteria | MDL | Qualifiers |
|------------|---------------------------|------|----------|--------------|----------------|------------|------------|
| 107028 | Acrolein | | | not detected | nle | 6.25 ug/L | |
| 107131 | Acrylonitrile | | | not detected | nle | 6.25 ug/L | |
| 75650 | tert-Butyl alcohol | | | not detected | nle | 12.50 ug/L | |
| 1634044 | Methyl-tert-Butyl ether | | | not detected | nle | 2.50 ug/L | |
| 108203 | Di-isopropyl ether | | | not detected | nle | 1.25 ug/L | |
| | Dichlorodifluoromethane | | | not detected | nle | 3.63 ug/L | |
| 74-87-3 | Chloromethane | | | not detected | 30 | 0.79 ug/L | |
| 75-01-4 | Vinyl Chloride | | | not detected | 5 | 2.61 ug/L | |
| 74-83-9 | Bromomethane | | | not detected | 10 | 1.45 ug/L | |
| 75-00-3 | Chloroethane | | | not detected | nle | 2.20 ug/L | |
| 75-69-4 | Trichlorofluoromethane | | | not detected | nle | 1.31 ug/L | |
| 75-35-4 | 1,1-Dichloroethene | | | not detected | 2 | 0.74 ug/L | |
| 67-64-1 | Acetone | | | not detected | 700 | 1.57 ug/L | |
| 75-15-0 | Carbon Disulfide | | | not detected | nle | 0.54 ug/L | |
| 75-09-2 | Methylene Chloride | | | not detected | 2 | 1.66 ug/L | |
| 156-60-5 | trans-1,2-Dichloroethene | | | not detected | 100 | 0.50 ug/L | |
| 75-35-3 | 1,1-Dichloroethane | | | not detected | 70 | 0.83 ug/L | |
| 108-05-4 | Vinyl Acetate | | | not detected | nle | 2.07 ug/L | |
| 78-93-3 | 2-Butanone | | | not detected | 300 | 2.06 ug/L | |
| | cis-1,2-Dichloroethene | | | not detected | 10 | 0.65 ug/L | |
| 67-66-3 | Chloroform | | | not detected | 6 | 0.43 ug/L | |
| 75-55-6 | 1,1,1-Trichloroethane | | | not detected | 30 | 0.81 ug/L | |
| 56-23-5 | Carbon Tetrachloride | | | not detected | 2 | 1.20 ug/L | |
| 71-43-2 | Benzene | | | not detected | 1 | 0.51 ug/L | |
| 107-06-2 | 1,2-Dichloroethane | | | not detected | 2 | 1.27 ug/L | |
| 79-01-6 | Trichloroethene | | | not detected | 1 | 0.94 ug/L | |
| 78-87-5 | 1,2-Dichloropropane | | | not detected | 1 | 0.78 ug/L | |
| 75-27-4 | Bromodichloromethane | | | not detected | 1 | 0.77 ug/L | |
| 110-75-8 | 2-Chloroethyl vinyl ether | | | not detected | nle | 1.05 ug/L | |
| 10061-01-5 | cis-1,3-Dichloropropene | | | not detected | nle | 0.60 ug/L | |
| 108-10-1 | 4-Methyl-2-Pentanone | | | not detected | 400 | 1.33 ug/L | |
| 108-88-3 | Toluene | | | not detected | 1000 | 0.73 ug/L | |
| 10061-02-6 | trans-1,3-Dichloropropene | | | not detected | nle | 1.43 ug/L | |
| 79-00-5 | 1,1,2-Trichloroethane | | | not detected | 3 | 1.49 ug/L | |
| 127-18-4 | Tetrachloroethene | | | not detected | 1 | 0.92 ug/L | |
| 591-78-6 | 2-Hexanone | | | not detected | nle | 1.12 ug/L | |
| 126-48-1 | Dibromochloromethane | | | not detected | 10 | 1.36 ug/L | |
| 108-90-7 | Chlorobenzene | | | not detected | 4 | 0.66 ug/L | |
| 100-41-4 | Ethylbenzene | | | not detected | 700 | 1.14 ug/L | |
| 1330-20-7 | m+p-Xylenes | | | not detected | nle | 2.53 ug/L | |
| 1330-20-7 | o-Xylene | | | not detected | nle | 1.92 ug/L | |
| 100-42-5 | Styrene | | | not detected | 100 | 1.57 ug/L | |
| 75-25-2 | Bromoform | | | not detected | 4 | 1.68 ug/L | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | | | not detected | 2 | 1.71 ug/L | |
| 541-73-1 | 1,3-Dichlorobenzene | | | not detected | 600 | 2.51 ug/L | |
| 106-46-7 | 1,4-Dichlorobenzene | | | not detected | 74 | 3.08 ug/L | |
| 95-50-1 | 1,2-Dichlorobenzene | | | not detected | 600 | 2.75 ug/L | |

Qualifiers

B = Compound found in related blank
 E = Value above linear range
 D = Value from dilution
 MDL = Method Detection Limit
 NLE = No Limit Established
 R.T. = Retention Time

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID.

Trip Blank

Lab Name: FMETL NJDEP # 13461
Project: _____ Case No.: 3437 Location: B.290 SDG No.: _____
Matrix: (soil/water) WATER Lab Sample ID: 3437.01
Sample wt/vol: 5.0 (g/ml) ML Lab File ID: V03408.D
Level: (low/med) LOW Date Received: 03/26/98
% Moisture: not dec. _____ Date Analyzed: 03/31/98
GC Column: Rtx502.2 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

Number TICs found: 0

| CAS NO. | COMPOUND | RT | EST. CONC. | Q |
|---------|----------|----|------------|---|
|---------|----------|----|------------|---|

Volatile Analysis Report
U.S. Army, Fort Monmouth Environmental Laboratory
NJDEP Certification #13461

Data File Name v03409.d
 Operator Skelton
 Date Acquired 31 Mar 1998 9:41

Sample Name 3437.05
 Field ID 290-B-2-W
 Sample Multiplier 1

| CAS# | Compound Name | R.T. | Response | Result | GW Criteria | MDL | Qualifiers |
|------------|---------------------------|------|----------|--------------|----------------|------------|------------|
| 107028 | Acrolein | | | not detected | nle | 6.25 ug/L | |
| 107131 | Acrylonitrile | | | not detected | nle | 6.25 ug/L | |
| 75650 | tert-Butyl alcohol | | | not detected | nle | 12.50 ug/L | |
| 1634044 | Methyl-tert-Butyl ether | | | not detected | nle | 2.50 ug/L | |
| 108203 | Di-isopropyl ether | | | not detected | nle | 1.25 ug/L | |
| | Dichlorodifluoromethane | | | not detected | nle | 3.63 ug/L | |
| 74-87-3 | Chloromethane | | | not detected | 30 | 0.79 ug/L | |
| 75-01-4 | Vinyl Chloride | | | not detected | 5 | 2.61 ug/L | |
| 74-83-9 | Bromomethane | | | not detected | 10 | 1.45 ug/L | |
| 75-00-3 | Chloroethane | | | not detected | nle | 2.20 ug/L | |
| 75-69-4 | Trichlorofluoromethane | | | not detected | nle | 1.31 ug/L | |
| 75-35-4 | 1,1-Dichloroethene | | | not detected | 2 | 0.74 ug/L | |
| 67-64-1 | Acetone | | | not detected | 700 | 1.57 ug/L | |
| 75-15-0 | Carbon Disulfide | | | not detected | nle | 0.54 ug/L | |
| 75-09-2 | Methylene Chloride | | | not detected | 2 | 1.66 ug/L | |
| 156-60-5 | trans-1,2-Dichloroethene | | | not detected | 100 | 0.50 ug/L | |
| 75-35-3 | 1,1-Dichloroethane | | | not detected | 70 | 0.83 ug/L | |
| 108-05-4 | Vinyl Acetate | | | not detected | nle | 2.07 ug/L | |
| 78-93-3 | 2-Butanone | | | not detected | 300 | 2.06 ug/L | |
| | cis-1,2-Dichloroethene | | | not detected | 10 | 0.65 ug/L | |
| 67-66-3 | Chloroform | | | not detected | 6 | 0.43 ug/L | |
| 75-55-6 | 1,1,1-Trichloroethane | | | not detected | 30 | 0.81 ug/L | |
| 56-23-5 | Carbon Tetrachloride | | | not detected | 2 | 1.20 ug/L | |
| 71-43-2 | Benzene | | | not detected | 1 | 0.51 ug/L | |
| 107-06-2 | 1,2-Dichloroethane | | | not detected | 2 | 1.27 ug/L | |
| 79-01-6 | Trichloroethene | | | not detected | 1 | 0.94 ug/L | |
| 78-87-5 | 1,2-Dichloropropane | | | not detected | 1 | 0.78 ug/L | |
| 75-27-4 | Bromodichloromethane | | | not detected | 1 | 0.77 ug/L | |
| 110-75-8 | 2-Chloroethyl vinyl ether | | | not detected | nle | 1.05 ug/L | |
| 10061-01-5 | cis-1,3-Dichloropropene | | | not detected | nle | 0.60 ug/L | |
| 108-10-1 | 4-Methyl-2-Pentanone | | | not detected | 400 | 1.33 ug/L | |
| 108-88-3 | Toluene | | | not detected | 1000 | 0.73 ug/L | |
| 10061-02-6 | trans-1,3-Dichloropropene | | | not detected | nle | 1.43 ug/L | |
| 79-00-5 | 1,1,2-Trichloroethane | | | not detected | 3 | 1.49 ug/L | |
| 127-18-4 | Tetrachloroethene | | | not detected | 1 | 0.92 ug/L | |
| 591-78-6 | 2-Hexanone | | | not detected | nle | 1.12 ug/L | |
| 126-48-1 | Dibromochloromethane | | | not detected | 10 | 1.36 ug/L | |
| 108-90-7 | Chlorobenzene | | | not detected | 4 | 0.66 ug/L | |
| 100-41-4 | Ethylbenzene | | | not detected | 700 | 1.14 ug/L | |
| 1330-20-7 | m-p-Xylenes | | | not detected | nle | 2.53 ug/L | |
| 1330-20-7 | o-Xylene | | | not detected | nle | 1.92 ug/L | |
| 100-42-5 | Styrene | | | not detected | 100 | 1.57 ug/L | |
| 75-25-2 | Bromoform | | | not detected | 4 | 1.68 ug/L | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | | | not detected | 2 | 1.71 ug/L | |
| 541-73-1 | 1,3-Dichlorobenzene | | | not detected | 600 | 2.51 ug/L | |
| 106-46-7 | 1,4-Dichlorobenzene | | | not detected | 74 | 3.08 ug/L | |
| 95-50-1 | 1,2-Dichlorobenzene | | | not detected | 600 | 2.75 ug/L | |

Qualifiers

B = Compound found in related blank
 E = Value above linear range
 D = Value from dilution
 MDL = Method Detection Limit
 NLE = No Limit Established
 R.T. = Retention Time

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID.

B-4

Lab Name: FMETL NJDEP # 13461
Project: _____ Case No.: 3437 Location: B.290 SDG No.: _____
Matrix: (soil/water) WATER Lab Sample ID: 3437.05
Sample wt/vol: 5.0 (g/ml) ML Lab File ID: V03409.D
Level: (low/med) LOW Date Received: 03/26/98
% Moisture: not dec. _____ Date Analyzed: 03/31/98
GC Column: Rtx502.2 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

Number TICs found: 2 (ug/L or ug/Kg) UG/L

| CAS NO. | COMPOUND | RT | EST. CONC. | Q |
|----------------|--------------------|-------|------------|----|
| 1. 001070-71-9 | Propiolonitrile | 5.16 | 5 | JN |
| 2. 000593-75-9 | Methane, isocyano- | 12.17 | 9 | JN |

Data File : C:\HPCHEM\1\DATA\980330\V03392.D
 Acq On : 30 Mar 1998 20:22
 Sample : VBLK41
 Misc : VBLK41
 MS Integration Params: gases.p
 Quant Time: Mar 31 9:10 1998

Vial: 7
 Operator: Skelton
 Inst : GC/MS Ins
 Multiplr: 1.00

Quant Results File: M62431.RES

Quant Method : C:\HPCHEM\1\METHODS\M62431.M (RTE Integrator)
 Title : Volatile Organics by GC/MS Method 624/8240/TCLP
 Last Update : Tue Mar 31 09:08:52 1998
 Response via : Initial Calibration
 DataAcq Meth : M62429

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev (Min) |
|-------------------------|-------|------|----------|-------|-------|-----------|
| 1) Bromochloromethane | 18.77 | 128 | 31942 | 30.00 | ug/L | 0.00 |
| 26) 1,4-Difluorobenzene | 21.36 | 114 | 220384 | 30.00 | ug/L | 0.00 |
| 37) Chlorobenzene-d5 | 29.19 | 119 | 64135 | 30.00 | ug/L | 0.00 |

System Monitoring Compounds

| | | | | | | |
|---------------------------|--------|-------|----------|----------|------|---------|
| 25) 1,2-Dichloroethane-d4 | 20.32 | 65 | 99897 | 30.31 | ug/L | 0.00 |
| Spiked Amount | 30.000 | Range | 76 - 114 | Recovery | = | 101.03% |
| 35) Toluene-d8 | 25.35 | 98 | 272267 | 30.08 | ug/L | 0.00 |
| Spiked Amount | 30.000 | Range | 88 - 110 | Recovery | = | 100.27% |
| 49) Bromofluorobenzene | 32.19 | 95 | 119248 | 29.46 | ug/L | 0.00 |
| Spiked Amount | 30.000 | Range | 86 - 115 | Recovery | = | 98.20% |

Target Compounds

Qvalue

(#) = qualifier out of range (m) = manual integration
 V03392.D M62433.M Fri Apr 24 08:18:34 1998

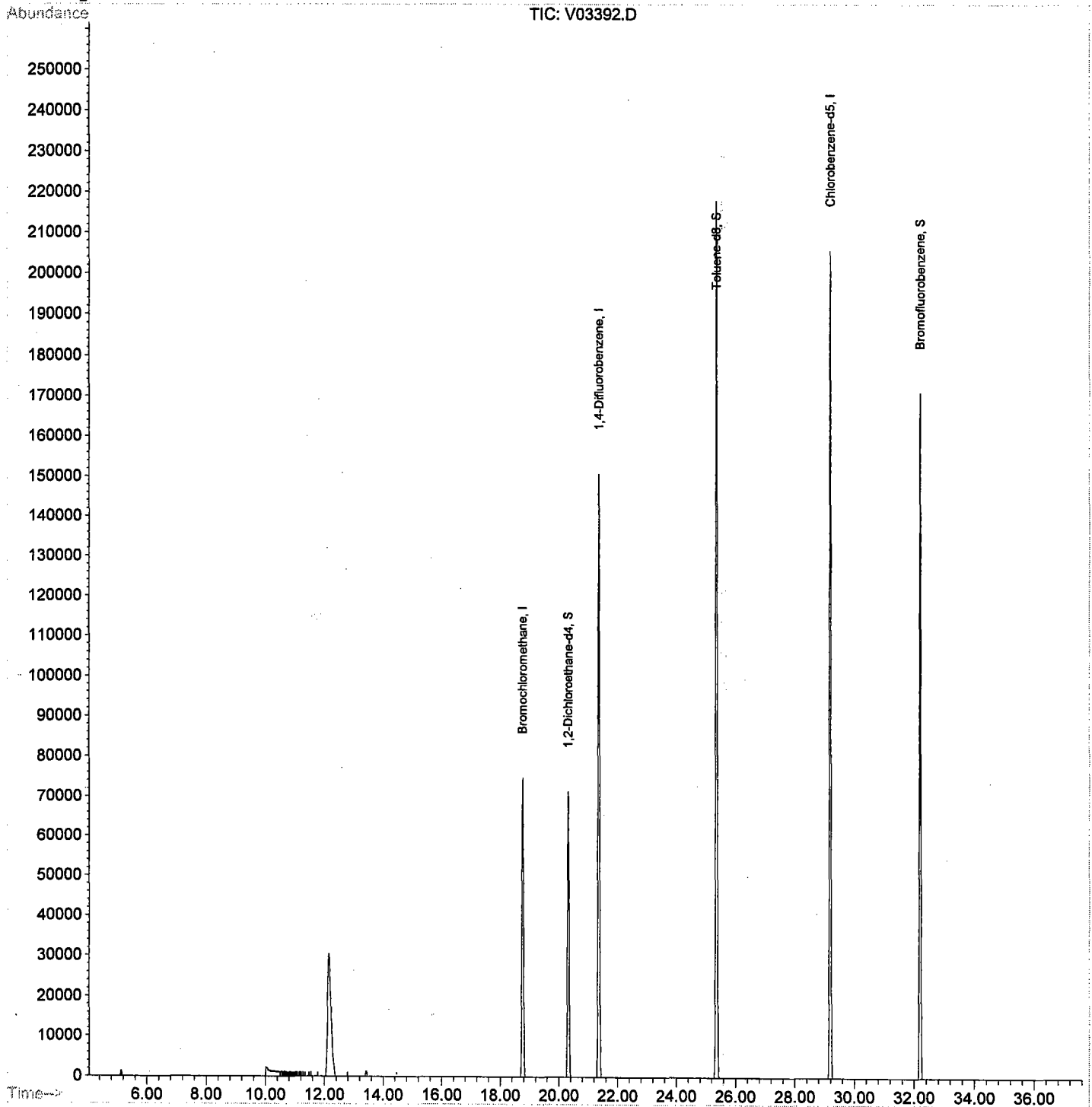
Quantitation Report

Data File : C:\HPCHEM\1\DATA\980330\V03392.D
Acq On : 30 Mar 1998 20:22
Sample : VBLK41
Misc : VBLK41
MS Integration Params: gases.p
Quant Time: Mar 31 9:10 1998

Vial: 7
Operator: Skelton
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: M62431.RES

Method : C:\HPCHEM\1\METHODS\M62433.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8240/TCLP
Last Update : Wed Apr 22 07:15:47 1998
Response via : Initial Calibration



Data File : C:\HPCHEM\1\DATA\980330\V03408.D

Vial: 8

Acq On : 31 Mar 1998 8:57

Operator: Skelton

Sample : 3437.01

Inst : GC/MS Ins

Misc : Trip Blank

Multiplr: 1.00

MS Integration Params: gases.p

Quant Time: Apr 24 8:19 1998

Quant Results File: M62431.RES

Quant Method : C:\HPCHEM\1\METHODS\M62431.M (RTE Integrator)

Title : Volatile Organics by GC/MS Method 624/8240/TCLP

Last Update : Tue Mar 31 09:08:52 1998

Response via : Initial Calibration

DataAcq Meth : M62431

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane | 18.78 | 128 | 29377 | 30.00 | ug/L | 0.00 |
| 26) 1,4-Difluorobenzene | 21.37 | 114 | 218649 | 30.00 | ug/L | 0.00 |
| 37) Chlorobenzene-d5 | 29.20 | 119 | 64278 | 30.00 | ug/L | 0.01 |

System Monitoring Compounds

| | | | | | | |
|---------------------------|--------|-------|----------|----------|------|---------|
| 25) 1,2-Dichloroethane-d4 | 20.33 | 65 | 92533 | 30.53 | ug/L | 0.00 |
| Spiked Amount | 30.000 | Range | 76 - 114 | Recovery | = | 101.77% |
| 35) Toluene-d8 | 25.37 | 98 | 272715 | 30.36 | ug/L | 0.01 |
| Spiked Amount | 30.000 | Range | 88 - 110 | Recovery | = | 101.20% |
| 49) Bromofluorobenzene | 32.21 | 95 | 117188 | 28.89 | ug/L | 0.01 |
| Spiked Amount | 30.000 | Range | 86 - 115 | Recovery | = | 96.30% |

Target Compounds

Qvalue

(#) = qualifier out of range (m) = manual integration

V03408.D M62433.M Fri Apr 24 08:20:36 1998

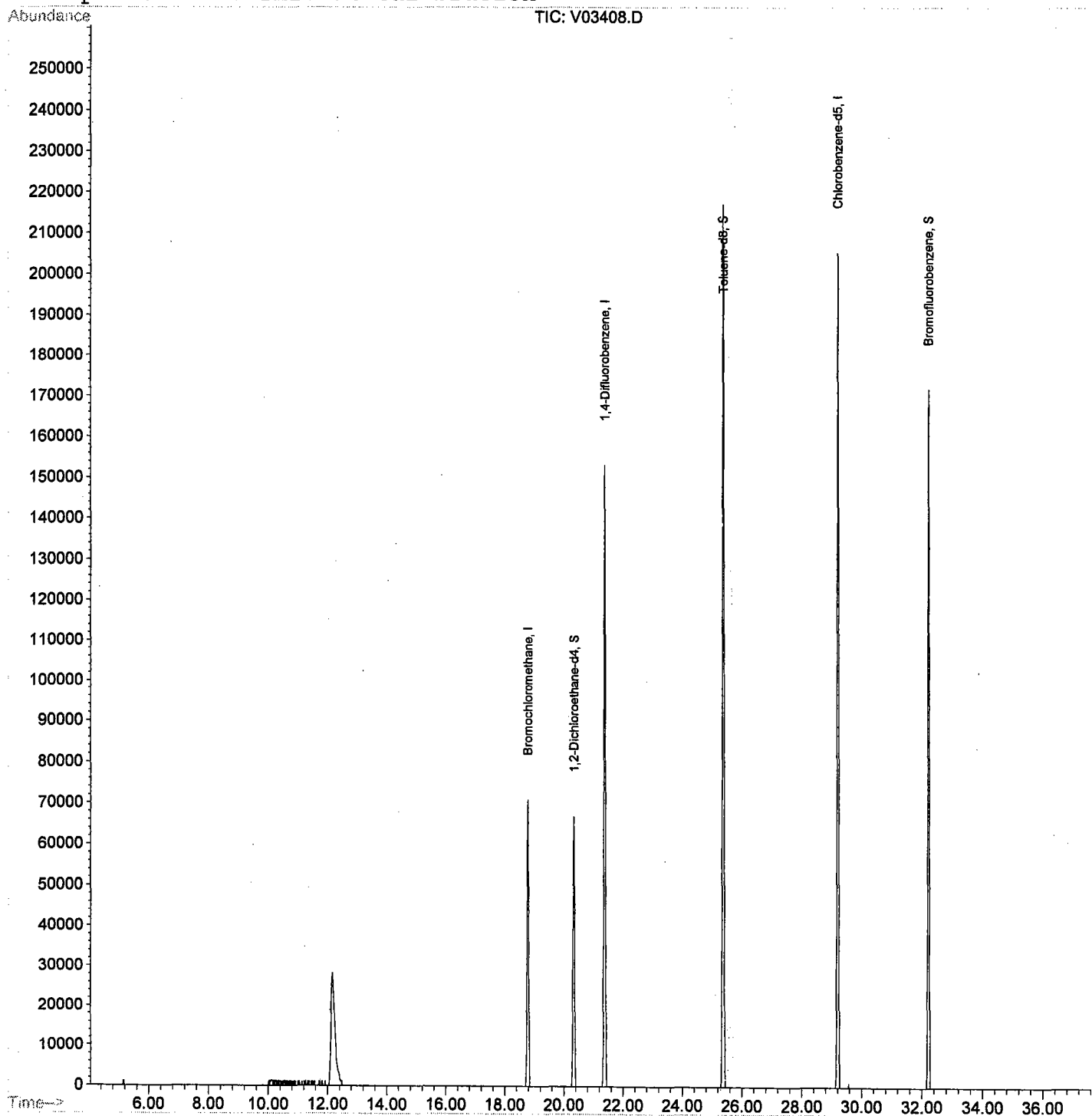
Quantitation Report

Data File : C:\HPCHEM\1\DATA\980330\V03408.D
Acq On : 31 Mar 1998 8:57
Sample : 3437.01
Misc : Trip Blank
MS Integration Params: gases.p
Quant Time: Apr 24 8:19 1998

Vial: 8
Operator: Skelton
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: M62431.RES

Method : C:\HPCHEM\1\METHODS\M62433.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8240/TCLP
Last Update : Wed Apr 22 07:15:47 1998
Response via : Initial Calibration



Data File : C:\HPCHEM\1\DATA\980330\V03409.D Vial: 9
 Acq On : 31 Mar 1998 9:41 Operator: Skelton
 Sample : 3437.05 Inst : GC/MS Ins
 Misc : 290-B-2-W Multiplr: 1.00
 MS Integration Params: gases.p
 Quant Time: Apr 24 8:21 1998 Quant Results File: M62431.RES

Quant Method : C:\HPCHEM\1\METHODS\M62431.M (RTE Integrator)
 Title : Volatile Organics by GC/MS Method 624/8240/TCLP
 Last Update : Tue Mar 31 09:08:52 1998
 Response via : Initial Calibration
 DataAcq Meth : M62431

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev (Min) |
|-------------------------|-------|------|----------|-------|-------|-----------|
| 1) Bromochloromethane | 18.78 | 128 | 27977 | 30.00 | ug/L | 0.01 |
| 26) 1,4-Difluorobenzene | 21.38 | 114 | 202794 | 30.00 | ug/L | 0.01 |
| 37) Chlorobenzene-d5 | 29.21 | 119 | 60653 | 30.00 | ug/L | 0.02 |

System Monitoring Compounds

| | | | | | | |
|---------------------------|--------|----------------|----------|-------|---------|------|
| 25) 1,2-Dichloroethane-d4 | 20.33 | 65 | 87776 | 30.41 | ug/L | 0.01 |
| Spiked Amount | 30.000 | Range 76 - 114 | Recovery | = | 101.37% | |
| 35) Toluene-d8 | 25.37 | 98 | 252003 | 30.25 | ug/L | 0.01 |
| Spiked Amount | 30.000 | Range 88 - 110 | Recovery | = | 100.83% | |
| 49) Bromofluorobenzene | 32.21 | 95 | 113388 | 29.62 | ug/L | 0.01 |
| Spiked Amount | 30.000 | Range 86 - 115 | Recovery | = | 98.73% | |

Target Compounds

Qvalue

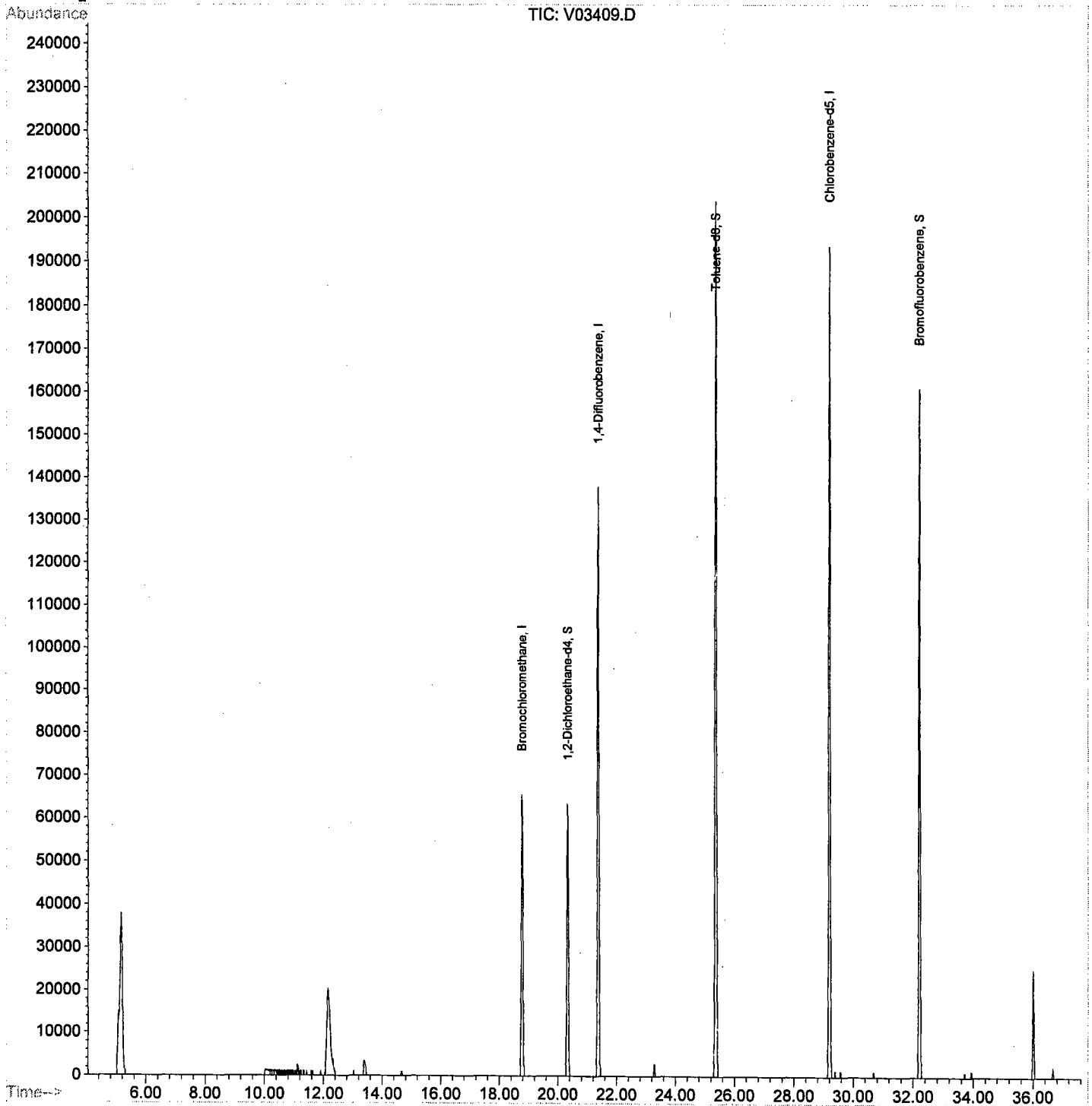
Quantitation Report

Data File : C:\HPCHEM\1\DATA\980330\V03409.D
Acq On : 31 Mar 1998 9:41
Sample : 3437.05
Misc : 290-B-2-W
MS Integration Params: gases.p
Quant Time: Apr 24 8:21 1998

Vial: 9
Operator: Skelton
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: M62431.RES

Method : C:\HPCHEM\1\METHODS\M62433.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8240/TCLP
Last Update : Wed Apr 22 07:15:47 1998
Response via : Initial Calibration



APPENDIX G
GROUNDWATER ANALYTICAL DATA PACKAGE



TOTAL ANALYTICAL SERVICES FOR A SAFE ENVIRONMENT

nytest environmental inc.

Project No.: 9421415
Log in No.: 22509E
P.O. No.: Pending
Date: 2/21/95
SDG No.: Army 1
NJDEPE Case #:93-11-30-1246-27

ANALYTICAL DATA REPORT
PACKAGE FOR

Aguilar Associates

30 Freneau Avenue

Matawan, NJ 07747

ATTN: Darryl Schmitt
REF: US Army Fort Monmouth, Well# and NJPDEPE Reg# 1-2930961
Sample Location Bldg. 290

| LABORATORY NUMBER | SAMPLE IDENTIFICATION | TYPE OF SAMPLE |
|----------------------|--------------------------|-------------------|
|----------------------|--------------------------|-------------------|

SEE NEXT PAGE

WE CERTIFY THAT THIS REPORT IS A
TRUE REPORT OF RESULTS OBTAINED
FROM OUR TESTS OF THIS MATERIAL.

NYS Lab ID. #10195
NJ Cert. #73469

RESPECTFULLY SUBMITTED,
NYTEST ENVIRONMENTAL INC.

REMO GIGANTE
EXEC. VICE PRESIDENT

Report on sample(s) furnished by client applies to sample(s). Report on sample(s) obtained by us applies only to lot sampled. Information contained herein is not to be used for reproduction except by special permission. Sample(s) will be retained for thirty days maximum after date of report unless specifically requested otherwise by client. In the event that there are portions or parts of sample(s) remaining after Nytest has completed the required tests, Nytest shall have the option of returning such sample(s) to the client at the client's expense.

NYTEST ENVIRONMENTAL Inc

| LABORATORY NUMBER | SAMPLE IDENTIFICATION | WELL # | TYPE OF SAMPLE |
|------------------------------|----------------------------------|---------------|---------------------------|
| 2250912 | 290-1 | 1-2930961 | Water |
| 2250904 | 108-FB | - | Water |
| 2250916 | 2562-TB | - | Water |

Table of Contents

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BLDG.#: 290 MW#: 1 NJDEPE WELL ID # 2930961
U.S. ARMY FORT MONMOUTH
MONITORING WELL SAMPLING DATASHEET

DATE: 11/8/91

IJO#94-0843 A

SAMPLING CONTRACTOR: Aguilar Associates Inc.

LABORATORY: NYTEST Environmental Inc. CERT #: 73469

SAMPLERS NAMES: D. Schmitt, C. Aguilar, N. Vanasek, E. Romero, S. Paolizzi

WEATHER CONDITIONS: 58°F Sunny, windy

ELEVATION OF CASING SURVEY MARK: 13.90

TOTAL DEPTH OF WELL FROM TOP OF SURVEYORS MARK: 16.52 FT

DEPTH FROM SURVEYORS MARK TO SCREEN: 2.0 FT

LENGTH OF SCREENED SECTION: 10.5 FT.

DEPTH TO WATER PRIOR TO PURGING AND SAMPLING: 8.14 FT

ELEVATION OF GW PRIOR TO PURGING: 5.76 FT

THICKNESS OF LNAPL PRIOR TO PURGING: - FT

PID/Hnu READING IMMEDIATELY AFTER THE WELL CAP IS

REMOVED: 0 PPM

pH: 5.45 TEMP: 17 C, SPECIFIC CONDUCTIVITY: 690.5

DEPTH OF WELL: 16.52 FT D.O. - 3.7

HEIGHT OF WATER: 8.38 FT

EVACUATED GAL. H2O: 16.5 GAL (8.38 X .65 X 3 = 16.34)

PURGING START TIME: 9:23 END TIME: 9:41

PURGE METHOD: REDI-FLOW 2 INCH SUBMERSIBLE PUMP VARIABLE

FLOW RATE OF <0.5 GPM TO >5.0 GPM

PURGE RATE (<0.5 GPM): 41 GPM

TOTAL VOLUME PURGED: 16.5 GAL.

DEPTH TO WATER AFTER PURGING AND BEFORE

SAMPLING: 8.27 FT

DISSOLVED OXYGEN: 4.2 pH: 5.43 TEMP: 16 °C

SPECIFIC CONDUCTIVITY: 570.5

SAMPLING METHOD: DEDICATED, DECONTAMINATED (IAW NJDEP
FSPM 1992) TEFLON® BAILER

START TIME OF SAMPLING: 10:10 END TIME: 10:14

DISSOLVED OXYGEN: 3.6 pH: 5.30 TEMP: 14 °C

SPECIFIC CONDUCTIVITY: 540.5

COMMENTS: _____



TOTAL ANALYTICAL SERVICES FOR A SAFE ENVIRONMENT

nytest environmental.

(516) 625-5500 FAX: (516) 625-1274

Chain of Custody Record

page #: 1 of 1

Client Name Agul AR
 Address 30 Freedom Ave
MATTAWAN, NJ 07747

Project Manager D. Schmidt
 Phone 908-240-7900 FAX 908-240-7906
 Project Name US Army Ft Monmouth NJ EW 290
 Project Number _____
 P.O. # _____
 Analytical Protocol _____ Deliverables _____
 Sampled By D. Schmidt

Analysis Requested

No. of Containers

60X4 +15, 4x60x15

+ATBE +TBA

Total 96

Bin #'s In/ Out (For Lab Use Only)

Login #: _____
 Ship to: _____
 Nytest Environmental Inc.
 60 Seaview Blvd
 Port Washington N.Y. 11050
 Attn.: Sample Control
 Date Shipped: _____
 Carrier: _____
 Air Bill #: _____
 Cooler #: _____
 C of C #: _____
 SDG #: _____
 NEI QT #: _____

Comments

| Lab ID (Lab Use Only) | Sample ID (Maximum of 6 Characters) | Date Sampled | Time Sampled | Sample Location |
|--------------------------|---|-----------------|-----------------|--------------------|
| MW-1 | | 11/19/94 | 10:10 | flush mist EW 290 |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

1000001

| | | | |
|--|------------------------------------|---|-----------------------------------|
| Relinquished by: <u>David J. Hubbard</u> Print Name: _____ | Date / Time: <u>11/19/94 09:50</u> | Received by: <u>Jay Toapfert</u> Print Name: <u>JAY TOAPFERT</u> | Date / Time: <u>11/19 7:50</u> |
| Relinquished by: _____ Print Name: _____ | Date / Time: _____ | Received by: _____ Print Name: _____ | Date / Time: _____ |
| Relinquished by: <u>Jay Toapfert</u> Print Name: <u>J. TOAPFERT</u> | Date / Time: <u>11/19 5:30</u> | Received by: <u>Michael P. Pires</u> Print Name: <u>Michael P. Pires</u> | Date / Time: <u>11/19/94 5:30</u> |

Lab Use Only

Custody Seal: Intact Broken _____
 Sample kept in Good Condition?
 Sample Temperature: _____
 INSPECTED BY: [Signature]
 COMMENTS: _____

Special Instructions : _____



Chain of Custody Record

Client Name Aguiar
 Address 30 Freeman Ave
MADISON, NJ 07742
 Project Manager D. Schmidt
 Phone 908-290-7900 FAX 908-290-7806
 Project Name US Army, Ft Monmouth, Chas Woods
 Project Number _____
 P.O. # _____
 Analytical Protocol _____ Deliverables _____
 Sampled By D. Schmidt

| Analysis Requested | | | | | | | | | |
|-------------------------------------|--------------------------|------------|--|--|--|--|--|--|--|
| No. of Containers | 624 15, 24hrs MDS TSA | Total Used | | | | | | | |
| | | | | | | | | | |
| Bin #'s In / Out (For Lab Use Only) | | | | | | | | | |
| | | | | | | | | | |

Login #: _____
 Ship to: _____
 Nytest Environmental Inc.
 60 Seaview Blvd
 Port Washington N.Y. 11050
 Attn.: Sample Control
 Date Shipped: _____
 Carrier: _____
 Air Bill #: _____
 Cooler #: _____
 C of C #: _____
 SDG #: _____
 NEI QT #: _____

| Lab ID (Lab Use Only) | Sample ID (Maximum of 6 Characters) | Date Sampled | Time Sampled | Sample Location |
|-----------------------|-------------------------------------|--------------|--------------|-----------------|
| | M W - 3 | 11/8/94 | 1310 | Shed, 2562 |
| | M W - 1 | 11/8/94 | 1413 | Flush 2562 |
| | M W - 2 | 11/8/94 | 1525 | Flush, 2542 |
| | Trip B | 11/8/94 | 1420 | |

| Comments | | | | | | | | | |
|----------|--|--|--|--|--|--|--|--|--|
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

Relinquished by: Kerah J. Hubbard Date / Time: 11/9/94 0950
 Print Name: _____ Received by: Joy Toepfert Date / Time: 11/9 9:56
 Print Name: _____ Received by: _____ Date / Time: _____
 Relinquished by: Joy Toepfert Date / Time: 11/9 5:30
 Print Name: J Toepfert Received by: [Signature] Date / Time: 11/9/94 5:22
 Print Name: _____ Received by: _____ Date / Time: _____

Lab Use Only

Custody Seal: Intact Broken _____ Absent _____

Sample Rec'd in Good Condition? Y N _____

Sample Temperature: _____ Degree Celsius

INSPECTED BY: [Signature]

COMMENTS: _____

Special Instructions: _____



nytest environmental.

(516) 625-5500 FAX: (516) 625-1274

Chain of Custody Record

page #: 1 of 1

Client Name: Aguilar
 Address: 30 Frenese Ave
Matwan NJ 07747
 Project Manager: D. Schmidt
 Phone: 908-290-7800 FAX: 908-290-7806
 Project Name: U.S. ARMY Ft MONMOUTH, NJ BLDG 108
 Project Number: 93-1-12-1939-29
 Analytical Protocol: _____ Deliverables: _____
 Sampled By: D. Schmidt

Analysis Requested

| | | | | | | | | | | |
|-------------------|-----------------|----------|--|--|--|--|--|--|--|--|
| No. of Containers | 624+15 + Xylene | Total Pb | | | | | | | | |
| | +TBA+MBTE | | | | | | | | | |

Login #: 2809
 Ship to: NEI
 Nytest Environmental Inc.
 60 Seaview Blvd
 Port Washington N.Y. 11050
 Attn.: Sample Control
 Date Shipped: _____
 Carrier: _____
 Air Bill #: _____
 Cooler #: _____
 C of C #: _____
 SDG #: _____
 NEI QT #: _____

| Lab ID (Lab Use Only) | Sample ID (Maximum of 6 Characters) | Date Sampled | Time Sampled | Sample Location |
|-----------------------|-------------------------------------|--------------|--------------|-----------------|
| | M W 1 | 11/7/94 | 1049 | Ft Mon mouth |
| | M W 2 | 11/7/94 | 1102 | BLDG 108 |
| | M W 3 | 11/7/94 | 1040 | |
| | F I E L D P | 11/7/94 | 1030 | |
| | D U P | 11/7/94 | - | |
| | T R I P B | 11/7/94 | - | |
| | M S M S D | 11/7/94 | 1035 | |

Bin #s In / Out (For Lab Use Only)

| | | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|--|
| | | | | | | | | | | |
| | | | | | | | | | | |

Comments

Relinquished by: Shirley Stubbard Date / Time: 11/9/94 0950 Received by: Joy Toepfer Date / Time: 11/9 9:50
 Print Name: _____
 Relinquished by: _____ Date / Time: _____ Received by: _____ Date / Time: _____
 Print Name: _____
 Relinquished by: Joy Toepfer Date / Time: 11/9/94 5:30 Received by: Shirley Stubbard Date / Time: 11/9/94 5:30
 Print Name: _____

Lab Use Only

Custody Seals: Intact Broken: _____ Altered: _____
 Sample Has it in Good Condition?: Y N
 Sample Temperature: _____ Degree Celsius
 INSPECTED BY: [Signature]
 COMMENTS: _____

Special Instructions: _____

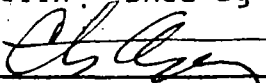

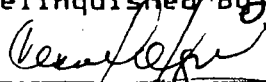
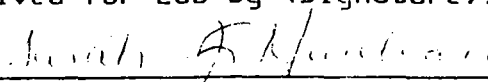
U.S. ARMY FORT MONMOUTH

P.O. #: Agc 2/94 CS 43

Chain of Custody

| | | | | |
|---|-------------------------------------|---|-------------------------------|--------|
| Project #: <u>93-11-30-1246-27</u> | Sampler: <u>D. Schmitt / Agc 12</u> | Date / Time: <u>11/8/94 9:30</u> | Analysis Parameters: <u>-</u> | Start: |
| Customer: <u>C. Agc 12</u> | Site Name: <u>Bld 290</u> | <div style="display: flex; justify-content: space-around;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Cadmium</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Mercury</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Lead</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Copper</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Zinc</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Manganese</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Nickel</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Vanadium</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Selenium</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Chromium</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Molybdenum</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Cobalt</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Silver</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Platinum</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Gold</div> </div> | | |
| Phone: <u>(908) 337-1524</u> | Site Name: <u>Bld 290</u> | | | |
| Customer Sample Location/ID Number: <u>NDDEP DICOR # 93-11-30-1246-27</u> | | Preservation Method: <u>None</u> | | |
| Sample Matrix: <u>MLD Sampling</u> | | Remarks: <u>None</u> | | |

| Lab Sample ID Number | Date/Time | Customer Sample Location/ID Number | Sample Matrix | # of Bottles | Analysis Parameters | | | | | | | | | | Remarks | Preservation Method | | | |
|----------------------|---------------|------------------------------------|---------------|--------------|---------------------|---------|------|--------|------|-----------|--------|----------|----------|----------|---------|---------------------|------------|------------------|--------|
| | | | | | Cadmium | Mercury | Lead | Copper | Zinc | Manganese | Nickel | Vanadium | Selenium | Chromium | | | Molybdenum | Cobalt | Silver |
| 1707.1 | 11/8/94 10:10 | mult, 2930961 | Air | 3 | 1 | | | | | | | | | | | | | Sample kept 24°C | None |
| 1702.4 | 11/7/94 10:30 | Field Blank | Air | 3 | 1 | | | | | | | | | | | | | | None |
| 1702.5 | 11/7/94 NA | Duplicate | Air | 3 | 2 | | | | | | | | | | | | | | None |
| 1705.4 | 11/8/94 NA | Trip Blank | Air | 3 | 2 | | | | | | | | | | | | | | None |
| 1702.7 | 11/7/94 10:35 | ms/mad, mlw 3 | Air | 5 | 4 | | | | | | | | | | | | | | None |
| | | | | | | | | | | | | | | | | | | | None |
| | | | | | | | | | | | | | | | | | | | None |
| | | | | | | | | | | | | | | | | | | | None |
| | | | | | | | | | | | | | | | | | | | None |
| | | | | | | | | | | | | | | | | | | | None |
| | | | | | | | | | | | | | | | | | | | None |

| | | | |
|---|-----------------------------------|---|-----------------------------------|
| Relinquished By (signature):  | Date / Time: <u>11/8/94 16:30</u> | Received By (signature):  | Shipped By: <u>Nickie Vance</u> |
| Relinquished By (signature):  | Date / Time: <u>11/9/94 08:04</u> | Received for Lab by (signature):  | Date / Time: <u>11/9/94 08:10</u> |

Note: A drawing depicting sample location should be attached or drawn on the reverse side of this chain of custody.

Environmental Laboratory

Certification Number 13461

INTERNAL CHAIN OF CUSTODY

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

NAME: Piero Priende TITLE: S.C.O.

Client: Aguilar Assoc. Date Broken: 11/09/94 Military Time Seal Broken: 1730

Login #: 22509 Analytical Parameter/Fraction: PG24+15, Pb

| SAMPLE NO. | ALIQUOT/EXTRACT NO. | SAMPLE NO. | ALIQUOT/EXTRACT NO. |
|------------|---------------------|------------|---------------------|
| 108-1 | 22509-01 | 750-4 | 22509-11 |
| 108-2 | 02 | 290-1 | 12 |
| 109-3 | 03 | 2562-3 | 13 |
| 108-FB | 04 | 2562-1 | 14 |
| 108-DUP | 05 | 2562-2 | 15 |
| 108-TB | 06 | 2562-TB | 16 |
| 108-3MS | 07 | 296-6 | 17 |
| 108-3MSP | 08 | 296-2 | 18 |
| | | 296-7 | 19 |
| 750-1 | 09 | 296-3 | 20 |
| | | 296-8 | 21 |
| 750-3 | 10 | 296-1 | 22 |

| DATE | TIME | RELINQUISHED BY | RECEIVED BY | PURPOSE OF CHANGE OF CUST. |
|----------|------|------------------------------|------------------------------|----------------------------|
| 11/1/94 | 0800 | PRINTED NAME M. LAM | PRINTED NAME S. Carver | PG24+15 |
| | | SIGNATURE <i>M. Lam</i> | SIGNATURE <i>S. Carver</i> | |
| 11/18/94 | 1500 | PRINTED NAME M. LAM | PRINTED NAME H. Trujillo | Pb |
| | | SIGNATURE <i>M. Lam</i> | SIGNATURE <i>H. Trujillo</i> | |
| 11/20/94 | 1400 | PRINTED NAME S. Carver | PRINTED NAME M. LAM | Storage |
| | | SIGNATURE <i>S. Carver</i> | SIGNATURE <i>M. Lam</i> | |
| 12/3/94 | 1000 | PRINTED NAME H. Trujillo | PRINTED NAME M. LAM | Storage |
| | | SIGNATURE <i>H. Trujillo</i> | SIGNATURE <i>M. Lam</i> | |
| | | PRINTED NAME | PRINTED NAME | |
| | | SIGNATURE | SIGNATURE | |
| | | PRINTED NAME | PRINTED NAME | |
| | | SIGNATURE | SIGNATURE | |
| | | PRINTED NAME | PRINTED NAME | |
| | | SIGNATURE | SIGNATURE | |
| | | PRINTED NAME | PRINTED NAME | |
| | | SIGNATURE | SIGNATURE | |

000005

LABORATORY DELIVERABLES

Check if Complete

- | | | |
|-----|---|-----------|
| 1. | Cover page, Title page listing Lab Certification# facility name & address, & date of report | <u>✓</u> |
| 2. | Table of Contents | <u>✓</u> |
| 3. | Summary sheets listing analytical results for all targeted and non-targeted compounds | <u>NA</u> |
| 4. | Summary Table cross-referencing field ID #'s vs. Lab ID #'s | <u>✓</u> |
| 5. | Document bound, paginated and legible | <u>✓</u> |
| 6. | Chain of Custody | <u>✓</u> |
| 7. | Methodology Summary | <u>✓</u> |
| 8. | Laboratory Chronicle and Holding Time check | <u>✓</u> |
| 9. | Results submitted on a dry weight basis (if applicable) | <u>NA</u> |
| 10. | Method Detection Limits | <u>NA</u> |
| 11. | Lab certified by NJDEPE for parameters or appropriate category of parameters of a method of the USEPA CLP | <u>✓</u> |
| 12. | Non-Conformance Summary | <u>✓</u> |

Jon Beep
Laboratory Manager or Environmental Consultant's Signature

2/21/95
Date

GC/MS ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY FORMAT

- | | <u>No</u> | <u>Yes</u> |
|--|--------------------------------------|------------|
| 1. Chromatograms Labeled/Compounds Identified (Field Samples and Method Blanks) | ___ | ___✓ |
| 2. GC/MS Tune Specifications | | |
| a. BFB Meet Criteria | ___ | ___✓ |
| b. DFTPP Meet Criteria | ___ | ___NA |
| 3. GC/MS Tune Frequency - Performed every 24 hours for 600 series and 12 hours for 8000 series. | ___ | ___✓ |
| 4. GC/MS Calibration - Initial Calibration performed within 30 days before sample analysis and continuing calibration performed within 24 hours of sample analysis for 600 series and 12 hours for 8000 series | ___ | ___✓ |
| 5. GC/MS Calibration Requirements | | |
| a. Calibration Check Compounds | ___ | ___NA |
| b. System Performance Check Compounds | ___ | ___NA |
| 6. Blank Contamination - If yes, list compounds and concentrations in each blank: | | |
| a. VOA fraction | ___ <u>VBLEN04 - TGA - 2 ppb</u> ___ | |
| b. B/N Fraction | ___ ___ | |
| c. Acid Fraction | ___ ___ | |
| 7. Surrogate Recoveries Meet Criteria | ___ | ___✓ |
| If not met, list those compounds and their recoveries which fall outside the acceptable range: | | |
| a. VOA Fraction | ___ | |
| b. B/N Fraction | ___ | |
| c. Acid Fraction | ___ | |
| If not met, were the calculations checked and the results qualified as estimated? ___NA___ | | |
| 8. Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria (if not met, list these compounds and their recoveries which fall outside the acceptable range) | ___✓ | ___ |
| a. VOA Fraction | ___ <u>1122-TCB - 162%</u> ___ | |
| b. B/N Fraction | ___ | |
| c. Acid Fraction | ___ | |
| 9. Internal Standard Area/Retention Time Shift Meet Criteria | ___ | ___NA___ |

000007

GC/MS ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY FORMAT (CONT.)

No Yes

10. Extraction Holding Time Met

_____ *NA* _____

If not met, list number of days exceeded
each sample: _____

11. Analysis Holding Time Met

_____ _____

If not met, list number of days exceeded
for each sample: _____

Additional Comments: _____

Laboratory Manager: Yoni Bey Date 2/21/95

METAL ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY FORMAT

- | | <u>No</u> | <u>Yes</u> |
|---|-----------|------------|
| 1. Calibration Summary Meet Criteria | ___ | ✓ |
| 2. ICP Interference Check Sample Results Summary Submitted (if applicable) / Meet Criteria | ___ | NA |
| 3. Serial Dilution Summary Submitted (if applicable) / Meet Criteria | ___ | NA |
| 4. Laboratory Control Sample Summary Submitted (if applicable) / Meet Criteria | ___ | ✓ |
| 5. Blank Contamination - If yes, list compounds concentrations in each blank: _____ _____ | ✓ | ___ |
| 6. Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria (If not met, list those compounds and their recoveries which fall outside the acceptable range) _____ _____ | ___ | ✓ |
| 7. Extraction Holding Time Met If not met, list number of days exceeded for each sample: _____ _____ _____ | ___ | ✓ |
| 8. Analysis Holding Time Met If not met, list number of days exceeded for each sample: _____ _____ _____ | ___ | ✓ |

Additional Comments: _____

Laboratory Manager: Jon Ben Date: 2/21/95

Laboratory Chronicle

Client Name: Aguilar Associates

Log In No.: 22509E

Date(s) of Sample Collection: 11/07/94, 11/8/94

Date Received: 11/09/94

Sample ID: As per chain of custody

Organics Extraction:

1. Acids _____
2. Base/Neutrals _____
3. Pesticides/PCBs _____
4. Herbicides _____

Analysis:

11/14/94

1. Volatiles _____
2. Acids _____
3. Base/Neutrals _____
4. Pesticides/PCBs _____
5. Herbicides _____

Section Supervisor

Review & Approval

Jon Beer

Digestion - 11/21/94

Analysis - 12/09/94

Inorganics:

1. Metals _____
2. Cyanides _____
3. Phenols _____

Other Analysis:

Section Supervisor

Review & Approval

Jon Beer

Quality Control Supervisor

Review & Approval

Jon Beer

Dates are included for re-extractions and reanalysis.

000010

**NARRATIVE DISCUSSION
VOLATILES - 22509E**

Bldg. 290

INTRODUCTION

This narrative covers the analysis of three (3) samples in accordance with NEI Sop# 703 based on EPA Method 624.

HOLDING TIMES

The analytical holding time for this analysis was met.

CALIBRATIONS

All required minimum RRFs and maximum % RSD initial calibration requirements have been met in accordance with the Method.

QC CHECK SAMPLE

The % recoveries for four (4) out of thirty-one (31) compounds exceeded QC limits in the QC sample NO198.

Due to a laboratory oversight a second QC check was not analyzed.

METHOD BLANKS

The method blank associated with these samples met all method requirements.

SURROGATES

All surrogate recoveries met QC criteria.

MATRIX SPIKES

As requested, sample 108-3 was utilized in the MS/MSD series. The 1,1,2,2-Tetrachloroethane recovery in the MSD was above the advisory QC limits. The form 3 is included in this report.

INTERNAL STANDARDS

Internal Standard area responses/retention times summaries are not required.

SAMPLE COMMENTS

The TICs identified as "Unknown Siloxane" are most probably due to column degradation and not sample constituency.

000011

NEI is reporting the results to our method detection limits (MDL's) rounded up to the nearest part per billion (ppb) in accordance with the guidance provided by NJDEP. These MDL's indicate that NEI did not detect any compounds above these levels.

Only one (1) field blank, 108FB, was collected with these samples. The field blank was collected on 11/07/94. The samples were collected on 11/08/94. The trip blank submitted with this report, 2562TB, was also collected on 11/08/94.

No further analytical problems were encountered.

NEI is reporting the results to our method detection limits (MDL's) rounded up to the nearest part per billion (ppb) in accordance with the guidance provided by NJDEP. These MDL's indicate that NEI did not detect any compounds above these levels.

Only one (1) field blank, 108FB, was collected with these samples. The field blank was collected on 11/07/94. The samples were collected on 11/08/94. The trip blank submitted with this report, 2562TB, was also collected on 11/08/94.

No further analytical problems were encountered.

NARRATIVE DISCUSSION
INORGANICS- 22509E

All samples were analyzed as per required protocols.

The matrix spike recoveries and duplicate RPD values were within control limits.

000014

NARRATIVE DISCUSSION
INORGANICS- 22509E


All samples were analyzed as per required protocols.

The matrix spike recoveries and duplicate RPD values were within control limits.

000015

nytest environmental_{inc}

I certify that this data package has been reviewed for the quality control and quality assurance measures for all analyzed methodologies.



Remo Gigante
Exec. Vice President

000016

METHODODOLOGY SUMMARY

| AQUEOUS METHODOLOGIES: | REF 1 | REF 2 | REF 3 | REF 5 |
|---|-------|------------------------------|---------|-------|
| BNA, Pesticides/PCB's Extraction | | 3510/3520 | | |
| AA/ICP Sample Preparation | 200.7 | | | |
| Furnace Sample Preparation | 200.0 | | | |
| Mercury Sample Preparation | 245.1 | | | |
| Hexavalent Chromium Sample Preparation | 218.5 | | | |
| Clean-Up | | 3610/3620/3630/ 3640/3660 | | |
| Organochlorine Pesticide and PCB's by Gas Chromatography | | | 608 | 505 |
| Herbicides by Gas Chromatography | | | 362 | 515.1 |
| Purgeable Organics by GC/MS | | | 624 | 524.2 |
| Base/Neutral, Acids by GC/MS | | | 625 | 525 |
| 2,3,7,8-TCDD by GC/MS | | | 613/625 | |
| BTEX | | | 602 | 502.2 |
| EDB/DBCP by Microextraction | | | | 504.1 |

NON-AQUEOUS METHODOLOGIES:

| | |
|----------------------------------|------------------------------|
| BNA, Pesticides/PCB's Extraction | 3550 |
| AA/ICP Sample Preparation | 3050 |
| Furnace Sample Preparation | 3020/3030/3050 |
| Mercury Sample Preparation | 7471 |
| Clean-Up | 3610/3620/3630/ 3640/3660 |

GC, Gas Chromatography/Mass Spectrometry:

| | |
|---|-----------|
| Purgeable Organics | 8240/8021 |
| Base/Neutral and Acid Extractables | 8270 |
| Organophosphorus Pesticides | 8140 |
| Organochlorine Pesticide and PCB's by Gas Chromatography | 8080 |
| BTEX | 8020 |
| Halogenated Purgeable Organics | 8010 |

000017

METHODOLOGY SUMMARY

INDUCTIVELY COUPLED PLASMA (ICP):

REFERENCE 1

REFERENCE 2

| | | |
|------------|-------|------|
| Aluminum | 200.7 | 6010 |
| Antimony | 200.7 | 6010 |
| Barium | 200.7 | 6010 |
| Beryllium | 200.7 | 6010 |
| Cadmium | 200.7 | 6010 |
| Calcium | 200.7 | 6010 |
| Chromium | 200.7 | 6010 |
| Cobalt | 200.7 | 6010 |
| Copper | 200.7 | 6010 |
| Iron | 200.7 | 6010 |
| Lead | 200.7 | 6010 |
| Magnesium | 200.7 | 6010 |
| Manganese | 200.7 | 6010 |
| Molybdenum | 200.7 | 6010 |
| Nickel | 200.7 | 6010 |
| Potassium | 200.7 | 6010 |
| Silver | 200.7 | 6010 |
| Sodium | 200.7 | 6010 |
| Tin | 200.7 | 6010 |
| Titanium | 200.7 | 6010 |
| Vanadium | 200.7 | 6010 |
| Zinc | 200.7 | 6010 |

FURNACE AA:

| | | |
|----------|-------|-----------|
| Antimony | 204.1 | 7041 |
| Arsenic | 206.2 | 7060 |
| Lead | 239.2 | 7421 |
| Selenium | 270.2 | 7740 |
| Thallium | 279.2 | 7841 |
| Tin | 282.2 | |
| Vanadium | 286.2 | 7911 |
| Mercury | 245.1 | 7470/7471 |

ICAP:

| | | |
|---------------------|-------|-------------------------|
| Priority Pollutants | 200.7 | 6010/7060/ 7470/7740 |
| TAL Metals | 200.7 | 6010/7060/ 7470/7740 |
| RCRA Metals | 200.7 | 6010/7060/ 7470/7740 |

METHODOLOGY SUMMARY

REFERENCES:

- (1) USEPA-600/4-79-020, Methods for Chemical Analysis of Water and Waste
- (2) USEPA SW 846, Test Methods for Evaluating Solid Waste, Third Edition
- (3) Federal Register 40 CFR Part 136, Vol.49, No.209 Test Parameters for the Analysis of Pollutants
- (4) Federal Register Vol.51, No.216 Friday, 11/7/86, pp.40643-40652
- (5) Method for the Determination of Organic Compounds in Drinking Water, EPA 500/4-88/039, Dec. 1988
- (6) Standard Method for Examination of Water and Wastewater, 15 Edition 1980

Method Qualifiers for Organic Non-CLP Methodologies

Q Qualifier - Specified entries and their meanings as follows:

- U -** Indicates compound was analyzed for but was not detected. The sample quantitation limit is corrected for dilutions and for the moisture content for soil samples. If a sample extract can not be concentrated to the protocol - specific volume, this fact is also accounted for in reporting the sample quantitation limit. The number is the minimum detected limits for the sample.
- J -** Indicates an estimated volume. The flag is used either when estimating concentration for tentatively identified compounds where a 1:1 response is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the sample quantitation limit but greater than zero.
- N -** Indicates presumptive evidence of a compound. This flag is used only for tentatively identified compounds, where the identification is based on a mass spectral library search. It is applied to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the N code is not used.
- B -** This flag is used when the analyte is found in the analyte is found in the associated blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action. This flag is used for a TIC as well as for a positively identified target compound.
- E -** This flag identifies compounds whose concentrations exceeded the calibration range of the GC/MS instrument for that specific analysis.
- D -** This flag identifies all compounds identified in an analysis at a secondary dilution factor.
- A -** This flag indicates that a TIC is a suspected aldol condensation product.

Method Qualifiers for Inorganics

FORM I-IN includes fields for three types of results qualifiers. These qualifiers must be completed as follows:

*** C** (Concentration) qualifier -- Enter "B" if the reported value was obtained from a reading that was less than the Contract Required Detection Limit (CRDL) but greater than or equal to the Instrument Detection Limit (IDL). If the analyte was analyzed for but not detected, a "U" must be entered.

*** Q** Qualifier -- Specified entries and their meanings are as follows :

- E - The reported value is estimated because of the presence of interference.
- M - Duplicate precision not met (CV > 20%).
- N - Spiked sample recovery not within control limits.
- S - The reported value was determined by Method of Standard Addition (MSA).
- W - Post-digestion spike for Furnace AA analysis is out of control limits (85-115%), while sample absorbance is less than 50% of spike absorbance.
- * - Duplicate analysis not within control limits.
- + - Correlation Coefficient for MSA is less than 0.995.

Entering "S", "W" or "+" is mutually exclusive.

*** M** (Method) qualifier - enter:

- "P" for ICP
- "A" for Flame AA
- "F" for Furnace AA
- "CV" for Cold Vapor AA
- "AV" for Automated Cold Vapor AA
- "AS" for Semi-Automated Spectrophotometric
- "C" for Manual Spectrophotometric
- "T" for Titrimetric
- "NR" if the analyte is not required to be analyzed.

000021

GC/MS Data

000022

Volatile Data

000023

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

108-FB

Lab Name: NYTEST ENV INC Contract: 9421415

Lab Code: NYTEST Case No.: 22509 SAS No.: SDG No.: ARMY1

Matrix: (soil/water) WATER Lab Sample ID: 2250904

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: N0203.D

Level: (low/med) LOW Date Received: 11/09/94

% Moisture: not dec. _____ Date Analyzed: 11/14/94

Column: (pack/cap) CAP Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|------------|----------------------------------|--|---|
| 74-87-3 | -----Chloromethane | 2 | U |
| 74-83-9 | -----Bromomethane | 1 | U |
| 75-01-4 | -----Vinyl Chloride | 1 | U |
| 75-00-3 | -----Chloroethane | 1 | U |
| 75-09-2 | -----Methylene Chloride | 4 | |
| 75-35-4 | -----1,1-Dichloroethene | 2 | U |
| 75-34-3 | -----1,1-Dichloroethane | 1 | U |
| 67-66-3 | -----Chloroform | 1 | U |
| 107-06-2 | -----1,2-Dichloroethane | 1 | U |
| 71-55-6 | -----1,1,1-Trichloroethane | 1 | U |
| 56-23-5 | -----Carbon Tetrachloride | 2 | U |
| 75-27-4 | -----Bromodichloromethane | 1 | U |
| 78-87-5 | -----1,2-Dichloropropane | 1 | U |
| 10061-01-5 | -----cis-1,3-Dichloropropene | 1 | U |
| 79-01-6 | -----Trichloroethene | 2 | U |
| 124-48-1 | -----Dibromochloromethane | 1 | U |
| 79-00-5 | -----1,1,2-Trichloroethane | 1 | U |
| 71-43-2 | -----Benzene | 1 | U |
| 10061-02-6 | -----trans-1,3-Dichloropropene | 1 | U |
| 75-25-2 | -----Bromofo. m | 1 | U |
| 127-18-4 | -----Tetrachloroethene | 3 | U |
| 79-34-5 | -----1,1,2,2-Tetrachloroethane | 2 | U |
| 108-88-3 | -----Toluene | 2 | U |
| 108-90-7 | -----Chlorobenzene | 2 | U |
| 100-41-4 | -----Ethylbenzene | 2 | U |
| 1330-20-7 | -----Xylene (total) | 6 | U |
| 75-69-4 | -----Trichloromonofluoromethane | 2 | U |
| 107-02-8 | -----Acrolein | 20 | U |
| 107-13-1 | -----Acrylonitrile | 2 | U |
| 75-65-0 | -----Tertiary Butyl Alcohol | 1 | U |
| 1634-34-4 | -----Methyl Tertiary Butyl Ether | 1 | U |
| 541-73-1 | -----1,3-Dichlorobenzene | 2 | U |
| 106-46-7 | -----1,4-Dichlorobenzene | 2 | U |
| 95-50-1 | -----1,2-Dichlorobenzene | 2 | U |

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

108-FB

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22509

SAS No.:

SDG No.: ARMY1

Matrix: (soil/water) WATER

Lab Sample ID: 2250904

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: N0203.D

Level: (low/med) LOW

Date Received: 11/09/94

% Moisture: not dec. _____

Date Analyzed: 11/14/94

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L Q

| | | | |
|---------------|---------------------------|---|---|
| 110-75-8----- | 2-Chloroethylvinyl Ether | 4 | U |
| 156-60-5----- | Trans, 1,2-Dichloroethene | 1 | U |

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

108-FB

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22509

SAS No.:

SDG No.: ARMY1

Matrix: (soil/water) WATER

Lab Sample ID: 2250904

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: N0203.D

Level: (low/med) LOW

Date Received: 11/09/94

% Moisture: not dec. _____

Date Analyzed: 11/14/94

Column: (pack/cap) CAP

Dilution Factor: 1.0

Number TICs found: 1

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

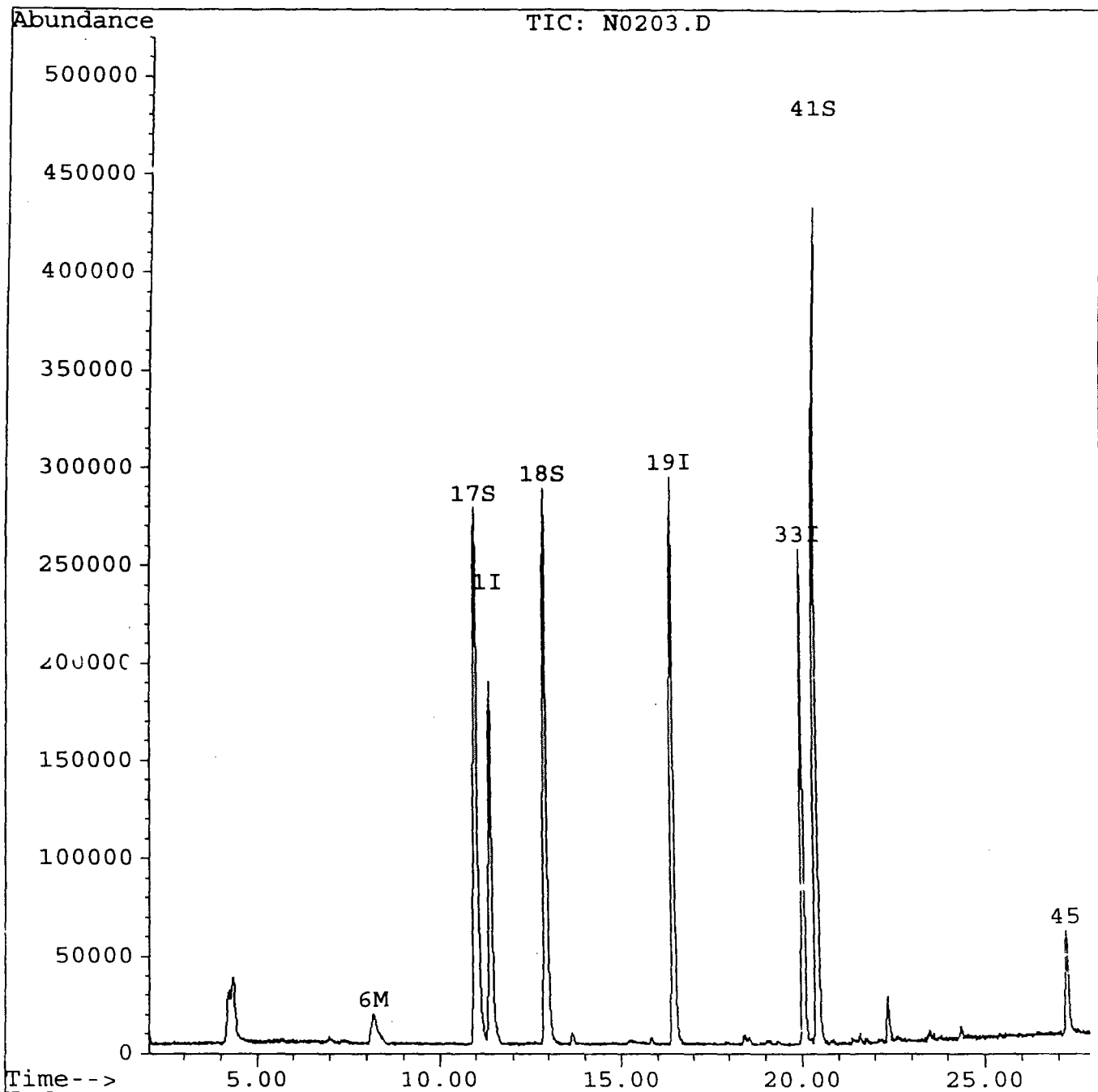
| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|------------|---------------------|--------|------------|---|
| 1. | UNKNOWN HYDROCARBON | 22.375 | 3 | J |
| 2. | | | | |
| 3. | | | | |
| 4. | | | | |
| 5. | | | | |
| 6. | | | | |
| 7. | | | | |
| 8. | | | | |
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| 10. | | | | |
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| 12. | | | | |
| 13. | | | | |
| 14. | | | | |
| 15. | | | | |
| 16. | | | | |
| 17. | | | | |
| 18. | | | | |
| 19. | | | | |
| 20. | | | | |
| 21. | | | | |
| 22. | | | | |
| 23. | | | | |
| 24. | | | | |
| 25. | | | | |
| 26. | | | | |
| 27. | | | | |
| 28. | | | | |
| 29. | | | | |
| 30. | | | | |

Quantitation Report

Data File : C:\HPCHEM\1\DATA\NOV1494\N0203.D
Acq Time : 14 Nov 94 13:44 pm
Sample : 2250904,108-FB,
Misc : 1,1,,,5,5,P624,R11-9-94
Quant Time: Dec 8 12:14 1994

Operator: LDS
Inst : HPN
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\P624.M
Title : VOA Standards for 5 point calibration
Last Update : Tue Dec 06 02:26:13 1994
Response via : Multiple Level Calibration



000027

Quantitation Report

Data File : C:\HPCHEM\1\DATA\NOV1494\N0203.D
 Acq Time : 14 Nov 94 13:44 pm
 Sample : 2250904,108-FB,
 Misc : 1,1,,,5,5,P624,R11-9-94
 Quant Time: Dec 8 12:14 1994

Operator: LDS
 Inst : HPN
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\P624.M
 Title : VOA Standards for 5 point calibration
 Last Update : Tue Dec 06 02:26:13 1994
 Response via : Initial Calibration

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|-----------------------------|-------|------|----------|-------|-------|----------|
| 1) CI01 Bromochloromethane | 11.41 | 128 | 165759 | 30.00 | ug/l | -0.07 |
| 19) 2-BROMO-1-CHLOROPROPANE | 16.47 | 77 | 619401 | 30.00 | ug/l | -0.04 |
| 33) 1,4-DICHLOROBUTANE | 20.04 | 55 | 495243 | 30.00 | ug/l | -0.03 |

| System Monitoring Compounds | R.T. | QIon | Response | Conc | Units | %Recovery |
|-------------------------------|-------|------|----------|-------|-------|-----------|
| 17) PENTAFLUOROBENZENE | 11.02 | 168 | 781610 | 22.62 | ug/l | 75.40% |
| 18) FLUOROBENZENE | 12.95 | 96 | 917905 | 22.70 | ug/l | 75.67% |
| 41) CS10 4-Bromofluorobenzene | 20.40 | 95 | 527612 | 20.78 | ug/l | 69.28% |

| Target Compounds | R.T. | QIon | Response | Conc | Units | Qvalue |
|----------------------------|------------------|----------------|-------------------|-----------------|-----------------|----------------|
| 6) C030 Methylene Chloride | 8.19 | 84 | 51521 | 3.32 | ug/l # | 84 |
| 45) NAPHTHALENE | 27.23 | 128 | 179646 | 3.31 | ug/l | 100 |

MA
12-14-94

000028

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

290-1

Lab Name: NYTEST ENV INC Contract: 9421415
 Lab Code: NYTEST Case No.: 22509 SAS No.: SDG No.: ARMY1
 Matrix: (soil/water) WATER Lab Sample ID: 2250912
 Sample wt/vol: 5.0 (g/mL) ML Lab File ID: N0211.D
 Level: (low/med) LOW Date Received: 11/09/94
 % Moisture: not dec. _____ Date Analyzed: 11/14/94
 Column: (pack/cap) CAP Dilution Factor: 1.0

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

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|------------|----------------------------------|--|---|
| 74-87-3 | -----Chloromethane | 2 | U |
| 74-83-9 | -----Bromomethane | 1 | U |
| 75-01-4 | -----Vinyl Chloride | 1 | U |
| 75-00-3 | -----Chloroethane | 1 | U |
| 75-09-2 | -----Methylene Chloride | 3 | U |
| 75-35-4 | -----1,1-Dichloroethene | 2 | U |
| 75-34-3 | -----1,1-Dichloroethane | 1 | U |
| 67-66-3 | -----Chloroform | 1 | U |
| 107-06-2 | -----1,2-Dichloroethane | 1 | U |
| 71-55-6 | -----1,1,1-Trichloroethane | 1 | U |
| 56-23-5 | -----Carbon Tetrachloride | 2 | U |
| 75-27-4 | -----Bromodichloromethane | 1 | U |
| 78-87-5 | -----1,2-Dichloropropane | 1 | U |
| 10061-01-5 | -----cis-1,3-Dichloropropene | 1 | U |
| 79-01-6 | -----Trichloroethene | 2 | U |
| 124-48-1 | -----Dibromochloromethane | 1 | U |
| 79-00-5 | -----1,1,2-Trichloroethane | 1 | U |
| 71-43-2 | -----Benzene | 1 | U |
| 10061-02-6 | -----trans-1,3-Trichloropropene | 1 | U |
| 75-25-2 | -----Bromoform | 1 | U |
| 127-18-4 | -----Tetrachloroethene | 3 | U |
| 79-34-5 | -----1,1,2,2-Tetrachloroethane | 2 | U |
| 108-88-3 | -----Toluene | 2 | U |
| 108-90-7 | -----Chlorobenzene | 2 | U |
| 100-41-4 | -----Ethylbenzene | 2 | U |
| 1330-20-7 | -----Xylene (total) | 6 | U |
| 75-69-4 | -----Trichloromonofluoromethane | 2 | U |
| 107-02-8 | -----Acrolein | 20 | U |
| 107-13-1 | -----Acrylonitrile | 2 | U |
| 75-65-0 | -----Tertiary Butyl Alcohol | 1 | U |
| 1634-34-4 | -----Methyl Tertiary Butyl Ether | 1 | U |
| 541-73-1 | -----1,3-Dichlorobenzene | 2 | U |
| 106-46-7 | -----1,4-Dichlorobenzene | 2 | U |
| 95-50-1 | -----1,2-Dichlorobenzene | 2 | U |

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

| |
|-------|
| 290-1 |
|-------|

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22509

SAS No.:

SDG No.: ARMY1

Matrix: (soil/water) WATER

Lab Sample ID: 2250912

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: N0211.D

Level: (low/med) LOW

Date Received: 11/09/94

% Moisture: not dec. _____

Date Analyzed: 11/14/94

Column: (pack/cap) CAP

Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---------|----------|--|---|
|---------|----------|--|---|

| | | | |
|---------------|--------------------------------|---|---|
| 110-75-8----- | 2-Chloroethylvinyl Ether_____ | 4 | U |
| 156-60-5----- | Trans, 1,2-Dichloroethene_____ | 1 | U |

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

290-1

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22509

SAS No.:

SDG No.: ARMY1

Matrix: (soil/water) WATER

Lab Sample ID: 2250912

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: N0211.D

Level: (low/med) LOW

Date Received: 11/09/94

% Moisture: not dec. _____

Date Analyzed: 11/14/94

Column: (pack/cap) CAP

Dilution Factor: 1.0

Number TICs found: 3

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

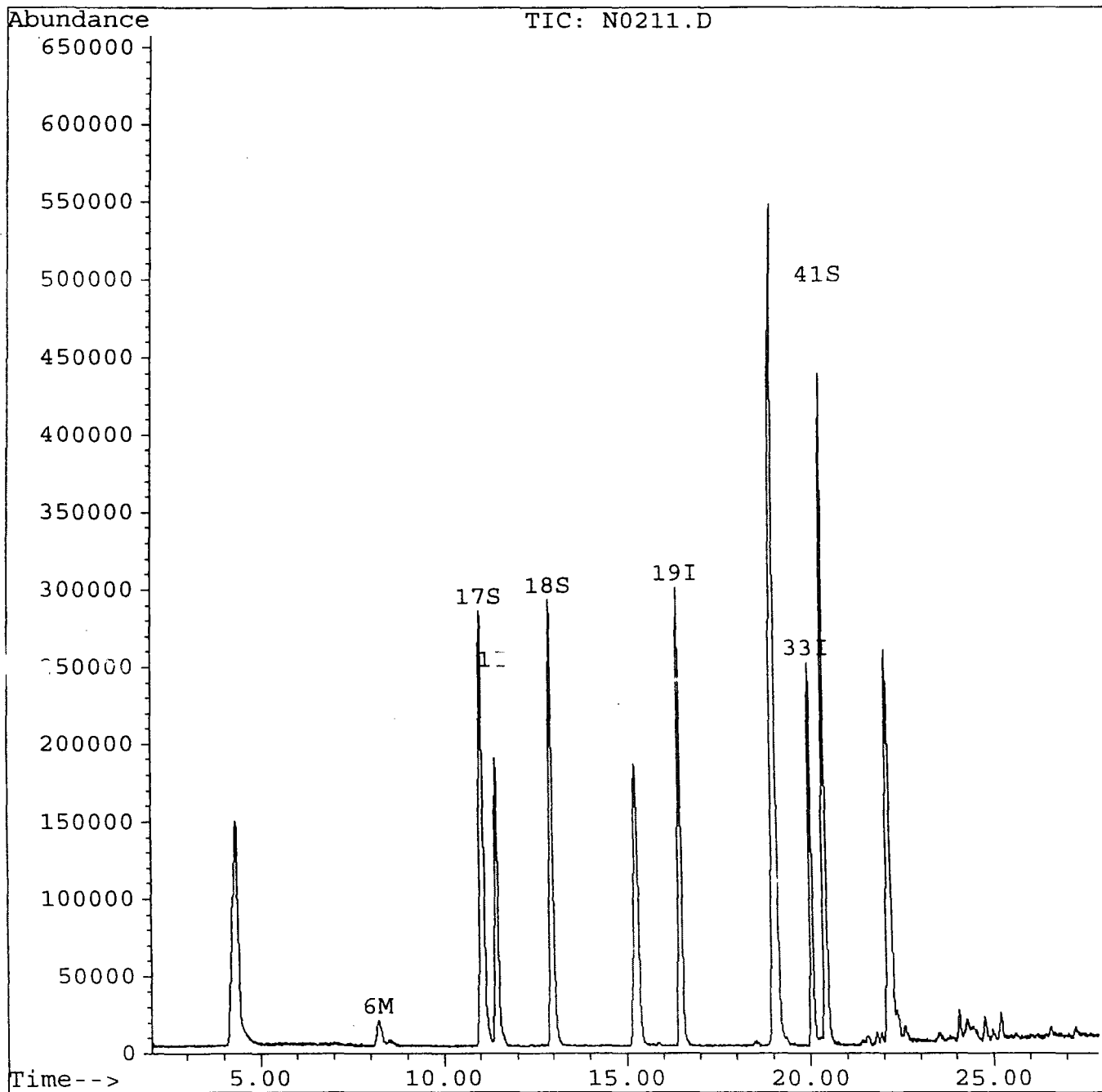
| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|------------|------------------|--------|------------|---|
| 1. | UNKNOWN SILOXANE | 15.269 | 29 | J |
| 2. | UNKNOWN SILOXANE | 19.069 | 110 | J |
| 3. | UNKNOWN SILOXANE | 22.176 | 52 | J |
| 4. | | | | |
| 5. | | | | |
| 6. | | | | |
| 7. | | | | |
| 8. | | | | |
| 9. | | | | |
| 10. | | | | |
| 11. | | | | |
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| 27. | | | | |
| 28. | | | | |
| 29. | | | | |
| 30. | | | | |

Quantitation Report

Data File : C:\HPCHEM\1\DATA\NOV1494\N0211.D
Acq Time : 14 Nov 94 18:11 pm
Sample : 2250912,290-1,
Misc : 1,1,,,5,5,P624,R11-9-94
Quant Time: Dec 8 12:34 1994

Operator: LDS
Inst : HPN
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\P624.M
Title : VOA Standards for 5 point calibration
Last Update : Tue Dec 06 02:26:13 1994
Response via : Multiple Level Calibration



000032

Quantitation Report

Data File : C:\HPCHEM\1\DATA\NOV1494\N0211.D
 Acq Time : 14 Nov 94 18:11 pm
 Sample : 2250912,290-1,
 Misc : 1,1,,,5,5,P624,R11-9-94
 Quant Time: Dec 8 12:34 1994

Operator: LDS
 Inst : HPN
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\P624.M
 Title : VOA Standards for 5 point calibration
 Last Update : Tue Dec 06 02:26:13 1994
 Response via : Initial Calibration

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev (Min) |
|-------------------------------|-------|------|----------|-------|--------|-----------|
| 1) CI01 Bromochloromethane | 11.45 | 128 | 169672 | 30.00 | ug/l | -0.03 |
| 19) 2-BROMO-1-CHLOROPROPANE | 16.49 | 77 | 635282 | 30.00 | ug/l | -0.01 |
| 33) 1,4-DICHLOROBUTANE | 20.06 | 55 | 482239 | 30.00 | ug/l | -0.01 |
| System Monitoring Compounds | | | | | | %Recovery |
| 17) PENTAFLUOROBENZENE | 11.05 | 168 | 789948 | 22.33 | ug/l | 74.45% |
| 18) FLUOROBENZENE | 12.97 | 96 | 943794 | 22.80 | ug/l | 76.01% |
| 41) CS10 4-Bromofluorobenzene | 20.43 | 95 | 532873 | 21.56 | ug/l | 71.86% |
| Target Compounds | | | | | | Qvalue |
| 6) C030 Methylene Chloride | 8.21 | 84 | 20639 | 1.30 | ug/l # | 83 |

000033

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

2562-TB

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22509

SAS No.:

SDG No.: ARMY1

Matrix: (soil/water) WATER

Lab Sample ID: 2250916

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: N0215.D

Level: (low/med) LOW

Date Received: 11/09/94

% Moisture: not dec. _____

Date Analyzed: 11/14/94

Column: (pack/cap) CAP

Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|------------|----------------------------------|--|---|
| 74-87-3 | -----Chloromethane | 2 | U |
| 74-83-9 | -----Bromomethane | 1 | U |
| 75-01-4 | -----Vinyl Chloride | 1 | U |
| 75-00-3 | -----Chloroethane | 1 | U |
| 75-09-2 | -----Methylene Chloride | 3 | U |
| 75-35-4 | -----1,1-Dichloroethene | 2 | U |
| 75-34-3 | -----1,1-Dichloroethane | 1 | U |
| 67-66-3 | -----Chloroform | 1 | U |
| 107-06-2 | -----1,2-Dichloroethane | 1 | U |
| 71-55-6 | -----1,1,1-Trichloroethane | 1 | U |
| 56-23-5 | -----Carbon Tetrachloride | 2 | U |
| 75-27-4 | -----Bromodichloromethane | 1 | U |
| 78-87-5 | -----1,2-Dichloropropane | 1 | U |
| 10061-01-5 | -----cis-1,3-Dichloropropene | 1 | U |
| 79-01-6 | -----Trichloroethene | 2 | U |
| 124-48-1 | -----Dibromochloromethane | 1 | U |
| 79-00-5 | -----1,1,2-Trichloroethane | 1 | U |
| 71-43-2 | -----Benzene | 1 | U |
| 10061-02-6 | -----trans-1,2-Dichloropropene | 1 | U |
| 75-25-2 | -----Bromoform | 1 | U |
| 127-18-4 | -----Tetrachloroethene | 3 | U |
| 79-34-5 | -----1,1,2,2-Tetrachloroethane | 2 | U |
| 108-88-3 | -----Toluene | 2 | U |
| 108-90-7 | -----Chlorobenzene | 2 | U |
| 100-41-4 | -----Ethylbenzene | 2 | U |
| 1330-20-7 | -----Xylene (total) | 6 | U |
| 75-69-4 | -----Trichloromonofluoromethane | 2 | U |
| 107-02-8 | -----Acrolein | 20 | U |
| 107-13-1 | -----Acrylonitrile | 2 | U |
| 75-65-0 | -----Tertiary Butyl Alcohol | 1 | U |
| 1634-34-4 | -----Methyl Tertiary Butyl Ether | 1 | U |
| 541-73-1 | -----1,3-Dichlorobenzene | 2 | U |
| 106-46-7 | -----1,4-Dichlorobenzene | 2 | U |
| 95-50-1 | -----1,2-Dichlorobenzene | 2 | U |

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

2562-TB

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22509

SAS No.:

SDG No.: ARMY1

Matrix: (soil/water) WATER

Lab Sample ID: 2250916

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: N0215.D

Level: (low/med) LOW

Date Received: 11/09/94

% Moisture: not dec. _____

Date Analyzed: 11/14/94

Column: (pack/cap) CAP

Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---------|----------|--|---|
|---------|----------|--|---|

| | | | |
|---------------|---------------------------|---|---|
| 110-75-8----- | 2-Chloroethylvinyl Ether | 4 | U |
| 156-60-5----- | Trans, 1,2-Dichloroethene | 1 | U |

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

2562-TB

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22509

SAS No.:

SDG No.: ARMY1

Matrix: (soil/water) WATER

Lab Sample ID: 2250916

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: N0215.D

Level: (low/med) LOW

Date Received: 11/09/94

% Moisture: not dec. _____

Date Analyzed: 11/14/94

Column: (pack/cap) CAP

Dilution Factor: 1.0

Number TICs found: 0

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

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|------------|---------------|----|------------|---|
| 1. | | | | |
| 2. | | | | |
| 3. | | | | |
| 4. | | | | |
| 5. | | | | |
| 6. | | | | |
| 7. | | | | |
| 8. | | | | |
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| 20. | | | | |
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| 23. | | | | |
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| 28. | | | | |
| 29. | | | | |
| 30. | | | | |

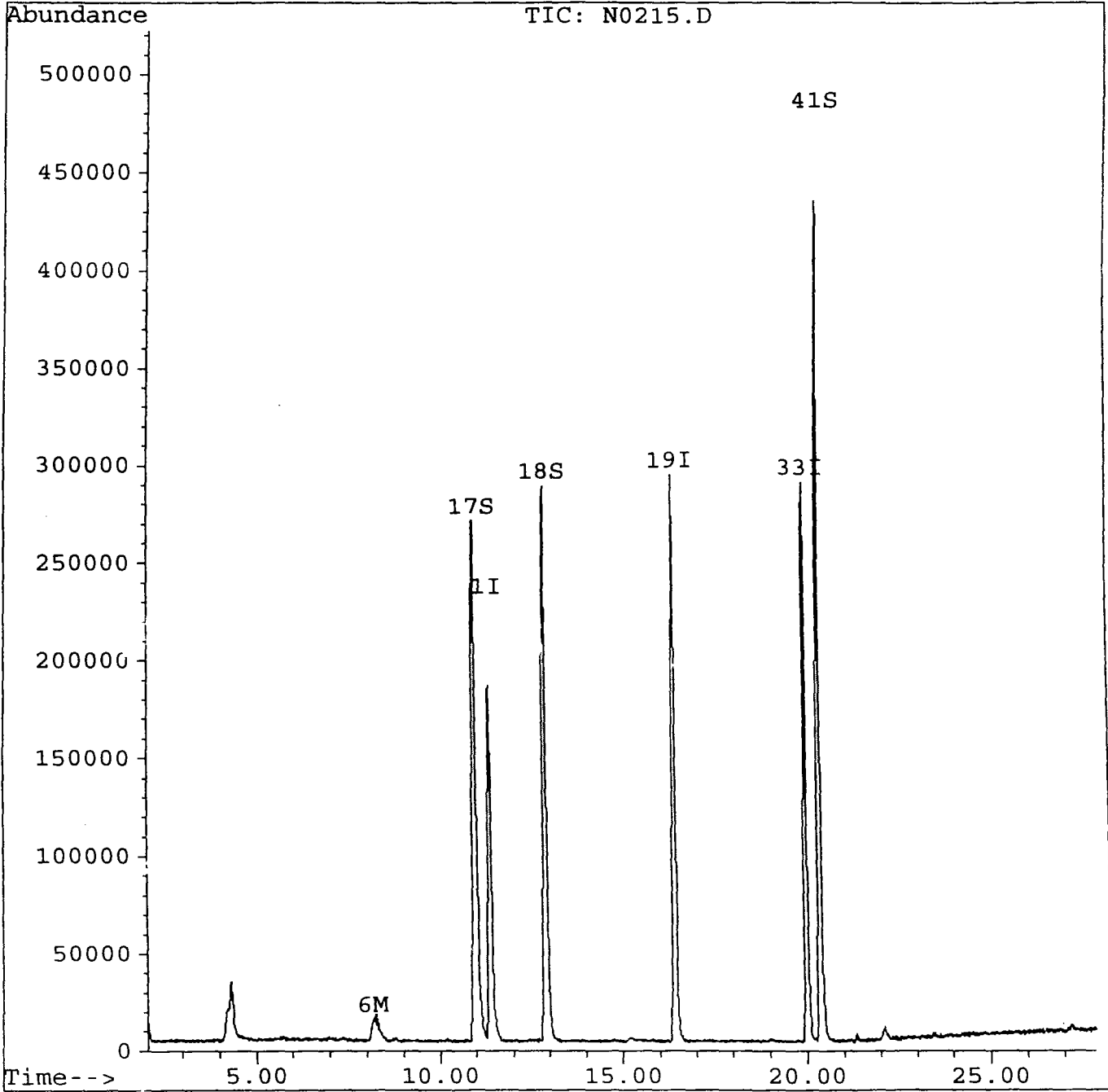
000036

Quantitation Report

Data File : C:\HPCHEM\1\DATA\NOV1494\N0215.D
Acq Time : 14 Nov 94 20:26 pm
Sample : 2250916,2562-TB,
Misc : 1,1,,,5,5,P624,R11-9-94
Quant Time: Dec 8 12:40 1994

Operator: LDS
Inst : HPN
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\P624.M
Title : VOA Standards for 5 point calibration
Last Update : Tue Dec 06 02:26:13 1994
Response via : Multiple Level Calibration



000037

Quantitation Report

Data File : C:\HPCHEM\1\DATA\NOV1494\N0215.D
 Acq Time : 14 Nov 94 20:26 pm
 Sample : 2250916,2562-TB,
 Misc : 1,1,,,5,5,P624,R11-9-94
 Quant Time: Dec 8 12:40 1994

Operator: LDS
 Inst : HPN
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\P624.M
 Title : VOA Standards for 5 point calibration
 Last Update : Tue Dec 06 02:26:13 1994
 Response via : Initial Calibration

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev (Min) |
|-------------------------------|-------|------|----------|-------|-------|-----------|
| 1) CI01 Bromochloromethane | 11.36 | 128 | 165852 | 30.00 | ug/l | -0.12 |
| 19) 2-BROMO-1-CHLOROPROPANE | 16.42 | 77 | 623345 | 30.00 | ug/l | -0.09 |
| 33) 1,4-DICHLOROBUTANE | 19.99 | 55 | 550392 | 30.00 | ug/l | -0.08 |
| System Monitoring Compounds | | | | | | %Recovery |
| 17) PENTAFLUOROBENZENE | 10.97 | 168 | 767318 | 22.19 | ug/l | 73.98% |
| 18) FLUOROBENZENE | 12.90 | 96 | 921993 | 22.79 | ug/l | 75.97% |
| 41) CS10 4-Bromofluorobenzene | 20.36 | 95 | 514258 | 18.23 | ug/l | 60.76% |
| Target Compounds | | | | | | Qvalue |
| 6) C030 Methylene Chloride | 8.17 | 84 | 21107 | 1.36 | ug/l | 87 |

000038

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKN04

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22509

SAS No.:

SDG No.: ARMY1

Matrix: (soil/water) WATER

Lab Sample ID: VBLKN04

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: N0199.D

Level: (low/med) LOW

Date Received: 00/00/00

% Moisture: not dec. _____

Date Analyzed: 11/14/94

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L Q

| | | | |
|------------|----------------------------------|----|---|
| 74-87-3 | -----Chloromethane | 2 | U |
| 74-83-9 | -----Bromomethane | 1 | U |
| 75-01-4 | -----Vinyl Chloride | 1 | U |
| 75-00-3 | -----Chloroethane | 1 | U |
| 75-09-2 | -----Methylene Chloride | 3 | U |
| 75-35-4 | -----1,1-Dichloroethene | 2 | U |
| 75-34-3 | -----1,1-Dichloroethane | 1 | U |
| 67-66-3 | -----Chloroform | 1 | U |
| 107-06-2 | -----1,2-Dichloroethane | 1 | U |
| 71-55-6 | -----1,1,1-Trichloroethane | 1 | U |
| 56-23-5 | -----Carbon Tetrachloride | 2 | U |
| 75-27-4 | -----Bromodichloromethane | 1 | U |
| 78-87-5 | -----1,2-Dichloropropane | 1 | U |
| 10061-01-5 | -----cis-1,3-Dichloropropene | 1 | U |
| 79-01-6 | -----Trichloroethene | 2 | U |
| 124-48-1 | -----Dibromochloromethane | 1 | U |
| 79-00-5 | -----1,1,2-Trichloroethane | 1 | U |
| 71-43-2 | -----Benzene | 1 | U |
| 10061-02-6 | -----trans-1,3-Dichloropropene | 1 | U |
| 75-25-2 | -----Bromoform | 1 | U |
| 127-18-4 | -----Tetrachloroethene | 3 | U |
| 79-34-5 | -----1,1,2,2-Tetrachloroethane | 2 | U |
| 108-88-3 | -----Toluene | 2 | U |
| 108-90-7 | -----Chlorobenzene | 2 | U |
| 100-41-4 | -----Ethylbenzene | 2 | U |
| 1330-20-7 | -----Xylene (total) | 6 | U |
| 75-69-4 | -----Trichloromonofluoromethane | 2 | U |
| 107-02-8 | -----Acrolein | 20 | U |
| 107-13-1 | -----Acrylonitrile | 2 | U |
| 75-65-0 | -----Tertiary Butyl Alcohol | 2 | |
| 1634-34-4 | -----Methyl Tertiary Butyl Ether | 1 | U |
| 541-73-1 | -----1,3-Dichlorobenzene | 2 | U |
| 106-46-7 | -----1,4-Dichlorobenzene | 2 | U |
| 95-50-1 | -----1,2-Dichlorobenzene | 2 | U |

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBKKN04

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22509

SAS No.:

SDG No.: ARMY1

Matrix: (soil/water) WATER

Lab Sample ID: VBKKN04

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: N0199.D

Level: (low/med) LOW

Date Received: 00/00/00

% Moisture: not dec. _____

Date Analyzed: 11/14/94

Column: (pack/cap) CAP

Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---------|----------|--|---|
|---------|----------|--|---|

| | | | |
|---------------|---------------------------|---|---|
| 110-75-8----- | 2-Chloroethylvinyl Ether | 4 | U |
| 156-60-5----- | Trans, 1,2-Dichloroethene | 1 | U |

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBKKN04

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22509

SAS No.:

SDG No.: ARMY1

Matrix: (soil/water) WATER

Lab Sample ID: VBKKN04

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: N0199.D

Level: (low/med) LOW

Date Received: 00/00/00

% Moisture: not dec. _____

Date Analyzed: 11/14/94

Column: (pack/cap) CAP

Dilution Factor: 1.0

Number TICs found: 0

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

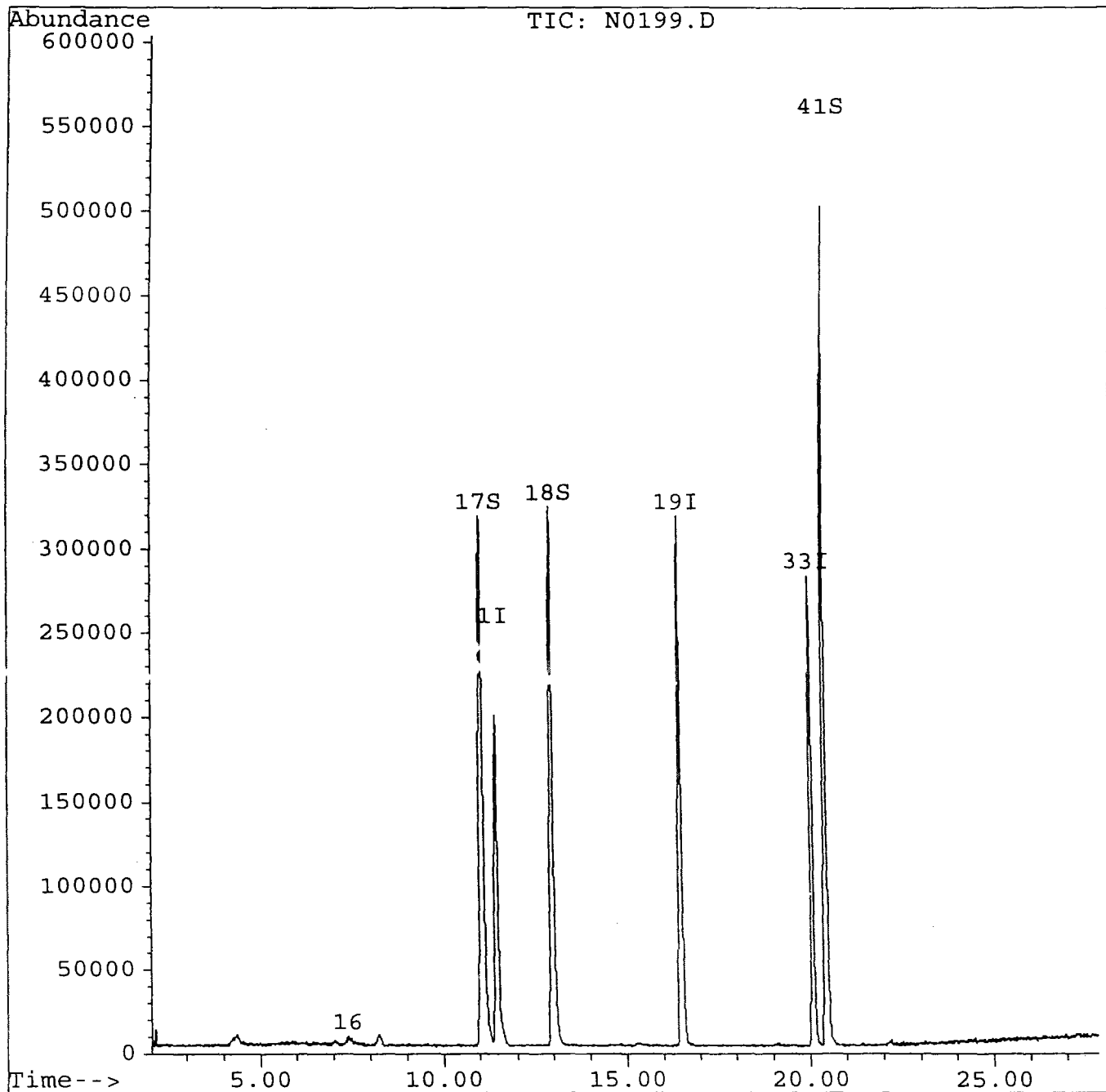
| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|------------|---------------|----|------------|---|
| 1. | | | | |
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Quantitation Report

Data File : C:\HPCHEM\1\DATA\NOV1494\N0199.D
Acq Time : 14 Nov 94 11:31 am
Sample : VBLKN04,VBLKN04,
Misc : 1,,,,5,5,P624
Quant Time: Dec 8 12:08 1994

Operator: LDS
Inst : HPN
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\P624.M
Title : VOA Standards for 5 point calibration
Last Update : Tue Dec 06 02:26:13 1994
Response via : Multiple Level Calibration



000042

Quantitation Report

Data File : C:\HPCHEM\1\DATA\NOV1494\N0199.D
 Acq Time : 14 Nov 94 11:31 am
 Sample : VBLKN04,VBLKN04,
 Misc : 1,,,,5,5,P624
 Quant Time: Dec 8 12:08 1994

Operator: LDS
 Inst : HPN
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\P624.M
 Title : VOA Standards for 5 point calibration
 Last Update : Tue Dec 06 02:26:13 1994
 Response via : Initial Calibration

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|--------------------------------|-------|------|----------|-----------------|-------|-----------|
| 1) CI01 Bromochloromethane | 11.44 | 128 | 174658 | 30.00 | ug/l | -0.04 |
| 19) 2-BROMO-1-CHLOROPROPANE | 16.49 | 77 | 681811 | 30.00 | ug/l | -0.01 |
| 33) 1,4-DICHLOROBUTANE | 20.06 | 55 | 538079 | 30.00 | ug/l | -0.02 |
| System Monitoring Compounds | | | | | | %Recovery |
| 17) PENTAFLUOROBENZENE | 11.04 | 168 | 890793 | 24.47 | ug/l | 81.55% |
| 18) FLUCROBENZENE | 12.97 | 96 | 1052247 | 24.70 | ug/l | 82.33% |
| 41) CS10 4-Bromofluorobenzene | 20.44 | 95 | 620849 | 22.51 | ug/l | 75.03% |
| Target Compounds | | | | | | Qvalue |
| 16) C177 TERTIARY BUTYL ALCOHO | 7.38 | 59 | 29563 | 6.85 | ug/l | 100 |

*2 ppb
 us
 12-14-94*

000043

2A
WATER VOLATILE SURROGATE COMPOUND RECOVERY

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22509

SAS No.:

SDG No.: ARMY1

| | EPA SAMPLE NO. | SUR1 (FB) # | SUR2 (BFB) # | SUR3 (PFB) # | OTHER | TOT OUT |
|----|-------------------|----------------|-----------------|-----------------|-------|------------|
| | ===== | ===== | ===== | ===== | ===== | ===== |
| 01 | QC CHECK | 86 | 82 | 87 | | 0 |
| 02 | VBLKN04 | 93 | 85 | 92 | | 0 |
| 03 | 108-1 | 88 | 84 | 86 | | 0 |
| 04 | 108-2 | 88 | 79 | 87 | | 0 |
| 05 | 108-3 | 87 | 79 | 86 | | 0 |
| 06 | 108-FB | 86 | 79 | 85 | | 0 |
| 07 | 108-DUP | 88 | 82 | 87 | | 0 |
| 08 | 108-TB | 87 | 80 | 86 | | 0 |
| 09 | 108-3MS | 87 | 76 | 85 | | 0 |
| 10 | 108-3MSD | 86 | 80 | 85 | | 0 |
| 11 | 750-1 | 84 | 70 | 82 | | 0 |
| 12 | 750-3 | 86 | 80 | 85 | | 0 |
| 13 | 750-4 | 90 | 86 | 87 | | 0 |
| 14 | 290-1 | 86 | 82 | 84 | | 0 |
| 15 | 2562-3 | 86 | 75 | 86 | | 0 |
| 16 | 2562-1 | 85 | 70 | 84 | | 0 |
| 17 | 2562-2 | 85 | 69 | 84 | | 0 |
| 18 | 2562-TB | 86 | 69 | 84 | | 0 |
| 19 | 296-6 | 84 | 68 | 83 | | 0 |
| 20 | 296-2 | 85 | 69 | 82 | | 0 |
| 21 | 296-3 | 87 | 78 | 86 | | 0 |
| 22 | 296-8 | 93 | 71 | 87 | | 0 |
| 23 | 296-1 | 84 | 74 | 81 | | 0 |
| 24 | 296-7 | 87 | 80 | 84 | | 0 |
| 25 | | | | | | |

QC LIMITS

SUR1 (FB) = Fluorobenzene (70-140)
 SUR2 (BFB) = Bromofluorobenzene (60-150)
 SUR3 (PFB) = Pentafluorobenzene (70-140)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogates diluted out

nytest

RECOVERY REPORT

Client Name: Client SDG: ARMY1
 Sample Matrix: LIQUID Fraction: VOA
 Lab Smp Id: 2250907 Client Smp ID: 108-3MS
 Level: LOW Operator: LDS
 Data Type: MS DATA SampleType: MS
 SpikeList File: QCMS.spk Quant Type: ISTD
 Method File: /chem/HPN.i/22509.b/624.m
 Misc Info:

| SPIKE COMPOUND | CONC ADDED ug/l | CONC RECOVERED ug/l | % RECOVERED | LIMITS |
|-----------------------|-----------------------|---------------------------|----------------|--------|
| 1 Chloromethane | 10 | 8 | 84.79 | 0-273 |
| 3 Bromomethane | 10 | 12 | 121.47 | 0-242 |
| 4 Vinyl Chloride | 10 | 9 | 92.95 | 0-251 |
| 5 Chloroethane | 10 | 12 | 119.98 | 14-230 |
| 6 Methylene Chloride | 10 | 12 | 121.12 | 0-221 |
| 9 1,1-Dichloroethene | 10 | 12 | 120.19 | 0-234 |
| 11 1,1-Dichloroethane | 10 | 13 | 127.58 | 59-155 |
| 13 Trans, 1,2-Dichlor | 10 | 12 | 123.47 | 54-156 |
| 14 Chloroform | 10 | 13 | 131.21 | 51-138 |
| 15 1,2-Dichloroethane | 10 | 13 | 133.47 | 49-155 |
| 18 Trichloromonofluor | 10 | 11 | 106.23 | 17-181 |
| 23 1,1,1-Trichloroeth | 10 | 12 | 117.25 | 52-162 |
| 24 Carbon Tetrachlori | 10 | 11 | 113.33 | 70-140 |
| 26 Bromodichlorometha | 10 | 12 | 121.27 | 35-155 |
| 27 1,2-Dichloropropan | 10 | 12 | 121.82 | 0-210 |
| 28 cis-1,3-Dichloropr | 10 | 13 | 131.08 | 0-227 |
| 29 Trichloroethene | 10 | 11 | 112.34 | 71-157 |
| 30 Dibromochlorometha | 10 | 12 | 119.42 | 53-149 |
| 31 1,1,2-Trichloroeth | 10 | 13 | 130.49 | 52-150 |
| 33 Benzene | 10 | 12 | 123.04 | 37-151 |
| 34 trans-1,3-Dichloro | 10 | 12 | 125.82 | 17-183 |
| 36 Bromoform | 10 | 13 | 127.32 | 45-169 |
| 37 2-Chloroethylvinyl | 10 | 12 | 121.83 | 0-305 |
| 40 Tetrachloroethene | 10 | 10 | 102.44 | 64-148 |
| 42 1,1,2,2-Tetrachlor | 10 | 16 | 156.75 | 46-157 |
| 44 Toluene | 10 | 13 | 128.56 | 47-150 |
| 45 Chlorobenzene | 10 | 11 | 107.79 | 37-160 |
| 46 Ethylbenzene | 10 | 9 | 88.28 | 37-162 |
| 52 1,3-Dichlorobenzen | 10 | 11 | 106.99 | 59-156 |
| 53 1,4-Dichlorobenzen | 10 | 10 | 96.14 | 18-190 |
| 54 1,2-Dichlorobenzen | 10 | 13 | 132.56 | 18-190 |

000045

nytest

RECOVERY REPORT

Client Name: Client SDG: ARMY1
Sample Matrix: LIQUID Fraction: VOA
Lab Smp Id: 2250907 Client Smp ID: 108-3MS
Level: LOW Operator: LDS
Data Type: MS DATA SampleType: MS
SpikeList File: QCMS.spk Quant Type: ISTD
Method File: /chem/HPN.i/22509.b/624.m
Misc Info:

| SURROGATE COMPOUND | CONC ADDED ug/l | CONC RECOVERED ug/l | % RECOVERED | LIMITS |
|--------------------------|-----------------------|---------------------------|----------------|--------|
| \$ 32 Pentafluorobenzene | 30 | 25 | 84.67 | 70-140 |
| \$ 43 Fluorobenzene | 30 | 26 | 87.14 | 70-140 |
| \$ 47 Bromofluorobenzene | 30 | 23 | 75.82 | 60-150 |

000046

nytest

RECOVERY REPORT

Client Name: Client SDG: ARMY1
 Sample Matrix: LIQUID Fraction: VOA
 Lab Smp Id: 2250908 Client Smp ID: 108-3MSD
 Level: LOW Operator: LDS
 Data Type: MS DATA SampleType: MSD
 SpikeList File: QCMS.spk Quant Type: ISTD
 Method File: /chem/HPN.i/22509.b/624.m
 Misc Info:

| SPIKE COMPOUND | CONC ADDED ug/l | CONC RECOVERED ug/l | % RECOVERED | LIMITS |
|-----------------------|-----------------------|---------------------------|----------------|--------|
| 1 Chloromethane | 10 | 10 | 95.98 | 0-2 |
| 3 Bromomethane | 10 | 12 | 122.21 | 0-242 |
| 4 Vinyl Chloride | 10 | 10 | 96.32 | 0-251 |
| 5 Chloroethane | 10 | 12 | 120.96 | 14-230 |
| 6 Methylene Chloride | 10 | 13 | 128.86 | 0-221 |
| 9 1,1-Dichloroethene | 10 | 12 | 122.93 | 0-234 |
| 11 1,1-Dichloroethane | 10 | 13 | 126.36 | 59-155 |
| 13 Trans, 1,2-Dichlor | 10 | 12 | 124.98 | 54-156 |
| 14 Chloroform | 10 | 13 | 133.38 | 51-138 |
| 15 1,2-Dichloroethane | 10 | 13 | 132.51 | 49-155 |
| 18 Trichloromonofluor | 10 | 11 | 113.32 | 17-181 |
| 23 1,1,1-Trichloroeth | 10 | 13 | 126.26 | 52-162 |
| 24 Carbon Tetrachlori | 10 | 12 | 118.85 | 70-140 |
| 26 Bromodichlorometha | 10 | 12 | 125.76 | 35-155 |
| 27 1,2-Dichloropropan | 10 | 13 | 129.27 | 0-210 |
| 28 cis-1,3-Dichloropr | 10 | 13 | 127.86 | 0-227 |
| 29 Trichloroethene | 10 | 12 | 117.50 | 71-157 |
| 30 Dibromochlorometha | 10 | 12 | 123.75 | 53-149 |
| 31 1,1,2-Trichloroeth | 10 | 14 | 135.49 | 52-150 |
| 33 Benzene | 10 | 13 | 127.54 | 37-251 |
| 34 trans-1,3-Dichloro | 10 | 13 | 126.89 | 17-183 |
| 36 Bromoform | 10 | 12 | 125.03 | 45-169 |
| 37 2-Chloroethylvinyl | 10 | 13 | 129.28 | 0-305 |
| 40 Tetrachloroethene | 10 | 11 | 110.89 | 64-148 |
| 42 1,1,2,2-Tetrachlor | 10 | 16 | 161.70* | 46-157 |
| 44 Toluene | 10 | 13 | 127.12 | 47-150 |
| 45 Chlorobenzene | 10 | 12 | 118.34 | 37-160 |
| 46 Ethylbenzene | 10 | 11 | 106.44 | 37-162 |
| 52 1,3-Dichlorobenzen | 10 | 12 | 119.84 | 59-156 |
| 53 1,4-Dichlorobenzen | 10 | 10 | 103.60 | 18-190 |
| 54 1,2-Dichlorobenzen | 10 | 14 | 142.02 | 18-190 |

000047

nytest

RECOVERY REPORT

Client Name: Client SDG: ARMY1
Sample Matrix: LIQUID Fraction: VOA
Lab Smp Id: 2250908 Client Smp ID: 108-3MSD
Level: LOW Operator: LDS
Data Type: MS DATA SampleType: MSD
SpikeList File: QCMS.spk Quant Type: ISTD
Method File: /chem/HPN.i/22509.b/624.m
Misc Info:

| SURROGATE COMPOUND | CONC ADDED ug/l | CONC RECOVERED ug/l | % RECOVERED | LIMITS |
|--------------------------|-----------------------|---------------------------|----------------|--------|
| \$ 32 Pentafluorobenzene | 30 | 25 | 84.88 | 70-140 |
| \$ 43 Fluorobenzene | 30 | 26 | 85.98 | 70-140 |
| \$ 47 Bromofluorobenzene | 30 | 24 | 79.61 | 60-150 |

4A
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLKN04

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22509

SAS No.:

SDG No.: ARMY1

Lab File ID: N0199.D

Lab Sample ID: VBLKN04

Date Analyzed: 11/14/94

Time Analyzed: 1131

Matrix: (soil/water) WATER

Level: (low/med) LOW

Instrument ID: HPN

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

| | EPA SAMPLE NO. | LAB SAMPLE ID | LAB FILE ID | TIME ANALYZED |
|----|-------------------|------------------|----------------|------------------|
| | ===== | ===== | ===== | ===== |
| 01 | QCCKECK | QCCKECK | N0198.D | 1058 |
| 02 | 108-1 | 2250901 | N0200.D | 1205 |
| 03 | 108-2 | 2250902 | N0201.D | 1238 |
| 04 | 108-3 | 2250903 | N0202.D | 1311 |
| 05 | 108-FB | 2250904 | N0203.D | 1344 |
| 06 | 108-DUP | 2250905 | N0204.D | 1418 |
| 07 | 108-TB | 2250906 | N0205.D | 1451 |
| 08 | 108-3MS | 2250907 | N0206.D | 1524 |
| 09 | 108-3MSD | 2250908 | N0207.D | 1558 |
| 10 | 750-1 | 2250909 | N0208.D | 1631 |
| 11 | 750-3 | 2250910 | N0209.D | 1704 |
| 12 | 750-4 | 2250911 | N0210.D | 1738 |
| 13 | 290-1 | 2250912 | N0211.D | 1811 |
| 14 | 2562-3 | 2250913 | N0212.D | 1845 |
| 15 | 2562-1 | 2250914 | N0213.D | 1919 |
| 16 | 2562-2 | 2250915 | N0214.D | 1953 |
| 17 | 2562-TB | 2250916 | N0215.D | 2026 |
| 18 | 296-6 | 2250917 | N0216.D | 2100 |
| 19 | 296-2 | 2250918 | N0217.D | 2135 |
| 20 | 296-3 | 2250920 | N0219.L | 2234 |
| 21 | 296-8 | 2250921 | N0220.D | 2307 |
| 22 | 296-1 | 2250922 | N0221.D | 2340 |
| 23 | 296-7 | 2250919 | N0222.D | 0013 |
| 24 | | | | |
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COMMENTS:

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22509

SAS No.:

SDG No.: ARMY1

Lab File ID: N0163.D

BFB Injection Date: 11/08/94

Instrument ID: HPN

BFB Injection Time: 1152

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|-----|--|----------------------|
| 50 | 15.0 - 40.0% of mass 95 | 15.4 |
| 75 | 30.0 - 60.0% of mass 95 | 38.4 |
| 95 | Base peak, 100% relative abundance | 100.0 |
| 96 | 5.0 - 9.0% of mass 95 | 7.3 |
| 173 | Less than 2.0% of mass 174 | 0.0 (0.0)1 |
| 174 | Greater than 50.0% of mass 95 | 67.3 |
| 175 | 5.0 - 9.0% of mass 174 | 5.2 (7.7)1 |
| 176 | Greater than 95.0%, but less than 101.0% of mass 174 | 65.8 (97.8)1 |
| 177 | 5.0 - 9.0% of mass 176 | 4.5 (6.8)2 |

1-Value is % mass 174

2-Value is % mass 176

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

| | EPA SAMPLE NO. | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|----|-------------------|------------------|----------------|------------------|------------------|
| 01 | VSTD005 | VSTD005 | N0165.D | 11/08/94 | 1237 |
| 02 | VSTD010 | VSTD010 | N0166.D | 11/08/94 | 1310 |
| 03 | VSTD030 | VSTD030 | N0167.D | 11/08/94 | 1343 |
| 04 | VSTD050 | VSTD050 | N0168.D | 11/08/94 | 1416 |
| 05 | VSTD200 | VSTD200 | N0169.D | 11/08/94 | 1450 |
| 06 | | | | | |
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5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: NYTEST ENV INC Contract: 9421415
 Lab Code: NYTEST Case No.: 22509 SAS No.: SDG No.: ARMY1
 Lab File ID: N0197.D BFB Injection Date: 11/14/94
 Instrument ID: HPN BFB Injection Time: 1028
 Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|-----|--|----------------------|
| 50 | 15.0 - 40.0% of mass 95 | 15.1 |
| 75 | 30.0 - 60.0% of mass 95 | 40.3 |
| 95 | Base peak, 100% relative abundance | 100.0 |
| 96 | 5.0 - 9.0% of mass 95 | 7.0 |
| 173 | Less than 2.0% of mass 174 | 0.0 (0.0)1 |
| 174 | Greater than 50.0% of mass 95 | 69.8 |
| 175 | 5.0 - 9.0% of mass 174 | 5.6 (8.0)1 |
| 176 | Greater than 95.0%, but less than 101.0% of mass 174 | 69.8 (100.0)1 |
| 177 | 5.0 - 9.0% of mass 176 | 4.0 (5.8)2 |

1-Value is % mass 174

2-Value is % mass 176

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

| | EPA SAMPLE NO. | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|----|----------------|---------------|-------------|---------------|---------------|
| 01 | QCCKECK | QCCKECK | N0198.D | 11/14/94 | 1058 |
| 02 | VBLKN04 | VBLKN04 | N0199.D | 11/14/94 | 1131 |
| 03 | 108-1 | 2250901 | N0200.D | 11/14/94 | 1205 |
| 04 | 108-2 | 2250902 | N0201.D | 11/14/94 | 1238 |
| 05 | 108-3 | 2250903 | N0202.D | 11/14/94 | 1311 |
| 06 | 108-FB | 2250904 | N0203.D | 11/14/94 | 1344 |
| 07 | 108-DUP | 2250905 | N0204.D | 11/14/94 | 1418 |
| 08 | 108-TB | 2250906 | N0205.D | 11/14/94 | 1451 |
| 09 | 108-3MS | 2250907 | N0206.D | 11/14/94 | 1524 |
| 10 | 108-3MSD | 2250908 | N0207.D | 11/14/94 | 1558 |
| 11 | 750-1 | 2250909 | N0208.D | 11/14/94 | 1631 |
| 12 | 750-3 | 2250910 | N0209.D | 11/14/94 | 1704 |
| 13 | 750-4 | 2250911 | N0210.D | 11/14/94 | 1738 |
| 14 | 290-1 | 2250912 | N0211.D | 11/14/94 | 1811 |
| 15 | 2562-3 | 2250913 | N0212.D | 11/14/94 | 1845 |
| 16 | 2562-1 | 2250914 | N0213.D | 11/14/94 | 1919 |
| 17 | 2562-2 | 2250915 | N0214.D | 11/14/94 | 1953 |
| 18 | 2562-TB | 2250916 | N0215.D | 11/14/94 | 2026 |
| 19 | 296-6 | 2250917 | N0216.D | 11/14/94 | 2100 |
| 20 | 296-2 | 2250918 | N0217.D | 11/14/94 | 2135 |
| 21 | 296-3 | 2250920 | N0219.D | 11/14/94 | 2234 |
| 22 | 296-8 | 2250921 | N0220.D | 11/14/94 | 2307 |

5A
 VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
 BROMOFLUOROBENZENE (BFB)

Lab Name: NYTEST ENV INC Contract: 9421415
 Lab Code: NYTEST Case No.: 22509 SAS No.: SDG No.: ARMY1
 Lab File ID: N0197.D BFB Injection Date: 11/14/94
 Instrument ID: HPN BFB Injection Time: 1028
 Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|-----|--|----------------------|
| 50 | 15.0 - 40.0% of mass 95 | 15.1 |
| 75 | 30.0 - 60.0% of mass 95 | 40.3 |
| 95 | Base peak, 100% relative abundance | 100.0 |
| 96 | 5.0 - 9.0% of mass 95 | 7.0 |
| 173 | Less than 2.0% of mass 174 | 0.0 (0.0)1 |
| 174 | Greater than 50.0% of mass 95 | 69.8 |
| 175 | 5.0 - 9.0% of mass 174 | 5.6 (8.0)1 |
| 176 | Greater than 95.0%, but less than 101.0% of mass 174 | 69.8 (100.0)1 |
| 177 | 5.0 - 9.0% of mass 176 | 4.0 (5.8)2 |

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

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

| | EPA SAMPLE NO. | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|----|-------------------|------------------|----------------|------------------|------------------|
| 01 | 296-1 | 2250922 | N0221.D | 11/14/94 | 2340 |
| 02 | 296-7 | 2250919 | N0222.D | 11/15/94 | 0013 |
| 03 | | | | | |
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6A
VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22509

SAS No.:

SDG No.: ARMY1

Instrument ID: HPN

Calibration Date(s): 11/08/94

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

Max %RSD for CCC(*) = 35.0%

| | | |
|----------------|-----------------|-----------------|
| LAB FILE ID: | RRF005 =N0165.D | RRF010 =N0166.D |
| RRF030=N0167.D | RRF050=N0168.D | RRF200=N0169.D |

| COMPOUND | RRF005 | RRF010 | RRF030 | RRF050 | RRF200 | RRF | % RSD |
|-----------------------------|--------|--------|--------|--------|--------|-------|-------|
| Chloromethane | 1.569 | 1.346 | 1.370 | 1.315 | 1.288 | 1.378 | 8.1 |
| Bromomethane | 1.967 | 1.807 | 1.716 | 1.642 | 1.596 | 1.746 | 8.4 |
| Vinyl Chloride | 1.965 | 1.785 | 1.822 | 1.747 | 1.789 | 1.821 | 4.6 |
| Chloroethane | 1.133 | 1.109 | 1.001 | 1.021 | 0.975 | 1.048 | 6.6 |
| Methylene Chloride | 3.913 | 2.873 | 2.154 | 2.030 | 1.854 | 2.565 | 33.0 |
| 1,1-Dichloroethene | 2.105 | 1.877 | 1.918 | 1.889 | 1.855 | 1.929 | 5.2 |
| 1,1-Dichloroethane | 3.845 | 3.464 | 3.518 | 3.485 | 3.589 | 3.580 | 4.3 |
| Chloroform | 4.126 | 3.689 | 3.562 | 3.506 | 3.588 | 3.694 | 6.8 |
| 1,2-Dichloroethane | 2.024 | 1.859 | 1.799 | 1.741 | 1.835 | 1.852 | 5.7 |
| 1,1,1-Trichloroethane | 0.939 | 0.857 | 0.859 | 0.827 | 0.866 | 0.869 | 4.8 |
| Carbon Tetrachloride | 0.814 | 0.736 | 0.760 | 0.751 | 0.778 | 0.768 | 3.9 |
| Bromodichloromethane | 1.081 | 0.977 | 0.971 | 0.953 | 1.010 | 0.998 | 5.1 |
| 1,2-Dichloropropane | 0.722 | 0.658 | 0.658 | 0.647 | 0.686 | 0.674 | 4.5 |
| cis-1,3-Dichloropropene | 0.983 | 0.873 | 0.869 | 0.846 | 0.897 | 0.893 | 5.9 |
| Trichloroethene | 0.712 | 0.643 | 0.653 | 0.652 | 0.669 | 0.666 | 4.1 |
| Dibromochloromethane | 0.883 | 0.816 | 0.812 | 0.803 | 0.843 | 0.831 | 3.9 |
| 1,1,2-Trichloroethane | 0.629 | 0.570 | 0.564 | 0.548 | 0.578 | 0.578 | 5.3 |
| Benzene | 1.788 | 1.593 | 1.612 | 1.576 | 1.647 | 1.643 | 5.2 |
| trans-1,3-Dichloropropene | 0.792 | 0.710 | 0.708 | 0.688 | 0.726 | 0.725 | 5.5 |
| Bromoform | 0.709 | 0.646 | 0.644 | 0.645 | 0.565 | 0.642 | 7.9 |
| Tetrachloroethene | 0.921 | 0.805 | 0.826 | 0.835 | 0.902 | 0.858 | 5.9 |
| 1,1,2,2-Tetrachloroethane | 1.209 | 1.036 | 1.013 | 0.986 | 0.000 | 1.061 | 9.5 |
| Toluene | 2.017 | 1.801 | 1.774 | 1.746 | 1.820 | 1.832 | 5.8 |
| Chlorobenzene | 2.021 | 1.789 | 1.801 | 1.797 | 1.970 | 1.876 | 5.9 |
| Ethylbenzene | 0.976 | 0.823 | 0.799 | 0.835 | 0.905 | 0.868 | 8.3 |
| Xylene (total) | 1.192 | 1.065 | 1.058 | 1.066 | 1.152 | 1.106 | 5.5 |
| Trichloromonofluoromethane | 3.860 | 3.429 | 3.389 | 3.310 | 3.404 | 3.479 | 6.3 |
| Acrolein | 0.139 | 0.100 | 0.096 | 0.087 | 0.072 | 0.099 | 25.4 |
| Acrylonitrile | 0.792 | 0.744 | 0.714 | 0.764 | 0.695 | 0.742 | 5.2 |
| Tertiary Butyl Alcohol | 1.994 | 1.821 | 3.284 | 3.221 | 1.915 | 2.447 | 30.2 |
| Methyl Tertiary Butyl Ether | 4.512 | 4.110 | 3.702 | 3.671 | 3.551 | 3.909 | 10.2 |
| 1,3-Dichlorobenzene | 1.776 | 1.527 | 1.544 | 1.574 | 1.335 | 1.551 | 10.1 |
| 1,4-Dichlorobenzene | 1.808 | 1.663 | 1.553 | 1.722 | 1.257 | 1.600 | 13.3 |
| 1,2-Dichlorobenzene | 1.663 | 1.436 | 1.449 | 1.469 | 0.000 | 1.504 | 7.1 |
| 2-Chloroethylvinyl Ether | 0.722 | 0.658 | 0.658 | 0.647 | 0.686 | 0.674 | 4.5 |
| Trans, 1,2-Dichloroethene | 2.270 | 1.921 | 1.880 | 1.838 | 1.838 | 1.950 | 9.4 |
| Fluorobenzene | 7.222 | 6.388 | 6.218 | 6.099 | 6.397 | 6.465 | 6.8 |

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22509

SAS No.:

SDG No.: ARMY1

Instrument ID: HPN

Calibration Date(s): 11/08/94

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

Max %RSD for CCC(*) = 35.0%

| | | |
|----------------|-----------------|-----------------|
| LAB FILE ID: | RRF005 =N0165.D | RRF010 =N0166.D |
| RRF030=N0167.D | RRF050=N0168.D | RRF200=N0169.D |

| COMPOUND | RRF005 | RRF010 | RRF030 | RRF050 | RRF200 | RRF | % RSD |
|--------------------|--------|--------|--------|--------|--------|-------|----------|
| Bromofluorobenzene | 1.548 | 1.324 | 1.291 | 1.240 | 1.371 | 1.355 | 8.7 |
| Pentafluorobenzene | 6.013 | 5.464 | 5.291 | 5.277 | 5.534 | 5.516 | 5.4 |

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RECOVERY REPORT

Client Name: Client SDG: ARMY1
 Sample Matrix: LIQUID Fraction: VOA
 Lab Smp Id: QCCHECK Client Smp ID: QCCHECK
 Level: LOW Operator: LDS
 Data Type: MS DATA SampleType: MS
 SpikeList File: QCCHK.spk Quant Type: ISTD
 Method File: /chem/HPN.i/22509.b/624.m
 Misc Info:

| SPIKE COMPOUND | CONC ADDED ug/l | CONC RECOVERED ug/l | % RECOVERED | LIMITS |
|-----------------------|-----------------------|---------------------------|----------------|--------|
| 1 Chloromethane | 10 | 9 | 93.65 | 0-200 |
| 3 Bromomethane | 10 | 12 | 120.55 | 14-186 |
| 4 Vinyl Chloride | 10 | 9 | 93.76 | 4-196 |
| 5 Chloroethane | 10 | 12 | 117.23 | 38-162 |
| 6 Methylene Chloride | 10 | 13 | 128.27 | 60-140 |
| 9 1,1-Dichloroethene | 10 | 12 | 115.97 | 50-150 |
| 11 1,1-Dichloroethane | 10 | 12 | 121.88 | 72-128 |
| 13 Trans, 1,2-Dichlor | 10 | 12 | 121.73 | 70-130 |
| 14 Chloroform | 10 | 13 | 129.64 | 68-132 |
| 15 1,2-Dichloroethane | 10 | 13 | 129.33 | 68-132 |
| 18 Trichloromonofluor | 10 | 11 | 108.43 | 48-152 |
| 23 1,1,1-Trichloroeth | 10 | 12 | 123.83 | 75-125 |
| 24 Carbon Tetrachlori | 10 | 12 | 120.99 | 73-127 |
| 26 Bromodichlorometha | 10 | 12 | 123.55 | 66-134 |
| 27 1,2-Dichloropropan | 10 | 12 | 123.82 | 34-166 |
| 28 cis-1,3-Dichloropr | 10 | 13 | 128.31 | 24-176 |
| 29 Trichloroethene | 10 | 12 | 119.42 | 66-134 |
| 30 Dibromochlorometha | 10 | 12 | 124.96 | 68-132 |
| 31 1,1,2-Trichloroeth | 10 | 12 | 124.50 | 71-129 |
| 33 Benzene | 10 | 12 | 123.90 | 64-136 |
| 34 trans-1,3-Dichloro | 10 | 13 | 128.05 | 50-150 |
| 36 Bromoform | 10 | 13 | 130.91* | 71-129 |
| 37 2-Chloroethylvinyl | 10 | 12 | 123.83 | 0-224 |
| 40 Tetrachloroethene | 10 | 11 | 114.93 | 74-126 |
| 42 1,1,2,2-Tetrachlor | 10 | 16 | 159.06* | 60-140 |
| 44 Toluene | 10 | 13 | 126.54* | 74-126 |
| 45 Chlorobenzene | 10 | 12 | 118.24 | 66-134 |
| 46 Ethylbenzene | 10 | 12 | 117.79 | 59-141 |
| 52 1,3-Dichlorobenzen | 10 | 12 | 124.53 | 73-127 |
| 53 1,4-Dichlorobenzen | 10 | 11 | 108.55 | 63-137 |
| 54 1,2-Dichlorobenzen | 10 | 15 | 148.69* | 63-127 |

nytest

RECOVERY REPORT

Client Name: Client SDG: ARMY1
Sample Matrix: LIQUID Fraction: VOA
Lab Smp Id: QCHECK Client Smp ID: QCHECK
Level: LOW Operator: LDS
Data Type: MS DATA SampleType: MS
SpikeList File: QCCHK.spk Quant Type: ISTD
Method File: /chem/HPN.i/22509.b/624.m
Misc Info:

| SURROGATE COMPOUND | CONC ADDED ug/l | CONC RECOVERED ug/l | % RECOVERED | LIMITS |
|--------------------------|-----------------------|---------------------------|----------------|--------|
| \$ 32 Pentafluorobenzene | 30 | 26 | 86.62 | 70-140 |
| \$ 43 Fluorobenzene | 30 | 26 | 85.75 | 70-140 |
| \$ 47 Bromofluorobenzene | 30 | 25 | 82.02 | 60-150 |

000056

Metals Data

000057

NYTEST ENVIPONMENTAL INC
 INORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

108-FB

Lab Name: NYTEST_ENV_INC. Contract: 9421415

Lab Code: NYTEST Login No.: 22509 QC Report No.22509

Matrix (soil/water): WATER Lab Sample ID: 250904
 Level (low/high) : LOW Date Received: 11/09/94
 Percent Solids : 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

| CAS No. | Analyte | Concentration | C | Q | M |
|-----------|---------|---------------|---|---|---|
| 7439-92-1 | Lead | 4.1 | B | | F |
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CODES :
 P: ICP; F : GFAA; CV: Cold Vapor; AS: Automated Spectrophotometric
 Note: A "U" in the "C" (Concentration) column indicates the analyte was not detected in this sample; "B" = Sample value greater than Instrument Detection Limit, but less than reporting limit; "NR" = Not Required.

Comments:
 108-FB

NYTEST ENVIRONMENTAL INC.

INORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

290-1

Lab Name: NYTEST_ENV_INC. Contract: 9421415

Lab Code: NYTEST Login No.: 22509_ QC Report No.22509_

Matrix (soil/water): WATER Lab Sample ID: 250912_
Level (low/high) : LOW Date Received: 11/09/94
Percent Solids : 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

| CAS No. | Analyte | Concentration | C | Q | M |
|-----------|---------|---------------|---|---|---|
| 7439-92-1 | Lead | 17.0 | | | F |
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CODES : P: ICP; F : GFAA; CV: Cold Vapor; AS: Automated Spectrophotometric
Note: A "U" in the "C" (Concentration) column indicates the analyte was not detected in this sample; "B" = Sample value greater than Instrument Detection Limit, but less than reporting limit; "NR" = Not Required.

Comments:
290-1

NYTEST ENVIRONMENTAL INC.

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: NYTEST_ENV_INC._____ Contract: 9421415____
 Lab Code: NYTEST Login No.: 22509_ QC Report No.: 22509_
 Initial Calibration Source: SPEX_____
 Continuing Calibration Source: SPEX_____

Concentration Units: ug/L

| Analyte | Initial Calibration | | | Continuing Calibration | | | | M | |
|---------|---------------------|-------|-------|------------------------|-------|-------|-------|------|-------|
| | True | Found | %R(1) | True | Found | %R(1) | Found | | %R(1) |
| Lead | 90.0 | 87.00 | 96.7 | 50.0 | 49.70 | 99.4 | 49.70 | 99.4 | F |
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NR : Analyte Not Required

NYTEST ENVIRONMENTAL INC.

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: NYTEST_ENV_INC._____

Contract: 9421415___

Lab Code: NYTEST

Login No.: 22509_

QC Report No.: 22509_

Initial Calibration Source: SPEX_____

Continuing Calibration Source: SPEX_____

Concentration Units: ug/L

| Analyte | Initial Calibration | | | Continuing Calibration | | | | M | |
|---------|---------------------|-------|-------|------------------------|-------|-------|-------|------|-------|
| | True | Found | %R(1) | True | Found | %R(1) | Found | | %R(1) |
| Lead | | | | 50.0 | 51.10 | 102.2 | 49.50 | 99.0 | F |
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NR : Analyte Not Required

NYTEST ENVIRONMENTAL INC.

CRDL STANDARD FOR AA AND ICP

Lab Name: NYTEST_ENV_INC. _____

Contract: 9421415 _____

Lab Code: NYTEST Login No.: 22509_

QC Report No. : 22509_

AA CRDL Standard Source: SPEX _____

ICP CRDL Standard Source: _____

Concentration Units: ug/L

| Analyte | CRDL Standard for AA | | | CRDL Standard for ICP | | | | |
|---------|----------------------|-------|------|-----------------------|---------------|----|-------------|----|
| | True | Found | %R | True | Initial Found | %R | Final Found | %R |
| Lead | 3.0 | 2.60 | 86.7 | | | | | |
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ANALYTICAL AND METHOD BLANK SUMMARY

Lab Name: NYTEST_ENV_INC. _____

Contract: 9421415 _____

Lab Code: NYTEST Login No.: 22509_

QC Report No.: 22509_

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L_

| Analyte | Initial Calib. Blank (ug/L) | C | Continuing Calibration Blank (ug/L) | | | | | | Preparation Blank | C | M |
|---------|-----------------------------|---|-------------------------------------|---|-----|---|-----|---|-------------------|---|---|
| | | | 1 | C | 2 | C | 3 | C | | | |
| Lead | 3.0 | U | 3.0 | U | 3.0 | U | 3.0 | U | 3.000 | U | F |
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NR = Analyte Not Requested

ANALYTICAL AND METHOD BLANK SUMMARY

Lab Name: NYTEST_ENV_INC. _____

Contract: 9421415 _____

Lab Code: NYTEST

Login No.: 22509_

QC Report No.: 22509_

Preparation Blank Matrix (soil/water): _____

Preparation Blank Concentration Units (ug/L or mg/kg): _____

| Analyte | Initial Calib. Blank (ug/L) | C | Continuing Calibration Blank (ug/L) | | | | | | Prepa- ration Blank | C | M |
|---------|--------------------------------------|---|--|---|---|---|---|---|---------------------------|---|---|
| | | | 1 | C | 2 | C | 3 | C | | | |
| Lead | | | 3.0 | U | | | | | | F | |
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NR = Analyte Not Requested

MATRIX SPIKE RECOVERY DATA SHEET

SAMPLE NO.

108-3MSD

Lab Name: NYTEST_ENV_INC.

Contract: 9421415

Lab Code: NYTEST

Login No.: 22509

QC Report No. : 22509

Matrix (soil/water): WATER

Level (low/med): LOW

% Solids for Sample: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

| Analyte | Control Limit %R | Spiked Sample Result (SSR) | C | Sample Result (SR) | C | Spike Added (SA) | %R | Q | M |
|---------|------------------|----------------------------|---|--------------------|---|------------------|------|---|---|
| Lead | 75-125 | 35.4000 | | 16.7000 | | 20.00 | 93.5 | | F |
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Comments:

108-3MSD

NR : Analyte Not Required

NYTEST ENVIRONMENTAL INC.

SAMPLE NO.

DUPLICATES

108-3MS

Lab Name: NYTEST_ENV_INC. _____ Contract: 9421415 _____

Lab Code: NYTEST Login No.: 22509_ QC Report No. : 22509_

Matrix (soil/water): WATER Level (low/med): LOW_

% Solids for Sample: 0.0 % Solids for Duplicate: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

| Analyte | Control Limit | Sample (S) C | Duplicate (D) C | RPD | Q | M |
|---------|---------------|--------------|-----------------|-----|---|---|
| Lead | 5.0 | 16.7000 | 16.5000 | 1.2 | | F |
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NR : Analyte Not Requested

LABORATORY CONTROL SAMPLE

Lab Name: NYTEST_ENV_INC. _____

Contract: 9421415____

Lab Code: NYTEST Login No.: 22509_

QC Report No.: 22509_

Solid LCS Source: _____

Aqueous LCS Source: SPEX_____

| Analyte | Aqueous (ug/L) | | | Solid (mg/kg) | | | | |
|---------|----------------|-------|------|---------------|-------|---|--------|----|
| | True | Found | %R | True | Found | C | Limits | %R |
| Lead | 90.0 | 78.60 | 87.3 | | | | | |
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NYTEST ENVIRONMENTAL INC.

Instrument Detection Limits (Quarterly)

Lab Name: NYTEST_ENV_INC. _____ Contract: 9421415 _____

Lab Code: NYTEST Login No.: 22509__ QC Report No.: 22509__

ICP ID Number: _____ Date in Effect: 10/01/94

Flame AA ID Number : _____

Furnace AA ID Number : 3030#1 _____

| Analyte | Wave-length (nm) | Back-ground | CRDL (ug/L) | IDL (ug/L) | M |
|---------|------------------|-------------|-------------|------------|---|
| Lead | 283.30 | BZ | 5 | 3.0 | F |
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Comments:



TOTAL ANALYTICAL SERVICES FOR A SAFE ENVIRONMENT

nytest environmental inc.

Project No. : 9421415
Log in No. : 22633B
P.O. No. : Pending
Date : 2/21/95
SDG No. : Army 3
NJDEPE Case #:93-11-30-1246-27

ANALYTICAL DATA REPORT
PACKAGE FOR

Aguilar Associates

30 Freneau Avenue

Hatawan, NJ 07747

ATTN: Darryl Schmitt
REF: US Army Fort Monmouth, Well# and NJDEPE Reg# 1-2930961
Sample Location Bldg. 290

| LABORATORY NUMBER | SAMPLE IDENTIFICATION | TYPE OF SAMPLE |
|----------------------|--------------------------|-------------------|
|----------------------|--------------------------|-------------------|

SEE NEXT PAGE

WE CERTIFY THAT THIS REPORT IS A
TRUE REPORT OF RESULTS OBTAINED
FROM OUR TESTS OF THIS MATERIAL.

NYS Lab ID. #10195
NJ Cert. #73469

RESPECTFULLY SUBMITTED,
NYTEST ENVIRONMENTAL INC.

REMO GIGANTE
EXEC. VICE PRESIDENT

Report on sample(s) furnished by client applies to sample(s). Report on sample(s) obtained by us applies only to lot sampled. Information contained herein is not to be used for reproduction except by special permission. Sample(s) will be retained for thirty days maximum after date of report unless specifically requested otherwise by client. In the event that there are portions or parts of sample(s) remaining after Nytest has completed the required tests, Nytest shall have the option of returning such sample(s) to the client at the client's expense.

NYTEST ENVIRONMENTAL Inc

| LABORATORY NUMBER | SAMPLE IDENTIFICATION | WELL # | TYPE OF SAMPLE |
|------------------------------|----------------------------------|---------------|---------------------------|
| 2263312 | 290-1 | 1-2930961 | Water |
| 2263307 | 296-TB | - | Water |
| 2263308 | 296-FB | - | Water |

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Chain of Custody Record

Client Name Aguilar Assoc. & Cons., Inc.
 Address 30 Freneau Ave.
Matawan, NJ 07747

Project Manager D. Schmitt
 Phone (908) 290-7800 FAX (908) 290-7806
 Project Name Fort Monmouth Bldg. 290
 Project Number 73-11-30-1246-27
 P.O. # _____
 Analytical Protocol _____ Deliverables _____
 Sampled By D. Schmitt

| Analysis Requested | | No. of Containers | |
|-----------------------------------|-------------|-------------------|--|
| 62715, 700mg, 7800 MTE | 7142 L (AD) | | |
| Bin #'s In/Out (For Lab Use Only) | | | |

Login #: _____
 Ship to: _____
 Nytest Environmental Inc.
 60 Seaview Blvd
 Port Washington N.Y. 11050
 Attn: Sample Control
 Date Shipped: _____
 Carrier: _____
 Air Bill #: _____
 Cooler #: _____
 C of C #: _____
 SDG #: _____
 NEI QT #: _____

| Lab ID (Lab Use Only) | Sample ID (Maximum of 6 Characters) | Date Sampled | Time Sampled | Sample Location | No. of Containers | Bin #'s In/Out (For Lab Use Only) | Comments |
|--------------------------|--|-----------------|-----------------|--------------------|-------------------|-----------------------------------|----------|
| | MW - 1 | 11/29/94 | 13:05 | Bldg 290 | 3 | ✓ ✓ | |
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1000001

Relinquished by: Darryl W. Schmitt Date / Time 11/30/94 16:00
 Print Name: Darryl W. Schmitt

Received by: T. Pymanowski Date / Time 11/30/94 16:00
 Print Name: T. Pymanowski

Relinquished by: T. Pymanowski Date / Time 11/30/94 18:20
 Print Name: T. Pymanowski

Received by Laboratory: Bees Date / Time 11/30/94 18:20
 Print Name: PERI PERIES

Lab Use Only

Custody Seals: Intact Broken Absent

Sample Rec'd in Good Condition?: Y N

Sample Temperature: 6 Degrees Celsius

INSPECTED BY: PP

COMMENTS: _____

Special Instructions: _____

BLDG.#: 290 W#: 1 NJDEPE WELL ID # 2930961

U.S. ARMY FORT MONMOUTH
MONITORING WELL SAMPLING DATASHEET

DATE: 11-29-94

IJO#94-0843 A

SAMPLING CONTRACTOR: Aguilar Associates Inc.
LABORATORY: NYTEST Environmental Inc. CERT #: 73469
SAMPLERS NAMES: D. Schmitt, N. Vynasek, S. Parizzi

WEATHER CONDITIONS: Mid 40's, cold, windy
ELEVATION OF CASING SURVEY MARK: 13.90
TOTAL DEPTH OF WELL FROM TOP OF SURVEYORS MARK: 16.47 FT
DEPTH FROM SURVEYORS MARK TO SCREEN: 2.0 FT
LENGTH OF SCREENED SECTION: 10.5 FT.
DEPTH TO WATER PRIOR TO PURGING AND SAMPLING: 7.15 FT
ELEVATION OF GW PRIOR TO PURGING: 6.75 FT
THICKNESS OF LNAPL PRIOR TO PURGING : -.- FT
PID/Hnu READING IMMEDIATELY AFTER THE WELL CAP IS
REMOVED: 0 PPM

pH: 5.74 TEMP: 13 C, SPECIFIC CONDUCTIVITY: 670 μ S
DEPTH OF WELL: 16.47 FT D.O. - 3.2

HEIGHT OF WATER: 9.32 FT
EVACUATED GAL. H2O: 18 GAL (9.32 X .65 X 3 = 18.17)

PURGING START TIME: 11:20 END TIME: 11:42
PURGE METHOD: REDI-FLOW 2 INCH SUBMERSIBLE PUMP VARIABLE

FLOW RATE OF <0.5 GPM TO >5.0 GPM
PURGE RATE (<0.5 GPM): 21 GPM
TOTAL VOLUME PURGED: 18 GAL.

DEPTH TO WATER AFTER PURGING AND BEFORE
SAMPLING: 7.19 FT
DISSOLVED OXYGEN: 3.4 pH: 5.50 TEMP: 16 °C
SPECIFIC CONDUCTIVITY: 650 μ S

SAMPLING METHOD: DEDICATED, DECONTAMINATED (IAW NJDEP
FSPM 1992) TEFLON® BAILER

START TIME OF SAMPLING: 12:00 END TIME: 12:05
DISSOLVED OXYGEN: 2.8 pH: 5.61 TEMP: 15 °C
SPECIFIC CONDUCTIVITY: 620 μ S

COMMENTS: _____

U.S. ARMY FORT MONMOUTH

P.O. #: *Aguilar / 94-0843*

Chain of Custody

| | | | | | |
|---|--|---|--------------------|---------------------|---------------------|
| Project #: <i>93-11-30-1246-27</i> | Sampler: <i>D. Schmitt - Assoc. Associates</i> | Date: <i>11/21/94</i> | Time: <i>12:00</i> | Analysis Parameters | Start: |
| Customer: <i>C. Appleby SELF m-pw- EV</i> | Site Name: <i>Bldg. 27D</i> | <div style="display: flex; justify-content: space-around; font-size: small;"> 60445, m/mms, TGA MTDS Total Lead </div> | | | Finish: |
| Phone: <i>(908) 532-6224</i> | PICAR #: <i>93-11-30-1246-27</i> | | | | Preservation Method |
| MW Samplings | | | | | |

| Lab Sample ID Number | Date/Time | Customer Sample Location/ID Number | Sample Matrix | # of Bottles | 60445 | MTDS | Total Lead | m/mms | TGA | Remarks |
|----------------------|-----------------------|------------------------------------|---------------|--------------|-------------------------------------|-------------------------------------|------------|-------|-----|--|
| <i>742.1</i> | <i>11/21/94 12:05</i> | <i>MW-1, 2930961</i> | <i>AQ</i> | <i>3</i> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | | | | <i>Sample kept 4°C</i> |
| <i>1741.7</i> | <i>11/21/94 9:53</i> | <i>Field Blank</i> | <i>AQ</i> | <i>3</i> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | | | | |
| <i>1741.8</i> | <i>11/21/94 9:25</i> | <i>Trip Blank</i> | <i>AQ</i> | <i>2</i> | <input checked="" type="checkbox"/> | | | | | |
| <i>1741.9</i> | <i>11/21/94 -</i> | <i>Duplicate</i> | <i>AQ</i> | <i>3</i> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | | | | |
| <i>1741.10</i> | <i>11/21/94 10:11</i> | <i>mw-6, ms/OS, 2930978</i> | <i>AQ</i> | <i>3</i> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | | | | |
| | | | | | | | | | | <i>Ann SN 80147</i> |
| | | | | | | | | | | <i>Ann = 0 ppm</i> |
| | | | | | | | | | | <i>calibrated 11/23/94</i> |
| | | | | | | | | | | <i>5 ppm Benzene surrogate reads 50 ppm span 9.5</i> |

| | | | |
|---|-------------------------------------|---|-------------|
| Relinquished By (signature) <i>Darryl W. Schmitt</i> | Date / Time <i>11/30/94 1200</i> | Received By (signature) <i>Sarah Hubbard</i> | Shipped By: |
| Relinquished By (signature) | Date / Time | Received for Lab by (signature): | Date / Time |

Note: A drawing depicting sample location should be attached or drawn on the reverse side of this chain of custody. *NONE*



Chain of Custody Record

Client Name Aguilar Assoc. & Cons., Inc.
 Address 30 Freneau Ave.
Matawan, NJ 07747
 Project Manager D. Schmitt
 Phone (908) 290-7800 FAX (908) 290-7806
 Project Name Fort Monmouth Bldg 296
 Project Number 93-11-2-1200-13
 P.O. # _____
 Analytical Protocol _____ Deliverables _____
 Sampled By D. Schmitt

Analysis Requested

| | | | | | | | | | | | | | | | | | | | | |
|-------------------|------------------|-----------|------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| No. of Containers | 6-2-115 24 items | MTBE, TBA | TOTAL LEAD | | | | | | | | | | | | | | | | | |
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Login #: 226
 Ship to:
 Nytest Environmental Inc.
 60 Seaview Blvd
 Port Washington N.Y. 11050
 Attn.: Sample Control
 Date Shipped: _____
 Carrier: _____
 Air Bill #: _____
 Cooler #: _____
 C of C #: _____
 SDG #: _____
 NEI QT #: _____

| Lab ID (Lab Use Only) | Sample ID (Maximum of 6 Characters) | Date Sampled | Time Sampled | Sample Location |
|-----------------------|-------------------------------------|--------------|--------------|-----------------|
| 1 | M W - 1 | 11/24/99 | 11:50 | Sticker Bld 296 |
| 2 | M W - 2 | | 11:40 | Street Bld 296 |
| 3 | M W - 3 | | 10:00 | Sticker Bld 296 |
| 4 | M W - 6 | | 10:11 | Sticker Bld 296 |
| 5 | M W - 7 | | 10:30 | fence Bld 296 |
| 6 | M W - 8 | | 9:20 | Street Bld 296 |
| 7 | F i e l d B | | 9:53 | Add BLANK |
| 8 | T r i p B L | | 9:25 | trip blank |
| 9 | D u p l i c | | - | Duplicate |
| 10,11 | M W - 6 m s | | 10:11 | MSMSD |

Bin #'s In / Out (Lab Use Only)

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|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
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Comments

Relinquished by: Darryl W. Schmitt Date / Time: 11/24/99 16:00
 Print Name: Darryl W. Schmitt
 Relinquished by: _____ Date / Time: _____
 Print Name: _____
 Relinquished by: Thomas J. Jurek Date / Time: 11/30/99 18:20
 Print Name: T. Pymanowski
 Relinquished by: _____ Date / Time: _____
 Print Name: _____
 Relinquished by: Pieri Pierides Date / Time: 11/30/99 18:00
 Print Name: Pieri Pierides

Lab Use Only
 Sample Rec'd in Good Condition?
 Sample Temperature: 6 Degree Celsius
 Inspected by: PP
 COMMENTS: _____

Special Instructions : _____

NY TEST ENVIRONMENTAL INC.

INTERNAL CHAIN OF CUSTODY

| | | | |
|---|---|--|-------------------|
| Laboratory Person Breaking Field Seal on Sample Shuttle & Accepting Responsibility for Sample | | NAME: <u>Pierre Berdes</u> | TITLE: <u>SCO</u> |
| Client: <u>Aguilar Associates</u> | Date Broken: <u>11/20/94</u> | Military Time Seal Broken: <u>1820</u> | |
| Login #: <u>22633</u> | Analytical Parameter/Fraction: <u>PG24+15, Pb, SO80PEST, 8150</u> | | |

| SAMPLE NO. | ALIQUOT/EXTRACT NO. | SAMPLE NO. | ALIQUOT/EXTRACT NO. |
|------------|---------------------|------------|---------------------|
| 296-1 | 22633-01 | 296-6MS D | 22633-21 |
| 296-2 | 02 | 290-1 | 22 |
| 296-3 | 03 | 108-1 | 23 |
| 296-6 | 04 | 108-2 | 24 |
| 296-7 | 05 | 108-3 | 25 |
| 296-8 | 06 | 750-1 | 26 |
| 296-FB | 07 | 750-3 | 27 |
| 296-TB | 08 | 750-4 | |
| 296-DUP | 09 | 2562-1 | |
| 296-6MS | 10 | 2562-2 | |

| DATE | TIME | RELINQUISHED BY | RECIEVED BY | PURPOSE OF CHANGE OF CUS. |
|----------|------|---|---|---------------------------|
| 12/1/94 | 1152 | PRINTED NAME <u>M. LAM</u> SIGNATURE <u>M. Lam</u> | PRINTED NAME <u>W. B. CALFE</u> SIGNATURE <u>W. B. Calfe</u> | <u>PG24+15</u> |
| 12/1/94 | 1310 | PRINTED NAME <u>M. Lam</u> SIGNATURE <u>M. Lam</u> | PRINTED NAME <u>C. Voss</u> SIGNATURE <u>C. Voss</u> | <u>SO80PEST, 8150</u> |
| 12/6/94 | 1300 | PRINTED NAME <u>C. Voss</u> SIGNATURE <u>C. Voss</u> | PRINTED NAME <u>P. Berdes</u> SIGNATURE <u>P. Berdes</u> | <u>STORAGE</u> |
| 12/6/94 | 1443 | PRINTED NAME <u>M. Lam</u> SIGNATURE <u>M. Lam</u> | PRINTED NAME <u>A. Frimpong</u> SIGNATURE <u>A. Frimpong</u> | <u>Pb</u> |
| 12/8/94 | 1500 | PRINTED NAME <u>A. Frimpong</u> SIGNATURE <u>A. Frimpong</u> | PRINTED NAME <u>M. Lam</u> SIGNATURE <u>M. Lam</u> | <u>STORAGE</u> |
| 12/13/94 | 0800 | PRINTED NAME <u>W. B. Calfe</u> SIGNATURE <u>W. B. Calfe</u> | PRINTED NAME <u>M. Lam</u> SIGNATURE <u>M. Lam</u> | <u>STORAGE</u> |
| | | PRINTED NAME | PRINTED NAME | |
| | | SIGNATURE | SIGNATURE | |
| | | PRINTED NAME | PRINTED NAME | <u>000003</u> |
| | | SIGNATURE | SIGNATURE | |

LABORATORY DELIVERABLES

Check if
Complete

- | | |
|---|-----------|
| 1. Cover page, Title page listing Lab Certification# facility name & address, & date of report | <u>✓</u> |
| 2. Table of Contents | <u>✓</u> |
| 3. Summary sheets listing analytical results for all targeted and non-targeted compounds | <u>NA</u> |
| 4. Summary Table cross-referencing field ID #'s vs. Lab ID #'s | <u>✓</u> |
| 5. Document bound, paginated and legible | <u>✓</u> |
| 6. Chain of Custody | <u>✓</u> |
| 7. Methodology Summary | <u>✓</u> |
| 8. Laboratory Chronicle and Holding Time check | <u>✓</u> |
| 9. Results submitted on a dry weight basis (if applicable) | <u>NA</u> |
| 10. Method Detection Limits | <u>NA</u> |
| 11. Lab certified by NJDEPE for parameters or appropriate category of parameters or a member of the USEPA CLP | <u>✓</u> |
| 12. Non-Conformance Summary | <u>✓</u> |

Jon Bey
Laboratory Manager or Environmental
Consultant's Signature

2/21/95
Date

GC/MS ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY FORMAT

- | | <u>No</u> | <u>Yes</u> |
|--|--|------------|
| 1. Chromatograms Labeled/Compounds Identified (Field Samples and Method Blanks) | — | ✓ |
| 2. GC/MS Tune Specifications | | |
| a. BFB Meet Criteria | — | ✓ |
| b. DFTPP Meet Criteria | — | ✓ |
| 3. GC/MS Tune Frequency - Performed every 24 hours for 600 series and 12 hours for 8000 series. | — | ✓ |
| 4. GC/MS Calibration - Initial Calibration performed within 30 days before sample analysis and continuing calibration performed within 24 hours of sample analysis for 600 series and 12 hours for 8000 series | — | ✓ |
| 5. GC/MS Calibration Requirements | | |
| a. Calibration Check Compounds | — | ✓ |
| b. System Performance Check Compounds | — | ✓ |
| 6. Blank Contamination - If yes, list compounds and concentrations in each blank: | | |
| a. VOA fraction | <i>1/18/95</i> <i>1/18/95</i> <i>1/18/95</i> | |
| b. B/N Fraction | <i>1/18/95</i> | |
| c. Acid Fraction | <i>1/18/95</i> | |
| 7. Surrogate Recoveries Meet Criteria | ✓ | ✓ |
| If not met, list those compounds and their recoveries which fall outside the acceptable range: | | |
| a. VOA Fraction | <i>1/18/95</i> | |
| b. B/N Fraction | <i>1/18/95</i> | |
| c. Acid Fraction | <i>1/18/95</i> | |
| If not met, were the calculations checked and the results qualified as estimated? | | |
| | NA | ✓ |
| 8. Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria (if not met, list these compounds and their recoveries which fall outside the acceptable range) | ✓ | ✓ |
| a. VOA Fraction | <i>Benzene (156)</i> | |
| b. B/N Fraction | <i>See Recovery Reports 1/18/95</i> | |
| c. Acid Fraction | <i>1/18/95</i> | |
| 9. Internal Standard Area/Retention Time Shift Meet Criteria | NA | |

GC/MS ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY FORMAT (CONT.)

No Yes

10. Extraction Holding Time Met

NA

If not met, list number of days exceeded
each sample: _____

11. Analysis Holding Time Met

If not met, list number of days exceeded
for each sample: _____

Additional Comments: _____

Laboratory Manager: Jon Ber Date 2/21/95

METAL ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY FORMAT

| | <u>No</u> | <u>Yes</u> |
|---|------------|-------------------|
| 1. Calibration Summary Meet Criteria | ___ | ___ ✓ |
| 2. ICP Interference Check Sample Results Summary Submitted (if applicable) / Meet Criteria | ___ NA ___ | ___ |
| 3. Serial Dilution Summary Submitted (if applicable) / Meet Criteria | ___ NA ___ | ___ ✓ (ES) 2/2/95 |
| 4. Laboratory Control Sample Summary Submitted (if applicable) / Meet Criteria | ___ | ___ ✓ |
| 5. Blank Contamination - If yes, list compounds concentrations in each blank: _____ _____ | ___ ✓ ___ | ___ |
| 6. Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria (If not met, list those compounds and their recoveries which fall outside the acceptable range) SEE FORMS... _____ _____ | ___ ✓ ___ | ___ |
| 7. Extraction Holding Time Met If not met, list number of days exceeded for each sample: _____ _____ _____ | ___ | ___ ✓ |
| 8. Analysis Holding Time Met If not met, list number of days exceeded for each sample: _____ _____ _____ | ___ | ___ ✓ |

Additional Comments: _____

Laboratory Manager: Jon Bay Date: 2/2/95

Laboratory Chronicle

Client Name: Aguilar Associates
Date(s) of Sample Collection: 11/29/94
Date Received: 11/30/94
Sample ID: As per chain of custody

Log In No.: 22633B

Organics Extractions:

1. Acids _____
2. Base/Neutrals _____
3. Pesticides/PCBs _____
4. Herbicides _____

Analysis:

12/1/94

1. Volatiles _____
2. Acids _____
3. Base/Neutrals _____
4. Pesticides/PCBs _____
5. Herbicides _____

Section Supervisor

Review & Approval

Jon Bey

Digestion - 12/06/94

Analysis - 12/16/94, 12/19/94

Inorganics:

1. Metals _____
2. Cyanides _____
3. Phenols _____

Other Analysis:

Section Supervisor

Review & Approval

Jon Bey

Quality Control Supervisor

Review & Approval

Jon Bey

Dates are included for re-extractions and reanalysis.

000008

**NARRATIVE DISCUSSION
VOLATILES - 22633B**

=====
Building 209

INTRODUCTION

This narrative covers the analysis of five (5) samples in accordance with the protocols based on NEI's SOP #703 and on EPA Method 624.

HOLDING TIMES

The analytical holding time for this analysis was met.

CALIBRATIONS

All required minimum RRFs and maximum % RSD initial calibration requirements have been met in accordance with the Method.

QC CHECK SAMPLE

All % recoveries in the QC check sample met the requirements as stipulated by the Method.

METHOD BLANK

The method blank associated with these samples met all method requirements.

SURROGATES

All surrogate recoveries met QC criteria.

MATRIX SPIKES

As requested, sample 296-6 was utilized for the MS/MSD. Spike recoveries fell within QC limits, with the exception of 296-6MSD, which yielded a high Benzene recovery of 155.95%. The form 3 is included with this report.

INTERNAL STANDARDS

Internal Standard area response/retention time summaries are not required.

SAMPLE COMMENTS

The TICs identified as "Unknown Siloxane" are most probably due to column degradation and not sample constituency. NEI is reporting the results to our method detection limits (MDL's) rounded up to the nearest part per billion (ppb) in accordance with the guidance provided by NJDEP. These MDL's indicate that NEI did not detect any compounds above these levels. No further analytical problems were encountered.

000009

NARRATIVE DISCUSSION
INORGANICS - 22683

3

All samples were analyzed as per the required protocol.

The matrix spike recovery was above control limits for sample 2044-3MS, thus resulting in the qualification of the sample results with "N". A second spike was performed on sample 296-6 and the recovery was within control limits.


The duplicate of sample 2044-3 showed no RPD, resulting in no additional sample qualification. A second duplicate was performed on sample 296-6. This second duplicate demonstrated a RPD of 8.2.

R
2/2/95

000010

nytest environmental_{nc}

I certify that this data package has been reviewed for the quality control and quality assurance measures for all analyzed methodologies.



Remo Gigante
Exec. Vice President

000011

METHODOLOGY SUMMARY

| AQUEOUS METHODOLOGIES: | REF 1 | REF 2 | REF 3 | REF 5 |
|---|-------|------------------------------|---------|-------|
| <hr/> | <hr/> | <hr/> | <hr/> | <hr/> |
| BNA, Pesticides/PCB's Extraction | | 3510/3520 | | |
| AA/ICP Sample Preparation | 200.7 | | | |
| Furnace Sample Preparation | 200.0 | | | |
| Mercury Sample Preparation | 245.1 | | | |
| Hexavalent Chromium Sample Preparation | 218.5 | | | |
| Clean-Up | | 3610/3620/3630/ 3640/3660 | | |
| Organochlorine Pesticide and PCB's by Gas Chromatography | | | 608 | 505 |
| Herbicides by Gas Chromatography | | | 362 | 515.1 |
| Purgeable Organics by GC/MS | | | 624 | 524.2 |
| Base/Neutral, Acids by GC/MS | | | 625 | 525 |
| 2,3,7,8-TCDD by GC/MS | | | 613/625 | |
| BTEX | | | 602 | 502.2 |
| EDB/DBCP by Microextraction | | | | 504.1 |

NON-AQUEOUS METHODOLOGIES:

| | |
|----------------------------------|------------------------------|
| BNA, Pesticides/PCB's Extraction | 3550 |
| AA/ICP Sample Preparation | 3050 |
| Furnace Sample Preparation | 3020/3030/3050 |
| Mercury Sample Preparation | 7471 |
| Clean-Up | 3610/3620/3630/ 3640/3660 |

GC, Gas Chromatography/Mass Spectrometry:

| | |
|---|-----------|
| Purgeable Organics | 8240/8021 |
| Base/Neutral and Acid Extractables | 8270 |
| Organophosphorus Pesticides | 8140 |
| Organochlorine Pesticide and PCB's by Gas Chromatography | 8080 |
| BTEX | 8020 |
| Halogenated Purgeable Organics | 8010 |

000012

METHODOLOGY SUMMARY

INDUCTIVELY COUPLED PLASMA (ICP):

REFERENCE 1

REFERENCE 2

| | | |
|------------|-------|------|
| Aluminum | 200.7 | 6010 |
| Antimony | 200.7 | 6010 |
| Barium | 200.7 | 6010 |
| Beryllium | 200.7 | 6010 |
| Cadmium | 200.7 | 6010 |
| Calcium | 200.7 | 6010 |
| Chromium | 200.7 | 6010 |
| Cobalt | 200.7 | 6010 |
| Copper | 200.7 | 6010 |
| Iron | 200.7 | 6010 |
| Lead | 200.7 | 6010 |
| Magnesium | 200.7 | 6010 |
| Manganese | 200.7 | 6010 |
| Molybdenum | 200.7 | 6010 |
| Nickel | 200.7 | 6010 |
| Potassium | 200.7 | 6010 |
| Silver | 200.7 | 6010 |
| Sodium | 200.7 | 6010 |
| Tin | 200.7 | 6010 |
| Titanium | 200.7 | 6010 |
| Vanadium | 200.7 | 6010 |
| Zinc | 200.7 | 6010 |

FURNACE AA:

| | | |
|----------|-------|-----------|
| Antimony | 204.1 | 7041 |
| Arsenic | 206.2 | 7060 |
| Lead | 239.2 | 7421 |
| Selenium | 270.2 | 7740 |
| Thallium | 279.2 | 7841 |
| Tin | 282.2 | |
| Vanadium | 286.2 | 7911 |
| Mercury | 245.1 | 7470/7471 |

ICAP:

| | | |
|---------------------|-------|-------------------------|
| Priority Pollutants | 200.7 | 6010/7060/ 7470/7740 |
| TAL Metals | 200.7 | 6010/7060/ 7470/7740 |
| RCRA Metals | 200.7 | 6010/7060/ 7470/7740 |

METHODOLOGY SUMMARY

REFERENCES:

- (1) USEPA-600/4-79-020, Methods for Chemical Analysis of Water and Waste
- (2) USEPA SW 846, Test Methods for Evaluating Solid Waste, Third Edition
- (3) Federal Register 40 CFR Part 136, Vol.49, No.209 Test Parameters for the Analysis of Pollutants
- (4) Federal Register Vol.51, No.216 Friday, 11/7/86, pp.40643-40652
- (5) Method for the Determination of Organic Compounds in Drinking Water, EPA 500/4-88/039, Dec. 1988
- (6) Standard Method for Examination of Water and Wastewater, 15 Edition 1980

Method Qualifiers for Organic Non-CLP Methodologies

Q Qualifier - Specified entries and their meanings as follows:

- U -** Indicates compound was analyzed for but was not detected. The sample quantitation limit is corrected for dilutions and for the moisture content for soil samples. If a sample extract can not be concentrated to the protocol - specific volume, this fact is also accounted for in reporting the sample quantitation limit. The number is the minimum detected limits for the sample.
- J -** Indicates an estimated volume. The flag is used either when estimating concentration for tentatively identified compounds where a 1:1 response is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the sample quantitation limit but greater than zero.
- N -** Indicates presumptive evidence of a compound. This flag is used only for tentatively identified compounds, where the identification is based on a mass spectral library search. It is applied to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the **N** code is not used.
- B -** This flag is used when the analyte is found in the analyte is found in the associated blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action. This flag is used for a TIC as well as for a positively identified target compound.
- E -** This flag identifies compounds whose concentrations exceeded the calibration range of the GC/MS instrument for that specific analysis.
- D -** This flag identifies all compounds identified in an analysis at a secondary dilution factor.
- A -** This flag indicates that a TIC is a suspected aldol condensation product.

Method Qualifiers for Inorganics

FORM I-IN includes fields for three types of results qualifiers. These qualifiers must be completed as follows:

* C (Concentration) qualifier -- Enter "B" if the reported value was obtained from a reading that was less than the Contract Required Detection Limit (CRDL) but greater than or equal to the Instrument Detection Limit (IDL). If the analyte was analyzed for but not detected, a "U" must be entered.

* Q Qualifier -- Specified entries and their meanings are as follows :

E - The reported value is estimated because of the presence of interference.

M - Duplicate precision not met (CV > 20%).

N - Spiked sample recovery not within control limits.

S - The reported value was determined by Method of Standard Addition (MSA).

W - Post-digestion spike for Furnace AA analysis is out of control limits (85-115%), while sample absorbance is less than 50% of spike absorbance.

* - Duplicate analysis not within control limits.

+ - Correlation Coefficient for MSA is less than 0.995.

Entering "S", "W" or "+" is mutually exclusive.

* M (Method) qualifier - enter:

- "P" for ICP

- "A" for Flame AA

- "F" for Furnace AA

- "CV" for Cold Vapor AA

- "AV" for Automated Cold Vapor AA

- "AS" for Semi-Automated Spectrophotometric

- "C" for Manual Spectrophotometric

- "T" for Titrimetric

- "NR" if the analyte is not required to be analyzed.

000016

GC/MS Data

000017

Volatile Data

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

296-FB

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22633

SAS No.:

SDG No.: ARMY3

Matrix: (soil/water) WATER

Lab Sample ID: 2263307

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: M1154.D

Level: (low/med) LOW

Date Received: 11/30/94

% Moisture: not dec. _____

Date Analyzed: 12/01/94

Column: (pack/cap) CAP

Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|------------|----------------------------------|--|---|
| 74-87-3 | -----Chloromethane | 2 | U |
| 74-83-9 | -----Bromomethane | 1 | U |
| 75-01-4 | -----Vinyl Chloride | 1 | U |
| 75-00-3 | -----Chloroethane | 1 | U |
| 75-09-2 | -----Methylene Chloride | 3 | U |
| 75-35-4 | -----1,1-Dichloroethene | 2 | U |
| 75-34-3 | -----1,1-Dichloroethane | 1 | U |
| 67-66-3 | -----Chloroform | 1 | U |
| 107-06-2 | -----1,2-Dichloroethane | 1 | U |
| 71-55-6 | -----1,1,1-Trichloroethane | 1 | U |
| 56-23-5 | -----Carbon Tetrachloride | 2 | U |
| 75-27-4 | -----Bromodichloromethane | 1 | U |
| 78-87-5 | -----1,2-Dichloropropane | 1 | U |
| 10061-01-5 | -----cis-1,3-Dichloropropene | 1 | U |
| 79-01-6 | -----Trichloroethene | 2 | U |
| 124-48-1 | -----Dibromochloromethane | 1 | U |
| 79-00-5 | -----1,1,2-Trichloroethane | 1 | U |
| 71-43-2 | -----Benzene | 1 | U |
| 10061-02-6 | -----trans-1,3-Dichloropropene | 1 | U |
| 75-25-2 | -----Bromoform | 1 | U |
| 127-18-4 | -----Tetrachloroethene | 3 | U |
| 79-34-5 | -----1,1,2,2-Tetrachloroethane | 2 | U |
| 108-88-3 | -----Toluene | 2 | U |
| 108-90-7 | -----Chlorobenzene | 2 | U |
| 100-41-4 | -----Ethylbenzene | 2 | U |
| 1330-20-7 | -----Xylene (total) | 6 | U |
| 75-69-4 | -----Trichloromonofluoromethane | 2 | U |
| 107-02-8 | -----Acrolein | 20 | U |
| 107-13-1 | -----Acrylonitrile | 2 | U |
| 75-65-0 | -----Tertiary Butyl Alcohol | 100 | U |
| 1634-34-4 | -----Methyl Tertiary Butyl Ether | 1 | U |
| 541-73-1 | -----1,3-Dichlorobenzene | 2 | U |
| 106-46-7 | -----1,4-Dichlorobenzene | 2 | U |
| 95-50-1 | -----1,2-Dichlorobenzene | 2 | U |

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

| |
|--------|
| 296-FB |
|--------|

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22633

SAS No.:

SDG No.: ARMY3

Matrix: (soil/water) WATER

Lab Sample ID: 2263307

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: M1154.D

Level: (low/med) LOW

Date Received: 11/30/94

% Moisture: not dec. _____

Date Analyzed: 12/01/94

Column: (pack/cap) CAP

Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---------|----------|--|---|
|---------|----------|--|---|

| | | | |
|---------------|---------------------------|---|---|
| 110-75-8----- | 2-Chloroethylvinyl Ether | 4 | U |
| 156-60-5----- | Trans, 1,2-Dichloroethene | 1 | U |

1E
 VOLATILE ORGANICS ANALYSIS DATA SHEET
 TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

296-FB

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22633

SAS No.:

SDG No.: ARMY3

Matrix: (soil/water) WATER

Lab Sample ID: 2263307

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: M1154.D

Level: (low/med) LOW

Date Received: 11/30/94

% Moisture: not dec. _____

Date Analyzed: 12/01/94

Column: (pack/cap) CAP

Dilution Factor: 1.0

Number TICs found: 2

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

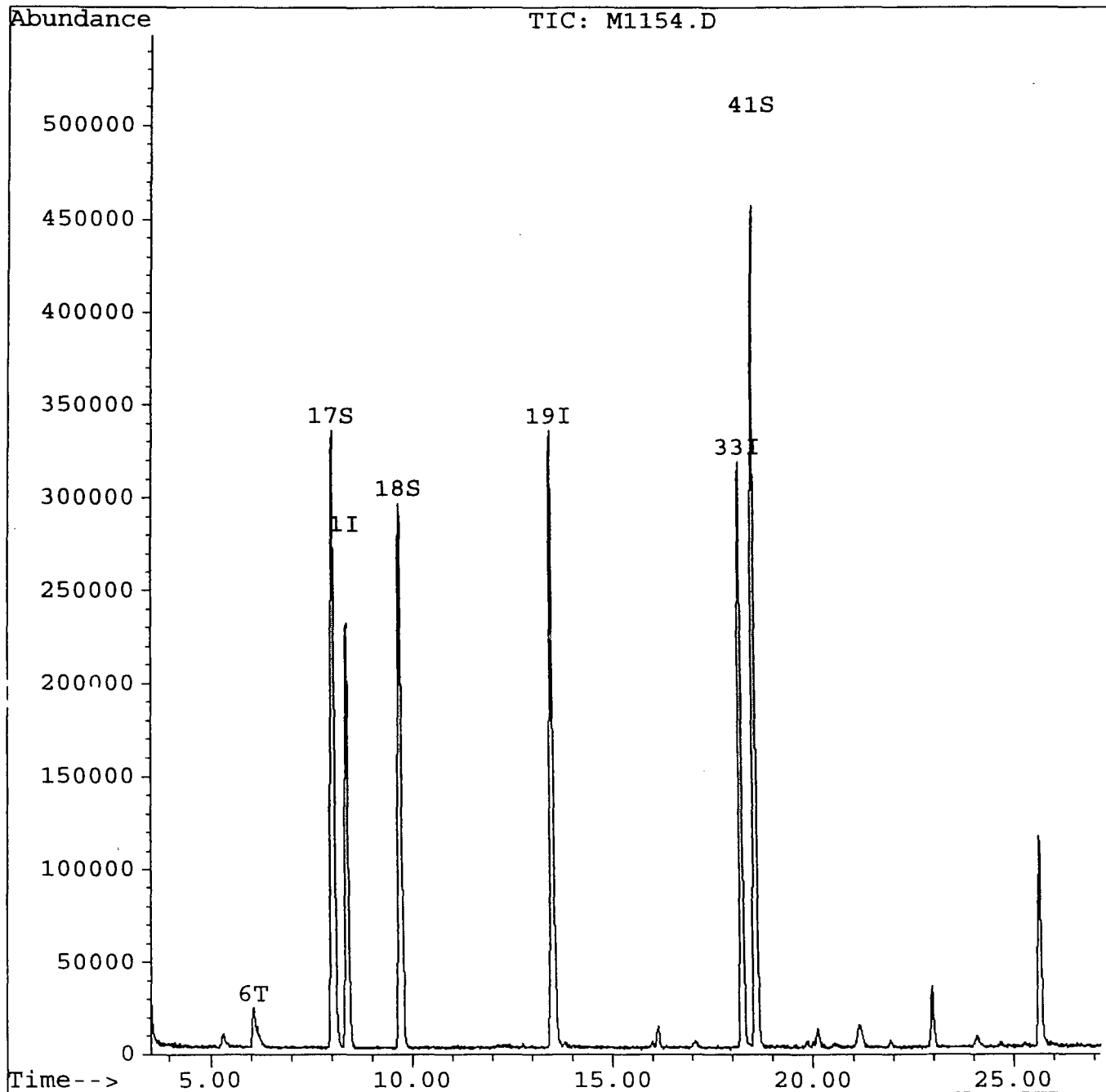
| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|------------|---------------------|--------|------------|---|
| 1. | UNKNOWN HYDROCARBON | 22.983 | 3 | J |
| 2. | UNKNOWN HYDROCARBON | 25.671 | 12 | J |
| 3. | | | | |
| 4. | | | | |
| 5. | | | | |
| 6. | | | | |
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Quantitation Report

Data File : C:\HPCHEM\1\DATA\120194\M1154.D
Acq Time : 1 Dec 94 13:48 pm
Sample : 2263307,296-FB,
Misc : 1,1,,,5,5,L,W,R11-30-94,
Quant Time: Dec 1 14:15 1994

Operator: VC
Inst : HPM
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\P624.M
Title : VOA Standards for 5 point calibration
Last Update : Tue Nov 29 12:18:35 1994
Response via : Multiple Level Calibration



000022

Quantitation Report

Data File : C:\HPCHEM\1\DATA\120194\M1154.D
 Acq Time : 1 Dec 94 13:48 pm
 Sample : 2263307,296-FB,
 Misc : 1,1,,,5,5,L,W,R11-30-94,
 Quant Time: Dec 1 14:15 1994

Operator: VC
 Inst : HPM
 Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\P624.M
 Title : VOA Standards for 5 point calibration
 Last Update : Tue Nov 29 12:18:35 1994
 Response via : Initial Calibration

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev (Min) |
|-------------------------------------|-------|------|----------|-------|-------|-----------|
| 1) CI01 Bromochloromethane | 8.39 | 128 | 141796 | 30.00 | ug/l | -0.03 |
| 19) 2-Bromo-1-Chloropropane | 13.52 | 77 | 505610 | 30.00 | ug/l | -0.04 |
| 33) 1,4-Dichlorobutane | 18.24 | 55 | 561804 | 30.00 | ug/l | -0.04 |
| | | | | | | %Recovery |
| System Monitoring Compounds | | | | | | |
| 17) Pentafluorobenzene | 8.05 | 168 | 867559 | 27.53 | ug/l | 91.78% |
| 18) Fluorobenzene | 9.72 | 96 | 748694 | 27.34 | ug/l | 91.14% |
| 41) CS10 4-Bomofluorobenzene | 18.59 | 95 | 435757 | 27.24 | ug/l | 90.80% |
| Target Compounds | | | | | | Qvalue |
| 6) C030 Methylene Chloride <i>h</i> | 6 08 | 84 | 32041 | 2.46 | ug/l | 96 |

h COMPOUND BELOW MPL
 we 1/10/94

000023

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

296-TB

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22633

SAS No.:

SDG No.: ARMY3

Matrix: (soil/water) WATER

Lab Sample ID: 2263308

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: M1153.D

Level: (low/med) LOW

Date Received: 11/30/94

% Moisture: not dec. _____

Date Analyzed: 12/01/94

Column: (pack/cap) CAP

Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|------------|-----------------------------|--|---|
| 74-87-3 | Chloromethane | 2 | U |
| 74-83-9 | Bromomethane | 1 | U |
| 75-01-4 | Vinyl Chloride | 1 | U |
| 75-00-3 | Chloroethane | 1 | U |
| 75-09-2 | Methylene Chloride | 3 | |
| 75-35-4 | 1,1-Dichloroethene | 2 | U |
| 75-34-3 | 1,1-Dichloroethane | 1 | U |
| 67-66-3 | Chloroform | 1 | U |
| 107-06-2 | 1,2-Dichloroethane | 1 | U |
| 71-55-6 | 1,1,1-Trichloroethane | 1 | U |
| 56-23-5 | Carbon Tetrachloride | 2 | U |
| 75-27-4 | Bromodichloromethane | 1 | U |
| 78-87-5 | 1,2-Dichloropropane | 1 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 1 | U |
| 79-01-6 | Trichloroethene | 2 | U |
| 124-48-1 | Dibromochloromethane | 1 | U |
| 79-00-5 | 1,1,2-Trichloroethane | 1 | U |
| 71-43-2 | Benzene | 1 | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 1 | U |
| 75-25-2 | Bromoform | 1 | U |
| 127-18-4 | Tetrachloroethene | 3 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 2 | U |
| 108-88-3 | Toluene | 2 | U |
| 108-90-7 | Chlorobenzene | 2 | U |
| 100-41-4 | Ethylbenzene | 2 | U |
| 1330-20-7 | Xylene (total) | 6 | U |
| 75-69-4 | Trichloromonofluoromethane | 2 | U |
| 107-02-8 | Acrolein | 20 | U |
| 107-13-1 | Acrylonitrile | 2 | U |
| 75-65-0 | Tertiary Butyl Alcohol | 100 | U |
| 1634-34-4 | Methyl Tertiary Butyl Ether | 1 | U |
| 541-73-1 | 1,3-Dichlorobenzene | 2 | U |
| 106-46-7 | 1,4-Dichlorobenzene | 2 | U |
| 95-50-1 | 1,2-Dichlorobenzene | 2 | U |

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

296-TB

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22633

SAS No.:

SDG No.: ARMY3

Matrix: (soil/water) WATER

Lab Sample ID: 2263308

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: M1153.D

Level: (low/med) LOW

Date Received: 11/30/94

% Moisture: not dec. _____

Date Analyzed: 12/01/94

Column: (pack/cap) CAP

Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | | Q |
|---------------|---------------------------|--|---|---|
| 110-75-8----- | 2-Chloroethylvinyl Ether | | 4 | U |
| 156-60-5----- | Trans, 1,2-Dichloroethene | | 1 | U |

000025

1E
 VOLATILE ORGANICS ANALYSIS DATA SHEET
 TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

296-TB

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22633

SAS No.:

SDG No.: ARMY3

Matrix: (soil/water) WATER

Lab Sample ID: 2263308

Sample wt/vol: 5.0

(g/mL) ML

Lab File ID: M1153.D

Level: (low/med) LOW

Date Received: 11/30/94

% Moisture: not dec. _____

Date Analyzed: 12/01/94

Column: (pack/cap) CAP

Dilution Factor: 1.0

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

Number TICs found: 1

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|------------|---------------------|--------|------------|---|
| 1. | UNKNOWN HYDROCARBON | 25.661 | 13 | J |
| 2. | | | | |
| 3. | | | | |
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| 30. | | | | |

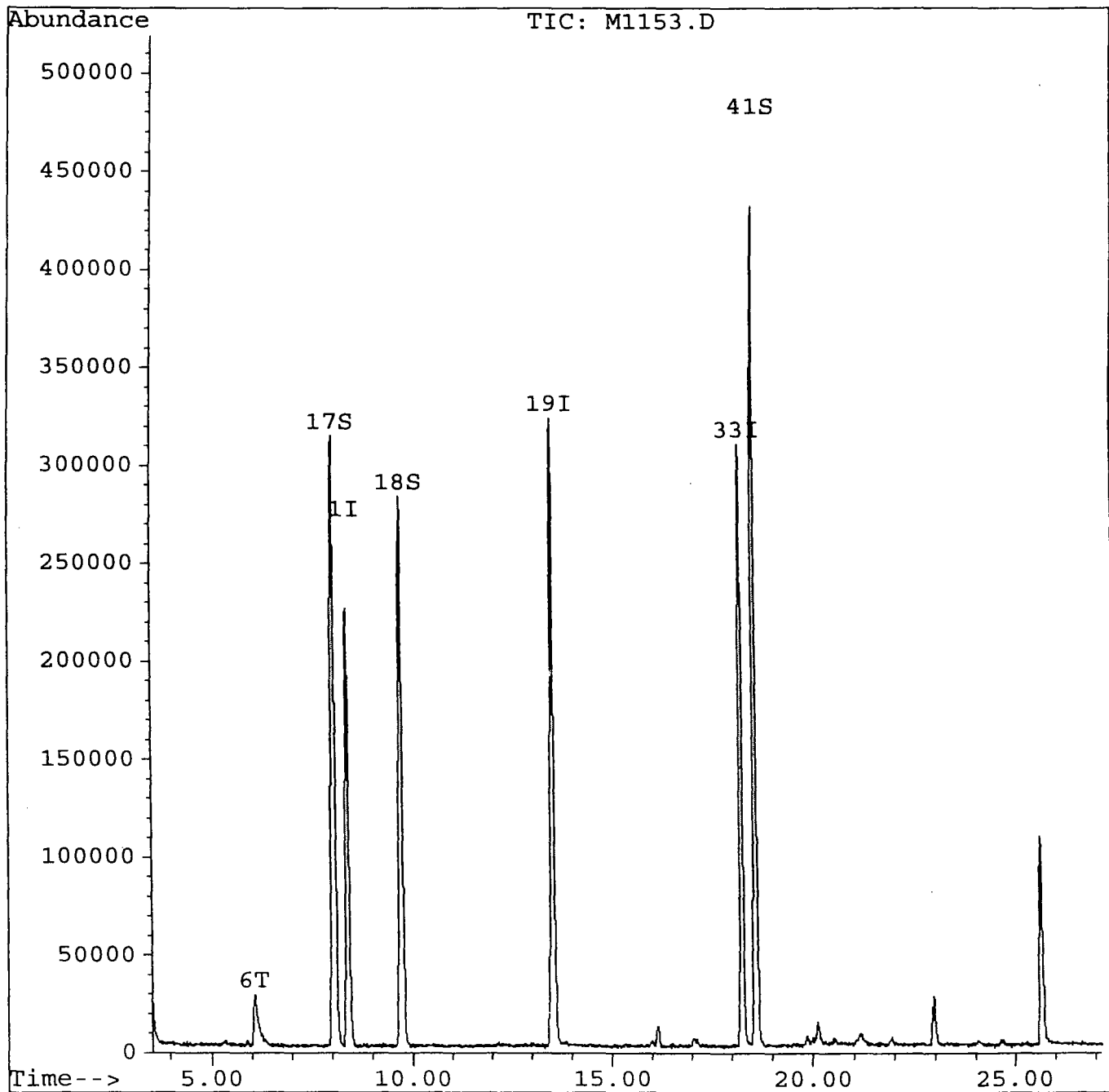
000026

Quantitation Report

Data File : C:\HPCHEM\1\DATA\120194\M1153.D
Acq Time : 1 Dec 94 13:15 pm
Sample : 2263308,296-TB,
Misc : 1,1,,,5,5,L,W,R11-30-94,
Quant Time: Dec 1 13:43 1994

Operator: VC
Inst : HPM
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\P624.M
Title : VOA Standards for 5 point calibration
Last Update : Tue Nov 29 12:18:35 1994
Response via : Multiple Level Calibration



000027

Quantitation Report

Data File : C:\HPCHEM\1\DATA\120194\M1153.D
 Acq Time : 1 Dec 94 13:15 pm
 Sample : 2263308,296-TB,
 Misc : 1,1,,,5,5,L,W,R11-30-94,
 Quant Time: Dec 1 13:43 1994

Operator: VC
 Inst : HPM
 Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\P624.M
 Title : VOA Standards for 5 point calibration
 Last Update : Tue Nov 29 12:18:35 1994
 Response via : Initial Calibration

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|------------------------------|-------|------|----------|-------|--------|-----------|
| 1) CI01 Bromochloromethane | 8.39 | 128 | 137091 | 30.00 | ug/l | -0.03 |
| 19) 2-Bromo-1-Chloropropane | 13.52 | 77 | 482268 | 30.00 | ug/l | -0.04 |
| 33) 1,4-Dichlorobutane | 18.24 | 55 | 539346 | 30.00 | ug/l | -0.04 |
| | | | | | | %Recovery |
| System Monitoring Compounds | | | | | | |
| 17) Pentafluorobenzene | 8.05 | 168 | 820233 | 26.93 | ug/l | 89.75% |
| 18) Fluorobenzene | 9.72 | 96 | 708576 | 26.76 | ug/l | 89.21% |
| 41) CS10 4-Bomofluorobenzene | 18.59 | 95 | 413779 | 26.94 | ug/l | 89.81% |
| Target Compounds | | | | | | Qvalue |
| 6) C030 Methylene Chloride | 6.08 | 84 | 41773 | 3.32 | ug/l # | 87 |

000028

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

290-1

Lab Name: NYTEST ENV INC Contract: 9421415

Lab Code: NYTEST Case No.: 22633 SAS No.: SDG No.: ARMY3

Matrix: (soil/water) WATER Lab Sample ID: 2263312

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: M1165.D

Level: (low/med) LOW Date Received: 11/30/94

% Moisture: not dec. _____ Date Analyzed: 12/01/94

Column: (pack/cap) CAP Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|------------|-----------------------------|--|---|
| 74-87-3 | Chloromethane | 2 | U |
| 74-83-9 | Bromomethane | 1 | U |
| 75-01-4 | Vinyl Chloride | 1 | U |
| 75-00-3 | Chloroethane | 1 | U |
| 75-09-2 | Methylene Chloride | 3 | U |
| 75-35-4 | 1,1-Dichloroethene | 2 | U |
| 75-34-3 | 1,1-Dichloroethane | 1 | U |
| 67-66-3 | Chloroform | 1 | U |
| 107-06-2 | 1,2-Dichloroethane | 1 | U |
| 71-55-6 | 1,1,1-Trichloroethane | 1 | U |
| 56-23-5 | Carbon Tetrachloride | 2 | U |
| 75-27-4 | Bromodichloromethane | 1 | U |
| 78-87-5 | 1,2-Dichloropropane | 1 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 1 | U |
| 79-01-6 | Trichloroethene | 2 | U |
| 124-48-1 | Dibromochloromethane | 1 | U |
| 79-00-5 | 1,1,2-Trichloroethane | 1 | U |
| 71-43-2 | Benzene | 1 | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 1 | U |
| 75-25-2 | Bromoform | 1 | U |
| 127-18-4 | Tetrachloroethene | 3 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 2 | U |
| 108-88-3 | Toluene | 2 | U |
| 108-90-7 | Chlorobenzene | 2 | U |
| 100-41-4 | Ethylbenzene | 2 | U |
| 1330-20-7 | Xylene (total) | 6 | U |
| 75-69-4 | Trichloromonofluoromethane | 2 | U |
| 107-02-8 | Acrolein | 20 | U |
| 107-13-1 | Acrylonitrile | 2 | U |
| 75-65-0 | Tertiary Butyl Alcohol | 100 | U |
| 1634-34-4 | Methyl Tertiary Butyl Ether | 1 | U |
| 541-73-1 | 1,3-Dichlorobenzene | 2 | U |
| 106-46-7 | 1,4-Dichlorobenzene | 2 | U |
| 95-50-1 | 1,2-Dichlorobenzene | 2 | U |

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

290-1

Lab Name: NYTEST ENV INC Contract: 9421415

Lab Code: NYTEST Case No.: 22633 SAS No.: SDG No.: ARMY3

Matrix: (soil/water) WATER Lab Sample ID: 2263312

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: M1165.D

Level: (low/med) LOW Date Received: 11/30/94

% Moisture: not dec. _____ Date Analyzed: 12/01/94

Column: (pack/cap) CAP Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---------------|---------------------------|--|---|
| 110-75-8----- | 2-Chloroethylvinyl Ether | 4 | U |
| 156-60-5----- | Trans, 1,2-Dichloroethene | 1 | U |

1E
 VOLATILE ORGANICS ANALYSIS DATA SHEET
 TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

290-1

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22633

SAS No.:

SDG No.: ARMY3

Matrix: (soil/water) WATER

Lab Sample ID: 2263312

Sample wt/vol: 5.0

(g/mL) ML

Lab File ID: M1165.D

Level: (low/med) LOW

Date Received: 11/30/94

% Moisture: not dec. _____

Date Analyzed: 12/01/94

Column: (pack/cap) CAP

Dilution Factor: 1.0

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

Number TICs found: 1

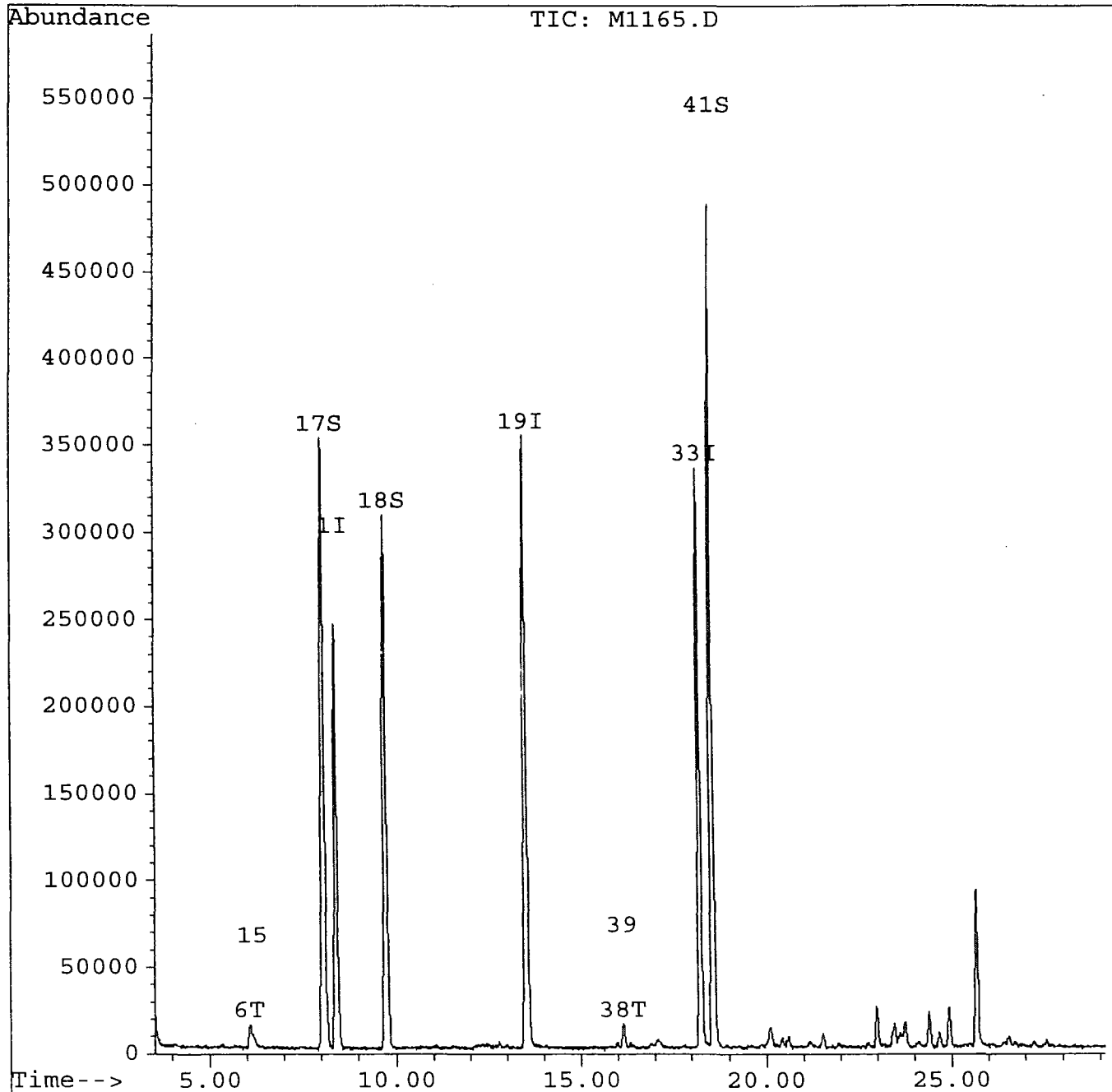
| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|------------|---------------|--------|------------|---|
| 1. | UNKNOWN | 25.673 | 9 | J |
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| 30. | | | | |

Quantitation Report

Data File : C:\HPCHEM\1\DATA\120194\M1165.D
Acq Time : 1 Dec 94 20:22 pm
Sample : 2263312,290-1,
Misc : 1,1,,,5,5,L,W,R11-30-94,
Quant Time: Dec 14 16:34 1994

Operator: VC
Inst : HPM
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\P624.M
Title : VOA Standards for 5 point calibration
Last Update : Thu Dec 08 12:56:54 1994
Response via : Multiple Level Calibration



000032

Quantitation Report

Data File : C:\HPCHEM\1\DATA\120194\M1165.D
 Acq Time : 1 Dec 94 20:22 pm
 Sample : 2263312,290-1,
 Misc : 1,1,,,5,5,L,W,R11-30-94,
 Quant Time: Dec 14 16:34 1994

Operator: VC
 Inst : HPM
 Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\P624.M
 Title : VOA Standards for 5 point calibration
 Last Update : Thu Dec 08 12:56:54 1994
 Response via : Initial Calibration

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev (Min) |
|--------------------------------|-------|------|----------|-------|--------|-----------|
| 1) CI01 Bromochloromethane | 8.39 | 128 | 151134 | 30.00 | ug/l | -0.03 |
| 19) 2-Bromo-1-Chloropropane | 13.52 | 77 | 535265 | 30.00 | ug/l | -0.04 |
| 33) 1,4-Dichlorobutane | 18.24 | 55 | 593179 | 30.00 | ug/l | -0.04 |
| System Monitoring Compounds | | | | | | %Recovery |
| 17) Pentafluorobenzene | 8.05 | 168 | 921870 | 27.45 | ug/l | 91.50% |
| 18) Fluorobenzene | 9.73 | 96 | 779231 | 26.70 | ug/l | 88.99% |
| 41) CS10 4-Bomofluorobenzene | 18.59 | 95 | 463642 | 27.45 | ug/l | 91.50% |
| Target Compounds | | | | | | Qvalue |
| 6) C030 Methylene Chloride | 6.08 | 84 | 13225 | 0.95 | ug/l # | 84 |
| 15) C176 Methyl Tertiary Butyl | 6.17 | 73 | 16451 | 0.94 | ug/l | 75 |
| 39) C250 M-P,Xylene | 16.14 | 106 | 13208 | 0.83 | ug/l | 90 |

Handwritten: 2 COMPOUNDS BELOW
 MPL re 1/10/94

000033

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK39

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22633

SAS No.:

SDG No.: ARMY3

Matrix: (soil/water) WATER

Lab Sample ID: VBLK39

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: M1150.D

Level: (low/med) LOW

Date Received: 00/00/00

% Moisture: not dec. _____

Date Analyzed: 12/01/94

Column: (pack/cap) CAP

Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---------|----------|--|---|
|---------|----------|--|---|

| | | | |
|-----------------|-----------------------------|-----|---|
| 74-87-3----- | Chloromethane | 2 | U |
| 74-83-9----- | Bromomethane | 1 | U |
| 75-01-4----- | Vinyl Chloride | 1 | U |
| 75-00-3----- | Chloroethane | 1 | U |
| 75-09-2----- | Methylene Chloride | 3 | U |
| 75-35-4----- | 1,1-Dichloroethene | 2 | U |
| 75-34-3----- | 1,1-Dichloroethane | 1 | U |
| 67-66-3----- | Chloroform | 1 | U |
| 107-06-2----- | 1,2-Dichloroethane | 1 | U |
| 71-55-6----- | 1,1,1-Trichloroethane | 1 | U |
| 56-23-5----- | Carbon Tetrachloride | 2 | U |
| 75-27-4----- | Bromodichloromethane | 1 | U |
| 78-87-5----- | 1,2-Dichloropropane | 1 | U |
| 10061-01-5----- | cis-1,3-Dichloropropene | 1 | U |
| 79-01-6----- | Trichloroethene | 2 | U |
| 124-48-1----- | Dibromochloromethane | 1 | U |
| 79-00-5----- | 1,1,2-Trichloroethane | 1 | U |
| 71-43-2----- | Benzene | 1 | U |
| 10061-02-6----- | trans-1,3-Dichloropropene | 1 | U |
| 75-25-2----- | Bromoform | 1 | U |
| 127-18-4----- | Tetrachloroethene | 3 | U |
| 79-34-5----- | 1,1,2,2-Tetrachloroethane | 2 | U |
| 108-88-3----- | Toluene | 2 | U |
| 108-90-7----- | Chlorobenzene | 2 | U |
| 100-41-4----- | Ethylbenzene | 2 | U |
| 1330-20-7----- | Xylene (total) | 6 | U |
| 75-69-4----- | Trichloromonofluoromethane | 2 | U |
| 107-02-8----- | Acrolein | 20 | U |
| 107-13-1----- | Acrylonitrile | 2 | U |
| 75-65-0----- | Tertiary Butyl Alcohol | 100 | U |
| 1634-34-4----- | Methyl Tertiary Butyl Ether | 1 | U |
| 541-73-1----- | 1,3-Dichlorobenzene | 2 | U |
| 106-46-7----- | 1,4-Dichlorobenzene | 2 | U |
| 95-50-1----- | 1,2-Dichlorobenzene | 2 | U |

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK39

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22633

SAS No.:

SDG No.: ARMY3

Matrix: (soil/water) WATER

Lab Sample ID: VBLK39

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: M1150.D

Level: (low/med) LOW

Date Received: 00/00/00

% Moisture: not dec. _____

Date Analyzed: 12/01/94

Column: (pack/cap) CAP

Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---------------|---------------------------|--|---|
| 110-75-8----- | 2-Chloroethylvinyi Ether | 4 | U |
| 156-60-5----- | Trans, 1,2-Dichloroethene | 1 | U |

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK39

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22633

SAS No.:

SDG No.: ARMY3

Matrix: (soil/water) WATER

Lab Sample ID: VBLK39

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: M1150.D

Level: (low/med) LOW

Date Received: 00/00/00

% Moisture: not dec. _____

Date Analyzed: 12/01/94

Column: (pack/cap) CAP

Dilution Factor: 1.0

Number TICs found: 0

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

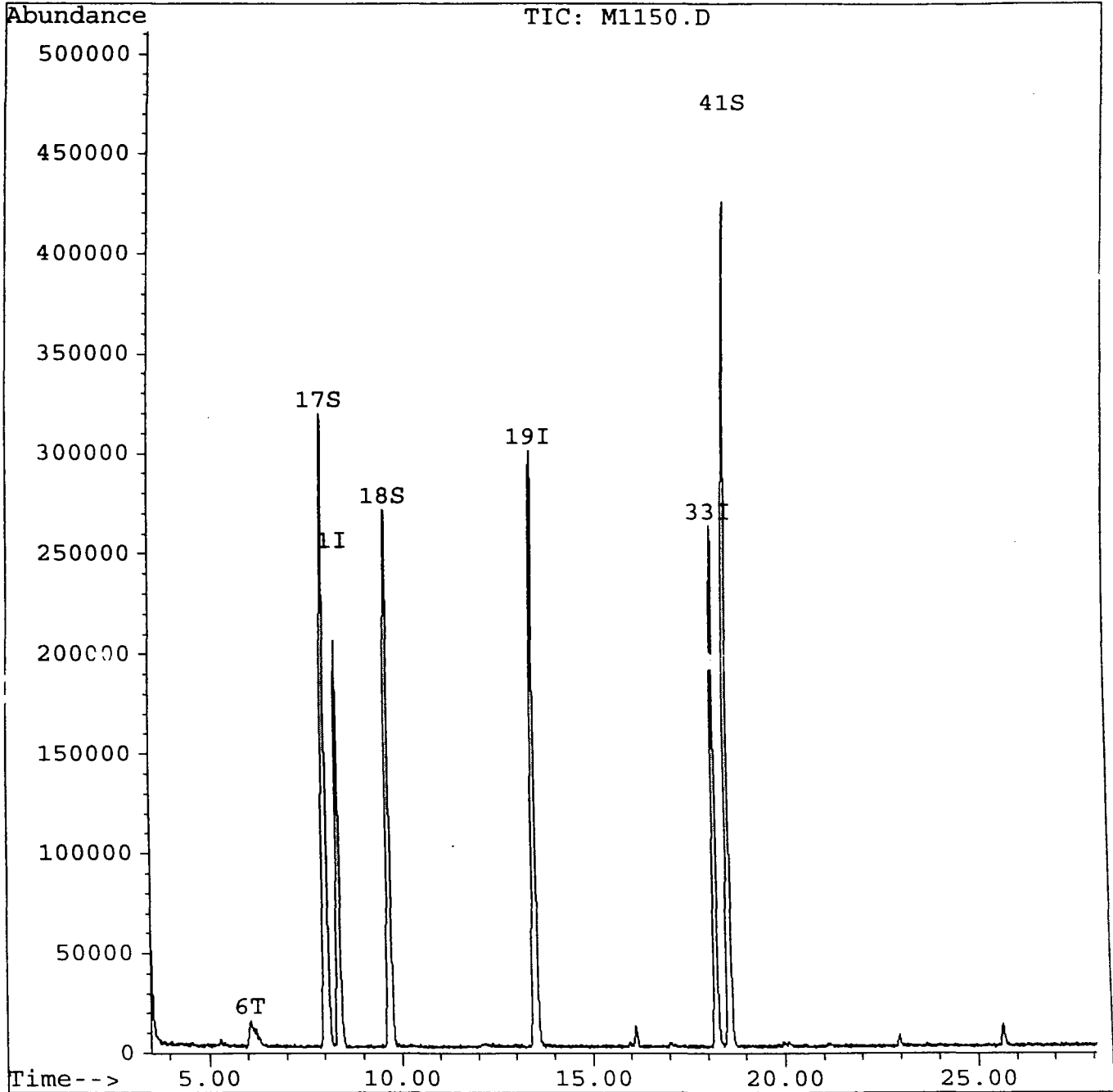
| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|------------|---------------|----|------------|---|
| 1. | | | | |
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Quantitation Report

Data File : C:\HPCHEM\1\DATA\120194\M1150.D
Acq Time : 1 Dec 94 11:30 am
Sample : VBLK39,VBLK39,
Misc : 1,,,,,5,5,L,W,
Quant Time: Dec 1 12:00 1994

Operator: VC
Inst : HPM
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\P624.M
Title : VOA Standards for 5 point calibration
Last Update : Tue Nov 29 12:18:35 1994
Response via : Multiple Level Calibration



000037

Quantitation Report

Data File : C:\HPCHEM\1\DATA\120194\M1150.D
 Acq Time : 1 Dec 94 11:30 am
 Sample : VBLK39,VBLK39,
 Misc : 1,,,,,5,5,L,W,
 Quant Time: Dec 1 12:00 1994

Operator: VC
 Inst : HPM
 Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\P624.M
 Title : VOA Standards for 5 point calibration
 Last Update : Tue Nov 29 12:18:35 1994
 Response via : Initial Calibration

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev (Min) |
|------------------------------------|-------|------|----------|-------|-------|------------------|
| 1) CI01 Bromochloromethane | 8.38 | 128 | 126949 | 30.00 | ug/l | -0.05 |
| 19) 2-Bromo-1-Chloropropane | 13.50 | 77 | 462593 | 30.00 | ug/l | -0.06 |
| 33) 1,4-Dichlorobutane | 18.23 | 55 | 462734 | 30.00 | ug/l | -0.05 |
| System Monitoring Compounds | | | | | | %Recovery |
| 17) Pentafluorobenzene | 8.03 | 168 | 836157 | 29.64 | ug/l | 98.81% |
| 18) Fluorobenzene | 9.70 | 96 | 694203 | 28.32 | ug/l | 94.39% |
| 41) CS10 4-Bomofluorobenzene | 18.57 | 95 | 404891 | 30.73 | ug/l | 102.43% |
| Target Compounds | | | | | | Qvalue |
| 6) C030 Methylene Chloride | 6.07 | 84 | 28277 | 2.42 | ug/l | 95 |

L COMPOUND BELOW MDL

we 1/10/95

000038

2A
WATER VOLATILE SURROGATE COMPOUND RECOVERY

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22633

SAS No.:

SDG No.: ARMY3

| | EPA SAMPLE NO. | SUR1 (FB) # | SUR2 (BFB) # | SUR3 (PFB) # | OTHER | TOT OUT |
|----|-------------------|----------------|-----------------|-----------------|-------|------------|
| | ===== | ===== | ===== | ===== | ===== | ===== |
| 01 | QCCKECK | 88 | 93 | 89 | | 0 |
| 02 | VBLK39 | 94 | 102 | 99 | | 0 |
| 03 | 2044-TB | 92 | 99 | 94 | | 0 |
| 04 | 296-TB | 89 | 90 | 90 | | 0 |
| 05 | 296-FB | 91 | 91 | 92 | | 0 |
| 06 | 2044-FB | 94 | 94 | 94 | | 0 |
| 07 | 296-6 | 92 | 93 | 92 | | 0 |
| 08 | 296-6MS | 91 | 89 | 92 | | 0 |
| 09 | 296-1 | 91 | 93 | 91 | | 0 |
| 10 | 296-3 | 90 | 93 | 92 | | 0 |
| 11 | 296-2 | 89 | 88 | 91 | | 0 |
| 12 | 296-7 | 89 | 91 | 90 | | 0 |
| 13 | 296-8 | 92 | 93 | 94 | | 0 |
| 14 | 296-DUP | 90 | 94 | 92 | | 0 |
| 15 | 290-1 | 89 | 92 | 92 | | 0 |
| 16 | 108-1 | 88 | 91 | 90 | | 0 |
| 17 | 108-2 | 91 | 94 | 93 | | 0 |
| 18 | 108-3 | 89 | 92 | 92 | | 0 |
| 19 | 750-1 | 89 | 91 | 91 | | 0 |
| 20 | 750-3 | 88 | 91 | 89 | | 0 |
| 21 | 750-4 | 90 | 92 | 92 | | 0 |
| 22 | 2562-2 | 91 | 96 | 94 | | 0 |
| 23 | 2562-3 | 90 | 94 | 92 | | 0 |
| 24 | 2044-1 | 86 | 92 | 91 | | 0 |
| 25 | 2044-2 | 86 | 81 | 86 | | 0 |
| 26 | 2044-3 | 93 | 109 | 97 | | 0 |
| 27 | 2044-DUP | 92 | 101 | 95 | | 0 |
| 28 | 2562-1 | 93 | 96 | 95 | | 0 |
| 29 | QCCKECK1 | 88 | 89 | 90 | | 0 |
| 30 | VBLK41 | 95 | 93 | 97 | | 0 |

QC LIMITS

SUR1 (FB) = Fluorobenzene (70-140)
 SUR2 (BFB) = Bromofluorobenzene (60-150)
 SUR3 (PFB) = Pentafluorobenzene (70-140)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogates diluted out

nytest

RECOVERY REPORT

Client Name: Client SDG: ARMY3
Sample Matrix: LIQUID Fraction: VOA
Lab Smp Id: 2263310 Client Smp ID: 296-6MS
Level: LOW Operator: VC
Data Type: MS DATA SampleType: MS
SpikeList File: QCMS.spk Quant Type: ISTD
Method File: /chem/HPM.i/22633.b/624.m
Misc Info:

| SPIKE COMPOUND | CONC ADDED ug/l | CONC RECOVERED ug/l | % RECOVERED | LIMITS |
|-----------------------|-----------------------|---------------------------|----------------|--------|
| 1 Chloromethane | 20 | 20 | 98.48 | 0-275 |
| 4 Bromomethane | 20 | 20 | 98.48 | 0-242 |
| 5 Vinyl Chloride | 20 | 16 | 81.56 | 0-251 |
| 6 Chloroethane | 20 | 19 | 93.87 | 14-230 |
| 7 Methylene Chloride | 20 | 13 | 66.06 | 0-221 |
| 10 1,1-Dichloroethene | 20 | 19 | 95.79 | 0-234 |
| 12 1,1-Dichloroethane | 20 | 19 | 97.02 | 59-155 |
| 14 Trans, 1,2-Dichlor | 20 | 19 | 97.24 | 54-156 |
| 15 Chloroform | 20 | 20 | 98.97 | 51-138 |
| 16 1,2-Dichloroethane | 20 | 19 | 95.69 | 49-155 |
| 19 Trichloromonofluor | 20 | 20 | 101.35 | 17-181 |
| 24 1,1,1-Trichloroeth | 20 | 19 | 93.48 | 52-162 |
| 25 Carbon Tetrachlori | 20 | 18 | 91.23 | 70-140 |
| 27 Bromodichlorometha | 20 | 18 | 91.55 | 35-155 |
| 28 1,2-Dichloropropan | 20 | 18 | 90.83 | 0-210 |
| 29 cis-1,3-Dichloropr | 20 | 18 | 92.90 | 0-227 |
| 30 Trichloroethene | 20 | 18 | 88.48 | 71-157 |
| 31 Dibromochlorometha | 20 | 18 | 89.02 | 53-149 |
| 32 1,1,2-Trichloroeth | 20 | 18 | 90.41 | 52-150 |
| 34 Benzene | 20 | 28 | 142.29 | 37-151 |
| 35 trans-1,3-Dichloro | 20 | 18 | 92.74 | 17-183 |
| 37 Bromoform | 20 | 18 | 91.99 | 45-169 |
| 38 2-Chloroethylvinyl | 20 | 18 | 90.80 | 0-305 |
| 41 Tetrachloroethene | 20 | 18 | 92.25 | 64-148 |
| 43 1,1,2,2-Tetrachlor | 20 | 18 | 92.11 | 46-157 |
| 45 Toluene | 20 | 19 | 95.44 | 47-150 |
| 46 Chlorobenzene | 20 | 18 | 90.11 | 37-160 |
| 47 Ethylbenzene | 20 | 26 | 130.08 | 37-162 |
| 53 1,3-Dichlorobenzen | 20 | 20 | 99.34 | 59-156 |
| 54 1,4-Dichlorobenzen | 20 | 21 | 104.51 | 18-190 |
| 55 1,2-Dichlorobenzen | 20 | 21 | 103.70 | 18-190 |

nytest

RECOVERY REPORT

Client Name: Client SDG: ARMY3
Sample Matrix: LIQUID Fraction: VOA
Lab Smp Id: 2263310 Client Smp ID: 296-6MS
Level: LOW Operator: VC
Data Type: MS DATA SampleType: MS
SpikeList File: QCMS.spk Quant Type: ISTD
Method File: /chem/HPM.i/22633.b/624.m
Misc Info:

| SURROGATE COMPOUND | CONC ADDED ug/l | CONC RECOVERED ug/l | % RECOVERED | LIMITS |
|--------------------------|-----------------------|---------------------------|----------------|--------|
| \$ 33 Pentafluorobenzene | 30 | 28 | 91.98 | 70-140 |
| \$ 44 Fluorobenzene | 30 | 27 | 91.41 | 70-140 |
| \$ 48 Bromofluorobenzene | 30 | 26 | 88.64 | 60-150 |

000041

nytest

RECOVERY REPORT

Client Name:
Sample Matrix: LIQUID
Lab Smp Id: 2263311
Level: LOW
Data Type: MS DATA
SpikeList File: QCMS.spk
Method File: /chem/HPM.i/22633.b/624.m
Misc Info:

Client SDG: ARMY3
Fraction: VOA
Client Smp ID: ~~HW~~-6MSD
Operator: VC
SampleType: MSD
Quant Type: ISTD

em Jurnally 2/18/95

| SURROGATE COMPOUND | CONC ADDED ug/l | CONC RECOVERED ug/l | % RECOVERED | LIMITS |
|--------------------------|-----------------------|---------------------------|----------------|--------|
| \$ 33 Pentafluorobenzene | 30 | 27 | 90.25 | 70-140 |
| \$ 44 Fluorobenzene | 30 | 27 | 89.48 | 70-140 |
| \$ 48 Bromofluorobenzene | 30 | 27 | 88.92 | 60-150 |

000043

4A
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK39

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22633

SAS No.:

SDG No.: ARMY3

Lab File ID: M1150.D

Lab Sample ID: VBLK39

Date Analyzed: 12/01/94

Time Analyzed: 1130

Matrix: (soil/water) WATER

Level: (low/med) LOW

Instrument ID: HPM

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

| | EPA SAMPLE NO. | LAB SAMPLE ID | LAB FILE ID | TIME ANALYZED |
|----|-------------------|------------------|----------------|------------------|
| | ===== | ===== | ===== | ===== |
| 01 | QCCKECK | QCCKECK | M1149.D | 1040 |
| 02 | 2044-TB | 2263327 | M1151.D | 1210 |
| 03 | 296-TB | 2263308 | M1153.D | 1315 |
| 04 | 296-FB | 2263307 | M1154.D | 1348 |
| 05 | 2044-FB | 2263325 | M1155.D | 1430 |
| 06 | 296-6 | 2263304 | M1156.D | 1503 |
| 07 | 296-6MS | 2263310 | M1157.D | 1536 |
| 08 | 296-1 | 2263301 | M1159.D | 1655 |
| 09 | 296-3 | 2263303 | M1160.D | 1730 |
| 10 | 296-2 | 2263302 | M1161.D | 1804 |
| 11 | 296-7 | 2263305 | M1162.D | 1839 |
| 12 | 296-8 | 2263306 | M1163.D | 1913 |
| 13 | 296-DUP | 2263309 | M1164.D | 1948 |
| 14 | 290-1 | 2263312 | M1165.D | 2022 |
| 15 | 108-1 | 2263313 | M1166.D | 2057 |
| 16 | 108-2 | 2263314 | M1167.D | 2131 |
| 17 | 108-3 | 2263315 | M1168.D | 2205 |
| 18 | 750-1 | 2263316 | M1169.D | 2240 |
| 19 | 750-3 | 2263317 | M1170.D | 2314 |
| 20 | 750-4 | 2263318 | M1171.D | 2348 |
| 21 | 2562-2 | 2263320 | M1173.D | 0057 |
| 22 | 2562-3 | 2263321 | M1174.D | 0131 |
| 23 | 2044-1 | 2263322 | M1175.D | 0206 |
| 24 | 2044-2 | 2263323 | M1176.D | 0240 |
| 25 | 2044-3 | 2263324 | M1177.D | 0856 |
| 26 | 2044-DUP | 2263326 | M1178.D | 0930 |
| 27 | 2562-1 | 2263319 | M1179.D | 1010 |
| 28 | | | | |
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COMMENTS:

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22633

SAS No.:

SDG No.: ARMY3

Lab File ID: M1098.D

BFB Injection Date: 11/28/94

Instrument ID: HPM

BFB Injection Time: 1706

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|-----|--|----------------------|
| 50 | 15.0 - 40.0% of mass 95 | 24.7 |
| 75 | 30.0 - 60.0% of mass 95 | 46.6 |
| 95 | Base peak, 100% relative abundance | 100.0 |
| 96 | 5.0 - 9.0% of mass 95 | 6.3 |
| 173 | Less than 2.0% of mass 174 | 0.0 (0.0)1 |
| 174 | Greater than 50.0% of mass 95 | 95.9 |
| 175 | 5.0 - 9.0% of mass 174 | 7.3 (7.6)1 |
| 176 | Greater than 95.0%, but less than 101.0% of mass 174 | 93.3 (97.2)1 |
| 177 | 5.0 - 9.0% of mass 176 | 6.1 (6.5)2 |

1-Value is % mass 174

2-Value is % mass 176

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

| | EPA SAMPLE NO. | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|----|-------------------|------------------|----------------|------------------|------------------|
| 01 | VSTD005 | VSTD005 | M1100.D | 11/28/94 | 1755 |
| 02 | VSTD020 | VSTD020 | M1102.D | 11/28/94 | 1912 |
| 03 | VSTD050 | VSTD050 | M1103.D | 11/28/94 | 1950 |
| 04 | VSTD100 | VSTD100 | M1105.D | 11/28/94 | 2108 |
| 05 | VSTD200 | VSTD200 | M1107.D | 11/28/94 | 2225 |
| 06 | | | | | |
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5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: NYTEST ENV INC Contract: 9421415
 Lab Code: NYTEST Case No.: 22633 SAS No.: SDG No.: ARMY3
 Lab File ID: M1148.D BFB Injection Date: 12/01/94
 Instrument ID: HPM BFB Injection Time: 1029
 Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|-----|--|----------------------|
| 50 | 15.0 - 40.0% of mass 95 | 25.6 |
| 75 | 30.0 - 60.0% of mass 95 | 44.7 |
| 95 | Base peak, 100% relative abundance | 100.0 |
| 96 | 5.0 - 9.0% of mass 95 | 6.6 |
| 173 | Less than 2.0% of mass 174 | 0.0 (0.0)1 |
| 174 | Greater than 50.0% of mass 95 | 92.3 |
| 175 | 5.0 - 9.0% of mass 174 | 7.4 (8.0)1 |
| 176 | Greater than 95.0%, but less than 101.0% of mass 174 | 90.4 (98.0)1 |
| 177 | 5.0 - 9.0% of mass 176 | 5.8 (6.4)2 |

1-Value is % mass 174

2-Value is % mass 176

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

| | EPA SAMPLE NO. | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|----|-------------------|------------------|----------------|------------------|------------------|
| 01 | QCCKECK | QCCKECK | M1149.D | 12/01/94 | 1040 |
| 02 | VBLK39 | VBLK39 | M1150.D | 12/01/94 | 1130 |
| 03 | 2044-TB | 2263327 | M1151.D | 12/01/94 | 1210 |
| 04 | 296-TB | 2263308 | M1153.D | 12/01/94 | 1315 |
| 05 | 296-FB | 2263307 | M1154.D | 12/01/94 | 1348 |
| 06 | 2044-FB | 2263325 | M1155.D | 12/01/94 | 1430 |
| 07 | 296-6 | 2263304 | M1156.D | 12/01/94 | 1503 |
| 08 | 296-6MS | 2263310 | M1157.D | 12/01/94 | 1536 |
| 09 | 296-1 | 2263301 | M1159.D | 12/01/94 | 1655 |
| 10 | 296-3 | 2263303 | M1160.D | 12/01/94 | 1730 |
| 11 | 296-2 | 2263302 | M1161.D | 12/01/94 | 1804 |
| 12 | 296-7 | 2263305 | M1162.D | 12/01/94 | 1839 |
| 13 | 296-8 | 2263306 | M1163.D | 12/01/94 | 1913 |
| 14 | 296-DUP | 2263309 | M1164.D | 12/01/94 | 1948 |
| 15 | 290-1 | 2263312 | M1165.D | 12/01/94 | 2022 |
| 16 | 108-1 | 2263313 | M1166.D | 12/01/94 | 2057 |
| 17 | 108-2 | 2263314 | M1167.D | 12/01/94 | 2131 |
| 18 | 108-3 | 2263315 | M1168.D | 12/01/94 | 2205 |
| 19 | 750-1 | 2263316 | M1169.D | 12/01/94 | 2240 |
| 20 | 750-3 | 2263317 | M1170.D | 12/01/94 | 2314 |
| 21 | 750-4 | 2263318 | M1171.D | 12/01/94 | 2348 |
| 22 | 2562-2 | 2263320 | M1173.D | 12/02/94 | 0057 |

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22633

SAS No.:

SDG No.: ARMY3

Lab File ID: M1148.D

BFB Injection Date: 12/01/94

Instrument ID: HPM

BFB Injection Time: 1029

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|-----|--|----------------------|
| 50 | 15.0 - 40.0% of mass 95 | 25.6 |
| 75 | 30.0 - 60.0% of mass 95 | 44.7 |
| 95 | Base peak, 100% relative abundance | 100.0 |
| 96 | 5.0 - 9.0% of mass 95 | 6.6 |
| 173 | Less than 2.0% of mass 174 | 0.0 (0.0)1 |
| 174 | Greater than 50.0% of mass 95 | 92.3 |
| 175 | 5.0 - 9.0% of mass 174 | 7.4 (8.0)1 |
| 176 | Greater than 95.0%, but less than 101.0% of mass 174 | 90.4 (98.0)1 |
| 177 | 5.0 - 9.0% of mass 176 | 5.8 (6.4)2 |

1-Value is % mass 174

2-Value is % mass 176

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

| | EPA SAMPLE NO. | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|----|-------------------|------------------|----------------|------------------|------------------|
| 01 | 2562-3 | 2263321 | M1174.D | 12/02/94 | 0131 |
| 02 | 2044-1 | 2263322 | M1175.D | 12/02/94 | 0206 |
| 03 | 2044-2 | 2263323 | M1176.D | 12/02/94 | 0240 |
| 04 | 2044-3 | 2263324 | M1177.D | 12/02/94 | 0856 |
| 05 | 2044-DUP | 2263326 | M1178.D | 12/02/94 | 0930 |
| 06 | 2562-1 | 2263319 | M1179 D | 12/02/94 | 1010 |
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VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22633

SAS No.:

SDG No.: ARMY3

Instrument ID: HPM

Calibration Date(s): 11/28/94

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

Max %RSD for CCC(*) = 35.0%

| LAB FILE ID: | RRF005 =M1100.D | RRF010 =M1102.D | RRF030 =M1103.D | RRF050 =M1105.D | RRF200 =M1107.D | RRF | % RSD |
|-----------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-------|-------|
| COMPOUND | RRF005 | RRF010 | RRF030 | RRF050 | RRF200 | RRF | % RSD |
| Chloromethane | 1.236 | 1.732 | 1.432 | 1.462 | 1.359 | 1.444 | 12.7 |
| Bromomethane | 1.418 | 1.713 | 1.276 | 1.472 | 1.357 | 1.447 | 11.4 |
| Vinyl Chloride | 1.526 | 2.017 | 1.598 | 1.824 | 1.705 | 1.734 | 11.2 |
| Chloroethane | 0.911 | 1.227 | 0.942 | 1.102 | 1.040 | 1.044 | 12.2 |
| Methylene Chloride | 3.837 | 3.259 | 1.863 | 2.065 | | 2.756 | 34.4 |
| 1,1-Dichloroethene | 1.465 | 1.880 | 1.456 | 1.712 | 1.565 | 1.616 | 11.2 |
| 1,1-Dichloroethane | 3.420 | 4.234 | 3.262 | 3.820 | 3.362 | 3.620 | 11.2 |
| Chloroform | 3.209 | 3.968 | 3.002 | 3.518 | 3.267 | 3.393 | 10.9 |
| 1,2-Dichloroethane | 2.329 | 2.835 | 2.179 | 2.590 | 2.346 | 2.456 | 10.5 |
| 1,1,1-Trichloroethane | 0.757 | 0.927 | 0.724 | 0.861 | 0.750 | 0.804 | 10.7 |
| Carbon Tetrachloride | 0.721 | 0.853 | 0.699 | 0.831 | 0.725 | 0.766 | 9.2 |
| Bromodichloromethane | 0.862 | 1.054 | 0.834 | 0.988 | 0.879 | 0.923 | 10.1 |
| 1,2-Dichloropropane | 0.683 | 0.817 | 0.631 | 0.752 | 0.665 | 0.710 | 10.5 |
| cis-1,3-Dichloropropene | 0.858 | 1.041 | 0.820 | 0.960 | 0.836 | 0.903 | 10.5 |
| Trichloroethene | 0.638 | 0.770 | 0.606 | 0.701 | 0.633 | 0.670 | 9.9 |
| Dibromochloromethane | 0.774 | 0.985 | 0.783 | 0.934 | 0.826 | 0.860 | 10.9 |
| 1,1,2-Trichloroethane | 0.540 | 0.664 | 0.516 | 0.606 | 0.531 | 0.571 | 10.9 |
| Benzene | 1.561 | 1.818 | 1.424 | 1.679 | 1.461 | 1.589 | 10.2 |
| trans-1,3-Dichloropropene | 0.745 | 0.901 | 0.711 | 0.835 | 0.731 | 0.784 | 10.2 |
| Bromoform | 0.715 | 0.942 | 0.779 | 0.920 | 0.812 | 0.834 | 11.5 |
| Tetrachloroethene | 0.698 | 0.780 | 0.604 | 0.708 | 0.632 | 0.684 | 10.1 |
| 1,1,2,2-Tetrachloroethane | 0.821 | 0.999 | 0.758 | 0.906 | 0.761 | 0.851 | 11.9 |
| Toluene | 1.760 | 2.045 | 1.583 | 1.866 | 1.632 | 1.777 | 10.5 |
| Chlorobenzene | 1.209 | 1.365 | 1.042 | 1.226 | 1.093 | 1.187 | 10.6 |
| Ethylbenzene | 0.625 | 0.708 | 0.526 | 0.625 | 0.571 | 0.611 | 11.2 |
| Xylene (total) | 0.720 | 0.819 | 0.622 | 0.743 | 0.671 | 0.715 | 10.4 |
| Trichloromonofluoromethane | 2.566 | 3.298 | 2.535 | 2.927 | 2.714 | 2.808 | 11.2 |
| Acrolein | | 0.109 | 0.121 | 0.047 | 0.106 | 0.096 | 34.9 |
| Acrylonitrile | 1.220 | 1.556 | 1.306 | 1.444 | 1.237 | 1.353 | 10.6 |
| Tertiary Butyl Alcohol | 0.000 | 0.204 | 0.165 | 0.165 | | 0.178 | 12.6 |
| Methyl Tertiary Butyl Ether | 3.406 | 4.306 | 3.105 | 3.687 | 2.875 | 3.476 | 16.0 |
| 1,3-Dichlorobenzene | 1.260 | 1.448 | 1.108 | 1.314 | 1.178 | 1.261 | 10.4 |
| 1,4-Dichlorobenzene | 1.296 | 1.504 | 1.147 | 1.371 | 1.227 | 1.309 | 10.4 |
| 1,2-Dichlorobenzene | 1.150 | 1.332 | 1.013 | 1.213 | 1.084 | 1.159 | 10.6 |
| 2-Chloroethylvinyl Ether | 0.683 | 0.817 | 0.631 | 0.752 | 0.666 | 0.710 | 10.5 |
| Trans, 1,2-Dichloroethene | 1.574 | 1.988 | 1.517 | 1.798 | 1.596 | 1.695 | 11.5 |
| Fluorobenzene | 5.498 | 6.761 | 5.100 | 5.999 | 5.611 | 5.794 | 10.8 |

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22633

SAS No.:

SDG No.: ARMY3

Instrument ID: HPM

Calibration Date(s): 11/28/94

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

Max %RSD for CCC(*) = 35.0%

| LAB FILE ID: | | RRF005 =M1100.D | RRF010 =M1102.D | | | | |
|--------------------|--------|-----------------|-----------------|--------|--------|-------|-------|
| RRF030=M1103.D | | RRF050=M1105.D | RRF200=M1107.D | | | | |
| COMPOUND | RRF005 | RRF010 | RRF030 | RRF050 | RRF200 | RRF | % RSD |
| Bromofluorobenzene | 0.843 | 0.979 | 0.744 | 0.890 | 0.816 | 0.854 | 10.2 |
| Pentafluorobenzene | 6.449 | 7.843 | 5.883 | 6.876 | 6.279 | 6.666 | 11.2 |

nytest

RECOVERY REPORT

Client Name:
 Sample Matrix: LIQUID
 Lab Smp Id: QCCHECK
 Level: LOW
 Data Type: MS DATA
 SpikeList File: QCCHK.spk
 Method File: /chem/HPM.i/22633.b/624.m
 Misc Info:

Client SDG: ARMY3
 Fraction: VOA
 Client Smp ID: QCCHECK
 Operator: VC
 SampleType: MS
 Quant Type: ISTD

| SPIKE COMPOUND | CONC ADDED ug/l | CONC RECOVERED ug/l | % RECOVERED | LIMITS |
|-----------------------|-----------------------|---------------------------|----------------|--------|
| 1 Chloromethane | 20 | 20 | 99.67 | 0-204 |
| 4 Bromomethane | 20 | 20 | 100.70 | 14-186 |
| 5 Vinyl Chloride | 20 | 16 | 81.08 | 4-196 |
| 6 Chloroethane | 20 | 19 | 94.22 | 38-162 |
| 7 Methylene Chloride | 20 | 15 | 77.31 | 60-140 |
| 10 1,1-Dichloroethene | 20 | 19 | 95.82 | 50-150 |
| 12 1,1-Dichloroethane | 20 | 19 | 95.98 | 72-128 |
| 14 Trans, 1,2-Dichlor | 20 | 20 | 97.58 | 70-130 |
| 15 Chloroform | 20 | 20 | 98.98 | 68-132 |
| 16 1,2-Dichloroethane | 20 | 19 | 94.03 | 68-132 |
| 19 Trichloromonofluor | 20 | 20 | 101.55 | 48-152 |
| 24 1,1,1-Trichloroeth | 20 | 20 | 99.39 | 75-125 |
| 25 Carbon Tetrachlori | 20 | 20 | 98.47 | 73-127 |
| 27 Bromodichlorometha | 20 | 19 | 95.92 | 66-134 |
| 28 1,2-Dichloropropan | 20 | 19 | 95.91 | 34-166 |
| 29 cis-1,3-Dichloropr | 20 | 20 | 97.81 | 24-176 |
| 30 Trichloroethene | 20 | 19 | 95.80 | 66-134 |
| 31 Dibromochlorometha | 20 | 19 | 95.12 | 68-132 |
| 32 1,1,2-Trichloroeth | 20 | 19 | 94.43 | 71-129 |
| 34 Benzene | 20 | 19 | 96.01 | 64-136 |
| 35 trans-1,3-Dichloro | 20 | 19 | 96.86 | 50-150 |
| 37 Bromoform | 20 | 19 | 96.94 | 71-129 |
| 38 2-Chloroethylvinyl | 20 | 19 | 95.87 | 0-224 |
| 41 Tetrachloroethene | 20 | 21 | 103.50 | 74-126 |
| 43 1,1,2,2-Tetrachlor | 20 | 20 | 101.93 | 60-140 |
| 45 Toluene | 20 | 20 | 98.58 | 74-126 |
| 46 Chlorobenzene | 20 | 20 | 102.22 | 66-134 |
| 47 Ethylbenzene | 20 | 20 | 100.60 | 59-141 |
| 53 1,3-Dichlorobenzen | 20 | 22 | 109.06 | 73-127 |
| 54 1,4-Dichlorobenzen | 20 | 23 | 116.98 | 63-137 |
| 55 1,2-Dichlorobenzen | 20 | 23 | 115.29 | 63-127 |

000050

nytest

RECOVERY REPORT

Client Name: Client SDG: ARMY3
Sample Matrix: LIQUID Fraction: VOA
Lab Smp Id: QCCHECK Client Smp ID: QCCHECK
Level: LOW Operator: VC
Data Type: MS DATA SampleType: MS
SpikeList File: QCCHK.spk Quant Type: ISTD
Method File: /chem/HPM.1/22633.b/624.m
Misc Info:

| SURROGATE COMPOUND | CONC ADDED ug/l | CONC RECOVERED ug/l | % RECOVERED | LIMITS |
|--------------------------|-----------------------|---------------------------|----------------|--------|
| \$ 33 Pentafluorobenzene | 30 | 27 | 89.43 | 70-140 |
| \$ 44 Fluorobenzene | 30 | 26 | 87.62 | 70-140 |
| \$ 48 Bromofluorobenzene | 30 | 28 | 92.68 | 60-150 |

000051

Metals Data

000052

INORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

296-FB

Lab Name: NYTEST_ENV_INC.

Contract: 9421415

Lab Code: NYTEST

Login No.: 22633

QC Report No.22633

Matrix (soil/water): WATER

Lab Sample ID: 263307

Level (low/high) : LOW

Date Received: 11/30/94

Percent Solids : 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

| CAS No. | Analyte | Concentration | C | Q | M |
|-----------|---------|---------------|---|---|---|
| 7439-92-1 | Lead | 3.0 | U | N | F |
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CODES :
P: ICP; F : GFAA; CV: Cold Vapor; AS: Automated Spectrophotometric
Note: A "U" in the "C" (Concentration) column indicates the analyte was
not detected in this sample; "B" = Sample value greater than Instrument
Detection Limit, but less than reporting limit; "NR" = Not Required.

Comments:
296-FB

NYTEST ENVIRONMENTAL INC.

INORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

290-1

Lab Name: NYTEST_ENV_INC. _____ Contract: 9421415 _____

Lab Code: NYTEST Login No.: 22633_ QC Report No.22633_

Matrix (soil/water): WATER Lab Sample ID: 263312 _____
 Level (low/high) : LOW Date Received: 11/30/94 _____
 Percent Solids : _0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

| CAS No. | Analyte | Concentration | C | Q | M |
|-----------|-----------|---------------|---|---|---|
| 7439-92-1 | Lead_____ | 3.0 | U | N | F |
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CODES :

P: ICP; F : GFAA; CV: Cold Vapor; AS: Automated Spectrophotometric
 Note: A "U" in the "C" (Concentration) column indicates the analyte was
 not detected in this sample; "B" = Sample value greater than Instrument
 Detection Limit, but less than reporting limit; "NR" = Not Required.

Comments:
 290-1 _____

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: NYTEST_ENV_INC. _____

Contract: 9421415 _____

Lab Code: NYTEST Login No.: 22633_

QC Report No.: 22633_

Initial Calibration Source: SPEX _____

Continuing Calibration Source: SPEX _____

Concentration Units: ug/L

| Analyte | Initial Calibration | | | Continuing Calibration | | | | | M |
|---------|---------------------|-------|-------|------------------------|-------|-------|-------|-------|---|
| | True | Found | %R(1) | True | Found | %R(1) | Found | %R(1) | |
| Lead | 90.0 | 97.00 | 107.8 | 50.0 | 51.20 | 102.4 | 52.00 | 104.0 | F |
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R : Analyte Not Required

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: NYTEST_ENV_INC._____

Contract: 9421415___

Lab Code: NYTEST Login No.: 22633_

QC Report No.: 22633_

Initial Calibration Source: SPEX_____

Continuing Calibration Source: SPEX_____

Concentration Units: ug/L

| Analyte | Initial Calibration | | | Continuing Calibration | | | | M | |
|---------|---------------------|-------|-------|------------------------|-------|-------|-------|-------|-------|
| | True | Found | %R(1) | True | Found | %R(1) | Found | | %R(1) |
| Lead | | | | 50.0 | 53.30 | 106.6 | 52.10 | 104.2 | F |
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N: Analyte Not Required

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: NYTEST_ENV_INC. _____ Contract: 9421415___

Lab Code: NYTEST Login No.: 22633_ QC Report No.: 22633_

Initial Calibration Source: SPEX _____

Continuing Calibration Source: SPEX _____

Concentration Units: ug/L

| Analyte | Initial Calibration | | | Continuing Calibration | | | | M | |
|---------|---------------------|-------|-------|------------------------|-------|-------|-------|-------|-------|
| | True | Found | %R(1) | True | Found | %R(1) | Found | | %R(1) |
| Lead | | | | 50.0 | 53.10 | 106.2 | 52.10 | 104.2 | F |
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IR : Analyte Not Required

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Name: NYTEST_ENV_INC. _____

Contract: 9421415 _____

Code: NYTEST Login No.: 22633_

QC Report No.: 22633_

Initial Calibration Source: SPEX _____

Continuing Calibration Source: SPEX _____

Concentration Units: ug/L

| Analyte | Initial Calibration | | | Continuing Calibration | | | | | M |
|---------|---------------------|-------|-------|------------------------|-------|-------|-------|-------|---|
| | True | Found | %R(1) | True | Found | %R(1) | Found | %R(1) | |
| Lead | | | | 50.0 | 54.00 | 108.0 | 53.50 | 107.0 | F |
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: Analyte Not Required

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: NYTEST_ENV_INC. _____

Contract: 9421415__

Lab Code: NYTEST Login No.: 22633_

QC Report No.: 22633_

Initial Calibration Source: SPEX _____

Continuing Calibration Source: SPEX _____

Concentration Units: ug/L

| Analyte | Initial Calibration | | | Continuing Calibration | | | | | M |
|---------|---------------------|-------|-------|------------------------|-------|-------|-------|-------|---|
| | True | Found | %R(1) | True | Found | %R(1) | Found | %R(1) | |
| Lead | | | | 50.0 | 52.90 | 105.8 | 52.90 | 105.8 | F |
| | | | | | | | | | |
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[] : Analyte Not Required

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: NYTEST_ENV_INC. _____

Contract: 9421415__

Lab Code: NYTEST Login No.: 22633_

QC Report No.: 22633_

Initial Calibration Source: SPEX _____

Continuing Calibration Source: SPEX _____

Concentration Units: ug/L

| Analyte | Initial Calibration | | | Continuing Calibration | | | | | M |
|---------|---------------------|-------|-------|------------------------|-------|-------|-------|-------|---|
| | True | Found | %R(1) | True | Found | %R(1) | Found | %R(1) | |
| Lead | | | | 50.0 | 52.70 | 105.4 | 51.90 | 103.8 | F |
| | | | | | | | | | |
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R : Analyte Not Required

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: NYTEST_ENV_INC. _____

Contract: 9421415 ____

Lab Code: NYTEST Login No.: 22633_

QC Report No.: 22633_

Initial Calibration Source: SPEX _____

Continuing Calibration Source: SPEX _____

Concentration Units: ug/L

| Analyte | Initial Calibration | | | Continuing Calibration | | | | | M |
|---------|---------------------|-------|-------|------------------------|-------|-------|-------|-------|---|
| | True | Found | %R(1) | True | Found | %R(1) | Found | %R(1) | |
| Lead | | | | 50.0 | 51.40 | 102.8 | 51.70 | 103.4 | F |
| | | | | | | | | | |
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N/A : Analyte Not Required

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Name: NYTEST_ENV_INC. _____ Contract: 9421415__

Code: NYTEST Login No.: 22633_ QC Report No.: 22633_

Initial Calibration Source: SPEX _____

Continuing Calibration Source: SPEX _____

Concentration Units: ug/L

| Analyte | Initial Calibration | | | Continuing Calibration | | | | M | |
|---------|---------------------|-------|-------|------------------------|-------|-------|-------|-------|-------|
| | True | Found | %R(1) | True | Found | %R(1) | Found | | %R(1) |
| Lead | | | | 50.0 | 51.60 | 103.2 | 52.20 | 104.4 | F |
| | | | | | | | | | |
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F: Analyte Not Required

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: NYTEST_ENV_INC. _____

Contract: 9421415 _____

Lab Code: NYTEST

Login No.: 22633_

QC Report No.: 22633_

Initial Calibration Source: SPEX _____

Continuing Calibration Source: SPEX _____

Concentration Units: ug/L

| Analyte | Initial Calibration | | | Continuing Calibration | | | | M | |
|---------|---------------------|-------|-------|------------------------|-------|-------|-------|-------|-------|
| | True | Found | %R(1) | True | Found | %R(1) | Found | | %R(1) |
| Lead | | | | 50.0 | 53.00 | 106.0 | 53.90 | 107.8 | F |
| | | | | | | | | | |
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INITIAL AND CONTINUING CALIBRATION VERIFICATION

ID Name: NYTEST_ENV_INC. _____

Contract: 9421415__

Code: NYTEST Login No.: 22633__

QC Report No.: 22633__

Initial Calibration Source: SPEX_____

Continuing Calibration Source: SPEX_____

Concentration Units: ug/L

| Analyte | Initial Calibration | | | Continuing Calibration | | | | | M |
|---------|---------------------|-------|-------|------------------------|-------|-------|-------|-------|---|
| | True | Found | %R(1) | True | Found | %R(1) | Found | %R(1) | |
| Lead | | | | 50.0 | 53.80 | 107.6 | 54.50 | 109.0 | F |
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QC: Analyte Not Required

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Name: NYTEST_ENV_INC. _____

Contract: 9421415 _____

Code: NYTEST Login No.: 22633_

QC Report No.: 22633_

Initial Calibration Source: SPEX _____

Continuing Calibration Source: SPEX _____

Concentration Units: ug/L

| Analyte | Initial Calibration | | | Continuing Calibration | | | | M | |
|---------|---------------------|-------|-------|------------------------|-------|-------|-------|------|-------|
| | True | Found | %R(1) | True | Found | %R(1) | Found | | %R(1) |
| Lead | 90.0 | 95.60 | 106.2 | 50.0 | 48.30 | 96.6 | 47.90 | 95.8 | F |
| | | | | | | | | | |
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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: NYTEST_ENV_INC. _____

Contract: 9421415 ____

Lab Code: NYTEST

Login No.: 22633_

QC Report No.: 22633_

Initial Calibration Source: SPEX _____

Continuing Calibration Source: SPEX _____

Concentration Units: ug/L

| Analyte | Initial Calibration | | | Continuing Calibration | | | | M | |
|---------|---------------------|-------|-------|------------------------|-------|-------|-------|-------|-------|
| | True | Found | %R(1) | True | Found | %R(1) | Found | | %R(1) |
| Lead | | | | 50.0 | 51.70 | 103.4 | 50.90 | 101.8 | F |
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QR : Analyte Not Required

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: NYTEST_ENV_INC. _____

Contract: 9421415 ___

Lab Code: NYTEST

Login No.: 22633_

QC Report No.: 22633_

Initial Calibration Source: SPEX _____

Continuing Calibration Source: SPEX _____

Concentration Units: ug/L

| Analyte | Initial Calibration | | | Continuing Calibration | | | | M | |
|---------|---------------------|-------|-------|------------------------|-------|-------|-------|-------|-------|
| | True | Found | %R(1) | True | Found | %R(1) | Found | | %R(1) |
| Lead | | | | 50.0 | 52.60 | 105.2 | 52.40 | 104.8 | F |
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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: NYTEST_ENV_INC. _____

Contract: 9421415__

b Code: NYTEST Login No.: 22633_

QC Report No.: 22633_

Initial Calibration Source: SPEX _____

Continuing Calibration Source: SPEX _____

Concentration Units: ug/L

| Analyte | Initial Calibration | | | Continuing Calibration | | | | M | |
|---------|---------------------|-------|-------|------------------------|-------|-------|-------|-------|-------|
| | True | Found | %R(1) | True | Found | %R(1) | Found | | %R(1) |
| Lead | | | | 50.0 | 52.00 | 104.0 | 53.00 | 106.0 | F |
| | | | | | | | | | |
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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: NYTEST_ENV_INC. _____

Contract: 9421415 _____

Lab Code: NYTEST Login No.: 22633_

QC Report No.: 22633_

Initial Calibration Source: SPEX _____

Continuing Calibration Source: SPEX _____

Concentration Units: ug/L

| Analyte | Initial Calibration | | | Continuing Calibration | | | | M | |
|---------|---------------------|-------|-------|------------------------|-------|-------|-------|-------|-------|
| | True | Found | %R(1) | True | Found | %R(1) | Found | | %R(1) |
| Lead | | | | 50.0 | 53.90 | 107.8 | 51.70 | 103.4 | F |
| | | | | | | | | | |
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RE : Analyte Not Required

NYTEST ENVIRONMENTAL INC.

CRDL STANDARD FOR AA AND ICP

Lab Name: NYTEST_ENV_INC. _____

Contract: 9421415__

Lab Code: NYTEST Login No.: 22633__

QC Report No. : 22633__

AA CRDL Standard Source: SPEX _____

ICP CRDL Standard Source: _____

Concentration Units: ug/L

| Analyte | CRDL Standard for AA | | | CRDL Standard for ICP | | | | |
|---------|----------------------|-------|-------|-----------------------|---------------|----|-------------|----|
| | True | Found | %R | True | Initial Found | %R | Final Found | %R |
| Lead | 3.0 | 3.40 | 113.3 | | | | | |
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NYTEST ENVIRONMENTAL INC.

CRDL STANDARD FOR AA AND ICP

Lab Name: NYTEST_ENV_INC. _____

Contract: 9421415 _____

Lab Code: NYTEST Login No.: 22633_

QC Report No. : 22633_

AA CRDL Standard Source: SPEX _____

CP CRDL Standard Source: _____

Concentration Units: ug/L

| Analyte | CRDL Standard for AA | | | CRDL Standard for ICP | | | | |
|---------|----------------------|-------|-------|-----------------------|---------------|----|-------------|----|
| | True | Found | %R | True | Initial Found | %R | Final Found | %R |
| Lead | 3.0 | 3.00 | 100.0 | | | | | |
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ANALYTICAL AND METHOD BLANK SUMMARY

Lab Name: NYTEST_ENV_INC.

Contract: 9421415

Lab Code: NYTEST

Login No.: 22633

QC Report No.: 22633

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

| Analyte | Initial Calib. Blank (ug/L) | C | Continuing Calibration Blank (ug/L) | | | | | | Preparation Blank | C | M |
|---------|-----------------------------|---|-------------------------------------|---|-----|---|-----|---|-------------------|---|---|
| | | | 1 | C | 2 | C | 3 | C | | | |
| Lead | 3.0 | U | 3.0 | U | 3.0 | U | 3.0 | U | 3.000 | U | F |
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NR = Analyte Not Requested

ANALYTICAL AND METHOD BLANK SUMMARY

Lab Name: NYTEST_ENV_INC. _____ Contract: 9421415 _____

Lab Code: NYTEST Login No.: 22633_ QC Report No.: 22633_

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L_

| Analyte | Initial Calib. Blank (ug/L) | | Continuing Calibration Blank (ug/L) | | | | | | Preparation Blank | | M |
|---------|-----------------------------|---|-------------------------------------|---|-----|---|-----|---|-------------------|---|---|
| | | C | 1 | C | 2 | C | 3 | C | | C | |
| Lead | | | 3.0 | U | 3.0 | U | 3.0 | U | 3.000 | U | F |
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NR = Analyte Not Requested

ANALYTICAL AND METHOD BLANK SUMMARY

Lab Name: NYTEST_ENV_INC. _____

Contract: 9421415 _____

Lab Code: NYTEST

Login No.: 22633_

QC Report No.: 22633_

Preparation Blank Matrix (soil/water): _____

Preparation Blank Concentration Units (ug/L or mg/kg): _____

| Analyte | Initial Calib. Blank (ug/L) | C | Continuing Calibration Blank (ug/L) | | | | | | Preparation Blank | C | M |
|---------|-----------------------------|---|-------------------------------------|---|-----|---|-----|---|-------------------|---|---|
| | | | 1 | C | 2 | C | 3 | C | | | |
| Lead | | | 3.0 | U | 3.0 | U | 3.0 | U | | | F |
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NR = Analyte Not Requested

NYTEST ENVIRONMENTAL INC.

ANALYTICAL AND METHOD BLANK SUMMARY

Lab Name: NYTEST_ENV_INC.

Contract: 9421415

Lab Code: NYTEST Login No.: 22633

QC Report No.: 22633

Preparation Blank Matrix (soil/water):

Preparation Blank Concentration Units (ug/L or mg/kg):

| Analyte | Initial Calib. Blank (ug/L) | C | Continuing Calibration Blank (ug/L) | | | | | | C | M |
|---------|--------------------------------------|---|--|---|-----|---|-----|---|---|---|
| | | | 1 | C | 2 | C | 3 | C | | |
| Lead | | | 3.0 | U | 3.0 | U | 3.0 | U | | F |
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NR = Analyte Not Requested

ANALYTICAL AND METHOD BLANK SUMMARY

Lab Name: NYTEST_ENV_INC. _____ Contract: 9421415 _____

Lab Code: NYTEST Login No.: 22633 _____ QC Report No.: 22633 _____

Preparation Blank Matrix (soil/water): _____

Preparation Blank Concentration Units (ug/L or mg/kg): _____

| Analyte | Initial Calib. Blank (ug/L) | C | Continuing Calibration Blank (ug/L) | | | | | | Prepa- ration Blank | C | M |
|---------|--------------------------------------|---|--|---|-----|---|-----|---|---------------------------|---|---|
| | | | 1 | C | 2 | C | 3 | C | | | |
| Lead | | | 3.0 | U | 3.0 | U | 3.0 | U | | | F |
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ANALYTICAL AND METHOD BLANK SUMMARY

Lab Name: NYTEST_ENV_INC. _____

Contract: 9421415 _____

Lab Code: NYTEST Login No.: 22633_

QC Report No.: 22633_

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Preparation Blank Concentration Units (ug/L or mg/kg): _____

| Analyte | Initial Calib. Blank (ug/L) | C | Continuing Calibration Blank (ug/L) | | | | | | Prepa- ration Blank | C | M |
|---------|--------------------------------------|---|--|---|-----|---|-----|---|---------------------------|---|---|
| | | | 1 | C | 2 | C | 3 | C | | | |
| Lead | | | 3.0 | U | 3.0 | U | 3.0 | U | | | F |
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NR = Analyte Not Requested

ANALYTICAL AND METHOD BLANK SUMMARY

Lab Name: NYTEST_ENV_INC. _____

Contract: 9421415 _____

Lab Code: NYTEST Login No.: 22633_

QC Report No.: 22633_

Preparation Blank Matrix (soil/water): _____

Preparation Blank Concentration Units (ug/L or mg/kg): _____

| Analyte | Initial Calib. Blank (ug/L) | | Continuing Calibration Blank (ug/L) | | | | | | Preparation Blank | | M |
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| | 1 | C | 1 | C | 2 | C | 3 | C | C | | |
| Lead | 3.0 | U | 3.0 | U | | | | | | F | |
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NR = Analyte Not Requested

ANALYTICAL AND METHOD BLANK SUMMARY

Lab Name: NYTEST_ENV_INC. _____

Contract: 9421415 _____

Code: NYTEST Login No.: 22633_

QC Report No.: 22633_

Preparation Blank Matrix (soil/water): _____

Preparation Blank Concentration Units (ug/L or mg/kg): _____

| Analyte | Initial Calib. Blank (ug/L) | | Continuing Calibration Blank (ug/L) | | | | | | Preparation Blank | | M |
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| | 1 | C | 1 | C | 2 | C | 3 | C | 1 | C | |
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NR = Analyte Not Requested

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ANALYTICAL AND METHOD BLANK SUMMARY

Lab Name: NYTEST_ENV_INC. _____

Contract: 9421415__

Code: NYTEST Login No.: 22633__

QC Report No.: 22633__

Preparation Blank Matrix (soil/water): _____

Preparation Blank Concentration Units (ug/L or mg/kg): _____

| Analyte | Initial Calib. Blank (ug/L) | C | Continuing Calibration Blank (ug/L) | | | | | | C | Prepa- ration Blank | C | M |
|---------|--------------------------------------|---|--|---|-----|---|-----|---|---|---------------------------|---|---|
| | | | 1 | C | 2 | C | 3 | C | | | | |
| Lead | | | 3.0 | U | 3.0 | U | 3.0 | U | | | F | |
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NR = Analyte Not Requested

ANALYTICAL AND METHOD BLANK SUMMARY

Lab Name: NYTEST_ENV_INC. _____

Contract: 9421415 _____

Lab Code: NYTEST Login No.: 22633_

QC Report No.: 22633_

Preparation Blank Matrix (soil/water): _____

Preparation Blank Concentration Units (ug/L or mg/kg): _____

| Analyte | Initial Calib. Blank (ug/L) | C | Continuing Calibration Blank (ug/L) | | | | | | Preparation Blank | C | M |
|---------|-----------------------------|---|-------------------------------------|---|-----|---|-----|---|-------------------|---|---|
| | | | 1 | C | 2 | C | 3 | C | | | |
| Lead | | | 3.0 | U | 3.0 | U | 3.0 | U | | | F |
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NR = Analyte Not Requested

ANALYTICAL AND METHOD BLANK SUMMARY

Lab Name: NYTEST_ENV_INC. _____

Contract: 9421415____

Lab Code: NYTEST Login No.: 22633_

QC Report No.: 22633__

Preparation Blank Matrix (soil/water): _____

Preparation Blank Concentration Units (ug/L or mg/kg): _____

| Analyte | Initial Calib. Blank (ug/L) | C | Continuing Calibration Blank (ug/L) | | | | | | Preparation Blank | C | M |
|---------|-----------------------------|---|-------------------------------------|---|---|---|---|---|-------------------|---|---|
| | | | 1 | C | 2 | C | 3 | C | | | |
| Pb | | | 3.0 | U | | | | | | F | |
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R = Analyte Not Requested

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MATRIX SPIKE RECOVERY DATA SHEET

SAMPLE NO.

2044-3S

Name: NYTEST_ENV_INC. _____

Contract: 9421415 _____

ab Code: NYTEST

Login No.: 22633_

QC Report No. : 22633_

a rix (soil/water): WATER_

Level (low/med): LOW_

Solids for Sample: __0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

| Analyte | Control Limit %R | Spiked Sample Result (SSR) C | Sample Result (SR) C | Spike Added (SA) | %R | Q | M |
|---------|------------------|------------------------------|----------------------|------------------|-------|---|---|
| Lead | 75-125 | 25.2000 | 3.0000 U | 20.00 | 126.0 | N | F |
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omments:

2044-3 _____

NR : Analyte Not Required

MATRIX SPIKE RECOVERY DATA SHEET

296-6MSD

Name: NYTEST_ENV_INC.

Contract: 9421415

ab Code: NYTEST

Login No.: 22633

QC Report No. : 22633

a_r ix (soil/water): WATER

Level (low/med): LOW

Solids for Sample: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

| Analyte | Control Limit %R | Spiked Sample Result (SSR) | C | Sample Result (SR) | C | Spike Added (SA) | %R | Q | M |
|---------|------------------|----------------------------|---|--------------------|---|------------------|-------|---|---|
| Lead | 75-125 | 27.2000 | | 5.1000 | | 20.00 | 110.5 | | F |
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omments:
296-6MSD

NR : Analyte Not Required

SAMPLE NO.

DUPLICATES

296-6MS

Lab Name: NYTEST_ENV_INC.

Contract: 9421415

Lab Code: NYTEST Login No.: 22633

QC Report No. : 22633

Matrix (soil/water): WATER

Level (low/med): LOW

% Solids for Sample: 0.0

% Solids for Duplicate: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

| Analyte | Control Limit | Sample (S) | C | Duplicate (D) | C | RPD | Q | M |
|---------|---------------|------------|---|---------------|---|-----|---|---|
| Lead | 5.0 | 5.1000 | | 4.7000 | B | 8.2 | | F |
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NK : Analyte Not Requested

Instrument Detection Limits (Quarterly)

Lab Name: NYTEST_ENV_INC. _____ Contract: 9421415___
 Lab Code: NYTEST Login No.: 22633__ QC Report No.: 22633__
 ICP ID Number: _____ Date in Effect: 10/01/94
 Flame AA ID Number : _____
 Furnace AA ID Number : 3030#1_____

| Analyte | Wave-length (nm) | Back-ground | CRDL (ug/L) | IDL (ug/L) | M |
|---------|------------------|-------------|-------------|------------|---|
| Lead | 283.30 | BZ | 5 | 3.0 | F |
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Comments: _____
