United States Army
Fort Monmouth, New Jersey

Underground Storage Tanks Closure and Site Investigation Report

Building 2500
Charles Wood Area

NJDEP UST Registration Nos. 0081515-52, 53, 54, 55, 56
NJDEP Closure Approval No. C-91-2842

Volume 1 of 3
Text, Tables, Figures, and Appendices A through D

February 1996

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ENVIRONMENTAL TECHNOLOGIES CORPORATION

UNDERGROUND STORAGE TANKS
CLOSURE AND SITE INVESTIGATION REPORT

BUILDING 2500

CHARLES WOOD AREA
NJDEP UST REGISTRATION NOS. 0081515-52, 53, 54, 55, 56
NJDEP CLOSURE APPROVAL NO. C-91-2842

FEBRUARY 1996

PROJECT NO.: 09-5004-01
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PREPARED FOR:

UNITED STATES ARMY, FORT MONMOUTH NEW JERSEY
DIRECTORATE OF PUBLIC WORKS
BUILDING 167
FORT MONMOUTH, NJ 07703

PREPARED BY:

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EXECUTIVE SUMMARY

UST Closure

On March 23, 1993, two underground storage tanks (USTs) New Jersey Department of Environmental Protection (NJDEP) Registration Nos. 0081515-55, and 56, were closed by removal at U.S. Army Fort Monmouth, Fort Monmouth, New Jersey. On March 25, 1993, three USTs, NJDEP Registration Nos. 0081515-52, 53, and 54, were closed by removal at U.S. Army Fort Monmouth. All five USTs were located immediately adjacent to Building 2500 in the Charles Wood area of U.S. Army, Fort Monmouth. UST Nos. 0081515-54, and 56, were steel 1,000-gallon gasoline USTs. UST Nos. 0081515-52, 53, and 54, were steel, 5,000-gallon gasoline USTs. The fill port for each UST was located directly above each tank. The tank closure was performed by All Service Environmental 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) (*Technical Requirements*) and the NJDEP *Field Sampling Procedures Manual*. Soils surrounding the five tanks were screened visually and with air monitoring instruments for evidence of contamination. Following removal, each UST was inspected for corrosion holes. Holes measuring up to two inches in diameter were observed on UST Nos. 0081515-55, and 56. However, soils within the excavation for UST Nos. 0081515-55, and 56 were found to be free of apparent contamination. The Subsurface Evaluator observed a two-inch split in the seam of UST No. 0081515-52, but no corrosion holes were noted in UST Nos. 0081515-53, and 54. No potentially contaminated soils were identified in the excavation for UST Nos. 0081515-52, 53, and 54. On April 13, 1993, twenty (20) post-excavation soil samples (samples A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, and T) were collected from a total of nineteen (19) locations within the two excavation sites. Samples A, B, C, D, and E were collected below the former location of piping associated with UST No. 081515-52, 53, and 54. The piping was approximately 54 feet in length. All samples were analyzed for total petroleum hydrocarbons (TPHC), base neutral compounds with a forward library search for 15 tentatively identified compounds (BNCs), volatile organic compounds with xylenes, plus a forward library search for 15 tentatively identified compounds (VOCs), and lead (Pb).

On March 22, 1993 during excavation of the USTs, approximately 15 cubic yards of asphalt were removed and piled near Building 2500. On March 25, 1993, approximately 5 cubic yards of potentially contaminated soils were removed from the area surrounding the former location of UST No. 0081515-54.

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Findings - Soil

All post-excavation soil samples collected from both UST excavations and from below the piping associated with the USTs on April 13, 1993, contained concentrations of contaminants below the most stringent applicable residential direct contact and impact to groundwater soil cleanup criteria (N.J.A.C. 7:26E and revisions dated February 3, 1994). Samples D, E, F, G, H, and J contained levels of TPHC ranging in concentration from 4.06 mg/kg to 9.99 mg/kg. All other samples contained non-detectable concentrations of TPHC.

Samples A, B, C, D, E, F, H, I, J, M, N, O, P, R, and T, contained levels of lead ranging in concentration from 7.33 mg/kg to 22.7 mg/kg. All other samples contained a non-detectable concentration of lead.

Site Restoration

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

Site Assessment - Groundwater

In response to the observation of holes in the USTs, four shallow overburden monitoring wells (MW-1, MW-2, MW-3, and MW-4) were installed at the Building 2500 area on June 8, 9, and 10, 1993. MW-1 was installed approximately 5 feet southeast of the excavation for UST Nos. 0081515-55, and 56. The well was screened in the 5- to 25- foot depth interval.

MW-2 was installed approximately 8 feet northwest of the excavation for UST Nos. 0081515-52, 53, and 54. The well was screened in the 5- to 25- foot depth interval.

MW-3 was installed approximately 5.5 feet south of Building 2501 (which is located directly across the street from the two excavations). The well was screened in the 5- to 25- foot depth interval.

MW-4 was installed approximately 14.9 feet north of Building 2501, near the railroad tracks and former pump island for UST Nos. 0081515-52, 53, and 54. The well was screened in the 5- to 25- foot depth interval.

On July 6, 1993 and August 30, 1993, MW-1, MW-2, MW-3, and MW-4 were sampled for BNCs plus 15 tentatively identified compounds, VOCs with xylenes plus 10 tentatively identified compounds, methyl-tertiary-butyl-ether (MTBE), tertiary-butyl-alcohol (TBA), and lead analysis. Sampling and analysis 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*).

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Findings - Groundwater

The sample collected from MW-2, on July 6, 1993, contained a methylene chloride concentration of 2.6 micrograms per liter (ug/l) and a tetrachloroethylene concentration of 8.8 ug/l. These results exceeded the Ground Water Quality Criteria (GWQC) for methylene chloride of 2.0 ug/l, and for tetrachloroethylene of 1.0 ug/l. (Tetrachloroethylene is a synonym for tetrachloroethene.) All other groundwater analytical results from MW-2 were either below the detection limit, or in compliance with the New Jersey GWQC.

The July 6, 1993 groundwater analytical results for MW-1, MW-3, and MW-4, were either below the detection limit or in compliance with the New Jersey GWQC.

The samples collected from MW-1 and MW-4, on August 30, 1993, contained a tetrachloroethylene concentration of 4.0 ug/l and 3.5 ug/l, respectively. These results exceeded the GWQC for tetrachloroethylene of 1.0 ug/l. All other results from MW-1, and MW-4, were either below the detection limit, or in compliance with the New Jersey GWQC.

The samples collected from MW-2, and MW-3, on August 30, 1993, contained a methylene chloride concentration of 3.6 ug/l and 3.3 ug/l respectively. These results exceeded the GWQC for methylene chloride of 2.0 ug/l. All other groundwater analytical results were either below the detection limit, or in compliance with the New Jersey GWQC.

Lead was not detected in any of the monitoring wells on either sampling date.

No product or sheen was observed in any of the wells on either sampling date. The depth to the water table measured on June 8, 9, and 10, 1993, was 7 feet below grade in each well.

Site Assessment Quality Assurance

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

Conclusions and Recommendations

Based on the result of the post-excavation soil samples collected on April 13, 1993, soils with concentrations of contaminants exceeding the most stringent applicable NJDEP soil cleanup criteria, do not remain in the former location of UST Nos. 0081515-52, 53, 54, 55, and 56.

Based on the analytical results of the groundwater samples collected on July 6, 1993 and on August 30, 1993, groundwater quality at the Building 2500 UST closure site exceeded the New Jersey Groundwater Quality Criteria (GWQC) for methylene chloride and tetrachloroethylene. However, all detected concentrations of these compounds were at the single-digit part per billion. With the exception to MW-1, these compounds were not consistently detected over both

sampling rounds. For these reasons and because methylene chloride is a common laboratory contaminant, the data may reflect sampling and analytical interference rather than actual groundwater quality.

Based on the groundwater analytical results, the collection and analysis of two additional sets of samples from MW-1, MW-2, MW-3, and MW-4, for VOCs is recommended. Collection of the samples on a quarterly basis is recommended. The VOC analysis is intended to confirm if the compounds are present in the groundwater. The need for any additional actions to address groundwater quality should be evaluated following receipt of the additional groundwater data.

No other actions are proposed in regard to the closure of UST Nos. 0081515-52, 53, 54, 55, 56 at Building 2500.

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1.0 UNDERGROUND STORAGE TANK DECOMMISSIONING ACTIVITIES

1.1 OVERVIEW

Two underground storage tanks (USTs), New Jersey Department of Environmental Protection (NJDEP) Registration Nos. 0081515-55, and 56, were closed at Building 2500 at U.S. Army Fort Monmouth, Fort Monmouth, New Jersey on March 23, 1993. Three underground storage tanks (USTs), New Jersey Department of Environmental Protection (NJDEP) Registration Nos. 0081515-52, 53, and 54, were closed at Building 2500 at U.S. Army Fort Monmouth, Fort Monmouth, New Jersey on March 25, 1993. This report presents the results of the DPW's implementation of the UST Decommissioning/Closure Plan submitted to the NJDEP on July 12, 1991. The plan was approved on February 20, 1992, and assigned TMS No. C-91-2842. UST Nos. 0081515-55, and 56, were steel 1,000-gallon gasoline USTs. UST Nos. 0081515-52, 53, and 54, were steel 5,000-gallon gasoline USTs.

Decommissioning activities for UST Nos. 0081515-52, 53, 54, 55, and 56, 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. All Service Environmental Inc., the contractor that conducted the decommissioning activities, is registered and certified by the NJDEP for performing UST closure activities. Closure of UST Nos. 0081515-52, 53, 54, 55, and 56, proceeded under approval from the NJDEP Bureau of Underground Storage Tanks (NJDEP-BUST). The NJDEP-BUST closure approval and the signed certifications for UST Nos. 0081515-52, 53, 54, 55, and, 56, have been included in Appendices A and B, respectively.

Based on an inspection of the USTs, field screening of subsurface soils, and analytical results of collected soil samples, the DPW has concluded that no historical discharges were associated with the USTs.

This UST Closure and Site Investigation Report has been prepared by Smith Environmental Technologies 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. Where possible, information required by the *Technical Requirements for Site Remediation* (N.J.A.C. 7:26E) was included. 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 2500 is located in the southwestern portion of the Charles Wood area of Fort Monmouth as shown on Figure 1. UST Nos. 0081515-52, 53, and 54, were located south of Building 2500. UST Nos. 0081515-55, 56, were located southeast of Building 2500. A site map is provided on Figure 2. Appurtenant piping for UST Nos. 0081515-52, 53, and 54, ran approximately 54 feet from the pump island near the railroad tracks to the tank fill port areas. Appurtenant piping for UST Nos. 0081515-55, and 56, ran approximately 30 feet from the pump island to the fill port areas. The fill port areas were located directly above the tanks.

1.2.1 Geological/Hydrogeological Setting

The following is a description of the geological/hydrogeological setting of the area surrounding Building 2500. 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 Charles Wood 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 (Zapecza, 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 Zapecza, 1990).

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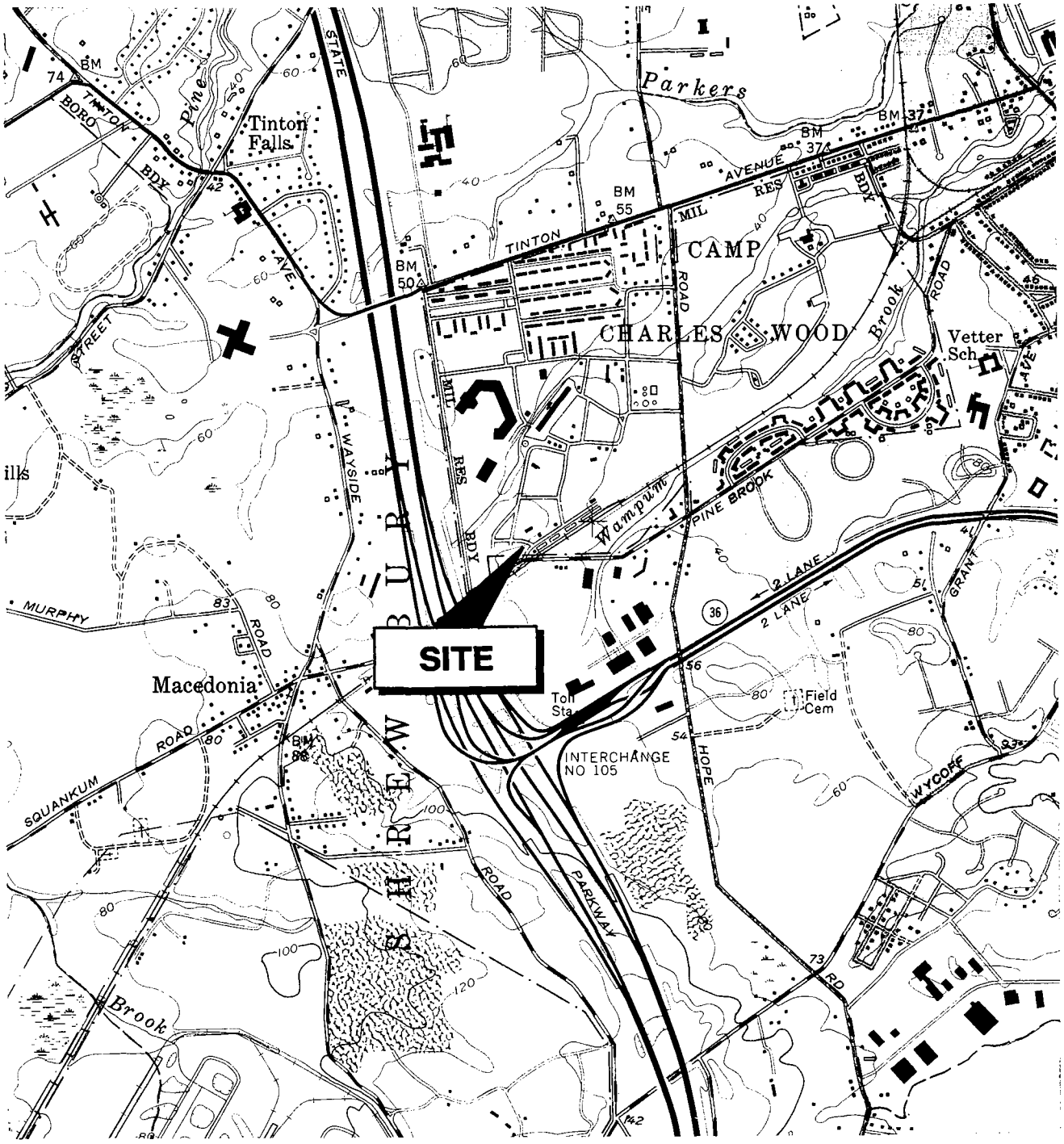

Source: U.S.G.S. Quadrangle Long Branch, N.J.

Project No. 00-5004-01

Figure 1
Site Location Map

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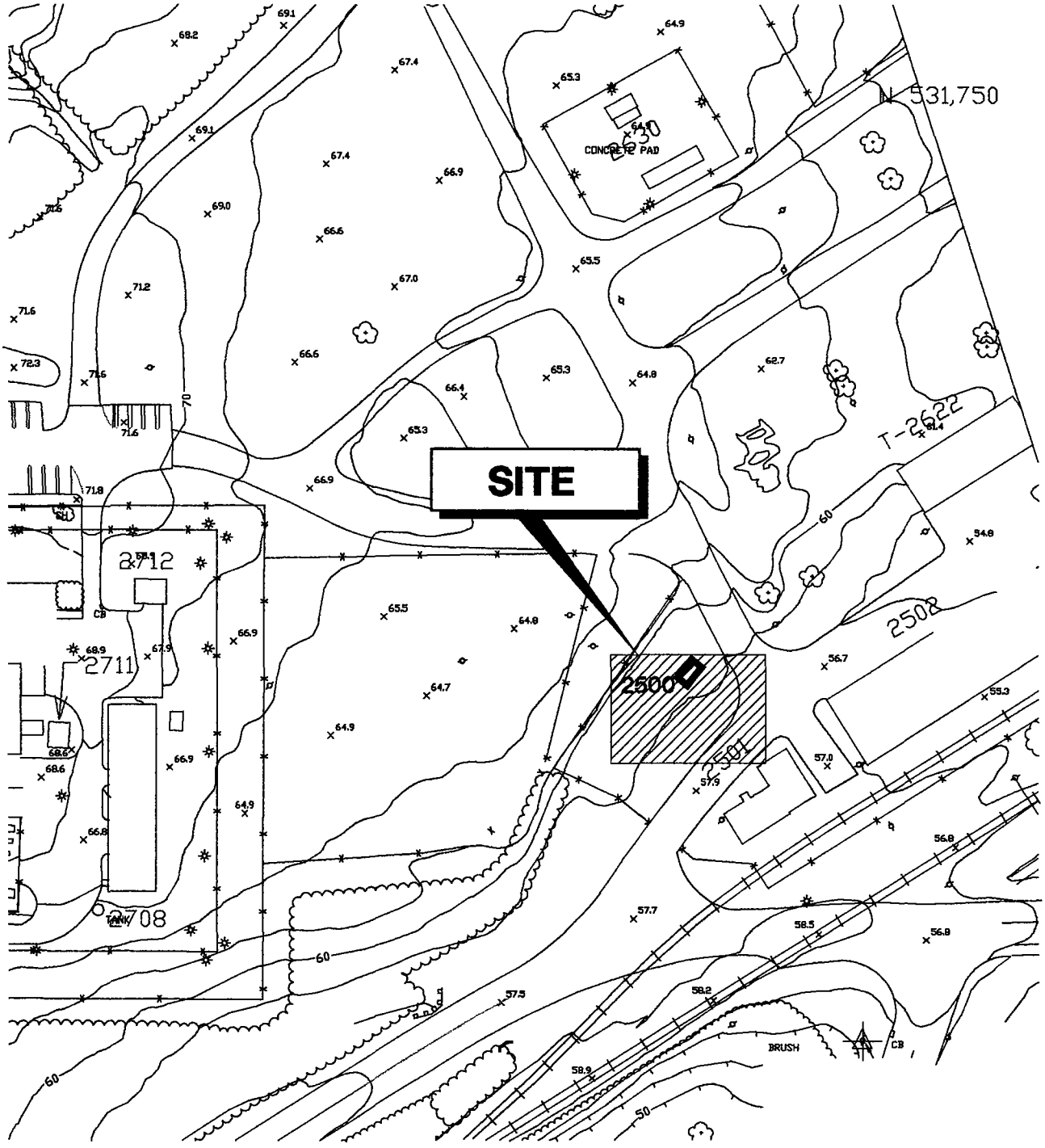
Fort Monmouth, New Jersey



Source: BCM/Smith Environmental Technologies Corporation (030)

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Figure 2
Building 2500
Site Map

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Local Geology

Based on the regional geologic map (Jablonski, 1968), the Cretaceous age Red Bank and Tinton Sands outcrop at the Charles Wood 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-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 ironoxide encrusted (Minard).

Over the last 80 years, the natural topography of Fort Monmouth has been altered by excavation and filling activities by the military. Topographic elevations for the Charles Wood area range from 20 feet above mean seal level (MSL) to 71 feet above MSL.

Hydrogeology

The water table aquifer at the Charles Wood 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.

Six well records for monitor wells installed at locations within the Charles Wood area in February 1981 were used for reference. The wells were completed to total depths ranging from 20 to 25 feet below ground surface (BGS). Water was encountered at depths ranging from 5 to 12 feet BGS. The depth to the water table measured on June 8, 9, and 10, 1993, in the Building 2500 monitoring wells (MW-1, MW-2, MW-3, and MW-4), were approximately 7 feet below grade for each well.

The lithologic descriptions for these borings described deposits that were primarily fine to coarse, glauconitic sands, with traces of gravel, silt, and clay. These sediments are part of the Hornerstown Marl, from the Tertiary Period (Paleocene Series, approximately 58 to 66 Ma). According to Jablonski, wells drilled in the Red Bank and Tinton Sands may produce from 2 to 25 gallons per minute (gpm). Some well owners have reported acidic water that requires treatment to remove iron.

Shallow groundwater is locally influenced within the Charles Wood area by the following factors:

- tidal influence (based on proximity to the Atlantic Ocean, rivers and tributaries)
- topography
- nature of the fill material within the Charles Wood area
- presence of clay and silt lenses in the natural overburden deposits
- local groundwater recharge areas (i.e., streams, lakes)

Due to the fluvial nature of the overburden deposits (i.e., sand and clay lenses), shallow groundwater flow direction is best determined on a case-by-case basis. This is consistent with lithologies observed in borings installed within the Charles Wood area, which primarily consisted of fine-to-medium grained sands, with occasional lenses or laminations of gravel silt and/or clay.

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 TANKS

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 closure activities.

1.4.2 Underground Storage Tank Excavation and Cleaning

Prior to decommissioning activities, surficial soil was excavated to expose the USTs and their associated piping. All free product present in the piping was drained before the piping was removed from the ground. The USTs were purged to remove vapors prior to cutting. After removal of the associated piping, a manway was made in each UST to allow for proper cleaning. The USTs were completely emptied of all liquids prior to removal from the ground. A total of 9,535 gallons of liquid were transported and disposed of by Casie Ecology Oil Salvage, Inc., a NJDEP-approved petroleum recycling and disposal company located in Vineland, New Jersey. Refer to Appendix C for waste manifests (NJA-1521777, NJA-1567161, NJA-1567131, and NJA-1468646).

The USTs were cleaned prior to removal from the excavations in accordance with the NJDEP-BUST regulations. After the USTs were removed from the excavations, they were staged on polyethylene sheeting and examined for corrosion holes. Holes up to approximately two inches in diameter were observed on UST Nos. 0081515-55, and 56, during the tank inspection by the Subsurface Evaluator. A split seam was observed in UST No. 0081515-52, that was approximately two inches in width. However, no punctures or corrosion holes were observed in UST Nos. 0081515-53, and 54, during the inspection by the Sub-Surface Evaluator. Soils surrounding all five of the USTs were screened visually and with an OVA for evidence of contamination. No evidence of contamination was noted surrounding any of the tanks. Soil screening was also performed along the piping length from the USTs to the pump islands. No contamination was noted between the tanks and the pump islands.

1.5 UNDERGROUND STORAGE TANK TRANSPORTATION AND DISPOSAL

The tanks were disposed of in compliance with all applicable regulations and laws. The UST disposal certificates were not available.

The Subsurface Evaluator labeled the USTs 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

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1.6 MANAGEMENT OF EXCAVATED SOILS

Based on OVA air monitoring and visual observations, approximately 5 cubic yards of potentially contaminated soils were excavated from the area surrounding UST No. 0081515-54 on March 25, 1993. Potentially contaminated soils were stockpiled separately from other excavated material. Potentially contaminated soils were transported to the Building 2500 storage area. Soils that did not exhibit signs of contamination were used as backfill following removal of the UST.

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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. All other analyses were performed and reported by Twenty First Century Environmental Inc. Both 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 Fort Monmouth DPW Environmental Office.

The following Parties participated in Closure and Site Investigation Activities.

- Closure Contractor: All Service Environmental Inc.
  Contact Person: Mark Turoff
  Phone Number: (914)365-0800
  NJDEP Company Certification No.: G3100194

- Subsurface Evaluator: Charles Appleby
  Employer: U.S. Army, Fort Monmouth
  Phone Number: (908)532-6224
  NJDEP Certification No.: 2056

- 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: Twenty First Century Environmental Laboratory
  Contact Person: Richard W. Lynch
  Phone Number: (609)467-9521
  NJDEP Company Certification No.: 08031

- Hazardous Waste Hauler: Casie Ecology Oil Salvage Inc.
  Contact Person: Greg Call
  Phone Number: (609)696-4401
  NJDEP Hazardous Waste Hauler No.: S6747

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. Soils were removed from the excavation surrounding the former location of UST No. 0081515-54 until no evidence of contamination remained.

2.3 SOIL SAMPLING

The post-excavation soil samples were collected 19 days after all five USTs were pulled. This 2 1/2 week delay was due to poor communication between the DEH and the contractor.

On April 13, 1993, post-excavation soil samples (samples A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, and T) were collected from the excavation surrounding UST Nos. 0081515-55, and 56, and from the excavation surrounding UST Nos. 0081515-52, 53, and 54. Figure 3 shows soil sampling locations.

Samples A, B, C, D, and E were taken immediately below the former location of piping associated with UST Nos. 081515-52, 53, and 54. The piping ran approximately 54 feet from the tank field to the railroad tracks. Samples E, F, G, H, I, J, K, L, and M were collected from the sidewalls of the excavation surrounding the tanks 0081515-52, 53, and 54. Samples were not collected from the base of this excavation due to a concrete foundation at the pit bottom. The concrete base was not removed. Samples N, O, P, Q, R, and S were collected from the base and sidewalls of the excavation surrounding the tanks 0081515-55, and 56. There is no concrete foundation at the pit bottom of this excavation. Sample T is the duplicate sample of sample A.

On April 13, 1993, two soil samples, labeled pit fill and pile fill, were collected from the excavated soil previously removed from the railroad fill area. The two soil samples were analyzed for TPHC.

On March 23, 1993, a waste gasoline/water sample (sample 1169.1) was collected from the contents of UST Nos. 0081515-55, and 56, and was analyzed for the Flash Point.

The site assessment was performed by U.S. Army personnel in accordance with the *Technical Requirements* and the *Sampling Procedures Manual.* A summary of sampling activities including parameters analyzed is provided on Table 1. The samples were collected using decontaminated stainless steel scoops. Following soil sampling activities, samples being analyzed for TPHC were chilled and delivered to U.S. Army Fort Monmouth Environmental Laboratory located in Fort Monmouth, New Jersey. Samples being analyzed for BNCs, VOCs, and Pb were chilled and delivered to Twenty First Century Environmental Laboratory located in Bridgeport, New Jersey.

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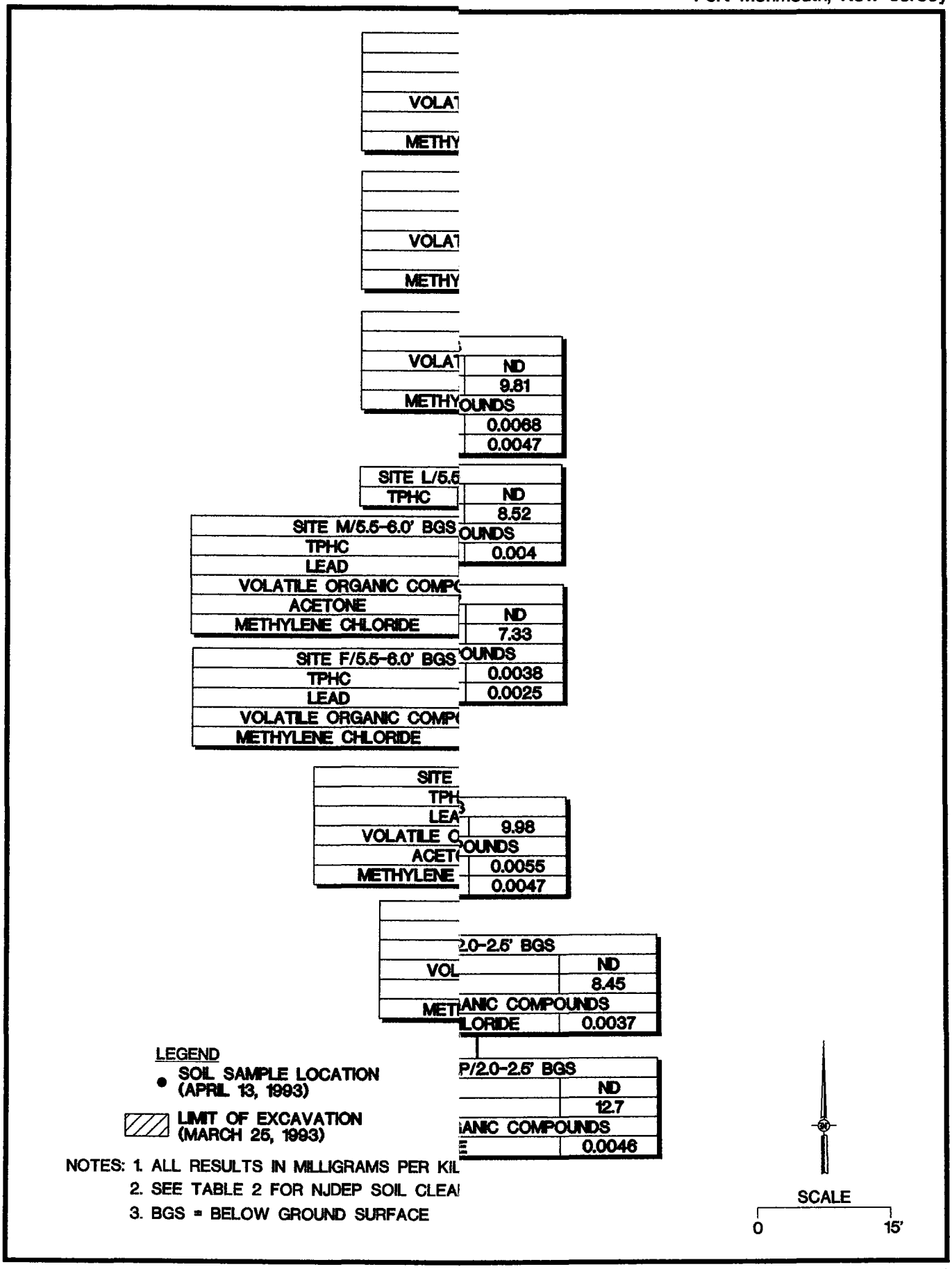
Department of Public Works
Fort Monmouth, New Jersey



Source: BCM/Smith Environmental Technologies Corporation (031)

Project No. 00-5004-01

Figure 3
Building 2500
Soil Sampling Results

TABLE 1

SUMMARY OF POST-EXCAVATION SAMPLING ACTIVITIES
BUILDING 2500, CHARLED WOOD
FORT MONMOUTH, NEW JERSEY

Sample ID	Date of Collection	Matrix	Sample Type	Analytical Parameters (and USEPA Methods) *	Sampling Method
A	4/13/93	Soil	Post-Excavation	TPHC, BNCs, Pb, VOCs with Xylenes	Stainless Steel Scoop
B	4/13/93	Soil	Post-Excavation	TPHC, BNCs, Pb, VOCs with Xylenes	Stainless Steel Scoop
C	4/13/93	Soil	Post-Excavation	TPHC, BNCs, Pb, VOCs with Xylenes	Stainless Steel Scoop
D	4/13/93	Soil	Post-Excavation	TPHC, BNCs, Pb, VOCs with Xylenes	Stainless Steel Scoop
E	4/13/93	Soil	Post-Excavation	TPHC, BNCs, Pb, VOCs with Xylenes	Stainless Steel Scoop
F	4/13/93	Soil	Post-Excavation	TPHC, BNCs, Pb, VOCs with Xylenes	Stainless Steel Scoop
G	4/13/93	Soil	Post-Excavation	TPHC, BNCs, Pb, VOCs with Xylenes	Stainless Steel Scoop
H	4/13/93	Soil	Post-Excavation	TPHC, BNCs, Pb, VOCs with Xylenes	Stainless Steel Scoop
I	4/13/93	Soil	Post-Excavation	TPHC, BNCs, Pb, VOCs with Xylenes	Stainless Steel Scoop
J	4/13/93	Soil	Post-Excavation	TPHC, BNCs, Pb, VOCs with Xylenes	Stainless Steel Scoop
K	4/13/93	Soil	Post-Excavation	TPHC, BNCs, Pb, VOCs with Xylenes	Stainless Steel Scoop
L	4/13/93	Soil	Post-Excavation	TPHC, BNCs, Pb, VOCs with Xylenes	Stainless Steel Scoop
M	4/13/93	Soil	Post-Excavation	TPHC, BNCs, Pb, VOCs with Xylenes	Stainless Steel Scoop

TABLE 1

SUMMARY OF POST-EXCAVATION SAMPLING ACTIVITIES
BUILDING 2500, CHARLES WOOD
FORT MONMOUTH, NEW JERSEY

Sample ID	Date of Collection	Matrix	Sample Type	Analytical Parameters (and USEPA Methods) *	Sampling Method
N	4/13/93	Soil	Post-Excavation	TPHC, BNCs, Pb, VOCs with Xylenes	Stainless Steel Scoop
O	4/13/93	Soil	Post-Excavation	TPHC, BNCs, Pb, VOCs with Xylenes	Stainless Steel Scoop
P	4/13/93	Soil	Post-Excavation	TPHC, BNCs, Pb, VOCs with Xylenes	Stainless Steel Scoop
Q	4/13/93	Soil	Post-Excavation	TPHC, BNCs, Pb, VOCs with Xylenes	Stainless Steel Scoop
R	4/13/93	Soil	Post-Excavation	TPHC, BNCs, Pb, VOCs with Xylenes	Stainless Steel Scoop
S	4/13/93	Soil	Post-Excavation	TPHC, BNCs, Pb, VOCs with Xylenes	Stainless Steel Scoop
DUP A	4/13/93	Soil	Post-Excavation	TPHC, BNCs, Pb, VOCs with Xylenes	Stainless Steel Scoop

*Notes:

TPHC	Total Petroleum Hydrocarbons (Method 418.1 / soil and aqueous)
BNCs	Base Neutral Compounds plus 15 tentatively identified compounds (Method 8270:soil / 625:aqueous)
VOCs	Volatile Organic Compounds plus 15 tentatively identified compounds (Method 8240:soil / 624:aqueous)
Pb	Lead (Method 6010:soil / 200.7:aqueous)

TABLE 1

SUMMARY OF POST-EXCAVATION SAMPLING ACTIVITIES
BUILDING 2500, CHARLES WOOD
FORT MONMOUTH, NEW JERSEY

Sample ID	Date of Collection	Matrix	Sample Type	Analytical Parameters (and USEPA Methods) *	Sampling Method
MW-1	7-6-93	Aqueous	Groundwater	VOCs, MTBE, TBA, BNCs, Pb	Teflon Bottom Bailer
MW-2	7-6-93	Aqueous	Groundwater	VOCs, MTBE, TBA, BNCs, Pb	Teflon Bottom Bailer
MW-3	7-6-93	Aqueous	Groundwater	VOCs, MTBE, TBA, BNCs, Pb	Teflon Bottom Bailer
MW-4	7-6-93	Aqueous	Groundwater	VOCs, MTBE, TBA, BNCs, Pb	Teflon Bottom Bailer
MW-4 DUP	7-6-93	Aqueous	Groundwater	VOCs, MTBE, TBA, BNCs, Pb	Teflon Bottom Bailer
MW-1	8-30-93	Aqueous	Groundwater	VOCs, MTBE, TBA, BNCs, Pb	Teflon Bottom Bailer
MW-2	8-30-93	Aqueous	Groundwater	VOCs, MTBE, TBA, BNCs, Pb	Teflon Bottom Bailer
MW-3	8-30-93	Aqueous	Groundwater	VOCs, MTBE, TBA, BNCs, Pb	Teflon Bottom Bailer
MW-3 DUP	8-30-93	Aqueous	Groundwater	VOCs, MTBE, TBA, BNCs, Pb	Teflon Bottom Bailer
MW-4	8-30-93	Aqueous	Groundwater	VOCs, MTBE, TBA, BNCs, Pb	Teflon Bottom Bailer

*Notes:

BNCs	Base Neutral Compounds plus 15 tentatively identified compounds (Method 8270:soil / 625:aqueous)
VOCs	Volatile Organic Compounds plus 15 tentatively identified compounds (Method 8240:soil / 624:aqueous)
Pb	Lead (Method 6010:soil / 200.7:aqueous)

2.4 GROUNDWATER SAMPLING

2.4.1 Monitoring Well Installation

In response to the observation of holes in the USTs, four shallow overburden monitoring wells (MW-1, MW-2, MW-3, MW-4) were installed at the Building 2500 area on June 8, 9, and 10, 1993. MW-1 was installed approximately 5 feet southeast of the excavation for UST Nos. 0081515-55, and 56. MW-2 was installed approximately 8 feet northwest of the excavation for UST Nos. 0081515-52, 53, and 54. MW-3 was installed approximately 5.5 feet south of Building 2501 (which is located directly across the street from the two excavations). MW-4 was installed approximately 14.9 feet north of Building 2501, near the railroad tracks and former pump island for UST Nos. 0081515-52, 53, and 54. All wells were screened in the 5- to 25- foot depth interval. A monitoring well location map is provided on Figure 4.

The 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.

The wells were constructed with 4-inch (ID) PVC risers and 0.020 slotted PVC well screens. Silica sand packs were installed in the annulus between each borehole wall and its screen. The sand packs were extended approximately 2 feet above the top of the screens. The sand packs above the well screens were graded down to a fine sand to minimize grout intrusion.

The boreholes were tremie-grouted with bentonite-cement grout from the top of the sand packs to 3 feet bgs. The wells were secured with water-tight, steel protective casings with stickups that are approximately 3 feet above ground surface. The steel protective casings were set in place with concrete, which was placed in the remaining open borehole. The elevation of the well risers were surveyed to the nearest 0.01 feet by a New Jersey-licensed surveyor. The well permit numbers were marked on each 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 the 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

On July 6, 1993 and August 30, 1993, the four shallow overburden monitoring wells were sampled for BNCs plus 15 tentatively identified compounds, VOCs with xylene plus 15 tentatively identified compounds, methyl-tertiary-butyl-ether (MTBE), teritary-butyl alcohol (TBA), and lead analysis. All sampling and analyses, for the two rounds of sampling, were completed in accordance with the NJDEP *Field Sampling Procedures Manual* and the *Technical Requirements.*

MW-2	
VOLATILE ORGANIC COMPOUNDS	
ACETONE	1.
METHYLENE CHLORIDE	3.
BASE NEUTRAL COMPOUNDS	
BENZYL ALCOHOL	3.
DI-N-BUTYLPHTHALATE	3.
BUTYLBENZYLPHTHALATE	29
BIS(2-ETHYLHEXYL)PHTHALATE	2

MW-2	
VOLATILE ORGANIC COMPOUNDS	
ACETONE	2.
METHYLENE CHLORIDE	2.
TETRACHLOROETHENE	8.
BASE NEUTRAL COMPOUNDS	
BUTYLBENZYLPHTHALATE	2.

MW-3	
VOLATILE ORGANIC COMPOUNDS	
ACETONE	3.
METHYLENE CHLORIDE	3.
BASE NEUTRAL COMPOUNDS	
BENZYL ALCOHOL	1.
BUTYLBENZYLPHTHALATE	12

MW-3 DUP	
VOLATILE ORGANIC COMPOUNDS	
METHYLENE CHLORIDE	3.
BASE NEUTRAL COMPOUNDS	
BENZYL ALCOHOL	2.
DI-N-BUTYLPHTHALATE	1.
BUTYLBENZYLPHTHALATE	12

MW-4	
VOLATILE ORGANIC COMPOUNDS	
TETRACHLOROETHENE	3.
BASE NEUTRAL COMPOUNDS	
BENZYL ALCOHOL	6.
DI-N-BUTYLPHTHALATE	2.
BUTYLBENZYLPHTHALATE	30

MW-1	
GANIC COMPOUNDS	
NE	3.5
HLORIDE	1.9
ETHENE	4.0
RAL COMPOUNDS	
COHOL	1.6
THALATE	1.5
HTHALATE	12.0

MW-1	
RAL COMPOUNDS	
HTHALATE	8.6
)PHTHALATE	3.5

MW-3	
RAL COMPOUNDS	
HTHALATE	3.7
)PHTHALATE	2.8

MW-4	
GANIC COMPOUNDS	
NE	2.9
HLORIDE	1.2
RAL COMPOUNDS	
COHOL	1.8
HTHALATE	42.0
)PHTHALATE	1.1

W-4 DUP	
GANIC COMPOUNDS	
NE	3.8
RAL COMPOUNDS	
COHOL	2.0
THALATE	37.0
HTHALATE	1.1

LEGEND

⊕ MONITORING WELL LOCATION
(JULY 6, 1993) (AUGUST 30, 1993

NOTES: 1. ALL RESULTS IN MICROGRAM
2. SEE TABLE 3 FOR GROUNDW

SCALE
0 15'

Source: BCM/Smith Environmental Technologies Corporation (039)

Project No. 00-5004-01

Figure 4
Building 2500
Groundwater Sampling Results

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

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3.0 CONCLUSIONS AND RECOMMENDATIONS

3.1 SOIL SAMPLING RESULTS

To evaluate soil conditions following removal of the USTs and their associated piping, twenty (20) post-excavation soil samples were collected on April 13, 1993. Because all 5 USTs contained gasoline, the samples were analyzed for TPHC, BNCs, VOCs, and Pb. The post-excavation soil sample results were compared to the NJDEP soil cleanup criteria (N.J.A.C. 7:26D and revisions dated February 3, 1994). A summary of the soil analytical results and comparison to the NJDEP residential direct contact and impact to groundwater soil cleanup criteria is provided on Table 2 and the soil sampling results are shown on Figure 3. The soil analytical data package is provided in Appendix E. The full data package, including associated quality control data, is on file at U.S. Army Fort Monmouth, DPW.

All samples collected from the UST excavations and from below piping associated with UST Nos. 0081515-52, 53, 54, 55, and 56 contained either non-detectable concentrations of contaminants, or concentrations below the most stringent applicable NJDEP soil cleanup criteria. Samples D, E, F, G, H, and J contained levels of TPHC ranging in concentration from 4.06 mg/kg to 9.99 mg/kg. All other samples contained non-detectable concentrations of TPHC.

Samples A, B, C, D, E, F, H, I, J, M, N, O, P, R, and T contained levels of lead ranging in concentration from 7.33 mg/kg to 22.7 mg/kg. All other samples contained non-detectable concentrations of lead.

All samples, with the exception of samples C, H, L, and T, contained levels of methylene chloride ranging in concentration from 0.0021 mg/kg to 0.0047 mg/kg. Samples C, H, L, and T contained non-detectable concentrations of methylene chloride.

Samples B, D, E, G, I, J, K, M, N, O, P, Q, S, and T contained levels of acetone ranging in concentration from 0.0026 mg/kg to 0.012 mg/kg. All other samples contained non-detectable concentrations of acetone. No other compounds were detected in any of the 20 samples collected on April 13, 1993.

The pit fill sample collected from the excavated soil from the railroad area, contained a TPHC concentration of 5.2 mg/kg. The pile fill sample, also collected from the excavated soil from the railroad area, contained a TPHC concentration of 41.9 mg/kg.

The gasoline/water sample collected from the contents of UST Nos. 0081515-55, and 56, flashed at less than 25 degrees Celsius.

Based on the results of the post-excavation soil samples, the Subsurface Evaluator concluded there has been no discharge associated with UST Nos. 0081515-52, 53, 54, 55, and 56.

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 2500
FT. MONMOUTH, NEW JERSEY

Sample ID/Depth	Sample Laboratory ID	Sample Date	Analysis Date	Analytical Method Used	Sample Quantitation Limit (mg/kg)	Compound of Concern	Result (mg/kg)	NJDEP Soil Cleanup Criteria * (mg/kg)	Exceeds Cleanup Criteria
A/2.0-2.5'	1179.1	4/13/93	4/14/93	Total Solid	--	--	93%	--	--
				TPHC	3.3	yes	ND	10,000	--
B/2.0-2.5'	1179.2	4/13/93	4/14/93	Total Solid	--	--	95%	--	--
				TPHC	3.3	yes	ND	10,000	--
C/2.0-2.5'	1179.3	4/13/93	4/14/93	Total Solid	--	--	95%	--	--
				TPHC	3.3	yes	ND	10,000	--
D/2.0-2.5'	1179.4	4/13/93	4/14/93	Total Solid	--	--	94%	--	--
				TPHC	3.3	yes	4.06	10,000	--
E/2.0-2.5'	1179.5	4/13/93	4/14/93	Total Solid	--	--	94%	--	--
				TPHC	3.3	yes	5.61	10,000	--
F/5.5-6.0'	1179.6	4/13/93	4/14/93	Total Solid	--	--	85%	--	--
				TPHC	3.3	yes	6.20	10,000	--
G/5.5-6.0'	1179.7	4/13/93	4/14/93	Total Solid	--	--	82%	--	--
				TPHC	3.3	yes	9.98	10,000	--
H/5.5-6.0'	1179.8	4/13/93	4/14/93	Total Solid	--	--	85%	--	--
				TPHC	3.3	yes	4.49	10,000	--
I/5.5-6.0'	1179.9	4/13/93	4/14/93	Total Solid	--	--	81%	--	--
				TPHC	3.3	yes	ND	10,000	--
J/5.5-6.0'	1179.10	4/13/93	4/14/93	Total Solid	--	--	82%	--	--
				TPHC	6.6	yes	9.99	10,000	--
K/5.5-6.0'	1179.11	4/13/93	4/14/93	Total Solid	--	--	84%	--	--
				TPHC	3.3	yes	ND	10,000	--
L/5.5-6.0'	1179.12	4/13/93	4/14/93	Total Solid	--	--	82%	--	--
				TPHC	3.3	yes	ND	10,000	--
M/5.5-6.0'	1179.13	4/13/93	4/14/93	Total Solid	--	--	82%	--	--
				TPHC	3.3	yes	ND	10,000	--
N/4.5-5.0'	1179.14	4/13/93	4/14/93	Total Solid	--	--	85%	--	--
				TPHC	3.3	yes	ND	10,000	--

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 2500
FT. MONMOUTH, NEW JERSEY

Sample ID/Depth	Sample Laboratory ID	Sample Date	Analysis Date	Analytical Method Used	Sample Quantitation Limit (mg/kg)	Compound of Concern	Result (mg/kg)	NJDEP Soil Cleanup Criteria * (mg/kg)	Exceeds Cleanup Criteria
O/4.5-5.0'	1179.15	4/13/93	4/14/93	Total Solid	--	--	85%	--	--
				TPHC	3.3	yes	ND	10,000	--
P/4.5-5.0'	1179.16	4/13/93	4/14/93	Total Solid	--	--	85%	--	--
				TPHC	3.3	yes	ND	10,000	--
Q/4.5-5.0'	1179.17	4/13/93	4/14/93	Total Solid	--	--	86%	--	--
				TPHC	3.3	yes	ND	10,000	--
R/5.0-5.5'	1179.18	4/13/93	4/14/93	Total Solid	--	--	85%	--	--
				TPHC	3.3	yes	ND	10,000	--
S/5.0-5.5'	1179.19	4/13/93	4/14/93	Total Solid	--	--	83%	--	--
				TPHC	3.3	yes	ND	10,000	--
DUP A/ 2.0-2.5'	1179.20	4/13/93	4/14/93	Total Solid	--	--	91%	--	--
				TPHC	6.6	yes	ND	10,000	--

* Cleanup criteria for total organic compounds
-- Not applicable / does not exceed criteria
TPHC Total Petroleum Hydrocarbons

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD AREA
FT. MONMOUTH, NEW JERSEY

Sample Laboratory ID	Sample Date	Analysis Date	Analytical Method Used	Result in Degrees F
1169.1	03/23/93	03/23/93	Flash Point *	< 140

* ASTM closed cup method
Sample flashed at less than 25 degrees Celsius

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD AREA
FT. MONMOUTH, NEW JERSEY

Sample ID	Sample Laboratory ID	Sample Date	Analysis Date	Analytical Method Used	Sample Quantitation Limit (mg/kg)	Compound of Concern	Result (mg/kg)	NJDEP Soil Cleanup Criteria * (mg/kg)	Exceeds Cleanup Criteria
Pit Fill	1177.1	04/13/93	04/14/93	Total Solid	--	--	92%	--	--
				TPHC	3.3	yes	5.2	10,000	--
Pile Fill	1177.2	04/13/93	04/14/93	Total Solid	--	--	92%	--	--
				TPHC	3.3	yes	41.9	10,000	--

Notes:

* Cleanup criteria for total organic compounds
-- Not applicable / does not exceed criteria

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 2500
FT. MONMOUTH, NEW JERSEY

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/2.0-2.5'	1541	04-13-93	04-15-93	Lead	5.0	--	8.45	400	--
B/2.0-2.5'	1542	04-13-93	04-15-93	Lead	5.0	--	9.84	400	--
C/2.0-2.5'	1543	04-13-93	04-15-93	Lead	5.0	--	7.98	400	--
D/2.0-2.5'	1544	04-13-93	04-15-93	Lead	5.0	--	9.54	400	--
E/2.0-2.5'	1545	04-13-93	04-15-93	Lead	5.0	--	7.85	400	--
F/5.5-6.0'	1546	04-13-93	04-15-93	Lead	5.0	--	12.2	400	--
G/5.5-6.0'	1547	04-13-93	04-15-93	Lead	5.0	--	ND	400	--
H/5.5-6.0'	1548	04-13-93	04-15-93	Lead	5.0	--	8.74	400	--
I/5.5-6.0'	1549	04-13-93	04-15-93	Lead	5.0	--	7.75	400	--
J/5.5-6.0'	1550	04-13-93	04-15-93	Lead	5.0	--	22.6	400	--
K/5.5-6.0'	1551	04-13-93	04-15-93	Lead	5.0	--	ND	400	--
L/5.5-6.0'	1552	04-13-93	04-15-93	Lead	5.0	--	ND	400	--
M/5.5-6.0'	1553	04-13-93	04-15-93	Lead	5.0	--	22.7	400	--
N/4.5-5.0'	1554	04-13-93	04-15-93	Lead	5.0	--	7.33	400	--
O/4.5-5.0'	1555	04-13-93	04-15-93	Lead	5.0	--	9.81	400	--
P/4.5-5.0'	1556	04-13-93	04-15-93	Lead	5.0	--	11.8	400	--
Q/4.5-5.0'	1557	04-13-93	04-15-93	Lead	5.0	--	ND	400	--
R/5.0-5.5'	1558	04-13-93	04-15-93	Lead	5.0	--	8.52	400	--
S/5.0-5.5'	1559	04-13-93	04-15-93	Lead	5.0	--	ND	400	--
DUP A/2.0-2.5'	1560	04-13-93	04-15-93	Lead	5.0	--	12.7	400	--
Field Blank	1562	04-13-93	04-15-93	Lead	50 ug/l	--	ND ug/l	10 ug/l	--

* Unless noted otherwise
** Residential Direct Contact
-- Not applicable / does not exceed criteria

Smith Environmental Technologies Corporation (Project No. 09-5004-01)

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD AREA
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILE TICS

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
A/2.0-2.5'	04-13-93	04-15-93	Ethane,1,1,2,2-tetrachloro-	--	--	0.44	--	--
B/2.0-2.5'	04-13-93	05-03-93	Ethane,1,1,2,2-tetrachloro-	--	--	0.43	--	--
			Ethane,1,1,2-trichloro-	--	--	0.18	--	--
			Unknown	--	--	0.14	--	--
C/2.0-2.5'	04-13-93	05-03-93	Ethane,1,1,2,2-tetrachloro-	--	--	0.29	--	--
D/2.0-2.5'	04-13-93	05-06-93	Ethane,1,1,2,2-tetrachloro-	--	--	0.28	--	--
E/2.0-2.5'	04-13-93	05-03-93	Ethane,1,1,2,2-tetrachloro-	--	--	0.43	--	--
			Ethane,1,1,2-trichloro-	--	--	0.18	--	--
F/5.5-6.0'	04-13-93	05-03-93	Ethane,1,1,2,2-tetrachloro-	--	--	0.52	--	--
			Ethane,1,1,2-trichloro-	--	--	0.22	--	--
			Unknown	--	--	0.95	--	--
G/5.5-6.0'	04-13-93	05-06-93	Ethane,1,1,2,2-tetrachloro-	--	--	0.60	--	--
			Ethane,1,1,2-trichloro-	--	--	0.26	--	--
			Unknown	--	--	0.26	--	--
H/5.5-6.0'	04-13-93	05-06-93	Ethane,1,1,2,2-tetrachloro-	--	--	0.53	--	--
			Ethane,1,1,2-trichloro-	--	--	0.24	--	--
I/5.5-6.0'	04-13-93	05-06-93	Ethane,1,1,2,2-tetrachloro-	--	--	0.26	--	--
J/5.5-6.0'	04-13-93	05-04-93	Ethane,1,1,2,2-tetrachloro-	--	--	0.43	--	--
K/5.5-6.0'	04-13-93	05-06-93	Ethane,1,1,2,2-tetrachloro-	--	--	0.52	--	--
			Ethane,1,1,2-trichloro-	--	--	0.20	--	--
L/5.5-6.0'	04-13-93	05-06-93	Ethane,1,1,2,2-tetrachloro-	--	--	0.55	--	--
			Ethane,1,1,2-trichloro-	--	--	0.21	--	--
			Unknown	--	--	0.21	--	--

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD AREA
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILE TICS (Continued)

Sample ID/Depth	Sample Date	Analysis Date	Compound Name	Samle Quantitation Limit (mg/kg)	Compound of Concern	Result (mg/kg)	NJDEP Soil Cleanup Criteria * (mg/kg)	Exceeds Cleanup Criteria
M/5.5-6.0'	04-13-93	05-06-93	Ethane,1,1,2,2-tetrachloro-	--	--	0.60	--	--
			Ethane,1,1,2-trichloro-	--	--	0.26	--	--
			Unknown	--	--	0.30	--	--
N/4.5-5.0'	04-13-93	05-06-93	Ethane,1,1,2,2-tetrachloro-	--	--	0.53	--	--
			Ethane,1,1,2-trichloro-	--	--	0.21	--	--
O/4.5-5.0'	04-13-93	05-07-93	Ethane,1,1,2,2-tetrachloro-	--	--	0.24	--	--
			Unknown (Total)	--	--	0.63	--	--
P/4.5-5.0'	04-13-93	05-07-93	Ethane,1,1,2,2-tetrachloro-	--	--	0.32	--	--
Q/4.5-5.0'	04-13-93	05-07-93	Ethane,1,1,2,2-tetrachloro-	--	--	0.39	--	--
			Ethane,1,1,2-trichloro-	--	--	0.16	--	--
R/5.0-5.5'	04-13-93	05-07-93	Ethane,1,1,2,2-tetrachloro-	--	--	0.28	--	--
			Unknown	--	--	0.24	--	--
S/5.0-5.5'	04-13-93	05-07-93	Ethane,1,1,2,2-tetrachloro-	--	--	0.37	--	--
DUP A/2.0-2.5'	04-13-93	05-07-93	Ethane,1,1,2,2-tetrachloro-	--	--	0.30	--	--
			TOTAL TICS	--	--	--	10,000	--

Note:

(No Volatile Organic TICS were found for any of the samples)

* Cleanup criteria for total organic compounds (10,000 mg/kg per sample)

-- Not applicable / does not exceed criteria

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, SITE A
FORT MONMOUTH, NEW JERSEY
VOLATILE ORGANICS

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
A/2.0-2.5'	04-13-93	04-15-93	Acrolein	0.055	--	ND	--	--
			Acrylonitrile	0.055	--	ND	1/1	--
			Chloromethane	0.011	--	ND	520/10	--
			Bromomethane	0.011	--	ND	79/1	--
			Vinyl Chloride	0.011	--	ND	2/10	--
			Chloroethane	0.011	--	ND	--	--
			Acetone	0.011	--	ND	1,000/100	--
			1,1-Dichloroethene	0.005	--	ND	8/10	--
			Carbon Disulfide	0.011	--	ND	--	--
			Methylene Chloride	0.005	--	0.0037 J	49/1	--
			1,2-Dichloroethene (trans)	0.005	--	ND	1,000/50	--
			1,1-Dichloroethane	0.005	--	ND	570/10	--
			Vinyl Acetate	0.005	--	ND	--	--
			2-Butanone	0.011	--	ND	1,000/50	--
			Chloroform	0.005	--	ND	19/1	--
			1,1,1-Trichloroethane	0.005	--	ND	210/50	--
			Carbon Tetrachloride	0.005	--	ND	2/1	--
			1,2-Dichloroethane	0.005	--	ND	6/1	--
			Benzene	0.005	--	ND	3/1	--
			Trichloroethene	0.005	--	ND	23/1	--
			1,2-Dichloropropane	0.005	--	ND	10	--
			Bromodichloromethane	0.005	--	ND	11/1	--
			2-Chloroethylvinylether	0.011	--	ND	--	--
			2-Hexanone	0.011	--	ND	--	--
			trans-1,3-Dichloropropene	0.005	--	ND	4/1	--
			Toluene	0.005	--	ND	1,000/500	--

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, SITE A
FORT MONMOUTH, NEW JERSEY
VOLATILE ORGANICS (Continued)

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
A/2.0-2.5'	04-13-93	04-15-93	cis-1,3-Dichloropropene	0.005	--	ND	4/1	--
			1,1,2,2-Tetrachloroethane	0.005	--	ND	34/1	--
			1,1,2-Trichloroethane	0.005	--	ND	22/1	--
			4-Methyl-2-pentanone	0.011	--	ND	1,000/50	--
			Tetrachloroethene	0.005	--	ND	4/1 **	--
			Dibromochloromethane	0.005	--	ND	110/1	--
			Chlorobenzene	0.005	--	ND	37/1	--
			Ethylbenzene	0.005	--	ND	1,000/100	--
			Xylenes (Total)	0.005	--	ND	410/10	--
			Styrene	0.005	--	ND	--	--
			Bromoform	0.005	--	ND	86/1	--
			m-Dichlorobenzene	0.005	--	ND	--	--
			p-Dichlorobenzene	0.005	--	ND	--	--
			o-Dichlorobenzene	0.005	--	ND	--	--

Note:

*	Residential Direct Compound / Impact to Groundwater
**	The tetrachloroethene results were compared to the soil cleanup criteria for tetrachloroethylene; tetrachloroethene is a synonym for tetrachloroethylene
--	Not applicable / does not exceed criteria
(J)	Indicates detected below sample quantitation limit
(B)	Indicates also present in blank
(ND)	Indicates compound not detected

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, SITE A
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES

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
A/2.0-2.5'	04-13-93	04-15-93	N-Nitrosodiethylamine	0.360	--	ND	--	--
			bis(2 chloroethyl)Ether	0.360	--	ND	0.66/10	--
			1,3-Dichlorobenzene	0.360	--	ND	5,100/100	--
			1,4-Dichlorobenzene	0.360	--	ND	570/100	--
			Benzyl Alcohol	0.360	--	ND	10,000/50	--
			1,2-Dichlorobenzene	0.360	--	ND	5,100/50	--
			bis(2-chloroisopropyl)Ether	0.360	--	ND	2,300/10	--
			N-Nitroso-Di-n-propylamine	0.360	--	ND	0.66/10	--
			Hexachloroethane	0.360	--	ND	6/100	--
			Nitrobenzene	0.360	--	ND	28/10	--
			Isophorone	0.360	--	ND	1,100/50	--
			Benzoic Acid	1.80	--	ND	--	--
			bis(2-Chloroethoxy)Methane	0.360	--	ND	--	--
			1,2,4-Trichlorobenzene	0.360	--	ND	68/100	--
			Naphthalene	0.360	--	ND	230/100	--
			4-Chloroaniline	0.360	--	ND	230	--
			Hexachlorobutadiene	0.360	--	ND	1/100	--
			2-Methylnaphthalene	0.360	--	ND	10,000/100	--

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, SITE A
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES (Continued)

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
A/2.0-2.5'	04-13-93	04-15-93	Hexachlorocyclopentadiene	0.360	--	ND	1/100	--
			2-Chloronaphthalene	0.360	--	ND	--	--
			2-Nitroaniline	1.80	--	ND	--	--
			Dimethyl Phthalate	0.360	--	ND	10,000/50	--
			Acenaphthylene	0.360	--	ND	--	--
			3-Nitroaniline	1.80	--	ND	--	--
			Acenaphthene	0.360	--	ND	3,400/100	--
			Dibenzofuran	0.360	--	ND	--	--
			2,4-Dinitrotoluene	0.360	--	ND	1/10	--
			2,6-Dinitrotoluene	0.360	--	ND	1/10	--
			Diethylphthalate	0.360	--	ND	--	--
			4-Chlorophenyl-phenlyether	0.360	--	ND	--	--
			Fluorene	0.360	--	ND	2,300/100	--
			4-Nitroaniline	1.80	--	ND	--	--
			N-Nitrosodiphenylamine	0.360	--	ND	--	--
			4-Bromophenyl-phenylether	0.360	--	ND	--	--
			Hexachlorobenzene	0.360	--	ND	0.66/100	--
			Phenanthrene	0.360	--	ND	--	--

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BIULDING 2500, CHARLES WOOD, SITE A
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES (Continued)

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
A/2.0-2.5'	04-13-93	04-15-93	Anthracene	0.360	--	ND	1,000/100	--
			Di-n-Butylphthalate	0.360	--	ND	5,700/100	--
			Fluoranthene	0.360	--	ND	2,300/100	--
			Pyrene	0.360	--	ND	1,700/100	--
			Butylbenzylphthalate	0.360	--	ND	1,100/100	--
			3,3-Dichlorobenzidine	0.720	--	ND	2/100	--
			Benzo(a)Anthracene	0.360	--	ND	0.9/500	--
			Bis(2-Ethylhexyl)Phthalate	0.360	--	ND	49/100	--
			Chrysene	0.360	--	ND	9/500	--
			Di-n-Octyl Phthalate	0.360	--	ND	1,100/100	--
			Benzo(b)Fluoranthene	0.360	--	ND	0.9/50	--
			Benzo(k)Fluoranthene	0.360	--	ND	0.9/500	--
			Benzo(a)Pyrene	0.360	--	ND	0.66/100	--
			Indeno(1,2,3-cd)Pyrene	0.360	--	ND	0.9/500	--
			Dibenzo(a,h)Anthracene	0.360	--	ND	--	--
			Benzo(g,h,i)Perylene	0.360	--	ND	--	--
			Benzidine	0.720	--	ND	--	--

Note:

*	Residential Direct Compound / Impact to Groundwater
--	Not applicable / does not exceed criteria
(J)	Indicates detected below sample quantitation limit
(B)	Indicates also present in blank
(ND)	Indicates compound not detected

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, SITE B
FORT MONMOUTH, NEW JERSEY
VOLATILE ORGANICS

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
B/2.0-2.5'	04-13-93	04-15-93	Acrolein	0.053	--	ND	--	--
			Acrylonitrile	0.053	--	ND	1/1	--
			Chloromethane	0.011	--	ND	520/10	--
			Bromomethane	0.011	--	ND	79/1	--
			Vinyl Chloride	0.011	--	ND	2/10	--
			Chloroethane	0.011	--	ND	--	--
			Acetone	0.011	--	0.0026 J	1,000/100	--
			1,1-Dichloroethene	0.005	--	ND	8/10	--
			Carbon Disulfide	0.011	--	ND	--	--
			Methylene Chloride	0.005	--	0.0035 J	49/1	--
			1,2-Dichloroethene (trans)	0.005	--	ND	1,000/50	--
			1,1-Dichloroethane	0.005	--	ND	570/10	--
			Vinyl Acetate	0.005	--	ND	--	--
			2-Butanone	0.011	--	ND	1,000/50	--
			Chloroform	0.005	--	ND	19/1	--
			1,1,1-Trichloroethane	0.005	--	ND	210/50	--
			Carbon Tetrachloride	0.005	--	ND	2/1	--
			1,2-Dichloroethane	0.005	--	ND	6/1	--
			Benzene	0.005	--	ND	3/1	--
			Trichloroethene	0.005	--	ND	23/1	--
			1,2-Dichloropropane	0.005	--	ND	10	--
			Bromodichloromethane	0.005	--	ND	11/1	--
			2-Chloroethylvinylether	0.011	--	ND	--	--
			2-Hexanone	0.011	--	ND	--	--
			trans-1,3-Dichloropropene	0.005	--	ND	4/1	--
			Toluene	0.005	--	ND	1,000/500	--

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, SITE B
FORT MONMOUTH, NEW JERSEY
VOLATILE ORGANICS (Continued)

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
B/2.0-2.5'	04-13-93	04-15-93	cis-1,3-Dichloropropene	0.005	--	ND	4/1	--
			1,1,2,2-Tetrachloroethane	0.005	--	ND	34/1	--
			1,1,2-Trichloroethane	0.005	--	ND	22/1	--
			4-Methyl-2-pentanone	0.011	--	ND	1,000/50	--
			Tetrachloroethene	0.005	--	ND	4/1 **	--
			Dibromochloromethane	0.005	--	ND	110/1	--
			Chlorobenzene	0.005	--	ND	37/1	--
			Ethylbenzene	0.005	--	ND	1,000/100	--
			Xylenes (Total)	0.005	--	ND	410/10	--
			Styrene	0.005	--	ND	--	--
			Bromoform	0.005	--	ND	86/1	--
			m-Dichlorobenzene	0.005	--	ND	--	--
			p-Dichlorobenzene	0.005	--	ND	--	--
			o-Dichlorobenzene	0.005	--	ND	--	--

Note:

*	Residential Direct Compound / Impact to Groundwater
**	The tetrachloroethene results were compared to the soil cleanup criteria for tetrachloroethylene; tetrachloroethene is a synonym for tetrachloroethylene
--	Not applicable / does not exceed criteria
(J)	Indicates detected below sample quantitation limit
(B)	Indicates also present in blank
(ND)	Indicates compound not detected

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, SITE B
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES

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
B/2.0-2.5'	04-13-93	05-03-93	N-Nitrosodiethylamine	0.350	--	ND	--	--
			bis(2 chloroethyl)Ether	0.350	--	ND	0.66/10	--
			1,3-Dichlorobenzene	0.350	--	ND	5,100/100	--
			1,4-Dichlorobenzene	0.350	--	ND	570/100	--
			Benzyl Alcohol	0.350	--	ND	10,000/50	--
			1,2-Dichlorobenzene	0.350	--	ND	5,100/50	--
			bis(2-chloroisopropyl)Ether	0.350	--	ND	2,300/10	--
			N-Nitroso-Di-n-propylamine	0.350	--	ND	0.66/10	--
			Hexachloroethane	0.350	--	ND	6/100	--
			Nitrobenzene	0.350	--	ND	28/10	--
			Isophorone	0.350	--	ND	1,100/50	--
			Benzoic Acid	1.80	--	ND	--	--
			bis(2-Chloroethoxy)Methane	0.350	--	ND	--	--
			1,2,4-Trichlorobenzene	0.350	--	ND	68/100	--
			Naphthalene	0.350	--	ND	230/100	--
			4-Chloroaniline	0.350	--	ND	230	--
			Hexachlorobutadiene	0.350	--	ND	1/100	--
			2-Methylnaphthalene	0.350	--	ND	10,000/100	--
			Hexachlorocyclopentadiene	0.350	--	ND	1/100	--
			2-Chloronaphthalene	0.350	--	ND	--	--
			2-Nitroaniline	1.80	--	ND	--	--
			Dimethyl Phthalate	0.350	--	ND	10,000/50	--
			Acenaphthylene	0.350	--	ND	--	--
			3-Nitroaniline	1.80	--	ND	--	--
			Acenaphthene	0.350	--	ND	3,400/100	--
			Dibenzofuran	0.350	--	ND	--	--

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, SITE B
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES (Continued)

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
B/2.0-2.5'	04-13-93	05-03-93	2,4-Dinitrotoluene	0.350	--	ND	1/10	--
			2,6-Dinitrotoluene	0.350	--	ND	1/10	--
			Diethylphthalate	0.350	--	ND	--	--
			4-Chlorophenyl-phenlyether	0.350	--	ND	--	--
			Fluorene	0.350	--	ND	2,300/100	--
			4-Nitroaniline	1.80	--	ND	--	--
			N-Nitrosodiphenylamine	0.350	--	ND	--	--
			4-Bromophenyl-phenylether	0.350	--	ND	--	--
			Hexachlorobenzene	0.350	--	ND	0.66/100	--
			Phenanthrene	0.350	--	ND	--	--
			Anthracene	0.350	--	ND	1,000/100	--
			Di-n-Butylphthalate	0.350	--	ND	5,700/100	--
			Fluoranthene	0.350	--	ND	2,300/100	--
			Pyrene	0.350	--	ND	1,700/100	--
			Butylbenzylphthalate	0.350	--	ND	1,100/100	--
			3,3-Dichlorobenzidine	0.700	--	ND	2/100	--
			Benzo(a)Anthracene	0.350	--	ND	0.9/500	--
			Bis(2-Ethylhexyl)Phthalate	0.350	--	ND	49/100	--

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BIULDING 2500, CHARLES WOOD, SITE B
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES (Continued)

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
B/2.0-2.5'	04-13-93	05-03-93	Chrysene	0.350	--	ND	9/500	--
			Di-n-Octyl Phthalate	0.350	--	ND	1,100/100	--
			Benzo(b)Fluoranthene	0.350	--	ND	0.9/50	--
			Benzo(k)Fluoranthene	0.350	--	ND	0.9/500	--
			Benzo(a)Pyrene	0.350	--	ND	0.66/100	--
			Indeno(1,2,3-cd)Pyrene	0.350	--	ND	0.9/500	--
			Dibenzo(a,h)Anthracene	0.350	--	ND	--	--
			Benzo(g,h,i)Perylene	0.350	--	ND	--	--
			Benzidine	0.700	--	ND	--	--

Note:

*	Residential Direct Compound / Impact to Groundwater
--	Not applicable / does not exceed criteria
(J)	Indicates detected below sample quantitation limit
(B)	Indicates also present in blank
(ND)	Indicates compound not detected

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, SITE C
FORT MONMOUTH, NEW JERSEY
VOLATILE ORGANICS

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
C/2.0-2.5'	04-13-93	04-22-93	Acrolein	0.054	--	ND	--	--
			Acrylonitrile	0.054	--	ND	1/1	--
			Chloromethane	0.011	--	ND	520/10	--
			Bromomethane	0.011	--	ND	79/1	--
			Vinyl Chloride	0.011	--	ND	2/10	--
			Chloroethane	0.011	--	ND	--	--
			Acetone	0.011	--	ND B	1,000/100	--
			1,1-Dichloroethene	0.005	--	ND	8/10	--
			Carbon Disulfide	0.011	--	ND	--	--
			Methylene Chloride	0.005	--	ND	49/1	--
			1,2-Dichloroethene (trans)	0.005	--	ND	1,000/50	--
			1,1-Dichloroethane	0.005	--	ND	570/10	--
			Vinyl Acetate	0.005	--	ND	--	--
			2-Butanone	0.011	--	ND	1,000/50	--
			Chloroform	0.005	--	ND	19/1	--
			1,1,1-Trichloroethane	0.005	--	ND	210/50	--
			Carbon Tetrachloride	0.005	--	ND	2/1	--
			1,2-Dichloroethane	0.005	--	ND	6/1	--
			Benzene	0.005	--	ND	3/1	--
			Trichloroethene	0.005	--	ND	23/1	--
			1,2-Dichloropropane	0.005	--	ND	10	--
			Bromodichloromethane	0.005	--	ND	11/1	--
			2-Chloroethylvinylether	0.011	--	ND	--	--
			2-Hexanone	0.011	--	ND	--	--
			trans-1,3-Dichloropropene	0.005	--	ND	4/1	--
			Toluene	0.005	--	ND	1,000/500	--

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, SITE C
FORT MONMOUTH, NEW JERSEY
VOLATILE ORGANICS (Continued)

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
C/2.0-2.5'	04-13-93	04-22-93	cis-1,3-Dichloropropene	0.005	--	ND	4/1	--
			1,1,2,2-Tetrachloroethane	0.005	--	ND	34/1	--
			1,1,2-Trichloroethane	0.005	--	ND	22/1	--
			4-Methyl-2-pentanone	0.011	--	ND	1,000/50	--
			Tetrachloroethene	0.005	--	ND	4/1 **	--
			Dibromochloromethane	0.005	--	ND	110/1	--
			Chlorobenzene	0.005	--	ND	37/1	--
			Ethylbenzene	0.005	--	ND	1,000/100	--
			Xylenes (Total)	0.005	--	ND	410/10	--
			Styrene	0.005	--	ND	--	--
			Bromoform	0.005	--	ND	86/1	--
			m-Dichlorobenzene	0.005	--	ND	--	--
			p-Dichlorobenzene	0.005	--	ND	--	--
			o-Dichlorobenzene	0.005	--	ND	--	--

Note:

*	Residential Direct Compound / Impact to Groundwater
**	The tetrachloroethene results were compared to the soil cleanup criteria for tetrachloroethylene; tetrachloroethene is a synonym for tetrachloroethylene
--	Not applicable / does not exceed criteria
(J)	Indicates detected below sample quantitation limit
(B)	Indicates also present in blank
(ND)	Indicates compound not detected

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, SITE C
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES

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
C/2.0-2.5'	04-13-93	05-03-93	N-Nitrosodiethylamine	0.350	--	ND	--	--
			bis(2 chloroethyl)Ether	0.350	--	ND	0.66/10	--
			1,3-Dichlorobenzene	0.350	--	ND	5,100/100	--
			1,4-Dichlorobenzene	0.350	--	ND	570/100	--
			Benzyl Alcohol	0.350	--	ND	10,000/50	--
			1,2-Dichlorobenzene	0.350	--	ND	5,100/50	--
			bis(2-chloroisopropyl)Ether	0.350	--	ND	2,300/10	--
			N-Nitroso-Di-n-propylamine	0.350	--	ND	0.66/10	--
			Hexachloroethane	0.350	--	ND	6/100	--
			Nitrobenzene	0.350	--	ND	28/10	--
			Isophorone	0.350	--	ND	1,100/50	--
			Benzoic Acid	1.80	--	ND	--	--
			bis(2-Chloroethoxy)Methane	0.350	--	ND	--	--
			1,2,4-Trichlorobenzene	0.350	--	ND	68/100	--
			Naphthalene	0.350	--	ND	230/100	--
			4-Chloroaniline	0.350	--	ND	230	--
			Hexachlorobutadiene	0.350	--	ND	1/100	--
			2-Methylnaphthalene	0.350	--	ND	10,000/100	--

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, SITE C
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES (Continued)

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
C/2.0-2.5'	04-13-93	05-03-93	Hexachlorocyclopentadiene	0.350	--	ND	1/100	--
			2-Chloronaphthalene	0.350	--	ND	--	--
			2-Nitroaniline	1.80	--	ND	--	--
			Dimethyl Phthalate	0.350	--	ND	10,000/50	--
			Acenaphthylene	0.350	--	ND	--	--
			3-Nitroaniline	1.80	--	ND	--	--
			Acenaphthene	0.350	--	ND	3,400/100	--
			Dibenzofuran	0.350	--	ND	--	--
			2,4-Dinitrotoluene	0.350	--	ND	1/10	--
			2,6-Dinitrotoluene	0.350	--	ND	1/10	--
			Diethylphthalate	0.350	--	ND	--	--
			4-Chlorophenyl-phenlyether	0.350	--	ND	--	--
			Fluorene	0.350	--	ND	2,300/100	--
			4-Nitroaniline	1.80	--	ND	--	--
			N-Nitrosodiphenylamine	0.350	--	ND	--	--
			4-Bromophenyl-phenylether	0.350	--	ND	--	--
			Hexachlorobenzene	0.350	--	ND	0.66/100	--
			Phenanthrene	0.350	--	ND	--	--

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BIULDING 2500, CHARLES WOOD, SITE C
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES (Continued)

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
C/2.0-2.5'	04-13-93	05-03-93	Anthracene	0.350	--	ND	1,000/100	--
			Di-n-Butylphthalate	0.350	--	ND	5,700/100	--
			Fluoranthene	0.350	--	ND	2,300/100	--
			Pyrene	0.350	--	ND	1,700/100	--
			Butylbenzylphthalate	0.350	--	ND	1,100/100	--
			3,3-Dichlorobenzidine	0.710	--	ND	2/100	--
			Benzo(a)Anthracene	0.350	--	ND	0.9/500	--
			Bis(2-Ethylhexyl)Phthalate	0.350	--	ND	49/100	--
			Chrysene	0.350	--	ND	9/500	--
			Di-n-Octyl Phthalate	0.350	--	ND	1,100/100	--
			Benzo(b)Fluoranthene	0.350	--	ND	0.9/50	--
			Benzo(k)Fluoranthene	0.350	--	ND	0.9/500	--
			Benzo(a)Pyrene	0.350	--	ND	0.66/100	--
			Indeno(1,2,3-cd)Pyrene	0.350	--	ND	0.9/500	--
			Dibenzo(a,h)Anthracene	0.350	--	ND	--	--
			Benzo(g,h,i)Perylene	0.350	--	ND	--	--
			Benzidine	0.710	--	ND	--	--

Note:

*	Residential Direct Compound / Impact to Groundwater
--	Not applicable / does not exceed criteria
(J)	Indicates detected below sample quantitation limit
(B)	Indicates also present in blank
(ND)	Indicates compound not detected

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, SITE D
FORT MONMOUTH, NEW JERSEY
VOLATILE ORGANICS

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
D/2.0-2.5'	04-13-93	04-15-93	Acrolein	0.053	--	ND	--	--
			Acrylonitrile	0.053	--	ND	1/1	--
			Chloromethane	0.011	--	ND	520/10	--
			Bromomethane	0.011	--	ND	79/1	--
			Vinyl Chloride	0.011	--	ND	2/10	--
			Chloroethane	0.011	--	ND	--	--
			Acetone	0.011	--	0.0092 J	1,000/100	--
			1,1-Dichloroethene	0.005	--	ND	8/10	--
			Carbon Disulfide	0.011	--	ND	--	--
			Methylene Chloride	0.005	--	0.0029 J	49/1	--
			1,2-Dichloroethene (trans)	0.005	--	ND	1,000/50	--
			1,1-Dichloroethane	0.005	--	ND	570/10	--
			Vinyl Acetate	0.005	--	ND	--	--
			2-Butanone	0.011	--	ND	1,000/50	--
			Chloroform	0.005	--	ND	19/1	--
			1,1,1-Trichloroethane	0.005	--	ND	210/50	--
			Carbon Tetrachloride	0.005	--	ND	2/1	--
			1,2-Dichloroethane	0.005	--	ND	6/1	--
			Benzene	0.005	--	ND	3/1	--
			Trichloroethene	0.005	--	ND	23/1	--
			1,2-Dichloropropane	0.005	--	ND	10	--
			Bromodichloromethane	0.005	--	ND	11/1	--
			2-Chloroethylvinylether	0.011	--	ND	--	--
			2-Hexanone	0.011	--	ND	--	--
			trans-1,3-Dichloropropene	0.005	--	ND	4/1	--
			Toluene	0.005	--	ND	1,000/500	--

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, SITE D
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES

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
D/2.0-2.5'	04-13-93	05-06-93	N-Nitrosodiethylamine	0.350	--	ND	--	--
			bis(2 chloroethyl)Ether	0.350	--	ND	0.66/10	--
			1,3-Dichlorobenzene	0.350	--	ND	5,100/100	--
			1,4-Dichlorobenzene	0.350	--	ND	570/100	--
			Benzyl Alcohol	0.350	--	ND	10,000/50	--
			1,2-Dichlorobenzene	0.350	--	ND	5,100/50	--
			bis(2-chloroisopropyl)Ether	0.350	--	ND	2,300/10	--
			N-Nitroso-Di-n-propylamine	0.350	--	ND	.66/10	--
			Hexachloroethane	0.350	--	ND	6/100	--
			Nitrobenzene	0.350	--	ND	28/10	--
			Isophorone	0.350	--	ND	1,100/50	--
			Benzoic Acid	1.80	--	ND	--	--
			bis(2-Chloroethoxy)Methane	0.350	--	ND	--	--
			1,2,4-Trichlorobenzene	0.350	--	ND	68/100	--
			Naphthalene	0.350	--	ND	230/100	--
			4-Chloroaniline	0.350	--	ND	230	--
			Hexachlorobutadiene	0.350	--	ND	1/100	--
			2-Methylnaphthalene	0.350	--	ND	10,000/100	--

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, SITE D
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES (Continued)

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
D/2.0-2.5'	04-13-93	05-06-93	Hexachlorocyclopentadiene	0.350	--	ND	1/100	--
			2-Chloronaphthalene	0.350	--	ND	--	--
			2-Nitroaniline	1.80	--	ND	--	--
			Dimethyl Phthalate	0.350	--	ND	10,000/50	--
			Acenaphthylene	0.350	--	ND	--	--
			3-Nitroaniline	1.80	--	ND	--	--
			Acenaphthene	0.350	--	ND	3,400/100	--
			Dibenzofuran	0.350	--	ND	--	--
			2,4-Dinitrotoluene	0.350	--	ND	1/10	--
			2,6-Dinitrotoluene	0.350	--	ND	1/10	--
			Diethylphthalate	0.350	--	ND	--	--
			4-Chlorophenyl-phenlyether	0.350	--	ND	--	--
			Fluorene	0.350	--	ND	2,300/100	--
			4-Nitroaniline	1.80	--	ND	--	--
			N-Nitrosodiphenylamine	0.350	--	ND	--	--
			4-Bromophenyl-phenylether	0.350	--	ND	--	--
			Hexachlorobenzene	0.350	--	ND	0.66/100	--
			Phenanthrene	0.350	--	ND	--	--

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BIULDING 2500, CHARLES WOOD, SITE D
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES (Continued)

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
D/2.0-2.5'	04-13-93	05-06-93	Anthracene	0.350	--	ND	1,000/100	--
			Di-n-Butylphthalate	0.350	--	ND	5,700/100	--
			Fluoranthene	0.350	--	ND	2,300/100	--
			Pyrene	0.350	--	ND	1,700/100	--
			Butylbenzylphthalate	0.350	--	ND	1,100/100	--
			3,3-Dichlorobenzidine	0.700	--	ND	2/100	--
			Benzo(a)Anthracene	0.350	--	ND	0.9/500	--
			Bis(2-Ethylhexyl)Phthalate	0.350	--	ND	49/100	--
			Chrysene	0.350	--	ND	9/500	--
			Di-n-Octyl Phthalate	0.350	--	ND	1,100/100	--
			Benzo(b)Fluoranthene	0.350	--	ND	0.9/50	--
			Benzo(k)Fluoranthene	0.350	--	ND	0.9/500	--
			Benzo(a)Pyrene	0.350	--	ND	0.66/100	--
			Indeno(1,2,3-cd)Pyrene	0.350	--	ND	0.9/500	--
			Dibenzo(a,h)Anthracene	0.350	--	ND	--	--
			Benzo(g,h,i)Perylene	0.350	--	ND	--	--
			Benzidine	0.700	--	ND	--	--

Note:

*	Residential Direct Compound / Impact to Groundwater
--	Not applicable / does not exceed criteria
(J)	Indicates detected below sample quantitation limit
(B)	Indicates also present in blank
(ND)	Indicates compound not detected

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, SITE E
FORT MONMOUTH, NEW JERSEY
VOLATILE ORGANICS

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
E/2.0-2.5'	04-13-93	04-23-93	Acrolein	0.054	--	ND	--	--
			Acrylonitrile	0.054	--	ND	1/1	--
			Chloromethane	0.011	--	ND	520/10	--
			Bromomethane	0.011	--	ND	79/1	--
			Vinyl Chloride	0.011	--	ND	2/10	--
			Chloroethane	0.011	--	ND	--	--
			Acetone	0.011	--	0.0083 JB	1,000/100	--
			1,1-Dichloroethene	0.005	--	ND	8/10	--
			Carbon Disulfide	0.011	--	ND	--	--
			Methylene Chloride	0.005	--	0.0036 JB	49/1	--
			1,2-Dichloroethene (trans)	0.005	--	ND	1,000/50	--
			1,1-Dichloroethane	0.005	--	ND	570/10	--
			Vinyl Acetate	0.005	--	ND	--	--
			2-Butanone	0.011	--	ND	1,000/50	--
			Chloroform	0.005	--	ND	19/1	--
			1,1,1-Trichloroethane	0.005	--	ND	210/50	--
			Carbon Tetrachloride	0.005	--	ND	2/1	--
			1,2-Dichloroethane	0.005	--	ND	6/1	--
			Benzene	0.005	--	ND	3/1	--
			Trichloroethene	0.005	--	ND	23/1	--
			1,2-Dichloropropane	0.005	--	ND	10	--
			Bromodichloromethane	0.005	--	ND	11/1	--
			2-Chloroethylvinylether	0.011	--	ND	--	--
			2-Hexanone	0.011	--	ND	--	--
			trans-1,3-Dichloropropene	0.005	--	ND	4/1	--
			Toluene	0.005	--	ND	1,000/500	--

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, SITE E
FORT MONMOUTH, NEW JERSEY
VOLATILE ORGANICS (Continued)

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
E/2.0-2.5'	04-13-93	04-23-93	cis-1,3-Dichloropropene	0.005	--	ND	4/1	--
			1,1,2,2-Tetrachloroethane	0.005	--	ND	34/1	--
			1,1,2-Trichloroethane	0.005	--	ND	22/1	--
			4-Methyl-2-pentanone	0.011	--	ND	1,000/50	--
			Tetrachloroethene	0.005	--	ND	4/1 **	--
			Dibromochloromethane	0.005	--	ND	110/1	--
			Chlorobenzene	0.005	--	ND	37/1	--
			Ethylbenzene	0.005	--	ND	1,000/100	--
			Xylenes (Total)	0.005	--	ND	410/10	--
			Styrene	0.005	--	ND	--	--
			Bromoform	0.005	--	ND	86/1	--
			m-Dichlorobenzene	0.005	--	ND	--	--
			p-Dichlorobenzene	0.005	--	ND	--	--
			o-Dichlorobenzene	0.005	--	ND	--	--

Note:

*	Residential Direct Compound / Impact to Groundwater
**	The tetrachloroethene results were compared to the soil cleanup criteria for tetrachloroethylene; tetrachloroethene is a synonym for tetrachloroethylene
--	Not applicable / does not exceed criteria
(J)	Indicates detected below sample quantitation limit
(B)	Indicates also present in blank
(ND)	Indicates compound not detected

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, SITE E
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES

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
E/2.0-2.5'	04-13-93	05-03-93	N-Nitrosodiethylamine	0.350	--	ND	--	--
			bis(2 chloroethyl)Ether	0.350	--	ND	0.66/10	--
			1,3-Dichlorobenzene	0.350	--	ND	5,100/100	--
			1,4-Dichlorobenzene	0.350	--	ND	570/100	--
			Benzyl Alcohol	0.350	--	ND	10,000/50	--
			1,2-Dichlorobenzene	0.350	--	ND	5,100/50	--
			bis(2-chloroisopropyl)Ether	0.350	--	ND	2,300/10	--
			N-Nitroso-Di-n-propylamine	0.350	--	ND	0.66/10	--
			Hexachloroethane	0.350	--	ND	6/100	--
			Nitrobenzene	0.350	--	ND	28/10	--
			Isophorone	0.350	--	ND	1,100/50	--
			Benzoic Acid	1.80	--	ND	--	--
			bis(2-Chloroethoxy)Methane	0.350	--	ND	--	--
			1,2,4-Trichlorobenzene	0.350	--	ND	68/100	--
			Naphthalene	0.350	--	ND	230/100	--
			4-Chloroaniline	0.350	--	ND	230	--
			Hexachlorobutadiene	0.350	--	ND	1/100	--
			2-Methylnaphthalene	0.350	--	ND	10,000/100	--

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, SITE E
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES (Continued)

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
E/2.0-2.5'	04-13-93	05-03-93	Hexachlorocyclopentadiene	0.350	--	ND	1/100	--
			2-Chloronaphthalene	0.350	--	ND	--	--
			2-Nitroaniline	1.80	--	ND	--	--
			Dimethyl Phthalate	0.350	--	ND	10,000/50	--
			Acenaphthylene	0.350	--	ND	--	--
			3-Nitroaniline	1.80	--	ND	--	--
			Acenaphthene	0.350	--	ND	3,400/100	--
			Dibenzofuran	0.350	--	ND	--	--
			2,4-Dinitrotoluene	0.350	--	ND	1/10	--
			2,6-Dinitrotoluene	0.350	--	ND	1/10	--
			Diethylphthalate	0.350	--	ND	--	--
			4-Chlorophenyl-phenlyether	0.350	--	ND	--	--
			Fluorene	0.350	--	ND	2,300/100	--
			4-Nitroaniline	1.80	--	ND	--	--
			N-Nitrosodiphenylamine	0.350	--	ND	--	--
			4-Bromophenyl-phenylether	0.350	--	ND	--	--
			Hexachlorobenzene	0.350	--	ND	0.66/100	--
			Phenanthrene	0.350	--	ND	--	--

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BIULDING 2500, CHARLES WOOD, SITE E
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES (Continued)

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
E/2.0-2.5'	04-13-93	05-03-93	Anthracene	0.350	--	ND	1,000/100	--
			Di-n-Butylphthalate	0.350	--	ND	5,700/100	--
			Fluoranthene	0.350	--	ND	2,300/100	--
			Pyrene	0.350	--	ND	1,700/100	--
			Butylbenzylphthalate	0.350	--	ND	1,100/100	--
			3,3-Dichlorobenzidine	0.710	--	ND	2/100	--
			Benzo(a)Anthracene	0.350	--	ND	0.9/500	--
			Bis(2-Ethylhexyl)Phthalate	0.350	--	ND	49/100	--
			Chrysene	0.350	--	ND	9/500	--
			Di-n-Octyl Phthalate	0.350	--	ND	1,100/100	--
			Benzo(b)Fluoranthene	0.350	--	ND	0.9/50	--
			Benzo(k)Fluoranthene	0.350	--	ND	0.9/500	--
			Benzo(a)Pyrene	0.350	--	ND	0.66/100	--
			Indeno(1,2,3-cd)Pyrene	0.350	--	ND	0.9/500	--
			Dibenzo(a,h)Anthracene	0.350	--	ND	--	--
			Benzo(g,h,i)Perylene	0.350	--	ND	--	--
			Benzidine	0.710	--	ND	--	--

Note:

*	Residential Direct Compound / Impact to Groundwater
--	Not applicable / does not exceed criteria
(J)	Indicates detected below sample quantitation limit
(B)	Indicates also present in blank
(ND)	Indicates compound not detected

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, SITE F
FORT MONMOUTH, NEW JERSEY
VOLATILE ORGANICS

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
F/5.5-6.0'	04-13-93	04-23-93	Acrolein	0.065	--	ND	--	--
			Acrylonitrile	0.065	--	ND	1/1	--
			Chloromethane	0.013	--	ND	520/10	--
			Bromomethane	0.013	--	ND	79/1	--
			Vinyl Chloride	0.013	--	ND	2/10	--
			Chloroethane	0.013	--	ND	--	--
			Acetone	0.013	--	ND B	1,000/100	--
			1,1-Dichloroethene	0.006	--	ND	8/10	--
			Carbon Disulfide	0.013	--	ND	--	--
			Methylene Chloride	0.006	--	0.0042 JB	49/1	--
			1,2-Dichloroethene (trans)	0.006	--	ND	1,000/50	--
			1,1-Dichloroethane	0.006	--	ND	570/10	--
			Vinyl Acetate	0.006	--	ND	--	--
			2-Butanone	0.013	--	ND	1,000/50	--
			Chloroform	0.006	--	ND	19/1	--
			1,1,1-Trichloroethane	0.006	--	ND	210/50	--
			Carbon Tetrachloride	0.006	--	ND	2/1	--
			1,2-Dichloroethane	0.006	--	ND	6/1	--
			Benzene	0.006	--	ND	3/1	--
			Trichloroethene	0.006	--	ND	23/1	--
			1,2-Dichloropropane	0.006	--	ND	10	--
			Bromodichloromethane	0.006	--	ND	11/1	--
			2-Chloroethylvinylether	0.013	--	ND	--	--
			2-Hexanone	0.013	--	ND	--	--
			trans-1,3-Dichloropropene	0.006	--	ND	4/1	--
			Toluene	0.006	--	ND	1,000/500	--

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, SITE F
FORT MONMOUTH, NEW JERSEY
VOLATILE ORGANICS (Continued)

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
F/5.5-6.0'	04-13-93	04-23-93	cis-1,3-Dichloropropene	0.006	--	ND	4/1	--
			1,1,2,2-Tetrachloroethane	0.006	--	ND	34/1	--
			1,1,2-Trichloroethane	0.006	--	ND	22/1	--
			4-Methyl-2-pentanone	0.013	--	ND	1,000/50	--
			Tetrachloroethene	0.006	--	ND	4/1 **	--
			Dibromochloromethane	0.006	--	ND	110/1	--
			Chlorobenzene	0.006	--	ND	37/1	--
			Ethylbenzene	0.006	--	ND	1,000/100	--
			Xylenes (Total)	0.006	--	ND	410/10	--
			Styrene	0.006	--	ND	--	--
			Bromoform	0.006	--	ND	86/1	--
			m-Dichlorobenzene	0.006	--	ND	--	--
			p-Dichlorobenzene	0.006	--	ND	--	--
			o-Dichlorobenzene	0.006	--	ND	--	--

Note:

*	Residential Direct Compound / Impact to Groundwater
**	The tetrachloroethene results were compared to the soil cleanup criteria for tetrachloroethylene; tetrachloroethene is a synonym for tetrachloroethylene
--	Not applicable / does not exceed criteria
(J)	Indicates detected below sample quantitation limit
(B)	Indicates also present in blank
(ND)	Indicates compound not detected

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, SITE F
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES

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
F/5.5-6.0'	04-13-93	05-03-93	N-Nitrosodiethylamine	0.43	--	ND	--	--
			bis(2 chloroethyl)Ether	0.43	--	ND	0.66/10	--
			1,3-Dichlorobenzene	0.43	--	ND	5,100/100	--
			1,4-Dichlorobenzene	0.43	--	ND	570/100	--
			Benzyl Alcohol	0.43	--	ND	10,000/50	--
			1,2-Dichlorobenzene	0.43	--	ND	5,100/50	--
			bis(2-chloroisopropyl)Ether	0.43	--	ND	2,300/10	--
			N-Nitroso-Di-n-propylamine	0.43	--	ND	0.66/10	--
			Hexachloroethane	0.43	--	ND	6/100	--
			Nitrobenzene	0.43	--	ND	28/10	--
			Isophorone	0.43	--	ND	1,100/50	--
			Benzoic Acid	2.1	--	ND	--	--
			bis(2-Chloroethoxy)Methane	0.43	--	ND	--	--
			1,2,4-Trichlorobenzene	0.43	--	ND	68/100	--
			Naphthalene	0.43	--	ND	230/100	--
			4-Chloroaniline	0.43	--	ND	230	--
			Hexachlorobutadiene	0.43	--	ND	1/100	--
			2-Methylnaphthalene	0.43	--	ND	10,000/100	--

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, SITE F
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES (Continued)

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
F/5.5-6.0'	04-13-93	05-03-93	Hexachlorocyclopentadiene	0.43	--	ND	1/100	--
			2-Chloronaphthalene	0.43	--	ND	--	--
			2-Nitroaniline	2.1	--	ND	--	--
			Dimethyl Phthalate	0.43	--	ND	10,000/50	--
			Acenaphthylene	0.43	--	ND	--	--
			3-Nitroaniline	2.1	--	ND	--	--
			Acenaphthene	0.43	--	ND	3,400/100	--
			Dibenzofuran	0.43	--	ND	--	--
			2,4-Dinitrotoluene	0.43	--	ND	1/10	--
			2,6-Dinitrotoluene	0.43	--	ND	1/10	--
			Diethylphthalate	0.43	--	ND	--	--
			4-Chlorophenyl-phenlyether	0.43	--	ND	--	--
			Fluorene	0.43	--	ND	2,300/100	--
			4-Nitroaniline	2.1	--	ND	--	--
			N-Nitrosodiphenylamine	0.43	--	ND	--	--
			4-Bromophenyl-phenylether	0.43	--	ND	--	--
			Hexachlorobenzene	0.43	--	ND	0.66/100	--
			Phenanthrene	0.43	--	ND	--	--

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BIULDING 2500, CHARLES WOOD, SITE F
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES (Continued)

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
F/5.5-6.0'	04-13-93	05-03-93	Anthracene	0.43	--	ND	1,000/100	--
			Di-n-Butylphthalate	0.43	--	ND	5,700/100	--
			Fluoranthene	0.43	--	ND	2,300/100	--
			Pyrene	0.43	--	ND	1,700/100	--
			Butylbenzylphthalate	0.43	--	ND	1,100/100	--
			3,3-Dichlorobenzidine	0.86	--	ND	2/100	--
			Benzo(a)Anthracene	0.43	--	ND	0.9/500	--
			Bis(2-Ethylhexyl)Phthalate	0.43	--	ND	49/100	--
			Chrysene	0.43	--	ND	9/500	--
			Di-n-Octyl Phthalate	0.43	--	ND	1,100/100	--
			Benzo(b)Fluoranthene	0.43	--	ND	0.9/50	--
			Benzo(k)Fluoranthene	0.43	--	ND	0.9/500	--
			Benzo(a)Pyrene	0.43	--	ND	0.66/100	--
			Indeno(1,2,3-cd)Pyrene	0.43	--	ND	0.9/500	--
			Dibenzo(a,h)Anthracene	0.43	--	ND	--	--
			Benzo(g,h,i)Perylene	0.43	--	ND	--	--
			Benzidine	0.86	--	ND	--	--

Note:

*	Residential Direct Compound / Impact to Groundwater
--	Not applicable / does not exceed
(J)	Indicates detected below sample quantitation limit
(B)	Indicates also present in blank
(ND)	Indicates compound not detected

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, SITE G
FORT MONMOUTH, NEW JERSEY
VOLATILE ORGANICS

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
G/5.5-6.0'	04-13-93	04-23-93	Acrolein	0.064	--	ND	--	--
			Acrylonitrile	0.064	--	ND	1/1	--
			Chloromethane	0.013	--	ND	520/10	--
			Bromomethane	0.013	--	ND	79/1	--
			Vinyl Chloride	0.013	--	ND	2/10	--
			Chloroethane	0.013	--	ND	--	--
			Acetone	0.013	--	0.0055 JB	1,000/100	--
			1,1-Dichloroethene	0.006	--	ND	8/10	--
			Carbon Disulfide	0.013	--	ND	--	--
			Methylene Chloride	0.006	--	0.0047 JB	49/1	--
			1,2-Dichloroethene (trans)	0.006	--	ND	1,000/50	--
			1,1-Dichloroethane	0.006	--	ND	570/10	--
			Vinyl Acetate	0.006	--	ND	--	--
			2-Butanone	0.013	--	ND	1,000/50	--
			Chloroform	0.006	--	ND	19/1	--
			1,1,1-Trichloroethane	0.006	--	ND	210/50	--
			Carbon Tetrachloride	0.006	--	ND	2/1	--
			1,2-Dichloroethane	0.006	--	ND	6/1	--
			Benzene	0.006	--	ND	3/1	--
			Trichloroethene	0.006	--	ND	23/1	--
			1,2-Dichloropropane	0.006	--	ND	10	--
			Bromodichloromethane	0.006	--	ND	11/1	--
			2-Chloroethylvinylether	0.013	--	ND	--	--
			2-Hexanone	0.013	--	ND	--	--
			trans-1,3-Dichloropropene	0.006	--	ND	4/1	--
			Toluene	0.006	--	ND	1,000/500	--

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, SITE G
FORT MONMOUTH, NEW JERSEY
VOLATILE ORGANICS (Continued)

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
G/5.5-6.0'	04-13-93	04-23-93	cis-1,3-Dichloropropene	0.006	--	ND	4/1	--
			1,1,2,2-Tetrachloroethane	0.006	--	ND	34/1	--
			1,1,2-Trichloroethane	0.006	--	ND	22/1	--
			4-Methyl-2-pentanone	0.013	--	ND	1,000/50	--
			Tetrachloroethene	0.006	--	ND	4/1 **	--
			Dibromochloromethane	0.006	--	ND	110/1	--
			Chlorobenzene	0.006	--	ND	37/1	--
			Ethylbenzene	0.006	--	ND	1,000/100	--
			Xylenes (Total)	0.006	--	ND	410/10	--
			Styrene	0.006	--	ND	--	--
			Bromoform	0.006	--	ND	86/1	--
			m-Dichlorobenzene	0.006	--	ND	--	--
			p-Dichlorobenzene	0.006	--	ND	--	--
			o-Dichlorobenzene	0.006	--	ND	--	--

Note:

*	Residential Direct Compound / Impact to Groundwater
**	The tetrachloroethene results were compared to the soil cleanup criteria for tetrachloroethylene; tetrachloroethene is a synonym for tetrachloroethylene
--	Not applicable / does not exceed criteria
(J)	Indicates detected below sample quantitation limit
(B)	Indicates also present in blank
(ND)	Indicates compound not detected

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, SITE G
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES

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
G/5.5-6.0'	04-13-93	05-06-93	N-Nitrosodiethylamine	0.42	--	ND	--	--
			bis(2 chloroethyl)Ether	0.42	--	ND	0.66/10	--
			1,3-Dichlorobenzene	0.42	--	ND	5,100/100	--
			1,4-Dichlorobenzene	0.42	--	ND	570/100	--
			Benzyl Alcohol	0.42	--	ND	10,000/50	--
			1,2-Dichlorobenzene	0.42	--	ND	5,100/50	--
			bis(2-chloroisopropyl)Ether	0.42	--	ND	2,300/10	--
			N-Nitroso-Di-n-propylamine	0.42	--	ND	0.66/10	--
			Hexachloroethane	0.42	--	ND	6/100	--
			Nitrobenzene	0.42	--	ND	28/10	--
			Isophorone	0.42	--	ND	1,100/50	--
			Benzoic Acid	2.1	--	ND	--	--
			bis(2-Chloroethoxy)Methane	0.42	--	ND	--	--
			1,2,4-Trichlorobenzene	0.42	--	ND	68/100	--
			Naphthalene	0.42	--	ND	230/100	--
			4-Chloroaniline	0.42	--	ND	230	--
			Hexachlorobutadiene	0.42	--	ND	1/100	--
			2-Methylnaphthalene	0.42	--	ND	10,000/100	--

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, SITE G
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES (Continued)

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
G/5.5-6.0'	04-13-93	05-06-93	Hexachlorocyclopentadiene	0.42	--	ND	1/100	--
			2-Chloronaphthalene	0.42	--	ND	--	--
			2-Nitroaniline	2.1	--	ND	--	--
			Dimethyl Phthalate	0.42	--	ND	10,000/50	--
			Acenaphthylene	0.42	--	ND	--	--
			3-Nitroaniline	2.1	--	ND	--	--
			Acenaphthene	0.42	--	ND	3,400/100	--
			Dibenzofuran	0.42	--	ND	--	--
			2,4-Dinitrotoluene	0.42	--	ND	1/10	--
			2,6-Dinitrotoluene	0.42	--	ND	1/10	--
			Diethylphthalate	0.42	--	ND	--	--
			4-Chlorophenyl-phenlyether	0.42	--	ND	--	--
			Fluorene	0.42	--	ND	2,300/100	--
			4-Nitroaniline	2.1	--	ND	--	--
			N-Nitrosodiphenylamine	0.42	--	ND	--	--
			4-Bromophenyl-phenylether	0.42	--	ND	--	--
			Hexachlorobenzene	0.42	--	ND	0.66/100	--
			Phenanthrene	0.42	--	ND	--	--

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BIULDING 2500, CHARLES WOOD, SITE G
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES (Continued)

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
G/5.5-6.0'	04-13-93	05-06-93	Anthracene	0.42	--	ND	1,000/100	--
			Di-n-Butylphthalate	0.42	--	ND	5,700/100	--
			Fluoranthene	0.42	--	ND	2,300/100	--
			Pyrene	0.42	--	ND	1,700/100	--
			Butylbenzylphthalate	0.42	--	ND	1,100/100	--
			3,3-Dichlorobenzidine	0.85	--	ND	2/100	--
			Benzo(a)Anthracene	0.42	--	ND	0.9/500	--
			Bis(2-Ethylhexyl)Phthalate	0.42	--	ND	49/100	--
			Chrysene	0.42	--	ND	9/500	--
			Di-n-Octyl Phthalate	0.42	--	ND	1,100/100	--
			Benzo(b)Fluoranthene	0.42	--	ND	0.9/50	--
			Benzo(k)Fluoranthene	0.42	--	ND	0.9/500	--
			Benzo(a)Pyrene	0.42	--	ND	0.66/100	--
			Indeno(1,2,3-cd)Pyrene	0.42	--	ND	0.9/500	--
			Dibenzo(a,h)Anthracene	0.42	--	ND	--	--
			Benzo(g,h,i)Perylene	0.42	--	ND	--	--
			Benzidine	0.85	--	ND	--	--

Note:

*	Residential Direct Compound / Impact to Groundwater
--	Not applicable / does not exceed criteria
(J)	Indicates detected below sample quantitation limit
(B)	Indicates also present in blank
(ND)	Indicates compound not detected

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, SITE H
FORT MONMOUTH, NEW JERSEY
VOLATILE ORGANICS

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
H/5.5-6.0'	04-13-93	04-22-93	Acrolein	0.061	--	ND	--	--
			Acrylonitrile	0.061	--	ND	1/1	--
			Chloromethane	0.012	--	ND	520/10	--
			Bromomethane	0.012	--	ND	79/1	--
			Vinyl Chloride	0.012	--	ND	2/10	--
			Chloroethane	0.012	--	ND	--	--
			Acetone	0.012	--	ND B	1,000/100	--
			1,1-Dichloroethene	0.006	--	ND	8/10	--
			Carbon Disulfide	0.012	--	ND	--	--
			Methylene Chloride	0.006	--	ND	49/1	--
			1,2-Dichloroethene (trans)	0.006	--	ND	1,000/50	--
			1,1-Dichloroethane	0.006	--	ND	570/10	--
			Vinyl Acetate	0.006	--	ND	--	--
			2-Butanone	0.012	--	ND	1,000/50	--
			Chloroform	0.006	--	ND	19/1	--
			1,1,1-Trichloroethane	0.006	--	ND	210/50	--
			Carbon Tetrachloride	0.006	--	ND	2/1	--
			1,2-Dichloroethane	0.006	--	ND	6/1	--
			Benzene	0.006	--	ND	3/1	--
			Trichloroethene	0.006	--	ND	23/1	--
			1,2-Dichloropropane	0.006	--	ND	10	--
			Bromodichloromethane	0.006	--	ND	11/1	--
			2-Chloroethylvinylether	0.012	--	ND	--	--
			2-Hexanone	0.012	--	ND	--	--
			trans-1,3-Dichloropropene	0.006	--	ND	4/1	--
			Toluene	0.006	--	ND	1,000/500	--

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, SITE H
FORT MONMOUTH, NEW JERSEY
VOLATILE ORGANICS (Continued)

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
H/5.5-6.0'	04-13-93	04-22-93	cis-1,3-Dichloropropene	0.006	--	ND	4/1	--
			1,1,2,2-Tetrachloroethane	0.006	--	ND	34/1	--
			1,1,2-Trichloroethane	0.006	--	ND	22/1	--
			4-Methyl-2-pentanone	0.012	--	ND	1,000/50	--
			Tetrachloroethene	0.006	--	ND	4/1 **	--
			Dibromochloromethane	0.006	--	ND	110/1	--
			Chlorobenzene	0.006	--	ND	37/1	--
			Ethylbenzene	0.006	--	ND	1,000/100	--
			Xylenes (Total)	0.006	--	ND	410/10	--
			Styrene	0.006	--	ND	--	--
			Bromoform	0.006	--	ND	86/1	--
			m-Dichlorobenzene	0.006	--	ND	--	--
			p-Dichlorobenzene	0.006	--	ND	--	--
			o-Dichlorobenzene	0.006	--	ND	--	--

Note:

*	Residential Direct Compound / Impact to Groundwater
**	The tetrachloroethene results were compared to the soil cleanup criteria for tetrachloroethylene; tetrachloroethene is a synonym for tetrachloroethylene
--	Not applicable / does not exceed criteria
(J)	Indicates detected below sample quantitation limit
(B)	Indicates also present in blank
(ND)	Indicates compound not detected

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, SITE H
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES

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
H/5.5-6.0'	04-13-93	05-06-93	N-Nitrosodiethylamine	0.40	--	ND	--	--
			bis(2 chloroethyl)Ether	0.40	--	ND	0.66/10	--
			1,3-Dichlorobenzene	0.40	--	ND	5,100/100	--
			1,4-Dichlorobenzene	0.40	--	ND	570/100	--
			Benzyl Alcohol	0.40	--	ND	10,000/50	--
			1,2-Dichlorobenzene	0.40	--	ND	5,100/50	--
			bis(2-chloroisopropyl)Ether	0.40	--	ND	2,300/10	--
			N-Nitroso-Di-n-propylamine	0.40	--	ND	0.66/10	--
			Hexachloroethane	0.40	--	ND	6/100	--
			Nitrobenzene	0.40	--	ND	28/10	--
			Isophorone	0.40	--	ND	1,100/50	--
			Benzoic Acid	2.0	--	ND	--	--
			bis(2-Chloroethoxy)Methane	0.40	--	ND	--	--
			1,2,4-Trichlorobenzene	0.40	--	ND	68/100	--
			Naphthalene	0.40	--	ND	230/100	--
			4-Chloroaniline	0.40	--	ND	230	--
			Hexachlorobutadiene	0.40	--	ND	1/100	--
			2-Methylnaphthalene	0.40	--	ND	10,000/100	--

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, SITE H
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES (Continued)

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
H/5.5-6.0'	04-13-93	05-06-93	Hexachlorocyclopentadiene	0.40	--	ND	1/100	--
			2-Chloronaphthalene	0.40	--	ND	--	--
			2-Nitroaniline	2.0	--	ND	--	--
			Dimethyl Phthalate	0.40	--	ND	10,000/50	--
			Acenaphthylene	0.40	--	ND	--	--
			3-Nitroaniline	2.0	--	ND	--	--
			Acenaphthene	0.40	--	ND	3,400/100	--
			Dibenzofuran	0.40	--	ND	--	--
			2,4-Dinitrotoluene	0.40	--	ND	1/10	--
			2,6-Dinitrotoluene	0.40	--	ND	1/10	--
			Diethylphthalate	0.40	--	ND	--	--
			4-Chlorophenyl-phenlyether	0.40	--	ND	--	--
			Fluorene	0.40	--	ND	2,300/100	--
			4-Nitroaniline	2.0	--	ND	--	--
			N-Nitrosodiphenylamine	0.40	--	ND	--	--
			4-Bromophenyl-phenylether	0.40	--	ND	--	--
			Hexachlorobenzene	0.40	--	ND	0.66/100	--
			Phenanthrene	0.40	--	ND	--	--
			Anthracene	0.40	--	ND	1,000/100	--
			Di-n-Butylphthalate	0.40	--	ND	5,700/100	--
			Fluoranthene	0.40	--	ND	2,300/100	--
			Pyrene	0.40	--	ND	1,700/100	--
			Butylbenzylphthalate	0.40	--	ND	1,100/100	--

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BIULDING 2500, CHARLES WOOD, SITE H
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES (Continued)

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
H/5.5-6.0'	04-13-93	05-06-93	3,3-Dichlorobenzidine	0.80	--	ND	2/100	--
			Benzo(a)Anthracene	0.40	--	ND	0.9/500	--
			Bis(2-Ethylhexyl)Phthalate	0.40	--	ND	49/100	--
			Chrysene	0.40	--	ND	9/500	--
			Di-n-Octyl Phthalate	0.40	--	ND	1,100/100	--
			Benzo(b)Fluoranthene	0.40	--	ND	0.9/50	--
			Benzo(k)Fluoranthene	0.40	--	ND	0.9/500	--
			Benzo(a)Pyrene	0.40	--	ND	0.66/100	--
			Indeno(1,2,3-cd)Pyrene	0.40	--	ND	0.9/500	--
			Dibenzo(a,h)Anthracene	0.40	--	ND	--	--
			Benzo(g,h,i)Perylene	0.40	--	ND	--	--
			Benzidine	0.80	--	ND	--	--

Note:

*	Residential Direct Compound / Impact to Groundwater
--	Not applicable / does not exceed criteria
(J)	Indicates detected below sample quantitation limit
(B)	Indicates also present in blank
(ND)	Indicates compound not detected

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, SITE I
FORT MONMOUTH, NEW JERSEY
VOLATILE ORGANICS

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
I/5.5-6.0'	04-13-93	04-22-93	Acrolein	0.066	--	ND	--	--
			Acrylonitrile	0.066	--	ND	1/1	--
			Chloromethane	0.013	--	ND	520/10	--
			Bromomethane	0.013	--	ND	79/1	--
			Vinyl Chloride	0.013	--	ND	2/10	--
			Chloroethane	0.013	--	ND	--	--
			Acetone	0.013	--	0.012 JB	1,000/100	--
			1,1-Dichloroethene	0.007	--	ND	8/10	--
			Carbon Disulfide	0.013	--	ND	--	--
			Methylene Chloride	0.007	--	0.0022 J	49/1	--
			1,2-Dichloroethene (trans)	0.007	--	ND	1,000/50	--
			1,1-Dichloroethane	0.007	--	ND	570/10	--
			Vinyl Acetate	0.007	--	ND	--	--
			2-Butanone	0.013	--	ND	1,000/50	--
			Chloroform	0.007	--	ND	19/1	--
			1,1,1-Trichloroethane	0.007	--	ND	210/50	--
			Carbon Tetrachloride	0.007	--	ND	2/1	--
			1,2-Dichloroethane	0.007	--	ND	6/1	--
			Benzene	0.007	--	ND	3/1	--
			Trichloroethene	0.007	--	ND	23/1	--
			1,2-Dichloropropane	0.007	--	ND	10	--
			Bromodichloromethane	0.007	--	ND	11/1	--
			2-Chloroethylvinylether	0.013	--	ND	--	--
			2-Hexanone	0.013	--	ND	--	--
			trans-1,3-Dichloropropene	0.007	--	ND	4/1	--
			Toluene	0.007	--	ND	1,000/500	--

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, SITE I
FORT MONMOUTH, NEW JERSEY
VOLATILE ORGANICS (Continued)

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
I/5.5-6.0'	04-13-93	04-22-93	cis-1,3-Dichloropropene	0.007	--	ND	4/1	--
			1,1,2,2-Tetrachloroethane	0.007	--	ND	34/1	--
			1,1,2-Trichloroethane	0.007	--	ND	22/1	--
			4-Methyl-2-pentanone	0.013	--	ND	1,000/50	--
			Tetrachloroethene	0.007	--	ND	4/1 **	--
			Dibromochloromethane	0.007	--	ND	110/1	--
			Chlorobenzene	0.007	--	ND	37/1	--
			Ethylbenzene	0.007	--	ND	1,000/100	--
			Xylenes (Total)	0.007	--	ND	410/10	--
			Styrene	0.007	--	ND	--	--
			Bromoform	0.007	--	ND	86/1	--
			m-Dichlorobenzene	0.007	--	ND	--	--
			p-Dichlorobenzene	0.007	--	ND	--	--
			o-Dichlorobenzene	0.007	--	ND	--	--

Note:

*	Residential Direct Compound / Impact to Groundwater
**	The tetrachloroethene results were compared to the soil cleanup criteria for tetrachloroethylene; tetrachloroethene is a synonym for tetrachloroethylene
--	Not applicable / does not exceed criteria
(J)	Indicates detected below sample quantitation limit
(B)	Indicates also present in blank
(ND)	Indicates compound not detected

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, SITE I
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES

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
I/5.5-6.0'	04-13-93	05-06-93	N-Nitrosodiethylamine	0.43	--	ND	--	--
			bis(2 chloroethyl)Ether	0.43	--	ND	0.66/10	--
			1,3-Dichlorobenzene	0.43	--	ND	5,100/100	--
			1,4-Dichlorobenzene	0.43	--	ND	570/100	--
			Benzyl Alcohol	0.43	--	ND	10,000/50	--
			1,2-Dichlorobenzene	0.43	--	ND	5,100/50	--
			bis(2-chloroisopropyl)Ether	0.43	--	ND	2,300/10	--
			N-Nitroso-Di-n-propylamine	0.43	--	ND	0.66/10	--
			Hexachloroethane	0.43	--	ND	6/100	--
			Nitrobenzene	0.43	--	ND	28/10	--
			Isophorone	0.43	--	ND	1,100/50	--
			Benzoic Acid	2.2	--	ND	--	--
			bis(2-Chloroethoxy)Methane	0.43	--	ND	--	--
			1,2,4-Trichlorobenzene	0.43	--	ND	68/100	--
			Naphthalene	0.43	--	ND	230/100	--
			4-Chloroaniline	0.43	--	ND	230	--
			Hexachlorobutadiene	0.43	--	ND	1/100	--
			2-Methylnaphthalene	0.43	--	ND	10,000/100	--

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, SITE I
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES (Continued)

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
I/5.5-6.0'	04-13-93	05-06-93	Hexachlorocyclopentadiene	0.43	--	ND	1/100	--
			2-Chloronaphthalene	0.43	--	ND	--	--
			2-Nitroaniline	2.2	--	ND	--	--
			Dimethyl Phthalate	0.43	--	ND	10,000/50	--
			Acenaphthylene	0.43	--	ND	--	--
			3-Nitroaniline	2.2	--	ND	--	--
			Acenaphthene	0.43	--	ND	3,400/100	--
			Dibenzofuran	0.43	--	ND	--	--
			2,4-Dinitrotoluene	0.43	--	ND	1/10	--
			2,6-Dinitrotoluene	0.43	--	ND	1/10	--
			Diethylphthalate	0.43	--	ND	--	--
			4-Chlorophenyl-phenlyether	0.43	--	ND	--	--
			Fluorene	0.43	--	ND	2,300/100	--
			4-Nitroaniline	2.2	--	ND	--	--
			N-Nitrosodiphenylamine	0.43	--	ND	--	--
			4-Bromophenyl-phenylether	0.43	--	ND	--	--
			Hexachlorobenzene	0.43	--	ND	0.66/100	--
			Phenanthrene	0.43	--	ND	--	--

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BIULDING 2500, CHARLES WOOD, SITE I
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES (Continued)

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
I/5.5-6.0'	04-13-93	05-06-93	Anthracene	0.43	--	ND	1,000/100	--
			Di-n-Butylphthalate	0.43	--	ND	5,700/100	--
			Fluoranthene	0.43	--	ND	2,300/100	--
			Pyrene	0.43	--	ND	1,700/100	--
			Butylbenzylphthalate	0.43	--	ND	1,100/100	--
			3,3-Dichlorobenzidine	0.87	--	ND	2/100	--
			Benzo(a)Anthracene	0.43	--	ND	0.9/500	--
			Bis(2-Ethylhexyl)Phthalate	0.43	--	ND	49/100	--
			Chrysene	0.43	--	ND	9/500	--
			Di-n-Octyl Phthalate	0.43	--	ND	1,100/100	--
			Benzo(b)Fluoranthene	0.43	--	ND	0.9/50	--
			Benzo(k)Fluoranthene	0.43	--	ND	0.9/500	--
			Benzo(a)Pyrene	0.43	--	ND	0.66/100	--
			Indeno(1,2,3-cd)Pyrene	0.43	--	ND	0.9/500	--
			Dibenzo(a,h)Anthracene	0.43	--	ND	--	--
			Benzo(g,h,i)Perylene	0.43	--	ND	--	--
			Benzidine	0.87	--	ND	--	--

Note:

*	Residential Direct Compound / Impact to Groundwater
--	Not applicable / does not exceed criteria
(J)	Indicates detected below sample quantitation limit
(B)	Indicates also present in blank
(ND)	Indicates compound not detected

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, SITE J
FORT MONMOUTH, NEW JERSEY
VOLATILE ORGANICS

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
J/5.5-6.0'	04-13-93	04-23-93	Acrolein	0.065	--	ND	--	--
			Acrylonitrile	0.065	--	ND	1/1	--
			Chloromethane	0.013	--	ND	520/10	--
			Bromomethane	0.013	--	ND	79/1	--
			Vinyl Chloride	0.013	--	ND	2/10	--
			Chloroethane	0.013	--	ND	--	--
			Acetone	0.013	--	0.0056 JB	1,000/100	--
			1,1-Dichloroethene	0.006	--	ND	8/10	--
			Carbon Disulfide	0.013	--	ND	--	--
			Methylene Chloride	0.006	--	0.0045 JB	49/1	--
			1,2-Dichloroethene (trans)	0.006	--	ND	1,000/50	--
			1,1-Dichloroethane	0.006	--	ND	570/10	--
			Vinyl Acetate	0.006	--	ND	--	--
			2-Butanone	0.013	--	ND	1,000/50	--
			Chloroform	0.006	--	ND	19/1	--
			1,1,1-Trichloroethane	0.006	--	ND	210/50	--
			Carbon Tetrachloride	0.006	--	ND	2/1	--
			1,2-Dichloroethane	0.006	--	ND	6/1	--
			Benzene	0.006	--	ND	3/1	--
			Trichloroethene	0.006	--	ND	23/1	--
			1,2-Dichloropropane	0.006	--	ND	10	--
			Bromodichloromethane	0.006	--	ND	11/1	--
			2-Chloroethylvinylether	0.013	--	ND	--	--
			2-Hexanone	0.013	--	ND	--	--
			trans-1,3-Dichloropropene	0.006	--	ND	4/1	--
			Toluene	0.006	--	ND	1,000/500	--

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, SITE J
FORT MONMOUTH, NEW JERSEY
VOLATILE ORGANICS (Continued)

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
J/5.5-6.0'	04-13-93	04-23-93	cis-1,3-Dichloropropene	0.006	--	ND	4/1	--
			1,1,2,2-Tetrachloroethane	0.006	--	ND	34/1	--
			1,1,2-Trichloroethane	0.006	--	ND	22/1	--
			4-Methyl-2-pentanone	0.013	--	ND	1,000/50	--
			Tetrachloroethene	0.006	--	ND	4/1 **	--
			Dibromochloromethane	0.006	--	ND	110/1	--
			Chlorobenzene	0.006	--	ND	37/1	--
			Ethylbenzene	0.006	--	ND	1,000/100	--
			Xylenes (Total)	0.006	--	ND	410/10	--
			Styrene	0.006	--	ND	--	--
			Bromoform	0.006	--	ND	86/1	--
			m-Dichlorobenzene	0.006	--	ND	--	--
			p-Dichlorobenzene	0.006	--	ND	--	--
			o-Dichlorobenzene	0.006	--	ND	--	--

Note:

*	Residential Direct Compound / Impact to Groundwater
**	The tetrachloroethene results were compared to the soil cleanup criteria for tetrachloroethylene; tetrachloroethene is a synonym for tetrachloroethylene
--	Not applicable / does not exceed criteria
(J)	Indicates detected below sample quantitation limit
(B)	Indicates also present in blank
(ND)	Indicates compound not detected

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, SITE J
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES

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
J/5.5-6.0'	04-13-93	05-04-93	N-Nitrosodiethylamine	0.43	--	ND	--	--
			bis(2 chloroethyl)Ether	0.43	--	ND	0.66/10	--
			1,3-Dichlorobenzene	0.43	--	ND	5,100/100	--
			1,4-Dichlorobenzene	0.43	--	ND	570/100	--
			Benzyl Alcohol	0.43	--	ND	10,000/50	--
			1,2-Dichlorobenzene	0.43	--	ND	5,100/50	--
			bis(2-chloroisopropyl)Ether	0.43	--	ND	2,300/10	--
			N-Nitroso-Di-n-propylamine	0.43	--	ND	0.66/10	--
			Hexachloroethane	0.43	--	ND	6/100	--
			Nitrobenzene	0.43	--	ND	28/10	--
			Isophorone	0.43	--	ND	1,100/50	--
			Benzoic Acid	2.1	--	ND	--	--
			bis(2-Chloroethoxy)Methane	0.43	--	ND	--	--
			1,2,4-Trichlorobenzene	0.43	--	ND	68/100	--
			Naphthalene	0.43	--	ND	230/100	--
			4-Chloroaniline	0.43	--	ND	230	--
			Hexachlorobutadiene	0.43	--	ND	1/100	--
			2-Methylnaphthalene	0.43	--	ND	10,000/100	--

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, SITE J
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES (Continued)

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
J/5.5-6.0'	04-13-93	05-04-93	Hexachlorocyclopentadiene	0.43	--	ND	1/100	--
			2-Chloronaphthalene	0.43	--	ND	--	--
			2-Nitroaniline	2.1	--	ND	--	--
			Dimethyl Phthalate	0.43	--	ND	10,000/50	--
			Acenaphthylene	0.43	--	ND	--	--
			3-Nitroaniline	2.1	--	ND	--	--
			Acenaphthene	0.43	--	ND	3,400/100	--
			Dibenzofuran	0.43	--	ND	--	--
			2,4-Dinitrotoluene	0.43	--	ND	1/10	--
			2,6-Dinitrotoluene	0.43	--	ND	1/10	--
			Diethylphthalate	0.43	--	ND	--	--
			4-Chlorophenyl-phenlyether	0.43	--	ND	--	--
			Fluorene	0.43	--	ND	2,300/100	--
			4-Nitroaniline	2.1	--	ND	--	--
			N-Nitrosodiphenylamine	0.43	--	ND	--	--
			4-Bromophenyl-phenylether	0.43	--	ND	--	--
			Hexachlorobenzene	0.43	--	ND	0.66/100	--
			Phenanthrene	0.43	--	ND	--	--

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BIULDING 2500, CHARLES WOOD, SITE J
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES (Continued)

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
J/5.5-6.0'	04-13-93	05-04-93	Anthracene	0.43	--	ND	1,000/100	--
			Di-n-Butylphthalate	0.43	--	ND	5,700/100	--
			Fluoranthene	0.43	--	ND	2,300/100	--
			Pyrene	0.43	--	ND	1,700/100	--
			Butylbenzylphthalate	0.43	--	ND	1,100/100	--
			3,3-Dichlorobenzidine	0.86	--	ND	2/100	--
			Benzo(a)Anthracene	0.43	--	ND	0.9/500	--
			Bis(2-Ethylhexyl)Phthalate	0.43	--	ND	49/100	--
			Chrysene	0.43	--	ND	9/500	--
			Di-n-Octyl Phthalate	0.43	--	ND	1,100/100	--
			Benzo(b)Fluoranthene	0.43	--	ND	0.9/50	--
			Benzo(k)Fluoranthene	0.43	--	ND	0.9/500	--
			Benzo(a)Pyrene	0.43	--	ND	0.66/100	--
			Indeno(1,2,3-cd)Pyrene	0.43	--	ND	0.9/500	--
			Dibenzo(a,h)Anthracene	0.43	--	ND	--	--
			Benzo(g,h,i)Perylene	0.43	--	ND	--	--
			Benzidine	0.86	--	ND	--	--

Note:

*	Residential Direct Compound / Impact to Groundwater
--	Not applicable / does not exceed criteria
(J)	Indicates detected below sample quantitation limit
(B)	Indicates also present in blank
(ND)	Indicates compound not detected

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, SITE K
FORT MONMOUTH, NEW JERSEY
VOLATILE ORGANICS

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
K/5.5-6.0'	04-13-93	04-22-93	Acrolein	0.060	--	ND	--	--
			Acrylonitrile	0.060	--	ND	1/1	--
			Chloromethane	0.012	--	ND	520/10	--
			Bromomethane	0.012	--	ND	79/1	--
			Vinyl Chloride	0.012	--	ND	2/10	--
			Chloroethane	0.012	--	ND	--	--
			Acetone	0.012	--	0.0026 JB	1,000/100	--
			1,1-Dichloroethene	0.006	--	ND	8/10	--
			Carbon Disulfide	0.012	--	ND	--	--
			Methylene Chloride	0.006	--	0.0021 J	49/1	--
			1,2-Dichloroethene (trans)	0.006	--	ND	1,000/50	--
			1,1-Dichloroethane	0.006	--	ND	570/10	--
			Vinyl Acetate	0.006	--	ND	--	--
			2-Butanone	0.012	--	ND	1,000/50	--
			Chloroform	0.006	--	ND	19/1	--
			1,1,1-Trichloroethane	0.006	--	ND	210/50	--
			Carbon Tetrachloride	0.006	--	ND	2/1	--
			1,2-Dichloroethane	0.006	--	ND	6/1	--
			Benzene	0.006	--	ND	3/1	--
			Trichloroethene	0.006	--	ND	23/1	--
			1,2-Dichloropropane	0.006	--	ND	10	--
			Bromodichloromethane	0.006	--	ND	11/1	--
			2-Chloroethylvinylether	0.012	--	ND	--	--
			2-Hexanone	0.012	--	ND	--	--
			trans-1,3-Dichloropropene	0.006	--	ND	4/1	--
			Toluene	0.006	--	ND	1,000/500	--
			cis-1,3-Dichloropropene	0.006	--	ND	4/1	--

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, SITE K
FORT MONMOUTH, NEW JERSEY
VOLATILE ORGANICS (Continued)

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
K/5.5-6.0'	04-13-93	04-22-93	1,1,2,2-Tetrachloroethane	0.006	--	ND	34/1	--
			1,1,2-Trichloroethane	0.006	--	ND	22/1	--
			4-Methyl-2-pentanone	0.012	--	ND	1,000/50	--
			Tetrachloroethene	0.006	--	ND	4/1 **	--
			Dibromochloromethane	0.006	--	ND	110/1	--
			Chlorobenzene	0.006	--	ND	37/1	--
			Ethylbenzene	0.006	--	ND	1,000/100	--
			Xylenes (Total)	0.006	--	ND	410/10	--
			Styrene	0.006	--	ND	23/100	--
			Bromoform	0.006	--	ND	86/1	--
			m-Dichlorobenzene	0.006	--	ND	--	--
			p-Dichlorobenzene	0.006	--	ND	--	--
			o-Dichlorobenzene	0.006	--	ND	--	--

Note:

* Residential Direct Contact / Impact to Groundwater

** The tetrachloroethene results were compared to the soil cleanup criteria for tetrachloroethylene; tetrachloroethene is a synonym for tetrachloroethylene

-- Not applicable / does not exceed criteria

(J) Indicates detected below sample quantitation limit

(B) Indicates also present in blank

(ND) Indicates compound not detected

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, SITE K
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES

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
K/5.5-6.0'	04-13-93	05-06-93	N-Nitrosodiethylamine	0.39	--	ND	--	--
			bis(2 chloroethyl)Ether	0.39	--	ND	0.66/10	--
			1,3-Dichlorobenzene	0.39	--	ND	5,100/100	--
			1,4-Dichlorobenzene	0.39	--	ND	570/100	--
			Benzyl Alcohol	0.39	--	ND	10,000/50	--
			1,2-Dichlorobenzene	0.39	--	ND	5,100/50	--
			bis(2-chloroisopropyl)Ether	0.39	--	ND	2,300/10	--
			N-Nitroso-Di-n-propylamine	0.39	--	ND	0.66/10	--
			Hexachloroethane	0.39	--	ND	6/100	--
			Nitrobenzene	0.39	--	ND	28/10	--
			Isophorone	0.39	--	ND	1,100/50	--
			Benzoic Acid	2.0	--	ND	--	--
			bis(2-Chloroethoxy)Methane	0.39	--	ND	--	--
			1,2,4-Trichlorobenzene	0.39	--	ND	68/100	--
			Naphthalene	0.39	--	ND	230/100	--
			4-Chloroaniline	0.39	--	ND	230	--
			Hexachlorobutadiene	0.39	--	ND	1/100	--
			2-Methylnaphthalene	0.39	--	ND	--	--
			Hexachlorocyclopentadiene	0.39	--	ND	400/100	--
			2-Chloronaphthalene	0.39	--	ND	--	--
			2-Nitroaniline	2.0	--	ND	--	--
			Dimethyl Phthalate	0.39	--	ND	10,000/50	--
			Acenaphthylene	0.39	--	ND	--	--
			3-Nitroaniline	2.0	--	ND	--	--
			Acenaphthene	0.39	--	ND	3,400/100	--
			Dibenzofuran	0.39	--	ND	--	--

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, SITE K
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES (Continued)

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
K/5.5-6.0'	04-13-93	04-22-93	2,4-Dinitrotoluene	0.39	--	ND	1/10	--
			2,6-Dinitrotoluene	0.39	--	ND	1/10	--
			Diethylphthalate	0.39	--	ND	10,000/50	--
			4-Chlorophenyl-phenlyether	0.39	--	ND	--	--
			Fluorene	0.39	--	ND	2,300/100	--
			4-Nitroaniline	2.0	--	ND	--	--
			N-Nitrosodiphenylamine	0.39	--	ND	140/100	--
			4-Bromophenyl-phenylether	0.39	--	ND	--	--
			Hexachlorobenzene	0.39	--	ND	0.66/100	--
			Phenanthrene	0.39	--	ND	--	--
			Anthracene	0.39	--	ND	10,000/100	--
			Di-n-Butylphthalate	0.39	--	ND	5,700/100	--
			Fluoranthene	0.39	--	ND	2,300/100	--
			Pyrene	0.39	--	ND	1,700/100	--
			Butylbenzylphthalate	0.39	--	ND	1,100/100	--
			3,3-Dichlorobenzidine	0.78	--	ND	2/100	--
			Benzo(a)Anthracene	0.39	--	ND	0.9/500	--
			Bis(2-Ethylhexyl)Phthalate	0.39	--	ND	49/100	--
			Chrysene	0.39	--	ND	9/500	--
			Di-n-Octyl Phthalate	0.39	--	ND	1,100/100	--
			Benzo(b)Fluoranthene	0.39	--	ND	0.9/50	--

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BIULDING 2500, CHARLES WOOD, SITE K
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES (Continued)

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
K/5.5-6.0'	04-13-93	05-06-93	Benzo(k)Fluoranthene	0.39	--	ND	0.9/500	--
			Benzo(a)Pyrene	0.39	--	ND	0.66/100	--
			Indeno(1,2,3-cd)Pyrene	0.39	--	ND	0.9/500	--
			Dibenzo(a,h)Anthracene	0.39	--	ND	0.66/100	--
			Benzo(g,h,i)Perylene	0.39	--	ND	--	--
			Benzidine	0.78	--	ND	--	--

Note:

*	Residential Direct Contact / Impact to Groundwater
--	Not applicable / does not exceed criteria
(J)	Indicates detected below sample quantitation limit
(B)	Indicates also present in blank
(ND)	Indicates compound not detected

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, SITE L
FORT MONMOUTH, NEW JERSEY
VOLATILE ORGANICS

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
L/5.5-6.0'	04-13-93	04-22-93	Acrolein	0.063	--	ND	--	--
			Acrylonitrile	0.063	--	ND	1/1	--
			Chloromethane	0.013	--	ND	520/10	--
			Bromomethane	0.013	--	ND	79/1	--
			Vinyl Chloride	0.013	--	ND	2/10	--
			Chloroethane	0.013	--	ND	--	--
			Acetone	0.013	--	ND B	1,000/100	--
			1,1-Dichloroethene	0.006	--	ND	8/10	--
			Carbon Disulfide	0.013	--	ND	--	--
			Methylene Chloride	0.006	--	ND	49/1	--
			1,2-Dichloroethene (trans)	0.006	--	ND	1,000/50	--
			1,1-Dichloroethane	0.006	--	ND	570/10	--
			Vinyl Acetate	0.006	--	ND	--	--
			2-Butanone	0.013	--	ND	1,000/50	--
			Chloroform	0.006	--	ND	19/1	--
			1,1,1-Trichloroethane	0.006	--	ND	210/50	--
			Carbon Tetrachloride	0.006	--	ND	2/1	--
			1,2-Dichloroethane	0.006	--	ND	6/1	--
			Benzene	0.006	--	ND	3/1	--
			Trichloroethene	0.006	--	ND	23/1	--
			1,2-Dichloropropane	0.006	--	ND	10	--
			Bromodichloromethane	0.006	--	ND	11/1	--
			2-Chloroethylvinylether	0.013	--	ND	--	--
			2-Hexanone	0.013	--	ND	--	--
			trans-1,3-Dichloropropene	0.006	--	ND	4/1	--
			Toluene	0.006	--	ND	1,000/500	--
			cis-1,3-Dichloropropene	0.006	--	ND	4/1	--

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, SITE L
FORT MONMOUTH, NEW JERSEY
VOLATILE ORGANICS (Continued)

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
L/5.5-6.0'	04-13-93	04-22-93	1,1,2,2-Tetrachloroethane	0.006	--	ND	34/1	--
			1,1,2-Trichloroethane	0.006	--	ND	22/1	--
			4-Methyl-2-pentanone	0.013	--	ND	1,000/50	--
			Tetrachloroethene	0.006	--	ND	4/1 **	--
			Dibromochloromethane	0.006	--	ND	110/1	--
			Chlorobenzene	0.006	--	ND	37/1	--
			Ethylbenzene	0.006	--	ND	1,000/100	--
			Xylenes (Total)	0.006	--	ND	410/10	--
			Styrene	0.006	--	ND	23/100	--
			Bromoform	0.006	--	ND	86/1	--
			m-Dichlorobenzene	0.006	--	ND	--	--
			p-Dichlorobenzene	0.006	--	ND	--	--
			o-Dichlorobenzene	0.006	--	ND	--	--

Note:

* Residential Direct Contact / Impact to Groundwater

** The tetrachloroethene results were compared to the soil cleanup criteria for tetrachloroethylene; tetrachloroethene is a synonym for tetrachloroethylene

-- Not applicable / does not exceed criteria

(J) Indicates detected below sample quantitation limit

(B) Indicates also present in blank

(ND) Indicates compound not detected

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, SITE L
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES

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
L/5.5-6.0'	04-13-93	05-06-93	N-Nitrosodiethylamine	0.42	--	ND	--	--
			bis(2 chloroethyl)Ether	0.42	--	ND	0.66/10	--
			1,3-Dichlorobenzene	0.42	--	ND	5,100/100	--
			1,4-Dichlorobenzene	0.42	--	ND	570/100	--
			Benzyl Alcohol	0.42	--	ND	10,000/50	--
			1,2-Dichlorobenzene	0.42	--	ND	5,100/50	--
			bis(2-chloroisopropyl)Ether	0.42	--	ND	2,300/10	--
			N-Nitroso-Di-n-propylamine	0.42	--	ND	0.66/10	--
			Hexachloroethane	0.42	--	ND	6/100	--
			Nitrobenzene	0.42	--	ND	28/10	--
			Isophorone	0.42	--	ND	1,100/50	--
			Benzoic Acid	2.1	--	ND	--	--
			bis(2-Chloroethoxy)Methane	0.42	--	ND	--	--
			1,2,4-Trichlorobenzene	0.42	--	ND	68/100	--
			Naphthalene	0.42	--	ND	230/100	--
			4-Chloroaniline	0.42	--	ND	230	--
			Hexachlorobutadiene	0.42	--	ND	1/100	--
			2-Methylnaphthalene	0.42	--	ND	--	--
			Hexachlorocyclopentadiene	0.42	--	ND	400/100	--
			2-Chloronaphthalene	0.42	--	ND	--	--
			2-Nitroaniline	2.1	--	ND	--	--
			Dimethyl Phthalate	0.42	--	ND	10,000/50	--
			Acenaphthylene	0.42	--	ND	--	--
			3-Nitroaniline	2.1	--	ND	--	--
			Acenaphthene	0.42	--	ND	3,400/100	--
			Dibenzofuran	0.42	--	ND	--	--

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, SITE L
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES (Continued)

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
L/5.5-6.0'	04-13-93	05-06-93	2,4-Dinitrotoluene	0.42	--	ND	1/10	--
			2,6-Dinitrotoluene	0.42	--	ND	1/10	--
			Diethylphthalate	0.42	--	ND	10,000/50	--
			4-Chlorophenyl-phenylether	0.42	--	ND	--	--
			Fluorene	0.42	--	ND	2,300/100	--
			4-Nitroaniline	2.1	--	ND	--	--
			N-Nitrosodiphenylamine	0.42	--	ND	140/100	--
			4-Bromophenyl-phenylether	0.42	--	ND	--	--
			Hexachlorobenzene	0.42	--	ND	0.66/100	--
			Phenanthrene	0.42	--	ND	--	--
			Anthracene	0.42	--	ND	10,000/100	--
			Di-n-Butylphthalate	0.42	--	ND	5,700/100	--
			Fluoranthene	0.42	--	ND	2,300/100	--
			Pyrene	0.42	--	ND	1,700/100	--
			Butylbenzylphthalate	0.42	--	ND	1,100/100	--
			3,3-Dichlorobenzidine	0.84	--	ND	2/100	--
			Benzo(a)Anthracene	0.42	--	ND	0.9/500	--
			Bis(2-Ethylhexyl)Phthalate	0.42	--	ND	49/100	--
			Chrysene	0.42	--	ND	9/500	--
			Di-n-Octyl Phthalate	0.42	--	ND	1,100/100	--
			Benzo(b)Fluoranthene	0.42	--	ND	0.9/50	--

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BIULDING 2500, CHARLES WOOD, SITE L
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES (Continued)

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
L/5.5-6.0'	04-13-93	05-06-93	Benzo(k)Fluoranthene	0.42	--	ND	0.9/500	--
			Benzo(a)Pyrene	0.42	--	ND	0.66/100	--
			Indeno(1,2,3-cd)Pyrene	0.42	--	ND	0.9/500	--
			Dibenzo(a,h)Anthracene	0.42	--	ND	0.66/100	--
			Benzo(g,h,i)Perylene	0.42	--	ND	--	--
			Benzidine	0.84	--	ND	--	--

Note:
* Residential Direct Contact / Impact to Groundwater
-- Not applicable / does not exceed criteria
(J) Indicates detected below sample quantitation limit
(B) Indicates also present in blank
(ND) Indicates compound not detected

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, SITE M
FORT MONMOUTH, NEW JERSEY
VOLATILE ORGANICS

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
M/5.5-6.0'	04-13-93	04-22-93	Acrolein	0.064	--	ND	--	--
			Acrylonitrile	0.064	--	ND	1/1	--
			Chloromethane	0.013	--	ND	520/10	--
			Bromomethane	0.013	--	ND	79/1	--
			Vinyl Chloride	0.013	--	ND	2/10	--
			Chloroethane	0.013	--	ND	--	--
			Acetone	0.013	--	0.0032 JB	1,000/100	--
			1,1-Dichloroethene	0.006	--	ND	8/10	--
			Carbon Disulfide	0.013	--	ND	--	--
			Methylene Chloride	0.006	--	0.0026 J	49/1	--
			1,2-Dichloroethene (trans)	0.006	--	ND	1,000/50	--
			1,1-Dichloroethane	0.006	--	ND	570/10	--
			Vinyl Acetate	0.006	--	ND	--	--
			2-Butanone	0.013	--	ND	1,000/50	--
			Chloroform	0.006	--	ND	19/1	--
			1,1,1-Trichloroethane	0.006	--	ND	210/50	--
			Carbon Tetrachloride	0.006	--	ND	2/1	--
			1,2-Dichloroethane	0.006	--	ND	6/1	--
			Benzene	0.006	--	ND	3/1	--
			Trichloroethene	0.006	--	ND	23/1	--
			1,2-Dichloropropane	0.006	--	ND	10	--
			Bromodichloromethane	0.006	--	ND	11/1	--
			2-Chloroethylvinylether	0.013	--	ND	--	--
			2-Hexanone	0.013	--	ND	--	--
			trans-1,3-Dichloropropene	0.006	--	ND	4/1	--
			Toluene	0.006	--	ND	1,000/500	--
			cis-1,3-Dichloropropene	0.006	--	ND	4/1	--

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, SITE M
FORT MONMOUTH, NEW JERSEY
VOLATILE ORGANICS (Continued)

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
M/5.5-6.0'	04-13-93	04-22-93	1,1,2,2-Tetrachloroethane	0.006	--	ND	34/1	--
			1,1,2-Trichloroethane	0.006	--	ND	22/1	--
			4-Methyl-2-pentanone	0.013	--	ND	1,000/50	--
			Tetrachloroethene	0.006	--	ND	4/1 **	--
			Dibromochloromethane	0.006	--	ND	110/1	--
			Chlorobenzene	0.006	--	ND	37/1	--
			Ethylbenzene	0.006	--	ND	1,000/100	--
			Xylenes (Total)	0.006	--	ND	410/10	--
			Styrene	0.006	--	ND	23/100	--
			Bromoform	0.006	--	ND	86/1	--
			m-Dichlorobenzene	0.006	--	ND	--	--
			p-Dichlorobenzene	0.006	--	ND	--	--
			o-Dichlorobenzene	0.006	--	ND	--	--

Note:

* Residential Direct Contact / Impact to Groundwater

** The tetrachloroethene results were compared to the soil cleanup criteria for tetrachloroethylene; tetrachloroethene is a synonym for tetrachloroethylene

-- Not applicable / does not exceed criteria

(J) Indicates detected below sample quantitation limit

(B) Indicates also present in blank

(ND) Indicates compound not detected

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, SITE M
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES

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
M/5.5-6.0'	04-13-93	05-06-93	N-Nitrosodiethylamine	0.42	--	ND	--	--
			bis(2 chloroethyl)Ether	0.42	--	ND	0.66/10	--
			1,3-Dichlorobenzene	0.42	--	ND	5,100/100	--
			1,4-Dichlorobenzene	0.42	--	ND	570/100	--
			Benzyl Alcohol	0.42	--	ND	10,000/50	--
			1,2-Dichlorobenzene	0.42	--	ND	5,100/50	--
			bis(2-chloroisopropyl)Ether	0.42	--	ND	2,300/10	--
			N-Nitroso-Di-n-propylamine	0.42	--	ND	0.66/10	--
			Hexachloroethane	0.42	--	ND	6/100	--
			Nitrobenzene	0.42	--	ND	28/10	--
			Isophorone	0.42	--	ND	1,100/50	--
			Benzoic Acid	2.1	--	ND	--	--
			bis(2-Chloroethoxy)Methane	0.42	--	ND	--	--
			1,2,4-Trichlorobenzene	0.42	--	ND	68/100	--
			Naphthalene	0.42	--	ND	230/100	--
			4-Chloroaniline	0.42	--	ND	230	--
			Hexachlorobutadiene	0.42	--	ND	1/100	--
			2-Methylnaphthalene	0.42	--	ND	--	--
			Hexachlorocyclopentadiene	0.42	--	ND	400/100	--
			2-Chloronaphthalene	0.42	--	ND	--	--
			2-Nitroaniline	2.1	--	ND	--	--
			Dimethyl Phthalate	0.42	--	ND	10,000/50	--
			Acenaphthylene	0.42	--	ND	--	--
			3-Nitroaniline	2.1	--	ND	--	--
			Acenaphthene	0.42	--	ND	3,400/100	--
			Dibenzofuran	0.42	--	ND	--	--

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, SITE M
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES (Continued)

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
M/5.5-6.0'	04-13-93	05-06-93	2,4-Dinitrotoluene	0.42	--	ND	1/10	--
			2,6-Dinitrotoluene	0.42	--	ND	1/10	--
			Diethylphthalate	0.42	--	ND	10,000/50	--
			4-Chlorophenyl-phenlyether	0.42	--	ND	--	--
			Fluorene	0.42	--	ND	2,300/100	--
			4-Nitroaniline	2.1	--	ND	--	--
			N-Nitrosodiphenylamine	0.42	--	ND	140/100	--
			4-Bromophenyl-phenylether	0.42	--	ND	--	--
			Hexachlorobenzene	0.42	--	ND	0.66/100	--
			Phenanthrene	0.42	--	ND	--	--
			Anthracene	0.42	--	ND	10,000/100	--
			Di-n-Butylphthalate	0.42	--	ND	5,700/100	--
			Fluoranthene	0.42	--	ND	2,300/100	--
			Pyrene	0.42	--	ND	1,700/100	--
			Butylbenzylphthalate	0.42	--	ND	1,100/100	--
			3,3-Dichlorobenzidine	0.85	--	ND	2/100	--
			Benzo(a)Anthracene	0.42	--	ND	0.9/500	--
			Bis(2-Ethylhexyl)Phthalate	0.42	--	ND	49/100	--
			Chrysene	0.42	--	ND	9/500	--
			Di-n-Octyl Phthalate	0.42	--	ND	1,100/100	--
			Benzo(b)Fluoranthene	0.42	--	ND	0.9/50	--

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BIULDING 2500, CHARLES WOOD, SITE M
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES (Continued)

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
M/5.5-6.0'	04-13-93	05-06-93	Benzo(k)Fluoranthene	0.42	--	ND	0.9/500	--
			Benzo(a)Pyrene	0.42	--	ND	0.66/100	--
			Indeno(1,2,3-cd)Pyrene	0.42	--	ND	0.9/500	--
			Dibenzo(a,h)Anthracene	0.42	--	ND	0.66/100	--
			Benzo(g,h,i)Perylene	0.42	--	ND	--	--
			Benzidine	0.85	--	ND	--	--

Note:
* Residential Direct Contact / Impact to Groundwater
-- Not applicable / does not exceed criteria
(J) Indicates detected below sample quantitation limit
(B) Indicates also present in blank
(ND) Indicates compound not detected

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, SITE N
FORT MONMOUTH, NEW JERSEY
VOLATILE ORGANICS

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
N/4.5-5.0'	04-13-93	04-22-93	Acrolein	0.062	--	ND	--	--
			Acrylonitrile	0.062	--	ND	1/1	--
			Chloromethane	0.012	--	ND	520/10	--
			Bromomethane	0.012	--	ND	79/1	--
			Vinyl Chloride	0.012	--	ND	2/10	--
			Chloroethane	0.012	--	ND	--	--
			Acetone	0.012	--	0.0038 JB	1,000/100	--
			1,1-Dichloroethene	0.006	--	ND	8/10	--
			Carbon Disulfide	0.012	--	ND	--	--
			Methylene Chloride	0.006	--	0.0025 J	49/1	--
			1,2-Dichloroethene (trans)	0.006	--	ND	1,000/50	--
			1,1-Dichloroethane	0.006	--	ND	570/10	--
			Vinyl Acetate	0.006	--	ND	--	--
			2-Butanone	0.012	--	ND	1,000/50	--
			Chloroform	0.006	--	ND	19/1	--
			1,1,1-Trichloroethane	0.006	--	ND	210/50	--
			Carbon Tetrachloride	0.006	--	ND	2/1	--
			1,2-Dichloroethane	0.006	--	ND	6/1	--
			Benzene	0.006	--	ND	3/1	--
			Trichloroethene	0.006	--	ND	23/1	--
			1,2-Dichloropropane	0.006	--	ND	10	--
			Bromodichloromethane	0.006	--	ND	11/1	--
			2-Chloroethylvinylether	0.012	--	ND	--	--
			2-Hexanone	0.012	--	ND	--	--
			trans-1,3-Dichloropropene	0.006	--	ND	4/1	--
			Toluene	0.006	--	ND	1,000/500	--
			cis-1,3-Dichloropropene	0.006	--	ND	4/1	--

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, SITE N
FORT MONMOUTH, NEW JERSEY
VOLATILE ORGANICS (Continued)

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
N/4.5-5.0'	04-13-93	04-22-93	1,1,2,2-Tetrachloroethane	0.006	--	ND	34/1	--
			1,1,2-Trichloroethane	0.006	--	ND	22/1	--
			4-Methyl-2-pentanone	0.012	--	ND	1,000/50	--
			Tetrachloroethene	0.006	--	ND	4/1 **	--
			Dibromochloromethane	0.006	--	ND	110/1	--
			Chlorobenzene	0.006	--	ND	37/1	--
			Ethylbenzene	0.006	--	ND	1,000/100	--
			Xylenes (Total)	0.006	--	ND	410/10	--
			Styrene	0.006	--	ND	23/100	--
			Bromoform	0.006	--	ND	86/1	--
			m-Dichlorobenzene	0.006	--	ND	--	--
			p-Dichlorobenzene	0.006	--	ND	--	--
			o-Dichlorobenzene	0.006	--	ND	--	--

Note:

* Residential Direct Contact / Impact to Groundwater

** The tetrachloroethene results were compared to the soil cleanup criteria for tetrachloroethylene; tetrachloroethene is a synonym for tetrachloroethylene

-- Not applicable / does not exceed criteria

(J) Indicates detected below sample quantitation limit

(B) Indicates also present in blank

(ND) Indicates compound not detected

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, SITE N
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES

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
N/4.5-5.0'	04-13-93	05-06-93	N-Nitrosodiethylamine	0.41	--	ND	--	--
			bis(2 chloroethyl)Ether	0.41	--	ND	0.66/10	--
			1,3-Dichlorobenzene	0.41	--	ND	5,100/100	--
			1,4-Dichlorobenzene	0.41	--	ND	570/100	--
			Benzyl Alcohol	0.41	--	ND	10,000/50	--
			1,2-Dichlorobenzene	0.41	--	ND	5,100/50	--
			bis(2-chloroisopropyl)Ether	0.41	--	ND	2,300/10	--
			N-Nitroso-Di-n-propylamine	0.41	--	ND	0.66/10	--
			Hexachloroethane	0.41	--	ND	6/100	--
			Nitrobenzene	0.41	--	ND	28/10	--
			Isophorone	0.41	--	ND	1,100/50	--
			Benzoic Acid	2.0	--	ND	--	--
			bis(2-Chloroethoxy)Methane	0.41	--	ND	--	--
			1,2,4-Trichlorobenzene	0.41	--	ND	68/100	--
			Naphthalene	0.41	--	ND	230/100	--
			4-Chloroaniline	0.41	--	ND	230	--
			Hexachlorobutadiene	0.41	--	ND	1/100	--
			2-Methylnaphthalene	0.41	--	ND	--	--
			Hexachlorocyclopentadiene	0.41	--	ND	400/100	--
			2-Chloronaphthalene	0.41	--	ND	--	--
			2-Nitroaniline	2.0	--	ND	--	--
			Dimethyl Phthalate	0.41	--	ND	10,000/50	--
			Acenaphthylene	0.41	--	ND	--	--
			3-Nitroaniline	2.0	--	ND	--	--
			Acenaphthene	0.41	--	ND	3,400/100	--
			Dibenzofuran	0.41	--	ND	--	--

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, SITE N
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES (Continued)

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
N/4.5-5.0'	04-13-93	05-06-93	2,4-Dinitrotoluene	0.41	--	ND	1/10	--
			2,6-Dinitrotoluene	0.41	--	ND	1/10	--
			Diethylphthalate	0.41	--	ND	10,000/50	--
			4-Chlorophenyl-phenlyether	0.41	--	ND	--	--
			Fluorene	0.41	--	ND	2,300/100	--
			4-Nitroaniline	2.0	--	ND	--	--
			N-Nitrosodiphenylamine	0.41	--	ND	140/100	--
			4-Bromophenyl-phenylether	0.41	--	ND	--	--
			Hexachlorobenzene	0.41	--	ND	0.66/100	--
			Phenanthrene	0.41	--	ND	--	--
			Anthracene	0.41	--	ND	10,000/100	--
			Di-n-Butylphthalate	0.41	--	ND	5,700/100	--
			Fluoranthene	0.41	--	ND	2,300/100	--
			Pyrene	0.41	--	ND	1,700/100	--
			Butylbenzylphthalate	0.41	--	ND	1,100/100	--
			3,3-Dichlorobenzidine	0.81	--	ND	2/100	--
			Benzo(a)Anthracene	0.41	--	ND	0.9/500	--
			Bis(2-Ethylhexyl)Phthalate	0.41	--	ND	49/100	--
			Chrysene	0.41	--	ND	9/500	--
			Di-n-Octyl Phthalate	0.41	--	ND	1,100/100	--
			Benzo(b)Fluoranthene	0.41	--	ND	0.9/50	--

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BIULDING 2500, CHARLES WOOD, SITE N
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES (Continued)

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
N/4.5-5.0'	04-13-93	05-06-93	Benzo(k)Fluoranthene	0.41	--	ND	0.9/500	--
			Benzo(a)Pyrene	0.41	--	ND	0.66/100	--
			Indeno(1,2,3-cd)Pyrene	0.41	--	ND	0.9/500	--
			Dibenzo(a,h)Anthracene	0.41	--	ND	0.66/100	--
			Benzo(g,h,i)Perylene	0.41	--	ND	--	--
			Benzidine	0.81	--	ND	--	--

Note:
* Residential Direct Contact / Impact to Groundwater
-- Not applicable / does not exceed criteria
(J) Indicates detected below sample quantitation limit
(B) Indicates also present in blank
(ND) Indicates compound not detected

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, SITE O
FORT MONMOUTH, NEW JERSEY
VOLATILE ORGANICS

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
O/4.5-5.0'	04-13-93	04-23-93	Acrolein	0.059	--	ND	--	--
			Acrylonitrile	0.059	--	ND	1/1	--
			Chloromethane	0.012	--	ND	520/10	--
			Bromomethane	0.012	--	ND	79/1	--
			Vinyl Chloride	0.012	--	ND	2/10	--
			Chloroethane	0.012	--	ND	--	--
			Acetone	0.012	--	0.0068 JB	1,000/100	--
			1,1-Dichloroethene	0.006	--	ND	8/10	--
			Carbon Disulfide	0.012	--	ND	--	--
			Methylene Chloride	0.006	--	0.0047 JB	49/1	--
			1,2-Dichloroethene (trans)	0.006	--	ND	1,000/50	--
			1,1-Dichloroethane	0.006	--	ND	570/10	--
			Vinyl Acetate	0.006	--	ND	--	--
			2-Butanone	0.012	--	ND	1,000/50	--
			Chloroform	0.006	--	ND	19/1	--
			1,1,1-Trichloroethane	0.006	--	ND	210/50	--
			Carbon Tetrachloride	0.006	--	ND	2/1	--
			1,2-Dichloroethane	0.006	--	ND	6/1	--
			Benzene	0.006	--	ND	3/1	--
			Trichloroethene	0.006	--	ND	23/1	--
			1,2-Dichloropropane	0.006	--	ND	10	--
			Bromodichloromethane	0.006	--	ND	11/1	--
			2-Chloroethylvinylether	0.012	--	ND	--	--
			2-Hexanone	0.012	--	ND	--	--
			trans-1,3-Dichloropropene	0.006	--	ND	4/1	--
			Toluene	0.006	--	ND	1,000/500	--
			cis-1,3-Dichloropropene	0.006	--	ND	4/1	--

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, SITE O
FORT MONMOUTH, NEW JERSEY
VOLATILE ORGANICS (Continued)

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
O/4.5-5.0'	04-13-93	04-23-93	1,1,2,2-Tetrachloroethane	0.006	--	ND	34/1	--
			1,1,2-Trichloroethane	0.006	--	ND	22/1	--
			4-Methyl-2-pentanone	0.012	--	ND	1,000/50	--
			Tetrachloroethene	0.006	--	ND	4/1 **	--
			Dibromochloromethane	0.006	--	ND	110/1	--
			Chlorobenzene	0.006	--	ND	37/1	--
			Ethylbenzene	0.006	--	ND	1,000/100	--
			Xylenes (Total)	0.006	--	ND	410/10	--
			Styrene	0.006	--	ND	23/100	--
			Bromoform	0.006	--	ND	86/1	--
			m-Dichlorobenzene	0.006	--	ND	--	--
			p-Dichlorobenzene	0.006	--	ND	--	--
			o-Dichlorobenzene	0.006	--	ND	--	--

Note:

* Residential Direct Contact / Impact to Groundwater

** The tetrachloroethene results were compared to the soil cleanup criteria for tetrachloroethylene; tetrachloroethene is a synonym for tetrachloroethylene

-- Not applicable / does not exceed criteria

(J) Indicates detected below sample quantitation limit

(B) Indicates also present in blank

(ND) Indicates compound not detected

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, SITE O
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES

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
O/4.5-5.0'	04-13-93	05-07-93	N-Nitrosodiethylamine	0.39	--	ND	--	--
			bis(2 chloroethyl)Ether	0.39	--	ND	0.66/10	--
			1,3-Dichlorobenzene	0.39	--	ND	5,100/100	--
			1,4-Dichlorobenzene	0.39	--	ND	570/100	--
			Benzyl Alcohol	0.39	--	ND	10,000/50	--
			1,2-Dichlorobenzene	0.39	--	ND	5,100/50	--
			bis(2-chloroisopropyl)Ether	0.39	--	ND	2,300/10	--
			N-Nitroso-Di-n-propylamine	0.39	--	ND	0.66/10	--
			Hexachloroethane	0.39	--	ND	6/100	--
			Nitrobenzene	0.39	--	ND	28/10	--
			Isophorone	0.39	--	ND	1,100/50	--
			Benzoic Acid	1.9	--	ND	--	--
			bis(2-Chloroethoxy)Methane	0.39	--	ND	--	--
			1,2,4-Trichlorobenzene	0.39	--	ND	68/100	--
			Naphthalene	0.39	--	ND	230/100	--
			4-Chloroaniline	0.39	--	ND	230	--
			Hexachlorobutadiene	0.39	--	ND	1/100	--
			2-Methylnaphthalene	0.39	--	ND	--	--
			Hexachlorocyclopentadiene	0.39	--	ND	400/100	--
			2-Chloronaphthalene	0.39	--	ND	--	--
			2-Nitroaniline	1.9	--	ND	--	--
			Dimethyl Phthalate	0.39	--	ND	10,000/50	--
			Acenaphthylene	0.39	--	ND	--	--
			3-Nitroaniline	1.9	--	ND	--	--
			Acenaphthene	0.39	--	ND	3,400/100	--
			Dibenzofuran	0.39	--	ND	--	--

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, SITE O
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES (Continued)

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
O/4.5-5.0'	04-13-93	05-07-93	2,4-Dinitrotoluene	0.39	--	ND	1/10	--
			2,6-Dinitrotoluene	0.39	--	ND	1/10	--
			Diethylphthalate	0.39	--	ND	10,000/50	--
			4-Chlorophenyl-phenlyether	0.39	--	ND	--	--
			Fluorene	0.39	--	ND	2,300/100	--
			4-Nitroaniline	1.9	--	ND	--	--
			N-Nitrosodiphenylamine	0.39	--	ND	140/100	--
			4-Bromophenyl-phenylether	0.39	--	ND	--	--
			Hexachlorobenzene	0.39	--	ND	0.66/100	--
			Phenanthrene	0.39	--	ND	--	--
			Anthracene	0.39	--	ND	10,000/100	--
			Di-n-Butylphthalate	0.39	--	ND	5,700/100	--
			Fluoranthene	0.39	--	ND	2,300/100	--
			Pyrene	0.39	--	ND	1,700/100	--
			Butylbenzylphthalate	0.39	--	ND	1,100/100	--
			3,3-Dichlorobenzidine	0.78	--	ND	2/100	--
			Benzo(a)Anthracene	0.39	--	ND	0.9/500	--
			Bis(2-Ethylhexyl)Phthalate	0.39	--	ND	49/100	--
			Chrysene	0.39	--	ND	9/500	--
			Di-n-Octyl Phthalate	0.39	--	ND	1,100/100	--
			Benzo(b)Fluoranthene	0.39	--	ND	0.9/50	--

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BIULDING 2500, CHARLES WOOD, SITE O
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES (Continued)

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
O/4.5-5.0'	04-13-93	05-07-93	Benzo(k)Fluoranthene	0.39	--	ND	0.9/500	--
			Benzo(a)Pyrene	0.39	--	ND	0.66/100	--
			Indeno(1,2,3-cd)Pyrene	0.39	--	ND	0.9/500	--
			Dibenzo(a,h)Anthracene	0.39	--	ND	0.66/100	--
			Benzo(g,h,i)Perylene	0.39	--	ND	--	--
			Benzidine	0.78	--	ND	--	--

Note:
* Residential Direct Contact / Impact to Groundwater
-- Not applicable / does not exceed criteria
(J) Indicates detected below sample quantitation limit
(B) Indicates also present in blank
(ND) Indicates compound not detected

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, SITE P
FORT MONMOUTH, NEW JERSEY
VOLATILE ORGANICS

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
P/4.5-5.0'	04-13-93	04-23-93	Acrolein	0.060	--	ND	--	--
			Acrylonitrile	0.060	--	ND	1/1	--
			Chloromethane	0.012	--	ND	520/10	--
			Bromomethane	0.012	--	ND	79/1	--
			Vinyl Chloride	0.012	--	ND	2/10	--
			Chloroethane	0.012	--	ND	--	--
			Acetone	0.012	--	0.0054 JB	1,000/100	--
			1,1-Dichloroethene	0.006	--	ND	8/10	--
			Carbon Disulfide	0.012	--	ND	--	--
			Methylene Chloride	0.006	--	0.0032 JB	49/1	--
			1,2-Dichloroethene (trans)	0.006	--	ND	1,000/50	--
			1,1-Dichloroethane	0.006	--	ND	570/10	--
			Vinyl Acetate	0.006	--	ND	--	--
			2-Butanone	0.012	--	ND	1,000/50	--
			Chloroform	0.006	--	ND	19/1	--
			1,1,1-Trichloroethane	0.006	--	ND	210/50	--
			Carbon Tetrachloride	0.006	--	ND	2/1	--
			1,2-Dichloroethane	0.006	--	ND	6/1	--
			Benzene	0.006	--	ND	3/1	--
			Trichloroethene	0.006	--	ND	23/1	--
			1,2-Dichloropropane	0.006	--	ND	10	--
			Bromodichloromethane	0.006	--	ND	11/1	--
			2-Chloroethylvinylether	0.012	--	ND	--	--
			2-Hexanone	0.012	--	ND	--	--
			trans-1,3-Dichloropropene	0.006	--	ND	4/1	--
			Toluene	0.006	--	ND	1,000/500	--
			cis-1,3-Dichloropropene	0.006	--	ND	4/1	--

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, SITE P
FORT MONMOUTH, NEW JERSEY
VOLATILE ORGANICS (Continued)

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
P/4.5-5.0'	04-13-93	04-23-93	1,1,2,2-Tetrachloroethane	0.006	--	ND	34/1	--
			1,1,2-Trichloroethane	0.006	--	ND	22/1	--
			4-Methyl-2-pentanone	0.012	--	ND	1,000/50	--
			Tetrachloroethene	0.006	--	ND	4/1 **	--
			Dibromochloromethane	0.006	--	ND	110/1	--
			Chlorobenzene	0.006	--	ND	37/1	--
			Ethylbenzene	0.006	--	ND	1,000/100	--
			Xylenes (Total)	0.006	--	ND	410/10	--
			Styrene	0.006	--	ND	23/100	--
			Bromoform	0.006	--	ND	86/1	--
			m-Dichlorobenzene	0.006	--	ND	--	--
			p-Dichlorobenzene	0.006	--	ND	--	--
			o-Dichlorobenzene	0.006	--	ND	--	--

Note:

* Residential Direct Contact / Impact to Groundwater

** The tetrachloroethene results were compared to the soil cleanup criteria for tetrachloroethylene; tetrachloroethene is a synonym for tetrachloroethylene

-- Not applicable / does not exceed criteria

(J) Indicates detected below sample quantitation limit

(B) Indicates also present in blank

(ND) Indicates compound not detected

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, SITE P
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES

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
P/4.5-5.0'	04-13-93	05-07-93	N-Nitrosodiethylamine	0.39	--	ND	--	--
			bis(2 chloroethyl)Ether	0.39	--	ND	0.66/10	--
			1,3-Dichlorobenzene	0.39	--	ND	5,100/100	--
			1,4-Dichlorobenzene	0.39	--	ND	570/100	--
			Benzyl Alcohol	0.39	--	ND	10,000/50	--
			1,2-Dichlorobenzene	0.39	--	ND	5,100/50	--
			bis(2-chloroisopropyl)Ether	0.39	--	ND	2,300/10	--
			N-Nitroso-Di-n-propylamine	0.39	--	ND	0.66/10	--
			Hexachloroethane	0.39	--	ND	6/100	--
			Nitrobenzene	0.39	--	ND	28/10	--
			Isophorone	0.39	--	ND	1,100/50	--
			Benzoic Acid	2.0	--	ND	--	--
			bis(2-Chloroethoxy)Methane	0.39	--	ND	--	--
			1,2,4-Trichlorobenzene	0.39	--	ND	68/100	--
			Naphthalene	0.39	--	ND	230/100	--
			4-Chloroaniline	0.39	--	ND	230	--
			Hexachlorobutadiene	0.39	--	ND	1/100	--
			2-Methylnaphthalene	0.39	--	ND	--	--
			Hexachlorocyclopentadiene	0.39	--	ND	400/100	--
			2-Chloronaphthalene	0.39	--	ND	--	--
			2-Nitroaniline	2.0	--	ND	--	--
			Dimethyl Phthalate	0.39	--	ND	10,000/50	--
			Acenaphthylene	0.39	--	ND	--	--
			3-Nitroaniline	2.0	--	ND	--	--
			Acenaphthene	0.39	--	ND	3,400/100	--
			Dibenzofuran	0.39	--	ND	--	--

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, SITE P
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES (Continued)

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
P/4.5-5.0'	04-13-93	05-07-93	2,4-Dinitrotoluene	0.39	--	ND	1/10	--
			2,6-Dinitrotoluene	0.39	--	ND	1/10	--
			Diethylphthalate	0.39	--	ND	10,000/50	--
			4-Chlorophenyl-phenlyether	0.39	--	ND	--	--
			Fluorene	0.39	--	ND	2,300/100	--
			4-Nitroaniline	2.0	--	ND	--	--
			N-Nitrosodiphenylamine	0.39	--	ND	140/100	--
			4-Bromophenyl-phenylether	0.39	--	ND	--	--
			Hexachlorobenzene	0.39	--	ND	0.66/100	--
			Phenanthrene	0.39	--	ND	--	--
			Anthracene	0.39	--	ND	10,000/100	--
			Di-n-Butylphthalate	0.39	--	ND	5,700/100	--
			Fluoranthene	0.39	--	ND	2,300/100	--
			Pyrene	0.39	--	ND	1,700/100	--
			Butylbenzylphthalate	0.39	--	ND	1,100/100	--
			3,3-Dichlorobenzidine	0.78	--	ND	2/100	--
			Benzo(a)Anthracene	0.39	--	ND	0.9/500	--
			Bis(2-Ethylhexyl)Phthalate	0.39	--	ND	49/100	--
			Chrysene	0.39	--	ND	9/500	--
			Di-n-Octyl Phthalate	0.39	--	ND	1,100/100	--
			Benzo(b)Fluoranthene	0.39	--	ND	0.9/50	--

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BIULDING 2500, CHARLES WOOD, SITE P
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES (Continued)

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
P/4.5-5.0'	04-13-93	05-07-93	Benzo(k)Fluoranthene	0.39	--	ND	0.9/500	--
			Benzo(a)Pyrene	0.39	--	ND	0.66/100	--
			Indeno(1,2,3-cd)Pyrene	0.39	--	ND	0.9/500	--
			Dibenzo(a,h)Anthracene	0.39	--	ND	0.66/100	--
			Benzo(g,h,i)Perylene	0.39	--	ND	--	--
			Benzidine	0.78	--	ND	--	--

Note:
* Residential Direct Contact / Impact to Groundwater
-- Not applicable / does not exceed criteria
(J) Indicates detected below sample quantitation limit
(B) Indicates also present in blank
(ND) Indicates compound not detected

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, SITE Q
FORT MONMOUTH, NEW JERSEY
VOLATILE ORGANICS

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
Q/4.5-5.0'	04-13-93	04-23-93	Acrolein	0.059	--	ND	--	--
			Acrylonitrile	0.059	--	ND	1/1	--
			Chloromethane	0.012	--	ND	520/10	--
			Bromomethane	0.012	--	ND	79/1	--
			Vinyl Chloride	0.012	--	ND	2/10	--
			Chloroethane	0.012	--	ND	--	--
			Acetone	0.012	--	0.0052 JB	1,000/100	--
			1,1-Dichloroethene	0.006	--	ND	8/10	--
			Carbon Disulfide	0.012	--	ND	--	--
			Methylene Chloride	0.006	--	0.0030 JB	49/1	--
			1,2-Dichloroethene (trans)	0.006	--	ND	1,000/50	--
			1,1-Dichloroethane	0.006	--	ND	570/10	--
			Vinyl Acetate	0.006	--	ND	--	--
			2-Butanone	0.012	--	ND	1,000/50	--
			Chloroform	0.006	--	ND	19/1	--
			1,1,1-Trichloroethane	0.006	--	ND	210/50	--
			Carbon Tetrachloride	0.006	--	ND	2/1	--
			1,2-Dichloroethane	0.006	--	ND	6/1	--
			Benzene	0.006	--	ND	3/1	--
			Trichloroethene	0.006	--	ND	23/1	--
			1,2-Dichloropropane	0.006	--	ND	10	--
			Bromodichloromethane	0.006	--	ND	11/1	--
			2-Chloroethylvinylether	0.012	--	ND	--	--
			2-Hexanone	0.012	--	ND	--	--
			trans-1,3-Dichloropropene	0.006	--	ND	4/1	--
			Toluene	0.006	--	ND	1,000/500	--
			cis-1,3-Dichloropropene	0.006	--	ND	4/1	--

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, SITE Q
FORT MONMOUTH, NEW JERSEY
VOLATILE ORGANICS (Continued)

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
Q/4.5-5.0'	04-13-93	04-23-93	1,1,2,2-Tetrachloroethane	0.006	--	ND	34/1	--
			1,1,2-Trichloroethane	0.006	--	ND	22/1	--
			4-Methyl-2-pentanone	0.012	--	ND	1,000/50	--
			Tetrachloroethene	0.006	--	ND	4/1 **	--
			Dibromochloromethane	0.006	--	ND	110/1	--
			Chlorobenzene	0.006	--	ND	37/1	--
			Ethylbenzene	0.006	--	ND	1,000/100	--
			Xylenes (Total)	0.006	--	ND	410/10	--
			Styrene	0.006	--	ND	23/100	--
			Bromoform	0.006	--	ND	86/1	--
			m-Dichlorobenzene	0.006	--	ND	--	--
			p-Dichlorobenzene	0.006	--	ND	--	--
			o-Dichlorobenzene	0.006	--	ND	--	--

Note:

* Residential Direct Contact / Impact to Groundwater

** The tetrachloroethene results were compared to the soil cleanup criteria for tetrachloroethylene; tetrachloroethene is a synonym for tetrachloroethylene

-- Not applicable / does not exceed criteria

(J) Indicates detected below sample quantitation limit

(B) Indicates also present in blank

(ND) Indicates compound not detected

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, SITE Q
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES

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
Q/4.5-5.0'	04-13-93	05-07-93	N-Nitrosodiethylamine	0.39	--	ND	--	--
			bis(2 chloroethyl)Ether	0.39	--	ND	0.66/10	--
			1,3-Dichlorobenzene	0.39	--	ND	5,100/100	--
			1,4-Dichlorobenzene	0.39	--	ND	570/100	--
			Benzyl Alcohol	0.39	--	ND	10,000/50	--
			1,2-Dichlorobenzene	0.39	--	ND	5,100/50	--
			bis(2-chloroisopropyl)Ether	0.39	--	ND	2,300/10	--
			N-Nitroso-Di-n-propylamine	0.39	--	ND	0.66/10	--
			Hexachloroethane	0.39	--	ND	6/100	--
			Nitrobenzene	0.39	--	ND	28/10	--
			Isophorone	0.39	--	ND	1,100/50	--
			Benzoic Acid	1.9	--	ND	--	--
			bis(2-Chloroethoxy)Methane	0.39	--	ND	--	--
			1,2,4-Trichlorobenzene	0.39	--	ND	68/100	--
			Naphthalene	0.39	--	ND	230/100	--
			4-Chloroaniline	0.39	--	ND	230	--
			Hexachlorobutadiene	0.39	--	ND	1/100	--
			2-Methylnaphthalene	0.39	--	ND	--	--
			Hexachlorocyclopentadiene	0.39	--	ND	400/100	--
			2-Chloronaphthalene	0.39	--	ND	--	--
			2-Nitroaniline	1.9	--	ND	--	--
			Dimethyl Phthalate	0.39	--	ND	10,000/50	--
			Acenaphthylene	0.39	--	ND	--	--
			3-Nitroaniline	1.9	--	ND	--	--
			Acenaphthene	0.39	--	ND	3,400/100	--
			Dibenzofuran	0.39	--	ND	--	--

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, SITE Q
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES (Continued)

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
Q/4.5-5.0'	04-13-93	05-07-93	2,4-Dinitrotoluene	0.39	--	ND	1/10	--
			2,6-Dinitrotoluene	0.39	--	ND	1/10	--
			Diethylphthalate	0.39	--	ND	10,000/50	--
			4-Chlorophenyl-phenlyether	0.39	--	ND	--	--
			Fluorene	0.39	--	ND	2,300/100	--
			4-Nitroaniline	1.9	--	ND	--	--
			N-Nitrosodiphenylamine	0.39	--	ND	140/100	--
			4-Bromophenyl-phenylether	0.39	--	ND	--	--
			Hexachlorobenzene	0.39	--	ND	0.66/100	--
			Phenanthrene	0.39	--	ND	--	--
			Anthracene	0.39	--	ND	10,000/100	--
			Di-n-Butylphthalate	0.39	--	ND	5,700/100	--
			Fluoranthene	0.39	--	ND	2,300/100	--
			Pyrene	0.39	--	ND	1,700/100	--
			Butylbenzylphthalate	0.39	--	ND	1,100/100	--
			3,3-Dichlorobenzidine	0.78	--	ND	2/100	--
			Benzo(a)Anthracene	0.39	--	ND	0.9/500	--
			Bis(2-Ethylhexyl)Phthalate	0.39	--	ND	49/100	--
			Chrysene	0.39	--	ND	9/500	--
			Di-n-Octyl Phthalate	0.39	--	ND	1,100/100	--
			Benzo(b)Fluoranthene	0.39	--	ND	0.9/50	--

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BIULDING 2500, CHARLES WOOD, SITE Q
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES (Continued)

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
Q/4.5-5.0'	04-13-93	05-07-93	Benzo(k)Fluoranthene	0.39	--	ND	0.9/500	--
			Benzo(a)Pyrene	0.39	--	ND	0.66/100	--
			Indeno(1,2,3-cd)Pyrene	0.39	--	ND	0.9/500	--
			Dibenzo(a,h)Anthracene	0.39	--	ND	0.66/100	--
			Benzo(g,h,i)Perylene	0.39	--	ND	--	--
			Benzidine	0.78	--	ND	--	--

Note:
* Residential Direct Contact / Impact to Groundwater
-- Not applicable / does not exceed criteria
(J) Indicates detected below sample quantitation limit
(B) Indicates also present in blank
(ND) Indicates compound not detected

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, SITE R
FORT MONMOUTH, NEW JERSEY
VOLATILE ORGANICS

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
R/5.0-5.5'	04-13-93	04-23-93	Acrolein	0.060	--	ND	--	--
			Acrylonitrile	0.060	--	ND	1/1	--
			Chloromethane	0.012	--	ND	520/10	--
			Bromomethane	0.012	--	ND	79/1	--
			Vinyl Chloride	0.012	--	ND	2/10	--
			Chloroethane	0.012	--	ND	--	--
			Acetone	0.012	--	ND B	1,000/100	--
			1,1-Dichloroethene	0.006	--	ND	8/10	--
			Carbon Disulfide	0.012	--	ND	--	--
			Methylene Chloride	0.006	--	0.004 JB	49/1	--
			1,2-Dichloroethene (trans)	0.006	--	ND	1,000/50	--
			1,1-Dichloroethane	0.006	--	ND	570/10	--
			Vinyl Acetate	0.006	--	ND	--	--
			2-Butanone	0.012	--	ND	1,000/50	--
			Chloroform	0.006	--	ND	19/1	--
			1,1,1-Trichloroethane	0.006	--	ND	210/50	--
			Carbon Tetrachloride	0.006	--	ND	2/1	--
			1,2-Dichloroethane	0.006	--	ND	6/1	--
			Benzene	0.006	--	ND	3/1	--
			Trichloroethene	0.006	--	ND	23/1	--
			1,2-Dichloropropane	0.006	--	ND	10	--
			Bromodichloromethane	0.006	--	ND	11/1	--
			2-Chloroethylvinylether	0.012	--	ND	--	--
			2-Hexanone	0.012	--	ND	--	--
			trans-1,3-Dichloropropene	0.006	--	ND	4/1	--
			Toluene	0.006	--	ND	1,000/500	--
			cis-1,3-Dichloropropene	0.006	--	ND	4/1	--

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, SITE R
FORT MONMOUTH, NEW JERSEY
VOLATILE ORGANICS (Continued)

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
R/5.0-5.5'	04-13-93	04-23-93	1,1,2,2-Tetrachloroethane	0.006	--	ND	34/1	--
			1,1,2-Trichloroethane	0.006	--	ND	22/1	--
			4-Methyl-2-pentanone	0.012	--	ND	1,000/50	--
			Tetrachloroethene	0.006	--	ND	4/1 **	--
			Dibromochloromethane	0.006	--	ND	110/1	--
			Chlorobenzene	0.006	--	ND	37/1	--
			Ethylbenzene	0.006	--	ND	1,000/100	--
			Xylenes (Total)	0.006	--	ND	410/10	--
			Styrene	0.006	--	ND	23/100	--
			Bromoform	0.006	--	ND	86/1	--
			m-Dichlorobenzene	0.006	--	ND	--	--
			p-Dichlorobenzene	0.006	--	ND	--	--
			o-Dichlorobenzene	0.006	--	ND	--	--

Note:

* Residential Direct Contact / Impact to Groundwater

** The tetrachloroethene results were compared to the soil cleanup criteria for tetrachloroethylene; tetrachloroethene is a synonym for tetrachloroethylene

-- Not applicable / does not exceed criteria

(J) Indicates detected below sample quantitation limit

(B) Indicates also present in blank

(ND) Indicates compound not detected

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, SITE R
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES

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
R/5.0-5.5'	04-13-93	05-07-93	N-Nitrosodiethylamine	0.40	--	ND	--	--
			bis(2 chloroethyl)Ether	0.40	--	ND	0.66/10	--
			1,3-Dichlorobenzene	0.40	--	ND	5,100/100	--
			1,4-Dichlorobenzene	0.40	--	ND	570/100	--
			Benzyl Alcohol	0.40	--	ND	10,000/50	--
			1,2-Dichlorobenzene	0.40	--	ND	5,100/50	--
			bis(2-chloroisopropyl)Ether	0.40	--	ND	2,300/10	--
			N-Nitroso-Di-n-propylamine	0.40	--	ND	0.66/10	--
			Hexachloroethane	0.40	--	ND	6/100	--
			Nitrobenzene	0.40	--	ND	28/10	--
			Isophorone	0.40	--	ND	1,100/50	--
			Benzoic Acid	2.0	--	ND	--	--
			bis(2-Chloroethoxy)Methane	0.40	--	ND	--	--
			1,2,4-Trichlorobenzene	0.40	--	ND	68/100	--
			Naphthalene	0.40	--	ND	230/100	--
			4-Chloroaniline	0.40	--	ND	230	--
			Hexachlorobutadiene	0.40	--	ND	1/100	--
			2-Methylnaphthalene	0.40	--	ND	--	--
			Hexachlorocyclopentadiene	0.40	--	ND	400/100	--
			2-Chloronaphthalene	0.40	--	ND	--	--
			2-Nitroaniline	2.0	--	ND	--	--
			Dimethyl Phthalate	0.40	--	ND	10,000/50	--
			Acenaphthylene	0.40	--	ND	--	--
			3-Nitroaniline	2.0	--	ND	--	--
			Acenaphthene	0.40	--	ND	3,400/100	--
			Dibenzofuran	0.40	--	ND	--	--

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, SITE R
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES (Continued)

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
R/5.0-5.5'	04-13-93	05-07-93	2,4-Dinitrotoluene	0.40	--	ND	1/10	--
			2,6-Dinitrotoluene	0.40	--	ND	1/10	--
			Diethylphthalate	0.40	--	ND	10,000/50	--
			4-Chlorophenyl-phenlyether	0.40	--	ND	--	--
			Fluorene	0.40	--	ND	2,300/100	--
			4-Nitroaniline	2.0	--	ND	--	--
			N-Nitrosodiphenylamine	0.40	--	ND	140/100	--
			4-Bromophenyl-phenylether	0.40	--	ND	--	--
			Hexachlorobenzene	0.40	--	ND	0.66/100	--
			Phenanthrene	0.40	--	ND	--	--
			Anthracene	0.40	--	ND	10,000/100	--
			Di-n-Butylphthalate	0.40	--	ND	5,700/100	--
			Fluoranthene	0.40	--	ND	2,300/100	--
			Pyrene	0.40	--	ND	1,700/100	--
			Butylbenzylphthalate	0.40	--	ND	1,100/100	--
			3,3-Dichlorobenzidine	0.80	--	ND	2/100	--
			Benzo(a)Anthracene	0.40	--	ND	0.9/500	--
			Bis(2-Ethylhexyl)Phthalate	0.40	--	ND	49/100	--
			Chrysene	0.40	--	ND	9/500	--
			Di-n-Octyl Phthalate	0.40	--	ND	1,100/100	--
			Benzo(b)Fluoranthene	0.40	--	ND	0.9/50	--

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BIULDING 2500, CHARLES WOOD, SITE R
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES (Continued)

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
R/5.0-5.5'	04-13-93	05-07-93	Benzo(k)Fluoranthene	0.40	--	ND	0.9/500	--
			Benzo(a)Pyrene	0.40	--	ND	0.66/100	--
			Indeno(1,2,3-cd)Pyrene	0.40	--	ND	0.9/500	--
			Dibenzo(a,h)Anthracene	0.40	--	ND	0.66/100	--
			Benzo(g,h,i)Perylene	0.40	--	ND	--	--
			Benzidine	0.80	--	ND	--	--

Note:
* Residential Direct Contact / Impact to Groundwater
-- Not applicable / does not exceed criteria
(J) Indicates detected below sample quantitation limit
(B) Indicates also present in blank
(ND) Indicates compound not detected

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, SITE S
FORT MONMOUTH, NEW JERSEY
VOLATILE ORGANICS

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
S/5.0-5.5'	04-13-93	04-23-93	Acrolein	0.062	--	ND	--	--
			Acrylonitrile	0.062	--	ND	1/1	--
			Chloromethane	0.012	--	ND	520/10	--
			Bromomethane	0.012	--	ND	79/1	--
			Vinyl Chloride	0.012	--	ND	2/10	--
			Chloroethane	0.012	--	ND	--	--
			Acetone	0.012	--	0.0094 JB	1,000/100	--
			1,1-Dichloroethene	0.006	--	ND	8/10	--
			Carbon Disulfide	0.012	--	ND	--	--
			Methylene Chloride	0.006	--	0.0036 JB	49/1	--
			1,2-Dichloroethene (trans)	0.006	--	ND	1,000/50	--
			1,1-Dichloroethane	0.006	--	ND	570/10	--
			Vinyl Acetate	0.006	--	ND	--	--
			2-Butanone	0.012	--	ND	1,000/50	--
			Chloroform	0.006	--	ND	19/1	--
			1,1,1-Trichloroethane	0.006	--	ND	210/50	--
			Carbon Tetrachloride	0.006	--	ND	2/1	--
			1,2-Dichloroethane	0.006	--	ND	6/1	--
			Benzene	0.006	--	ND	3/1	--
			Trichloroethene	0.006	--	ND	23/1	--
			1,2-Dichloropropane	0.006	--	ND	10	--
			Bromodichloromethane	0.006	--	ND	11/1	--
			2-Chloroethylvinylether	0.012	--	ND	--	--
			2-Hexanone	0.012	--	ND	--	--
			trans-1,3-Dichloropropene	0.006	--	ND	4/1	--
			Toluene	0.006	--	ND	1,000/500	--
			cis-1,3-Dichloropropene	0.006	--	ND	4/1	--

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, SITE S
FORT MONMOUTH, NEW JERSEY
VOLATILE ORGANICS (Continued)

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
S/5.0-5.5'	04-13-93	04-23-93	1,1,2,2-Tetrachloroethane	0.006	--	ND	34/1	--
			1,1,2-Trichloroethane	0.006	--	ND	22/1	--
			4-Methyl-2-pentanone	0.012	--	ND	1,000/50	--
			Tetrachloroethene	0.006	--	ND	4/1 **	--
			Dibromochloromethane	0.006	--	ND	110/1	--
			Chlorobenzene	0.006	--	ND	37/1	--
			Ethylbenzene	0.006	--	ND	1,000/100	--
			Xylenes (Total)	0.006	--	ND	410/10	--
			Styrene	0.006	--	ND	23/100	--
			Bromoform	0.006	--	ND	86/1	--
			m-Dichlorobenzene	0.006	--	ND	--	--
			p-Dichlorobenzene	0.006	--	ND	--	--
			o-Dichlorobenzene	0.006	--	ND	--	--

Note:

* Residential Direct Contact / Impact to Groundwater

** The tetrachloroethene results were compared to the soil cleanup criteria for tetrachloroethylene; tetrachloroethene is a synonym for tetrachloroethylene

-- Not applicable / does not exceed criteria

(J) Indicates detected below sample quantitation limit

(B) Indicates also present in blank

(ND) Indicates compound not detected

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, SITE S
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES

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
S/5.0-5.5'	04-13-93	05-07-93	N-Nitrosodiethylamine	0.41	--	ND	--	--
			bis(2 chloroethyl)Ether	0.41	--	ND	0.66/10	--
			1,3-Dichlorobenzene	0.41	--	ND	5,100/100	--
			1,4-Dichlorobenzene	0.41	--	ND	570/100	--
			Benzyl Alcohol	0.41	--	ND	10,000/50	--
			1,2-Dichlorobenzene	0.41	--	ND	5,100/50	--
			bis(2-chloroisopropyl)Ether	0.41	--	ND	2,300/10	--
			N-Nitroso-Di-n-propylamine	0.41	--	ND	0.66/10	--
			Hexachloroethane	0.41	--	ND	6/100	--
			Nitrobenzene	0.41	--	ND	28/10	--
			Isophorone	0.41	--	ND	1,100/50	--
			Benzoic Acid	2.0	--	ND	--	--
			bis(2-Chloroethoxy)Methane	0.41	--	ND	--	--
			1,2,4-Trichlorobenzene	0.41	--	ND	68/100	--
			Naphthalene	0.41	--	ND	230/100	--
			4-Chloroaniline	0.41	--	ND	230	--
			Hexachlorobutadiene	0.41	--	ND	1/100	--
			2-Methylnaphthalene	0.41	--	ND	--	--
			Hexachlorocyclopentadiene	0.41	--	ND	400/100	--
			2-Chloronaphthalene	0.41	--	ND	--	--
			2-Nitroaniline	2.0	--	ND	--	--
			Dimethyl Phthalate	0.41	--	ND	10,000/50	--
			Acenaphthylene	0.41	--	ND	--	--
			3-Nitroaniline	2.0	--	ND	--	--
			Acenaphthene	0.41	--	ND	3,400/100	--
			Dibenzofuran	0.41	--	ND	--	--

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, SITE S
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES (Continued)

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
S/5.0-5.5'	04-13-93	05-07-93	2,4-Dinitrotoluene	0.41	--	ND	1/10	--
			2,6-Dinitrotoluene	0.41	--	ND	1/10	--
			Diethylphthalate	0.41	--	ND	10,000/50	--
			4-Chlorophenyl-phenlyether	0.41	--	ND	--	--
			Fluorene	0.41	--	ND	2,300/100	--
			4-Nitroaniline	2.0	--	ND	--	--
			N-Nitrosodiphenylamine	0.41	--	ND	140/100	--
			4-Bromophenyl-phenylether	0.41	--	ND	--	--
			Hexachlorobenzene	0.41	--	ND	0.66/100	--
			Phenanthrene	0.41	--	ND	--	--
			Anthracene	0.41	--	ND	10,000/100	--
			Di-n-Butylphthalate	0.41	--	ND	5,700/100	--
			Fluoranthene	0.41	--	ND	2,300/100	--
			Pyrene	0.41	--	ND	1,700/100	--
			Butylbenzylphthalate	0.41	--	ND	1,100/100	--
			3,3-Dichlorobenzidine	0.81	--	ND	2/100	--
			Benzo(a)Anthracene	0.41	--	ND	0.9/500	--
			Bis(2-Ethylhexyl)Phthalate	0.41	--	ND	49/100	--
			Chrysene	0.41	--	ND	9/500	--
			Di-n-Octyl Phthalate	0.41	--	ND	1,100/100	--
			Benzo(b)Fluoranthene	0.41	--	ND	0.9/50	--

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BIULDING 2500, CHARLES WOOD, SITE S
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES (Continued)

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
S/5.0-5.5'	04-13-93	05-07-93	Benzo(k)Fluoranthene	0.41	--	ND	0.9/500	--
			Benzo(a)Pyrene	0.41	--	ND	0.66/100	--
			Indeno(1,2,3-cd)Pyrene	0.41	--	ND	0.9/500	--
			Dibenzo(a,h)Anthracene	0.41	--	ND	0.66/100	--
			Benzo(g,h,i)Perylene	0.41	--	ND	--	--
			Benzidine	0.81	--	ND	--	--

Note:
* Residential Direct Contact / Impact to Groundwater
-- Not applicable / does not exceed criteria
(J) Indicates detected below sample quantitation limit
(B) Indicates also present in blank
(ND) Indicates compound not detected

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, SITE T
FORT MONMOUTH, NEW JERSEY
VOLATILE ORGANICS

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
DUP A/ 2.0-2.5'	04-13-93	04-23-93	Acrolein	0.056	--	ND	--	--
			Acrylonitrile	0.056	--	ND	1/1	--
			Chloromethane	0.011	--	ND	520/10	--
			Bromomethane	0.011	--	ND	79/1	--
			Vinyl Chloride	0.011	--	ND	2/10	--
			Chloroethane	0.011	--	ND	--	--
			Acetone	0.011	--	0.0046 JB	1,000/100	--
			1,1-Dichloroethene	0.006	--	ND	8/10	--
			Carbon Disulfide	0.011	--	ND	--	--
			Methylene Chloride	0.006	--	ND B	49/1	--
			1,2-Dichloroethene (trans)	0.006	--	ND	1,000/50	--
			1,1-Dichloroethane	0.006	--	ND	570/10	--
			Vinyl Acetate	0.006	--	ND	--	--
			2-Butanone	0.011	--	ND	1,000/50	--
			Chloroform	0.006	--	ND	19/1	--
			1,1,1-Trichloroethane	0.006	--	ND	210/50	--
			Carbon Tetrachloride	0.006	--	ND	2/1	--
			1,2-Dichloroethane	0.006	--	ND	6/1	--
			Benzene	0.006	--	ND	3/1	--
			Trichloroethene	0.006	--	ND	23/1	--
			1,2-Dichloropropane	0.006	--	ND	10	--
			Bromodichloromethane	0.006	--	ND	11/1	--
			2-Chloroethylvinylether	0.011	--	ND	--	--
			2-Hexanone	0.011	--	ND	--	--
			trans-1,3-Dichloropropene	0.006	--	ND	4/1	--
			Toluene	0.006	--	ND	1,000/500	--
			cis-1,3-Dichloropropene	0.006	--	ND	4/1	--

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, SITE T
FORT MONMOUTH, NEW JERSEY
VOLATILE ORGANICS (Continued)

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
DUP A/ 2.0-2.5'	04-13-93	04-23-93	1,1,2,2-Tetrachloroethane	0.006	--	ND	34/1	--
			1,1,2-Trichloroethane	0.006	--	ND	22/1	--
			4-Methyl-2-pentanone	0.011	--	ND	1,000/50	--
			Tetrachloroethene	0.006	--	ND	4/1 **	--
			Dibromochloromethane	0.006	--	ND	110/1	--
			Chlorobenzene	0.006	--	ND	37/1	--
			Ethylbenzene	0.006	--	ND	1,000/100	--
			Xylenes (Total)	0.006	--	ND	410/10	--
			Styrene	0.006	--	ND	23/100	--
			Bromoform	0.006	--	ND	86/1	--
			m-Dichlorobenzene	0.006	--	ND	--	--
			p-Dichlorobenzene	0.006	--	ND	--	--
			o-Dichlorobenzene	0.006	--	ND	--	--

Note:

* Residential Direct Contact / Impact to Groundwater

** The tetrachloroethene results were compared to the soil cleanup criteria for tetrachloroethylene; tetrachloroethene is a synonym for tetrachloroethylene

-- Not applicable / does not exceed criteria

(J) Indicates detected below sample quantitation limit

(B) Indicates also present in blank

(ND) Indicates compound not detected

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, SITE T
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES

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
DUP A/ 2.0-2.5'	04-13-93	05-07-93	N-Nitrosodiethylamine	0.37	--	ND	--	--
			bis(2 chloroethyl)Ether	0.37	--	ND	0.66/10	--
			1,3-Dichlorobenzene	0.37	--	ND	5,100/100	--
			1,4-Dichlorobenzene	0.37	--	ND	570/100	--
			Benzyl Alcohol	0.37	--	ND	10,000/50	--
			1,2-Dichlorobenzene	0.37	--	ND	5,100/50	--
			bis(2-chloroisopropyl)Ether	0.37	--	ND	2,300/10	--
			N-Nitroso-Di-n-propylamine	0.37	--	ND	0.66/10	--
			Hexachloroethane	0.37	--	ND	6/100	--
			Nitrobenzene	0.37	--	ND	28/10	--
			Isophorone	0.37	--	ND	1,100/50	--
			Benzoic Acid	1.8	--	ND	--	--
			bis(2-Chloroethoxy)Methane	0.37	--	ND	--	--
			1,2,4-Trichlorobenzene	0.37	--	ND	68/100	--
			Naphthalene	0.37	--	ND	230/100	--
			4-Chloroaniline	0.37	--	ND	230	--
			Hexachlorobutadiene	0.37	--	ND	1/100	--
			2-Methylnaphthalene	0.37	--	ND	--	--
			Hexachlorocyclopentadiene	0.37	--	ND	400/100	--
			2-Chloronaphthalene	0.37	--	ND	--	--
			2-Nitroaniline	1.8	--	ND	--	--
			Dimethyl Phthalate	0.37	--	ND	10,000/50	--
			Acenaphthylene	0.37	--	ND	--	--
			3-Nitroaniline	1.8	--	ND	--	--
			Acenaphthene	0.37	--	ND	3,400/100	--
			Dibenzofuran	0.37	--	ND	--	--

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, SITE T
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES (Continued)

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
DUP A/ 2.0-2.5'	04-13-93	05-07-93	2,4-Dinitrotoluene	0.37	--	ND	1/10	--
			2,6-Dinitrotoluene	0.37	--	ND	1/10	--
			Diethylphthalate	0.37	--	ND	10,000/50	--
			4-Chlorophenyl-phenlyether	0.37	--	ND	--	--
			Fluorene	0.37	--	ND	2,300/100	--
			4-Nitroaniline	1.8	--	ND	--	--
			N-Nitrosodiphenylamine	0.37	--	ND	140/100	--
			4-Bromophenyl-phenylether	0.37	--	ND	--	--
			Hexachlorobenzene	0.37	--	ND	0.66/100	--
			Phenanthrene	0.37	--	ND	--	--
			Anthracene	0.37	--	ND	10,000/100	--
			Di-n-Butylphthalate	0.37	--	ND	5,700/100	--
			Fluoranthene	0.37	--	ND	2,300/100	--
			Pyrene	0.37	--	ND	1,700/100	--
			Butylbenzylphthalate	0.37	--	ND	1,100/100	--
			3,3-Dichlorobenzidine	0.73	--	ND	2/100	--
			Benzo(a)Anthracene	0.37	--	ND	0.9/500	--
			Bis(2-Ethylhexyl)Phthalate	0.37	--	ND	49/100	--
			Chrysene	0.37	--	ND	9/500	--
			Di-n-Octyl Phthalate	0.37	--	ND	1,100/100	--
			Benzo(b)Fluoranthene	0.37	--	ND	0.9/50	--

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BIULDING 2500, CHARLES WOOD, SITE T
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES (Continued)

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
DUP A/ 2.0-2.5'	04-13-93	05-07-93	Benzo(k)Fluoranthene	0.37	--	ND	0.9/500	--
			Benzo(a)Pyrene	0.37	--	ND	0.66/100	--
			Indeno(1,2,3-cd)Pyrene	0.37	--	ND	0.9/500	--
			Dibenzo(a,h)Anthracene	0.37	--	ND	0.66/100	--
			Benzo(g,h,i)Perylene	0.37	--	ND	--	--
			Benzidine	0.73	--	ND	--	--

Note:
* Residential Direct Contact / Impact to Groundwater
-- Not applicable / does not exceed criteria
(J) Indicates detected below sample quantitation limit
(B) Indicates also present in blank
(ND) Indicates compound not detected

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, TRIP BLANK
FORT MONMOUTH, NEW JERSEY
VOLATILE ORGANICS

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)
Trip Blank	04-13-93	04-23-93	Chloromethane	10	--	ND
			Bromomethane	10	--	ND
			Vinyl Chloride	10	--	ND
			Chloroethane	10	--	ND
			Acrolein	50	--	ND
			Acetone	10	--	2.3 JB
			1,1-Dichloroethene	5	--	ND
			Carbon Disulfide	10	--	ND
			Acrylonitrile	50	--	ND
			Methylene Chloride	5	--	ND B
			1,2-Dichloroethene (trans)	5	--	ND
			1,1-Dichloroethane	5	--	ND
			Vinyl Acetate	5	--	ND
			2-Butanone	10	--	ND
			Chloroform	5	--	ND
			1,1,1-Trichloroethane	5	--	ND
			Carbon Tetrachloride	5	--	ND
			1,2-Dichloroethane	5	--	ND
			Benzene	5	--	ND
			Trichloroethene	5	--	ND
			1,2-Dichloropropane	5	--	ND
			2-Chloroethylvinylether	10	--	ND
			2-Hexanone	10	--	ND
			trans-1,3-Dichloropropene	5	--	ND
			Toluene	5	--	ND
			cis-1,3-Dichloropropene	5	--	ND

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, TRIP BLANK
FORT MONMOUTH, NEW JERSEY
VOLATILE ORGANICS (Continued)

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)
Trip Blank	04-13-93	04-23-93	1,1,2,2-Tetrachloroethane	5	--	ND
			1,1,2-Trichloroethane	5	--	ND
			4-Methyl-2-pentanone	10	--	ND
			Tetrachloroethene	5	--	ND
			Dibromochloromethane	5	--	ND
			Chlorobenzene	5	--	ND
			Ethylbenzene	5	--	ND
			Xylenes (Total)	5	--	ND
			Styrene	5	--	ND
			Bromoform	5	--	ND
			m-Dichlorobenzene	5	--	ND
			p-Dichlorobenzene	5	--	ND
			o-Dichlorobenzene	5	--	ND
			Bromodichloromethane	5	--	ND

Note:
-- Not applicable / does not exceed criteria
(J) Indicates detected below sample quantitation limit
(B) Indicates also present in blank
(ND) Indicates compound not detected

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, FIELD BLANK
FORT MONMOUTH, NEW JERSEY
VOLATILE ORGANICS

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)
Field Blank	04-13-93	04-23-93	Chloromethane	10	--	ND
			Bromomethane	10	--	ND
			Vinyl Chloride	10	--	ND
			Chloroethane	10	--	ND
			Acrolein	50	--	ND
			Acetone	10	--	ND B
			1,1-Dichloroethene	5	--	ND
			Carbon Disulfide	10	--	ND
			Acrylonitrile	50	--	ND
			Methylene Chloride	5	--	1.9 JB
			1,2-Dichloroethene (trans)	5	--	ND
			1,1-Dichloroethane	5	--	ND
			Vinyl Acetate	5	--	ND
			2-Butanone	10	--	ND
			Chloroform	5	--	ND
			1,1,1-Trichloroethane	5	--	ND
			Carbon Tetrachloride	5	--	ND
			1,2-Dichloroethane	5	--	ND
			Benzene	5	--	ND
			Trichloroethene	5	--	ND
			1,2-Dichloropropane	5	--	ND
			2-Chloroethylvinylether	10	--	ND
			2-Hexanone	10	--	ND
			trans-1,3-Dichloropropene	5	--	ND
			Toluene	5	--	ND
			cis-1,3-Dichloropropene	5	--	ND

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, FIELD BLANK
FORT MONMOUTH, NEW JERSEY
VOLATILE ORGANICS (Continued)

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)
Field Blank	04-13-93	04-23-93	1,1,2,2-Tetrachloroethane	5	--	ND
			1,1,2-Trichloroethane	5	--	ND
			4-Methyl-2-pentanone	10	--	ND
			Tetrachloroethene	5	--	ND
			Dibromochloromethane	5	--	ND
			Chlorobenzene	5	--	ND
			Ethylbenzene	5	--	ND
			Xylenes (Total)	5	--	ND
			Styrene	5	--	ND
			Bromoform	5	--	ND
			m-Dichlorobenzene	5	--	ND
			p-Dichlorobenzene	5	--	ND
			o-Dichlorobenzene	5	--	ND
			Bromodichloromethane	5	--	ND

Note:
-- Not applicable / does not exceed criteria
(J) Indicates detected below sample quantitation limit
(B) Indicates also present in blank
(ND) Indicates compound not detected

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, FIELD BLANK
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)
Field Blank	04-13-93	05-07-93	N-Nitrosodiethylamine	10	--	ND
			bis(2 chloroethyl)Ether	10	--	ND
			1,3-Dichlorobenzene	10	--	ND
			1,4-Dichlorobenzene	10	--	ND
			Benzyl Alcohol	10	--	ND
			1,2-Dichlorobenzene	10	--	ND
			bis(2-chloroisopropyl)Ether	10	--	ND
			N-Nitroso-Di-n-propylamine	10	--	ND
			Hexachloroethane	10	--	ND
			Nitrobenzene	10	--	ND
			Isophorone	10	--	ND
			Benzoic Acid	50	--	ND
			bis(2-Chloroethoxy)Methane	10	--	ND
			1,2,4-Trichlorobenzene	10	--	ND
			Naphthalene	10	--	ND
			4-Chloroaniline	10	--	ND
			Hexachlorobutadiene	10	--	ND
			2-Methylnaphthalene	10	--	ND
			Hexachlorocyclopentadiene	10	--	ND
			2-Chloronaphthalene	10	--	ND
			2-Nitroaniline	50	--	ND
			Dimethyl Phthalate	10	--	ND
			Acenaphthylene	10	--	ND
			3-Nitroaniline	50	--	ND
			Acenaphthene	10	--	ND
			Dibenzofuran	10	--	ND

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, FIELD BLANK
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES (Continued)

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)
Field Blank	04-13-93	05-07-93	2,4-Dinitrotoluene	10	--	ND
			2,6-Dinitrotoluene	10	--	ND
			Diethylphthalate	10	--	ND
			4-Chlorophenyl-phenlyether	10	--	ND
			Fluorene	10	--	ND
			4-Nitroaniline	50	--	ND
			N-Nitrosodiphenylamine	10	--	ND
			4-Bromophenyl-phenylether	10	--	ND
			Hexachlorobenzene	10	--	ND
			Phenanthrene	10	--	ND
			Anthracene	10	--	ND
			Di-n-Butylphthalate	10	--	ND
			Fluoranthene	10	--	ND
			Pyrene	10	--	ND
			Butylbenzylphthalate	10	--	ND
			3,3-Dichlorobenzidine	20	--	ND
			Benzo(a)Anthracene	10	--	ND
			Bis(2-Ethylhexyl)Phthalate	10	--	ND
			Chrysene	10	--	ND
			Di-n-Octyl Phthalate	10	--	ND
			Benzo(b)Fluoranthene	10	--	ND

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BIULDING 2500, CHARLES WOOD, FIELD BLANK
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES (Continued)

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)
Field Blank	04-13-93	05-07-93	Benzo(k)Fluoranthene	10	--	ND
			Benzo(a)Pyrene	10	--	ND
			Indeno(1,2,3-cd)Pyrene	10	--	ND
			Dibenzo(a,h)Anthracene	10	--	ND
			Benzo(g,h,i)Perylene	10	--	ND
			Benzidine	20	--	ND

Note:

-- Not applicable / does not exceed criteria
(J) Indicates detected below sample quantitation limit
(B) Indicates also present in blank
(ND) Indicates compound not detected

SMITH

3.2 GROUNDWATER SAMPLING RESULTS

The groundwater analytical results from samples collected on July 6, 1993 exceeded the New Jersey Groundwater Quality Criteria (GWQC) for methylene chloride of 2.0 ug/l.

The sample collected from MW-1 on July 6, 1993, contained a butylbenzylphthalate concentration of 8.6 ug/l, and a bis(2-ethylhexyl)phthalate concentration of 3.5 ug/l. No other compounds were detected.

The sample collected from MW-2 on July 6, 1993, contained an acetone concentration of 2.3 ug/l. The sample also contained a methylene chloride concentration of 2.6 ug/l, a tetrachloroethylene concentration of 8.8 ug/l, and a butylbenzylphthalate concentration of 2.6 ug /l. No other compounds were detected.

The sample collected from MW-3 on July 6, 1993, contained a butylbenzylphthalate concentration of 3.7 ug/l, and a bis(2-ethylhexyl)phthalate concentration of 2.8 ug/l. No other compounds were detected.

The sample collected from MW-4 on July 6, 1993, contained an acetone concentration of 2.9 ug/l. The sample also contained a methylene chloride concentration of 1.2 ug/l, a benzyl alcohol concentration of 1.8 ug/l, a butylbenzylphthalate concentration of 42 ug/l, and a bis(2-ethylhexyl)phthalate concentration of 1.1 ug/l. No other compounds were detected.

The groundwater analytical results from the sample collected on August 30, 1993 exceeded the New Jersey GWQC for tetrachloroethylene of 1.0 ug/l. The tetrachloroethene results were compared to the GWQC for tetrachloroethylene. Tetrachloroethylene is a synonym for tetrachloroethene.

The sample collected from MW-1 on August 30, 1993, contained an acetone concentration of 3.5 ug/l and a methylene chloride concentration of 1.9 ug/l. The sample also contained a tetrachloroethylene concentration of 4.0 ug/l, a benzyl alcohol concentration of 1.6 ug/l, a di-n-butylphthalate concentration of 1.5 ug/l, and a butylbenzylphthalate concentration of 12 ug/l. No other compounds were detected.

The sample collected from MW-2 on August 30, 1993, contained an acetone concentration of 1.6 ug/l and a methylene chloride concentration of 3.6 ug/l. The sample also contained a benzyl alcohol concentration of 3.5 ug/l, a di-n-butylphthalate concentraion of 3.3 ug/l, a butylbenzylphthalate concentration of 29 ug /l, and a bis(2-ethylhexyl)phthalate concentration of 2 ug/l. No other compounds were detected.

The sample collected from MW-3 on August 30, 1993, contained an acetone concentration of 3.9 ug/l, a methylene chloride concentration of 3.3 ug/l, a benzyl alcohol concentration of 1.4 ug/l, and a butylbenzylphthalate concentration of 12 ug/l. No other compounds were detected.

The sample collected from MW-4 on August 30, 1993, contained a tetrachloroethylene concentration of 3.5 ug/l. The sample also contained a benzyl alcohol concentration of 6.5 ug/l, a di-n-butylphthalate concentration of 2.4 ug/l, and a butylbenzylphthalate concentration of 30 ug/l. No other compounds were detected.

According to the groundwater analytical results dated July 6, 1993 and August 30, 1993, lead was not detected in any of the four monitoring wells.

No product or sheen was observed in MW-1, MW-2, MW-3, or MW-4. The depth to the water table was 7 feet below grade in each well.

All groundwater analytical results are presented in Table 3 and shown on Figure 4. The groundwater analytical data package is provided in Appendix F. The full data package, including quality control data, is on file at U.S. Army Fort Monmouth, DPW.

3.3 CONCLUSIONS AND RECOMMENDATIONS

Based on the analytical results for the twenty (20) post-excavation soil samples and for the two pit fill samples collected on April 13, 1993, soil with concentrations of contaminants exceeding the most stringent applicable NJDEP soil cleanup criteria do not remain in the former location of UST Nos. 0081515-52, 53, 54, 55, and 56.

Based on the analytical results of the groundwater samples collected on July 6, 1993 and August 30, 1993, groundwater quality at the Building 2500 UST closure site exceeded the New Jersey Groundwater Quality Criteria (GWQC) for methylene chloride, and tetrachloroethylene. However, all detected concentrations of these compounds were at the single-digit part per billion. With the exception to MW-1, these compounds were not consistently detected over both sampling rounds. For these reasons and because methylene chloride is a common laboratory contaminant, the data may reflect sampling and analytical interference rather than actual groundwater quality.

Based on the groundwater analytical results, the collection and analysis of two additional sets of samples from MW-1, MW-2, MW-3, and MW-4, for VOCs is recommended. Collection of the samples on a quarterly basis is recommended. The VOC analysis will determine if the low levels of VOCs detected previously are declining. The need for any additional actions to address groundwater quality should be evaluated following receipt of the additional groundwater data.

No other actions are proposed in regard to the closure of UST Nos. 0081515-52, 53, 54, 55, 56 at Building 2500.

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 2500
FT. MONMOUTH, NEW JERSEY

Sample ID	Sample Laboratory 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	A 2536	7/06/93	7/16/93	Lead	50	--	ND	10	--
MW-2	A 2537	7/06/93	7/16/93	Lead	50	--	ND	10	--
MW-3	A 2538	7/06/93	7/16/93	Lead	50	--	ND	10	--
MW-4	A 2539	7/06/93	7/16/93	Lead	50	--	ND	10	--
MW-4/DUP	A 2540	7/06/93	7/16/93	Lead	50	--	ND	10	--

Note:

-- Not applicable / does not exceed criteria
(J) Indicates detected below sample quantitation limit
(B) Indicates also present in blank
(ND) Indicates compound not detected
(NA) Not available for this constituent
GWQC Ground Water Quality Criteria

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, MW-1
FT. MONMOUTH, NEW JERSEY
VOLATILE ORGANICS

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	7/06/93	7/13/93	Acrolein	50	--	ND	NA	--
			Acrylonitrile	50	--	ND	50	--
			Chloromethane	10	--	ND	--	--
			Bromomethane	10	--	ND	--	--
			Vinyl Chloride	10	--	ND	5	--
			Chloroethane	10	--	ND	--	--
			Acetone	10	--	ND B	700	--
			1,1-Dichloroethene	5	--	ND	2 *	--
			Carbon Disulfide	10	--	ND	--	--
			Methylene Chloride	5	--	ND	2	--
			1,2-Dichloroethene (trans)	5	--	ND	100 *	--
			1,1 Dichloroethane	5	--	ND	70	--
			Vinyl Acetate	5	--	ND	--	--
			2-Butanone	10	--	ND	--	--
			Chloroform	5	--	ND	6	--
			1,1,1-Trichloroethane	5	--	ND	30	--
			Carbon Tetrachloride	5	--	ND	2	--
			1,2-Dichloroethane	5	--	ND	2	--
			Benzene	5	yes	ND	1	--
			Trichloroethene	5	--	ND	--	--
			1,2-Dichloropropane	5	--	ND	1	--
			Bromodichloromethane	5	--	ND	1	--
			2-Chloroethylvinylether	10	--	ND	--	--
			2-Hexanone	10	--	ND	--	--
			trans-1,3-Dichloropropene	5	--	ND	NA	--
			Toluene	5	yes	ND	1,000	--

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, MW-1
FORT MONMOUTH, NEW JERSEY
VOLATILE ORGANICS (Continued)

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	7/06/93	7/13/93	cis-1,3-Dichloropropene	5	--	ND	NA	--
			1,1,2,2-Tetrachloroethane	5	--	ND	2	--
			1,1,2-Trichloroethane	5	--	ND	3	--
			4-Methyl-2-pentanone	10	--	ND	400	--
			Tetrachloroethene	5	--	ND	1 *	--
			Dibromochloromethane	5	--	ND	10	--
			Chlorobenzene	5	--	ND	4	--
			Ethylbenzene	5	yes	ND	700	--
			Xylenes (Total)	5	yes	ND	40	--
			Styrene	5	--	ND	100	--
			Bromoform	5	--	ND	4	--
			m-Dichlorobenzene	5	--	ND	--	--
			p-Dichlorobenzene	5	--	ND	--	--
			o-Dichlorobenzene	5	--	ND	--	--
			Methyl Tertiary Butyl Ether	10	--	ND	--	--
			Tertiary Butyl Alcohol	50	--	ND	--	--

Note:

* The tetrachloroethene, 1,2-Dichloroethene(trans), and 1,1-Dichloroethene results were compared to the GWQC for their respective synonym (tetrachloroethylene, 1,2-Dichloroethylene(trans), and 1,1-Dichloroethylene).

-- Not applicable / does not exceed criteria

(J) Indicates detected below sample quantitation limit

(B) Indicates also present in blank

(ND) Indicates compound not detected

(NA) Not available for this constituent

GWQC Ground Water Quality Criteria

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, MW-1
FORT MONMOUTH, NEW JERSEY
VOLATILE TICS

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	7/06/93	7/13/93	NO TICS FOUND	--	--	--	--	--

Note:

-- Not applicable / does not exceed criteria
(J) Indicates detected below sample quantitation limit
(B) Indicates also present in blank
(ND) Indicates compound not detected
(NA) Not available for this constituent
GWQC Ground Water Quality Criteria

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, MW-1
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES

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	7/06/93	7/14/93	N-Nitrosodiethylamine	10	--	ND	--	--
			bis(2 chloroethyl)Ether	10	--	ND	10	--
			1,3-Dichlorobenzene	10	--	ND	600	--
			1,4-Dichlorobenzene	10	--	ND	75	--
			Benzyl Alcohol	10	--	ND	2,000	--
			1,2-Dichlorobenzene	10	--	ND	600	--
			bis(2-chloroisopropyl)Ether	10	--	ND	300	--
			N-Nitroso-Di-n-propylamine	10	--	ND	20	--
			Hexachloroethane	10	--	ND	10	--
			Nitrobenzene	10	--	ND	10	--
			Isophorone	10	--	ND	100	--
			Benzoic Acid	50	--	ND	--	--
			bis(2-Chloroethoxy)Methane	10	--	ND	--	--
			1,2,4-Trichlorobenzene	10	--	ND	9	--
			Naphthalene	10	--	ND	--	--
			4-Chloroaniline	10	--	ND	--	--
			Hexachlorobutadiene	10	--	ND	1	--
			2-Methylnaphthalene	10	--	ND	--	--
			Hexachlorocyclopentadiene	10	--	ND	50	--
			2-Chloronaphthalene	10	--	ND	--	--
			2-Nitroaniline	50	--	ND	--	--
			Dimethyl Phthalate	10	--	ND	10	--
			Acenaphthylene	10	--	ND	NA	--
			3-Nitroaniline	50	--	ND	--	--
			Acenaphthene	10	--	ND	400	--
			Dibenzofuran	10	--	ND	--	--

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, MW-1
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES (Continued)

Sample ID	Sample Date	Analysis Date	Compound Nane	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)	GWQC (ug/l)	Exceeds Criteria
MW-1	7/06/93	7/14/93	2,4-Dinitrotoluene	10	--	ND	10	--
			2,6-Dinitrotoluene	10	--	ND	NA	--
			Diethylphthalate	10	--	ND	5,000	--
			4-Chlorophenyl-phenlyether	10	--	ND	--	--
			Fluorene	10	--	ND	300	--
			4-Nitroaniline	50	--	ND	--	--
			N-Nitrosodiphenylamine	10	--	ND	20	--
			4-Bromophenyl-phenylether	10	--	ND	--	--
			Hexachlorobenzene	10	--	ND	10	--
			Phenanthrene	10	--	ND	--	--
			Anthracene	10	--	ND	2,000	--
			Di-n-butylphthalate	10	--	ND	900	--
			Fluoranthene	10	--	ND	300	--
			Pyrene	10	--	ND	200	--
			Butylbenzylphthalate	10	--	8.6 J	100	--
			3,3-Dichlorobenzidine	20	--	ND	60	--
			Benzo(a)Anthracene	10	--	ND	NA	--
			bis(2-Ethylhexyl)Phthalate	10	--	3.5 J	30	--
			Chrysene	10	--	ND	NA	--
			Di-n-Octyl Phthalate	10	--	ND	100	--
			Benzo(b)Fluoranthene	10	--	ND	NA	--
			Benzo(k)Fluoranthene	10	--	ND	NA	--

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, MW-1
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES (Continued)

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	7/06/93	7/14/93	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	--
			Benzidine	20	--	ND	50	--

Note:

-- Not applicable / does not exceed criteria
(J) Indicates detected below sample quantitation limit
(B) Indicates also present in blank
(ND) Indicates compound not detected
(NA) Not available for this constituent
GWQC Ground Water Quality Criteria

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, MW-1
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILE TICS

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	7/06/93	7/14/93	UNKNOWN	--	--	17	--	--
			UNKNOWN	--	--	18	--	--
			UNKNOWN	--	--	13	--	--
			UNKNOWN	--	--	8	--	--
			UNKNOWN	--	--	9	--	--
			UNKNOWN	--	--	10	--	--
			UNKNOWN	--	--	5	--	--

Note:

-- Not applicable / does not exceed criteria
(J) Indicates detected below sample quantitation limit
(B) Indicates also present in blank
(ND) Indicates compound not detected
(NA) Not available for this constituent
GWQC Ground Water Quality Criteria

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, MW-2
FT. MONMOUTH, NEW JERSEY
VOLATILE ORGANICS

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	7/06/93	7/13/93	Acrolein	50	--	ND	NA	--
			Acrylonitrile	50	--	ND	50	--
			Chloromethane	10	--	ND	--	--
			Bromomethane	10	--	ND	--	--
			Vinyl Chloride	10	--	ND	5	--
			Chloroethane	10	--	ND	--	--
			Acetone	10	--	2.3 JB	700	--
			1,1-Dichloroethene	5	--	ND	2 *	--
			Carbon Disulfide	10	--	ND	--	--
			Methylene Chloride	5	--	2.6 J	2	yes
			1,2-Dichloroethene (trans)	5	--	ND	100 *	--
			1,1 Dichloroethane	5	--	ND	70	--
			Vinyl Acetate	5	--	ND	--	--
			2-Butanone	10	--	ND	--	--
			Chloroform	5	--	ND	6	--
			1,1,1-Trichloroethane	5	--	ND	30	--
			Carbon Tetrachloride	5	--	ND	2	--
			1,2-Dichloroethane	5	--	ND	2	--
			Benzene	5	yes	ND	1	--
			Trichloroethene	5	--	ND	--	--
			1,2-Dichloropropane	5	--	ND	1	--
			Bromodichloromethane	5	--	ND	1	--
			2-Chloroethylvinylether	10	--	ND	--	--
			2-Hexanone	10	--	ND	--	--
			trans-1,3-Dichloropropene	5	--	ND	NA	--
			Toluene	5	yes	ND	1,000	--

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, MW-2
FORT MONMOUTH, NEW JERSEY
VOLATILE ORGANICS (Continued)

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	7/06/93	7/13/93	cis-1,3-Dichloropropene	5	--	ND	NA	--
			1,1,2,2-Tetrachloroethane	5	--	ND	2	--
			1,1,2-Trichloroethane	5	--	ND	3	--
			4-Methyl-2-pentanone	10	--	ND	400	--
			Tetrachloroethene	5	--	8.8	1 *	yes
			Dibromochloromethane	5	--	ND	10	--
			Chlorobenzene	5	--	ND	4	--
			Ethylbenzene	5	yes	ND	700	--
			Xylenes (Total)	5	yes	ND	40	--
			Styrene	5	--	ND	100	--
			Bromoform	5	--	ND	4	--
			m-Dichlorobenzene	5	--	ND	--	--
			p-Dichlorobenzene	5	--	ND	--	--
			o-Dichlorobenzene	5	--	ND	--	--
			Methyl Tertiary Butyl Ether	10	--	ND	--	--
			Tertiary Butyl Alcohol	50	--	ND	--	--

Note:

* The tetrachloroethene, 1,2-Dichloroethene(trans), and 1,1-Dichloroethene results were compared to the GWQC for their respective synonym (tetrachloroethylene, 1,2-Dichloroethylene(trans), and 1,1-Dichloroethylene).

-- Not applicable / does not exceed criteria

(J) Indicates detected below sample quantitation limit

(B) Indicates also present in blank

(ND) Indicates compound not detected

(NA) Not available for this constituent

GWQC Ground Water Quality Criteria

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, MW-2
FORT MONMOUTH, NEW JERSEY
VOLATILE TICS

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	7/06/93	7/13/93	NO TICS FOUND	--	--	--	--	--

Note:

-- Not applicable / does not exceed criteria
(J) Indicates detected below sample quantitation limit
(B) Indicates also present in blank
(ND) Indicates compound not detected
(NA) Not available for this constituent
GWQC Ground Water Quality Criteria

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, MW-2
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES

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	7/06/93	7/14/93	N-Nitrosodiethylamine	10	--	ND	--	--
			bis(2 chloroethyl)Ether	10	--	ND	10	--
			1,3-Dichlorobenzene	10	--	ND	600	--
			1,4-Dichlorobenzene	10	--	ND	75	--
			Benzyl Alcohol	10	--	ND	2,000	--
			1,2-Dichlorobenzene	10	--	ND	600	--
			bis(2-chloroisopropyl)Ether	10	--	ND	300	--
			N-Nitroso-Di-n-propylamine	10	--	ND	20	--
			Hexachloroethane	10	--	ND	10	--
			Nitrobenzene	10	--	ND	10	--
			Isophorone	10	--	ND	100	--
			Benzoic Acid	50	--	ND	--	--
			bis(2-Chloroethoxy)Methane	10	--	ND	--	--
			1,2,4-Trichlorobenzene	10	--	ND	9	--
			Naphthalene	10	--	ND	--	--
			4-Chloroaniline	10	--	ND	--	--
			Hexachlorobutadiene	10	--	ND	1	--
			2-Methylnaphthalene	10	--	ND	--	--
			Hexachlorocyclopentadiene	10	--	ND	50	--
			2-Chloronaphthalene	10	--	ND	--	--
			2-Nitroaniline	50	--	ND	--	--
			Dimethyl Phthalate	10	--	ND	10	--
			Acenaphthylene	10	--	ND	NA	--
			3-Nitroaniline	50	--	ND	--	--
			Acenaphthene	10	--	ND	400	--
			Dibenzofuran	10	--	ND	--	--

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, MW-2
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES (Continued)

Sample ID	Sample Date	Analysis Date	Compound Nane	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)	GWQC (ug/l)	Exceeds Criteria
MW-2	7/06/93	7/14/93	2,4-Dinitrotoluene	10	--	ND	10	--
			2,6-Dinitrotoluene	10	--	ND	NA	--
			Diethylphthalate	10	--	ND	5,000	--
			4-Chlorophenyl-phenyether	10	--	ND	--	--
			Fluorene	10	--	ND	300	--
			4-Nitroaniline	50	--	ND	--	--
			N-Nitrosodiphenylamine	10	--	ND	20	--
			4-Bromophenyl-phenylether	10	--	ND	--	--
			Hexachlorobenzene	10	--	ND	10	--
			Phenanthrene	10	--	ND	--	--
			Anthracene	10	--	ND	2,000	--
			Di-n-butylphthalate	10	--	ND	900	--
			Fluoranthene	10	--	ND	300	--
			Pyrene	10	--	ND	200	--
			Butylbenzylphthalate	10	--	2.6 J	100	--
			3,3-Dichlorobenzidine	20	--	ND	60	--
			Benzo(a)Anthracene	10	--	ND	NA	--
			bis(2-Ethylhexyl)Phthalate	10	--	ND	30	--
			Chrysene	10	--	ND	NA	--
			Di-n-Octyl Phthalate	10	--	ND	100	--
			Benzo(b)Fluoranthene	10	--	ND	NA	--
			Benzo(k)Fluoranthene	10	--	ND	NA	--

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, MW-2
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES (Continued)

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	7/06/93	7/14/93	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	--
			Benzidine	20	--	ND	50	--

Note:

-- Not applicable / does not exceed criteria
(J) Indicates detected below sample quantitation limit
(B) Indicates also present in blank
(ND) Indicates compound not detected
(NA) Not available for this constituent
GWQC Ground Water Quality Criteria

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, MW-2
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILE TICS

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	7/06/93	7/14/93	NO TICS FOUND	--	--	--	--	--

Note:

-- Not applicable / does not exceed criteria
(J) Indicates detected below sample quantitation limit
(B) Indicates also present in blank
(ND) Indicates compound not detected
(NA) Not available for this constituent
GWQC Ground Water Quality Criteria

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, MW-3
FT. MONMOUTH, NEW JERSEY
VOLATILE ORGANICS

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-3	7/06/93	7/13/93	Acrolein	50	--	ND	NA	--
			Acrylonitrile	50	--	ND	50	--
			Chloromethane	10	--	ND	--	--
			Bromomethane	10	--	ND	--	--
			Vinyl Chloride	10	--	ND	5	--
			Chloroethane	10	--	ND	--	--
			Acetone	10	--	ND B	700	--
			1,1-Dichloroethene	5	--	ND	2 *	--
			Carbon Disulfide	10	--	ND	--	--
			Methylene Chloride	5	--	ND	2	--
			1,2-Dichloroethene (trans)	5	--	ND	100 *	--
			1,1 Dichloroethane	5	--	ND	70	--
			Vinyl Acetate	5	--	ND	--	--
			2-Butanone	10	--	ND	--	--
			Chloroform	5	--	ND	6	--
			1,1,1-Trichloroethane	5	--	ND	30	--
			Carbon Tetrachloride	5	--	ND	2	--
			1,2-Dichloroethane	5	--	ND	2	--
			Benzene	5	yes	ND	1	--
			Trichloroethene	5	--	ND	--	--
			1,2-Dichloropropane	5	--	ND	1	--
			Bromodichloromethane	5	--	ND	1	--
			2-Chloroethylvinylether	10	--	ND	--	--
			2-Hexanone	10	--	ND	--	--
			trans-1,3-Dichloropropene	5	--	ND	NA	--
			Toluene	5	yes	ND	1,000	--

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, MW-3
FORT MONMOUTH, NEW JERSEY
VOLATILE ORGANICS (Continued)

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-3	7/06/93	7/13/93	cis-1,3-Dichloropropene	5	--	ND	NA	--
			1,1,2,2-Tetrachloroethane	5	--	ND	2	--
			1,1,2-Trichloroethane	5	--	ND	3	--
			4-Methyl-2-pentanone	10	--	ND	400	--
			Tetrachloroethene	5	--	ND	1 *	--
			Dibromochloromethane	5	--	ND	10	--
			Chlorobenzene	5	--	ND	4	--
			Ethylbenzene	5	yes	ND	700	--
			Xylenes (Total)	5	yes	ND	40	--
			Styrene	5	--	ND	100	--
			Bromoform	5	--	ND	4	--
			m-Dichlorobenzene	5	--	ND	--	--
			p-Dichlorobenzene	5	--	ND	--	--
			o-Dichlorobenzene	5	--	ND	--	--
			Methyl Tertiary Butyl Ether	10	--	ND	--	--
			Tertiary Butyl Alcohol	50	--	ND	--	--

Note:

* The tetrachloroethene, 1,2-Dichloroethene(trans), and 1,1-Dichloroethene results were compared to the GWQC for their respective synonym (tetrachloroethylene, 1,2-Dichloroethylene(trans), and 1,1-Dichloroethylene).

-- Not applicable / does not exceed criteria

(J) Indicates detected below sample quantitation limit

(B) Indicates also present in blank

(ND) Indicates compound not detected

(NA) Not available for this constituent

GWQC Ground Water Quality Criteria

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, MW-3
FORT MONMOUTH, NEW JERSEY
VOLATILE TICS

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-3	7/06/93	7/13/93	Benzene, 1-ethyl-2-methyl-	--	--	16	--	--
			Benzene, 1-ethyl-4-methyl-	--	--	9	--	--
			Benzene, 1-ethyl-3-methyl-	--	--	10	--	--
			Benzeneacetaldehyde, .alpha.-methyl-	--	--	5	--	--
			Benzene, methyl (1-methylethyl)-	--	--	5	--	--
			Undecane	--	--	12	--	--
			1H-Indole	--	--	9	--	--

Note:

-- Not applicable / does not exceed criteria
(J) Indicates detected below sample quantitation limit
(B) Indicates also present in blank
(ND) Indicates compound not detected
(NA) Not available for this constituent
GWQC Ground Water Quality Criteria

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, MW-3
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES

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-3	7/06/93	7/14/93	N-Nitrosodiethylamine	10	--	ND	--	--
			bis(2 chloroethyl)Ether	10	--	ND	10	--
			1,3-Dichlorobenzene	10	--	ND	600	--
			1,4-Dichlorobenzene	10	--	ND	75	--
			Benzyl Alcohol	10	--	ND	2,000	--
			1,2-Dichlorobenzene	10	--	ND	600	--
			bis(2-chloroisopropyl)Ether	10	--	ND	300	--
			N-Nitroso-Di-n-propylamine	10	--	ND	20	--
			Hexachloroethane	10	--	ND	10	--
			Nitrobenzene	10	--	ND	10	--
			Isophorone	10	--	ND	100	--
			Benzoic Acid	50	--	ND	--	--
			bis(2-Chloroethoxy)Methane	10	--	ND	--	--
			1,2,4-Trichlorobenzene	10	--	ND	9	--
			Naphthalene	10	--	ND	--	--
			4-Chloroaniline	10	--	ND	--	--
			Hexachlorobutadiene	10	--	ND	1	--
			2-Methylnaphthalene	10	--	ND	--	--
			Hexachlorocyclopentadiene	10	--	ND	50	--
			2-Chloronaphthalene	10	--	ND	--	--
			2-Nitroaniline	50	--	ND	--	--
			Dimethyl Phthalate	10	--	ND	10	--
			Acenaphthylene	10	--	ND	NA	--
			3-Nitroaniline	50	--	ND	--	--
			Acenaphthene	10	--	ND	400	--
			Dibenzofuran	10	--	ND	--	--

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, MW-3
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES (Continued)

Sample ID	Sample Date	Analysis Date	Compound Nane	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)	GWQC (ug/l)	Exceeds Criteria
MW-3	7/06/93	7/14/93	2,4-Dinitrotoluene	10	--	ND	10	--
			2,6-Dinitrotoluene	10	--	ND	NA	--
			Diethylphthalate	10	--	ND	5,000	--
			4-Chlorophenyl-phenlyether	10	--	ND	--	--
			Fluorene	10	--	ND	300	--
			4-Nitroaniline	50	--	ND	--	--
			N-Nitrosodiphenylamine	10	--	ND	20	--
			4-Bromophenyl-phenylether	0	--	ND	--	--
			Hexachlorobenzene	10	--	ND	10	--
			Phenanthrene	10	--	ND	--	--
			Anthracene	10	--	ND	2,000	--
			Di-n-butylphthalate	10	--	ND	900	--
			Fluoranthene	10	--	ND	300	--
			Pyrene	10	--	ND	200	--
			Butylbenzylphthalate	10	--	3.7 J	100	--
			3,3-Dichlorobenzidine	20	--	ND	60	--
			Benzo(a)Anthracene	10	--	ND	NA	--
			bis(2-Ethylhexyl)Phthalate	10	--	2.8 J	30	--
			Chrysene	10	--	ND	NA	--
			Di-n-Octyl Phthalate	10	--	ND	100	--
			Benzo(b)Fluoranthene	10	--	ND	NA	--
			Benzo(k)Fluoranthene	10	--	ND	NA	--

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, MW-3
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES (Continued)

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-3	7/06/93	7/14/93	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	--
			Benzidine	20	--	ND	50	--

Note:

-- Not applicable / does not exceed criteria
(J) Indicates detected below sample quantitation limit
(B) Indicates also present in blank
(ND) Indicates compound not detected
(NA) Not available for this constituent
GWQC Ground Water Quality Criteria

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, MW-3
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILE TICS

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-3	7/06/93	7/16/93	UNKNOWN	--	--	3	--	--
			UNKNOWN	--	--	7	--	--
			UNKNOWN	--	--	13	--	--
			UNKNOWN	--	--	14	--	--
			UNKNOWN	--	--	5	--	--
			UNKNOWN	--	--	9	--	--
			UNKNOWN	--	--	18	--	--
			UNKNOWN	--	--	7	--	--
			UNKNOWN	--	--	24	--	--
			UNKNOWN	--	--	7	--	--
			UNKNOWN	--	--	35	--	--
			UNKNOWN	--	--	38	--	--
			UNKNOWN	--	--	15	--	--
			UNKNOWN	--	--	15	--	--
			UNKNOWN	--	--	8	--	--

Note:

-- Not applicable / does not exceed criteria
(J) Indicates detected below sample quantitation limit
(B) Indicates also present in blank
(ND) Indicates compound not detected
(NA) Not available for this constituent
GWQC Ground Water Quality Criteria

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, MW-4
FT. MONMOUTH, NEW JERSEY
VOLATILE ORGANICS

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-4	7/06/93	7/13/93	Acrolein	50	--	ND	NA	--
			Acrylonitrile	50	--	ND	50	--
			Chloromethane	10	--	ND	--	--
			Bromomethane	10	--	ND	--	--
			Vinyl Chloride	10	--	ND	5	--
			Chloroethane	10	--	ND	--	--
			Acetone	10	--	2.9 JB	700	--
			1,1-Dichloroethene	5	--	ND	2 *	--
			Carbon Disulfide	10	--	ND	--	--
			Methylene Chloride	5	--	1.2 J	2	--
			1,2-Dichloroethene (trans)	5	--	ND	100 *	--
			1,1 Dichloroethane	5	--	ND	70	--
			Vinyl Acetate	5	--	ND	--	--
			2-Butanone	10	--	ND	--	--
			Chloroform	5	--	ND	6	--
			1,1,1-Trichloroethane	5	--	ND	30	--
			Carbon Tetrachloride	5	--	ND	2	--
			1,2-Dichloroethane	5	--	ND	2	--
			Benzene	5	yes	ND	1	--
			Trichloroethene	5	--	ND	--	--
			1,2-Dichloropropane	5	--	ND	1	--
			Bromodichloromethane	5	--	ND	1	--
			2-Chloroethylvinylether	10	--	ND	--	--
			2-Hexanone	10	--	ND	--	--
			trans-1,3-Dichloropropene	5	--	ND	NA	--
			Toluene	5	yes	ND	1,000	--

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, MW-4
FORT MONMOUTH, NEW JERSEY
VOLATILE ORGANICS (Continued)

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-4	7/06/93	7/13/93	cis-1,3-Dichloropropene	5	--	ND	NA	--
			1,1,2,2-Tetrachloroethane	5	--	ND	2	--
			1,1,2-Trichloroethane	5	--	ND	3	--
			4-Methyl-2-pentanone	10	--	ND	400	--
			Tetrachloroethene	5	--	ND	1 *	--
			Dibromochloromethane	5	--	ND	10	--
			Chlorobenzene	5	--	ND	4	--
			Ethylbenzene	5	yes	ND	700	--
			Xylenes (Total)	5	yes	ND	40	--
			Styrene	5	--	ND	100	--
			Bromoform	5	--	ND	4	--
			m-Dichlorobenzene	5	--	ND	--	--
			p-Dichlorobenzene	5	--	ND	--	--
			o-Dichlorobenzene	5	--	ND	--	--
			Methyl Tertiary Butyl Ether	10	--	ND	--	--
			Tertiary Butyl Alcohol	50	--	ND	--	--

Note:

* The tetrachloroethene, 1,2-Dichloroethene(trans), and 1,1-Dichloroethene results were compared to the GWQC for their respective synonym (tetrachloroethylene, 1,2-Dichloroethylene(trans), and 1,1-Dichloroethylene).

-- Not applicable / does not exceed criteria

(J) Indicates detected below sample quantitation limit

(B) Indicates also present in blank

(ND) Indicates compound not detected

(NA) Not available for this constituent

GWQC Ground Water Quality Criteria

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, MW-4
FORT MONMOUTH, NEW JERSEY
VOLATILE TICS

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-4	7/06/93	7/13/93	NO TICS FOUND	--	--	--	--	--

Note:

-- Not applicable / does not exceed criteria
(J) Indicates detected below sample quantitation limit
(B) Indicates also present in blank
(ND) Indicates compound not detected
(NA) Not available for this constituent
GWQC Ground Water Quality Criteria

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, MW-4
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES

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-4	7/06/93	7/14/93	N-Nitrosodiethylamine	10	--	ND	--	--
			bis(2 chloroethyl)Ether	10	--	ND	10	--
			1,3-Dichlorobenzene	10	--	ND	600	--
			1,4-Dichlorobenzene	10	--	ND	75	--
			Benzyl Alcohol	10	--	1.8 J	2,000	--
			1,2-Dichlorobenzene	10	--	ND	600	--
			bis(2-chloroisopropyl)Ether	10	--	ND	300	--
			N-Nitroso-Di-n-propylamine	10	--	ND	20	--
			Hexachloroethane	10	--	ND	10	--
			Nitrobenzene	10	--	ND	10	--
			Isophorone	10	--	ND	100	--
			Benzoic Acid	50	--	ND	--	--
			bis(2-Chloroethoxy)Methane	10	--	ND	--	--
			1,2,4-Trichlorobenzene	10	--	ND	9	--
			Naphthalene	10	--	ND	--	--
			4-Chloroaniline	10	--	ND	--	--
			Hexachlorobutadiene	10	--	ND	1	--
			2-Methylnaphthalene	10	--	ND	--	--
			Hexachlorocyclopentadiene	10	--	ND	50	--
			2-Chloronaphthalene	10	--	ND	--	--
			2-Nitroaniline	50	--	ND	--	--
			Dimethyl Phthalate	10	--	ND	10	--
			Acenaphthylene	10	--	ND	NA	--
			3-Nitroaniline	50	--	ND	--	--
			Acenaphthene	10	--	ND	400	--
			Dibenzofuran	10	--	ND	--	--

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, MW-4
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES (Continued)

Sample ID	Sample Date	Analysis Date	Compound Nane	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)	GWQC (ug/l)	Exceeds Criteria
MW-4	7/06/93	7/14/93	2,4-Dinitrotoluene	10	--	ND	10	--
			2,6-Dinitrotoluene	10	--	ND	NA	--
			Diethylphthalate	10	--	ND	5,000	--
			4-Chlorophenyl-phenlyether	10	--	ND	--	--
			Fluorene	10	--	ND	300	--
			4-Nitroaniline	50	--	ND	--	--
			N-Nitrosodiphenylamine	10	--	ND	20	--
			4-Bromophenyl-phenylether	10	--	ND	--	--
			Hexachlorobenzene	10	--	ND	10	--
			Phenanthrene	10	--	ND	--	--
			Anthracene	10	--	ND	2,000	--
			Di-n-butylphthalate	10	--	ND	900	--
			Fluoranthene	10	--	ND	300	--
			Pyrene	10	--	ND	200	--
			Butylbenzylphthalate	10	--	42	100	--
			3,3-Dichlorobenzidine	20	--	ND	60	--
			Benzo(a)Anthracene	10	--	ND	NA	--
			bis(2-Ethylhexyl)Phthalate	10	--	1.1 J	30	--
			Chrysene	10	--	ND	NA	--
			Di-n-Octyl Phthalate	10	--	ND	100	--
			Benzo(b)Fluoranthene	10	--	ND	NA	--
			Benzo(k)Fluoranthene	10	--	ND	NA	--

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, MW-4
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES (Continued)

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-4	7/06/93	7/14/93	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	--
			Benzidine	20	--	ND	50	--

Note:

-- Not applicable / does not exceed criteria
(J) Indicates detected below sample quantitation limit
(B) Indicates also present in blank
(ND) Indicates compound not detected
(NA) Not available for this constituent
GWQC Ground Water Quality Criteria

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, MW-4
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILE TICS

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-4	7/06/93	7/14/93	UNKNOWN	--	--	4	--	--
			UNKNOWN	--	--	5	--	--

Note:

-- Not applicable / does not exceed criteria
(J) Indicates detected below sample quantitation limit
(B) Indicates also present in blank
(ND) Indicates compound not detected
(NA) Not available for this constituent
GWQC Ground Water Quality Criteria

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, MW-4 DUP
FT. MONMOUTH, NEW JERSEY
VOLATILE ORGANICS

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-4/DUP	7/06/93	7/13/93	Acrolein	50	--	ND	NA	--
			Acrylonitrile	50	--	ND	50	--
			Chloromethane	10	--	ND	--	--
			Bromomethane	10	--	ND	--	--
			Vinyl Chloride	10	--	ND	5	--
			Chloroethane	10	--	ND	--	--
			Acetone	10	--	3.8 JB	700	--
			1,1-Dichloroethene	5	--	ND	2 *	--
			Carbon Disulfide	10	--	ND	--	--
			Methylene Chloride	5	--	ND	2	--
			1,2-Dichloroethene (trans)	5	--	ND	100 *	--
			1,1 Dichloroethane	5	--	ND	70	--
			Vinyl Acetate	5	--	ND	--	--
			2-Butanone	10	--	ND	--	--
			Chloroform	5	--	ND	6	--
			1,1,1-Trichloroethane	5	--	ND	30	--
			Carbon Tetrachloride	5	--	ND	2	--
			1,2-Dichloroethane	5	--	ND	2	--
			Benzene	5	yes	ND	1	--
			Trichloroethene	5	--	ND	--	--
			1,2-Dichloropropane	5	--	ND	1	--
			Bromodichloromethane	5	--	ND	1	--
			2-Chloroethylvinylether	10	--	ND	--	--
			2-Hexanone	10	--	ND	--	--
			trans-1,3-Dichloropropene	5	--	ND	NA	--
			Toluene	5	yes	ND	1,000	--

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, MW-4 DUP
FORT MONMOUTH, NEW JERSEY
VOLATILE ORGANICS (Continued)

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-4/DUP	7/06/93	7/13/93	cis-1,3-Dichloropropene	5	--	ND	NA	--
			1,1,2,2-Tetrachloroethane	5	--	ND	2	--
			1,1,2-Trichloroethane	5	--	ND	3	--
			4-Methyl-2-pentanone	10	--	ND	400	--
			Tetrachloroethene	5	--	ND	1 *	--
			Dibromochloromethane	5	--	ND	10	--
			Chlorobenzene	5	--	ND	4	--
			Ethylbenzene	5	yes	ND	700	--
			Xylenes (Total)	5	yes	ND	40	--
			Styrene	5	--	ND	100	--
			Bromoform	5	--	ND	4	--
			m-Dichlorobenzene	5	--	ND	--	--
			p-Dichlorobenzene	5	--	ND	--	--
			o-Dichlorobenzene	5	--	ND	--	--
			Methyl Tertiary Butyl Ether	10	--	ND	--	--
			Tertiary Butyl Alcohol	50	--	ND	--	--

Note:

* The tetrachloroethene, 1,2-Dichloroethene(trans), and 1,1-Dichloroethene results were compared to the GWQC for their respective synonym (tetrachloroethylene, 1,2-Dichloroethylene(trans), and 1,1-Dichloroethylene).

-- Not applicable / does not exceed criteria

(J) Indicates detected below sample quantitation limit

(B) Indicates also present in blank

(ND) Indicates compound not detected

(NA) Not available for this constituent

GWQC Ground Water Quality Criteria

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, MW-4 DUP
FORT MONMOUTH, NEW JERSEY
VOLATILE TICS

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-4/DUP	7/06/93	7/13/93	NO TICS FOUND	--	--	--	--	--

Note:

-- Not applicable / does not exceed criteria
(J) Indicates detected below sample quantitation limit
(B) Indicates also present in blank
(ND) Indicates compound not detected
(NA) Not available for this constituent
GWQC Ground Water Quality Criteria

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, MW-4 DUP
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES

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-4/DUP	7/06/93	7/14/93	N-Nitrosodiethylamine	10	--	ND	--	--
			bis(2 chloroethyl)Ether	10	--	ND	10	--
			1,3-Dichlorobenzene	10	--	ND	600	--
			1,4-Dichlorobenzene	10	--	ND	75	--
			Benzyl Alcohol	10	--	2.0 J	2,000	--
			1,2-Dichlorobenzene	10	--	ND	600	--
			bis(2-chloroisopropyl)Ether	10	--	ND	300	--
			N-Nitroso-Di-n-propylamine	10	--	ND	20	--
			Hexachloroethane	10	--	ND	10	--
			Nitrobenzene	10	--	ND	10	--
			Isophorone	10	--	ND	100	--
			Benzoic Acid	50	--	ND	--	--
			bis(2-Chloroethoxy)Methane	10	--	ND	--	--
			1,2,4-Trichlorobenzene	10	--	ND	9	--
			Naphthalene	10	--	ND	--	--
			4-Chloroaniline	10	--	ND	--	--
			Hexachlorobutadiene	10	--	ND	1	--
			2-Methylnaphthalene	10	--	ND	--	--
			Hexachlorocyclopentadiene	10	--	ND	50	--
			2-Chloronaphthalene	10	--	ND	--	--
			2-Nitroaniline	50	--	ND	--	--
			Dimethyl Phthalate	10	--	ND	10	--
			Acenaphthylene	10	--	ND	NA	--
			3-Nitroaniline	50	--	ND	--	--
			Acenaphthene	10	--	ND	400	--
			Dibenzofuran	10	--	ND	--	--

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, MW-4 DUP
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES (Continued)

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-4/DUP	7/06/93	7/14/93	2,4-Dinitrotoluene	10	--	ND	10	--
			2,6-Dinitrotoluene	10	--	ND	NA	--
			Diethylphthalate	10	--	ND	5,000	--
			4-Chlorophenyl-phenlyether	10	--	ND	--	--
			Fluorene	10	--	ND	300	--
			4-Nitroaniline	50	--	ND	--	--
			N-Nitrosodiphenylamine	10	--	ND	20	--
			4-Bromophenyl-phenylether	10	--	ND	--	--
			Hexachlorobenzene	10	--	ND	10	--
			Phenanthrene	10	--	ND	--	--
			Anthracene	10	--	ND	2,000	--
			Di-n-butylphthalate	10	--	ND	900	--
			Fluoranthene	10	--	ND	300	--
			Pyrene	10	--	ND	200	--
			Butylbenzylphthalate	10	--	37	100	--
			3,3-Dichlorobenzidine	20	--	ND	60	--
			Benzo(a)Anthracene	10	--	ND	NA	--
			bis(2-Ethylhexyl)Phthalate	10	--	1.1 J	30	--
			Chrysene	10	--	ND	NA	--
			Di-n-Octyl Phthalate	10	--	ND	100	--
			Benzo(b)Fluoranthene	10	--	ND	NA	--
			Benzo(k)Fluoranthene	10	--	ND	NA	--

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, MW-4 DUP
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES (Continued)

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-4/DUP	7/06/93	7/14/93	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	--
			Benzidine	20	--	ND	50	--

Note:

-- Not applicable / does not exceed criteria
(J) Indicates detected below sample quantitation limit
(B) Indicates also present in blank
(ND) Indicates compound not detected
(NA) Not available for this constituent
GWQC Ground Water Quality Criteria

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, MW-4 DUP
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILE TICS

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-4/DUP	7/06/93	7/14/93	UNKNOWN	--	--	5	--	--
			UNKNOWN	--	--	7	--	--

Note:

-- Not applicable / does not exceed criteria
(J) Indicates detected below sample quantitation limit
(B) Indicates also present in blank
(ND) Indicates compound not detected
(NA) Not available for this constituent
GWQC Ground Water Quality Criteria

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, FIELD BLANK
FT. MONMOUTH, NEW JERSEY
VOLATILE ORGANICS

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)
Field Blank	7/06/93	7/13/93	Acrolein	50	--	ND
			Acrylonitrile	50	--	ND
			Chloromethane	10	--	ND
			Bromomethane	10	--	ND
			Vinyl Chloride	10	--	ND
			Chloroethane	10	--	ND
			Acetone	10	--	7.2 JB
			1,1-Dichloroethene	5	--	ND
			Carbon Disulfide	10	--	ND
			Methylene Chloride	5	--	ND
			1,2-Dichloroethene (trans)	5	--	ND
			1,1 Dichloroethane	5	--	ND
			Vinyl Acetate	5	--	ND
			2-Butanone	10	--	ND
			Chloroform	5	--	ND
			1,1,1-Trichloroethane	5	--	ND
			Carbon Tetrachloride	5	--	ND
			1,2-Dichloroethane	5	--	ND
			Benzene	5	yes	ND
			Trichloroethene	5	--	ND
			1,2-Dichloropropane	5	--	ND
			Bromodichloromethane	5	--	ND
			2-Chloroethylvinylether	10	--	ND
			2-Hexanone	10	--	ND
			trans-1,3-Dichloropropene	5	--	ND
			Toluene	5	yes	ND

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, FIELD BLANK
FORT MONMOUTH, NEW JERSEY
VOLATILE ORGANICS (Continued)

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)
Field Blank	7/06/93	7/13/93	cis-1,3-Dichloropropene	5	--	ND
			1,1,2,2-Tetrachloroethane	5	--	ND
			1,1,2-Trichloroethane	5	--	ND
			4-Methyl-2-pentanone	10	--	ND
			Tetrachloroethene	5	--	ND
			Dibromochloromethane	5	--	ND
			Chlorobenzene	5	--	ND
			Ethylbenzene	5	yes	ND
			Xylenes (Total)	5	yes	ND
			Styrene	5	--	ND
			Bromoform	5	--	ND
			m-Dichlorobenzene	5	--	ND
			p-Dichlorobenzene	5	--	ND
			o-Dichlorobenzene	5	--	ND
			Methyl Tertiary Butyl Ether	10	--	ND
			Tertiary Butyl Alcohol	50	--	ND

Note:
-- Not applicable / does not exceed criteria
(J) Indicates detected below sample quantitation limit
(B) Indicates also present in blank
(ND) Indicates compound not detected

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, FIELD BLANK
FORT MONMOUTH, NEW JERSEY
VOLATILE TICS

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)
Field Blank	7/06/93	7/13/93	NO TICS FOUND	--	--	--

Note:

-- Not applicable / does not exceed criteria
(J) Indicates detected below sample quantitation limit
(B) Indicates also present in blank
(ND) Indicates compound not detected
(NA) Not available for this constituent
GWQC Ground Water Quality Criteria

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, FIELD BLANK
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)
Field Blank	7/06/93	7/13/93	N-Nitrosodiethylamine	10	--	ND
			bis(2 chloroethyl)Ether	10	--	ND
			1,3-Dichlorobenzene	10	--	ND
			1,4-Dichlorobenzene	10	--	ND
			Benzyl Alcohol	10	--	ND
			1,2-Dichlorobenzene	10	--	ND
			bis(2-chloroisopropyl)Ether	10	--	ND
			N-Nitroso-Di-n-propylamine	10	--	ND
			Hexachloroethane	10	--	ND
			Nitrobenzene	10	--	ND
			Isophorone	10	--	ND
			Benzoic Acid	50	--	ND
			bis(2-Chloroethoxy)Methane	10	--	ND
			1,2,4-Trichlorobenzene	10	--	ND
			Naphthalene	10	--	ND
			4-Chloroaniline	10	--	ND
			Hexachlorobutadiene	10	--	ND
			2-Methylnaphthalene	10	--	ND
			Hexachlorocyclopentadiene	10	--	ND
			2-Chloronaphthalene	10	--	ND
			2-Nitroaniline	50	--	ND
			Dimethyl Phthalate	10	--	ND
			Acenaphthylene	10	--	ND
			3-Nitroaniline	50	--	ND
			Acenaphthene	10	--	ND
			Dibenzofuran	10	--	ND

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, FIELD BLANK
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES (Continued)

Sample ID	Sample Date	Analysis Date	Compound Nane	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)
Field Blank	7/06/93	7/13/93	2,4-Dinitrotoluene	10	--	ND
			2,6-Dinitrotoluene	10	--	ND
			Diethylphthalate	10	--	ND
			4-Chlorophenyl-phenlyether	10	--	ND
			Fluorene	10	--	ND
			4-Nitroaniline	50	--	ND
			N-Nitrosodiphenylamine	10	--	ND
			4-Bromophenyl-phenylether	10	--	ND
			Hexachlorobenzene	10	--	ND
			Phenanthrene	10	--	ND
			Anthracene	10	--	ND
			Di-n-butylphthalate	10	--	ND
			Fluoranthene	10	--	ND
			Pyrene	10	--	ND
			Butylbenzylphthalate	10	--	ND
			3,3-Dichlorobenzidine	20	--	ND
			Benzo(a)Anthracene	10	--	ND
			bis(2-Ethylhexyl)Phthalate	10	--	ND
			Chrysene	10	--	ND
			Di-n-Octyl Phthalate	10	--	ND
			Benzo(b)Fluoranthene	10	--	ND
			Benzo(k)Fluoranthene	10	--	ND

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, FIELD BLANK
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES (Continued)

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)
Field Blank	7/06/93	7/13/93	Benzo(a)Pyrene	10	--	ND
			Indeno(1,2,3-cd)Pyrene	10	--	ND
			Dibenzo(a,h)Anthracene	10	--	ND
			Benzo(g,h,i)Perylene	10	--	ND
			Benzidine	20	--	ND

Note:

-- Not applicable / does not exceed criteria
(J) Indicates detected below sample quantitation limit
(B) Indicates also present in blank
(ND) Indicates compound not detected

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, FIELD BLANK
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILE TICS

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)
Field Blank	7/06/93	7/13/93	UNKNOWN	--	--	4

Note:

-- Not applicable / does not exceed criteria
(J) Indicates detected below sample quantitation limit
(B) Indicates also present in blank
(ND) Indicates compound not detected

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, TRIP BLANK
FT. MONMOUTH, NEW JERSEY
VOLATILE ORGANICS

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)
Trip Blank	7/06/93	7/13/93	Acrolein	50	--	ND
			Acrylonitrile	50	--	ND
			Chloromethane	10	--	ND
			Bromomethane	10	--	ND
			Vinyl Chloride	10	--	ND
			Chloroethane	10	--	ND
			Acetone	10	--	ND B
			1,1-Dichloroethene	5	--	ND
			Carbon Disulfide	10	--	ND
			Methylene Chloride	5	--	ND
			1,2-Dichloroethene (trans)	5	--	ND
			1,1 Dichloroethane	5	--	ND
			Vinyl Acetate	5	--	ND
			2-Butanone	10	--	ND
			Chloroform	5	--	ND
			1,1,1-Trichloroethane	5	--	ND
			Carbon Tetrachloride	5	--	ND
			1,2-Dichloroethane	5	--	ND
			Benzene	5	yes	ND
			Trichloroethene	5	--	ND
			1,2-Dichloropropane	5	--	ND
			Bromodichloromethane	5	--	ND
			2-Chloroethylvinylether	10	--	ND
			2-Hexanone	10	--	ND
			trans-1,3-Dichloropropene	5	--	ND
			Toluene	5	yes	ND

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, TRIP BLANK
FORT MONMOUTH, NEW JERSEY
VOLATILE ORGANICS (Continued)

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)
Trip Blank	7/06/93	7/13/93	cis-1,3-Dichloropropene	5	--	ND
			1,1,2,2-Tetrachloroethane	5	--	ND
			1,1,2-Trichloroethane	5	--	ND
			4-Methyl-2-pentanone	10	--	ND
			Tetrachloroethene	5	--	ND
			Dibromochloromethane	5	--	ND
			Chlorobenzene	5	--	ND
			Ethylbenzene	5	yes	ND
			Xylenes (Total)	5	yes	ND
			Styrene	5	--	ND
			Bromoform	5	--	ND
			m-Dichlorobenzene	5	--	ND
			p-Dichlorobenzene	5	--	ND
			o-Dichlorobenzene	5	--	ND
			Methyl Tertiary Butyl Ether	10	--	ND
			Tertiary Butyl Alcohol	50	--	ND

Note:

--	Not applicable / does not exceed criteria
(J)	Indicates detected below sample quantitation limit
(B)	Indicates also present in blank
(ND)	Indicates compound not detected

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, TRIP BLANK
FORT MONMOUTH, NEW JERSEY
VOLATILE TICS

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)
Trip Blank	7/06/93	7/13/93	NO TICS FOUND	--	--	--

Note:

-- Not applicable / does not exceed criteria
(J) Indicates detected below sample quantitation limit
(B) Indicates also present in blank
(ND) Indicates compound not detected
(NA) Not available for this constituent
GWQC Ground Water Quality Criteria

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 2500
FT. MONMOUTH, NEW JERSEY

Sample ID	Sample Laboratory 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	A 3817	8/30/93	9/10/93	Lead	50	--	ND	10	--
MW-2	A 3816	8/30/93	9/10/93	Lead	50	--	ND	10	--
MW-3	A 3814	8/30/93	9/10/93	Lead	50	--	ND	10	--
MW-3/DUP	A 3815	8/30/93	9/10/93	Lead	50	--	ND	10	--
MW-4	A 3818	8/30/93	9/10/93	Lead	50	--	ND	10	--

Note:

-- Not applicable / does not exceed criteria
(J) Indicates detected below sample quantitation limit
(B) Indicates also present in blank
(ND) Indicates compound not detected

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, MW-1
FT. MONMOUTH, NEW JERSEY
VOLATILE ORGANICS

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	8/30/93	9/02/93	Acrolein	50	--	ND	NA	--
			Acrylonitrile	50	--	ND	50	--
			Chloromethane	10	--	ND	--	--
			Bromomethane	10	--	ND	--	--
			Vinyl Chloride	10	--	ND	5	--
			Chloroethane	10	--	ND	--	--
			Acetone	10	--	3.5 JB	700	--
			1,1-Dichloroethene	5	--	ND	2 *	--
			Carbon Disulfide	10	--	ND	--	--
			Methylene Chloride	5	--	1.9 J	2	--
			1,2-Dichloroethene (trans)	5	--	ND	100 *	--
			1,1 Dichloroethane	5	--	ND	70	--
			Vinyl Acetate	5	--	ND	--	--
			2-Butanone	10	--	ND	--	--
			Chloroform	5	--	ND	6	--
			1,1,1-Trichloroethane	5	--	ND	30	--
			Carbon Tetrachloride	5	--	ND	2	--
			1,2-Dichloroethane	5	--	ND	2	--
			Benzene	5	yes	ND	1	--
			Trichloroethene	5	--	ND	--	--
			1,2-Dichloropropane	5	--	ND	1	--
			Bromodichloromethane	5	--	ND	1	--
			2-Chloroethylvinylether	10	--	ND	--	--
			2-Hexanone	10	--	ND	--	--
			trans-1,3-Dichloropropene	5	--	ND	NA	--
			Toluene	5	yes	ND	1,000	--

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, MW-1
FORT MONMOUTH, NEW JERSEY
VOLATILE ORGANICS (Continued)

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	8/30/93	9/02/93	cis-1,3-Dichloropropene	5	--	ND	NA	--
			1,1,2,2-Tetrachloroethane	5	--	ND	2	--
			1,1,2-Trichloroethane	5	--	ND	3	--
			4-Methyl-2-pentanone	10	--	ND	400	--
			Tetrachloroethene	5	--	4 J	1 *	yes
			Dibromochloromethane	5	--	ND	10	--
			Chlorobenzene	5	--	ND	4	--
			Ethylbenzene	5	yes	ND	700	--
			Xylenes (Total)	5	yes	ND	40	--
			Styrene	5	--	ND	100	--
			Bromoform	5	--	ND	4	--
			m-Dichlorobenzene	5	--	ND	--	--
			p-Dichlorobenzene	5	--	ND	--	--
			o-Dichlorobenzene	5	--	ND	--	--
			Methyl Tertiary Butyl Ether	10	--	ND	--	--
			Tertiary Butyl Alcohol	50	--	ND	--	--

Note:

* The tetrachloroethene, 1,2-Dichloroethene(trans), and 1,1-Dichloroethene results were compared to the GWQC for their respective synonym (tetrachloroethylene, 1,2-Dichloroethylene(trans), and 1,1-Dichloroethylene).

-- Not applicable / does not exceed criteria

(J) Indicates detected below sample quantitation limit

(B) Indicates also present in blank

(ND) Indicates compound not detected

(NA) Not available for this constituent

GWQC Ground Water Quality Criteria

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, MW-1
FORT MONMOUTH, NEW JERSEY
VOLATILE TICS

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	8/30/93	9/02/93	NO TICS FOUND	--	--	--	--	--

Note:

-- Not applicable / does not exceed criteria
(J) Indicates detected below sample quantitation limit
(B) Indicates also present in blank
(ND) Indicates compound not detected
(NA) Not available for this constituent
GWQC Ground Water Quality Criteria

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, MW-1
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES

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	8/30/93	10/07/93	N-Nitrosodiethylamine	10	--	ND	--	--
			bis(2 chloroethyl)Ether	10	--	ND	10	--
			1,3-Dichlorobenzene	10	--	ND	600	--
			1,4-Dichlorobenzene	10	--	ND	75	--
			Benzyl Alcohol	10	--	1.6 J	2,000	--
			1,2-Dichlorobenzene	10	--	ND	600	--
			bis(2-chloroisopropyl)Ether	10	--	ND	300	--
			N-Nitroso-Di-n-propylamine	10	--	ND	20	--
			Hexachloroethane	10	--	ND	10	--
			Nitrobenzene	10	--	ND	10	--
			Isophorone	10	--	ND	100	--
			Benzoic Acid	50	--	ND	--	--
			bis(2-Chloroethoxy)Methane	10	--	ND	--	--
			1,2,4-Trichlorobenzene	10	--	ND	9	--
			Naphthalene	10	--	ND	--	--
			4-Chloroaniline	10	--	ND	--	--
			Hexachlorobutadiene	10	--	ND	1	--
			2-Methylnaphthalene	10	--	ND	--	--
			Hexachlorocyclopentadiene	10	--	ND	50	--
			2-Chloronaphthalene	10	--	ND	--	--
			2-Nitroaniline	50	--	ND	--	--
			Dimethyl Phthalate	10	--	ND	10	--
			Acenaphthylene	10	--	ND	NA	--
			3-Nitroaniline	50	--	ND	--	--
			Acenaphthene	10	--	ND	400	--
			Dibenzofuran	10	--	ND	--	--

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, MW-1
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES (Continued)

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	8/30/93	10/07/93	2,4-Dinitrotoluene	10	--	ND	10	--
			2,6-Dinitrotoluene	10	--	ND	NA	--
			Diethylphthalate	10	--	ND	5,000	--
			4-Chlorophenyl-phenlyether	10	--	ND	--	--
			Fluorene	10	--	ND	300	--
			4-Nitroaniline	50	--	ND	--	--
			N-Nitrosodiphenylamine	10	--	ND	20	--
			4-Bromophenyl-phenylether	10	--	ND	--	--
			Hexachlorobenzene	10	--	ND	10	--
			Phenanthrene	10	--	ND	--	--
			Anthracene	10	--	ND	2,000	--
			Di-n-butylphthalate	10	--	1.5 J	900	--
			Fluoranthene	10	--	ND	300	--
			Pyrene	10	--	ND	200	--
			Butylbenzylphthalate	10	--	12	100	--
			3,3-Dichlorobenzidine	20	--	ND	60	--
			Benzo(a)Anthracene	10	--	ND	NA	--
			bis(2-Ethylhexyl)Phthalate	10	--	ND	30	--
			Chrysene	10	--	ND	NA	--
			Di-n-Octyl Phthalate	10	--	ND	100	--
			Benzo(b)Fluoranthene	10	--	ND	NA	--
			Benzo(k)Fluoranthene	10	--	ND	NA	--

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, MW-1
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES (Continued)

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	8/30/93	10/07/93	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	--
			Benzidine	20	--	ND	50	--

Note:

-- Not applicable / does not exceed criteria
(J) Indicates detected below sample quantitation limit
(B) Indicates also present in blank
(ND) Indicates compound not detected
(NA) Not available for this constituent
GWQC Ground Water Quality Criteria

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, MW-1
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILE TICS

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	8/30/93	10/07/93	NO TICS FOUND	--	--	--	--	--

Note:

-- Not applicable / does not exceed criteria
(J) Indicates detected below sample quantitation limit
(B) Indicates also present in blank
(ND) Indicates compound not detected
(NA) Not available for this constituent
GWQC Ground Water Quality Criteria

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, MW-2
FT. MONMOUTH, NEW JERSEY
VOLATILE ORGANICS

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	8/30/93	9/02/93	Acrolein	50	--	ND	NA	--
			Acrylonitrile	50	--	ND	50	--
			Chloromethane	10	--	ND	--	--
			Bromomethane	10	--	ND	--	--
			Vinyl Chloride	10	--	ND	5	--
			Chloroethane	10	--	ND	--	--
			Acetone	10	--	1.6 JB	700	--
			1,1-Dichloroethene	5	--	ND	2 *	--
			Carbon Disulfide	10	--	ND	--	--
			Methylene Chloride	5	--	3.6 J	2	yes
			1,2-Dichloroethene (trans)	5	--	ND	100 *	--
			1,1 Dichloroethane	5	--	ND	70	--
			Vinyl Acetate	5	--	ND	--	--
			2-Butanone	10	--	ND	--	--
			Chloroform	5	--	ND	6	--
			1,1,1-Trichloroethane	5	--	ND	30	--
			Carbon Tetrachloride	5	--	ND	2	--
			1,2-Dichloroethane	5	--	ND	2	--
			Benzene	5	yes	ND	1	--
			Trichloroethene	5	--	ND	--	--
			1,2-Dichloropropane	5	--	ND	1	--
			Bromodichloromethane	5	--	ND	1	--
			2-Chloroethylvinylether	10	--	ND	--	--
			2-Hexanone	10	--	ND	--	--
			trans-1,3-Dichloropropene	5	--	ND	NA	--
			Toluene	5	yes	ND	1,000	--

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, MW-2
FORT MONMOUTH, NEW JERSEY
VOLATILE ORGANICS (Continued)

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	8/30/93	9/02/93	cis-1,3-Dichloropropene	5	--	ND	NA	--
			1,1,2,2-Tetrachloroethane	5	--	ND	2	--
			1,1,2-Trichloroethane	5	--	ND	3	--
			4-Methyl-2-pentanone	10	--	ND	400	--
			Tetrachloroethene	5	--	ND	1 *	--
			Dibromochloromethane	5	--	ND	10	--
			Chlorobenzene	5	--	ND	4	--
			Ethylbenzene	5	yes	ND	700	--
			Xylenes (Total)	5	yes	ND	40	--
			Styrene	5	--	ND	100	--
			Bromoform	5	--	ND	4	--
			m-Dichlorobenzene	5	--	ND	--	--
			p-Dichlorobenzene	5	--	ND	--	--
			o-Dichlorobenzene	5	--	ND	--	--
			Methyl Tertiary Butyl Ether	10	--	ND	--	--
			Tertiary Butyl Alcohol	50	--	ND	--	--

Note:

* The tetrachloroethene, 1,2-Dichloroethene(trans), and 1,1-Dichloroethene results were compared to the GWQC for their respective synonym (tetrachloroethylene, 1,2-Dichloroethylene(trans), and 1,1-Dichloroethylene).

-- Not applicable / does not exceed criteria

(J) Indicates detected below sample quantitation limit

(B) Indicates also present in blank

(ND) Indicates compound not detected

(NA) Not available for this constituent

GWQC Ground Water Quality Criteria

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, MW-2
FORT MONMOUTH, NEW JERSEY
VOLATILE TICS

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	8/30/93	9/02/93	NO TICS FOUND	--	--	--	--	--

Note:

-- Not applicable / does not exceed criteria
(J) Indicates detected below sample quantitation limit
(B) Indicates also present in blank
(ND) Indicates compound not detected
(NA) Not available for this constituent
GWQC Ground Water Quality Criteria

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, MW-2
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES

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	8/30/93	9/24/93	N-Nitrosodiethylamine	10	--	ND	--	--
			bis(2 chloroethyl)Ether	10	--	ND	10	--
			1,3-Dichlorobenzene	10	--	ND	600	--
			1,4-Dichlorobenzene	10	--	ND	75	--
			Benzyl Alcohol	10	--	3.5 J	2,000	--
			1,2-Dichlorobenzene	10	--	ND	600	--
			bis(2-chloroisopropyl)Ether	10	--	ND	300	--
			N-Nitroso-Di-n-propylamine	10	--	ND	20	--
			Hexachloroethane	10	--	ND	10	--
			Nitrobenzene	10	--	ND	10	--
			Isophorone	10	--	ND	100	--
			Benzoic Acid	50	--	ND	--	--
			bis(2-Chloroethoxy)Methane	10	--	ND	--	--
			1,2,4-Trichlorobenzene	10	--	ND	9	--
			Naphthalene	10	--	ND	--	--
			4-Chloroaniline	10	--	ND	--	--
			Hexachlorobutadiene	10	--	ND	1	--
			2-Methylnaphthalene	10	--	ND	--	--
			Hexachlorocyclopentadiene	10	--	ND	50	--
			2-Chloronaphthalene	10	--	ND	--	--
			2-Nitroaniline	50	--	ND	--	--
			Dimethyl Phthalate	10	--	ND	10	--
			Acenaphthylene	10	--	ND	NA	--
			3-Nitroaniline	50	--	ND	--	--
			Acenaphthene	10	--	ND	400	--
			Dibenzofuran	10	--	ND	--	--

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, MW-2
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES (Continued)

Sample ID	Sample Date	Analysis Date	Compound Nane	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)	GWQC (ug/l)	Exceeds Criteria
MW-2	8/30/93	9/24/93	2,4-Dinitrotoluene	10	--	ND	10	--
			2,6-Dinitrotoluene	10	--	ND	NA	--
			Diethylphthalate	10	--	ND	5,000	--
			4-Chlorophenyl-phenlyether	10	--	ND	--	--
			Fluorene	10	--	ND	300	--
			4-Nitroaniline	50	--	ND	--	--
			N-Nitrosodiphenylamine	10	--	ND	20	--
			4-Bromophenyl-phenylether	10	--	ND	--	--
			Hexachlorobenzene	10	--	ND	10	--
			Phenanthrene	10	--	ND	--	--
			Anthracene	10	--	ND	2,000	--
			Di-n-butylphthalate	10	--	3.3 J	900	--
			Fluoranthene	10	--	ND	300	--
			Pyrene	10	--	ND	200	--
			Butylbenzylphthalate	10	--	29	100	--
			3,3-Dichlorobenzidine	20	--	ND	60	--
			Benzo(a)Anthracene	10	--	ND	NA	--
			bis(2-Ethylhexyl)Phthalate	10	--	2 J	30	--
			Chrysene	10	--	ND	NA	--
			Di-n-Octyl Phthalate	10	--	ND	100	--
			Benzo(b)Fluoranthene	10	--	ND	NA	--
			Benzo(k)Fluoranthene	10	--	ND	NA	--

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, MW-2
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES (Continued)

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	8/30/93	9/24/93	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	--
			Benzidine	20	--	ND	50	--

Note:

-- Not applicable / does not exceed criteria
(J) Indicates detected below sample quantitation limit
(B) Indicates also present in blank
(ND) Indicates compound not detected
(NA) Not available for this constituent
GWQC Ground Water Quality Criteria

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, MW-2
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILE TICS

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	8/30/93	9/24/93	UNKNOWN	--	--	37	--	--
			UNKNOWN	--	--	9	--	--
			UNKNOWN	--	--	6	--	--
			UNKNOWN	--	--	8	--	--

Note:

-- Not applicable / does not exceed criteria
(J) Indicates detected below sample quantitation limit
(B) Indicates also present in blank
(ND) Indicates compound not detected
(NA) Not available for this constituent
GWQC Ground Water Quality Criteria

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, MW-3
FT. MONMOUTH, NEW JERSEY
VOLATILE ORGANICS

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-3	8/30/93	9/02/93	Acrolein	50	--	ND	NA	--
			Acrylonitrile	50	--	ND	50	--
			Chloromethane	10	--	ND	--	--
			Bromomethane	10	--	ND	--	--
			Vinyl Chloride	10	--	ND	5	--
			Chloroethane	10	--	ND	--	--
			Acetone	10	--	3.9 JB	700	--
			1,1-Dichloroethene	5	--	ND	2 *	--
			Carbon Disulfide	10	--	ND	--	--
			Methylene Chloride	5	--	3.3 J	2	yes
			1,2-Dichloroethene (trans)	5	--	ND	100 *	--
			1,1 Dichloroethane	5	--	ND	70	--
			Vinyl Acetate	5	--	ND	--	--
			2-Butanone	10	--	ND	--	--
			Chloroform	5	--	ND	6	--
			1,1,1-Trichloroethane	5	--	ND	30	--
			Carbon Tetrachloride	5	--	ND	2	--
			1,2-Dichloroethane	5	--	ND	2	--
			Benzene	5	yes	ND	1	--
			Trichloroethene	5	--	ND	--	--
			1,2-Dichloropropane	5	--	ND	1	--
			Bromodichloromethane	5	--	ND	1	--
			2-Chloroethylvinylether	10	--	ND	--	--
			2-Hexanone	10	--	ND	--	--
			trans-1,3-Dichloropropene	5	--	ND	NA	--
			Toluene	5	yes	ND	1,000	--

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, MW-3
FORT MONMOUTH, NEW JERSEY
VOLATILE ORGANICS (Continued)

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-3	8/30/93	9/02/93	cis-1,3-Dichloropropene	5	--	ND	NA	--
			1,1,2,2-Tetrachloroethane	5	--	ND	2	--
			1,1,2-Trichloroethane	5	--	ND	3	--
			4-Methyl-2-pentanone	10	--	ND	400	--
			Tetrachloroethene	5	--	ND	1 *	--
			Dibromochloromethane	5	--	ND	10	--
			Chlorobenzene	5	--	ND	4	--
			Ethylbenzene	5	yes	ND	700	--
			Xylenes (Total)	5	yes	ND	40	--
			Styrene	5	--	ND	100	--
			Bromoform	5	--	ND	4	--
			m-Dichlorobenzene	5	--	ND	--	--
			p-Dichlorobenzene	5	--	ND	--	--
			o-Dichlorobenzene	5	--	ND	--	--
			Methyl Tertiary Butyl Ether	10	--	ND	--	--
			Tertiary Butyl Alcohol	50	--	ND	--	--

Note:

* The tetrachloroethene, 1,2-Dichloroethene(trans), and 1,1-Dichloroethene results were compared to the GWQC for their respective synonym (tetrachloroethylene, 1,2-Dichloroethylene(trans), and 1,1-Dichloroethylene).

-- Not applicable / does not exceed criteria

(J) Indicates detected below sample quantitation limit

(B) Indicates also present in blank

(ND) Indicates compound not detected

(NA) Not available for this constituent

GWQC Ground Water Quality Criteria

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, MW-3
FORT MONMOUTH, NEW JERSEY
VOLATILE TICS

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-3	8/30/93	9/02/93	NO TICS FOUND	--	--	--	--	--

Note:

-- Not applicable / does not exceed criteria
(J) Indicates detected below sample quantitation limit
(B) Indicates also present in blank
(ND) Indicates compound not detected
(NA) Not available for this constituent
GWQC Ground Water Quality Criteria

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, MW-3
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES

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-3	8/30/93	9/24/93	N-Nitrosodiethylamine	10	--	ND	--	--
			bis(2 chloroethyl)Ether	10	--	ND	10	--
			1,3-Dichlorobenzene	10	--	ND	600	--
			1,4-Dichlorobenzene	10	--	ND	75	--
			Benzyl Alcohol	10	--	1.4 J	2,000	--
			1,2-Dichlorobenzene	10	--	ND	600	--
			bis(2-chloroisopropyl)Ether	10	--	ND	300	--
			N-Nitroso-Di-n-propylamine	10	--	ND	20	--
			Hexachloroethane	10	--	ND	10	--
			Nitrobenzene	10	--	ND	10	--
			Isophorone	10	--	ND	100	--
			Benzoic Acid	50	--	ND	--	--
			bis(2-Chloroethoxy)Methane	10	--	ND	--	--
			1,2,4-Trichlorobenzene	10	--	ND	9	--
			Naphthalene	10	--	ND	--	--
			4-Chloroaniline	10	--	ND	--	--
			Hexachlorobutadiene	10	--	ND	1	--
			2-Methylnaphthalene	10	--	ND	--	--
			Hexachlorocyclopentadiene	10	--	ND	50	--
			2-Chloronaphthalene	10	--	ND	--	--
			2-Nitroaniline	50	--	ND	--	--
			Dimethyl Phthalate	10	--	ND	10	--
			Acenaphthylene	10	--	ND	NA	--
			3-Nitroaniline	50	--	ND	--	--
			Acenaphthene	10	--	ND	400	--
			Dibenzofuran	10	--	ND	--	--

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, MW-3
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES (Continued)

Sample ID	Sample Date	Analysis Date	Compound Nane	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)	GWQC (ug/l)	Exceeds Criteria
MW-3	8/30/93	9/24/93	2,4-Dinitrotoluene	10	--	ND	10	--
			2,6-Dinitrotoluene	10	--	ND	NA	--
			Diethylphthalate	10	--	ND	5,000	--
			4-Chlorophenyl-phenlyether	10	--	ND	--	--
			Fluorene	10	--	ND	300	--
			4-Nitroaniline	50	--	ND	--	--
			N-Nitrosodiphenylamine	10	--	ND	20	--
			4-Bromophenyl-phenylether	10	--	ND	--	--
			Hexachlorobenzene	10	--	ND	10	--
			Phenanthrene	10	--	ND	--	--
			Anthracene	10	--	ND	2,000	--
			Di-n-butylphthalate	10	--	ND	900	--
			Fluoranthene	10	--	ND	300	--
			Pyrene	10	--	ND	200	--
			Butylbenzylphthalate	10	--	12	100	--
			3,3-Dichlorobenzidine	20	--	ND	60	--
			Benzo(a)Anthracene	10	--	ND	NA	--
			bis(2-Ethylhexyl)Phthalate	10	--	ND	30	--
			Chrysene	10	--	ND	NA	--
			Di-n-Octyl Phthalate	10	--	ND	100	--
			Benzo(b)Fluoranthene	10	--	ND	NA	--
			Benzo(k)Fluoranthene	10	--	ND	NA	--

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, MW-3
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES (Continued)

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-3	8/30/93	9/24/93	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	--
			Benzidine	20	--	ND	50	--

Note:

-- Not applicable / does not exceed criteria
(J) Indicates detected below sample quantitation limit
(B) Indicates also present in blank
(ND) Indicates compound not detected
(NA) Not available for this constituent
GWQC Ground Water Quality Criteria

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, MW-3
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILE TICS

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-3	8/30/93	9/24/93	NO TICS FOUND	--	--	--	--	--

Note:

-- Not applicable / does not exceed criteria
(J) Indicates detected below sample quantitation limit
(B) Indicates also present in blank
(ND) Indicates compound not detected
(NA) Not available for this constituent
GWQC Ground Water Quality Criteria

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, MW-3 DUP
FT. MONMOUTH, NEW JERSEY
VOLATILE ORGANICS

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-3/DUP	8/30/93	9/02/93	Acrolein	50	--	ND	NA	--
			Acrylonitrile	50	--	ND	50	--
			Chloromethane	10	--	ND	--	--
			Bromomethane	10	--	ND	--	--
			Vinyl Chloride	10	--	ND	5	--
			Chloroethane	10	--	ND	--	--
			Acetone	10	--	ND B	700	--
			1,1-Dichloroethene	5	--	ND	2 *	--
			Carbon Disulfide	10	--	ND	--	--
			Methylene Chloride	5	--	3.4 J	2	yes
			1,2-Dichloroethene (trans)	5	--	ND	100 *	--
			1,1 Dichloroethane	5	--	ND	70	--
			Vinyl Acetate	5	--	ND	--	--
			2-Butanone	10	--	ND	--	--
			Chloroform	5	--	ND	6	--
			1,1,1-Trichloroethane	5	--	ND	30	--
			Carbon Tetrachloride	5	--	ND	2	--
			1,2-Dichloroethane	5	--	ND	2	--
			Benzene	5	yes	ND	1	--
			Trichloroethene	5	--	ND	--	--
			1,2-Dichloropropane	5	--	ND	1	--
			Bromodichloromethane	5	--	ND	1	--
			2-Chloroethylvinylether	10	--	ND	--	--
			2-Hexanone	10	--	ND	--	--
			trans-1,3-Dichloropropene	5	--	ND	NA	--
			Toluene	5	yes	ND	1,000	--

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, MW-3 DUP
FORT MONMOUTH, NEW JERSEY
VOLATILE ORGANICS (Continued)

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-3/DUP	8/30/93	9/02/93	cis-1,3-Dichloropropene	5	--	ND	NA	--
			1,1,2,2-Tetrachloroethane	5	--	ND	2	--
			1,1,2-Trichloroethane	5	--	ND	3	--
			4-Methyl-2-pentanone	10	--	ND	400	--
			Tetrachloroethene	5	--	ND	1 *	--
			Dibromochloromethane	5	--	ND	10	--
			Chlorobenzene	5	--	ND	4	--
			Ethylbenzene	5	yes	ND	700	--
			Xylenes (Total)	5	yes	ND	40	--
			Styrene	5	--	ND	100	--
			Bromoform	5	--	ND	4	--
			m-Dichlorobenzene	5	--	ND	--	--
			p-Dichlorobenzene	5	--	ND	--	--
			o-Dichlorobenzene	5	--	ND	--	--
			Methyl Tertiary Butyl Ether	10	--	ND	--	--
			Tertiary Butyl Alcohol	50	--	ND	--	--

Note:

* The tetrachloroethene, 1,2-Dichloroethene(trans), and 1,1-Dichloroethene results were compared to the GWQC for their respective synonym (tetrachloroethylene, 1,2-Dichloroethylene(trans), and 1,1-Dichloroethylene).

-- Not applicable / does not exceed criteria

(J) Indicates detected below sample quantitation limit

(B) Indicates also present in blank

(ND) Indicates compound not detected

(NA) Not available for this constituent

GWQC Ground Water Quality Criteria

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, MW-3 DUP
FORT MONMOUTH, NEW JERSEY
VOLATILE TICS

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-3/DUP	8/30/93	9/02/93	NO TICS FOUND	--	--	--	--	--

Note:

-- Not applicable / does not exceed criteria
(J) Indicates detected below sample quantitation limit
(B) Indicates also present in blank
(ND) Indicates compound not detected
(NA) Not available for this constituent
GWQC Ground Water Quality Criteria

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, MW-3 DUP
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES

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-3/DUP	8/30/93	9/24/93	N-Nitrosodiethylamine	10	--	ND	--	--
			bis(2 chloroethyl)Ether	10	--	ND	10	--
			1,3-Dichlorobenzene	10	--	ND	600	--
			1,4-Dichlorobenzene	10	--	ND	75	--
			Benzyl Alcohol	10	--	2 J	2,000	--
			1,2-Dichlorobenzene	10	--	ND	600	--
			bis(2-chloroisopropyl)Ether	10	--	ND	300	--
			N-Nitroso-Di-n-propylamine	10	--	ND	20	--
			Hexachloroethane	10	--	ND	10	--
			Nitrobenzene	10	--	ND	10	--
			Isophorone	10	--	ND	100	--
			Benzoic Acid	50	--	ND	--	--
			bis(2-Chloroethoxy)Methane	10	--	ND	--	--
			1,2,4-Trichlorobenzene	10	--	ND	9	--
			Naphthalene	10	--	ND	--	--
			4-Chloroaniline	10	--	ND	--	--
			Hexachlorobutadiene	10	--	ND	1	--
			2-Methylnaphthalene	10	--	ND	--	--
			Hexachlorocyclopentadiene	10	--	ND	50	--
			2-Chloronaphthalene	10	--	ND	--	--
			2-Nitroaniline	50	--	ND	--	--
			Dimethyl Phthalate	10	--	ND	10	--
			Acenaphthylene	10	--	ND	NA	--
			3-Nitroaniline	50	--	ND	--	--
			Acenaphthene	10	--	ND	400	--
			Dibenzofuran	10	--	ND	--	--

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, MW-3 DUP
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES (Continued)

Sample ID	Sample Date	Analysis Date	Compound Nane	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)	GWQC (ug/l)	Exceeds Criteria
MW-3/DUP	8/30/93	9/24/93	2,4-Dinitrotoluene	10	--	ND	10	--
			2,6-Dinitrotoluene	10	--	ND	NA	--
			Diethylphthalate	10	--	ND	5,000	--
			4-Chlorophenyl-phenlyether	10	--	ND	--	--
			Fluorene	10	--	ND	300	--
			4-Nitroaniline	50	--	ND	--	--
			N-Nitrosodiphenylamine	10	--	ND	20	--
			4-Bromophenyl-phenylether	10	--	ND	--	--
			Hexachlorobenzene	10	--	ND	10	--
			Phenanthrene	10	--	ND	--	--
			Anthracene	10	--	ND	2,000	--
			Di-n-butylphthalate	10	--	1.6 J	900	--
			Fluoranthene	10	--	ND	300	--
			Pyrene	10	--	ND	200	--
			Butylbenzylphthalate	10	--	12	100	--
			3,3-Dichlorobenzidine	20	--	ND	60	--
			Benzo(a)Anthracene	10	--	ND	NA	--
			bis(2-Ethylhexyl)Phthalate	10	--	ND	30	--
			Chrysene	10	--	ND	NA	--
			Di-n-Octyl Phthalate	10	--	ND	100	--
			Benzo(b)Fluoranthene	10	--	ND	NA	--
			Benzo(k)Fluoranthene	10	--	ND	NA	--

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, MW-3 DUP
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES (Continued)

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-3/DUP	8/30/93	9/24/93	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	--
			Benzidine	20	--	ND	50	--

Note:

-- Not applicable / does not exceed criteria
(J) Indicates detected below sample quantitation limit
(B) Indicates also present in blank
(ND) Indicates compound not detected
(NA) Not available for this constituent
GWQC Ground Water Quality Criteria

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, MW-3 DUP
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILE TICS

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-3/DUP	8/30/93	9/24/93	NO TICS FOUND	--	--	--	--	--

Note:

-- Not applicable / does not exceed criteria
(J) Indicates detected below sample quantitation limit
(B) Indicates also present in blank
(ND) Indicates compound not detected
(NA) Not available for this constituent
GWQC Ground Water Quality Criteria

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, MW-4
FT. MONMOUTH, NEW JERSEY
VOLATILE ORGANICS

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-4	8/30/93	9/02/93	Acrolein	50	--	ND	NA	--
			Acrylonitrile	50	--	ND	50	--
			Chloromethane	10	--	ND	--	--
			Bromomethane	10	--	ND	--	--
			Vinyl Chloride	10	--	ND	5	--
			Chloroethane	10	--	ND	--	--
			Acetone	10	--	ND B	700	--
			1,1-Dichloroethene	5	--	ND	2 *	--
			Carbon Disulfide	10	--	ND	--	--
			Methylene Chloride	5	--	ND	2	--
			1,2-Dichloroethene (trans)	5	--	ND	100 *	--
			1,1 Dichloroethane	5	--	ND	70	--
			Vinyl Acetate	5	--	ND	--	--
			2-Butanone	10	--	ND	--	--
			Chloroform	5	--	ND	6	--
			1,1,1-Trichloroethane	5	--	ND	30	--
			Carbon Tetrachloride	5	--	ND	2	--
			1,2-Dichloroethane	5	--	ND	2	--
			Benzene	5	yes	ND	1	--
			Trichloroethene	5	--	ND	--	--
			1,2-Dichloropropane	5	--	ND	1	--
			Bromodichloromethane	5	--	ND	1	--
			2-Chloroethylvinylether	10	--	ND	--	--
			2-Hexanone	10	--	ND	--	--
			trans-1,3-Dichloropropene	5	--	ND	NA	--
			Toluene	5	yes	ND	1,000	--

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, MW-4
FORT MONMOUTH, NEW JERSEY
VOLATILE ORGANICS (Continued)

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-4	8/30/93	9/02/93	cis-1,3-Dichloropropene	5	--	ND	NA	--
			1,1,2,2-Tetrachloroethane	5	--	ND	2	--
			1,1,2-Trichloroethane	5	--	ND	3	--
			4-Methyl-2-pentanone	10	--	ND	400	--
			Tetrachloroethene	5	--	3.5 J	1 *	yes
			Dibromochloromethane	5	--	ND	10	--
			Chlorobenzene	5	--	ND	4	--
			Ethylbenzene	5	yes	ND	700	--
			Xylenes (Total)	5	yes	ND	40	--
			Styrene	5	--	ND	100	--
			Bromoform	5	--	ND	4	--
			m-Dichlorobenzene	5	--	ND	--	--
			p-Dichlorobenzene	5	--	ND	--	--
			o-Dichlorobenzene	5	--	ND	--	--
			Methyl Tertiary Butyl Ether	10	--	ND	--	--
			Tertiary Butyl Alcohol	50	--	ND	--	--

Note:

* The tetrachloroethene, 1,2-Dichloroethene(trans), and 1,1-Dichloroethene results were compared to the GWQC for their respective synonym (tetrachloroethylene, 1,2-Dichloroethylene(trans), and 1,1-Dichloroethylene).

-- Not applicable / does not exceed criteria

(J) Indicates detected below sample quantitation limit

(B) Indicates also present in blank

(ND) Indicates compound not detected

(NA) Not available for this constituent

GWQC Ground Water Quality Criteria

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, MW-4
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILE TICS

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-4	8/30/93	9/02/93	NO TICS FOUND	--	--	--	--	--

Note:

-- Not applicable / does not exceed criteria
(J) Indicates detected below sample quantitation limit
(B) Indicates also present in blank
(ND) Indicates compound not detected
(NA) Not available for this constituent
GWQC Ground Water Quality Criteria

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, MW-4
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES

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-4	8/30/93	9/28/93	N-Nitrosodiethylamine	10	--	ND	--	--
			bis(2 chloroethyl)Ether	10	--	ND	10	--
			1,3-Dichlorobenzene	10	--	ND	600	--
			1,4-Dichlorobenzene	10	--	ND	75	--
			Benzyl Alcohol	10	--	6.5 J	2,000	--
			1,2-Dichlorobenzene	10	--	ND	600	--
			bis(2-chloroisopropyl)Ether	10	--	ND	300	--
			N-Nitroso-Di-n-propylamine	10	--	ND	20	--
			Hexachloroethane	10	--	ND	10	--
			Nitrobenzene	10	--	ND	10	--
			Isophorone	10	--	ND	100	--
			Benzoic Acid	50	--	ND	--	--
			bis(2-Chloroethoxy)Methane	10	--	ND	--	--
			1,2,4-Trichlorobenzene	10	--	ND	9	--
			Naphthalene	10	--	ND	--	--
			4-Chloroaniline	10	--	ND	--	--
			Hexachlorobutadiene	10	--	ND	1	--
			2-Methylnaphthalene	10	--	ND	--	--
			Hexachlorocyclopentadiene	10	--	ND	50	--
			2-Chloronaphthalene	10	--	ND	--	--
			2-Nitroaniline	50	--	ND	--	--
			Dimethyl Phthalate	10	--	ND	10	--
			Acenaphthylene	10	--	ND	NA	--
			3-Nitroaniline	50	--	ND	--	--
			Acenaphthene	10	--	ND	400	--
			Dibenzofuran	10	--	ND	--	--

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, MW-4
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES (Continued)

Sample ID	Sample Date	Analysis Date	Compound Nane	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)	GWQC (ug/l)	Exceeds Criteria
MW-4	8/30/93	9/28/93	2,4-Dinitrotoluene	10	--	ND	10	--
			2,6-Dinitrotoluene	10	--	ND	NA	--
			Diethylphthalate	10	--	ND	5,000	--
			4-Chlorophenyl-phenlyether	10	--	ND	--	--
			Fluorene	10	--	ND	300	--
			4-Nitroaniline	50	--	ND	--	--
			N-Nitrosodiphenylamine	10	--	ND	20	--
			4-Bromophenyl-phenylether	10	--	ND	--	--
			Hexachlorobenzene	10	--	ND	10	--
			Phenanthrene	10	--	ND	--	--
			Anthracene	10	--	ND	2,000	--
			Di-n-butylphthalate	10	--	2.4 J	900	--
			Fluoranthene	10	--	ND	300	--
			Pyrene	10	--	ND	200	--
			Butylbenzylphthalate	10	--	30	100	--
			3,3-Dichlorobenzidine	20	--	ND	60	--
			Benzo(a)Anthracene	10	--	ND	NA	--
			bis(2-Ethylhexyl)Phthalate	10	--	ND	30	--
			Chrysene	10	--	ND	NA	--
			Di-n-Octyl Phthalate	10	--	ND	100	--
			Benzo(b)Fluoranthene	10	--	ND	NA	--
			Benzo(k)Fluoranthene	10	--	ND	NA	--

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, MW-4
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES (Continued)

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-4	8/30/93	9/28/93	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	--
			Benzidine	20	--	ND	50	--

Note:

-- Not applicable / does not exceed criteria
(J) Indicates detected below sample quantitation limit
(B) Indicates also present in blank
(ND) Indicates compound not detected
(NA) Not available for this constituent
GWQC Ground Water Quality Criteria

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, MW-4
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILE TICS

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-4	8/30/93	9/28/93	UNKNOWN	--	--	9	--	--
			UNKNOWN	--	--	4	--	--
			UNKNOWN	--	--	13	--	--
			UNKNOWN	--	--	12	--	--
			UNKNOWN	--	--	12	--	--
			UNKNOWN	--	--	10	--	--
			UNKNOWN	--	--	7	--	--
			UNKNOWN	--	--	6	--	--
			UNKNOWN	--	--	4	--	--

Note:

-- Not applicable / does not exceed criteria
(J) Indicates detected below sample quantitation limit
(B) Indicates also present in blank
(ND) Indicates compound not detected
(NA) Not available for this constituent
GWQC Ground Water Quality Criteria

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, FIELD BLANK
FT. MONMOUTH, NEW JERSEY
VOLATILE ORGANICS

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)
Field Blank	8/30/93	9/02/93	Acrolein	50	--	ND
			Acrylonitrile	50	--	ND
			Chloromethane	10	--	ND
			Bromomethane	10	--	ND
			Vinyl Chloride	10	--	ND
			Chloroethane	10	--	ND
			Acetone	10	--	4.3 JB
			1,1-Dichloroethene	5	--	ND
			Carbon Disulfide	10	--	ND
			Methylene Chloride	5	--	ND
			1,2-Dichloroethene (trans)	5	--	ND
			1,1 Dichloroethane	5	--	ND
			Vinyl Acetate	5	--	ND
			2-Butanone	10	--	ND
			Chloroform	5	--	ND
			1,1,1-Trichloroethane	5	--	ND
			Carbon Tetrachloride	5	--	ND
			1,2-Dichloroethane	5	--	ND
			Benzene	5	yes	ND
			Trichloroethene	5	--	ND
			1,2-Dichloropropane	5	--	ND
			Bromodichloromethane	5	--	ND
			2-Chloroethylvinylether	10	--	ND
			2-Hexanone	10	--	ND
			trans-1,3-Dichloropropene	5	--	ND
			Toluene	5	yes	ND

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, FIELD BLANK
FORT MONMOUTH, NEW JERSEY
VOLATILE ORGANICS (Continued)

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)
Field Blank	8/30/93	9/02/93	cis-1,3-Dichloropropene	5	--	ND
			1,1,2,2-Tetrachloroethane	5	--	ND
			1,1,2-Trichloroethane	5	--	ND
			4-Methyl-2-pentanone	10	--	ND
			Tetrachloroethene	5	--	ND
			Dibromochloromethane	5	--	ND
			Chlorobenzene	5	--	ND
			Ethylbenzene	5	yes	ND
			Xylenes (Total)	5	yes	ND
			Styrene	5	--	ND
			Bromoform	5	--	ND
			m-Dichlorobenzene	5	--	ND
			p-Dichlorobenzene	5	--	ND
			o-Dichlorobenzene	5	--	ND
			Methyl Tertiary Butyl Ether	10	--	ND
			Tertiary Butyl Alcohol	50	--	ND

Note:

-- Not applicable / does not exceed criteria
(J) Indicates detected below sample quantitation limit
(B) Indicates also present in blank
(ND) Indicates compound not detected

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, FIELD BLANK
FORT MONMOUTH, NEW JERSEY
VOLATILE TICS

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)
Field Blank	8/30/93	9/02/93	NO TICS FOUND	--	--	--

Note:

-- Not applicable / does not exceed criteria
(J) Indicates detected below sample quantitation limit
(B) Indicates also present in blank
(ND) Indicates compound not detected
(NA) Not available for this constituent
GWQC Ground Water Quality Criteria

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, FIELD BLANK
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)
Field Blank	8/30/93	10/07/93	N-Nitrosodiethylamine	10	--	ND
			bis(2 chloroethyl)Ether	10	--	ND
			1,3-Dichlorobenzene	10	--	ND
			1,4-Dichlorobenzene	10	--	ND
			Benzyl Alcohol	10	--	ND
			1,2-Dichlorobenzene	10	--	ND
			bis(2-chloroisopropyl)Ether	10	--	ND
			N-Nitroso-Di-n-propylamine	10	--	ND
			Hexachloroethane	10	--	ND
			Nitrobenzene	10	--	ND
			Isophorone	10	--	ND
			Benzoic Acid	50	--	ND
			bis(2-Chloroethoxy)Methane	10	--	ND
			1,2,4-Trichlorobenzene	10	--	ND
			Naphthalene	10	--	ND
			4-Chloroaniline	10	--	ND
			Hexachlorobutadiene	10	--	ND
			2-Methylnaphthalene	10	--	ND
			Hexachlorocyclopentadiene	10	--	ND
			2-Chloronaphthalene	10	--	ND
			2-Nitroaniline	50	--	ND
			Dimethyl Phthalate	10	--	ND
			Acenaphthylene	10	--	ND
			3-Nitroaniline	50	--	ND
			Acenaphthene	10	--	ND
			Dibenzofuran	10	--	ND

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, FIELD BLANK
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES (Continued)

Sample ID	Sample Date	Analysis Date	Compound Nane	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)
Field Blank	8/30/93	10/07/93	2,4-Dinitrotoluene	10	--	ND
			2,6-Dinitrotoluene	10	--	ND
			Diethylphthalate	10	--	ND
			4-Chlorophenyl-phenlyether	10	--	ND
			Fluorene	10	--	ND
			4-Nitroaniline	50	--	ND
			N-Nitrosodiphenylamine	10	--	ND
			4-Bromophenyl-phenylether	10	--	ND
			Hexachlorobenzene	10	--	ND
			Phenanthrene	10	--	ND
			Anthracene	10	--	ND
			Di-n-butylphthalate	10	--	ND
			Fluoranthene	10	--	ND
			Pyrene	10	--	ND
			Butylbenzylphthalate	10	--	ND
			3,3-Dichlorobenzidine	20	--	ND
			Benzo(a)Anthracene	10	--	ND
			bis(2-Ethylhexyl)Phthalate	10	--	ND
			Chrysene	10	--	ND
			Di-n-Octyl Phthalate	10	--	ND
			Benzo(b)Fluoranthene	10	--	ND
			Benzo(k)Fluoranthene	10	--	ND

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, FIELD BLANK
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES (Continued)

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)
Field Blank	8/30/93	10/07/93	Benzo(a)Pyrene	10	--	ND
			Indeno(1,2,3-cd)Pyrene	10	--	ND
			Dibenzo(a,h)Anthracene	10	--	ND
			Benzo(g,h,i)Perylene	10	--	ND
			Benzidine	20	--	ND

Note:

-- Not applicable / does not exceed criteria
(J) Indicates detected below sample quantitation limit
(B) Indicates also present in blank
(ND) Indicates compound not detected

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, FIELD BLANK
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILE TICS

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)
Field Blank	8/30/93	10/07/93	UNKNOWN	--	--	5
			UNKNOWN	--	--	7
			UNKNOWN	--	--	5

Note:

-- Not applicable / does not exceed criteria
(J) Indicates detected below sample quantitation limit
(B) Indicates also present in blank
(ND) Indicates compound not detected

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, TRIP BLANK
FT. MONMOUTH, NEW JERSEY
VOLATILE ORGANICS

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)
Trip Blank	8/30/93	9/05/93	Acrolein	50	--	ND
			Acrylonitrile	50	--	ND
			Chloromethane	10	--	ND
			Bromomethane	10	--	ND
			Vinyl Chloride	10	--	ND
			Chloroethane	10	--	ND
			Acetone	10	--	2.1 JB
			1,1-Dichloroethene	5	--	ND
			Carbon Disulfide	10	--	ND
			Methylene Chloride	5	--	ND
			1,2-Dichloroethene (trans)	5	--	ND
			1,1 Dichloroethane	5	--	ND
			Vinyl Acetate	5	--	ND
			2-Butanone	10	--	ND
			Chloroform	5	--	ND
			1,1,1-Trichloroethane	5	--	ND
			Carbon Tetrachloride	5	--	ND
			1,2-Dichloroethane	5	--	ND
			Benzene	5	yes	ND
			Trichloroethene	5	--	ND
			1,2-Dichloropropane	5	--	ND
			Bromodichloromethane	5	--	ND
			2-Chloroethylvinylether	10	--	ND
			2-Hexanone	10	--	ND
			trans-1,3-Dichloropropene	5	--	ND
			Toluene	5	yes	ND

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, TRIP BLANK
FORT MONMOUTH, NEW JERSEY
VOLATILE ORGANICS (Continued)

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)
Trip Blank	8/30/93	9/05/93	cis-1,3-Dichloropropene	5	--	ND
			1,1,2,2-Tetrachloroethane	5	--	ND
			1,1,2-Trichloroethane	5	--	ND
			4-Methyl-2-pentanone	10	--	ND
			Tetrachloroethene	5	--	ND
			Dibromochloromethane	5	--	ND
			Chlorobenzene	5	--	ND
			Ethylbenzene	5	yes	ND
			Xylenes (Total)	5	yes	ND
			Styrene	5	--	ND
			Bromoform	5	--	ND
			m-Dichlorobenzene	5	--	ND
			p-Dichlorobenzene	5	--	ND
			o-Dichlorobenzene	5	--	ND
			Methyl Tertiary Butyl Ether	10	--	ND
			Tertiary Butyl Alcohol	50	--	ND

Note:

-- Not applicable / does not exceed criteria
(J) Indicates detected below sample quantitation limit
(B) Indicates also present in blank
(ND) Indicates compound not detected

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 2500, CHARLES WOOD, TRIP BLANK
FORT MONMOUTH, NEW JERSEY
VOLATILE TICS

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)
Trip Blank	8/30/93	9/05/93	NO TICS FOUND	--	--	--

Note:

-- Not applicable / does not exceed criteria
(J) Indicates detected below sample quantitation limit
(B) Indicates also present in blank
(ND) Indicates compound not detected
(NA) Not available for this constituent
GWQC Ground Water Quality Criteria

SMITH

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 # C-91-2842 **UST #** 0081515

U.S. Army Fort Monmouth
Fort Monmouth Building 2500
Fort Monmouth

(Monmouth County)

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: 3- 5000 gallon gasoline storage tanks,
2- 1000 gallon gasoline storage tanks

Site assessment: Eighteen (18) soil samples will be taken for the tanks, and one (1) for every 15 feet of piping; three (3) monitoring wells will be installed, samples will be collected and analyzed as per the Technical Guidance Document (EPA method 624+15 and 8240).

ON-SITE MANAGER: Dinkerrai Desai TELEPHONE: 908 532-1475

OWNER: U. S. Army TELEPHONE:

EFFECTIVE DATE: February 20, 1992

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

Michael S Kelly (for KG)

KENNETH GOLDSTEIN, P.E., CHIEF
BUREAU OF UNDERGROUND STORAGE TANKS

UST-011 GREEN- APPLICANT COPY- APPLICANT COPY- LCO COPY- TMS COPY- R&B

UST-014
2/91

FOR STATE USE ONLY

UST # _____
Date Rec'd _____
TMS # _____
Staff _____

State of New Jersey
Department of Environmental Protection and Energy
Division of Responsible Party Site Remediation
CN 029
Trenton, NJ 08625-0029
Tel. # 609-984-3156
Fax. # 609-292-5604

Scott A. Weiner
Commissioner

Karl J. Delaney
Director

UNDERGROUND STORAGE TANK SITE ASSESSMENT SUMMARY

Under the provisions of the Underground Storage of Hazardous Substances Act in accordance with N.J.A.C. 7:14B

This Summary form shall be used by all owners and operators of Underground Storage Tank Systems (USTS) who have either reported a release and are subject to the site assessment requirements of N.J.A.C. 7:14B-8.2 or who have closed USTS pursuant to N.J.A.C. 7:14B-9.1 et seq. and are subject to the site assessment requirements of N.J.A.C. 7:14B-9.2 and 9.3.

INSTRUCTIONS:

- *Please print legibly or type.*
- *Fill in all applicable blanks. This form will require various attachments in order to complete the Summary. The technical guidance document, Interim Closure Requirements for UST's, explains the regulatory (and technical) requirements for closure and the Scope of Work, Investigation and Corrective Action Requirements for Discharges from Underground Storage Tanks and Piping Systems explains the regulatory (and technical) requirements for corrective action.*
- *Return one original of the form and all required attachments to the above address.*
- *Attach a scaled site diagram of the subject facility which shows the information specified in Item IV B of this form.*
- *Explain any "No" or "N/A" response on a separate sheet.*

Date of Submission _____

Bldg. 2500

0081515-52, 53, 54, 55, 56
FACILITY REGISTRATION #

I. FACILITY NAME AND ADDRESS

U.S. Army, Fort Monmouth, New Jersey
Directorate of Engineering and Housing, Building 167
Fort Monmouth, New Jersey County Monmouth
Telephone No. (908) 532-6224

OWNER'S NAME AND ADDRESS, if different from above

_____
_____
_____
Telephone No. _____

II. DISCHARGE REPORTING REQUIREMENTS

A. Was contamination found? ___Yes X No If Yes, Case No._____
(Note: All discharges must be reported to the Environmental Action Hotline (609) 292-7172)

B. The substance(s) discharged was(were) N/A

C. Have any vapor hazards been mitigated? ___Yes ___No X

III. DECOMMISSIONING OF TANK SYSTEMS

Closure Approval No. C-91-2842

The site assessment requirements associated with tank decommissioning are explained in the Technical Guidance Document, Interim Closure Requirements for UST's, Section V. A-D. Attach complete documentation of the methods used and the results obtained for each of the steps of tank decommissioning used. Please include a site map which shows the locations of all samples and borings, the location of all tanks and piping runs at the facility at the beginning of the tank closure operation and annotated to differentiate the status of all tanks and piping (e.g., removed, abandoned, temporarily closed, etc.). The same site map can be used to document other parts of the site assessment requirements, if it is properly and legibly annotated.

IV. SITE ASSESSMENT REQUIREMENTS

A. Excavated Soil

Any evidence of contamination in excavated soil will require that the soil be classified as either Hazardous Waste or Non-Hazardous Waste. Please include all required documentation of compliance with the requirements for handling contaminated excavated soil (if any was present) as explained in the technical guidance documents for closure and corrective action. Describe amount of soil removed, its classification, and disposal location.

B. Scaled Site Diagrams

1. Scaled site diagrams must be attached which include the following information:

   a. North arrow and scale
   b. The locations of the ground water monitoring wells
   c. Location and depth of each soil sample and boring
   d. All major surface and sub-surface structures and utilities
   e. Approximate property boundaries
   f. All existing or closed underground storage tank systems, including appurtenant piping
   g. A cross-sectional view indicating depth of tank, stratigraphy and location of water table
   h. Locations of surface water bodies

C. Soil samples and borings (check appropriate answer)

1. Were soil samples taken from the excavation as prescribed? X Yes ___No ___N/A

2. Were soil borings taken at the tank system closure site as prescribed? ___Yes ___No X N A

3. Attach the analytical results in tabular form and include the following information about each sample:
   a. Customer sample number (keyed to the site map)
   b. The depth of the soil sample
   c. Soil boring logs
   d. Method detection limit of the method used
   e. QA/QC Information as required

D. Ground Water Monitoring

1. Number of ground water monitoring wells installed 4

2. Attach the analytical results of the ground water samples in tabular form. Include the following information for each sample from each well:

   a. Site diagram number for each well installed
   b. Depth of ground water surface
   c. Depth of screened interval
   d. Method detection limit of the method used
   e. Well logs
   f. Well permit numbers
   g. QA/QC Information as required

V. SOIL CONTAMINATION

A. Was soil contamination found? ___ Yes X No
If "Yes", please answer Question B-E
If "No", please answer Question B

B. The highest soil contamination still remaining in the ground has been determined to be:
1. ND ppb total BTEX, ND ppb total non-targeted VOC
2. ND ppb total B/N, .95 ppb total non-targeted B/N
3. 9.99 ppm TPHC
4. 22.7 ppb lead (for non-petroleum substance)
(See Table 2 for other parameters)

C. Remediation of free product contaminated soils

1. All free product contaminated soil on the property boundaries and above the water table are believed to have been removed from the subsurface ___ Yes X No
2. Free product contaminated soils are suspected to exist below the water table ___ Yes X No
3. Free product contaminated soils are suspected to exist off the property boundaries. ___ Yes X No

D. Was the vertical and horizontal extent of contamination determined? ___ Yes ___ No X N/A

E. Does soil contamination intersect ground water? ___ Yes ___ No X N/A

VI. GROUND WATER CONTAMINATION

A. Was ground water contamination found? X Yes ___ No
If "Yes", please answer Questions B-G.
If "No", please answer only Question B.

B. The highest ground water contamination at any 1 sampling location and at any 1 sampling event to date has been determined to be:
(See Table 3 for other parameters)
1. ND ppb total BTEX, 16.0 ppb total non-targeted VOC
2. 42.0 ppb total B/N, 38.0 ppb total non-targeted B/N
3. ND ppb total MTBE, ND ppb total TBA
4. N/A ppb ___ (for non-petroleum substance)
5. greatest thickness of separate phase product found N/A
6. separate phase product has been delineated ___ Yes ___ No X N/A

C. Result(s) of well search

1. A well search (including a review of manual well records) indicates that private, municipal or commercial wells do exist within the distances specified in the Scope of Work. ___ Yes ___ No X N/A

2. The number of these wells identified is N/A.

D. Proximity of wells and contaminant plume

1. The shallowest depth of any well noted in the well search which may be in the horizontal or vertical potential path(s) of the contaminant plume(s) is N/A feet below grade (consideration has been given for the effects of pumping, subsurface structures, etc. on the direction(s) of contaminant migration). This well is N/A feet from the source and its screening begins at a depth of N/A feet.

2. The shallowest depth to the top of the well screen for any well in the potential path of the plume(s) (as described in D1 above) is N/A feet below grade. This well is located N/A feet from the source.

3. The closest horizontal distance of a private, commercial or municipal well in the potential path of the plume (as determined in D1) is N/A feet from the source. This well is N/A feet deep and screening begins at a depth of N/A feet.

E. A plan for separate phase product recovery has been included. ___ Yes ___ No X N/A

F. A ground water contour map has been submitted which includes the ground water elevations for each well. ___ Yes ___ No X N/A

G. Delineation of contamination

1. The ground water contaminants have been delineated to MCLs or lower values at the property boundaries. ___ Yes X No

2. The plume is suspected to continue off the property at concentrations greater than MCLs. ___ Yes X No

3. Off property access (circle one): is being sought has been approved has been denied N/A

VII. SITE ASSESSMENT CERTIFICATION [preparer of site assessment plan - N.J.A.C. 7:14B-8.3(b) &9.5(a)3]

The person signing this certification as the "Qualified Ground Water Consultant" (as defined in N.J.A.C.7:14B-1.6) responsible for the design and implementation of the site assessment plan as specified in N.J.A.C. 7:14B-8.3(a) & 9.2(b)2, must supply the name of the certifying organization and certification number.

"I certify under penalty of law that the information provided in this document is true, accurate, and complete and was obtained by procedures in compliance with N.J.A.C. 7:14B-8 and 9. I am aware that there are significant penalties for submitting false, inaccurate, or incomplete information, including fines and/or imprisonment."

NAME (Print or Type) Charles Appleby SIGNATURE _____

COMPANY NAME U.S. Army, Fort Monmouth DATE 2/14/96
(Preparer of Site Assessment Plan)

CERTIFYING ORGANIZATION NJDEP CERTIFICATION NUMBER 2056

VIII. TANK DECOMMISSIONING CERTIFICATION [person performing tank decommissioning portion of closure plan - N.J.A.C. 7:14B-9.5(a)4]

"I certify under penalty of law that tank decommissioning activities were performed in compliance with N.J.A.C. 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) _____ SIGNATURE _____

COMPANY NAME _____ DATE _____
(Performer of Tank Decommissioning)

IX. CERTIFICATIONS BY THE RESPONSIBLE PARTY(IES) OF THE FACILITY

A. **The following certification shall be signed by the highest ranking individual with overall responsibility for that facility [N.J.A.C. 7:14B-2.3(c)1i].**

"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 penalties for submitting false, inaccurate, or incomplete information, including fines and/or imprisonment."

NAME (Print or Type) James Ott SIGNATURE James Ott

COMPANY NAME U.S. Army, Fort Monmouth DATE 2/14/96

B. **The following certification shall be signed as follows [according to the requirements of N.J.A.C. 7:14B-2.3(C)2i]:**

1. For a corporation, by a principal executive officer of at least the level of vice president.
2. For a partnership or sole proprietorship, by a general partner or the proprietor, respectively; or
3. For a municipality, State, Federal or other public agency by either the principal executive officer or ranking elected official.
4. In cases where the highest ranking corporate partnership, governmental officer or official at the facility as required in A above is the same person as the official required to certify in B, only the certification in A need to be made. In all other cases, the certifications of A and B shall be made.

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false, inaccurate, or incomplete information, including fines and/or imprisonment."

NAME (Print or Type) _____ SIGNATURE _____

COMPANY NAME _____ DATE _____

0000000000

165 P03 APR 20 '93 12:33

ATTN: SUSAN OBRein

S&W WASTE INC. 115 JACOBUS AVENUE SOUTH KEARNY, NEW JERSEY 07032 (201) 344-4004

LAND DISPOSAL NOTIFICATION AND CERTIFICATION FORM

rator Name: Fort Monmouth Manifest Doc. No. 67129

D #: NJ 2210020978 State Manifest No. NJA 1567129

this waste a non-wastewater or wastewater? (See 40 CFR 268.2) Check ONE:

/ Non-Wastewater _____ Wastewater

his waste is subject to any California List Restrictions enter the letter from Page 3 (either A, B1, B2, C, or next to each restriction that is applicable: _____HOCs, _____PCBs, _____ Acid. _____ Metals, _____ Cyanides. See reverse for California List Restrictions.

ntify ALL USEPA hazardous waste codes that apply to this waste shipment, as defined by 40 CFR 261. r each waste code, identify the corresponding subcategory, or check NONE if the waste code has no sub-egory. Also check which treatment standards apply. If spent solvent waste codes are listed on this form 001, F002, F003, F004, F005) please refer to the instructions on the reverse (top) of this page. If F039, lti-source leachate applies, those standards must be attached by the generator.

ST	5. APPROVAL NUMBER	6. USEPA HAZARDOUS WASTE #	7. SUBCATEGORY ENTER THE SUBCATEGORY DESCRIPTION IF NOT APPLICABLE, SIMPLY CHECK NONE		8. APPLICABLE TREATMENT STANDARDS 8a. PERFORMANCE BASED: Check as Applicable		8b. SPECIFIED TECHNOLOGY: If Applicable enter Treatment Code(s)	9. HOW MUST THE WASTE BE MANAGED. Enter the letter from Page 3
			DESCRIPTION	NONE	268.41(a)	268.43(a)	40 CFR 268.42 TABLE 1	
	004	D001	IGNIT LIQUID HIGH TOC				INCIN | FSUBS	A

ist additional USEPA waste code(s) and subcategory(s), use a supplemental sheet and check here _____

reby certify that all information submitted in this and all associated documents is complete and accurate, he best of my knowledge and information.

Joseph M. Fallon — SIGNATURE

Env. Scientist — TITLE

03/22/93 — DATE

SMITH

APPENDIX C

WASTE MANIFEST

VHW-001 (REV. 9/88)

State of New Jersey
Department of Environmental Protection
Division of Hazardous Waste Management
Manifest Section
CN 028, Trenton, NJ 08625

Please type or print in block letters. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039. Expires 9-30-94

In case of an emergency or spill immediately call the state the emergency occurred in and the N.J. Dept. of Environmental Protection. (609) 292-5560 (Day) (609) 292-7172 (Night)

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: NJ2210020977 Manifest Document No.: [illegible]

2. Page 1 of 1

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

3. Generator's Name and Mailing Address: US ARMY COMMUNICATIONS ELECTRONICS COMMAND, CHARLES WOOD AREA, CORE [illegible] SHARE BLD. 2504 - ATTN - SELFM-PL-EM-MS FT MONMOUTH NJ 07703

4. Generator's Phone (908) 532-6223

A. State Manifest Document Number: NJA 152[illegible]

B. State Generator's ID: [illegible]

5. Transporter 1 Company Name: Casie/Protank

6. US EPA ID Number: NJD045995693

C. State Trans. ID: [illegible]

D. Transporter's Phone: 609 [illegible]

7. Transporter 2 Company Name:

8. US EPA ID Number:

E. State Trans. ID:

F. Transporter's Phone ( )

9. Designated Facility Name and Site Address:
Casie Ecology Oil Salvage
3209 N. Mill Rd
Vineland, NJ 08360

10. US EPA ID Number: NJD045995693

G. State Facility's ID: 0614D

H. Facility's Phone: 609 696-4[illegible]

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	HM	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Waste Combustible Liquid, N.O.S. ~~(petroleum distillates)~~ RC Combustible Liquid, NA1993	X	001	TT	X5360	G	[illegible]
b.						
c.						
d.						

J. Additional Descriptions for Materials Listed Above
a. 97% Water, [illegible] 2% oil/sed., MAY [illegible] CHAR. [illegible]
b.

K. Handling Codes for Wastes Listed Above
a. b. c. d.

15. Special Handling Instructions and Additional Information
24 hour emergency response phone# 908-532-6223 THS-C-91-2742
CTI# 0093F2 E.R.G. #27 UST-008575-[illegible]

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

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

Printed/Typed Name: Charles M. Appleby DEH-Envir. Signature: [signature] Month Day Year: 03 22 93

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: ROBERT CORSICLIA Signature: [signature] Month Day Year: 03 22 93

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name: Signature: Month Day Year:

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: Signature: Month Day Year:

EPA Form 8700-22 (Rev. 9/88) Previous editions are obsolete.

SIGNATURE AND INFORMATION *MUST* BE LEGIBLE ON ALL COPIES

VHW-001 (REV. 9/88)

State of New Jersey
Department of Environmental Protection
Division of Hazardous Waste Management
Manifest Section
CN 028, Trenton, NJ 08625

Please type or print in block letters. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039. Expires 9-30-94

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. N J 2 1 0 0 2 0 9 7 8 2 — Manifest Document No. 9 8

2. Page 1 of 1

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

3. Generator's Name and Mailing Address
U.S. Army Communications Electronics Command
Charles Wood Area, C/O James Shirghio, Bldg #2304,
Attn: SELFM-DL-EE-NR, Fort Monmouth, NJ 07703

4. Generator's Phone (908) 532-9911

A. State Manifest Document Number: NJA 1587161

B. State Generator's ID: [illegible]

5. Transporter 1 Company Name: Casie/Protank

6. US EPA ID Number: N J D 0 4 5 9 9 5 6 9 3

C. State Trans. ID: [illegible]

7. Transporter 2 Company Name

8. US EPA ID Number

D. Transporter's Phone (609) 696-4401

E. State Trans. ID

9. Designated Facility Name and Site Address
Casie Ecology Oil Salvage
3209 N. Mill Rd
Vineland, N.J. 08360

10. US EPA ID Number: N J D 0 4 5 9 9 5 6 9 3

F. Transporter's Phone (609) 696-4401

G. State Facility's ID: 0614DIMP02

H. Facility's Phone (609) 696-4401

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number) HM		12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a.	X Combustible Liquid, N.O.S. Combustible Liquid, NA1993 *	0 0 1	F F	X X 1 0 0	G	X 7 1 3
b.	X Combustible Liquid, N.O.S. Combustible Liquid, NA1993	0 0 1	T T	X 3 2 4	G	X 7 2 2
c.						
d.						

J. Additional Descriptions for Materials Listed Above
a. Kay Drilling Water Oil/Sed.
b. Lyt

K. Handling Codes for Wastes Listed Above
a. c.
b. d.

15. Special Handling Instructions and Additional Information
24 hour emergency response phone # (908) 532-9911 James Shirghio
CFI#0093F2 E.R.G.#27 * UST# 81515-54 Bldg. 2508
CFI#0092F2

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

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

GENERATOR — X Printed/Typed Name: Joseph M. Fallon — Signature: Joseph M. Fallon — Month 03 Day 25 Year 93

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: [illegible] — Signature: [illegible] — Month 03 Day 25 Year 93

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name — Signature — Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name — Signature — Month Day Year

EPA Form 8700-22 (Rev. 9/88) Previous editions are obsolete.

SIGNATURE AND INFORMATION *MUST* BE LEGIBLE ON ALL COPIES

VHW-001 (REV. 9/88)

State of New Jersey
Department of Environmental Protection
Division of Hazardous Waste Management
Manifest Section
CN 028, Trenton, NJ 08625

Please type or print in block letters. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039. Expires 9-30-94

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. N J 2 2 1 0 0 2 0 9 7 8 2 5 4 6 7 — Manifest Document No.
2. Page 1 of 1
Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
U.S. Army - Communications Electronics Command
Chas. Wood Area c/o James Shirgio, Bldg 2504
Attn: SELFN-DL-EH-NS, Fort Monmouth, NJ 07703

4. Generator's Phone (908) 532-9911

A. State Manifest Document Number: NJA 1567131

B. State Generator's ID: [illegible]

5. Transporter 1 Company Name: Casie/Protank
6. US EPA ID Number: N J D 0 4 5 9 9 5 6 9 3
C. State Trans. ID: NJDEP5676?
D. Transporter's Phone: 609 696-4401

7. Transporter 2 Company Name
8. US EPA ID Number
E. State Trans. ID
F. Transporter's Phone ( )

9. Designated Facility Name and Site Address
Casie Ecology Oil Salvage
3209 N. Mill Rd
Vineland, N.J. 08360
10. US EPA ID Number: N J D 0 4 5 9 9 5 6 9 3
G. State Facility's ID: 0614DIMP02
H. Facility's Phone: 609) 696-4401

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number) HM	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. X Combustible Liquid, N.O.S. Combustible Liquid, NA1993	0 0 1	T C	X/875	G	K 1 2 3
b.					
c.					
d.					

J. Additional Descriptions for Materials Listed Above
99 X Water / Fuel Oil/Sed.
a. 1,T b.
b. d.

K. Handling Codes for Wastes Listed Above
a. c.
b. d.

15. Special Handling Instructions and Additional Information
24 hour emergency response phone # (908)532-9911 James Shirgio, Bldg 2504
CPH 00173F2 E.R.G.#27
Trans- C-11-3892
US # 81575 - Sn 53.55, Bldg 2500

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

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

GENERATOR

Printed/Typed Name: X Charles Hibbs, USArmy DEH
Signature: X
Month Day Year: 03 23 93

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: Jim McLaren
Signature:
Month Day Year: 03 23 93

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name
Signature
Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name
Signature
Month Day Year

EPA Form 8700-22 (Rev. 9/88) Previous editions are obsolete.

SIGNATURE AND INFORMATION *MUST* BE LEGIBLE ON ALL COPIES

VHW-001 (REV. 9/86)

State of New Jersey
Department of Environmental Protection
Division of Hazardous Waste Management
Manifest Section
CN 028, Trenton, NJ 08625

Please type or print in block letters. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039. Expires 9-30-94

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. N J 2 2 1 0 0 2 0 9 7 8 — Manifest Document No. 2 5 4 6 5

2. Page 1 of 1

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

3. Generator's Name and Mailing Address
U.S. Army - Communications Electronics Command
Charles Wood Area c/o James Shirgio, Bldg 2504,
Attn: SELFM-DL-EM-MS, Fort Monmouth, NJ 07703

4. Generator's Phone (908) 532-9911

A. State Manifest Document Number: NJA 1567129

B. State Generator's ID: None

5. Transporter 1 Company Name: Casie/Protank

6. US EPA ID Number: N J D 0 4 5 9 9 5 6 9 3

C. State Trans. ID: NJDEP56743 #625

7. Transporter 2 Company Name:

8. US EPA ID Number:

D. Transporter's Phone (609) 695-4401

E. State Trans. ID:

9. Designated Facility Name and Site Address
S & W Waste, Inc.
105 Jacobus Avenue
S. Kearny, NJ 07032

10. US EPA ID Number: N J D 9 9 1 2 9 1 1 0 5

F. Transporter's Phone ( ):

G. State Facility's ID: 0914K

H. Facility's Phone (201) 344-4004

	11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number) HM	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a.	X Waste Flammable Liquid, N.O.S. Flammable Liquid, UN1993 (R.Q. D001,D018)	0 0 1	T E	X4575	G	D 0 0 1
b.						
c.						
d.						

J. Additional Descriptions for Materials Listed Above
Gasoline 20-30% Aromatic less than 1% Water 1-3%
a. D,I,E,T (Also D018 & D223)
b.
c.
d.

K. Handling Codes for Wastes Listed Above
a.
b.
c.
d.

15. Special Handling Instructions and Additional Information
Approval Code #004 E.R.G. #27
D.O.T. Exempt #8408
24 hr emergency response phone #908-532-9911 James Shirgio

TMS-C-91-2842
UST-0061515-92B54
EM6-2500

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

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GENERATOR — Printed/Typed Name: Bailey M. Appleby U.S. Army DFH — Signature — Month Day Year: 03 23 93

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: Robert Corsiglia — Signature — Month Day Year: 03 23 93

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name — Signature — Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name — Signature — Month Day Year

EPA Form 8700-22 (Rev. 9/88) Previous editions are obsolete.

SIGNATURE AND INFORMATION MUST BE LEGIBLE ON ALL COPIES

VHW-003 (REV. 9/88)

State of New Jersey
Department of Environmental Protection
Division of Hazardous Waste Management
Manifest Section
CN 028, Trenton, NJ 08625

Please type or print in block letters. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039. Expires 9-30-94

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. NJ2210022075 — Manifest Document No. [redacted]
2. Page 1 of 1 — Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address: 43 Avery Commodities Electronic Components - Clarks Woods Div. % Tomes Shippie Bldg 2504 Mfg. Sub-Div. EM
4. Generator's Phone: (908) 532-6223 Emergency Phone

5. Transporter 1 Company Name: Casie/Protani — 6. US EPA ID Number: NJD045995893
7. Transporter 2 Company Name — 8. US EPA ID Number

9. Designated Facility Name and Site Address: Casie Ecology Oil Salvage, 3209 N. Mill Rd, Vineland, NJ 08360 — 10. US EPA ID Number: NJD045995893

A. State Manifest Document Number: [redacted]
B. State Generator's ID:
C. State Transporter's ID:
D. Transporter's Phone:
E. State Transporter's ID:
F. State Facility's ID:
G. Facility's Phone: 609 [redacted]

	11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number) HM	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	Waste No.
a.	X Waste Combustible Liquid, N.O.S. (petroleum Combustible Liquid, NA1993 distillates)	001	TT	X2200	G	[redacted]
b.						
c.						
d.						

J. Additional Descriptions for Materials Listed Above — K. Handling Codes for Wastes Listed Above

a. Lab Pack Flammable Liquids Portable
b.

15. Special Handling Instructions and Additional Information
24 hour emergency response phone# 908-532-6223 Tyco E-91-283 EPA ID# 000932 S.I.C. # 27 [redacted] Bldg 2500

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Printed/Typed Name: F. Chilcott, Asst. Mfg. Engr. — Signature: [signature] — Month Day Year: 03 22 93

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: Tim McLaren — Signature: [signature] — Month Day Year: 03 22 93

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name — Signature — Month Day Year

19. Discrepancy Indication Space

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

Printed/Typed Name — Signature — Month Day Year

EPA Form 8700-22 (Rev. 9/88) Previous editions are obsolete.

SIGNATURE AND INFORMATION *MUST* BE LEGIBLE ON ALL COPIES

SMITH

APPENDIX D

NJDEP WELL PERMITS AND WELL CONSTRUCTION LOGS

DWR-133M (4/90) SERIAL # 20410

Mail to

Water Allocation
CN 029
Trenton, N.J. 08625

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES
TRENTON, N.J.

38

Permit No. 29-34945

MONITORING WELL PERMIT

VALID ONLY AFTER APPROVAL BY THE D.E.P. COORD #: 29.138.27

Owner U.S. Army - Ft. Monmouth
Address Bldg. 167 - DEH Envir.
Ft. Monmouth, NJ 07703

Name of Facility Bldg. 2501
Address

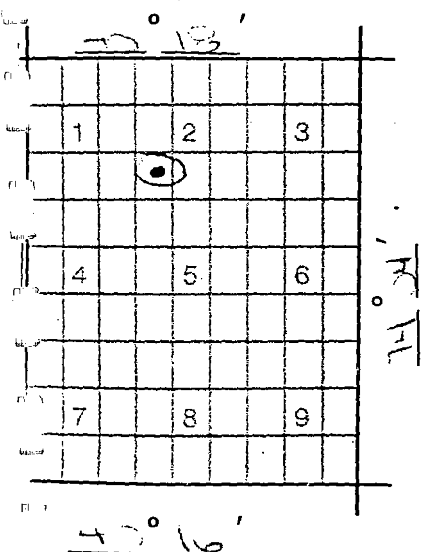
Driller Eric A Environmental
Address 290 Orford St.
East Orange, NJ

Diameter of Well(s) 4 Inches	Proposed Depth of Well(s) Feet
# of Wells Applied for (max. 10) 4	Will pumping equipment be installed? YES ☐ NO ☒
Type of Well (see reverse) monitoring	If Yes, give pump capacity — GPM

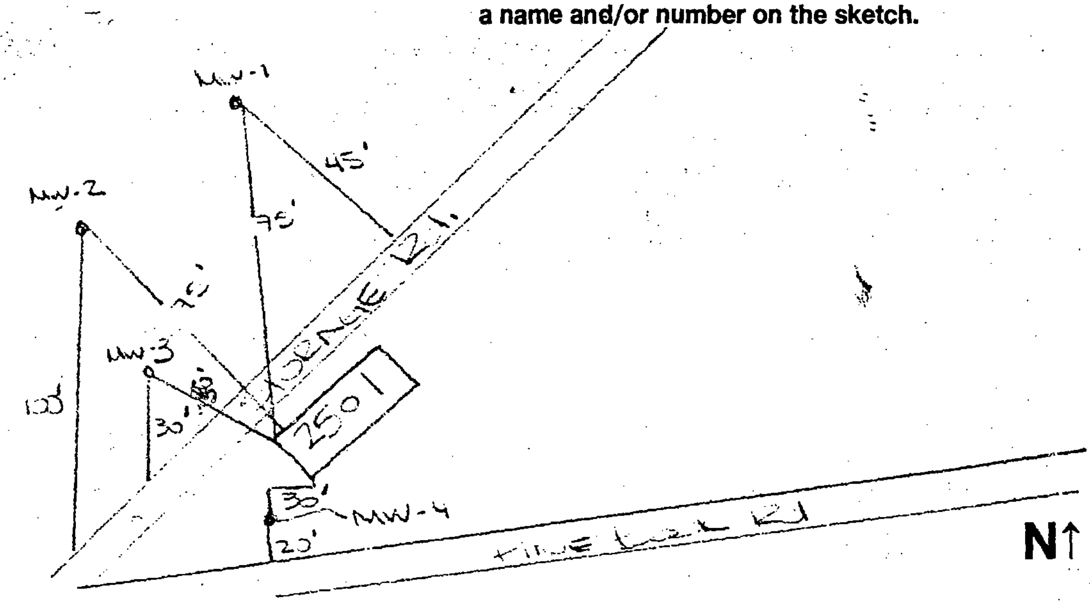
LOCATION OF WELL(S)

Lot #	Block#	Municipality	County
N/A	N/A	Ft. Monmouth	Monmouth

State Atlas Map No. 29



Draw sketch of well(s) nearest roads, buildings, etc. with marked distances in feet. Each well MUST be labeled with a name and/or number on the sketch.



FOR MONITORING WELLS, RECOVERY WELLS, OR PIEZOMETERS, THE FOLLOWING MUST BE COMPLETED BY THE APPLICANT. PLEASE INDICATE WHY THE WELLS ARE BEING INSTALLED:

- Spill Fund Case
- RCRA Case
- CERCLA (Superfund) Site
- ECRA Site
- Underground Storage Tank
- NJPDES Municipal Discharge Permit
- NJPDES Industrial Discharge Permit
- Hazardous Waste Mgmt. Enforcement Case
- Div. Water Resources Enforcement Case
- Water Supply Aquifer Test Observation Well
- Other (explain)

Case I.D. Number C-91-2842

This Space for Approval Stamp

WELL PERMIT APPROVED
Dept. of Environmental Protection
Water Resources/Water Allocation
JUN 3 1993

FOR D.E.P. USE
☐ Issuance of this permit is subject to the conditions attached. (see next page)
☒ For monitoring purposes only
☐
☒ The well(s) may not be completed with more than 25 feet of total screen or uncased borehole.

SEE REVERSE SIDE FOR IMPORTANT PROVISIONS AND REGULATIONS PERTAINING TO THIS PERMIT.

In compliance with N.J.S.A. 58:4A-14, application is made for a permit to drill a well as described above.

6-1-93

Signature of Driller [signature] License # 1051-M

Signature of Owner [signature]

COPIES: Water Allocation — White and Pink Health Dept. — Yellow Owner — Blue Driller — White

DWR-138 M
12/91

New Jersey Department of Environmental Protection and Energy
Bureau of Water Allocation

MONITORING WELL RECORD

Well Permit No. 29 - 29743
Atlas Sheet Coordinates ~~29~~ : ~~13~~ : 827

OWNER IDENTIFICATION - Owner US ARMY - FT. MONMOUTH
Address BLDG. 167 - DEH ENVIR.
City FORT MONMOUTH State NJ Zip Code

WELL LOCATION - If not the same as owner please give address. Owner's Well No. MW-2
County MONMOUTH Municipality OCEANPORT BORO Lot No. N/A Block No. N/A
Address

TYPE OF WELL (as per Well Permit Categories) MONITORING Date well completed 6/9/93
Regulatory Program Requiring Well UST Case I.D. # C-91-2842
CONSULTING FIRM/FIELD SUPERVISOR (if applicable) Tele. #

WELL CONSTRUCTION

Total depth drilled 25 ft.
Well finished to 25 ft.
Borehole diameter:
Top 12 in.
Bottom 12 in.
Well was finished: [✓] above grade [ ] flush mounted
If finished above grade, casing height (stick up) above land surface 3 ft.
Was steel protective casing installed? [ ] Yes [X] No

	Depth to Top (ft.) [From land surface]	Depth to Bottom (ft.)	Diameter (inches)	Type and Material
Inner Casing	0'	5'	4"	SCHED 40 PVC
Outer Casing (Not Protective Casing)				
.010 Screen (Note slot size)	~~0~~ 5'	25'	4"	" "
Tail Piece	THD	CAP	4"	PVC
Gravel Pack	3'	25'	12"	#1 MORIE
Annular Seal/Grout	0'	3'	12"	NEAT CEMENT
Method of Grouting	GRAVITY			

Static water level after drilling 7 ft.
Water level was measured using M scope
Well was developed for 1 hours at 3 gpm
Method of development Submersible
Was permanent pumping equipment installed? [ ] Yes [X] No
Pump capacity — gpm
Pump type: —
Drilling Method HSA
Drilling Fluid — Type of Rig Mobil B-57
Name of Driller Robert W. Hesse
Health and Safety Plan submitted? [X] Yes [ ] No
Level of Protection used on site (circle one) (None) D C B A
N.J. License No. 1051
Name of Drilling Company DIRECT ENVIRONMENTAL INC.

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

0-12 - well sorted sand w/ some fines
12-20 - sand with some clay throughout with some gravel
20-25 - med to fine sand with some clay

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 [signature] Date 7-26-93

COPIES: White & Green - DEPE Canary - Driller Pink - Owner Goldenrod - Health Dept.

DWR-138 M
12/91

New Jersey Department of Environmental Protection and Energy
Bureau of Water Allocation

MONITORING WELL RECORD

Well Permit No. 29 - 29744
Atlas Sheet Coordinates 29 : 13 : 827

OWNER IDENTIFICATION - Owner US ARMY - FT. MONMOUTH
Address BLDG. 167 - DEH ENVIR.
City FORT MONMOUTH State NJ Zip Code

WELL LOCATION - If not the same as owner please give address. Owner's Well No. MW-3
County MONMOUTH Municipality OCEANPORT BORO Lot No. N/A Block No. N/A
Address

TYPE OF WELL (as per Well Permit Categories) MONITORING Date well completed 6/10/93
Regulatory Program Requiring Well UST Case I.D. # C 91 2842
CONSULTING FIRM/FIELD SUPERVISOR (if applicable) Tele. #

WELL CONSTRUCTION

Total depth drilled 25 ft.
Well finished to 25 ft.
Borehole diameter:
Top 12" in.
Bottom 12" in.
Well was finished: [✓] above grade [ ] flush mounted
If finished above grade, casing height (stick up) above land surface 3 ft.
Was steel protective casing installed? [ ] Yes [✓] No

	Depth to Top (ft.) [From land surface]	Depth to Bottom (ft.)	Diameter (inches)	Type and Material
Inner Casing	0'	5'	4"	Sched 40 PVC
Outer Casing (Not Protective Casing)				
Screen .010 (Note slot size)	~~3~~ 5'	25	4"	" " "
Tail Piece	1 HD	CAP	4"	PVC
Gravel Pack	3'	25'	12"	#1 Morie
Annular Seal/Grout	0'	3'	12"	Neat Cement
Method of Grouting	Gravity			

Static water level after drilling 7 ft.
Water level was measured using Tape
Well was developed for 1 hours at 3 gpm
Method of development Submersible
Was permanent pumping equipment installed? [ ] Yes [✓] No
Pump capacity — gpm
Pump type: —
Drilling Method HSA
Drilling Fluid — Type of Rig Mobil B-57
Name of Driller Robert M Hess
Health and Safety Plan submitted? [X] Yes [ ] No
Level of Protection used on site (circle one) (None) D C B A
N.J. License No. 10510
Name of Drilling Company DIRECT ENVIRONMENTAL INC.

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

0-10 - well mixed sand with some fines
10-20 - increasing gravel & clay mixed with sand
20-25 - gravel grading out to sand with some clay.

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 [signature] Date 7-26-93

COPIES: White & Green - DEPE Canary - Driller Pink - Owner Goldenrod - Health Dept.

DWR-138 M
12/91

New Jersey Department of Environmental Protection and Energy
Bureau of Water Allocation

MONITORING WELL RECORD

Well Permit No. 29 - 29745
Atlas Sheet Coordinates 29 : 13 : 827

OWNER IDENTIFICATION - Owner US ARMY - FT. MONMOUTH
Address BLDG. 167 - DEH ENVIR.
City FORT MONMOUTH State NJ Zip Code

WELL LOCATION - If not the same as owner please give address. Owner's Well No. MW-4
County MONMOUTH Municipality OCEANPORT BORO Lot No. N/A Block No. N/A
Address BLDG 2500

TYPE OF WELL (as per Well Permit Categories) MONITORING Date well completed 6/10/93
Regulatory Program Requiring Well UST Case I.D. # C-91-2842
CONSULTING FIRM/FIELD SUPERVISOR (if applicable) Tele. #

WELL CONSTRUCTION
Total depth drilled 25 ft.
Well finished to 25 ft.
Borehole diameter:
Top 12 in.
Bottom in.
Well was finished: ☑ above grade ☐ flush mounted
If finished above grade, casing height (stick up) above land surface 3 ft.
Was steel protective casing installed? ☐ Yes ☒ No

	Depth to Top (ft.) [From land surface]	Depth to Bottom (ft.)	Diameter (inches)	Type and Material
Inner Casing	0'	5'	4"	SCHED 40 PVC
Outer Casing (Not Protective Casing)				
Screen (Note slot size) 10/0	~~5'~~	25	4"	" " "
Tail Piece	THD	CAP	4"	PVC
Gravel Pack	3'	25'	12"	#1 MORIE
Annular Seal/Grout	0'	3'	12	NEAT CEMENT
Method of Grouting	GRAVITY			

Static water level after drilling 7 ft.
Water level was measured using M. Sounder
Well was developed for 1 hours at 3 gpm
Method of development Submersible
Was permanent pumping equipment installed? ☐ Yes ☑ No
Pump capacity — gpm
Pump type: —
Drilling Method HSA
Drilling Fluid — Type of Rig Mobil B-57
Name of Driller Robert M. Hesse
Health and Safety Plan submitted? ☒ Yes ☐ No
Level of Protection used on site (circle one) (None) D C B A
N.J. License No. 1051 M
Name of Drilling Company DIRECT ENVIRONMENTAL INC.

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

0-15 - well sorted yellow sand with some fines

15-25 - increasing gravel + clay mixed with sand (med to fine)

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 Robert M. Hesse Date 7-26-93

COPIES: White & Green - DEPE Canary - Driller Pink - Owner Goldenrod - Health Dept.

DWR-138 M
12/91

New Jersey Department of Environmental Protection and En
Bureau of Water Allocation

MONITORING WELL RECORD

Well Permit No. 29 - 20742
Atlas Sheet Coordinates 29 : 13 : 827

OWNER IDENTIFICATION - Owner US ARMY - FT. MONMOUTH
Address BLDG. 167 - DEH ENVIR.
City FORT MONMOUTH State NJ Zip Code

WELL LOCATION - If not the same as owner please give address. Owner's Well No. MW-1
County MONMOUTH Municipality OCEANPORT BORO Lot No. N/A Block No. N/A
Address

TYPE OF WELL (as per Well Permit Categories) MONITORING Date well completed 6/8/93
Regulatory Program Requiring Well UST Case I.D. # C 91 2342
CONSULTING FIRM/FIELD SUPERVISOR (if applicable) Tele. #

WELL CONSTRUCTION

Total depth drilled 25 ft.
Well finished to 25 ft.
Borehole diameter:
Top 12" in.
Bottom 12" in.
Well was finished: [✓] above grade [ ] flush mounted
If finished above grade, casing height (stick up) above land surface 3 ft.
Was steel protective casing installed? [ ] Yes [X] No

	Depth to Top (ft.) [From land surface]	Depth to Bottom (ft.)	Diameter (inches)	Type and Material
Inner Casing	0'	5'	4"	Sched 40 PVC
Outer Casing (Not Protective Casing)				
.010 Screen (Note slot size)	5'	25'	4"	" " "
Tail Piece	THD	CAP	4"	PVC
Gravel Pack	3'	25'	12"	#1 morie
Annular Seal/Grout	0'	3'	12"	Neat Cement
Method of Grouting	Gravity			

Static water level after drilling 7 ft.
Water level was measured using M Scope
Well was developed for 1 hours at 3 gpm
Method of development submersible
Was permanent pumping equipment installed? [ ] Yes [✓] No
Pump capacity — gpm
Pump type: —
Drilling Method HSA
Drilling Fluid — Type of Rig Mobil B-57
Name of Driller Robert M. Hesse
Health and Safety Plan submitted? [✓] Yes [ ] No
Level of Protection used on site (circle one) (None) D C B A
N.J. License No. 10514
Name of Drilling Company DIRECT ENVIRONMENTAL INC.

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

0-10 - well sorted sand (yellow) w/fines
10-25. grading to coarser sand with some clay at (15-20') and silty gravel.

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 [signature] Date 7-26-93

COPIES: White & Green - DEPE Canary - Driller Pink - Owner Goldenrod - Health Dept.

United States Army
Fort Monmouth, New Jersey

Underground Storage Tanks Closure and Site Investigation Report

Building 2500
Charles Wood Area

NJDEP UST Registration Nos. 0081515-52, 53, 54, 55, 56
NJDEP Closure Approval No. C-91-2842

Volume 2 of 3
Appendix E

February 1996

SMITH
ENVIRONMENTAL TECHNOLOGIES CORPORATION

SMITH

APPENDIX E

SOIL ANALYTICAL DATA PACKAGE

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

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

Lab. ID #: 1169.1
Sample Rec'd: 03/23/93
Analysis Start: 03/23/93
Analysis Comp: 03/23/93

Analysis: Flash Point
Matrix: Liq. Org.
Analyst: B. McKee

NJDEPE UST Reg.#: XXXXXXX-XX,XX,XX,XX
Closure Approval #: X-XX-XXXX/XX
NJDEPE Case #: XX-XX-XX-XXXX
Manifest #: NJA1567129

Lab ID.	Description	Result in °F.
1169.1	Waste gasoline/water sample: 2500 UST	< 140

Notes: ASTM closed cup method.
Sample flashed at less than 25°C.

Brian K. McKee
Laboratory Director

SERV-AIR, INC.
An E-SYSTEMS Company

3-16-20

Flash Point < 25°C

CHAIN OF CUSTODY RECORD

CLIENT: DEH - Environmental

PROJECT ID: 2500 UST Removal, UST # 815/15-52,53,54,55,56,

ADDRESS: Fort Monmouth

SAMPLER: C. Appleby DEH

CITY/STATE:

PHONE #: 532-6224

LAB ID #	SAMPLE ID	SAMPLE DATE	SAMPLE TIME	SAMPLE TYPE GRAB	SOIL	COMP	NO. OF BOTTLES	ANALYSIS REQUESTED
	2500 - UST Waste Gasoline/Water Slop MAN: Fort # NSA 1567/29 45255gal 3500 waste	3/23/93	1400	X	—	—	1	Flash
		—						

SAMPLE COLLECTED BY:

DATE: 3/23/93

TIME: 1400

PRESERVED WITH: NaOH H2SO4 HNO3 (NONE) OTHER

RELINQUISHED BY:

RECEIVED BY: B. M K 3/23/93 1600

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

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

Lab. ID #: 1179.1-10
Sample Rec'd: 04/13/93
Analysis Start: 04/14/93
Analysis Comp: 04/14/93

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

NJDEPE UST Reg.#: 081515-52 T0 56
TMS #: C-91-2842
NJDEPE Case #: XXXX
Location #: Bldg. #2500

Lab ID.	Description	%Solid	Result (mg/Kg)	MDL
1179.1	SITE A OVA:2.5	93	ND	3.3
1179.2	SITE B #	95	ND	3.3
1179.3	SITE C #	95	ND	3.3
1179.4	SITE D #	94	4.06	3.3
1179.5	SITE E #	94	5.61	3.3
1179.6	SITE F #	85	6.20	3.3
1179.7	SITE G #	82	9.98	3.3
1179.8	SITE H #	85	4.49	3.3
1179.9	SITE I #	81	ND	3.3
1179.10	SITE J #	82	9.99	6.6
M. Bl.	METHOD BLANK	100	ND	3.3

Notes: ND = Not Detected, MDL = Method Detection Limit
* = Silica Gel Added, # = OVA=ND (FIELD DATA)
1179.3 Dup. = 50%, 1179.3 Spike = 81%

I certify that all sampling and/or analysis conformed to the appropriate regulations.

Brian K. McKee
Laboratory Director

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

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

Lab. ID #: 1179.11-20
Sample Rec'd: 04/13/93
Analysis Start: 04/14/93
Analysis Comp: 04/14/93

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

NJDEPE UST Reg.#: 081515-52 TO 56
TMS #: C-91-2842
NJDEPE Case #: XXXX
Location #: Bldg. #2500

Lab ID.	Description	%Solid	Result (mg/Kg)	MDL
1179.11	SITE K #	84	ND	3.3
1179.12	SITE L #	82	ND	3.3
1179.13	SITE M #	82	ND	3.3
1179.14	SITE N #	85	ND	3.3
1179.15	SITE O #	85	ND	3.3
1179.16	SITE P #	85	ND	3.3
1179.17	SITE Q #	86	ND	3.3
1179.18	SITE R #	85	ND	3.3
1179.19	SITE S #	83	ND	3.3
1179.20	SITE T OVA:0.75	91	ND	6.6
M. Bl.	METHOD BLANK	100	ND	3.3

Notes: ND = Not Detected, MDL = Method Detection Limit
* = Silica Gel Added, # = OVA=ND (FIELD DATA)
1179.3 Dup. = 50%, 1179.3 Spike = 81%

I certify that all sampling and/or analysis conformed to the appropriate regulations.

Brian K. McKee
Laboratory Director

SERV-AIR, INC.
An E-SYSTEMS Company

P.O. #: ISO 93-0116

Chain of Custody

oject #: 2500 vst Closure
stomer: DEH
one: 21224

Sampler: C. Appleby DEH Environmental
Site Name: Bldg. 2500

Date / Time: 4/13/93 | 1330

Analysis Parameters: BNA's, PB; VOA's xylene; TPH-E

Start:
Finish:

Sample Number	Date/Time		Customer Sample Location/ID Number	Sample Matrix	# of Bottles	BNA's, PB	VOA's xylene	TPH-E	Remarks	Preservation Method
179.12	4/13/93	1430	Site L	Soil	3	X	X	X	OVA - ND	N/A
179.13		1435	Site M		3	X	X	X	OVA - ND	
179.14		1450	Site N		3	X	X	X	OVA - ND	
179.15		1420	Site O		3	X	X	X	OVA - ND	
179.16		1500	Site P		3	X	X	X	OVA - ND	
179.17		1455	Site Q		3	X	X	X	OVA - ND	
179.18		1505	Site R		3	X	X	X	OVA - ND	
179.19		1510	Site S		3	X	X	X	OVA - ND	
179.20	↓	None	Site T	↓	3	X	X	X	OVA - .75	
179.21			TRIP Blank	AQ	2	X	X			
179.22	4/13/93		Field Blank	↓	2	X	X			↓

Relinquished By (signature)	Date / Time	Received By (signature)	Shipped By:
	4/13/93 | 1630	B. Mck	
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.

II-ENV COC form 01 Page 2 of 2 Pages Rev. A Date: 02 Apr 93

SERV-AIR, INC.
An E-SYSTEMS Company

P.O. #: IJO# 93-0116

Chain of Custody

Project #: 2500 UST Closure
Customer: DEH
Phone: 26224

Sampler: C. Appleby DEH Environmental
Date / Time: 4/13/93 | 1330
Site Name: Bldg. 2500, Closure TMS-C-91-3842
UST # 0081515-52,53,54,55,56

Analysis Parameters: BTEX, PB; VOA TCL + Ketones; TPHC

Start:
Finish:

Lab Sample ID Number	Date/Time		Customer Sample Location/ID Number	Sample Matrix	# of Bottles	Preservation Method	Remarks
1179.1	4/13	1535	Site A	Soil	3	X X X	OVA: 2.5
1179.2		1530	Site B		3	X X X	OVA: ND
1179.3		1520	Site C		3	X X X	OVA: ND
1179.4		1513	Site D		3	X X X	OVA: ND
1179.5		1510	Site E		3	X X X	OVA: ND
1179.6		1400	Site F		3	X X X	OVA: ND
1179.7		1405	Site G		3	X X X	OVA: ND
1179.8		1410	Site H		3	X X X	OVA: ND
1179.9		1415	Site I		3	X X X	OVA: ND
1179.10		1445	Site J		3	X X X	OVA: ND
1179.11	↓	1440	Site K	↓	3	X X X	OVA: ND

N/a

Relinquished By (signature)	Date / Time	Received By (signature)	Shipped By:
	4/13/93 1630		
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.

FT. MONMOUTH OFFICE
E-SYSTEMS, INC. • P.O. BOX 369 BUILDING 1209 • FT. MONMOUTH, NEW JERSEY 07703-5000 • (201) 544-0995

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

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

Lab. ID #: 1177.1-.2
Sample Rec'd: 04/13/93
Analysis Start: 04/14/93
Analysis Comp: 04/14/93

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

NJDEPE UST Reg.#: XXXXXXX-XX,XX,XX
TMS #: X-XX-XXXX
NJDEPE Case #: XXXX
Location #: 2500

Lab ID.	Description	%Solid	Result (mg/Kg)	MDL
1177.1	Pit Fill 2500	92	5.2	3.3
1177.2	Pile fill 2500	92	41.9	3.3
		4. 1		
M. Bl.	METHOD BLANK	100	ND	3.3

Notes: ND = Not Detected, MDL = Method Detection Limit
* = Silica Gel Added

I certify that all sampling and/or analysis conformed to the appropriate regulations.

Brian K. McKee
Laboratory Director

SERV-AIR, INC.
An E-SYSTEMS Company

P.O. #:

Chain of Custody

Project #: Bldg. 2500
Customer:
Phone:

Sampler: C. A.
Site Name: Pile of excavated Soil for RR Fill Area

Date / Time

Analysis Parameters

Start:
Finish:

Lab Sample ID Number	Date/Time	Customer Sample Location/ID Number	Sample Matrix	# of Bottles	TPH	Preservation Method	Remarks
1177.1		P.T Fill 2500	Soil	1			
1177.2		Pile Fill 2500	"	1			

Relinquished By (signature)	Date / Time	Received By (signature)	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.

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618 HERON DRIVE, P.O. BOX 489 • BRIDGEPORT, NJ 08014-0489 • 609-467-9521

E-SYSTEMS, INC.

PROJECT: U.S. ARMY FORT MONMOUTH, NJ BLDG 2500

ANALYSIS NO:	CLIENT ID:
A 1541	Site A
A 1542	Site B
A 1543	Site C
A 1544	Site D
A 1545	Site E
A 1546	Site F
A 1547	Site G
A 1548	Site H
A 1549	Site I
A 1550	Site J
A 1551	Site K
A 1552	Site L
A 1553	Site M
A 1554	Site N
A 1555	Site O
A 1556	Site P
A 1557	Site Q
A 1558	Site R
A 1559	Site S
A 1560	Site T
A 1561	Trip Blank
A 1562	Field Blank

DATE RECEIVED: APRIL 14, 1993

TWENTY FIRST CENTURY
ENVIRONMENTAL, INC.

Richard W Lynch

RICHARD W. LYNCH
LABORATORY MANAGER

GC/MS ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY FORMAT

		No	Yes
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 Tuning 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 Acetone + M-Butanone-Chloride < MDL
b. B/N Fraction TIC: 113 TCEthane 1122 TCEthane @ 4-7 ppb respectively
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 FBP @ 28%
c. Acid Fraction _____

	If not met, were the calculations checked and the results qualified as "estimated"?	___	N/A
8.	Matrix Spike/ Matrix Spike Duplicate 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 _____

9.	Internal Standard Area/Retention Time Shift Meet Criteria	___	✓

Bldg 2550

4-13-93

GC/MS ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY FORMAT (CONTINUED)

	No	Yes
10. Extraction Holding Time Met	___	✓
If not met, list number of days exceeded for each sample: _____		
11. Analysis Holding Time Met	___	✓
If not met, list number of days exceeded for each sample: _____		

Additional Comments: This form completed By Prime Contractor

Laboratory Manager: B. MK Date: 3-31-94

Bldg 2500
4-13-93

METAL ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY FORMAT

	No	Yes
1. Calibration Summary Meet Criteria	___	✓
2. ICP Interference Check Sample Results Summary Submitted (if applicable) / Meet Criteria.	___	✓
3. Serial Dilution Summary Submitted (if applicable) / Meet Criteria.	___	NA
4. Laboratory Control Sample Summary Submitted (if applicable) / Meet Criteria.	___	NA

5. Blank Contamination - If yes, list compounds and concentrations in each blank:

None

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: This form completed By Prime Contractor.

Laboratory Manager: B. MK Date: 3-31-94

Bldg 2500

4-13-93

TABLE OF CONTENTS

NARRATIVE

All extractions and analysis were completed within proper hold times for this batch of samples (A1541 to A1562). Please note that 1,1,2,2-Tetrachloroethane and 1,1,2-Trichloroethane were found in several semi-volatile searches. We believe this is a breakdown byproduct of methylene chloride caused during sonication.

SERV-AIR, INC.
An E-SYSTEMS Company

A1541-A1581

00003

P.O. #: ITO # 93-0116

Chain of Custody

Project #: 2500 UST Closure	Sampler: CAPPbly DEH Environmental	Date / Time 4/13/93 | 1330	Start:
Customer: DEH	Site Name: Bldg. 2500, Closure TMS-C-91-084, UST # 0081515-52,53,54,55,56		Finish:
Phone: 26224			

Lab Sample ID Number	Date/Time		Customer Sample Location/ID Number	Sample Matrix	# of Bottles	BTEX/15 PB	VOA'S 624	TPHC	Remarks	Preservation Method
1179.1	4/13	1535	Site A	Soil	3	X	X	X	OVA: 2.5	N/A
1179.2		1530	Site B		3	X	X	X	OVA: ND	
1179.3		1520	Site C		3	X	X	X	OVA: ND	
1179.4		1513	Site D		3	X	X	X	OVA: ND	
1179.5		1510	Site E		3	X	X	X	OVA: ND	
1179.6		1400	Site F		3	X	X	X	OVA: ND	
1179.7		1405	Site G		3	X	X	X	OVA: ND	
1179.8		1410	Site H		3	X	X	X	OVA: ND	
1179.9		1415	Site I		3	X	X	X	OVA: ND	
1179.10		1445	Site J		3	X	X	X	OVA: ND	
1179.11		1440	Site K		3	X	X	X	OVA: ND	

Relinquished By (signature)	Date / Time	Received By (signature)	Shipped By:
	4/13/93 | 1630		
Relinquished By (signature)	Date / Time	Received For Lab by (signature):	Date / Time
	4-14-93 | 1115		4-14-93 | 1115

Note: A drawing depicting sample location should be attached or drawn on the reverse side of this chain of custody.

FT. MONMOUTH OFFICE
E-SYSTEMS, INC. • P.O. BOX 868, BUILDING 1000 • FT. MONMOUTH, NEW JERSEY 07703-5000 • (201) 544-0005

A1552-A1562

SERV-AIR, INC.
An E-SYSTEMS Company

P.O. #: ISO 93-0116

Chain of Custody 00000

Project #: 2500 vst Closure
Customer: DEH
Phone: 21224

Sampler: C. Appleby DEH Environmental
Site Name: Bldg. 2500

Date / Time: 4/13/93 1330

Analysis Parameters: BNAs, Pb; VOAs; TPH

Start:
Finish:

Lab Sample ID Number	Date	Time	Customer Sample Location/ID Number	Sample Matrix	# of Bottles	BNAs, Pb	VOAs	TPH	Preservation Method	Remarks
1179.12	4/13/93	1430	Site L	Soil	3	X	X	X		OVA - ND
1179.13		1435	Site M		3	X	X	X		OVA - ND
1179.14		1450	Site N		3	X	X	X		OVA - ND
1179.15		1420	Site O		3	X	X	X		OVA - ND
1179.16		1500	Site P		3	X	X	X		OVA - ND
1179.17		1455	Site Q		3	X	X	X		OVA - ND
1179.18		1505	Site R		3	X	X	X		OVA - ND
1179.19		1510	Site S		3	X	X	X		OVA - ND
1179.20		None	Site T		3	X	X	X		OVA - .75
1179.21			TRIP BLANK	AQ	2	X	X			
1179.22	4/13/93		Field Blank		2	X	X			

Relinquished By (signature)	Date / Time	Received By (signature)	Shipped By:
	4/13/93 1630		

Relinquished By (signature)	Date / Time	Received for Lab by (signature):	Date / Time
	4-14-93 1115		4-14-93 1115

Note: A drawing depicting sample location should be attached or drawn on the reverse side of this chain of custody.

FT. MONMOUTH OFFICE
E-SYSTEMS, INC. • P.O. BOX 999, BUILDING [illegible] • FT. MONMOUTH, NEW JERSEY 07703-5000 • (201) 544-0005

Metals

Soil samples for metal analysis were run in accordance with the methods prescribed in SW846. This includes a nitric acid digestion followed by either Furnace, Flame Atomic Absorption, Flameless Atomic Absorption. or Inductively Coupled Plasma analysis.

Aqueous samples for metals analysis were run in accordance with the methods prescribed in Methods for Chemical Analysis of Water and Wastes, EPA-600-4-79-020 March 1983.

Purgeables

U.S.E.P.A. Method 624 - This is a purge and trap Gas Chromatograph/ Mass Spectrometer (GC/MS) method applicable to the determination of the compounds listed in the U.S.E.P.A. Manual entitled "Test Procedures for the Analysis of Organic Pollutants".

An HP5996 GC/MS was used with a capillary column.

Method detection limits are as stated.

Soil samples are prepared for analysis as prescribed in Method 8240 from SW846.

Acid Extractables
Base Neutrals

U.S.E.P.A. Method 625 - This method covers the determination of a number of organic compounds that are partitioned in an organic solvent and amenable to gas chromatography. This is a gas chromatography/mass spectrometer (GC/MS) method applicable to the determination of the compounds listed in the U.S.E.P.A. Manual entitled "Test Procedures for the Analysis of Organic Pollutants".

A HP5970 was used with a DB-5 FSCC.

Method detection limits are as stated.

Soil samples were prepared for analysis as prescribed in Method 3550 and analyzed as prescribed in Method 8270 from SW846.

LABORATORY CHRONICLE

RECEIPT/REFRIGERATION 4/14/93

ORGANICS
EXTRACTION

1. Acids NA
2. Base/Neutrals 4/14/93
3. Pesticides/PCB's/Herbicides NA
4. Petroleum Hydrocarbons/Oil & Grease NA

ANALYSIS

1. Volatiles 4/15/93-4/23/93
2. Acids NA
3. Base/Neutrals 4/15/93-5/7/93
4. Pesticides/PCB's/Herbicides NA
5. Petroleum Hydrocarbons/Oil & Grease NA
6. Total Organic Carbon NA

Section Supervisor
Review & Approval Jeffrey G. Markle

INORGANICS

1. Metals 4/15/93
2. Cyanides NA
3. Phenols NA

OTHER ANALYTES

Section Supervisor
Review & Approval Marie Wadsworth

Quality Control Supervisor
Review & Approval

Laboratory Director
Review & Approval Richard W. Lynch

If fractions are re-extracted and re-analyzed because initial endeavors did not meet quality control acceptance criteria, include dates for both.

RESULT SUMMARY

U.S. ARMY-FORT MONMOUTH, NJ BLDG 2500

CERTIFICATE OF ANALYSIS

LEAD

ANALYSIS NO:	CLIENT ID:	MDL (mg/Kg)	RESULT (mg/Kg)
A 1541	Site A	5.00	8.45 ·
A 1542	Site B	5.00	9.84 ·
A 1543	Site C	5.00	7.98 ·
A 1544	Site D	5.00	9.54 .
A 1545	Site E	5.00	7.85 ·
A 1546	Site F	5.00	12.2 ·
A 1547	Site G	5.00	N.D. ·
A 1548	Site H	5.00	8.74 ·
A 1549	Site I	5.00	7.75 ·
A 1550	Site J	5.00	22.6 ·
A 1551	Site K	5.00	N.D. ·
A 1552	Site L	5.00	N.D. ·
A 1553	Site M	5.00	22.7 ·
A 1554	Site N	5.00	7.33 ·
A 1555	Site O	5.00	9.81 ·
A 1556	Site P	5.00	11.8 ·
A 1557	Site Q	5.00	N.D. ·
A 1558	Site R	5.00	8.52 ·
A 1559	Site S	5.00	N.D. ·
A 1560	Site T	5.00	12.7 ·

BATCH M044

00007

U.S. ARMY--FORT MONMOUTH, NJ BLDG. 2500

CERTIFICATE OF ANALYSIS

LEAD

ANALYSIS NO:	CLIENT ID:	MDL (mg/L)	RESULT (mg/L)
A 1562	Field Blank	0.05	N.D.

00008

21st Century Environmental Inc.
VOLATILE ORGANIC ANALYSIS DATA

JOB NUMBER	US ARMY FT. MONMOUTH	MATRIX	Soil
SAMPLE NUMBER	A1541	DILUTION FACTOR	1.00
CLIENT ID	SITE A BLDG 2500	COMMENTS	OVA 2.5
DATA FILE	>A1249	DATE ANALYZED	04/15/93

COMPOUND	UG/KG	MDL	COMPOUND	UG/KG	MDL
Acrolein	ND	55	Bromodichloromethane	ND	5
Acrylonitrile	ND	55	2-Chloroethylvinylether	ND	11
Chloromethane	ND	11	2-Hexanone	ND	11
Bromomethane	ND	11	trans-1,3-Dichloropropene	ND	5
Vinyl Chloride	ND	11	Toluene	ND	5
Chloroethane	ND	11	cis-1,3-Dichloropropene	ND	5
Acetone	ND	11	1,1,2,2-Tetrachloroethane	ND	5
1,1-Dichloroethene	ND	5	1,1,2-Trichloroethane	ND	5
Carbon Disulfide	ND	11	4-Methyl-2-pentanone	ND	11
Methylene Chloride	3.7 J	5	Tetrachloroethene	ND	5
1,2-Dichloroethene(trans)	ND	5	Dibromochloromethane	ND	5
1,1-Dichloroethane	ND	5	Chlorobenzene	ND	5
Vinyl Acetate	ND	5	Ethylbenzene	ND	5
2-Butanone	ND	11	m&p-Xylenes	ND	5
Chloroform	ND	5	o-Xylene	ND	5
1,1,1-Trichloroethane	ND	5	Styrene	ND	5
Carbon Tetrachloride	ND	5	Bromoform	ND	5
1,2-Dichloroethane	ND	5	m-Dichlorobenzene	ND	5
Benzene	ND	5	p-Dichlorobenzene	ND	5
Trichloroethene	ND	5	o-Dichlorobenzene	ND	5
1,2-Dichloropropane	ND	5			

SURROGATE COMPOUNDS	% RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	99.0	70 - 121	OK
Toluene-d8	98.4	81 - 117	OK
Bromofluorobenzene	97.6	74 - 121	OK

Percent Solid of 91.0 is used for all Target compounds.

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

00093

21ST CENTURY Environmental
SEMIVOLATILE ANALYSIS DATA

JOB NUMBER	US ARMY, FT. MONMOUTH, NJ	MATRIX	Soil
SAMPLE NUMBER	A1541	DILUTION FACTOR	1.00
CLIENT ID	BLDG 2500, SITE A	COMMENTS	OVA:2.5
DATA FILE	>C0978	DATE ANALYZED	04/15/93

COMPOUND	UG/KG	MDL	COMPOUND	UG/KG	MDL
N-Nitrosodimethylamine	ND	360	2,6-Dinitrotoluene	ND	360
bis(-2-Chloroethyl)Ether	ND	360	Diethylphthalate	ND	360
1,3-Dichlorobenzene	ND	360	4-Chlorophenyl-phenlyether	ND	360
1,4-Dichlorobenzene	ND	360	Fluorene	ND	360
Benzyl Alcohol	ND	360	4-Nitroaniline	ND	1800
1,2-Dichlorobenzene	ND	360	N-Nitrosodiphenylamine	ND	360
bis(2-chloroisopropyl)Ether	ND	360	4-Bromophenyl-phenylether	ND	360
N-Nitroso-Di-n-Propylamine	ND	360	Hexachlorobenzene	ND	360
Hexachloroethane	ND	360	Phenanthrene	ND	360
Nitrobenzene	ND	360	Anthracene	ND	360
Isophorone	ND	360	Di-n-Butylphthalate	ND	360
Benzoic Acid	ND	1800	Fluoranthene	ND	360
bis(-2-Chloroethoxy)Methane	ND	360	Pyrene	ND	360
1,2,4-Trichlorobenzene	ND	360	Butylbenzylphthalate	ND	360
Naphthalene	ND	360	3,3'-Dichlorobenzidine	ND	720
4-Chloroaniline	ND	360	Benzo(a)Anthracene	ND	360
Hexachlorobutadiene	ND	360	Bis(2-Ethylhexyl)Phthalate	ND	360
2-Methylnaphthalene	ND	360	Chrysene	ND	360
Hexachlorocyclopentadiene	ND	360	Di-n-Octyl Phthalate	ND	360
2-Chloronaphthalene	ND	360	Benzo(b)fluoranthene	ND	360
2-Nitroaniline	ND	1800	Benzo(k)Fluoranthene	ND	360
Dimethyl Phthalate	ND	360	Benzo(a)Pyrene	ND	360
Acenaphthylene	ND	360	Indeno(1,2,3-cd)Pyrene	ND	360
3-Nitroaniline	ND	1800	Dibenzo(a,h)Anthracene	ND	360
Acenaphthene	ND	360	Benzo(g,h,i)Perylene	ND	360
Dibenzofuran	ND	360	Benzidine	ND	720
2,4-Dinitrotoluene	ND	360			

Percent Solid of 91.0 is used for all Target compounds.

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SITE A

Lab Name:21st Century Environmental

Client Name: US ARMY FT. MONMOUTH, NJ

Client ID: BLDG 2500

Matrix: (soil/water) Soil

Lab Sample ID: A1541

Sample wt/vol: 5 (g/mL) g

Lab File ID: >A1249

Level: (low/med) LOW

Date Received: 04/14/93

% Moisture: 9

Date Analyzed: 04/15/93

Column: DB-624

Dilution Factor: 1

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	No Unknowns			

FORM I VOA-TIC

1/87 Rev.

00011

E1

EPA SAMPLE NUMBER

semi-VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

BLDG 2500
SITE A

Client: US Army, Ft. Monmouth, NJ

Comments: OVA: 2.5

Matrix: (soil/water) SOIL

Lab Sample ID: A1541

Sample wt/vol: 30 (g/mL) GM

Lab File ID: >C0978

Level: LOW

Date Received: NA

% Moisture: 9

Date Analyzed 04/15/93

Extraction: (Sepf/Cont/Sonc) SONC

Date Extracted 04/14/93

GPC (Y or N): N

Column: DB-5

Dilution Factor: 1

Number TICs Found 1

CONCENTRATION UNITS
(ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST CONC
1	79345	Ethane, 1,1,2,2-tetrachloro- (8CI9CI)	8.18	440

00012

21st Century Environmental Inc.
VOLATILE ORGANIC ANALYSIS DATA

JOB NUMBER	US ARMY FT. MONMOUTH NJ	MATRIX	Soil
SAMPLE NUMBER	A1542	DILUTION FACTOR	1.00
CLIENT ID	SITE 8 BLDG 2500	COMMENTS	QVA ND
DATA FILE	>A1250	DATE ANALYZED	04/15/93

COMPOUND	UG/KG	MDL	COMPOUND	UG/KG	MDL
Acrolein	ND	53	Bromodichloromethane	ND	5
Acrylonitrile	ND	53	2-Chloroethylvinylether	ND	11
Chloromethane	ND	11	2-Hexanone	ND	11
Bromomethane	ND	11	trans-1,3-Dichloropropene	ND	5
Vinyl Chloride	ND	11	Toluene	ND	5
Chloroethane	ND	11	cis-1,3-Dichloropropene	ND	5
Acetone	2.6 J	11	1,1,2,2-Tetrachloroethane	ND	5
1,1-Dichloroethene	ND	5	1,1,2-Trichloroethane	ND	5
Carbon Disulfide	ND	11	4-Methyl-2-pentanone	ND	11
Methylene Chloride	3.5 J	5	Tetrachloroethene	ND	5
1,2-Dichloroethene(trans)	ND	5	Dibromochloromethane	ND	5
1,1-Dichloroethane	ND	5	Chlorobenzene	ND	5
Vinyl Acetate	ND	5	Ethylbenzene	ND	5
2-Butanone	ND	11	m&p-Xylenes	ND	5
Chloroform	ND	5	o-Xylene	ND	5
1,1,1-Trichloroethane	ND	5	Styrene	ND	5
Carbon Tetrachloride	ND	5	Bromoform	ND	5
1,2-Dichloroethane	ND	5	m-Dichlorobenzene	ND	5
Benzene	ND	5	p-Dichlorobenzene	ND	5
Trichloroethene	ND	5	o-Dichlorobenzene	ND	5
1,2-Dichloropropane	ND	5			

SURROGATE COMPOUNDS	% RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	99.5	70 - 121	OK
Toluene-d8	99.1	81 - 117	OK
Bromofluorobenzene	97.8	74 - 121	OK

Percent Solid of 94.0 is used for all Target compounds.

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

21ST CENTURY Environmental
SEMIVOLATILE ANALYSIS DATA

JOB NUMBER	US ARMY, FT. MONMOUTH, NJ	MATRIX	Soil
SAMPLE NUMBER	A1542	DILUTION FACTOR	1.00
CLIENT ID	BLDG 2500, SITE B	COMMENTS	OVA: ND
DATA FILE	>C1133	DATE ANALYZED	05/03/93

COMPOUND	UG/KG	MDL	COMPOUND	UG/KG	MDL
N-Nitrosodimethylamine	ND	350	2,6-Dinitrotoluene	ND	350
bis(-2-Chloroethyl)Ether	ND	350	Diethylphthalate	ND	350
1,3-Dichlorobenzene	ND	350	4-Chlorophenyl-phenlyether	ND	350
1,4-Dichlorobenzene	ND	350	Fluorene	ND	350
Benzyl Alcohol	ND	350	4-Nitroaniline	ND	1800
1,2-Dichlorobenzene	ND	350	N-Nitrosodiphenylamine	ND	350
bis(2-chloroisopropyl)Ether	ND	350	4-Bromophenyl-phenylether	ND	350
N-Nitroso-Di-n-Propylamine	ND	350	Hexachlorobenzene	ND	350
Hexachloroethane	ND	350	Phenanthrene	ND	350
Nitrobenzene	ND	350	Anthracene	ND	350
Isophorone	ND	350	Di-n-Butylphthalate	ND	350
Benzoic Acid	ND	1800	Fluoranthene	ND	350
bis(-2-Chloroethoxy)Methane	ND	350	Pyrene	ND	350
1,2,4-Trichlorobenzene	ND	350	Butylbenzylphthalate	ND	350
Naphthalene	ND	350	3,3'-Dichlorobenzidine	ND	700
4-Chloroaniline	ND	350	Benzo(a)Anthracene	ND	350
Hexachlorobutadiene	ND	350	Bis(2-Ethylhexyl)Phthalate	ND	350
2-Methylnaphthalene	ND	350	Chrysene	ND	350
Hexachlorocyclopentadiene	ND	350	Di-n-Octyl Phthalate	ND	350
2-Chloronaphthalene	ND	350	Benzo(b)fluoranthene	ND	350
2-Nitroaniline	ND	1800	Benzo(k)Fluoranthene	ND	350
Dimethyl Phthalate	ND	350	Benzo(a)Pyrene	ND	350
Acenaphthylene	ND	350	Indeno(1,2,3-cd)Pyrene	ND	350
3-Nitroaniline	ND	1800	Dibenzo(a,h)Anthracene	ND	350
Acenaphthene	ND	350	Benzo(g,h,i)Perylene	ND	350
Dibenzofuran	ND	350	Benzidine	ND	700
2,4-Dinitrotoluene	ND	350			

Percent Solid of 94.0 is used for all Target compounds.

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SITE B

Lab Name: 21st Century Environmental

Client Name: US ARMY FT. MONMOUTH, NJ — Client ID: BLDG 2500

Matrix: (soil/water) Soil — Lab Sample ID: A1542

Sample wt/vol: 5 (g/mL) g — Lab File ID: >A1250

Level: (low/med) LOW — Date Received: 04/14/93

% Moisture: 6 — Date Analyzed: 04/15/93

Column: DB-624 — Dilution Factor: 1

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	No Unknowns			

FORM I VOA-TIC 1/87 Rev.

E1

EPA SAMPLE NUMBER

semi-VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

BLDG 2500
SITE B

Client: US Army, Ft. Monmouth, NJ

Comments: OVA: ND

Matrix: (soil/water) SOIL

Lab Sample ID: A1542

Sample wt/vol: 30 (g/mL) GM

Lab File ID: >C1133

Level: LOW

Date Received: NA

% Moisture: 6

Date Analyzed 05/03/93

Extraction: (Sepf/Cont/Sonc) SONC

Date Extracted 04/14/93

GPC (Y or N): N

Column: DB-5

Dilution Factor: 1

Number TICs Found 3

CONCENTRATION UNITS
(ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST CONC
1	79005	Ethane, 1,1,2-trichloro- (8CI9CI)	4.12	180
2	79345	Ethane, 1,1,2,2-tetrachloro- (8CI9CI)	7.69	430
3		UNKNOWN	30.56	140

21st Century Environmental Inc.
VOLATILE ORGANIC ANALYSIS DATA

JOB NUMBER	US ARMY FT. MONMOUTH NJ	MATRIX	Soil
SAMPLE NUMBER	A1543	DILUTION FACTOR	1.00
CLIENT ID	SITE C BLDG 2500	COMMENTS	OVA ND
DATA FILE	>A1298	DATE ANALYZED	04/22/93

COMPOUND	UG/KG		MDL	COMPOUND	UG/KG	MDL
Acrolein	ND		54	Bromodichloromethane	ND	5
Acrylonitrile	ND		54	2-Chloroethylvinylether	ND	11
Chloromethane	ND		11	2-Hexanone	ND	11
Bromomethane	ND		11	trans-1,3-Dichloropropene	ND	5
Vinyl Chloride	ND		11	Toluene	ND	5
Chloroethane	ND		11	cis-1,3-Dichloropropene	ND	5
Acetone	ND	B	11	1,1,2,2-Tetrachloroethane	ND	5
1,1-Dichloroethene	ND		5	1,1,2-Trichloroethane	ND	5
Carbon Disulfide	ND		11	4-Methyl-2-pentanone	ND	11
Methylene Chloride	ND		5	Tetrachloroethene	ND	5
1,2-Dichloroethene(trans)	ND		5	Dibromochloromethane	ND	5
1,1-Dichloroethane	ND		5	Chlorobenzene	ND	5
Vinyl Acetate	ND		5	Ethylbenzene	ND	5
2-Butanone	ND		11	m&p-Xylenes	ND	5
Chloroform	ND		5	o-Xylene	ND	5
1,1,1-Trichloroethane	ND		5	Styrene	ND	5
Carbon Tetrachloride	ND		5	Bromoform	ND	5
1,2-Dichloroethane	ND		5	m-Dichlorobenzene	ND	5
Benzene	ND		5	p-Dichlorobenzene	ND	5
Trichloroethene	ND		5	o-Dichlorobenzene	ND	5
1,2-Dichloropropane	ND		5			

SURROGATE COMPOUNDS	% RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	97.5	70 - 121	OK
Toluene-d8	98.2	81 - 117	OK
Bromofluorobenzene	99.6	74 - 121	OK

Percent Solid of 93.0 is used for all Target compounds.

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

21ST CENTURY Environmental
SEMIVOLATILE ANALYSIS DATA

JOB NUMBER	US ARMY, FT. MONMOUTH, NJ	MATRIX	Soil
SAMPLE NUMBER	A1543	DILUTION FACTOR	1.00
CLIENT ID	BLDG 2500, SITE C	COMMENTS	QUA: ND
DATA FILE	>C1134	DATE ANALYZED	05/03/93

COMPOUND	UG/KG	MDL	COMPOUND	UG/KG	MDL
N-Nitrosodimethylamine	ND	350	2,6-Dinitrotoluene	ND	350
bis(-2-Chloroethyl)Ether	ND	350	Diethylphthalate	ND	350
1,3-Dichlorobenzene	ND	350	4-Chlorophenyl-phenlyether	ND	350
1,4-Dichlorobenzene	ND	350	Fluorene	ND	350
Benzyl Alcohol	ND	350	4-Nitroaniline	ND	1800
1,2-Dichlorobenzene	ND	350	N-Nitrosodiphenylamine	ND	350
bis(2-chloroisopropyl)Ether	ND	350	4-Bromophenyl-phenylether	ND	350
N-Nitroso-Di-n-Propylamine	ND	350	Hexachlorobenzene	ND	350
Hexachloroethane	ND	350	Phenanthrene	ND	350
Nitrobenzene	ND	350	Anthracene	ND	350
Isophorone	ND	350	Di-n-Butylphthalate	ND	350
Benzoic Acid	ND	1800	Fluoranthene	ND	350
bis(-2-Chloroethoxy)Methane	ND	350	Pyrene	ND	350
1,2,4-Trichlorobenzene	ND	350	Butylbenzylphthalate	ND	350
Naphthalene	ND	350	3,3'-Dichlorobenzidine	ND	710
4-Chloroaniline	ND	350	Benzo(a)Anthracene	ND	350
Hexachlorobutadiene	ND	350	Bis(2-Ethylhexyl)Phthalate	ND	350
2-Methylnaphthalene	ND	350	Chrysene	ND	350
Hexachlorocyclopentadiene	ND	350	Di-n-Octyl Phthalate	ND	350
2-Chloronaphthalene	ND	350	Benzo(b)fluoranthene	ND	350
2-Nitroaniline	ND	1800	Benzo(k)Fluoranthene	ND	350
Dimethyl Phthalate	ND	350	Benzo(a)Pyrene	ND	350
Acenaphthylene	ND	350	Indeno(1,2,3-cd)Pyrene	ND	350
3-Nitroaniline	ND	1800	Dibenzo(a,h)Anthracene	ND	350
Acenaphthene	ND	350	Benzo(g,h,i)Perylene	ND	350
Dibenzofuran	ND	350	Benzidine	ND	710
2,4-Dinitrotoluene	ND	350			

Percent Solid of 93.0 is used for all Target compounds.

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SITE C

Lab Name: 21st Century Environmental

Client Name: US ARMY FT. MONMOUTH, NJ

Client ID: BLDG 2500

Matrix: (soil/water) Soil

Lab Sample ID: A1543

Sample wt/vol: 5 (g/mL) g

Lab File ID: >A1298

Level: (low/med) LOW

Date Received: 04/14/93

% Moisture: 7

Date Analyzed: 04/22/93

Column: DB-624

Dilution Factor: 1

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	No Unknowns			

FORM I VOA-TIC

1/87 Rev.

00019

E1

semi-VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NUMBER

BLDG 2500
SITE C

Client: US Army, Ft. Monmouth, NJ

Comments: OVA: ND

Matrix: (soil/water) SOIL

Lab Sample ID: A1543

Sample wt/vol: 30 (g/mL) GM

Lab File ID: >C1134

Level: LOW

Date Received: NA

% Moisture: 7

Date Analyzed 05/03/93

Extraction: (Sepf/Cont/Sonc) SONC

Date Extracted 04/14/93

GPC (Y or N): N

Column: DB-5

Dilution Factor: 1

Number TICs Found 1

CONCENTRATION UNITS
(ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST CONC
1	79345	Ethane, 1,1,2,2-tetrachloro- (8CI9CI)	7.69	290

21st Century Environmental Inc.
VOLATILE ORGANIC ANALYSIS DATA

JOB NUMBER	US ARMY FT.MONMOUTH NJ	MATRIX	Soil
SAMPLE NUMBER	A1544	DILUTION FACTOR	1.00
CLIENT ID	SITE 0 BLDG 2500	COMMENTS	QVA ND
DATA FILE	>A1252	DATE ANALYZED	04/15/93

COMPOUND	UG/KG	MDL	COMPOUND	UG/KG	MDL
Acrolein	ND	53	Bromodichloromethane	ND	5
Acrylonitrile	ND	53	2-Chloroethylvinylether	ND	11
Chloromethane	ND	11	2-Hexanone	ND	11
Bromomethane	ND	11	trans-1,3-Dichloropropene	ND	5
Vinyl Chloride	ND	11	Toluene	ND	5
Chloroethane	ND	11	cis-1,3-Dichloropropene	ND	5
Acetone	9.2 J	11	1,1,2,2-Tetrachloroethane	ND	5
1,1-Dichloroethene	ND	5	1,1,2-Trichloroethane	ND	5
Carbon Disulfide	ND	11	4-Methyl-2-pentanone	ND	11
Methylene Chloride	2.9 J	5	Tetrachloroethene	ND	5
1,2-Dichloroethene(trans)	ND	5	Dibromochloromethane	ND	5
1,1-Dichloroethane	ND	5	Chlorobenzene	ND	5
Vinyl Acetate	ND	5	Ethylbenzene	ND	5
2-Butanone	ND	11	m&p-Xylenes	ND	5
Chloroform	ND	5	o-Xylene	ND	5
1,1,1-Trichloroethane	ND	5	Styrene	ND	5
Carbon Tetrachloride	ND	5	Bromoform	ND	5
1,2-Dichloroethane	ND	5	m-Dichlorobenzene	ND	5
Benzene	ND	5	p-Dichlorobenzene	ND	5
Trichloroethene	ND	5	o-Dichlorobenzene	ND	5
1,2-Dichloropropane	ND	5			

SURROGATE COMPOUNDS	% RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	101	70 - 121	OK
Toluene-d8	99.8	81 - 117	OK
Bromofluorobenzene	99.2	74 - 121	OK

Percent Solid of 94.0 is used for all Target compounds.

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

21ST CENTURY Environmental
SEMIVOLATILE ANALYSIS DATA

JOB NUMBER	US ARMY, FT. MONMOUTH, NJ	MATRIX	Soil
SAMPLE NUMBER	A1544	DILUTION FACTOR	1.00
CLIENT ID	BLDG 2500, SITE D	COMMENTS	OVA: ND
DATA FILE	>C1176	DATE ANALYZED	05/06/93

COMPOUND	UG/KG	MDL	COMPOUND	UG/KG	MDL
N-Nitrosodimethylamine	ND	350	2,6-Dinitrotoluene	ND	350
bis(-2-Chloroethyl)Ether	ND	350	Diethylphthalate	ND	350
1,3-Dichlorobenzene	ND	350	4-Chlorophenyl-phenlyether	ND	350
1,4-Dichlorobenzene	ND	350	Fluorene	ND	350
Benzyl Alcohol	ND	350	4-Nitroaniline	ND	1800
1,2-Dichlorobenzene	ND	350	N-Nitrosodiphenylamine	ND	350
bis(2-chloroisopropyl)Ether	ND	350	4-Bromophenyl-phenylether	ND	350
N-Nitroso-Di-n-Propylamine	ND	350	Hexachlorobenzene	ND	350
Hexachloroethane	ND	350	Phenanthrene	ND	350
Nitrobenzene	ND	350	Anthracene	ND	350
Isophorone	ND	350	Di-n-Butylphthalate	ND	350
Benzoic Acid	ND	1800	Fluoranthene	ND	350
bis(-2-Chloroethoxy)Methane	ND	350	Pyrene	ND	350
1,2,4-Trichlorobenzene	ND	350	Butylbenzylphthalate	ND	350
Naphthalene	ND	350	3,3'-Dichlorobenzidine	ND	700
4-Chloroaniline	ND	350	Benzo(a)Anthracene	ND	350
Hexachlorobutadiene	ND	350	Bis(2-Ethylhexyl)Phthalate	ND	350
2-Methylnaphthalene	ND	350	Chrysene	ND	350
Hexachlorocyclopentadiene	ND	350	Di-n-Octyl Phthalate	ND	350
2-Chloronaphthalene	ND	350	Benzo(b)fluoranthene	ND	350
2-Nitroaniline	ND	1800	Benzo(k)Fluoranthene	ND	350
Dimethyl Phthalate	ND	350	Benzo(a)Pyrene	ND	350
Acenaphthylene	ND	350	Indeno(1,2,3-cd)Pyrene	ND	350
3-Nitroaniline	ND	1800	Dibenzo(a,h)Anthracene	ND	350
Acenaphthene	ND	350	Benzo(g,h,i)Perylene	ND	350
Dibenzofuran	ND	350	Benzidine	ND	700
2,4-Dinitrotoluene	ND	350			

Percent Solid of 94.0 is used for all Target compounds.

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SITE D

Lab Name: 21st Century Environmental

Client Name: US ARMY FT. MONMOUTH, NJ

Client ID: BLDG 2500

Matrix: (soil/water) Soil

Lab Sample ID: A1544

Sample wt/vol: 5 (g/mL) g

Lab File ID: >A1252

Level: (low/med) LOW

Date Received: 04/14/93

% Moisture: 6

Date Analyzed: 04/15/93

Column: DB-624

Dilution Factor: 1

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	No Unknowns			

FORM I VOA-TIC

1/87 Rev.

00023

E1

semi-VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NUMBER

BLDG 2500
SITE D

Client: US Army, Ft. Monmouth, NJ

Comments: OVA: ND

Matrix: (soil/water) SOIL

Lab Sample ID: A1544

Sample wt/vol: 30 (g/mL) GM

Lab File ID: >C1176

Level: LOW

Date Received: NA

% Moisture: 6

Date Analyzed 05/06/93

Extraction: (Sepf/Cont/Sonc) SONC

Date Extracted 04/14/93

GPC (Y or N): N

Column: DB-5

Dilution Factor: 1

Number TICs Found 1

CONCENTRATION UNITS
(ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST CONC
1	79345	Ethane, 1,1,2,2-tetrachloro- (8CI9CI)	7.65	280

21st Century Environmental Inc.
VOLATILE ORGANIC ANALYSIS DATA

JOB NUMBER	US ARMY FT. MONMOUTH NJ	MATRIX	Soil
SAMPLE NUMBER	A1545	DILUTION FACTOR	1.00
CLIENT ID	SITE E BLDG 2500	COMMENTS	OVA ND
DATA FILE	>A1311	DATE ANALYZED	04/23/93

COMPOUND	UG/KG	MDL	COMPOUND	UG/KG	MDL
Acrolein	ND	54	Bromodichloromethane	ND	5
Acrylonitrile	ND	54	2-Chloroethylvinylether	ND	11
Chloromethane	ND	11	2-Hexanone	ND	11
Bromomethane	ND	11	trans-1,3-Dichloropropene	ND	5
Vinyl Chloride	ND	11	Toluene	ND	5
Chloroethane	ND	11	cis-1,3-Dichloropropene	ND	5
Acetone	8.3 JB	11	1,1,2,2-Tetrachloroethane	ND	5
1,1-Dichloroethene	ND	5	1,1,2-Trichloroethane	ND	5
Carbon Disulfide	ND	11	4-Methyl-2-pentanone	ND	11
Methylene Chloride	3.6 JB	5	Tetrachloroethene	ND	5
1,2-Dichloroethene(trans)	ND	5	Dibromochloromethane	ND	5
1,1-Dichloroethane	ND	5	Chlorobenzene	ND	5
Vinyl Acetate	ND	5	Ethylbenzene	ND	5
2-Butanone	ND	11	m&p-Xylenes	ND	5
Chloroform	ND	5	o-Xylene	ND	5
1,1,1-Trichloroethane	ND	5	Styrene	ND	5
Carbon Tetrachloride	ND	5	Bromoform	ND	5
1,2-Dichloroethane	ND	5	m-Dichlorobenzene	ND	5
Benzene	ND	5	p-Dichlorobenzene	ND	5
Trichloroethene	ND	5	o-Dichlorobenzene	ND	5
1,2-Dichloropropane	ND	5			

SURROGATE COMPOUNDS	% RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	95.2	70 - 121	OK
Toluene-d8	96.8	81 - 117	OK
Bromofluorobenzene	97.1	74 - 121	OK

Percent Solid of 93.0 is used for all Target compounds.

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

21ST CENTURY Environmental
SEMIVOLATILE ANALYSIS DATA

JOB NUMBER	US ARMY, FT. MONMOUTH, NJ	MATRIX	Soil
SAMPLE NUMBER	A1545	DILUTION FACTOR	1.00
CLIENT ID	BLDG 2500, SITE E	COMMENTS	HNU: 0
DATA FILE	>C1136	DATE ANALYZED	05/03/93

COMPOUND	UG/KG	MDL	COMPOUND	UG/KG	MDL
N-Nitrosodimethylamine	ND	350	2,6-Dinitrotoluene	ND	350
bis(-2-Chloroethyl)Ether	ND	350	Diethylphthalate	ND	350
1,3-Dichlorobenzene	ND	350	4-Chlorophenyl-phenlyether	ND	350
1,4-Dichlorobenzene	ND	350	Fluorene	ND	350
Benzyl Alcohol	ND	350	4-Nitroaniline	ND	1800
1,2-Dichlorobenzene	ND	350	N-Nitrosodiphenylamine	ND	350
bis(2-chloroisopropyl)Ether	ND	350	4-Bromophenyl-phenylether	ND	350
N-Nitroso-Di-n-Propylamine	ND	350	Hexachlorobenzene	ND	350
Hexachloroethane	ND	350	Phenanthrene	ND	350
Nitrobenzene	ND	350	Anthracene	ND	350
Isophorone	ND	350	Di-n-Butylphthalate	ND	350
Benzoic Acid	ND	1800	Fluoranthene	ND	350
bis(-2-Chloroethoxy)Methane	ND	350	Pyrene	ND	350
1,2,4-Trichlorobenzene	ND	350	Butylbenzylphthalate	ND	350
Naphthalene	ND	350	3,3'-Dichlorobenzidine	ND	710
4-Chloroaniline	ND	350	Benzo(a)Anthracene	ND	350
Hexachlorobutadiene	ND	350	Bis(2-Ethylhexyl)Phthalate	ND	350
2-Methylnaphthalene	ND	350	Chrysene	ND	350
Hexachlorocyclopentadiene	ND	350	Di-n-Octyl Phthalate	ND	350
2-Chloronaphthalene	ND	350	Benzo(b)fluoranthene	ND	350
2-Nitroaniline	ND	1800	Benzo(k)Fluoranthene	ND	350
Dimethyl Phthalate	ND	350	Benzo(a)Pyrene	ND	350
Acenaphthylene	ND	350	Indeno(1,2,3-cd)Pyrene	ND	350
3-Nitroaniline	ND	1800	Dibenzo(a,h)Anthracene	ND	350
Acenaphthene	ND	350	Benzo(g,h,i)Perylene	ND	350
Dibenzofuran	ND	350	Benzidine	ND	710
2,4-Dinitrotoluene	ND	350			

Percent Solid of 93.0 is used for all Target compounds.

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SITE E

Lab Name: 21st Century Environmental

Client Name: US ARMY FT. MONMOUTH, NJ

Client ID: BLDG 2500

Matrix: (soil/water) Soil

Lab Sample ID: A1545

Sample wt/vol: 5 (g/mL) g

Lab File ID: >A1311

Level: (low/med) LOW

Date Received: 04/14/93

% Moisture: 7

Date Analyzed: 04/23/93

Column: DB-624

Dilution Factor: 1

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	No Unknowns			

FORM I VOA-TIC 1/87 Rev.

00027

E1

EPA SAMPLE NUMBER

semi-VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

BLDG 2500
SITE E

Client: US Army, Ft. Monmouth, NJ

Comments: OVA: ND

Matrix: (soil/water) SOIL

Lab Sample ID: A1545

Sample wt/vol: 30 (g/mL) GM

Lab File ID: >C1136

Level: LOW

Date Received: NA

% Moisture: 7

Date Analyzed 05/03/93

Extraction: (Sepf/Cont/Sonc) SONC

Date Extracted 04/14/93

GPC (Y or N): N

Column: DB-5

Dilution Factor: 1

Number TICs Found 2

CONCENTRATION UNITS
(ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST CONC
1	79005	Ethane, 1,1,2-trichloro- (8CI9CI)	4.11	180
2	79345	Ethane, 1,1,2,2-tetrachloro- (8CI9CI)	7.69	430

21st Century Environmental Inc.
VOLATILE ORGANIC ANALYSIS DATA

JOB NUMBER	US ARMY FT. MONMOUTH NJ	MATRIX	Soil
SAMPLE NUMBER	A1546	DILUTION FACTOR	1.00
CLIENT ID	SITE F BLDG 2500	COMMENTS	QVA ND
DATA FILE	>A1312	DATE ANALYZED	04/23/93

COMPOUND	UG/KG	MDL	COMPOUND	UG/KG	MDL
Acrolein	ND	65	Bromodichloromethane	ND	6
Acrylonitrile	ND	65	2-Chloroethylvinylether	ND	13
Chloromethane	ND	13	2-Hexanone	ND	13
Bromomethane	ND	13	trans-1,3-Dichloropropene	ND	6
Vinyl Chloride	ND	13	Toluene	ND	6
Chloroethane	ND	13	cis-1,3-Dichloropropene	ND	6
Acetone	ND B	13	1,1,2,2-Tetrachloroethane	ND	6
1,1-Dichloroethene	ND	6	1,1,2-Trichloroethane	ND	6
Carbon Disulfide	ND	13	4-Methyl-2-pentanone	ND	13
Methylene Chloride	4.2 JB	6	Tetrachloroethene	ND	6
1,2-Dichloroethene(trans)	ND	6	Dibromochloromethane	ND	6
1,1-Dichloroethane	ND	6	Chlorobenzene	ND	6
Vinyl Acetate	ND	6	Ethylbenzene	ND	6
2-Butanone	ND	13	m&p-Xylenes	ND	6
Chloroform	ND	6	o-Xylene	ND	6
1,1,1-Trichloroethane	ND	6	Styrene	ND	6
Carbon Tetrachloride	ND	6	Bromoform	ND	6
1,2-Dichloroethane	ND	6	m-Dichlorobenzene	ND	6
Benzene	ND	6	p-Dichlorobenzene	ND	6
Trichloroethene	ND	6	o-Dichlorobenzene	ND	6
1,2-Dichloropropane	ND	6			

SURROGATE COMPOUNDS	% RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	94.9	70 - 121	OK
Toluene-d8	96.0	81 - 117	OK
Bromofluorobenzene	96.7	74 - 121	OK

Percent Solid of 77.0 is used for all Target compounds.

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

00029

21ST CENTURY Environmental
SEMIVOLATILE ANALYSIS DATA

JOB NUMBER	US ARMY, FT. MONMOUTH, NJ	MATRIX	Soil
SAMPLE NUMBER	A1546	DILUTION FACTOR	1.00
CLIENT ID	BLDG 2500, SITE F	COMMENTS	OVA: ND
DATA FILE	>C1137	DATE ANALYZED	05/03/93

COMPOUND	UG/KG	MDL	COMPOUND	UG/KG	MDL
N-Nitrosodimethylamine	ND	430	2,6-Dinitrotoluene	ND	430
bis(-2-Chloroethyl)Ether	ND	430	Diethylphthalate	ND	430
1,3-Dichlorobenzene	ND	430	4-Chlorophenyl-phenlyether	ND	430
1,4-Dichlorobenzene	ND	430	Fluorene	ND	430
Benzyl Alcohol	ND	430	4-Nitroaniline	ND	2100
1,2-Dichlorobenzene	ND	430	N-Nitrosodiphenylamine	ND	430
bis(2-chloroisopropyl)Ether	ND	430	4-Bromophenyl-phenylether	ND	430
N-Nitroso-Di-n-Propylamine	ND	430	Hexachlorobenzene	ND	430
Hexachloroethane	ND	430	Phenanthrene	ND	430
Nitrobenzene	ND	430	Anthracene	ND	430
Isophorone	ND	430	Di-n-Butylphthalate	ND	430
Benzoic Acid	ND	2100	Fluoranthene	ND	430
bis(-2-Chloroethoxy)Methane	ND	430	Pyrene	ND	430
1,2,4-Trichlorobenzene	ND	430	Butylbenzylphthalate	ND	430
Naphthalene	ND	430	3,3'-Dichlorobenzidine	ND	860
4-Chloroaniline	ND	430	Benzo(a)Anthracene	ND	430
Hexachlorobutadiene	ND	430	Bis(2-Ethylhexyl)Phthalate	ND	430
2-Methylnaphthalene	ND	430	Chrysene	ND	430
Hexachlorocyclopentadiene	ND	430	Di-n-Octyl Phthalate	ND	430
2-Chloronaphthalene	ND	430	Benzo(b)fluoranthene	ND	430
2-Nitroaniline	ND	2100	Benzo(k)Fluoranthene	ND	430
Dimethyl Phthalate	ND	430	Benzo(a)Pyrene	ND	430
Acenaphthylene	ND	430	Indeno(1,2,3-cd)Pyrene	ND	430
3-Nitroaniline	ND	2100	Dibenzo(a,h)Anthracene	ND	430
Acenaphthene	ND	430	Benzo(g,h,i)Perylene	ND	430
Dibenzofuran	ND	430	Benzidine	ND	860
2,4-Dinitrotoluene	ND	430			

Percent Solid of 77.0 is used for all Target compounds.

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SITE F

Lab Name: 21st Century Environmental

Client Name: US ARMY FT. MONMOUTH, NJ

Client ID: BLDG 2500

Matrix: (soil/water) Soil

Lab Sample ID: A1546

Sample wt/vol: 5 (g/mL) g

Lab File ID: >A1312

Level: (low/med) LOW

Date Received: 04/14/93

% Moisture: 23

Date Analyzed: 04/23/93

Column: DB-624

Dilution Factor: 1

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	No Unknowns			

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E1

EPA SAMPLE NUMBER

semi-VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

BLDG 2500
SITE F

Client: US ARMY, FT. MONMOUTH, NJ

Comments: OVA: ND

Matrix: (soil/water) SOIL

Lab Sample ID: A1546

Sample wt/vol: 30 (g/mL) GM

Lab File ID: >C1137

Level: LOW

Date Received: NA

% Moisture: 23

Date Analyzed 05/03/93

Extraction: (Sepf/Cont/Sonc) SONC

Date Extracted 04/14/93

GPC (Y or N): N

Column: DB-5

Dilution Factor: 1

Number TICs Found 3

CONCENTRATION UNITS
(ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST CONC
1	79005	Ethane, 1,1,2-trichloro- (8CI9CI)	4.12	220
2	79345	Ethane, 1,1,2,2-tetrachloro- (8CI9CI)	7.69	520
3		UNKNOWN	30.55	950

21st Century Environmental Inc.
VOLATILE ORGANIC ANALYSIS DATA

JOB NUMBER	US ARMY FT. MONMOUTH NJ	MATRIX	Soil
SAMPLE NUMBER	A1547	DILUTION FACTOR	1.00
CLIENT ID	SITE 6 BLDG 2500	COMMENTS	OVA ND
DATA FILE	>A1313	DATE ANALYZED	04/23/93

COMPOUND	UG/KG	MDL	COMPOUND	UG/KG	MDL
Acrolein	ND	64	Bromodichloromethane	ND	6
Acrylonitrile	ND	64	2-Chloroethylvinylether	ND	13
Chloromethane	ND	13	2-Hexanone	ND	13
Bromomethane	ND	13	trans-1,3-Dichloropropene	ND	6
Vinyl Chloride	ND	13	Toluene	ND	6
Chloroethane	ND	13	cis-1,3-Dichloropropene	ND	6
Acetone	5.5 JB	13	1,1,2,2-Tetrachloroethane	ND	6
1,1-Dichloroethene	ND	6	1,1,2-Trichloroethane	ND	6
Carbon Disulfide	ND	13	4-Methyl-2-pentanone	ND	13
Methylene Chloride	4.7 JB	6	Tetrachloroethene	ND	6
1,2-Dichloroethene(trans)	ND	6	Dibromochloromethane	ND	6
1,1-Dichloroethane	ND	6	Chlorobenzene	ND	6
Vinyl Acetate	ND	6	Ethylbenzene	ND	6
2-Butanone	ND	13	m&p-Xylenes	ND	6
Chloroform	ND	6	o-Xylene	ND	6
1,1,1-Trichloroethane	ND	6	Styrene	ND	6
Carbon Tetrachloride	ND	6	Bromoform	ND	6
1,2-Dichloroethane	ND	6	m-Dichlorobenzene	ND	6
Benzene	ND	6	p-Dichlorobenzene	ND	6
Trichloroethene	ND	6	o-Dichlorobenzene	ND	6
1,2-Dichloropropane	ND	6			

SURROGATE COMPOUNDS	% RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	95.7	70 - 121	OK
Toluene-d8	97.1	81 - 117	OK
Bromofluorobenzene	97.9	74 - 121	OK

Percent Solid of 78.0 is used for all Target compounds.

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

21ST CENTURY Environmental
SEMIVOLATILE ANALYSIS DATA

JOB NUMBER	US ARMY, FT. MONMOUTH, NLJ	MATRIX	Soil
SAMPLE NUMBER	A1547	DILUTION FACTOR	1.00
CLIENT ID	BLDG 2500, SITE 6	COMMENTS	OVA: ND
DATA FILE	>C1173	DATE ANALYZED	05/06/93

COMPOUND	UG/KG	MDL	COMPOUND	UG/KG	MDL
N-Nitrosodimethylamine	ND	420	2,6-Dinitrotoluene	ND	420
bis(-2-Chloroethyl)Ether	ND	420	Diethylphthalate	ND	420
1,3-Dichlorobenzene	ND	420	4-Chlorophenyl-phenlyether	ND	420
1,4-Dichlorobenzene	ND	420	Fluorene	ND	420
Benzyl Alcohol	ND	420	4-Nitroaniline	ND	2100
1,2-Dichlorobenzene	ND	420	N-Nitrosodiphenylamine	ND	420
bis(2-chloroisopropyl)Ether	ND	420	4-Bromophenyl-phenylether	ND	420
N-Nitroso-Di-n-Propylamine	ND	420	Hexachlorobenzene	ND	420
Hexachloroethane	ND	420	Phenanthrene	ND	420
Nitrobenzene	ND	420	Anthracene	ND	420
Isophorone	ND	420	Di-n-Butylphthalate	ND	420
Benzoic Acid	ND	2100	Fluoranthene	ND	420
bis(-2-Chloroethoxy)Methane	ND	420	Pyrene	ND	420
1,2,4-Trichlorobenzene	ND	420	Butylbenzylphthalate	ND	420
Naphthalene	ND	420	3,3'-Dichlorobenzidine	ND	850
4-Chloroaniline	ND	420	Benzo(a)Anthracene	ND	420
Hexachlorobutadiene	ND	420	Bis(2-Ethylhexyl)Phthalate	ND	420
2-Methylnaphthalene	ND	420	Chrysene	ND	420
Hexachlorocyclopentadiene	ND	420	Di-n-Octyl Phthalate	ND	420
2-Chloronaphthalene	ND	420	Benzo(b)fluoranthene	ND	420
2-Nitroaniline	ND	2100	Benzo(k)Fluoranthene	ND	420
Dimethyl Phthalate	ND	420	Benzo(a)Pyrene	ND	420
Acenaphthylene	ND	420	Indeno(1,2,3-cd)Pyrene	ND	420
3-Nitroaniline	ND	2100	Dibenzo(a,h)Anthracene	ND	420
Acenaphthene	ND	420	Benzo(g,h,i)Perylene	ND	420
Dibenzofuran	ND	420	Benzidine	ND	850
2,4-Dinitrotoluene	ND	420			

Percent Solid of 78.0 is used for all Target compounds.

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SITE G

Lab Name: 21st Century Environmental

Client Name: US ARMY FT. MONMOUTH, NJ

Client ID: BLDG 2500

Matrix: (soil/water) Soil

Lab Sample ID: A1547

Sample wt/vol: 5 (g/mL) g

Lab File ID: >A1313

Level: (low/med) LOW

Date Received: 04/14/93

% Moisture: 22

Date Analyzed: 04/23/93

Column: DB-624

Dilution Factor: 1

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	No Unknowns			

FORM I VOA-TIC 1/87 Rev.

E1

EPA SAMPLE NUMBER

semi-VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

BLDG 2500
SITE G

Client: US Army, Ft. Monmouth, NJ

Comments: OVA: ND

Matrix: (soil/water) SOIL

Lab Sample ID: A1547

Sample wt/vol: 30 (g/mL) GM

Lab File ID: >C1173

Level: LOW

Date Received: NA

% Moisture: 22

Date Analyzed 05/06/93

Extraction: (Sepf/Cont/Sonc) SONC

Date Extracted 04/14/93

GPC (Y or N): N

Column: DB-5

Dilution Factor: 1

Number TICs Found 3

CONCENTRATION UNITS
(ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST CONC
1	79005	Ethane, 1,1,2-trichloro- (8CI9CI)	4.08	260
2	79345	Ethane, 1,1,2,2-tetrachloro- (8CI9CI)	7.66	600
3		UNKNOWN	30.51	260

21st Century Environmental Inc.
VOLATILE ORGANIC ANALYSIS DATA

JOB NUMBER	US ARMY FT. MONMOUTH NJ	MATRIX	Soil
SAMPLE NUMBER	A1548	DILUTION FACTOR	1.00
CLIENT ID	SITE H BLDG 2500	COMMENTS	OVA ND
DATA FILE	>A1299	DATE ANALYZED	04/22/93

COMPOUND	UG/KG		MDL	COMPOUND	UG/KG	MDL
Acrolein	ND		61	Bromodichloromethane	ND	6
Acrylonitrile	ND		61	2-Chloroethylvinylether	ND	12
Chloromethane	ND		12	2-Hexanone	ND	12
Bromomethane	ND		12	trans-1,3-Dichloropropene	ND	6
Vinyl Chloride	ND		12	Toluene	ND	6
Chloroethane	ND		12	cis-1,3-Dichloropropene	ND	6
Acetone	ND	B	12	1,1,2,2-Tetrachloroethane	ND	6
1,1-Dichloroethene	ND		6	1,1,2-Trichloroethane	ND	6
Carbon Disulfide	ND		12	4-Methyl-2-pentanone	ND	12
Methylene Chloride	ND		6	Tetrachloroethene	ND	6
1,2-Dichloroethene(trans)	ND		6	Dibromochloromethane	ND	6
1,1-Dichloroethane	ND		6	Chlorobenzene	ND	6
Vinyl Acetate	ND		6	Ethylbenzene	ND	6
2-Butanone	ND		12	m&p-Xylenes	ND	6
Chloroform	ND		6	o-Xylene	ND	6
1,1,1-Trichloroethane	ND		6	Styrene	ND	6
Carbon Tetrachloride	ND		6	Bromoform	ND	6
1,2-Dichloroethane	ND		6	m-Dichlorobenzene	ND	6
Benzene	ND		6	p-Dichlorobenzene	ND	6
Trichloroethene	ND		6	o-Dichlorobenzene	ND	6
1,2-Dichloropropane	ND		6			

SURROGATE COMPOUNDS	% RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	99.0	70 - 121	OK
Toluene-d8	98.8	81 - 117	OK
Bromofluorobenzene	97.5	74 - 121	OK

Percent Solid of 82.0 is used for all Target compounds.

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

21ST CENTURY Environmental
SEMIVOLATILE ANALYSIS DATA

JOB NUMBER	US ARMY, FT. MONMOUTH, NJ	MATRIX	Soil
SAMPLE NUMBER	A1548	DILUTION FACTOR	1.00
CLIENT ID	BLDG 2500, SITE H	COMMENTS	QVA: ND
DATA FILE	>C1174	DATE ANALYZED	05/06/93

COMPOUND	UG/KG	MDL	COMPOUND	UG/KG	MDL
N-Nitrosodimethylamine	ND	400	2,6-Dinitrotoluene	ND	400
bis(-2-Chloroethyl)Ether	ND	400	Diethylphthalate	ND	400
1,3-Dichlorobenzene	ND	400	4-Chlorophenyl-phenlyether	ND	400
1,4-Dichlorobenzene	ND	400	Fluorene	ND	400
Benzyl Alcohol	ND	400	4-Nitroaniline	ND	2000
1,2-Dichlorobenzene	ND	400	N-Nitrosodiphenylamine	ND	400
bis(2-chloroisopropyl)Ether	ND	400	4-Bromophenyl-phenylether	ND	400
N-Nitroso-Di-n-Propylamine	ND	400	Hexachlorobenzene	ND	400
Hexachloroethane	ND	400	Phenanthrene	ND	400
Nitrobenzene	ND	400	Anthracene	ND	400
Isophorone	ND	400	Di-n-Butylphthalate	ND	400
Benzoic Acid	ND	2000	Fluoranthene	ND	400
bis(-2-Chloroethoxy)Methane	ND	400	Pyrene	ND	400
1,2,4-Trichlorobenzene	ND	400	Butylbenzylphthalate	ND	400
Naphthalene	ND	400	3,3'-Dichlorobenzidine	ND	800
4-Chloroaniline	ND	400	Benzo(a)Anthracene	ND	400
Hexachlorobutadiene	ND	400	Bis(2-Ethylhexyl)Phthalate	ND	400
2-Methylnaphthalene	ND	400	Chrysene	ND	400
Hexachlorocyclopentadiene	ND	400	Di-n-Octyl Phthalate	ND	400
2-Chloronaphthalene	ND	400	Benzo(b)fluoranthene	ND	400
2-Nitroaniline	ND	2000	Benzo(k)Fluoranthene	ND	400
Dimethyl Phthalate	ND	400	Benzo(a)Pyrene	ND	400
Acenaphthylene	ND	400	Indeno(1,2,3-cd)Pyrene	ND	400
3-Nitroaniline	ND	2000	Dibenzo(a,h)Anthracene	ND	400
Acenaphthene	ND	400	Benzo(g,h,i)Perylene	ND	400
Dibenzofuran	ND	400	Benzidine	ND	800
2,4-Dinitrotoluene	ND	400			

Percent Solid of 82.0 is used for all Target compounds.

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SITE H

Lab Name: 21st Century Environmental

Client Name: US ARMY FT. MONMOUTH, NJ

Client ID: BLDG 2500

Matrix: (soil/water) Soil

Lab Sample ID: A1548

Sample wt/vol: 5 (g/mL) g

Lab File ID: >A1299

Level: (low/med) LOW

Date Received: 04/14/93

% Moisture: 18

Date Analyzed: 04/22/93

Column: DB-624

Dilution Factor: 1

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	No Unknowns			

FORM I VOA-TIC

1/87 Rev.

E1

EPA SAMPLE NUMBER

semi-VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

BLDG 2500
SITE H

Client: US Army, Ft. Monmouth, NJ

Comments: OVA:ND

Matrix: (soil/water) SOIL

Lab Sample ID: A1548

Sample wt/vol: 30 (g/mL) GM

Lab File ID: >C1174

Level: LOW

Date Received: NA

% Moisture: 18

Date Analyzed 05/06/93

Extraction: (Sepf/Cont/Sonc) SONC

Date Extracted 04/14/93

GPC (Y or N): N

Column: DB-5

Dilution Factor: 1

Number TICs Found 2

CONCENTRATION UNITS
(ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST CONC
1	79005	Ethane, 1,1,2-trichloro- (8CI9CI)	4.10	240
2	79345	Ethane, 1,1,2,2-tetrachloro- (8CI9CI)	7.66	530

21st Century Environmental Inc.
VOLATILE ORGANIC ANALYSIS DATA

JOB NUMBER	US ARMY FT. MONMOUTH NJ	MATRIX	Soil
SAMPLE NUMBER	A1549	DILUTION FACTOR	1.00
CLIENT ID	SITE I BLDG 2500	COMMENTS	OVA ND
DATA FILE	>A1300	DATE ANALYZED	04/22/93

COMPOUND	UG/KG	MDL	COMPOUND	UG/KG	MDL
Acrolein	ND	66	Bromodichloromethane	ND	7
Acrylonitrile	ND	66	2-Chloroethylvinylether	ND	13
Chloromethane	ND	13	2-Hexanone	ND	13
Bromomethane	ND	13	trans-1,3-Dichloropropene	ND	7
Vinyl Chloride	ND	13	Toluene	ND	7
Chloroethane	ND	13	cis-1,3-Dichloropropene	ND	7
Acetone	12 JB	13	1,1,2,2-Tetrachloroethane	ND	7
1,1-Dichloroethene	ND	7	1,1,2-Trichloroethane	ND	7
Carbon Disulfide	ND	13	4-Methyl-2-pentanone	ND	13
Methylene Chloride	2.2 J	7	Tetrachloroethene	ND	7
1,2-Dichloroethene(trans)	ND	7	Dibromochloromethane	ND	7
1,1-Dichloroethane	ND	7	Chlorobenzene	ND	7
Vinyl Acetate	ND	7	Ethylbenzene	ND	7
2-Butanone	ND	13	m&p-Xylenes	ND	7
Chloroform	ND	7	o-Xylene	ND	7
1,1,1-Trichloroethane	ND	7	Styrene	ND	7
Carbon Tetrachloride	ND	7	Bromoform	ND	7
1,2-Dichloroethane	ND	7	m-Dichlorobenzene	ND	7
Benzene	ND	7	p-Dichlorobenzene	ND	7
Trichloroethene	ND	7	o-Dichlorobenzene	ND	7
1,2-Dichloropropane	ND	7			

SURROGATE COMPOUNDS	% RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	99.4	70 - 121	OK
Toluene-d8	98.8	81 - 117	OK
Bromofluorobenzene	98.1	74 - 121	OK

Percent Solid of 76.0 is used for all Target compounds.

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

21ST CENTURY Environmental
SEMIVOLATILE ANALYSIS DATA

JOB NUMBER	US ARMY, FT. MONMOUTH,NJ	MATRIX	Soil
SAMPLE NUMBER	A1549	DILUTION FACTOR	1.00
CLIENT ID	BLDG 2500, SITE I	COMMENTS	OVA: ND
DATA FILE	>C1175	DATE ANALYZED	05/06/93

COMPOUND	UG/KG	MDL	COMPOUND	UG/KG	MDL
N-Nitrosodimethylamine	ND	430	2,6-Dinitrotoluene	ND	430
bis(-2-Chloroethyl)Ether	ND	430	Diethylphthalate	ND	430
1,3-Dichlorobenzene	ND	430	4-Chlorophenyl-phenlyether	ND	430
1,4-Dichlorobenzene	ND	430	Fluorene	ND	430
Benzyl Alcohol	ND	430	4-Nitroaniline	ND	2200
1,2-Dichlorobenzene	ND	430	N-Nitrosodiphenylamine	ND	430
bis(2-chloroisopropyl)Ether	ND	430	4-Bromophenyl-phenylether	ND	430
N-Nitroso-Di-n-Propylamine	ND	430	Hexachlorobenzene	ND	430
Hexachloroethane	ND	430	Phenanthrene	ND	430
Nitrobenzene	ND	430	Anthracene	ND	430
Isophorone	ND	430	Di-n-Butylphthalate	ND	430
Benzoic Acid	ND	2200	Fluoranthene	ND	430
bis(-2-Chloroethoxy)Methane	ND	430	Pyrene	ND	430
1,2,4-Trichlorobenzene	ND	430	Butylbenzylphthalate	ND	430
Naphthalene	ND	430	3,3'-Dichlorobenzidine	ND	870
4-Chloroaniline	ND	430	Benzo(a)Anthracene	ND	430
Hexachlorobutadiene	ND	430	Bis(2-Ethylhexyl)Phthalate	ND	430
2-Methylnaphthalene	ND	430	Chrysene	ND	430
Hexachlorocyclopentadiene	ND	430	Di-n-Octyl Phthalate	ND	430
2-Chloronaphthalene	ND	430	Benzo(b)fluoranthene	ND	430
2-Nitroaniline	ND	2200	Benzo(k)Fluoranthene	ND	430
Dimethyl Phthalate	ND	430	Benzo(a)Pyrene	ND	430
Acenaphthylene	ND	430	Indeno(1,2,3-cd)Pyrene	ND	430
3-Nitroaniline	ND	2200	Dibenzo(a,h)Anthracene	ND	430
Acenaphthene	ND	430	Benzo(g,h,i)Perylene	ND	430
Dibenzofuran	ND	430	Benzidine	ND	870
2,4-Dinitrotoluene	ND	430			

Percent Solid of 76.0 is used for all Target compounds.

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SITE I

Lab Name: 21st Century Environmental

Client Name: US ARMY FT. MONMOUTH, NJ

Client ID: BLDG 2500

Matrix: (soil/water) Soil

Lab Sample ID: A1549

Sample wt/vol: 5 (g/mL) g

Lab File ID: >A1300

Level: (low/med) LOW

Date Received: 04/14/93

% Moisture: 24

Date Analyzed: 04/22/93

Column: DB-624

Dilution Factor: 1

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	No Unknowns			

FORM I VOA-TIC 1/87 Rev.

E1

EPA SAMPLE NUMBER

semi-VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

BLDG 2500
SITE I

Client: US Army, Ft. Monmouth, NJ

Comments: OVA: ND

Matrix: (soil/water) SOIL

Lab Sample ID: A1549

Sample wt/vol: 30 (g/mL) GM

Lab File ID: >C1175

Level: LOW

Date Received: NA

% Moisture: 24

Date Analyzed 05/06/93

Extraction: (Sepf/Cont/Sonc) SONC

Date Extracted 04/14/93

GPC (Y or N): N

Column: DB-5

Dilution Factor: 1

Number TICs Found 1

CONCENTRATION UNITS
(ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST CONC
1	79345	Ethane, 1,1,2,2-tetrachloro- (8CI9CI)	7.65	260

00044

21st Century Environmental Inc.
VOLATILE ORGANIC ANALYSIS DATA

JOB NUMBER	US ARMY FT. MONMOUTH NJ	MATRIX	Soil
SAMPLE NUMBER	A1550	DILUTION FACTOR	1.00
CLIENT ID	SITE J BLDG 2500	COMMENTS	OVA ND
DATA FILE	>A1314	DATE ANALYZED	04/23/93

COMPOUND	UG/KG	MDL	COMPOUND	UG/KG	MDL
Acrolein	ND	65	Bromodichloromethane	ND	6
Acrylonitrile	ND	65	2-Chloroethylvinylether	ND	13
Chloromethane	ND	13	2-Hexanone	ND	13
Bromomethane	ND	13	trans-1,3-Dichloropropene	ND	6
Vinyl Chloride	ND	13	Toluene	ND	6
Chloroethane	ND	13	cis-1,3-Dichloropropene	ND	6
Acetone	5.6 JB	13	1,1,2,2-Tetrachloroethane	ND	6
1,1-Dichloroethene	ND	6	1,1,2-Trichloroethane	ND	6
Carbon Disulfide	ND	13	4-Methyl-2-pentanone	ND	13
Methylene Chloride	4.5 JB	6	Tetrachloroethene	ND	6
1,2-Dichloroethene(trans)	ND	6	Dibromochloromethane	ND	6
1,1-Dichloroethane	ND	6	Chlorobenzene	ND	6
Vinyl Acetate	ND	6	Ethylbenzene	ND	6
2-Butanone	ND	13	m&p-Xylenes	ND	6
Chloroform	ND	6	o-Xylene	ND	6
1,1,1-Trichloroethane	ND	6	Styrene	ND	6
Carbon Tetrachloride	ND	6	Bromoform	ND	6
1,2-Dichloroethane	ND	6	m-Dichlorobenzene	ND	6
Benzene	ND	6	p-Dichlorobenzene	ND	6
Trichloroethene	ND	6	o-Dichlorobenzene	ND	6
1,2-Dichloropropane	ND	6			

SURROGATE COMPOUNDS	% RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	94.7	70 - 121	OK
Toluene-d8	95.8	81 - 117	OK
Bromofluorobenzene	97.3	74 - 121	OK

Percent Solid of 77.0 is used for all Target compounds.

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

21ST CENTURY Environmental
SEMIVOLATILE ANALYSIS DATA

JOB NUMBER	US ARMY, FT. MONMOUTH, NJ	MATRIX	Soil
SAMPLE NUMBER	A1550	DILUTION FACTOR	1.00
CLIENT ID	BLDG 2500, SITE J	COMMENTS	OVA: ND
DATA FILE	>C1141	DATE ANALYZED	05/04/93

COMPOUND	UG/KG	MDL	COMPOUND	UG/KG	MDL
N-Nitrosodimethylamine	ND	430	2,6-Dinitrotoluene	ND	430
bis(-2-Chloroethyl)Ether	ND	430	Diethylphthalate	ND	430
1,3-Dichlorobenzene	ND	430	4-Chlorophenyl-phenlyether	ND	430
1,4-Dichlorobenzene	ND	430	Fluorene	ND	430
Benzyl Alcohol	ND	430	4-Nitroaniline	ND	2100
1,2-Dichlorobenzene	ND	430	N-Nitrosodiphenylamine	ND	430
bis(2-chloroisopropyl)Ether	ND	430	4-Bromophenyl-phenylether	ND	430
N-Nitroso-Di-n-Propylamine	ND	430	Hexachlorobenzene	ND	430
Hexachloroethane	ND	430	Phenanthrene	ND	430
Nitrobenzene	ND	430	Anthracene	ND	430
Isophorone	ND	430	Di-n-Butylphthalate	ND	430
Benzoic Acid	ND	2100	Fluoranthene	ND	430
bis(-2-Chloroethoxy)Methane	ND	430	Pyrene	ND	430
1,2,4-Trichlorobenzene	ND	430	Butylbenzylphthalate	ND	430
Naphthalene	ND	430	3,3'-Dichlorobenzidine	ND	860
4-Chloroaniline	ND	430	Benzo(a)Anthracene	ND	430
Hexachlorobutadiene	ND	430	Bis(2-Ethylhexyl)Phthalate	ND	430
2-Methylnaphthalene	ND	430	Chrysene	ND	430
Hexachlorocyclopentadiene	ND	430	Di-n-Octyl Phthalate	ND	430
2-Chloronaphthalene	ND	430	Benzo(b)fluoranthene	ND	430
2-Nitroaniline	ND	2100	Benzo(k)Fluoranthene	ND	430
Dimethyl Phthalate	ND	430	Benzo(a)Pyrene	ND	430
Acenaphthylene	ND	430	Indeno(1,2,3-cd)Pyrene	ND	430
3-Nitroaniline	ND	2100	Dibenzo(a,h)Anthracene	ND	430
Acenaphthene	ND	430	Benzo(g,h,i)Perylene	ND	430
Dibenzofuran	ND	430	Benzidine	ND	860
2,4-Dinitrotoluene	ND	430			

Percent Solid of 77.0 is used for all Target compounds.

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SITE J

Lab Name: 21st Century Environmental

Client Name: US ARMY FT. MONMOUTH, NJ

Client ID: BLDG 2500

Matrix: (soil/water) Soil

Lab Sample ID: A1550

Sample wt/vol: 5 (g/mL) g

Lab File ID: >A1314

Level: (low/med) LOW

Date Received: 04/14/93

% Moisture: 23

Date Analyzed: 04/23/93

Column: DB-624

Dilution Factor: 1

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	No Unknowns			

FORM I VOA-TIC 1/87 Rev.

E1

EPA SAMPLE NUMBER

semi-VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

BLDG 2500
SITE J

Client: US Army, Ft. Monmouth, NJ

Comments: OVA: ND

Matrix: (soil/water) SOIL

Lab Sample ID: A1550

Sample wt/vol: 30 (g/mL) GM

Lab File ID: >C1141

Level: LOW

Date Received: NA

% Moisture: 23

Date Analyzed 05/04/93

Extraction: (Sepf/Cont/Sonc) SONC

Date Extracted 04/14/93

GPC (Y or N): N

Column: DB-5

Dilution Factor: 1

Number TICs Found 1

CONCENTRATION UNITS
(ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST CONC
1	79345	Ethane, 1,1,2,2-tetrachloro- (8CI9CI)	7.69	430

21st Century Environmental Inc.
VOLATILE ORGANIC ANALYSIS DATA

JOB NUMBER	US ARMY FT. MONMOUTH NJ	MATRIX	Soil
SAMPLE NUMBER	A1551	DILUTION FACTOR	1.00
CLIENT ID	SITE K BLDG 2500	COMMENTS	OVA ND
DATA FILE	>A1301	DATE ANALYZED	04/22/93

COMPOUND	UG/KG	MDL	COMPOUND	UG/KG	MDL
Acrolein	ND	60	Bromodichloromethane	ND	6
Acrylonitrile	ND	60	2-Chloroethylvinylether	ND	12
Chloromethane	ND	12	2-Hexanone	ND	12
Bromomethane	ND	12	trans-1,3-Dichloropropene	ND	6
Vinyl Chloride	ND	12	Toluene	ND	6
Chloroethane	ND	12	cis-1,3-Dichloropropene	ND	6
Acetone	2.6 JB	12	1,1,2,2-Tetrachloroethane	ND	6
1,1-Dichloroethene	ND	6	1,1,2-Trichloroethane	ND	6
Carbon Disulfide	ND	12	4-Methyl-2-pentanone	ND	12
Methylene Chloride	2.1 J	6	Tetrachloroethene	ND	6
1,2-Dichloroethene(trans)	ND	6	Dibromochloromethane	ND	6
1,1-Dichloroethane	ND	6	Chlorobenzene	ND	6
Vinyl Acetate	ND	6	Ethylbenzene	ND	6
2-Butanone	ND	12	m&p-Xylenes	ND	6
Chloroform	ND	6	o-Xylene	ND	6
1,1,1-Trichloroethane	ND	6	Styrene	ND	6
Carbon Tetrachloride	ND	6	Bromoform	ND	6
1,2-Dichloroethane	ND	6	m-Dichlorobenzene	ND	6
Benzene	ND	6	p-Dichlorobenzene	ND	6
Trichloroethene	ND	6	o-Dichlorobenzene	ND	6
1,2-Dichloropropane	ND	6			

SURROGATE COMPOUNDS	% RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	100	70 - 121	OK
Toluene-d8	99.1	81 - 117	OK
Bromofluorobenzene	98.8	74 - 121	OK

Percent Solid of 84.0 is used for all Target compounds.

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

21ST CENTURY Environmental
SEMIVOLATILE ANALYSIS DATA

JOB NUMBER	US ARMY, FT. MONMOUTH, NJ	MATRIX	Soil
SAMPLE NUMBER	A1551	DILUTION FACTOR	1.00
CLIENT ID	BLDG 2500, SITE K	COMMENTS	OVA: ND
DATA FILE	>C1177	DATE ANALYZED	05/06/93

COMPOUND	UG/KG	MDL	COMPOUND	UG/KG	MDL
N-Nitrosodimethylamine	ND	390	2,6-Dinitrotoluene	ND	390
bis(-2-Chloroethyl)Ether	ND	390	Diethylphthalate	ND	390
1,3-Dichlorobenzene	ND	390	4-Chlorophenyl-phenlyether	ND	390
1,4-Dichlorobenzene	ND	390	Fluorene	ND	390
Benzyl Alcohol	ND	390	4-Nitroaniline	ND	2000
1,2-Dichlorobenzene	ND	390	N-Nitrosodiphenylamine	ND	390
bis(2-chloroisopropyl)Ether	ND	390	4-Bromophenyl-phenylether	ND	390
N-Nitroso-Di-n-Propylamine	ND	390	Hexachlorobenzene	ND	390
Hexachloroethane	ND	390	Phenanthrene	ND	390
Nitrobenzene	ND	390	Anthracene	ND	390
Isophorone	ND	390	Di-n-Butylphthalate	ND	390
Benzoic Acid	ND	2000	Fluoranthene	ND	390
bis(-2-Chloroethoxy)Methane	ND	390	Pyrene	ND	390
1,2,4-Trichlorobenzene	ND	390	Butylbenzylphthalate	ND	390
Naphthalene	ND	390	3,3'-Dichlorobenzidine	ND	780
4-Chloroaniline	ND	390	Benzo(a)Anthracene	ND	390
Hexachlorobutadiene	ND	390	Bis(2-Ethylhexyl)Phthalate	ND	390
2-Methylnaphthalene	ND	390	Chrysene	ND	390
Hexachlorocyclopentadiene	ND	390	Di-n-Octyl Phthalate	ND	390
2-Chloronaphthalene	ND	390	Benzo(b)fluoranthene	ND	390
2-Nitroaniline	ND	2000	Benzo(k)Fluoranthene	ND	390
Dimethyl Phthalate	ND	390	Benzo(a)Pyrene	ND	390
Acenaphthylene	ND	390	Indeno(1,2,3-cd)Pyrene	ND	390
3-Nitroaniline	ND	2000	Dibenzo(a,h)Anthracene	ND	390
Acenaphthene	ND	390	Benzo(g,h,i)Perylene	ND	390
Dibenzofuran	ND	390	Benzidine	ND	780
2,4-Dinitrotoluene	ND	390			

Percent Solid of 84.0 is used for all Target compounds.

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SITE K

Lab Name: 21st Century Environmental

Client Name: US ARMY FT. MONMOUTH, NJ

Client ID: BLDG 2500

Matrix: (soil/water) Soil

Lab Sample ID: A1551

Sample wt/vol: 5 (g/mL) g

Lab File ID: >A1301

Level: (low/med) LOW

Date Received: 04/14/93

% Moisture: 16

Date Analyzed: 04/22/93

Column: DB-624

Dilution Factor: 1

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	No Unknowns			

FORM I VOA-TIC 1/87 Rev.

E1 EPA SAMPLE NUMBER

semi-VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

BLDG 2500
SITE K

lient: US Army, Ft. Monmouth, NJ

Comment: OVA: ND

atrix: (soil/water) SOIL

Lab Sample ID: A1551

ample wt/vol: 30 (g/mL) GM

Lab File ID: >C1177

evel: LOW

Date Received: NA

Moisture: 16

Date Analyzed 05/06/93

traction: (Sepf/Cont/Sonc) SONC

Date Extracted 04/14/93

PC (Y or N): N

olumn: DB-5

Dilution Factor: 1

mber TICs Found 2

CONCENTRATION UNITS
(ug/L or ug/Kg) UG/KG

S NUMBER	COMPOUND NAME	RT	EST CONC
79005	Ethane, 1,1,2-trichloro- (8CI9CI)	4.08	200
79345	Ethane, 1,1,2,2-tetrachloro- (8CI9CI)	7.65	520

00052

21st Century Environmental Inc.
VOLATILE ORGANIC ANALYSIS DATA

JOB NUMBER	US ARMY FT. MONMOUTH NJ	MATRIX	Soil
SAMPLE NUMBER	A1552	DILUTION FACTOR	1.00
CLIENT ID	SITE L BLDG 2500	COMMENTS	OVA ND
DATA FILE	>A1302	DATE ANALYZED	04/22/93

COMPOUND	UG/KG		MDL	COMPOUND	UG/KG	MDL
Acrolein	ND		63	Bromodichloromethane	ND	6
Acrylonitrile	ND		63	2-Chloroethylvinylether	ND	13
Chloromethane	ND		13	2-Hexanone	ND	13
Bromomethane	ND		13	trans-1,3-Dichloropropene	ND	6
Vinyl Chloride	ND		13	Toluene	ND	6
Chloroethane	ND		13	cis-1,3-Dichloropropene	ND	6
Acetone	ND	B	13	1,1,2,2-Tetrachloroethane	ND	6
1,1-Dichloroethene	ND		6	1,1,2-Trichloroethane	ND	6
Carbon Disulfide	ND		13	4-Methyl-2-pentanone	ND	13
Methylene Chloride	ND		6	Tetrachloroethene	ND	6
1,2-Dichloroethene(trans)	ND		6	Dibromochloromethane	ND	6
1,1-Dichloroethane	ND		6	Chlorobenzene	ND	6
Vinyl Acetate	ND		6	Ethylbenzene	ND	6
2-Butanone	ND		13	m&p-Xylenes	ND	6
Chloroform	ND		6	o-Xylene	ND	6
1,1,1-Trichloroethane	ND		6	Styrene	ND	6
Carbon Tetrachloride	ND		6	Bromoform	ND	6
1,2-Dichloroethane	ND		6	m-Dichlorobenzene	ND	6
Benzene	ND		6	p-Dichlorobenzene	ND	6
Trichloroethene	ND		6	o-Dichlorobenzene	ND	6
1,2-Dichloropropane	ND		6			

SURROGATE COMPOUNDS	% RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	99.7	70 - 121	OK
Toluene-d8	95.2	81 - 117	OK
Bromofluorobenzene	101	74 - 121	OK

Percent Solid of 79.0 is used for all Target compounds.

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

21ST CENTURY Environmental
SEMIVOLATILE ANALYSIS DATA

JOB NUMBER	US ARMY, FT. MONMOUTH, NJ	MATRIX	Soil
SAMPLE NUMBER	A1552	DILUTION FACTOR	1.00
CLIENT ID	BLDG 2500, SITE L	COMMENTS	OVA: ND
DATA FILE	>C1178	DATE ANALYZED	05/06/93

COMPOUND	UG/KG	MDL	COMPOUND	UG/KG	MDL
N-Nitrosodimethylamine	ND	420	2,6-Dinitrotoluene	ND	420
bis(-2-Chloroethyl)Ether	ND	420	Diethylphthalate	ND	420
1,3-Dichlorobenzene	ND	420	4-Chlorophenyl-phenlyether	ND	420
1,4-Dichlorobenzene	ND	420	Fluorene	ND	420
Benzyl Alcohol	ND	420	4-Nitroaniline	ND	2100
1,2-Dichlorobenzene	ND	420	N-Nitrosodiphenylamine	ND	420
bis(2-chloroisopropyl)Ether	ND	420	4-Bromophenyl-phenylether	ND	420
N-Nitroso-Di-n-Propylamine	ND	420	Hexachlorobenzene	ND	420
Hexachloroethane	ND	420	Phenanthrene	ND	420
Nitrobenzene	ND	420	Anthracene	ND	420
Isophorone	ND	420	Di-n-Butylphthalate	ND	420
Benzoic Acid	ND	2100	Fluoranthene	ND	420
bis(-2-Chloroethoxy)Methane	ND	420	Pyrene	ND	420
1,2,4-Trichlorobenzene	ND	420	Butylbenzylphthalate	ND	420
Naphthalene	ND	420	3,3'-Dichlorobenzidine	ND	840
4-Chloroaniline	ND	420	Benzo(a)Anthracene	ND	420
Hexachlorobutadiene	ND	420	Bis(2-Ethylhexyl)Phthalate	ND	420
2-Methylnaphthalene	ND	420	Chrysene	ND	420
Hexachlorocyclopentadiene	ND	420	Di-n-Octyl Phthalate	ND	420
2-Chloronaphthalene	ND	420	Benzo(b)fluoranthene	ND	420
2-Nitroaniline	ND	2100	Benzo(k)Fluoranthene	ND	420
Dimethyl Phthalate	ND	420	Benzo(a)Pyrene	ND	420
Acenaphthylene	ND	420	Indeno(1,2,3-cd)Pyrene	ND	420
3-Nitroaniline	ND	2100	Dibenzo(a,h)Anthracene	ND	420
Acenaphthene	ND	420	Benzo(g,h,i)Perylene	ND	420
Dibenzofuran	ND	420	Benzidine	ND	840
2,4-Dinitrotoluene	ND	420			

Percent Solid of 79.0 is used for all Target compounds.

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SITE L

Lab Name: 21st Century Environmental

Client Name: US ARMY FT. MONMOUTH, NJ

Client ID: BLDG 2500

Matrix: (soil/water) Soil

Lab Sample ID: A1552

Sample wt/vol: 5 (g/mL) g

Lab File ID: >A1302

Level: (low/med) LOW

Date Received: 04/14/93

% Moisture: 21

Date Analyzed: 04/22/93

Column: DB-624

Dilution Factor: 1

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	No Unknowns			

FORM I VOA-TIC 1/87 Rev.

E1

EPA SAMPLE NUMBER

semi-VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

BLDG 2500
SITE L

Client: US Army, Ft. Monmouth, NJ

Comments: OVA: ND

Matrix: (soil/water) SOIL

Lab Sample ID: A1552

Sample wt/vol: 30 (g/mL) GM

Lab File ID: >C1178

Level: LOW

Date Received: NA

% Moisture: 21

Date Analyzed 05/06/93

Extraction: (Sepf/Cont/Sonc) SONC

Date Extracted 04/14/93

GPC (Y or N): N

Column: DB-5

Dilution Factor: 1

Number TICs Found 3

CONCENTRATION UNITS
(ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST CONC
1	79005	Ethane, 1,1,2-trichloro- (8CI9CI)	4.08	210
2	79345	Ethane, 1,1,2,2-tetrachloro- (8CI9CI)	7.65	550
3		UNKNOWN	30.51	210

21st Century Environmental Inc.
VOLATILE ORGANIC ANALYSIS DATA

JOB NUMBER	US ARMY FT. MONMOUTH NJ	MATRIX	Soil
SAMPLE NUMBER	A1553	DILUTION FACTOR	1.00
CLIENT ID	SITE M BLDG 2500	COMMENTS	OVA ND
DATA FILE	>A1305	DATE ANALYZED	04/22/93

COMPOUND	UG/KG	MDL	COMPOUND	UG/KG	MDL
Acrolein	ND	64	Bromodichloromethane	ND	6
Acrylonitrile	ND	64	2-Chloroethylvinylether	ND	13
Chloromethane	ND	13	2-Hexanone	ND	13
Bromomethane	ND	13	trans-1,3-Dichloropropene	ND	6
Vinyl Chloride	ND	13	Toluene	ND	6
Chloroethane	ND	13	cis-1,3-Dichloropropene	ND	6
Acetone	3.2 JB	13	1,1,2,2-Tetrachloroethane	ND	6
1,1-Dichloroethene	ND	6	1,1,2-Trichloroethane	ND	6
Carbon Disulfide	ND	13	4-Methyl-2-pentanone	ND	13
Methylene Chloride	2.6 J	6	Tetrachloroethene	ND	6
1,2-Dichloroethene(trans)	ND	6	Dibromochloromethane	ND	6
1,1-Dichloroethane	ND	6	Chlorobenzene	ND	6
Vinyl Acetate	ND	6	Ethylbenzene	ND	6
2-Butanone	ND	13	m&p-Xylenes	ND	6
Chloroform	ND	6	o-Xylene	ND	6
1,1,1-Trichloroethane	ND	6	Styrene	ND	6
Carbon Tetrachloride	ND	6	Bromoform	ND	6
1,2-Dichloroethane	ND	6	m-Dichlorobenzene	ND	6
Benzene	ND	6	p-Dichlorobenzene	ND	6
Trichloroethene	ND	6	o-Dichlorobenzene	ND	6
1,2-Dichloropropane	ND	6			

SURROGATE COMPOUNDS	% RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	101	70 - 121	OK
Toluene-d8	98.6	81 - 117	OK
Bromofluorobenzene	98.6	74 - 121	OK

Percent Solid of 78.0 is used for all Target compounds.

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

21ST CENTURY Environmental
SEMIVOLATILE ANALYSIS DATA

JOB NUMBER	US ARMY, FT. MONMOUTH, NJ	MATRIX	Soil
SAMPLE NUMBER	A1553	DILUTION FACTOR	1.00
CLIENT ID	BLDG 2500, SITE M	COMMENTS	DUA: ND
DATA FILE	>C1179	DATE ANALYZED	05/06/93

COMPOUND	UG/KG	MDL	COMPOUND	UG/KG	MDL
N-Nitrosodimethylamine	ND	420	2,6-Dinitrotoluene	ND	420
bis(-2-Chloroethyl)Ether	ND	420	Diethylphthalate	ND	420
1,3-Dichlorobenzene	ND	420	4-Chlorophenyl-phenlyether	ND	420
1,4-Dichlorobenzene	ND	420	Fluorene	ND	420
Benzyl Alcohol	ND	420	4-Nitroaniline	ND	2100
1,2-Dichlorobenzene	ND	420	N-Nitrosodiphenylamine	ND	420
bis(2-chloroisopropyl)Ether	ND	420	4-Bromophenyl-phenylether	ND	420
N-Nitroso-Di-n-Propylamine	ND	420	Hexachlorobenzene	ND	420
Hexachloroethane	ND	420	Phenanthrene	ND	420
Nitrobenzene	ND	420	Anthracene	ND	420
Isophorone	ND	420	Di-n-Butylphthalate	ND	420
Benzoic Acid	ND	2100	Fluoranthene	ND	420
bis(-2-Chloroethoxy)Methane	ND	420	Pyrene	ND	420
1,2,4-Trichlorobenzene	ND	420	Butylbenzylphthalate	ND	420
Naphthalene	ND	420	3,3'-Dichlorobenzidine	ND	850
4-Chloroaniline	ND	420	Benzo(a)Anthracene	ND	420
Hexachlorobutadiene	ND	420	Bis(2-Ethylhexyl)Phthalate	ND	420
2-Methylnaphthalene	ND	420	Chrysene	ND	420
Hexachlorocyclopentadiene	ND	420	Di-n-Octyl Phthalate	ND	420
2-Chloronaphthalene	ND	420	Benzo(b)fluoranthene	ND	420
2-Nitroaniline	ND	2100	Benzo(k)Fluoranthene	ND	420
Dimethyl Phthalate	ND	420	Benzo(a)Pyrene	ND	420
Acenaphthylene	ND	420	Indeno(1,2,3-cd)Pyrene	ND	420
3-Nitroaniline	ND	2100	Dibenzo(a,h)Anthracene	ND	420
Acenaphthene	ND	420	Benzo(g,h,i)Perylene	ND	420
Dibenzofuran	ND	420	Benzidine	ND	850
2,4-Dinitrotoluene	ND	420			

Percent Solid of 78.0 is used for all Target compounds.

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SITE M

Lab Name: 21st Century Environmental

Client Name: US ARMY FT. MONMOUTH, NJ

Client ID: BLDG 2500

Matrix: (soil/water) Soil

Lab Sample ID: A1553

Sample wt/vol: 5 (g/mL) g

Lab File ID: >A1305

Level: (low/med) LOW

Date Received: 04/14/93

% Moisture: 22

Date Analyzed: 04/22/93

Column: DB-624

Dilution Factor: 1

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	No Unknowns			

FORM I VOA-TIC

1/87 Rev.

00059

E1

EPA SAMPLE NUMBER

semi-VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

BLDG 2500
SITE M

Client: US Army, Ft. Monmouth, NJ

Comments: OVA: ND

Matrix: (soil/water) SOIL

Lab Sample ID: A1553

Sample wt/vol: 30 (g/mL) GM

Lab File ID: >C1179

Level: LOW

Date Received: NA

% Moisture: 22

Date Analyzed 05/06/93

Extraction: (Sepf/Cont/Sonc) SONC

Date Extracted 04/14/93

GPC (Y or N): N

Column: DB-5

Dilution Factor: 1

Number TICs Found 3

CONCENTRATION UNITS
(ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST CONC
1	79005	Ethane, 1,1,2-trichloro- (8CI9CI)	4.07	260
2	79345	Ethane, 1,1,2,2-tetrachloro- (8CI9CI)	7.65	600
3		UNKNOWN	30.50	300

00969

21st Century Environmental Inc.
VOLATILE ORGANIC ANALYSIS DATA

JOB NUMBER	US ARMY FT. MONMOUTH NJ	MATRIX	Soil
SAMPLE NUMBER	A1554	DILUTION FACTOR	1.00
CLIENT ID	SITE N BLDG 2500	COMMENTS	OVA ND
DATA FILE	>A1306	DATE ANALYZED	04/22/93

COMPOUND	UG/KG	MDL	COMPOUND	UG/KG	MDL
Acrolein	ND	62	Bromodichloromethane	ND	6
Acrylonitrile	ND	62	2-Chloroethylvinylether	ND	12
Chloromethane	ND	12	2-Hexanone	ND	12
Bromomethane	ND	12	trans-1,3-Dichloropropene	ND	6
Vinyl Chloride	ND	12	Toluene	ND	6
Chloroethane	ND	12	cis-1,3-Dichloropropene	ND	6
Acetone	3.8 JB	12	1,1,2,2-Tetrachloroethane	ND	6
1,1-Dichloroethene	ND	6	1,1,2-Trichloroethane	ND	6
Carbon Disulfide	ND	12	4-Methyl-2-pentanone	ND	12
Methylene Chloride	2.5 J	6	Tetrachloroethene	ND	6
1,2-Dichloroethene(trans)	ND	6	Dibromochloromethane	ND	6
1,1-Dichloroethane	ND	6	Chlorobenzene	ND	6
Vinyl Acetate	ND	6	Ethylbenzene	ND	6
2-Butanone	ND	12	m&p-Xylenes	ND	6
Chloroform	ND	6	o-Xylene	ND	6
1,1,1-Trichloroethane	ND	6	Styrene	ND	6
Carbon Tetrachloride	ND	6	Bromoform	ND	6
1,2-Dichloroethane	ND	6	m-Dichlorobenzene	ND	6
Benzene	ND	6	p-Dichlorobenzene	ND	6
Trichloroethene	ND	6	o-Dichlorobenzene	ND	6
1,2-Dichloropropane	ND	6			

SURROGATE COMPOUNDS	% RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	101	70 - 121	OK
Toluene-d8	98.4	81 - 117	OK
Bromofluorobenzene	99.4	74 - 121	OK

Percent Solid of 81.0 is used for all Target compounds.

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

21ST CENTURY Environmental
SEMIVOLATILE ANALYSIS DATA

JOB NUMBER	US ARMY, FT. MONMOUTH, NJ	MATRIX	Soil
SAMPLE NUMBER	A1554	DILUTION FACTOR	1.00
CLIENT ID	BLDG 2500, SITE N	COMMENTS	OVA: ND
DATA FILE	>C1180	DATE ANALYZED	05/06/93

COMPOUND	UG/KG	MDL	COMPOUND	UG/KG	MDL
N-Nitrosodimethylamine	ND	410	2,6-Dinitrotoluene	ND	410
bis(-2-Chloroethyl)Ether	ND	410	Diethylphthalate	ND	410
1,3-Dichlorobenzene	ND	410	4-Chlorophenyl-phenlyether	ND	410
1,4-Dichlorobenzene	ND	410	Fluorene	ND	410
Benzyl Alcohol	ND	410	4-Nitroaniline	ND	2000
1,2-Dichlorobenzene	ND	410	N-Nitrosodiphenylamine	ND	410
bis(2-chloroisopropyl)Ether	ND	410	4-Bromophenyl-phenylether	ND	410
N-Nitroso-Di-n-Propylamine	ND	410	Hexachlorobenzene	ND	410
Hexachloroethane	ND	410	Phenanthrene	ND	410
Nitrobenzene	ND	410	Anthracene	ND	410
Isophorone	ND	410	Di-n-Butylphthalate	ND	410
Benzoic Acid	ND	2000	Fluoranthene	ND	410
bis(-2-Chloroethoxy)Methane	ND	410	Pyrene	ND	410
1,2,4-Trichlorobenzene	ND	410	Butylbenzylphthalate	ND	410
Naphthalene	ND	410	3,3'-Dichlorobenzidine	ND	810
4-Chloroaniline	ND	410	Benzo(a)Anthracene	ND	410
Hexachlorobutadiene	ND	410	Bis(2-Ethylhexyl)Phthalate	ND	410
2-Methylnaphthalene	ND	410	Chrysene	ND	410
Hexachlorocyclopentadiene	ND	410	Di-n-Octyl Phthalate	ND	410
2-Chloronaphthalene	ND	410	Benzo(b)fluoranthene	ND	410
2-Nitroaniline	ND	2000	Benzo(k)Fluoranthene	ND	410
Dimethyl Phthalate	ND	410	Benzo(a)Pyrene	ND	410
Acenaphthylene	ND	410	Indeno(1,2,3-cd)Pyrene	ND	410
3-Nitroaniline	ND	2000	Dibenzo(a,h)Anthracene	ND	410
Acenaphthene	ND	410	Benzo(g,h,i)Perylene	ND	410
Dibenzofuran	ND	410	Benzidine	ND	810
2,4-Dinitrotoluene	ND	410			

Percent Solid of 81.0 is used for all Target compounds.

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SITE N

Lab Name: 21st Century Environmental

Client Name: US ARMY FT. MONMOUTH, NJ

Client ID: BLDG 2500

Matrix: (soil/water) Soil

Lab Sample ID: A1554

Sample wt/vol: 5 (g/mL) g

Lab File ID: >A1306

Level: (low/med) LOW

Date Received: 04/14/93

% Moisture: 19

Date Analyzed: 04/22/93

Column: DB-624

Dilution Factor: 1

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	No Unknowns			

FORM I VOA-TIC 1/87 Rev.

E1

EPA SAMPLE NUMBER

semi-VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

BLDG 2500
SITE N

Client: US Army, Ft. Monmouth, NJ

Comments: OVA: ND

Matrix: (soil/water) SOIL

Lab Sample ID: A1554

Sample wt/vol: 30 (g/mL) GM

Lab File ID: >C1180

Level: LOW

Date Received: NA

% Moisture: 29

Date Analyzed 05/06/93

Extraction: (Sepf/Cont/Sonc) SONC

Date Extracted 04/14/93

GPC (Y or N): N

Column: DB-5

Dilution Factor: 1

Number TICs Found 2

CONCENTRATION UNITS
(ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST CONC
1	79005	Ethane, 1,1,2-trichloro- (8CI9CI)	4.07	210
2	79345	Ethane, 1,1,2,2-tetrachloro- (8CI9CI)	7.66	530

21st Century Environmental Inc.
VOLATILE ORGANIC ANALYSIS DATA

JOB NUMBER	US ARMY FT. MONMOUTH NJ	MATRIX	Soil
SAMPLE NUMBER	A1555	DILUTION FACTOR	1.00
CLIENT ID	SITE 0 BLDG 2500	COMMENTS	OVA NO
DATA FILE	>A1315	DATE ANALYZED	04/23/93

COMPOUND	UG/KG	MDL	COMPOUND	UG/KG	MDL
Acrolein	ND	59	Bromodichloromethane	ND	6
Acrylonitrile	ND	59	2-Chloroethylvinylether	ND	12
Chloromethane	ND	12	2-Hexanone	ND	12
Bromomethane	ND	12	trans-1,3-Dichloropropene	ND	6
Vinyl Chloride	ND	12	Toluene	ND	6
Chloroethane	ND	12	cis-1,3-Dichloropropene	ND	6
Acetone	6.8 JB	12	1,1,2,2-Tetrachloroethane	ND	6
1,1-Dichloroethene	ND	6	1,1,2-Trichloroethane	ND	6
Carbon Disulfide	ND	12	4-Methyl-2-pentanone	ND	12
Methylene Chloride	4.7 JB	6	Tetrachloroethene	ND	6
1,2-Dichloroethene(trans)	ND	6	Dibromochloromethane	ND	6
1,1-Dichloroethane	ND	6	Chlorobenzene	ND	6
Vinyl Acetate	ND	6	Ethylbenzene	ND	6
2-Butanone	ND	12	m&p-Xylenes	ND	6
Chloroform	ND	6	o-Xylene	ND	6
1,1,1-Trichloroethane	ND	6	Styrene	ND	6
Carbon Tetrachloride	ND	6	Bromoform	ND	6
1,2-Dichloroethane	ND	6	m-Dichlorobenzene	ND	6
Benzene	ND	6	p-Dichlorobenzene	ND	6
Trichloroethene	ND	6	o-Dichlorobenzene	ND	6
1,2-Dichloropropane	ND	6			

SURROGATE COMPOUNDS	% RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	93.2	70 - 121	OK
Toluene-d8	95.6	81 - 117	OK
Bromofluorobenzene	97.3	74 - 121	OK

Percent Solid of 85.0 is used for all Target compounds.

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

21ST CENTURY Environmental
SEMIVOLATILE ANALYSIS DATA

JOB NUMBER	US ARMY, FT. MONMOUTH, NJ	MATRIX	Soil
SAMPLE NUMBER	A1555	DILUTION FACTOR	1.00
CLIENT ID	BLDG 2500, SITE 0	COMMENTS	DUA: ND
DATA FILE	>C1188	DATE ANALYZED	05/07/93

COMPOUND	UG/KG	MDL	COMPOUND	UG/KG	MDL
N-Nitrosodimethylamine	ND	390	2,6-Dinitrotoluene	ND	390
bis(-2-Chloroethyl)Ether	ND	390	Diethylphthalate	ND	390
1,3-Dichlorobenzene	ND	390	4-Chlorophenyl-phenlyether	ND	390
1,4-Dichlorobenzene	ND	390	Fluorene	ND	390
Benzyl Alcohol	ND	390	4-Nitroaniline	ND	1900
1,2-Dichlorobenzene	ND	390	N-Nitrosodiphenylamine	ND	390
bis(2-chloroisopropyl)Ether	ND	390	4-Bromophenyl-phenylether	ND	390
N-Nitroso-Di-n-Propylamine	ND	390	Hexachlorobenzene	ND	390
Hexachloroethane	ND	390	Phenanthrene	ND	390
Nitrobenzene	ND	390	Anthracene	ND	390
Isophorone	ND	390	Di-n-Butylphthalate	ND	390
Benzoic Acid	ND	1900	Fluoranthene	ND	390
bis(-2-Chloroethoxy)Methane	ND	390	Pyrene	ND	390
1,2,4-Trichlorobenzene	ND	390	Butylbenzylphthalate	ND	390
Naphthalene	ND	390	3,3'-Dichlorobenzidine	ND	780
4-Chloroaniline	ND	390	Benzo(a)Anthracene	ND	390
Hexachlorobutadiene	ND	390	Bis(2-Ethylhexyl)Phthalate	ND	390
2-Methylnaphthalene	ND	390	Chrysene	ND	390
Hexachlorocyclopentadiene	ND	390	Di-n-Octyl Phthalate	ND	390
2-Chloronaphthalene	ND	390	Benzo(b)fluoranthene	ND	390
2-Nitroaniline	ND	1900	Benzo(k)Fluoranthene	ND	390
Dimethyl Phthalate	ND	390	Benzo(a)Pyrene	ND	390
Acenaphthylene	ND	390	Indeno(1,2,3-cd)Pyrene	ND	390
3-Nitroaniline	ND	1900	Dibenzo(a,h)Anthracene	ND	390
Acenaphthene	ND	390	Benzo(g,h,i)Perylene	ND	390
Dibenzofuran	ND	390	Benzidine	ND	780
2,4-Dinitrotoluene	ND	390			

Percent Solid of 85.0 is used for all Target compounds.

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SITE 0

Lab Name: 21st Century Environmental

Client Name: US ARMY FT. MONMOUTH, NJ

Client ID: BLDG 2500

Matrix: (soil/water) Soil

Lab Sample ID: A1555

Sample wt/vol: 5 (g/mL) g

Lab File ID: >A1315

Level: (low/med) LOW

Date Received: 04/14/93

% Moisture: 15

Date Analyzed: 04/23/93

Column: DB-624

Dilution Factor: 1

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	No Unknowns			

FORM I VOA-TIC 1/87 Rev.

E1 EPA SAMPLE NUMBER

semi-VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

BLDG 2500
SITE O

Client: US Army, Ft. Monmouth, NJ

Comments: OVA: ND

Matrix: (soil/water) SOIL

Lab Sample ID: A1555

Sample wt/vol: 30 (g/mL) GM

Lab File ID: >C1188

Level: LOW

Date Received: NA

% Moisture: 15

Date Analyzed 05/07/93

Extraction: (Sepf/Cont/Sonc) SONC

Date Extracted 04/14/93

GPC (Y or N): N

Column: DB-5

Dilution Factor: 1

Number TICs Found 4

CONCENTRATION UNITS
(ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST CONC
1	79345	Ethane, 1,1,2,2-tetrachloro- (8CI9CI)	7.64	240
2		UNKNOWN	25.10	390
3		UNKNOWN	26.90	160
4		UNKNOWN	27.01	78

21st Century Environmental Inc.
VOLATILE ORGANIC ANALYSIS DATA

JOB NUMBER	US ARMY FT. MONMOUTH NJ	MATRIX	Soil
SAMPLE NUMBER	A1556	DILUTION FACTOR	1.00
CLIENT ID	SITE P BLDG 2500	COMMENTS	OVA ND
DATA FILE	>A1316	DATE ANALYZED	04/23/93

COMPOUND	UG/KG	MDL	COMPOUND	UG/KG	MDL
Acrolein	ND	60	Bromodichloromethane	ND	6
Acrylonitrile	ND	60	2-Chloroethylvinylether	ND	12
Chloromethane	ND	12	2-Hexanone	ND	12
Bromomethane	ND	12	trans-1,3-Dichloropropene	ND	6
Vinyl Chloride	ND	12	Toluene	ND	6
Chloroethane	ND	12	cis-1,3-Dichloropropene	ND	6
Acetone	5.4 JB	12	1,1,2,2-Tetrachloroethane	ND	6
1,1-Dichloroethene	ND	6	1,1,2-Trichloroethane	ND	6
Carbon Disulfide	ND	12	4-Methyl-2-pentanone	ND	12
Methylene Chloride	3.2 JB	6	Tetrachloroethene	ND	6
1,2-Dichloroethene(trans)	ND	6	Dibromochloromethane	ND	6
1,1-Dichloroethane	ND	6	Chlorobenzene	ND	6
Vinyl Acetate	ND	6	Ethylbenzene	ND	6
2-Butanone	ND	12	m&p-Xylenes	ND	6
Chloroform	ND	6	o-Xylene	ND	6
1,1,1-Trichloroethane	ND	6	Styrene	ND	6
Carbon Tetrachloride	ND	6	Bromoform	ND	6
1,2-Dichloroethane	ND	6	m-Dichlorobenzene	ND	6
Benzene	ND	6	p-Dichlorobenzene	ND	6
Trichloroethene	ND	6	o-Dichlorobenzene	ND	6
1,2-Dichloropropane	ND	6			

SURROGATE COMPOUNDS	% RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	96.0	70 - 121	OK
Toluene-d8	95.0	81 - 117	OK
Bromofluorobenzene	98.3	74 - 121	OK

Percent Solid of 84.0 is used for all Target compounds.

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

21ST CENTURY Environmental
SEMIVOLATILE ANALYSIS DATA

JOB NUMBER	US ARMY, FT. MONMOUTH, NJ	MATRIX	Soil
SAMPLE NUMBER	A1556	DILUTION FACTOR	1.00
CLIENT ID	BLDG 2500, SITE P	COMMENTS	OVA: ND
DATA FILE	>C1190	DATE ANALYZED	05/07/93

COMPOUND	UG/KG	MDL	COMPOUND	UG/KG	MDL
N-Nitrosodimethylamine	ND	390	2,6-Dinitrotoluene	ND	390
bis(-2-Chloroethyl)Ether	ND	390	Diethylphthalate	ND	390
1,3-Dichlorobenzene	ND	390	4-Chlorophenyl-phenlyether	ND	390
1,4-Dichlorobenzene	ND	390	Fluorene	ND	390
Benzyl Alcohol	ND	390	4-Nitroaniline	ND	2000
1,2-Dichlorobenzene	ND	390	N-Nitrosodiphenylamine	ND	390
bis(2-chloroisopropyl)Ether	ND	390	4-Bromophenyl-phenylether	ND	390
N-Nitroso-Di-n-Propylamine	ND	390	Hexachlorobenzene	ND	390
Hexachloroethane	ND	390	Phenanthrene	ND	390
Nitrobenzene	ND	390	Anthracene	ND	390
Isophorone	ND	390	Di-n-Butylphthalate	ND	390
Benzoic Acid	ND	2000	Fluoranthene	ND	390
bis(-2-Chloroethoxy)Methane	ND	390	Pyrene	ND	390
1,2,4-Trichlorobenzene	ND	390	Butylbenzylphthalate	ND	390
Naphthalene	ND	390	3,3'-Dichlorobenzidine	ND	780
4-Chloroaniline	ND	390	Benzo(a)Anthracene	ND	390
Hexachlorobutadiene	ND	390	Bis(2-Ethylhexyl)Phthalate	ND	390
2-Methylnaphthalene	ND	390	Chrysene	ND	390
Hexachlorocyclopentadiene	ND	390	Di-n-Octyl Phthalate	ND	390
2-Chloronaphthalene	ND	390	Benzo(b)fluoranthene	ND	390
2-Nitroaniline	ND	2000	Benzo(k)Fluoranthene	ND	390
Dimethyl Phthalate	ND	390	Benzo(a)Pyrene	ND	390
Acenaphthylene	ND	390	Indeno(1,2,3-cd)Pyrene	ND	390
3-Nitroaniline	ND	2000	Dibenzo(a,h)Anthracene	ND	390
Acenaphthene	ND	390	Benzo(g,h,i)Perylene	ND	390
Dibenzofuran	ND	390	Benzidine	ND	780
2,4-Dinitrotoluene	ND	390			

Percent Solid of 84.0 is used for all Target compounds.

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SITE P

Lab Name: 21st Century Environmental

Client Name: US ARMY FT. MONMOUTH, NJ

Client ID: BLDG 2500

Matrix: (soil/water) Soil

Lab Sample ID: A1556

Sample wt/vol: 5 (g/mL) g

Lab File ID: >A1316

Level: (low/med) LOW

Date Received: 04/14/93

% Moisture: 16

Date Analyzed: 04/23/93

Column: DB-624

Dilution Factor: 1

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	No Unknowns			

FORM I VOA-TIC

1/87 Rev.

00071

E1

EPA SAMPLE NUMBER

semi-VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

BLDG 2500
SITE P

Client: US Army, Ft. Monmouth, NJ

Comments: OVA: ND

Matrix: (soil/water) SOIL

Lab Sample ID: A1556

Sample wt/vol: 30 (g/mL) GM

Lab File ID: >C1190

Level: LOW

Date Received: NA

% Moisture: 16

Date Analyzed 05/07/93

Extraction: (Sepf/Cont/Sonc) SONC

Date Extracted 04/14/93

GPC (Y or N): N

Column: DB-5

Dilution Factor: 1

Number TICs Found 1

CONCENTRATION UNITS
(ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST CONC
1	79345	Ethane, 1,1,2,2-tetrachloro- (8CI9CI)	7.63	320

21st Century Environmental Inc.
VOLATILE ORGANIC ANALYSIS DATA

JOB NUMBER	US ARMY FT. MONMOUTH NJ	MATRIX	Soil
SAMPLE NUMBER	A1557	DILUTION FACTOR	1.00
CLIENT ID	SITE 9 BLDG 2500	COMMENTS	OVA ND
DATA FILE	>A1317	DATE ANALYZED	04/23/93

COMPOUND	UG/KG	MDL	COMPOUND	UG/KG	MDL
Acrolein	ND	59	Bromodichloromethane	ND	6
Acrylonitrile	ND	59	2-Chloroethylvinylether	ND	12
Chloromethane	ND	12	2-Hexanone	ND	12
Bromomethane	ND	12	trans-1,3-Dichloropropene	ND	6
Vinyl Chloride	ND	12	Toluene	ND	6
Chloroethane	ND	12	cis-1,3-Dichloropropene	ND	6
Acetone	5.2 JB	12	1,1,2,2-Tetrachloroethane	ND	6
1,1-Dichloroethene	ND	6	1,1,2-Trichloroethane	ND	6
Carbon Disulfide	ND	12	4-Methyl-2-pentanone	ND	12
Methylene Chloride	3.0 JB	6	Tetrachloroethene	ND	6
1,2-Dichloroethene(trans)	ND	6	Dibromochloromethane	ND	6
1,1-Dichloroethane	ND	6	Chlorobenzene	ND	6
Vinyl Acetate	ND	6	Ethylbenzene	ND	6
2-Butanone	ND	12	m&p-Xylenes	ND	6
Chloroform	ND	6	o-Xylene	ND	6
1,1,1-Trichloroethane	ND	6	Styrene	ND	6
Carbon Tetrachloride	ND	6	Bromoform	ND	6
1,2-Dichloroethane	ND	6	m-Dichlorobenzene	ND	6
Benzene	ND	6	p-Dichlorobenzene	ND	6
Trichloroethene	ND	6	o-Dichlorobenzene	ND	6
1,2-Dichloropropane	ND	6			

SURROGATE COMPOUNDS	% RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	95.8	70 - 121	OK
Toluene-d8	96.7	81 - 117	OK
Bromofluorobenzene	97.8	74 - 121	OK

Percent Solid of 85.0 is used for all Target compounds.

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

00073

Bridgeport Environmental
SEMIVOLATILE ANALYSIS DATA

JOB NUMBER	US ARMY, FT. MONMOUTH, NJ	MATRIX	Soil
SAMPLE NUMBER	A1557	DILUTION FACTOR	1.00
CLIENT ID	BLDG 2500, SITE Q	COMMENTS	QUA: ND
DATA FILE	>C1191	DATE ANALYZED	05/07/93

COMPOUND	UG/KG	MDL	COMPOUND	UG/KG	MDL
N-Nitrosodimethylamine	ND	390	2,6-Dinitrotoluene	ND	390
bis(-2-Chloroethyl)Ether	ND	390	Diethylphthalate	ND	390
1,3-Dichlorobenzene	ND	390	4-Chlorophenyl-phenlyether	ND	390
1,4-Dichlorobenzene	ND	390	Fluorene	ND	390
Benzyl Alcohol	ND	390	4-Nitroaniline	ND	1900
1,2-Dichlorobenzene	ND	390	N-Nitrosodiphenylamine	ND	390
bis(2-chloroisopropyl)Ether	ND	390	4-Bromophenyl-phenylether	ND	390
N-Nitroso-Di-n-Propylamine	ND	390	Hexachlorobenzene	ND	390
Hexachloroethane	ND	390	Phenanthrene	ND	390
Nitrobenzene	ND	390	Anthracene	ND	390
Isophorone	ND	390	Di-n-Butylphthalate	ND	390
Benzoic Acid	ND	1900	Fluoranthene	ND	390
bis(-2-Chloroethoxy)Methane	ND	390	Pyrene	ND	390
1,2,4-Trichlorobenzene	ND	390	Butylbenzylphthalate	ND	390
Naphthalene	ND	390	3,3'-Dichlorobenzidine	ND	780
4-Chloroaniline	ND	390	Benzo(a)Anthracene	ND	390
Hexachlorobutadiene	ND	390	Bis(2-Ethylhexyl)Phthalate	ND	390
2-Methylnaphthalene	ND	390	Chrysene	ND	390
Hexachlorocyclopentadiene	ND	390	Di-n-Octyl Phthalate	ND	390
2-Chloronaphthalene	ND	390	Benzo(b)fluoranthene	ND	390
2-Nitroaniline	ND	1900	Benzo(k)Fluoranthene	ND	390
Dimethyl Phthalate	ND	390	Benzo(a)Pyrene	ND	390
Acenaphthylene	ND	390	Indeno(1,2,3-cd)Pyrene	ND	390
3-Nitroaniline	ND	1900	Dibenzo(a,h)Anthracene	ND	390
Acenaphthene	ND	390	Benzo(g,h,i)Perylene	ND	390
Dibenzofuran	ND	390	Benzidine	ND	780
2,4-Dinitrotoluene	ND	390			

Percent Solid of 85.0 is used for all Target compounds.

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SITE Q

Lab Name: 21st Century Environmental

Client Name: US ARMY FT. MONMOUTH, NJ

Client ID: BLDG 2500

Matrix: (soil/water) Soil

Lab Sample ID: A1557

Sample wt/vol: 5 (g/mL) g

Lab File ID: >A1317

Level: (low/med) LOW

Date Received: 04/14/93

% Moisture: 15

Date Analyzed: 04/23/93

Column: DB-624

Dilution Factor: 1

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	No Unknowns			

FORM I VOA-TIC 1/87 Rev.

E1

EPA SAMPLE NUMBER

semi-VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

BLDG 2500
SITE Q

Client: US Army, Ft. Monmouth, NJ

Comments: HNU: ND

Matrix: (soil/water) SOIL

Lab Sample ID: A1557

Sample wt/vol: 30 (g/mL) GM

Lab File ID: >C1191

Level: LOW

Date Received: NA

% Moisture: 15

Date Analyzed 05/07/93

Extraction: (Sepf/Cont/Sonc) SONC

Date Extracted 04/14/93

GPC (Y or N): N

Column: DB-5

Dilution Factor: 1

Number TICs Found 2

CONCENTRATION UNITS
(ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST CONC
1	79005	Ethane, 1,1,2-trichloro- (8CI9CI)	4.04	160
2	79345	Ethane, 1,1,2,2-tetrachloro- (8CI9CI)	7.63	390

21st Century Environmental Inc.
VOLATILE ORGANIC ANALYSIS DATA

JOB NUMBER	US ARMY FT. MONMOUTH NJ	MATRIX	Soil
SAMPLE NUMBER	A1558	DILUTION FACTOR	1.00
CLIENT ID	SITE R BLDG 2500	COMMENTS	OVA ND
DATA FILE	>A1318	DATE ANALYZED	04/23/93

COMPOUND	UG/KG	MDL	COMPOUND	UG/KG	MDL
Acrolein	ND	60	Bromodichloromethane	ND	6
Acrylonitrile	ND	60	2-Chloroethylvinylether	ND	12
Chloromethane	ND	12	2-Hexanone	ND	12
Bromomethane	ND	12	trans-1,3-Dichloropropene	ND	6
Vinyl Chloride	ND	12	Toluene	ND	6
Chloroethane	ND	12	cis-1,3-Dichloropropene	ND	6
Acetone	ND B	12	1,1,2,2-Tetrachloroethane	ND	6
1,1-Dichloroethene	ND	6	1,1,2-Trichloroethane	ND	6
Carbon Disulfide	ND	12	4-Methyl-2-pentanone	ND	12
Methylene Chloride	4.0 JB	6	Tetrachloroethene	ND	6
1,2-Dichloroethene(trans)	ND	6	Dibromochloromethane	ND	6
1,1-Dichloroethane	ND	6	Chlorobenzene	ND	6
Vinyl Acetate	ND	6	Ethylbenzene	ND	6
2-Butanone	ND	12	m&p-Xylenes	ND	6
Chloroform	ND	6	o-Xylene	ND	6
1,1,1-Trichloroethane	ND	6	Styrene	ND	6
Carbon Tetrachloride	ND	6	Bromoform	ND	6
1,2-Dichloroethane	ND	6	m-Dichlorobenzene	ND	6
Benzene	ND	6	p-Dichlorobenzene	ND	6
Trichloroethene	ND	6	o-Dichlorobenzene	ND	6
1,2-Dichloropropane	ND	6			

SURROGATE COMPOUNDS	% RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	94.5	70 - 121	OK
Toluene-d8	96.7	81 - 117	OK
Bromofluorobenzene	98.8	74 - 121	OK

Percent Solid of 83.0 is used for all Target compounds.

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

21ST CENTURY Environmental
SEMIVOLATILE ANALYSIS DATA

JOB NUMBER	US ARMY, FT. MONMOUTH, NJ	MATRIX	Soil
SAMPLE NUMBER	A1558	DILUTION FACTOR	1.00
CLIENT ID	BLDG 2500, SITE R	COMMENTS	QUA: ND
DATA FILE	>C1192	DATE ANALYZED	05/07/93

COMPOUND	UG/KG	MDL	COMPOUND	UG/KG	MDL
N-Nitrosodimethylamine	ND	400	2,6-Dinitrotoluene	ND	400
bis(-2-Chloroethyl)Ether	ND	400	Diethylphthalate	ND	400
1,3-Dichlorobenzene	ND	400	4-Chlorophenyl-phenlyether	ND	400
1,4-Dichlorobenzene	ND	400	Fluorene	ND	400
Benzyl Alcohol	ND	400	4-Nitroaniline	ND	2000
1,2-Dichlorobenzene	ND	400	N-Nitrosodiphenylamine	ND	400
bis(2-chloroisopropyl)Ether	ND	400	4-Bromophenyl-phenylether	ND	400
N-Nitroso-Di-n-Propylamine	ND	400	Hexachlorobenzene	ND	400
Hexachloroethane	ND	400	Phenanthrene	ND	400
Nitrobenzene	ND	400	Anthracene	ND	400
Isophorone	ND	400	Di-n-Butylphthalate	ND	400
Benzoic Acid	ND	2000	Fluoranthene	ND	400
bis(-2-Chloroethoxy)Methane	ND	400	Pyrene	ND	400
1,2,4-Trichlorobenzene	ND	400	Butylbenzylphthalate	ND	400
Naphthalene	ND	400	3,3'-Dichlorobenzidine	ND	800
4-Chloroaniline	ND	400	Benzo(a)Anthracene	ND	400
Hexachlorobutadiene	ND	400	Bis(2-Ethylhexyl)Phthalate	ND	400
2-Methylnaphthalene	ND	400	Chrysene	ND	400
Hexachlorocyclopentadiene	ND	400	Di-n-Octyl Phthalate	ND	400
2-Chloronaphthalene	ND	400	Benzo(b)fluoranthene	ND	400
2-Nitroaniline	ND	2000	Benzo(k)Fluoranthene	ND	400
Dimethyl Phthalate	ND	400	Benzo(a)Pyrene	ND	400
Acenaphthylene	ND	400	Indeno(1,2,3-cd)Pyrene	ND	400
3-Nitroaniline	ND	2000	Dibenzo(a,h)Anthracene	ND	400
Acenaphthene	ND	400	Benzo(g,h,i)Perylene	ND	400
Dibenzofuran	ND	400	Benzidine	ND	800
2,4-Dinitrotoluene	ND	400			

Percent Solid of 83.0 is used for all Target compounds.

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SITE R

Lab Name: 21st Century Environmental

Client Name: US ARMY FT. MONMOUTH, NJ

Client ID: BLDG 2500

Matrix: (soil/water) Soil

Lab Sample ID: A1558

Sample wt/vol: 5 (g/mL) g

Lab File ID: >A1318

Level: (low/med) LOW

Date Received: 04/14/93

% Moisture: 17

Date Analyzed: 04/23/93

Column: DB-624

Dilution Factor: 1

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	No Unknowns			

FORM I VOA-TIC

1/87 Rev.

E1 EPA SAMPLE NUMBER

semi-VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

BLDG 2500
SITE R

Client: US Army, Ft. Monmouth, NJ

Comments: OVA: ND

Matrix: (soil/water) SOIL

Lab Sample ID: A1558

Sample wt/vol: 30 (g/mL) GM

Lab File ID: >C1192

Level: LOW

Date Received: NA

% Moisture: 17

Date Analyzed 05/07/93

Extraction: (Sepf/Cont/Sonc) SONC

Date Extracted 04/14/93

GPC (Y or N): N

Column: DB-5

Dilution Factor: 1

Number TICs Found 7

CONCENTRATION UNITS
(ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST CONC
1	79345	Ethane, 1,1,2,2-tetrachloro- (8CI9CI)	7.63	280
2		UNKNOWN	30.48	240

00030

21st Century Environmental Inc.
VOLATILE ORGANIC ANALYSIS DATA

JOB NUMBER	US ARMY FT. MONMOUTH NJ	MATRIX	Soil
SAMPLE NUMBER	A1559	DILUTION FACTOR	1.00
CLIENT ID	SITE S BLDG 2500	COMMENTS	OVA ND
DATA FILE	>A1319	DATE ANALYZED	04/23/93

COMPOUND	UG/KG	MDL	COMPOUND	UG/KG	MDL
Acrolein	ND	62	Bromodichloromethane	ND	6
Acrylonitrile	ND	62	2-Chloroethylvinylether	ND	12
Chloromethane	ND	12	2-Hexanone	ND	12
Bromomethane	ND	12	trans-1,3-Dichloropropene	ND	6
Vinyl Chloride	ND	12	Toluene	ND	6
Chloroethane	ND	12	cis-1,3-Dichloropropene	ND	6
Acetone	9.4 JB	12	1,1,2,2-Tetrachloroethane	ND	6
1,1-Dichloroethene	ND	6	1,1,2-Trichloroethane	ND	6
Carbon Disulfide	ND	12	4-Methyl-2-pentanone	ND	12
Methylene Chloride	3.6 JB	6	Tetrachloroethene	ND	6
1,2-Dichloroethene(trans)	ND	6	Dibromochloromethane	ND	6
1,1-Dichloroethane	ND	6	Chlorobenzene	ND	6
Vinyl Acetate	ND	6	Ethylbenzene	ND	6
2-Butanone	ND	12	m&p-Xylenes	ND	6
Chloroform	ND	6	o-Xylene	ND	6
1,1,1-Trichloroethane	ND	6	Styrene	ND	6
Carbon Tetrachloride	ND	6	Bromoform	ND	6
1,2-Dichloroethane	ND	6	m-Dichlorobenzene	ND	6
Benzene	ND	6	p-Dichlorobenzene	ND	6
Trichloroethene	ND	6	o-Dichlorobenzene	ND	6
1,2-Dichloropropane	ND	6			

SURROGATE COMPOUNDS	% RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	95.0	70 - 121	OK
Toluene-d8	96.8	81 - 117	OK
Bromofluorobenzene	97.7	74 - 121	OK

Percent Solid of 81.0 is used for all Target compounds.

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

21ST CENTURY Environmental
SEMIVOLATILE ANALYSIS DATA

JOB NUMBER	US ARMY, FT. MONMOUTH, NJ	MATRIX	Soil
SAMPLE NUMBER	A1559	DILUTION FACTOR	1.00
CLIENT ID	BLDG 2500, SITE S	COMMENTS	DUA:ND
DATA FILE	>C1193	DATE ANALYZED	05/07/93

COMPOUND	UG/KG	MDL	COMPOUND	UG/KG	MDL
N-Nitrosodimethylamine	ND	410	2,6-Dinitrotoluene	ND	410
bis(-2-Chloroethyl)Ether	ND	410	Diethylphthalate	ND	410
1,3-Dichlorobenzene	ND	410	4-Chlorophenyl-phenlyether	ND	410
1,4-Dichlorobenzene	ND	410	Fluorene	ND	410
Benzyl Alcohol	ND	410	4-Nitroaniline	ND	2000
1,2-Dichlorobenzene	ND	410	N-Nitrosodiphenylamine	ND	410
bis(2-chloroisopropyl)Ether	ND	410	4-Bromophenyl-phenylether	ND	410
N-Nitroso-Di-n-Propylamine	ND	410	Hexachlorobenzene	ND	410
Hexachloroethane	ND	410	Phenanthrene	ND	410
Nitrobenzene	ND	410	Anthracene	ND	410
Isophorone	ND	410	Di-n-Butylphthalate	ND	410
Benzoic Acid	ND	2000	Fluoranthene	ND	410
bis(-2-Chloroethoxy)Methane	ND	410	Pyrene	ND	410
1,2,4-Trichlorobenzene	ND	410	Butylbenzylphthalate	ND	410
Naphthalene	ND	410	3,3'-Dichlorobenzidine	ND	810
4-Chloroaniline	ND	410	Benzo(a)Anthracene	ND	410
Hexachlorobutadiene	ND	410	Bis(2-Ethylhexyl)Phthalate	ND	410
2-Methylnaphthalene	ND	410	Chrysene	ND	410
Hexachlorocyclopentadiene	ND	410	Di-n-Octyl Phthalate	ND	410
2-Chloronaphthalene	ND	410	Benzo(b)fluoranthene	ND	410
2-Nitroaniline	ND	2000	Benzo(k)Fluoranthene	ND	410
Dimethyl Phthalate	ND	410	Benzo(a)Pyrene	ND	410
Acenaphthylene	ND	410	Indeno(1,2,3-cd)Pyrene	ND	410
3-Nitroaniline	ND	2000	Dibenzo(a,h)Anthracene	ND	410
Acenaphthene	ND	410	Benzo(g,h,i)Perylene	ND	410
Dibenzofuran	ND	410	Benzidine	ND	810
2,4-Dinitrotoluene	ND	410			

Percent Solid of 81.0 is used for all Target compounds.

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SITE S

Lab Name: 21st Century Environmental

Client Name: US ARMY FT. MONMOUTH, NJ

Client ID: BLDG 2500

Matrix: (soil/water) Soil

Lab Sample ID: A1559

Sample wt/vol: 5 (g/mL) g

Lab File ID: >A1319

Level: (low/med) LOW

Date Received: 04/14/93

% Moisture: 19

Date Analyzed: 04/23/93

Column: DB-624

Dilution Factor: 1

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	No Unknowns			

FORM I VOA-TIC 1/87 Rev.

E1

EPA SAMPLE NUMBER

semi-VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SITE S

Client: US Army, Ft. Monmouth, NJ

Comments: OVA: ND

Matrix: (soil/water) SOIL

Lab Sample ID: A1559

Sample wt/vol: 30 (g/mL) GM

Lab File ID: >C1193

Level: LOW

Date Received: NA

% Moisture: 19

Date Analyzed 05/07/93

Extraction: (Sepf/Cont/Sonc) SONC

Date Extracted 04/14/93

GPC (Y or N): N

Column: DB-5

Dilution Factor: 1

Number TICs Found 1

CONCENTRATION UNITS
(ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST CONC
1	79345	Ethane, 1,1,2,2-tetrachloro- (8CI9CI)	7.63	370

21st Century Environmental Inc.
VOLATILE ORGANIC ANALYSIS DATA

JOB NUMBER	US ARMY FT. MONMOUTH NJ	MATRIX	Soil
SAMPLE NUMBER	A1560	DILUTION FACTOR	1.00
CLIENT ID	SITE T BLDG 2500	COMMENTS	OVA 0.75
DATA FILE	>A1320	DATE ANALYZED	04/23/93

COMPOUND	UG/KG		MDL	COMPOUND	UG/KG	MDL
Acrolein	ND		56	Bromodichloromethane	ND	6
Acrylonitrile	ND		56	2-Chloroethylvinylether	ND	11
Chloromethane	ND		11	2-Hexanone	ND	11
Bromomethane	ND		11	trans-1,3-Dichloropropene	ND	6
Vinyl Chloride	ND		11	Toluene	ND	6
Chloroethane	ND		11	cis-1,3-Dichloropropene	ND	6
Acetone	4.6	JB	11	1,1,2,2-Tetrachloroethane	ND	6
1,1-Dichloroethene	ND		6	1,1,2-Trichloroethane	ND	6
Carbon Disulfide	ND		11	4-Methyl-2-pentanone	ND	11
Methylene Chloride	ND	B	6	Tetrachloroethene	ND	6
1,2-Dichloroethene(trans)	ND		6	Dibromochloromethane	ND	6
1,1-Dichloroethane	ND		6	Chlorobenzene	ND	6
Vinyl Acetate	ND		6	Ethylbenzene	ND	6
2-Butanone	ND		11	m&p-Xylenes	ND	6
Chloroform	ND		6	o-Xylene	ND	6
1,1,1-Trichloroethane	ND		6	Styrene	ND	6
Carbon Tetrachloride	ND		6	Bromoform	ND	6
1,2-Dichloroethane	ND		6	m-Dichlorobenzene	ND	6
Benzene	ND		6	p-Dichlorobenzene	ND	6
Trichloroethene	ND		6	o-Dichlorobenzene	ND	6
1,2-Dichloropropane	ND		6			

SURROGATE COMPOUNDS	% RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	94.7	70 - 121	OK
Toluene-d8	96.2	81 - 117	OK
Bromofluorobenzene	98.6	74 - 121	OK

Percent Solid of 90.0 is used for all Target compounds.

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

21ST CENTURY Environmental
SEMIVOLATILE ANALYSIS DATA

JOB NUMBER	US ARMY, FT. MONMOUTH, NJ	MATRIX	Soil
SAMPLE NUMBER	A1560	DILUTION FACTOR	1.00
CLIENT ID	BLDG 2500, SITE T	COMMENTS	DUA: 0.75
DATA FILE	>C1194	DATE ANALYZED	05/07/93

COMPOUND	UG/KG	MDL	COMPOUND	UG/KG	MDL
N-Nitrosodimethylamine	ND	370	2,6-Dinitrotoluene	ND	370
bis(-2-Chloroethyl)Ether	ND	370	Diethylphthalate	ND	370
1,3-Dichlorobenzene	ND	370	4-Chlorophenyl-phenlyether	ND	370
1,4-Dichlorobenzene	ND	370	Fluorene	ND	370
Benzyl Alcohol	ND	370	4-Nitroaniline	ND	1800
1,2-Dichlorobenzene	ND	370	N-Nitrosodiphenylamine	ND	370
bis(2-chloroisopropyl)Ether	ND	370	4-Bromophenyl-phenylether	ND	370
N-Nitroso-Di-n-Propylamine	ND	370	Hexachlorobenzene	ND	370
Hexachloroethane	ND	370	Phenanthrene	ND	370
Nitrobenzene	ND	370	Anthracene	ND	370
Isophorone	ND	370	Di-n-Butylphthalate	ND	370
Benzoic Acid	ND	1800	Fluoranthene	ND	370
bis(-2-Chloroethoxy)Methane	ND	370	Pyrene	ND	370
1,2,4-Trichlorobenzene	ND	370	Butylbenzylphthalate	ND	370
Naphthalene	ND	370	3,3'-Dichlorobenzidine	ND	730
4-Chloroaniline	ND	370	Benzo(a)Anthracene	ND	370
Hexachlorobutadiene	ND	370	Bis(2-Ethylhexyl)Phthalate	ND	370
2-Methylnaphthalene	ND	370	Chrysene	ND	370
Hexachlorocyclopentadiene	ND	370	Di-n-Octyl Phthalate	ND	370
2-Chloronaphthalene	ND	370	Benzo(b)fluoranthene	ND	370
2-Nitroaniline	ND	1800	Benzo(k)Fluoranthene	ND	370
Dimethyl Phthalate	ND	370	Benzo(a)Pyrene	ND	370
Acenaphthylene	ND	370	Indeno(1,2,3-cd)Pyrene	ND	370
3-Nitroaniline	ND	1800	Dibenzo(a,h)Anthracene	ND	370
Acenaphthene	ND	370	Benzo(g,h,i)Perylene	ND	370
Dibenzofuran	ND	370	Benzidine	ND	730
2,4-Dinitrotoluene	ND	370			

Percent Solid of 90.0 is used for all Target compounds.

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SITE T

Lab Name: 21st Century Environmental

Client Name: US ARMY FT. MONMOUTH, NJ

Client ID: BLDG 2500

Matrix: (soil/water) Soil

Lab Sample ID: A1560

Sample wt/vol: 5 (g/mL) g

Lab File ID: >A1320

Level: (low/med) LOW

Date Received: 04/14/93

% Moisture: 10

Date Analyzed: 04/23/93

Column: DB-624

Dilution Factor: 1

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	No Unknowns			

FORM I VOA-TIC 1/87 Rev.

E1

EPA SAMPLE NUMBER

semi-VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

BLDG 2500
SITE T

Client: US Army, Ft. Monmouth, NJ

Comments: OVA: 0.75

Matrix: (soil/water) SOIL

Lab Sample ID: A1560

Sample wt/vol: 30 (g/mL) GM

Lab File ID: >C1194

Level: LOW

Date Received: NA

% Moisture: 10

Date Analyzed 05/07/93

Extraction: (Sepf/Cont/Sonc) SONC

Date Extracted 04/14/93

GPC (Y or N): N

Column: DB-5

Dilution Factor: 1

Number TICs Found 1

CONCENTRATION UNITS
(ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST CONC
1	79345	Ethane, 1,1,2,2-tetrachloro- (8CI9CI)	7.62	300

21st Century Environmental Inc.
VOLATILE ORGANIC ANALYSIS DATA

JOB NUMBER	US ARMY FT. MONMOUTH NJ	MATRIX	Water
SAMPLE NUMBER	A1561	DILUTION FACTOR	1.00
CLIENT ID	BLDG 2500 TRIP BLANK	COMMENTS	OVA NA
DATA FILE	>A1321	DATE ANALYZED	04/23/93

COMPOUND	UG/L	MDL	COMPOUND	UG/L	MDL
Chloromethane	ND	10	2-Chloroethylvinylether	ND	10
Bromomethane	ND	10	2-Hexanone	ND	10
Vinyl Chloride	ND	10	trans-1,3-Dichloropropene	ND	5
Chloroethane	ND	10	Toluene	ND	5
Acrolein	ND	50	cis-1,3-Dichloropropene	ND	5
Acetone	2.3 JB	10	1,1,2,2-Tetrachloroethane	ND	5
1,1-Dichloroethene	ND	5	1,1,2-Trichloroethane	ND	5
Carbon Disulfide	ND	10	4-Methyl-2-pentanone	ND	10
Acrylonitrile	ND	50	Tetrachloroethene	ND	5
Methylene Chloride	ND B	5	Dibromochloromethane	ND	5
1,2-Dichloroethene(trans)	ND	5	Chlorobenzene	ND	5
1,1-Dichloroethane	ND	5	Ethylbenzene	ND	5
Vinyl Acetate	ND	5	m&p-Xylenes	ND	5
2-Butanone	ND	10	o-Xylene	ND	5
Chloroform	ND	5	Styrene	ND	5
1,1,1-Trichloroethane	ND	5	Bromoform	ND	5
Carbon Tetrachloride	ND	5	m-Dichlorobenzene	ND	5
1,2-Dichloroethane	ND	5	p-Dichlorobenzene	ND	5
Benzene	ND	5	o-Dichlorobenzene	ND	5
Trichloroethene	ND	5	Bromodichloromethane	ND	5
1,2 Dichloropropane	ND	5			

SURROGATE COMPOUNDS	% RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	95.3	76 - 114	OK
Toluene-d8	96.3	88 - 110	OK
Bromofluorobenzene	98.8	86 - 115	OK

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected
(D) Indicates calculated from dilution

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

TRIP BLANK

Lab Name:21st Century Environmental

Client Name: US ARMY FT. MONMOUTH, NJ

Client ID: BLDG 2500

Matrix: (soil/water) WATER

Lab Sample ID: A1561

Sample wt/vol: 5 (g/mL) mL

Lab File ID: >A1321

Level: (low/med) LOW

Date Received: 04/14/93

% Moisture: NA

Date Analyzed: 04/23/93

Column: DB-624

Dilution Factor: 1

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	No Unknowns			

FORM I VOA-TIC

1/87 Rev.

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21st Century Environmental Inc.
VOLATILE ORGANIC ANALYSIS DATA

JOB NUMBER	US ARMY FT. MONMOUTH NJ	MATRIX	Water
SAMPLE NUMBER	A1562	DILUTION FACTOR	1.00
CLIENT ID	BLDG 2500 FIELD BLANK	COMMENTS	QVA NA
DATA FILE	>A1322	DATE ANALYZED	04/23/93

COMPOUND	UG/L	MDL	COMPOUND	UG/L	MDL
Chloromethane	ND	10	2-Chloroethylvinylether	ND	10
Bromomethane	ND	10	2-Hexanone	ND	10
Vinyl Chloride	ND	10	trans-1,3-Dichloropropene	ND	5
Chloroethane	ND	10	Toluene	ND	5
Acrolein	ND	50	cis-1,3-Dichloropropene	ND	5
Acetone	ND B	10	1,1,2,2-Tetrachloroethane	ND	5
1,1-Dichloroethene	ND	5	1,1,2-Trichloroethane	ND	5
Carbon Disulfide	ND	10	4-Methyl-2-pentanone	ND	10
Acrylonitrile	ND	50	Tetrachloroethene	ND	5
Methylene Chloride	1.9 JB	5	Dibromochloromethane	ND	5
1,2-Dichloroethene(trans)	ND	5	Chlorobenzene	ND	5
1,1-Dichloroethane	ND	5	Ethylbenzene	ND	5
Vinyl Acetate	ND	5	m&p-Xylenes	ND	5
2-Butanone	ND	10	o-Xylene	ND	5
Chloroform	ND	5	Styrene	ND	5
1,1,1-Trichloroethane	ND	5	Bromoform	ND	5
Carbon Tetrachloride	ND	5	m-Dichlorobenzene	ND	5
1,2-Dichloroethane	ND	5	p-Dichlorobenzene	ND	5
Benzene	ND	5	o-Dichlorobenzene	ND	5
Trichloroethene	ND	5	Bromodichloromethane	ND	5
1,2 Dichloropropane	ND	5			

SURROGATE COMPOUNDS	% RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	94.6	76 - 114	OK
Toluene-d8	96.5	88 - 110	OK
Bromofluorobenzene	97.9	86 - 115	OK

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected
(D) Indicates calculated from dilution

21ST CENTURY Environmental
SEMIVOLATILE ANALYSIS DATA

JOB NUMBER	US ARMY, FT. MONMOUTH, NJ	MATRIX	Water
SAMPLE NUMBER	A1562	DILUTION FACTOR	1.00
CLIENT ID	BLDG 2500, FIELD BLANK	COMMENTS	
DATA FILE	>C1195	DATE ANALYZED	05/07/93

COMPOUND	UG/L	MDL	COMPOUND	UG/L	MDL
N-Nitrosodimethylamine	ND	10	2,6-Dinitrotoluene	ND	10
bis(-2-Chloroethyl)Ether	ND	10	Diethylphthalate	ND	10
1,3-Dichlorobenzene	ND	10	4-Chlorophenyl-phenlyether	ND	10
1,4-Dichlorobenzene	ND	10	Fluorene	ND	10
Benzyl Alcohol	ND	10	4-Nitroaniline	ND	50
1,2-Dichlorobenzene	ND	10	N-Nitrosodiphenylamine	ND	10
bis(2-chloroisopropyl)Ether	ND	10	4-Bromophenyl-phenylether	ND	10
N-Nitroso-Di-n-Propylamine	ND	10	Hexachlorobenzene	ND	10
Hexachloroethane	ND	10	Phenanthrene	ND	10
Nitrobenzene	ND	10	Anthracene	ND	10
Isophorone	ND	10	Di-n-Butylphthalate	ND	10
Benzoic Acid	ND	50	Fluoranthene	ND	10
bis(-2-Chloroethoxy)Methane	ND	10	Pyrene	ND	10
1,2,4-Trichlorobenzene	ND	10	Butylbenzylphthalate	ND	10
Naphthalene	ND	10	3,3'-Dichlorobenzidine	ND	20
4-Chloroaniline	ND	10	Benzo(a)Anthracene	ND	10
Hexachlorobutadiene	ND	10	Bis(2-Ethylhexyl)Phthalate	ND	10
2-Methylnaphthalene	ND	10	Chrysene	ND	10
Hexachlorocyclopentadiene	ND	10	Di-n-Octyl Phthalate	ND	10
2-Chloronaphthalene	ND	10	Benzo(b)fluoranthene	ND	10
2-Nitroaniline	ND	50	Benzo(k)Fluoranthene	ND	10
Dimethyl Phthalate	ND	10	Benzo(a)Pyrene	ND	10
Acenaphthylene	ND	10	Indeno(1,2,3-cd)Pyrene	ND	10
3-Nitroaniline	ND	50	Dibenzo(a,h)Anthracene	ND	10
Acenaphthene	ND	10	Benzo(g,h,i)Perylene	ND	10
Dibenzofuran	ND	10	Benzidine	ND	20
2,4-Dinitrotoluene	ND	10			

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

FIELD BLANK

Lab Name: 21st Century Environmental

Client Name: US ARMY FT. MONMOUTH, NJ

Client ID: BLDG 2500

Matrix: (soil/water) WATER

Lab Sample ID: A1562

Sample wt/vol: 5 (g/mL) mL

Lab File ID: >A1322

Level: (low/med) LOW

Date Received: 04/14/93

% Moisture: NA

Date Analyzed: 04/23/93

Column: DB-624

Dilution Factor: 1

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	No Unknowns			

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E1

EPA SAMPLE NUMBER

semi-VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

BLDG 2500
FLD BLANK

Client: US Army, Ft. Monmouth, NJ

Comments: None

Matrix: (soil/water) WATER

Lab Sample ID: A1562

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: >C1195

Level: LOW

Date Received: NA

% Moisture: 100

Date Analyzed 05/07/93

Extraction: (Sepf/Cont/Sonc) SEPF

Date Extracted 04/14/93

GPC (Y or N): N

Column: DB-5

Dilution Factor: 1

Number TICs Found 1

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

CAS NUMBER	COMPOUND NAME	RT	EST CONC
S	UNKNOWN	30.47	4

DATA PACKAGE

U.S. ARMY-FORT MONMOUTH, NJ BLDG 2500

CERTIFICATE OF ANALYSIS

LEAD

ANALYSIS NO:	CLIENT ID:	MDL (mg/Kg)	RESULT (mg/Kg)
A 1541	Site A	5.00	8.45
A 1542	Site B	5.00	9.84
A 1543	Site C	5.00	7.98
A 1544	Site D	5.00	9.54
A 1545	Site E	5.00	7.85
A 1546	Site F	5.00	12.2
A 1547	Site G	5.00	N.D.
A 1548	Site H	5.00	8.74
A 1549	Site I	5.00	7.75
A 1550	Site J	5.00	22.6
A 1551	Site K	5.00	N.D.
A 1552	Site L	5.00	N.D.
A 1553	Site M	5.00	22.7
A 1554	Site N	5.00	7.33
A 1555	Site O	5.00	9.81
A 1556	Site P	5.00	11.8
A 1557	Site Q	5.00	N.D.
A 1558	Site R	5.00	8.52
A 1559	Site S	5.00	N.D.
A 1560	Site T	5.00	12.7

BATCH M044

00096

U.S. ARMY-FORT MONMOUTH, NJ BLDG 2500

CERTIFICATE OF ANALYSIS

LEAD

ANALYSIS NO:	CLIENT ID:	MDL (mg/L)	RESULT (mg/L)
A 1562	Field Blank	0.05	N.D.

00097

21st Century Environmental Inc.
VOLATILE ORGANIC ANALYSIS DATA

JOB NUMBER	US ARMY FT. MONMOUTH	MATRIX	Soil
SAMPLE NUMBER	A1541	DILUTION FACTOR	1.00
CLIENT ID	SITE A BLDG 2500	COMMENTS	QUA 2.5
DATA FILE	>A1249	DATE ANALYZED	04/15/93

COMPOUND	UG/KG	MDL	COMPOUND	UG/KG	MDL
Acrolein	ND	55	Bromodichloromethane	ND	5
Acrylonitrile	ND	55	2-Chloroethylvinylether	ND	11
Chloromethane	ND	11	2-Hexanone	ND	11
Bromomethane	ND	11	trans-1,3-Dichloropropene	ND	5
Vinyl Chloride	ND	11	Toluene	ND	5
Chloroethane	ND	11	cis-1,3-Dichloropropene	ND	5
Acetone	ND	11	1,1,2,2-Tetrachloroethane	ND	5
1,1-Dichloroethene	ND	5	1,1,2-Trichloroethane	ND	5
Carbon Disulfide	ND	11	4-Methyl-2-pentanone	ND	11
Methylene Chloride	3.7 J	5	Tetrachloroethene	ND	5
1,2-Dichloroethene(trans)	ND	5	Dibromochloromethane	ND	5
1,1-Dichloroethane	ND	5	Chlorobenzene	ND	5
Vinyl Acetate	ND	5	Ethylbenzene	ND	5
2-Butanone	ND	11	m&p-Xylenes	ND	5
Chloroform	ND	5	o-Xylene	ND	5
1,1,1-Trichloroethane	ND	5	Styrene	ND	5
Carbon Tetrachloride	ND	5	Bromoform	ND	5
1,2-Dichloroethane	ND	5	m-Dichlorobenzene	ND	5
Benzene	ND	5	p-Dichlorobenzene	ND	5
Trichloroethene	ND	5	o-Dichlorobenzene	ND	5
1,2-Dichloropropane	ND	5			

SURROGATE COMPOUNDS	% RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	99.0	70 - 121	OK
Toluene-d8	98.4	81 - 117	OK
Bromofluorobenzene	97.6	74 - 121	OK

Percent Solid of 91.0 is used for all Target compounds.

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SITE A

Lab Name:21st Century Environmental

Client Name: US ARMY FT. MONMOUTH, NJ Client ID: BLDG 2500

Matrix: (soil/water) Soil Lab Sample ID: A1541

Sample wt/vol: 5 (g/mL) g Lab File ID: >A1249

Level: (low/med) LOW Date Received: 04/14/93

% Moisture: 9 Date Analyzed: 04/15/93

Column: DB-624 Dilution Factor: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	No Unknowns			

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QUANT REPORT

erator ID: JEFF
tput File: ^A1249::QT
Data File: >A1249::D2
me: A1541
sc: SITE A

Quant Rev: 6 Quant Time: 930415 14:12
Injected at: 930415 13:42
Dilution Factor: 1.00000

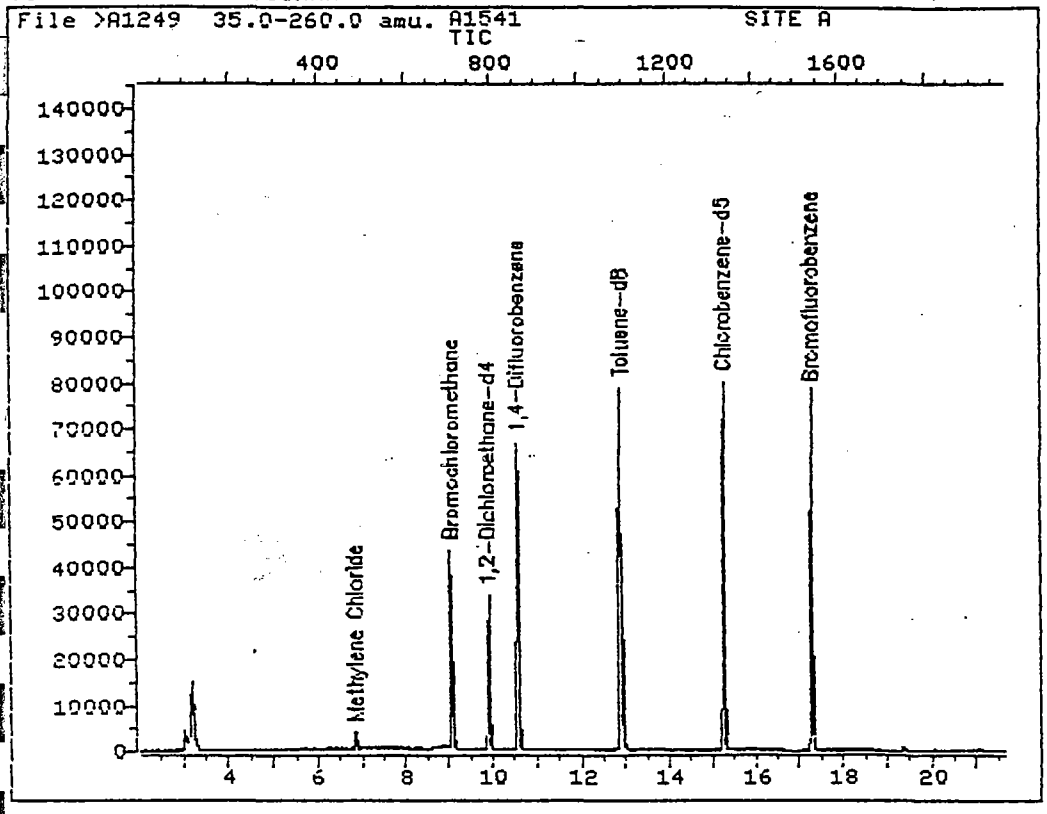
5g/5ml

File: ID0127::M1
tle: USEPA 624 VOLATILES
ast Calibration: 930415 11:24

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*Bromochloromethane	9.06	708	22227	50.00	UG/L	100
1)	Methylene Chloride	6.84	484	3432	3.39	UG/L	82
)	1,2-Dichloroethane-d4	9.90	793	46360	49.51	UG/L	100
2)	*1,4-Difluorobenzene	10.56	860	101640	50.00	UG/L	100
3)	Toluene-d8	12.89	1095	102769	49.20	UG/L	100
)	*Chlorobenzene-d5	15.25	1333	86616	50.00	UG/L	100
6)	Bromofluorobenzene	17.29	1539	53694	48.82	UG/L	100

Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >A1249::D2 Quant Output File: ^A1249::QT
Name: A1541
Misc: SITE A 5g/5ml

Id File: ID0127::M1
Title: USEPA 624 VOLATILES
Last Calibration: 930415 11:24

Operator ID: JEFF
Quant Time: 930415 14:12
Injected at: 930415 13:42

21ST CENTURY Environmental
SEMIVOLATILE ANALYSIS DATA

JOB NUMBER	US ARMY, FT. MONMOUTH, NJ	MATRIX	Soil
SAMPLE NUMBER	A1541	DILUTION FACTOR	1.00
CLIENT ID	BLDG 2500, SITE A	COMMENTS	DUA:2.5
DATA FILE	>C0978	DATE ANALYZED	04/15/93

COMPOUND	UG/KG	MDL	COMPOUND	UG/KG	MDL
N-Nitrosodimethylamine	ND	360	2,6-Dinitrotoluene	ND	360
bis(-2-Chloroethyl)Ether	ND	360	Diethylphthalate	ND	360
1,3-Dichlorobenzene	ND	360	4-Chlorophenyl-phenlyether	ND	360
1,4-Dichlorobenzene	ND	360	Fluorene	ND	360
Benzyl Alcohol	ND	360	4-Nitroaniline	ND	1800
1,2-Dichlorobenzene	ND	360	N-Nitrosodiphenylamine	ND	360
bis(2-chloroisopropyl)Ether	ND	360	4-Bromophenyl-phenylether	ND	360
N-Nitroso-Di-n-Propylamine	ND	360	Hexachlorobenzene	ND	360
Hexachloroethane	ND	360	Phenanthrene	ND	360
Nitrobenzene	ND	360	Anthracene	ND	360
Isophorone	ND	360	Di-n-Butylphthalate	ND	360
Benzoic Acid	ND	1800	Fluoranthene	ND	360
bis(-2-Chloroethoxy)Methane	ND	360	Pyrene	ND	360
1,2,4-Trichlorobenzene	ND	360	Butylbenzylphthalate	ND	360
Naphthalene	ND	360	3,3'-Dichlorobenzidine	ND	720
4-Chloroaniline	ND	360	Benzo(a)Anthracene	ND	360
Hexachlorobutadiene	ND	360	Bis(2-Ethylhexyl)Phthalate	ND	360
2-Methylnaphthalene	ND	360	Chrysene	ND	360
Hexachlorocyclopentadiene	ND	360	Di-n-Octyl Phthalate	ND	360
2-Chloronaphthalene	ND	360	Benzo(b)fluoranthene	ND	360
2-Nitroaniline	ND	1800	Benzo(k)Fluoranthene	ND	360
Dimethyl Phthalate	ND	360	Benzo(a)Pyrene	ND	360
Acenaphthylene	ND	360	Indeno(1,2,3-cd)Pyrene	ND	360
3-Nitroaniline	ND	1800	Dibenzo(a,h)Anthracene	ND	360
Acenaphthene	ND	360	Benzo(g,h,i)Perylene	ND	360
Dibenzofuran	ND	360	Benzidine	ND	720
2,4-Dinitrotoluene	ND	360			

Percent Solid of 91.0 is used for all Target compounds.

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

E1

EPA SAMPLE NUMBER

semi-VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

BLDG 2500
SITE A

Client: US Army, Ft. Monmouth, NJ

Comments: OVA: 2.5

Matrix: (soil/water) SOIL

Lab Sample ID: A1541

Sample wt/vol: 30 (g/mL) GM

Lab File ID: >C0978

Level: LOW

Date Received: NA

% Moisture: 9

Date Analyzed 04/15/93

Extraction: (Sepf/Cont/Sonc) SONC

Date Extracted 04/14/93

GPC (Y or N): N

Column: DB-5

Dilution Factor: 1

Number TICs Found 1

CONCENTRATION UNITS
(ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST CONC
1	79345	Ethane, 1,1,2,2-tetrachloro- (8CI9CI)	8.18	440

QUANT REPORT

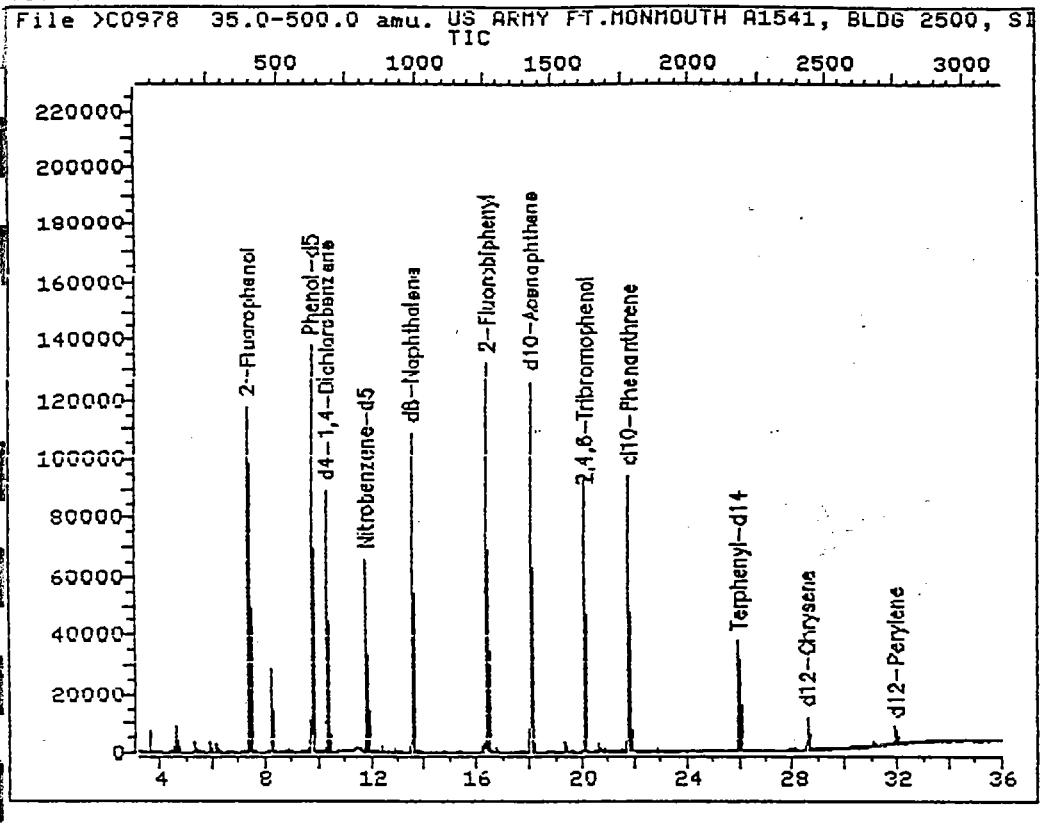
erator ID: JEFF Quant Rev: 6 Quant Time: 930415 13:26
tput File: ^C0978::D3 Injected at: 930415 12:47
Data File: >C0978::E4 Dilution Factor: 1.00000
me: US ARMY FT.MONMOUTH
sc: A1541, BLDG 2500, SITE A, 30G/1.0ML 041493 BTL# 2

ID File: ID0415::DA
tle: hSL BNA STD
ast Calibration: 930415 12:07

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	10.33	678	41216	40.00	UG/L	94
)	2-Fluorophenol	7.35	392	58829	76.88	UG/L	96
)	Phenol-d5	9.73	620	105427	93.45	UG/L	82
8)	*d8-Naphthalene	13.52	984	105649	40.00	UG/L	87
1)	Nitrobenzene-d5	11.79	818	43544	28.87	UG/L	84
)	*d10-Acenaphthene	18.05	1418	63669	40.00	UG/L	93
d)	2-Fluorobiphenyl	16.40	1260	95102	31.51	UG/L	93
53)	*d10-Phenanthrene	21.78	1776	86795	40.00	UG/L	99
)	2,4,6-Tribromophenol	20.08	1613	21107	72.80	UG/L	95
)	*d12-Chrysene	28.56	2426	10034	40.00	UG/L	94
67)	Terphenyl-d14	25.96	2177	31483	64.30	UG/L	92
)	*d12-Perylene	31.94	2750	5980	40.00	UG/L	94

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >C0978 Quant Output File: ^C0978::D3
Name: US ARMY FT.MONMOUTH
Misc: A1541, BLDG 2500, SITE A, 30G/1.0ML 041493 BTL# 2

Id File: ID0415::DA
Title: hSL BNA STD
Last Calibration: 930415 12:07

Operator ID: JEFF
Quant Time: 930415 13:26
Injected at: 930415 12:47

21st Century Environmental Inc.
VOLATILE ORGANIC ANALYSIS DATA

JOB NUMBER	US ARMY FT. MONMOUTH NJ	MATRIX	Soil
SAMPLE NUMBER	A1542	DILUTION FACTOR	1.00
CLIENT ID	SITE B BLDG 2500	COMMENTS	QVA ND
DATA FILE	>A1250	DATE ANALYZED	04/15/93

COMPOUND	UG/KG	MDL	COMPOUND	UG/KG	MDL
Acrolein	ND	53	Bromodichloromethane	ND	5
Acrylonitrile	ND	53	2-Chloroethylvinylether	ND	11
Chloromethane	ND	11	2-Hexanone	ND	11
Bromomethane	ND	11	trans-1,3-Dichloropropene	ND	5
Vinyl Chloride	ND	11	Toluene	ND	5
Chloroethane	ND	11	cis-1,3-Dichloropropene	ND	5
Acetone	2.6 J	11	1,1,2,2-Tetrachloroethane	ND	5
1,1-Dichloroethene	ND	5	1,1,2-Trichloroethane	ND	5
Carbon Disulfide	ND	11	4-Methyl-2-pentanone	ND	11
Methylene Chloride	3.5 J	5	Tetrachloroethene	ND	5
1,2-Dichloroethene(trans)	ND	5	Dibromochloromethane	ND	5
1,1-Dichloroethane	ND	5	Chlorobenzene	ND	5
Vinyl Acetate	ND	5	Ethylbenzene	ND	5
2-Butanone	ND	11	m&p-Xylenes	ND	5
Chloroform	ND	5	o-Xylene	ND	5
1,1,1-Trichloroethane	ND	5	Styrene	ND	5
Carbon Tetrachloride	ND	5	Bromoform	ND	5
1,2-Dichloroethane	ND	5	m-Dichlorobenzene	ND	5
Benzene	ND	5	p-Dichlorobenzene	ND	5
Trichloroethene	ND	5	o-Dichlorobenzene	ND	5
1,2-Dichloropropane	ND	5			

SURROGATE COMPOUNDS	% RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	99.5	70 - 121	OK
Toluene-d8	99.1	81 - 117	OK
Bromofluorobenzene	97.8	74 - 121	OK

Percent Solid of 94.0 is used for all Target compounds.

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SITE B

Lab Name: 21st Century Environmental

Client Name: US ARMY FT. MONMOUTH, NJ

Client ID: BLDG 2500

Matrix: (soil/water) Soil

Lab Sample ID: A1542

Sample wt/vol: 5 (g/mL) g

Lab File ID: >A1250

Level: (low/med) LOW

Date Received: 04/14/93

% Moisture: 6

Date Analyzed: 04/15/93

Column: DB-624

Dilution Factor: 1

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	No Unknowns			

FORM I VOA-TIC

1/87 Rev.

QUANT REPORT

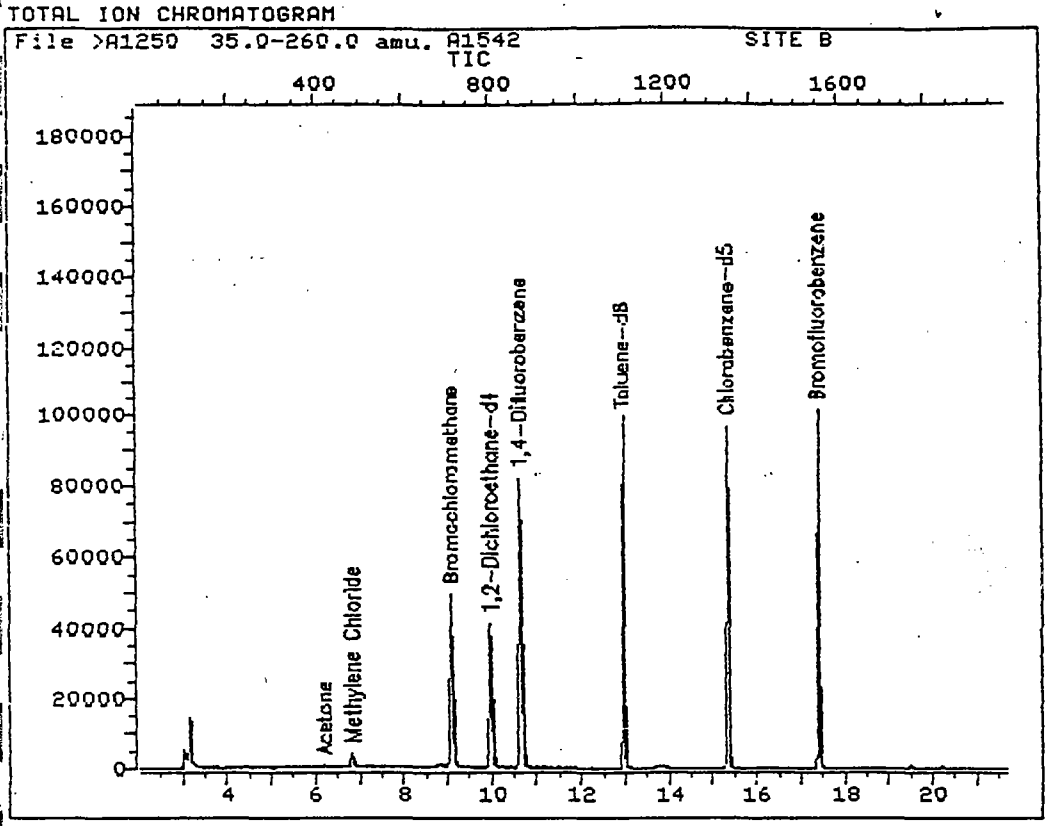
perator ID: JEFF Quant Rev: 6 Quant Time: 930415 14:47
Output File: ^A1250::QT Injected at: 930415 14:17
Data File: >A1250::D2 Dilution Factor: 1.00000
ame: A1542
isc: SITE B 5g/5ml

D File: ID0127::M1
itle: USEPA 624 VOLATILES
Last Calibration: 930415 11:24

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*Bromochloromethane	9.09	711	27807	50.00	UG/L	100
9)	Acetone	6.20	419	1154	2.40	UG/L	79
13)	Methylene Chloride	6.83	483	4141	3.27	UG/L	83
21)	1,2-Dichloroethane-d4	9.97	800	58277	49.75	UG/L	100
22)	*1,4-Difluorobenzene	10.63	867	125795	50.00	UG/L	100
31)	Toluene-d8	12.95	1101	128021	49.53	UG/L	100
33)	*Chlorobenzene-d5	15.35	1343	108608	50.00	UG/L	100
46)	Bromofluorobenzene	17.40	1550	67450	48.91	UG/L	100

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >A1250::D2 Quant Output File: ^A1250::QT
Name: A1542
Misc: SITE B 5g/5ml

Id File: ID0127::M1
Title: USEPA 624 VOLATILES
Last Calibration: 930415 11:24

Operator ID: JEFF
Quant Time: 930415 14:47
Injected at: 930415 14:17

21ST CENTURY Environmental
SEMIVOLATILE ANALYSIS DATA

JOB NUMBER	US ARMY, FT. MONMOUTH, NJ	MATRIX	Soil
SAMPLE NUMBER	A1542	DILUTION FACTOR	1.00
CLIENT ID	BLDG 2500, SITE 8	COMMENTS	OVA: ND
DATA FILE	>C1133	DATE ANALYZED	05/03/93

COMPOUND	UG/KG	MDL	COMPOUND	UG/KG	MDL
N-Nitrosodimethylamine	ND	350	2,6-Dinitrotoluene	ND	350
bis(-2-Chloroethyl)Ether	ND	350	Diethylphthalate	ND	350
1,3-Dichlorobenzene	ND	350	4-Chlorophenyl-phenlyether	ND	350
1,4-Dichlorobenzene	ND	350	Fluorene	ND	350
Benzyl Alcohol	ND	350	4-Nitroaniline	ND	1800
1,2-Dichlorobenzene	ND	350	N-Nitrosodiphenylamine	ND	350
bis(2-chloroisopropyl)Ether	ND	350	4-Bromophenyl-phenylether	ND	350
N-Nitroso-Di-n-Propylamine	ND	350	Hexachlorobenzene	ND	350
Hexachloroethane	ND	350	Phenanthrene	ND	350
Nitrobenzene	ND	350	Anthracene	ND	350
Isophorone	ND	350	Di-n-Butylphthalate	ND	350
Benzoic Acid	ND	1800	Fluoranthene	ND	350
bis(-2-Chloroethoxy)Methane	ND	350	Pyrene	ND	350
1,2,4-Trichlorobenzene	ND	350	Butylbenzylphthalate	ND	350
Naphthalene	ND	350	3,3'-Dichlorobenzidine	ND	700
4-Chloroaniline	ND	350	Benzo(a)Anthracene	ND	350
Hexachlorobutadiene	ND	350	Bis(2-Ethylhexyl)Phthalate	ND	350
2-Methylnaphthalene	ND	350	Chrysene	ND	350
Hexachlorocyclopentadiene	ND	350	Di-n-Octyl Phthalate	ND	350
2-Chloronaphthalene	ND	350	Benzo(b)fluoranthene	ND	350
2-Nitroaniline	ND	1800	Benzo(k)Fluoranthene	ND	350
Dimethyl Phthalate	ND	350	Benzo(a)Pyrene	ND	350
Acenaphthylene	ND	350	Indeno(1,2,3-cd)Pyrene	ND	350
3-Nitroaniline	ND	1800	Dibenzo(a,h)Anthracene	ND	350
Acenaphthene	ND	350	Benzo(g,h,i)Perylene	ND	350
Dibenzofuran	ND	350	Benzidine	ND	700
2,4-Dinitrotoluene	ND	350			

Percent Solid of 94.0 is used for all Target compounds.

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

E1

EPA SAMPLE NUMBER

semi-VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

BLDG 2500
SITE B

Client: US Army, Ft. Monmouth, NJ

Comments: OVA: ND

Matrix: (soil/water) SOIL

Lab Sample ID: A1542

Sample wt/vol: 30 (g/mL) GM

Lab File ID: >C1133

Level: LOW

Date Received: NA

% Moisture: 6

Date Analyzed 05/03/93

Extraction: (Sepf/Cont/Sonc) SONC

Date Extracted 04/14/93

GPC (Y or N): N

Column: DB-5

Dilution Factor: 1

Number TICs Found 3

CONCENTRATION UNITS
(ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST CONC
1	79005	Ethane, 1,1,2-trichloro- (8CI9CI)	4.12	180
2	79345	Ethane, 1,1,2,2-tetrachloro- (8CI9CI)	7.69	430
3		UNKNOWN	30.56	140

QUANT REPORT

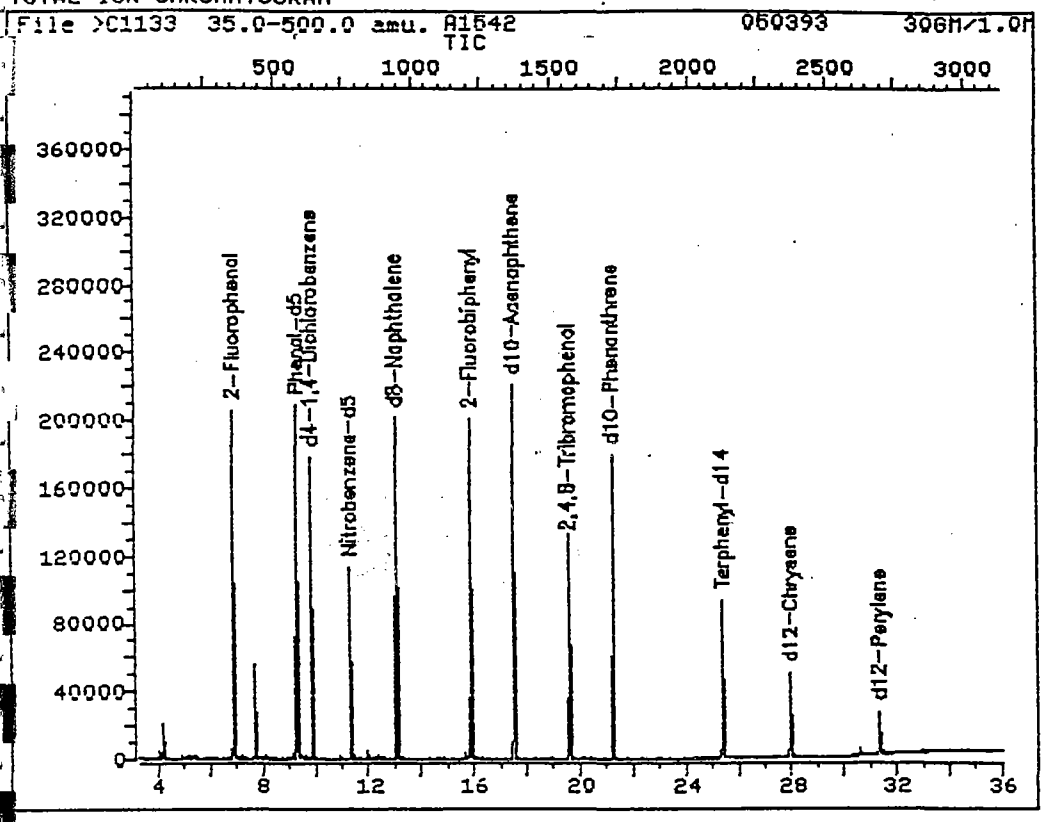
perator ID: JEFF Quant Rev: 6 Quant Time: 930503 21:11
utput File: ^C1133::D5 Injected at: 930503 20:32
ata File: >C1133::E4 Dilution Factor: 1.00000
me: A1542
isc: 050393 30GM/1.0ML BTL# 4

File: IDHSLC::D3
itle: hSL BNA STD
ast Calibration: 930503 17:16

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	9.84	628	86611	40.00	UG/L	93
3)	2-Fluorophenol	6.89	346	109561	70.98	UG/L	89
5)	Phenol-d5	9.30	577	159287	76.94	UG/L	82
3)	*d8-Naphthalene	13.02	933	190072	40.00	UG/L	86
9)	Nitrobenzene-d5	11.30	768	68697	33.16	UG/L	81
5)	*d10-Acenaphthene	17.50	1362	112771	40.00	UG/L	95
9)	2-Fluorobiphenyl	15.87	1206	142537	35.22	UG/L	94
5)	*d10-Phenanthrene	21.20	1717	171594	40.00	UG/L	98
6)	2,4,6-Tribromophenol	19.53	1557	16434M	44.65	UG/L	89
4)	*d12-Chrysene	27.94	2363	47618	40.00	UG/L	98
7)	Terphenyl-d14	25.39	2118	84010	39.84	UG/L	88
5)	*d12-Perylene	31.32	2686	27831	40.00	UG/L	94

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >C1133::E4 Quant Output File: ^C1133::D5
Name: A1542
Misc: 050393 30GM/1.0ML BTL# 4

Id File: IDHSLC::D3
Title: hSL BNA STD
Last Calibration: 930503 17:16

Operator ID: JEFF
Quant Time: 930503 21:11
Injected at: 930503 20:32

21st Century Environmental Inc.
VOLATILE ORGANIC ANALYSIS DATA

JOB NUMBER	US ARMY FT. MONMOUTH NJ	MATRIX	Soil
SAMPLE NUMBER	A1543	DILUTION FACTOR	1.00
CLIENT ID	SITE C BLDG 2500	COMMENTS	OVA ND
DATA FILE	>A1298	DATE ANALYZED	04/22/93

COMPOUND	UG/KG		MDL	COMPOUND	UG/KG	MDL
Acrolein	ND		54	Bromodichloromethane	ND	5
Acrylonitrile	ND		54	2-Chloroethylvinylether	ND	11
Chloromethane	ND		11	2-Hexanone	ND	11
Bromomethane	ND		11	trans-1,3-Dichloropropene	ND	5
Vinyl Chloride	ND		11	Toluene	ND	5
Chloroethane	ND		11	cis-1,3-Dichloropropene	ND	5
Acetone	ND	B	11	1,1,2,2-Tetrachloroethane	ND	5
1,1-Dichloroethene	ND		5	1,1,2-Trichloroethane	ND	5
Carbon Disulfide	ND		11	4-Methyl-2-pentanone	ND	11
Methylene Chloride	ND		5	Tetrachloroethene	ND	5
1,2-Dichloroethene(trans)	ND		5	Dibromochloromethane	ND	5
1,1-Dichloroethane	ND		5	Chlorobenzene	ND	5
Vinyl Acetate	ND		5	Ethylbenzene	ND	5
2-Butanone	ND		11	m&p-Xylenes	ND	5
Chloroform	ND		5	o-Xylene	ND	5
1,1,1-Trichloroethane	ND		5	Styrene	ND	5
Carbon Tetrachloride	ND		5	Bromoform	ND	5
1,2-Dichloroethane	ND		5	m-Dichlorobenzene	ND	5
Benzene	ND		5	p-Dichlorobenzene	ND	5
Trichloroethene	ND		5	o-Dichlorobenzene	ND	5
1,2-Dichloropropane	ND		5			

SURROGATE COMPOUNDS	% RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	97.5	70 - 121	OK
Toluene-d8	98.2	81 - 117	OK
Bromofluorobenzene	99.6	74 - 121	OK

Percent Solid of 93.0 is used for all Target compounds.

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SITE C

ab Name: 21st Century Environmental

Client Name: US ARMY FT. MONMOUTH, NJ

Client ID: BLDG 2500

Matrix: (soil/water) Soil

Lab Sample ID: A1543

Sample wt/vol: 5 (g/mL) g

Lab File ID: >A1298

Level: (low/med) LOW

Date Received: 04/14/93

% Moisture: 7

Date Analyzed: 04/22/93

Column: DB-624

Dilution Factor: 1

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	No Unknowns			

FORM I VOA-TIC 1/87 Rev.

QUANT REPORT

erator ID: JEFF
utput File: ^A1298::QT
Data File: >A1298::D2
me: A1543
sc: SITE C

Quant Rev: 6 Quant Time: 930422 18:13
Injected at: 930422 17:43
Dilution Factor: 1.00000

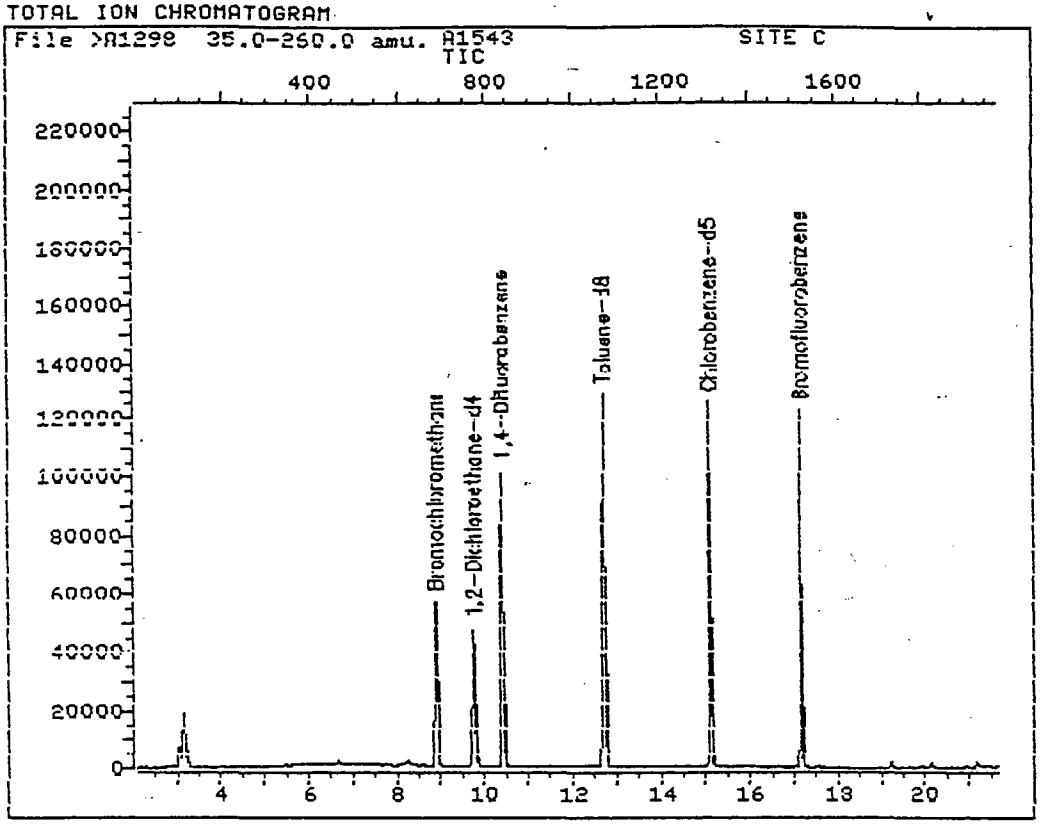
5.0g

File: ID0127::M1
tle: USEPA 624 VOLATILES
ast Calibration: 930422 16:06

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*Bromochloromethane	8.88	684	33217	50.00	UG/L	100
)	1,2-Dichloroethane-d4	9.75	772	67052	48.73	UG/L	100
)	*1,4-Difluorobenzene	10.41	838	166204	50.00	UG/L	100
1)	Toluene-d8	12.71	1070	170570	49.08	UG/L	100
)	*Chlorobenzene-d5	15.09	1311	142672	50.00	UG/L	100
)	Bromofluorobenzene	17.15	1518	87118	49.79	UG/L	100

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >A1298::D2 Quant Output File: ^A1298::QT
Name: A1543
Misc: SITE C 5.0g

Id File: ID0127::M1
Title: USEPA 624 VOLATILES
Last Calibration: 930422 16:06

Operator ID: JEFF
Quant Time: 930422 18:13
Injected at: 930422 17:43

21ST CENTURY Environmental
SEMIVOLATILE ANALYSIS DATA

JOB NUMBER	US ARMY, FT. MONMOUTH, NJ	MATRIX	Soil
SAMPLE NUMBER	A1543	DILUTION FACTOR	1.00
CLIENT ID	BLDG 2500, SITE C	COMMENTS	OVA: ND
DATA FILE	>C1134	DATE ANALYZED	05/03/93

COMPOUND	UG/KG	MDL	COMPOUND	UG/KG	MDL
N-Nitrosodimethylamine	ND	350	2,6-Dinitrotoluene	ND	350
bis(-2-Chloroethyl)Ether	ND	350	Diethylphthalate	ND	350
1,3-Dichlorobenzene	ND	350	4-Chlorophenyl-phenlyether	ND	350
1,4-Dichlorobenzene	ND	350	Fluorene	ND	350
Benzyl Alcohol	ND	350	4-Nitroaniline	ND	1800
1,2-Dichlorobenzene	ND	350	N-Nitrosodiphenylamine	ND	350
bis(2-chloroisopropyl)Ether	ND	350	4-Bromophenyl-phenylether	ND	350
N-Nitroso-Di-n-Propylamine	ND	350	Hexachlorobenzene	ND	350
Hexachloroethane	ND	350	Phenanthrene	ND	350
Nitrobenzene	ND	350	Anthracene	ND	350
Isophorone	ND	350	Di-n-Butylphthalate	ND	350
Benzoic Acid	ND	1800	Fluoranthene	ND	350
bis(-2-Chloroethoxy)Methane	ND	350	Pyrene	ND	350
1,2,4-Trichlorobenzene	ND	350	Butylbenzylphthalate	ND	350
Naphthalene	ND	350	3,3'-Dichlorobenzidine	ND	710
4-Chloroaniline	ND	350	Benzo(a)Anthracene	ND	350
Hexachlorobutadiene	ND	350	Bis(2-Ethylhexyl)Phthalate	ND	350
2-Methylnaphthalene	ND	350	Chrysene	ND	350
Hexachlorocyclopentadiene	ND	350	Di-n-Octyl Phthalate	ND	350
2-Chloronaphthalene	ND	350	Benzo(b)fluoranthene	ND	350
2-Nitroaniline	ND	1800	Benzo(k)Fluoranthene	ND	350
Dimethyl Phthalate	ND	350	Benzo(a)Pyrene	ND	350
Acenaphthylene	ND	350	Indeno(1,2,3-cd)Pyrene	ND	350
3-Nitroaniline	ND	1800	Dibenzo(a,h)Anthracene	ND	350
Acenaphthene	ND	350	Benzo(g,h,i)Perylene	ND	350
Dibenzofuran	ND	350	Benzidine	ND	710
2,4-Dinitrotoluene	ND	350			

Percent Solid of 93.0 is used for all Target compounds.

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

E1

EPA SAMPLE NUMBER

semi-VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

BLDG 2500
SITE C

Client: US Army, Ft. Monmouth, NJ

Comments: OVA: ND

Matrix: (soil/water) SOIL

Lab Sample ID: A1543

Sample wt/vol: 30 (g/mL) GM

Lab File ID: >C1134

Level: LOW

Date Received: NA

% Moisture: 7

Date Analyzed 05/03/93

Extraction: (Sepf/Cont/Sonc) SONC

Date Extracted 04/14/93

GPC (Y or N): N

Column: DB-5

Dilution Factor: 1

Number TICs Found 1

CONCENTRATION UNITS
(ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST CONC
1	79345	Ethane, 1,1,2,2-tetrachloro- (8CI9CI)	7.69	290

QUANT REPORT

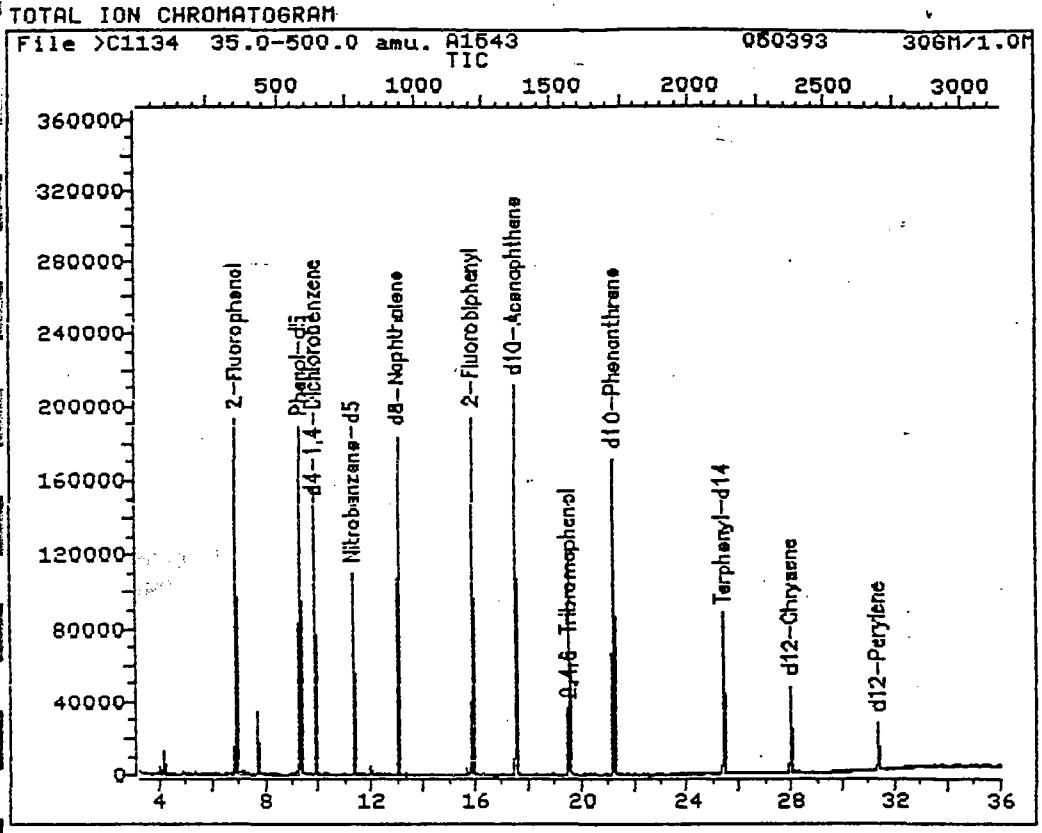
Operator ID: JEFF Quant Rev: 6 Quant Time: 930503 21:58
Output File: ^C1134::D5 Injected at: 930503 21:19
Data File: >C1134::E4 Dilution Factor: 1.00000
Name: A1543
Misc: 050393 30GM/1.0ML BTL# 5

ID File: IDHSLC::D3
Title: hSL BNA STD
Last Calibration: 930503 17:16

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	9.82	627	76493	40.00	UG/L	92
3)	2-Fluorophenol	6.89	346	97448	71.48	UG/L	93
5)	Phenol-d5	9.29	576	143858	78.68	UG/L	80
18)	*d8-Naphthalene	13.01	932	177611	40.00	UG/L	85
19)	Nitrobenzene-d5	11.29	768	62593	32.34	UG/L	82
35)	*d10-Acenaphthene	17.49	1362	105470	40.00	UG/L	93
38)	2-Fluorobiphenyl	15.86	1206	132744	35.07	UG/L	93
53)	*d10-Phenanthrene	21.20	1717	158668	40.00	UG/L	99
56)	2,4,6-Tribromophenol	19.50	1554	539M	1.58	UG/L	
64)	*d12-Chrysene	27.94	2363	44730	40.00	UG/L	97
67)	Terphenyl-d14	25.37	2117	79695	40.23	UG/L	87
73)	*d12-Perylene	31.32	2686	27932	40.00	UG/L	93

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >C1134::E4 Quant Output File: ^C1134::D5
Name: A1543
Misc: 050393 30GM/1.0ML BTL# 5

Id File: IDHSLC::D3
Title: hSL BNA STD
Last Calibration: 930503 17:16

Operator ID: JEFF
Quant Time: 930503 21:58
Injected at: 930503 21:19

21st Century Environmental Inc.
VOLATILE ORGANIC ANALYSIS DATA

JOB NUMBER	US ARMY FT.MONMOUTH NJ	MATRIX	Soil
SAMPLE NUMBER	A1544	DILUTION FACTOR	1.00
CLIENT ID	SITE 0 BLDG 2500	COMMENTS	QVA ND
DATA FILE	>A1252	DATE ANALYZED	04/15/93

COMPOUND	UG/KG	MDL	COMPOUND	UG/KG	MDL
Acrolein	ND	53	Bromodichloromethane	ND	5
Acrylonitrile	ND	53	2-Chloroethylvinylether	ND	11
Chloromethane	ND	11	2-Hexanone	ND	11
Bromomethane	ND	11	trans-1,3-Dichloropropene	ND	5
Vinyl Chloride	ND	11	Toluene	ND	5
Chloroethane	ND	11	cis-1,3-Dichloropropene	ND	5
Acetone	9.2 J	11	1,1,2,2-Tetrachloroethane	ND	5
1,1-Dichloroethene	ND	5	1,1,2-Trichloroethane	ND	5
Carbon Disulfide	ND	11	4-Methyl-2-pentanone	ND	11
Methylene Chloride	2.9 J	5	Tetrachloroethene	ND	5
1,2-Dichloroethene(trans)	ND	5	Dibromochloromethane	ND	5
1,1-Dichloroethane	ND	5	Chlorobenzene	ND	5
Vinyl Acetate	ND	5	Ethylbenzene	ND	5
2-Butanone	ND	11	m&p-Xylenes	ND	5
Chloroform	ND	5	o-Xylene	ND	5
1,1,1-Trichloroethane	ND	5	Styrene	ND	5
Carbon Tetrachloride	ND	5	Bromoform	ND	5
1,2-Dichloroethane	ND	5	m-Dichlorobenzene	ND	5
Benzene	ND	5	p-Dichlorobenzene	ND	5
Trichloroethene	ND	5	o-Dichlorobenzene	ND	5
1,2-Dichloropropane	ND	5			

SURROGATE COMPOUNDS	% RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	101	70 - 121	OK
Toluene-d8	99.8	81 - 117	OK
Bromofluorobenzene	99.2	74 - 121	OK

Percent Solid of 94.0 is used for all Target compounds.

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SITE D

b Name:21st Century Environmental

Client Name: US ARMY FT. MONMOUTH, NJ

Client ID: BLDG 2500

trix: (soil/water) Soil

Lab Sample ID: A1544

Sample wt/vol: 5 (g/mL) g

Lab File ID: >A1252

vel: (low/med) LOW

Date Received: 04/14/93

% Moisture: 6

Date Analyzed: 04/15/93

Column: DB-624

Dilution Factor: 1

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	No Unknowns			

FORM I VOA-TIC

1/87 Rev.

QUANT REPORT

erator ID: JEFF
Output File: ^A1252::QT
ta File: >A1252::D2
me: A1544
isc: SITE D

Quant Rev: 6 Quant Time: 920416 00:10
Injected at: 930415 15:27
Dilution Factor: 1.00000

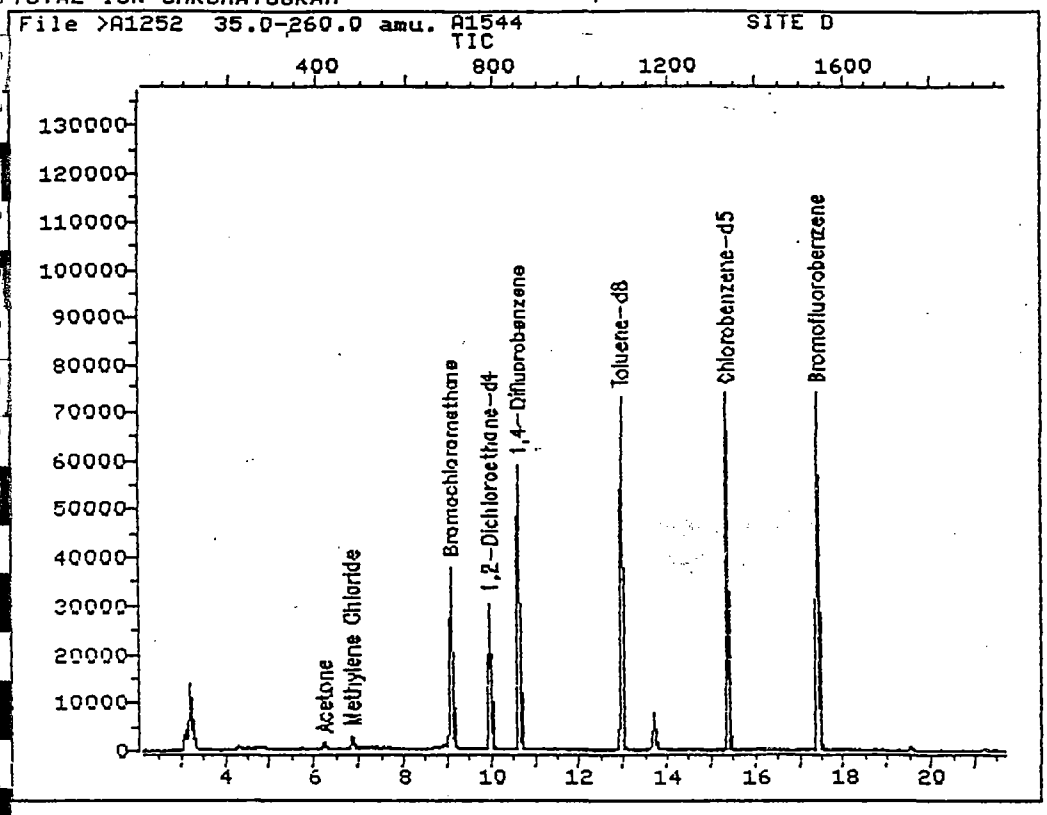
5g/5ml

File: ID0127::M1
itle: USEPA 624 VOLATILES
ast Calibration: 930415 11:24

	Compound	R.T.	Scan#	Area	Conc	Units	q
)	*Bromochloromethane	9.09	702	20731	50.00	UG/L	100
)	Acetone	6.23	413	3107	8.66	UG/L	80
3)	Methylene Chloride	6.85	476	2583	2.74	UG/L	78
21)	1,2-Dichloroethane-d4	9.97	791	43949	50.32	UG/L	100
)	*1,4-Difluorobenzene	10.62	857	91689	50.00	UG/L	100
1)	Toluene-d8	12.96	1090	94028	49.91	UG/L	100
33)	*Chlorobenzene-d5	15.36	1332	79766	50.00	UG/L	100
)	Bromofluorobenzene	17.41	1539	50245	49.61	UG/L	100

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >A1252::D2 Quant Output File: ^A1252::QT
Name: A1544
Misc: SITE D 5g/5ml

Id File: ID0127::M1
Title: USEPA 624 VOLATILES
Last Calibration: 930415 11:24

Operator ID: JEFF
Quant Time: 920416 00:10
Injected at: 930415 15:27

21ST CENTURY Environmental
SEMIVOLATILE ANALYSIS DATA

JOB NUMBER	US ARMY, FT. MONMOUTH, NJ	MATRIX	Soil
SAMPLE NUMBER	A1544	DILUTION FACTOR	1.00
CLIENT ID	BLDG 2500, SITE D	COMMENTS	QVA: ND
DATA FILE	>C1176	DATE ANALYZED	05/06/93

COMPOUND	UG/KG	MDL	COMPOUND	UG/KG	MDL
N-Nitrosodimethylamine	ND	350	2,6-Dinitrotoluene	ND	350
bis(-2-Chloroethyl)Ether	ND	350	Diethylphthalate	ND	350
1,3-Dichlorobenzene	ND	350	4-Chlorophenyl-phenlyether	ND	350
1,4-Dichlorobenzene	ND	350	Fluorene	ND	350
Benzyl Alcohol	ND	350	4-Nitroaniline	ND	1800
1,2-Dichlorobenzene	ND	350	N-Nitrosodiphenylamine	ND	350
bis(2-chloroisopropyl)Ether	ND	350	4-Bromophenyl-phenylether	ND	350
N-Nitroso-Di-n-Propylamine	ND	350	Hexachlorobenzene	ND	350
Hexachloroethane	ND	350	Phenanthrene	ND	350
Nitrobenzene	ND	350	Anthracene	ND	350
Isophorone	ND	350	Di-n-Butylphthalate	ND	350
Benzoic Acid	ND	1800	Fluoranthene	ND	350
bis(-2-Chloroethoxy)Methane	ND	350	Pyrene	ND	350
1,2,4-Trichlorobenzene	ND	350	Butylbenzylphthalate	ND	350
Naphthalene	ND	350	3,3'-Dichlorobenzidine	ND	700
4-Chloroaniline	ND	350	Benzo(a)Anthracene	ND	350
Hexachlorobutadiene	ND	350	Bis(2-Ethylhexyl)Phthalate	ND	350
2-Methylnaphthalene	ND	350	Chrysene	ND	350
Hexachlorocyclopentadiene	ND	350	Di-n-Octyl Phthalate	ND	350
2-Chloronaphthalene	ND	350	Benzo(b)fluoranthene	ND	350
2-Nitroaniline	ND	1800	Benzo(k)Fluoranthene	ND	350
Dimethyl Phthalate	ND	350	Benzo(a)Pyrene	ND	350
Acenaphthylene	ND	350	Indeno(1,2,3-cd)Pyrene	ND	350
3-Nitroaniline	ND	1800	Dibenzo(a,h)Anthracene	ND	350
Acenaphthene	ND	350	Benzo(g,h,i)Perylene	ND	350
Dibenzofuran	ND	350	Benzidine	ND	700
2,4-Dinitrotoluene	ND	350			

Percent Solid of 94.0 is used for all Target compounds.

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

E1

EPA SAMPLE NUMBER

semi-VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

BLDG 2500
SITE D

Client: US Army, Ft. Monmouth, NJ

Comments: OVA: ND

Matrix: (soil/water) SOIL

Lab Sample ID: A1544

Sample wt/vol: 30 (g/mL) GM

Lab File ID: >C1176

Level: LOW

Date Received: NA

% Moisture: 6

Date Analyzed 05/06/93

Extraction: (Sepf/Cont/Sonc) SONC

Date Extracted 04/14/93

GPC (Y or N): N

Column: DB-5

Dilution Factor: 1

Number TICs Found 1

CONCENTRATION UNITS
(ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST CONC
1	79345	Ethane, 1,1,2,2-tetrachloro- (8CI9CI)	7.65	280

QUANT REPORT

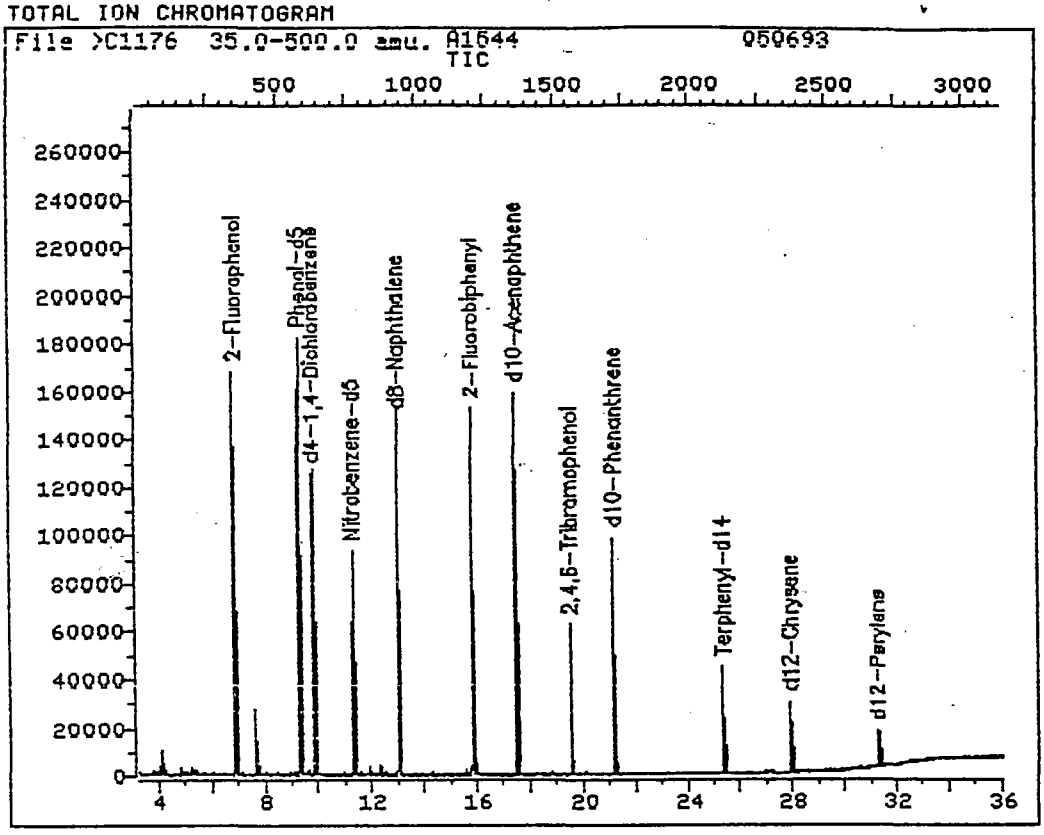
erator ID: JEFF Quant Rev: 6 Quant Time: 930506 12:51
Output File: ^C1176::D2 Injected at: 930506 12:12
Data File: >C1176::ED Dilution Factor: 1.00000
me: A1544
isc: 050693 BTL# 2

File: IDHSLC::D3
tle: hSL BNA STD
Last Calibration: 930506 07:48

	Compound	R.T.	Scan#	Area	Conc	Units	q
)	*d4-1,4-Dichlorobenzene	9.78	623	61728	40.00	UG/L	95
)	2-Fluorophenol	6.86	343	81597	80.59	UG/L	92
5)	Phenol-d5	9.28	575	126025	91.83	UG/L	82
18)	*d8-Naphthalene	12.97	928	142437	40.00	UG/L	85
)	Nitrobenzene-d5	11.25	764	54050	38.30	UG/L	84
)	*d10-Acenaphthene	17.45	1358	74200	40.00	UG/L	96
38)	2-Fluorobiphenyl	15.82	1202	99340	40.34	UG/L	93
)	*d10-Phenanthrene	21.16	1713	84138	40.00	UG/L	99
)	2,4,6-Tribromophenol	19.48	1552	13565	180.11	UG/L	93
64)	*d12-Chrysene	27.90	2359	24284	40.00	UG/L	97
67)	Terphenyl-d14	25.33	2113	36606	28.45	UG/L	90
)	*d12-Perylene	31.26	2681	14271	40.00	UG/L	93

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >C1176::ED Quant Output File: ^C1176::D2
Name: A1544
Misc: 050693 BTL# 2

Id File: IDHSLC::D3
Title: hSL BNA STD
Last Calibration: 930506 07:48

Operator ID: JEFF
Quant Time: 930506 12:51
Injected at: 930506 12:12

21st Century Environmental Inc.
VOLATILE ORGANIC ANALYSIS DATA

JOB NUMBER	US ARMY FT. MONMOUTH NJ	MATRIX	Soil
SAMPLE NUMBER	A1545	DILUTION FACTOR	1.00
CLIENT ID	SITE E BLDG 2500	COMMENTS	OVA ND
DATA FILE	>A1311	DATE ANALYZED	04/23/93

COMPOUND	UG/KG	MDL	COMPOUND	UG/KG	MDL
Acrolein	ND	54	Bromodichloromethane	ND	5
Acrylonitrile	ND	54	2-Chloroethylvinylether	ND	11
Chloromethane	ND	11	2-Hexanone	ND	11
Bromomethane	ND	11	trans-1,3-Dichloropropene	ND	5
Vinyl Chloride	ND	11	Toluene	ND	5
Chloroethane	ND	11	cis-1,3-Dichloropropene	ND	5
Acetone	8.3 JB	11	1,1,2,2-Tetrachloroethane	ND	5
1,1-Dichloroethene	ND	5	1,1,2-Trichloroethane	ND	5
Carbon Disulfide	ND	11	4-Methyl-2-pentanone	ND	11
Methylene Chloride	3.6 JB	5	Tetrachloroethene	ND	5
1,2-Dichloroethene(trans)	ND	5	Dibromochloromethane	ND	5
1,1-Dichloroethane	ND	5	Chlorobenzene	ND	5
Vinyl Acetate	ND	5	Ethylbenzene	ND	5
2-Butanone	ND	11	m&p-Xylenes	ND	5
Chloroform	ND	5	o-Xylene	ND	5
1,1,1-Trichloroethane	ND	5	Styrene	ND	5
Carbon Tetrachloride	ND	5	Bromoform	ND	5
1,2-Dichloroethane	ND	5	m-Dichlorobenzene	ND	5
Benzene	ND	5	p-Dichlorobenzene	ND	5
Trichloroethene	ND	5	o-Dichlorobenzene	ND	5
1,2-Dichloropropane	ND	5			

SURROGATE COMPOUNDS	% RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	95.2	70 - 121	OK
Toluene-d8	96.8	81 - 117	OK
Bromofluorobenzene	97.1	74 - 121	OK

Percent Solid of 93.0 is used for all Target compounds.

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SITE E

Lab Name:21st Century Environmental

ient Name: US ARMY FT. MONMOUTH, NJ — Client ID: BLDG 2500

Matrix: (soil/water) Soil — Lab Sample ID: A1545

ample wt/vol: 5 (g/mL) g — Lab File ID: >A1311

vel: (low/med) LOW — Date Received: 04/14/93

% Moisture: 7 — Date Analyzed: 04/23/93

lumn: DB-624 — Dilution Factor: 1

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	No Unknowns			

FORM I VOA-TIC 1/87 Rev.

QUANT REPORT

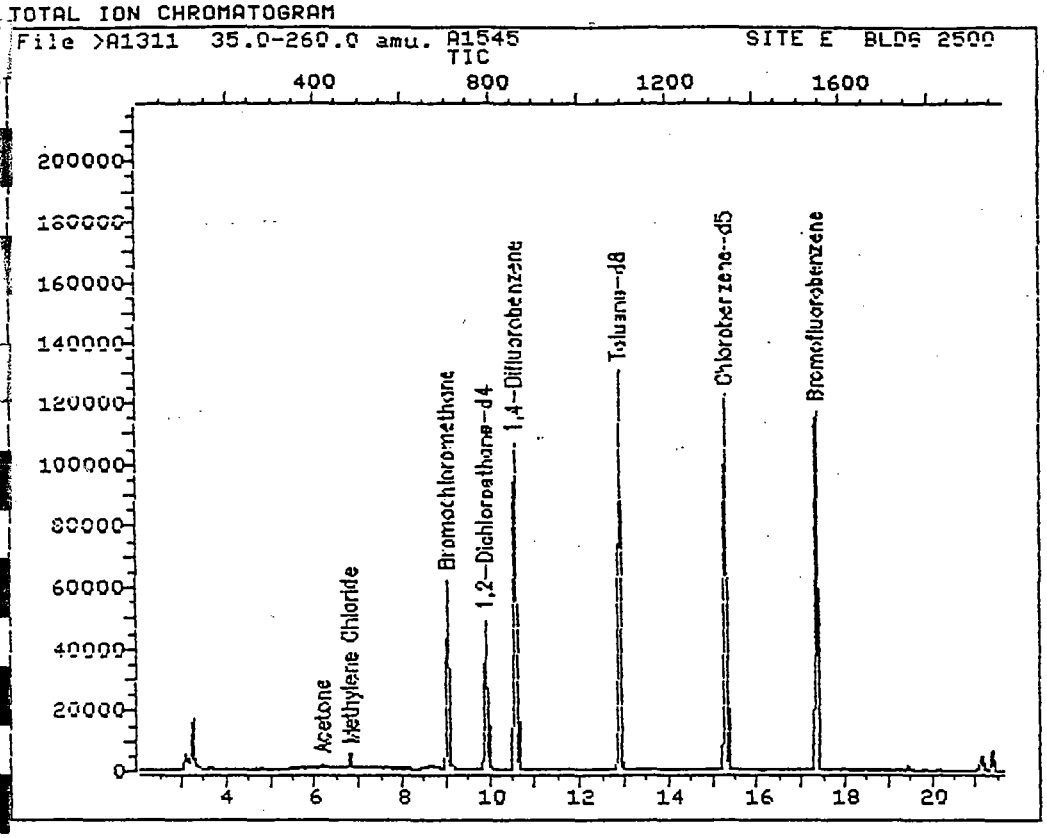
erator ID: JEFF Quant Rev: 6 Quant Time: 930423 13:22
tput File: ^A1311::QT Injected at: 930423 12:52
ta File: >A1311::D2 Dilution Factor: 1.00000
me: A1545
sc: SITE E BLDG 2500 5.0g

File: ID0127::M1
tle: USEPA 624 VOLATILES
st Calibration: 930423 12:14

Compound	R.T.	Scan#	Area	Conc	Units	q
*Bromochloromethane	9.03	702	34177	50.00	UG/L	100
Acetone	6.18	414	4065	7.72	UG/L	82
Methylene Chloride	6.80	477	4590	3.38	UG/L	82
1,2-Dichloroethane-d4	9.90	790	69153	47.60	UG/L	100
*1,4-Difluorobenzene	10.56	857	163211	50.00	UG/L	100
Toluene-d8	12.88	1091	166361	48.40	UG/L	100
*Chlorobenzene-d5	15.28	1333	135995	50.00	UG/L	100
Bromofluorobenzene	17.34	1541	81772	48.57	UG/L	100

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >A1311::D2 Quant Output File: ^A1311::QT
Name: A1545
Misc: SITE E BLDG 2500 5.0g

Id File: ID0127::M1
Title: USEPA 624 VOLATILES
Last Calibration: 930423 12:14

Operator ID: JEFF
Quant Time: 930423 13:22
Injected at: 930423 12:52

21ST CENTURY Environmental
SEMIVOLATILE ANALYSIS DATA

JOB NUMBER	US ARMY, FT. MONMOUTH, NJ	MATRIX	Soil
SAMPLE NUMBER	A1545	DILUTION FACTOR	1.00
CLIENT ID	BLDG 2500, SITE E	COMMENTS	HNU: 0
DATA FILE	>C1136	DATE ANALYZED	05/03/93

COMPOUND	UG/KG	MDL	COMPOUND	UG/KG	MDL
N-Nitrosodimethylamine	ND	350	2,6-Dinitrotoluene	ND	350
bis(-2-Chloroethyl)Ether	ND	350	Diethylphthalate	ND	350
1,3-Dichlorobenzene	ND	350	4-Chlorophenyl-phenlyether	ND	350
1,4-Dichlorobenzene	ND	350	Fluorene	ND	350
Benzyl Alcohol	ND	350	4-Nitroaniline	ND	1800
1,2-Dichlorobenzene	ND	350	N-Nitrosodiphenylamine	ND	350
bis(2-chloroisopropyl)Ether	ND	350	4-Bromophenyl-phenylether	ND	350
N-Nitroso-Di-n-Propylamine	ND	350	Hexachlorobenzene	ND	350
Hexachloroethane	ND	350	Phenanthrene	ND	350
Nitrobenzene	ND	350	Anthracene	ND	350
Isophorone	ND	350	Di-n-Butylphthalate	ND	350
Benzoic Acid	ND	1800	Fluoranthene	ND	350
bis(-2-Chloroethoxy)Methane	ND	350	Pyrene	ND	350
1,2,4-Trichlorobenzene	ND	350	Butylbenzylphthalate	ND	350
Naphthalene	ND	350	3,3'-Dichlorobenzidine	ND	710
4-Chloroaniline	ND	350	Benzo(a)Anthracene	ND	350
Hexachlorobutadiene	ND	350	Bis(2-Ethylhexyl)Phthalate	ND	350
2-Methylnaphthalene	ND	350	Chrysene	ND	350
Hexachlorocyclopentadiene	ND	350	Di-n-Octyl Phthalate	ND	350
2-Chloronaphthalene	ND	350	Benzo(b)fluoranthene	ND	350
2-Nitroaniline	ND	1800	Benzo(k)Fluoranthene	ND	350
Dimethyl Phthalate	ND	350	Benzo(a)Pyrene	ND	350
Acenaphthylene	ND	350	Indeno(1,2,3-cd)Pyrene	ND	350
3-Nitroaniline	ND	1800	Dibenzo(a,h)Anthracene	ND	350
Acenaphthene	ND	350	Benzo(g,h,i)Perylene	ND	350
Dibenzofuran	ND	350	Benzidine	ND	710
2,4-Dinitrotoluene	ND	350			

Percent Solid of 93.0 is used for all Target compounds.

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

E1

EPA SAMPLE NUMBER

semi-VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

BLDG 2500
SITE E

Client: US Army, Ft. Monmouth, NJ

Comments: OVA: ND

Matrix: (soil/water) SOIL

Lab Sample ID: A1545

Sample wt/vol: 30 (g/mL) GM

Lab File ID: >C1136

Level: LOW

Date Received: NA

% Moisture: 7

Date Analyzed 05/03/93

Extraction: (Sepf/Cont/Sonc) SONC

Date Extracted 04/14/93

GPC (Y or N): N

Column: DB-5

Dilution Factor: 1

Number TICs Found 2

CONCENTRATION UNITS
(ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST CONC
1	79005	Ethane, 1,1,2-trichloro- (8CI9CI)	4.11	180
2	79345	Ethane, 1,1,2,2-tetrachloro- (8CI9CI)	7.69	430

QUANT REPORT

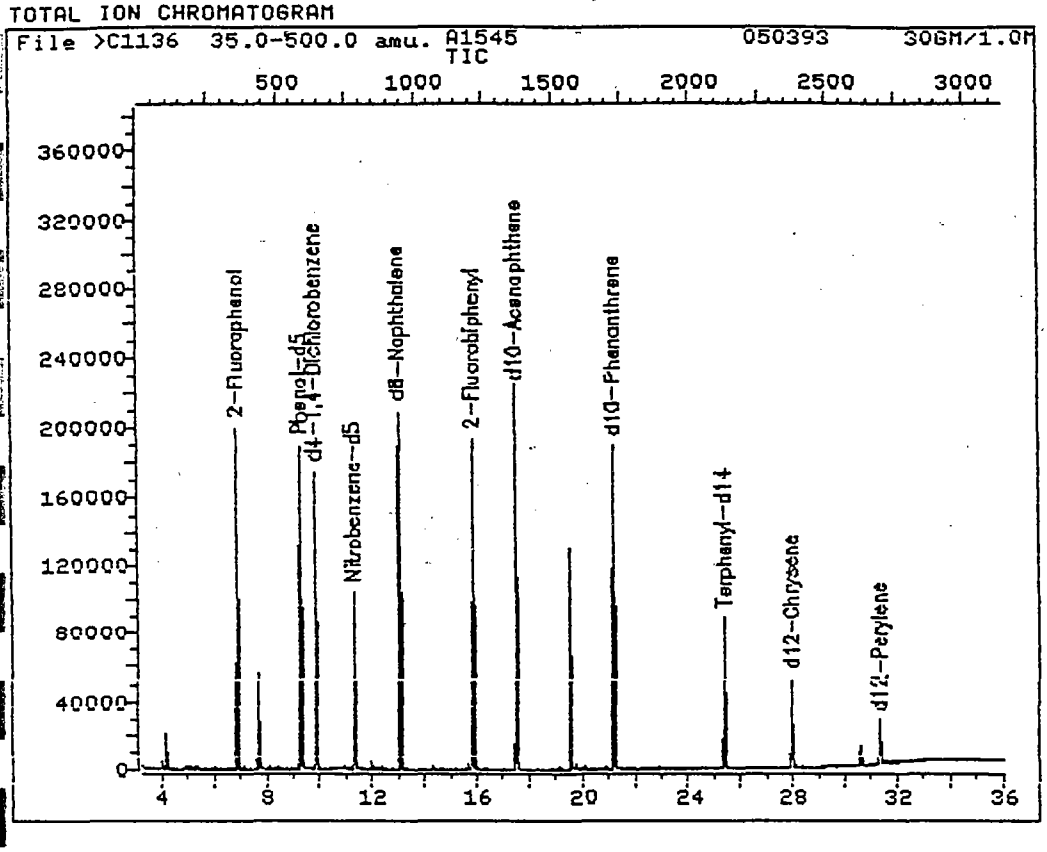
Operator ID: JEFF Quant Rev: 6 Quant Time: 930503 23:30
Output File: ^C1136::D5 Injected at: 930503 22:51
Data File: >C1136::E4 Dilution Factor: 1.00000
Name: A1545
Misc: 050393 30GM/1.0ML BTL# 7

ID File: IDHSLC::D3
Title: hSL BNA STD
Last Calibration: 930503 17:16

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	9.83	627	83813	40.00	UG/L	97
4)	2-Fluorophenol	6.88	345	100123	67.03	UG/L	91
5)	Phenol-d5	9.28	575	148290	74.02	UG/L	79
18)	*d8-Naphthalene	13.01	932	195247	40.00	UG/L	85
19)	Nitrobenzene-d5	11.29	767	62048	29.16	UG/L	81
33)	*d10-Acenaphthene	17.49	1361	117789	40.00	UG/L	92
38)	2-Fluorobiphenyl	15.87	1206	137243	32.47	UG/L	92
53)	*d10-Phenanthrene	21.21	1717	174416	40.00	UG/L	97
54)	*d12-Chrysene	27.94	2362	48291	40.00	UG/L	95
67)	Terphenyl-d14	25.38	2117	77994	36.47	UG/L	88
73)	*d12-Perylene	31.31	2684	28605	40.00	UG/L	93

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >C1136::E4 Quant Output File: ^C1136::D5
Name: A1545
Misc: 050393 30GM/1.0ML BTL# 7

Id File: IDHSLC::D3
Title: hSL BNA STD
Last Calibration: 930503 17:16

Operator ID: JEFF
Quant Time: 930503 23:30
Injected at: 930503 22:51

21st Century Environmental Inc.
VOLATILE ORGANIC ANALYSIS DATA

JOB NUMBER	US ARMY FT. MONMOUTH NJ	MATRIX	Soil
SAMPLE NUMBER	A1546	DILUTION FACTOR	1.00
CLIENT ID	SITE F BLDG 2500	COMMENTS	QUA ND
DATA FILE	>A1312	DATE ANALYZED	04/23/93

COMPOUND	UG/KG		MDL	COMPOUND	UG/KG	MDL
Acrolein	ND		65	Bromodichloromethane	ND	6
Acrylonitrile	ND		65	2-Chloroethylvinylether	ND	13
Chloromethane	ND		13	2-Hexanone	ND	13
Bromomethane	ND		13	trans-1,3-Dichloropropene	ND	6
Vinyl Chloride	ND		13	Toluene	ND	6
Chloroethane	ND		13	cis-1,3-Dichloropropene	ND	6
Acetone	ND	B	13	1,1,2,2-Tetrachloroethane	ND	6
1,1-Dichloroethene	ND		6	1,1,2-Trichloroethane	ND	6
Carbon Disulfide	ND		13	4-Methyl-2-pentanone	ND	13
Methylene Chloride	4.2	JB	6	Tetrachloroethene	ND	6
1,2-Dichloroethene(trans)	ND		6	Dibromochloromethane	ND	6
1,1-Dichloroethane	ND		6	Chlorobenzene	ND	6
Vinyl Acetate	ND		6	Ethylbenzene	ND	6
2-Butanone	ND		13	m&p-Xylenes	ND	6
Chloroform	ND		6	o-Xylene	ND	6
1,1,1-Trichloroethane	ND		6	Styrene	ND	6
Carbon Tetrachloride	ND		6	Bromoform	ND	6
1,2-Dichloroethane	ND		6	m-Dichlorobenzene	ND	6
Benzene	ND		6	p-Dichlorobenzene	ND	6
Trichloroethene	ND		6	o-Dichlorobenzene	ND	6
1,2-Dichloropropane	ND		6			

SURROGATE COMPOUNDS	% RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	94.9	70 - 121	OK
Toluene-d8	96.0	81 - 117	OK
Bromofluorobenzene	96.7	74 - 121	OK

Percent Solid of 77.0 is used for all Target compounds.

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SITE F

Lab Name:21st Century Environmental

Client Name: US ARMY FT. MONMOUTH, NJ

Client ID: BLDG 2500

Matrix: (soil/water) Soil

Lab Sample ID: A1546

Sample wt/vol: 5 (g/mL) g

Lab File ID: >A1312

Level: (low/med) LOW

Date Received: 04/14/93

% Moisture: 23

Date Analyzed: 04/23/93

Column: DB-624

Dilution Factor: 1

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	No Unknowns			

FORM I VOA-TIC

1/87 Rev.

QUANT REPORT

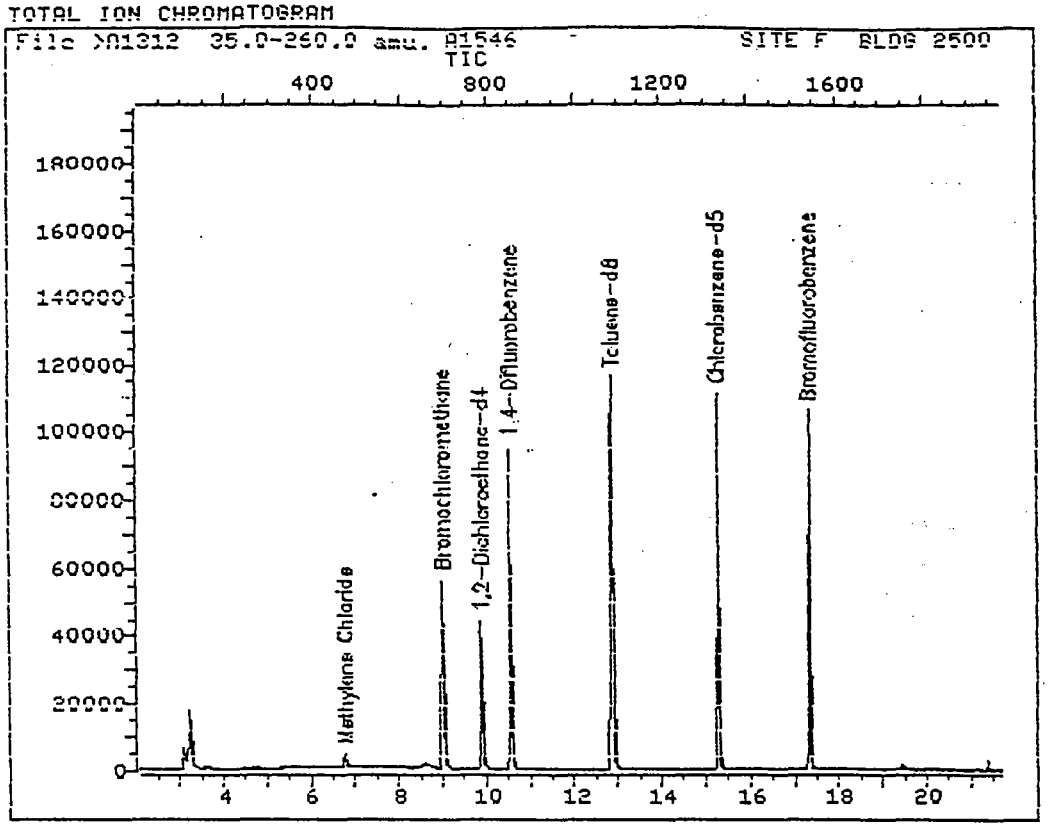
Operator ID: JEFF Quant Rev: 6 Quant Time: 930423 13:58
Output File: ^A1312::QT Injected at: 930423 13:28
Data File: >A1312::D2 Dilution Factor: 1.00000
Name: A1546
Misc: SITE F BLDG 2500 5.0g

ID File: ID0127::M1
Title: USEPA 624 VOLATILES
Last Calibration: 930423 12:14

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*Bromochloromethane	9.00	695	31580	50.00	UG/L	100
5)	Methylene Chloride	6.77	470	4101	3.27	UG/L	81
21)	1,2-Dichloroethane-d4	9.88	784	63716	47.46	UG/L	100
32)	*1,4-Difluorobenzene	10.55	851	147240	50.00	UG/L	100
41)	Toluene-d8	12.87	1085	148831	48.00	UG/L	100
53)	*Chlorobenzene-d5	15.28	1328	122142	50.00	UG/L	100
66)	Bromofluorobenzene	17.33	1535	73105	48.35	UG/L	100

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >A1312::D2 Quant Output File: ^A1312::QT
Name: A1546
Misc: SITE F BLDG 2500 5.0g

Id File: ID0127::M1
Title: USEPA 624 VOLATILES
Last Calibration: 930423 12:14

Operator ID: JEFF
Quant Time: 930423 13:58
Injected at: 930423 13:28

21ST CENTURY Environmental
SEMIVOLATILE ANALYSIS DATA

JOB NUMBER	US ARMY, FT. MONMOUTH, NJ	MATRIX	Soil
SAMPLE NUMBER	A1546	DILUTION FACTOR	1.00
CLIENT ID	BLDG 2500, SITE F	COMMENTS	OVA: ND
DATA FILE	>C1137	DATE ANALYZED	05/03/93

COMPOUND	UG/KG	MDL	COMPOUND	UG/KG	MDL
N-Nitrosodimethylamine	ND	430	2,6-Dinitrotoluene	ND	430
bis(-2-Chloroethyl)Ether	ND	430	Diethylphthalate	ND	430
1,3-Dichlorobenzene	ND	430	4-Chlorophenyl-phenlyether	ND	430
1,4-Dichlorobenzene	ND	430	Fluorene	ND	430
Benzyl Alcohol	ND	430	4-Nitroaniline	ND	2100
1,2-Dichlorobenzene	ND	430	N-Nitrosodiphenylamine	ND	430
bis(2-chloroisopropyl)Ether	ND	430	4-Bromophenyl-phenylether	ND	430
N-Nitroso-Di-n-Propylamine	ND	430	Hexachlorobenzene	ND	430
Hexachloroethane	ND	430	Phenanthrene	ND	430
Nitrobenzene	ND	430	Anthracene	ND	430
Isophorone	ND	430	Di-n-Butylphthalate	ND	430
Benzoic Acid	ND	2100	Fluoranthene	ND	430
bis(-2-Chloroethoxy)Methane	ND	430	Pyrene	ND	430
1,2,4-Trichlorobenzene	ND	430	Butylbenzylphthalate	ND	430
Naphthalene	ND	430	3,3'-Dichlorobenzidine	ND	860
4-Chloroaniline	ND	430	Benzo(a)Anthracene	ND	430
Hexachlorobutadiene	ND	430	Bis(2-Ethylhexyl)Phthalate	ND	430
2-Methylnaphthalene	ND	430	Chrysene	ND	430
Hexachlorocyclopentadiene	ND	430	Di-n-Octyl Phthalate	ND	430
2-Chloronaphthalene	ND	430	Benzo(b)fluoranthene	ND	430
2-Nitroaniline	ND	2100	Benzo(k)Fluoranthene	ND	430
Dimethyl Phthalate	ND	430	Benzo(a)Pyrene	ND	430
Acenaphthylene	ND	430	Indeno(1,2,3-cd)Pyrene	ND	430
3-Nitroaniline	ND	2100	Dibenzo(a,h)Anthracene	ND	430
Acenaphthene	ND	430	Benzo(g,h,i)Perylene	ND	430
Dibenzofuran	ND	430	Benzidine	ND	860
2,4-Dinitrotoluene	ND	430			

Percent Solid of 77.0 is used for all Target compounds.

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

E1

EPA SAMPLE NUMBER

semi-VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

BLDG 2500
SITE F

Client: US ARMY, FT. MONMOUTH, NJ

Comments: OVA: ND

Matrix: (soil/water) SOIL

Lab Sample ID: A1546

Sample wt/vol: 30 (g/mL) GM

Lab File ID: >C1137

Level: LOW

Date Received: NA

% Moisture: 23

Date Analyzed 05/03/93

Extraction: (Sepf/Cont/Sonc) SONC

Date Extracted 04/14/93

GPC (Y or N): N

Column: DB-5

Dilution Factor: 1

Number TICs Found 3

CONCENTRATION UNITS (ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST CONC
1	79005	Ethane, 1,1,2-trichloro- (8CI9CI)	4.12	220
2	79345	Ethane, 1,1,2,2-tetrachloro- (8CI9CI)	7.69	520
3		UNKNOWN	30.55	950

QUANT REPORT

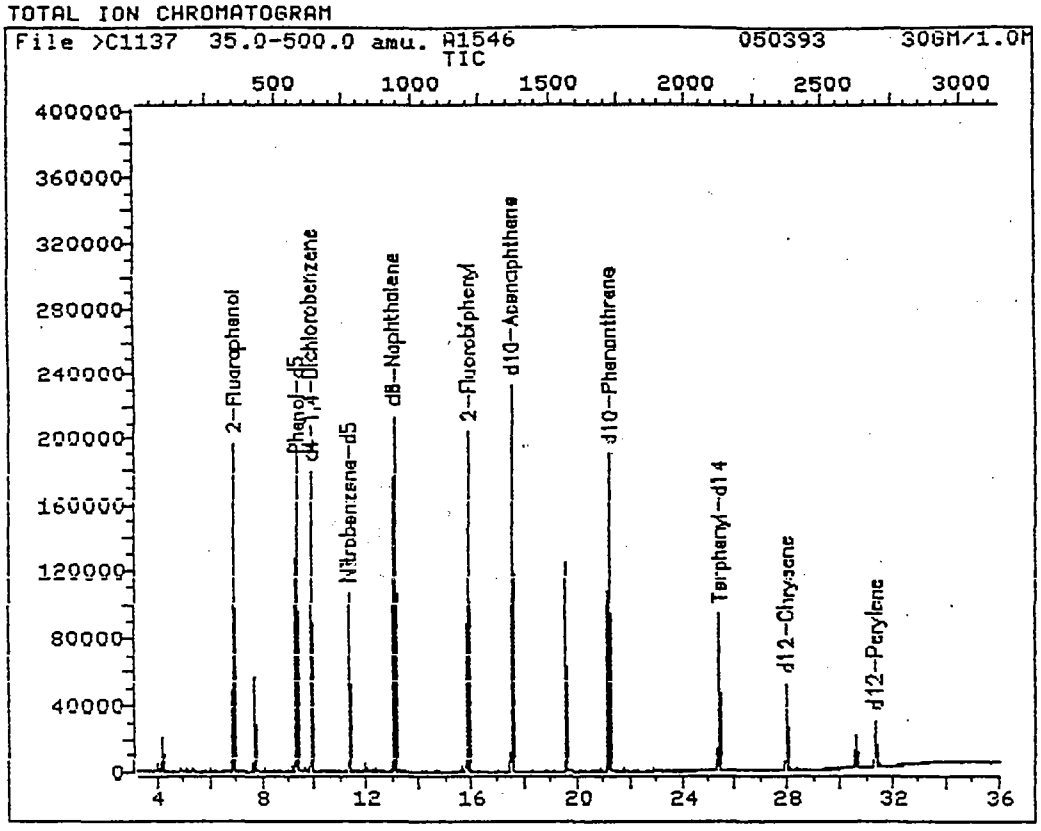
perator ID: JEFF Quant Rev: 6 Quant Time: 930504 00:16
utput File: ^C1137::D5 Injected at: 930503 23:37
Data File: >C1137::E4 Dilution Factor: 1.00000
ame: A1546
isc: 050393 30GM/1.0ML BTL# 8

D File: IDHSLC::D3
itle: hSL BNA STD
ast Calibration: 930503 17:16

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	9.83	627	84377	40.00	UG/L	95
4)	2-Fluorophenol	6.88	345	98235	65.33	UG/L	90
5)	Phenol-d5	9.28	575	143838	71.32	UG/L	79
18)	*d8-Naphthalene	13.01	932	196176	40.00	UG/L	86
19)	Nitrobenzene-d5	11.29	767	63936	29.90	UG/L	79
33)	*d10-Acenaphthene	17.50	1362	117022	40.00	UG/L	94
38)	2-Fluorobiphenyl	15.87	1206	142267	33.87	UG/L	94
53)	*d10-Phenanthrene	21.20	1717	176594	40.00	UG/L	98
74)	*d12-Chrysene	27.94	2362	52105	40.00	UG/L	94
87)	Terphenyl-d14	25.38	2117	81997	35.54	UG/L	87
73)	*d12-Perylene	31.31	2685	31349	40.00	UG/L	91

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >C1137::E4 Quant Output File: ^C1137::D5
Name: A1546
Misc: 050393 30GM/1.0ML BTL# 8

Id File: IDHSLC::D3
Title: hSL BNA STD
Last Calibration: 930503 17:16

Operator ID: JEFF
Quant Time: 930504 00:16
Injected at: 930503 23:37

21st Century Environmental Inc.
VOLATILE ORGANIC ANALYSIS DATA

JOB NUMBER	US ARMY FT. MONMOUTH NJ	MATRIX	Soil
SAMPLE NUMBER	A1547	DILUTION FACTOR	1.00
CLIENT ID	SITE G BLDG 2500	COMMENTS	OVA ND
DATA FILE	>A1313	DATE ANALYZED	04/23/93

COMPOUND	UG/KG	MDL	COMPOUND	UG/KG	MDL
Acrolein	ND	64	Bromodichloromethane	ND	6
Acrylonitrile	ND	64	2-Chloroethylvinylether	ND	13
Chloromethane	ND	13	2-Hexanone	ND	13
Bromomethane	ND	13	trans-1,3-Dichloropropene	ND	6
Vinyl Chloride	ND	13	Toluene	ND	6
Chloroethane	ND	13	cis-1,3-Dichloropropene	ND	6
Acetone	5.5 JB	13	1,1,2,2-Tetrachloroethane	ND	6
1,1-Dichloroethene	ND	6	1,1,2-Trichloroethane	ND	6
Carbon Disulfide	ND	13	4-Methyl-2-pentanone	ND	13
Methylene Chloride	4.7 JB	6	Tetrachloroethene	ND	6
1,2-Dichloroethene(trans)	ND	6	Dibromochloromethane	ND	6
1,1-Dichloroethane	ND	6	Chlorobenzene	ND	6
Vinyl Acetate	ND	6	Ethylbenzene	ND	6
2-Butanone	ND	13	m&p-Xylenes	ND	6
Chloroform	ND	6	o-Xylene	ND	6
1,1,1-Trichloroethane	ND	6	Styrene	ND	6
Carbon Tetrachloride	ND	6	Bromoform	ND	6
1,2-Dichloroethane	ND	6	m-Dichlorobenzene	ND	6
Benzene	ND	6	p-Dichlorobenzene	ND	6
Trichloroethene	ND	6	o-Dichlorobenzene	ND	6
1,2-Dichloropropane	ND	6			

SURROGATE COMPOUNDS	% RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	95.7	70 - 121	OK
Toluene-d8	97.1	81 - 117	OK
Bromofluorobenzene	97.9	74 - 121	OK

Percent Solid of 78.0 is used for all Target compounds.

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SITE G

Lab Name:21st Century Environmental

Client Name: US ARMY FT. MONMOUTH, NJ

Client ID: BLDG 2500

Matrix: (soil/water) Soil

Lab Sample ID: A1547

Sample wt/vol: 5 (g/mL) g

Lab File ID: >A1313

Level: (low/med) LOW

Date Received: 04/14/93

% Moisture: 22

Date Analyzed: 04/23/93

Column: DB-624

Dilution Factor: 1

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	No Unknowns			

FORM I VOA-TIC

1/87 Rev.

00147

QUANT REPORT

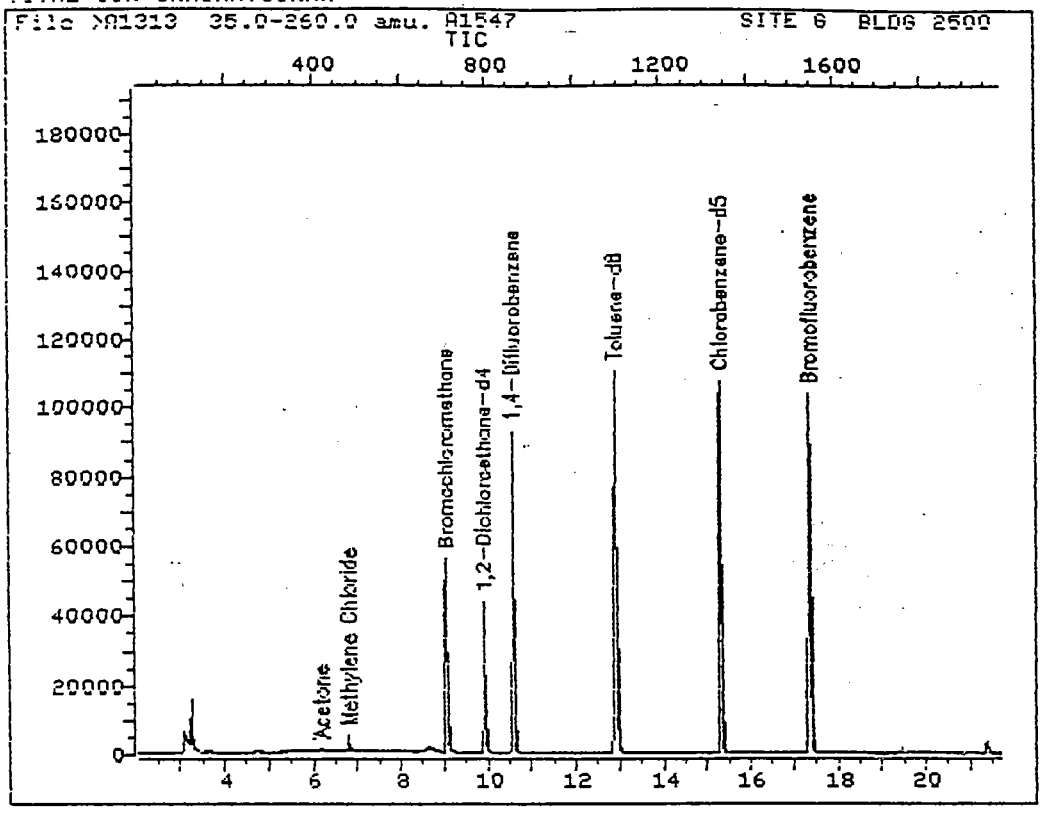
perator ID: JEFF Quant Rev: 6 Quant Time: 930423 14:34
Output File: ^A1313::QT Injected at: 930423 14:03
ata File: >A1313::D2 Dilution Factor: 1.00000
me: A1547
isc: SITE G BLDG 2500 5.0g

D File: ID0127::M1
itle: USEPA 624 VOLATILES
ast Calibration: 930423 12:14

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*Bromochloromethane	9.04	705	30421	50.00	UG/L	100
9)	Acetone	6.17	415	2018	4.31	UG/L	80
3)	Methylene Chloride	6.80	479	4408	3.65	UG/L	80
21)	1,2-Dichloroethane-d4	9.91	793	61869	47.84	UG/L	100
2)	*1,4-Difluorobenzene	10.58	860	140139	50.00	UG/L	100
1)	Toluene-d8	12.89	1094	143306	48.56	UG/L	100
33)	*Chlorobenzene-d5	15.30	1337	117725	50.00	UG/L	100
6)	Bromofluorobenzene	17.35	1544	71370	48.97	UG/L	100

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >A1313::D2 Quant Output File: ^A1313::QT
Name: A1547
Misc: SITE G BLDG 2500 5.0g

Id File: ID0127::M1
Title: USEPA 624 VOLATILES
Last Calibration: 930423 12:14

Operator ID: JEFF
Quant Time: 930423 14:34
Injected at: 930423 14:03

21ST CENTURY Environmental
SEMIVOLATILE ANALYSIS DATA

JOB NUMBER	US ARMY, FT. MONMOUTH, NJ	MATRIX	Soil
SAMPLE NUMBER	A1547	DILUTION FACTOR	1.00
CLIENT ID	BLDG 2500, SITE G	COMMENTS	OVA: ND
DATA FILE	>C1173	DATE ANALYZED	05/06/93

COMPOUND	UG/KG	MDL	COMPOUND	UG/KG	MDL
N-Nitrosodimethylamine	ND	420	2,6-Dinitrotoluene	ND	420
bis(-2-Chloroethyl)Ether	ND	420	Diethylphthalate	ND	420
1,3-Dichlorobenzene	ND	420	4-Chlorophenyl-phenlyether	ND	420
1,4-Dichlorobenzene	ND	420	Fluorene	ND	420
Benzyl Alcohol	ND	420	4-Nitroaniline	ND	2100
1,2-Dichlorobenzene	ND	420	N-Nitrosodiphenylamine	ND	420
bis(2-chloroisopropyl)Ether	ND	420	4-Bromophenyl-phenylether	ND	420
N-Nitroso-Di-n-Propylamine	ND	420	Hexachlorobenzene	ND	420
Hexachloroethane	ND	420	Phenanthrene	ND	420
Nitrobenzene	ND	420	Anthracene	ND	420
Isophorone	ND	420	Di-n-Butylphthalate	ND	420
Benzoic Acid	ND	2100	Fluoranthene	ND	420
bis(-2-Chloroethoxy)Methane	ND	420	Pyrene	ND	420
1,2,4-Trichlorobenzene	ND	420	Butylbenzylphthalate	ND	420
Naphthalene	ND	420	3,3'-Dichlorobenzidine	ND	850
4-Chloroaniline	ND	420	Benzo(a)Anthracene	ND	420
Hexachlorobutadiene	ND	420	Bis(2-Ethylhexyl)Phthalate	ND	420
2-Methylnaphthalene	ND	420	Chrysene	ND	420
Hexachlorocyclopentadiene	ND	420	Di-n-Octyl Phthalate	ND	420
2-Chloronaphthalene	ND	420	Benzo(b)fluoranthene	ND	420
2-Nitroaniline	ND	2100	Benzo(k)Fluoranthene	ND	420
Dimethyl Phthalate	ND	420	Benzo(a)Pyrene	ND	420
Acenaphthylene	ND	420	Indeno(1,2,3-cd)Pyrene	ND	420
3-Nitroaniline	ND	2100	Dibenzo(a,h)Anthracene	ND	420
Acenaphthene	ND	420	Benzo(g,h,i)Perylene	ND	420
Dibenzofuran	ND	420	Benzidine	ND	850
2,4-Dinitrotoluene	ND	420			

Percent Solid of 78.0 is used for all Target compounds.

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

E1

EPA SAMPLE NUMBER

semi-VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

BLDG 2500
SITE G

Client: US Army, Ft. Monmouth, NJ

Comments: OVA: ND

Matrix: (soil/water) SOIL

Lab Sample ID: A1547

Sample wt/vol: 30 (g/mL) GM

Lab File ID: >C1173

Level: LOW

Date Received: NA

% Moisture: 22

Date Analyzed 05/06/93

Extraction: (Sepf/Cont/Sonc) SONC

Date Extracted 04/14/93

GPC (Y or N): N

Column: DB-5

Dilution Factor: 1

Number TICs Found 3

CONCENTRATION UNITS
(ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST CONC
1	79005	Ethane, 1,1,2-trichloro- (8CI9CI)	4.08	260
2	79345	Ethane, 1,1,2,2-tetrachloro- (8CI9CI)	7.66	600
3		UNKNOWN	30.51	260

QUANT REPORT

Operator ID: JEFF
Output File: ^C1173::D2
Data File: >C1173::D2
Name: A1547
Misc: 050693

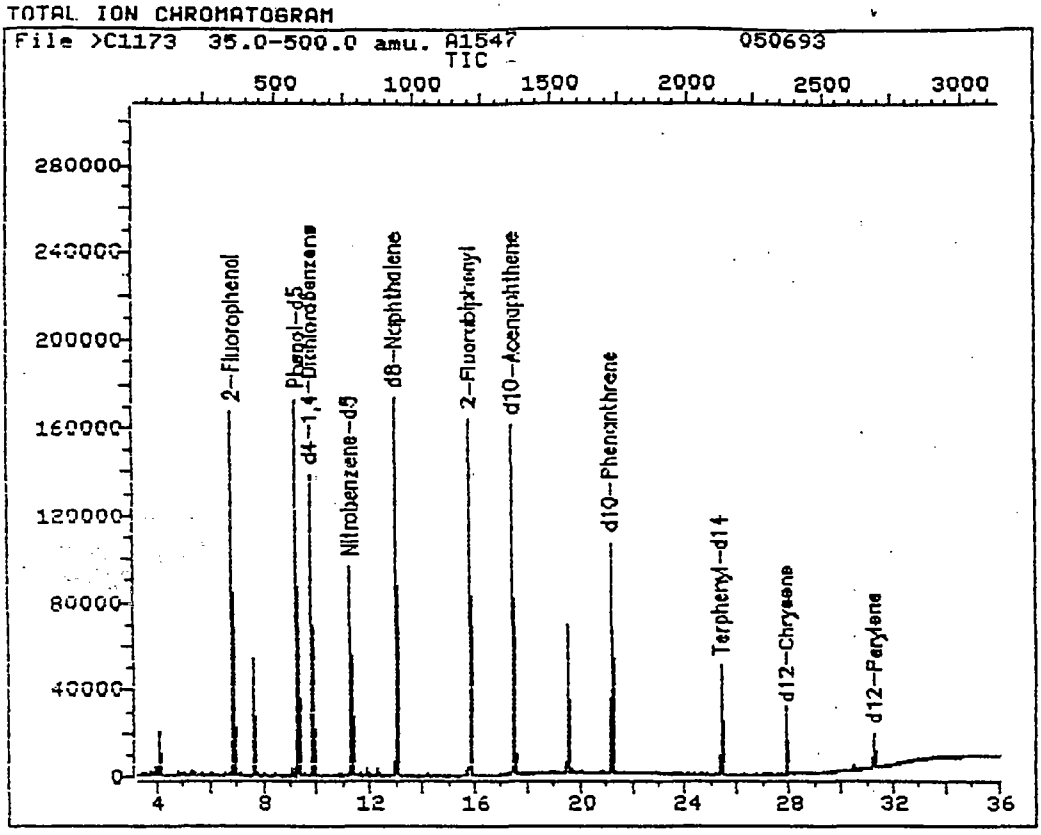
Quant Rev: 6 Quant Time: 930506 10:28
Injected at: 930506 09:49
Dilution Factor: 1.00000
BTL# 1

ID File: IDHSLC::D3
Title: hSL BNA STD
Last Calibration: 930506 07:48

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	9.79	622	64755	40.00	UG/L	96
4)	2-Fluorophenol	6.86	342	82640	77.81	UG/L	92
5)	Phenol-d5	9.28	574	123007	85.44	UG/L	82
18)	*d8-Naphthalene	12.97	927	153921	40.00	UG/L	85
19)	Nitrobenzene-d5	11.26	763	56469	37.03	UG/L	85
33)	*d10-Acenaphthene	17.45	1356	80635	40.00	UG/L	93
38)	2-Fluorobiphenyl	15.83	1201	104543	39.06	UG/L	94
53)	*d10-Phenanthrene	21.15	1710	91983	40.00	UG/L	99
64)	*d12-Chrysene	27.89	2354	27183	40.00	UG/L	95
67)	Terphenyl-d14	25.34	2110	40103	27.84	UG/L	90
73)	*d12-Perylene	31.26	2677	14907	40.00	UG/L	95

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >C1173::D2 Quant Output File: ^C1173::D2
Name: A1547
Misc: 050693 BTL# 1

Id File: IDHSLC::D3
Title: hSL BNA STD
Last Calibration: 930506 07:48

Operator ID: JEFF
Quant Time: 930506 10:28
Injected at: 930506 09:49

21st Century Environmental Inc.
VOLATILE ORGANIC ANALYSIS DATA

JOB NUMBER	US ARMY FT. MONMOUTH NJ	MATRIX	Soil
SAMPLE NUMBER	A1548	DILUTION FACTOR	1.00
CLIENT ID	SITE H BLDG 2500	COMMENTS	QUA NO
DATA FILE	>A1299	DATE ANALYZED	04/22/93

COMPOUND	UG/KG		MDL	COMPOUND	UG/KG	MDL
Acrolein	ND		61	Bromodichloromethane	ND	6
Acrylonitrile	ND		61	2-Chloroethylvinylether	ND	12
Chloromethane	ND		12	2-Hexanone	ND	12
Bromomethane	ND		12	trans-1,3-Dichloropropene	ND	6
Vinyl Chloride	ND		12	Toluene	ND	6
Chloroethane	ND		12	cis-1,3-Dichloropropene	ND	6
Acetone	ND	B	12	1,1,2,2-Tetrachloroethane	ND	6
1,1-Dichloroethene	ND		6	1,1,2-Trichloroethane	ND	6
Carbon Disulfide	ND		12	4-Methyl-2-pentanone	ND	12
Methylene Chloride	ND		6	Tetrachloroethene	ND	6
1,2-Dichloroethene(trans)	ND		6	Dibromochloromethane	ND	6
1,1-Dichloroethane	ND		6	Chlorobenzene	ND	6
Vinyl Acetate	ND		6	Ethylbenzene	ND	6
2-Butanone	ND		12	m&p-Xylenes	ND	6
Chloroform	ND		6	o-Xylene	ND	6
1,1,1-Trichloroethane	ND		6	Styrene	ND	6
Carbon Tetrachloride	ND		6	Bromoform	ND	6
1,2-Dichloroethane	ND		6	m-Dichlorobenzene	ND	6
Benzene	ND		6	p-Dichlorobenzene	ND	6
Trichloroethene	ND		6	o-Dichlorobenzene	ND	6
1,2-Dichloropropane	ND		6			

SURROGATE COMPOUNDS	% RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	99.0	70 - 121	OK
Toluene-d8	98.8	81 - 117	OK
Bromofluorobenzene	97.5	74 - 121	OK

Percent Solid of 82.0 is used for all Target compounds.

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SITE H

Lab Name:21st Century Environmental

Client Name: US ARMY FT. MONMOUTH, NJ Client ID: BLDG 2500

Matrix: (soil/water) Soil Lab Sample ID: A1548

Sample wt/vol: 5 (g/mL) g Lab File ID: >A1299

Level: (low/med) LOW Date Received: 04/14/93

% Moisture: 18 Date Analyzed: 04/22/93

Column: DB-624 Dilution Factor: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	No Unknowns			

FORM I VOA-TIC 1/87 Rev.

QUANT REPORT

erator ID: JEFF
tput File: ^A1299::QT
ata File: >A1299::D2
me: A1548
sc: SITE H

Quant Rev: 6 Quant Time: 930422 18:48
Injected at: 930422 18:18
Dilution Factor: 1.00000

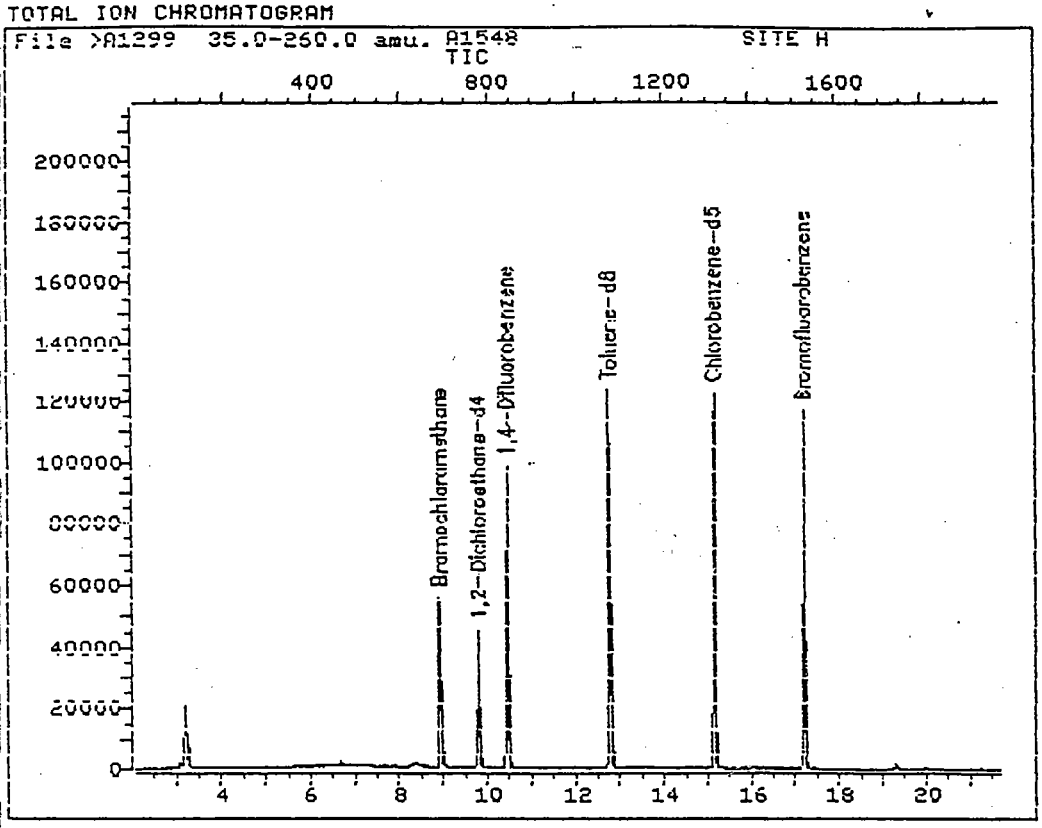
5.0g

ID File: ID0127::M1
tle: USEPA 624 VOLATILES
ast Calibration: 930422 16:06

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*Bromochloromethane	8.92	688	31366	50.00	UG/L	100
26)	1,2-Dichloroethane-d4	9.79	776	64319	49.50	UG/L	100
)	*1,4-Difluorobenzene	10.44	842	157617	50.00	UG/L	100
1)	Toluene-d8	12.76	1076	162788	49.39	UG/L	100
33)	*Chlorobenzene-d5	15.15	1317	135812	50.00	UG/L	100
)	Bromofluorobenzene	17.19	1523	81159	48.73	UG/L	100

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >A1299::D2 Quant Output File: ^A1299::QT
Name: A1548
Misc: SITE H 5.0g

Id File: ID0127::M1
Title: USEPA 624 VOLATILES
Last Calibration: 930422 16:06

Operator ID: JEFF
Quant Time: 930422 18:48
Injected at: 930422 18:18

21ST CENTURY Environmental
SEMIVOLATILE ANALYSIS DATA

JOB NUMBER	US ARMY, FT. MONMOUTH, NJ	MATRIX	Soil
SAMPLE NUMBER	A1548	DILUTION FACTOR	1.00
CLIENT ID	BLDG 2500, SITE H	COMMENTS	OVA: ND
DATA FILE	>C1174	DATE ANALYZED	05/06/93

COMPOUND	UG/KG	MDL	COMPOUND	UG/KG	MDL
N-Nitrosodimethylamine	ND	400	2,6-Dinitrotoluene	ND	400
bis(-2-Chloroethyl)Ether	ND	400	Diethylphthalate	ND	400
1,3-Dichlorobenzene	ND	400	4-Chlorophenyl-phenlyether	ND	400
1,4-Dichlorobenzene	ND	400	Fluorene	ND	400
Benzyl Alcohol	ND	400	4-Nitroaniline	ND	2000
1,2-Dichlorobenzene	ND	400	N-Nitrosodiphenylamine	ND	400
bis(2-chloroisopropyl)Ether	ND	400	4-Bromophenyl-phenylether	ND	400
N-Nitroso-Di-n-Propylamine	ND	400	Hexachlorobenzene	ND	400
Hexachloroethane	ND	400	Phenanthrene	ND	400
Nitrobenzene	ND	400	Anthracene	ND	400
Isophorone	ND	400	Di-n-Butylphthalate	ND	400
Benzoic Acid	ND	2000	Fluoranthene	ND	400
bis(-2-Chloroethoxy)Methane	ND	400	Pyrene	ND	400
1,2,4-Trichlorobenzene	ND	400	Butylbenzylphthalate	ND	400
Naphthalene	ND	400	3,3'-Dichlorobenzidine	ND	800
4-Chloroaniline	ND	400	Benzo(a)Anthracene	ND	400
Hexachlorobutadiene	ND	400	Bis(2-Ethylhexyl)Phthalate	ND	400
2-Methylnaphthalene	ND	400	Chrysene	ND	400
Hexachlorocyclopentadiene	ND	400	Di-n-Octyl Phthalate	ND	400
2-Chloronaphthalene	ND	400	Benzo(b)fluoranthene	ND	400
2-Nitroaniline	ND	2000	Benzo(k)Fluoranthene	ND	400
Dimethyl Phthalate	ND	400	Benzo(a)Pyrene	ND	400
Acenaphthylene	ND	400	Indeno(1,2,3-cd)Pyrene	ND	400
3-Nitroaniline	ND	2000	Dibenzo(a,h)Anthracene	ND	400
Acenaphthene	ND	400	Benzo(g,h,i)Perylene	ND	400
Dibenzofuran	ND	400	Benzidine	ND	800
2,4-Dinitrotoluene	ND	400			

Percent Solid of 82.0 is used for all Target compounds.

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

E1

EPA SAMPLE NUMBER

semi-VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

BLDG 2500
SITE H

Client: US Army, Ft. Monmouth, NJ

Comments: OVA:ND

Matrix: (soil/water) SOIL

Lab Sample ID: A1548

Sample wt/vol: 30 (g/mL) GM

Lab File ID: >C1174

Level: LOW

Date Received: NA

% Moisture: 18

Date Analyzed 05/06/93

Extraction: (Sepf/Cont/Sonc) SONC

Date Extracted 04/14/93

GPC (Y or N): N

Column: DB-5

Dilution Factor: 1

Number TICs Found 2

CONCENTRATION UNITS
(ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST CONC
1	79005	Ethane, 1,1,2-trichloro- (8CI9CI)	4.10	240
2	79345	Ethane, 1,1,2,2-tetrachloro- (8CI9CI)	7.66	530

QUANT REPORT

Operator ID: JEFF
Output File: ^C1174::D2
Data File: >C1174::D2
Name: A1548
Misc: 050693

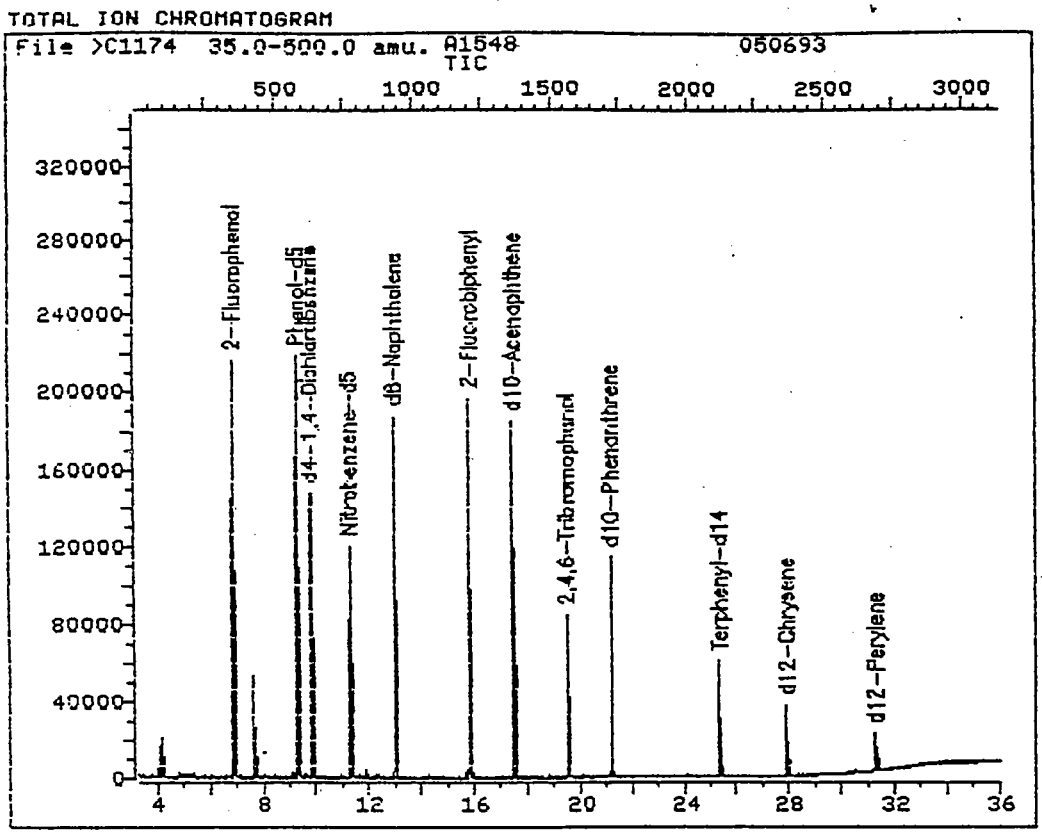
Quant Rev: 6
Quant Time: 930506 11:18
Injected at: 930506 10:38
Dilution Factor: 1.00000
BTL# 1

ID File: IDHSLC::D3
Title: hSL BNA STD
Last Calibration: 930506 07:48

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	9.79	623	72405	40.00	UG/L	97
4)	2-Fluorophenol	6.88	344	105217	88.60	UG/L	94
5)	Phenol-d5	9.29	575	157794	98.02	UG/L	82
18)	*d8-Naphthalene	12.98	928	169884	40.00	UG/L	85
19)	Nitrobenzene-d5	11.26	764	70875	42.10	UG/L	83
33)	*d10-Acenaphthene	17.46	1358	86996	40.00	UG/L	93
38)	2-Fluorobiphenyl	15.83	1202	127268	44.08	UG/L	94
53)	*d10-Phenanthrene	21.17	1713	100033	40.00	UG/L	99
56)	2,4,6-Tribromophenol	19.49	1552	19479	217.54	UG/L	97
64)	*d12-Chrysene	27.90	2358	32156	40.00	UG/L	99
67)	Terphenyl-d14	25.34	2112	50273	29.51	UG/L	89
73)	*d12-Perylene	31.27	2680	18528	40.00	UG/L	94

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >C1174::D2 Quant Output File: ^C1174::D2
Name: A1548
Misc: 050693 BTL# 1

Id File: IDHSLC::D3
Title: hSL BNA STD
Last Calibration: 930506 07:48

Operator ID: JEFF
Quant Time: 930506 11:18
Injected at: 930506 10:38

21st Century Environmental Inc.
VOLATILE ORGANIC ANALYSIS DATA

JOB NUMBER	US ARMY FT. MONMOUTH NJ	MATRIX	Soil
SAMPLE NUMBER	A1549	DILUTION FACTOR	1.00
CLIENT ID	SITE I BLDG 2500	COMMENTS	OVA ND
DATA FILE	>A1300	DATE ANALYZED	04/22/93

COMPOUND	UG/KG	MDL	COMPOUND	UG/KG	MDL
Acrolein	ND	66	Bromodichloromethane	ND	7
Acrylonitrile	ND	66	2-Chloroethylvinylether	ND	13
Chloromethane	ND	13	2-Hexanone	ND	13
Bromomethane	ND	13	trans-1,3-Dichloropropene	ND	7
Vinyl Chloride	ND	13	Toluene	ND	7
Chloroethane	ND	13	cis-1,3-Dichloropropene	ND	7
Acetone	12 JB	13	1,1,2,2-Tetrachloroethane	ND	7
1,1-Dichloroethene	ND	7	1,1,2-Trichloroethane	ND	7
Carbon Disulfide	ND	13	4-Methyl-2-pentanone	ND	13
Methylene Chloride	2.2 J	7	Tetrachloroethene	ND	7
1,2-Dichloroethene(trans)	ND	7	Dibromochloromethane	ND	7
1,1-Dichloroethane	ND	7	Chlorobenzene	ND	7
Vinyl Acetate	ND	7	Ethylbenzene	ND	7
2-Butanone	ND	13	m&p-Xylenes	ND	7
Chloroform	ND	7	o-Xylene	ND	7
1,1,1-Trichloroethane	ND	7	Styrene	ND	7
Carbon Tetrachloride	ND	7	Bromoform	ND	7
1,2-Dichloroethane	ND	7	m-Dichlorobenzene	ND	7
Benzene	ND	7	p-Dichlorobenzene	ND	7
Trichloroethene	ND	7	o-Dichlorobenzene	ND	7
1,2-Dichloropropane	ND	7			

SURROGATE COMPOUNDS	% RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	99.4	70 - 121	OK
Toluene-d8	98.8	81 - 117	OK
Bromofluorobenzene	98.1	74 - 121	OK

Percent Solid of 76.0 is used for all Target compounds.

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SITE I

Lab Name: 21st Century Environmental

Client Name: US ARMY FT. MONMOUTH, NJ | Client ID: BLDG 2500

Matrix: (soil/water) Soil | Lab Sample ID: A1549

Sample wt/vol: 5 (g/mL) g | Lab File ID: >A1300

Level: (low/med) LOW | Date Received: 04/14/93

% Moisture: 24 | Date Analyzed: 04/22/93

Column: DB-624 | Dilution Factor: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	No Unknowns			

FORM I VOA-TIC 1/87 Rev.

00163

QUANT REPORT

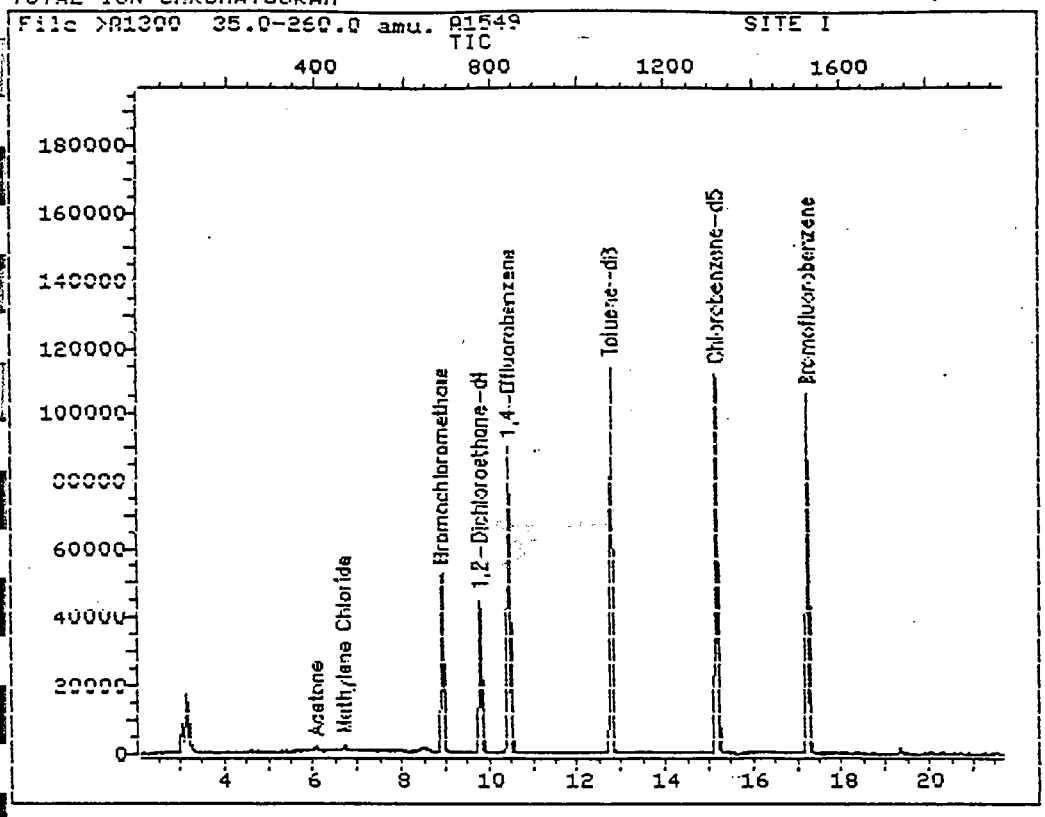
erator ID: JEFF Quant Rev: 6 Quant Time: 930422 19:23
utput File: ^A1300::QT Injected at: 930422 18:53
ta File: >A1300::D2 Dilution Factor: 1.00000
me: A1549
isc: SITE I 5.0g

File: ID0127::M1
tle: USEPA 624 VOLATILES
ast Calibration: 930422 16:06

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*Bromochloromethane	8.90	684	28971	50.00	UG/L	100
)	Acetone	6.06	397	4046	8.96	UG/L	82
)	Methylene Chloride	6.68	460	2006	1.66	UG/L	77
21)	1,2-Dichloroethane-d4	9.77	772	59626	49.68	UG/L	100
)	*1,4-Difluorobenzene	10.44	839	141935	50.00	UG/L	100
)	Toluene-d8	12.76	1074	146694	49.42	UG/L	100
33)	*Chlorobenzene-d5	15.16	1316	124387	50.00	UG/L	100
)	Bromofluorobenzene	17.22	1524	74855	49.07	UG/L	100

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >A1300::D2 Quant Output File: ^A1300::QT
Name: A1549
Misc: SITE I 5.0g

Id File: ID0127::M1
Title: USEPA 624 VOLATILES
Last Calibration: 930422 16:06

Operator ID: JEFF
Quant Time: 930422 19:23
Injected at: 930422 18:53

21ST CENTURY Environmental
SEMIVOLATILE ANALYSIS DATA

JOB NUMBER	US ARMY, FT. MONMOUTH,NJ	MATRIX	Soil
SAMPLE NUMBER	A1549	DILUTION FACTOR	1.00
CLIENT ID	BLDG 2500, SITE I	COMMENTS	QVA: ND
DATA FILE	>C1175	DATE ANALYZED	05/06/93

COMPOUND	UG/KG	MDL	COMPOUND	UG/KG	MDL
N-Nitrosodimethylamine	ND	430	2,6-Dinitrotoluene	ND	430
bis(-2-Chloroethyl)Ether	ND	430	Diethylphthalate	ND	430
1,3-Dichlorobenzene	ND	430	4-Chlorophenyl-phenlyether	ND	430
1,4-Dichlorobenzene	ND	430	Fluorene	ND	430
Benzyl Alcohol	ND	430	4-Nitroaniline	ND	2200
1,2-Dichlorobenzene	ND	430	N-Nitrosodiphenylamine	ND	430
bis(2-chloroisopropyl)Ether	ND	430	4-Bromophenyl-phenylether	ND	430
N-Nitroso-Di-n-Propylamine	ND	430	Hexachlorobenzene	ND	430
Hexachloroethane	ND	430	Phenanthrene	ND	430
Nitrobenzene	ND	430	Anthracene	ND	430
Isophorone	ND	430	Di-n-Butylphthalate	ND	430
Benzoic Acid	ND	2200	Fluoranthene	ND	430
bis(-2-Chloroethoxy)Methane	ND	430	Pyrene	ND	430
1,2,4-Trichlorobenzene	ND	430	Butylbenzylphthalate	ND	430
Naphthalene	ND	430	3,3'-Dichlorobenzidine	ND	870
4-Chloroaniline	ND	430	Benzo(a)Anthracene	ND	430
Hexachlorobutadiene	ND	430	Bis(2-Ethylhexyl)Phthalate	ND	430
2-Methylnaphthalene	ND	430	Chrysene	ND	430
Hexachlorocyclopentadiene	ND	430	Di-n-Octyl Phthalate	ND	430
2-Chloronaphthalene	ND	430	Benzo(b)fluoranthene	ND	430
2-Nitroaniline	ND	2200	Benzo(k)Fluoranthene	ND	430
Dimethyl Phthalate	ND	430	Benzo(a)Pyrene	ND	430
Acenaphthylene	ND	430	Indeno(1,2,3-cd)Pyrene	ND	430
3-Nitroaniline	ND	2200	Dibenzo(a,h)Anthracene	ND	430
Acenaphthene	ND	430	Benzo(g,h,i)Perylene	ND	430
Dibenzofuran	ND	430	Benzidine	ND	870
2,4-Dinitrotoluene	ND	430			

Percent Solid of 76.0 is used for all Target compounds.

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

E1

EPA SAMPLE NUMBER

semi-VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

BLDG 2500
SITE I

Client: US Army, Ft. Monmouth, NJ

Comments: OVA: ND

Matrix: (soil/water) SOIL

Lab Sample ID: A1549

Sample wt/vol: 30 (g/mL) GM

Lab File ID: >C1175

Level: LOW

Date Received: NA

% Moisture: 24

Date Analyzed 05/06/93

Extraction: (Sepf/Cont/Sonc) SONC

Date Extracted 04/14/93

GPC (Y or N): N

Column: DB-5

Dilution Factor: 1

Number TICs Found 1

CONCENTRATION UNITS
(ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST CONC
1	79345	Ethane, 1,1,2,2-tetrachloro- (8CI9CI)	7.65	260

QUANT REPORT

Operator ID: JEFF
Output File: ^C1175::D2
Data File: >C1175::ED
Name: A1549
Misc: 050693

Quant Rev: 6 Quant Time: 930506 12:04
Injected at: 930506 11:25
Dilution Factor: 1.00000

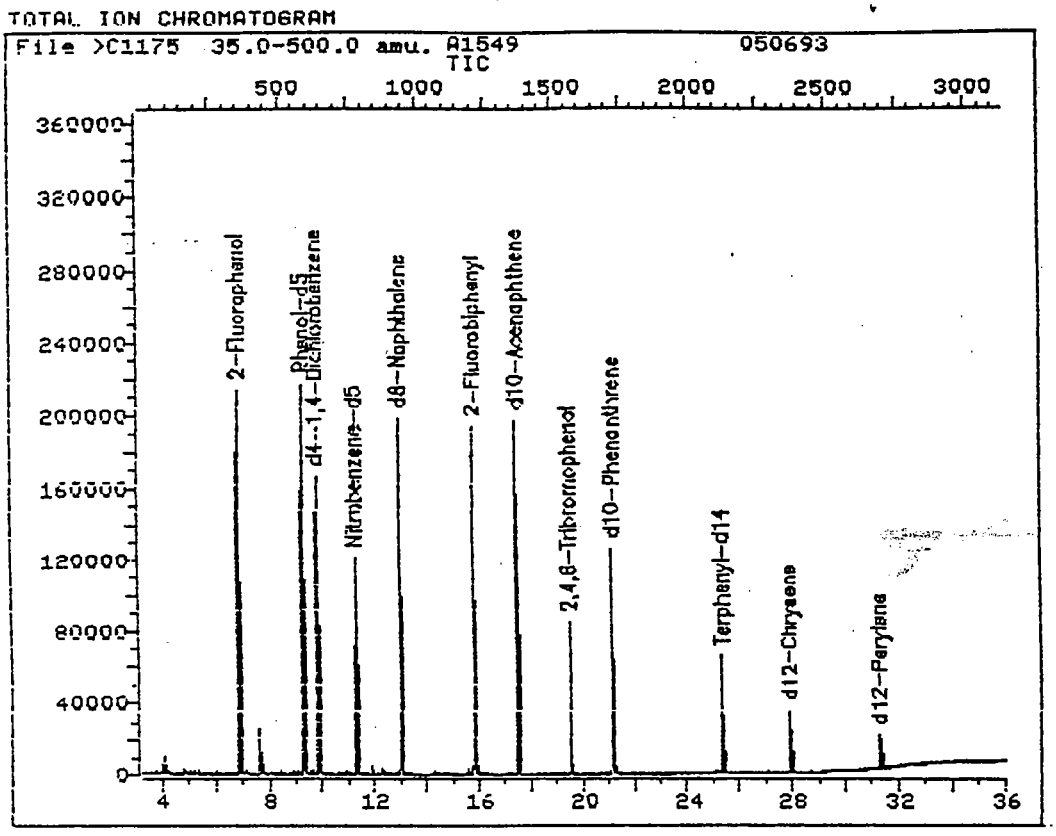
BTL# 1

ID File: IDHSLC::D3
Title: hSL BNA STD
Last Calibration: 930506 07:48

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	9.79	624	78354	40.00	UG/L	96
4)	2-Fluorophenol	6.87	344	106255	82.68	UG/L	96
5)	Phenol-d5	9.28	575	160875	92.35	UG/L	82
18)	*d8-Naphthalene	12.98	929	180406	40.00	UG/L	86
19)	Nitrobenzene-d5	11.26	764	73131	40.91	UG/L	84
33)	*d10-Acenaphthene	17.45	1358	92708	40.00	UG/L	97
38)	2-Fluorobiphenyl	15.83	1202	127492	41.43	UG/L	94
53)	*d10-Phenanthrene	21.16	1713	106142	40.00	UG/L	99
56)	2,4,6-Tribromophenol	19.48	1552	18387	193.52	UG/L	91
64)	*d12-Chrysene	27.89	2358	30819	40.00	UG/L	98
67)	Terphenyl-d14	25.33	2113	49910	30.57	UG/L	90
73)	*d12-Perylene	31.26	2681	17464	40.00	UG/L	94

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >C1175::ED Quant Output File: ^C1175::D2
Name: A1549
Misc: 050693 BTL# 1

Id File: IDHSLC::D3
Title: hSL BNA STD
Last Calibration: 930506 07:48

Operator ID: JEFF
Quant Time: 930506 12:04
Injected at: 930506 11:25

21st Century Environmental Inc.
VOLATILE ORGANIC ANALYSIS DATA

JOB NUMBER	US ARMY FT. MONMOUTH NJ	MATRIX	Soil
SAMPLE NUMBER	A1550	DILUTION FACTOR	1.00
CLIENT ID	SITE J BLDG 2500	COMMENTS	QUA ND
DATA FILE	>A1314	DATE ANALYZED	04/23/93

COMPOUND	UG/KG	MDL	COMPOUND	UG/KG	MDL
Acrolein	ND	65	Bromodichloromethane	ND	6
Acrylonitrile	ND	65	2-Chloroethylvinylether	ND	13
Chloromethane	ND	13	2-Hexanone	ND	13
Bromomethane	ND	13	trans-1,3-Dichloropropene	ND	6
Vinyl Chloride	ND	13	Toluene	ND	6
Chloroethane	ND	13	cis-1,3-Dichloropropene	ND	6
Acetone	5.6 JB	13	1,1,2,2-Tetrachloroethane	ND	6
1,1-Dichloroethene	ND	6	1,1,2-Trichloroethane	ND	6
Carbon Disulfide	ND	13	4-Methyl-2-pentanone	ND	13
Methylene Chloride	4.5 JB	6	Tetrachloroethene	ND	6
1,2-Dichloroethene(trans)	ND	6	Dibromochloromethane	ND	6
1,1-Dichloroethane	ND	6	Chlorobenzene	ND	6
Vinyl Acetate	ND	6	Ethylbenzene	ND	6
2-Butanone	ND	13	m&p-Xylenes	ND	6
Chloroform	ND	6	o-Xylene	ND	6
1,1,1-Trichloroethane	ND	6	Styrene	ND	6
Carbon Tetrachloride	ND	6	Bromoform	ND	6
1,2-Dichloroethane	ND	6	m-Dichlorobenzene	ND	6
Benzene	ND	6	p-Dichlorobenzene	ND	6
Trichloroethene	ND	6	o-Dichlorobenzene	ND	6
1,2-Dichloropropane	ND	6			

SURROGATE COMPOUNDS	% RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	94.7	70 - 121	OK
Toluene-d8	95.8	81 - 117	OK
Bromofluorobenzene	97.3	74 - 121	OK

Percent Solid of 77.0 is used for all Target compounds.

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SITE J

Lab Name: 21st Century Environmental

Client Name: US ARMY FT. MONMOUTH, NJ

Client ID: BLDG 2500

Matrix: (soil/water) Soil

Lab Sample ID: A1550

Sample wt/vol: 5 (g/mL) g

Lab File ID: >A1314

Level: (low/med) LOW

Date Received: 04/14/93

% Moisture: 23

Date Analyzed: 04/23/93

Column: DB-624

Dilution Factor: 1

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	No Unknowns			

FORM I VOA-TIC 1/87 Rev.

QUANT REPORT

Operator ID: JEFF Quant Rev: 6 Quant Time: 930423 15:10
Output File: ^A1314::QT Injected at: 930423 14:39
Data File: >A1314::D2 Dilution Factor: 1.00000
Name: A1550
Misc: SITE J BLDG 2500 5.0g

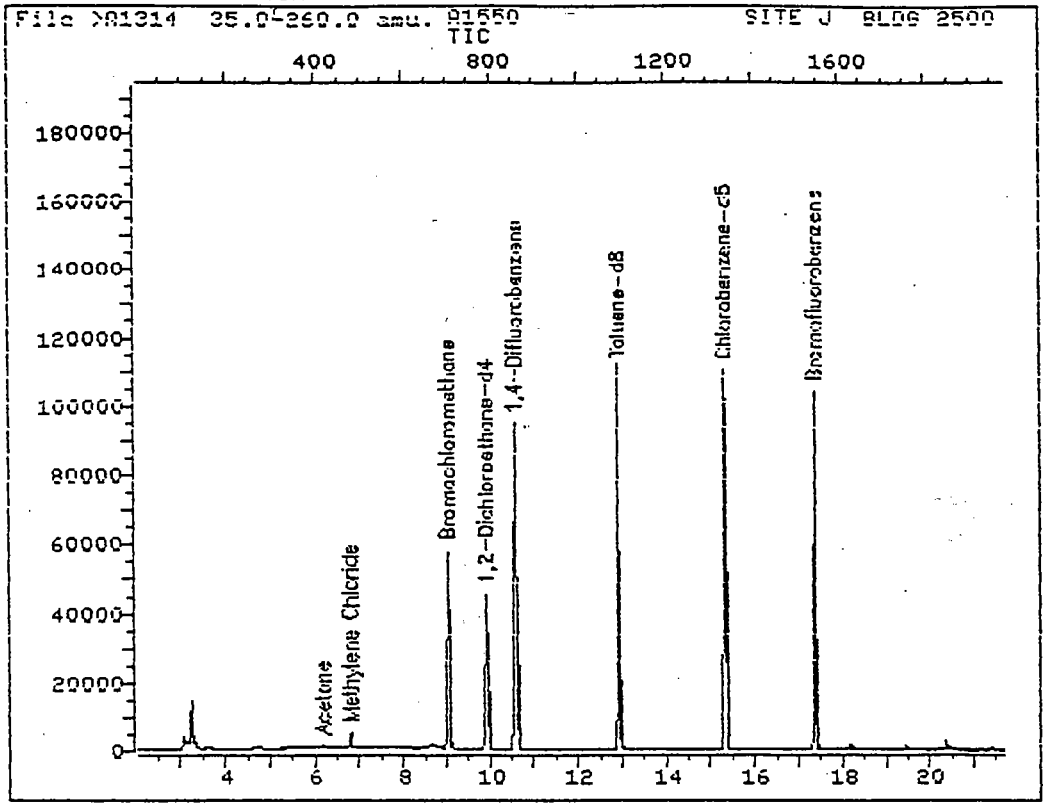
ID File: ID0127::M1
Title: USEPA 624 VOLATILES
Last Calibration: 930423 12:14

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*Bromochloromethane	9.03	703	31198	50.00	UG/L	100
9)	Acetone	6.17	414	2072	4.31	UG/L	84
13)	Methylene Chloride	6.79	477	4314	3.48	UG/L	82
21)	1,2-Dichloroethane-d4	9.90	791	62781	47.34	UG/L	100
22)	*1,4-Difluorobenzene	10.57	858	143762	50.00	UG/L	100
31)	Toluene-d8	12.90	1093	145075	47.92	UG/L	100
33)	*Chlorobenzene-d5	15.31	1336	119583	50.00	UG/L	100
36)	Bromofluorobenzene	17.36	1543	72039	48.66	UG/L	100

* Compound is ISTD

00172

TOTAL ION CHROMATOGRAM



Data File: >A1314::D2 Quant Output File: ^A1314::QT
Name: A1550
Misc: SITE J BLDG 2500 5.0g

Id File: ID0127::M1
Title: USEPA 624 VOLATILES
Last Calibration: 930423 12:14

Operator ID: JEFF
Quant Time: 930423 15:10
Injected at: 930423 14:39

21ST CENTURY Environmental
SEMIVOLATILE ANALYSIS DATA

JOB NUMBER	US ARMY, FT. MONMOUTH, NJ	MATRIX	Soil
SAMPLE NUMBER	A1550	DILUTION FACTOR	1.00
CLIENT ID	BLDG 2500, SITE J	COMMENTS	DUA: ND
DATA FILE	>C1141	DATE ANALYZED	05/04/93

COMPOUND	UG/KG	MDL	COMPOUND	UG/KG	MDL
N-Nitrosodimethylamine	ND	430	2,6-Dinitrotoluene	ND	430
bis(-2-Chloroethyl)Ether	ND	430	Diethylphthalate	ND	430
1,3-Dichlorobenzene	ND	430	4-Chlorophenyl-phenlyether	ND	430
1,4-Dichlorobenzene	ND	430	Fluorene	ND	430
Benzyl Alcohol	ND	430	4-Nitroaniline	ND	2100
1,2-Dichlorobenzene	ND	430	N-Nitrosodiphenylamine	ND	430
bis(2-chloroisopropyl)Ether	ND	430	4-Bromophenyl-phenylether	ND	430
N-Nitroso-Di-n-Propylamine	ND	430	Hexachlorobenzene	ND	430
Hexachloroethane	ND	430	Phenanthrene	ND	430
Nitrobenzene	ND	430	Anthracene	ND	430
Isophorone	ND	430	Di-n-Butylphthalate	ND	430
Benzoic Acid	ND	2100	Fluoranthene	ND	430
bis(-2-Chloroethoxy)Methane	ND	430	Pyrene	ND	430
1,2,4-Trichlorobenzene	ND	430	Butylbenzylphthalate	ND	430
Naphthalene	ND	430	3,3'-Dichlorobenzidine	ND	860
4-Chloroaniline	ND	430	Benzo(a)Anthracene	ND	430
Hexachlorobutadiene	ND	430	Bis(2-Ethylhexyl)Phthalate	ND	430
2-Methylnaphthalene	ND	430	Chrysene	ND	430
Hexachlorocyclopentadiene	ND	430	Di-n-Octyl Phthalate	ND	430
2-Chloronaphthalene	ND	430	Benzo(b)fluoranthene	ND	430
2-Nitroaniline	ND	2100	Benzo(k)Fluoranthene	ND	430
Dimethyl Phthalate	ND	430	Benzo(a)Pyrene	ND	430
Acenaphthylene	ND	430	Indeno(1,2,3-cd)Pyrene	ND	430
3-Nitroaniline	ND	2100	Dibenzo(a,h)Anthracene	ND	430
Acenaphthene	ND	430	Benzo(g,h,i)Perylene	ND	430
Dibenzofuran	ND	430	Benzidine	ND	860
2,4-Dinitrotoluene	ND	430			

Percent Solid of 77.0 is used for all Target compounds.

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

E1

EPA SAMPLE NUMBER

semi-VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

BLDG 2500
SITE J

Client: US Army, Ft. Monmouth, NJ

Comments: OVA: ND

Matrix: (soil/water) SOIL

Lab Sample ID: A1550

Sample wt/vol: 30 (g/mL) GM

Lab File ID: >C1141

Level: LOW

Date Received: NA

% Moisture: 23

Date Analyzed 05/04/93

Extraction: (Sepf/Cont/Sonc) SONC

Date Extracted 04/14/93

GPC (Y or N): N

Column: DB-5

Dilution Factor: 1

Number TICs Found 1

CONCENTRATION UNITS
(ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST CONC
1	79345	Ethane, 1,1,2,2-tetrachloro- (8CI9CI)	7.69	430

QUANT REPORT

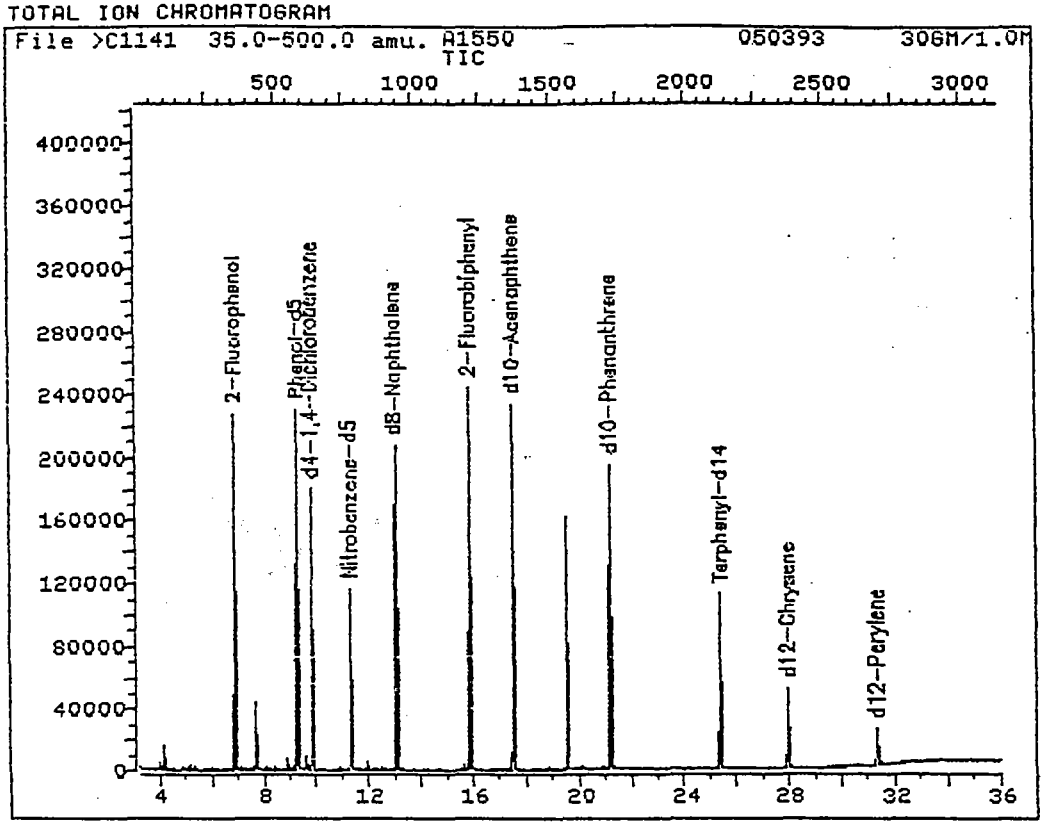
perator ID: JEFF Quant Rev: 6 Quant Time: 930504 03:20
Output File: ^C1141::D5 Injected at: 930504 02:41
ta File: >C1141::E4 Dilution Factor: 1.00000
me: A1550
isc: 050393 30GM/1.0ML BTL#12

File: IDHSLC::D3
itle: hSL BNA STD
st Calibration: 930503 17:16

	Compound	R.T.	Scan#	Area	Conc	Units	q
)	*d4-1,4-Dichlorobenzene	9.83	627	85736	40.00	UG/L	96
)	2-Fluorophenol	6.88	345	119546	78.24	UG/L	88
5)	Phenol-d5	9.29	576	168519	82.23	UG/L	81
)	*d8-Naphthalene	13.01	932	195483	40.00	UG/L	85
)	Nitrobenzene-d5	11.29	767	73693	34.59	UG/L	79
3)	*d10-Acenaphthene	17.50	1362	118132	40.00	UG/L	93
38)	2-Fluorobiphenyl	15.87	1206	166972	39.38	UG/L	94
)	*d10-Phenanthrene	21.20	1716	187274	40.00	UG/L	99
)	*d12-Chrysene	27.94	2362	51079	40.00	UG/L	96
67)	Terphenyl-d14	25.38	2117	101383	44.82	UG/L	88
)	*d12-Perylene	31.31	2684	28825	40.00	UG/L	94

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >C1141::E4 Quant Output File: ^C1141::D5
Name: A1550
Misc: 050393 30GM/1.0ML BTL#12

Id File: IDHSLC::D3
Title: hSL BNA STD
Last Calibration: 930503 17:16

Operator ID: JEFF
Quant Time: 930504 03:20
Injected at: 930504 02:41

21st Century Environmental Inc.
VOLATILE ORGANIC ANALYSIS DATA

JOB NUMBER	US ARMY FT. MONMOUTH NJ	MATRIX	Soil
SAMPLE NUMBER	A1551	DILUTION FACTOR	1.00
CLIENT ID	SITE K BLDG 2500	COMMENTS	QUA NO
DATA FILE	>A1301	DATE ANALYZED	04/22/93

COMPOUND	UG/KG	MDL	COMPOUND	UG/KG	MDL
Acrolein	ND	60	Bromodichloromethane	ND	6
Acrylonitrile	ND	60	2-Chloroethylvinylether	ND	12
Chloromethane	ND	12	2-Hexanone	ND	12
Bromomethane	ND	12	trans-1,3-Dichloropropene	ND	6
Vinyl Chloride	ND	12	Toluene	ND	6
Chloroethane	ND	12	cis-1,3-Dichloropropene	ND	6
Acetone	2.6 JB	12	1,1,2,2-Tetrachloroethane	ND	6
1,1-Dichloroethene	ND	6	1,1,2-Trichloroethane	ND	6
Carbon Disulfide	ND	12	4-Methyl-2-pentanone	ND	12
Methylene Chloride	2.1 J	6	Tetrachloroethene	ND	6
1,2-Dichloroethene(trans)	ND	6	Dibromochloromethane	ND	6
1,1-Dichloroethane	ND	6	Chlorobenzene	ND	6
Vinyl Acetate	ND	6	Ethylbenzene	ND	6
2-Butanone	ND	12	m&p-Xylenes	ND	6
Chloroform	ND	6	o-Xylene	ND	6
1,1,1-Trichloroethane	ND	6	Styrene	ND	6
Carbon Tetrachloride	ND	6	Bromoform	ND	6
1,2-Dichloroethane	ND	6	m-Dichlorobenzene	ND	6
Benzene	ND	6	p-Dichlorobenzene	ND	6
Trichloroethene	ND	6	o-Dichlorobenzene	ND	6
1,2-Dichloropropane	ND	6			

SURROGATE COMPOUNDS	% RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	100	70 - 121	OK
Toluene-d8	99.1	81 - 117	OK
Bromofluorobenzene	98.8	74 - 121	OK

Percent Solid of 84.0 is used for all Target compounds.

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SITE K

Lab Name:21st Century Environmental

Client Name: US ARMY FT. MONMOUTH, NJ

Client ID: BLDG 2500

Matrix: (soil/water) Soil

Lab Sample ID: A1551

Sample wt/vol: 5 (g/mL) g

Lab File ID: >A1301

Level: (low/med) LOW

Date Received: 04/14/93

% Moisture: 16

Date Analyzed: 04/22/93

Column: DB-624

Dilution Factor: 1

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	No Unknowns			

FORM I VOA-TIC

1/87 Rev.

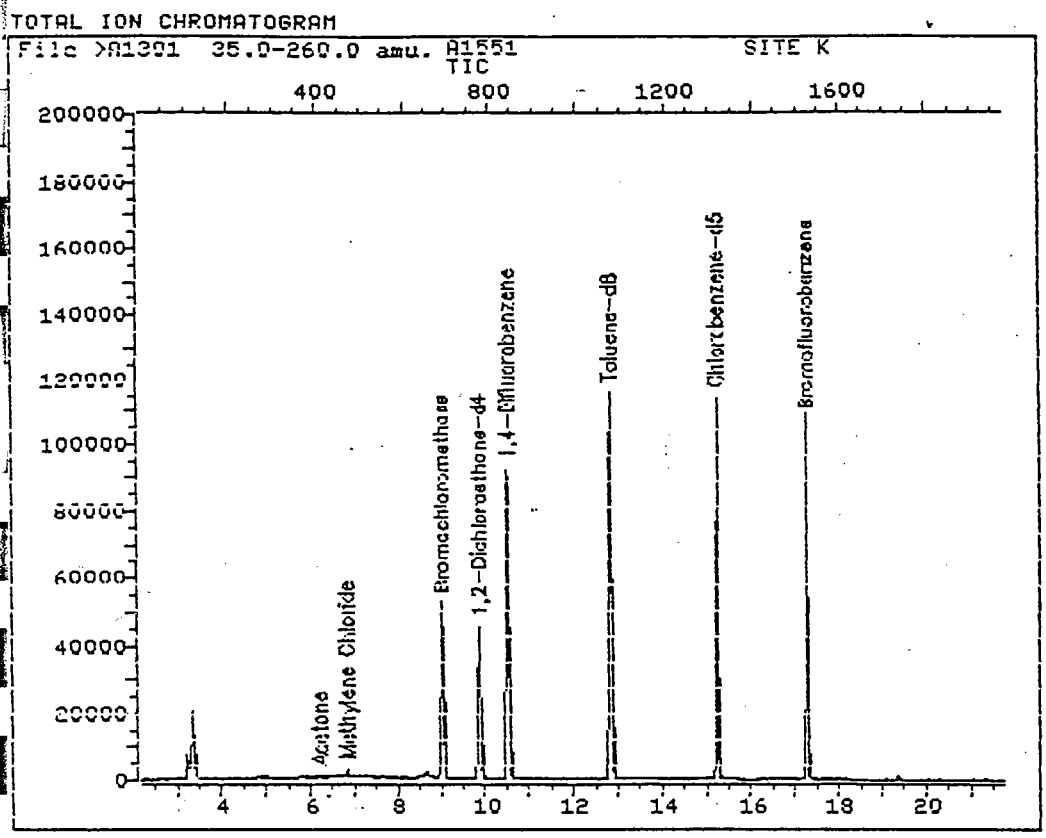
QUANT REPORT

erator ID: JEFF Quant Rev: 6 Quant Time: 930422 19:58
tput File: ^A1301::QT Injected at: 930422 19:28
ata File: >A1301::D2 Dilution Factor: 1.00000
ame: A1551
sc: SITE K 5.0g

ID File: ID0127::M1
tle: USEPA 624 VOLATILES
st Calibration: 930422 16:06

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*Bromochloromethane	9.01	687	29749	50.00	UG/L	100
9)	Acetone	6.20	404	1015	2.19	UG/L	83
)	Methylene Chloride	6.82	466	2233	1.80	UG/L	78
)	1,2-Dichloroethane-d4	9.87	774	61685	50.06	UG/L	100
22)	*1,4-Difluorobenzene	10.52	840	144547	50.00	UG/L	100
)	Toluene-d8	12.83	1073	149704	49.53	UG/L	100
)	*Chlorobenzene-d5	15.22	1314	126638	50.00	UG/L	100
46)	Bromofluorobenzene	17.27	1521	76741	49.41	UG/L	100

Compound is ISTD



Data File: >A1301::D2 Quant Output File: ^A1301::QT
Name: A1551
Misc: SITE K 5.0g

Id File: ID0127::M1
Title: USEPA 624 VOLATILES
Last Calibration: 930422 16:06

Operator ID: JEFF
Quant Time: 930422 19:58
Injected at: 930422 19:28

21ST CENTURY Environmental
SEMIVOLATILE ANALYSIS DATA

JOB NUMBER	US ARMY, FT. MONMOUTH, NJ	MATRIX	Soil
SAMPLE NUMBER	A1551	DILUTION FACTOR	1.00
CLIENT ID	BLDG 2500, SITE K	COMMENTS	DUA: ND
DATA FILE	>C1177	DATE ANALYZED	05/06/93

COMPOUND	UG/KG	MDL	COMPOUND	UG/KG	MDL
N-Nitrosodimethylamine	ND	390	2,6-Dinitrotoluene	ND	390
bis(-2-Chloroethyl)Ether	ND	390	Diethylphthalate	ND	390
1,3-Dichlorobenzene	ND	390	4-Chlorophenyl-phenlyether	ND	390
1,4-Dichlorobenzene	ND	390	Fluorene	ND	390
Benzyl Alcohol	ND	390	4-Nitroaniline	ND	2000
1,2-Dichlorobenzene	ND	390	N-Nitrosodiphenylamine	ND	390
bis(2-chloroisopropyl)Ether	ND	390	4-Bromophenyl-phenylether	ND	390
N-Nitroso-Di-n-Propylamine	ND	390	Hexachlorobenzene	ND	390
Hexachloroethane	ND	390	Phenanthrene	ND	390
Nitrobenzene	ND	390	Anthracene	ND	390
Isophorone	ND	390	Di-n-Butylphthalate	ND	390
Benzoic Acid	ND	2000	Fluoranthene	ND	390
bis(-2-Chloroethoxy)Methane	ND	390	Pyrene	ND	390
1,2,4-Trichlorobenzene	ND	390	Butylbenzylphthalate	ND	390
Naphthalene	ND	390	3,3'-Dichlorobenzidine	ND	780
4-Chloroaniline	ND	390	Benzo(a)Anthracene	ND	390
Hexachlorobutadiene	ND	390	Bis(2-Ethylhexyl)Phthalate	ND	390
2-Methylnaphthalene	ND	390	Chrysene	ND	390
Hexachlorocyclopentadiene	ND	390	Di-n-Octyl Phthalate	ND	390
2-Chloronaphthalene	ND	390	Benzo(b)fluoranthene	ND	390
2-Nitroaniline	ND	2000	Benzo(k)Fluoranthene	ND	390
Dimethyl Phthalate	ND	390	Benzo(a)Pyrene	ND	390
Acenaphthylene	ND	390	Indeno(1,2,3-cd)Pyrene	ND	390
3-Nitroaniline	ND	2000	Dibenzo(a,h)Anthracene	ND	390
Acenaphthene	ND	390	Benzo(g,h,i)Perylene	ND	390
Dibenzofuran	ND	390	Benzidine	ND	780
2,4-Dinitrotoluene	ND	390			

Percent Solid of 84.0 is used for all Target compounds.

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

E1

EPA SAMPLE NUMBER

semi-VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

BLDG 2500
SITE K

Client: US Army, Ft. Monmouth, NJ

Comment: OVA: ND

Matrix: (soil/water) SOIL

Lab Sample ID: A1551

Sample wt/vol: 30 (g/mL) GM

Lab File ID: >C1177

Level: LOW

Date Received: NA

% Moisture: 16

Date Analyzed 05/06/93

Extraction: (Sepf/Cont/Sonc) SONC

Date Extracted 04/14/93

GPC (Y or N): N

Column: DB-5

Dilution Factor: 1

Number TICs Found 2

CONCENTRATION UNITS
(ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST CONC
1	79005	Ethane, 1,1,2-trichloro- (8CI9CI)	4.08	200
2	79345	Ethane, 1,1,2,2-tetrachloro- (8CI9CI)	7.65	520

QUANT REPORT

Operator ID: JEFF
Output File: ^C1177::D2
Data File: >C1177::ED
Name: A1551
Misc: 050693

Quant Rev: 6 Quant Time: 930506 13:38
Injected at: 930506 12:59
Dilution Factor: 1.00000

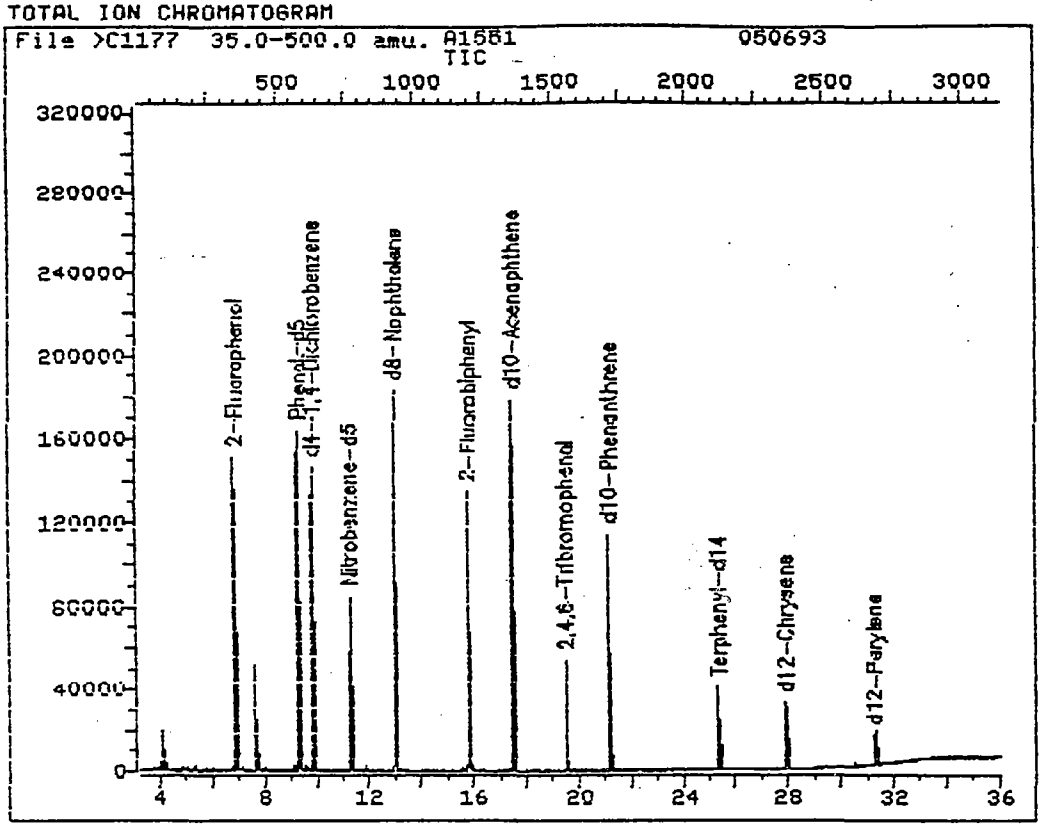
BTL# 3

ID File: IDHSLC::D3
Title: hSL BNA STD
Last Calibration: 930506 07:48

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	9.79	624	67758	40.00	UG/L	95
4)	2-Fluorophenol	6.86	343	75109	67.58	UG/L	91
5)	Phenol-d5	9.28	575	112514	74.69	UG/L	82
18)	*d8-Naphthalene	12.98	929	164793	40.00	UG/L	87
19)	Nitrobenzene-d5	11.25	764	49209	30.14	UG/L	85
33)	*d10-Acenaphthene	17.45	1358	85082	40.00	UG/L	89
38)	2-Fluorobiphenyl	15.82	1202	88852	31.47	UG/L	94
53)	*d10-Phenanthrene	21.15	1713	97618	40.00	UG/L	99
56)	2,4,6-Tribromophenol	19.47	1552	11137	127.45	UG/L	95
64)	*d12-Chrysene	27.89	2359	27522	40.00	UG/L	98
67)	Terphenyl-d14	25.34	2114	32244	22.11	UG/L	92
73)	*d12-Perylene	31.26	2681	15004	40.00	UG/L	91

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >C1177::ED Quant Output File: ^C1177::D2
Name: A1551
Misc: 050693 BTL# 3

Id File: IDHSLC::D3
Title: hSL BNA STD
Last Calibration: 930506 07:48

Operator ID: JEFF
Quant Time: 930506 13:38
Injected at: 930506 12:59

21st Century Environmental Inc.
VOLATILE ORGANIC ANALYSIS DATA

JOB NUMBER	US ARMY FT. MONMOUTH NJ	MATRIX	Soil
SAMPLE NUMBER	A1552	DILUTION FACTOR	1.00
CLIENT ID	SITE L BLDG 2500	COMMENTS	OVA ND
DATA FILE	>A1302	DATE ANALYZED	04/22/93

COMPOUND	UG/KG		MDL
Acrolein	ND		63
Acrylonitrile	ND		63
Chloromethane	ND		13
Bromomethane	ND		13
Vinyl Chloride	ND		13
Chloroethane	ND		13
Acetone	ND	B	13
1,1-Dichloroethene	ND		6
Carbon Disulfide	ND		13
Methylene Chloride	ND		6
1,2-Dichloroethene(trans)	ND		6
1,1-Dichloroethane	ND		6
Vinyl Acetate	ND		6
2-Butanone	ND		13
Chloroform	ND		6
1,1,1-Trichloroethane	ND		6
Carbon Tetrachloride	ND		6
1,2-Dichloroethane	ND		6
Benzene	ND		6
Trichloroethene	ND		6
1,2-Dichloropropane	ND		6

COMPOUND	UG/KG	MDL
Bromodichloromethane	ND	6
2-Chloroethylvinylether	ND	13
2-Hexanone	ND	13
trans-1,3-Dichloropropene	ND	6
Toluene	ND	6
cis-1,3-Dichloropropene	ND	6
1,1,2,2-Tetrachloroethane	ND	6
1,1,2-Trichloroethane	ND	6
4-Methyl-2-pentanone	ND	13
Tetrachloroethene	ND	6
Dibromochloromethane	ND	6
Chlorobenzene	ND	6
Ethylbenzene	ND	6
m&p-Xylenes	ND	6
o-Xylene	ND	6
Styrene	ND	6
Bromoform	ND	6
m-Dichlorobenzene	ND	6
p-Dichlorobenzene	ND	6
o-Dichlorobenzene	ND	6

SURROGATE COMPOUNDS	% RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	99.7	70 - 121	OK
Toluene-d8	95.2	81 - 117	OK
Bromofluorobenzene	101	74 - 121	OK

Percent Solid of 79.0 is used for all Target compounds.

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SITE L

Lab Name: 21st Century Environmental

Client Name: US ARMY FT. MONMOUTH, NJ

Client ID: BLDG 2500

Matrix: (soil/water) Soil

Lab Sample ID: A1552

Sample wt/vol: 5 (g/mL) g

Lab File ID: >A1302

Level: (low/med) LOW

Date Received: 04/14/93

% Moisture: 21

Date Analyzed: 04/22/93

Column: DB-624

Dilution Factor: 1

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	No Unknowns			

FORM I VOA-TIC 1/87 Rev.

00187

QUANT REPORT

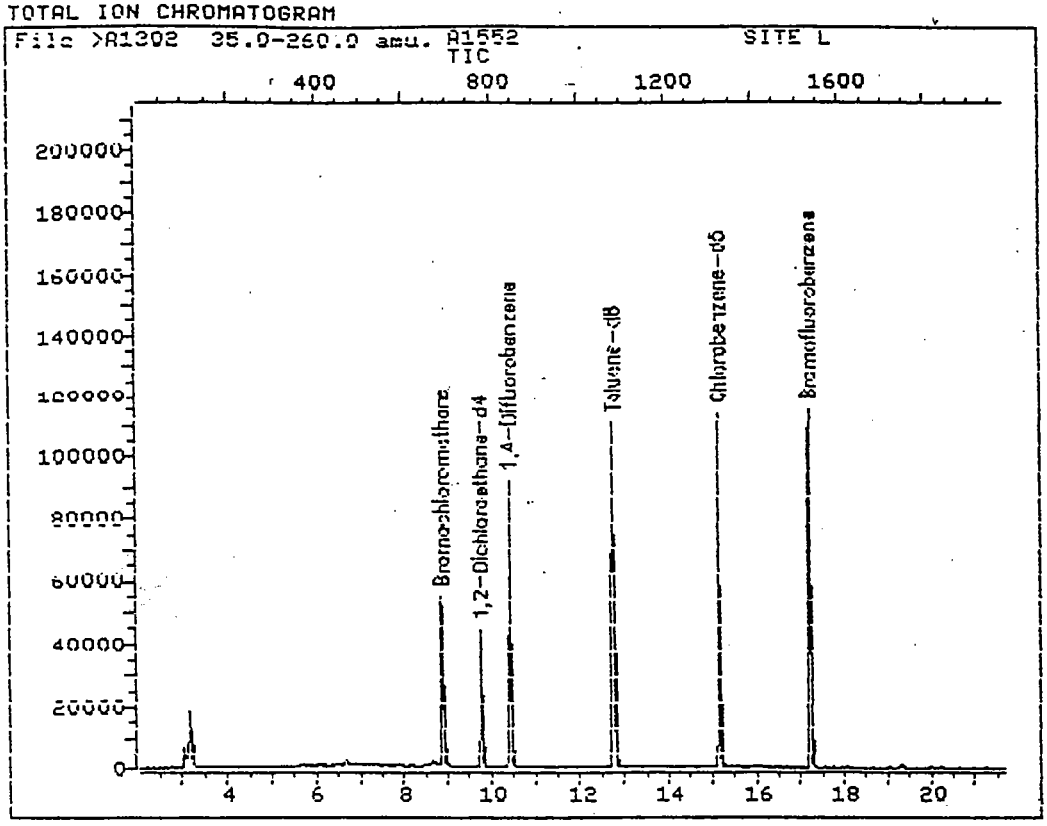
erator ID: JEFF Quant Rev: 6 Quant Time: 930422 20:33
tput File: ^A1302::QT Injected at: 930422 20:03
Data File: >A1302::D2 Dilution Factor: 1.00000
me: A1552
sc: SITE L 5.0g

ID File: ID0127::M1
tle: USEPA 624 VOLATILES
ast Calibration: 930422 16:06

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*Bromochloromethane	8.87	688	30551	50.00	UG/L	100
24)	1,2-Dichloroethane-d4	9.76	777	63059	49.83	UG/L	100
)	*1,4-Difluorobenzene	10.42	844	147226	50.00	UG/L	100
1)	Toluene-d8	12.75	1079	146512	47.59	UG/L	100
33)	*Chlorobenzene-d5	15.16	1322	126288	50.00	UG/L	100
)	Bromofluorobenzene	17.21	1529	77893	50.29	UG/L	100

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >A1302::D2 Quant Output File: ^A1302::QT
Name: A1552
Misc: SITE L 5.0g

Id File: ID0127::M1
Title: USEPA 624 VOLATILES
Last Calibration: 930422 16:06

Operator ID: JEFF
Quant Time: 930422 20:33
Injected at: 930422 20:03

21ST CENTURY Environmental
SEMIVOLATILE ANALYSIS DATA

JOB NUMBER	US ARMY, FT. MONMOUTH, NJ	MATRIX	Soil
SAMPLE NUMBER	A1552	DILUTION FACTOR	1.00
CLIENT ID	BLDG 2500, SITE L	COMMENTS	OVA: ND
DATA FILE	>C1178	DATE ANALYZED	05/06/93

COMPOUND	UG/KG	MDL	COMPOUND	UG/KG	MDL
N-Nitrosodimethylamine	ND	420	2,6-Dinitrotoluene	ND	420
bis(-2-Chloroethyl)Ether	ND	420	Diethylphthalate	ND	420
1,3-Dichlorobenzene	ND	420	4-Chlorophenyl-phenlyether	ND	420
1,4-Dichlorobenzene	ND	420	Fluorene	ND	420
Benzyl Alcohol	ND	420	4-Nitroaniline	ND	2100
1,2-Dichlorobenzene	ND	420	N-Nitrosodiphenylamine	ND	420
bis(2-chloroisopropyl)Ether	ND	420	4-Bromophenyl-phenylether	ND	420
N-Nitroso-Di-n-Propylamine	ND	420	Hexachlorobenzene	ND	420
Hexachloroethane	ND	420	Phenanthrene	ND	420
Nitrobenzene	ND	420	Anthracene	ND	420
Isophorone	ND	420	Di-n-Butylphthalate	ND	420
Benzoic Acid	ND	2100	Fluoranthene	ND	420
bis(-2-Chloroethoxy)Methane	ND	420	Pyrene	ND	420
1,2,4-Trichlorobenzene	ND	420	Butylbenzylphthalate	ND	420
Naphthalene	ND	420	3,3'-Dichlorobenzidine	ND	840
4-Chloroaniline	ND	420	Benzo(a)Anthracene	ND	420
Hexachlorobutadiene	ND	420	Bis(2-Ethylhexyl)Phthalate	ND	420
2-Methylnaphthalene	ND	420	Chrysene	ND	420
Hexachlorocyclopentadiene	ND	420	Di-n-Octyl Phthalate	ND	420
2-Chloronaphthalene	ND	420	Benzo(b)fluoranthene	ND	420
2-Nitroaniline	ND	2100	Benzo(k)Fluoranthene	ND	420
Dimethyl Phthalate	ND	420	Benzo(a)Pyrene	ND	420
Acenaphthylene	ND	420	Indeno(1,2,3-cd)Pyrene	ND	420
3-Nitroaniline	ND	2100	Dibenzo(a,h)Anthracene	ND	420
Acenaphthene	ND	420	Benzo(g,h,i)Perylene	ND	420
Dibenzofuran	ND	420	Benzidine	ND	840
2,4-Dinitrotoluene	ND	420			

Percent Solid of 79.0 is used for all Target compounds.

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

E1

EPA SAMPLE NUMBER

semi-VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

BLDG 2500
SITE L

Client: US Army, Ft. Monmouth, NJ

Comments: OVA: ND\

Matrix: (soil/water) SOIL

Lab Sample ID: A1552

Sample wt/vol: 30 (g/mL) GM

Lab File ID: >C1178

Level: LOW

Date Received: NA

% Moisture: 21

Date Analyzed 05/06/93

Extraction: (Sepf/Cont/Sonc) SONC

Date Extracted 04/14/93

GPC (Y or N): N

Column: DB-5

Dilution Factor: 1

Number TICs Found 3

CONCENTRATION UNITS
(ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST CONC
1	79005	Ethane, 1,1,2-trichloro- (8CI9CI)	4.08	210
2	79345	Ethane, 1,1,2,2-tetrachloro- (8CI9CI)	7.65	550
3		UNKNOWN	30.51	210

QUANT REPORT

Operator ID: JEFF
Output File: ^C1178::D2
Data File: >C1178::ED
Name: A1152
Misc: 050693

Quant Rev: 6 Quant Time: 930506 14:25
Injected at: 930506 13:46
Dilution Factor: 1.00000

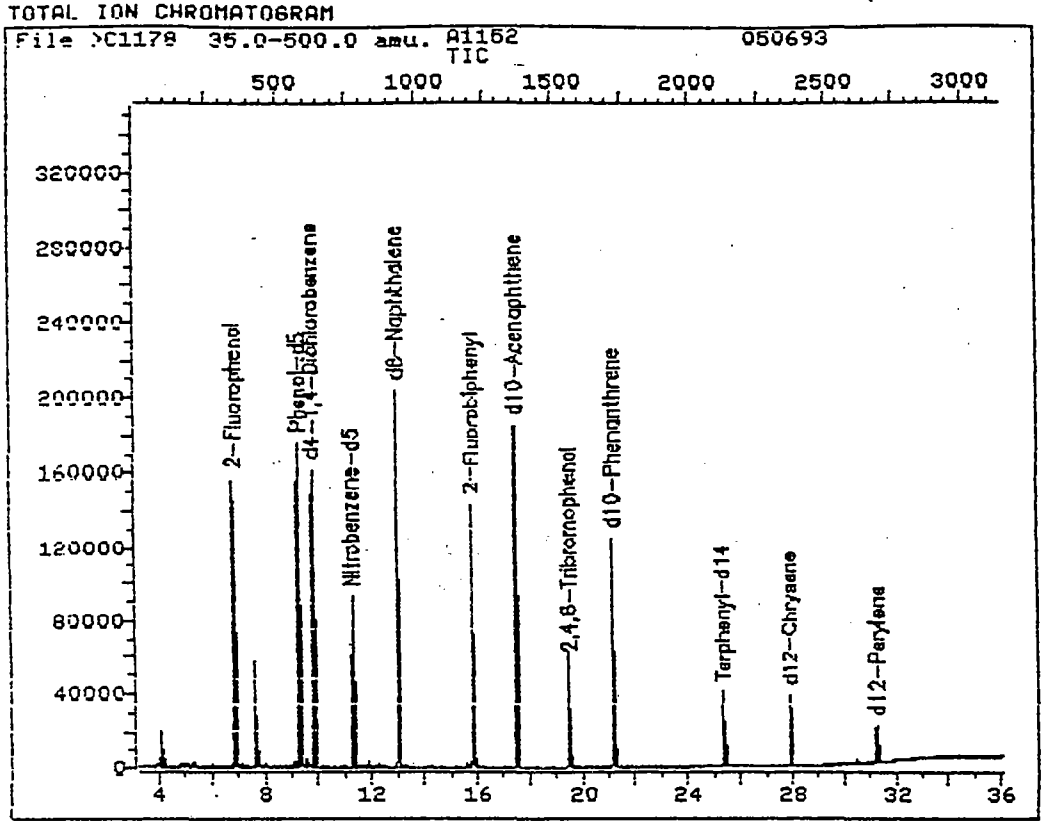
BTL# 4

ID File: IDHSLC::D3
Title: hSL BNA STD
Last Calibration: 930506 07:48

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	9.79	624	76827	40.00	UG/L	96
4)	2-Fluorophenol	6.86	343	78921	62.63	UG/L	90
5)	Phenol-d5	9.28	575	117910	69.03	UG/L	83
18)	*d8-Naphthalene	12.98	929	179548	40.00	UG/L	87
19)	Nitrobenzene-d5	11.25	764	51350	28.86	UG/L	85
33)	*d10-Acenaphthene	17.45	1358	92682	40.00	UG/L	96
38)	2-Fluorobiphenyl	15.82	1202	93561	30.42	UG/L	94
53)	*d10-Phenanthrene	21.16	1713	106043	40.00	UG/L	99
56)	2,4,6-Tribromophenol	19.48	1552	12165	128.16	UG/L	96
64)	*d12-Chrysene	27.90	2359	31017	40.00	UG/L	97
67)	Terphenyl-d14	25.33	2113	32929	20.04	UG/L	90
73)	*d12-Perylene	31.27	2682	18324	40.00	UG/L	92

* Compound is ISTD

TOTAL ION CHROMATOGRAM



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Name: A1152
Misc: 050693 BTL# 4

Id File: IDHSLC::D3
Title: hSL BNA STD
Last Calibration: 930506 07:48

Operator ID: JEFF
Quant Time: 930506 14:25
Injected at: 930506 13:46

21st Century Environmental Inc.
VOLATILE ORGANIC ANALYSIS DATA

JOB NUMBER	US ARMY FT. MONMOUTH NJ	MATRIX	Soil
SAMPLE NUMBER	A1553	DILUTION FACTOR	1.00
CLIENT ID	SITE M BLDG 2500	COMMENTS	OVA ND
DATA FILE	>A1305	DATE ANALYZED	04/22/93

COMPOUND	UG/KG	MDL	COMPOUND	UG/KG	MDL
Acrolein	ND	64	Bromodichloromethane	ND	6
Acrylonitrile	ND	64	2-Chloroethylvinylether	ND	13
Chloromethane	ND	13	2-Hexanone	ND	13
Bromomethane	ND	13	trans-1,3-Dichloropropene	ND	6
Vinyl Chloride	ND	13	Toluene	ND	6
Chloroethane	ND	13	cis-1,3-Dichloropropene	ND	6
Acetone	3.2 JB	13	1,1,2,2-Tetrachloroethane	ND	6
1,1-Dichloroethene	ND	6	1,1,2-Trichloroethane	ND	6
Carbon Disulfide	ND	13	4-Methyl-2-pentanone	ND	13
Methylene Chloride	2.6 J	6	Tetrachloroethene	ND	6
1,2-Dichloroethene(trans)	ND	6	Dibromochloromethane	ND	6
1,1-Dichloroethane	ND	6	Chlorobenzene	ND	6
Vinyl Acetate	ND	6	Ethylbenzene	ND	6
2-Butanone	ND	13	m&p-Xylenes	ND	6
Chloroform	ND	6	o-Xylene	ND	6
1,1,1-Trichloroethane	ND	6	Styrene	ND	6
Carbon Tetrachloride	ND	6	Bromoform	ND	6
1,2-Dichloroethane	ND	6	m-Dichlorobenzene	ND	6
Benzene	ND	6	p-Dichlorobenzene	ND	6
Trichloroethene	ND	6	o-Dichlorobenzene	ND	6
1,2-Dichloropropane	ND	6			

SURROGATE COMPOUNDS	% RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	101	70 - 121	OK
Toluene-d8	98.6	81 - 117	OK
Bromofluorobenzene	98.6	74 - 121	OK

Percent Solid of 78.0 is used for all Target compounds.

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SITE M

Lab Name:21st Century Environmental

Client Name: US ARMY FT. MONMOUTH, NJ

Client ID: BLDG 2500

Matrix: (soil/water) Soil

Lab Sample ID: A1553

Sample wt/vol: 5 (g/mL) g

Lab File ID: >A1305

Level: (low/med) LOW

Date Received: 04/14/93

% Moisture: 22

Date Analyzed: 04/22/93

Column: DB-624

Dilution Factor: 1

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	No Unknowns			

FORM I VOA-TIC 1/87 Rev.

QUANT REPORT

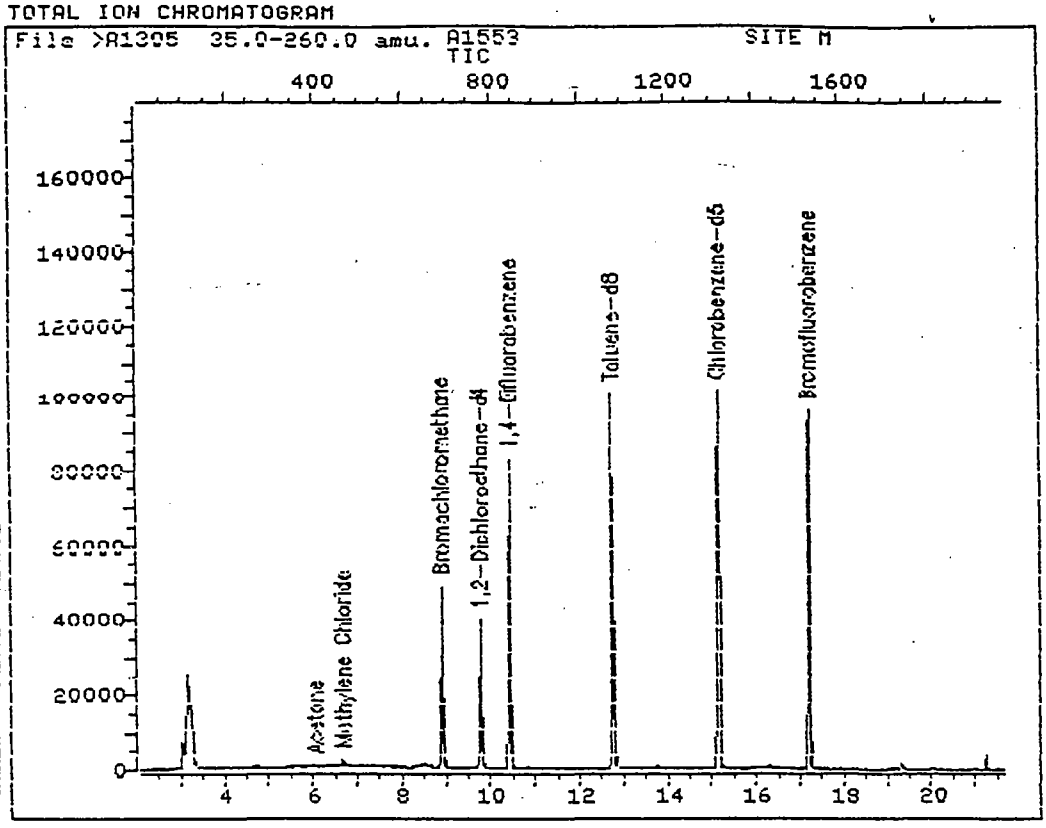
erator ID: JEFF Quant Rev: 6 Quant Time: 930422 22:21
tput File: ^A1305::QT Injected at: 930422 21:50
Data File: >A1305::D2 Dilution Factor: 1.00000
me: A1553
sc: SITE M 5.0g

ID File: ID0127::M1
tle: USEPA 624 VOLATILES
st Calibration: 930422 16:06

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*Bromochloromethane	8.89	687	26341	50.00	UG/L	100
9)	Acetone	6.05	400	1040	2.53	UG/L	77
)	Methylene Chloride	6.67	463	2251	2.05	UG/L	81
-1)	1,2-Dichloroethane-d4	9.76	775	55018	50.42	UG/L	100
22)	*1,4-Difluorobenzene	10.43	842	128120	50.00	UG/L	100
)	Toluene-d8	12.73	1075	132140	49.32	UG/L	100
)	*Chlorobenzene-d5	15.13	1317	111191	50.00	UG/L	100
46)	Bromofluorobenzene	17.19	1525	67249	49.31	UG/L	100

Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >A1305::D2 Quant Output File: ^A1305::QT
Name: A1553
Misc: SITE M 5.0g

Id File: ID0127::M1
Title: USEPA 624 VOLATILES
Last Calibration: 930422 16:06

Operator ID: JEFF
Quant Time: 930422 22:21
Injected at: 930422 21:50

21ST CENTURY Environmental
SEMIVOLATILE ANALYSIS DATA

JOB NUMBER	US ARMY, FT. MONMOUTH, NJ	MATRIX	Soil
SAMPLE NUMBER	A1553	DILUTION FACTOR	1.00
CLIENT ID	BLDG 2500, SITE M	COMMENTS	QUA: ND
DATA FILE	>C1179	DATE ANALYZED	05/06/93

COMPOUND	UG/KG	MDL	COMPOUND	UG/KG	MDL
N-Nitrosodimethylamine	ND	420	2,6-Dinitrotoluene	ND	420
bis(-2-Chloroethyl)Ether	ND	420	Diethylphthalate	ND	420
1,3-Dichlorobenzene	ND	420	4-Chlorophenyl-phenlyether	ND	420
1,4-Dichlorobenzene	ND	420	Fluorene	ND	420
Benzyl Alcohol	ND	420	4-Nitroaniline	ND	2100
1,2-Dichlorobenzene	ND	420	N-Nitrosodiphenylamine	ND	420
bis(2-chloroisopropyl)Ether	ND	420	4-Bromophenyl-phenylether	ND	420
N-Nitroso-Di-n-Propylamine	ND	420	Hexachlorobenzene	ND	420
Hexachloroethane	ND	420	Phenanthrene	ND	420
Nitrobenzene	ND	420	Anthracene	ND	420
Isophorone	ND	420	Di-n-Butylphthalate	ND	420
Benzoic Acid	ND	2100	Fluoranthene	ND	420
bis(-2-Chloroethoxy)Methane	ND	420	Pyrene	ND	420
1,2,4-Trichlorobenzene	ND	420	Butylbenzylphthalate	ND	420
Naphthalene	ND	420	3,3'-Dichlorobenzidine	ND	850
4-Chloroaniline	ND	420	Benzo(a)Anthracene	ND	420
Hexachlorobutadiene	ND	420	Bis(2-Ethylhexyl)Phthalate	ND	420
2-Methylnaphthalene	ND	420	Chrysene	ND	420
Hexachlorocyclopentadiene	ND	420	Di-n-Octyl Phthalate	ND	420
2-Chloronaphthalene	ND	420	Benzo(b)fluoranthene	ND	420
2-Nitroaniline	ND	2100	Benzo(k)Fluoranthene	ND	420
Dimethyl Phthalate	ND	420	Benzo(a)Pyrene	ND	420
Acenaphthylene	ND	420	Indeno(1,2,3-cd)Pyrene	ND	420
3-Nitroaniline	ND	2100	Dibenzo(a,h)Anthracene	ND	420
Acenaphthene	ND	420	Benzo(g,h,i)Perylene	ND	420
Dibenzofuran	ND	420	Benzidine	ND	850
2,4-Dinitrotoluene	ND	420			

Percent Solid of 78.0 is used for all Target compounds.

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

E1 EPA SAMPLE NUMBER

semi-VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

BLDG 2500
SITE M

Client: US Army, Ft. Monmouth, NJ

Comments: OVA: ND

Matrix: (soil/water) SOIL

Lab Sample ID: A1553

Sample wt/vol: 30 (g/mL) GM

Lab File ID: >C1179

Level: LOW

Date Received: NA

% Moisture: 22

Date Analyzed 05/06/93

Extraction: (Sepf/Cont/Sonc) SONC

Date Extracted 04/14/93

GPC (Y or N): N

Column: DB-5

Dilution Factor: 1

Number TICs Found 3

CONCENTRATION UNITS
(ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST CONC
1	79005	Ethane, 1,1,2-trichloro- (8CI9CI)	4.07	260
2	79345	Ethane, 1,1,2,2-tetrachloro- (8CI9CI)	7.65	600
3		UNKNOWN	30.50	300

QUANT REPORT

Operator ID: JEFF
Output File: ^C1179::D2
Data File: >C1179::ED
Name: A1553
Misc: 050693

Quant Rev: 6 Quant Time: 930506 15:12
Injected at: 930506 14:33
Dilution Factor: 1.00000

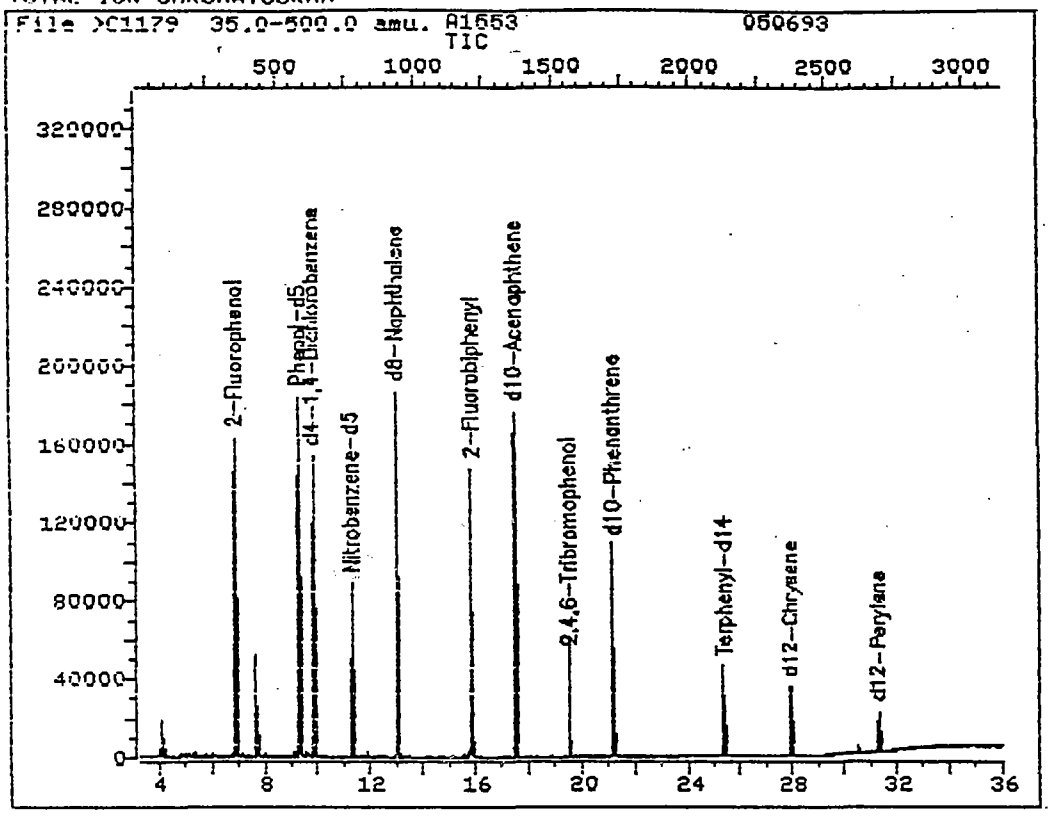
BTL# 5

ID File: IDHSLC::D3
Title: hSL BNA STD
Last Calibration: 930506 07:48

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	9.79	624	69333	40.00	UG/L	96
4)	2-Fluorophenol	6.87	344	81196	71.40	UG/L	96
5)	Phenol-d5	9.28	575	120946	78.46	UG/L	81
18)	*d8-Naphthalene	12.98	929	162294	40.00	UG/L	87
19)	Nitrobenzene-d5	11.25	764	52900	32.90	UG/L	85
33)	*d10-Acenaphthene	17.46	1359	83814	40.00	UG/L	94
38)	2-Fluorobiphenyl	15.83	1203	95329	34.27	UG/L	92
53)	*d10-Phenanthrene	21.15	1713	94542	40.00	UG/L	99
56)	2,4,6-Tribromophenol	19.47	1552	10988	129.84	UG/L	93
64)	*d12-Chrysene	27.89	2359	30379	40.00	UG/L	97
67)	Terphenyl-d14	25.34	2114	34807	21.63	UG/L	91
73)	*d12-Perylene	31.27	2682	18021	40.00	UG/L	92

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >C1179::ED Quant Output File: ^C1179::D2
Name: A1553
Misc: 050693 BTL# 5

Id File: IDHSLC::D3
Title: hSL BNA STD
Last Calibration: 930506 07:48

Operator ID: JEFF
Quant Time: 930506 15:12
Injected at: 930506 14:33

21st Century Environmental Inc.
VOLATILE ORGANIC ANALYSIS DATA

JOB NUMBER	US ARMY FT. MONMOUTH NJ	MATRIX	Soil
SAMPLE NUMBER	A1554	DILUTION FACTOR	1.00
CLIENT ID	SITE N BLDG 2500	COMMENTS	QUA ND
DATA FILE	>A1306	DATE ANALYZED	04/22/93

COMPOUND	UG/KG	MDL	COMPOUND	UG/KG	MDL
Acrolein	ND	62	Bromodichloromethane	ND	6
Acrylonitrile	ND	62	2-Chloroethylvinylether	ND	12
Chloromethane	ND	12	2-Hexanone	ND	12
Bromomethane	ND	12	trans-1,3-Dichloropropene	ND	6
Vinyl Chloride	ND	12	Toluene	ND	6
Chloroethane	ND	12	cis-1,3-Dichloropropene	ND	6
Acetone	3.8 JB	12	1,1,2,2-Tetrachloroethane	ND	6
1,1-Dichloroethene	ND	6	1,1,2-Trichloroethane	ND	6
Carbon Disulfide	ND	12	4-Methyl-2-pentanone	ND	12
Methylene Chloride	2.5 J	6	Tetrachloroethene	ND	6
1,2-Dichloroethene(trans)	ND	6	Dibromochloromethane	ND	6
1,1-Dichloroethane	ND	6	Chlorobenzene	ND	6
Vinyl Acetate	ND	6	Ethylbenzene	ND	6
2-Butanone	ND	12	m&p-Xylenes	ND	6
Chloroform	ND	6	o-Xylene	ND	6
1,1,1-Trichloroethane	ND	6	Styrene	ND	6
Carbon Tetrachloride	ND	6	Bromoform	ND	6
1,2-Dichloroethane	ND	6	m-Dichlorobenzene	ND	6
Benzene	ND	6	p-Dichlorobenzene	ND	6
Trichloroethene	ND	6	o-Dichlorobenzene	ND	6
1,2-Dichloropropane	ND	6			

SURROGATE COMPOUNDS	% RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	101	70 - 121	OK
Toluene-d8	98.4	81 - 117	OK
Bromofluorobenzene	99.4	74 - 121	OK

Percent Solid of 81.0 is used for all Target compounds.

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SITE N

Lab Name:21st Century Environmental

Client Name: US ARMY FT. MONMOUTH, NJ

Client ID: BLDG 2500

Matrix: (soil/water) Soil

Lab Sample ID: A1554

Sample wt/vol: 5 (g/mL) g

Lab File ID: >A1306

Level: (low/med) LOW

Date Received: 04/14/93

% Moisture: 19

Date Analyzed: 04/22/93

Column: DB-624

Dilution Factor: 1

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	No Unknowns			

FORM I VOA-TIC

1/87 Rev.

00202

QUANT REPORT

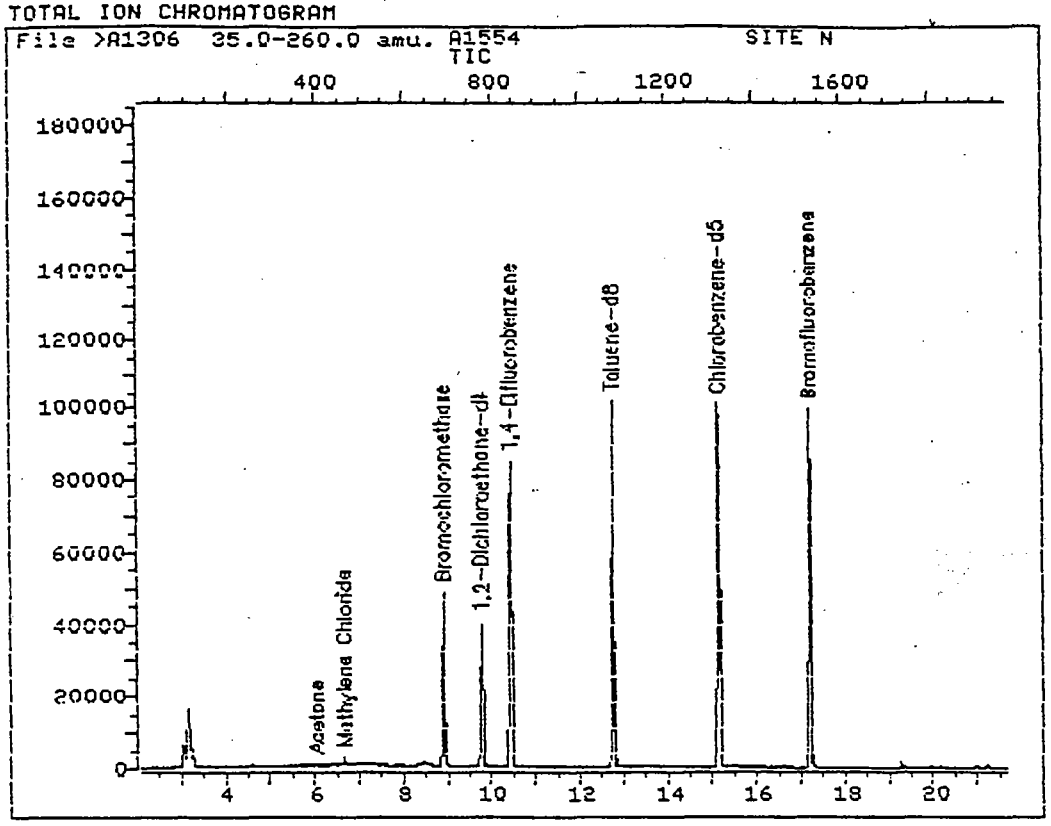
erator ID: JEFF Quant Rev: 6 Quant Time: 930422 22:56
utput File: ^A1306::QT Injected at: 930422 22:25
Data File: >A1306::D2 Dilution Factor: 1.00000
me: A1554
sc: SITE N 5.0g

File: ID0127::M1
tle: USEPA 624 VOLATILES
Last Calibration: 930422 16:06

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*Bromochloromethane	8.88	686	26121	50.00	UG/L	100
)	Acetone	6.03	398	1251	3.07	UG/L	84
)	Methylene Chloride	6.66	461	2229	2.05	UG/L	79
21)	1,2-Dichloroethane-d4	9.76	774	54518	50.38	UG/L	100
)	*1,4-Difluorobenzene	10.42	841	127234	50.00	UG/L	100
)	Toluene-d8	12.74	1075	130901	49.20	UG/L	100
53)	*Chlorobenzene-d5	15.12	1316	111045	50.00	UG/L	100
46)	Bromofluorobenzene	17.18	1524	67657	49.68	UG/L	100

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >A1306::D2 Quant Output File: ^A1306::QT
Name: A1554
Misc: SITE N 5.0g

Id File: ID0127::M1
Title: USEPA 624 VOLATILES
Last Calibration: 930422 16:06

Operator ID: JEFF
Quant Time: 930422 22:56
Injected at: 930422 22:25

21ST CENTURY Environmental
SEMIVOLATILE ANALYSIS DATA

JOB NUMBER	US ARMY, FT. MONMOUTH, NJ	MATRIX	Soil
SAMPLE NUMBER	A1554	DILUTION FACTOR	1.00
CLIENT ID	BLDG 2500, SITE N	COMMENTS	OVA: ND
DATA FILE	>C1180	DATE ANALYZED	05/06/93

COMPOUND	UG/KG	MDL	COMPOUND	UG/KG	MDL
N-Nitrosodimethylamine	ND	410	2,6-Dinitrotoluene	ND	410
bis(-2-Chloroethyl)Ether	ND	410	Diethylphthalate	ND	410
1,3-Dichlorobenzene	ND	410	4-Chlorophenyl-phenlyether	ND	410
1,4-Dichlorobenzene	ND	410	Fluorene	ND	410
Benzyl Alcohol	ND	410	4-Nitroaniline	ND	2000
1,2-Dichlorobenzene	ND	410	N-Nitrosodiphenylamine	ND	410
bis(2-chloroisopropyl)Ether	ND	410	4-Bromophenyl-phenylether	ND	410
N-Nitroso-Di-n-Propylamine	ND	410	Hexachlorobenzene	ND	410
Hexachloroethane	ND	410	Phenanthrene	ND	410
Nitrobenzene	ND	410	Anthracene	ND	410
Isophorone	ND	410	Di-n-Butylphthalate	ND	410
Benzoic Acid	ND	2000	Fluoranthene	ND	410
bis(-2-Chloroethoxy)Methane	ND	410	Pyrene	ND	410
1,2,4-Trichlorobenzene	ND	410	Butylbenzylphthalate	ND	410
Naphthalene	ND	410	3,3'-Dichlorobenzidine	ND	810
4-Chloroaniline	ND	410	Benzo(a)Anthracene	ND	410
Hexachlorobutadiene	ND	410	Bis(2-Ethylhexyl)Phthalate	ND	410
2-Methylnaphthalene	ND	410	Chrysene	ND	410
Hexachlorocyclopentadiene	ND	410	Di-n-Octyl Phthalate	ND	410
2-Chloronaphthalene	ND	410	Benzo(b)fluoranthene	ND	410
2-Nitroaniline	ND	2000	Benzo(k)Fluoranthene	ND	410
Dimethyl Phthalate	ND	410	Benzo(a)Pyrene	ND	410
Acenaphthylene	ND	410	Indeno(1,2,3-cd)Pyrene	ND	410
3-Nitroaniline	ND	2000	Dibenzo(a,h)Anthracene	ND	410
Acenaphthene	ND	410	Benzo(g,h,i)Perylene	ND	410
Dibenzofuran	ND	410	Benzidine	ND	810
2,4-Dinitrotoluene	ND	410			

Percent Solid of 81.0 is used for all Target compounds.

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

E1

EPA SAMPLE NUMBER

semi-VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

BLDG 2500
SITE N

Client: US Army, Ft. Monmouth, NJ

Comments: OVA: ND

Matrix: (soil/water) SOIL

Lab Sample ID: A1554

Sample wt/vol: 30 (g/mL) GM

Lab File ID: >C1180

Level: LOW

Date Received: NA

% Moisture: 29

Date Analyzed 05/06/93

Extraction: (Sepf/Cont/Sonc) SONC

Date Extracted 04/14/93

GPC (Y or N): N

Column: DB-5

Dilution Factor: 1

Number TICs Found 2

CONCENTRATION UNITS
(ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST CONC
1	79005	Ethane, 1,1,2-trichloro- (8CI9CI)	4.07	210
2	79345	Ethane, 1,1,2,2-tetrachloro- (8CI9CI)	7.66	530

QUANT REPORT

Operator ID: JEFF
Output File: ^C1180::D2
Data File: >C1180::ED
Name: A1554
Misc: 050693

Quant Rev: 6 Quant Time: 930506 16:00
Injected at: 930506 15:21
Dilution Factor: 1.00000

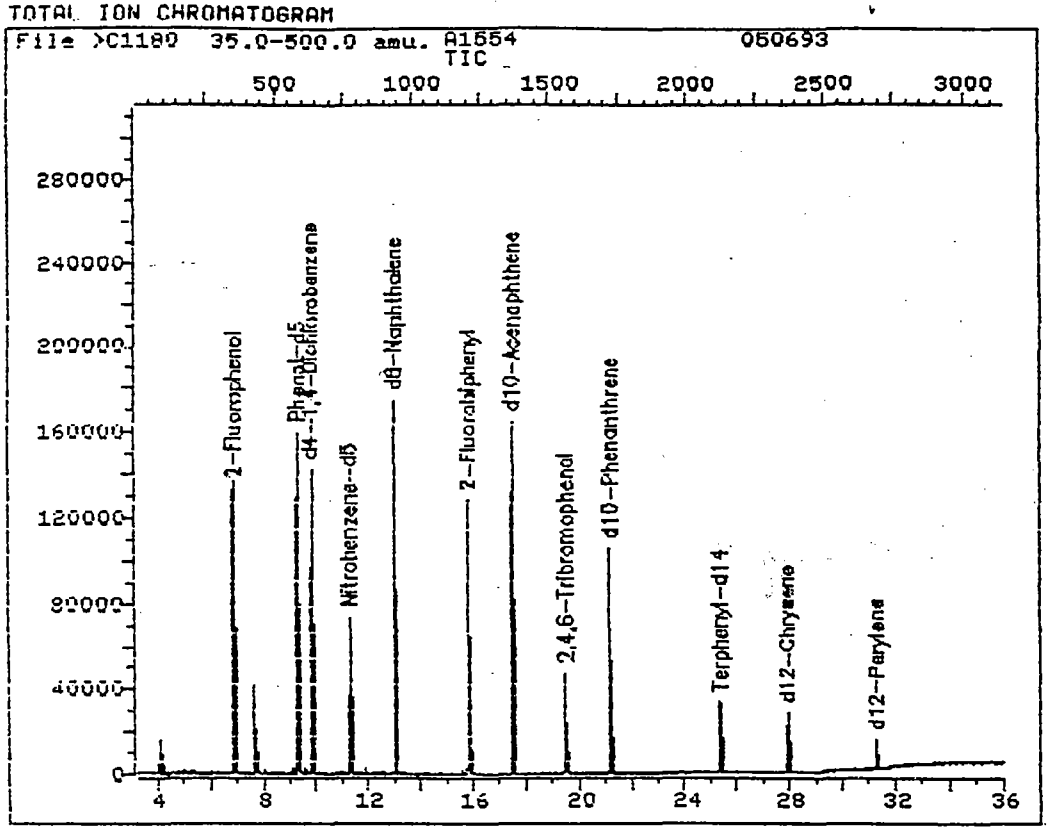
BTL# 6

ID File: IDHSLC::D3
Title: hSL BNA STD
Last Calibration: 930506 07:48

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	9.79	624	63471	40.00	UG/L	97
4)	2-Fluorophenol	6.86	343	69397	66.66	UG/L	93
5)	Phenol-d5	9.28	575	104058	73.74	UG/L	81
18)	*d8-Naphthalene	12.97	929	148941	40.00	UG/L	87
19)	Nitrobenzene-d5	11.25	764	44870	30.40	UG/L	84
33)	*d10-Acenaphthene	17.46	1359	75272	40.00	UG/L	96
38)	2-Fluorobiphenyl	15.83	1203	78434	31.40	UG/L	93
53)	*d10-Phenanthrene	21.16	1714	85501	40.00	UG/L	99
56)	2,4,6-Tribromophenol	19.48	1553	8076	105.52	UG/L	95
64)	*d12-Chrysene	27.90	2360	23185	40.00	UG/L	98
67)	Terphenyl-d14	25.33	2114	26609	21.66	UG/L	91
73)	*d12-Perylene	31.27	2683	12340	40.00	UG/L	94

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >C1180::ED Quant Output File: ^C1180::D2
Name: A1554
Misc: 050693 BTL# 6

Id File: IDHSLC::D3
Title: hSL BNA STD
Last Calibration: 930506 07:48

Operator ID: JEFF
Quant Time: 930506 16:00
Injected at: 930506 15:21

21st Century Environmental Inc.
VOLATILE ORGANIC ANALYSIS DATA

JOB NUMBER	US ARMY FT, MONMOUTH NJ	MATRIX	Soil
SAMPLE NUMBER	A1555	DILUTION FACTOR	1.00
CLIENT ID	SITE 0 BLDG 2500	COMMENTS	OVA ND
DATA FILE	>A1315	DATE ANALYZED	04/23/93

COMPOUND	UG/KG	MDL	COMPOUND	UG/KG	MDL
Acrolein	ND	59	Bromodichloromethane	ND	6
Acrylonitrile	ND	59	2-Chloroethylvinylether	ND	12
Chloromethane	ND	12	2-Hexanone	ND	12
Bromomethane	ND	12	trans-1,3-Dichloropropene	ND	6
Vinyl Chloride	ND	12	Toluene	ND	6
Chloroethane	ND	12	cis-1,3-Dichloropropene	ND	6
Acetone	6.8 JB	12	1,1,2,2-Tetrachloroethane	ND	6
1,1-Dichloroethene	ND	6	1,1,2-Trichloroethane	ND	6
Carbon Disulfide	ND	12	4-Methyl-2-pentanone	ND	12
Methylene Chloride	4.7 JB	6	Tetrachloroethene	ND	6
1,2-Dichloroethene(trans)	ND	6	Dibromochloromethane	ND	6
1,1-Dichloroethane	ND	6	Chlorobenzene	ND	6
Vinyl Acetate	ND	6	Ethylbenzene	ND	6
2-Butanone	ND	12	m&p-Xylenes	ND	6
Chloroform	ND	6	o-Xylene	ND	6
1,1,1-Trichloroethane	ND	6	Styrene	ND	6
Carbon Tetrachloride	ND	6	Bromoform	ND	6
1,2-Dichloroethane	ND	6	m-Dichlorobenzene	ND	6
Benzene	ND	6	p-Dichlorobenzene	ND	6
Trichloroethene	ND	6	o-Dichlorobenzene	ND	6
1,2-Dichloropropane	ND	6			

SURROGATE COMPOUNDS	% RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	93.2	70 - 121	OK
Toluene-d8	95.6	81 - 117	OK
Bromofluorobenzene	97.3	74 - 121	OK

Percent Solid of 85.0 is used for all Target compounds.

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SITE 0

Name: 21st Century Environmental

Client Name: US ARMY FT. MONMOUTH, NJ

Client ID: BLDG 2500

Matrix: (soil/water) Soil

Lab Sample ID: A1555

Sample wt/vol: 5 (g/mL) g

Lab File ID: >A1315

Level: (low/med) LOW

Date Received: 04/14/93

Moisture: 15

Date Analyzed: 04/23/93

Column: DB-624

Dilution Factor: 1

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	No Unknowns			

FORM I VOA-TIC

1/87 Rev.

00210

QUANT REPORT

perator ID: JEFF Quant Rev: 6 Quant Time: 930423 15:46
Output File: ^A1315::QT Injected at: 930423 15:15
Data File: >A1315::D2 Dilution Factor: 1.00000
me: A1555
isc: SITE 0 BLDG 2500 5.0g

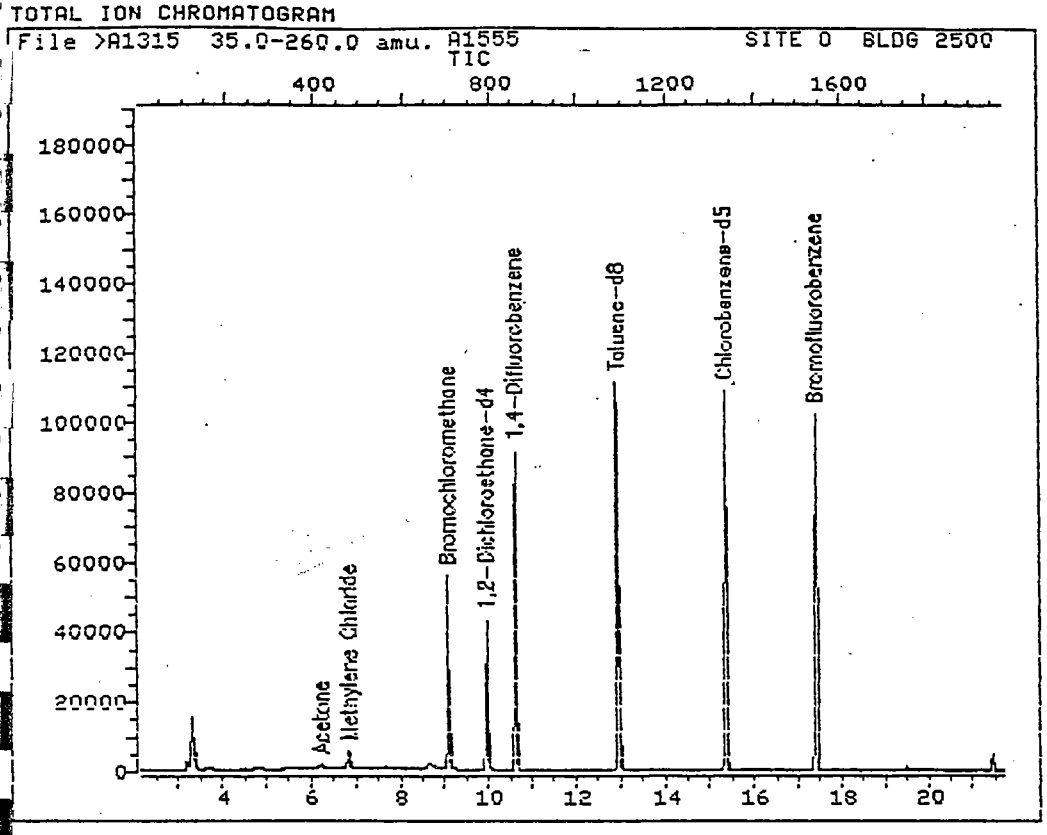
File: ID0127::M1
itle: USEPA 624 VOLATILES
Last Calibration: 930423 12:14

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*Bromochloromethane	9.08	698	30141	50.00	UG/L	100
)	Acetone	6.21	409	2691	5.80	UG/L	79
3)	Methylene Chloride	6.84	472	4813	4.02	UG/L	79
21)	1,2-Dichloroethane-d4	9.95	786	59685	46.58	UG/L	100
)	*1,4-Difluorobenzene	10.61	853	141479	50.00	UG/L	100
)	Toluene-d8	12.94	1088	142469	47.82	UG/L	100
33)	*Chlorobenzene-d5	15.35	1331	116503	50.00	UG/L	100
4)	Bromofluorobenzene	17.40	1538	70133	48.63	UG/L	100

* Compound is ISTD

00211

TOTAL ION CHROMATOGRAM



Data File: >A1315::D2 Quant Output File: ^A1315::QT
Name: A1555
Misc: SITE 0 BLDG 2500 5.0g

Id File: ID0127::M1
Title: USEPA 624 VOLATILES
Last Calibration: 930423 12:14

Operator ID: JEFF
Quant Time: 930423 15:46
Injected at: 930423 15:15

21ST CENTURY Environmental
SEMIVOLATILE ANALYSIS DATA

JOB NUMBER	US ARMY, FT. MONMOUTH, NJ	MATRIX	Soil
SAMPLE NUMBER	A1555	DILUTION FACTOR	1.00
CLIENT ID	BLDG 2500, SITE 0	COMMENTS	OVA: ND
DATA FILE	>C1188	DATE ANALYZED	05/07/93

COMPOUND	UG/KG	MDL	COMPOUND	UG/KG	MDL
N-Nitrosodimethylamine	ND	390	2,6-Dinitrotoluene	ND	390
bis(-2-Chloroethyl)Ether	ND	390	Diethylphthalate	ND	390
1,3-Dichlorobenzene	ND	390	4-Chlorophenyl-phenlyether	ND	390
1,4-Dichlorobenzene	ND	390	Fluorene	ND	390
Benzyl Alcohol	ND	390	4-Nitroaniline	ND	1900
1,2-Dichlorobenzene	ND	390	N-Nitrosodiphenylamine	ND	390
bis(2-chloroisopropyl)Ether	ND	390	4-Bromophenyl-phenylether	ND	390
N-Nitroso-Di-n-Propylamine	ND	390	Hexachlorobenzene	ND	390
Hexachloroethane	ND	390	Phenanthrene	ND	390
Nitrobenzene	ND	390	Anthracene	ND	390
Isophorone	ND	390	Di-n-Butylphthalate	ND	390
Benzoic Acid	ND	1900	Fluoranthene	ND	390
bis(-2-Chloroethoxy)Methane	ND	390	Pyrene	ND	390
1,2,4-Trichlorobenzene	ND	390	Butylbenzylphthalate	ND	390
Naphthalene	ND	390	3,3'-Dichlorobenzidine	ND	780
4-Chloroaniline	ND	390	Benzo(a)Anthracene	ND	390
Hexachlorobutadiene	ND	390	Bis(2-Ethylhexyl)Phthalate	ND	390
2-Methylnaphthalene	ND	390	Chrysene	ND	390
Hexachlorocyclopentadiene	ND	390	Di-n-Octyl Phthalate	ND	390
2-Chloronaphthalene	ND	390	Benzo(b)fluoranthene	ND	390
2-Nitroaniline	ND	1900	Benzo(k)Fluoranthene	ND	390
Dimethyl Phthalate	ND	390	Benzo(a)Pyrene	ND	390
Acenaphthylene	ND	390	Indeno(1,2,3-cd)Pyrene	ND	390
3-Nitroaniline	ND	1900	Dibenzo(a,h)Anthracene	ND	390
Acenaphthene	ND	390	Benzo(g,h,i)Perylene	ND	390
Dibenzofuran	ND	390	Benzidine	ND	780
2,4-Dinitrotoluene	ND	390			

Percent Solid of 85.0 is used for all Target compounds.

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

E1 EPA SAMPLE NUMBER

semi-VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

BLDG 2500
SITE O

Client: US Army, Ft. Monmouth, NJ

Comments: OVA: ND

Matrix: (soil/water) SOIL

Lab Sample ID: A1555

Sample wt/vol: 30 (g/mL) GM

Lab File ID: >C1188

Level: LOW

Date Received: NA

% Moisture: 15

Date Analyzed 05/07/93

Extraction: (Sepf/Cont/Sonc) SONC

Date Extracted 04/14/93

GPC (Y or N): N

Column: DB-5

Dilution Factor: 1

Number TICs Found 4

CONCENTRATION UNITS
(ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST CONC
1	79345	Ethane, 1,1,2,2-tetrachloro- (8CI9CI)	7.64	240
2		UNKNOWN	25.10	390
3		UNKNOWN	26.90	160
4		UNKNOWN	27.01	78

QUANT REPORT

Operator ID: JEFF
Output File: ^C1188::D2
Data File: >C1188::ED
Name: A1555 E-SYSTEM
Misc: 050793

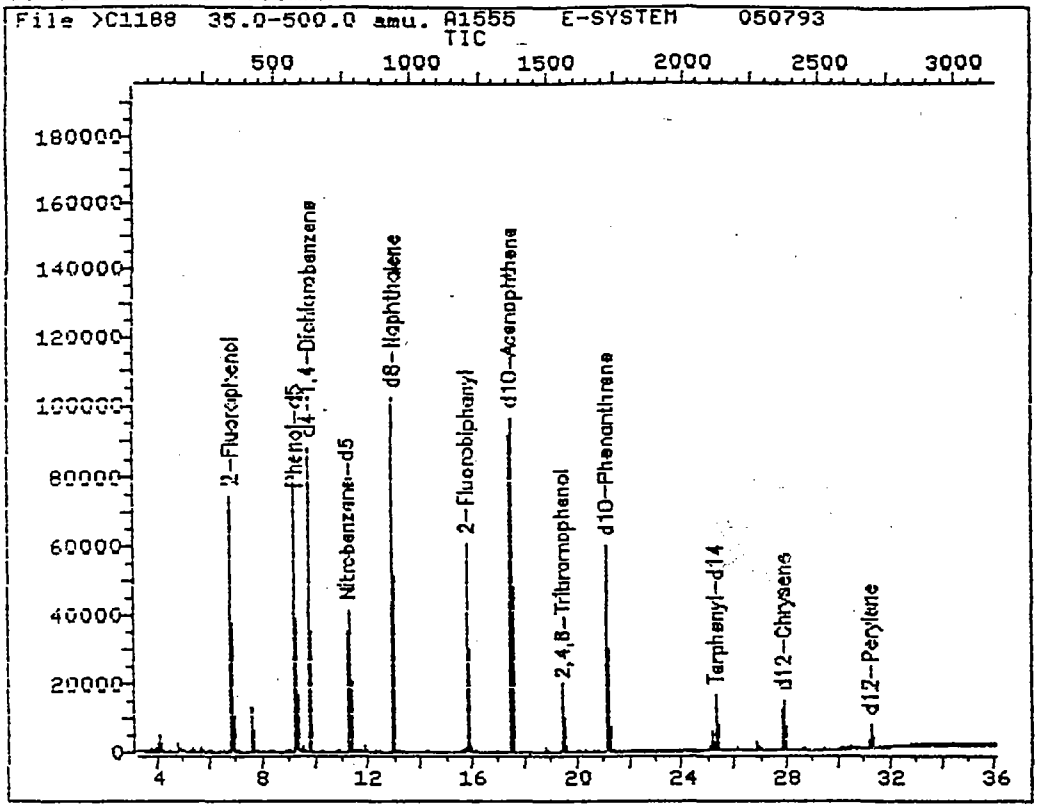
Quant Rev: 6 Quant Time: 930507 15:27
Injected at: 930507 14:40
Dilution Factor: 1.00000
BTL# 1

ID File: IDHSLC::D3
Title: hSL BNA STD
Last Calibration: 930507 15:27

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	9.76	623	39794	40.00	UG/L	96
4)	2-Fluorophenol	6.83	342	33866	48.84	UG/L	98
5)	Phenol-d5	9.24	573	52512	53.51	UG/L	82
18)	*d8-Naphthalene	12.95	929	92917	40.00	UG/L	86
19)	Nitrobenzene-d5	11.23	764	23860	19.77	UG/L	91
33)	*d10-Acenaphthene	17.43	1359	45959	40.00	UG/L	94
38)	2-Fluorobiphenyl	15.80	1202	38654	20.49	UG/L	94
53)	*d10-Phenanthrene	21.13	1714	49454	40.00	UG/L	96
56)	2,4,6-Tribromophenol	19.44	1552	2995	26.24	UG/L	90
64)	*d12-Chrysene	27.86	2360	11924	40.00	UG/L	94
67)	Terphenyl-d14	25.30	2114	11483	19.48	UG/L	93
73)	*d12-Perylene	31.23	2683	5993	40.00	UG/L	94

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >C1188::ED
Name: A1555 E-SYSTEM
Misc: 050793

Quant Output File: ^C1188::D2

BTL# 1

Id File: IDHSLC::D3
Title: hSL BNA STD
Last Calibration: 930507 15:27

Operator ID: JEFF
Quant Time: 930507 15:27
Injected at: 930507 14:40

21st Century Environmental Inc.
VOLATILE ORGANIC ANALYSIS DATA

JOB NUMBER	US ARMY FT. MONMOUTH NJ	MATRIX	Soil
SAMPLE NUMBER	A1556	DILUTION FACTOR	1.00
CLIENT ID	SITE P BLDG 2500	COMMENTS	QUA ND
DATA FILE	>A1316	DATE ANALYZED	04/23/93

COMPOUND	UG/KG	MDL	COMPOUND	UG/KG	MDL
Acrolein	ND	60	Bromodichloromethane	ND	6
Acrylonitrile	ND	60	2-Chloroethylvinylether	ND	12
Chloromethane	ND	12	2-Hexanone	ND	12
Bromomethane	ND	12	trans-1,3-Dichloropropene	ND	6
Vinyl Chloride	ND	12	Toluene	ND	6
Chloroethane	ND	12	cis-1,3-Dichloropropene	ND	6
Acetone	5.4 JB	12	1,1,2,2-Tetrachloroethane	ND	6
1,1-Dichloroethene	ND	6	1,1,2-Trichloroethane	ND	6
Carbon Disulfide	ND	12	4-Methyl-2-pentanone	ND	12
Methylene Chloride	3.2 JB	6	Tetrachloroethene	ND	6
1,2-Dichloroethene(trans)	ND	6	Dibromochloromethane	ND	6
1,1-Dichloroethane	ND	6	Chlorobenzene	ND	6
Vinyl Acetate	ND	6	Ethylbenzene	ND	6
2-Butanone	ND	12	m&p-Xylenes	ND	6
Chloroform	ND	6	o-Xylene	ND	6
1,1,1-Trichloroethane	ND	6	Styrene	ND	6
Carbon Tetrachloride	ND	6	Bromoform	ND	6
1,2-Dichloroethane	ND	6	m-Dichlorobenzene	ND	6
Benzene	ND	6	p-Dichlorobenzene	ND	6
Trichloroethene	ND	6	o-Dichlorobenzene	ND	6
1,2-Dichloropropane	ND	6			

SURROGATE COMPOUNDS	% RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	96.0	70 - 121	OK
Toluene-d8	95.0	81 - 117	OK
Bromofluorobenzene	98.3	74 - 121	OK

Percent Solid of 84.0 is used for all Target compounds.

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SITE P

Lab Name: 21st Century Environmental

Client Name: US ARMY FT. MONMOUTH, NJ

Client ID: BLDG 2500

Matrix: (soil/water) Soil

Lab Sample ID: A1556

Sample wt/vol: 5 (g/mL) g

Lab File ID: >A1316

Level: (low/med) LOW

Date Received: 04/14/93

% Moisture: 16

Date Analyzed: 04/23/93

Column: DB-624

Dilution Factor: 1

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	No Unknowns			

FORM I VOA-TIC

1/87 Rev.

00218

QUANT REPORT

perator ID: JEFF Quant Rev: 6 Quant Time: 930423 16:22
Output File: ^A1316::QT Injected at: 930423 15:52
Data File: >A1316::D2 Dilution Factor: 1.00000
me: A1556
isc: SITE P BLDG 2500 5.0g

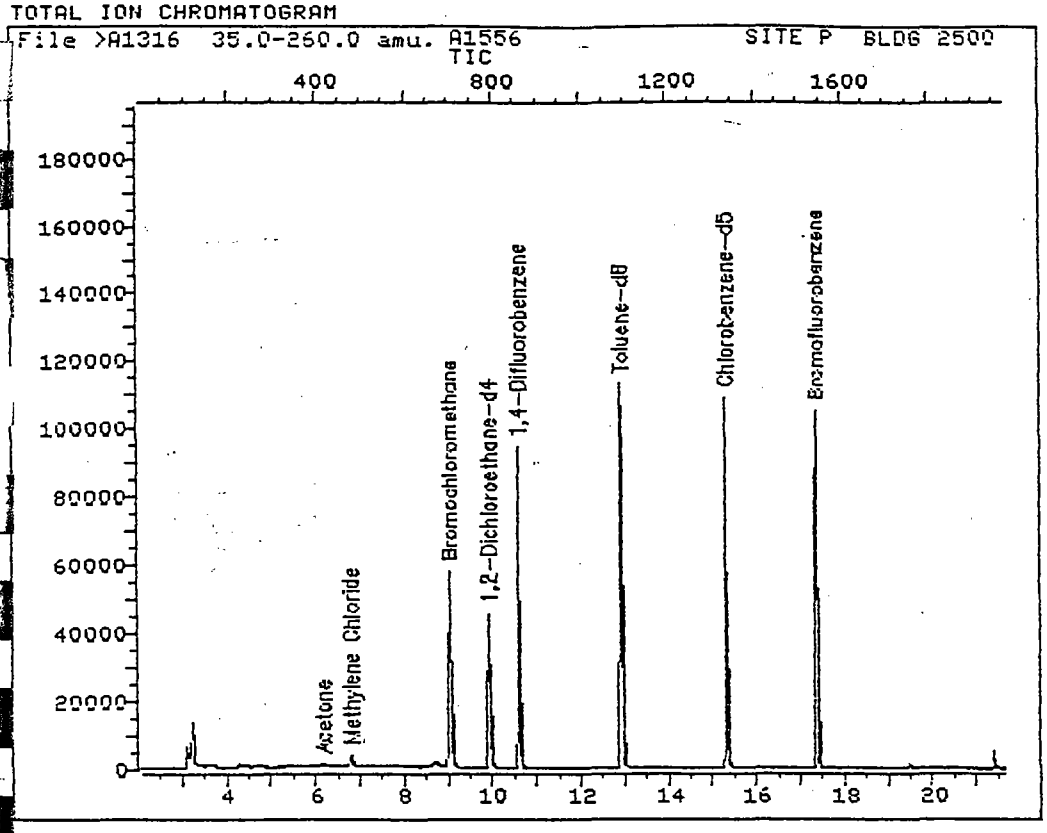
) File: ID0127::M1
itle: USEPA 624 VOLATILES
Last Calibration: 930423 12:14

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*Bromochloromethane	9.05	702	31275	50.00	UG/L	100
9)	Acetone	6.18	413	2188	4.54	UG/L	79
5)	Methylene Chloride	6.81	476	3341	2.69	UG/L	79
21)	1,2-Dichloroethane-d4	9.94	791	63835	48.01	UG/L	100
2)	*1,4-Difluorobenzene	10.60	858	144455	50.00	UG/L	100
1)	Toluene-d8	12.92	1092	144541	47.51	UG/L	100
33)	*Chlorobenzene-d5	15.32	1334	118771	50.00	UG/L	100
6)	Bromofluorobenzene	17.37	1541	72296	49.17	UG/L	100

* Compound is ISTD

00219

TOTAL ION CHROMATOGRAM



Data File: >A1316::D2 Quant Output File: ^A1316::QT
Name: A1556
Misc: SITE P BLDG 2500 5.0g

Id File: ID0127::M1
Title: USEPA 624 VOLATILES
Last Calibration: 930423 12:14

Operator ID: JEFF
Quant Time: 930423 16:22
Injected at: 930423 15:52

21ST CENTURY Environmental
SEMIVOLATILE ANALYSIS DATA

JOB NUMBER	US ARMY, FT. MONMOUTH, NJ	MATRIX	Soil
SAMPLE NUMBER	A1556	DILUTION FACTOR	1.00
CLIENT ID	BLDG 2500, SITE P	COMMENTS	QUA: ND
DATA FILE	>C1190	DATE ANALYZED	05/07/93

COMPOUND	UG/KG	MDL	COMPOUND	UG/KG	MDL
N-Nitrosodimethylamine	ND	390	2,6-Dinitrotoluene	ND	390
bis(-2-Chloroethyl)Ether	ND	390	Diethylphthalate	ND	390
1,3-Dichlorobenzene	ND	390	4-Chlorophenyl-phenlyether	ND	390
1,4-Dichlorobenzene	ND	390	Fluorene	ND	390
Benzyl Alcohol	ND	390	4-Nitroaniline	ND	2000
1,2-Dichlorobenzene	ND	390	N-Nitrosodiphenylamine	ND	390
bis(2-chloroisopropyl)Ether	ND	390	4-Bromophenyl-phenylether	ND	390
N-Nitroso-Di-n-Propylamine	ND	390	Hexachlorobenzene	ND	390
Hexachloroethane	ND	390	Phenanthrene	ND	390
Nitrobenzene	ND	390	Anthracene	ND	390
Isophorone	ND	390	Di-n-Butylphthalate	ND	390
Benzoic Acid	ND	2000	Fluoranthene	ND	390
bis(-2-Chloroethoxy)Methane	ND	390	Pyrene	ND	390
1,2,4-Trichlorobenzene	ND	390	Butylbenzylphthalate	ND	390
Naphthalene	ND	390	3,3'-Dichlorobenzidine	ND	780
4-Chloroaniline	ND	390	Benzo(a)Anthracene	ND	390
Hexachlorobutadiene	ND	390	Bis(2-Ethylhexyl)Phthalate	ND	390
2-Methylnaphthalene	ND	390	Chrysene	ND	390
Hexachlorocyclopentadiene	ND	390	Di-n-Octyl Phthalate	ND	390
2-Chloronaphthalene	ND	390	Benzo(b)fluoranthene	ND	390
2-Nitroaniline	ND	2000	Benzo(k)Fluoranthene	ND	390
Dimethyl Phthalate	ND	390	Benzo(a)Pyrene	ND	390
Acenaphthylene	ND	390	Indeno(1,2,3-cd)Pyrene	ND	390
3-Nitroaniline	ND	2000	Dibenzo(a,h)Anthracene	ND	390
Acenaphthene	ND	390	Benzo(g,h,i)Perylene	ND	390
Dibenzofuran	ND	390	Benzidine	ND	780
2,4-Dinitrotoluene	ND	390			

Percent Solid of 84.0 is used for all Target compounds.

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

E1

EPA SAMPLE NUMBER

semi-VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

BLDG 2500
SITE P

Client: US Army, Ft. Monmouth, NJ

Comments: OVA: ND

Matrix: (soil/water) SOIL

Lab Sample ID: A1556

Sample wt/vol: 30 (g/mL) GM

Lab File ID: >C1190

Level: LOW

Date Received: NA

% Moisture: 16

Date Analyzed 05/07/93

Extraction: (Sepf/Cont/Sonc) SONC

Date Extracted 04/14/93

GPC (Y or N): N

Column: DB-5

Dilution Factor: 1

Number TICs Found 1

CONCENTRATION UNITS
(ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST CONC
1	79345	Ethane, 1,1,2,2-tetrachloro- (8CI9CI)	7.63	320

QUANT REPORT

Operator ID: JEFF
Output File: ^C1190::D2
Data File: >C1190::E4
Name: A1556 E-SYSTEM
Misc: 050793

Quant Rev: 6 Quant Time: 930507 16:55
Injected at: 930507 16:16
Dilution Factor: 1.00000

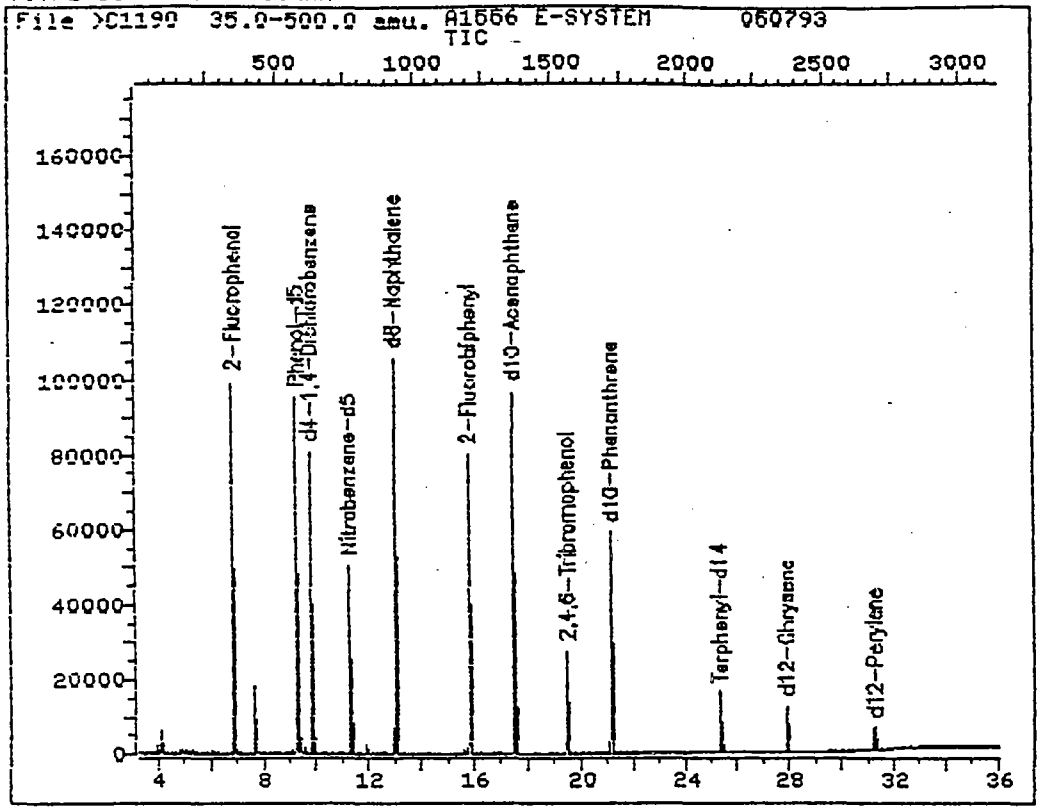
BTL# 1

ID File: IDHSLC::D3
Title: hSL BNA STD
Last Calibration: 930507 15:27

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	9.77	622	36703	40.00	UG/L	94
4)	2-Fluorophenol	6.84	341	44464	69.53	UG/L	98
5)	Phenol-d5	9.24	572	68718	75.92	UG/L	81
18)	*d8-Naphthalene	12.94	927	87814	40.00	UG/L	87
19)	Nitrobenzene-d5	11.23	762	30340	26.60	UG/L	90
33)	*d10-Acenaphthene	17.43	1357	43420	40.00	UG/L	93
38)	2-Fluorobiphenyl	15.80	1201	47799	26.82	UG/L	94
53)	*d10-Phenanthrene	21.13	1712	46417	40.00	UG/L	99
56)	2,4,6-Tribromophenol	19.45	1551	3198	29.86	UG/L	93
64)	*d12-Chrysene	27.86	2358	9825	40.00	UG/L	90
67)	Terphenyl-d14	25.29	2112	12115	24.94	UG/L	95
73)	*d12-Perylene	31.22	2681	5253	40.00	UG/L	96

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >C1190::E4 Quant Output File: ^C1190::D2
Name: A1556 E-SYSTEM
Misc: 050793 BTL# 1

Id File: IDHSLC::D3
Title: hSL BNA STD
Last Calibration: 930507 15:27

Operator ID: JEFF
Quant Time: 930507 16:55
Injected at: 930507 16:16

21st Century Environmental Inc.
VOLATILE ORGANIC ANALYSIS DATA

JOB NUMBER	US ARMY FT. MONMOUTH NJ	MATRIX	Soil
SAMPLE NUMBER	A1557	DILUTION FACTOR	1.00
CLIENT ID	SITE Q BLDG 2500	COMMENTS	OVA ND
DATA FILE	>A1317	DATE ANALYZED	04/23/93

COMPOUND	UG/KG	MDL	COMPOUND	UG/KG	MDL
Acrolein	ND	59	Bromodichloromethane	ND	6
Acrylonitrile	ND	59	2-Chloroethylvinylether	ND	12
Chloromethane	ND	12	2-Hexanone	ND	12
Bromomethane	ND	12	trans-1,3-Dichloropropene	ND	6
Vinyl Chloride	ND	12	Toluene	ND	6
Chloroethane	ND	12	cis-1,3-Dichloropropene	ND	6
Acetone	5.2 JB	12	1,1,2,2-Tetrachloroethane	ND	6
1,1-Dichloroethene	ND	6	1,1,2-Trichloroethane	ND	6
Carbon Disulfide	ND	12	4-Methyl-2-pentanone	ND	12
Methylene Chloride	3.0 JB	6	Tetrachloroethene	ND	6
1,2-Dichloroethene(trans)	ND	6	Dibromochloromethane	ND	6
1,1-Dichloroethane	ND	6	Chlorobenzene	ND	6
Vinyl Acetate	ND	6	Ethylbenzene	ND	6
2-Butanone	ND	12	m&p-Xylenes	ND	6
Chloroform	ND	6	o-Xylene	ND	6
1,1,1-Trichloroethane	ND	6	Styrene	ND	6
Carbon Tetrachloride	ND	6	Bromoform	ND	6
1,2-Dichloroethane	ND	6	m-Dichlorobenzene	ND	6
Benzene	ND	6	p-Dichlorobenzene	ND	6
Trichloroethene	ND	6	o-Dichlorobenzene	ND	6
1,2-Dichloropropane	ND	6			

SURROGATE COMPOUNDS	% RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	95.8	70 - 121	OK
Toluene-d8	96.7	81 - 117	OK
Bromofluorobenzene	97.8	74 - 121	OK

Percent Solid of 85.0 is used for all Target compounds.

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SITE Q

Lab Name:21st Century Environmental

Client Name: US ARMY FT. MONMOUTH, NJ

Client ID: BLDG 2500

Matrix: (soil/water) Soil

Lab Sample ID: A1557

Sample wt/vol: 5 (g/mL) g

Lab File ID: >A1317

Level: (low/med) LOW

Date Received: 04/14/93

% Moisture: 15

Date Analyzed: 04/23/93

Column: DB-624

Dilution Factor: 1

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	No Unknowns			

FORM I VOA-TIC 1/87 Rev.

00226

QUANT REPORT

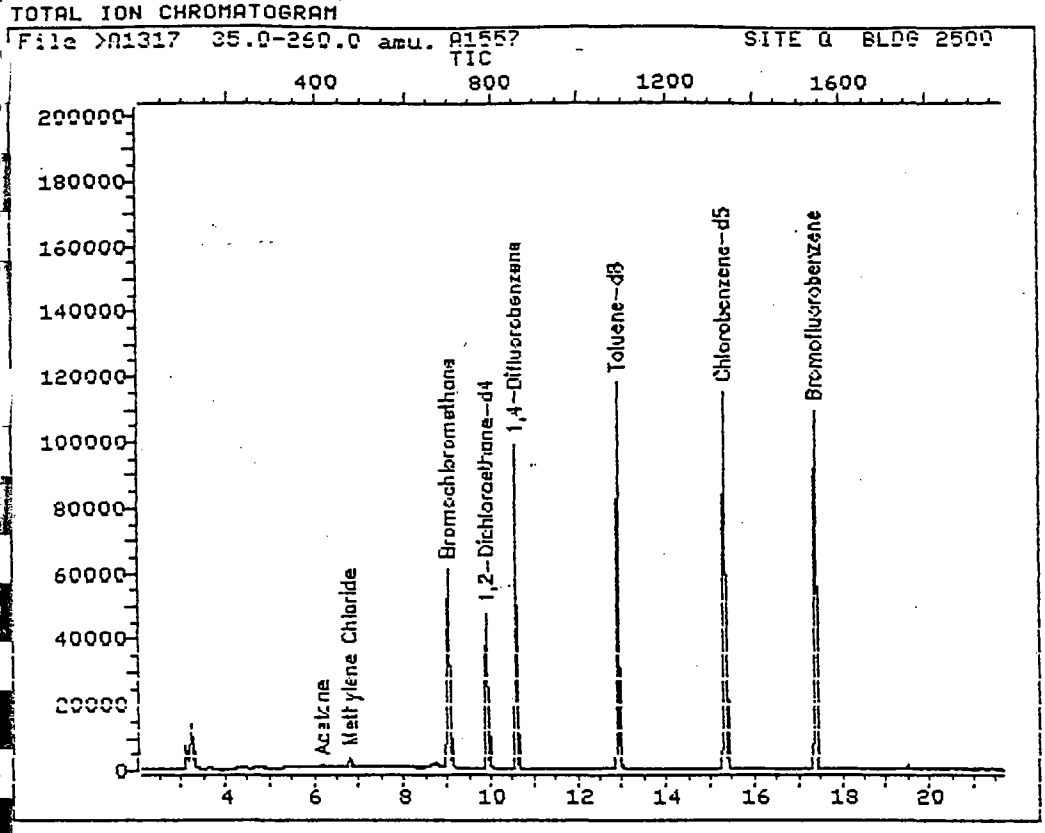
erator ID: JEFF Quant Rev: 6 Quant Time: 930423 16:58
Output File: ^A1317::QT Injected at: 930423 16:27
ta File: >A1317::D2 Dilution Factor: 1.00000
me: A1557
isc: SITE Q BLDG 2500 5.0g

File: ID0127::M1
tle: USEPA 624 VOLATILES
ast Calibration: 930423 12:14

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*Bromochloromethane	9.02	697	32524	50.00	UG/L	100
)	Acetone	6.16	408	2204	4.40	UG/L	79
5)	Methylene Chloride	6.78	471	3249	2.51	UG/L	79
21)	1,2-Dichloroethane-d4	9.90	786	66260	47.92	UG/L	100
)	*1,4-Difluorobenzene	10.57	853	150274	50.00	UG/L	100
)	Toluene-d8	12.89	1086	152996	48.35	UG/L	100
33)	*Chlorobenzene-d5	15.31	1330	124970	50.00	UG/L	100
)	Bromofluorobenzene	17.36	1537	75627	48.89	UG/L	100

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >A1317::D2 Quant Output File: ^A1317::QT
Name: A1557
Misc: SITE Q BLDG 2500 5.0g

Id File: ID0127::M1
Title: USEPA 624 VOLATILES
Last Calibration: 930423 12:14

Operator ID: JEFF
Quant Time: 930423 16:58
Injected at: 930423 16:27

Bridgeport Environmental
SEMIVOLATILE ANALYSIS DATA

JOB NUMBER	US ARMY, FT. MONMOUTH, NJ	MATRIX	Soil
SAMPLE NUMBER	A1557	DILUTION FACTOR	1.00
CLIENT ID	BLDG 2500, SITE Q	COMMENTS	OVA: ND
DATA FILE	>C1191	DATE ANALYZED	05/07/93

COMPOUND	UG/KG	MDL	COMPOUND	UG/KG	MDL
N-Nitrosodimethylamine	ND	390	2,6-Dinitrotoluene	ND	390
bis(-2-Chloroethyl)Ether	ND	390	Diethylphthalate	ND	390
1,3-Dichlorobenzene	ND	390	4-Chlorophenyl-phenlyether	ND	390
1,4-Dichlorobenzene	ND	390	Fluorene	ND	390
Benzyl Alcohol	ND	390	4-Nitroaniline	ND	1900
1,2-Dichlorobenzene	ND	390	N-Nitrosodiphenylamine	ND	390
bis(2-chloroisopropyl)Ether	ND	390	4-Bromophenyl-phenylether	ND	390
N-Nitroso-Di-n-Propylamine	ND	390	Hexachlorobenzene	ND	390
Hexachloroethane	ND	390	Phenanthrene	ND	390
Nitrobenzene	ND	390	Anthracene	ND	390
Isophorone	ND	390	Di-n-Butylphthalate	ND	390
Benzoic Acid	ND	1900	Fluoranthene	ND	390
bis(-2-Chloroethoxy)Methane	ND	390	Pyrene	ND	390
1,2,4-Trichlorobenzene	ND	390	Butylbenzylphthalate	ND	390
Naphthalene	ND	390	3,3'-Dichlorobenzidine	ND	780
4-Chloroaniline	ND	390	Benzo(a)Anthracene	ND	390
Hexachlorobutadiene	ND	390	Bis(2-Ethylhexyl)Phthalate	ND	390
2-Methylnaphthalene	ND	390	Chrysene	ND	390
Hexachlorocyclopentadiene	ND	390	Di-n-Octyl Phthalate	ND	390
2-Chloronaphthalene	ND	390	Benzo(b)fluoranthene	ND	390
2-Nitroaniline	ND	1900	Benzo(k)Fluoranthene	ND	390
Dimethyl Phthalate	ND	390	Benzo(a)Pyrene	ND	390
Acenaphthylene	ND	390	Indeno(1,2,3-cd)Pyrene	ND	390
3-Nitroaniline	ND	1900	Dibenzo(a,h)Anthracene	ND	390
Acenaphthene	ND	390	Benzo(g,h,i)Perylene	ND	390
Dibenzofuran	ND	390	Benzidine	ND	780
2,4-Dinitrotoluene	ND	390			

Percent Solid of 85.0 is used for all Target compounds.

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

E1

EPA SAMPLE NUMBER

semi-VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

BLDG 2500
SITE Q

Client: US Army, Ft. Monmouth, NJ

Comments: HNU: ND

Matrix: (soil/water) SOIL

Lab Sample ID: A1557

Sample wt/vol: 30 (g/mL) GM

Lab File ID: >C1191

Level: LOW

Date Received: NA

% Moisture: 15

Date Analyzed 05/07/93

Extraction: (Sepf/Cont/Sonc) SONC

Date Extracted 04/14/93

GPC (Y or N): N

Column: DB-5

Dilution Factor: 1

Number TICs Found 2

CONCENTRATION UNITS
(ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST CONC
1	79005	Ethane, 1,1,2-trichloro- (8CI9CI)	4.04	160
2	79345	Ethane, 1,1,2,2-tetrachloro- (8CI9CI)	7.63	390

00239

QUANT REPORT

Operator ID: JEFF
Output File: ^C1191::D2
Deta File: >C1191::E4
Name: A1557 E-SYSTEM
Misc: 050793

Quant Rev: 6 Quant Time: 930507 17:43
Injected at: 930507 17:04
Dilution Factor: 1.00000

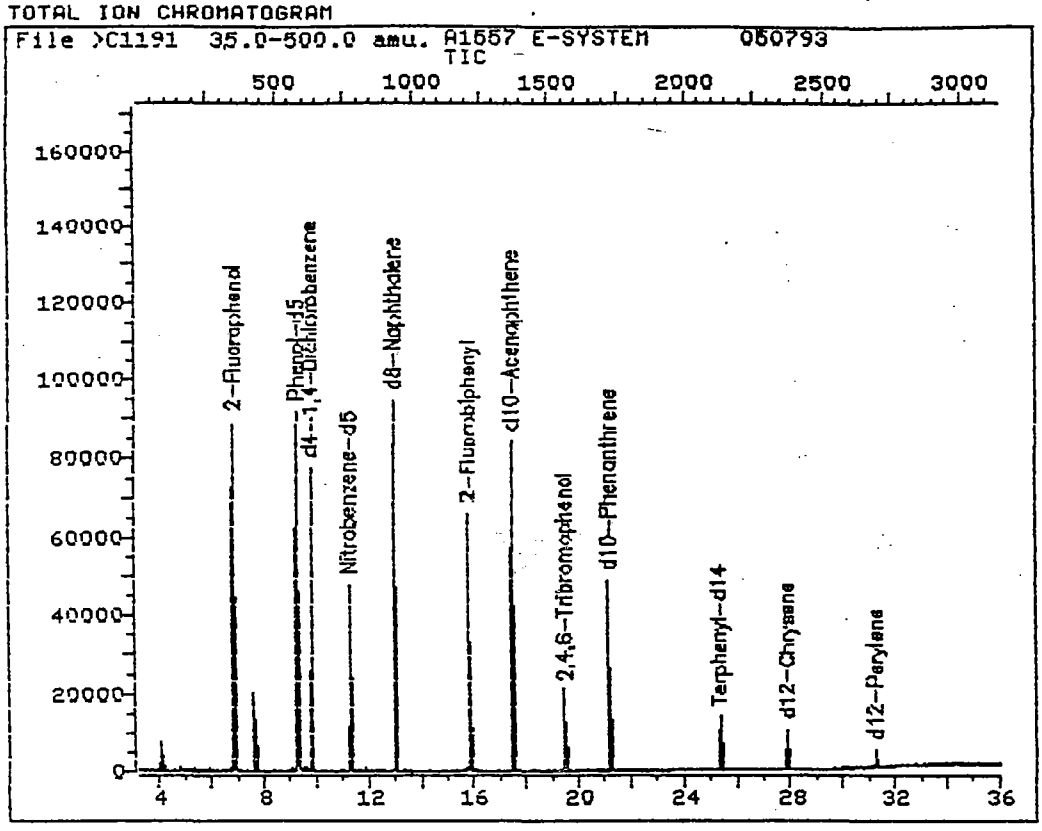
BTL# 2

ID File: IDHSLC::D3
Title: hSL BNA STD
Last Calibration: 930507 15:27

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	9.77	625	34056	40.00	UG/L	96
4)	2-Fluorophenol	6.84	344	39788	67.05	UG/L	94
5)	Phenol-d5	9.24	575	61787	73.57	UG/L	82
18)	*d8-Naphthalene	12.94	929	80244	40.00	UG/L	86
19)	Nitrobenzene-d5	11.23	765	27174	26.07	UG/L	91
33)	*d10-Acenaphthene	17.42	1359	39106	40.00	UG/L	91
38)	2-Fluorobiphenyl	15.80	1203	40249	25.07	UG/L	93
53)	*d10-Phenanthrene	21.12	1714	39179	40.00	UG/L	99
56)	2,4,6-Tribromophenol	19.44	1553	2517	27.84	UG/L	95
64)	*d12-Chrysene	27.86	2361	7901	40.00	UG/L	91
67)	Terphenyl-d14	25.30	2115	9788	25.06	UG/L	96
73)	*d12-Perylene	31.23	2684	3809	40.00	UG/L	92

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >C1191::E4 Quant Output File: ^C1191::D2
Name: A1557 E-SYSTEM
Misc: 050793 BTL# 2

Id File: IDHSLC::D3
Title: hSL BNA STD
Last Calibration: 930507 15:27

Operator ID: JEFF
Quant Time: 930507 17:43
Injected at: 930507 17:04

21st Century Environmental Inc.
VOLATILE ORGANIC ANALYSIS DATA

JOB NUMBER	US ARMY FT. MONMOUTH NJ	MATRIX	Soil
SAMPLE NUMBER	A1558	DILUTION FACTOR	1.00
CLIENT ID	SITE R BLDG 2500	COMMENTS	OVA ND
DATA FILE	>A1318	DATE ANALYZED	04/23/93

COMPOUND	UG/KG	MDL	COMPOUND	UG/KG	MDL
Acrolein	ND	60	Bromodichloromethane	ND	6
Acrylonitrile	ND	60	2-Chloroethylvinylether	ND	12
Chloromethane	ND	12	2-Hexanone	ND	12
Bromomethane	ND	12	trans-1,3-Dichloropropene	ND	6
Vinyl Chloride	ND	12	Toluene	ND	6
Chloroethane	ND	12	cis-1,3-Dichloropropene	ND	6
Acetone	ND B	12	1,1,2,2-Tetrachloroethane	ND	6
1,1-Dichloroethene	ND	6	1,1,2-Trichloroethane	ND	6
Carbon Disulfide	ND	12	4-Methyl-2-pentanone	ND	12
Methylene Chloride	4.0 JB	6	Tetrachloroethene	ND	6
1,2-Dichloroethene(trans)	ND	6	Dibromochloromethane	ND	6
1,1-Dichloroethane	ND	6	Chlorobenzene	ND	6
Vinyl Acetate	ND	6	Ethylbenzene	ND	6
2-Butanone	ND	12	m&p-Xylenes	ND	6
Chloroform	ND	6	o-Xylene	ND	6
1,1,1-Trichloroethane	ND	6	Styrene	ND	6
Carbon Tetrachloride	ND	6	Bromoform	ND	6
1,2-Dichloroethane	ND	6	m-Dichlorobenzene	ND	6
Benzene	ND	6	p-Dichlorobenzene	ND	6
Trichloroethene	ND	6	o-Dichlorobenzene	ND	6
1,2-Dichloropropane	ND	6			

SURROGATE COMPOUNDS	% RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	94.5	70 - 121	OK
Toluene-d8	96.7	81 - 117	OK
Bromofluorobenzene	98.8	74 - 121	OK

Percent Solid of 83.0 is used for all Target compounds.

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SITE R

Lab Name: 21st Century Environmental

Client Name: US ARMY FT. MONMOUTH, NJ

Client ID: BLDG 2500

Matrix: (soil/water) Soil

Lab Sample ID: A1558

Sample wt/vol: 5 (g/mL) g

Lab File ID: >A1318

Level: (low/med) LOW

Date Received: 04/14/93

% Moisture: 17

Date Analyzed: 04/23/93

Column: DB-624

Dilution Factor: 1

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	No Unknowns			

FORM I VOA-TIC 1/87 Rev.

QUANT REPORT

erator ID: JEFF
Output File: ^A1318::QT
Data File: >A1318::D2
me: A1558
sc: SITE R BLDG 2500

Quant Rev: 6 Quant Time: 930423 17:34
Injected at: 930423 17:04
Dilution Factor: 1.00000

5.0g

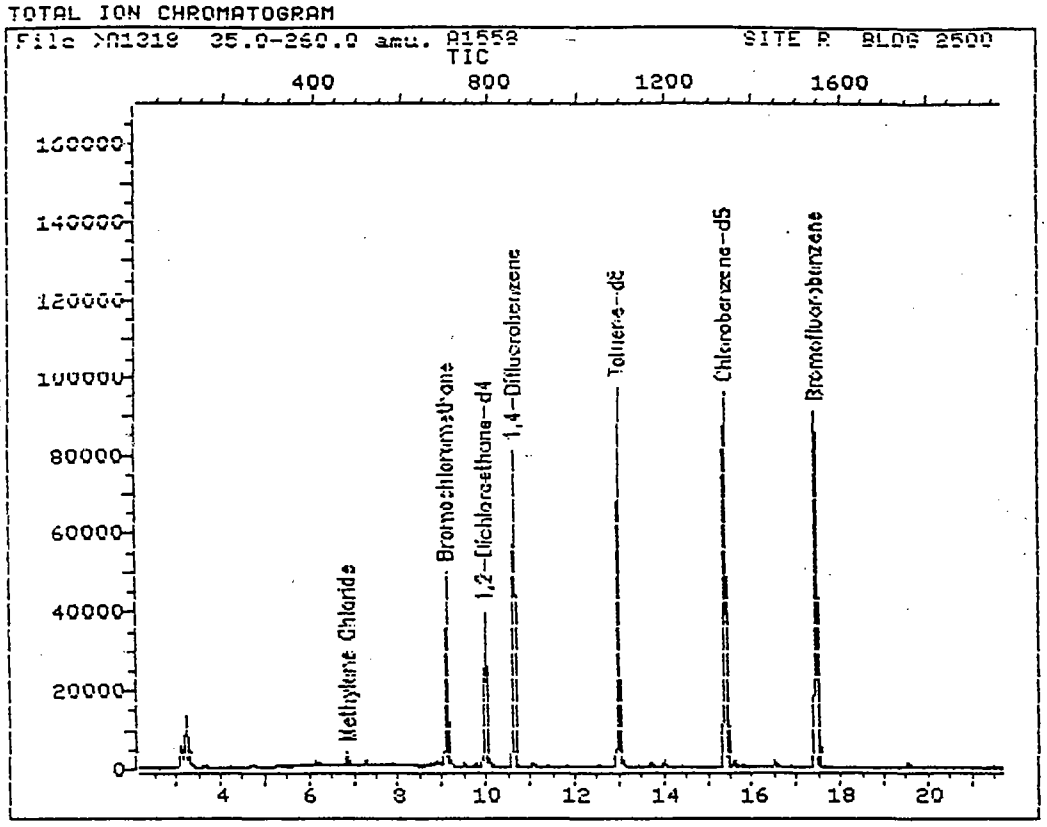
File: ID0127::M1
tle: USEPA 624 VOLATILES
Last Calibration: 930423 12:14

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*Bromochloromethane	9.09	698	27083	50.00	UG/L	100
)	Methylene Chloride	6.84	471	3583	3.33	UG/L	78
)	1,2-Dichloroethane-d4	9.97	787	54396	47.25	UG/L	100
22)	*1,4-Difluorobenzene	10.63	854	123331	50.00	UG/L	100
)	Toluene-d8	12.97	1090	125640	48.37	UG/L	100
)	*Chlorobenzene-d5	15.38	1333	102218	50.00	UG/L	100
46)	Bromofluorobenzene	17.43	1540	62520	49.41	UG/L	100

Compound is ISTD

00235

TOTAL ION CHROMATOGRAM



Data File: >A1318::D2 Quant Output File: ^A1318::QT
Name: A1558
Misc: SITE R BLDG 2500 5.0g

Id File: ID0127::M1
Title: USEPA 624 VOLATILES
Last Calibration: 930423 12:14

Operator ID: JEFF
Quant Time: 930423 17:34
Injected at: 930423 17:04

21ST CENTURY Environmental
SEMIVOLATILE ANALYSIS DATA

JOB NUMBER	US ARMY, FT. MONMOUTH, NJ	MATRIX	Soil
SAMPLE NUMBER	A1558	DILUTION FACTOR	1.00
CLIENT ID	BLDG 2500, SITE R	COMMENTS	OVA: ND
DATA FILE	>C1192	DATE ANALYZED	05/07/93

COMPOUND	UG/KG	MDL	COMPOUND	UG/KG	MDL
N-Nitrosodimethylamine	ND	400	2,6-Dinitrotoluene	ND	400
bis(-2-Chloroethyl)Ether	ND	400	Diethylphthalate	ND	400
1,3-Dichlorobenzene	ND	400	4-Chlorophenyl-phenlyether	ND	400
1,4-Dichlorobenzene	ND	400	Fluorene	ND	400
Benzyl Alcohol	ND	400	4-Nitroaniline	ND	2000
1,2-Dichlorobenzene	ND	400	N-Nitrosodiphenylamine	ND	400
bis(2-chloroisopropyl)Ether	ND	400	4-Bromophenyl-phenylether	ND	400
N-Nitroso-Di-n-Propylamine	ND	400	Hexachlorobenzene	ND	400
Hexachloroethane	ND	400	Phenanthrene	ND	400
Nitrobenzene	ND	400	Anthracene	ND	400
Isophorone	ND	400	Di-n-Butylphthalate	ND	400
Benzoic Acid	ND	2000	Fluoranthene	ND	400
bis(-2-Chloroethoxy)Methane	ND	400	Pyrene	ND	400
1,2,4-Trichlorobenzene	ND	400	Butylbenzylphthalate	ND	400
Naphthalene	ND	400	3,3'-Dichlorobenzidine	ND	800
4-Chloroaniline	ND	400	Benzo(a)Anthracene	ND	400
Hexachlorobutadiene	ND	400	Bis(2-Ethylhexyl)Phthalate	ND	400
2-Methylnaphthalene	ND	400	Chrysene	ND	400
Hexachlorocyclopentadiene	ND	400	Di-n-Octyl Phthalate	ND	400
2-Chloronaphthalene	ND	400	Benzo(b)fluoranthene	ND	400
2-Nitroaniline	ND	2000	Benzo(k)Fluoranthene	ND	400
Dimethyl Phthalate	ND	400	Benzo(a)Pyrene	ND	400
Acenaphthylene	ND	400	Indeno(1,2,3-cd)Pyrene	ND	400
3-Nitroaniline	ND	2000	Dibenzo(a,h)Anthracene	ND	400
Acenaphthene	ND	400	Benzo(g,h,i)Perylene	ND	400
Dibenzofuran	ND	400	Benzidine	ND	800
2,4-Dinitrotoluene	ND	400			

Percent Solid of 83.0 is used for all Target compounds.

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

E1

EPA SAMPLE NUMBER

semi-VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

BLDG 2500
SITE R

Client: US Army, Ft. Monmouth, NJ

Comments: OVA: ND

Matrix: (soil/water) SOIL

Lab Sample ID: A1558

Sample wt/vol: 30 (g/mL) GM

Lab File ID: >C1192

Level: LOW

Date Received: NA

% Moisture: 17

Date Analyzed 05/07/93

Extraction: (Sepf/Cont/Sonc) SONC

Date Extracted 04/14/93

GPC (Y or N): N

Column: DB-5

Dilution Factor: 1

Number TICs Found 7

CONCENTRATION UNITS
(ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST CONC
1	79345	Ethane, 1,1,2,2-tetrachloro- (8CI9CI)	7.63	280
2		UNKNOWN	30.48	240

QUANT REPORT

Operator ID: JEFF
Output File: ^C1192::D2
Data File: >C1192::E4
Name: A1558 E-SYSTEM
Misc: 050793

Quant Rev: 6 Quant Time: 930507 18:32
Injected at: 930507 17:53
Dilution Factor: 1.00000

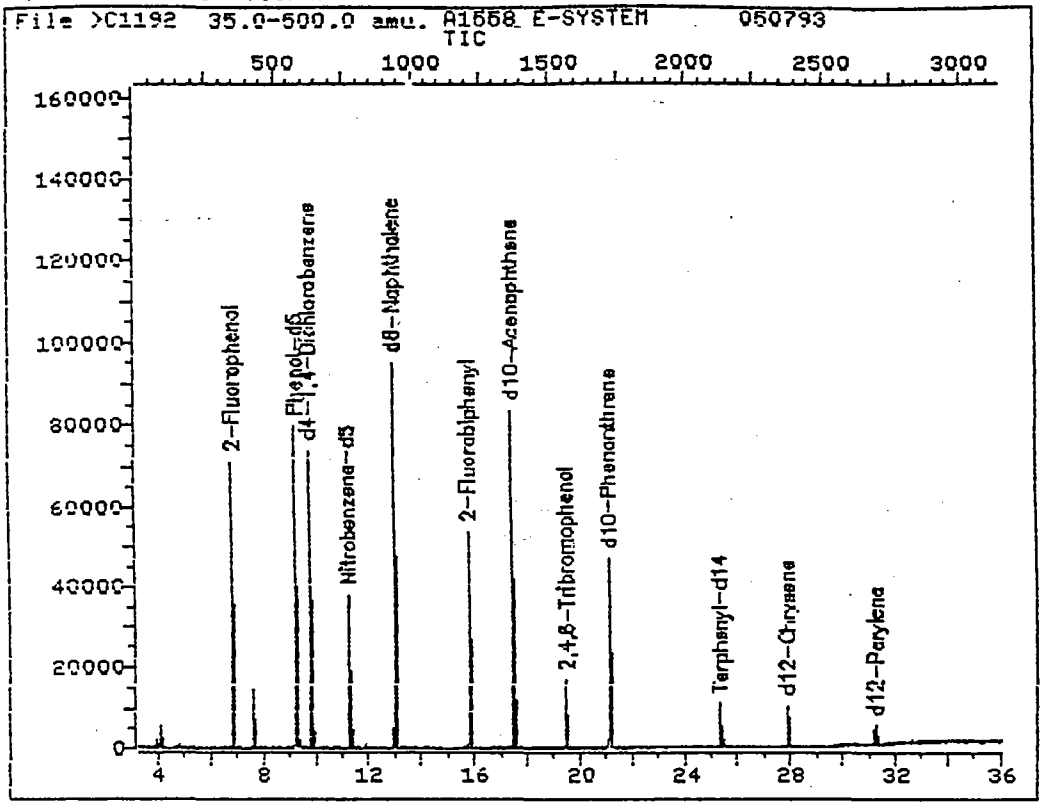
BTL# 3

ID File: IDHSLC::03
Title: hSL BNA STD
Last Calibration: 930507 15:27

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	9.76	622	32242	40.00	UG/L	95
4)	2-Fluorophenol	6.83	341	31489	56.05	UG/L	97
5)	Phenol-d5	9.24	572	48402	60.88	UG/L	84
18)	*d8-Naphthalene	12.94	927	75936	40.00	UG/L	88
19)	Nitrobenzene-d5	11.22	762	21477	21.78	UG/L	91
33)	*d10-Acenaphthene	17.42	1357	37130	40.00	UG/L	92
38)	2-Fluorobiphenyl	15.80	1201	31275	20.52	UG/L	93
53)	*d10-Phenanthrene	21.12	1712	37052	40.00	UG/L	99
56)	2,4,6-Tribromophenol	19.44	1551	1835	21.46	UG/L	97
64)	*d12-Chrysene	27.86	2359	7744	40.00	UG/L	88
67)	Terphenyl-d14	25.30	2113	7837	20.47	UG/L	96
73)	*d12-Perylene	31.23	2682	3965	40.00	UG/L	92

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >C1192::E4 Quant Output File: ^C1192::D2
Name: A1558 E-SYSTEM
Misc: 050793 BTL# 3

Id File: IDHSLC::D3
Title: hSL BNA STD
Last Calibration: 930507 15:27

Operator ID: JEFF
Quant Time: 930507 18:32
Injected at: 930507 17:53

21st Century Environmental Inc.
VOLATILE ORGANIC ANALYSIS DATA

JOB NUMBER	US ARMY FT. MONMOUTH NJ	MATRIX	Soil
SAMPLE NUMBER	A1559	DILUTION FACTOR	1.00
CLIENT ID	SITE S BLDG 2500	COMMENTS	OVA ND
DATA FILE	>A1319	DATE ANALYZED	04/23/93

COMPOUND	UG/KG	MDL	COMPOUND	UG/KG	MDL
Acrolein	ND	62	Bromodichloromethane	ND	6
Acrylonitrile	ND	62	2-Chloroethylvinylether	ND	12
Chloromethane	ND	12	2-Hexanone	ND	12
Bromomethane	ND	12	trans-1,3-Dichloropropene	ND	6
Vinyl Chloride	ND	12	Toluene	ND	6
Chloroethane	ND	12	cis-1,3-Dichloropropene	ND	6
Acetone	9.4 JB	12	1,1,2,2-Tetrachloroethane	ND	6
1,1-Dichloroethene	ND	6	1,1,2-Trichloroethane	ND	6
Carbon Disulfide	ND	12	4-Methyl-2-pentanone	ND	12
Methylene Chloride	3.6 JB	6	Tetrachloroethene	ND	6
1,2-Dichloroethene(trans)	ND	6	Dibromochloromethane	ND	6
1,1-Dichloroethane	ND	6	Chlorobenzene	ND	6
Vinyl Acetate	ND	6	Ethylbenzene	ND	6
2-Butanone	ND	12	m&p-Xylenes	ND	6
Chloroform	ND	6	o-Xylene	ND	6
1,1,1-Trichloroethane	ND	6	Styrene	ND	6
Carbon Tetrachloride	ND	6	Bromoform	ND	6
1,2-Dichloroethane	ND	6	m-Dichlorobenzene	ND	6
Benzene	ND	6	p-Dichlorobenzene	ND	6
Trichloroethene	ND	6	o-Dichlorobenzene	ND	6
1,2-Dichloropropane	ND	6			

SURROGATE COMPOUNDS	% RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	95.0	70 - 121	OK
Toluene-d8	96.8	81 - 117	OK
Bromofluorobenzene	97.7	74 - 121	OK

Percent Solid of 81.0 is used for all Target compounds.

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SITE S

Name: 21st Century Environmental

Client Name: US ARMY FT. MONMOUTH, NJ

Client ID: BLDG 2500

Matrix: (soil/water) Soil

Lab Sample ID: A1559

Sample wt/vol: 5 (g/mL) g

Lab File ID: >A1319

Level: (low/med) LOW

Date Received: 04/14/93

Moisture: 19

Date Analyzed: 04/23/93

Column: DB-624

Dilution Factor: 1

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	No Unknowns			

FORM I VOA-TIC 1/87 Rev.

00242

QUANT REPORT

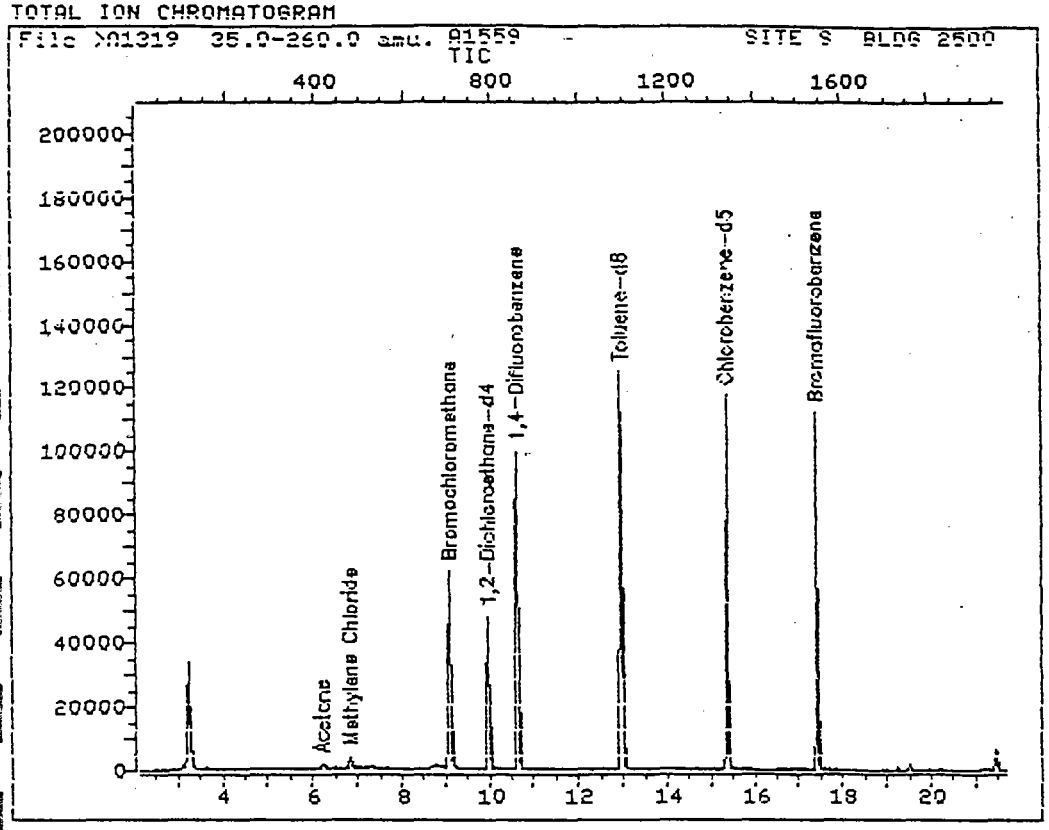
perator ID: JEFF Quant Rev: 6 Quant Time: 930423 18:09
Output File: ^A1319::QT Injected at: 930423 17:39
ta File: >A1319::D2 Dilution Factor: 1.00000
me: A1559
Misc: SITE S BLDG 2500 5.0g

File: ID0127::M1
itle: USEPA 624 VOLATILES
ast Calibration: 930423 12:14

	Compound	R.T.	Scan#	Area	Conc	Units	q
)	*Bromochloromethane	9.09	702	32751	50.00	UG/L	100
)	Acetone	6.20	410	3839	7.61	UG/L	80
13)	Methylene Chloride	6.83	474	3832	2.95	UG/L	84
)	1,2-Dichloroethane-d4	9.96	790	66134	47.50	UG/L	100
)	*1,4-Difluorobenzene	10.63	857	154139	50.00	UG/L	100
1)	Toluene-d8	12.96	1092	157127	48.41	UG/L	100
33)	*Chlorobenzene-d5	15.35	1334	127726	50.00	UG/L	100
)	Bromofluorobenzene	17.41	1541	77244	48.85	UG/L	100

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >A1319::D2 Quant Output File: ^A1319::QT
Name: A1559
Misc: SITE S BLDG 2500 5.0g

Id File: ID0127::M1
Title: USEPA 624 VOLATILES
Last Calibration: 930423 12:14

Operator ID: JEFF
Quant Time: 930423 18:09
Injected at: 930423 17:39

21ST CENTURY Environmental
SEMIVOLATILE ANALYSIS DATA

JOB NUMBER	US ARMY, FT. MONMOUTH, NJ	MATRIX	Soil
SAMPLE NUMBER	A1559	DILUTION FACTOR	1.00
CLIENT ID	BLDG 2500, SITE S	COMMENTS	OVA:ND
DATA FILE	>C1193	DATE ANALYZED	05/07/93

COMPOUND	UG/KG	MDL	COMPOUND	UG/KG	MDL
N-Nitrosodimethylamine	ND	410	2,6-Dinitrotoluene	ND	410
bis(-2-Chloroethyl)Ether	ND	410	Diethylphthalate	ND	410
1,3-Dichlorobenzene	ND	410	4-Chlorophenyl-phenlyether	ND	410
1,4-Dichlorobenzene	ND	410	Fluorene	ND	410
Benzyl Alcohol	ND	410	4-Nitroaniline	ND	2000
1,2-Dichlorobenzene	ND	410	N-Nitrosodiphenylamine	ND	410
bis(2-chloroisopropyl)Ether	ND	410	4-Bromophenyl-phenylether	ND	410
N-Nitroso-Di-n-Propylamine	ND	410	Hexachlorobenzene	ND	410
Hexachloroethane	ND	410	Phenanthrene	ND	410
Nitrobenzene	ND	410	Anthracene	ND	410
Isophorone	ND	410	Di-n-Butylphthalate	ND	410
Benzoic Acid	ND	2000	Fluoranthene	ND	410
bis(-2-Chloroethoxy)Methane	ND	410	Pyrene	ND	410
1,2,4-Trichlorobenzene	ND	410	Butylbenzylphthalate	ND	410
Naphthalene	ND	410	3,3'-Dichlorobenzidine	ND	810
4-Chloroaniline	ND	410	Benzo(a)Anthracene	ND	410
Hexachlorobutadiene	ND	410	Bis(2-Ethylhexyl)Phthalate	ND	410
2-Methylnaphthalene	ND	410	Chrysene	ND	410
Hexachlorocyclopentadiene	ND	410	Di-n-Octyl Phthalate	ND	410
2-Chloronaphthalene	ND	410	Benzo(b)fluoranthene	ND	410
2-Nitroaniline	ND	2000	Benzo(k)Fluoranthene	ND	410
Dimethyl Phthalate	ND	410	Benzo(a)Pyrene	ND	410
Acenaphthylene	ND	410	Indeno(1,2,3-cd)Pyrene	ND	410
3-Nitroaniline	ND	2000	Dibenzo(a,h)Anthracene	ND	410
Acenaphthene	ND	410	Benzo(g,h,i)Perylene	ND	410
Dibenzofuran	ND	410	Benzidine	ND	810
2,4-Dinitrotoluene	ND	410			

Percent Solid of 81.0 is used for all Target compounds.

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

E1

EPA SAMPLE NUMBER

semi-VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SITE S

Client: US Army, Ft. Monmouth, NJ

Comments: OVA: ND

Matrix: (soil/water) SOIL

Lab Sample ID: A1559

Sample wt/vol: 30 (g/mL) GM

Lab File ID: >C1193

Level: LOW

Date Received: NA

% Moisture: 19

Date Analyzed 05/07/93

Extraction: (Sepf/Cont/Sonc) SONC

Date Extracted 04/14/93

GPC (Y or N): N

Column: DB-5

Dilution Factor: 1

Number TICs Found 1

CONCENTRATION UNITS
(ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST CONC
1	79345	Ethane, 1,1,2,2-tetrachloro- (8CI9CI)	7.63	370

00246

QUANT REPORT

Operator ID: JEFF
Output File: ^C1193::D2
Data File: >C1193::E4
Name: A1559 E-SYSTEM
Misc: 050793

Quant Rev: 6 Quant Time: 930507 19:20
Injected at: 930507 18:41
Dilution Factor: 1.00000

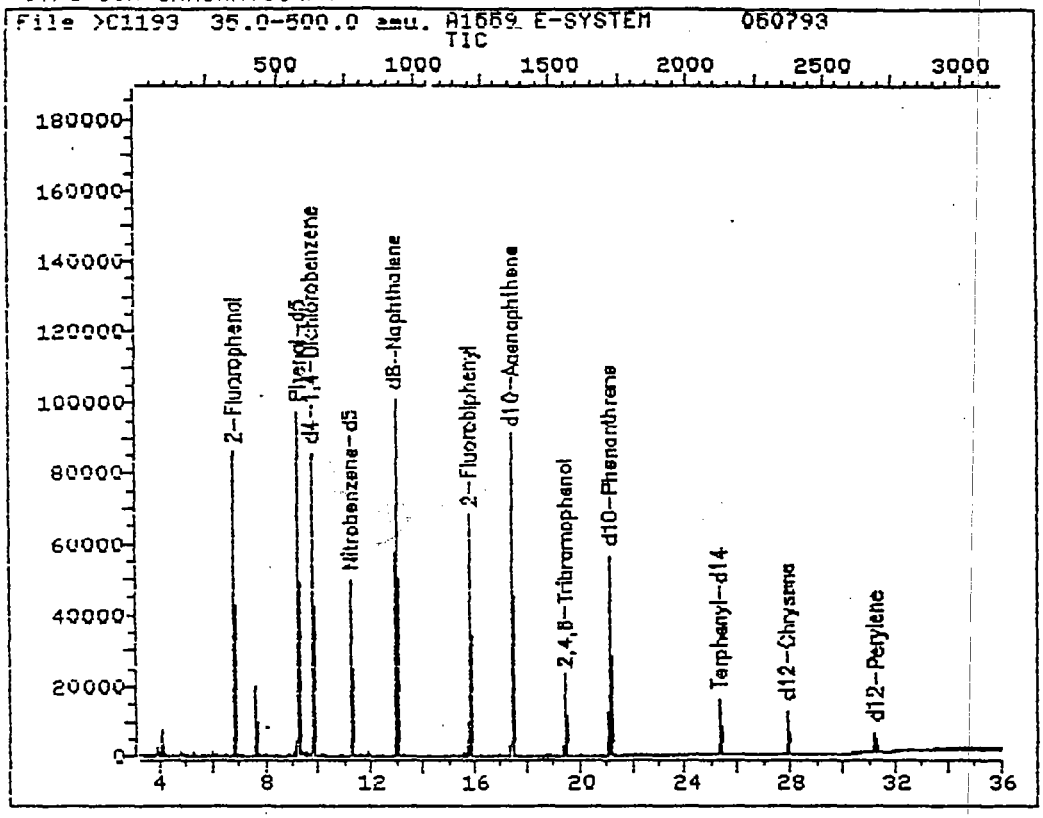
BTL# 4

ID File: IDHSLC::D3
Title: hSL BNA STD
Last Calibration: 930507 15:27

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	9.76	620	37601	40.00	UG/L	98
4)	2-Fluorophenol	6.83	339	43137	65.84	UG/L	96
5)	Phenol-d5	9.25	571	64227	69.27	UG/L	83
18)	*d8-Naphthalene	12.94	925	88993	40.00	UG/L	86
19)	Nitrobenzene-d5	11.23	761	28802	24.92	UG/L	90
33)	*d10-Acenaphthene	17.42	1355	43085	40.00	UG/L	95
38)	2-Fluorobiphenyl	15.79	1199	43641	24.68	UG/L	94
53)	*d10-Phenanthrene	21.13	1711	45340	40.00	UG/L	99
56)	2,4,6-Tribromophenol	19.44	1549	2902	27.74	UG/L	96
64)	*d12-Chrysene	27.86	2357	9394	40.00	UG/L	87
67)	Terphenyl-d14	25.29	2111	11493	24.75	UG/L	96
73)	*d12-Perylene	31.22	2680	4948	40.00	UG/L	91

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >C1193::E4 Quant Output File: ^C1193::D2
Name: A1559 E-SYSTEM
Misc: 050793 BTL# 4

Id File: IDHSLC::D3
Title: hSL BNA STD
Last Calibration: 930507 15:27

Operator ID: JEFF
Quant Time: 930507 19:20
Injected at: 930507 18:41

21st Century Environmental Inc.
VOLATILE ORGANIC ANALYSIS DATA

JOB NUMBER	US ARMY FT. MONMOUTH NJ	MATRIX	Soil
SAMPLE NUMBER	A1560	DILUTION FACTOR	1.00
CLIENT ID	SITE T BLDG 2500	COMMENTS	OVA 0.75
DATA FILE	>A1320	DATE ANALYZED	04/23/93

COMPOUND	UG/KG		MDL	COMPOUND	UG/KG	MDL
Acrolein	ND		56	Bromodichloromethane	ND	6
Acrylonitrile	ND		56	2-Chloroethylvinylether	ND	11
Chloromethane	ND		11	2-Hexanone	ND	11
Bromomethane	ND		11	trans-1,3-Dichloropropene	ND	6
Vinyl Chloride	ND		11	Toluene	ND	6
Chloroethane	ND		11	cis-1,3-Dichloropropene	ND	6
Acetone	4.6	JB	11	1,1,2,2-Tetrachloroethane	ND	6
1,1-Dichloroethene	ND		6	1,1,2-Trichloroethane	ND	6
Carbon Disulfide	ND		11	4-Methyl-2-pentanone	ND	11
Methylene Chloride	ND	B	6	Tetrachloroethene	ND	6
1,2-Dichloroethene(trans)	ND		6	Dibromochloromethane	ND	6
1,1-Dichloroethane	ND		6	Chlorobenzene	ND	6
Vinyl Acetate	ND		6	Ethylbenzene	ND	6
2-Butanone	ND		11	m&p-Xylenes	ND	6
Chloroform	ND		6	o-Xylene	ND	6
1,1,1-Trichloroethane	ND		6	Styrene	ND	6
Carbon Tetrachloride	ND		6	Bromoform	ND	6
1,2-Dichloroethane	ND		6	m-Dichlorobenzene	ND	6
Benzene	ND		6	p-Dichlorobenzene	ND	6
Trichloroethene	ND		6	o-Dichlorobenzene	ND	6
1,2-Dichloropropane	ND		6			

SURROGATE COMPOUNDS	% RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	94.7	70 - 121	OK
Toluene-d8	96.2	81 - 117	OK
Bromofluorobenzene	98.6	74 - 121	OK

Percent Solid of 90.0 is used for all Target compounds.

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SITE T

Lab Name: 21st Century Environmental

Client Name: US ARMY FT. MONMOUTH, NJ Client ID: BLDG 2500

Matrix: (soil/water) Soil Lab Sample ID: A1560

Sample wt/vol: 5 (g/mL) g Lab File ID: >A1320

Level: (low/med) LOW Date Received: 04/14/93

% Moisture: 10 Date Analyzed: 04/23/93

Column: DB-624 Dilution Factor: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	No Unknowns			

FORM I VOA-TIC 1/87 Rev.

00249

QUANT REPORT

perator ID: JEFF Quant Rev: 6 Quant Time: 930423 18:49
Output File: ^A1320::QT Injected at: 930423 18:18
ta File: >A1320::D2 Dilution Factor: 1.00000
me: A1560
Misc: SITE T . BLDG 2500 5.0g

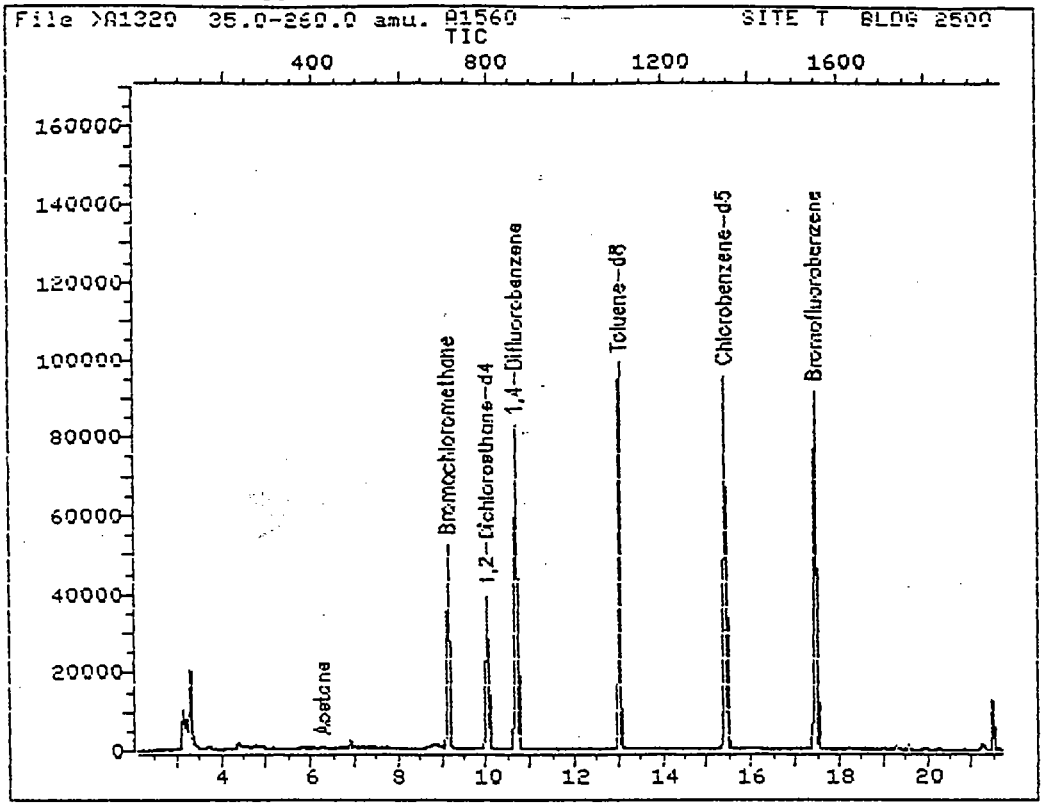
File: ID0127::M1
itle: USEPA 624 VOLATILES
Last Calibration: 930423 12:14

	Compound	R.T.	Scan#	Area	Conc	Units	q
)	*Bromochloromethane	9.13	706	27431	50.00	UG/L	100
)	Acetone	6.26	416	1765	4.18	UG/L	79
21)	1,2-Dichloroethane-d4	10.01	795	55200	47.34	UG/L	100
)	*1,4-Difluorobenzene	10.68	862	126160	50.00	UG/L	100
)	Toluene-d8	13.01	1097	127821	48.11	UG/L	100
3)	*Chlorobenzene-d5	15.41	1339	103621	50.00	UG/L	100
46)	Bromofluorobenzene	17.45	1545	63221	49.29	UG/L	100

Compound is ISTD

00250

TOTAL ION CHROMATOGRAM



Data File: >A1320::D2 Quant Output File: ^A1320::QT
Name: A1560
Misc: SITE T BLDG 2500 5.0g

Id File: ID0127::M1
Title: USEPA 624 VOLATILES
Last Calibration: 930423 12:14

Operator ID: JEFF
Quant Time: 930423 18:49
Injected at: 930423 18:18

21ST CENTURY Environmental
SEMIVOLATILE ANALYSIS DATA

JOB NUMBER	US ARMY, FT. MONMOUTH, NJ	MATRIX	Soil
SAMPLE NUMBER	A1560	DILUTION FACTOR	1.00
CLIENT ID	BLDG 2500, SITE T	COMMENTS	OVA: 0.75
DATA FILE	>C1194	DATE ANALYZED	05/07/93

COMPOUND	UG/KG	MDL	COMPOUND	UG/KG	MDL
N-Nitrosodimethylamine	ND	370	2,6-Dinitrotoluene	ND	370
bis(-2-Chloroethyl)Ether	ND	370	Diethylphthalate	ND	370
1,3-Dichlorobenzene	ND	370	4-Chlorophenyl-phenlyether	ND	370
1,4-Dichlorobenzene	ND	370	Fluorene	ND	370
Benzyl Alcohol	ND	370	4-Nitroaniline	ND	1800
1,2-Dichlorobenzene	ND	370	N-Nitrosodiphenylamine	ND	370
bis(2-chloroisopropyl)Ether	ND	370	4-Bromophenyl-phenylether	ND	370
N-Nitroso-Di-n-Propylamine	ND	370	Hexachlorobenzene	ND	370
Hexachloroethane	ND	370	Phenanthrene	ND	370
Nitrobenzene	ND	370	Anthracene	ND	370
Isophorone	ND	370	Di-n-Butylphthalate	ND	370
Benzoic Acid	ND	1800	Fluoranthene	ND	370
bis(-2-Chloroethoxy)Methane	ND	370	Pyrene	ND	370
1,2,4-Trichlorobenzene	ND	370	Butylbenzylphthalate	ND	370
Naphthalene	ND	370	3,3'-Dichlorobenzidine	ND	730
4-Chloroaniline	ND	370	Benzo(a)Anthracene	ND	370
Hexachlorobutadiene	ND	370	Bis(2-Ethylhexyl)Phthalate	ND	370
2-Methylnaphthalene	ND	370	Chrysene	ND	370
Hexachlorocyclopentadiene	ND	370	Di-n-Octyl Phthalate	ND	370
2-Chloronaphthalene	ND	370	Benzo(b)fluoranthene	ND	370
2-Nitroaniline	ND	1800	Benzo(k)Fluoranthene	ND	370
Dimethyl Phthalate	ND	370	Benzo(a)Pyrene	ND	370
Acenaphthylene	ND	370	Indeno(1,2,3-cd)Pyrene	ND	370
3-Nitroaniline	ND	1800	Dibenzo(a,h)Anthracene	ND	370
Acenaphthene	ND	370	Benzo(g,h,i)Perylene	ND	370
Dibenzofuran	ND	370	Benzidine	ND	730
2,4-Dinitrotoluene	ND	370			

Percent Solid of 90.0 is used for all Target compounds.

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

E1

EPA SAMPLE NUMBER

semi-VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

BLDG 2500
SITE T

Client: US Army, Ft. Monmouth, NJ

Comments: OVA: 0.75

Matrix: (soil/water) SOIL

Lab Sample ID: A1560

Sample wt/vol: 30 (g/mL) GM

Lab File ID: >C1194

Level: LOW

Date Received: NA

% Moisture: 10

Date Analyzed 05/07/93

Extraction: (Sepf/Cont/Sonc) SONC

Date Extracted 04/14/93

GPC (Y or N): N

Column: DB-5

Dilution Factor: 1

Number TICs Found 1

CONCENTRATION UNITS
(ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST CONC
1	79345	Ethane, 1,1,2,2-tetrachloro- (8CI9CI)	7.62	300

QUANT REPORT

rator ID: JEFF
put File: ^C1194::D2
ata File: >C1194::E4
e: A1560 E-SYSTEM
c: 050793

Quant Rev: 6 Quant Time: 930507 20:08
Injected at: 930507 19:29
Dilution Factor: 1.00000

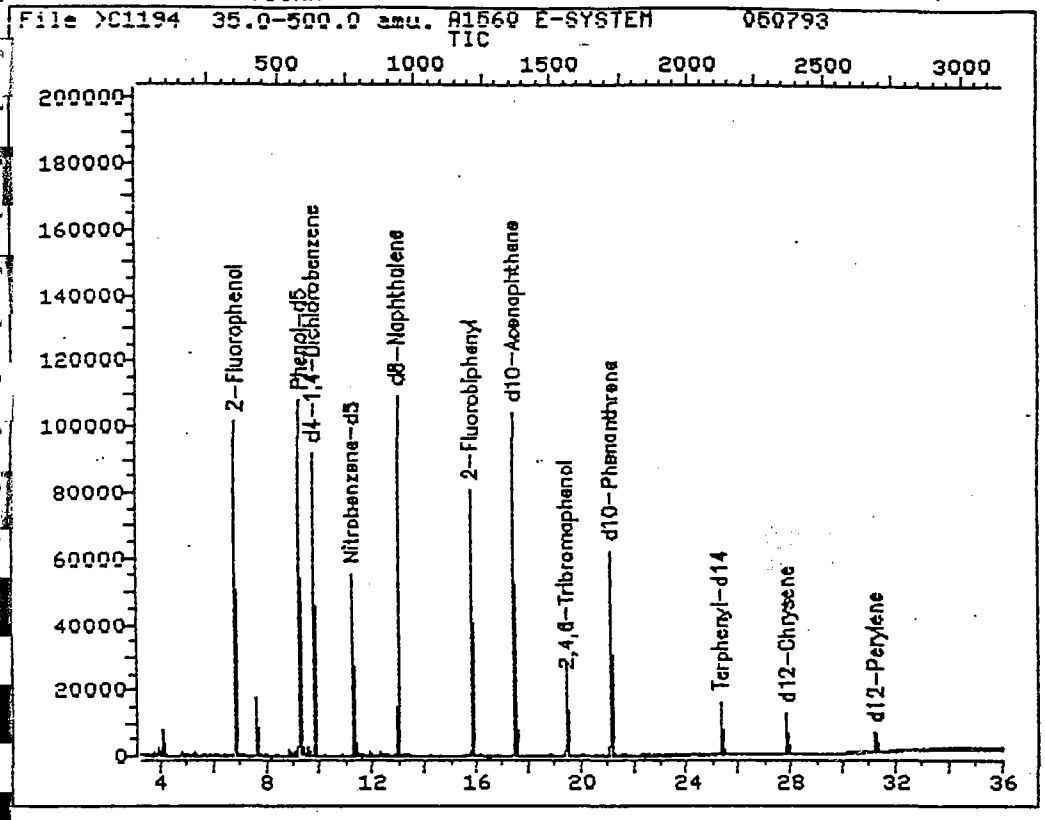
BTL# 5

File: IDHSLC::D3
le: hSL BNA STD
st Calibration: 930507 15:27

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	9.75	621	41034	40.00	UG/L	97
	2-Fluorophenol	6.83	340	47322	66.19	UG/L	98
	Phenol-d5	9.24	572	71332	70.49	UG/L	81
8)	*d8-Naphthalene	12.94	927	97341	40.00	UG/L	87
9)	Nitrobenzene-d5	11.22	762	31874	25.21	UG/L	88
	*d10-Acenaphthene	17.42	1357	47287	40.00	UG/L	96
	2-Fluorobiphenyl	15.80	1201	49957	25.74	UG/L	94
13)	*d10-Phenanthrene	21.12	1712	48890	40.00	UG/L	99
	2,4,6-Tribromophenol	19.43	1550	3943	34.95	UG/L	97
	*d12-Chrysene	27.85	2358	9981	40.00	UG/L	93
17)	Terphenyl-d14	25.29	2112	12329	24.98	UG/L	97
23)	*d12-Perylene	31.22	2681	5143	40.00	UG/L	92

Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >C1194::E4 Quant Output File: ^C1194::D2
Name: A1560 E-SYSTEM
Misc: 050793 BTL# 5

Id File: IDHSLC::D3
Title: hSL BNA STD
Last Calibration: 930507 15:27

Operator ID: JEFF
Quant Time: 930507 20:08
Injected at: 930507 19:29

21st Century Environmental Inc.
VOLATILE ORGANIC ANALYSIS DATA

JOB NUMBER	US ARMY FT. MONMOUTH NJ	MATRIX	Water
SAMPLE NUMBER	A1562	DILUTION FACTOR	1.00
CLIENT ID	BLDG 2500 FIELD BLANK	COMMENTS	QUA NA
DATA FILE	>A1322	DATE ANALYZED	04/23/93

COMPOUND	UG/L	MDL	COMPOUND	UG/L	MDL
Chloromethane	ND	10	2-Chloroethylvinylether	ND	10
Bromomethane	ND	10	2-Hexanone	ND	10
Vinyl Chloride	ND	10	trans-1,3-Dichloropropene	ND	5
Chloroethane	ND	10	Toluene	ND	5
Acrolein	ND	50	cis-1,3-Dichloropropene	ND	5
Acetone	ND B	10	1,1,2,2-Tetrachloroethane	ND	5
1,1-Dichloroethene	ND	5	1,1,2-Trichloroethane	ND	5
Carbon Disulfide	ND	10	4-Methyl-2-pentanone	ND	10
Acrylonitrile	ND	50	Tetrachloroethene	ND	5
Methylene Chloride	1.9 JB	5	Dibromochloromethane	ND	5
1,2-Dichloroethene(trans)	ND	5	Chlorobenzene	ND	5
1,1-Dichloroethane	ND	5	Ethylbenzene	ND	5
Vinyl Acetate	ND	5	m&p-Xylenes	ND	5
2-Butanone	ND	10	o-Xylene	ND	5
Chloroform	ND	5	Styrene	ND	5
1,1,1-Trichloroethane	ND	5	Bromoform	ND	5
Carbon Tetrachloride	ND	5	m-Dichlorobenzene	ND	5
1,2-Dichloroethane	ND	5	p-Dichlorobenzene	ND	5
Benzene	ND	5	o-Dichlorobenzene	ND	5
Trichloroethene	ND	5	Bromodichloromethane	ND	5
1,2 Dichloropropane	ND	5			

SURROGATE COMPOUNDS	% RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	94.6	76 - 114	OK
Toluene-d8	96.5	88 - 110	OK
Bromofluorobenzene	97.9	86 - 115	OK

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected
(D) Indicates calculated from dilution

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

TRIP BLANK

Lab Name: 21st Century Environmental

Client Name: US ARMY FT. MONMOUTH, NJ

Client ID: BLDG 2500

Matrix: (soil/water) WATER

Lab Sample ID: A1561

Sample wt/vol: 5 (g/mL) mL

Lab File ID: >A1321

Level: (low/med) LOW

Date Received: 04/14/93

% Moisture: NA

Date Analyzed: 04/23/93

Column: DB-624

Dilution Factor: 1

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	No Unknowns			

FORM I VOA-TIC 1/87 Rev.

QUANT REPORT

perator ID: JEFF Quant Rev: 6 Quant Time: 930423 19:24
utput File: ^A1321::QT Injected at: 930423 18:53
ta File: >A1321::D2 Dilution Factor: 1.00000
me: A1561
isc: TRIP BLANK BLDG 2500 5.0mL

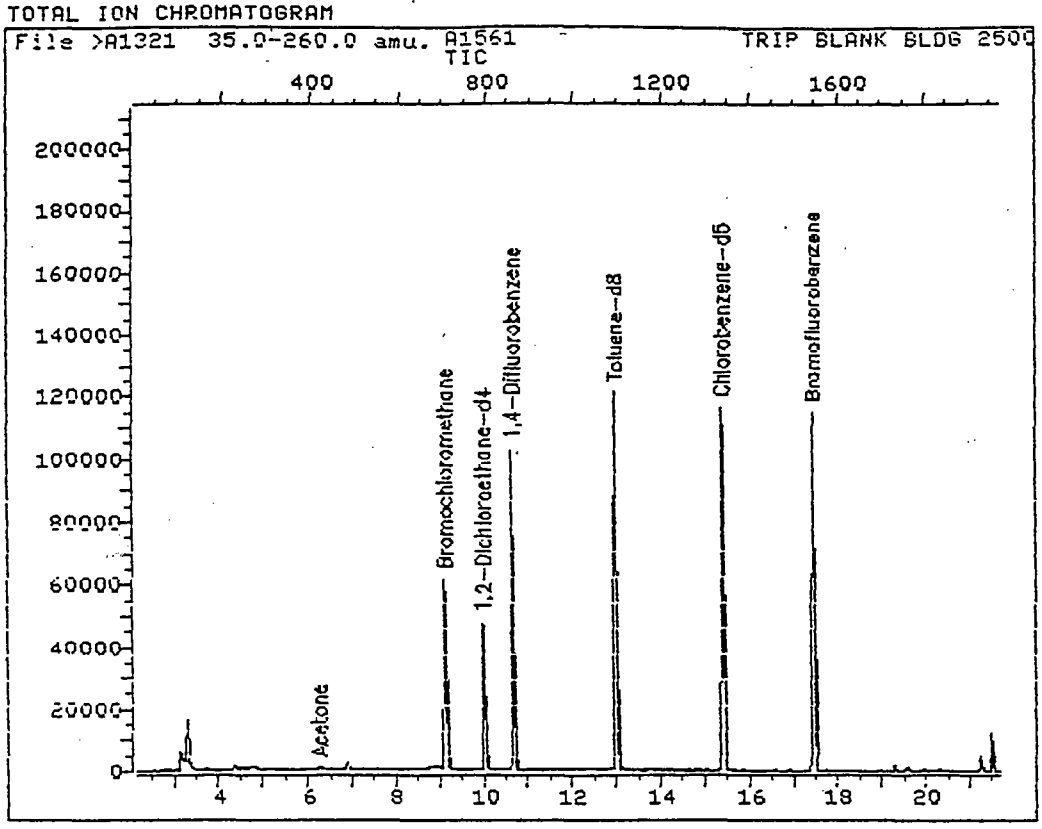
File: ID0127::M1
itle: USEPA 624 VOLATILES
st Calibration: 930423 12:14

	Compound	R.T.	Scan#	Area	Conc	Units	q
)	*Bromochloromethane	9.12	704	32904	50.00	UG/L	100
)	Acetone	6.25	414	1160	2.29	UG/L	82
1)	1,2-Dichloroethane-d4	9.99	792	66678	47.67	UG/L	100
)	*1,4-Difluorobenzene	10.66	859	155446	50.00	UG/L	100
)	Toluene-d8	12.99	1094	157618	48.15	UG/L	100
3)	*Chlorobenzene-d5	15.39	1336	127441	50.00	UG/L	100
)	Bromofluorobenzene	17.44	1543	77963	49.42	UG/L	100

* Compound is ISTD

00258

TOTAL ION CHROMATOGRAM



Data File: >A1321::D2 Quant Output File: ^A1321::QT
Name: A1561
Misc: TRIP BLANK BLDG 2500 5.0mL

Id File: ID0127::M1
Title: USEPA 624 VOLATILES
Last Calibration: 930423 12:14

Operator ID: JEFF
Quant Time: 930423 19:24
Injected at: 930423 18:53

21st Century Environmental Inc.
VOLATILE ORGANIC ANALYSIS DATA

JOB NUMBER	US ARMY FT. MONMOUTH NJ	MATRIX	Water
SAMPLE NUMBER	A1561	DILUTION FACTOR	1.00
CLIENT ID	BLDG 2500 TRIP BLANK	COMMENTS	QVA NA
DATA FILE	>A1321	DATE ANALYZED	04/23/93

COMPOUND	UG/L	MDL	COMPOUND	UG/L	MDL
Chloromethane	ND	10	2-Chloroethylvinylether	ND	10
Bromomethane	ND	10	2-Hexanone	ND	10
Vinyl Chloride	ND	10	trans-1,3-Dichloropropene	ND	5
Chloroethane	ND	10	Toluene	ND	5
Acrolein	ND	50	cis-1,3-Dichloropropene	ND	5
Acetone	2.3 JB	10	1,1,2,2-Tetrachloroethane	ND	5
1,1-Dichloroethene	ND	5	1,1,2-Trichloroethane	ND	5
Carbon Disulfide	ND	10	4-Methyl-2-pentanone	ND	10
Acrylonitrile	ND	50	Tetrachloroethene	ND	5
Methylene Chloride	ND B	5	Dibromochloromethane	ND	5
1,2-Dichloroethene(trans)	ND	5	Chlorobenzene	ND	5
1,1-Dichloroethane	ND	5	Ethylbenzene	ND	5
Vinyl Acetate	ND	5	m&p-Xylenes	ND	5
2-Butanone	ND	10	o-Xylene	ND	5
Chloroform	ND	5	Styrene	ND	5
1,1,1-Trichloroethane	ND	5	Bromoform	ND	5
Carbon Tetrachloride	ND	5	m-Dichlorobenzene	ND	5
1,2-Dichloroethane	ND	5	p-Dichlorobenzene	ND	5
Benzene	ND	5	o-Dichlorobenzene	ND	5
Trichloroethene	ND	5	Bromodichloromethane	ND	5
1,2 Dichloropropane	ND	5			

SURROGATE COMPOUNDS	% RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	95.3	76 - 114	OK
Toluene-d8	96.3	88 - 110	OK
Bromofluorobenzene	98.8	86 - 115	OK

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected
(D) Indicates calculated from dilution

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

FIELD BLANK

Lab Name: 21st Century Environmental

Client Name: US ARMY FT. MONMOUTH, NJ

Client ID: BLDG 2500

Matrix: (soil/water) WATER

Lab Sample ID: A1562

Sample wt/vol: 5 (g/mL) mL

Lab File ID: >A1322

Level: (low/med) LOW

Date Received: 04/14/93

% Moisture: NA

Date Analyzed: 04/23/93

Column: DB-624

Dilution Factor: 1

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	No Unknowns			

FORM I VOA-TIC

1/87 Rev.

QUANT REPORT

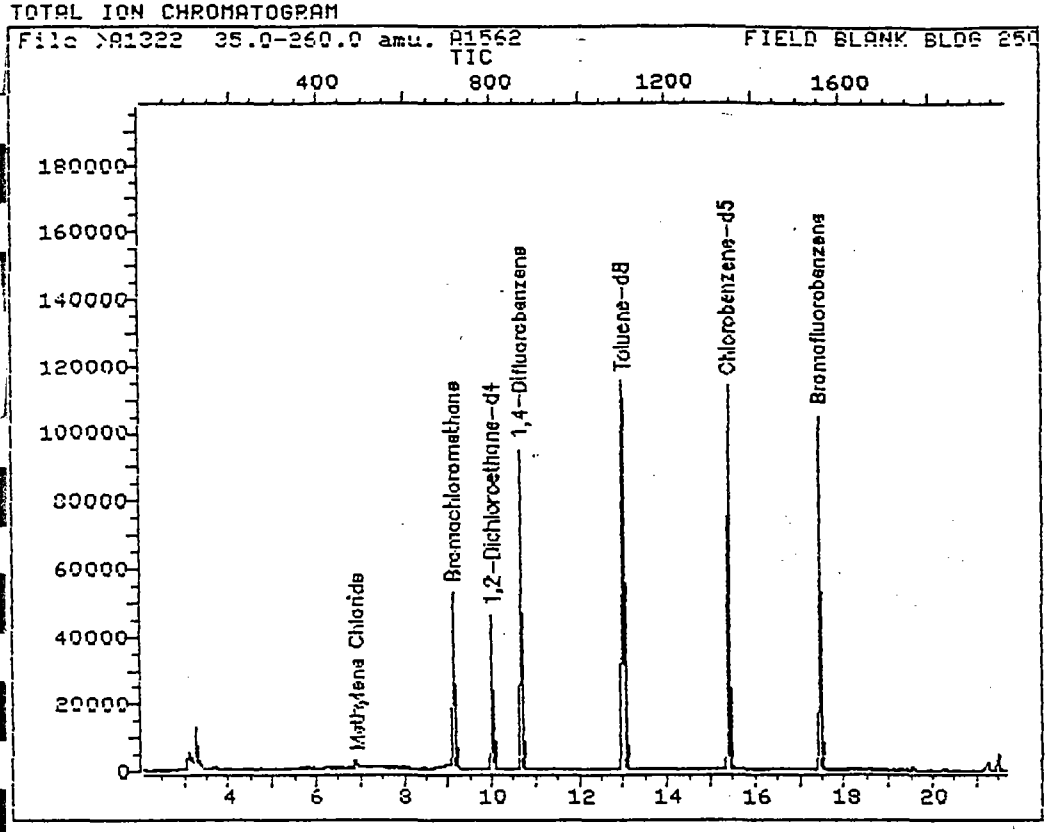
erator ID: JEFF Quant Rev: 6 Quant Time: 930423 19:59
Output File: ^A1322::QT Injected at: 930423 19:28
ta File: >A1322::D2 Dilution Factor: 1.00000
me: A1562
Misc: FIELD BLANK BLDG 2500 5.0mL

File: ID0127::M1
itle: USEPA 624 VOLATILES
Last Calibration: 930423 12:14

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*Bromochloromethane	9.11	708	31646	50.00	UG/L	100
)	Methylene Chloride	6.90	485	2346	1.87	UG/L	82
21)	1,2-Dichloroethane-d4	10.00	798	63615	47.29	UG/L	100
22)	*1,4-Difluorobenzene	10.65	864	147030	50.00	UG/L	100
)	Toluene-d8	12.99	1100	149372	48.24	UG/L	100
3)	*Chlorobenzene-d5	15.39	1342	121827	50.00	UG/L	100
46)	Bromofluorobenzene	17.44	1549	73850	48.97	UG/L	100

Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >A1322::D2 Quant Output File: ^A1322::QT
Name: A1562
Misc: FIELD BLANK BLDG 2500 5.0mL

Id File: ID0127::M1
Title: USEPA 624 VOLATILES
Last Calibration: 930423 12:14

Operator ID: JEFF
Quant Time: 930423 19:59
Injected at: 930423 19:28

21ST CENTURY Environmental
SEMIVOLATILE ANALYSIS DATA

JOB NUMBER	US ARMY, FT. MONMOUTH, NJ	MATRIX	Water
SAMPLE NUMBER	A1562	DILUTION FACTOR	1.00
CLIENT ID	BLDG 2500, FIELD BLANK	COMMENTS	
DATA FILE	>C1195	DATE ANALYZED	05/07/93

COMPOUND	UG/L	MDL	COMPOUND	UG/L	MDL
N-Nitrosodimethylamine	ND	10	2,6-Dinitrotoluene	ND	10
bis(-2-Chloroethyl)Ether	ND	10	Diethylphthalate	ND	10
1,3-Dichlorobenzene	ND	10	4-Chlorophenyl-phenlyether	ND	10
1,4-Dichlorobenzene	ND	10	Fluorene	ND	10
Benzyl Alcohol	ND	10	4-Nitroaniline	ND	50
1,2-Dichlorobenzene	ND	10	N-Nitrosodiphenylamine	ND	10
bis(2-chloroisopropyl)Ether	ND	10	4-Bromophenyl-phenylether	ND	10
N-Nitroso-Di-n-Propylamine	ND	10	Hexachlorobenzene	ND	10
Hexachloroethane	ND	10	Phenanthrene	ND	10
Nitrobenzene	ND	10	Anthracene	ND	10
Isophorone	ND	10	Di-n-Butylphthalate	ND	10
Benzoic Acid	ND	50	Fluoranthene	ND	10
bis(-2-Chloroethoxy)Methane	ND	10	Pyrene	ND	10
1,2,4-Trichlorobenzene	ND	10	Butylbenzylphthalate	ND	10
Naphthalene	ND	10	3,3'-Dichlorobenzidine	ND	20
4-Chloroaniline	ND	10	Benzo(a)Anthracene	ND	10
Hexachlorobutadiene	ND	10	Bis(2-Ethylhexyl)Phthalate	ND	10
2-Methylnaphthalene	ND	10	Chrysene	ND	10
Hexachlorocyclopentadiene	ND	10	Di-n-Octyl Phthalate	ND	10
2-Chloronaphthalene	ND	10	Benzo(b)fluoranthene	ND	10
2-Nitroaniline	ND	50	Benzo(k)Fluoranthene	ND	10
Dimethyl Phthalate	ND	10	Benzo(a)Pyrene	ND	10
Acenaphthylene	ND	10	Indeno(1,2,3-cd)Pyrene	ND	10
3-Nitroaniline	ND	50	Dibenzo(a,h)Anthracene	ND	10
Acenaphthene	ND	10	Benzo(g,h,i)Perylene	ND	10
Dibenzofuran	ND	10	Benzidine	ND	20
2,4-Dinitrotoluene	ND	10			

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

E1

EPA SAMPLE NUMBER

semi-VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

BLDG 2500
FLD BLANK

Client: US Army, Ft. Monmouth, NJ

Comments: None

Matrix: (soil/water) WATER

Lab Sample ID: A1562

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: >C1195

Level: LOW

Date Received: NA

% Moisture: 100

Date Analyzed 05/07/93

Extraction: (Sepf/Cont/Sonc) SEPF

Date Extracted 04/14/93

GPC (Y or N): N

Column: DB-5

Dilution Factor: 1

Number TICs Found 1

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

CAS NUMBER	COMPOUND NAME	RT	EST CONC
S	UNKNOWN	30.47	4

00265

QUANT REPORT

Operator ID: JEFF
Output File: ^C1195::D2
Data File: >C1195::E4
Name: A1562 E-SYSTEM
Misc: 050793

Quant Rev: 6 Quant Time: 930507 20:55
Injected at: 930507 20:16
Dilution Factor: 1.00000

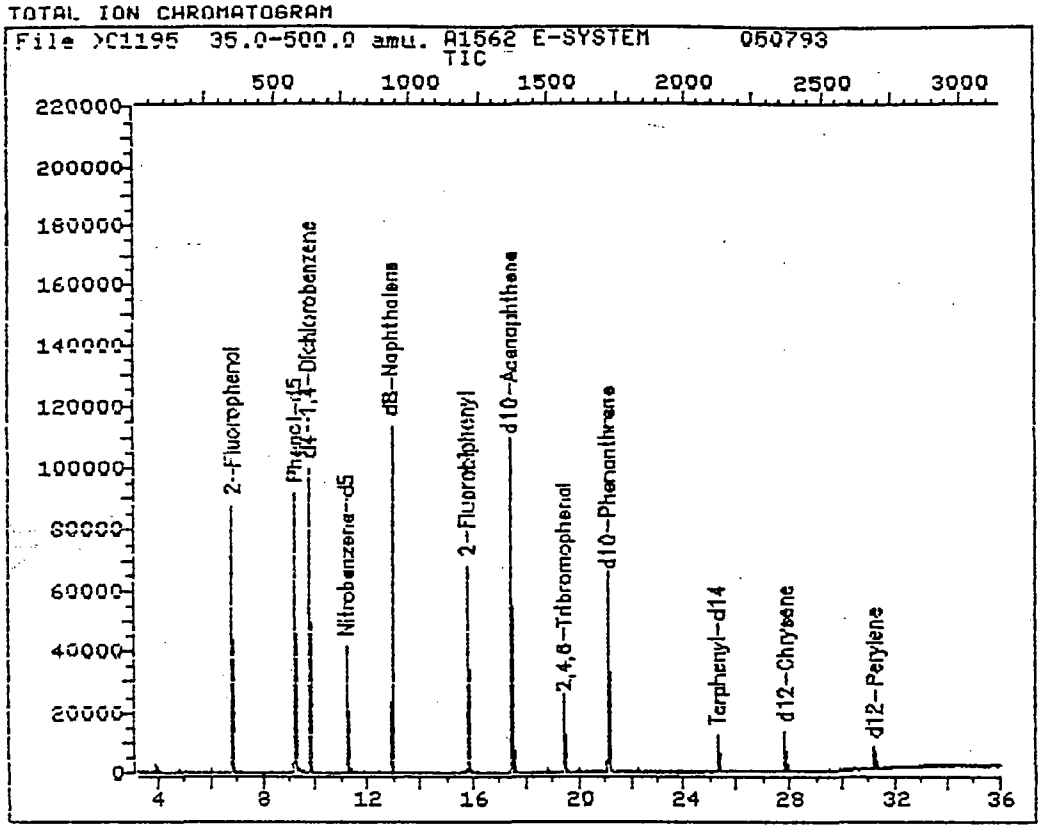
BTL# 6

ID File: IDHSLC::D3
Title: hSL BNA STD
Last Calibration: 930507 15:27

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	9.75	621	43108	40.00	UG/L	98
4)	2-Fluorophenol	6.83	340	40672	54.15	UG/L	96
5)	Phenol-d5	9.23	571	59136	55.63	UG/L	82
18)	*d8-Naphthalene	12.93	926	101059	40.00	UG/L	88
19)	Nitrobenzene-d5	11.21	761	24894	18.97	UG/L	85
33)	*d10-Acenaphthene	17.41	1356	54533	40.00	UG/L	92
38)	2-Fluorobiphenyl	15.79	1200	42717	19.08	UG/L	93
53)	*d10-Phenanthrene	21.11	1711	55376	40.00	UG/L	99
56)	2,4,6-Tribromophenol	19.43	1550	4138	32.38	UG/L	97
64)	*d12-Chrysene	27.85	2358	10780	40.00	UG/L	93
67)	Terphenyl-d14	25.29	2112	9307	17.46	UG/L	97
73)	*d12-Perylene	31.21	2680	6813	40.00	UG/L	95

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >C1195::E4 Quant Output File: ^C1195::D2
Name: A1562 E-SYSTEM
Misc: 050793 BTL# 6

Id File: IDHSLC::D3
Title: hSL BNA STD
Last Calibration: 930507 15:27

Operator ID: JEFF
Quant Time: 930507 20:55
Injected at: 930507 20:16

Q C RESULTS

QUALITY CONTROL DATA

ANALYSIS NO: A 1541

BATCH NO: M 044

MATRIX: Soil

METAL	AMOUNT OF SPIKE (ug/L)	% SPIKE RECOVERY	% SPIKE RECOVERY DUP
LEAD	1000	96	103

QUALITY CONTROL DATA

BATCH NO: M 044

MATRIX: Soil

METAL	METHOD BLANK (ug/L)	AMOUNT OF SPIKE (ug/L)	% SPIKE RECOVERY
LEAD	N.D.	44.5	120

00270

21st Century Environmental Inc
SOIL VOLATILE SURROGATE RECOVERY

SAMPLE NO.	S1 (DCE)#	S2 (TOL)#	S3 (BFB)#	TOT OUT
BLANK	94	98	96	0
A1541	99	98	98	0
A1542	99	99	98	0
A1544	101	100	99	0
BLANK	96	98	97	0
A1543	97	98	100	0
A1548	99	99	97	0
A1549	99	99	98	0
A1551	100	99	99	0
A1552	100	95	101	0
A1553	101	99	99	0
A1554	101	98	99	0
BLANK	93	96	95	0
A1545	95	97	97	0
A1546	95	96	97	0
A1547	96	97	98	0
A1550	95	96	97	0
A1555	93	96	97	0
A1556	96	95	98	0
A1557	96	97	98	0
A1558	94	97	99	0
A1559	95	97	98	0
A1560	95	96	99	0
A1561	95	96	99	0
A1562	95	96	98	0

	QC LIMITS
S1 (DCE) = 1,2-Dichloroethane-d4	70-121
S2 (TOL) = Toluene-d8	81-117
S3 (BFB) = Bromofluorobenzene	74-121

Column used to flag surrogate recovery values

21st Century Environmental Inc
SOIL VOLATILE SURROGATE RECOVERY

SAMPLE NO.	S1 (DCE)#	S2 (TOL)#	S3 (BFB)#	TOT OUT
BLANK	95	98	96	0
A1543MS	102	98	99	0
A1543MSD	100	99	99	0
A1558MS	99	99	99	0
A1558MSD	101	98	98	0

	QC LIMITS
S1 (DCE) = 1,2-Dichloroethane-d4	70-121
S2 (TOL) = Toluene-d8	81-117
S3 (BFB) = Bromofluorobenzene	74-121

Column used to flag surrogate recovery values

21ST CENTURY ENVIRONMENTAL INC.
WATER semi-VOLATILE SURROGATE RECOVERY

SAMPLE NO.	S1 (NBZ)#	S2 (FBP)#	S3 (TPH)#	S4 (PHL)#	S5 (FPH)#	S6 (TBP)#	TOT OUT
AQ BLK	67	69	128	-	-	-	0
A1562	38	38*	35	-	-	-	1

* Values out due to matrix interference

	QC LIMITS
S1 (NBZ) = Nitrobenzene-d5	(35-114)
S2 (FBP) = 2-Fluorobiphenyl	(43-116)
S3 (TPH) = Terphenyl-d14	(33-141)
S4 (PHL) = Phenol-d5	(10-94)
S5 (FPH) = 2-Fluorophenol	(21-100)
S6 (TBP) = 2,4,6-Tribromophenol	(10-123)

Column used to flag surrogate recovery values

BRIDGEPORT ENVIRONMENTAL INC.
SOIL semi-VOLATILE SURROGATE RECOVERY

SAMPLE NO.	S1 (NBZ)#	S2 (FBP)#	S3 (TPH)#	S4 (PHL)#	S5 (FPH)#	S6 (TBP)#	TOT OUT
NA BLK 4/14	33	33	42	---	---	---	*
A1541	58	63	129	---	---	---	*
A1542	66	70	80	---	---	---	*
A1543	65	70	80	---	---	---	*
A1544	77	81	57	---	---	---	*
A1545	58	65	73	---	---	---	*
A1546	60	68	71	---	---	---	*
A1547	74	78	56	---	---	---	*
A1548	84	88	59	---	---	---	*
A1549	82	83	61	---	---	---	*
A1550	69	79	90	---	---	---	*
A1551	60	63	44	---	---	---	*
A1552	58	61	40	---	---	---	*
A1553	66	69	43	---	---	---	*
A1554	61	63	43	---	---	---	*
A1555	40	41	39	---	---	---	*
A1556	53	54	50	---	---	---	*
A1557	52	50	50	---	---	---	*
A1558	44	41	41	---	---	---	*
A1559	50	49	49	---	---	---	*
A1560	50	51	50	---	---	---	*
A1541MS	75	78	87	---	---	---	*
A1541MSD	67	70	77	---	---	---	*

	QC LIMITS
S1 (NBZ) = Nitrobenzene-d5	(23-120)
S2 (FBP) = 2-Fluorobiphenyl	(30-115)
S3 (TPH) = Terphenyl-d14	(18-137)
S4 (PHL) = Phenol-d5	(24-113)
S5 (FPH) = 2-Fluorophenol	(25-121)
S6 (TBP) = 2,4,6-Tribromophenol	(19-122)

Column used to flag surrogate recovery values

SOIL VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Contract: N/A

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

Matrix Spike - EPA Sample No.: A1543 Level: (low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	#	QC LIMITS REC.
1,1-Dichloroethene	50.0	ND	46.5	93		59-172
Trichloroethene	50.0	ND	53.9	108		62-137
Benzene	50.0	ND	60.2	120		66-142
Toluene	50.0	ND	55.1	110		59-139
Chlorobenzene	50.0	ND	53.2	106		60-133

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	#	% RPD	#	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	50.00	46.9	94		1		22	59-172
Trichloroethene	50.00	50.8	102		4		24	62-137
Benzene	50.00	56.7	113		6		21	66-142
Toluene	50.00	52.4	105		5		21	59-139
Chlorobenzene	50.00	50.3	101		5		21	60-133

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

* Values outside of qc limits

RPD: 0 out of 5 outside limits

Spike Recovery: 0 out of 10 outside limits

COMMENTS: _____

_____

QUANT REPORT

erator ID: JEFF
tput File: ^A1393::QT
)ata File: >A1393::D3
me: A1543MS
sc: SITE C

Quant Rev: 6 Quant Time: 930429 13:30
Injected at: 930429 12:59
Dilution Factor: 1.00000

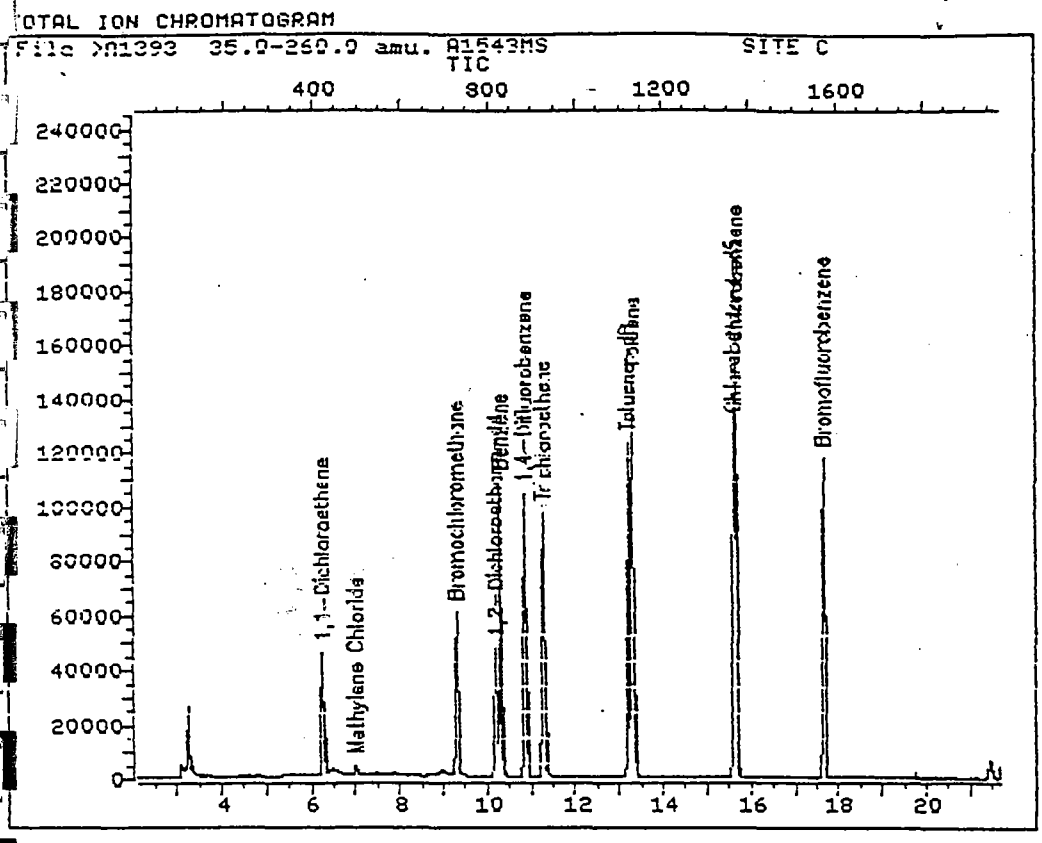
5q

File: ID0127::M1
tle: USEPA 624 VOLATILES
ast Calibration: 930429 11:27

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*Bromochloromethane	9.29	725	32537	50.00	UG/L	100
)	1,1-Dichloroethene	6.25	418	62694	46.54	UG/L	100
)	Methylene Chloride	7.01	494	4268	3.18	UG/L	70
21)	1,2-Dichloroethane-d4	10.19	815	66405	51.03	UG/L	100
2)	*1,4-Difluorobenzene	10.85	882	161604	50.00	UG/L	100
)	Benzene	10.29	826	179192	60.21	UG/L	100
)	Trichloroethene	11.28	925	62888	53.88	UG/L	83
31)	Toluene-d8	13.20	1119	162780	48.79	UG/L	100
)	Toluene	13.31	1130	209948	55.10	UG/L	96
)	*Chlorobenzene-d5	15.61	1362	134584	50.00	UG/L	100
40)	Chlorobenzene	15.66	1367	152372	53.17	UG/L	96
)	Bromofluorobenzene	17.66	1569	84283	49.53	UG/L	100

* Compound is ISTD

00276



Data File: >A1393::D3 Quant Output File: ^A1393::QT
Name: A1543MS
Misc: SITE C 5g

Id File: ID0127::M1
Title: USEPA 624 VOLATILES
Last Calibration: 930429 11:27

Operator ID: JEFF
Quant Time: 930429 13:30
Injected at: 930429 12:59

QUANT REPORT

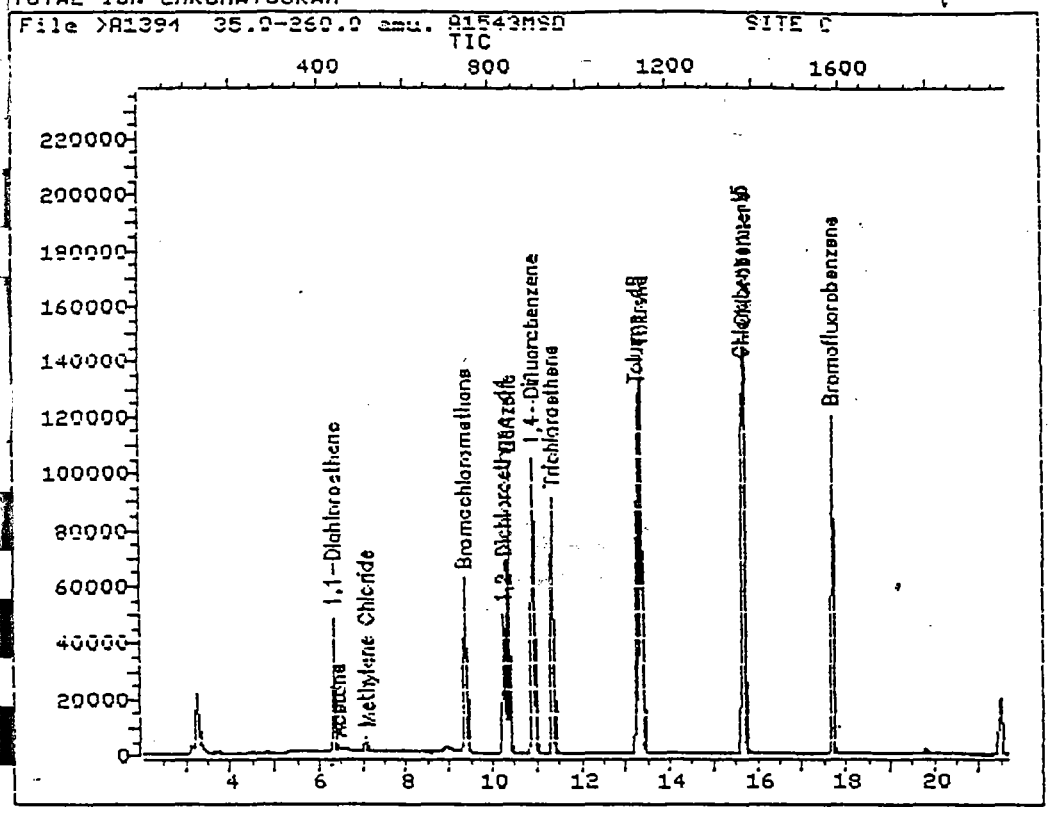
rator ID: JEFF Quant Rev: 6 Quant Time: 930429 14:05
put File: ^A1394::QT Injected at: 930429 13:35
ata File: >A1394::D3 Dilution Factor: 1.00000
e: A1543MSD
c: SITE C 5g

D File: ID0127::M1
le: USEPA 624 VOLATILES
t Calibration: 930429 11:27

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*Bromochloromethane	9.36	738	33093	50.00	UG/L	100
2)	Acetone	6.42	442	1259	2.39	UG/L	79
3)	1,1-Dichloroethene	6.32	431	64319	46.94	UG/L	100
4)	Methylene Chloride	7.07	507	5184	3.80	UG/L	78
1)	1,2-Dichloroethane-d4	10.25	828	65978	49.85	UG/L	100
	*1,4-Difluorobenzene	10.91	895	160589	50.00	UG/L	100
	Benzene	10.36	839	167727	56.72	UG/L	100
5)	Trichloroethene	11.34	938	58770	50.67	UG/L	83
	Toluene-d8	13.24	1130	164634	49.65	UG/L	100
	Toluene	13.35	1141	198378	52.40	UG/L	97
3)	*Chlorobenzene-d5	15.64	1373	133760	50.00	UG/L	100
6)	Chlorobenzene	15.69	1378	143377	50.34	UG/L	95
	Bromofluorobenzene	17.69	1579	83518	49.38	UG/L	100

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >A1394::D3 Quant Output File: ^A1394::QT
Name: A1543MSD
Misc: SITE C 5g

Id File: ID0127::M1
Title: USEPA 624 VOLATILES
Last Calibration: 930429 11:27

Operator ID: JEFF
Quant Time: 930429 14:05
Injected at: 930429 13:35

SOIL VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Contract:N/A

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

Matrix Spike - EPA Sample No.: A1558 Level:(low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC LIMITS REC.
1,1-Dichloroethene	50.0	ND	40.3	81	59-172
Trichloroethene	50.0	ND	49.6	99	62-137
Benzene	50.0	ND	57.5	115	66-142
Toluene	50.0	ND	52.5	105	59-139
Chlorobenzene	50.0	ND	51.5	103	60-133

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	50.00	40.4	81	<1	22	59-172
Trichloroethene	50.00	48.0	96	3	24	62-137
Benzene	50.00	55.4	111	4	21	66-142
Toluene	50.00	50.3	101	4	21	59-139
Chlorobenzene	50.00	50.2	100	3	21	60-133

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

* Values outside of qc limits

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

COMMENTS: _____

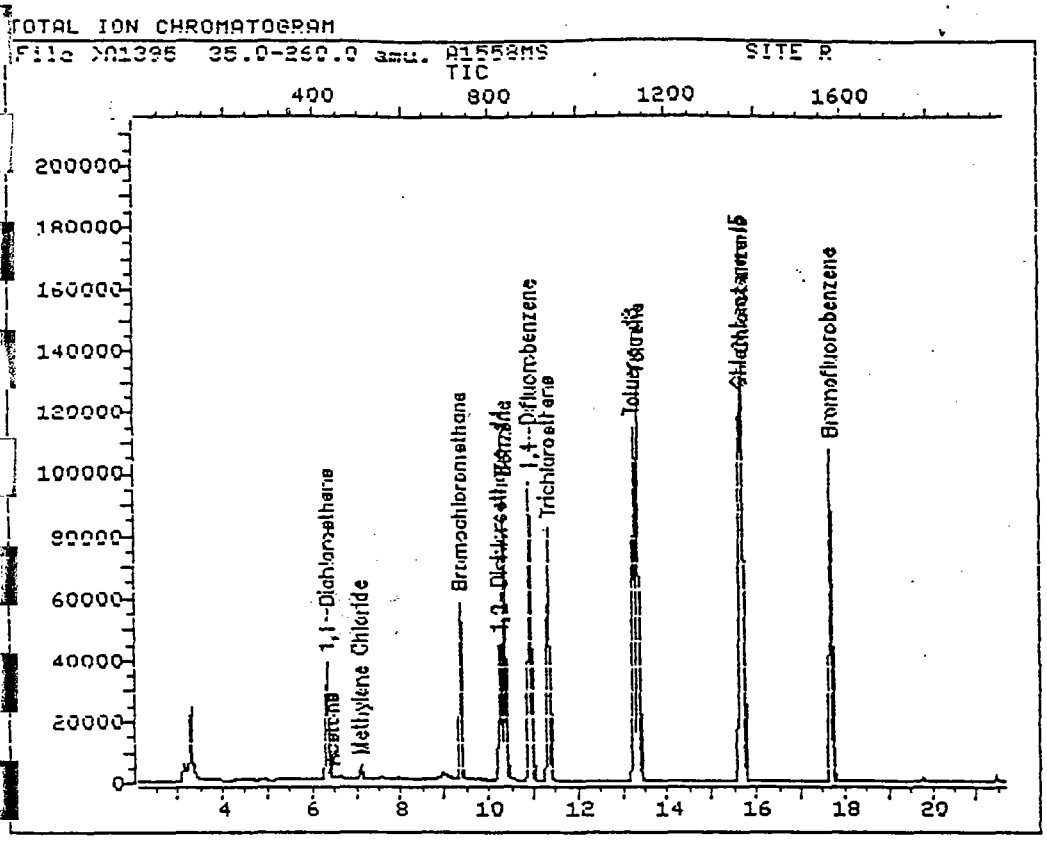
QUANT REPORT

erator ID: JEFF Quant Rev: 6 Quant Time: 930429 14:42
tput File: ^A1395::QT Injected at: 930429 14:11
Data File: >A1395::D3 Dilution Factor: 1.00000
me: A1558MS
sc: SITE R 5g

D File: ID0127::M1
tle: USEPA 624 VOLATILES
ast Calibration: 930429 11:27

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*Bromochloromethane	9.36	732	30709	50.00	UG/L	100
)	Acetone	6.43	436	1156	2.37	UG/L	85
)	1,1-Dichloroethene	6.33	426	51230	40.29	UG/L	100
3)	Methylene Chloride	7.08	501	4072	3.22	UG/L	76
1)	1,2-Dichloroethane-d4	10.24	821	61064	49.72	UG/L	100
)	*1,4-Difluorobenzene	10.91	888	147037	50.00	UG/L	100
)	Benzene	10.34	831	155566	57.45	UG/L	100
5)	Trichloroethene	11.32	930	52634	49.56	UG/L	81
)	Toluene-d8	13.23	1122	150950	49.72	UG/L	100
)	Toluene	13.35	1134	182006	52.50	UG/L	97
3)	*Chlorobenzene-d5	15.63	1365	123182	50.00	UG/L	100
)	Chlorobenzene	15.68	1370	135098	51.51	UG/L	96
)	Bromofluorobenzene	17.68	1572	76794	49.31	UG/L	100

* Compound is ISTD



Data File: >A1395::D3 Quant Output File: ^A1395::QT
Name: A1558MS
Misc: SITE R 5g

Id File: ID0127::M1
Title: USEPA 624 VOLATILES
Last Calibration: 930429 11:27

Operator ID: JEFF
Quant Time: 930429 14:42
Injected at: 930429 14:11

QUANT REPORT

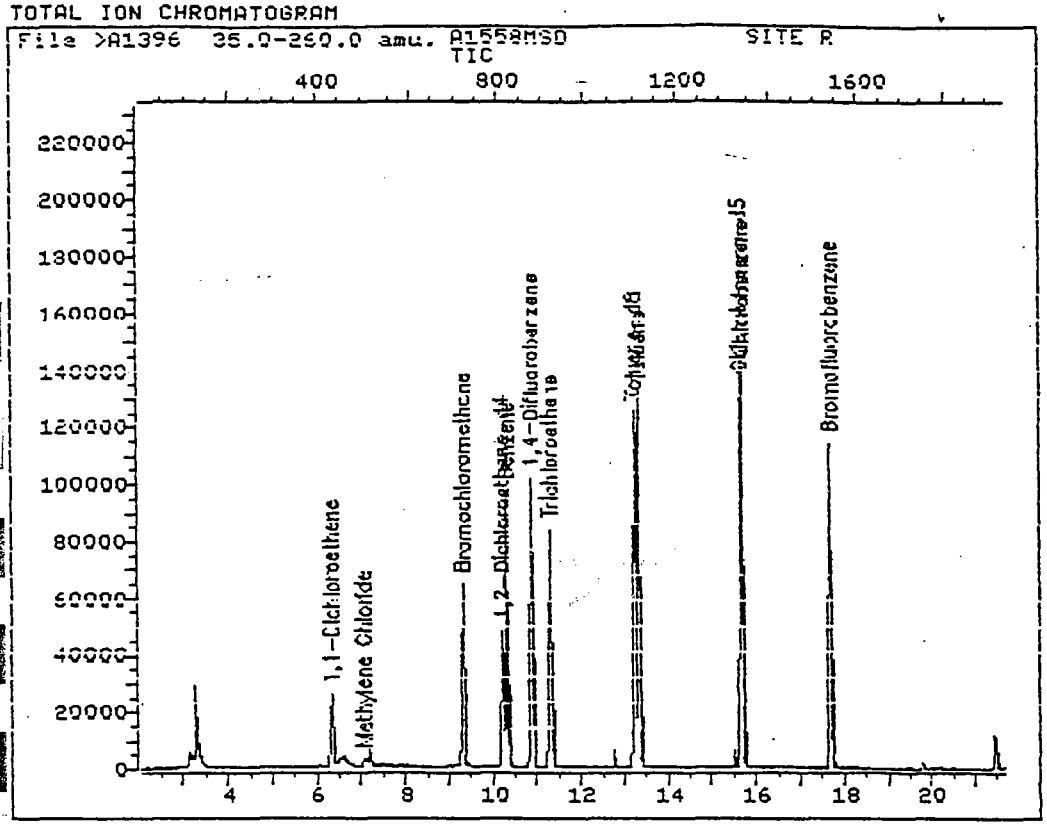
rator ID: JEFF Quant Rev: 6 Quant Time: 930429 15:17
put File: ^A1396::QT Injected at: 930429 14:47
ta File: >A1396::D3 Dilution Factor: 1.00000
ame: A1558MSD
c: SITE R 5g

D File: ID0127::M1
le: USEPA 624 VOLATILES
t Calibration: 930429 11:27

	Compound	R.T.	Scan#	Area	Conc	Units	q
	*Bromochloromethane	9.31	718	32881	50.00	UG/L	100
0)	1,1-Dichloroethene	6.32	430	54955M	40.37	UG/L	100
	Methylene Chloride	7.05	503	2952	2.18	UG/L	77
	1,2-Dichloroethane-d4	10.20	808	66385	50.48	UG/L	100
2)	*1,4-Difluorobenzene	10.87	875	156770	50.00	UG/L	100
4)	Benzene	10.30	818	159933	55.40	UG/L	100
	Trichloroethene	11.29	918	54298	47.96	UG/L	84
1)	Toluene-d8	13.21	1098	158781	49.06	UG/L	100
2)	Toluene	13.32	1109	186022	50.33	UG/L	96
	*Chlorobenzene-d5	15.63	1328	131671	50.00	UG/L	100
	Chlorobenzene	15.68	1333	140839	50.24	UG/L	95
6)	Bromofluorobenzene	17.68	1535	81748	49.10	UG/L	100

Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >A1396::D3 Quant Output File: ^A1396::QT
Name: A1558MSD
Misc: SITE R 5g

Id File: ID0127::M1
Title: USEPA 624 VOLATILES
Last Calibration: 930429 11:27

Operator ID: JEFF
Quant Time: 930429 15:17
Injected at: 930429 14:47

3D

SOIL SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: 21st Century Environmental Contract No.:
Lab Code: Case No: SAS No.: SDG No.:
MATRIX SPIKE- EPA SAMPLE NO.:A1541

COMPOUND NAME	SPIKE ADDED UG/KG	MS CONC UG/KG	SAMP CONC UG/KG	MS % REC#	QC LIMITS RECOVERY
Phenol	100	--	ND	--	26-90
2-Chlorophenol	100	--	ND	--	25-102
1,-4-Dichlorobenzene	50	39.1	ND	78	28-104
N-Nitroso-di-n-prop. (1)	50	38.0	ND	76	41-126
1,2,4-Trichlorobenzene	50	38.7	ND	77	38-107
4-Chloro-3-methylphenol	100	--	ND	--	26-103
Acenapthene	50	45.3	ND	91	31-137
4-Nitrophenol	100	--	ND	--	11-114
2,4-Dinitrotoluene	50	39.9	ND	80	28-89
Pentachlorophenol	100	--	ND	--	17-109
Pyrene	50	43.8	ND	88	35-142

COMPOUND NAME	SPIKE ADDED UG/KG	MSD CONC UG/KG	MSD % REC.	% RPD	QC LIMITS RPD	QC LIMITS RECOV
Phenol	100	--	--	-	35	26-90
2-Cholrophenol	100	--	--	-	50	25-102
1,-4-Dichlorobenzene	50	35.9	72	9	27	28-104
n-Nitroso-di-n-prop.	50	34.8	70	9	38	41-126
1,2,4-Trichlorobenzene	50	35.5	71	9	23	38-107
4-Chloro-3-Methylphenol	100	--	--	-	33	26-103
Acenaphthene	50	41.1	82	10	19	31-137
4-Nitrophenol	100	--	--	-	50	11-114
2,4-Dinitrotoluene	50	35.6	71	11	47	28-89
Pentachlorophenol	100	--	--	-	47	17-109
Pyrene	50	38.4	77	13	36	32-142

(1) N-Nitroso-di-n-propylamine

Column to be used to flag recovery and RPD values
* Values outside of qc limits

RPD: out of outside limits
Spike Recovery: out of outside limits

COMMENTS: _____

QUANT REPORT

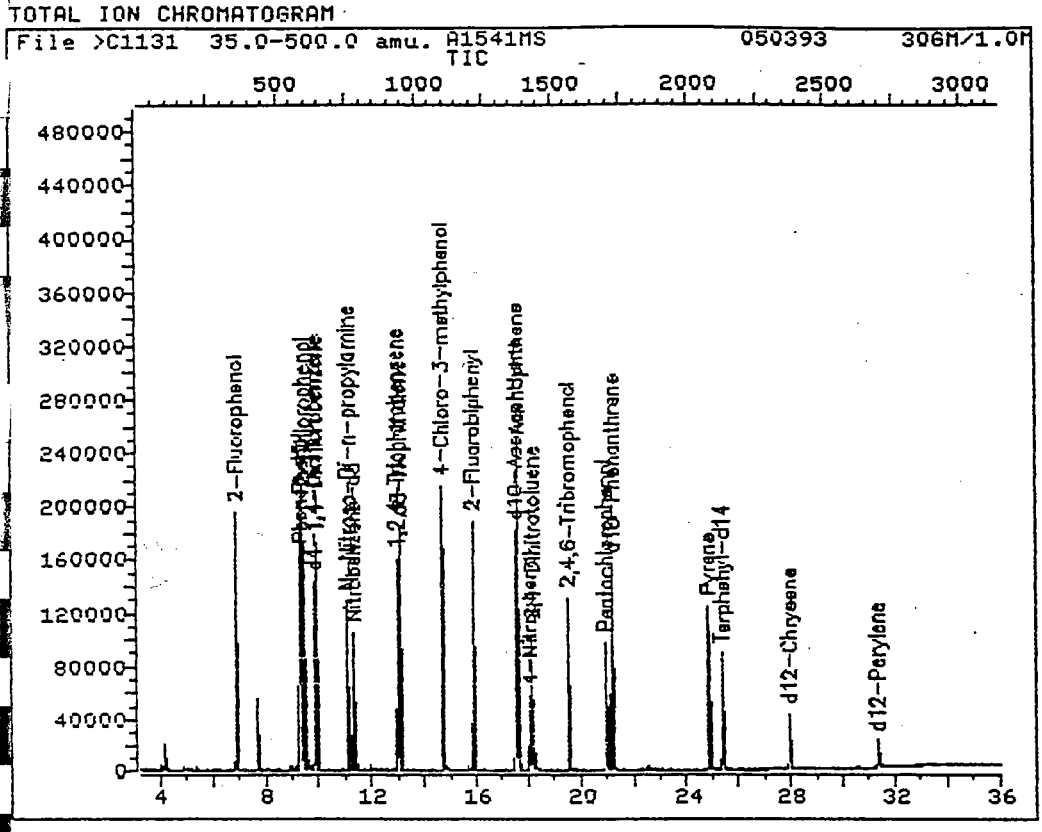
erator ID: JEFF Quant Rev: 6 Quant Time: 930503 19:36
Output File: ^C1131::D5 Injected at: 930503 18:58
Data File: >C1131::E4 Dilution Factor: 1.00000
me: A1541MS
sc: 050393 30GM/1.0ML BTL# 2

File: IDHSLC::D3
tle: hSL BNA STD
ast Calibration: 930503 17:16

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	9.84	628	81461	40.00	UG/L	95
)	2-Fluorophenol	6.89	346	102571	70.65	UG/L	89
)	Phenol-d5	9.30	577	151415	77.76	UG/L	79
6)	Phenol	9.35	581	127353	62.15	UG/L	67
)	2-Chlorophenol	9.42	588	104119	60.59	UG/L	97
)	1,4-Dichlorobenzene	9.88	632	74486	39.10	UG/L	94
16)	N-Nitroso-Di-n-propylamine	11.10	749	50384	37.99	UG/L	97
1?)	*d8-Naphthalene	13.02	933	160771	40.00	UG/L	86
)	Nitrobenzene-d5	11.31	769	65272	37.25	UG/L	83
)	1,2,4-Trichlorobenzene	12.95	926	67516	38.71	UG/L	95
31)	4-Chloro-3-methylphenol	14.68	1092	99723	65.76	UG/L	95
)	*d10-Acenaphthene	17.50	1362	95786	40.00	UG/L	97
)	2-Fluorobiphenyl	15.87	1206	134301	39.07	UG/L	93
43)	Acenaphthene	17.58	1370	136953	45.27	UG/L	91
)	4-Nitrophenol	18.06	1416	22803	52.09	UG/L	92
)	2,4-Dinitrotoluene	18.18	1427	48239	39.93	UG/L	98
53)	*d10-Phenanthrene	21.21	1717	139307	40.00	UG/L	98
54)	2,4,6-Tribromophenol	19.53	1556	33799	113.12	UG/L	95
)	Pentachlorophenol	20.95	1692	28499	61.40	UG/L	98
4)	*d12-Chrysene	27.95	2363	40135	40.00	UG/L	98
65)	Pyrene	24.84	2065	134217	43.79	UG/L	99
)	Terphenyl-d14	25.38	2117	76882	43.26	UG/L	88
)	*d12-Perylene	31.32	2685	22596	40.00	UG/L	93

Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >C1131::E4 Quant Output File: ^C1131::D5
Name: A1541MS
Misc: 050393 30GM/1.0ML BTL# 2

Id File: IDHSLC::D3
Title: hSL BNA STD
Last Calibration: 930503 17:16

Operator ID: JEFF
Quant Time: 930503 19:36
Injected at: 930503 18:58

QUANT REPORT

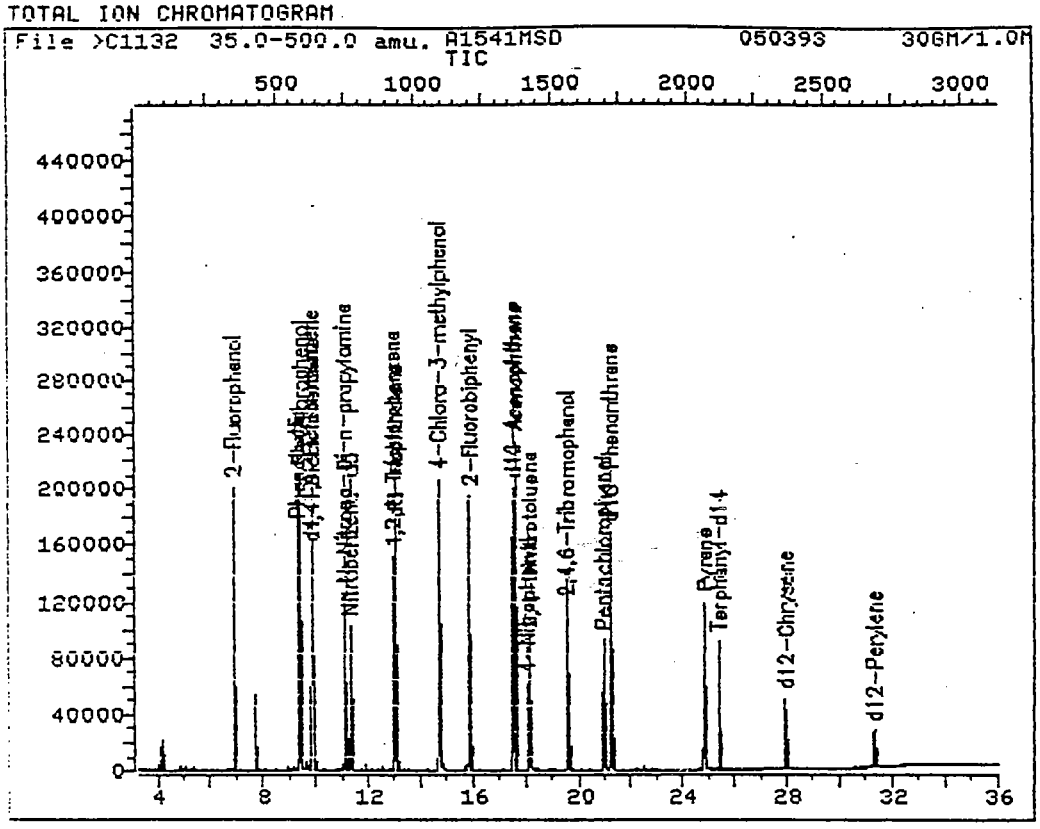
erator ID: JEFF Quant Rev: 6 Quant Time: 930503 20:24
Output File: ^C1132::D5 Injected at: 930503 19:45
ta File: >C1132::E4 Dilution Factor: 1.00000
me: A1541MSD
isc: 050393 30GM/1.0ML BTL# 3

File: IDHSLC::D3
tle: hSL BNA STD
Last Calibration: 930503 17:16

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	9.84	625	86363	40.00	UG/L	94
)	2-Fluorophenol	6.89	343	101612	66.02	UG/L	89
)	Phenol-d5	9.31	574	146587	71.01	UG/L	79
6)	Phenol	9.34	577	127488	58.69	UG/L	67
)	2-Chlorophenol	9.42	585	102212	56.11	UG/L	98
)	1,4-Dichlorobenzene	9.88	629	72516	35.91	UG/L	96
16)	N-Nitroso-Di-n-propylamine	11.09	745	48883	34.77	UG/L	95
)	*d8-Naphthalene	13.01	929	171566	40.00	UG/L	85
)	Nitrobenzene-d5	11.30	765	62945	33.66	UG/L	82
27)	1,2,4-Trichlorobenzene	12.95	923	66120	35.52	UG/L	95
31)	4-Chloro-3-methylphenol	14.68	1089	96772	59.80	UG/L	97
)	*d10-Acenaphthene	17.50	1359	102220	40.00	UG/L	94
)	2-Fluorobiphenyl	15.87	1203	128701	35.08	UG/L	93
43)	Acenaphthene	17.59	1367	132665	41.09	UG/L	94
)	4-Nitrophenol	18.07	1413	23116	49.48	UG/L	91
)	2,4-Dinitrotoluene	18.17	1423	45918	35.61	UG/L	96
53)	*d10-Phenanthrene	21.21	1714	152002	40.00	UG/L	98
54)	2,4,6-Tribromophenol	19.52	1552	33510	102.79	UG/L	94
)	Pentachlorophenol	20.94	1688	28480	56.24	UG/L	97
64)	*d12-Chrysene	27.95	2359	46206	40.00	UG/L	97
65)	Pyrene	24.83	2061	135475	38.40	UG/L	97
)	Terphenyl-d14	25.39	2114	78463	38.35	UG/L	88
)	*d12-Perylene	31.31	2681	28617	40.00	UG/L	93

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >C1132::E4 Quant Output File: ^C1132::D5
Name: A1541MSD
Misc: 050393 30GM/1.0ML BTL# 3

Id File: IDHSLC::D3
Title: hSL BNA STD
Last Calibration: 930503 17:16

Operator ID: JEFF
Quant Time: 930503 20:24
Injected at: 930503 19:45

21st Century Environmental Inc.

GC/MS STANDARD p-BROMOFLUOROBENZENE (BFB) TUNE
CRITERIA FOR VOLATILES 50ng

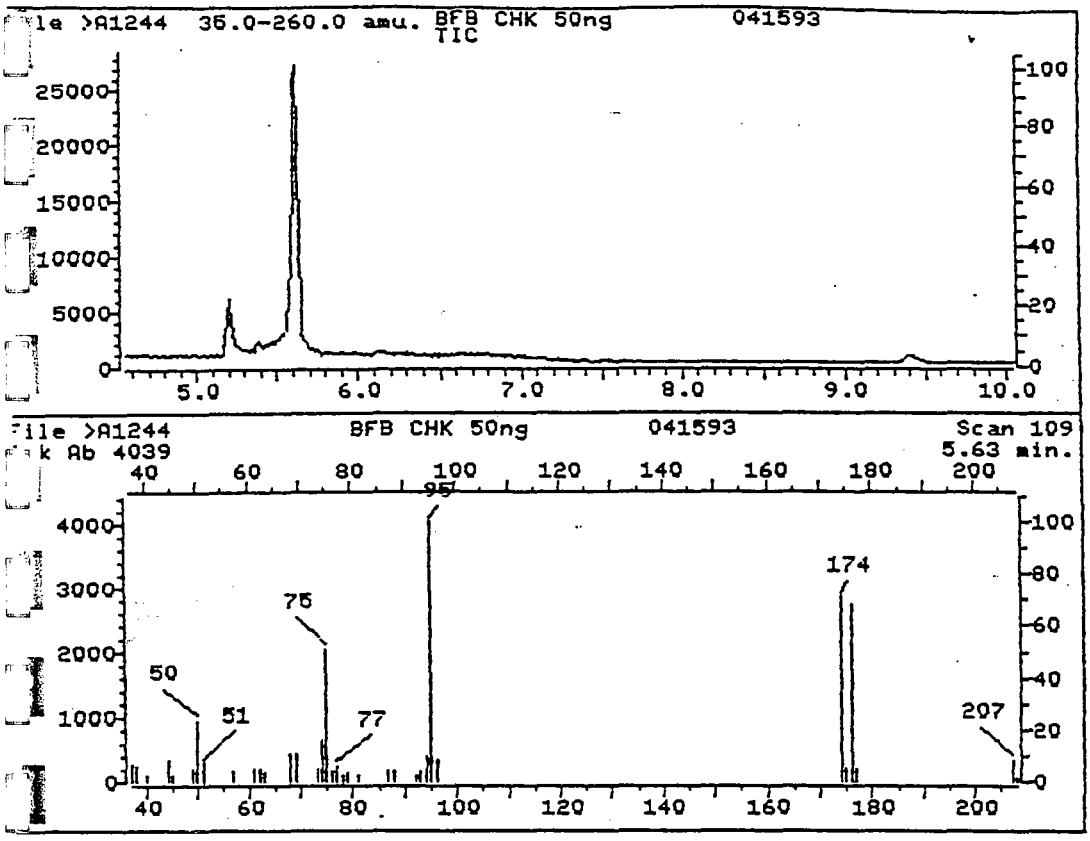
DATE AND TIME OF INJECTION: 4/15/93 10:05
INSTRUMENT ID: 5995

DATA RELEASE AUTHORIZED BY Richard W Symes

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	Appropriate Peak	Status
50	15-40% of mass 95	23.47	23.47	Ok
75	30-60% of mass 95	50.85	50.85	Ok
95	Base peak, 100% relative abundance	100.00	100.00	Ok
96	5-9% of mass 95	8.32	8.32	Ok
173	Less than 2% of mass 174	0.00	0.00	Ok
174	Greater than 50% of mass 95	70.81	70.81	Ok
175	5-9% of mass 174	5.37	7.59	Ok
176	95-101% of mass 174	67.67	95.56	Ok
177	5-9% of mass 176	4.78	7.06	Ok

THIS PERFORMANCE AFFECTS ALL SAMPLES
STANDARDS AND BLANKS LISTED BELOW

SAMPLE ID	LAB ID		DATE TIME
>A1244::D2	BFB CHK 50ng		4/15/93 10:05
>A1245::D2	HSL CAL CHK 50ppb		4/15/93 10:38
>A1246::D2	BLANK		4/15/93 11:43
>A1247::D2	A1500		4/15/93 12:18
>A1248::D2	A1528		4/15/93 13:07
>A1249::D2	A1541		4/15/93 13:42
>A1250::D2	A1542		4/15/93 14:17
>A1252::D2	A1544		4/15/93 15:27



A1244 BFB CHK 50ng 041593
109 NRM

le: >A1244 Scan #: 109 Retn. time: 5.63

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
37.05	6.784	51.05	7.477	73.10	4.853	81.00	2.575	96.10	8.319
38.05	5.496	57.05	4.159	74.10	15.969	87.00	4.630	174.00	70.810
39.95	2.748	61.10	5.249	75.10	50.854	88.00	4.407	175.00	5.373
44.05	8.591	62.10	5.175	76.10	4.407	92.10	2.649	176.00	67.665
45.05	2.748	63.10	3.466	77.10	5.917	93.00	3.862	177.00	4.778
49.05	5.076	68.10	11.018	78.10	2.204	94.10	10.225	207.15	8.542
50.05	23.471	69.10	10.745	79.00	3.095	95.10	100.000	208.15	1.981

21st Century Environmental Inc.

GC/MS STANDARD p-BROMOFLUOROBENZENE (BFB) TUNE
CRITERIA FOR VOLATILES 50ng

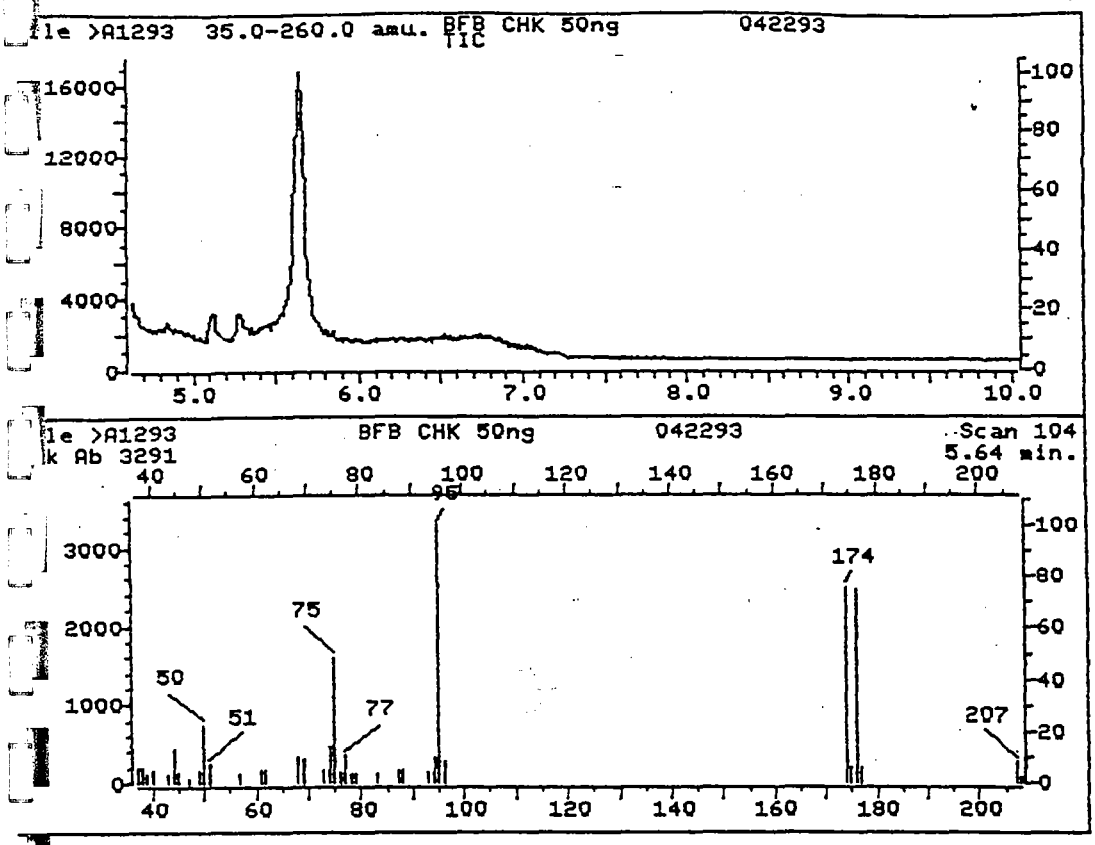
DATE AND TIME OF INJECTION: 4/22/93 13:33
INSTRUMENT ID: 5995

DATA RELEASE AUTHORIZED BY Richard W Lynch

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	Appropriate Peak	Status
50	15-40% of mass 95	22.79	22.79	Ok
75	30-60% of mass 95	48.25	48.25	Ok
95	Base peak, 100% relative abundance	100.00	100.00	Ok
96	5-9% of mass 95	8.11	8.11	Ok
173	Less than 2% of mass 174	0.00	0.00	Ok
174	Greater than 50% of mass 95	75.60	75.60	Ok
175	5-9% of mass 174	5.59	7.40	Ok
176	95-101% of mass 174	74.54	98.59	Ok
177	5-9% of mass 176	5.47	7.34	Ok

THIS PERFORMANCE AFFECTS ALL SAMPLES
STANDARDS AND BLANKS LISTED BELOW

SAMPLE ID	LAB ID		DATE TIME
>A1293::D2	BFB CHK 50ng		4/22/93 13:33
>A1294::D2	HSL CAL CHK 50ppb		4/22/93 15:00
>A1295::D2	BLANK		4/22/93 15:58
>A1296::D2	A1537		4/22/93 16:33
>A1297::D2	A1486		4/22/93 17:08
>A1298::D2	A1543		4/22/93 17:43
>A1299::D2	A1548		4/22/93 18:18
>A1300::D2	A1549		4/22/93 18:53
>A1301::D2	A1551		4/22/93 19:28
>A1302::D2	A1552		4/22/93 20:03
>A1303::D2	A1582MS		4/22/93 20:41
>A1304::D2	A1582MSD		4/22/93 21:16
>A1305::D2	A1553		4/22/93 21:50
>A1306::D2	A1554		4/22/93 22:25



A1293 BFB CHK 50ng 042293
104 NRM

ile: >A1293 Scan #: 104 Retn. time: 5.64

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
37.05	6.108	49.05	4.740	69.00	9.572	79.00	3.251	96.10	8.113
38.05	5.530	50.05	22.789	73.00	5.044	83.00	3.464	174.00	75.600
39.05	3.616	51.05	7.171	74.10	14.069	87.00	5.257	175.00	5.591
39.95	4.710	57.05	3.434	75.10	48.253	88.00	5.014	176.00	74.537
43.05	3.191	61.00	5.166	76.10	4.436	93.00	3.981	177.00	5.469
44.05	13.613	62.00	4.710	77.00	10.422	94.00	9.906	207.05	8.295
45.05	4.467	68.10	10.179	78.00	3.494	95.00	100.000	208.05	2.188
47.05	1.945								

21st Century Environmental Inc.

GC/MS STANDARD p-BROMOFLUOROBENZENE (BFB) TUNE
CRITERIA FOR VOLATILES 50ng

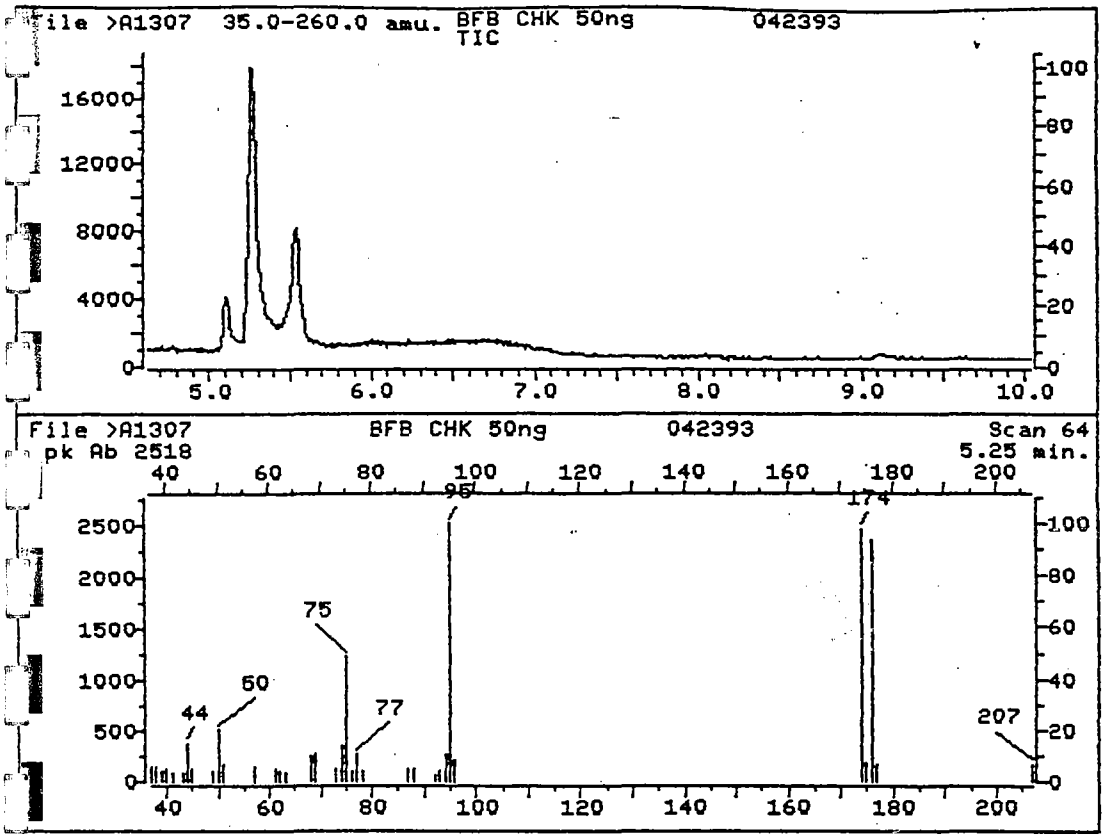
DATE AND TIME OF INJECTION: 4/23/93 9:00
INSTRUMENT ID: 5995

DATA RELEASE AUTHORIZED BY Richard W Lynch

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	% Relative Abundance Appropriate Peak	Status
50	15-40% of mass 95	20.45	20.45	Ok
75	30-60% of mass 95	48.77	48.77	Ok
95	Base peak, 100% relative abundance	100.00	100.00	Ok
96	5-9% of mass 95	7.98	7.98	Ok
173	Less than 2% of mass 174	0.00	0.00	Ok
174	Greater than 50% of mass 95	97.97	97.97	Ok
175	5-9% of mass 174	7.15	7.30	Ok
176	95-101% of mass 174	93.45	95.38	Ok
177	5-9% of mass 176	6.75	7.22	Ok

THIS PERFORMANCE AFFECTS ALL SAMPLES
STANDARDS AND BLANKS LISTED BELOW

SAMPLE ID	LAB ID		DATE TIME
>A1307::D2	BFB CHK 50ng		4/23/93 9:00
>A1309::D2	HSL CAL CHK 50ppb		4/23/93 11:23
>A1310::D2	BLANK		4/23/93 12:17
>A1311::D2	A1545		4/23/93 12:52
>A1312::D2	A1546		4/23/93 13:28
>A1313::D2	A1547		4/23/93 14:03
>A1314::D2	A1550		4/23/93 14:39
>A1315::D2	A1555		4/23/93 15:15
>A1316::D2	A1556		4/23/93 15:52
>A1317::D2	A1557		4/23/93 16:27
>A1318::D2	A1558		4/23/93 17:04
>A1319::D2	A1559		4/23/93 17:39
>A1320::D2	A1560		4/23/93 18:18
>A1321::D2	A1561		4/23/93 18:53
>A1322::D2	A1562		4/23/93 19:28
>A1324::D2	A1608		4/23/93 20:39



>A1307 BFB CHK 50ng 042393
64 NRM

File: >A1307 Scan #: 64 Retn. time: 5.25

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
36.95	5.560	45.05	4.925	63.10	3.693	77.00	10.643	95.00	100.000
38.05	5.759	49.05	4.527	68.10	10.167	78.10	4.329	96.00	7.983
39.05	4.289	50.05	20.453	69.10	10.842	87.00	5.242	174.00	97.975
39.95	5.441	51.05	6.751	73.00	5.083	88.00	4.805	175.00	7.149
41.05	3.415	57.05	6.275	74.10	14.496	92.00	2.701	176.00	93.447
43.05	3.296	61.10	4.805	75.00	48.769	93.00	4.051	177.00	6.751
43.95	15.131	62.10	4.408	76.10	4.249	94.10	10.723	207.05	7.029

Continuing Calibration Check
HSL Compounds

ase No: _____ Calibration Date: 04/15/93

Contractor: 21ST Century Env Time: 10:38

ontract No: _____ Laboratory ID: >A1245

nstrument ID: Volatile Inst A Initial Calibration Date: 03/24/93

Minimum $\overline{RF}$ for SPCC is .300 Maximum % Diff for CCC is 25%

Compound	$\overline{RF}$	RF	%Diff	CCC	SPCC	
loromethane	1.03473	.78332	24.30		**	
omomethane	1.26554	1.31364	3.80			
Vinyl Chloride	1.41813	1.15775	18.36	*		
loroethane	1.05023	.99556	5.21			
rolein	.06145	.05878	4.33			(Conc=80.00)
1,1,2-Trichlorotrifluoroethane	2.38138	2.61041	9.62			
Trichlorofluromethane	2.52769	2.70052	6.84			
etone	.85018	.86567	1.82			
1,1-Dichloroethene	2.40162	2.42644	1.03	*		
Carbon Disulfide	4.17327	3.41323	18.21			
rylonitrile	.48876	.52594	7.61			
thylene Chloride	2.13050	2.27727	6.89			
1,2-Dichloroethene(trans)	2.22898	2.27626	2.12			
1,1-Dichloroethane	2.76398	2.90764	5.20		**	
inyl Acetate	.57008	.48831	14.34			
2-Butanone	.89931	.86740	3.55			
Chloroform	3.29374	3.59557	9.16	*		
1,1,1-Trichloroethane	2.27756	2.46835	8.38			
arbon Tetrachloride	2.12666	2.35072	10.54			
1,2-Dichloroethane-d4	2.00430	2.10641	5.09			(Conc=50.00)
2-Dichloroethane	.49364	.57573	16.63			
nzene	.91704	.94995	3.59			
Trichloroethene	.38331	.40416	5.44			
2-Dichloropropane	.34745	.35020	.79	*		
romodichloromethane	.59055	.66582	12.75			
2-Chloroethylvinylether	.22522	.25509	13.25			
2-Hexanone	.30995	.32466	4.75			
rans-1,3-Dichloropropene	.55403	.58612	5.79			
oluene-d8	1.05498	1.02745	2.61			
Toluene	1.19164	1.28387	7.74	*		
is-1,3-Dichloropropene	.53672	.56750	5.73			
1,1,2,2-Tetrachloroethane	.59844	.66529	11.17		**	

RF - Response Factor from daily standard file at 50.00 UG/L

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

Diff - % Difference from original average or curve

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

00296

Continuing Calibration Check
HSL Compounds

Case No: _____ Calibration Date: 04/15/93

Contractor: 21ST Century Env Time: 10:38

Contract No: _____ Laboratory ID: >A1245

Instrument ID: Volatile Inst A Initial Calibration Date: 03/24/93

Minimum $\overline{RF}$ for SPCC is .300 Maximum % Diff for CCC is 25%

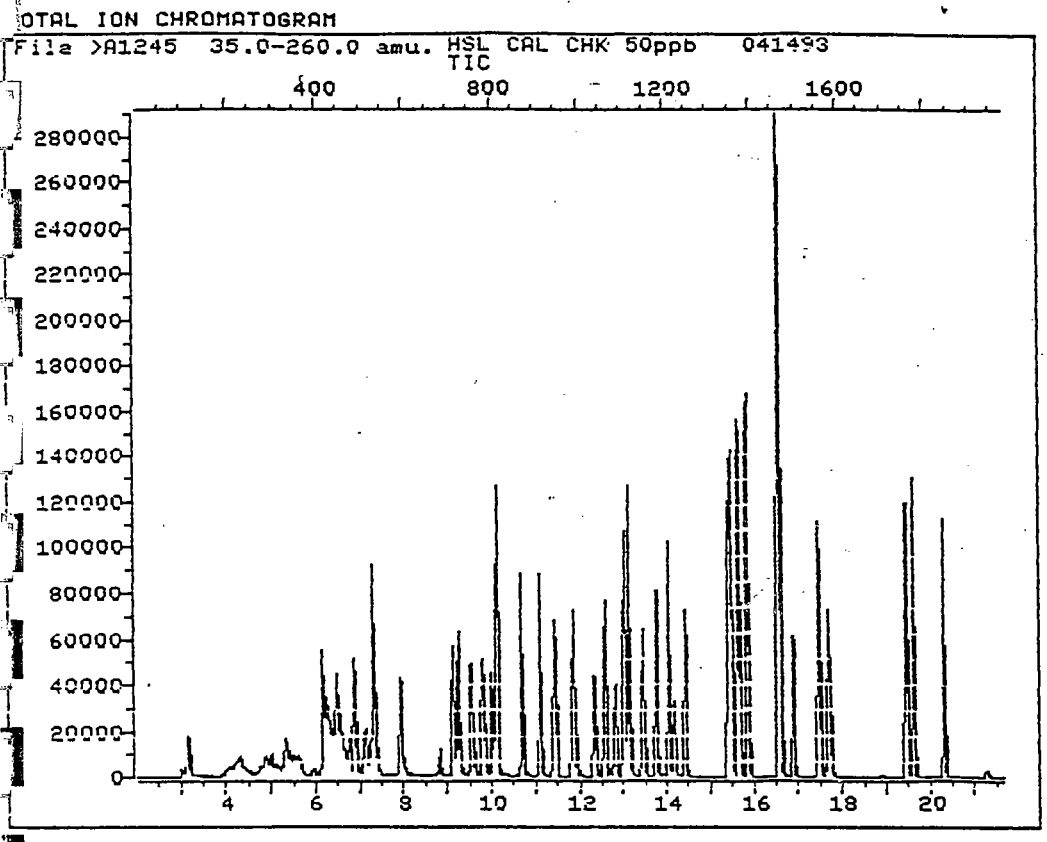
Compound	$\overline{RF}$	RF	%Diff	CCC	SPCC
1,1,2-Trichloroethane	.40220	.43221	7.46		
4-Methyl-2-pentanone	.36993	.37819	2.23		
Tetrachloroethene	.47449	.54620	15.11		
Dibromochloromethane	.56824	.66534	17.09		
Chlorobenzene	1.05927	1.16771	10.24		**
Ethylbenzene	1.86486	2.00284	7.40	*	
m&p-Xylenes	1.56761	1.74004	11.00		
o-Xylene	1.46424	1.66461	13.68		
Styrene	1.13446	1.36328	20.17		
Bromoform	.39367	.48295	22.68		**
Bromofluorobenzene	.64682	.63483	1.85		
m-Dichlorobenzene	.88479	.87491	1.12		
p-Dichlorobenzene	.90033	.89496	.60		
o-Dichlorobenzene	.81882	.81071	.99		

RF - Response Factor from daily standard file at 50.00 UG/L

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

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



Data File: >A1245::D2 Quant Output File: ^A1245::QT
Name: HSL CAL CHK 50ppb
Misc: 041493

Id File: ID0127::M1
Title: USEPA 624 VOLATILES
Last Calibration: 930414 13:36

Operator ID: JEFF
Quant Time: 930415 11:08
Injected at: 930415 10:38

Continuing Calibration Check
HSL Compounds

se No: _____ Calibration Date: 04/22/93

ntractor: 21ST Century Env Time: 15:00

Contract No: _____ Laboratory ID: >A1294

strument ID: Volatile Inst A Initial Calibration Date: 03/24/93

Minimum $\overline{RF}$ for SPCC is .300 Maximum % Diff for CCC is 25%

Compound	$\overline{RF}$	RF	%Diff	CCC	SPCC	
loromethane	1.03473	.95748	7.47		**	
romomethane	1.26554	1.12234	11.31			
Vinyl Chloride	1.41813	1.20246	15.21	*		
loroethane	1.05023	.96614	8.01			
rolein	.06145	.05998	2.39			(Conc=80.00)
1,1,2-Trichlorotrifluoroethane	2.38138	2.24862	5.58			
ichlorofluromethane	2.52769	2.22916	11.81			
etone	.85018	.77952	8.31			
1,1-Dichloroethene	2.40162	2.16951	9.66	*		
rbon Disulfide	4.17327	2.94535	29.42			
rylonitrile	.48876	.47305	3.21			
ethylene Chloride	2.13050	2.08485	2.14			
1,2-Dichloroethene(trans)	2.22898	2.20217	1.20			
1-Dichloroethane	2.76398	2.79663	1.18		**	
nyl Acetate	.57008	.42070	26.20			
2-Butanone	.89931	.86953	3.31			
loroform	3.29374	3.42898	4.11	*		
1,1-Trichloroethane	2.27756	2.25613	.94			
Carbon Tetrachloride	2.12666	2.07755	2.31			
1,2-Dichloroethane-d4	2.00430	2.07122	3.34			(Conc=50.00)
2-Dichloroethane	.49364	.49785	.85			
enzene	.91704	.93666	2.14			
Trichloroethene	.38331	.37441	2.32			
2-Dichloropropane	.34745	.35564	2.36	*		
omodichloromethane	.59055	.58255	1.36			
2-Chloroethylvinylether	.22522	.20483	9.05			
-Hexanone	.30995	.27047	12.74			
ans-1,3-Dichloropropene	.55403	.55747	.62			
Toluene-d8	1.05498	1.04556	.89			
Toluene	1.19164	1.21001	1.54	*		
is-1,3-Dichloropropene	.53672	.51891	3.32			
1,1,2,2-Tetrachloroethane	.59844	.57690	3.60		**	

RF - Response Factor from daily standard file at 50.00 UG/L

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

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

Continuing Calibration Check
HSL Compounds

ase No: Calibration Date: 04/22/93

Contractor: 21ST Century Env Time: 15:00

Contract No: Laboratory ID: >A1294

Instrument ID: Volatile Inst A Initial Calibration Date: 03/24/93

Minimum $\overline{RF}$ for SPCC is .300 Maximum % Diff for CCC is 25%

Compound	$\overline{RF}$	RF	%Diff	CCC	SPCC
,1,2-Trichloroethane	.40220	.39475	1.85		
-Methyl-2-pentanone	.36993	.31821	13.98		
Tetrachloroethene	.47449	.48096	1.36		
ibromochloromethane	.56824	.54850	3.48		
hlorobenzene	1.05927	1.07531	1.51		**
Ethylbenzene	1.86486	1.84478	1.08	*	
&p-Xylenes	1.56761	1.50746	3.84		
-Xylene	1.46424	1.49657	2.21		
Styrene	1.13446	1.11268	1.92		
Bromoform	.39367	.37199	5.51		**
romofluorobenzene	.64682	.61322	5.20		
-Dichlorobenzene	.88479	.72916	17.59		
p-Dichlorobenzene	.90033	.74036	17.77		
-Dichlorobenzene	.81882	.67014	18.16		

F - Response Factor from daily standard file at 50.00 UG/L

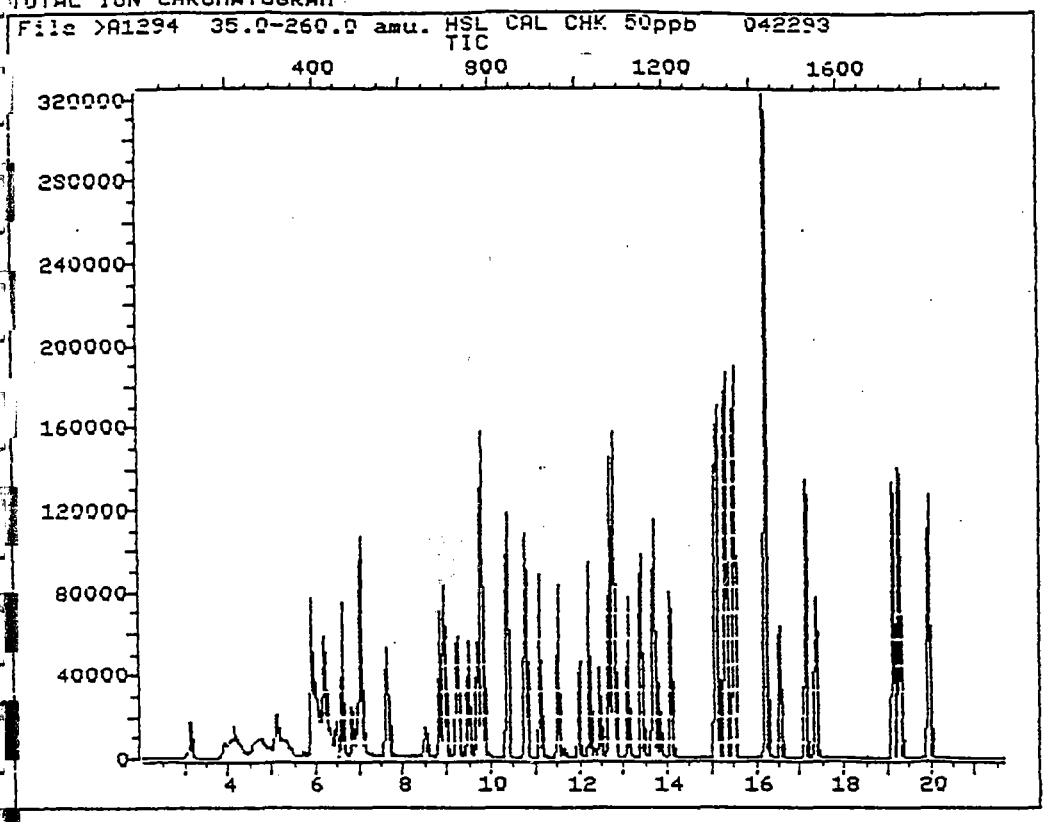
$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

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

CC300

TOTAL ION CHROMATOGRAM



Data File: >A1294::D2 Quant Output File: ^A1294::QT
Name: HSL CAL CHK 50ppb
Misc: 042293

Id File: ID0127::M1
Title: USEPA 624 VOLATILES
Last Calibration: 920421 11:08

Operator ID: JEFF
Quant Time: 930422 15:30
Injected at: 930422 15:00

Continuing Calibration Check
HSL Compounds

ase No: _____ Calibration Date: 04/23/93

Contractor: 21ST Century Env Time: 11:23

Contract No: _____ Laboratory ID: >A1309

nstrument ID: Volatile Inst A Initial Calibration Date: 03/24/93

Minimum $\overline{RF}$ for SPCC is .300 Maximum % Diff for CCC is 25%

Compound	$\overline{RF}$	RF	%Diff	CCC	SPCC	
hloromethane	1.03473	.80265	22.43		**	
romomethane	1.26554	1.15889	8.43			
Vinyl Chloride	1.41813	1.12824	20.44	*		
hloroethane	1.05023	.94797	9.74			
crolein	.06145	.04850	21.07			(Conc=80.00)
1,1,2-Trichlorotrifluoroethane	2.38138	2.41179	1.28			
richlorofluromethane	2.52769	2.44977	3.08			
cetone	.85018	.77021	9.41			
1,1-Dichloroethene	2.40162	2.21222	7.89	*		
Carbon Disulfide	4.17327	3.03307	27.32			
crylonitrile	.48876	.47309	3.21			
ethylene Chloride	2.13050	1.98616	6.77			
1,2-Dichloroethene(trans)	2.22898	2.19672	1.45			
,1-Dichloroethane	2.76398	2.78514	.77		**	
Vinyl Acetate	.57008	.39174	31.28			
2-Butanone	.89931	.80877	10.07			
hloroform	3.29374	3.39383	3.04	*		
,1,1-Trichloroethane	2.27756	2.37569	4.31			
Carbon Tetrachloride	2.12666	2.21550	4.18			
1,2-Dichloroethane-d4	2.00430	2.12548	6.05			(Conc=50.00)
,2-Dichloroethane	.49364	.50139	1.57			
Benzene	.91704	.90675	1.12			
Trichloroethene	.38331	.37646	1.79			
1,2-Dichloropropane	.34745	.33665	3.11	*		
Bromodichloromethane	.59055	.59692	1.08			
2-Chloroethylvinylether	.22522	.19268	14.45			
2-Hexanone	.30995	.25961	16.24			
trans-1,3-Dichloropropene	.55403	.54160	2.24			
Toluene-d8	1.05498	1.05294	.19			
Toluene	1.19164	1.18562	.51	*		
cis-1,3-Dichloropropene	.53672	.50070	6.71			
1,1,2,2-Tetrachloroethane	.59844	.54908	8.25		**	

RF - Response Factor from daily standard file at 50.00 UG/L

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

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

Continuing Calibration Check
HSL Compounds

ase No: _____ Calibration Date: 04/23/93

Contractor: 21ST Century Env Time: 11:23

Contract No: _____ Laboratory ID: >A1309

Instrument ID: Volatile Inst A Initial Calibration Date: 03/24/93

Minimum $\overline{RF}$ for SPCC is .300 Maximum % Diff for CCC is 25%

Compound	$\overline{RF}$	RF	%Diff	CCC	SPCC
,1,2-Trichloroethane	.40220	.37368	7.09		
4-Methyl-2-pentanone	.36993	.29702	19.71		
Tetrachloroethene	.47449	.48184	1.55		
ibromochloromethane	.56824	.54856	3.46		
hlorobenzene	1.05927	1.04298	1.54		**
Ethylbenzene	1.86486	1.79668	3.66	*	
&p-Xylenes	1.56761	1.48593	5.21		
-Xylene	1.46424	1.47440	.69		
Styrene	1.13446	1.12509	.83		
Bromoform	.39367	.37869	3.81		**
romofluorobenzene	.64682	.61896	4.31		
-Dichlorobenzene	.88479	.90688	2.50		
p-Dichlorobenzene	.90033	.91882	2.05		
-Dichlorobenzene	.81882	.83226	1.64		

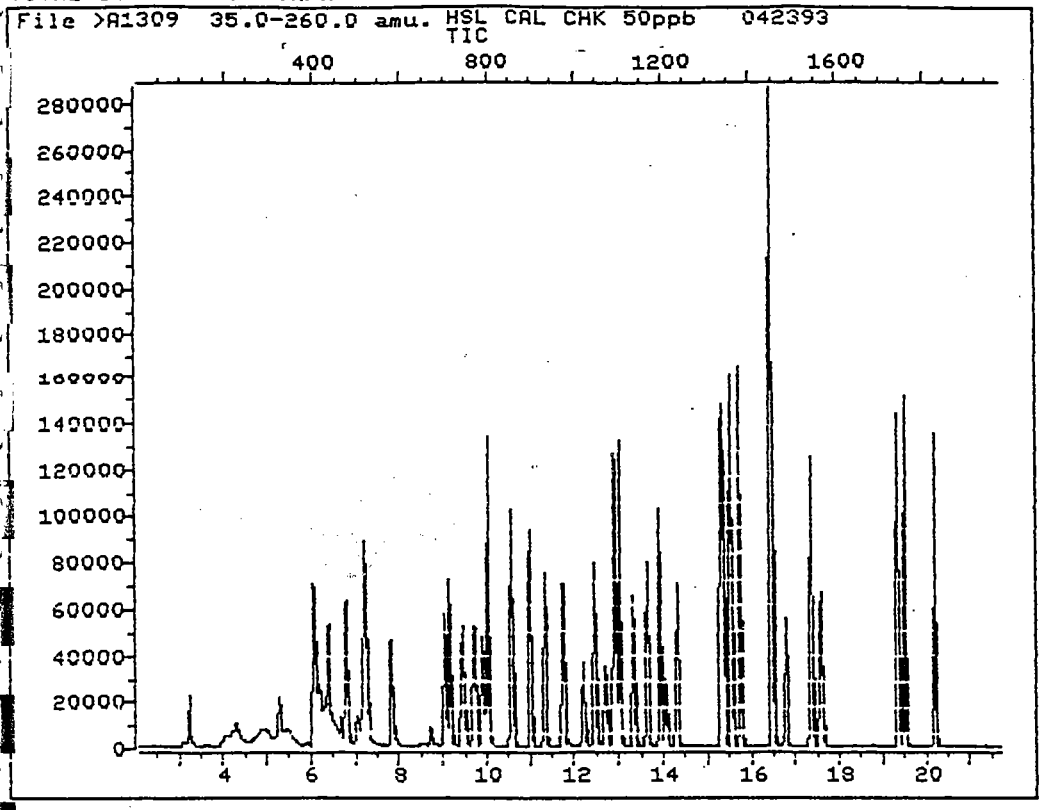
F - Response Factor from daily standard file at 50.00 UG/L

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

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

TOTAL ION CHROMATOGRAM



Data File: >A1309::D2 Quant Output File: ^A1309::QT
Name: HSL CAL CHK 50ppb
Misc: 042393

Id File: ID0127::M1
Title: USEPA 624 VOLATILES
Last Calibration: 930422 16:06

Operator ID: JEFF
Quant Time: 930423 11:54
Injected at: 930423 11:23

21st Century Environmental Inc.

GC/MS STANDARD p-BROMOFLUOROBENZENE (BFB) TUNE
CRITERIA FOR VOLATILES 50ng

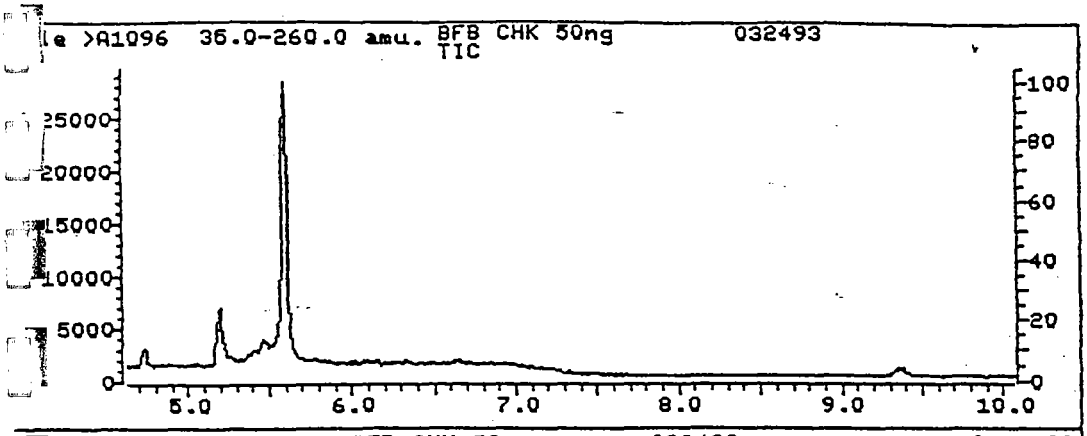
DATE AND TIME OF INJECTION: 3/24/93 9:18
INSTRUMENT ID: 5995

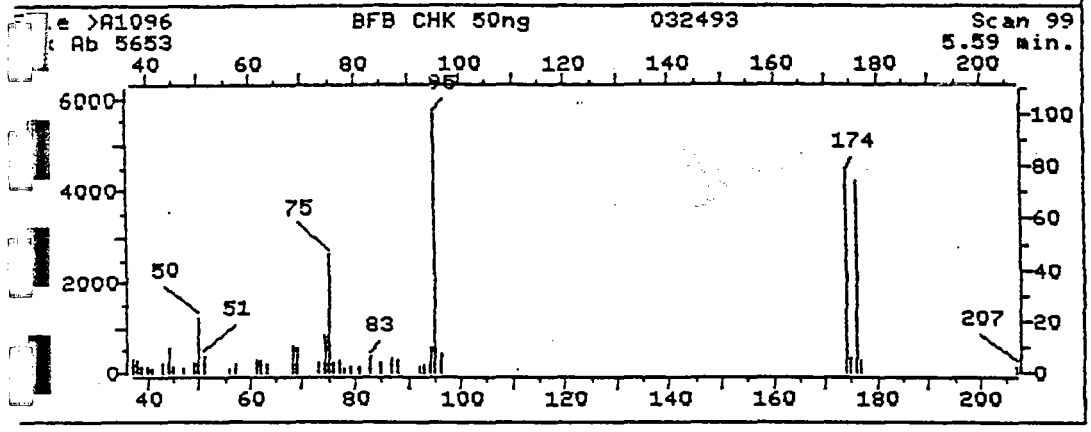
DATA RELEASE AUTHORIZED BY Richard Wright

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	Appropriate Peak	Status
50	15-40% of mass 95	21.71	21.71	Ok
75	30-60% of mass 95	46.26	46.26	Ok
95	Base peak, 100% relative abundance	100.00	100.00	Ok
96	5-9% of mass 95	7.75	7.75	Ok
173	Less than 2% of mass 174	0.00	0.00	Ok
174	Greater than 50% of mass 95	77.66	77.66	Ok
175	5-9% of mass 174	5.61	7.22	Ok
176	95-101% of mass 174	74.65	96.13	Ok
177	5-9% of mass 176	5.11	6.85	Ok

THIS PERFORMANCE AFFECTS ALL SAMPLES
STANDARDS AND BLANKS LISTED BELOW

SAMPLE ID		LAB ID		DATE	TIME
>A1096::D2		BFB CHK 50ng		3/24/93	9:18
>A1097::D2		HSL CAL CHK 20ppb		3/24/93	10:32
>A1098::D2		HSL CAL CHK 50ppb		3/24/93	11:28
>A1099::D2		HSL CAL CHK 100ppb		3/24/93	12:05
>A1100::D2		HSL CAL CHK 150ppb		3/24/93	12:44
>A1101::D2		HSL CAL CHK 200ppb		3/24/93	13:30
>A1103::D2		BLANK		3/24/93	16:25
>A1106::D2		A1290		3/24/93	18:11
>A1107::D2		A1259		3/24/93	18:46
>A1108::D2		A1261		3/24/93	19:22
>A1109::D2		A1262		3/24/93	19:57
>A1110::D2		A1263		3/24/93	20:32
>A1111::D2		A1264		3/24/93	21:07





A1096 BFB CHK 50ng 032493
99 NRM

le: >A1096 Scan #: 99 Retn. time: 5.59

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
37.05	5.696	49.05	4.405	68.10	10.525	79.00	2.600	94.10	10.366
38.05	5.272	50.05	21.705	69.10	9.995	81.00	2.406	95.10	100.000
39.05	2.919	51.05	7.111	73.00	4.192	83.00	6.651	96.10	7.748
39.95	2.530	56.05	1.999	74.10	14.647	85.00	4.139	174.00	77.658
41.05	1.734	57.05	3.485	75.10	46.259	87.00	5.891	175.00	5.608
43.05	4.139	61.10	5.236	76.10	3.927	88.00	4.953	176.00	74.651
44.05	10.402	62.10	4.635	77.00	5.378	92.10	2.653	177.00	5.112
45.05	2.370	63.10	3.113	78.10	1.857	93.00	3.573	207.05	2.936
47.05	1.716								

Initial Calibration Data
HSL Compounds

ase No: _____ Instrument ID: Volatile Inst A

Contractor: 21ST Century Env Calibration Date: 03/24/93

Contract No: _____

Minimum $\overline{RF}$ for SPCC is .300 · Maximum % RSD for CCC is 30%

Laboratory ID:	>A1097	>A1098	>A1099	>A1100	>A1101					
Compound	RF 20.00	RF 50.00	RF 100.00	RF 150.00	RF 200.00	$\overline{RRT}$	$\overline{RF}$	% RSD	CCC	SPCC
hloromethane	1.35641	1.02647	.99132	1.00656	.79290	.439	1.03473	19.611		**
romomethane	1.53893	1.18324	1.22783	1.23235	1.14535	.530	1.26554	12.399		
Vinyl Chloride	1.69065	1.27790	1.32297	1.42634	1.37279	.460	1.41813	11.431	*	
hloroethane	1.25383	.96691	1.00450	1.02802	.99791	.562	1.05023	11.034		
crolein	.07284	.05831	.05634	.05809	.06165	.655	.06145	10.828		(Conc=32.0,80.0,160.0,240
1,1,2-Trichlorotrifluoroethane	2.79762	2.05080	2.20935	2.44935	2.39979	.677	2.38138	11.823		
richlorofluromethane	2.94647	2.23903	2.41221	2.57143	2.46930	.581	2.52769	10.418		
cetone	1.19655	.91273	.72838	.74235	.67086	.682	.85018	25.125		
1,1-Dichloroethene	2.77074	2.14633	2.24866	2.44820	2.39418	.672	2.40162	9.920	*	
arbon Disulfide	4.70214	4.28100	3.78327	4.08900	4.01093	.707	4.17327	8.274		
crylonitrile	.58073	.44181	.44332	.47234	.50558	.793	.48876	11.789		
ethylene Chloride	2.56565	1.91910	1.96311	2.08059	2.12403	.753	2.13050	12.072		
1,2-Dichloroethene(trans)	2.59852	2.00267	2.10307	2.23882	2.20183	.800	2.22898	10.143		
,1-Dichloroethane	3.16728	2.49425	2.64260	2.77051	2.74526	.867	2.76398	9.054		**
inyl Acetate	.62580	.58165	.52548	.54531	.57219	.877	.57008	6.706		
2-Butanone	1.13019	.93348	.79389	.84031	.79870	.966	.89931	15.646		
hloroform	3.81613	3.00062	3.13032	3.27937	3.24226	1.014	3.29374	9.460	*	
,1,1-Trichloroethane	2.60873	2.02050	2.15933	2.32474	2.27450	1.047	2.27756	9.618		
Carbon Tetrachloride	2.40404	1.87172	2.01083	2.16063	2.18610	1.075	2.12666	9.405		
1,2-Dichloroethane-d4	1.96966	1.99820	2.01788	2.03973	1.99601	1.097	2.00430	1.307		(Conc=50.0,50.0,50.0,50.0
,2-Dichloroethane	.55674	.46309	.47720	.47702	.49416	.948	.49364	7.485		
enzene	1.07172	.86687	.87716	.88076	.88871	.947	.91704	9.468		
Trichloroethene	.43157	.35587	.36700	.38023	.38186	1.039	.38331	7.560		
,2-Dichloropropane	.39841	.32398	.33250	.33671	.34562	1.071	.34745	8.501	*	
romodichloromethane	.65609	.54780	.56796	.57977	.60112	1.109	.59055	7.013		
2-Chloroethylvinylether	.22925	.23836	.21184	.21542	.23121	1.152	.22522	4.963		
2-Hexanone	.33218	.32479	.28299	.29694	.31286	1.325	.30995	6.490		
rans-1,3-Dichloropropene	.61433	.51333	.53416	.54410	.56423	1.175	.55403	6.927		
Toluene-d8	1.04685	1.05249	1.05889	1.05531	1.06138	1.217	1.05498	.538		(Conc=50.0,50.0,50.0,50.0
Toluene	1.37169	1.11385	1.13926	1.15843	1.17496	1.228	1.19164	8.660	*	

RF - Response Factor (Subscript is amount in UG/L)

$\overline{RT}$ - Average Relative Retention Time (RT Std/RT Istd)

$\overline{RF}$ - Average Response Factor

%RSD - Percent Relative Standard Deviation

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

Initial Calibration Data
HSL Compounds

ase No: _____ Instrument ID: Volatile Inst A

ntractor: 21ST Century Env Calibration Date: 03/24/93

Contract No: _____

Minimum $\overline{RF}$ for SPCC is .300 Maximum % RSD for CCC is 30%.

Laboratory ID:	>A1097	>A1098	>A1099	>A1100	>A1101					
Compound	RF 20.00	RF 50.00	RF 100.00	RF 150.00	RF 200.00	$\overline{RRT}$	$\overline{RF}$	% RSD	CCC	SPCC
s-1,3-Dichloropropene	.58028	.48807	.51944	.53450	.56130	.873	.53672	6.699		
1,1,2,2-Tetrachloroethane	.68341	.54869	.56307	.57027	.62677	1.148	.59844	9.356		**
1,1,2-Trichloroethane	.46290	.36970	.38302	.39007	.40534	.892	.40220	9.020		
Methyl-2-pentanone	.39820	.38393	.33724	.35585	.37442	.919	.36993	6.457		
etrachloroethene	.53330	.42499	.44805	.47652	.48959	.911	.47449	8.715		
Dibromochloromethane	.61558	.51378	.55189	.56677	.59321	.936	.56824	6.872		
lorobenzene	1.24468	.98595	1.01228	1.02172	1.03170	1.004	1.05927	9.916		**
thylbenzene	2.12287	1.72576	1.78883	1.83556	1.85128	1.015	1.86486	8.165	*	
m&p-Xylenes	1.72806	1.57055	1.49484	1.52103	1.52359	1.029	1.56761	5.980		
-Xylene	1.76309	1.41090	1.41985	1.38215	1.34521	1.074	1.46424	11.582		
tyrene	1.29078	1.27673	1.08619	1.02272	.99591	1.075	1.13446	12.363		
Bromoform	.41687	.35189	.37861	.39693	.42406	1.095	.39367	7.455		**
Bromofluorobenzene	.62496	.64453	.65270	.65049	.66144	1.133	.64682	2.110		(Conc=50.0,50.0,50.0,50.0
-Dichlorobenzene	1.13317	.81784	.80482	.82427	.84387	1.262	.88479	15.773		
-Dichlorobenzene	1.15681	.83823	.81672	.83688	.85303	1.272	.90033	15.989		
o-Dichlorobenzene	1.04705	.75882	.74440	.76017	.78366	1.316	.81882	15.676		

RF - Response Factor (Subscript is amount in UG/L)

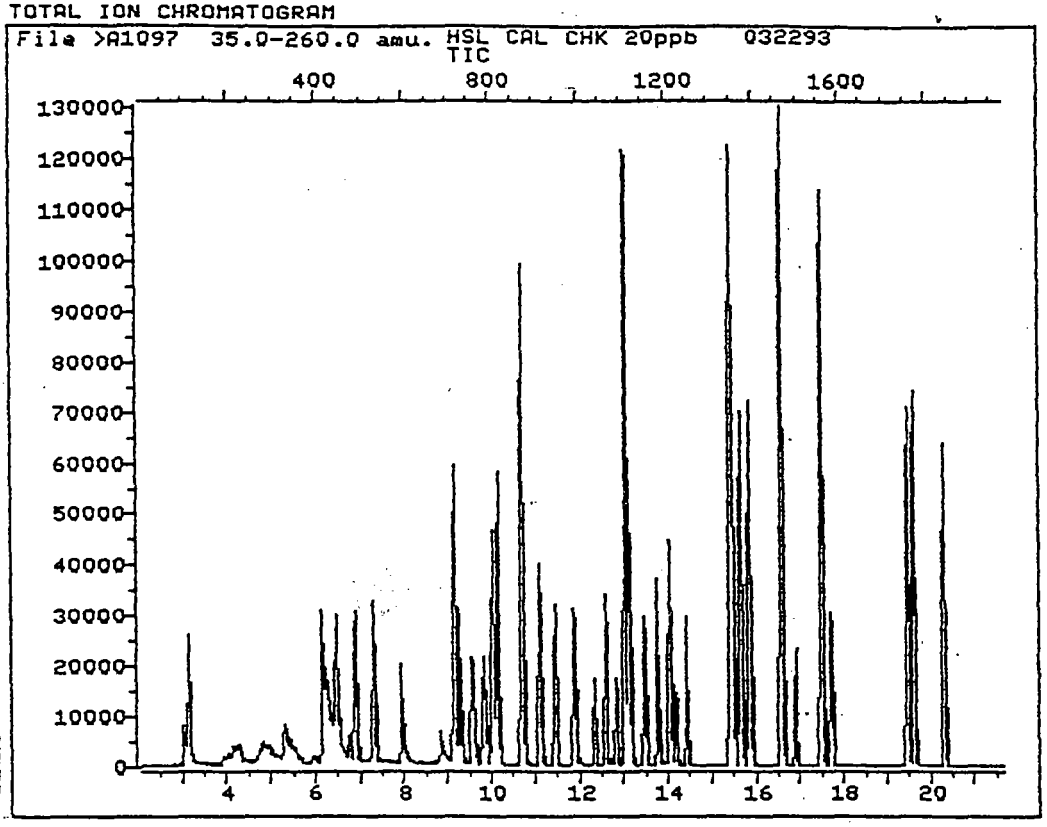
RT - Average Relative Retention Time (RT Std/RT Istd)

F - Average Response Factor

RSD - Percent Relative Standard Deviation

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

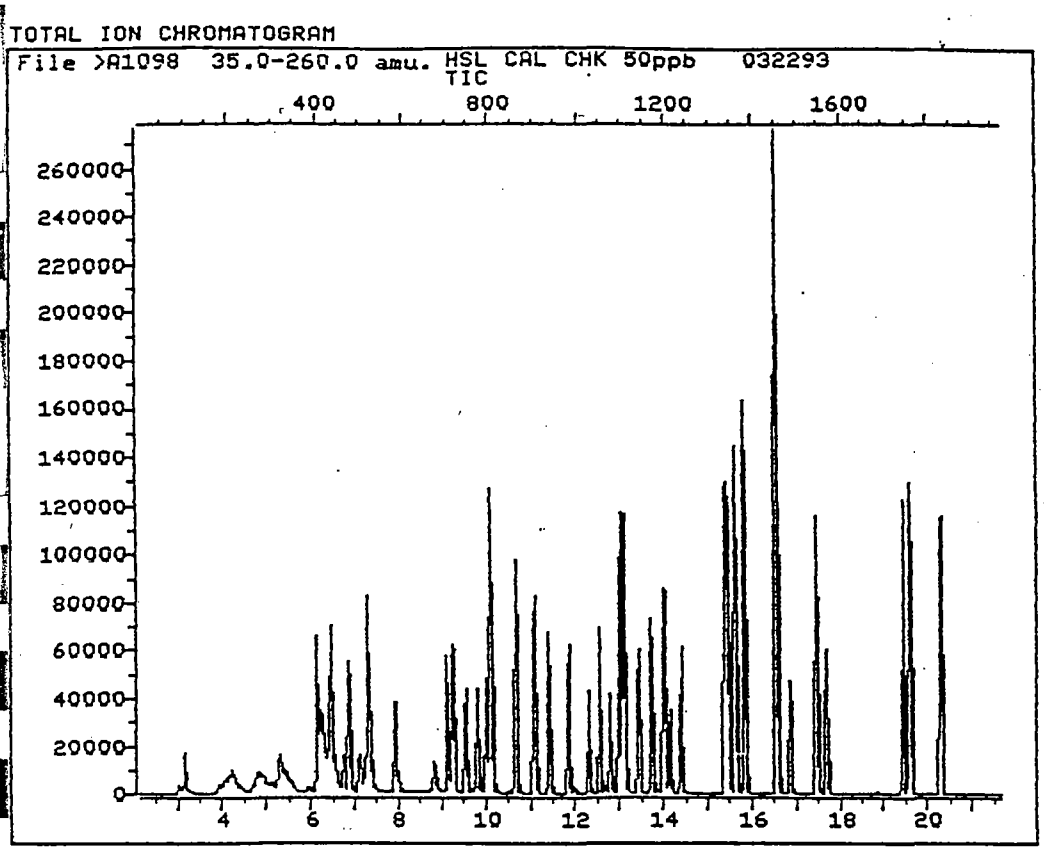
TOTAL ION CHROMATOGRAM



Data File: >A1097::D2 Quant Output File: ^A1097::QT
Name: HSL CAL CHK 20ppb
Misc: 032293

Id File: ID0127::M1
Title: USEPA 624 VOLATILES
Last Calibration: 930324 09:40

Operator ID: JEFF
Quant Time: 930324 11:03
Injected at: 930324 10:32

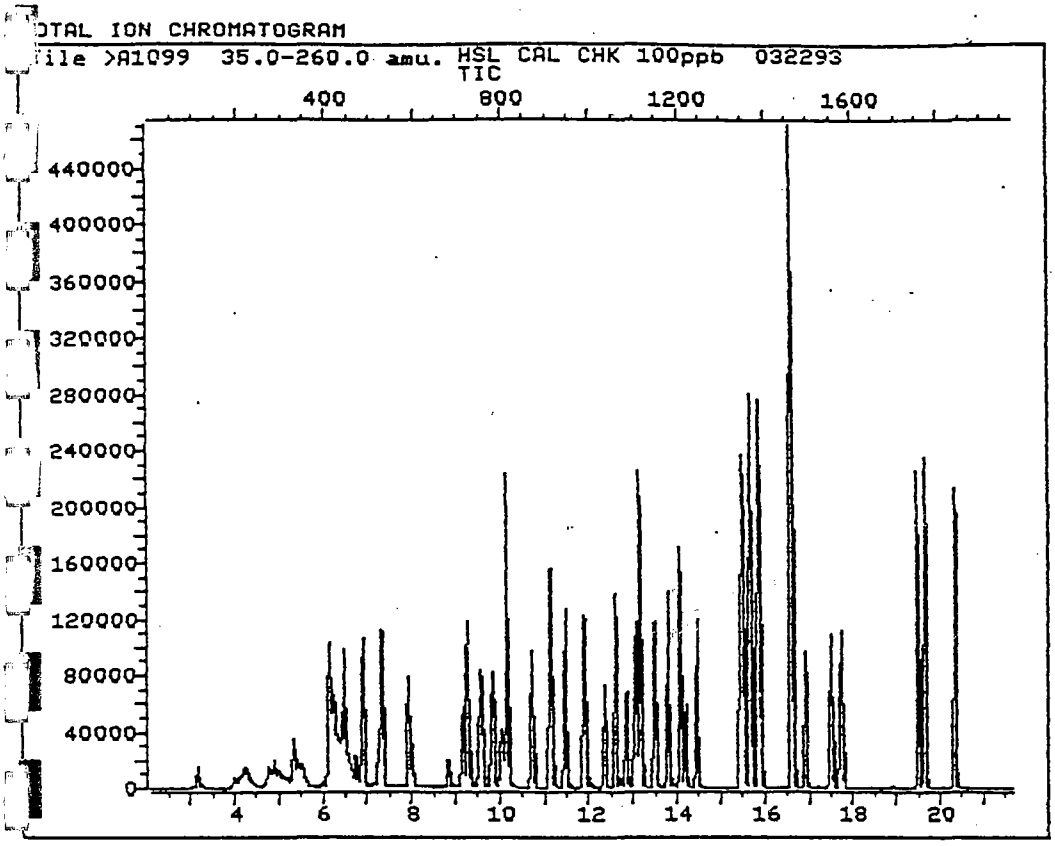


Data File: >A1098::D2
Name: HSL CAL CHK 50ppb
Misc: 032293

Quant Output File: ^A1098::QT

Id File: ID0127::M1
Title: USEPA 624 VOLATILES
Last Calibration: 930324 09:40

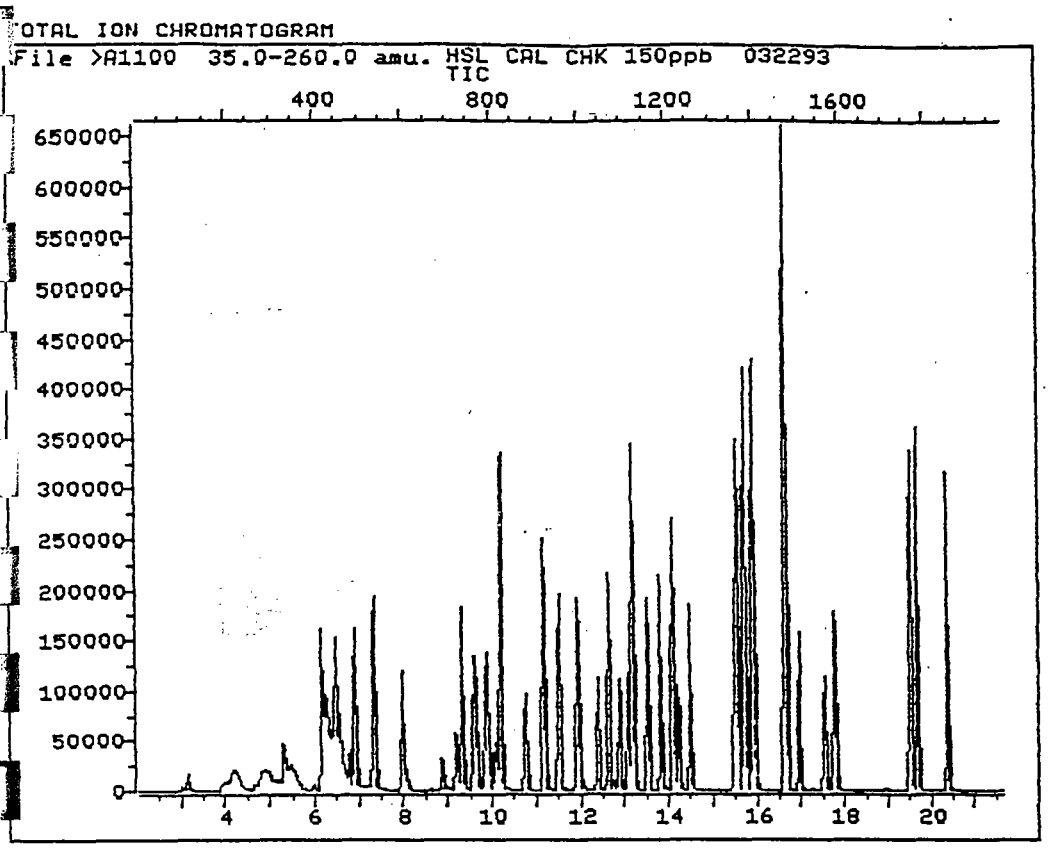
Operator ID: JEFF
Quant Time: 930324 11:59
Injected at: 930324 11:28



Data File: >A1099::D2 Quant Output File: ^A1099::QT
Name: HSL CAL CHK 100ppb
Misc: 032293

Id File: ID0127::M1
Title: USEPA 624 VOLATILES
Last Calibration: 930324 09:40

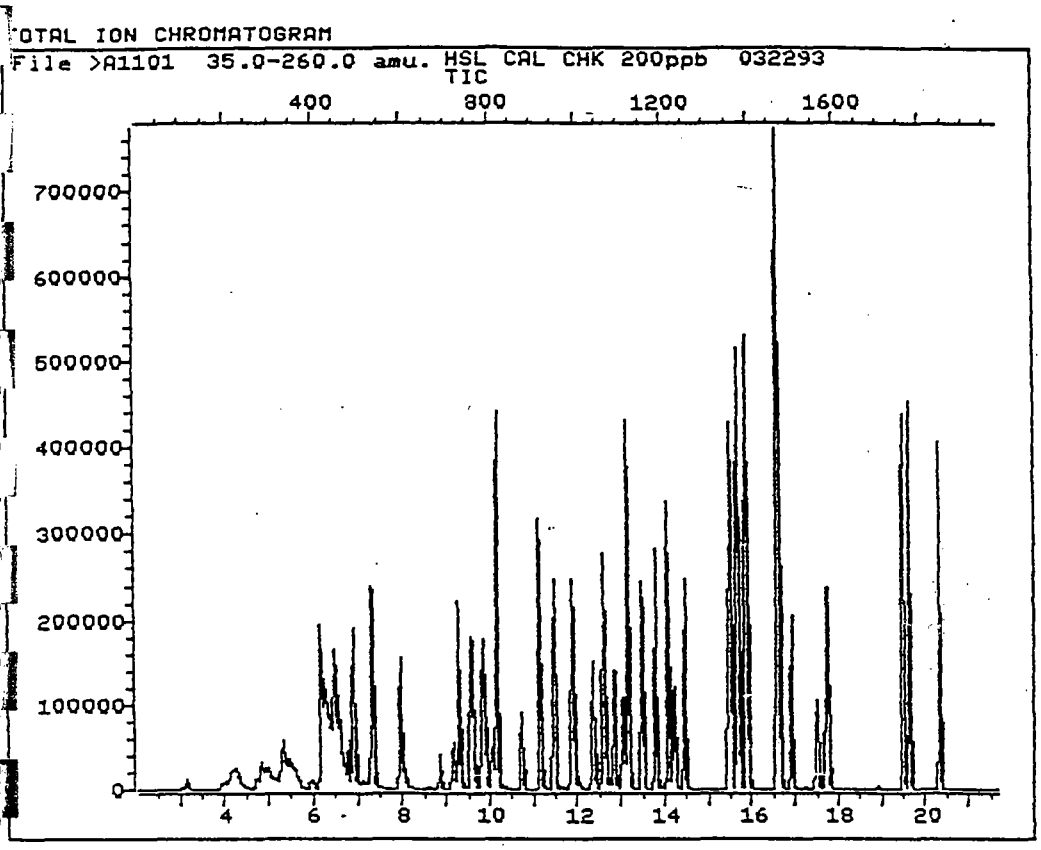
Operator ID: JEFF
Quant Time: 930324 12:35
Injected at: 930324 12:05



Data File: >A1100::D2 Quant Output File: ^A1100::QT
Name: HSL CAL CHK 150ppb
Misc: 032293

Id File: ID0127::M1
Title: USEPA 624 VOLATILES
Last Calibration: 930324 09:40

Operator ID: JEFF
Quant Time: 930324 13:14
Injected at: 930324 12:44



Data File: >A1101::D2 Quant Output File: ^A1101::QT
Name: HSL CAL CHK 200ppb
Misc: 032293

Id File: ID0127::M1
Title: USEPA 624 VOLATILES
Last Calibration: 930324 09:40

Operator ID: JEFF
Quant Time: 930324 14:01
Injected at: 930324 13:30

21ST CENTURY ENVIRONMENTAL INC.

GC/MS STANDARD DECAFLUOROTRIPHENYLPHOSPHINE(DFTPP) TUNE
CRITERA FOR SEMI-VOLATILES 50ng

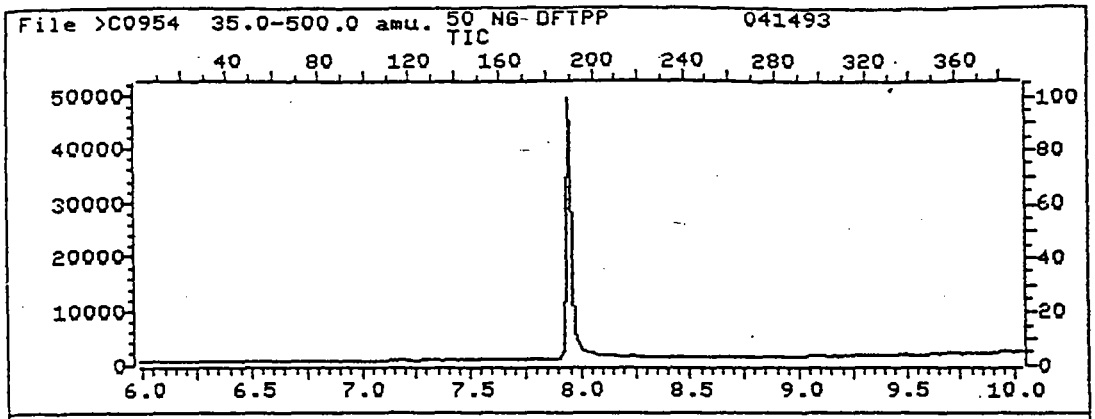
DATE AND TIME OF INJECTION: 4/14/93 10:06
INSTRUMENT ID: 5970

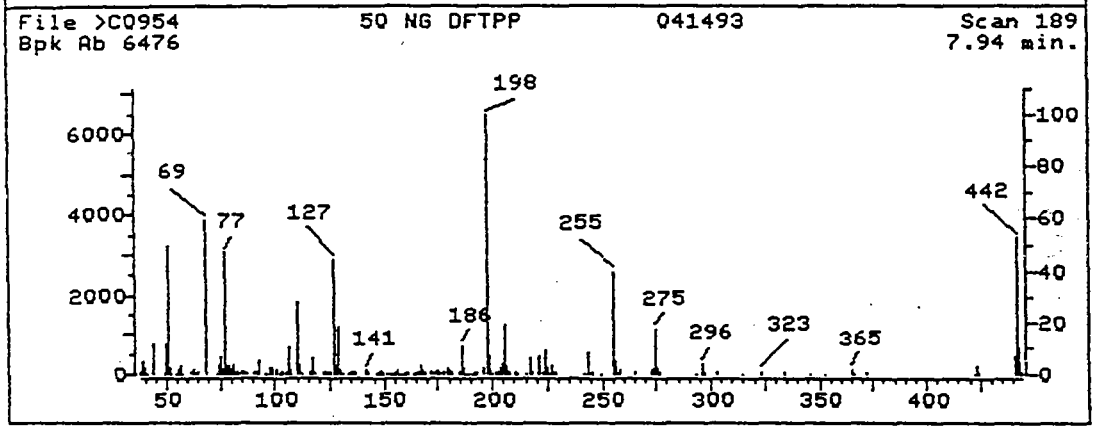
DATA RELEASE AUTHORIZED BY Richard W Ryan

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	% Relative Abundance Appropriate Peak	Status
51	30-60% of mass 198	49.63	49.63	Ok
68	Less than 2% of mass 69	0.00	0.00	Ok
69	(reference only)	59.65	59.65	Ok
70	Less than 2% of mass 69	0.00	0.00	Ok
127	40-60% of mass 198	44.53	44.53	Ok
197	Less than 1% of mass 198	0.00	0.00	Ok
198	Base peak, 100% relative abundance	100.00	100.00	Ok
199	5-9% of mass 198	6.47	6.47	Ok
275	10-30% of mass 198	17.56	17.56	Ok
365	Greater than 1% of mass 198	1.85	1.85	Ok
441	0-100% of mass 443	6.73	67.91	Ok
442	Greater than 40% of mass 198	52.72	52.72	Ok
443	17-23% of mass 442	9.91	18.80	Ok

THIS PERFORMANCE AFFECTS ALL SAMPLES
STANDARDS AND BLANKS LISTED BELOW

SAMPLE ID	LAB ID		DATE TIME
>C0954::E4	50 NG DFTPP		4/14/93 10:06
>C0955::E4	120 PPM BNA STD		4/14/93 10:38
>C0956::E4	150 PPM BNA STD		4/14/93 11:24
>C0957::E4	180 PPM BNA STD		4/14/93 12:11
>C0958::E4	120PPM BNA STD		4/14/93 12:57
>C0959::E4	160PPM BNA STD		4/14/93 13:44





>C0954 50 NG DFTPP 041493
189 NRM

File: >C0954 Scan #: 189 Retn. time: 7.94

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
38.00	.602	92.00	.803	145.90	.201	187.95	.263	245.05	1.081
39.10	5.435	93.00	4.910	147.00	1.065	188.85	.417	245.95	1.328
40.00	2.254	96.10	.355	147.90	1.683	191.05	.371	248.95	.340
41.10	.293	98.00	2.918	148.80	.540	191.95	1.019	254.90	39.932
44.00	11.720	99.00	2.918	151.30	.263	192.95	.957	255.90	5.296
49.15	.401	101.00	1.714	151.70	.232	196.00	2.965	257.00	.448
50.05	11.936	102.95	.479	153.00	.479	197.90	100.000	258.00	2.116
51.05	49.629	103.95	.911	154.10	.401	198.90	6.470	264.85	.788
52.05	2.270	105.05	1.204	155.00	1.127	199.80	.263	272.95	1.482
54.95	.355	106.95	11.025	156.05	1.343	201.50	.664	273.95	2.965
55.95	1.714	107.95	1.606	157.05	.355	202.90	.510	274.95	17.557
57.05	3.536	109.95	28.490	157.55	.293	204.00	2.409	275.90	2.455
57.95	.216	110.95	3.768	157.85	.371	205.00	4.416	276.90	1.204
62.00	.587	111.85	.278	158.95	.448	206.00	18.962	293.05	.185
63.10	1.621	116.00	.849	160.05	.540	207.00	3.119	295.95	4.216
64.00	.401	116.90	6.223	161.05	.926	208.00	.510	296.95	.525
65.00	.757	118.00	.510	164.05	.170	210.15	.525	303.00	.587
69.00	59.651	122.00	.602	164.95	.741	210.95	.741	314.90	1.432
73.00	.479	123.00	1.112	166.15	.633	211.55	.263	322.95	1.127
74.10	3.397	123.90	.649	167.05	3.752	215.15	.170	333.90	1.065

77.05	46.927	128.10	3.135	172.00	.556	220.95	6.470	364.90	1.853
78.05	3.227	128.95	18.159	173.90	.896	222	.818	366.00	.309
79.05	3.166	129.95	1.544	175.00	1.467	224.00	9.543	372.05	.818
79.95	2.116	130.85	.232	175.90	.510	224.90	2.687	422.00	.293
81.05	3.335	133.85	.448	177.00	.726	226.00	.247	423.00	3.166
82.05	.942	135.05	1.235	179.00	2.733	226.90	3.613	424.05	.757
83.05	1.004	136.05	.587	180.00	1.776	228.00	.556	441.00	6.733
85.15	.525	136.95	.849	180.90	.896	228.90	.710	442.00	52.718
86.05	.757	141.05	1.729	184.95	1.235	241.95	.463	443.00	9.914
87.05	.417	142.10	.649	185.95	11.211	243.95	8.169	443.90	.942
91.10	.664	142.90	.540	187.05	2.610				

Initial Calibration Data
HSL Compounds

Case No: _____ Instrument ID: 5970C

Contractor: 21st Century Envir Calibration Date: 04/14/93

Contract No: _____

Minimum $\overline{RF}$ for SPCC is 0.050 Maximum % RSD for CCC is 30%

Laboratory ID:	>C0955	>C0956	>C0957	>C0958	>C0959					
Compound	RF 20.00	RF 50.00	RF 80.00	RF 120.00	RF 160.00	$\overline{RRT}$	$\overline{RF}$	% RSD	CCC	SPCC
Pyridine	.73290	.73610	.57968	.55091	.64685	.386	.64929	13.126		
n-Nitrosodimethylamine	.50888	.50669	.44304	.52183	.56008	.387	.50810	8.307		
2-Fluorophenol	.76326	.75507	.75078	.76196	.44957	.712	.69613	19.814		(Conc=100.0,100.0,100.0,
Phenol-d5	1.08283	1.09675	1.23993	1.25860	.79862	.942	1.09534	16.819		(Conc=100.0,100.0,100.0,
Phenol	1.18693	1.18875	1.21152	1.40705	1.53114	.945	1.30508	11.978	*	
bis(-2-Chloroethyl)Ether	1.01719	.95884	.93543	1.06828	1.12488	.956	1.02092	7.623		
2-Chlorophenol	.90704	.86986	.86571	.97694	1.00684	.958	.92528	6.893		
1,3-Dichlorobenzene	.97952	.91686	.83993	.94764	.95890	.991	.92857	5.868		
1,4-Dichlorobenzene	.97027	.92297	.83972	.96636	.97973	1.004	.93581	6.196	*	
Benzyl Alcohol	.56296	.55803	.64140	.74718	.84937	1.048	.67179	18.671		
1,2-Dichlorobenzene	.93425	.86631	.78279	.89357	.91477	1.047	.87834	6.726		
2-Methylphenol	.87809	.86047	.91885	1.07745	1.16811	1.083	.98060	13.804		
bis(2-Chloroisopropyl)ether	1.23646	1.11825	1.24462	1.41408	1.48341	1.087	1.29937	11.336		
4-Methylphenol	1.75251	1.70424	1.88754	2.19093	2.48073	1.123	2.00319	16.346		
N-Nitroso-Di-n-propylamine	.73716	.74834	.73492	.83778	.87345	1.124	.78633	8.227		**
Hexachloroethane	.40189	.36653	.34747	.40707	.41674	1.121	.38794	7.610		
Nitrobenzene-d5	.45114	.54775	.61892	.45954	.46077	.873	.50762	14.508		(Conc=50.0,50.0,50.0,50.
Nitrobenzene	.45287	.46652	.45129	.47481	.52342	.876	.47378	6.209		
Isophorone	.97325	1.03947	1.12401	1.24427	1.40819	.923	1.15784	14.920		
2-Nitrophenol	.18176	.21282	.21710	.22558	.25805	.936	.21906	12.495	*	
2,4-Dimethylphenol	.32640	.35051	.34709	.35777	.38810	.953	.35398	6.315		
Benzoic Acid	.12958	.25249	.37488	.41791	.50116	.990	.33520	43.508		
bis(-2-Chloroethoxy)Methane	.49380	.51954	.52398	.54148	.59562	.970	.53488	7.104		
2,4-Dichlorophenol	.32702	.36083	.36149	.36773	.40375	.981	.36416	7.492	*	
1,2,4-Trichlorobenzene	.39250	.39344	.36014	.37194	.37391	.995	.37839	3.785		
Naphthalene	1.15302	1.17694	1.06558	1.06714	1.15953	1.004	1.12444	4.780		
4-Chloroaniline	.41678	.49381	.50252	.61861	.68166	1.023	.54267	19.531		
Hexachlorobutadiene	.19307	.18908	.16161	.17145	.16418	1.043	.17588	8.190	*	
4-Chloro-3-methylphenol	.37175	.43686	.45817	.47251	.52302	1.119	.45246	12.191	*	
2-Methylnaphthalene	.72841	.81118	.78406	.80979	.86633	1.135	.79995	6.250		

RF - Response Factor (Subscript is amount in ug/l)

$\overline{RRT}$ - Average Relative Retention Time (RT Std/RT Istd)

$\overline{RF}$ - Average Response Factor

%RSD - Percent Relative Standard Deviation

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

Initial Calibration Data
HSL Compounds

Case No: _____ Instrument ID: 5970C

Contractor: 21st Century Envir Calibration Date: 04/14/93

Contract No: _____

Minimum $\overline{RF}$ for SPCC is 0.050 Maximum % RSD for CCC is 30%

Laboratory ID:	>C0955	>C0956	>C0957	>C0958	>C0959					
Compound	RF 20.00	RF 50.00	RF 80.00	RF 120.00	RF 160.00	$\overline{RRT}$	$\overline{RF}$	% RSD	CCC	SPCC
Hexachlorocyclopentadiene	.22989	.30975	.32041	.36708	.38964	.885	.32335	19.086		**
2,4,6-Trichlorophenol	.40245	.44074	.44595	.46444	.49929	.897	.45057	7.846	*	
2,4,5-Trichlorophenol	.44794	.49016	.49394	.52589	.52482	.902	.49655	6.424		
2-Chloronaphthalene	1.31516	1.40000	1.36874	1.41877	1.48573	.919	1.39768	4.504		
2-Fluorobiphenyl	1.46265	1.77141	2.02305	1.52703	1.51982	.909	1.66079	14.137		(Conc=50.0,50.0,50.0,50.1
2-Nitroaniline	.42932	.47685	.45293	.46020	.45461	.941	.45478	3.758		
Dimethyl Phthalate	1.60023	1.59130	1.33107	1.24466	1.21079	.976	1.39561	13.466		
Acenaphthylene	1.86233	2.01508	1.98308	2.01756	2.10112	.978	1.99583	4.333		
3-Nitroaniline	.29990	.28603	.22681	.23757	.23432	1.000	.25693	13.035		
Acenaphthene	1.18943	1.27909	1.22626	1.25584	1.30027	1.005	1.25018	3.496	*	
2,4-Dinitrophenol	.06609	.09091	.08208	.07541	.08251	1.015	.07940	11.654		**
4-Nitrophenol	.23167	.25243	.16013	.14220	.14991	1.027	.18727	27.202		**
Dibenzofuran	1.74945	1.84253	1.65998	1.69068	1.69230	1.028	1.72699	4.182		
2,4-Dinitrotoluene	.39755	.40371	.27259	.25135	.26255	1.037	.31755	24.010		
2,6-Dinitrotoluene	.31942	.35948	.32010	.31175	.31379	.983	.32491	6.049		
Diethylphthalate	1.45871	1.39309	.95349	.84218	.82944	1.077	1.09538	27.975		
4-Chlorophenyl-phenylether	.70681	.69692	.63673	.60623	.59291	1.080	.64792	8.005		
Fluorene	1.34086	1.38312	1.13654	1.10412	1.05779	1.076	1.20449	12.224		
4-Nitroaniline	.27964	.25360	.14148	.12560	.14945	1.087	.18995	37.436		
4,6-Dinitro-2-methylphenol	.07840	.09985	.10223	.10914	.13543	.907	.10501	19.544		
N-Nitrosodiphenylamine	.59690	.63669	.78476	.83165	.83541	.910	.73708	15.261	*	
2,4,6-Tribromophenol	.11210	.11918	.15344	.13946	.11293	.922	.12742	14.334		(Conc=100.0,100.0,100.0,1
4-Bromophenyl-phenylether	.25144	.27885	.34611	.36600	.37130	.951	.32274	16.819		
Hexachlorobenzene	.27270	.28275	.31131	.33018	.32726	.966	.30484	8.535	*	
Pentachlorophenol	.10344	.12396	.12064	.12428	.13793	.987	.12205	10.110		**
Phenanthrene	1.20901	1.19791	1.14571	1.21387	1.32638	1.003	1.21858	5.424		
Anthracene	1.16240	1.18890	1.15552	1.20069	1.27313	1.008	1.19613	3.919		
Di-n-Butylphthalate	.99129	1.02982	.79501	.79630	1.12575	1.083	.94763	15.525		
Fluoranthene	.66696	.61989	.47044	.47403	.71717	1.142	.58970	19.098	*	
Pyrene	2.34561	2.23957	2.05532	2.14475	1.93606	.891	2.14426	7.406		

RF - Response Factor (Subscript is amount in ug/l)

$\overline{RRT}$ - Average Relative Retention Time (RT Std/RT Istd)

$\overline{RF}$ - Average Response Factor

%RSD - Percent Relative Standard Deviation

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

Initial Calibration Data
HSL Compounds

Case No: _____ Instrument ID: 5970C

Contractor: 21st Century Envir Calibration Date: 04/14/93

Contract No: _____

Minimum $\overline{RF}$ for SPCC is 0.050 Maximum % RSD for CCC is 30%

Laboratory ID:	>C0955	>C0956	>C0957	>C0958	>C0959					
Compound	RF 20.00	RF 50.00	RF 80.00	RF 120.00	RF 160.00	$\overline{RRT}$	$\overline{RF}$	% RSD	CCC	SPCC
Benzidine	.24209	.36353	.40441	.54854	.66580	.886	.44487	37.095		
Terphenyl-d14	1.67090	1.83893	1.88051	1.32067	1.11810	.909	1.56582	21.306		(Conc=50.0,50.0,50.0,50.0
Butylbenzylphthalate	.69773	.81470	.83339	.90368	1.05594	.958	.86109	15.296		
3,3'-Dichlorobenzidine	.22428	.24991	.25216	.36024	.40041	1.000	.29740	26.159		
Benzo(a)Anthracene	1.12617	1.23514	1.17462	1.30231	1.36967	.999	1.24158	7.844		
Bis(2-Ethylhexyl)Phthalate	.80316	1.11604	1.14995	1.26543	1.47719	1.014	1.16235	21.120		
Chrysene	1.08968	1.16868	1.05970	1.16609	1.25318	1.002	1.14747	6.610		
Di-n-octyl phthalate	1.46887	1.99298	2.27747	2.60824	3.04313	.952	2.27814	26.249	*	
Benzo(b)fluoranthene	1.10192	1.32908	1.37305	1.33488	1.67427	.974	1.36264	14.999		
Benzo(k)Fluoranthene	1.34108	1.30006	1.29359	1.60415	1.31988	.976	1.37175	9.567		
Benzo(a)Pyrene	1.07927	1.23471	1.26768	1.38698	1.46228	.996	1.28618	11.465	*	
Indeno(1,2,3-cd)Pyrene	1.01156	1.25668	1.19735	1.32151	1.33443	1.077	1.22430	10.697		
Dibenzo(a,h)Anthracene	.78660	1.00888	.95930	1.06547	1.14626	1.078	.99330	13.575		
Benzo(g,h,i)Perylene	.93728	1.06451	.99893	1.13340	1.14976	1.097	1.05678	8.491		

RF - Response Factor (Subscript is amount in ug/l)

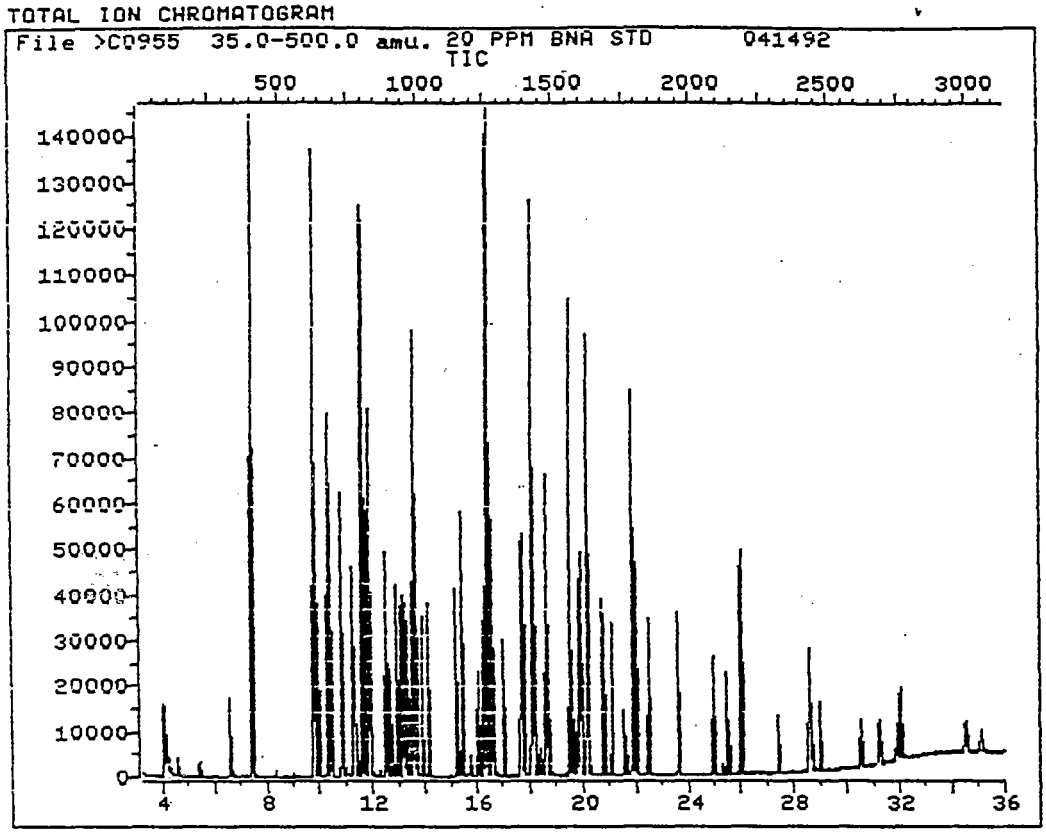
$\overline{RRT}$ - Average Relative Retention Time (RT Std/RT Istd)

$\overline{RF}$ - Average Response Factor

%RSD - Percent Relative Standard Deviation

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

TOTAL ION CHROMATOGRAM

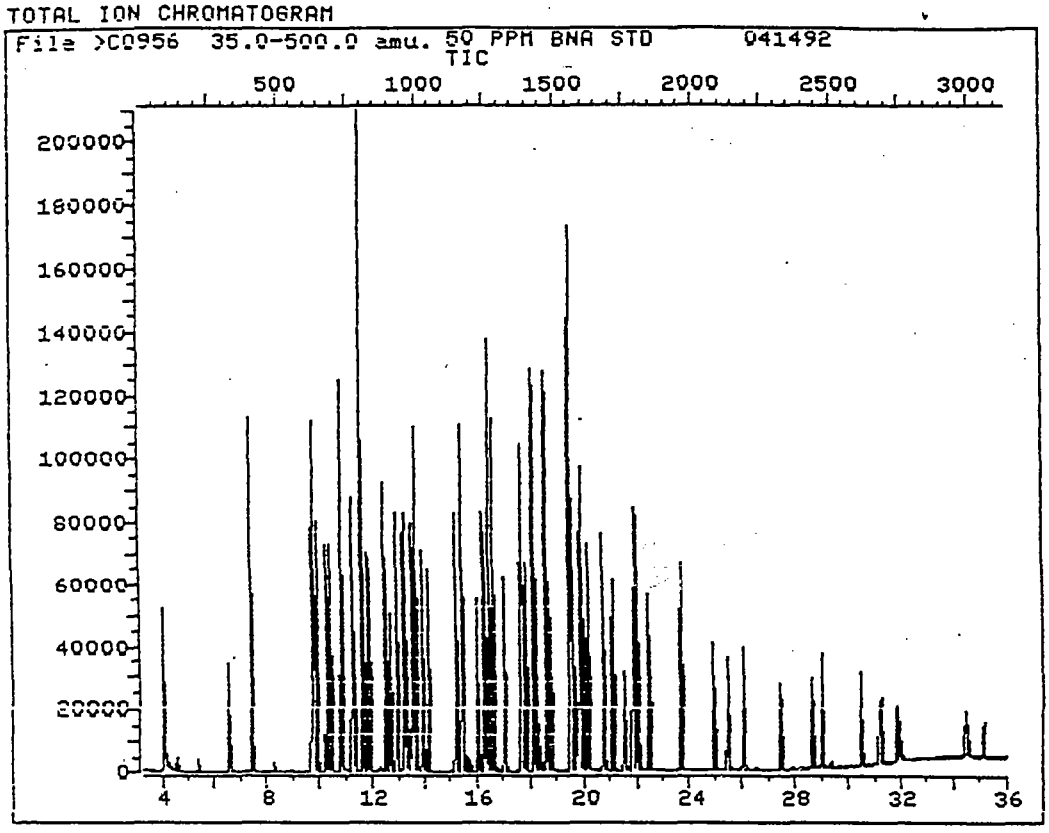


Data File: >C0955::E4 Quant Output File: ^C0955::D2
Name: 20 PPM BNA STD
Misc: 041492 BTL# 1

Id File: ID0408::D2
Title: hSL BNA STD
Last Calibration: 930412 10:56

Operator ID: JEFF
Quant Time: 930414 11:17
Injected at: 930414 10:38

TOTAL ION CHROMATOGRAM

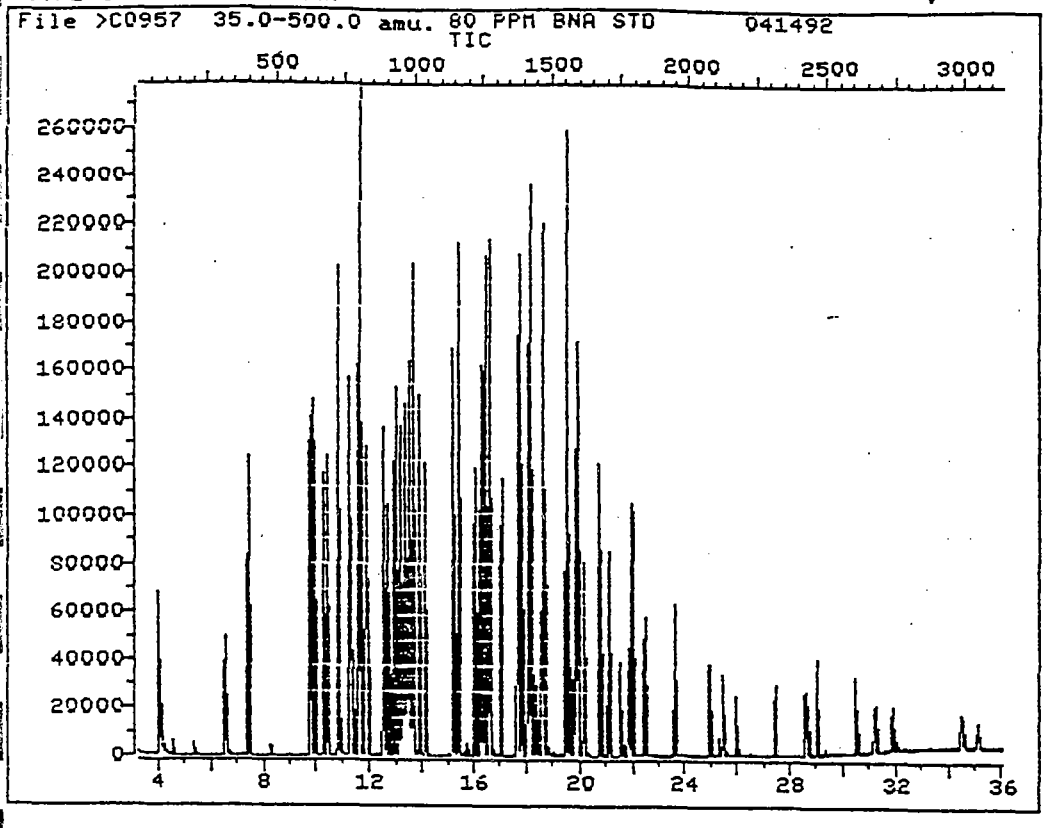


Data File: >C0956::E4 Quant Output File: ^C0956::D2
Name: 50 PPM BNA STD
Misc: 041492 BTL# 2

Id File: ID0408::D2
Title: hSL BNA STD
Last Calibration: 930412 10:56

Operator ID: JEFF
Quant Time: 930414 12:03
Injected at: 930414 11:24

TOTAL ION CHROMATOGRAM



Data File: >C0957::E4
Name: 80 PPM BNA STD
Misc: 041492

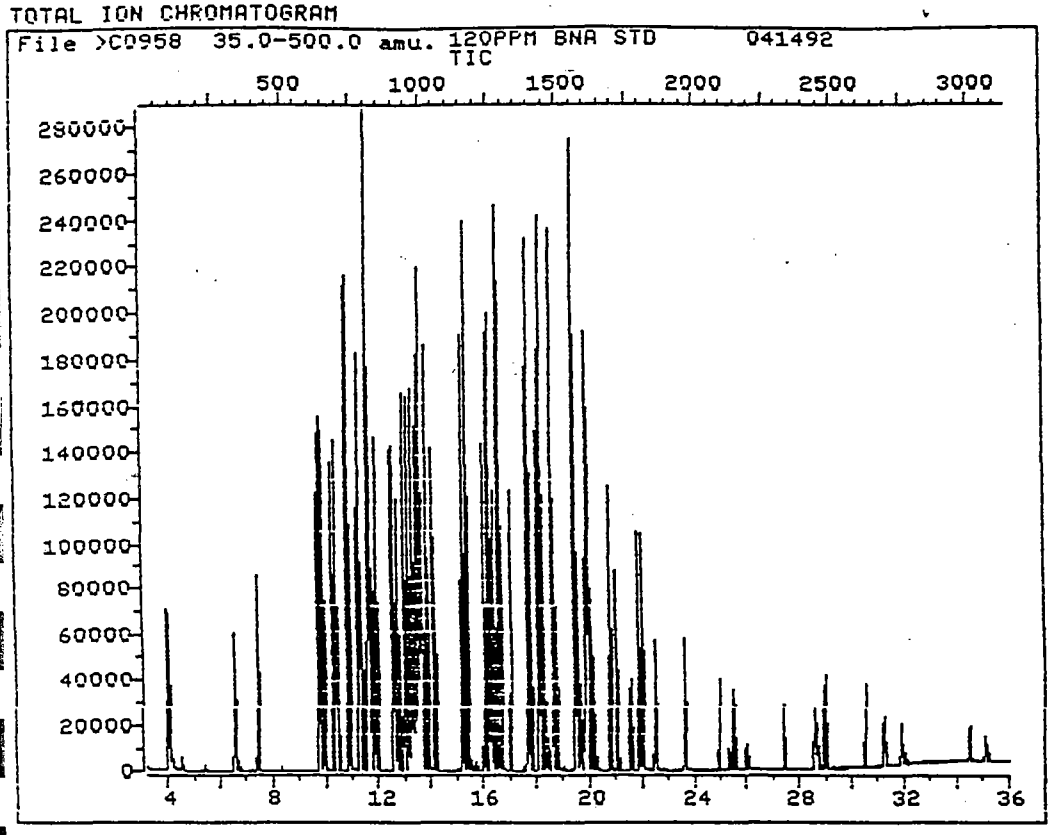
Quant Output File: ^C0957::D2

BTL# 3

Id File: ID0408::D2
Title: hSL BNA STD
Last Calibration: 930412 10:56

Operator ID: JEFF
Quant Time: 930414 12:50
Injected at: 930414 12:11

TOTAL ION CHROMATOGRAM

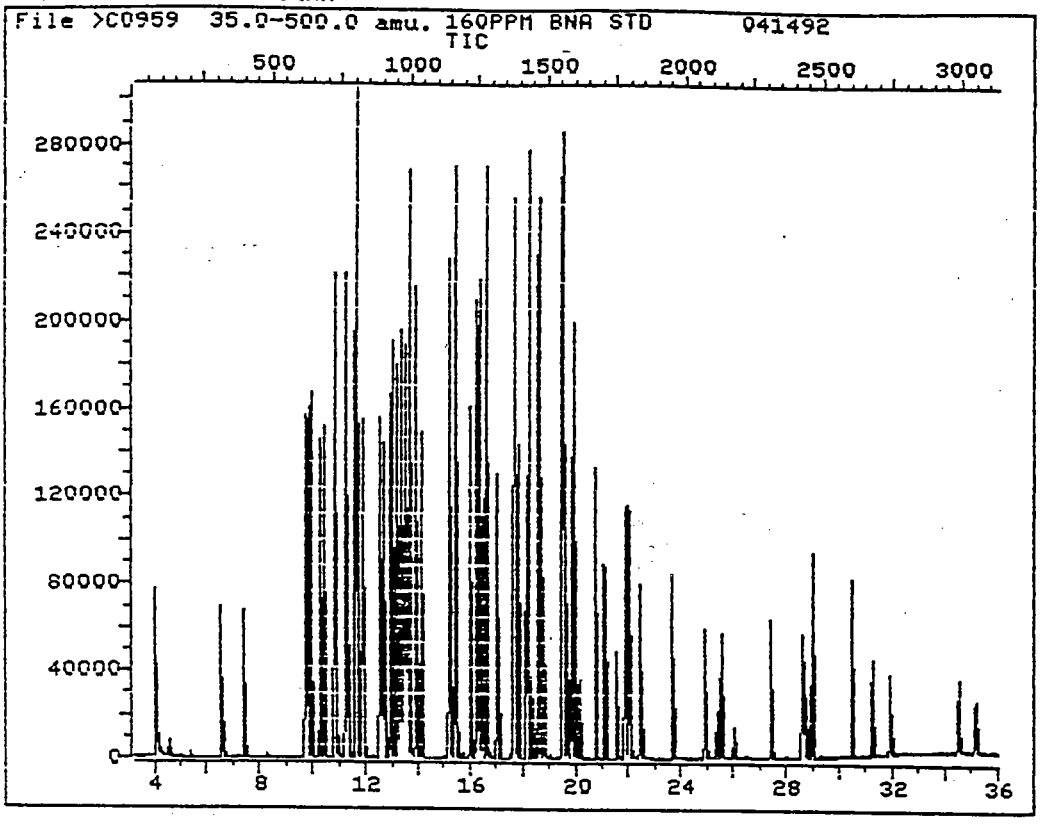


Data File: >C0958::E4 Quant Output File: ^C0958::D2
Name: 120PPM BNA STD
Misc: 041492 BTL# 4

Id File: ID0408::D2
Title: hSL BNA STD
Last Calibration: 930412 10:56

Operator ID: JEFF
Quant Time: 930414 13:36
Injected at: 930414 12:57

TOTAL ION CHROMATOGRAM



Data File: >C0959::E4
Name: 160PPM BNA STD
Misc: 041492

Quant Output File: ^C0959::D2

BTL# 5

Id File: ID0408::D2
Title: hSL BNA STD
Last Calibration: 930412 10:56

Operator ID: JEFF
Quant Time: 930414 14:23
Injected at: 930414 13:44

21ST CENTURY ENVIRONMENTAL INC.

GC/MS STANDARD DECAFLUOROTRIPHENYLPHOSPHINE(DFTPP) TUNE
CRITERIA FOR SEMI-VOLATILES 50ng

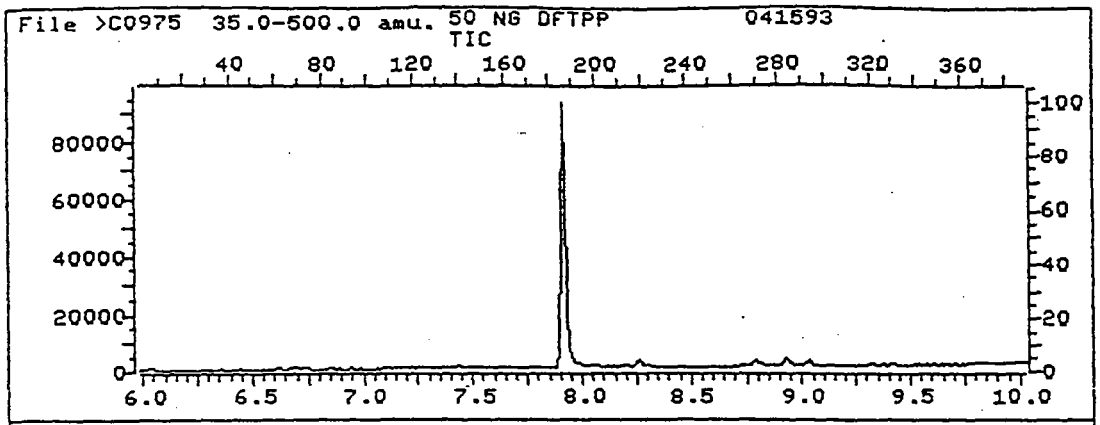
DATE AND TIME OF INJECTION: 4/15/93 10:20
INSTRUMENT ID: 5970

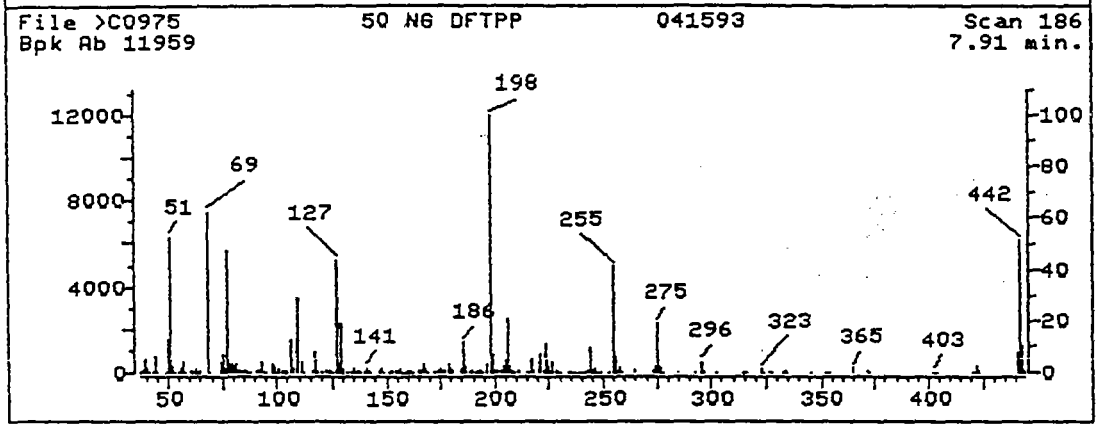
DATA RELEASE AUTHORIZED BY Richard W Ryan

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	% Relative Abundance Appropriate Peak	Status
51	30-60% of mass 198	52.18	52.18	Ok
68	Less than 2% of mass 69	0.00	0.00	Ok
69	(reference only)	62.26	62.26	Ok
70	Less than 2% of mass 69	.33	.52	Ok
127	40-60% of mass 198	43.87	43.87	Ok
197	Less than 1% of mass 198	0.00	0.00	Ok
198	Base peak, 100% relative abundance	100.00	100.00	Ok
199	5-9% of mass 198	6.89	6.89	Ok
275	10-30% of mass 198	19.03	19.03	Ok
365	Greater than 1% of mass 198	1.44	1.44	Ok
441	0-100% of mass 443	7.16	70.11	Ok
442	Greater than 40% of mass 198	51.31	51.31	Ok
443	17-23% of mass 442	10.21	19.90	Ok

THIS PERFORMANCE AFFECTS ALL SAMPLES
STANDARDS AND BLANKS LISTED BELOW

SAMPLE ID		LAB ID		DATE TIME
>C0975::D3		50 NG DFTPP		4/15/93 10:20
>C0976::D3		50 PPM BNA STD		4/15/93 10:41
>C0977::D3		SBLK016-1 4/14		4/15/93 12:00
>C0978::D3		A1541		4/15/93 12:47





>C0975 50 NG DFTPP 041593
186 NRM

File: >C0975 Scan #: 186 Retn. time: 7.91

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
36.85	.159	92.95	4.365	151.75	.167	203.95	2.492	264.95	.886
38.05	.753	93.95	.268	152.85	.610	204.95	4.699	272.90	1.221
39.05	5.377	95.05	.184	154.05	.652	205.95	20.712	273.90	2.910
39.95	1.505	97.95	3.052	154.95	1.095	206.95	2.492	275.00	19.032
41.05	.376	98.95	2.785	156.05	1.480	207.85	.669	275.90	2.475
43.05	.477	99.95	.351	156.95	.393	209.05	.217	276.90	1.422
44.05	5.778	100.95	1.547	157.95	.360	210.85	.878	277.90	.301
45.05	.301	102.95	.569	159.05	.209	214.95	.226	285.00	.234
49.05	.410	103.95	1.321	160.05	.594	215.90	.368	292.95	.259
50.00	12.643	104.90	.970	161.00	.769	216.90	5.260	295.95	3.863
51.00	52.178	106.90	12.066	161.90	.284	217.90	.594	296.95	.669
52.00	2.943	107.90	2.049	165.00	.702	221.00	6.681	303.00	.418
53.10	.192	109.90	28.640	165.90	.686	223.00	1.120	313.95	.151
55.00	.368	111.00	3.838	167.00	3.612	223.90	10.603	314.85	.410
56.00	1.647	112.00	.426	167.90	1.622	225.00	2.500	316.05	.309
57.00	3.905	116.00	.878	169.00	.309	225.90	.309	323.05	1.455
58.00	.192	117.00	7.283	171.90	.401	226.90	3.905	323.95	.276
61.00	.636	118.00	.644	172.90	.410	228.00	.719	326.95	.176
62.00	.468	119.85	.184	174.00	.786	228.90	.895	327.90	.042
62.95	1.555	121.85	.661	174.95	1.300	[illegible]	[illegible]	[illegible]	[illegible]

68.95	62.263	125.05	.443	178.95	3.086	234.		.251	345.85	.309
69.95	.326	126.95	43.875	179.95	1.907	235.		.151	352.05	.485
74.05	4.005	127.95	3.311	180.95	.995	236.95		.343	352.85	.309
74.95	6.907	128.95	18.982	184.95	1.430	238.75		.159	354.05	.460
76.05	2.040	129.95	1.530	185.95	11.414	241.05		.242	365.00	1.438
77.00	47.161	132.05	.142	186.95	2.860	242.05		.585	372.05	.845
78.00	3.186	133.80	.443	188.00	.318	242.95		.535	372.95	.151
79.00	3.035	134.90	1.438	189.00	.753	243.90		8.763	402.05	.293
80.00	2.559	135.90	.401	191.00	.351	244.90		1.095	402.95	.368
81.00	3.395	136.90	.510	191.90	.836	245.90		1.589	403.95	.176
81.90	.870	137.80	.201	193.00	1.029	246.90		.226	421.00	.393
83.00	.953	140.00	.251	194.00	.268	249.00		.276	422.00	.334
83.80	.109	141.00	1.898	196.00	3.378	252.90		.142	423.00	2.826
85.00	.569	142.00	.811	197.90	100.000	255.00		41.040	424.00	.594
86.00	.836	143.00	.452	198.90	6.890	256.00		5.820	441.00	7.158
87.10	.360	146.95	1.087	199.90	.560	257.00		.435	442.00	51.309
88.10	.159	147.85	1.714	201.40	.627	257.95		2.040	443.00	10.210
90.95	.694	148.95	.485	202.95	.594	258.95		.343	444.10	.853
91.95	.920	151.15	.226							

Continuing Calibration Check
HSL Compounds

Case No: Calibration Date: 04/15/93

Contractor: 21st Century Envir Time: 10:41

Contract No: Laboratory ID: >C0976

Instrument ID: 5970C Initial Calibration Date: 04/14/93

Minimum $\overline{RF}$ for SPCC is 0.050 Maximum % Diff for CCC is 25%

Compound	$\overline{RF}$	RF	%Diff	CCC	SPCC	
Pyridine	.64929	.72292	11.34			
n-Nitrosodimethylamine	.50810	.50931	.24			
2-Fluorophenol	.69613	.74259	6.67			(Conc=100.00)
Phenol-d5	1.09534	1.09486	.04			(Conc=100.00)
Phenol	1.30508	1.15726	11.33	*		
bis(-2-Chloroethyl)Ether	1.02092	.96664	5.32			
2-Chlorophenol	.92528	.88211	4.67			
1,3-Dichlorobenzene	.92857	.89893	3.19			
1,4-Dichlorobenzene	.93581	.91325	2.41	*		
Benzyl Alcohol	.67179	.58843	12.41			
1,2-Dichlorobenzene	.87834	.83949	4.42			
2-Methylphenol	.98060	.87257	11.02			
bis(2-Chloroisopropyl)ether	1.29937	1.18330	8.93			
4-Methylphenol	2.00319	1.69024	15.62			
N-Nitroso-Di-n-propylamine	.78633	.67368	14.33		**	
Hexachloroethane	.38794	.38067	1.87			
Nitrobenzene-d5	.50762	.57101	12.49			(Conc=50.00)
Nitrobenzene	.47378	.47368	.02			
Isophorone	1.15784	.98842	14.63			
2-Nitrophenol	.21906	.21828	.36	*		
2,4-Dimethylphenol	.35398	.34657	2.09			
Benzoic Acid	.33520	.29043	13.36			
bis(-2-Chloroethoxy)Methane	.53488	.50079	6.38			
2,4-Dichlorophenol	.36416	.36237	.49	*		
1,2,4-Trichlorobenzene	.37839	.39224	3.66			
Naphthalene	1.12444	1.14844	2.13			
4-Chloroaniline	.54267	.47714	12.08			
Hexachlorobutadiene	.17588	.19434	10.50	*		
4-Chloro-3-methylphenol	.45246	.39474	12.76	*		
2-Methylnaphthalene	.79995	.74282	7.14			
Hexachlorocyclopentadiene	.32335	.43043	33.11		**	
2,4,6-Trichlorophenol	.45057	.46905	4.10	*		

RF - Response Factor from daily standard file at 50.00 ug/l

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

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

Continuing Calibration Check
HSL Compounds

Case No: _____ Calibration Date: 04/15/93

Contractor: 21st Century Envir Time: 10:41

Contract No: Laboratory ID: >C0976

Instrument ID: 5970C Initial Calibration Date: 04/14/93

Minimum $\overline{RF}$ for SPCC is 0.050 Maximum % Diff for CCC is 25%

Compound	$\overline{RF}$	RF	%Diff	CCC	SPCC	
2,4,5-Trichlorophenol	.49655	.50642	1.99			
2-Chloronaphthalene	1.39768	1.48766	6.44			
2-Fluorobiphenyl	1.66079	1.89594	14.16			(Conc=50.00)
2-Nitroaniline	.45478	.45006	1.04			
Dimethyl Phthalate	1.39561	1.37554	1.44			
Acenaphthylene	1.99583	1.96551	1.52			
3-Nitroaniline	.25693	.24162	5.96			
Acenaphthene	1.25018	1.25473	.36	*		
2,4-Dinitrophenol	.07940	.08725	9.89		**	
4-Nitrophenol	.18727	.17885	4.49		**	
Dibenzofuran	1.72699	1.73678	.57			
2,4-Dinitrotoluene	.31755	.33570	5.71			
2,6-Dinitrotoluene	.32491	.32853	1.12			
Diethylphthalate	1.09538	1.08501	.95			
4-Chlorophenyl-phenylether	.64792	.63868	1.43			
Fluorene	1.20449	1.22740	1.90			
4-Nitroaniline	.18995	.18769	1.19			
4,6-Dinitro-2-methylphenol	.10501	.10306	1.86			
N-Nitrosodiphenylamine	.73708	.66421	9.89	*		
2,4,6-Tribromophenol	.12742	.13362	4.87			(Conc=100.00)
4-Bromophenyl-phenylether	.32274	.30133	6.63			
Hexachlorobenzene	.30484	.30545	.20	*		
Pentachlorophenol	.12205	.11733	3.87		**	
Phenanthrene	1.21858	1.20797	.87			
Anthracene	1.19613	1.19423	.16			
Di-n-Butylphthalate	.94763	.90499	4.50			
Fluoranthene	.58970	.53558	9.18	*		
Pyrene	2.14426	2.42054	12.88			
Benzidine	.44487	.33957	23.67			
Terphenyl-d14	1.56582	1.95196	24.66			(Conc=50.00)
Butylbenzylphthalate	.86109	.86699	.69			
3,3'-Dichlorobenzidine	.29740	.28981	2.55			

RF - Response Factor from daily standard file at 50.00 ug/l

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

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

Continuing Calibration Check
HSL Compounds

Case No: Calibration Date: 04/15/93

Contractor: 21st Century Envir Time: 10:41

Contract No: Laboratory ID: >C0976

Instrument ID: 5970C Initial Calibration Date: 04/14/93

Minimum $\overline{RF}$ for SPCC is 0.050 Maximum % Diff for CCC is 25%

Compound	$\overline{RF}$	RF	%Diff	CCC	SPCC
Benzo(a)Anthracene	1.24158	1.24327	.14		
Bis(2-Ethylhexyl)Phthalate	1.16235	1.11353	4.20		
Chrysene	1.14747	1.18012	2.85		
Di-n-octyl phthalate	2.27814	2.09055	8.23	*	
Benzo(b)fluoranthene	1.36264	1.48171	8.74		
Benzo(k)Fluoranthene	1.37175	1.11358	18.82		
Benzo(a)Pyrene	1.28618	1.23702	3.82	*	
Indeno(1,2,3-cd)Pyrene	1.22430	1.26024	2.93		
Dibenzo(a,h)Anthracene	.99330	1.00144	.82		
Benzo(g,h,i)Perylene	1.05678	1.11218	5.24		

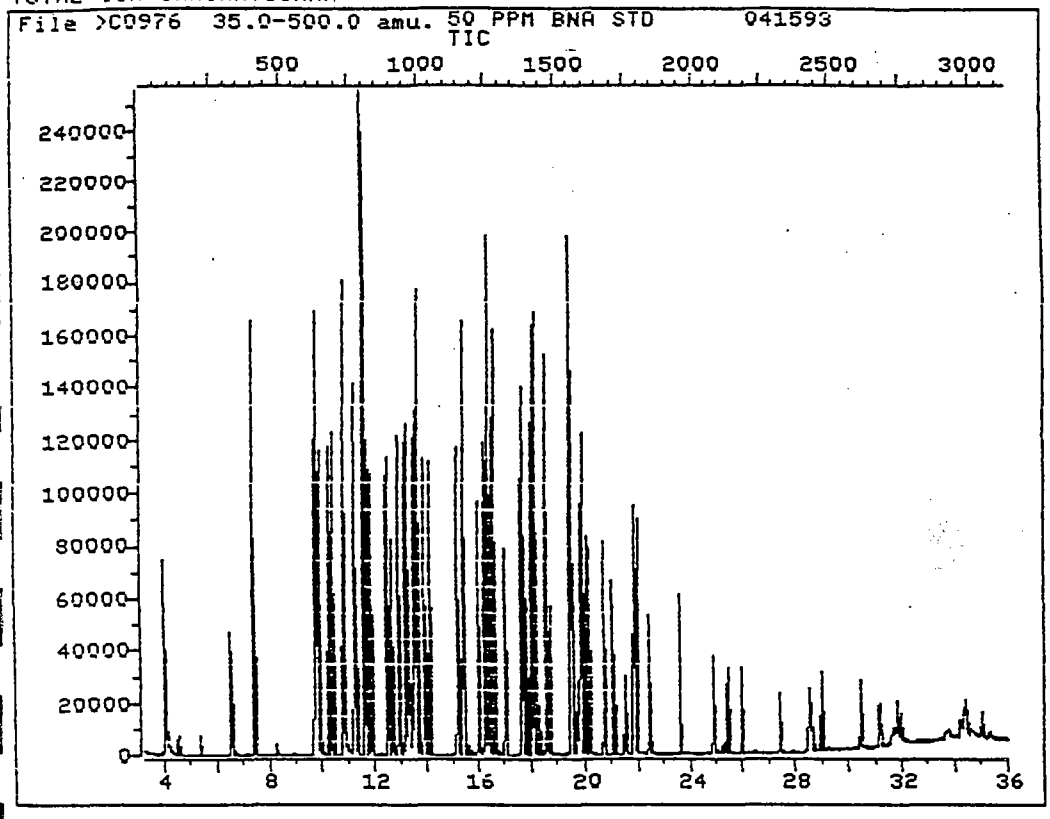
RF - Response Factor from daily standard file at 50.00 ug/l

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

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

TOTAL ION CHROMATOGRAM



Data File: >C0976::E4 Quant Output File: ^C0976::D2
Name: 50 PPM BNA STD
Misc: 041593 BTL# 2

Id File: ID0414::D3
Title: hSL BNA STD
Last Calibration: 930414 16:26

Operator ID: JEFF
Quant Time: 930415 11:20
Injected at: 930415 10:41

21ST CENTURY ENVIRONMENTAL INC.

GC/MS STANDARD DECAFLUOROTRIPHENYLPHOSPHINE(DFTPP) TUNE
CRITERIA FOR SEMI-VOLATILES 50ng

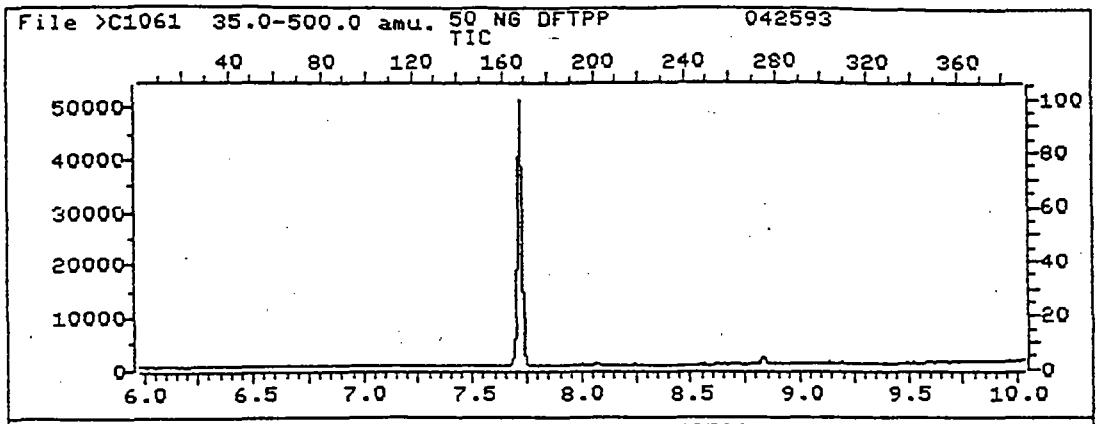
DATE AND TIME OF INJECTION: 4/25/93 9:52
INSTRUMENT ID: 5970

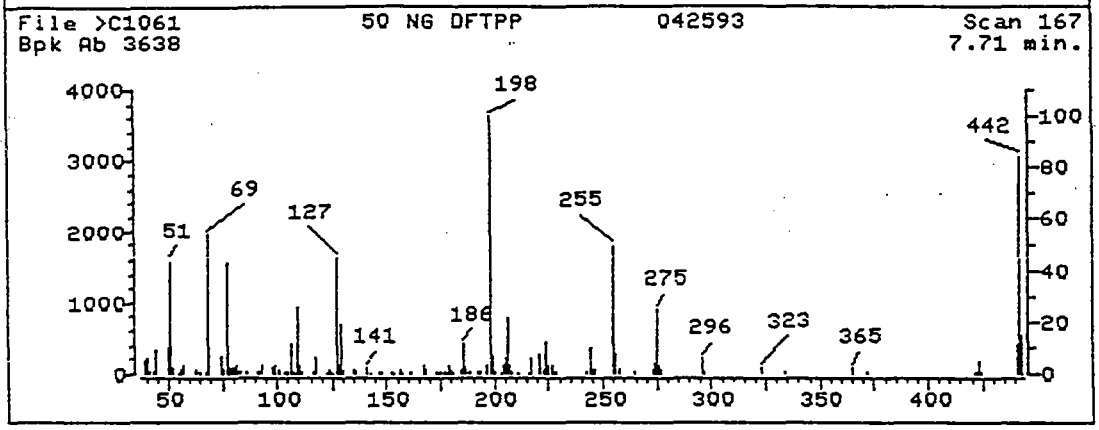
DATA RELEASE AUTHORIZED BY Richard W Ryan

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	% Relative Abundance Appropriate Peak	Status
51	30-60% of mass 198	43.35	43.35	Ok
68	Less than 2% of mass 69	.74	1.38	Ok
69	(reference only)	53.68	53.68	Ok
70	Less than 2% of mass 69	0.00	0.00	Ok
127	40-60% of mass 198	44.53	44.53	Ok
197	Less than 1% of mass 198	0.00	0.00	Ok
198	Base peak, 100% relative abundance	100.00	100.00	Ok
199	5-9% of mass 198	6.38	6.38	Ok
275	10-30% of mass 198	24.52	24.52	Ok
365	Greater than 1% of mass 198	2.53	2.53	Ok
441	0-100% of mass 443	11.82	78.18	Ok
442	Greater than 40% of mass 198	84.47	84.47	Ok
443	17-23% of mass 442	15.12	17.90	Ok

THIS PERFORMANCE AFFECTS ALL SAMPLES
STANDARDS AND BLANKS LISTED BELOW

SAMPLE ID		LAB ID		DATE TIME
>C1061::D2		50 NG DFTPP		4/25/93 9:52
>C1063::D5		50 PPM BNA STD		4/25/93 11:15
>C1064::D5		160 PPM BNA STD		4/25/93 12:16
>C1065::D5		20 PPM BNA STD		4/25/93 13:03
>C1066::D5		80 PPM BNA STD		4/25/93 13:50
>C1067::D5		120 PPM BNA STD		4/25/93 14:38
>C1068::D5		AQ BLANK		4/25/93 15:25
>C1069::D5		A1614		4/25/93 16:13





>C1061 50 NG DFTPP 042593
167 NRM

File: >C1061 Scan #: 167 Retn. time: 7.71

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
39.00	5.168	90.90	.715	135.95	.715	191.95	1.017	245.95	1.897
40.00	5.855	92.10	.742	140.95	2.199	192.95	.962	254.90	48.900
41.10	.852	93.00	3.656	142.80	.440	195.90	3.518	255.90	7.257
43.10	.632	98.00	2.831	147.00	.935	197.90	100.000	257.90	2.034
44.00	9.511	99.00	2.996	148.00	1.264	198.90	6.377	264.85	.880
49.95	9.731	100.90	1.677	152.90	.632	199.90	.522	272.95	1.347
50.95	43.348	103.85	1.072	153.80	.495	202.90	.412	273.95	4.096
52.05	2.446	104.95	1.017	156.05	1.787	204.00	3.161	274.95	24.519
55.15	.467	106.95	11.902	157.05	.275	205.00	5.525	275.90	3.271
56.05	1.594	108.05	1.072	160.95	.880	206.00	21.743	276.90	1.979
57.05	3.518	108.85	.385	166.95	3.353	207.00	3.463	295.85	5.607
62.90	1.457	109.95	26.003	167.95	1.732	207.90	.715	296.85	.550
64.90	1.154	110.95	3.546	172.90	.550	211.15	.495	297.05	.522
68.00	.742	111.85	.577	173.90	.495	215.65	.275	322.95	2.391
69.00	53.683	116.10	.632	174.30	.440	216.85	5.910	334.00	13.337
74.00	3.491	117.00	6.075	174.90	1.264	220.95	7.367	364.90	2.529
74.95	6.460	121.80	.495	176.90	.907	222.90	1.376	371.95	1.017

78.05	2.941	125.00	.412	180.00	1.924	226.	3.711	423.00	4.810
79.05	2.611	127.00	44.530	181.00	.880	227.	.412	424.05	.880
79.95	2.254	128.00	3.381	184.95	1.347	228.90	1.154	441.00	11.820
80.95	3.079	128.95	18.966	185.95	11.270	241.95	.632	442.00	84.469
81.85	.797	129.85	1.869	186.85	2.804	243.95	10.060	443.00	15.118
83.05	.852	135.05	1.402	188.85	.825	244.95	1.649	444.10	.962
86.05	.742								

Initial Calibration Data
HSL Compounds

Case No: _____ Instrument ID: 5970C _____

Contractor: 21st Century Envir Calibration Date: 04/27/93

Contract No: _____

Minimum $\overline{RF}$ for SPCC is 0.050 Maximum % RSD for CCC is 30%

Compound	Laboratory ID: >C1065 RF 20.00	>C1063 RF 50.00	>C1066 RF 80.00	>C1067 RF 120.00	>C1064 RF 160.00	$\overline{RRT}$	$\overline{RF}$	% RSD	CCC	SPCC	
Pyridine	.62590	.79226	.78873	.81155	.86681	.368	.77705	11.593			
n-Nitrosodimethylamine	.57068	.53837	.55331	.59780	.57808	.370	.56765	4.027			
2-Fluorophenol	.77170	.76743	.79654	.74421	.45352	.707	.70668	20.198			(Conc=100.0,100.0, ,
Phenol-d5	1.01494	1.05200	1.20927	1.14605	.69464	.944	1.02338	19.455			(Conc=100.0,100.0,
Phenol	1.07695	1.14061	1.15684	1.26354	1.28992	.947	1.18557	7.499	*		
bis(-2-Chloroethyl)Ether	.94266	.93006	.93447	.96678	1.01722	.956	.95824	3.746			
2-Chlorophenol	.83821	.87470	.83480	.88780	.93949	.958	.87500	4.880			
1,3-Dichlorobenzene	.96991	.92607	.88670	.91835	.96337	.990	.93288	3.671			
1,4-Dichlorobenzene	.96186	.93056	.88937	.92820	.94213	1.004	.93043	2.851	*		
Benzyl Alcohol	.41028	.52842	.52014	.60376	.66698	1.050	.54592	17.706			
1,2-Dichlorobenzene	.92120	.86383	.82391	.85161	.89758	1.049	.87163	4.394			
2-Methylphenol	.79868	.84620	.83006	.89873	.92224	1.088	.85918	5.882			
bis(2-Chloroisopropyl)ether	1.17903	1.09356	1.14205	1.27991	1.30503	1.090	1.19991	7.517			
4-Methylphenol	1.67549	1.76521	1.80224	1.89347	2.01855	1.129	1.83099	7.143			
N-Nitroso-Di-n-propylamine	.76782	.73516	.82297	.85973	.80018	1.126	.79717	6.047		**	
Hexachloroethane	.41203	.39975	.38935	.41217	.44058	1.123	.41078	4.671			
Nitrobenzene-d5	.47733	.45322	.63899	.47645	.44419	.871	.49803	16.086			(Conc=50.0,50.0,50
Nitrobenzene	.47049	.47936	.46038	.49691	.50365	.874	.48216	3.736			
Isophorone	1.01492	1.05235	1.07210	1.20714	1.21823	.921	1.11295	8.394			
2-Nitrophenol	.18950	.21185	.20776	.22950	.24249	.935	.21622	9.452	*		
2,4-Dimethylphenol	.32457	.33667	.33290	.35291	.36049	.954	.34151	4.330			
Benzoic Acid	.15796	.23760	.32758	.36810	.35627	.990	.28950	30.936			
bis(-2-Chloroethoxy)Methane	.49685	.50116	.49924	.53079	.53749	.970	.51311	3.782			
2,4-Dichlorophenol	.32657	.35591	.35449	.36579	.37407	.982	.35537	5.051	*		
1,2,4-Trichlorobenzene	.39127	.39486	.36418	.37068	.39442	.994	.38308	3.796			
Naphthalene	1.13234	1.12138	1.09807	1.07973	1.13042	1.004	1.11239	2.048			
4-Chloroaniline	.46159	.48275	.48862	.54029	.48533	1.024	.49172	5.927			
Hexachlorobutadiene	.18160	.18624	.16006	.16413	.18167	1.043	.17474	6.743	*		
4-Chloro-3-methylphenol	.41316	.43157	.47608	.47874	.46396	1.124	.45270	6.404	*		
2-Methylnaphthalene	.78188	.79444	.80031	.81085	.82350	1.137	.80220	1.976			

RF - Response Factor (Subscript is amount in ug/l)

$\overline{RRT}$ - Average Relative Retention Time (RT Std/RT Istd)

$\overline{RF}$ - Average Response Factor

%RSD - Percent Relative Standard Deviation

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

Initial Calibration Data
HSL Compounds

Case No: _____ Instrument ID: 5970C _____

Contractor: 21st Century Envir Calibration Date: 04/27/93

Contract No: _____

Minimum $\overline{RF}$ for SPCC is 0.050 Maximum % RSD for CCC is 30%

Laboratory ID:	>C1065	>C1063	>C1066	>C1067	>C1064					
Compound	RF 20.00	RF 50.00	RF 80.00	RF 120.00	RF 160.00	$\overline{RRT}$	$\overline{RF}$	% RSD	CCC	SPCC
Hexachlorocyclopentadiene	.22246	.22541	.20848	.23992	.24917	.883	.22909	6.911		**
2,4,6-Trichlorophenol	.37936	.43050	.42391	.43953	.47120	.896	.42890	7.719	*	
2,4,5-Trichlorophenol	.43388	.48929	.49252	.49235	.50857	.901	.48332	5.928		
2-Chloronaphthalene	1.27073	1.41487	1.31183	1.38075	1.46960	.918	1.36956	5.805		
2-Fluorobiphenyl	1.39586	1.39959	1.99429	1.41479	1.47455	.908	1.53582	16.814		(Conc=50.0,50.0,5
2-Nitroaniline	.44034	.50422	.48658	.47246	.46373	.941	.47346	5.076		
Dimethyl Phthalate	1.58585	1.65350	1.47705	1.33075	1.35418	.976	1.48026	9.519		
Acenaphthylene	2.05681	2.08432	2.05439	1.97905	2.00823	.977	2.03656	2.072		
3-Nitroaniline	.31907	.30871	.25976	.24123	.24102	1.001	.27396	13.658		
Acenaphthene	1.30331	1.31926	1.29353	1.24989	1.27892	1.005	1.28898	2.042	*	
2,4-Dinitrophenol	.04813	.09428	.11182	.09640	.11384	1.015	.09289	28.556		**
4-Nitrophenol	.20538	.22173	.25704	.19803	.20408	1.030	.21725	11.007		**
Dibenzofuran	1.92867	1.95189	1.84942	1.78232	1.74683	1.028	1.85183	4.813		
2,4-Dinitrotoluene	.46534	.48361	.44850	.35479	.37231	1.038	.42491	13.581		
2,6-Dinitrotoluene	.34977	.40940	.37837	.35613	.36804	.984	.37234	6.299		
Diethylphthalate	1.64870	1.57090	1.39671	1.14537	1.08906	1.078	1.37015	18.178		
4-Chlorophenyl-phenylether	.73559	.71354	.67253	.61506	.62301	1.081	.67195	7.949		
Fluorene	1.53389	1.44733	1.39987	1.21697	1.20230	1.077	1.36007	10.705		
4-Nitroaniline	.28900	.25792	.26081	.18312	.20904	1.089	.23998	17.861		
4,6-Dinitro-2-methylphenol	.05816	.10566	.11866	.12989	.14884	.906	.11224	30.410		
N-Nitrosodiphenylamine	.55709	.62166	.62893	.66498	.68926	.910	.63239	7.943	*	
2,4,6-Tribromophenol	.07796	.10140	.10556	.09168	.10250	.922	.09582	11.745		(Conc=100.0,100.0,
4-Bromophenyl-phenylether	.21368	.26574	.24930	.28600	.31342	.951	.26563	14.166		
Hexachlorobenzene	.23739	.28836	.24893	.28505	.30777	.965	.27350	10.717	*	
Pentachlorophenol	.06231	.10516	.11348	.11981	.14269	.987	.10869	27.086		**
Phenanthrene	1.18515	1.19464	1.17574	1.22424	1.27486	1.003	1.21092	3.312		
Anthracene	1.18225	1.21375	1.14011	1.22832	1.28727	1.008	1.21034	4.520		
Di-n-Butylphthalate	1.35987	1.22150	1.32185	1.24025	1.37264	1.085	1.30322	5.291		
Fluoranthene	.70871	.70268	.79113	.74417	.91310	1.144	.77196	11.192	*	
Pyrene	2.13666	2.06590	1.71247	1.77835	1.82796	.890	1.90427	9.775		

RF - Response Factor (Subscript is amount in ug/l)

$\overline{RRT}$ - Average Relative Retention Time (RT Std/RT Istd)

$\overline{RF}$ - Average Response Factor

%RSD - Percent Relative Standard Deviation

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

Initial Calibration Data
HSL Compounds

Case No: _____ Instrument ID: 5970C

Contractor: 21st Century Envir Calibration Date: 04/27/93

Contract No: _____

Minimum $\overline{RF}$ for SPCC is 0.050 Maximum % RSD for CCC is 30%

Laboratory ID:	>C1065	>C1063	>C1066	>C1067	>C1064					
Compound	RF 20.00	RF 50.00	RF 80.00	RF 120.00	RF 160.00	$\overline{RRT}$	$\overline{RF}$	% RSD	CCC	SPCC
Benzidine	.33057	.27182	.28360	.33590	.30824	.885	.30603	9.203		
Terphenyl-d14	1.56792	1.24454	1.74086	1.17730	1.18114	.908	1.38235	18.602		(Conc=50.0,50.0,50
Butylbenzylphthalate	.93205	.92283	.96425	1.02055	1.02052	.959	.97204	4.821		
3,3'-Dichlorobenzidine	.27639	.29473	.28547	.33200	.34121	1.000	.30596	9.446		
Benzo(a)Anthracene	1.17644	1.25227	1.19025	1.30365	1.30275	.999	1.24507	4.840		
Bis(2-Ethylhexyl)Phthalate	1.21418	1.26251	1.33266	1.43390	1.37334	1.015	1.32332	6.591		
Chrysene	1.10811	1.19730	1.12583	1.20917	1.21406	1.002	1.17089	4.270		
Di-n-octyl phthalate	2.42392	2.44408	2.80809	3.05411	2.88508	.953	2.72306	10.230	*	
Benzo(b)fluoranthene	1.30706	1.34830	1.35139	1.46276	1.52987	.974	1.39988	6.632		
Benzo(k)Fluoranthene	1.21652	1.28981	1.27308	1.43172	1.39276	.976	1.32078	6.729		
Benzo(a)Pyrene	1.13253	1.26722	1.21813	1.39282	1.30554	.996	1.26325	7.687	*	
Indeno(1,2,3-cd)Pyrene	.95904	1.16015	1.07900	1.22183	1.24431	1.074	1.13286	10.275		
Dibenzo(a,h)Anthracene	.77522	.91825	.89293	.99841	1.02029	1.076	.92102	10.569		
Benzo(g,h,i)Perylene	.86162	.99512	.94957	1.01935	1.05962	1.094	.97705	7.763		

RF - Response Factor (Subscript is amount in ug/l)

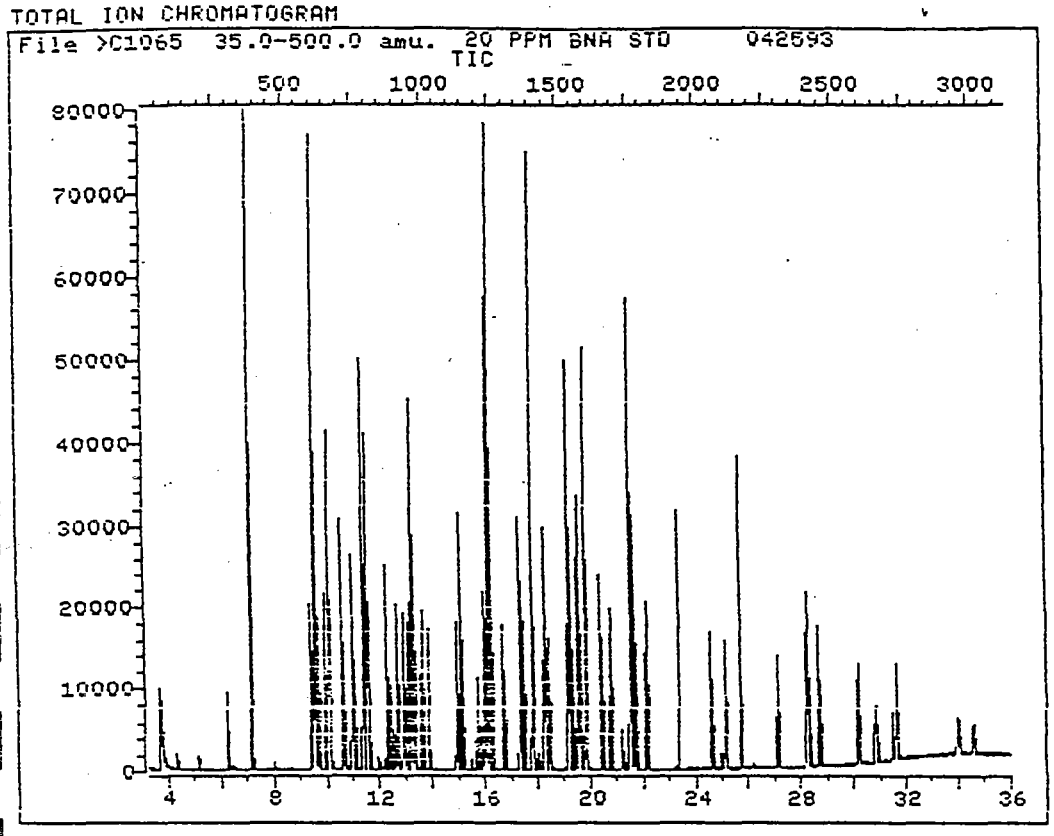
$\overline{RRT}$ - Average Relative Retention Time (RT Std/RT Istd)

$\overline{RF}$ - Average Response Factor

%RSD - Percent Relative Standard Deviation

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

TOTAL ION CHROMATOGRAM

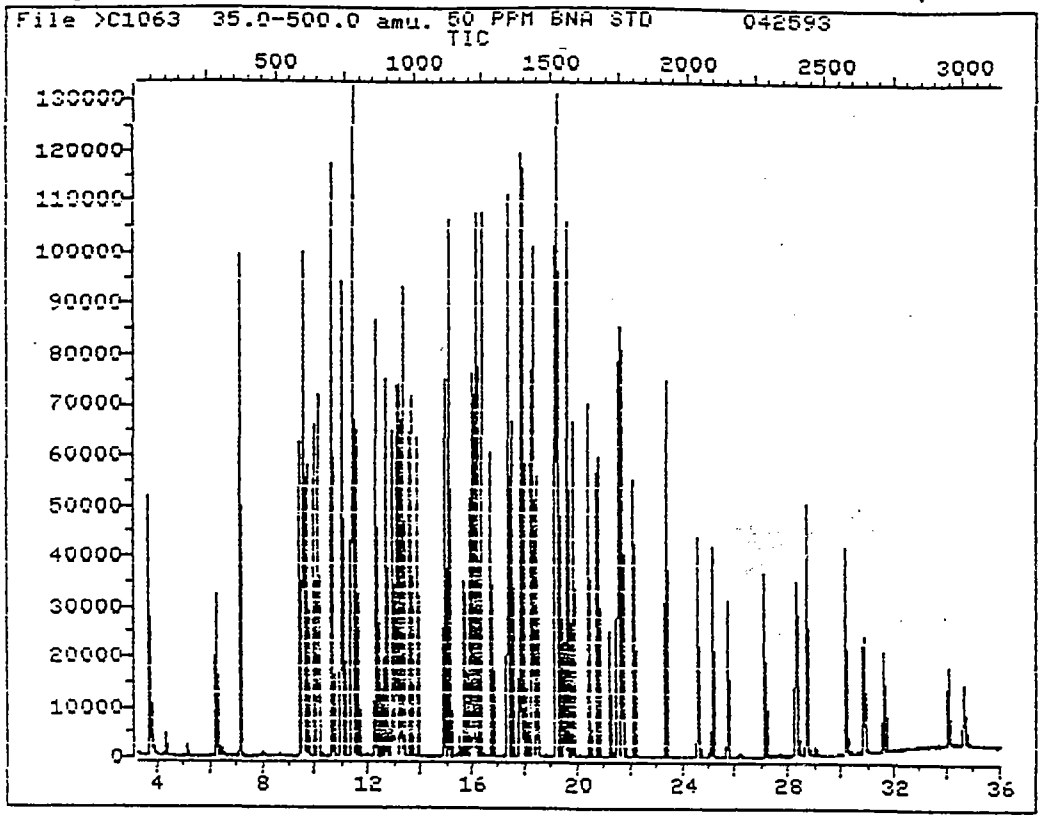


Data File: >C1065::D5 Quant Output File: ^C1065::EX
Name: 20 PPM BNA STD
Misc: 042593 BTL# 2

Id File: IDHSLC::D3
Title: hSL BNA STD
Last Calibration: 930420 14:55

Operator ID: JEFF
Quant Time: 930425 13:42
Injected at: 930425 13:03

TOTAL ION CHROMATOGRAM



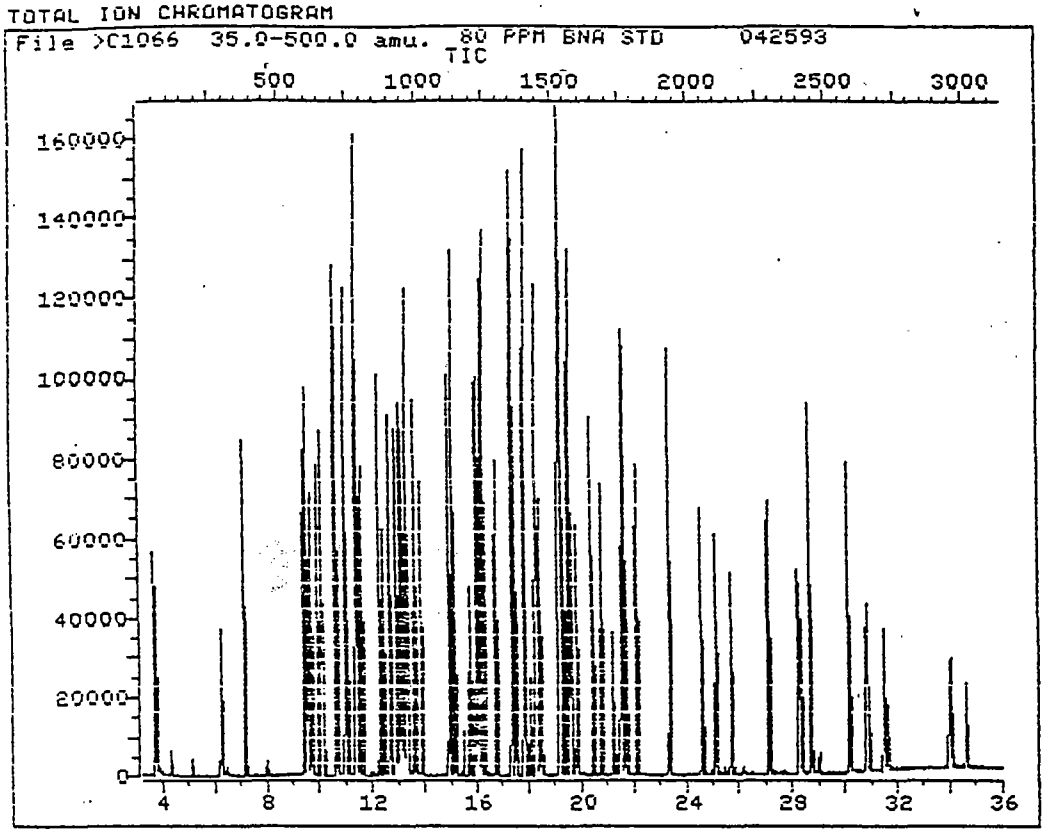
Data File: >C1063::D5 Quant Output File: ^C1063::E5
Name: 50 PPM BNA STD
Misc: 042593

BTL# 2

Id File: IDHSLC::D3
Title: hSL BNA STD
Last Calibration: 930420 14:55

Operator ID: JEFF
Quant Time: 930425 11:54
Injected at: 930425 11:15

TOTAL ION CHROMATOGRAM

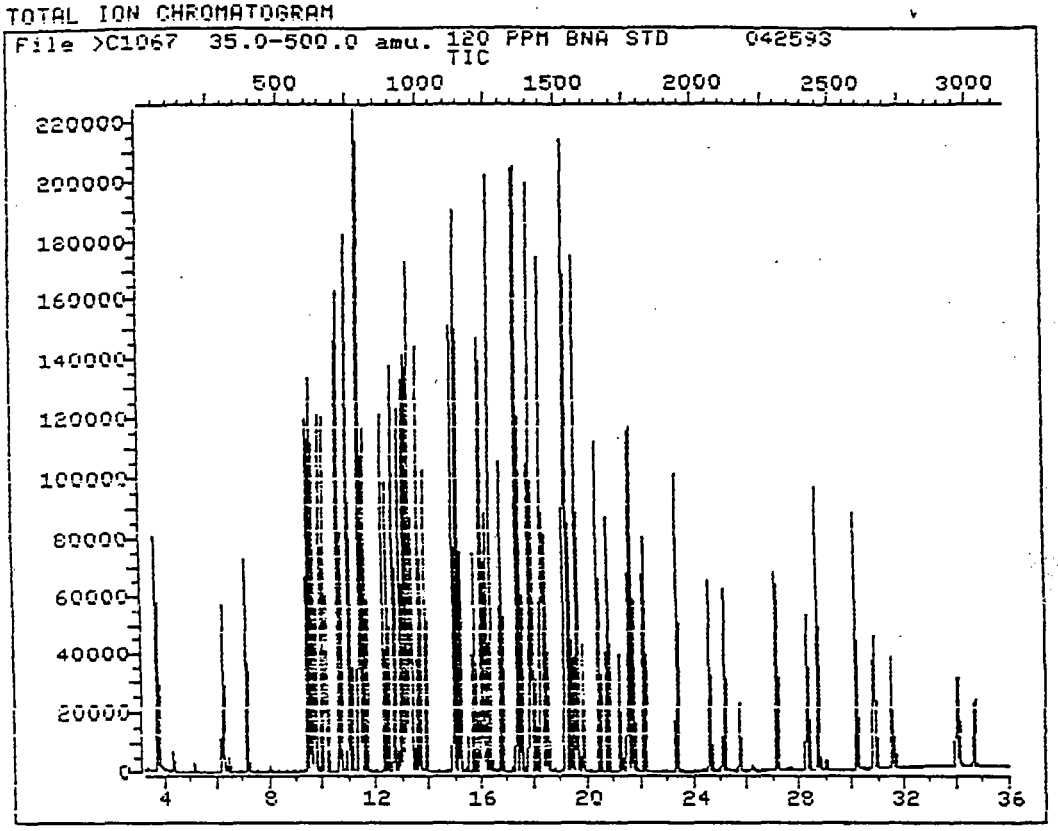


Data File: >C1066::D5 Quant Output File: ^C1066::EX
Name: 80 PPM BNA STD
Misc: 042593 BTL# 3

Id File: IDHSLC::D3
Title: hSL BNA STD
Last Calibration: 930420 14:55

Operator ID: JEFF
Quant Time: 930425 14:29
Injected at: 930425 13:50

TOTAL ION CHROMATOGRAM

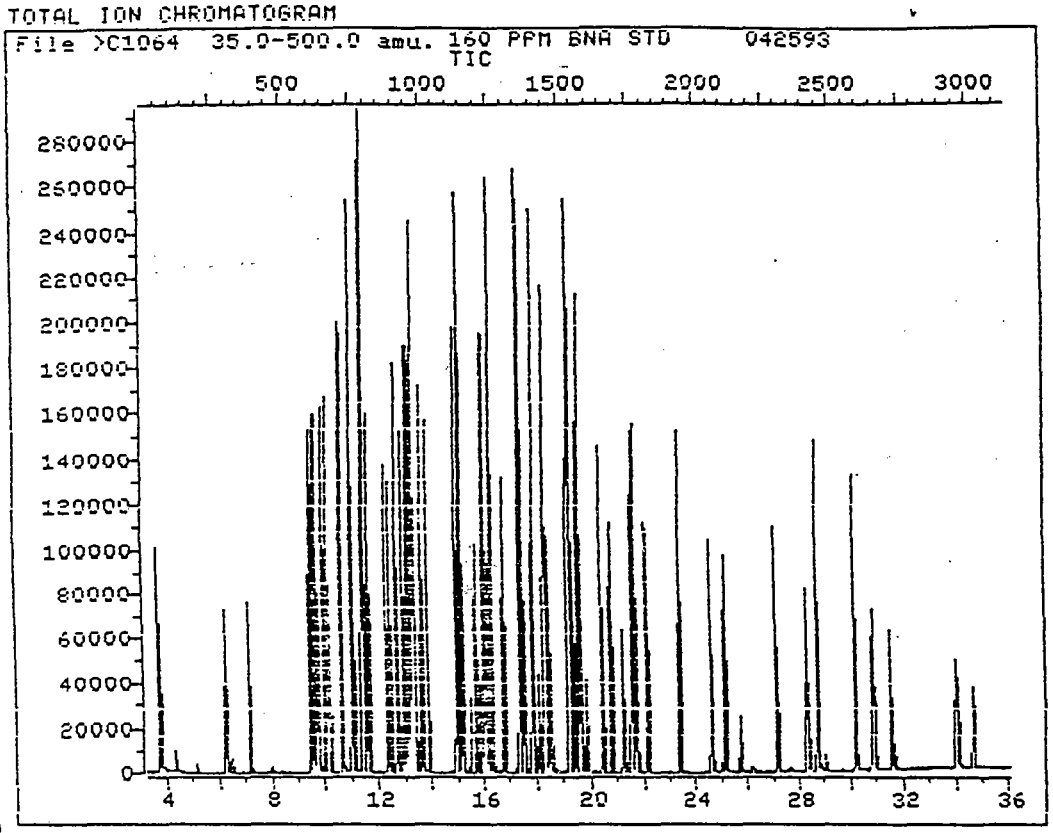


Data File: >C1067::D5 Quant Output File: ^C1067::EX
Name: 120 PPM BNA STD
Misc: 042593 BTL# 4

Id File: IDHSLC::D3
Title: hSL BNA STD
Last Calibration: 930420 14:55

Operator ID: JEFF
Quant Time: 930425 15:17
Injected at: 930425 14:38

TOTAL ION CHROMATOGRAM



Data File: >C1064::D5 Quant Output File: ^C1064::EX
Name: 160 PPM BNA STD
Misc: 042593 BTL# 1

Id File: IDHSLC::D3
Title: hSL BNA STD
Last Calibration: 930420 14:55

Operator ID: JEFF
Quant Time: 930425 12:55
Injected at: 930425 12:16

21ST CENTURY ENVIRONMENTAL INC.

GC/MS STANDARD DECAFLUOROTRIPHENYLPHOSPHINE(DFTPP) TUNE
CRITERIA FOR SEMI-VOLATILES 50ng

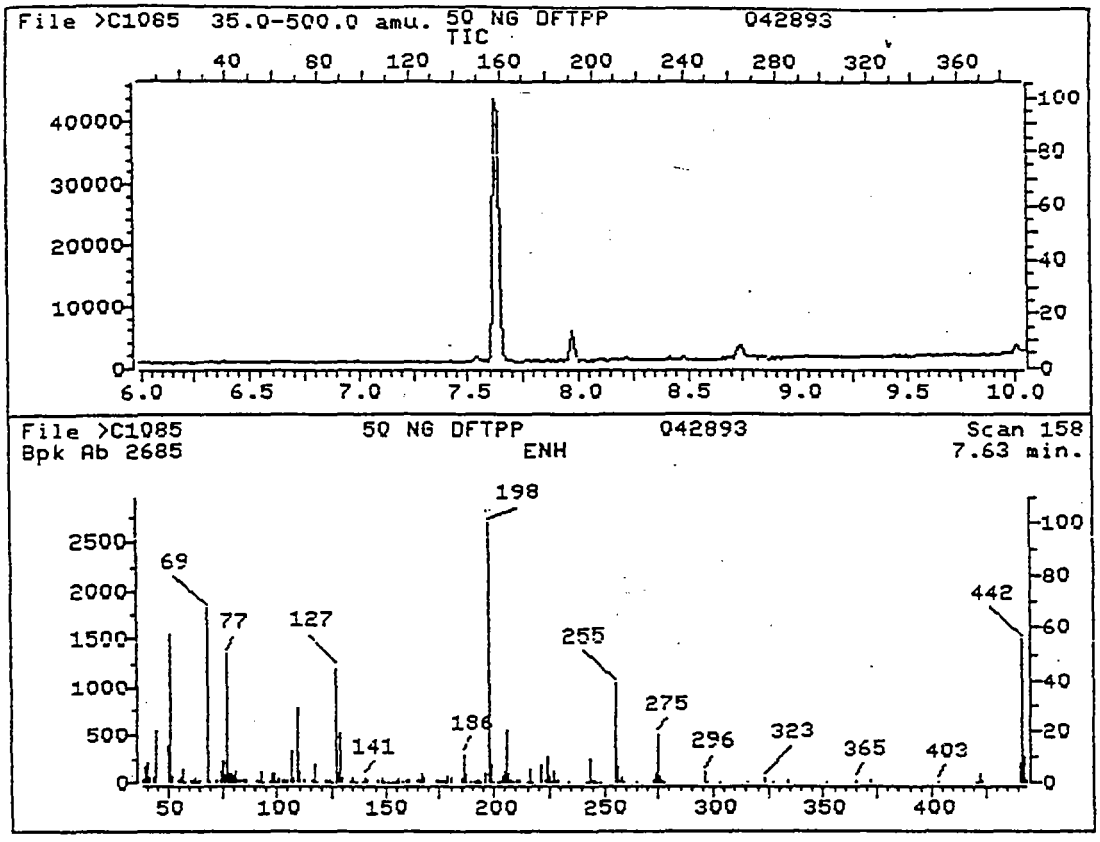
DATE AND TIME OF INJECTION: 4/28/93 9:05
INSTRUMENT ID: 5970

DATA RELEASE AUTHORIZED BY Richard W Lynch

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	% Relative Abundance Appropriate Peak	Status
51	30-60% of mass 198	57.76	57.76	Ok
68	Less than 2% of mass 69	0.00	0.00	Ok
69	(reference only)	67.63	67.63	Ok
70	Less than 2% of mass 69	.28	.42	Ok
127	40-60% of mass 198	44.93	44.93	Ok
197	Less than 1% of mass 198	0.00	0.00	Ok
198	Base peak, 100% relative abundance	100.00	100.00	Ok
199	5-9% of mass 198	6.44	6.44	Ok
275	10-30% of mass 198	18.40	18.40	Ok
365	Greater than 1% of mass 198	1.27	1.27	Ok
441	0-100% of mass 443	7.68	74.49	Ok
442	Greater than 40% of mass 198	55.24	55.24	Ok
443	17-23% of mass 442	10.31	18.66	Ok

THIS PERFORMANCE AFFECTS ALL SAMPLES
STANDARDS AND BLANKS LISTED BELOW

SAMPLE ID		LAB ID		DATE	TIME
I>C1085::D4I		50 NG DFTPP		4/28/93	9:05
I>C1086::D4I		50 PPM BNA STD		4/28/93	9:25
I>C1088::D4I		AQ BLK		4/28/93	11:14
I>C1089::D4I		A1296 CASIE		4/28/93	12:00
I>C1090::D4I		A1296MS CASIE		4/28/93	12:47
I>C1091::D4I		A1296MSD		4/28/93	13:33



>C1085 50 NG DFTPP 042893
158 NRM ENH

File: >C1085 Scan #: 158 Retn. time: 7.63

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
38.05	.827	86.00	.879	140.05	.119	192.95	.931	246.85	.268
39.05	5.550	91.10	.760	140.90	2.026	193.95	.134	248.85	.164
40.05	7.904	92.00	.656	141.90	.529	195.95	3.613	254.95	38.926
41.05	1.572	93.00	4.358	146.10	.171	197.95	100.000	255.95	5.841
43.05	1.922	94.00	.320	146.90	.976	198.95	6.437	257.05	.350
44.05	19.817	97.05	.082	147.90	1.594	199.70	.149	257.85	2.086
50.05	13.760	97.95	3.122	149.00	.402	201.40	.454	258.90	.179
51.05	57.759	98.95	3.107	151.10	.313	202.70	.276	264.80	.499
52.00	2.660	99.95	.298	152.90	.484	204.00	2.302	272.85	.864
55.00	.887	100.95	1.937	153.90	.469	204.90	4.157	273.95	3.040
55.30	.179	102.95	.559	154.95	.894	205.90	19.608	274.95	18.401
56.10	1.713	104.05	.954	155.95	1.430	207.00	3.226	275.95	2.250
57.00	5.155	105.05	1.065	158.05	.320	208.00	.589	276.95	.909
57.90	.328	107.05	12.203	159.95	.551	208.90	.171	277.95	.104
58.10	.149	107.95	1.803	161.05	.939	210.60	.559	295.90	3.837
61.00	.514	109.95	29.144	164.65	.179	211.10	.544	296.90	.477
62.00	.685	110.90	4.142	165.05	.670	215.85	.231	302.95	344 .387
63.10	1.639	112.00	.514	166.05	.551	216.85	5.021	315.95	.142
64.00	.201	116.00	.559	166.95	7.531	217.85			

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	.848	223.85	.879	333.95	.626
69.95	.283	122.00	.648	175.00	1.229	223[illegible]	10.296	352.00	.201
72.95	.715	123.00	.931	175.90	.425	224.95	2.675	364.85	1.274
74.05	4.567	124.00	.514	176.90	.596	225.95	.276	372.05	.611
75.05	8.254	124.90	.417	177.80	.253	226.95	3.822	402.85	.209
76.15	2.272	125.10	.179	178.90	2.943	227.95	.410	420.85	.216
77.05	50.354	126.95	44.930	180.00	1.721	229.00	.700	421.95	.156
78.05	3.151	127.95	3.293	180.90	.887	233.90	.127	422.95	3.069
79.05	3.159	128.95	18.915	184.95	1.356	241.90	.223	423.95	.648
80.05	2.458	129.95	1.505	185.95	10.974	243.00	.372	441.00	7.681
80.95	3.986	134.25	.283	186.95	3.084	243.95	9.111	442.00	55.241
82.00	.842	134.95	1.430	188.95	.410	244.95	1.006	443.00	10.311
82.90	1.080	135.95	.164	190.95	.276	245.95	1.289	444.00	.924
85.00	.603	136.85	.469	191.95	.656				

Continuing Calibration Check
HSL Compounds

Case No: Calibration Date: 04/28/93

Contractor: 21st Century Envir Time: 09:25

Contract No: Laboratory ID: >C1086

Instrument ID: 5970C Initial Calibration Date: 04/27/93

Minimum $\overline{RF}$ for SPCC is 0.050 Maximum % Diff for CCC is 25%

Compound	$\overline{RF}$	RF	%Diff	CCC	SPCC	
Pyridine	.77705	.75695	2.59			
n-Nitrosodimethylamine	.56765	.56869	.18			
2-Fluorophenol	.70668	.77426	9.56			(Conc=100.00)
Phenol-d5	1.02338	1.00580	1.72			(Conc=100.00)
Phenol	1.18557	1.09076	8.00	*		
bis(-2-Chloroethyl)Ether	.95824	.95115	.74			
2-Chlorophenol	.87500	.87712	.24			
1,3-Dichlorobenzene	.93288	.95850	2.75			
1,4-Dichlorobenzene	.93043	.95709	2.87	*		
Benzyl Alcohol	.54592	.46904	14.08			
1,2-Dichlorobenzene	.87163	.88618	1.67			
2-Methylphenol	.85918	.79313	7.69			
bis(2-Chloroisopropyl)ether	1.19991	1.11941	6.71			
4-Methylphenol	1.83099	1.66116	9.28			
N-Nitroso-Di-n-propylamine	.79717	.70276	11.84		**	
Hexachloroethane	.41078	.42774	4.13			
Nitrobenzene-d5	.49803	.48182	3.25			(Conc=50.00)
Nitrobenzene	.48216	.48881	1.38			
Isophorone	1.11295	.98250	11.72			
2-Nitrophenol	.21622	.23263	7.59	*		
2,4-Dimethylphenol	.34151	.33376	2.27			
Benzoic Acid	.28950	.23068	20.32			
bis(-2-Chloroethoxy)Methane	.51311	.49014	4.48			
2,4-Dichlorophenol	.35537	.34808	2.05	*		
1,2,4-Trichlorobenzene	.38308	.42044	9.75			
Naphthalene	1.11239	1.12357	1.01			
4-Chloroaniline	.49172	.44875	8.74			
Hexachlorobutadiene	.17474	.21026	20.33	*		
4-Chloro-3-methylphenol	.45270	.36773	18.77	*		
2-Methylnaphthalene	.80220	.74234	7.46			
Hexachlorocyclopentadiene	.22909	.27658	20.73		**	
2,4,6-Trichlorophenol	.42890	.44799	4.45	*		

RF - Response Factor from daily standard file at 50.00 ug/l

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

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

Continuing Calibration Check
HSL Compounds

Case No: _____ Calibration Date: 04/28/93

Contractor: 21st Century Envir Time: 09:25

Contract No: Laboratory ID: >C1086

Instrument ID: 5970C Initial Calibration Date: 04/27/93

Minimum $\overline{RF}$ for SPCC is 0.050 Maximum % Diff for CCC is 25%

Compound	$\overline{RF}$	RF	%Diff	CCC	SPCC	
2,4,5-Trichlorophenol	.48332	.49853	3.15			
2-Chloronaphthalene	1.36956	1.45724	6.40			
2-Fluorobiphenyl	1.53582	1.44945	5.62			(Conc=50.00)
2-Nitroaniline	.47346	.48858	3.19			
Dimethyl Phthalate	1.48026	1.44391	2.46			
Acenaphthylene	2.03656	1.87763	7.80			
3-Nitroaniline	.27396	.27707	1.14			
Acenaphthene	1.28898	1.19934	6.95	*		
2,4-Dinitrophenol	.09289	.10279	10.66		**	
4-Nitrophenol	.21725	.20339	6.38		**	
Dibenzofuran	1.85183	1.80614	2.47			
2,4-Dinitrotoluene	.42491	.43594	2.60			
2,6-Dinitrotoluene	.37234	.38439	3.24			
Diethylphthalate	1.37015	1.29702	5.34			
4-Chlorophenyl-phenylether	.67195	.66512	1.02			
Fluorene	1.36007	1.36045	.03			
4-Nitroaniline	.23998	.22536	6.09			
4,6-Dinitro-2-methylphenol	.11224	.11397	1.54			
N-Nitrosodiphenylamine	.63239	.63129	.17	*		
2,4,6-Tribromophenol	.09582	.11514	20.16			(Conc=100.00)
4-Bromophenyl-phenylether	.26563	.28452	7.11			
Hexachlorobenzene	.27350	.31016	13.40	*		
Pentachlorophenol	.10869	.11773	8.32		**	
Phenanthrene	1.21092	1.20807	.24			
Anthracene	1.21034	1.19199	1.52			
Di-n-Butylphthalate	1.30322	1.09717	15.81			
Fluoranthene	.77196	.62797	18.65	*		
Pyrene	1.90427	2.23691	17.47			
Benzidine	.30603	.16976	44.53			
Terphenyl-d14	1.38235	1.32726	3.99			(Conc=50.00)
Butylbenzylphthalate	.97204	.83957	13.63			
3,3'-Dichlorobenzidine	.30596	.26593	13.08			

RF - Response Factor from daily standard file at 50.00 ug/l

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

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

00347

Continuing Calibration Check
HSL Compounds

Case No: _____ Calibration Date: 04/28/93

Contractor: 21st Century Envir Time: 09:25

Contract No: _____ Laboratory ID: >C1086

Instrument ID: 5970C Initial Calibration Date: 04/27/93

Minimum $\overline{RF}$ for SPCC is 0.050 Maximum % Diff for CCC is 25%

Compound	$\overline{RF}$	RF	%Diff	CCC	SPCC
Benzo(a)Anthracene	1.24507	1.21109	2.73		
Bis(2-Ethylhexyl)Phthalate	1.32332	1.09414	17.32		
Chrysene	1.17089	1.09446	6.53		
Di-n-octyl phthalate	2.72306	2.15661	20.80	*	
Benzo(b)fluoranthene	1.39988	1.40495	.36		
Benzo(k)Fluoranthene	1.32078	1.15270	12.73		
Benzo(a)Pyrene	1.26325	1.17898	6.67	*	
Indeno(1,2,3-cd)Pyrene	1.13286	1.17186	3.44		
Dibenzo(a,h)Anthracene	.92102	.97606	5.98		
Benzo(g,h,i)Perylene	.97705	1.04067	6.51		

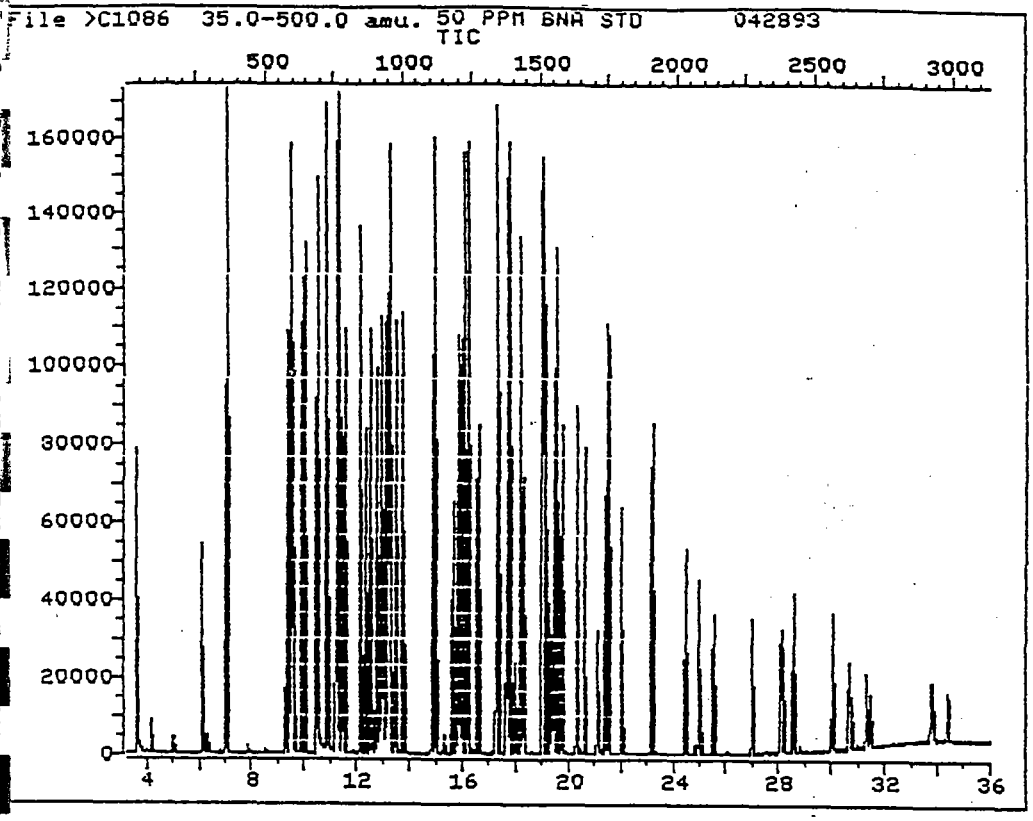
RF - Response Factor from daily standard file at 50.00 ug/l

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

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

TOTAL ION CHROMATOGRAM



Data File: >C1086::D4 Quant Output File: ^C1086::D3
Name: 50 PPM BNA STD
Misc: 042893

BTL# 2

Id File: IDHSLC::D3
Title: hSL BNA STD
Last Calibration: 930427 11:30

Operator ID: JEFF
Quant Time: 930428 10:04
Injected at: 930428 09:25

21ST CENTURY ENVIRONMENTAL INC.

GC/MS STANDARD DECAFLUOROTRIPHENYLPHOSPHINE(DFTPP) TUNE
CRITERIA FOR SEMI-VOLATILES 50ng

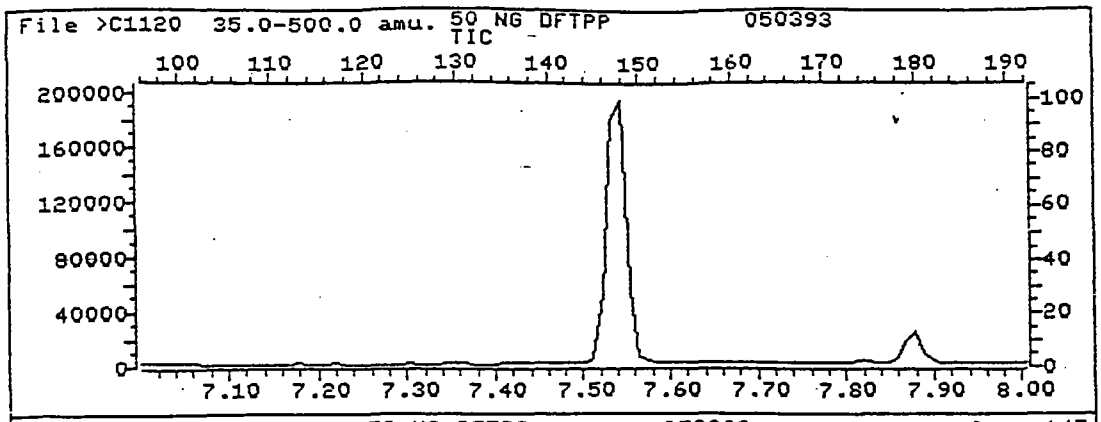
DATE AND TIME OF INJECTION: 5/03/93 10:27
INSTRUMENT ID: 5970

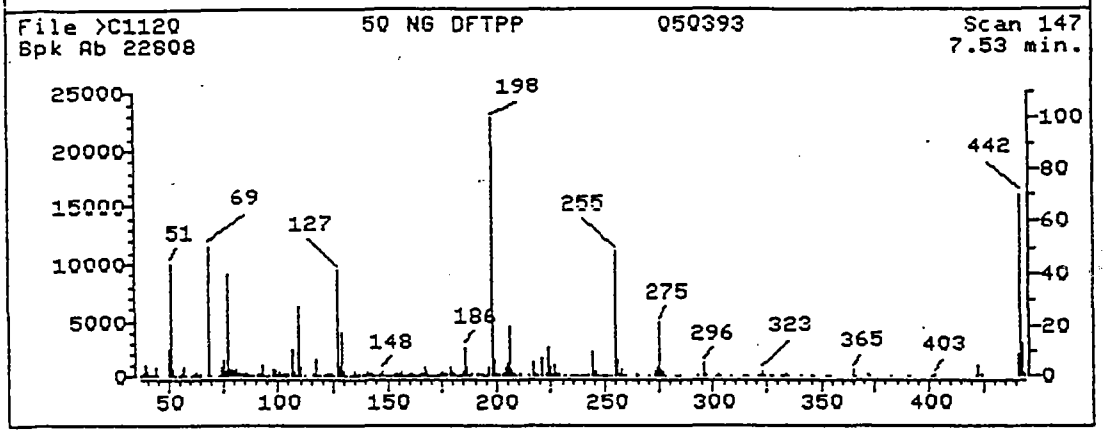
DATA RELEASE AUTHORIZED BY Richard W Lynch.

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	Appropriate Peak	Status
51	30-60% of mass 198	44.25	44.25	Ok
68	Less than 2% of mass 69	0.00	0.00	Ok
69	(reference only)	50.86	50.86	Ok
70	Less than 2% of mass 69	.35	.68	Ok
127	40-60% of mass 198	41.04	41.04	Ok
197	Less than 1% of mass 198	0.00	0.00	Ok
198	Base peak, 100% relative abundance	100.00	100.00	Ok
199	5-9% of mass 198	6.78	6.78	Ok
275	10-30% of mass 198	21.17	21.17	Ok
365	Greater than 1% of mass 198	2.24	2.24	Ok
441	0-100% of mass 443	9.37	70.82	Ok
442	Greater than 40% of mass 198	70.54	70.54	Ok
443	17-23% of mass 442	13.22	18.75	Ok

THIS PERFORMANCE AFFECTS ALL SAMPLES
STANDARDS AND BLANKS LISTED BELOW

SAMPLE ID		LAB ID		DATE TIME
>C1120::D4		50 NG DFTPP		5/03/93 10:27
>C1122::D4		50 PPM BNA STD		5/03/93 11:47
>C1123::E3		160 PPM BNA STD		5/03/93 12:46
>C1124::E3		20 PPM BNA STD		5/03/93 13:33
>C1125::E3		80 PPM BNA STD		5/03/93 14:20
>C1126::E3		120 PPM BNA STD		5/03/93 15:07





>C1120 50 NG DFTPP 050393
147 NRM

File: >C1120 Scan #: 147 Retn. time: 7.53

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
37.10	.215	99.00	2.411	155.00	1.070	208.00	.640	283.90	.114
38.10	.588	99.90	.267	155.95	1.605	208.95	.232	284.90	.267
39.00	4.235	101.00	1.539	157.05	.430	210.85	.868	292.85	.460
40.00	1.407	102.05	.096	157.95	.390	214.85	.246	295.85	5.318
41.10	.460	102.85	.627	158.95	.298	216.85	5.489	296.85	.872
42.40	.061	103.85	.912	159.95	.614	217.95	.728	301.95	.118
43.10	.316	104.95	.916	160.95	1.004	219.05	.105	302.90	.702
44.00	3.372	106.95	10.803	162.05	.254	220.95	7.340	304.00	.092
45.10	.158	107.95	1.802	162.95	.096	222.90	1.328	307.90	.057
50.05	10.518	108.95	.368	163.85	.193	223.90	11.820	308.20	.044
51.05	44.252	109.95	27.140	164.95	.745	224.90	3.060	313.90	.219
52.05	2.315	110.95	3.771	166.05	.772	225.80	.263	314.90	.491
53.05	.153	111.95	.430	166.95	3.749	226.90	4.415	315.90	.373
55.05	.329	112.85	.162	167.95	1.556	227.80	.631	320.85	.127
56.05	1.320	116.00	.688	168.90	.276	228.90	1.022	321.75	.096
57.05	3.319	116.90	6.603	170.00	.088	230.90	.482	322.95	1.934
57.85	.123	118.00	.469	170.80	.189	234.00	.281	323.95	.263
58.05	.118	118.90	.132	172.00	.430	234.90	.403	326.85	.272
61.10	.386	120.90	.066	172.90	.425	235.95	.224	327.80	.127
61.90	.513	121.90	.741	174.00	.881	236.85	.456	331.80	.140
63.00	1.513	122.90	.956	175.00	1.333	238.85	.158	332.90	.149

69.00	50.859	127.00	41.042	178.90	3.183	241.[illegible]	.522	340.90	.193
70.00	.346	128.00	3.152	179.90	1.929	243.[illegible]	9.768	345.85	.333
73.00	.294	128.95	17.358	181.00	.943	244.95	1.421	346.85	.066
74.10	3.411	129.95	1.495	181.95	.175	245.85	1.776	351.95	.465
74.95	6.546	130.95	.333	182.95	.123	246.95	.320	352.95	.303
76.05	1.960	132.75	.092	183.95	.219	248.95	.311	354.05	.495
77.05	39.582	133.85	.412	184.95	1.609	249.80	.066	364.90	2.240
78.05	2.525	134.95	1.399	185.95	11.684	250.70	.044	365.80	.285
78.95	2.653	135.95	.495	186.95	3.315	252.90	.197	371.85	1.039
79.95	2.008	136.95	.645	187.95	.294	254.90	48.632	372.95	.241
80.95	2.894	138.95	.101	188.95	.592	255.90	7.107	382.85	.285
81.95	.653	139.95	.153	190.95	.303	256.90	.649	390.00	.092
83.05	.811	140.95	1.754	191.85	.855	257.90	2.530	390.90	.105
83.95	.127	141.90	.737	192.95	1.162	258.90	.386	401.15	.057
85.05	.658	142.90	.557	193.95	.197	259.70	.057	401.85	.408
86.05	.807	143.70	.127	194.85	.110	264.95	.912	402.95	.666
86.95	.504	144.90	.092	195.90	3.560	265.85	.079	421.00	.487
87.90	.180	145.90	.338	197.90	100.000	270.75	.114	421.90	.377
89.00	.092	146.90	.991	198.90	6.778	272.95	1.600	422.90	3.950
90.90	.684	147.90	2.017	199.90	.605	273.95	3.521	423.95	.759
92.10	.741	149.00	.460	201.30	.609	274.95	21.168	424.85	.110
93.00	4.069	149.90	.145	202.90	.531	275.90	2.718	441.00	9.365
93.90	.197	150.90	.399	204.00	3.082	276.80	1.605	441.90	70.541
94.90	.127	151.40	.254	204.90	5.226	277.90	.364	442.90	13.223
96.00	.219	152.90	.785	206.00	20.217	282.90	.167	444.00	1.149
98.00	2.666	153.90	.522	206.90	2.824				

Initial Calibration Data
HSL Compounds

Case No: _____ Instrument ID: 5970C

Contractor: 21st Century Envir Calibration Date: 05/03/93

Contract No: _____

Minimum $\overline{RF}$ for SPCC is 0.050 Maximum % RSD for CCC is 30%

Laboratory ID:	>C1124	>C1122	>C1125	>C1126	>C1123					
Compound	RF 20.00	RF 50.00	RF 80.00	RF 120.00	RF 160.00	$\overline{RRT}$	$\overline{RF}$	% RSD	CCC	SPCC
Pyridine	.88693	.68324	.74763	.78092	.77362	.352	.77447	9.518		
n-Nitrosodimethylamine	.54786	.48926	.57020	.57255	.54871	.357	.54572	6.160		
2-Fluorophenol	.72164	.71431	.85372	.74723	.44715	.701	.69681	21.576		(Conc=100.0,100.0,
Phenol-d5	.99805	.97909	1.25661	1.08529	.62353	.948	.98851	23.434		(Conc=100.0,100.0,
Phenol	1.09124	1.02571	1.21998	1.17366	1.17394	.951	1.13690	6.824	*	
bis(-2-Chloroethyl)Ether	.95483	.87674	.94852	.92952	.88096	.956	.91811	4.037		
2-Chlorophenol	.88979	.84571	.90733	.86088	.86962	.959	.87467	2.771		
1,3-Dichlorobenzene	.99441	.92636	.91888	.91712	.91490	.990	.93433	3.624		
1,4-Dichlorobenzene	.98543	.92352	.93451	.90404	.91360	1.005	.93222	3.415	*	
Benzyl Alcohol	.36651	.43736	.57478	.58756	.61183	1.055	.51561	20.864		
1,2-Dichlorobenzene	.93026	.87224	.89087	.87986	.87588	1.050	.88982	2.659		
2-Methylphenol	.80682	.77060	.84684	.83555	.80388	1.094	.81274	3.677		
bis(2-Chloroisopropyl)ether	1.12622	.97309	1.14610	1.15537	1.09531	1.093	1.09922	6.747		
4-Methylphenol	1.68166	1.61620	1.74681	1.68547	1.67099	1.136	1.68023	2.767		
N-Nitroso-Di-n-propylamine	.70013	.65824	.72264	.87085	.82626	1.134	.75562	11.822		**
Hexachloroethane	.42798	.40689	.41607	.40600	.40904	1.126	.41320	2.217		
Nitrobenzene-d5	.47721	.45614	.67602	.48952	.45084	.869	.50994	18.463		(Conc=50.0,50.0,50
Nitrobenzene	.45653	.47700	.46889	.48933	.49650	.873	.47765	3.335		
Isophorone	.89854	.96505	1.01732	1.09714	1.08494	.921	1.01260	8.214		
2-Nitrophenol	.21321	.22761	.23033	.23990	.24939	.934	.23209	5.861	*	
2,4-Dimethylphenol	.31337	.33392	.33827	.34123	.35890	.955	.33714	4.844		
Benzoic Acid	.17656	.24165	.28696	.32476	.33219	.998	.27242	23.688		
bis(-2-Chloroethoxy)Methane	.46162	.48051	.48275	.50376	.50023	.971	.48577	3.495		
2,4-Dichlorophenol	.33040	.35934	.34804	.34495	.36264	.982	.34907	3.669	*	
1,2,4-Trichlorobenzene	.39618	.41216	.37174	.37361	.40114	.994	.39097	4.523		
Naphthalene	1.13560	1.14430	1.06220	1.03365	1.06203	1.004	1.08755	4.534		
4-Chloroaniline	.44128	.48411	.46390	.48630	.44999	1.025	.46512	4.310		
Hexachlorobutadiene	.18928	.20369	.17189	.17197	.19019	1.044	.18540	7.313	*	
4-Chloro-3-methylphenol	.34917	.37813	.39484	.41138	.38643	1.127	.38399	5.996	*	
2-Methylnaphthalene	.75012	.78628	.72512	.74063	.73588	1.139	.74761	3.133		

RF - Response Factor (Subscript is amount in ug/l)

$\overline{RRT}$ - Average Relative Retention Time (RT Std/RT Istd)

$\overline{RF}$ - Average Response Factor

%RSD - Percent Relative Standard Deviation

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

Initial Calibration Data
HSL Compounds

Case No: _____ Instrument ID: 5970C

Contractor: 21st Century Envir Calibration Date: 05/03/93

Contract No: _____

Minimum $\overline{RF}$ for SPCC is 0.050 Maximum % RSD for CCC is 30%

Laboratory ID:	>C1124	>C1122	>C1125	>C1126	>C1123					
Compound	RF 20.00	RF 50.00	RF 80.00	RF 120.00	RF 160.00	$\overline{RRT}$	$\overline{RF}$	% RSD	CCC	SPCC
Hexachlorocyclopentadiene	.29910	.25202	.23274	.26333	.25273	.882	.25998	9.421		**
2,4,6-Trichlorophenol	.39553	.42861	.43100	.43829	.47202	.896	.43309	6.300	*	
2,4,5-Trichlorophenol	.42946	.47367	.46949	.47519	.50917	.901	.47140	6.009		
2-Chloronaphthalene	1.40535	1.41330	1.28484	1.34653	1.43156	.917	1.37632	4.377		
2-Fluorobiphenyl	1.51098	1.44680	2.02398	1.45894	1.50696	.908	1.58953	15.383		(Conc=50.0,50.0,50
2-Nitroaniline	.44174	.49767	.47071	.48353	.47003	.941	.47273	4.374		
Dimethyl Phthalate	1.49577	1.48069	1.24365	1.21893	1.14997	.977	1.31780	12.097		
Acenaphthylene	2.03527	1.82160	1.67118	1.61320	1.71349	.978	1.77095	9.388		
3-Nitroaniline	.27497	.30542	.24355	.26272	.22074	1.002	.26148	12.237		
Acenaphthene	1.29107	1.22489	1.15943	1.18948	1.20737	1.005	1.21445	4.051	*	
2,4-Dinitrophenol	.06619	.12552	.13320	.13673	.13187	1.017	.11870	24.964		**
4-Nitrophenol	.18215	.22046	.18742	.19111	.13866	1.033	.18396	15.966		**
Dibenzofuran	1.84795	1.83811	1.63645	1.69246	1.67125	1.029	1.73724	5.680		
2,4-Dinitrotoluene	.46134	.49378	.36795	.37497	.35683	1.039	.41097	15.133		
2,6-Dinitrotoluene	.36837	.40112	.35439	.35928	.34862	.985	.36636	5.661		
Diethylphthalate	1.54753	1.39709	1.07663	1.00929	.92126	1.081	1.19036	22.559		
4-Chlorophenyl-phenylether	.69274	.66768	.57105	.55749	.56572	1.083	.61094	10.482		
Fluorene	1.43342	1.38931	1.20680	1.18643	1.16173	1.078	1.27554	9.877		
4-Nitroaniline	.25582	.27026	.19425	.19731	.17479	1.092	.21849	19.174		
4,6-Dinitro-2-methylphenol	.08920	.13238	.13945	.14677	.15802	.906	.13316	19.782		
N-Nitrosodiphenylamine	.55123	.55804	.62597	.63387	.63246	.910	.60031	6.975	*	
2,4,6-Tribromophenol	.08021	.09722	.10907	.08941	.10341	.921	.09586	11.889		(Conc=100.0,100.0,:
4-Bromophenyl-phenylether	.21953	.24594	.26342	.26122	.30794	.950	.25961	12.402		
Hexachlorobenzene	.23464	.26650	.24742	.24791	.30819	.965	.26093	11.021	*	
Pentachlorophenol	.09440	.12767	.11726	.12278	.14994	.988	.12241	16.323		**
Phenanthrene	1.18693	1.19544	1.13409	1.18849	1.23899	1.003	1.18879	3.136		
Anthracene	1.16597	1.19927	1.11945	1.18354	1.23850	1.008	1.18134	3.704		
Di-n-Butylphthalate	1.12011	1.07593	.89799	1.02782	1.05735	1.086	1.03584	8.111		
Fluoranthene	.79916	.75577	.54974	.66336	.73980	1.145	.70157	13.972	*	
Pyrene	3.16784	2.89955	2.34040	2.31986	2.15147	.889	2.57583	16.881		

RF - Response Factor (Subscript is amount in ug/l)

$\overline{RRT}$ - Average Relative Retention Time (RT Std/RT Istd)

$\overline{RF}$ - Average Response Factor

%RSD - Percent Relative Standard Deviation

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

Initial Calibration Data
HSL Compounds

Case No: _____ Instrument ID: 5970C

Contractor: 21st Century Envir Calibration Date: 05/03/93

Contract No: _____

Minimum $\overline{RF}$ for SPCC is 0.050 Maximum % RSD for CCC is 30%

Laboratory ID:	>C1124	>C1122	>C1125	>C1126	>C1123					
Compound	RF 20.00	RF 50.00	RF 80.00	RF 120.00	RF 160.00	$\overline{RRT}$	$\overline{RF}$	% RSD	CCC	SPCC
Benzidine	.30212	.12032	.08408	.14715	.18780	.885	.16830	49.829		
Terphenyl-d14	2.03255	1.66408	2.17675	1.46627	1.35563	.908	1.73906	20.427		(Conc=50.0,50.0,50
Butylbenzylphthalate	.84625	.85300	.92514	1.06864	1.02448	.959	.94350	10.626		
3,3'-Dichlorobenzidine	.22445	.27755	.28203	.34226	.34166	1.000	.29359	16.903		
Benzo(a)Anthracene	1.17410	1.25466	1.22150	1.31733	1.34815	.999	1.26315	5.584		
Bis(2-Ethylhexyl)Phthalate	.83767	1.00206	1.18108	1.38132	1.33180	1.016	1.14679	19.832		
Chrysene	1.06198	1.14508	1.13243	1.18994	1.22643	1.002	1.15117	5.409		
Di-n-octyl phthalate	2.28486	2.31229	2.62920	2.93112	2.81670	.954	2.59483	11.226	*	
Benzo(b)fluoranthene	1.47966	1.43718	1.43989	1.40504	1.40562	.974	1.43348	2.142		
Benzo(k)Fluoranthene	1.42630	1.28787	1.26380	1.51320	1.42951	.976	1.38414	7.598		
Benzo(a)Pyrene	1.20856	1.21690	1.22200	1.37383	1.31987	.996	1.26823	5.867	*	
Indeno(1,2,3-cd)Pyrene	.94924	1.13591	1.18072	1.22316	1.21457	1.073	1.14072	9.854		
Dibenzo(a,h)Anthracene	.73700	.85358	.96043	1.03444	1.00742	1.075	.91858	13.362		
Benzo(g,h,i)Perylene	.89327	.93960	1.02297	1.04483	1.04188	1.092	.98851	6.911		

RF - Response Factor (Subscript is amount in ug/l)

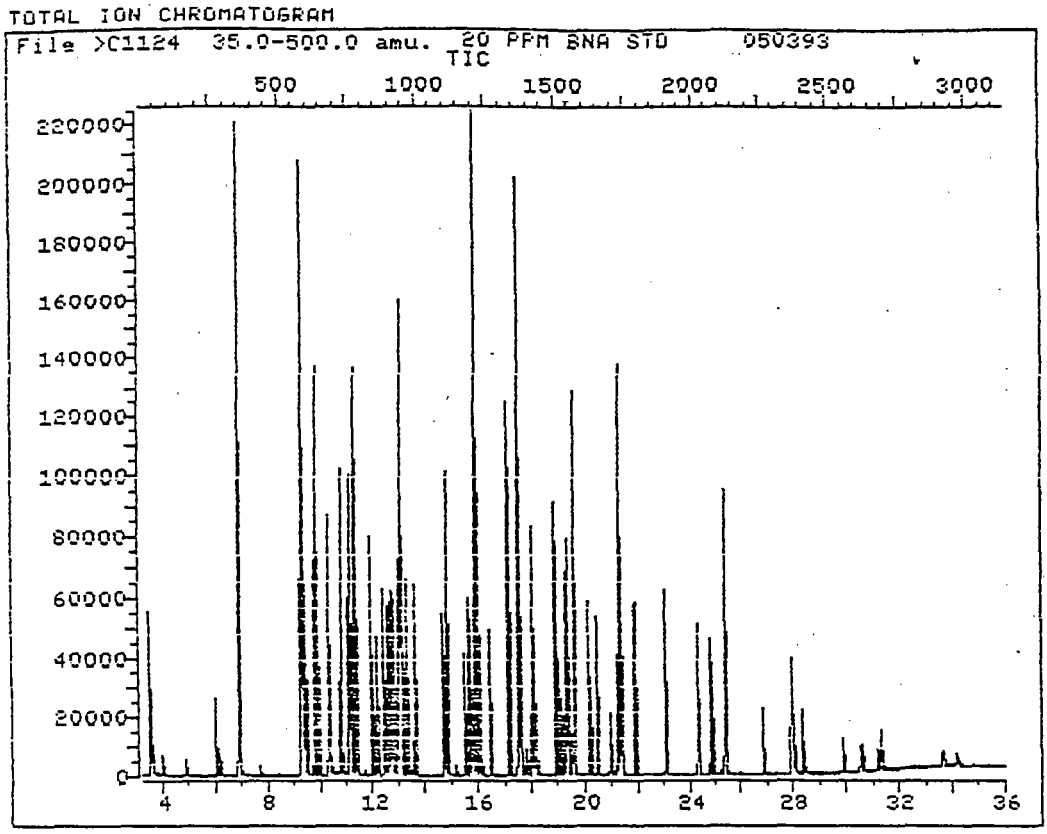
$\overline{RRT}$ - Average Relative Retention Time (RT Std/RT Istd)

$\overline{RF}$ - Average Response Factor

%RSD - Percent Relative Standard Deviation

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

TOTAL ION CHROMATOGRAM

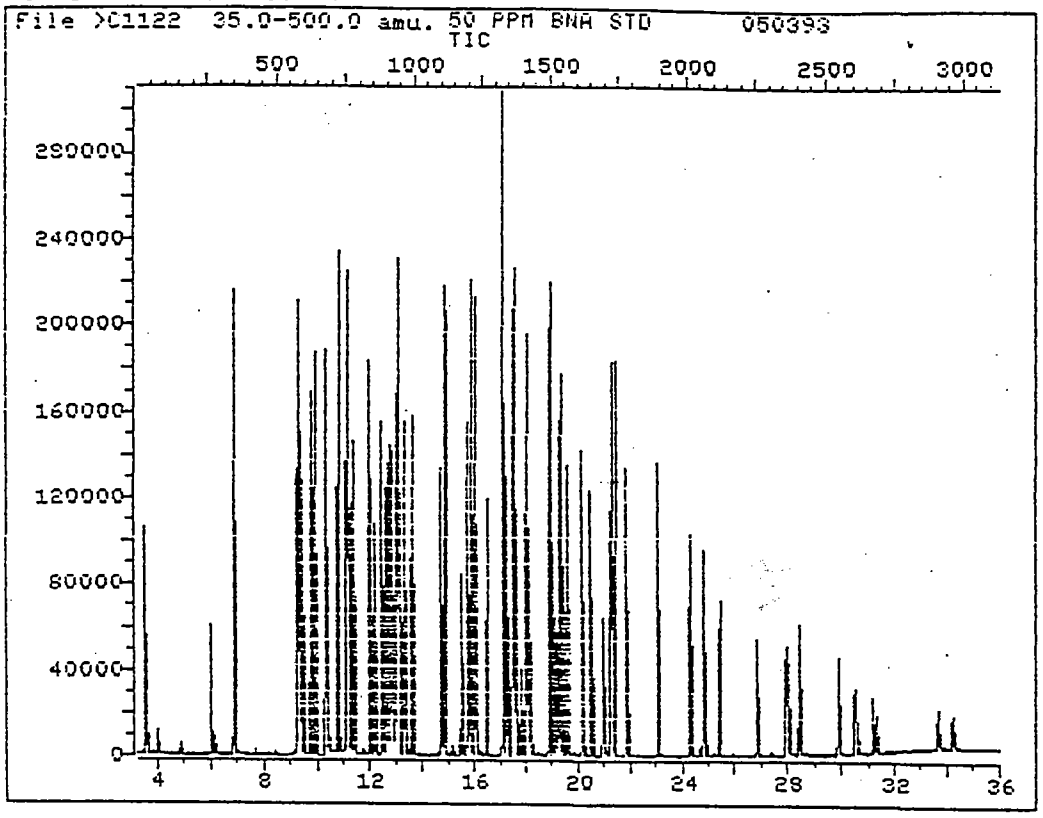


Data File: >C1124::E3 Quant Output File: ^C1124::D5
Name: 20 PPM BNA STD
Misc: 050393 BTL# 2

Id File: ID0429::D5
Title: hSL BNA STD
Last Calibration: 930429 16:21

Operator ID: JEFF
Quant Time: 930503 14:12
Injected at: 930503 13:33

TOTAL ION CHROMATOGRAM



Data File: >C1122::D4
Name: 50 PPM BNA STD
Misc: 050393

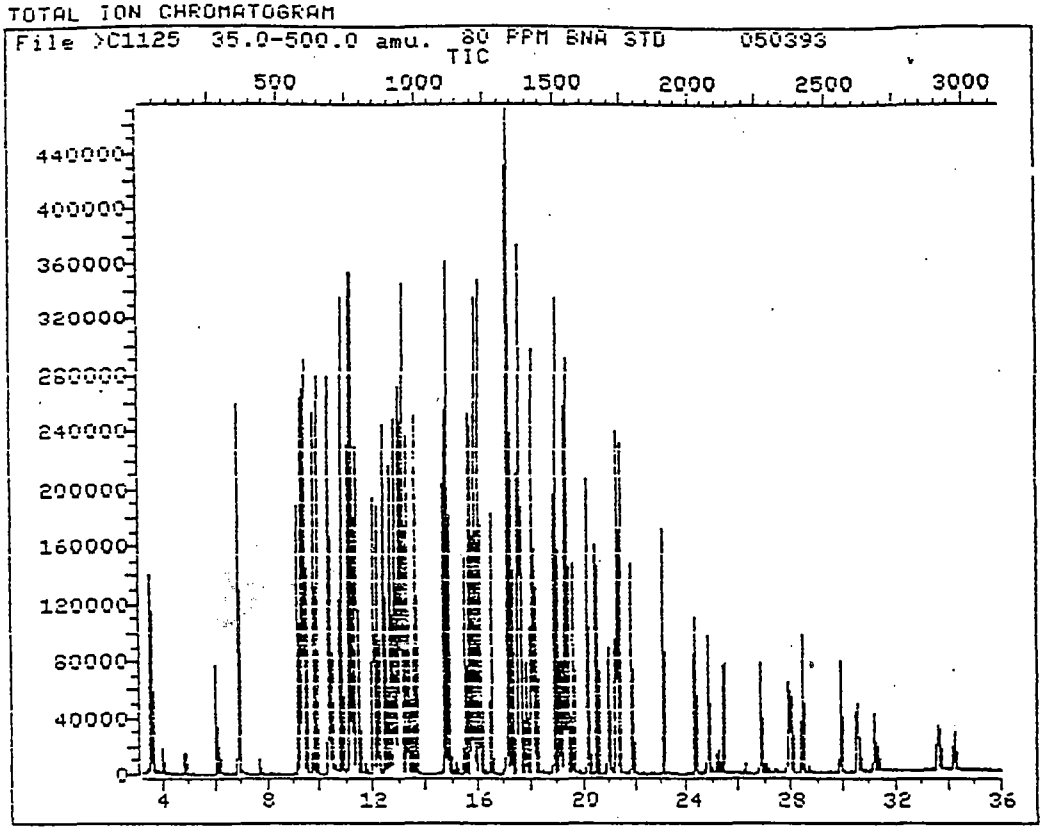
Quant Output File: ^C1122::D5

BTL# 2

Id File: ID0429::D5
Title: hSL BNA STD
Last Calibration: 930429 16:21

Operator ID: JEFF
Quant Time: 930503 12:26
Injected at: 930503 11:47

TOTAL ION CHROMATOGRAM

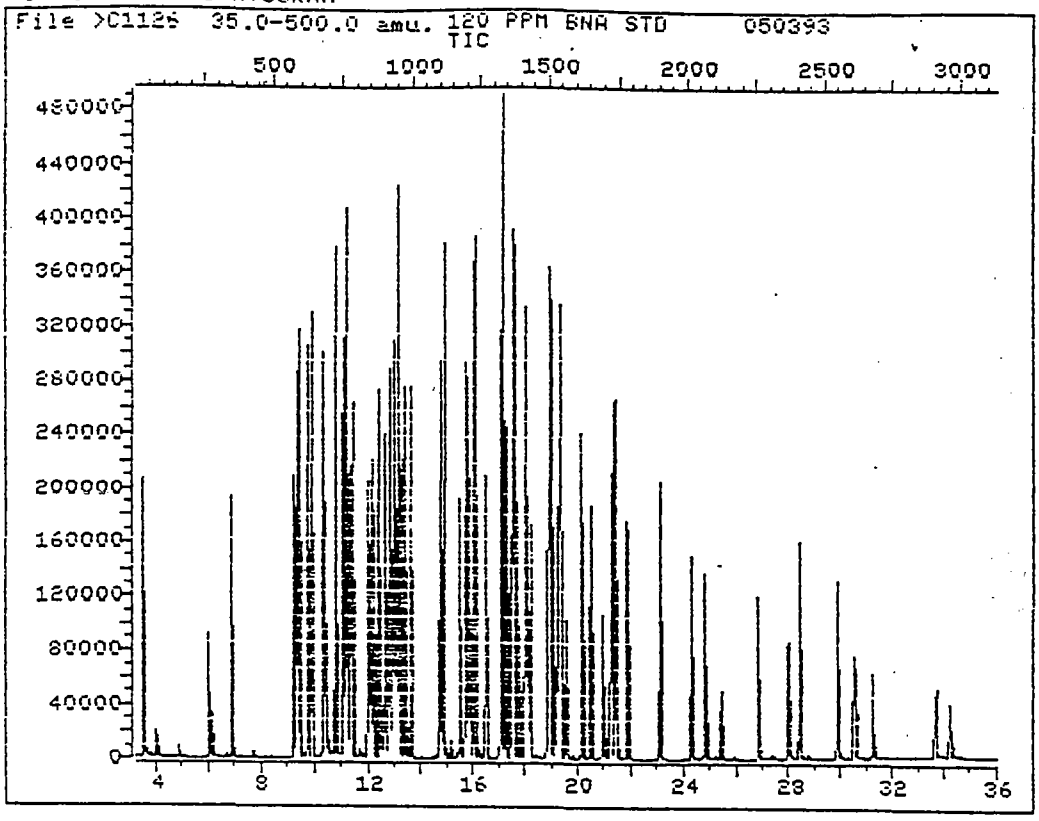


Data File: >C1125::E3 Quant Output File: ^C1125::D5
Name: 80 PPM BNA STD
Misc: 050393 BTL# 3

Id File: ID0429::D5
Title: hSL BNA STD
Last Calibration: 930429 16:21

Operator ID: JEFF
Quant Time: 930503 14:59
Injected at: 930503 14:20

TOTAL ION CHROMATOGRAM



Data File: >C1126::E3
Name: 120 PPM BNA STD
Misc: 050393

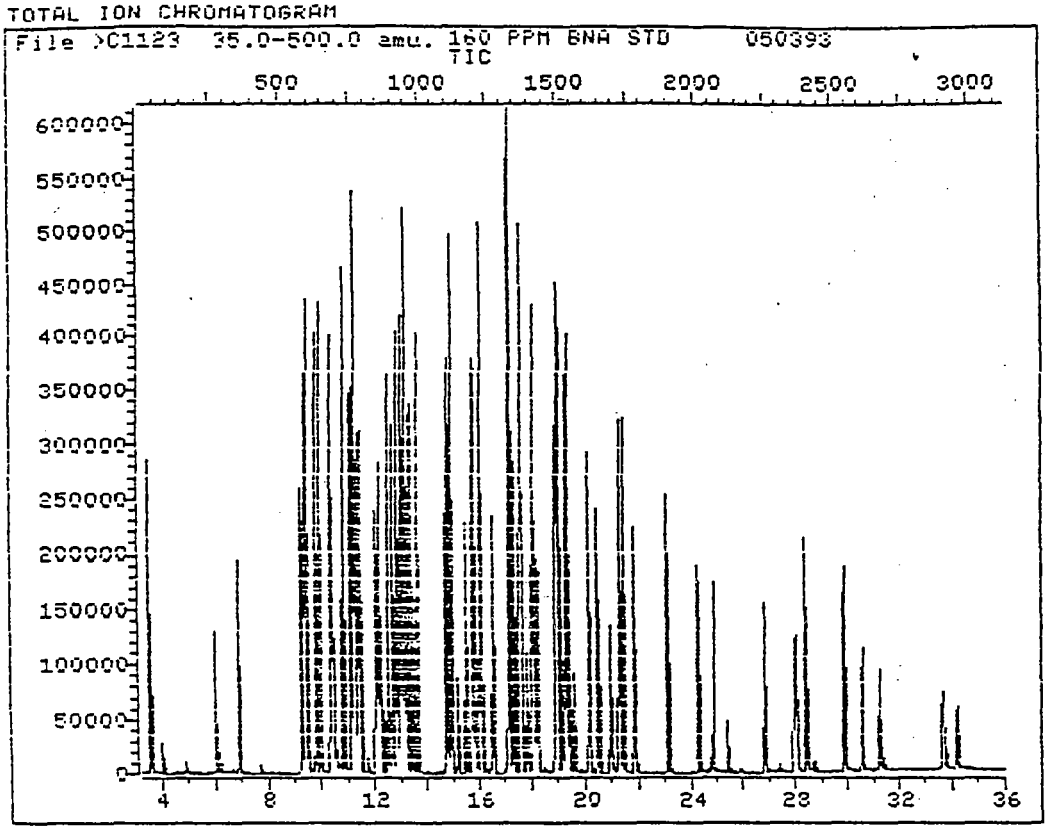
Quant Output File: ^C1126::D5

BTL# 4

Id File: ID0429::D5
Title: hSL BNA STD
Last Calibration: 930429 16:21

Operator ID: JEFF
Quant Time: 930503 15:46
Injected at: 930503 15:07

TOTAL ION CHROMATOGRAM



Data File: >C1123::E3 Quant Output File: ^C1123::D5
Name: 160 PPM BNA STD
Misc: 050393 BTL# 1

Id File: ID0429::D5
Title: hSL BNA STD
Last Calibration: 930429 16:21

Operator ID: JEFF
Quant Time: 930503 13:27
Injected at: 930503 12:46

21ST CENTURY ENVIRONMENTAL INC.

GC/MS STANDARD DECAFLUOROTRIPHENYLPHOSPHINE(DFTPP) TUNE
CRITERIA FOR SEMI-VOLATILES 50ng

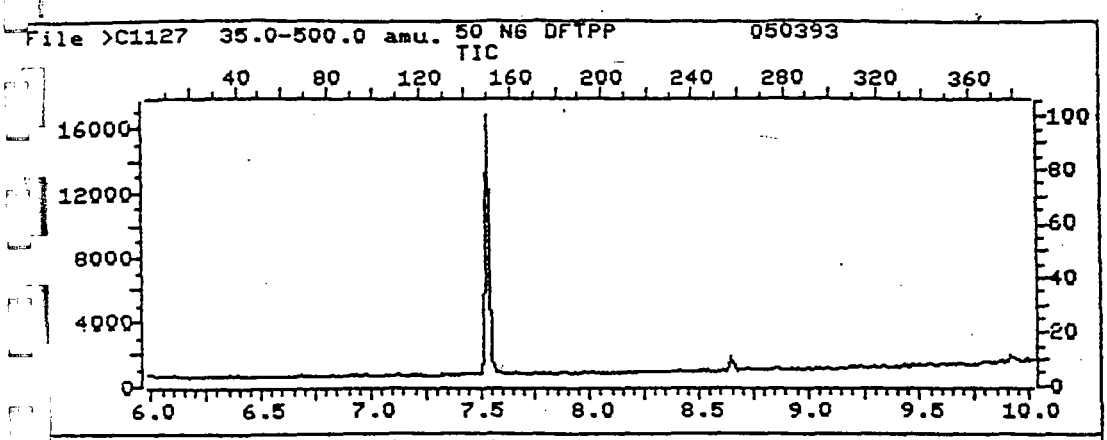
DATE AND TIME OF INJECTION: 5/03/93 15:57
INSTRUMENT ID: 5970

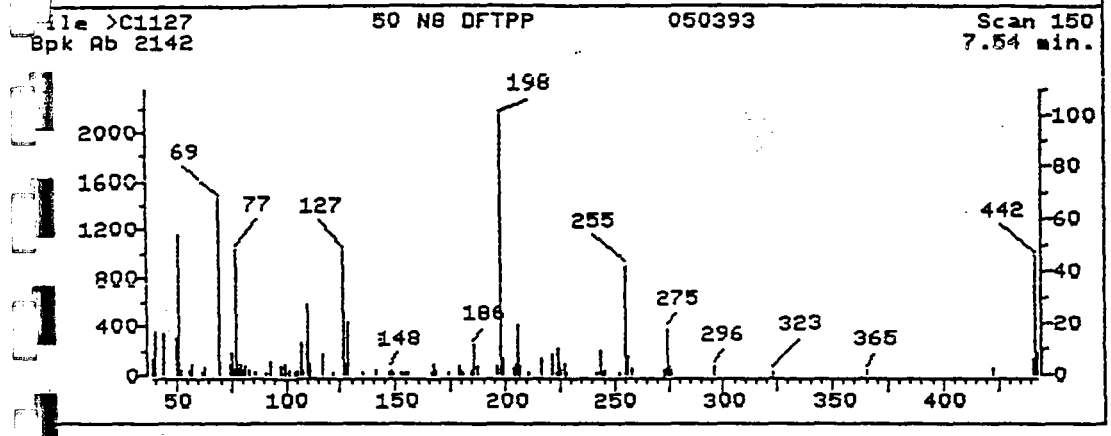
DATA RELEASE AUTHORIZED BY Richard W Symank

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	Appropriate Peak	Status
51	30-60% of mass 198	54.11	54.11	Ok
68	Less than 2% of mass 69	0.00	0.00	Ok
69	(reference only)	67.55	67.55	Ok
70	Less than 2% of mass 69	0.00	0.00	Ok
127	40-60% of mass 198	47.01	47.01	Ok
197	Less than 1% of mass 198	0.00	0.00	Ok
198	Base peak, 100% relative abundance	100.00	100.00	Ok
199	5-9% of mass 198	5.98	5.98	Ok
275	10-30% of mass 198	17.83	17.83	Ok
365	Greater than 1% of mass 198	1.45	1.45	Ok
441	0-100% of mass 443	6.26	76.57	Ok
442	Greater than 40% of mass 198	45.19	45.19	Ok
443	17-23% of mass 442	8.17	18.08	Ok

THIS PERFORMANCE AFFECTS ALL SAMPLES
STANDARDS AND BLANKS LISTED BELOW

SAMPLE ID	LAB ID		DATE TIME
>C1127::D4	50 NG DFTPP		5/03/93 15:57
>C1128::D4	50 PPM BNA STD		5/03/93 16:19
>C1129::D5	BLANK		5/03/93 17:15
>C1131::E4	A1541MS		5/03/93 18:58
>C1132::E4	A1541MSD		5/03/93 19:45
>C1133::E4	A1542		5/03/93 20:32
>C1134::E4	A1543		5/03/93 21:19
>C1136::E4	A1545		5/03/93 22:51
>C1137::E4	A1546		5/03/93 23:37
>C1141::E4	A1550		5/04/93 2:41





>C1127 50 NG DFTPP 050393
150 NRM

File: >C1127 Scan #: 150 Retn. time: 7.54

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
39.00	6.162	81.00	3.735	128.90	19.514	186.95	3.408	244.90	.747
40.00	16.807	82.90	1.494	134.90	1.214	195.90	3.501	245.80	1.354
43.95	15.546	85.90	.654	140.85	2.007	197.80	100.000	251.90	.700
50.05	13.725	86.10	.700	147.05	1.167	198.90	5.976	254.85	41.410
51.05	54.108	90.75	1.261	147.80	2.054	203.90	2.661	255.95	6.863
52.05	2.101	92.95	5.042	148.90	.560	204.90	4.342	257.75	2.334
55.90	1.961	97.95	3.315	152.90	.934	205.85	19.094	272.90	1.587
57.00	4.575	99.05	3.922	155.00	1.307	206.85	3.175	273.90	2.708
62.00	.747	100.90	1.681	155.90	1.307	210.95	.980	274.90	17.834
63.10	2.848	104.00	1.120	165.85	.934	216.85	6.256	275.80	3.315
68.95	67.554	104.90	1.541	166.85	4.435	220.80	7.283	276.75	1.961
74.05	4.155	107.00	12.232	167.65	1.447	222.80	1.120	296.00	3.081
75.05	8.123	107.90	2.101	167.95	1.541	223.90	10.037	322.90	1.307
75.85	2.101	109.90	27.451	173.90	.840	224.90	2.848	364.90	1.447
76.05	2.241	110.90	4.248	178.80	3.641	226.90	4.015	422.85	2.661
77.00	47.666	116.95	7.236	180.00	2.101	228.00	1.167	440.95	6.256
78.00	2.334	121.95	.607	181.00	.980	241.80	.560	441.95	45.191

Continuing Calibration Check
HSL Compounds

Case No: Calibration Date: 05/03/93

Contractor: 21st Century Envir Time: 16:19

Contract No: Laboratory ID: >C1128

Instrument ID: 5970C Initial Calibration Date: 05/03/93

Minimum $\overline{RF}$ for SPCC is 0.050 Maximum % Diff for CCC is 25%

Compound	$\overline{RF}$	RF	%Diff	CCC	SPCC	
Pyridine	.77447	.63497	18.01			
n-Nitrosodimethylamine	.54572	.47545	12.88			
2-Fluorophenol	.69681	.71286	2.30			(Conc=100.00)
Phenol-d5	.98851	.95615	3.27			(Conc=100.00)
Phenol	1.13690	1.00615	11.50	*		
bis(-2-Chloroethyl)Ether	.91811	.86485	5.80			
2-Chlorophenol	.87467	.84375	3.53			
1,3-Dichlorobenzene	.93433	.92282	1.23			
1,4-Dichlorobenzene	.93222	.93540	.34	*		
Benzyl Alcohol	.51561	.44340	14.01			
1,2-Dichlorobenzene	.88982	.89329	.39			
2-Methylphenol	.81274	.78632	3.25			
bis(2-Chloroisopropyl)ether	1.09922	.97166	11.60			
4-Methylphenol	1.68023	1.61531	3.86			
N-Nitroso-Di-n-propylamine	.75562	.65119	13.82		**	
Hexachloroethane	.41320	.41000	.77			
Nitrobenzene-d5	.50994	.43595	14.51			(Conc=50.00)
Nitrobenzene	.47765	.44695	6.43			
Isophorone	1.01260	.93194	7.97			
2-Nitrophenol	.23209	.23447	1.02	*		
2,4-Dimethylphenol	.33714	.31542	6.44			
Benzoic Acid	.27242	.21882	19.68			
bis(-2-Chloroethoxy)Methane	.48577	.46646	3.98			
2,4-Dichlorophenol	.34907	.37106	6.30	*		
1,2,4-Trichlorobenzene	.39097	.43395	10.99			
Naphthalene	1.08755	1.13341	4.22			
4-Chloroaniline	.46512	.47867	2.91			
Hexachlorobutadiene	.18540	.21824	17.71	*		
4-Chloro-3-methylphenol	.38399	.37730	1.74	*		
2-Methylnaphthalene	.74761	.78432	4.91			
Hexachlorocyclopentadiene	.25998	.26242	.94		**	
2,4,6-Trichlorophenol	.43309	.43543	.54	*		

RF - Response Factor from daily standard file at 50.00 ug/l

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

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

Continuing Calibration Check
HSL Compounds

Case No: _____ Calibration Date: 05/03/93

Contractor: 21st Century Envir Time: 16:19

Contract No: _____ Laboratory ID: >C1128

Instrument ID: 5970C Initial Calibration Date: 05/03/93

Minimum $\overline{RF}$ for SPCC is 0.050 Maximum % Diff for CCC is 25%

Compound	$\overline{RF}$	RF	%Diff	CCC	SPCC	
2,4,5-Trichlorophenol	.47140	.50249	6.60			
2-Chloronaphthalene	1.37632	1.41546	2.84			
2-Fluorobiphenyl	1.58953	1.43558	9.69			(Conc=50.00)
2-Nitroaniline	.47273	.48402	2.39			
Dimethyl Phthalate	1.31780	1.45420	10.35			
Acenaphthylene	1.77095	1.91882	8.35			
3-Nitroaniline	.26148	.30694	17.39			
Acenaphthene	1.21445	1.26334	4.03	*		
2,4-Dinitrophenol	.11870	.14081	18.63		**	
4-Nitrophenol	.18396	.18280	.63		**	
Dibenzofuran	1.73724	1.84501	6.20			
2,4-Dinitrotoluene	.41097	.50452	22.76			
2,6-Dinitrotoluene	.36636	.40999	11.91			
Diethylphthalate	1.19036	1.42416	19.64			
4-Chlorophenyl-phenylether	.61094	.69100	13.11			
Fluorene	1.27554	1.40151	9.88			
4-Nitroaniline	.21849	.26537	21.46			
4,6-Dinitro-2-methylphenol	.13316	.14067	5.63			
N-Nitrosodiphenylamine	.60031	.55261	7.95	*		
2,4,6-Tribromophenol	.09586	.08579	10.51			(Conc=100.00)
4-Bromophenyl-phenylether	.25961	.26179	.84			
Hexachlorobenzene	.26093	.29609	13.47	*		
Pentachlorophenol	.12241	.13327	8.87		**	
Phenanthrene	1.18879	1.18858	.02			
Anthracene	1.18134	1.17467	.57			
Di-n-Butylphthalate	1.03584	1.02575	.97			
Fluoranthene	.70157	.70602	.63	*		
Pyrene	2.57583	3.05445	18.58			
Benzidine	.16830	.11635	30.86			
Terphenyl-d14	1.73906	1.77133	1.86			(Conc=50.00)
Butylbenzylphthalate	.94350	.81358	13.77			
3,3'-Dichlorobenzidine	.29359	.27395	6.69			

RF - Response Factor from daily standard file at 50.00 ug/l

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

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

Continuing Calibration Check
HSL Compounds

Case No: _____ Calibration Date: 05/03/93

Contractor: 21st Century Envir Time: 16:19

Contract No: _____ Laboratory ID: >C1128

Instrument ID: 5970C Initial Calibration Date: 05/03/93

Minimum $\overline{RF}$ for SPCC is 0.050 Maximum % Diff for CCC is 25%

Compound	$\overline{RF}$	RF	%Diff	CCC	SPCC
Benzo(a)Anthracene	1.26315	1.22578	2.96		
Bis(2-Ethylhexyl)Phthalate	1.14679	.92403	19.42		
Chrysene	1.15117	1.14490	.55		
Di-n-octyl phthalate	2.59483	2.13159	17.85	*	
Benzo(b)fluoranthene	1.43348	1.38680	3.26		
Benzo(k)Fluoranthene	1.38414	1.50591	8.80		
Benzo(a)Pyrene	1.26823	1.28292	1.16	*	
Indeno(1,2,3-cd)Pyrene	1.14072	1.22923	7.76		
Dibenzo(a,h)Anthracene	.91858	1.01870	10.90		
Benzo(g,h,i)Perylene	.98851	1.04627	5.84		

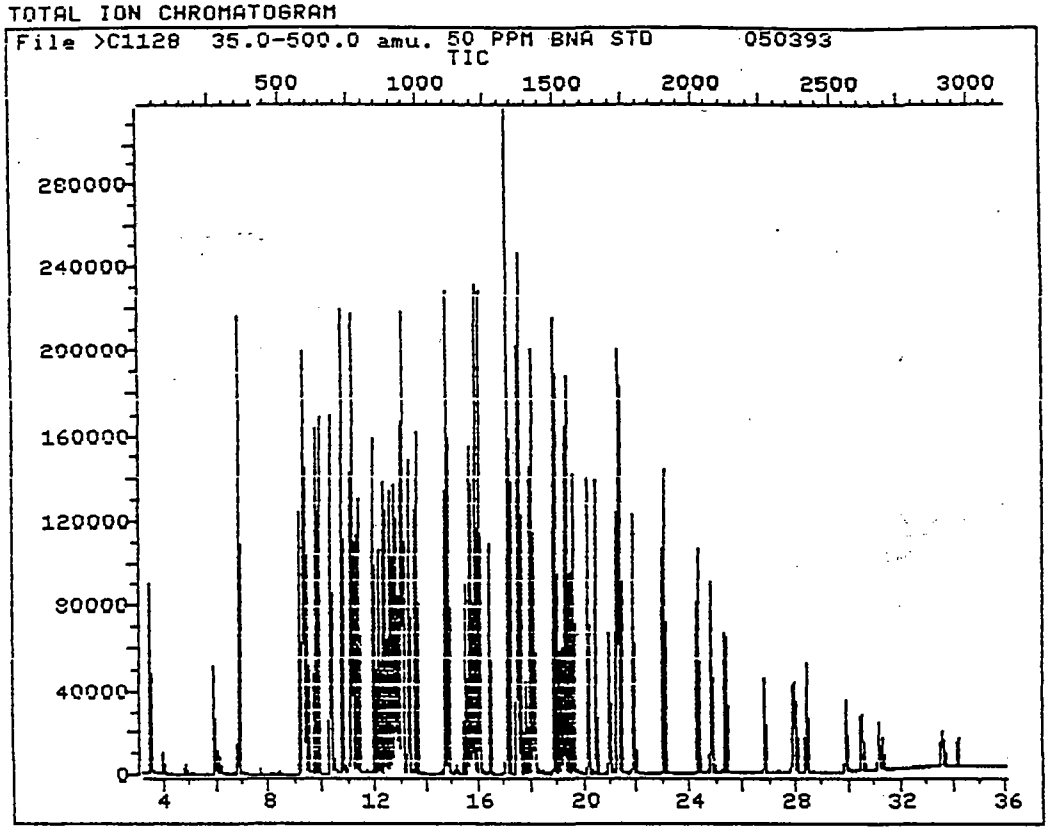
RF - Response Factor from daily standard file at 50.00 ug/l

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

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

TOTAL ION CHROMATOGRAM



Data File: >C1128::D4 Quant Output File: ^C1128::D5
Name: 50 PPM BNA STD
Misc: 050393 BTL# 2

Id File: IDHSLC::D3
Title: hSL BNA STD
Last Calibration: 930503 16:22

Operator ID: JEFF
Quant Time: 930503 16:58
Injected at: 930503 16:19

21ST CENTURY ENVIRONMENTAL INC.

GC/MS STANDARD DECAFLUOROTRIPHENYLPHOSPHINE(DFTPP) TUNE
CRITERIA FOR SEMI-VOLATILES 50ng

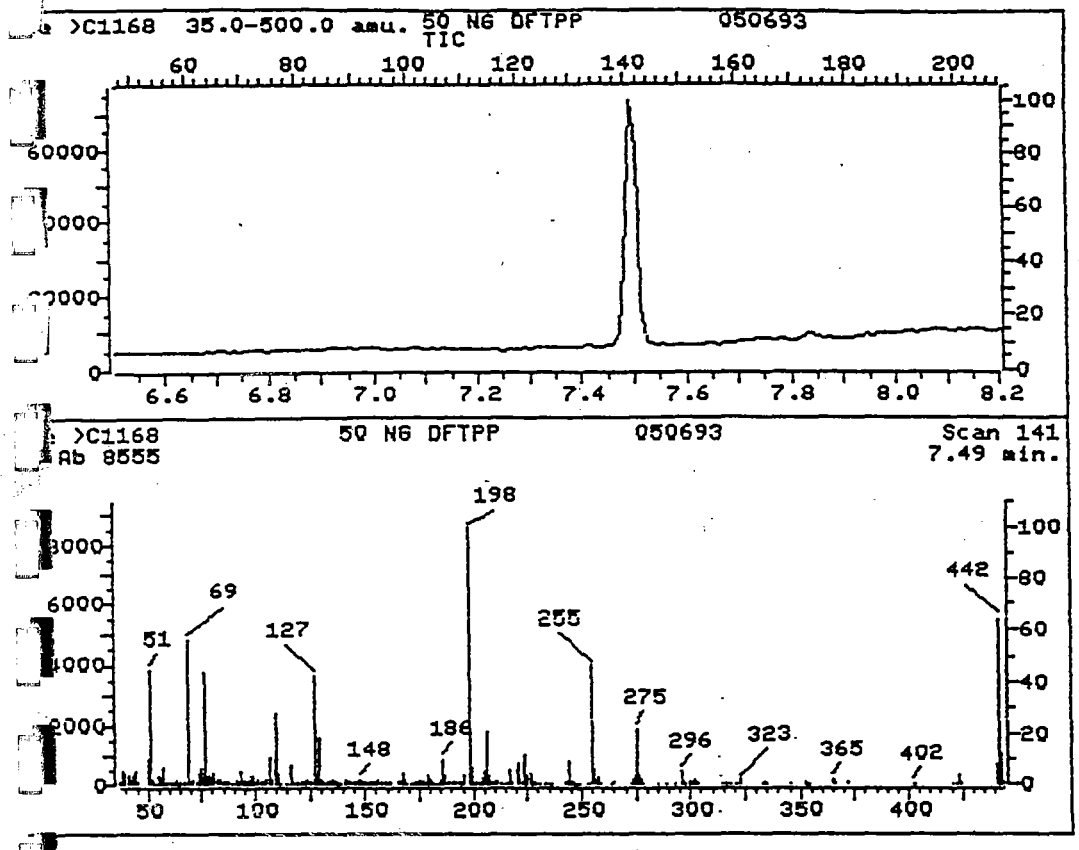
DATE AND TIME OF INJECTION: 5/06/93 3:57
INSTRUMENT ID: 5970

DATA RELEASE AUTHORIZED BY Richard W Ryan

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	% Relative Abundance Appropriate Peak	Status
51	30-60% of mass 198	44.96	44.96	Ok
68	Less than 2% of mass 69	0.00	0.00	Ok
69	(reference only)	56.39	56.39	Ok
70	Less than 2% of mass 69	.67	1.18	Ok
127	40-60% of mass 198	42.26	42.26	Ok
197	Less than 1% of mass 198	0.00	0.00	Ok
198	Base peak, 100% relative abundance	100.00	100.00	Ok
199	5-9% of mass 198	6.53	6.53	Ok
275	10-30% of mass 198	21.62	21.62	Ok
365	Greater than 1% of mass 198	1.84	1.84	Ok
441	0-100% of mass 443	8.45	68.99	Ok
442	Greater than 40% of mass 198	64.92	64.92	Ok
443	17-23% of mass 442	12.25	18.87	Ok

THIS PERFORMANCE AFFECTS ALL SAMPLES
STANDARDS AND BLANKS LISTED BELOW

SAMPLE ID		LAB ID		DATE	TIME
>C1168::D3		50 NG DFTPP		5/06/93	3:57
>C1170::D2		50 PPM BNA STD		5/06/93	5:43
>C1172::D2		BLANK 050493		5/06/93	8:59
>C1173::D2		A1547		5/06/93	9:49
>C1174::D2		A1548		5/06/93	10:38
>C1175::ED		A1549		5/06/93	11:25
>C1176::ED		A1544		5/06/93	12:12
>C1177::ED		A1551		5/06/93	12:59
>C1178::ED		A1552		5/06/93	13:46
>C1179::ED		A1553		5/06/93	14:33
>C1180::ED		A1554		5/06/93	15:21
>C1180::ED		A1554		5/06/93	15:21



C1168 50 NG DFTPP 050693
141 NRM

le: >C1168 Scan #: 141 Retn. time: 7.49

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
57.20	.292	92.90	5.190	145.10	.690	194.00	.339	264.80	1.052
38.10	.725	94.00	.701	145.70	.386	195.90	3.460	272.10	.269
9.00	5.003	95.10	1.485	146.20	.362	197.90	100.000	272.90	1.695
0.00	4.547	96.10	1.029	147.00	1.391	198.85	6.534	273.90	3.179
41.10	3.308	97.05	1.333	147.85	2.127	199.95	.409	274.85	21.625
2.10	.608	97.95	3.156	148.95	1.192	201.35	.538	275.85	3.051
3.10	3.565	98.95	2.981	149.95	.900	203.05	.736	276.95	1.438
44.00	5.342	99.85	.374	150.95	1.227	203.85	2.864	277.85	.421
5.10	.912	100.95	2.011	151.85	.468	204.85	4.980	285.05	.222
0.05	10.298	102.95	.771	152.95	.795	205.95	20.947	288.90	.257
1.05	44.956	103.95	1.040	153.95	.701	206.85	3.086	292.90	.374
52.05	2.151	104.95	1.496	154.95	1.286	207.95	.795	295.90	5.319
3.15	.397	106.95	11.011	155.95	1.695	209.05	.316	296.80	.865
4.15	.164	107.95	1.812	157.15	.444	210.05	.549	298.00	.339
55.05	3.203	109.90	27.421	157.85	.573	210.80	1.216	299.00	.086

8.00	.479	112.00	.47	160.90	1.251	215.80	.6	301.95	1.718
9.00	1.262	114.90	.444	161.80	.526	216.80	5.459	302.95	1.286
61.00	.736	116.10	.818	164.90	.935	217.80	.807	303.95	.432
1.90	.456	116.90	7.750	165.90	.807	220.90	7.949	314.70	.432
3.00	1.508	117.90	.725	166.90	4.126	223.00	1.262	315.80	.234
3.90	.339	119.10	.526	167.80	1.800	223.85	11.268	318.00	.234
65.00	1.181	119.90	.292	168.90	.374	224.85	3.133	320.80	.234
7.00	1.204	121.10	.573	170.90	.316	226.85	4.267	322.90	1.578
8.90	56.388	121.95	.912	171.90	.386	227.75	.643	332.85	.245
70.00	.666	122.95	1.742	172.95	.701	228.75	.912	333.95	1.087
0.95	1.508	123.85	.573	173.85	1.122	230.85	.479	334.75	.292
2.95	.982	125.05	1.052	174.95	1.812	233.85	.316	334.95	.304
3.95	4.617	126.95	42.256	176.05	.655	234.95	.304	345.80	.187
4.95	6.663	127.95	3.331	176.85	.970	236.80	.327	351.85	.608
5.95	2.244	128.95	17.989	177.85	.292	241.90	.678	352.85	.351
6.95	43.787	129.95	1.590	178.85	3.378	243.00	.643	353.95	.468
78.05	2.981	131.05	.526	179.95	1.987	243.90	9.199	364.90	1.835
8.95	3.191	131.85	.281	180.95	.959	245.00	1.216	365.80	.327
9.95	1.940	132.15	.316	181.95	.316	245.90	1.286	371.90	.748
80.95	4.605	133.05	.725	182.85	.234	246.90	.327	401.90	.444
2.05	1.473	133.95	.748	183.45	.140	247.80	.199	402.85	.421
3.05	1.777	135.00	1.531	184.85	1.485	248.70	.362	420.90	.456
84.00	.386	135.90	.713	185.90	10.333	252.85	.327	421.90	.386
85.00	1.192	137.00	1.227	186.90	3.331	254.85	46.277	422.90	3.179
6.00	.807	137.90	.456	187.70	.432	255.85	6.148	423.90	.678
7.00	.783	138.90	.339	188.90	.818	256.85	.584	440.90	8.451
87.70	.257	140.90	1.753	190.90	.701	257.85	2.291	441.90	64.921
8.90	.292	141.80	.842	191.90	.818	258.85	.327	442.90	12.250
0.90	1.449	142.90	.912	193.00	1.017	264.00	.140	443.90	.912
92.00	.783	143.90	.316						

Continuing Calibration Check
HSL Compounds

Case No: _____ Calibration Date: 05/06/93

Contractor: 21st Century Envir Time: 05:43

Contract No: _____ Laboratory ID: >C1170

Instrument ID: 5970C Initial Calibration Date: 05/03/93

Minimum $\overline{RF}$ for SPCC is 0.050 Maximum % Diff for CCC is 25%

Compound	$\overline{RF}$	RF	%Diff	CCC	SPCC	
Pyridine	.77447	.58909	23.94			
N-Nitrosodimethylamine	.54572	.44935	17.66			
2-Fluorophenol	.69681	.65606	5.85			(Conc=100.00)
Phenol-d5	.98851	.88931	10.04			(Conc=100.00)
Phenol	1.13690	1.00042	12.00	*		
bis(-2-Chloroethyl)Ether	.91811	.81041	11.73			
2-Chlorophenol	.87467	.77164	11.78			
1,3-Dichlorobenzene	.93433	.85716	8.26			
1,4-Dichlorobenzene	.93222	.83791	10.12	*		
Benzyl Alcohol	.51561	.48610	5.72			
1,2-Dichlorobenzene	.88982	.81045	8.92			
2-Methylphenol	.81274	.73462	9.61			
bis(2-Chloroisopropyl)ether	1.09922	.93861	14.61			
4-Methylphenol	1.68023	1.52945	8.97			
N-Nitroso-Di-n-propylamine	.75562	.63921	15.41		**	
Hexachloroethane	.41320	.36948	10.58			
Nitrobenzene-d5	.50994	.39634	22.28			(Conc=50.00)
Nitrobenzene	.47765	.39227	17.87			
Isophorone	1.01260	.82440	18.59			
2-Nitrophenol	.23209	.20684	10.88	*		
2,4-Dimethylphenol	.33714	.29043	13.86			
Benzoic Acid	.27242	.17646	35.22			
bis(-2-Chloroethoxy)Methane	.48577	.40520	16.59			
2,4-Dichlorophenol	.34907	.29598	15.21	*		
1,2,4-Trichlorobenzene	.39097	.35583	8.99			
Naphthalene	1.08755	.94557	13.06			
4-Chloroaniline	.46512	.34622	25.56			
Hexachlorobutadiene	.18540	.16345	11.84	*		
4-Chloro-3-methylphenol	.38399	.30700	20.05	*		
2-Methylnaphthalene	.74761	.64955	13.12			
Hexachlorocyclopentadiene	.25998	.14779	43.15		**	
2,4,6-Trichlorophenol	.43309	.38255	11.67	*		

RF - Response Factor from daily standard file at 50.00 ug/l

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

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

00371

Continuing Calibration Check
HSL Compounds

Case No: Calibration Date: 05/06/93

Contractor: 21st Century Envir Time: 05:43

Contract No: Laboratory ID: >C1170

Instrument ID: 5970C Initial Calibration Date: 05/03/93

Minimum $\overline{RF}$ for SPCC is 0.050 Maximum % Diff for CCC is 25%

Compound	$\overline{RF}$	RF	%Diff	CCC	SPCC	
2,4,5-Trichlorophenol	.47140	.41430	12.11			
2-Chloronaphthalene	1.37632	1.25278	8.98			
2-Fluorobiphenyl	1.58953	1.32758	16.48			(Conc=50.00)
2-Nitroaniline	.47273	.39282	16.90			
Dimethyl Phthalate	1.31780	1.22045	7.39			
Acenaphthylene	1.77095	1.54084	12.99			
3-Nitroaniline	.26148	.17972	31.27			
Acenaphthene	1.21445	1.00354	17.37	*		
2,4-Dinitrophenol	.11870	.08783	26.01		**	
4-Nitrophenol	.18396	.12563	31.71		**	
Dibenzofuran	1.73724	1.51753	12.65			
2,4-Dinitrotoluene	.41097	.35435	13.78			
2,6-Dinitrotoluene	.36636	.32405	11.55			
Diethylphthalate	1.19036	1.11535	6.30			
4-Chlorophenyl-phenylether	.61094	.57922	5.19			
Fluorene	1.27554	1.10034	13.74			
4-Nitroaniline	.21849	.17025	22.08			
4,6-Dinitro-2-methylphenol	.13316	.11082	16.78			
N-Nitrosodiphenylamine	.60031	.51170	14.76	*		
2,4,6-Tribromophenol	.09586	.03581	62.65			(Conc=100.00)
4-Bromophenyl-phenylether	.25961	.24812	4.43			
Hexachlorobenzene	.26093	.26432	1.30	*		
Pentachlorophenol	.12241	.10626	13.19		**	
Phenanthrene	1.18879	.97211	18.23			
Anthracene	1.18134	.98980	16.21			
Di-n-Butylphthalate	1.03584	.86516	16.48			
Fluoranthene	.70157	.54673	22.07	*		
Pyrene	2.57583	3.24875	26.12			
Benzidine	.16830	.18581	10.41			
Terphenyl-d14	1.73906	2.11930	21.87			(Conc=50.00)
Butylbenzylphthalate	.94350	.93268	1.15			
3,3'-Dichlorobenzidine	.29359	.33833	15.24			

RF - Response Factor from daily standard file at 50.00 ug/l

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

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

Continuing Calibration Check
HSL Compounds

Case No: _____ Calibration Date: 05/06/93

Contractor: 21st Century Envir Time: 05:43

Contract No: Laboratory ID: >C1170

Instrument ID: 5970C Initial Calibration Date: 05/03/93

Minimum $\overline{RF}$ for SPCC is 0.050 Maximum % Diff for CCC is 25%

Compound	$\overline{RF}$	RF	%Diff	CCC	SPCC
Benzo(a)Anthracene	1.26315	1.63159	29.17		
bis(2-Ethylhexyl)Phthalate	1.14679	1.16078	1.22		
Chrysene	1.15117	1.44772	25.76		
Di-n-octyl phthalate	2.59483	2.47668	4.55	*	
Benzo(b)fluoranthene	1.43348	1.76737	23.29		
Benzo(k)Fluoranthene	1.38414	1.77695	28.38		
Benzo(a)Pyrene	1.26823	1.57205	23.96	*	
Indeno(1,2,3-cd)Pyrene	1.14072	1.58084	38.58		
Dibenzo(a,h)Anthracene	.91858	1.35443	47.45		
Benzo(g,h,i)Perylene	.98851	1.35455	37.03		

RF - Response Factor from daily standard file at 50.00 ug/l

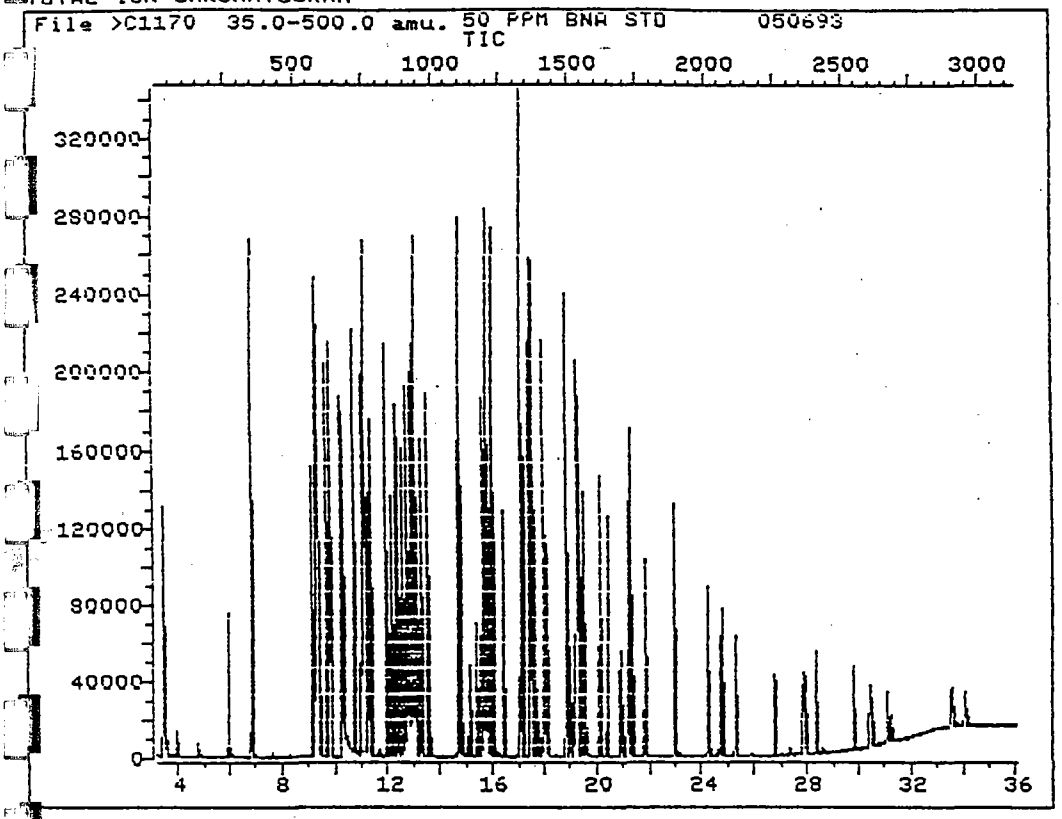
$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

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

00373

TOTAL ION CHROMATOGRAM



Data File: >C1170::D2 Quant Output File: ^C1170::D2
Name: 50 PPM BNA STD
Misc: 050693 BTL# 2

Id File: IDHSLC::D3
Title: hSL BNA STD
Last Calibration: 930505 02:02

Operator ID: JEFF
Quant Time: 930506 06:22
Injected at: 930506 05:43

21ST CENTURY ENVIRONMENTAL INC.

GC/MS STANDARD DECAFLUOROTRIPHENYLPHOSPHINE(DFTPP) TUNE
CRITERIA FOR SEMI-VOLATILES 50ng

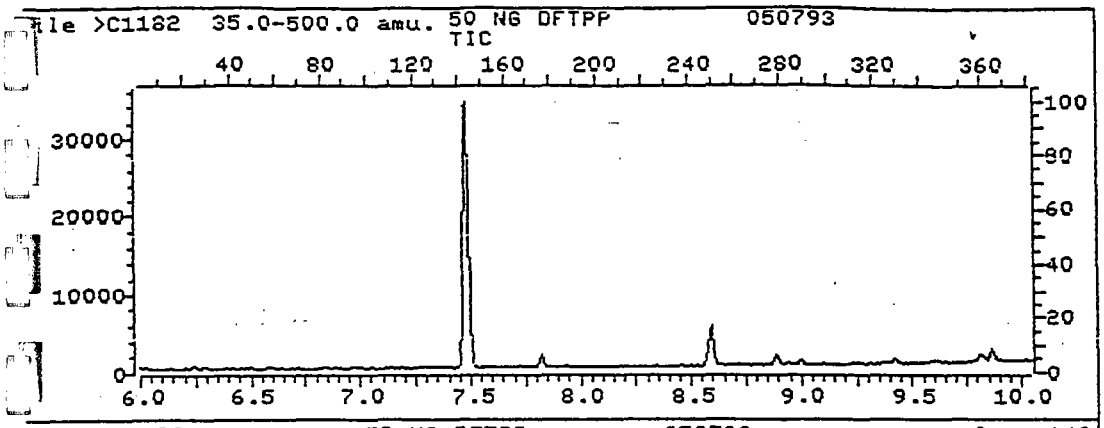
DATE AND TIME OF INJECTION: 5/07/93 10:07
INSTRUMENT ID: 5970

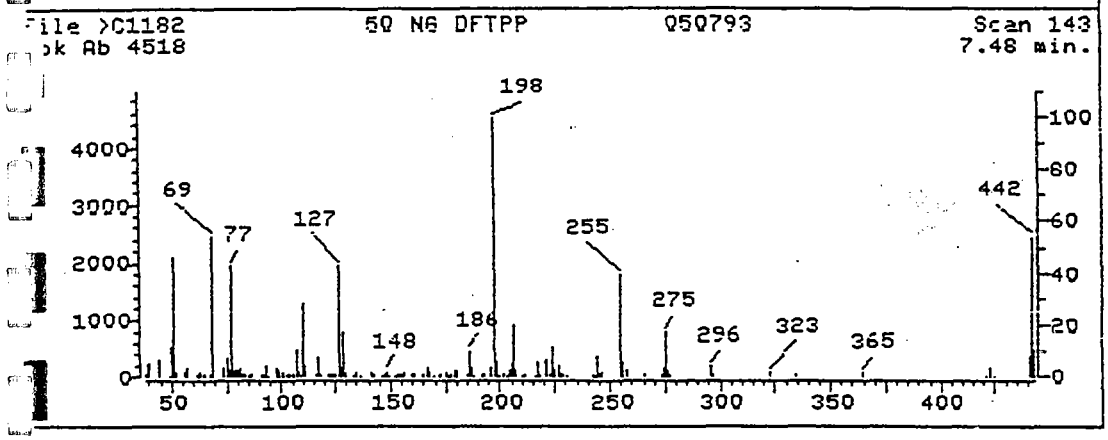
DATA RELEASE AUTHORIZED BY Richard W Byrne

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	Appropriate Peak	Status
51	30-60% of mass 198	46.55	46.55	Ok
68	Less than 2% of mass 69	.80	1.46	Ok
69	(reference only)	54.58	54.58	Ok
70	Less than 2% of mass 69	0.00	0.00	Ok
127	40-60% of mass 198	43.01	43.01	Ok
197	Less than 1% of mass 198	0.00	0.00	Ok
198	Base peak, 100% relative abundance	100.00	100.00	Ok
199	5-9% of mass 198	5.84	5.84	Ok
275	10-30% of mass 198	17.11	17.11	Ok
365	Greater than 1% of mass 198	1.62	1.62	Ok
441	0-100% of mass 443	7.95	71.66	Ok
442	Greater than 40% of mass 198	54.05	54.05	Ok
443	17-23% of mass 442	11.09	20.52	Ok

THIS PERFORMANCE AFFECTS ALL SAMPLES
STANDARDS AND BLANKS LISTED BELOW

SAMPLE ID		LAB ID		DATE TIME
>C1182::ED		50 NG DFTPP		5/07/93 10:07
>C1183::ED		50 PPM BNA STD		5/07/93 10:28
>C1184::ED		20 PPM BNA STD		5/07/93 11:30
>C1185::E4		160 PPM BNA STD		5/07/93 12:17
>C1186::E4		80 PPM BNA STD		5/07/93 13:04
>C1187::E4		120 PPM BNA STD		5/07/93 13:52
>C1188::ED		A1555 E-SYSTEM		5/07/93 14:40
>C1189::E4		BLANK 041993		5/07/93 15:27
>C1190::E4		A1556 E-SYSTEM		5/07/93 16:16
>C1191::E4		A1557 E-SYSTEM		5/07/93 17:04
>C1192::E4		A1558 E-SYSTEM		5/07/93 17:53
>C1193::E4		A1559 E-SYSTEM		5/07/93 18:41
>C1194::E4		A1560 E-SYSTEM		5/07/93 19:29
>C1195::E4		A1562 E-SYSTEM		5/07/93 20:16
>C1196::E4		A1750 CWM		5/07/93 21:03
>C1197::E4		A1426 1:10		5/07/93 21:49





>C1182 50 NG DFTPP 050793
143 NRM

File: >C1182 Scan #: 143 Retn. time: 7.48

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
38.10	.620	91.00	.907	136.75	.421	186.05	10.204	230.85	.332
39.10	4.515	92.00	.598	136.95	.487	186.95	3.475	241.85	.509
40.00	5.312	93.00	4.294	140.90	1.660	188.05	.310	243.00	.487
44.00	6.839	93.90	.288	142.00	.598	191.90	.775	244.00	8.101
49.15	.332	98.00	3.187	142.70	.421	192.90	.952	244.90	1.107
50.05	11.244	98.95	2.745	145.90	.354	195.90	3.054	245.90	1.417
51.05	46.547	100.95	2.014	147.10	.863	197.90	100.000	254.90	39.575
52.05	2.058	102.95	.575	148.00	2.014	198.90	5.843	255.95	6.175
56.05	1.350	103.95	1.062	148.90	.332	199.90	.376	257.95	2.213
57.05	3.586	105.05	1.018	151.55	.487	201.60	.620	265.05	.753
62.00	1.018	107.05	10.624	152.85	.841	202.95	.376	273.00	1.040
63.00	1.616	108.05	1.616	153.95	.598	203.95	2.722	273.90	3.276
65.10	.907	108.95	.465	154.95	.974	204.95	4.670	275.00	17.109
67.90	.797	109.95	28.464	155.95	1.704	205.95	19.942	276.00	2.368
69.00	54.582	110.95	3.984	159.95	.575	206.95	2.368	277.00	1.328
73.05	.509	115.80	.509	160.95	.996	210.15	.332	295.90	4.006
73.95	3.718	116.90	7.437	164.90	.775	210.35	.376	296.80	.598
74.95	7.503	117.90	.819	166.10	.664	211.15	.708	323.00	1.616
76.05	2.280	121.90	.664	167.00	2.988	216.00	.244	333.95	.907

78.15	2.568	123.90	.531	169.10	.376	218.00	.642	421.05	.310
78.95	2.612	124.85	.509	172.00	.509	221.00	.972	422.95	3.254
79.95	2.590	126.95	43.006	175.00	1.439	223.00	1.284	424.05	.354
80.95	2.988	127.95	3.718	175.90	.421	224.00	11.288	440.95	7.946
82.05	.952	128.95	17.530	176.85	.575	225.00	2.479	442.05	54.050
83.15	.996	129.95	1.394	178.95	2.678	227.00	4.050	443.05	11.089
85.05	.465	133.85	.288	179.85	2.191	227.90	.730	443.95	.907
86.00	.753	134.95	1.394	184.95	1.129	229.00	.907		

Initial Calibration Data
HSL Compounds

Case No: _____ Instrument ID: 5970C _____

Contractor: 21st Century Envir Calibration Date: 05/07/93

Contract No: _____

Minimum $\overline{RF}$ for SPCC is 0.050 Maximum % RSD for CCC is 30%

Laboratory ID:	>C1184	>C1183	>C1186	>C1187	>C1185						
Compound	RF 20.00	RF 50.00	RF 80.00	RF 120.00	RF 160.00	$\overline{RRT}$	$\overline{RF}$	% RSD	CCC	SPCC	
Pyridine	.81184	.58664	.76906	.79748	.86085	.348	.76518	13.748			
n-Nitrosodimethylamine	.56223	.52312	.57565	.59040	.61863	.353	.57401	6.154			
2-Fluorophenol	.74438	.69555	.81410	.76266	.46809	.701	.69696	19.339			(Conc=100.0,100.0,100.0,
Phenol-d5	1.01488	.95594	1.23501	1.07088	.65526	.950	.98640	21.526			(Conc=100.0,100.0,100.0,
Phenol	1.17056	1.08644	1.16191	1.15806	1.21763	.953	1.15892	4.058	*		
bis(-2-Chloroethyl)Ether	.97914	.88368	.92190	.92188	.94768	.956	.93086	3.799			
2-Chlorophenol	.88409	.81847	.86584	.86713	.91561	.959	.87022	4.046			
1,3-Dichlorobenzene	.96271	.88526	.87598	.88975	.94944	.990	.91263	4.410			
1,4-Dichlorobenzene	.95358	.87345	.87536	.89851	.95531	1.005	.91124	4.462	*		
Benzyl Alcohol	.27952	.30710	.44945	.43445	.51263	1.056	.39663	25.024			
1,2-Dichlorobenzene	.92499	.82496	.85746	.85825	.92799	1.050	.87873	5.193			
2-Methylphenol	.83585	.78152	.82451	.82115	.87309	1.097	.82722	3.969			
bis(2-Chloroisopropyl)ether	1.14190	1.02769	1.26010	1.19703	1.27764	1.094	1.18087	8.562			
4-Methylphenol	1.71147	1.62968	1.74715	1.71995	1.79366	1.139	1.72038	3.487			
N-Nitroso-Di-n-propylamine	.74375	.69713	.73211	.75151	.69092	1.134	.72308	3.803		**	
Hexachloroethane	.43257	.38951	.40169	.41309	.43876	1.126	.41512	4.971			
Nitrobenzene-d5	.49367	.40913	.70545	.51270	.47654	.868	.51950	21.374			(Conc=50.0,50.0,50.0,50.0
Nitrobenzene	.47507	.42680	.47838	.51571	.52174	.872	.48354	7.883			
Isophorone	.94023	.86534	1.03207	1.07118	1.09296	.921	1.00035	9.542			
2-Nitrophenol	.21814	.20033	.23948	.24089	.24956	.934	.22968	8.739	*		
2,4-Dimethylphenol	.32970	.29635	.33524	.33764	.34459	.956	.32870	5.737			
Benzoic Acid	.15630	.16152	.23180	.24925	.25846	.997	.21147	23.151			
bis(-2-Chloroethoxy)Methane	.47870	.42792	.50159	.50753	.50800	.971	.48475	7.003			
2,4-Dichlorophenol	.32482	.29614	.33104	.34319	.33924	.983	.32689	5.694	*		
1,2,4-Trichlorobenzene	.37728	.34483	.36025	.38125	.38153	.994	.36903	4.362			
Naphthalene	1.13374	.98147	1.03274	1.07503	1.03702	1.004	1.05200	5.373			
4-Chloroaniline	.42090	.36852	.42311	.44819	.42928	1.025	.41800	7.098			
Hexachlorobutadiene	.18202	.16170	.16707	.17355	.17960	1.044	.17279	4.910	*		
4-Chloro-3-methylphenol	.32961	.31996	.36525	.37856	.36383	1.130	.35144	7.180	*		
2-Methylnaphthalene	.73944	.64834	.68013	.72046	.71551	1.139	.70078	5.182			

RF - Response Factor (Subscript is amount in ug/l)

$\overline{RRT}$ - Average Relative Retention Time (RT Std/RT Istd)

$\overline{RF}$ - Average Response Factor

%RSD - Percent Relative Standard Deviation

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

Initial Calibration Data
HSL Compounds

Case No: _____ Instrument ID: 5970C

Contractor: 21st Century Envir Calibration Date: 05/07/93

Contract No: _____

Minimum $\overline{RF}$ for SPCC is 0.050 Maximum % RSD for CCC is 30%

Laboratory ID:	>C1184	>C1183	>C1186	>C1187	>C1185					
Compound	RF 20.00	RF 50.00	RF 80.00	RF 120.00	RF 160.00	$\overline{RRT}$	$\overline{RF}$	% RSD	CCC	SPCC
Hexachlorocyclopentadiene	.33132	.13456	.26024	.23156	.23461	.882	.23846	29.620		**
2,4,6-Trichlorophenol	.39630	.35797	.42748	.42287	.46067	.896	.41306	9.287	*	
2,4,5-Trichlorophenol	.41927	.40616	.47091	.50476	.53949	.901	.46812	12.022		
2-Chloronaphthalene	1.45144	1.24128	1.38498	1.45523	1.51601	.917	1.40979	7.447		
2-Fluorobiphenyl	1.61226	1.27314	2.13694	1.55943	1.62784	.908	1.64192	18.991		(Conc=50.0,50.0,50.0,50.(
2-Nitroaniline	.41927	.40058	.43853	.47146	.45859	.941	.43769	6.557		
Dimethyl Phthalate	1.52131	1.24910	1.19996	1.28371	1.18491	.977	1.28780	10.586		
Acenaphthylene	1.98276	1.56123	1.67176	1.85037	1.84514	.977	1.78225	9.299		
3-Nitroaniline	.23101	.20405	.21151	.22302	.20255	1.002	.21443	5.741		
Acenaphthene	1.29138	1.05480	1.17112	1.22358	1.25304	1.005	1.19879	7.649	*	
2,4-Dinitrophenol	.05304	.08272	.09912	.10703	.11025	1.017	.09043	25.942		**
4-Nitrophenol	.13919	.13326	.15640	.17579	.14353	1.035	.14963	11.302		**
Dibenzofuran	1.72864	1.48461	1.58649	1.67023	1.69808	1.028	1.63361	6.041		
2,4-Dinitrotoluene	.38894	.36554	.32785	.36515	.32478	1.039	.35445	7.745		
2,6-Dinitrotoluene	.34354	.32519	.32991	.36303	.34220	.985	.34077	4.318		
Diethylphthalate	1.44418	1.17307	1.05481	1.14201	.98729	1.081	1.16027	15.061		
4-Chlorophenyl-phenylether	.63332	.52817	.54674	.55525	.56779	1.083	.56626	7.093		
Fluorene	1.30166	1.08793	1.10738	1.14451	1.14272	1.078	1.15684	7.299		
4-Nitroaniline	.18856	.17898	.15508	.18700	.16632	1.092	.17519	8.151		
4,6-Dinitro-2-methylphenol	.08761	.10754	.14082	.13924	.15644	.906	.12633	22.162		
N-Nitrosodiphenylamine	.61998	.52432	.67572	.66006	.70004	.909	.63602	10.833	*	
2,4,6-Tribromophenol	.08813	.08738	.10279	.08557	.09765	.921	.09230	8.138		(Conc=100.0,100.0,100.0,1
4-Bromophenyl-phenylether	.25339	.22227	.28142	.26735	.31193	.950	.26727	12.426		
Hexachlorobenzene	.26332	.23933	.24979	.26502	.30571	.965	.26464	9.541	*	
Pentachlorophenol	.07955	.09432	.10598	.10446	.13284	.988	.10343	18.881		**
Phenanthrene	1.16844	1.00046	1.14929	1.20049	1.22964	1.003	1.14966	7.730		
Anthracene	1.15084	.98674	1.12494	1.16383	1.23093	1.008	1.13145	7.943		
Di-n-Butylphthalate	1.29542	1.00453	1.00403	1.07216	1.07192	1.087	1.08961	11.007		
Fluoranthene	.73571	.52596	.52743	.57966	.64935	1.145	.60362	14.806	*	
Pyrene	2.84249	3.89884	2.67923	2.92749	2.45849	.888	2.96131	18.700		

RF - Response Factor (Subscript is amount in ug/l)

$\overline{RRT}$ - Average Relative Retention Time (RT Std/RT Istd)

$\overline{RF}$ - Average Response Factor

%RSD - Percent Relative Standard Deviation

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

Initial Calibration Data
HSL Compounds

Case No: _____ Instrument ID: 5970C

Contractor: 21st Century Envir Calibration Date: 05/07/93

Contract No: _____

Minimum $\overline{RF}$ for SPCC is 0.050 Maximum % RSD for CCC is 30%

Laboratory ID:	>C1184	>C1183	>C1186	>C1187	>C1185					
Compound	RF 20.00	RF 50.00	RF 80.00	RF 120.00	RF 160.00	$\overline{RRT}$	$\overline{RF}$	% RSD	CCC	SPCC
Benzidine	.25109	.12933	.06646	.19428	.13418	.885	.15507	45.266		
Terphenyl-d14	1.93244	2.42218	2.41203	1.72540	1.39612	.908	1.97763	22.474		(Conc=50.0,50.0,50.0,50.0
Butylbenzylphthalate	.97847	1.26880	.98596	1.06115	.97639	.959	1.05415	11.862		
3,3'-Dichlorobenzidine	.22032	.30829	.25415	.25637	.27899	1.001	.26362	12.363		
Benzo(a)Anthracene	1.17600	1.65308	1.25358	1.30899	1.36020	.999	1.35037	13.514		
Bis(2-Ethylhexyl)Phthalate	1.11430	1.55992	1.20147	1.36579	1.28123	1.016	1.30454	13.072		
Chrysene	1.07997	1.48593	1.10988	1.21407	1.23956	1.002	1.22588	13.071		
Di-n-octyl phthalate	2.30144	3.30070	2.80945	3.06894	2.80419	.954	2.85694	13.044	*	
Benzo(b)fluoranthene	1.34914	1.98753	1.63995	1.71371	1.64255	.974	1.66658	13.659		
Benzo(k)Fluoranthene	1.35546	1.85192	1.29919	1.35874	1.52643	.976	1.47835	15.252		
Benzo(a)Pyrene	1.15833	1.71341	1.34634	1.34608	1.47415	.996	1.40766	14.542	*	
Indeno(1,2,3-cd)Pyrene	.88678	1.45152	1.18595	1.15493	1.32852	1.072	1.20154	17.660		
Dibenzo(a,h)Anthracene	.72069	1.18673	.98293	.96738	1.10289	1.074	.99212	17.783		
Benzo(g,h,i)Perylene	.80172	1.24802	.99239	1.00176	1.15695	1.091	1.04017	16.474		

RF - Response Factor (Subscript is amount in ug/l)

$\overline{RRT}$ - Average Relative Retention Time (RT Std/RT Istd)

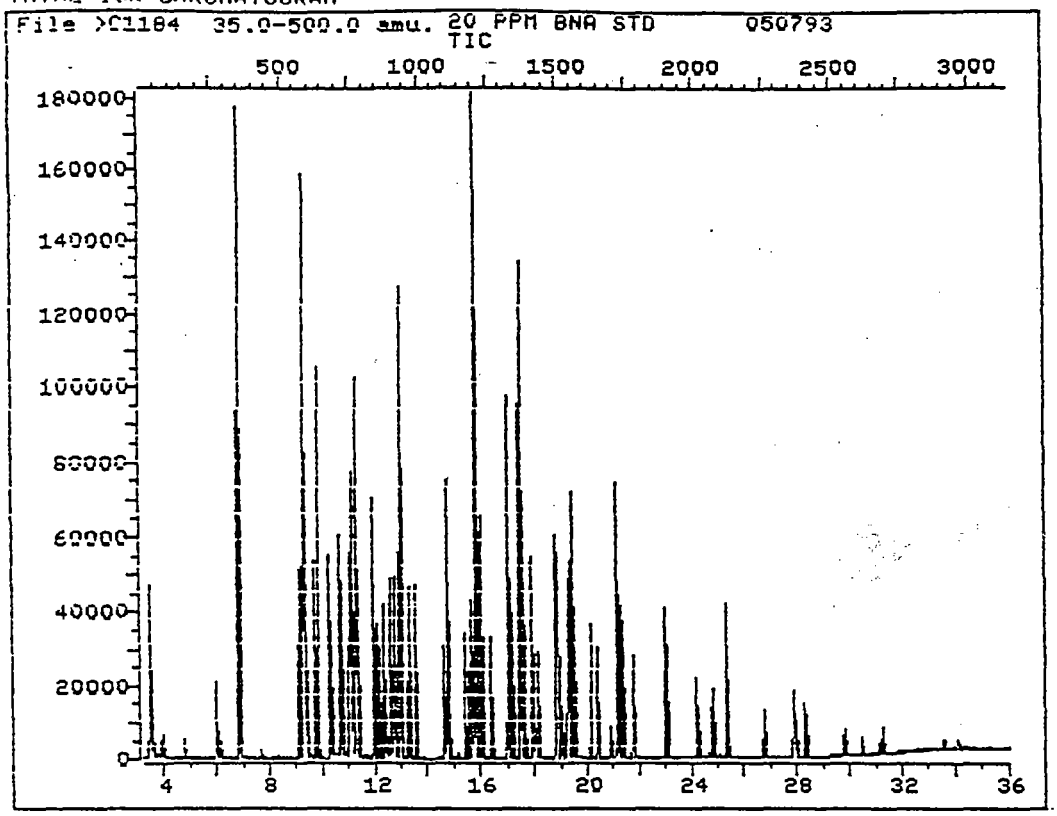
$\overline{RF}$ - Average Response Factor

%RSD - Percent Relative Standard Deviation

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

00380

TOTAL ION CHROMATOGRAM

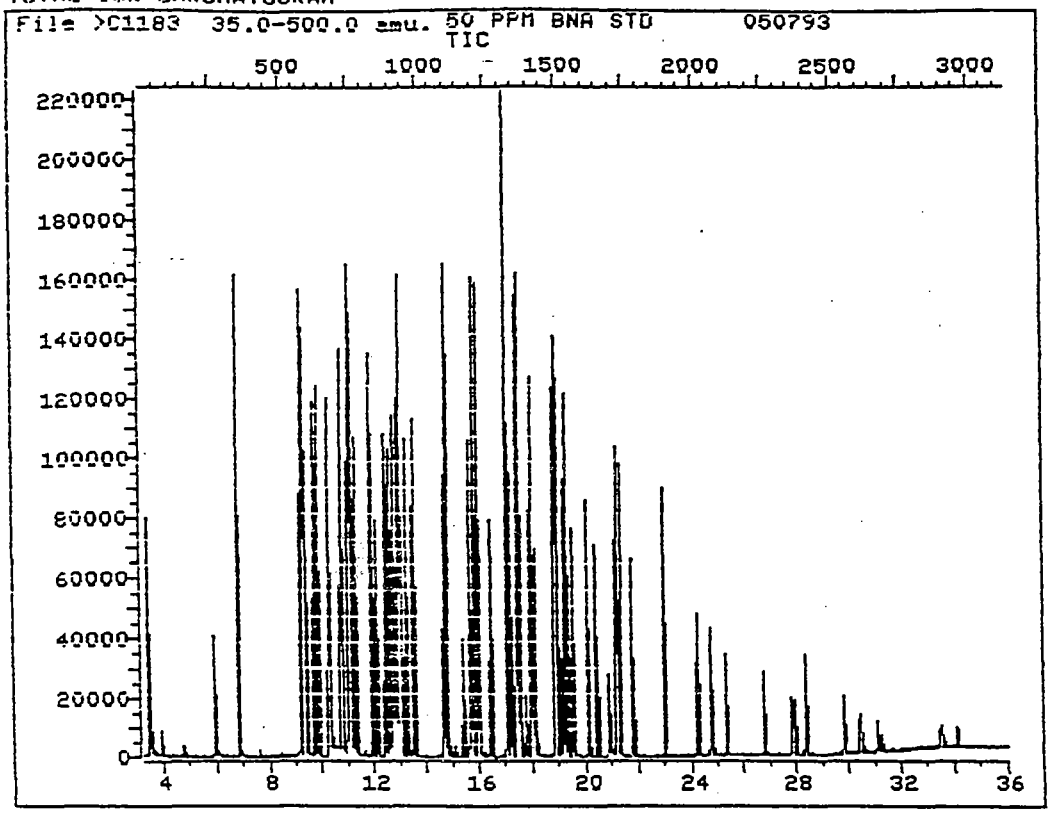


Data File: >C1184::ED
Quant Output File: ^C1184::D2
Name: 20 PPM BNA STD
Misc: 050793
BTL# 1

Id File: IDHSLC::D3
Title: hSL BNA STD
Last Calibration: 930506 07:48

Operator ID: JEFF
Quant Time: 930507 12:09
Injected at: 930507 11:30

TOTAL ION CHROMATOGRAM



Data File: >C1183::ED
Name: 50 PPM BNA STD
Misc: 050793

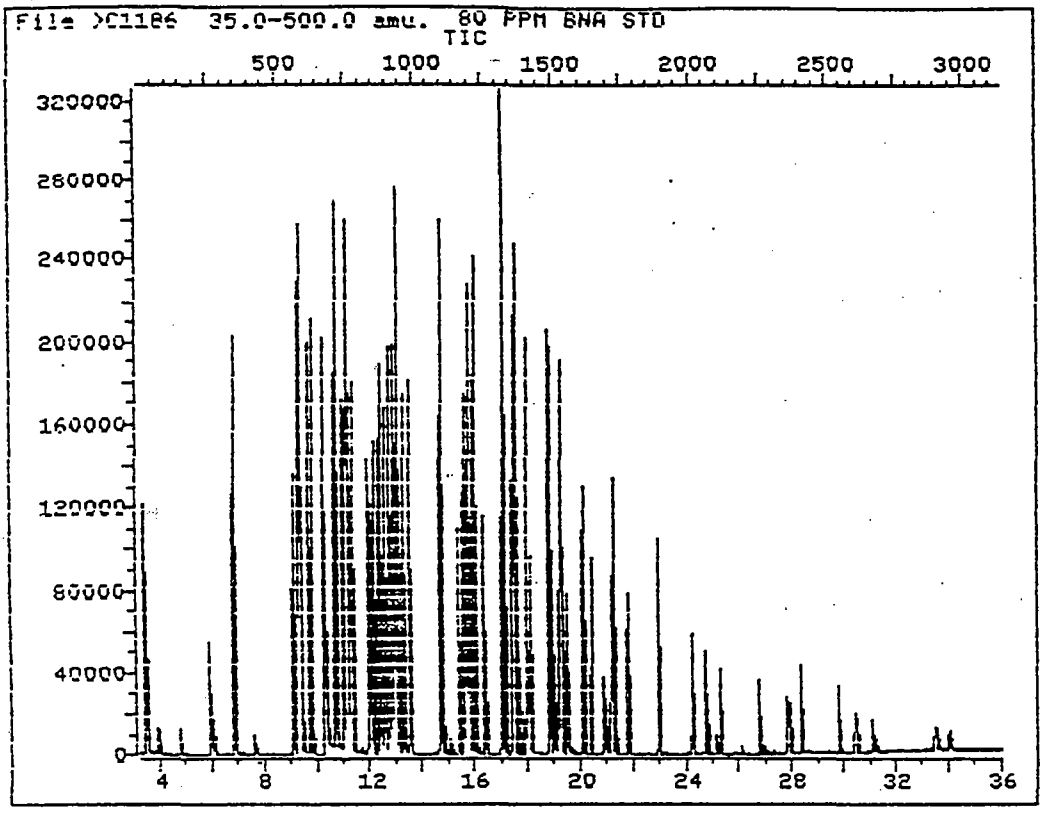
Quant Output File: ^C1183::D2

BTL# 2

Id File: IDHSLC::D3
Title: hSL BNA STD
Last Calibration: 930506 07:48

Operator ID: JEFF
Quant Time: 930507 11:06
Injected at: 930507 10:28

TOTAL ION CHROMATOGRAM

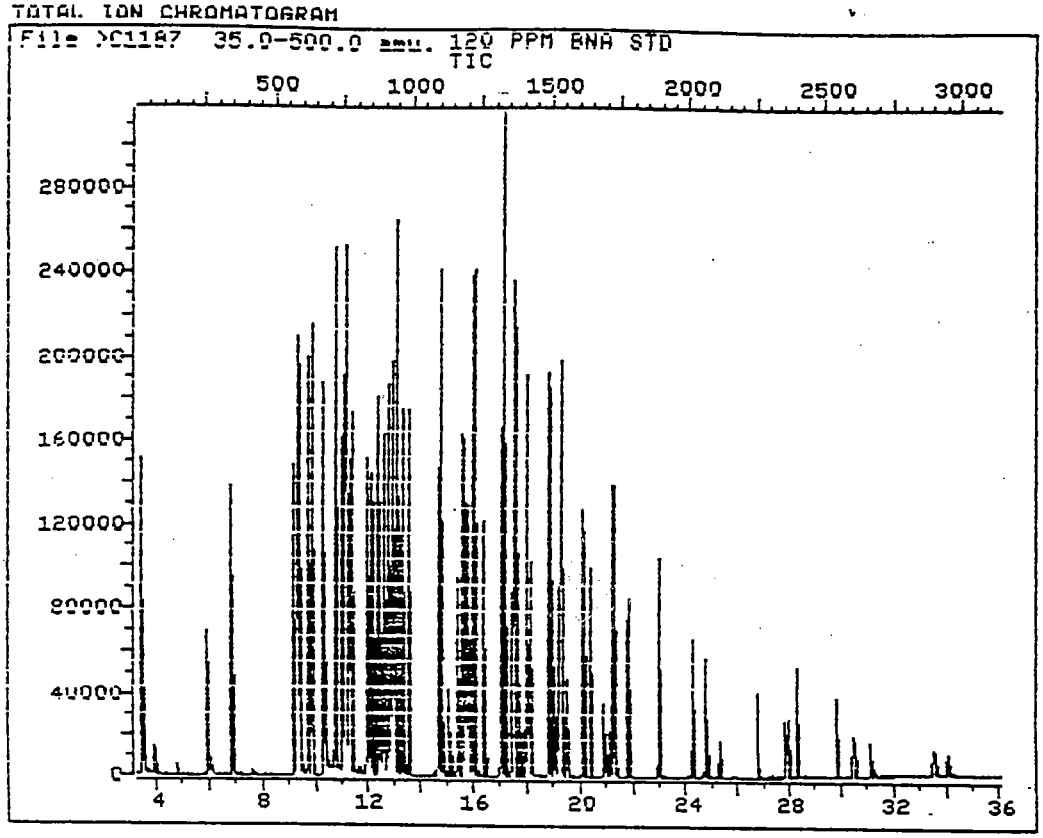


Data File: >C1186::E4 Quant Output File: ^C1186::D2
Name: 80 PPM BNA STD
Misc: BTL# 2

Id File: IDHSLC::D3
Title: hSL BNA STD
Last Calibration: 930506 07:48

Operator ID: JEFF
Quant Time: 930507 13:43
Injected at: 930507 13:04

TOTAL ION CHROMATOGRAM



Data File: >C1187::E4
Name: 120 PPM BNA STD
Misc:

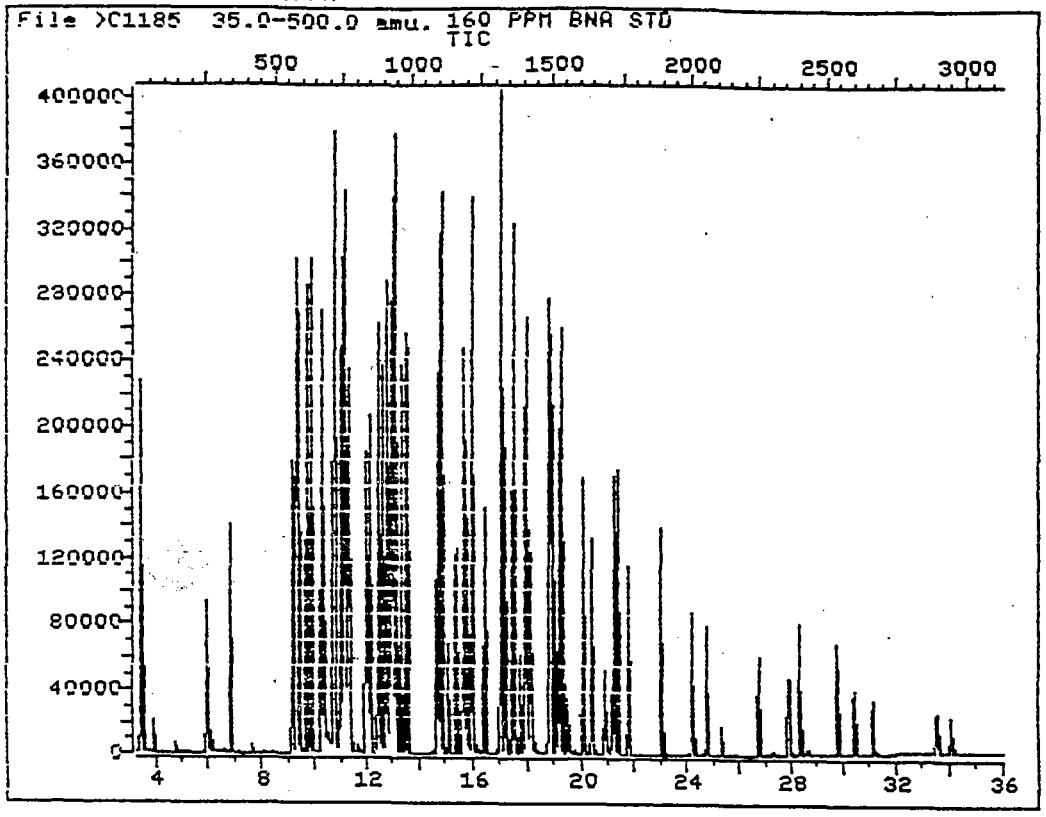
Quant Output File: ^C1187::D2

BTL# 3

Id File: IDHSLC::03
Title: hSL BNA STD
Last Calibration: 930506 07:48

Operator ID: JEFF
Quant Time: 930507 14:31
Injected at: 930507 13:52

TOTAL ION CHROMATOGRAM



Data File: >C1185::E4
Name: 160 PPM BNA STD
Misc:

Quant Output File: ^C1185::D2

BTL# 1

Id File: IDHSLC::D3
Title: hSL BNA STD
Last Calibration: 930506 07:48

Operator ID: JEFF
Quant Time: 930507 12:56
Injected at: 930507 12:17

4A

VOLATILE METHOD BLANK SUMMARY

Lab Name: 21st Century Environmental Inc. Contract No.:

Lab Code: Case No: SAS No.: SDG No.:

LAB ID FILE (BLANK): >A1246 DATE ANALYZED: 04/15/93

INSTRUMENT ID: A TIME ANALYZED: 11:43

Matrix: SOIL Level:(low/med) LOW Column:(pack/cap)

Sample ID: BLANK

THIS BLANK APPLIES TO THE FOLLOWING SAMPLES,MS AND MSD

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	A1541	>A1249	04/15/93	13:42
2	A1542	>A1250	04/15/93	14:17
3	A1544	>A1252	04/15/93	15:27
4				
5				
6				
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COMMENTS: _____

_____

21st Century Environmental Inc.
VOLATILE ORGANIC ANALYSIS DATA

JOB NUMBER		MATRIX	Soil
SAMPLE NUMBER	BLANK	DILUTION FACTOR	1.00
CLIENT ID	041593 METHOD BLANK	QA BATCH	
DATA FILE	>A1246	DATE ANALYZED	04/15/93

COMPOUND	UG/KG	MDL	COMPOUND	UG/KG	MDL
Acrolein	ND	50	Bromodichloromethane	ND	5
Acrylonitrile	ND	50	2-Chloroethylvinylether	ND	10
Chloromethane	ND	10	2-Hexanone	ND	10
Bromomethane	ND	10	trans-1,3-Dichloropropene	ND	5
Vinyl Chloride	ND	10	Toluene	ND	5
Chloroethane	ND	10	cis-1,3-Dichloropropene	ND	5
Acetone	ND	10	1,1,2,2-Tetrachloroethane	ND	5
1,1-Dichloroethene	ND	5	1,1,2-Trichloroethane	ND	5
Carbon Disulfide	ND	10	4-Methyl-2-pentanone	ND	10
Methylene Chloride	ND	5	Tetrachloroethene	ND	5
1,2-Dichloroethene(trans)	ND	5	Dibromochloromethane	ND	5
1,1-Dichloroethane	ND	5	Chlorobenzene	ND	5
Vinyl Acetate	ND	5	Ethylbenzene	ND	5
2-Butanone	ND	10	m&p-Xylenes	ND	5
Chloroform	ND	5	o-Xylene	ND	5
1,1,1-Trichloroethane	ND	5	Styrene	ND	5
Carbon Tetrachloride	ND	5	Bromoform	ND	5
1,2-Dichloroethane	ND	5	m-Dichlorobenzene	ND	5
Benzene	ND	5	p-Dichlorobenzene	ND	5
Trichloroethene	ND	5	o-Dichlorobenzene	ND	5
1,2-Dichloropropane	ND	5			

SURROGATE COMPOUNDS	% RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	94.2	70 - 121	OK
Toluene-d8	97.7	81 - 117	OK
Bromofluorobenzene	96.4	74 - 121	OK

Percent Solid of 100. is used for all Target compounds.

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BLANK

Lab Name: 21st Century Environmental Contract: N/A

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

Matrix: (soil/water) SOIL Lab Sample ID: BLANK

Sample wt/vol: 5 (g/mL) g Lab File ID: >A1246

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

% Moisture: NA Date Analyzed: 04/15/93

Column: DB-624 Dilution Factor: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	No Unknowns			

FORM I VOA-TIC 1/87 Rev.

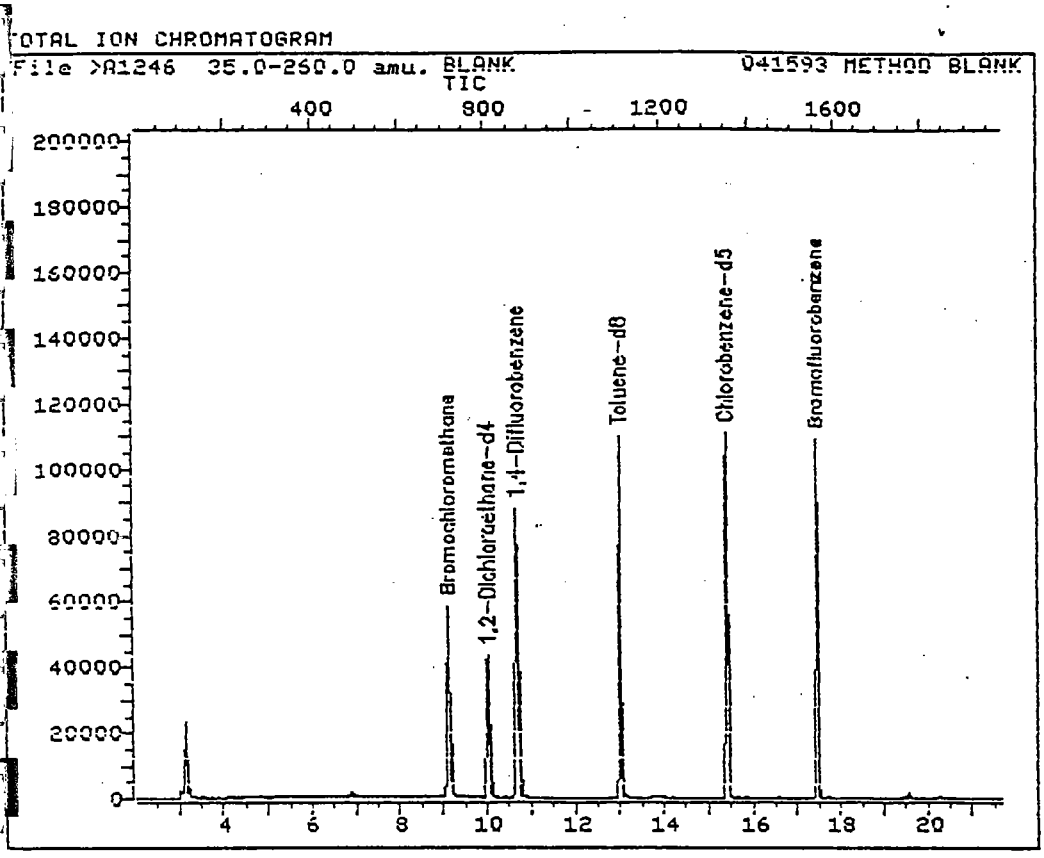
QUANT REPORT

erator ID: JEFF Quant Rev: 6 Quant Time: 930415 12:13
put File: ^A1246::QT Injected at: 930415 11:43
ata File: >A1246::D2 Dilution Factor: 1.00000
me: BLANK
c: 041593 METHOD BLANK 5ml

D File: ID0127::M1
le: USEPA 624 VOLATILES
st Calibration: 930415 11:24

	Compound	R.T.	Scan#	Area	Conc	Units	q
)	*Bromochloromethane	9.12	714	31644	50.00	UG/L	100
1)	1,2-Dichloroethane-d4	10.02	805	62761	47.08	UG/L	100
)	*1,4-Difluorobenzene	10.68	872	142837	50.00	UG/L	100
)	Toluene-d8	13.00	1106	143420	48.86	UG/L	100
3)	*Chlorobenzene-d5	15.41	1349	120421	50.00	UG/L	100
)	Bromofluorobenzene	17.46	1556	73725	48.22	UG/L	100

* Compound is ISTD



Data File: >A1246::D2 Quant Output File: ^A1246::QT
Name: BLANK
Misc: 041593 METHOD BLANK 5ml

Id File: ID0127::M1
Title: USEPA 624 VOLATILES
Last Calibration: 930415 11:24

Operator ID: JEFF
Quant Time: 930415 12:13
Injected at: 930415 11:43

4A

VOLATILE METHOD BLANK SUMMARY

Lab Name: 21st Century Environmental Inc. Contract No.:

Lab Code: Case No: SAS No.: SDG No.:

LAB ID FILE (BLANK): >A1295 DATE ANALYZED: 04/22/93

INSTRUMENT ID: A TIME ANALYZED: 15:58

Matrix: SOIL Level:(low/med) LOW Column:(pack/cap)

Sample ID: BLANK

THIS BLANK APPLIES TO THE FOLLOWING SAMPLES,MS AND MSD

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	A1543	>A1298	04/22/93	17:43
2	A1548	>A1299	04/22/93	18:18
3	A1549	>A1300	04/22/93	18:53
4	A1551	>A1301	04/22/93	19:28
5	A1552	>A1302	04/22/93	20:03
6	A1553	>A1305	04/22/93	21:50
7	A1554	>A1306	04/22/93	22:25
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COMMENTS: _____

_____

21st Century Environmental Inc.
VOLATILE ORGANIC ANALYSIS DATA

JOB NUMBER		MATRIX	Soil
SAMPLE NUMBER	BLANK	DILUTION FACTOR	1.00
CLIENT ID	042293 METHOD BLANK	QA BATCH	
DATA FILE	>A1295	DATE ANALYZED	04/22/93

COMPOUND	UG/KG	MDL	COMPOUND	UG/KG	MDL
Acrolein	ND	50	Bromodichloromethane	ND	5
Acrylonitrile	ND	50	2-Chloroethylvinylether	ND	10
Chloromethane	ND	10	2-Hexanone	ND	10
Bromomethane	ND	10	trans-1,3-Dichloropropene	ND	5
Vinyl Chloride	ND	10	Toluene	ND	5
Chloroethane	ND	10	cis-1,3-Dichloropropene	ND	5
Acetone	2.9 J	10	1,1,2,2-Tetrachloroethane	ND	5
1,1-Dichloroethene	ND	5	1,1,2-Trichloroethane	ND	5
Carbon Disulfide	ND	10	4-Methyl-2-pentanone	ND	10
Methylene Chloride	ND	5	Tetrachloroethene	ND	5
1,2-Dichloroethene(trans)	ND	5	Dibromochloromethane	ND	5
1,1-Dichloroethane	ND	5	Chlorobenzene	ND	5
Vinyl Acetate	ND	5	Ethylbenzene	ND	5
2-Butanone	ND	10	m&p-Xylenes	ND	5
Chloroform	ND	5	o-Xylene	ND	5
1,1,1-Trichloroethane	ND	5	Styrene	ND	5
Carbon Tetrachloride	ND	5	Bromoform	ND	5
1,2-Dichloroethane	ND	5	m-Dichlorobenzene	ND	5
Benzene	ND	5	p-Dichlorobenzene	ND	5
Trichloroethene	ND	5	o-Dichlorobenzene	ND	5
1,2-Dichloropropane	ND	5			

SURROGATE COMPOUNDS	% RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	95.7	70 - 121	OK
Toluene-d8	98.0	81 - 117	OK
Bromofluorobenzene	96.7	74 - 121	OK

Percent Solid of 100. is used for all Target compounds.

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BLANK

Lab Name:21st Century Environmental Contract:N/A

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

Matrix: (soil/water) SOIL Lab Sample ID: BLANK

Sample wt/vol: 5 (g/mL) g Lab File ID: >A1295

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

% Moisture: NA Date Analyzed: 04/22/93

GC Column: DB-624 Dilution Factor: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	No Unknowns			

FORM I VOA-TIC 1/87 Rev.

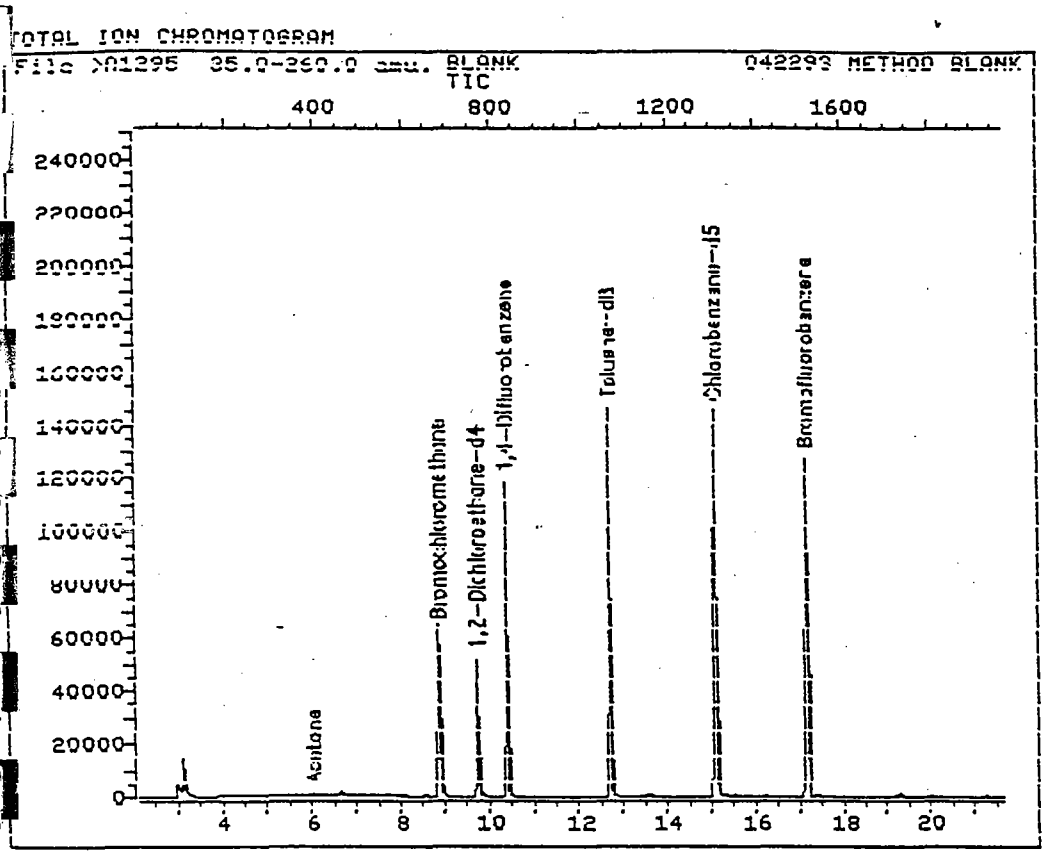
QUANT REPORT

rator ID: JEFF Quant Rev: 6 Quant Time: 930422 16:28
put File: ^A1295::QT Injected at: 930422 15:58
ta File: >A1295::D2 Dilution Factor: 1.00000
me: BLANK
c: 042293 METHOD BLANK

File: ID0127::M1
le: USEPA 624 VOLATILES
t Calibration: 930422 16:06

Compound	R.T.	Scan#	Area	Conc	Units	q
*Bromochloromethane	8.86	679	35504	50.00	UG/L	100
Acetone	6.02	392	1597	2.89	UG/L	80
1,2-Dichloroethane-d4	9.72	766	70408	47.87	UG/L	100
*1,4-Difluorobenzene	10.39	833	186365	50.00	UG/L	100
Toluene-d8	12.68	1065	190870	48.98	UG/L	100
*Chlorobenzene-d5	15.07	1306	157716	50.00	UG/L	100
Bromofluorobenzene	17.14	1515	93539	48.36	UG/L	100

Compound is ISTD



Data File: >A1295::D2 Quant Output File: ^A1295::QT
Name: BLANK
Misc: 042293 METHOD BLANK

Id File: ID0127::M1
Title: USEPA 624 VOLATILES
Last Calibration: 930422 16:06

Operator ID: JEFF
Quant Time: 930422 16:28
Injected at: 930422 15:58

4A

VOLATILE METHOD BLANK SUMMARY

Lab Name: 21st Century Environmental Inc. Contract No.:

Lab Code: Case No: SAS No.: SDG No.:

LAB ID FILE (BLANK): >A1310 DATE ANALYZED: 04/23/93

INSTRUMENT ID: A TIME ANALYZED: 12:17

Matrix: SOIL Level:(low/med) LOW Column:(pack/cap)

Sample ID: BLANK

THIS BLANK APPLIES TO THE FOLLOWING SAMPLES,MS AND MSD

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	A1545	>A1311	04/23/93	12:52
2	A1546	>A1312	04/23/93	13:28
3	A1547	>A1313	04/23/93	14:03
4	A1550	>A1314	04/23/93	14:39
5	A1555	>A1315	04/23/93	15:15
6	A1556	>A1316	04/23/93	15:52
7	A1557	>A1317	04/23/93	16:27
8	A1558	>A1318	04/23/93	17:04
9	A1559	>A1319	04/23/93	17:39
10	A1560	>A1320	04/23/93	18:18
11	A1561	>A1321	04/23/93	18:53
12	A1562	>A1322	04/23/93	19:28
13	A1608	>A1324	04/23/93	20:39
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COMMENTS: _____

21st Century Environmental Inc.
VOLATILE ORGANIC ANALYSIS DATA

JOB NUMBER		MATRIX	Soil
SAMPLE NUMBER	BLANK	DILUTION FACTOR	1.00
CLIENT ID	042393 METHOD BLANK	QA BATCH	
DATA FILE	>A1310	DATE ANALYZED	04/23/93

COMPOUND	UG/KG	MDL	COMPOUND	UG/KG	MDL
Acrolein	ND	50	Bromodichloromethane	ND	5
Acrylonitrile	ND	50	2-Chloroethylvinylether	ND	10
Chloromethane	ND	10	2-Hexanone	ND	10
Bromomethane	ND	10	trans-1,3-Dichloropropene	ND	5
Vinyl Chloride	ND	10	Toluene	ND	5
Chloroethane	ND	10	cis-1,3-Dichloropropene	ND	5
Acetone	5.5 J	10	1,1,2,2-Tetrachloroethane	ND	5
1,1-Dichloroethene	ND	5	1,1,2-Trichloroethane	ND	5
Carbon Disulfide	ND	10	4-Methyl-2-pentanone	ND	10
Methylene Chloride	2.8 J	5	Tetrachloroethene	ND	5
1,2-Dichloroethene(trans)	ND	5	Dibromochloromethane	ND	5
1,1-Dichloroethane	ND	5	Chlorobenzene	ND	5
Vinyl Acetate	ND	5	Ethylbenzene	ND	5
2-Butanone	ND	10	m&p-Xylenes	ND	5
Chloroform	ND	5	o-Xylene	ND	5
1,1,1-Trichloroethane	ND	5	Styrene	ND	5
Carbon Tetrachloride	ND	5	Bromoform	ND	5
1,2-Dichloroethane	ND	5	m-Dichlorobenzene	ND	5
Benzene	ND	5	p-Dichlorobenzene	ND	5
Trichloroethene	ND	5	o-Dichlorobenzene	ND	5
1,2-Dichloropropane	ND	5			

SURROGATE COMPOUNDS	% RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	93.0	70 - 121	OK
Toluene-d8	96.1	81 - 117	OK
Bromofluorobenzene	95.5	74 - 121	OK

Percent Solid of 100. is used for all Target compounds.

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BLANK

Lab Name:21st Century Environmental Contract:N/A

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

Matrix: (soil/water) SOIL Lab Sample ID: BLANK

Sample wt/vol: 5 (g/mL) g Lab File ID: >A1310

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

% Moisture: NA Date Analyzed: 04/23/93

Column: DB-624 Dilution Factor: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	No Unknowns			

FORM I VOA-TIC 1/87 Rev.

QUANT REPORT

erator ID: JEFF
tput File: ^A1310::QT
ata File: >A1310::D2
me: BLANK
sc: 042393 METHOD BLANK

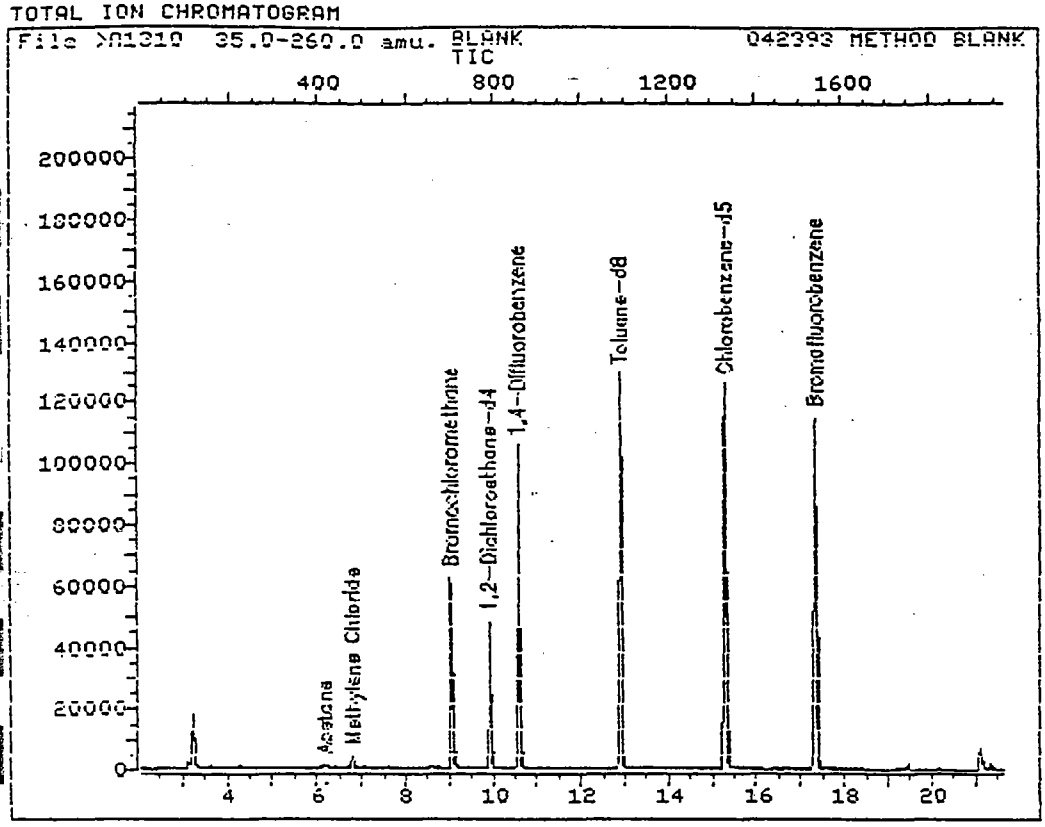
File: ID0127::M1
tle: USEPA 624 VOLATILES
st Calibration: 930423 12:14

Quant Rev: 6 Quant Time: 930423 12:47
Injected at: 930423 12:17
Dilution Factor: 1.00000

Compound	R.T.	Scan#	Area	Conc	Units	q
*Bromochloromethane	9.03	700	34826	50.00	UG/L	100
Acetone	6.17	411	2957	5.51	UG/L	83
Methylene Chloride	6.79	474	3883	2.81	UG/L	82
1,2-Dichloroethane-d4	9.90	788	68846	46.50	UG/L	100
*1,4-Difluorobenzene	10.56	855	166253	50.00	UG/L	100
Toluene-d8	12.88	1087	168220	48.05	UG/L	100
*Chlorobenzene-d5	15.28	1329	134726	50.00	UG/L	100
Bromofluorobenzene	17.32	1535	79632	47.75	UG/L	100

Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >A1310::D2 Quant Output File: ^A1310::QT
Name: BLANK
Misc: 042393 METHOD BLANK

Id File: ID0127::M1
Title: USEPA 624 VOLATILES
Last Calibration: 930423 12:14

Operator ID: JEFF
Quant Time: 930423 12:47
Injected at: 930423 12:17

4B

SEMIVOLATILE METHOD BLANK SUMMARY

Lab Name: 21st Century Environmental Contract No.:

Lab Code: Case No: SAS No.: SDG No.:

LAB ID FILE (BLANK): >C0977 DATE ANALYZED: 04/15/93

INSTRUMENT ID: C TIME ANALYZED: 12:00

Matrix: SOIL Level:(low/med) LOW Column:(pack/cap)

Date Extracted: 04/14/93 Extraction:(Sepf/Cont/Sonc) SONC

Sample ID: SBLK016-1

THIS BLANK APPLIES TO THE FOLLOWING SAMPLES,MS AND MSD

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	A1541	>C0978	04/15/93	12:47
2	A1542	>C1133	05/03/93	20:32
3	A1543	>C1134	05/03/93	21:19
4	A1544	>C1176	05/06/93	12:12
5	A1545	>C1136	05/03/93	22:51
6	A1546	>C1137	05/03/93	23:37
7	A1547	>C1173	05/06/93	09:49
8	A1548	>C1174	05/06/93	10:38
9	A1549	>C1175	05/06/93	11:25
10	A1550	>C1141	05/04/93	02:41
11	A1551	>C1177	05/06/93	12:59
12	A1552	>C1178	05/06/93	13:46
13	A1553	>C1179	05/06/93	14:33
14	A1554	>C1180	05/06/93	15:21
15	A1555	>C1188	05/07/93	14:40
16	A1556	>C1190	05/07/93	16:16
17	A1557	>C1191	05/07/93	17:04
18	A1558	>C1192	05/07/93	17:53
19	A1559	>C1193	05/07/93	18:41
20	A1560	>C1194	05/07/93	19:29
21				
22				
23				
24				
25				

COMMENTS: _____

21ST CENTURY Environmental
SEMIVOLATILE ANALYSIS DATA

JOB NUMBER	US ARMY, FT. MONMOUTH,NJ	MATRIX	Soil
SAMPLE NUMBER	NA BLANK 04/14/93	DILUTION FACTOR	1.00
CLIENT ID	BLDG 2500	QA BATCH	
DATA FILE	>C0977	DATE ANALYZED	04/15/93

COMPOUND	UG/KG	MDL	COMPOUND	UG/KG	MDL
N-Nitrosodimethylamine	ND	330	2,6-Dinitrotoluene	ND	330
bis(-2-Chloroethyl)Ether	ND	330	Diethylphthalate	ND	330
1,3-Dichlorobenzene	ND	330	4-Chlorophenyl-phenlyether	ND	330
1,4-Dichlorobenzene	ND	330	Fluorene	ND	330
Benzyl Alcohol	ND	330	4-Nitroaniline	ND	1600
1,2-Dichlorobenzene	ND	330	N-Nitrosodiphenylamine	ND	330
bis(2-chloroisopropyl)Ether	ND	330	4-Bromophenyl-phenylether	ND	330
N-Nitroso-Di-n-Propylamine	ND	330	Hexachlorobenzene	ND	330
Hexachloroethane	ND	330	Phenanthrene	ND	330
Nitrobenzene	ND	330	Anthracene	ND	330
Isophorone	ND	330	Di-n-Butylphthalate	ND	330
Benzoic Acid	ND	1600	Fluoranthene	ND	330
bis(-2-Chloroethoxy)Methane	ND	330	Pyrene	ND	330
1,2,4-Trichlorobenzene	ND	330	Butylbenzylphthalate	ND	330
Naphthalene	ND	330	3,3'-Dichlorobenzidine	ND	660
4-Chloroaniline	ND	330	Benzo(a)Anthracene	ND	330
Hexachlorobutadiene	ND	330	Bis(2-Ethylhexyl)Phthalate	ND	330
2-Methylnaphthalene	ND	330	Chrysene	ND	330
Hexachlorocyclopentadiene	ND	330	Di-n-Octyl Phthalate	ND	330
2-Chloronaphthalene	ND	330	Benzo(b)fluoranthene	ND	330
2-Nitroaniline	ND	1600	Benzo(k)Fluoranthene	ND	330
Dimethyl Phthalate	ND	330	Benzo(a)Pyrene	ND	330
Acenaphthylene	ND	330	Indeno(1,2,3-cd)Pyrene	ND	330
3-Nitroaniline	ND	1600	Dibenzo(a,h)Anthracene	ND	330
Acenaphthene	ND	330	Benzo(g,h,i)Perylene	ND	330
Dibenzofuran	ND	330	Benzidine	ND	660
2,4-Dinitrotoluene	ND	330			

Percent Solid of 100. is used for all Target compounds.

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

E1

EPA SAMPLE NUMBER

semi-VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

BLDG 2500
NA BLNK

Client: US Army, Ft. Monmouth, NJ

Comments: OVA: ND

Matrix: (soil/water) SOIL

Lab Sample ID: NA BLANK

Sample wt/vol: 30 (g/mL) GM

Lab File ID: >C0977

Level: LOW

Date Received: NA

% Moisture: 100

Date Analyzed 04/15/93

Extraction: (Sepf/Cont/Sonc) SONC

Date Extracted 04/14/93

GPC (Y or N): N

Column: DB-5

Dilution Factor: 1

Number TICs Found 0

CONCENTRATION UNITS
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST CONC
	NO UNKNOWN COMPOUNDS IDENTIFIED		

QUANT REPORT

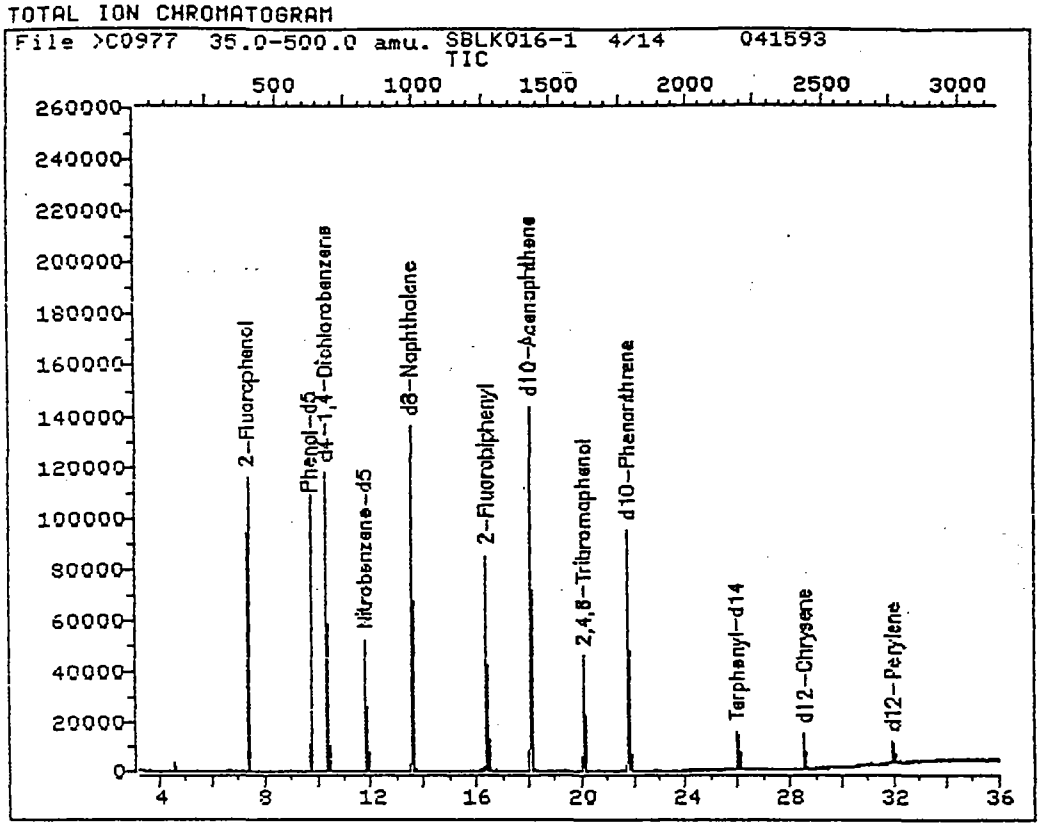
Operator ID: JEFF Quant Rev: 6 Quant Time: 930415 12:39
Output File: ^C0977::D3 Injected at: 930415 12:00
Data File: >C0977::E4 Dilution Factor: 1.00000
Name: SBLK016-1 4/14
Misc: 041593 BTL# 1

ID File: ID0415::DA
Title: hSL BNA STD
Last Calibration: 930415 12:07

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	10.33	678	56980	40.00	UG/L	97
4)	2-Fluorophenol	7.36	393	57358	54.22	UG/L	98
5)	Phenol-d5	9.72	619	79269	50.83	UG/L	81
8)	*d8-Naphthalene	13.53	985	133860	40.00	UG/L	87
19)	Nitrobenzene-d5	11.79	818	31571	16.52	UG/L	82
33)	*d10-Acenaphthene	18.05	1418	73762	40.00	UG/L	96
38)	2-Fluorobiphenyl	16.39	1259	58479	16.73	UG/L	93
53)	*d10-Phenanthrene	21.78	1776	87037	40.00	UG/L	98
56)	2,4,6-Tribromophenol	20.08	1613	9823	33.78	UG/L	95
74)	*d12-Chrysene	28.55	2426	13305	40.00	UG/L	97
77)	Terphenyl-d14	25.96	2177	13727	21.14	UG/L	91
73)	*d12-Perylene	31.95	2751	9022	40.00	UG/L	95

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >C0977
Name: SBLK016-1 4/14
Misc: 041593

Quant Output File: ^C0977::D3

BTL# 1

Id File: ID0415::DA
Title: hSL BNA STD
Last Calibration: 930415 12:07

Operator ID: JEFF
Quant Time: 930415 12:39
Injected at: 930415 12:00

4B

SEMIVOLATILE METHOD BLANK SUMMARY

Lab Name: 21st Century Environmental Contract No.:

Lab Code: Case No: SAS No.: SDG No.:

LAB ID FILE (BLANK): >C1088 DATE ANALYZED: 04/28/93

INSTRUMENT ID: C TIME ANALYZED: 11:14

Matrix: WATER Level:(low/med) LOW Column:(pack/cap)

Date Extracted: 04/14/93 Extraction:(Sepf/Cont/Sonc) SEPF

Sample ID: AQ BLANK

THIS BLANK APPLIES TO THE FOLLOWING SAMPLES,MS AND MSD

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	A1562	>C1195	05/07/93	20:16
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				

COMMENTS: _____

21ST CENTURY Environmental
SEMIVOLATILE ANALYSIS DATA

JOB NUMBER	US ARMY, FT. MONMOUTH, NJ	MATRIX	Water
SAMPLE NUMBER	AQ BLANK	DILUTION FACTOR	1.00
CLIENT ID	BLDG 2500	QA BATCH	
DATA FILE	>C1088	DATE ANALYZED	04/28/93

COMPOUND	UG/L	MDL	COMPOUND	UG/L	MDL
N-Nitrosodimethylamine	ND	10	2,6-Dinitrotoluene	ND	10
bis(-2-Chloroethyl)Ether	ND	10	Diethylphthalate	ND	10
1,3-Dichlorobenzene	ND	10	4-Chlorophenyl-phenlyether	ND	10
1,4-Dichlorobenzene	ND	10	Fluorene	ND	10
Benzyl Alcohol	ND	10	4-Nitroaniline	ND	50
1,2-Dichlorobenzene	ND	10	N-Nitrosodiphenylamine	ND	10
bis(2-chloroisopropyl)Ether	ND	10	4-Bromophenyl-phenylether	ND	10
N-Nitroso-Di-n-Propylamine	ND	10	Hexachlorobenzene	ND	10
Hexachloroethane	ND	10	Phenanthrene	ND	10
Nitrobenzene	ND	10	Anthracene	ND	10
Isophorone	ND	10	Di-n-Butylphthalate	ND	10
Benzoic Acid	ND	50	Fluoranthene	ND	10
bis(-2-Chloroethoxy)Methane	ND	10	Pyrene	ND	10
1,2,4-Trichlorobenzene	ND	10	Butylbenzylphthalate	ND	10
Naphthalene	ND	10	3,3'-Dichlorobenzidine	ND	20
4-Chloroaniline	ND	10	Benzo(a)Anthracene	ND	10
Hexachlorobutadiene	ND	10	Bis(2-Ethylhexyl)Phthalate	ND	10
2-Methylnaphthalene	ND	10	Chrysene	ND	10
Hexachlorocyclopentadiene	ND	10	Di-n-Octyl Phthalate	ND	10
2-Chloronaphthalene	ND	10	Benzo(b)fluoranthene	ND	10
2-Nitroaniline	ND	50	Benzo(k)Fluoranthene	ND	10
Dimethyl Phthalate	ND	10	Benzo(a)Pyrene	ND	10
Acenaphthylene	ND	10	Indeno(1,2,3-cd)Pyrene	ND	10
3-Nitroaniline	ND	50	Dibenzo(a,h)Anthracene	ND	10
Acenaphthene	ND	10	Benzo(g,h,i)Perylene	ND	10
Dibenzofuran	ND	10	Benzidine	ND	20
2,4-Dinitrotoluene	ND	10			

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

E1

EPA SAMPLE NUMBER

semi-VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

BLDG 2500
AQ BLNK

Client: US Army, Ft. Monmouth, NJ

Comments: None

Matrix: (soil/water) WATER

Lab Sample ID: BLNK

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: >C1088

Level: LOW

Date Received: 04/14/93

% Moisture: 100

Date Analyzed 04/28/93

Extraction: (Sepf/Cont/Sonc) SEPF

Date Extracted 04/14/93

GPC (Y or N): N

Column: DB-5

Dilution Factor: 1

Number TICs Found 2

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

	CAS NUMBER	COMPOUND NAME	RT	EST CONC
1	79005	Ethane, 1,1,2-trichloro- (8CI9CI)	4.30	4
2	79345	Ethane, 1,1,2,2-tetrachloro- (8CI9CI)	7.86	9

QUANT REPORT

erator ID: JEFF
put File: ^C1088::EX
ata File: >C1088::D4
ame: AQ BLANK 04/14/93
sc: 042893

Quant Rev: 6 Quant Time: 930428 13:12
Injected at: 930428 11:14
Dilution Factor: 1.00000

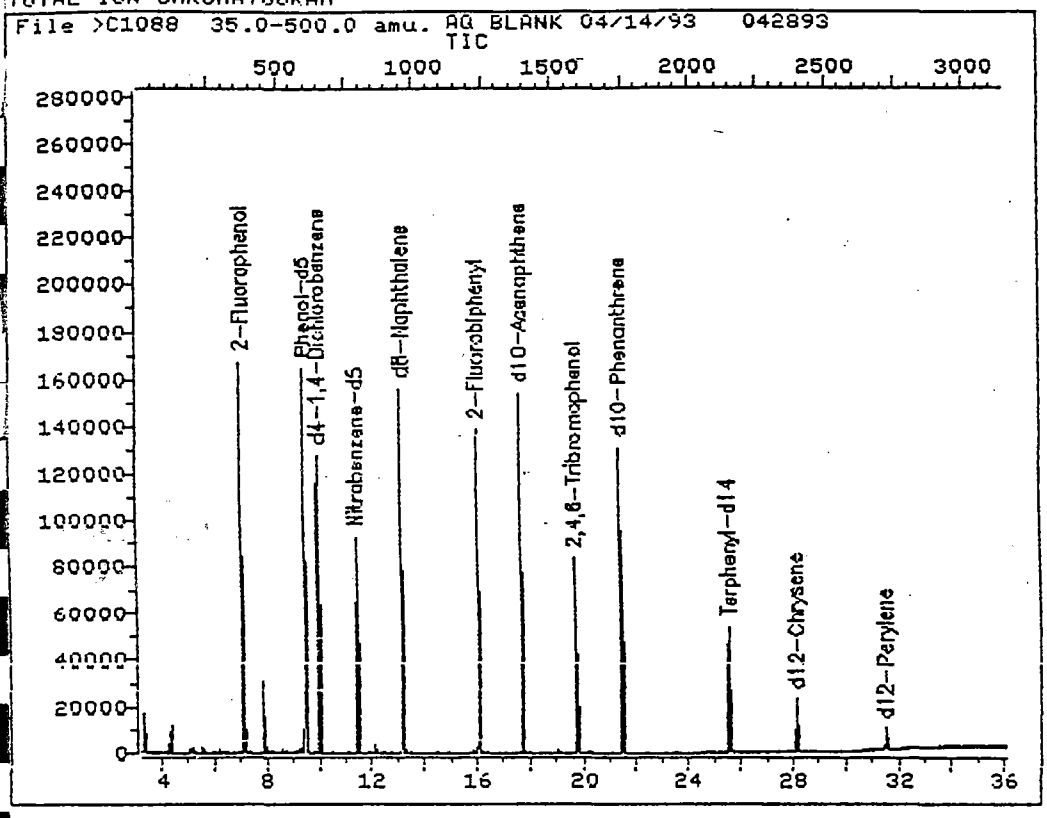
BTL# 1

D File: ID0428::D3
le: hSL BNA STD
st Calibration: 930428 10:55

	Compound	R.T.	Scan#	Area	Conc	Units	q
)	*d4-1,4-Dichlorobenzene	10.00	645	59952	40.00	UG/L	98
4)	2-Fluorophenol	7.06	363	79854	68.81	UG/L	98
)	Phenol-d5	9.46	593	119551	79.30	UG/L	84
)	*d8-Naphthalene	13.18	950	138789	40.00	UG/L	88
9)	Nitrobenzene-d5	11.46	785	55890	33.43	UG/L	88
)	*d10-Acenaphthene	17.67	1380	73933	40.00	UG/L	98
)	2-Fluorobiphenyl	16.03	1223	92602	34.57	UG/L	92
)	*d10-Phenanthrene	21.38	1736	113855	40.00	UG/L	98
4)	2,4,6-Tribromophenol	19.69	1574	16618	50.71	UG/L	96
)	*d12-Chrysene	28.11	2382	19667	40.00	UG/L	96
)	Terphenyl-d14	25.55	2136	41622	63.78	UG/L	93
3)	*d12-Perylene	31.48	2705	8419	40.00	UG/L	93

Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >C1088::D4 Quant Output File: ^C1088::EX
Name: AQ BLANK 04/14/93
Misc: 042893 BTL# 1

Id File: ID0428::D3
Title: hSL BNA STD
Last Calibration: 930428 10:55

Operator ID: JEFF
Quant Time: 930428 13:12
Injected at: 930428 11:14

21st Century Environmental

REDUCED DELIVERABLES

METALS
(BLANKS)

DATE: 4/15/93 INSTRUMENT ID: ICP-1

ELEMENT	MDL	ICB	CCB1	CCB2	CCB3	CCB4	CCB5
ALUMINUM	0.12						
ANTIMONY	0.05						
ARSENIC	0.10						
BARIUM	0.05						
BERYLLIUM	0.005						
CADMIUM	0.005						
CALCIUM	0.13						
CHROMIUM	0.01						
COBALT	0.05						
COPPER	0.01						
IRON	0.05						
LEAD	~~0.09~~ 0.05	ND	ND	ND	ND	ND	ND
MAGNESIUM	0.01						
MANGANESE	0.01						
NICKEL	0.04						
SELENIUM	0.10						
SILVER	0.01						
SODIUM	0.50						
VANADIUM	0.05						
ZINC	0.01						

00411

21st Century Environmental

REDUCED DELIVERABLES

METALS
(BLANKS)

DATE: 4/15/93 INSTRUMENT ID: TJA-1

ELEMENT	MDL	ICB	CCB1	CCB2	CCB3	CCB4	CCB5
ALUMINUM	0.12						
ANTIMONY	0.05						
ARSENIC	0.10						
BARIUM	0.05						
BERYLLIUM	0.005						
CADMIUM	0.005						
CALCIUM	0.13						
CHROMIUM	0.01						
COBALT	0.05						
COPPER	0.01						
IRON	0.05						
LEAD	0.09		ND	ND			
MAGNESIUM	0.01						
MANGANESE	0.01						
NICKEL	0.04						
SELENIUM	0.10						
SILVER	0.01						
SODIUM	0.50						
VANADIUM	0.05						
ZINC	0.01						

21st Century Environmental

REDUCED DELIVERABLES

METALS
(INTERFERENCE CHKS)

DATE: 4/15/93 INSTRUMENT ID: DA-1

ELEMENT	TRUE ICSAB	%R ICSABI	%R ICSABF				
ALUMINIUM	500.0	105	105				
ANTIMONY							
ARSENIC							
BARIUM	0.50						
BERYLLIUM	0.50						
CALCIUM	500.0	96	97				
CHROMIUM	0.50						
COBALT	0.50						
COPPER	0.50						
IRON	200.0	86	87				
LEAD	1.00	112	113				
MAGNESIUM	500.0	102	103				
MANGANESE	0.50						
NICKEL	1.00						
SELENIUM							
SILVER	1.00						
SODIUM							
VANADIUM	0.50						
ZINC	1.00						

21st Century Environmental

REDUCED DELIVERABLES

METALS
(CHK STDS)

DATE: 4/15/97 INSTRUMENT ID: DA-1

ELEMENT	TRUE ICV	TRUE CCV	%R ICV	%R CCV1	%R CCV2	%R CCV3	%R CCV4
ALUMINIUM	1.00	10.0					
ANTIMONY	1.00	10.0					
ARSENIC	1.00	10.0					
BARIUM	1.00	10.0					
BERYLLIUM	1.00	10.0					
CADMIUM	1.00	10.0					
CALCIUM	1.00	10.0					
CHROMIUM	1.00	10.0					
COBALT	1.00	10.0					
COPPER	1.00	10.0					
IRON	1.00	10.0					
LEAD	1.00	10.0	108	102	103	104	105
MAGNESIUM	1.00	10.0					
MANGANESE	1.00	10.0					
NICKEL	1.00	10.0					
SELENIUM	1.00	10.0					
SILVER	1.00	1.00					
SODIUM	1.00	10.0					
VANADIUM	1.00	10.0					
ZINC	1.00	10.0					

21st Century Environmental

REDUCED DELIVERABLES

METALS
(CHK STDS)

DATE: 4/15/93 INSTRUMENT ID: TJA-1

	TRUE	TRUE	%R	%R	%R	%R	%R
ELEMENT	ICV	CCV	ICV	CCV1	CCV2	CCV3	CCV4
ALUMINIUM	1.00	10.0					
ANTIMONY	1.00	10.0					
ARSENIC	1.00	10.0					
BARIUM	1.00	10.0					
BERYLLIUM	1.00	10.0					
CADMIUM	1.00	10.0					
CALCIUM	1.00	10.0					
CHROMIUM	1.00	10.0					
COBALT	1.00	10.0					
COPPER	1.00	10.0					
IRON	1.00	10.0					
LEAD	1.00	10.0		107	105		
MAGNESIUM	1.00	10.0					
MANGANESE	1.00	10.0					
NICKEL	1.00	10.0					
SELENIUM	1.00	10.0					
SILVER	1.00	1.00					
SODIUM	1.00	10.0					
VANADIUM	1.00	10.0					
ZINC	1.00	10.0					

United States Army
Fort Monmouth, New Jersey

Underground Storage Tanks Closure and Site Investigation Report

Building 2500
Charles Wood Area

NJDEP UST Registration Nos. 0081515-52, 53, 54, 55, 56
NJDEP Closure Approval No. C-91-2842

Volume 3 of 3
Appendix F

February 1996

SMITH
ENVIRONMENTAL TECHNOLOGIES CORPORATION

SMITH

APPENDIX F

GROUNDWATER ANALYTICAL DATA PACKAGE

618 HERON DRIVE, P.O. BOX 489 • BRIDGEPORT, NJ 08014-0489 • 609-467-9521

E-SYSTEMS

PROJECT: U.S. ARMY-FORT MONMOUTH, NJ BLDG 2500

ANALYSIS NO:	CLIENT ID:
A 2536	MW 1
A 2537	MW 2
A 2538	MW 3
A 2539	MW 4
A 2540	MW 4 Dup
A 2532	Field Blank
A 2535	Trip Blank

DATE RECEIVED: JULY 6, 1993

TWENTY FIRST CENTURY
ENVIRONMENTAL, INC.

Richard W Lynch

RICHARD W. LYNCH
LABORATORY MANAGER

Rec 8/18/93 CO

GC/MS ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY FORMAT

	No	Yes
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 Tuning 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 2.2 ug/L Acetone
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 3-Tol d8 High
b. B/N Fraction
c. Acid Fraction

If not met, were the calculations checked and the results qualified as "estimated"? N/A

8. Matrix Spike/ Matrix Spike Duplicate 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 6 of 22 Recoveries OST
c. Acid Fraction

9. Internal Standard Area/Retention Time Shift Meet Criteria		✓

GC/MS ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY FORMAT (CONTINUED)

	No	Yes
10. Extraction Holding Time Met	___	✓
If not met, list number of days exceeded for each sample: ___		
11. Analysis Holding Time Met	___	✓
If not met, list number of days exceeded for each sample: ___		

Additional Comments: This form Completed By Prime Contractor

Laboratory Manager: Brian K. McKee Date: 8-16-93

METAL ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY FORMAT

	No	Yes
1. Calibration Summary Meet Criteria		N/A
2. ICP Interference Check Sample Results Summary Submitted (if applicable) / Meet Criteria		N/A
3. Serial Dilution Summary Submitted (if applicable) / Meet Criteria		N/A
4. Laboratory Control Sample Summary Submitted (if applicable) / Meet Criteria		N/A

5. Blank Contamination - If yes, list compounds and concentrations in each blank:

None

6. Matrix Spike/ Matrix Spike Duplicate Recoveries Meet Criteria (If not met, list those compounds and their recoveries which fall outside the acceptable range) — No: ; Yes: ✓

7. Extraction Holding Time Met — No: ; Yes: ✓

If not met, list number of days exceeded for each sample: _____

8. Analysis Holding Time Met — No: ; Yes: ✓

If not met, list number of days exceeded for each sample: _____

Additional Comments: This form completed By Prime Contractor

Laboratory Manager: Brian McKee Date: 8-16-93

TABLE OF CONTENTS

NARRATIVE

There were no problems encountered during the analysis of this batch of samples (A2536 to A2540). All extractions and analysis were completed within proper hold times.

Please note that a volatile re-analysis was performed on sample A2539 (Client ID MW4) due to surrogate problem. The rerun was performed on the 8th day of hold time.

CHAIN OF CUSTODY

21ST CENTURY ENVIRONMENTAL
618 HERON DRIVE, P.O. BOX 489 • BRIDGEPORT, NJ 08014-0489
609.467.9521 • 609.467.4523 FAX

CUSTOMER: FT MONMOUTH
ADDRESS:
TELEPHONE:
PROJECT:
PROJECT MANAGER:
PROJECT LOCATION: BLDG # 2500 STATE:
PO NUMBER:

TURNAROUND (INDICATE CALENDAR DAYS, CONFIRM WITH LAB): 2 5 7 14 21 OTHER:
DELIVERABLES (PLEASE CIRCLE): TIER 1 TIER II ECRA
CLP RESULTS ONLY OTHER:_____ BIAS CORRECTION
FAX RESULTS TO:

ADDITIONAL INFORMATION / SPECIAL INSTRUCTIONS

Samples by D.Tuenajae / D.J Tuenge

A2536 - A2540

SAMPLE NUMBER	SAMPLE DESCRIPTION	MATRIX	DATE	TIME	COMP	GRAB	NUMBER OF CONTAINERS	ANALYSIS: VOLATILE ORGANICS	SEMI VOA'S (BNA'S)	PESTICIDES / PCB'S	PCB'S	BTEX	TPH-PETROLEUM HYDROCARBONS	CORROSIVITY	IGNITABILITY	FLASHPOINT	REACTIVITY	TOC	TCLP METALS	TCLP VOLATILE ORGANICS	TCLP SEMI VOA'S (BNA'S)	TCLP PEST / HERB	PRIORITY POLLUTANT METALS (13)	HSL METALS (23)	LEAD	ADDITIONAL ANALYSIS: METHOD	0000
	MW 1	WATER	7-6-93	10:45			5	✓	✓																✓		
	MW 2			11:15			5	✓	✓																✓		
	MW 3			12:30			5	✓	✓																✓		
	MW 4			13:00			5	✓	✓																✓		
	MW 4 DUP			13:30			5	✓	✓																✓		

Relinquished By:	Date	Time	Received By:	Date	Time
Doug Yuncker	7-6-93	19:00	G. Cisk	7/6/93	1900

WHITE LAB COPY
YELLOW CUSTOMER COPY

Acid Extractables
Base Neutrals

U.S.E.P.A. Method 625 - This method covers the determination of a number of organic compounds that are partitioned in an organic solvent and amenable to gas chromatography. This is a gas chromatography/mass spectrometer (GC/MS) method applicable to the determination of the compounds listed in the U.S.E.P.A. Manual entitled "Test Procedures for the Analysis of Organic Pollutants".

A HP5970 was used with a DB-5 FSCC.

Method detection limits are as stated.

Soil samples were prepared for analysis as prescribed in Method 3550 and analyzed as prescribed in Method 8270 from SW846.

Metals

Soil samples for metal analysis were run in accordance with the methods prescribed in SW846. This includes a nitric acid digestion followed by either Furnace, Flame Atomic Absorption, Flameless Atomic Absorption. or Inductively Coupled Plasma analysis.

Aqueous samples for metals analysis were run in accordance with the methods prescribed in Methods for Chemical Analysis of Water and Wastes, EPA-600-4-79-020 March 1983.

Purgeables

U.S.E.P.A. Method 624 - This is a purge and trap Gas-Chromatograph/Mass Spectrometer (GC/MS) method applicable to the determination of the compounds listed in the U.S.E.P.A. Manual entitled "Test Procedures for the Analysis of Organic Pollutants".

An HP5996 GC/MS was used with a capillary column.

Method detection limits are as stated.

Soil samples are prepared for analysis as prescribed in Method 8240 from SW846.

LABORATORY CHRONICLE

RECEIPT/REFRIGERATION 7/6/93

ORGANICS
EXTRACTION

1. Acids NA
2. Base/Neutrals 7/9/93
3. Pesticides/PCB's/Herbicides NA
4. Petroleum Hydrocarbons/Oil & Grease NA

ANALYSIS

1. Volatiles 7/13/93-7/14/93
2. Acids NA
3. Base/Neutrals 7/13/93-7/16/93
4. Pesticides/PCB's/Herbicides NA
5. Petroleum Hydrocarbons/Oil & Grease NA
6. Total Organic Carbon NA

Section Supervisor
Review & Approval _____

INORGANICS

1. Metals 7/16/93
2. Cyanides NA
3. Phenols NA

OTHER ANALYTES

_____

_____

Section Supervisor
Review & Approval _____

Quality Control Supervisor
Review & Approval Glen Gobs

Laboratory Director
Review & Approval Richard W Lynch

If fractions are re-extracted and re-analyzed because initial endeavors did not meet quality control acceptance criteria, include dates for both.

00003

RESULT SUMMARY

CERTIFICATE OF ANALYSIS

U.S. ARMY-FORT MONMOUTH, NJ BLDG 2500

LEAD

ANALYSIS NO:	CLIENT ID:	MDL (mg/L)	RESULT (mg/L)
A 2536	MW 1	0.05	N.D.
A 2537	MW 2	0.05	N.D.
A 2538	MW 3	0.05	N.D.
A 2539	MW 4	0.05	N.D.
A 2540	MW 4 Dup	0.05	N.D.

00007

21st Century Environmental Inc.
VOLATILE ORGANIC ANALYSIS DATA

JOB NUMBER	US ARMY FT. MONMOUTH NJ	MATRIX	Water
SAMPLE NUMBER	A2536	DILUTION FACTOR	1.00
CLIENT ID	MW-1 BLDG 2500	COMMENTS	HNU 1.00
DATA FILE	>B0675	DATE ANALYZED	07/13/93

COMPOUND	UG/L		MDL	COMPOUND	UG/L	MDL
Acrolein	ND		50	2-Chloroethylvinylether	ND	10
Acrylonitrile	ND		50	2-Hexanone	ND	10
Chloromethane	ND		10	trans-1,3-Dichloropropene	ND	5
Bromomethane	ND		10	Toluene	ND	5
Vinyl Chloride	ND		10	cis-1,3-Dichloropropene	ND	5
Chloroethane	ND		10	1,1,2,2-Tetrachloroethane	ND	5
Acetone	ND	B	10	1,1,2-Trichloroethane	ND	5
1,1-Dichloroethene	ND		5	4-Methyl-2-pentanone	ND	10
Carbon Disulfide	ND		10	Tetrachloroethene	ND	5
Methylene Chloride	ND		5	Dibromochloromethane	ND	5
1,2-Dichloroethene(trans)	ND		5	Chlorobenzene	ND	5
1,1-Dichloroethane	ND		5	Ethylbenzene	ND	5
Vinyl Acetate	ND		5	m&p-Xylenes	ND	5
2-Butanone	ND		10	o-Xylene	ND	5
Chloroform	ND		5	Styrene	ND	5
1,1,1-Trichloroethane	ND		5	Bromoform	ND	5
Carbon Tetrachloride	ND		5	m-Dichlorobenzene	ND	5
1,2-Dichloroethane	ND		5	p-Dichlorobenzene	ND	5
Benzene	ND		5	o-Dichlorobenzene	ND	5
Trichloroethene	ND		5	Methyl Tertiary Butyl Ether	ND	10
1,2-Dichloropropane	ND		5	Tertiary Butyl Alcohol	ND	50
Bromodichloromethane	ND		5			

SURROGATE COMPOUNDS	% RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	96.4	76 - 114	OK
Toluene-d8	107	88 - 110	OK
Bromofluorobenzene	98.0	86 - 115	OK

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

21st Century Environmental Inc.
SEMIVOLATILE ANALYSIS DATA

JOB NUMBER	US Army, Ft. Monmouth, NJ	MATRIX	Water
SAMPLE NUMBER	A2536	DILUTION FACTOR	1.00
CLIENT ID	Bldg 2500, MW1	COMMENTS	HNU=1.0
DATA FILE	>C1607	DATE ANALYZED	07/14/93

COMPOUND	UG/L	MDL	COMPOUND	UG/L	MDL
N-Nitrosodimethylamine	ND	10	2,6-Dinitrotoluene	ND	10
bis(-2-Chloroethyl)Ether	ND	10	Diethylphthalate	ND	10
1,3-Dichlorobenzene	ND	10	4-Chlorophenyl-phenlyether	ND	10
1,4-Dichlorobenzene	ND	10	Fluorene	ND	10
Benzyl Alcohol	ND	10	4-Nitroaniline	ND	50
1,2-Dichlorobenzene	ND	10	N-Nitrosodiphenylamine	ND	10
bis(2-chloroisopropyl)Ether	ND	10	4-Bromophenyl-phenylether	ND	10
N-Nitroso-Di-n-Propylamine	ND	10	Hexachlorobenzene	ND	10
Hexachloroethane	ND	10	Phenanthrene	ND	10
Nitrobenzene	ND	10	Anthracene	ND	10
Isophorone	ND	10	Di-n-Butylphthalate	ND	10
Benzoic Acid	ND	50	Fluoranthene	ND	10
bis(-2-Chloroethoxy)Methane	ND	10	Pyrene	ND	10
1,2,4-Trichlorobenzene	ND	10	Butylbenzylphthalate	8.6 J	10
Naphthalene	ND	10	3,3'-Dichlorobenzidine	ND	20
4-Chloroaniline	ND	10	Benzo(a)Anthracene	ND	10
Hexachlorobutadiene	ND	10	Bis(2-Ethylhexyl)Phthalate	3.5 J	10
2-Methylnaphthalene	ND	10	Chrysene	ND	10
Hexachlorocyclopentadiene	ND	10	Di-n-Octyl Phthalate	ND	10
2-Chloronaphthalene	ND	10	Benzo(b)fluoranthene	ND	10
2-Nitroaniline	ND	50	Benzo(k)Fluoranthene	ND	10
Dimethyl Phthalate	ND	10	Benzo(a)Pyrene	ND	10
Acenaphthylene	ND	10	Indeno(1,2,3-cd)Pyrene	ND	10
3-Nitroaniline	ND	50	Dibenzo(a,h)Anthracene	ND	10
Acenaphthene	ND	10	Benzo(g,h,i)Perylene	ND	10
Dibenzofuran	ND	10	Benzidine	ND	20
2,4-Dinitrotoluene	ND	10			

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

MW-1

Lab Name:21st Century Environmental

Client Name: US ARMY FT. MONMOUTH, NJ — Client ID: BLDG 2500

Matrix: (soil/water) WATER — Lab Sample ID: A2536

Sample wt/vol: 5 (g/mL) mL — Lab File ID: >B0675

Level: (low/med) LOW — Date Received: 07/06/93

% Moisture: NA — Date Analyzed: 07/13/93

Column: DB-624 — Dilution Factor: 1

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	No Unknowns			

FORM I VOA-TIC 1/87 Rev.

E1

EPA SAMPLE NUMBER

semi-VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

A2536

Client: US Army, Ft. Monmouth, NJ

Comments: HNU=1.0

Matrix: (soil/water) WATER

Lab Sample ID: Bldg2500 MW1

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: >C1607

Level: LOW

Date Received: NA

% Moisture: 100

Date Analyzed 07/14/93

Extraction: (Sepf/Cont/Sonc) SEPF

Date Extracted 07/09/93

GPC (Y or N): N

Column: DB-5

Dilution Factor: 1

Number TICs Found 7

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

	CAS NUMBER	COMPOUND NAME	RT	EST CONC
1		UNKNOWN	25.51	17
2		UNKNOWN	26.39	18
3		UNKNOWN	28.03	13
4		UNKNOWN	28.81	8
5		UNKNOWN	29.57	9
6		UNKNOWN	30.99	10
7		UNKNOWN	32.36	5

21st Century Environmental Inc.
VOLATILE ORGANIC ANALYSIS DATA

JOB NUMBER	US ARMY FT. MONMOUTH-NJ	MATRIX	Water
SAMPLE NUMBER	A2537	DILUTION FACTOR	1.00
CLIENT ID	MW-2 BLDG 2500	COMMENTS	HNU ND
DATA FILE	>B0676	DATE ANALYZED	07/13/93

COMPOUND	UG/L	MDL	COMPOUND	UG/L	MDL
Acrolein	ND	50	2-Chloroethylvinylether	ND	10
Acrylonitrile	ND	50	2-Hexanone	ND	10
Chloromethane	ND	10	trans-1,3-Dichloropropene	ND	5
Bromomethane	ND	10	Toluene	ND	5
Vinyl Chloride	ND	10	cis-1,3-Dichloropropene	ND	5
Chloroethane	ND	10	1,1,2,2-Tetrachloroethane	ND	5
Acetone	2.3 JB	10	1,1,2-Trichloroethane	ND	5
1,1-Dichloroethene	ND	5	4-Methyl-2-pentanone	ND	10
Carbon Disulfide	ND	10	Tetrachloroethene	8.8	5
Methylene Chloride	2.6 J	5	Dibromochloromethane	ND	5
1,2-Dichloroethene(trans)	ND	5	Chlorobenzene	ND	5
1,1-Dichloroethane	ND	5	Ethylbenzene	ND	5
Vinyl Acetate	ND	5	m&p-Xylenes	ND	5
2-Butanone	ND	10	o-Xylene	ND	5
Chloroform	ND	5	Styrene	ND	5
1,1,1-Trichloroethane	ND	5	Bromoform	ND	5
Carbon Tetrachloride	ND	5	m-Dichlorobenzene	ND	5
1,2-Dichloroethane	ND	5	p-Dichlorobenzene	ND	5
Benzene	ND	5	o-Dichlorobenzene	ND	5
Trichloroethene	ND	5	Methyl Tertiary Butyl Ether	ND	10
1,2-Dichloropropane	ND	5	Tertiary Butyl Alcohol	ND	50
Bromodichloromethane	ND	5			

SURROGATE COMPOUNDS	% RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	92.8	76 - 114	OK
Toluene-d8	110	88 - 110	OK
Bromofluorobenzene	102	86 - 115	OK

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

21st Century Environmental Inc.
SEMIVOLATILE ANALYSIS DATA

JOB NUMBER	US Army, Ft. Monmouth, NJ	MATRIX	Water
SAMPLE NUMBER	A2537	DILUTION FACTOR	1.00
CLIENT ID	Bldg 2500, MW2	COMMENTS	HNU=0.0
DATA FILE	>C1608	DATE ANALYZED	07/14/93

COMPOUND	UG/L	MDL	COMPOUND	UG/L	MDL
N-Nitrosodimethylamine	ND	10	2,6-Dinitrotoluene	ND	10
bis(-2-Chloroethyl)Ether	ND	10	Diethylphthalate	ND	10
1,3-Dichlorobenzene	ND	10	4-Chlorophenyl-phenlyether	ND	10
1,4-Dichlorobenzene	ND	10	Fluorene	ND	10
Benzyl Alcohol	ND	10	4-Nitroaniline	ND	50
1,2-Dichlorobenzene	ND	10	N-Nitrosodiphenylamine	ND	10
bis(2-chloroisopropyl)Ether	ND	10	4-Bromophenyl-phenylether	ND	10
N-Nitroso-Di-n-Propylamine	ND	10	Hexachlorobenzene	ND	10
Hexachloroethane	ND	10	Phenanthrene	ND	10
Nitrobenzene	ND	10	Anthracene	ND	10
Isophorone	ND	10	Di-n-Butylphthalate	ND	10
Benzoic Acid	ND	50	Fluoranthene	ND	10
bis(-2-Chloroethoxy)Methane	ND	10	Pyrene	ND	10
1,2,4-Trichlorobenzene	ND	10	Butylbenzylphthalate	2.6 J	10
Naphthalene	ND	10	3,3'-Dichlorobenzidine	ND	20
4-Chloroaniline	ND	10	Benzo(a)Anthracene	ND	10
Hexachlorobutadiene	ND	10	Bis(2-Ethylhexyl)Phthalate	ND	10
2-Methylnaphthalene	ND	10	Chrysene	ND	10
Hexachlorocyclopentadiene	ND	10	Di-n-Octyl Phthalate	ND	10
2-Chloronaphthalene	ND	10	Benzo(b)fluoranthene	ND	10
2-Nitroaniline	ND	50	Benzo(k)Fluoranthene	ND	10
Dimethyl Phthalate	ND	10	Benzo(a)Pyrene	ND	10
Acenaphthylene	ND	10	Indeno(1,2,3-cd)Pyrene	ND	10
3-Nitroaniline	ND	50	Dibenzo(a,h)Anthracene	ND	10
Acenaphthene	ND	10	Benzo(g,h,i)Perylene	ND	10
Dibenzofuran	ND	10	Benzidine	ND	20
2,4-Dinitrotoluene	ND	10			

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

MW-2

Lab Name: 21st Century Environmental

Client Name: US ARMY FT. MONMOUTH, NJ

Client ID: BLDG 2500

Matrix: (soil/water) WATER

Lab Sample ID: A2537

Sample wt/vol: 5 (g/mL) mL

Lab File ID: >B0676

Level: (low/med) LOW

Date Received: 07/06/93

% Moisture: NA

Date Analyzed: 07/13/93

Column: DB-624

Dilution Factor: 1

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	No Unknowns			

FORM I VOA-TIC 1/87 Rev.

00020

E1

EPA SAMPLE NUMBER

semi-VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

A2537

Client: US Army, Ft. Monmouth, NJ

Comments: HNU= 0.0

Matrix: (soil/water) WATER

Lab Sample ID:Bldg 2500,MW2

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: >C1608

Level: LOW

Date Received: NA

% Moisture: 100

Date Analyzed 07/14/93

Extraction: (Sepf/Cont/Sonc) SEPF

Date Extracted 07/09/93

GPC (Y or N): N

Column: DB-5

Dilution Factor: 1

Number TICs Found 0

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

CAS NUMBER	COMPOUND NAME	RT	EST CONC
	NO UNKNOWN COMPOUNDS IDENTIFIED		

21st Century Environmental Inc.
VOLATILE ORGANIC ANALYSIS DATA

JOB NUMBER	US ARMY FT. MONMOUTH NJ	MATRIX	Water
SAMPLE NUMBER	A2538	DILUTION FACTOR	1.00
CLIENT ID	MW-3 BLDG 2500	COMMENTS	HNU 4.60
DATA FILE	>B0677	DATE ANALYZED	07/13/93

COMPOUND	UG/L		MDL	COMPOUND	UG/L	MDL
Acrolein	ND		50	2-Chloroethylvinylether	ND	10
Acrylonitrile	ND		50	2-Hexanone	ND	10
Chloromethane	ND		10	trans-1,3-Dichloropropene	ND	5
Bromomethane	ND		10	Toluene	ND	5
Vinyl Chloride	ND		10	cis-1,3-Dichloropropene	ND	5
Chloroethane	ND		10	1,1,2,2-Tetrachloroethane	ND	5
Acetone	ND	B	10	1,1,2-Trichloroethane	ND	5
1,1-Dichloroethene	ND		5	4-Methyl-2-pentanone	ND	10
Carbon Disulfide	ND		10	Tetrachloroethene	ND	5
Methylene Chloride	ND		5	Dibromochloromethane	ND	5
1,2-Dichloroethene(trans)	ND		5	Chlorobenzene	ND	5
1,1-Dichloroethane	ND		5	Ethylbenzene	ND	5
Vinyl Acetate	ND		5	m&p-Xylenes	ND	5
2-Butanone	ND		10	o-Xylene	ND	5
Chloroform	ND		5	Styrene	ND	5
1,1,1-Trichloroethane	ND		5	Bromoform	ND	5
Carbon Tetrachloride	ND		5	m-Dichlorobenzene	ND	5
1,2-Dichloroethane	ND		5	p-Dichlorobenzene	ND	5
Benzene	ND		5	o-Dichlorobenzene	ND	5
Trichloroethene	ND		5	Methyl Tertiary Butyl Ether	ND	10
1,2-Dichloropropane	ND		5	Tertiary Butyl Alcohol	ND	50
Bromodichloromethane	ND		5			

SURROGATE COMPOUNDS	% RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	97.5	76 - 114	OK
Toluene-d8	110	88 - 110	OK
Bromofluorobenzene	98.1	86 - 115	OK

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

21st Century Environmental Inc.
SEMIVOLATILE ANALYSIS DATA

JOB NUMBER	US Army, Ft. Monmouth, NJ	MATRIX	Water
SAMPLE NUMBER	A2538	DILUTION FACTOR	1.00
CLIENT ID	Bldg 2500, MW-3	COMMENTS	HNU= 4.6
DATA FILE	>C1645	DATE ANALYZED	07/16/93

COMPOUND	UG/L	MDL	COMPOUND	UG/L	MDL
N-Nitrosodimethylamine	ND	10	2,6-Dinitrotoluene	ND	10
bis(-2-Chloroethyl)Ether	ND	10	Diethylphthalate	ND	10
1,3-Dichlorobenzene	ND	10	4-Chlorophenyl-phenlyether	ND	10
1,4-Dichlorobenzene	ND	10	Fluorene	ND	10
Benzyl Alcohol	ND	10	4-Nitroaniline	ND	50
1,2-Dichlorobenzene	ND	10	N-Nitrosodiphenylamine	ND	10
bis(2-chloroisopropyl)Ether	ND	10	4-Bromophenyl-phenylether	ND	10
N-Nitroso-Di-n-Propylamine	ND	10	Hexachlorobenzene	ND	10
Hexachloroethane	ND	10	Phenanthrene	ND	10
Nitrobenzene	ND	10	Anthracene	ND	10
Isophorone	ND	10	Di-n-Butylphthalate	ND	10
Benzoic Acid	ND	50	Fluoranthene	ND	10
bis(-2-Chloroethoxy)Methane	ND	10	Pyrene	ND	10
1,2,4-Trichlorobenzene	ND	10	Butylbenzylphthalate	3.7 J	10
Naphthalene	ND	10	3,3'-Dichlorobenzidine	ND	20
4-Chloroaniline	ND	10	Benzo(a)Anthracene	ND	10
Hexachlorobutadiene	ND	10	Bis(2-Ethylhexyl)Phthalate	2.8 J	10
2-Methylnaphthalene	ND	10	Chrysene	ND	10
Hexachlorocyclopentadiene	ND	10	Di-n-Octyl Phthalate	ND	10
2-Chloronaphthalene	ND	10	Benzo(b)fluoranthene	ND	10
2-Nitroaniline	ND	50	Benzo(k)Fluoranthene	ND	10
Dimethyl Phthalate	ND	10	Benzo(a)Pyrene	ND	10
Acenaphthylene	ND	10	Indeno(1,2,3-cd)Pyrene	ND	10
3-Nitroaniline	ND	50	Dibenzo(a,h)Anthracene	ND	10
Acenaphthene	ND	10	Benzo(g,h,i)Perylene	ND	10
Dibenzofuran	ND	10	Benzidine	ND	20
2,4-Dinitrotoluene	ND	10			

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

E1

EPA SAMPLE NUMBER

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

MW-3

Client Name : US ARMY FT. MONMOUTH,NJ Client ID: BLDG 2500

Matrix: (soil/water) WATER Lab Sample ID: A2538

Sample wt/vol: 5 (g/mL) mL Lab File ID: >B0677

Level: LOW Date Received: 07/06/93

% Moisture: 100 Date Analyzed 07/13/93

Column: CAP Dilution Factor: 1

Number TICs Found 7 CONCENTRATION UNITS (ug/L or ug/Kg) ug/L

	CAS NUMBER	COMPOUND NAME	RT	EST CONC
1	611143	Benzene, 1-ethyl-2-methyl- (9CI)	15.91	16
2	622968	Benzene, 1-ethyl-4-methyl- (9CI)	16.27	9
3	620144	Benzene, 1-ethyl-3-methyl- (9CI)	17.34	10
4	93538	Benzeneacetaldehyde, .alpha.-methyl- (9CI)	17.70	5
5	25155151	Benzene, methyl(1-methylethyl)- (9CI)	17.85	5
6	1120214	Undecane (8CI9CI)	18.09	12
7	120729	1H-Indole (9CI)	18.75	9

E1

EPA SAMPLE NUMBER

semi-VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

A2538

Client: US Army, Ft. Monmouth, NJ

Comments: HNU=4.6

Matrix: (soil/water) WATER

Lab Sample ID:Bldg 2500,MW3

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: >C1645

Level: LOW

Date Received: NA

% Moisture: 100

Date Analyzed 07/16/93

Extraction: (Sepf/Cont/Sonc) SEPF

Date Extracted 07/09/93

GPC (Y or N): N

Column: DB-5

Dilution Factor: 1

Number TICs Found 15

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

	CAS NUMBER	COMPOUND NAME	RT	EST CONC
1		UNKNOWN	10.98	3
2		UNKNOWN	12.67	7
3		UNKNOWN	14.21	13
4		UNKNOWN	15.65	14
5		UNKNOWN	16.33	5
6		UNKNOWN	16.49	9
7		UNKNOWN	16.98	18
8		UNKNOWN	17.68	7
9		UNKNOWN	18.84	24
10		UNKNOWN	18.95	7
11		UNKNOWN	19.45	35
12		UNKNOWN	19.52	38
13		UNKNOWN	20.68	15
14		UNKNOWN	21.66	15
15		UNKNOWN	22.68	8

21st Century Environmental Inc.
VOLATILE ORGANIC ANALYSIS DATA

JOB NUMBER	US ARMY FT. MONMOUTH NJ	MATRIX	Water
SAMPLE NUMBER	A2539	DILUTION FACTOR	1.00
CLIENT ID	MW-4 BLDG 2500	COMMENTS	HNU 1.40
DATA FILE	>B0678	DATE ANALYZED	07/13/93

COMPOUND	UG/L	MDL	COMPOUND	UG/L	MDL
Acrolein	ND	50	2-Chloroethylvinylether	ND	10
Acrylonitrile	ND	50	2-Hexanone	ND	10
Chloromethane	ND	10	trans-1,3-Dichloropropene	ND	5
Bromomethane	ND	10	Toluene	ND	5
Vinyl Chloride	ND	10	cis-1,3-Dichloropropene	ND	5
Chloroethane	ND	10	1,1,2,2-Tetrachloroethane	ND	5
Acetone	2.9 JB	10	1,1,2-Trichloroethane	ND	5
1,1-Dichloroethene	ND	5	4-Methyl-2-pentanone	ND	10
Carbon Disulfide	ND	10	Tetrachloroethene	ND	5
Methylene Chloride	1.2 J	5	Dibromochloromethane	ND	5
1,2-Dichloroethene(trans)	ND	5	Chlorobenzene	ND	5
1,1-Dichloroethane	ND	5	Ethylbenzene	ND	5
Vinyl Acetate	ND	5	m&p-Xylenes	ND	5
2-Butanone	ND	10	o-Xylene	ND	5
Chloroform	ND	5	Styrene	ND	5
1,1,1-Trichloroethane	ND	5	Bromoform	ND	5
Carbon Tetrachloride	ND	5	m-Dichlorobenzene	ND	5
1,2-Dichloroethane	ND	5	p-Dichlorobenzene	ND	5
Benzene	ND	5	o-Dichlorobenzene	ND	5
Trichloroethene	ND	5	Methyl Tertiary Butyl Ether	ND	10
1,2-Dichloropropane	ND	5	Tertiary Butyl Alcohol	ND	50
Bromodichloromethane	ND	5			

SURROGATE COMPOUNDS	% RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	97.6	76 - 114	OK
Toluene-d8	111	88 - 110	OUT
Bromofluorobenzene	100	86 - 115	OK

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

21st Century Environmental Inc.
SEMIVOLATILE ANALYSIS DATA

JOB NUMBER	US Army, Ft. Monmouth, NJ	MATRIX	Water
SAMPLE NUMBER	A2539	DILUTION FACTOR	1.00
CLIENT ID	Bldg 2500, MW4	COMMENTS	HNU=1.4
DATA FILE	>C1610	DATE ANALYZED	07/14/93

COMPOUND	UG/L	MDL	COMPOUND	UG/L	MDL
N-Nitrosodimethylamine	ND	10	2,6-Dinitrotoluene	ND	10
bis(-2-Chloroethyl)Ether	ND	10	Diethylphthalate	ND	10
1,3-Dichlorobenzene	ND	10	4-Chlorophenyl-phenlyether	ND	10
1,4-Dichlorobenzene	ND	10	Fluorene	ND	10
Benzyl Alcohol	1.8 J	10	4-Nitroaniline	ND	50
1,2-Dichlorobenzene	ND	10	N-Nitrosodiphenylamine	ND	10
bis(2-chloroisopropyl)Ether	ND	10	4-Bromophenyl-phenylether	ND	10
N-Nitroso-Di-n-Propylamine	ND	10	Hexachlorobenzene	ND	10
Hexachloroethane	ND	10	Phenanthrene	ND	10
Nitrobenzene	ND	10	Anthracene	ND	10
Isophorone	ND	10	Di-n-Butylphthalate	ND	10
Benzoic Acid	ND	50	Fluoranthene	ND	10
bis(-2-Chloroethoxy)Methane	ND	10	Pyrene	ND	10
1,2,4-Trichlorobenzene	ND	10	Butylbenzylphthalate	42	10
Naphthalene	ND	10	3,3'-Dichlorobenzidine	ND	20
4-Chloroaniline	ND	10	Benzo(a)Anthracene	ND	10
Hexachlorobutadiene	ND	10	Bis(2-Ethylhexyl)Phthalate	1.1 J	10
2-Methylnaphthalene	ND	10	Chrysene	ND	10
Hexachlorocyclopentadiene	ND	10	Di-n-Octyl Phthalate	ND	10
2-Chloronaphthalene	ND	10	Benzo(b)fluoranthene	ND	10
2-Nitroaniline	ND	50	Benzo(k)Fluoranthene	ND	10
Dimethyl Phthalate	ND	10	Benzo(a)Pyrene	ND	10
Acenaphthylene	ND	10	Indeno(1,2,3-cd)Pyrene	ND	10
3-Nitroaniline	ND	50	Dibenzo(a,h)Anthracene	ND	10
Acenaphthene	ND	10	Benzo(g,h,i)Perylene	ND	10
Dibenzofuran	ND	10	Benzidine	ND	20
2,4-Dinitrotoluene	ND	10			

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

MW-4

Lab Name:21st Century Environmental

Client Name: US ARMY FT. MONMOUTH, NJ — Client ID: BLDG 2500

Matrix: (soil/water) WATER — Lab Sample ID: A2539

Sample wt/vol: 5 (g/mL) mL — Lab File ID: >B0678

Level: (low/med) LOW — Date Received: 07/06/93

% Moisture: NA — Date Analyzed: 07/13/93

Column: DB-624 — Dilution Factor: 1

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	No Unknowns			

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semi-VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NUMBER

A2539

Client Name: US Army, Ft. Monmouth, NJ

Comments: HNU=1.4

Matrix: (soil/water) WATER

Lab Sample ID:Bldg 2500,MW4

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: >C1610

Level: LOW

Date Received: NA

% Moisture: 100

Date Analyzed 07/14/93

Extraction: (Sepf/Cont/Sonc) SEPF

Date Extracted 07/09/93

GPC (Y or N): N

Column: DB-5

Dilution Factor: 1

Number TICs Found 2

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

CAS NUMBER	COMPOUND NAME	RT	EST CONC
1	UNKNOWN	24.49	4
2	UNKNOWN	29.84	5

21st Century Environmental Inc.
VOLATILE ORGANIC ANALYSIS DATA

JOB NUMBER	US ARMY FT. MONMOUTH NJ	MATRIX	Water
SAMPLE NUMBER	A2540	DILUTION FACTOR	1.00
CLIENT ID	MW-4 DUP BLDG 2500	COMMENTS	HNU 1.40
DATA FILE	>80679	DATE ANALYZED	07/13/93

COMPOUND	UG/L	MDL	COMPOUND	UG/L	MDL
Acrolein	ND	50	2-Chloroethylvinylether	ND	10
Acrylonitrile	ND	50	2-Hexanone	ND	10
Chloromethane	ND	10	trans-1,3-Dichloropropene	ND	5
Bromomethane	ND	10	Toluene	ND	5
Vinyl Chloride	ND	10	cis-1,3-Dichloropropene	ND	5
Chloroethane	ND	10	1,1,2,2-Tetrachloroethane	ND	5
Acetone	3.8 JB	10	1,1,2-Trichloroethane	ND	5
1,1-Dichloroethene	ND	5	4-Methyl-2-pentanone	ND	10
Carbon Disulfide	ND	10	Tetrachloroethene	ND	5
Methylene Chloride	ND	5	Dibromochloromethane	ND	5
1,2-Dichloroethene(trans)	ND	5	Chlorobenzene	ND	5
1,1-Dichloroethane	ND	5	Ethylbenzene	ND	5
Vinyl Acetate	ND	5	m&p-Xylenes	ND	5
2-Butanone	ND	10	o-Xylene	ND	5
Chloroform	ND	5	Styrene	ND	5
1,1,1-Trichloroethane	ND	5	Bromoform	ND	5
Carbon Tetrachloride	ND	5	m-Dichlorobenzene	ND	5
1,2-Dichloroethane	ND	5	p-Dichlorobenzene	ND	5
Benzene	ND	5	o-Dichlorobenzene	ND	5
Trichloroethene	ND	5	Methyl Tertiary Butyl Ether	ND	10
1,2-Dichloropropane	ND	5	Tertiary Butyl Alcohol	ND	50
Bromodichloromethane	ND	5			

SURROGATE COMPOUNDS	% RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	97.7	76 - 114	OK
Toluene-d8	110	88 - 110	OK
Bromofluorobenzene	101	86 - 115	OK

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

21st Century Environmental Inc.
SEMIVOLATILE ANALYSIS DATA

JOB NUMBER	US Army, Ft. Monmouth, NJ	MATRIX	Water
SAMPLE NUMBER	A2540	DILUTION FACTOR	1.00
CLIENT ID	Bldg 2500, MW4 dup	COMMENTS	HNU= 1.4
DATA FILE	>C1611	DATE ANALYZED	07/14/93

COMPOUND	UG/L	MDL	COMPOUND	UG/L	MDL
N-Nitrosodimethylamine	ND	10	2,6-Dinitrotoluene	ND	10
bis(-2-Chloroethyl)Ether	ND	10	Diethylphthalate	ND	10
1,3-Dichlorobenzene	ND	10	4-Chlorophenyl-phenlyether	ND	10
1,4-Dichlorobenzene	ND	10	Fluorene	ND	10
Benzyl Alcohol	2.0 J	10	4-Nitroaniline	ND	50
1,2-Dichlorobenzene	ND	10	N-Nitrosodiphenylamine	ND	10
bis(2-chloroisopropyl)Ether	ND	10	4-Bromophenyl-phenylether	ND	10
N-Nitroso-Di-n-Propylamine	ND	10	Hexachlorobenzene	ND	10
Hexachloroethane	ND	10	Phenanthrene	ND	10
Nitrobenzene	ND	10	Anthracene	ND	10
Isophorone	ND	10	Di-n-Butylphthalate	ND	10
Benzoic Acid	ND	50	Fluoranthene	ND	10
bis(-2-Chloroethoxy)Methane	ND	10	Pyrene	ND	10
1,2,4-Trichlorobenzene	ND	10	Butylbenzylphthalate	37	10
Naphthalene	ND	10	3,3'-Dichlorobenzidine	ND	20
4-Chloroaniline	ND	10	Benzo(a)Anthracene	ND	10
Hexachlorobutadiene	ND	10	Bis(2-Ethylhexyl)Phthalate	1.1 J	10
2-Methylnaphthalene	ND	10	Chrysene	ND	10
Hexachlorocyclopentadiene	ND	10	Di-n-Octyl Phthalate	ND	10
2-Chloronaphthalene	ND	10	Benzo(b)fluoranthene	ND	10
2-Nitroaniline	ND	50	Benzo(k)Fluoranthene	ND	10
Dimethyl Phthalate	ND	10	Benzo(a)Pyrene	ND	10
Acenaphthylene	ND	10	Indeno(1,2,3-cd)Pyrene	ND	10
3-Nitroaniline	ND	50	Dibenzo(a,h)Anthracene	ND	10
Acenaphthene	ND	10	Benzo(g,h,i)Perylene	ND	10
Dibenzofuran	ND	10	Benzidine	ND	20
2,4-Dinitrotoluene	ND	10			

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

MW-4 DUP

Lab Name: 21st Century Environmental

Client Name: US ARMY FT. MONMOUTH, NJ

Client ID: BLDG 2500

Matrix: (soil/water) WATER

Lab Sample ID: A2540

Sample wt/vol: 5 (g/mL) mL

Lab File ID: >B0679

Level: (low/med) LOW

Date Received: 07/06/93

% Moisture: NA

Date Analyzed: 07/13/93

Column: DB-624

Dilution Factor: 1

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	No Unknowns			

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E1

EPA SAMPLE NUMBER

semi-VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

A2540

Client: US Army, Ft. Monmouth, NJ

Comments: HNU= 1.4

Matrix: (soil/water) WATER

Lab Sample ID:Bldg 2500,MW4DUP

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: >C1611

Level: LOW

Date Received: NA

% Moisture: 100

Date Analyzed 07/14/93

Extraction: (Sepf/Cont/Sonc) SEPF

Date Extracted 07/09/93

GPC (Y or N): N

Column: DB-5

Dilution Factor: 1

Number TICs Found 2

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

CAS NUMBER	COMPOUND NAME	RT	EST CONC
1	UNKNOWN	24.48	5
2	UNKNOWN	29.84	7

21st Century Environmental Inc.
VOLATILE ORGANIC ANALYSIS DATA

JOB NUMBER	US ARMY FT. MONMOUTH NJ	MATRIX	Water
SAMPLE NUMBER	A2532	DILUTION FACTOR	1.00
CLIENT ID	FIELD BLANK BLDG 2500	COMMENTS	HNU ND
DATA FILE	>B0671	DATE ANALYZED	07/13/93

COMPOUND	UG/L	MDL	COMPOUND	UG/L	MDL
Acrolein	ND	50	2-Chloroethylvinylether	ND	10
Acrylonitrile	ND	50	2-Hexanone	ND	10
Chloromethane	ND	10	trans-1,3-Dichloropropene	ND	5
Bromomethane	ND	10	Toluene	ND	5
Vinyl Chloride	ND	10	cis-1,3-Dichloropropene	ND	5
Chloroethane	ND	10	1,1,2,2-Tetrachloroethane	ND	5
Acetone	7.2 JB	10	1,1,2-Trichloroethane	ND	5
1,1-Dichloroethene	ND	5	4-Methyl-2-pentanone	ND	10
Carbon Disulfide	ND	10	Tetrachloroethene	ND	5
Methylene Chloride	ND	5	Dibromochloromethane	ND	5
1,2-Dichloroethene(trans)	ND	5	Chlorobenzene	ND	5
1,1-Dichloroethane	ND	5	Ethylbenzene	ND	5
Vinyl Acetate	ND	5	m&p-Xylenes	ND	5
2-Butanone	ND	10	o-Xylene	ND	5
Chloroform	ND	5	Styrene	ND	5
1,1,1-Trichloroethane	ND	5	Bromoform	ND	5
Carbon Tetrachloride	ND	5	m-Dichlorobenzene	ND	5
1,2-Dichloroethane	ND	5	p-Dichlorobenzene	ND	5
Benzene	ND	5	o-Dichlorobenzene	ND	5
Trichloroethene	ND	5	Methyl Tertiary Butyl Ether	ND	10
1,2-Dichloropropane	ND	5	Tertiary Butyl Alcohol	ND	50
Bromodichloromethane	ND	5			

SURROGATE COMPOUNDS	% RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	93.8	76 - 114	OK
Toluene-d8	99.6	88 - 110	OK
Bromofluorobenzene	100	86 - 115	OK

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

21st Century Environmental Inc.
SEMIVOLATILE ANALYSIS DATA

JOB NUMBER	US ARMY, FT. MONMOUTH, NJ	MATRIX	Water
SAMPLE NUMBER	A2532	DILUTION FACTOR	1.00
CLIENT ID	BLDG 2500,FIELD BLANK	COMMENTS	NONE
DATA FILE	>C1598	DATE ANALYZED	07/13/93

COMPOUND	UG/L	MDL	COMPOUND	UG/L	MDL
N-Nitrosodimethylamine	ND	10	2,6-Dinitrotoluene	ND	10
bis(-2-Chloroethyl)Ether	ND	10	Diethylphthalate	ND	10
1,3-Dichlorobenzene	ND	10	4-Chlorophenyl-phenlyether	ND	10
1,4-Dichlorobenzene	ND	10	Fluorene	ND	10
Benzyl Alcohol	ND	10	4-Nitroaniline	ND	50
1,2-Dichlorobenzene	ND	10	N-Nitrosodiphenylamine	ND	10
bis(2-chloroisopropyl)Ether	ND	10	4-Bromophenyl-phenylether	ND	10
N-Nitroso-Di-n-Propylamine	ND	10	Hexachlorobenzene	ND	10
Hexachloroethane	ND	10	Phenanthrene	ND	10
Nitrobenzene	ND	10	Anthracene	ND	10
Isophorone	ND	10	Di-n-Butylphthalate	ND	10
Benzoic Acid	ND	50	Fluoranthene	ND	10
bis(-2-Chloroethoxy)Methane	ND	10	Pyrene	ND	10
1,2,4-Trichlorobenzene	ND	10	Butylbenzylphthalate	ND	10
Naphthalene	ND	10	3,3'-Dichlorobenzidine	ND	20
4-Chloroaniline	ND	10	Benzo(a)Anthracene	ND	10
Hexachlorobutadiene	ND	10	Bis(2-Ethylhexyl)Phthalate	ND	10
2-Methylnaphthalene	ND	10	Chrysene	ND	10
Hexachlorocyclopentadiene	ND	10	Di-n-Octyl Phthalate	ND	10
2-Chloronaphthalene	ND	10	Benzo(b)fluoranthene	ND	10
2-Nitroaniline	ND	50	Benzo(k)Fluoranthene	ND	10
Dimethyl Phthalate	ND	10	Benzo(a)Pyrene	ND	10
Acenaphthylene	ND	10	Indeno(1,2,3-cd)Pyrene	ND	10
3-Nitroaniline	ND	50	Dibenzo(a,h)Anthracene	ND	10
Acenaphthene	ND	10	Benzo(g,h,i)Perylene	ND	10
Dibenzofuran	ND	10	Benzidine	ND	20
2,4-Dinitrotoluene	ND	10			

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD BLANK

Lab Name:21st Century Environmental

Client Name: US ARMY FT. MONMOUTH, NJ

Client ID: BLDG 2500

Matrix: (soil/water) WATER

Lab Sample ID: A2532

Sample wt/vol: 5 (g/mL) mL

Lab File ID: >B0671

Level: (low/med) LOW

Date Received: 07/06/93

% Moisture: NA

Date Analyzed: 07/13/93

Column: DB-624

Dilution Factor: 1

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	No Unknowns			

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E1

EPA SAMPLE NUMBER

semi-VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

A2532

Client: US Army Ft. Monmouth, NJ

Comments:

Matrix: (soil/water) WATER

Lab Sample ID:Bldg 2500,Fld Blk

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: >C1598

Level: LOW

Date Received: NA

% Moisture: 100

Date Analyzed 07/13/93

Extraction: (Sepf/Cont/Sonc) SEPF

Date Extracted 07/09/93

GPC (Y or N): N

Column: DB-5

Dilution Factor: 1

Number TICs Found 1

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

CAS NUMBER	COMPOUND NAME	RT	EST CONC
1	UNKNOWN	3.37	4

21st Century Environmental Inc.
VOLATILE ORGANIC ANALYSIS DATA

JOB NUMBER	US ARMY FT. MONMOUTH NJ	MATRIX	Water
SAMPLE NUMBER	A2535	DILUTION FACTOR	1.00
CLIENT ID	TRIP BLANK BLDG 2500	COMMENTS	HNU ND
DATA FILE	>B0670	DATE ANALYZED	07/13/93

COMPOUND	UG/L		MDL	COMPOUND	UG/L	MDL
Acrolein	ND		50	2-Chloroethylvinylether	ND	10
Acrylonitrile	ND		50	2-Hexanone	ND	10
Chloromethane	ND		10	trans-1,3-Dichloropropene	ND	5
Bromomethane	ND		10	Toluene	ND	5
Vinyl Chloride	ND		10	cis-1,3-Dichloropropene	ND	5
Chloroethane	ND		10	1,1,2,2-Tetrachloroethane	ND	5
Acetone	ND	B	10	1,1,2-Trichloroethane	ND	5
1,1-Dichloroethene	ND		5	4-Methyl-2-pentanone	ND	10
Carbon Disulfide	ND		10	Tetrachloroethene	ND	5
Methylene Chloride	ND		5	Dibromochloromethane	ND	5
1,2-Dichloroethene(trans)	ND		5	Chlorobenzene	ND	5
1,1-Dichloroethane	ND		5	Ethylbenzene	ND	5
Vinyl Acetate	ND		5	m&p-Xylenes	ND	5
2-Butanone	ND		10	o-Xylene	ND	5
Chloroform	ND		5	Styrene	ND	5
1,1,1-Trichloroethane	ND		5	Bromoform	ND	5
Carbon Tetrachloride	ND		5	m-Dichlorobenzene	ND	5
1,2-Dichloroethane	ND		5	p-Dichlorobenzene	ND	5
Benzene	ND		5	o-Dichlorobenzene	ND	5
Trichloroethene	ND		5	Methyl Tertiary Butyl Ether	ND	10
1,2-Dichloropropane	ND		5	Tertiary Butyl Alcohol	ND	50
Bromodichloromethane	ND		5			

SURROGATE COMPOUNDS	% RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	91.1	76 - 114	OK
Toluene-d8	98.9	88 - 110	OK
Bromofluorobenzene	99.5	86 - 115	OK

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

TRIP BLANK

Lab Name:21st Century Environmental

Client Name: US ARMY FT. MONMOUTH, NJ | Client ID: BLDG 2500

Matrix: (soil/water) WATER | Lab Sample ID: A2535

Sample wt/vol: 5 (g/mL) mL | Lab File ID: >B0670

Level: (low/med) LOW | Date Received: 07/06/93

% Moisture: NA | Date Analyzed: 07/13/93

Column: DB-624 | Dilution Factor: 1

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	No Unknowns			

FORM I VOA-TIC 1/87 Rev.

DATA PACKAGE

CERTIFICATE OF ANALYSIS

U.S. ARMY-FORT MONMOUTH, NJ BLDG 2500

LEAD

ANALYSIS NO:	CLIENT ID:	MDL (mg/L)	RESULT (mg/L)
A 2536	MW 1	0.05	N.D.
A 2537	MW 2	0.05	N.D.
A 2538	MW 3	0.05	N.D.
A 2539	MW 4	0.05	N.D.
A 2540	MW 4 Dup	0.05	N.D.

21st Century Environmental Inc.
VOLATILE ORGANIC ANALYSIS DATA

JOB NUMBER	US ARMY FT. MONMOUTH NJ	MATRIX	Water
SAMPLE NUMBER	A2532	DILUTION FACTOR	1.00
CLIENT ID	FIELD BLANK BLDG 2500	COMMENTS	HNU ND
DATA FILE	>B0671	DATE ANALYZED	07/13/93

COMPOUND	UG/L	MDL	COMPOUND	UG/L	MDL
Acrolein	ND	50	2-Chloroethylvinylether	ND	10
Acrylonitrile	ND	50	2-Hexanone	ND	10
Chloromethane	ND	10	trans-1,3-Dichloropropene	ND	5
Bromomethane	ND	10	Toluene	ND	5
Vinyl Chloride	ND	10	cis-1,3-Dichloropropene	ND	5
Chloroethane	ND	10	1,1,2,2-Tetrachloroethane	ND	5
Acetone	7.2 JB	10	1,1,2-Trichloroethane	ND	5
1,1-Dichloroethene	ND	5	4-Methyl-2-pentanone	ND	10
Carbon Disulfide	ND	10	Tetrachloroethene	ND	5
Methylene Chloride	ND	5	Dibromochloromethane	ND	5
1,2-Dichloroethene(trans)	ND	5	Chlorobenzene	ND	5
1,1-Dichloroethane	ND	5	Ethylbenzene	ND	5
Vinyl Acetate	ND	5	m&p-Xylenes	ND	5
2-Butanone	ND	10	o-Xylene	ND	5
Chloroform	ND	5	Styrene	ND	5
1,1,1-Trichloroethane	ND	5	Bromoform	ND	5
Carbon Tetrachloride	ND	5	m-Dichlorobenzene	ND	5
1,2-Dichloroethane	ND	5	p-Dichlorobenzene	ND	5
Benzene	ND	5	o-Dichlorobenzene	ND	5
Trichloroethene	ND	5	Methyl Tertiary Butyl Ether	ND	10
1,2-Dichloropropane	ND	5	Tertiary Butyl Alcohol	ND	50
Bromodichloromethane	ND	5			

SURROGATE COMPOUNDS	% RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	93.8	76 - 114	OK
Toluene-d8	99.6	88 - 110	OK
Bromofluorobenzene	100	86 - 115	OK

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD BLANK

Lab Name:21st Century Environmental

Client Name: US ARMY FT. MONMOUTH, NJ

Client ID: BLDG 2500

Matrix: (soil/water) WATER

Lab Sample ID: A2532

Sample wt/vol: 5 (g/mL) mL

Lab File ID: >B0671

Level: (low/med) LOW

Date Received: 07/06/93

% Moisture: NA

Date Analyzed: 07/13/93

Column: DB-624

Dilution Factor: 1

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	No Unknowns			

FORM I VOA-TIC 1/87 Rev.

00037

QUANT REPORT

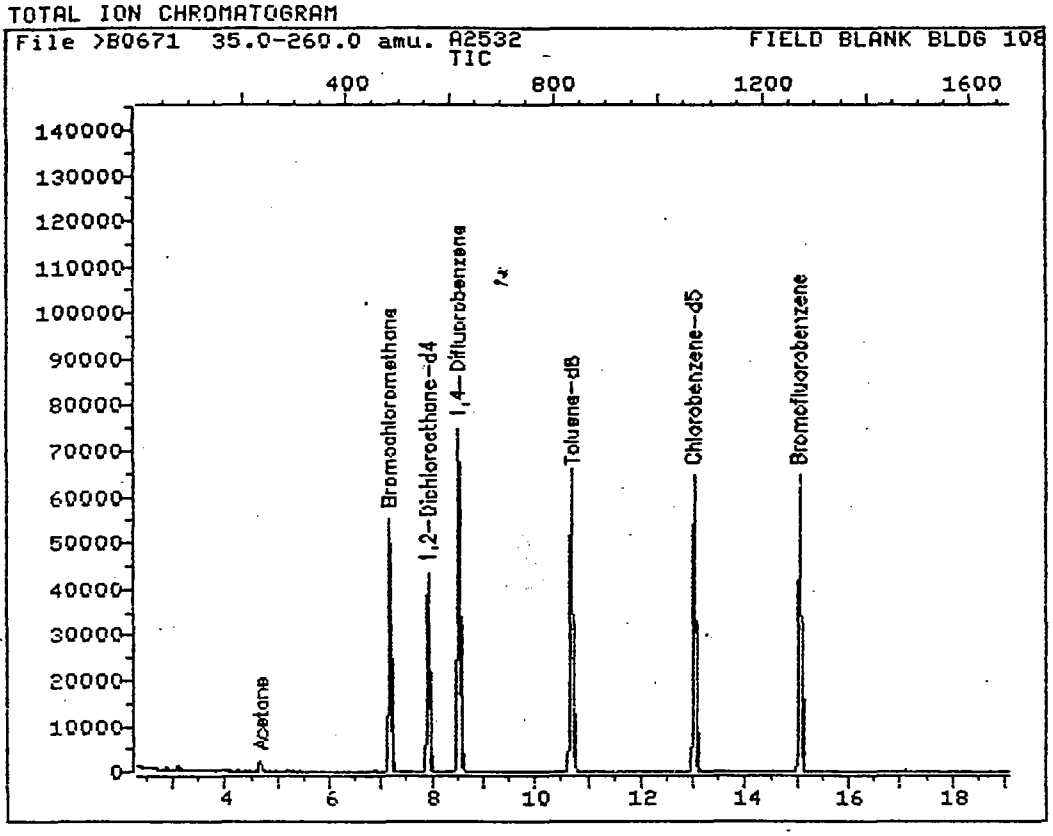
Operator ID: MANAGER Quant Rev: 6 Quant Time: 930713 19:48
Output File: ^B0671::QT Injected at: 930713 19:24
Data File: >B0671::D7 Dilution Factor: 1.00000
Name: A2532
Misc: FIELD BLANK 5mL

ID File: ID0401::SC
Title: USEPA 624 VOLATILES
Last Calibration: 930713 18:23

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*Bromochloromethane	7.14	480	25792	50.00	UG/L	100
9)	Acetone	4.68	234	6052	7.18	UG/L	77
23)	1,2-Dichloroethane-d4	7.91	557	57996	46.88	UG/L	100
24)	*1,4-Difluorobenzene	8.50	616	110529	50.00	UG/L	100
33)	Toluene-d8	10.68	833	87931	49.80	UG/L	100
35)	*Chlorobenzene-d5	13.00	1065	68633	50.00	UG/L	100
48)	Bromofluorobenzene	15.01	1266	45372	50.04	UG/L	100

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >B0671::D7 Quant Output File: ^B0671::QT
Name: A2532
Misc: FIELD BLANK 5mL

Id File: ID0401::SC
Title: USEPA 624 VOLATILES
Last Calibration: 930713 18:23

Operator ID: MANAGER
Quant Time: 930713 19:48
Injected at: 930713 19:24

21st Century Environmental Inc.
SEMIVOLATILE ANALYSIS DATA

JOB NUMBER	US ARMY, FT. MONMOUTH, NJ	MATRIX	Water
SAMPLE NUMBER	A2532	DILUTION FACTOR	1.00
CLIENT ID	BLDG 2500,FIELD BLANK	COMMENTS	NONE
DATA FILE	>C1598	DATE ANALYZED	07/13/93

COMPOUND	UG/L	MDL	COMPOUND	UG/L	MDL
N-Nitrosodimethylamine	ND	10	2,6-Dinitrotoluene	ND	10
bis(-2-Chloroethyl)Ether	ND	10	Diethylphthalate	ND	10
1,3-Dichlorobenzene	ND	10	4-Chlorophenyl-phenlyether	ND	10
1,4-Dichlorobenzene	ND	10	Fluorene	ND	10
Benzyl Alcohol	ND	10	4-Nitroaniline	ND	50
1,2-Dichlorobenzene	ND	10	N-Nitrosodiphenylamine	ND	10
bis(2-chloroisopropyl)Ether	ND	10	4-Bromophenyl-phenylether	ND	10
N-Nitroso-Di-n-Propylamine	ND	10	Hexachlorobenzene	ND	10
Hexachloroethane	ND	10	Phenanthrene	ND	10
Nitrobenzene	ND	10	Anthracene	ND	10
Isophorone	ND	10	Di-n-Butylphthalate	ND	10
Benzoic Acid	ND	50	Fluoranthene	ND	10
bis(-2-Chloroethoxy)Methane	ND	10	Pyrene	ND	10
1,2,4-Trichlorobenzene	ND	10	Butylbenzylphthalate	ND	10
Naphthalene	ND	10	3,3'-Dichlorobenzidine	ND	20
4-Chloroaniline	ND	10	Benzo(a)Anthracene	ND	10
Hexachlorobutadiene	ND	10	Bis(2-Ethylhexyl)Phthalate	ND	10
2-Methylnaphthalene	ND	10	Chrysene	ND	10
Hexachlorocyclopentadiene	ND	10	Di-n-Octyl Phthalate	ND	10
2-Chloronaphthalene	ND	10	Benzo(b)fluoranthene	ND	10
2-Nitroaniline	ND	50	Benzo(k)Fluoranthene	ND	10
Dimethyl Phthalate	ND	10	Benzo(a)Pyrene	ND	10
Acenaphthylene	ND	10	Indeno(1,2,3-cd)Pyrene	ND	10
3-Nitroaniline	ND	50	Dibenzo(a,h)Anthracene	ND	10
Acenaphthene	ND	10	Benzo(g,h,i)Perylene	ND	10
Dibenzofuran	ND	10	Benzidine	ND	20
2,4-Dinitrotoluene	ND	10			

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

E1

semi-VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NUMBER

A2532

Client: US Army Ft. Monmouth, NJ

Comments:

Matrix: (soil/water) WATER

Lab Sample ID:Bldg 2500,Fld Blk

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: >C1598

Level: LOW

Date Received: NA

% Moisture: 100

Date Analyzed 07/13/93

Extraction: (Sepf/Cont/Sonc) SEPF

Date Extracted 07/09/93

GPC (Y or N): N

Column: DB-5

Dilution Factor: 1

Number TICs Found 1

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

CAS NUMBER	COMPOUND NAME	RT	EST CONC
1	UNKNOWN	3.37	4

QUANT REPORT

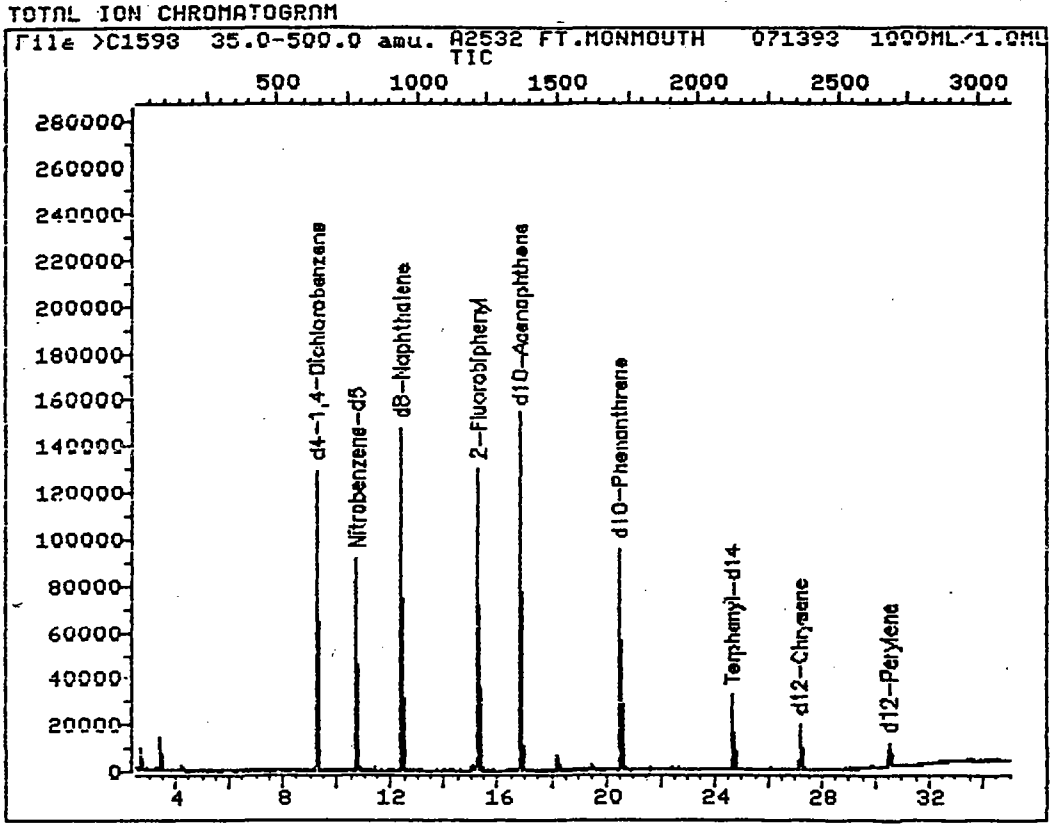
Operator ID: JEFF Quant Rev: 6 Quant Time: 930713 13:48
Output File: ^C1598::D5 Injected at: 930713 13:10
Data File: >C1598::E4 Dilution Factor: 1.00000
Name: A2532 FT.MONMOUTH
Misc: 071393 1000ML/1.0ML BTL# 3

LD File: IDHSLC::D3
Title: hSL BNA STD
Last Calibration: 930713 13:12

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	9.23	641	58554	40.00	UG/L	98
18)	*d8-Naphthalene	12.39	944	133391	40.00	UG/L	87
19)	Nitrobenzene-d5	10.70	782	54576	35.97	UG/L	87
35)	*d10-Acenaphthene	16.83	1370	76590	40.00	UG/L	93
38)	2-Fluorobiphenyl	15.24	1218	81832	31.06	UG/L	94
53)	*d10-Phenanthrene	20.49	1721	83399	40.00	UG/L	99
64)	*d12-Chrysene	27.17	2362	16926	40.00	UG/L	92
67)	Terphenyl-d14	24.65	2120	26296	45.03	UG/L	94
73)	*d12-Perylene	30.51	2682	11069	40.00	UG/L	96

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >C1598::E4 Quant Output File: ^C1598::D5
Name: A2532 FT.MONMOUTH
Misc: 071393 1000ML/1.0ML BTL# 3

Id File: IDHSLC::D3
Title: hSL BNA STD
Last Calibration: 930713 13:12

Operator ID: JEFF
Quant Time: 930713 13:48
Injected at: 930713 13:10

21st Century Environmental Inc.
VOLATILE ORGANIC ANALYSIS DATA

JOB NUMBER	US ARMY FT. MONMOUTH NJ	MATRIX	Water
SAMPLE NUMBER	A2535	DILUTION FACTOR	1.00
CLIENT ID	TRIP BLANK BLDG 2500	COMMENTS	HNU ND
DATA FILE	>B0670	DATE ANALYZED	07/13/93

COMPOUND	UG/L		MDL	COMPOUND	UG/L	MDL
Acrolein	ND		50	2-Chloroethylvinylether	ND	10
Acrylonitrile	ND		50	2-Hexanone	ND	10
Chloromethane	ND		10	trans-1,3-Dichloropropene	ND	5
Bromomethane	ND		10	Toluene	ND	5
Vinyl Chloride	ND		10	cis-1,3-Dichloropropene	ND	5
Chloroethane	ND		10	1,1,2,2-Tetrachloroethane	ND	5
Acetone	ND	B	10	1,1,2-Trichloroethane	ND	5
1,1-Dichloroethene	ND		5	4-Methyl-2-pentanone	ND	10
Carbon Disulfide	ND		10	Tetrachloroethene	ND	5
Methylene Chloride	ND		5	Dibromochloromethane	ND	5
1,2-Dichloroethene(trans)	ND		5	Chlorobenzene	ND	5
1,1-Dichloroethane	ND		5	Ethylbenzene	ND	5
Vinyl Acetate	ND		5	m&p-Xylenes	ND	5
2-Butanone	ND		10	o-Xylene	ND	5
Chloroform	ND		5	Styrene	ND	5
1,1,1-Trichloroethane	ND		5	Bromoform	ND	5
Carbon Tetrachloride	ND		5	m-Dichlorobenzene	ND	5
1,2-Dichloroethane	ND		5	p-Dichlorobenzene	ND	5
Benzene	ND		5	o-Dichlorobenzene	ND	5
Trichloroethene	ND		5	Methyl Tertiary Butyl Ether	ND	10
1,2-Dichloropropane	ND		5	Tertiary Butyl Alcohol	ND	50
Bromodichloromethane	ND		5			

SURROGATE COMPOUNDS	% RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	91.1	76 - 114	OK
Toluene-d8	98.9	88 - 110	OK
Bromofluorobenzene	99.5	86 - 115	OK

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

TRIP BLANK

Lab Name: 21st Century Environmental

Client Name: US ARMY FT. MONMOUTH, NJ — Client ID: BLDG 2500

Matrix: (soil/water) WATER — Lab Sample ID: A2535

Sample wt/vol: 5 (g/mL) mL — Lab File ID: >B0670

Level: (low/med) LOW — Date Received: 07/06/93

% Moisture: NA — Date Analyzed: 07/13/93

Column: DB-624 — Dilution Factor: 1

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	No Unknowns			

FORM I VOA-TIC 1/87 Rev.

QUANT REPORT

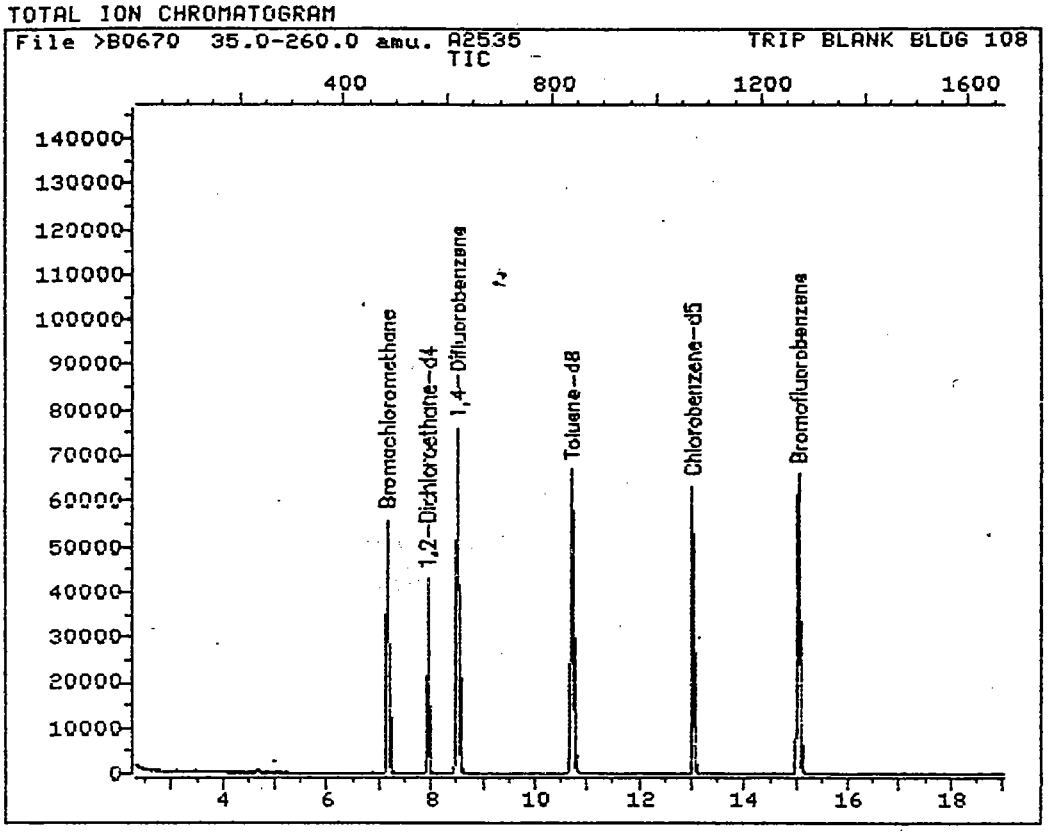
Operator ID: MANAGER Quant Rev: 6 Quant Time: 930713 19:42
Output File: ^B0670::QT Injected at: 930713 18:57
Data File: >B0670::D7 Dilution Factor: 1.00000
Name: A2535
Misc: TRIP BLANK 5mL

ID File: ID0401::SC
Title: USEPA 624 VOLATILES
Last Calibration: 930713 18:23

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*Bromochloromethane	7.15	482	26698	50.00	UG/L	100
23)	1,2-Dichloroethane-d4	7.92	559	58361	45.57	UG/L	100
24)	*1,4-Difluorobenzene	8.51	618	112635	50.00	UG/L	100
33)	Toluene-d8	10.70	836	88946	49.43	UG/L	100
35)	*Chlorobenzene-d5	13.01	1067	70534	50.00	UG/L	100
48)	Bromofluorobenzene	15.03	1269	46347	49.74	UG/L	100

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >B0670::D7 Quant Output File: ^B0670::QT
Name: A2535
Misc: TRIP BLANK 5mL

Id File: ID0401::SC
Title: USEPA 624 VOLATILES
Last Calibration: 930713 18:23

Operator ID: MANAGER
Quant Time: 930713 19:42
Injected at: 930713 18:57

21st Century Environmental Inc.
VOLATILE ORGANIC ANALYSIS DATA

JOB NUMBER	US ARMY FT. MONMOUTH NJ	MATRIX	Water
SAMPLE NUMBER	A2536	DILUTION FACTOR	1.00
CLIENT ID	MW-1 BLDG 2500	COMMENTS	HNU 1.00
DATA FILE	>B0675	DATE ANALYZED	07/13/93

COMPOUND	UG/L		MDL	COMPOUND	UG/L	MDL
Acrolein	ND		50	2-Chloroethylvinylether	ND	10
Acrylonitrile	ND		50	2-Hexanone	ND	10
Chloromethane	ND		10	trans-1,3-Dichloropropene	ND	5
Bromomethane	ND		10	Toluene	ND	5
Vinyl Chloride	ND		10	cis-1,3-Dichloropropene	ND	5
Chloroethane	ND		10	1,1,2,2-Tetrachloroethane	ND	5
Acetone	ND	B	10	1,1,2-Trichloroethane	ND	5
1,1-Dichloroethene	ND		5	4-Methyl-2-pentanone	ND	10
Carbon Disulfide	ND		10	Tetrachloroethene	ND	5
Methylene Chloride	ND		5	Dibromochloromethane	ND	5
1,2-Dichloroethene(trans)	ND		5	Chlorobenzene	ND	5
1,1-Dichloroethane	ND		5	Ethylbenzene	ND	5
Vinyl Acetate	ND		5	m&p-Xylenes	ND	5
2-Butanone	ND		10	o-Xylene	ND	5
Chloroform	ND		5	Styrene	ND	5
1,1,1-Trichloroethane	ND		5	Bromoform	ND	5
Carbon Tetrachloride	ND		5	m-Dichlorobenzene	ND	5
1,2-Dichloroethane	ND		5	p-Dichlorobenzene	ND	5
Benzene	ND		5	o-Dichlorobenzene	ND	5
Trichloroethene	ND		5	Methyl Tertiary Butyl Ether	ND	10
1,2-Dichloropropane	ND		5	Tertiary Butyl Alcohol	ND	50
Bromodichloromethane	ND		5			

SURROGATE COMPOUNDS	% RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	96.4	76 - 114	OK
Toluene-d8	107	88 - 110	OK
Bromofluorobenzene	98.0	86 - 115	OK

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

MW-1

Lab Name:21st Century Environmental

Client Name: US ARMY FT. MONMOUTH, NJ

Client ID: BLDG 2500

Matrix: (soil/water) WATER

Lab Sample ID: A2536

Sample wt/vol: 5 (g/mL) mL

Lab File ID: >B0675

Level: (low/med) LOW

Date Received: 07/06/93

% Moisture: NA

Date Analyzed: 07/13/93

Column: DB-624

Dilution Factor: 1

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	No Unknowns			

FORM I VOA-TIC 1/87 Rev.

00049

QUANT REPORT

Operator ID: MANAGER Quant Rev: 6 Quant Time: 930713 21:38
Output File: ^B0675::QT Injected at: 930713 21:13
Data File: >B0675::D7 Dilution Factor: 1.00000
Name: A2536
Misc: MW-1 BLDG 2500 5mL

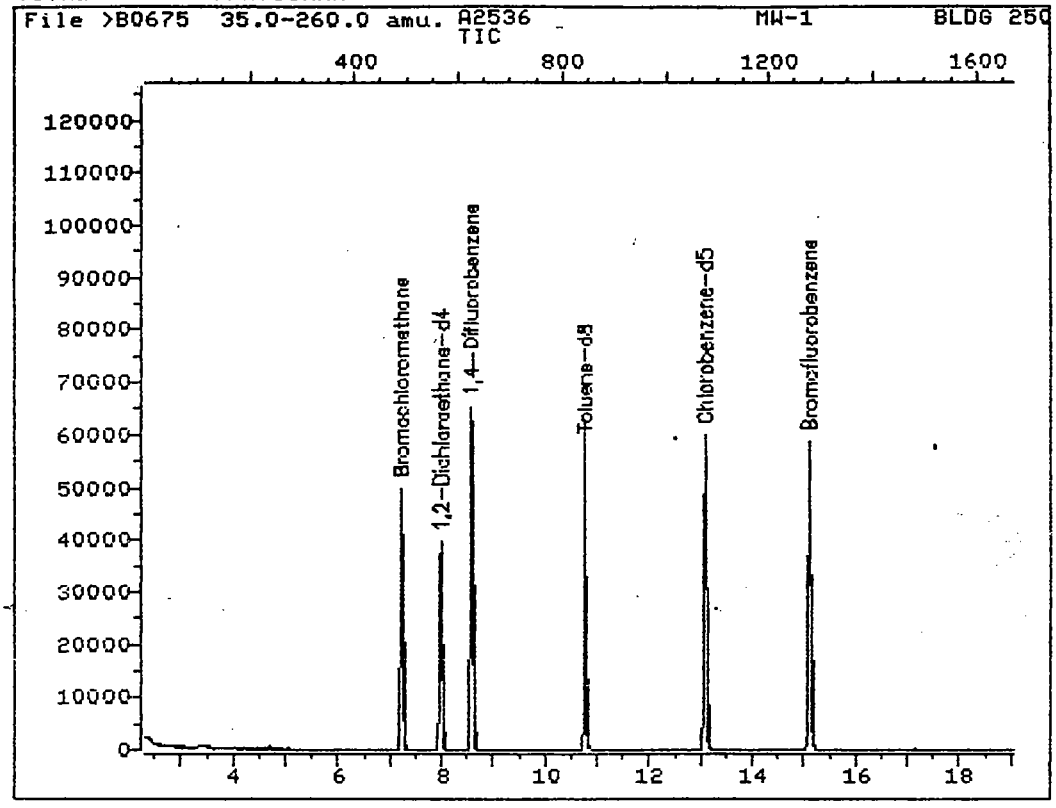
ID File: ID0401::SC
Title: USEPA 624 VOLATILES
Last Calibration: 930713 18:23

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*Bromochloromethane	7.21	488	23447	50.00	UG/L	100
23)	1,2-Dichloroethane-d4	7.98	565	54234	48.22	UG/L	100
24)	*1,4-Difluorobenzene	8.57	624	95634	50.00	UG/L	100
33)	Toluene-d8	10.74	841	81402	53.28	UG/L	100
35)	*Chlorobenzene-d5	13.07	1073	63923	50.00	UG/L	100
48)	Bromofluorobenzene	15.09	1275	41381	49.00	UG/L	100

* Compound is ISTD

00050

TOTAL ION CHROMATOGRAM



Data File: >B0675::D7 Quant Output File: ^B0675::QT
Name: A2536
Misc: MW-1 BLDG 2500 5mL

Id File: ID0401::SC
Title: USEPA 624 VOLATILES
Last Calibration: 930713 18:23

Operator ID: MANAGER
Quant Time: 930713 21:38
Injected at: 930713 21:13

21st Century Environmental Inc.
SEMIVOLATILE ANALYSIS DATA

JOB NUMBER	US Army, Ft. Monmouth, NJ	MATRIX	Water
SAMPLE NUMBER	A2536	DILUTION FACTOR	1.00
CLIENT ID	Bldg 2500, MW1	COMMENTS	HNU=1.0
DATA FILE	>C1607	DATE ANALYZED	07/14/93

COMPOUND	UG/L	MDL	COMPOUND	UG/L	MDL
N-Nitrosodimethylamine	ND	10	2,6-Dinitrotoluene	ND	10
bis(-2-Chloroethyl)Ether	ND	10	Diethylphthalate	ND	10
1,3-Dichlorobenzene	ND	10	4-Chlorophenyl-phenlyether	ND	10
1,4-Dichlorobenzene	ND	10	Fluorene	ND	10
Benzyl Alcohol	ND	10	4-Nitroaniline	ND	50
1,2-Dichlorobenzene	ND	10	N-Nitrosodiphenylamine	ND	10
bis(2-chloroisopropyl)Ether	ND	10	4-Bromophenyl-phenylether	ND	10
N-Nitroso-Di-n-Propylamine	ND	10	Hexachlorobenzene	ND	10
Hexachloroethane	ND	10	Phenanthrene	ND	10
Nitrobenzene	ND	10	Anthracene	ND	10
Isophorone	ND	10	Di-n-Butylphthalate	ND	10
Benzoic Acid	ND	50	Fluoranthene	ND	10
bis(-2-Chloroethoxy)Methane	ND	10	Pyrene	ND	10
1,2,4-Trichlorobenzene	ND	10	Butylbenzylphthalate	8.6 J	10
Naphthalene	ND	10	3,3'-Dichlorobenzidine	ND	20
4-Chloroaniline	ND	10	Benzo(a)Anthracene	ND	10
Hexachlorobutadiene	ND	10	Bis(2-Ethylhexyl)Phthalate	3.5 J	10
2-Methylnaphthalene	ND	10	Chrysene	ND	10
Hexachlorocyclopentadiene	ND	10	Di-n-Octyl Phthalate	ND	10
2-Chloronaphthalene	ND	10	Benzo(b)fluoranthene	ND	10
2-Nitroaniline	ND	50	Benzo(k)Fluoranthene	ND	10
Dimethyl Phthalate	ND	10	Benzo(a)Pyrene	ND	10
Acenaphthylene	ND	10	Indeno(1,2,3-cd)Pyrene	ND	10
3-Nitroaniline	ND	50	Dibenzo(a,h)Anthracene	ND	10
Acenaphthene	ND	10	Benzo(g,h,i)Perylene	ND	10
Dibenzofuran	ND	10	Benzidine	ND	20
2,4-Dinitrotoluene	ND	10			

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

E1

EPA SAMPLE NUMBER

semi-VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

A2536

Client: US Army, Ft. Monmouth, NJ

Comments: HNU=1.0

Matrix: (soil/water) WATER

Lab Sample ID: Bldg2500 MW1

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: >C1607

Level: LOW

Date Received: NA

% Moisture: 100

Date Analyzed 07/14/93

Extraction: (Sepf/Cont/Sonc) SEPF

Date Extracted 07/09/93

GPC (Y or N): N

Column: DB-5

Dilution Factor: 1

Number TICs Found 7

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

	CAS NUMBER	COMPOUND NAME	RT	EST CONC
1		UNKNOWN	25.51	17
2		UNKNOWN	26.39	18
3		UNKNOWN	28.03	13
4		UNKNOWN	28.81	8
5		UNKNOWN	29.57	9
6		UNKNOWN	30.99	10
7		UNKNOWN	32.36	5

QUANT REPORT

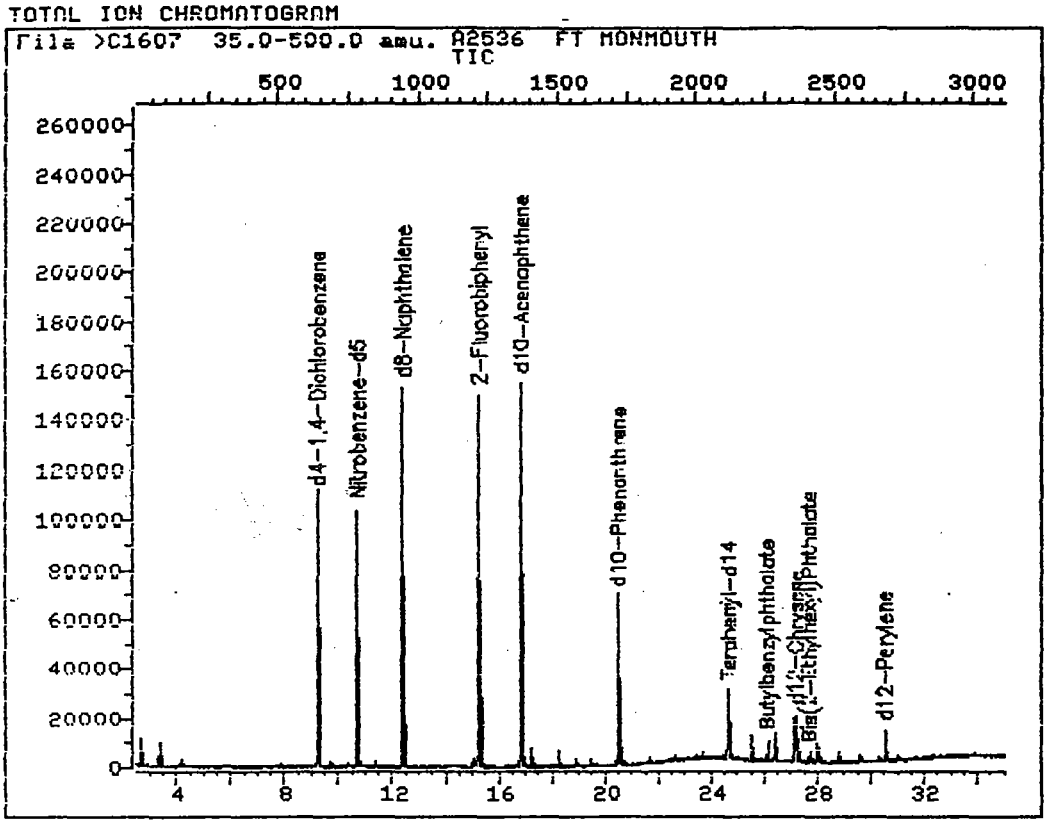
Operator ID: JEFF Quant Rev: 6 Quant Time: 930714 13:03
Output File: ^C1607::QT Injected at: 930714 12:25
Data File: >C1607::DA Dilution Factor: 1.00000
Name: A2536 FT MONMOUTH
Misc: BTL# 2

ID File: ID714C::D5
Title: hSL BNA STD
Last Calibration: 930714 10:40

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	9.21	640	55686	40.00	UG/L	96
8)	*d8-Naphthalene	12.38	944	129457	40.00	UG/L	87
19)	Nitrobenzene-d5	10.69	782	64154	44.56	UG/L	89
3)	*d10-Acenaphthene	16.82	1370	71593	40.00	UG/L	93
8)	2-Fluorobiphenyl	15.23	1217	98045	40.00	UG/L	93
53)	*d10-Phenanthrene	20.47	1720	58939	40.00	UG/L	99
4)	*d12-Chrysene	27.16	2360	17063	40.00	UG/L	93
7)	Terphenyl-d14	24.64	2119	21987	38.24	UG/L	92
68)	Butylbenzylphthalate	26.08	2256	3881	8.61	UG/L	95
71)	Bis(2-Ethylhexyl)Phthalate	27.68	2409	2333	3.54	UG/L	93
3)	*d12-Perylene	30.51	2680	12423	40.00	UG/L	93

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >C1607::DA Quant Output File: ^C1607::QT
Name: A2536 FT MONMOUTH
Misc: BTL# 2

Id File: ID714C::D5
Title: hSL BNA STD
Last Calibration: 930714 10:40

Operator ID: JEFF
Quant Time: 930714 13:03
Injected at: 930714 12:25

21st Century Environmental Inc.
VOLATILE ORGANIC ANALYSIS DATA

JOB NUMBER	US ARMY FT. MONMOUTH NJ	MATRIX	Water
SAMPLE NUMBER	A2537	DILUTION FACTOR	1.00
CLIENT ID	MW-2 BLDG 2500	COMMENTS	HNU ND
DATA FILE	>B0676	DATE ANALYZED	07/13/93

COMPOUND	UG/L	MDL	COMPOUND	UG/L	MDL
Acrolein	ND	50	2-Chloroethylvinylether	ND	10
Acrylonitrile	ND	50	2-Hexanone	ND	10
Chloromethane	ND	10	trans-1,3-Dichloropropene	ND	5
Bromomethane	ND	10	Toluene	ND	5
Vinyl Chloride	ND	10	cis-1,3-Dichloropropene	ND	5
Chloroethane	ND	10	1,1,2,2-Tetrachloroethane	ND	5
Acetone	2.3 JB	10	1,1,2-Trichloroethane	ND	5
1,1-Dichloroethene	ND	5	4-Methyl-2-pentanone	ND	10
Carbon Disulfide	ND	10	Tetrachloroethene	8.8	5
Methylene Chloride	2.6 J	5	Dibromochloromethane	ND	5
1,2-Dichloroethene(trans)	ND	5	Chlorobenzene	ND	5
1,1-Dichloroethane	ND	5	Ethylbenzene	ND	5
Vinyl Acetate	ND	5	m&p-Xylenes	ND	5
2-Butanone	ND	10	o-Xylene	ND	5
Chloroform	ND	5	Styrene	ND	5
1,1,1-Trichloroethane	ND	5	Bromoform	ND	5
Carbon Tetrachloride	ND	5	m-Dichlorobenzene	ND	5
1,2-Dichloroethane	ND	5	p-Dichlorobenzene	ND	5
Benzene	ND	5	o-Dichlorobenzene	ND	5
Trichloroethene	ND	5	Methyl Tertiary Butyl Ether	ND	10
1,2-Dichloropropane	ND	5	Tertiary Butyl Alcohol	ND	50
Bromodichloromethane	ND	5			

SURROGATE COMPOUNDS	% RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	92.8	76 - 114	OK
Toluene-d8	110	88 - 110	OK
Bromofluorobenzene	102	86 - 115	OK

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

MW-2

Lab Name:21st Century Environmental

Client Name: US ARMY FT. MONMOUTH, NJ

Client ID: BLDG 2500

Matrix: (soil/water) WATER

Lab Sample ID: A2537

Sample wt/vol: 5 (g/mL) mL

Lab File ID: >B0676

Level: (low/med) LOW

Date Received: 07/06/93

% Moisture: NA

Date Analyzed: 07/13/93

Column: DB-624

Dilution Factor: 1

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	No Unknowns			

FORM I VOA-TIC 1/87 Rev.

QUANT REPORT

Operator ID: MANAGER Quant Rev: 6 Quant Time: 930713 22:05
Output File: ^B0676::QT Injected at: 930713 21:41
Data File: >B0676::D7 Dilution Factor: 1.00000
Name: A2537
Misc: MW-2 BLDG 2500 5mL

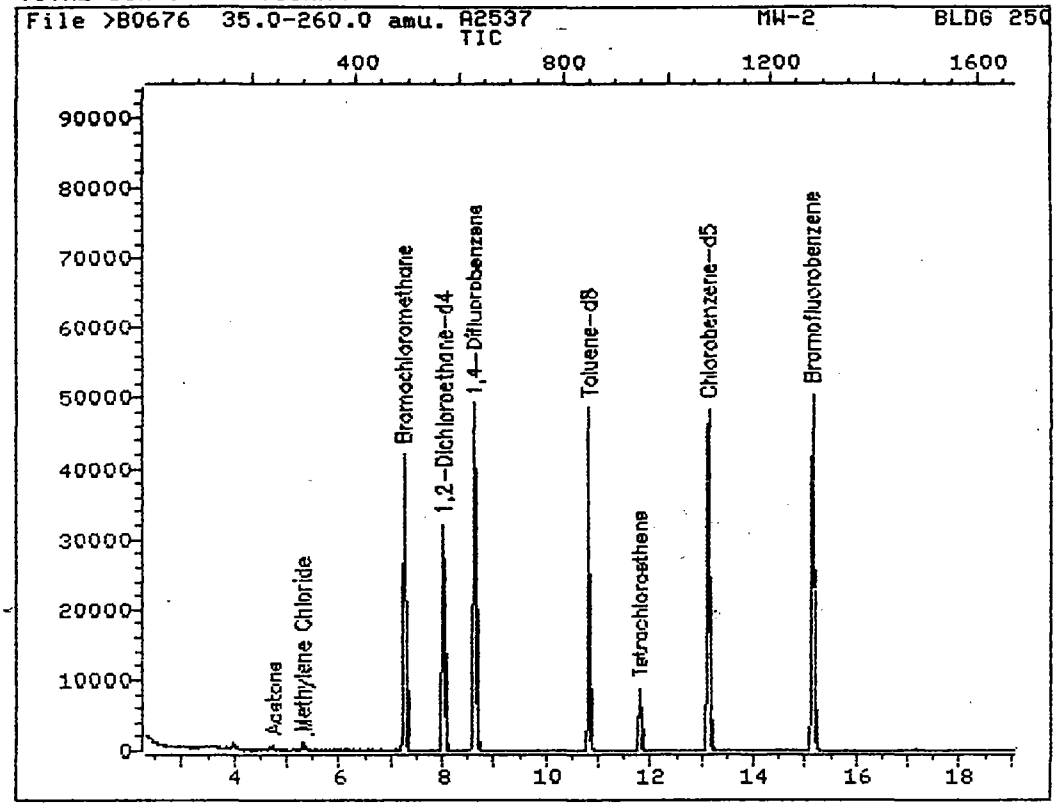
ID File: ID0401::SC
Title: USEPA 624 VOLATILES
Last Calibration: 930713 18:23

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*Bromochloromethane	7.23	490	19923	50.00	UG/L	100
9)	Acetone	4.73	241	1497	2.30	UG/L	92
15)	Methylene Chloride	5.28	296	1553	2.57	UG/L	96
23)	1,2-Dichloroethane-d4	8.01	568	44346	46.40	UG/L	100
24)	*1,4-Difluorobenzene	8.61	628	73015	50.00	UG/L	100
33)	Toluene-d8	10.79	846	64389	55.20	UG/L	100
35)	*Chlorobenzene-d5	13.11	1077	51322	50.00	UG/L	100
40)	Tetrachloroethene	11.76	943	5900	8.76	UG/L	100
48)	Bromofluorobenzene	15.11	1277	34610	51.04	UG/L	100

* Compound is ISTD

00058

TOTAL ION CHROMATOGRAM



Data File: >B0676::D7 Quant Output File: ^B0676::QT
Name: A2537
Misc: MW-2 BLDG 2500 5mL

Id File: ID0401::SC
Title: USEPA 624 VOLATILES
Last Calibration: 930713 18:23

Operator ID: MANAGER
Quant Time: 930713 22:05
Injected at: 930713 21:41

21st Century Environmental Inc.
SEMIVOLATILE ANALYSIS DATA

JOB NUMBER	US Army, Ft. Monmouth, NJ	MATRIX	Water
SAMPLE NUMBER	A2537	DILUTION FACTOR	1.00
CLIENT ID	Bldg 2500, MW2	COMMENTS	HNU=0.0
DATA FILE	>C1608	DATE ANALYZED	07/14/93

COMPOUND	UG/L	MDL	COMPOUND	UG/L	MDL
N-Nitrosodimethylamine	ND	10	2,6-Dinitrotoluene	ND	10
bis(-2-Chloroethyl)Ether	ND	10	Diethylphthalate	ND	10
1,3-Dichlorobenzene	ND	10	4-Chlorophenyl-phenlyether	ND	10
1,4-Dichlorobenzene	ND	10	Fluorene	ND	10
Benzyl Alcohol	ND	10	4-Nitroaniline	ND	50
1,2-Dichlorobenzene	ND	10	N-Nitrosodiphenylamine	ND	10
bis(2-chloroisopropyl)Ether	ND	10	4-Bromophenyl-phenylether	ND	10
N-Nitroso-Di-n-Propylamine	ND	10	Hexachlorobenzene	ND	10
Hexachloroethane	ND	10	Phenanthrene	ND	10
Nitrobenzene	ND	10	Anthracene	ND	10
Isophorone	ND	10	Di-n-Butylphthalate	ND	10
Benzoic Acid	ND	50	Fluoranthene	ND	10
bis(-2-Chloroethoxy)Methane	ND	10	Pyrene	ND	10
1,2,4-Trichlorobenzene	ND	10	Butylbenzylphthalate	2.6 J	10
Naphthalene	ND	10	3,3'-Dichlorobenzidine	ND	20
4-Chloroaniline	ND	10	Benzo(a)Anthracene	ND	10
Hexachlorobutadiene	ND	10	Bis(2-Ethylhexyl)Phthalate	ND	10
2-Methylnaphthalene	ND	10	Chrysene	ND	10
Hexachlorocyclopentadiene	ND	10	Di-n-Octyl Phthalate	ND	10
2-Chloronaphthalene	ND	10	Benzo(b)fluoranthene	ND	10
2-Nitroaniline	ND	50	Benzo(k)Fluoranthene	ND	10
Dimethyl Phthalate	ND	10	Benzo(a)Pyrene	ND	10
Acenaphthylene	ND	10	Indeno(1,2,3-cd)Pyrene	ND	10
3-Nitroaniline	ND	50	Dibenzo(a,h)Anthracene	ND	10
Acenaphthene	ND	10	Benzo(g,h,i)Perylene	ND	10
Dibenzofuran	ND	10	Benzidine	ND	20
2,4-Dinitrotoluene	ND	10			

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

E1

EPA SAMPLE NUMBER

semi-VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

A2537

Client: US Army, Ft. Monmouth, NJ

Comments: HNU= 0.0

Matrix: (soil/water) WATER

Lab Sample ID:Bldg 2500,MW2

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: >C1608

Level: LOW

Date Received: NA

% Moisture: 100

Date Analyzed 07/14/93

Extraction: (Sepf/Cont/Sonc) SEPF

Date Extracted 07/09/93

GPC (Y or N): N

Column: DB-5

Dilution Factor: 1

Number TICs Found 0

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

CAS NUMBER	COMPOUND NAME	RT	EST CONC
	NO UNKNOWN COMPOUNDS IDENTIFIED		

QUANT REPORT

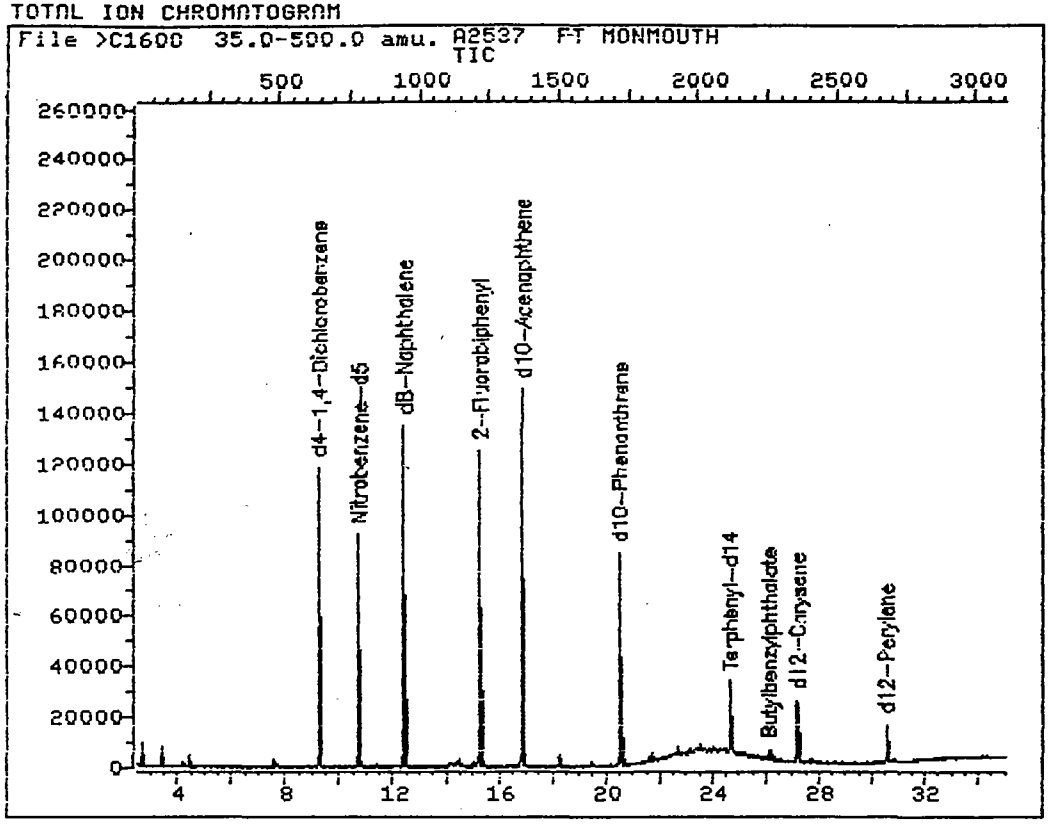
Operator ID: JEFF Quant Rev: 6 Quant Time: 930714 13:52
Output File: ^C1608::QT Injected at: 930714 13:14
Data File: >C1608::DA Dilution Factor: 1.00000
Name: A2537 FT MONMOUTH
Misc: BTL# 3

ID File: ID714C::D5
Title: hSL BNA STD
Last Calibration: 930714 10:40

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	9.22	641	51226	40.00	UG/L	96
3)	*d8-Naphthalene	12.38	944	119163	40.00	UG/L	87
19)	Nitrobenzene-d5	10.69	782	54676	41.26	UG/L	88
33)	*d10-Acenaphthene	16.83	1370	69156	40.00	UG/L	95
38)	2-Fluorobiphenyl	15.24	1218	79624	33.63	UG/L	95
53)	*d10-Phenanthrene	20.49	1721	68956	40.00	UG/L	99
64)	*d12-Chrysene	27.16	2359	22814	40.00	UG/L	90
67)	Terphenyl-d14	24.64	2118	22343	29.06	UG/L	95
68)	Butylbenzylphthalate	26.08	2255	1556	2.58	UG/L	94
73)	*d12-Perylene	30.51	2679	15625	40.00	UG/L	94

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >C1608::DA Quant Output File: ^C1608::QT
Name: A2537 FT MONMOUTH
Misc: BTL# 3

Id File: ID714C::D5
Title: hSL BNA STD
Last Calibration: 930714 10:40

Operator ID: JEFF
Quant Time: 930714 13:52
Injected at: 930714 13:14

21st Century Environmental Inc.
VOLATILE ORGANIC ANALYSIS DATA

JOB NUMBER	US ARMY FT. MONMOUTH NJ	MATRIX	Water
SAMPLE NUMBER	A2538	DILUTION FACTOR	1.00
CLIENT ID	MW-3 BLDG 2500	COMMENTS	HNU 4.60
DATA FILE	>B0677	DATE ANALYZED	07/13/93

COMPOUND	UG/L		MDL	COMPOUND	UG/L	MDL
Acrolein	ND		50	2-Chloroethylvinylether	ND	10
Acrylonitrile	ND		50	2-Hexanone	ND	10
Chloromethane	ND		10	trans-1,3-Dichloropropene	ND	5
Bromomethane	ND		10	Toluene	ND	5
Vinyl Chloride	ND		10	cis-1,3-Dichloropropene	ND	5
Chloroethane	ND		10	1,1,2,2-Tetrachloroethane	ND	5
Acetone	ND	B	10	1,1,2-Trichloroethane	ND	5
1,1-Dichloroethene	ND		5	4-Methyl-2-pentanone	ND	10
Carbon Disulfide	ND		10	Tetrachloroethene	ND	5
Methylene Chloride	ND		5	Dibromochloromethane	ND	5
1,2-Dichloroethene(trans)	ND		5	Chlorobenzene	ND	5
1,1-Dichloroethane	ND		5	Ethylbenzene	ND	5
Vinyl Acetate	ND		5	m&p-Xylenes	ND	5
2-Butanone	ND		10	o-Xylene	ND	5
Chloroform	ND		5	Styrene	ND	5
1,1,1-Trichloroethane	ND		5	Bromoform	ND	5
Carbon Tetrachloride	ND		5	m-Dichlorobenzene	ND	5
1,2-Dichloroethane	ND		5	p-Dichlorobenzene	ND	5
Benzene	ND		5	o-Dichlorobenzene	ND	5
Trichloroethene	ND		5	Methyl Tertiary Butyl Ether	ND	10
1,2-Dichloropropane	ND		5	Tertiary Butyl Alcohol	ND	50
Bromodichloromethane	ND		5			

SURROGATE COMPOUNDS	% RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	97.5	76 - 114	OK
Toluene-d8	110	88 - 110	OK
Bromofluorobenzene	98.1	86 - 115	OK

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

E1

EPA SAMPLE NUMBER

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

MW-3

Client Name : US ARMY FT. MONMOUTH,NJ

Client ID: BLDG 2500

Matrix: (soil/water) WATER

Lab Sample ID: A2538

Sample wt/vol: 5 (g/mL) mL

Lab File ID: >B0677

Level: LOW

Date Received: 07/06/93

% Moisture: 100

Date Analyzed 07/13/93

Column: CAP

Dilution Factor: 1

Number TICs Found 7

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

	CAS NUMBER	COMPOUND NAME	RT	EST CONC
1	611143	Benzene, 1-ethyl-2-methyl- (9CI)	15.91	16
2	622968	Benzene, 1-ethyl-4-methyl- (9CI)	16.27	9
3	620144	Benzene, 1-ethyl-3-methyl- (9CI)	17.34	10
4	93538	Benzeneacetaldehyde, .alpha.-methyl- (9CI)	17.70	5
5	25155151	Benzene, methyl(1-methylethyl)- (9CI)	17.85	5
6	1120214	Undecane (8CI9CI)	18.09	12
7	120729	1H-Indole (9CI)	18.75	9

QUANT REPORT

Operator ID: MANAGER Quant Rev: 6 Quant Time: 930713 22:31
Output File: ^B0677::QT Injected at: 930713 22:08
Data File: >B0677::D7 Dilution Factor: 1.00000
Name: A2538
Misc: MW-3 BLDG 2500 5mL

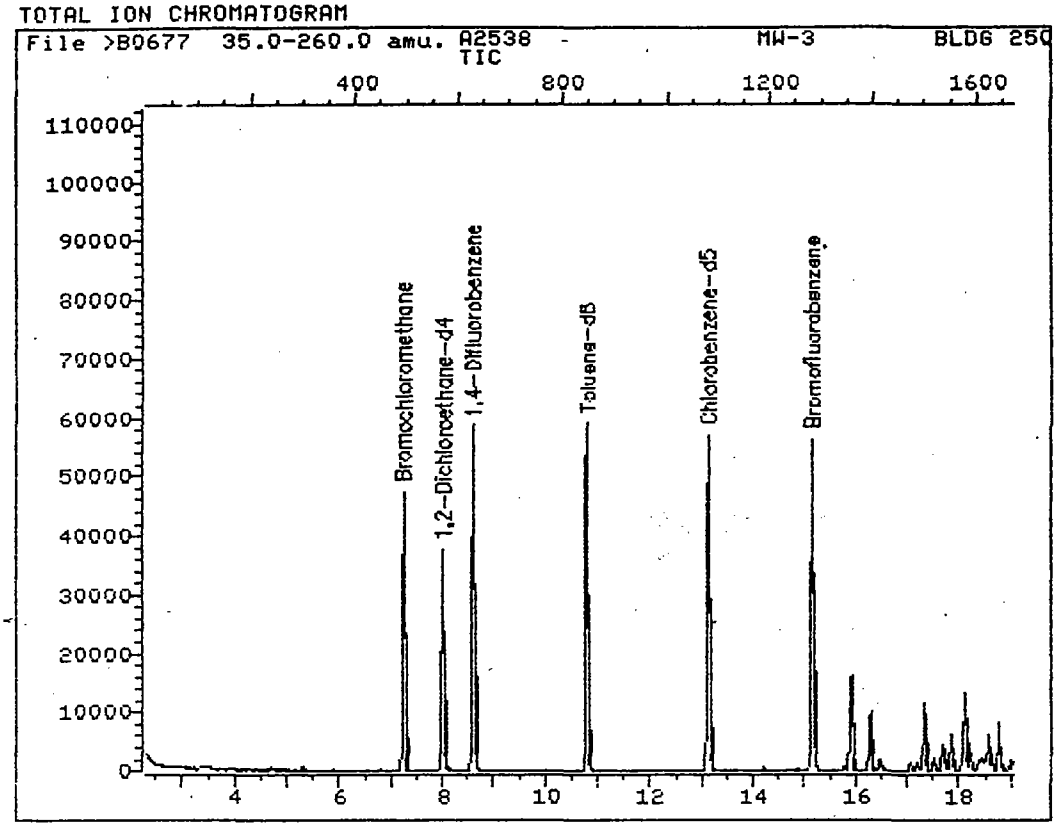
ID File: ID0401::SC
Title: USEPA 624 VOLATILES
Last Calibration: 930713 18:23

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*Bromochloromethane	7.22	489	22131	50.00	UG/L	100
23)	1,2-Dichloroethane-d4	8.00	567	51726	48.73	UG/L	100
24)	*1,4-Difluorobenzene	8.59	626	86752	50.00	UG/L	100
33)	Toluene-d8	10.78	845	76210	54.99	UG/L	100
35)	*Chlorobenzene-d5	13.11	1077	60455	50.00	UG/L	100
48)	Bromofluorobenzene	15.13	1279	39195	49.07	UG/L	100

* Compound is ISTD

00066

TOTAL ION CHROMATOGRAM



Data File: >B0677::D7 Quant Output File: ^B0677::QT
Name: A2538
Misc: MW-3 BLDG 2500 5mL

Id File: ID0401::SC
Title: USEPA 624 VOLATILES
Last Calibration: 930713 18:23

Operator ID: MANAGER
Quant Time: 930713 22:31
Injected at: 930713 22:08

21st Century Environmental Inc.
SEMIVOLATILE ANALYSIS DATA

JOB NUMBER	US Army, Ft. Monmouth, NJ	MATRIX	Water
SAMPLE NUMBER	A2538	DILUTION FACTOR	1.00
CLIENT ID	Bldg 2500, MW-3	COMMENTS	HNU= 4.6
DATA FILE	>C1645	DATE ANALYZED	07/16/93

COMPOUND	UG/L	MDL	COMPOUND	UG/L	MDL
N-Nitrosodimethylamine	ND	10	2,6-Dinitrotoluene	ND	10
bis(-2-Chloroethyl)Ether	ND	10	Diethylphthalate	ND	10
1,3-Dichlorobenzene	ND	10	4-Chlorophenyl-phenlyether	ND	10
1,4-Dichlorobenzene	ND	10	Fluorene	ND	10
Benzyl Alcohol	ND	10	4-Nitroaniline	ND	50
1,2-Dichlorobenzene	ND	10	N-Nitrosodiphenylamine	ND	10
bis(2-chloroisopropyl)Ether	ND	10	4-Bromophenyl-phenylether	ND	10
N-Nitroso-Di-n-Propylamine	ND	10	Hexachlorobenzene	ND	10
Hexachloroethane	ND	10	Phenanthrene	ND	10
Nitrobenzene	ND	10	Anthracene	ND	10
Isophorone	ND	10	Di-n-Butylphthalate	ND	10
Benzoic Acid	ND	50	Fluoranthene	ND	10
bis(-2-Chloroethoxy)Methane	ND	10	Pyrene	ND	10
1,2,4-Trichlorobenzene	ND	10	Butylbenzylphthalate	3.7 J	10
Naphthalene	ND	10	3,3'-Dichlorobenzidine	ND	20
4-Chloroaniline	ND	10	Benzo(a)Anthracene	ND	10
Hexachlorobutadiene	ND	10	Bis(2-Ethylhexyl)Phthalate	2.8 J	10
2-Methylnaphthalene	ND	10	Chrysene	ND	10
Hexachlorocyclopentadiene	ND	10	Di-n-Octyl Phthalate	ND	10
2-Chloronaphthalene	ND	10	Benzo(b)fluoranthene	ND	10
2-Nitroaniline	ND	50	Benzo(k)Fluoranthene	ND	10
Dimethyl Phthalate	ND	10	Benzo(a)Pyrene	ND	10
Acenaphthylene	ND	10	Indeno(1,2,3-cd)Pyrene	ND	10
3-Nitroaniline	ND	50	Dibenzo(a,h)Anthracene	ND	10
Acenaphthene	ND	10	Benzo(g,h,i)Perylene	ND	10
Dibenzofuran	ND	10	Benzidine	ND	20
2,4-Dinitrotoluene	ND	10			

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

E1

EPA SAMPLE NUMBER

semi-VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

A2538

Client: US Army, Ft. Monmouth, NJ

Comments: HNU=4.6

Matrix: (soil/water) WATER

Lab Sample ID:Bldg 2500,MW3

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: >C1645

Level: LOW

Date Received: NA

% Moisture: 100

Date Analyzed 07/16/93

Extraction: (Sepf/Cont/Sonc) SEPF

Date Extracted 07/09/93

GPC (Y or N): N

Column: DB-5

Dilution Factor: 1

Number TICs Found 15

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

CAS NUMBER	COMPOUND NAME	RT	EST CONC
1	UNKNOWN	10.98	3
2	UNKNOWN	12.67	7
3	UNKNOWN	14.21	13
4	UNKNOWN	15.65	14
5	UNKNOWN	16.33	5
6	UNKNOWN	16.49	9
7	UNKNOWN	16.98	18
8	UNKNOWN	17.68	7
9	UNKNOWN	18.84	24
10	UNKNOWN	18.95	7
11	UNKNOWN	19.45	35
12	UNKNOWN	19.52	38
13	UNKNOWN	20.68	15
14	UNKNOWN	21.66	15
15	UNKNOWN	22.68	8

QUANT REPORT

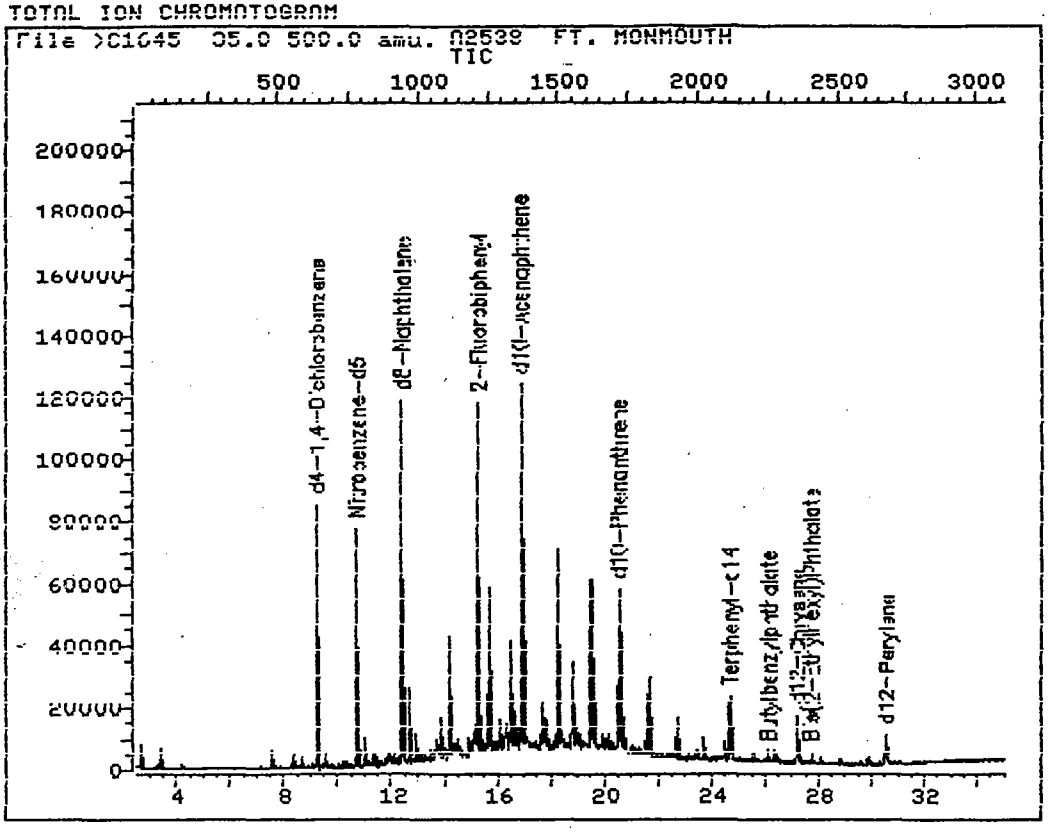
perator ID: JEFF Quant Rev: 6 Quant Time: 930716 20:01
Output File: ^C1645::QT Injected at: 930716 19:23
Data File: >C1645::D2 Dilution Factor: 1.00000
ame: A2538 FT. MONMOUTH
isc: BTL# 3

D File: ID716C::SC
itle: hSL BNA STD
Last Calibration: 930716 16:39

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	9.22	641	38063	40.00	UG/L	96
8)	*d8-Naphthalene	12.39	944	102591	40.00	UG/L	86
9)	Nitrobenzene-d5	10.70	782	45940	41.15	UG/L	90
33)	*d10-Acenaphthene	16.83	1368	54041	40.00	UG/L	93
8)	2-Fluorobiphenyl	15.25	1217	67967	33.62	UG/L	94
3)	*d10-Phenanthrene	20.50	1717	42159	40.00	UG/L	99
64)	*d12-Chrysene	27.18	2356	13985	40.00	UG/L	90
67)	Terphenyl-d14	24.66	2115	15490	37.49	UG/L	97
8)	Butylbenzylphthalate	26.09	2252	1491	3.69	UG/L	77
1)	Bis(2-Ethylhexyl)Phthalate	27.69	2405	1702	2.81	UG/L	86
73)	*d12-Perylene	30.53	2677	9615	40.00	UG/L	92

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >C1645::D2 Quant Output File: ^C1645::QT
Name: A2538 FT. MONMOUTH
Misc: BTL# 3

Id File: ID716C::SC
Title: hSL BNA STD
Last Calibration: 930716 16:39

Operator ID: JEFF
Quant Time: 930716 20:01
Injected at: 930716 19:23

21st Century Environmental Inc.
VOLATILE ORGANIC ANALYSIS DATA

JOB NUMBER	US ARMY FT. MONMOUTH NJ	MATRIX	Water
SAMPLE NUMBER	A2539	DILUTION FACTOR	1.00
CLIENT ID	MW-4 BLDG 2500	COMMENTS	HNU 1.40
DATA FILE	>B0678	DATE ANALYZED	07/13/93

COMPOUND	UG/L	MDL	COMPOUND	UG/L	MDL
Acrolein	ND	50	2-Chloroethylvinylether	ND	10
Acrylonitrile	ND	50	2-Hexanone	ND	10
Chloromethane	ND	10	trans-1,3-Dichloropropene	ND	5
Bromomethane	ND	10	Toluene	ND	5
Vinyl Chloride	ND	10	cis-1,3-Dichloropropene	ND	5
Chloroethane	ND	10	1,1,2,2-Tetrachloroethane	ND	5
Acetone	2.9 JB	10	1,1,2-Trichloroethane	ND	5
1,1-Dichloroethene	ND	5	4-Methyl-2-pentanone	ND	10
Carbon Disulfide	ND	10	Tetrachloroethene	ND	5
Methylene Chloride	1.2 J	5	Dibromochloromethane	ND	5
1,2-Dichloroethene(trans)	ND	5	Chlorobenzene	ND	5
1,1-Dichloroethane	ND	5	Ethylbenzene	ND	5
Vinyl Acetate	ND	5	m&p-Xylenes	ND	5
2-Butanone	ND	10	o-Xylene	ND	5
Chloroform	ND	5	Styrene	ND	5
1,1,1-Trichloroethane	ND	5	Bromoform	ND	5
Carbon Tetrachloride	ND	5	m-Dichlorobenzene	ND	5
1,2-Dichloroethane	ND	5	p-Dichlorobenzene	ND	5
Benzene	ND	5	o-Dichlorobenzene	ND	5
Trichloroethene	ND	5	Methyl Tertiary Butyl Ether	ND	10
1,2-Dichloropropane	ND	5	Tertiary Butyl Alcohol	ND	50
Bromodichloromethane	ND	5			

SURROGATE COMPOUNDS	% RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	97.6	76 - 114	OK
Toluene-d8	111	88 - 110	OUT
Bromofluorobenzene	100	86 - 115	OK

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

00072

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

MW-4

Lab Name:21st Century Environmental

Client Name: US ARMY FT. MONMOUTH, NJ Client ID: BLDG 2500

Matrix: (soil/water) WATER Lab Sample ID: A2539

Sample wt/vol: 5 (g/mL) mL Lab File ID: >B0678

Level: (low/med) LOW Date Received: 07/06/93

% Moisture: NA Date Analyzed: 07/13/93

Column: DB-624 Dilution Factor: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	No Unknowns			

FORM I VOA-TIC 1/87 Rev.

QUANT REPORT

Operator ID: MANAGER Quant Rev: 6 Quant Time: 930713 22:58
Output File: ^B0678::QT Injected at: 930713 22:34
Data File: >B0678::D7 Dilution Factor: 1.00000
Name: A2539
Misc: MW-4 BLDG 2500 5mL

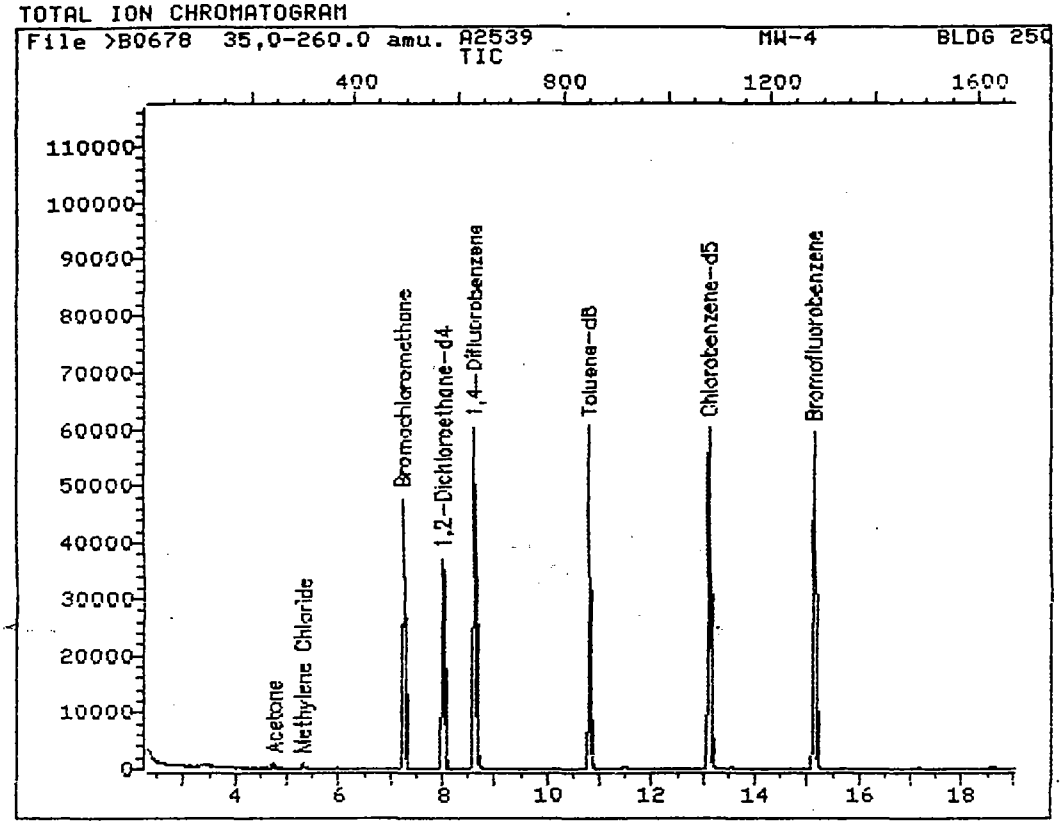
ID File: ID0401::SC
Title: USEPA 624 VOLATILES
Last Calibration: 930713 18:23

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*Bromochloromethane	7.24	491	22133	50.00	UG/L	100
9)	Acetone	4.75	243	2129	2.95	UG/L	72
15)	Methylene Chloride	5.30	298	810	1.21	UG/L	40
23)	1,2-Dichloroethane-d4	8.01	568	51818	48.81	UG/L	100
24)	*1,4-Difluorobenzene	8.61	628	90400	50.00	UG/L	100
33)	Toluene-d8	10.78	845	79920	55.34	UG/L	100
35)	*Chlorobenzene-d5	13.11	1077	63271	50.00	UG/L	100
48)	Bromofluorobenzene	15.12	1278	41828	50.04	UG/L	100

* Compound is ISTD

00074

TOTAL ION CHROMATOGRAM



Data File: >B0678::D7 Quant Output File: ^B0678::QT
Name: A2539
Misc: MW-4 BLDG 2500 5mL

Id File: ID0401::SC
Title: USEPA 624 VOLATILES
Last Calibration: 930713 18:23

Operator ID: MANAGER
Quant Time: 930713 22:58
Injected at: 930713 22:34

QUANT REPORT

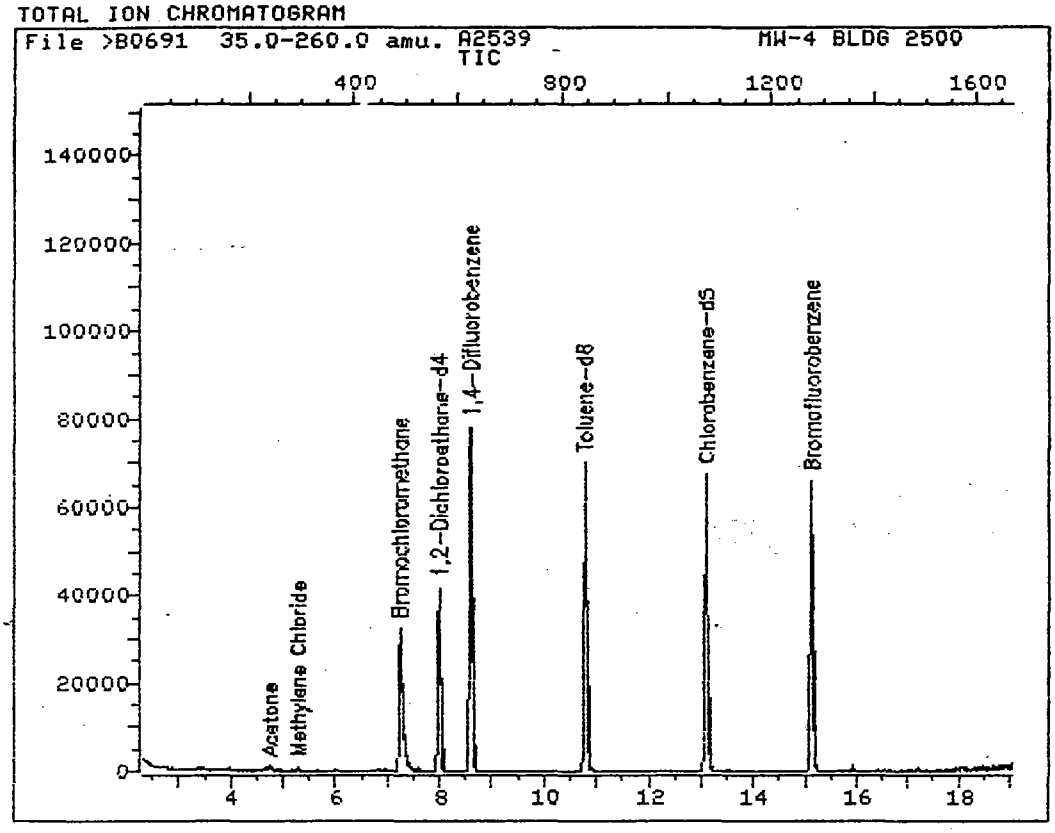
Operator ID: MANAGER Quant Rev: 6 Quant Time: 930714 15:16
Output File: ^B0691::QT Injected at: 930714 14:50
Data File: >B0691::D7 Dilution Factor: 1.00000
Name: A2539
Misc: MW-4 BLDG 2500

ID File: ID0401::SC
Title: USEPA 624 VOLATILES
Last Calibration: 930714 13:59

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*Bromochloromethane	7.22	489	21852	50.00	UG/L	100
9)	Acetone	4.74	242	2461	3.93	UG/L	85
15)	Methylene Chloride	5.27	295	940	1.55	UG/L	99
23)	1,2-Dichloroethane-d4	7.98	565	57251	51.71	UG/L	100
24)	*1,4-Difluorobenzene	8.58	625	115028	50.00	UG/L	100
33)	Toluene-d8	10.75	842	91662	50.01	UG/L	100
35)	*Chlorobenzene-d5	13.08	1074	71436	50.00	UG/L	100
48)	Bromofluorobenzene	15.10	1276	48405	49.78	UG/L	100

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >B0691::D7 Quant Output File: ^B0691::QT
Name: A2539
Misc: MW-4 BLDG 2500

Id File: ID0401::SC
Title: USEPA 624 VOLATILES
Last Calibration: 930714 13:59

Operator ID: MANAGER
Quant Time: 930714 15:16
Injected at: 930714 14:50

21st Century Environmental Inc.
SEMIVOLATILE ANALYSIS DATA

JOB NUMBER	US Army, Ft. Monmouth, NJ	MATRIX	Water
SAMPLE NUMBER	A2539	DILUTION FACTOR	1.00
CLIENT ID	Bldg 2500, MW4	COMMENTS	HNU=1.4
DATA FILE	>C1610	DATE ANALYZED	07/14/93

COMPOUND	UG/L	MDL	COMPOUND	UG/L	MDL
N-Nitrosodimethylamine	ND	10	2,6-Dinitrotoluene	ND	10
bis(-2-Chloroethyl)Ether	ND	10	Diethylphthalate	ND	10
1,3-Dichlorobenzene	ND	10	4-Chlorophenyl-phenlyether	ND	10
1,4-Dichlorobenzene	ND	10	Fluorene	ND	10
Benzyl Alcohol	1.8 J	10	4-Nitroaniline	ND	50
1,2-Dichlorobenzene	ND	10	N-Nitrosodiphenylamine	ND	10
bis(2-chloroisopropyl)Ether	ND	10	4-Bromophenyl-phenylether	ND	10
N-Nitroso-Di-n-Propylamine	ND	10	Hexachlorobenzene	ND	10
Hexachloroethane	ND	10	Phenanthrene	ND	10
Nitrobenzene	ND	10	Anthracene	ND	10
Isophorone	ND	10	Di-n-Butylphthalate	ND	10
Benzoic Acid	ND	50	Fluoranthene	ND	10
bis(-2-Chloroethoxy)Methane	ND	10	Pyrene	ND	10
1,2,4-Trichlorobenzene	ND	10	Butylbenzylphthalate	42	10
Naphthalene	ND	10	3,3'-Dichlorobenzidine	ND	20
4-Chloroaniline	ND	10	Benzo(a)Anthracene	ND	10
Hexachlorobutadiene	ND	10	Bis(2-Ethylhexyl)Phthalate	1.1 J	10
2-Methylnaphthalene	ND	10	Chrysene	ND	10
Hexachlorocyclopentadiene	ND	10	Di-n-Octyl Phthalate	ND	10
2-Chloronaphthalene	ND	10	Benzo(b)fluoranthene	ND	10
2-Nitroaniline	ND	50	Benzo(k)Fluoranthene	ND	10
Dimethyl Phthalate	ND	10	Benzo(a)Pyrene	ND	10
Acenaphthylene	ND	10	Indeno(1,2,3-cd)Pyrene	ND	10
3-Nitroaniline	ND	50	Dibenzo(a,h)Anthracene	ND	10
Acenaphthene	ND	10	Benzo(g,h,i)Perylene	ND	10
Dibenzofuran	ND	10	Benzidine	ND	20
2,4-Dinitrotoluene	ND	10			

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

E1

semi-VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NUMBER

A2539

Client Name: US Army, Ft. Monmouth, NJ

Comments: HNU=1.4

Matrix: (soil/water) WATER

Lab Sample ID:Bldg 2500,MW4

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: >C1610

Level: LOW

Date Received: NA

% Moisture: 100

Date Analyzed 07/14/93

Extraction: (Sepf/Cont/Sonc) SEPF

Date Extracted 07/09/93

GPC (Y or N): N

Column: DB-5

Dilution Factor: 1

Number TICs Found 2

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

CAS NUMBER	COMPOUND NAME	RT	EST CONC
1	UNKNOWN	24.49	4
2	UNKNOWN	29.84	5

QUANT REPORT

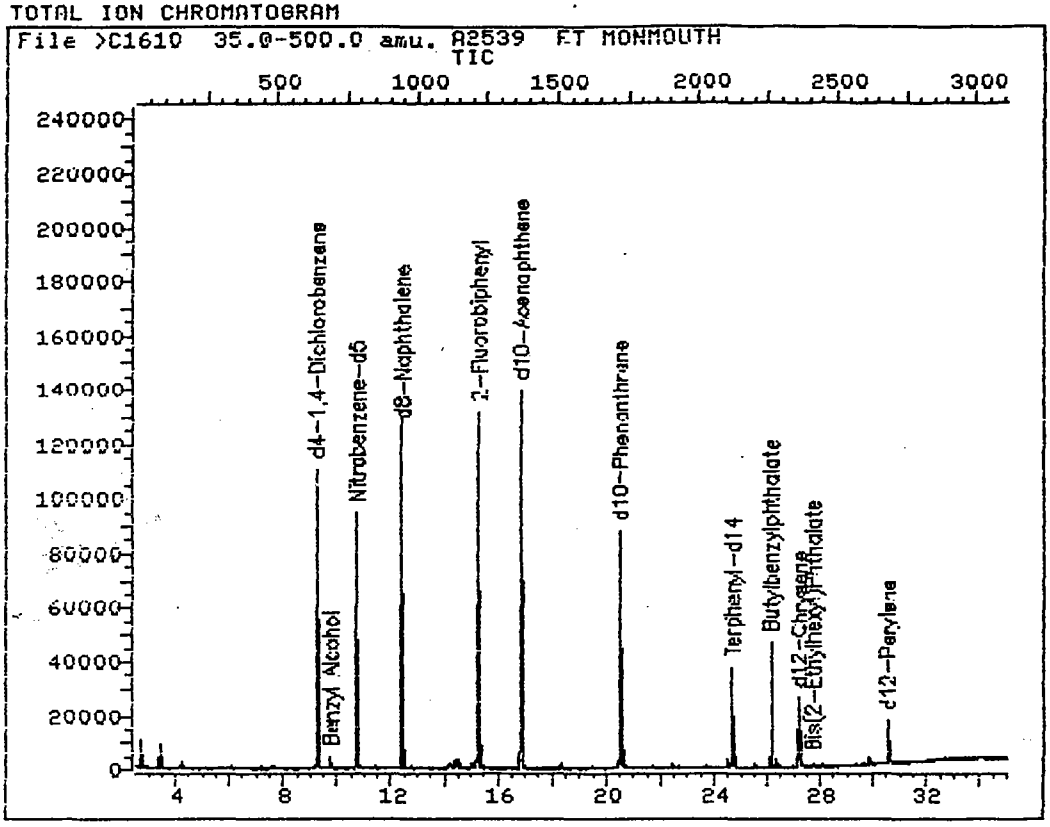
perator ID: JEFF Quant Rev: 6 Quant Time: 930714 15:39
Output File: ^C1610::QT Injected at: 930714 15:01
ata File: >C1610::DA Dilution Factor: 1.00000
ame: A2539 FT MONMOUTH
Misc: BTL# 5

D File: ID714C::D5
itle: hSL BNA STD
Last Calibration: 930714 10:40

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	9.22	640	48695	40.00	UG/L	98
1)	Benzyl Alcohol	9.74	690	1275	1.83	UG/L	89
18)	*d8-Naphthalene	12.38	943	116979	40.00	UG/L	86
19)	Nitrobenzene-d5	10.69	781	54917	42.22	UG/L	91
3)	*d10-Acenaphthene	16.82	1369	65856	40.00	UG/L	98
8)	2-Fluorobiphenyl	15.23	1217	80604	35.75	UG/L	91
53)	*d10-Phenanthrene	20.47	1720	72881	40.00	UG/L	99
4)	*d12-Chrysene	27.16	2361	23495	40.00	UG/L	91
7)	Terphenyl-d14	24.64	2119	28798	36.37	UG/L	98
68)	Butylbenzylphthalate	26.08	2257	25974	41.83	UG/L	97
71)	Bis(2-Ethylhexyl)Phthalate	27.68	2410	966	1.06	UG/L	93
3)	*d12-Perylene	30.50	2681	16745	40.00	UG/L	95

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >C1610::DA Quant Output File: ^C1610::QT
Name: A2539 FT MONMOUTH
Misc: BTL# 5

Id File: ID714C::D5
Title: hSL BNA STD
Last Calibration: 930714 10:40

Operator ID: JEFF
Quant Time: 930714 15:39
Injected at: 930714 15:01

21st Century Environmental Inc.
VOLATILE ORGANIC ANALYSIS DATA

JOB NUMBER	US ARMY FT. MONMOUTH NJ	MATRIX	Water
SAMPLE NUMBER	A2540	DILUTION FACTOR	1.00
CLIENT ID	MW-4 DUP BLDG 2500	COMMENTS	HNU 1.40
DATA FILE	>80679	DATE ANALYZED	07/13/93

COMPOUND	UG/L	MDL	COMPOUND	UG/L	MDL
Acrolein	ND	50	2-Chloroethylvinylether	ND	10
Acrylonitrile	ND	50	2-Hexanone	ND	10
Chloromethane	ND	10	trans-1,3-Dichloropropene	ND	5
Bromomethane	ND	10	Toluene	ND	5
Vinyl Chloride	ND	10	cis-1,3-Dichloropropene	ND	5
Chloroethane	ND	10	1,1,2,2-Tetrachloroethane	ND	5
Acetone	3.8 JB	10	1,1,2-Trichloroethane	ND	5
1,1-Dichloroethene	ND	5	4-Methyl-2-pentanone	ND	10
Carbon Disulfide	ND	10	Tetrachloroethene	ND	5
Methylene Chloride	ND	5	Dibromochloromethane	ND	5
1,2-Dichloroethene(trans)	ND	5	Chlorobenzene	ND	5
1,1-Dichloroethane	ND	5	Ethylbenzene	ND	5
Vinyl Acetate	ND	5	m&p-Xylenes	ND	5
2-Butanone	ND	10	o-Xylene	ND	5
Chloroform	ND	5	Styrene	ND	5
1,1,1-Trichloroethane	ND	5	Bromoform	ND	5
Carbon Tetrachloride	ND	5	m-Dichlorobenzene	ND	5
1,2-Dichloroethane	ND	5	p-Dichlorobenzene	ND	5
Benzene	ND	5	o-Dichlorobenzene	ND	5
Trichloroethene	ND	5	Methyl Tertiary Butyl Ether	ND	10
1,2-Dichloropropane	ND	5	Tertiary Butyl Alcohol	ND	50
Bromodichloromethane	ND	5			

SURROGATE COMPOUNDS	% RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	97.7	76 - 114	OK
Toluene-d8	110	88 - 110	OK
Bromofluorobenzene	101	86 - 115	OK

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

MW-4 DUP

Lab Name: 21st Century Environmental

Client Name: US ARMY FT. MONMOUTH, NJ

Client ID: BLDG 2500

Matrix: (soil/water) WATER

Lab Sample ID: A2540

Sample wt/vol: 5 (g/mL) mL

Lab File ID: >B0679

Level: (low/med) LOW

Date Received: 07/06/93

% Moisture: NA

Date Analyzed: 07/13/93

Column: DB-624

Dilution Factor: 1

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	No Unknowns			

FORM I VOA-TIC 1/87 Rev.

QUANT REPORT

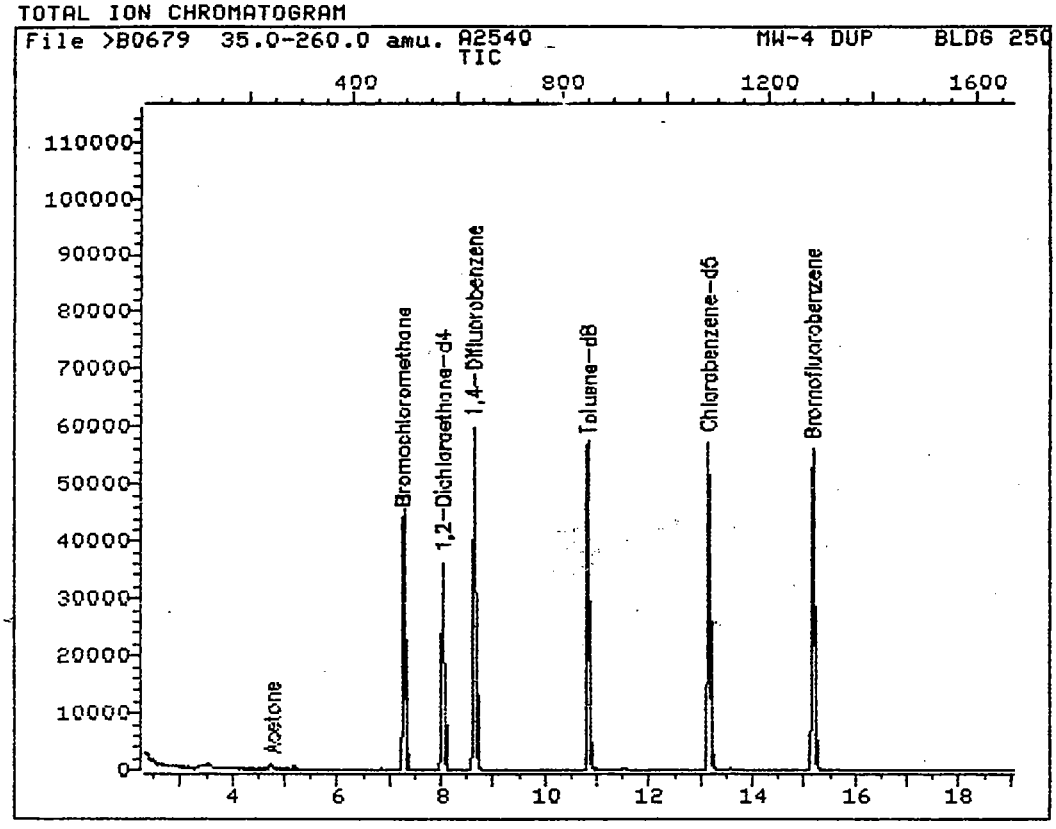
Operator ID: MANAGER Quant Rev: 6 Quant Time: 930713 23:25
Output File: ^B0679::QT Injected at: 930713 23:01
Data File: >B0679::D7 Dilution Factor: 1.00000
Name: A2540
Misc: MW-4 DUP BLDG 2500 5mL

ID File: ID0401::SC
Title: USEPA 624 VOLATILES
Last Calibration: 930713 18:23

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*Bromochloromethane	7.25	492	21441	50.00	UG/L	100
9)	Acetone	4.75	243	2666	3.81	UG/L	80
23)	1,2-Dichloroethane-d4	8.03	570	50230	48.84	UG/L	100
24)	*1,4-Difluorobenzene	8.63	630	87091	50.00	UG/L	100
33)	Toluene-d8	10.81	848	76187	54.76	UG/L	100
35)	*Chlorobenzene-d5	13.14	1080	60318	50.00	UG/L	100
48)	Bromofluorobenzene	15.15	1281	40055	50.26	UG/L	100

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >B0679::D7 Quant Output File: ^B0679::QT
Name: A2540
Misc: MW-4 DUP BLDG 2500 5mL

Id File: ID0401::SC
Title: USEPA 624 VOLATILES
Last Calibration: 930713 18:23

Operator ID: MANAGER
Quant Time: 930713 23:25
Injected at: 930713 23:01

21st Century Environmental Inc.
SEMIVOLATILE ANALYSIS DATA

JOB NUMBER	US Army, Ft. Monmouth, NJ	MATRIX	Water
SAMPLE NUMBER	A2540	DILUTION FACTOR	1.00
CLIENT ID	Bldg 2500, MW4 dup	COMMENTS	HNU= 1.4
DATA FILE	>C1611	DATE ANALYZED	07/14/93

COMPOUND	UG/L	MDL	COMPOUND	UG/L	MDL
N-Nitrosodimethylamine	ND	10	2,6-Dinitrotoluene	ND	10
bis(-2-Chloroethyl)Ether	ND	10	Diethylphthalate	ND	10
1,3-Dichlorobenzene	ND	10	4-Chlorophenyl-phenlyether	ND	10
1,4-Dichlorobenzene	ND	10	Fluorene	ND	10
Benzyl Alcohol	2.0 J	10	4-Nitroaniline	ND	50
1,2-Dichlorobenzene	ND	10	N-Nitrosodiphenylamine	ND	10
bis(2-chloroisopropyl)Ether	ND	10	4-Bromophenyl-phenylether	ND	10
N-Nitroso-Di-n-Propylamine	ND	10	Hexachlorobenzene	ND	10
Hexachloroethane	ND	10	Phenanthrene	ND	10
Nitrobenzene	ND	10	Anthracene	ND	10
Isophorone	ND	10	Di-n-Butylphthalate	ND	10
Benzoic Acid	ND	50	Fluoranthene	ND	10
bis(-2-Chloroethoxy)Methane	ND	10	Pyrene	ND	10
1,2,4-Trichlorobenzene	ND	10	Butylbenzylphthalate	37	10
Naphthalene	ND	10	3,3'-Dichlorobenzidine	ND	20
4-Chloroaniline	ND	10	Benzo(a)Anthracene	ND	10
Hexachlorobutadiene	ND	10	Bis(2-Ethylhexyl)Phthalate	1.1 J	10
2-Methylnaphthalene	ND	10	Chrysene	ND	10
Hexachlorocyclopentadiene	ND	10	Di-n-Octyl Phthalate	ND	10
2-Chloronaphthalene	ND	10	Benzo(b)fluoranthene	ND	10
2-Nitroaniline	ND	50	Benzo(k)Fluoranthene	ND	10
Dimethyl Phthalate	ND	10	Benzo(a)Pyrene	ND	10
Acenaphthylene	ND	10	Indeno(1,2,3-cd)Pyrene	ND	10
3-Nitroaniline	ND	50	Dibenzo(a,h)Anthracene	ND	10
Acenaphthene	ND	10	Benzo(g,h,i)Perylene	ND	10
Dibenzofuran	ND	10	Benzidine	ND	20
2,4-Dinitrotoluene	ND	10			

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

E1

semi-VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NUMBER

A2540

Client: US Army, Ft. Monmouth, NJ

Comments: HNU= 1.4

Matrix: (soil/water) WATER

Lab Sample ID:Bldg 2500,MW4DUP

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: >C1611

Level: LOW

Date Received: NA

% Moisture: 100

Date Analyzed 07/14/93

Extraction: (Sepf/Cont/Sonc) SEPF

Date Extracted 07/09/93

GPC (Y or N): N

Column: DB-5

Dilution Factor: 1

Number TICs Found 2

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

CAS NUMBER	COMPOUND NAME	RT	EST CONC
1	UNKNOWN	24.48	5
2	UNKNOWN	29.84	7

QUANT REPORT

Operator ID: JEFF Quant Rev: 6 Quant Time: 930714 16:29
Output File: ^C1611::QT Injected at: 930714 15:51
Data File: >C1611::DA Dilution Factor: 1.00000
Name: A2540 FT MONMOUTH
Misc: BTL# 6

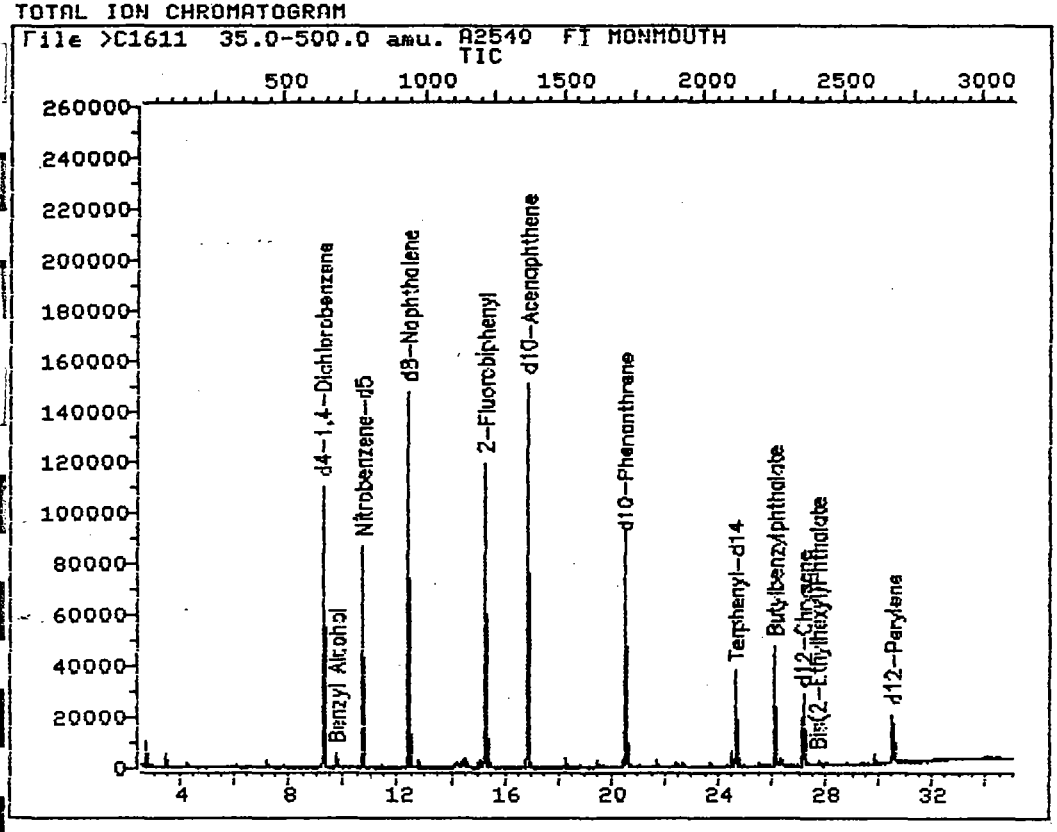
ID File: ID714C::D5
Title: hSL BNA STD
Last Calibration: 930714,10:40

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	9.22	640	52578	40.00	UG/L	95
1)	Benzyl Alcohol	9.74	690	1541	2.04	UG/L	81
18)	*d8-Naphthalene	12.38	944	122360	40.00	UG/L	88
19)	Nitrobenzene-d5	10.68	781	53480	39.30	UG/L	87
3)	*d10-Acenaphthene	16.83	1370	70362	40.00	UG/L	93
8)	2-Fluorobiphenyl	15.23	1217	72567	30.12	UG/L	93
53)	*d10-Phenanthrene	20.48	1720	78233	40.00	UG/L	99
4)	*d12-Chrysene	27.16	2360	25798	40.00	UG/L	94
7)	Terphenyl-d14	24.64	2119	28501	32.79	UG/L	99
68)	Butylbenzylphthalate	26.08	2257	25405	37.26	UG/L	96
71)	Bis(2-Ethylhexyl)Phthalate	27.68	2410	1131	1.13	UG/L	98
3)	*d12-Perylene	30.51	2681	19175	40.00	UG/L	94

* Compound is ISTD

00093

TOTAL ION CHROMATOGRAM



Data File: >C1611::DA Quant Output File: ^C1611::QT
Name: A2540 FT MONMOUTH
Misc: BTL# 6

Id File: ID714C::D5
Title: hSL BNA STD
Last Calibration: 930714 10:40

Operator ID: JEFF
Quant Time: 930714 16:29
Injected at: 930714 15:51

Q C RESULTS

QUALITY ASSURANCE DATA

ANALYSIS NO: A2530

BATCH NO: M072

MATRIX: AQUEOUS

METAL	AMOUNT OF SPIKE (ug/L)	% SPIKE RECOVERY	SX RESULT (mg/L)	SX DUP (mg/L)
LEAD	500	103	ND	ND

QUALITY CONTROL DATA

BATCH NO: M072

MATRIX: AQUEOUS

METAL	METHOD BLANK mg/L)	AMOUNT OF SPIKE (ug/L)	% SPIKE RECOVERY
LEAD	ND	82.1	78

21st Century Environmental Inc
WATER VOLATILE SURROGATE RECOVERY

SAMPLE NO.	S1 (DCE)#	S2 (TOL)#	S3 (BFB)#	TOT OUT
BLANK	92	101	98	0
A2535	91	99	99	0
A2532	94	100	100	0
A2530	94	104	101	0
A2531	97	103	101	0
A2533	86	115*	108	1
A2536	96	107	98	0
A2537	93	110	102	0
A2538	97	110	98	0
A2539	98	111*	100	1
A2540	98	110	101	0
A2534	98	111*	101	1
BLANK	92	96	98	0
A2539	103	100	100	0
A2515MS	110	106	101	0
A2515MSD	106	104	105	0

	QC LIMITS
S1 (DCE) = 1,2-Dichloroethane-d4	76-114
S2 (TOL) = Toluene-d8	88-110
S3 (BFB) = Bromofluorobenzene	86-115

Column used to flag surrogate recovery values

21st Century Environmental Inc.
WATER semi-VOLATILE SURROGATE RECOVERY

SAMPLE NO.	S1 (NBZ)#	S2 (FBP)#	S3 (TPH)#	S4 (PHL)#	S5 (FPH)#	S6 (TBP)#	TOT OUT
AQ BLNK 7/9	71	64	92	---	---	---	0
A2532	72	62	90	---	---	---	0
A2536	89	80	76	---	---	---	0
A2537	83	67	58	---	---	---	0
A2538	82	67	75	---	---	---	0
A2539	84	72	73	---	---	---	0
A2540	79	60	66	---	---	---	0
A2874MS	41	47	50	---	---	---	0
A2874MSD	46	50	48	---	---	---	0

	QC LIMITS
S1 (NBZ) = Nitrobenzene-d5	(35-114)
S2 (FBP) = 2-Fluorobiphenyl	(43-116)
S3 (TPH) = Terphenyl-d14	(33-141)
S4 (PHL) = Phenol-d5	(10-94)
S5 (FPH) = 2-Fluorophenol	(21-100)
S6 (TBP) = 2,4,6-Tribromophenol	(10-123)

Column used to flag surrogate recovery values

3A

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: 21ST CENTURY ENVIRONMENTAL Contract: N/A

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

Matrix Spike - EPA Sample No.: A2515

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC LIMITS REC.
1,1-Dichloroethene	50.00	ND	61.4	123	61-145
Trichloroethene	50.00	ND	39.2	78	71-120
Benzene	50.00	ND	53.5	107	76-127
Toluene	50.00	ND	56.0	112	76-125
Chlorobenzene	50.00	ND	51.8	104	75-130

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	50.00	65.2	130	6	14	61-145
Trichloroethene	50.00	41.6	83	6	14	71-120
Benzene	50.00	57.4	115	6	17	76-127
Toluene	50.00	58.7	117	4	12	76-125
Chlorobenzene	50.00	55.9	112	7	13	75-130

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

* Values outside of qc limits

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

COMMENTS: _____

QUANT REPORT

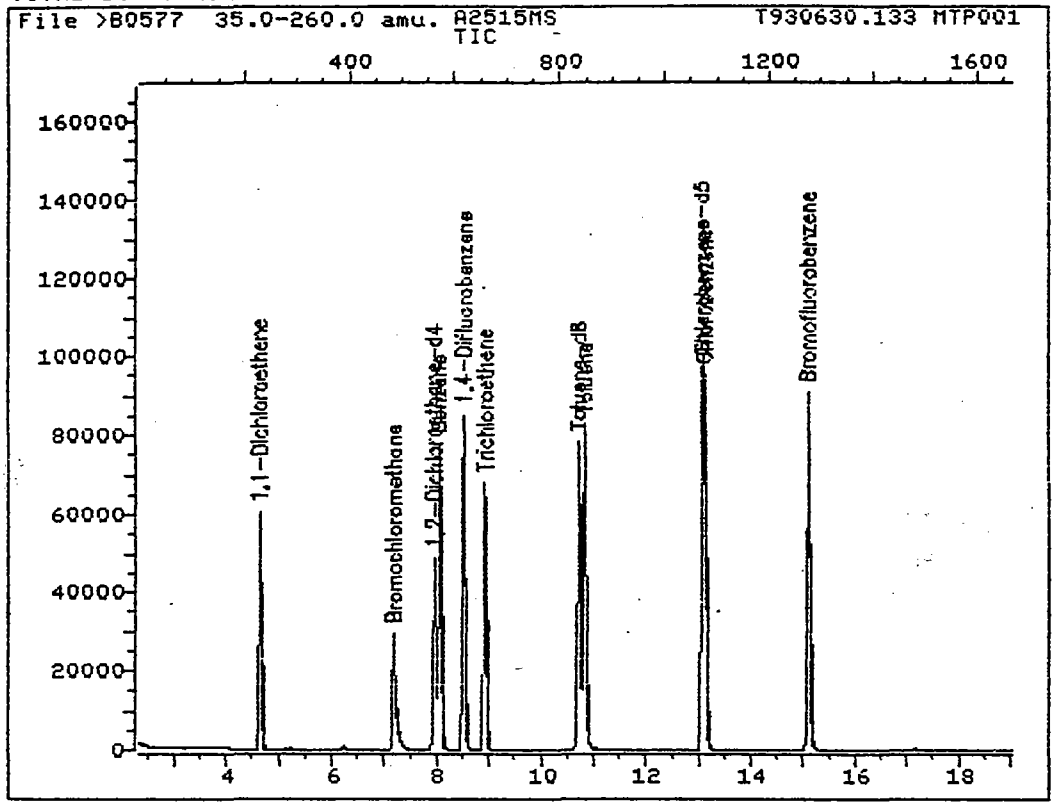
Operator ID: MANAGER Quant Rev: 6 Quant Time: 930702 19:46
Output File: ^B0577::QT Injected at: 930702 19:22
Data File: >B0577::D5 Dilution Factor: 1.00000
Name: A2515MS
Misc: T930630.133 MTP001 5mL

ID File: ID0401::SC
Title: USEPA 624 VOLATILES
Last Calibration: 930702 15:13

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*Bromochloromethane	7.17	482	21609	50.00	UG/L	100
10)	1,1-Dichloroethene	4.62	227	71237	61.46	UG/L	100
23)	1,2-Dichloroethane-d4	7.93	558	67308	54.77	UG/L	100
24)	*1,4-Difluorobenzene	8.53	617	122855	50.00	UG/L	100
6)	Benzene	8.03	568	113968	53.53	UG/L	100
7)	Trichloroethene	8.92	656	41496	39.18	UG/L	82
33)	Toluene-d8	10.71	835	106224	52.99	UG/L	100
34)	Toluene	10.82	846	116096	55.96	UG/L	96
35)	*Chlorobenzene-d5	13.04	1068	93667	50.00	UG/L	100
42)	Chlorobenzene	13.09	1073	84950	51.80	UG/L	92
48)	Bromofluorobenzene	15.08	1271	63758	50.36	UG/L	100

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >B0577::D5 Quant Output File: ^B0577::QT
Name: A2515MS
Misc: T930630.133 MTP001 5mL

Id File: ID0401::SC
Title: USEPA 624 VOLATILES
Last Calibration: 930702 15:13

Operator ID: MANAGER
Quant Time: 930702 19:46
Injected at: 930702 19:22

QUANT REPORT

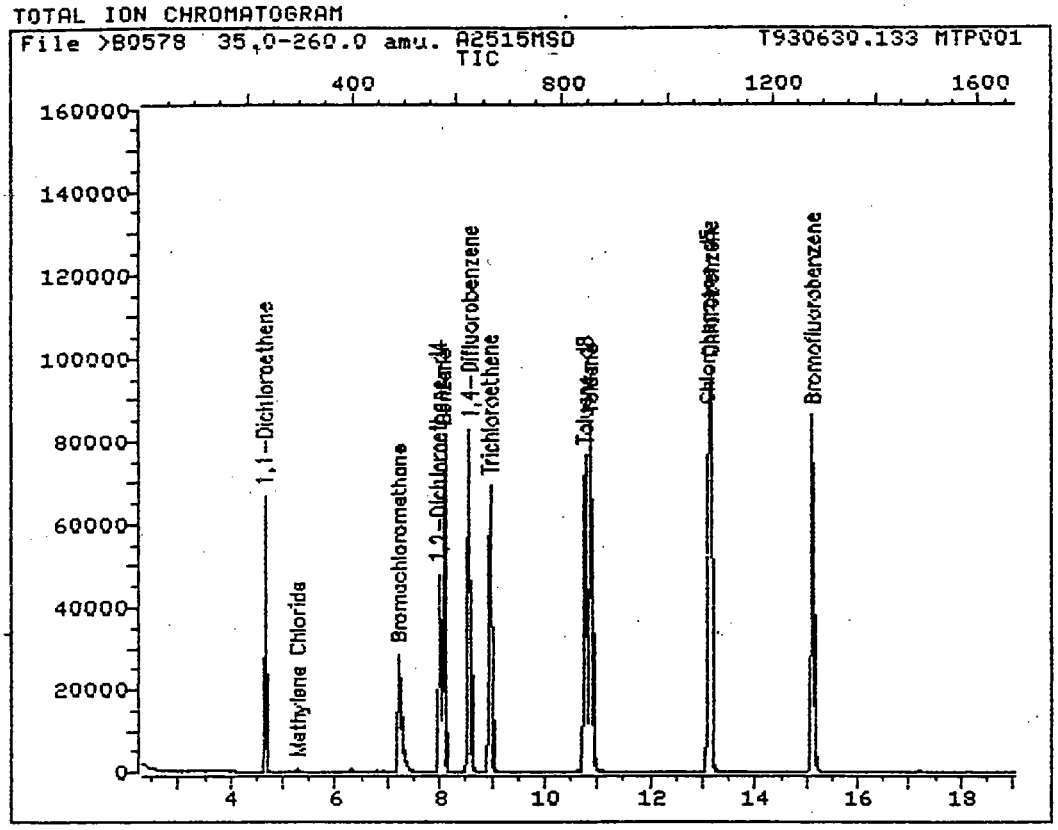
Operator ID: MANAGER Quant Rev: 6 Quant Time: 930702 20:12
Output File: ^B0578::QT Injected at: 930702 19:49
Data File: >B0578::D5 Dilution Factor: 1.00000
Name: A2515MSD
Misc: T930630.133 MTP001 5mL

ID File: ID0401::SC
Title: USEPA 624 VOLATILES
Last Calibration: 930702 15:13

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*Bromochloromethane	7.20	487	21749	50.00	UG/L	100
10)	1,1-Dichloroethene	4.64	231	76018	65.17	UG/L	100
15)	Methylene Chloride	5.27	294	807	1.11	UG/L	85
23)	1,2-Dichloroethane-d4	7.96	563	65318	52.81	UG/L	100
24)	*1,4-Difluorobenzene	8.56	623	118814	50.00	UG/L	100
26)	Benzene	8.06	573	118160	57.39	UG/L	100
27)	Trichloroethene	8.95	661	42655	41.64	UG/L	76
33)	Toluene-d8	10.75	841	100401	51.78	UG/L	100
34)	Toluene	10.86	852	117777	58.70	UG/L	91
35)	*Chlorobenzene-d5	13.07	1073	86507	50.00	UG/L	100
42)	Chlorobenzene	13.12	1078	84657	55.89	UG/L	96
48)	Bromofluorobenzene	15.11	1276	61141	52.29	UG/L	100

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >B0578::D5 Quant Output File: ^B0578::QT
Name: A2515MSD
Misc: T930630.133 MTP001 5mL

Id File: ID0401::SC
Title: USEPA 624 VOLATILES
Last Calibration: 930702 15:13

Operator ID: MANAGER
Quant Time: 930702 20:12
Injected at: 930702 19:49

3C

WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: 21st Century Environmental Contract No.:
Lab Code: Case No: SAS No.: SDG No.:
MATRIX SPIKE- EPA SAMPLE NO.: A2874

COMPOUND NAME	SPIKE ADDED UG/L	MS CONC UG/L	SAMP CONC UG/L	MS % REC#	QC LIMITS RECOVERY
Phenol	100	30.4	ND	30	12-89
2-Chlorophenol	100	39.3	ND	39	27-123
1,-4-Dichlorobenzene	50	17.3	ND	35*	36-97
N-Nitroso-di-n-prop. (1)	50	16.2	ND	32*	41-116
1,2,4-Trichlorobenzene	50	16.9	ND	34*	39-98
4-Chloro-3-methylphenol	100	44.5	ND	45	23-97
Acenapthene	50	37.2	ND	75	46-118
4-Nitrophenol	100	39.8	ND	40	10-80
2,4-Dinitrotoluene	50	21.5	ND	43	24-96
Pentachlorophenol	100	47.8	ND	48	9-103
Pyrene	50	27.8	ND	56	26-127

3C

WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: 21st Century Environmental Contract No.:
Lab Code: Case No: SAS No.: SDG No.:
MATRIX SPIKE- EPA SAMPLE NO.: A2874

COMPOUND NAME	SPIKE ADDED UG/L	MSD CONC UG/L	MSD % REC.	% RPD	QC LIMITS RPD	QC LIMITS RECOV
Phenol	100	36.5	36	18	42	21-89
2-Chlorophenol	100	48.3	48	21	40	27-123
1,-4-Dichlorobenzene	50	16.7	33*	3	28	36-197
n-Nitroso-di-n-prop.	50	18.5	37*	13	38	41-116
1,2,4-Trichlorobenzene	50	16.6	33*	2	28	39-98
4-Chloro-3-Methylphenol	100	54.5	54	20	42	23-97
Acenaphthene	50	43.4	87	15	31	46-118
4-Nitrophenol	100	41.6	42	4	50	10-80
2,4-Dinitrotoluene	50	24.8	50	14	38	24-96
Pentachlorophenol	100	60.3	60	23	50	9-103
Pyrene	50	30.9	62	11	51	26-127

(1) N-Nitroso-di-n-propylamine

Column to be used to flag recovery and RPD values
* Values outside of qc limits

RPD: 0 out of 11 outside limits
Spike Recovery: 6 out of 22 outside limits

COMMENTS: _____

QUANT REPORT

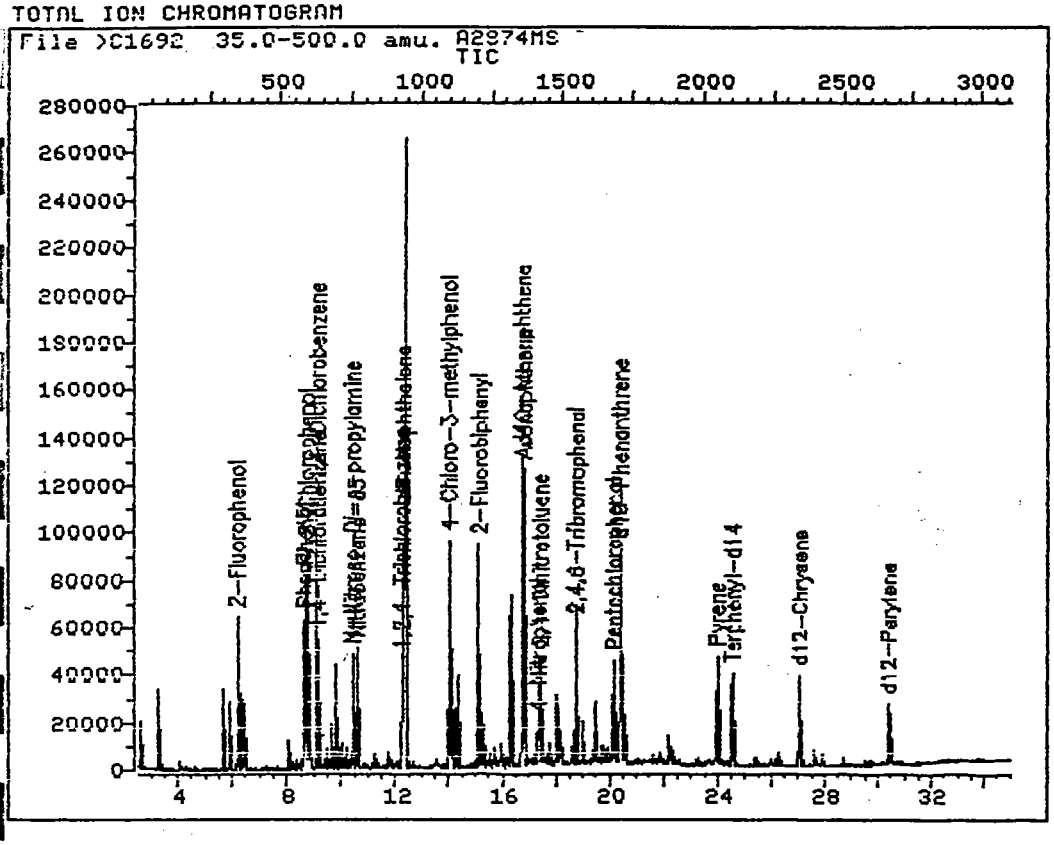
Operator ID: JEFF Quant Rev: 6 Quant Time: 930722 11:51
Output File: ^C1692::QT Injected at: 930722 11:13
Data File: >C1692::E3 Dilution Factor: 1.00000
Name: A2874MS
Misc: BTL# 2

ID File: ID722C::D3
Title: hSL BNA STD
Last Calibration: 930722 10:21

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	9.10	628	49019	40.00	UG/L	96
4)	2-Fluorophenol	6.14	345	30805	29.40	UG/L	94
5)	Phenol-d5	8.61	581	39560	27.33	UG/L	83
6)	Phenol	8.64	584	42170	30.37	UG/L	69
8)	2-Chlorophenol	8.69	589	42126	39.27	UG/L	99
10)	1,4-Dichlorobenzene	9.14	632	21949	17.28	UG/L	96
16)	N-Nitroso-Di-n-propylamine	10.38	751	16381	16.20	UG/L	88
18)	*d8-Naphthalene	12.28	932	113034	40.00	UG/L	86
19)	Nitrobenzene-d5	10.57	769	28559	20.52	UG/L	86
27)	1,2,4-Trichlorobenzene	12.21	926	21820	16.90	UG/L	96
31)	4-Chloro-3-methylphenol	13.97	1094	47105	44.48	UG/L	94
36)	*d10-Acenaphthene	16.71	1356	65865	40.00	UG/L	94
38)	2-Fluorobiphenyl	15.12	1204	60329	23.69	UG/L	93
43)	Acenaphthene	16.79	1363	65237	37.18	UG/L	92
45)	4-Nitrophenol	17.33	1415	8992	39.78	UG/L	85
47)	2,4-Dinitrotoluene	17.40	1422	17153	21.50	UG/L	89
53)	*d10-Phenanthrene	20.36	1704	80951	40.00	UG/L	99
56)	2,4,6-Tribromophenol	18.71	1546	10006	37.30	UG/L	95
59)	Pentachlorophenol	20.12	1681	11859	47.78	UG/L	95
64)	*d12-Chrysene	27.04	2341	33228	40.00	UG/L	96
65)	Pyrene	23.94	2045	44838	27.75	UG/L	96
67)	Terphenyl-d14	24.53	2101	30953	24.95	UG/L	92
73)	*d12-Perylene	30.37	2660	24828	40.00	UG/L	94

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >C1692::E3 Quant Output File: ^C1692::QT
Name: A2874MS
Misc: BTL# 2

Id File: ID722C::D3
Title: hSL BNA STD
Last Calibration: 930722 10:21

Operator ID: JEFF
Quant Time: 930722 11:51
Injected at: 930722 11:13

- QUANT REPORT

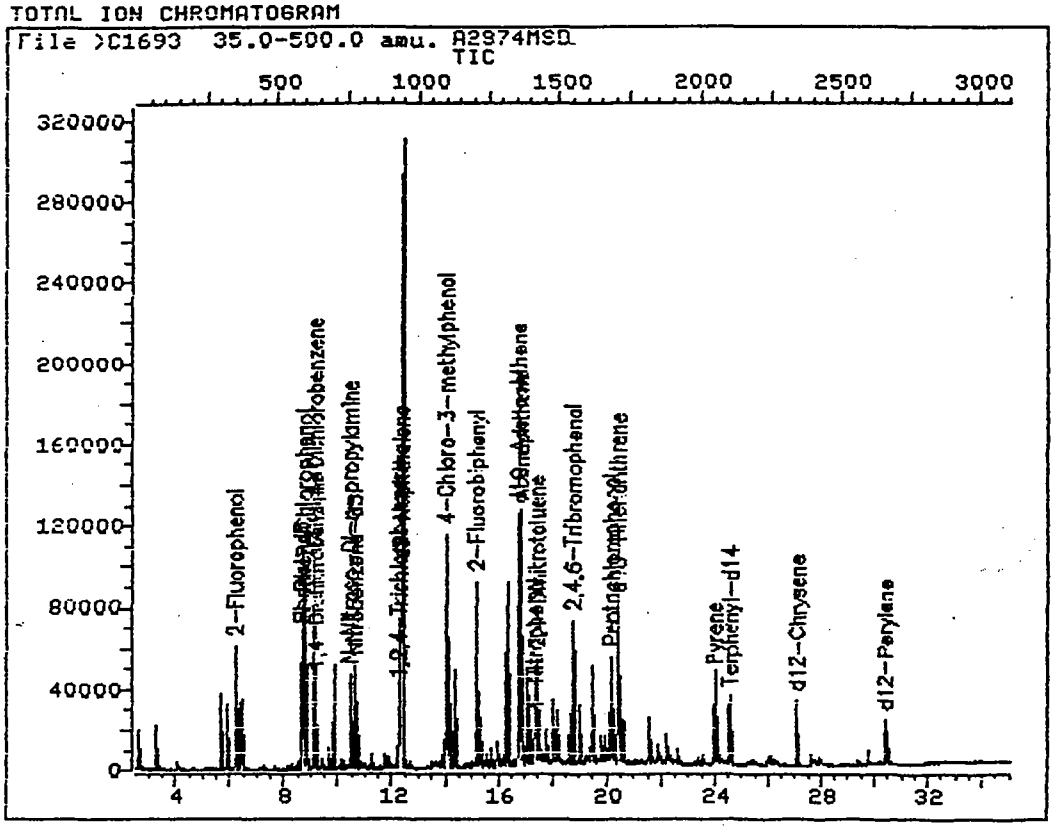
Operator ID: JEFF Quant Rev: 6 Quant Time: 930722 12:38
Output File: ^C1693::QT Injected at: 930722 12:00
Data File: >C1693::E3 Dilution Factor: 1.00000
Name: A2874MSD
Misc: BTL# 3

ID File: ID722C::D3
Title: hSL BNA STD
Last Calibration: 930722 10:21

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	9.11	629	44564	40.00	UG/L	94
4)	2-Fluorophenol	6.15	346	30862	32.40	UG/L	98
5)	Phenol-d5	8.61	582	39818	30.26	UG/L	83
6)	Phenol	8.65	585	46051	36.49	UG/L	71
8)	2-Chlorophenol	8.69	589	47127	48.33	UG/L	99
10)	1,4-Dichlorobenzene	9.15	633	19243	16.66	UG/L	97
16)	N-Nitroso-Di-n-propylamine	10.39	752	17024	18.52	UG/L	91
18)	*d8-Naphthalene	12.28	933	105053	40.00	UG/L	88
19)	Nitrobenzene-d5	10.58	770	29443	22.76	UG/L	89
27)	1,2,4-Trichlorobenzene	12.22	927	19873	16.56	UG/L	96
31)	4-Chloro-3-methylphenol	13.97	1095	53617	54.48	UG/L	95
33)	*d10-Acenaphthene	16.71	1356	58952	40.00	UG/L	94
38)	2-Fluorobiphenyl	15.12	1204	57120	25.06	UG/L	93
43)	Acenaphthene	16.78	1363	68241	43.45	UG/L	94
45)	4-Nitrophenol	17.34	1416	8415	41.59	UG/L	82
47)	2,4-Dinitrotoluene	17.40	1422	17725	24.82	UG/L	89
53)	*d10-Phenanthrene	20.36	1704	71158	40.00	UG/L	99
56)	2,4,6-Tribromophenol	18.71	1547	9173	38.90	UG/L	94
59)	Pentachlorophenol	20.13	1682	13151	60.28	UG/L	98
64)	*d12-Chrysene	27.04	2341	28842	40.00	UG/L	96
65)	Pyrene	23.94	2045	43323	30.89	UG/L	94
67)	Terphenyl-d14	24.53	2101	25869	24.02	UG/L	92
73)	*d12-Perylene	30.38	2660	21035	40.00	UG/L	92

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >C1693::E3 Quant Output File: ^C1693::QT
Name: A2874MSD
Misc: BTL# 3

Id File: ID722C::D3
Title: hSL BNA STD
Last Calibration: 930722 10:21

Operator ID: JEFF
Quant Time: 930722 12:38
Injected at: 930722 12:00

21st Century Environmental Inc.

GC/MS STANDARD p-BROMOFLUOROBENZENE (BFB) TUNE
CRITERIA FOR VOLATILES 50ng

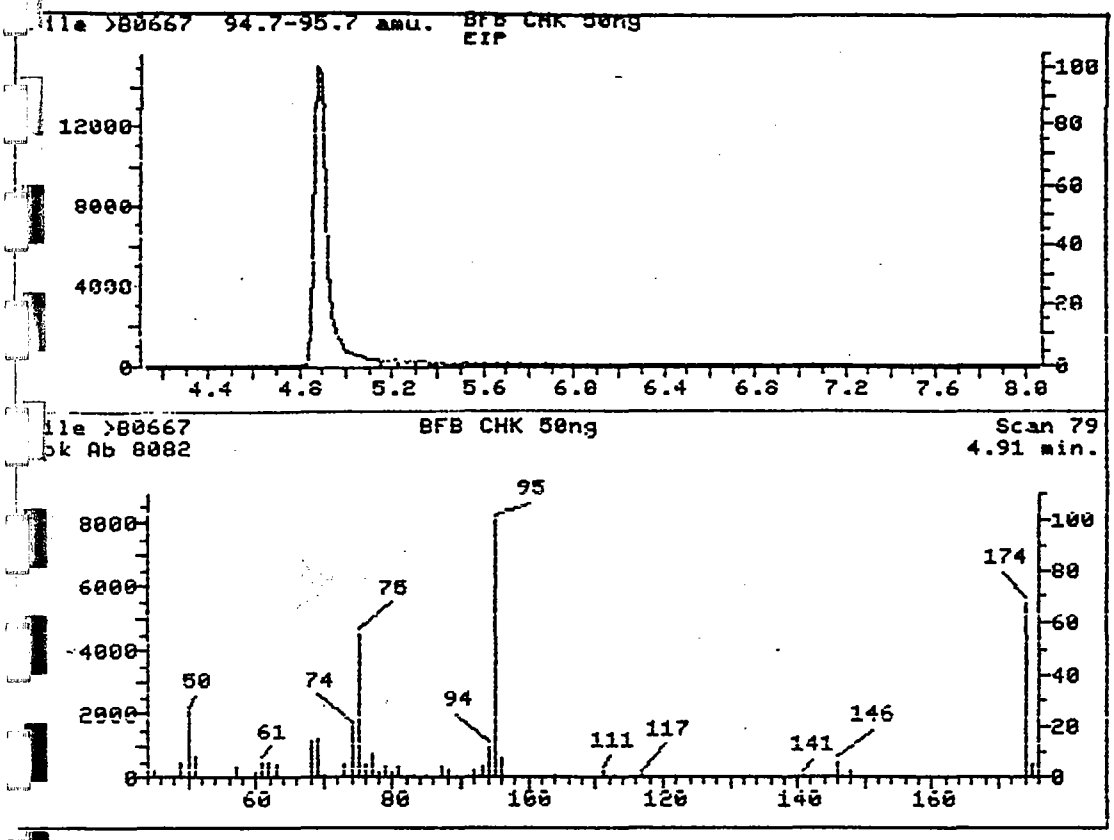
DATE AND TIME OF INJECTION: 7/13/93 15:59
INSTRUMENT ID: 5995

DATA RELEASE AUTHORIZED BY Richard W Ryan

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	Appropriate Peak	Status
50	15-40% of mass 95	25.39	25.39	Ok
75	30-60% of mass 95	55.48	55.48	Ok
95	Base peak, 100% relative abundance	100.00	100.00	Ok
96	5-9% of mass 95	7.52	7.52	Ok
173	Less than 2% of mass 174	0.00	0.00	Ok
174	Greater than 50% of mass 95	67.21	67.21	Ok
175	5-9% of mass 174	4.95	7.36	Ok
176	95-101% of mass 174	66.46	98.88	Ok
177	5-9% of mass 176	4.22	6.35	Ok

THIS PERFORMANCE AFFECTS ALL SAMPLES
STANDARDS AND BLANKS LISTED BELOW

SAMPLE ID		LAB ID		DATE TIME
>B0667::D5		BFB CHK 50ng		7/13/93 15:59
>B0668::D5		HSL CAL CHK 50ppb		7/13/93 17:34
>B0669::D7		BLANK		7/13/93 18:24
>B0670::D7		A2535		7/13/93 18:57
>B0671::D7		A2532		7/13/93 19:24
>B0672::D7		A2530		7/13/93 19:51
>B0673::D7		A2531		7/13/93 20:18
>B0674::D7		A2533		7/13/93 20:47
>B0675::D7		A2536		7/13/93 21:13
>B0676::D7		A2537		7/13/93 21:41
>B0677::D7		A2538		7/13/93 22:08
>B0678::D7		A2539		7/13/93 22:34
>B0679::D7		A2540		7/13/93 23:01
>B0680::D7		A2534		7/13/93 23:28



B0667 BFB CHK 50ng
79 NRM

File: >B0667 Scan #: 79 Retn. time: 4.91

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
36.90	7.226	57.00	4.244	75.00	55.481	88.00	3.625	116.90	.916
38.00	6.385	60.00	1.485	76.00	5.209	91.95	2.747	140.95	.866
39.00	3.353	60.95	6.236	77.00	9.255	93.05	4.603	145.95	5.939
43.95	5.481	61.95	5.568	78.00	1.658	94.00	11.990	147.95	3.304
44.95	3.019	62.95	4.652	79.00	4.318	95.00	100.000	174.00	67.211
47.80	1.138	68.00	14.167	79.85	1.547	96.00	7.523	174.95	4.949
48.00	1.114	69.00	14.798	80.85	4.046	103.90	1.052	175.95	66.456
49.00	5.951	69.95	1.126	82.95	1.299	111.05	2.202	176.95	4.219
50.00	25.390	72.95	5.024	84.90	1.299	112.90	.804	207.05	2.537
50.95	8.661	74.05	19.686	87.00	4.058				

21st Century Environmental Inc.

GC/MS STANDARD p-BROMOFLUOROBENZENE (BFB) TUNE
CRITERIA FOR VOLATILES 50ng

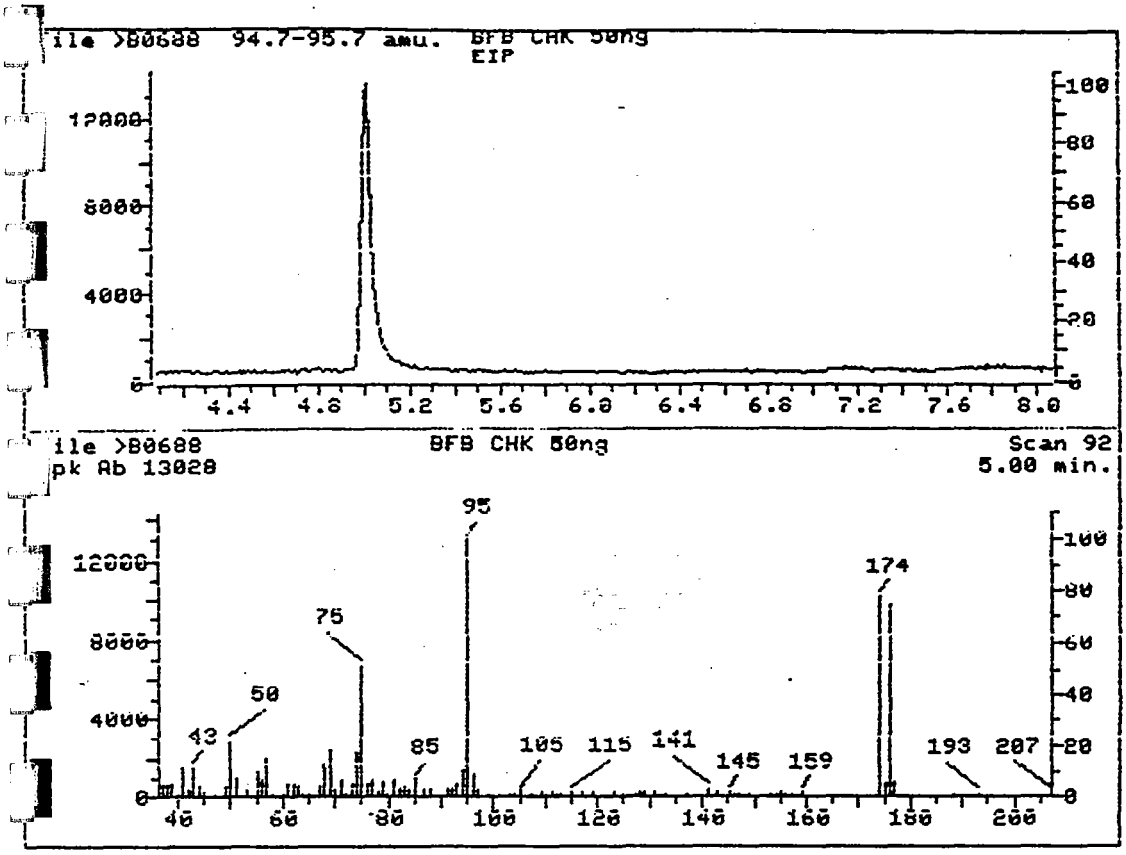
DATE AND TIME OF INJECTION: 7/14/93 12:14
INSTRUMENT ID: 5995

DATA RELEASE AUTHORIZED BY Richard W Lynch.

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	% Relative Abundance Appropriate Peak	Status
50	15-40% of mass 95	21.85	21.85	Ok
75	30-60% of mass 95	51.62	51.62	Ok
95	Base peak, 100% relative abundance	100.00	100.00	Ok
96	5-9% of mass 95	8.90	8.90	Ok
173	Less than 2% of mass 174	0.00	0.00	Ok
174	Greater than 50% of mass 95	77.96	77.96	Ok
175	5-9% of mass 174	5.72	7.34	Ok
176	95-101% of mass 174	74.79	95.93	Ok
177	5-9% of mass 176	5.57	7.45	Ok

THIS PERFORMANCE AFFECTS ALL SAMPLES
STANDARDS AND BLANKS LISTED BELOW

SAMPLE ID		LAB ID		DATE	TIME
I>B0688::D5I		BFB CHK 50ng		7/14/93	12:14
I>B0689::D5I		HSL CAL CHK 50ppb		7/14/93	13:04
I>B0690::D5I		BLANK		7/14/93	14:04
I>B0691::D7I		A2539		7/14/93	14:50
I>B0692::D7I		A2542		7/14/93	15:20
I>B0693::D7I		A2543		7/14/93	15:46
I>B0694::D7I		BLANK		7/14/93	16:13
I>B0702::D7I		A2544		7/14/93	19:50
I>B0703::D7I		A2521		7/14/93	20:20
I>B0704::D7I		A2522		7/14/93	20:45
I>B0705::D7I		A2523		7/14/93	21:12
I>B0706::D7I		A2241		7/14/93	21:39
I>B0707::D7I		A2247		7/14/93	22:06
I>B0708::D7I		A2253		7/14/93	22:32
I>B0709::D7I		A2545		7/14/93	23:00
I>B0710::D7I		A2244		7/14/93	23:27



B0688 BFB CHK 50ng
92 NRM

File: >B0688 Scan #: 92 Retn. time: 5.00

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
35.95	1.297	59.90	1.197	79.95	1.213	107.10	1.151	143.00	1.481
37.00	5.127	60.95	4.782	80.95	6.977	109.05	1.965	145.20	1.911
38.00	4.713	61.95	4.744	82.05	3.109	109.95	.936	146.05	.537
39.00	5.258	62.95	4.014	83.05	4.030	111.15	1.696	147.05	.729
40.00	.906	63.95	.867	84.00	2.978	112.05	.576	149.15	.791
40.95	11.590	64.90	1.036	85.10	7.238	113.10	.975	153.10	.568
41.95	2.426	67.00	4.114	86.90	3.562	115.10	2.142	154.20	1.006
42.95	11.805	68.00	13.225	88.00	3.462	117.10	1.927	155.20	1.474
43.95	4.421	69.00	17.946	91.05	3.331	118.95	1.773	156.05	.861
44.95	1.942	70.05	3.623	91.95	3.109	123.00	1.581	157.15	.622
47.00	1.029	71.05	6.486	93.05	5.220	125.00	.821	159.15	1.873
49.00	4.575	72.05	1.305	94.00	11.161	127.15	.982	174.00	77.955
50.00	21.845	73.05	5.396	95.00	100.000	128.05	2.057	175.05	5.718
50.95	7.238	73.95	17.562	96.00	8.896	129.05	1.620	175.95	74.785
52.95	2.234	75.00	51.620	97.10	3.324	131.05	1.627	176.95	5.573
55.05	10.378	76.00	5.081	99.05	1.320	133.10	1.090	188.15	.775
56.00	6.325	76.90	6.847	102.95	.591	137.05	.921	193.20	1.098
57.00	14.607	78.00	1.458	103.90	.783	141.05	3.592	207.05	1.604
58.00	1.021	79.00	5.826	105.00	2.188				

21st Century Environmental Inc.

GC/MS STANDARD DECAFLUOROTRIPHENYLPHOSPHINE(DFTPP) TUNE
CRITERIA FOR SEMIVOLATILES 50ng

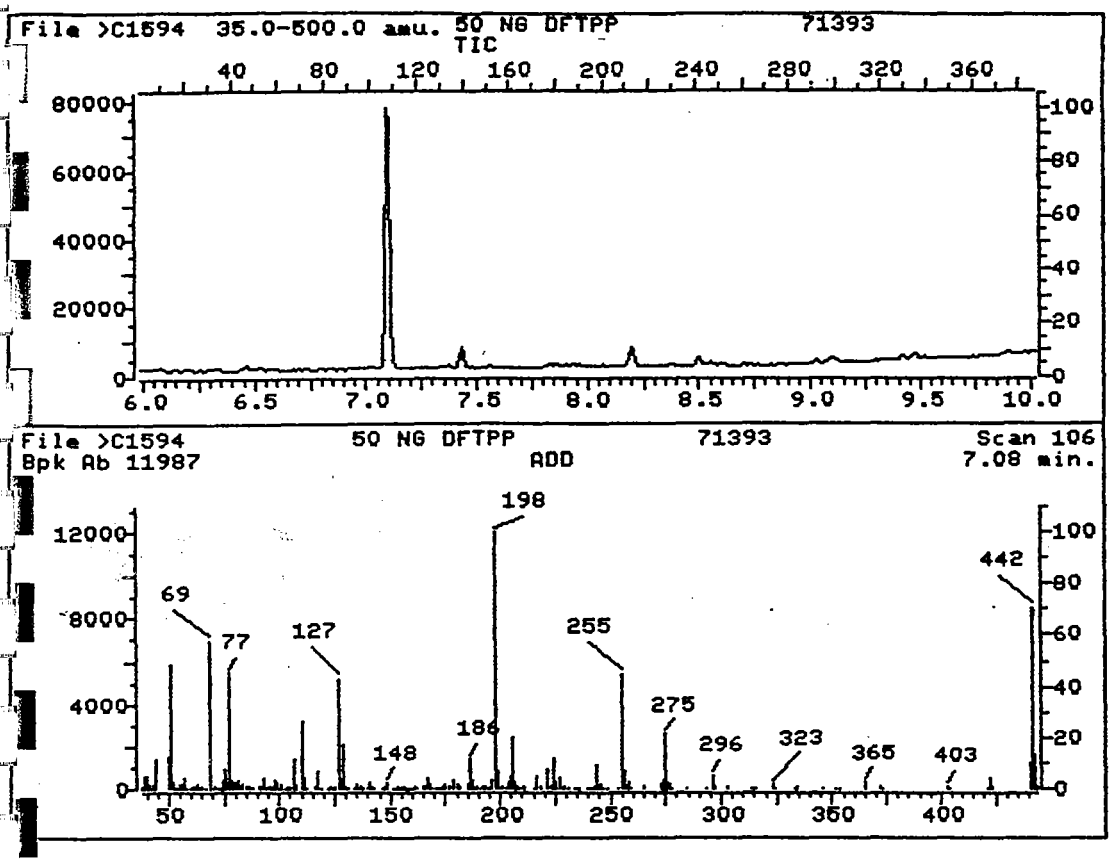
DATE AND TIME OF INJECTION: 7/13/93 9:46
INSTRUMENT ID: 5970

DATA RELEASE AUTHORIZED BY Richard W Lynch.

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	% Relative Abundance Appropriate Peak	Status
51	30-60% of mass 198	49.05	49.05	Ok
68	Less than 2% of mass 69	0.00	0.00	Ok
69	(reference only)	58.20	58.20	Ok
70	Less than 2% of mass 69	.65	1.12	Ok
127	40-60% of mass 198	43.14	43.14	Ok
197	Less than 1% of mass 198	0.00	0.00	Ok
198	Base peak, 100% relative abundance	100.00	100.00	Ok
199	5-9% of mass 198	6.94	6.94	Ok
275	10-30% of mass 198	21.18	21.18	Ok
365	Greater than 1% of mass 198	2.17	2.17	Ok
441	0-100% of mass 443	9.71	74.05	Ok
442	Greater than 40% of mass 198	70.55	70.55	Ok
443	17-23% of mass 442	13.11	18.59	Ok

THIS PERFORMANCE AFFECTS ALL SAMPLES
STANDARDS AND BLANKS LISTED BELOW

SAMPLE ID	LAB ID		DATE TIME
>C1594::E4	50 NG DFTPP		7/13/93 9:46
>C1595::E4	50 PPM BNA STD		7/13/93 10:18
>C1596::E4	AQ BLNK 7/9		7/13/93 11:34
>C1597::E4	A2530 FT.MONMOUTH		7/13/93 12:22
>C1598::E4	A2532 FT.MONMOUTH		7/13/93 13:10
>C1599::DA	A2533 FT.MONMOUTH		7/13/93 13:58



>C1594 50 NG DFTPP 71393
106 ADD NRM

File: >C1594 Scan #: 106 Retn. time: 7.08

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
38.00	.859	87.90	.267	141.90	.734	190.95	.425	248.95	.284
39.00	5.406	90.80	.751	142.80	.434	191.85	.984	252.90	.192
40.00	5.356	91.90	.601	146.00	.209	193.05	1.185	254.90	44.840
41.10	1.994	93.00	4.371	147.00	1.001	193.95	.234	255.90	6.307
41.90	.300	93.90	.317	148.00	2.169	195.05	.150	257.00	.534
43.10	1.935	95.10	.601	148.80	.384	196.00	3.479	257.90	2.653
44.00	11.829	96.10	.617	150.90	.234	197.90	100.000	259.00	.275
49.95	12.180	96.90	.751	151.50	.117	198.80	6.941	264.95	1.043
51.05	49.053	98.10	3.095	151.80	.125	200.00	.292	272.95	1.485
52.05	2.528	98.90	2.661	153.00	.659	201.30	.651	273.95	3.762
52.85	.350	100.10	.284	154.00	.492	203.00	.367	274.95	21.181
54.15	.184	101.10	1.802	155.00	1.160	204.00	2.686	275.90	2.811
55.05	1.694	102.85	.342	155.85	1.226	204.90	4.738	276.90	1.543
56.05	1.977	103.95	1.085	156.85	.300	206.00	19.621	277.80	.209
57.05	4.446	105.05	1.160	157.95	.275	207.00	2.962	284.80	.292
58.05	.501	106.05	.325	158.95	.284	207.90	.734	292.75	.284
60.05	.392	106.95	11.754	160.05	.450	208.85	.209	296.85	5.039

00110

62.00	.676	109.95	26.212	161.79	.179	214.99	.184	.894
63.10	1.727	110.95	4.[illegible]3	165.05	.826	215.95	.459	314.00	.175
64.10	.225	112.05	.[illegible]5	165.75	.626	216.85	.106	314.90	.417
65.00	.818	116.00	.617	166.95	3.863	217.85	.576	315.80	.125
67.10	.442	116.90	6.782	167.95	1.535	220.95	7.166	322.95	1.752
69.00	58.196	118.00	.409	169.00	.375	222.80	1.201	323.95	.242
70.10	.651	119.00	.217	170.60	.117	223.90	11.337	332.80	.092
71.00	.684	121.90	.492	171.10	.108	224.90	2.770	333.90	1.110
72.20	.100	123.00	1.018	171.90	.234	226.90	4.238	345.85	.184
73.00	.467	123.80	.367	172.90	.450	227.80	.400	351.85	.442
74.00	3.796	125.00	.801	174.00	.626	228.90	.884	353.95	.133
74.95	7.275	126.90	43.138	174.90	1.510	230.90	.317	364.80	2.169
76.05	2.536	127.90	3.579	176.10	.425	233.90	.242	371.95	.876
77.05	45.349	128.95	17.778	177.00	.734	234.90	.334	372.85	.209
78.05	3.370	129.95	1.226	178.10	.259	235.75	.142	402.85	.551
79.05	2.920	130.85	.492	178.90	3.145	240.05	.100	403.85	.125
80.05	2.519	133.95	.409	180.00	2.136	240.85	.159	421.90	.284
81.05	3.621	134.95	1.627	181.00	1.101	241.95	.501	422.90	3.971
82.05	.734	135.95	.501	185.05	1.527	242.95	.734	423.85	.642
83.05	1.402	136.85	.767	185.95	11.496	243.95	9.494	440.90	9.711
85.05	.626	137.75	.200	186.95	3.445	245.05	1.251	442.00	70.551
85.95	.984	139.95	.242	187.95	.242	245.95	1.510	443.00	13.114
87.05	.284	140.85	2.161	188.85	.617	246.85	.192	444.00	1.235

21st Century Environmental Inc.

GC/MS STANDARD DECAFLUOROTRIPHENYLPHOSPHINE(DFTPP) TUNE
CRITERIA FOR SEMIVOLATILES 50ng

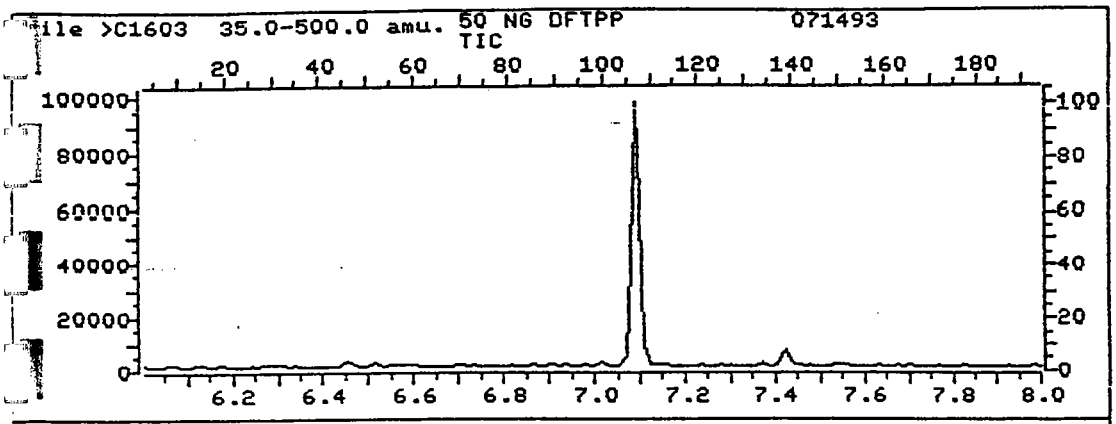
DATE AND TIME OF INJECTION: 7/14/93 9:02
INSTRUMENT ID: 5970

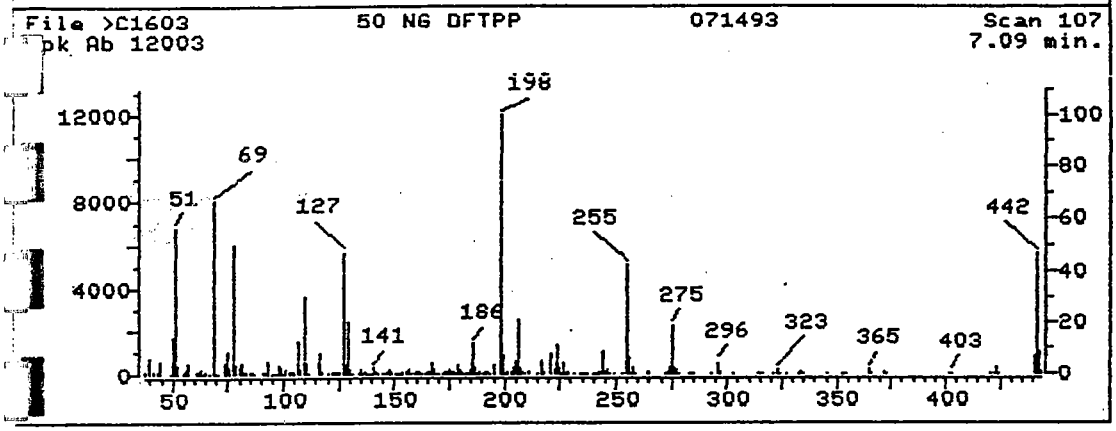
DATA RELEASE AUTHORIZED BY Richard Whynot.

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	% Relative Abundance Appropriate Peak	Status
51	30-60% of mass 198	56.41	56.41	Ok
68	Less than 2% of mass 69	0.00	0.00	Ok
69	(reference only)	66.63	66.63	Ok
70	Less than 2% of mass 69	.40	.60	Ok
127	40-60% of mass 198	46.75	46.75	Ok
197	Less than 1% of mass 198	0.00	0.00	Ok
198	Base peak, 100% relative abundance	100.00	100.00	Ok
199	5-9% of mass 198	6.55	6.55	Ok
275	10-30% of mass 198	18.47	18.47	Ok
365	Greater than 1% of mass 198	1.46	1.46	Ok
441	0-100% of mass 443	6.47	74.50	Ok
442	Greater than 40% of mass 198	46.04	46.04	Ok
443	17-23% of mass 442	8.69	18.87	Ok

THIS PERFORMANCE AFFECTS ALL SAMPLES
STANDARDS AND BLANKS LISTED BELOW

SAMPLE ID	LAB ID		DATE TIME
>C1603::DA	150 NG DFTPP		7/14/93 9:02
>C1604::DA	150 PPM BNA STD		7/14/93 9:24
>C1605::DA	NA BLNK 7/6/93		7/14/93 10:12
>C1606::DA	A2534 FT MONMOUTH		7/14/93 11:02
>C1607::DA	A2536 FT MONMOUTH		7/14/93 12:25
>C1608::DA	A2537 FT MONMOUTH		7/14/93 13:14
>C1610::DA	A2539 FT MONMOUTH		7/14/93 15:01
>C1611::DA	A2540 FT MONMOUTH		7/14/93 15:51
>C1612::DA	A2481 RES		7/14/93 16:40
>C1613::DA	A2531		7/14/93 17:52
>C1616::DA	TCLP BLANK 7/12		7/14/93 20:18





>C1603 50 NG DFTPP 071493
107 NRM

File: >C1603 Scan #: 107 Retn. time: 7.09

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
37.10	.233	98.00	3.041	153.10	.816	199.90	.475	264.85	.808
38.00	.883	99.00	2.858	154.00	.525	200.60	.125	272.15	.092
39.10	5.832	100.00	.250	155.00	1.183	201.40	.558	272.95	1.233
40.00	2.749	100.90	1.616	155.95	1.341	203.00	.517	273.95	2.966
41.10	1.000	102.95	.517	156.95	.433	203.90	2.691	274.95	18.470
43.10	.583	103.95	1.008	157.85	.417	205.00	5.124	275.90	2.399
44.00	4.999	104.95	1.325	159.05	.342	206.00	20.986	276.90	1.466
48.95	.425	106.95	12.522	160.05	.667	207.00	2.833	277.80	.258
50.05	14.263	107.95	1.958	160.95	.983	208.00	.700	283.00	.117
51.05	56.411	109.95	29.918	161.85	.258	208.85	.158	283.90	.125
52.05	3.041	110.95	4.141	163.95	.158	210.85	.875	285.00	.175
55.05	.716	111.95	.442	164.95	.800	214.95	.117	292.95	.233
56.05	1.841	116.90	7.198	165.95	.675	216.85	5.407	295.95	4.632
57.05	4.407	117.90	.550	166.95	3.991	217.85	.575	296.85	.525
61.00	.683	120.00	.150	167.95	1.866	220.95	7.406	302.80	.475
61.90	.533	122.00	.791	169.00	.333	222.90	1.391	313.90	.200
63.00	2.124	122.90	1.258	170.00	.150	223.90	10.997	314.90	.392
64.10	.308	123.90	.508	171.90	.400	224.90	2.499	316.00	1.267
65.00	.916	125.00	.542	172.90	.542	225.90	.333	320.95	.192

67.10	.375	127.00	46.747	174.00	.916	226.90	4.132	322.95	1.433
69.00	66.633	128.00	3.632	174.90	1.458	228.00	.408	323.95	.208
70.10	.400	128.95	19.687	176.00	.642	228.90	.975	326.85	.225
71.00	.258	129.95	1.675	176.80	.808	231.00	.325	332.90	.183
73.20	.383	130.95	.408	178.00	.267	234.00	.283	333.90	.875
74.00	4.566	133.95	.283	179.00	3.091	234.90	.300	335.00	.283
74.95	8.123	134.95	1.608	180.00	2.108	235.95	.208	345.95	.342
76.05	2.541	135.85	.475	181.00	1.041	236.95	.300	351.95	.458
77.05	49.929	136.95	.700	181.95	.250	239.95	.183	352.95	.200
78.05	3.782	137.85	.108	182.85	.133	240.85	.192	353.95	.400
78.95	2.958	139.15	.108	183.95	.208	241.35	.125	364.90	1.458
80.05	2.699	140.05	.250	184.95	1.441	241.95	.575	365.90	.208
80.95	3.941	140.95	2.249	185.95	11.322	242.95	.592	371.95	.766
82.05	1.100	142.10	.691	186.95	2.791	243.95	8.540	372.85	.200
82.95	.983	142.90	.350	187.95	.258	244.95	1.200	402.05	.233
85.05	.716	144.90	.142	188.95	.508	245.85	1.450	402.95	.425
86.05	.725	145.80	.358	190.85	.442	246.95	.283	420.90	.300
87.05	.467	146.20	.250	191.95	.958	248.95	.275	422.10	.258
90.90	.758	147.00	.991	192.95	.933	252.80	.200	423.00	2.841
92.00	.866	148.00	1.991	193.85	.167	254.90	41.906	423.95	.458
93.00	4.707	148.90	.525	195.05	.208	255.90	6.048	441.00	6.473
95.10	.342	150.90	.375	195.90	3.399	257.00	.433	442.00	46.038
96.10	.383	151.70	.275	197.90	100.000	257.90	2.249	443.00	8.689
97.20	.383	152.20	.133	198.90	6.548	258.90	.333	444.00	.691

21st Century Environmental Inc.

GC/MS STANDARD DECAFLUOROTRIPHENYLPHOSPHINE(DFTPP) TUNE
CRITERIA FOR SEMIVOLATILES 50ng

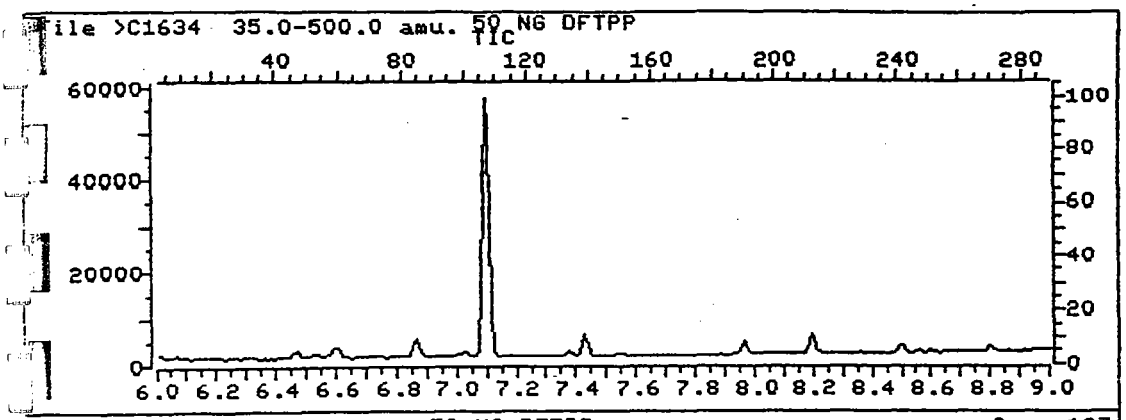
DATE AND TIME OF INJECTION: 7/16/93 9:19
INSTRUMENT ID: 5970

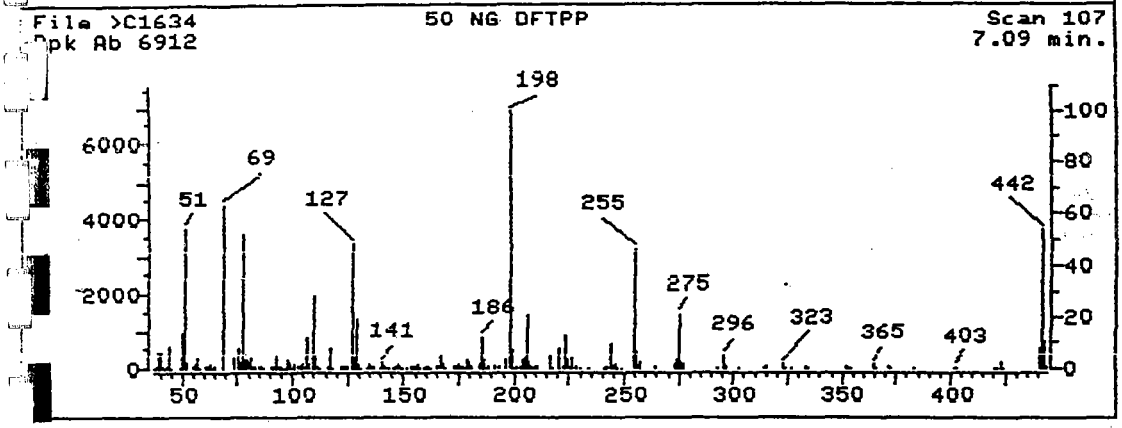
DATA RELEASE AUTHORIZED BY Richard W Kymal

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	Appropriate Peak	Status
51	30-60% of mass 198	53.91	53.91	Ok
68	Less than 2% of mass 69	0.00	0.00	Ok
69	(reference only)	63.19	63.19	Ok
70	Less than 2% of mass 69	0.00	0.00	Ok
127	40-60% of mass 198	47.70	47.70	Ok
197	Less than 1% of mass 198	0.00	0.00	Ok
198	Base peak, 100% relative abundance	100.00	100.00	Ok
199	5-9% of mass 198	6.64	6.64	Ok
275	10-30% of mass 198	21.05	21.05	Ok
365	Greater than 1% of mass 198	1.71	1.71	Ok
441	0-100% of mass 443	7.58	73.49	Ok
442	Greater than 40% of mass 198	53.56	53.56	Ok
443	17-23% of mass 442	10.32	19.26	Ok

THIS PERFORMANCE AFFECTS ALL SAMPLES
STANDARDS AND BLANKS LISTED BELOW

SAMPLE ID		LAB ID		DATE	TIME
>C1634::D5		150 NG DFTPP		7/16/93	9:19
>C1635::D5		150 PPM BNA STD		7/16/93	10:20
>C1636::D2		120 PPM BNA STD		7/16/93	11:27
>C1637::D2		180 PPM BNA STD		7/16/93	12:14
>C1638::D2		1120 PPM BNA STD		7/16/93	13:01
>C1639::D2		1160 PPM BNA STD		7/16/93	13:49
>C1640::D5		A2748 CWM TCLP		7/16/93	14:37
>C1641::D5		A2755 CWM TCLP		7/16/93	15:53
>C1642::D5		A2749 CWM TCLP		7/16/93	16:43
>C1643::D2		A2779 CWM		7/16/93	17:43
>C1644::D2		A2785 CWM		7/16/93	18:33
>C1645::D2		A2538 FT. MONMOUTH		7/16/93	19:23
>C1646::D2		TCLP BLNK 7/16		7/16/93	20:13
>C1647::D2		A2477 1:10 RES		7/16/93	21:02





>C1634 50 NG DFTPP
107 NRM

File: >C1634 Scan #: 107 Retn. time: 7.09

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
37.05	.203	92.95	4.948	142.00	.723	189.00	.897	256.00	6.236
38.05	.622	94.05	.506	142.90	.391	191.90	.969	256.95	.622
39.15	5.830	95.15	.564	144.00	.188	193.00	1.085	257.95	2.271
40.05	6.004	96.15	.405	145.95	.391	196.00	3.342	264.95	1.042
41.05	1.244	97.15	.405	147.05	1.143	198.00	100.000	272.90	1.519
42.15	.203	98.05	3.024	148.05	2.127	198.90	6.641	274.00	3.559
43.15	1.143	99.05	2.763	149.05	.637	199.90	.492	275.00	21.050
44.05	8.695	100.05	.289	149.95	.159	201.55	.694	275.90	2.199
44.95	.391	101.05	1.751	151.15	.318	203.05	.535	276.90	1.360
49.10	.362	103.15	.694	153.05	.709	204.05	3.197	292.75	.203
50.10	13.455	103.95	.969	154.05	.550	205.05	4.326	295.95	4.876
51.10	53.906	105.00	1.389	155.05	1.186	205.95	20.877	297.05	.651
52.10	2.922	105.90	.420	155.95	1.924	206.95	2.373	303.00	.492
55.20	1.143	107.00	11.646	156.75	.289	207.95	.767	314.05	.304
56.10	1.968	108.10	1.678	157.85	.420	208.85	.289	314.95	.506
57.10	4.427	110.00	27.966	159.05	.289	210.35	.651	322.95	1.476
58.00	.260	111.00	4.861	159.90	.694	210.95	.883	324.05	.318
61.10	.608	111.90	.521	160.10	.694	216.90	5.324	326.90	.304
62.10	.651	112.90	.246	160.90	1.201	217.80	.420	334.00	.911

63.05	1.591	116.10	.796	161.90	.188	221.00	7.653	334.80	.231
64.15	.391	117.00	7.118	164.90	.723	223.00	1.157	352.05	.506
65.15	.738	118.15	.405	166.10	.651	224.00	12.066	353.05	.275
69.05	63.194	121.95	.723	167.00	4.673	225.00	3.082	353.90	.420
73.15	.535	123.05	.998	168.00	1.693	226.00	.376	365.00	1.707
74.05	3.934	124.05	.709	169.00	.477	227.00	4.384	365.90	.231
75.05	7.364	125.05	.694	173.00	.608	228.10	.564	372.05	.810
76.05	2.749	126.95	47.700	173.85	.984	228.85	.709	372.95	.231
77.10	50.911	128.05	3.892	174.95	1.389	230.95	.434	383.00	.217
78.10	3.429	129.05	19.271	175.95	.651	233.95	.188	401.95	.217
79.00	3.183	130.05	1.505	176.85	1.013	234.75	.275	402.75	.275
80.00	2.517	130.95	.405	177.95	.231	241.05	.217	420.90	.362
81.00	4.008	133.90	.434	178.95	3.111	242.05	.521	421.90	.448
82.00	1.114	134.10	.463	179.95	2.185	244.00	9.071	422.95	2.850
83.10	1.172	135.00	1.678	181.05	1.172	244.90	1.172	423.95	.492
85.10	.810	135.90	.680	185.05	1.505	245.90	1.736	441.10	7.581
86.00	.651	136.90	.637	186.05	11.834	247.00	.318	442.00	53.559
87.10	.463	140.10	.260	187.05	3.573	249.00	.333	443.00	10.315
91.05	.666	141.00	2.228	187.90	.347	255.00	45.877	444.00	.839
91.95	.796								

Continuing Calibration Check
HSL Compounds

Case No: Calibration Date: 07/13/93

Contractor: 21ST Century Env Time: 17:34

Contract No: Laboratory ID: >80668

Instrument ID: Volatile Inst B Initial Calibration Date: 07/13/93

Minimum $\overline{RF}$ for SPCC is .300 Maximum % Diff for CCC is 25%

Compound	$\overline{RF}$	RF	%Diff	CCC	SPCC	
Chloromethane	.74093	.68114	8.07		**	
Bromomethane	.52213	.42750	18.16			
Vinyl Chloride	1.10004	1.01680	7.57	*		
Chloroethane	.60524	.55090	8.98			
Acrolein	.13074	.12578	3.80			(Conc=80.00)
1,1,2-Trichlorotrifluoroethane	2.87883	3.02059	4.92			
Trichlorofluromethane	4.41740	4.63454	4.92			
Acetone	1.58211	1.63302	3.22			
1,1-Dichloroethene	2.53843	2.63613	3.85	*		
Carbon Disulfide	3.05225	2.77046	9.23			
Methyl Tertiary Butyl Ether	6.93486	6.20758	10.49			
Tertiary Butyl Alcohol	1.86994	3.20368	71.33			
Acrylonitrile	.80097	.76648	4.31			
Methylene Chloride	1.61570	1.51435	6.27			
1,2-Dichloroethene(trans)	2.42053	2.37725	1.79			
1,1-Dichloroethane	3.01334	3.00811	.17		**	
Vinyl Acetate	.06513	.05676	12.85			
2-Butanone	1.83308	1.79416	2.12			
Chloroform	3.78016	3.86351	2.20	*		
1,1,1-Trichloroethane	3.23287	3.11416	3.67			
Carbon Tetrachloride	2.78958	2.79996	.37			
1,2-Dichloroethane-d4	2.34280	2.39837	2.37			(Conc=50.00)
1,2-Dichloroethane	.66700	.67570	1.30			
Benzene	.95114	.87825	7.66			
Trichloroethene	.47658	.52424	10.00			
1,2-Dichloropropane	.28876	.30421	5.35	*		
Bromodichloromethane	.67738	.63604	6.10			
2-Chloroethylvinylether	.23854	.26612	11.66			
2-Hexanone	.43497	.39944	8.17			
trans-1,3-Dichloropropene	.54968	.51044	7.14			
Toluene-d8	.83838	.79874	4.73			
Toluene	1.17128	1.06863	8.76	*		

RF - Response Factor from daily standard file at 50.00 UG/L

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

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

Continuing Calibration Check
HSL Compounds

Case No: Calibration Date: 07/13/93

Contractor: 21ST Century Env Time: 17:34

Contract No: Laboratory ID: >80668

Instrument ID: Volatile Inst B Initial Calibration Date: 07/13/93

Minimum $\overline{RF}$ for SPCC is .300 Maximum % Diff for CCC is 25%

Compound	$\overline{RF}$	RF	%Diff	CCC	SPCC
cis-1,3-Dichloropropene	.75397	.74045	1.79		
1,1,2,2-Tetrachloroethane	.53325	.39243	26.41		**
1,1,2-Trichloroethane	.50285	.53713	6.82		
4-Methyl-2-pentanone	.67415	.65955	2.20		
Tetrachloroethene	.62478	.65649	5.07		
Dibromochloromethane	.84122	.88012	4.62		
Chlorobenzene	1.13414	1.14291	.77		**
Ethylbenzene	1.99688	1.98117	.79	*	
m&p-Xylenes	1.72467	1.70178	1.33		
o-Xylene	1.72215	1.60487	6.81		
Styrene	1.18039	1.16826	1.03		
Bromoform	.65352	.69437	6.25		**
Bromofluorobenzene	.66174	.66059	.17		
m-Dichlorobenzene	.94049	1.00047	6.38		
p-Dichlorobenzene	.95949	1.01292	5.57		
o-Dichlorobenzene	.89448	.91332	2.11		

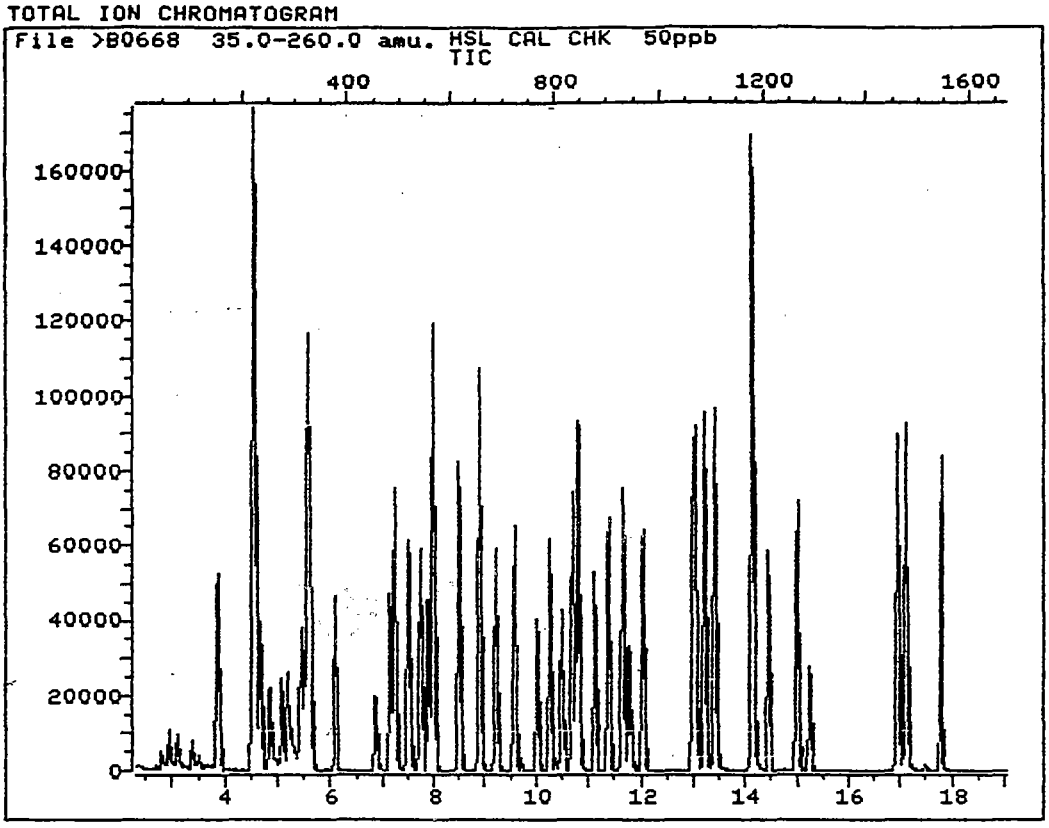
RF - Response Factor from daily standard file at 50.00 UG/L

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

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

TOTAL ION CHROMATOGRAM



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Name: HSL CAL CHK 50ppb
Misc:

Id File: ID0401::SC
Title: USEPA 624 VOLATILES
Last Calibration: 930713 14:30

Operator ID: MANAGER
Quant Time: 930713 18:00
Injected at: 930713 17:34

Continuing Calibration Check
HSL Compounds

Case No: Calibration Date: 07/14/93

Contractor: 21ST Century Env Time: 13:04

Contract No: Laboratory ID: >80689

Instrument ID: Volatile Inst 8 Initial Calibration Date: 07/13/93

Minimum $\overline{RF}$ for SPCC is .300 Maximum % Diff for CCC is 25%

Compound	$\overline{RF}$	RF	%Diff	CCC	SPCC	
Chloromethane	.74093	.74365	.37		**	
Bromomethane	.52213	.42324	18.94			
Vinyl Chloride	1.10004	1.13865	3.51	*		
Chloroethane	.60524	.53849	11.03			
Acrolein	.13074	.09701	25.80			(Conc=80.00)
1,1,2-Trichlorotrifluoroethane	2.87883	3.27925	13.91			
Trichlorofluromethane	4.41740	5.05570	14.45			
Acetone	1.58211	1.43243	9.46			
1,1-Dichloroethene	2.53843	2.45099	3.44	*		
Carbon Disulfide	3.05225	3.41148	11.77			
Methyl Tertiary Butyl Ether	6.93486	6.67085	3.81			
Tertiary Butyl Alcohol	1.86994	3.48818	86.54			
Acrylonitrile	.80097	.60740	24.17			
Methylene Chloride	1.61570	1.39160	13.87			
1,2-Dichloroethene(trans)	2.42053	2.60649	7.68			
1,1-Dichloroethane	3.01334	3.21792	6.79		**	
Vinyl Acetate	.06513	.07806	19.86			
2-Butanone	1.83308	1.77952	2.92			
Chloroform	3.78016	4.07160	7.71	*		
1,1,1-Trichloroethane	3.23287	3.28604	1.64			
Carbon Tetrachloride	2.78958	2.93759	5.31			
1,2-Dichloroethane-d4	2.34280	2.53348	8.14			(Conc=50.00)
1,2-Dichloroethane	.66700	.66557	.21			
Benzene	.95114	.90446	4.91			
Trichloroethene	.47658	.48974	2.76			
1,2-Dichloropropane	.28876	.28109	2.66	*		
Bromodichloromethane	.67738	.63919	5.64			
2-Chloroethylvinylether	.23834	.24675	3.53			
2-Hexanone	.43497	.40319	7.30			
trans-1,3-Dichloropropene	.54968	.51375	6.54			
Toluene-d8	.83838	.79675	4.97			
Toluene	1.17128	1.03521	11.62	*		

RF - Response Factor from daily standard file at 50.00 UG/L

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

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

Continuing Calibration Check
HSL Compounds

Case No: Calibration Date: 07/14/93

Contractor: 21ST Century Env Time: 13:04

Contract No: Laboratory ID: >80689

Instrument ID: Volatile Inst B Initial Calibration Date: 07/13/93

Minimum $\overline{RF}$ for SPCC is .300 Maximum % Diff for CCC is 25%

Compound	$\overline{RF}$	RF	%Diff	CCC	SPCC
cis-1,3-Dichloropropene	.75397	.73413	2.63		
1,1,2,2-Tetrachloroethane	.53325	.53482	.30		**
1,1,2-Trichloroethane	.50285	.51499	2.41		
4-Methyl-2-pentanone	.67415	.65237	3.23		
Tetrachloroethene	.62478	.64873	3.83		
Dibromochloromethane	.84122	.86351	2.65		
Chlorobenzene	1.13414	1.13574	.14		**
Ethylbenzene	1.99688	1.98769	.46	*	
m&p-Xylenes	1.72467	1.68554	2.27		
o-Xylene	1.72215	1.65140	4.11		
Styrene	1.18039	1.14955	2.61		
Bromoform	.65352	.67456	3.22		**
Bromofluorobenzene	.66174	.68058	2.85		
m-Dichlorobenzene	.94049	.94469	.45		
p-Dichlorobenzene	.95949	.95400	.57		
o-Dichlorobenzene	.89448	.89839	.44		

RF - Response Factor from daily standard file at 50.00 UG/L

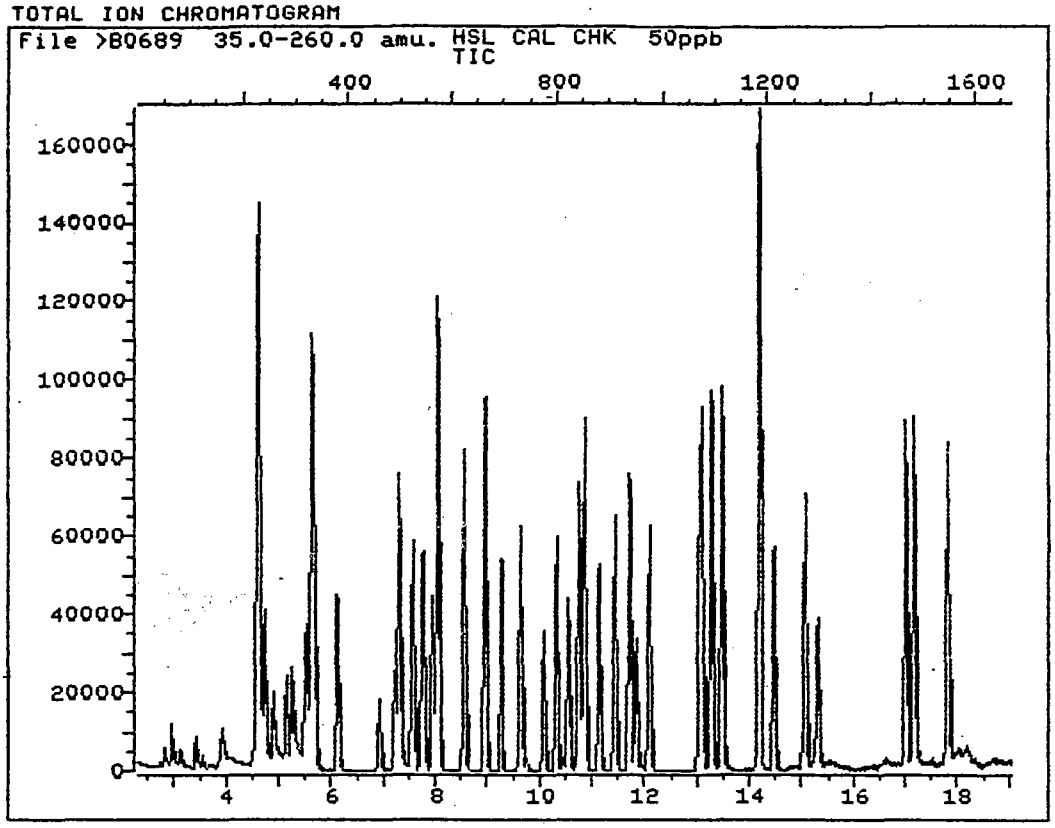
$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

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

00122

TOTAL ION CHROMATOGRAM



Data File: >B0689::D5 Quant Output File: ^B0689::D4
Name: HSL CAL CHK 50ppb
Misc:

Id File: ID0401::SC
Title: USEPA 624 VOLATILES
Last Calibration: 930713 18:23

Operator ID: MANAGER
Quant Time: 930714 13:26
Injected at: 930714 13:04

Continuing Calibration Check
HSL Compounds

Case No: Calibration Date: 07/13/93

Contractor: 21st Century Envir Time: 10:18

Contract No: Laboratory ID: >C1595

Instrument ID: 5970C Initial Calibration Date: 07/07/93

Minimum $\overline{RF}$ for SPCC is 0.050 Maximum % Diff for CCC is 25%

Compound	$\overline{RF}$	RF	%Diff	CCC	SPCC	
Pyridine	.61263	.60013	2.04			
n-Nitrosodimethylamine	.56674	.57350	1.19			
2-Fluorophenol	.57229	.80364	40.42			(Conc=100.00)
Phenol-d5	.86553	1.18385	36.78			(Conc=100.00)
Phenol	1.12003	1.34581	20.16	*		
bis(-2-Chloroethyl)Ether	.83917	1.04052	23.99			
2-Chlorophenol	.78406	1.00469	28.14			
1,3-Dichlorobenzene	.95602	1.11876	17.02			
1,4-Dichlorobenzene	.95326	1.13967	19.55	*		
Benzyl Alcohol	.54661	.64195	17.44			
1,2-Dichlorobenzene	.91854	1.09228	18.92			
2-Methylphenol	.80718	1.00364	24.34			
bis(2-Chloroisopropyl)ether	1.31583	1.33250	1.27			
4-Methylphenol	.79239	.97702	23.30			(Conc=100.00)
N-Nitroso-Di-n-propylamine	.90462	.94780	4.77		**	
Hexachloroethane	.42540	.50567	18.87			
Nitrobenzene-d5	.44686	.45493	1.81			(Conc=50.00)
Nitrobenzene	.55071	.55682	1.11			
Isophorone	1.19076	1.18679	.33			
2-Nitrophenol	.25458	.26957	5.89	*		
2,4-Dimethylphenol	.35858	.37858	5.58			
Benzoic Acid	.30173	.24252	19.62			
bis(-2-Chloroethoxy)Methane	.51897	.53961	3.98			
2,4-Dichlorophenol	.38637	.38483	.40	*		
1,2,4-Trichlorobenzene	.42593	.43339	1.75			
Naphthalene	1.05192	1.12916	7.34			
4-Chloroaniline	.48623	.49582	1.97			
Hexachlorobutadiene	.20699	.20349	1.69	*		
4-Chloro-3-methylphenol	.45043	.42417	5.83	*		
2-Methylnaphthalene	.72637	.76484	5.30			
Hexachlorocyclopentadiene	.32342	.30706	5.06		**	
2,4,6-Trichlorophenol	.44718	.46998	5.10	*		

RF - Response Factor from daily standard file at 50.00 ug/l

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

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

00124

Continuing Calibration Check
HSL Compounds

Case No: Calibration Date: 07/13/93

Contractor: 21st Century Envir Time: 10:18

Contract No: Laboratory ID: >C1595

Instrument ID: 5970C Initial Calibration Date: 07/07/93

Minimum $\overline{RF}$ for SPCC is 0.050 Maximum % Diff for CCC is 25%

Compound	$\overline{RF}$	RF	%Diff	CCC	SPCC	
2,4,5-Trichlorophenol	.48514	.51065	5.26			
2-Chloronaphthalene	1.41408	1.48577	5.07			
2-Fluorobiphenyl	1.31157	1.37613	4.92			(Conc=50.00)
2-Nitroaniline	.47926	.50252	4.85			
Dimethyl Phthalate	1.48142	1.62734	9.85			
Acenaphthylene	1.81906	1.78792	1.71			
3-Nitroaniline	.30319	.30655	1.11			
Acenaphthene	1.17618	1.20853	2.75	*		
2,4-Dinitrophenol	.13189	.11357	13.89		**	
4-Nitrophenol	.21456	.16259	24.22		**	
Dibenzofuran	1.72169	1.81149	5.22			
2,4-Dinitrotoluene	.49446	.48987	.93			
2,6-Dinitrotoluene	.42614	.44192	3.71			
Diethylphthalate	1.46245	1.48748	1.71			
4-Chlorophenyl-phenylether	.62434	.67218	7.66			
Fluorene	1.27570	1.32223	3.65			
4-Nitroaniline	.22477	.19979	11.12			
4,6-Dinitro-2-methylphenol	.15653	.16687	6.60			
N-Nitrosodiphenylamine	.82556	.94432	14.39	*		
2,4,6-Tribromophenol	.12303	.11029	10.35			(Conc=100.00)
4-Bromophenyl-phenylether	.29866	.31645	5.96			
Hexachlorobenzene	.32754	.33874	3.42	*		
Pentachlorophenol	.12099	.11165	7.71		**	
Phenanthrene	1.13144	1.19058	5.23			
Anthracene	1.14065	1.17887	3.35			
Di-n-Butylphthalate	1.37275	1.46444	6.68			
Fluoranthene	.59913	.68661	14.60	*		
Pyrene	2.10358	1.95949	6.85			
Benzidine	.34089	.34388	.88			
Terphenyl-d14	1.39096	1.38003	.79			(Conc=50.00)
Butylbenzylphthalate	1.14354	1.13389	.84			
3,3'-Dichlorobenzidine	.35552	.35469	.23			

RF - Response Factor from daily standard file at 50.00 ug/l

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

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

Continuing Calibration Check
HSL Compounds

Case No: _____ Calibration Date: 07/13/93

Contractor: 21st Century Envir Time: 10:18

Contract No: _____ Laboratory ID: >C1595

Instrument ID: 5970C Initial Calibration Date: 07/07/93

Minimum $\overline{RF}$ for SPCC is 0.050 Maximum % Diff for CCC is 25%

Compound	$\overline{RF}$	RF	%Diff	CCC	SPCC
Benzo(a)Anthracene	1.19382	1.16726	2.23		
Bis(2-Ethylhexyl)Phthalate	1.51882	1.59665	5.12		
Chrysene	1.11238	1.15749	4.06		
Di-n-octyl phthalate	3.06790	3.43790	12.06	*	
Benzo(b)fluoranthene	1.36118	1.34964	.85		
Benzo(k)Fluoranthene	1.37419	1.45198	5.66		
Benzo(a)Pyrene	1.25979	1.30088	3.26	*	
Indeno(1,2,3-cd)Pyrene	1.07582	1.15904	7.74		
Dibenzo(a,h)Anthracene	.92260	.93688	1.55		
Benzo(g,h,i)Perylene	.96805	1.01282	4.63		

RF - Response Factor from daily standard file at 50.00 ug/l

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

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

00126

Continuing Calibration Check
HSL Compounds

Case No: Calibration Date: 07/14/93

Contractor: 21st Century Envir Time: 09:24

Contract No: Laboratory ID: >C1604

Instrument ID: 5970C Initial Calibration Date: 07/07/93

Minimum $\overline{RF}$ for SPCC is 0.050 Maximum % Diff for CCC is 25%

Compound	$\overline{RF}$	RF	%Diff	CCC	SPCC	
Pyridine	.61263	.71594	16.86			
n-Nitrosodimethylamine	.56674	.50339	11.18			
2-Fluorophenol	.57229	.72231	26.21			(Conc=100.00)
Phenol-d5	.86553	1.07789	24.54			(Conc=100.00)
Phenol	1.12003	1.22700	9.55	*		
bis(-2-Chloroethyl)Ether	.83917	.92768	10.55			
2-Chlorophenol	.78406	.89701	14.41			
1,3-Dichlorobenzene	.95602	.99432	4.01			
1,4-Dichlorobenzene	.95326	1.00199	5.11	*		
Benzyl Alcohol	.54661	.57377	4.97			
1,2-Dichlorobenzene	.91854	.97592	6.25			
2-Methylphenol	.80718	.91478	13.33			
bis(2-Chloroisopropyl)ether	1.31583	1.19058	9.52			
4-Methylphenol	.79239	.89191	12.56			(Conc=100.00)
N-Nitroso-Di-n-propylamine	.90462	.88153	2.55		**	
Hexachloroethane	.42540	.45431	6.80			
Nitrobenzene-d5	.44686	.44481	.46			(Conc=50.00)
Nitrobenzene	.55071	.54625	.81			
Isophorone	1.19076	1.20569	1.25			
2-Nitrophenol	.25458	.26489	4.05	*		
2,4-Dimethylphenol	.35858	.37821	5.47			
Benzoic Acid	.30173	.25760	14.62			
bis(-2-Chloroethoxy)Methane	.51897	.53485	3.06			
2,4-Dichlorophenol	.38637	.38394	.63	*		
1,2,4-Trichlorobenzene	.42593	.43641	2.46			
Naphthalene	1.05192	1.13042	7.46			
4-Chloroaniline	.48623	.49541	1.89			
Hexachlorobutadiene	.20699	.20681	.09	*		
4-Chloro-3-methylphenol	.45043	.44291	1.67	*		
2-Methylnaphthalene	.72637	.76482	5.29			
Hexachlorocyclopentadiene	.32342	.32638	.92		**	
2,4,6-Trichlorophenol	.44718	.47298	5.77	*		

RF - Response Factor from daily standard file at 50.00 ug/l

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

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

00127

Continuing Calibration Check
HSL Compounds

Case No: Calibration Date: 07/14/93

Contractor: 21st Century Envir Time: 09:24

Contract No: Laboratory ID: >C1604

Instrument ID: 5970C Initial Calibration Date: 07/07/93

Minimum $\overline{RF}$ for SPCC is 0.050 Maximum % Diff for CCC is 25%

Compound	$\overline{RF}$	RF	%Diff	CCC	SPCC	
2,4,5-Trichlorophenol	.48514	.50591	4.28			
2-Chloronaphthalene	1.41408	1.48004	4.66			
2-Fluorobiphenyl	1.31157	1.36942	4.41			(Conc=50.00)
2-Nitroaniline	.47926	.48815	1.85			
Dimethyl Phthalate	1.48142	1.61861	9.26			
Acenaphthylene	1.81906	1.78739	1.74			
3-Nitroaniline	.30319	.29755	1.86			
Acenaphthene	1.17618	1.21294	3.13	*		
2,4-Dinitrophenol	.13189	.12395	6.02		**	
4-Nitrophenol	.21456	.16642	22.44		**	
Dibenzofuran	1.72169	1.73565	.81			
2,4-Dinitrotoluene	.49446	.47582	3.77			
2,6-Dinitrotoluene	.42614	.43792	2.77			
Diethylphthalate	1.46245	1.48416	1.48			
4-Chlorophenyl-phenylether	.62434	.65546	4.98			
Fluorene	1.27570	1.27315	.20			
4-Nitroaniline	.22477	.19419	13.61			
4,6-Dinitro-2-methylphenol	.15653	.17607	12.48			
N-Nitrosodiphenylamine	.82556	.91242	10.52	*		
2,4,6-Tribromophenol	.12303	.12000	2.46			(Conc=100.00)
4-Bromophenyl-phenylether	.29866	.32660	9.36			
Hexachlorobenzene	.32754	.34713	5.98	*		
Pentachlorophenol	.12099	.12415	2.61		**	
Phenanthrene	1.13144	1.20557	6.55			
Anthracene	1.14065	1.20998	6.08			
Di-n-Butylphthalate	1.37275	1.56617	14.09			
Fluoranthene	.59913	.69706	16.35	*		
Pyrene	2.10358	1.94518	7.53			
Benzidine	.34089	.28099	17.57			
Terphenyl-d14	1.39096	1.34787	3.10			(Conc=50.00)
Butylbenzylphthalate	1.14354	1.05715	7.55			
3,3'-Dichlorobenzidine	.35552	.35113	1.24			

RF - Response Factor from daily standard file at 50.00 ug/l

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

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

00128

Continuing Calibration Check
HSL Compounds

Case No: Calibration Date: 07/14/93

Contractor: 21st Century Envir Time: 09:24

Contract No: Laboratory ID: >C1604

Instrument ID: 5970C Initial Calibration Date: 07/07/93

Minimum $\overline{RF}$ for SPCC is 0.050 Maximum % Diff for CCC is 25%

Compound	$\overline{RF}$	RF	%Diff	CCC	SPCC
Benzo(a)Anthracene	1.19382	1.20672	1.08		
Bis(2-Ethylhexyl)Phthalate	1.51882	1.54642	1.82		
Chrysene	1.11238	1.09308	1.74		
Di-n-octyl phthalate	3.06790	3.10896	1.34	*	
Benzo(b)fluoranthene	1.36118	1.35388	.54		
Benzo(k)Fluoranthene	1.37419	1.44284	5.00		
Benzo(a)Pyrene	1.25979	1.27309	1.06	*	
Indeno(1,2,3-cd)Pyrene	1.07582	1.15467	7.33		
Dibenzo(a,h)Anthracene	.92260	.90434	1.98		
Benzo(g,h,i)Perylene	.96805	.96988	.19		

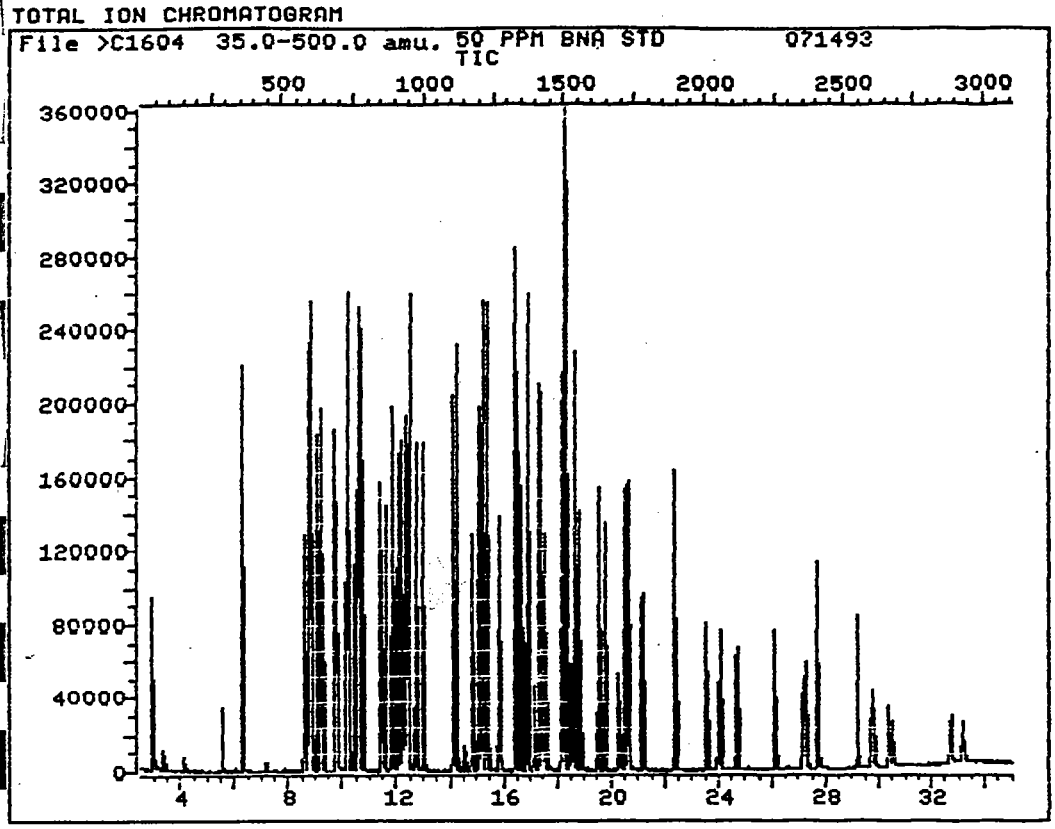
RF - Response Factor from daily standard file at 50.00 ug/l

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

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

00129



Data File: >C1604::DA Quant Output File: ^C1604::D5
Name: 50 PPM BNA STD
Misc: 071493 BTL# 2

Id File: ID0706::ED
Title: hSL BNA STD
Last Calibration: 930707 15:51

Operator ID: JEFF
Quant Time: 930714 10:02
Injected at: 930714 09:24

21st Century Environmental Inc.

GC/MS STANDARD p-BROMOFLUOROBENZENE (BFB) USE
CRITERIA FOR VOLATILES 50ng

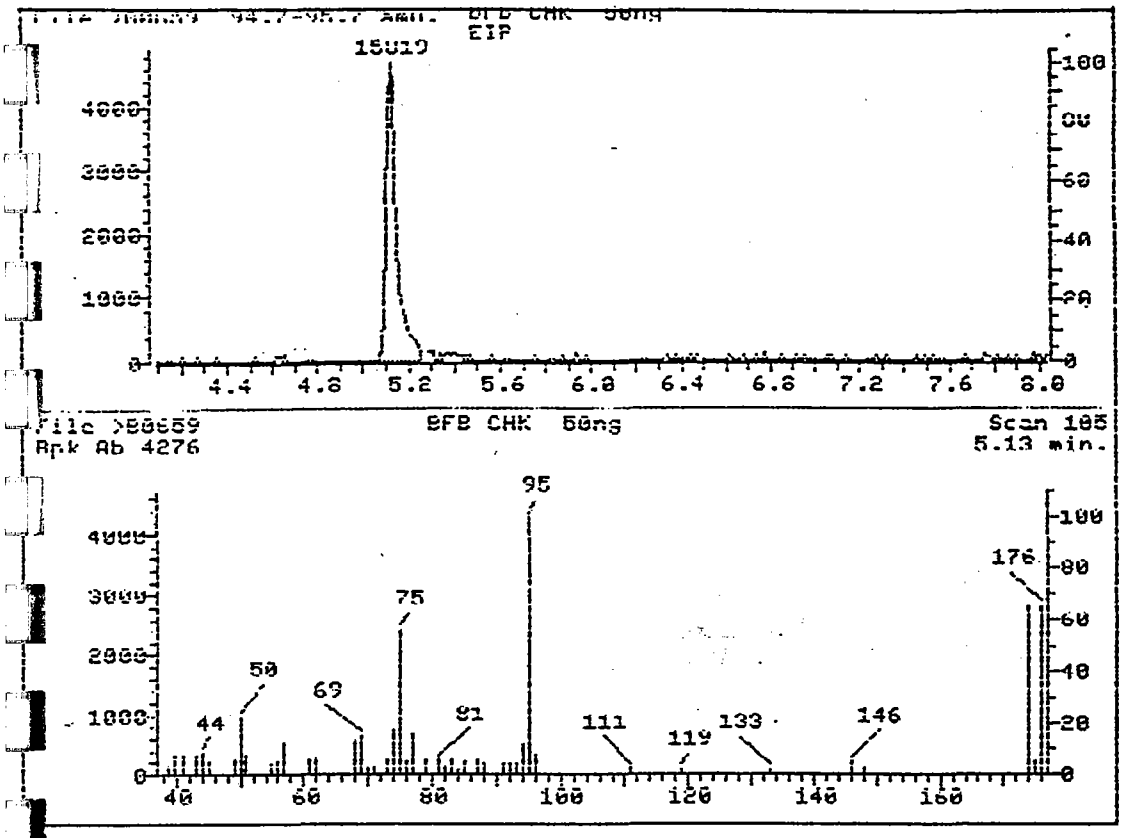
DATE AND TIME OF INJECTION: 7/13/93 9:18
INSTRUMENT ID: 5995

DATA RELEASE AUTHORIZED BY Richard W Lynch.

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	% Relative Abundance Appropriate Peak	Status
50	15-40% of mass 95	22.71	22.71	Ok
75	30-60% of mass 95	56.34	56.34	Ok
95	Base peak, 100% relative abundance	100.00	100.00	Ok
96	5-9% of mass 95	7.34	7.34	Ok
173	Less than 2% of mass 174	0.00	0.00	Ok
174	Greater than 50% of mass 95	65.06	65.06	Ok
175	5-9% of mass 174	4.82	7.40	Ok
176	95-101% of mass 174	65.65	100.90	Ok
177	5-9% of mass 176	4.16	6.34	Ok

THIS PERFORMANCE AFFECTS ALL SAMPLES
STANDARDS AND BLANKS LISTED BELOW

SAMPLE ID		LAB ID		DATE	TIME
>B0659::D5		BFB CHK 50ng		7/13/93	9:18
>B0661::D5		HSL CAL CHK 50ppb		7/13/93	12:18
>B0663::D5		HSL CAL CHK 100ppb		7/13/93	13:49
>B0664::D5		HSL CAL CHK 150ppb		7/13/93	14:19
>B0665::D5		HSL CAL CHK 200ppb		7/13/93	14:50
>B0666::D5		HSL CAL CHK 20ppb		7/13/93	15:26



>B0659 BFB CHK 50ng
105 NRM

File: >B0659 Scan #: 105 Retn. time: 5.13

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
36.90	7.133	54.95	4.397	73.95	17.025	85.00	4.771	110.95	2.277
38.90	3.742	56.00	4.771	75.00	56.338	86.90	5.543	118.85	1.754
39.90	7.297	57.00	12.605	76.00	4.958	88.00	4.397	132.90	1.894
40.95	7.343	60.95	6.104	76.90	15.926	90.95	4.093	145.95	4.794
43.05	7.320	61.95	6.501	78.90	5.776	91.95	4.373	147.95	2.649
43.95	8.676	67.90	13.026	80.85	5.613	93.05	3.812	174.00	65.061
44.95	5.098	69.00	15.014	81.85	3.017	94.00	11.459	174.95	4.818
49.00	6.080	69.95	2.853	82.85	5.472	95.00	100.000	175.95	65.645
50.00	22.708	70.95	3.789	83.90	1.777	96.00	7.343	176.95	4.163
50.95	7.881	72.95	5.472						

Initial Calibration Data
HSL Compounds

Case No: _____ Instrument ID: Volatile Inst B

Contractor: 21ST Century Env Calibration Date: 07/13/93

Contract No: _____

Minimum $\overline{RF}$ for SPCC is .300 Maximum % RSD for CCC is 30%

Laboratory ID:	>B0666	>B0661	>B0663	>B0664	>B0665					
Compound	RF 20.00	RF 50.00	RF 100.00	RF 150.00	RF 200.00	$\overline{RRT}$	$\overline{RF}$	% RSD	CCC	SPCC
Chloromethane	.55366	.77296	.78918	.84730	.74154	.387	.74093	15.050		**
Bromomethane	.46324	.63223	.55013	.51915	.44587	.474	.52213	14.267		
Vinyl Chloride	.82569	1.20679	1.13879	1.19063	1.13829	.412	1.10004	14.217	*	
Chloroethane	.56314	.82912	.62658	.57517	.43216	.493	.60524	23.831		
Acrolein	.11245	.13097	.12071	.14421	.14537	.626	.13074	11.021		(Conc=52.0,80.0,160.0,240,
1,1,2-Trichlorotrifluoroethane	2.83201	3.32527	2.71006	2.98171	2.54508	.640	2.87883	10.304		
Trichlorofluromethane	4.27689	5.02708	4.16784	4.66457	3.95059	.640	4.41740	9.689		
Acetone	1.98412	1.48708	1.38516	1.57478	1.47941	.658	1.58211	14.824		
1,1-Dichloroethene	2.44137	1.96244	2.69549	3.05920	2.53365	.639	2.53843	15.722	*	
Carbon Disulfide	2.21239	3.05658	3.08472	3.50738	3.40018	.680	3.05225	16.663		
Methyl Tertiary Butyl Ether	-	6.00601	7.02576	7.61539	7.09229	.784	6.93486	9.705		
Tertiary Butyl Alcohol	1.62149	1.65535	1.79345	2.24830	2.03109	.766	1.86994	14.218		(Conc=40.0,100.0,200.0,30
Acrylonitrile	.76957	.78312	.73076	.84663	.87476	.774	.80097	7.324		
Methylene Chloride	1.54683	1.53214	1.59960	1.83098	1.56896	.729	1.61570	7.613		
1,2-Dichloroethene(trans)	2.34030	1.81558	2.49365	2.85536	2.59774	.777	2.42053	15.977		
1,1-Dichloroethane	2.86863	2.21491	3.10162	3.55430	3.32725	.852	3.01334	17.062		**
Vinyl Acetate	.04807	.06579	.06870	.07676	.07432	.862	.06513	17.690		
2-Butanone	2.36617	1.75580	1.56831	1.81238	1.66272	.962	1.83308	17.028		
Chloroform	3.66926	2.74776	3.94078	4.53706	4.00594	1.014	3.78016	17.586	*	
1,1,1-Trichloroethane	2.92914	2.86683	3.28332	3.82504	3.26002	1.051	3.23287	11.781		
Carbon Tetrachloride	2.60214	2.03735	2.92525	3.42026	2.96291	1.082	2.78958	18.342		
1,2-Dichloroethane-d4	2.30955	2.08451	2.30626	2.71475	2.29893	1.108	2.34280	9.767		(Conc=50.0,50.0,50.0,50.0
1,2-Dichloroethane	.66790	.53904	.70972	.70681	.71153	.943	.66700	11.060		
Benzene	.88994	.97132	.95103	.95791	.98552	.942	.95114	3.856		
Trichloroethene	.49296	.41012	.50613	.49318	.48048	1.046	.47658	8.024		
1,2-Dichloropropane	.28636	.24425	.30755	.29995	.30572	1.084	.28876	9.085	*	
Bromodichloromethane	.61446	.67699	.69486	.70285	.69775	1.129	.67758	5.588		
2-Chloroethylvinylether	.24860	.30026	.25454	.13491	.25338	1.178	.23834	25.801		
2-Hexanone	.49492	.48321	.40272	.39117	.40282	1.385	.43497	11.445		
trans-1,3-Dichloropropene	.50578	.56051	.56214	.56324	.55674	1.207	.54968	4.487		

RF - Response Factor (Subscript is amount in UG/L)

$\overline{RRT}$ - Average Relative Retention Time (RT Std/RT Istd)

$\overline{RF}$ - Average Response Factor

%RSD - Percent Relative Standard Deviation

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

Initial Calibration Data
HSL Compounds

Case No: _____ Instrument ID: Volatile Inst B

Contractor: 21ST Century Env Calibration Date: 07/13/93

Contract No: _____

Minimum $\overline{RF}$ for SPCC is .300 Maximum % RSD for CCC is 30%

Laboratory ID:	>80666	>80661	>80663	>80664	>80665					
Compound	RF 20.00	RF 50.00	RF 100.00	RF 150.00	RF 200.00	$\overline{RRT}$	$\overline{RF}$	%RSD	CCC	SPCC
Toluene-d8	.81935	.87592	.83476	.84460	.81929	1.256	.83858	2.695		(Conc=50.0,50.0,50.0,50.0
Toluene	1.35641	1.21862	1.11433	1.07868	1.08834	1.268	1.17128	10.030	*	
cis-1,3-Dichloropropene	.67152	.71086	.77953	.80676	.80119	.859	.75397	7.938		
1,1,2,2-Tetrachloroethane	.52607	.37191	.58033	.57705	.61087	1.171	.53325	17.850		**
1,1,2-Trichloroethane	.50962	.39474	.53494	.53299	.54198	.877	.50285	12.260		
4-Methyl-2-pentanone	.76519	.69820	.62780	.62299	.65659	.907	.67415	8.757		
Tetrachloroethene	.65974	.52185	.65864	.64670	.63698	.898	.62478	9.350		
Dibromochloromethane	.81068	.65935	.90835	.89775	.93000	.926	.84122	13.237		
Chlorobenzene	1.19952	.89711	1.19870	1.17821	1.19716	1.004	1.13414	11.709		**
Ethylbenzene	1.65518	1.97878	2.03836	2.12570	2.18636	1.020	1.99688	10.363	*	
m&p-Xylenes	1.65518	1.76790	1.70177	1.68814	1.81056	1.033	1.72467	3.656		
o-Xylene	1.70094	1.61665	1.71563	1.77378	1.80375	1.085	1.72215	4.202		
Styrene	1.15266	1.28610	1.13458	1.09585	1.23475	1.086	1.18039	6.628		
Bromoform	.64678	.50854	.70608	.69878	.70742	1.110	.65352	12.980		**
Bromofluorobenzene	.65696	.65366	.65348	.67459	.67001	1.154	.66174	1.491		(Conc=50.0,50.0,50.0,50.0
m-Dichlorobenzene	1.01232	.91431	.92532	.90304	.94747	1.303	.94049	4.612		
p-Dichlorobenzene	1.01684	.97425	.95612	.90114	.94909	1.315	.95949	4.370		
o-Dichlorobenzene	1.04332	.86748	.87666	.81679	.86812	1.366	.89448	9.671		

RF - Response Factor (Subscript is amount in UG/L)

$\overline{RRT}$ - Average Relative Retention Time (RT Std/RT Istd)

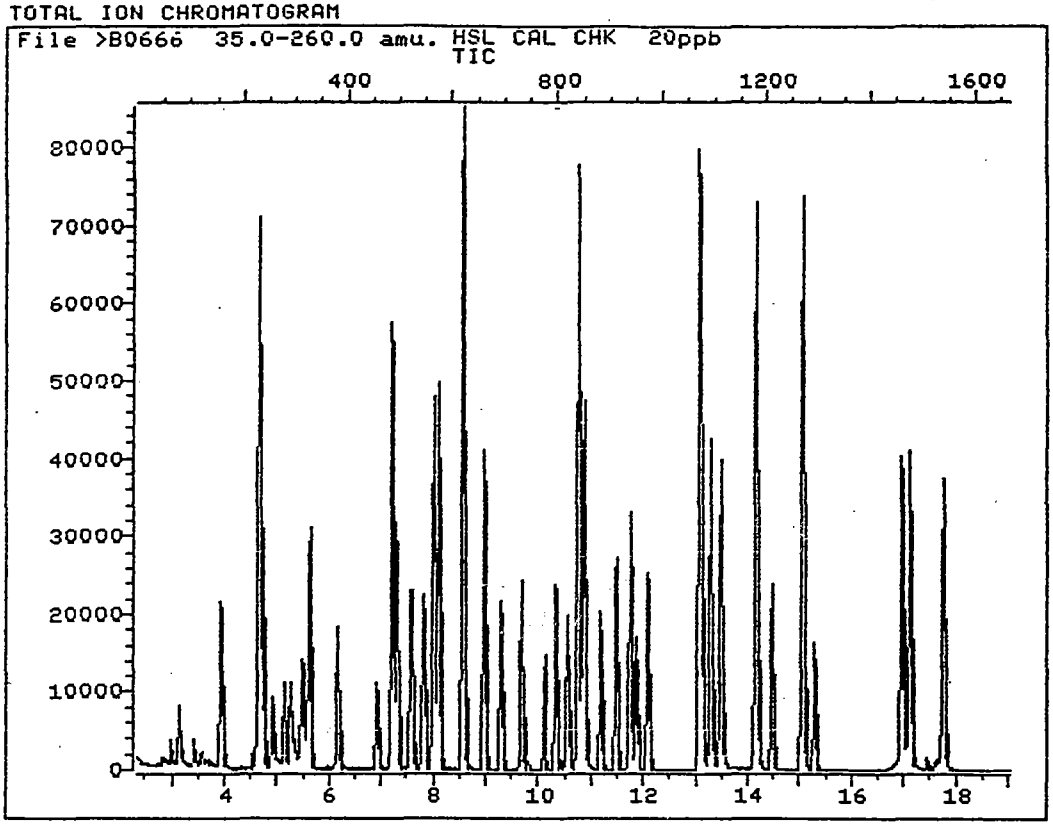
$\overline{RF}$ - Average Response Factor

%RSD - Percent Relative Standard Deviation

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

00134

TOTAL ION CHROMATOGRAM

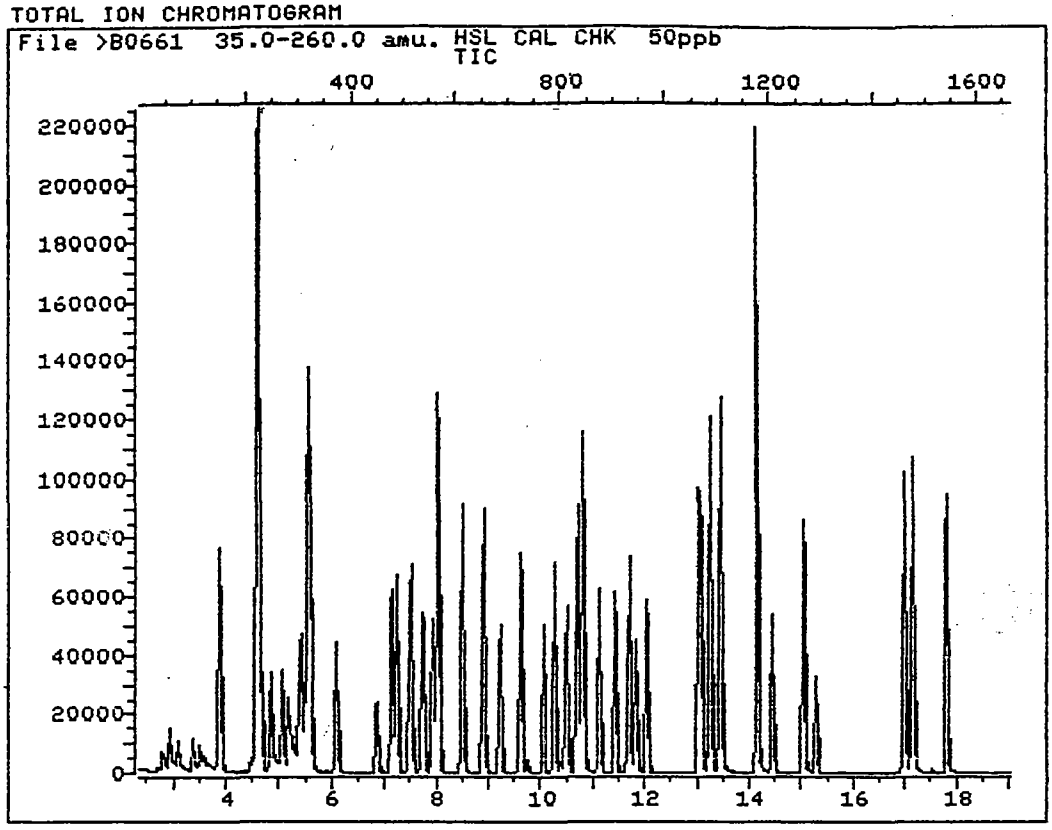


Data File: >B0666::D5 Quant Output File: ^B0666::D4
Name: HSL CAL CHK 20ppb
Misc:

Id File: ID0401::SC
Title: USEPA 624 VOLATILES
Last Calibration: 930713 14:30

Operator ID: MANAGER
Quant Time: 930713 15:53
Injected at: 930713 15:26

TOTAL ION CHROMATOGRAM

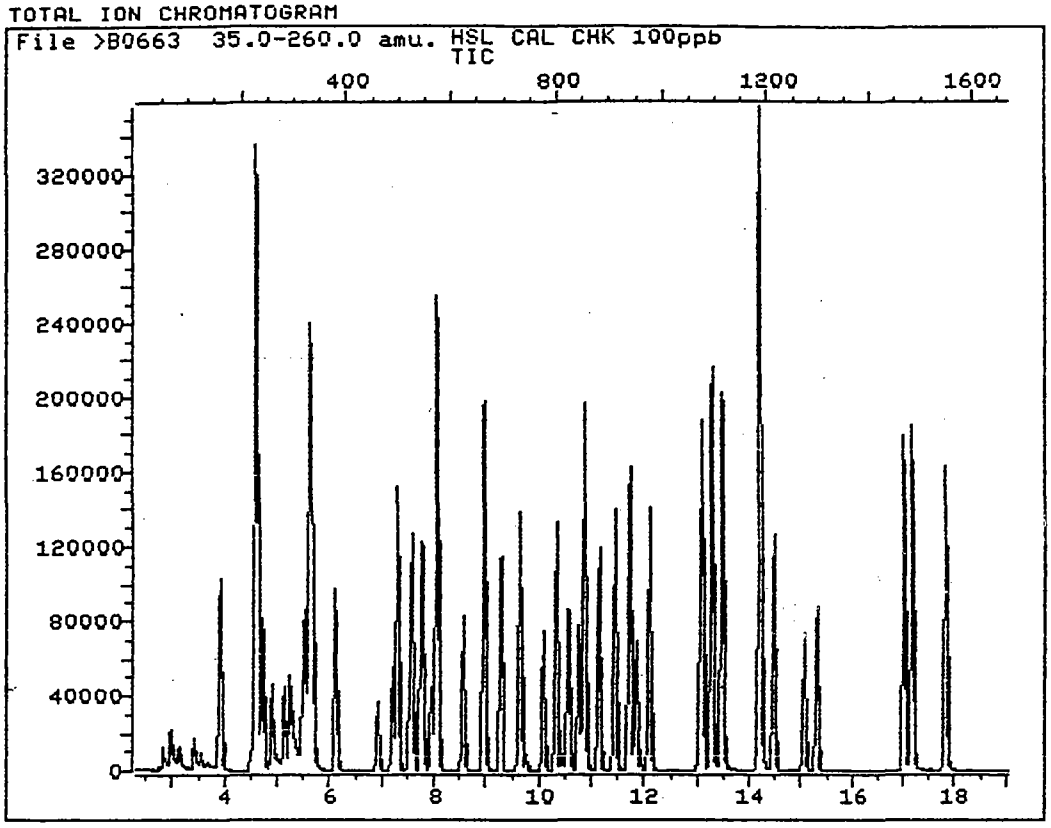


Data File: >B0661::D5 Quant Output File: ^B0661::D4
Name: HSL CAL CHK 50ppb
Misc:

Id File: ID0401::SC
Title: USEPA 624 VOLATILES
Last Calibration: 930711 13:54

Operator ID: MANAGER
Quant Time: 930713 12:43
Injected at: 930713 12:18

TOTAL ION CHROMATOGRAM

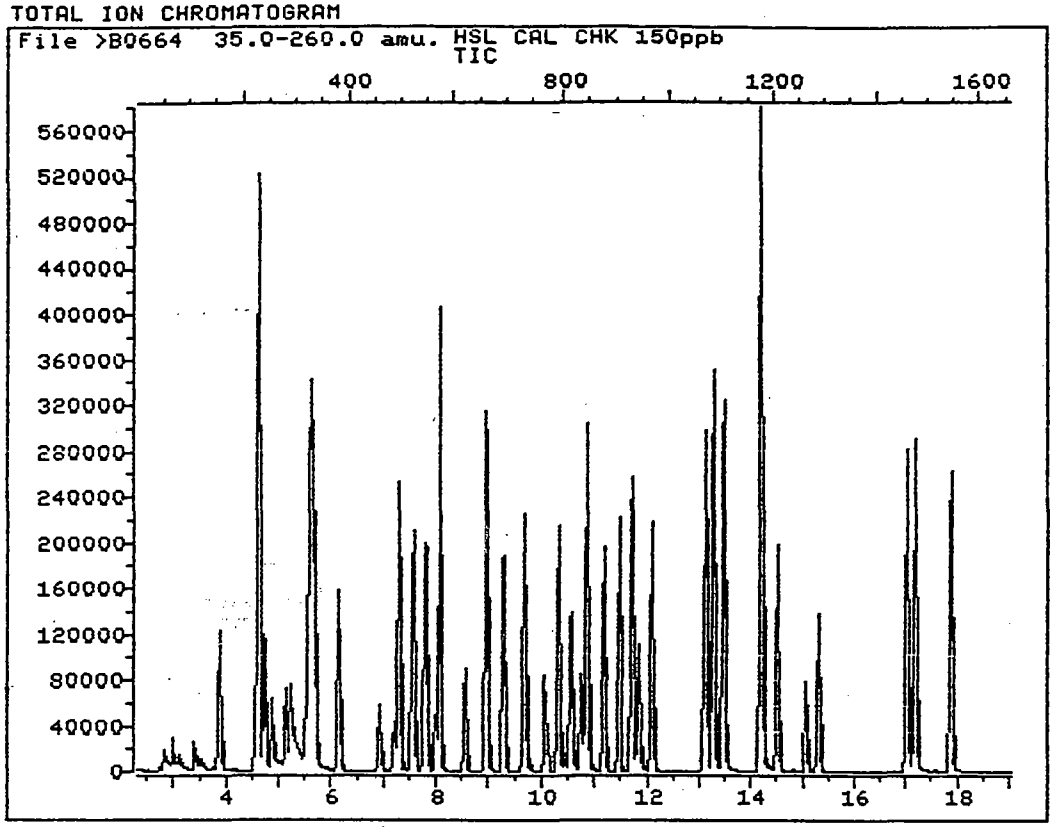


Data File: >B0663::D5 Quant Output File: ^B0663::D4
Name: HSL CAL CHK 100ppb
Misc:

Id File: ID0401::SC
Title: USEPA 624 VOLATILES
Last Calibration: 930711 13:54

Operator ID: MANAGER
Quant Time: 930713 14:15
Injected at: 930713 13:49

TOTAL ION CHROMATOGRAM

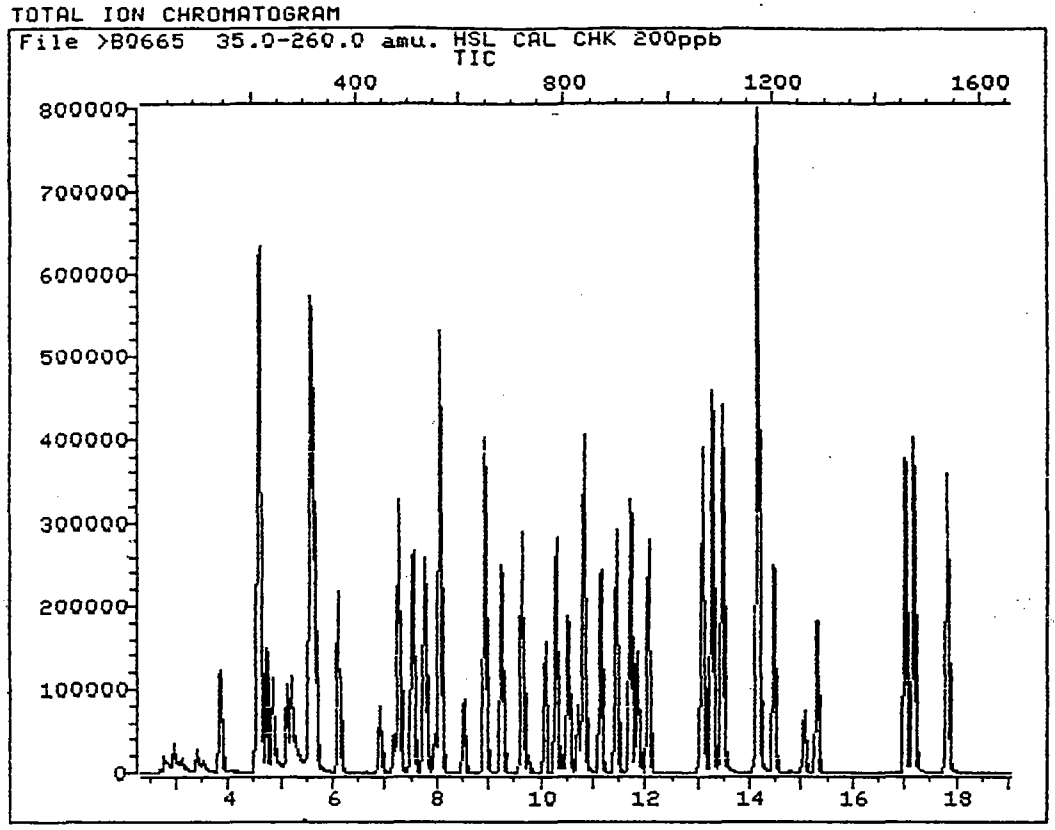


Data File: >B0664::D5 Quant Output File: ^B0664::D4
Name: HSL CAL CHK 150ppb
Misc:

Id File: ID0401::SC
Title: USEPA 624 VOLATILES
Last Calibration: 930713 14:30

Operator ID: MANAGER
Quant Time: 930713 14:47
Injected at: 930713 14:19

TOTAL ION CHROMATOGRAM



Data File: >B0665::D5 Quant Output File: ^B0665::D4
Name: HSL CAL CHK 200ppb
Misc:

Id File: ID0401::SC
Title: USEPA 624 VOLATILES
Last Calibration: 930713 14:30

Operator ID: MANAGER
Quant Time: 930713 15:16
Injected at: 930713 14:50

21st Century Environmental Inc.

GC/MS STANDARD DECAFLUOROTRIPHENYLPHOSPHINE(DFTPP) TUNE
CRITERIA FOR SEMIVOLATILES 50ng

DATE AND TIME OF INJECTION: 7/06/93 11:27
INSTRUMENT ID: 5970

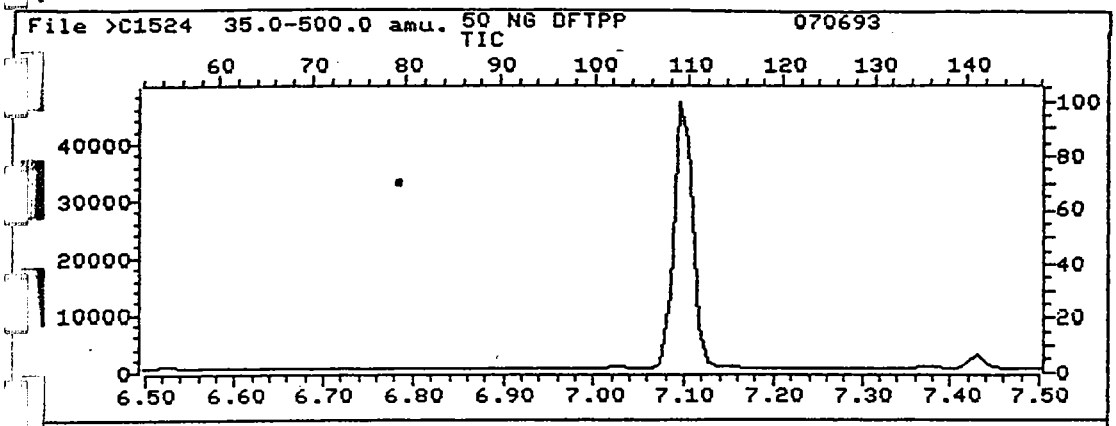
DATA RELEASE AUTHORIZED BY Richard W Rymer.

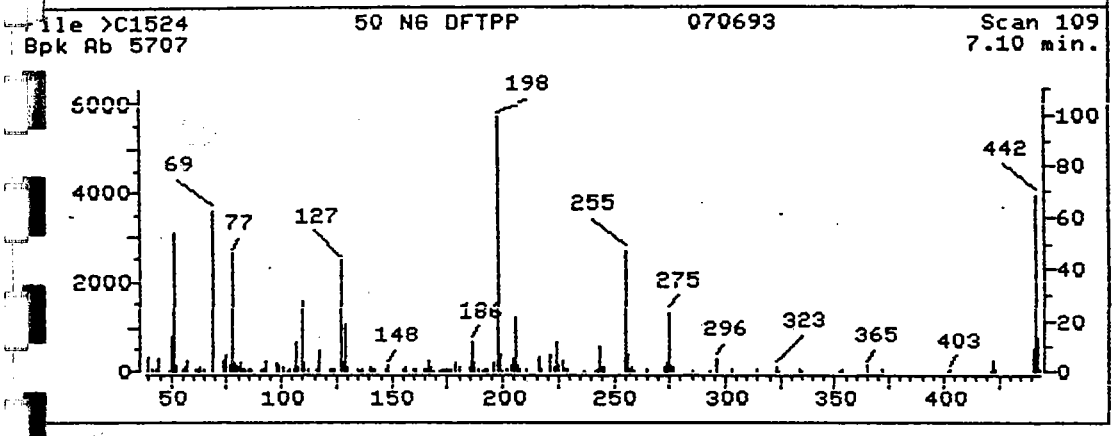
m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	% Relative Abundance Appropriate Peak	Status
51	30-60% of mass 198	54.39	54.39	Ok
68	Less than 2% of mass 69	0.00	0.00	Ok
69	(reference only)	63.20	63.20	Ok
70	Less than 2% of mass 69	0.00	0.00	Ok
127	40-60% of mass 198	43.00	43.00	Ok
197	Less than 1% of mass 198	0.00	0.00	Ok
198	Base peak, 100% relative abundance	100.00	100.00	Ok
199	5-9% of mass 198	6.64	6.64	Ok
275	10-30% of mass 198	23.43	23.43	Ok
365	Greater than 1% of mass 198	2.30	2.30	Ok
441	0-100% of mass 443	9.25	68.31	Ok
442	Greater than 40% of mass 198	68.85	68.85	Ok
443	17-23% of mass 442	13.54	19.67	Ok

THIS PERFORMANCE AFFECTS ALL SAMPLES
STANDARDS AND BLANKS LISTED BELOW

SAMPLE ID		LAB ID		DATE TIME
>C1524::D5		50 NG DFTPP		7/06/93 11:27
>C1526::D5		50 PPM BNA STD		7/06/93 11:57
>C1527::D5		20 PPM BNA STD		7/06/93 12:52
>C1528::D5		80 PPM BNA STD		7/06/93 13:44
>C1529::D5		120PPM BNA STD		7/06/93 14:36
>C1530::D5		160PPM BNA STD		7/06/93 15:30
>C1531::D5		TCLP BLNK 6/24		7/06/93 16:25
>C1532::D5		A2376 WWC		7/06/93 17:20
>C1533::D5		A2377 WWC		7/06/93 18:15
>C1534::D5		A2378 WWC		7/06/93 19:07
>C1535::D5		A2371 6/24		7/06/93 19:58
>C1536::D5		A2372 6/24		7/06/93 20:48

00110





>C1524 50 NG DFTPP 070693
109 NRM

File: >C1524 Scan #: 109 Retn. time: 7.10

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
38.05	1.209	91.00	.894	147.05	.859	200.00	.403	272.85	1.332
39.05	5.625	92.00	.561	147.95	2.190	201.50	.596	273.95	3.434
39.95	3.364	93.00	4.556	155.00	1.051	203.95	2.646	274.95	23.427
41.05	.631	98.00	2.996	156.00	1.419	204.95	4.941	275.90	2.628
43.05	.824	99.00	2.611	160.10	.526	205.95	21.798	276.90	1.630
44.05	5.029	100.95	1.717	161.00	.929	206.95	2.874	285.00	.245
49.10	.368	102.95	.421	164.95	.964	207.95	.999	292.95	.333
50.00	14.368	103.95	1.016	166.05	.578	210.45	.631	295.95	5.064
51.10	54.389	105.15	.841	166.95	3.907	211.05	1.156	303.00	.806
52.00	2.453	106.05	.368	167.95	1.489	216.90	5.660	314.95	.701
55.10	.806	107.05	11.898	169.05	.403	217.90	.736	322.90	1.840
56.10	1.892	108.05	1.612	171.90	.456	221.00	6.536	323.90	.368
57.00	4.013	110.00	27.615	172.90	.648	222.90	1.332	333.95	1.016
60.95	.701	110.90	3.732	174.00	.911	223.95	11.547	334.75	.210
62.05	.771	112.00	.578	175.00	1.279	224.95	2.821	352.95	.456
63.05	2.138	116.00	.561	175.80	.543	226.95	4.416	353.95	1.806
65.05	.876	117.00	8.376	177.00	.701	227.95	.648	364.90	2.295

75.00	6.676	123.95	.508	180.90	1.051	241.90	.421	403.00	.508
76.10	2.576	126.95	43.000	184.95	1.349	242.90	.736	421.05	.491
77.10	46.049	127.95	3.382	185.95	11.775	244.00	10.233	421.80	.245
78.10	3.172	128.95	18.731	186.95	3.364	244.95	1.349	422.20	.333
79.05	2.681	129.95	1.489	188.85	.648	245.95	1.454	422.90	3.837
79.95	1.735	134.90	1.174	191.05	.438	254.95	47.310	423.90	.613
80.95	3.452	135.90	.473	192.05	.859	255.90	7.062	441.05	9.252
82.05	1.244	137.00	.683	192.90	.736	257.10	.578	442.00	68.845
83.05	.964	140.95	1.577	196.00	3.610	257.90	1.857	443.00	13.545
85.05	.824	141.95	.771	197.90	100.000	259.00	.333	444.00	1.297
86.05	.718	142.85	.543	198.90	6.641	265.00	.894		

Initial Calibration Data
HSL Compounds

Case No: _____ Instrument ID: 5970C _____

Contractor: 21st Century Envir Calibration Date: 07/07/93 _____

Contract No: _____

Minimum $\overline{RF}$ for SPCC is 0.050 Maximum % RSD for CCC is 30%

Laboratory ID:	>C1527	>C1526	>C1528	>C1529	>C1530					
Compound	RF 20.00	RF 50.00	RF 80.00	RF 120.00	RF 160.00	$\overline{RRT}$	$\overline{RF}$	% RSD	CCC	SPCC
Pyridine	.62914	.52504	.63839	.63364	.63693	.317	.61263	8.013		
n-Nitrosodimethylamine	.56765	.56325	.56867	.56831	.56584	.322	.56674	.395		
2-Fluorophenol	.68739	.66263	.59212	.57043	.34890	.681	.57229	23.396		(Conc=100.0,100.0,1
Phenol-d5	.99716	.99471	.91843	.84153	.57579	.948	.86553	20.123		(Conc=100.0,100.0,1
Phenol	1.15153	1.12713	1.19890	1.01170	1.11088	.951	1.12003	6.167	*	
bis(-2-Chloroethyl)Ether	.90610	.86606	.86649	.75602	.80115	.956	.83917	7.127		
2-Chlorophenol	.86344	.82627	.82405	.69491	.71161	.956	.78406	9.646		
1,3-Dichlorobenzene	.99486	.96291	1.00681	.92419	.89135	.989	.95602	5.052		
1,4-Dichlorobenzene	.99494	.96505	.99148	.90446	.91035	1.004	.95326	4.560	*	
Benzyl Alcohol	.50834	.55214	.56791	.51850	.58614	1.059	.54661	5.999		
1,2-Dichlorobenzene	.96240	.90261	.99475	.86442	.86851	1.052	.91854	6.306		
2-Methylphenol	.86026	.82183	.84797	.71606	.78975	1.102	.80718	7.144		
bis(2-Chloroisopropyl)ether	1.39629	1.34524	1.32435	1.20294	1.31031	1.101	1.31583	5.399		
4-Methylphenol	.82743	.80701	.84872	.68851	.79026	1.147	.79239	7.833		(Conc=40.0,100.0,16
N-Nitroso-Di-n-propylamine	.92233	.83989	.89656	.86512	.99921	1.144	.90462	6.786	**	
Hexachloroethane	.45397	.44782	.43557	.39279	.39682	1.132	.42540	6.755		
Nitrobenzene-d5	.45326	.45864	.42873	.43690	.45677	.864	.44686	2.973		(Conc=50.0,50.0,50.
Nitrobenzene	.55372	.56326	.54872	.52696	.56090	.869	.55071	2.629		
Isophorone	1.15284	1.19090	1.24434	1.12131	1.24441	.920	1.19076	4.602		
2-Nitrophenol	.24704	.26315	.26316	.24471	.25486	.933	.25458	3.410	*	
2,4-Dimethylphenol	.35437	.36292	.36755	.33504	.37304	.957	.35858	4.137		
Benzoic Acid	.19037	.27823	.32050	.31975	.39981	1.006	.30173	25.268		
bis(-2-Chloroethoxy)Methane	.51633	.52879	.53194	.48951	.52828	.973	.51897	3.374		
2,4-Dichlorophenol	.39743	.41586	.40201	.34218	.37438	.983	.38637	7.471	*	
1,2,4-Trichlorobenzene	.45505	.45314	.44010	.39323	.38814	.995	.42593	7.686		
Naphthalene	1.14102	1.11329	1.02952	.97319	1.00257	1.004	1.05192	6.862		
4-Chloroaniline	.48605	.50657	.51838	.43513	.48500	1.028	.48623	6.553		
Hexachlorobutadiene	.24084	.22958	.20741	.18406	.17308	1.047	.20699	13.943	*	
4-Chloro-3-methylphenol	.43680	.45902	.48870	.40731	.46031	1.135	.45043	6.735	*	
2-Methylnaphthalene	.78052	.76143	.74306	.64418	.70266	1.145	.72637	7.464		

RF - Response Factor (Subscript is amount in ug/l)

$\overline{RRT}$ - Average Relative Retention Time (RT Std/RT Istd)

$\overline{RF}$ - Average Response Factor

%RSD - Percent Relative Standard Deviation

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

Initial Calibration Data
HSL Compounds

Case No: _____ Instrument ID: 5970C

Contractor: 21st Century Envir Calibration Date: 07/07/93

Contract No: _____

Minimum $\overline{RF}$ for SPCC is 0.050 Maximum % RSD for CCC is 30%

Laboratory ID:	>C1527	>C1526	>C1528	>C1529	>C1530					
Compound	RF 20.00	RF 50.00	RF 80.00	RF 120.00	RF 160.00	$\overline{RRT}$	$\overline{RF}$	% RSD	CCC	SPCC
Hexachlorocyclopentadiene	.35974	.39161	.30570	.28299	.27704	.880	.32342	15.512		**
2,4,6-Trichlorophenol	.45589	.48762	.43669	.41592	.43976	.894	.44718	5.973	*	
2,4,5-Trichlorophenol	.49800	.54764	.47442	.43469	.47096	.899	.48514	8.581		
2-Chloronaphthalene	1.52962	1.50008	1.36369	1.29364	1.38339	.916	1.41408	6.959		
2-Fluorobiphenyl	1.37154	1.37440	1.19690	1.22712	1.38792	.906	1.31157	6.993		(Conc=50.0,50.0,50.
2-Nitroaniline	.49281	.51986	.49208	.46031	.43124	.941	.47926	7.123		
Dimethyl Phthalate	1.68204	1.64979	1.52731	1.33443	1.21352	.978	1.48142	13.672		
Acenaphthylene	1.99612	1.96152	1.79126	1.65739	1.68903	.977	1.81906	8.493		
3-Nitroaniline	.35488	.35933	.31860	.26884	.21431	1.003	.30319	20.293		
Acenaphthene	1.33166	1.26949	1.14950	1.04464	1.08562	1.006	1.17618	10.334	*	
2,4-Dinitrophenol	.07241	.14662	.15538	.16253	.12250	1.018	.13189	27.685		**
4-Nitrophenol	.18181	.21920	.24659	.24042	.18478	1.036	.21456	14.128		**
Dibenzofuran	1.87332	1.90728	1.69193	1.58549	1.55042	1.030	1.72169	9.464		
2,4-Dinitrotoluene	.58063	.57596	.50324	.47019	.34227	1.042	.49446	19.685		
2,6-Dinitrotoluene	.44916	.49348	.44268	.39461	.35075	.986	.42614	12.862		
Diethylphthalate	1.95401	1.70974	1.46530	1.18889	.99430	1.085	1.46245	26.412		
4-Chlorophenyl-phenylether	.77032	.71824	.61511	.50947	.50854	1.086	.62434	19.089		
Fluorene	1.47004	1.44397	1.24767	1.16428	1.05253	1.080	1.27570	14.082		
4-Nitroaniline	.24646	.23909	.25272	.22746	.15811	1.096	.22477	17.097		
4,6-Dinitro-2-methylphenol	.11331	.15629	.17338	.16259	.17709	.906	.15653	16.324		
N-Nitrosodiphenylamine	.92420	.85834	.82385	.69675	.82464	.909	.82556	10.026	*	
2,4,6-Tribromophenol	.12918	.14780	.11160	.10485	.12172	.920	.12303	13.567		(Conc=100.0,100.0,1
4-Bromophenyl-phenylether	.29995	.32961	.29389	.26068	.30917	.951	.29866	8.430		
Hexachlorobenzene	.35972	.36324	.31655	.28756	.31062	.965	.32754	10.028	*	
Pentachlorophenol	.07411	.11409	.14486	.13129	.14056	.988	.12099	23.757		**
Phenanthrene	1.20822	1.13690	1.12657	1.04654	1.13896	1.003	1.13144	5.080		
Anthracene	1.19379	1.16247	1.14288	1.05227	1.15183	1.008	1.14065	4.648		
Di-n-Butylphthalate	1.54322	1.28116	1.47518	1.21909	1.34512	1.091	1.37275	9.795		
Fluoranthene	.55051	.49307	.72634	.51808	.70764	1.148	.59913	18.311	*	
Pyrene	2.24479	2.26924	1.64061	2.54062	1.82263	.887	2.10358	17.331		

RF - Response Factor (Subscript is amount in ug/l)

$\overline{RRT}$ - Average Relative Retention Time (RT Std/RT Istd)

$\overline{RF}$ - Average Response Factor

%RSD - Percent Relative Standard Deviation

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

Initial Calibration Data
HSL Compounds

Case No: _____ Instrument ID: 5970C

Contractor: 21st Century Envir Calibration Date: 07/07/93

Contract No:

Minimum $\overline{RF}$ for SPCC is 0.050 Maximum % RSD for CCC is 30%

Laboratory ID:	>C1527	>C1526	>C1528	>C1529	>C1530					
Compound	RF 20.00	RF 50.00	RF 80.00	RF 120.00	RF 160.00	$\overline{RRT}$	$\overline{RF}$	% RSD	CCC	SPCC
Benzidine	.35409	.31981	.39820	.30881	.32355	.883	.34089	10.610		
Terphenyl-d14	1.54271	1.60000	1.09890	1.58567	1.12753	.907	1.39096	18.305		(Conc=50.0,50.0,50.'
Butylbenzylphthalate	1.06571	1.04335	1.03698	1.37563	1.19604	.960	1.14354	12.678		
3,3'-Dichlorobenzidine	.27013	.32005	.36434	.42058	.40250	1.001	.35552	17.264		
Benzo(a)Anthracene	1.10865	1.11566	1.13182	1.35601	1.25697	.999	1.19382	9.128		
Bis(2-Ethylhexyl)Phthalate	1.33799	1.37624	1.38568	1.81930	1.67489	1.019	1.51882	14.175		
Chrysene	1.03500	1.04295	1.06326	1.26925	1.15143	1.002	1.11238	8.917		
Di-n-octyl phthalate	2.50158	2.75480	2.90447	3.84552	3.33313	.956	3.06790	17.252	*	
Benzo(b)fluoranthene	1.42893	1.28064	1.24146	1.54793	1.30696	.974	1.36118	9.236		
Benzo(k)Fluoranthene	1.18193	1.41749	1.38910	1.54806	1.33436	.975	1.37419	9.687		
Benzo(a)Pyrene	1.16361	1.22555	1.21073	1.43324	1.26583	.996	1.25979	8.225	*	
Indeno(1,2,3-cd)Pyrene	.72015	1.12084	1.16149	1.23369	1.14293	1.070	1.07582	18.895		
Dibenzo(a,h)Anthracene	.77353	.91493	.94750	1.02719	.94984	1.072	.92260	10.078		
Benzo(g,h,i)Perylene	.83639	.92947	.98448	1.08306	1.00684	1.087	.96805	9.499		

RF - Response Factor (Subscript is amount in ug/l)

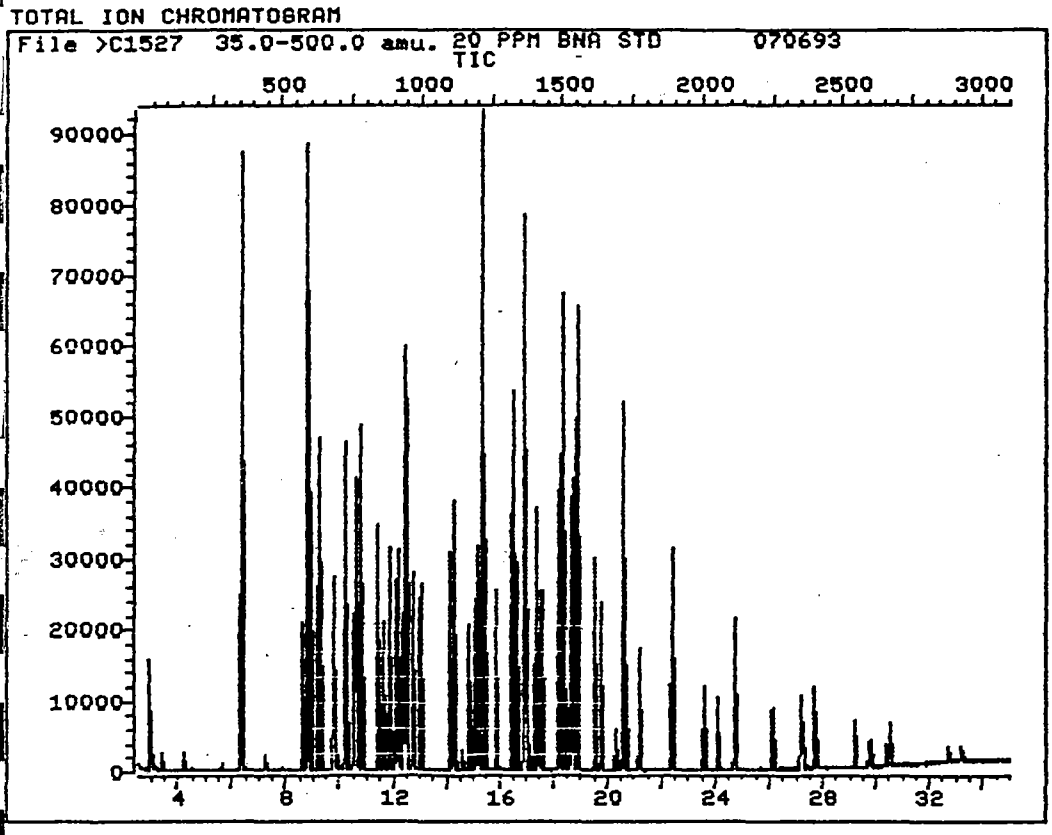
$\overline{RRT}$ - Average Relative Retention Time (RT Std/RT Istd)

$\overline{RF}$ - Average Response Factor

%RSD - Percent Relative Standard Deviation

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

TOTAL ION CHROMATOGRAM

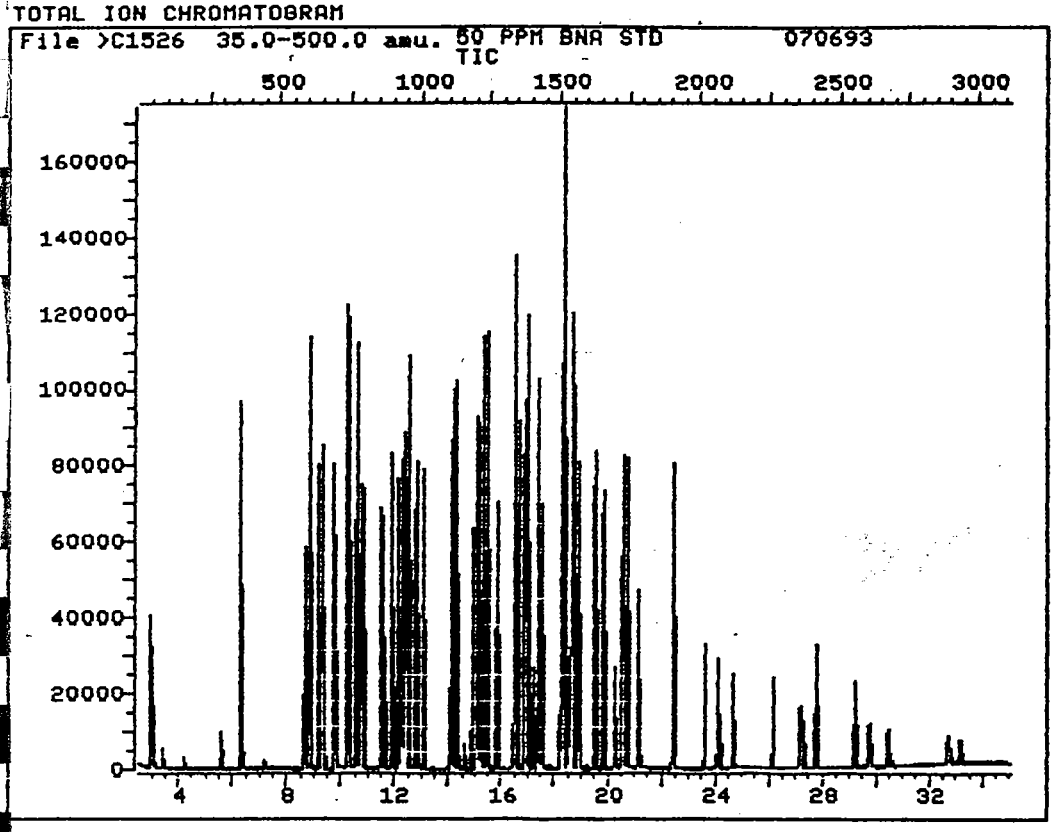


Data File: >C1527::D5 Quant Output File: ^C1527::E3
Name: 20 PPM BNA STD
Misc: 070693 BTL# 1

Id File: IDHSLC::D3
Title: hSL BNA STD
Last Calibration: 930702 17:16

Operator ID: JEFF
Quant Time: 930706 13:31
Injected at: 930706 12:52

TOTAL ION CHROMATOGRAM

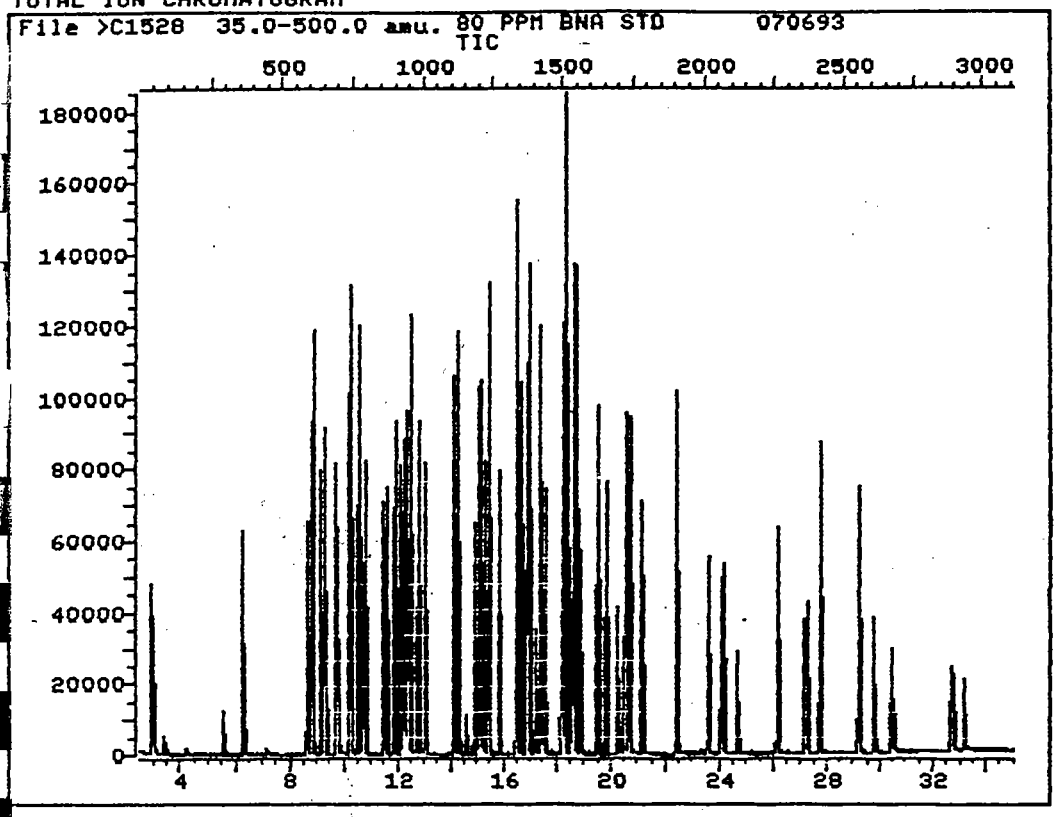


Data File: >C1526::D5 Quant Output File: ^C1526::D5
Name: 50 PPM BNA STD
Misc: 070693 BTL# 2

Id File: IDHSLC::D3
Title: hSL BNA STD
Last Calibration: 930702 17:16

Operator ID: JEFF
Quant Time: 930706 12:35
Injected at: 930706 11:57

TOTAL ION CHROMATOGRAM

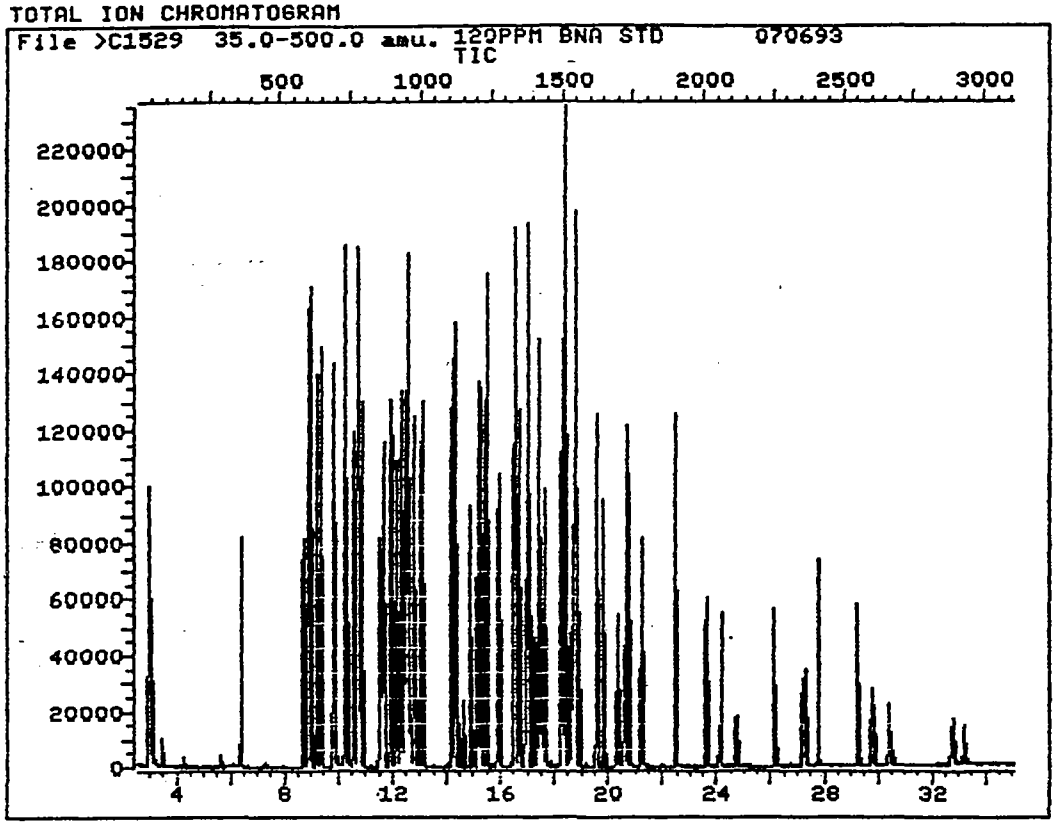


Data File: >C1528::D5 Quant Output File: ^C1528::E3
Name: 80 PPM BNA STD
Misc: 070693 BTL# 2

Id File: IDHSLC::D3
Title: hSL BNA STD
Last Calibration: 930702 17:16

Operator ID: JEFF
Quant Time: 930706 14:22
Injected at: 930706 13:44

TOTAL ION CHROMATOGRAM

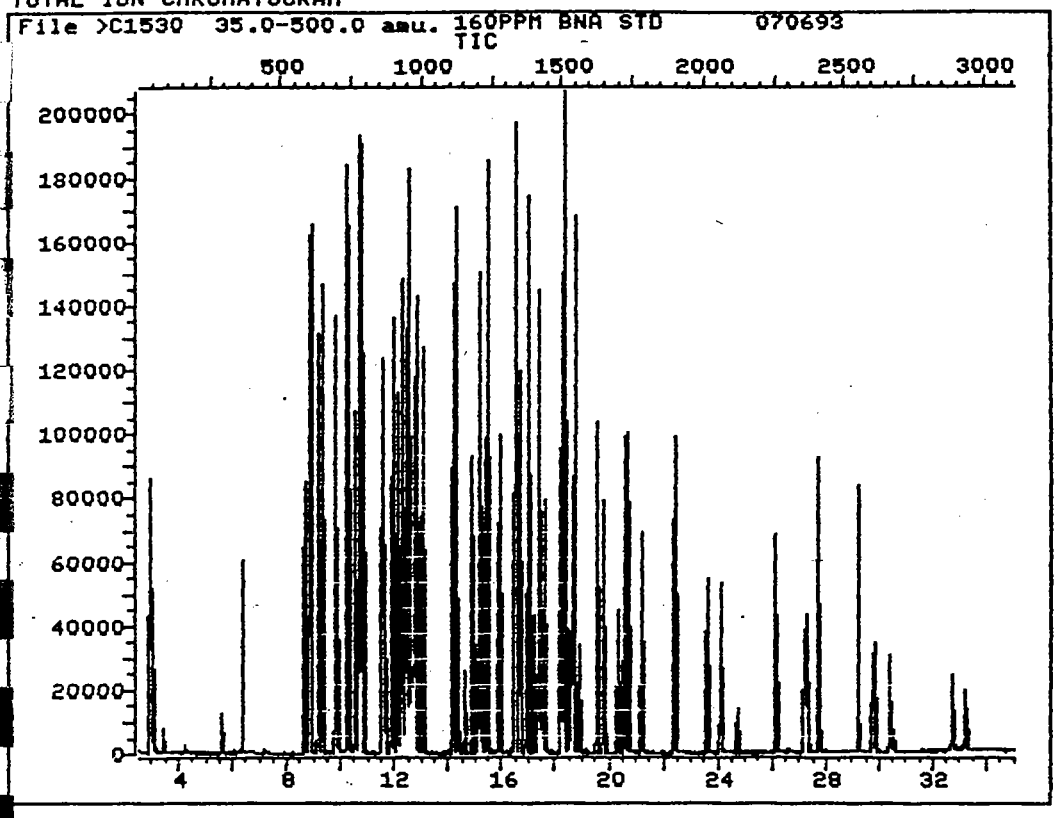


Data File: >C1529::D5 Quant Output File: ^C1529::E3
Name: 120PPM BNA STD
Misc: 070693 BTL# 3

Id File: IDHSLC::D3
Title: hSL BNA STD
Last Calibration: 930702 17:16

Operator ID: JEFF
Quant Time: 930706 15:14
Injected at: 930706 14:36

TOTAL ION CHROMATOGRAM



Data File: >C1530::D5 Quant Output File: ^C1530::ED
Name: 160PPM BNA STD
Misc: 070693 BTL# 4

Id File: IDHSLC::D3
Title: hSL BNA STD
Last Calibration: 930702 17:16

Operator ID: JEFF
Quant Time: 930706 16:21
Injected at: 930706 15:30

21st Century Environmental Inc.

GC/MS STANDARD DECAFLUOROTRIPHENYLPHOSPHINE(DFTPP) TUNE
CRITERIA FOR SEMIVOLATILES 50ng

DATE AND TIME OF INJECTION: 7/16/93 9:19
INSTRUMENT ID: 5970

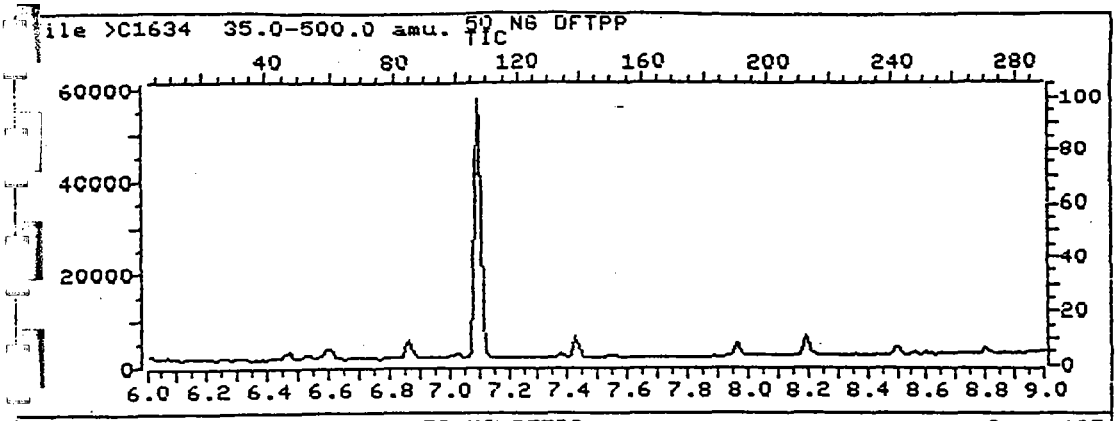
DATA RELEASE AUTHORIZED BY Richard W Lynch.

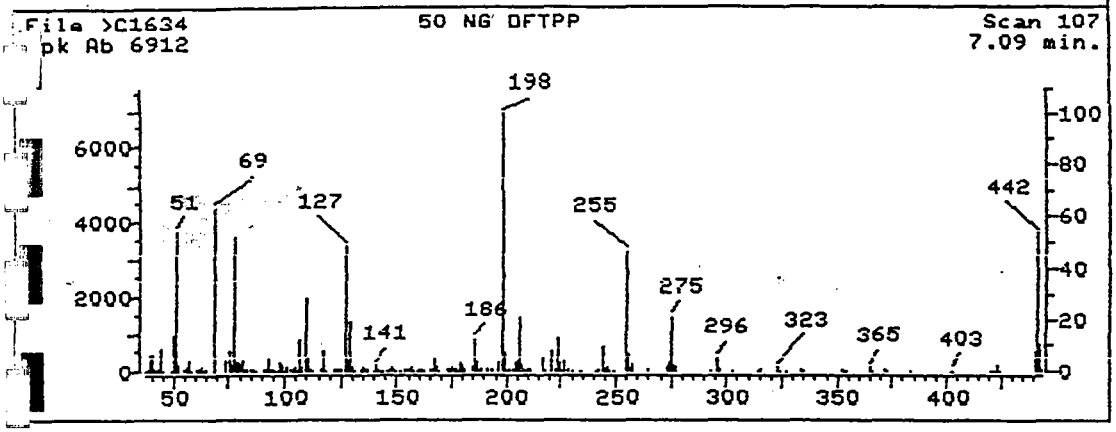
m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	% Relative Abundance Appropriate Peak	Status
51	30-60% of mass 198	53.91	53.91	Ok
68	Less than 2% of mass 69	0.00	0.00	Ok
69	(reference only)	63.19	63.19	Ok
70	Less than 2% of mass 69	0.00	0.00	Ok
127	40-60% of mass 198	47.70	47.70	Ok
197	Less than 1% of mass 198	0.00	0.00	Ok
198	Base peak, 100% relative abundance	100.00	100.00	Ok
199	5-9% of mass 198	6.64	6.64	Ok
275	10-30% of mass 198	21.05	21.05	Ok
365	Greater than 1% of mass 198	1.71	1.71	Ok
441	0-100% of mass 443	7.58	73.49	Ok
442	Greater than 40% of mass 198	53.56	53.56	Ok
443	17-23% of mass 442	10.32	19.26	Ok

THIS PERFORMANCE AFFECTS ALL SAMPLES
STANDARDS AND BLANKS LISTED BELOW

SAMPLE ID		LAB ID		DATE TIME
>C1634::D5		50 NG DFTPP		7/16/93 9:19
>C1635::D5		50 PPM BNA STD		7/16/93 10:20
>C1636::D2		20 PPM BNA STD		7/16/93 11:27
>C1637::D2		80 PPM BNA STD		7/16/93 12:14
>C1638::D2		120 PPM BNA STD		7/16/93 13:01
>C1639::D2		160 PPM BNA STD		7/16/93 13:49
>C1640::D5		A2748 CWM TCLP		7/16/93 14:37
>C1641::D5		A2755 CWM TCLP		7/16/93 15:53
>C1642::D5		A2749 CWM TCLP		7/16/93 16:43
>C1643::D2		A2779 CWM		7/16/93 17:43
>C1644::D2		A2785 CWM		7/16/93 18:33
>C1645::D2		A2538 FT. MONMOUTH		7/16/93 19:23
>C1646::D2		TCLP BLNK 7/16		7/16/93 20:13
>C1647::D2		A2477 1:10 RES		7/16/93 21:02

00151





>C1634 50 NG DFTPP
107 NRM

File: >C1634 Scan #: 107 Retn. time: 7.09

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
37.05	.203	92.95	4.948	142.00	.723	189.00	.897	256.00	6.236
38.05	.622	94.05	.506	142.90	.391	191.90	.969	256.95	.622
39.15	5.830	95.15	.564	144.00	.188	193.00	1.085	257.95	2.271
40.05	6.004	96.15	.405	145.95	.391	196.00	3.342	264.95	1.042
41.05	1.244	97.15	.405	147.05	1.143	198.00	100.000	272.90	1.519
42.15	.203	98.05	3.024	148.05	2.127	198.90	6.641	274.00	3.559
43.15	1.143	99.05	2.763	149.05	.637	199.90	.492	275.00	21.050
44.05	8.695	100.05	.289	149.95	.159	201.55	.694	275.90	2.199
44.95	.391	101.05	1.751	151.15	.318	203.05	.535	276.90	1.360
49.10	.362	103.15	.694	153.05	.709	204.05	3.197	292.75	.203
50.10	13.455	103.95	.969	154.05	.550	205.05	4.326	295.95	4.876
51.10	53.906	105.00	1.389	155.05	1.186	205.95	20.877	297.05	.651
52.10	2.922	105.90	.420	155.95	1.924	206.95	2.373	303.00	.492
55.20	1.143	107.00	11.646	156.75	.289	207.95	.767	314.05	.304
56.10	1.968	108.10	1.678	157.85	.420	208.85	.289	314.95	.506
57.10	4.427	110.00	27.966	159.05	.289	210.35	.651	322.95	1.476
58.00	.260	111.00	4.861	159.90	.694	210.95	.883	324.05	.318
61.10	.608	111.90	.521	160.10	.694	216.90	5.324	326.90	.304
62.10	.651	112.90	.246	160.90	1.201	217.80	.420	334.00	.911

63.05	1.591	116.10	.796	161.90	.188	221.00	7.653	334.80	.231
64.15	.391	117.00	7.118	164.90	.723	223.00	1.157	352.05	.506
65.15	.738	118.15	.405	166.10	.651	224.00	12.066	353.05	.275
69.05	63.194	121.95	.723	167.00	4.673	225.00	3.082	353.90	.420
73.15	.535	123.05	.998	168.00	1.693	226.00	.376	365.00	1.707
74.05	3.834	124.05	.709	169.00	.477	227.00	4.384	365.90	.231
75.05	7.364	125.05	.694	173.00	.608	228.10	.564	372.05	.810
76.05	2.749	126.95	47.700	173.85	.984	228.85	.709	372.95	.231
77.10	50.911	128.05	3.892	174.95	1.389	230.95	.434	383.00	.217
78.10	3.429	129.05	19.271	175.95	.651	233.95	.188	401.95	.217
79.00	3.183	130.05	1.505	176.85	1.013	234.75	.275	402.75	.275
80.00	2.517	130.95	.405	177.95	.231	241.05	.217	420.90	.362
81.00	4.008	133.90	.434	178.95	3.111	242.05	.521	421.90	.448
82.00	1.114	134.10	.463	179.95	2.185	244.00	9.071	422.95	2.850
83.10	1.172	135.00	1.678	181.05	1.172	244.90	1.172	423.95	.492
85.10	.810	135.90	.680	185.05	1.505	245.90	1.736	441.10	7.581
86.00	.651	136.90	.637	186.05	11.834	247.00	.318	442.00	53.559
87.10	.463	140.10	.260	187.05	3.573	249.00	.333	443.00	10.315
91.05	.666	141.00	2.228	187.90	.347	255.00	45.877	444.00	.839
91.95	.796								

Initial Calibration Data
HSL Compounds

Case No: _____ Instrument ID: 5970C

Contractor: 21st Century Envir Calibration Date: 07/16/93

Contract No: _____

Minimum $\overline{RF}$ for SPCC is 0.050 Maximum % RSD for CCC is 30%

Laboratory ID: >C1636 >C1635 >C1637 >C1638 >C1639

Compound	RF 20.00	RF 50.00	RF 80.00	RF 120.00	RF 160.00	$\overline{RRT}$	$\overline{RF}$	% RSD	CCC	SPCC	
Pyridine	.70540	.60159	.68895	.65708	.68047	.314	.66670	6.053			
n-Nitrosodimethylamine	.49996	.52047	.56484	.48394	.53402	.319	.52065	6.003			
2-Fluorophenol	.76918	.73811	.68060	.60727	.40169	.679	.63937	22.910			(Conc=100.0,100.0,1
Phenol-d5	1.15645	1.15530	1.06242	.94862	.64465	.948	.99349	21.423			(Conc=100.0,100.0,1
Phenol	1.29930	1.33015	1.36245	1.14804	1.20382	.952	1.26875	7.079	*		
bis(-2-Chloroethyl)Ether	1.02376	.98743	.96979	.81280	.84911	.956	.92858	9.920			
2-Chlorophenol	.97213	.95627	.92832	.76169	.78748	.956	.88118	11.233			
1,3-Dichlorobenzene	1.06348	1.05864	1.04183	.86653	.90176	.989	.98645	9.586			
1,4-Dichlorobenzene	1.08178	1.06732	1.04525	.86974	.90792	1.005	.99440	9.873	*		
Benzyl Alcohol	.53910	.60182	.59413	.54916	.62249	1.060	.58134	6.140			
1,2-Dichlorobenzene	1.05360	1.04593	1.02112	.85779	.86993	1.052	.96967	10.048			
2-Methylphenol	1.00045	1.03329	.99684	.83460	.84933	1.104	.94290	9.903			
bis(2-Chloroisopropyl)ether	1.42274	1.41317	1.49149	1.24759	1.36206	1.101	1.38741	6.540			
4-Methylphenol	.97613	.98025	.94499	.80716	.85615	1.150	.91294	8.478			(Conc=40.0,100.0,16
N-Nitroso-Di-n-propylamine	1.00501	1.03548	.99313	.72490	.66665	1.144	.88504	19.736		**	
Hexachloroethane	.49548	.49933	.49810	.41221	.42816	1.132	.46665	9.176			
Nitrobenzene-d5	.43085	.45306	.42359	.42958	.43906	.864	.43523	2.618			(Conc=50.0,50.0,50.
Nitrobenzene	.53779	.54959	.53797	.53607	.54920	.868	.54213	1.232			
Isophorone	1.14245	1.21261	1.20914	1.20671	1.25813	.919	1.20581	3.422			
2-Nitrophenol	.24699	.26831	.25234	.25003	.25196	.932	.25393	3.275	*		
2,4-Dimethylphenol	.36470	.37866	.36548	.35436	.35725	.957	.36409	2.592			
Benzoic Acid	.17006	.23566	.25537	.27439	.31276	1.004	.24965	21.155			
bis(-2-Chloroethoxy)Methane	.53050	.54921	.52763	.51813	.53721	.973	.53254	2.173			
2,4-Dichlorophenol	.36679	.37886	.34685	.33828	.34021	.983	.35420	5.030	*		
1,2,4-Trichlorobenzene	.41130	.43837	.40402	.38535	.38616	.995	.40504	5.374			
Naphthalene	1.14594	1.12326	1.04138	.97890	.97259	1.004	1.05241	7.611			
4-Chloroaniline	.45168	.47155	.45889	.42909	.43518	1.028	.44928	3.856			
Hexachlorobutadiene	.19965	.20505	.18379	.17699	.17484	1.047	.18806	7.225	*		
4-Chloro-3-methylphenol	.38514	.40023	.39837	.37445	.38594	1.136	.38882	2.727	*		
2-Methylnaphthalene	.77328	.75964	.70828	.64252	.64846	1.145	.70643	8.595			

RF - Response Factor (Subscript is amount in ug/l)

$\overline{RRT}$ - Average Relative Retention Time (RT Std/RT Istd)

$\overline{RF}$ - Average Response Factor

%RSD - Percent Relative Standard Deviation

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

00154

Initial Calibration Data
HSL Compounds

Case No: _____ Instrument ID: 5970C

Contractor: 21st Century Envir Calibration Date: 07/16/93

Contract No: _____

Minimum $\overline{RF}$ for SPCC is 0.050 Maximum % RSD for CCC is 30%

Laboratory ID:	>C1636	>C1635	>C1637	>C1638	>C1639					
Compound	RF 20.00	RF 50.00	RF 80.00	RF 120.00	RF 160.00	$\overline{RRT}$	$\overline{RF}$	% RSD	CCC	SPCC
Hexachlorocyclopentadiene	.26718	.37701	.27213	.24538	.22130	.879	.27660	21.558		**
2,4,6-Trichlorophenol	.43378	.48723	.44359	.43065	.46463	.894	.45197	5.258	*	
2,4,5-Trichlorophenol	.43886	.49389	.47693	.44816	.47291	.899	.46615	4.797		
2-Chloronaphthalene	1.60509	1.61447	1.47285	1.41810	1.47204	.915	1.51651	5.806		
2-Fluorobiphenyl	1.50202	1.58303	1.41145	1.44063	1.54382	.906	1.49619	4.739		(Conc=50.0,50.0,50.
2-Nitroaniline	.41488	.46058	.45265	.42638	.42980	.941	.43686	4.366		
Dimethyl Phthalate	1.78448	1.72880	1.60634	1.45292	1.40659	.978	1.59582	10.373		
Acenaphthylene	1.98871	1.77809	1.82195	1.70756	1.72276	.977	1.80382	6.261		
3-Nitroaniline	.24568	.27031	.26878	.23128	.22482	1.003	.24817	8.431		
Acenaphthene	1.27863	1.19829	1.17976	1.07383	1.07966	1.005	1.16204	7.427	*	
2,4-Dinitrophenol	.03723	.09545	.11568	.10678	.10940	1.019	.09291	34.414		**
4-Nitrophenol	.09534	.13179	.17500	.14857	.15061	1.037	.14026	21.007		**
Dibenzofuran	1.63271	1.67876	1.59196	1.47514	1.48225	1.030	1.57216	5.770		
2,4-Dinitrotoluene	.37601	.40336	.42780	.36465	.35709	1.042	.38578	7.602		
2,6-Dinitrotoluene	.39675	.43061	.41225	.37780	.37183	.986	.39785	6.106		
Diethylphthalate	1.61978	1.52506	1.42373	1.16179	1.09696	1.085	1.36547	16.665		
4-Chlorophenyl-phenylether	.63274	.63329	.58408	.51339	.48746	1.086	.57019	11.816		
Fluorene	1.13344	1.14380	1.12687	1.00699	1.00431	1.080	1.08308	6.551		
4-Nitroaniline	.13955	.16491	.20064	.16734	.16690	1.096	.16787	12.934		
4,6-Dinitro-2-methylphenol	.09778	.17500	.17837	.17744	.17953	.906	.16163	22.105		
N-Nitrosodiphenylamine	.93088	.99813	.88466	.86038	.86665	.909	.90814	6.318	*	
2,4,6-Tribromophenol	.09308	.10999	.07542	.08071	.08039	.920	.08792	15.872		(Conc=100.0,100.0,1
4-Bromophenyl-phenylether	.29216	.32047	.27841	.27336	.28904	.950	.29069	6.303		
Hexachlorobenzene	.29937	.31897	.27704	.26132	.27183	.965	.28570	8.126	*	
Pentachlorophenol	.06405	.10512	.11967	.11367	.11978	.988	.10446	22.370		**
Phenanthrene	1.14655	1.18151	1.17209	1.07762	1.15381	1.003	1.14632	3.565		
Anthracene	1.08876	1.18549	1.17305	1.08713	1.17032	1.009	1.14095	4.271		
Di-n-Butylphthalate	1.73663	1.72377	1.67670	1.57741	1.66569	1.092	1.67604	3.748		
Fluoranthene	.73033	.78657	.88496	.77725	.84670	1.149	.80516	7.559	*	
Pyrene	1.82795	1.86892	1.59828	1.90097	1.80305	.886	1.79983	6.599		

RF - Response Factor (Subscript is amount in ug/l)

$\overline{RRT}$ - Average Relative Retention Time (RT Std/RT Istd)

$\overline{RF}$ - Average Response Factor

%RSD - Percent Relative Standard Deviation

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

Initial Calibration Data
HSL Compounds

Case No: _____ Instrument ID: 5970C

Contractor: 21st Century Envir Calibration Date: 07/16/93

Contract No: _____

Minimum $\overline{RF}$ for SPCC is 0.050 Maximum % RSD for CCC is 30%

Laboratory ID:	>C1636	>C1635	>C1637	>C1638	>C1639					
Compound	RF 20.00	RF 50.00	RF 80.00	RF 120.00	RF 160.00	$\overline{RRT}$	$\overline{RF}$	% RSD	CCC	SPCC
Benzidine	.41049	.37587	.42611	.32493	.32336	.883	.37215	12.750		
Terphenyl-d14	1.23196	1.33744	1.01978	1.17434	1.14536	.907	1.18178	9.866		(Conc=50.0,50.0,50.
Butylbenzylphthalate	1.08761	1.15945	1.02421	1.24467	1.26927	.960	1.15704	8.934		
3,3'-Dichlorobenzidine	.32204	.35738	.35997	.38045	.37892	1.001	.35975	6.554		
Benzo(a)Anthracene	1.11917	1.19059	1.16162	1.30790	1.27583	.999	1.21102	6.512		
Bis(2-Ethylhexyl)Phthalate	1.74129	1.72875	1.51411	1.84537	1.83378	1.019	1.73266	7.677		
Chrysene	1.12466	1.17084	1.09794	1.20307	1.15638	1.002	1.15058	3.542		
Di-n-octyl phthalate	3.33985	3.75365	3.26168	4.30664	4.39626	.955	3.81161	13.853	*	
Benzo(b)fluoranthene	1.09553	1.33836	1.27556	1.42838	1.54746	.974	1.33706	12.666		
Benzo(k)Fluoranthene	1.34877	1.40594	1.39905	1.74864	1.51662	.975	1.48381	10.799		
Benzo(a)Pyrene	1.12372	1.25842	1.26000	1.45912	1.40023	.996	1.30030	10.157	*	
Indeno(1,2,3-cd)Pyrene	1.01268	1.09927	1.08991	1.20621	1.09164	1.071	1.09994	6.279		
Dibenzo(a,h)Anthracene	.80079	.83901	.91441	.95339	.92604	1.072	.88673	7.225		
Benzo(g,h,i)Perylene	.81751	.80976	.89513	.96814	.86360	1.087	.87083	7.416		

RF - Response Factor (Subscript is amount in ug/l)

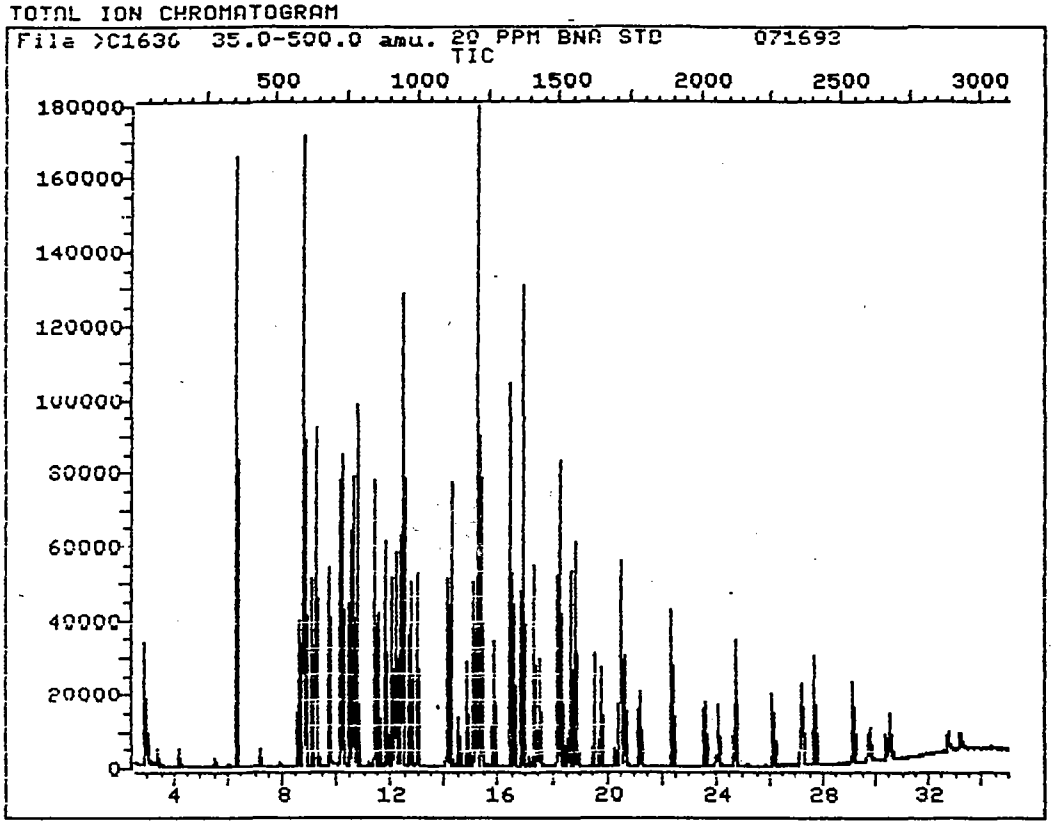
$\overline{RRT}$ - Average Relative Retention Time (RT Std/RT Istd)

$\overline{RF}$ - Average Response Factor

%RSD - Percent Relative Standard Deviation

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

TOTAL ION CHROMATOGRAM

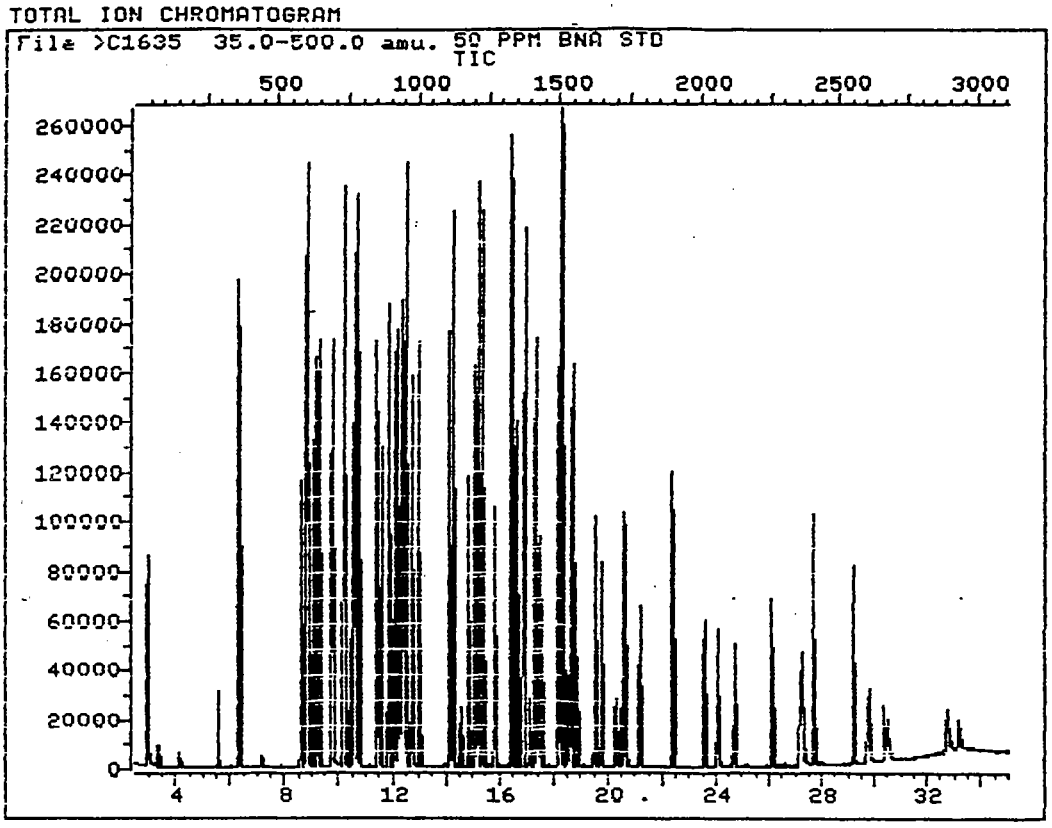


Data File: >C1636::D2 Quant Output File: ^C1636::QT
Name: 20 PPM BNA STD
Misc: 071693 BTL# 1

Id File: ID0706::ED
Title: hSL BNA STD
Last Calibration: 930707 15:51

Operator ID: JEFF
Quant Time: 930716 12:05
Injected at: 930716 11:27

TOTAL ION CHROMATOGRAM

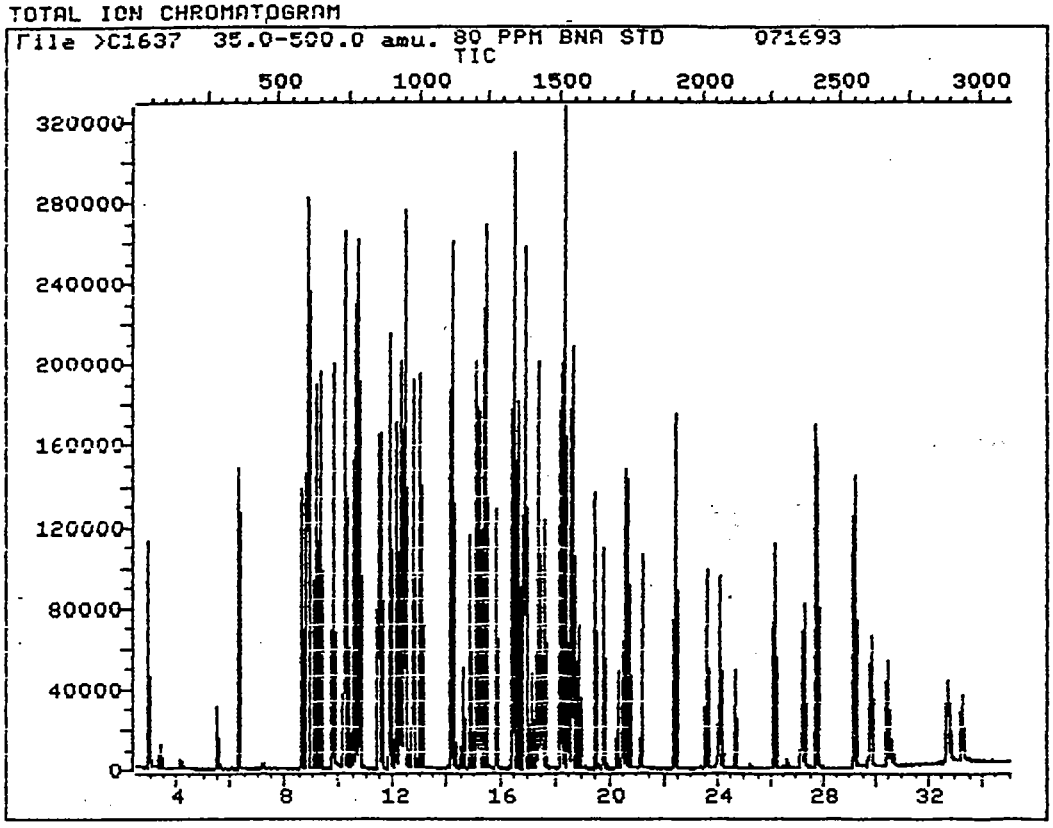


Data File: >C1635::D5 Quant Output File: ^C1635::QT
Name: 50 PPM BNA STD
Misc: BTL# 2

Id File: ID0706::ED
Title: hSL BNA STD
Last Calibration: 930707 15:51

Operator ID: JEFF
Quant Time: 930716 15:22
Injected at: 930716 10:20

TOTAL ION CHROMATOGRAM

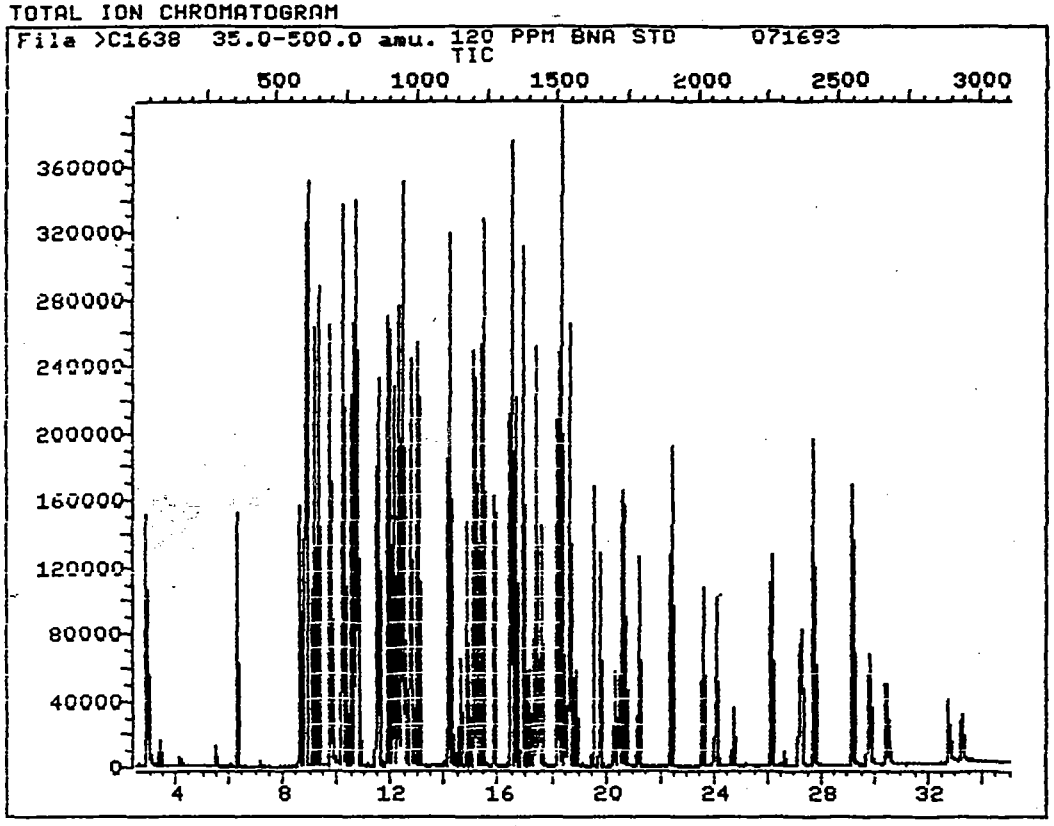


Data File: >C1637::D2 Quant Output File: ^C1637::QT
Name: 80 PPM BNA STD
Misc: 071693 BTL# 2

Id File: ID0706::ED
Title: hSL BNA STD
Last Calibration: 930707 15:51

Operator ID: JEFF
Quant Time: 930716 12:52
Injected at: 930716 12:14

TOTAL ION CHROMATOGRAM

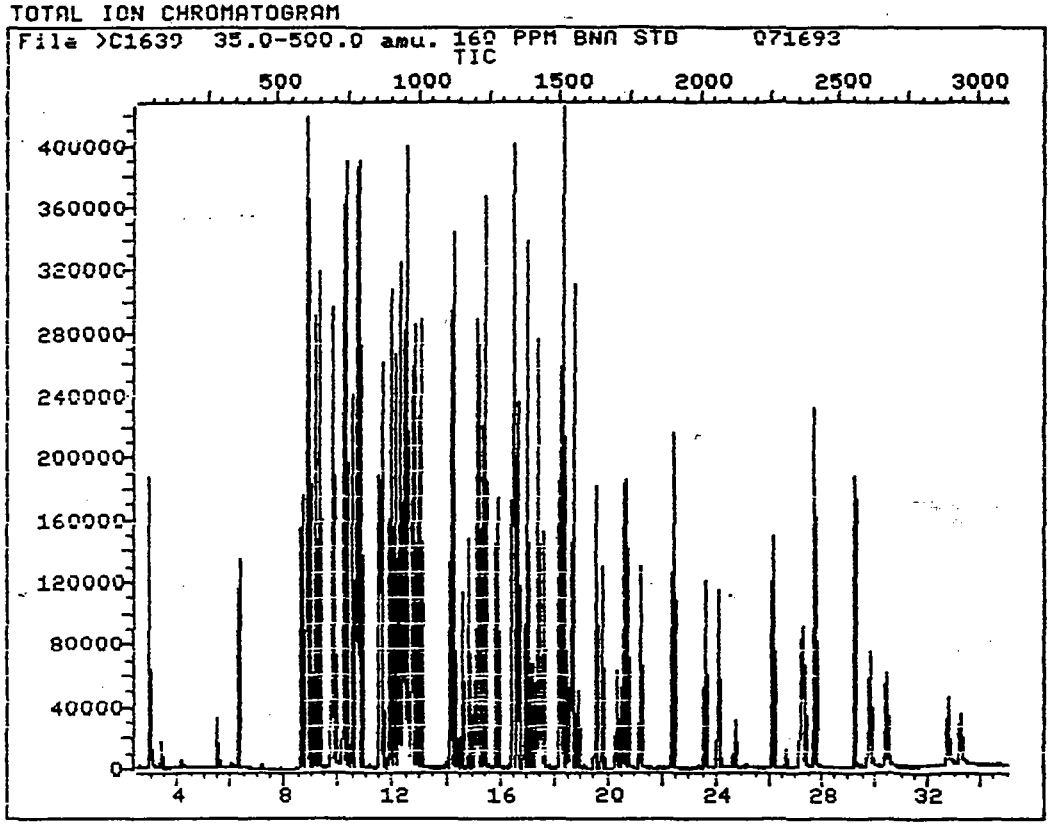


Data File: >C1638::D2 Quant Output File: ^C1638::QT
Name: 120 PPM BNA STD
Misc: 071693 BTL# 3

Id File: ID0706::ED
Title: hSL BNA STD
Last Calibration: 930707 15:51

Operator ID: JEFF
Quant Time: 930716 13:39
Injected at: 930716 13:01

TOTAL ION CHROMATOGRAM



Data File: >C1639::D2 Quant Output File: ^C1639::QT
Name: 160 PPM BNA STD
Misc: 071693 BTL# 4

Id File: ID0706::ED
Title: hSL BNA STD
Last Calibration: 930707 15:51

Operator ID: JEFF
Quant Time: 930716 14:27
Injected at: 930716 13:49

4A
VOLATILE METHOD BLANK SUMMARY

Lab Name: 21st Century Environmental Inc. Contract No.:

Lab Code: Case No: SAS No.: SDG No.:

LAB ID FILE (BLANK): >B0669 DATE ANALYZED: 07/13/93

INSTRUMENT ID: B TIME ANALYZED: 18:24

Matrix: WATER Level:(low/med) LOW Column:(pack/cap)

Sample ID: BLANK

THIS BLANK APPLIES TO THE FOLLOWING SAMPLES,MS AND MSD

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	A2535	>B0670	07/13/93	18:57
2	A2532	>B0671	07/13/93	19:24
3	A2530	>B0672	07/13/93	19:51
4	A2531	>B0673	07/13/93	20:18
5	A2533	>B0674	07/13/93	20:47
6	A2536	>B0675	07/13/93	21:13
7	A2537	>B0676	07/13/93	21:41
8	A2538	>B0677	07/13/93	22:08
9	A2539	>B0678	07/13/93	22:34
10	A2540	>B0679	07/13/93	23:01
11	A2534	>B0680	07/13/93	23:28
12				
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23				
24				
25				

COMMENTS: _____

21st Century Environmental Inc.
VOLATILE ORGANIC ANALYSIS DATA

JOB NUMBER		MATRIX	Water
SAMPLE NUMBER	BLANK	DILUTION FACTOR	1.000
CLIENT ID	071393 METHOD BLANK	QA BATCH	
DATA FILE	>80669	DATE ANALYZED	07/13/93

COMPOUND	UG/L	MDL	COMPOUND	UG/L	MDL
Acrolein	ND	50	2-Chloroethylvinylether	ND	10
Acrylonitrile	ND	50	2-Hexanone	ND	10
Chloromethane	ND	10	trans-1,3-Dichloropropene	ND	5
Bromomethane	ND	10	Toluene	ND	5
Vinyl Chloride	ND	10	cis-1,3-Dichloropropene	ND	5
Chloroethane	ND	10	1,1,2,2-Tetrachloroethane	ND	5
Acetone	2.2 J	10	1,1,2-Trichloroethane	ND	5
1,1-Dichloroethene	ND	5	4-Methyl-2-pentanone	ND	10
Carbon Disulfide	ND	10	Tetrachloroethene	ND	5
Methylene Chloride	ND	5	Dibromochloromethane	ND	5
1,2-Dichloroethene(trans)	ND	5	Chlorobenzene	ND	5
1,1-Dichloroethane	ND	5	Ethylbenzene	ND	5
Vinyl Acetate	ND	5	m&p-Xylenes	ND	5
2-Butanone	ND	10	o-Xylene	ND	5
Chloroform	ND	5	Styrene	ND	5
1,1,1-Trichloroethane	ND	5	Bromoform	ND	5
Carbon Tetrachloride	ND	5	m-Dichlorobenzene	ND	5
1,2-Dichloroethane	ND	5	p-Dichlorobenzene	ND	5
Benzene	ND	5	o-Dichlorobenzene	ND	5
Trichloroethene	ND	5	Methyl Tertiary Butyl Ether	ND	10
1,2-Dichloropropane	ND	5	Tertiary Butyl Alcohol	ND	50
Bromodichloromethane	ND	5			

SURROGATE COMPOUNDS	% RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	91.5	76 - 114	OK
Toluene-d8	101	88 - 110	OK
Bromofluorobenzene	97.5	86 - 115	OK

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

BLANK

Lab Name: 21st Century Environmental Contract: N/A

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

Matrix: (soil/water) WATER Lab Sample ID: BLANK

Sample wt/vol: 5 (g/mL) mL Lab File ID: >B0669

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

% Moisture: NA Date Analyzed: 07/13/93

Column: DB-624 Dilution Factor: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	No Unknowns			

FORM I VOA-TIC 1/87 Rev.

QUANT REPORT

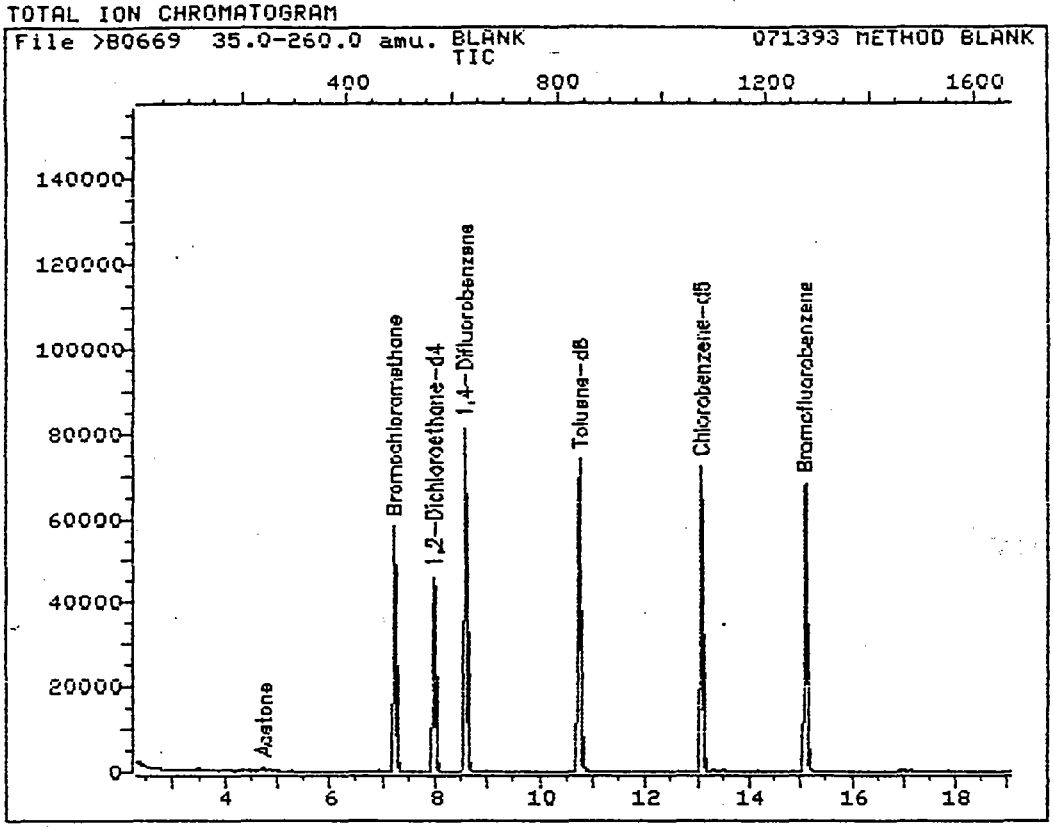
Operator ID: MANAGER Quant Rev: 6 Quant Time: 930713 19:16
Output File: ^B0669::D4 Injected at: 930713 18:24
Data File: >B0669::D7 Dilution Factor: 1.00000
Name: BLANK
Misc: 071393 METHOD BLANK 5mL

ID File: ID0401::SC
Title: USEPA 624 VOLATILES
Last Calibration: 930713 18:23

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*Bromochloromethane	7.21	488	27957	50.00	UG/L	100
9)	Acetone	4.73	241	1991	2.18	UG/L	75
23)	1,2-Dichloroethane-d4	7.97	564	61371	45.76	UG/L	100
24)	*1,4-Difluorobenzene	8.56	623	120038	50.00	UG/L	100
3)	Toluene-d8	10.74	841	97037	50.60	UG/L	100
5)	*Chlorobenzene-d5	13.06	1072	75996	50.00	UG/L	100
48)	Bromofluorobenzene	15.07	1273	48959	48.76	UG/L	100

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >B0669::D7 Quant Output File: ^B0669::D4
Name: BLANK
Misc: 071393 METHOD BLANK 5mL

Id File: ID0401::SC
Title: USEPA 624 VOLATILES
Last Calibration: 930713 18:23

Operator ID: MANAGER
Quant Time: 930713 19:16
Injected at: 930713 18:24

4A

VOLATILE METHOD BLANK SUMMARY

Lab Name: 21st Century Environmental Inc. Contract No.:

Lab Code: Case No: SAS No.: SDG No.:

LAB ID FILE (BLANK): >B0690 DATE ANALYZED: 07/14/93

INSTRUMENT ID: B TIME ANALYZED: 14:04

Matrix: WATER Level:(low/med) LOW Column:(pack/cap)

Sample ID: BLANK

THIS BLANK APPLIES TO THE FOLLOWING SAMPLES,MS AND MSD

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	A2539	>B0691	07/14/93	14:50
2	A2542	>B0692	07/14/93	15:20
3	A2543	>B0693	07/14/93	15:46
4	BLANK	>B0694	07/14/93	16:13
5	A2544	>B0702	07/14/93	19:50
6	A2241	>B0706	07/14/93	21:39
7	A2247	>B0707	07/14/93	22:06
8	A2253	>B0708	07/14/93	22:32
9	A2545	>B0709	07/14/93	23:00
10	A2244	>B0710	07/14/93	23:27
11				
12				
13				
14				
15				
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17				
18				
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20				
21				
22				
23				
24				
25				

COMMENTS: _____

_____

21st Century Environmental Inc.
VOLATILE ORGANIC ANALYSIS DATA

JOB NUMBER		MATRIX	Water
SAMPLE NUMBER	BLANK	DILUTION FACTOR	1.000
CLIENT ID	071493 METHOD BLANK	QA BATCH	
DATA FILE	>BU691I	DATE ANALYZED	07/14/93

COMPOUND	UG/L	MDL	COMPOUND	UG/L	MDL
Acrolein	ND	50	2-Chloroethylvinylether	ND	10
Acrylonitrile	ND	50	2-Hexanone	ND	10
Chloromethane	ND	10	trans-1,3-Dichloropropene	ND	5
Bromomethane	ND	10	Toluene	ND	5
Vinyl Chloride	ND	10	cis-1,3-Dichloropropene	ND	5
Chloroethane	ND	10	1,1,2,2-Tetrachloroethane	ND	5
Acetone	ND	10	1,1,2-Trichloroethane	ND	5
1,1-Dichloroethene	ND	5	4-Methyl-2-pentanone	ND	10
Carbon Disulfide	ND	10	Tetrachloroethene	ND	5
Methylene Chloride	ND	5	Dibromochloromethane	ND	5
1,2-Dichloroethene(trans)	ND	5	Chlorobenzene	ND	5
1,1-Dichloroethane	ND	5	Ethylbenzene	ND	5
Vinyl Acetate	ND	5	m&p-Xylenes	ND	5
2-Butanone	ND	10	o-Xylene	ND	5
Chloroform	ND	5	Styrene	ND	5
1,1,1-Trichloroethane	ND	5	Bromoform	ND	5
Carbon Tetrachloride	ND	5	m-Dichlorobenzene	ND	5
1,2-Dichloroethane	ND	5	p-Dichlorobenzene	ND	5
Benzene	ND	5	o-Dichlorobenzene	ND	5
Trichloroethene	ND	5	Methyl Tertiary Butyl Ether	ND	10
1,2-Dichloropropane	ND	5	Tertiary Butyl Alcohol	ND	50
Bromodichloromethane	ND	5			

SURROGATE COMPOUNDS	% RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	92.3	76 - 114	OK
Toluene-d8	96.4	88 - 110	OK
Bromofluorobenzene	98.3	86 - 115	OK

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

BLANK

Lab Name: 21st Century Environmental Contract: N/A

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

Matrix: (soil/water) WATER Lab Sample ID: BLANK

Sample wt/vol: 5 (g/mL) mL Lab File ID: >BU690

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

% Moisture: NA Date Analyzed: 07/14/93

Column: DB-624 Dilution Factor: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	No Unknowns			

FORM I VOA-TIC 1/87 Rev.

00169

QUANT REPORT

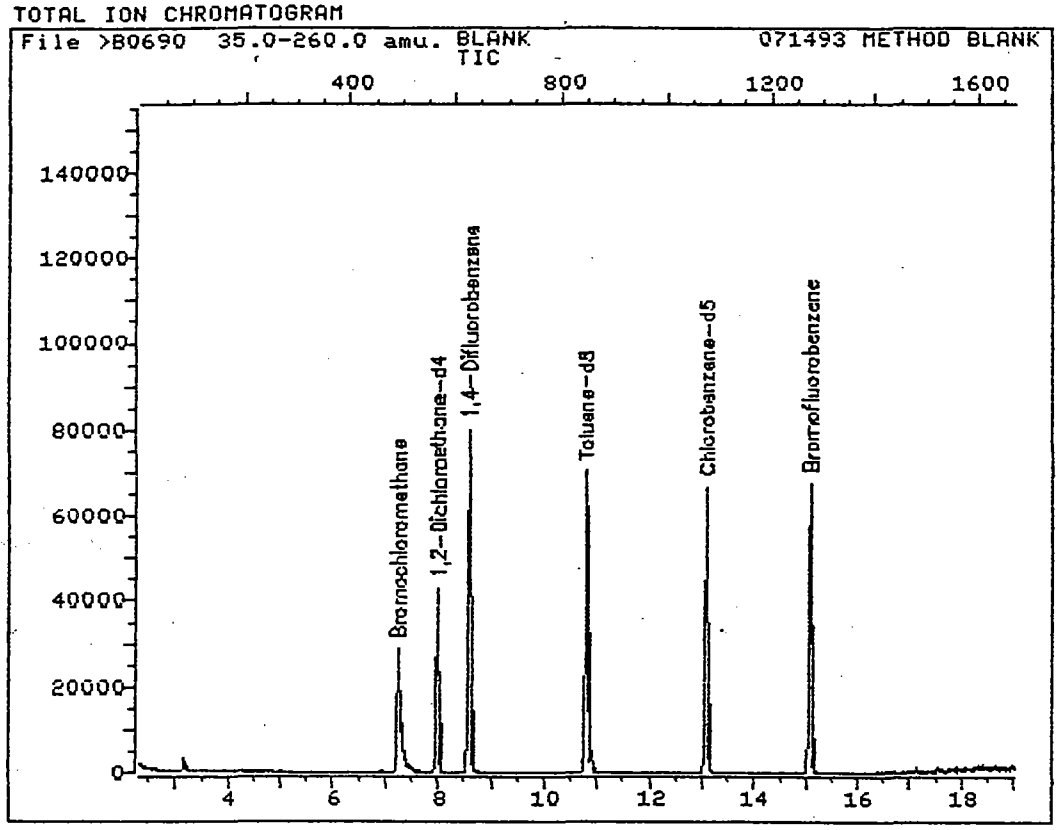
Operator ID: MANAGER Quant Rev: 6 Quant Time: 930714 14:29
Output File: ^B0690::D4 Injected at: 930714 14:04
Data File: >B0690::D5 Dilution Factor: 1.00000
Name: BLANK
Misc: 071493 METHOD BLANK

ID File: ID0401::SC
Title: USEPA 624 VOLATILES
Last Calibration: 930714 13:59

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*Bromochloromethane	7.24	491	24468	50.00	UG/L	100
23)	1,2-Dichloroethane-d4	7.99	566	57207	46.14	UG/L	100
24)	*1,4-Difluorobenzene	8.59	626	117836	50.00	UG/L	100
33)	Toluene-d8	10.77	844	90489	48.19	UG/L	100
35)	*Chlorobenzene-d5	13.08	1074	71717	50.00	UG/L	100
48)	Bromofluorobenzene	15.07	1273	47967	49.14	UG/L	100

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >B0690::D5 Quant Output File: ^B0690::D4
Name: BLANK
Misc: 071493 METHOD BLANK

Id File: ID0401::SC
Title: USEPA 624 VOLATILES
Last Calibration: 930714 13:59

Operator ID: MANAGER
Quant Time: 930714 14:29
Injected at: 930714 14:04

4B

SEMIVOLATILE METHOD BLANK SUMMARY

Lab Name: 21st Century Environmental Contract No.:

Lab Code: Case No: SAS No.: SDG No.:

LAB ID FILE (BLANK): >C1596 DATE ANALYZED: 07/13/93

INSTRUMENT ID: C TIME ANALYZED: 11:34

Matrix: WATER Level:(low/med) LOW Column:(pack/cap)

Date Extracted: 07/09/93 Extraction:(Sepf/Cont/Sonc) SEPF

Sample ID: AQ BLNK 7/9

THIS BLANK APPLIES TO THE FOLLOWING SAMPLES,MS AND MSD

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	A2532	>C1598	07/13/93	13:10
2	A2536	>C1607	07/14/93	12:25
3	A2537	>C1608	07/14/93	13:14
4	A2538	>C1645	07/16/93	19:23
5	A2539	>C1610	07/14/93	15:01
6	A2540	>C1611	07/14/93	15:51
7				
8				
9				
10				
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25				

COMMENTS: _____

21st Century Environmental Inc.
SEMIVOLATILE ANALYSIS DATA

JOB NUMBER		MATRIX	Water
SAMPLE NUMBER	AQ BLNK	DILUTION FACTOR	1.00
CLIENT ID		QA BATCH	
DATA FILE	>C1596	DATE ANALYZED	08/11/93

COMPOUND	UG/L	MDL	COMPOUND	UG/L	MDL
N-Nitrosodimethylamine	ND	10	2,6-Dinitrotoluene	ND	10
bis(-2-Chloroethyl)Ether	ND	10	Diethylphthalate	ND	10
1,3-Dichlorobenzene	ND	10	4-Chlorophenyl-phenlyether	ND	10
1,4-Dichlorobenzene	ND	10	Fluorene	ND	10
Benzyl Alcohol	ND	10	4-Nitroaniline	ND	50
1,2-Dichlorobenzene	ND	10	N-Nitrosodiphenylamine	ND	10
bis(2-chloroisopropyl)Ether	ND	10	4-Bromophenyl-phenylether	ND	10
N-Nitroso-Di-n-Propylamine	ND	10	Hexachlorobenzene	ND	10
Hexachloroethane	ND	10	Phenanthrene	ND	10
Nitrobenzene	ND	10	Anthracene	ND	10
Isophorone	ND	10	Di-n-Butylphthalate	ND	10
Benzoic Acid	ND	50	Fluoranthene	ND	10
bis(-2-Chloroethoxy)Methane	ND	10	Pyrene	ND	10
1,2,4-Trichlorobenzene	ND	10	Butylbenzylphthalate	ND	10
Naphthalene	ND	10	3,3'-Dichlorobenzidine	ND	20
4-Chloroaniline	ND	10	Benzo(a)Anthracene	ND	10
Hexachlorobutadiene	ND	10	Bis(2-Ethylhexyl)Phthalate	ND	10
2-Methylnaphthalene	ND	10	Chrysene	ND	10
Hexachlorocyclopentadiene	ND	10	Di-n-Octyl Phthalate	ND	10
2-Chloronaphthalene	ND	10	Benzo(b)fluoranthene	ND	10
2-Nitroaniline	ND	50	Benzo(k)Fluoranthene	ND	10
Dimethyl Phthalate	ND	10	Benzo(a)Pyrene	ND	10
Acenaphthylene	ND	10	Indeno(1,2,3-cd)Pyrene	ND	10
3-Nitroaniline	ND	50	Dibenzo(a,h)Anthracene	ND	10
Acenaphthene	ND	10	Benzo(g,h,i)Perylene	ND	10
Dibenzofuran	ND	10	Benzidine	ND	20
2,4-Dinitrotoluene	ND	10			

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

E1

EPA SAMPLE NUMBER

semi-VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

AQ BLNK

Client: US Army, Ft. Monmouth, NJ

Comments:

Matrix: (soil/water) WATER

Lab Sample ID: BLDG 2500

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: >C1596

Level: LOW

Date Received: NA

% Moisture: 100

Date Analyzed 07/13/93

Extraction: (Sepf/Cont/Sonc) SEPF

Date Extracted 07/09/93

GPC (Y or N): N

Column: DB-5

Dilution Factor: 1

Number TICs Found 1

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

	CAS NUMBER	COMPOUND NAME	RT	EST CONC
1		UNKNOWN	29.85	4

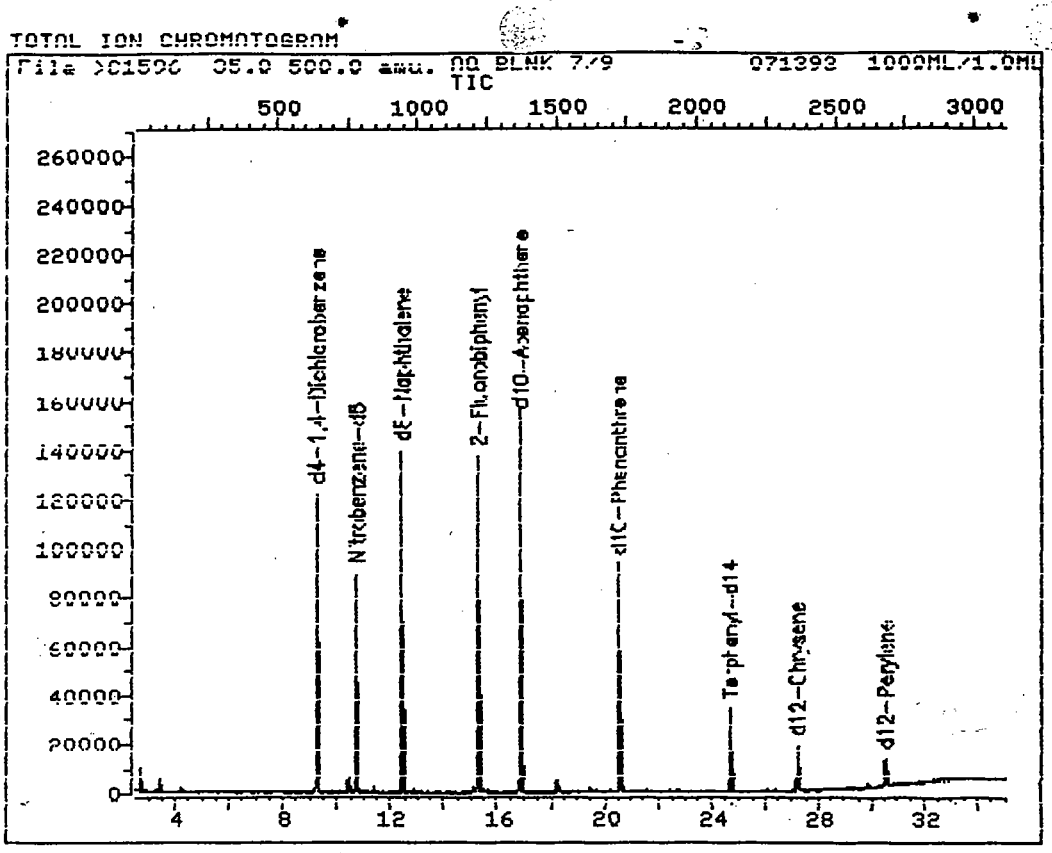
QUANT REPORT

erator ID: JEFF Quant Rev: 6 Quant Time: 930811 13:04
tput File: ^C1596::D3 Injected at: 930713 11:34
Data File: >C1596::E4 Dilution Factor: 1.00000
me: AQ BLNK 7/9
sc: 071393 1000ML/1.0ML BTL# 1

ID File: IDHSLC::D3
tle: hSL BNA STD
st Calibration: 930811 13:02

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	9.23	641	53557	40.00	UG/L	93
18)	*d8-Naphthalene	12.38	944	128733	40.00	UG/L	86
)	Nitrobenzene-d5	10.70	782	51660	35.28	UG/L	87
)	*d10-Acenaphthene	16.83	1370	78105	40.00	UG/L	93
38)	2-Fluorobiphenyl	15.24	1218	85592	31.85	UG/L	94
)	*d10-Phenanthrene	20.49	1721	81913	40.00	UG/L	98
)	*d12-Chrysene	27.16	2361	16875	40.00	UG/L	94
67)	Terphenyl-d14	24.65	2120	26808	46.05	UG/L	93
73)	*d12-Perylene	30.50	2681	11819	40.00	UG/L	94

* Compound is ISTD



Data File: >C1596::E4 Quant Output File: ^C1596::D3
Name: AQ BLNK 7/9
Misc: 071393 1000ML/1.0ML BTL# 1

Id File: IDHSLC::D3
Title: hSL BNA STD
Last Calibration: 930811 13:02

Operator ID: JEFF
Quant Time: 930811 13:04
Injected at: 930713 11:34

618 HERON DRIVE, P.O. BOX 489 • BRIDGEPORT, NJ 08014-0489 • 609-467-9521

E-SYSTEMS

PROJECT: U.S. ARMY-FORT MONMOUTH, NJ BLDG 2500

ANALYSIS NO:	CLIENT ID:
A3814	MW 3
A3815	MW 3 DUP
A3816	MW 2
A3817	MW 1
A3818	MW 4
A3819	FIELD BLANK
A3820	TRIP BLANK

DATE RECEIVED: AUGUST 30, 1993

TWENTY FIRST CENTURY
ENVIRONMENTAL, INC.

Richard W Lynch

RICHARD W. LYNCH
LABORATORY MANAGER

METAL ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY FORMAT

	No	Yes
1. Calibration Summary Meet Criteria	N/A	
2. ICP Interference Check Sample Results Summary Submitted (if applicable) / Meet Criteria.	N/A	
3. Serial Dilution Summary Submitted (if applicable) / Meet Criteria.	N/A	
4. Laboratory Control Sample Summary Submitted (if applicable) / Meet Criteria.		✓

5. Blank Contamination - If yes, list compounds and 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: This form Completed By Prime Contractor

_____

_____

Laboratory Manager: Brian McKee Date: 10-18-93

Samples A3814 to A3820

GC/MS ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY FORMAT

	No	Yes
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 Tuning 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 7.0 ppB Acetone
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"? ___ N/A

8. Matrix Spike/ Matrix Spike Duplicate 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 _____

9. Internal Standard Area/Retention Time Shift Meet Criteria	___	✓

Samples A3814 to A3820

GC/MS ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY FORMAT (CONTINUED)

	No	Yes
10. Extraction Holding Time Met	___	✓

If not met, list number of days exceeded for each sample: _____

11. Analysis Holding Time Met	___	✓

If not met, list number of days exceeded for each sample: _____

Additional Comments: This form Completed By Prime Contractor

Laboratory Manager: Brian M K Date: 10-18-93

Samples A3814 to A3820

TABLE OF CONTENTS

NARRATIVE

There were no problems encountered during the analysis of this batch of samples (A3814 to A3820). All extractions and analysis were completed within proper hold times.

CHAIN OF CUSTODY

A3814-20

21ST CENTURY ENVIRONMENTAL
618 HERON DRIVE, P.O. BOX 489 • BRIDGEPORT, NJ 08014-0489
609.467.9521 • 609.467.4523 FAX

CUSTOMER: ET max mcott
ADDRESS:
TELEPHONE:
PROJECT:
PROJECT MANAGER:
PROJECT LOCATION: BLDG #2500 STATE:
PO NUMBER:

TURNAROUND (INDICATE CALENDAR DAYS, CONFIRM WITH LAB): 2 5 7 14 21 OTHER:
DELIVERABLES (PLEASE CIRCLE): TIER 1 TIER II ECRA
CLP RESULTS ONLY OTHER:_____ BIAS CORRECTION
FAX RESULTS TO:

ADDITIONAL INFORMATION / SPECIAL INSTRUCTIONS

SAMPLE NUMBER	SAMPLE DESCRIPTION	MATRIX	DATE	TIME	COMP	GRAB	NUMBER OF CONTAINERS	ANALYSIS / METHOD: VOLATILE ORGANICS	SEMI VOA'S (BNA'S)	PESTICIDES / PCB'S	PCB'S	BTEX	TPH-PETROLEUM HYDROCARBONS	CORROSIVITY	IGNITABILITY	FLASHPOINT	REACTIVITY	TOC	TCLP METALS	TCLP VOLATILE ORGANICS	TCLP SEMI VOA'S (BNA'S)	TCLP PEST / HERB	PRIORITY POLLUTANT METALS (13)	HSL METALS (23)	MTBE, TBA, XYLENE DO	ADDITIONAL ANALYSIS
	MW2	WATER	8/30/93	12:40			5	4	4															4		
	MW3DUP			12:40			5	4	4															4		
	2			13:08			5	4	4															4		
	3			13:17			5	4	4															4		
	4			13:30			5	4	4															4		
	FIELD BLANK			13:45			5	4	4															4		
	TRIP BLANK																									

Relinquished By:	Date	Time	Received By:	Date	Time
[signature]	8/30/93	1900	Lynda Coulter	8/30/93	1900

WHITE
LAB COPY

YELLOW
CUSTOMER COPY

Purgeables

U.S.E.P.A. Method 624 - This is a purge and trap Gas Chromatograph/ Mass Spectrometer (GCMS) method applicable to the determination of the compunds listed in the U.S.E.P.A. Manual entitled "Test Procedures for the Analysis of Organic Pollutants".

An HP5996 GC/MS was used with a capillary column.

Method detection limits are as stated.

Soil samples are prepared for analysis as prescribed in Method 8240/8260 from SW846.

Acid Extractables
Base Neutrals

U.S.E.P.A. Method 625 - This method covers the determination of a number of organic compounds that are partitioned in an organic solvent and amenable to gas chromatography. This is a gas chromatography/mass spectrometer (GC/MS) method applicable to the determination of the compounds listed in the U.S.E.P.A. Manual entitled "Test Procedures for the Analysis of Organic Pollutants".

A HP5970 was used with a DB-5 FSCC.

Method detection limits are as stated.

Soil samples were prepared for analysis as prescribed in Method 3550 and analyzed as prescribed in Method 8270 from SW846.

Metals

Soil samples for metal analysis were run in accordance with the methods prescribed in SW846. This includes a nitric acid digestion followed by either Furnace, Flame Atomic Absorption, Flameless Atomic Absorption. or Inductively Coupled Plasma analysis.

Aqueous samples for metals analysis were run in accordance with the methods prescribed in Methods for Chemical Analysis of Water and Wastes, EPA-600-4-79-020 March 1983.

LABORATORY CHRONICLE

RECEIPT/REFRIGERATION 8/30/93

ORGANICS
EXTRACTION

1. Acids NA
2. Base/Neutrals 9/3/93
3. Pesticides/PCB's/Herbicides NA
4. Petroleum Hydrocarbons/Oil & Grease NA

ANALYSIS

1. Volatiles 9/2/93 - 9/5/93
2. Acids NA
3. Base/Neutrals 9/24/93 - 10/7/93
4. Pesticides/PCB's/Herbicides NA
5. Petroleum Hydrocarbons/Oil & Grease NA
6. Total Organic Carbon NA

Section Supervisor
Review & Approval Jeffrey L Frantz

INORGANICS

1. Metals 9/10/93
2. Cyanides NA
3. Phenols NA

OTHER ANALYTES

Section Supervisor
Review & Approval Matthew R. Gross

Quality Control Supervisor
Review & Approval

Laboratory Director
Review & Approval Richard W Symank

If fractions are re-extracted and re-analyzed because initial endeavors did not meet quality control acceptance criteria, include dates for both.

RESULT SUMMARY

U.S. ARMY - FORT MONMOUTH

BUILDING 2500

CERTIFICATE OF ANALYSIS

LEADS

SAMPLE ID:	CLIENT ID:	MDL (mg/L)	RESULT (mg/L)
A3814	MW 3	0.05	ND
A3815	MW 3 DUP	0.05	ND
A3816	MW 2	0.05	ND
A3817	MW 1	0.05	ND
A3818	MW 4	0.05	ND
A3819	FIELD BLANK	0.05	ND

21st Century Environmental Inc.
VOLATILE ORGANIC ANALYSIS DATA

JOB NUMBER	US ARMY FT. MONMOUTH NJ	MATRIX	Water
SAMPLE NUMBER	A3814	DILUTION FACTOR	1.00
CLIENT ID	BLDG 2500 MW-3	COMMENTS	HNU 0.03
DATA FILE	>B1431	DATE ANALYZED	09/02/93

COMPOUND	UG/L	MDL	COMPOUND	UG/L	MDL
Acrolein	ND	50	2-Chloroethylvinylether	ND	10
Acrylonitrile	ND	50	2-Hexanone	ND	10
Chloromethane	ND	10	trans-1,3-Dichloropropene	ND	5
Bromomethane	ND	10	Toluene	ND	5
Vinyl Chloride	ND	10	cis-1,3-Dichloropropene	ND	5
Chloroethane	ND	10	1,1,2,2-Tetrachloroethane	ND	5
Acetone	3.9 JB	10	1,1,2-Trichloroethane	ND	5
1,1-Dichloroethene	ND	5	4-Methyl-2-pentanone	ND	10
Carbon Disulfide	ND	10	Tetrachloroethene	ND	5
Methylene Chloride	3.3 J	5	Dibromochloromethane	ND	5
1,2-Dichloroethene(trans)	ND	5	Chlorobenzene	ND	5
1,1-Dichloroethane	ND	5	Ethylbenzene	ND	5
Vinyl Acetate	ND	5	m&p-Xylenes	ND	5
2-Butanone	ND	10	o-Xylene	ND	5
Chloroform	ND	5	Styrene	ND	5
1,1,1-Trichloroethane	ND	5	Bromoform	ND	5
Carbon Tetrachloride	ND	5	m-Dichlorobenzene	ND	5
1,2-Dichloroethane	ND	5	p-Dichlorobenzene	ND	5
Benzene	ND	5	o-Dichlorobenzene	ND	5
Trichloroethene	ND	5	Methyl Tertiary Butyl Ether	ND	10
1,2-Dichloropropane	ND	5	Tertiary Butyl Alcohol	ND	50
Bromodichloromethane	ND	5			

SURROGATE COMPOUNDS	% RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	101	76 - 114	OK
Toluene-d8	97.8	88 - 110	OK
Bromofluorobenzene	100	86 - 115	OK

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

21st Century Environmental Inc.
SEMIVOLATILE ANALYSIS DATA

JOB NUMBER	US ARMY FT. MONMOUTH, NJ	MATRIX	Water
SAMPLE NUMBER	A3814	DILUTION FACTOR	1.00
CLIENT ID	BLDG 2500 MW-3	QA BATCH	
DATA FILE	>C2374	DATE ANALYZED	09/24/93

COMPOUND	UG/L	MDL	COMPOUND	UG/L	MDL
N-Nitrosodimethylamine	ND	10	2,6-Dinitrotoluene	ND	10
bis(-2-Chloroethyl)Ether	ND	10	Diethylphthalate	ND	10
1,3-Dichlorobenzene	ND	10	4-Chlorophenyl-phenylether	ND	10
1,4-Dichlorobenzene	ND	10	Fluorene	ND	10
Benzyl Alcohol	1.4 J	10	4-Nitroaniline	ND	50
1,2-Dichlorobenzene	ND	10	N-Nitrosodiphenylamine	ND	10
bis(2-chloroisopropyl)Ether	ND	10	4-Bromophenyl-phenylether	ND	10
N-Nitroso-Di-n-Propylamine	ND	10	Hexachlorobenzene	ND	10
Hexachloroethane	ND	10	Phenanthrene	ND	10
Nitrobenzene	ND	10	Anthracene	ND	10
Isophorone	ND	10	Di-n-Butylphthalate	ND	10
Benzoic Acid	ND	50	Fluoranthene	ND	10
bis(-2-Chloroethoxy)Methane	ND	10	Pyrene	ND	10
1,2,4-Trichlorobenzene	ND	10	Butylbenzylphthalate	12	10
Naphthalene	ND	10	3,3'-Dichlorobenzidine	ND	20
4-Chloroaniline	ND	10	Benzo(a)Anthracene	ND	10
Hexachlorobutadiene	ND	10	Bis(2-Ethylhexyl)Phthalate	ND	10
2-Methylnaphthalene	ND	10	Chrysene	ND	10
Hexachlorocyclopentadiene	ND	10	Di-n-Octyl Phthalate	ND	10
2-Chloronaphthalene	ND	10	Benzo(b)Fluoranthene	ND	10
2-Nitroaniline	ND	50	Benzo(k)Fluoranthene	ND	10
Dimethyl Phthalate	ND	10	Benzo(a)Pyrene	ND	10
Acenaphthylene	ND	10	Indeno(1,2,3-cd)Pyrene	ND	10
3-Nitroaniline	ND	50	Dibenzo(a,h)Anthracene	ND	10
Acenaphthene	ND	10	Benzo(g,h,i)Perylene	ND	10
Dibenzofuran	ND	10	Benzidine	ND	20
2,4-Dinitrotoluene	ND	10			

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

MW-3

Lab Name:21st Century Environmental

Client Name: US ARMY FT. MONMOUTH, NJ

Client ID: BLDG 2500

Matrix: (soil/water) WATER

Lab Sample ID: A3814

Sample wt/vol: 5 (g/mL) mL

Lab File ID: >B1431

Level: (low/med) LOW

Date Received: 08/30/93

% Moisture: NA

Date Analyzed: 09/02/93

Column: DB-624

Dilution Factor: 1

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	No Unknowns			

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E1

semi-VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NUMBER

BLDG 2500
MW-3

Client: US ARMY, FT. MONMOUTH, NJ

Comments: Bldg 2500

Matrix: (soil/water) WATER

Lab Sample ID: A3814

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: >C2374

Level: LOW

Date Received: NA

% Moisture: 100

Date Analyzed 09/24/93

Extraction: (Sepf/Cont/Sonc) SEPF

Date Extracted 09/03/93

GPC (Y or N): N

Column: DB-5

Dilution Factor: 1

Number TICs Found 1

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

CAS NUMBER	COMPOUND NAME	RT	EST CONC
	NO UNKNOWN COMPOUNDS IDENTIFIED		

21st Century Environmental Inc.
VOLATILE ORGANIC ANALYSIS DATA

JOB NUMBER	US ARMY FT. MONMOUTH NJ	MATRIX	Water
SAMPLE NUMBER	A3815	DILUTION FACTOR	1.00
CLIENT ID	BLDG 2500 MW-3 DUP	COMMENTS	HNU 0.03
DATA FILE	>B1432	DATE ANALYZED	09/02/93

COMPOUND	UG/L		MDL	COMPOUND	UG/L	MDL
Acrolein	ND		50	2-Chloroethylvinylether	ND	10
Acrylonitrile	ND		50	2-Hexanone	ND	10
Chloromethane	ND		10	trans-1,3-Dichloropropene	ND	5
Bromomethane	ND		10	Toluene	ND	5
Vinyl Chloride	ND		10	cis-1,3-Dichloropropene	ND	5
Chloroethane	ND		10	1,1,2,2-Tetrachloroethane	ND	5
Acetone	ND	B	10	1,1,2-Trichloroethane	ND	5
1,1-Dichloroethene	ND		5	4-Methyl-2-pentanone	ND	10
Carbon Disulfide	ND		10	Tetrachloroethene	ND	5
Methylene Chloride	3.4	J	5	Dibromochloromethane	ND	5
1,2-Dichloroethene(trans)	ND		5	Chlorobenzene	ND	5
1,1-Dichloroethane	ND		5	Ethylbenzene	ND	5
Vinyl Acetate	ND		5	m&p-Xylenes	ND	5
2-Butanone	ND		10	o-Xylene	ND	5
Chloroform	ND		5	Styrene	ND	5
1,1,1-Trichloroethane	ND		5	Bromoform	ND	5
Carbon Tetrachloride	ND		5	m-Dichlorobenzene	ND	5
1,2-Dichloroethane	ND		5	p-Dichlorobenzene	ND	5
Benzene	ND		5	o-Dichlorobenzene	ND	5
Trichloroethene	ND		5	Methyl Tertiary Butyl Ether	ND	10
1,2-Dichloropropane	ND		5	Tertiary Butyl Alcohol	ND	50
Bromodichloromethane	ND		5			

SURROGATE COMPOUNDS	% RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	103	76 - 114	OK
Toluene-d8	99.2	88 - 110	OK
Bromofluorobenzene	101	86 - 115	OK

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

21st Century Environmental Inc.
SEMIVOLATILE ANALYSIS DATA

JOB NUMBER	US ARMY, FT. MONMOUTH, NJ	MATRIX	Water
SAMPLE NUMBER	A3815	DILUTION FACTOR	1.00
CLIENT ID	BLDG 2500 MW-3DUP	QA BATCH	
DATA FILE	>C2375	DATE ANALYZED	09/24/93

COMPOUND	UG/L	MDL	COMPOUND	UG/L	MDL
N-Nitrosodimethylamine	ND	10	2,6-Dinitrotoluene	ND	10
bis(-2-Chloroethyl)Ether	ND	10	Diethylphthalate	ND	10
1,3-Dichlorobenzene	ND	10	4-Chlorophenyl-phenylether	ND	10
1,4-Dichlorobenzene	ND	10	Fluorene	ND	10
Benzyl Alcohol	2.0 J	10	4-Nitroaniline	ND	50
1,2-Dichlorobenzene	ND	10	N-Nitrosodiphenylamine	ND	10
bis(2-chloroisopropyl)Ether	ND	10	4-Bromophenyl-phenylether	ND	10
N-Nitroso-Di-n-Propylamine	ND	10	Hexachlorobenzene	ND	10
Hexachloroethane	ND	10	Phenanthrene	ND	10
Nitrobenzene	ND	10	Anthracene	ND	10
Isophorone	ND	10	Di-n-Butylphthalate	1.6 J	10
Benzoic Acid	ND	50	Fluoranthene	ND	10
bis(-2-Chloroethoxy)Methane	ND	10	Pyrene	ND	10
1,2,4-Trichlorobenzene	ND	10	Butylbenzylphthalate	12	10
Naphthalene	ND	10	3,3'-Dichlorobenzidine	ND	20
4-Chloroaniline	ND	10	Benzo(a)Anthracene	ND	10
Hexachlorobutadiene	ND	10	Bis(2-Ethylhexyl)Phthalate	ND	10
2-Methylnaphthalene	ND	10	Chrysene	ND	10
Hexachlorocyclopentadiene	ND	10	Di-n-Octyl Phthalate	ND	10
2-Chloronaphthalene	ND	10	Benzo(b)Fluoranthene	ND	10
2-Nitroaniline	ND	50	Benzo(k)Fluoranthene	ND	10
Dimethyl Phthalate	ND	10	Benzo(a)Pyrene	ND	10
Acenaphthylene	ND	10	Indeno(1,2,3-cd)Pyrene	ND	10
3-Nitroaniline	ND	50	Dibenzo(a,h)Anthracene	ND	10
Acenaphthene	ND	10	Benzo(g,h,i)Perylene	ND	10
Dibenzofuran	ND	10	Benzidine	ND	20
2,4-Dinitrotoluene	ND	10			

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

MW-3 DUP

Lab Name:21st Century Environmental

Client Name: US ARMY FT. MONMOUTH, NJ

Client ID: BLDG 2500

Matrix: (soil/water) WATER

Lab Sample ID: A3815

Sample wt/vol: 5 (g/mL) mL

Lab File ID: >B1432

Level: (low/med) LOW

Date Received: 08/30/93

% Moisture: NA

Date Analyzed: 09/02/93

Column: DB-624

Dilution Factor: 1

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	No Unknowns			

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EPA SAMPLE NUMBER

semi-VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

BLDG 2500
MW-3 DUP

Client: US ARMY, FT. MONMOUTH, NJ

Comments: Bldg 2500

Matrix: (soil/water) WATER

Lab Sample ID: A3815

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: >C2375

Level: LOW

Date Received: NA

% Moisture: 100

Date Analyzed 09/24/93

Extraction: (Sepf/Cont/Sonc) SEPF

Date Extracted 09/03/93

GPC (Y or N): N

Column: DB-5

Dilution Factor: 1

Number TICs Found 1

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

CAS NUMBER	COMPOUND NAME	RT	EST CONC
	NO UNKNOWN COMPOUNDS IDENTIFIED		

21st Century Environmental Inc.
VOLATILE ORGANIC ANALYSIS DATA

JOB NUMBER	US ARMY FT. MONMOUTH NJ	MATRIX	Water
SAMPLE NUMBER	A3816	DILUTION FACTOR	1.00
CLIENT ID	BLDG 2500 MW-2	COMMENTS	HNU ND
DATA FILE	>B1433	DATE ANALYZED	09/02/93

COMPOUND	UG/L	MDL	COMPOUND	UG/L	MDL
Acrolein	ND	50	2-Chloroethylvinylether	ND	10
Acrylonitrile	ND	50	2-Hexanone	ND	10
Chloromethane	ND	10	trans-1,3-Dichloropropene	ND	5
Bromomethane	ND	10	Toluene	ND	5
Vinyl Chloride	ND	10	cis-1,3-Dichloropropene	ND	5
Chloroethane	ND	10	1,1,2,2-Tetrachloroethane	ND	5
Acetone	1.6 JB	10	1,1,2-Trichloroethane	ND	5
1,1-Dichloroethene	ND	5	4-Methyl-2-pentanone	ND	10
Carbon Disulfide	ND	10	Tetrachloroethene	ND	5
Methylene Chloride	3.6 J	5	Dibromochloromethane	ND	5
1,2-Dichloroethene(trans)	ND	5	Chlorobenzene	ND	5
1,1-Dichloroethane	ND	5	Ethylbenzene	ND	5
Vinyl Acetate	ND	5	m&p-Xylenes	ND	5
2-Butanone	ND	10	o-Xylene	ND	5
Chloroform	ND	5	Styrene	ND	5
1,1,1-Trichloroethane	ND	5	Bromoform	ND	5
Carbon Tetrachloride	ND	5	m-Dichlorobenzene	ND	5
1,2-Dichloroethane	ND	5	p-Dichlorobenzene	ND	5
Benzene	ND	5	o-Dichlorobenzene	ND	5
Trichloroethene	ND	5	Methyl Tertiary Butyl Ether	ND	10
1,2-Dichloropropane	ND	5	Tertiary Butyl Alcohol	ND	50
Bromodichloromethane	ND	5			

SURROGATE COMPOUNDS	% RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	109	76 - 114	OK
Toluene-d8	98.1	88 - 110	OK
Bromofluorobenzene	102	86 - 115	OK

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

21st Century Environmental Inc.
SEMIVOLATILE ANALYSIS DATA

JOB NUMBER	US ARMY, FT. MONMOUTH NJ	MATRIX	Water
SAMPLE NUMBER	A3816	DILUTION FACTOR	1.00
CLIENT ID	BLDG 2500 MW-2	QA BATCH	
DATA FILE	>C2376	DATE ANALYZED	09/24/93

COMPOUND	UG/L	MDL	COMPOUND	UG/L	MDL
N-Nitrosodimethylamine	ND	10	2,6-Dinitrotoluene	ND	10
bis(-2-Chloroethyl)Ether	ND	10	Diethylphthalate	ND	10
1,3-Dichlorobenzene	ND	10	4-Chlorophenyl-phenylether	ND	10
1,4-Dichlorobenzene	ND	10	Fluorene	ND	10
Benzyl Alcohol	3.5 J	10	4-Nitroaniline	ND	50
1,2-Dichlorobenzene	ND	10	N-Nitrosodiphenylamine	ND	10
bis(2-chloroisopropyl)Ether	ND	10	4-Bromophenyl-phenylether	ND	10
N-Nitroso-Di-n-Propylamine	ND	10	Hexachlorobenzene	ND	10
Hexachloroethane	ND	10	Phenanthrene	ND	10
Nitrobenzene	ND	10	Anthracene	ND	10
Isophorone	ND	10	Di-n-Butylphthalate	3.3 J	10
Benzoic Acid	ND	50	Fluoranthene	ND	10
bis(-2-Chloroethoxy)Methane	ND	10	Pyrene	ND	10
1,2,4-Trichlorobenzene	ND	10	Butylbenzylphthalate	29	10
Naphthalene	ND	10	3,3'-Dichlorobenzidine	ND	20
4-Chloroaniline	ND	10	Benzo(a)Anthracene	ND	10
Hexachlorobutadiene	ND	10	Bis(2-Ethylhexyl)Phthalate	2.0 J	10
2-Methylnaphthalene	ND	10	Chrysene	ND	10
Hexachlorocyclopentadiene	ND	10	Di-n-Octyl Phthalate	ND	10
2-Chloronaphthalene	ND	10	Benzo(b)Fluoranthene	ND	10
2-Nitroaniline	ND	50	Benzo(k)Fluoranthene	ND	10
Dimethyl Phthalate	ND	10	Benzo(a)Pyrene	ND	10
Acenaphthylene	ND	10	Indeno(1,2,3-cd)Pyrene	ND	10
3-Nitroaniline	ND	50	Dibenzo(a,h)Anthracene	ND	10
Acenaphthene	ND	10	Benzo(g,h,i)Perylene	ND	10
Dibenzofuran	ND	10	Benzidine	ND	20
2,4-Dinitrotoluene	ND	10			

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

MW-2

Lab Name:21st Century Environmental

Client Name: US ARMY FT. MONMOUTH, NJ

Client ID: BLDG 2500

Matrix: (soil/water) WATER

Lab Sample ID: A3816

Sample wt/vol: 5 (g/mL) mL

Lab File ID: >B1433

Level: (low/med) LOW

Date Received: 08/30/93

% Moisture: NA

Date Analyzed: 09/02/93

Column: DB-624

Dilution Factor: 1

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	No Unknowns			

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EPA SAMPLE NUMBER

semi-VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

BLDG 2500
MW-2

Matrix: (soil/water) WATER

Lab Sample ID: A3816

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: >C2376

Level: LOW

Date Received: NA

% Moisture: 100

Date Analyzed 09/24/93

Extraction: (Sepf/Cont/Sonc) SEPF

Date Extracted 09/03/93

GPC (Y or N): N

Column: DB-5

Dilution Factor: 1

Number TICs Found 4

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

	CAS NUMBER	COMPOUND NAME	RT	EST CONC
1		UNKNOWN	2.89	37
2		UNKNOWN	5.06	9
3		UNKNOWN	19.33	6
4		UNKNOWN	29.45	8

21st Century Environmental Inc.
VOLATILE ORGANIC ANALYSIS DATA

JOB NUMBER	US ARMY FT. MONMOUTH NJ	MATRIX	Water
SAMPLE NUMBER	A3817	DILUTION FACTOR	1.00
CLIENT ID	BLDG 2500 MW-1	COMMENTS	HNU ND
DATA FILE	>B1434	DATE ANALYZED	09/02/93

COMPOUND	UG/L	MDL	COMPOUND	UG/L	MDL
Acrolein	ND	50	2-Chloroethylvinylether	ND	10
Acrylonitrile	ND	50	2-Hexanone	ND	10
Chloromethane	ND	10	trans-1,3-Dichloropropene	ND	5
Bromomethane	ND	10	Toluene	ND	5
Vinyl Chloride	ND	10	cis-1,3-Dichloropropene	ND	5
Chloroethane	ND	10	1,1,2,2-Tetrachloroethane	ND	5
Acetone	3.5 JB	10	1,1,2-Trichloroethane	ND	5
1,1-Dichloroethene	ND	5	4-Methyl-2-pentanone	ND	10
Carbon Disulfide	ND	10	Tetrachloroethene	4.0 J	5
Methylene Chloride	1.9 J	5	Dibromochloromethane	ND	5
1,2-Dichloroethene(trans)	ND	5	Chlorobenzene	ND	5
1,1-Dichloroethane	ND	5	Ethylbenzene	ND	5
Vinyl Acetate	ND	5	m&p-Xylenes	ND	5
2-Butanone	ND	10	o-Xylene	ND	5
Chloroform	ND	5	Styrene	ND	5
1,1,1-Trichloroethane	ND	5	Bromoform	ND	5
Carbon Tetrachloride	ND	5	m-Dichlorobenzene	ND	5
1,2-Dichloroethane	ND	5	p-Dichlorobenzene	ND	5
Benzene	ND	5	o-Dichlorobenzene	ND	5
Trichloroethene	ND	5	Methyl Tertiary Butyl Ether	ND	10
1,2-Dichloropropane	ND	5	Tertiary Butyl Alcohol	ND	50
Bromodichloromethane	ND	5			

SURROGATE COMPOUNDS	% RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	112	76 - 114	OK
Toluene-d8	98.5	88 - 110	OK
Bromofluorobenzene	100	86 - 115	OK

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

21st Century Environmental Inc.
SEMIVOLATILE ANALYSIS DATA

JOB NUMBER	US ARMY, FT. MONMOUTH, NJ	MATRIX	Water
SAMPLE NUMBER	A3817	DILUTION FACTOR	1.00
CLIENT ID	BLDG 2500 MW-1	QA BATCH	
DATA FILE	>C2529	DATE ANALYZED	10/07/93

COMPOUND	UG/L	MDL	COMPOUND	UG/L	MDL
N-Nitrosodimethylamine	ND	10	2,6-Dinitrotoluene	ND	10
bis(-2-Chloroethyl)Ether	ND	10	Diethylphthalate	ND	10
1,3-Dichlorobenzene	ND	10	4-Chlorophenyl-phenylether	ND	10
1,4-Dichlorobenzene	ND	10	Fluorene	ND	10
Benzyl Alcohol	1.6 J	10	4-Nitroaniline	ND	50
1,2-Dichlorobenzene	ND	10	N-Nitrosodiphenylamine	ND	10
bis(2-chloroisopropyl)Ether	ND	10	4-Bromophenyl-phenylether	ND	10
N-Nitroso-Di-n-Propylamine	ND	10	Hexachlorobenzene	ND	10
Hexachloroethane	ND	10	Phenanthrene	ND	10
Nitrobenzene	ND	10	Anthracene	ND	10
Isophorone	ND	10	Di-n-Butylphthalate	1.5 J	10
Benzoic Acid	ND	50	Fluoranthene	ND	10
bis(-2-Chloroethoxy)Methane	ND	10	Pyrene	ND	10
1,2,4-Trichlorobenzene	ND	10	Butylbenzylphthalate	12	10
Naphthalene	ND	10	3,3'-Dichlorobenzidine	ND	20
4-Chloroaniline	ND	10	Benzo(a)Anthracene	ND	10
Hexachlorobutadiene	ND	10	Bis(2-Ethylhexyl)Phthalate	ND	10
2-Methylnaphthalene	ND	10	Chrysene	ND	10
Hexachlorocyclopentadiene	ND	10	Di-n-Octyl Phthalate	ND	10
2-Chloronaphthalene	ND	10	Benzo(b)Fluoranthene	ND	10
2-Nitroaniline	ND	50	Benzo(k)Fluoranthene	ND	10
Dimethyl Phthalate	ND	10	Benzo(a)Pyrene	ND	10
Acenaphthylene	ND	10	Indeno(1,2,3-cd)Pyrene	ND	10
3-Nitroaniline	ND	50	Dibenzo(a,h)Anthracene	ND	10
Acenaphthene	ND	10	Benzo(g,h,i)Perylene	ND	10
Dibenzofuran	ND	10	Benzidine	ND	20
2,4-Dinitrotoluene	ND	10			

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

MW-1

Lab Name:21st Century Environmental

Client Name: US ARMY FT. MONMOUTH, NJ

Client ID: BLDG 2500

Matrix: (soil/water) WATER

Lab Sample ID: A3817

Sample wt/vol: 5 (g/mL) mL

Lab File ID: >B1434

Level: (low/med) LOW

Date Received: 08/30/93

% Moisture: NA

Date Analyzed: 09/02/93

Column: DB-624

Dilution Factor: 1

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	No Unknowns			

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E1

EPA SAMPLE NUMBER

semi-VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

BLDG 2500
MW-1

Matrix: (soil/water) WATER

Lab Sample ID: A3817

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: >C2529

Level: LOW

Date Received: NA

% Moisture: 100

Date Analyzed 10/07/93

Extraction: (Sepf/Cont/Sonc) SEPF

Date Extracted 09/03/93

GPC (Y or N): N

Column: DB-5

Dilution Factor: 1

Number TICs Found 0

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

CAS NUMBER	COMPOUND NAME	RT	EST CONC
	NO UNKNOWN COMPOUNDS IDENTIFIED		

21st Century Environmental Inc.
VOLATILE ORGANIC ANALYSIS DATA

JOB NUMBER	US ARMY FT. MONMOUTH NJ	MATRIX	Water
SAMPLE NUMBER	A3818	DILUTION FACTOR	1.00
CLIENT ID	BLDG 2500 MW-4	COMMENTS	HNU 0.01
DATA FILE	>B1435	DATE ANALYZED	09/02/93

COMPOUND	UG/L		MDL	COMPOUND	UG/L		MDL
Acrolein	ND		50	2-Chloroethylvinylether	ND		10
Acrylonitrile	ND		50	2-Hexanone	ND		10
Chloromethane	ND		10	trans-1,3-Dichloropropene	ND		5
Bromomethane	ND		10	Toluene	ND		5
Vinyl Chloride	ND		10	cis-1,3-Dichloropropene	ND		5
Chloroethane	ND		10	1,1,2,2-Tetrachloroethane	ND		5
Acetone	ND	B	10	1,1,2-Trichloroethane	ND		5
1,1-Dichloroethene	ND		5	4-Methyl-2-pentanone	ND		10
Carbon Disulfide	ND		10	Tetrachloroethene	3.5	J	5
Methylene Chloride	ND		5	Dibromochloromethane	ND		5
1,2-Dichloroethene(trans)	ND		5	Chlorobenzene	ND		5
1,1-Dichloroethane	ND		5	Ethylbenzene	ND		5
Vinyl Acetate	ND		5	m&p-Xylenes	ND		5
2-Butanone	ND		10	o-Xylene	ND		5
Chloroform	ND		5	Styrene	ND		5
1,1,1-Trichloroethane	ND		5	Bromoform	ND		5
Carbon Tetrachloride	ND		5	m-Dichlorobenzene	ND		5
1,2-Dichloroethane	ND		5	p-Dichlorobenzene	ND		5
Benzene	ND		5	o-Dichlorobenzene	ND		5
Trichloroethene	ND		5	Methyl Tertiary Butyl Ether	ND		10
1,2-Dichloropropane	ND		5	Tertiary Butyl Alcohol	ND		50
Bromodichloromethane	ND		5				

SURROGATE COMPOUNDS	% RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	106	76 - 114	OK
Toluene-d8	99.3	88 - 110	OK
Bromofluorobenzene	100	86 - 115	OK

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

21st Century Environmental Inc.
SEMIVOLATILE ANALYSIS DATA

JOB NUMBER	US ARMY, FT. MONMOUTH, NJ	MATRIX	Water
SAMPLE NUMBER	A3818	DILUTION FACTOR	1.00
CLIENT ID	Bldg 2500 MW-4	QA BATCH	
DATA FILE	>C2407	DATE ANALYZED	09/28/93

COMPOUND	UG/L	MDL	COMPOUND	UG/L	MDL
N-Nitrosodimethylamine	ND	10	2,6-Dinitrotoluene	ND	10
bis(-2-Chloroethyl)Ether	ND	10	Diethylphthalate	ND	10
1,3-Dichlorobenzene	ND	10	4-Chlorophenyl-phenylether	ND	10
1,4-Dichlorobenzene	ND	10	Fluorene	ND	10
Benzyl Alcohol	6.5 J	10	4-Nitroaniline	ND	50
1,2-Dichlorobenzene	ND	10	N-Nitrosodiphenylamine	ND	10
bis(2-chloroisopropyl)Ether	ND	10	4-Bromophenyl-phenylether	ND	10
N-Nitroso-Di-n-Propylamine	ND	10	Hexachlorobenzene	ND	10
Hexachloroethane	ND	10	Phenanthrene	ND	10
Nitrobenzene	ND	10	Anthracene	ND	10
Isophorone	ND	10	Di-n-Butylphthalate	2.4 J	10
Benzoic Acid	ND	50	Fluoranthene	ND	10
bis(-2-Chloroethoxy)Methane	ND	10	Pyrene	ND	10
1,2,4-Trichlorobenzene	ND	10	Butylbenzylphthalate	30	10
Naphthalene	ND	10	3,3'-Dichlorobenzidine	ND	20
4-Chloroaniline	ND	10	Benzo(a)Anthracene	ND	10
Hexachlorobutadiene	ND	10	Bis(2-Ethylhexyl)Phthalate	ND	10
2-Methylnaphthalene	ND	10	Chrysene	ND	10
Hexachlorocyclopentadiene	ND	10	Di-n-Octyl Phthalate	ND	10
2-Chloronaphthalene	ND	10	Benzo(b)Fluoranthene	ND	10
2-Nitroaniline	ND	50	Benzo(k)Fluoranthene	ND	10
Dimethyl Phthalate	ND	10	Benzo(a)Pyrene	ND	10
Acenaphthylene	ND	10	Indeno(1,2,3-cd)Pyrene	ND	10
3-Nitroaniline	ND	50	Dibenzo(a,h)Anthracene	ND	10
Acenaphthene	ND	10	Benzo(g,h,i)Perylene	ND	10
Dibenzofuran	ND	10	Benzidine	ND	20
2,4-Dinitrotoluene	ND	10			

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

MW-4

Lab Name:21st Century Environmental

Client Name: US ARMY FT. MONMOUTH, NJ

Client ID: BLDG 2500

Matrix: (soil/water) WATER

Lab Sample ID: A3818

Sample wt/vol: 5 (g/mL) mL

Lab File ID: >B1435

Level: (low/med) LOW

Date Received: 08/30/93

% Moisture: NA

Date Analyzed: 09/02/93

Column: DB-624

Dilution Factor: 1

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	No Unknowns			

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ng on unknown # 4 CONC IS 13.00

E1 EPA SAMPLE NUMBER

semi-VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

BLDG 2500
MW-4

atrix: (soil/water) WATER

Lab Sample ID: A3818

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: >C2407

evel: LOW

Date Received: NA

% Moisture: 100

Date Analyzed 09/28/93

Extraction: (Sepf/Cont/Sonc) SEPF

Date Extracted 09/03/93

PC (Y or N): N

Column: DB-5

Dilution Factor: 1

Number TICs Found 9

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

CAS NUMBER	COMPOUND NAME	RT	EST CONC
1	UNKNOWN	25.18	9
2	UNKNOWN	25.95	4
3	UNKNOWN	26.04	13
4	UNKNOWN	26.89	12
5	UNKNOWN	27.69	12
6	UNKNOWN	28.46	10
7	UNKNOWN	29.21	7
8	UNKNOWN	29.48	6
9	UNKNOWN	29.94	4

21st Century Environmental Inc.
VOLATILE ORGANIC ANALYSIS DATA

JOB NUMBER	US ARMY FT. MONMOUTH NJ	MATRIX	Water
SAMPLE NUMBER	A3819	DILUTION FACTOR	1.00
CLIENT ID	BLDG 2500 FIELD BLANK	COMMENTS	HNU ND
DATA FILE	>B1436	DATE ANALYZED	09/02/93

COMPOUND	UG/L	MDL	COMPOUND	UG/L	MDL
Acrolein	ND	50	2-Chloroethylvinylether	ND	10
Acrylonitrile	ND	50	2-Hexanone	ND	10
Chloromethane	ND	10	trans-1,3-Dichloropropene	ND	5
Bromomethane	ND	10	Toluene	ND	5
Vinyl Chloride	ND	10	cis-1,3-Dichloropropene	ND	5
Chloroethane	ND	10	1,1,2,2-Tetrachloroethane	ND	5
Acetone	4.3 JB	10	1,1,2-Trichloroethane	ND	5
1,1-Dichloroethene	ND	5	4-Methyl-2-pentanone	ND	10
Carbon Disulfide	ND	10	Tetrachloroethene	ND	5
Methylene Chloride	ND	5	Dibromochloromethane	ND	5
1,2-Dichloroethene(trans)	ND	5	Chlorobenzene	ND	5
1,1-Dichloroethane	ND	5	Ethylbenzene	ND	5
Vinyl Acetate	ND	5	m&p-Xylenes	ND	5
2-Butanone	ND	10	o-Xylene	ND	5
Chloroform	ND	5	Styrene	ND	5
1,1,1-Trichloroethane	ND	5	Bromoform	ND	5
Carbon Tetrachloride	ND	5	m-Dichlorobenzene	ND	5
1,2-Dichloroethane	ND	5	p-Dichlorobenzene	ND	5
Benzene	ND	5	o-Dichlorobenzene	ND	5
Trichloroethene	ND	5	Methyl Tertiary Butyl Ether	ND	10
1,2-Dichloropropane	ND	5	Tertiary Butyl Alcohol	ND	50
Bromodichloromethane	ND	5			

SURROGATE COMPOUNDS	% RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	101	76 - 114	OK
Toluene-d8	99.1	88 - 110	OK
Bromofluorobenzene	100	86 - 115	OK

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

21st Century Environmental Inc.
SEMIVOLATILE ANALYSIS DATA

JOB NUMBER	US ARMY, FT. MONMOUTH, NJ	MATRIX	Water
SAMPLE NUMBER	A3819	DILUTION FACTOR	1.00
CLIENT ID	BLDG 2500 FIELD BLANK	QA BATCH	
DATA FILE	>C2530	DATE ANALYZED	10/07/93

COMPOUND	UG/L	MDL	COMPOUND	UG/L	MDL
N-Nitrosodimethylamine	ND	10	2,6-Dinitrotoluene	ND	10
bis(-2-Chloroethyl)Ether	ND	10	Diethylphthalate	ND	10
1,3-Dichlorobenzene	ND	10	4-Chlorophenyl-phenylether	ND	10
1,4-Dichlorobenzene	ND	10	Fluorene	ND	10
Benzyl Alcohol	ND	10	4-Nitroaniline	ND	50
1,2-Dichlorobenzene	ND	10	N-Nitrosodiphenylamine	ND	10
bis(2-chloroisopropyl)Ether	ND	10	4-Bromophenyl-phenylether	ND	10
N-Nitroso-Di-n-Propylamine	ND	10	Hexachlorobenzene	ND	10
Hexachloroethane	ND	10	Phenanthrene	ND	10
Nitrobenzene	ND	10	Anthracene	ND	10
Isophorone	ND	10	Di-n-Butylphthalate	ND	10
Benzoic Acid	ND	50	Fluoranthene	ND	10
bis(-2-Chloroethoxy)Methane	ND	10	Pyrene	ND	10
1,2,4-Trichlorobenzene	ND	10	Butylbenzylphthalate	ND	10
Naphthalene	ND	10	3,3'-Dichlorobenzidine	ND	20
4-Chloroaniline	ND	10	Benzo(a)Anthracene	ND	10
Hexachlorobutadiene	ND	10	Bis(2-Ethylhexyl)Phthalate	ND	10
2-Methylnaphthalene	ND	10	Chrysene	ND	10
Hexachlorocyclopentadiene	ND	10	Di-n-Octyl Phthalate	ND	10
2-Chloronaphthalene	ND	10	Benzo(b)Fluoranthene	ND	10
2-Nitroaniline	ND	50	Benzo(k)Fluoranthene	ND	10
Dimethyl Phthalate	ND	10	Benzo(a)Pyrene	ND	10
Acenaphthylene	ND	10	Indeno(1,2,3-cd)Pyrene	ND	10
3-Nitroaniline	ND	50	Dibenzo(a,h)Anthracene	ND	10
Acenaphthene	ND	10	Benzo(g,h,i)Perylene	ND	10
Dibenzofuran	ND	10	Benzidine	ND	20
2,4-Dinitrotoluene	ND	10			

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD BLANK

Lab Name:21st Century Environmental

Client Name: US ARMY FT. MONMOUTH, NJ

Client ID: BLDG 2500

Matrix: (soil/water) WATER

Lab Sample ID: A3819

Sample wt/vol: 5 (g/mL) mL

Lab File ID: >B1436

Level: (low/med) LOW

Date Received: 08/30/93

% Moisture: NA

Date Analyzed: 09/02/93

Column: DB-624

Dilution Factor: 1

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	No Unknowns			

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E1

EPA SAMPLE NUMBER

semi-VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Bldg 108
Fld Blk

Client: US Army Ft. Monmouth, NJ

Comments: None

Matrix: (soil/water) WATER

Lab Sample ID: A3819

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: >C2530

Level: LOW

Date Received: NA

% Moisture: 100

Date Analyzed 10/07/93

Extraction: (Sepf/Cont/Sonc) SEPF

Date Extracted 09/03/93

GPC (Y or N): N

Column: DB-5

Dilution Factor: 1

Number TICs Found 3

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

CAS NUMBER	COMPOUND NAME	RT	EST CONC
1	UNKNOWN	25.66	5
2	UNKNOWN	26.49	7
3	UNKNOWN	28.07	5

21st Century Environmental Inc.
VOLATILE ORGANIC ANALYSIS DATA

JOB NUMBER	US ARMY FT. MONMOUTH NJ	MATRIX	Water
SAMPLE NUMBER	A3820	DILUTION FACTOR	1.00
CLIENT ID	TRIP BLANK BLDG 2500	COMMENTS	HNU ND
DATA FILE	>B1481	DATE ANALYZED	09/05/93

COMPOUND	UG/L	MDL	COMPOUND	UG/L	MDL
Acrolein	ND	50	2-Chloroethylvinylether	ND	10
Acrylonitrile	ND	50	2-Hexanone	ND	10
Chloromethane	ND	10	trans-1,3-Dichloropropene	ND	5
Bromomethane	ND	10	Toluene	ND	5
Vinyl Chloride	ND	10	cis-1,3-Dichloropropene	ND	5
Chloroethane	ND	10	1,1,2,2-Tetrachloroethane	ND	5
Acetone	2.1 JB	10	1,1,2-Trichloroethane	ND	5
1,1-Dichloroethene	ND	5	4-Methyl-2-pentanone	ND	10
Carbon Disulfide	ND	10	Tetrachloroethene	ND	5
Methylene Chloride	ND	5	Dibromochloromethane	ND	5
1,2-Dichloroethene(trans)	ND	5	Chlorobenzene	ND	5
1,1-Dichloroethane	ND	5	Ethylbenzene	ND	5
Vinyl Acetate	ND	5	m&p-Xylenes	ND	5
2-Butanone	ND	10	o-Xylene	ND	5
Chloroform	ND	5	Styrene	ND	5
1,1,1-Trichloroethane	ND	5	Bromoform	ND	5
Carbon Tetrachloride	ND	5	m-Dichlorobenzene	ND	5
1,2-Dichloroethane	ND	5	p-Dichlorobenzene	ND	5
Benzene	ND	5	o-Dichlorobenzene	ND	5
Trichloroethene	ND	5	Methyl Tertiary Butyl Ether	ND	10
1,2-Dichloropropane	ND	5	Tertiary Butyl Alcohol	ND	50
Bromodichloromethane	ND	5			

SURROGATE COMPOUNDS	% RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	96.5	76 - 114	OK
Toluene-d8	99.4	88 - 110	OK
Bromofluorobenzene	96.6	86 - 115	OK

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

TRIP BLANK

Lab Name:21st Century Environmental

Client Name: US ARMY FT. MONMOUTH, NJ

Client ID: BLDG 2500

Matrix: (soil/water) WATER

Lab Sample ID: A3820

Sample wt/vol: 5 (g/mL) mL

Lab File ID: >B1481

Level: (low/med) LOW

Date Received: 08/30/93

% Moisture: NA

Date Analyzed: 09/05/93

Column: DB-624

Dilution Factor: 1

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	No Unknowns			

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DATA PACKAGE

U.S. ARMY - FORT MONMOUTH

BUILDING 2500

CERTIFICATE OF ANALYSIS

LEADS

SAMPLE ID:	CLIENT ID:	MDL (mg/L)	RESULT (mg/L)
A3814	MW 3	0.05	ND
A3815	MW 3 DUP	0.05	ND
A3816	MW 2	0.05	ND
A3817	MW 1	0.05	ND
A3818	MW 4	0.05	ND
A3819	FIELD BLANK	0.05	ND

21st Century Environmental Inc.
VOLATILE ORGANIC ANALYSIS DATA

JOB NUMBER	US ARMY FT. MONMOUTH NJ	MATRIX	Water
SAMPLE NUMBER	A3814	DILUTION FACTOR	1.00
CLIENT ID	BLDG 2500 MW-3	COMMENTS	HNU 0.03
DATA FILE	>81431	DATE ANALYZED	09/02/93

COMPOUND	UG/L	MDL	COMPOUND	UG/L	MDL
Acrolein	ND	50	2-Chloroethylvinylether	ND	10
Acrylonitrile	ND	50	2-Hexanone	ND	10
Chloromethane	ND	10	trans-1,3-Dichloropropene	ND	5
Bromomethane	ND	10	Toluene	ND	5
Vinyl Chloride	ND	10	cis-1,3-Dichloropropene	ND	5
Chloroethane	ND	10	1,1,2,2-Tetrachloroethane	ND	5
Acetone	3.9 JB	10	1,1,2-Trichloroethane	ND	5
1,1-Dichloroethene	ND	5	4-Methyl-2-pentanone	ND	10
Carbon Disulfide	ND	10	Tetrachloroethene	ND	5
Methylene Chloride	3.3 J	5	Dibromochloromethane	ND	5
1,2-Dichloroethene(trans)	ND	5	Chlorobenzene	ND	5
1,1-Dichloroethane	ND	5	Ethylbenzene	ND	5
Vinyl Acetate	ND	5	m&p-Xylenes	ND	5
2-Butanone	ND	10	o-Xylene	ND	5
Chloroform	ND	5	Styrene	ND	5
1,1,1-Trichloroethane	ND	5	Bromoform	ND	5
Carbon Tetrachloride	ND	5	m-Dichlorobenzene	ND	5
1,2-Dichloroethane	ND	5	p-Dichlorobenzene	ND	5
Benzene	ND	5	o-Dichlorobenzene	ND	5
Trichloroethene	ND	5	Methyl Tertiary Butyl Ether	ND	10
1,2-Dichloropropane	ND	5	Tertiary Butyl Alcohol	ND	50
Bromodichloromethane	ND	5			

SURROGATE COMPOUNDS	% RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	101	76 - 114	OK
Toluene-d8	97.8	88 - 110	OK
Bromofluorobenzene	100	86 - 115	OK

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

21st Century Environmental Inc.
SEMIVOLATILE ANALYSIS DATA

JOB NUMBER	US ARMY FT. MONMOUTH, NJ	MATRIX	Water
SAMPLE NUMBER	A3814	DILUTION FACTOR	1.00
CLIENT ID	BLDG 2500 MW-3	QA BATCH	
DATA FILE	>C2374	DATE ANALYZED	09/24/93

COMPOUND	UG/L	MDL	COMPOUND	UG/L	MDL
N-Nitrosodimethylamine	ND	10	2,6-Dinitrotoluene	ND	10
bis(-2-Chloroethyl)Ether	ND	10	Diethylphthalate	ND	10
1,3-Dichlorobenzene	ND	10	4-Chlorophenyl-phenylether	ND	10
1,4-Dichlorobenzene	ND	10	Fluorene	ND	10
Benzyl Alcohol	1.4 J	10	4-Nitroaniline	ND	50
1,2-Dichlorobenzene	ND	10	N-Nitrosodiphenylamine	ND	10
bis(2-chloroisopropyl)Ether	ND	10	4-Bromophenyl-phenylether	ND	10
N-Nitroso-Di-n-Propylamine	ND	10	Hexachlorobenzene	ND	10
Hexachloroethane	ND	10	Phenanthrene	ND	10
Nitrobenzene	ND	10	Anthracene	ND	10
Isophorone	ND	10	Di-n-Butylphthalate	ND	10
Benzoic Acid	ND	50	Fluoranthene	ND	10
bis(-2-Chloroethoxy)Methane	ND	10	Pyrene	ND	10
1,2,4-Trichlorobenzene	ND	10	Butylbenzylphthalate	12	10
Naphthalene	ND	10	3,3'-Dichlorobenzidine	ND	20
4-Chloroaniline	ND	10	Benzo(a)Anthracene	ND	10
Hexachlorobutadiene	ND	10	Bis(2-Ethylhexyl)Phthalate	ND	10
2-Methylnaphthalene	ND	10	Chrysene	ND	10
Hexachlorocyclopentadiene	ND	10	Di-n-Octyl Phthalate	ND	10
2-Chloronaphthalene	ND	10	Benzo(b)Fluoranthene	ND	10
2-Nitroaniline	ND	50	Benzo(k)Fluoranthene	ND	10
Dimethyl Phthalate	ND	10	Benzo(a)Pyrene	ND	10
Acenaphthylene	ND	10	Indeno(1,2,3-cd)Pyrene	ND	10
3-Nitroaniline	ND	50	Dibenzo(a,h)Anthracene	ND	10
Acenaphthene	ND	10	Benzo(g,h,i)Perylene	ND	10
Dibenzofuran	ND	10	Benzidine	ND	20
2,4-Dinitrotoluene	ND	10			

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

MW-3

Lab Name:21st Century Environmental

Client Name: US ARMY FT. MONMOUTH, NJ

Client ID: BLDG 2500

Matrix: (soil/water) WATER

Lab Sample ID: A3814

Sample wt/vol: 5 (g/mL) mL

Lab File ID: >B1431

Level: (low/med) LOW

Date Received: 08/30/93

% Moisture: NA

Date Analyzed: 09/02/93

Column: DB-624

Dilution Factor: 1

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	No Unknowns			

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E1

EPA SAMPLE NUMBER

semi-VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

BLDG 2500
MW-3

Client: US ARMY, FT. MONMOUTH, NJ

Comments: Bldg 2500

Matrix: (soil/water) WATER

Lab Sample ID: A3814

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: >C2374

Level: LOW

Date Received: NA

% Moisture: 100

Date Analyzed 09/24/93

Extraction: (Sepf/Cont/Sonc) SEPF

Date Extracted 09/03/93

GPC (Y or N): N

Column: DB-5

Dilution Factor: 1

Number TICs Found 1

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

CAS NUMBER	COMPOUND NAME	RT	EST CONC
	NO UNKNOWN COMPOUNDS IDENTIFIED		

QUANT REPORT

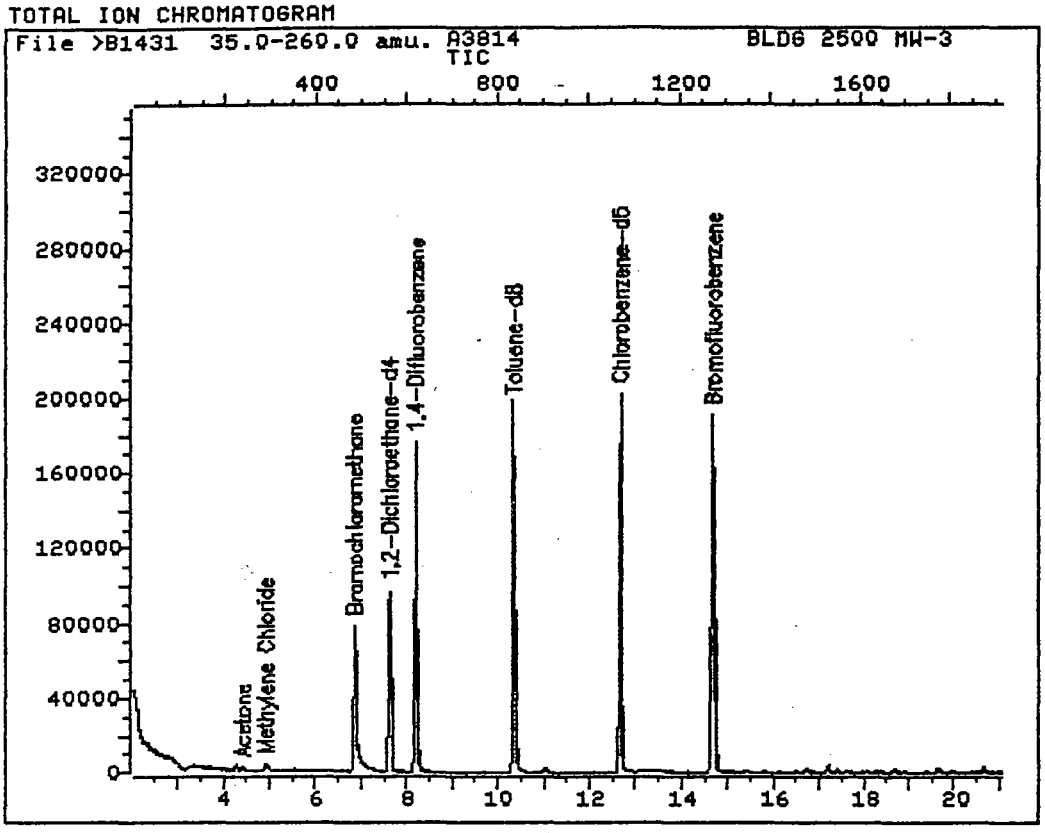
Operator ID: MANAGER Quant Rev: 6 Quant Time: 930902 20:56
Output File: ^B1431::QT Injected at: 930902 20:30
Data File: >B1431::D6 Dilution Factor: 1.00000
Name: A3814
Misc: BLDG 2500 MW-3 5ml

ID File: ID0401::SC
Title: USEPA 624 VOLATILES
Last Calibration: 930902 13:49

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*Bromochloromethane	6.84	483	55476M	50.00	UG/L	100
9)	Acetone	4.41	238	4773	3.89	UG/L	81
15)	Methylene Chloride	4.91	289	5668	3.33	UG/L	87
23)	1,2-Dichloroethane-d4	7.61	561	126557	50.65	UG/L	100
24)	*1,4-Difluorobenzene	8.20	620	277762	50.00	UG/L	100
33)	Toluene-d8	10.33	835	271019	48.91	UG/L	100
45)	*Chlorobenzene-d5	12.65	1069	227678	50.00	UG/L	100
48)	Bromofluorobenzene	14.66	1272	131625	50.20	UG/L	100

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >B1431::D6 Quant Output File: ^B1431::QT
Name: A3814
Misc: BLDG 2500 MW-3 5ml

Id File: ID0401::SC
Title: USEPA 624 VOLATILES
Last Calibration: 930902 13:49

Operator ID: MANAGER
Quant Time: 930902 20:56
Injected at: 930902 20:30

QUANT REPORT

Operator ID: JEFF
Output File: ^C2374::QT
Data File: >C2374::D3
Name: A3814 E-SYSTEM 9/3
Misc:

Quant Rev: 6 Quant Time: 931013 10:15
Injected at: 930924 17:33
Dilution Factor: 1.00000

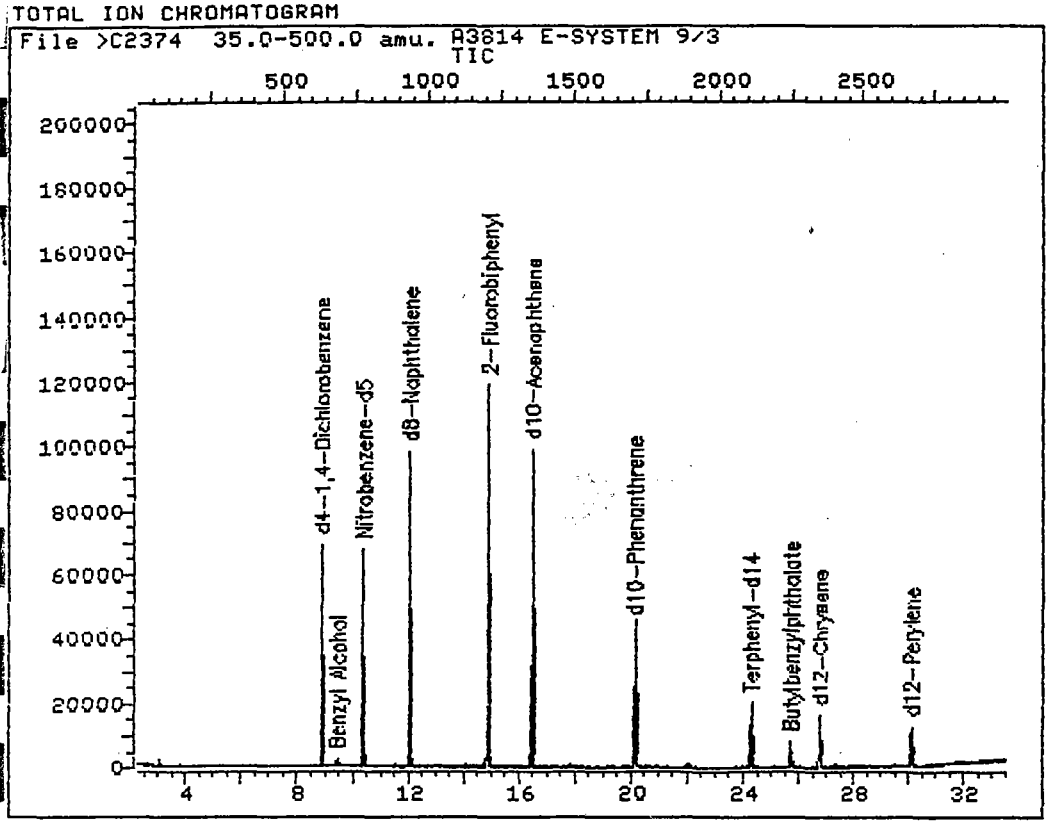
BTL# 3

ID File: ID924C::D3
Title: hSL BNA STD
Last Calibration: 930924 16:00

	Compound	R.T.	Scan#	Area	Conc	Units	q
)	*d4-1,4-Dichlorobenzene	8.88	633	30979	40.00	UG/L	97
11)	Benzyl Alcohol	9.44	687	556	1.39	UG/L	85
)	*d8-Naphthalene	12.04	936	78713	40.00	UG/L	92
)	Nitrobenzene-d5	10.36	775	40280	48.32	UG/L	86
3)	*d10-Acenaphthene	16.45	1360	43851	40.00	UG/L	92
8)	2-Fluorobiphenyl	14.88	1209	72219	47.25	UG/L	95
)	*d10-Phenanthrene	20.09	1709	38999	40.00	UG/L	98
)	*d12-Chrysene	26.75	2348	15449	40.00	UG/L	97
7)	Terphenyl-d14	24.25	2108	16222	39.01	UG/L	89
)	Butylbenzylphthalate	25.69	2246	4504	11.75	UG/L	95
)	*d12-Perylene	30.08	2668	12959	40.00	UG/L	94

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >C2374::D3 Quant Output File: ^C2374::QT
Name: A3814 E-SYSTEM 9/3
Misc: BTL# 3

Id File: ID924C::D3
Title: hSL BNA STD
Last Calibration: 930924 16:00

Operator ID: JEFF
Quant Time: 931013 10:15
Injected at: 930924 17:33

21st Century Environmental Inc.
VOLATILE ORGANIC ANALYSIS DATA

JOB NUMBER	US ARMY FT. MONMOUTH NJ	MATRIX	Water
SAMPLE NUMBER	A3815	DILUTION FACTOR	1.00
CLIENT ID	BLDG 2500 MW-3 DUP	COMMENTS	HNU 0.03
DATA FILE	>B1432	DATE ANALYZED	09/02/93

COMPOUND	UG/L	MDL	COMPOUND	UG/L	MDL
Acrolein	ND	50	2-Chloroethylvinylether	ND	10
Acrylonitrile	ND	50	2-Hexanone	ND	10
Chloromethane	ND	10	trans-1,3-Dichloropropene	ND	5
Bromomethane	ND	10	Toluene	ND	5
Vinyl Chloride	ND	10	cis-1,3-Dichloropropene	ND	5
Chloroethane	ND	10	1,1,2,2-Tetrachloroethane	ND	5
Acetone	ND B	10	1,1,2-Trichloroethane	ND	5
1,1-Dichloroethene	ND	5	4-Methyl-2-pentanone	ND	10
Carbon Disulfide	ND	10	Tetrachloroethene	ND	5
Methylene Chloride	3.4 J	5	Dibromochloromethane	ND	5
1,2-Dichloroethene(trans)	ND	5	Chlorobenzene	ND	5
1,1-Dichloroethane	ND	5	Ethylbenzene	ND	5
Vinyl Acetate	ND	5	m&p-Xylenes	ND	5
2-Butanone	ND	10	o-Xylene	ND	5
Chloroform	ND	5	Styrene	ND	5
1,1,1-Trichloroethane	ND	5	Bromoform	ND	5
Carbon Tetrachloride	ND	5	m-Dichlorobenzene	ND	5
1,2-Dichloroethane	ND	5	p-Dichlorobenzene	ND	5
Benzene	ND	5	o-Dichlorobenzene	ND	5
Trichloroethene	ND	5	Methyl Tertiary Butyl Ether	ND	10
1,2-Dichloropropane	ND	5	Tertiary Butyl Alcohol	ND	50
Bromodichloromethane	ND	5			

SURROGATE COMPOUNDS	% RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	103	76 - 114	OK
Toluene-d8	99.2	88 - 110	OK
Bromofluorobenzene	101	86 - 115	OK

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

21st Century Environmental Inc.
SEMIVOLATILE ANALYSIS DATA

JOB NUMBER	US ARMY, FT. MONMOUTH, NJ	MATRIX	Water
SAMPLE NUMBER	A3815	DILUTION FACTOR	1.00
CLIENT ID	BLDG 2500 MW-3DUP	QA BATCH	
DATA FILE	>C2375	DATE ANALYZED	09/24/93

COMPOUND	UG/L	MDL	COMPOUND	UG/L	MDL
N-Nitrosodimethylamine	ND	10	2,6-Dinitrotoluene	ND	10
bis(-2-Chloroethyl)Ether	ND	10	Diethylphthalate	ND	10
1,3-Dichlorobenzene	ND	10	4-Chlorophenyl-phenylether	ND	10
1,4-Dichlorobenzene	ND	10	Fluorene	ND	10
Benzyl Alcohol	2.0 J	10	4-Nitroaniline	ND	50
1,2-Dichlorobenzene	ND	10	N-Nitrosodiphenylamine	ND	10
bis(2-chloroisopropyl)Ether	ND	10	4-Bromophenyl-phenylether	ND	10
N-Nitroso-Di-n-Propylamine	ND	10	Hexachlorobenzene	ND	10
Hexachloroethane	ND	10	Phenanthrene	ND	10
Nitrobenzene	ND	10	Anthracene	ND	10
Isophorone	ND	10	Di-n-Butylphthalate	1.6 J	10
Benzoic Acid	ND	50	Fluoranthene	ND	10
bis(-2-Chloroethoxy)Methane	ND	10	Pyrene	ND	10
1,2,4-Trichlorobenzene	ND	10	Butylbenzylphthalate	12	10
Naphthalene	ND	10	3,3'-Dichlorobenzidine	ND	20
4-Chloroaniline	ND	10	Benzo(a)Anthracene	ND	10
Hexachlorobutadiene	ND	10	Bis(2-Ethylhexyl)Phthalate	ND	10
2-Methylnaphthalene	ND	10	Chrysene	ND	10
Hexachlorocyclopentadiene	ND	10	Di-n-Octyl Phthalate	ND	10
2-Chloronaphthalene	ND	10	Benzo(b)Fluoranthene	ND	10
2-Nitroaniline	ND	50	Benzo(k)Fluoranthene	ND	10
Dimethyl Phthalate	ND	10	Benzo(a)Pyrene	ND	10
Acenaphthylene	ND	10	Indeno(1,2,3-cd)Pyrene	ND	10
3-Nitroaniline	ND	50	Dibenzo(a,h)Anthracene	ND	10
Acenaphthene	ND	10	Benzo(g,h,i)Perylene	ND	10
Dibenzofuran	ND	10	Benzidine	ND	20
2,4-Dinitrotoluene	ND	10			

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

MW-3 DUP

Lab Name:21st Century Environmental

Client Name: US ARMY FT. MONMOUTH, NJ

Client ID: BLDG 2500

Matrix: (soil/water) WATER

Lab Sample ID: A3815

Sample wt/vol: 5 (g/mL) mL

Lab File ID: >B1432

Level: (low/med) LOW

Date Received: 08/30/93

% Moisture: NA

Date Analyzed: 09/02/93

Column: DB-624

Dilution Factor: 1

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	No Unknowns			

FORM I VOA-TIC 1/87 Rev.

E1

EPA SAMPLE NUMBER

semi-VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

BLDG 2500
MW-3 DUP

Client: US ARMY, FT. MONMOUTH, NJ

Comments: Bldg 2500

Matrix: (soil/water) WATER

Lab Sample ID: A3815

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: >C2375

Level: LOW

Date Received: NA

% Moisture: 100

Date Analyzed 09/24/93

Extraction: (Sepf/Cont/Sonc) SEPF

Date Extracted 09/03/93

GPC (Y or N): N

Column: DB-5

Dilution Factor: 1

Number TICs Found 1

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

CAS NUMBER	COMPOUND NAME	RT	EST CONC
	NO UNKNOWN COMPOUNDS IDENTIFIED		

QUANT REPORT

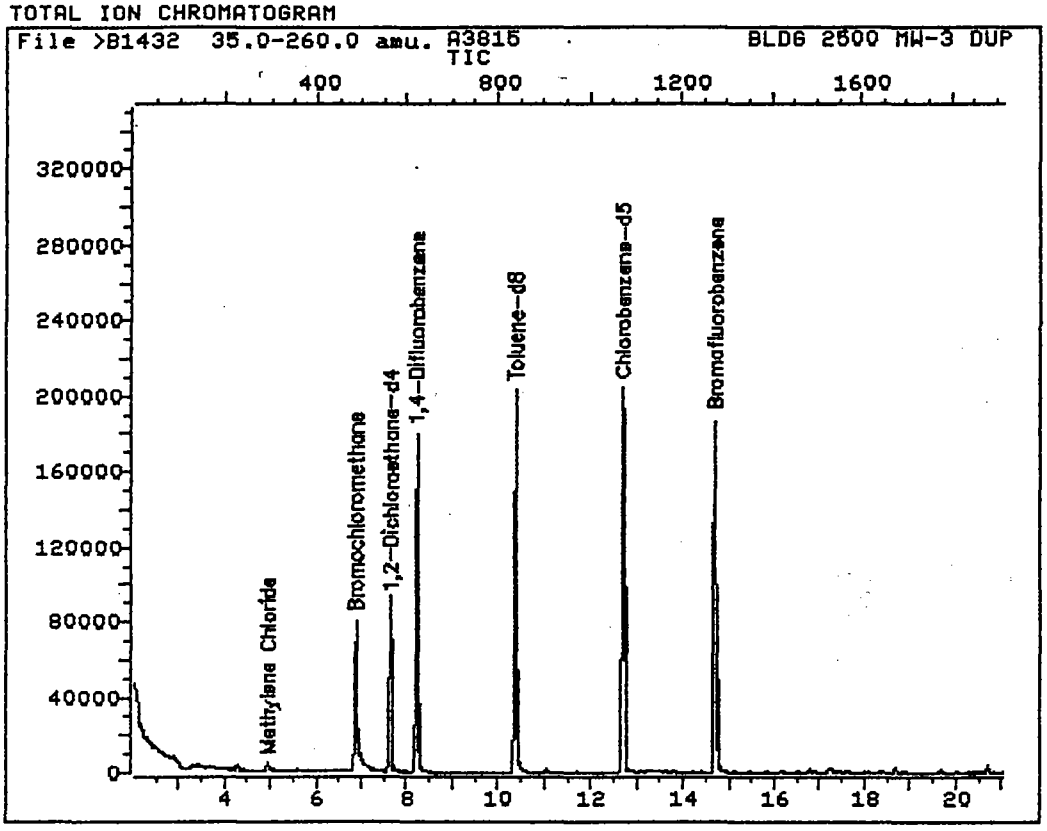
Operator ID: MANAGER Quant Rev: 6 Quant Time: 930902 21:26
Output File: ^B1432::QT Injected at: 930902 21:00
Data File: >B1432::D6 Dilution Factor: 1.00000
Name: A3815
Misc: BLDG 2500 MW-3 DUP 5ml

ID File: ID0401::SC
Title: USEPA 624 VOLATILES
Last Calibration: 930902 13:49

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*Bromochloromethane	6.86	485	52145	50.00	UG/L	100
15)	Methylene Chloride	4.93	291	5421	3.39	UG/L	67
23)	1,2-Dichloroethane-d4	7.64	564	120557	51.33	UG/L	100
24)	*1,4-Difluorobenzene	8.21	621	274438	50.00	UG/L	100
33)	Toluene-d8	10.36	838	271606	49.61	UG/L	100
55)	*Chlorobenzene-d5	12.68	1072	223161	50.00	UG/L	100
48)	Bromofluorobenzene	14.68	1274	129832	50.52	UG/L	100

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >B1432::D6 Quant Output File: ^B1432::QT
Name: A3815
Misc: BLDG 2500 MW-3 DUP 5ml

Id File: ID0401::SC
Title: USEPA 624 VOLATILES
Last Calibration: 930902 13:49

Operator ID: MANAGER
Quant Time: 930902 21:26
Injected at: 930902 21:00

QUANT REPORT

Operator ID: JEFF
Output File: ^C2375::QT
Data File: >C2375::D3
Name: A3815 E-SYSTEM 9/3
Misc:

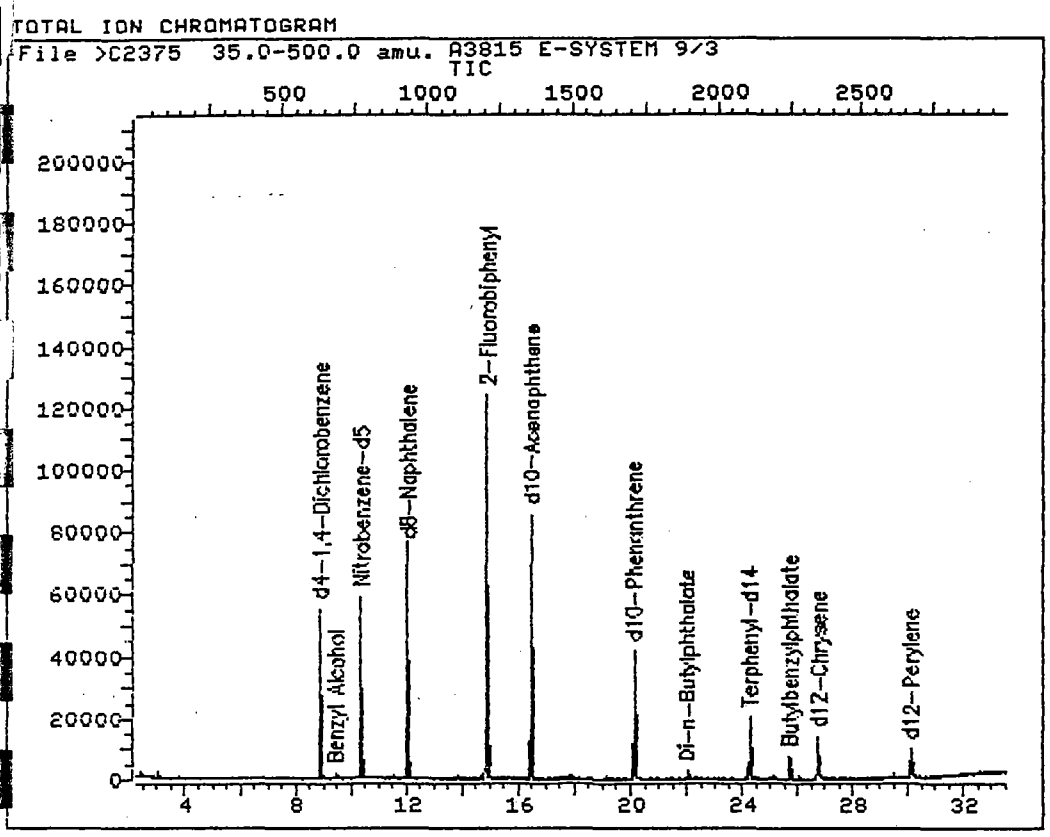
Quant Rev: 6 Quant Time: 931013 10:21
Injected at: 930924 18:20
Dilution Factor: 1.00000

BTL# 4

ID File: ID924C::D3
Title: hSL BNA STD
Last Calibration: 930924 16:00

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	8.88	634	26352	40.00	UG/L	97
11)	Benzyl Alcohol	9.43	687	689	2.03	UG/L	58
1[illegible])	*d8-Naphthalene	12.03	936	68919	40.00	UG/L	92
[illegible])	Nitrobenzene-d5	10.35	775	36794	50.41	UG/L	81
3)	*d10-Acenaphthene	16.45	1361	39395	40.00	UG/L	93
3[illegible])	2-Fluorobiphenyl	14.88	1210	71981	52.42	UG/L	95
[illegible])	*d10-Phenanthrene	20.09	1710	34983	40.00	UG/L	99
2)	Di-n-Butylphthalate	21.99	1892	2407	1.61	UG/L	90
34)	*d12-Chrysene	26.75	2349	13882	40.00	UG/L	97
4[illegible])	Terphenyl-d14	24.25	2109	16530	44.24	UG/L	88
[illegible])	Butylbenzylphthalate	25.69	2247	4315	12.53	UG/L	94
3)	*d12-Perylene	30.08	2669	11645	40.00	UG/L	94

* Compound is ISTD



Data File: >C2375::D3 Quant Output File: ^C2375::QT
Name: A3815 E-SYSTEM 9/3
Misc: BTL# 4

Id File: ID924C::D3
Title: hSL BNA STD
Last Calibration: 930924 16:00

Operator ID: JEFF
Quant Time: 931013 10:21
Injected at: 930924 18:20

21st Century Environmental Inc.
VOLATILE ORGANIC ANALYSIS DATA

JOB NUMBER	US ARMY FT. MONMOUTH NJ	MATRIX	Water
SAMPLE NUMBER	A3816	DILUTION FACTOR	1.00
CLIENT ID	BLDG 2500 MW-2	COMMENTS	HNU ND
DATA FILE	>B1433	DATE ANALYZED	09/02/93

COMPOUND	UG/L	MDL	COMPOUND	UG/L	MDL
Acrolein	ND	50	2-Chloroethylvinylether	ND	10
Acrylonitrile	ND	50	2-Hexanone	ND	10
Chloromethane	ND	10	trans-1,3-Dichloropropene	ND	5
Bromomethane	ND	10	Toluene	ND	5
Vinyl Chloride	ND	10	cis-1,3-Dichloropropene	ND	5
Chloroethane	ND	10	1,1,2,2-Tetrachloroethane	ND	5
Acetone	1.6 JB	10	1,1,2-Trichloroethane	ND	5
1,1-Dichloroethene	ND	5	4-Methyl-2-pentanone	ND	10
Carbon Disulfide	ND	10	Tetrachloroethene	ND	5
Methylene Chloride	3.6 J	5	Dibromochloromethane	ND	5
1,2-Dichloroethene(trans)	ND	5	Chlorobenzene	ND	5
1,1-Dichloroethane	ND	5	Ethylbenzene	ND	5
Vinyl Acetate	ND	5	m&p-Xylenes	ND	5
2-Butanone	ND	10	o-Xylene	ND	5
Chloroform	ND	5	Styrene	ND	5
1,1,1-Trichloroethane	ND	5	Bromoform	ND	5
Carbon Tetrachloride	ND	5	m-Dichlorobenzene	ND	5
1,2-Dichloroethane	ND	5	p-Dichlorobenzene	ND	5
Benzene	ND	5	o-Dichlorobenzene	ND	5
Trichloroethene	ND	5	Methyl Tertiary Butyl Ether	ND	10
1,2-Dichloropropane	ND	5	Tertiary Butyl Alcohol	ND	50
Bromodichloromethane	ND	5			

SURROGATE COMPOUNDS	% RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	109	76 - 114	OK
Toluene-d8	98.1	88 - 110	OK
Bromofluorobenzene	102	86 - 115	OK

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

21st Century Environmental Inc.
SEMIVOLATILE ANALYSIS DATA

JOB NUMBER	US ARMY, FT. MONMOUTH NJ	MATRIX	Water
SAMPLE NUMBER	A3816	DILUTION FACTOR	1.00
CLIENT ID	BLDG 2500 MW-2	QA BATCH	
DATA FILE	>C2376	DATE ANALYZED	09/24/93

COMPOUND	UG/L	MDL	COMPOUND	UG/L	MDL
N-Nitrosodimethylamine	ND	10	2,6-Dinitrotoluene	ND	10
bis(-2-Chloroethyl)Ether	ND	10	Diethylphthalate	ND	10
1,3-Dichlorobenzene	ND	10	4-Chlorophenyl-phenylether	ND	10
1,4-Dichlorobenzene	ND	10	Fluorene	ND	10
Benzyl Alcohol	3.5 J	10	4-Nitroaniline	ND	50
1,2-Dichlorobenzene	ND	10	N-Nitrosodiphenylamine	ND	10
bis(2-chloroisopropyl)Ether	ND	10	4-Bromophenyl-phenylether	ND	10
N-Nitroso-Di-n-Propylamine	ND	10	Hexachlorobenzene	ND	10
Hexachloroethane	ND	10	Phenanthrene	ND	10
Nitrobenzene	ND	10	Anthracene	ND	10
Isophorone	ND	10	Di-n-Butylphthalate	3.3 J	10
Benzoic Acid	ND	50	Fluoranthene	ND	10
bis(-2-Chloroethoxy)Methane	ND	10	Pyrene	ND	10
1,2,4-Trichlorobenzene	ND	10	Butylbenzylphthalate	29	10
Naphthalene	ND	10	3,3'-Dichlorobenzidine	ND	20
4-Chloroaniline	ND	10	Benzo(a)Anthracene	ND	10
Hexachlorobutadiene	ND	10	Bis(2-Ethylhexyl)Phthalate	2.0 J	10
2-Methylnaphthalene	ND	10	Chrysene	ND	10
Hexachlorocyclopentadiene	ND	10	Di-n-Octyl Phthalate	ND	10
2-Chloronaphthalene	ND	10	Benzo(b)Fluoranthene	ND	10
2-Nitroaniline	ND	50	Benzo(k)Fluoranthene	ND	10
Dimethyl Phthalate	ND	10	Benzo(a)Pyrene	ND	10
Acenaphthylene	ND	10	Indeno(1,2,3-cd)Pyrene	ND	10
3-Nitroaniline	ND	50	Dibenzo(a,h)Anthracene	ND	10
Acenaphthene	ND	10	Benzo(g,h,i)Perylene	ND	10
Dibenzofuran	ND	10	Benzidine	ND	20
2,4-Dinitrotoluene	ND	10			

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

MW-2

Lab Name:21st Century Environmental

Client Name: US ARMY FT. MONMOUTH, NJ

Client ID: BLDG 2500

Matrix: (soil/water) WATER

Lab Sample ID: A3816

Sample wt/vol: 5 (g/mL) mL

Lab File ID: >B1433

Level: (low/med) LOW

Date Received: 08/30/93

% Moisture: NA

Date Analyzed: 09/02/93

Column: DB-624

Dilution Factor: 1

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	No Unknowns			

FORM I VOA-TIC 1/87 Rev.

00054

E1

EPA SAMPLE NUMBER

semi-VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

BLDG 2500 MW-2

Matrix: (soil/water) WATER

Lab Sample ID: A3816

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: >C2376

Level: LOW

Date Received: NA

% Moisture: 100

Date Analyzed 09/24/93

Extraction: (Sepf/Cont/Sonc) SEPF

Date Extracted 09/03/93

GPC (Y or N): N

Column: DB-5

Dilution Factor: 1

Number TICs Found 4

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

CAS NUMBER	COMPOUND NAME	RT	EST CONC
1	UNKNOWN	2.89	37
2	UNKNOWN	5.06	9
3	UNKNOWN	19.33	6
4	UNKNOWN	29.45	8

QUANT REPORT

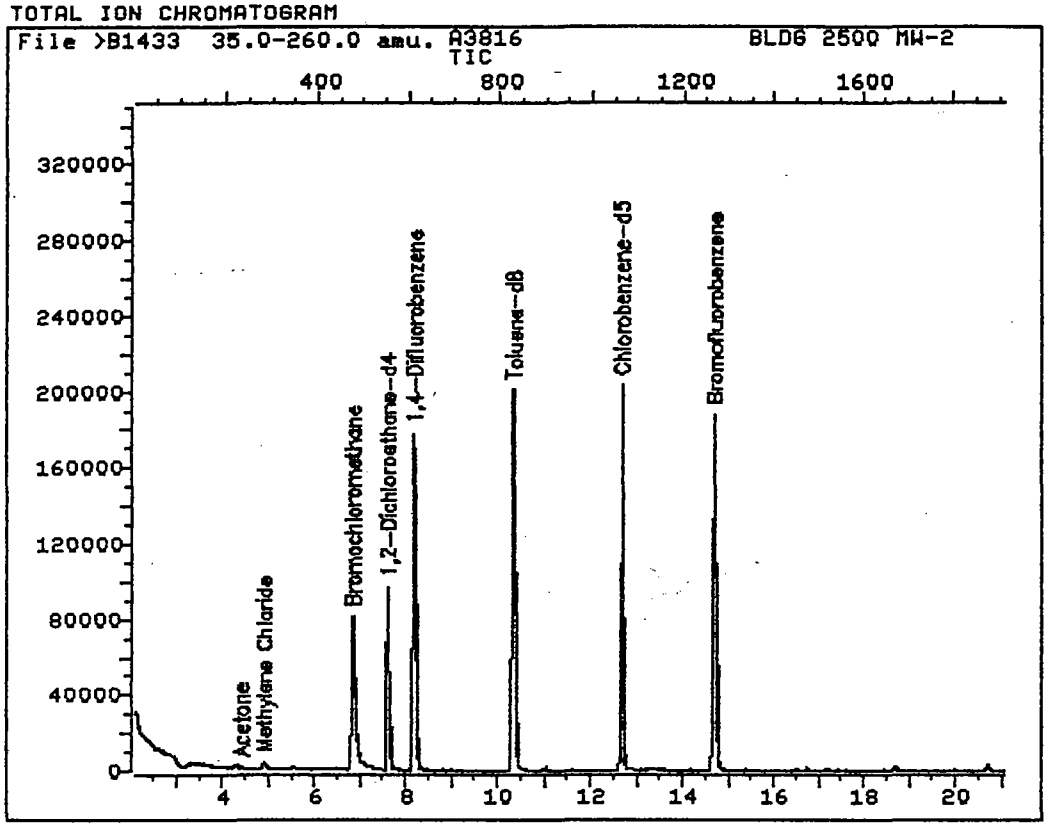
Operator ID: MANAGER Quant Rev: 6 Quant Time: 930902 21:56
Output File: ^B1433::QT Injected at: 930902 21:30
Data File: >B1433::D6 Dilution Factor: 1.00000
Name: A3816
Misc: BLDG 2500 MW-2 5ml

ID File: ID0401::SC
Title: USEPA 624 VOLATILES
Last Calibration: 930902 13:49

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*Bromochloromethane	6.84	476	50691	50.00	UG/L	100
9)	Acetone	4.41	231	1763	1.57	UG/L	88
5)	Methylene Chloride	4.91	282	5632	3.62	UG/L	77
23)	1,2-Dichloroethane-d4	7.61	554	124649	54.60	UG/L	100
24)	*1,4-Difluorobenzene	8.19	612	276664	50.00	UG/L	100
33)	Toluene-d8	10.34	829	270680	49.04	UG/L	100
35)	*Chlorobenzene-d5	12.66	1063	226380	50.00	UG/L	100
48)	Bromofluorobenzene	14.68	1267	132727	50.91	UG/L	100

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >B1433::D6 Quant Output File: ^B1433::QT
Name: A3816
Misc: BLDG 2500 MW-2 5ml

Id File: ID0401::SC
Title: USEPA 624 VOLATILES
Last Calibration: 930902 13:49

Operator ID: MANAGER
Quant Time: 930902 21:56
Injected at: 930902 21:30

QUANT REPORT

Operator ID: JEFF
Output File: ^C2376::QT
Data File: >C2376::D3
Name: A3816 E-SYSTEM 9/3
Misc:

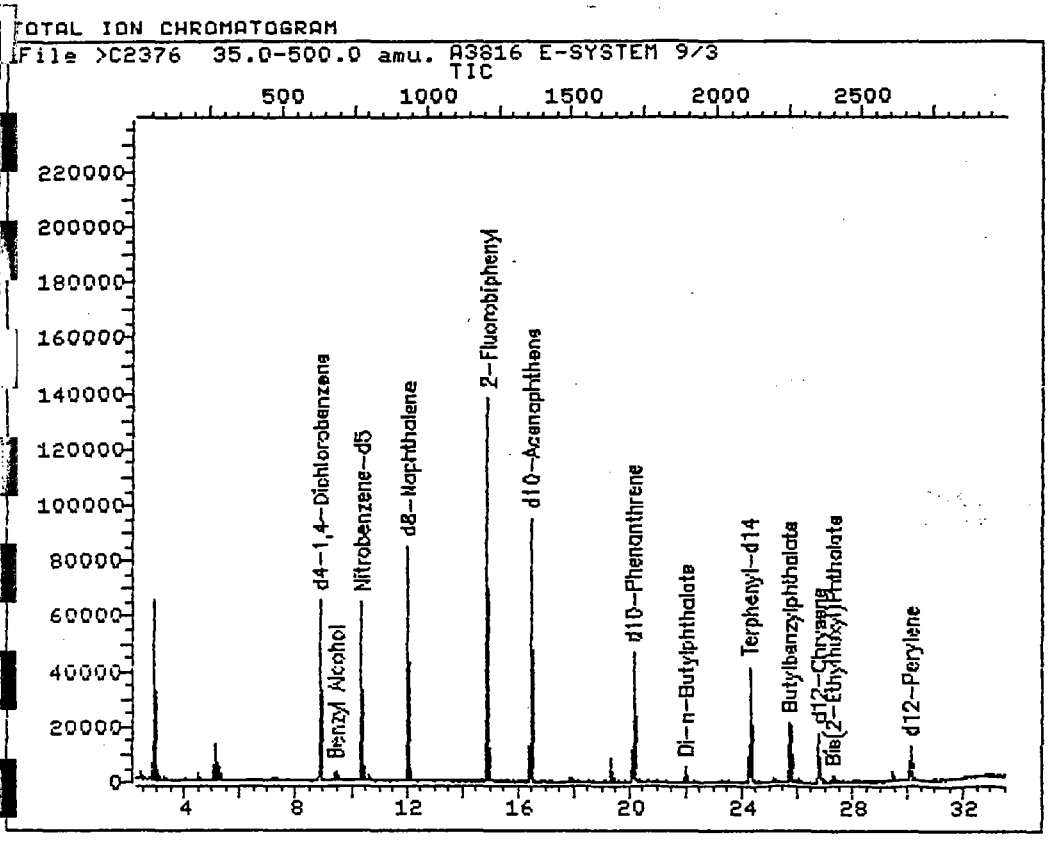
Quant Rev: 6 Quant Time: 931013 10:28
Injected at: 930924 19:11
Dilution Factor: 1.00000

BTL# 5

ID File: ID924C::D3
Title: hSL BNA STD
Last Calibration: 930924 16:00

	Compound	R.T.	Scan#	Area	Conc	Units	q
4)	*d4-1,4-Dichlorobenzene	8.87	633	29536	40.00	UG/L	98
11)	Benzyl Alcohol	9.43	687	1329	3.50	UG/L	91
18)	*d8-Naphthalene	12.03	936	76813	40.00	UG/L	92
19)	Nitrobenzene-d5	10.35	775	39032	47.98	UG/L	85
33)	*d10-Acenaphthene	16.45	1361	41742	40.00	UG/L	93
34)	2-Fluorobiphenyl	14.88	1210	81053	55.71	UG/L	95
42)	*d10-Phenanthrene	20.09	1710	38147	40.00	UG/L	96
52)	Di-n-Butylphthalate	21.99	1892	5394	3.31	UG/L	98
64)	*d12-Chrysene	26.75	2349	18085	40.00	UG/L	94
65)	Terphenyl-d14	24.25	2109	33406	68.63	UG/L	88
66)	Butylbenzylphthalate	25.69	2247	12948	28.85	UG/L	99
71)	Bis(2-Ethylhexyl)Phthalate	27.29	2401	1348	1.98	UG/L	98
78)	*d12-Perylene	30.08	2669	14931	40.00	UG/L	95

* Compound is ISTD



Data File: >C2376::D3 Quant Output File: ^C2376::QT
Name: A3816 E-SYSTEM 9/3
Misc: BTL# 5

Id File: ID924C::D3
Title: hSL BNA STD
Last Calibration: 930924 16:00

Operator ID: JEFF
Quant Time: 931013 10:28
Injected at: 930924 19:11

21st Century Environmental Inc.
VOLATILE ORGANIC ANALYSIS DATA

JOB NUMBER	US ARMY FT. MONMOUTH NJ	MATRIX	Water
SAMPLE NUMBER	A3817	DILUTION FACTOR	1.00
CLIENT ID	BLDG 2500 MW-1	COMMENTS	HNU ND
DATA FILE	>B1434	DATE ANALYZED	09/02/93

COMPOUND	UG/L	MDL	COMPOUND	UG/L	MDL
Acrolein	ND	50	2-Chloroethylvinylether	ND	10
Acrylonitrile	ND	50	2-Hexanone	ND	10
Chloromethane	ND	10	trans-1,3-Dichloropropene	ND	5
Bromomethane	ND	10	Toluene	ND	5
Vinyl Chloride	ND	10	cis-1,3-Dichloropropene	ND	5
Chloroethane	ND	10	1,1,2,2-Tetrachloroethane	ND	5
Acetone	3.5 JB	10	1,1,2-Trichloroethane	ND	5
1,1-Dichloroethene	ND	5	4-Methyl-2-pentanone	ND	10
Carbon Disulfide	ND	10	Tetrachloroethene	4.0 J	5
Methylene Chloride	1.9 J	5	Dibromochloromethane	ND	5
1,2-Dichloroethene(trans)	ND	5	Chlorobenzene	ND	5
1,1-Dichloroethane	ND	5	Ethylbenzene	ND	5
Vinyl Acetate	ND	5	m&p-Xylenes	ND	5
2-Butanone	ND	10	o-Xylene	ND	5
Chloroform	ND	5	Styrene	ND	5
1,1,1-Trichloroethane	ND	5	Bromoform	ND	5
Carbon Tetrachloride	ND	5	m-Dichlorobenzene	ND	5
1,2-Dichloroethane	ND	5	p-Dichlorobenzene	ND	5
Benzene	ND	5	o-Dichlorobenzene	ND	5
Trichloroethene	ND	5	Methyl Tertiary Butyl Ether	ND	10
1,2-Dichloropropane	ND	5	Tertiary Butyl Alcohol	ND	50
Bromodichloromethane	ND	5			

SURROGATE COMPOUNDS	% RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	112	76 - 114	OK
Toluene-d8	98.5	88 - 110	OK
Bromofluorobenzene	100	86 - 115	OK

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

21st Century Environmental Inc.
SEMIVOLATILE ANALYSIS DATA

JOB NUMBER	US ARMY, FT. MONMOUTH, NJ	MATRIX	Water
SAMPLE NUMBER	A3817	DILUTION FACTOR	1.00
CLIENT ID	BLDG 2500 MW-1	QA BATCH	
DATA FILE	>C2529	DATE ANALYZED	10/07/93

COMPOUND	UG/L	MDL	COMPOUND	UG/L	MDL
N-Nitrosodimethylamine	ND	10	2,6-Dinitrotoluene	ND	10
bis(-2-Chloroethyl)Ether	ND	10	Diethylphthalate	ND	10
1,3-Dichlorobenzene	ND	10	4-Chlorophenyl-phenylether	ND	10
1,4-Dichlorobenzene	ND	10	Fluorene	ND	10
Benzyl Alcohol	1.6 J	10	4-Nitroaniline	ND	50
1,2-Dichlorobenzene	ND	10	N-Nitrosodiphenylamine	ND	10
bis(2-chloroisopropyl)Ether	ND	10	4-Bromophenyl-phenylether	ND	10
N-Nitroso-Di-n-Propylamine	ND	10	Hexachlorobenzene	ND	10
Hexachloroethane	ND	10	Phenanthrene	ND	10
Nitrobenzene	ND	10	Anthracene	ND	10
Isophorone	ND	10	Di-n-Butylphthalate	1.5 J	10
Benzoic Acid	ND	50	Fluoranthene	ND	10
bis(-2-Chloroethoxy)Methane	ND	10	Pyrene	ND	10
1,2,4-Trichlorobenzene	ND	10	Butylbenzylphthalate	12	10
Naphthalene	ND	10	3,3'-Dichlorobenzidine	ND	20
4-Chloroaniline	ND	10	Benzo(a)Anthracene	ND	10
Hexachlorobutadiene	ND	10	Bis(2-Ethylhexyl)Phthalate	ND	10
2-Methylnaphthalene	ND	10	Chrysene	ND	10
Hexachlorocyclopentadiene	ND	10	Di-n-Octyl Phthalate	ND	10
2-Chloronaphthalene	ND	10	Benzo(b)Fluoranthene	ND	10
2-Nitroaniline	ND	50	Benzo(k)Fluoranthene	ND	10
Dimethyl Phthalate	ND	10	Benzo(a)Pyrene	ND	10
Acenaphthylene	ND	10	Indeno(1,2,3-cd)Pyrene	ND	10
3-Nitroaniline	ND	50	Dibenzo(a,h)Anthracene	ND	10
Acenaphthene	ND	10	Benzo(g,h,i)Perylene	ND	10
Dibenzofuran	ND	10	Benzidine	ND	20
2,4-Dinitrotoluene	ND	10			

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

MW-1

Lab Name: 21st Century Environmental

Client Name: US ARMY FT. MONMOUTH, NJ

Client ID: BLDG 2500

Matrix: (soil/water) WATER

Lab Sample ID: A3817

Sample wt/vol: 5 (g/mL) mL

Lab File ID: >B1434

Level: (low/med) LOW

Date Received: 08/30/93

% Moisture: NA

Date Analyzed: 09/02/93

Column: DB-624

Dilution Factor: 1

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	No Unknowns			

FORM I VOA-TIC 1/87 Rev.

E1

EPA SAMPLE NUMBER

semi-VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

BLDG 2500
MW-1

Matrix: (soil/water) WATER

Lab Sample ID: A3817

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: >C2529

Level: LOW

Date Received: NA

% Moisture: 100

Date Analyzed 10/07/93

Extraction: (Sepf/Cont/Sonc) SEPF

Date Extracted 09/03/93

GPC (Y or N): N

Column: DB-5

Dilution Factor: 1

Number TICs Found 0

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

CAS NUMBER	COMPOUND NAME	RT	EST CONC
	NO UNKNOWN COMPOUNDS IDENTIFIED		

QUANT REPORT

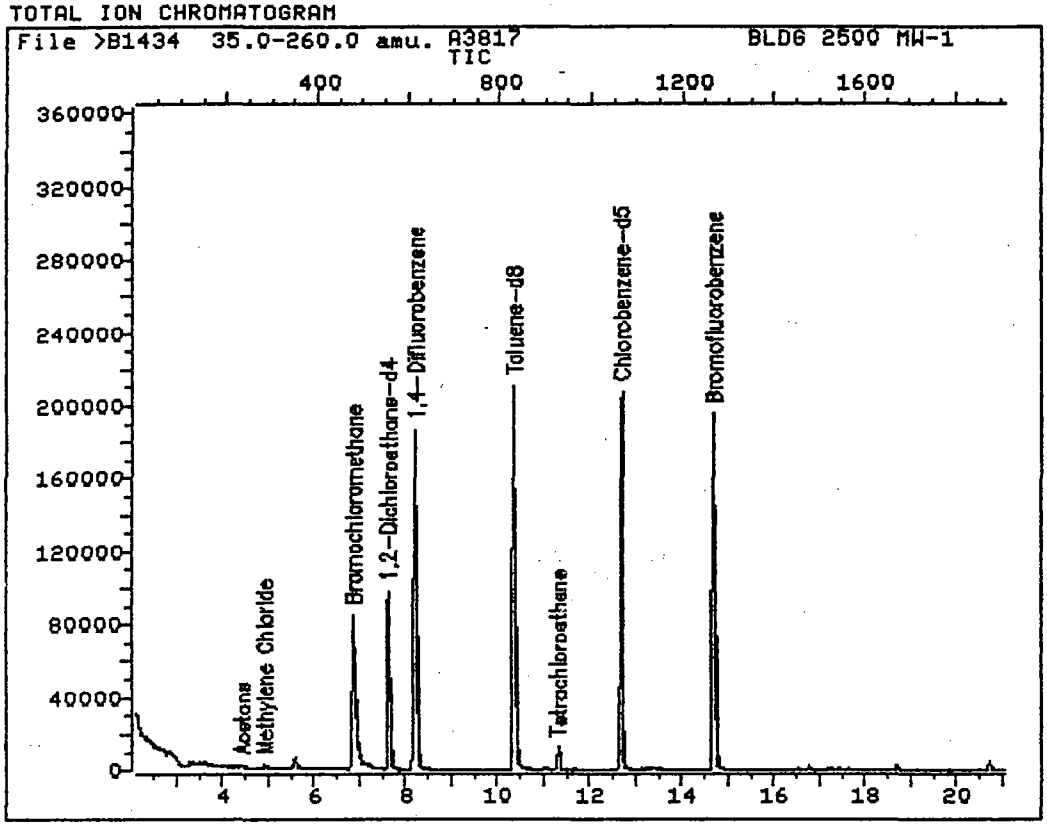
perator ID: MANAGER Quant Rev: 6 Quant Time: 930902 22:26
utput File: ^B1434::QT Injected at: 930902 22:00
Data File: >B1434::D6 Dilution Factor: 1.00000
ame: A3817
isc: BLDG 2500 MW-1 5ml

D File: ID0401::SC
itle: USEPA 624 VOLATILES
Last Calibration: 930902 13:49

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*Bromochloromethane	6.87	479	49411	50.00	UG/L	100
9)	Acetone	4.43	233	3859	3.53	UG/L	86
5)	Methylene Chloride	4.93	284	2867	1.89	UG/L	76
23)	1,2-Dichloroethane-d4	7.64	557	125149	56.24	UG/L	100
4)	*1,4-Difluorobenzene	8.22	615	279179	50.00	UG/L	100
3)	Toluene-d8	10.36	831	274318	49.25	UG/L	100
35)	*Chlorobenzene-d5	12.68	1065	228590	50.00	UG/L	100
40)	Tetrachloroethene	11.31	927	7880	3.96	UG/L	100
8)	Bromofluorobenzene	14.69	1267	132051	50.16	UG/L	100

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >B1434::D6 Quant Output File: ^B1434::QT
Name: A3817
Misc: BLDG 2500 MW-1 5ml

Id File: ID0401::SC
Title: USEPA 624 VOLATILES
Last Calibration: 930902 13:49

Operator ID: MANAGER
Quant Time: 930902 22:26
Injected at: 930902 22:00

QUANT REPORT

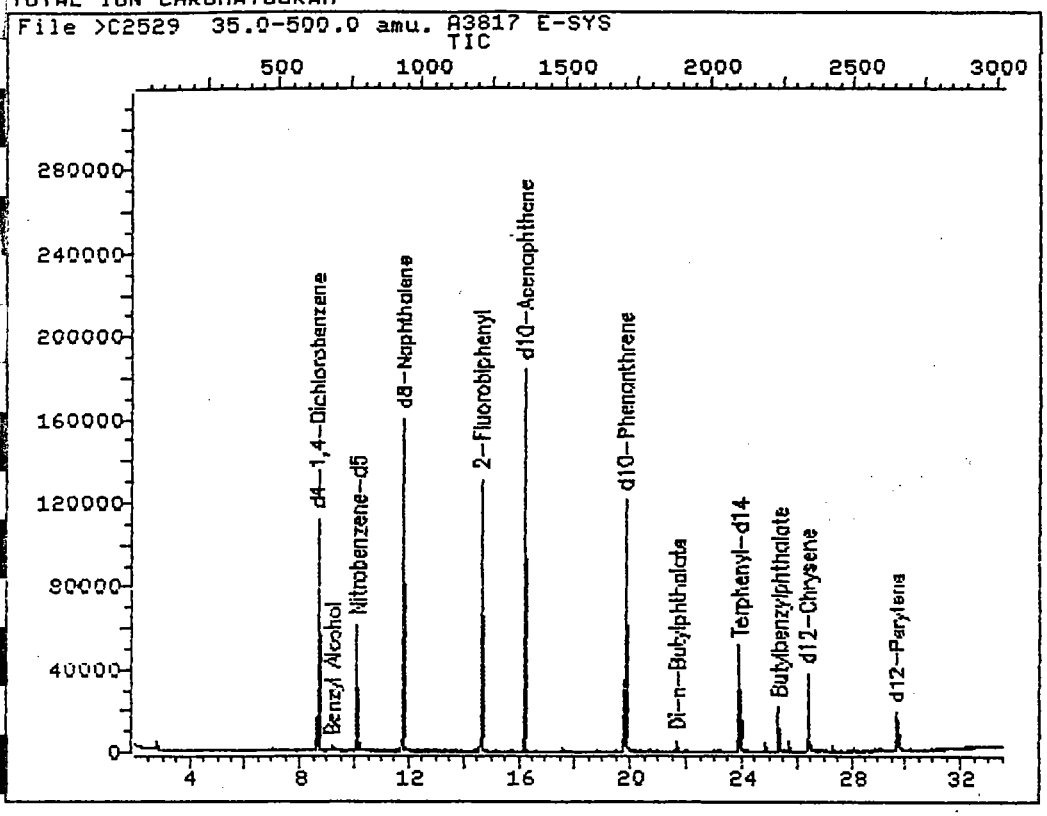
erator ID: JEFF Quant Rev: 6 Quant Time: 931007 17:53
put File: ^C2529::D5 Injected at: 931007 16:40
ta File: >C2529::E3 Dilution Factor: 1.00000
ame: A3817 E-SYS
c: BTL# 1

D File: ID1007::D2
le: hSL BNA STD
t Calibration: 931007 17:53

	Compound	R.T.	Scan#	Area	Conc	Units	q
)	*d4-1,4-Dichlorobenzene	8.59	632	50325	40.00	UG/L	98
1)	Benzyl Alcohol	9.17	688	857	1.59	UG/L	88
	*d8-Naphthalene	11.75	935	129941	40.00	UG/L	91
	Nitrobenzene-d5	10.07	774	37467	29.35	UG/L	82
3)	*d10-Acenaphthene	16.15	1357	79188	40.00	UG/L	96
	2-Fluorobiphenyl	14.58	1207	75160	30.45	UG/L	95
	*d10-Phenanthrene	19.75	1703	92138	40.00	UG/L	98
)	Di-n-Butylphthalate	21.65	1885	5610	1.46	UG/L	97
4)	*d12-Chrysene	26.35	2336	37432	40.00	UG/L	95
	Terphenyl-d14	23.88	2099	42771	41.13	UG/L	86
	Butylbenzylphthalate	25.33	2238	11377	12.21	UG/L	91
3)	*d12-Perylene	29.65	2652	23406	40.00	UG/L	94

Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >C2529::E3 Quant Output File: ^C2529::D5
Name: A3817 E-SYS
Misc: BTL# 1

Id File: ID1007::D2
Title: hSL BNA STD
Last Calibration: 931007 17:53

Operator ID: JEFF
Quant Time: 931007 17:53
Injected at: 931007 16:40

21st Century Environmental Inc.
VOLATILE ORGANIC ANALYSIS DATA

JOB NUMBER	US ARMY FT. MONMOUTH NJ	MATRIX	Water
SAMPLE NUMBER	A3818	DILUTION FACTOR	1.00
CLIENT ID	BLDG 2500 MW-4	COMMENTS	HNU 0.01
DATA FILE	>B1435	DATE ANALYZED	09/02/93

COMPOUND	UG/L		MDL	COMPOUND	UG/L		MDL
Acrolein	ND		50	2-Chloroethylvinylether	ND		10
Acrylonitrile	ND		50	2-Hexanone	ND		10
Chloromethane	ND		10	trans-1,3-Dichloropropene	ND		5
Bromomethane	ND		10	Toluene	ND		5
Vinyl Chloride	ND		10	cis-1,3-Dichloropropene	ND		5
Chloroethane	ND		10	1,1,2,2-Tetrachloroethane	ND		5
Acetone	ND	B	10	1,1,2-Trichloroethane	ND		5
1,1-Dichloroethene	ND		5	4-Methyl-2-pentanone	ND		10
Carbon Disulfide	ND		10	Tetrachloroethene	3.5	J	5
Methylene Chloride	ND		5	Dibromochloromethane	ND		5
1,2-Dichloroethene(trans)	ND		5	Chlorobenzene	ND		5
1,1-Dichloroethane	ND		5	Ethylbenzene	ND		5
Vinyl Acetate	ND		5	m&p-Xylenes	ND		5
2-Butanone	ND		10	o-Xylene	ND		5
Chloroform	ND		5	Styrene	ND		5
1,1,1-Trichloroethane	ND		5	Bromoform	ND		5
Carbon Tetrachloride	ND		5	m-Dichlorobenzene	ND		5
1,2-Dichloroethane	ND		5	p-Dichlorobenzene	ND		5
Benzene	ND		5	o-Dichlorobenzene	ND		5
Trichloroethene	ND		5	Methyl Tertiary Butyl Ether	ND		10
1,2-Dichloropropane	ND		5	Tertiary Butyl Alcohol	ND		50
Bromodichloromethane	ND		5				

SURROGATE COMPOUNDS	% RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	106	76 - 114	OK
Toluene-d8	99.3	88 - 110	OK
Bromofluorobenzene	100	86 - 115	OK

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

21st Century Environmental Inc.
SEMIVOLATILE ANALYSIS DATA

JOB NUMBER	US ARMY, FT. MONMOUTH, NJ	MATRIX	Water
SAMPLE NUMBER	A3818	DILUTION FACTOR	1.00
CLIENT ID	Bldg 2500 MW-4	QA BATCH	
DATA FILE	>C2407	DATE ANALYZED	09/28/93

COMPOUND	UG/L	MDL	COMPOUND	UG/L	MDL
N-Nitrosodimethylamine	ND	10	2,6-Dinitrotoluene	ND	10
bis(-2-Chloroethyl)Ether	ND	10	Diethylphthalate	ND	10
1,3-Dichlorobenzene	ND	10	4-Chlorophenyl-phenylether	ND	10
1,4-Dichlorobenzene	ND	10	Fluorene	ND	10
Benzyl Alcohol	6.5 J	10	4-Nitroaniline	ND	50
1,2-Dichlorobenzene	ND	10	N-Nitrosodiphenylamine	ND	10
bis(2-chloroisopropyl)Ether	ND	10	4-Bromophenyl-phenylether	ND	10
N-Nitroso-Di-n-Propylamine	ND	10	Hexachlorobenzene	ND	10
Hexachloroethane	ND	10	Phenanthrene	ND	10
Nitrobenzene	ND	10	Anthracene	ND	10
Isophorone	ND	10	Di-n-Butylphthalate	2.4 J	10
Benzoic Acid	ND	50	Fluoranthene	ND	10
bis(-2-Chloroethoxy)Methane	ND	10	Pyrene	ND	10
1,2,4-Trichlorobenzene	ND	10	Butylbenzylphthalate	30	10
Naphthalene	ND	10	3,3'-Dichlorobenzidine	ND	20
4-Chloroaniline	ND	10	Benzo(a)Anthracene	ND	10
Hexachlorobutadiene	ND	10	Bis(2-Ethylhexyl)Phthalate	ND	10
2-Methylnaphthalene	ND	10	Chrysene	ND	10
Hexachlorocyclopentadiene	ND	10	Di-n-Octyl Phthalate	ND	10
2-Chloronaphthalene	ND	10	Benzo(b)Fluoranthene	ND	10
2-Nitroaniline	ND	50	Benzo(k)Fluoranthene	ND	10
Dimethyl Phthalate	ND	10	Benzo(a)Pyrene	ND	10
Acenaphthylene	ND	10	Indeno(1,2,3-cd)Pyrene	ND	10
3-Nitroaniline	ND	50	Dibenzo(a,h)Anthracene	ND	10
Acenaphthene	ND	10	Benzo(g,h,i)Perylene	ND	10
Dibenzofuran	ND	10	Benzidine	ND	20
2,4-Dinitrotoluene	ND	10			

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

MW-4

Lab Name:21st Century Environmental

Client Name: US ARMY FT. MONMOUTH, NJ

Client ID: BLDG 2500

Matrix: (soil/water) WATER

Lab Sample ID: A3818

Sample wt/vol: 5 (g/mL) mL

Lab File ID: >B1435

Level: (low/med) LOW

Date Received: 08/30/93

% Moisture: NA

Date Analyzed: 09/02/93

Column: DB-624

Dilution Factor: 1

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	No Unknowns			

FORM I VOA-TIC 1/87 Rev.

orking on unknown # 4 CONC IS 13.00

E1 EPA SAMPLE NUMBER

semi-VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

| BLDG 2500 |
| MW-4 |

Matrix: (soil/water) WATER

Lab Sample ID: A3818

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: >C2407

Level: LOW

Date Received: NA

% Moisture: 100

Date Analyzed 09/28/93

Extraction: (Sepf/Cont/Sonc) SEPF

Date Extracted 09/03/93

GPC (Y or N): N

Column: DB-5

Dilution Factor: 1

Number TICs Found 9

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

CAS NUMBER	COMPOUND NAME	RT	EST CONC
1	UNKNOWN	25.18	9
2	UNKNOWN	25.95	4
3	UNKNOWN	26.04	13
4	UNKNOWN	26.89	12
5	UNKNOWN	27.69	12
6	UNKNOWN	28.46	10
7	UNKNOWN	29.21	7
8	UNKNOWN	29.48	6
9	UNKNOWN	29.94	4

QUANT REPORT

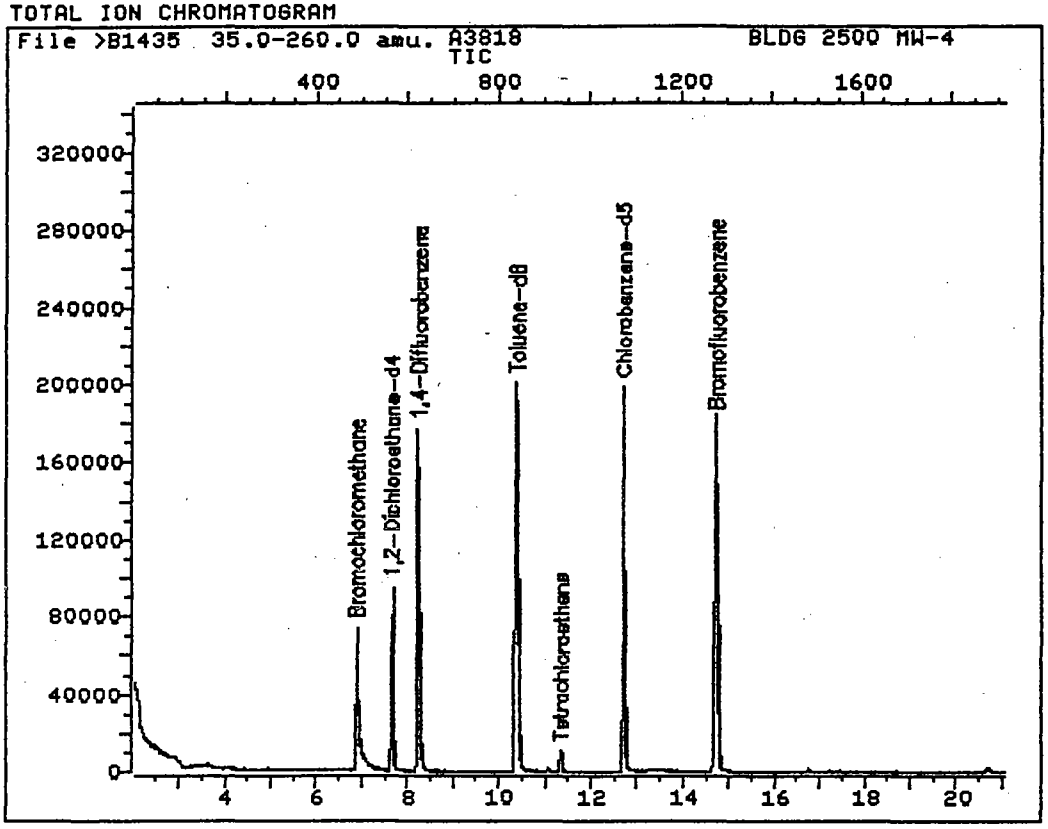
perator ID: MANAGER Quant Rev: 6 Quant Time: 930902 22:56
utput File: ^B1435::QT Injected at: 930902 22:30
Data File: >B1435::D6 Dilution Factor: 1.00000
ame: A3818
isc: BLDG 2500 MW-4 5ml

ID File: ID0401::SC
itle: USEPA 624 VOLATILES
Last Calibration: 930902 13:49

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*Bromochloromethane	6.88	487	50444	50.00	UG/L	100
3)	1,2-Dichloroethane-d4	7.65	565	120735	53.14	UG/L	100
4)	*1,4-Difluorobenzene	8.24	624	270709	50.00	UG/L	100
33)	Toluene-d8	10.38	840	268062	49.64	UG/L	100
35)	*Chlorobenzene-d5	12.69	1073	223149	50.00	UG/L	100
0)	Tetrachloroethene	11.33	936	6879	3.54	UG/L	100
8)	Bromofluorobenzene	14.70	1276	128714	50.08	UG/L	100

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >B1435::D6 Quant Output File: ^B1435::QT
Name: A3818
Misc: BLDG 2500 MW-4 5ml

Id File: ID0401::SC
Title: USEPA 624 VOLATILES
Last Calibration: 930902 13:49

Operator ID: MANAGER
Quant Time: 930902 22:56
Injected at: 930902 22:30

QUANT REPORT

erator ID: JEFF
utput File: ^C2407::QT
Data File: >C2407::E3
me: A3818 FT. MONMOUTH
sc:

Quant Rev: 6 Quant Time: 930928 16:34
Injected at: 930928 15:57
Dilution Factor: 1.00000

BTL# 8

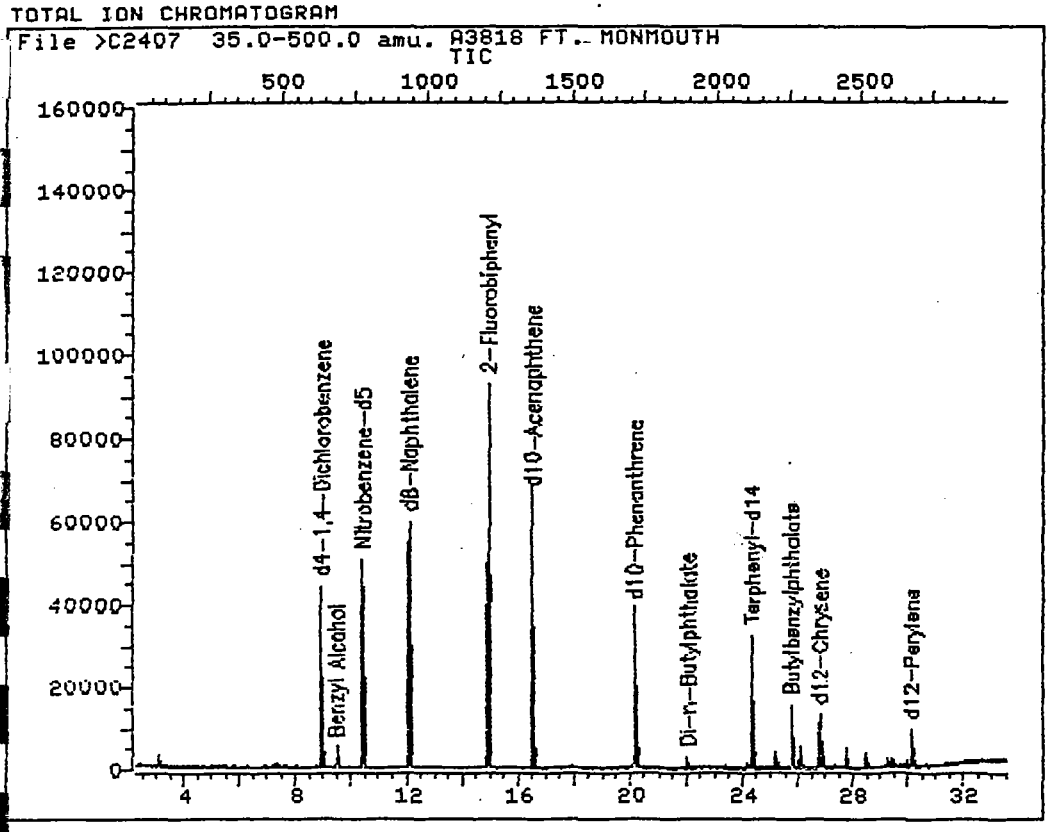
I File: ID928C::E4
tle: hSL BNA STD
ast Calibration: 930928 10:26

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	8.90	635	20331	40.00	UG/L	95
)	Benzyl Alcohol	9.45	688	1537	6.50	UG/L	79
)	*d8-Naphthalene	12.07	939	51781	40.00	UG/L	94
9)	Nitrobenzene-d5	10.38	777	31702	56.30	UG/L	88
3)	*d10-Acenaphthene	16.48	1363	29892	40.00	UG/L	97
)	2-Fluorobiphenyl	14.91	1212	55109	57.34	UG/L	93
)	*d10-Phenanthrene	20.13	1713	31156	40.00	UG/L	99
2)	Di-n-Butylphthalate	22.02	1895	2676	2.36	UG/L	90
)	*d12-Chrysene	26.80	2353	10223	40.00	UG/L	95
)	Terphenyl-d14	24.29	2113	20873	71.67	UG/L	94
8)	Butylbenzylphthalate	25.73	2251	7417	30.14	UG/L	85
)	*d12-Perylene	30.12	2672	8664	40.00	UG/L	94

* Compound is ISTD

00074

TOTAL ION CHROMATOGRAM



Data File: >C2407::E3 Quant Output File: ^C2407::QT
Name: A3818 FT. MONMOUTH
Misc: BTL# 8

Id File: ID928C::E4
Title: hSL BNA STD
Last Calibration: 930928 10:26

Operator ID: JEFF
Quant Time: 930928 16:34
Injected at: 930928 15:57

21st Century Environmental Inc.
VOLATILE ORGANIC ANALYSIS DATA

JOB NUMBER	US ARMY FT. MONMOUTH NJ	MATRIX	Water
SAMPLE NUMBER	A3819	DILUTION FACTOR	1.00
CLIENT ID	BLDG 2500 FIELD BLANK	COMMENTS	HNU ND
DATA FILE	>B1436	DATE ANALYZED	09/02/93

COMPOUND	UG/L	MDL	COMPOUND	UG/L	MDL
Acrolein	ND	50	2-Chloroethylvinylether	ND	10
Acrylonitrile	ND	50	2-Hexanone	ND	10
Chloromethane	ND	10	trans-1,3-Dichloropropene	ND	5
Bromomethane	ND	10	Toluene	ND	5
Vinyl Chloride	ND	10	cis-1,3-Dichloropropene	ND	5
Chloroethane	ND	10	1,1,2,2-Tetrachloroethane	ND	5
Acetone	4.3 JB	10	1,1,2-Trichloroethane	ND	5
1,1-Dichloroethene	ND	5	4-Methyl-2-pentanone	ND	10
Carbon Disulfide	ND	10	Tetrachloroethene	ND	5
Methylene Chloride	ND	5	Dibromochloromethane	ND	5
1,2-Dichloroethene(trans)	ND	5	Chlorobenzene	ND	5
1,1-Dichloroethane	ND	5	Ethylbenzene	ND	5
Vinyl Acetate	ND	5	m&p-Xylenes	ND	5
2-Butanone	ND	10	o-Xylene	ND	5
Chloroform	ND	5	Styrene	ND	5
1,1,1-Trichloroethane	ND	5	Bromoform	ND	5
Carbon Tetrachloride	ND	5	m-Dichlorobenzene	ND	5
1,2-Dichloroethane	ND	5	p-Dichlorobenzene	ND	5
Benzene	ND	5	o-Dichlorobenzene	ND	5
Trichloroethene	ND	5	Methyl Tertiary Butyl Ether	ND	10
1,2-Dichloropropane	ND	5	Tertiary Butyl Alcohol	ND	50
Bromodichloromethane	ND	5			

SURROGATE COMPOUNDS	% RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	101	76 - 114	OK
Toluene-d8	99.1	88 - 110	OK
Bromofluorobenzene	100	86 - 115	OK

(J)-Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

21st Century Environmental Inc.
SEMIVOLATILE ANALYSIS DATA

JOB NUMBER	US ARMY, FT. MONMOUTH, NJ	MATRIX	Water
SAMPLE NUMBER	A3819	DILUTION FACTOR	1.00
CLIENT ID	BLDG 2500 FIELD BLANK	QA BATCH	
DATA FILE	>C2530	DATE ANALYZED	10/07/93

COMPOUND	UG/L	MDL	COMPOUND	UG/L	MDL
N-Nitrosodimethylamine	ND	10	2,6-Dinitrotoluene	ND	10
bis(-2-Chloroethyl)Ether	ND	10	Diethylphthalate	ND	10
1,3-Dichlorobenzene	ND	10	4-Chlorophenyl-phenylether	ND	10
1,4-Dichlorobenzene	ND	10	Fluorene	ND	10
Benzyl Alcohol	ND	10	4-Nitroaniline	ND	50
1,2-Dichlorobenzene	ND	10	N-Nitrosodiphenylamine	ND	10
bis(2-chloroisopropyl)Ether	ND	10	4-Bromophenyl-phenylether	ND	10
N-Nitroso-Di-n-Propylamine	ND	10	Hexachlorobenzene	ND	10
Hexachloroethane	ND	10	Phenanthrene	ND	10
Nitrobenzene	ND	10	Anthracene	ND	10
Isophorone	ND	10	Di-n-Butylphthalate	ND	10
Benzoic Acid	ND	50	Fluoranthene	ND	10
bis(-2-Chloroethoxy)Methane	ND	10	Pyrene	ND	10
1,2,4-Trichlorobenzene	ND	10	Butylbenzylphthalate	ND	10
Naphthalene	ND	10	3,3'-Dichlorobenzidine	ND	20
4-Chloroaniline	ND	10	Benzo(a)Anthracene	ND	10
Hexachlorobutadiene	ND	10	Bis(2-Ethylhexyl)Phthalate	ND	10
2-Methylnaphthalene	ND	10	Chrysene	ND	10
Hexachlorocyclopentadiene	ND	10	Di-n-Octyl Phthalate	ND	10
2-Chloronaphthalene	ND	10	Benzo(b)Fluoranthene	ND	10
2-Nitroaniline	ND	50	Benzo(k)Fluoranthene	ND	10
Dimethyl Phthalate	ND	10	Benzo(a)Pyrene	ND	10
Acenaphthylene	ND	10	Indeno(1,2,3-cd)Pyrene	ND	10
3-Nitroaniline	ND	50	Dibenzo(a,h)Anthracene	ND	10
Acenaphthene	ND	10	Benzo(g,h,i)Perylene	ND	10
Dibenzofuran	ND	10	Benzidine	ND	20
2,4-Dinitrotoluene	ND	10			

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD BLANK

Lab Name: 21st Century Environmental

Client Name: US ARMY FT. MONMOUTH, NJ

Client ID: BLDG 2500

Matrix: (soil/water) WATER

Lab Sample ID: A3819

Sample wt/vol: 5 (g/mL) mL

Lab File ID: >B1436

Level: (low/med) LOW

Date Received: 08/30/93

% Moisture: NA

Date Analyzed: 09/02/93

Column: DB-624

Dilution Factor: 1

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	No Unknowns			

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E1

EPA SAMPLE NUMBER

semi-VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Bldg 108
Fld Blk

Client: US Army Ft. Monmouth, NJ

Comments: None

Matrix: (soil/water) WATER

Lab Sample ID: A3819

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: >C2530

Level: LOW

Date Received: NA

%-Moisture: 100

Date Analyzed 10/07/93

Extraction: (Sepf/Cont/Sonc) SEPF

Date Extracted 09/03/93

GPC (Y or N): N

Column: DB-5

Dilution Factor: 1

Number TICs Found 3

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

	CAS NUMBER	COMPOUND NAME	RT	EST CONC
1		UNKNOWN	25.66	5
2		UNKNOWN	26.49	7
3		UNKNOWN	28.07	5

QUANT REPORT

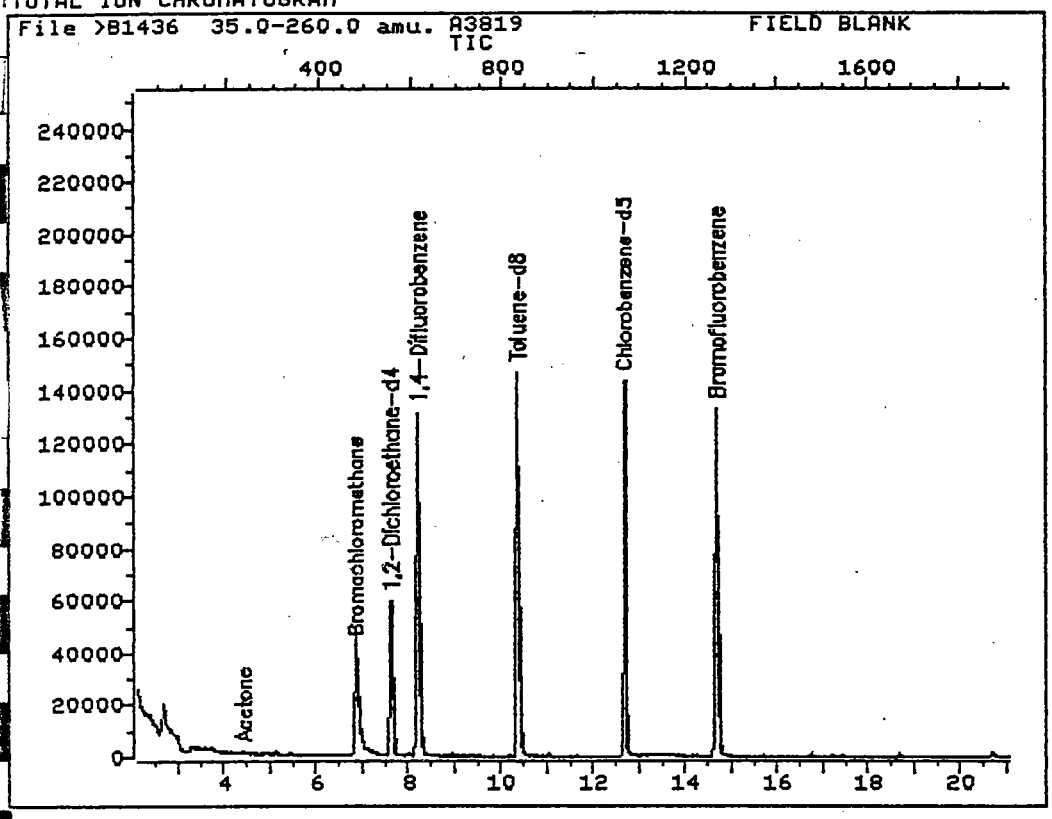
erator ID: MANAGER Quant Rev: 6 Quant Time: 930902 23:26
utput File: ^B1436::QT Injected at: 930902 23:00
ata File: >B1436::D6 Dilution Factor: 1.00000
me: A3819
sc: FIELD BLANK 5ml

File: ID0401::SC
tle: USEPA 624 VOLATILES
ast Calibration: 930902 13:49

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*Bromochloromethane	6.86	478	35137M	50.00	UG/L	100
)	Acetone	4.43	233	3343	4.30	UG/L	84
)	1,2-Dichloroethane-d4	7.63	556	79638	50.32	UG/L	100
24)	*1,4-Difluorobenzene	8.22	615	202420	50.00	UG/L	100
)	Toluene-d8	10.36	831	200077	49.55	UG/L	100
)	*Chlorobenzene-d5	12.67	1064	159072	50.00	UG/L	100
48)	Bromofluorobenzene	14.68	1267	91976	50.20	UG/L	100

Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >B1436::D6 Quant Output File: ^B1436::QT
Name: A3819
Misc: FIELD BLANK 5ml

Id File: ID0401::SC
Title: USEPA 624 VOLATILES
Last Calibration: 930902 13:49

Operator ID: MANAGER
Quant Time: 930902 23:26
Injected at: 930902 23:00

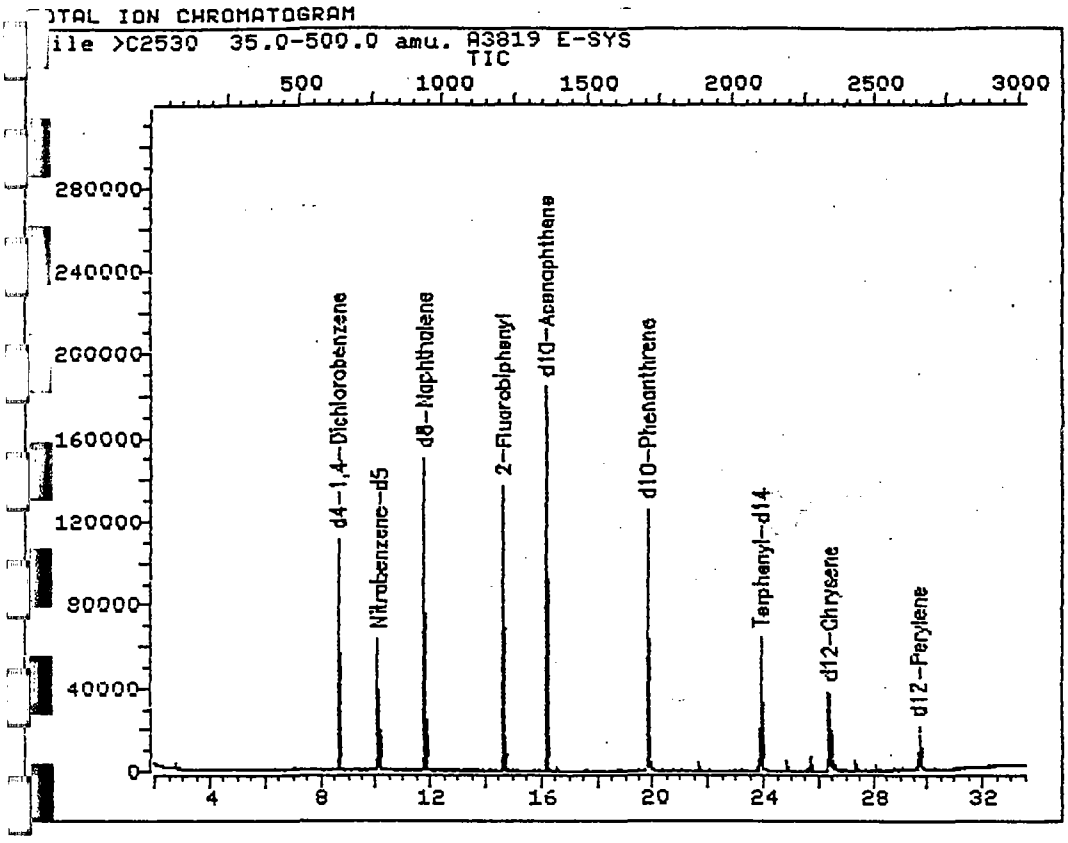
QUANT REPORT

perator ID: JEFF Quant Rev: 6 Quant Time: 931007 18:03
put File: ^C2530::D5 Injected at: 931007 17:27
a File: >C2530::E3 Dilution Factor: 1.00000
ame: A3819 E-SYS
c: BTL# 2

File: ID1007::D2
itle: hSL BNA STD
t Calibration: 931007 17:53

	Compound	R.T.	Scan#	Area	Conc	Units	q
	*d4-1,4-Dichlorobenzene	8.59	634	49648	40.00	UG/L	98
8)	*d8-Naphthalene	11.74	937	126380	40.00	UG/L	90
9)	Nitrobenzene-d5	10.08	777	37008	29.80	UG/L	86
	*d10-Acenaphthene	16.14	1359	76667	40.00	UG/L	97
	2-Fluorobiphenyl	14.59	1210	74601	31.22	UG/L	93
3)	*d10-Phenanthrene	19.76	1706	96813	40.00	UG/L	99
	*d12-Chrysene	26.35	2338	37374	40.00	UG/L	95
	Terphenyl-d14	23.89	2102	49925	48.09	UG/L	88
3)	*d12-Perylene	29.65	2655	23605	40.00	UG/L	95

Compound is ISTD



Data File: >C2530::E3 Quant Output File: ^C2530::D5
Name: A3819 E-SYS
Misc: BTL# 2

Id File: ID1007::D2
Title: hSL BNA STD
Last Calibration: 931007 17:53

Operator ID: JEFF
Quant Time: 931007 18:03
Injected at: 931007 17:27

21st Century Environmental Inc.
VOLATILE ORGANIC ANALYSIS DATA

JOB NUMBER	US ARMY FT. MONMOUTH NJ	MATRIX	Water
SAMPLE NUMBER	A3820	DILUTION FACTOR	1.00
CLIENT ID	TRIP BLANK BLDG 2500	COMMENTS	HNU ND
DATA FILE	>B1481	DATE ANALYZED	09/05/93

COMPOUND	UG/L	MDL	COMPOUND	UG/L	MDL
Acrolein	ND	50	2-Chloroethylvinylether	ND	10
Acrylonitrile	ND	50	2-Hexanone	ND	10
Chloromethane	ND	10	trans-1,3-Dichloropropene	ND	5
Bromomethane	ND	10	Toluene	ND	5
Vinyl Chloride	ND	10	cis-1,3-Dichloropropene	ND	5
Chloroethane	ND	10	1,1,2,2-Tetrachloroethane	ND	5
Acetone	2.1 JB	10	1,1,2-Trichloroethane	ND	5
1,1-Dichloroethene	ND	5	4-Methyl-2-pentanone	ND	10
Carbon Disulfide	ND	10	Tetrachloroethene	ND	5
Methylene Chloride	ND	5	Dibromochloromethane	ND	5
1,2-Dichloroethene(trans)	ND	5	Chlorobenzene	ND	5
1,1-Dichloroethane	ND	5	Ethylbenzene	ND	5
Vinyl Acetate	ND	5	m&p-Xylenes	ND	5
2-Butanone	ND	10	o-Xylene	ND	5
Chloroform	ND	5	Styrene	ND	5
1,1,1-Trichloroethane	ND	5	Bromoform	ND	5
Carbon Tetrachloride	ND	5	m-Dichlorobenzene	ND	5
1,2-Dichloroethane	ND	5	p-Dichlorobenzene	ND	5
Benzene	ND	5	o-Dichlorobenzene	ND	5
Trichloroethene	ND	5	Methyl Tertiary Butyl Ether	ND	10
1,2-Dichloropropane	ND	5	Tertiary Butyl Alcohol	ND	50
Bromodichloromethane	ND	5			

SURROGATE COMPOUNDS	% RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	96.5	76 - 114	OK
Toluene-d8	99.4	88 - 110	OK
Bromofluorobenzene	96.6	86 - 115	OK

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

TRIP BLANK

Lab Name:21st Century Environmental

Client Name: US ARMY FT. MONMOUTH, NJ

Client ID: BLDG 2500

Matrix: (soil/water) WATER

Lab Sample ID: A3820

Sample wt/vol: 5 (g/mL) mL

Lab File ID: >B1481

Level: (low/med) LOW

Date Received: 08/30/93

% Moisture: NA

Date Analyzed: 09/05/93

Column: DB-624

Dilution Factor: 1

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	No Unknowns			

FORM I VOA-TIC 1/87 Rev.

QUANT REPORT

Operator ID: JEFF
tput File: ^B1481::D4
ta File: >B1481::D3
ame: A3820
sc: TRIP BLANK BLDG 108

Quant Rev: 6 Quant Time: 930905 19:33
Injected at: 930905 19:05
Dilution Factor: 1.00000

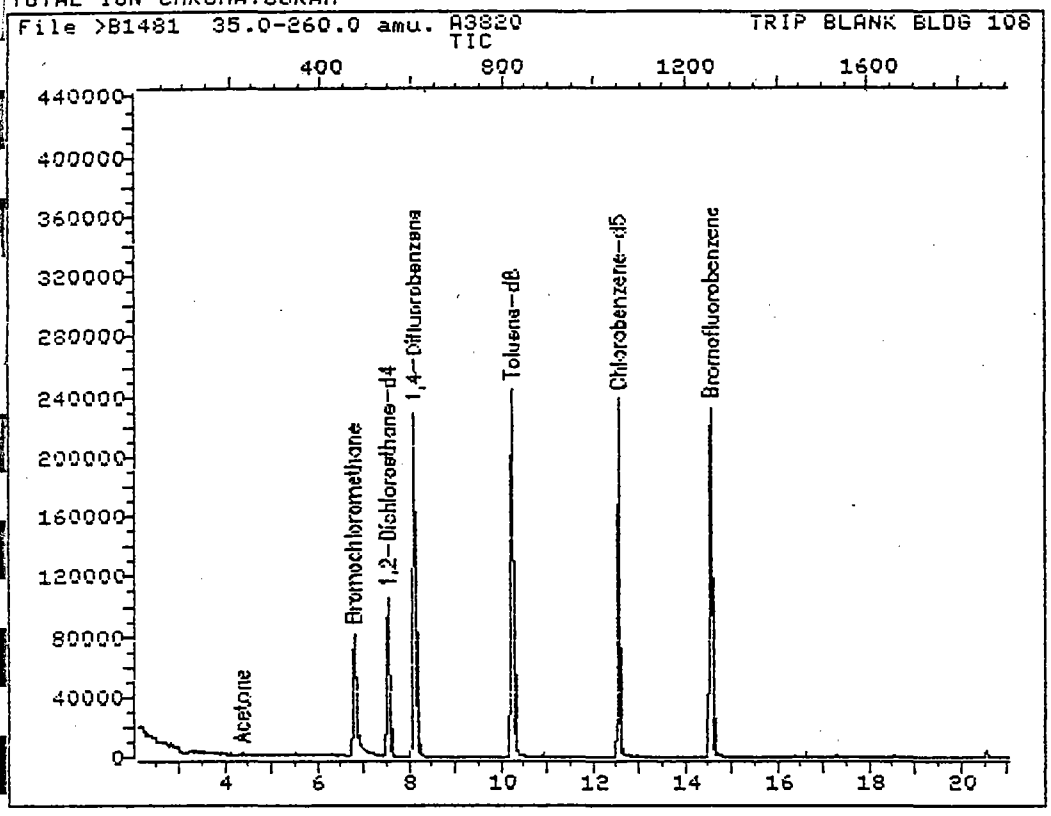
5mL

D File: ID0401::SC
Title: USEPA 624 VOLATILES
st Calibration: 930905 18:30

	Compound	R.T.	Scan#	Area	Conc.	Units	q
)	*Bromochloromethane	6.77	469	61179	50.00	UG/L	100
9)	Acetone	4.35	225	2370	2.07	UG/L	82
27)	1,2-Dichloroethane-d4	7.53	546	143030	48.24	UG/L	100
)	*1,4-Difluorobenzene	8.10	603	336597	50.00	UG/L	100
)	Toluene-d8	10.23	818	336035	49.68	UG/L	100
35)	*Chlorobenzene-d5	12.53	1050	276049	50.00	UG/L	100
)	Bromofluorobenzene	14.55	1253	158223	48.29	UG/L	100

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >B1481::D3 Quant Output File: ^B1481::D4
Name: A3820
Misc: TRIP BLANK BLDG 108 5mL

Id File: ID0401::SC
Title: USEPA 624 VOLATILES
Last Calibration: 930905 18:30

Operator ID: JEFF
Quant Time: 930905 19:33
Injected at: 930905 19:05

Q C RESULTS

ICP Batch # M 120

GFAA Batch # _____

Hg Batch # _____

21st Century Environmental

Aqueous [X]

Solid [ ]

QUALITY CONTROL DATA

ELEMENT	MDL (ppm)	PREP BLK	LCS (% rec)	SAMPLE RESULT	DUPLICATE RESULT	RPD	SPIKE AMT. (ppm)	SPIKE (% rec)
Aluminum								
Antimony								
Barium	0.05	N.D.	94	N.D.	N.D.	—	2.0	95
Beryllium								
Cadmium	0.01	N.D.	69	N.D.	N.D.	—	.050	78
Calcium								
Chromium	0.01	N.D.	107	N.D.	N.D.	—	0.20	110
Cobalt								
Copper								
Iron								
Magnesium								
Manganese								
Nickel								
Silver	0.01	N.D.	100	N.D.	N.D.	—	.050	98
Sodium								
Vanadium								
Zinc								
Arsenic	0.10	N.D.	112	N.D.	N.D.	—	2.0	112
Lead	0.05	N.D.	105	N.D.	N.D.	—	0.50	104
Selenium	0.10	N.D.	103	N.D.	N.D.	—	2.0	108
Thallium								
Mercury								
Potassium								

Comments: _____

00089

21st Century Environmental Inc
WATER VOLATILE SURROGATE RECOVERY

SAMPLE NO.	S1 (DCE)#	S2 (TOL)#	S3 (BFB)#	TOT OUT
BLANK	104	97	98	0
A3810	112	99	102	0
A3811	111	99	100	0
A3812	112	100	100	0
A3813	101	97	101	0
A3814	101	98	100	0
A3815	103	99	101	0
A3816	109	98	102	0
A3817	112	99	100	0
A3818	106	99	100	0
A3819	101	99	100	0
BLANK	100	100	96	0
A3809	104	101	98	0
BLANK	104	96	97	0
A3820	96	99	97	0
A3796MS	104	101	101	0
A3796MSD	107	100	102	0

	QC LIMITS
S1 (DCE) = 1,2-Dichloroethane-d4	76-114
S2 (TOL) = Toluene-d8	88-110
S3 (BFB) = Bromofluorobenzene	86-115

Column used to flag surrogate recovery values

21st Century Environmental Inc.
WATER semi-VOLATILE SURROGATE RECOVERY

SAMPLE NO.	S1 (NBZ)#	S2 (FBP)#	S3 (TPH)#	S4 (PHL)#	S5 (FPH)#	S6 (TBP)#	TOT OUT
AQ BLK	63	65	87	---	---	---	0
A3814	97	95	78	---	---	---	0
A3815	101	105	88	---	---	---	0
A3816	96	111	137	---	---	---	0
A3817	59	61	82	---	---	---	0
A3819	58	62	96	---	---	---	0
A3935MS	66	68	103	---	---	---	0
A3935MSD	67	70	93	---	---	---	0

	QC LIMITS
S1 (NBZ) = Nitrobenzene-d5	(35-114)
S2 (FBP) = 2-Fluorobiphenyl	(43-116)
S3 (TPH) = Terphenyl-d14	(33-141)
S4 (PHL) = Phenol-d5	(10-94)
S5 (FPH) = 2-Fluorophenol	(21-100)
S6 (TBP) = 2,4,6-Tribromophenol	(10-123)

Column used to flag surrogate recovery values

3A

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name:21ST CENTURY ENVIRONMENTAL Contract:N/A

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

Matrix Spike - EPA Sample No.: A3796

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC LIMITS REC.
1,1-Dichloroethene	50.00	ND	65.4	131	61-145.
Trichloroethene	50.00	ND	38.9	78	71-120
Benzene	50.00	ND	45.6	91	76-127
Toluene	50.00	ND	44.4	89	76-125
Chlorobenzene	50.00	ND	46.1	92	75-130

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	50.00	65.9	132	<1	14	61-145
Trichloroethene	50.00	39.0	78	<1	14	71-120
Benzene	50.00	46.7	93	2	17	76-127
Toluene	50.00	45.1	90	1	12	76-125
Chlorobenzene	50.00	47.4	95	3	13	75-130

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

* Values outside of qc limits

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

COMMENTS: _____

QUANT REPORT

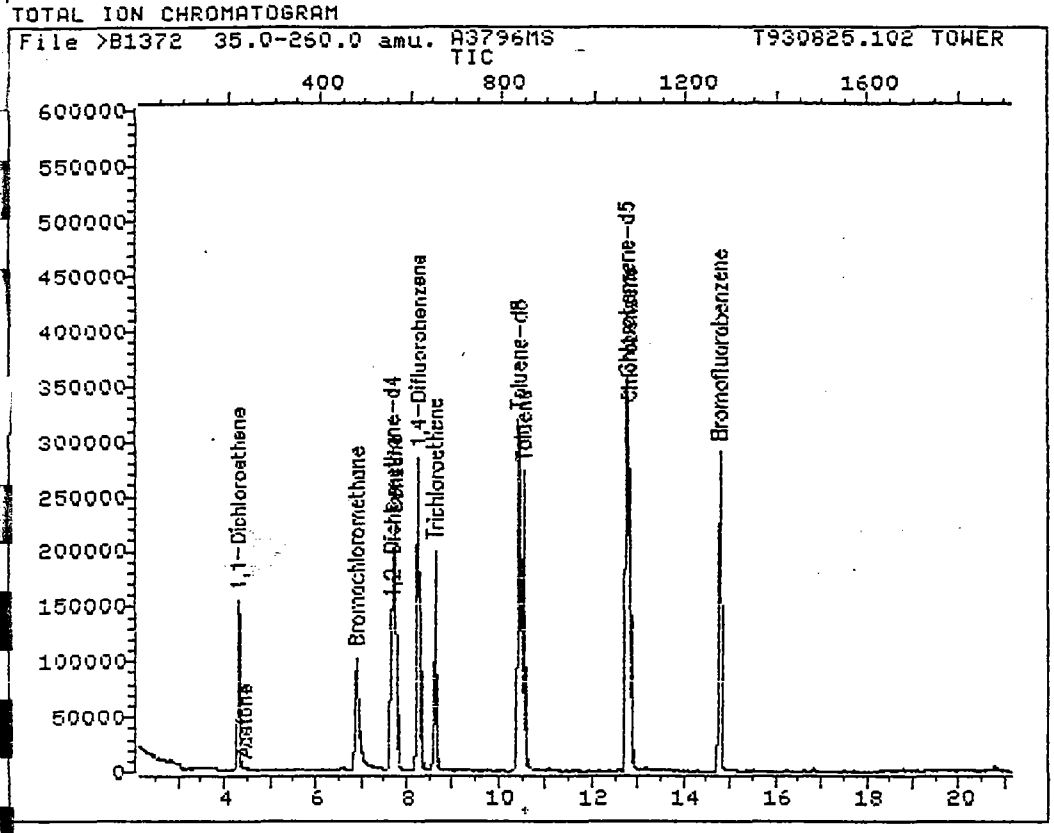
erator ID: MANAGER Quant Rev: 6 Quant Time: 930831 16:00
utput File: ^B1372::QT Injected at: 930831 15:33
Data File: >B1372::D6 Dilution Factor: 1.00000
me: A3796MS
isc: T930825.102 TOWER 5ml

File: ID0401::SC
tle: USEPA 624 VOLATILES
ast Calibration: 930831 14:12

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*Bromochloromethane	6.90	477	79181	50.00	UG/L	100
)	Acetone	4.45	230	841	1.07	UG/L	85
)	1,1-Dichloroethene	4.31	216	181164	65.39	UG/L	100
23)	1,2-Dichloroethane-d4	7.68	556	171455	52.08	UG/L	100
)	*1,4-Difluorobenzene	8.27	615	459065	50.00	UG/L	100
)	Benzene	7.74	562	368868	45.60	UG/L	100
27)	Trichloroethene	8.63	651	134740	38.92	UG/L	85
)	Toluene-d8	10.42	832	451481	50.50	UG/L	100
)	Toluene	10.53	843	405578	44.42	UG/L	96
)	*Chlorobenzene-d5	12.76	1067	378166	50.00	UG/L	100
42)	Chlorobenzene	12.81	1072	316405	46.09	UG/L	96
)	Bromofluorobenzene	14.77	1270	212071	50.34	UG/L	100

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >B1372::D6 Quant Output File: ^B1372::QT
Name: A3796MS
Misc: T930825.102 TOWER 5ml

Id File: ID0401::SC
Title: USEPA 624 VOLATILES
Last Calibration: 930831 14:12

Operator ID: MANAGER
Quant Time: 930831 16:00
Injected at: 930831 15:33

QUANT REPORT

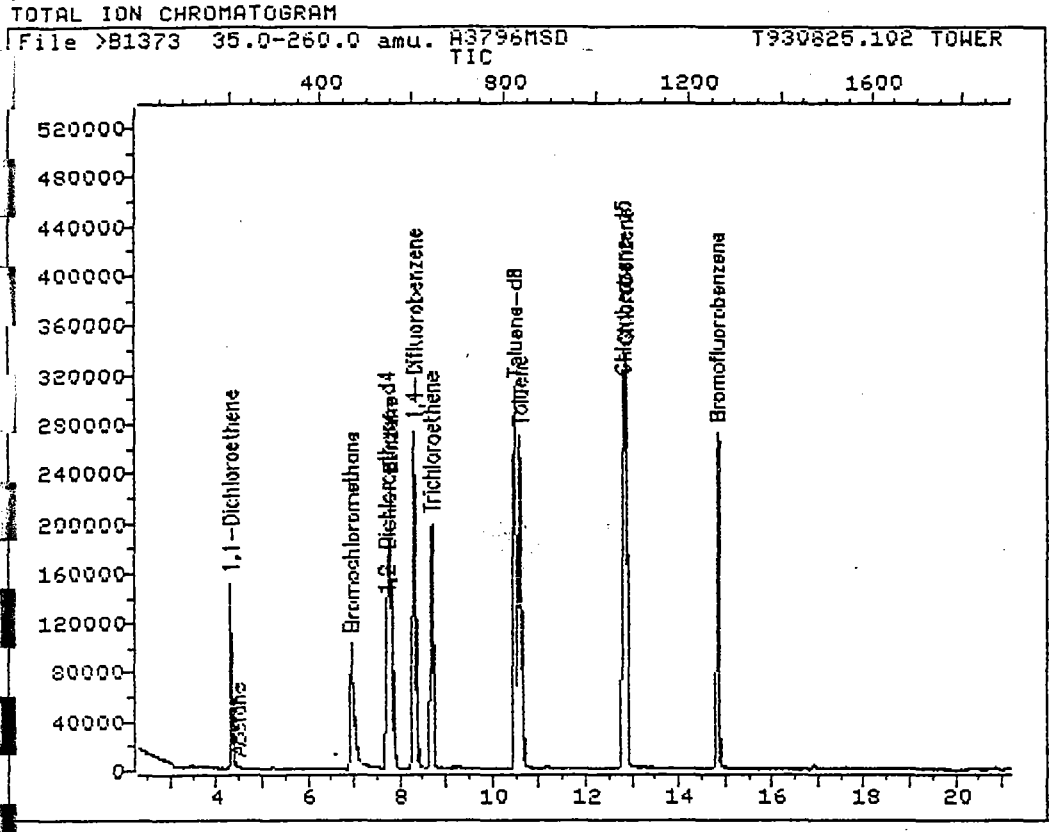
erator ID: MANAGER Quant Rev: 6 Quant Time: 930831 16:30
utput File: ^B1373::QT Injected at: 930831 16:04
ta File: >B1373::D6 Dilution Factor: 1.00000
me: A3796MSD
sc: T930825.102 TOWER 5ml

File: ID0401::SC
le: USEPA 624 VOLATILES
ast Calibration: 930831 14:12

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*Bromochloromethane	6.93	466	74943	50.00	UG/L	100
	Acetone	4.47	218	1551	2.08	UG/L	88
0)	1,1-Dichloroethene	4.32	203	172915	65.94	UG/L	100
3)	1,2-Dichloroethane-d4	7.70	544	166441	53.42	UG/L	100
)	*1,4-Difluorobenzene	8.30	604	444101	50.00	UG/L	100
	Benzene	7.77	551	365518	46.70	UG/L	100
7)	Trichloroethene	8.67	641	130710	39.03	UG/L	90
	Toluene-d8	10.46	822	431683	49.91	UG/L	100
	Toluene	10.56	832	398658	45.13	UG/L	96
5)	*Chlorobenzene-d5	12.79	1056	360437	50.00	UG/L	100
2)	Chlorobenzene	12.84	1061	310035	47.39	UG/L	95
	Bromofluorobenzene	14.81	1260	203929	50.79	UG/L	100

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >B1373::D6 Quant Output File: ^B1373::QT
Name: A3796MSD
Misc: T930825.102 TOWER 5ml

Id File: ID0401::SC
Title: USEPA 624 VOLATILES
Last Calibration: 930831 14:12

Operator ID: MANAGER
Quant Time: 930831 16:30
Injected at: 930831 16:04

3C

WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: 21st Century Environmental Contract No.:
Lab Code: Case No: SAS No.: SDG No.:
MATRIX SPIKE- EPA SAMPLE NO.: A3935

COMPOUND NAME	SPIKE ADDED UG/L	MS CONC UG/L	SAMP CONC UG/L	MS % REC#	QC LIMITS RECOVERY
Phenol	100	24.0	ND	24	12-89
-Chlorophenol	100	49.7	ND	50	27-123
,-4-Dichlorobenzene	50	18.5	ND	37	36-97
N-Nitroso-di-n-prop. (1)	50	27.3	ND	55	41-116
2,4-Trichlorobenzene	50	18.8	ND	39	39-98
-Chloro-3-methylphenol	100	57.9	ND	58	23-97
Acenapthene	50	30.0	ND	60	46-118
-Nitrophenol	100	21.7	ND	22	10-80
4-Dinitrotoluene	50	32.1	ND	64	24-96
Pentachlorophenol	100	52.0	ND	52	9-103
Pyrene	50	40.3	ND	81	26-127

3C

WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: 21st Century Environmental Contract No.:
Lab Code: Case No: SAS No.: SDG No.:
MATRIX SPIKE- EPA SAMPLE NO.:A3935

COMPOUND NAME	SPIKE ADDED UG/L	MSD CONC UG/L	MSD % REC.	% RPD	QC LIMITS RPD	QC LIMITS RECOV
henol	100	23.9	24	<1	42	21-89
-Chlorophenol	100	50.9	51	2	40	27-123
1,-4-Dichlorobenzene	50	19.4	39	5	28	36-197
n-Nitroso-di-n-prop.	50	26.8	54	2	38	41-116
2,4-Trichlorobenzene	50	19.7	39	5	28	39-98
-Chloro-3-Methylphenol	100	57.9	58	0	42	23-97
Acenaphthene	50	31.2	62	4	31	46-118
-Nitrophenol	100	25.0	25	14	50	10-80
4-Dinitrotoluene	50	33.4	67	4	38	24-96
Pentachlorophenol	100	55.3	55	6	50	9-103
yrene	50	35.5	71	13	51	26-127

1) N-Nitroso-di-n-propylamine

Column to be used to flag recovery and RPD values
Values outside of qc limits

D: 0 out of 11 outside limits
pike Recovery: 0 out of 22 outside limits

COMMENTS: _____

QUANT REPORT

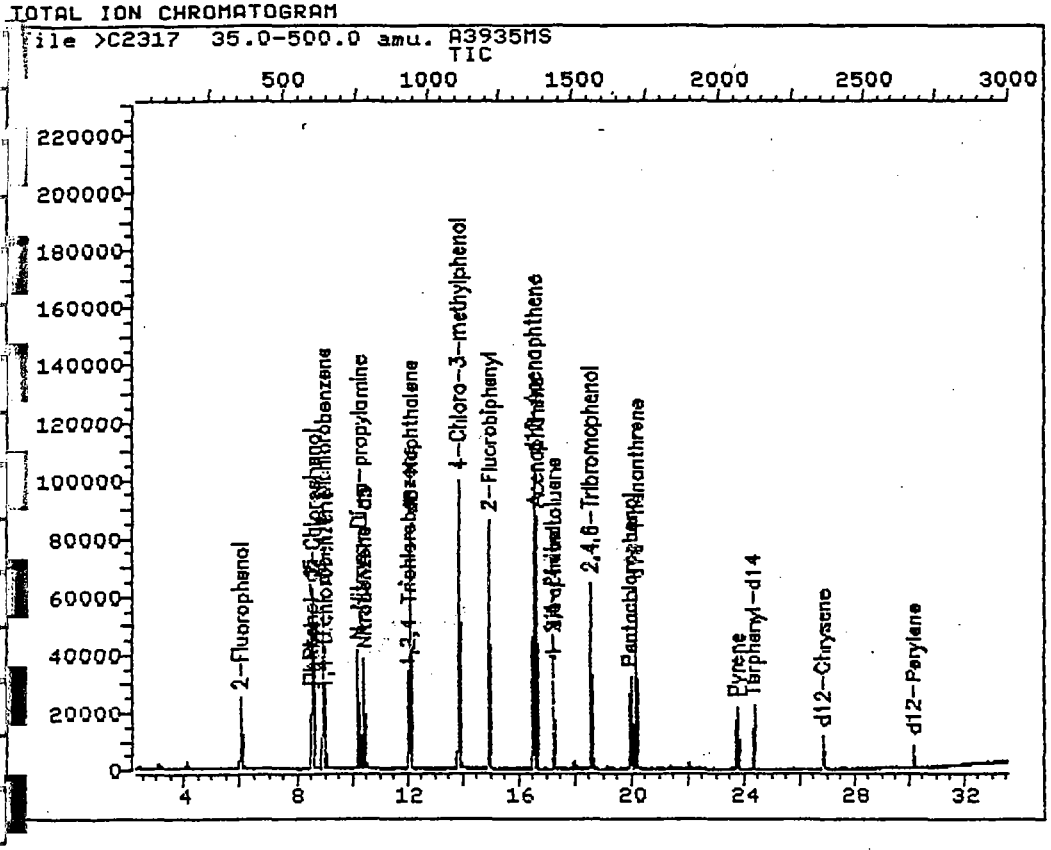
erator ID: JEFF Quant Rev: 6 Quant Time: 930922 00:15
tput File: ^C2317::E3 Injected at: 930921 23:39
a File: >C2317::E4 Dilution Factor: 1.00000
me: A3935MS
isc: BTL# 6

File: ID921C::D3
itle: hSL BNA STD
t Calibration: 930921 20:24

	Compound	R.T.	Scan#	Area	Conc	Units	q
	*d4-1,4-Dichlorobenzene	8.93	639	26671	40.00	UG/L	96
	2-Fluorophenol	6.00	358	17056	37.21	UG/L	85
5)	Phenol-d5	8.48	596	18596	27.75	UG/L	96
	Phenol	8.51	599	18022	24.01	UG/L	78
	2-Chlorophenol	8.54	602	28599	49.69	UG/L	99
0)	1,4-Dichlorobenzene	8.97	643	11144	18.45	UG/L	97
4)	N-Nitroso-Di-n-propylamine	10.22	763	16127	27.27	UG/L	89
	*d8-Naphthalene	12.08	942	69532	40.00	UG/L	93
9)	Nitrobenzene-d5	10.41	781	23458	32.88	UG/L	84
7)	1,2,4-Trichlorobenzene	12.02	936	11988	18.77	UG/L	97
	4-Chloro-3-methylphenol	13.81	1108	46330	57.89	UG/L	94
	*d10-Acenaphthene	16.51	1367	47145	40.00	UG/L	98
3)	2-Fluorobiphenyl	14.93	1215	52717	33.97	UG/L	91
3)	Acenaphthene	16.58	1374	42849	28.95	UG/L	93
	4-Nitrophenol	17.23	1436	4275M	21.73	UG/L	
7)	2,4-Dinitrotoluene	17.22	1435	13252	32.10	UG/L	70
3)	*d10-Phenanthrene	20.16	1717	50631	40.00	UG/L	98
	2,4,6-Tribromophenol	18.51	1559	12517	63.78	UG/L	85
7)	Pentachlorophenol	19.93	1695	7278	51.95	UG/L	97
4)	*d12-Chrysene	26.82	2356	11226	40.00	UG/L	96
	Pyrene	23.72	2059	21718	40.26	UG/L	99
	Terphenyl-d14	24.31	2115	16871	51.41	UG/L	87
3)	*d12-Perylene	30.15	2676	8779	40.00	UG/L	96

Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >C2317::E4 Quant Output File: ^C2317::E3
Name: A3935MS
Misc: BTL# 6

Id File: ID921C::D3
Title: hSL BNA STD
Last Calibration: 930921 20:24

Operator ID: JEFF
Quant Time: 930922 00:15
Injected at: 930921 23:39

QUANT REPORT

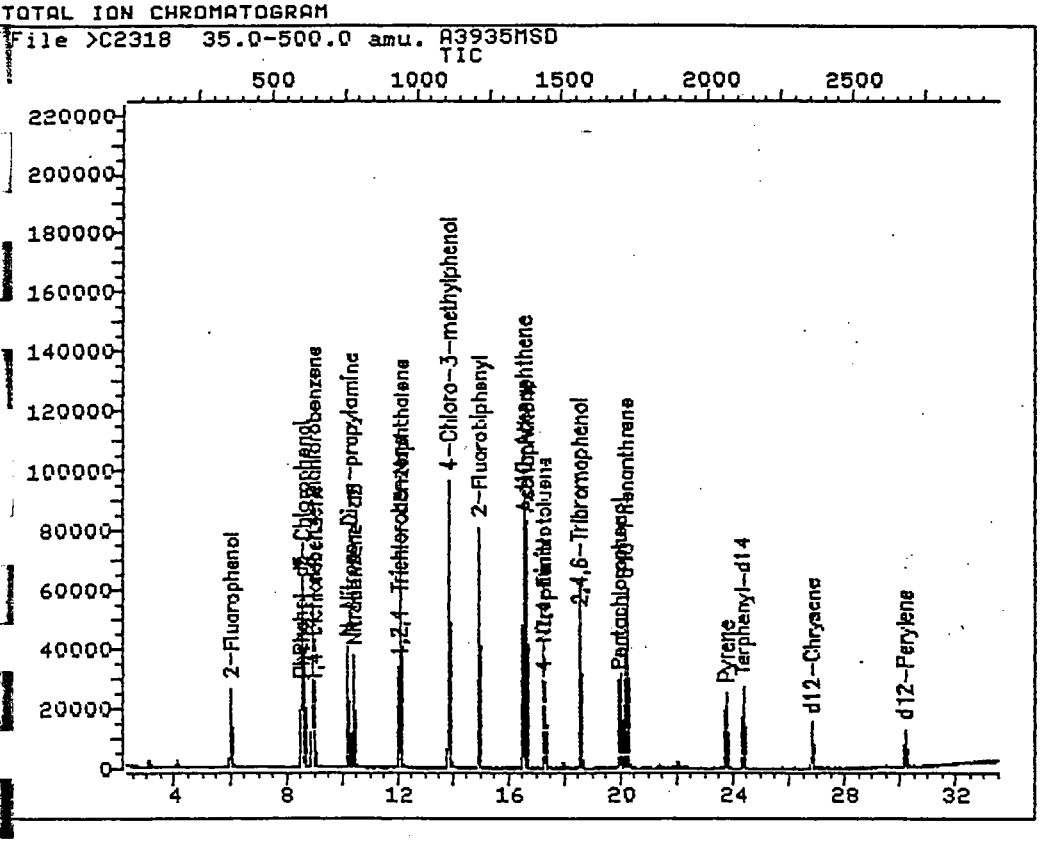
erator ID: JEFF Quant Rev: 6 Quant Time: 930922 01:00
utput File: ^C2318::E3 Injected at: 930922 00:23
a File: >C2318::E4 Dilution Factor: 1.00000
e: A3935MSD
sc: BTL# 7

File: ID921C::D3
tle: hSL BNA STD
st Calibration: 930921 20:24

	Compound	R.T.	Scan#	Area	Conc	Units	q
1	*d4-1,4-Dichlorobenzene	8.93	639	26403	40.00	UG/L	97
	2-Fluorophenol	6.01	359	17981	39.63	UG/L	94
7)	Phenol-d5	8.48	596	18411	27.75	UG/L	91
8	Phenol	8.51	599	17763	23.90	UG/L	80
	2-Chlorophenol	8.54	602	29021	50.93	UG/L	99
)	1,4-Dichlorobenzene	8.97	643	11628	19.45	UG/L	96
5)	N-Nitroso-Di-n-propylamine	10.22	763	15704	26.83	UG/L	92
	*d8-Naphthalene	12.08	942	67074	40.00	UG/L	93
)	Nitrobenzene-d5	10.41	781	23212	33.73	UG/L	86
7)	1,2,4-Trichlorobenzene	12.02	936	12106	19.65	UG/L	94
1	4-Chloro-3-methylphenol	13.81	1108	44702	57.90	UG/L	94
	*d10-Acenaphthene	16.50	1366	43452	40.00	UG/L	94
)	2-Fluorobiphenyl	14.93	1215	49747	34.78	UG/L	93
3	Acenaphthene	16.58	1374	42519	31.16	UG/L	98
	4-Nitrophenol	17.23	1436	4539M	25.04	UG/L	
)	2,4-Dinitrotoluene	17.22	1435	12714	33.41	UG/L	63
3)	*d10-Phenanthrene	20.15	1716	49321	40.00	UG/L	98
	2,4,6-Tribromophenol	18.50	1558	12509	65.43	UG/L	95
)	Pentachlorophenol	19.92	1694	7547	55.30	UG/L	98
4)	*d12-Chrysene	26.81	2355	15045	40.00	UG/L	95
3	Pyrene	23.72	2059	25668	35.50	UG/L	96
	Terphenyl-d14	24.31	2115	20352	46.27	UG/L	86
)	*d12-Perylene	30.15	2676	12940	40.00	UG/L	93

Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >C2318::E4 Quant Output File: ^C2318::E3
Name: A3935MSD
Misc: BTL# 7

Id File: ID921C::D3
Title: hSL BNA STD
Last Calibration: 930921 20:24

Operator ID: JEFF
Quant Time: 930922 01:00
Injected at: 930922 00:23

21st Century Environmental Inc.

GC/MS STANDARD p-BROMOFLUOROBENZENE (BFB) TUNE
CRITERIA FOR VOLATILES 50ng

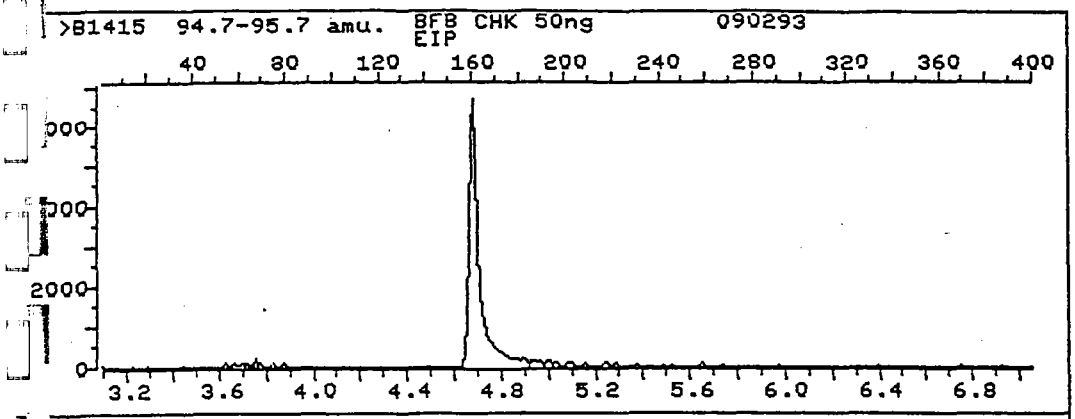
DATE AND TIME OF INJECTION: 9/02/93 11:01
INSTRUMENT ID: 5995

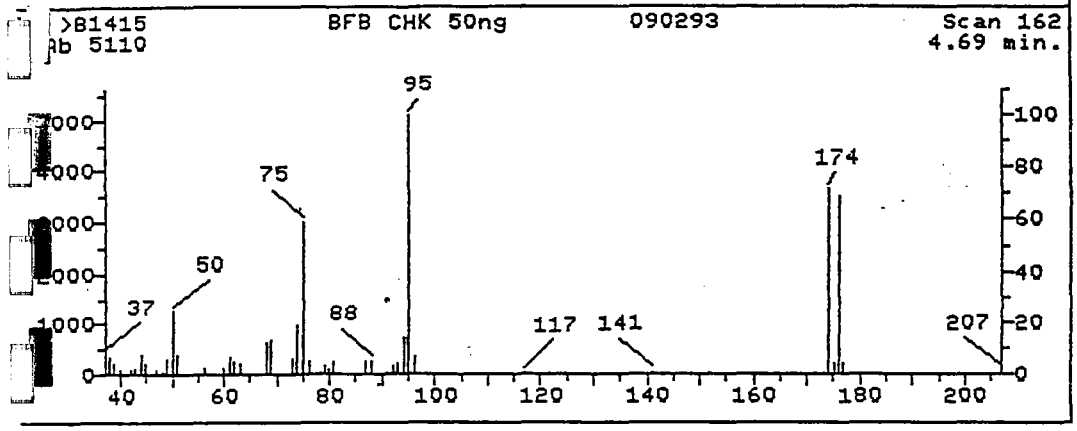
DATA RELEASE AUTHORIZED BY Richard W Ryan

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	% Relative Abundance Appropriate Peak	Status
50	15-40% of mass 95	24.72	24.72	Ok
75	30-60% of mass 95	58.81	58.81	Ok
95	Base peak, 100% relative abundance	100.00	100.00	Ok
96	5-9% of mass 95	6.79	6.79	Ok
173	Less than 2% of mass 174	0.00	0.00	Ok
174	Greater than 50% of mass 95	71.55	71.55	Ok
175	5-9% of mass 174	4.48	6.26	Ok
176	95-101% of mass 174	68.75	96.09	Ok
177	5-9% of mass 176	3.93	5.72	Ok

THIS PERFORMANCE AFFECTS ALL SAMPLES
STANDARDS AND BLANKS LISTED BELOW

SAMPLE ID		LAB ID		DATE TIME
>B1415::D6		BFB CHK 50ng		9/02/93 11:01
>B1416::D6		HSL CAL CHK 50ppb		9/02/93 12:05
>B1417::D6		BLANK		9/02/93 13:27
>B1418::D6		A3737		9/02/93 14:00
>B1419::D6		A3850		9/02/93 14:30
>B1420::D6		A3851		9/02/93 15:00
>B1421::D6		A3852		9/02/93 15:30
>B1422::D6		A3853		9/02/93 16:00
>B1423::D6		A3854		9/02/93 16:30
>B1424::D6		A3855		9/02/93 17:00
>B1425::D6		A3856		9/02/93 17:31
>B1427::D6		A3810		9/02/93 18:31
>B1428::D6		A3811		9/02/93 19:00
>B1429::D6		A3812		9/02/93 19:31
>B1430::D6		A3813		9/02/93 20:00
>B1431::D6		A3814		9/02/93 20:30
>B1432::D6		A3815		9/02/93 21:00
>B1433::D6		A3816		9/02/93 21:30
>B1434::D6		A3817		9/02/93 22:00
>B1435::D6		A3818		9/02/93 22:30
>B1436::D6		A3819		9/02/93 23:00





415 BFB CHK 50ng 090293
162 NRM

e: >B1415 Scan #: 162 Retn. time: 4.69

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
6.95	7.984	47.95	1.076	68.00	12.642	80.90	4.834	96.10	6.791
8.05	6.341	49.05	6.145	69.10	13.131	87.00	5.147	116.80	.881
.95	3.973	50.05	24.716	73.10	5.734	88.00	5.382	141.00	1.272
.95	1.566	50.95	7.241	74.00	19.061	90.90	.998	173.95	71.546
1.95	1.644	56.10	2.661	75.10	58.806	92.00	3.053	175.05	4.481
.95	2.446	60.00	2.896	76.10	5.303	93.00	4.442	176.05	68.748
.95	7.319	61.00	7.104	78.10	1.096	94.00	14.188	177.05	3.933
4.95	4.481	62.10	5.382	79.00	3.659	95.10	100.000	207.05	1.468
.95	1.957	63.10	4.149	79.90	1.742				

21st Century Environmental Inc.

GC/MS STANDARD p-BROMOFLUOROBENZENE (BFB) TUNE
CRITERIA FOR VOLATILES 50ng

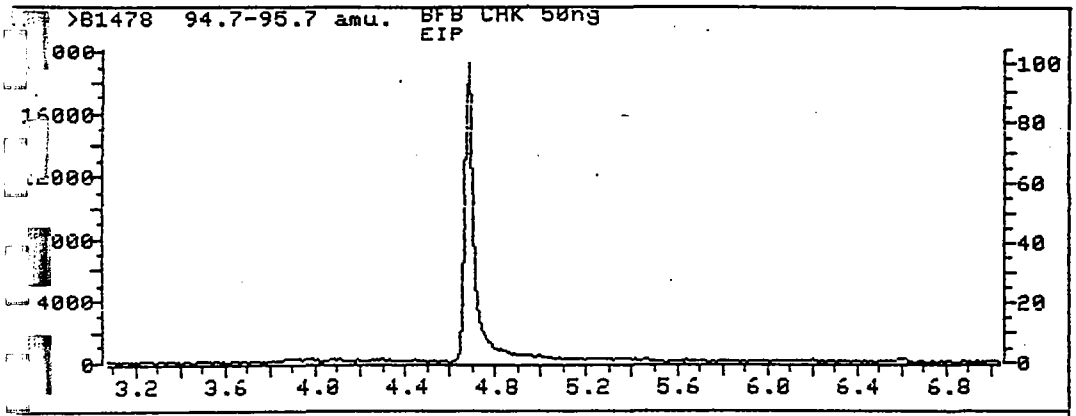
DATE AND TIME OF INJECTION: 9/05/93 16:54
INSTRUMENT ID: 5995

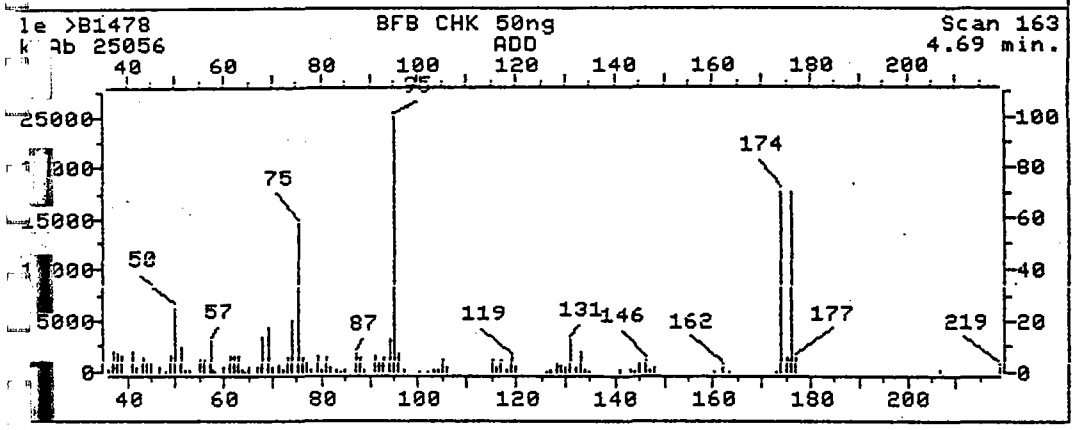
DATA RELEASE AUTHORIZED BY Richard W Lynch.

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	Appropriate Peak	Status
50	15-40% of mass 95	25.12	25.12	Ok
75	30-60% of mass 95	57.88	57.88	Ok
95	Base peak, 100% relative abundance	100.00	100.00	Ok
96	5-9% of mass 95	6.83	6.83	Ok
173	Less than 2% of mass 174	.22	.31	Ok
174	Greater than 50% of mass 95	70.58	70.58	Ok
175	5-9% of mass 174	5.41	7.66	Ok
176	95-101% of mass 174	70.30	99.60	Ok
177	5-9% of mass 176	4.75	6.76	Ok

THIS PERFORMANCE AFFECTS ALL SAMPLES
STANDARDS AND BLANKS LISTED BELOW

SAMPLE ID		LAB ID		DATE	TIME
I>B1478::D6		BFB CHK 50ng		9/05/93	16:54
I>B1479::D6		HSL CAL CHK 50ppb		9/05/93	17:40
I>B1480::D3		BLANK		9/05/93	18:30
I>B1481::D3		A3820		9/05/93	19:05
I>B1482::D3		A2848		9/05/93	19:37
I>B1483::D3		A2849		9/05/93	20:08
I>B1484::D3		A2850		9/05/93	20:39
I>B1485::D3		A2851		9/05/93	21:08
I>B1486::D3		A3878		9/05/93	21:38
I>B1487::D3		A3879		9/05/93	22:08
I>B1488::D3		A3880		9/05/93	22:38
I>B1489::D3		A3881		9/05/93	23:08
I>B1490::D3		A3882		9/05/93	23:38
I>B1491::D3		A3883		9/06/93	0:08
I>B1492::D3		A3884		9/06/93	0:37
I>B1493::D3		A3886		9/06/93	1:07
I>B1494::D3		A3887		9/06/93	1:37
I>B1495::D3		A3888		9/06/93	2:07
I>B1496::D3		A3889		9/06/93	2:37
I>B1497::D3		A3890		9/06/93	3:07
I>B1498::D3		A3892		9/06/93	3:37
I>B1499::D3		A3893		9/06/93	4:07





>B1478 BFB CHK 50ng
163 ADD NRM

File: >B1478 Scan #: 163 Retn. time: 4.69

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
36.05	1.285	58.20	.359	78.10	1.313	102.00	.375	134.10	1.169
37.05	7.771	60.00	1.489	79.00	5.484	103.10	1.133	135.00	.223
38.05	6.837	61.10	6.142	80.00	.838	104.00	1.177	141.00	1.265
39.05	5.735	62.00	5.695	81.00	5.236	105.10	3.819	143.00	1.042
41.05	7.220	63.10	5.476	82.00	1.688	106.10	1.928	144.10	.160
42.05	1.461	64.00	1.050	83.10	1.110	115.10	3.907	145.10	3.632
43.05	5.276	64.50	.251	84.10	.247	116.00	1.756	146.10	3.819
44.05	3.281	65.10	1.664	85.10	.567	117.10	4.011	147.20	1.285
45.05	3.672	67.10	1.656	87.00	6.322	118.10	1.141	148.20	1.688
46.95	1.724	68.00	13.254	88.00	4.969	119.00	4.662	160.20	.331
47.95	.235	69.10	17.449	88.90	.523	120.00	1.640	162.10	1.716
48.95	5.723	70.10	1.984	91.10	5.639	126.10	.351	163.30	.220
50.05	25.120	71.10	2.283	92.00	3.748	127.00	1.066	172.95	.220
51.05	9.140	72.10	1.301	93.00	4.658	128.10	3.440	174.05	70.578
52.05	.962	73.00	5.308	94.00	12.241	129.00	2.423	175.05	5.408
53.05	1.305	74.10	19.516	95.00	100.000	130.00	1.349	175.95	70.299
55.05	3.871	75.10	57.878	96.00	6.833	131.10	12.189	176.95	4.753
56.10	4.131	76.10	5.101	97.10	.798	132.10	1.409	206.95	.782
57.10	11.574	77.10	3.109	100.10	.339	133.10	7.759	219.05	1.405
57.90	.726								

21st Century Environmental Inc.

GC/MS STANDARD DECAFLUOROTRIPHENYLPHOSPHINE(DFTPP) TUNE
CRITERIA FOR SEMIVOLATILES 50ng

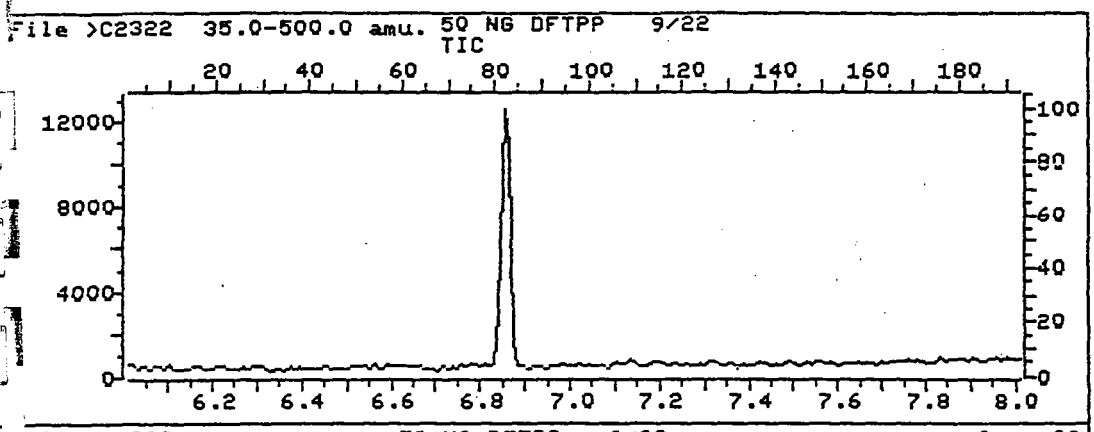
DATE AND TIME OF INJECTION: 9/22/93 9:25
INSTRUMENT ID: 5970

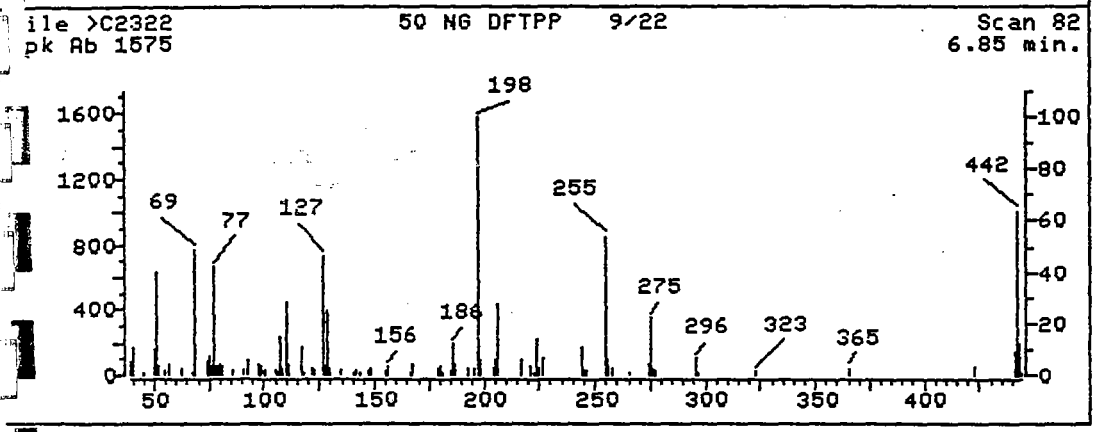
DATA RELEASE AUTHORIZED BY Richard W Pyne

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	Appropriate Peak	Status
51	30-60% of mass 198	39.56	39.56	Ok
68	Less than 2% of mass 69	0.00	0.00	Ok
69	(reference only)	49.14	49.14	Ok
70	Less than 2% of mass 69	0.00	0.00	Ok
127	40-60% of mass 198	46.73	46.73	Ok
197	Less than 1% of mass 198	0.00	0.00	Ok
198	Base peak, 100% relative abundance	100.00	100.00	Ok
199	5-9% of mass 198	5.97	5.97	Ok
275	10-30% of mass 198	22.35	22.35	Ok
365	Greater than 1% of mass 198	2.86	2.86	Ok
441	0-100% of mass 443	9.40	76.29	Ok
442	Greater than 40% of mass 198	63.75	63.75	Ok
443	17-23% of mass 442	12.32	19.32	Ok

THIS PERFORMANCE AFFECTS ALL SAMPLES
STANDARDS AND BLANKS LISTED BELOW

SAMPLE ID		LAB ID		DATE TIME
>C2322::E4		50 NG DFTPP 9/22		9/22/93 9:25
>C2323::E4		50 PPM BNA STD 9/22		9/22/93 9:46
>C2324::DA		A3973 CWM		9/22/93 10:40
>C2325::D4		A3790 CWM		9/22/93 11:30
>C2326::D4		A3315R CWM		9/22/93 12:15
>C2327::D4		A3857R CWM		9/22/93 13:00
>C2328::D4		A3790R CWM		9/22/93 14:10
>C2329::D4		AQ BLK 9/3		9/22/93 14:55
>C2330::D4		NA BLNK 8/27		9/22/93 15:40
>C2331::D4		NA BLK 8/24		9/22/93 16:25
>C2332::D4		A3629 ACCUQUAL		9/22/93 17:10
>C2333::D4		A3631 ACCUQUAL		9/22/93 17:55
>C2334::D4		A3634 ACCUQUAL		9/22/93 18:40
>C2335::D4		A3757 SJT		9/22/93 19:24
>C2336::D4		TCLP BLNK 9/22		9/22/93 20:09
>C2337::D4		A4179 CWM 9/22		9/22/93 20:53





C2322 50 NG DFTPP 9/22
82 NRM

le: >C2322 Scan #: 82 Retn. time: 6.85

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
8.95	5.206	79.10	3.048	123.10	1.968	184.95	1.714	246.00	2.032
39.95	10.794	80.00	3.873	127.00	46.730	186.05	12.317	255.00	54.095
5.35	1.143	81.00	3.429	127.95	3.238	187.05	4.571	256.10	6.159
9.95	10.222	85.85	1.460	128.95	24.889	193.05	2.794	258.00	2.476
51.05	39.556	90.95	1.587	129.95	2.222	196.05	2.349	265.00	1.206
52.05	3.238	92.95	5.651	134.95	1.524	198.00	100.000	273.95	4.190
4.95	1.968	97.95	4.381	140.55	.698	199.00	5.968	275.05	22.349
56.95	4.063	98.95	3.365	141.05	1.841	204.00	2.921	276.05	2.286
63.00	2.349	100.85	1.587	143.05	.889	205.00	5.778	276.95	2.032
7.10	.889	105.00	1.397	147.05	1.587	206.00	27.683	296.00	6.349
7.40	.889	106.10	1.143	148.05	2.540	217.00	6.222	297.00	.825
67.60	.889	107.00	15.302	155.00	1.778	221.05	3.238	323.05	1.460
8.90	49.143	107.90	2.603	156.00	3.302	222.85	1.206	364.95	2.857
4.00	5.778	110.00	28.063	166.10	.825	224.05	13.841	423.05	2.984
5.00	7.302	110.90	4.254	167.00	4.571	225.15	2.857	441.10	9.397
76.00	3.365	117.00	11.175	179.05	2.921	227.05	6.921	442.10	63.746
7.00	42.095	117.70	.889	180.05	3.175	244.00	10.540	443.10	12.317
8.00	3.556	122.00	2.222	181.05	.762	245.00	1.460		

21st Century Environmental Inc.

GC/MS STANDARD DECAFLUOROTRIPHENYLPHOSPHINE(DFTPP) TUNE
CRITERIA FOR SEMIVOLATILES 50ng

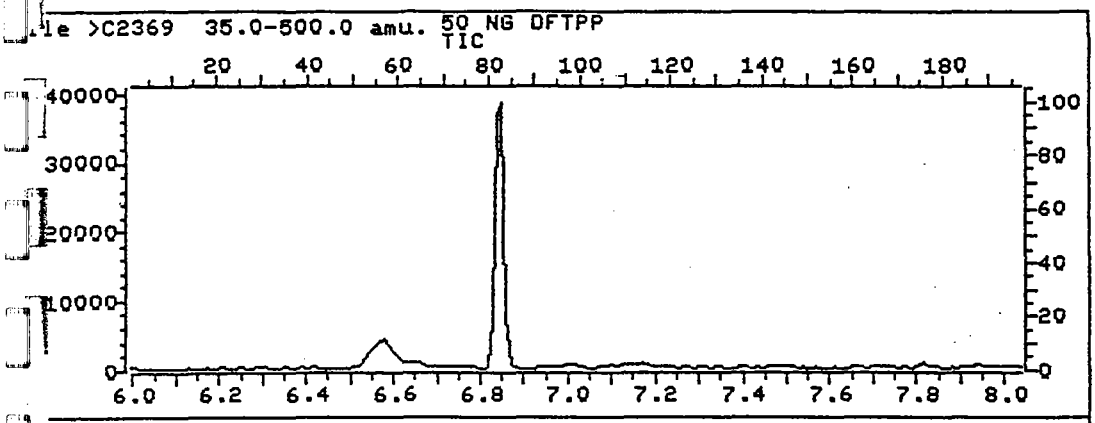
DATE AND TIME OF INJECTION: 9/24/93 13:58
INSTRUMENT ID: 5970

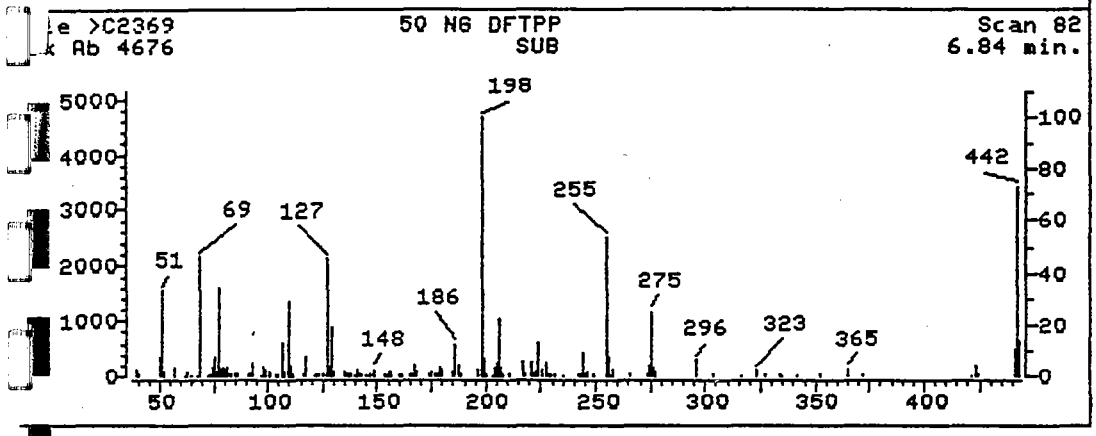
DATA RELEASE AUTHORIZED BY Richard W Symank

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	% Relative Abundance Appropriate Peak	Status
51	30-60% of mass 198	32.76	32.76	Ok
68	Less than 2% of mass 69	.41	.88	Ok
69	(reference only)	46.04	46.04	Ok
70	Less than 2% of mass 69	0.00	0.00	Ok
127	40-60% of mass 198	45.36	45.36	Ok
197	Less than 1% of mass 198	0.00	0.00	Ok
198	Base peak, 100% relative abundance	100.00	100.00	Ok
199	5-9% of mass 198	6.42	6.42	Ok
275	10-30% of mass 198	24.91	24.91	Ok
365	Greater than 1% of mass 198	2.65	2.65	Ok
441	0-100% of mass 443	10.84	76.70	Ok
442	Greater than 40% of mass 198	72.80	72.80	Ok
443	17-23% of mass 442	14.14	19.42	Ok

THIS PERFORMANCE AFFECTS ALL SAMPLES
STANDARDS AND BLANKS LISTED BELOW

SAMPLE ID		LAB ID		DATE TIME
>C2369::DA		50 NG DFTPP		9/24/93 13:58
>C2370::DA		50 PPM BNA STD		9/24/93 14:19
>C2371::DA		AQ BLNK 9/7		9/24/93 15:10
>C2372::D3		A3632 ACCUQUAL 9/23		9/24/93 15:59
>C2373::D3		A3813 E-SYSTEM 9/3		9/24/93 16:46
>C2374::D3		A3814 E-SYSTEM 9/3		9/24/93 17:33
>C2375::D3		A3815 E-SYSTEM 9/3		9/24/93 18:20
>C2376::D3		A3816 E-SYSTEM 9/3		9/24/93 19:11
>C2377::D3		A3817 E-SYSTEM 9/3		9/24/93 19:58
>C2378::D3		A3818 E-SYSTEM 9/3		9/24/93 20:44
>C2379::D3		A3819 E-SYSTEM 9/3		9/24/93 21:31
>C2380::D3		A3845 HESA		9/24/93 22:17
>C2381::D3		A3846 HESA		9/24/93 23:03





2369 50 NG DFTPP
82 SUB NRM

le: >C2369 Scan #: 82 Retn. time: 6.84

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
9.10	2.438	93.05	4.705	139.75	.257	198.05	100.000	255.00	53.550
40.00	.642	97.05	.321	141.00	2.374	199.05	6.416	256.10	7.186
0.05	7.934	98.05	3.443	142.00	1.027	200.05	.556	257.20	.406
1.05	32.763	99.05	2.866	143.00	.663	203.15	.470	258.10	2.695
52.05	2.096	101.15	1.882	147.10	.941	204.05	3.080	265.10	1.155
7.05	3.015	103.90	.770	148.10	2.609	205.05	5.432	273.15	1.176
1.45	.342	105.00	1.176	153.00	.684	206.05	22.070	274.15	4.491
61.75	.428	106.20	.663	154.10	.406	207.05	3.700	275.05	24.914
62.05	.428	107.00	12.938	154.30	.406	208.05	.984	276.05	3.571
3.05	1.561	108.00	2.053	155.00	1.540	211.05	.855	277.05	1.497
5.05	.492	109.10	.834	156.10	1.476	217.00	5.667	296.10	6.630
68.10	.406	110.00	28.743	159.85	.663	217.90	1.048	303.10	.791
9.00	46.044	111.00	4.127	161.15	1.262	221.00	5.667	316.15	.385
2.60	.257	112.00	.513	164.95	1.091	222.10	.556	323.15	2.502
73.20	.813	116.10	.556	166.05	1.133	223.00	1.561	327.05	.770
4.10	3.464	117.10	7.506	167.05	4.277	224.10	12.981	334.10	.941
5.00	7.207	121.60	.492	168.05	1.390	225.10	2.759	335.20	.321
76.00	1.732	122.05	.898	174.05	.749	227.10	5.282	341.10	.406

79.00	3.571	127.05	45.359	178.10	.577	231.10	.642	372.10	1.283
80.00	2.374	128.05	3.358	179.00	3.422	235.05	.278	421.95	.257
81.10	3.229	129.05	19.247	180.00	2.524	242.05	.813	423.05	4.127
82.00	.770	130.05	1.711	185.10	1.540	243.15	.770	424.05	.877
83.10	.749	135.05	1.411	186.10	12.511	244.15	8.875	441.00	10.843
84.95	.663	136.05	.599	187.10	3.914	245.05	1.262	442.00	72.797
86.05	.898	137.05	.642	189.00	.770	246.05	2.010	443.10	14.136
91.05	1.069	137.85	.620	196.10	2.609	249.05	.556	444.10	1.176
92.05	.855								

21st Century Environmental Inc.

GC/MS STANDARD DECAFLUOROTRIPHENYLPHOSPHINE(DFTPP) TUNE
CRITERIA FOR SEMIVOLATILES 50ng

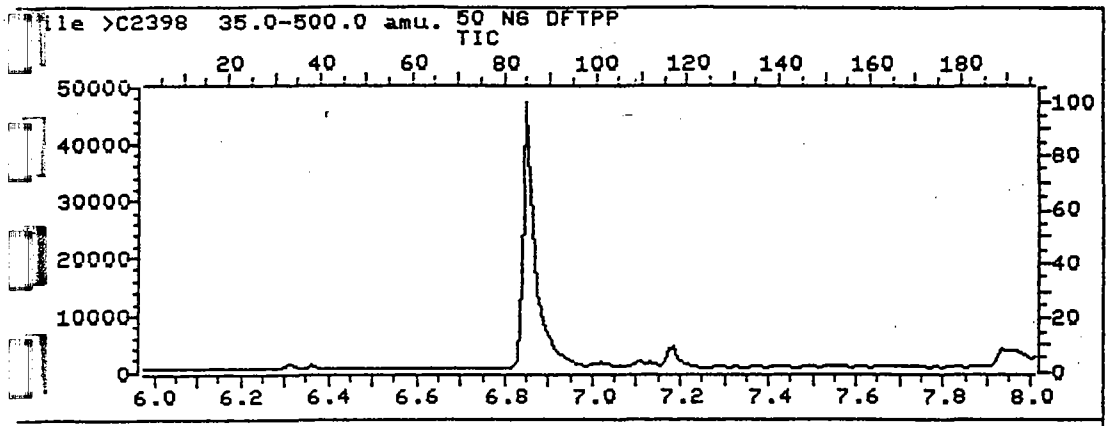
DATE AND TIME OF INJECTION: 9/28/93 8:55
INSTRUMENT ID: 5970

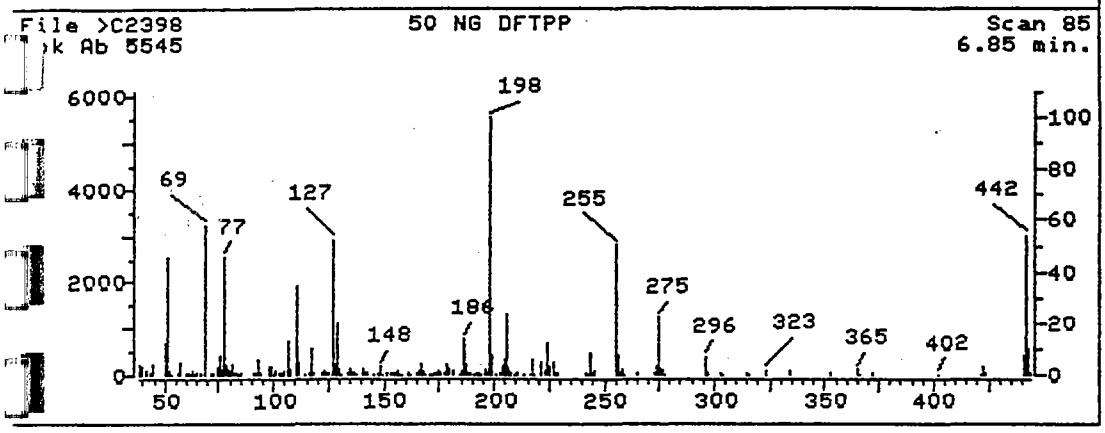
DATA RELEASE AUTHORIZED BY Richard W Ryan

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	% Relative Abundance Appropriate Peak	Status
51	30-60% of mass 198	45.12	45.12	Ok
68	Less than 2% of mass 69	0.00	0.00	Ok
69	(reference only)	58.27	58.27	Ok
70	Less than 2% of mass 69	0.00	0.00	Ok
127	40-60% of mass 198	52.23	52.23	Ok
197	Less than 1% of mass 198	.79	.79	Ok
198	Base peak, 100% relative abundance	100.00	100.00	Ok
199	5-9% of mass 198	7.18	7.18	Ok
275	10-30% of mass 198	22.34	22.34	Ok
365	Greater than 1% of mass 198	2.42	2.42	Ok
441	0-100% of mass 443	7.47	73.27	Ok
442	Greater than 40% of mass 198	54.05	54.05	Ok
443	17-23% of mass 442	10.19	18.85	Ok

THIS PERFORMANCE AFFECTS ALL SAMPLES
STANDARDS AND BLANKS LISTED BELOW

SAMPLE ID		LAB ID		DATE TIME
>C2398::E3		50 NG DFTPP		9/28/93 8:55
>C2399::E3		50 PPM BNA STD		9/28/93 9:16
>C2400::E3		TCLP BLNK 9/27		9/28/93 10:24
>C2401::E3		A4245 CWM 9/27		9/28/93 11:16
>C2402::E3		A4251 CWM 9/27		9/28/93 12:02
>C2403::E3		A4251 BIAS 9/27		9/28/93 12:49
>C2404::E3		A3759		9/28/93 13:36
>C2405::E3		A3760		9/28/93 14:23
>C2406::E3		A3817 FT. MONMOUTH		9/28/93 15:10
>C2407::E3		A3818 FT. MONMOUTH		9/28/93 15:57
>C2408::E3		A3819 FT. MONMOUTH		9/28/93 16:44
>C2409::E3		A3847 HESA		9/28/93 17:32
>C2410::E3		A3846 HESA		9/28/93 18:19
>C2411::E3		A3848 HESA		9/28/93 19:07
>C2412::E3		A4054R CWM		9/28/93 19:54





>C2398 50 NG DFTPP
85 NRM

File: >C2398 Scan #: 85 Retn. time: 6.85

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
38.10	.595	93.00	5.573	147.05	.974	188.05	.523	246.05	1.858
39.00	4.563	94.10	.523	147.35	.721	189.05	.757	255.10	50.261
40.00	3.192	97.95	3.210	147.95	3.156	190.95	.469	256.10	7.430
41.10	1.587	99.05	3.787	149.15	.469	191.95	.866	257.10	.703
43.20	1.046	99.95	.505	150.95	.523	193.05	1.280	258.10	2.489
44.00	4.256	100.85	1.461	153.05	.667	194.05	.307	258.90	.433
50.10	12.696	103.05	.739	154.05	.721	196.05	2.922	265.00	1.118
51.10	45.122	104.05	1.226	155.05	1.208	196.75	.794	273.05	1.280
52.00	2.110	105.05	1.623	156.15	1.749	198.05	100.000	274.05	3.715
52.90	.307	106.95	13.616	156.95	.415	199.05	7.178	275.05	22.344
55.85	1.317	108.05	2.236	157.25	.361	201.25	.487	276.05	2.831
57.05	4.959	110.05	34.554	157.45	.397	203.25	.812	277.15	1.713
60.05	.775	111.05	5.428	158.15	.487	204.00	3.408	278.05	.487
61.05	.595	111.95	.613	161.10	1.280	205.10	6.186	296.00	6.745
61.85	.361	114.65	.216	162.00	.343	206.00	23.066	297.00	.974
62.95	.110	115.95	.956	165.00	.866	207.10	2.579	303.10	.956
64.05	.307	117.05	9.612	166.10	1.371	208.00	1.118	304.10	.188
65.05	.830	118.00	.667	167.10	4.599	209.90	.198	314.85	.669
67.05	.685	122.00	.956	168.00	2.146	210.50	.361	316.05	.325
69.05	59.269	123.00	1.958	169.90					

00112

71.15	.941	124.10	.902	170.90	.487	213.30	.343	334.10	1.515
73.05	1.244	125.10	.938	171.80	.433	216.10	.361	352.10	.757
74.15	3.733	127.00	52.227	173.00	.884	217.00	5.789	353.00	.343
75.15	7.863	128.00	4.400	174.00	1.028	218.10	.469	365.05	2.417
76.00	2.308	129.00	19.892	175.10	1.461	221.00	5.122	365.95	.343
77.00	45.555	130.10	2.164	176.10	.613	223.00	1.713	372.05	1.046
78.10	3.877	131.00	.361	177.10	1.010	224.10	12.678	402.15	.271
79.00	2.867	134.10	.595	178.20	.523	224.95	3.300	422.00	.361
80.00	2.002	135.10	2.435	179.00	3.968	226.95	4.887	422.30	.415
81.00	4.058	136.10	1.064	180.00	2.417	227.95	.848	423.00	2.976
82.00	1.046	137.10	.649	181.10	1.677	229.05	1.118	424.00	.595
83.00	.974	138.00	.216	183.95	.325	242.15	.541	441.05	7.466
84.00	.307	140.95	2.290	185.05	1.821	242.85	.415	442.05	54.049
85.20	.667	142.05	1.028	186.05	13.977	244.05	8.747	443.05	10.189
91.00	.938	142.85	.613	187.05	3.823	245.05	1.172	444.05	.866
92.00	.956	145.75	.451						

21st Century Environmental Inc.

GC/MS STANDARD DECAFLUOROTRIPHENYLPHOSPHINE(DFTPP) TUNE
CRITERIA FOR SEMIVOLATILES 50ng

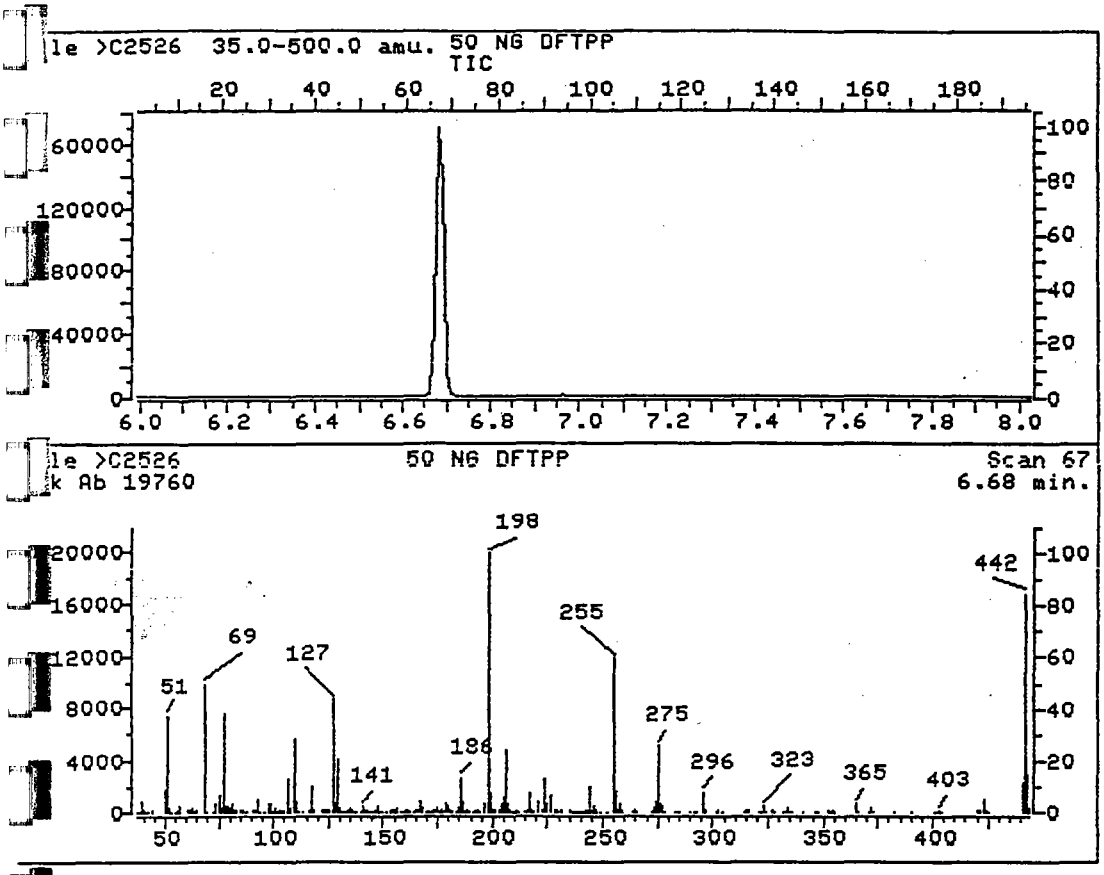
DATE AND TIME OF INJECTION: 10/07/93 14:38
INSTRUMENT ID: 5970

DATA RELEASE AUTHORIZED BY Richard W Reed

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	% Relative Abundance Appropriate Peak	Status
51	30-60% of mass 198	37.60	37.60	Ok
68	Less than 2% of mass 69	0.00	0.00	Ok
69	(reference only)	49.84	49.84	Ok
70	Less than 2% of mass 69	.25	.51	Ok
127	40-60% of mass 198	43.56	43.56	Ok
197	Less than 1% of mass 198	0.00	0.00	Ok
198	Base peak, 100% relative abundance	100.00	100.00	Ok
199	5-9% of mass 198	7.12	7.12	Ok
275	10-30% of mass 198	25.55	25.55	Ok
365	Greater than 1% of mass 198	3.16	3.16	Ok
441	0-100% of mass 443	11.75	80.10	Ok
442	Greater than 40% of mass 198	84.45	84.45	Ok
443	17-23% of mass 442	14.67	17.37	Ok

THIS PERFORMANCE AFFECTS ALL SAMPLES
STANDARDS AND BLANKS LISTED BELOW

SAMPLE ID		LAB ID		DATE TIME
>C2526::D2		50 NG DFTPP		10/07/93 14:38
>C2527::D2		50 PPM BNA STD		10/07/93 14:58
>C2528::D2		50 PPM PYRIDINE		10/07/93 15:52
>C2529::E3		A3817 E-SYS		10/07/93 16:40
>C2530::E3		A3819 E-SYS		10/07/93 17:27
>C2531::E3		AQ BLNK		10/07/93 18:13
>C2533::E3		A3929 CASIE		10/07/93 19:45
>C2534::E3		BLK 10/7		10/07/93 20:31
>C2536::E3		A4424 10/5		10/07/93 22:26
>C2537::E3		A4430 10/5		10/07/93 23:11
>C2538::E3		A4430 BIAS		10/07/93 23:57
>C2540::E4		A4340 CASIE		10/08/93 1:28
>C2541::D5		A4341 CASIE		10/08/93 2:14



C2526 50 NG DFTPP
67 NRM

le: >C2526 Scan #: 67 Retn. time: 6.68

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
7.00	.101	103.95	1.184	162.00	.486	217.95	.977	295.95	7.799
37.30	.101	105.05	1.037	164.30	.142	218.95	.167	296.95	1.169
8.00	.380	107.00	12.910	164.95	1.037	220.95	4.550	302.00	.096
9.10	3.917	108.00	1.958	165.95	.795	222.90	1.296	303.00	.805
40.00	.896	110.00	27.804	167.05	4.271	224.00	13.527	304.10	.233
41.10	.248	111.00	4.190	168.05	1.599	225.00	3.370	314.00	.435
2.80	.152	111.90	.481	170.05	.137	226.10	.385	314.90	.653
44.00	.648	113.10	.106	170.95	.187	227.00	6.306	316.10	.526
50.05	9.226	116.00	.987	171.95	.461	228.00	.891	320.85	.177
1.05	37.596	117.00	9.737	173.05	.552	229.00	1.326	321.95	.142
2.05	1.655	118.00	.587	174.05	1.159	229.90	.152	322.95	2.500
53.15	.147	122.00	.956	175.05	1.751	231.00	.557	323.95	.400
5.05	.288	123.00	1.210	175.95	.390	235.00	.597	326.85	.536
5.95	.951	124.10	.673	177.05	.926	236.00	.207	328.05	.218
6.95	2.895	125.00	.541	178.05	.496	237.00	.435	331.85	.121
61.05	.597	126.95	43.558	178.95	3.760	238.10	.152	333.05	.283
2.05	.840	127.95	3.360	180.05	2.470	239.00	.177	333.95	1.554
3.05	1.447	128.95	20.870	180.95	1.189	240.00	.187	335.05	.374

69.00	49.838	132.05	.152	185.00	1.721	243.15	.754	340.80	.263
69.80	.253	132.85	.096	186.00	13.315	244.05	9.914	346.00	.466
70.00	.253	133.95	.714	187.00	4.281	245.05	1.240	346.90	.066
72.90	.334	134.95	1.457	188.00	.400	245.95	2.176	352.00	.764
74.00	3.765	136.05	.567	189.00	.779	246.95	.617	353.00	.405
75.00	6.427	136.95	.501	189.80	.096	248.95	.369	354.00	.860
76.00	2.090	137.95	.142	191.10	.420	251.95	.137	355.00	.167
77.00	38.036	139.95	.197	192.00	1.073	254.95	59.529	364.95	3.158
78.00	2.966	140.95	2.475	193.00	1.017	255.95	8.492	365.95	.425
79.00	2.783	142.05	.749	194.00	.182	257.05	.683	371.05	.101
80.00	2.090	142.95	.562	196.00	2.996	258.05	3.426	371.95	1.356
81.00	3.254	143.95	.142	198.00	100.000	259.05	.547	373.05	.238
82.00	.638	145.05	.081	199.00	7.115	263.90	.137	382.90	.380
83.00	.653	146.10	.288	200.00	.582	264.90	1.311	390.00	.197
85.10	.709	146.90	1.290	201.50	.516	265.90	.116	400.75	.096
86.00	.805	148.00	2.191	203.10	.678	271.90	.137	401.95	.440
87.10	.390	149.00	.440	203.95	3.082	273.00	1.468	402.85	.739
88.05	.218	149.90	.192	204.95	5.805	274.00	4.378	403.95	.283
91.05	.531	151.10	.299	205.95	23.659	275.00	25.546	420.30	.076
91.95	.759	151.70	.182	207.05	2.976	276.00	3.497	420.90	.648
92.95	4.838	151.90	.172	207.95	.830	277.00	2.247	421.90	.552
93.95	.385	153.00	.881	208.85	.319	278.00	.334	422.90	4.792
95.95	.121	154.00	.521	209.85	.288	282.95	.283	424.00	.931
98.05	3.077	155.00	1.123	210.35	.395	283.85	.162	425.00	.081
99.05	2.991	156.00	1.705	211.05	.870	284.95	.304	440.95	11.751
99.95	.339	158.00	.329	211.75	.157	290.05	.127	441.95	84.453
01.05	1.756	159.10	.334	215.05	.248	292.05	.111	442.95	14.671
101.95	.137	160.00	.653	216.05	.577	292.95	.481	443.95	1.483
03.05	.582	161.00	1.210	216.95	7.328				

Continuing Calibration Check
HSL Compounds

No: _____ Calibration Date: 09/02/93

ontractor: 21ST Century Env Time: 12:05

ract No: _____ Laboratory ID: >B1416

nstrument ID: Volatile Inst B Initial Calibration Date: 08/23/93

Minimum $\overline{RF}$ for SPCC is .300 Maximum % Diff for CCC is 25%

Compound	$\overline{RF}$	RF	%Diff	CCC	SPCC	
oromethane	.52159	.53595	2.75		**	
omethane	.57263	.53267	6.98			
yl Chloride	.84800	.88279	4.10	*		
loroethane	.40088	.36349	9.33			
lein	.01462	.01009	31.02			(Conc=80.00)
2-Trichlorotrifluoroethane	2.13787	2.44570	14.40			
ichlorofluromethane	3.12501	3.45105	10.43			
one	.73842	1.10570	49.74			
Dichloroethene	1.66856	1.61937	2.95	*		
rbon Disulfide	2.61211	1.85644	28.93			
thyl Tertiary Butyl Ether	3.48114	3.58826	3.08			
iary Butyl Alcohol	.93521	2.17773	132.86			
ylonitrile	.50368	.52401	4.04			
thylene Chloride	1.34147	1.53390	14.34			
Dichloroethene(trans)	1.64254	1.77025	7.78			
Dichloroethane	2.51826	2.26186	10.18		**	
nyl Acetate	.07659	.07002	8.58			
tanone	1.62448	1.46479	9.83			
roform	3.13117	3.25087	3.82	*		
1,1-Trichloroethane	2.78385	2.86013	2.74			
rbon Tetrachloride	2.33658	2.27806	2.50			
Dichloroethane-d4	2.29334	2.25192	1.81			(Conc=50.00)
-Dichloroethane	.41285	.43681	5.80			
nzene	.85561	.90670	5.97			
loroethene	.37847	.44981	18.85			
Dichloropropane	.28633	.31203	8.97	*		
omodichloromethane	.49613	.51034	2.86			
loroethylvinylether	.25258	.26714	5.77			
tanone	.36752	.38628	5.11			
ns-1,3-Dichloropropene	.47521	.49139	3.40			
luene-d8	.97960	.99747	1.82			
ne	.97784	1.10012	12.51	*		

- Response Factor from daily standard file at 50.00 UG/L

- Average Response Factor from Initial Calibration Form VI

- % Difference from original average or curve

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

00117

Continuing Calibration Check
HSL Compounds

No: _____ Calibration Date: 09/02/93

ontractor: 21ST Century Env Time: 12:05

ract No: _____ Laboratory ID: >81416

nstrument ID: Volatile Inst B Initial Calibration Date: 08/23/93

Minimum $\overline{RF}$ for SPCC is .300 Maximum % Diff for CCC is 25%

Compound	$\overline{RF}$	RF	%Diff	CCC	SPCC
-1,3-Dichloropropene	.48595	.48944	.72		
2,2-Tetrachloroethane	.45583	.33682	26.11		**
,1,2-Trichloroethane	.37039	.38181	3.08		
-Methyl-2-pentanone	.45792	.46812	2.23		
achloroethene	.39197	.43506	10.99		
romochloromethane	.54690	.54887	.36		
hlorobenzene	.89006	.88401	.68		**
lbenzene	1.50672	1.56582	3.92	*	
Xylenes	1.12152	1.17631	4.88		
-Xylene	1.08518	1.16752	7.59		
ene	.87140	.87916	.89		
oform	.42174	.45045	6.81		**
mofluorobenzene	.56278	.57585	2.32		
-Dichlorobenzene	.70130	.86397	23.20		
chlorobenzene	.72664	.87713	20.71		
chlorobenzene	.67713	.82632	22.03		

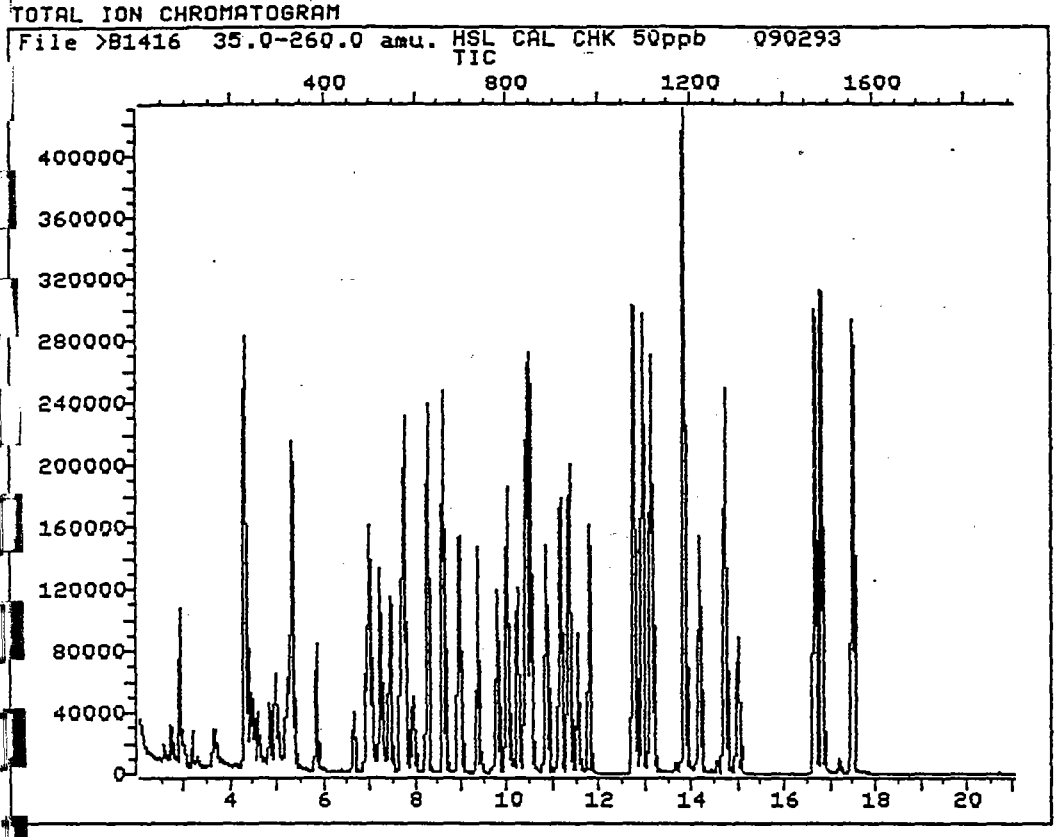
- Response Factor from daily standard file at 50.00 UG/L

- Average Response Factor from Initial Calibration Form VI

f - % Difference from original average or curve

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

TOTAL ION CHROMATOGRAM



Data File: >B1416::D6 Quant Output File: ^B1416::QT
Name: HSL CAL CHK 50ppb
Misc: 090293

Id File: ID0401::SC
Title: USEPA 624 VOLATILES
Last Calibration: 930901 16:01

Operator ID: MANAGER
Quant Time: 930902 12:31
Injected at: 930902 12:05

Continuing Calibration Check
HSL Compounds

Case No: Calibration Date: 09/05/93

Contractor: 21ST Century Env Time: 17:40

Contract No: Laboratory ID: >B1479

Instrument ID: Volatile Inst B Initial Calibration Date: 08/23/93

Minimum $\overline{RF}$ for SPCC is .300 Maximum % Diff for CCC is 25%

Compound	$\overline{RF}$	RF	%Diff	CCC	SPCC	
Chloromethane	.52159	.54314	4.13		**	
Bromomethane	.57263	.54708	4.46			
Vinyl Chloride	.84800	.92224	8.75	*		
Chloroethane	.40088	.35990	10.22			
Acrolein	.01462	.01981	35.47			(Conc=80.00)
1,1,2-Trichlorotrifluoroethane	2.13787	2.63222	23.12			
Trichlorofluromethane	3.12501	3.62214	15.91			
Acetone	.73842	.93504	26.63			
1,1-Dichloroethene	1.66856	1.71660	2.88	*		
Carbon Disulfide	2.61211	2.16034	17.30			
Methyl Tertiary Butyl Ether	3.48114	3.60117	3.45			
Tertiary Butyl Alcohol	.93521	2.27089	142.82			
Acrylonitrile	.50368	.59161	17.46			
Methylene Chloride	1.34147	1.43821	7.21			
1,2-Dichloroethene(trans)	1.64254	1.84801	12.51			
1,1-Dichloroethane	2.51826	2.32896	7.52		**	
Vinyl Acetate	.07659	.05556	27.45			
2-Butanone	1.62448	1.33614	17.75			
Chloroform	3.13117	3.47288	10.91	*		
1,1,1-Trichloroethane	2.78385	3.19901	14.91			
Carbon Tetrachloride	2.33658	2.72842	16.77			
1,2-Dichloroethane-d4	2.29334	2.42333	5.67			(Conc=50.00)
1,2-Dichloroethane	.41285	.46734	13.20			
Benzene	.85561	.92700	8.34			
Trichloroethene	.37847	.44336	17.15			
1,2-Dichloropropane	.28633	.31358	9.51	*		
Bromodichloromethane	.49613	.54969	10.80			
2-Chloroethylvinylether	.25258	.25522	1.05			
2-Hexanone	.36752	.38271	4.13			
trans-1,3-Dichloropropene	.47521	.51440	8.25			
Toluene-d8	.97960	1.00476	2.57			
Toluene	.97784	1.06800	9.22	*		

RF - Response Factor from daily standard file at 50.00 UG/L

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

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

00120

Continuing Calibration Check
HSL Compounds

Case No: Calibration Date: 09/05/93

Contractor: 21ST Century Env Time: 17:40

Contract No: Laboratory ID: >B1479

Instrument ID: Volatile Inst B Initial Calibration Date: 08/23/93

Minimum $\overline{RF}$ for SPCC is .300 Maximum % Diff for CCC is 25%

Compound	$\overline{RF}$	RF	%Diff	CCC	SPCC
cis-1,3-Dichloropropene	.48595	.51991	6.99		
1,1,2,2-Tetrachloroethane	.45583	.42765	6.18		**
1,1,2-Trichloroethane	.37039	.40070	8.18		
4-Methyl-2-pentanone	.45792	.46636	1.84		
Tetrachloroethene	.39197	.46145	17.73		
Dibromochloromethane	.54690	.59953	9.62		
Chlorobenzene	.89006	.93006	4.49		**
Ethylbenzene	1.50672	1.63453	8.48	*	
m&p-Xylenes	1.12152	1.18465	5.63		
o-Xylene	1.08518	1.21001	11.50		
Styrene	.87140	.87003	.16		
Bromoform	.42174	.49318	16.94		**
Bromofluorobenzene	.56278	.59352	5.46		
m-Dichlorobenzene	.70130	.87959	25.42		
p-Dichlorobenzene	.72664	.90032	23.90		
o-Dichlorobenzene	.67713	.84162	24.29		

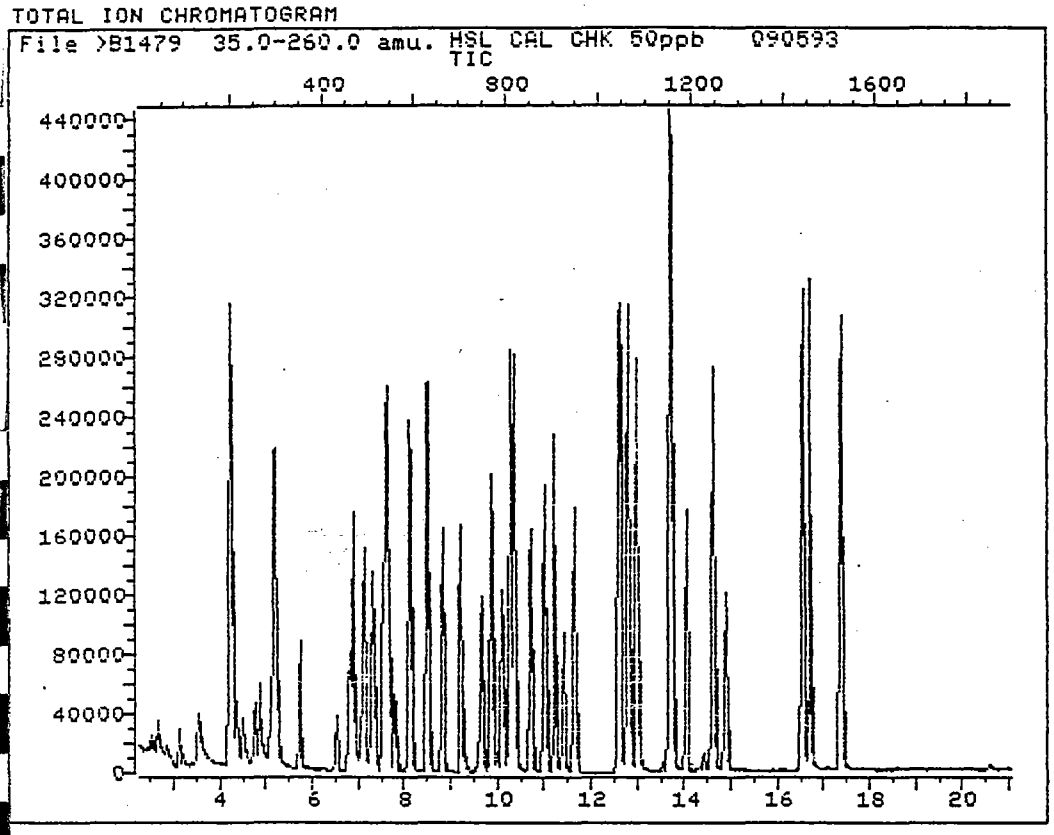
RF - Response Factor from daily standard file at 50.00 UG/L

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

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

TOTAL ION CHROMATOGRAM



Data File: >B1479::D6 Quant Output File: ^B1479::QT
Name: HSL CAL CHK 50ppb
Misc: 090593

Id File: ID0401::SC
Title: USEPA 624 VOLATILES
Last Calibration: 930904 15:51

Operator ID: JEFF
Quant Time: 930905 18:07
Injected at: 930905 17:40

Continuing Calibration Check
HSL Compounds

Case No: _____ Calibration Date: 09/22/93

Contractor: 21st Century Envir Time: 09:46

Contract No: _____ Laboratory ID: >C2323

Instrument ID: 5970C Initial Calibration Date: 09/21/93

Minimum $\overline{RF}$ for SPCC is 0.050 Maximum % Diff for CCC is 25%

Compound	$\overline{RF}$	RF	%Diff	CCC	SPCC	
Pyridine	.71508	.65525	8.37			
N-Nitrosodimethylamine	.48321	.47120	2.49			
2-Fluorophenol	.67797	.73712	8.72			(Conc=100.00)
Phenol-d5	1.00650	1.01785	1.13			(Conc=100.00)
Phenol	1.19208	1.10910	6.96	*		
bis(-2-Chloroethyl)Ether	.93126	.84476	9.29			
2-Chlorophenol	.92263	.83586	9.40			
1,3-Dichlorobenzene	.96696	.86074	10.99			
1,4-Dichlorobenzene	.96628	.86849	10.12	*		
Benzyl Alcohol	.63105	.53660	14.97			
1,2-Dichlorobenzene	.94446	.82415	12.74			
2-Methylphenol	.95632	.83663	12.52			
bis(2-Chloroisopropyl)ether	.94680	.82387	12.98			
4-Methylphenol	.96194	.82625	14.11			(Conc=100.00)
N-Nitroso-Di-n-propylamine	.96964	.77883	19.68		**	
Hexachloroethane	.46839	.43314	7.53			
Nitrobenzene-d5	.44624	.44751	.29			(Conc=50.00)
Nitrobenzene	.48222	.47216	2.09			
Isophorone	1.11075	1.00947	9.12			
2-Nitrophenol	.24449	.22607	7.53	*		
2,4-Dimethylphenol	.36464	.35636	2.27			
Benzoic Acid	.21983	.27519	25.18			
bis(-2-Chloroethoxy)Methane	.50438	.47337	6.15			
2,4-Dichlorophenol	.35169	.34478	1.96	*		
1,2,4-Trichlorobenzene	.37522	.35258	6.03			
Naphthalene	1.16679	1.12644	3.46			
4-Chloroaniline	.50642	.50138	1.00			
Hexachlorobutadiene	.20356	.19754	2.95	*		
4-Chloro-3-methylphenol	.44166	.45221	2.39	*		
2-Methylnaphthalene	.80738	.77604	3.88			
Hexachlorocyclopentadiene	.44634	.33028	26.00		**	
2,4,6-Trichlorophenol	.47322	.43112	8.90	*		

RF - Response Factor from daily standard file at 50.00 ug/l

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

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

00123

Continuing Calibration Check
HSL Compounds

ase No: Calibration Date: 09/22/93

Contractor: 21st Century Envir Time: 09:46

Contract No: Laboratory ID: >C2323

nstrument ID: 5970C Initial Calibration Date: 09/21/93

Minimum $\overline{RF}$ for SPCC is 0.050 Maximum % Diff for CCC is 25%

Compound	$\overline{RF}$	RF	%Diff	CCC	SPCC	
,4,5-Trichlorophenol	.49920	.45114	9.63			
-Chloronaphthalene	1.44002	1.32967	7.66			
2-Fluorobiphenyl	1.45226	1.30444	10.18			(Conc=50.00)
-Nitroaniline	.44372	.46410	4.59			
imethyl Phthalate	1.50464	1.63726	8.81			
Acenaphthylene	2.10440	2.02382	3.83			
3-Nitroaniline	.24496	.25982	6.07			
cenaphthene	1.30480	1.26699	2.90	*		
2,4-Dinitrophenol	.08745	.10013	14.49		**	
4-Nitrophenol	.16688	.17762	6.43		**	
ibenzofuran	1.72846	1.73603	.44			
,4-Dinitrotoluene	.33883	.38849	14.66			
2,6-Dinitrotoluene	.33335	.35605	6.81			
iethylphthalate	1.37749	1.64235	19.23			
-Chlorophenyl-phenylether	.63958	.65981	3.16			
luorene	1.25968	1.32038	4.82			
4-Nitroaniline	.15546	.18415	18.46			
,6-Dinitro-2-methylphenol	.13531	.14677	8.47			
-Nitrosodiphenylamine	.80013	.77437	3.22	*		
2,4,6-Tribromophenol	.13256	.12895	2.72			(Conc=100.00)
-Bromophenyl-phenylether	.31958	.28765	9.99			
exachlorobenzene	.33616	.31920	5.04	*		
Pentachlorophenol	.12303	.09678	21.34		**	
henanthrene	1.26585	1.17152	7.45			
nthracene	1.24125	1.15294	7.12			
Di-n-Butylphthalate	1.38231	1.37176	.76			
luoranthene	.80117	.72009	10.12	*		
yrene	1.93598	1.66961	13.76			
enzidine	.28351	.34120	20.35			
Terphenyl-d14	1.15284	1.02927	10.72			(Conc=50.00)
utylbenzylphthalate	.97122	.90541	6.78			
,3'-Dichlorobenzidine	.29520	.31384	6.32			

RF - Response Factor from daily standard file at 50.00 ug/l

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

Diff - % Difference from original average or curve

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

00124

Continuing Calibration Check
HSL Compounds

Case No: Calibration Date: 09/22/93

Contractor: 21st Century Envir Time: 09:46

Contract No: Laboratory ID: >C2323

Instrument ID: 5970C Initial Calibration Date: 09/21/93

Minimum $\overline{RF}$ for SPCC is 0.050 Maximum % Diff for CCC is 25%

Compound	$\overline{RF}$	RF	%Diff	CCC	SPCC
Benzo(a)Anthracene	1.22555	1.19677	2.35		
Bis(2-Ethylhexyl)Phthalate	1.40076	1.20099	14.26		
Chrysene	1.13785	1.08701	4.47		
Di-n-octyl phthalate	2.67358	2.34898	12.14	*	
Benzo(b)fluoranthene	1.31126	1.27344	2.88		
Benzo(k)Fluoranthene	1.34890	1.21570	9.87		
Benzo(a)Pyrene	1.23271	1.20541	2.21	*	
Indeno(1,2,3-cd)Pyrene	1.20780	1.22301	1.26		
Dibenzo(a,h)Anthracene	.92677	1.00617	8.57		
Benzo(g,h,i)Perylene	1.01325	1.04466	3.10		

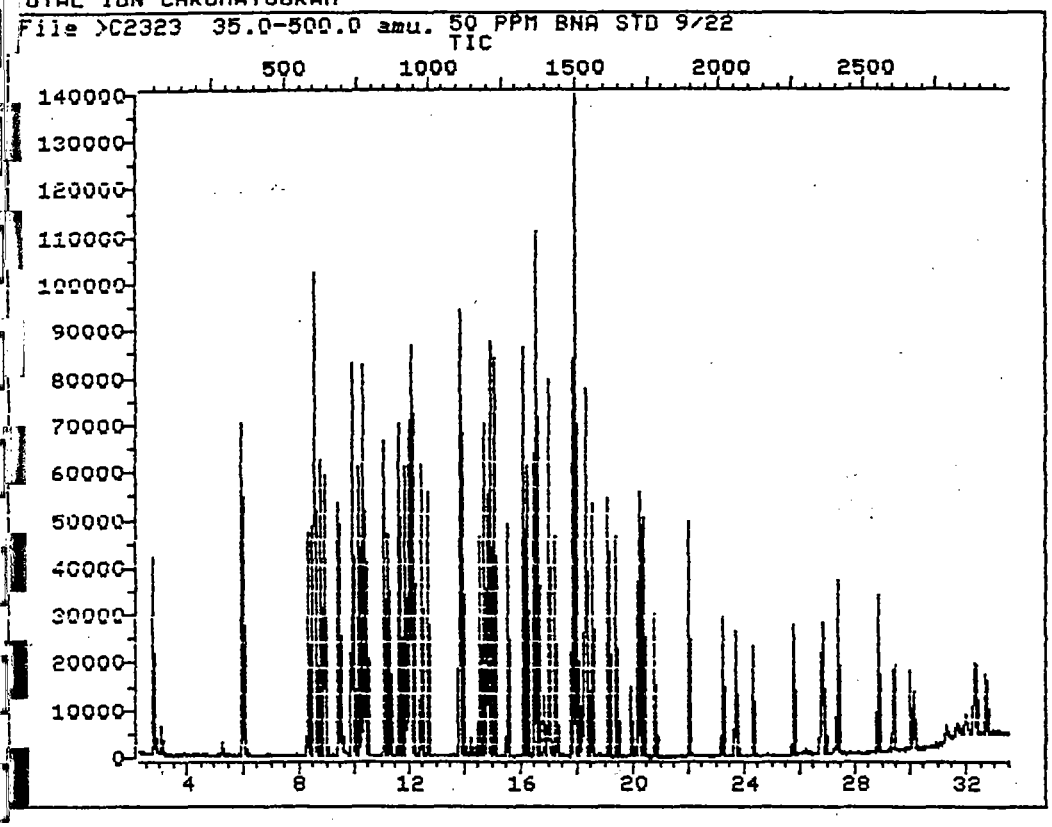
RF - Response Factor from daily standard file at 50.00 ug/l

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

Diff - % Difference from original average or curve

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

TOTAL ION CHROMATOGRAM



Data File: >C2323 Quant Output File: ^C2323::E3
Name: 50 PPM BNA STD 9/22
Misc: BTL# 2

Id File: ID921C::D3
Title: hSL BNA STD
Last Calibration: 930921 20:24

Operator ID: JEFF
Quant Time: 930922 10:23
Injected at: 930922 09:46

Continuing Calibration Check
HSL Compounds

Case No: Calibration Date: 09/24/93

Contractor: 21st Century Envir Time: 14:19

Contract No: Laboratory ID: >C2370

Instrument ID: 5970C Initial Calibration Date: 09/21/93

Minimum $\overline{RF}$ for SPCC is 0.050 Maximum % Diff for CCC is 25%

Compound	$\overline{RF}$	RF	%Diff	CCC	SPCC	
Pyridine	.71508	.70273	1.73			
N-Nitrosodimethylamine	.48321	.43173	10.65			
2-Fluorophenol	.67797	.71012	4.74			(Conc=100.00)
Phenol-d5	1.00650	1.08650	7.95			(Conc=100.00)
Phenol	1.19208	1.13742	4.58	*		
Bis(-2-Chloroethyl)Ether	.93126	.86316	7.31			
2-Chlorophenol	.92263	.88918	3.63			
1,3-Dichlorobenzene	.96696	.87926	9.07			
1,4-Dichlorobenzene	.96628	.89894	6.97	*		
Benzyl Alcohol	.63105	.51484	18.42			
1,2-Dichlorobenzene	.94446	.86999	7.89			
2-Methylphenol	.95632	.93080	2.67			
bis(2-Chloroisopropyl)ether	.94680	.87054	8.05			
4-Methylphenol	.96194	.92569	3.77			(Conc=100.00)
N-Nitroso-Di-n-propylamine	.96964	.91062	6.09		**	
Hexachloroethane	.46839	.42598	9.05			
Nitrobenzene-d5	.44624	.42359	5.08			(Conc=50.00)
Nitrobenzene	.48222	.46173	4.25			
Isophorone	1.11075	1.04386	6.02			
2-Nitrophenol	.24449	.22855	6.52	*		
2,4-Dimethylphenol	.36464	.35518	2.59			
Benzoic Acid	.21983	.23726	7.93			
bis(-2-Chloroethoxy)Methane	.50438	.48398	4.04			
2,4-Dichlorophenol	.35169	.35890	2.05	*		
1,2,4-Trichlorobenzene	.37522	.35597	5.13			
Naphthalene	1.16679	1.11225	4.67			
4-Chloroaniline	.50642	.44265	12.59			
Hexachlorobutadiene	.20356	.19985	1.82	*		
4-Chloro-3-methylphenol	.44166	.40727	7.79	*		
2-Methylnaphthalene	.80738	.84973	5.25			
Hexachlorocyclopentadiene	.44634	.30967	30.62		**	
2,4,6-Trichlorophenol	.47322	.43050	9.03	*		

RF - Response Factor from daily standard file at 50.00 ug/l

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

Diff - % Difference from original average or curve

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

00127

Continuing Calibration Check
HSL Compounds

Case No: Calibration Date: 09/24/93

Contractor: 21st Century Envir Time: 14:19

Contract No: Laboratory ID: >C2370

Instrument ID: 5970C Initial Calibration Date: 09/21/93

Minimum $\overline{RF}$ for SPCC is 0.050 Maximum % Diff for CCC is 25%

Compound	$\overline{RF}$	RF	%Diff	CCC	SPCC	
2,4,5-Trichlorophenol	.49920	.44226	11.41			
2-Chloronaphthalene	1.44002	1.37745	4.35			
2-Fluorobiphenyl	1.45226	1.39416	4.00			(Conc=50.00)
2-Nitroaniline	.44372	.38887	12.36			
Dimethyl Phthalate	1.50464	1.64271	9.18			
Acenaphthylene	2.10440	1.95886	6.92			
3-Nitroaniline	.24496	.18695	23.68			
Acenaphthene	1.30480	1.25973	3.45	*		
2,4-Dinitrophenol	.08745	.07833	10.43		**	
4-Nitrophenol	.16688	.13505	19.07		**	
Dibenzofuran	1.72846	1.67590	3.04			
2,4-Dinitrotoluene	.33883	.34706	2.43			
2,6-Dinitrotoluene	.33335	.33477	.43			
Diethylphthalate	1.37749	1.61602	17.32			
4-Chlorophenyl-phenylether	.63958	.64340	.60			
Fluorene	1.25968	1.22869	2.46			
4-Nitroaniline	.15546	.13065	15.96			
4,6-Dinitro-2-methylphenol	.13531	.14170	4.72			
N-Nitrosodiphenylamine	.80013	.76294	4.65	*		
2,4,6-Tribromophenol	.13256	.13081	1.32			(Conc=100.00)
4-Bromophenyl-phenylether	.31958	.29930	6.35			
Hexachlorobenzene	.33616	.33337	.83	*		
Pentachlorophenol	.12303	.10323	16.10		**	
Phenanthrene	1.26585	1.17473	7.20			
Anthracene	1.24125	1.15073	7.29			
Di-n-Butylphthalate	1.38231	1.70903	23.64			
Fluoranthene	.80117	.91197	13.83	*		
Pyrene	1.93598	1.64422	15.07			
Benzidine	.28351	.18858	33.48			
Terphenyl-d14	1.15284	1.07657	6.62			(Conc=50.00)
Butylbenzylphthalate	.97122	.99253	2.19			
3,3'-Dichlorobenzidine	.29520	.24273	17.77			

RF - Response Factor from daily standard file at 50.00 ug/l

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

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

Continuing Calibration Check
HSL Compounds

Case No: Calibration Date: 09/24/93

Contractor: 21st Century Envir Time: 14:19

Contract No: Laboratory ID: >C2370

Instrument ID: 5970C Initial Calibration Date: 09/21/93

Minimum $\overline{RF}$ for SPCC is 0.050 Maximum % Diff for CCC is 25%

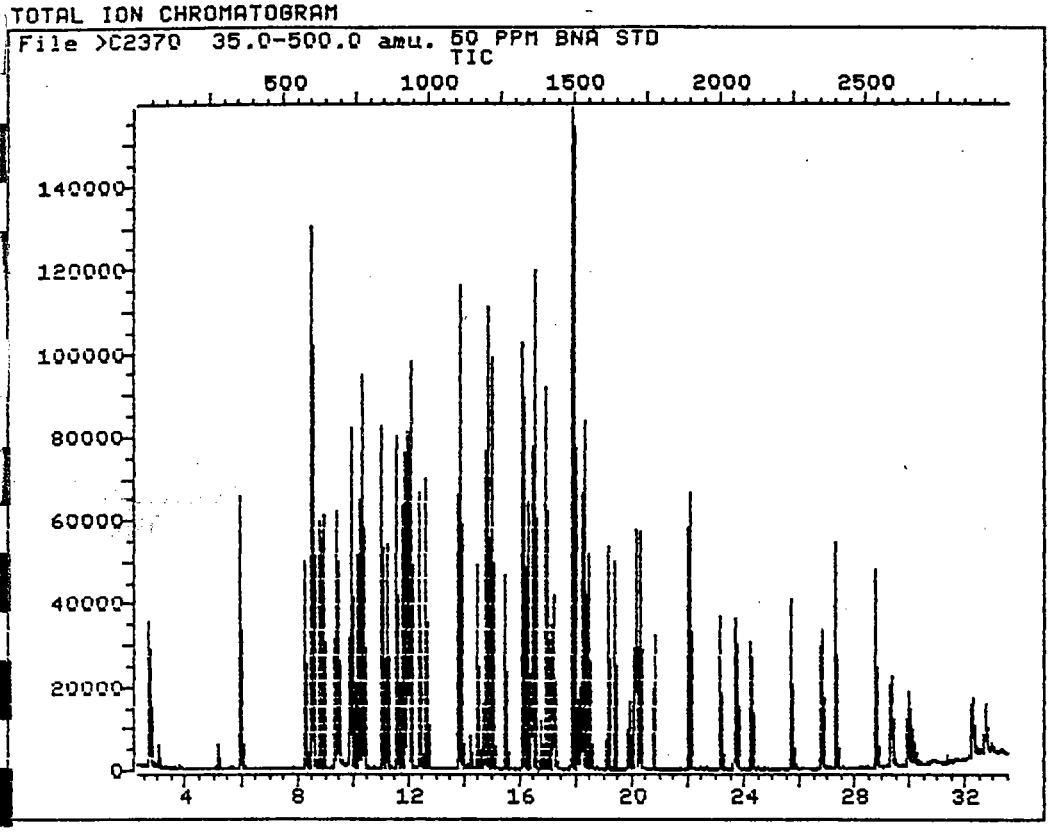
Compound	$\overline{RF}$	RF	%Diff	CCC	SPCC
Benzo(a)Anthracene	1.22555	1.11362	9.13		
Bis(2-Ethylhexyl)Phthalate	1.40076	1.50705	7.59		
Chrysene	1.13785	1.06029	6.82		
Di-n-octyl phthalate	2.67358	3.01872	12.91	*	
Benzo(b)fluoranthene	1.31126	1.23526	5.80		
Benzo(k)Fluoranthene	1.34890	1.29358	4.10		
Benzo(a)Pyrene	1.23271	1.12392	8.83	*	
Indeno(1,2,3-cd)Pyrene	1.20780	1.09013	9.74		
Dibenzo(a,h)Anthracene	.92677	.82674	10.79		
Benzo(g,h,i)Perylene	1.01325	.84054	17.05		

RF - Response Factor from daily standard file at 50.00 ug/l

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

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



Data File: >C2370::DA Quant Output File: ^C2370::D3
Name: 50 PPM BNA STD
Misc: BTL# 2

Id File: ID923C::D5
Title: hSL BNA STD
Last Calibration: 930923 12:56

Operator ID: JEFF
Quant Time: 930924 14:55
Injected at: 930924 14:19

Continuing Calibration Check
HSL Compounds

Case No: Calibration Date: 09/28/93

Contractor: 21st Century Envir Time: 09:16

Contract No: Laboratory ID: >C2399

Instrument ID: 5970C Initial Calibration Date: 09/21/93

Minimum $\overline{RF}$ for SPCC is 0.050 Maximum % Diff for CCC is 25%

Compound	$\overline{RF}$	RF	%Diff	CCC	SPCC	
Pyridine	.71508	.52001	27.28			
N-Nitrosodimethylamine	.48321	.47741	1.20			
2-Fluorophenol	.67797	.71874	6.01			(Conc=100.00)
Phenol-d5	1.00650	.94640	5.97			(Conc=100.00)
Phenol	1.19208	1.02282	14.20	*		
Bis(-2-Chloroethyl)Ether	.93126	.82151	11.79			
2-Chlorophenol	.92263	.81259	11.93			
1,3-Dichlorobenzene	.96696	.88573	8.40			
1,4-Dichlorobenzene	.96628	.87814	9.12	*		
Benzyl Alcohol	.63105	.46527	26.27			
1,2-Dichlorobenzene	.94446	.83974	11.09			
2-Methylphenol	.95632	.77300	19.17			
Bis(2-Chloroisopropyl)ether	.94680	.84375	10.88			
4-Methylphenol	.96194	.76625	20.34			(Conc=100.00)
N-Nitroso-Di-n-propylamine	.96964	.74558	23.11		**	
Hexachloroethane	.46839	.43679	6.75			
Nitrobenzene-d5	.44624	.43500	2.52			(Conc=50.00)
Nitrobenzene	.48222	.45303	6.05			
Isophorone	1.11075	.99670	10.27			
2-Nitrophenol	.24449	.22479	8.06	*		
2,4-Dimethylphenol	.36464	.34624	5.05			
Benzoic Acid	.21983	.19188	12.71			
Bis(-2-Chloroethoxy)Methane	.50438	.45926	8.95			
2,4-Dichlorophenol	.35169	.34499	1.90	*		
1,2,4-Trichlorobenzene	.37522	.36169	3.61			
Naphthalene	1.16679	1.12635	3.47			
4-Chloroaniline	.50642	.42867	15.35			
Hexachlorobutadiene	.20356	.20070	1.40	*		
4-Chloro-3-methylphenol	.44166	.44091	.17	*		
2-Methylnaphthalene	.80738	.76219	5.60			
Hexachlorocyclopentadiene	.44634	.32245	27.76		**	
2,4,6-Trichlorophenol	.47322	.41552	12.19	*		

RF - Response Factor from daily standard file at 50.00 ug/l

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

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

Continuing Calibration Check
HSL Compounds

Case No: Calibration Date: 09/28/93

Contractor: 21st Century Envir Time: 09:16

Contract No: Laboratory ID: >C2399

Instrument ID: 5970C Initial Calibration Date: 09/21/93

Minimum $\overline{RF}$ for SPCC is 0.050 Maximum % Diff for CCC is 25%

Compound	$\overline{RF}$	RF	%Diff	CCC	SPCC	
2,4,5-Trichlorophenol	.49920	.46042	7.77			
2-Chloronaphthalene	1.44002	1.32888	7.72			
2-Fluorobiphenyl	1.45226	1.28611	11.44			(Conc=50.00)
2-Nitroaniline	.44372	.43796	1.30			
Dimethyl Phthalate	1.50464	1.62167	7.78			
Acenaphthylene	2.10440	1.97060	6.36			
3-Nitroaniline	.24496	.23856	2.61			
Acenaphthene	1.30480	1.27435	2.33	*		
2,4-Dinitrophenol	.08745	.07855	10.19		**	
4-Nitrophenol	.16688	.16504	1.10		**	
Dibenzofuran	1.72846	1.76021	1.84			
2,4-Dinitrotoluene	.33883	.38815	14.55			
2,6-Dinitrotoluene	.33335	.36697	10.09			
Diethylphthalate	1.37749	1.59278	15.63			
4-Chlorophenyl-phenylether	.63958	.68352	6.87			
Fluorene	1.25968	1.29569	2.86			
4-Nitroaniline	.15546	.16112	3.64			
4,6-Dinitro-2-methylphenol	.13531	.13229	2.23			
N-Nitrosodiphenylamine	.80013	.75592	5.53	*		
2,4,6-Tribromophenol	.13256	.12618	4.82			(Conc=100.00)
4-Bromophenyl-phenylether	.31958	.28196	11.77			
Hexachlorobenzene	.33616	.31011	7.75	*		
Pentachlorophenol	.12303	.10042	18.38		**	
Phenanthrene	1.26585	1.17197	7.42			
Anthracene	1.24125	1.13977	8.18			
Di-n-Butylphthalate	1.38231	1.45341	5.14			
Fluoranthene	.80117	.79388	.91	*		
Pyrene	1.93598	1.73236	10.52			
Benzidine	.28351	.21072	25.67			
Terphenyl-d14	1.15284	1.13959	1.15			(Conc=50.00)
Butylbenzylphthalate	.97122	.96271	.88			
3,3'-Dichlorobenzidine	.29520	.25985	11.97			

RF - Response Factor from daily standard file at 50.00 ug/l

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

Diff - % Difference from original average or curve

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

Continuing Calibration Check
HSL Compounds

Case No: Calibration Date: 09/28/93

Contractor: 21st Century Envir Time: 09:16

Contract No: Laboratory ID: >C2399

Instrument ID: 5970C Initial Calibration Date: 09/21/93

Minimum $\overline{RF}$ for SPCC is 0.050 Maximum % Diff for CCC is 25%

Compound	$\overline{RF}$	RF	%Diff	CCC	SPCC
Benzo(a)Anthracene	1.22555	1.18665	3.17		
Bis(2-Ethylhexyl)Phthalate	1.40076	1.40659	.42		
Chrysene	1.13785	1.01417	10.87		
Di-n-octyl phthalate	2.67358	2.87216	7.43	*	
Benzo(b)fluoranthene	1.31126	1.22859	6.30		
Benzo(k)Fluoranthene	1.34890	1.43788	6.60		
Benzo(a)Pyrene	1.23271	1.19427	3.12	*	
Indeno(1,2,3-cd)Pyrene	1.20780	1.15221	4.60		
Dibenzo(a,h)Anthracene	.92677	.91489	1.28		
Benzo(g,h,i)Perylene	1.01325	.94652	6.59		

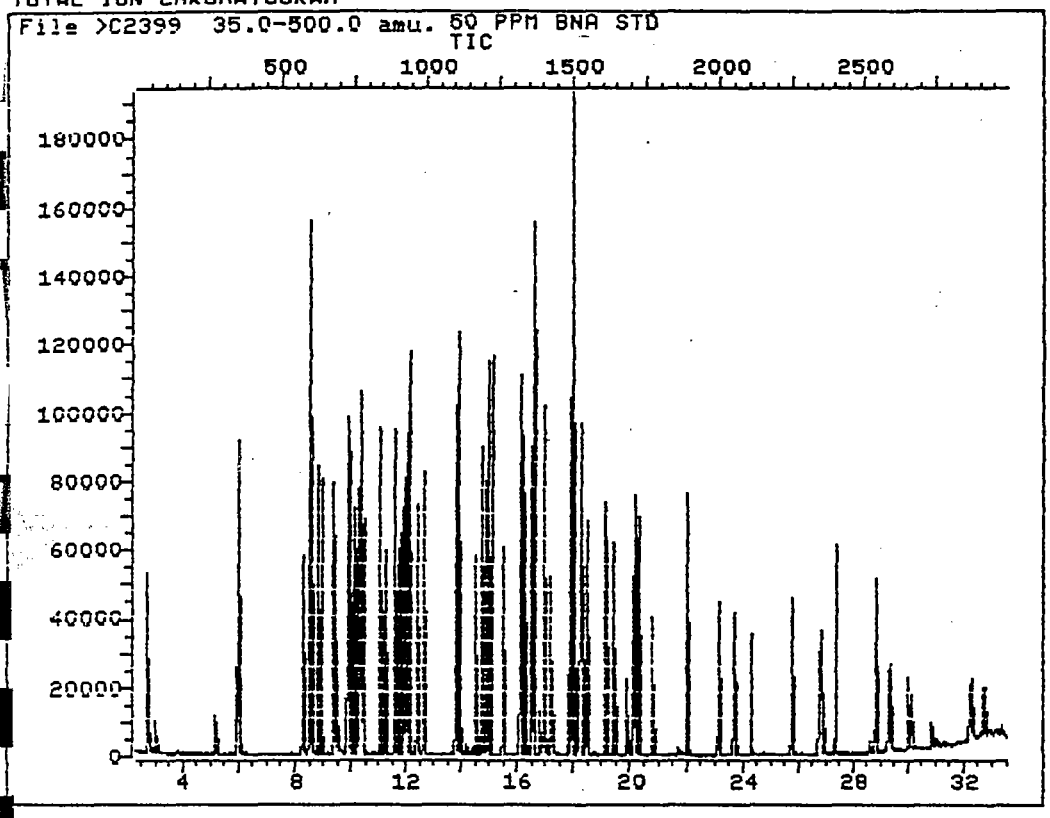
RF - Response Factor from daily standard file at 50.00 ug/l

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

Diff - % Difference from original average or curve

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

TOTAL ION CHROMATOGRAM



Data File: >C2399::E3 Quant Output File: ^C2399::QT
Name: 50 PPM BNA STD
Misc: BTL# 2

Id File: ID923C::D5
Title: hSL BNA STD
Last Calibration: 930923 12:56

Operator ID: JEFF
Quant Time: 930928 09:53
Injected at: 930928 09:16

Continuing Calibration Check
HSL Compounds

Case No: _____ Calibration Date: 10/07/93

Contractor: 21st Century Envir Time: 14:58

Contract No: _____ Laboratory ID: >C2527

Instrument ID: 5970C Initial Calibration Date: 10/05/93

Minimum $\overline{RF}$ for SPCC is 0.050 Maximum % Diff for CCC is 25%

Compound	$\overline{RF}$	RF	%Diff	CCC	SPCC	
Pyridine	.56172	.77058	37.18			
n-Nitrosodimethylamine	.44123	.54142	22.71			
2-Fluorophenol	.63026	.67723	7.45			(Conc=100.00)
Phenol-d5	.84952	.94408	11.13			(Conc=100.00)
Phenol	1.07357	1.04005	3.12	*		
bis(-2-Chloroethyl)Ether	.79034	.91679	16.00			
2-Chlorophenol	.80495	.82468	2.45			
1,3-Dichlorobenzene	.92957	.83108	10.60			
1,4-Dichlorobenzene	.92651	.85589	7.62	*		
Benzyl Alcohol	.54143	.42803	20.95			
1,2-Dichlorobenzene	.91000	.83459	8.29			
2-Methylphenol	.85369	.67676	20.73			
bis(2-Chloroisopropyl)ether	.95433	1.04932	9.95			
4-Methylphenol	.77907	.87214	11.95			(Conc=50.00)
N-Nitroso-Di-n-propylamine	.86522	.83306	3.72		**	
Hexachloroethane	.44252	.44742	1.11			
Nitrobenzene-d5	.39456	.39300	.39			(Conc=50.00)
Nitrobenzene	.49497	.44353	10.39			
Isophorone	.99069	.98161	.92			
2-Nitrophenol	.23920	.20788	13.09	*		
2,4-Dimethylphenol	.34485	.29095	15.63			
Benzoic Acid	.22178	.17437	21.38			
bis(-2-Chloroethoxy)Methane	.47217	.55431	17.40			
2,4-Dichlorophenol	.34554	.33821	2.12	*		
1,2,4-Trichlorobenzene	.40181	.36058	10.26			
Naphthalene	1.12844	.98967	12.30			
4-Chloroaniline	.43633	.42478	2.65			
Hexachlorobutadiene	.22465	.21419	4.66	*		
4-Chloro-3-methylphenol	.37877	.41583	9.79	*		
2-Methylnaphthalene	1.01121	.80146	20.74			
Hexachlorocyclopentadiene	.42099	.39304	6.64		**	
2,4,6-Trichlorophenol	.47480	.41551	12.49	*		

RF - Response Factor from daily standard file at 50.00 ug/l

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

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

Continuing Calibration Check
HSL Compounds

Case No: Calibration Date: 10/07/93

Contractor: 21st Century Envir Time: 14:58

Contract No: Laboratory ID: >C2527

Instrument ID: 5970C Initial Calibration Date: 10/05/93

Minimum $\overline{RF}$ for SPCC is 0.050 Maximum % Diff for CCC is 25%

Compound	$\overline{RF}$	RF	%Diff	CCC	SPCC	
2,4,5-Trichlorophenol	.49501	.41920	15.31			
2-Chloronaphthalene	1.42620	1.29375	9.29			
2-Fluorobiphenyl	1.49973	1.24666	16.87			(Conc=50.00)
2-Nitroaniline	.40125	.36547	8.92			
Dimethyl Phthalate	1.42888	1.71138	19.77			
Acenaphthylene	2.00523	1.86642	6.92			
3-Nitroaniline	.19556	.22608	15.61			
Acenaphthene	1.26086	1.13264	10.17	*		
2,4-Dinitrophenol	.08963	.08732	2.58		**	
4-Nitrophenol	.13129	.13804	5.14		**	
Dibenzofuran	1.67455	1.79029	6.91			
2,4-Dinitrotoluene	.33257	.38854	16.83			
2,6-Dinitrotoluene	.32061	.34840	8.67			
Diethylphthalate	1.28735	1.59699	24.05			
4-Chlorophenyl-phenylether	.63455	.67944	7.07			
Fluorene	1.21276	1.18979	1.89			
4-Nitroaniline	.14269	.13838	3.02			
4,6-Dinitro-2-methylphenol	.14476	.12132	16.19			
N-Nitrosodiphenylamine	.74037	.74508	.64	*		
2,4,6-Tribromophenol	.16762	.14152	15.57			(Conc=100.00)
4-Bromophenyl-phenylether	.32968	.34211	3.77			
Hexachlorobenzene	.38914	.36947	5.05	*		
Pentachlorophenol	.13981	.11630	16.81		**	
Phenanthrene	1.22164	1.07085	12.34			
Anthracene	1.19771	1.06071	11.44			
Di-n-Butylphthalate	1.52837	1.66652	9.04			
Fluoranthene	.92360	.79594	13.82	*		
Pyrene	1.77911	1.61135	9.43			
Benzidine	.15771	.14059	10.85			
Terphenyl-d14	1.15199	1.11113	3.55			(Conc=50.00)
Butylbenzylphthalate	.92358	.99531	7.77			
3,3'-Dichlorobenzidine	.27086	.22825	15.73			

RF - Response Factor from daily standard file at 50.00 ug/l

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

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

Continuing Calibration Check
HSL Compounds

ase No: Calibration Date: 10/07/93

Contractor: 21st Century Envir Time: 14:58

ontract No: Laboratory ID: >C2527

nstrument ID: 5970C Initial Calibration Date: 10/05/93

Minimum $\overline{RF}$ for SPCC is 0.050 Maximum % Diff for CCC is 25%

Compound	$\overline{RF}$	RF	%Diff	CCC	SPCC
enzo(a)Anthracene	1.16363	.95934	17.56		
is(2-Ethylhexyl)Phthalate	1.36887	1.49117	8.93		
Chrysene	1.09710	.97169	11.43		
Di-n-octyl phthalate	2.60272	2.74401	5.43	*	
enzo(b)fluoranthene	1.21302	.90541	25.36		
enzo(k)Fluoranthene	1.35106	1.34997	.08		
Benzo(a)Pyrene	1.18557	.91778	22.59	*	
ndeno(1,2,3-cd)Pyrene	.98487	.96021	2.50		
ibenzo(a,h)Anthracene	.93714	.72604	22.53		
Benzo(g,h,i)Perylene	.96431	.77941	19.17		

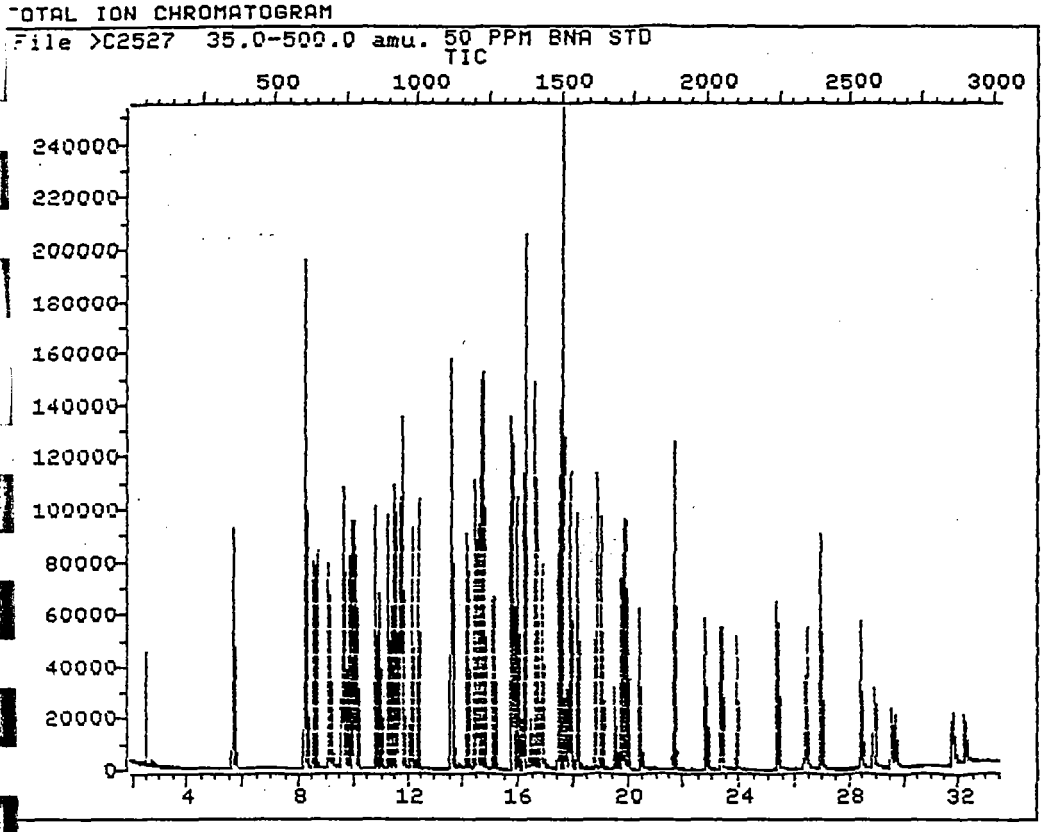
- Response Factor from daily standard file at 50.00 ug/l

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

iff - % Difference from original average or curve

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

TOTAL ION CHROMATOGRAM



Data File: >C2527::D2 Quant Output File: ^C2527::D4
Name: 50 PPM BNA STD
Misc: BTL# 2

Id File: ID1007::D2
Title: hSL BNA STD
Last Calibration: 931006 21:36

Operator ID: JEFF
Quant Time: 931007 15:35
Injected at: 931007 14:58

21st Century Environmental Inc.

GC/MS STANDARD p-BROMOFLUOROBENZENE (BFB) TUNE
CRITERIA FOR VOLATILES 50ng

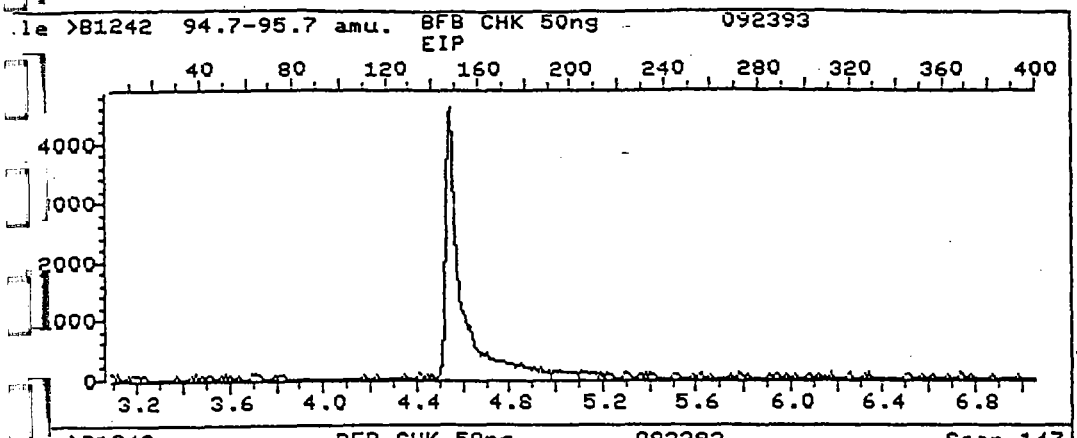
DATE AND TIME OF INJECTION: 8/23/93 10:21
INSTRUMENT ID: 5995

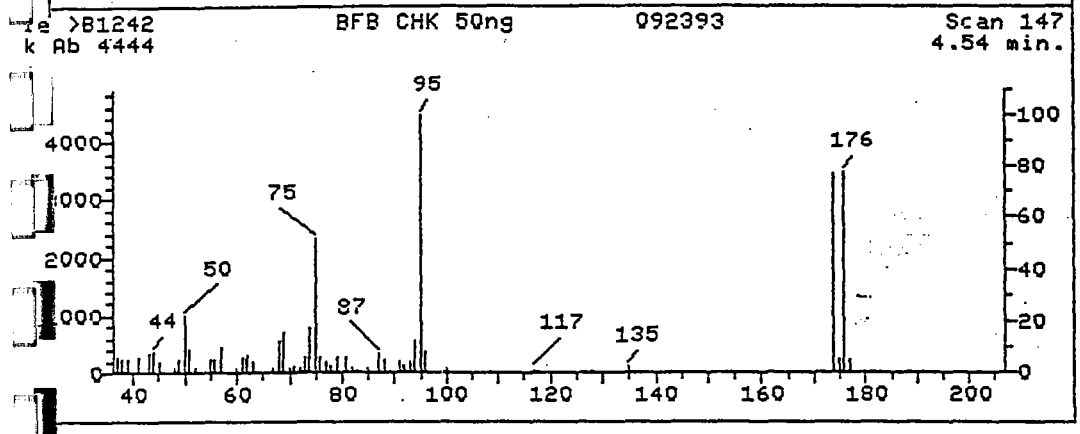
DATA RELEASE AUTHORIZED BY Richard W Lynch

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	Appropriate Peak	Status
50	15-40% of mass 95	22.07	22.07	Ok
75	30-60% of mass 95	51.73	51.73	Ok
95	Base peak, 100% relative abundance	100.00	100.00	Ok
96	5-9% of mass 95	8.06	8.06	Ok
173	Less than 2% of mass 174	0.00	0.00	Ok
174	Greater than 50% of mass 95	77.05	77.05	Ok
175	5-9% of mass 174	4.84	6.28	Ok
176	95-101% of mass 174	77.43	100.50	Ok
177	5-9% of mass 176	5.04	6.51	Ok

THIS PERFORMANCE AFFECTS ALL SAMPLES
STANDARDS AND BLANKS LISTED BELOW

SAMPLE ID	LAB ID		DATE TIME
>B1242::D6	BFB CHK 50ng		8/23/93 10:21
>B1243::D6	HSL CAL STD 50ppb		8/23/93 11:00
>B1244::D6	HSL CAL STD 20ppb		8/23/93 11:30
>B1245::D6	HSL CAL CHK 100ppb		8/23/93 12:01
>B1246::D6	HSL CAL CHK 150ppb		8/23/93 12:34
>B1247::D6	HSL CAL CHK 200ppb		8/23/93 13:39
>B1248::D6	BLANK		8/23/93 15:14
>B1250::D6	A3641		8/23/93 16:43
>B1251::D6	A3642		8/23/93 17:13
>B1252::D6	A3643		8/23/93 17:42
>B1253::D6	A3644		8/23/93 18:11
>B1254::D6	A3645		8/23/93 18:41
>B1255::D6	A3646		8/23/93 19:11
>B1256::D6	A3647		8/23/93 19:41
>B1257::D6	A3521		8/23/93 20:11
>B1258::D6	A3640		8/23/93 20:41
>B1259::D6	A3674		8/23/93 21:11
>B1260::D6	A3675		8/23/93 21:41
>B1261::D6	A3676		8/23/93 22:12





31242 BFB CHK 50ng 092393
147 NRM

ile: >B1242 Scan #: 147 Retn. time: 4.54

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
.05	3.038	51.05	8.776	69.05	15.842	81.00	5.873	96.00	8.056
.05	5.851	52.05	1.485	70.05	1.868	81.90	2.115	100.00	1.845
8.05	5.401	55.15	4.860	71.05	2.543	83.00	1.170	116.90	1.193
9.05	5.423	56.05	5.153	72.05	1.688	85.00	1.575	127.90	1.013
.15	6.143	57.05	10.374	73.05	5.806	87.00	7.336	134.90	2.228
.05	7.223	60.05	1.935	74.05	17.777	88.00	4.725	173.90	77.048
4.05	7.988	61.05	5.828	75.05	51.733	91.00	3.870	175.00	4.838
.05	4.365	62.05	6.391	76.00	6.053	92.00	2.768	175.90	77.430
.95	1.373	63.15	4.230	77.00	4.163	93.00	4.140	176.90	5.041
9.05	5.153	66.95	1.485	78.00	2.160	94.00	12.534	206.90	3.510
.05	22.075	68.05	12.219	79.00	5.513	95.00	100.000		

Initial Calibration Data
HSL Compounds

ase No: _____ Instrument ID: Volatile Inst B

ractor: 21ST Century Env Calibration Date: 08/23/93

ontract No: _____

Minimum $\overline{RF}$ for SPCC is .300 Maximum % RSD for CCC is 30%

Laboratory ID:	>B1244	>B1243	>B1245	>B1246	>B1247					
Compound	RF 20.00	RF 50.00	RF 100.00	RF 150.00	RF 200.00	$\overline{RRT}$	$\overline{RF}$	% RSD	CCC	SPCC
romethane	.48208	.54838	.48535	.54463	.54751	.366	.52159	6.638		**
romomethane	.59343	.57826	.52482	.58455	.58210	.454	.57263	4.768		
l Chloride	.79552	.88669	.76965	.89349	.89466	.390	.84800	7.133	*	
roethane	.41727	.40960	.38578	.40838	.38337	.473	.40088	3.815		
crolein	.01211	.01503	.01256	.01644	.01697	.608	.01462	15.118		(Conc=32.0,80.0,160.0,240
1,2-Trichlorotrifluoroethane	1.93850	2.33178	1.84998	2.26329	2.30579	.624	2.13787	10.567		
chlorofluromethane	2.98643	3.38895	2.74106	3.25994	3.24866	.625	3.12501	8.310		
etone	.71175	.72246	.67275	.75809	.82707	.640	.73842	7.874		
,1-Dichloroethene	1.65461	1.81609	1.55371	1.71269	1.60570	.623	1.66856	6.071	*	
on Disulfide	1.90386	2.03133	2.74257	3.03669	3.34611	.664	2.61211	24.022		
yl Tertiary Butyl Ether	-	2.76540	3.56742	4.11060	-	.770	3.48114	19.440		
ertiary Butyl Alcohol	-	.71453	.97942	1.11168	-	.751	.93521	21.624		(Conc=40.0,100.0,200.0,30
lonitrile	.45208	.48449	.47728	.54325	.56128	.761	.50368	9.212		
ylene Chloride	1.28176	1.25183	1.28436	1.44028	1.44913	.715	1.34147	7.093		
,2-Dichloroethene(trans)	1.57367	1.71611	1.49937	1.70233	1.72124	.764	1.64254	6.120		
,1-Dichloroethane	2.26832	2.73405	2.29680	2.71460	2.57754	.842	2.51826	8.883		**
l Acetate	.08620	.09168	.06681	.07816	.06011	.854	.07659	17.145		
utanone	1.97393	1.74326	1.34433	1.52005	1.54085	.959	1.62448	14.844		
hloroform	2.89732	3.19572	2.86376	3.35992	3.33911	1.015	3.13117	7.590	*	
,1-Trichloroethane	2.55563	2.89720	2.50350	2.95902	3.00392	1.052	2.78385	8.475		
on Tetrachloride	2.07078	2.47113	2.09184	2.49326	2.55589	1.085	2.33658	10.066		
,2-Dichloroethane-d4	2.19121	2.23328	2.37515	2.35806	2.30899	1.113	2.29334	3.459		(Conc=50.0,50.0,50.0,50.0
-Dichloroethane	.41469	.44809	.37121	.42175	.40851	.939	.41285	6.718		
ene	.85490	.92783	.76381	.87426	.85722	.937	.85561	6.913		
richloroethene	.38571	.40539	.33543	.38680	.37903	1.046	.37847	6.863		
,2-Dichloropropane	.28955	.31073	.25817	.28902	.28420	1.085	.28633	6.559	*	
odichloromethane	.48544	.52935	.44160	.51485	.50940	1.133	.49613	6.923		
loroethylvinylether	.22843	.24745	.23394	.27620	.27689	1.187	.25258	9.084		
-Hexanone	.41097	.33887	.33119	.37149	.38506	1.405	.36752	8.975		
s-1,3-Dichloropropene	.45852	.51172	.42888	.49366	.48327	1.215	.47521	6.789		

F - Response Factor (Subscript is amount in UG/L)

RT - Average Relative Retention Time (RT Std/RT Istd)

$\overline{RF}$ - Average Response Factor

RSD - Percent Relative Standard Deviation

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

Initial Calibration Data
HSL Compounds

ase No: _____ Instrument ID: Volatile Inst B

ractor: 21ST Century Env Calibration Date: 08/23/93

ontract No: _____

Minimum $\overline{RF}$ for SPCC is .300 Maximum % RSD for CCC is 30%

Laboratory ID:	>B1244	>B1243	>B1245	>B1246	>B1247					
Compound	RF 20.00	RF 50.00	RF 100.00	RF 150.00	RF 200.00	$\overline{RRT}$	$\overline{RF}$	% RSD	CCC	SPCC	
ene-d8	.97388	.99022	.97640	.97622	.98131	1.267	.97960	.666			(Conc=50.0,50.0,50.0,50.0
oluene	.97214	1.05217	.87019	1.00823	.98648	1.280	.97784	6.887	*		
1,3-Dichloropropene	.47568	.51485	.43148	.51030	.49743	.850	.48595	7.003			
2,2-Tetrachloroethane	.44739	.48762	.39982	.47197	.47233	1.180	.45583	7.561		**	
,1,2-Trichloroethane	.36458	.39136	.32556	.38592	.38451	.873	.37039	7.299			
-Methyl-2-pentanone	.51873	.41352	.40524	.46756	.48455	.906	.45792	10.499			
achloroethene	.38111	.41310	.33375	.41013	.42175	.893	.39197	9.173			
romochloromethane	.52801	.57307	.48329	.57612	.57400	.923	.54690	7.470			
lorobenzene	.88328	.93517	.77509	.93191	.92485	1.004	.89006	7.591		**	
lbenzene	1.51388	1.60863	1.32259	1.57014	1.51837	1.019	1.50672	7.308	*		
Xylenes	1.05143	1.10999	1.00195	1.20696	1.23728	1.035	1.12152	8.921			
-Xylene	1.11042	1.15701	.94920	1.12835	1.08092	1.089	1.08518	7.453			
ene	.80227	.83858	.80388	.95869	.95359	1.091	.87140	9.034			
oform	.39837	.43247	.37186	.44502	.46096	1.114	.42174	8.573		**	
omofluorobenzene	.57356	.55727	.55390	.56587	.56331	1.160	.56278	1.363			(Conc=50.0,50.0,50.0,50.0
Dichlorobenzene	.71854	.74817	.57613	.72050	.74313	1.316	.70130	10.153			
chlorobenzene	.73911	.76741	.60340	.75539	.76789	1.329	.72664	9.617			
ichlorobenzene	.69758	.72495	.55651	.69638	.71026	1.382	.67713	10.103			

- Response Factor (Subscript is amount in UG/L)

- Average Relative Retention Time (RT Std/RT Istd)

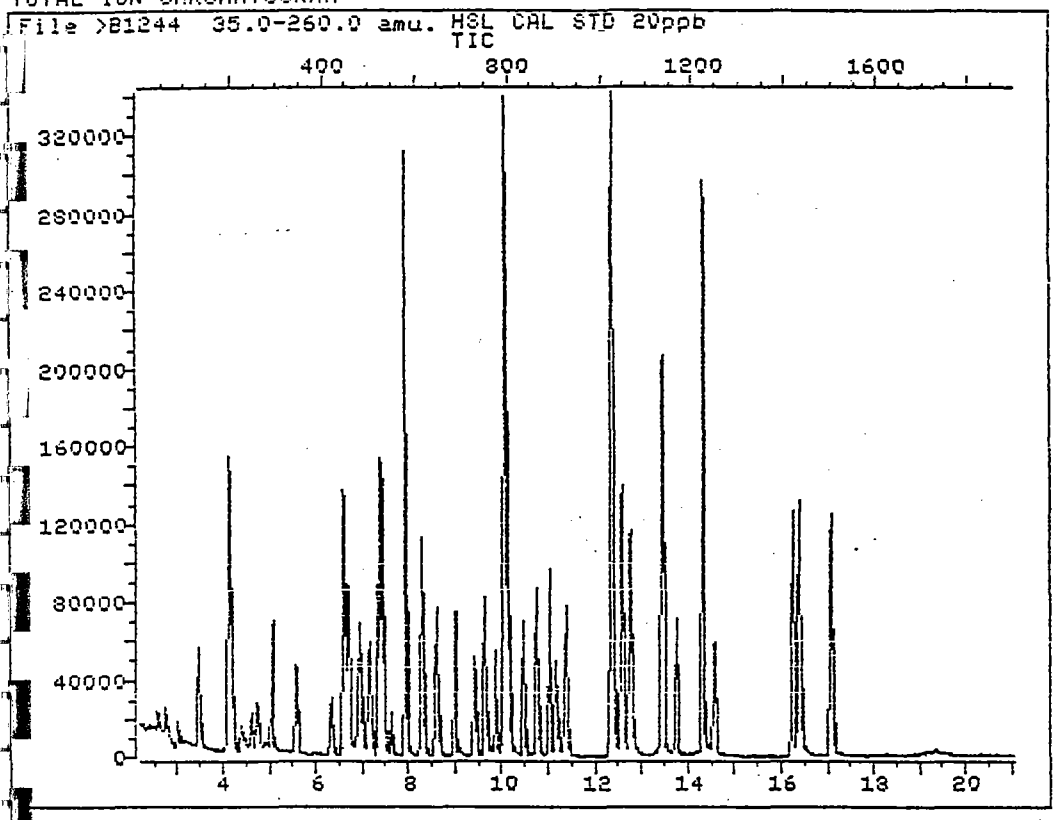
- Average Response Factor

D - Percent Relative Standard Deviation

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

00142

TOTAL ION CHROMATOGRAM

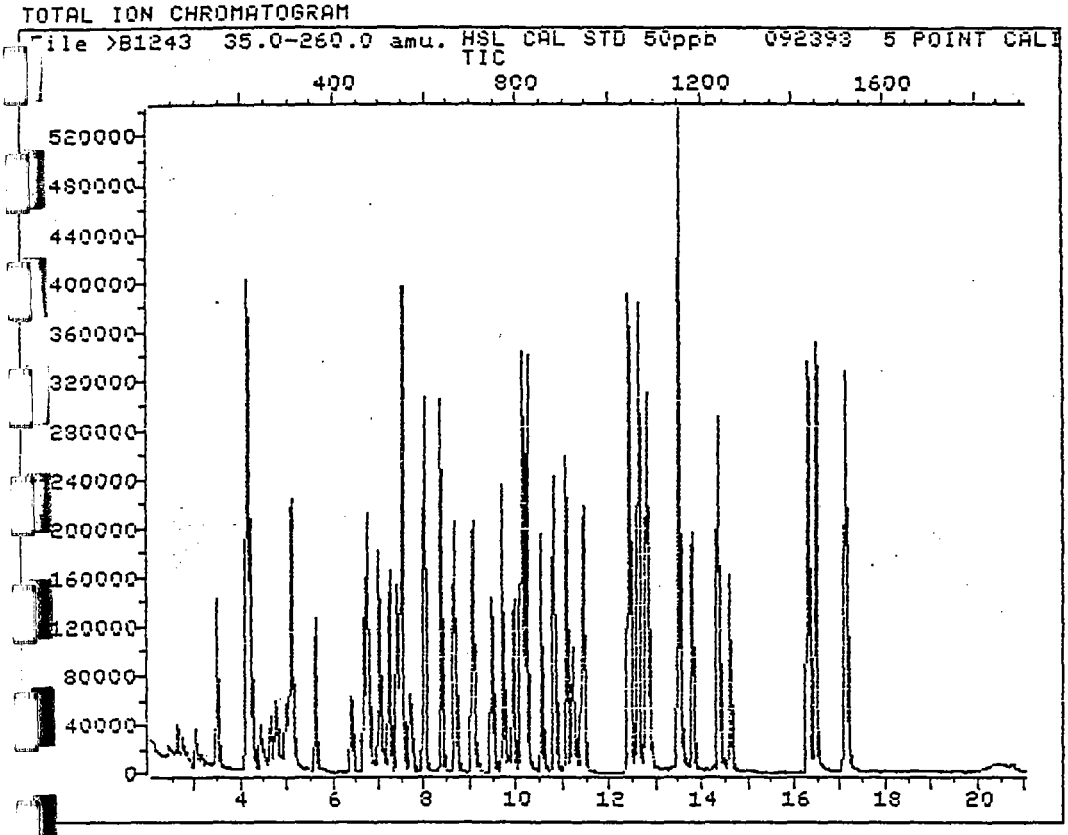


Data File: >B1244::D6 Quant Output File: ^B1244::D4
Name: HSL CAL STD 20ppb
Misc:

Id File: ID0401::SC
Title: USEPA 624 VOLATILES
Last Calibration: 930823 12:02

Operator ID: MANAGER
Quant Time: 930823 12:03
Injected at: 930823 11:30

TOTAL ION CHROMATOGRAM

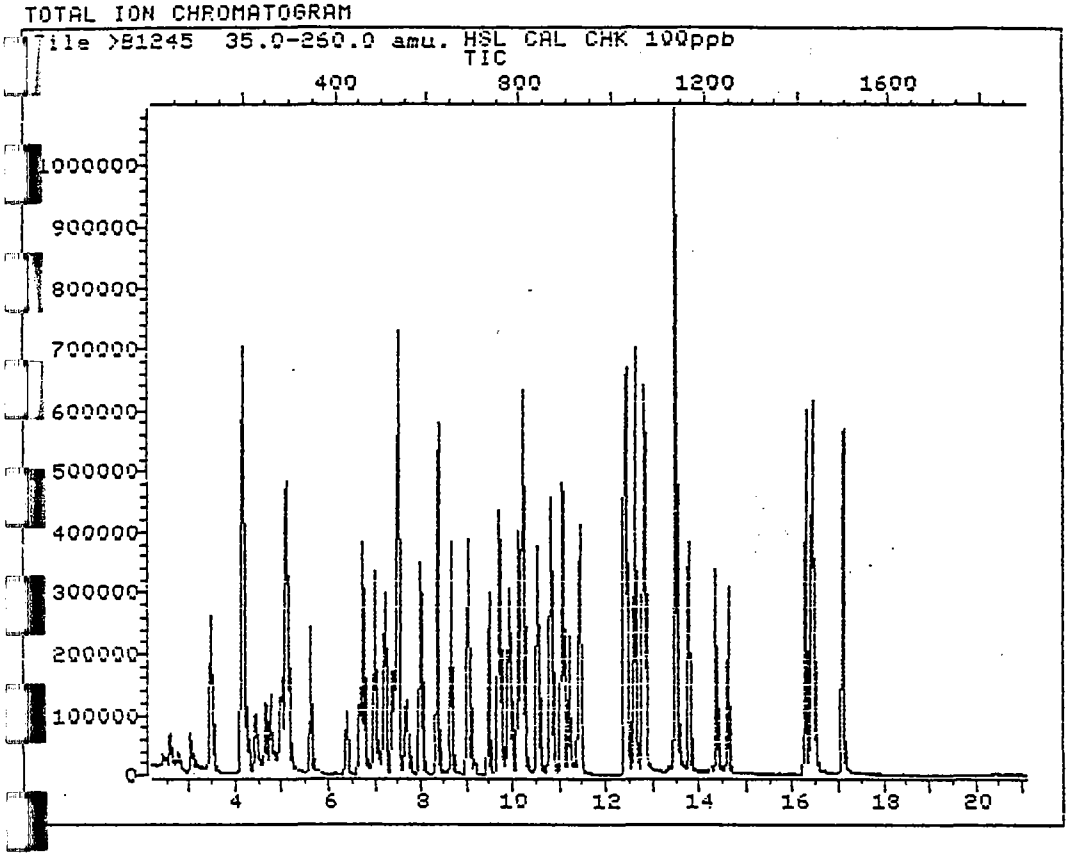


Data File: >B1243::D6 Quant Output File: ^B1243::D4
Name: HSL CAL STD 50ppb
Misc: 092393 5 POINT CALIBRATION CURVE

Id File: ID0401::SC
Title: USEPA 624 VOLATILES
Last Calibration: 930821 13:24

Operator ID: MANAGER
Quant Time: 930823 11:34
Injected at: 930823 11:00

TOTAL ION CHROMATOGRAM

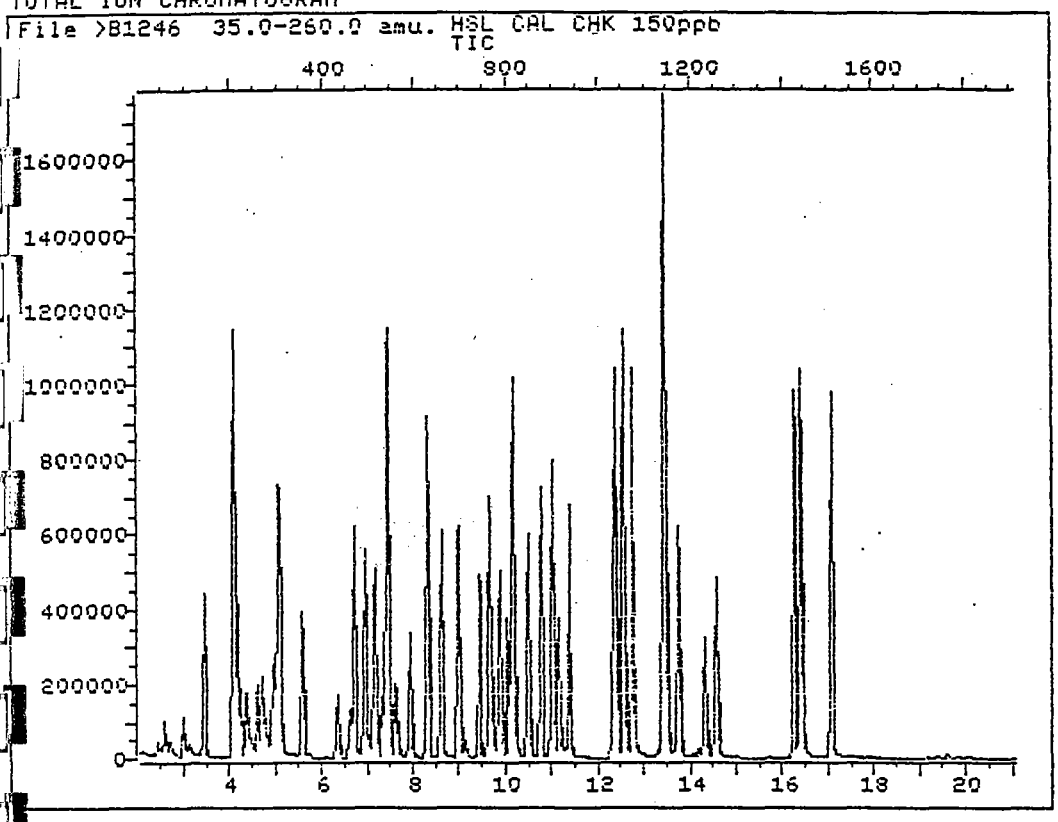


Data File: >B1245::D6 Quant Output File: ^B1245::D4
Name: HSL CAL CHK 100ppb
Misc:

Id File: ID0401::SC
Title: USEPA 624 VOLATILES
Last Calibration: 930823 12:02

Operator ID: MANAGER
Quant Time: 930823 12:28
Injected at: 930823 12:01

TOTAL ION CHROMATOGRAM

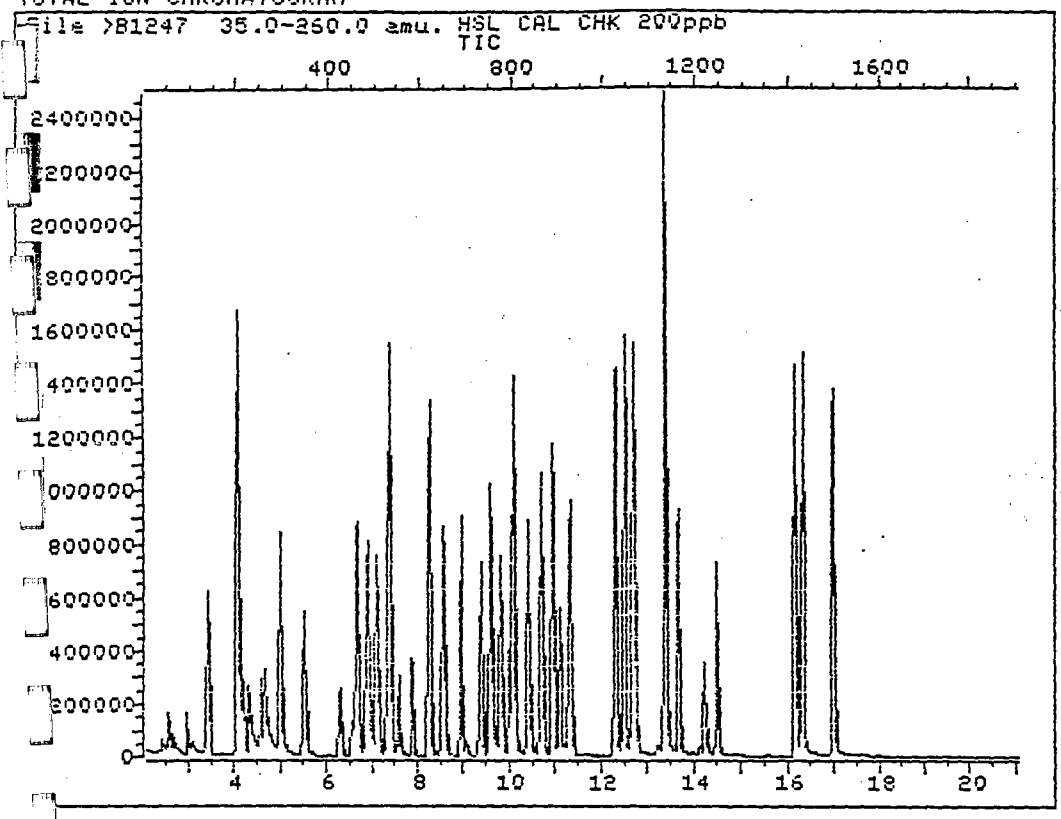


Data File: >B1246::D6 Quant Output File: ^B1246::D4
Name: HSL CAL CHK 150ppb
Misc:

Id File: ID0401::SC
Title: USEPA 624 VOLATILES
Last Calibration: 930823 12:02

Operator ID: MANAGER
Quant Time: 930823 13:00
Injected at: 930823 12:34

TOTAL ION CHROMATOGRAM



Data File: >B1247::D6 Quant Output File: ^B1247::D1
Name: HSL CAL CHK 200ppb
Misc:

Id File: ID0401::SC
Title: USEPA 624 VOLATILES
Last Calibration: 930823 12:02

Operator ID: JEFF
Quant Time: 930823 14:05
Injected at: 930823 13:39

21st Century Environmental Inc.

GC/MS STANDARD DECAFLUOROTRIPHENYLPHOSPHINE(DFTPP) TUNE
CRITERIA FOR SEMIVOLATILES 50ng

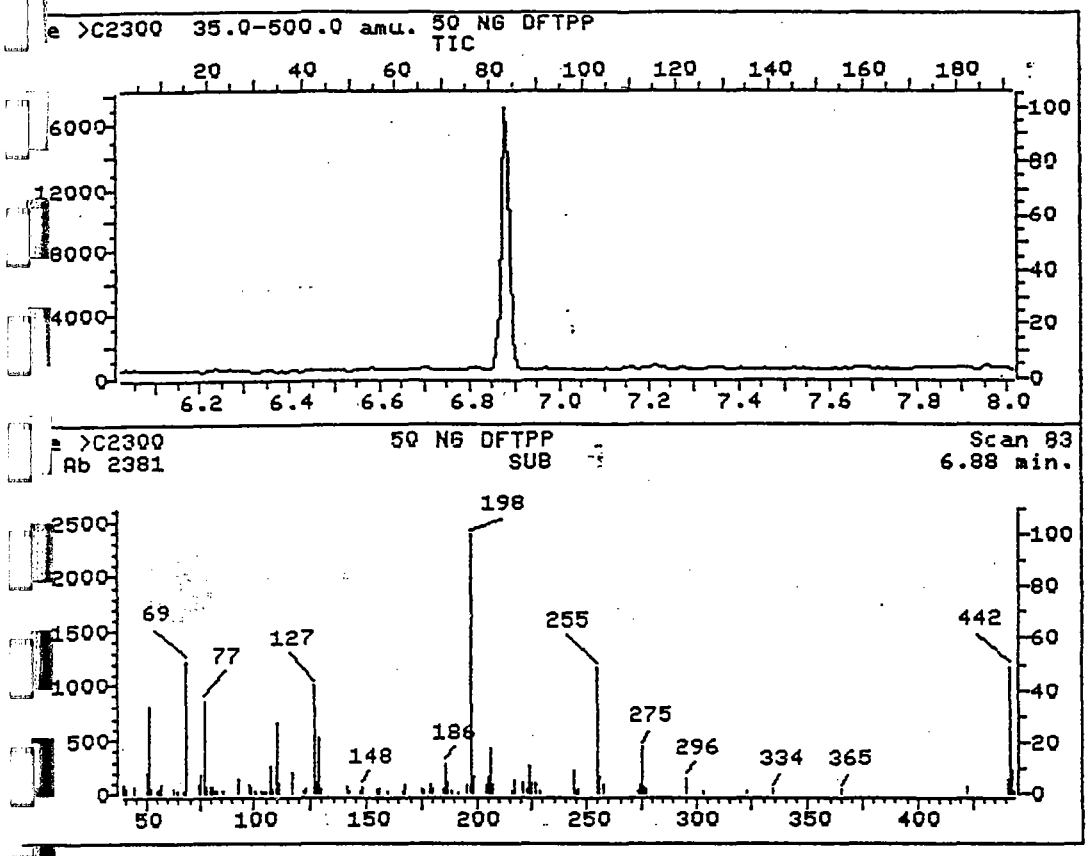
DATE AND TIME OF INJECTION: 9/21/93 11:04
INSTRUMENT ID: 5970

DATA RELEASE AUTHORIZED BY Richard W Lynch

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	Appropriate Peak	Status
51	30-60% of mass 198	34.06	34.06	Ok
68	Less than 2% of mass 69	0.00	0.00	Ok
69	(reference only)	51.45	51.45	Ok
70	Less than 2% of mass 69	0.00	0.00	Ok
127	40-60% of mass 198	41.96	41.96	Ok
197	Less than 1% of mass 198	0.00	0.00	Ok
198	Base peak, 100% relative abundance	100.00	100.00	Ok
199	5-9% of mass 198	6.68	6.68	Ok
275	10-30% of mass 198	18.10	18.10	Ok
365	Greater than 1% of mass 198	1.68	1.68	Ok
441	0-100% of mass 443	6.17	67.07	Ok
442	Greater than 40% of mass 198	48.93	48.93	Ok
443	17-23% of mass 442	9.20	18.80	Ok

THIS PERFORMANCE AFFECTS ALL SAMPLES
STANDARDS AND BLANKS LISTED BELOW

SAMPLE ID		LAB ID		DATE TIME
>C2300::D3		50 NG DFTPP		9/21/93 11:04
>C2301::D3		20 PPM BNA STD		9/21/93 11:38
>C2302::D3		50 PPM BNA STD		9/21/93 12:23
>C2303::D3		80 PPM BNA STD		9/21/93 13:08
>C2304::D3		120 PPM BNA STD		9/21/93 13:52
>C2305::E4		160 PPM BNA STD		9/21/93 14:37



2300 50 NG DFTPP
83 SUB NRM

e: >C2300 Scan #: 83 Retn. time: 6.88

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
8.95	3.066	82.00	1.134	128.95	21.294	188.90	.798	246.00	1.638
39.95	1.680	83.10	1.008	129.95	1.596	191.90	.462	254.90	48.467
4.05	2.940	85.80	.672	140.90	2.394	195.90	2.982	256.00	6.636
0.00	8.274	92.95	6.048	141.90	.588	197.90	100.000	257.85	3.234
50.90	34.061	97.95	3.360	146.95	1.302	198.90	6.678	272.90	1.302
2.00	1.806	99.05	2.772	147.95	2.730	204.05	3.360	273.90	3.570
4.90	1.050	100.85	1.218	154.85	1.344	204.95	7.098	274.90	18.102
55.90	1.554	102.95	.588	155.95	2.058	205.95	17.430	276.00	2.352
57.00	3.486	104.05	1.050	160.15	.672	206.85	3.234	276.80	1.554
2.95	1.848	104.90	1.092	166.10	.630	215.90	.672	295.95	5.964
4.75	.756	106.90	10.752	167.00	3.570	216.80	4.914	303.00	.882
67.95	.756	107.90	1.806	167.90	2.520	220.90	4.032	322.95	1.218
3.95	51.449	109.90	27.005	174.85	1.512	222.90	1.680	334.00	1.596
4.05	3.612	110.90	4.074	176.65	1.092	223.90	10.626	365.00	1.680
74.95	7.770	116.90	8.652	178.85	3.612	225.00	4.032	423.00	2.898
77.00	35.657	121.95	1.050	179.95	1.848	226.90	4.410	441.00	6.174
3.00	2.184	122.75	1.554	184.95	1.386	228.80	1.050	442.00	48.929
9.90	2.352	126.95	41.957	185.95	11.760	243.90	9.408	443.00	9.198

Initial Calibration Data
HSL Compounds

Case No: _____ Instrument ID: 5970C _____

Contractor: 21st Century Envir Calibration Date: 09/21/93

Contract No: _____

Minimum $\overline{RF}$ for SPCC is 0.050 Maximum % RSD for CCC is 30%

Laboratory ID:	>C2301	>C2302	>C2303	>C2304	>C2305					
Compound	RF 20.00	RF 50.00	RF 80.00	RF 120.00	RF 160.00	$\overline{RRT}$	$\overline{RF}$	% RSD	CCC	SPCC
Pyridine	.83217	.60333	.74051	.69279	.70661	.298	.71508	11.577		
n-Nitrosodimethylamine	.47685	.45121	.51340	.48504	.48958	.303	.48321	4.650		
2-Fluorophenol	.68913	.71799	.77949	.71625	.48701	.671	.67797	16.485		(Conc=100.0,100.0,100.0,1
Phenol-d5	.98336	1.01180	1.16228	1.08636	.78871	.951	1.00650	13.931		(Conc=100.0,100.0,100.0,1
Phenol	1.21559	1.09306	1.27529	1.19173	1.18474	.954	1.19208	5.523	*	
bis(-2-Chloroethyl)Ether	.99798	.86971	1.00370	.90279	.88210	.955	.93126	6.942		
2-Chlorophenol	.96471	.85982	.99388	.89938	.89534	.957	.92263	5.955		
1,3-Dichlorobenzene	1.04009	.87962	1.02765	.93111	.95635	.988	.96696	6.948		
1,4-Dichlorobenzene	1.01802	.88843	1.00332	.96080	.96084	1.005	.96628	5.218	*	
Benzyl Alcohol	.54406	.55875	.68891	.67058	.69294	1.063	.63105	11.627		
1,2-Dichlorobenzene	1.00102	.84247	1.00888	.91660	.95333	1.054	.94446	7.221		
2-Methylphenol	.97230	.86268	1.02440	.94050	.98173	1.111	.95632	6.308		
bis(2-Chloroisopropyl)ether	.89483	.87982	1.02477	.94983	.98474	1.106	.94680	6.406		
4-Methylphenol	.92792	.86493	1.04196	.97865	.99624	1.158	.96194	7.056		(Conc=40.0,100.0,160.0,24
N-Nitroso-Di-n-propylamine	.93057	.89096	1.08628	.99712	.94328	1.148	.96964	7.781	**	
Hexachloroethane	.49132	.42825	.50091	.45360	.46786	1.136	.46839	6.237		
Nitrobenzene-d5	.46211	.42743	.45638	.43508	.45018	.861	.44624	3.264		(Conc=50.0,50.0,50.0,50.0
Nitrobenzene	.49731	.46017	.51335	.47048	.46978	.865	.48222	4.608		
Isophorone	1.12262	1.03432	1.21964	1.12917	1.04799	.918	1.11075	6.695		
2-Nitrophenol	.23554	.23619	.26439	.24433	.24200	.931	.24449	4.801	*	
2,4-Dimethylphenol	.36199	.34875	.39683	.36666	.34897	.958	.36464	5.391		
Benzoic Acid	.15666	.20216	.24695	.24952	.24385	1.005	.21983	18.334		
bis(-2-Chloroethoxy)Methane	.50998	.47791	.54466	.49895	.49039	.974	.50438	5.035		
2,4-Dichlorophenol	.35316	.34093	.37441	.35016	.33977	.985	.35169	3.966	*	
1,2,4-Trichlorobenzene	.40079	.35985	.39218	.36463	.35867	.995	.37522	5.270		
Naphthalene	1.25800	1.12511	1.23232	1.11769	1.10085	1.004	1.16679	6.226		
4-Chloroaniline	.52374	.48514	.54406	.51314	.46599	1.029	.50642	6.126		
Hexachlorobutadiene	.23185	.18876	.21263	.19440	.19015	1.048	.20356	9.078	*	
4-Chloro-3-methylphenol	.45191	.44411	.48898	.44511	.37821	1.142	.44166	9.048	*	
2-Methylnaphthalene	.87097	.75879	.89065	.79314	.72334	1.148	.80738	8.889		

RF_{xx} - Response Factor (Subscript is amount in ug/l)

$\overline{RRT}$ - Average Relative Retention Time (RT Std/RT Istd)

$\overline{RF}$ - Average Response Factor

RSD - Percent Relative Standard Deviation

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

00150

Initial Calibration Data
HSL Compounds

Case No: _____ Instrument ID: 5970C _____

Contractor: 21st Century Envir Calibration Date: 09/21/93

Contract No: _____

Minimum $\overline{RF}$ for SPCC is 0.050 Maximum % RSD for CCC is 30%

Laboratory ID:	>C2301	>C2302	>C2303	>C2304	>C2305					
Compound	RF 20.00	RF 50.00	RF 80.00	RF 120.00	RF 160.00	$\overline{RRT}$	$\overline{RF}$	% RSD	CCC	SPCC
Hexachlorocyclopentadiene	.40337	.37587	.45116	.45355	.54775	.878	.44634	14.680		**
2,4,6-Trichlorophenol	.45714	.43848	.49111	.48754	.49182	.894	.47322	5.107	*	
2,4,5-Trichlorophenol	.47945	.45705	.53546	.51284	.51119	.900	.49920	6.184		
2-Chloronaphthalene	1.39017	1.29672	1.50711	1.45970	1.54640	.914	1.44002	6.877		
2-Fluorobiphenyl	1.35450	1.26892	1.43816	1.49506	1.70469	.905	1.45226	11.363		(Conc=50.0,50.0,50.0,50.0
2-Nitroaniline	.47371	.46549	.47165	.41802	.38974	.941	.44372	8.528		
Dimethyl Phthalate	1.80293	1.63432	1.55826	1.33386	1.19381	.979	1.50464	16.090		
Acenaphthylene	2.17886	2.00449	2.21669	2.08800	2.03394	.976	2.10440	4.340		
3-Nitroaniline	.30820	.29296	.24378	.20078	.17907	1.004	.24496	22.910		
Acenaphthene	1.38276	1.26490	1.38347	1.24977	1.24313	1.005	1.30480	5.512	*	
2,4-Dinitrophenol	.07809	.10618	.09101	.08165	.08035	1.020	.08745	13.225		**
4-Nitrophenol	.18640	.20014	.16844	.13937	.14005	1.043	.16688	16.320		**
Dibenzofuran	1.91037	1.69813	1.79181	1.67207	1.56992	1.030	1.72846	7.451		
2,4-Dinitrotoluene	.42685	.38874	.33134	.28111	.26613	1.044	.33883	20.292		
2,6-Dinitrotoluene	.38244	.35954	.34778	.30478	.27220	.986	.33335	13.297		
Diethylphthalate	1.86656	1.59104	1.35301	1.09795	.97888	1.087	1.37749	26.236		
4-Chlorophenyl-phenylether	.74823	.63687	.67714	.58939	.54628	1.088	.63958	12.223		
Fluorene	1.50694	1.33625	1.26916	1.13561	1.05044	1.082	1.25968	14.104		
4-Nitroaniline	.18516	.17894	.15086	.13094	.13141	1.098	.15546	16.507		
4,6-Dinitro-2-methylphenol	.11105	.12616	.14404	.14274	.15257	.905	.13531	12.264		
N-Nitrosodiphenylamine	.80149	.75642	.88092	.79466	.76719	.908	.80013	6.108	*	
2,4,6-Tribromophenol	.11697	.12355	.14048	.14245	.13938	.919	.13256	8.694		(Conc=100.0,100.0,100.0,1
4-Bromophenyl-phenylether	.29906	.29276	.36030	.33165	.31412	.950	.31958	8.532		
Hexachlorobenzene	.35848	.31118	.35779	.33313	.32021	.964	.33616	6.404	*	
Pentachlorophenol	.10204	.11321	.12893	.13191	.13908	.989	.12303	12.246		**
Phenanthrene	1.30346	1.20014	1.34407	1.26426	1.21733	1.003	1.26585	4.708		
Anthracene	1.25638	1.17784	1.31666	1.24204	1.21334	1.009	1.24125	4.170		
Di-n-Butylphthalate	1.38710	1.25212	1.44746	1.40714	1.41772	1.094	1.38231	5.496		
Fluoranthene	.76283	.66198	.83714	.83579	.90811	1.151	.80117	11.637	*	
Pyrene	2.05331	2.01966	2.05074	1.81157	1.74462	.885	1.93598	7.575		

RF - Response Factor (Subscript is amount in ug/l)

$\overline{RT}$ - Average Relative Retention Time (RT Std/RT Istd)

$\overline{RF}$ - Average Response Factor

RSD - Percent Relative Standard Deviation

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

00151

Initial Calibration Data
HSL Compounds

Case No: _____ Instrument ID: 5970C

Contractor: 21st Century Envir Calibration Date: 09/21/93

Contract No: _____

Minimum $\overline{RF}$ for SPCC is 0.050 Maximum % RSD for CCC is 30%

Laboratory ID:	>C2301	>C2302	>C2303	>C2304	>C2305					
Compound	RF 20.00	RF 50.00	RF 80.00	RF 120.00	RF 160.00	$\overline{RRT}$	$\overline{RF}$	% RSD	CCC	SPCC
Benzidine	.24539	.26674	.30204	.28741	.31596	.883	.28351	9.891		
Terphenyl-d14	1.21392	1.20153	1.14517	1.09439	1.10922	.907	1.15284	4.647		(Conc=50.0,50.0,50.0,50.0
Butylbenzylphthalate	.89478	.91743	1.07175	.98263	.98950	.960	.97122	7.153		
3,3'-Dichlorobenzidine	.27739	.27188	.30699	.30255	.31717	1.002	.29520	6.639		
Benzo(a)Anthracene	1.20081	1.14336	1.30597	1.23431	1.24331	.999	1.22555	4.866		
Bis(2-Ethylhexyl)Phthalate	1.31351	1.28276	1.56235	1.44201	1.40317	1.020	1.40076	7.930		
Chrysene	1.14783	1.07863	1.19310	1.13184	1.13787	1.002	1.13785	3.596		
Di-n-octyl phthalate	2.35716	2.49119	2.98819	2.81796	2.71339	.956	2.67358	9.440	*	
Benzo(b)fluoranthene	1.21556	1.10840	1.52669	1.36242	1.34321	.973	1.31126	12.080		
Benzo(k)Fluoranthene	1.24417	1.39064	1.36908	1.37047	1.37016	.975	1.34890	4.391		
Benzo(a)Pyrene	1.16590	1.13366	1.36446	1.24621	1.25332	.996	1.23271	7.283	*	
Indeno(1,2,3-cd)Pyrene	1.11329	1.13758	1.31591	1.21756	1.25464	1.070	1.20780	6.908		
Dibenzo(a,h)Anthracene	.85751	.88998	1.00555	.93773	.94307	1.072	.92677	6.090		
Benzo(g,h,i)Perylene	.94886	.92146	1.12556	1.03420	1.03617	1.086	1.01325	7.980		

RF - Response Factor (Subscript is amount in ug/l)

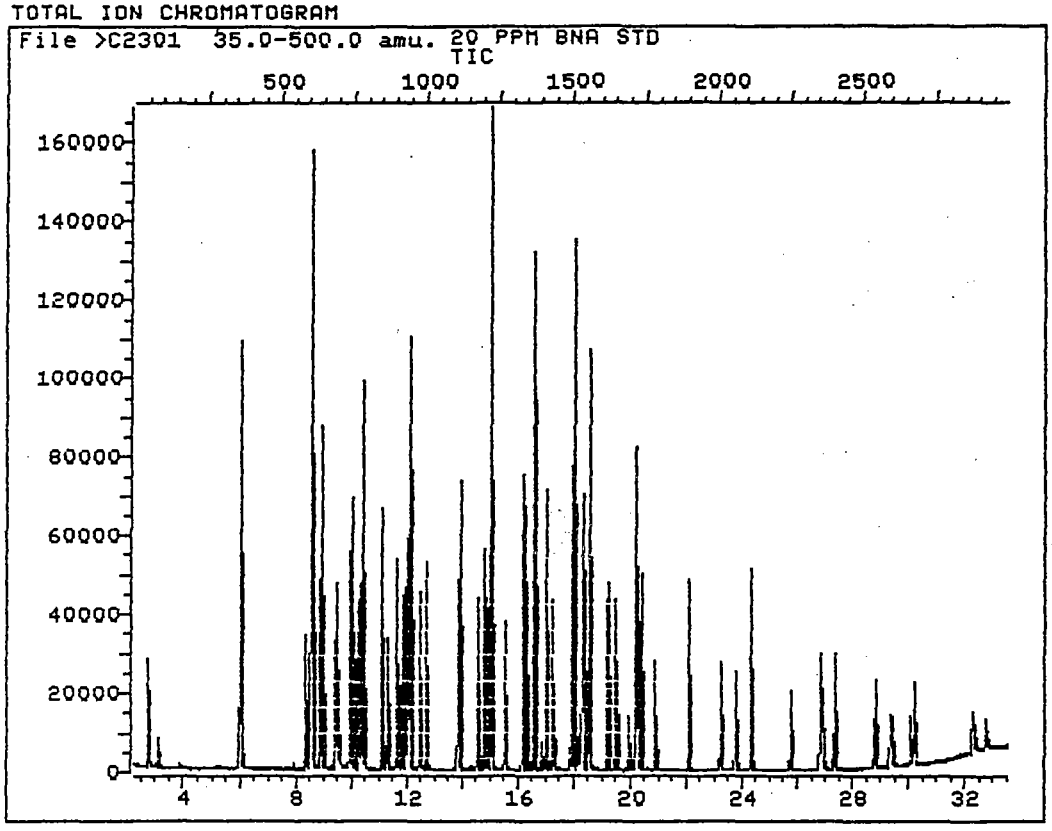
$\overline{RRT}$ - Average Relative Retention Time (RT Std/RT Istd)

$\overline{RF}$ - Average Response Factor

%RSD - Percent Relative Standard Deviation

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

TOTAL ION CHROMATOGRAM

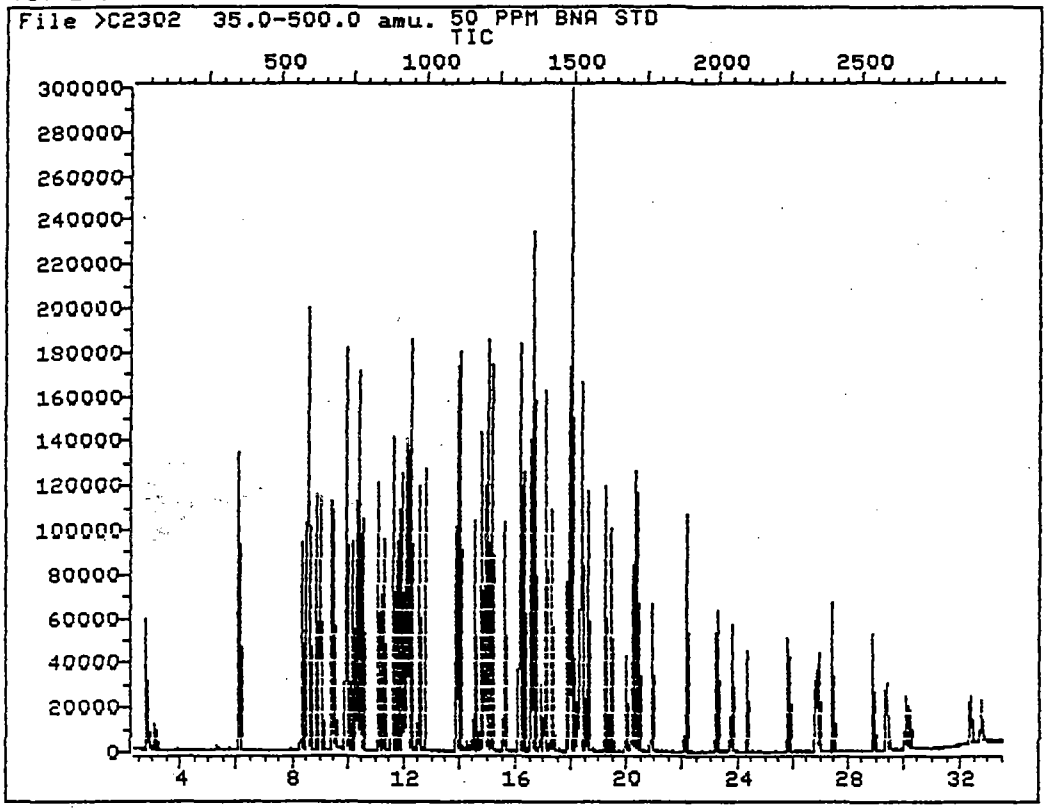


Data File: >C2301::D3 Quant Output File: ^C2301::E3
Name: 20 PPM BNA STD
Misc: BTL# 1

Id File: ID920C::D3
Title: hSL BNA STD
Last Calibration: 930920 17:34

Operator ID: JEFF
Quant Time: 930921 12:15
Injected at: 930921 11:38

TOTAL ION CHROMATOGRAM

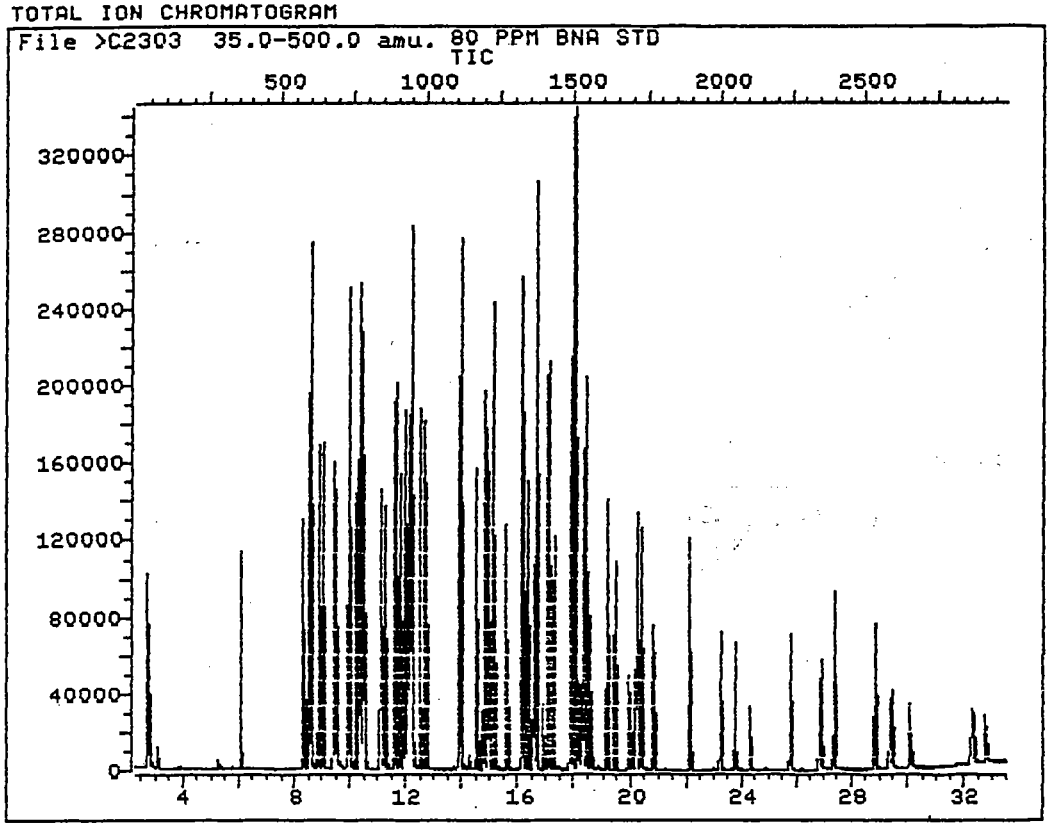


Data File: >C2302::D3 Quant Output File: ^C2302::E3
Name: 50 PPM BNA STD
Misc: BTL# 2

Id File: ID920C::D3
Title: hSL BNA STD
Last Calibration: 930920 17:34

Operator ID: JEFF
Quant Time: 930921 12:59
Injected at: 930921 12:23

TOTAL ION CHROMATOGRAM

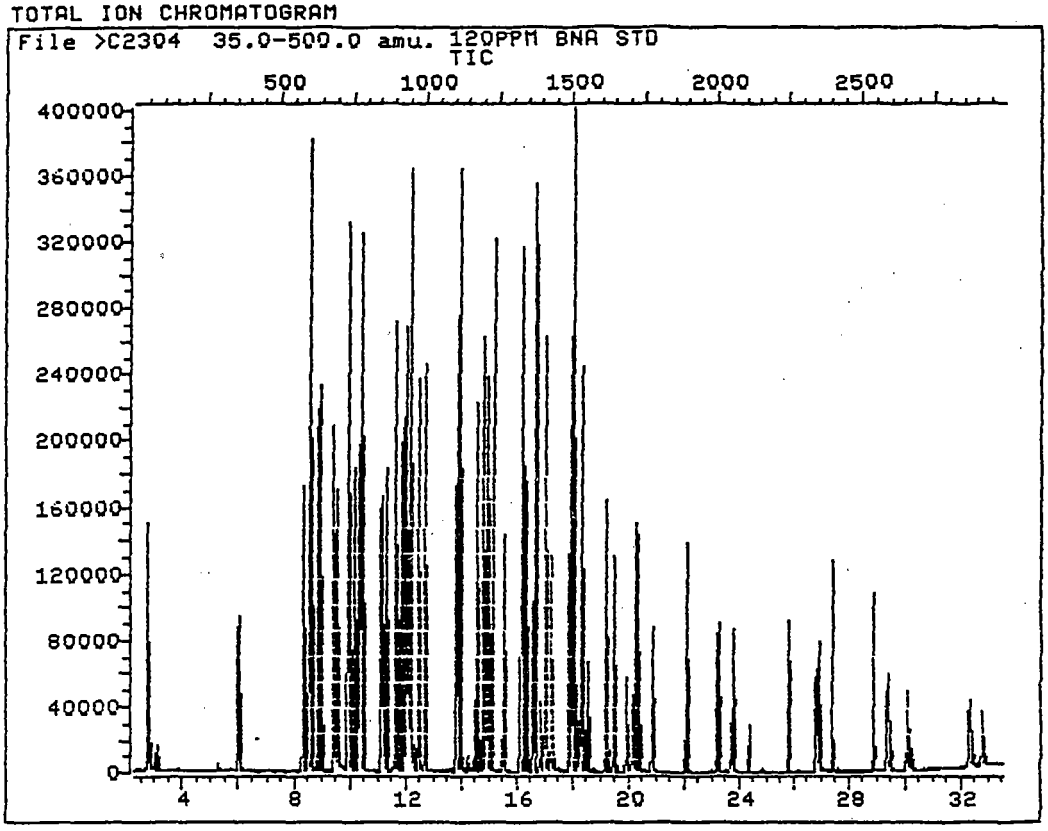


Data File: >C2303::D3 Quant Output File: ^C2303::E3
Name: 80 PPM BNA STD
Misc: BTL# 3

Id File: ID920C::D3
Title: hSL BNA STD
Last Calibration: 930920 17:34

Operator ID: JEFF
Quant Time: 930921 13:44
Injected at: 930921 13:08

TOTAL ION CHROMATOGRAM

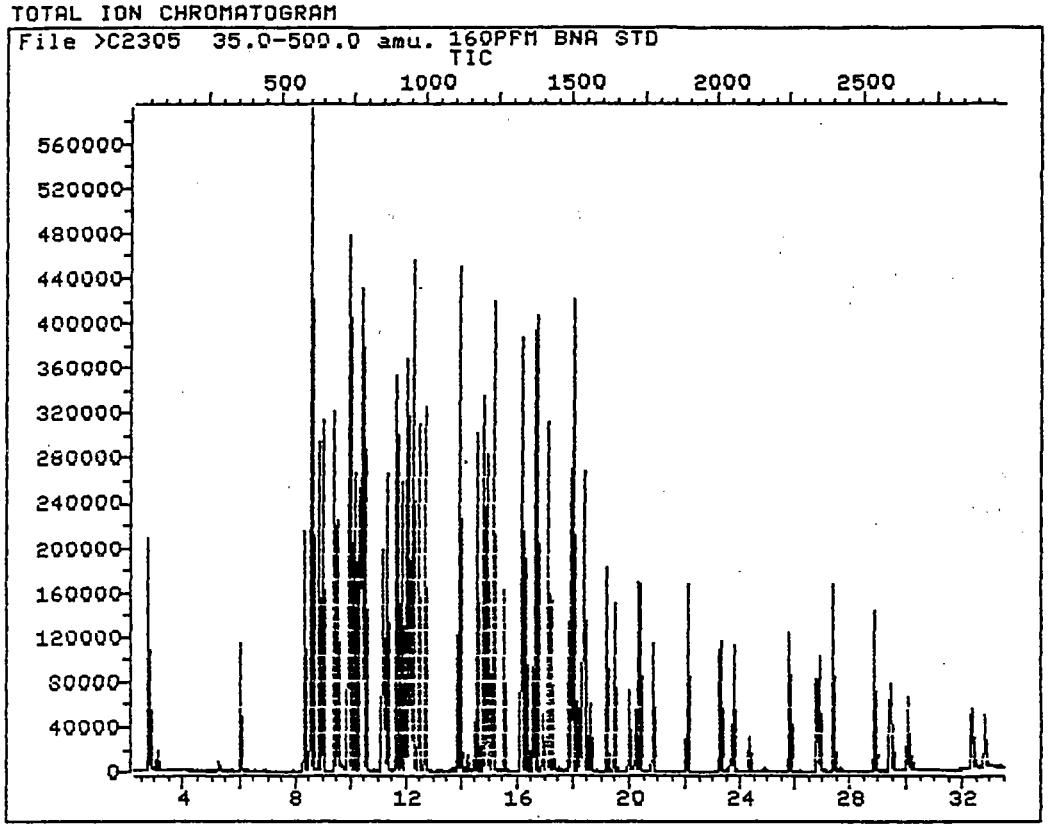


Data File: >C2304::D3 Quant Output File: ^C2304::E3
Name: 120PPM BNA STD
Misc: BTL# 4

Id File: ID920C::D3
Title: hSL BNA STD
Last Calibration: 930920 17:34

Operator ID: JEFF
Quant Time: 930921 14:29
Injected at: 930921 13:52

TOTAL ION CHROMATOGRAM



Data File: >C2305::E4 Quant Output File: ^C2305::E3
Name: 160PPM BNA STD
Misc: BTL# 5

Id File: ID920C::D3
Title: hSL BNA STD
Last Calibration: 930920 17:34

Operator ID: JEFF
Quant Time: 930921 15:14
Injected at: 930921 14:37

21st Century Environmental Inc.

GC/MS STANDARD DECAFLUOROTRIPHENYLPHOSPHINE(DFTPP) TUNE
CRITERIA FOR SEMIVOLATILES 50ng

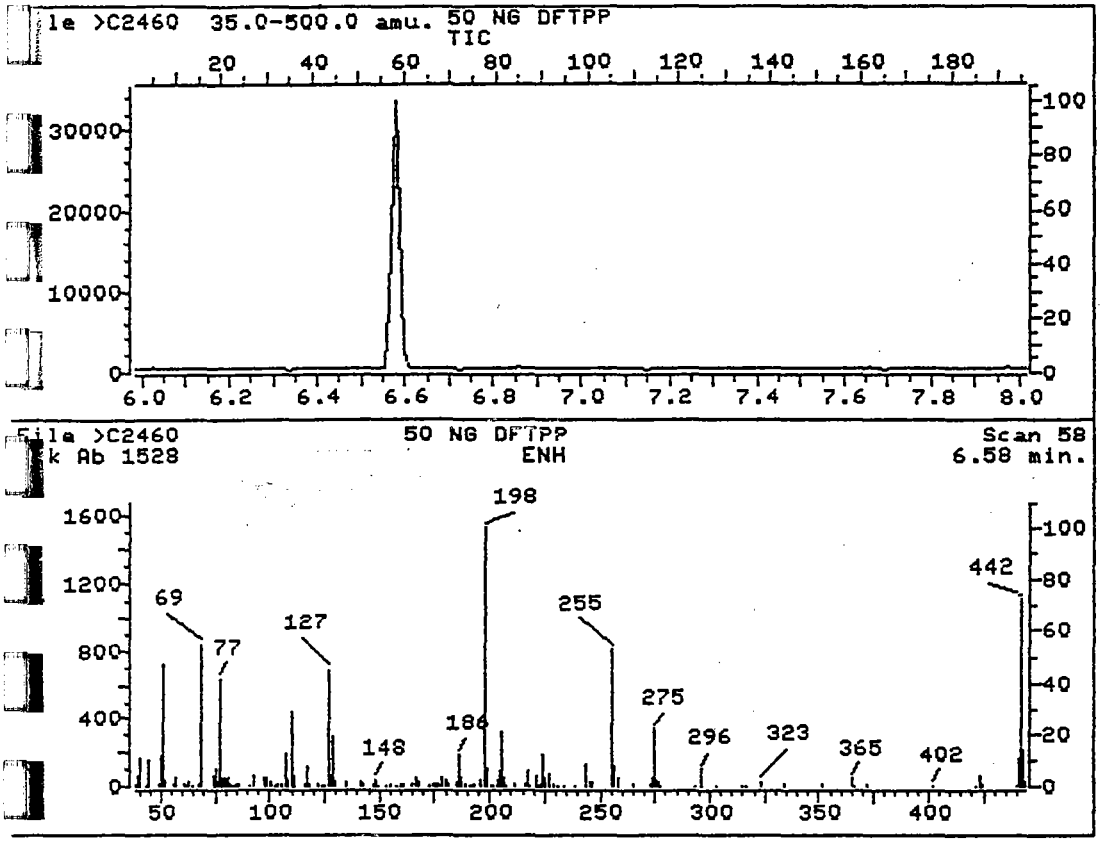
DATE AND TIME OF INJECTION: 10/04/93 22:19
INSTRUMENT ID: 5970

DATA RELEASE AUTHORIZED BY Richard W Pyrd.

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	Appropriate Peak	Status
51	30-60% of mass 198	47.10	47.10	Ok
68	Less than 2% of mass 69	1.03	1.88	Ok
69	(reference only)	54.93	54.93	Ok
70	Less than 2% of mass 69	0.00	0.00	Ok
127	40-60% of mass 198	44.92	44.92	Ok
197	Less than 1% of mass 198	0.00	0.00	Ok
198	Base peak, 100% relative abundance	100.00	100.00	Ok
199	5-9% of mass 198	6.78	6.78	Ok
275	10-30% of mass 198	22.22	22.22	Ok
365	Greater than 1% of mass 198	3.01	3.01	Ok
441	0-100% of mass 443	11.01	78.01	Ok
442	Greater than 40% of mass 198	72.44	72.44	Ok
443	17-23% of mass 442	14.11	19.48	Ok

THIS PERFORMANCE AFFECTS ALL SAMPLES
STANDARDS AND BLANKS LISTED BELOW

SAMPLE ID	LAB ID		DATE	TIME
>C2460::E4	50 NG DFTPP		10/04/93	22:19
>C2462::E4	20 PPM BNA STD	\	10/04/93	22:39
>C2463::E4	50 PPM BNA STD		10/04/93	23:24
>C2464::E4	80 PPM BNA STD		10/05/93	0:09
>C2465::E4	120PPM BNA STD		10/05/93	0:54
>C2466::E4	160PPM BNA STD		10/05/93	1:39
>C2467::E4	TCLP BLNK 10/4		10/05/93	2:23
>C2468::E4	A4388 CWM 10/4		10/05/93	3:08
>C2469::E4	A4394 CWM 10/4		10/05/93	3:52
>C2470::D4	A4401 CWM 10/4		10/05/93	4:37
>C2471::D4	A4407 CWM 10/4		10/05/93	5:21
>C2472::D4	A4408 CWM 10/4		10/05/93	6:05
>C2473::D4	A4414 CWM 10/4		10/05/93	6:49
>C2474::D4	A4421 CWM 10/4		10/05/93	7:32
>C2475::D4	A4367 CWM		10/05/93	8:16
>C2476::D4	A4421 BIAS SPIKE		10/05/93	9:00



>C2460 50 NG DFTPP
58 NRM ENH

File: >C2460 Scan #: 58 Retn. time: 6.58

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
38.00	.942	85.10	.811	147.05	.576	201.25	.419	264.90	.838
39.10	3.979	85.90	.811	147.95	2.722	201.55	.262	272.95	.864
40.00	11.177	91.40	.275	148.85	.497	204.00	2.735	274.05	3.625
40.60	.183	93.10	4.620	153.05	.314	205.00	5.706	275.05	22.222
43.10	.144	97.95	3.311	155.15	1.073	206.00	20.887	276.05	2.657
44.00	10.090	98.95	3.586	157.85	.406	207.00	3.573	277.05	1.505
49.00	1.191	100.95	1.754	159.95	.667	208.00	.497	278.05	.353
50.10	11.543	102.95	.393	161.00	.733	211.10	.563	292.90	.445
51.10	47.101	104.05	1.191	165.10	.890	216.10	.759	296.00	6.478
52.10	2.303	105.05	1.243	167.10	3.534	217.00	5.942	302.90	.236
56.05	1.322	105.95	.720	168.00	1.688	218.10	.366	303.10	.249
56.95	3.350	107.05	12.812	172.90	.353	221.00	4.567	314.95	.458
60.85	.628	108.05	2.343	174.10	.667	221.60	.851	316.05	.183
61.95	.236	110.05	29.198	175.10	.707	222.50	.157	323.05	2.120
62.95	2.002	111.05	3.913	176.90	.759	223.10	.982	334.10	.800
64.95	.366	116.05	.733	177.90	.209	224.10	12.708	351.90	.628

68.95	54.927	118.00	.785	180.10	2.290	226.95	4.842	365.85	.406
74.05	4.044	121.90	.759	181.10	.746	228.95	.550	372.05	.916
75.05	6.648	123.90	.497	185.05	1.584	230.95	.393	401.95	.314
76.00	1.898	125.10	.393	186.05	12.367	233.85	.262	421.90	.484
77.00	41.631	127.00	44.916	187.05	3.403	239.15	.170	423.00	4.319
78.10	2.997	128.00	3.887	189.05	.877	243.15	.366	424.00	.576
79.00	3.010	129.00	19.278	190.85	.314	244.05	8.271	440.05	.144
80.00	2.670	129.90	1.623	192.05	.366	245.05	1.466	440.95	11.006
81.00	3.246	135.10	1.479	193.15	.615	246.05	1.806	442.05	72.438
81.90	.824	141.05	1.832	195.95	2.526	255.00	52.689	443.05	14.108
83.00	.314	141.85	.681	198.05	100.000	256.00	7.172	443.95	1.387
83.90	.327	142.95	.550	199.05	6.779	258.10	3.337		

Initial Calibration Data
HSL Compounds

Case No: _____ Instrument ID: 5970C _____

Contractor: 21st Century Envir Calibration Date: 10/05/93

Contract No: _____

Minimum $\overline{RF}$ for SPCC is 0.050 Maximum % RSD for CCC is 30%

Laboratory ID:	>C2462	>C2463	>C2464	>C2465	>C2466					
Compound	RF 20.00	RF 50.00	RF 80.00	RF 120.00	RF 160.00	$\overline{RRT}$	$\overline{RF}$	% RSD	CCC	SPCC
Pyridine	.63132	.48413	.55653	.54506	.59155	.275	.56172	9.774		
n-Nitrosodimethylamine	.45807	.42732	.47973	.43702	.40402	.279	.44123	6.569		
2-Fluorophenol	.65660	.66793	.73401	.67524	.41751	.653	.63026	19.459		(Conc=100.0,100.0,100.0,1
Phenol-d5	.92608	.92569	1.02205	.87239	.50140	.953	.84952	23.773		(Conc=100.0,100.0,100.0,1
Phenol	1.20038	1.06287	1.17877	1.01895	.90687	.958	1.07357	11.220	*	
bis(-2-Chloroethyl)Ether	.95365	.77224	.85253	.73467	.63863	.955	.79034	15.101		
2-Chlorophenol	.93614	.81405	.86646	.73831	.66980	.955	.80495	12.997		
1,3-Dichlorobenzene	1.02406	.92048	.99905	.89309	.81118	.988	.92957	9.189		
1,4-Dichlorobenzene	1.00017	.93825	.99738	.88752	.80924	1.005	.92651	8.678	*	
Benzyl Alcohol	.47665	.49411	.62795	.57689	.53155	1.070	.54143	11.414		
1,2-Dichlorobenzene	.99220	.89301	1.00578	.86896	.79006	1.057	.91000	9.873		
2-Methylphenol	.90526	.83716	.94790	.83193	.74619	1.121	.85369	9.043		
bis(2-Chloroisopropyl)ether	.96309	.90471	1.09206	.93778	.87401	1.113	.95433	8.804		
4-Methylphenol	.92654	.84174	.93670	.81726	.37310	1.160	.77907	29.883		(Conc=40.0,100.0,160.0,24
N-Nitroso-Di-n-propylamine	.93601	.89482	.96656	.76575	.76294	1.159	.86522	11.043	**	
Hexachloroethane	.47756	.44349	.48704	.42709	.37741	1.142	.44252	9.907		
Nitrobenzene-d5	.43479	.37628	.42536	.38408	.35227	.858	.39456	8.780		(Conc=50.0,50.0,50.0,50.0
Nitrobenzene	.47249	.43910	.47508	.42617	.66202	.862	.49497	19.341		
Isophorone	1.06970	1.03324	1.05127	.94136	.85788	.917	.99069	8.999		
2-Nitrophenol	.23916	.22949	.25583	.23806	.23347	.930	.23920	4.206	*	
2,4-Dimethylphenol	.36384	.32696	.36763	.33543	.33038	.961	.34485	5.612		
Benzoic Acid	.19694	.22029	.25667	.23433	.20066	1.015	.22178	11.137		
bis(-2-Chloroethoxy)Methane	.51642	.44958	.49465	.45774	.44246	.975	.47217	6.752		
2,4-Dichlorophenol	.38066	.33456	.36008	.32936	.32301	.986	.34554	6.992	*	
1,2,4-Trichlorobenzene	.42701	.37567	.41925	.38684	.40029	.995	.40181	5.351		
Naphthalene	1.25421	1.11433	1.18429	1.06777	1.02162	1.004	1.12844	8.197		
4-Chloroaniline	.47495	.46433	.46164	.41249	.36827	1.032	.43633	10.324		
Hexachlorobutadiene	.24387	.21000	.23509	.21477	.21951	1.050	.22465	6.362	*	
4-Chloro-3-methylphenol	.46017	.42480	.39685	.33587	.27615	1.149	.37877	19.331	*	
2-Methylnaphthalene	1.20421	1.03359	1.06100	.93107	.82619	1.152	1.01121	14.063		

RF - Response Factor (Subscript is amount in ug/l)

$\overline{RRT}$ - Average Relative Retention Time (RT Std/RT Istd)

$\overline{RF}$ - Average Response Factor

%RSD - Percent Relative Standard Deviation

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

00161

Initial Calibration Data
HSL Compounds

Case No: _____ Instrument ID: 5970C

Contractor: 21st Century Envir Calibration Date: 10/05/93

Contract No: _____

Minimum $\overline{RF}$ for SPCC is 0.050 Maximum % RSD for CCC is 30%

Laboratory ID:	>C2462	>C2463	>C2464	>C2465	>C2466					
Compound	RF 20.00	RF 50.00	RF 80.00	RF 120.00	RF 160.00	$\overline{RRT}$	$\overline{RF}$	% RSD	CCC	SPCC
Hexachlorocyclopentadiene	.40018	.42149	.45028	.41797	.41504	.876	.42099	4.340		**
2,4,6-Trichlorophenol	.45477	.43080	.50702	.49216	.48924	.893	.47480	6.564	*	
2,4,5-Trichlorophenol	.46911	.45013	.52963	.51527	.51089	.899	.49501	6.810		
2-Chloronaphthalene	1.37335	1.28378	1.51181	1.47638	1.48570	.913	1.42620	6.695		
2-Fluorobiphenyl	1.30072	1.28587	1.54772	1.62126	1.74310	.905	1.49973	13.404		(Conc=50.0,50.0,50.0,50.0
2-Nitroaniline	.44263	.37796	.41379	.39904	.37284	.941	.40125	7.076		
Dimethyl Phthalate	1.74342	1.44360	1.44358	1.29618	1.21761	.980	1.42888	14.067		
Acenaphthylene	2.11901	1.95764	2.07789	1.96727	1.90432	.976	2.00523	4.469		
3-Nitroaniline	.23708	.22144	.17788	.17468	.16673	1.005	.19556	16.117		
Acenaphthene	1.38815	1.21332	1.30314	1.21587	1.18383	1.005	1.26086	6.660	*	
2,4-Dinitrophenol	.06504	.07809	.08896	.10346	.11262	1.021	.08963	21.305		**
4-Nitrophenol	.10554	.12599	.13355	.15004	.14134	1.047	.13129	12.907		**
Dibenzofuran	1.87479	1.55343	1.73519	1.62822	1.58113	1.031	1.67455	7.861		
2,4-Dinitrotoluene	.39577	.33021	.31653	.31394	.30639	1.045	.33257	10.934		
2,6-Dinitrotoluene	.37124	.32635	.32051	.30042	.28454	.987	.32061	10.232		
Diethylphthalate	1.75795	1.29846	1.25255	1.09906	1.02874	1.091	1.28735	22.146		
4-Chlorophenyl-phenylether	.74767	.62537	.64369	.60111	.55492	1.090	.63455	11.260		
Fluorene	1.44338	1.21309	1.21465	1.13995	1.05271	1.083	1.21276	11.957		
4-Nitroaniline	.14524	.13185	.13350	.14764	.15523	1.101	.14269	6.920		
4,6-Dinitro-2-methylphenol	.10627	.12548	.15557	.16519	.17129	.905	.14476	19.203		
N-Nitrosodiphenylamine	.79898	.72440	.81165	.70559	.66125	.908	.74037	8.607	*	
2,4,6-Tribromophenol	.14762	.15959	.18359	.17297	.17432	.918	.16762	8.400		(Conc=100.0,100.0,100.0,1
4-Bromophenyl-phenylether	.33541	.31431	.36533	.32909	.30428	.950	.32968	7.091		
Hexachlorobenzene	.38486	.39251	.41165	.38675	.36991	.964	.38914	3.880	*	
Pentachlorophenol	.09816	.11595	.14669	.16279	.17546	.989	.13981	23.040		**
Phenanthrene	1.24513	1.19674	1.26840	1.22480	1.17313	1.003	1.22164	3.096		
Anthracene	1.18716	1.14700	1.29023	1.21430	1.14984	1.009	1.19771	4.906		
Di-n-Butylphthalate	1.54437	1.36073	1.59374	1.57734	1.56569	1.097	1.52837	6.243		
Fluoranthene	.76581	.83107	.95306	1.02897	1.03908	1.153	.92360	13.124	*	
Pyrene	2.06508	1.71884	1.90810	1.63374	1.56977	.884	1.77911	11.485		

RF - Response Factor (Subscript is amount in ug/l)

$\overline{RT}$ - Average Relative Retention Time (RT Std/RT Istd)

$\overline{RF}$ - Average Response Factor

RSD - Percent Relative Standard Deviation

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

00162

Initial Calibration Data
HSL Compounds

Case No: _____ Instrument ID: 5970C

Contractor: 21st Century Envir Calibration Date: 10/05/93

Contract No: _____

Minimum $\overline{RF}$ for SPCC is 0.050 Maximum % RSD for CCC is 30%

Compound	Laboratory ID: >C2462 RF 20.00	>C2463 RF 50.00	>C2464 RF 80.00	>C2465 RF 120.00	>C2466 RF 160.00	$\overline{RRT}$	$\overline{RF}$	% RSD	CCC	SPCC	
Benzidine	.14836	.23577	.14409	.14673	.11359	.882	.15771	29.114			
Terphenyl-d14	1.29088	1.03040	1.18494	1.08949	1.16423	.906	1.15199	8.595			(Conc=50.0,50.0,50.0,50.0
Butylbenzylphthalate	.92515	.84287	.98710	.93379	.92900	.961	.92358	5.596			
3,3'-Dichlorobenzidine	.20915	.25550	.28067	.30668	.30231	1.002	.27086	14.782			
Benzo(a)Anthracene	1.12601	1.08941	1.25782	1.16235	1.18257	.999	1.16363	5.462			
Bis(2-Ethylhexyl)Phthalate	1.38548	1.22469	1.51062	1.35209	1.37144	1.022	1.36887	7.436			
Chrysene	.97238	1.04702	1.20592	1.12408	1.13610	1.002	1.09710	8.172			
Di-n-octyl phthalate	2.48111	2.40663	2.80940	2.70136	2.61508	.958	2.60272	6.250	*		
Benzo(b)fluoranthene	1.15740	1.13307	1.28850	1.25323	1.23290	.973	1.21302	5.405			
Benzo(k)Fluoranthene	1.48682	1.24554	1.49041	1.25199	1.28054	.975	1.35106	9.346			
Benzo(a)Pyrene	1.11500	1.10380	1.30427	1.22340	1.18139	.996	1.18557	6.956	*		
Indeno(1,2,3-cd)Pyrene	1.09791	.85765	1.23055	.87788	.86037	1.071	.98487	17.311			
Dibenzo(a,h)Anthracene	.86307	.91288	.97198	.98850	.94924	1.073	.93714	5.355			
Benzo(g,h,i)Perylene	.97839	.94761	.95839	.97742	.95972	1.086	.96431	1.377			

RF - Response Factor (Subscript is amount in ug/l)

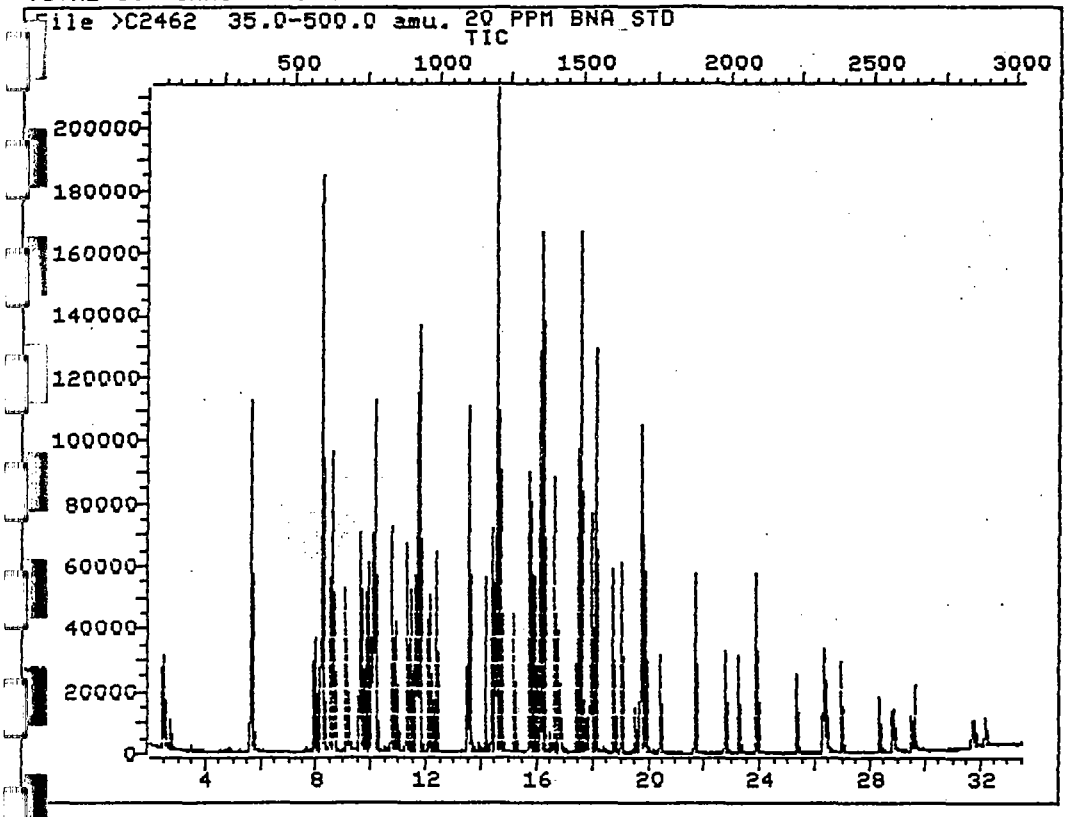
$\overline{RT}$ - Average Relative Retention Time (RT Std/RT Istd)

$\overline{RF}$ - Average Response Factor

RSD - Percent Relative Standard Deviation

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

TOTAL ION CHROMATOGRAM

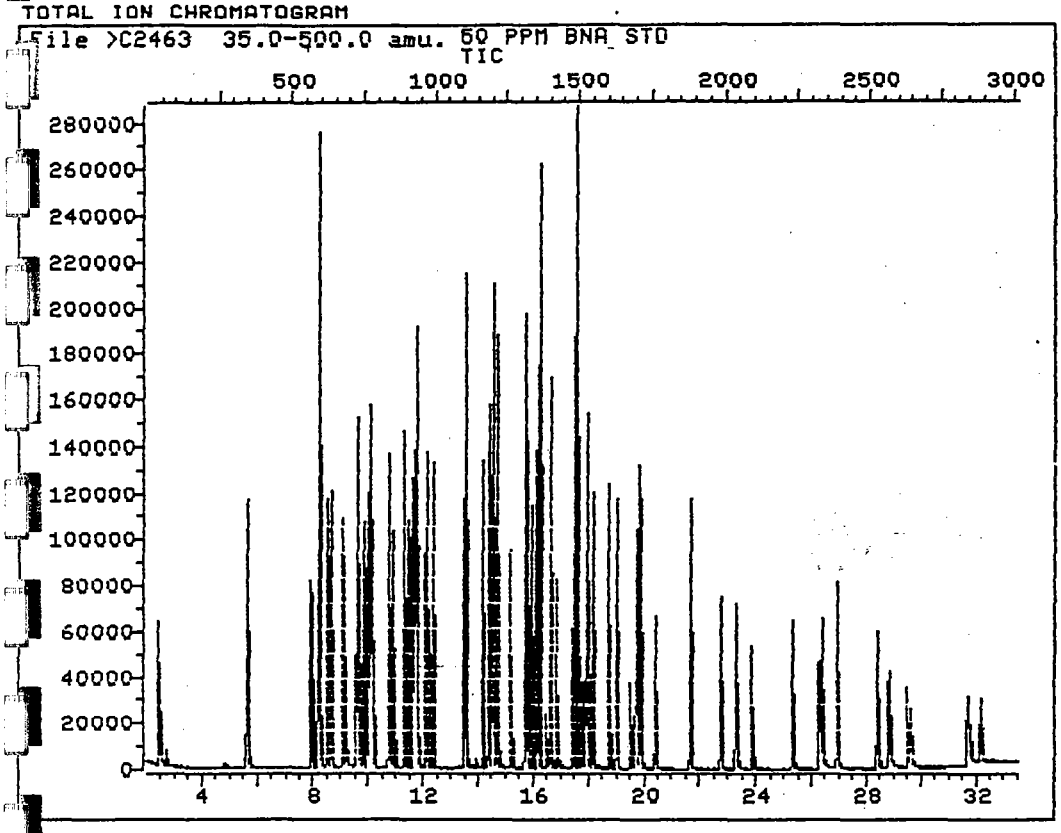


Data File: >C2462::E4 Quant Output File: ^C2462::D2
Name: 20 PPM BNA STD
Misc: BTL# 1

Id File: ID930C::D5
Title: hSL BNA STD
Last Calibration: 931004 19:11

Operator ID: JEFF
Quant Time: 931004 23:16
Injected at: 931004 22:39

TOTAL ION CHROMATOGRAM

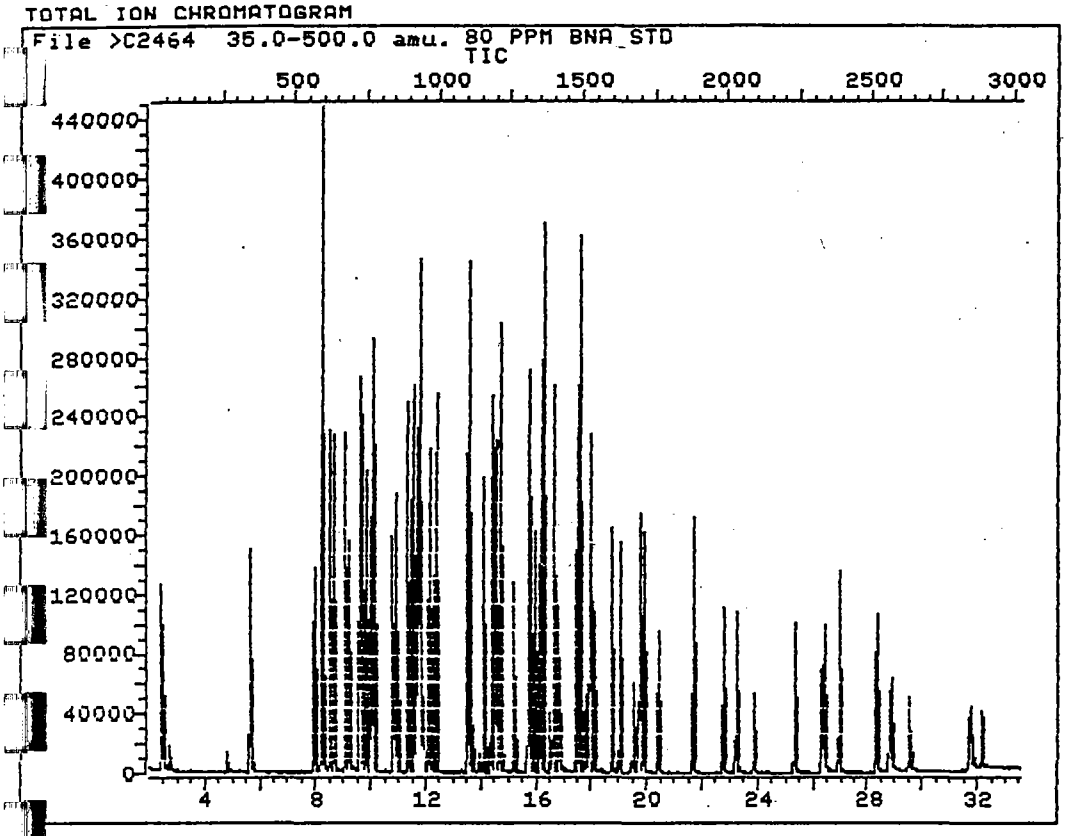


Data File: >C2463::E4 Quant Output File: ^C2463::D2
Name: 50 PPM BNA STD
Misc: BTL# 2

Id File: ID930C::D5
Title: hSL BNA STD
Last Calibration: 931004 19:11

Operator ID: JEFF
Quant Time: 931005 00:01
Injected at: 931004 23:24

TOTAL ION CHROMATOGRAM

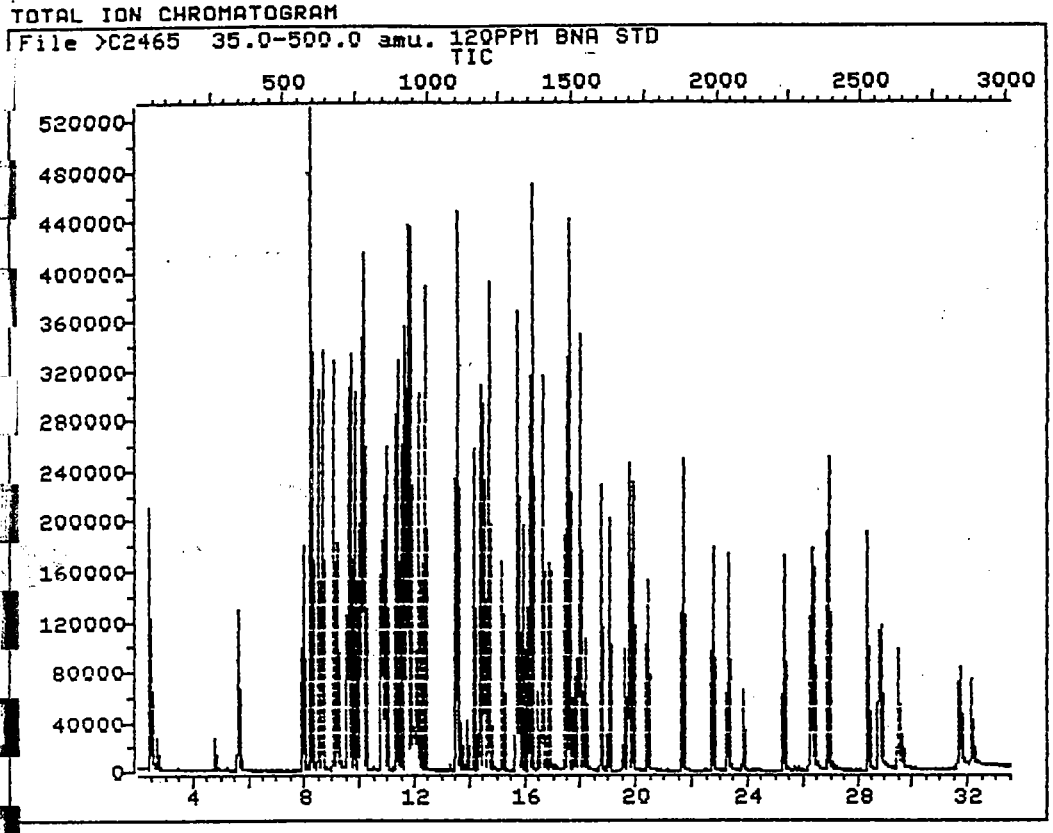


Data File: >C2464::E4 Quant Output File: ^C2464::D2
Name: 80 PPM BNA STD
Misc: BTL# 3

Id File: ID930C::D5
Title: hSL BNA STD
Last Calibration: 931004 19:11

Operator ID: JEFF
Quant Time: 931005 00:46
Injected at: 931005 00:09

TOTAL ION CHROMATOGRAM

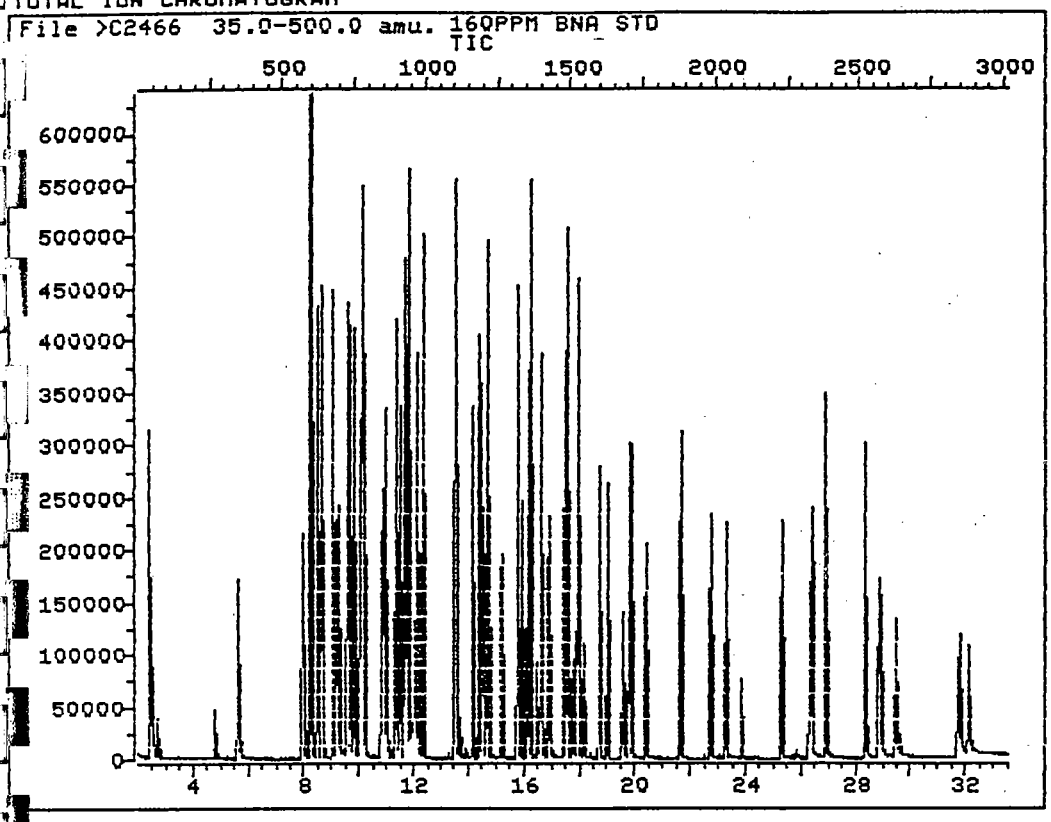


Data File: >C2465::E4 Quant Output File: ^C2465::D2
Name: 120PPM BNA STD
Misc: BTL# 4

Id File: ID930C::D5
Title: hSL BNA STD
Last Calibration: 931004 19:11

Operator ID: JEFF
Quant Time: 931005 01:30
Injected at: 931005 00:54

TOTAL ION CHROMATOGRAM



Data File: >C2466::E4 Quant Output File: ^C2466::D2
Name: 160PPM BNA STD
Misc: BTL# 5

Id File: ID930C::D5
Title: hSL BNA STD
Last Calibration: 931004 19:11

Operator ID: JEFF
Quant Time: 931005 02:15
Injected at: 931005 01:39

4A

VOLATILE METHOD BLANK SUMMARY

Lab Name: 21st Century Environmental Inc. Contract No.:

Lab Code: Case No: SAS No.: SDG No.:

LAB ID FILE (BLANK): >B1417 DATE ANALYZED: 09/02/93

INSTRUMENT ID: B TIME ANALYZED: 13:27

Matrix: WATER Level:(low/med) LOW Column:(pack/cap)

Sample ID: BLANK

THIS BLANK APPLIES TO THE FOLLOWING SAMPLES,MS AND MSD

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	A3850	>B1419	09/02/93	14:30
2	A3851	>B1420	09/02/93	15:00
3	A3852	>B1421	09/02/93	15:30
4	A3853	>B1422	09/02/93	16:00
5	A3854	>B1423	09/02/93	16:30
6	A3855	>B1424	09/02/93	17:00
7	A3856	>B1425	09/02/93	17:31
8	A3810	>B1427	09/02/93	18:31
9	A3811	>B1428	09/02/93	19:00
10	A3812	>B1429	09/02/93	19:31
11	A3813	>B1430	09/02/93	20:00
12	A3814	>B1431	09/02/93	20:30
13	A3815	>B1432	09/02/93	21:00
14	A3816	>B1433	09/02/93	21:30
15	A3817	>B1434	09/02/93	22:00
16	A3818	>B1435	09/02/93	22:30
17	A3819	>B1436	09/02/93	23:00
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COMMENTS: _____

21st Century Environmental Inc.
VOLATILE ORGANIC ANALYSIS DATA

JOB NUMBER		MATRIX	Water
SAMPLE NUMBER	BLANK	DILUTION FACTOR	1.00
CLIENT ID	0900293 METHOD BLANK	QA BATCH	
DATA FILE	>81417	DATE ANALYZED	09/02/93

COMPOUND	UG/L	MDL	COMPOUND	UG/L	MDL
Acrolein	ND	50	2-Chloroethylvinylether	ND	10
Acrylonitrile	ND	50	2-Hexanone	ND	10
Chloromethane	ND	10	trans-1,3-Dichloropropene	ND	5
Bromomethane	ND	10	Toluene	ND	5
Vinyl Chloride	ND	10	cis-1,3-Dichloropropene	ND	5
Chloroethane	ND	10	1,1,2,2-Tetrachloroethane	ND	5
Acetone	7.0 J	10	1,1,2-Trichloroethane	ND	5
1,1-Dichloroethene	ND	5	4-Methyl-2-pentanone	ND	10
Carbon Disulfide	ND	10	Tetrachloroethene	ND	5
Methylene Chloride	ND	5	Dibromochloromethane	ND	5
1,2-Dichloroethene(trans)	ND	5	Chlorobenzene	ND	5
1,1-Dichloroethane	ND	5	Ethylbenzene	ND	5
Vinyl Acetate	ND	5	m&p-Xylenes	ND	5
2-Butanone	ND	10	o-Xylene	ND	5
Chloroform	ND	5	Styrene	ND	5
1,1,1-Trichloroethane	ND	5	Bromoform	ND	5
Carbon Tetrachloride	ND	5	m-Dichlorobenzene	ND	5
1,2-Dichloroethane	ND	5	p-Dichlorobenzene	ND	5
Benzene	ND	5	o-Dichlorobenzene	ND	5
Trichloroethene	ND	5	Methyl Tertiary Butyl Ether	ND	10
1,2-Dichloropropane	ND	5	Tertiary Butyl Alcohol	ND	50
Bromodichloromethane	ND	5			

SURROGATE COMPOUNDS	% RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	104	76 - 114	OK
Toluene-d8	97.4	88 - 110	OK
Bromofluorobenzene	98.1	86 - 115	OK

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

BLANK

Lab Name: 21st Century Environmental Contract: N/A

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

Matrix: (soil/water) WATER Lab Sample ID: BLANK

Sample wt/vol: 5 (g/mL) mL Lab File ID: >B1417

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

% Moisture: NA Date Analyzed: 09/02/93

Column: DB-624 Dilution Factor: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	No Unknowns			

FORM I VOA-TIC 1/87 Rev.

QUANT REPORT

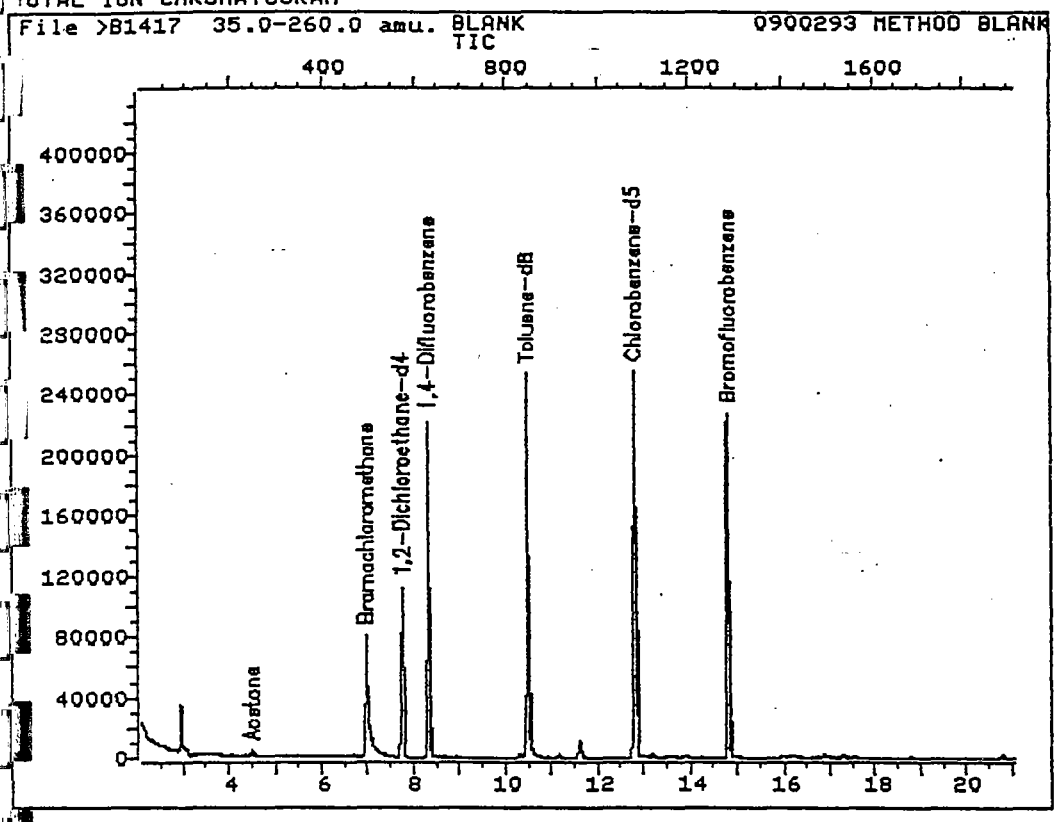
erator ID: MANAGER Quant Rev: 6 Quant Time: 930902 13:56
tput File: ^B1417::QT Injected at: 930902 13:27
ata File: >B1417::D6 Dilution Factor: 1.00000
e: BLANK
c: 0900293 METHOD BLANK 5ml

File: ID0401::SC
le: USEPA 624 VOLATILES
st Calibration: 930902 13:49

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*Bromochloromethane	6.96	492	59944	50.00	UG/L	100
	Acetone	4.49	243	9337	7.04	UG/L	84
	1,2-Dichloroethane-d4	7.74	570	140593	52.08	UG/L	100
4)	*1,4-Difluorobenzene	8.31	628	346045	50.00	UG/L	100
3)	Toluene-d8	10.47	845	336333	48.72	UG/L	100
	*Chlorobenzene-d5	12.79	1079	284318	50.00	UG/L	100
	Bromofluorobenzene	14.79	1281	160595	49.04	UG/L	100

Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >B1417::D6 Quant Output File: ^B1417::QT
Name: BLANK
Misc: 0900293 METHOD BLANK 5ml

Id File: ID0401::SC
Title: USEPA 624 VOLATILES
Last Calibration: 930902 13:49

Operator ID: MANAGER
Quant Time: 930902 13:56
Injected at: 930902 13:27

00170

4A

VOLATILE METHOD BLANK SUMMARY

Lab Name: 21st Century Environmental Inc. Contract No.:

Lab Code: Case No: SAS No.: SDG No.:

LAB ID FILE (BLANK): >B1480 DATE ANALYZED: 09/05/93

INSTRUMENT ID: B TIME ANALYZED: 18:30

Matrix: WATER Level:(low/med) LOW Column:(pack/cap)

Sample ID: BLANK

THIS BLANK APPLIES TO THE FOLLOWING SAMPLES,MS AND MSD

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	A3820	>B1481	09/05/93	19:05
2	A3878	>B1486	09/05/93	21:38
3	A3879	>B1487	09/05/93	22:08
4	A3880	>B1488	09/05/93	22:38
5	A3881	>B1489	09/05/93	23:08
6	A3882	>B1490	09/05/93	23:38
7	A3883	>B1491	09/06/93	00:08
8	A3884	>B1492	09/06/93	00:37
9	A3886	>B1493	09/06/93	01:07
10	A3887	>B1494	09/06/93	01:37
11	A3888	>B1495	09/06/93	02:07
12	A3889	>B1496	09/06/93	02:37
13	A3890	>B1497	09/06/93	03:07
14	A3892	>B1498	09/06/93	03:37
15	A3893	>B1499	09/06/93	04:07
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COMMENTS: _____

00174

21st Century Environmental Inc.
VOLATILE ORGANIC ANALYSIS DATA

JOB NUMBER		MATRIX	Water
SAMPLE NUMBER	BLANK	DILUTION FACTOR	1.00
CLIENT ID	090593 METHOD BLANK	QA BATCH	
DATA FILE	>B1480	DATE ANALYZED	09/05/93

COMPOUND	UG/L	MDL	COMPOUND	UG/L	MDL
Acrolein	ND	50	2-Chloroethylvinylether	ND	10
Acrylonitrile	ND	50	2-Hexanone	ND	10
Chloromethane	ND	10	trans-1,3-Dichloropropene	ND	5
Bromomethane	ND	10	Toluene	ND	5
Vinyl Chloride	ND	10	cis-1,3-Dichloropropene	ND	5
Chloroethane	ND	10	1,1,2,2-Tetrachloroethane	ND	5
Acetone	3.3 J	10	1,1,2-Trichloroethane	ND	5
1,1-Dichloroethene	ND	5	4-Methyl-2-pentanone	ND	10
Carbon Disulfide	ND	10	Tetrachloroethene	ND	5
Methylene Chloride	ND	5	Dibromochloromethane	ND	5
1,2-Dichloroethene(trans)	ND	5	Chlorobenzene	ND	5
1,1-Dichloroethane	ND	5	Ethylbenzene	ND	5
Vinyl Acetate	ND	5	m&p-Xylenes	ND	5
2-Butanone	ND	10	o-Xylene	ND	5
Chloroform	ND	5	Styrene	ND	5
1,1,1-Trichloroethane	ND	5	Bromoform	ND	5
Carbon Tetrachloride	ND	5	m-Dichlorobenzene	ND	5
1,2-Dichloroethane	ND	5	p-Dichlorobenzene	ND	5
Benzene	ND	5	o-Dichlorobenzene	ND	5
Trichloroethene	ND	5	Methyl Tertiary Butyl Ether	ND	10
1,2-Dichloropropane	ND	5	Tertiary Butyl Alcohol	ND	50
Bromodichloromethane	ND	5			

SURROGATE COMPOUNDS	% RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	104	76 - 114	OK
Toluene-d8	96.5	88 - 110	OK
Bromofluorobenzene	97.4	86 - 115	OK

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

BLANK

Lab Name: 21st Century Environmental Contract: N/A

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

Matrix: (soil/water) WATER Lab Sample ID: BLANK

Sample wt/vol: 5 (g/mL) mL Lab File ID: >B1480

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

% Moisture: NA Date Analyzed: 09/05/93

Column: DB-624 Dilution Factor: 1

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	No Unknowns			

FORM I VOA-TIC 1/87 Rev.

QUANT REPORT

Operator ID: JEFF
Output File: ^B1480::D4
Data File: >B1480::D3
Name: BLANK
Misc: 090593 METHOD BLANK

Quant Rev: 6 Quant Time: 930905 19:02
Injected at: 930905 18:30
Dilution Factor: 1.00000

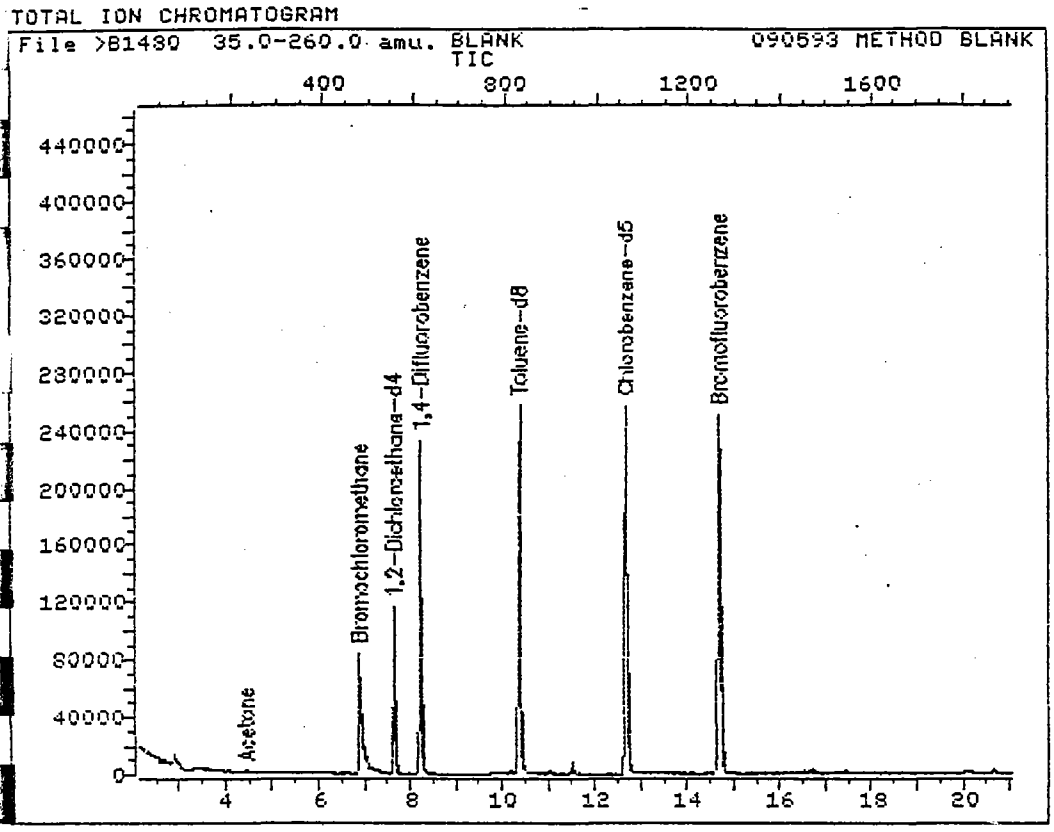
5mL

ID File: ID0401::SC
Title: USEPA 624 VOLATILES
Last Calibration: 930905 18:30

	Compound	R.T.	Scan#	Area	Conc	Units	q
)	*Bromochloromethane	6.89	479	59411	50.00	UG/L	100
9)	Acetone	4.43	231	3622	3.26	UG/L	81
)	1,2-Dichloroethane-d4	7.65	556	149094	51.78	UG/L	100
)	*1,4-Difluorobenzene	8.23	614	359770	50.00	UG/L	100
3)	Toluene-d8	10.36	829	348827	48.25	UG/L	100
5)	*Chlorobenzene-d5	12.68	1062	291475	50.00	UG/L	100
)	Bromofluorobenzene	14.68	1264	168519	48.71	UG/L	100

* Compound is ISTD

00177



Data File: >B1480::D3 Quant Output File: ^B1480::D4
Name: BLANK
Misc: 090593 METHOD BLANK 5mL

Id File: ID0401::SC
Title: USEPA 624 VOLATILES
Last Calibration: 930905 18:30

Operator ID: JEFF
Quant Time: 930905 19:02
Injected at: 930905 18:30

4B

SEMIVOLATILE METHOD BLANK SUMMARY

Lab Name: 21st Century Environmental Contract No.:

Lab Code: Case No: SAS No.: SDG No.:

LAB ID FILE (BLANK): >C2329 DATE ANALYZED: 09/22/93

INSTRUMENT ID: C TIME ANALYZED: 14:55

Matrix: WATER Level:(low/med) LOW Column:(pack/cap)

Date Extracted: 09/03/93 Extraction:(Sepf/Cont/Sonc) SEPF

Sample ID: AQ BLK 9/

THIS BLANK APPLIES TO THE FOLLOWING SAMPLES,MS AND MSD

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	A3814	>C2374	09/24/93	17:33
2	A3815	>C2375	09/24/93	18:20
3	A3816	>C2376	09/24/93	19:11
4	A3817	>C2529	10/07/93	16:40
5	A3818	>C2407	09/28/93	15:57
6	A3819	>C2530	10/07/93	17:27
7				
8				
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COMMENTS: _____

00179

21st Century Environmental Inc.
SEMIVOLATILE ANALYSIS DATA

JOB NUMBER	US ARMY FT. MONMOUTH, NJ	MATRIX	Water
SAMPLE NUMBER	AQ BLK 9/3/93	DILUTION FACTOR	1.00
CLIENT ID	BLDG 2500	QA BATCH	
DATA FILE	>C2329	DATE ANALYZED	09/22/93

COMPOUND	UG/L	MDL	COMPOUND	UG/L	MDL
N-Nitrosodimethylamine	ND	10	2,6-Dinitrotoluene	ND	10
bis(-2-Chloroethyl)Ether	ND	10	Diethylphthalate	ND	10
1,3-Dichlorobenzene	ND	10	4-Chlorophenyl-phenylether	ND	10
1,4-Dichlorobenzene	ND	10	Fluorene	ND	10
Benzyl Alcohol	ND	10	4-Nitroaniline	ND	50
1,2-Dichlorobenzene	ND	10	N-Nitrosodiphenylamine	ND	10
bis(2-chloroisopropyl)Ether	ND	10	4-Bromophenyl-phenylether	ND	10
N-Nitroso-Di-n-Propylamine	ND	10	Hexachlorobenzene	ND	10
Hexachloroethane	ND	10	Phenanthrene	ND	10
Nitrobenzene	ND	10	Anthracene	ND	10
Isophorone	ND	10	Di-n-Butylphthalate	ND	10
Benzoic Acid	ND	50	Fluoranthene	ND	10
bis(-2-Chloroethoxy)Methane	ND	10	Pyrene	ND	10
1,2,4-Trichlorobenzene	ND	10	Butylbenzylphthalate	ND	10
Naphthalene	ND	10	3,3'-Dichlorobenzidine	ND	20
4-Chloroaniline	ND	10	Benzo(a)Anthracene	ND	10
Hexachlorobutadiene	ND	10	Bis(2-Ethylhexyl)Phthalate	ND	10
2-Methylnaphthalene	ND	10	Chrysene	ND	10
Hexachlorocyclopentadiene	ND	10	Di-n-Octyl Phthalate	ND	10
2-Chloronaphthalene	ND	10	Benzo(b)Fluoranthene	ND	10
2-Nitroaniline	ND	50	Benzo(k)Fluoranthene	ND	10
Dimethyl Phthalate	ND	10	Benzo(a)Pyrene	ND	10
Acenaphthylene	ND	10	Indeno(1,2,3-cd)Pyrene	ND	10
3-Nitroaniline	ND	50	Dibenzo(a,h)Anthracene	ND	10
Acenaphthene	ND	10	Benzo(g,h,i)Perylene	ND	10
Dibenzofuran	ND	10	Benzidine	ND	20
2,4-Dinitrotoluene	ND	10			

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

E1

EPA SAMPLE NUMBER

semi-VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

AQ BLK

Client: US ARMY, FT. MONMOUTH, NJ

Comments: Bldg 2500

Matrix: (soil/water) WATER

Lab Sample ID: AQ BLK

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: >C2329

Level: LOW

Date Received: NA

% Moisture: 100

Date Analyzed 09/22/93

Extraction: (Sepf/Cont/Sonc) SEPF

Date Extracted 09/03/93

GPC (Y or N): N

Column: DB-5

Dilution Factor: 1

Number TICs Found 1

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

CAS NUMBER	COMPOUND NAME	RT	EST CONC
1	UNKNOWN	29.48	8

QUANT REPORT

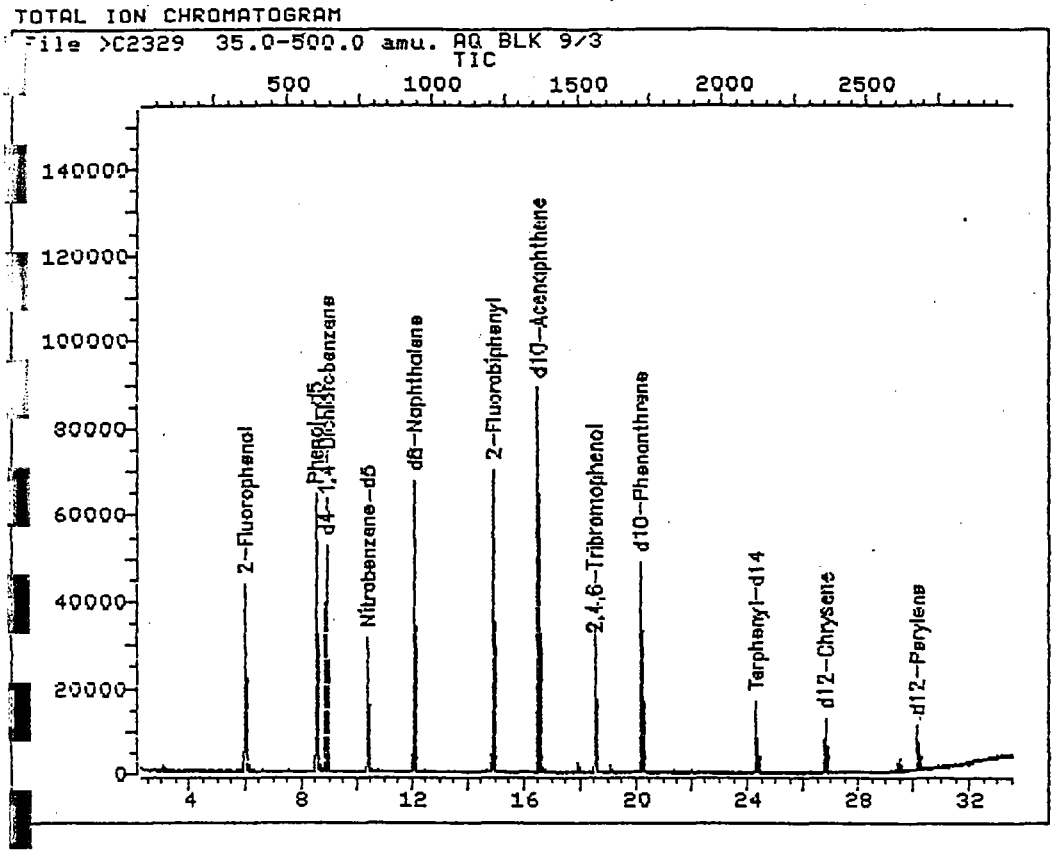
ator ID: JEFF Quant Rev: 6 Quant Time: 930922 15:32
tput File: ^C2329::E3 Injected at: 930922 14:55
ta File: >C2329::D4 Dilution Factor: 1.00000
e: AQ BLK 9/3
e: BTL# 2

File: ID922C::SC
le: hSL BNA STD
st Calibration: 930922 10:58

	Compound	R.T.	Scan#	Area	Conc	Units	q
)	*d4-1,4-Dichlorobenzene	8.92	638	23048	40.00	UG/L	98
	2-Fluorophenol	6.01	359	28017	65.96	UG/L	93
	Phenol-d5	8.49	597	42299	72.12	UG/L	93
)	*d8-Naphthalene	12.07	941	59445	40.00	UG/L	93
)	Nitrobenzene-d5	10.40	780	20838	31.33	UG/L	86
	*d10-Acenaphthene	16.49	1365	37013	40.00	UG/L	92
)	2-Fluorobiphenyl	14.92	1214	39454	32.69	UG/L	94
)	*d10-Phenanthrene	20.14	1715	37598	40.00	UG/L	99
	2,4,6-Tribromophenol	18.49	1557	5948	49.07	UG/L	95
	*d12-Chrysene	26.78	2353	10972	40.00	UG/L	97
)	Terphenyl-d14	24.28	2113	12237	43.34	UG/L	87
	*d12-Perylene	30.11	2673	9743	40.00	UG/L	94

Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >C2329::D4 Quant Output File: ^C2329::E3

Name: AQ BLK 9/3

Misc: BTL# 2

Id File: ID922C::SC

Title: hSL BNA STD

Last Calibration: 930922 10:58

Operator ID: JEFF

Quant Time: 930922 15:32

Injected at: 930922 14:55