United States Army
Fort Monmouth, New Jersey

Underground Storage Tank Closure and Site Investigation Report

Building 689B
Main Post

NJDEP UST Registration No. 081533-109
NJDEP Closure Approval No. C-93-3673

May 2000

UNDERGROUND STORAGE TANK
CLOSURE AND SITE INVESTIGATION REPORT

BUILDING 689B

MAIN POST
NJDEP UST REGISTRATION NO. 081533-109
NJDEP CLOSURE APPROVAL NO. C-93-3673

MAY 2000

PROJECT NO.: 09-5004-12
CONTRACT NO.: DACA51-94-D-0014

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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BURLINGTON, NEW JERSEY 08016

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EXECUTIVE SUMMARY

UST Closure

On November 12, 1993, a steel underground storage tank (UST) was closed by removal in accordance with the New Jersey Department of Environmental Protection (NJDEP) Closure Approval No. C-93-3673 at U.S. Army Fort Monmouth, Fort Monmouth, New Jersey. The UST, NJDEP Registration No. 081533-109, was located immediately adjacent to Building 689B in the Main Post area of U.S. Army, Fort Monmouth. UST No. 081533-109 was a 2,000-gallon No. 2 fuel oil UST. The UST fill port was located directly above the tank. The tank closure was performed by Cleaning Up the Environment Inc.

Site Assessment - Soil

The site assessment was performed by U.S. Army personnel in accordance with the NJDEP *Technical Requirements for Site Remediation* (N.J.A.C. 7:26E) and the NJDEP *Field Sampling Procedures Manual*. Soils surrounding the tank were screened visually and with air monitoring equipment for evidence of contamination. Following removal, the UST was inspected for corrosion holes. Small holes were noted in the UST and evidence of potentially contaminated soils was observed surrounding the tank.

On November 12, 1997, following removal of the UST and approximately 2 cubic yards of soil, post-excavation soil samples A, B, C, and D were collected from four (4) locations along the sidewalls of the excavation, immediately above groundwater. The samples were collected at a depth of 7.0 feet below ground surface (bgs). Groundwater was present at approximately 8.5 feet bgs. The samples were analyzed for total petroleum hydrocarbons (TPHC). Appurtenant piping ran approximately 13 feet from the UST to Building 689B. No samples were collected along the piping length.

Based on an inspection of the UST, and field screening of subsurface soils the Directorate of Public Works (DPW) concluded that an historical discharge was associated with the UST. On November 17, 1993, a spill was reported to the NJDEP "Hotline" for UST No. 081533-109 and was assigned Spill Case No. 93-11-17-1759-33.

Findings - Soil

All post-excavation soil samples collected from the UST excavation and from below piping associated with the former UST at Building 689B contained TPHC concentrations below the NJDEP residential direct contact total organic contaminants soil cleanup criteria of 10,000 milligrams per kilogram (mg/kg) (N.J.A.C. 7:26D and revisions dated February 3, 1994). Samples B, C, and D contained TPHC concentrations ranging from 3.64 mg/kg to 1,140.0 mg/kg. Sample A contained a non-detectable concentration of TPHC.

Site Restoration

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

Site Assessment Quality Assurance

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

Site Assessment - Groundwater

In response to the observation of potentially contaminated soil near the shallow water table, one shallow overburden monitoring well (MW-1) was installed at the Building 689B area on September 15, 1994. It was installed approximately 24 feet north of the Building in the downgradient direction. It was screened in the 2.0 -to 12.5 foot depth interval, across the water table, which is approximately 6.0 feet below grade surface.

On November 9, 1994, and December 1, 1994, MW-1 was sampled for volatile organic compounds calibrated for xylene plus 15 tentatively identified compounds (VOCs), methyl tertiary butyl ether, tertiary butyl alcohol, and semivolatile organic compounds plus 15 tentatively identified compounds (SVOCs). Sampling and analysis were performed in accordance with the NJDEP *Field Sampling Procedures Manual* and the *Technical Requirements For Site Remediation.*

Findings - Groundwater

All groundwater analytical results were either below the detection limit or in compliance with the New Jersey Ground Water Quality Standard (GWQS). No product or sheen was observed in MW-1 on either of the sampling dates.

The depth to the water table was 7.23 feet below grade on November 9, 1994, and 6.71 feet below grade on December 1, 1994.

Discrepancies

The removal contractor collected soil samples using polystyrene scoops instead of NJDEP approved stainless steel scoops. The results of the soil samples were therefore evaluated at 50% of the actual value to compensate for any potential loss due to absorbency of the polystyrene scoop.

Conclusions and Recommendations

Based on the post-excavation soil sampling results, soils with TPHC concentrations exceeding the NJDEP soil cleanup criteria for total organic contaminants of 10,000 mg/kg, do not exist in the former location of the UST or associated piping.

Based on the analytical results of the groundwater samples collected on November 9, 1994 and December 1, 1994, groundwater quality at the Building 689B UST closure site complies with the New Jersey Groundwater Quality Standard for volatile organic compounds and semivolatile organic compounds.

No further action is proposed in regard to the closure and site assessment of UST No. 081533-109 at Building 689B.

1.0 UNDERGROUND STORAGE TANK DECOMMISSIONING ACTIVITIES

1.1 OVERVIEW

One underground storage tank (UST), New Jersey Department of Environmental Protection (NJDEP) Registration No. 081533-109, was closed at Building 689B at U.S. Army Fort Monmouth, Fort Monmouth, New Jersey on November 12, 1993. Refer to site location map on Figure 1. This report presents the results of the DPW's implementation of the UST Decommissioning/Closure Plan submitted to the NJDEP on July 22, 1993. The plan was approved on September 7, 1993 and assigned TMS No. C-93-3673. The UST was a steel 2,000-gallon tank containing No. 2 fuel oil.

Decommissioning activities for UST No. 081533-109 complied with all applicable Federal, State and Local laws and ordinances in effect at the date of decommissioning. These laws included but were not limited to: N.J.A.C. 7:14B-1 et seq., N.J.A.C. 5:23-1 et seq., and Occupational Safety and Health Administration (OSHA) 1910.146 & 1910.120. All permits including but not limited to the NJDEP-approved Decommissioning/Closure Plan were posted onsite for inspection. CUTE Inc., the contractor that conducted the decommissioning activities, is registered and certified by the NJDEP for performing UST closure activities. Closure of UST No. 081533-109 proceeded under the approval of the NJDEP Bureau of Underground Storage Tanks (NJDEP-BUST). The NJDEP-BUST closure approval and signed certifications for UST No. 081533-109 are included in Appendices A and B, respectively.

Based on an inspection of the UST, and field screening of subsurface soils the DPW has concluded that an historical discharge was associated with the UST. On November 17, 1993, a spill was reported to the NJDEP "Hotline" for UST No. 081533-109 and was assigned Spill Case No. 93-11-17-1759-33.

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

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

1.2 SITE DESCRIPTION

Building 689B is located in the central portion of the Main Post area of Fort Monmouth, as shown on Figure 1. UST No. 081533-109 was located north of Building 689B and appurtenant piping ran approximately 13 feet south from the excavation to Building 689B. The fill port area was located directly above the tank. A site map is provided on Figure 2.

1.2.1 Geological/Hydrogeological Setting

The following is a description of the geological/hydrogeological setting of the area surrounding Building 689B. Included is a description of the regional geology of the area surrounding Fort Monmouth as well as descriptions of the local geology and hydrogeology of the Main Post area.

Regional Geology

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

In general, New Jersey Coastal Plain formations consist of a seaward-dipping wedge of unconsolidated deposits of clay, silt, and gravel. These formations typically strike northeast-southwest with a dip ranging from 10 to 60 feet per mile and were deposited on Precambrian and lower Paleozoic rocks (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).

Local Geology

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

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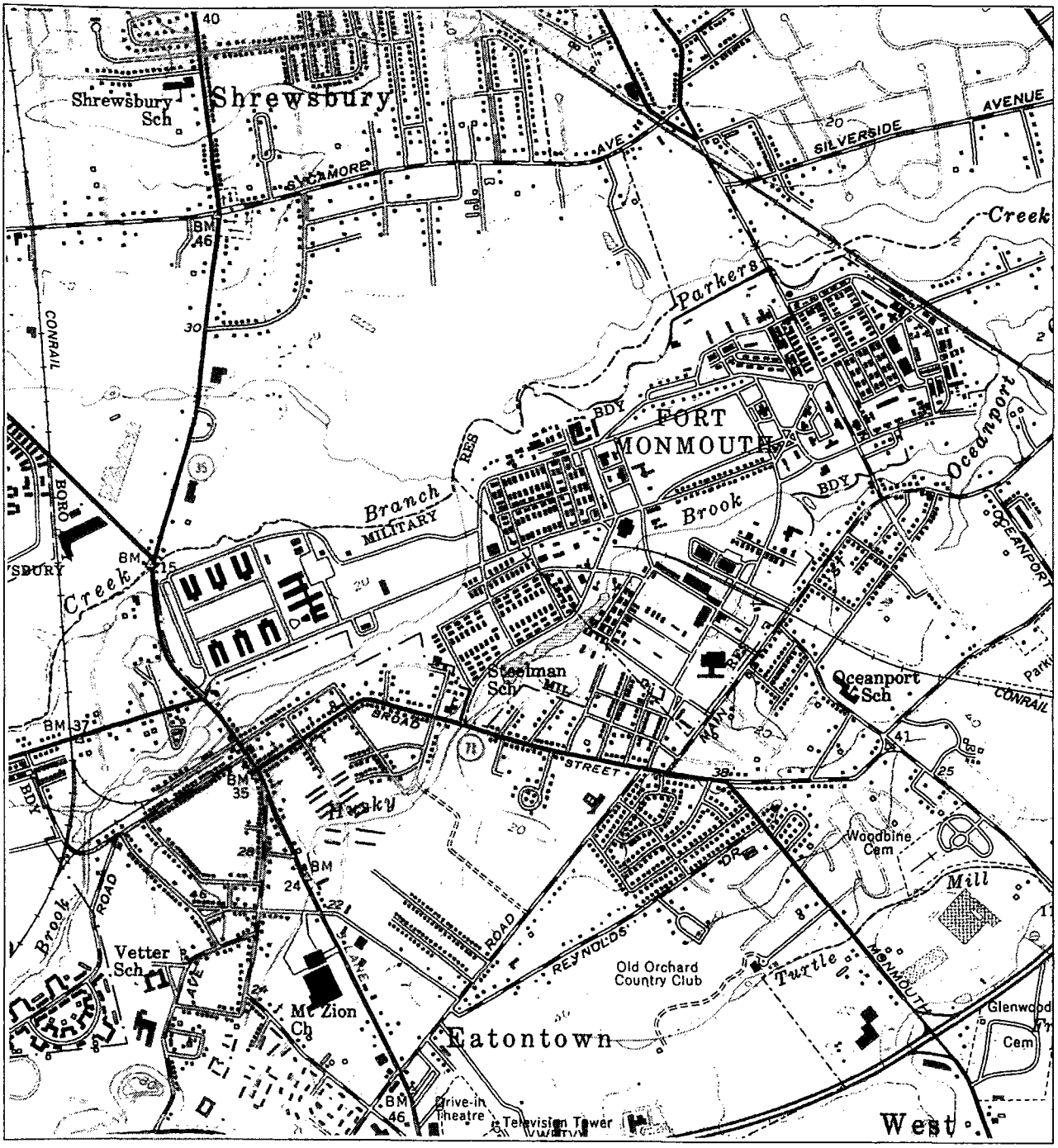

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SCALE
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NEW JERSEY

QUADRANGLE LOCATION

Source: Long Branch, New Jersey Quadrangle

Project No. 09-5004-14

Figure 1
Site Location Map

U.S. Army
Department of Public Works
Fort Monmouth, New Jersey

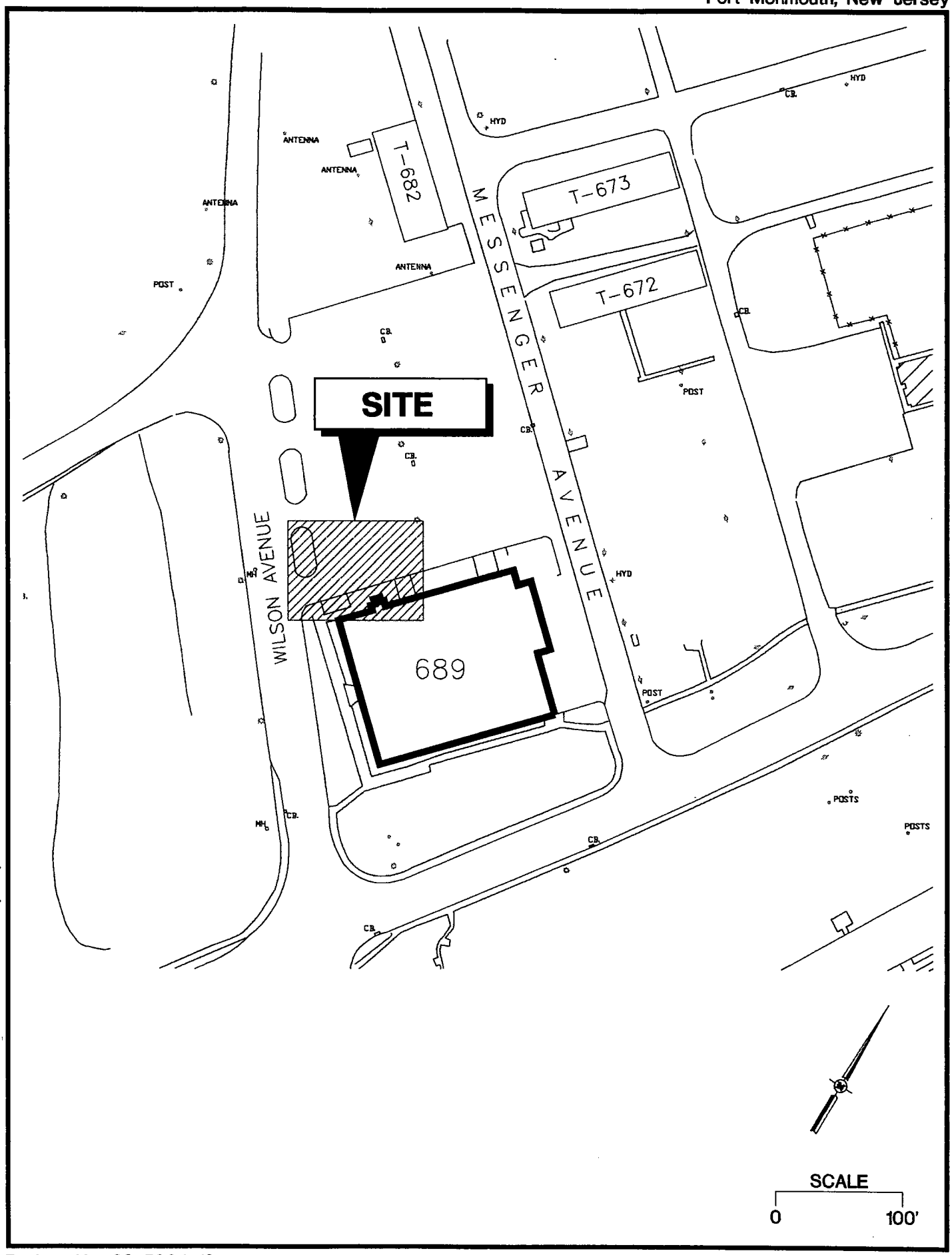

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Figure 2
Building 689B

1.4 REMOVAL OF UNDERGROUND STORAGE TANK

1.4.1 General Procedures

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

1.4.2 Underground Storage Tank Excavation and Cleaning

Prior to UST decommissioning activities, surficial soil was removed to expose the UST and associated piping. All free product present in the piping was drained into the UST, and the UST was purged to remove vapors prior to cutting and removal of the piping. After removal of the associated piping, a manway was made in the UST to allow for proper cleaning. The UST was completely emptied of all liquids prior to removal from the ground. Approximately 132 gallons of liquid were transported by Freehold Cartage Inc. to Mazza and Sons Inc., a NJDEP-approved petroleum recycling and disposal company located in Tinton Falls, New Jersey. Refer to Appendix C for the waste manifest (NJA-1603208).

The UST was cleaned prior to removal from the excavation in accordance with the NJDEP-BUST regulations. After the UST was removed from the excavation, it was staged on polyethylene sheeting and examined for holes. Small holes were observed during the inspection by the Sub-Surface Evaluator. Soils surrounding the UST were screened visually and with an OVA for evidence of contamination. A small quantity of potentially contaminated soil was observed.

1.5 UNDERGROUND STORAGE TANK TRANSPORTATION AND DISPOSAL

The tank was transported by CUTE Inc. to Mazza and Sons, Inc. for disposal in compliance with all applicable regulations and laws. See Appendix D for UST Disposal Certificate.

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

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

1.6 MANAGEMENT OF EXCAVATED SOILS

Based on visual observations, approximately 2 cubic yards of potentially contaminated soils were excavated from the UST excavation. Potentially contaminated soils were stockpiled separately from other excavated material and were placed on and covered with polyethylene sheets. Potentially contaminated soils were transported to T-80 on Main Post for storage prior to ultimate disposal at Soil Remediation of Philadelphia. Soils that did not exhibit signs of contamination were used as backfill following removal of the UST.

2.0 SITE INVESTIGATION ACTIVITIES

2.1 OVERVIEW

The Site Investigation was managed and carried out by U.S. Army DPW personnel. All analyses were performed and reported by U.S. Army Fort Monmouth Environmental Laboratory, a NJDEP-certified testing laboratory. 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 he NJDEP-BUST document *Interim Closure Requirements for Underground Storage Tank Systems* (September 1990 and revisions dated November 1, 1991) which was the applicable regulation at the date of the closure. All records of the Site Investigation activities are maintained by the Fort Monmouth DPW Environmental Office.

The following Parties participated in Closure and Site Investigation Activities.

- Closure Contractor: Cleaning Up the Environment Inc.
  Closure Supervisor: John Lonergan
  Phone Number: (201)427-2881
  NJDEP Certification No.: 3248

- Subsurface Evaluator: Charles M. 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 Certification No.: 13461

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

2.2 FIELD SCREENING/MONITORING

Field screening was performed by a NJDEP Certified Sub-Surface Evaluator using an OVA and visual observations to identify potentially contaminated material. Additional soils were removed from the excavation surrounding UST No. 081533-109 until no evidence of contamination remained.

2.3 SOIL SAMPLING

On November 12, 1997, post-excavation soil samples A, B, C, and D were collected from four (4) locations along the sidewalls of the excavation, at a depth of 7.0 feet below ground surface (bgs). The samples were analyzed for TPHC. No samples were collected along the piping length.

The site assessment was performed by U.S. Army personnel in accordance with the NJDEP Technical Requirements and the NJDEP Field Sampling Procedures Manual. A summary of sampling activities including parameters analyzed is provided in Table 1. The post-excavation soil samples were collected using polystyrene scoops. Actual soil TPHC values may be higher than reported, due to sample utensil absorbency. If absorbency resulted in reducing the actual soil TPHC concentration by 50 %, the highest soil contaminant would have been 2,280.0 mg/kg, still below the applicable NJDEP soil cleanup standard for total organic contaminants of 10,000 mg/kg. Following soil sampling activities, the samples were chilled and delivered to U.S. Army Fort Monmouth Environmental Laboratory located in Fort Monmouth, New Jersey, for analysis.

2.4 GROUNDWATER SAMPLING

2.4.1 Monitoring Well Installation

In response to the observation of potentially contaminated soil near the shallow water table, one shallow monitoring well (MW-1) was installed at the Building 689B area on September 15, 1994. It was installed approximately 20 feet north of the UST excavation in the downgradient direction. It was screened in the 2.0- to 12.5 foot interval, across the water table, which is approximately 6.0 feet below grade surface.

The well was constructed in accordance with the NJDEP's well construction protocols outlined in its May 1992 *Field Sampling Procedures Manual.* The NJDEP well drilling permit and a well construction log is presented in Appendix E.

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

The borehole was tremie-grouted with bentonite-cement grout from the top of the sand pack to 0.5 inches bgs. The well was secured with a water-tight, flush-mounted locking road box. The road box was set in place with concrete, which was placed in the remaining open borehole. The elevation of the well riser was surveyed to the nearest 0.01 feet by a New Jersey-licensed surveyor. The well permit number was marked on the well casing as required.

TABLE 1
SUMMARY OF SAMPLING ACTIVITIES
BUILDING 689B, MAIN POST
FORT MONMOUTH, NEW JERSEY

Sample ID	Date of Collection	Matrix	Sample Type	Analytical Parameters (and USEPA Methods) *	Sampling Method
A	11/12/93	Soil	Post-Excavation	TPHC	Polystyrene Scoop
B	11/12/93	Soil	Post-Excavation	TPHC	Polystyrene Scoop
C	11/12/93	Soil	Post-Excavation	TPHC	Polystyrene Scoop
D	11/12/93	Soil	Post-Excavation	TPHC	Polystyrene Scoop
MW-1	11/9/94	Aqueous	Groundwater	VOCs, SVOCs	Teflon Bottom Fill Bailer
MW-1	12/1/94	Aqueous	Groundwater	VOCs, SVOCs	Teflon Bottom Fill Bailer

* NOTES:

TPHC Total Petroleum Hydrocarbons (Method 418.1 / soil and aqueous)

VOCs Volatile organic compounds plus 15 tentatively identified compounds (Method 624 / aqueous)

SVOCs Semivolatile organic compounds plus 15 tentatively identified compounds (Method 625 / aqueous)

Source: Smith Technology Corporation (Smith Project No. 09-5004-12)

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

2.4.2 Monitoring Well Sampling

On November 9, 1994 and December 1, 1994, MW-1 was sampled for volatile organic compounds calibrated for xylene plus 15 tentatively identified compounds (VOCs), methyl tertiary butyl ether, tertiary butyl alcohol, and semivolatile organic compounds plus 15 tentatively identified compounds (SVOCs). Sampling and analysis were performed in accordance with the NJDEP *Field Sampling Procedures Manual* and the *Technical Requirements For Site Remediation.*

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

3.0 CONCLUSIONS AND RECOMMENDATIONS

3.1 SOIL SAMPLING RESULTS

To evaluate soil conditions following removal of the UST and associated piping, post-excavation soil samples were collected from four (4) locations on November 12, 1997. The samples were analyzed for TPHC. The post-excavation sampling results were compared to the NJDEP residential direct contact total organic contaminants soil cleanup criteria of 10,000 mg/kg (N.J.A.C. 7:26D and revisions dated February 3, 1994). A summary of the analytical results and comparison to the NJDEP soil cleanup criteria is provided in Table 2 and the soil sampling results are shown on Figure 3. The analytical data package is provided in Appendix E.

The post-excavation soil samples collected on November 12, 1997 from the UST excavation contained concentrations of TPHC below the NJDEP soil cleanup criteria. Post-excavation soil samples B and D contained TPHC concentrations of 3.64 mg/kg and 3.73 mg/kg, respectively. Sample C contained a TPHC concentration of 1,140.0 mg/kg. Sample A contained a non-detectable concentration of TPHC.

3.2 GROUNDWATER SAMPLING RESULTS

All VOC and SVOC results were either below the detection limit or in compliance with the New Jersey Groundwater Quality Standard (GWQS).

The sample collected from MW-1 on November 9, 1994, contained dimethylphthalate at 2.0 ug/l. This compound was also found in the sample field blank at a concentration of 2.0 ug/l. No other compounds were detected.

The sample collected from MW-1 on December 1, 1994, contained 1,1,1-trichloroethane at 3.0 ug/l, which is below the criteria of 30 ug/l. No other compounds were detected.

No product or sheen was observed in MW-1 on either of the sampling dates. The depth to the water table was 7.23 feet below grade surface on November 9, 1994 and 6.71 feet below grade surface on December 1, 1994.

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, is on file at U.S. Army Fort Monmouth, DPW.

TABLE 2
POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 6898, MAIN POST
FORT 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/7.0-7.5'	1329.1	11/12/93	11/16/93	TPHC	3.3	yes	ND	10,000	--
				Total % Solid	--	--	84 %	--	--
B/7.0-7.5'	1329.2	11/12/93	11/16/93	TPHC	3.3	yes	3.64	10,000	--
				Total % Solid	--	--	93 %	--	--
C/7.0-7.5'	1329.3	11/12/93	11/16/93	TPHC	9.9	yes	1,140	10,000	--
				Total % Solid	--	--	85 %	--	--
D/7.0-7.5'	1329.4	11/12/93	11/16/93	TPHC	3.3	yes	3.73	10,000	--
				Total % Solid	--	--	91 %	--	--

NOTES:

--: Not applicable / does not exceed criteria

*: Cleanup criteria for total organics

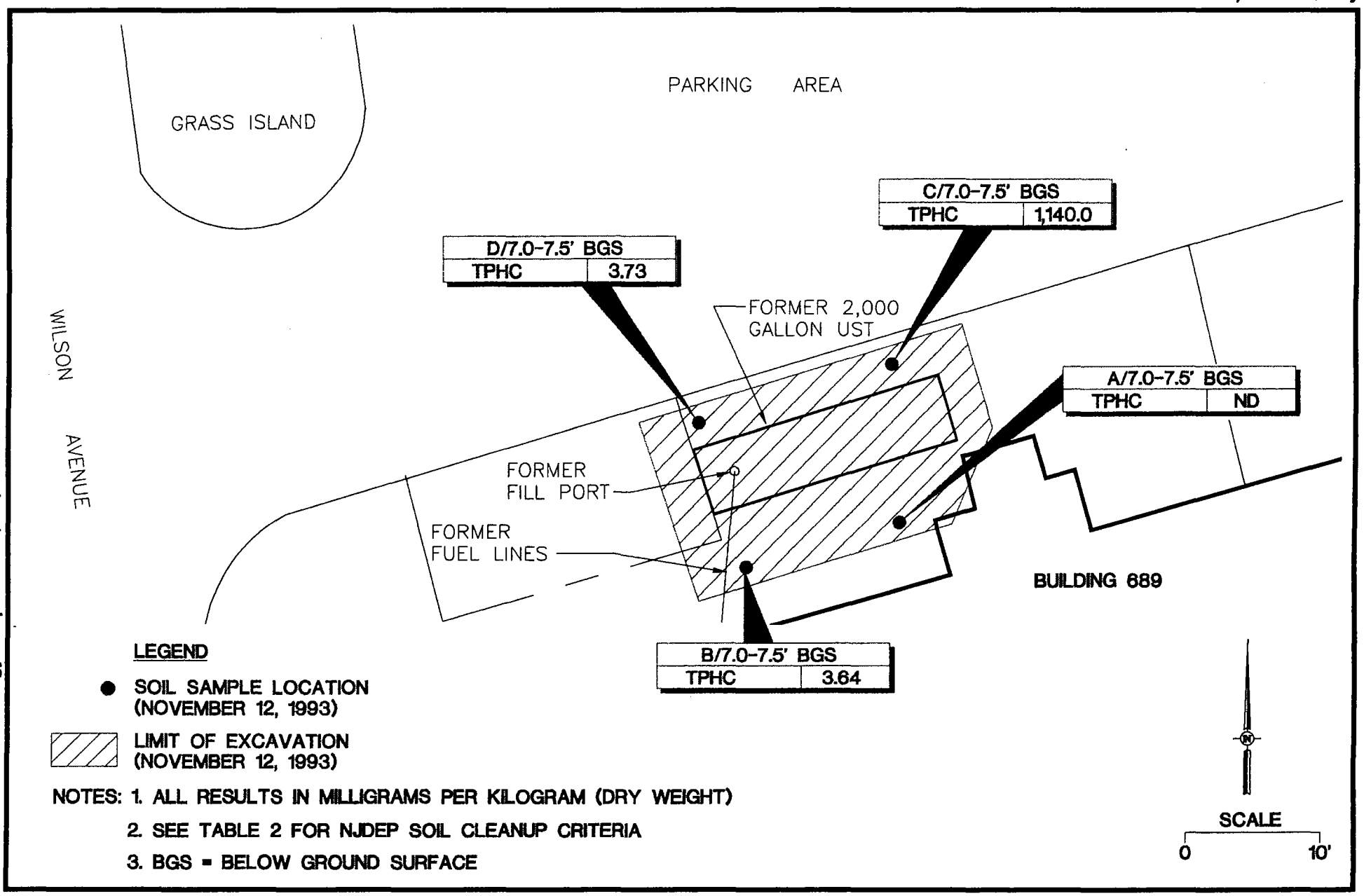
ND: Indicates compound not detected

Actual soil TPHC values may be higher than reported due to absorbancy by polystyrene scoops. If absorbancy resulted in reducing the actual soil TPHC concentration by 50%, the highest soil contaminant would be 2,280 mg/kg.

Source: Smith Technology Corporation (Smith Project No. 09-5004-12)

SMITH

U.S. Army
Department of Public Works
Fort Monmouth, New Jersey



Source: Smith Technology Corporation (149)

Project No. 09-5004-12

Figure 3

Building 689 (B)
Soil Sampling Results

TABLE 3
GROUNDWATER SAMPLING RESULTS
BUILDING 689B, MAIN POST, MW-1
FORT MONMOUTH, NEW JERSEY

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)	GWQS (ug/l)	Exceeds Criteria
MW-1	11/9/94	12/3/94	SEMIVOLATILE ORGANICS CONTINUED:					
			Phenanthrene	1	--	ND	NA	--
			Anthracene	1	--	ND	2,000	--
			Di-n-butylphthalate	1	--	ND	900	--
			Fluoranthene	1	--	ND	300	--
			Pyrene	1	--	ND	200	--
			Butylbenzylphthalate	1	--	ND	100	--
			3,3'-Dichlorobenzidine	1	--	ND	60	--
			Benzo(a)anthracene	1	--	ND	0.05	--
			Chrysene	1	--	ND	5	--
			bis(2-Ethylhexyl)phthalate	1	--	ND	30	--
			Di-n-octylphthalate	1	--	ND	100	--
			Benzo(b)fluoranthene	1	--	ND	0.05	--
			Benzo(k)fluoranthene	1	--	ND	0.5	--
			Benzo(a)pyrene	1	--	ND	0.005	--
			Indeno(1,2,3-cd)pyrene	1	--	ND	0.05	--
			Dibenz(a,h)anthracene	1	--	ND	0.005	--
			Benzo(g,h,i)perylene	1	--	ND	NA	--
			N-nitrosodimethylamine	1	--	ND	20	--
			Benzidine	1	--	ND	50	--
			VOLATILE TICS:					
			NONE FOUND	--	--	--	--	--

TABLE 3
GROUNDWATER SAMPLING RESULTS
BUILDING 689B, MAIN POST, MW-1
FORT MONMOUTH, NEW JERSEY

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)	GWQS (ug/l)	Exceeds Criteria
MW-1	11/9/94	12/3/94	VOLATILE ORGANICS:					
			Chloromethane	2	--	ND	30	--
			Bromomethane	1	--	ND	10	--
			Vinyl Chloride	1	--	ND	5	--
			Chloroethane	1	--	ND	--	--
			Methylene Chloride	3	--	ND	2	--
			1,1-Dichloroethene	2	--	ND	2	--
			1,1-Dichloroethane	1	--	ND	70	--
			Chloroform	1	--	ND	6	--
			1,2-Dichloroethane	1	--	ND	2	--
			1,1,1-Trichloroethane	1	--	ND	30	--
			Carbon Tetrachloride	2	--	ND	2	--
			Bromodichloromethane	1	--	ND	1	--
			1,2-Dichloropropane	1	--	ND	1	--
			cis-1,3-Dichloropropene	1	--	ND	NA	--
			Trichloroethene	2	--	ND	1	--
			Dibromochloromethane	1	--	ND	10	--
			1,1,2-Trichloroethane	1	--	ND	3	--
			Benzene	1	--	ND	1	--
			trans-1,3-Dichloropropene	1	--	ND	NA	--
			Bromoform	1	--	ND	4	--
			Tetrachloroethene	3	--	ND	1	--
			1,1,2,2-Tetrachloroethane	2	--	ND	2	--
			Toluene	2	--	ND	1,000	--
			Chlorobenzene	2	--	ND	4	--
			Ethylbenzene	2	--	ND	700	--
			Xylene (total)	6	--	ND	40	--

TABLE 3
GROUNDWATER SAMPLING RESULTS
BUILDING 689B, MAIN POST, MW-1
FORT MONMOUTH, NEW JERSEY

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)	GWQS (ug/l)	Exceeds Criteria
MW-1	11/9/94	12/3/94	VOLATILE ORGANICS CONTINUED:					
			Trichlorofluoromethane	2	--	ND	--	--
			Acrolein	20	--	ND	10	--
			Acrylonitrile	2	--	ND	50	--
			Tertiary Butyl Alcohol	100	--	ND	500	--
			Methyl Tertiary Butyl Ether	1	--	ND	70	--
			1,3-Dichlorobenzene	2	--	ND	600	--
			1,4-Dichlorobenzene	2	--	ND	75	--
			1,2-Dichlorobenzene	2	--	ND	600	--
			2-Chloroethylvinylether	4	--	ND	--	--
			trans,1,2-Dichloroethene	1	--	ND	100	--
			VOLATILE TICS:					
			Tetramethyl benzene isomer	--	--	6 J	--	--
			Naphthalene isomer	--	--	7 J	--	--

TABLE 3

GROUNDWATER SAMPLING RESULTS

BUILDING 689B, MAIN POST, TRIP BLANK

FORT MONMOUTH, NEW JERSEY

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)	GWQS (ug/l)	Exceeds Criteria
Trip Blank	11/9/94	12/3/94	VOLATILE ORGANICS:					
			Chloromethane	2	--	ND	30	--
			Bromomethane	1	--	ND	--	--
			Vinyl Chloride	1	--	ND	5	--
			Chloroethane	1	--	ND	--	--
			Methylene Chloride	3	--	3	2	yes
			1,1-Dichloroethene	2	--	ND	2	--
			1,1-Dichloroethane	1	--	ND	70	--
			Chloroform	1	--	ND	6	--
			1,2-Dichloroethane	1	--	ND	2	--
			1,1,1-Trichloroethane	1	--	ND	30	--
			Carbon Tetrachloride	2	--	ND	2	--
			Bromodichloromethane	1	--	ND	1	--
			1,2-Dichloropropane	1	--	ND	1	--
			cis-1,3-Dichloropropene	1	--	ND	NA	--
			Trichloroethene	2	--	ND	1	--
			Dibromochloromethane	1	--	ND	10	--
			1,1,2-Trichloroethane	1	--	ND	3	--
			Benzene	1	--	ND	1	--
			trans-1,3-Dichloropropene	1	--	ND	NA	--
			Bromoform	1	--	ND	4	--
			Tetrachloroethene	3	--	ND	1	--
			1,1,2,2-Tetrachloroethane	2	--	ND	2	--
			Toluene	2	--	ND	1,000	--
			Chlorobenzene	2	--	ND	4	--
			Ethylbenzene	2	--	ND	700	--
			Xylene (total)	6	--	ND	40	--

TABLE 3
GROUNDWATER SAMPLING RESULTS
BUILDING 689B, MAIN POST, TRIP BLANK
FORT MONMOUTH, NEW JERSEY

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)	GWQS (ug/l)	Exceeds Criteria
Trip Blank	11/9/94	12/3/94	VOLATILE ORGANICS CONTINUED:					
			Trichlorofluoromethane	2	--	ND	--	--
			Acrolein	20	--	ND	10	--
			Acrylonitrile	2	--	ND	50	--
			Tertiary Butyl Alcohol	100	--	ND	500	--
			Methyl Tertiary Butyl Ether	1	--	ND	70	--
			1,3-Dichlorobenzene	2	--	ND	600	--
			1,4-Dichlorobenzene	2	--	ND	75	--
			1,2-Dichlorobenzene	2	--	ND	600	--
			2-Chloroethylvinylether	4	--	ND	--	--
			trans,1,2-Dichloroethene	1	--	ND	100	--
			VOLATILE TICS:					
			NONE FOUND	--	--	--	--	--

TABLE 3

GROUNDWATER SAMPLING RESULTS

BUILDING 689B, MAIN POST, FIELD BLANK

FORT MONMOUTH, NEW JERSEY

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)	GWQS (ug/l)	Exceeds Criteria
Field Blank	11/9/94	12/3/94	SEMIVOLATILE ORGANICS:					
			bis(2-Chloroethyl)Ether	1	--	ND	10	--
			1,3-Dichlorobenzene	1	--	ND	600	--
			1,4-Dichlorobenzene	1	--	ND	75	--
			1,2-Dichlorobenzene	1	--	ND	600	--
			2,2'-oxybis(1-Chloropropane)	1	--	ND	--	--
			N-Nitroso-Di-N-propylamine	1	--	ND	20	--
			Hexachloroethane	1	--	ND	10	--
			Nitrobenzene	1	--	ND	10	--
			Isophorone	1	--	ND	100	--
			1,2,4-Trichlorobenzene	1	--	ND	9	--
			Naphthalene	1	--	ND	300	--
			Hexachlorobutadiene	1	--	ND	1	--
			bis(2-Chloroethoxy)methane	1	--	ND	--	--
			Hexachlorocyclopentadiene	1	--	ND	50	--
			2-Chloronaphthalate	1	--	ND	--	--
			Dimethylphthalate	2	--	2	--	--
			Acenaphthylene	1	--	ND	NA	--
			2,6-Dinitrotoluene	1	--	ND	NA	--
			Acenaphthene	1	--	ND	400	--
			2,4-Dinitrotoluene	1	--	ND	10	--
			Diethylphthalate	1	--	ND	5,000	--
			4-Chlorophenyl-phenylether	1	--	ND	--	--
			Fluorene	1	--	ND	300	--
			n-Nitrosodiphenylamine	1	--	ND	20	--
			4-Bromophenyl-phenylether	1	--	ND	--	--
			Hexachlorobenzene	1	--	ND	10	--

TABLE 3

GROUNDWATER SAMPLING RESULTS

BUILDING 689B, MAIN POST, FIELD BLANK

FORT MONMOUTH, NEW JERSEY

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)	GWQS (ug/l)	Exceeds Criteria
Field Blank	11/9/94	12/3/94	SEMIVOLATILE ORGANICS CONTINUED:					
			Phenanthrene	1	--	ND	NA	--
			Anthracene	1	--	ND	2,000	--
			Di-n-butylphthalate	1	--	ND	900	--
			Fluoranthene	1	--	ND	300	--
			Pyrene	1	--	ND	200	--
			Butylbenzylphthalate	1	--	ND	100	--
			3,3'-Dichlorobenzidine	1	--	ND	60	--
			Benzo(a)anthracene	1	--	ND	0.05	--
			Chrysene	1	--	ND	5	--
			bis(2-Ethylhexyl)phthalate	1	--	ND	30	--
			Di-n-octylphthalate	1	--	ND	100	--
			Benzo(b)fluoranthene	1	--	ND	0.05	--
			Benzo(k)fluoranthene	1	--	ND	0.5	--
			Benzo(a)pyrene	1	--	ND	0.005	--
			Indeno(1,2,3-cd)pyrene	1	--	ND	NA	--
			Dibenz(a,h)anthracene	1	--	ND	0.005	--
			Benzo(g,h,i)perylene	1	--	ND	NA	--
			N-nitrosodimethylamine	1	--	ND	20	--
			Benzidine	1	--	ND	50	--
			VOLATILE TICS:					
			NONE FOUND	--	--	--	--	--

TABLE 3

GROUNDWATER SAMPLING RESULTS

BUILDING 689B, MAIN POST, FIELD BLANK

FORT MONMOUTH, NEW JERSEY

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)	GWQS (ug/l)	Exceeds Criteria
Field Blank	11/9/94	12/3/94	VOLATILE ORGANICS:					
			Chloromethane	2	--	ND	30	--
			Bromomethane	1	--	ND	10	--
			Vinyl Chloride	1	--	ND	5	--
			Chloroethane	1	--	ND	--	--
			Methylene Chloride	6	--	6	2	yes
			1,1-Dichloroethene	2	--	ND	2	--
			1,1-Dichloroethane	1	--	ND	70	--
			Chloroform	1	--	ND	6	--
			1,2-Dichloroethane	1	--	ND	2	--
			1,1,1-Trichloroethane	1	--	ND	30	--
			Carbon Tetrachloride	2	--	ND	2	--
			Bromodichloromethane	1	--	ND	1	--
			1,2-Dichloropropane	1	--	ND	1	--
			cis-1,3-Dichloropropene	1	--	ND	NA	--
			Trichloroethene	2	--	ND	1	--
			Dibromochloromethane	1	--	ND	10	--
			1,1,2-Trichloroethane	1	--	ND	3	--
			Benzene	1	--	ND	1	--
			trans-1,3-Dichloropropene	1	--	ND	NA	--
			Bromoform	1	--	ND	4	--
			Tetrachloroethene	3	--	ND	1	--
			1,1,2,2-Tetrachloroethane	2	--	ND	2	--
			Toluene	2	--	ND	1,000	--
			Chlorobenzene	2	--	ND	4	--
			Ethylbenzene	2	--	ND	700	--
			Xylene (total)	6	--	ND	40	--

TABLE 3
GROUNDWATER SAMPLING RESULTS
BUILDING 689B, MAIN POST, FIELD BLANK
FORT MONMOUTH, NEW JERSEY

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)	GWQS (ug/l)	Exceeds Criteria
Field Blank	11/9/94	12/3/94	VOLATILE ORGANICS CONTINUIED:					
			Trichlorofluoromethane	2	--	ND	--	--
			Acrolein	20	--	ND	10	--
			Acrylonitrile	2	--	ND	50	--
			Tertiary Butyl Alcohol	100	--	ND	500	--
			Methyl Tertiary Butyl Ether	1	--	ND	70	--
			1,3-Dichlorobenzene	2	--	ND	600	--
			1,4-Dichlorobenzene	2	--	ND	75	--
			1,2-Dichlorobenzene	2	--	ND	600	--
			2-Chloroethylvinylether	4	--	ND	--	--
			trans,1,2-Dichloroethene	1	--	ND	100	--
			VOLATILE TICS:					
			NONE FOUND	--	--	--	--	--

TABLE 3

GROUNDWATER SAMPLING RESULTS

BUILDING 689B, MAIN POST, MW-1

FORT MONMOUTH, NEW JERSEY

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)	GWQS (ug/l)	Exceeds Criteria
MW-1	12/1/94	12/30/94	SEMIVOLATILE ORGANICS:					
			bis(2-Chloroethyl)Ether	1	--	ND	10	--
			1,3-Dichlorobenzene	1	--	ND	600	--
			1,4-Dichlorobenzene	1	--	ND	75	--
			1,2-Dichlorobenzene	1	--	ND	600	--
			2,2'-oxybis(1-Chloropropane)	1	--	ND	--	--
			N-Nitroso-Di-N-propylamine	1	--	ND	20	--
			Hexachloroethane	1	--	ND	10	--
			Nitrobenzene	1	--	ND	10	--
			Isophorone	1	--	ND	100	--
			1,2,4-Trichlorobenzene	1	--	ND	9	--
			Naphthalene	1	--	ND	300	--
			Hexachlorobutadiene	1	--	ND	1	--
			bis(2-Chloroethoxy)methane	1	--	ND	--	--
			Hexachlorocyclopentadiene	1	--	ND	50	--
			2-Chloronaphthalate	1	--	ND	--	--
			Dimethylphthalate	1	--	ND	--	--
			Acenaphthylene	1	--	ND	NA	--
			2,6-Dinitrotoluene	1	--	ND	NA	--
			Acenaphthene	1	--	ND	400	--
			2,4-Dinitrotoluene	1	--	ND	10	--
			Diethylphthalate	1	--	ND	5,000	--
			4-Chlorophenyl-phenylether	1	--	ND	--	--
			Fluorene	1	--	ND	300	--
			n-Nitrosodiphenylamine	1	--	ND	20	--
			4-Bromophenyl-phenylether	1	--	ND	--	--
			Hexachlorobenzene	1	--	ND	10	--

TABLE 3
GROUNDWATER SAMPLING RESULTS
BUILDING 689B, MAIN POST, MW-1
FORT MONMOUTH, NEW JERSEY

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)	GWQS (ug/l)	Exceeds Criteria
MW-1	12/1/94	12/30/94	SEMIVOLATILE ORGANICS CONTINUED:					
			Phenanthrene	1	--	ND	NA	--
			Anthracene	1	--	ND	2,000	--
			Di-n-butylphthalate	1	--	ND	900	--
			Fluoranthene	1	--	ND	300	--
			Pyrene	1	--	ND	200	--
			Butylbenzylphthalate	1	--	ND	100	--
			3,3'-Dichlorobenzidine	1	--	ND	60	--
			Benzo(a)anthracene	1	--	ND	0.5	--
			Chrysene	1	--	ND	5	--
			bis(2-Ethylhexyl)phthalate	1	--	ND	30	--
			Di-n-octylphthalate	1	--	ND	100	--
			Benzo(b)fluoranthene	1	--	ND	0.05	--
			Benzo(k)fluoranthene	1	--	ND	0.5	--
			Benzo(a)pyrene	1	--	ND	0.005	--
			Indeno(1,2,3-cd)pyrene	1	--	ND	NA	--
			Dibenz(a,h)anthracene	1	--	ND	0.005	--
			Benzo(g,h,i)perylene	1	--	ND	NA	--
			N-nitrosodimethylamine	1	--	ND	20	--
			Benzidine	100	--	ND	50	--
			VOLATILE TICS:					
			NONE FOUND	--	--	--	--	--

TABLE 3
GROUNDWATER SAMPLING RESULTS
BUILDING 689B, MAIN POST, MW-1
FORT MONMOUTH, NEW JERSEY

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)	GWQS (ug/l)	Exceeds Criteria
MW-1	12/1/94	12/6/94	VOLATILE ORGANICS:					
			Chloromethane	2	--	ND	30	--
			Bromomethane	1	--	ND	10	--
			Vinyl Chloride	1	--	ND	5	--
			Chloroethane	1	--	ND	--	--
			Methylene Chloride	3	--	ND	2	--
			1,1-Dichloroethene	2	--	ND	2	--
			1,1-Dichloroethane	1	--	ND	70	--
			Chloroform	1	--	ND	6	--
			1,2-Dichloroethane	1	--	ND	2	--
			1,1,1-Trichloroethane	3	--	3	30	--
			Carbon Tetrachloride	2	--	ND	2	--
			Bromodichloromethane	1	--	ND	1	--
			1,2-Dichloropropane	1	--	ND	1	--
			cis-1,3-Dichloropropene	1	--	ND	NA	--
			Trichloroethene	2	--	ND	1	--
			Dibromochloromethane	1	--	ND	10	--
			1,1,2-Trichloroethane	1	--	ND	3	--
			Benzene	1	--	ND	1	--
			trans-1,3-Dichloropropene	1	--	ND	NA	--
			Bromoform	1	--	ND	4	--
			Tetrachloroethene	3	--	ND	1	--
			1,1,2,2-Tetrachloroethane	2	--	ND	2	--
			Toluene	2	--	ND	1,000	--
			Chlorobenzene	2	--	ND	4	--
			Ethylbenzene	2	--	ND	700	--
			Xylene (total)	6	--	ND	40	--

TABLE 3
GROUNDWATER SAMPLING RESULTS
BUILDING 689B, MAIN POST, MW-1
FORT MONMOUTH, NEW JERSEY

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)	GWQS (ug/l)	Exceeds Criteria
MW-1	12/1/94	12/6/94	VOLATILE ORGANICS CONTINUED:					
			Trichlorofluoromethane	2	--	ND	--	--
			Acrolein	20	--	ND	10	--
			Acrylonitrile	2	--	ND	50	--
			Tertiary Butyl Alcohol	100	--	ND	500	--
			Methyl Tertiary Butyl Ether	1	--	ND	70	--
			1,3-Dichlorobenzene	2	--	ND	600	--
			1,4-Dichlorobenzene	2	--	ND	75	--
			1,2-Dichlorobenzene	2	--	ND	600	--
			2-Chloroethylvinylether	4	--	ND	--	--
			trans,1,2-Dichloroethene	1	--	ND	100	--
			VOLATILE ORGANIC TICS:					
			Unknown Freon Isomer	--	--	4 J	--	--
			Trimethyl Benzene Isomer	--	--	3 J	--	--
			Unknown Aromatic	--	--	3 J	--	--
			Unknown Aromatic	--	--	4 J	--	--
			Unknown Aromatic	--	--	4 J	--	--
			Tetramethyl Benzene Isomer	--	--	5 J	--	--
			Tetramethyl Benzene Isomer	--	--	4 J	--	--
			Unknown Aromatic	--	--	5 J	--	--
			Unknown Aromatic	--	--	4 J	--	--
			Unknown Aromatic	--	--	3 J	--	--
			Unknown Aromatic	--	--	4 J	--	--
			TOTAL TICS:	--	--	43	--	--

TABLE 3
GROUNDWATER SAMPLING RESULTS
BUILDING 689B, MAIN POST, TRIP BLANK
FORT MONMOUTH, NEW JERSEY

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)	GWQS (ug/l)	Exceeds Criteria
Trip Blank	12/1/94	12/6/94	VOLATILE ORGANICS:					
			Chloromethane	2	--	ND	30	--
			Bromomethane	1	--	ND	10	--
			Vinyl Chloride	1	--	ND	5	--
			Chloroethane	1	--	ND	--	--
			Methylene Chloride	3	--	ND	2	--
			1,1-Dichloroethene	2	--	ND	2	--
			1,1-Dichloroethane	1	--	ND	70	--
			Chloroform	1	--	ND	6	--
			1,2-Dichloroethane	1	--	ND	2	--
			1,1,1-Trichloroethane	1	--	ND	30	--
			Carbon Tetrachloride	2	--	ND	2	--
			Bromodichloromethane	1	--	ND	1	--
			1,2-Dichloropropane	1	--	ND	1	--
			cis-1,3-Dichloropropene	1	--	ND	NA	--
			Trichloroethene	2	--	ND	1	--
			Dibromochloromethane	1	--	ND	10	--
			1,1,2-Trichloroethane	1	--	ND	3	--
			Benzene	1	--	ND	1	--
			trans-1,3-Dichloropropene	1	--	ND	NA	--
			Bromoform	1	--	ND	4	--
			Tetrachloroethene	3	--	ND	1	--
			1,1,2,2-Tetrachloroethane	2	--	ND	2	--
			Toluene	2	--	ND	1,000	--
			Chlorobenzene	2	--	ND	4	--
			Ethylbenzene	2	--	ND	700	--
			Xylene (total)	6	--	ND	40	--

TABLE 3
GROUNDWATER SAMPLING RESULTS
BUILDING 689B, MAIN POST, TRIP BLANK
FORT MONMOUTH, NEW JERSEY

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)	GWQS (ug/l)	Exceeds Criteria
Trip Blank	12/1/94	12/6/94	VOLATILE ORGANICS CONTINUED:					
			Trichlorofluoromethane	2	--	ND	--	--
			Acrolein	20	--	ND	10	--
			Acrylonitrile	2	--	ND	50	--
			Tertiary Butyl Alcohol	100	--	ND	500	--
			Methyl Tertiary Butyl Ether	1	--	ND	70	--
			1,3-Dichlorobenzene	2	--	ND	600	--
			1,4-Dichlorobenzene	2	--	ND	75	--
			1,2-Dichlorobenzene	2	--	ND	600	--
			2-Chloroethylvinylether	4	--	ND	--	--
			trans,1,2-Dichloroethene	1	--	ND	100	--
			VOLATILE TICS:					
			NONE FOUND	--	--	--	--	--

TABLE 3

GROUNDWATER SAMPLING RESULTS

BUILDING 689B, MAIN POST, FIELD BLANK (RE)

FORT MONMOUTH, NEW JERSEY

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)	GWQS (ug/l)	Exceeds Criteria
Field Blank (RE)	12/1/94	12/30/94	SEMIVOLATILE ORGANICS:					
			bis(2-Chloroethyl)Ether	1	--	ND	10	--
			1,3-Dichlorobenzene	1	--	ND	600	--
			1,4-Dichlorobenzene	1	--	ND	75	--
			1,2-Dichlorobenzene	1	--	ND	600	--
			2,2'-oxybis(1-Chloropropane)	1	--	ND	--	--
			N-Nitroso-Di-N-propylamine	1	--	ND	20	--
			Hexachloroethane	1	--	ND	10	--
			Nitrobenzene	1	--	ND	10	--
			Isophorone	1	--	ND	100	--
			1,2,4-Trichlorobenzene	1	--	ND	9	--
			Naphthalene	1	--	ND	300	--
			Hexachlorobutadiene	1	--	ND	1	--
			bis(2-Chloroethoxy)methane	1	--	ND	--	--
			Hexachlorocyclopentadiene	1	--	ND	50	--
			2-Chloronaphthalate	1	--	ND	--	--
			Dimethylphthalate	1	--	ND	--	--
			Acenaphthylene	1	--	ND	NA	--
			2,6-Dinitrotoluene	1	--	ND	NA	--
			Acenaphthene	1	--	ND	400	--
			2,4-Dinitrotoluene	1	--	ND	10	--
			Diethylphthalate	1	--	ND	5,000	--
			4-Chlorophenyl-phenylether	1	--	ND	--	--
			Fluorene	1	--	ND	300	--
			n-Nitrosodiphenylamine	1	--	ND	20	--
			4-Bromophenyl-phenylether	1	--	ND	--	--
			Hexachlorobenzene	1	--	ND	10	--

TABLE 3

GROUNDWATER SAMPLING RESULTS

BUILDING 689B, MAIN POST, FIELD BLANK (RE)

FORT MONMOUTH, NEW JERSEY

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)	GWQS (ug/l)	Exceeds Criteria
Field Blank (RE)	12/1/94	12/30/94	SEMIVOLATILE ORGANICS CONTINUED:					
			Phenanthrene	1	--	ND	NA	--
			Anthracene	1	--	ND	2,000	--
			Di-n-butylphthalate	1	--	ND	900	--
			Fluoranthene	1	--	ND	300	--
			Pyrene	1	--	ND	200	--
			Butylbenzylphthalate	1	--	ND	100	--
			3,3'-Dichlorobenzidine	1	--	ND	60	--
			Benzo(a)anthracene	1	--	ND	0.05	--
			Chrysene	1	--	ND	5	--
			bis(2-Ethylhexyl)phthalate	1	--	ND	30	--
			Di-n-octylphthalate	1	--	ND	100	--
			Benzo(b)fluoranthene	1	--	ND	0.05	--
			Benzo(k)fluoranthene	1	--	ND	0.5	--
			Benzo(a)pyrene	1	--	ND	0.005	--
			Indeno(1,2,3-cd)pyrene	1	--	ND	NA	--
			Dibenz(a,h)anthracene	1	--	ND	0.005	--
			Benzo(g,h,i)perylene	1	--	ND	NA	--
			N-nitrosodimethylamine	1	--	ND	20	--
			Benzidine	100	--	ND	50	--
			VOLATILE TICS:					
			Unknown	--	--	2 J	--	--

TABLE 3

GROUNDWATER SAMPLING RESULTS

BUILDING 689B, MAIN POST, FIELD BLANK

FORT MONMOUTH, NEW JERSEY

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)	GWQS (ug/l)	Exceeds Criteria
Field Blank	12/1/94	12/6/94	VOLTILE ORGANICS:					
			Chloromethane	2	--	ND	30	--
			Bromomethane	1	--	ND	10	--
			Vinyl Chloride	1	--	ND	5	--
			Chloroethane	1	--	ND	--	--
			Methylene Chloride	3	--	ND	2	--
			1,1-Dichloroethene	2	--	ND	2	--
			1,1-Dichloroethane	1	--	ND	70	--
			Chloroform	1	--	ND	6	--
			1,2-Dichloroethane	1	--	ND	2	--
			1,1,1-Trichloroethane	1	--	ND	30	--
			Carbon Tetrachloride	2	--	ND	2	--
			Bromodichloromethane	1	--	ND	1	--
			1,2-Dichloropropane	1	--	ND	1	--
			cis-1,3-Dichloropropene	1	--	ND	NA	--
			Trichloroethene	2	--	ND	1	--
			Dibromochloromethane	1	--	ND	10	--
			1,1,2-Trichloroethane	1	--	ND	3	--
			Benzene	1	--	ND	1	--
			trans-1,3-Dichloropropene	1	--	ND	NA	--
			Bromoform	1	--	ND	4	--
			Tetrachloroethene	3	--	ND	1	--
			1,1,2,2-Tetrachloroethane	2	--	ND	2	--
			Toluene	2	--	ND	1,000	--
			Chlorobenzene	2	--	ND	4	--
			Ethylbenzene	2	--	ND	700	--
			Xylene (total)	6	--	ND	40	--

TABLE 3
GROUNDWATER SAMPLING RESULTS
BUILDING 689B, MAIN POST, FIELD BLANK
FORT MONMOUTH, NEW JERSEY

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)	GWQS (ug/l)	Exceeds Criteria
Field Blank	12/1/94	12/6/94	VOLATILE ORGANICS CONTINUED:					
			Trichlorofluoromethane	2	--	ND	--	--
			Acrolein	20	--	ND	10	--
			Acrylonitrile	2	--	ND	50	--
			Tertiary Butyl Alcohol	100	--	ND	500	--
			Methyl Tertiary Butyl Ether	1	--	ND	70	--
			1,3-Dichlorobenzene	2	--	ND	600	--
			1,4-Dichlorobenzene	2	--	ND	75	--
			1,2-Dichlorobenzene	2	--	ND	600	--
			2-Chloroethylvinylether	4	--	ND	--	--
			trans,1,2-Dichloroethene	1	--	ND	100	--
			VOLATILE TICS:					
			NONE FOUND	--	--	--	--	--

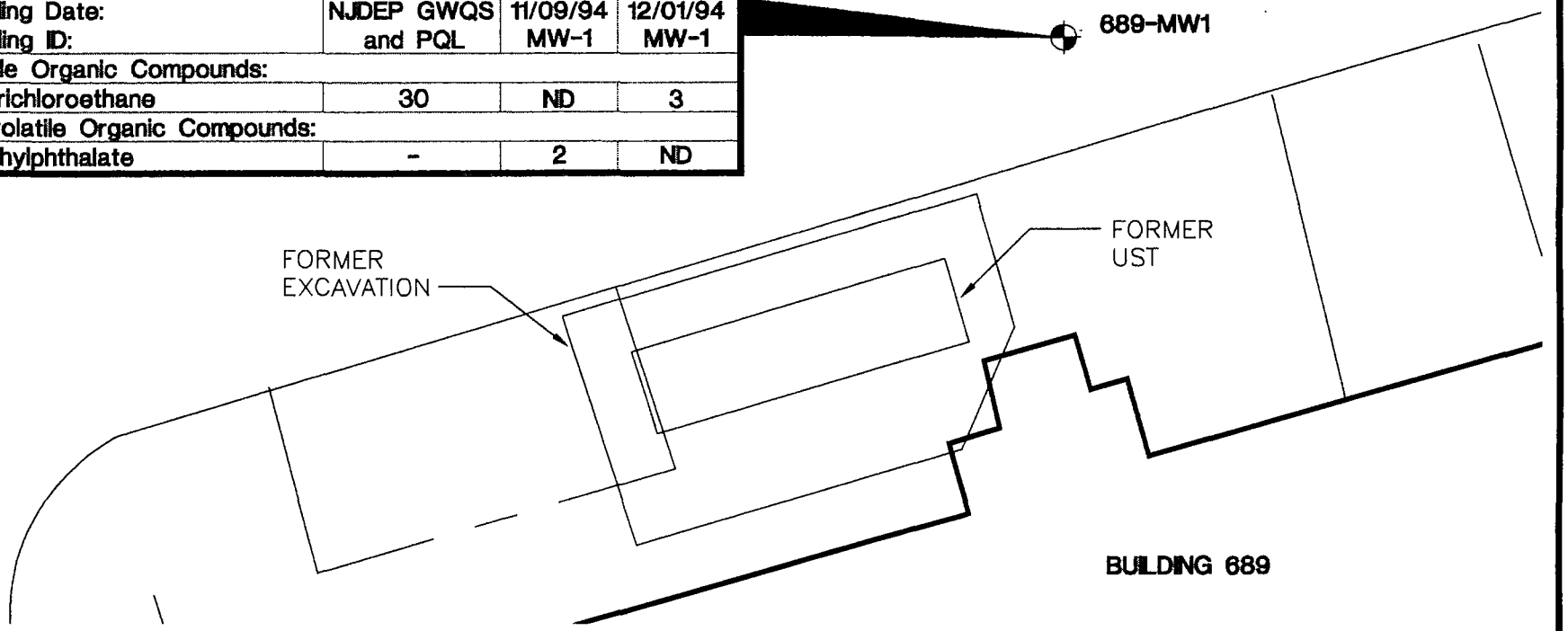
TABLE 3

DATA ANALYSIS QUALIFIER DEFINITIONS
GROUNDWATER SAMPLING
FORT MONMOUTH, NEW JERSEY

--:	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
GWQS:	Groundwater Quality Standards

U.S. Army
Department of Public Works
Fort Monmouth, New Jersey

Sampling Location:	Higher of	MW-1	MW-1
Sampling Date:	NJDEP GWQS	11/09/94	12/01/94
Sampling ID:	and PQL	MW-1	MW-1
Volatile Organic Compounds:			
1,1,1-Trichloroethane	30	ND	3
Semivolatile Organic Compounds:			
Dimethylphthalate	-	2	ND



LEGEND

MW-1 ⊕ MONITORING WELL LOCATION
ND INDICATES COMPOUND NOT DETECTED
- INDICATES CRITERIA NOT AVAILABLE

NOTE:

1. ALL RESULTS IN MICROGRAMS PER LITER

SCALE
0 10'

(150)

Project No. 09-5004-12

Figure 4
Building 689 (B)
Goundwater Sampling Results

3.3 CONCLUSIONS AND RECOMMENDATIONS

The analytical results for all post-excavation soil samples collected from the UST closure excavation at Building 689B were below the NJDEP soil cleanup criteria for total organic contaminants.

Based on the post-excavation sampling results, soils with TPHC concentrations exceeding the NJDEP soil cleanup criteria for total organic contaminants of 10,000 mg/kg, do not exist in the former location of the UST or associated piping.

Based on the analytical results of the groundwater samples collected on November 9, 1994 and December 1, 1994, groundwater quality at the Building 689B UST closure site complies with the New Jersey Groundwater Quality Standard for VOCs and SVOCs.

The existing discrepancy as listed in the Executive Summary is believed to be acceptable as explained and does not warrant further investigation or explanation. Procedures have been corrected to eliminate recurrences in the future.

No further action is proposed in regard to the closure and site assessment of UST No. 081533-109 at Building 689B.

APPENDIX A

NJDEP BUST CLOSURE APPROVAL

UNDERGROUND STORAGE TANK SYSTEM
CLOSURE APPROVAL

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION AND ENERGY

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

TMS #	UST #
C-93-3673	0081533

US Army
BLDG. 689B
Ft. Monmouth, NJ

Monmouth

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

Removal of: one 2,000 gallon #2 diesel UST(s) and appurtenant piping.
SITE ASSESSMENT: Soil samples will be taken every five (5) feet along the center line of each tank and one (1) soil sample for every 15 feet along all associated piping. Two (2) additional samples will be taken from around the tank and biased to the areas of highest field screened readings. Samples will be analyzed for TPHC. If sample results are greater than 1,000ppm than 25% of the samples will be analyzed for VO+10.

ON-SITE MANAGER: C. Appleby TELEPHONE: 908-532-1475

OWNER: TELEPHONE:

EFFECTIVE DATE: SEP 07 1993

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

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

APPENDIX B

CERTIFICATIONS

UNDERGROUND STORAGE TANK (UST)
CLOSURE CERTIFICATION

BUILDING NO. 689B

NJDEP UST REGISTRATION NO. 81533-109

DATE TANK REMOVED 11-12-93

IJO / CONTRACT NUMBER 93-1017

I CERTIFY UNDER PENALTY OF LAW THAT TANK DECOMMISSIONING ACTIVITIES WERE PERFORMED IN COMPLIANCE WITH NJAC 7:14B-9.2(b)3. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE, INACCURATE, OR INCOMPLETE INFORMATION, INCLUDING FINES AND/OR IMPRISONMENT.

NAME (Print or Type) John Lenergan

SIGNATURE

NJDEP UST CLOSURE CERTIFICATE NO. 0003248

COMPANY PERFORMING TANK DECOMMISSIONING CUTE Inc.

NJDEP UST CLOSURE CORPORATE CERTIFICATE NO. 0200128

DATE OF SUBMITTAL 2/20/95

APPENDIX C

WASTE MANIFEST

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

689.B

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. NJ1321002697 | Manifest Document No. 0 0 0 1
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, c/o James Shirghio, Bldg 2504, ATTN: SELFM-DL-EM-MS. Fort Monmouth, NJ 07703
4. Generator's Phone: 908 532-6224

A. State Manifest Document Number: NJA 1603208
B. State Generator's ID: MAIN POST BLDG #689-A-B
C. State Transporter's ID: NJTRPES-3806
D. Transporter's Phone: 908 462-1000
E. State Trans. ID:
F. Transporter's Phone:
G. State Facility's ID:
H. Facility's Phone: 908 721-0900

5. Transporter 1 Company Name: Freehold Cartage Inc.
6. US EPA ID Number: NJD015414126
7. Transporter 2 Company Name:
8. US EPA ID Number:
9. Designated Facility Name and Site Address: Lionetti Oil Recovery Co., Inc. Runyon & Cheesequake Rds. Old Bridge, NJ 08857
10. US EPA ID Number: NJD084044016

11. US DOT Description (including Proper Shipping Name, Hazard Class and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt./Vol.	I. Waste No.
X Petroleum Oil NOS Class 3 (Petroleum Oil) Combustible Liquid UN 1270 PG III	001	TT	XXX60G	X	172
PETROLEUM OIL, N.O.S. CLASS 3 (PETROLEUM OIL)					
X COMBUSTABLE LIQUID, UN 1270 PG III	001	TT	XX1326	X	T22

J. Additional Descriptions for Materials Listed Above
T,L Petroleum Oil 40%
Water 60%

K. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information
Not EPA regulated. Regulated as hazardous waste in NJ
24 Hour Emergency Response# 201-427-2881
NJ Decal# 55429 ERG# 27

81533-108 A-11/9/93 | 81533-109 B-11/12/93
BLDG #689-A-B

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 - DPW
Signature:
Month Day Year: 1 1 17 93

17. Transportation Acknowledgment of Receipt of Materials
Printed/Typed Name: ALFONSO PRECINTO
Signature:
Month Day Year: 1 1 17 93

18. Discrepancy
Month Day Year

NJA 1603208

#6889-A-B
A- UST # 81533-108
- UST # 81533-109

GENERATOR CERTIFICATION

I hereby certify that the waste described on Hazardous Waste Manifest No. NJA-1603208 dated 11/17/93, is generated by one or more of the following processes and does not contain more than 2 ppm polychlorinated biphenyls (P.C.B.'s) and does not display any characteristic or contain any hazardous constituents other than for which waste oils are listed in New Jersey.

X721: Waste automotive crankcase and lubricating oils from automotive service and gasoline stations, truck terminals, and garages.

X722: Waste oil and bottom sludge generated from tank cleanouts from residential/commercial fuel oil tanks.

X723: Waste oil and bottom sludge generated by gasoline stations when gasoline and oil tanks are tested, cleaned or replaced.

X724: Waste petroleum oil generated when tank trucks or other vehicles or mobile vessels are cleaned, including, but not limited to, oil ballast water from product transport units of boats, barges, ships or other vessels.

X725: Oil spill cleanup residue which: A. is contaminated beyond saturation; or B. the generator fails to demonstrate that the spill material was not one of the listed hazardous waste oils.

X726: The following used and unused waste oils: metal working oils; turbine lubricating oils; diesel lubricating oils; and quenching oils.

X728: Bottom sludge generated from the processing, blending, and treatment of waste oil in waste oil processing facilities.

I am duly authorized to sign said certification.

Generator US ARMY COMMUNICATIONS ELECTRONICS COMMAND C/O JA SHIRLE

Generator's EPA ID No. NJ3210020597

Address FORT MONMOUTH, NJ. BLDG 2504, MAINPOST BLDG #6889 A-B

Print Name Charles M. Appleby Signature

Title Enviro. Protection SPEC. - DPW

Date " Nov. 17 1993

Form 003 5/91

[redacted] CARRIAGE INC

[redacted]

G17451

STATE MANIFEST NO: [redacted] 160308 160307

(X) HM		PROPER U.S. DOT SHIPPING NAME	U.S. DOT HAZARDOUS CLASS	PACKING GROUP	NA/UN NO.	FORM	NET QTY	UNIT OF MEASURE
X	1	PETROLEUM OIL, N.O.S. (PET. OIL)	COMBUSTIBLE LIQUID	III	1270	L	543	G
	2							
	3							

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

NJDEPES # - 2265 - 55429

GENERATOR NAME/ADDRESS: U.S. ARMY COMMUNICATIONS ELECTRONICS COMMAND FORT MONMOUTH, N.J. MAIN POST

PHONE: (908) 532 - 6224

GENERATOR EPA ID NO.: NJ3211002059 17

TRACTOR: 438 TRAILER: NA

TIME AT GENERATOR: ARRIVAL TIME 0700 (MILITARY TIME ONLY) DEPARTURE TIME :

FCI REP. LOADING (PRINT)	PROCEDURE	BOX SPOTTED	BOX REMOVED	EQUIPMENT USED
ALFONSO TROCCHIO	VAC	NA	NA	1-VACUUM TRUCK

COMMENTS OR DELAYS AT GENERATOR

#207: 396 11/16/93 81533-69 100 GAL

#208 - 11/9/93 684-A-3 A-100; B-132

#209 - 11/8/93 B406 #600 196 GAL

#210 - 55645 B406 #296 11/5/93

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

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

GENERATOR'S SIGNATURE: X _____ I HAVE READ THE ABOVE AND UNDERSTAND AND AGREE TO ALL OF ITS CONTENT.

PLEASE PRINT NAME/TITLE:

DATE LOADED: MO. 11 DAY 17 YR. 93

TSDF NAME/ADDRESS: LIONETTI OIL RECOVERY RUNYON + CHEESEQUAKE OLD BRIDGE, N.J.

PHONE: (908) 721 - 0900

TSDF EPA ID NO.: NJD 078 [redacted]

TRACTOR: 438 TRAILER: NA

TIME AT TSDF: ARRIVAL TIME : (MILITARY TIME ONLY) DEPARTURE TIME :

FCI REP. UNLOADING (PRINT)	PROCEDURE	BOX SPOTTED	BOX REMOVED	EQUIPMENT USED
	NA	NA	NA	

COMMENTS OR DELAYS AT TSDF

TSDF SIGNATURE: X _____

PLEASE PRINT NAME/TITLE:

DATE UNLOADED: MO. 11 DAY 17 YR. 93

AR H-0257 PC 944	ME ME-HWT-47 ME-WOT-47	MO H-1490	NOVA SCOTIA, CANADA NSC 000 147	QUEBEC, CANADA QC-5MIL-047
CT CT-HW-307	MD HWH-167 91-OP-1765	ND WH-429	OH 333-HW-	RI RI-535
DE DE-HW-203 DE-SW-203	MA MA-294	NH TNH-0047	OK 3358	TX 40705
IL SWH-1540	MN 61572	NJ S-2265 15939	ONTARIO, CANADA A 840943	WI 11602
		NY JA-113	PA PA-AH-0067	

Original - FCI Office Copy
Yellow - FCI Office Copy
Blue - FCI Office Copy/Customer
Green - Retained by TSDF

G 17451

INVOICE FORM FOR UNDERGROUND STORAGE TANK REMOVAL (UST)
Individual Job Order (IJO) Numbers 93-1016, 93-1017, 93-1018, and 93-1019

1. Lump Sum Tank Removal Price $ 3,825.00

2. Asphalt prices:

3/4" dirty blend stone	____ tons @	____ /ton	$ N/A
4" thick stabilized base	____ sqyd @	____ /sqyd	$ N/A
2" thick top FABC	____ sqyd @	____ /sqyd	$ N/A

3. Removal and proper disposal of contaminated fuels:

#2 fuel	192 gal @	0.80 /gal	$ 153.60
Gasoline	____ gal @	____ /gal	$ N/A
Clean backfill materials	12 tons @	11.70 /ton	$ 140.40
Top soil	____ tons @	____ /ton	$ N/A
3/4" Clean Stone	____ tons @	____ /ton	$ N/A
Concrete/Black Top Removal	____ tons @	____ /ton	$ N/A
Transporting of excavated contaminated soil to Fort Monmouth storage areas	12 tons @	9.00 /ton	$ 108.00
Containerizing and relocating of hazardous waste to Fort Monmouth storage areas	1 ct @	70.00 /ct	$ 70.00
Tarpaulins	____ sqyd @	____ sqyd	$ N/A
6 mil plastic	____ rolls @	____ roll	$ N/A

4. Demolition and disposal of fuel dispensers (IJO 93-1019) ____ @ ____ /each $ N/A

TOTAL $ 4,297.00

23899

JOHN GUIRE CO.
187 BRIGHTON AVE • LONG BRANCH, N.J. 07740
201-222-0612

Tom H #600

ate Cust. Phone

Driver On ______ Off ______

's Name ______

Supplies

Price Per Ton

Price ______

Tax ______

DATE	TIME		
11-15-93	2:44PM	71020	Gross lb.
11-15-93	2:32PM	30040	Tare lb.
		40,980	Net lb.

Sub Total ______

Del. Chg. ______

TOTAL 20.49 T

12.00

Instructions

39.3

Other Products Always Available

- **Fuel Oil**
- **Hardware**
- **Lawn & Garden Supplies**
- **Mulch**
- **Top Soil & Fill Dirt**
- **Wall Stone**
- **Cobble Stone**
- **Railroad Ties**

Rec'd By Don Ellis 8.49

Weigher Cm

OFFICE COPY

ared prices are for street curb delivery, except where the curb and sidewalk are entirely bridged ed and a suitable road provided to actual point of unloading inside of curb. We will assume no for any damages where delivery is made inside of curb.

INVOICE

INVOICE DATE	INVOICE NO.
12/15/93	93117

Diversified Contracting, Inc.
131 Racquet Rd.
Wall, NJ 07719

SOLD TO: Directorate of Public Works
ATTN: SELFM-PW-CF (Mr. R. Sears)
Bldg 167
Fort Monmouth, NJ 07703-5108

SHIP TO: US Army Communications and Electronics Command
Bldg 689
Fort Monmouth, NJ

	PURCHASE ORDER NO.	SHIP VIA	SHIP DATE	TERMS
	IJO 93-1017			Net 20

The following is a partial invoice. Per gallon costs were determined by dividing the total gallonage per contract into the total Lump Sum Contract amount.

Total Gallonage 10,100 at $1.50/gal

Removal of tank 689A, 550 gal #2 oil tank 550 gal @ $1.50/gal	825.00
Removal and disposal of #2 fuel oil 100 gal @ $0.80/gal (Manifest NJA 1603208)	80.00
Backfill of tank excavation 12 tons @ $11/70/ton	140.40
Transportation of excavated contaminated soil 12 tons @ $9.00/ton	108.00
Containerizing and relocating hazardous waste to storage 1 container @ $70/ct	70.00
Removal of Tank 689B, 2000 gal #2 oil 2,000 gallons @ $1.50/gal	3,000.00
Removal and disposal of #2 oil 92 gal @ $0.80/gal	73.60

with the information given
Ass ready for payment
Willard Cook, 12/20/93

SALE AMOUNT	$4,297.00
MISC. CHARGES	
SALES TAX	
FREIGHT	
TOTAL	

APPENDIX D

UST DISPOSAL CERTIFICATE

MAZZA & SONS, INC.

Metal Recyclers
Auto and Truck
3230 Shafto Rd.
Tinton Falls, NJ
(908) 922-9292

NO. _____

DATE 11/00/22

Customer's Name LTC INC

Address _____

Make of Autos

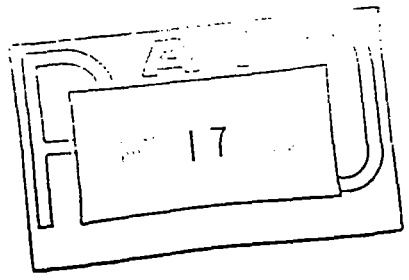
Tires

Tank 689 B

Price

32260 LB G
32900
-640
1300

	Weight	Price
Cast Iron		
Steel	26.00	
Lt. Iron		
Copper #1		
Copper #2		
Lt. Copper		
Brass		
Alum Clean		
Lead		
Stainless		
Radiators		
Battery		
TOTAL AMOUNT:		



Weigher _____ Customer Don Ellis

APPENDIX E

MONITORING WELL PERMIT AND CONSTRUCTION LOG

607 SERIAL # 37091

DWR-133M (7/92)

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION AND ENERGY
TRENTON, NJ

Permit No. 21-[illegible]67

Mail to
Water Allocation
CN 029
Trenton, N.J. 08625

MONITORING WELL PERMIT 38

689A/B MW-1

VALID ONLY AFTER APPROVAL BY THE D.E.P.E.

COORD # 291365 6

Owner US ARMY FORT MONMOUTH

Address [illegible]
FT MONMOUTH, NJ 07703

Name of Facility GENERAL SITE (MAIN POST)

Address WILSON AVE 659
FT MONMOUTH, NJ 07703

Driller TYREE ORGANIZATION, LTD

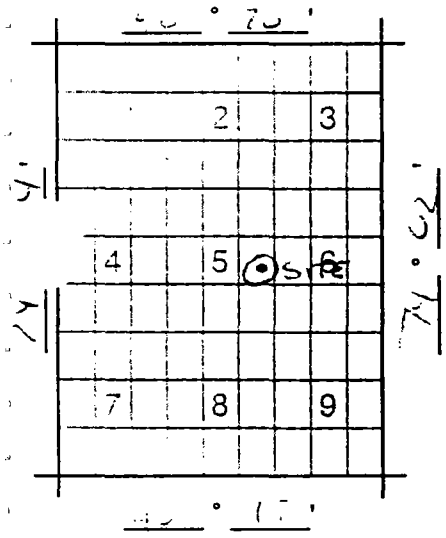
Address 1350 ET 130 S
BURLINGTON, NJ 08016

Diameter of Well(s) 4 Inches	Proposed Depth of Well(s) 15 Feet
# of Wells Applied for (max. 10) 2	Will pumping equipment be installed? YES ☐ NO ☒
Type of Well (see reverse) MONITOR/OBSERVE	If Yes, give pump capacity GPM

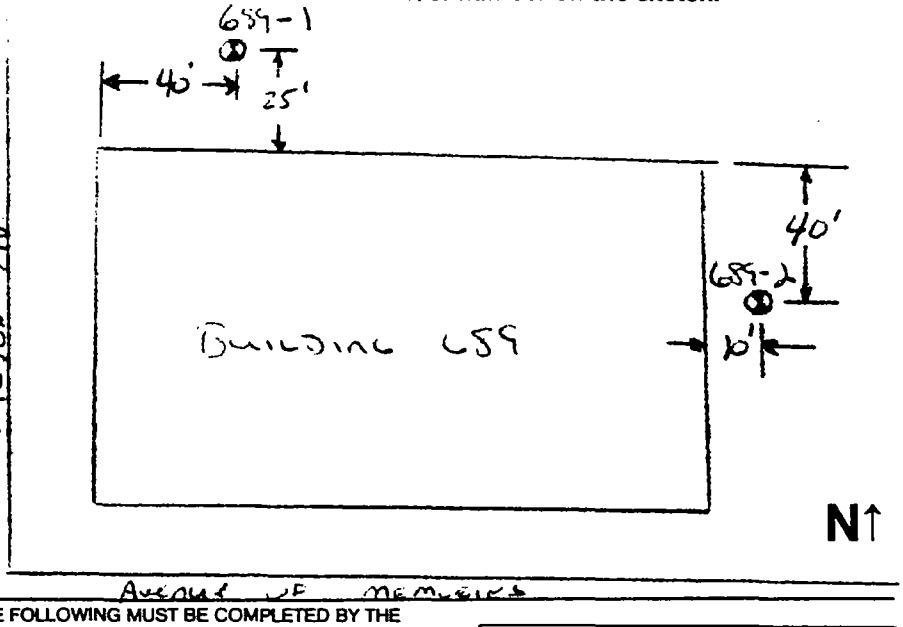
LOCATION OF WELL(S)

Lot #	Block #	Municipality	County
		FT MONMOUTH	MONMOUTH

State Atlas Map No. [illegible]



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
- ☐ ECRA Case
- ☐ CERCLA (Superfund) Site
- ☐ RCRA Site
- ☒ Underground Storage Tank
- ☐ NJPDES Municipal Discharge Permit
- ☐ NJPDES Industrial Discharge Permit
- ☐ Water and Hazardous Waste Enforcement Case
- ☐ Water Supply Aquifer Test Observation Well
- ☐ Other (explain) _____

Case I.D. Number

① 93-11-17-1759-33

② 93-11-10-758-23

This Space for Approval Stamp

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

APR 5 1994

FOR E.P.E. SE

☐ 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.
☐ _____

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.

Date [illegible] 1994

Signature of Driller [signature] License # 1421

Signature of Owner [signature] SELFM-PW-EV

U.S. ARMY
FORT MONMOUTH
SELFM PW EV

LOG OF BORING 689A + B-MW1

Produced for Charles Appleby

Project Name	: BLDG. 689	Completion Date	: 7/11/94
NJDEP Case #	: 93-11-10-758-23	Northing	: N 539034.230
Logged By	: TYREE INC.	Easting	: E 2172209.214
Start Date	: 7/11/94	Driller	: M. Beck

Depth in Feet	29-30906 ELEV: 15.63	DESCRIPTION	GRAPHIC	USCS	Samples	Blows/Ft	Well Construction Information
0		Asphalt		14			
2		Yellow brown sand medium		SW			
6	7/94	Green clay and coarse sand		SC			
10		Green clay and silt, traces of sand		SC			
12.5							
14							

Well Construction

Date Completed	: 7/15/94
Hole Diameter	: 8 in
Drill Method	: HSA
Company Rep	: M. Beck

Well Casing

Material	: PVC
Diameter	: 4 in
Joints	: Threaded

Well Screen

Material	: PVC
Diameter	: 4 in
Joints	: Threaded
Opening	: 20 Slot
Sand Pack	: # 2 Morie Sand
Annulus Seal	: Bentonite/Portland : Tremmie

Well Screen

Material	: PVC
Diameter	: 4 in
Cap	:

NOTES
Well #1 is 689A + B MW1

2-28-1996 C:\689\GEO\689 mw.ge3

MONITORING WELL CERTIFICATION-FORM B-LOCATION CERTIFICATION

Name of Permittee: U.S. ARMY
Name of Facility: FORT MONMOUTH
Location: MONMOUTH COUNTY, NJ
Case ~~NJPDES~~ Number: 93-11-10-758-J3

LAND SURVEYOR'S CERTIFICATION

Well Permit Number: 29-30716 6-
This number must be permanently affixed to the well casing.

Longitude (to nearest second): West 74° 02' 57.02"

Latitude (to nearest second): North 40° 18' 44.28"

Elevation of Top of Inner Casing (cap off) (one-hundredth of a foot): 15.63

Elevation of ground level (1/100th ft.) 16.36

Source of elevation datum (benchmark, nail, etc.) and year. (If an alternate datum has been approved by the Department, identify here, assume datum of 100', and give approximated actual elevation.) Source: FM-3

☒ 1927 ☐ 1983

Elev.: 17.57

Owners Well Number (As shown on application or plans): BLDG 688A&B MW-1

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

AUTHENTICATION

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

Wayne W Burgett
PROFESSIONAL LAND SURVEYOR'S SIGNATURE

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

SEAL

31654
PROFESSIONAL LAND SURVEYOR'S LICENSE #

DWR-138 M
12/91

N... Jersey Department of Environmental Protection and E...gy
Bureau of Water Allocation

MONITORING WELL RECORD

Well Permit No. 29 - 32866
Atlas Sheet Coordinates 29 : 13 : 656

OWNER IDENTIFICATION - Owner U S ARMY FORT MONMOUTH
Address
City FORT MONMOUTH State NJ Zip Code

WELL LOCATION - If not the same as owner please give address. Owner's Well No. Bldg 689 A:B 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 7/15/94
Regulatory Program Requiring Well UST Case I.D. # 93-11-17-175933
CONSULTING FIRM/FIELD SUPERVISOR (if applicable) Telo. #

WELL CONSTRUCTION

Total depth drilled 12'1/2 ft.
Well finished to 12'1/2 ft.
Borehole diameter:
Top 8 in.
Bottom 8 in.
Well was finished: ☐ above grade ☑ flush mounted
If finished above grade, casing height (stick up) above land surface ____ ft.
Was steel protective casing installed? ☐ Yes ☑ No

	Depth to Top (ft.) [From land surface]	Depth to Bottom (ft.) [From land surface]	Diameter (inches)	Type and Material
Inner Casing	0	2'	4"	PVC
Outer Casing (Not Protective Casing)				
Screen (Note slot size)	2'	12'1/2	4"	.20 SLOT PVC
Tail Piece				
Gravel Pack	1'	12'1/2'		#2
Annular Seal/Grout	0	1'		Bentonite
Method of Grouting	Pour			

Static water level after drilling 6 ft.
Water level was measured using Tape
Well was developed for 1 hours at 10 gpm
Method of development Pump
Was permanent pumping equipment installed? ☐ Yes ☑ No
Pump capacity ____ gpm
Pump type:
Drilling Method Auger
Drilling Fluid ____ Type of Rig B-80
Name of Driller Michael E Beck
Health and Safety Plan submitted? ☑ Yes ☐ No
Level of Protection used on site (circle one) (None) D C B A
N.J. License No. 1421
Name of Drilling Company TYPHOON ENVIRONMENTAL TECHNOLOGY

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

0-5" Asphalt
5"-6' Yellow-Brown Sand med
6'-10'1/2' Green Clay + Sand Corse
10'1/2'-12'1/2' Green Clay + Silt Traces of Sand

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

Driller's Signature Michael E Beck Date 7-15-94

COPIES: White & Green - DEPE Canary - Driller Pink - Owner Goldenrod - Health Dept.

APPENDIX F

SOIL ANALYTICAL DATA PACKAGE

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

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

Lab. ID #: 1329.1-.4
Sample Rec'd: 11/12/93
Analysis Start: 11/16/93
Analysis Comp: 11/16/93

Analysis: 418.1 (TPH)
Matrix: Soil
Analyst: S. Hubbard
Ext. Method: SONC.

NJDEPE UST Reg.#: 81533-109
Closure #: C-93-3673
DICAR #:
Location #: **Bldg. # 689B**

Lab ID.	Description	%Solid	Result (mg/Kg)	MDL
1329.1	Site A, 7 - 7.5' hNu = ND	84	ND	3.3
1329.2	Site B, 7 - 7.5' hNu = ND	93	3.64	3.3
1329.3	Site C, 7 - 7.5' hNu = 2. *	85	1140.	9.9
1329.4	Site D, 7 - 7.5' hNu = ND	91	3.73	3.3
M. BL.	Method Blank	100	ND	3.3

Notes: ND = Not Detected, MDL = Method Detection Limit
* = Silica Gel Added

1329.1 Dup. =100% 1329.1 Spike=100% 1329.1 Spike Dup = 98% RPD: 98%

Brian K. McKee
Laboratory Director

SERV-AIR, INC.
An E-SYSTEMS Company

P.O. #: PWS-007

Chain of Custody

Project #: C93-3673
Customer: Applied DPW
Phone: x26024

Sampler: Cote Inc. George
Site Name: Bldg. 689B
UST# 81533-109
TMS-C-93-3673

Date / Time: 11/12/93 | 1530

Analysis Parameters

Start:
Finish:

Lab Sample ID Number	Date/Time		Customer Sample Location/ID Number	Sample Matrix	# of Bottles	TPHC	% Solid	Moisture	Hnu - Reading	Remarks
1329.1	11/12/93	1610	Site A - 7-7.5'	Soil	1	X	X	X	ND	
.2		1612	Site B - 7-7.5'		1	X	X	X	ND	
.3		1617	Site C - 7-7.5'		1	X	X	X	20	
.4		1620	Site D - 7-7.5'		1	X	X	X	ND	
										Kept < 4°C
										Hnu Calibrated
										11/12/93 1525hrs
										@ 55 ppm Methane
										Span = 9.20
										C.A.

Relinquished By (signature): [signature]
Date / Time: 11/12/93 | 1900

Received By (signature):

Shipped By: SN/370136
Hand - Dropped Off Lab. Refrig. 11/13/93 1900hrs CA

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.

SAI-ENV COC form 01 Page ____ of ____ Pages Rev. A Date: 02 Apr 93

FT. MONMOUTH OFFICE

PHC Conformance/Non-conformance Summary Report

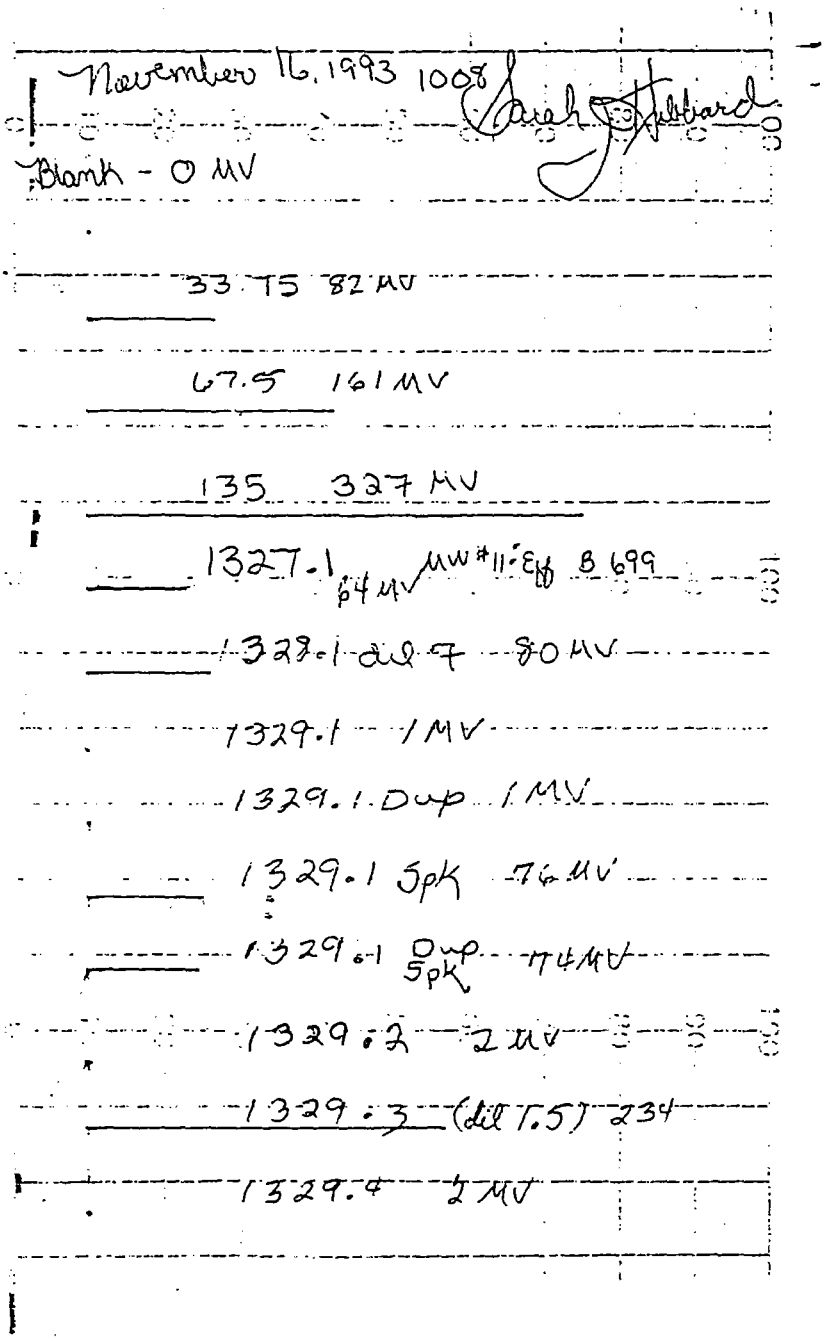
	No	Yes
1. Blank Contamination - If yes, list the sample and the corresponding concentrations in each blank	✓	
2. Matrix Spike/Matrix Sp Dup. Recoveries Meet Criteria (If not met, list the sample and corresponding recovery which falls outside the acceptable range)		✓
3. IR Spectra submitted for standards, blanks, & samples		✓
4. Chromatograms submitted for standards, blanks, and samples if GC fingerprinting was conducted.	N/A	
5. Extraction holding time met. (If not met, list number of days exceeded for each sample)		✓
6. Analysis holding time met. (If not met, list number of days exceeded for each sample)		✓

Comments: _____

Laboratory Authentication Statement

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

Brian K. McKee
Laboratory Manager


November 16, 1993 100% Sarah J. Hubbard
Blank - 0 MV
33 T5 82 MV
67.5 161 MV
135 327 MV
1327-1 64 MV MW#11 Eff 8 699
1328-1 dup 7 80 MV
1329-1 1 MV
1329-1 Dup 1 MV
1329-1 Spk 76 MV
1329-1 Dup Spk 114 MV
1329-2 2 MV
1329-3 (dil 7.5) 234
1329-4 2 MV

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 #: 1329.1-.4
Sample Rec'd: 11/12/93
Analysis Start: 11/16/93
Analysis Comp: 11/16/93

Analysis: Munsel

Lab ID#	Soil Color
1329.1	2.5Y 5/6 Light Olive Brown
1329.2	2.5Y 5/6 Light Olive Brown
1329.3	2.5Y 4/4 Olive Brown
1329.4	2.Y 4/4 Olive Brown

Brian K. McKee
Laboratory Director

11/16/93 4:17 PM

APPENDIX G

GROUNDWATER ANALYTICAL DATA PACKAGE

nytest environmental inc.

Project No.: 9421415
Log in No. : 22521K
P.O. No. : Pending
Date : 2/20/95
SDG No. : Army 2
NJDEPE Case #: 93-11-1759-33

ANALYTICAL DATA REPORT
PACKAGE FOR

Aguilar Associates

30 Freneau Avenue

Matawan, NJ 07747

ATTN: Darryl Schmitt
REF: US Army Fort Monmouth,Well# and NJDEPE Reg# 1- 2930967
Sample Location Bldg. 689B

LABORATORY NUMBER	SAMPLE IDENTIFICATION	TYPE OF SAMPLE

S E E N E X T P A G E

WE CERTIFY THAT THIS REPORT IS A TRUE REPORT OF RESULTS OBTAINED FROM OUR TESTS OF THIS MATERIAL.

RESPECTFULLY SUBMITTED,
NYTEST ENVIRONMENTAL INC.

NYS Lab ID. #10195
NJ Cert. #73469

REMO GIGANTE
EXEC. VICE PRESIDENT

NYTEST ENVIRONMENTAL Inc.

LABORATORY NUMBER	SAMPLE IDENTIFICATION	WELL #	TYPE OF SAMPLE
2252118	689B-2	2-2930967	Water
2252101	814-FB	-	Water
2252102	814-TB	-	Water

Table of Contents

BLDG.#: 689B MW#: 2 NJDEPE WELL ID # 2930967

U.S. ARMY FORT MONMOUTH

MONITORING WELL SAMPLING DATASHEET

DATE: 11/9/94

IJO#94-0843 B

SAMPLING CONTRACTOR: Aguilar Associates Inc.

LABORATORY: NYTEST Environmental Inc. CERT #:73469

SAMPLERS NAMES: D. Schmitt, T. DeMichele, C. Aguilar, S. Panizzi, W. Prillwitz

WEATHER CONDITIONS: 65°F Sunny

ELEVATION OF CASING SURVEY MARK: 15.63

TOTAL DEPTH OF WELL FROM TOP OF SURVEYORS MARK: __.__FT

DEPTH FROM SURVEYORS MARK TO SCREEN: 2.0 FT

LENGTH OF SCREENED SECTION: 10.5 FT.

DEPTH TO WATER PRIOR TO PURGING AND SAMPLING: 7.10 FT

ELEVATION OF GW PRIOR TO PURGING: 8.53 FT

THICKNESS OF LNAPL PRIOR TO PURGING : —.— FT

PID/Hnu READING IMMEDIATELY AFTER THE WELL CAP IS REMOVED: 0 PPM

pH: 4.14 TEMP: 20 C, SPECIFIC CONDUCTIVITY: 1420uS

D.O. - 5.4

DEPTH OF WELL: 12.64 FT

HEIGHT OF WATER: 5.54 FT

EVACUATED GAL. H2O: 11 GAL (5.54 X .65 X 3 = 10.8)

PURGING START TIME: 3:04 END TIME: 3:19

PURGE METHOD:REDI-FLOW 2 INCH SUBMERSIBLE PUMP VARIABLE FLOW RATE OF <0.5 GPM TO >5.0 GPM

PURGE RATE (<0.5 GPM): <1 GPM

TOTAL VOLUME PURGED: 11 GAL.

DEPTH TO WATER AFTER PURGING AND BEFORE SAMPLING: 9.21 FT

DISSOLVED OXYGEN: 4.5 pH: 4.08 TEMP: 19 °C

SPECIFIC CONDUCTIVITY: 1380uS

SAMPLING METHOD: DEDICATED, DECONTAMINATED (IAW NJDEP FSPM 1992) TEFLON® BAILER

START TIME OF SAMPLING: 3:32 END TIME: 3:39

DISSOLVED OXYGEN: 5.6 pH: 4.10 TEMP: 19 °C

SPECIFIC CONDUCTIVITY: 1390uS

COMMENTS: _____

TOTAL ANALYTICAL SERVICES FOR A SAFE ENVIRONMENT

nytest environmental.

(516) 625-5500 FAX: (516) 625-1274

Chain of Custody Record

page # : 1 of 1

Client Name: Aguilar Assoc. & Cons., Inc.
Address: 30 Freneau Ave.
Matawan, NJ 07747

Project Manager: D. Schmitt
Phone: (908) 290-7500 FAX: (908) 290-7506
Project Name: Fort Monmouth Bldg 689B
Project Number:
P.O. #:
Analytical Protocol: _____ Deliverables: _____
Sampled By: D Schmitt

Analysis Requested

Lab ID (Lab Use Only)	Sample ID (Maximum of 6 Characters)	Date Sampled	Time Sampled	Sample Location	No. of Containers	Volatiles, TBA, MTBE	Base Neutrals
	MW-2	11/9/94	1532		4	2	2

Bin #'s In / Out (For Lab Use Only)

100001

Login #:
Ship to:
Nytest Environmental Inc.
60 Seaview Blvd
Port Washington N.Y. 11050
Attn.: Sample Control
Date Shipped:
Carrier:
Air Bill #:
Cooler #:
C of C #:
SDG #:
NEI QT #:

Comments

	Date / Time		Date / Time
Relinquished by: B. McKee	11/10 1530	Received by: [signature]	11/12 3:30
Print Name: B. McKee		Print Name:	
Relinquished by:	Date / Time	Received by:	Date / Time
Print Name:		Print Name:	
Relinquished by: [signature]	Date / Time 11/10 5:30	Received by Laboratory: [signature]	Date / Time 11/12/94 8:25 AM
Print Name: J. Tighe		Print Name: [signature]	

Special Instructions : _____

Lab Use Only

Custody Seals: Intact (Broken) Absent
Sample Rec'd in Good Condition? : (Y) N
Sample Temperature: 4 Degrees Celcius
INSPECTED BY: [signature]
COMMENTS: _____

U.S. ARMY FORT MONMOUTH

P.O. #: & Aguilar / 94-0843

Chain of Custody

Project #: 93-11-1759-33	Sampler: D. Schmitt	Date / Time 11/9/94 | 1600	Analysis Parameters
Customer: C. Appleby SELFM-pw-EW	Site Name: Bldg 689 B		Start:
Phone: (908) 532-6214	DICAR # 93-11-1759-33		Finish:

Preservation Method

Lab Sample ID Number	Date/Time		Customer Sample Location/ID Number	Sample Matrix	# of Bottles	624+D, xylenes	TBA, MTBE	Basic Neutrals					HNu	Remarks
1718.1	11/9/94	1532	MW-2, 293097	AQ	4	2	2						0	Sample kept "4"
1716.1	11/9	0845	Field Blank	AQ	4	2	2							HNu SN 801497
.2	↓	—	Trip Blank	↓	2	2								HNu = 0
.3	↓	0845	Duplicate	↓	4	2	2							calibrated 11/4/94

600000

Relinquished By (signature) Daniel W. Schmitt	Date / Time 11-9-94 | 1620	Received By (signature) B. MK	Shipped By:
Relinquished By (signature) B. MK	Date / Time 11-10-94 | 1530	Received for Lab by (signature):	Date / Time 11/.. | 3:..

Note: A drawing depicting sample location should be attached or drawn on the reverse side of this chain of custody.

Enviornmental Laboratory

Certification Number 13461

TOTAL ANALYTICAL SERVICES FOR A SAFE ENVIRONMENT

nytest environmental.

(516) 625-5500 FAX: (516) 625-1274

Chain of Custody Record

page # : 1 of 1

Client Name: Aguilar Associates & Consultants, Inc.
Address: 30 Freneau Ave, Matawan, NJ 07747
Project Manager: D. Schmitt
Phone: (908) 290-7800 FAX: (908) 290-7806
Project Name: Fort Monmouth Bldg 814
Project Number:
P.O. #:
Analytical Protocol: Deliverables:
Sampled By: D. Schmitt

Logn #:
Ship to:
Nytest Environmental Inc.
60 Seaview Blvd
Port Washington N.Y. 11050
Attn.: Sample Control
Date Shipped:
Carrier:
Air Bill #:
Cooler #:
C of C #:
SDG #:
NEI QT #:

Analysis Requested / Bin #'s In / Out (For Lab Use Only)

Lab ID (Lab Use Only)	Sample ID (Maximum of 6 Characters)	Date Sampled	Time Sampled	Sample Location	No. of Containers	624+15, xylenes, TBA, MTBE	Base Neutrals	Comments
	Field B	11/9/94	8:45		4	2	2	
	Trip B	11/8/94	–		2	2		
	Dupl	11/9/94	–		4	2	2	
	MW-1	11/9/94	9:30	site 814	4	2	2	

000003

Relinquished by	Date / Time	Received by	Date / Time
B. McKee (Print Name: B. McKee)	11/10 1530	Jay Toepfert (Print Name: Jay Toepfert)	11/10 3:30
Relinquished by: / Print Name:	Date / Time	Received by: / Print Name:	Date / Time
Jay Toepfert (Print Name: J. Toepfert)	11/10 5:25	Received by Laboratory: [signature] (Print Name: [illegible])	[illegible] [illegible]

Lab Use Only
Custody Seals: Intact Broken (circled) Absent
Sample Rec'd in Good Condition? : Y (circled) N
Sample Temperature: 4 Degrees Celsius
INSPECTED BY: PC
COMMENTS:

Special Instructions :

CLIENT RETAINS YELLOW COPY ONLY

NYTEST ENVIRONMENTAL INC.

INTERNAL CHAIN OF CUSTODY

Laboratory Person Breaking Field Seal on Sample Shuttle & Accepting Responsibility for Sample	NAME: [signature]	TITLE: SCO
Client: Aguilar	Date Broken 11/10/94	Military Time Seal Broken: 2000
Login #: 22521	Analytical Parameter/Fraction: 8080 PEST HERB TBN625+15 P624+15 PB	

SAMPLE NO.	ALIQUOT/EXTRACT NO.	SAMPLE NO.	ALIQUOT/EXTRACT NO.
22521 - 01	814-FB	13	1076-1
" - 02	814 TB	14	1076-2
" - 03	814-DUP	15	1073
" - 04	814-1	16	1076 3MS
" - 05	287-1	17	1076 3MSD
" - 06	208B-1	18	689B-2
" - 07	282-1	19	2044-1
" - 08	207B-1	20	2044-2
" - 09	689A-1	21	2044-3
" - 10	600-1	22	2044-FB
" - 11	2700.4-1	23	2044 DUP
" - 12	1220-1	24	2044 TB

DATE	TIME	RELINQUISHED BY	RECIEVED BY	PURPOSE OF CHANGE OF CUST.
11/11/94	1600	PRINTED NAME M. LAM SIGNATURE M. La	PRINTED NAME C Voss SIGNATURE C Voss	8080 PEST HERB, TBN625+15
11/14/94	0800	PRINTED NAME M. LANI SIGNATURE M. Lan	PRINTED NAME SCarver SIGNATURE SCarver	P624+15
11/16/94	1300	PRINTED NAME C Voss SIGNATURE C Voss	PRINTED NAME R Fletcher SIGNATURE R Fletcher	Storage
11/22/94	16:00	PRINTED NAME M. LANI SIGNATURE M. Lan	PRINTED NAME H. Trujillo SIGNATURE Hotr	Metals
11/30/94	1500	PRINTED NAME H. Trujillo SIGNATURE Hotr	PRINTED NAME M. LANI SIGNATURE M. Lan	Storage
12/6/94	0815	PRINTED NAME SCarver SIGNATURE SCarver	PRINTED NAME M. LANI SIGNATURE M. Lan	Storage
		PRINTED NAME SIGNATURE	PRINTED NAME SIGNATURE	
		PRINTED NAME SIGNATURE	PRINTED NAME SIGNATURE	000004

LABORATORY DELIVERABLES

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

Tom Bapp — 2/21/95

Laboratory Manager or Environmental Consultant's Signature — Date

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 Tune Frequency - Performed every 24 hours for 600 series and 12 hours for 8000 series.	___	✓
4.	GC/MS Calibration - Initial Calibration performed within 30 days before sample analysis and continuing calibration performed within 24 hours of sample analysis for 600 series and 12 hours for 8000 series	___	✓
5.	GC/MS Calibration Requirements		
	a. Calibration Check Compounds	___	✓
	b. System Performance Check Compounds	___	✓

6. Blank Contamination - If yes, list compounds and concentrations in each blank:

   a. VOA fraction _____
   b. B/N Fraction _____
   c. Acid Fraction _____

7. Surrogate Recoveries Meet Criteria ~~✓~~ bmT 2/19/95 ✓

   If not met, list those compounds and their recoveries which fall outside the acceptable range:

   a. VOA Fraction ~~DCB(57, 58, 55, 58, 55, 56, 58, 54, 56, 56, 56, 55, 56)~~ DCB 162, 59, 58, 58 bmT 2/19/95
   b. B/N Fraction _____
   c. Acid Fraction _____

   If not met, were the calculations checked and the results qualified as estimated? NA

8. Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria (if not met, list these compounds and their recoveries which fall outside the acceptable range) ✓ ___

   a. VOA Fraction 1,1-Dichloroethane (166, 178) Chloroform (159, 170) 1,2-Dichloroethane (173, 184)
   b. B/N Fraction Phenanthrene (59, 60)
   c. Acid Fraction _____

9. Internal Standard Area/Retention Time Shift Meet Criteria NA

bm Summerly 2/19/95

GC/MS ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY FORMAT (CONT.)

		No	Yes
10.	Extraction Holding Time Met	___	✓

If not met, list number of days exceeded each sample: _____

		No	Yes
11.	Analysis Holding Time Met	___	✓

If not met, list number of days exceeded for each sample: _____

Additional Comments: _____

Laboratory Manager: [signature] Date 2/21/95

Laboratory Chronicle

Client Name: Aguilar Associates

Log In No.: 22521K

Date(s) of Sample Collection: 11/9/94

Date Received: 11/10/94

Sample ID: As per chain of custody

Organics Extraction:

1. Acids 11/13/94
2. Base/Neutrals
3. Pesticides/PCBs
4. Herbicides

Analysis:

1. Volatiles 11/14/94,11/15/94, 11/16/94
2. Acids 12/03/94, 12/06/94
3. Base/Neutrals
4. Pesticides/PCBs
5. Herbicides

Section Supervisor
Review & Approval

Inorganics:

1. Metals
2. Cyanides
3. Phenols

Other Analysis:

Section Supervisor
Review & Approval

Quality Control Supervisor
Review & Approval

Dates are included for re-extractions and reanalysis.

SAMPLE COMMENTS

NEI is reporting the results to our method detection limits (MDL's) rounded up to the nearest part per billion (ppb) in accordance with the guidance provided by NJDEP. These MDL's indicate that NEI did not detect any compounds above these levels.

No further analytical problems were encountered.

NARRATIVE DISCUSSION
SEMIVOLATILES - 22521K
Bldg:689B

INTRODUCTION

This narrative covers the analysis of two (2) samples in accordance with NEI SOP #501 based on USEPA Method 625.

HOLDING TIMES

The extraction and analytical holding times for this analysis were met.

CALIBRATIONS

Required minimum RRFs and maximum % RSD initial calibration requirements have been met in accordance with the Method.

QMETHOD BLANKS

The method blank associated with these samples did not contain any target compounds at or above QC limits.

SURROGATES

All samples met surrogate QC criteria.

MATRIX SPIKES

As requested sample 1076-3 was utilized for the MS and MSD analyses. The Phenanthrene recoveries in the MS and MSD were above advisory QC limits. The form 3 was included in this report.

INTERNAL STANDARDS

Area response and retention time summaries are not required.

SAMPLE COMMENTS

NEI is reporting the results to our method detection limits (MDL's) rounded up to the nearest part per billion (ppb) in accordance with the guidance provided by NJDEP. These MDL's indicate that NEI did not detect any compounds above these levels.

No analytical problems were encountered.

nytest environmental inc

I certify that this data package has been reviewed for the quality control and quality assurance measures for all analyzed methodologies.

Remo Gigante
Exec. Vice President

METHODOLOGY SUMMARY

AQUEOUS METHODOLOGIES:	REF 1	REF 2	REF 3	REF 5
BNA, Pesticides/PCB's Extraction		3510/3520		
AA/ICP Sample Preparation	200.7			
Furnace Sample Preparation	200.0			
Mercury Sample Preparation	245.1			
Hexavalent Chromium Sample Preparation	218.5			
Clean-Up		3610/3620/3630/ 3640/3660		
Organochlorine Pesticide and PCB's by Gas Chromatography			608	505
Herbicides by Gas Chromatography			362	515.1
Purgeable Organics by GC/MS			624	524.2
Base/Neutral, Acids by GC/MS			625	525
2,3,7,8-TCDD by GC/MS			613/625	
BTEX			602	502.2
EDB/DBCP by Microextraction				504.1

NON-AQUEOUS METHODOLOGIES:	
BNA, Pesticides/PCB's Extraction	3550
AA/ICP Sample Preparation	3050
Furnace Sample Preparation	3020/3030/3050
Mercury Sample Preparation	7471
Clean-Up	3610/3620/3630/ 3640/3660

GC, Gas Chromatography/Mass Spectrometry:	
Purgeable Organics	8240/8021
Base/Neutral and Acid Extractables	8270
Organophosphorus Pesticides	8140
Organochlorine Pesticide and PCB's by Gas Chromatography	8080
BTEX	8020
Halogenated Purgeable Organics	8010

METHODOLOGY SUMMARY

REFERENCES:

(1) USEPA-600/4-79-020, Methods for Chemical Analysis of Water and Waste

(2) USEPA SW 846, Test Methods for Evaluating Solid Waste, Third Edition

(3) Federal Register 40 CFR Part 136, Vol.49, No.209 Test Parameters for the Analysis of Pollutants

(4) Federal Register Vol.51, No.216 Friday, 11/7/86, pp.40643-40652

(5) Method for the Determination of Organic Compounds in Drinking Water, EPA 500/4-88/039, Dec. 1988

(6) Standard Method for Examination of Water and Wastewater, 15 Edition 1980

Method Qualifiers for Organic Non-CLP Methodologies

Q Qualifier - Specified entries and their meanings as follows:

U - Indicates compound was analyzed for but was not detected. The sample quantitation limit is corrected for dilutions and for the moisture content for soil samples. If a sample extract can not be concentrated to the protocol - specific volume, this fact is also accounted for in reporting the sample quantitation limit. The number is the minimum detected limits for the sample.

J - Indicates an estimated volume. The flag is used either when estimating concentration for tentatively identified compounds where a 1:1 response is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the sample quantitation limit but greater than zero.

N - Indicates presumptive evidence of a compound. This flag is used only for tentatively identified compounds, where the identification is based on a mass spectral library search. It is applied to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the **N** code is not used.

B - This flag is used when the analyte is found in the analyte is found in the associated blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action. This flag is used for a TIC as well as for a positively identified target compound.

E - This flag identifies compounds whose concentrations exceeded the calibration range of the GC/MS instrument for that specific analysis.

D - This flag identifies all compounds identified in an analysis at a secondary dilution factor.

A - This flag indicates that a TIC is a suspected aldol condensation product.

GC/MS Data

Volatile Data

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

814-FB

Lab Name: NYTEST ENV INC Contract: 9421415

Lab Code: NYTEST Case No.: 22521 SAS No.: SDG No.: ARMY2

Matrix: (soil/water) WATER Lab Sample ID: 2252101

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: N0223.D

Level: (low/med) LOW Date Received: 11/10/94

% Moisture: not dec. _____ Date Analyzed: 11/15/94

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	2	U
74-83-9	Bromomethane	1	U
75-01-4	Vinyl Chloride	1	U
75-00-3	Chloroethane	1	U
75-09-2	Methylene Chloride	6	
75-35-4	1,1-Dichloroethene	2	U
75-34-3	1,1-Dichloroethane	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	2	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	2	U
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
127-18-4	Tetrachloroethene	3	U
79-34-5	1,1,2,2-Tetrachloroethane	2	U
108-88-3	Toluene	2	U
108-90-7	Chlorobenzene	2	U
100-41-4	Ethylbenzene	2	U
1330-20-7	Xylene (total)	6	U
75-69-4	Trichloromonofluoromethane	2	U
107-02-8	Acrolein	20	U
107-13-1	Acrylonitrile	2	U
75-65-0	Tertiary Butyl Alcohol	100	U
1634-34-4	Methyl Tertiary Butyl Ether	1	U
541-73-1	1,3-Dichlorobenzene	2	U
106-46-7	1,4-Dichlorobenzene	2	U
95-50-1	1,2-Dichlorobenzene	2	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO

814-FB

Lab Name: NYTEST ENV INC Contract: 9421415

Lab Code: NYTEST Case No.: 22521 SAS No.: SDG No.: ARMY2

Matrix: (soil/water) WATER Lab Sample ID: 2252101

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: N0223.D

Level: (low/med) LOW Date Received: 11/10/94

% Moisture: not dec. _____ Date Analyzed: 11/15/94

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
110-75-8	2-Chloroethylvinyl Ether	4	U
156-60-5	Trans, 1,2-Dichloroethene	1	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

814-FB

Lab Name: NYTEST ENV INC Contract: 9421415

Lab Code: NYTEST Case No.: 22521 SAS No.: SDG No.: ARMY2

Matrix: (soil/water) WATER Lab Sample ID: 2252101

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: N0223.D

Level: (low/med) LOW Date Received: 11/10/94

% Moisture: not dec. _____ Date Analyzed: 11/15/94

Column: (pack/cap) CAP Dilution Factor: 1.0

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
5.					
6.					
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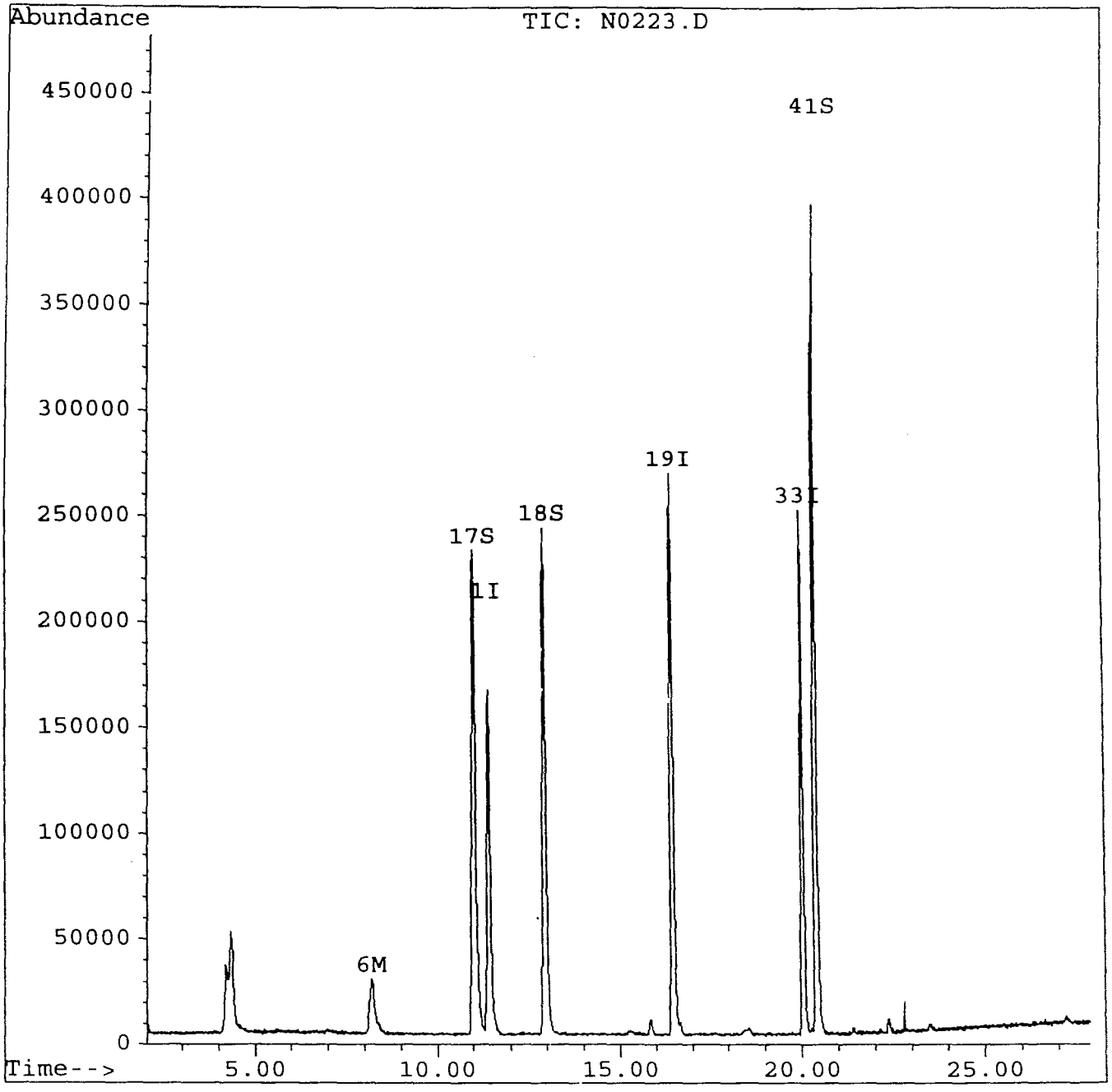
Quantitation Report

Data File : C:\HPCHEM\1\DATA\NOV1494\N0223.D
Acq Time : 15 Nov 94 00:47 am
Sample : 2252101,814-FB,
Misc : 1,1,,,5,5,P624,R11-10-94
Quant Time: Dec 30 13:49 1994

Operator: LDS
Inst : HPN
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\P624.M
Title : VOA Standards for 5 point calibration
Last Update : Fri Dec 23 10:39:23 1994
Response via : Multiple Level Calibration



000021

Quantitation Report

Data File : C:\HPCHEM\1\DATA\NOV1494\N0223.D
Acq Time : 15 Nov 94 00:47 am
Sample : 2252101,814-FB,
Misc : 1,1,,,5,5,P624,R11-10-94
Quant Time: Dec 30 13:49 1994

Operator: LDS
Inst : HPN
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\P624.M
Title : VOA Standards for 5 point calibration
Last Update : Fri Dec 23 10:39:23 1994
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) CI01 Bromochloromethane	11.40	128	146555	30.00	ug/l	0.06
19) 2-BROMO-1-CHLOROPROPANE	16.46	77	566776	30.00	ug/l	0.04
33) 1,4-DICHLOROBUTANE	20.03	55	482362	30.00	ug/l	0.02
System Monitoring Compounds						%Recovery
17) PENTAFLUOROBENZENE	11.01	168	642342	21.03	ug/l	70.08%
18) FLUOROBENZENE	12.94	96	772863	21.62	ug/l	72.06%
41) CS10 4-Bromofluorobenzene	20.40	95	480777	19.44	ug/l	64.8[illegible]
Target Compounds						Qvalue
6) C030 Methylene Chloride	8.19	84	75784	5.52	ug/l m	38

000022

(#) = qualifier out of range (m) = manual integration

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

814-TB

Lab Name: NYTEST ENV INC Contract: 9421415

Lab Code: NYTEST Case No.: 22521 SAS No.: SDG No.: ARMY2

Matrix: (soil/water) WATER Lab Sample ID: 2252102

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: N0224.D

Level: (low/med) LOW Date Received: 11/10/94

% Moisture: not dec. _____ Date Analyzed: 11/15/94

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	2	U
74-83-9	Bromomethane	1	U
75-01-4	Vinyl Chloride	1	U
75-00-3	Chloroethane	1	U
75-09-2	Methylene Chloride	3	
75-35-4	1,1-Dichloroethene	2	U
75-34-3	1,1-Dichloroethane	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	2	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	2	U
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
127-18-4	Tetrachloroethene	3	U
79-34-5	1,1,2,2-Tetrachloroethane	2	U
108-88-3	Toluene	2	U
108-90-7	Chlorobenzene	2	U
100-41-4	Ethylbenzene	2	U
1330-20-7	Xylene (total)	6	U
75-69-4	Trichloromonofluoromethane	2	U
107-02-8	Acrolein	20	U
107-13-1	Acrylonitrile	2	U
75-65-0	Tertiary Butyl Alcohol	100	U
1634-34-4	Methyl Tertiary Butyl Ether	1	U
541-73-1	1,3-Dichlorobenzene	2	U
106-46-7	1,4-Dichlorobenzene	2	U
95-50-1	1,2-Dichlorobenzene	2	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

814-TB

Lab Name: NYTEST ENV INC Contract: 9421415

Lab Code: NYTEST Case No.: 22521 SAS No.: SDG No.: ARMY2

Matrix: (soil/water) WATER Lab Sample ID: 2252102

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: N0224.D

Level: (low/med) LOW Date Received: 11/10/94

% Moisture: not dec. _____ Date Analyzed: 11/15/94

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
110-75-8	2-Chloroethylvinyl Ether	4	U
156-60-5	Trans, 1,2-Dichloroethene	1	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

814-TB

Lab Name: NYTEST ENV INC Contract: 9421415

Lab Code: NYTEST Case No.: 22521 SAS No.: SDG No.: ARMY2

Matrix: (soil/water) WATER Lab Sample ID: 2252102

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: N0224.D

Level: (low/med) LOW Date Received: 11/10/94

% Moisture: not dec. _____ Date Analyzed: 11/15/94

Column: (pack/cap) CAP Dilution Factor: 1.0

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
5.					
6.					
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9.					
10.					
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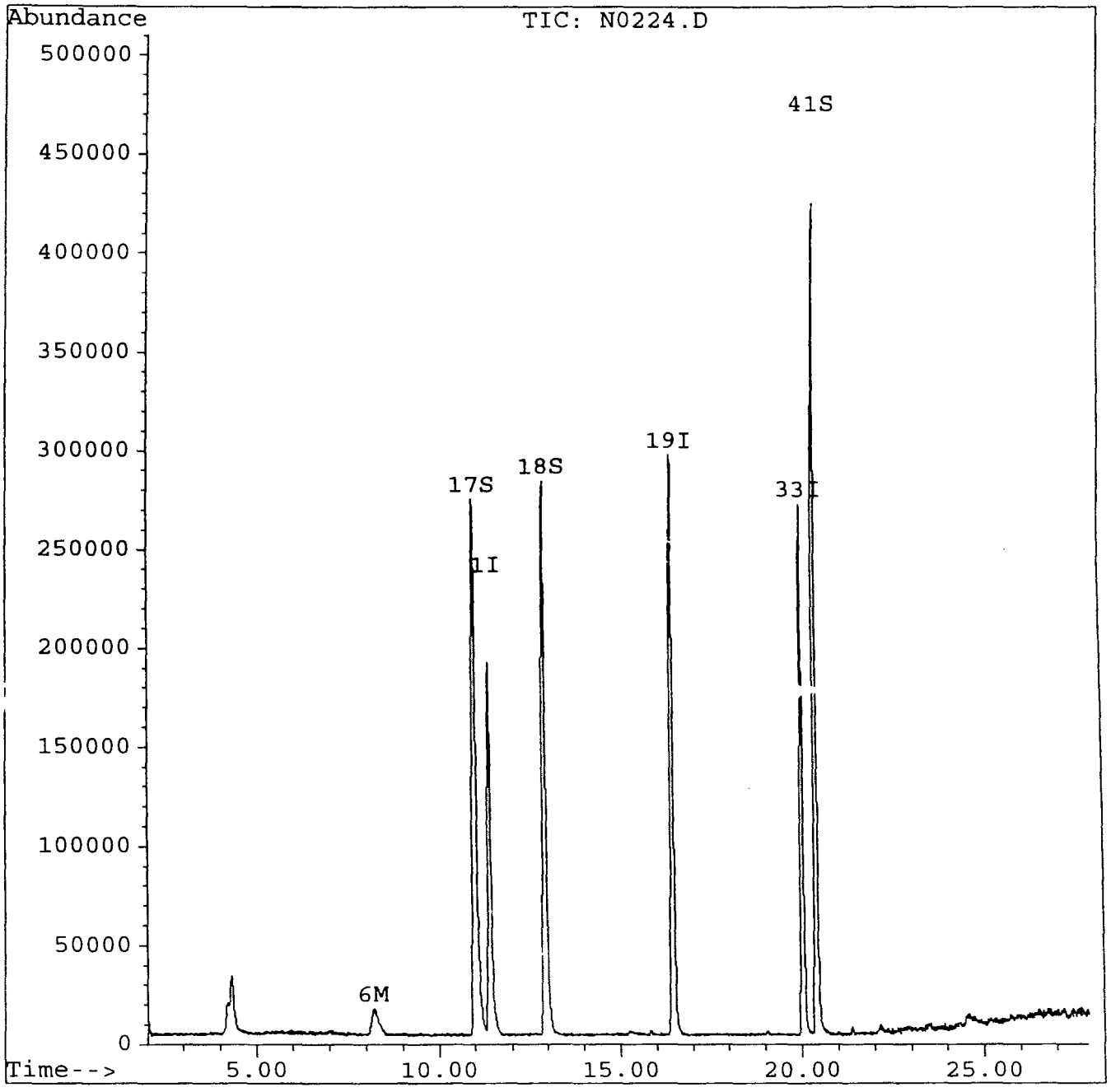
Quantitation Report

Data File : C:\HPCHEM\1\DATA\NOV1494\N0224.D
Acq Time : 15 Nov 94 1:20 am
Sample : 2252102,814-TB,
Misc : 1,1,,,5,5,P624,R11-10-94
Quant Time: Dec 23 11:21 1994

Operator: LDS
Inst : HPN
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\P624.M
Title : VOA Standards for 5 point calibration
Last Update : Fri Dec 23 10:39:23 1994
Response via : Multiple Level Calibration



000026

Quantitation Report

Data File : C:\HPCHEM\1\DATA\NOV1494\N0224.D
Acq Time : 15 Nov 94 1:20 am
Sample : 2252102,814-TB,
Misc : 1,1,,,5,5,P624,R11-10-94
Quant Time: Dec 23 11:21 1994

Operator: LDS
Inst : HPN
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\P624.M
Title : VOA Standards for 5 point calibration
Last Update : Fri Dec 23 10:39:23 1994
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) CI01 Bromochloromethane	11.40	128	167328	30.00	ug/l	0.06
19) 2-BROMO-1-CHLOROPROPANE	16.45	77	623815	30.00	ug/l	0.03
33) 1,4-DICHLOROBUTANE	20.02	55	527478	30.00	ug/l	0.00
System Monitoring Compounds						%Recovery
17) PENTAFLUOROBENZENE	11.00	168	760652	21.81	ug/l	72.69%
18) FLUOROBENZENE	12.93	96	905565	22.19	ug/l	73.95%
41) CS10 4-Bromofluorobenzene	20.39	95	510540	18.88	ug/l	62.94%
Target Compounds						Qvalue
6) C030 Methylene Chloride	8.20	84	47422	3.02	ug/l	89

000027

(#) = qualifier out of range (m) = manual integration

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

689B-2

Lab Name: NYTEST ENV INC Contract: 9421415

Lab Code: NYTEST Case No.: 22521 SAS No.: SDG No.: ARMY2

Matrix: (soil/water) WATER Lab Sample ID: 2252118

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: N0269.D

Level: (low/med) LOW Date Received: 11/10/94

% Moisture: not dec. _____ Date Analyzed: 11/16/94

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	2	U
74-83-9	Bromomethane	1	U
75-01-4	Vinyl Chloride	1	U
75-00-3	Chloroethane	1	U
75-09-2	Methylene Chloride	4	
75-35-4	1,1-Dichloroethene	2	U
75-34-3	1,1-Dichloroethane	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	2	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	2	U
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
127-18-4	Tetrachloroethene	3	U
79-34-5	1,1,2,2-Tetrachloroethane	2	U
108-88-3	Toluene	2	U
108-90-7	Chlorobenzene	2	U
100-41-4	Ethylbenzene	2	U
1330-20-7	Xylene (total)	6	U
75-69-4	Trichloromonofluoromethane	2	U
107-02-8	Acrolein	20	U
107-13-1	Acrylonitrile	2	U
75-65-0	Tertiary Butyl Alcohol	100	U
1634-34-4	Methyl Tertiary Butyl Ether	1	U
541-73-1	1,3-Dichlorobenzene	2	U
106-46-7	1,4-Dichlorobenzene	2	U
95-50-1	1,2-Dichlorobenzene	2	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

689B-2

Lab Name: NYTEST ENV INC Contract: 9421415

Lab Code: NYTEST Case No.: 22521 SAS No.: SDG No.: ARMY2

Matrix: (soil/water) WATER Lab Sample ID: 2252118

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: N0269.D

Level: (low/med) LOW Date Received: 11/10/94

% Moisture: not dec. _____ Date Analyzed: 11/16/94

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
110-75-8	2-Chloroethylvinyl Ether	4	U
156-60-5	Trans, 1,2-Dichloroethene	1	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

589B-2

Lab Name: NYTEST ENV INC Contract: 9421415

Lab Code: NYTEST Case No.: 22521 SAS No.: SDG No.: ARMY2

Matrix: (soil/water) WATER Lab Sample ID: 2252118

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: N0269.D

Level: (low/med) LOW Date Received: 11/10/94

% Moisture: not dec. _____ Date Analyzed: 11/16/94

Column: (pack/cap) CAP Dilution Factor: 1.0

Number TICs found: 4

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN KETONE	7.023	6	J
2.		UNKNOWN SILOXANE	15.306	5	J
3.		UNKNOWN SILOXANE	19.095	16	J
4.		UNKNOWN SILOXANE	22.210	6	J
5.					
6.					
7.					
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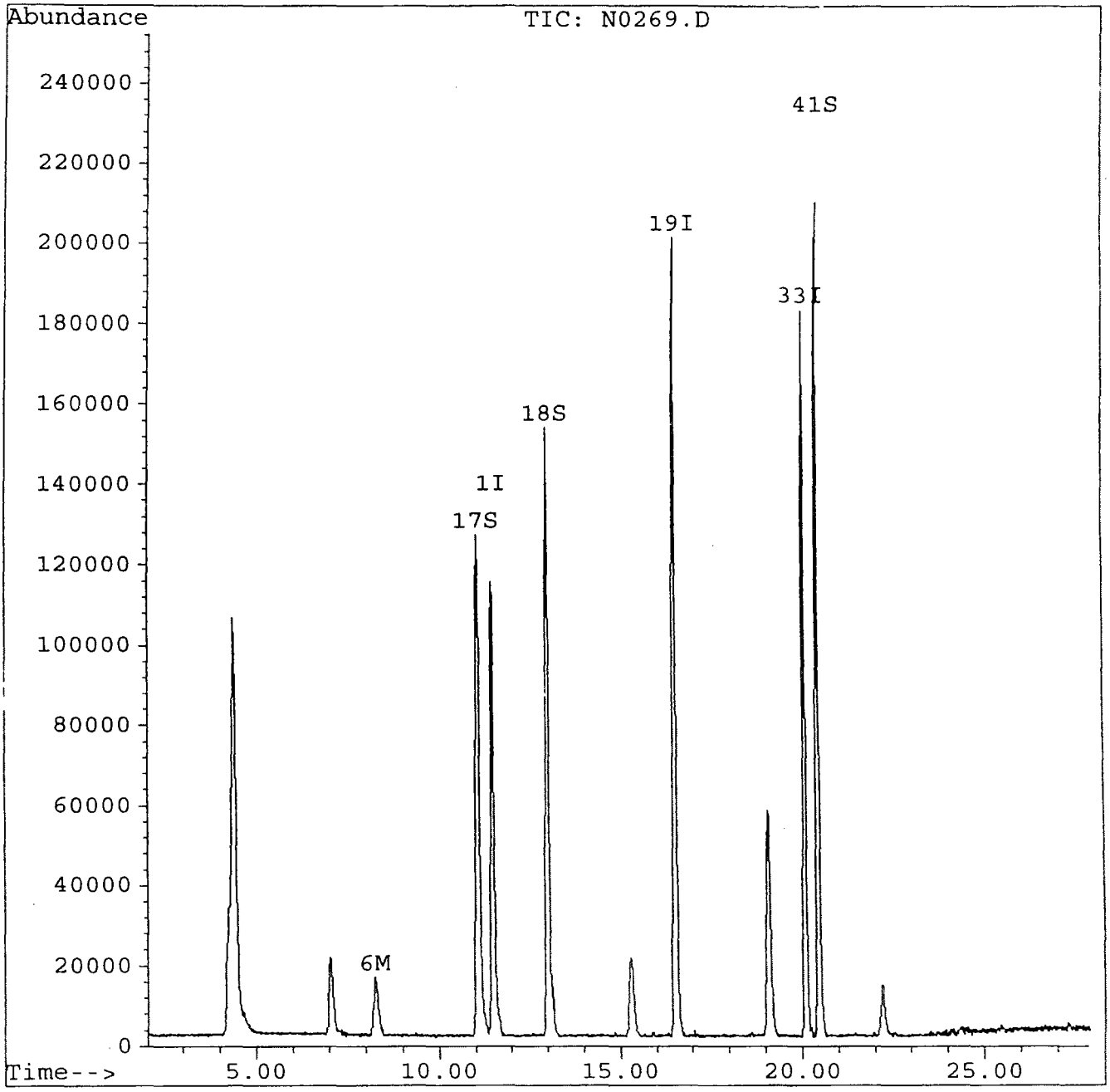
Quantitation Report

Data File : C:\HPCHEM\1\DATA\NOV1694\N0269.D
Acq Time : 16 Nov 94 19:03 pm
Sample : 2252118,689B-2,
Misc : 1,1,,,5,5,P624
Quant Time: Dec 23 13:37 1994

Operator: LDS
Inst : HPN
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\P624.M
Title : VOA Standards for 5 point calibration
Last Update : Fri Dec 23 10:39:23 1994
Response via : Multiple Level Calibration



000031

Quantitation Report

Data File : C:\HPCHEM\1\DATA\NOV1694\N0269.D
Acq Time : 16 Nov 94 19:03 pm
Sample : 2252118,689B-2,
Misc : 1,1,,,5,5,P624
Quant Time: Dec 23 13:37 1994

Operator: LDS
Inst : HPN
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\P624.M
Title : VOA Standards for 5 point calibration
Last Update : Fri Dec 23 10:39:23 1994
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) CI01 Bromochloromethane	11.47	128	84681	30.00	ug/l	0.13
19) 2-BROMO-1-CHLOROPROPANE	16.52	77	431484	30.00	ug/l	0.11
33) 1,4-DICHLOROBUTANE	20.09	55	346044	30.00	ug/l	0.07
System Monitoring Compounds						%Recovery
17) PENTAFLUOROBENZENE	11.07	168	350383	19.85	ug/l	66.16%
18) FLUOROBENZENE	13.00	96	467729	22.64	ug/l	75.48%
41) CS10 4-Bromofluorobenzene	20.46	95	254105	14.33	ug/l	47.75%
Target Compounds						Qvalue
6) C030 Methylene Chloride	8.25	84	32346	4.07	ug/l	94

000032

(#) = qualifier out of range (m) = manual integration

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKN04

Lab Name: NYTEST ENV INC Contract: 9421415

Lab Code: NYTEST Case No.: 22521 SAS No.: SDG No.: ARMY2

Matrix: (soil/water) WATER Lab Sample ID: VBLKN04

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: N0199.D

Level: (low/med) LOW Date Received: 00/00/00

% Moisture: not dec. _____ Date Analyzed: 11/14/94

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	2	U
74-83-9	Bromomethane	1	U
75-01-4	Vinyl Chloride	1	U
75-00-3	Chloroethane	1	U
75-09-2	Methylene Chloride	3	U
75-35-4	1,1-Dichloroethene	2	U
75-34-3	1,1-Dichloroethane	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	2	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	2	U
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
127-18-4	Tetrachloroethene	3	U
79-34-5	1,1,2,2-Tetrachloroethane	2	U
108-88-3	Toluene	2	U
108-90-7	Chlorobenzene	2	U
100-41-4	Ethylbenzene	2	U
1330-20-7	Xylene (total)	6	U
75-69-4	Trichloromonofluoromethane	2	U
107-02-8	Acrolein	20	U
107-13-1	Acrylonitrile	2	U
75-65-0	Tertiary Butyl Alcohol	100	U
1634-34-4	Methyl Tertiary Butyl Ether	1	U
541-73-1	1,3-Dichlorobenzene	2	U
106-46-7	1,4-Dichlorobenzene	2	U
95-50-1	1,2-Dichlorobenzene	2	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKN04

Lab Name: NYTEST ENV INC Contract: 9421415

Lab Code: NYTEST Case No.: 22521 SAS No.: SDG No.: ARMY2

Matrix: (soil/water) WATER Lab Sample ID: VBLKN04

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: N0199.D

Level: (low/med) LOW Date Received: 00/00/00

% Moisture: not dec. _____ Date Analyzed: 11/14/94

Column: (pack/cap) CAP Dilution Factor: 1.0

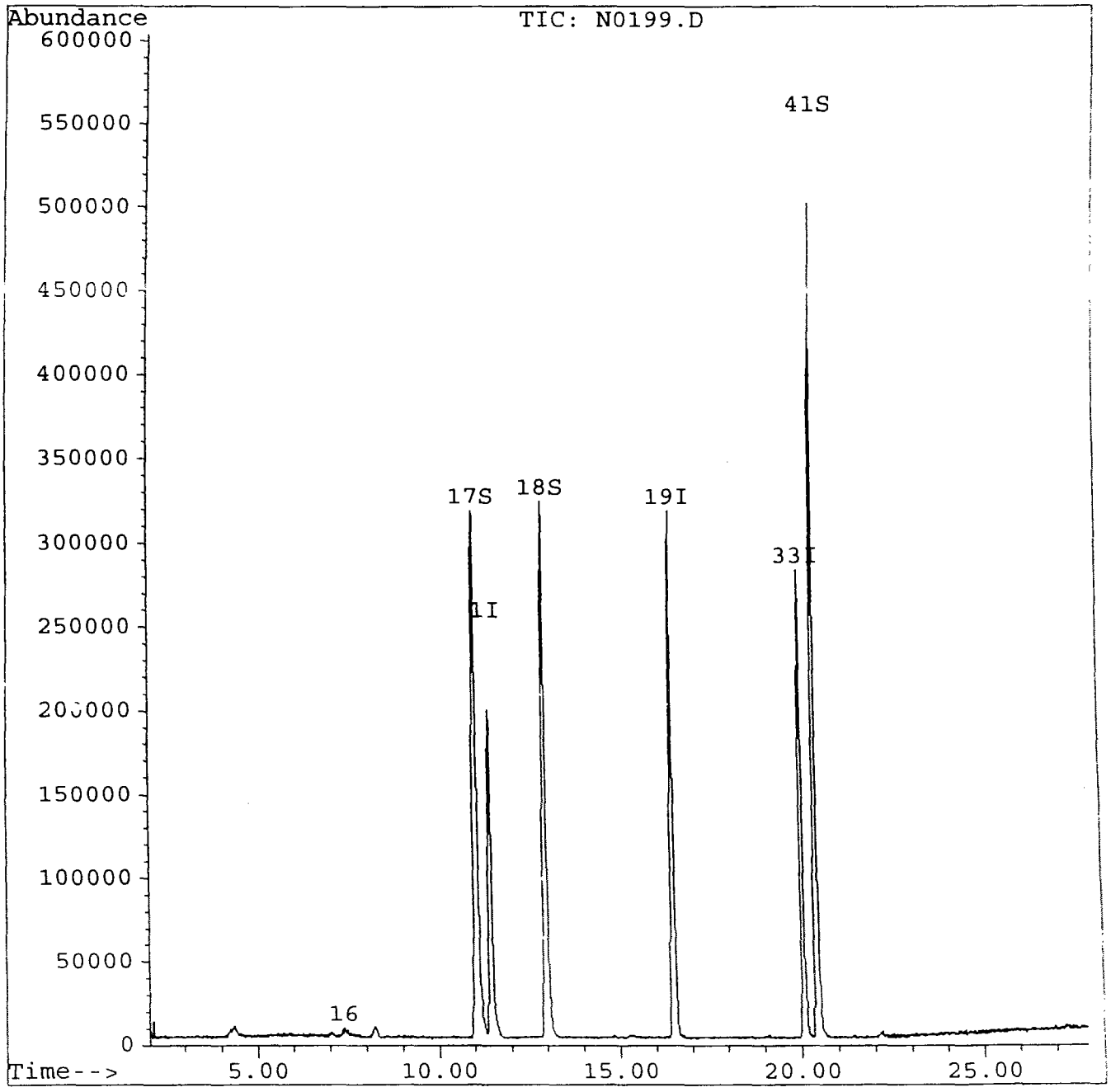
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
110-75-8	2-Chloroethylvinyl Ether	4	U
156-60-5	Trans, 1,2-Dichloroethene	1	U

Quantitation Report

Data File : C:\HPCHEM\1\DATA\NOV1494\N0199.D
Acq Time : 14 Nov 94 11:31 am
Sample : VBLKN04,VBLKN04,
Misc : 1,,,,5,5,P624
Quant Time: Dec 8 12:08 1994

Operator: LDS
Inst : HPN
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\P624.M
Title : VOA Standards for 5 point calibration
Last Update : Tue Dec 06 02:26:13 1994
Response via : Multiple Level Calibration



000035

Quantitation Report

Data File : C:\HPCHEM\1\DATA\NOV1494\N0199.D
Acq Time : 14 Nov 94 11:31 am
Sample : VBLKN04,VBLKN04,
Misc : 1,,,,5,5,P624
Quant Time: Dec 8 12:08 1994

Operator: LDS
Inst : HPN
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\P624.M
Title : VOA Standards for 5 point calibration
Last Update : Tue Dec 06 02:26:13 1994
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) CI01 Bromochloromethane	11.44	128	174658	30.00	ug/l	-0.04
19) 2-BROMO-1-CHLOROPROPANE	16.49	77	681811	30.00	ug/l	-0.01
33) 1,4-DICHLOROBUTANE	20.06	55	538079	30.00	ug/l	-0.02
System Monitoring Compounds						%Recovery
17) PENTAFLUOROBENZENE	11.04	168	890793	24.47	ug/l	81.55%
18) FLUOROBENZENE	12.97	96	1052247	24.70	ug/l	82.33%
41) CS10 4-Bromofluorobenzene	20.44	95	620849	22.51	ug/l	75.03%
Target Compounds						Qvalue
16) C177 TERTIARY BUTYL ALCOHO	7.38	59	29563	6.85	ug/l	100

000036

(#) = qualifier out of range (m) = manual integration

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKN09

Lab Name: NYTEST ENV INC Contract: 9421415

Lab Code: NYTEST Case No.: 22521 SAS No.: SDG No.: ARMY2

Matrix: (soil/water) WATER Lab Sample ID: VBLKN09

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: N0260.D

Level: (low/med) LOW Date Received: 00/00/00

% Moisture: not dec. _____ Date Analyzed: 11/16/94

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	2	U
74-83-9	Bromomethane	1	U
75-01-4	Vinyl Chloride	1	U
75-00-3	Chloroethane	1	U
75-09-2	Methylene Chloride	3	U
75-35-4	1,1-Dichloroethene	2	U
75-34-3	1,1-Dichloroethane	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	2	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	2	U
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
127-18-4	Tetrachloroethene	3	U
79-34-5	1,1,2,2-Tetrachloroethane	2	U
108-88-3	Toluene	2	U
108-90-7	Chlorobenzene	2	U
100-41-4	Ethylbenzene	2	U
1330-20-7	Xylene (total)	6	U
75-69-4	Trichloromonofluoromethane	2	U
107-02-8	Acrolein	20	U
107-13-1	Acrylonitrile	2	U
75-65-0	Tertiary Butyl Alcohol	100	U
1634-34-4	Methyl Tertiary Butyl Ether	1	U
541-73-1	1,3-Dichlorobenzene	2	U
106-46-7	1,4-Dichlorobenzene	2	U
95-50-1	1,2-Dichlorobenzene	2	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKN09

Lab Name: NYTEST ENV INC Contract: 9421415

Lab Code: NYTEST Case No.: 22521 SAS No.: SDG No.: ARMY2

Matrix: (soil/water) WATER Lab Sample ID: VBLKN09

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: N0260.D

Level: (low/med) LOW Date Received: 00/00/00

% Moisture: not dec. _____ Date Analyzed: 11/16/94

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
110-75-8	2-Chloroethylvinyl Ether	4	U
156-60-5	Trans, 1,2-Dichloroethene	1	U

1E

VOLATIL RGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLKN09

Lab Name: NYTEST ENV INC Contract: 9421415

Lab Code: NYTEST Case No.: 22521 SAS No.: SDG No.: ARMY2

Matrix: (soil/water) WATER Lab Sample ID: VBLKN09

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: N0260.D

Level: (low/med) LOW Date Received: 00/00/00

% Moisture: not dec. _____ Date Analyzed: 11/16/94

Column: (pack/cap) CAP Dilution Factor: 1.0

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
5.					
6.					
7.					
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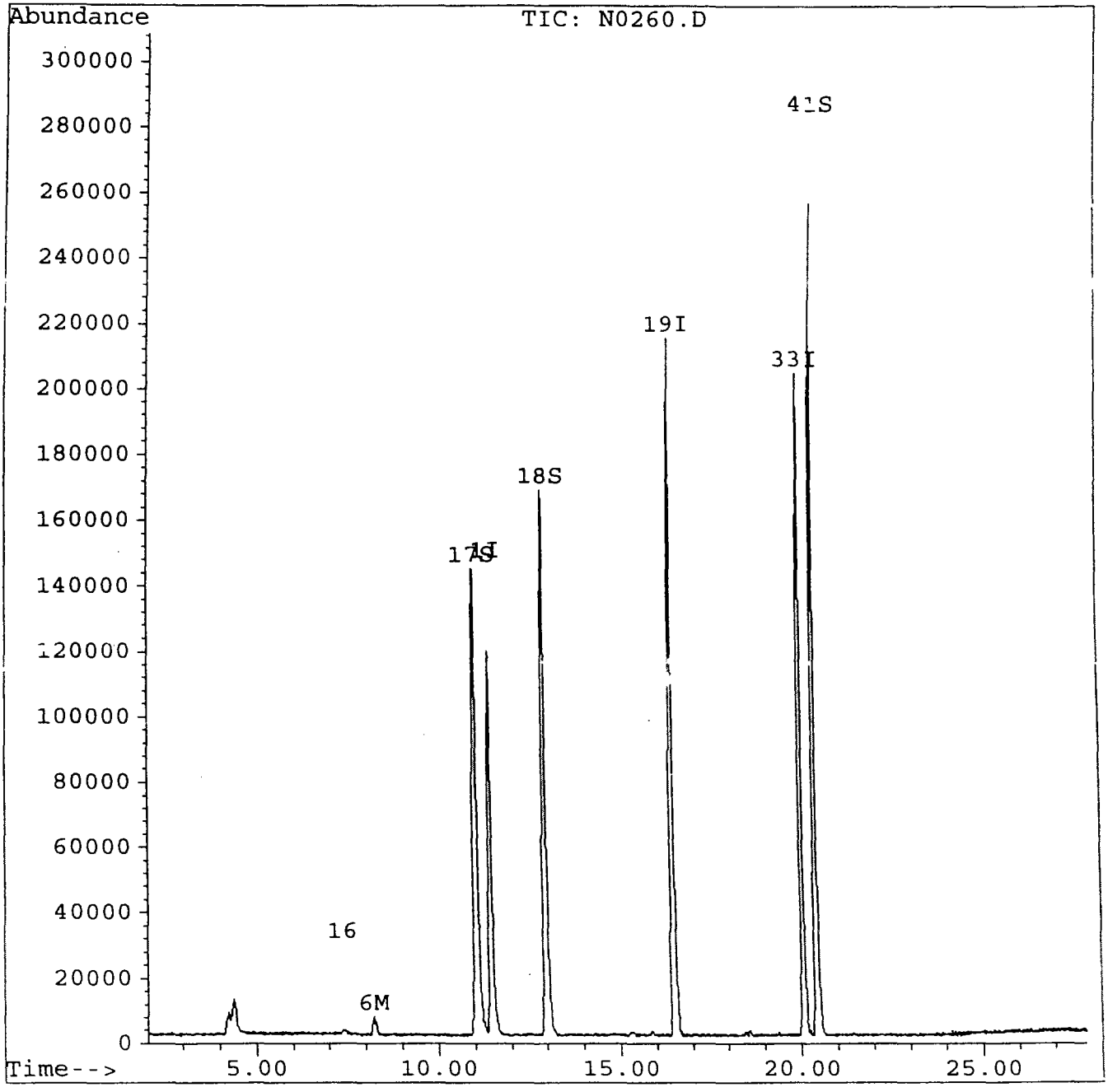
30.					

Quantitation Report

Data File : C:\HPCHEM\1\DATA\NOV1694\N0260.D
Acq Time : 16 Nov 94 12:50 pm
Sample : VBLKN09,VBLKN09,
Misc : 1,,,,5,5,P624
Quant Time: Dec 13 10:33 1994

Operator: LDS
Inst : HPN
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\P624.M
Title : VOA Standards for 5 point calibration
Last Update : Tue Dec 06 02:26:13 1994
Response via : Multiple Level Calibration



000040

Quantitation Report

Data File : C:\HPCHEM\1\DATA\NOV1694\N0260.D
Acq Time : 16 Nov 94 12:50 pm
Sample : VBLKN09,VBLKN09,
Misc : 1,,,,5,5,P624
Quant Time: Dec 13 10:33 1994

Operator: LDS
Inst : HPN
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\P624.M
Title : VOA Standards for 5 point calibration
Last Update : Tue Dec 06 02:26:13 1994
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) CI01 Bromochloromethane	11.45	128	90130	30.00	ug/l	-0.03
19) 2-BROMO-1-CHLOROPROPANE	16.49	77	462306	30.00	ug/l	-0.02
33) 1,4-DICHLOROBUTANE	20.07	55	297489	30.00	ug/l	0.00
System Monitoring Compounds						%Recovery
17) PENTAFLUOROBENZENE	11.05	168	408059	21.72	ug/l	72.40%
18) FLUOROBENZENE	12.97	96	523093	23.79	ug/l	79.31%
41) CS10 4-Bromofluorobenzene	20.44	95	312928	20.52	ug/l	68.40%
Target Compounds						Qvalue
6) C030 Methylene Chloride	8.24	84	11950	1.41	ug/l #	91
16) C177 TERTIARY BUTYL ALCOHO	7.39	59	5274	2.37	ug/l	100

000041

(#) = qualifier out of range (m) = manual integration

2A

WATER VOLATILE SURROGATE COMPOUND RECOVERY

Lab Name: NYTEST ENV INC Contract: 9421415

Lab Code: NYTEST Case No.: 22521 SAS No.: SDG No.: ARMY2

	EPA SAMPLE NO.	SUR1 (FB) #	SUR2 (BFB)#	SUR3 (PFB)#	OTHER	TOT OUT
01	QCCHECK	86	82	87		0
02	VBLKN04	93	85	92		0
03	814-FB	82	71	79		0
04	814-TB	84	68	82		0
05	814-DUP	85	66	83		0
06	814-1	85	66	82		0
07	287-1	84	69	81		0
08	208B-1	83	60	81		0
09	282-1	85	60	83		0
10	207B-1	85	57*	83		1
11	689A-1	85	58*	83		1
12	600-1	85	55*	82		1
13	2700-4-1	86	58*	83		1
14	QCCHECK1	105	73	96		0
15	QCCHECK2	108	73	98		0
16	VBLKN09	90	78	82		0
17	1220-1	78	55*	62*		2
18	1076-1	75	66	59*		1
19	1076-2	74	66	58*		1
20	1076-3	74	63	58*		1
21	1076-3MS	86	56*	76		1
22	1076-3MSD	88	58*	78		1
23	689B-2	85	61	75		0
24	2044-1	80	54*	76		1
25	2044-2	90	56*	77		1
26	2044-3	86	56*	74		1
27	2044-FB	88	56*	77		1
28	2044-DUP	86	55*	74		1
29	2044-TB	86	56*	73		1
30	QCSAMPLE	95	94	83		0

	QC LIMITS
SUR1 (FB) = Fluorobenzene	(70-140)
SUR2 (BFB) = Bromofluorobenzene	(60-150)
SUR3 (PFB) = Pentafluorobenzene	(70-140)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogates diluted out

Data File: /chem/HPN.i/22521.b/N0267.d
Report Date: 30-Dec-1994 13:34

nytest

RECOVERY REPORT

Client Name:
Sample Matrix: LIQUID
Lab Smp Id: 2252116
Level: LOW
Data Type: MS DATA
SpikeList File: QCMS.spk
Method File: /chem/HPN.i/22521.b/624.m
Misc Info:

Client SDG: ARMY2
Fraction: VOA
Client Smp ID: 1076-3MS
Operator: LDS
SampleType: MS
Quant Type: ISTD

SPIKE	COMPOUND	CONC ADDED ug/l	CONC RECOVERED ug/l	% RECOVERED	LIMITS
1	Chloromethane	10	11	110.60	0-273
4	Bromomethane	10	14	135.23	0-242
5	Vinyl Chloride	10	12	116.93	0-251
6	Chloroethane	10	15	149.12	14-230
7	Methylene Chloride	10	16	163.06	0-221
10	1,1-Dichloroethene	10	14	136.32	0-234
12	1,1-Dichloroethane	10	16	165.89*	59-155
14	Trans, 1,2-Dichlor	10	14	140.82	54-156
15	Chloroform	10	16	159.29*	51-138
16	1,2-Dichloroethane	10	17	173.16*	49-155
19	Trichloromonofluor	10	12	117.60	17-181
24	1,1,1-Trichloroeth	10	10	99.89	52-162
25	Carbon Tetrachlori	10	8	84.59	70-140
27	Bromodichlorometha	10	11	107.00	35-155
28	1,2-Dichloropropan	10	12	119.61	0-210
29	cis-1,3-Dichloropr	10	12	122.87	0-227
30	Trichloroethene	10	7	74.97	71-157
31	Dibromochlorometha	10	8	79.23	53-149
32	1,1,2-Trichloroeth	10	10	105.90	52-150
34	Benzene	10	11	111.45	37-151
35	trans-1,3-Dichloro	10	12	121.20	17-183
37	Bromoform	10	10	103.02	45-169
38	2-Chloroethylvinyl	10	12	119.62	0-305
41	Tetrachloroethene	10	8	77.99	64-148
43	1,1,2,2-Tetrachlor	10	12	117.32	46-157
45	Toluene	10	11	109.40	47-150
46	Chlorobenzene	10	8	82.31	37-160
47	Ethylbenzene	10	8	77.74	37-162
53	1,3-Dichlorobenzen	10	8	81.00	59-156
54	1,4-Dichlorobenzen	10	7	69.36	18-190
55	1,2-Dichlorobenzen	10	9	94.70	18-190

nytest

RECOVERY REPORT

Client Name:
Sample Matrix: LIQUID
Lab Smp Id: 2252117
Level: LOW
Data Type: MS DATA
SpikeList File: QCMS.spk
Method File: /chem/HPN.i/22521.b/624.m
Misc Info:

Client SDG: ARMY2
Fraction: VOA
Client Smp ID: 1076-3MSD
Operator: LDS
SampleType: MSD
Quant Type: ISTD

SPIKE COMPOUND	CONC ADDED ug/l	CONC RECOVERED ug/l	% RECOVERED	LIMITS
1 Chloromethane	10	12	120.81	0-273
4 Bromomethane	10	15	148.02	0-242
5 Vinyl Chloride	10	13	126.10	0-251
6 Chloroethane	10	15	154.94	14-230
7 Methylene Chloride	10	16	163.35	0-221
10 1,1-Dichloroethene	10	15	146.59	0-234
12 1,1-Dichloroethane	10	18	178.39*	59-155
14 Trans, 1,2-Dichlor	10	15	150.72	54-156
15 Chloroform	10	17	170.55*	51-138
16 1,2-Dichloroethane	10	18	184.36*	49-155
19 Trichloromonofluor	10	13	128.64	17-181
24 1,1,1-Trichloroeth	10	11	108.28	52-162
25 Carbon Tetrachlori	10	9	92.05	70-140
27 Bromodichlorometha	10	12	115.51	35-155
28 1,2-Dichloropropan	10	13	130.63	0-210
29 cis-1,3-Dichloropr	10	13	129.96	0-227
30 Trichloroethene	10	8	79.12	71-157
31 Dibromochlorometha	10	8	85.02	53-149
32 1,1,2-Trichloroeth	10	11	112.58	52-150
34 Benzene	10	12	120.08	37-151
35 trans-1,3-Dichloro	10	13	130.16	17-183
37 Bromoform	10	11	108.84	45-169
38 2-Chloroethylvinyl	10	13	130.64	0-305
41 Tetrachloroethene	10	8	85.95	64-148
43 1,1,2,2-Tetrachlor	10	13	126.56	46-157
45 Toluene	10	12	118.92	47-150
46 Chlorobenzene	10	9	90.91	37-160
47 Ethylbenzene	10	9	87.47	37-162
53 1,3-Dichlorobenzen	10	9	90.03	59-156
54 1,4-Dichlorobenzen	10	8	77.62	18-190
55 1,2-Dichlorobenzen	10	10	103.41	18-190

4A

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLKN04

Lab Name: NYTEST ENV INC Contract: 9421415

Lab Code: NYTEST Case No.: 22521 SAS No.: SDG No.: ARMY2

Lab File ID: N0199.D Lab Sample ID: VBLKN04

Date Analyzed: 11/14/94 Time Analyzed: 1131

Matrix: (soil/water) WATER Level: (low/med) LOW

Instrument ID: HPN

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	QCCHECK	QCCHECK	N0198.D	1058
02	814-FB	2252101	N0223.D	0047
03	814-TB	2252102	N0224.D	0120
04	814-DUP	2252103	N0225.D	0154
05	814-1	2252104	N0226.D	0228
06	287-1	2252105	N0227.D	0302
07	208B-1	2252106	N0228.D	0336
08	282-1	2252107	N0229.D	0410
09	207B-1	2252108	N0230.D	0444
10	689A-1	2252109	N0231.D	0518
11	600-1	2252110	N0232.D	0552
12	2700-4-1	2252111	N0233.D	0626
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COMMENTS:

4A

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLKN09

Lab Name: NYTEST ENV INC Contract: 9421415

Lab Code: NYTEST Case No.: 22521 SAS No.: SDG No.: ARMY2

Lab File ID: N0260.D Lab Sample ID: VBLKN09

Date Analyzed: 11/16/94 Time Analyzed: 1250

Matrix: (soil/water) WATER Level: (low/med) LOW

Instrument ID: HPN

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	QCCHECK1	QCCHECK1	N0257.D	1109
02	QCCHECK2	QCCHECK2	N0259.D	1216
03	1220-1	2252112	N0263.D	1543
04	1076-1	2252113	N0264.D	1616
05	1076-2	2252114	N0265.D	1649
06	1076-3	2252115	N0266.D	1723
07	1076-3MS	2252116	N0267.D	1756
08	1076-3MSD	2252117	N0268.D	1829
09	689B-2	2252118	N0269.D	1903
10	2044-1	2252119	N0270.D	1936
11	2044-2	2252120	N0271.D	2009
12	2044-3	2252121	N0272.D	2043
13	2044-FB	2252122	N0273.D	2116
14	2044-DUP	2252123	N0274.D	2150
15	2044-TB	2252124	N0275.D	2223
16	QCSAMPLE	QCSAMPLE	N0276.D	2256
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28				
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30				

COMMENTS:

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: NYTEST ENV INC Contract: 9421415

Lab Code: NYTEST Case No.: 22521 SAS No.: SDG No.: ARMY2

Lab File ID: N0163.D BFB Injection Date: 11/08/94

Instrument ID: HPN BFB Injection Time: 1152

Matrix:(soil/water) WATER Level:(low/med) LOW Column:(pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	15.4
75	30.0 - 60.0% of mass 95	38.4
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.3
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	67.3
175	5.0 - 9.0% of mass 174	5.2 (7.7)1
176	Greater than 95.0%, but less than 101.0% of mass 174	65.8 (97.8)1
177	5.0 - 9.0% of mass 176	4.5 (6.8)2

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

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD005	VSTD005	N0165.D	11/08/94	1237
02	VSTD010	VSTD010	N0166.D	11/08/94	1310
03	VSTD030	VSTD030	N0167.D	11/08/94	1343
04	VSTD050	VSTD050	N0168.D	11/08/94	1416
05	VSTD200	VSTD200	N0169.D	11/08/94	1450
06					
07					
08					
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10					
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5A

VOLATILE ORGANI[illegible] INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: NYTEST ENV INC Contract: 9421415

Lab Code: NYTEST Case No.: 22521 SAS No.: SDG No.: ARMY2

Lab File ID: N0197.D BFB Injection Date: 11/14/94

Instrument ID: HPN BFB Injection Time: 1028

Matrix:(soil/water) WATER Level:(low/med) LOW Column:(pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	15.1
75	30.0 - 60.0% of mass 95	40.3
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.0
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	69.8
175	5.0 - 9.0% of mass 174	5.6 (8.0)1
176	Greater than 95.0%, but less than 101.0% of mass 174	69.8 (100.0)1
177	5.0 - 9.0% of mass 176	4.0 (5.8)2

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

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	QCCHECK	QCCHECK	N0198.D	11/14/94	1058
02	VBLKN04	VBLKN04	N0199.D	11/14/94	1131
03	814-FB	2252101	N0223.D	11/15/94	0047
04	814-TB	2252102	N0224.D	11/15/94	0120
05	814-DUP	2252103	N0225.D	11/15/94	0154
06	814-1	2252104	N0226.D	11/15/94	0228
07	287-1	2252105	N0[illegible]	11/15/94	0302
08	208B-1	2252106	N0228.D	11/15/94	0336
09	282-1	2252107	N0229.D	11/15/94	0410
10	207B-1	2252108	N0230.D	11/15/94	0444
11	689A-1	2252109	N0231.D	11/15/94	0518
12	600-1	2252110	N0232.D	11/15/94	0552
13	2700-4-1	2252111	N0233.D	11/15/94	0626
14					
15					
16					
17					
18					
19					
20					
21					
22					

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: NYTEST ENV INC Contract: 9421415

Lab Code: NYTEST Case No.: 22521 SAS No.: SDG No.: ARMY2

Lab File ID: N0256.D BFB Injection Date: 11/16/94

Instrument ID: HPN BFB Injection Time: 1054

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	16.7
75	30.0 - 60.0% of mass 95	43.6
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.3
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	64.9
175	5.0 - 9.0% of mass 174	5.1 (7.9)1
176	Greater than 95.0%, but less than 101.0% of mass 174	63.6 (98.0)1
177	5.0 - 9.0% of mass 176	4.0 (6.3)2

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

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	QCCHECK1	QCCHECK1	N0257.D	11/16/94	1109
02	QCCHECK2	QCCHECK2	N0259.D	11/16/94	1216
03	VBLKN09	VBLKN09	N0260.D	11/16/94	1250
04	1220-1	2252112	N0263.D	11/16/94	1543
05	1076-1	2252113	N0264.D	11/16/94	1616
06	1076-2	2252114	N0265.D	11/16/94	1649
07	1076-3	2252115	N0266.D	11/16/94	1723
08	1076-3MS	2252116	N0267.D	11/16/94	1756
09	1076-3MSD	2252117	N0268.D	11/16/94	1829
10	689B-2	2252118	N0269.D	11/16/94	1903
11	2044-1	2252119	N0270.D	11/16/94	1936
12	2044-2	2252120	N0271.D	11/16/94	2009
13	2044-3	2252121	N0272.D	11/16/94	2043
14	2044-FB	2252122	N0273.D	11/16/94	2116
15	2044-DUP	2252123	N0274.D	11/16/94	2150
16	2044-TB	2252124	N0275.D	11/16/94	2223
17	QCSAMPLE	QCSAMPLE	N0276.D	11/16/94	2256
18					
19					
20					
21					
22					

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: NYTEST ENV INC Contract: 9421415

Lab Code: NYTEST Case No.: 22509 SAS No.: SDG No.: ARMY1

Instrument ID: HPN Calibration Date(s): 11/08/94

Matrix:(soil/water) WATER Level:(low/med) LOW Column:(pack/cap) CAP

Max $\overline{\%RSD}$ for CCC(*) = 35.0%

LAB FILE ID: RRF005 =N0165.D RRF010 =N0166.D
RRF030=N0167.D RRF050=N0168.D RRF200=N0169.D

COMPOUND	RRF005	RRF010	RRF030	RRF050	RRF200	$\overline{RRF}$	% RSD
Chloromethane	1.569	1.346	1.370	1.315	1.288	1.378	8.1
Bromomethane	1.967	1.807	1.716	1.642	1.596	1.746	8.4
Vinyl Chloride	1.965	1.785	1.622	1.747	1.789	1.821	4.6
Chloroethane	1.133	1.109	1.001	1.021	0.975	1.048	6.6
Methylene Chloride	3.913	2.873	2.154	2.030	1.854	2.565	33.0
1,1-Dichloroethene	2.105	1.877	1.918	1.889	1.855	1.929	5.2
1,1-Dichloroethane	3.845	3.464	3.518	3.485	3.589	3.580	4.3
Chloroform	4.126	3.689	3.562	3.506	3.588	3.694	6.8
1,2-Dichloroethane	2.024	1.859	1.799	1.741	1.835	1.852	5.7
1,1,1-Trichloroethane	0.939	0.857	0.859	0.827	0.866	0.869	4.8
Carbon Tetrachloride	0.814	0.736	0.760	0.751	0.778	0.768	3.9
Bromodichloromethane	1.081	0.977	0.971	0.953	1.010	0.998	5.1
1,2-Dichloropropane	0.722	0.658	0.658	0.647	0.686	0.674	4.5
cis-1,3-Dichloropropene	0.983	0.873	0.869	0.846	0.897	0.893	5.9
Trichloroethene	0.712	0.643	0.653	0.652	0.669	0.666	4.1
Dibromochloromethane	0.883	0.816	0.812	0.803	0.843	0.831	3.9
1,1,2-Trichloroethane	0.629	0.570	0.564	0.548	0.578	0.578	5.3
Benzene	1.788	1.593	1.612	1.576	1.647	1.643	5.2
trans-1,3-Dichloropropene	0.792	0.710	0.708	0.688	0.726	0.725	5.5
Bromoform	0.709	0.646	0.644	0.645	0.565	0.642	7.9
Tetrachloroethene	0.921	0.805	0.826	0.835	0.902	0.858	5.9
1,1,2,2-Tetrachloroethane	1.209	1.036	1.013	0.986	0.000	1.061	9.5
Toluene	2.017	1.801	1.774	1.746	1.820	1.832	5.8
Chlorobenzene	2.021	1.789	1.801	1.797	1.970	1.876	5.9
Ethylbenzene	0.976	0.823	0.799	0.835	0.905	0.868	8.3
Xylene (total)	1.192	1.065	1.058	1.066	1.152	1.106	5.5
Trichloromonofluoromethane	3.860	3.429	3.389	3.310	3.404	3.479	6.3
Acrolein	0.139	0.100	0.096	0.087	0.072	0.099	25.4
Acrylonitrile	0.792	0.744	0.714	0.764	0.695	0.742	5.2
Tertiary Butyl Alcohol	1.994	1.821	3.284	3.221	1.915	2.447	30.2
Methyl Tertiary Butyl Ether	4.512	4.110	3.702	3.671	3.551	3.909	10.2
1,3-Dichlorobenzene	1.776	1.527	1.544	1.574	1.335	1.551	10.1
1,4-Dichlorobenzene	1.808	1.663	1.553	1.722	1.257	1.600	13.3
1,2-Dichlorobenzene	1.663	1.436	1.449	1.469	0.000	1.504	7.1
2-Chloroethylvinyl Ether	0.722	0.658	0.658	0.647	0.686	0.674	4.5
Trans, 1,2-Dichloroethene	2.270	1.921	1.880	1.838	1.838	1.950	9.4
Fluorobenzene	7.222	6.388	6.218	6.099	6.397	6.465	6.8

000050

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: NYTEST ENV INC Contract: 9421415

Lab Code: NYTEST Case No.: 22509 SAS No.: SDG No.: ARMY1

Instrument ID: HPN Calibration Date(s): 11/08/94

Matrix:(soil/water) WATER Level:(low/med) LOW Column:(pack/cap) CAP

Max $\overline{\%RSD}$ for CCC(*) = 35.0%

LAB FILE ID: RRF005 =N0165.D RRF010 =N0166.D
RRF030=N0167.D RRF050=N0168.D RRF200=N0169.D

COMPOUND	RRF005	RRF010	RRF030	RRF050	RRF200	$\overline{RRF}$	% RSD
Bromofluorobenzene	1.548	1.324	1.291	1.240	1.371	1.355	8.7
Pentafluorobenzene	6.013	5.464	5.291	5.277	5.534	5.516	5.4

000051

nytest

RECOVERY REPORT

Client Name:
Sample Matrix: LIQUID
Lab Smp Id: QCCHECK
Level: LOW
Data Type: MS DATA
SpikeList File: QCCHK.spk
Method File: /chem/HPN.i/22521.b/624.m
Misc Info:

Client SDG: ARMY2
Fraction: VOA
Client Smp ID: QCCHECK
Operator: LDS
SampleType: MS
Quant Type: ISTD

SPIKE COMPOUND	CONC ADDED ug/l	CONC RECOVERED ug/l	% RECOVERED	LIMITS
1 Chloromethane	10	9	93.65	0-204
4 Bromomethane	10	12	120.55	14-186
5 Vinyl Chloride	10	9	93.76	4-196
6 Chloroethane	10	12	117.23	38-162
7 Methylene Chloride	10	13	128.27	60-140
10 1,1-Dichloroethene	10	12	115.97	50-150
12 1,1-Dichloroethane	10	12	121.88	72-128
14 Trans, 1,2-Dichlor	10	12	121.73	70-130
15 Chloroform	10	13	129.64	68-132
16 1,2-Dichloroethane	10	13	129.33	68-132
19 Trichloromonofluor	10	11	108.43	48-152
24 1,1,1-Trichloroeth	10	12	123.83	75-125
25 Carbon Tetrachlori	10	12	120.99	73-127
27 Bromodichlorometha	10	12	123.55	66-134
28 1,2-Dichloropropan	10	12	123.82	34-166
29 cis-1,3-Dichloropr	10	13	128.31	24-176
30 Trichloroethene	10	12	119.42	66-134
31 Dibromochlorometha	10	12	124.96	68-132
32 1,1,2-Trichloroeth	10	12	124.50	71-129
34 Benzene	10	12	123.90	64-136
35 trans-1,3-Dichloro	10	13	128.05	50-150
37 Bromoform	10	13	130.91*	71-129
38 2-Chloroethylvinyl	10	12	123.83	0-224
41 Tetrachloroethene	10	11	114.93	74-126
43 1,1,2,2-Tetrachlor	10	13	133.01	60-140
45 Toluene	10	13	126.54*	74-126
46 Chlorobenzene	10	12	118.24	66-134
47 Ethylbenzene	10	12	117.79	59-141
53 1,3-Dichlorobenzen	10	12	124.53	73-127
54 1,4-Dichlorobenzen	10	11	108.55	63-137
55 1,2-Dichlorobenzen	10	15	148.69*	63-127

nytest

RECOVERY REPORT

Client Name:
Sample Matrix: LIQUID
Lab Smp Id: QCCHECK1
Level: LOW
Data Type: MS DATA
SpikeList File: QCCHK.spk
Method File: /chem/HPN.i/22521.b/624.m
Misc Info:

Client SDG: ARMY2
Fraction: VOA
Client Smp ID: QCCHECK1
Operator: LDS
SampleType: MS
Quant Type: ISTD

SPIKE	COMPOUND	CONC ADDED ug/l	CONC RECOVERED ug/l	% RECOVERED	LIMITS
1	Chloromethane	10	11	108.61	0-204
4	Bromomethane	10	13	130.06	14-186
5	Vinyl Chloride	10	11	111.10	4-196
6	Chloroethane	10	14	141.15	38-162
7	Methylene Chloride	10	15	154.55*	60-140
10	1,1-Dichloroethene	10	13	127.99	50-150
12	1,1-Dichloroethane	10	15	151.32*	72-128
14	Trans, 1,2-Dichlor	10	13	133.48*	70-130
15	Chloroform	10	15	150.61*	68-132
16	1,2-Dichloroethane	10	16	165.26*	68-132
19	Trichloromonofluor	10	12	115.44	48-152
24	1,1,1-Trichloroeth	10	10	99.94	75-125
25	Carbon Tetrachlori	10	8	85.94	73-127
27	Bromodichlorometha	10	11	106.52	66-134
28	1,2-Dichloropropan	10	12	116.68	34-166
29	cis-1,3-Dichloropr	10	12	120.52	24-176
30	Trichloroethene	10	8	76.06	66-134
31	Dibromochlorometha	10	8	80.31	68-132
32	1,1,2-Trichloroeth	10	11	107.59	71-129
34	Benzene	10	11	109.77	64-136
35	trans-1,3-Dichloro	10	12	123.05	50-150
37	Bromoform	10	10	104.74	71-129
38	2-Chloroethylvinyl	10	12	116.69	0-224
41	Tetrachloroethene	10	8	82.33	74-126
43	1,1,2,2-Tetrachlor	10	12	123.26	60-140
45	Toluene	10	11	110.02	74-126
46	Chlorobenzene	10	9	86.97	66-134
47	Ethylbenzene	10	8	81.19	59-141
53	1,3-Dichlorobenzen	10	8	85.32	73-127
54	1,4-Dichlorobenzen	10	7	74.66	63-137
55	1,2-Dichlorobenzen	10	10	102.47	63-127

nytest

RECOVERY REPORT

Client Name:
Sample Matrix: LIQUID
Lab Smp Id: QCCHECK2
Level: LOW
Data Type: MS DATA
SpikeList File: QCCHK.spk
Method File: /chem/HPN.i/22521.b/624.m
Misc Info:

Client SDG: ARMY2
Fraction: VOA
Client Smp ID: QCCHECK2
Operator: LDS
SampleType: MS
Quant Type: ISTD

SPIKE COMPOUND	CONC ADDED ug/l	CONC RECOVERED ug/l	% RECOVERED	LIMITS
1 Chloromethane	10	14	140.31	0-204
4 Bromomethane	10	16	161.95	14-186
5 Vinyl Chloride	10	14	136.65	4-196
6 Chloroethane	10	18	176.46*	38-162
7 Methylene Chloride	10	16	165.55*	60-140
10 1,1-Dichloroethene	10	16	162.42*	50-150
12 1,1-Dichloroethane	10	19	189.38*	72-128
14 Trans, 1,2-Dichlor	10	17	166.68*	70-130
15 Chloroform	10	18	184.62*	68-132
16 1,2-Dichloroethane	10	20	204.17*	68-132
19 Trichloromonofluor	10	14	143.39	48-152
24 1,1,1-Trichloroeth	10	12	120.54	75-125
25 Carbon Tetrachlori	10	10	102.73	73-127
27 Bromodichlorometha	10	12	125.37	66-134
28 1,2-Dichloropropan	10	14	140.82	34-166
29 cis-1,3-Dichloropr	10	14	143.08	24-176
30 Trichloroethene	10	9	87.80	66-134
31 Dibromochlorometha	10	10	95.44	68-132
32 1,1,2-Trichloroeth	10	12	124.04	71-129
34 Benzene	10	13	130.87	64-136
35 trans-1,3-Dichloro	10	14	145.23	50-150
37 Bromoform	10	12	120.36	71-129
38 2-Chloroethylvinyl	10	14	140.83	0-224
41 Tetrachloroethene	10	10	96.42	74-126
43 1,1,2,2-Tetrachlor	10	13	134.68	60-140
45 Toluene	10	13	131.67*	74-126
46 Chlorobenzene	10	10	101.98	66-134
47 Ethylbenzene	10	8	79.62	59-141
53 1,3-Dichlorobenzen	10	10	96.60	73-127
54 1,4-Dichlorobenzen	10	9	87.87	63-137
55 1,2-Dichlorobenzen	10	12	120.66	63-127

nytest

RECOVERY REPORT

Client Name:
Sample Matrix: LIQUID
Lab Smp Id: QCSAMPLE
Level: LOW
Data Type: MS DATA
SpikeList File: QCMS.spk
Method File: /chem/HPN.i/22521.b/624.m
Misc Info:

Client SDG: ARMY2
Fraction: VOA
Client Smp ID: QCSAMPLE
Operator: LDS
SampleType: MS
Quant Type: ISTD

SPIKE	COMPOUND	CONC ADDED ug/l	CONC RECOVERED ug/l	% RECOVERED	LIMITS
1	Chloromethane	10	10	100.93	0-273
4	Bromomethane	10	12	120.62	0-242
5	Vinyl Chloride	10	10	104.26	0-251
6	Chloroethane	10	14	136.30	14-230
7	Methylene Chloride	10	13	131.98	0-221
10	1,1-Dichloroethene	10	13	126.28	0-234
12	1,1-Dichloroethane	10	15	151.73	59-155
14	Trans, 1,2-Dichlor	10	13	129.54	54-156
15	Chloroform	10	14	143.94*	51-138
16	1,2-Dichloroethane	10	16	156.14*	49-155
19	Trichloromonofluor	10	11	107.58	17-181
24	1,1,1-Trichloroeth	10	13	127.30	52-162
25	Carbon Tetrachlori	10	11	106.93	70-140
27	Bromodichlorometha	10	13	132.75	35-155
28	1,2-Dichloropropan	10	15	151.15	0-210
29	cis-1,3-Dichloropr	10	15	149.30	0-227
30	Trichloroethene	10	9	92.84	71-157
31	Dibromochlorometha	10	10	97.22	53-149
32	1,1,2-Trichloroeth	10	13	130.29	52-150
34	Benzene	10	14	140.43	37-151
35	trans-1,3-Dichloro	10	15	146.83	17-183
37	Bromoform	10	12	124.04	45-169
38	2-Chloroethylvinyl	10	15	151.16	0-305
41	Tetrachloroethene	10	11	109.85	64-148
43	1,1,2,2-Tetrachlor	10	15	151.41	46-157
45	Toluene	10	14	142.24	47-150
46	Chlorobenzene	10	12	115.37	37-160
47	Ethylbenzene	10	12	118.35	37-162
53	1,3-Dichlorobenzen	10	12	115.99	59-156
54	1,4-Dichlorobenzen	10	10	103.24	18-190
55	1,2-Dichlorobenzen	10	13	133.57	18-190

Semivolatile Data

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

814-FB

Lab Name: NYTEST ENV INC Contract: 9421415

Lab Code: NYTEST Case No.: 22521 SAS No.: SDG No.: ARMY2

Matrix: (soil/water) WATER Lab Sample ID: 2252101

Sample wt/vol: 1000 (g/mL) ML Lab File ID: S1764.D

Level: (low/med) LOW Date Received: 11/10/94

% Moisture: not dec. 0 dec. Date Extracted:11/13/94

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 12/03/94

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
111-44-4	bis(2-Chloroethyl)Ether	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
108-60-1	2,2'-oxybis(1-Chloropropane)	1	U
621-64-7	N-Nitroso-di-n-propylamine	1	U
67-72-1	Hexachloroethane	1	U
98-95-3	Nitrobenzene	1	U
78-59-1	Isophorone	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U
91-20-3	Naphthalene	1	U
87-68-3	Hexachlorobutadiene	1	U
111-91-1	bis(2-Chloroethoxy)methane	1	U
77-47-4	Hexachlorocyclopentadiene	1	U
91-58-7	2-Chloronaphthalene	1	U
131-11-3	Dimethylphthalate	2	
208-96-8	Acenaphthylene	1	U
606-20-2	2,6-Dinitrotoluene	1	U
83-32-9	Acenaphthene	1	U
121-14-2	2,4-Dinitrotoluene	1	U
84-66-2	Diethylphthalate	1	U
7005-72-3	4-Chlorophenyl-phenylether	1	U
86-73-7	Fluorene	1	U
86-30-6	N-Nitrosodiphenylamine (1)	1	U
101-55-3	4-Bromophenyl-phenylether	1	U
118-74-1	Hexachlorobenzene	1	U
85-01-8	Phenanthrene	1	U
120-12-7	Anthracene	1	U
84-74-2	Di-n-butylphthalate	1	U
206-44-0	Fluoranthene	1	U
129-00-0	Pyrene	1	U
85-68-7	Butylbenzylphthalate	1	U
91-94-1	3,3'-Dichlorobenzidine	1	U

(1) - Cannot be separated from Diphenylamine

000057

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

814-FB

Lab Name: NYTEST ENV INC Contract: 9421415

Lab Code: NYTEST Case No.: 22521 SAS No.: SDG No.: ARMY2

Matrix: (soil/water) WATER Lab Sample ID: 2252101

Sample wt/vol: 1000 (g/mL) ML Lab File ID: S1764.D

Level: (low/med) LOW Date Received: 11/10/94

% Moisture: not dec. 0 dec. Date Extracted: 11/13/94

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 12/03/94

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
56-55-3	Benzo(a)anthracene	1	U
218-01-9	Chrysene	1	U
117-81-7	bis(2-Ethylhexyl)phthalate	1	U
117-84-0	Di-n-octylphthalate	1	U
205-99-2	Benzo(b)fluoranthene	1	U
207-08-9	Benzo(k)fluoranthene	1	U
50-32-8	Benzo(a)pyrene	1	U
193-39-5	Indeno(1,2,3-cd)pyrene	1	U
53-70-3	Dibenz(a,h)anthracene	1	U
191-24-2	Benzo(g,h,i)perylene	1	U
62-75-9	N-Nitrosodimethylamine	1	U
92-87-5	Benzidine	1	U

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

814-FB

Lab Name: NYTEST ENV INC Contract: 9421415

Lab Code: NYTEST Case No.: 22521 SAS No.: SDG No.: ARMY2

Matrix: (soil/water) WATER Lab Sample ID: 2252101

Sample wt/vol: 1000 (g/mL) ML Lab File ID: S1764.D

Level: (low/med) LOW Date Received: 11/10/94

% Moisture: not dec. 0 dec. Date Extracted:11/13/94

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 12/03/94

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
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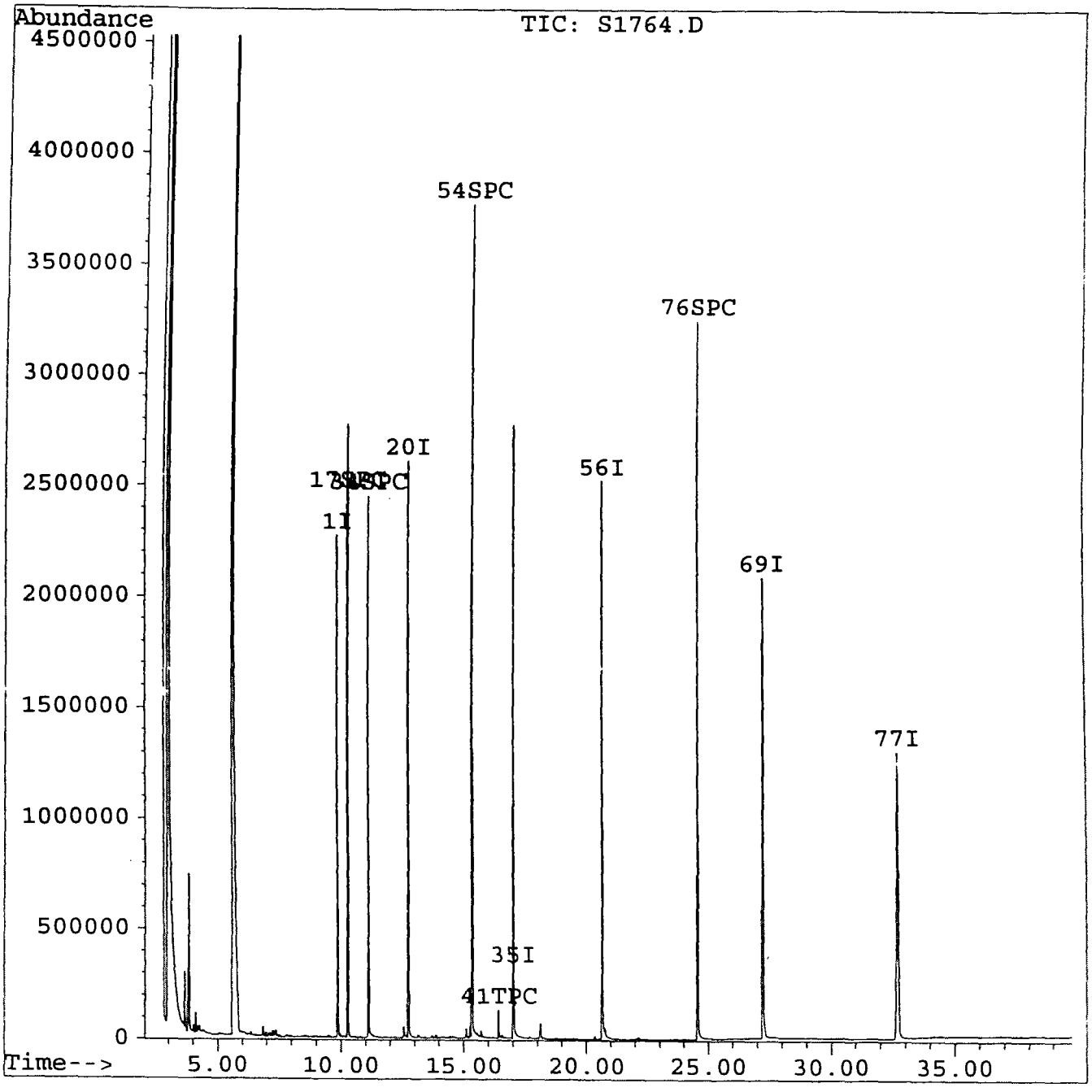
18.					
19.					
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

Quantitation Report

Data File : c:\hpchem\1\data\1202\s1764.d
Acq On : 3 Dec 94 12:30 pm
Sample : 2252101,814-FB,
Misc : 1,,,13-NOV-94,1000,1,PBN625+15, WATER
Quant Time: Dec 3 13:10 1994

Vial: 51
Operator: jr
Inst : HPS
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\625.M
Title : 390/ASP/8270
Last Update : Mon Dec 05 19:18:12 1994
Response via : Multiple Level Calibration



000060

Quantitation Report

Data File : c:\hpchem\1\data\1202\s1764.d
Acq On : 3 Dec 94 12:30 pm
Sample : 2252101,814-FB,
Misc : 1,,,13-NOV-94,1000,1,PBN625+15, WATER
Quant Time: Dec 3 13:10 1994

Vial: 51
Operator: jr
Inst : HPS
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\625.M
Title : 390/ASP/8270
Last Update : Fri Dec 02 19:39:08 1994
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-D4	9.87	152	801448	20.00	ug/L	0.00
20) Naphthalene-D8	12.73	136	2837291	20.00	ug/L	-0.02
35) Acenaphthene-d10	17.01	164	1375778	20.00	ug/L	-0.02
56) Phenanthrene-D10	20.63	188	2155825	20.00	ug/L	-0.02
69) Chrysene-D12	27.23	240	1910175	20.00	ug/L	-0.02
77) Perylene-D12	32.70	264	2330505	20.00	ug/L	-0.03
System Monitoring Compounds						%Recovery
14) 2-Fluorophenol	0.00	112	0	0.00	ug/L	NA 0.00%
15) Phenol-d5	9.13	99	1812	0.03	ug/L	NA 0.04%
16) 2-Chlorophenol-d4	9.45	132	828	0.02	ug/L	NA 0.02%
17) 1,2-Dichlorobenzene-d4	10.29	150	1830908	28.60	ug/L	57.20%
34) Nitrobenzene-d5	11.13	82	1841494	31.20	ug/L	62.39%
54) 2-Fluorobiphenyl	15.34	172	2756922	31.12	ug/L	62.24%
55) 2,4,6-Tribromophenol	0.00	330	0	0.00	ug/L	NA 0.00%
76) Terphenyl-d14	24.58	244	3088320	37.09	ug/L	74.19%
Target Compounds						Qvalue
41) Dimethylphthalate	16.42	163	143160	1.52	ug/L	98

000061

12/6/94

(#) = qualifier out of range (m) = manual integration

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

689B-2

Lab Name: NYTEST ENV INC Contract: 9421415

Lab Code: NYTEST Case No.: 22521 SAS No.: SDG No.: ARMY2

Matrix: (soil/water) WATER Lab Sample ID: 2252118

Sample wt/vol: 1000 (g/mL) ML Lab File ID: S1798.D

Level: (low/med) LOW Date Received: 11/10/94

% Moisture: not dec. 0 dec. Date Extracted: 11/13/94

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 12/06/94

GPC Cleanup: (Y/N) N pH: 5.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
111-44-4	bis(2-Chloroethyl)Ether	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
108-60-1	2,2'-oxybis(1-Chloropropane)	1	U
621-64-7	N-Nitroso-di-n-propylamine	1	U
67-72-1	Hexachloroethane	1	U
98-95-3	Nitrobenzene	1	U
78-59-1	Isophorone	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U
91-20-3	Naphthalene	1	U
87-68-3	Hexachlorobutadiene	1	U
111-91-1	bis(2-Chloroethoxy)methane	1	U
77-47-4	Hexachlorocyclopentadiene	1	U
91-58-7	2-Chloronaphthalene	1	U
131-11-3	Dimethylphthalate	1	U
208-96-8	Acenaphthylene	1	U
606-20-2	2,6-Dinitrotoluene	1	U
83-32-9	Acenaphthene	1	U
121-14-2	2,4-Dinitrotoluene	1	U
84-66-2	Diethylphthalate	1	U
7005-72-3	4-Chlorophenyl-phenylether	1	U
86-73-7	Fluorene	1	U
86-30-6	N-Nitrosodiphenylamine (1)	1	U
101-55-3	4-Bromophenyl-phenylether	1	U
118-74-1	Hexachlorobenzene	1	U
85-01-8	Phenanthrene	1	U
120-12-7	Anthracene	1	U
84-74-2	Di-n-butylphthalate	1	U
206-44-0	Fluoranthene	1	U
129-00-0	Pyrene	1	U
85-68-7	Butylbenzylphthalate	1	U
91-94-1	3,3'-Dichlorobenzidine	1	U

(1) - Cannot be separated from Diphenylamine

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

689B-2

Lab Name: NYTEST ENV INC Contract: 9421415

Lab Code: NYTEST Case No.: 22521 SAS No.: SDG No.: ARMY2

Matrix: (soil/water) WATER Lab Sample ID: 2252118

Sample wt/vol: 1000 (g/mL) ML Lab File ID: S1798.D

Level: (low/med) LOW Date Received: 11/10/94

% Moisture: not dec. 0 dec. Date Extracted:11/13/94

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 12/06/94

GPC Cleanup: (Y/N) N pH: 5.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
56-55-3	Benzo(a)anthracene	1	U
218-01-9	Chrysene	1	U
117-81-7	bis(2-Ethylhexyl)phthalate	1	U
117-84-0	Di-n-octylphthalate	1	U
205-99-2	Benzo(b)fluoranthene	1	U
207-08-9	Benzo(k)fluoranthene	1	U
50-32-8	Benzo(a)pyrene	1	U
193-39-5	Indeno(1,2,3-cd)pyrene	1	U
53-70-3	Dibenz(a,h)anthracene	1	U
191-24-2	Benzo(g,h,i)perylene	1	U
62-75-9	N-Nitrosodimethylamine	1	U
92-87-5	Benzidine	1	U

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

689B-2

Lab Name: NYTEST ENV INC Contract: 9421415

Lab Code: NYTEST Case No.: 22521 SAS No.: SDG No.: ARMY2

Matrix: (soil/water) WATER Lab Sample ID: 2252118

Sample wt/vol: 1000 (g/mL) ML Lab File ID: S1798.D

Level: (low/med) LOW Date Received: 11/10/94

% Moisture: not dec. 0 dec. Date Extracted:11/13/94

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 12/06/94

GPC Cleanup: (Y/N) N pH: 5.0 Dilution Factor: 1.0

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
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27.					
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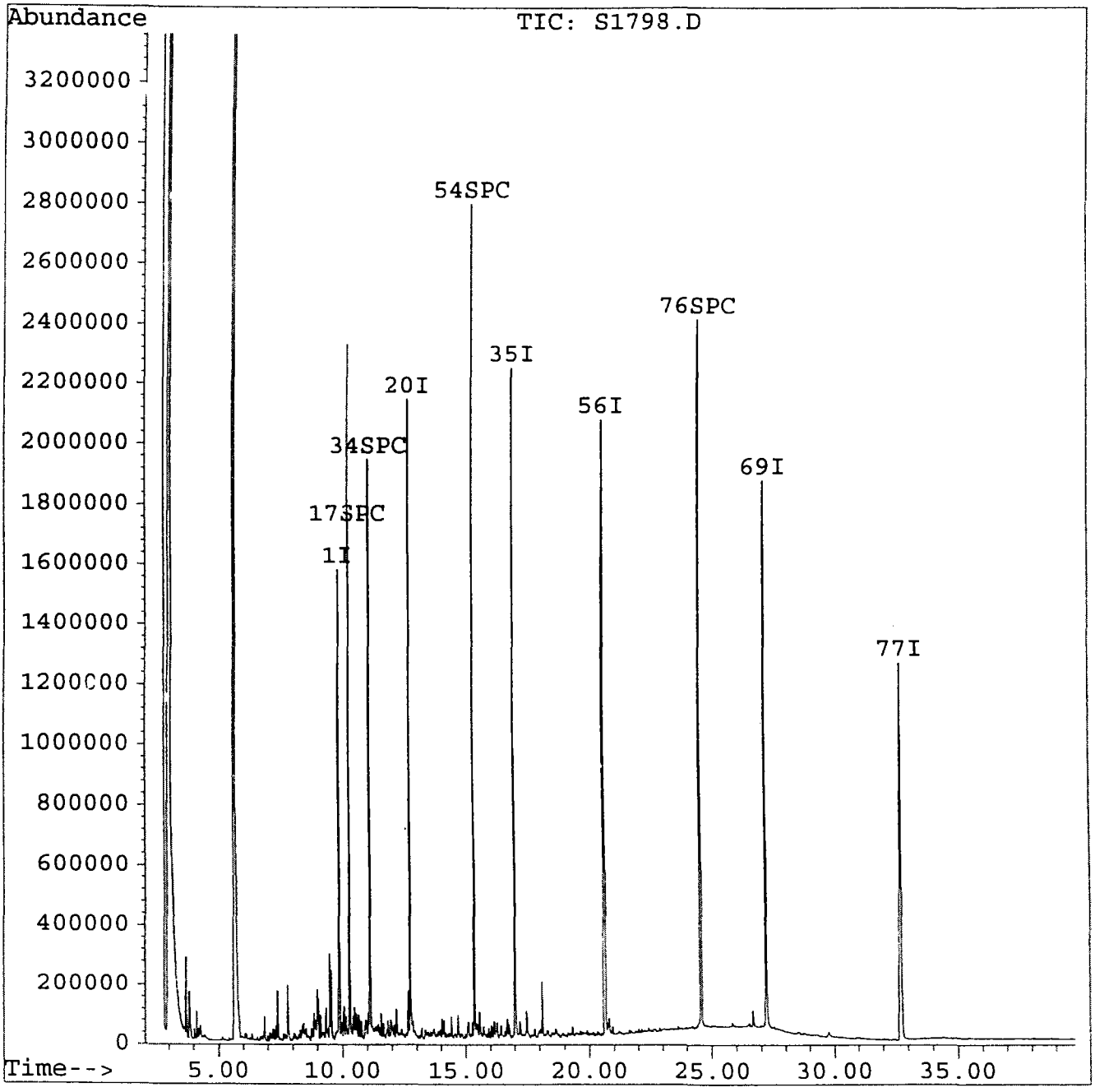
29.					
30.					

Quantitation Report

Data File : c:\hpchem\1\data\1205\s1798.d
Acq On : 6 Dec 94 1:08 am
Sample : 2252118,689B-2,
Misc : 1,5,,13-NOV-94,1000,1,PBN625, WATER
Quant Time: Dec 6 11:46 1994

Vial: 88
Operator: jr
Inst : HPS
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\625.M
Title : 390/ASP/8270
Last Update : Tue Dec 06 15:17:13 1994
Response via : Multiple Level Calibration



000065

Quantitation Report

Data File : c:\hpchem\1\data\1205\s1798.d
Acq On : 6 Dec 94 1:08 am
Sample : 2252118,689B-2,
Misc : 1,5,,13-NOV-94,1000,1,PBN625, WATER
Quant Time: Dec 6 11:46 1994

Vial: 88
Operator: jr
Inst : HPS
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\625.M
Title : 390/ASP/8270
Last Update : Mon Dec 05 19:18:12 1994
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-D4	9.88	152	566640	20.00	ug/L	0.00
20) Naphthalene-D8	12.74	136	2098944	20.00	ug/L	-0.02
35) Acenaphthene-d10	17.02	164	1086933	20.00	ug/L	-0.02
56) Phenanthrene-D10	20.64	188	1848785	20.00	ug/L	-0.02
69) Chrysene-D12	27.24	240	1745884	20.00	ug/L	-0.02
77) Perylene-D12	32.73	264	2174896	20.00	ug/L	4.12
System Monitoring Compounds						**%Recovery**
14) 2-Fluorophenol	7.43	112	816	0.02	ug/L	NA 0.03%
15) Phenol-d5	9.16	99	4746	0.10	ug/L	0.14%
16) 2-Chlorophenol-d4	9.47	132	2040	0.05	ug/L	0.07%
17) 1,2-Dichlorobenzene-d4	10.28	150	1415071	31.26	ug/L	62.53%
34) Nitrobenzene-d5	11.15	82	1517139	34.74	ug/L	69.48%
54) 2-Fluorobiphenyl	15.36	172	2208824	31.56	ug/L	63.12%
55) 2,4,6-Tribromophenol	0.00	330	0	0.00	ug/L	NA 0.00%
76) Terphenyl-d14	24.59	244	2336924	30.71	ug/L	61.42%

Target Compounds Qvalue

000066

John Fella 12/7/94

(#) = qualifier out of range (m) = manual integration

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK28

Lab Name: NYTEST ENV INC Contract: 9421415

Lab Code: NYTEST Case No.: 22521 SAS No.: SDG No.: ARMY2

Matrix: (soil/water) WATER Lab Sample ID: WB1113A

Sample wt/vol: 1000 (g/mL) ML Lab File ID: S1751.D

Level: (low/med) LOW Date Received: 00/00/00

% Moisture: not dec. 0 dec. Date Extracted:11/13/94

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 12/03/94

GPC Cleanup: (Y/N) N pH: 5.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
111-44-4	bis(2-Chloroethyl)Ether	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
108-60-1	2,2'-oxybis(1-Chloropropane)	1	U
621-64-7	N-Nitroso-di-n-propylamine	1	U
67-72-1	Hexachloroethane	1	U
98-95-3	Nitrobenzene	1	U
78-59-1	Isophorone	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U
91-20-3	Naphthalene	1	U
87-68-3	Hexachlorobutadiene	1	U
111-91-1	bis(2-Chloroethoxy)methane	1	U
77-47-4	Hexachlorocyclopentadiene	1	U
91-58-7	2-Chloronaphthalene	1	U
131-11-3	Dimethylphthalate	1	U
208-96-8	Acenaphthylene	1	U
606-20-2	2,6-Dinitrotoluene	1	U
83-32-9	Acenaphthene	1	U
121-14-2	2,4-Dinitrotoluene	1	U
84-66-2	Diethylphthalate	1	U
7005-72-3	4-Chlorophenyl-phenylether	1	U
86-73-7	Fluorene	1	U
86-30-6	N-Nitrosodiphenylamine (1)	1	U
101-55-3	4-Bromophenyl-phenylether	1	U
118-74-1	Hexachlorobenzene	1	U
85-01-8	Phenanthrene	1	U
120-12-7	Anthracene	1	U
84-74-2	Di-n-butylphthalate	1	U
206-44-0	Fluoranthene	1	U
129-00-0	Pyrene	1	U
85-68-7	Butylbenzylphthalate	1	U
91-94-1	3,3'-Dichlorobenzidine	1	U

(1) - Cannot be separated from Diphenylamine

000067

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK28

Lab Name: NYTEST ENV INC Contract: 9421415

Lab Code: NYTEST Case No.: 22521 SAS No.: SDG No.: ARMY2

Matrix: (soil/water) WATER Lab Sample ID: WB1113A

Sample wt/vol: 1000 (g/mL) ML Lab File ID: S1751.D

Level: (low/med) LOW Date Received: 00/00/00

% Moisture: not dec. 0 dec. Date Extracted:11/13/94

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 12/03/94

GPC Cleanup: (Y/N) N pH: 5.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
56-55-3	Benzo(a)anthracene	1	U
218-01-9	Chrysene	1	U
117-81-7	bis(2-Ethylhexyl)phthalate	1	U
117-84-0	Di-n-octylphthalate	1	U
205-99-2	Benzo(b)fluoranthene	1	U
207-08-9	Benzo(k)fluoranthene	1	U
50-32-8	Benzo(a)pyrene	1	U
193-39-5	Indeno(1,2,3-cd)pyrene	1	U
53-70-3	Dibenz(a,h)anthracene	1	U
191-24-2	Benzo(g,h,i)perylene	1	U
62-75-9	N-Nitrosodimethylamine	1	U
92-87-5	Benzidine	1	U

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK28

Lab Name: NYTEST ENV INC Contract: 9421415

Lab Code: NYTEST Case No.: 22521 SAS No.: SDG No.: ARMY2

Matrix: (soil/water) WATER Lab Sample ID: WB1113A

Sample wt/vol: 1000 (g/mL) ML Lab File ID: S1751.D

Level: (low/med) LOW Date Received: 00/00/00

% Moisture: not dec. 0 dec. Date Extracted:11/13/94

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 12/03/94

GPC Cleanup: (Y/N) N pH: 5.0 Dilution Factor: 1.0

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
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24.					
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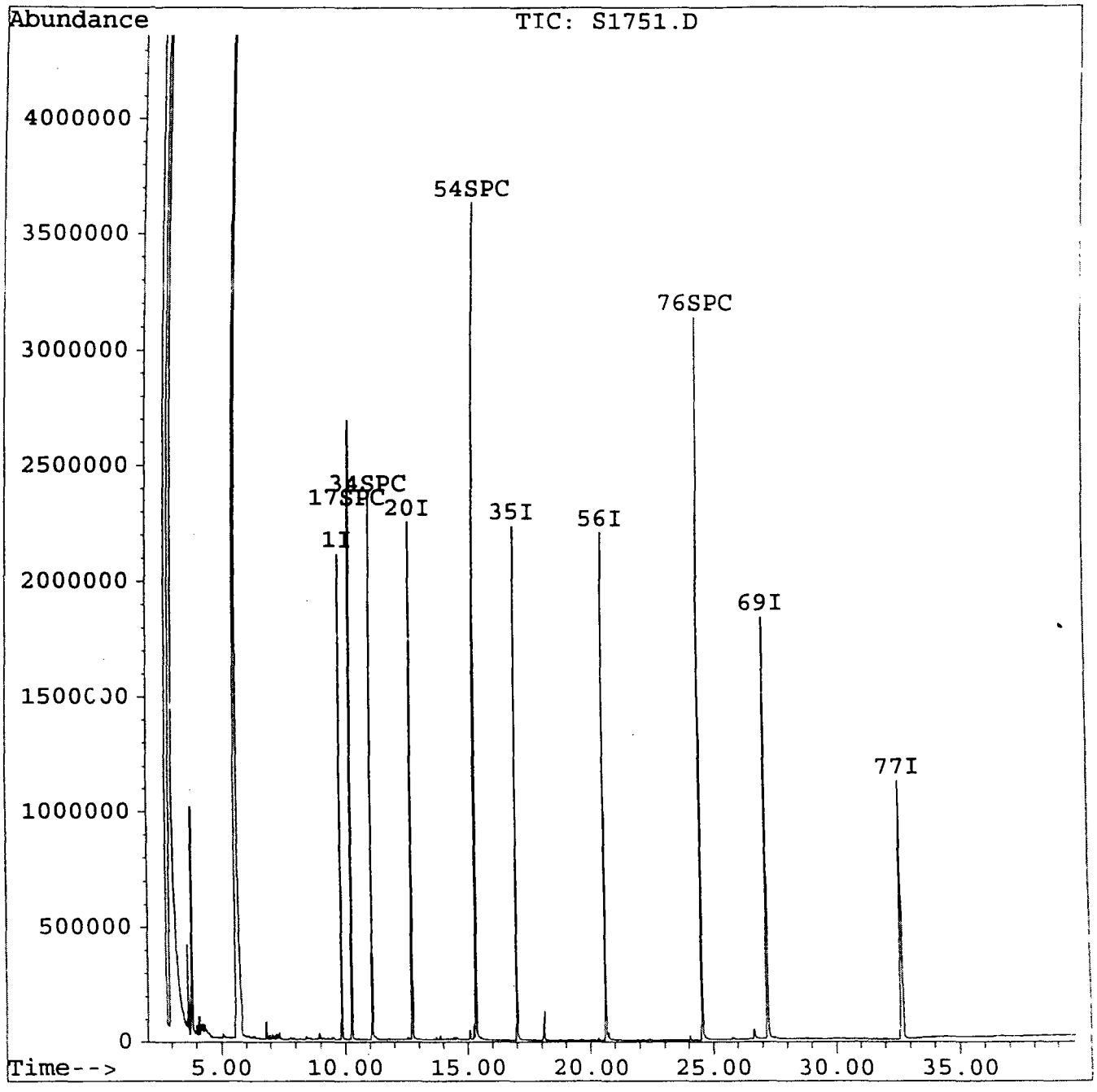
26.					
27.					
28.					
29.					
30.					

Quantitation Report

Data File : c:\hpche...\1\data\1202\s1751.d
Acq On : 3 Dec 94 3:14 am
Sample : WB1113A,SBLK28,
Misc : 1,5,,13-NOV-94,1000,1,P625
Quant Time: Dec 3 3:54 1994

Vial: 40
Operator: jr
Inst : HPS
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\625.M
Title : 390/ASP/8270
Last Update : Fri Dec 02 19:39:08 1994
Response via : Multiple Level Calibration



000070

Quantitation Report

Data File : c:\hpch...\1\data\1202\s1751.d
Acq On : 3 Dec 94 3:14 am
Sample : WB1113A,SBLK28,
Misc : 1,5,,13-NOV-94,1000,1,P625
Quant Time: Dec 3 3:54 1994

Vial: 40
Operator: jr
Inst : HPS
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\625.M
Title : 390/ASP/8270
Last Update : Fri Dec 02 19:39:08 1994
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-D4	9.87	152	744679	20.00	ug/L	0.00
20) Naphthalene-D8	12.73	136	2595426	20.00	ug/L	-0.01
35) Acenaphthene-d10	17.01	164	1157750	20.00	ug/L	-0.01
56) Phenanthrene-D10	20.63	188	1913888	20.00	ug/L	-0.01
69) Chrysene-D12	27.23	240	1663491	20.00	ug/L	-0.01
77) Perylene-D12	32.70	264	1948120	20.00	ug/L	-0.03
System Monitoring Compounds						%Recovery
14) 2-Fluorophenol	0.00	112	0	0.00	ug/L NA	0.00%
15) Phenol-d5	9.13	99	1654	0.03	ug/L NA	0.04%
16) 2-Chlorophenol-d4	0.00	132	0	0.00	ug/L NA	0.00%
17) 1,2-Dichlorobenzene-d4	10.29	150	1880646	31.62	ug/L	63.23%
34) Nitrobenzene-d5	11.14	82	1741026	32.24	ug/L	64.48%
54) 2-Fluorobiphenyl	15.35	172	2731690	36.64	ug/L	73.28%
55) 2,4,6-Tribromophenol	0.00	330	0	0.00	ug/L NA	0.00%
76) Terphenyl-d14	24.58	244	2889447	39.85	ug/L	79.71%

Target Compounds Qvalue

000071
John Raffa 12/5/94

(#) = qualifier out of range (m) = manual integration

2C

WATER SEMI..LATILE SURROGATE RECOVERY

Lab Name: NYTEST ENV INC Contract: 9421415

Lab Code: NYTEST Case No.: 22521 SAS No.: SDG No.: ARMY2

	EPA SAMPLE NO.	S1 (NBZ) #	S2 (FBP) #	S3 (TPH) #	S4 #	S5 #	S6 #	S7 #	S8 #	TOT OUT
01	~~SSTD050~~	~~49~~	~~49~~	~~50~~	~~49~~					0
02	SBLK28	64	73	80	63					0
03	~~SSTD050~~	~~48~~	~~48~~	~~50~~	~~49~~					0
04	814-FB	62	62	74	57					0
05	814-DUP	62	64	80	58					0
06	814-1	65	60	64	61					0
07	287-1	60	60	68	55					0
08	208B-1	54	51	70	49					0
09	282-1	50	48	60	43					0
10	207B-1	59	51	72	52					0
11	689A-1	61	69	88	61					0
12	600-1	56	63	78	56					0
13	~~SSTD050~~	~~49~~	~~48~~	~~47~~	~~49~~					0
14	2700-4-1	55	58	70	52					0
15	1220-1	64	57	59	51					0
16	1076-1	75	62	62	57					0
17	1076-2	71	69	69	65					0
18	1076-3	68	64	67	55					0
19	1076-3MS	69	68	72	69					0
20	1076-3MSD	64	70	74	67					0
21	689B-2	69	63	61	62					0
22										
23										
24										
25										
26										
27										
28										
29										
30										

		QC LIMITS
S1 (NBZ)	= Nitrobenzene-d5	(35-114)
S2 (FBP)	= 2-Fluorobiphenyl	(43-116)
S3 (TPH)	= Terphenyl-d14	(33-141)
S4	= 1,2-Dichlorobenzene-d4	(33-110)
S5	= N/A	
S6	= N/A	
S7	= N/A	
S8	= N/A	

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate diluted out

000072

nytest

RECOVERY REPORT

Client Name: aguilar
Sample Matrix: LIQUID
Lab Smp Id: 2252116
Level: LOW
Data Type: MS DATA
SpikeList File: QCMS.spk
Method File: /chem/HPS.i/22521.b/625.m
Misc Info:

Client SDG: ARMY2a
Fraction: SV
Client Smp ID: 1076-3MS
Operator:
SampleType: MS
Quant Type: ISTD

SPIKE	COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
7	Phenol	50	0.0	*	17-100
9	bis(2-Chloroethyl)	50	40	79.41	43-126
10	1,3-Dichlorobenzen	50	37	74.93	17-154
13	1,4-Dichlorobenzen	50	37	74.01	37-106
15	1,2-Dichlorobenzen	50	38	76.23	49-112
21	2,2'-oxybis(1-Chlo	50	42	83.01	63-139
18	N-Nitroso-di-n-pro	50	42	84.74	14-198
17	Hexachloroethane	50	38	75.91	55-100
20	Nitrobenzene	50	36	73.13	54-158
22	Isophorone	50	34	68.54	47-180
23	2-Nitrophenol	50	0.0	*	45-167
24	2,4-Dimethylphenol	50	0.0	*	42-109
26	bis(2-Chloroethoxy	50	39	77.51	49-165
27	2,4-Dichlorophenol	50	0.0	*	52-122
28	1,2,4-Trichloroben	50	35	69.21	57-129
31	Naphthalene	50	34	67.55	36-120
33	Hexachlorobutadien	50	34	68.47	38-102
34	4-Chloro-3-Methyl	50	0.0	*	41-128
36	Hexachlorocyclopen	50	38	77.10	38-102
37	2,4,6-Trichloroph	50	0.0	*	52-129
40	2-Chloronaphthalen	50	37	74.28	64-114
43	Dimethylphthalate	50	41	81.55	0-100
42	Acenaphthylene	50	35	69.52	54-126
44	2,6-Dinitrotoluene	50	42	84.94	68-137
46	Acenaphthene	50	37	73.90	60-132
48	2,4-Dinitrophenol	50	0.0	*	0-173
50	4-Nitrophenol	50	0.0	*	13-106
8	2-Chlorophenol	50	0.0	*	36-120
51	2,4-Dinitrotoluene	50	48	96.21	48-127
54	Diethylphthalate	50	38	76.95	0-100
53	4-Chlorophenyl-phe	50	37	73.99	38-145
52	Fluorene	50	36	71.86	72-108
55	4,6-Dinitro-2-met	50	0.0	*	53-100
56	N-Nitrosodiphenyla	50	37	73.50	14-198
59	4-Bromophenyl-phen	50	35	69.87	65-114
60	Hexachlorobenzene	50	33	66.40	8-142

Acids are not Applicable

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
61 Pentachlorophenol	50	0.0	*	38-152
63 Phenanthrene	50	29	58.93*	65-109
64 Anthracene	50	31	62.28	43-118
66 Di-n-butylphthalat	50	34	67.88	8-111
67 Fluoranthene	50	33	66.05	43-121
68 Pyrene	50	37	73.98	70-100
70 Butylbenzylphthala	50	37	73.52	0-140
73 3,3'-Dichlorobenzi	50	61	122.07	8-212
71 Benzo(a)anthracene	50	37	74.94	42-133
74 Chrysene	50	34	69.17	44-140
75 bis(2-Ethylhexyl)p	50	38	76.11	29-137
76 Di-n-octylphthalat	50	31	61.58	19-132
77 Benzo(b)fluoranth	50	0.0	*	42-140
78 Benzo(k)fluoranthe	50	29	58.62	25-146
79 Benzo(a)pyrene	50	30	59.00	32-148
81 Indeno(1,2,3-cd)py	50	30	60.66	0-151
82 Dibenz(a,h)anthrac	50	29	58.38	0-200
83 Benzo(g,h,i)peryle	50	31	61.29	0-195

Acids are not applicable

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 5 1,2-Dichlorobenzen	50	35	69.31	33-110
$ 29 Nitrobenzene-d5	50	34	68.98	35-114
$ 39 2-Fluorobiphenyl	50	34	68.39	43-116
$ 69 Terphenyl-d14	50	36	71.53	33-141

nytest

RECOVERY REPORT

Client Name: aguilar
Sample Matrix: LIQUID
Lab Smp Id: 2252117
Level: LOW
Data Type: MS DATA
SpikeList File: QCMS.spk
Method File: /chem/HPS.i/22521.b/625.m
Misc Info:

Client SDG: ARMY2a
Fraction: SV
Client Smp ID: 1076-3MSD
Operator:
SampleType: MS
Quant Type: ISTD

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
7 Phenol	50	0.0	*	17-100
9 bis(2-Chloroethyl)	50	36	71.96	43-126
10 1,3-Dichlorobenzen	50	36	71.06	17-154
13 1,4-Dichlorobenzen	50	35	70.96	37-106
15 1,2-Dichlorobenzen	50	36	71.91	49-112
21 2,2'-oxybis(1-Chlo	50	38	75.75	63-139
18 N-Nitroso-di-n-pro	50	40	80.47	14-198
17 Hexachloroethane	50	36	72.90	55-100
20 Nitrobenzene	50	34	67.66	54-158
22 Isophorone	50	33	65.71	47-180
23 2-Nitrophenol	50	0.0	*	45-167
24 2,4-Dimethylphenol	50	0.0	*	42-109
26 bis(2-Chloroethoxy	50	37	74.17	49-165
27 2,4-Dichlorophenol	50	0.0	*	52-122
28 1,2,4-Trichloroben	50	33	66.15	57-129
31 Naphthalene	50	32	64.05	36-120
33 Hexachlorobutadien	50	33	65.83	38-102
34 4-Chloro-3-Methyl	50	0.0	*	41-128
36 Hexachlorocyclopen	50	38	76.33	38-102
37 2,4,6-Trichloroph	50	0.0	*	52-129
40 2-Chloronaphthalen	50	37	74.49	64-114
43 Dimethylphthalate	50	41	82.40	0-100
42 Acenaphthylene	50	36	71.06	54-126
44 2,6-Dinitrotoluene	50	43	85.88	68-137
46 Acenaphthene	50	37	74.85	60-132
48 2,4-Dinitrophenol	50	0.0	*	0-173
50 4-Nitrophenol	50	0.0	*	13-106
8 2-Chlorophenol	50	0.0	*	36-120
51 2,4-Dinitrotoluene	50	48	96.29	48-127
54 Diethylphthalate	50	39	78.20	0-100
53 4-Chlorophenyl-phe	50	37	74.96	38-145
52 Fluorene	50	36	72.61	72-108
55 4,6-Dinitro-2-met	50	0.0	*	53-100
56 N-Nitrosodiphenyla	50	37	74.85	14-198
59 4-Bromophenyl-phen	50	36	72.00	65-114
60 Hexachlorobenzene	50	34	67.97	8-142

Acids are not applicable

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
61 Pentachlorophenol	50	0.0	*	38-152
63 Phenanthrene	50	30	59.60*	65-109
64 Anthracene	50	31	62.54	43-118
66 Di-n-butylphthalat	50	35	70.01	8-111
67 Fluoranthene	50	34	67.37	43-121
68 Pyrene	50	38	76.32	70-100
70 Butylbenzylphthala	50	38	77.09	0-140
73 3,3'-Dichlorobenzi	50	62	123.64	8-212
71 Benzo(a)anthracene	50	38	76.91	42-133
74 Chrysene	50	36	71.90	44-140
75 bis(2-Ethylhexyl)p	50	39	78.31	29-137
76 Di-n-octylphthalat	50	31	62.72	19-132
77 Benzo(b)fluoranthe	50	31	62.14	42-140
78 Benzo(k)fluoranthe	50	30	60.06	25-146
79 Benzo(a)pyrene	50	30	59.85	32-148
81 Indeno(1,2,3-cd)py	50	31	62.53	0-151
82 Dibenz(a,h)anthrac	50	30	60.20	0-200
83 Benzo(g,h,i)peryle	50	32	63.28	0-195

Acids are not applicable

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 5 1,2-Dichlorobenzen	50	34	67.34	33-110
$ 29 Nitrobenzene-d5	50	32	63.71	35-114
$ 39 2-Fluorobiphenyl	50	35	70.05	43-116
$ 69 Terphenyl-d14	50	37	74.54	33-141

4B

SEMIVOC ILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

SBLK28

Lab Name: NYTEST ENV INC Contract: 9421415

Lab Code: NYTEST Case No.: 22521 SAS No.: SDG No.: ARMY2

Lab File ID: S1751.D Lab Sample ID: WB1113A

Date Extracted: 11/13/94 Extraction: (SepF/Cont/Sonc) SEPF

Date Analyzed: 12/03/94 Time Analyzed: 0314

Matrix: (soil/water) WATER Level: (low/med) LOW

Instrument ID: HPS

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	814-FB	2252101	S1764.D	12/03/94
02	814-DUP	2252103	S1765.D	12/03/94
03	814-1	2252104	S1766.D	12/03/94
04	287-1	2252105	S1767.D	12/03/94
05	208B-1	2252106	S1768.D	12/03/94
06	282-1	2252107	S1769.D	12/03/94
07	207B-1	2252108	S1770.D	12/03/94
08	689A-1	2252109	S1771.D	12/03/94
09	600-1	2252110	S1772.D	12/03/94
10	2700-4-1	2252111	S1791.D	12/05/94
11	1220-1	2252112	S1792.D	12/05/94
12	1076-1	2252113	S1793.D	12/05/94
13	1076-2	2252114	S1794.D	12/05/94
14	1076-3	2252115	S1795.D	12/05/94
15	1076-3MS	2252116	S1796.D	12/05/94
16	1076-3MSD	2252117	S1797.D	12/06/94
17	689B-2	2252118	S1798.D	12/06/94
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COMMENTS:

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: NYTEST ENV INC Contract: 9421415

Lab Code: NYTEST Case No.: 22521 SAS No.: SDG No.: ARMY2

Lab File ID: S1733.D DFTPP Injection Date: 12/02/94

Instrument ID: HPS DFTPP Injection Time: 0946

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	41.7
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	54.5
70	Less than 2.0% of mass 69	0.2 (0.3)1
127	40.0 - 60.0% of mass 198	43.5
197	Less than 1.0% of mass 198	0.0
198	Base peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.7
275	10.0 - 30.0% of mass 198	19.2
365	Greater than 1.00% of mass 198	2.18
441	Present, but less than mass 443	10.6
442	Greater than 40.0% of mass 198	74.1
443	17.0 - 23.0% of mass 442	14.5 (19.6)2

1-Value is % mass 69 2-Value is % mass 442

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD010	SSTD010	S1735.D	12/02/94	1154
02	SSTD020	SSTD020	S1736.D	12/02/94	1244
03	SSTD050	SSTD050	S1737.D	12/02/94	1333
04	SSTD080	SSTD080	S1738.D	12/02/94	1421
05	SSTD160	SSTD160	S1739.D	12/02/94	1510
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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: NYTEST ENV INC Contract: 9421415

Lab Code: NYTEST Case No.: 22521 SAS No.: SDG No.: ARMY2

Lab File ID: S1740.D DFTPP Injection Date: 12/02/94

Instrument ID: HPS DFTPP Injection Time: 1834

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	41.5
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	55.3
70	Less than 2.0% of mass 69	0.2 (0.3)1
127	40.0 - 60.0% of mass 198	43.3
197	Less than 1.0% of mass 198	0.0
198	Base peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.6
275	10.0 - 30.0% of mass 198	19.3
365	Greater than 1.00% of mass 198	2.10
441	Present, but less than mass 443	11.1
442	Greater than 40.0% of mass 198	76.8
443	17.0 - 23.0% of mass 442	14.9 (19.4)2

1-Value is % mass 69 2-Value is % mass 442

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD050	SSTD050	S1741.D	12/02/94	1853
02	SBLK28	WB1113A	S1751.D	12/03/94	0314
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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: NYTEST ENV INC Contract: 9421415

Lab Code: NYTEST Case No.: 22521 SAS No.: SDG No.: ARMY2

Lab File ID: S1760.D DFTPP Injection Date: 12/03/94

Instrument ID: HPS DFTPP Injection Time: 1032

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	35.2
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	46.5
70	Less than 2.0% of mass 69	0.2 (0.4)1
127	40.0 - 60.0% of mass 198	41.2
197	Less than 1.0% of mass 198	0.0
198	Base peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.6
275	10.0 - 30.0% of mass 198	19.5
365	Greater than 1.00% of mass 198	2.05
441	Present, but less than mass 443	10.4
442	Greater than 40.0% of mass 198	71.6
443	17.0 - 23.0% of mass 442	13.9 (19.5)2

1-Value is % mass 69 2-Value is % mass 442

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD050	SSTD050	S1763.D	12/03/94	1142
02	814-FB	2252101	S1764.D	12/03/94	1230
03	814-DUP	2252103	S1765.D	12/03/94	1319
04	814-1	2252104	S1766.D	12/03/94	1408
05	287-1	2252105	S1767.D	12/03/94	1457
06	208B-1	2252106	S1768.D	12/03/94	1546
07	282-1	2252107	S1769.D	12/03/94	1636
08	207B-1	2252108	S1770.D	12/03/94	1727
09	689A-1	2252109	S1771.D	12/03/94	1817
10	600-1	2252110	S1772.D	12/03/94	1908
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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: NYTEST ENV INC Contract: 9421415

Lab Code: NYTEST Case No.: 22521 SAS No.: SDG No.: ARMY2

Lab File ID: S1789.D DFTPP Injection Date: 12/05/94

Instrument ID: HPS DFTPP Injection Time: 1657

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	35.6
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	45.3
70	Less than 2.0% of mass 69	0.1 (0.1)1
127	40.0 - 60.0% of mass 198	40.4
197	Less than 1.0% of mass 198	0.0
198	Base peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.7
275	10.0 - 30.0% of mass 198	19.4
365	Greater than 1.00% of mass 198	2.02
441	Present, but less than mass 443	9.8
442	Greater than 40.0% of mass 198	67.3
443	17.0 - 23.0% of mass 442	13.3 (19.8)2

1-Value is % mass 69 2-Value is % mass 442

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD050	SSTD050	S1790.D	12/05/94	1712
02	2700-4-1	2252111	S1791.D	12/05/94	1928
03	1220-1	2252112	S1792.D	12/05/94	2016
04	1076-1	2252113	S1793.D	12/05/94	2105
05	1076-2	2252114	S1794.D	12/05/94	2154
06	1076-3	2252115	S1795.D	12/05/94	2242
07	1076-3MS	2252116	S1796.D	12/05/94	2331
08	1076-3MSD	2252117	S1797.D	12/06/94	0019
09	689B-2	2252118	S1798.D	12/06/94	0108
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000081

SEMIVOLATILE O. NICS INITIAL CALIBRATION DAT.

Lab Name: NYTEST ENV INC Contract: 9421415

Lab Code: NYTEST Case No.: 22521 SAS No.: SDG No.: ARMY2

Instrument ID: HPS Calibration Date(s): 12/02/94

Max %RSD for CCC(*) = 35.0%

LAB FILE ID: RRF010 =S1735.D RRF020 =S1736.D
RRF050 =S1737.D RRF080=S1738.D RRF160=S1739.D

COMPOUND	RRF010	RRF020	RRF050	RRF080	RRF160	$\overline{RRF}$	% RSD
bis(2-Chloroethyl)Ether	1.669	1.458	1.335	1.301	1.087	1.370	15.6
1,3-Dichlorobenzene	1.819	1.590	1.444	1.400	1.123	1.475	17.4
1,4-Dichlorobenzene	1.818	1.569	1.421	1.371	1.052	1.446	19.4
1,2-Dichlorobenzene	1.741	1.505	1.352	1.255	0.934	1.357	22.1
2,2'-oxybis(1-Chloropropane)	2.396	2.071	1.906	1.904	1.699	1.995	13.0
N-Nitroso-di-n-propylamine	1.082	0.929	0.889	0.886	0.790	0.915	11.6
Hexachloroethane	0.753	0.651	0.601	0.589	0.481	0.615	16.1
Nitrobenzene	0.452	0.413	0.387	0.373	0.314	0.388	13.2
Isophorone	0.956	0.845	0.769	0.752	0.669	0.798	13.6
1,2,4-Trichlorobenzene	0.423	0.382	0.346	0.338	0.267	0.351	16.5
Naphthalene	1.255	1.128	1.018	0.934	0.732	1.013	19.6
bis(2-Chloroethoxy)methane	0.571	0.503	0.452	0.440	0.375	0.468	15.7
Hexachlorobutadiene	0.217	0.198	0.183	0.176	0.138	0.183	16.1
Hexachlorocyclopentadiene	0.321	0.337	0.350	0.353	0.302	0.333	6.4
2-Chloronaphthalene	1.447	1.268	1.135	1.079	0.851	1.156	19.2
Dimethylphthalate	1.702	1.449	1.324	1.308	1.073	1.371	16.7
Acenaphthylene	2.321	2.000	1.725	1.578	1.035	1.732	27.8
2,6-Dinitrotoluene	0.391	0.346	0.330	0.324	0.232	0.325	18.0
Acenaphthene	1.384	1.199	1.036	0.982	0.770	1.074	21.5
2,4-Dinitrotoluene	0.472	0.417	0.425	0.447	0.411	0.434	5.8
Diethylphthalate	1.681	1.413	1.273	1.266	1.020	1.331	18.2
4-Chlorophenyl-phenylether	0.698	0.584	0.501	0.460	0.337	0.516	26.2
Fluorene	1.487	1.240	1.057	0.934	0.695	1.083	27.7
N-Nitrosodiphenylamine (1)	0.677	0.561	0.469	0.443	0.356	0.501	24.4
4-Bromophenyl-phenylether	0.282	0.259	0.247	0.235	0.180	0.241	15.7
Hexachlorobenzene	0.357	0.320	0.296	0.273	0.202	0.290	20.0
Phenanthrene	1.400	1.246	1.156	1.085	0.798	1.137	19.6
Anthracene	1.396	1.236	1.157	1.087	0.817	1.138	18.8
Di-n-butylphthalate	1.901	1.656	1.570	1.504	1.128	1.552	18.1
Fluoranthene	1.388	1.205	1.141	1.094	0.848	1.135	17.2
Pyrene	1.565	1.349	1.255	1.198	1.002	1.273	16.2
Butylbenzylphthalate	0.934	0.813	0.930	0.760	0.664	0.820	14.0
3,3'-Dichlorobenzidine	0.355	0.244	0.212	0.237	0.264	0.263	21.0
Benzo(a)anthracene	1.321	1.150	1.121	1.087	0.875	1.111	14.4
Chrysene	1.223	1.068	0.955	0.885	0.736	0.973	18.9
bis(2-Ethylhexyl)phthalate	1.235	1.045	0.930	0.875	0.720	0.961	20.0
Di-n-octylphthalate	1.989	1.993	2.094	2.102	1.785	1.993	6.4

(1) - Cannot be separated from Diphenylamine

000082

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: NYTEST ENV INC Contract: 9421415

Lab Code: NYTEST Case No.: 22521 SAS No.: SDG No.: ARMY2

Instrument ID: HPS Calibration Date(s): 12/02/94

Max %RSD for CCC(*) = 35.0%

LAB FILE ID: RRF010 =S1735.D RRF020 =S1736.D
RRF050 =S1737.D RRF080=S1738.D RRF160=S1739.D

COMPOUND	RRF010	RRF020	RRF050	RRF080	RRF160	$\overline{RRF}$	% RSD
Benzo(b)fluoranthene	1.229	1.325	1.380	1.558	1.296	1.358	9.2
Benzo(k)fluoranthene	1.175	1.285	1.342	1.341	0.946	1.218	13.7
Benzo(a)pyrene	1.201	1.233	1.328	1.365	1.247	1.275	5.4
Indeno(1,2,3-cd)pyrene	1.406	1.455	1.583	1.648	1.501	1.519	6.4
Dibenz(a,h)anthracene	1.136	1.169	1.285	1.324	1.104	1.203	8.0
Benzo(g,h,i)perylene	1.226	1.273	1.387	1.459	1.376	1.344	7.0
N-Nitrosodimethylamine	0.811	0.734	0.683	0.606	0.574	0.682	14.0
Benzidine	0.072	0.038	0.035	0.068	0.074	0.057	33.4
Nitrobenzene-d5	0.477	0.433	0.409	0.408	0.354	0.416	10.8
2-Fluorobiphenyl	1.616	1.435	1.266	1.189	0.934	1.288	20.0
Terphenyl-d14	1.095	0.944	0.878	0.820	0.621	0.872	19.9
1,2-Dichlorobenzene-d4	2.008	1.747	1.592	1.497	1.143	1.598	20.0

(1) - Cannot be separated from Diphenylamine

000083

TOTAL ANALYTICAL SERVICES FOR A SAFE ENVIRONMENT

nytest environmental inc.

Project No.: 9421415
Log in No. : 22662C
P.O. No. : Pending
Date : 2/20/95
SDG No. : Army 3
NJDEPE Case #: 93-11-1759-33

ANALYTICAL DATA REPORT
PACKAGE FOR

Aguilar Associates

30 Freneau Avenue

Matawan, NJ 07747

ATTN: Darryl Schmitt
REF: US Army Fort Monmouth,Well# and NJDEPE Reg# 2-2930967
Sample Location Bldg. 689B

LABORATORY NUMBER	SAMPLE IDENTIFICATION	TYPE OF SAMPLE

S E E N E X T P A G E

WE CERTIFY THAT THIS REPORT IS A TRUE REPORT OF RESULTS OBTAINED FROM OUR TESTS OF THIS MATERIAL.

RESPECTFULLY SUBMITTED,
NYTEST ENVIRONMENTAL INC.

NYS Lab ID. #10195
NJ Cert. #73469

REMO GIGANTE
EXEC. VICE PRESIDENT

NYTEST ENVIRONMENTAL Inc.

LABORATORY NUMBER	SAMPLE IDENTIFICATION	WELL #	TYPE OF SAMPLE
2266205	689B-2	2-2930967	Water
2266208	FIELDB	-	Water
2266218	TRIPBL	-	Water

Table of Contents

BLDG.#: 689B M..#: 2 NJDEPE WELL . # 2930967

U.S. ARMY FORT MONMOUTH

MONITORING WELL SAMPLING DATASHEET

DATE: 12/1/94

IJO#94-0843 B

SAMPLING CONTRACTOR: Aguilar Associates Inc.

LABORATORY: NYTEST Environmental Inc. CERT #:73469

SAMPLERS NAMES: D. Schmitt, N. Vonasek, S. Panizzi

WEATHER CONDITIONS: Mid 40's cold, windy

ELEVATION OF CASING SURVEY MARK: 14.23

TOTAL DEPTH OF WELL FROM TOP OF SURVEYORS MARK: 10.77 FT

DEPTH FROM SURVEYORS MARK TO SCREEN: 2.0 FT

LENGTH OF SCREENED SECTION: 10.5 FT.

DEPTH TO WATER PRIOR TO PURGING AND SAMPLING: 6.77 FT

ELEVATION OF GW PRIOR TO PURGING: 7.46 FT

THICKNESS OF LNAPL PRIOR TO PURGING : — . — FT

PID/Hnu READING IMMEDIATELY AFTER THE WELL CAP IS REMOVED: 0 PPM

pH: 4.61 TEMP: 12.5 C, SPECIFIC CONDUCTIVITY: 1500 uS D.O - 3.9

DEPTH OF WELL: 10.77 FT

HEIGHT OF WATER: 4.00 FT

EVACUATED GAL. H2O: 7.5 GAL (4 X .65 X 3 = 7.8)

PURGING START TIME: 11:00 END TIME: 11:14

PURGE METHOD: REDI-FLOW 2 INCH SUBMERSIBLE PUMP VARIABLE FLOW RATE OF <0.5 GPM TO >5.0 GPM

PURGE RATE (<0.5 GPM): 0.5 GPM

TOTAL VOLUME PURGED: 7.5 GAL.

DEPTH TO WATER AFTER PURGING AND BEFORE SAMPLING: 7.44 FT

DISSOLVED OXYGEN: 3.4 pH: 4.33 TEMP: 13 °C

SPECIFIC CONDUCTIVITY: 1330 uS

SAMPLING METHOD: DEDICATED, DECONTAMINATED (IAW NJDEP FSPM 1992) TEFLON® BAILER

START TIME OF SAMPLING: 11:41 END TIME: 11:51

DISSOLVED OXYGEN: 5.8 pH: 4.33 TEMP: 13.5 °C

SPECIFIC CONDUCTIVITY: 1380 uS

COMMENTS: _____

U.S. ARMY FORT MONMOUTH

P.O. #: Aguilar/94-0843

Chain of Custody

Project #: 93-11-1759-33	Sampler: D. Schmidt - Aguilar	Date / Time 12/1/94 1230	Analysis Parameters
Customer: C. Appleby SELFM-pw-EV	Site Name: Bldg 689 B		Start:
Phone: (908) 532-6224	DICAR # - 93-11-1759-33 MW Samplins		Finish:

Preservation Method

Lab Sample ID Number	Date/Time		Customer Sample Location/ID Number	Sample Matrix	# of Bottles	624+5, xylenes, TBA, MTBE	Base Neutrals						Hnu (ppm)	Remarks
1752.1	12/1/94	1146	MW-2, 2930967	AQ	4	2	2						0	Sample Kept <4°C
1748.2	12/1/94	9:05	Field Blank	AQ	4	2	2							
.3	1	3:40	Trip Blank	AQ	2	2								
.4	↓	—	Duplicate	AQ	4	2	2							
✓ .5	12/1/94	9:20	MW-1 BLIND DUP 2930957 MSMSD	AQ	4	2	2							
														Hnu SN 801497
														Hnu = 0 ppm
														calibrated 11/23/94
														38 ppm Benzene Surrogate reads 56 ppm Span 9.8 D.S.

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.

Enviornmental Laboratory

Accreditation Number 1146

nytest environmental.
(516) 625-5500 FAX: (516) 625-1274

Chain of Custody Record

page # : 1 of 1

Client Name: Aquifer Associates
Address: 36 Freeman Ave
Hauppauge NY 11788
Project Manager: D. Schmidt
Phone: 208-345-7870 FAX: 208-345-7806
Project Name: Ft Monmouth Bld 689B
Project Number: 93 11 - 1759 - 33
P.O. #:
Analytical Protocol: _____ Deliverables: _____
Sampled By:

Login #: 22602
Ship to:
Nytest Environmental Inc.
60 Seaview Blvd
Port Washington N.Y. 11050
Attn.: Sample Control
Date Shipped: _____
Carrier: _____
Air Bill #: _____
Cooler #: _____
C of C #: _____
SDG #: _____
NEI QT #: _____

Lab ID (Lab Use Only)	Sample ID (Maximum of 6 Characters)	Date Sampled	Time Sampled	Sample Location	No. of Containers	Analysis Requested: Grain size, moist, TOC	Analysis Requested: Base neutrals	Bin #'s In / Out (For Lab Use Only)
05	mw-3	12/1/94	1146	Bld 689B, 39 30 96.7	4	2	2	

Comments

000001

Relinquished by:	Date / Time	Received by:	Date / Time
Print Name: Darryl V. Schmidt	12/1/94 1630	Print Name: MURRAY FERGUSON	12/2 1630
Relinquished by:	Date / Time	Received by:	Date / Time
Print Name: MURRAY FERGUSON	12/2 1830	Print Name:	
Relinquished by:	Date / Time	Received by Laboratory:	Date / Time
Print Name:		Print Name: Michael Lan.	12/2/94 1830

Special Instructions : _____

CLIENT RETAINS YELLOW COPY ONLY

Lab Use Only

Custody Seals: Intact / Broken
Sample Rec'd in Good Condition: Y / N
Sample Temperature: 6 Preservation:
Received By: ZBZ
COMMENTS:

nytest environmental. (516) 625-5500 FAX: (516) 625-1274

Chain of Custody Record

Client Name: Aguilar Associates
Address: 30 Freneau Ave
MATAWAN, N.J 07747

Project Manager: D. Schmitt
Phone: 908-290-7800 FAX: 908-290-7806
Project Name: Ft Monmouth Bld 287
Project Number: 93-11-24-1745-01
P.O. #:
Analytical Protocol: Deliverables:
Sampled By:

Login #:
Ship to:
Nytest Environmental Inc.
60 Seaview Blvd
Port Washington N.Y. 11050
Attn.: Sample Control
Date Shipped:
Carrier:
Air Bill #:
Cooler #:
C of C #:
SDG #:
NEI QT #:

Analysis Requested

Lab ID (Lab Use Only)	Sample ID (Maximum of 6 Characters)	Date Sampled	Time Sampled	Sample Location	No. of Containers	[illegible] MTBE, TBA, Xylenes	Base Neutrals	Comments
07	mw-1	2/1/94	9:40	Bld 287, 293 0764	4	2	2	
08	FieldB	↓	9:05	Type B	4	2	2	
18	TripB1		8:40	↓	2	2		
09	Duplic	↓	—	↓	4	2	2	

Bin #'s In / Out (For Lab Use Only)

Relinquished by	Date / Time	Received by	Date / Time
Darryl W. Schmitt (Print Name: Darryl W. Schmitt)	12/2/94 1630	[signature] (Print Name: MURRAY FERGUSON)	12/2 1630
[signature] (Print Name: MURRAY FERGUSON)	12/2 1830	Print Name:	
Print Name:		Received by Laboratory: Michael Lan (Print Name: Michael Lan)	12/2/94 1830

Lab Use Only
Custody Seals: Intact Broken (Absent)
Sample Rec'd in Good Condition? : (Y) N
Sample Temperature: 6 Degrees Celcius
INSPECTED BY: ML
COMMENTS:

Special Instructions :

CLIENT RETAINS YELLOW COPY ONLY

000002

NY TEST ENVIRONMENTAL INC

INTERNAL CHAIN OF CUSTODY

Laboratory Person Breaking Field Seal on Sample Shuttle & Accepting Responsibility for Sample	NAME: Michael Lan	TITLE: Sr.
Client: Aquila Assoc	Date Broken 12/08/94	Military Time Seal Broken: 1830
Login #: 22662	Analytical Parameter/Fraction: PCB's/TCL, PEST's/TCL	

SAMPLE NO.	ALIQUOT/EXTRACT NO.	SAMPLE NO.	ALIQUOT/EXTRACT NO.
814-1	22662-01	1220-1	22662-11
1076-1	02	207B-1	12
1076-2	03	207B-1MS	13
1076-3	04	207B-1MSD	14
689B-2	05	208B-1	15
600-1	06	282-1	16
287-1	07	689A-1	17
FIELDB	08	TRIPBL	18
DUPLIC	09		
27604-1	10		

DATE	TIME	RELINQUISHED BY	RECIEVED BY	PURPOSE OF CHANGE OF CUST.
12/5	11:50	PRINTED NAME M. LANI SIGNATURE M. La	PRINTED NAME J Carver SIGNATURE J Carver	VOA
12/5/94	1200	PRINTED NAME M. LANI SIGNATURE M. La	PRINTED NAME C Voss SIGNATURE C Voss	BN625+15
12/6/94	1305	PRINTED NAME C Voss SIGNATURE C Voss	PRINTED NAME P PIERCIDES SIGNATURE	STORAGE
12/13/94	0800	PRINTED NAME J Carver SIGNATURE J Carver	PRINTED NAME M. LANI SIGNATURE M. La	STORAGE
		PRINTED NAME SIGNATURE	PRINTED NAME SIGNATURE	
		PRINTED NAME SIGNATURE	PRINTED NAME SIGNATURE	
		PRINTED NAME SIGNATURE	PRINTED NAME SIGNATURE	
		PRINTED NAME SIGNATURE	PRINTED NAME SIGNATURE	

LABORATORY DELIVERABLES

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

Yon Bey — Laboratory Manager or Environmental Consultant's Signature

2/21/95 — Date

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 Tune Frequency - Performed every 24 hours for 600 series and 12 hours for 8000 series.	___	✓
4.	GC/MS Calibration - Initial Calibration performed within 30 days before sample analysis and continuing calibration performed within 24 hours of sample analysis for 600 series and 12 hours for 8000 series	___	✓
5.	GC/MS Calibration Requirements		
	a. Calibration Check Compounds	___	✓
	b. System Performance Check Compounds	___	✓

6. Blank Contamination - If yes, list compounds and concentrations in each blank:

a. VOA fraction ~~VBth 39 MeCl₂ 2 ppb, VBth 41 MeCl₂ 1.4 ppb,~~ VB 2 h 63 Xylenes 1.3 ppb VB ... MeCl₂ 2.1 ppb [handwritten initials] 2/19/95

b. ~~B/N Fraction~~ ___

c. Acid Fraction ___

7. Surrogate Recoveries Meet Criteria — No ✓ Yes ___ [initials] 1/11/95

If not met, list those compounds and their recoveries which fall outside the acceptable range:

a. VOA Fraction ___

b. B/N Fraction See Form 2C

c. Acid Fraction ___

If not met, were the calculations checked and the results qualified as estimated? NA [initials] 1/11/95

8. Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria (if not met, list these compounds and their recoveries which fall outside the acceptable range) — No ✓ Yes ___

a. VOA Fraction ___

b. B/N Fraction See Recovery Reports.

c. Acid Fraction ___

9. Internal Standard Area/Retention Time Shift Meet Criteria — NA

GC/MS ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY FORMAT (CONT.)

		No	Yes
10.	Extraction Holding Time Met	✓	

If not met, list number of days exceeded each sample: SEVERAL SAMPLES REQUIRED RE-EXTRACTIONS, WHICH WERE PERFORMED OUTSIDE OF HOLDING TIME

11.	Analysis Holding Time Met		✓

If not met, list number of days exceeded for each sample: _____

Additional Comments: _____

Laboratory Manager: [signature] Date 2/21/95

Laboratory Chronicle

Client Name: Aguilar Associates

Log In No.: 22662C

Date(s) of Sample Collection: 12/01/94

Date Received: 12/02/94

Sample ID: As per chain of custody

Organics Extraction:

1. Acids 12/05/94 12/30/94
2. Base/Neutrals
3. Pesticides/PCBs
4. Herbicides

Analysis:

1. Volatiles 12/05/94
2. Acids 12/29/94 1/09/95
3. Base/Neutrals
4. Pesticides/PCBs
5. Herbicides

Section Supervisor
Review & Approval

Inorganics:

1. Metals
2. Cyanides
3. Phenols

Other Analysis:

Section Supervisor
Review & Approval

Quality Control Supervisor
Review & Approval

Dates are included for re-extractions and reanalysis.

NARRATIVE DISCUSSION
VOLATILES - 22662C

Bldg:689B

INTRODUCTION

This narrative covers the analysis of three(3) samples in accordance with NEI SOP #703 based on USEPA Method 624.

HOLDING TIMES

The analytical holding time for this analysis was met.

CALIBRATIONS

All required minimum RRFs and maximum % RSD initial calibration requirements have been met in accordance with the Method.

QC CHECK SAMPLE

All % recoveries in the QC check samples met the requirements as stipulated by the method.

METHOD BLANKS

The method blank associated with these samples met all method requirements.

SURROGATES

All surrogate recoveries met QC criteria.

MATRIX SPIKES

As requested sample 207B-1 was utilized for the MS and MSD analyses. Spike recoveries were within the advisory QC limits. The form 3 was included in this report.

INTERNAL STANDARDS

Area response and retention time summaries are not required.

SAMPLE COMMENTS

NEI is reporting the results to our method detection limits (MDL's) rounded up to the nearest part per billion (ppb) in accordance with the guidance provided by NJDEP. These MDL's indicate that NEI did not detect any compounds above these levels.

No further analytical problems were encountered.

NARRATIVE DISCUSSION
SEMIVOLATILES - 22662C
Bldg:689B

INTRODUCTION

This narrative covers the analysis of two (2) samples in accordance with NEI SOP #501 based on USEPA Method 625.

HOLDING TIMES

The extraction and analytical holding times for this analysis were met with the exception of sample FIELDB which was reextracted outside of the allowable holding time.

Initial extraction of this sample which was performed within the allowable holding time did not meet QC criteria, therefore reexrtraction was performed.

CALIBRATIONS

Required minimum RRFs and maximum % RSD initial calibration requirements have been met in accordance with the Method.

QMETHOD BLANKS

The method blanks associated with these samples did not contain any target compounds at or above QC limits.

SURROGATES

Surrogate recoveries were outside QC limits in method blank SBLK67 and samples 689b-2 and FIELDB. It should be noted that all samples showed a consistant recovery pattern. Reextraction and reanalysis was performed on sample and FIELDB. Comparable results were obtained. Both sets of data are included.

MATRIX SPIKES

As requested sample 207B-1 was utilized for the MS and MSD analyses. The form 3 was included in this report.

INTERNAL STANDARDS

Area response and retention time summaries are not required.

SAMPLE COMMENTS

NEI is reporting the results to our method detection limits (MDL's) rounded up to the nearest part per billion (ppb) in accordance with the guidance provided by NJDEP. These MDL's indicate that NEI did not detect any compounds above these levels.

During the extraction of sample 689B-2 emulsion occurred.

No other analytical problems were encountered.

nytest environmental inc

I certify that this data package has been reviewed for the quality control and quality assurance measures for all analyzed methodologies.

Remo Gigante
Exec. Vice President

METHODOLOGY SUMMARY

AQUEOUS METHODOLOGIES:	REF 1	REF 2	REF 3	REF 5
BNA, Pesticides/PCB's Extraction		3510/3520		
AA/ICP Sample Preparation	200.7			
Furnace Sample Preparation	200.0			
Mercury Sample Preparation	245.1			
Hexavalent Chromium Sample Preparation	218.5			
Clean-Up		3610/3620/3630/ 3640/3660		
Organochlorine Pesticide and PCB's by Gas Chromatography			608	505
Herbicides by Gas Chromatography			362	515.1
Purgeable Organics by GC/MS			624	524.2
Base/Neutral, Acids by GC/MS			625	525
2,3,7,8-TCDD by GC/MS			613/625	
BTEX			602	502.2
EDB/DBCP by Microextraction				504.1

NON-AQUEOUS METHODOLOGIES:	
BNA, Pesticides/PCB's Extraction	3550
AA/ICP Sample Preparation	3050
Furnace Sample Preparation	3020/3030/3050
Mercury Sample Preparation	7471
Clean-Up	3610/3620/3630/ 3640/3660

GC, Gas Chromatography/Mass Spectrometry:	
Purgeable Organics	8240/8021
Base/Neutral and Acid Extractables	8270
Organophosphorus Pesticides	8140
Organochlorine Pesticide and PCB's by Gas Chromatography	8080
BTEX	8020
Halogenated Purgeable Organics	8010

METHODOLOGY SUMMARY

REFERENCES:

(1) USEPA-600/4-79-020, Methods for Chemical Analysis of Water and Waste

(2) USEPA SW 846, Test Methods for Evaluating Solid Waste, Third Edition

(3) Federal Register 40 CFR Part 136, Vol.49, No.209 Test Parameters for the Analysis of Pollutants

(4) Federal Register Vol.51, No.216 Friday, 11/7/86, pp.40643-40652

(5) Method for the Determination of Organic Compounds in Drinking Water, EPA 500/4-88/039, Dec. 1988

(6) Standard Method for Examination of Water and Wastewater, 15 Edition 1980

Method Qualifiers for Organic Non-CLP Methodologies

Q Qualifier - Specified entries and their meanings as follows:

U - Indicates compound was analyzed for but was not detected. The sample quantitation limit is corrected for dilutions and for the moisture content for soil samples. If a sample extract can not be concentrated to the protocol - specific volume, this fact is also accounted for in reporting the sample quantitation limit. The number is the minimum detected limits for the sample.

J - Indicates an estimated volume. The flag is used either when estimating concentration for tentatively identified compounds where a 1:1 response is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the sample quantitation limit but greater than zero.

N - Indicates presumptive evidence of a compound. This flag is used only for tentatively identified compounds, where the identification is based on a mass spectral library search. It is applied to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the **N** code is not used.

B - This flag is used when the analyte is found in the analyte is found in the associated blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action. This flag is used for a TIC as well as for a positively identified target compound.

E - This flag identifies compounds whose concentrations exceeded the calibration range of the GC/MS instrument for that specific analysis.

D - This flag identifies all compounds identified in an analysis at a secondary dilution factor.

A - This flag indicates that a TIC is a suspected aldol condensation product.

GC/MS Data

Volatile Data

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

689-B

Lab Name: NYTEST ENV INC Contract: 9421415

Lab Code: NYTEST Case No.: 22633 SAS No.: SDG No.: ARMY3

Matrix: (soil/water) WATER Lab Sample ID: 2266205

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: M1207.D

Level: (low/med) LOW Date Received: 12/02/94

% Moisture: not dec. _____ Date Analyzed: 12/05/94

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	2	U
74-83-9	Bromomethane	1	U
75-01-4	Vinyl Chloride	1	U
75-00-3	Chloroethane	1	U
75-09-2	Methylene Chloride	3	U
75-35-4	1,1-Dichloroethene	2	U
75-34-3	1,1-Dichloroethane	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	2	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	2	U
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
127-18-4	Tetrachloroethene	3	U
79-34-5	1,1,2,2-Tetrachloroethane	2	U
108-88-3	Toluene	2	U
108-90-7	Chlorobenzene	2	U
100-41-4	Ethylbenzene	2	U
1330-20-7	Xylene (total)	6	U
75-69-4	Trichloromonofluoromethane	2	U
107-02-8	Acrolein	20	U
107-13-1	Acrylonitrile	2	U
75-65-0	Tertiary Butyl Alcohol	100	U
1634-34-4	Methyl Tertiary Butyl Ether	1	U
541-73-1	1,3-Dichlorobenzene	2	U
106-46-7	1,4-Dichlorobenzene	2	U
95-50-1	1,2-Dichlorobenzene	2	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

689-B

Lab Name: NYTEST ENV INC Contract: 9421415

Lab Code: NYTEST Case No.: 22633 SAS No.: SDG No.: ARMY3

Matrix: (soil/water) WATER Lab Sample ID: 2266205

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: M1207.D

Level: (low/med) LOW Date Received: 12/02/94

% Moisture: not dec. _____ Date Analyzed: 12/05/94

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
110-75-8	2-Chloroethylvinyl Ether	4	U
156-60-5	Trans, 1,2-Dichloroethene	1	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

689-B

Lab Name: NYTEST ENV INC Contract: 9421415

Lab Code: NYTEST Case No.: 22633 SAS No.: SDG No.: ARMY3

Matrix: (soil/water) WATER Lab Sample ID: 2266205

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: M1207.D

Level: (low/med) LOW Date Received: 12/02/94

% Moisture: not dec. _____ Date Analyzed: 12/05/94

Column: (pack/cap) CAP Dilution Factor: 1.0

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
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19.					
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25.					
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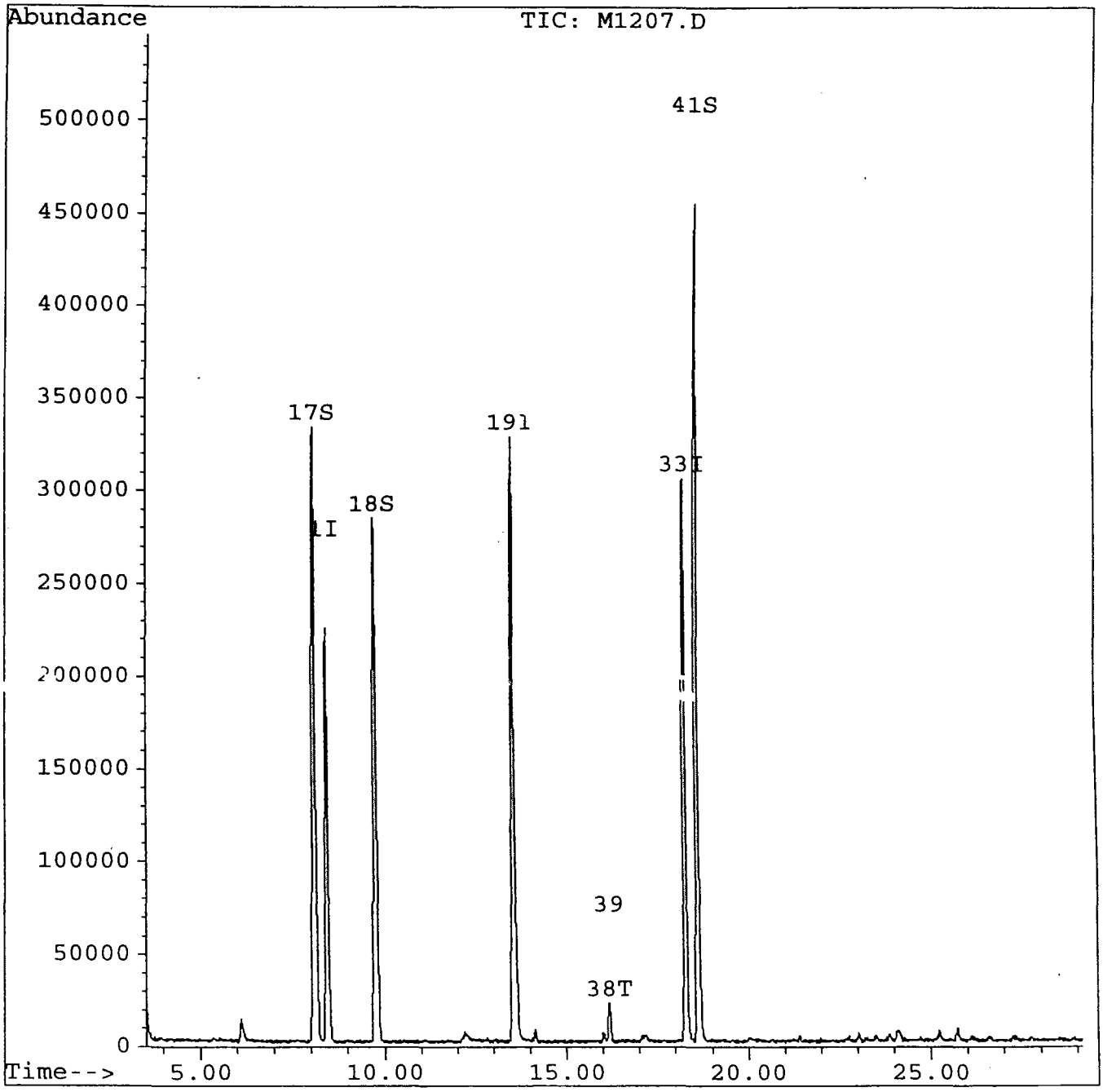
27.					
28.					
29.					
30.					

Quantitation Report

Data File : C:\HPCHEM\1\DATA\120594\M1207.D
Acq Time : 5 Dec 94 19:39 pm
Sample : 2266205,689-B,
Misc : 1,1,,,5,5,L,W,R12-2-94,
Quant Time: Dec 19 14:54 1994

Operator: VC
Inst : HPM
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\P624.M
Title : VOA Standards for 5 point calibration
Last Update : Tue Nov 29 12:18:35 1994
Response via : Multiple Level Calibration



000020

Quantitation Report

Data File : C:\HPCHEM\1\DATA\120594\M1207.D
Acq Time : 5 Dec 94 19:39 pm
Sample : 2266205,689-B,
Misc : 1,1,,,5,5,L,W,R12-2-94,
Quant Time: Dec 19 14:54 1994

Operator: VC
Inst : HPM
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\P624.M
Title : VOA Standards for 5 point calibration
Last Update : Tue Nov 29 12:18:35 1994
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) CI01 Bromochloromethane	8.44	128	141909	30.00	ug/l	0.02
19) 2-Bromo-1-Chloropropane	13.57	77	491345	30.00	ug/l	0.00
33) 1,4-Dichlorobutane	18.28	55	533455	30.00	ug/l	0.00
System Monitoring Compounds						%Recovery
17) Pentafluorobenzene	8.09	168	886428	28.11	ug/l	93.70%
18) Fluorobenzene	9.76	96	722704	26.37	ug/l	87.90%
41) CS10 4-Bomofluorobenzene	18.63	95	418168	27.53	ug/l	91.77%
Target Compounds						Qvalue
39) C250 M-P,Xylene L	16.19	106	18626	1.31	ug/l	95

L COMPOUND BELOW MDL
MC 1/10/95

000021

(#) = qualifier out of range (m) = manual integration

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FIELDB

Lab Name: NYTEST ENV INC Contract: 9421415

Lab Code: NYTEST Case No.: 22633 SAS No.: SDG No.: ARMY3

Matrix: (soil/water) WATER Lab Sample ID: 2266208

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: M1202.D

Level: (low/med) LOW Date Received: 12/02/94

% Moisture: not dec. _____ Date Analyzed: 12/05/94

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	2	U
74-83-9	Bromomethane	1	U
75-01-4	Vinyl Chloride	1	U
75-00-3	Chloroethane	1	U
75-09-2	Methylene Chloride	3	U
75-35-4	1,1-Dichloroethene	2	U
75-34-3	1,1-Dichloroethane	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	2	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	2	U
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
127-18-4	Tetrachloroethene	3	U
79-34-5	1,1,2,2-Tetrachloroethane	2	U
108-88-3	Toluene	2	U
108-90-7	Chlorobenzene	2	U
100-41-4	Ethylbenzene	2	U
1330-20-7	Xylene (total)	6	U
75-69-4	Trichloromonofluoromethane	2	U
107-02-8	Acrolein	20	U
107-13-1	Acrylonitrile	2	U
75-65-0	Tertiary Butyl Alcohol	100	U
1634-34-4	Methyl Tertiary Butyl Ether	1	U
541-73-1	1,3-Dichlorobenzene	2	U
106-46-7	1,4-Dichlorobenzene	2	U
95-50-1	1,2-Dichlorobenzene	2	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FIELDB

Lab Name: NYTEST ENV INC Contract: 9421415

Lab Code: NYTEST Case No.: 22633 SAS No.: SDG No.: ARMY3

Matrix: (soil/water) WATER Lab Sample ID: 2266208

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: M1202.D

Level: (low/med) LOW Date Received: 12/02/94

% Moisture: not dec. _____ Date Analyzed: 12/05/94

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
110-75-8	2-Chloroethylvinyl Ether	4	U
156-60-5	Trans, 1,2-Dichloroethene	1	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

FIELDB

Lab Name: NYTEST ENV INC Contract: 9421415

Lab Code: NYTEST Case No.: 22633 SAS No.: SDG No.: ARMY3

Matrix: (soil/water) WATER Lab Sample ID: 2266208

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: M1202.D

Level: (low/med) LOW Date Received: 12/02/94

% Moisture: not dec. _____ Date Analyzed: 12/05/94

Column: (pack/cap) CAP Dilution Factor: 1.0

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
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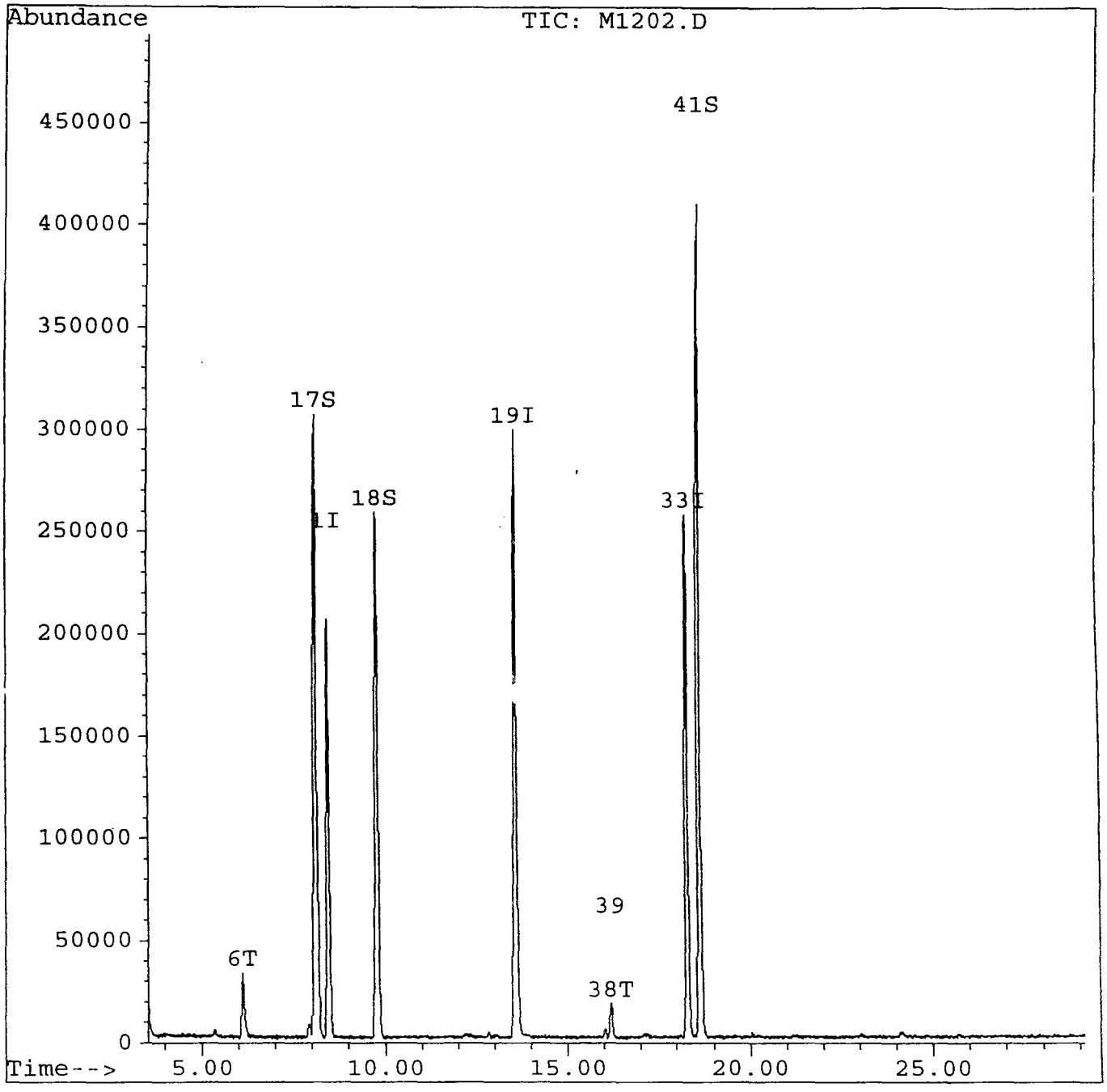
Quantitation Report

Data File : C:\HPCHEM\1\DATA\120594\M1202.D
Acq Time : 5 Dec 94 16:48 pm
Sample : 2266208,FIELDB,
Misc : 1,1,,,5,5,L,W,R12-2-94,
Quant Time: Dec 19 14:51 1994

Operator: VC
Inst : HPM
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\P624.M
Title : VOA Standards for 5 point calibration
Last Update : Tue Nov 29 12:18:35 1994
Response via : Multiple Level Calibration



000025

Quantitation Report

Data File : C:\HPCHEM\1\DATA\120594\M1202.D
Acq Time : 5 Dec 94 16:48 pm
Sample : 2266208,FIELDB,
Misc : 1,1,,,5,5,L,W,R12-2-94,
Quant Time: Dec 19 14:51 1994

Operator: VC
Inst : HPM
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\P624.M
Title : VOA Standards for 5 point calibration
Last Update : Tue Nov 29 12:18:35 1994
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) CI01 Bromochloromethane	8.43	128	128492	30.00	ug/l	0.00
19) 2-Bromo-1-Chloropropane	13.57	77	435580	30.00	ug/l	0.00
33) 1,4-Dichlorobutane	18.29	55	448672	30.00	ug/l	0.00
System Monitoring Compounds						**%Recovery**
17) Pentafluorobenzene	8.09	168	809224	28.34	ug/l	94.48%
18) Fluorobenzene	9.76	96	649625	26.18	ug/l	87.26%
41) CS10 4-Bomofluorobenzene	18.63	95	379755	29.73	ug/l	99.09%
Target Compounds						**Qvalue**
6) C030 Methylene Chloride	6.11	84	31756	2.69	ug/l	92
39) C250 M-P,Xylene	16.19	106	15882	1.33	ug/l	98

2 COMBINED RESULT MPL
WE 1/10/95

000026

(#) = qualifier out of range (m) = manual integration

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TRIPBL

Lab Name: NYTEST ENV INC Contract: 9421415

Lab Code: NYTEST Case No.: 22633 SAS No.: SDG No.: ARMY3

Matrix: (soil/water) WATER Lab Sample ID: 2266218

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: M1201.D

Level: (low/med) LOW Date Received: 12/02/94

% Moisture: not dec. _____ Date Analyzed: 12/05/94

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	2	U
74-83-9	Bromomethane	1	U
75-01-4	Vinyl Chloride	1	U
75-00-3	Chloroethane	1	U
75-09-2	Methylene Chloride	3	U
75-35-4	1,1-Dichloroethene	2	U
75-34-3	1,1-Dichloroethane	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	2	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	2	U
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
127-18-4	Tetrachloroethene	3	U
79-34-5	1,1,2,2-Tetrachloroethane	2	U
108-88-3	Toluene	2	U
108-90-7	Chlorobenzene	2	U
100-41-4	Ethylbenzene	2	U
1330-20-7	Xylene (total)	6	U
75-69-4	Trichloromonofluoromethane	2	U
107-02-8	Acrolein	20	U
107-13-1	Acrylonitrile	2	U
75-65-0	Tertiary Butyl Alcohol	100	U
1634-34-4	Methyl Tertiary Butyl Ether	1	U
541-73-1	1,3-Dichlorobenzene	2	U
106-46-7	1,4-Dichlorobenzene	2	U
95-50-1	1,2-Dichlorobenzene	2	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TRIPBL

Lab Name: NYTEST ENV INC Contract: 9421415

Lab Code: NYTEST Case No.: 22633 SAS No.: SDG No.: ARMY3

Matrix: (soil/water) WATER Lab Sample ID: 2266218

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: M1201.D

Level: (low/med) LOW Date Received: 12/02/94

% Moisture: not dec. _____ Date Analyzed: 12/05/94

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
110-75-8	2-Chloroethylvinyl Ether	4	U
156-60-5	Trans, 1,2-Dichloroethene	1	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

TRIPBL

Lab Name: NYTEST ENV INC Contract: 9421415

Lab Code: NYTEST Case No.: 22633 SAS No.: SDG No.: ARMY3

Matrix: (soil/water) WATER Lab Sample ID: 2266218

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: M1201.D

Level: (low/med) LOW Date Received: 12/02/94

% Moisture: not dec. _____ Date Analyzed: 12/05/94

Column: (pack/cap) CAP Dilution Factor: 1.0

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
5.					
6.					
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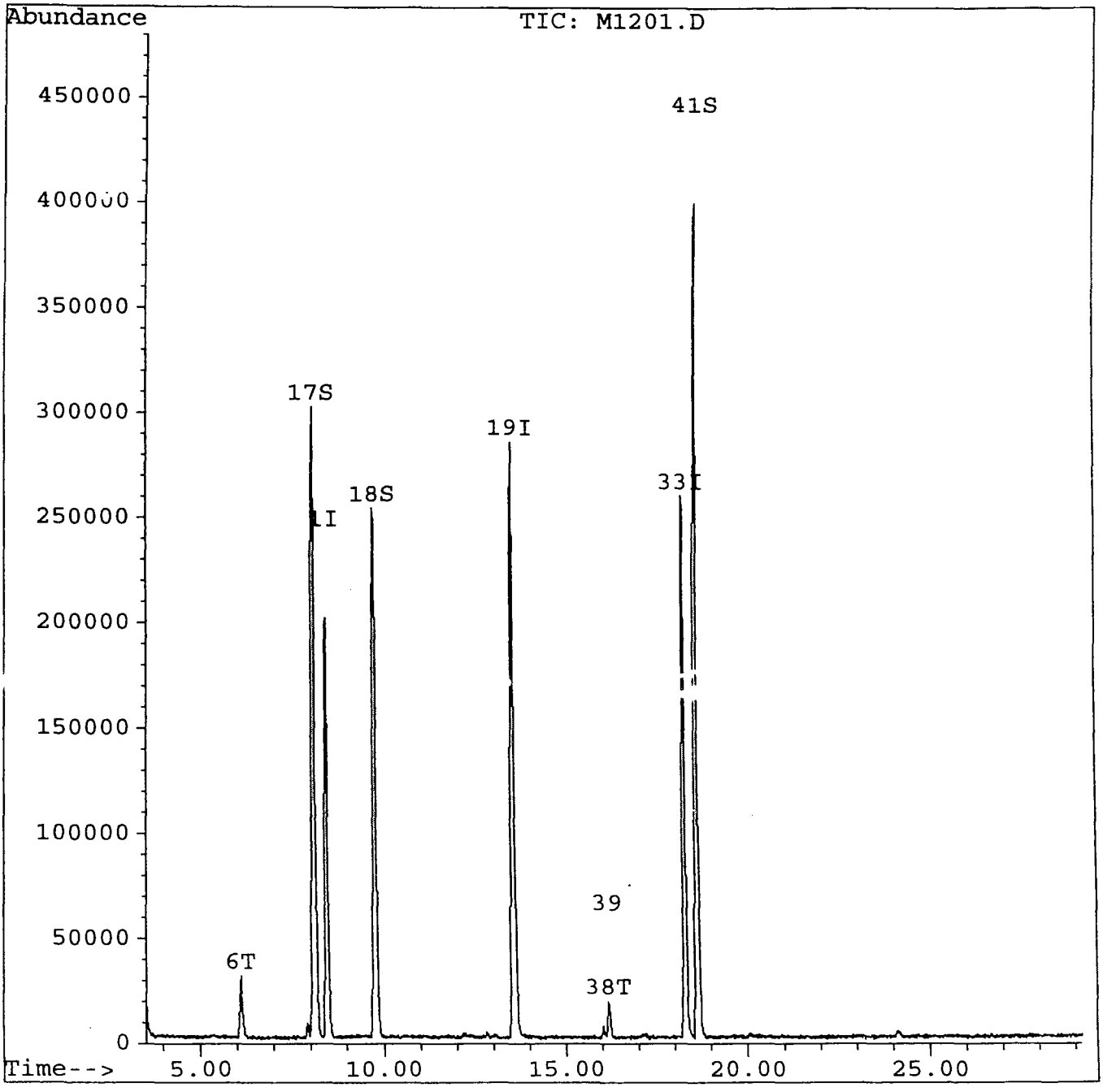
Quantitation Report

Data File : C:\HPCHEM\1\DATA\120594\M1201.D
Acq Time : 5 Dec 94 16:14 pm
Sample : 2266218,TRIPBL,
Misc : 1,1,,,5,5,L,W,R12-2-94,
Quant Time: Dec 19 14:50 1994

Operator: VC
Inst : HPM
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\P624.M
Title : VOA Standards for 5 point calibration
Last Update : Tue Nov 29 12:18:35 1994
Response via : Multiple Level Calibration



000030

Quantitation Report

Data File : C:\HPCHEM\1\DATA\120594\M1201.D
Acq Time : 5 Dec 94 16:14 pm
Sample : 2266218,TRIPBL,
Misc : 1,1,,,5,5,L,W,R12-2-94,
Quant Time: Dec 19 14:50 1994

Operator: VC
Inst : HPM
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\P624.M
Title : VOA Standards for 5 point calibration
Last Update : Tue Nov 29 12:18:35 1994
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) CI01 Bromochloromethane	8.43	128	125778	30.00	ug/l	0.00
19) 2-Bromo-1-Chloropropane	13.57	77	435426	30.00	ug/l	0.00
33) 1,4-Dichlorobutane	18.29	55	454074	30.00	ug/l	0.00
System Monitoring Compounds						%Recovery
17) Pentafluorobenzene	8.09	168	791862	28.33	ug/l	94.44%
18) Fluorobenzene	9.77	96	639208	26.32	ug/l	87.72%
41) CS10 4-Bomofluorobenzene	18.64	95	369100	28.55	ug/l	95.16%
Target Compounds						Qvalue
6) C030 Methylene Chloride ℓ	6.10	84	28793	2.49	ug/l	92
39) C250 M-P,Xylene ℓ	16.18	106	15908	1.31	ug/l	90

ℓ COMPOUND BELOW CRL2

ME 1/10/95

000031

(#) = qualifier out of range (m) = manual integration

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK43

Lab Name: NYTEST ENV INC Contract: 9421415

Lab Code: NYTEST Case No.: 22633 SAS No.: SDG No.: ARMY3

Matrix: (soil/water) WATER Lab Sample ID: VBLK43

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: M1200.D

Level: (low/med) LOW Date Received: 00/00/00

% Moisture: not dec. _____ Date Analyzed: 12/05/94

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	2	U
74-83-9	Bromomethane	1	U
75-01-4	Vinyl Chloride	1	U
75-00-3	Chloroethane	1	U
75-09-2	Methylene Chloride	3	U
75-35-4	1,1-Dichloroethene	2	U
75-34-3	1,1-Dichloroethane	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	2	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	2	U
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
127-18-4	Tetrachloroethene	3	U
79-34-5	1,1,2,2-Tetrachloroethane	2	U
108-88-3	Toluene	2	U
108-90-7	Chlorobenzene	2	U
100-41-4	Ethylbenzene	2	U
1330-20-7	Xylene (total)	6	U
75-69-4	Trichloromonofluoromethane	2	U
107-02-8	Acrolein	20	U
107-13-1	Acrylonitrile	2	U
75-65-0	Tertiary Butyl Alcohol	100	U
1634-34-4	Methyl Tertiary Butyl Ether	1	U
541-73-1	1,3-Dichlorobenzene	2	U
106-46-7	1,4-Dichlorobenzene	2	U
95-50-1	1,2-Dichlorobenzene	2	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK43

Lab Name: NYTEST ENV INC Contract: 9421415

Lab Code: NYTEST Case No.: 22633 SAS No.: SDG No.: ARMY3

Matrix: (soil/water) WATER Lab Sample ID: VBLK43

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: M1200.D

Level: (low/med) LOW Date Received: 00/00/00

% Moisture: not dec. _____ Date Analyzed: 12/05/94

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
110-75-8	2-Chloroethyl vinyl Ether	4	U
156-60-5	Trans, 1,2-Dichloroethene	1	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK43

Lab Name: NYTEST ENV INC Contract: 9421415

Lab Code: NYTEST Case No.: 22633 SAS No.: SDG No.: ARMY3

Matrix: (soil/water) WATER Lab Sample ID: VBLK43

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: M1200.D

Level: (low/med) LOW Date Received: 00/00/00

% Moisture: not dec. _____ Date Analyzed: 12/05/94

Column: (pack/cap) CAP Dilution Factor: 1.0

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
5.					
6.					
7.					
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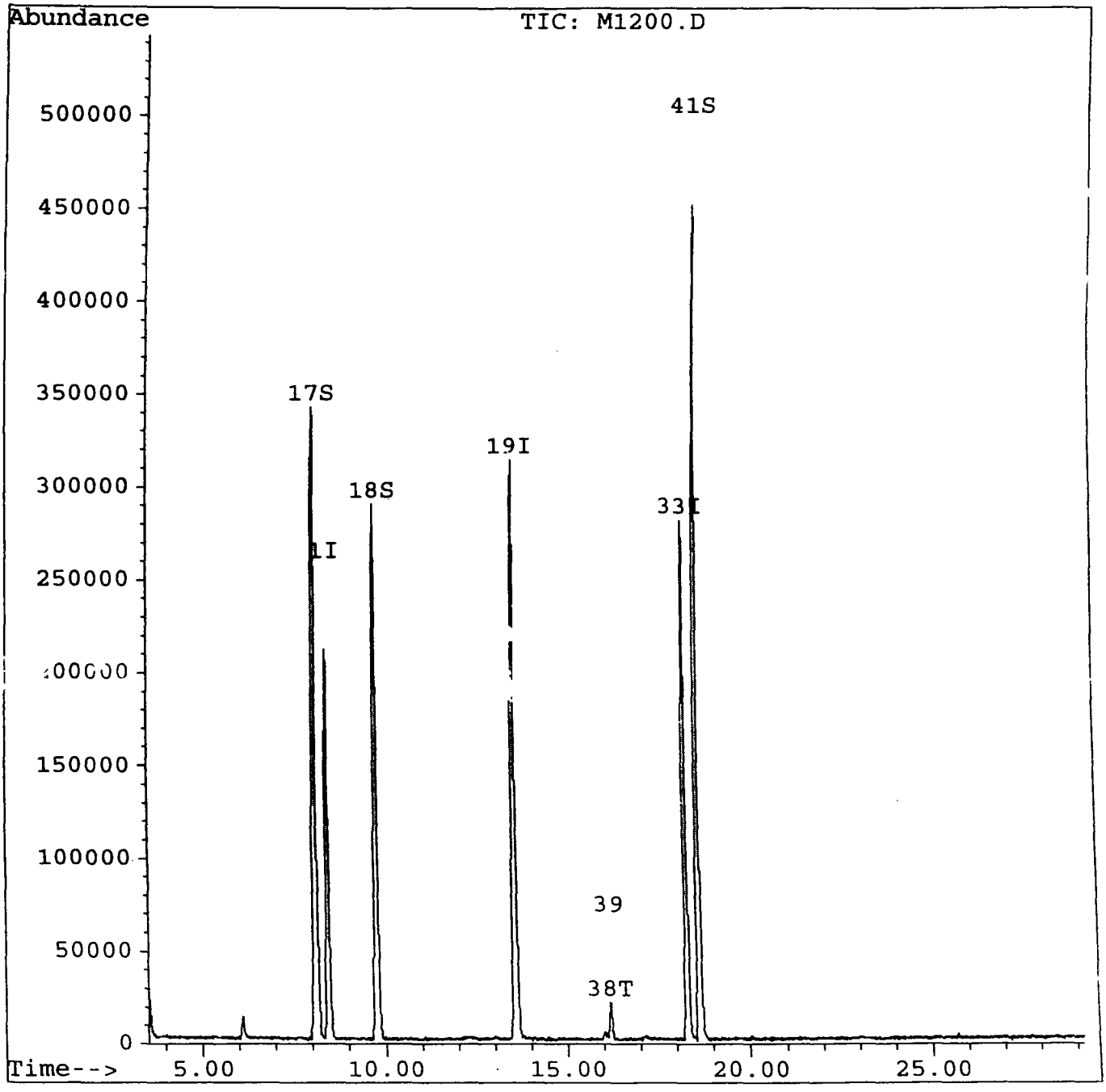
Quantitation Report

Data File : C:\HPCHEM\1\DATA\120594\M1200.D
Acq Time : 5 Dec 94 15:39 pm
Sample : VBLK43,VBLK43,
Misc : 1,,,,,5,5,L,W,
Quant Time: Dec 19 14:50 1994

Operator: VC
Inst : HPM
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\P624.M
Title : VOA Standards for 5 point calibration
Last Update : Tue Nov 29 12:18:35 1994
Response via : Multiple Level Calibration



000035

Quantitation Report

Data File : C:\HPCHEM\1\DATA\120594\M1200.D
Acq Time : 5 Dec 94 15:39 pm
Sample : VBLK43,VBLK43,
Misc : 1,,,,,5,5,L,W,
Quant Time: Dec 19 14:50 1994

Operator: VC
Inst : HPM
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\P624.M
Title : VOA Standards for 5 point calibration
Last Update : Tue Nov 29 12:18:35 1994
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) CI01 Bromochloromethane	8.41	128	133508	30.00	ug/l	-0.01
19) 2-Bromo-1-Chloropropane	13.57	77	473175	30.00	ug/l	0.00
33) 1,4-Dichlorobutane	18.29	55	497027	30.00	ug/l	0.00
System Monitoring Compounds						%Recovery
17) Pentafluorobenzene	8.08	168	909484	30.66	ug/l	102.19%
18) Fluorobenzene	9.76	96	727796	28.23	ug/l	94.09%
41) CS10 4-Bomofluorobenzene	18.63	95	418587	29.58	ug/l	98.59%
Target Compounds						Qvalue
39) C250 M-P,Xylene <	16.20	106	17603	1.33	ug/l	91

< COMPOUND BELOW MRL

WE 1/10/95

000036

(#) = qualifier out of range (m) = manual integration

2A

WATER VOLATILE SURROGATE COMPOUND RECOVERY

Lab Name: NYTEST ENV INC Contract: 9421415

Lab Code: NYTEST Case No.: 22633 SAS No.: SDG No.: ARMY3

	EPA SAMPLE NO.	SUR1 (FB) #	SUR2 (BFB)#	SUR3 (PFB)#	OTHER	TOT OUT
01	MW-6MSD	89	89	90		0
02	QCCHECK2	87	96	93		0
03	VBLK43	94	98	102		0
04	TRIPBL	88	95	94		0
05	FIELDB	87	99	94		0
06	814-1	89	95	97		0
07	1076-1	86	94	93		0
08	1076-2	89	92	95		0
09	1076-3	87	92	93		0
10	689-B	88	92	94		0
11	600-1	87	91	93		0
12	208B-1	87	99	95		0
13	282-1	88	94	94		0
14	689A-1	88	94	95		0
15	27004-1	92	113	101		0
16	207B-1	90	98	96		0
17	207B-1MSD	90	92	93		0
18	1220-1	87	92	92		0
19	207B-1MS	87	94	92		0
20	QCCHECK4	86	92	92		0
21	VBLK45	101	118	111		0
22	DUPLIC	86	85	93		0
23	287-1	88	86	92		0
24						
25						
26						
27						
28						
29						
30						

	QC LIMITS
SUR1 (FB) = Fluorobenzene	(70-140)
SUR2 (BFB) = Bromofluorobenzene	(60-150)
SUR3 (PFB) = Pentafluorobenzene	(70-140)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogates diluted out

nytest

RECOVERY REPORT

Client Name:
Sample Matrix: LIQUID
Lab Smp Id: 2266213
Level: LOW
Data Type: MS DATA
SpikeList File: QCMS.spk
Method File: /chem/HPM.i/22633.b/624.m
Misc Info:

Client SDG: ARMY3
Fraction: VOA
Client Smp ID: 207B-1MS
Operator: VC
SampleType: MS
Quant Type: ISTD

	SPIKE COMPOUND	CONC ADDED ug/l	CONC RECOVERED ug/l	% RECOVERED	LIMITS
1	Chloromethane	20	16	78.99	0-273
4	Bromomethane	20	16	81.98	0-242
5	Vinyl Chloride	20	13	64.61	0-251
6	Chloroethane	20	14	72.18	14-230
7	Methylene Chloride	20	14	67.65	0-221
10	1,1-Dichloroethene	20	15	76.10	0-234
12	1,1-Dichloroethane	20	15	75.20	59-155
14	Trans, 1,2-Dichlor	20	15	76.42	54-156
15	Chloroform	20	16	77.71	51-138
16	1,2-Dichloroethane	20	15	75.28	49-155
19	Trichloromonofluor	20	16	81.72	17-181
24	1,1,1-Trichloroeth	20	16	81.16	52-162
25	Carbon Tetrachlori	20	16	79.72	70-140
27	Bromodichlorometha	20	15	76.65	35-155
28	1,2-Dichloropropan	20	15	76.44	0-210
29	cis-1,3-Dichloropr	20	16	79.60	0-227
30	Trichloroethene	20	16	78.53	71-157
31	Dibromochlorometha	20	15	74.98	53-149
32	1,1,2-Trichloroeth	20	15	74.47	52-150
34	Benzene	20	15	77.35	37-151
35	trans-1,3-Dichloro	20	16	78.07	17-183
37	Bromoform	20	15	74.76	45-169
38	2-Chloroethylvinyl	20	15	76.41	0-305
41	Tetrachloroethene	20	17	87.35	64-148
43	1,1,2,2-Tetrachlor	20	15	75.45	46-157
45	Toluene	20	16	81.42	47-150
46	Chlorobenzene	20	17	84.41	37-160
47	Ethylbenzene	20	17	84.36	37-162
53	1,3-Dichlorobenzen	20	18	89.42	59-156
54	1,4-Dichlorobenzen	20	19	94.77	18-190
55	1,2-Dichlorobenzen	20	19	93.60	18-190

nytest

RECOVERY REPORT

Client Name:
Sample Matrix: LIQUID
Lab Smp Id: 2266213
Level: LOW
Data Type: MS DATA
SpikeList File: QCMS.spk
Method File: /chem/HPM.i/22633.b/624.m
Misc Info:

Client SDG: ARMY3
Fraction: VOA
Client Smp ID: 207B-1MS
Operator: VC
SampleType: MS
Quant Type: ISTD

SURROGATE COMPOUND	CONC ADDED ug/l	CONC RECOVERED ug/l	% RECOVERED	LIMITS
$ 33 Pentafluorobenzene	30	28	92.27	70-140
$ 44 Fluorobenzene	30	26	86.77	70-140
$ 48 Bromofluorobenzene	30	28	93.75	60-150

nytest

RECOVERY REPORT

Client Name:
Sample Matrix: LIQUID
Lab Smp Id: 2266214
Level: LOW
Data Type: MS DATA
SpikeList File: QCMS.spk
Method File: /chem/HPM.i/22633.b/624.m
Misc Info:

Client SDG: ARMY3
Fraction: VOA
Client Smp ID: 207B-1MSD
Operator: VC
SampleType: MS
Quant Type: ISTD

SPIKE COMPOUND	CONC ADDED ug/l	CONC RECOVERED ug/l	% RECOVERED	LIMITS
1 Chloromethane	20	15	76.89	0-27
4 Bromomethane	20	16	80.61	0-242
5 Vinyl Chloride	20	13	64.41	0-251
6 Chloroethane	20	14	71.91	14-230
7 Methylene Chloride	20	13	63.19	0-221
10 1,1-Dichloroethene	20	15	75.86	0-234
12 1,1-Dichloroethane	20	15	75.48	59-155
14 Trans, 1,2-Dichlor	20	15	76.03	54-156
15 Chloroform	20	16	78.86	51-138
16 1,2-Dichloroethane	20	15	75.94	49-155
19 Trichloromonofluor	20	16	80.27	17-181
24 1,1,1-Trichloroeth	20	15	76.29	52-162
25 Carbon Tetrachlori	20	15	75.48	70-140
27 Bromodichlorometha	20	15	74.40	35-155
28 1,2-Dichloropropan	20	14	72.85	0-210
29 cis-1,3-Dichloropr	20	15	75.75	0-227
30 Trichloroethene	20	15	73.37	71-157
31 Dibromochlorometha	20	14	72.79	53-149
32 1,1,2-Trichloroeth	20	14	72.47	52-150
34 Benzene	20	15	74.87	37-151
35 trans-1,3-Dichloro	20	15	74.71	17-183
37 Bromoform	20	15	73.30	45-169
38 2-Chloroethylvinyl	20	14	72.82	0-305
41 Tetrachloroethene	20	16	78.67	64-148
43 1,1,2,2-Tetrachlor	20	15	73.11	46-157
45 Toluene	20	16	78.65	47-150
46 Chlorobenzene	20	15	77.01	37-160
47 Ethylbenzene	20	16	78.20	37-162
53 1,3-Dichlorobenzen	20	17	83.70	59-156
54 1,4-Dichlorobenzen	20	18	89.07	18-190
55 1,2-Dichlorobenzen	20	18	88.12	18-190

nytest

RECOVERY REPORT

Client Name:
Sample Matrix: LIQUID
Lab Smp Id: 2266214
Level: LOW
Data Type: MS DATA
SpikeList File: QCMS.spk
Method File: /chem/HPM.i/22633.b/624.m
Misc Info:

Client SDG: ARMY3
Fraction: VOA
Client Smp ID: 207B-1MSD
Operator: VC
SampleType: MS
Quant Type: ISTD

SURROGATE COMPOUND	CONC ADDED ug/l	CONC RECOVERED ug/l	% RECOVERED	LIMITS
$ 33 Pentafluorobenzene	30	28	93.04	70-140
$ 44 Fluorobenzene	30	27	89.51	70-140
$ 48 Bromofluorobenzene	30	28	91.78	60-150

4A

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK43

Lab Name: NYTEST ENV INC Contract: 9421415

Lab Code: NYTEST Case No.: 22633 SAS No.: SDG No.: ARMY3

Lab File ID: M1200.D Lab Sample ID: VBLK43

Date Analyzed: 12/05/94 Time Analyzed: 1539

Matrix: (soil/water) WATER Level: (low/med) LOW

Instrument ID: HPM

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	QCCHECK2	QCCHECK2	M1198.D	1354
02	TRIPBL	2266218	M1201.D	1614
03	FIELDB	2266208	M1202.D	1648
04	814-1	2266201	M1203.D	1723
05	1076-1	2266202	M1204.D	1755
06	1076-2	2266203	M1205.D	1830
07	1076-3	2266204	M1206.D	1904
08	689-B	2266205	M1207.D	1939
09	600-1	2266206	M1208.D	2013
10	208B-1	2266215	M1216.D	0048
11	282-1	2266216	M1217.D	0123
12	689A-1	2266217	M1218.D	0157
13	27004-1	2266210	M1219.D	1049
14	207B-1	2266212	M1220.D	1124
15	207B-1MSD	2266214	M1221.D	1200
16	1220-1	2266211	M1222.D	1242
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COMMENTS:

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: NYTEST ENV INC Contract: 9421415

Lab Code: NYTEST Case No.: 22633 SAS No.: SDG No.: ARMY3

Lab File ID: M1098.D BFB Injection Date: 11/28/94

Instrument ID: HPM BFB Injection Time: 1706

Matrix:(soil/water) WATER Level:(low/med) LOW Column:(pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	24.7
75	30.0 - 60.0% of mass 95	46.6
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.3
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	95.9
175	5.0 - 9.0% of mass 174	7.3 (7.6)1
176	Greater than 95.0%, but less than 101.0% of mass 174	93.3 (97.2)1
177	5.0 - 9.0% of mass 176	6.1 (6.5)2

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

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD005	VSTD005	M1100.D	11/28/94	1755
02	VSTD020	VSTD020	M1102.D	11/28/94	1912
03	VSTD050	VSTD050	M1103.D	11/28/94	1950
04	VSTD100	VSTD100	M1105.D	11/28/94	2108
05	VSTD200	VSTD200	M1107.D	11/28/94	2225
06					
07					
08					
09					
10					
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12					
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18					
19					
20					
21					
22					

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: NYTEST ENV INC Contract: 9421415

Lab Code: NYTEST Case No.: 22633 SAS No.: SDG No.: ARMY3

Lab File ID: M1197.D BFB Injection Date: 12/05/94

Instrument ID: HPM BFB Injection Time: 1338

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	25.3
75	30.0 - 60.0% of mass 95	48.0
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.0
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	92.2
175	5.0 - 9.0% of mass 174	6.1 (6.6)1
176	Greater than 95.0%, but less than 101.0% of mass 174	90.9 (98.7)1
177	5.0 - 9.0% of mass 176	6.8 (7.5)2

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

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	QCCHECK2	QCCHECK2	M1198.D	12/05/94	1354
02	VBLK43	VBLK43	M1200.D	12/05/94	1539
03	TRIPBL	2266218	M1201.D	12/05/94	1614
04	FIELDB	2266208	M1202.D	12/05/94	1648
05	814-1	2266201	M1203.D	12/05/94	1723
06	1076-1	2266202	M1204.D	12/05/94	1755
07	1076-2	2266203	M1205.D	12/05/94	1830
08	1076-3	2266204	M1206.D	12/05/94	1904
09	689-B	2266205	M1207.D	12/05/94	1939
10	600-1	2266206	M1208.D	12/05/94	2013
11	208B-1	2266215	M1216.D	12/06/94	0048
12	282-1	2266216	M1217.D	12/06/94	0123
13	689A-1	2266217	M1218.D	12/06/94	0157
14	27004-1	2266210	M1219.D	12/06/94	1049
15	207B-1	2266212	M1220.D	12/06/94	1124
16	207B-1MSD	2266214	M1221.D	12/06/94	1200
17	1220-1	2266211	M1222.D	12/06/94	1242
18	207B-1MS	2266213	M1223.D	12/06/94	1316
19					
20					
21					
22					

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: NYTEST ENV INC Contract: 9421415

Lab Code: NYTEST Case No.: 22633 SAS No.: SDG No.: ARMY3

Instrument ID: HPM Calibration Date(s): 11/28/94

Matrix:(soil/water) WATER Level:(low/med) LOW Column:(pack/cap) CAP

Max $\overline{\%RSD}$ for CCC(*) = 35.0%

LAB FILE ID: RRF005 =M1100.D RRF010 =M1102.D
RRF030=M1103.D RRF050=M1105.D RRF200=M1107.D

COMPOUND	RRF005	RRF010	RRF030	RRF050	RRF200	$\overline{RRF}$	% RSD
Chloromethane	1.236	1.732	1.432	1.462	1.359	1.444	12.7
Bromomethane	1.418	1.713	1.276	1.472	1.357	1.447	11.4
Vinyl Chloride	1.526	2.017	1.598	1.824	1.705	1.734	11.2
Chloroethane	0.911	1.227	0.942	1.102	1.040	1.044	12.2
Methylene Chloride	3.837	3.259	1.863	2.065		2.756	34.4
1,1-Dichloroethene	1.465	1.880	1.456	1.712	1.565	1.616	11.2
1,1-Dichloroethane	3.420	4.234	3.262	3.820	3.362	3.620	11.2
Chloroform	3.209	3.968	3.002	3.518	3.267	3.393	10.9
1,2-Dichloroethane	2.329	2.835	2.179	2.590	2.346	2.456	10.5
1,1,1-Trichloroethane	0.757	0.927	0.724	0.861	0.750	0.804	10.7
Carbon Tetrachloride	0.721	0.853	0.699	0.831	0.725	0.766	9.2
Bromodichloromethane	0.862	1.054	0.834	0.988	0.879	0.923	10.1
1,2-Dichloropropane	0.683	0.817	0.631	0.752	0.665	0.710	10.5
cis-1,3-Dichloropropene	0.858	1.041	0.820	0.960	0.836	0.903	10.5
Trichloroethene	0.638	0.770	0.606	0.701	0.633	0.670	9.9
Dibromochloromethane	0.774	0.985	0.783	0.934	0.826	0.860	10.9
1,1,2-Trichloroethane	0.540	0.664	0.516	0.606	0.531	0.571	10.9
Benzene	1.561	1.818	1.424	1.679	1.461	1.589	10.2
trans-1,3-Dichloropropene	0.745	0.901	0.711	0.835	0.731	0.784	10.2
Bromoform	0.715	0.942	0.779	0.920	0.812	0.834	11.5
Tetrachloroethene	0.698	0.780	0.604	0.708	0.632	0.684	10.1
1,1 2,2-Tetrachloroethane	0.821	0.999	0.768	0.906	0.761	0.851	11.9
Toluene	1.760	2.0[illegible]	1.[illegible]83	1.866	1.632	1.777	10.5
Chlorobenzene	1.209	1.365	1.042	1.226	1.093	1.187	10.6
Ethylbenzene	0.625	0.708	0.526	0.625	0.571	0.611	11.3
Xylene (total)	0.720	0.819	0.622	0.743	0.671	0.715	10.4
Trichloromonofluoromethane	2.566	3.298	2.535	2.927	2.714	2.808	11.2
Acrolein		0.109	0.121	0.047	0.106	0.096	34.9
Acrylonitrile	1.220	1.556	1.306	1.444	1.237	1.353	10.6
Tertiary Butyl Alcohol	0.000	0.204	0.165	0.165		0.178	12.6
Methyl Tertiary Butyl Ether	3.406	4.306	3.105	3.687	2.875	3.476	16.0
1,3-Dichlorobenzene	1.260	1.448	1.108	1.314	1.178	1.261	10.4
1,4-Dichlorobenzene	1.296	1.504	1.147	1.371	1.227	1.309	10.4
1,2-Dichlorobenzene	1.150	1.332	1.013	1.213	1.084	1.159	10.6
2-Chloroethylvinyl Ether	0.683	0.817	0.631	0.752	0.666	0.710	10.5
Trans, 1,2-Dichloroethene	1.574	1.988	1.517	1.798	1.596	1.695	11.5
Fluorobenzene	5.498	6.761	5.100	5.999	5.611	5.794	10.8

000045

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: NYTEST ENV INC Contract: 9421415

Lab Code: NYTEST Case No.: 22633 SAS No.: SDG No.: ARMY3

Instrument ID: HPM Calibration Date(s): 11/28/94

Matrix:(soil/water) WATER Level:(low/med) LOW Column:(pack/cap) CAP

Max $\overline{\%RSD}$ for CCC(*) = 35.0%

LAB FILE ID: RRF005 =M1100.D RRF010 =M1102.D
RRF030=M1103.D RRF050=M1105.D RRF200=M1107.D

COMPOUND	RRF005	RRF010	RRF030	RRF050	RRF200	$\overline{RRF}$	% RSD
Bromofluorobenzene	0.843	0.979	0.744	0.890	0.816	0.854	10.2
Pentafluorobenzene	6.449	7.843	5.883	6.876	6.279	6.666	11.2

nytest

RECOVERY REPORT

Client Name:
Sample Matrix: LIQUID
Lab Smp Id: QCCHECK2
Level: LOW
Data Type: MS DATA
SpikeList File: QCCHK.spk
Method File: /chem/HPM.i/22633.b/624.m
Misc Info:

Client SDG: ARMY3
Fraction: VOA
Client Smp ID: QCCHECK2
Operator: VC
SampleType: MS
Quant Type: ISTD

SPIKE	COMPOUND	CONC ADDED ug/l	CONC RECOVERED ug/l	% RECOVERED	LIMITS
1	Chloromethane	20	19	97.42	0-20
4	Bromomethane	20	20	99.61	14-186
5	Vinyl Chloride	20	16	79.87	4-196
6	Chloroethane	20	19	93.43	38-162
7	Methylene Chloride	20	14	68.34	60-140
10	1,1-Dichloroethene	20	19	94.72	50-150
12	1,1-Dichloroethane	20	19	94.63	72-128
14	Trans, 1,2-Dichlor	20	19	94.59	70-130
15	Chloroform	20	20	97.78	68-132
16	1,2-Dichloroethane	20	19	93.01	68-132
19	Trichloromonofluor	20	20	99.63	48-152
24	1,1,1-Trichloroeth	20	20	97.99	75-125
25	Carbon Tetrachlori	20	19	96.84	73-127
27	Bromodichlorometha	20	19	94.80	66-134
28	1,2-Dichloropropan	20	19	93.12	34-166
29	cis-1,3-Dichloropr	20	19	97.00	24-176
30	Trichloroethene	20	18	92.70	66-134
31	Dibromochlorometha	20	19	93.85	68-132
32	1,1,2-Trichloroeth	20	18	90.75	71-129
34	Benzene	20	19	93.74	64-136
35	trans-1,3-Dichloro	20	19	95.70	50-150
37	Bromoform	20	19	94.20	71-129
38	2-Chloroethylvinyl	20	19	93.09	0-224
41	Tetrachloroethene	20	20	99.80	74-126
43	1,1,2,2-Tetrachlor	20	19	93.65	60-140
45	Toluene	20	19	95.72	74-126
46	Chlorobenzene	20	20	100.71	66-134
47	Ethylbenzene	20	20	98.15	59-141
53	1,3-Dichlorobenzen	20	20	100.78	73-127
54	1,4-Dichlorobenzen	20	22	108.84	63-137
55	1,2-Dichlorobenzen	20	21	107.34	63-127

nytest

RECOVERY REPORT

Client Name:
Sample Matrix: LIQUID
Lab Smp Id: QCCHECK2
Level: LOW
Data Type: MS DATA
SpikeList File: QCCHK.spk
Method File: /chem/HPM.i/22633.b/624.m
Misc Info:

Client SDG: ARMY3
Fraction: VOA
Client Smp ID: QCCHECK2
Operator: VC
SampleType: MS
Quant Type: ISTD

SURROGATE COMPOUND	CONC ADDED ug/l	CONC RECOVERED ug/l	% RECOVERED	LIMITS
$ 33 Pentafluorobenzene	30	28	93.43	70-140
$ 44 Fluorobenzene	30	26	86.81	70-140
$ 48 Bromofluorobenzene	30	29	95.62	60-150

SEMIVOLATILE DATA

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

689B-2

Lab Name: NYTEST ENV INC Contract: 9421415

Lab Code: NYTEST Case No.: 22662 SAS No.: SDG No.: ARMY3

Matrix: (soil/water) WATER Lab Sample ID: 2266205

Sample wt/vol: 1000 (g/mL) ML Lab File ID: S2194.D

Level: (low/med) LOW Date Received: 12/02/94

% Moisture: not dec. 0 dec. Date Extracted:12/05/94

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 12/29/94

GPC Cleanup: (Y/N) N pH: 5.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
111-44-4	bis(2-Chloroethyl)Ether	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
108-60-1	2,2'-oxybis(1-Chloropropane)	1	U
621-64-7	N-Nitroso-di-n-propylamine	1	U
67-72-1	Hexachloroethane	1	U
98-95-3	Nitrobenzene	1	U
78-59-1	Isophorone	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U
91-20-3	Naphthalene	1	U
87-68-3	Hexachlorobutadiene	1	U
111-91-1	bis(2-Chloroethoxy)methane	1	U
77-47-4	Hexachlorocyclopentadiene	1	U
91-58-7	2-Chloronaphthalene	1	U
131-11-3	Dimethylphthalate	1	U
208-96-8	Acenaphthylene	1	U
606-20-2	2,6-Dinitrotoluene	1	U
83-32-9	Acenaphthene	1	U
121-14-2	2,4-Dinitrotoluene	1	U
84-66-2	Diethylphthalate	1	U
7005-72-3	4-Chlorophenyl-phenylether	1	U
86-73-7	Fluorene	1	U
86-30-6	N-Nitrosodiphenylamine (1)	1	U
101-55-3	4-Bromophenyl-phenylether	1	U
118-74-1	Hexachlorobenzene	1	U
85-01-8	Phenanthrene	1	U
120-12-7	Anthracene	1	U
84-74-2	Di-n-butylphthalate	1	U
206-44-0	Fluoranthene	1	U
129-00-0	Pyrene	1	U
85-68-7	Butylbenzylphthalate	1	U
91-94-1	3,3'-Dichlorobenzidine	1	U

(1) - Cannot be separated from Diphenylamine

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

689B-2

Lab Name: NYTEST ENV INC Contract: 9421415

Lab Code: NYTEST Case No.: 22662 SAS No.: SDG No.: ARMY3

Matrix: (soil/water) WATER Lab Sample ID: 2266205

Sample wt/vol: 1000 (g/mL) ML Lab File ID: S2194.D

Level: (low/med) LOW Date Received: 12/02/94

% Moisture: not dec. 0 dec. Date Extracted:12/05/94

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 12/29/94

GPC Cleanup: (Y/N) N pH: 5.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
56-55-3	Benzo(a)anthracene	1	U
218-01-9	Chrysene	1	U
117-81-7	bis(2-Ethylhexyl)phthalate	1	U
117-84-0	Di-n-octylphthalate	1	U
205-99-2	Benzo(b)fluoranthene	1	U
207-08-9	Benzo(k)fluoranthene	1	U
50-32-8	Benzo(a)pyrene	1	U
193-39-5	Indeno(1,2,3-cd)pyrene	1	U
53-70-3	Dibenz(a,h)anthracene	1	U
191-24-2	Benzo(g,h,i)perylene	1	U
62-75-9	N-Nitrosodimethylamine	1	U

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

689B-2

Lab Name: NYTEST ENV INC Contract: 9421415

Lab Code: NYTEST Case No.: 22662 SAS No.: SDG No.: ARMY3

Matrix: (soil/water) WATER Lab Sample ID: 2266205

Sample wt/vol: 1000 (g/mL) ML Lab File ID: S2194.D

Level: (low/med) LOW Date Received: 12/02/94

% Moisture: not dec. 0 dec. Date Extracted:12/05/94

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 12/29/94

GPC Cleanup: (Y/N) N pH: 5.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
92-87-5	Benzidine	100	U

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

689B-2

Lab Name: NYTEST ENV INC Contract: 9421415

Lab Code: NYTEST Case No.: 22662 SAS No.: SDG No.: ARMY3

Matrix: (soil/water) WATER Lab Sample ID: 2266205

Sample wt/vol: 1000 (g/mL) ML Lab File ID: S2194.D

Level: (low/med) LOW Date Received: 12/02/94

% Moisture: not dec. 0 dec. Date Extracted:12/05/94

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 12/29/94

GPC Cleanup: (Y/N) N pH: 5.0 Dilution Factor: 1.0

Number TICs found: 0

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

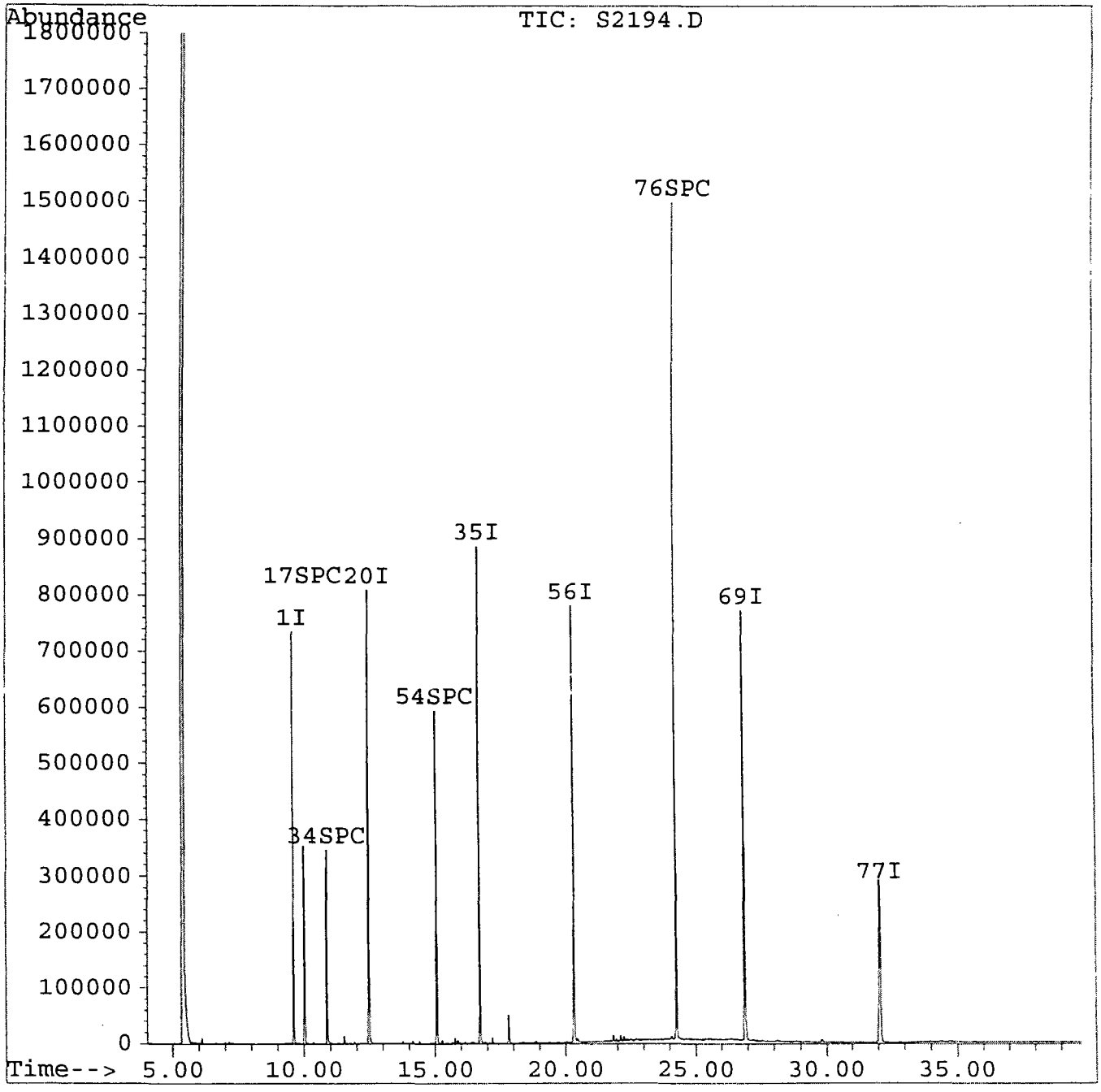
	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

Quantitation Report

Data File : c:\hpchem\1\data\1229\s2194.d
Acq On : 29 Dec 94 18:34 pm
Sample : 2266205,689B-2,
Misc : 1,5,,05-DEC-94,1000,1,PBN625+15, WATER
Quant Time: Jan 3 15:35 1995

Vial: 9
Operator: jr
Inst : HPS
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\625.M
Title : 390/ASP/8270
Last Update : Tue Jan 03 13:15:58 1995
Response via : Multiple Level Calibration



000054

Quantitation Report

Data File : c:\hpchem\1\data\1229\s2194.d
Acq On : 29 Dec 94 18:34 pm
Sample : 2266205,689B-2,
Misc : 1,5,,05-DEC-94,1000,1,PBN625+15, WATER
Quant Time: Jan 3 15:35 1995

Vial: 9
Operator: jr
Inst : HPS
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\625.M
Title : 390/ASP/8270
Last Update : Tue Jan 03 13:15:58 1995
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-D4	9.62	152	158774	20.00	ug/L	0.05
20) Naphthalene-D8	12.48	136	641536	20.00	ug/L	0.05
35) Acenaphthene-d10	16.74	164	313966	20.00	ug/L	0.05
56) Phenanthrene-D10	20.34	188	506103	20.00	ug/L	0.05
69) Chrysene-D12	26.90	240	423438	20.00	ug/L	0.05
77) Perylene-D12	32.08	264	361485	20.00	ug/L	0.16
System Monitoring Compounds						**%Recovery**
14) 2-Fluorophenol	0.00	112	0	0.00	ug/L	NA 0.00%
15) Phenol-d5	0.00	99	0	0.00	ug/L	0.00%
16) 2-Chlorophenol-d4	0.00	132	0	0.00	ug/L	0.00%
17) 1,2-Dichlorobenzene-d4	10.03	150	153840	13.37	ug/L	26.75%
34) Nitrobenzene-d5	10.88	82	236694	17.11	ug/L	34.22%
54) 2-Fluorobiphenyl	15.07	172	276724	16.58	ug/L	33.16%
55) 2,4,6-Tribromophenol	0.00	330	0	0.00	ug/L	NA 0.00%
76) Terphenyl-d14	24.29	244	719649	53.18	ug/L	106.35%

Target Compounds	Qvalue

000055

John 1/4/94

(#) = qualifier out of range (m) = manual integration

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FIELDB

Lab Name: NYTEST ENV INC Contract: 9421415

Lab Code: NYTEST Case No.: 22662 SAS No.: SDG No.: ARMY3

Matrix: (soil/water) WATER Lab Sample ID: 2266208

Sample wt/vol: 1000 (g/mL) ML Lab File ID: S2197.D

Level: (low/med) LOW Date Received: 12/02/94

% Moisture: not dec. 0 dec. Date Extracted:12/05/94

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 12/29/94

GPC Cleanup: (Y/N) N pH: 6.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
111-44-4	bis(2-Chloroethyl)Ether	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
108-60-1	2,2'-oxybis(1-Chloropropane)	1	U
621-64-7	N-Nitroso-di-n-propylamine	1	U
67-72-1	Hexachloroethane	1	U
98-95-3	Nitrobenzene	1	U
78-59-1	Isophorone	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U
91-20-3	Naphthalene	1	U
87-68-3	Hexachlorobutadiene	1	U
111-91-1	bis(2-Chloroethoxy)methane	1	U
77-47-4	Hexachlorocyclopentadiene	1	U
91-58-7	2-Chloronaphthalene	1	U
131-11-3	Dimethylphthalate	1	U
208-96-8	Acenaphthylene	1	U
606-20-2	2,6-Dinitrotoluene	1	U
83-32-9	Acenaphthene	1	U
121-14-2	2,4-Dinitrotoluene	1	U
84-66-2	Diethylphthalate	1	U
7005-72-3	4-Chlorophenyl-phenylether	1	U
86-73-7	Fluorene	1	U
86-30-6	N-Nitrosodiphenylamine (1)	1	U
101-55-3	4-Bromophenyl-phenylether	1	U
118-74-1	Hexachlorobenzene	1	U
85-01-8	Phenanthrene	1	U
120-12-7	Anthracene	1	U
84-74-2	Di-n-butylphthalate	1	
206-44-0	Fluoranthene	1	U
129-00-0	Pyrene	1	U
85-68-7	Butylbenzylphthalate	1	U
91-94-1	3,3'-Dichlorobenzidine	1	U

(1) - Cannot be separated from Diphenylamine

000056

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FIELDB

Lab Name: NYTEST ENV INC Contract: 9421415

Lab Code: NYTEST Case No.: 22662 SAS No.: SDG No.: ARMY3

Matrix: (soil/water) WATER Lab Sample ID: 2266208

Sample wt/vol: 1000 (g/mL) ML Lab File ID: S2197.D

Level: (low/med) LOW Date Received: 12/02/94

% Moisture: not dec. 0 dec. Date Extracted:12/05/94

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 12/29/94

GPC Cleanup: (Y/N) N pH: 6.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
56-55-3	Benzo(a)anthracene	1	U
218-01-9	Chrysene	1	U
117-81-7	bis(2-Ethylhexyl)phthalate	2	
117-84-0	Di-n-octylphthalate	1	U
205-99-2	Benzo(b)fluoranthene	1	U
207-08-9	Benzo(k)fluoranthene	1	U
50-32-8	Benzo(a)pyrene	1	U
193-39-5	Indeno(1,2,3-cd)pyrene	1	U
53-70-3	Dibenz(a,h)anthracene	1	U
191-24-2	Benzo(g,h,i)perylene	1	U
62-75-9	N-Nitrosodimethylamine	1	U

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FIELDB

Lab Name: NYTEST ENV INC Contract: 9421415

Lab Code: NYTEST Case No.: 22662 SAS No.: SDG No.: ARMY3

Matrix: (soil/water) WATER Lab Sample ID: 2266208

Sample wt/vol: 1000 (g/mL) ML Lab File ID: S2197.D

Level: (low/med) LOW Date Received: 12/02/94

% Moisture: not dec. 0 dec. Date Extracted:12/05/94

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 12/29/94

GPC Cleanup: (Y/N) N pH: 6.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
92-87-5	Benzidine	100	U

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FIELDB

Lab Name: NYTEST ENV INC Contract: 9421415

Lab Code: NYTEST Case No.: 22662 SAS No.: SDG No.: ARMY3

Matrix: (soil/water) WATER Lab Sample ID: 2266208

Sample wt/vol: 1000 (g/mL) ML Lab File ID: S2197.D

Level: (low/med) LOW Date Received: 12/02/94

% Moisture: not dec. 0 dec. Date Extracted:12/05/94

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 12/29/94

GPC Cleanup: (Y/N) N pH: 6.0 Dilution Factor: 1.0

Number TICs found: 5

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN	18.381	37	J
2.		UNKNOWN	20.130	52	J
3.		UNKNOWN	21.706	71	J
4.		UNKNOWN	23.456	38	J
5.		UNKNOWN	29.812	40	J
6.					
7.					
8.					
9.					
10.					
11.					
12.					
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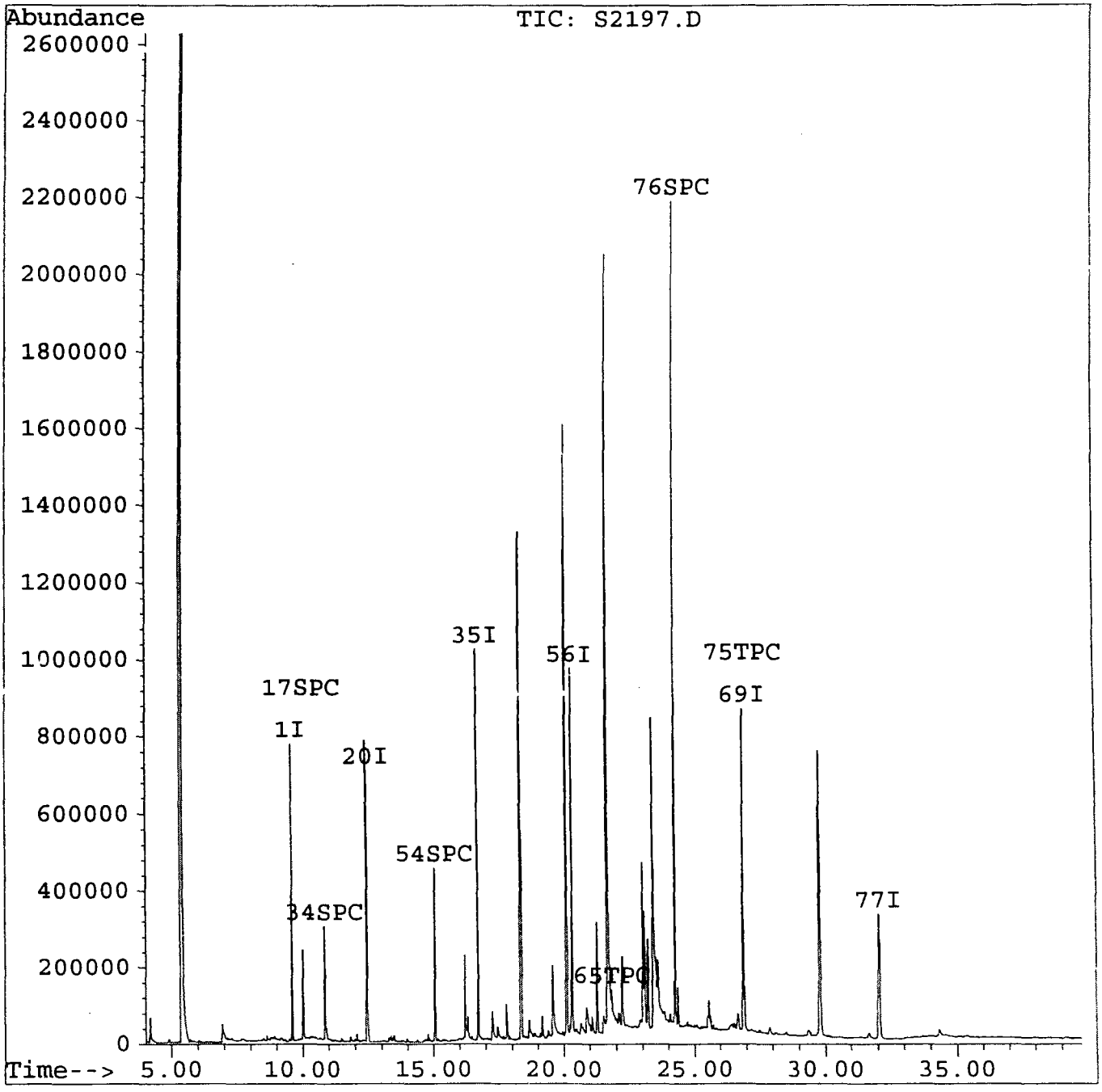
29.					
30.					

Quantitation Report

Data File : c:\hpchem\1\data\1229\s2197.d
Acq On : 29 Dec 94 21:10 pm
Sample : 2266208,FIELDB,
Misc : 1,6,,05-DEC-94,1000,1,PBN625+15, WATER
Quant Time: Jan 3 16:03 1995

Vial: 12
Operator: jr
Inst : HPS
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\625.M
Title : 390/ASP/8270
Last Update : Tue Jan 03 13:15:58 1995
Response via : Multiple Level Calibration



000060

Quantitation Report

Data File : c:\hpchem\1\data\1229\s2197.d
Acq On : 29 Dec 94 21:10 pm
Sample : 2266208,FIELDB,
Misc : 1,6,,05-DEC-94,1000,1,PBN625+15, WATER
Quant Time: Jan 3 16:03 1995

Vial: 12
Operator: jr
Inst : HPS
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\625.M
Title : 390/ASP/8270
Last Update : Tue Jan 03 13:15:58 1995
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-D4	9.62	152	182882	20.00	ug/L	0.05
20) Naphthalene-D8	12.47	136	707539	20.00	ug/L	0.05
35) Acenaphthene-d10	16.74	164	366461	20.00	ug/L	0.05
56) Phenanthrene-D10	20.34	188	565661	20.00	ug/L	0.05
69) Chrysene-D12	26.90	240	456113	20.00	ug/L	0.05
77) Perylene-D12	32.06	264	391235	20.00	ug/L	0.14
System Monitoring Compounds						%Recovery
14) 2-Fluorophenol	0.00	112	0	0.00	ug/L	NA 0.00%
15) Phenol-d5	0.00	99	0	0.00	ug/L	0.00%
16) 2-Chlorophenol-d4	0.00	132	0	0.00	ug/L	0.00%
17) 1,2-Dichlorobenzene-d4	10.01	150	86476	6.53	ug/L	13.05%
34) Nitrobenzene-d5	10.86	82	165425	10.84	ug/L	21.68%
54) 2-Fluorobiphenyl	15.07	172	217779	11.18	ug/L	22.36%
55) 2,4,6-Tribromophenol	0.00	330	0	0.00	ug/L	NA 0.00%
76) Terphenyl-d14	24.29	244	1199277	82.27	ug/L	164.54%
Target Compounds						Qvalue
65) Di-n-butylphthalate	21.84	149	55715	1.03	ug/L	100
75) Bis(2-ethylhexyl)phthalate	26.95	149	74201	2.22	ug/L	83

000061

(#) = qualifier out of range (m) = manual integration

1B

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

FIELDBRE

Lab Name: NYTEST ENV INC Contract: 9421415

Lab Code: NYTEST Case No.: 22662 SAS No.: SDG No.: ARMY3

Matrix: (soil/water) WATER Lab Sample ID: 2266208

Sample wt/vol: 1000 (g/mL) ML Lab File ID: S2328.D

Level: (low/med) LOW Date Received: 12/02/94

% Moisture: not dec. 0 dec. Date Extracted:12/30/94

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 01/09/95

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
111-44-4	bis(2-Chloroethyl)Ether	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
108-60-1	2,2'-oxybis(1-Chloropropane)	1	U
621-64-7	N-Nitroso-di-n-propylamine	1	U
67-72-1	Hexachloroethane	1	U
98-95-3	Nitrobenzene	1	U
78-59-1	Isophorone	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U
91-20-3	Naphthalene	1	U
87-68-3	Hexachlorobutadiene	1	U
111-91-1	bis(2-Chloroethoxy)methane	1	U
77-47-4	Hexachlorocyclopentadiene	1	U
91-58-7	2-Chloronaphthalene	1	U
131-11-3	Dimethylphthalate	1	U
208-96-8	Acenaphthylene	1	U
606-20-2	2,6-Dinitrotoluene	1	U
83-32-9	Acenaphthene	1	U
121-14-2	2,4-Dinitrotoluene	1	U
84-66-2	Diethylphthalate	1	U
7005-72-3	4-Chlorophenyl-phenylether	1	U
86-73-7	Fluorene	1	U
86-30-6	N-Nitrosodiphenylamine (1)	1	U
101-55-3	4-Bromophenyl-phenylether	1	U
118-74-1	Hexachlorobenzene	1	U
85-01-8	Phenanthrene	1	U
120-12-7	Anthracene	1	U
84-74-2	Di-n-butylphthalate	1	U
206-44-0	Fluoranthene	1	U
129-00-0	Pyrene	1	U
85-68-7	Butylbenzylphthalate	1	U
91-94-1	3,3'-Dichlorobenzidine	1	U

(1) - Cannot be separated from Diphenylamine

000062

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FIELDBRE

Lab Name: NYTEST ENV INC Contract: 9421415

Lab Code: NYTEST Case No.: 22662 SAS No.: SDG No.: ARMY3

Matrix: (soil/water) WATER Lab Sample ID: 2266208

Sample wt/vol: 1000 (g/mL) ML Lab File ID: S2328.D

Level: (low/med) LOW Date Received: 12/02/94

% Moisture: not dec. 0 dec. Date Extracted:12/30/94

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 01/09/95

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
56-55-3	Benzo(a)anthracene	1	U
218-01-9	Chrysene	1	U
117-81-7	bis(2-Ethylhexyl)phthalate	1	U
117-84-0	Di-n-octylphthalate	1	U
205-99-2	Benzo(b)fluoranthene	1	U
207-08-9	Benzo(k)fluoranthene	1	U
50-32-8	Benzo(a)pyrene	1	U
193-39-5	Indeno(1,2,3-cd)pyrene	1	U
53-70-3	Dibenz(a,h)anthracene	1	U
191-24-2	Benzo(g,h,i)perylene	1	U
62-75-9	N-Nitrosodimethylamine	1	U
92-87-5	Benzidine	100	U

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FIELDBRE

Lab Name: NYTEST ENV INC Contract: 9421415

Lab Code: NYTEST Case No.: 22662 SAS No.: SDG No.: ARMY3

Matrix: (soil/water) WATER Lab Sample ID: 2266208

Sample wt/vol: 1000 (g/mL) ML Lab File ID: S2328.D

Level: (low/med) LOW Date Received: 12/02/94

% Moisture: not dec. 0 dec. Date Extracted:12/30/94

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 01/09/95

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0

Number TICs found: 1

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

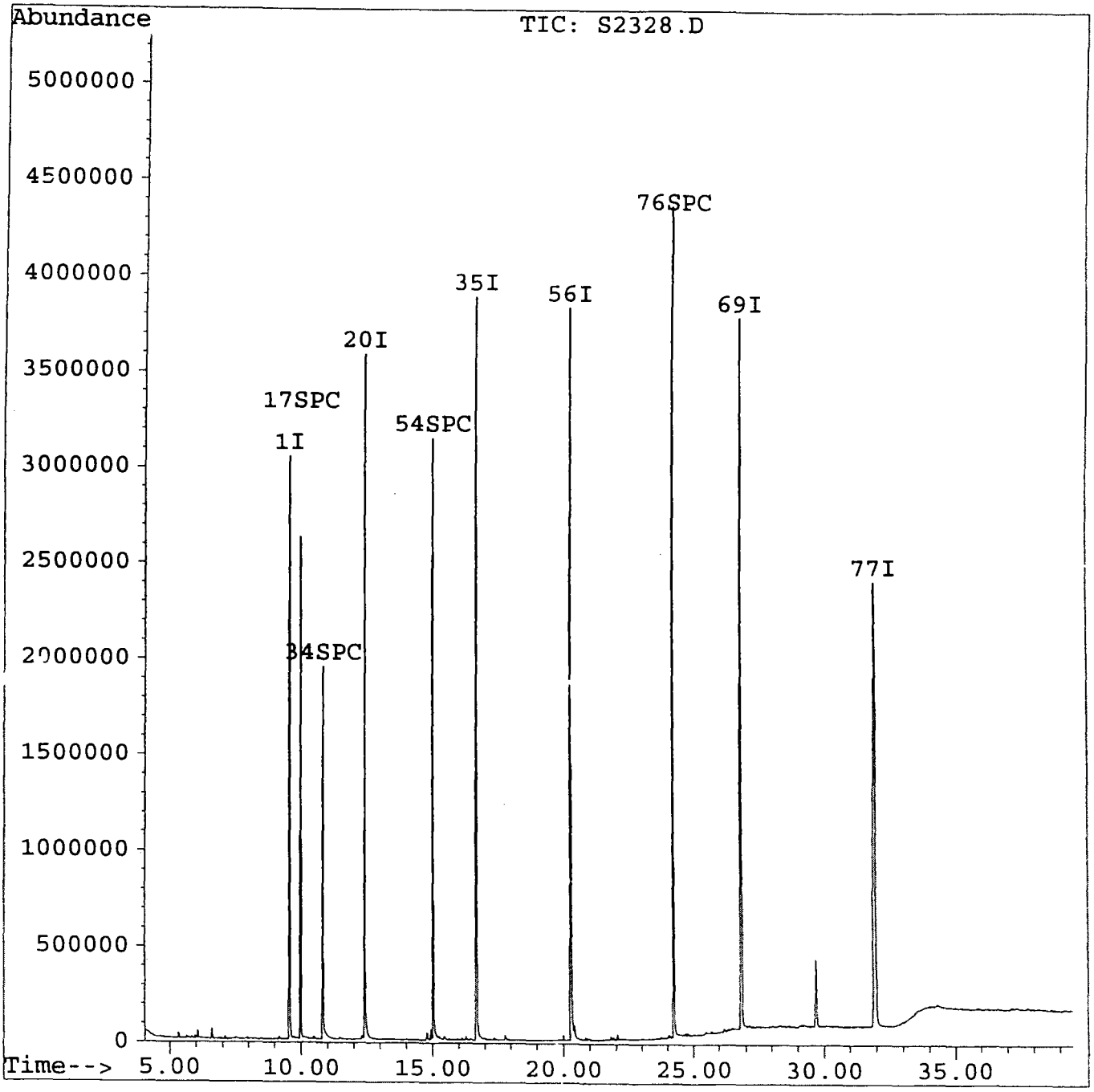
	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN	29.698	2	J
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

Quantitation Report

Data File : c:\hpchem\1\data\0109\s2328.d
Acq On : 9 Jan 95 22:44 pm
Sample : 2266208,FIELDBRE,
Misc : 1,,,30-DEC-94,1000,1,PBN625+15, WATER
Quant Time: Jan 9 23:24 1995

Vial: 76
Operator: jr
Inst : HPS
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\625-3.M
Title : 390/ASP/8270
Last Update : Tue Jan 10 10:08:31 1995
Response via : Multiple Level Calibration



000065

Quantitation Report

Data File : c:\hpchem\1\data\0109\s2328.d Vial: 76
Acq On : 9 Jan 95 22:44 pm Operator: jr
Sample : 2266208,FIELDBRE, Inst : HPS
Misc : 1,,,30-DEC-94,1000,1,PBN625+15, WATER Multiplr: 1.00
Quant Time: Jan 9 23:24 1995

Method : C:\HPCHEM\1\METHODS\625-3.M
Title : 390/ASP/8270
Last Update : Mon Jan 09 19:03:16 1995
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-D4	9.57	152	1154906	20.00	ug/L	-0.02
20) Naphthalene-D8	12.41	136	3779172	20.00	ug/L	-0.04
35) Acenaphthene-d10	16.67	164	2066985	20.00	ug/L	-0.04
56) Phenanthrene-D10	20.29	188	3558212	20.00	ug/L	-0.04
69) Chrysene-D12	26.84	240	3549972	20.00	ug/L	-0.05
77) Perylene-D12	31.97	264	4535080	20.00	ug/L	-0.07
System Monitoring Compounds						%Recovery
14) 2-Fluorophenol	0.00	112	0	0.00	ug/L	NA 0.00%
15) Phenol-d5	9.27	99	1388	0.01	ug/L	0.02%
16) 2-Chlorophenol-d4	0.00	132	0	0.00	ug/L	0.00%
17) 1,2-Dichlorobenzene-d4	9.97	150	1407576	13.98	ug/L	27.96%
34) Nitrobenzene-d5	10.83	82	1354364	17.47	ug/L	34.94%
54) 2-Fluorobiphenyl	15.02	172	2530825	15.82	ug/L	31.64%
55) 2,4,6-Tribromophenol	0.00	330	0	0.00	ug/L	NA 0.00%
76) Terphenyl-d14	24.24	244	4418238	24.19	ug/L	48.38%

Target Compounds Qvalue

000066

(#) = qualifier out of range (m) = manual integration

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FIELDB

Lab Name: NYTEST ENV INC Contract: 9421415

Lab Code: NYTEST Case No.: 22662 SAS No.: SDG No.: ARMY3

Matrix: (soil/water) WATER Lab Sample ID: 2266208

Sample wt/vol: 1000 (g/mL) ML Lab File ID: S2197.D

Level: (low/med) LOW Date Received: 12/02/94

% Moisture: not dec. 0 dec. Date Extracted:12/05/94

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 12/29/94

GPC Cleanup: (Y/N) N pH: 6.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
111-44-4	bis(2-Chloroethyl)Ether	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
108-60-1	2,2'-oxybis(1-Chloropropane)	1	U
621-64-7	N-Nitroso-di-n-propylamine	1	U
67-72-1	Hexachloroethane	1	U
98-95-3	Nitrobenzene	1	U
78-59-1	Isophorone	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U
91-20-3	Naphthalene	1	U
87-68-3	Hexachlorobutadiene	1	U
111-91-1	bis(2-Chloroethoxy)methane	1	U
77-47-4	Hexachlorocyclopentadiene	1	U
91-58-7	2-Chloronaphthalene	1	U
131-11-3	Dimethylphthalate	1	U
208-96-8	Acenaphthylene	1	U
606-20-2	2,6-Dinitrotoluene	1	U
83-32-9	Acenaphthene	1	U
121-14-2	2,4-Dinitrotoluene	1	U
84-66-2	Diethylphthalate	1	U
7005-72-3	4-Chlorophenyl-phenylether	1	U
86-73-7	Fluorene	1	U
86-30-6	N-Nitrosodiphenylamine (1)	1	U
101-55-3	4-Bromophenyl-phenylether	1	U
118-74-1	Hexachlorobenzene	1	U
85-01-8	Phenanthrene	1	U
120-12-7	Anthracene	1	U
84-74-2	Di-n-butylphthalate	1	U
206-44-0	Fluoranthene	1	U
129-00-0	Pyrene	1	U
85-68-7	Butylbenzylphthalate	1	U
91-94-1	3,3'-Dichlorobenzidine	1	U

(1) - Cannot be separated from Diphenylamine

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FIELDB

Lab Name: NYTEST ENV INC Contract: 9421415

Lab Code: NYTEST Case No.: 22662 SAS No.: SDG No.: ARMY3

Matrix: (soil/water) WATER Lab Sample ID: 2266208

Sample wt/vol: 1000 (g/mL) ML Lab File ID: S2197.D

Level: (low/med) LOW Date Received: 12/02/94

% Moisture: not dec. 0 dec. Date Extracted: 12/05/94

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 12/29/94

GPC Cleanup: (Y/N) N pH: 6.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
56-55-3	Benzo(a)anthracene	1	U
218-01-9	Chrysene	1	U
117-81-7	bis(2-Ethylhexyl)phthalate	2	
117-84-0	Di-n-octylphthalate	1	U
205-99-2	Benzo(b)fluoranthene	1	U
207-08-9	Benzo(k)fluoranthene	1	U
50-32-8	Benzo(a)pyrene	1	U
193-39-5	Indeno(1,2,3-cd)pyrene	1	U
53-70-3	Dibenz(a,h)anthracene	1	U
191-24-2	Benzo(g,h,i)perylene	1	U
62-75-9	N-Nitrosodimethylamine	1	U

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FIELDB

Lab Name: NYTEST ENV INC Contract: 9421415

Lab Code: NYTEST Case No.: 22662 SAS No.: SDG No.: ARMY3

Matrix: (soil/water) WATER Lab Sample ID: 2266208

Sample wt/vol: 1000 (g/mL) ML Lab File ID: S2197.D

Level: (low/med) LOW Date Received: 12/02/94

% Moisture: not dec. 0 dec. Date Extracted:12/05/94

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 12/29/94

GPC Cleanup: (Y/N) N pH: 6.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
92-87-5	Benzidine	100	U

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FIELDB

Lab Name: NYTEST ENV INC Contract: 9421415

Lab Code: NYTEST Case No.: 22662 SAS No.: SDG No.: ARMY3

Matrix: (soil/water) WATER Lab Sample ID: 2266208

Sample wt/vol: 1000 (g/mL) ML Lab File ID: S2197.D

Level: (low/med) LOW Date Received: 12/02/94

% Moisture: not dec. 0 dec. Date Extracted:12/05/94

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 12/29/94

GPC Cleanup: (Y/N) N pH: 6.0 Dilution Factor: 1.0

Number TICs found: 5

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN	18.381	37	J
2.		UNKNOWN	20.130	52	J
3.		UNKNOWN	21.706	71	J
4.		UNKNOWN	23.456	38	J
5.		UNKNOWN	29.812	40	J
6.					
7.					
8.					
9.					
10.					
11.					
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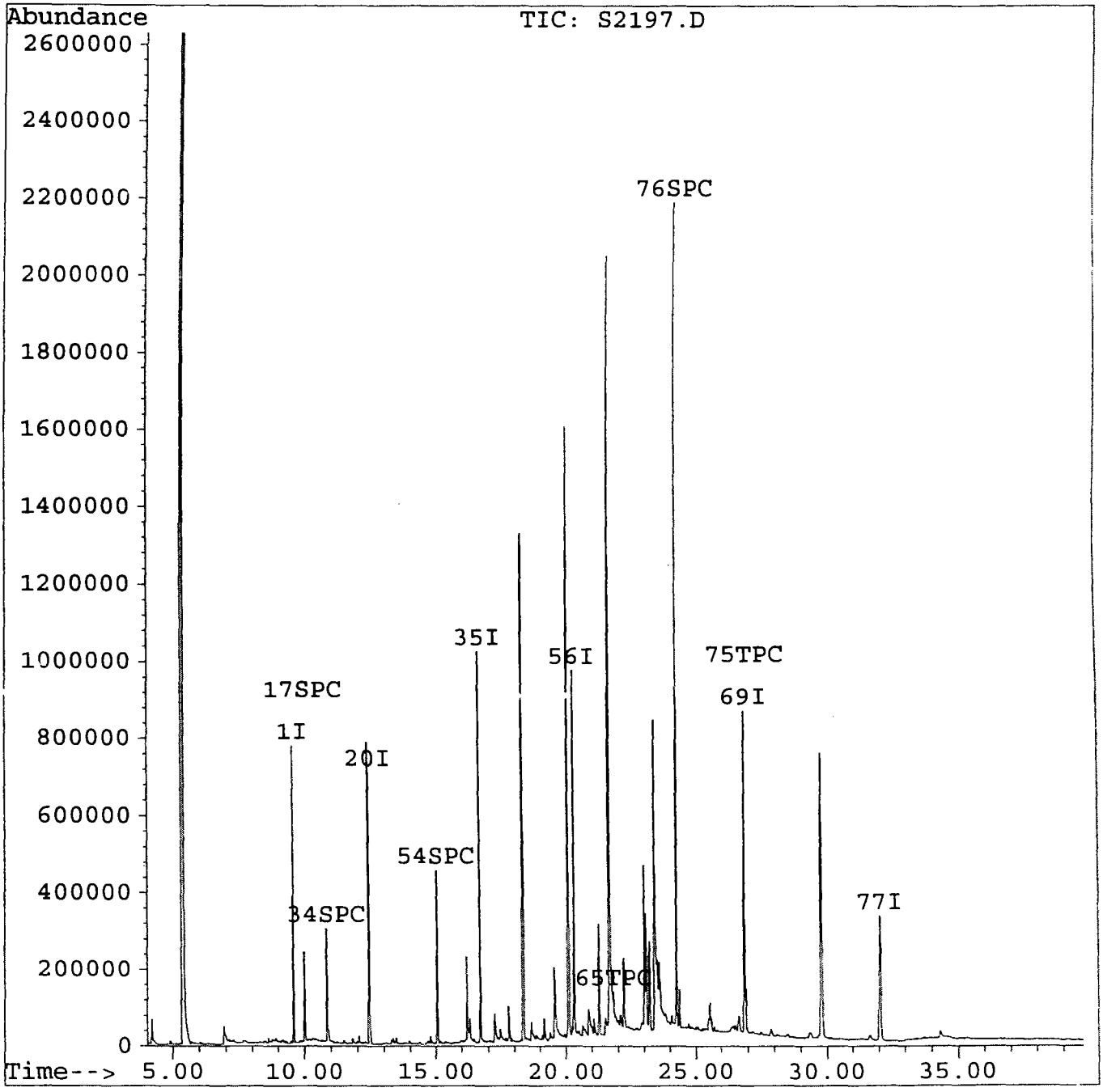
Quantitation Report

Data File : c:\hpchem\1\data\1229\s2197.d
Acq On : 29 Dec 94 21:10 pm
Sample : 2266208,FIELDB,
Misc : 1,6,,05-DEC-94,1000,1,PBN625+15, WATER
Quant Time: Jan 3 16:03 1995

Vial: 12
Operator: jr
Inst : HPS
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\625.M
Title : 390/ASP/8270
Last Update : Tue Jan 03 13:15:58 1995
Response via : Multiple Level Calibration



000071

Quantitation Report

Data File : c:\hpchem\1\data\1229\s2197.d
Acq On : 29 Dec 94 21:10 pm
Sample : 2266208,FIELDB,
Misc : 1,6,,05-DEC-94,1000,1,PBN625+15, WATER
Quant Time: Jan 3 16:03 1995

Vial: 12
Operator: jr
Inst : HPS
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\625.M
Title : 390/ASP/8270
Last Update : Tue Jan 03 13:15:58 1995
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-D4	9.62	152	182882	20.00	ug/L	0.05
20) Naphthalene-D8	12.47	136	707539	20.00	ug/L	0.05
35) Acenaphthene-d10	16.74	164	366461	20.00	ug/L	0.05
56) Phenanthrene-D10	20.34	188	565661	20.00	ug/L	0.05
69) Chrysene-D12	26.90	240	456113	20.00	ug/L	0.05
77) Perylene-D12	32.06	264	391235	20.00	ug/L	0.14
System Monitoring Compounds						**%Recovery**
14) 2-Fluorophenol	0.00	112	0	0.00	ug/L	NA 0.00%
15) Phenol-d5	0.00	99	0	0.00	ug/L	0.00%
16) 2-Chlorophenol-d4	0.00	132	0	0.00	ug/L	0.00%
17) 1,2-Dichlorobenzene-d4	10.01	150	86476	6.53	ug/L	13.05%
34) Nitrobenzene-d5	10.86	82	165425	10.84	ug/L	21.68%
54) 2-Fluorobiphenyl	15.07	172	217779	11.18	ug/L	22.36%
55) 2,4,6-Tribromophenol	0.00	330	0	0.00	ug/L	NA 0.00%
76) Terphenyl-d14	24.29	244	1199277	82.27	ug/L	164.54%
Target Compounds						**Qvalue**
65) Di-n-butylphthalate	21.84	149	55715	1.03	ug/L	100
75) Bis(2-ethylhexyl)phthalate	26.95	149	74201	2.22	ug/L	83

000072

(#) = qualifier out of range (m) = manual integration

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FIELDBRE

Lab Name: NYTEST ENV INC Contract: 9421415

Lab Code: NYTEST Case No.: 22662 SAS No.: SDG No.: ARMY3

Matrix: (soil/water) WATER Lab Sample ID: 2266208

Sample wt/vol: 1000 (g/mL) ML Lab File ID: S2328.D

Level: (low/med) LOW Date Received: 12/02/94

% Moisture: not dec. 0 dec. Date Extracted:12/30/94

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 01/09/95

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
111-44-4	bis(2-Chloroethyl)Ether	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
108-60-1	2,2'-oxybis(1-Chloropropane)	1	U
621-64-7	N-Nitroso-di-n-propylamine	1	U
67-72-1	Hexachloroethane	1	U
98-95-3	Nitrobenzene	1	U
78-59-1	Isophorone	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U
91-20-3	Naphthalene	1	U
87-68-3	Hexachlorobutadiene	1	U
111-91-1	bis(2-Chloroethoxy)methane	1	U
77-47-4	Hexachlorocyclopentadiene	1	U
91-58-7	2-Chloronaphthalene	1	U
131-11-3	Dimethylphthalate	1	U
208-96-8	Acenaphthylene	1	U
606-20-2	2,6-Dinitrotoluene	1	U
83-32-9	Acenaphthene	1	U
121-14-2	2,4-Dinitrotoluene	1	U
84-66-2	Diethylphthalate	1	U
7005-72-3	4-Chlorophenyl-phenylether	1	U
86-73-7	Fluorene	1	U
86-30-6	N-Nitrosodiphenylamine (1)	1	U
101-55-3	4-Bromophenyl-phenylether	1	U
118-74-1	Hexachlorobenzene	1	U
85-01-8	Phenanthrene	1	U
120-12-7	Anthracene	1	U
84-74-2	Di-n-butylphthalate	1	U
206-44-0	Fluoranthene	1	U
129-00-0	Pyrene	1	U
85-68-7	Butylbenzylphthalate	1	U
91-94-1	3,3'-Dichlorobenzidine	1	U

(1) - Cannot be separated from Diphenylamine

000073

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FIELDBRE

Lab Name: NYTEST ENV INC Contract: 9421415

Lab Code: NYTEST Case No.: 22662 SAS No.: SDG No.: ARMY3

Matrix: (soil/water) WATER Lab Sample ID: 2266208

Sample wt/vol: 1000 (g/mL) ML Lab File ID: S2328.D

Level: (low/med) LOW Date Received: 12/02/94

% Moisture: not dec. 0 dec. Date Extracted:12/30/94

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 01/09/95

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
56-55-3	Benzo(a)anthracene	1	U
218-01-9	Chrysene	1	U
117-81-7	bis(2-Ethylhexyl)phthalate	1	U
117-84-0	Di-n-octylphthalate	1	U
205-99-2	Benzo(b)fluoranthene	1	U
207-08-9	Benzo(k)fluoranthene	1	U
50-32-8	Benzo(a)pyrene	1	U
193-39-5	Indeno(1,2,3-cd)pyrene	1	U
53-70-3	Dibenz(a,h)anthracene	1	U
191-24-2	Benzo(g,h,i)perylene	1	U
62-75-9	N-Nitrosodimethylamine	1	U
92-87-5	Benzidine	100	U

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FIELDBRE

Lab Name: NYTEST ENV INC Contract: 9421415

Lab Code: NYTEST Case No.: 22662 SAS No.: SDG No.: ARMY3

Matrix: (soil/water) WATER Lab Sample ID: 2266208

Sample wt/vol: 1000 (g/mL) ML Lab File ID: S2328.D

Level: (low/med) LOW Date Received: 12/02/94

% Moisture: not dec. 0 dec. Date Extracted:12/30/94

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 01/09/95

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0

Number TICs found: 1

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN	29.698	2	J
2.					
3.					
4.					
5.					
6.					
7.					
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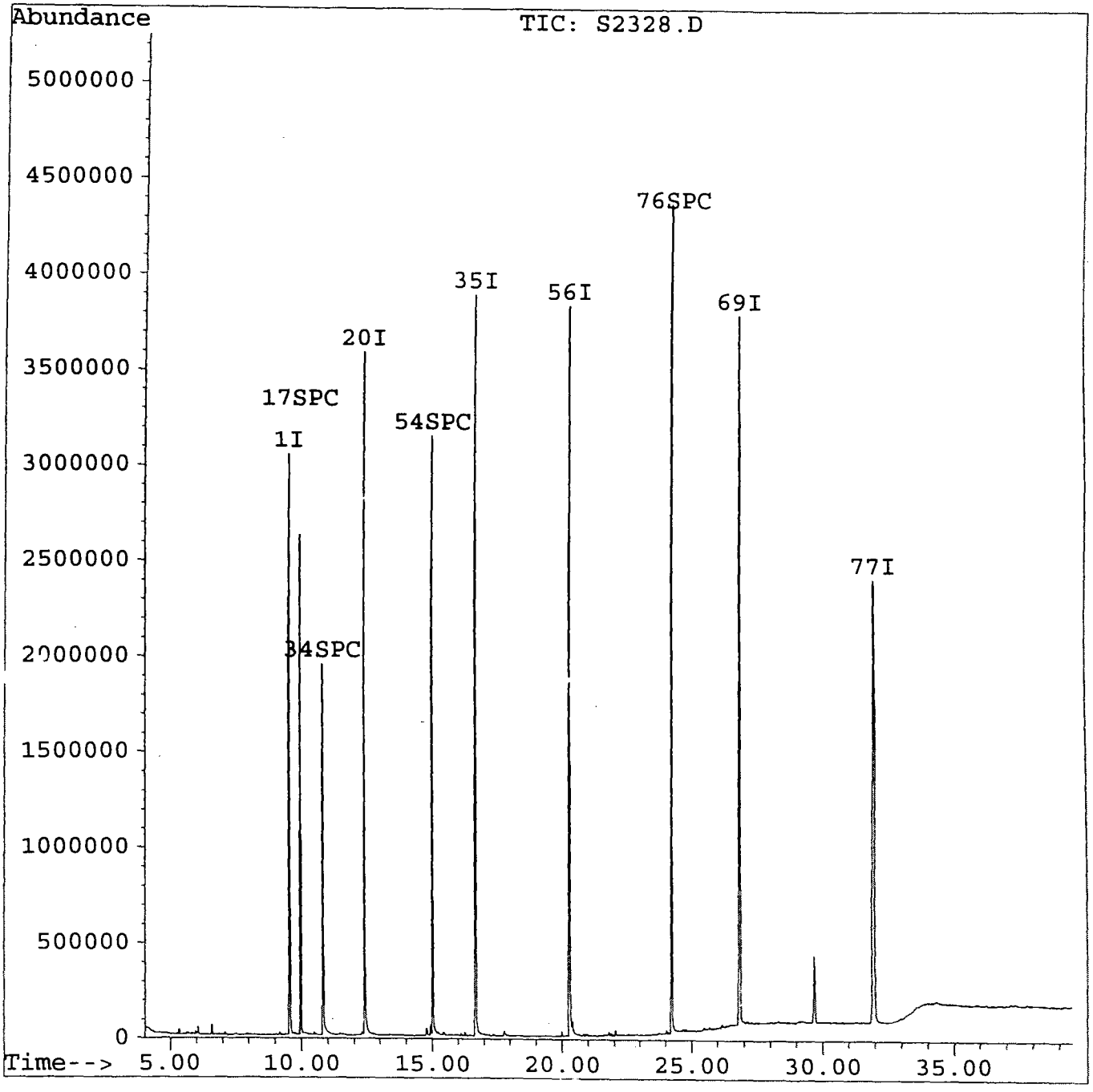
Quantitation Report

Data File : c:\hpchem\1\data\0109\s2328.d
Acq On : 9 Jan 95 22:44 pm
Sample : 2266208,FIELDBRE,
Misc : 1,,,30-DEC-94,1000,1,PBN625+15, WATER
Quant Time: Jan 9 23:24 1995

Vial: 76
Operator: jr
Inst : HPS
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\625-3.M
Title : 390/ASP/8270
Last Update : Tue Jan 10 10:08:31 1995
Response via : Multiple Level Calibration



000076

Quantitation Report

Data File : c:\hpchem\1\data\0109\s2328.d
Acq On : 9 Jan 95 22:44 pm
Sample : 2266208,FIELDBRE,
Misc : 1,,,30-DEC-94,1000,1,PBN625+15, WATER
Quant Time: Jan 9 23:24 1995

Vial: 76
Operator: jr
Inst : HPS
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\625-3.M
Title : 390/ASP/8270
Last Update : Mon Jan 09 19:03:16 1995
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-D4	9.57	152	1154906	20.00	ug/L	-0.02
20) Naphthalene-D8	12.41	136	3779172	20.00	ug/L	-0.04
35) Acenaphthene-d10	16.67	164	2066985	20.00	ug/L	-0.04
56) Phenanthrene-D10	20.29	188	3558212	20.00	ug/L	-0.04
69) Chrysene-D12	26.84	240	3549972	20.00	ug/L	-0.05
77) Perylene-D12	31.97	264	4535080	20.00	ug/L	-0.07
System Monitoring Compounds						%Recovery
14) 2-Fluorophenol	0.00	112	0	0.00	ug/L	NA 0.00%
15) Phenol-d5	9.27	99	1388	0.01	ug/L	0.02%
16) 2-Chlorophenol-d4	0 00	132	0	0.00	ug/L	0.00%
17) 1,2-Dichlorobenzene-d4	9.97	150	1407576	13.98	ug/L	27.96%
34) Nitrobenzene-d5	10.83	82	1354364	17.47	ug/L	34.94%
54) 2-Fluorobiphenyl	15.02	172	2530825	15.82	ug/L	31.64%
55) 2,4,6-Tribromophenol	0.00	330	0	0.00	ug/L	NA 0.00%
76) Terphenyl-d14	24.24	244	4418238	24.19	ug/L	48.38%

Target Compounds Qvalue

000077

(#) = qualifier out of range (m) = manual integration

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK67

Lab Name: NYTEST ENV INC Contract: 9421415

Lab Code: NYTEST Case No.: 22662 SAS No.: SDG No.: ARMY3

Matrix: (soil/water) WATER Lab Sample ID: WB1205A

Sample wt/vol: 1000 (g/mL) ML Lab File ID: S2189.D

Level: (low/med) LOW Date Received: 00/00/00

% Moisture: not dec. 0 dec. Date Extracted:12/05/94

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 12/29/94

GPC Cleanup: (Y/N) N pH: 5.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
111-44-4	bis(2-Chloroethyl)Ether	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
108-60-1	2,2'-oxybis(1-Chloropropane)	1	U
621-64-7	N-Nitroso-di-n-propylamine	1	U
67-72-1	Hexachloroethane	1	U
98-95-3	Nitrobenzene	1	U
78-59-1	Isophorone	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U
91-20-3	Naphthalene	1	U
87-68-3	Hexachlorobutadiene	1	U
111-91-1	bis(2-Chloroethoxy)methane	1	U
77-47-4	Hexachlorocyclopentadiene	1	U
91-58-7	2-Chloronaphthalene	1	U
131-11-3	Dimethylphthalate	1	U
208-96-8	Acenaphthylene	1	U
606-20-2	2,6-Dinitrotoluene	1	U
83-32-9	Acenaphthene	1	U
121-14-2	2,4-Dinitrotoluene	1	U
84-66-2	Diethylphthalate	1	U
7005-72-3	4-Chlorophenyl-phenylether	1	U
86-73-7	Fluorene	1	U
86-30-6	N-Nitrosodiphenylamine (1)	1	U
101-55-3	4-Bromophenyl-phenylether	1	U
118-74-1	Hexachlorobenzene	1	U
85-01-8	Phenanthrene	1	U
120-12-7	Anthracene	1	U
84-74-2	Di-n-butylphthalate	1	U
206-44-0	Fluoranthene	1	U
129-00-0	Pyrene	1	U
85-68-7	Butylbenzylphthalate	1	U
91-94-1	3,3'-Dichlorobenzidine	1	U

(1) - Cannot be separated from Diphenylamine

000078

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK67

Lab Name: NYTEST ENV INC Contract: 9421415

Lab Code: NYTEST Case No.: 22662 SAS No.: SDG No.: ARMY3

Matrix: (soil/water) WATER Lab Sample ID: WB1205A

Sample wt/vol: 1000 (g/mL) ML Lab File ID: S2189.D

Level: (low/med) LOW Date Received: 00/00/00

% Moisture: not dec. 0 dec. Date Extracted:12/05/94

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 12/29/94

GPC Cleanup: (Y/N) N pH: 5.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
56-55-3	Benzo(a)anthracene	1	U
218-01-9	Chrysene	1	U
117-81-7	bis(2-Ethylhexyl)phthalate	1	U
117-84-0	Di-n-octylphthalate	1	U
205-99-2	Benzo(b)fluoranthene	1	U
207-08-9	Benzo(k)fluoranthene	1	U
50-32-8	Benzo(a)pyrene	1	U
193-39-5	Indeno(1,2,3-cd)pyrene	1	U
53-70-3	Dibenz(a,h)anthracene	1	U
191-24-2	Benzo(g,h,i)perylene	1	U
62-75-9	N-Nitrosodimethylamine	1	U

1B

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SBLK67

Lab Name: NYTEST ENV INC Contract: 9421415

Lab Code: NYTEST Case No.: 22662 SAS No.: SDG No.: ARMY3

Matrix: (soil/water) WATER Lab Sample ID: WB1205A

Sample wt/vol: 1000 (g/mL) ML Lab File ID: S2189.D

Level: (low/med) LOW Date Received: 00/00/00

% Moisture: not dec. 0 dec. Date Extracted:12/05/94

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 12/29/94

GPC Cleanup: (Y/N) N pH: 5.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
92-87-5	Benzidine	100	U

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK67

Lab Name: NYTEST ENV INC Contract: 9421415

Lab Code: NYTEST Case No.: 22662 SAS No.: SDG No.: ARMY3

Matrix: (soil/water) WATER Lab Sample ID: WB1205A

Sample wt/vol: 1000 (g/mL) ML Lab File ID: S2189.D

Level: (low/med) LOW Date Received: 00/00/00

% Moisture: not dec. 0 dec. Date Extracted:12/05/94

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 12/29/94

GPC Cleanup: (Y/N) N pH: 5.0 Dilution Factor: 1.0

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
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29.					
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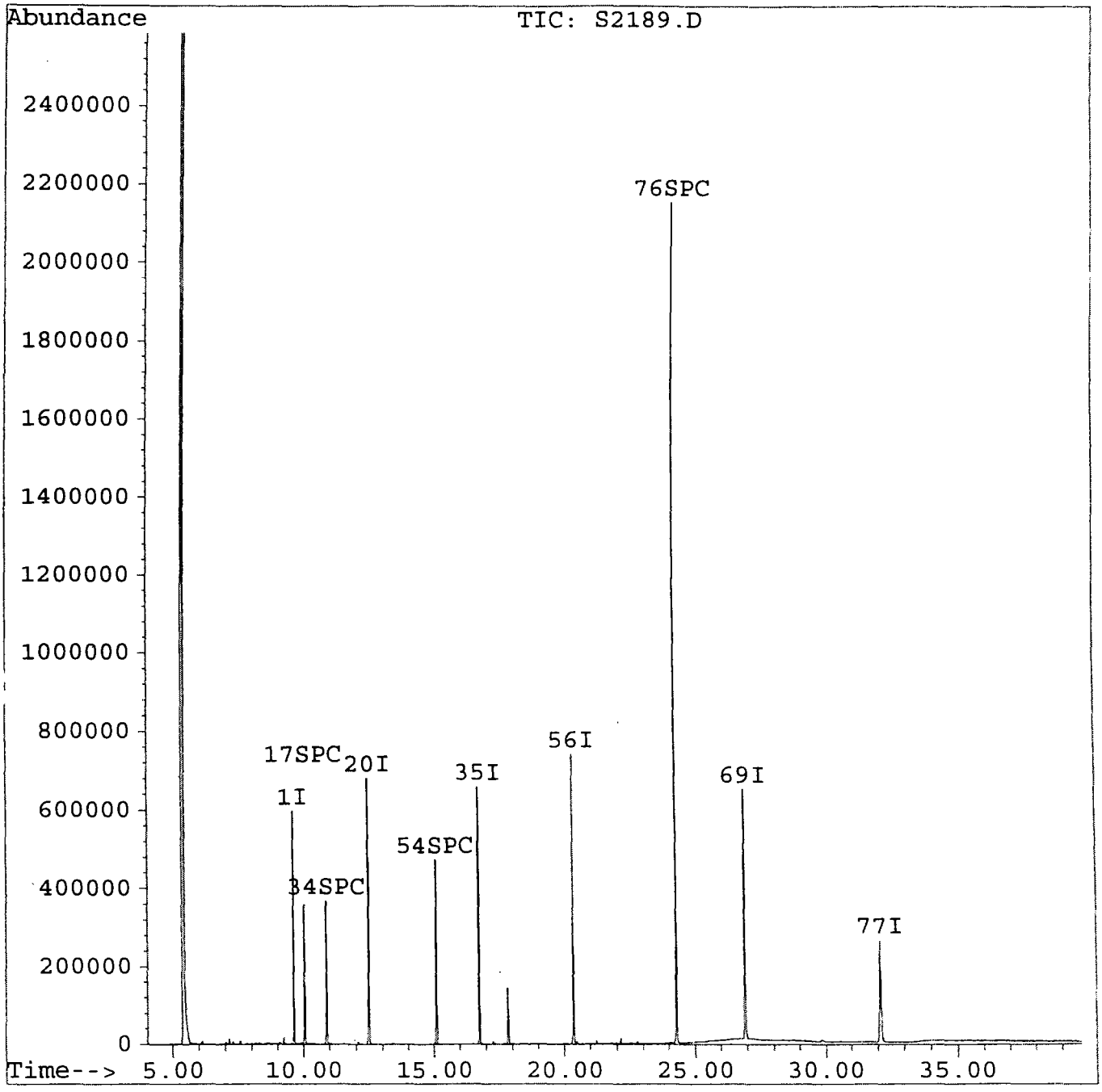
Quantitation Report

Data File : c:\hpchem\1\data\1229\s2189.d
Acq On : 29 Dec 94 14:28 pm
Sample : WB1205A,SBLK67,
Misc : 1,5,,05-DEC-94,1000,1,PBN625+15, WATER
Quant Time: Jan 3 15:31 1995

Vial: 4
Operator: jr
Inst : HPS
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\625.M
Title : 390/ASP/8270
Last Update : Tue Jan 03 13:15:58 1995
Response via : Multiple Level Calibration



000082

Quantitation Report

Data File : c:\hpchem\1\data\1229\s2189.d
Acq On : 29 Dec 94 14:28 pm
Sample : WB1205A,SBLK67,
Misc : 1,5,,05-DEC-94,1000,1,PBN625+15, WATER
Quant Time: Jan 3 15:31 1995

Vial: 4
Operator: jr
Inst : HPS
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\625.M
Title : 390/ASP/8270
Last Update : Tue Jan 03 13:15:58 1995
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-D4	9.63	152	144780	20.00	ug/L	0.07
20) Naphthalene-D8	12.47	136	556210	20.00	ug/L	0.05
35) Acenaphthene-d10	16.75	164	272256	20.00	ug/L	0.07
56) Phenanthrene-D10	20.35	188	430193	20.00	ug/L	0.07
69) Chrysene-D12	26.92	240	373353	20.00	ug/L	0.07
77) Perylene-D12	32.10	264	309781	20.00	ug/L	0.17
System Monitoring Compounds						%Recovery
14) 2-Fluorophenol	0.00	112	0	0.00	ug/L	0.00%
15) Phenol-d5	0.00	99	0	0.00	ug/L	0.00%
16) 2-Chlorophenol-d4	0.00	132	0	0.00	ug/L	0.00%
17) 1,2-Dichlorobenzene-d4	10.03	150	129726	12.37	ug/L	24.74%
34) Nitrobenzene-d5	10.88	82	207219	17.28	ug/L	34.55%
54) 2-Fluorobiphenyl	15.09	172	249642	17.25	ug/L	34.49%
55) 2,4,6-Tribromophenol	0.00	330	0	0.00	ug/L	0.00%
76) Terphenyl-d14	24.30	244	1190482	99.77	ug/L	199.54%
Target Compounds						Qvalue

000083

(#) = qualifier out of range (m) = manual integration

1B

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SBLK75

Lab Name: NYTEST ENV INC Contract: 9421415

Lab Code: NYTEST Case No.: 22662 SAS No.: SDG No.: ARMY3

Matrix: (soil/water) WATER Lab Sample ID: WB1230B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: S2323.D

Level: (low/med) LOW Date Received: 00/00/00

% Moisture: not dec. 0 dec. Date Extracted:12/30/94

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 01/09/95

GPC Cleanup: (Y/N) N pH: 5.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
111-44-4	bis(2-Chloroethyl)Ether	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
108-60-1	2,2'-oxybis(1-Chloropropane)	1	U
621-64-7	N-Nitroso-di-n-propylamine	1	U
67-72-1	Hexachloroethane	1	U
98-95-3	Nitrobenzene	1	U
78-59-1	Isophorone	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U
91-20-3	Naphthalene	1	U
87-68-3	Hexachlorobutadiene	1	U
111-91-1	bis(2-Chloroethoxy)methane	1	U
77-47-4	Hexachlorocyclopentadiene	1	U
91-58-7	2-Chloronaphthalene	1	U
131-11-3	Dimethylphthalate	1	U
208-96-8	Acenaphthylene	1	U
606-20-2	2,6-Dinitrotoluene	1	U
83-32-9	Acenaphthene	1	U
121-14-2	2,4-Dinitrotoluene	1	U
84-66-2	Diethylphthalate	1	U
7005-72-3	4-Chlorophenyl-phenylether	1	U
86-73-7	Fluorene	1	U
86-30-6	N-Nitrosodiphenylamine (1)	1	U
101-55-3	4-Bromophenyl-phenylether	1	U
118-74-1	Hexachlorobenzene	1	U
85-01-8	Phenanthrene	1	U
120-12-7	Anthracene	1	U
84-74-2	Di-n-butylphthalate	1	U
206-44-0	Fluoranthene	1	U
129-00-0	Pyrene	1	U
85-68-7	Butylbenzylphthalate	1	U
91-94-1	3,3'-Dichlorobenzidine	1	U

(1) - Cannot be separated from Diphenylamine

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK75

Lab Name: NYTEST ENV INC Contract: 9421415

Lab Code: NYTEST Case No.: 22662 SAS No.: SDG No.: ARMY3

Matrix: (soil/water) WATER Lab Sample ID: WB1230B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: S2323.D

Level: (low/med) LOW Date Received: 00/00/00

% Moisture: not dec. 0 dec. Date Extracted:12/30/94

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 01/09/95

GPC Cleanup: (Y/N) N pH: 5.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
56-55-3	Benzo(a)anthracene	1	U
218-01-9	Chrysene	1	U
117-81-7	bis(2-Ethylhexyl)phthalate	1	U
117-84-0	Di-n-octylphthalate	1	U
205-99-2	Benzo(b)fluoranthene	1	U
207-08-9	Benzo(k)fluoranthene	1	U
50-32-8	Benzo(a)pyrene	1	U
193-39-5	Indeno(1,2,3-cd)pyrene	1	U
53-70-3	Dibenz(a,h)anthracene	1	U
191-24-2	Benzo(g,h,i)perylene	1	U
62-75-9	N-Nitrosodimethylamine	1	U
92-87-5	Benzidine	100	U

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK75

Lab Name: NYTEST ENV INC Contract: 9421415

Lab Code: NYTEST Case No.: 22662 SAS No.: SDG No.: ARMY3

Matrix: (soil/water) WATER Lab Sample ID: WB1230B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: S2323.D

Level: (low/med) LOW Date Received: 00/00/00

% Moisture: not dec. 0 dec. Date Extracted:12/30/94

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 01/09/95

GPC Cleanup: (Y/N) N pH: 5.0 Dilution Factor: 1.0

Number TICs found: 0

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

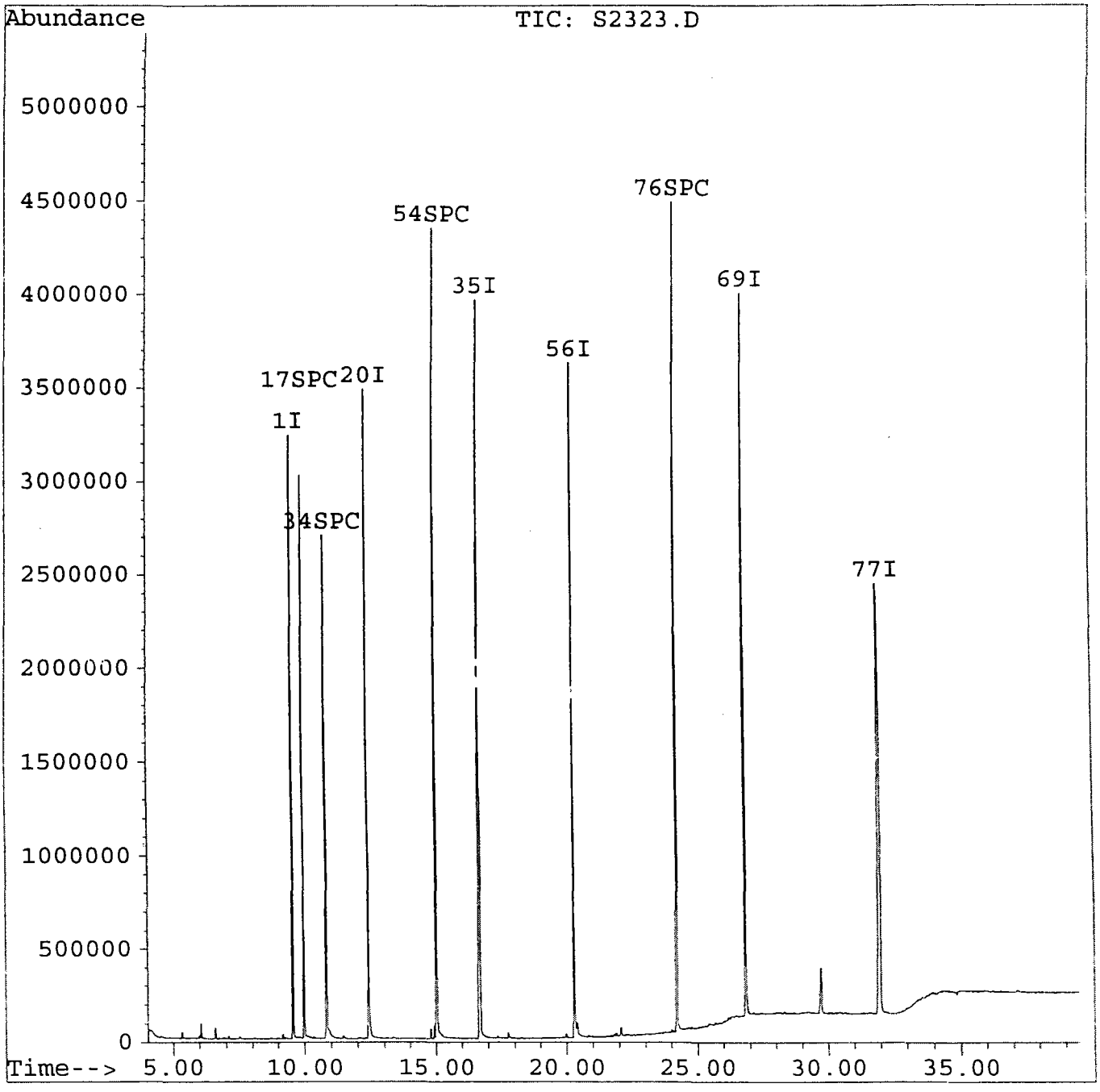
	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

Quantitation Report

Data File : c:\hpchem\1\data\0109\s2323.d
Acq On : 9 Jan 95 18:42 pm
Sample : WB1230B,SBLK75,
Misc : 1,5,,30-DEC-94,1000,1,PBN625+15, WATER
Quant Time: Jan 9 19:22 1995

Vial: 71
Operator: jr
Inst : HPS
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\625-3.M
Title : 390/ASP/8270
Last Update : Tue Jan 10 10:08:31 1995
Response via : Multiple Level Calibration



000087

Quantitation Report

Data File : c:\hpchem\1\data\0109\s2323.d Vial: 71
Acq On : 9 Jan 95 18:42 pm Operator: jr
Sample : WB1230B,SBLK75, Inst : HPS
Misc : 1,5,,30-DEC-94,1000,1,PBN625+15, WATER Multiplr: 1.00
Quant Time: Jan 9 19:22 1995

Method : C:\HPCHEM\1\METHODS\625-3.M
Title : 390/ASP/8270
Last Update : Mon Jan 09 19:03:16 1995
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-D4	9.57	152	1122540	20.00	ug/L	-0.02
20) Naphthalene-D8	12.42	136	3742537	20.00	ug/L	-0.02
35) Acenaphthene-d10	16.69	164	2067149	20.00	ug/L	-0.02
56) Phenanthrene-D10	20.29	188	3615772	20.00	ug/L	-0.04
69) Chrysene-D12	26.85	240	3540808	20.00	ug/L	-0.04
77) Perylene-D12	31.97	264	4519712	20.00	ug/L	-0.07
System Monitoring Compounds						**%Recovery**
14) 2-Fluorophenol	7.50	112	736	0.01	ug/L	0.01%
15) Phenol-d5	9.18	99	768	0.01	ug/L	0.01%
16) 2-Chlorophenol-d4	9.34	132	1783	0.02	ug/L	0.03%
17) 1,2-Dichlorobenzene-d4	9.98	150	1890598	19.32	ug/L	38.64%
34) Nitrobenzene-d5	10.83	82	1732613	22.57	ug/L	45.13%
54) 2-Fluorobiphenyl	15.02	172	3317485	20.74	ug/L	41.47%
55) 2,4,6-Tribromophenol	0.00	330	0	0.00	ug/L	0.00%
76) Terphenyl-d14	24.24	244	4008788	22.01	ug/L	44.01%
Target Compounds						**Qvalue**

000088

(#) = qualifier out of range (m) = manual integration

2C

WATER SEMIVOLATILE SURROGATE RECOVERY

Lab Name: NYTEST ENV INC Contract: 9421415

Lab Code: NYTEST Case No.: 22662 SAS No.: SDG No.: ARMY3

	EPA SAMPLE NO.	S1 (NBZ) #	S2 (FBP) #	S3 (TPH) #	S4 #	S5 #	S6 #	S7 #	S8 #	TOT OUT
01	SBLK67	34*	34*	200*	25*					4
02	814-1	33*	29*	77	24*					3
03	1076-1	34*	33*	87	27*					3
04	1076-2	28*	23*	77	18*					3
05	1076-3	40	37*	127	30*					2
06	689B-2	34*	33*	106	27*					3
07	600-1	31*	32*	117	22*					3
08	287-1	33*	36*	163*	24*					4
09	FIELDB	22*	22*	164*	13*					4
10	27004-1	23*	22*	98	17*					3
11	1220-1	19*	18*	102	14*					3
12	207B-1	18*	15*	87	13*					3
13	207B-1MS	47	46	137	41					0
14	207B-1MSD	36	39*	165*	26*					3
15	208B-1	41	42*	187*	26*					3
16	282-1	29*	31*	150*	21*					4
17	689A-1	20*	20*	133	13*					3
18	QC	21*	19*	53	15*					3
19	QCRE	23*	20*	53	14*					3
20	DUPLIC	35	35*	113	26*					2
21	SBLK75	45	41*	44	39					1
22	814-1RE	32*	31*	36	29*					3
23	1076-1RE	36	33*	39	33					1
24	600-1RE	51	48	46	44					0
25	287-1RE	43	40*	47	35					1
26	FIELDBRE	35	32*	48	28*					2
27										
28										
29										
30										

		QC LIMITS
S1 (NBZ)	= Nitrobenzene-d5	(35-114)
S2 (FBP)	= 2-Fluorobiphenyl	(43-116)
S3 (TPH)	= Terphenyl-d14	(33-141)
S4	= 1,2-Dichlorobenzene-d4	(33-110)
S5	= N/A	
S6	= N/A	
S7	= N/A	
S8	= N/A	

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate diluted out

nytest

RECOVERY REPORT

Client Name:
Sample Matrix: LIQUID
Lab Smp Id: QC
Level: LOW
Data Type: MS DATA
SpikeList File: QCCHK.spk
Method File: /chem/HPS.i/22662.b/625.m
Misc Info:

Client SDG: ARMY3a
Fraction: SV
Client Smp ID: QC
Operator:
SampleType: MS
Quant Type: ISTD

SPIKE	COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
7	Phenol	12	0.0	*	17-100
9	bis(2-Chloroethyl)	12	10	82.28	43-126
10	1,3-Dichlorobenzen	12	8	64.94	17-154
13	1,4-Dichlorobenzen	12	8	66.48	37-106
15	1,2-Dichlorobenzen	12	9	70.45	49-112
21	2,2'-oxybis(1-Chlo	12	12	92.50	63-139
18	N-Nitroso-di-n-pro	12	11	89.45	14-198
17	Hexachloroethane	12	7	59.66	55-100
20	Nitrobenzene	12	11	89.22	54-158
22	Isophorone	12	12	94.13	47-180
23	2-Nitrophenol	12	0.0	*	45-167
24	2,4-Dimethylphenol	12	0.0	*	42-109
26	bis(2-Chloroethoxy	12	11	89.48	49-165
27	2,4-Dichlorophenol	12	0.0	*	52-122
28	1,2,4-Trichloroben	12	10	76.76	57-129
31	Naphthalene	12	10	84.42	36-120
33	Hexachlorobutadien	12	9	70.07	38-102
34	4-Chloro-3-Methyl	12	0.0	*	41-128
36	Hexachlorocyclope	12	0.0	*	38-102
37	2,4,6-Trichloroph	12	0.0	*	52-129
40	2-Chloronaphthalen	12	11	90.57	64-114
43	Dimethylphthalate	12	7	53.01	0-100
42	Acenaphthylene	12	13	102.48	54-126
44	2,6-Dinitrotoluene	12	17	135.71	68-137
46	Acenaphthene	12	12	95.51	60-132
48	2,4-Dinitrophenol	12	0.0	*	0-173
50	4-Nitrophenol	12	0.0	*	13-106
8	2-Chlorophenol	12	0.0	*	36-120
51	2,4-Dinitrotoluene	12	19	155.58*	48-127
54	Diethylphthalate	12	16	127.90*	0-100
53	4-Chlorophenyl-phe	12	19	148.91*	38-145
52	Fluorene	12	17	133.28*	72-108
55	4,6-Dinitro-2-met	12	0.0	*	53-100
56	N-Nitrosodiphenyla	12	16	129.60	14-198
59	4-Bromophenyl-phen	12	16	130.35*	65-114
60	Hexachlorobenzene	12	20	156.93*	8-142

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
61 Pentachlorophenol	12	0.0	*	38-152
63 Phenanthrene	12	20	160.36*	65-109
64 Anthracene	12	19	150.37*	43-118
66 Di-n-butylphthalat	12	21	165.67*	8-111
67 Fluoranthene	12	23	187.77*	43-121
68 Pyrene	12	22	174.36*	70-100
70 Butylbenzylphthala	12	19	155.45*	0-140
73 3,3'-Dichlorobenzi	12	31	248.94*	8-212
71 Benzo(a)anthracene	12	24	195.05*	42-133
74 Chrysene	12	21	165.30*	44-140
75 bis(2-Ethylhexyl)p	12	18	148.08*	29-137
76 Di-n-octylphthalat	12	20	158.88*	19-132
77 Benzo(b)fluoranthe	12	19	155.48*	42-140
78 Benzo(k)fluoranthe	12	17	138.81	25-146
79 Benzo(a)pyrene	12	18	144.48	32-148
81 Indeno(1,2,3-cd)py	12	19	153.40*	0-151
82 Dibenz(a,h)anthrac	12	22	175.46	0-200
83 Benzo(g,h,i)peryle	12	17	137.24	0-195

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 5 1,2-Dichlorobenzen	50	8	15.20*	33-110
$ 29 Nitrobenzene-d5	50	10	20.70*	35-114
$ 39 2-Fluorobiphenyl	50	10	19.37*	43-116
$ 69 Terphenyl-d14	50	26	52.92	33-141

nytest

RECOVERY REPORT

Client Name:
Sample Matrix: LIQUID
Lab Smp Id: QCRE
Level: LOW
Data Type: MS DATA
SpikeList File: QCCHK.spk
Method File: /chem/HPS.i/22662.b/625.m
Misc Info:

Client SDG: ARMY3a
Fraction: SV
Client Smp ID: QCRE
Operator:
SampleType: MS
Quant Type: ISTD

SPIKE	COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
7	Phenol	12	0.0	*	17-100
9	bis(2-Chloroethyl)	12	9	73.09	43-126
10	1,3-Dichlorobenzen	12	7	57.92	17-154
13	1,4-Dichlorobenzen	12	8	60.77	37-106
15	1,2-Dichlorobenzen	12	8	62.95	49-112
21	2,2'-oxybis(1-Chlo	12	10	82.48	63-139
18	N-Nitroso-di-n-pro	12	10	77.80	14-198
17	Hexachloroethane	12	7	53.02*	55-100
20	Nitrobenzene	12	10	84.14	54-158
22	Isophorone	12	11	85.55	47-180
23	2-Nitrophenol	12	0.0	*	45-167
24	2,4-Dimethylphenol	12	0.0	*	42-109
26	bis(2-Chloroethoxy	12	11	84.81	49-165
27	2,4-Dichlorophenol	12	0.0	*	52-122
28	1,2,4-Trichloroben	12	9	73.98	57-129
31	Naphthalene	12	10	83.64	36-120
33	Hexachlorobutadien	12	8	67.02	38-102
34	4-Chloro-3-Methyl	12	0.0	*	41-128
36	Hexachlorocyclope	12	0.0	*	38-102
37	2,4,6-Trichloroph	12	0.0	*	52-129
40	2-Chloronaphthalen	12	11	87.52	64-114
43	Dimethylphthalate	12	6	48.24	0-100
42	Acenaphthylene	12	13	100.87	54-126
44	2,6-Dinitrotoluene	12	16	130.43	68-137
46	Acenaphthene	12	12	97.51	60-132
48	2,4-Dinitrophenol	12	0.0	*	0-173
50	4-Nitrophenol	12	0.0	*	13-106
8	2-Chlorophenol	12	0.0	*	36-120
51	2,4-Dinitrotoluene	12	18	144.06*	48-127
54	Diethylphthalate	12	16	124.02*	0-100
53	4-Chlorophenyl-phe	12	16	130.36	38-145
52	Fluorene	12	16	127.62*	72-108
55	4,6-Dinitro-2-met	12	0.0	*	53-100
56	N-Nitrosodiphenyla	12	17	135.33	14-198
59	4-Bromophenyl-phen	12	16	132.38*	65-114
60	Hexachlorobenzene	12	19	154.79*	8-142

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
61 Pentachlorophenol	12	0.0	*	38-152
63 Phenanthrene	12	20	160.99*	65-109
64 Anthracene	12	16	125.80*	43-118
66 Di-n-butylphthalat	12	20	156.62*	8-111
67 Fluoranthene	12	22	177.50*	43-121
68 Pyrene	12	22	173.40*	70-100
70 Butylbenzylphthala	12	17	137.45	0-140
73 3,3'-Dichlorobenzi	12	27	214.81*	8-212
71 Benzo(a)anthracene	12	24	191.16*	42-133
74 Chrysene	12	18	147.56*	44-140
75 bis(2-Ethylhexyl)p	12	18	141.77*	29-137
76 Di-n-octylphthalat	12	19	149.71*	19-132
77 Benzo(b)fluoranthe	12	19	149.39*	42-140
78 Benzo(k)fluoranthe	12	20	160.88*	25-146
79 Benzo(a)pyrene	12	18	140.22	32-148
81 Indeno(1,2,3-cd)py	12	18	145.59	0-151
82 Dibenz(a,h)anthrac	12	21	168.81	0-200
83 Benzo(g,h,i)peryle	12	16	128.04	0-195

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 5 1,2-Dichlorobenzen	50	7	14.43*	33-110
$ 29 Nitrobenzene-d5	50	12	23.12*	35-114
$ 39 2-Fluorobiphenyl	50	10	20.50*	43-116
$ 69 Terphenyl-d14	50	26	53.03	33-141

nytest

RECOVERY REPORT

Client Name:
Sample Matrix: LIQUID
Lab Smp Id: 2266213
Level: LOW
Data Type: MS DATA
SpikeList File: QCMS.spk
Method File: /chem/HPS.i/22662.b/625.m
Misc Info:

Client SDG: ARMY3a
Fraction: SV
Client Smp ID: 207B-1MS
Operator:
SampleType: MS
Quant Type: ISTD

SPIKE	COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
7	Phenol	50	0.0	*	17-100
9	bis(2-Chloroethyl)	50	27	54.56	43-126
10	1,3-Dichlorobenzen	50	23	46.23	17-154
13	1,4-Dichlorobenzen	50	23	46.82	37-106
15	1,2-Dichlorobenzen	50	24	48.87	49-112
21	2,2'-oxybis(1-Chlo	50	29	58.32*	63-139
18	N-Nitroso-di-n-pro	50	30	61.08	14-198
17	Hexachloroethane	50	20	40.33*	55-100
20	Nitrobenzene	50	26	52.49*	54-158
22	Isophorone	50	26	51.81	47-180
23	2-Nitrophenol	50	0.0	*	45-167
24	2,4-Dimethylphenol	50	0.0	*	42-109
26	bis(2-Chloroethoxy	50	25	49.50	49-165
27	2,4-Dichlorophenol	50	0.0	*	52-122
28	1,2,4-Trichloroben	50	23	45.44*	57-129
31	Naphthalene	50	25	50.43	36-120
33	Hexachlorobutadien	50	18	35.12*	38-102
34	4-Chloro-3-Methyl	50	0.0	*	41-128
36	Hexachlorocyclopen	50	24	48.65	38-102
37	2,4,6-Trichloroph	50	0.0	*	52-129
40	2-Chloronaphthalen	50	30	60.02*	64-114
43	Dimethylphthalate	50	21	42.15	0-100
42	Acenaphthylene	50	33	65.65	54-126
44	2,6-Dinitrotoluene	50	39	78.40	68-137
46	Acenaphthene	50	31	61.85	60-132
48	2,4-Dinitrophenol	50	0.0	*	0-173
50	4-Nitrophenol	50	0.0	*	13-106
8	2-Chlorophenol	50	0.0	*	36-120
51	2,4-Dinitrotoluene	50	42	83.11	48-127
54	Diethylphthalate	50	38	75.92	0-100
53	4-Chlorophenyl-phe	50	43	86.94	38-145
52	Fluorene	50	41	82.13	72-108
55	4,6-Dinitro-2-met	50	0.0	*	53-100
56	N-Nitrosodiphenyla	50	38	76.73	14-198
59	4-Bromophenyl-phen	50	36	73.06	65-114
60	Hexachlorobenzene	50	45	89.44	8-142

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
61 Pentachlorophenol	50	0.0	*	38-152
63 Phenanthrene	50	41	82.64	65-109
64 Anthracene	50	39	77.45	43-118
66 Di-n-butylphthalat	50	44	89.18	8-111
67 Fluoranthene	50	46	92.05	43-121
68 Pyrene	50	54	107.75*	70-100
70 Butylbenzylphthala	50	44	89.19	0-140
73 3,3'-Dichlorobenzi	50	96	192.47	8-212
71 Benzo(a)anthracene	50	61	122.37	42-133
74 Chrysene	50	50	99.07	44-140
75 bis(2-Ethylhexyl)p	50	46	91.45	29-137
76 Di-n-octylphthalat	50	39	78.35	19-132
77 Benzo(b)fluoranthe	50	31	61.99	42-140
78 Benzo(k)fluoranthe	50	38	76.20	25-146
79 Benzo(a)pyrene	50	36	71.60	32-148
81 Indeno(1,2,3-cd)py	50	38	75.93	0-151
82 Dibenz(a,h)anthrac	50	42	83.05	0-200
83 Benzo(g,h,i)peryle	50	35	69.49	0-195

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 5 1,2-Dichlorobenzen	50	20	41.18	33-110
$ 29 Nitrobenzene-d5	50	24	47.26	35-114
$ 39 2-Fluorobiphenyl	50	23	46.18	43-116
$ 69 Terphenyl-d14	50	68	137.17	33-141

nytest

RECOVERY REPORT

Client Name:
Sample Matrix: LIQUID
Lab Smp Id: 2266214
Level: LOW
Data Type: MS DATA
SpikeList File: QCMS.spk
Method File: /chem/HPS.i/22662.b/625.m
Misc Info:

Client SDG: ARMY3a
Fraction: SV
Client Smp ID: 207B-1MSD
Operator:
SampleType: MSD
Quant Type: ISTD

SPIKE	COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
7	Phenol	50	0.0	*	17-100
9	bis(2-Chloroethyl)	50	20	40.73*	43-126
10	1,3-Dichlorobenzen	50	14	28.01	17-154
13	1,4-Dichlorobenzen	50	14	29.16*	37-106
15	1,2-Dichlorobenzen	50	16	32.06*	49-112
21	2,2'-oxybis(1-Chlo	50	22	43.58*	63-139
18	N-Nitroso-di-n-pro	50	23	45.54	14-198
17	Hexachloroethane	50	11	22.87*	55-100
20	Nitrobenzene	50	20	39.31*	54-158
22	Isophorone	50	20	40.79*	47-180
23	2-Nitrophenol	50	0.0	*	45-167
24	2,4-Dimethylphenol	50	0.0	*	42-109
26	bis(2-Chloroethoxy	50	19	38.29*	49-165
27	2,4-Dichlorophenol	50	0.0	*	52-122
28	1,2,4-Trichloroben	50	14	28.08*	57-129
31	Naphthalene	50	18	36.26	36-120
33	Hexachlorobutadien	50	11	21.89*	38-102
34	4-Chloro-3-Methyl	50	0.0	*	41-128
36	Hexachlorocyclopen	50	4	8.23*	38-102
37	2,4,6-Trichloroph	50	0.0	*	52-129
40	2-Chloronaphthalen	50	24	47.96*	64-114
43	Dimethylphthalate	50	23	45.71	0-100
42	Acenaphthylene	50	29	57.48	54-126
44	2,6-Dinitrotoluene	50	43	86.37	68-137
46	Acenaphthene	50	29	57.56*	60-132
48	2,4-Dinitrophenol	50	0.0	*	0-173
50	4-Nitrophenol	50	0.0	*	13-106
8	2-Chlorophenol	50	0.0	*	36-120
51	2,4-Dinitrotoluene	50	49	97.35	48-127
54	Diethylphthalate	50	40	80.94	0-100
53	4-Chlorophenyl-phe	50	49	98.17	38-145
52	Fluorene	50	43	86.85	72-108
55	4,6-Dinitro-2-met	50	0.0	*	53-100
56	N-Nitrosodiphenyla	50	45	90.46	14-198
59	4-Bromophenyl-phen	50	50	99.94	65-114
60	Hexachlorobenzene	50	64	128.21	8-142

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
61 Pentachlorophenol	50	0.0	*	38-152
63 Phenanthrene	50	55	110.39*	65-109
64 Anthracene	50	53	106.21	43-118
66 Di-n-butylphthalat	50	60	119.59*	8-111
67 Fluoranthene	50	68	136.90*	43-121
68 Pyrene	50	63	126.71*	70-100
70 Butylbenzylphthala	50	56	111.05	0-140
73 3,3'-Dichlorobenzi	50	100	202.55	8-212
71 Benzo(a)anthracene	50	72	144.56*	42-133
74 Chrysene	50	58	116.42	44-140
75 bis(2-Ethylhexyl)p	50	51	102.08	29-137
76 Di-n-octylphthalat	50	46	92.12	19-132
77 Benzo(b)fluoranthe	50	46	92.12	42-140
78 Benzo(k)fluoranthe	50	52	103.21	25-146
79 Benzo(a)pyrene	50	44	87.86	32-148
81 Indeno(1,2,3-cd)py	50	48	95.91	0-151
82 Dibenz(a,h)anthrac	50	55	109.73	0-200
83 Benzo(g,h,i)peryle	50	43	86.73	0-195

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 5 1,2-Dichlorobenzen	50	13	26.20*	33-110
$ 29 Nitrobenzene-d5	50	18	36.24	35-114
$ 39 2-Fluorobiphenyl	50	19	38.83*	43-116
$ 69 Terphenyl-d14	50	82	165.13*	33-141

4B

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

SBLK67

Lab Name: NYTEST ENV INC Contract: 9421415

Lab Code: NYTEST Case No.: 22662 SAS No.: SDG No.: ARMY3

Lab File ID: S2189.D Lab Sample ID: WB1205A

Date Extracted: 12/05/94 Extraction:(SepF/Cont/Sonc) SEPF

Date Analyzed: 12/29/94 Time Analyzed: 1428

Matrix: (soil/water) WATER Level:(low/med) LOW

Instrument ID: HPS

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	814-1	2266201	S2190.D	12/29/94
02	1076-1	2266202	S2191.D	12/29/94
03	1076-2	2266203	S2192.D	12/29/94
04	1076-3	2266204	S2193.D	12/29/94
05	689B-2	2266205	S2194.D	12/29/94
06	600-1	2266206	S2195.D	12/29/94
07	287-1	2266207	S2196.D	12/29/94
08	FIELDB	2266208	S2197.D	12/29/94
09	27004-1	2266210	S2199.D	12/29/94
10	1220-1	2266211	S2200.D	12/29/94
11	207B-1	2266212	S2201.D	12/30/94
12	207B-1MS	2266213	S2206.D	12/30/94
13	207B-1MSD	2266214	S2207.D	12/30/94
14	208B-1	2266215	S2208.D	12/30/94
15	282-1	2266216	S2209.D	12/30/94
16	689A-1	2266217	S2210.D	12/30/94
17	QC	QC	S2217.D	12/30/94
18	QCRE	QCRE	S2221.D	01/03/95
19	DUPLIC	2266209	S2222.D	01/03/95
20				
21				
22				
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COMMENTS:

4B

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

SBLK75

Lab Name: NYTEST ENV INC Contract: 9421415

Lab Code: NYTEST Case No.: 22662 SAS No.: SDG No.: ARMY3

Lab File ID: S2323.D Lab Sample ID: WB1230B

Date Extracted: 12/30/94 Extraction: (SepF/Cont/Sonc) SEPF

Date Analyzed: 01/09/95 Time Analyzed: 1842

Matrix: (soil/water) WATER Level: (low/med) LOW

Instrument ID: HPS

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	814-1RE	2266201	S2324.D	01/09/95
02	1076-1RE	2266202	S2325.D	01/09/95
03	600-1RE	2266206	S2326.D	01/09/95
04	287-1RE	2266207	S2327.D	01/09/95
05	FIELDBRE	2266208	S2328.D	01/09/95
06				
07				
08				
09				
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COMMENTS:

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: NYTEST ENV INC Contract: 9421415

Lab Code: NYTEST Case No.: 22662 SAS No.: SDG No.: ARMY3

Lab File ID: S2175.D DFTPP Injection Date: 12/28/94

Instrument ID: HPS DFTPP Injection Time: 1745

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	47.5
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	65.9
70	Less than 2.0% of mass 69	0.3 (0.4)1
127	40.0 - 60.0% of mass 198	53.2
197	Less than 1.0% of mass 198	0.0
198	Base peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.6
275	10.0 - 30.0% of mass 198	18.4
365	Greater than 1.00% of mass 198	2.66
441	Present, but less than mass 443	7.3
442	Greater than 40.0% of mass 198	49.9
443	17.0 - 23.0% of mass 442	9.8 (19.5)2

1-Value is % mass 69 2-Value is % mass 442

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD010	SSTD010	S2176.D	12/28/94	1759
02	SSTD020	SSTD020	S2177.D	12/28/94	1848
03	SSTD050	SSTD050	S2178.D	12/28/94	1937
04					
05					
06					
07					
08					
09					
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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: NYTEST ENV INC Contract: 9421415

Lab Code: NYTEST Case No.: 22662 SAS No.: SDG No.: ARMY3

Lab File ID: S2175.D DFTPP Injection Date: 12/28/94

Instrument ID: HPS DFTPP Injection Time: 1745

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	47.5
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	65.9
70	Less than 2.0% of mass 69	0.3 (0.4)1
127	40.0 - 60.0% of mass 198	53.2
197	Less than 1.0% of mass 198	0.0
198	Base peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.6
275	10.0 - 30.0% of mass 198	18.4
365	Greater than 1.00% of mass 198	2.66
441	Present, but less than mass 443	7.3
442	Greater than 40.0% of mass 198	49.9
443	17.0 - 23.0% of mass 442	9.8 (19.5)2

1-Value is % mass 69 2-Value is % mass 442

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	BENZ1	BENZ1	S2181.D	12/28/94	2204
02	BENZ2	BENZ2	S2182.D	12/28/94	2253
03	BENZ3	BENZ3	S2183.D	12/28/94	2342
04					
05					
06					
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08					
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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: NYTEST ENV INC Contract: 9421415

Lab Code: NYTEST Case No.: 22662 SAS No.: SDG No.: ARMY3

Lab File ID: S2186.D DFTPP Injection Date: 12/29/94

Instrument ID: HPS DFTPP Injection Time: 1223

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	51.7
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	67.8
70	Less than 2.0% of mass 69	0.3 (0.4)1
127	40.0 - 60.0% of mass 198	54.6
197	Less than 1.0% of mass 198	0.0
198	Base peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.5
275	10.0 - 30.0% of mass 198	17.9
365	Greater than 1.00% of mass 198	2.71
441	Present, but less than mass 443	6.8
442	Greater than 40.0% of mass 198	47.7
443	17.0 - 23.0% of mass 442	9.3 (19.6)2

1-Value is % mass 69 2-Value is % mass 442

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD050	SSTD050	S2187.D	12/29/94	1236
02	SBLK67	WB1205A	S2189.D	12/29/94	1428
03	814-1	2266201	S2190.D	12/29/94	1517
04	1076-1	2266202	S2191.D	12/29/94	1609
05	1076-2	2266203	S2192.D	12/29/94	1657
06	1076-3	2266204	S2193.D	12/29/94	1746
07	689B-2	2266205	S2194.D	12/29/94	1834
08	600-1	2266206	S2195.D	12/29/94	1930
09	287-1	2266207	S2196.D	12/29/94	2019
10	FIELDB	2266208	S2197.D	12/29/94	2110
11	27004-1	2266210	S2199.D	12/29/94	2246
12	1220-1	2266211	S2200.D	12/29/94	2334
13	207B-1	2266212	S2201.D	12/30/94	0022
14					
15	Benz3	Benz3	S2188.D	12/29/94	1339
16					
17					
18					
19					
20					
21					
22					

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: NYTEST ENV INC Contract: 9421415

Lab Code: NYTEST Case No.: 22662 SAS No.: SDG No.: ARMY3

Lab File ID: S2202.D DFTPP Injection Date: 12/30/94

Instrument ID: HPS DFTPP Injection Time: 0105

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	43.6
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	58.9
70	Less than 2.0% of mass 69	0.2 (0.4)1
127	40.0 - 60.0% of mass 198	50.7
197	Less than 1.0% of mass 198	0.0
198	Base peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.7
275	10.0 - 30.0% of mass 198	19.7
365	Greater than 1.00% of mass 198	3.02
441	Present, but less than mass 443	8.6
442	Greater than 40.0% of mass 198	59.5
443	17.0 - 23.0% of mass 442	11.4 (19.2)2

1-Value is % mass 69 2-Value is % mass 442

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD050	SSTD050	S2203.D	12/30/94	0120
02	207B-1MS	2266213	S2206.D	12/30/94	0343
03	207B-1MSD	2266214	S2207.D	12/30/94	0431
04	208B-1	2266215	S2208.D	12/30/94	0519
05	282-1	2266216	S2209.D	12/30/94	0607
06	689A-1	2266217	S2210.D	12/30/94	0655
07	QC	QC	S2217.D	12/30/94	1233
08					
09	Benz3	Benz3	S2204.D	12/30/94	0207
10					
11					
12					
13					
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000103

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: NYTEST ENV INC Contract: 9421415

Lab Code: NYTEST Case No.: 22662 SAS No.: SDG No.: ARMY3

Lab File ID: S2218.D DFTPP Injection Date: 01/03/95

Instrument ID: HPS DFTPP Injection Time: 1202

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	45.9
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	63.3
70	Less than 2.0% of mass 69	0.3 (0.4)1
127	40.0 - 60.0% of mass 198	51.4
197	Less than 1.0% of mass 198	0.0
198	Base peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.6
275	10.0 - 30.0% of mass 198	18.9
365	Greater than 1.00% of mass 198	2.83
441	Present, but less than mass 443	7.1
442	Greater than 40.0% of mass 198	49.4
443	17.0 - 23.0% of mass 442	9.5 (19.2)2

1-Value is % mass 69 2-Value is % mass 442

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD050	SSTD050	S2219.D	01/03/95	1216
02	QCRE	QCRE	S2221.D	01/03/95	1401
03	DUPLIC	2266209	S2222.D	01/03/95	1450
04					
05	Benz3	Benz3	S2220.D	1/3/95	1313
06					
07					
08					
09					
10					
11					
12					
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15					
16					
17					
18					
19					
20					
21					
22					

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: NYTEST ENV INC Contract: 9421415

Lab Code: NYTEST Case No.: 22662 SAS No.: SDG No.: ARMY3

Lab File ID: S2316.D DFTPP Injection Date: 01/09/95

Instrument ID: HPS DFTPP Injection Time: 1337

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	40.1
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	48.2
70	Less than 2.0% of mass 69	0.1 (0.2)1
127	40.0 - 60.0% of mass 198	42.9
197	Less than 1.0% of mass 198	0.0
198	Base peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.7
275	10.0 - 30.0% of mass 198	20.7
365	Greater than 1.00% of mass 198	3.33
441	Present, but less than mass 443	12.7
442	Greater than 40.0% of mass 198	83.2
443	17.0 - 23.0% of mass 442	16.2 (19.5)2

1-Value is % mass 69 2-Value is % mass 442

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD010	SSTD010	S2317.D	01/09/95	1351
02	SSTD020	SSTD020	S2318.D	01/09/95	1440
03	SSTD050	SSTD050	S2319.D	01/09/95	1528
04	SBLK75	WB1230B	S2323.D	01/09/95	1842
05	814-1RE	2266201	S2324.D	01/09/95	1931
06	1076-1RE	2266202	S2325.D	01/09/95	2019
07	600-1RE	2266206	S2326.D	01/09/95	2108
08	287-1RE	2266207	S2327.D	01/09/95	2156
09	FIELDBRE	2266208	S2328.D	01/09/95	2244
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: NYTEST ENV INC Contract: 9421415

Lab Code: NYTEST Case No.: 22662 SAS No.: SDG No.: ARMY3

Instrument ID: HPS Calibration Date(s): 12/28/94

Max %RSD for CCC(*) = 35.0%

LAB FILE ID: RRF010 =S2176.D RRF020 =S2177.D
RRF050 =S2178.D RRF080= RRF160=

COMPOUND	RRF010	RRF020	RRF050	RRF080	RRF160	$\overline{RRF}$	% RSD
bis(2-Chloroethyl)Ether	1.251	1.154	1.212			1.206	4.0
1,3-Dichlorobenzene	1.213	1.229	1.289			1.244	3.2
1,4-Dichlorobenzene	1.352	1.355	1.368			1.359	0.6
1,2-Dichlorobenzene	1.212	1.241	1.339			1.264	5.3
2,2'-oxybis(1-Chloropropane)	1.909	1.801	1.818			1.843	3.2
N-Nitroso-di-n-propylamine	1.041	1.037	1.005			1.028	1.9
Hexachloroethane	0.722	0.691	0.718			0.711	2.4
Nitrobenzene	0.432	0.400	0.416			0.416	3.8
Isophorone	0.808	0.779	0.793			0.793	1.8
1,2,4-Trichlorobenzene	0.243	0.247	0.267			0.253	5.2
Naphthalene	0.950	0.928	1.004			0.961	4.1
bis(2-Chloroethoxy)methane	0.429	0.422	0.427			0.426	0.9
Hexachlorobutadiene	0.138	0.136	0.153			0.142	6.6
Hexachlorocyclopentadiene	0.060	0.040	0.104			0.000	0.0
2-Chloronaphthalene	0.927	1.012	1.047			0.995	6.2
Dimethylphthalate	1.163	1.200	1.190			1.184	1.5
Acenaphthylene	1.691	1.610	1.757			1.686	4.4
2,6-Dinitrotoluene	0.297	0.296	0.339			0.311	7.9
Acenaphthene	1.066	0.993	1.153			1.070	7.5
2,4-Dinitrotoluene	0.372	0.345	0.375			0.364	4.6
Diethylphthalate	1.441	1.401	1.449			1.430	1.8
4-Chlorophenyl-phenylether	0.455	0.422	0.559			0.479	15.0
Fluorene	1.128	1.106	1.326			1.187	10.2
N-Nitrosodiphenylamine (1)	0.422	0.433	0.387			0.414	5.6
4-Bromophenyl-phenylether	0.136	0.152	0.186			0.158	16.3
Hexachlorobenzene	0.185	0.197	0.233			0.205	12.1
Phenanthrene	0.974	1.045	1.132			1.051	7.5
Anthracene	1.005	0.988	1.164			1.052	9.2
Di-n-butylphthalate	1.751	1.910	2.099			1.920	9.1
Fluoranthene	0.957	1.002	1.137			1.032	9.1
Pyrene	0.936	1.029	1.070			1.012	6.8
Butylbenzylphthalate	0.800	0.879	0.845			0.842	4.7
3,3'-Dichlorobenzidine	0.217	0.227	0.235			0.226	3.9
Benzo(a)anthracene	0.866	0.891	1.004			0.920	8.0
Chrysene	0.836	0.945	1.182			0.988	17.9
bis(2-Ethylhexyl)phthalate	1.329	1.468	1.593			1.463	9.0
Di-n-octylphthalate	2.769	3.435	3.847			3.350	16.2

(1) - Cannot be separated from Diphenylamine

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: NYTEST ENV INC Contract: 9421415

Lab Code: NYTEST Case No.: 22662 SAS No.: SDG No.: ARMY3

Instrument ID: HPS Calibration Date(s): 12/28/94

Max %RSD for CCC(*) = 35.0%

LAB FILE ID: RRF010 =S2176.D RRF020 =S2177.D
RRF050 =S2178.D RRF080= RRF160=

COMPOUND	RRF010	RRF020	RRF050	RRF080	RRF160	$\overline{RRF}$	% RSD
Benzo(b)fluoranthene	1.059	1.279	1.478			1.272	16.5
Benzo(k)fluoranthene	1.035	1.175	1.513			1.241	19.8
Benzo(a)pyrene	0.935	1.134	1.302			1.124	16.3
Indeno(1,2,3-cd)pyrene	1.064	1.321	1.504			1.297	17.0
Dibenz(a,h)anthracene	0.862	1.068	1.319			1.083	21.2
Benzo(g,h,i)perylene	0.853	1.073	1.169			1.031	15.7
N-Nitrosodimethylamine	1.028	1.031	0.992			1.017	2.2
Nitrobenzene-d5	0.452	0.415	0.426			0.431	4.4
2-Fluorobiphenyl	1.030	1.009	1.151			1.063	7.2
Terphenyl-d14	0.605	0.621	0.692			0.639	7.3
1,2-Dichlorobenzene-d4	1.372	1.432	1.542			1.449	6.0

(1) - Cannot be separated from Diphenylamine

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: NYTEST ENV INC Contract: 9421415

Lab Code: NYTEST Case No.: 22662 SAS No.: SDG No.: ARMY3

Instrument ID: HPS Calibration Date(s): 12/28/94

Max %RSD for CCC(*) = 35.0%

LAB FILE ID: RRF010 =S2181.D RRF020 =S2182.D
RRF050 =S2183.D RRF080= RRF160=

COMPOUND	RRF010	RRF020	RRF050	RRF080	RRF160	$\overline{RRF}$	% RSD
Benzidine	7.489	10.06	6.960			8.170	20.3

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: NYTEST ENV INC Contract: 9421415

Lab Code: NYTEST Case No.: 22662 SAS No.: SDG No.: ARMY3

Instrument ID: HPS Calibration Date(s): 01/09/95

Max %RSD for CCC(*) = 35.0%

LAB FILE ID: RRF010 =S2317.D RRF020 =S2318.D
RRF050 =S2319.D RRF080= RRF160=

COMPOUND	RRF010	RRF020	RRF050	RRF080	RRF160	$\overline{RRF}$	% RSD
bis(2-Chloroethyl)Ether	1.165	1.284	1.047			1.165	10.2
1,3-Dichlorobenzene	1.801	1.873	1.474			1.716	12.4
1,4-Dichlorobenzene	1.767	1.852	1.440			1.686	12.9
1,2-Dichlorobenzene	1.713	1.735	1.274			1.574	16.5
2,2'-oxybis(1-Chloropropane)	1.900	2.028	1.728			1.885	8.0
N-Nitroso-di-n-propylamine	0.936	1.014	0.843			0.931	9.2
Hexachloroethane	0.681	0.729	0.593			0.668	10.3
Nitrobenzene	0.387	0.422	0.355			0.388	8.6
Isophorone	0.812	0.952	0.693			0.786	10.5
1,2,4-Trichlorobenzene	0.450	0.451	0.319			0.406	18.6
Naphthalene	1.269	1.302	0.985			1.185	14.7
bis(2-Chloroethoxy)methane	0.485	0.518	0.419			0.474	10.6
Hexachlorobutadiene	0.262	0.271	0.213			0.249	12.5
Hexachlorocyclopentadiene	0.043	0.098	0.190			0.000	0.0
2-Chloronaphthalene	1.480	1.487	1.074			1.347	17.5
Dimethylphthalate	1.787	1.841	1.401			1.676	14.3
Acenaphthylene	2.225	2.192	1.500			1.972	20.8
2,6-Dinitrotoluene	0.423	0.505	0.460			0.463	8.9
Acenaphthene	1.409	1.420	1.035			1.288	17.0
2,4-Dinitrotoluene	0.423	0.505	0.461			0.463	8.9
Diethylphthalate	1.753	1.811	1.374			1.646	14.4
4-Chlorophenyl-phenylether	0.745	0.720	0.488			0.651	21.7
Fluorene	1.506	1.444	0.987			1.312	21.6
N-Nitrosodiphenylamine (1)	0.672	0.677	0.462			0.604	20.3
4-Bromophenyl-phenylether	0.296	0.318	0.242			0.285	13.8
Hexachlorobenzene	0.317	0.385	0.279			0.327	16.3
Phenanthrene	1.407	1.485	1.091			1.328	15.7
Anthracene	1.398	1.505	1.095			1.333	15.9
Di-n-butylphthalate	1.873	1.997	1.505			1.792	14.3
Fluoranthene	1.475	1.556	1.158			1.397	15.1
Pyrene	1.542	1.659	1.288			1.496	12.7
Butylbenzylphthalate	0.858	0.939	0.779			0.859	9.3
3,3'-Dichlorobenzidine	0.444	0.356	0.239			0.346	29.7
Benzo(a)anthracene	1.379	1.434	1.082			1.298	14.6
Chrysene	1.275	1.299	0.904			1.160	19.1
bis(2-Ethylhexyl)phthalate	1.170	1.197	0.889			1.085	15.7
Di-n-octylphthalate	1.976	2.652	2.107			2.245	16.0

(1) - Cannot be separated from Diphenylamine

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SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: NYTEST ENV INC Contract: 9421415

Lab Code: NYTEST Case No.: 22662 SAS No.: SDG No.: ARMY3

Instrument ID: HPS Calibration Date(s): 01/09/95

Max %RSD for CCC(*) = 35.0%

LAB FILE ID: RRF010 =S2317.D RRF020 =S2318.D
RRF050 =S2319.D RRF080= RRF160=

COMPOUND	RRF010	RRF020	RRF050	RRF080	RRF160	$\overline{RRF}$	% RSD
Benzo(b)fluoranthene	1.410	1.802	1.464			1.559	13.6
Benzo(k)fluoranthene	1.116	1.609	1.246			1.324	19.3
Benzo(a)pyrene	1.215	1.651	1.350			1.405	15.9
Indeno(1,2,3-cd)pyrene	1.435	1.954	1.597			1.662	16.0
Dibenz(a,h)anthracene	1.146	1.560	1.238			1.315	16.5
Benzo(g,h,i)perylene	1.237	1.682	1.406			1.442	15.6
N-Nitrosodimethylamine	0.892	0.932	0.744			0.856	11.6
Benzidine	0.059	0.041	0.030			0.043	34.3
Nitrobenzene-d5	0.401	0.448	0.383			0.410	8.2
2-Fluorobiphenyl	1.698	1.698	1.248			1.548	16.8
Terphenyl-d14	1.083	1.137	0.867			1.029	13.9
1,2-Dichlorobenzene-d4	1.942	1.918	1.370			1.744	18.6

(1) - Cannot be separated from Diphenylamine

000110