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REGION 6



SITE INVESTIGATION REPORT

Chicago Pneumatic Tool Company

Frankfort, New York

July 1990



BLASLAND & BOUCK ENGINEERS, P.C.

BLASLAND, BOUCK & LEE

ENGINEERS & GEOSCIENTISTS



New York State Department of Environmental Conservation

MEMORANDUM

TO: Darrell Sweredoski, Regional Hazardous Waste Remediation Engineer, Region 6
FROM: Thomas A. Reamon, Chief, Central Investigation Section, BHSC *TR*
SUBJECT: Chicago Pneumatic, Site Number 622003, Herkimer County

DATE: JUL 18 1990

Attached is a copy of a site investigation report by Blasland & Bouck Engineers for the Chicago Pneumatic Site in Herkimer County, Site Number 622003. This report was prepared by Blasland & Bouck for the Chicago Pneumatic Tool Company absent a consent order with the New York State Department of Environmental Conservation.

We plan to use this report as source material for the Task 1 Preliminary Site Assessment report. E.C. Jordan will be requested to evaluate this report to determine if the findings of the draft Task 1 PSA report may change due to the information presented in the Blasland & Bouck report. Depending upon Jordan's evaluation and the Department's acceptance of the same, Chicago Pneumatic will be informed of a decision to reclassify and/or referred again to enter into Consent Order negotiations with the Department.

Attachment

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REGIONAL ENGINEER



New York State Department of Environmental Conservation

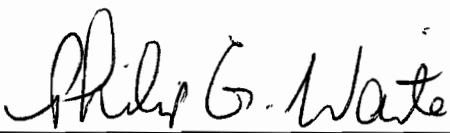
MEMORANDUM

TO: MAURA DESMOND, DEE, REGION 9
FROM: PHILIP WAITE, DER, REGION 6
SUBJ: CHICAGO PNEUMATIC TOOL COMPANY, SITE NO. 622003
DATE: June 24, 2002

As requested, attached please find the following reports pertaining to the above referenced site:

1. *Phase I Investigation*, for NYSDEC by Recra Research, Inc., dated August 1985.
2. *Final Draft Site Inspection Report and Hazard Ranking System Model*, for USEPA by NUS Corporation, dated September 15, 1986.
3. *Site Investigation Report*, for Chicago Pneumatic by Blasland, Bouck & Lee, dated July 1990.

Please return these to me as soon as you're finished with them since they are my only copies for the Administrative Record. Feel free to call me at (315) 785-2513 with any questions.


Philip Waite, P.E.
Attachment

cc w/o att.: D. Sweredoski

RECEIVED

JUN 24 2002

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DIV. ENVIRONMENTAL
MANAGEMENT

RETURN



BLASLAND & BOUCK ENGINEERS, P.C.

ENGINEERS & GEOSCIENTISTS

6723 Towpath Road, Box 66, Syracuse, New York 13214 (315) 446-9120

FAX: (315) 449-0017

July 16, 1990

Thomas Reamon
Chief, Central Investigation Section
Bureau of Hazardous Site Control
Division of Hazardous Waste Remediation
50 Wolf Road
Albany, NY 12233

Re: Site Investigation Report
Chicago Pneumatic Tool Company

File: 307.03

Dear Mr. Reamon:

Submitted are 8 copies of the Site Investigation Report for the Chicago Pneumatic Tool Company, Frankfort, New York. This report contains a summary of the progression of our investigation to address chemical compounds identified in the ground water, surface water and soils at the facility.

Following your review of the report, we would like to be able to set up a meeting to further discuss the results and our proposal for additional on-site activities.

We will look forward to hearing from you.

Very truly yours,

BLASLAND & BOUCK ENGINEERS, P.C.

Tyler E. Gass
Tyler E. Gass, C.P.G.
Vice President

TEG/nyb
Attachments

SITE INVESTIGATION REPORT

CHICAGO PNEUMATIC TOOL COMPANY
FRANKFORT, NEW YORK

JUNE 1990

BLASLAND & BOUCK ENGINEERS, P.C.
6723 TOWPATH ROAD
BOX 66
SYRACUSE, NEW YORK 13214

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EXECUTIVE SUMMARY

Blasland & Bouck Engineers, P.C. (Blasland & Bouck) initiated an environmental assessment of the Chicago Pneumatic facility in Frankfort, New York, in January 1988. The assessment was initiated following the sale of the Chicago Pneumatic facility from the Danaher Corporation to Atlas Copco in 1987. The purpose of the assessment was to address environmental issues raised by a 1986 United States Environmental Protection Agency (EPA) Site Inspection Report. The main objective of Blasland & Bouck's site investigation was to determine surface and subsurface conditions, as well as to define the location and extent of probable source areas. The overall investigation was progressive in nature, with each phase designed to meet specific objectives and provide greater characterization of the site.

The site history is described in the "Summary of Site Activities and Quality Assurance Project Plan (QAPP)" (Blasland & Bouck, June 1990). Initially, the investigation focused on characterizing site conditions, including surface water, soil, sediment, and ground-water quality. Based on the results of this phase of the investigation and information gathered during review of the site history, additional work was conducted in an area alleged to contain buried debris related to the manufacturing processes. Analysis and review of data gathered during our investigation of the alleged debris area, and during previous investigations, led to an expanded environmental program which further characterized surface and subsurface conditions and defined probable source areas for certain chemical compounds. The ultimate objective of the investigation was to provide a solid data base from which remedial alternatives could be identified.

The environmental assessment included the installation of seven

monitoring wells and the collection and laboratory analysis of surface water and ground-water samples, as well as soil and sediment samples. Surface water and ground-water samples were analyzed for lead, zinc, and volatile organic compounds using EPA-approved methodologies. Soil and sediment samples were analyzed for polychlorinated biphenyls (PCBs), lead, zinc, and volatile organic compounds using EPA-approved methodologies. The results of the investigation confirmed the presence of low levels of organic and inorganic compounds. The concentrations of metals, PCBs, and organic compounds detected in the sediments and soils sampled in 1988 were substantially lower than the concentrations detected in sediments and soils taken by the EPA at nearly the same locations in 1986.

The investigation of an area of alleged landfill activity was conducted by Blasland & Bouck between September 1988 and January 1989. The investigation included both a magnetometer survey to delineate the extent of any buried debris, and the excavation and evaluation of five test pits. The results of the investigation confirmed the presence of oil wastes and buried debris, and appeared to have defined its limits.

An expanded environmental assessment was initiated in September 1989 to further characterize subsurface conditions. The supplemental site activities included the installation of five additional monitoring wells and the sampling and analysis of soil, ground water, and surface water. The samples were analyzed for lead, zinc, and PCBs using EPA-approved methodologies, and volatile and semi-volatile organic compounds using the EPA Contract Laboratory Protocols (CLP).

The results of the investigation indicated that plant operations and waste management practices have had an impact on the soil, ground-water, and surface water quality. Soil sampling results indicated that volatile and

semi-volatile organic compounds are present in the unsaturated zone. PCB levels detected in the unsaturated zone are below existing EPA action guidelines.

Ground-water and surface water analytical data indicated that lead, PCBs, and volatile and semi-volatile organic compounds are present at or above state standards or guidelines for drinking water at some sampling locations. Three main source areas have been identified for these compounds: the buried ponds, the buried debris area, and the chip chute area. Other possible source areas are discussed in section 4.6.

SECTION 1 - ENVIRONMENTAL ASSESSMENT

1.1 Phase-Specific Objectives

Blasland & Bouck initiated an environmental assessment of the Chicago Pneumatic facility in order to investigate issues raised by the 1986 EPA Site Inspection Report and to address surface and subsurface conditions, including ground-water flow and the potential for off-site contamination.

1.2 Scope of Work

The environmental assessment included a review of historical aerial photographs, the installation of shallow ground-water monitoring wells (MW-1 to MW-7), and the sampling and analysis of ground-water, sediment, and soil samples. Details of the health and safety practices implemented during the investigation can be found in Appendix A. The field program was conducted from January 18 through March 18, 1988. All of the field work was observed by ENSR Consulting and Engineering (formerly ERT) of Acton, Massachusetts.

Seven monitoring wells were installed in overburden at the Chicago Pneumatic manufacturing facility from January 19 through 21, 1988 (Figure 2). Two wells, MW-6 and MW-7, were installed adjacent to the northern property boundary. Another well, MW-3, was installed at the eastern edge of the manufacturing building. Two wells, MW-2 and MW-5, were installed hydraulically downgradient from three former oil/water separation ponds. One well, MW-4, was installed near the unnamed creek at the western boundary of the property. The seventh well, MW-1, was installed upgradient at the southern border of the property.

The monitoring wells were installed in borings advanced with a CME-75 rotary drill rig using hollow-stem augers in accordance with protocols detailed in Appendix B. Soil samples were obtained continuously from the ground surface to the full depth of the boring using a two-foot long, two-inch diameter split-spoon sampler in accordance with Appendix C. No soil samples obtained during monitoring well installation were submitted for laboratory analyses. A 10.2 eV photoionization detector (HNU) was used to determine whether organic vapors were emanating from the borehole. No organic vapors were detected during the drilling program.

Drill rods, augers, and split-spoons used at each borehole were steam-cleaned before and after each use in order to prevent the cross-contamination of monitoring wells. The water used during the drilling program was supplied by Chicago Pneumatic from their power house building on-site. The water source was from a city of Utica public water supply.

Each monitoring well was constructed of 2-inch diameter, Schedule 40 PVC. The well screens were constructed of .010-inch slot, 2-inch diameter PVC, and extended from approximately 11 feet to 1 foot below grade so as to intercept the water table surface. Details of monitoring well construction can be found in Appendix D. Protective casings were not installed on wells MW-1, 2, 3, and 5 because they would have restricted the movement of separate-phase hydrocarbons (SPH), if present, into the well. The remaining three wells, MW-4, 6, and 7, were installed in flush-mounted curb boxes. All of the wells were fitted with identically keyed locks. Subsurface logs and monitoring well completion details are included in Appendix E.

The wells were developed under the supervision of a geologist on January 21, 1988, following protocols described in Appendix D in order to establish a hydraulic connection between the well and the surrounding aquifer

material. Water level measurements taken ten days later, following protocols described in Appendix F, indicated that the wells displayed ample hydraulic connection with the surrounding ground-water system.

The well locations and elevations were surveyed on February 2, 1988, by Blasland & Bouck personnel. No USGS benchmark was in the immediate vicinity, therefore, a benchmark was set at the main entrance to the Chicago Pneumatic manufacturing building. A square was chiseled into the northeast corner of the top of the stair landing. The benchmark was assigned a datum of 100.00 feet. The monitoring well elevations are referenced to the facility datum and are shown in Table 1.

Seven monitoring wells (MW-1 to MW-7), shown on Figure 2, were sampled on February 2, 1988, by Blasland & Bouck geologists in accordance with protocols detailed in Appendix G. A 1-7/8" outside diameter (O.D.) stainless steel bottom-loading bailer was used to evacuate and sample the wells. At least three well volumes of water were evacuated from each well before sampling. A YSI conductivity meter was used to measure the conductivity, temperature and salinity of the water from each well. A volume of sample was poured into a decontaminated plastic container and the temperature/conductivity probe was completely submerged and allowed to equilibrate for one minute before each parameter was recorded. A chain-of-custody record was initiated at the time of sample collection (Appendix H). The water samples were maintained in the custody of Blasland & Bouck personnel until they were delivered to O'Brien & Gere Laboratories in Syracuse, New York, for analysis. The samples filtered in the field were analyzed for dissolved lead and zinc according to EPA Method 6010. The unfiltered samples were analyzed for halogenated and aromatic organic

compounds according to EPA Method 8010/8020, and pH. The results of the laboratory analyses can be found in Appendix I.

Five surface water samples were taken by ENSR on February 2, 1988 at locations identified on Figure 3. The sampling protocol is described in Appendix J. The samples were analyzed by ENSR's laboratory in Concord, Massachusetts. Those parameters detected in the analyses are listed in Table 2.

Soil and sediment samples were taken by Blasland & Bouck personnel on March 15, 1988. The sampling schedule was postponed until that time because of frozen ground during January and February. The seven drainage ditch sediment sampling locations and three soil sampling locations are shown on Figure 3. Two sediment samples, SS-2 and SS-9, were obtained from the drainage ditch on the east side of the plant site and downstream from where detectable levels of PCBs were found during the EPA investigation. One sediment sample, SS-4, was obtained from the ditch downgradient from the chip chute. One sediment sample was obtained from each of the two ditches downgradient from the three former ponds (SS-5 and SS-6). Another sediment sample, SS-3, was obtained from the State Pollutant Discharge Elimination System (SPDES) sampling point downstream from the oil/water separation lagoon. One sediment sample, SS-1, was obtained at the westernmost boundary of the property from the outflow of the culvert pipes draining the marsh/wetland. Three soil samples, SS-7, SS-8, and SS-10, were obtained in the vicinity of the foundry. These samples were near sampling locations where concentrations of PCBs were previously identified.

All of the soil and sediment samples, except for SS-2, were obtained from 0 to 1 feet below grade and from 1 to 2 feet below grade by driving a two-inch, two-foot long steel split-spoon sampler into the subsurface with

a sledgehammer in accordance with methodologies described in Appendix K. The split-spoon was then removed from the ground and a sample was obtained from the top half and bottom half of the sampler. The sample from 0 to 1 foot was designated as the 'A' sample and the sample from 1 to 2 feet was designated as the 'B' sample. At sampling location SS-2, the spoon was advanced only one foot into the glacial till. Therefore, one sample was obtained from 0 to 6 inches (sample SS-2A) and another from 6 to 12 inches (sample SS-2B). The samples were placed in jars, labelled and classified, then stored in a cooler until delivered to the laboratory.

All of the samples, except for SS-7, SS-8, and SS-10, were analyzed for halogenated and aromatic organic compounds (EPA Method 8010/8020), PCB compounds (EPA Method 8080), and lead and zinc (EPA Method 6010). Samples SS-7, SS-8, and SS-10 were analyzed for PCBs, lead, and zinc using identical methodologies. The analytical results are found in Appendix L.

SECTION 2 - TEST PIT EXCAVATION AND EVALUATION

2.1 Phase-Specific Objectives

In September 1988, Blasland & Bouck conducted an investigation in an area of alleged landfill activity to the south of the facility's foundry building (Figure 4). The purpose of the investigation was to confirm the presence of fill material and determine its nature and extent.

2.2 Scope of Work

A magnetometer survey was completed by Blasland & Bouck in an alleged buried debris area. Conversations with past and present Chicago Pneumatic employees indicated that an area south of the existing foundry building may have formerly been used as a fill area by plant personnel. Prior to establishing a grid pattern of more than 150 stations, a series of background measurements were obtained to determine and isolate effects from background conditions. Results of the survey indicated that three magnetic anomalies were present. Based on results of the geophysical survey, five test pits were excavated between January 24 and 25, 1989, by a subcontractor to Blasland & Bouck, under the supervision of Blasland & Bouck personnel (Figure 4). Each pit was excavated according to protocols in Appendix M. In general, the pits were excavated until there was no evidence of fill, and dense native till was encountered. Associated health and safety procedures implemented during the investigation are also included in Appendix M.

The excavations confirmed the presence of oily-stained soils, scrap metal, partially-crushed drums, and other various types of debris. One intact 30-gallon drum was removed from a test pit, overpacked, and staged in a

secure area on-site. The contents of the drum were sampled and analyzed for priority pollutants. The results of the analyses indicated that the material contained hazardous constituents; therefore, the drum was transported off-site by Clean Harbors, Inc., for incineration.

Blasland & Bouck obtained water samples from two of the test pits during excavation and analyzed them for halogenated and aromatic organic compounds using EPA Method 8010/8020. Soil samples were also obtained from two of the test pits and analyzed for total petroleum hydrocarbons by IR Spectrophotometry. The analytical results are presented in Appendix N. Overall, the presence of debris was confirmed and the limits of the buried debris area appear to have been defined.

SECTION 3 - EXPANDED ENVIRONMENTAL ASSESSMENT

3.1 Phase-Specific Objectives

Blasland & Bouck expanded the environmental monitoring program at the Chicago Pneumatic Tool Company in September 1989. The purpose of the program was to further characterize subsurface conditions in relation to information gathered during previous investigations, and to determine the extent, if any, of impacts on the surface soil, sediment, and ground-water quality at the site.

3.2 Scope of Work

An expansion of the environmental monitoring program at the Chicago Pneumatic Tool Company was conducted from September 5 to October 10, 1989. During that period, Blasland & Bouck coordinated and supervised: the installation of additional monitoring wells; the acquisition of soil, ground-water, and surface water samples for laboratory analysis; and measurements of surface water and ground-water elevations.

All field work conducted by Blasland & Bouck, except for the survey of the new monitoring wells and surface water sampling locations, was observed by ENSR personnel. ENSR obtained split samples of soils, surface water, and ground water from selected locations. The analytical results of the samples obtained by ENSR were compared to results obtained by Blasland & Bouck and were determined to be consistent.

Five additional monitoring wells (MW-8, MW-9, MW-10, MW-11, and MW-12) were installed in unconsolidated material at the facility from September 5 to September 7, 1989, in order to provide additional information on ground-water quality and ground-water flow conditions on-site (Figure 2).

These well locations were selected to determine if known or alleged waste disposal practices have had an impact on ground-water quality.

MW-8 was installed north (hydraulically downgradient) of the buried debris area, which contained construction and demolition debris, partial and intact drums, and oil-stained soils. MW-8 was located hydraulically upgradient of a ditch which lies to the south of the foundry in order to determine the hydraulic relationship between ground water and surface water in this ditch.

MW-9 was installed south of the ditch that drains west to east from the foundry and is downgradient from the buried ponds. This location was selected to determine ground-water quality north (downgradient) of the former oil/water separation ponds, but south (upgradient) of the drainage ditch. It also allowed the hydraulic relationship between the ground water and surface water at this location to be determined.

The location of MW-10 was selected to provide information pertaining to background water quality and to provide additional ground-water flow information.

MW-11 was installed south of the manufacturing building and south of the ditch that drains the chip chute area from west to east. This location was selected to monitor ground-water quality upgradient from the drainage ditch and to better determine the relationship between surface and ground water.

The installation of MW-12 in the west parking area provides additional ground-water quality data and ground-water elevation data along the west side of the facility.

Each monitoring well was constructed according to protocols in Appendix D, and completed approximately 12 feet below grade. Four wells extend one to three feet above grade; however, MW-12 was completed with a flush-

mounted curb box due to its location in a parking lot. Monitoring well construction details can be found on the subsurface boring logs in Appendix E. Above-grade protective casings were not installed on MW-8, MW-9, MW-10, or MW-11 due to the shallow water table depth. Protective casings may have restricted the movement of separate phase hydrocarbons, if present, into the well. All of the monitoring wells were fitted with identically keyed locks.

The monitoring wells were installed in borings advanced with a CME-75 rotary drill rig using 4¼-inch inside diameter (I.D.) hollow-stem augers. All drilling rods, augers, tools, and split-spoon samplers were steam-cleaned before and after each borehole was advanced in order to prevent cross-contamination of the monitoring wells. Water used during the drilling program was supplied by Chicago Pneumatic from their power house building. The water was from a city of Utica public water supply.

Each of the monitoring wells were developed by a geologist on September 8, 1989, in accordance with methodologies described in Appendix D. Each well was developed in order to establish a hydraulic connection between the well and the surrounding aquifer material. At least seven well volumes were removed from each well during development. Water level measurements taken ten days later, in accordance with Appendix F, indicated that all of the wells displayed ample hydraulic connection to the surrounding saturated overburden material.

The well locations and elevations were surveyed on October 9, 1989 by Blasland & Bouck personnel. An assumed datum was set in February 1988 because no USGS benchmark was located in the immediate vicinity. The monitoring well elevations are listed in Table 1.

During the installation of the monitoring wells, soils were continuously sampled from the ground surface to the bottom of the boring at all of the

well locations, except MW-10. Drilling and sampling protocols implemented during the investigation are described in Appendices B and C. No soil samples were obtained at MW-10 due to the proximity of the borehole to overhead electrical power lines. Two-foot long split-spoon samplers were driven in two-foot increments using either a two-inch or three-inch diameter sampler. Generally, a three-inch diameter sampler was used from zero to six feet below grade, in order to obtain an adequate volume of soil for possible laboratory analysis. Two-inch diameter spoons were used to obtain samples over the remaining portion of the borehole.

All of the soil samples were examined and logged by the on-site geologist immediately upon their removal from the borehole, and a representative sample was retained in a half-pint glass jar. Each of the glass jars were then capped with an aluminum foil seal, in order to prevent the escape of volatile organic compounds, if present. Samples were allowed to warm to approximately 70°F prior to headspace screening. A 11.7 eV HNU was used to screen each sample for the presence of organic vapors.

Based on visual examination and HNU screening results, certain soil samples obtained above the water table were selected for laboratory analysis in order to determine the concentrations of organic compounds present in the vadose zone. Samples submitted for laboratory analysis were maintained in the custody of Blasland & Bouck personnel until they were delivered to O'Brien & Gere Laboratories in Syracuse, New York. The soil samples were analyzed for volatile and semi-volatile organics by the EPA CLP Statement of Work (SOW) for Organic Analysis Multi-Media, Multi-Concentration 2/88 format. Soils were prepared for PCB analysis using EPA Method 3550 and analyzed using EPA Method 8080. Analysis of the soils for total cyanide was done using EPA Method 335.2. Soils were prepared for total lead and total

zinc analyses using EPA Method 3050 and analyzed using EPA Method 6010. The results of the laboratory analyses are found in Appendix O.

The split-spoons used to obtain soil samples were thoroughly cleaned before and after each use with an Alconox detergent wash, a distilled water rinse, a methanol rinse, a hexane rinse, a nitric acid rinse, and a final distilled water rinse. This procedure was used to prevent cross-contamination of soil samples.

Five surface water samples were obtained on September 18, 1989 by Blasland & Bouck geologists at the locations shown on Figure 5, following protocols described in Appendix H. The locations selected for each surface water sample were chosen based on site conditions and to provide the best possible site coverage.

A permanent datum was located at each surface water sampling location in order to determine its elevation in relation to on-site ground-water conditions. Each datum point was surveyed on October 9, 1989 by Blasland & Bouck personnel and referenced to an on-site benchmark. The surface water elevation datum is shown in Table 3.

SW-1 is located at the confluence of two drainage ditches; one that flows eastward along Bleecker Street and another that drains to the south along the east side of the plant property. These two ditches merge and flow northward under Bleecker Street toward the Mohawk River. SW-2 is located immediately downstream from the oil skimmer pond and is also the location of one of the State Pollutant Discharge Elimination System (SPDES) sampling points. Another SPDES sampling point is located at the roof drain pipe outfall which leads from the northwest corner of the manufacturing building to the creek along the western side of the site (Figure 5). A third SPDES sampling point is located inside a manhole at the southwest corner of the

manufacturing building. The manhole is associated with an underground pipe which drains the southwest corner of the manufacturing building roof and eventually discharges to the creek along the western side of the site. The location of SW-3 lies at the outfall from three drainage pipes. Two of the pipes drain the marsh south of the plant, while the third is from the aforementioned roof drain for the manufacturing building. SW-4 lies immediately downstream from the metal chip chute. SW-5 is located in the drainage ditch south of the foundry building, downgradient from the area where construction debris and drums were unearthed.

Ground water from all 12 of the monitoring wells on-site were sampled from September 18 to 19, 1989 by Blasland & Bouck geologists (Figure 2). Each of the wells was sampled in accordance with the protocols described in Appendix G.

All of the ground-water and surface water samples were maintained in the custody of Blasland & Bouck personnel until they were delivered to Galson Laboratories in East Syracuse, New York. Ground-water and surface water samples were analyzed for volatile and semi-volatile organics by the EPA CLP SOW for Organic Analysis Multi-Media, Multi-Concentration 10/86, Revised 7/87, format. Volatile compound analysis was by EPA Method 8240 and semi-volatile compound analysis was by EPA Method 8270. Samples were prepared for PCB analysis using EPA Method 3520 and analyzed using EPA Method 8080. Analysis of the samples for cyanide was by EPA Method 9012. Samples were prepared for lead analysis by EPA Method 3020 and analyzed by EPA Method 7421. Samples were prepared for zinc analysis by EPA Method 3010 and analyzed by EPA Method 6010. The analytical results are presented in Appendix P.

Additional soil, sediment, and surface water samples were obtained and analyzed in April 1990 (Figure 8) to further define the current distribution of organic compounds at selected locations. Two soils samples, SS-51 and SS-52, located adjacent to the chip chute, were obtained from 0 to 6 inches below grade. The samples were analyzed for halogenated organic compounds using EPA Method 8010. Another soil sample, SS-55, was obtained along the east side of the plant on a former railroad bed from 0 to 6 inches below grade and was analyzed for PCBs using EPA Method 8080. One surface water sample, SW-50, was obtained from a parking lot drain along the south side of the manufacturing building. Another surface water sample, SW-53, was obtained from underneath the chip chute. Water sample SW-56 was taken from a water seep in a drainage ditch located to the north of the plant along Bleecker Street and water sample SW-57 was taken from water in the same drainage ditch, 40 feet upgradient of the seep. One sediment sample, SD-50, was obtained from the same location as SW-50. All of the samples were maintained in the custody of Blasland & Bouck personnel and preserved in accordance with recommended methods until they were delivered to Galson Laboratories. All samples were analyzed using EPA Method 8010. Laboratory analytical results are presented in Appendix Q.

SECTION 4 - DISCUSSION

4.1 Hydrogeology

The unconsolidated deposits on-site consist of sand, silt, and clay. Some of this material has been reworked to varying depths across the site by plant activities and is classified as fill. Underlying the fill are low permeability unconsolidated deposits. A dark grey to purple till layer was encountered in most of the borings at depths no greater than 10 feet. A grey silty clay was found at 11 feet below grade at MW-7, and a dark grey silt and clay was found at MW-12. The till layer appears to dip gently toward the north-northwest, as shown on Figure 6. The thickness of the till and clay layers is unknown because borings were only advanced to 12 feet below grade.

The bedrock in the area is composed of relatively impermeable Ordovician Age shales of the Trenton Group. Regional estimates of the depth to bedrock range from 21 to 75 feet below grade.

The regional ground-water flow appears to be northward toward the Mohawk River. A potentiometric surface map was generated for the site from surface water and ground-water level measurements taken on September 18, 1989 (Figure 7). The surface water locations were included because it was believed that the water in the drainage ditches reflect the ground-water/surface water interface.

As illustrated in Figure 6, water level measurements obtained on September 18, 1989, indicated that the surface water in the drainage ditches was hydraulically connected with the water table. As such, the water levels in the ditches apparently fluctuate with the level of the water table. Water elevations in the drainage ditches are generally lower than the adjacent

ground-water elevations; and therefore, appear to be acting as ground-water discharge points across the site. Overall, shallow ground-water flow across the site is in a semi-circular pattern emanating from the southern boundary of the property near MW-1 (Figure 7). Ground water appears to flow toward the creek on the southwest side of the property, toward Bleecker Street on the north side of the property, and toward the northeast on the east side of the property. Ground-water elevations obtained in March 1988 indicated a nearly identical flow pattern.

4.2 Soil Quality

Soil analytical results indicate that organic and inorganic compounds are present in the near surface soils sampled. Table 4 indicates that those compounds detected include lead, zinc, PCBs, and volatile and semi-volatile organics. No federal or New York State standards exist for lead, zinc, volatile and semi-volatile organic compound concentrations in soils. Guidelines developed by the New Jersey Department of Environmental Protection (NJDEP) Table 4A for hazardous waste sites indicate that there are relatively low levels of lead and zinc detected in the soils. The PCB concentrations in the soils are below EPA guideline action levels of 25 ppm for restricted access locations. Some volatile and semi-volatile organic compound concentrations in those specific areas which were sampled and analyzed are at or above guideline action levels developed by NJDEP.

Three soil samples, SS-7, SS-8, and SS-10, were obtained in the vicinity of the foundry building, as shown on Figure 3. Each of the samples has been analyzed for lead, zinc, and PCBs. The lead and zinc concentrations are below NJDEP action levels. The PCB concentrations in the soils are below EPA guideline action levels of 25 ppm for restricted access locations.

Analytical results for soil samples obtained from two test pits in the buried debris area (TP-3 and TP-4) indicate that elevated concentrations of petroleum hydrocarbons are present. Those concentrations are above soil action levels of 100 ppm set by NJDEP.

Lead, zinc, PCBs, acetone, toluene, and polynuclear aromatic hydrocarbons (PAHs), as well as bis(2-ethylhexyl)phthalate and unidentified semi-volatile compounds, were detected at MW-11 from 0 to 2 feet below grade. At MW-9, from 0 to 2 feet below grade, lead, zinc, acetone, toluene, bis(2-ethylhexyl)phthalate, and unidentified semi-volatile compounds were detected. These same compounds, with the exception of toluene, were detected from 2 to 4 feet below grade at MW-9. Analyses of the sample at MW-12, obtained from 4.5 to 6.5 feet below grade, indicate that lead, zinc, methylene chloride, acetone, carbon disulfide, and toluene, as well as bis(2-ethylhexyl)phthalate and unidentified semi-volatile compounds, were detected. At MW-8, lead, zinc, PCBs, volatile compounds, and unidentified volatile and semi-volatile compounds were detected from 0 to 2 feet below grade.

On April 23, 1990 two soil samples (SS-51 and SS-52) were obtained beneath the chip chute. These two samples, composed of oil-saturated soils were obtained from zero to approximately three inches below grade. These samples were obtained to determine present conditions of soil in the chip chute area. At SS-51 and SS-52 the following organic compounds were detected: trans-1,2-Dichloro-ethene; Methylene chloride; and Trichlorethene. The raw data of the sampling event is contained in Appendix Q. A third soil sample (SS-55) was obtained along the east side of the facility from a former railroad bed. The sample was obtained from zero to approximately six inches below grade and analyzed for halogenated organic compounds and PCBs.

Only Methylene chloride and Trichloroethene were detected at this site (Appendix Q).

4.3 Sediment Quality

Analytical results for sediment samples obtained from the drainage ditches (Figure 3) indicate that halogenated or aromatic organic compounds were only detected at SS-4, SS-6, and SS-9 (Appendix L). The levels of organic compounds detected were above NJDEP guideline action levels at each of these locations. At sampling location SS-4, trans-1,2-dichloroethene, trichloroethene, toluene, and xylenes were detected in the sample taken 0 to 1 feet below grade (sample SS-4A). No halogenated and aromatic organics were detected at SS-4 from 1 to 2 feet below grade (sample SS-4B). At sampling location SS-6, from 0 to 1 feet below grade (sample SS-6A) had elevated detection limits for eight compounds as a result of matrix interference believed to be attributable to a petroleum distillate. An ethylbenzene concentration was not quantifiable as a result of this interference. At sampling location SS-6, from 1 to 2 feet below grade (sample SS-6B), xylenes were detected. SS-9A, sampled from 0 to 1 feet below grade, also had elevated detection limits due to matrix interference believed to be from a petroleum distillate, however, toluene and xylenes were detected. No halogenated or aromatic compounds were detected at SS-9 from 1 to 2 feet below grade (sample SS-9B).

All sediment samples were analyzed for lead and zinc. The lead and zinc analyses acted primarily as indicators to determine the magnitude of heavy metals concentrations at the site. The highest levels of lead were found at SS-6A and SS-1A, from 0 to 1 feet below grade. The highest levels of zinc were found at SS-6A and SS-1A, from 0 to 1 feet below grade.

The concentrations of lead and zinc detected in the soils are below guideline action levels developed by NJDEP, except at SS-6A. At this location, the concentration of zinc was slightly above the action level.

Sediment samples were also analyzed for the presence of PCBs. The highest concentration found was at SS-2A, from 0 to 6 inches below grade, at concentrations below EPA guideline action levels. Low concentrations were also found at SS-1A, SS-1B, SS-2A, SS-4A, SS-6B, and SS-8A. At sampling location SS-6A, the PCB concentration could not be precisely defined due to matrix interference, believed by the laboratory to be from an organo-sulfur based oil.

Samples SS-1, SS-3, SS-4, SS-5, SS-6, and SS-7 were collected near sediment sampling locations previously sampled during the EPA investigation to verify their results and to document any changes that may have occurred in the time period between each set of sample collection and analysis. Table 5 presents a comparison of the May 1986 (EPA) and March 1988 (Blasland & Bouck) analytical results.

As shown in Table 5, the March 1988 samples had much lower concentrations of organic compounds than the May 1986 samples. In some cases, the decreases amounted to several orders of magnitude. At sampling locations SS-3/SED 4 (the Plant SPDES sampling point) and SS-5/SED 2 (east of the former ponds), the March 1988 concentrations of organic compounds were reduced to non-detectable levels. The concentrations of metals detected in March 1988 at all locations were also significantly less than the May 1986 levels. No semi-volatile organic analyses were performed on the sediments by Blasland & Bouck; therefore, no comparison can be made to the EPA data.

On April 23, 1990 a sediment sample (SD-50) was obtained from the parking lot/loading dock drain located approximately 75 feet west of the chip chute. The purpose of this sample was to determine if facility activities in this area have had an environmental impact. The sample was analyzed for halogenated organic compounds and PCBs. The compounds detected include: 1,1-Dichloroethane; trans-1,2-Dichloroethene; Methylene chloride; and Trichloroethene (Appendix Q).

4.4 Surface Water Quality

Surface water samples taken in September 1989 were analyzed for the same parameters as those soil and ground water samples obtained concurrently. The analytical results shown in Table 6 indicate the following: cyanide was detected at SW-4; lead was detected at SW-1 and SW-4; zinc and volatile organic compounds were detected in all five of the surface water sampling locations; and semi-volatile organic compounds were detected at all of the locations, except SW-2. Where possible, comparisons were made with analytical results obtained by ENSR in 1988. In general, the 1989 analytical results indicate a decrease in volatile organic compound concentrations.

NYSDEC and NYSDOH ambient water quality standards or guidance values are referenced and concentrations of one or more listed compounds were exceeded at all of the surface water sampling locations. Total principal and unspecified organic compounds are referenced under NYSDOH standards and encompass those organic chemical compounds not otherwise specifically identified in the regulations.

SW-1 exceeded NYSDEC standards or guidance values for trichloroethene, as well as NYSDOH standards for total principal and unspecified

organic compounds. At SW-2, vinyl chloride, 1,2-dichloroethene, and trichloroethene exceeded NYSDEC guidance values. Water quality at SW-3 was at or above NYSDEC standards or guidance values for trichloroethene and chloroform, as well as NYSDOH standards for total principal and unspecified organic compounds. SW-4 water quality exceeded NYSDEC guidance values for vinyl chloride, 1,2-dichloroethene (total), trichloroethene, 1,1,1-dichloroethene, and NYSDOH standards for total principal and unspecified organic compounds. Vinyl chloride, 1,2-dichloroethene (total), and trichloroethene concentrations at SW-5 were equal to or exceeded the NYSDEC guidance values. The NYSDOH standard for total principal and unspecified organic compounds was also exceeded at SW-5.

On April 23, 1990 four surface water samples (SW-50, SW-53, SW-56 and SW-57) were obtained to further characterize environmental conditions at the facility. SW-50 was obtained in the drain adjacent to the loading area, 75 feet west of the chip chute (in the proximity from which SD-50 was obtained). The sample was analyzed for halogenated organic compounds and PCBs. Compounds detected in SW-50 include: 1, 1-Dichloroethane; trans-1, 2-Dichloroethene; Methylene chloride (also detected in the laboratory method blank); 1,1,1-Trichloroethane; and Trichloroethene. Matrix interference from oil contained in SW-53 increased the detection limit to 5,000 ppb and therefore neither halogenated organics or PCBs were detected in the sample. However, a split sample obtained by ENSR personnel detected TCE at concentrations of 260 ppb.

Surface water sample SW-56 was taken from a seep on the south side of the drainage ditch along Bleecker Street. This seep appears to be related to a pipe that extends underground towards the Chicago Pneumatic manufacturing building. Trichloroethene, Chloroform, 1,1,2-Trichloroethane,

Methylene Chloride and 1,1-Dichloroethene were detected in the sample. It should be noted that Methylene chloride has also been detected in the method blank.

SW-57 was obtained directly from the drainage ditch on the south side of Bleecker Street. This drainage ditch originates at the oil/water separator and flows north along the east side of the facility before turning west along Bleecker Street. Trichloroethene and Chloroform were detected in the sample as well as Methylene chloride which was also detected in the laboratory method blank (Appendix Q).

One additional sample was obtained (SS-54) which consisted of oil-saturated metal filings from a storage bin inside the manufacturing building. These filings had been removed from machines used in the manufacturing process shortly before the sample was taken. SS-54 had detectable levels of Trichloroethene and Methylene chloride.

4.5 Ground-Water Quality

Ground-water samples were obtained from each of the 12 monitoring wells in September 1989 and were analyzed for volatile and semi-volatile compounds, lead, zinc, cyanide, and PCBs. Laboratory results show that elevated levels of volatile and semi-volatile compounds were detected only at MW-1, MW-5, MW-9, and MW-11 (Table 7). A comparison of ground-water quality from MW-1 through MW-7, obtained in February 1988 and September 1989, indicates that concentrations of volatile organic compounds generally remained constant. No semi-volatile organic analyses were performed on ground-water samples obtained in 1988. The nature and concentration of the compounds identified in ground water indicate that the quality of ground water is being impacted.

Analytical results of the ground-water samples indicate the following: PCBs were above detectable levels in 8 of the 12 wells (not present or below detectable levels in wells MW-4, MW-6, MW-7, or MW-9); cyanide was detected at MW-3; lead was detected in each of the wells, except MW-8, MW-9, and MW-11; zinc was detected at each of the wells; volatile organic compounds were detected at MW-4 and MW-5; and semi-volatile organic compounds were detected and identified at MW-1, MW-3, and MW-5. Unidentified semi-volatile compounds were detected in ground-water samples obtained from each of the monitoring wells, except for MW-10 and MW-12.

PCBs detected at MW-1, MW-2, and MW-5 are above NYSDEC ground-water standards. PCB concentrations at all of the other locations are below NYSDEC standards. Cyanide concentrations at MW-3 are below NYSDEC ground-water standards. With the exception of MW-8, MW-9, and MW-11, ground-water quality exceeded NYSDEC ground-water quality standards for lead at all of the monitoring wells including upgradient well MW-10. Zinc concentrations in the ground water are below NYSDEC ground-water quality standards. Volatile organic compound concentrations were below NYSDEC ground-water quality standards at all of the monitoring wells, except for MW-5. MW-5 exceeded NYSDEC ground-water quality standards for vinyl chloride. Semi-volatile organic compound concentrations at MW-5 were also at or above NYSDEC ground-water quality standards for 1,2-dichlorobenzene.

Ground-water temperature measured across the site ranged from 60°F to 70°F, specific conductivity ranged from 310 umhos to 2,600 umhos, and pH ranged from 5.4 to 7.8.

Overall, water quality from each of the monitoring wells, except MW-8, exceeded NYSDEC standards for ground water quality.

4.6 Source Areas and Impacts

Results from the overall environmental assessment of the facility indicate that impacts to the surface soil, ground water, stream sediments, and surface water have occurred.

Soil and sediment quality data from certain locations sampled indicate the presence of volatile and semi-volatile organic compounds. Analytical results of soils sampled from the test pits indicated levels of petroleum hydrocarbons were above NJDEP guideline action levels. Other soil sampling locations also showed levels of volatile and semi-volatile organic compounds above NJDEP guideline action levels. Sediment analytical results indicate that organic compounds were detected above NJDEP guideline action levels at only three locations. The concentrations of metals, PCBs, and organic compounds in the sediments sampled in 1988 were substantially lower than the concentrations measured in sediments taken at nearly the same locations by EPA in 1986. PCBs were found in the sediments and soil at various locations across the site, but at levels below existing and proposed EPA guideline action levels.

Surface water quality results indicate that volatile and semi-volatile compounds are present. Surface water samples obtained in April 1990, from a parking lot drain which connects to a drainage ditch east of the chip chute, indicate that plant activities in this area may be impacting the surface water quality in this drainage ditch. Surface water from the chip chute area also appears to be acting as a source for inorganic and organic compounds affecting surface water quality downstream, as indicated by water quality data. In addition, there appears to be impacts occurring to the ground-water and soil quality in the area of MW-11.

Another possible source of organic and inorganic compounds in surface water is the solvent and lubricating oil drum storage area west of the foundry building. Surface runoff appears to flow from this area into the drainage ditch south of the foundry building. Another possible source is the ditch itself, which may possibly have been used as a disposal area. Surface water quality obtained from this ditch indicates that impacts from volatile and semi-volatile organic compounds have occurred. Ground-water quality upgradient of this drainage ditch (MW-8 and MW-9) does not contain the same compounds as those present in the ditch, indicating that the ditch may not be impacted from the hydraulically upgradient buried debris area. Organic compounds also discharge from a drainage pipe at the north end of the front lawn of the facility and manifests itself as a seep on the south side of the drainage ditch along Bleecker Street.

Surface water quality data from SW-3, located on the west side of the plant at the outfall of three drainage pipes, has indicated the presence of low levels of zinc and volatile and semi-volatile organic compounds. Two of the drainage pipes emanate from a marsh area to the south. According to Chicago Pneumatic personnel, the third drainage pipe is from a roof drain. The marsh area may be impacted by discharge from a garage used as a vehicle repair area. In 1988, Blasland & Bouck personnel observed liquid emanating from a pipe which discharges to the marsh and appears to originate from the garage. Analysis of a surface water sample taken near this pipe outfall by ENSR in February 1988 indicated the presence of low levels of lead and zinc. This location was not sampled in September 1989.

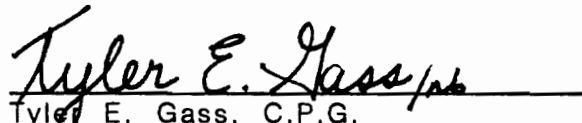
Comparison of surface water quality data obtained by ENSR in February 1988 and Blasland & Bouck in September 1989 indicated the presence of similar volatile compounds in the creek on the west side of the plant and

in the drainage ditch near the northeast side of the plant. Concentrations of these volatile compounds were approximately the same in September 1989, as compared to February 1988.

Ground-water quality on-site indicates that impacts have occurred from facility activities. These impacts appear to be due to three main source areas: the chip chute area, as previously discussed; the buried debris area; and the former oil/water separation ponds. Water quality data from MW-1, located in the area of the buried debris, indicates that lead and semi-volatile organics are present in concentrations above NYSDEC or NYSDOH ground-water standards. Ground-water quality at MW-8, located hydraulically downgradient, indicates that only minor levels of inorganic and organic compounds are present. It appears that the compounds detected in the buried debris area at MW-1 are not readily migrating through the saturated zone. Water quality data from MW-5, located downgradient from the former oil/water separation ponds, indicate the presence of a number of volatile compounds which were not detected during ground-water sampling in February 1988. Analysis of hydrogeologic and ground-water quality seems to indicate that organic and inorganic compounds emanating from the area of the former oil/water separation ponds are migrating northeastward toward MW-5.

RESPECTFULLY SUBMITTED,

BLASLAND & BOUCK ENGINEERS, P.C.


Tyler E. Gass, C.P.G.
Vice President

Prepared By:

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Tables

TABLE 1
MONITORING WELL ELEVATIONS¹

	Top of Protective Casing	Top of Well	Ground
MW-1	2	106.37	103.4
MW-2	2	102.64	99.8
MW-3	2	103.28	100.7
MW-4	96.41 ³	96.11	96.40
MW-5	2	101.16	98.03
MW-6	88.86 ³	88.57	88.85
MW-7	95.58 ³	95.17	95.6
MW-8	2	104.45	101.2
MW-9	2	103.23	100.9
MW-10	2	104.79	102.2
MW-11	2	100.14	97.6
MW-12	97.29 ³	96.80	97.28

Notes:

- ¹ Elevations referenced to an assumed datum.
- ² No protective casing around well.
- ³ Curb box installed at ground surface.

TABLE 2
1988 SURFACE WATER QUALITY SUMMARY¹

	<u>SW-1</u>	<u>SW-2</u>	<u>SW-3</u>	<u>SW-4</u>	<u>SW-5</u>	<u>NYS Standard²</u>
Vinyl Chloride	53	38				0.3 ³
Trans-1,2-Dichloroethene	220	280		1.1	170	50 ³
Chloroform				2.0		0.2
Trichloroethene	13	420		1.2	160	3 ³
Lead		0.064	0.16			50
Zinc	0.05	0.39	1.3		0.078	300

Notes:

Units: ug/l (ppb)

¹ Only compounds at or above detection limits are shown.

² NYSDEC 6NYCRR Part 703 Ambient Water Quality for Class A Water (Drinking Water Supply).

³ NYSDEC Guidance Values for Class A Ambient Water Quality.

TABLE 3
1989 SURFACE WATER ELEVATION DATUM¹

	Datum	Location
SW-1	84.84	Top of south end 18" Ø pipe at chiseled "X".
SW-2	92.38	Top of P.K. nail in R.R. tie.
SW-3	92.51	Top of north end 36" Ø pipe at chiseled "X".
SW-4	94.79	Top of east end 8" Ø pipe at chiseled notch.
SW-5	99.49	Top of P.K. nail in R.R. tie.

Note:

¹ Referenced to an assumed datum.

TABLE 4

CHICAGO PNEUMATIC TOOL COMPANY
1989 SOIL QUALITY SUMMARY¹

Parameter	Units	MW-12 (4.5-6.5')	MW-8 (0-2')	Lab Blank	MW-11 (0-2')	MW-9 (0-2')	MW-9 (2-4')	Lab Blank	Detection Limit
Total Lead ²	ppm	19	54		14	17	8		5
Total Zinc ²	ppm	64	120		84	86	57		1
Percent Total Solids	ppm	89.8	88.1		86.3	88.1	89.8		NA
PCB	ppm		8.8		1.8				0.5
<u>Volatile Organic Compounds</u>									
Date Analyzed		9/8/89	9/8/89	9/8/89	9/12/89	9/12/89	9/12/89	9/12/89	
Methylene Chloride	ppb	2 ⁴	4 ⁴						6
Acetone	ppb	10 ^{3,4}	140 ³	13	10 ^{3,4}	11 ³	19 ³	9 ⁴	11
Carbon Disulfide	ppb	2 ⁴	18						6
1,2-Dichloroethene (total)	ppb		170						8
2-Butanone	ppb		32						12
Trichloroethene	ppb		390 ⁴						8
Toluene	ppb	5 ⁴	120		2 ⁴	6			6
Xylene (total)	ppb		130						8
Total Unidentified									
Volatile Compounds	ppb		51,300 ⁴						NA
<u>Semi-Volatile Organic Compounds</u>									
Date Extracted		9/13/89	9/13/89	9/13/89	9/13/89	9/11/89	9/11/89	9/11/89	
Bis(2-ethylhexyl)phthalate	ppb	590 ³		370	620 ³	400 ³	430 ³	310 ⁴	330
Phenanthrene	ppb				23 ⁴				390
Fluoranthene	ppb				38 ⁴				390
Pyrene	ppb				37 ⁴				390
Total Unidentified									
Semi-Volatile Compounds	ppb	6,850 ^{3,4}	98,200 ^{3,4}	4,710 ⁴	8,940 ^{3,4}	5,980 ^{3,4}	7,870 ^{3,4}	3,610 ⁴	NA

Notes:¹Only compounds at or above detection limits shown²All metal results reported on dry weight basis³Analyte also found in the associated laboratory blank⁴Estimated value

NA = Not Available or Not Applicable

TABLE 4A

NJDEP SOIL ACTION LEVELS

Total Petroleum Hydrocarbons (TPHJC)	100 ppm
Surrogate Levels:	
Acid Extractables (AE)	Case-by-Case
Base Neutrals (BN)	10 ppm
Volatile Organics (VOC)	1 ppm
Pesticides	
DDT	1-10 ppm
Chlordane	1 ppm
Other	Case-by-Case
Polychlorinated Biphenyls (PCB)	1-5 ppm
Priority Pollutant Metals (PPM):	
Antimony	10 ppm
Arsenic	20 ppm
Barium	400 ppm
Beryllium	1 ppm
Cadmium	3 ppm
Chromium	100 ppm
Copper	170 ppm
Lead	250-1,000 ppm
Nickel	100 ppm
Mercury	1 ppm
Molybdenum	1 ppm
Selenium	4 ppm
Silver	5 ppm
Thallium	5 ppm
Vanadium	100 ppm
Zinc	350 ppm
Polycyclic Aromatic Hydrocarbons (PAH)	10 ppm

ppm = Parts per million (mg/kg)

TABLE 5
COMPARISON OF MAY 1986 AND MARCH 1988
SOIL/SEDIMENT QUALITY

	B&B SS-1*	EPA SED-9	B&B SS-3*	EPA SED-4	B&B SS-4*	EPA SED-3	B&B SS-5*	EPA SED-2	B&B SS-6	EPA SED-1	B&B SS-7	EPA S-2
<u>PCBs (mg/kg)</u>												
Aroclor 1232											ND	40
Aroclor 1254	0.6	ND			0.5	18	ND	6.2	<50**	260		
<u>METALS (mg/kg)</u>												
Lead	130	315	20	238	73	407	46	89	13	j	69	64
Zinc	310	1,736	45	271	210	1,156	120	171	67	74	140	569
<u>VOLATILE ORGANICS (ug/kg)</u>												
Methylene Chloride							ND	160				
1,1-Dichloroethene												
1,1,2-Dichloroethene			ND	9j	210	660,000	ND	420	ND	28,000		
Trichloroethene					57	2,900,000						
Tetrachloroethene					ND	33,000						
Toluene			ND	6j	16	ND	ND	52			NA	20
Chlorobenzene												
Ethylbenzene			ND	10					**	ND		
Xylenes			ND	29	220	ND			61	ND		
2-butanone									NA	3,700		
Acetone											NA	100

TABLE 5 (Cont'd.)

	B&B SS-1*	EPA SED-9	B&B SS-3*	EPA SED-4	B&B SS-4*	EPA SED-3	B&B SS-5*	EPA SED-2	B&B SS-6	EPA SED-1	B&B SS-7	EPA S-2
<u>SEMI-VOLATILE ORGANICS (ug/kg)</u>												
Fluoranthene	NA	130j			NA	43,000	NA	370j				
Pyrene	NA	140j			NA	30,000	NA	390j				
Chrysene	NA	150j										
2-Methylnaphthalene			NA	38,000								
Phenanthrene			NA	19,000								
bis(2-ethylhexyl)phthalate			NA	33,000	NA	89,000	NA	2,700	NA	26,000j		
1,2,4-Trichlorobenzene									NA	14,000j		
Phenanthrene											NA	6,200j

Notes:

* The highest reading from the sampling location is reported.

** Not quantified because of matrix interference.

ND Not detected.

NA Analysis was not performed for this compound.

j Compound identified, but value is estimated.

The EPA samples were obtained May 1, 1986.

The B&B samples were obtained March 15, 1988.

TABLE 6

CHICAGO PNEUMATIC TOOL COMPANY
1989 SURFACE WATER QUALITY SUMMARY¹

	Units	SW-1	SW-2	SW-3	SW-4	SW-5	Lab Blank	NYS ³ STD	Detection Limit
Cyanide	ppm				0.0146			0.1	0.01
pH		6.8	6.8	7.2	NA	7.1		6.5-8.5 ⁶	NA
<u>Metals</u>									
Lead	ppm	.006			0.012			.05	0.005
Zinc	ppm	0.031	0.031	0.031	0.20	0.022		0.3	0.005
<u>Volatile Organic Compounds</u>									
Vinyl chloride	ppb		5J		160	45		0.3 ⁴	10
1,2-Dichloroethene (total)	ppb	15	58		770	310		50 ⁴	5
Trichloroethene	ppb	190	25	4J	25	3J		3 ⁴	5
Chloroform	ppb			42				0.2	5
Bromodichloromethane	ppb			0.9J				50 ⁴	5
Acetone	ppb				14			NA	10
1,1-Dichloroethene	ppb				2J			0.07 ⁴	5
1,1-Dichloroethane	ppb				4J			50 ⁴	5
1,1,1-Trichloroethane	ppb				2J			50 ⁴	5
<u>Tentatively Identified</u>									
<u>Volatile Organic Compounds²</u>									
Total Unidentified									
Volatile Compounds	ppb					5		100 ⁵	NA
<u>Semi-Volatile</u>									
<u>Organic Compounds</u>									
Acenaphthene	ppb				12J			20	54
Anthracene	ppb				6J			50 ⁴	54
Dibenzofuran	ppb				8J			NA	54
Fluoranthene	ppb				19J			50 ⁴	54
Phenanthrene	ppb				30J			50 ⁴	54
Pyrene	ppb				40J			50 ⁴	54
Naphthalene	ppb				8J			10	54
2-methylnaphthalene	ppb				8J			10	54
<u>Tentatively Identified</u>									
<u>Semi-Volatile Organic Compounds²</u>									
1-Pentene,4,4-dimethyl	ppb					25		NA	NA
Hexanedioic acid, dioctyl	ppb	340			550	93		NA	NA
1H-Indene,octahydro	ppb				50			NA	NA
1-Hexanol,2-ethyl-	ppb	10						NA	NA
Total Unidentified									
Semi-Volatile Compounds	ppb	140		54	667			100 ⁵	NA

Notes:¹Only compounds at or above detection limits are shown²Estimated concentration³NYSDEC 6NYCRR Part 703 Ambient Water Quality for Class A Water (drinking water supply)⁴NYSDEC Guidance Values for Class A Ambient Water Quality⁵No NYSDEC Standard Available, NYSDOH Chapter 1 State Sanitary Code, Part 5, Drinking Water Supplies⁶NYSDEC 6NYCRR Part 701 Ambient Water Quality for Class A Water (drinking water supply)

J = Compound detected, but below quantitation limit

NA = Not Available or Not Applicable

TABLE 7
CHICAGO PNEUMATIC TOOL COMPANY
1989 GROUND-WATER QUALITY SUMMARY¹

	Units	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7	MW-8	MW-9	MW-10	MW-11	MW-12	Lab Blank	NYS STD ³	Detection Limit
Aroclor 1254	ppm	.0096	.0007	J		.0034			J		J	J	J		0.0001	0.5
Cyanide	ppm			0.035											0.2	0.01
pH		6.3	6.9	6.4	7.8	5.4	4.9	5.9	6.7	6.9	6.8	5.9	6.5		6.5-8.5	NA
Metals																
Lead	ppm	0.12	0.14	0.20	1.2	0.20	0.32	0.40	.005		0.063		0.25		0.025	0.005
Zinc	ppm	0.62	0.20	0.47	0.67	0.099	0.98	1.3	0.025	0.035	0.31	0.13	0.78		5	0.005
Volatile Organic Compounds																
Vinyl Chloride	ppb					26									5.0	10
1,2-Dichloroethene (total)	ppb					6									50	5
Toluene	ppb					21									50 ⁴	5
Xylene (total)	ppb					23									50 ⁴	5
Tentatively Identified																
Volatile Organic Compounds²																
Benzene, 1-ethyl-2-methyl	ppb				19	35									NA	NA
Benzene, 1-ethyl-3-methyl	ppb				46	15									NA	NA
Total Unidentified Volatile Compounds						43									100 ⁶	NA
Semi-Volatile Organic Compounds																
Anthracene	ppb			0.3J											50 ⁴	12
Acenaphthylene	ppb			0.2J											20 ⁴	12
1,2-Dichlorobenzene	ppb	1J				5J									4.7	12
Fluoranthene	ppb	0.4J		1J											50	12
2-Methylphenol	ppb					6J									1.0	12
2-Methylnaphthalene	ppb			0.6J		1J									1.0	12
Pyrene	ppb	0.4J		2J											50 ⁴	12
Phenanthrene	ppb	0.6J		2J											50 ⁴	12
1,2,4-Trichlorobenzene	ppb					3J									10 ⁴	12
Naphthalene	ppb					5J									10 ⁴	12
Dimethylphthalate	ppb					54									50	12

TABLE 7
CHICAGO PNEUMATIC TOOL COMPANY
1989 GROUND-WATER QUALITY SUMMARY¹
(Cont'd)

	<u>Units</u>	<u>MW-1</u>	<u>MW-2</u>	<u>MW-3</u>	<u>MW-4</u>	<u>MW-5</u>	<u>MW-6</u>	<u>MW-7</u>	<u>MW-8</u>	<u>MW-9</u>	<u>MW-10</u>	<u>MW-11</u>	<u>MW-12</u>	<u>Lab Blank</u>	<u>NYS STD³</u>	<u>Detection Limit</u>
Tentatively Identified																
<u>Semi-Volatile Organic Compounds²</u>																
Benzene, 1-methyl-3-(1-methyl)							10								NA	NA
Benzene, 1-ethyl-4-methyl						33									NA	NA
Benzene, ethyl-						8									50 ⁴	NA
Toluene						11									50 ⁴	NA
Benzeneacetic acid, alpha	10														NA	NA
Benzenepropanoic acid, beta		9													NA	NA
Propanoic acid, 2,2-dimethyl										22					NA	
Total Unidentified																
Semi-Volatile Compounds	229	73	14	44	123	9	11	23	421			318			100 ⁶	NA

Notes:

¹Only compounds at or above detection limits are shown
²Estimated concentration
³ NYSDEC 6NYCRR Part 703 for Class GA Ground Water (potable)
J = Compound detected, but below quantitation limit

⁴NYSDEC Guidance Values for Class GA Ground Water (potable)
⁵NYSDEC Standard to Non-Detectable Concentrations for Class GA Ground Water (potable)
⁶No NYSDEC Standard Available, NYSDOH Chapter 1 State Sanitary Code, Part 5, Drinking Water Supplies
NA = Not Available or Not Applicable



Figures

FIGURE I

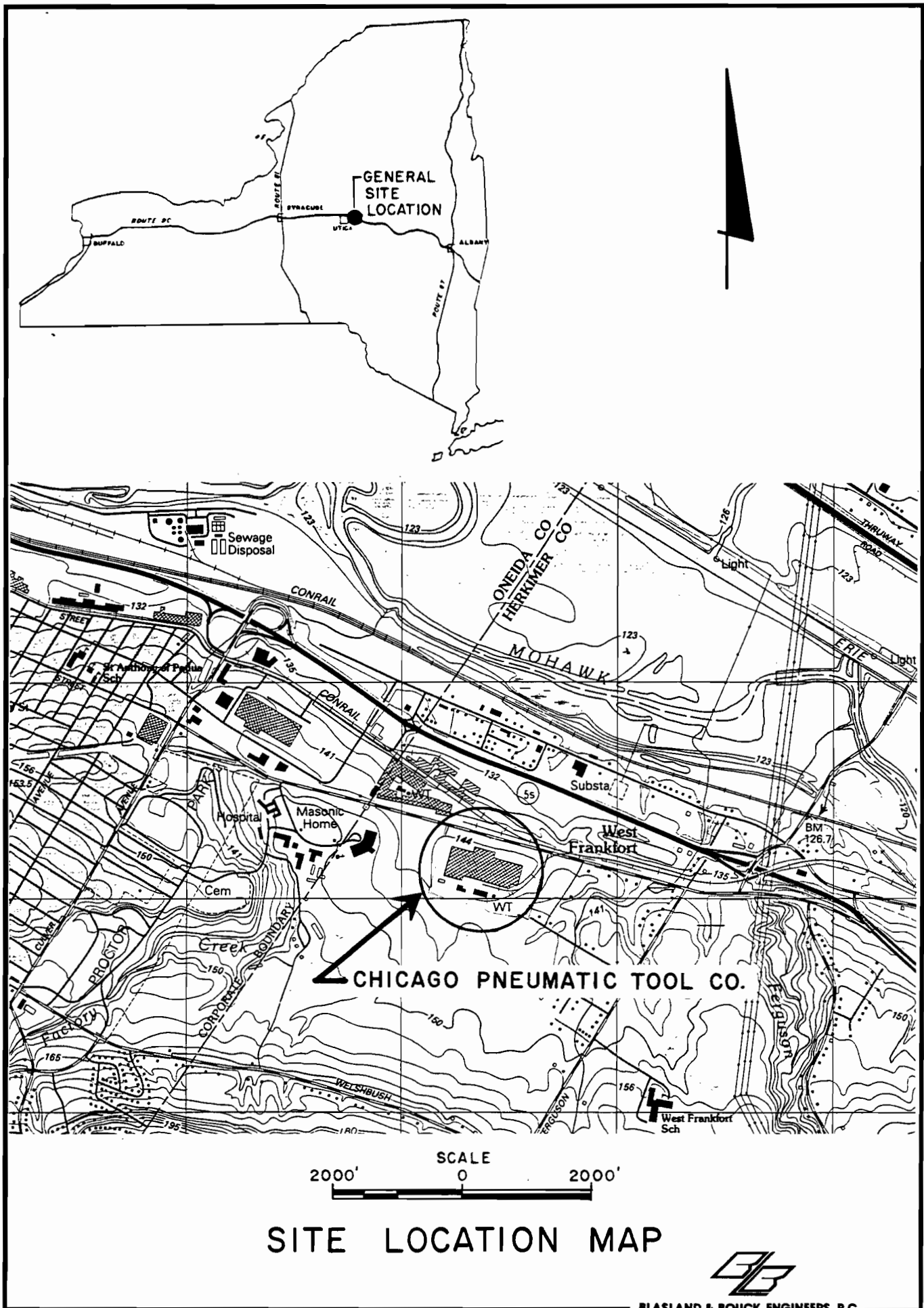
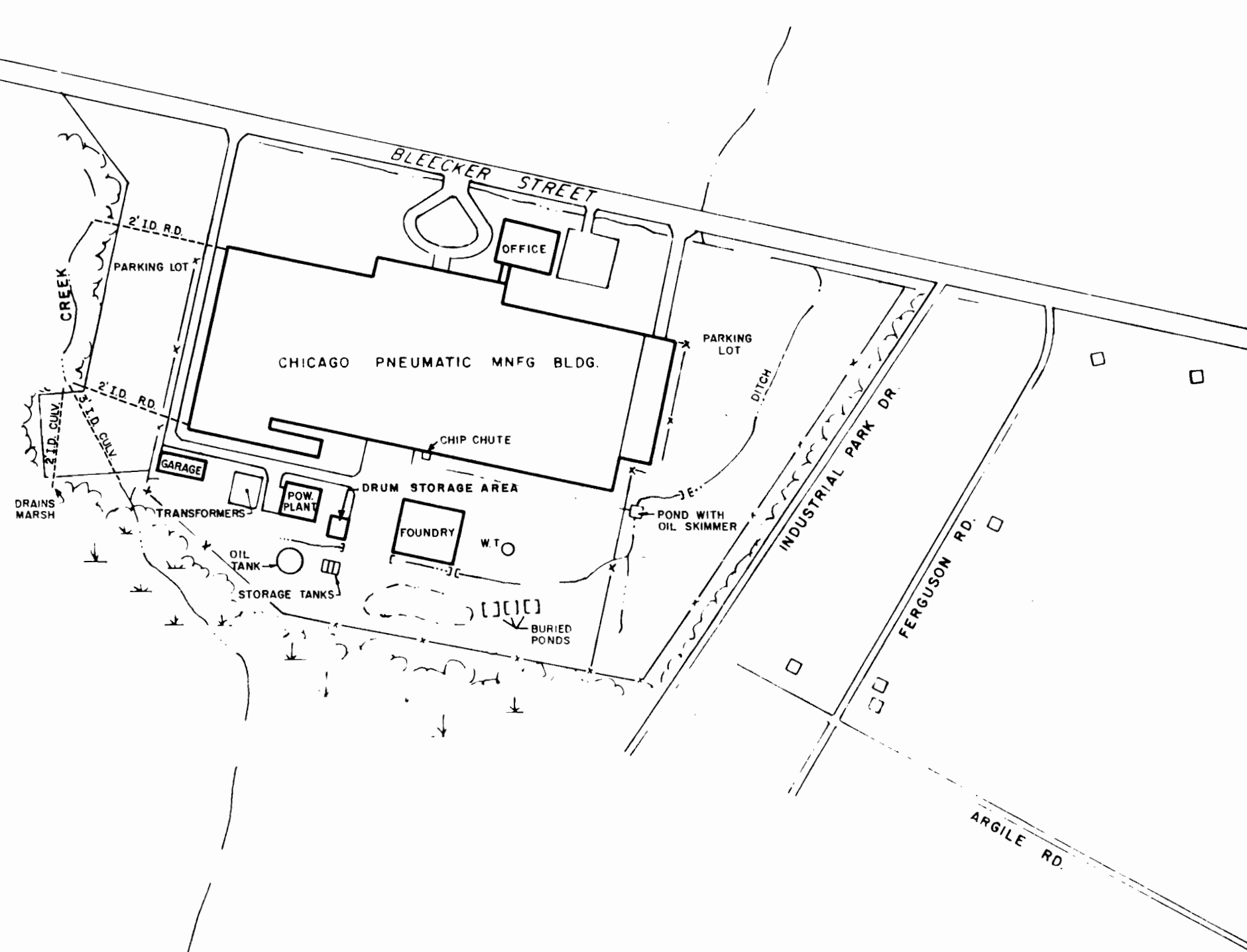


FIGURE 2



CHICAGO PNEUMATIC TOOL CO.
FRANKFORT, NEW YORK

SITE PLAN

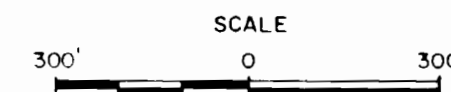


FIGURE 3



LEGEND

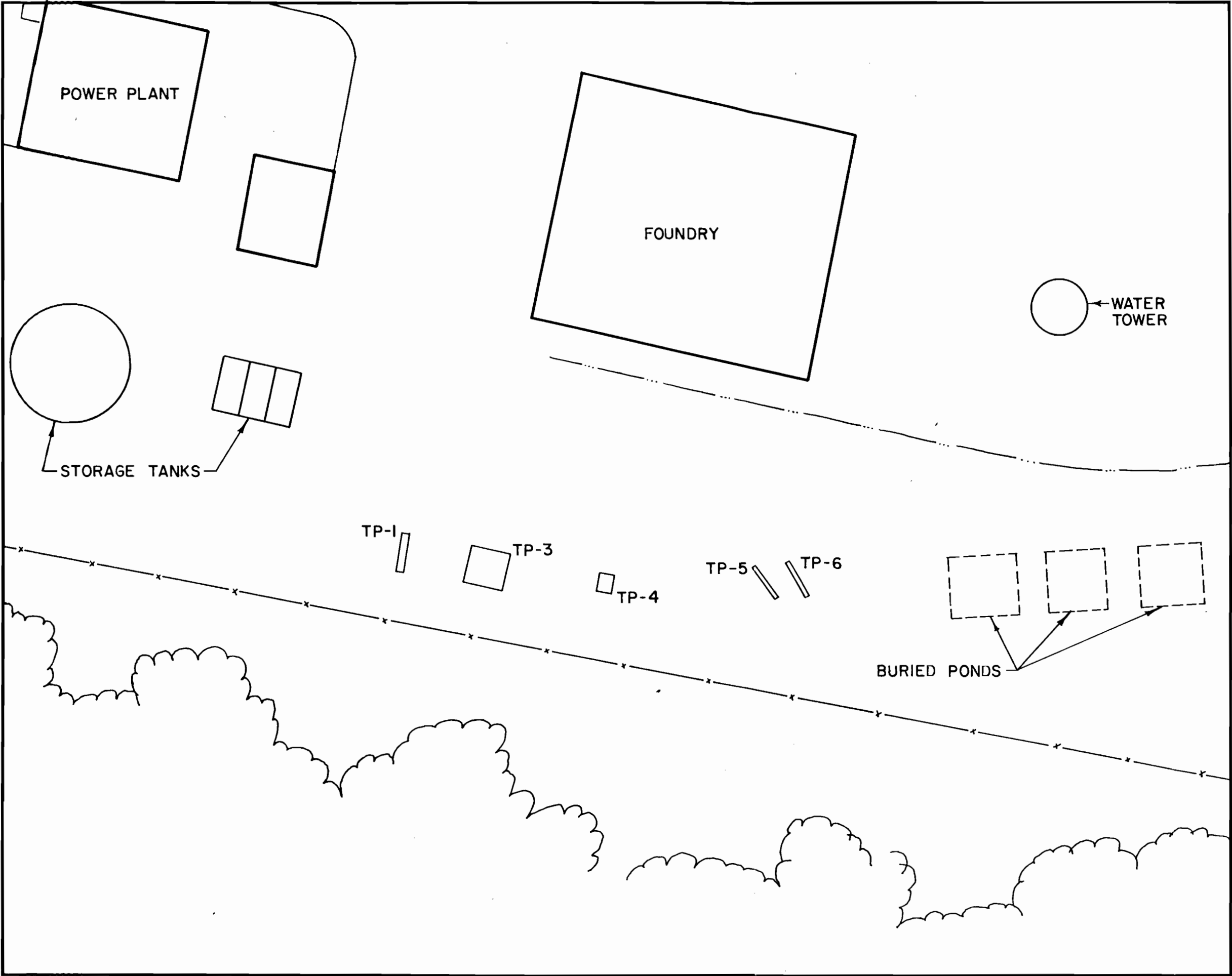
- ⊙ SURFACE WATER SAMPLING LOCATION (APPROX.)
- ▣ SOIL SAMPLING LOCATION
- ① SEDIMENT SAMPLING LOCATION

CHICAGO PNEUMATIC TOOL CO.
FRANKFORT, NEW YORK

1988
SAMPLING LOCATION PLAN



FIGURE 4



CHICAGO PNEUMATIC TOOL CO.
FRANKFORT, NEW YORK

TEST PIT LOCATION PLAN

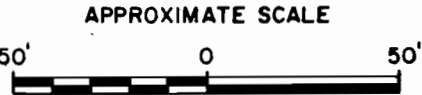


FIGURE 5

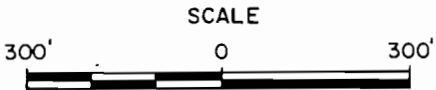


LEGEND

⊙ SURFACE WATER SAMPLING LOCATION (APPROX.) 9/18/89

CHICAGO PNEUMATIC TOOL CO.
FRANKFORT, NEW YORK

1989
SURFACE WATER
SAMPLING LOCATION PLAN



 BLASLAND & BOUCK
ENGINEERS, P.C.

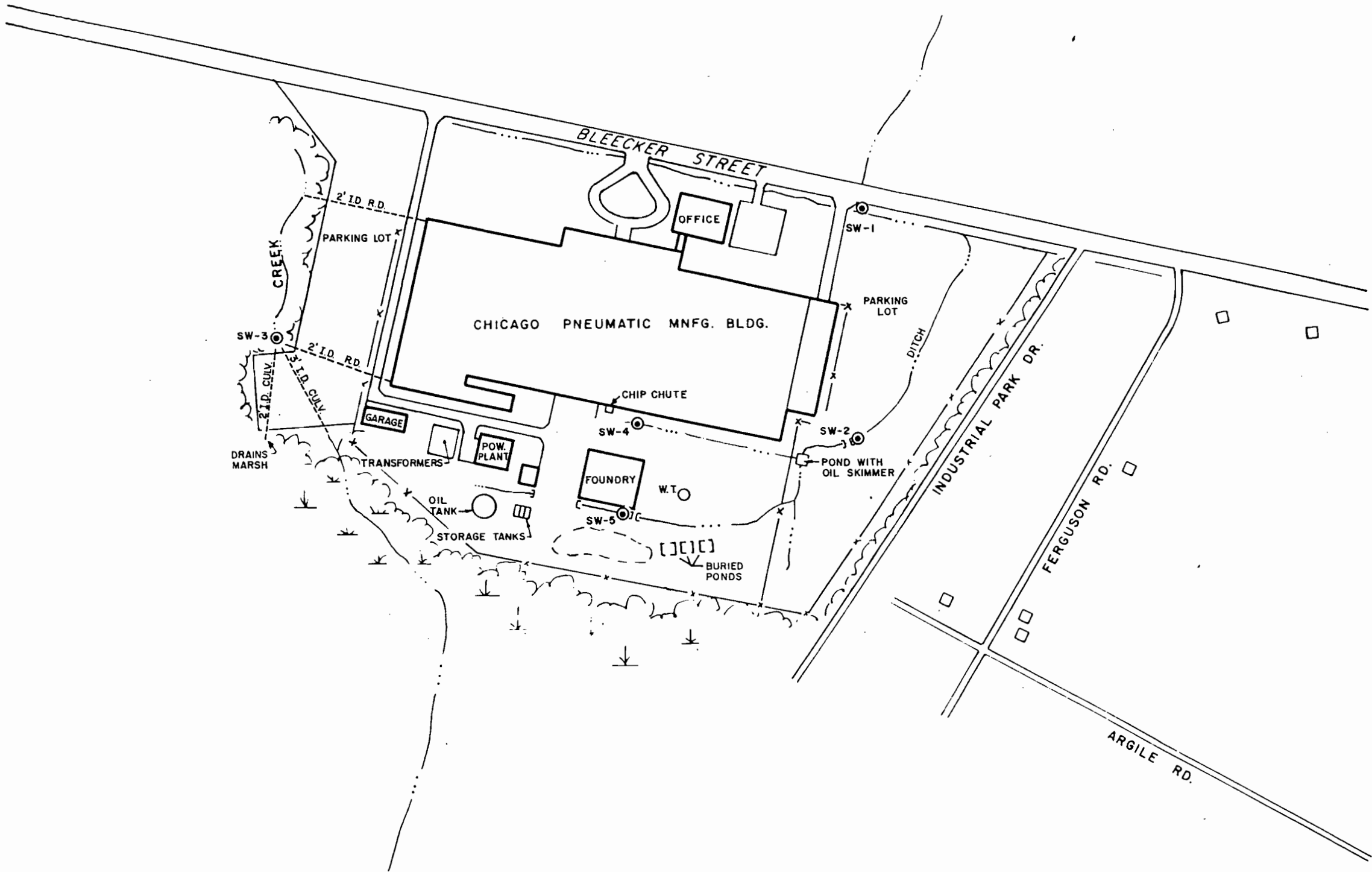
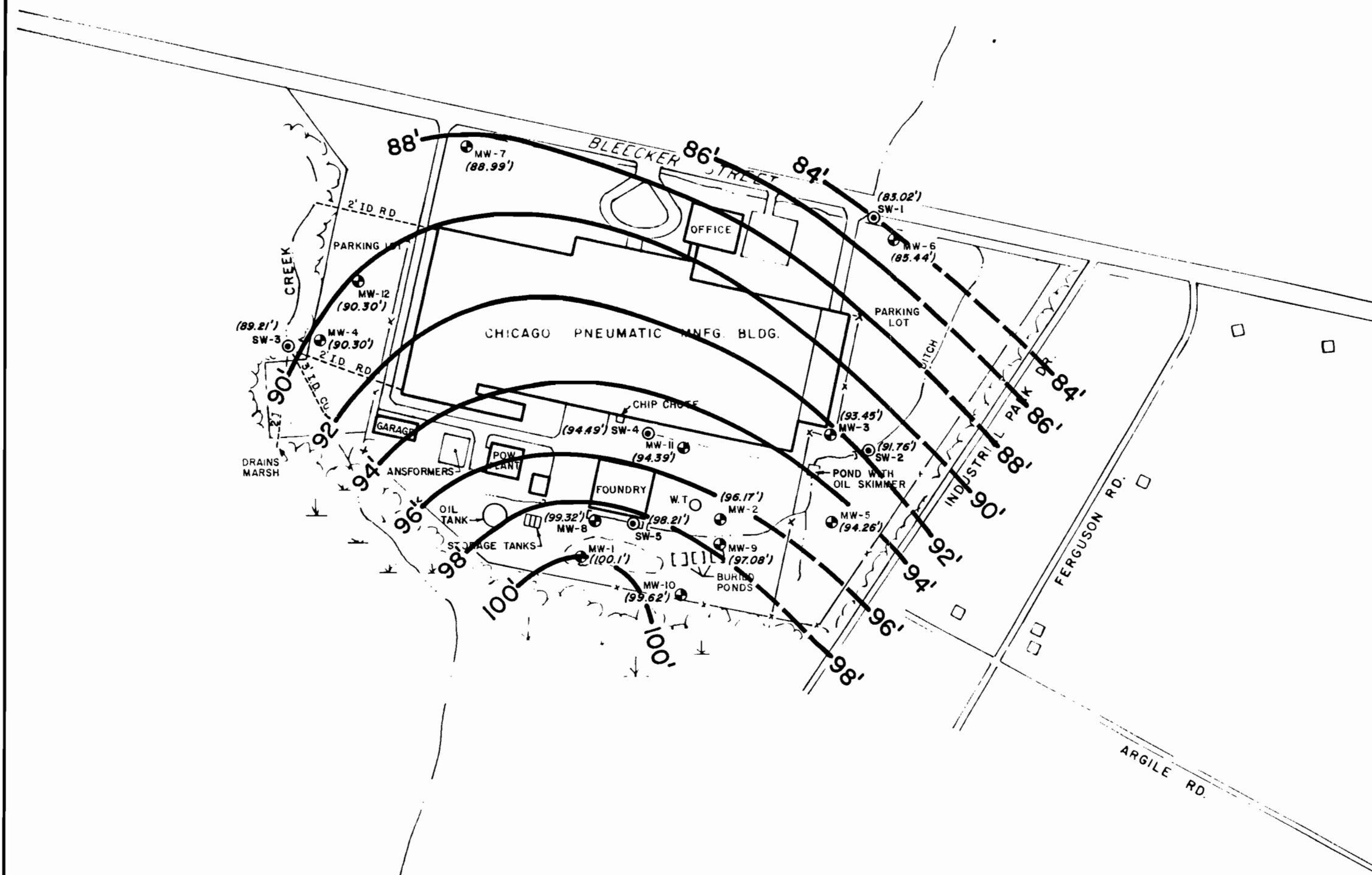


FIGURE 6



LEGEND

⊕ MONITORING WELL

(93.45') GROUND-WATER ELEVATION

94' ——— GROUND-WATER CONTOUR LINE,
DASHED WHERE INFERRED

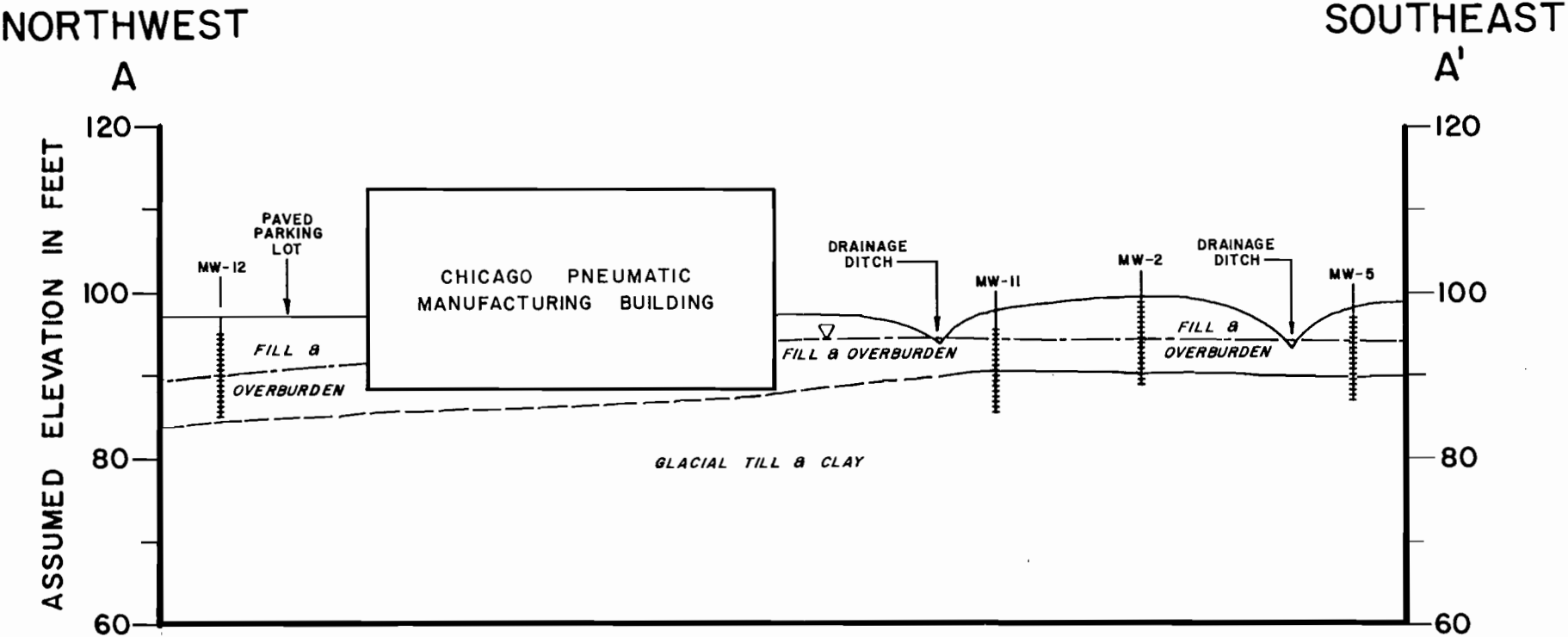
NOTE: GROUND-WATER ELEVATIONS REFERENCED TO AN
ON-SITE ASSUMED DATUM.

CHICAGO PNEUMATIC TOOL CO.
FRANKFORT, NEW YORK

POTENTIOMETRIC
SURFACE MAP
9/18/89

SCALE
300' 0 300'

FIGURE 7



LEGEND

---▽--- WATER TABLE FOR 9/18/89

CHICAGO PNEUMATIC TOOL CO.
FRANKFORT, NEW YORK

GEOLOGIC CROSS
SECTION A-A'

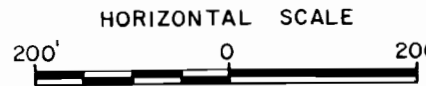
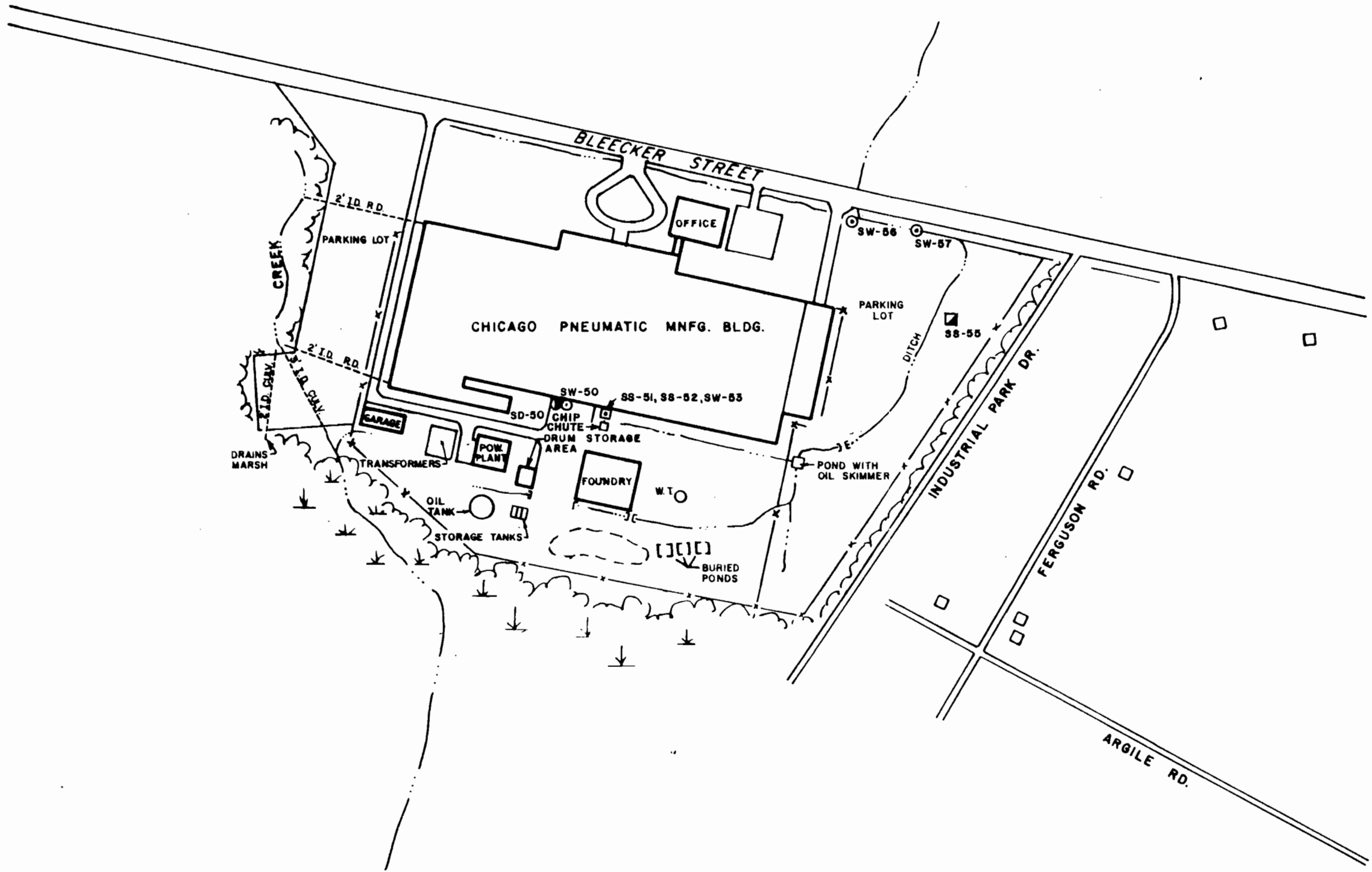


FIGURE 8

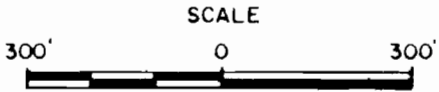


LEGEND

- ⊙ SURFACE WATER SAMPLING LOCATION (APPROX.)
- ▣ SOIL SAMPLING LOCATION
- ⊖ SEDIMENT SAMPLING LOCATION
- SAMPLE CLUSTER

CHICAGO PNEUMATIC TOOL CO.
FRANKFORT, NEW YORK

1990
SAMPLING LOCATION PLAN





Appendix A

APPENDIX A
HEALTH AND SAFETY PLAN

CHICAGO PNEUMATIC TOOL COMPANY
FRANKFORT, NEW YORK

I. Project Overview

Blasland & Bouck Engineers, P.C. (Blasland & Bouck) has been retained by DH Holdings Corporation (DH Holdings) to perform an environmental assessment at the Chicago Pneumatic Tool Company (Chicago Pneumatic) in Frankfort, New York, in order to provide recommendations for remedial site cleanup (if necessary) for contaminants identified at the site. The facility is listed as an inactive hazardous waste site (I.D. No. 622003) with the New York State Department of Environmental Conservation (NYSDEC). Blasland & Bouck's activities at the site have been for the purpose of identifying the types and sources of wastes on-site and characterizing their extent.

All on-site well installation, development, excavation, and sampling was performed using Level D protection, with the capability to upgrade to modified Level C if conditions warranted.

II. Background

1. Site Location: Frankfort, New York. Please refer to Figure 1 for the site location map.
2. Site Status: Active ☐ Inactive ☒
3. Site Physical Description: Currently operating pneumatic tool manufacturing facility located on a 77-acre parcel.
4. Site Chemical History: Solvents, degreasers, oils, acids, caustics, soaps, dyes, and various petroleum-based products are used in the manufacturing process. Waste oils and solvents were formerly discharged to four on-site unlined oil separation ponds.
5. Site Waste Analysis: Sludges, oily waste, solvents, pesticides, inorganic chemicals, other organic chemicals, acids, bases, heavy metals.
6. Site Hazard Type: Hazardous ☒
Non-Hazardous ☐
Unknown ☒
7. Site Waste Type: Solid ☒ Liquid ☒ Gas/Vapor ☐

8. Site Waste Characteristics

Corrosive	_____	Toxic	<u> X </u>	Ignitable	_____
Reactive	_____	Volatile	<u> </u>	Flammable	_____
Explosive	_____	Soluble	<u> X </u>	Unknown	<u> X </u>

9. Site Hazard Evaluation

- a. Chemical Exposure Potential: Inhalation of organic vapors, metal, or acid particulates; dermal contact with solvents or metals; ingestion.
- b. Monitoring: Organic vapors, cyanide vapors.
- c. Personal Protection: Level D with capability to upgrade to modified Level C.

10. Site Work:

- a. Soil/sediment sampling
- b. Soil borings with monitoring well installation
- c. Well development
- d. Surface water sampling
- e. Ground-water sampling
- f. Test pit excavation and sampling

11. Site Monitoring:

- a. Equipment Used: HNU X
Draeger Tubes X
- b. Monitoring: Start-Up X
As Needed X
- c. Communications: Verbal X
Telephone X

12. Minimum Level of Protection:

	<u>Boots</u>	<u>Gloves</u>	<u>Protective Clothing</u>	<u>Hard Hat</u>	<u>Glasses</u>	<u>Respirator</u>
a. Site Personnel:	X	X	X	X	X	¹
b. Visitors:	X			X	X	

¹ As needed depending on type of field work and site-specific conditions.

13. Decontamination and/or Disposal:

High Pressure - Hot Water	<u>X</u>
Detergent	<u>X</u>
Plastic Bags	<u>X²</u>
Solvents	<u>X²</u>
Acids	<u>X²</u>

- ² Waste materials were incorporated into the plant waste stream for proper disposal.

III. Training of Active Site Personnel

All project personnel involved in any active on-site investigation had the background, training, and experience required to perform that particular site activity.



Appendix B

APPENDIX B
DRILLING/SAMPLING PROTOCOL FOR SOIL BORINGS

DRILLING/SAMPLING PROTOCOL FOR SOIL BORINGS

I. Drilling/Sampling Procedures

Test borings were completed using the hollow-stem auger drilling method to a depth specified by the on-site geologist. The minimum inside diameter of the augers was four inches. The auger stem was turned by a rotary drive head which is mounted on a hydraulic feed mechanism.

Samples of the encountered subsurface materials were collected continuously. The sampling method employed was ASTM D-1586/Split-Barrel Sampling (Appendix C) using a standard 2.5-foot long, two-inch outside diameter split-spoon sampler. If the on-site geologist was not satisfied with the amount of sample retrieval, a three-inch outside diameter split-spoon was used. A representative sample was placed in glass jars and labeled, stored on site or, if applicable, placed in a cooler and maintained at 40°F until being transported to the appropriate testing laboratory. A geologist was on site during the drilling operations to fully describe each soil sample including: 1) soil type; 2) color; 3) percent recovery; 4) moisture content; 5) texture; 6) grain size and shape; 7) consistency; 8) odor; and 9) miscellaneous observations. All information was recorded in a bound field book with indelible ink. The on-site geologist was responsible for retaining a representative portion of each sample in a one-pint glass jar labeled with: 1) site; 2) boring number; 3) interval sample/interval preserved; 4) date; 5) time of sample collection; and 6) sampling personnel.

A split sample or samples was taken from test borings in which chemical analytical samples were scheduled to be obtained. The split samples were retained in bottles supplied by the chemical analytical laboratory. The type

and preparation of the bottles was appropriate to the analytical procedures scheduled for each sample.

The Drilling Contractor was responsible for obtaining accurate and representative samples, informing the on-site geologist of changes in drilling pressure, and keeping a separate general log of soils encountered including blow counts (i.e., the number of blows from a soil sampling drive weight (140 pounds) required to drive the two-inch split-spoon sampler in six-inch increments). The on-site geologist directed the drilling, modifying depth and design of the monitoring well to best accomplish the objectives of this program.

A water level measurement was taken at the completion of the borehole to determine the position of the water table.

II. Equipment Decontamination

All drilling equipment and associated tools including augers, drill rods, wrenches and any other equipment or tools that came in contact with contaminated materials were decontaminated using high pressure, hot water cleaning equipment prior to commencing each soil boring and before leaving the site. Control water from the city of Utica public water supply was obtained on-site from the plant power house.

The split-spoon sampler was decontaminated prior to the collection of samples for chemical analysis. This was accomplished by washing the sampler in soapy water followed successively by a control water rinse, a methanol solution rinse, and a final distilled water rinse.

The soil samples obtained during the expanded environmental assessment were taken from a split-spoon sampler which was also decontaminated prior to their collection. The split-spoon sampler was washed in a soapy water

solution, followed successively by a distilled water rinse, a methanol rinse, a hexane rinse, a 10% nitric acid rinse and a final distilled water rinse. These expanded decontamination procedures were implemented to further improve the quality assurance/quality control (QA/QC) of the sampling program.



Appendix C

APPENDIX C

STANDARD METHOD FOR PENETRATION TEST AND
SPLIT-BARREL SAMPLING OF SOILS



Standard Method for PENETRATION TEST AND SPLIT-BARREL SAMPLING OF SOILS¹

This standard is issued under the fixed designation D 1586; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ϵ) indicates an editorial change since the last revision or reapproval.

This method has been approved for use by agencies of the Department of Defense and for listing in the DOD Index of Specifications and Standards.

1. Scope

1.1 This method describes the procedure, generally known as the Standard Penetration Test (SPT), for driving a split-barrel sampler to obtain a representative soil sample and a measure of the resistance of the soil to penetration of the sampler.

1.2 *This standard may involve hazardous materials, operations, and equipment. This standard does not purport to address all of the safety problems associated with its use. It is the responsibility of whoever uses this standard to consult and establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.* For a specific precautionary statement, see 5.4.1.

1.3 The values stated in inch-pound units are to be regarded as the standard.

2. Applicable Documents

2.1 ASTM Standards:

- D 2487 Test Method for Classification of Soils for Engineering Purposes²
- D 2488 Practice for Description and Identification of Soils (Visual-Manual Procedure)²
- D 4220 Practices for Preserving and Transporting Soil Samples²

3. Descriptions of Terms Specific to This Standard

3.1 *anvil*—that portion of the drive-weight assembly which the hammer strikes and through which the hammer energy passes into the drill rods.

3.2 *cathead*—the rotating drum or windlass in the rope-cathead lift system around which the operator wraps a rope to lift and drop the ham-

mer by successively tightening and loosening the rope turns around the drum.

3.3 *drill rods*—rods used to transmit downward force and torque to the drill bit while drilling a borehole.

3.4 *drive-weight assembly*—a device consisting of the hammer, hammer fall guide, the anvil, and any hammer drop system.

3.5 *hammer*—that portion of the drive-weight assembly consisting of the 140 ± 2 lb (63.5 ± 1 kg) impact weight which is successively lifted and dropped to provide the energy that accomplishes the sampling and penetration.

3.6 *hammer drop system*—that portion of the drive-weight assembly by which the operator accomplishes the lifting and dropping of the hammer to produce the blow.

3.7 *hammer fall guide*—that part of the drive-weight assembly used to guide the fall of the hammer.

3.8 *N-value*—the blowcount representation of the penetration resistance of the soil. The *N-value*, reported in blows per foot, equals the sum of the number of blows required to drive the sampler over the depth interval of 6 to 18 in. (150 to 450 mm) (see 7.3).

3.9 ΔN —the number of blows obtained from each of the 6-in. (150-mm) intervals of sampler penetration (see 7.3).

3.10 *number of rope turns*—the total contact angle between the rope and the cathead at the

¹ This method is under the jurisdiction of ASTM Committee D-18 on Soil and Rock and is the direct responsibility of Subcommittee D18.02 on Sampling and Related Field Testing for Soil Investigations.

Current edition approved Sept. 11, 1984. Published November 1984. Originally published as D 1586 - 58. Last previous edition D 1586 - 67 (1974).

² *Annual Book of ASTM Standards*, Vol 04.08.

beginning of the operator's rope slackening to drop the hammer, divided by 360° (see Fig. 1).

3.11 *sampling rods*—rods that connect the drive-weight assembly to the sampler. Drill rods are often used for this purpose.

3.12 *SPT*—abbreviation for Standard Penetration Test, a term by which engineers commonly refer to this method.

4. Significance and Use

4.1 This method provides a soil sample for identification purposes and for laboratory tests appropriate for soil obtained from a sampler that may produce large shear strain disturbance in the sample.

4.2 This method is used extensively in a great variety of geotechnical exploration projects. Many local correlations and widely published correlations which relate SPT blowcount, or *N*-value, and the engineering behavior of earthworks and foundations are available.

5. Apparatus

5.1 *Drilling Equipment*—Any drilling equipment that provides at the time of sampling a suitably clean open hole before insertion of the sampler and ensures that the penetration test is performed on undisturbed soil shall be acceptable. The following pieces of equipment have proven to be suitable for advancing a borehole in some subsurface conditions.

5.1.1 *Drag, Chopping, and Fishtail Bits*, less than 6.5 in. (162 mm) and greater than 2.2 in. (56 mm) in diameter may be used in conjunction with open-hole rotary drilling or casing-advancement drilling methods. To avoid disturbance of the underlying soil, bottom discharge bits are not permitted; only side discharge bits are permitted.

5.1.2 *Roller-Cone Bits*, less than 6.5 in. (162 mm) and greater than 2.2 in. (56 mm) in diameter may be used in conjunction with open-hole rotary drilling or casing-advancement drilling methods if the drilling fluid discharge is deflected.

5.1.3 *Hollow-Stem Continuous Flight Augers*, with or without a center bit assembly, may be used to drill the boring. The inside diameter of the hollow-stem augers shall be less than 6.5 in. (162 mm) and greater than 2.2 in. (56 mm).

5.1.4 *Solid, Continuous Flight, Bucket and Hand Augers*, less than 6.5 in. (162 mm) and greater than 2.2 in. (56 mm) in diameter may be used if the soil on the side of the boring does not

cave onto the sampler or sampling rods during sampling.

5.2 *Sampling Rods*—Flush-joint steel drill rods shall be used to connect the split-barrel sampler to the drive-weight assembly. The sampling rod shall have a stiffness (moment of inertia) equal to or greater than that of parallel wall "A" rod (a steel rod which has an outside diameter of 1½ in. (41.2 mm) and an inside diameter of 1¼ in. (28.5 mm)).

NOTE 1—Recent research and comparative testing indicates the type rod used, with stiffness ranging from "A" size rod to "N" size rod, will usually have a negligible effect on the *N*-values to depths of at least 100 ft (30 m).

5.3 *Split-Barrel Sampler*—The sampler shall be constructed with the dimensions indicated in Fig. 2. The driving shoe shall be of hardened steel and shall be replaced or repaired when it becomes dented or distorted. The use of liners to produce a constant inside diameter of 1½ in. (35 mm) is permitted, but shall be noted on the penetration record if used. The use of a sample retainer basket is permitted, and should also be noted on the penetration record if used.

NOTE 2—Both theory and available test data suggest that *N*-values may increase between 10 to 30 % when liners are used.

5.4 Drive-Weight Assembly:

5.4.1 *Hammer and Anvil*—The hammer shall weigh 140 ± 2 lb (63.5 ± 1 kg) and shall be a solid rigid metallic mass. The hammer shall strike the anvil and make steel on steel contact when it is dropped. A hammer fall guide permitting a free fall shall be used. Hammers used with the cathead and rope method shall have an unimpeded overlift capacity of at least 4 in. (100 mm). For safety reasons, the use of a hammer assembly with an internal anvil is encouraged.

NOTE 3—It is suggested that the hammer fall guide be permanently marked to enable the operator or inspector to judge the hammer drop height.

5.4.2 *Hammer Drop System*—Rope-cathead, trip, semi-automatic, or automatic hammer drop systems may be used, providing the lifting apparatus will not cause penetration of the sampler while re-engaging and lifting the hammer.

5.5 *Accessory Equipment*—Accessories such as labels, sample containers, data sheets, and groundwater level measuring devices shall be provided in accordance with the requirements of the project and other ASTM standards.



6. Drilling Procedure

6.1 The boring shall be advanced incrementally to permit intermittent or continuous sampling. Test intervals and locations are normally stipulated by the project engineer or geologist. Typically, the intervals selected are 5 ft (1.5 m) or less in homogeneous strata with test and sampling locations at every change of strata.

6.2 Any drilling procedure that provides a suitably clean and stable hole before insertion of the sampler and assures that the penetration test is performed on essentially undisturbed soil shall be acceptable. Each of the following procedures have proven to be acceptable for some subsurface conditions. The subsurface conditions anticipated should be considered when selecting the drilling method to be used.

6.2.1 Open-hole rotary drilling method.

6.2.2 Continuous flight hollow-stem auger method.

6.2.3 Wash boring method.

6.2.4 Continuous flight solid auger method.

6.3 Several drilling methods produce unacceptable borings. The process of jetting through an open tube sampler and then sampling when the desired depth is reached shall not be permitted. The continuous flight solid auger method shall not be used for advancing the boring below a water table or below the upper confining bed of a confined non-cohesive stratum that is under artesian pressure. Casing may not be advanced below the sampling elevation prior to sampling. Advancing a boring with bottom discharge bits is not permissible. It is not permissible to advance the boring for subsequent insertion of the sampler solely by means of previous sampling with the SPT sampler.

6.4 The drilling fluid level within the boring or hollow-stem augers shall be maintained at or above the in situ groundwater level at all times during drilling, removal of drill rods, and sampling.

7. Sampling and Testing Procedure

7.1 After the boring has been advanced to the desired sampling elevation and excessive cuttings have been removed, prepare for the test with the following sequence of operations.

7.1.1 Attach the split-barrel sampler to the sampling rods and lower into the borehole. Do

not allow the sampler to drop onto the soil to be sampled.

7.1.2 Position the hammer above and attach the anvil to the top of the sampling rods. This may be done before the sampling rods and sampler are lowered into the borehole.

7.1.3 Rest the dead weight of the sampler, rods, anvil, and drive weight on the bottom of the boring and apply a seating blow. If excessive cuttings are encountered at the bottom of the boring, remove the sampler and sampling rods from the boring and remove the cuttings.

7.1.4 Mark the drill rods in three successive 6-in. (0.15-m) increments so that the advance of the sampler under the impact of the hammer can be easily observed for each 6-in. (0.15-m) increment.

7.2 Drive the sampler with blows from the 140-lb (63.5-kg) hammer and count the number of blows applied in each 6-in. (0.15-m) increment until one of the following occurs:

7.2.1 A total of 50 blows have been applied during any one of the three 6-in. (0.15-m) increments described in 7.1.4.

7.2.2 A total of 100 blows have been applied.

7.2.3 There is no observed advance of the sampler during the application of 10 successive blows of the hammer.

7.2.4 The sampler is advanced the complete 18 in. (0.45 m) without the limiting blow counts occurring as described in 7.2.1, 7.2.2, or 7.2.3.

7.3 Record the number of blows required to effect each 6 in. (0.15 m) of penetration or fraction thereof. The first 6 in. is considered to be a seating drive. The sum of the number of blows required for the second and third 6 in. of penetration is termed the "standard penetration resistance", or the "N-value". If the sampler is driven less than 18 in. (0.45 m), as permitted in 7.2.1, 7.2.2, or 7.2.3, the number of blows per each complete 6-in. (0.15-m) increment and per each partial increment shall be recorded on the boring log. For partial increments, the depth of penetration shall be reported to the nearest 1 in. (25 mm), in addition to the number of blows. If the sampler advances below the bottom of the boring under the static weight of the drill rods or the weight of the drill rods plus the static weight of the hammer, this information should be noted on the boring log.

7.4 The raising and dropping of the 140-lb

(63.5-kg) hammer shall be accomplished using either of the following two methods:

7.4.1 By using a trip, automatic, or semi-automatic hammer drop system which lifts the 140-lb (63.5-kg) hammer and allows it to drop 30 ± 1.0 in. (0.76 m ± 25 mm) unimpeded.

7.4.2 By using a cathead to pull a rope attached to the hammer. When the cathead and rope method is used the system and operation shall conform to the following:

7.4.2.1 The cathead shall be essentially free of rust, oil, or grease and have a diameter in the range of 6 to 10 in. (150 to 250 mm).

7.4.2.2 The cathead should be operated at a minimum speed of rotation of 100 RPM, or the approximate speed of rotation shall be reported on the boring log.

7.4.2.3 No more than 2¼ rope turns on the cathead may be used during the performance of the penetration test, as shown in Fig. 1.

NOTE 4—The operator should generally use either 1¼ or 2¼ rope turns, depending upon whether or not the rope comes off the top (1¼ turns) or the bottom (2¼ turns) of the cathead. It is generally known and accepted that 2¼ or more rope turns considerably impedes the fall of the hammer and should not be used to perform the test. The cathead rope should be maintained in a relatively dry, clean, and unfrayed condition.

7.4.2.4 For each hammer blow, a 30-in. (0.76-m) lift and drop shall be employed by the operator. The operation of pulling and throwing the rope shall be performed rhythmically without holding the rope at the top of the stroke.

7.5 Bring the sampler to the surface and open. Record the percent recovery or the length of sample recovered. Describe the soil samples recovered as to composition, color, stratification, and condition, then place one or more representative portions of the sample into sealable moisture-proof containers (jars) without ramming or distorting any apparent stratification. Seal each container to prevent evaporation of soil moisture. Affix labels to the containers bearing job designation, boring number, sample depth, and the blow count per 6-in. (0.15-m) increment. Protect the samples against extreme temperature changes. If there is a soil change within the sampler, make a jar for each stratum and note its location in the sampler barrel.

8. Report

8.1 Drilling information shall be recorded in the field and shall include the following:

- 8.1.1 Name and location of job,
- 8.1.2 Names of crew,
- 8.1.3 Type and make of drilling machine,
- 8.1.4 Weather conditions,
- 8.1.5 Date and time of start and finish of boring,
- 8.1.6 Boring number and location (station and coordinates, if available and applicable),
- 8.1.7 Surface elevation, if available,
- 8.1.8 Method of advancing and cleaning the boring,
- 8.1.9 Method of keeping boring open,
- 8.1.10 Depth of water surface and drilling depth at the time of a noted loss of drilling fluid, and time and date when reading or notation was made,
- 8.1.11 Location of strata changes,
- 8.1.12 Size of casing, depth of cased portion of boring,
- 8.1.13 Equipment and method of driving sampler,
- 8.1.14 Type sampler and length and inside diameter of barrel (note use of liners),
- 8.1.15 Size, type, and section length of the sampling rods, and
- 8.1.16 Remarks.

8.2 Data obtained for each sample shall be recorded in the field and shall include the following:

- 8.2.1 Sample depth and, if utilized, the sample number,
- 8.2.2 Description of soil,
- 8.2.3 Strata changes within sample,
- 8.2.4 Sampler penetration and recovery lengths, and
- 8.2.5 Number of blows per 6-in. (0.15-m) or partial increment.

9. Precision and Bias

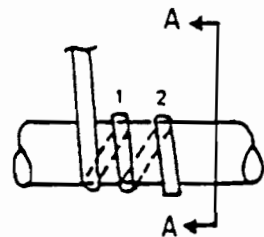
9.1 Variations in *N*-values of 100 % or more have been observed when using different standard penetration test apparatus and drillers for adjacent borings in the same soil formation. Current opinion, based on field experience, indicates that when using the same apparatus and driller, *N*-values in the same soil can be reproduced with a coefficient of variation of about 10 %.

9.2 The use of faulty equipment, such as an extremely massive or damaged anvil, a rusty cathead, a low speed cathead, an old, oily rope, or massive or poorly lubricated rope sheaves can significantly contribute to differences in *N*-values

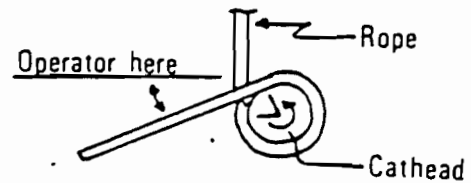
obtained between operator-drill rig systems.

9.3 The variability in N -values produced by different drill rigs and operators may be reduced by measuring that part of the hammer energy

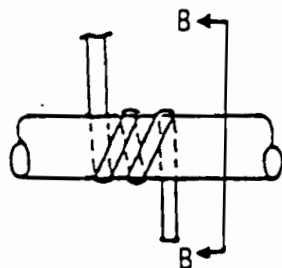
delivered into the drill rods from the sampler and adjusting N on the basis of comparative energies. A method for energy measurement and N -value adjustment is currently under development.



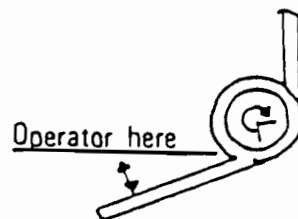
(a) counterclockwise rotation
approximately $1\frac{1}{4}$ turns



Section A-A

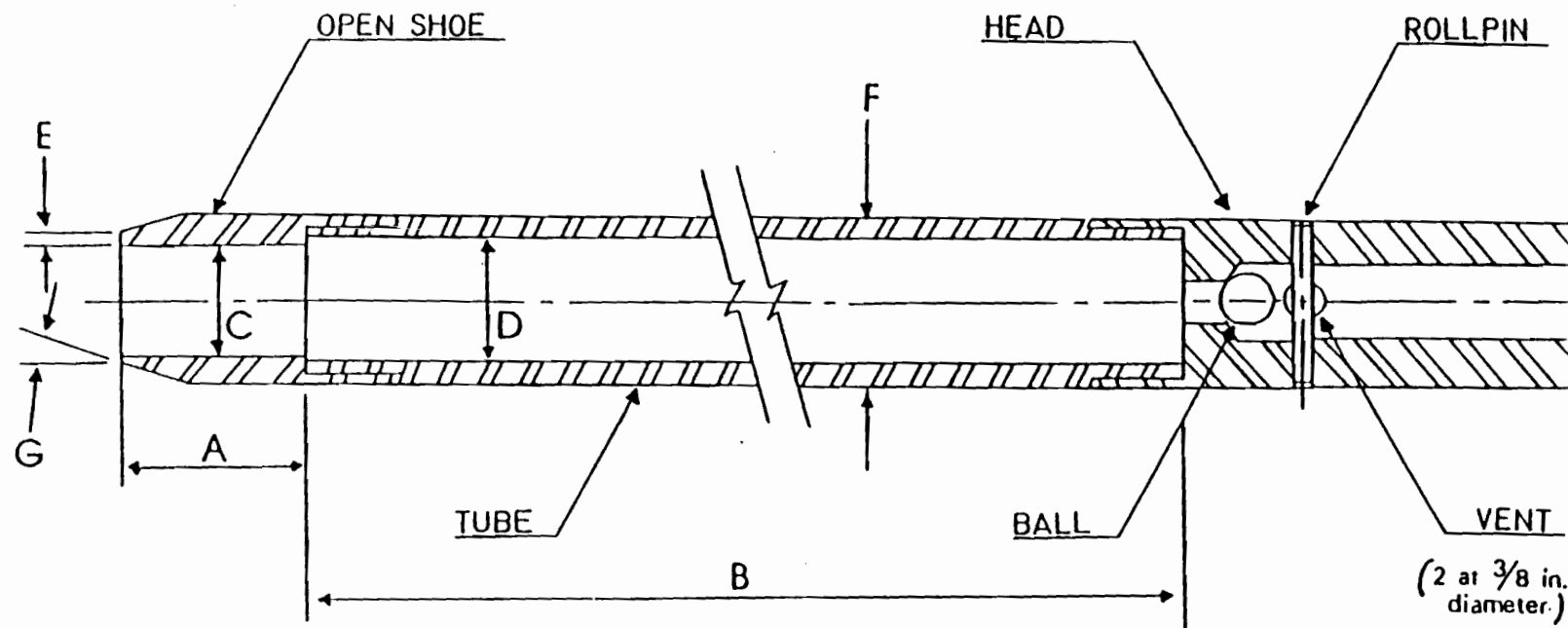


(b) clockwise rotation
approximately $2\frac{1}{4}$ turns



Section B-B

FIG. 1 Definitions of the Number of Rope Turns and the Angle for (a) Counterclockwise Rotation and (b) Clockwise Rotation of the Cathead



- A = 1.0 to 2.0 in. (25 to 50 mm)
 B = 18.0 to 30.0 in. (0.457 to 0.762 m)
 C = 1.375 ± 0.005 in. (34.93 ± 0.13 mm)
 D = $1.50 \pm 0.05 - 0.00$ in. ($38.1 \pm 1.3 - 0.0$ mm)
 E = 0.10 ± 0.02 in. (2.54 ± 0.25 mm)
 F = $2.00 \pm 0.05 - 0.00$ in. ($50.8 \pm 1.3 - 0.0$ mm)
 G = 16.0° to 23.0°

The $1\frac{1}{2}$ in. (38 mm) inside diameter split barrel may be used with a 16-gage wall thickness split liner. The penetrating end of the drive shoe may be slightly rounded. Metal or plastic retainers may be used to retain soil samples.

FIG. 2 Split-Barrel Sampler

The American Society for Testing and Materials takes no position respecting the validity of any patent rights asserted in connection with any item mentioned in this standard. Users of this standard are expressly advised that determination of the validity of any such patent rights, and the risk of infringement of such rights, are entirely their own responsibility.

This standard is subject to revision at any time by the responsible technical committee and must be reviewed every five years and if not revised, either reapproved or withdrawn. Your comments are invited either for revision of this standard or for additional standards and should be addressed to ASTM Headquarters. Your comments will receive careful consideration at a meeting of the responsible technical committee, which you may attend. If you feel that your comments have not received a fair hearing you should make your views known to the ASTM Committee on Standards, 1916 Race St., Philadelphia, Pa. 19103.



Appendix D

APPENDIX D
PROTOCOL FOR COMPLETION OF MONITORING WELLS

PROTOCOL FOR COMPLETION OF MONITORING WELLS

I. Monitoring Well Completion

Monitoring wells were installed in completed soil borings advanced during soil sampling procedures outlined in Drilling/Sampling Protocol for Soil Borings (Appendix B). Monitoring wells were installed through hollow-stem augers with a minimum inside diameter of four inches.

All monitoring wells installed in unconsolidated deposits were constructed of two-inch diameter PVC flush-joint threaded screen and riser casing (Schedule 40) that extended from the screened interval to either just below grade or to two to three feet above existing grade. Screens were each 10 feet long, 10-slot (0.010-inch) diameter, and capped on the bottom with a threaded PVC plug of appropriate size. Other materials utilized for completion included washed silica sand, bentonite, and, if necessary, Portland Cement and a flush-mounted curb box with a watertight locking cover.

The installation method for two-inch monitoring wells was to place the screen and casing assembly into the auger string once the screen interval was selected. Screen length, screen slot size, and filter pack were specified based on geologic conditions. A washed silica sand pack was placed, if possible, at least six inches above the top of the well screen. Hydrated bentonite grout was placed above the pack material to a minimum thickness of six inches. Cement grout was then added to the annulus between the casing and the inside auger wall for those wells completed with flush-mount curb boxes. During placement of sand and bentonite, frequent measurements were made to check the height of the sand pack and thickness of a bentonite layer by a weighted tape measure.

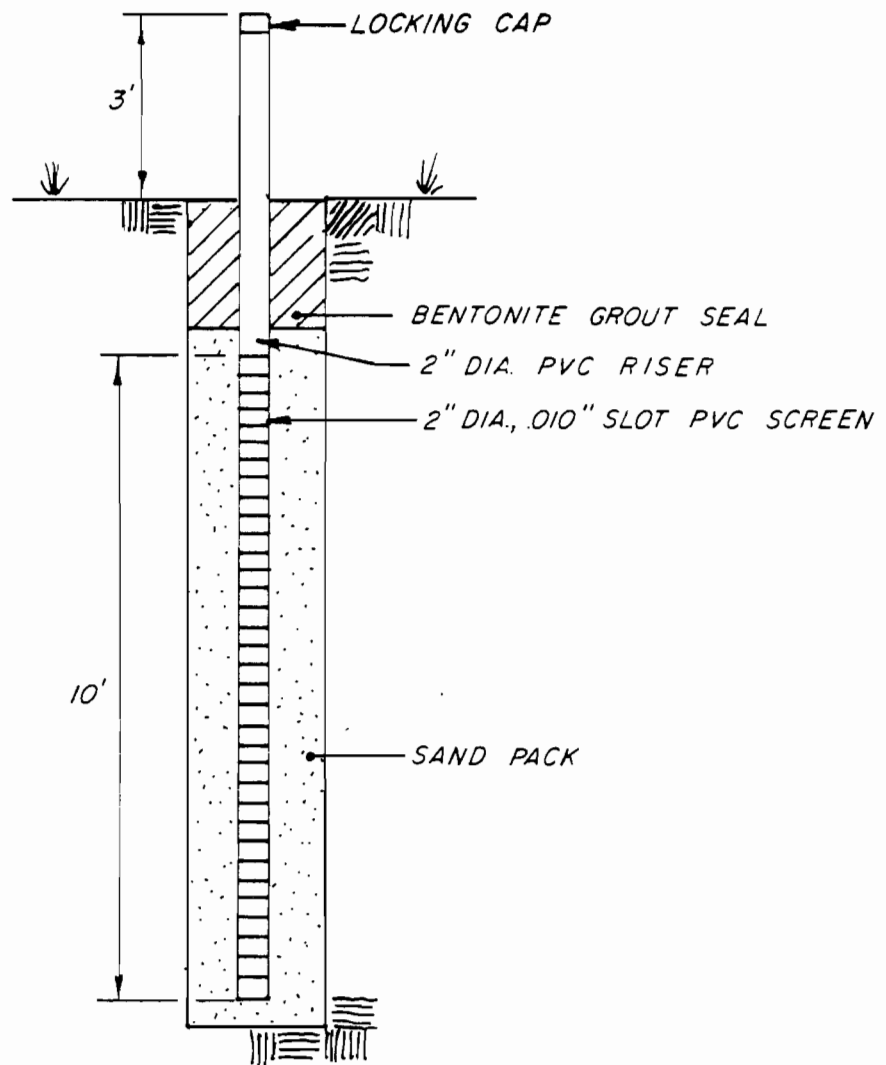
Those wells with a PVC standpipe were completed by placing a bentonite seal to the surface and covering the bentonite with gravel in order to maintain the bentonite seal during site activities around the well (i.e., sampling, water level measurements, etc.). No steel protective casing was placed around the PVC riser due to the shallow depth of the well screens (one to four feet), the shallow depth of the water table, and the possibility of floating hydrocarbons on top of the water table. Protective casings would have needed to be set to a depth of at least three feet below grade, which could have impaired the ability of floating hydrocarbons to enter the monitoring well. Certain wells (MW-4, MW-6, MW-7, and MW-12) were completed in areas requiring the use of a flush-mounted curb box. In these instances, a sand drain was installed in the well if possible.

Typical monitoring well details are shown on Figures D-1 and D-2. The on-site geologist specified the monitoring well design to the Drilling Contractor prior to installation.

The on-site geologist was responsible for recording the exact well details as relayed by the Drilling Contractor and actual measurement. Both the on-site geologist and Drilling Contractor were responsible for tabulating all well materials used such as footage of casing and screen or bags of grout, pellets, cement or sand.

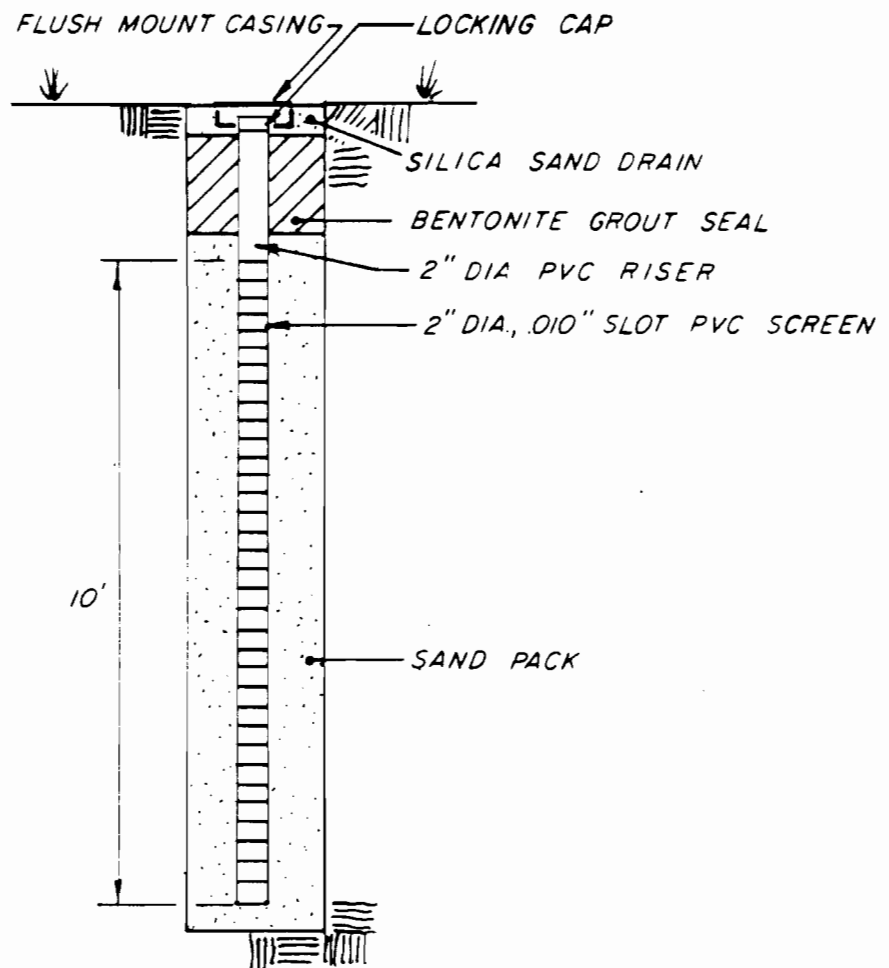
II. Monitoring Well Development

All monitoring wells were developed or cleared, to the greatest extent possible, of all fine-grained materials and sediments that had settled in or around the well during installation. The development was by pumping, flushing, and/or bailing ground water from the monitoring well until it yielded relatively sediment-free water. Monitoring wells on-site were not able to be



TYPICAL MONITORING WELL





TYPICAL FLUSH MOUNT
MONITORING WELL



developed until sediment-free due to their relatively slow recharge and overall low yield.

III. Equipment Decontamination

All drilling equipment and associated tools including augers, drill rods, wrenches, and any other equipment or tools that may have come in contact with contaminated materials were decontaminated using high pressure, hot water cleaning equipment using a controlled water source. The control water was obtained on-site from the plant power house. The control water source was from the city of Utica public water supply.

The drilling equipment was decontaminated for each well in an area designated by the on-site geologist. No equipment was permitted to leave a drilling site at any time without first being decontaminated as described above, unless otherwise specified in the field by the geologist.



Appendix E

APPENDIX E

SUBSURFACE LOGS AND MONITORING

WELL COMPLETION DETAILS

SUBSURFACE LOG MW-1						
DEPTH	SAMPLES	SAMPLE NO.	RECOVERY (INCHES)	N	WELL COLUMN	DESCRIPTION
0		S-1	8	50+		Dark red to black, fine to medium SAND, some coarse sand, trace silt, some white cinders present, wet, FILL.
1						Water at 0.4' below grade.
2		S-2	12	3		Black fine to medium SAND, little silt, wet, oily matrix, FILL.
3						Tan to gray fine SAND (foundry?), wet, FILL.
4		S-3	12	3		Black fine to medium SAND, wet oily matrix, FILL.
5						Dark brown to purple medium to coarse SAND, some fine sand and silt, trace clay, moist, some wood fibers, FILL.
6		S-4	9	50+		Dark brown to purple SILT and CLAY, some coarse sand and little gravel, moist, TILL.
7						
8		S-5	14	90		Pieces of red sandstone and green limestone present.
9						
10						
11						
12						Bottom of boring at 11.5'.
						-Drilled with CME-75, 4-1/4" ID hollow stem augers. -Installed 2" ID PVC 10-slot screen from 11' to 1' below grade, 2" PVC riser pipe from 1' below grade to 2.97' above grade. 2" PVC screen had threaded plug in bottom. -3Q silica sand pack from 11.5' to 0.5'. -Volclay from 0.5' to surface. -Installed 2" locking aluminum cap on top of 2" PVC riser.
						*Surface elevation based on an assumed datum.

SURFACE ELEVATION <u>103.4 *</u> DATE STARTED <u>1/19/88</u> DATE COMPLETED <u>1/19/88</u> CLASSIFIED BY <u>SPS</u>	PROJECT <u>Danaher 307.01.31</u> SHEET <u>1</u> OF <u>1</u> NO. <u>MW-1</u>	 BLASLAND & BOUCK ENGINEERS, P.C.

SUBSURFACE LOG MW-2

DEPTH	SAMPLES	SAMPLE NO.	RECOVERY (INCHES)	N	WELL COLUMN	GEOLOGIC COLUMN	DESCRIPTION
0		S-1	14	12			Dark brown TOPSOIL.
1							Light brown medium SAND moist, some iron oxide pockets, FILL.
2		S-2	16	20			Water at 2'.
3							Light brown to tan fine SAND (foundry), trace silt and clay, wet, FILL.
4		S-3	13	26			Dark gray to brown fine to medium SAND and SILT, little clay, wet.
5							Pieces of angular fine gravel composed of gray limestone and red sandstone.
6		S-4	18	28			
7							
8		S-5	24	58			Dark brown to gray fine to medium SAND, some silt, some pieces of fine gravel, little clay, wet.
9							
10		S-6	12	97+			Dark brown to gray SILT and CLAY, some angular fragments of coarse sand and fine gravel, compact, moist, TILL.
11							Grades to dark brown/dark red.
12							Bottom of boring at 11.5'.
							-Drilled with CME-75, 4-1/4" ID hollow stem augers. -Installed 2" ID PVC 10-slot screen from 11' to 1' below grade, 2" PVC riser pipe from 1' below grade to 2.84' above grade. 2" PVC screen had threaded plug in bottom. -30 silica sand pack from 11.5' to 0.5'. -Volclay from 0.5' to surface. -Installed 2" locking aluminum cap on top of 2" PVC riser.
							*Surface elevation based on an assumed datum.

SURFACE ELEVATION 99.8 *
 DATE STARTED 1/19/88
 DATE COMPLETED 1/20/88
 CLASSIFIED BY SPS

PROJECT Danaher 307.01.31
 SHEET 1 OF 1
 NO. MW-2

BLASLAND & BOUCK ENGINEERS, P.C.

SUBSURFACE LOG MW-3						
DEPTH	SAMPLES	SAMPLE NO.	RECOVERY (INCHES)	N	WELL COLUMN	DESCRIPTION
0						BLACKTOP Black cinders and subgrade, FILL.
1	S-1	14	30			Light brown fine SAND, little silt, trace clay, some iron stains, moist, FILL.
2	S-2	12	14			Light brown fine SAND, trace silt, well sorted, (foundry sand?) moist.
3						
4	S-3	12	7			
5						
6	S-4	11	3			Light-dark brown fine to coarse SAND, little silt, trace clay, some red-black cinders, wet, FILL.
7						Light brown-gray silty CLAY, some fine to medium sand, trace fine gravel, moist. Water at 7' below grade.
8	S-5	15	28			
9						Dark brown-gray silty CLAY, some fine to medium gravel., little, angular coarse sand-sized fragments, moist, TILL.
10	S-6	18	65			
11						
12						Bottom of boring at 11.5'.
						-Drilled with CME-75, 4-1/4" ID hollow stem augers. -Installed 2" ID PVC 10-slot screen from 11' to 1' below grade, 2" PVC riser pipe from 1' below grade to 2.58' above grade. 2" PVC screen had threaded plug in bottom. -3Q silica sand pack from 11.5 to 0.5'. -Volclay from 0.5' to surface. -Installed 2" locking aluminum cap on top of 2" PVC riser.
						* Surface elevation based on an assumed datum.

SURFACE ELEVATION <u>100.7*</u> DATE STARTED <u>1/20/88</u> DATE COMPLETED <u>1/20/88</u> CLASSIFIED BY <u>SPS</u>	PROJECT <u>Danaher 307.01.31</u> SHEET <u>1</u> OF <u>1</u> NO. <u>MW-3</u>	 BLASLAND & BOUCK ENGINEERS, P.C.

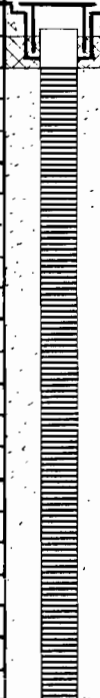
						SUBSURFACE LOG MW-4	
DEPTH	SAMPLES	SAMPLE NO.	RECOVERY (INCHES)	N	WELL COLUMN	GEOLOGIC COLUMN	DESCRIPTION
0							BLACKTOP
1		S-1	10	26			Dark gray to black fine to medium SAND, little silt, black staining, moist, FILL.
2							
3		S-2	9	10			Some fine gravel, FILL.
4							
5		S-3	10	3			Dark gray to black sandy SILT, some clay and pieces of fine gravel, some black staining, wet, FILL.
6							Water at 6' below grade.
7		S-4	16	4			Dark gray to brown clayey SILT some fine sand, pieces of wire, wood fibers and miscellaneous fibrous material, some black staining wet, FILL.
8							
9		S-5	12	18			Dark gray to brown clayey SILT, little fine sand, gravel size fragments in nose of spoon, piece of wire at bottom of spoon, some black staining, wet, FILL.
10							
11		S-6	16	29			Dark gray to black sandy SILT, trace clay, angular pieces of fine gravel (black shale), compact, moist, TILL.
12							Bottom of boring at 11.5'.
							-Drilled with CME-75, 4-1/4" ID hollow stem augers. -Installed 2" ID PVC 10-slot screen from 11' to 1' below grade, 2" PVC riser pipe from 1' to 0.4' below grade. 2" PVC screen had threaded plug in bottom. -3Q silica sand pack from 11.5 to 1'. -Volclay from 1' to 0.5' below grade. -Installed flush-mounted curb box from 0.8' below grade to surface. PVC was fitted with "o" ring seal and brace fitting and a threaded metal cap was installed on top of PVC. Fitting on top of PVC was secured with a brass padlock.
							*Surface elevation based on an assumed datum.
SURFACE ELEVATION <u>96.4 *</u> DATE STARTED <u>1/20/88</u> DATE COMPLETED <u>1/20/88</u> CLASSIFIED BY <u>SPS</u>						PROJECT <u>Danaher 307.01.31</u> SHEET <u>1</u> OF <u>1</u> NO. <u>MW-4</u>	
						 BLASLAND & BOUCK ENGINEERS, P.C.	

SUBSURFACE LOG MW-5						
DEPTH	SAMPLES	SAMPLE NO.	RECOVERY (INCHES)	N	WELL COLUMN	GEOLOGIC COLUMN
DESCRIPTION						
0						BLACKTOP
1	S-1	12	21			Dark brown to gray fine to medium SAND, little silt, trace clay, pieces of angular fine gravel, wet. FILL.
2	S-2	15	15			Water at 1.9' below grade. Dark gray to black stained fine to medium SAND, little silt, trace clay, product odor, some pieces of red sandstone, wet, FILL.
3						
4	S-3	18	16			Light brown to yellow fine to medium SAND, little silt and clay, wet.
5						Gray silty SAND, with some clay, product odor, wet, compact.
6	S-4	9	25			
7						
8	S-5	2	55			
9						Gray clayey SILT, little fine to medium sand, trace coarse sand, moist, compact, TILL.
10	S-6	18	49			
11						
12						Bottom of boring at 12.0'.
						-Drilled with CME-75, 4-1/4" ID hollow stem augers. -Installed 2" IS PVC 10-slot screen from 11' to 1' below grade, 2" PVC riser pipe from 1' to 3.13' above grade. 2" PVC screen had threaded plug in bottom. -3Q silica sand pack from 12.0' to 0.5'. -Volclay from 0.5' to surface. -Installed 2" locking aluminum cap on top of 2" PVC riser.
*Surface elevation based on an assumed datum.						

SURFACE ELEVATION <u>98.03 *</u> DATE STARTED <u>1/21/88</u> DATE COMPLETED <u>1/21/88</u> CLASSIFIED BY <u>SPS</u>	PROJECT <u>Danaher 307.01.31</u> SHEET <u>1</u> OF <u>1</u> NO. <u>MW-5</u>	 BLASLAND & BOUCK ENGINEERS, P.C.

DEPTH	SAMPLES	SAMPLE NO.	RECOVERY (INCHES)	N	WELL COLUMN	GEOLOGIC COLUMN	SUBSURFACE LOG MW-6	
							DESCRIPTION	
0								
1		S-1	8	12				BLACKTOP Dark gray to black stained fine to medium SAND, little silt, trace clay, pieces of gravel-sized brick, wet, FILL.
2		S-2	NR	12				Water at 1.5' below grade. No recovery, pushing piece of gravel.
3								
4		S-3	8	9				
5								Light brown to gray clayey SILT, little fine sand, wet.
6		S-4	14	17				Gray clayey SILT, peat fibers at 6.5', red fine sand partings at 6.9', wet.
7								
8		S-5	13	44				Dark gray to dark brown fine SAND, trace silt, wet, well sorted.
9								Dark gray to dark brown medium to coarse SAND, some silt and fine gravel, trace clay, moist, TILL.
10		S-6	NR	37				No recovery
11								
12								Bottom of boring at 12'. -Drilled with CME-75, 4-1/4" ID hollow stem augers. -Installed 2" ID PVC 10-slot screen from 11' to 1' below grade, 2" PVC riser pipe from 1' to 0.4' below grade. 2" PVC screen had threaded plug in bottom. -3Q silica sand pack from 12' to 1'. -Volclay from 1' to 0.5' below grade. -Installed flush-mounted curb box from 0.8' below grade to surface. PVC was fitted with "O" ring seal and brass fitting, and a threaded metal cap was installed on top of PVC. Fitting on top of PVC was secured with a brass padlock.
								* Surface elevation based on an assumed datum.

SURFACE ELEVATION <u>88.85 *</u> DATE STARTED <u>1/21/88</u> DATE COMPLETED <u>1/21/88</u> CLASSIFIED BY <u>SPS</u>	PROJECT <u>Danaher 307.01.31</u> SHEET <u>1</u> OF <u>1</u> NO. <u>MW-6</u>	 BLASLAND & BOUCK ENGINEERS, P.C.

DEPTH	SAMPLES	SAMPLE NO.	RECOVERY (INCHES)	N	WELL COLUMN	GEOLOGIC COLUMN	SUBSURFACE LOG MW-7	
							DESCRIPTION	
0		S-1	10	21			Dark brown TOPSOIL, moist.	
1						Dark brown fine to medium SAND, little silt, organic debris.		
2		S-2	10	15		Red/brown fine to medium SAND, little silt, moist.		
3								
4		S-3	10	11				
5						Water at 5' below grade.		
6		S-4	14	4		Red-brown medium to coarse SAND, little fine sand and silt, wet.		
7						Dark brown to gray SILT, little clay, wet, some varves.		
8		S-5	16	14		Varves every 1/4" with dark brown SILT alternating with dark gray SILT.		
9								
10		S-6	12	12		Gray SILT, little clay, wet.		
11						Gray silty CLAY, plastic, moist.		
12					Bottom of boring at 12.0'.			
						-Drilled with CME-75, 4-1/4" ID hollow stem augers. -Installed 2" ID PVC 10-slot screen from 11' to 1' below grade, 2" PVC riser pipe from 1' to 0.4' below grade. 2" PVC screen had threaded plug in bottom. -Formation collapsed from 12 to 11.5'. -3Q silica sand pack from 11.5' to 1'. -Volclay from 1' to 0.5' below grade. -Installed flush mounted curb box from 0.8' below grade to surface. PVC was fitted with "O" ring seal and brass fitting, and a threaded metal cap was installed on top of PVC. Fitting on top of PVC was secured with a brass padlock.		
							*Surface elevation based on an assumed datum.	
SURFACE ELEVATION 95.6 *						PROJECT Danaher 307.01.31		 BLASLAND & BOUCK ENGINEERS, P.C.
DATE STARTED 1/21/88						SHEET 1 OF 1		
DATE COMPLETED 1/21/88						NO. MW-7		
CLASSIFIED BY SPS								

SUBSURFACE LOG MW-8						
DEPTH (FT.)	SAMPLES	SAMPLE NO.	RECOVERY (FEET)	BLOW COUNTS	HNU (ppm)	DESCRIPTION
0		S-1	1.5	15	11	Light brown to red fine SAND, some silt, little medium to coarse sand, trace gravel, FILL, moist. Water at 2.0' below grade.
1				10		
2				11		
3		S-2	1.7	6	9	
4				9		
5				8		
6				10		
7		S-3	1.7	6	0	
8				16		
9				14		
10				13		
11		S-4	1.1	8	0	
12				12		
13				13		
				20		
		S-5	0.9	6	0	
				12		
				20		
				40		
		S-6	1.3	8	0	
				18		
				26		
				42		
						Bottom of boring at 12.6'. - Drilled with CME-75, 4-1/4" ID hollow-stem augers. - Installed 2" ID PVC 10-Slot screen from 12.3' to 2.3' below grade. - 2" PVC riser from 2.3' below grade to 3.0' above grade. - 2" PVC screen had threaded plug in bottom. - 30 silica sand pack from 12.6' to 2.0' below grade. - Volclay from 2.0' to surface. - Installed 2" locking aluminum cap on top of PVC riser.

SURFACE ELEVATION 101.2*
 DATE STARTED 9/6/89
 DATE COMPLETED 9/6/89
 CLASSIFIED BY SPS

PROJECT D.H. Holdings
 PROJECT NO 307.02
 NO MW-8
 SHEET 1 OF 1


BLASLAND & BOUCK ENGINEERS, P.C.
 ENGINEERS & GEOSCIENTISTS

* Surface elevation based on an assumed datum.

SUBSURFACE LOG MW-9						
DEPTH (FT.)	SAMPLES	SAMPLE NO.	RECOVERY (FEET)	BLOW COUNTS	HNU (ppm)	DESCRIPTION
0		S-1	1.7	5	0	Light brown fine to medium SAND, some clay and silt, trace fine gravel, FILL, moist.
1				7		
				6		
2		S-2	1.5	13	0	Water at 3.0' below grade.
3				19		Dark grey to purple SILT, some fine sand, trace clay, moist.
				20		
				26		
4		S-3	1.8	30	3	Dark grey to purple SILT and CLAY, some fine sand, trace gravel (shale, limestone, and quartz fragments), TILL, dense, moist.
				32		
5				31		
				39		
6		S-4	1.4	21	1	
				31		
7				50		
				80		
8		S-5	1.2	22	1	
				26		
9				30		
				35		
10		S-6	1.3	7	0	
				12		
11				20		
12				30		
13						Bottom of boring at 12.0'. - Drilled with CME-75, 4-1/4" ID hollow-stem augers. - Installed 2" ID PVC 10-Slot screen from 12.0' to 2.0' below grade. - 2" PVC riser pipe from 2.0' below grade to 3.0' above grade. - 2" PVC screen has threaded plug in bottom. - 3Q silica sand pack from 12.0' to 1.5' below grade. - Volclay from 1.5' to surface. - Installed 2" locking aluminum cap on top of PVC riser.
						* Surface elevation based on an assumed datum.

SURFACE ELEVATION 100.9*

DATE STARTED 9/7/89

DATE COMPLETED 9/7/89

CLASSIFIED BY SPS

PROJECT D.H. Holdings

PROJECT NO 307.02

NO MW-9

SHEET 1 OF 1



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SUBSURFACE LOG MW-10							
DEPTH (FT.)	SAMPLES	SAMPLE NO.	RECOVERY (FEET)	BLOW COUNTS	HNU (ppm)	WELL COLUMN	GEOLOGIC COLUMN
DESCRIPTION							
0							No soil samples obtained due to proximity of borehole to overhead electrical lines. Water level 1.0' below grade.
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							Bottom of boring at 13.0'. - Drilled with a CME-75, 4-1/4" ID hollow-stem auger. - Installed 2" ID PVC 10-Slot screen from 12.7' to 2.7' below grade. - 2" PVC riser from 2.7' below grade to 3.0' above grade. - 2" PVC screen has threaded plug in bottom. - 3Q silica sand pack from 13.0' to 2.3' below grade. - Volclay from 2.3' below grade to surface. - Installed a 2" locking aluminum cap on top of 2" PVC riser. * Surface elevatino based on an assumed datum.

SURFACE ELEVATION <u>102.2*</u> DATE STARTED <u>9/6/89</u> DATE COMPLETED <u>9/6/89</u> CLASSIFIED BY <u>SPS</u>	PROJECT <u>D.H. Holdings</u> PROJECT NO <u>237.02</u> NO <u>MW-10</u> SHEET <u>1</u> OF <u>1</u>	 BLASLAND & BOUCK ENGINEERS, P.C. ENGINEERS & GEOSCIENTISTS

SUBSURFACE LOG MW-II								
DEPTH (FT.)	SAMPLES	SAMPLE NO.	RECOVERY (FEET)	BLOW COUNTS	HNU (ppm)	WELL COLUMN	GEOLOGIC COLUMN	DESCRIPTION
0		S-1	0.9	6	2			Dark brown TOPSOIL.
1				7				Light brown to grey fine SAND, some clay and silt, FILL, moist.
2		S-2	0.2	3	1			Grey-brown coarse SAND and fine gravel-sized CINDERS, some clay and silt, FILL, wet.
3				3				Water at 3.0'.
4				4				
5		S-3	1.5	6	1			Dark grey fine SAND, some clay and silt, little medium to coarse sand, wet.
6				9				
7		S-4	1.6	6	1			Grey-brown fine to medium SAND and fine GRAVEL, some silt and clay, wet.
8				8				
9				10				Dark grey to purple SILT and CLAY, some fine to medium sand, trace fine to medium gravel, TILL, dense, moist.
10		S-5	1.0	11	2			
11				15				
12		S-6	0.9	12	1			
13				17				Hole collapse from 12.0' to 12.9'.
				26				Bottom of boring at 12.9'.
				32				- Drilled with CME-75, 4-1/4" ID hollow-stem augers.
				35				- Installed 2" ID PVC 10-Slot screen from 11.9' to 1.9' below grade.
								- 2" PVC riser pipe from 1.9' below grade to 3.0' above grade.
								- 2" PVC screen has threaded plug in bottom.
								- Volclay from 1.5' below grade to surface.
								- Installed 2" locking aluminum cap on top of PVC riser.
								* Surface elevation based on an assumed datum.

SURFACE ELEVATION	97.6*	PROJECT	D.H. Holdings
DATE STARTED	9/6/89	PROJECT NO	307.02
DATE COMPLETED	9/6/89	NO	MW-11
CLASSIFIED BY	SPS	SHEET	1 OF 1



BLASLAND & BOUCK ENGINEERS, P.C.
ENGINEERS & GEOSCIENTISTS

SUBSURFACE LOG MW-12								
DEPTH (FT.)	SAMPLES	SAMPLE NO.	RECOVERY (FEET)	BLOW COUNTS	HNU (ppm)	WELL COLUMN	GEOLOGIC COLUMN	DESCRIPTION
0								BLACKTOP.
1		S-1	1.5	10	4			Red-brown fine to medium SAND, some silt and clay, trace coarse sand and fine gravel, moist, FILL.
2				11				
3		S-2	1.4	7	4			
4				5				
5				7				
6		S-3	1.2	10	4			
7				15				
8				17				
9		S-4	1.6	25	4			Dark grey SILT, some clay, little coarse sand to fine gravel-sized black shale pieces. Water at 7.0'.
10				31				
11				42				
12		S-5	1.0	7	5			
13				11				
14				13				
		S-6	0.9	15	3			
				18				
				21				
				26				
				30				
								Bottom of boring at 13.3'.
								- Drilled with CME-75, 4-1/4" ID hollow-stem augers.
								- Installed 2" ID PVC 10-Slot screen from 12.6' to 2.6' below grade.
								- 2" PVC riser from 2.6' below grade to surface.
								- 2" PVC screen has threaded plug in bottom.
								- 3Q silica sand pack from 13.3' to 2.0' below grade.
								- Volclay from 2.0' to 1.3' below grade.
								- 3Q silica sand curb box drain from 0.5' to 1.3' below grade.
								- Installed flush-mounted curb box from 0.6' to surface.
								- Curb box secured with cement from 0.3' to grade.
								* Surface elevation based on an assumed datum.

SURFACE ELEVATION 97.28* DATE STARTED 9/5/89 DATE COMPLETED 9/5/89 CLASSIFIED BY SPS	PROJECT D.H. Holdings PROJECT NO 307.02 NO MW-12 SHEET 1 OF 1	 BLASLAND & BOUCK ENGINEERS, P.C. ENGINEERS & GEOSCIENTISTS



Appendix F

APPENDIX F
WATER LEVEL MEASUREMENT PROTOCOL (WELLS)

WATER LEVEL MEASUREMENT PROTOCOL (WELLS)

I. Introduction

Water levels were obtained from each well prior to sampling for the development of piezometric maps. The water levels were obtained using an electric well probe or an oil/water interface probe.

II. Materials

- Water level probe
- Water (record time and day)
- Alconox
- Appropriate decontamination solvent(s)
- Paper towels
- Distilled water
- Two plastic buckets
- Plastic sheeting
- Utility knife
- Hacksaw

III. Procedures

A detailed procedure for obtaining water levels was as follows:

1. Identify site and well number. Record well number, date, time, personnel, and weather conditions in the bound field book with indelible ink.
2. Decontaminate the oil-water interface level probe and/or water level probe and cable in accordance with the decontamination protocol (Step 11).

3. Unlock and open the well cover.
4. Locate the measuring reference point on the well casing. If one is not found, initiate a reference point by notching the outer casings with a hacksaw. This new reference was surveyed and its elevation determined to the nearest 0.01 foot. All down-hole measurements were taken from the reference points. The acronym TIC designated the top of inner casing, and the acronym TOC designated the top of outer casing. If a well had both inner and outer casings, the top of inner casing was used as the reference point.
5. Measure to the nearest hundredth of a foot and record the height of the inner and outer casings from reference point to ground level.
6. If product is suspected to be present in the well, lower a decontaminated oil-water interface probe into the casing. Feed the cable or tape into the casing until the probe indicates the top of product. (Make sure the cable or tape is straight and is not kinked). Measure to the nearest hundredth of a foot and record the depth to product from the reference point. Lower the oil-water interface probe or water level indicator until the probe indicates the top of water. Measure to the nearest hundredth of a foot and record the depth to water from the reference point.
7. Lower the water level recorder to the bottom of the well. Measure to the nearest hundred of a foot and record the depth of the well from the reference point. Again, record the reference point used. If weights are suspended from the water level probe, record the total length of the weights and add to the total depth.

8. Remove cable or tape and probe from the hole. Decontaminate the instrument (Step 11).
9. Compare the depth of well to previous records.
10. Lock the well when all activities are completed.
11. Decontaminate the probe and cable by wiping the probe and cable with disposable paper towels, rinsing with the appropriate solvent, followed by a distilled water rinse.



Appendix G

APPENDIX G
GROUND-WATER SAMPLING PROTOCOL
FOR MONITORING WELLS

GROUND-WATER SAMPLING PROTOCOL FOR MONITORING WELLS

I. Materials

- Bound field book
- Indelible ink pens
- Hard hats
- Disposable gloves
- Disposable overalls
- Rubber boots
- Safety glasses or goggles
- Plastic sheeting (10 ft. by 10 ft. minimum)
- Bailer (bottom-loading) 1½-inch I.D. stainless steel
- New polypropylene rope
- Distilled water
- Appropriate decontamination solvent(s)
- Clean disposable towels
- Electric well probe
- Six-foot rule with graduations in tenths and hundredths of a foot
- Rinsing basins
- Alconox
- Graduated pail
- SCT meter
- pH meter
- Thermometer
- Field filtration equipment (when applicable)
- Appropriate sampling containers

- Glass container
- Insulated transport containers with wet ice

II. General Notes

The following general notes were adhered to during all well developing and sampling operations:

1. Eye protection was worn at all times during well development or sampling to prevent splashing of potentially contaminated water into the eyes.
2. Sampling of wells was discontinued during precipitation periods (rain or snow).

III. Ground-Water Well Development

Prior to obtaining ground-water samples for laboratory analysis, all monitoring wells were developed as described in the Protocol for Completion of Monitoring Wells (Appendix D).

IV. Procedures

To ensure that a representative sample of ground water was obtained, it was important to decontaminate all sampling apparatus prior to and between each sampling event. Decontamination procedures are given in Step 23 of this sampling procedures list.

A. Sampling Procedures

1. Identify the well and record the location in the bound field book with indelible ink.
2. Put on a new pair of disposable gloves.

3. Cut a slit in the center of the plastic sheet, and slip it over the well creating a clean surface onto which the sampling equipment can be positioned. This clean working area should be a minimum of 4 feet by 4 feet.
4. Clean all meters, tools, equipment, etc., before placing on the plastic sheet.
5. Rubber boots should be placed over the sampler's shoes to prevent potential contamination from dirty shoes contacting the plastic sheet. Do not kick, transfer, drop, or in any way let soils or other materials fall onto this plastic sheet unless it comes from inside the well.
6. Clean the well cap with a clean towel and remove the well cap and plug placing both on the plastic sheet.
7. Using an electric well probe, measure the depth to the water table and the bottom of the well. Record this information in a bound field book with indelible ink.
8. Clean the well probe with methanol and rinse it with distilled water after use.
9. Compute the volume of water in the well and record this volume in the field book.
10. Attach enough new polypropylene rope to a decontaminated (Step 23) stainless steel bailer to reach the bottom of the well and lower the bailer slowly into the well making certain to submerge it only far enough to fill it one-half full. The purpose for this is to recover any surface film if one is present on the water table.

11. Pull the bailer out of the well keeping the polypropylene rope on the plastic sheet. Empty the ground water from the bailer into a glass container and observe its appearance. NOTE: This sample will not undergo laboratory analysis, it is collected to observe the physical appearance of the ground water only.
12. Record the physical appearance of the ground water in the field book.
13. Start the bailing of the well taking care not to agitate any sediment which may have accumulated after the well development procedure. Continue bailing until a sufficient volume of ground water in the well has been removed, or until the well is bailed dry. If the well is bailed dry, allow sufficient time for the well to recover before proceeding with Step 14. Record this information in the field book.
14. Remove the sampling bottles from their transport containers and prepare the bottles for receiving samples. Inspect all labels to ensure proper sample identification. Sample bottles should be kept cool with their caps on until they are ready to receive samples. Arrange the sampling containers to allow for convenient filling.
15. To minimize agitation of the water in the well, initiate sampling by lowering the bailer slowly into the well making certain to submerge it only far enough to fill it completely. Obtain a sample for the field determination of turbidity. Record the turbidity value in the bound field book.
16. If field filtration is required, the metals sample will be obtained using a peristaltic pump. The sample will be pumped directly

from a decontaminated glass container through a new disposable 0.45 micron filter and into the sample bottle. The tubing will be decontaminated by pumping at least one pint of Alconox detergent water and one pint of distilled water through the tubing before each use.

17. If the sample bottle cannot be filled quickly, keep them cool with the caps on until they are filled. NOTE: Samples must not be allowed to freeze.
18. Record the physical appearance of the ground water observed during sampling in the field book.
19. After the last sample has been collected, record the date and time; empty one bailer of water from the surface of the water in the well into the glass container and measure and record the pH, conductivity, and temperature of the ground water following the procedures outlined in the equipment operation manuals. Record this information in the field book. The glass container must then be rinsed with distilled water prior to reuse.
20. Begin the Chain-of-Custody Record, Appendix H, following guidelines from SW-846, Test Methods for Evaluating Solid Waste.
21. Replace the well plug and lock the well protection assembly before leaving the well location.
22. Place the rope, gloves and sheeting into a plastic bag for disposal.
23. Decontaminate the bailer by washing with an Alconox/control water solution, followed by successive rinses of control water,

distilled water, a methanol solution, and final rinse with distilled water. For those samples obtained as part of the expanded environmental assessment, the bailer was decontaminated by washing with an Alconox control/water solution, a distilled water rinse, a methanol rinse, a hexane rinse, a nitric acid rinse, and a final distilled water rinse.



Appendix H

APPENDIX H
CHAIN-OF-CUSTODY RECORD



PAGE _____ OF _____

FILE NO. _____
PROJECT _____
B & B CONTACT _____

LABORATORY _____
ADDRESS _____
CONTACT _____

[illegible]



Appendix I

APPENDIX I
1988 GROUND-WATER QUALITY DATA



Laboratory Report

CLIENT BLASLAND & BOUCK ENGINEERS, P.C JOB NO. 2887.013.517

DESCRIPTION Danaher, Utica

DATE COLLECTED 2-2-88 DATE REC'D. 2-3-88 DATE ANALYZED _____

Description	Sample #	pH	LEAD	ZINC
MW-1	G5231	6.7	<0.05	<0.01
MW-2	G5232	6.9	<0.05	<0.01
MW-3	G5233	6.8	<0.05	<0.01
MW-4	G5234	6.8	<0.05	<0.01
MW-5	G5235	6.7	<0.05	<0.01
MW-6	G5236	6.4	<0.05	<0.01
MW-7	G5237	7.0	<0.05	<0.01

Methodology: Federal Register — 40 CFR, Part 136, October 26, 1984

Units: mg/l (ppm) unless otherwise noted

Comments:

OBG Laboratories, Inc.
Box 4942 / 1304 Buckley Rd. / Syracuse, NY / 13221 / (315) 457-1494

Authorized: *[Signature]*

Date: February 12, 1988



Purgeable Priority Pollutants

CLIENT BLASLAND & BOUCK ENGINEERS, P.C. JOB NO. 2887.013.517

DESCRIPTION Danaher, Utica

DATE COLLECTED 2-2-88 DATE REC'D. 2-3-88 DATE ANALYZED 2-9-88

DESCRIPTION:	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6
SAMPLE NO.:	G5231	G5232	G5233	G5234	G5235	G5236
Chloromethane	<1.	<1.	<1.	<1.	<1.	<1.
Bromomethane	↓	↓	↓	↓	↓	↓
Vinyl chloride	3.	↓	↓	↓	↓	↓
Chloroethane	<1.	↓	↓	↓	↓	↓
Methylene chloride	↓	↓	↓	↓	↓	↓
1,1-Dichloroethene	↓	↓	↓	↓	↓	↓
1,1-Dichloroethane	↓	↓	↓	↓	↓	↓
t-1,2-Dichloroethene	↓	↓	↓	↓	↓	↓
Chloroform	↓	2.	2.	↓	↓	↓
1,2-Dichloroethane	↓	<1.	<1.	↓	↓	↓
1,1,1-Trichloroethane	↓	↓	↓	↓	↓	↓
Carbon tetrachloride	↓	↓	↓	↓	↓	↓
Bromodichloromethane	↓	↓	↓	↓	↓	↓
1,2-Dichloropropane	↓	↓	↓	↓	↓	↓
t-1,3-Dichloropropene	↓	↓	↓	↓	↓	↓
Trichloroethene	↓	↓	↓	↓	↓	↓
Benzene	↓	↓	↓	↓	↓	↓
Dibromochloromethane	↓	↓	↓	↓	↓	↓
1,1,2-Trichloroethane	↓	↓	↓	↓	↓	↓
c-1,3-Dichloropropene	↓	↓	↓	↓	↓	↓
2-Chloroethylvinyl ether	<10.	<10.	<10.	<10.	<10.	<10.
Bromoform	<10.	<10.	<10.	<10.	<10.	<10.
1,1,2,2-Tetrachloroethane	<1.	<1.	<1.	<1.	<1.	<1.
Tetrachloroethene	<1.	↓	↓	↓	↓	↓
Toluene	1.	↓	↓	↓	↓	↓
Chlorobenzene	<1.	↓	↓	↓	↓	↓
Ethylbenzene	<1.	↓	↓	↓	↓	↓
Xylenes	7.	↓	↓	↓	↓	↓

Methodology: Federal Register—40 CFR, Part 136, October 26, 1984

Units: $\mu\text{g/l}$ (ppb) unless otherwise noted

Comments:

OBG Laboratories, Inc.
Box 4942 / 1304 Buckley Rd. / Syracuse, NY 13221 / (315) 457-1494

Authorized: C. J. R. T.
Date: February 12, 1988



Purgeable Priority Pollutants

CLIENT BLASLAND & BOUCK ENGINEERS, P.C. JOB NO. 2887.013.517

DESCRIPTION Danaher, Utica

DATE COLLECTED 2-2-88 DATE REC'D. 2-3-88 DATE ANALYZED 2-9-88

DESCRIPTION:	MW-7	QC Trip Blank			
SAMPLE NO.:	G5237	G5238			
Chloromethane	<1.	<1.			
Bromomethane					
Vinyl chloride					
Chloroethane					
Methylene chloride					
1,1-Dichloroethene					
1,1-Dichloroethane					
t-1,2-Dichloroethene	↓				
Chloroform	13.				
1,2-Dichloroethane	<1.				
1,1,1-Trichloroethane					
Carbon tetrachloride					
Bromodichloromethane					
1,2-Dichloropropane					
t-1,3-Dichloropropene					
Trichloroethene					
Benzene					
Dibromochloromethane					
1,1,2-Trichloroethane					
c-1,3-Dichloropropene	↓	↓			
2-Chloroethylvinyl ether	<10.	<10.			
Bromoform	<10.	<10.			
1,1,2,2-Tetrachloroethane	<1.	<1.			
Tetrachloroethene					
Toluene					
Chlorobenzene					
Ethylbenzene					
Xylenes	↓	↓			

Methodology: Federal Register—40 CFR, Part 136, October 26, 1984

Units: $\mu\text{g/l}$ (ppb) unless otherwise noted

Comments:

OBG Laboratories, Inc.
Box 4942 / 1304 Buckley Rd. / Syracuse, NY 13221 / (315) 457-1494

Authorized: C. V. H.

Date: February 12, 1988



Appendix J

APPENDIX J

SURFACE WATER SAMPLING PROTOCOL

SURFACE WATER SAMPLING PROTOCOL

I. General

During precipitation events, sampling of surface water was discontinued until precipitation ceases.

This general procedure is the same for streams, seeps, or other surface water features.

II. Materials

The following materials, as required, were available during surface water sampling.

- Bound field book
- Indelible ink pens
- Disposable overalls
- Disposable gloves
- Rubber boots (waders where required)
- Safety glasses or goggles
- Plastic sheets
- Distilled water
- Appropriate decontamination solvent(s)
- Clean disposable paper towels
- Plastic bags
- Wash basins
- Scrubbing brush
- Alconox
- SCT meter
- pH meter

- Thermometer
- Appropriate sampling containers
- Insulated transport containers with wet ice

III. Procedures

To insure a representative sample of the surface water, it was important to decontaminate all sampling apparatus prior to and between each sampling station. The decontamination procedure is described in Step 15.

The sampling procedure is outlined below:

1. Identify sampling location in bound field book with indelible ink.
2. Locate the part of the channel where most of the flow is occurring and record this location.
3. Put on appropriate protective gear as required (i.e., rubber boots or waders, and a new pair of disposable gloves)
4. Place plastic sheeting near sampling location to use as a clean work area.
5. Set out clean or new materials for each sampling station, such as appropriate sampling device, field notebook, pH meter, conductivity meter, gloves and sampling containers.
6. Obtain sample by slowly submerging the sampling container with minimal surface disturbance. The sampling personnel should stand downstream from the sampling location.
7. Retrieve the water sample from the surface water with minimal disturbance.
8. Remove the cap from the sample bottle and slightly tilt the mouth of the bottle below the sampling container edge.

9. Empty the sample slowly, allowing the sample stream to flow gently down the side of the bottle with minimal entry turbulence.
10. Continue delivery of the sample until the bottle is almost completely full. When sampling for volatiles, continue delivery of the sample until the bottle is overflowing so that no air space is present in the sample.
11. Preserve the sample, if necessary, per laboratory instruction.
12. Check that a Teflon liner is present in the cap, if required. Secure the cap tightly.
13. Label all sample containers with date, time, station location number, site, sampling personnel, and store in cooler on ice. Be sure that the temperature in the cooler is maintained at a maximum of 40° Fahrenheit (4° Celsius) throughout the sampling and transportation period.
14. After all sampling containers have been filled, obtain one more sample of surface water, measure and record in the field book the physical appearance, temperature, conductivity, and pH of the water.
15. Decontaminate the sampling container by washing with an Alconox/control water solution followed successively by rinses with a 10% nitric acid rinse, a methanol solution, and finally distilled water. Store the parts in plastic bags.
16. Place all disposable sampling materials (gloves, plastic sheeting, and disposable overalls) in a plastic bag for disposal.
17. Initiate Chain-of-Custody following guidelines from SW-846, Test Methods for Evaluating Solid Waste, Appendix H.

18. Deliver samples to laboratory or maintain at no greater than 40°F until delivery to the laboratory. Samples must not be allowed to freeze.



Appendix K

APPENDIX K
SOIL AND SEDIMENT SAMPLING PROTOCOL

STREAM SEDIMENT SAMPLING PROTOCOL

The general procedures utilized to obtain stream sediment samples are outlined below:

1. The sampling location, date, time, and weather were recorded in the bound field book with indelible ink.
2. A decontaminated (Step 6) standard split-spoon sampler was pushed or driven into the subsurface utilizing hand-operated tools or a sledge hammer. A basket was used on the bottom of the split-spoon to contain any loose material.
3. The sampler was inserted with a straight, vertical entry into the subsurface so as to secure a reliably representative cross-section sample.
4. After the sampler was lifted out of the subsurface, the split-spoon sampler was opened to expose the sample. The sample was characterized and placed into the appropriate sample bottle.
5. All samples were preserved in accordance with recommended methods for delivery to the analytical laboratory.
6. All equipment was decontaminated with an Alconox/control water solution, followed by successive rinses of control water, distilled water, a methanol solution, and final rinse with distilled water. This procedure was performed before sampling was started at each station.
7. To ensure the integrity of the samples, a chain-of-custody was initiated at the time of packing and handling (Appendix H).



Appendix L

APPENDIX L
1988 SOIL AND SEDIMENT QUALITY DATA



Laboratory Report

CLIENT BLASLAND & BOUCK ENGINEERS, P.C. JOB NO. 2887.013.517

DESCRIPTION Danaher, 307.01.11

DATE COLLECTED 3-15-88 DATE REC'D. 3-16-88 DATE ANALYZED 3-16-88 (PCB)

Site	Sample #	PCB	AROCLOR	LEAD	ZINC	PERCENT TOTAL SOLIDS
		mg/kg dry weight		mg/kg dry weight	mg/kg dry weight	
SS-1A 0-1'	G6469	<1.0(0.6)	1254	130.	310.	84.
SS-1B 1-2'	G6470	<1.0(0.4)	↓	99.	260.	89.
SS-2A 0-6"	G6471	1.3	↓	27.	58.	85.
SS-2B 6-12"	G6472	<1.0		22.	56.	93.
SS-3A 0-1'	G6473	↓		18.	45.	92.
SS-3B 1-2'	G6474	↓		20.	42.	92.
SS-4A 0-1'	G6475	<1.0(0.5)	1254	73.	210.	85.
SS-4B 1-2'	G6476	<1.0		20.	40.	92.
SS-5A 0-1'	G6477	↓		32.	71.	84.
SS-5B 1-2'	G6478	↓		46.	120.	85.
SS-6A 0-1'	G6479	<50.*		340.	470.	75.
SS-6B 1-2'	G6480	<1.0(0.5)	1254	13.	67.	87.
SS-7A 0-1'	G6481	<1.0		33.	89.	87.
SS-7B 1-2'	G6482	<1.0		69.	140.	84.
SS-8A 0-1'	G6483	<1.0(0.4)	1254	63.	170.	81.
SS-8B 1-2'	G6484	<1.0		23.	59.	88.
SS-9A 0-1'	G6485	1.0		62.	100.	74.
SS-9B 1-2'	G6486	<1.0		21.	55.	80.
SS-10A 0-1'	G6487	↓		49.	180.	71.
SS-10B 1-2'	G6488	↓		34.	58.	85.

Methodology: Federal Register — 40 CFR, Part 136, October 26, 1984

Units: mg/l (ppm) unless otherwise noted

Comments: * Matrix interference

OBG Laboratories, Inc.
Box 4942 / 1304 Buckley Rd. / Syracuse, NY / 13221 / (315) 457-1494

Authorized:
Date: March 25, 1988



Purgeable Priority Pollutants

CLIENT BLASLAND & BOUCK ENGINEERS, P.C. JOB NO. 2887.013.517
DESCRIPTION Danaher, 307.01.11
DATE COLLECTED 3-15-88 DATE REC'D. 3-16-88 DATE ANALYZED 3-17 through 21, 1988

DESCRIPTION:	SS-1A 0'-1'	SS-1B 1'-2'	SS-2A 0'-6"	SS-2B 6'-12"	SS-3A 0'-1'	SS-3B 1'-2'
SAMPLE NO.:	G6469	G6470	G6471	G6472	G6473	G6474
Chloromethane	<10.	<10.	<10.	<10.	<10.	<10.
Bromomethane	↓	↓	↓	↓	↓	↓
Vinyl chloride	↓	↓	↓	↓	↓	↓
Chloroethane	↓	↓	↓	↓	↓	↓
Methylene chloride	↓	↓	↓	↓	↓	↓
1,1-Dichloroethene	↓	↓	↓	↓	↓	↓
1,1-Dichloroethane	↓	↓	↓	↓	↓	↓
t-1,2-Dichloroethene	↓	↓	↓	↓	↓	↓
Chloroform	↓	↓	↓	↓	↓	↓
1,2-Dichloroethane	↓	↓	↓	↓	↓	↓
1,1,1-Trichloroethane	↓	↓	↓	↓	↓	↓
Carbon tetrachloride	↓	↓	↓	↓	↓	↓
Bromodichloromethane	↓	↓	↓	↓	↓	↓
1,2-Dichloropropane	↓	↓	↓	↓	↓	↓
t-1,3-Dichloropropene	↓	↓	↓	↓	↓	↓
Trichloroethene	↓	↓	↓	↓	↓	↓
Benzene	↓	↓	↓	↓	↓	↓
Dibromochloromethane	↓	↓	↓	↓	↓	↓
1,1,2-Trichloroethane	↓	↓	↓	↓	↓	↓
c-1,3-Dichloropropene	↓	↓	↓	↓	↓	↓
2-Chloroethylvinyl ether	<100.	<100.	<100.	<100.	<100.	<100.
Bromoform	<100.	<100.	<100.	<100.	<100.	<100.
1,1,2,2-Tetrachloroethane	<10.	<10.	<10.	<10.	<10.	<10.
Tetrachloroethene	↓	↓	↓	↓	↓	↓
Toluene	↓	↓	↓	↓	↓	↓
Chlorobenzene	↓	↓	↓	↓	↓	↓
Ethylbenzene	↓	↓	↓	↓	↓	↓
Xylenes	↓	↓	↓	↓	↓	↓

Methodology: Federal Register—40 CFR, Part 136, October 26, 1984

Units: $\mu\text{g/l}$ (ppb) unless otherwise noted

Comments: $\mu\text{g/kg}$ wet weight



Purgeable Priority Pollutants

CLIENT BLASLAND & BOUCK ENGINEERS, P.C. JOB NO. 2887.013.517

DESCRIPTION Danaher, 307.01.11

DATE COLLECTED 3-15-88 DATE REC'D. 3-16-88 DATE ANALYZED 3-21 & 22, 1988

DESCRIPTION:	SS-4A 0'-1'	SS-4B 1'-2'	SS-5A 0'-1'	SS-5B 1'-2'	SS-6A 0'-1'	SS-6B 1'-2'
SAMPLE NO.:	G6475	G6476	G6477	G6478	G6479	G6480
Chloromethane	<10.	<10.	<10.	<10.	<10.	<10.
Bromomethane	↓	↓	↓	↓	↓	↓
Vinyl chloride	↓	↓	↓	↓	↓	↓
Chloroethane	↓	↓	↓	↓	↓	↓
Methylene chloride	↓	↓	↓	↓	↓	↓
1,1-Dichloroethene	↓	↓	↓	↓	↓	↓
1,1-Dichloroethane	↓	↓	↓	↓	↓	↓
t-1,2-Dichloroethene	210.	↓	↓	↓	↓	↓
Chloroform	<10.	↓	↓	↓	↓	↓
1,2-Dichloroethane	↓	↓	↓	↓	↓	↓
1,1,1-Trichloroethane	↓	↓	↓	↓	↓	↓
Carbon tetrachloride	↓	↓	↓	↓	↓	↓
Bromodichloromethane	↓	↓	↓	↓	↓	↓
1,2-Dichloropropane	↓	↓	↓	↓	↓	↓
t-1,3-Dichloropropene	↓	↓	↓	↓	↓	↓
Trichloroethene	57.	↓	↓	↓	↓	↓
Benzene	<10.	↓	↓	↓	↓	↓
Dibromochloromethane	↓	↓	↓	↓	↓	↓
1,1,2-Trichloroethane	↓	↓	↓	↓	↓	↓
c-1,3-Dichloropropene	↓	↓	↓	↓	↓	↓
2-Chloroethylvinyl ether	<100.	<100.	<100.	<100.	<1000.	<100.
Bromoform	<100.	<100.	<100.	<100.	<1000.	<100.
1,1,2,2-Tetrachloroethane	<10.	<10.	<10.	<10.	<100.	<10.
Tetrachloroethene	↓	↓	↓	↓	↓	↓
Toluene	16.	↓	↓	↓	↓	↓
Chlorobenzene	<10.	↓	↓	↓	↓	↓
Ethylbenzene	↓	↓	↓	↓	*	↓
Xylenes	220.	↓	↓	↓	<100.	61.

Methodology: Federal Register—40 CFR, Part 136, October 26, 1984

Units: $\mu\text{g/l}$ (ppb) unless otherwise noted

Comments: * Elevated detection limit and the inability to indentify or quantitate

Ethylbenzene is due to a matrix interference believed to be a petroleum distillate

Authorized: AAU

OBG Laboratories, Inc.
Box 4942 / 1304 Buckley Rd. / Syracuse, NY 13221 / (315) 457-1494

Date: March 25, 1988



Purgeable Priority Pollutants

CLIENT BLASLAND & BOUCK ENGINEERS, P.C. JOB NO. 2887.013.517

DESCRIPTION Danaher, 307.01.11

DATE COLLECTED 3-15-88 DATE REC'D. 3-16-88 DATE ANALYZED 3-22-88

DESCRIPTION: SS-9A SS-9B Q C Trip
0'-1' 1'-2' Blank

SAMPLE NO.: G6485* G6486 G6489

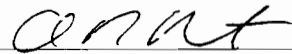
Chloromethane	<100.	<10.	<1.
Bromomethane	↓	↓	↓
Vinyl chloride	↓	↓	↓
Chloroethane	↓	↓	↓
Methylene chloride	↓	↓	↓
1,1-Dichloroethene	↓	↓	↓
1,1-Dichloroethane	↓	↓	↓
t-1,2-Dichloroethene	↓	↓	↓
Chloroform	↓	↓	↓
1,2-Dichloroethane	↓	↓	↓
1,1,1-Trichloroethane	↓	↓	↓
Carbon tetrachloride	↓	↓	↓
Bromodichloromethane	↓	↓	↓
1,2-Dichloropropane	↓	↓	↓
t-1,3-Dichloropropene	↓	↓	↓
Trichloroethene	↓	↓	↓
Benzene	↓	↓	↓
Dibromochloromethane	↓	↓	↓
1,1,2-Trichloroethane	↓	↓	↓
c-1,3-Dichloropropene	↓	↓	↓
2-Chloroethylvinyl ether	<1000.	<100.	<10.
Bromoform	<1000.	<100.	<10.
1,1,2,2-Tetrachloroethane	<100.	<10.	<1.
Tetrachloroethene	↓	↓	↓
Toluene	490.	↓	↓
Chlorobenzene	<100.	↓	↓
Ethylbenzene	↓	↓	↓
Xylenes	170.	↓	↓

Methodology: Federal Register—40 CFR, Part 136, October 26, 1984

Units: $\mu\text{g/l}$ (ppb) unless otherwise noted

Comments: * Elevated detection limit due to a matrix interference believed to be a petroleum distillate.

OBG Laboratories, Inc.
Box 4942 / 1304 Buckley Rd. / Syracuse, NY 13221 / (315) 457-1494

Authorized: 

Date: March 25, 1988



Appendix M

APPENDIX M
TEST PIT EXCAVATION PROTOCOL

TEST PIT EXCAVATION PROTOCOL

The excavation of test pits was supervised by Blasland & Bouck's Project Safety Coordinator, and completed by BBL Environmental Services, Inc., of Syracuse, New York, a subcontractor to Blasland & Bouck. The test pits were initially staked out according to locations and dimensions specified by Blasland & Bouck. A track-mounted backhoe was used to excavate each of the test pits. The backhoe was decontaminated using a high pressure hot water wash prior to commencing work on-site, between each test pit, and before the backhoe left the site.

An exclusion zone was set up around each test pit prior to commencing any excavation. The only persons allowed in the exclusion zone were the Project Safety Coordinator, the Site Industrial Hygienist, and an Environmental Technician to assist in monitoring and sampling the test pit excavations. The backhoe was situated at each site such that the operator was always in a cross-wind position to the long axis of the test pit. In addition, material removed from each test pit was always staged downwind from the pit to minimize interaction with site personnel.

An HNU photoionizing detector with a 10.2 eV lamp was used to screen the breathing zone during activities around each test pit. In addition, compound-specific draeger tubes for cyanide were used to monitor air quality in the breathing zone. No cyanide was detected during site activities. All excavation activities were performed at modified Level C. Protective equipment worn on-site included polycoated Tyveks, inner and outer chemical-resistant gloves, hard hats, disposable boot covers, and safety glasses. Full-face piece, air purifying, canister-equipped respirators were also available on-site during all activities.

Excavation of each test pit was accomplished by advancing the backhoe bucket in 6 to 12-inch increments until native till material was encountered. Manual probing efforts were required to assist in the identification of various debris material. However, at no time was any site personnel allowed to enter the test pit. All excavated material was staged adjacent to each test pit and used to backfill the pit upon completion.



Appendix N

APPENDIX N
TEST PIT ANALYTICAL RESULTS



Purgeable Priority Pollutants

CLIENT BLASLAND & BOUCK ENGINEERS, P.C. JOB NO. 2887.013.517

DESCRIPTION Danaher
TP-1

SAMPLE NO. I0380 DATE COLLECTED 1-24-89 DATE REC'D. 1-25-89 DATE ANALYZED 1-31-89

	ppb		ppb
Chloromethane	<1.	t-1,3-Dichloropropene	<1.
Bromomethane	↓	Trichloroethene	↓
Vinyl chloride		Benzene	
Chloroethane		Dibromochloromethane	
Methylene chloride		1,1,2-Trichloroethane	
1,1-Dichloroethene		c-1,3-Dichloropropene	↓
1,1-Dichloroethane		2-Chloroethylvinyl ether	<100.
t-1,2-Dichloroethene		Bromoform	<100.
Chloroform		1,1,2,2-Tetrachloroethane	<1.
1,2-Dichloroethane		Tetrachloroethene	↓
1,1,1-Trichloroethane		Toluene	
Carbon tetrachloride		Chlorobenzene	
Bromodichloromethane		Ethylbenzene	
1,2-Dichloropropane	↓	Xylenes	↓

Methodology: Federal Register—40 CFR, Part 136, October 26, 1984

Comments:

Authorized: ant

Date: February 8, 1989



Purgeable Priority Pollutants

CLIENT BLASLAND & BOUCK ENGINEERS, P.C. JOB NO. 2887.013.517

DESCRIPTION Danaher - Chicago Pneumatic
TP3 - Water

SAMPLE NO. I0392 DATE COLLECTED 1-25-89 DATE REC'D. 1-25-89 DATE ANALYZED 1-31-89

	ppb		ppb
Chloromethane	<1.	t-1,3-Dichloropropene	<1.
Bromomethane		Trichloroethene	
Vinyl chloride		Benzene	
Chloroethane		Dibromochloromethane	
Methylene chloride		1,1,2-Trichloroethane	
1,1-Dichloroethene		c-1,3-Dichloropropene	
1,1-Dichloroethane		2-Chloroethylvinyl ether	<100.
t-1,2-Dichloroethene		Bromoform	<100.
Chloroform		1,1,2,2-Tetrachloroethane	<1.
1,2-Dichloroethane		Tetrachloroethene	
1,1,1-Trichloroethane		Toluene	
Carbon tetrachloride		Chlorobenzene	
Bromodichloromethane		Ethylbenzene	
1,2-Dichloropropane		Xylenes	

Methodology: Federal Register—40 CFR, Part 136, October 26, 1984

Comments:



Laboratory Report

CLIENT BLASLAND & BOUCK ENGINEERS, P.C. JOB NO. 2887.013.517
DESCRIPTION Danaher - Chicago Pneumatic
UNITS: Reported as mg/kg dry weight
DATE COLLECTED 1-25-89 DATE REC'D. 1-25-89 DATE ANALYZED 1-30-89

Description

TP3
Soil

TP4
Soil

Sample #

I0390

I0391

**Petroleum Hydrocarbons by IR
Spectrophotometry:**

TOTAL HYDROCARBONS

28000.

22000.

PERCENT TOTAL SOLIDS

84.

30.

Methodology: Federal Register — 40 CFR, Part 136, October 26, 1984

Units: mg/l (ppm) unless otherwise noted

Comments:

OBG Laboratories, Inc.
Box 4942 / 1304 Buckley Rd. / Syracuse, NY / 13221 / (315) 457-1494

Authorized: APR

Date: February 13, 1989



Appendix O

APPENDIX O
1989 SOIL QUALITY DATA



JOB NO. 2887.013.517

Soils

DATE ANALYZED

Units: mg/l (ppm) unless otherwise noted

Authorized: Gregory N. Maisel
Date: October 3, 1989 - - 02

OBG Laboratories, Inc., an O'Brien & Gere Limited Company
Box 4942 / 1304 Buckley Rd. / Syracuse, NY 13221 / (315) 457-1494



JOB NO. 2887.013.517

Soils

DATE ANALYZED 9-13-89

UNITS: mg/kg dry weight

Units: mg/l (ppm) unless otherwise noted

Authorized: Gregory N. Maisel
Date: October 3, 1989

OBG Laboratories, Inc., an O'Brien & Gere Limited Company
Box 4942 / 1304 Buckley Rd. / Syracuse, NY 13221 / (315) 457-1494

For reporting results, the following EPA contract-specific qualifiers are used:

- U Indicates compound was analyzed for, but not detected. The sample quantitation limit must be corrected for dilution and for percent moisture.
- J Indicates an estimated values. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the mass spectral data indicate the presence of a compound that meets the identification criteria but, the result is less than the sample quantitation limit but greater than zero. The sample quantitation limit must be adjusted for both dilution and percent moisture.
- B This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action. This flag must be used for a TIC as well as for a positively identified TCL compound.
- E This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis. If one or more compounds have a response greater than full scale, the sample or extract must be diluted and re-analyzed.
- D This flag identifies all compounds identified in an analysis at a secondary dilution factor. If a sample or extract is re-analyzed at a higher dilution factor, as in the "E" flag above, the "DL" suffix is appended to the sample number on the Form I for the diluted sample, and all concentration values reported on that Form I are flagged with the "D" flag.

18:35

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-8

Lab Name: OBG Laboratories, Inc.

Contract: 2887.013.517

Lab Code: -----

Case No.: -

SAS No.: -

SDG No.: -

Matrix: (soil/water) SOIL

Lab Sample ID: J0162

Sample wt/vol: 3.4 (g/mL) G

Lab File ID: >U3080

Level: (low/med) LOW

Date Received: 09/07/89

% Moisture: not dec.12

Date Analyzed: 09/08/89

Column: (pack/cap) PACK

Dilution Factor: 1.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg Q

74-87-3-----	Chloromethane	17.	IU
74-83-9-----	Bromomethane	17.	IU
75-01-4-----	Vinyl Chloride	17.	IU
75-00-3-----	Chloroethane	17.	IU
75-09-2-----	Methylene Chloride	4.	IJ
67-64-1-----	Acetone	140.	B
75-15-0-----	Carbon Disulfide	18.	
75-35-4-----	1,1-Dichloroethane	8.	IU
75-34-3-----	1,1-Dichloroethane	8.	IU
540-59-0-----	1,2-Dichloroethane (total)	170.	
67-66-3-----	Chloroform	8.	IU
107-02-2-----	1,2-Dichloroethane	8.	IU
78-93-3-----	2-Butanone	32.	
71-55-6-----	1,1,1-Trichloroethane	8.	IU
56-23-5-----	Carbon Tetrachloride	8.	IU
108-05-4-----	Vinyl Acetate	17.	IU
75-27-4-----	Bromodichloromethane	8.	IU
78-87-5-----	1,2-Dichloropropane	8.	IU
10061-01-5-----	cis-1,3-Dichloropropene	8.	IU
79-01-6-----	Trichloroethene	390.	E
124-48-1-----	Dibromochloromethane	8.	IU
79-00-5-----	1,1,2-Trichloroethane	8.	IU
71-43-2-----	Benzene	8.	IU
10061-02-6-----	trans-1,3-Dichloropropene	8.	IU
75-25-2-----	Bromoform	8.	IU
108-10-1-----	4-Methyl-2-pentanone	17.	IU
591-78-6-----	2-Hexanone	17.	IU
127-18-4-----	Tetrachloroethene	8.	IU
79-34-5-----	1,1,2,2-Tetrachloroethane	8.	IU
108-88-3-----	Toluene	120.	
108-90-7-----	Chlorobenzene	8.	IU
100-41-4-----	Ethylbenzene	8.	IU
100-42-5-----	Styrene	8.	IU
133-02-7-----	Xylene (total)	130.	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: OBG Laboratories, Inc.

Contract: 2887.013.517

MW-8 Rerun

b Code: -----

Case No.: -

SAS No.: -

SDG No.: -

Matrix: (soil/water) SOIL

Lab Sample ID: J0162RE

Sample wt/vol: 4 (g/mL) G

Lab File ID: >U3086

Level: (low/med) MED

Date Received: 09/07/89

% Moisture: not dec.12

Date Analyzed: 09/11/89

Column: (pack/cap) PACK

Dilution Factor: 1.0

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/Kg Q

74-87-3	Chloromethane	1400.	IU
74-83-9	Bromomethane	1400.	IU
75-01-4	Vinyl Chloride	1400.	IU
75-00-3	Chloroethane	1400.	IU
75-09-2	Methylene Chloride	710.	IU
67-64-1	Acetone	1400.	IU
75-15-0	Carbon Disulfide	710.	IU
75-35-4	1,1-Dichloroethene	710.	IU
75-34-3	1,1-Dichloroethane	710.	IU
540-59-0	1,2-Dichloroethene (total)	710.	IU
67-66-3	Chloroform	710.	IU
107-02-2	1,2-Dichloroethane	710.	IU
78-93-3	2-Butanone	1400.	IU
71-55-6	1,1,1-Trichloroethane	710.	IU
56-23-5	Carbon Tetrachloride	710.	IU
108-05-4	Vinyl Acetate	1400.	IU
75-27-4	Bromodichloromethane	710.	IU
78-87-5	1,2-Dichloropropane	710.	IU
10061-01-5	cis-1,3-Dichloropropene	710.	IU
79-01-6	Trichloroethene	210.	IJ
124-48-1	Dibromochloromethane	710.	IU
79-00-5	1,1,2-Trichloroethane	710.	IU
71-43-2	Benzene	710.	IU
10061-02-6	trans-1,3-Dichloropropene	710.	IU
75-25-2	Bromoform	710.	IU
108-10-1	4-Methyl-2-pentanone	1400.	IU
591-78-6	2-Hexanone	1400.	IU
127-18-4	Tetrachloroethene	710.	IU
79-34-5	1,1,2-Tetrachloroethane	710.	IU
108-88-3	Toluene	710.	IU
108-90-7	Chlorobenzene	710.	IU
100-41-4	Ethylbenzene	710.	IU
100-42-5	Styrene	710.	IU
133-02-7	Xylene (total)	710.	IU

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

Lab Name: OBG LABORATORIES, INC.

Contract: 2887.013.517

JO162 RERUN
MW-8

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: JO162RE

Sample wt/vol: 4.0 (g/mL) 6

Lab File ID: 2V3086

Level: (low/med) MED

Date Received: 09/07/89

± Moisture: not dec. 12

Date Analyzed: 09/11/89

Column: (pack/cap) PACK

Dilution Factor: 1.0

Number TICs found: 10

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN HYDROCARBON	25.26	5700	J
2.		27.07	7300	
3.		28.82	5700	
4.		30.56	3100	
5.		32.12	3000	
6.		33.68	4300	
7.		34.31	2900	
8.		34.99	8100	
9.		38.67	8200	
10.		39.42	3000	
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: OBG Laboratories, Inc.

Contract: 2887.013.517

MW=9
0'-2'

b Code: -----

Case No.: -

SAS No.: -

SDG No.: -

Matrix: (soil/water) SOIL

Lab Sample ID: J0252

Sample wt/vol: 5 (g/mL) G

Lab File ID: >03097

Level: (low/med) LOW

Date Received: 09/07/89

Moisture: not dec.12

Date Analyzed: 09/12/89

Column: (pack/cap) PACK

Dilution Factor: 1.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg Q

74-87-3-----	Chloromethane	11.	IU
74-83-9-----	Bromomethane	11.	IU
75-01-4-----	Vinyl Chloride	11.	IU
75-00-3-----	Chloroethane	11.	IU
75-09-2-----	Methylene Chloride	6.	IU
67-64-1-----	Acetone	11.	8
75-15-0-----	Carbon Disulfide	6.	IU
75-35-4-----	1,1-Dichloroethene	6.	IU
75-34-3-----	1,1-Dichloroethane	6.	IU
540-59-0-----	1,2-Dichloroethene (total)	6.	IU
67-66-3-----	Chloroform	6.	IU
107-02-2-----	1,2-Dichloroethane	6.	IU
78-93-3-----	2-Butanone	11.	IU
71-55-6-----	1,1,1-Trichloroethane	6.	IU
56-23-5-----	Carbon Tetrachloride	6.	IU
108-05-4-----	Vinyl Acetate	11.	IU
75-27-4-----	Bromodichloromethane	6.	IU
78-87-5-----	1,2-Dichloropropane	6.	IU
10061-01-5-----	cis-1,3-Dichloropropene	6.	IU
79-01-6-----	Trichloroethene	6.	IU
124-48-1-----	Dibromochloromethane	6.	IU
79-00-5-----	1,1,2-Trichloroethane	6.	IU
71-43-2-----	Benzene	6.	IU
10061-02-6-----	trans-1,3-Dichloropropene	6.	IU
75-25-2-----	Bromoform	6.	IU
108-10-1-----	4-Methyl-2-pentanone	11.	IU
591-78-6-----	2-Hexanone	11.	IU
127-18-4-----	Tetrachloroethene	6.	IU
79-34-5-----	1,1,2,2-Tetrachloroethane	6.	IU
108-88-3-----	Toluene	6.	IU
108-90-7-----	Chlorobenzene	6.	IU
100-41-4-----	Ethylbenzene	6.	IU
100-42-5-----	Styrene	6.	IU
133-02-7-----	Xylene (total)	6.	IU

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

Lab Name: OBG LABORATORIES, INC.

Contract: 2887.013.57

J0252
MW9 0'-2'

Lab Code: Case No.: SAS No.: SDG No.:

Matrix: (soil/water) SOIL

Lab Sample ID: J0252

Sample wt/vol: 5.0 (g/mL) G

Lab File ID: >V3097

Level: (low/med) LOW

Date Received: 09/07/89

% Moisture: not dec. 12

Date Analyzed: 09/12/89

Column: (pack/cap) Pack

Dilution Factor: 1.0

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				
2.				
3.				
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: OBG Laboratories, Inc.

Contract: 2897.013.517

MW-9
2'-4'

b Code: -----

Case No.: -

SAS No.: -

SDG No.: -

Matrix: (soil/water) SOIL

Lab Sample ID: J0255

Sample wt/vol: 5 (g/mL) G

Lab File ID: >U3100

Level: (low/med) LOW

Date Received: 09/07/89

Moisture: not dec.10

Date Analyzed: 09/12/89

Column: (pack/cap) PACK

Dilution Factor: 1.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg Q

74-87-3-----	Chloromethane	11.	IU
74-83-9-----	Bromomethane	11.	IU
75-01-4-----	Vinyl Chloride	11.	IU
75-00-3-----	Chloroethane	11.	IU
75-09-2-----	Methylene Chloride	6.	IU
67-64-1-----	Acetone	19.	B
75-15-0-----	Carbon Disulfide	6.	IU
75-35-4-----	1,1-Dichloroethene	6.	IU
75-34-3-----	1,1-Dichloroethane	6.	IU
540-59-0-----	1,2-Dichloroethene (total)	6.	IU
67-66-3-----	Chloroform	6.	IU
107-02-2-----	1,2-Dichloroethane	6.	IU
78-93-3-----	2-Butanone	11.	IU
71-55-6-----	1,1,1-Trichloroethane	6.	IU
56-23-5-----	Carbon Tetrachloride	6.	IU
108-05-4-----	Vinyl Acetate	11.	IU
75-27-4-----	Bromodichloromethane	6.	IU
78-87-5-----	1,2-Dichloropropane	6.	IU
10061-01-5-----	cis-1,3-Dichloropropene	6.	IU
79-01-6-----	Trichloroethene	6.	IU
124-48-1-----	Dibromochloromethane	6.	IU
79-00-5-----	1,1,2-Trichloroethane	6.	IU
71-43-2-----	Benzene	6.	IU
10061-02-6-----	trans-1,3-Dichloropropene	6.	IU
75-25-2-----	Bromoform	6.	IU
108-10-1-----	4-Methyl-2-pentanone	11.	IU
591-78-6-----	2-Hexanone	11.	IU
127-18-4-----	Tetrachloroethene	6.	IU
79-34-5-----	1,1,2,2-Tetrachloroethane	6.	IU
108-88-3-----	Toluene	6.	IU
108-90-7-----	Chlorobenzene	6.	IU
100-41-4-----	Ethylbenzene	6.	IU
100-42-5-----	Styrene	6.	IU
133-02-7-----	Xylene (total)	6.	IU

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

Lab Name: OBG LABORATORIES, INC.

Contract: 2887.03.57

JO255
MW9 2'-4'

Lab Code: Case No.: SAS No.: SDG No.:

Matrix: (soil/water) Soil

Lab Sample ID: JO255

Sample wt/vol: 5.0 (g/mL) G

Lab File ID: 2V3100

Level: (low/med) Low

Date Received: 09/07/89

± Moisture: not dec. 10

Date Analyzed: 09/12/89

Column: (pack/cap) Pack

Dilution Factor: 1.0

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-11

Lab Name: OBG Laboratories, Inc.

Contract: 2887.013.517

b Code: -----

Case No.: -

SAS No.: -

SDG No.: -

Matrix: (soil/water) SOIL

Lab Sample ID: J0163

Sample wt/vol: 5 (g/mL) G

Lab File ID: >U3096

vel: (low/med) LOW

Date Received: 09/07/89

% Moisture: not dec.14

Date Analyzed: 09/12/89

olumn: (pack/cap) PACK

Dilution Factor: 1.0

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/Kg Q

74-87-3-----	Chloromethane	12.	IU
74-83-9-----	Bromomethane	12.	IU
75-01-4-----	Vinyl Chloride	12.	IU
75-00-3-----	Chloroethane	12.	IU
75-09-2-----	Methylene Chloride	6.	IU
67-64-1-----	Acetone	10.	IJ B
75-15-0-----	Carbon Disulfide	6.	IU
75-35-4-----	1,1-Dichloroethene	6.	IU
75-34-3-----	1,1-Dichloroethane	6.	IU
540-59-0-----	1,2-Dichloroethene (total)	6.	IU
67-66-3-----	Chloroform	6.	IU
107-02-2-----	1,2-Dichloroethane	6.	IU
78-93-3-----	2-Butanone	12.	IU
71-55-6-----	1,1,1-Trichloroethane	6.	IU
56-23-5-----	Carbon Tetrachloride	6.	IU
108-05-4-----	Vinyl Acetate	12.	IU
75-27-4-----	Bromodichloromethane	6.	IU
78-87-5-----	1,2-Dichloropropane	6.	IU
10061-01-5-----	cis-1,3-Dichloropropene	6.	IU
79-01-6-----	Trichloroethene	6.	IU
124-48-1-----	Dibromochloromethane	6.	IU
79-00-5-----	1,1,2-Trichloroethane	6.	IU
71-43-2-----	Benzene	6.	IU
10061-02-6-----	trans-1,3-Dichloropropene	6.	IU
75-25-2-----	Bromoform	6.	IU
108-10-1-----	4-Methyl-2-pentanone	12.	IU
591-78-6-----	2-Hexanone	12.	IU
127-18-4-----	Tetrachloroethene	6.	IU
79-34-5-----	1,1,2,2-Tetrachloroethane	6.	IU
108-88-3-----	Toluene	2.	IJ
108-90-7-----	Chlorobenzene	6.	IU
100-41-4-----	Ethylbenzene	6.	IU
100-42-5-----	Styrene	6.	IU
133-02-7-----	Xylene (total)	6.	IU

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

Lab Name: OEG LABORATORIES, INC.

Contract: 2887.013.57

JO163
MW-11

Lab Code: _____

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) Soil

Lab Sample ID: JO1163

Sample wt/vol: 5.0 (g/mL) G

Lab File ID: 213096

Level: (low/med) Low

Date Received: 09/07/89

± Moisture: not dec. 14

Date Analyzed: 09/12/89

Column: (pack/cap) Pack

Dilution Factor: 1.0

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-12

Lab Name: OBG Laboratories, Inc.

Contract: 2887.013.517

b Code: -----

Case No.: -

SAS No.: -

SDG No.: -

Matrix: (soil/water) SOIL

Lab Sample ID: J0161

Sample wt/vol: 5 (g/mL) G

Lab File ID: >U3079

Level: (low/med) LOW

Date Received: 09/07/89

Moisture: not dec.10

Date Analyzed: 09/08/89

Column: (pack/cap) PACK

Dilution Factor: 1.0

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

CAS NO.	COMPOUND		Q
74-87-3-----	Chloromethane	11.	IU
74-83-9-----	Bromomethane	11.	IU
75-01-4-----	Vinyl Chloride	11.	IU
75-00-3-----	Chloroethane	11.	IU
75-09-2-----	Methylene Chloride	2.	IJ
67-64-1-----	Acetone	10.	IJB
75-15-0-----	Carbon Disulfide	2.	IJ
75-35-4-----	1,1-Dichloroethene	6.	IU
75-34-3-----	1,1-Dichloroethane	6.	IU
540-59-0-----	1,2-Dichloroethene (total)	6.	IU
67-66-3-----	Chloroform	6.	IU
107-02-2-----	1,2-Dichloroethane	6.	IU
78-93-3-----	2-Butanone	11.	IU
71-55-6-----	1,1,1-Trichloroethane	6.	IU
56-23-5-----	Carbon Tetrachloride	6.	IU
108-05-4-----	Vinyl Acetate	11.	IU
75-27-4-----	Bromodichloromethane	6.	IU
78-87-5-----	1,2-Dichloropropane	6.	IU
10061-01-5-----	cis-1,3-Dichloropropene	6.	IU
79-01-6-----	Trichloroethene	6.	IU
124-48-1-----	Dibromochloromethane	6.	IU
79-00-5-----	1,1,2-Trichloroethane	6.	IU
71-43-2-----	Benzene	6.	IU
10061-02-6-----	trans-1,3-Dichloropropene	6.	IU
75-25-2-----	Bromoform	6.	IU
108-10-1-----	4-Methyl-2-pentanone	11.	IU
591-78-6-----	2-Hexanone	11.	IU
127-18-4-----	Tetrachloroethene	6.	IU
79-34-5-----	1,1,2,2-Tetrachloroethane	6.	IU
108-88-3-----	Toluene	5.	IJ
108-90-7-----	Chlorobenzene	6.	IU
100-41-4-----	Ethylbenzene	6.	IU
100-42-5-----	Styrene	6.	IU
133-02-7-----	Xylene (total)	6.	IU

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

Lab Name: OBG LABORATORIES, INC.

Contract: 2887.013.517

JO1101
MW-12

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) Soil

Lab Sample ID: JO1101

Sample wt/vol: 5.0 (g/mL) 6

Lab File ID: 2V.3079

Level: (low/med) Low

Date Received: 09/07/89

± Moisture: not dec. 10

Date Analyzed: 09/08/89

Column: (pack/cap) Pack

Dilution Factor: 1.0

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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18
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-8

Lab Name: OSG Laboratories Inc.

Contract: 2887.013.517

Lab Code: -

Case No.: -

SAS No.: -

SDG No.: -

Matrix: (soil/water) SOIL

Lab Sample ID: J01620L

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: >SB461

Level: (low/med) LOW

Date Received: 09/07/89

% Moisture: not dec.12

dec. _____

Date Extracted: 09/13/89

Extraction: (Sepf/Cont/Sonc) -

Date Analyzed: 9/26/89

GPC Cleanup: (Y/N) N

pH: 6.0

Dilution Factor: 50

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/Kg)	ug/Kg
108-95-2-----	Phenol	19000.	IU D
111-44-4-----	bis(2-Chloroethyl)Ether	19000.	IU D
95-57-8-----	2-Chlorophenol	19000.	IU D
541-73-1-----	1,3-Dichlorobenzene	19000.	IU D
106-46-7-----	1,4-Dichlorobenzene	19000.	IU D
100-51-6-----	Benzyl alcohol	19000.	IU D
95-50-1-----	1,2-Dichlorobenzene	19000.	IU D
95-48-7-----	2-Methylphenol	19000.	IU D
39638-32-9-----	bis(2-chloroisopropyl)ether	19000.	IU D
106-44-5-----	4-Methylphenol	19000.	IU D
621-64-7-----	N-Nitroso-Di-n-propylamine	19000.	IU D
67-72-1-----	Hexachloroethane	19000.	IU D
98-95-3-----	Nitrobenzene	19000.	IU D
78-59-1-----	Isophorone	19000.	IU D
88-75-5-----	2-Nitrophenol	19000.	IU D
105-67-9-----	2,4-Dimethylphenol	19000.	IU D
65-85-0-----	Benzoic acid	95000.	IU D
111-91-1-----	bis(2-Chloroethoxy)methane	19000.	IU D
120-83-2-----	2,4-Dichlorophenol	19000.	IU D
120-82-1-----	1,2,4-Trichlorobenzene	19000.	IU D
91-20-3-----	Naphthalene	19000.	IU D
106-47-8-----	4-Chloroaniline	19000.	IU D
87-68-3-----	Hexachlorobutadiene	19000.	IU D
59-50-7-----	4-Chloro-3-methylphenol	19000.	IU D
91-57-6-----	2-Methylnaphthalene	19000.	IU D
77-47-4-----	Hexachlorocyclopentadiene	19000.	IU D
88-06-2-----	2,4,6-Trichlorophenol	19000.	IU D
95-95-4-----	2,4,5-Trichlorophenol	95000.	IU D
91-58-7-----	2-Chloronaphthalene	19000.	IU D
88-74-4-----	2-Nitroaniline	95000.	IU D
131-11-3-----	Dimethylphthalate	19000.	IU D
208-96-8-----	Acenaphthylene	19000.	IU D
606-20-2-----	2,6-Dinitrotoluene	19000.	IU D

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: OBG Laboratories Inc.

Contract: 2887.013.517

MW-8

Lab Code: -

Case No.: -

SAS No.: -

SDG No.: -

Matrix: (soil/water) SOIL

Lab Sample ID: J0162DL

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: >SB461

Level: (low/med) LOW

Date Received: 09/07/89

% Moisture: not dec.12 dec. ____

Date Extracted: 09/13/89

Extraction: (Sepf/Cont/Sonc) -

Date Analyzed: 9/26/89

GPC Cleanup: (Y/N) N pH: 6.0

Dilution Factor: 50

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
99-09-2-----	3-Nitroaniline_____	95000.	IU D
83-32-9-----	Acenaphthene_____	19000.	IU D
51-28-5-----	2,4-Dinitrophenol_____	95000.	IU D
100-02-7-----	4-Nitrophenol_____	95000.	IU D
132-64-9-----	Dibenzofuran_____	19000.	IU D
121-14-2-----	2,4-Dinitrotoluene_____	19000.	IU D
84-66-2-----	Diethylphthalate_____	19000.	IU D
7005-72-3-----	4-Chlorophenyl-phenylether_____	19000.	IU D
86-73-7-----	Fluorene_____	19000.	IU D
100-01-6-----	4-Nitroaniline_____	95000.	IU D
534-52-1-----	4,6-Dinitro-2-methylphenol_____	95000.	IU D
86-30-6-----	N-Nitrosodiphenylamine (1)_____	19000.	IU D
101-55-3-----	4-Bromophenyl-phenylether_____	19000.	IU D
118-74-1-----	Hexachlorobenzene_____	19000.	IU D
87-86-5-----	Pentachlorophenol_____	95000.	IU D
85-01-8-----	Phenanthrene_____	19000.	IU D
120-12-7-----	Anthracene_____	19000.	IU D
84-74-2-----	Di-n-butylphthalate_____	19000.	IU D
206-44-0-----	Fluoranthene_____	19000.	IU D
129-00-0-----	Pyrene_____	19000.	IU D
85-68-7-----	Butylbenzylphthalate_____	19000.	IU D
91-94-1-----	3,3'-Dichlorobenzidine_____	38000.	IU D
56-55-3-----	Benzo(a)anthracene_____	19000.	IU D
218-01-9-----	Chrysene_____	19000.	IU D
117-81-7-----	bis(2-Ethylhexyl)phthalate_____	19000.	IU D
117-84-0-----	Di-n-octylphthalate_____	19000.	IU D
205-99-2-----	Benzo(b)fluoranthene_____	19000.	IU D
207-08-9-----	Benzo(k)fluoranthene_____	19000.	IU D
50-32-8-----	Benzo(a)pyrene_____	19000.	IU D
193-39-5-----	Indeno(1,2,3-cd)pyrene_____	19000.	IU D
53-70-3-----	Dibenzo(a,h)anthracene_____	19000.	IU D
191-24-2-----	Benzo(g,h,i)perylene_____	19000.	IU D

(1) - Cannot be separated from Diphenylamine

15
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

Lab Name: OBG LABORATORIES, INC.

Contract: 2887.013.517

J0162
MW-8

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: J0162DL

Sample wt/vol: 30.0 (g/mL) g

Lab File ID: >SB461

Level: (low/med) LOW

Date Received: 09/07/89

% Moisture: not dec. 12 dec. _____

Date Extracted: 09/13/89

Extraction: (SepF/Cont/Sonc) _____

Date Analyzed: 09/26/89

GPC Cleanup: (Y/N) N pH: 6.0

Dilution Factor: 50

Number TICs found: 9

CONCENTRATION UNITS:

(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN HYDROCARBON	8.29	11000	J
2.	UNKNOWN HYDROCARBON	8.75	7900	J
3. <u>1120214</u>	~~UNKNOWN HYDROCARBON~~ UNDECANE	10.23	22000	J
4.	UNKNOWN HYDROCARBON	11.95	7800	J
5.	UNKNOWN HYDROCARBON	15.20	8100	J
6.	UNKNOWN HYDROCARBON	18.78	13000	J
7.	UNKNOWN HYDROCARBON	19.95	8700	J
8.	UNKNOWN HYDROCARBON	22.89	12000	J
9.	UNKNOWN	33.35	7700	J
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11.				
12.				
13.	HYDROCARBONS APPEAR TO			
14.	BE LONG-CHAINED AND			
15.	TOTALLY SATURATED			
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18
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: OBG Laboratories Inc.

Contract: 2887.013.517

MW-9
0'-2'

Lab Code: -

Case No.: -

SAS No.: -

SDG No.: -

Matrix: (soil/water) SOIL

Lab Sample ID: J0252

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: >SB457

Level: (low/med) LOW

Date Received: 09/07/89

% Moisture: not dec.12 dec. ____

Date Extracted: 09/11/89

Extraction: (Sepf/Cont/Sonc) -

Date Analyzed: 9/26/89

GPC Cleanup: (Y/N) N pH: 5.2

Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
108-95-2	Phenol	380.	1U
111-44-4	bis(2-Chloroethyl)Ether	380.	1U
95-57-8	2-Chlorophenol	380.	1U
541-73-1	1,3-Dichlorobenzene	380.	1U
106-46-7	1,4-Dichlorobenzene	380.	1U
100-51-6	Benzyl alcohol	380.	1U
95-50-1	1,2-Dichlorobenzene	380.	1U
95-48-7	2-Methylphenol	380.	1U
39638-32-9	bis(2-chloroisopropyl)ether	380.	1U
106-44-5	4-Methylphenol	380.	1U
621-64-7	N-Nitroso-Di-n-propylamine	380.	1U
67-72-1	Hexachloroethane	380.	1U
98-95-3	Nitrobenzene	380.	1U
78-59-1	Isophorone	380.	1U
88-75-5	2-Nitrophenol	380.	1U
105-67-9	2,4-Dimethylphenol	380.	1U
65-85-0	Benzoic acid	1900.	1U
111-91-1	bis(2-Chloroethoxy)methane	380.	1U
120-83-2	2,4-Dichlorophenol	380.	1U
120-82-1	1,2,4-Trichlorobenzene	380.	1U
91-20-3	Naphthalene	380.	1U
106-47-8	4-Chloroaniline	380.	1U
87-68-3	Hexachlorobutadiene	380.	1U
59-50-7	4-Chloro-3-methylphenol	380.	1U
91-57-6	2-Methylnaphthalene	380.	1U
77-47-4	Hexachlorocyclopentadiene	380.	1U
88-06-2	2,4,6-Trichlorophenol	380.	1U
95-95-4	2,4,5-Trichlorophenol	1900.	1U
91-58-7	2-Chloronaphthalene	380.	1U
98-74-4	2-Nitroaniline	1900.	1U
131-11-3	Dimethylphthalate	380.	1U
208-96-8	Acenaphthylene	380.	1U
606-20-2	2,6-Dinitrotoluene	380.	1U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: OBG Laboratories Inc.

Contract: 2887.013.517

MW-9
Q'-2'

Lab Code: -

Case No.: -

SAS No.: -

SDG No.: -

Matrix: (soil/water) SOIL

Lab Sample ID: J0252

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: >SB457

Level: (low/med) LOW

Date Received: 09/07/89

% Moisture: not dec.12 dec. ____

Date Extracted: 09/11/89

Extraction: (Sepf/Cont/Sonc) -

Date Analyzed: 9/26/89

GPC Cleanup: (Y/N) N pH: 5.2

Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/Kg)	ug/Kg
99-09-2	3-Nitroaniline	1900.	1U
83-32-9	Acenaphthene	380.	1U
51-28-5	2,4-Dinitrophenol	1900.	1U
100-02-7	4-Nitrophenol	1900.	1U
132-64-9	Dibenzofuran	380.	1U
121-14-2	2,4-Dinitrotoluene	380.	1U
84-66-2	Diethylphthalate	380.	1U
7005-72-3	4-Chlorophenyl-phenylether	380.	1U
86-73-7	Fluorene	380.	1U
100-01-6	4-Nitroaniline	1900.	1U
534-52-1	4,6-Dinitro-2-methylphenol	1900.	1U
86-30-6	N-Nitrosodiphenylamine (1)	380.	1U
101-55-3	4-Bromophenyl-phenylether	380.	1U
118-74-1	Hexachlorobenzene	380.	1U
87-86-5	Pentachlorophenol	1900.	1U
85-01-8	Phenanthrene	380.	1U
120-12-7	Anthracene	380.	1U
84-74-2	Di-n-butylphthalate	380.	1U
206-44-0	Fluoranthene	380.	1U
129-00-0	Pyrene	380.	1U
85-68-7	Butylbenzylphthalate	380.	1U
91-94-1	3,3'-Dichlorobenzidine	760.	1U
56-55-3	Benzo(a)anthracene	380.	1U
218-01-9	Chrysene	380.	1U
117-81-7	bis(2-Ethylhexyl)phthalate	400.	1B
117-84-0	Di-n-octylphthalate	380.	1U
205-99-2	Benzo(b)fluoranthene	380.	1U
207-08-9	Benzo(k)fluoranthene	380.	1U
50-32-8	Benzo(a)pyrene	380.	1U
193-39-5	Indeno(1,2,3-cd)pyrene	380.	1U
53-70-3	Dibenzo(a,h)anthracene	380.	1U
191-24-2	Benzo(g,h,i)perylene	380.	1U

(1) - Cannot be separated from Diphenylamine

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

Lab Name: OBG LABORATORIES, INC.

Contract: 2887.013.517

J0252
MW9 0'-2'

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: J0252

Sample wt/vol: 30.0 (g/mL) g

Lab File ID: >SB457

Level: (low/med) LOW

Date Received: 09/07/89

% Moisture: not dec. 12 dec. _____

Date Extracted: 09/11/89

Extraction: (SepF/Cont/Sonc) _____

Date Analyzed: 09/26/89

IPC Cleanup: (Y/N) N pH: 5.2

Dilution Factor: 1.0

Number TICs found: 9

CONCENTRATION UNITS:

(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	4.76	3600	JB
2.	UNKNOWN	5.02	190	JB
3.	UNKNOWN C ₉ H ₂₀ HYDROCARBON	5.23	280	JB
4.	UNKNOWN HYDROCARBON	5.42	340	JB
5.	UNKNOWN	6.48	220	J
6.	UNKNOWN	6.82	290	J
7.	UNKNOWN	7.25	550	J
8.	UNKNOWN	9.66	300	J
9.	UNKNOWN	30.87	210	J
10.				
11.	HYDROCARBON APPEARS TO BE			
12.	LONG-CHAINED AND TOTALLY			
13.	SATURATED, COMPARE WITH			
14.	MW-12 RESULTS (SOMEWHAT			
15.	SIMILAR)			
16.				
17.				
18.				
19.				
20.				
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23.				
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30.				

18
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: OBG Laboratories Inc.

Contract: 2887.013.517

MW-9
2'-4'

Lab Code: -

Case No.: -

SAS No.: -

SDG No.: -

Matrix: (soil/water) SOIL

Lab Sample ID: J0255

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: >SB460

Level: (low/med) LOW

Date Received: 09/07/89

% Moisture: not dec.10 dec. _____

Date Extracted: 09/11/89

Extraction: (Sepf/Cont/Sonc) -

Date Analyzed: 9/26/89

GPC Cleanup: (Y/N) N pH: 5.5

Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
108-95-2-----	Phenol	370.	IU
111-44-4-----	bis(2-Chloroethyl)Ether	370.	IU
95-57-8-----	2-Chlorophenol	370.	IU
541-73-1-----	1,3-Dichlorobenzene	370.	IU
106-46-7-----	1,4-Dichlorobenzene	370.	IU
100-51-6-----	Benzyl alcohol	370.	IU
95-50-1-----	1,2-Dichlorobenzene	370.	IU
95-48-7-----	2-Methylphenol	370.	IU
39638-32-9-----	bis(2-chloroisopropyl)ether	370.	IU
106-44-5-----	4-Methylphenol	370.	IU
621-64-7-----	N-Nitroso-Di-n-propylamine	370.	IU
67-72-1-----	Hexachloroethane	370.	IU
98-95-3-----	Nitrobenzene	370.	IU
78-59-1-----	Isophorone	370.	IU
88-75-5-----	2-Nitrophenol	370.	IU
105-67-9-----	2,4-Dimethylphenol	370.	IU
65-85-0-----	Benzoic acid	1900.	IU
111-91-1-----	bis(2-Chloroethoxy)methane	370.	IU
120-83-2-----	2,4-Dichlorophenol	370.	IU
120-82-1-----	1,2,4-Trichlorobenzene	370.	IU
91-20-3-----	Naphthalene	370.	IU
106-47-8-----	4-Chloroaniline	370.	IU
87-68-3-----	Hexachlorobutadiene	370.	IU
59-50-7-----	4-Chloro-3-methylphenol	370.	IU
91-57-6-----	2-Methylnaphthalene	370.	IU
77-47-4-----	Hexachlorocyclopentadiene	370.	IU
88-06-2-----	2,4,6-Trichlorophenol	370.	IU
95-95-4-----	2,4,5-Trichlorophenol	1900.	IU
91-58-7-----	2-Chloronaphthalene	370.	IU
88-74-4-----	2-Nitroaniline	1900.	IU
131-11-3-----	Dimethylphthalate	370.	IU
208-96-9-----	Acenaphthylene	370.	IU
606-20-2-----	2,6-Dinitrotoluene	370.	IU

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: OBG Laboratories Inc.

Contract: 2887.013.517

MW-9
2'-4'

Lab Code: -

Case No.: -

SAS No.: -

SDG No.: -

Matrix: (soil/water) SOIL

Lab Sample ID: J0255

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: >SB460

Level: (low/med) LOW

Date Received: 09/07/89

% Moisture: not dec.10 dec. ____

Date Extracted: 09/11/89

Extraction: (Sepf/Cont/Sonc) -

Date Analyzed: 9/26/89

GPC Cleanup: (Y/N) N pH: 5.5

Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
99-09-2-----	3-Nitroaniline_____	1900.	IU
83-32-9-----	Acenaphthene_____	370.	IU
51-28-5-----	2,4-Dinitrophenol_____	1900.	IU
100-02-7-----	4-Nitrophenol_____	1900.	IU
132-64-9-----	Dibenzofuran_____	370.	IU
121-14-2-----	2,4-Dinitrotoluene_____	370.	IU
84-66-2-----	Diethylphthalate_____	370.	IU
7005-72-3-----	4-Chlorophenyl-phenylether____	370.	IU
86-73-7-----	Fluorene_____	370.	IU
100-01-6-----	4-Nitroaniline_____	1900.	IU
534-52-1-----	4,6-Dinitro-2-methylphenol____	1900.	IU
86-30-6-----	N-Nitrosodiphenylamine (1)____	370.	IU
101-55-3-----	4-Bromophenyl-phenylether____	370.	IU
118-74-1-----	Hexachlorobenzene_____	370.	IU
87-86-5-----	Pentachlorophenol_____	1900.	IU
85-01-8-----	Phenanthrene_____	370.	IU
120-12-7-----	Anthracene_____	370.	IU
84-74-2-----	Di-n-butylphthalate_____	370.	IU
206-44-0-----	Fluoranthene_____	370.	IU
129-00-0-----	Pyrene_____	370.	IU
85-68-7-----	Butylbenzylphthalate_____	370.	IU
91-94-1-----	3,3'-Dichlorobenzidine_____	740.	IU
56-55-3-----	Benzo(a)anthracene_____	370.	IU
218-01-9-----	Chrysene_____	370.	IU
117-81-7-----	bis(2-Ethylhexyl)phthalate____	430.	I B
117-84-0-----	Di-n-octylphthalate_____	370.	IU
205-99-2-----	Benzo(b)fluoranthene_____	370.	IU
207-08-9-----	Benzo(k)fluoranthene_____	370.	IU
50-32-8-----	Benzo(a)pyrene_____	370.	IU
193-39-5-----	Indeno(1,2,3-cd)pyrene_____	370.	IU
53-70-3-----	Dibenzo(a,h)anthracene_____	370.	IU
191-24-2-----	Benzo(g,h,i)perylene_____	370.	IU

(1) - Cannot be separated from Diphenylamine

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

Lab Name: OBG LABORATORIES, INC.

Contract: 2887.013.517

J0255
MW9 2'-4'

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: J0255

Sample wt/vol: 30.0 (g/mL) g

Lab File ID: >SB460

Level: (low/med) LOW

Date Received: 09/07/89

% Moisture: not dec. 10 dec. _____

Date Extracted: 09/11/89

Extraction: (SepF/Cont/Sonc) _____

Date Analyzed: 09/26/89

GPC Cleanup: (Y/N) N pH: 5.5

Dilution Factor: 1.0

Number TICs found: 9

CONCENTRATION UNITS:

(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	4.69	1300	JB
2.	UNKNOWN	4.73	1500	JB
3.	UNKNOWN	4.76	1500	JB
4.	UNKNOWN	4.81	2100	JB
5.	UNKNOWN HYDROCARBON	5.24	160	JB
6.	UNKNOWN HYDROCARBON	5.41	320	JB
7.	UNKNOWN	6.49	190	JB
8.	UNKNOWN	7.27	600	JB
9.	UNKNOWN	40.97	200	JB
10.				
11.	HYDROCARBONS APPEAR TO			
12.	BE LONG CHAINED, WITH SOME			
13.	BRANCHING AND TOTALLY			
14.	SATURATED			
15.				
16.				
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SITE

Lab Name: OBG Laboratories Inc.

Contract: 2887.013.517

J9163

MW-11

Lab Code: -

Case No.: -

SAS No.: -

EDG No.: -

Matrix: (soil/water) SOIL

Lab Sample ID: J0163

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: >SB455

Level: (low/med) LOW

Date Received: 09/07/89

% Moisture: not dec. 14 dec. ____

Date Extracted: 09/13/89

Extraction: (Sepf/Cont/Sonc) -

Date Analyzed: 09/26/89

GPC Cleanup: (Y/N) N pH: 4.8

Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/Kg)	ug/Kg
108-95-2-----	Phenol	390.	10
111-44-4-----	bis(2-Chloroethyl)ether	390.	10
95-57-8-----	2-Chlorophenol	390.	10
541-73-1-----	1,3-Dichlorobenzene	390.	10
106-46-7-----	1,4-Dichlorobenzene	390.	10
100-51-6-----	Benzyl alcohol	390.	10
95-50-1-----	1,2-Dichlorobenzene	390.	10
95-48-7-----	2-Methylphenol	390.	10
39638-32-9-----	bis(2-chloroisopropyl)ether	390.	10
106-44-5-----	4-Methylphenol	390.	10
621-64-7-----	N-Nitroso-Di-n-propylamine	390.	10
67-72-1-----	Hexachloroethane	390.	10
98-95-3-----	Nitrobenzene	390.	10
78-59-1-----	Isophorone	390.	10
88-75-5-----	2-Nitrophenol	390.	10
105-67-9-----	2,4-Dimethylphenol	390.	10
65-85-0-----	Benzoic acid	1900.	10
111-91-1-----	bis(2-Chloroethoxy)methane	390.	10
120-83-2-----	2,4-Dichlorophenol	390.	10
120-82-1-----	1,2,4-Trichlorobenzene	390.	10
91-20-3-----	Naphthalene	390.	10
106-47-8-----	4-Chloroaniline	390.	10
67-68-3-----	Hexachlorobutadiene	390.	10
59-50-7-----	4-Chloro-3-methylphenol	390.	10
91-57-6-----	2-Methylnaphthalene	390.	10
77-47-4-----	Hexachlorocyclopentadiene	390.	10
88-06-2-----	2,4,6-Trichlorophenol	390.	10
95-95-4-----	2,4,5-Trichlorophenol	1900.	10
91-58-7-----	2-Chloronaphthalene	390.	10
88-74-4-----	2-Nitroaniline	1900.	10
131-11-3-----	Dimethylphthalate	390.	10
208-96-8-----	Acenaphthylene	390.	10
605-20-2-----	2,6-Dinitrotoluene	390.	10

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SITE

Lab Name: OBG Laboratories Inc.

Contract: 2887.013.517

J0163
MW-11

Lab Code: -

Case No.: -

SAS No.: -

SDG No.: -

Matri: (soil/water) SOIL

Lab Sample ID: J0163

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: >SB455

Level: (low/med) LOW

Date Received: 09/07/89

% Moisture: not dec. 14 dec. ____

Date Extracted: 09/13/89

Extraction: (Sepf/Cont/Sonc) -

Date Analyzed: 09/26/89

GPC Cleanup: (Y/N) N pH: 4.8

Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/Kg)	ug/Kg
99-09-2-----	3-Nitroaniline_____	1900.	U
83-32-9-----	Acenaphthene_____	390.	U
51-28-5-----	2,4-Dinitrophenol_____	1900.	U
100-02-7-----	4-Nitrophenol_____	1900.	U
132-64-9-----	Dibenzofuran_____	390.	U
121-14-2-----	2,4-Dinitrotoluene_____	390.	U
84-66-2-----	Diethylphthalate_____	390.	U
7005-72-3-----	4-Chlorophenyl-phenylether_____	390.	U
86-73-7-----	Fluorene_____	390.	U
100-01-6-----	4-Nitroaniline_____	1900.	U
534-52-1-----	4,6-Dinitro-2-methylphenol_____	1900.	U
86-30-6-----	N-Nitrosodiphenylamine (1)_____	390.	U
101-55-3-----	4-Bromophenyl-phenylether_____	390.	U
118-74-1-----	Hexachlorobenzene_____	390.	U
87-86-5-----	Pentachlorophenol_____	1900.	U
85-01-8-----	Phenanthrene_____	23.	J
120-12-7-----	Anthracene_____	390.	U
84-74-2-----	Di-n-butylphthalate_____	390.	U
206-44-0-----	Fluoranthene_____	38.	J
129-00-0-----	Pyrene_____	37.	J
85-68-7-----	Butylbenzylphthalate_____	390.	U
91-94-1-----	3,3'-Dichlorobenzidine_____	780.	U
56-55-3-----	Benzo(a)anthracene_____	390.	U
218-01-9-----	Chrysene_____	390.	U
117-81-7-----	bis(2-Ethylhexyl)phthalate_____	620.	B
117-84-0-----	Di-n-octylphthalate_____	390.	U
205-99-2-----	Benzo(b)fluoranthene_____	390.	U
207-08-9-----	Benzo(k)fluoranthene_____	390.	U
50-32-8-----	Benzo(a)pyrene_____	390.	U
193-39-5-----	Indeno(1,2,3-cd)pyrene_____	390.	U
53-70-3-----	Dibenzo(a,h)anthracene_____	390.	U
191-24-2-----	Benzo(g,h,i)perylene_____	390.	U

(1) - Cannot be separated from Diphenylamine

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

Lab Name: OBG LABORATORIES, INC.

Contract: 2887.013.517

J0163
MW-11

Lab Code: _____

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: J0163

Sample wt/vol: 30.0 (g/mL) g

Lab File ID: >SB455

Level: (low/med) LOW

Date Received: 09/07/89

% Moisture: not dec. 14 dec. _____

Date Extracted: 09/13/89

Extraction: (SepF/Cont/Sonc) _____

Date Analyzed: 09/26/89

GPC Cleanup: (Y/N) N pH: 4.8

Dilution Factor: 1.0

Number TICs found: 18

CONCENTRATION UNITS:

(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	4.69	1800	J
2.	UNKNOWN	4.72	1300	JB
3.	UNKNOWN	4.99	210	JB
4.	UNKNOWN C9H20 HYDROCARBON	5.20	230	J
5.	UNKNOWN HYDROCARBON	5.40	360	JB
6.	UNKNOWN	6.48	230	JB
7.	UNKNOWN	6.82	1100	J
8.	UNKNOWN	7.27	1100	JB
9.	UNKNOWN	8.24	220	J
10.	UNKNOWN ALCOHOL	8.93	170	J
11.	UNKNOWN	9.30	590	J
12.	UNKNOWN	9.68	260	J
13.	UNKNOWN	11.73	160	J
14.	UNKNOWN	12.76	330	J
15.	UNKNOWN	19.09	230	J
16.	UNKNOWN HYDROCARBON	29.18	180	J
17.	UNKNOWN HYDROCARBON	32.34	240	J
18.	UNKNOWN	36.83	230	J
19.				
20.				
21.	HYDROCARBONS APPEAR TO			
22.	BE LONG-CHAINED AND			
23.	TOTALLY SATURATED			
24.				
25.				
26.				
27.				
28.				
29.				
30.				

18
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: OBG Laboratories Inc.

Contract: 2887.013.517

MW-12

Lab Code: -

Case No.: -

SAS No.: -

SDG No.: -

Matrix: (soil/water) SOIL

Lab Sample ID: J0161

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: >SB456

Level: (low/med) LOW

Date Received: 09/07/89

% Moisture: not dec.10 dec. _____

Date Extracted: 09/13/89

Extraction: (Sepf/Cont/Sonc) -

Date Analyzed: 9/26/89

GPC Cleanup: (Y/N) N pH: 6.2

Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	ug/Kg	G
108-95-2	Phenol	370.	1U	
111-44-4	bis(2-Chloroethyl)Ether	370.	1U	
95-57-8	2-Chlorophenol	370.	1U	
541-73-1	1,3-Dichlorobenzene	370.	1U	
106-46-7	1,4-Dichlorobenzene	370.	1U	
100-51-6	Benzyl alcohol	370.	1U	
95-50-1	1,2-Dichlorobenzene	370.	1U	
95-48-7	2-Methylphenol	370.	1U	
39638-32-9	bis(2-chloroisopropyl)ether	370.	1U	
106-44-5	4-Methylphenol	370.	1U	
621-64-7	N-Nitroso-Di-n-propylamine	370.	1U	
67-72-1	Hexachloroethane	370.	1U	
98-95-3	Nitrobenzene	370.	1U	
78-59-1	Isophorone	370.	1U	
88-75-5	2-Nitrophenol	370.	1U	
105-67-9	2,4-Dimethylphenol	370.	1U	
65-85-0	Benzoic acid	1900.	1U	
111-91-1	bis(2-Chloroethoxy)methane	370.	1U	
120-83-2	2,4-Dichlorophenol	370.	1U	
120-82-1	1,2,4-Trichlorobenzene	370.	1U	
91-20-3	Naphthalene	370.	1U	
106-47-8	4-Chloroaniline	370.	1U	
87-68-3	Hexachlorobutadiene	370.	1U	
59-50-7	4-Chloro-3-methylphenol	370.	1U	
91-57-6	2-Methylnaphthalene	370.	1U	
77-47-4	Hexachlorocyclopentadiene	370.	1U	
88-06-2	2,4,6-Trichlorophenol	370.	1U	
95-95-4	2,4,5-Trichlorophenol	1900.	1U	
91-58-7	2-Chloronaphthalene	370.	1U	
88-74-4	2-Nitroaniline	1900.	1U	
131-11-3	Dimethylphthalate	370.	1U	
208-96-8	Acenaphthylene	370.	1U	
606-20-2	2,6-Dinitrotoluene	370.	1U	

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: DBG Laboratories Inc.

Contract: 2887.013.517

MW-12

Lab Code: -

Case No.: -

SAS No.: -

SDG No.: -

Matrix: (soil/water) SOIL

Lab Sample ID: J0161

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: >SB456

Level: (low/med) LOW

Date Received: 09/07/89

% Moisture: not dec.10 dec. ____

Date Extracted: 09/13/89

Extraction: (Sepf/Cont/Sonc) -

Date Analyzed: 9/26/89

GPC Cleanup: (Y/N) N pH: 6.2

Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
99-09-2-----	3-Nitroaniline	1900.	IU
83-32-9-----	Acenaphthene	370.	IU
51-28-5-----	2,4-Dinitrophenol	1900.	IU
100-02-7-----	4-Nitrophenol	1900.	IU
132-64-9-----	Dibenzofuran	370.	IU
121-14-2-----	2,4-Dinitrotoluene	370.	IU
84-66-2-----	Diethylphthalate	370.	IU
7005-72-3-----	4-Chlorophenyl-phenylether	370.	IU
86-73-7-----	Fluorene	370.	IU
100-01-6-----	4-Nitroaniline	1900.	IU
534-52-1-----	4,6-Dinitro-2-methylphenol	1900.	IU
86-30-6-----	N-Nitrosodiphenylamine (1)	370.	IU
101-55-3-----	4-Bromophenyl-phenylether	370.	IU
118-74-1-----	Hexachlorobenzene	370.	IU
87-86-5-----	Pentachlorophenol	1900.	IU
85-01-8-----	Phenanthrene	370.	IU
120-12-7-----	Anthracene	370.	IU
84-74-2-----	Di-n-butylphthalate	370.	IU
206-44-0-----	Fluoranthene	370.	IU
129-00-0-----	Pyrene	370.	IU
85-68-7-----	Butylbenzylphthalate	370.	IU
91-94-1-----	3,3'-Dichlorobenzidine	740.	IU
56-55-3-----	Benzo(a)anthracene	370.	IU
218-01-9-----	Chrysene	370.	IU
117-81-7-----	bis(2-Ethylhexyl)phthalate	590.	I B
117-84-0-----	Di-n-octylphthalate	370.	IU
205-99-2-----	Benzo(b)fluoranthene	370.	IU
207-08-9-----	Benzo(k)fluoranthene	370.	IU
50-32-8-----	Benzo(a)pyrene	370.	IU
193-39-5-----	Indeno(1,2,3-cd)pyrene	370.	IU
53-70-3-----	Dibenzo(a,h)anthracene	370.	IU
191-24-2-----	Benzo(g,h,i)perylene	370.	IU

(1) - Cannot be separated from Diphenylamine

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

Lab Name: OBG LABORATORIES, INC.

Contract: 2887.013.517

J0161
MW-12

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: J0161

Sample wt/vol: 30.0 (g/mL) g

Lab File ID: >SB456

Level: (low/med) LOW

Date Received: 09/07/89

% Moisture: not dec. 10 dec. _____

Date Extracted: 09/13/89

Extraction: (SepF/Cont/Sonc) _____

Date Analyzed: 09/26/89

GPC Cleanup: (Y/N) N pH: 6.2

Dilution Factor: 1.0

Number TICs found: 8

CONCENTRATION UNITS:

(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	4.77	4900	JB
2.	UNKNOWN C ₉ H ₂₀ HYDROCARBON	5.01	190	J
3.	UNKNOWN HYDROCARBON	5.24	420	JB
4.	UNKNOWN HYDROCARBON	5.41	370	JB
5.	UNKNOWN	6.46	220	J
6.	UNKNOWN	7.22	330	JB
7.	UNKNOWN	8.91	180	J
8.	UNKNOWN	9.61	240	J
9.				
10.	HYDROCARBONS APPEAR TO			
11.	BE LONG CHAINED WITH SOME			
12.	BRANCHING AND TOTALLY			
13.	SATURATED			
14.				
15.				
16.				
17.				
18.				
19.				
20.				
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23.				
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26.				
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28.				
29.				
30.				



Appendix P

APPENDIX P
1989 WATER QUALITY DATA

Galson Laboratories

LABORATORY ANALYSIS REPORT

15114th Ave
Tulsa, OK 74106
918-432-2516
FAX 918-432-2516

Client: BLASLAND, BOUCK & LEE Job Number: G4164
Task Number: 89092008
Location: PROJ. #307.02 CHICAGO Date Sampled: 19-SEP-1989
PNEUMATIC

POLYCHLORINATED BIPHENYLS

	Lab ID:	H23111	H23112	H23113	H23114	H23115	H23116
	Client ID:	MW-10	MW-2	MW-9	MW-1	MW-8	MW-3
AROCLOR 1016	UG/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
AROCLOR 1221	UG/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
AROCLOR 1232	UG/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
AROCLOR 1242	UG/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
AROCLOR 1248	UG/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
AROCLOR 1254	UG/L	<0.5*	0.7	<0.5	9.6	<0.5*	<0.5*
AROCLOR 1260	UG/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

(<) - Less Than
(>) - Greater Than
NA - Not Applicable
ND - Not detectable
NS - Not specified
MG - Milligrams
L - Liters
M³ - Cubic Meter
MG/M³ - Milligrams Per Cubic Meter
PPM - Parts Per Million
UG - Micrograms
NG - Nanograms

Method(s): EPA SW846 METHODS 3520 AND 8080
Footnotes: *AROCLOR 1254 WAS DETECTED BELOW OUR
QUANTITATION LIMIT.
Submitted by: KN
Approved by: _____
Date: 23-OCT-1989

Galson Laboratories

LABORATORY ANALYSIS REPORT

Client: BLASLAND, BOUCK & LEE Job Number: G4164
Task Number: 89091903
Location: PROJ.# 307.02 CHICAGO Date Sampled: 18-SEP-1989
PNEUMATIC

POLYCHLORINATED BIPHENYLS

	Lab ID:	H22940	H22941	H22942	H22943	H22944	H22947
	Client ID:	MW-7	MW-6	MW-5	MW-4	MW-12	SW-1
AROCLOR 1016	UG/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
AROCLOR 1221	UG/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
AROCLOR 1232	UG/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
AROCLOR 1242	UG/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
AROCLOR 1248	UG/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
AROCLOR 1254	UG/L	<0.5	<0.5	3.4	<0.5	<0.5*	<0.5
AROCLOR 1260	UG/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

($<$) - Less Than
($>$) - Greater Than
NA - Not Applicable
ND - Not detectable
NS - Not specified
MG - Milligrams
L - Liters
M³ - Cubic Meter
MG/M³ - Milligrams Per Cubic Meter
PPM - Parts Per Million
UG - Micrograms
NG - Nanograms

Method(s): EPA SW846 METHODS 3520 AND 8080
Footnotes: *AROCLOR 1254 WAS DETECTED BELOW
OUR QUANTITATION LIMIT
Submitted by: KN
Approved by:
Date: 24-OCT-1989

Galson Laboratories

LABORATORY ANALYSIS REPORT

Client: BLASLAND, BOUCK & LEE Job Number: G4164
Task Number: 89092008
Location: PROJ. #307.02 CHICAGO Date Sampled: 19-SEP-1989
PNEUMATIC

POLYCHLORINATED BIPHENYLS

	Lab ID: H23117	METHOD
	Client ID: MW-11	BLANK
AROCLOR 1016	UG/L	<0.5
AROCLOR 1221	UG/L	<0.5
AROCLOR 1232	UG/L	<0.5
AROCLOR 1242	UG/L	<0.5
AROCLOR 1248	UG/L	<0.5
AROCLOR 1254	UG/L	<0.5*
AROCLOR 1260	UG/L	<0.5

($<$) - Less Than
($>$) - Greater Than
NA - Not Applicable
ND - Not detectable
NS - Not specified
MG - Milligrams
L - Liters
M³ - Cubic Meter
MG/M³ - Milligrams Per Cubic Meter
PPM - Parts Per Million
UG - Micrograms
NG - Nanograms

Method(s): EPA SW846 METHODS 3520 AND 8080
Footnotes: *AROCLOR 1254 WAS DETECTED BELOW OUR
QUANTITATION LIMIT
Submitted by: KN
Approved by: *[Signature]*
Date: 23-OCT-1989

Galson Laboratories

LABORATORY ANALYSIS REPORT

3401 K. H. Road
Chicago, IL 60632
Tel: 312-482-1504
Fax: 312-482-1505

Client: BLASLAND, BOUCK & LEE Job Number: G4164
Task Number: 89091903
Location: PROJ.# 307.02 CHICAGO Date Sampled: 18-SEP-1989
PNEUMATIC

POLYCHLORINATED BIPHENYLS

	Lab ID:	H22948	H22949	H22950**	H22951	METHOD
	Client ID:	SW-2	SW-3	SW-4	SW-5	BLANK
AROCLOR 1016	UG/L	<0.5	<0.5	<21	<0.5	<0.5
AROCLOR 1221	UG/L	<0.5	<0.5	<21	<0.5	<0.5
AROCLOR 1232	UG/L	<0.5	<0.5	<21	<0.5	<0.5
AROCLOR 1242	UG/L	<0.5	<0.5	<21	<0.5	<0.5
AROCLOR 1248	UG/L	<0.5	<0.5	<21	<0.5	<0.5
AROCLOR 1254	UG/L	<0.5	<0.5	<21	<0.5	<0.5
AROCLOR 1260	UG/L	<0.5	<0.5	<21	<0.5	<0.5

- (<) - Less Than
- (>) - Greater Than
- NA - Not Applicable
- ND - Not detectable
- NS - Not specified
- MG - Milligrams
- L - Liters
- M³ - Cubic Meter
- MG/M³ - Milligrams Per Cubic Meter
- PPM - Parts Per Million
- UG - Micrograms
- NG - Nanograms

Method(s): EPA SW846 METHODS 3520 AND 8080
Footnotes: **DETECTION LIMIT HIGHER DUE TO DILUTION
NEEDED BECAUSE OF MATRIX INTERFERENCE
Submitted by: KN
Approved by:
Date: 23-OCT-1989

Galson Laboratories

LABORATORY ANALYSIS REPORT

661 North La Grange
St. Charles, IL 60157
Tel: 312-432-1100
Telex: 950 1514

Client: BLASLAND, BOUCK & LEE Job Number: G4164
Task Number: 89092008
Location: PROJ. #307.02 CHICAGO Date Sampled: 19-SEP-1989
PNEUMATIC

WATER

		LEAD	ZINC	CYANIDE
Sample ID	Lab ID	MG/L	MG/L	MG/L
MW-10	H23111	0.063	0.31	<0.01
MW-2	H23112	0.14	0.20	<0.01
MW-9	H23113	<0.005	0.035	<0.01
MW-1	H23114	0.12	0.62	<0.01
MW-8	H23115	0.005	0.025	<0.01
MW-3	H23116	0.20	0.47	0.035
MW-11	H23117	<0.005	0.13	<0.01

- (<) - Less Than
- (>) - Greater Than
- NA - Not Applicable
- ND - Not detectable
- NS - Not specified
- MG - Milligrams
- L - Liters
- M³ - Cubic Meter
- MG/M³ - Milligrams Per Cubic Meter
- PPM - Parts Per Million
- UG - Micrograms
- NG - Nanograms

Method(s): EPA 600/4-79-020

Footnotes:

Submitted by: PC, DS, ML

Approved by: *Ek*

Date: 23-OCT-1989

Galson Laboratories

LABORATORY ANALYSIS REPORT

6801 Kirkville Road
E. Syracuse, NY 13057
Tel: (315) 432-0506
1-800-950-0506

Client: BLASLAND, BOUCK & LEE Job Number: G4164
Task Number: 89091903
Location: PROJ.# 307.02 CHICAGO Date Sampled: 18-SEP-1989
PNEUMATIC

WATER

Sample ID	Lab ID	LEAD	ZINC	CYANIDE
		MG/L	MG/L	MG/L
MW-7	H22940	0.40	1.3	<0.01
MW-6	H22941	0.32	0.98	<0.01
MW-5	H22942	0.20	0.099	<0.01
MW-4	H22943	1.2	0.67	<0.01
MW-12	H22944	0.25	0.78	<0.01
SW-1	H22947	0.006	0.031	<0.01
SW-2	H22948	<0.005	0.031	<0.01
SW-3	H22949	<0.005	0.031	<0.01
SW-4	H22950	0.012	0.20	<0.01
SW-5	H22951	<0.005	0.022	<0.01

($<$) - Less Than
($>$) - Greater Than
NA - Not Applicable
ND - Not detectable
NS - Not specified
MG - Milligrams
L - Liters
M³ - Cubic Meter
MG/M³ - Milligrams Per Cubic Meter
PPM - Parts Per Million
UG - Micrograms
NG - Nanograms

Method(s): EPA 600/4-79-020

Footnotes:

Submitted by: PC, DS, ML

Approved by:

Date: 24-OCT-1989

Galson Laboratories

Galson Laboratories
1150 S. 10th St.
Syracuse, NY 13210
(315) 435-1500

October 25, 1989

Mr. Steven Stucker
Blasland, Bouck and Lee
Box 66
6723 Towpath Road
Syracuse, NY 13214

RE: GTS #G4164

Dear Mr. Stucker:

The following package contains data relating to the samples received by our laboratory on September 19 and 20, 1989, under Task Numbers 89091903 and 89092008. The samples were analyzed according to EPA CLP guidelines, (SOW 10/86, Rev. 7/87), for volatiles and semi-volatiles. The following samples are included in this package:

MW 1	H23114	MW 10	H23111
MW 2	H23112	MW 11	H23117
MW 3	H23116	MW 12	H22944
MW 4	H22943	SW 1	H22947
MW 5	H22942	SW 2	H22948
MW 6	H22941	SW 3	H22949
MW 7	H22940	SW 4	H22950
MW 8	H23115	SW 5	H22951
MW 9	H23113		

VOLATILE ANALYSIS:

Low level volatile analysis protocol was performed on all samples in this set. Samples SW 4 and SW 5 were also analyzed after dilution. Sample MW 5 and Samples SW 1-5 contained a number of TCL volatiles. All surrogate recoveries, MS/MSD recoveries and RPD values met acceptable contract required control limits.

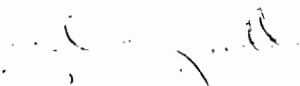
MR. STEVEN STUCKER
OCTOBER 25, 1989
PAGE TWO

SEMI-VOLATILE ANALYSIS:

Low level analytical protocol was used for all samples in this set, except for Sample SW 4, which was analyzed at a 5X dilution.

Only sample MW 5 contained a TCL compound at a concentration above the contract required detection limit. Samples MW 1, MW 3, MW 5 and SW 4 contained TCL compounds below the contract required detection limit. A number of tentatively identified compounds were present in many of the samples. One surrogate recovery out of 126 was slightly high. All matrix spike/matrix spike duplicate values were within acceptable contract required control limits. Two RPD values out of 11 were outside acceptable contract required limits.

Sincerely,



Gale G. Sutton, CIH
Organic Department Manager
GALSON LABORATORIES

GGG/mrb

Enc.

Organic Sample Data Summary
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Semivolatile	67
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Page 1 of 1

[illegible]



Galson
Laboratories

6601 Kirkville Road
E. Syracuse, NY 13057
Tel: (315) 432-0506
1-800-950-0506

SAMPLING PREP SHEET
PLEASE RETURN WITH SAMPLES!!!!!!

DATE SHIPPED: *delivered 9/14*

JOB #: *64164*

CONTACT PERSON:

CLIENT: *Blasland & Bouck*

ADDRESS:

***MATERIALS ORDERED / ANALYSIS:**

- 2) 40 ml VOA Trip blank
- 34) 40 ml VOA
- 6) 40 ml matrix spike
- 2) 40 ml VOA matrix spike duplicate
- 5) 1000 ml .8270/8080 → Semi-VOA's + PCB's
- ~~1) 1000 ml matrix spike 8080~~
- ~~(1) 1000 ml matrix spike duplicate 8080~~
- (1) 1000 ml MS 8270
- (1) 1000 ml MS 8080
- (7) (2 spare)
250 ml Pb, Zn

- (2 spare)
- (19) 250 ml CN
- (8) spare 40 ml VOA's
- (4) spare 1000 ml
- (2) spare 250 ml Pb, Zn
- (2) spare 250 ml CN

Note - CLP
for HSL VOA's
and Semi-VOA's
Only, not for PCB's

SHIP BY COST COOLER # PREP CK BY GU MONTHLY QUARTER

delivered 9/14/89 PM

TO BE COMPLETED BY CLIENT:

SOURCE OF SAMPLE Chicago Pneumatic
SAMPLING LOCATION Utica, NY
DATE SAMPLE TAKEN 9-18-89, 9-19-89
SAMPLED BY (PERSONNEL) Steve Stucker, Rob Patchett PHONE 446-9120
PURCHASE ORDER #

COMMENTS:

***IF APPLICABLE, ICE PACKS AND COOLERS WILL BE BILLED IF NOT RETURNED. IF APPLICABLE, WEIGHED FILTERS SHOULD BE USED OR RETURNED WITHIN 3 MONTHS OF RECEIPT.**

000004

ORGANIC DATA REPORTING QUALIFIERS

The Organic data qualifiers used in this report are as follows:

- Value - If the result is a value greater than or equal to the detection limit, the value is reported.
- U - Indicates the compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.
- J - Indicates an estimated value. This flag is used to estimate a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicate identification criteria, but the result is less than the specified detection limit.
- C - Applies to pesticide parameters when the identification has been confirmed by GC/MS.
- B - Used when the analyte is found in the blank, as well as a sample. It indicates possible/probable blank contamination and warns data user to take appropriate action.
- E - Identifies compounds whose concentrations exceed the calibration range of the instruments for specific analysis.
- N - Compound not analyzed.
- D - Identifies all compounds analyzed at a secondary dilution.
- A - Indicates that a TIC is a suspected aldol-condensation product.
- X - Any other specific flags and footnotes that may be required to properly define the results.
- RE - Analysis performed on a re-extracted sample.

000005

GC/MS
VOLATILES
SAMPLE DATA SUMMARY

000006

VOLATILE ORGANICS ANALYSIS DATA SHEET
PAGE 1

SAMPLE

MW-1

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89092008

Matrix: (soil/water) WATER

Lab Sample ID: H23114

Sample wt/vol: 5 mL

Lab File ID: >BC469::A3

Level: (low/med) LOW

Date Received: 09/19/89

% Moisture: not dec.:

Date Analyzed: 09/28/89

Column: (pack/cap) PACK

Dilution Factor: 1.00

CAS No.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/Kg)	ug/L
			Q
74-87-3	Chloromethane	10.	U
74-83-9	Bromomethane	10.	U
75-01-4	Vinyl Chloride	10.	U
75-00-3	Chloroethane	10.	U
75-09-2	Methylene Chloride	5.	U
67-64-1	Acetone	10.	U
75-15-0	Carbon Disulfide	5.	U
75-35-4	1,1-Dichloroethene	5.	U
75-34-3	1,1-Dichloroethane	5.	U
540-59-0	1,2-Dichloroethene (total)	5.	U
67-66-3	Chloroform	5.	U
107-02-2	1,2-Dichloroethane	5.	U
78-93-3	2-Butanone	10.	U
71-55-6	1,1,1-Trichloroethane	5.	U
56-23-6	Carbon Tetrachloride	5.	U
108-05-4	Vinyl Acetate	10.	U
75-27-4	Bromodichloromethane	5.	U
78-87-5	1,2-Dichloropropane	5.	U
10061-01-5	cis-1,3-Dichloropropene	5.	U
79-01-6	Trichloroethene	5.	U
124-48-1	Dibromochloromethane	5.	U
79-00-5	1,1,2-Trichloroethane	5.	U
71-43-2	Benzene	5.	U
10061-02-6	trans-1,3-Dichloropropene	5.	U
75-25-2	Bromoform	5.	U
108-10-1	4-Methyl-2-Pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	5.	U
79-34-5	1,1,2,2-Tetrachloroethane	5.	U
108-88-3	Toluene	5.	U
108-90-7	Chlorobenzene	5.	U

Qualifiers:

- U- Undetected. Value is the quantitation limit for that compound.
- J- Estimated value. Value is below the compound quantitation limit.
- B- Compound also found in blank.
- D- Diluted value.

000007

VOLATILE ORGANICS ANALYSIS DATA SHEET
PAGE 2

SAMPLE

MW-1

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89092008

Matrix: (soil/water) WATER

Lab Sample ID: H23114

Sample wt/vol: 5 mL

Lab File ID: >BC469::A3

Level: (low/med) LOW

Date Received: 09/19/89

% Moisture: not dec.:

Date Analyzed: 09/28/89

Column: (pack/cap) PACK

Dilution Factor: 1.00

CAS No.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/Kg)	ug/L	
100-41-4-----	Ethylbenzene	5.	U	
100-42-5-----	Styrene	5.	U	
1330-20-7-----	Xylene (total)	5.	U	

Qualifiers:

- U- Undetected. Value is the quantitation limit for that compound.
- J- Estimated value. Value is below the compound quantitation limit.
- B- Compound also found in blank.
- D- Diluted value.

000008

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE

MW- 1

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89092008

Matrix: (soil/water) WATER

Lab Sample ID: H23114

Sample wt/vol: 5 mL

Lab File ID: >BC469::A3

Level: (low/med) LOW

Date Received: 09/19/89

% Moisture: not dec.:

Date Analyzed: 09/28/89

Column: PACK

Dilution Factor: 1.00

Number TICs Found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	No volatiles found			
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
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VOLATILE ORGANICS ANALYSIS DATA SHEET
PAGE 1

SAMPLE

MW-2

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89092008

Matrix: (soil/water) WATER

Lab Sample ID: H23112

Sample wt/vol: 5 mL

Lab File ID: >BC467::A3

Level: (low/med) LOW

Date Received: 09/19/89

% Moisture: not dec.:

Date Analyzed: 09/28/89

Column: (pack/cap) PACK

Dilution Factor: 1.00

CAS No.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/Kg)	ug/L
			Q
74-87-3	Chloromethane	10.	U
74-83-9	Bromomethane	10.	U
75-01-4	Vinyl Chloride	10.	U
75-00-3	Chloroethane	10.	U
75-09-2	Methylene Chloride	5.	U
67-64-1	Acetone	10.	U
75-15-0	Carbon Disulfide	5.	U
75-35-4	1,1-Dichloroethene	5.	U
75-34-3	1,1-Dichloroethane	5.	U
540-59-0	1,2-Dichloroethene (total)	5.	U
67-66-3	Chloroform	5.	U
107-02-2	1,2-Dichloroethane	5.	U
78-93-3	2-Butanone	10.	U
71-55-6	1,1,1-Trichloroethane	5.	U
56-23-6	Carbon Tetrachloride	5.	U
108-05-4	Vinyl Acetate	10.	U
75-27-4	Bromodichloromethane	5.	U
78-87-5	1,2-Dichloropropane	5.	U
10061-01-5	cis-1,3-Dichloropropene	5.	U
79-01-6	Trichloroethene	5.	U
124-48-1	Dibromochloromethane	5.	U
79-00-5	1,1,2-Trichloroethane	5.	U
71-43-2	Benzene	5.	U
10061-02-6	trans-1,3-Dichloropropene	5.	U
75-25-2	Bromoform	5.	U
108-10-1	4-Methyl-2-Pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	5.	U
79-34-5	1,1,2,2-Tetrachloroethane	5.	U
108-88-3	Toluene	5.	U
108-90-7	Chlorobenzene	5.	U

Qualifiers:

- U- Undetected. Value is the quantitation limit for that compound.
- J- Estimated value. Value is below the compound quantitation limit.
- B- Compound also found in blank.
- D- Diluted value.

000010

VOLATILE ORGANICS ANALYSIS DATA SHEET
PAGE 2

SAMPLE

MW-2

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89092008

Matrix: (soil/water) WATER

Lab Sample ID: H23112

Sample wt/vol: 5 mL

Lab File ID: >BC467::A3

Level: (low/med) LOW

Date Received: 09/19/89

% Moisture: not dec.:

Date Analyzed: 09/28/89

Column: (pack/cap) PACK

Dilution Factor: 1.00

CAS No.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/Kg)	ug/L	
100-41-4-----	Ethylbenzene	5.	U	
100-42-5-----	Styrene	5.	U	
1330-20-7-----	Xylene (total)	5.	U	

Qualifiers:

- U- Undetected. Value is the quantitation limit for that compound.
- J- Estimated value. Value is below the compound quantitation limit.
- B- Compound also found in blank.
- D- Diluted value.

000011

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE

MW-2

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89092008

Matrix: (soil/water) WATER

Lab Sample ID: H23112

Sample wt/vol: 5 mL

Lab File ID: >BC467::A3

Level: (low/med) LOW

Date Received: 09/19/89

% Moisture: not dec.:

Date Analyzed: 09/28/89

Column: PACK

Dilution Factor: 1.00

Number TICs Found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	No volatiles found			
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000012

VOLATILE ORGANICS ANALYSIS DATA SHEET
PAGE 1

SAMPLE

MW-3

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89092008

Matrix: (soil/water) WATER

Lab Sample ID: H23116

Sample wt/vol: 5 mL

Lab File ID: >BC482::A2

Level: (low/med) LOW

Date Received: 09/19/89

% Moisture: not dec.:

Date Analyzed: 09/29/89

Column: (pack/cap) PACK

Dilution Factor: 1.00

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
74-87-3	Chloromethane	10.	U
74-83-9	Bromomethane	10.	U
75-01-4	Vinyl Chloride	10.	U
75-00-3	Chloroethane	10.	U
75-09-2	Methylene Chloride	5.	U
67-64-1	Acetone	10.	U
75-15-0	Carbon Disulfide	5.	U
75-35-4	1,1-Dichloroethene	5.	U
75-34-3	1,1-Dichloroethane	5.	U
540-59-0	1,2-Dichloroethene (total)	5.	U
67-66-3	Chloroform	5.	U
107-02-2	1,2-Dichloroethane	5.	U
78-93-3	2-Butanone	10.	U
71-55-6	1,1,1-Trichloroethane	5.	U
56-23-6	Carbon Tetrachloride	5.	U
108-05-4	Vinyl Acetate	10.	U
75-27-4	Bromodichloromethane	5.	U
78-87-5	1,2-Dichloropropane	5.	U
10061-01-5	cis-1,3-Dichloropropene	5.	U
79-01-6	Trichloroethene	5.	U
124-48-1	Dibromochloromethane	5.	U
79-00-5	1,1,2-Trichloroethane	5.	U
71-43-2	Benzene	5.	U
10061-02-6	trans-1,3-Dichloropropene	5.	U
75-25-2	Bromoform	5.	U
108-10-1	4-Methyl-2-Pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	5.	U
79-34-5	1,1,2,2-Tetrachloroethane	5.	U
108-88-3	Toluene	5.	U
108-90-7	Chlorobenzene	5.	U

Qualifiers:

- U- Undetected. Value is the quantitation limit for that compound.
- J- Estimated value. Value is below the compound quantitation limit.
- B- Compound also found in blank.
- D- Diluted value.

000013

VOLATILE ORGANICS ANALYSIS DATA SHEET
PAGE 2

SAMPLE

MW-3

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89092008

Matrix: (soil/water) WATER

Lab Sample ID: H23116

Sample wt/vol: 5 mL

Lab File ID: >BC482::A2

Level: (low/med) LOW

Date Received: 09/19/89

% Moisture: not dec.:

Date Analyzed: 09/29/89

Column: (pack/cap) PACK

Dilution Factor: 1.00

CAS No.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/Kg)	ug/L	
100-41-4-----	Ethylbenzene	5.	U	
100-42-5-----	Styrene	5.	U	
1330-20-7-----	Xylene (total)	5.	U	

Qualifiers:

- U- Undetected. Value is the quantitation limit for that compound.
- J- Estimated value. Value is below the compound quantitation limit.
- B- Compound also found in blank.
- D- Diluted value.

000014

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE

MW-3

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89092008

Matrix: (soil/water) WATER

Lab Sample ID: H23116

Sample wt/vol: 5 mL

Lab File ID: >BC482::A2

Level: (low/med) LOW

Date Received: 09/19/89

% Moisture: not dec.:

Date Analyzed: 09/29/89

Column: PACK

Dilution Factor: 1.00

Number TICs Found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	No volatiles found			
2.				
3.				
4.				
5.				
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000015

VOLATILE ORGANICS ANALYSIS DATA SHEET
PAGE 1

SAMPLE

MW-4

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89091903

Matrix: (soil/water) WATER

Lab Sample ID: H22943

Sample wt/vol: 5 mL

Lab File ID: >BC449::D7

Level: (low/med) LOW

Date Received: 09/18/89

% Moisture: not dec.:

Date Analyzed: 09/27/89

Column: (pack/cap) PACK

Dilution Factor: 1.00

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
74-87-3	Chloromethane	10.	U
74-83-9	Bromomethane	10.	U
75-01-4	Vinyl Chloride	10.	U
75-00-3	Chloroethane	10.	U
75-09-2	Methylene Chloride	5.	U
67-64-1	Acetone	10.	U
75-15-0	Carbon Disulfide	5.	U
75-35-4	1,1-Dichloroethene	5.	U
75-34-3	1,1-Dichloroethane	5.	U
540-59-0	1,2-Dichloroethene (total)	5.	U
67-66-3	Chloroform	5.	U
107-02-2	1,2-Dichloroethane	5.	U
78-93-3	2-Butanone	10.	U
71-55-6	1,1,1-Trichloroethane	5.	U
56-23-6	Carbon Tetrachloride	5.	U
108-05-4	Vinyl Acetate	10.	U
75-27-4	Bromodichloromethane	5.	U
78-87-5	1,2-Dichloropropane	5.	U
10061-01-5	cis-1,3-Dichloropropene	5.	U
79-01-6	Trichloroethene	5.	U
124-48-1	Dibromochloromethane	5.	U
79-00-5	1,1,2-Trichloroethane	5.	U
71-43-2	Benzene	5.	U
10061-02-6	trans-1,3-Dichloropropene	5.	U
75-25-2	Bromoform	5.	U
108-10-1	4-Methyl-2-Pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	5.	U
79-34-5	1,1,2,2-Tetrachloroethane	5.	U
108-88-3	Toluene	5.	U
108-90-7	Chlorobenzene	5.	U

Qualifiers:

- U- Undetected. Value is the quantitation limit for that compound.
- J- Estimated value. Value is below the compound quantitation limit.
- B- Compound also found in blank.
- D- Diluted value.

000010

VOLATILE ORGANICS ANALYSIS DATA SHEET
PAGE 2

SAMPLE

MW-4

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89091903

Matrix: (soil/water) WATER

Lab Sample ID: H22943

Sample wt/vol: 5 mL

Lab File ID: >BC449::D7

Level: (low/med) LOW

Date Received: 09/18/89

% Moisture: not dec.:

Date Analyzed: 09/27/89

Column: (pack/cap) PACK

Dilution Factor: 1.00

CAS No.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/Kg) ug/L	Q
100-41-4-----	Ethylbenzene_____	5.	U
100-42-5-----	Styrene_____	5.	U
1330-20-7-----	Xylene (total)_____	5.	U

Qualifiers:

- U- Undetected. Value is the quantitation limit for that compound.
- J- Estimated value. Value is below the compound quantitation limit.
- B- Compound also found in blank.
- D- Diluted value.

000017

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE

MW-4

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89091903

Matrix: (soil/water) WATER

Lab Sample ID: H22943

Sample wt/vol: 5 mL

Lab File ID: >BC449::D7

Level: (low/med) LOW

Date Received: 09/18/89

% Moisture: not dec.:

Date Analyzed: 09/27/89

Column: PACK

Dilution Factor: 1.00

Number TICs Found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 620144	Benzene, 1-ethyl-3-methyl- (	31.18	46.	
2. 611143	Benzene, 1-ethyl-2-methyl- (	33.85	19.	
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006018

VOLATILE ORGANICS ANALYSIS DATA SHEET
PAGE 1

SAMPLE

MW-5

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89091903

Matrix: (soil/water) WATER

Lab Sample ID: H22942

Sample wt/vol: 5 mL

Lab File ID: >BC448::D3

Level: (low/med) LOW

Date Received: 09/18/89

% Moisture: not dec.:

Date Analyzed: 09/27/89

Column: (pack/cap) PACK

Dilution Factor: 1.00

CAS No.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/Kg) ug/L	Q
74-87-3	Chloromethane	10.	U
74-83-9	Bromomethane	10.	U
75-01-4	Vinyl Chloride	26.	
75-00-3	Chloroethane	10.	U
75-09-2	Methylene Chloride	5.	U
67-64-1	Acetone	10.	U
75-15-0	Carbon Disulfide	5.	U
75-35-4	1,1-Dichloroethene	5.	U
75-34-3	1,1-Dichloroethane	5.	U
540-59-0	1,2-Dichloroethene (total)	6.	
67-66-3	Chloroform	5.	U
107-02-2	1,2-Dichloroethane	5.	U
78-93-3	2-Butanone	10.	U
71-55-6	1,1,1-Trichloroethane	5.	U
56-23-6	Carbon Tetrachloride	5.	U
108-05-4	Vinyl Acetate	10.	U
75-27-4	Bromodichloromethane	5.	U
78-87-5	1,2-Dichloropropane	5.	U
10061-01-5	cis-1,3-Dichloropropene	5.	U
79-01-6	Trichloroethene	5.	U
124-48-1	Dibromochloromethane	5.	U
79-00-5	1,1,2-Trichloroethane	5.	U
71-43-2	Benzene	5.	U
10061-02-6	trans-1,3-Dichloropropene	5.	U
75-25-2	Bromoform	5.	U
108-10-1	4-Methyl-2-Pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	5.	U
79-34-5	1,1,2,2-Tetrachloroethane	5.	U
108-88-3	Toluene	21.	
108-90-7	Chlorobenzene	5.	U

Qualifiers:

- U- Undetected. Value is the quantitation limit for that compound.
- J- Estimated value. Value is below the compound quantitation limit.
- B- Compound also found in blank.
- D- Diluted value.

000010

VOLATILE ORGANICS ANALYSIS DATA SHEET
PAGE 2

SAMPLE

MW-5

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89091903

Matrix: (soil/water) WATER

Lab Sample ID: H22942

Sample wt/vol: 5 mL

Lab File ID: >BC448::D3

Level: (low/med) LOW

Date Received: 09/18/89

% Moisture: not dec.:

Date Analyzed: 09/27/89

Column: (pack/cap) PACK

Dilution Factor: 1.00

CAS No.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/Kg)	ug/L	
100-41-4-----	Ethylbenzene_____	5.		U
100-42-5-----	Styrene_____	5.		U
1330-20-7-----	Xylene (total)_____	23.		

Qualifiers:

- U- Undetected. Value is the quantitation limit for that compound.
- J- Estimated value. Value is below the compound quantitation limit.
- B- Compound also found in blank.
- D- Diluted value.

000020

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE

MW-5

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89091903

Matrix: (soil/water) WATER

Lab Sample ID: H22942

Sample wt/vol: 5 mL

Lab File ID: >BC448::D3

Level: (low/med) LOW

Date Received: 09/18/89

% Moisture: not dec.:

Date Analyzed: 09/27/89

Column: PACK

Dilution Factor: 1.00

Number TICs Found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Unknown	35.15	43.	
2. 611143	Benzene, 1-ethyl-2-methyl-	36.39	35.	
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000021

VOLATILE ORGANICS ANALYSIS DATA SHEET
PAGE 1

SAMPLE

MW-6

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89091903

Matrix: (soil/water) WATER

Lab Sample ID: H22941

Sample wt/vol: 5 mL

Lab File ID: >BC446::D7

Level: (low/med) LOW

Date Received: 09/18/89

% Moisture: not dec.:

Date Analyzed: 09/27/89

Column: (pack/cap) PACK

Dilution Factor: 1.00

CAS No.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/Kg)	ug/L
			Q
74-87-3	Chloromethane	10.	U
74-83-9	Bromomethane	10.	U
75-01-4	Vinyl Chloride	10.	U
75-00-3	Chloroethane	10.	U
75-09-2	Methylene Chloride	5.	U
67-64-1	Acetone	10.	U
75-15-0	Carbon Disulfide	5.	U
75-35-4	1,1-Dichloroethene	5.	U
75-34-3	1,1-Dichloroethane	5.	U
540-59-0	1,2-Dichloroethene (total)	5.	U
67-66-3	Chloroform	5.	U
107-02-2	1,2-Dichloroethane	5.	U
78-93-3	2-Butanone	10.	U
71-55-6	1,1,1-Trichloroethane	5.	U
56-23-6	Carbon Tetrachloride	5.	U
108-05-4	Vinyl Acetate	10.	U
75-27-4	Bromodichloromethane	5.	U
78-87-5	1,2-Dichloropropane	5.	U
10061-01-5	cis-1,3-Dichloropropene	5.	U
79-01-6	Trichloroethene	5.	U
124-48-1	Dibromochloromethane	5.	U
79-00-5	1,1,2-Trichloroethane	5.	U
71-43-2	Benzene	5.	U
10061-02-6	trans-1,3-Dichloropropene	5.	U
75-25-2	Bromoform	5.	U
108-10-1	4-Methyl-2-Pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	5.	U
79-34-5	1,1,2,2-Tetrachloroethane	5.	U
108-88-3	Toluene	5.	U
108-90-7	Chlorobenzene	5.	U

Qualifiers:

- U- Undetected. Value is the quantitation limit for that compound.
- J- Estimated value. Value is below the compound quantitation limit.
- B- Compound also found in blank.
- D- Diluted value.

000022

VOLATILE ORGANICS ANALYSIS DATA SHEET
PAGE 2

SAMPLE

MW-6

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89091903

Matrix: (soil/water) WATER

Lab Sample ID: H22941

Sample wt/vol: 5 mL

Lab File ID: >BC446::D7

Level: (low/med) LOW

Date Received: 09/18/89

% Moisture: not dec.:

Date Analyzed: 09/27/89

Column: (pack/cap) PACK

Dilution Factor: 1.00

CAS No.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/Kg) ug/L	Q
100-41-4-----	Ethylbenzene_____	5.	U
100-42-5-----	Styrene_____	5.	U
1330-20-7-----	Xylene (total)_____	5.	U

Qualifiers:

- U- Undetected. Value is the quantitation limit for that compound.
- J- Estimated value. Value is below the compound quantitation limit.
- B- Compound also found in blank.
- D- Diluted value.

000023

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE

MW-6

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89091903

Matrix: (soil/water) WATER

Lab Sample ID: H22941

Sample wt/vol: 5 mL

Lab File ID: >BC446::D7

Level: (low/med) LOW

Date Received: 09/18/89

% Moisture: not dec.:

Date Analyzed: 09/27/89

Column: PACK

Dilution Factor: 1.00

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

Number TICs Found: 0

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	No volatiles found			
2.				
3.				
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000024

VOLATILE ORGANICS ANALYSIS DATA SHEET
PAGE 1

SAMPLE

MW-7

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89091903

Matrix: (soil/water) WATER

Lab Sample ID: H22940

Sample wt/vol: 5 mL

Lab File ID: >BC461::A1

Level: (low/med) LOW

Date Received: 09/18/89

% Moisture: not dec.:

Date Analyzed: 09/28/89

Column: (pack/cap) PACK

Dilution Factor: 1.00

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
74-87-3	Chloromethane	10.	U
74-83-9	Bromomethane	10.	U
75-01-4	Vinyl Chloride	10.	U
75-00-3	Chloroethane	10.	U
75-09-2	Methylene Chloride	5.	U
67-64-1	Acetone	10.	U
75-15-0	Carbon Disulfide	5.	U
75-35-4	1,1-Dichloroethene	5.	U
75-34-3	1,1-Dichloroethane	5.	U
540-59-0	1,2-Dichloroethene (total)	5.	U
67-66-3	Chloroform	5.	U
107-02-2	1,2-Dichloroethane	5.	U
78-93-3	2-Butanone	10.	U
71-55-6	1,1,1-Trichloroethane	5.	U
56-23-6	Carbon Tetrachloride	5.	U
108-05-4	Vinyl Acetate	10.	U
75-27-4	Bromodichloromethane	5.	U
78-87-5	1,2-Dichloropropane	5.	U
10061-01-5	cis-1,3-Dichloropropene	5.	U
79-01-6	Trichloroethene	5.	U
124-48-1	Dibromochloromethane	5.	U
79-00-5	1,1,2-Trichloroethane	5.	U
71-43-2	Benzene	5.	U
10061-02-6	trans-1,3-Dichloropropene	5.	U
75-25-2	Bromoform	5.	U
108-10-1	4-Methyl-2-Pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	5.	U
79-34-5	1,1,2,2-Tetrachloroethane	5.	U
108-88-3	Toluene	5.	U
108-90-7	Chlorobenzene	5.	U

Qualifiers:

- U- Undetected. Value is the quantitation limit for that compound.
- J- Estimated value. Value is below the compound quantitation limit.
- B- Compound also found in blank.
- D- Diluted value.

000025

VOLATILE ORGANICS ANALYSIS DATA SHEET
PAGE 2

SAMPLE

MW-7

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89091903

Matrix: (soil/water) WATER

Lab Sample ID: H22940

Sample wt/vol: 5 mL

Lab File ID: >BC461::A1

Level: (low/med) LOW

Date Received: 09/18/89

% Moisture: not dec.:

Date Analyzed: 09/28/89

Column: (pack/cap) PACK

Dilution Factor: 1.00

CAS No.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/Kg)	ug/L	
100-41-4-----	Ethylbenzene	5.	U	
100-42-5-----	Styrene	5.	U	
1330-20-7-----	Xylene (total)	5.	U	

Qualifiers:

- U- Undetected. Value is the quantitation limit for that compound.
- J- Estimated value. Value is below the compound quantitation limit.
- B- Compound also found in blank.
- D- Diluted value.

000026

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE

MW-7

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Matrix: (soil/water) WATER

Sample wt/vol: 5 mL

Level: (low/med) LOW

% Moisture: not dec.:

Column: PACK

Task No.: 89091903

Lab Sample ID: H22940

Lab File ID: >BC461::A1

Date Received: 09/18/89

Date Analyzed: 09/28/89

Dilution Factor: 1.00

Number TICs Found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	No volatiles found			
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000027

VOLATILE ORGANICS ANALYSIS DATA SHEET
PAGE 1

SAMPLE

MW-8

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89092008

Matrix: (soil/water) WATER

Lab Sample ID: H23115

Sample wt/vol: 5 mL

Lab File ID: >BC470::A3

Level: (low/med) LOW

Date Received: 09/19/89

% Moisture: not dec.:

Date Analyzed: 09/28/89

Column: (pack/cap) PACK

Dilution Factor: 1.00

CAS No.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/Kg)	ug/L
			Q
74-87-3	Chloromethane	10.	U
74-83-9	Bromomethane	10.	U
75-01-4	Vinyl Chloride	10.	U
75-00-3	Chloroethane	10.	U
75-09-2	Methylene Chloride	5.	U
67-64-1	Acetone	10.	U
75-15-0	Carbon Disulfide	5.	U
75-35-4	1,1-Dichloroethene	5.	U
75-34-3	1,1-Dichloroethane	5.	U
540-59-0	1,2-Dichloroethene (total)	5.	U
67-66-3	Chloroform	5.	U
107-02-2	1,2-Dichloroethane	5.	U
78-93-3	2-Butanone	10.	U
71-55-6	1,1,1-Trichloroethane	5.	U
56-23-6	Carbon Tetrachloride	5.	U
108-05-4	Vinyl Acetate	10.	U
75-27-4	Bromodichloromethane	5.	U
78-87-5	1,2-Dichloropropane	5.	U
10061-01-5	cis-1,3-Dichloropropene	5.	U
79-01-6	Trichloroethene	5.	U
124-48-1	Dibromochloromethane	5.	U
79-00-5	1,1,2-Trichloroethane	5.	U
71-43-2	Benzene	5.	U
10061-02-6	trans-1,3-Dichloropropene	5.	U
75-25-2	Bromoform	5.	U
108-10-1	4-Methyl-2-Pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	5.	U
79-34-5	1,1,2,2-Tetrachloroethane	5.	U
108-88-3	Toluene	5.	U
108-90-7	Chlorobenzene	5.	U

Qualifiers:

- U- Undetected. Value is the quantitation limit for that compound.
- J- Estimated value. Value is below the compound quantitation limit.
- B- Compound also found in blank.
- D- Diluted value.

000028

VOLATILE ORGANICS ANALYSIS DATA SHEET
PAGE 2

SAMPLE

MW-8

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89092008

Matrix: (soil/water) WATER

Lab Sample ID: H23115

Sample wt/vol: 5 mL

Lab File ID: >BC470::A3

Level: (low/med) LOW

Date Received: 09/19/89

% Moisture: not dec.:

Date Analyzed: 09/28/89

Column: (pack/cap) PACK

Dilution Factor: 1.00

CAS No.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/Kg)	ug/L	
100-41-4-----	Ethylbenzene_____	5.	U	
100-42-5-----	Styrene_____	5.	U	
1330-20-7-----	Xylene (total)_____	5.	U	

Qualifiers:

- U- Undetected. Value is the quantitation limit for that compound.
- J- Estimated value. Value is below the compound quantitation limit.
- B- Compound also found in blank.
- D- Diluted value.

000029

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE

MW-8

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89092008

Matrix: (soil/water) WATER

Lab Sample ID: H23115

Sample wt/vol: 5 mL

Lab File ID: >BC470::A3

Level: (low/med) LOW

Date Received: 09/19/89

% Moisture: not dec.:

Date Analyzed: 09/28/89

Column: PACK

Dilution Factor: 1.00

Number TICs Found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	No volatiles found			
2.				
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000030

VOLATILE ORGANICS ANALYSIS DATA SHEET
PAGE 1

SAMPLE

MW-9

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89092008

Matrix: (soil/water) WATER

Lab Sample ID: H23113

Sample wt/vol: 5 mL

Lab File ID: >BC468::A3

Level: (low/med) LOW

Date Received: 09/19/89

% Moisture: not dec.:

Date Analyzed: 09/28/89

Column: (pack/cap) PACK

Dilution Factor: 1.00

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
74-87-3	-----Chloromethane	10.	U
74-83-9	-----Bromomethane	10.	U
75-01-4	-----Vinyl Chloride	10.	U
75-00-3	-----Chloroethane	10.	U
75-09-2	-----Methylene Chloride	5.	U
67-64-1	-----Acetone	10.	U
75-15-0	-----Carbon Disulfide	5.	U
75-35-4	-----1,1-Dichloroethene	5.	U
75-34-3	-----1,1-Dichloroethane	5.	U
540-59-0	-----1,2-Dichloroethene (total)	5.	U
67-66-3	-----Chloroform	5.	U
107-02-2	-----1,2-Dichloroethane	5.	U
78-93-3	-----2-Butanone	10.	U
71-55-6	-----1,1,1-Trichloroethane	5.	U
56-23-6	-----Carbon Tetrachloride	5.	U
108-05-4	-----Vinyl Acetate	10.	U
75-27-4	-----Bromodichloromethane	5.	U
78-87-5	-----1,2-Dichloropropane	5.	U
10061-01-5	-----cis-1,3-Dichloropropene	5.	U
79-01-6	-----Trichloroethene	5.	U
124-48-1	-----Dibromochloromethane	5.	U
79-00-5	-----1,1,2-Trichloroethane	5.	U
71-43-2	-----Benzene	5.	U
10061-02-6	-----trans-1,3-Dichloropropene	5.	U
75-25-2	-----Bromoform	5.	U
108-10-1	-----4-Methyl-2-Pentanone	10.	U
591-78-6	-----2-Hexanone	10.	U
127-18-4	-----Tetrachloroethene	5.	U
79-34-5	-----1,1,2,2-Tetrachloroethane	5.	U
108-88-3	-----Toluene	5.	U
108-90-7	-----Chlorobenzene	5.	U

Qualifiers:

U- Undetected. Value is the quantitation limit for that compound.
J- Estimated value. Value is below the compound quantitation limit.
B- Compound also found in blank.
D- Diluted value.

000031

VOLATILE ORGANICS ANALYSIS DATA SHEET
PAGE 2

SAMPLE

MW-9

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89092008

Matrix: (soil/water) WATER

Lab Sample ID: H23113

Sample wt/vol: 5 mL

Lab File ID: >BC468::A3

Level: (low/med) LOW

Date Received: 09/19/89

% Moisture: not dec.:

Date Analyzed: 09/28/89

Column: (pack/cap) PACK

Dilution Factor: 1.00

CAS No.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/Kg)	ug/L
100-41-4-----	Ethylbenzene	5.	U
100-42-5-----	Styrene	5.	U
1330-20-7-----	Xylene (total)	5.	U

Qualifiers:

- U- Undetected. Value is the quantitation limit for that compound.
- J- Estimated value. Value is below the compound quantitation limit.
- B- Compound also found in blank.
- D- Diluted value.

000032

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE

MW-9

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89092008

Matrix: (soil/water) WATER

Lab Sample ID: H23113

Sample wt/vol: 5 mL

Lab File ID: >BC468::A3

Level: (low/med) LOW

Date Received: 09/19/89

% Moisture: not dec.:

Date Analyzed: 09/28/89

Column: PACK

Dilution Factor: 1.00

Number TICs Found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	No volatiles found			
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VOLATILE ORGANICS ANALYSIS DATA SHEET
PAGE 1

SAMPLE

MW-10

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89092008

Matrix: (soil/water) WATER

Lab Sample ID: H23111

Sample wt/vol: 5 mL

Lab File ID: >BC466::A3

Level: (low/med) LOW

Date Received: 09/19/89

% Moisture: not dec.:

Date Analyzed: 09/28/89

Column: (pack/cap) PACK

Dilution Factor: 1.00

CAS No.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/Kg)	ug/L
			Q
74-87-3	Chloromethane	10.	U
74-83-9	Bromomethane	10.	U
75-01-4	Vinyl Chloride	10.	U
75-00-3	Chloroethane	10.	U
75-09-2	Methylene Chloride	5.	U
67-64-1	Acetone	10.	U
75-15-0	Carbon Disulfide	5.	U
75-35-4	1,1-Dichloroethene	5.	U
75-34-3	1,1-Dichloroethane	5.	U
540-59-0	1,2-Dichloroethene (total)	5.	U
67-66-3	Chloroform	5.	U
107-02-2	1,2-Dichloroethane	5.	U
78-93-3	2-Butanone	10.	U
71-55-6	1,1,1-Trichloroethane	5.	U
56-23-6	Carbon Tetrachloride	5.	U
108-05-4	Vinyl Acetate	10.	U
75-27-4	Bromodichloromethane	5.	U
78-87-5	1,2-Dichloropropane	5.	U
10061-01-5	cis-1,3-Dichloropropene	5.	U
79-01-6	Trichloroethene	5.	U
124-48-1	Dibromochloromethane	5.	U
79-00-5	1,1,2-Trichloroethane	5.	U
71-43-2	Benzene	5.	U
10061-02-6	trans-1,3-Dichloropropene	5.	U
75-25-2	Bromoform	5.	U
108-10-1	4-Methyl-2-Pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	5.	U
79-34-5	1,1,2,2-Tetrachloroethane	5.	U
108-88-3	Toluene	5.	U
108-90-7	Chlorobenzene	5.	U

Qualifiers:

- U- Undetected. Value is the quantitation limit for that compound.
- J- Estimated value. Value is below the compound quantitation limit.
- B- Compound also found in blank.
- D- Diluted value.

000034

VOLATILE ORGANICS ANALYSIS DATA SHEET
PAGE 2

SAMPLE

MW- 10

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89092008

Matrix: (soil/water) WATER

Lab Sample ID: H23111

Sample wt/vol: 5 mL

Lab File ID: >BC466::A3

Level: (low/med) LOW

Date Received: 09/19/89

% Moisture: not dec.:

Date Analyzed: 09/28/89

Column: (pack/cap) PACK

Dilution Factor: 1.00

CAS No.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/Kg)	ug/L	
100-41-4-----	Ethylbenzene	5.	U	
100-42-5-----	Styrene	5.	U	
1330-20-7-----	Xylene (total)	5.	U	

Qualifiers:

- U- Undetected. Value is the quantitation limit for that compound.
- J- Estimated value. Value is below the compound quantitation limit.
- B- Compound also found in blank.
- D- Diluted value.

000035

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE

MW-10

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89092008

Matrix: (soil/water) WATER

Lab Sample ID: H23111

Sample wt/vol: 5 mL

Lab File ID: >BC466::A3

Level: (low/med) LOW

Date Received: 09/19/89

% Moisture: not dec.:

Date Analyzed: 09/28/89

Column: PACK

Dilution Factor: 1.00

Number TICs Found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	No volatiles found			
2.				
3.				
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000036

VOLATILE ORGANICS ANALYSIS DATA SHEET
PAGE 1

SAMPLE

MW- 11

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89092008

Matrix: (soil/water) WATER

Lab Sample ID: H23117

Sample wt/vol: 5 mL

Lab File ID: >BC480::A2

Level: (low/med) LOW

Date Received: 09/19/89

% Moisture: not dec.:

Date Analyzed: 09/29/89

Column: (pack/cap) PACK

Dilution Factor: 1.00

CAS No.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/Kg)	ug/L
			Q
74-87-3	Chloromethane	10.	U
74-83-9	Bromomethane	10.	U
75-01-4	Vinyl Chloride	10.	U
75-00-3	Chloroethane	10.	U
75-09-2	Methylene Chloride	5.	U
67-64-1	Acetone	10.	U
75-15-0	Carbon Disulfide	5.	U
75-35-4	1,1-Dichloroethene	5.	U
75-34-3	1,1-Dichloroethane	5.	U
540-59-0	1,2-Dichloroethene (total)	5.	U
67-66-3	Chloroform	5.	U
107-02-2	1,2-Dichloroethane	5.	U
78-93-3	2-Butanone	10.	U
71-55-6	1,1,1-Trichloroethane	5.	U
56-23-6	Carbon Tetrachloride	5.	U
108-05-4	Vinyl Acetate	10.	U
75-27-4	Bromodichloromethane	5.	U
78-87-5	1,2-Dichloropropane	5.	U
10061-01-5	cis-1,3-Dichloropropene	5.	U
79-01-6	Trichloroethene	5.	U
124-48-1	Dibromochloromethane	5.	U
79-00-5	1,1,2-Trichloroethane	5.	U
71-43-2	Benzene	5.	U
10061-02-6	trans-1,3-Dichloropropene	5.	U
75-25-2	Bromoform	5.	U
108-10-1	4-Methyl-2-Pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	5.	U
79-34-5	1,1,2,2-Tetrachloroethane	5.	U
108-88-3	Toluene	5.	U
108-90-7	Chlorobenzene	5.	U

Qualifiers:

- U- Undetected. Value is the quantitation limit for that compound.
- J- Estimated value. Value is below the compound quantitation limit.
- B- Compound also found in blank.
- D- Diluted value.

000037

VOLATILE ORGANICS ANALYSIS DATA SHEET
PAGE 2

SAMPLE

MW-11

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89092008

Matrix: (soil/water) WATER

Lab Sample ID: H23117

Sample wt/vol: 5 mL

Lab File ID: >BC480::A2

Level: (low/med) LOW

Date Received: 09/19/89

% Moisture: not dec.:

Date Analyzed: 09/29/89

Column: (pack/cap) PACK

Dilution Factor: 1.00

CAS No.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/Kg)	ug/L
100-41-4-----	Ethylbenzene	5.	U
100-42-5-----	Styrene	5.	U
1330-20-7-----	Xylene (total)	5.	U

Qualifiers:

- U- Undetected. Value is the quantitation limit for that compound.
- J- Estimated value. Value is below the compound quantitation limit.
- B- Compound also found in blank.
- D- Diluted value.

000020

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE

MW-11

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Matrix: (soil/water) WATER

Sample wt/vol: 5 mL

Level: (low/med) LOW

% Moisture: not dec.:

Column: PACK

Task No.: 89092008

Lab Sample ID: H23117

Lab File ID: >BC480::A2

Date Received: 09/19/89

Date Analyzed: 09/29/89

Dilution Factor: 1.00

Number TICs Found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	No volatiles found			
2.				
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VOLATILE ORGANICS ANALYSIS DATA SHEET
PAGE 1

SAMPLE

MW-12

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89091903

Matrix: (soil/water) WATER

Lab Sample ID: H22944

Sample wt/vol: 5 mL

Lab File ID: >BC450::A1

Level: (low/med) LOW

Date Received: 09/18/89

% Moisture: not dec.:

Date Analyzed: 09/27/89

Column: (pack/cap) PACK

Dilution Factor: 1.00

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
74-87-3	Chloromethane	10.	U
74-83-9	Bromomethane	10.	U
75-01-4	Vinyl Chloride	10.	U
75-00-3	Chloroethane	10.	U
75-09-2	Methylene Chloride	5.	U
67-64-1	Acetone	10.	U
75-15-0	Carbon Disulfide	5.	U
75-35-4	1,1-Dichloroethene	5.	U
75-34-3	1,1-Dichloroethane	5.	U
540-59-0	1,2-Dichloroethene (total)	5.	U
67-66-3	Chloroform	5.	U
107-02-2	1,2-Dichloroethane	5.	U
78-93-3	2-Butanone	10.	U
71-55-6	1,1,1-Trichloroethane	5.	U
56-23-6	Carbon Tetrachloride	5.	U
108-05-4	Vinyl Acetate	10.	U
75-27-4	Bromodichloromethane	5.	U
78-87-5	1,2-Dichloropropane	5.	U
10061-01-5	cis-1,3-Dichloropropene	5.	U
79-01-6	Trichloroethene	5.	U
124-48-1	Dibromochloromethane	5.	U
79-00-5	1,1,2-Trichloroethane	5.	U
71-43-2	Benzene	5.	U
10061-02-6	trans-1,3-Dichloropropene	5.	U
75-25-2	Bromoform	5.	U
108-10-1	4-Methyl-2-Pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	5.	U
79-34-5	1,1,2,2-Tetrachloroethane	5.	U
108-88-3	Toluene	5.	U
108-90-7	Chlorobenzene	5.	U

Qualifiers:

- U- Undetected. Value is the quantitation limit for that compound.
- J- Estimated value. Value is below the compound quantitation limit.
- B- Compound also found in blank.
- D- Diluted value.

00001

VOLATILE ORGANICS ANALYSIS DATA SHEET
PAGE 2

SAMPLE

MW-12

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89091903

Matrix: (soil/water) WATER

Lab Sample ID: H22944

Sample wt/vol: 5 mL

Lab File ID: >BC450::A1

Level: (low/med) LOW

Date Received: 09/18/89

% Moisture: not dec.:

Date Analyzed: 09/27/89

Column: (pack/cap) PACK

Dilution Factor: 1.00

CAS No.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/Kg) ug/L	Q
100-41-4-----	Ethylbenzene_____	5.	U
100-42-5-----	Styrene_____	5.	U
1330-20-7-----	Xylene (total)_____	5.	U

Qualifiers:

- U- Undetected. Value is the quantitation limit for that compound.
- J- Estimated value. Value is below the compound quantitation limit.
- B- Compound also found in blank.
- D- Diluted value.

00001

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE

MW- 12

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89091903

Matrix: (soil/water) WATER

Lab Sample ID: H22944

Sample wt/vol: 5 mL

Lab File ID: >BC450::A1

Level: (low/med) LOW

Date Received: 09/18/89

% Moisture: not dec.:

Date Analyzed: 09/27/89

Column: PACK

Dilution Factor: 1.00

Number TICs Found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	No volatiles found			
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000012

VOLATILE ORGANICS ANALYSIS DATA SHEET
PAGE 1

SAMPLE

SW-1

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89091903

Matrix: (soil/water) WATER

Lab Sample ID: H22947

Sample wt/vol: 5 mL

Lab File ID: >BC462::A1

Level: (low/med) LOW

Date Received: 09/18/89

% Moisture: not dec.:

Date Analyzed: 09/28/89

Column: (pack/cap) PACK

Dilution Factor: 1.00

CAS No.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/Kg)	ug/L	
74-87-3	Chloromethane	10.	U	
74-83-9	Bromomethane	10.	U	
75-01-4	Vinyl Chloride	10.	U	
75-00-3	Chloroethane	10.	U	
75-09-2	Methylene Chloride	5.	U	
67-64-1	Acetone	10.	U	
75-15-0	Carbon Disulfide	5.	U	
75-35-4	1,1-Dichloroethene	5.	U	
75-34-3	1,1-Dichloroethane	5.	U	
540-59-0	1,2-Dichloroethene (total)	15.		
67-66-3	Chloroform	5.	U	
107-02-2	1,2-Dichloroethane	5.	U	
78-93-3	2-Butanone	10.	U	
71-55-6	1,1,1-Trichloroethane	5.	U	
56-23-6	Carbon Tetrachloride	5.	U	
108-05-4	Vinyl Acetate	10.	U	
75-27-4	Bromodichloromethane	5.	U	
78-87-5	1,2-Dichloropropane	5.	U	
10061-01-5	cis-1,3-Dichloropropene	5.	U	
79-01-6	Trichloroethene	190.		
124-48-1	Dibromochloromethane	5.	U	
79-00-5	1,1,2-Trichloroethane	5.	U	
71-43-2	Benzene	5.	U	
10061-02-6	trans-1,3-Dichloropropene	5.	U	
75-25-2	Bromoform	5.	U	
108-10-1	4-Methyl-2-Pentanone	10.	U	
591-78-6	2-Hexanone	10.	U	
127-18-4	Tetrachloroethene	5.	U	
79-34-5	1,1,2,2-Tetrachloroethane	5.	U	
108-88-3	Toluene	5.	U	
108-90-7	Chlorobenzene	5.	U	

Qualifiers:

- U- Undetected. Value is the quantitation limit for that compound.
- J- Estimated value. Value is below the compound quantitation limit.
- B- Compound also found in blank.
- D- Diluted value.

VOLATILE ORGANICS ANALYSIS DATA SHEET
PAGE 2

SAMPLE

SW-1

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89091903

Matrix: (soil/water) WATER

Lab Sample ID: H22947

Sample wt/vol: 5 mL

Lab File ID: >BC462::A1

Level: (low/med) LOW

Date Received: 09/18/89

% Moisture: not dec.:

Date Analyzed: 09/28/89

Column: (pack/cap) PACK

Dilution Factor: 1.00

CAS No.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/Kg)	ug/L	
100-41-4-----	Ethylbenzene_____	5.		U
100-42-5-----	Styrene_____	5.		U
1330-20-7-----	Xylene (total)_____	5.		U

Qualifiers:

- U- Undetected. Value is the quantitation limit for that compound.
- J- Estimated value. Value is below the compound quantitation limit.
- B- Compound also found in blank.
- D- Diluted value.

000014

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE

SW-1

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89091903

Matrix: (soil/water) WATER

Lab Sample ID: H22947

Sample wt/vol: 5 mL

Lab File ID: >BC462::A1

Level: (low/med) LOW

Date Received: 09/18/89

% Moisture: not dec.:

Date Analyzed: 09/28/89

Column: PACK

Dilution Factor: 1.00

Number TICs Found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	No volatiles found			
2.				
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000045

VOLATILE ORGANICS ANALYSIS DATA SHEET
PAGE 1

SAMPLE

SW-2

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89091903

Matrix: (soil/water) WATER

Lab Sample ID: H22948

Sample wt/vol: 5 mL

Lab File ID: >BC454::A1

Level: (low/med) LOW

Date Received: 09/18/89

% Moisture: not dec.:

Date Analyzed: 09/27/89

Column: (pack/cap) PACK

Dilution Factor: 1.00

CAS No.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/Kg)	ug/L
			Q
74-87-3	Chloromethane	10.	U
74-83-9	Bromomethane	10.	U
75-01-4	Vinyl Chloride	5.	J
75-00-3	Chloroethane	10.	U
75-09-2	Methylene Chloride	5.	U
67-64-1	Acetone	10.	U
75-15-0	Carbon Disulfide	5.	U
75-35-4	1,1-Dichloroethene	5.	U
75-34-3	1,1-Dichloroethane	5.	U
540-59-0	1,2-Dichloroethene (total)	58.	
67-66-3	Chloroform	5.	U
107-02-2	1,2-Dichloroethane	5.	U
78-93-3	2-Butanone	10.	U
71-55-6	1,1,1-Trichloroethane	5.	U
56-23-6	Carbon Tetrachloride	5.	U
108-05-4	Vinyl Acetate	10.	U
75-27-4	Bromodichloromethane	5.	U
78-87-5	1,2-Dichloropropane	5.	U
10061-01-5	cis-1,3-Dichloropropene	5.	U
79-01-6	Trichloroethene	25.	
124-48-1	Dibromochloromethane	5.	U
79-00-5	1,1,2-Trichloroethane	5.	U
71-43-2	Benzene	5.	U
10061-02-6	trans-1,3-Dichloropropene	5.	U
75-25-2	Bromoform	5.	U
108-10-1	4-Methyl-2-Pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	5.	U
79-34-5	1,1,2,2-Tetrachloroethane	5.	U
108-88-3	Toluene	5.	U
108-90-7	Chlorobenzene	5.	U

Qualifiers:

- U- Undetected. Value is the quantitation limit for that compound.
- J- Estimated value. Value is below the compound quantitation limit.
- B- Compound also found in blank.
- D- Diluted value.

000046

VOLATILE ORGANICS ANALYSIS DATA SHEET
PAGE 2

SAMPLE

SW-2

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89091903

Matrix: (soil/water) WATER

Lab Sample ID: H22948

Sample wt/vol: 5 mL

Lab File ID: >BC454::A1

Level: (low/med) LOW

Date Received: 09/18/89

% Moisture: not dec.:

Date Analyzed: 09/27/89

Column: (pack/cap) PACK

Dilution Factor: 1.00

CAS No.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/Kg)	ug/L	
100-41-4-----	Ethylbenzene_____	5.		U
100-42-5-----	Styrene_____	5.		U
1330-20-7-----	Xylene (total)_____	5.		U

Qualifiers:

- U- Undetected. Value is the quantitation limit for that compound.
- J- Estimated value. Value is below the compound quantitation limit.
- B- Compound also found in blank.
- D- Diluted value.

000047

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE

SW-2

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Matrix: (soil/water) WATER

Sample wt/vol: 5 mL

Level: (low/med) LOW

% Moisture: not dec.:

Column: PACK

Task No.: 89091903

Lab Sample ID: H22948

Lab File ID: >BC454::A1

Date Received: 09/18/89

Date Analyzed: 09/27/89

Dilution Factor: 1.00

Number TICs Found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	No volatiles found			
2.				
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000043

VOLATILE ORGANICS ANALYSIS DATA SHEET
PAGE 1

SAMPLE

SW-3

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89091903

Matrix: (soil/water) WATER

Lab Sample ID: H22949

Sample wt/vol: 5 mL

Lab File ID: >BC463::A1

Level: (low/med) LOW

Date Received: 09/18/89

% Moisture: not dec.:

Date Analyzed: 09/28/89

Column: (pack/cap) PACK

Dilution Factor: 1.00

		CONCENTRATION UNITS:		
CAS No.	COMPOUND	(ug/L or ug/Kg)	ug/L	Q
74-87-3	Chloromethane	10.	U	
74-83-9	Bromomethane	10.	U	
75-01-4	Vinyl Chloride	10.	U	
75-00-3	Chloroethane	10.	U	
75-09-2	Methylene Chloride	5.	U	
67-64-1	Acetone	10.	U	
75-15-0	Carbon Disulfide	5.	U	
75-35-4	1,1-Dichloroethene	5.	U	
75-34-3	1,1-Dichloroethane	5.	U	
540-59-0	1,2-Dichloroethene (total)	5.	U	
67-66-3	Chloroform	42.		
107-02-2	1,2-Dichloroethane	5.	U	
78-93-3	2-Butanone	10.	U	
71-55-6	1,1,1-Trichloroethane	5.	U	
56-23-6	Carbon Tetrachloride	5.	U	
108-05-4	Vinyl Acetate	10.	U	
75-27-4	Bromodichloromethane	.9	J	
78-87-5	1,2-Dichloropropane	5.	U	
10061-01-5	cis-1,3-Dichloropropene	5.	U	
79-01-6	Trichloroethene	4.	J	
124-48-1	Dibromochloromethane	5.	U	
79-00-5	1,1,2-Trichloroethane	5.	U	
71-43-2	Benzene	5.	U	
10061-02-6	trans-1,3-Dichloropropene	5.	U	
75-25-2	Bromoform	5.	U	
108-10-1	4-Methyl-2-Pentanone	10.	U	
591-78-6	2-Hexanone	10.	U	
127-18-4	Tetrachloroethene	5.	U	
79-34-5	1,1,2,2-Tetrachloroethane	5.	U	
108-88-3	Toluene	5.	U	
108-90-7	Chlorobenzene	5.	U	

Qualifiers:

- U- Undetected. Value is the quantitation limit for that compound.
- J- Estimated value. Value is below the compound quantitation limit.
- B- Compound also found in blank.
- D- Diluted value.

000049

VOLATILE ORGANICS ANALYSIS DATA SHEET
PAGE 2

SAMPLE

SW-3

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89091903

Matrix: (soil/water) WATER

Lab Sample ID: H22949

Sample wt/vol: 5 mL

Lab File ID: >BC463::A1

Level: (low/med) LOW

Date Received: 09/18/89

% Moisture: not dec.:

Date Analyzed: 09/28/89

Column: (pack/cap) PACK

Dilution Factor: 1.00

CAS No.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/Kg)	ug/L	
100-41-4-----	Ethylbenzene_____	5.		U
100-42-5-----	Styrene_____	5.		U
1330-20-7-----	Xylene (total)_____	5.		U

Qualifiers:

- U- Undetected. Value is the quantitation limit for that compound.
- J- Estimated value. Value is below the compound quantitation limit.
- B- Compound also found in blank.
- D- Diluted value.

000050

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE

SW-3

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89091903

Matrix: (soil/water) WATER

Lab Sample ID: H22949

Sample wt/vol: 5 mL

Lab File ID: >BC463::A1

Level: (low/med) LOW

Date Received: 09/18/89

% Moisture: not dec.:

Date Analyzed: 09/28/89

Column: PACK

Dilution Factor: 1.00

Number TICs Found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	No volatiles found			
2.				
3.				
4.				
5.				
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000051

VOLATILE ORGANICS ANALYSIS DATA SHEET
PAGE 1

SAMPLE

SW-4

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89091903

Matrix: (soil/water) WATER

Lab Sample ID: H22950

Sample wt/vol: 5 mL

Lab File ID: >BC444::D7

Level: (low/med) LOW

Date Received: 09/18/89

% Moisture: not dec.:

Date Analyzed: 09/27/89

Column: (pack/cap) PACK

Dilution Factor: 1.00

CAS No.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/Kg)	ug/L	
74-87-3	-----Chloromethane	10.	U	
74-83-9	-----Bromomethane	10.	U	
75-01-4	-----Vinyl Chloride	160.		
75-00-3	-----Chloroethane	10.	U	
75-09-2	-----Methylene Chloride	5.	U	
67-64-1	-----Acetone	14.		
75-15-0	-----Carbon Disulfide	5.	U	
75-35-4	-----1,1-Dichloroethene	2.	J	
75-34-3	-----1,1-Dichloroethane	4.	J	
540-59-0	-----1,2-Dichloroethene (total)	770.		
67-66-3	-----Chloroform	5.	U	
107-02-2	-----1,2-Dichloroethane	5.	U	
78-93-3	-----2-Butanone	10.	U	
71-55-6	-----1,1,1-Trichloroethane	2.	J	
56-23-6	-----Carbon Tetrachloride	5.	U	
108-05-4	-----Vinyl Acetate	10.	U	
75-27-4	-----Bromodichloromethane	5.	U	
78-87-5	-----1,2-Dichloropropane	5.	U	
10061-01-5	-----cis-1,3-Dichloropropene	5.	U	
79-01-6	-----Trichloroethene	25.		
124-48-1	-----Dibromochloromethane	5.	U	
79-00-5	-----1,1,2-Trichloroethane	5.	U	
71-43-2	-----Benzene	5.	U	
10061-02-6	-----trans-1,3-Dichloropropene	5.	U	
75-25-2	-----Bromoform	5.	U	
108-10-1	-----4-Methyl-2-Pentanone	10.	U	
591-78-6	-----2-Hexanone	10.	U	
127-18-4	-----Tetrachloroethene	5.	U	
79-34-5	-----1,1,2,2-Tetrachloroethane	5.	U	
108-88-3	-----Toluene	5.	U	
108-90-7	-----Chlorobenzene	5.	U	

Qualifiers:

U- Undetected. Value is the quantitation limit for that compound.
 J- Estimated value. Value is below the compound quantitation limit.
 B- Compound also found in blank.
 D- Diluted value.

000052

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE

SW-4

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89091903

Matrix: (soil/water) WATER

Lab Sample ID: H22950

Sample wt/vol: 5 mL

Lab File ID: >BC444::D7

Level: (low/med) LOW

Date Received: 09/18/89

% Moisture: not dec.:

Date Analyzed: 09/27/89

Column: PACK

Dilution Factor: 1.00

Number TICs Found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	No volatiles found			
2.				
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000054

VOLATILE ORGANICS ANALYSIS DATA SHEET
PAGE 1

SAMPLE

SW-4 DL

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89091903

Matrix: (soil/water) WATER

Lab Sample ID: H22950DL

Sample wt/vol: 1 mL

Lab File ID: >BC447::D3

Level: (low/med) LOW

Date Received: 09/18/89

% Moisture: not dec.:

Date Analyzed: 09/27/89

Column: (pack/cap) PACK

Dilution Factor: 5.00

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
74-87-3	Chloromethane	50.	U D
74-83-9	Bromomethane	50.	U D
75-01-4	Vinyl Chloride	120.	D
75-00-3	Chloroethane	50.	U D
75-09-2	Methylene Chloride	25.	U D
67-64-1	Acetone	50.	U D
75-15-0	Carbon Disulfide	25.	U D
75-35-4	1,1-Dichloroethene	25.	U D
75-34-3	1,1-Dichloroethane	25.	U D
540-59-0	1,2-Dichloroethene (total)	630.	D
67-66-3	Chloroform	25.	U D
107-02-2	1,2-Dichloroethane	25.	U D
78-93-3	2-Butanone	50.	U D
71-55-6	1,1,1-Trichloroethane	25.	U D
56-23-6	Carbon Tetrachloride	25.	U D
108-05-4	Vinyl Acetate	50.	U D
75-27-4	Bromodichloromethane	25.	U D
78-87-5	1,2-Dichloropropane	25.	U D
10061-01-5	cis-1,3-Dichloropropene	25.	U D
79-01-6	Trichloroethene	25.	J D
124-48-1	Dibromochloromethane	25.	U D
79-00-5	1,1,2-Trichloroethane	25.	U D
71-43-2	Benzene	25.	U D
10061-02-6	trans-1,3-Dichloropropene	25.	U D
75-25-2	Bromoform	25.	U D
108-10-1	4-Methyl-2-Pentanone	50.	U D
591-78-6	2-Hexanone	50.	U D
127-18-4	Tetrachloroethene	25.	U D
79-34-5	1,1,2,2-Tetrachloroethane	25.	U D
108-88-3	Toluene	25.	U D
108-90-7	Chlorobenzene	25.	U D

Qualifiers:

- U- Undetected. Value is the quantitation limit for that compound.
- J- Estimated value. Value is below the compound quantitation limit.
- B- Compound also found in blank.
- D- Diluted value.

000055

VOLATILE ORGANICS ANALYSIS DATA SHEET
PAGE 2

SAMPLE

SW-4 DL

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89091903

Matrix: (soil/water) WATER

Lab Sample ID: H22950DL

Sample wt/vol: 1 mL

Lab File ID: >BC447::D3

Level: (low/med) LOW

Date Received: 09/18/89

% Moisture: not dec.:

Date Analyzed: 09/27/89

Column: (pack/cap) PACK

Dilution Factor: 5.00

CAS No.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/Kg) ug/L	Q
100-41-4-----	Ethylbenzene_____	25.	U D
100-42-5-----	Styrene_____	25.	U D
1330-20-7-----	Xylene (total)_____	25.	U D

Qualifiers:

- U- Undetected. Value is the quantitation limit for that compound.
- J- Estimated value. Value is below the compound quantitation limit.
- B- Compound also found in blank.
- D- Diluted value.

000056

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE

SW-4 DL

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89091903

Matrix: (soil/water) WATER

Lab Sample ID: H22950DL

Sample wt/vol: 1 mL

Lab File ID: >BC447::D3

Level: (low/med) LOW

Date Received: 09/18/89

% Moisture: not dec.:

Date Analyzed: 09/27/89

Column: PACK

Dilution Factor: 5.00

Number TICs Found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	No volatiles found			
2.				
3.				
4.				
5.				
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000057

VOLATILE ORGANICS ANALYSIS DATA SHEET
PAGE 1

SAMPLE

SW-5

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89091903

Matrix: (soil/water) WATER

Lab Sample ID: H22951

Sample wt/vol: 5 mL

Lab File ID: >BC465::A3

Level: (low/med) LOW

Date Received: 09/18/89

% Moisture: not dec.:

Date Analyzed: 09/28/89

Column: (pack/cap) PACK

Dilution Factor: 1.00

CAS No.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/Kg)	ug/L
			Q
74-87-3	Chloromethane	10.	U
74-83-9	Bromomethane	10.	U
75-01-4	Vinyl Chloride	45.	
75-00-3	Chloroethane	10.	U
75-09-2	Methylene Chloride	5.	U
67-64-1	Acetone	10.	U
75-15-0	Carbon Disulfide	5.	U
75-35-4	1,1-Dichloroethene	5.	U
75-34-3	1,1-Dichloroethane	5.	U
540-59-0	1,2-Dichloroethene (total)	310.	
67-66-3	Chloroform	5.	U
107-02-2	1,2-Dichloroethane	5.	U
78-93-3	2-Butanone	10.	U
71-55-6	1,1,1-Trichloroethane	5.	U
56-23-6	Carbon Tetrachloride	5.	U
108-05-4	Vinyl Acetate	10.	U
75-27-4	Bromodichloromethane	5.	U
78-87-5	1,2-Dichloropropane	5.	U
10061-01-5	cis-1,3-Dichloropropene	5.	U
79-01-6	Trichloroethene	3.	J
124-48-1	Dibromochloromethane	5.	U
79-00-5	1,1,2-Trichloroethane	5.	U
71-43-2	Benzene	5.	U
10061-02-6	trans-1,3-Dichloropropene	5.	U
75-25-2	Bromoform	5.	U
108-10-1	4-Methyl-2-Pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	5.	U
79-34-5	1,1,2,2-Tetrachloroethane	5.	U
108-88-3	Toluene	5.	U
108-90-7	Chlorobenzene	5.	U

Qualifiers:

- U- Undetected. Value is the quantitation limit for that compound.
- J- Estimated value. Value is below the compound quantitation limit.
- B- Compound also found in blank.
- D- Diluted value.

000058

VOLATILE ORGANICS ANALYSIS DATA SHEET
PAGE 2

SAMPLE

SW-5

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89091903

Matrix: (soil/water) WATER

Lab Sample ID: H22951

Sample wt/vol: 5 mL

Lab File ID: >BC465::A3

Level: (low/med) LOW

Date Received: 09/18/89

% Moisture: not dec.:

Date Analyzed: 09/28/89

Column: (pack/cap) PACK

Dilution Factor: 1.00

CAS No.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/Kg)	ug/L	
100-41-4-----	Ethylbenzene_____	5.		U
100-42-5-----	Styrene_____	5.		U
1330-20-7-----	Xylene (total)_____	5.		U

Qualifiers:

- U- Undetected. Value is the quantitation limit for that compound.
- J- Estimated value. Value is below the compound quantitation limit.
- B- Compound also found in blank.
- D- Diluted value.

000050

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE

SW-5

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Matrix: (soil/water) WATER

Sample wt/vol: 5 mL

Level: (low/med) LOW

% Moisture: not dec.:

Column: PACK

Task No.: 89091903

Lab Sample ID: H22951

Lab File ID: >BC465::A3

Date Received: 09/18/89

Date Analyzed: 09/28/89

Dilution Factor: 1.00

Number TICs Found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Unknown	31.70	5.	
2.				
3.				
4.				
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000080

VOLATILE ORGANICS ANALYSIS DATA SHEET
PAGE 1

SAMPLE

SW-5 DL

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89091903

Matrix: (soil/water) WATER

Lab Sample ID: H22951DL

Sample wt/vol: 2.5 mL

Lab File ID: >BC481::A2

Level: (low/med) LOW

Date Received: 09/18/89

% Moisture: not dec.:

Date Analyzed: 09/29/89

Column: (pack/cap) PACK

Dilution Factor: 2.00

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
74-87-3	Chloromethane	20.	U D
74-83-9	Bromomethane	20.	U D
75-01-4	Vinyl Chloride	52.	D
75-00-3	Chloroethane	20.	U D
75-09-2	Methylene Chloride	10.	U D
67-64-1	Acetone	20.	U D
75-15-0	Carbon Disulfide	10.	U D
75-35-4	1,1-Dichloroethene	10.	U D
75-34-3	1,1-Dichloroethane	10.	U D
540-59-0	1,2-Dichloroethene (total)	360.	D
67-66-3	Chloroform	10.	U D
107-02-2	1,2-Dichloroethane	10.	U D
78-93-3	2-Butanone	20.	U D
71-55-6	1,1,1-Trichloroethane	10.	U D
56-23-6	Carbon Tetrachloride	10.	U D
108-05-4	Vinyl Acetate	20.	U D
75-27-4	Bromodichloromethane	10.	U D
78-87-5	1,2-Dichloropropane	10.	U D
10061-01-5	cis-1,3-Dichloropropene	10.	U D
79-01-6	Trichloroethene	10.	U D
124-48-1	Dibromochloromethane	10.	U D
79-00-5	1,1,2-Trichloroethane	10.	U D
71-43-2	Benzene	10.	U D
10061-02-6	trans-1,3-Dichloropropene	10.	U D
75-25-2	Bromoform	10.	U D
108-10-1	4-Methyl-2-Pentanone	20.	U D
591-78-6	2-Hexanone	20.	U D
127-18-4	Tetrachloroethene	10.	U D
79-34-5	1,1,2,2-Tetrachloroethane	10.	U D
108-88-3	Toluene	10.	U D
108-90-7	Chlorobenzene	10.	U D

Qualifiers:

U- Undetected. Value is the quantitation limit for that compound.
J- Estimated value. Value is below the compound quantitation limit.
B- Compound also found in blank.
D- Diluted value.

000001

VOLATILE ORGANICS ANALYSIS DATA SHEET
PAGE 2

SAMPLE

SW-5 DL

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89091903

Matrix: (soil/water) WATER

Lab Sample ID: H22951DL

Sample wt/vol: 2.5 mL

Lab File ID: >BC481::A2

Level: (low/med) LOW

Date Received: 09/18/89

% Moisture: not dec.:

Date Analyzed: 09/29/89

Column: (pack/cap) PACK

Dilution Factor: 2.00

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
100-41-4-----	Ethylbenzene	10.	U D
100-42-5-----	Styrene	10.	U D
1330-20-7-----	Xylene (total)	10.	U D

Qualifiers:

- U- Undetected. Value is the quantitation limit for that compound.
- J- Estimated value. Value is below the compound quantitation limit.
- B- Compound also found in blank.
- D- Diluted value.

006052

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE

SW-5 DL

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89091903

Matrix: (soil/water) WATER

Lab Sample ID: H22951DL

Sample wt/vol: 2.5 mL

Lab File ID: >BC481::A2

Level: (low/med) LOW

Date Received: 09/18/89

% Moisture: not dec.:

Date Analyzed: 09/29/89

Column: PACK

Dilution Factor: 2.00

Number TICs Found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Unknown	31.78	9.	
2.				
3.				
4.				
5.				
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00005.4

VOLATILE ORGANICS ANALYSIS DATA SHEET
PAGE 1

SAMPLE

TRIP BLANK

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89092008

Matrix: (soil/water) WATER

Lab Sample ID: H23118

Sample wt/vol: 5 mL

Lab File ID: >BC479::A3

Level: (low/med) LOW

Date Received: 09/19/89

% Moisture: not dec.:

Date Analyzed: 09/29/89

Column: (pack/cap) PACK

Dilution Factor: 1.00

CAS No.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/Kg)	ug/L
			Q
74-87-3	Chloromethane	10.	U
74-83-9	Bromomethane	10.	U
75-01-4	Vinyl Chloride	10.	U
75-00-3	Chloroethane	10.	U
75-09-2	Methylene Chloride	5.	U
67-64-1	Acetone	10.	U
75-15-0	Carbon Disulfide	5.	U
75-35-4	1,1-Dichloroethene	5.	U
75-34-3	1,1-Dichloroethane	5.	U
540-59-0	1,2-Dichloroethene (total)	5.	U
67-66-3	Chloroform	5.	U
107-02-2	1,2-Dichloroethane	5.	U
78-93-3	2-Butanone	10.	U
71-55-6	1,1,1-Trichloroethane	5.	U
56-23-6	Carbon Tetrachloride	5.	U
108-05-4	Vinyl Acetate	10.	U
75-27-4	Bromodichloromethane	5.	U
78-87-5	1,2-Dichloropropane	5.	U
10061-01-5	cis-1,3-Dichloropropene	5.	U
79-01-6	Trichloroethene	5.	U
124-48-1	Dibromochloromethane	5.	U
79-00-5	1,1,2-Trichloroethane	5.	U
71-43-2	Benzene	5.	U
10061-02-6	trans-1,3-Dichloropropene	5.	U
75-25-2	Bromoform	5.	U
108-10-1	4-Methyl-2-Pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	5.	U
79-34-5	1,1,2,2-Tetrachloroethane	5.	U
108-88-3	Toluene	5.	U
108-90-7	Chlorobenzene	5.	U

Qualifiers:

- U- Undetected. Value is the quantitation limit for that compound.
- J- Estimated value. Value is below the compound quantitation limit.
- B- Compound also found in blank.
- D- Diluted value.

000094

VOLATILE ORGANICS ANALYSIS DATA SHEET
PAGE 2

SAMPLE

TRIP BLANK

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89092008

Matrix: (soil/water) WATER

Lab Sample ID: H23118

Sample wt/vol: 5 mL

Lab File ID: >BC479::A3

Level: (low/med) LOW

Date Received: 09/19/89

% Moisture: not dec.:

Date Analyzed: 09/29/89

Column: (pack/cap) PACK

Dilution Factor: 1.00

CAS No.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/Kg)	ug/L	
100-41-4-----	Ethylbenzene_____	5.		U
100-42-5-----	Styrene_____	5.		U
1330-20-7-----	Xylene (total)_____	5.		U

Qualifiers:

- U- Undetected. Value is the quantitation limit for that compound.
- J- Estimated value. Value is below the compound quantitation limit.
- B- Compound also found in blank.
- D- Diluted value.

000065

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE

TRIP BLANK

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89092008

Matrix: (soil/water) WATER

Lab Sample ID: H23118

Sample wt/vol: 5 mL

Lab File ID: >BC479::A3

Level: (low/med) LOW

Date Received: 09/19/89

% Moisture: not dec.:

Date Analyzed: 09/29/89

Column: PACK

Dilution Factor: 1.00

Number TICs Found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	No volatiles found			
2.				
3.				
4.				
5.				
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000086

GC/MS
SEMI-VOLATILES
SAMPLE DATA SUMMARY

000057

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
PAGE 1

SAMPLE

MW-1

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89092009

Matrix: (soil/water) WATER

Lab Sample ID: H23114

Sample wt/vol: 958 mL

Lab File ID: >CA337::D3

Level: (low/med) LOW

Date Received: 09/19/89

% Moisture: not dec.:

Date Extracted: 09/25/89

Extraction: (SepF/Cont/Sonc) CONT

Date Analyzed: 10/16/89

GPC Cleanup: (Y/N) N

Dilution Factor: 1.00

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
108-95-2	Phenol	10.	U
111-44-4	bis(2-Chloroethyl)ether	10.	U
95-57-8	2-Chlorophenol	10.	U
541-73-1	1,3-Dichlorobenzene	10.	U
106-46-7	1,4-Dichlorobenzene	10.	U
100-51-6	Benzyl Alcohol	10.	U
95-50-1	1,2-Dichlorobenzene	1.	J
95-48-7	2-Methylphenol	10.	U
39638-32-9	bis(2-Chloroisopropyl)ether	10.	U
106-44-6	4-Methylphenol	10.	U
621-64-7	N-Nitroso-Di-n-propylamine	10.	U
67-72-1	Hexachloroethane	10.	U
98-95-3	Nitrobenzene	10.	U
78-59-1	Isophorone	10.	U
88-75-5	2-Nitrophenol	10.	U
105-67-9	2,4-Dimethylphenol	10.	U
65-85-0	Benzoic Acid	10.	U
111-91-1	bis(2-Chloroethoxy)methane	10.	U
120-83-2	2,4-Dichlorophenol	10.	U
120-82-1	1,2,4-Trichlorobenzene	10.	U
91-20-3	Naphthalene	10.	U
106-47-8	4-Chloroaniline	10.	U
87-68-3	Hexachlorobutadiene	10.	U
59-50-7	4-Chloro-3-methylphenol	10.	U
91-57-6	2-Methylnaphthalene	10.	U
77-47-4	Hexachlorocyclopentadiene	10.	U
88-06-2	2,4,6-Trichlorophenol	10.	U
95-95-4	2,4,5-Trichlorophenol	52.	U
91-58-7	2-Chloronaphthalene	10.	U

Qualifiers:

- U- Undetected. Value is the quantitation limit for that compound.
- J- Estimated value. Value is below the compound quantitation limit.
- B- Compound also found in blank.
- D- Diluted value.

000000

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
PAGE 2

SAMPLE

MW-1

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89092009

Matrix: (soil/water) WATER

Lab Sample ID: H23114

Sample wt/vol: 958 mL

Lab File ID: >CA337::D3

Level: (low/med) LOW

Date Received: 09/19/89

% Moisture: not dec.:

Date Extracted: 09/25/89

Extraction: (SepF/Cont/Sonc) CONT

Date Analyzed: 10/16/89

GPC Cleanup: (Y/N) N

Dilution Factor: 1.00

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
88-74-4	2-Nitroaniline	52.	U
131-11-3	Dimethylphthalate	10.	U
208-96-8	Acenaphthylene	10.	U
99-09-2	3-Nitroaniline	52.	U
83-32-9	Acenaphthene	10.	U
51-28-5	2,4-Dinitrophenol	52.	U
100-02-7	4-Nitrophenol	52.	U
132-64-9	Dibenzofuran	10.	U
121-14-2	2,4-Dinitrotoluene	10.	U
606-20-2	2,6-Dinitrotoluene	10.	U
84-66-2	Diethylphthalate	10.	U
7005-72-3	4-Chlorophenyl-phenylether	10.	U
86-73-7	Fluorene	10.	U
100-01-6	4-Nitroaniline	52.	U
534-52-1	4,6-Dinitro-2-methylphenol	52.	U
86-30-6	N-Nitrosodiphenylamine	10.	U
101-55-3	4-Bromophenyl-phenylether	10.	U
118-74-1	Hexachlorobenzene	10.	U
87-86-5	Pentachlorophenol	52.	U
85-01-8	Phenanthrene	.6	J
120-12-7	Anthracene	10.	U
84-74-2	Di-n-Butylphthalate	10.	U
206-44-0	Fluoranthene	.4	J
129-00-0	Pyrene	.4	J
85-68-7	Butylbenzylphthalate	10.	U
91-94-1	3,3'-Dichlorobenzidine	21.	U
56-55-3	Benzo(a)Anthracene	10.	U
117-81-7	Bis(2-Ethylhexyl)Phthalate	10.	U

Qualifiers:

U- Undetected. Value is the quantitation limit for that compound.
J- Estimated value. Value is below the compound quantitation limit.
B- Compound also found in blank.
D- Diluted value.

00005.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
PAGE 3

SAMPLE

MW- 1

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89092009

Matrix: (soil/water) WATER

Lab Sample ID: H23114

Sample wt/vol: 958 mL

Lab File ID: >CA337::D3

Level: (low/med) LOW

Date Received: 09/19/89

% Moisture: not dec.:

Date Extracted: 09/25/89

Extraction: (SepF/Cont/Sonc) CONT

Date Analyzed: 10/16/89

GPC Cleanup: (Y/N) N

Dilution Factor: 1.00

CAS No.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/Kg)	ug/L
			Q
218-01-9-----	Chrysene_____	10.	U
117-84-0-----	Di-n-octylphthalate_____	10.	U
205-99-2-----	Benzo(b)Fluoranthene_____	10.	U
207-08-9-----	Benzo(k)Fluoranthene_____	10.	U
50-32-8-----	Benzo(a)Pyrene_____	10.	U
193-39-5-----	Indeno(1,2,3-cd)Pyrene_____	10.	U
53-70-3-----	Dibenzo(a,h)Anthracene_____	10.	U
191-24-2-----	Benzo(g,h,i)Perylene_____	10.	U

Qualifiers:

- U- Undetected. Value is the quantitation limit for that compound.
- J- Estimated value. Value is below the compound quantitation limit.
- B- Compound also found in blank.
- D- Diluted value.

.000070

1E
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE

MW-1

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89092009

Matrix: (soil/water) WATER

Lab Sample ID: H23114

Sample wt/vol: 958 mL

Lab File ID: >CA337::D3

Level: (low/med) LOW

Date Received : 09/19/89

% Moisture: not dec.:

Date Extracted: 09/25/89

Extraction:(SepF/Cont/Sonc) CONT

Date Analyzed : 10/16/89

GPC Cleanup: (Y/N) N

Dilution Factor: 1.00

Number TICs Found: 12

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Unknown	4.15	11.	
2.	Unknown	8.75	17.	
3.	Unknown	8.93	19.	
4.	Unknown	11.02	10.	
5.	Unknown	11.21	15.	
6.	Unknown	12.06	28.	
7. 492375	Benzeneacetic acid, .alpha.-	13.58	10.	
8. 3461390	Benzenepropanoic acid, .beta.	16.82	9.	
9.	Unknown	24.14	26.	
10.	Unknown	27.22	35.	
11.	Unknown	30.06	37.	
12.	Unknown	32.62	31.	
13.				
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000071

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
PAGE 1

SAMPLE

MW-2

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89092009

Matrix: (soil/water) WATER

Lab Sample ID: H23112

Sample wt/vol: 930 mL

Lab File ID: >CA335::D3

Level: (low/med) LOW

Date Received: 09/19/89

% Moisture: not dec.:

Date Extracted: 09/25/89

Extraction: (SepF/Cont/Sonc) CONT

Date Analyzed: 10/16/89

GPC Cleanup: (Y/N) N

Dilution Factor: 1.00

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
108-95-2-----	Phenol_____	11.	U
111-44-4-----	bis(2-Chloroethyl)ether_____	11.	U
95-57-8-----	2-Chlorophenol_____	11.	U
541-73-1-----	1,3-Dichlorobenzene_____	11.	U
106-46-7-----	1,4-Dichlorobenzene_____	11.	U
100-51-6-----	Benzyl Alcohol_____	11.	U
95-50-1-----	1,2-Dichlorobenzene_____	11.	U
95-48-7-----	2-Methylphenol_____	11.	U
39638-32-9-----	bis(2-Chloroisopropyl)ether_____	11.	U
106-44-5-----	4-Methylphenol_____	11.	U
621-64-7-----	N-Nitroso-Di-n-propylamine_____	11.	U
67-72-1-----	Hexachloroethane_____	11.	U
98-95-3-----	Nitrobenzene_____	11.	U
78-59-1-----	Isophorone_____	11.	U
88-75-5-----	2-Nitrophenol_____	11.	U
105-67-9-----	2,4-Dimethylphenol_____	11.	U
65-85-0-----	Benzoic Acid_____	11.	U
111-91-1-----	bis(2-Chloroethoxy)methane_____	11.	U
120-83-2-----	2,4-Dichlorophenol_____	11.	U
120-82-1-----	1,2,4-Trichlorobenzene_____	11.	U
91-20-3-----	Naphthalene_____	11.	U
106-47-8-----	4-Chloroaniline_____	11.	U
87-68-3-----	Hexachlorobutadiene_____	11.	U
59-50-7-----	4-Chloro-3-methylphenol_____	11.	U
91-57-6-----	2-Methylnaphthalene_____	11.	U
77-47-4-----	Hexachlorocyclopentadiene_____	11.	U
88-06-2-----	2,4,6-Trichlorophenol_____	11.	U
95-95-4-----	2,4,5-Trichlorophenol_____	54.	U
91-58-7-----	2-Chloronaphthalene_____	11.	U

Qualifiers:

U- Undetected. Value is the quantitation limit for that compound.
J- Estimated value. Value is below the compound quantitation limit.
B- Compound also found in blank.
D- Diluted value.

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
PAGE 2

SAMPLE

MW-2

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89092009

Matrix: (soil/water) WATER

Lab Sample ID: H23112

Sample wt/vol: 930 mL

Lab File ID: >CA335::D3

Level: (low/med) LOW

Date Received: 09/19/89

% Moisture: not dec.:

Date Extracted: 09/25/89

Extraction: (SepF/Cont/Sonc) CONT

Date Analyzed: 10/16/89

GPC Cleanup: (Y/N) N

Dilution Factor: 1.00

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
88-74-4	2-Nitroaniline	54.	U
131-11-3	Dimethylphthalate	11.	U
208-96-8	Acenaphthylene	11.	U
99-09-2	3-Nitroaniline	54.	U
83-32-9	Acenaphthene	11.	U
51-28-5	2,4-Dinitrophenol	54.	U
100-02-7	4-Nitrophenol	54.	U
132-64-9	Dibenzofuran	11.	U
121-14-2	2,4-Dinitrotoluene	11.	U
606-20-2	2,6-Dinitrotoluene	11.	U
84-66-2	Diethylphthalate	11.	U
7005-72-3	4-Chlorophenyl-phenylether	11.	U
86-73-7	Fluorene	11.	U
100-01-6	4-Nitroaniline	54.	U
534-52-1	4,6-Dinitro-2-methylphenol	54.	U
86-30-6	N-Nitrosodiphenylamine	11.	U
101-55-3	4-Bromophenyl-phenylether	11.	U
118-74-1	Hexachlorobenzene	11.	U
87-86-5	Pentachlorophenol	54.	U
85-01-8	Phenanthrene	11.	U
120-12-7	Anthracene	11.	U
84-74-2	Di-n-Butylphthalate	11.	U
206-44-0	Fluoranthene	11.	U
129-00-0	Pyrene	11.	U
85-68-7	Butylbenzylphthalate	11.	U
91-94-1	3,3'-Dichlorobenzidine	22.	U
56-55-3	Benzo(a)Anthracene	11.	U
117-81-7	Bis(2-Ethylhexyl)Phthalate	11.	U

Qualifiers:

- U- Undetected. Value is the quantitation limit for that compound.
- J- Estimated value. Value is below the compound quantitation limit.
- B- Compound also found in blank.
- D- Diluted value.

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
PAGE 3

SAMPLE

MW-2

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89092009

Matrix: (soil/water) WATER

Lab Sample ID: H23112

Sample wt/vol: 930 mL

Lab File ID: >CA335::D3

Level: (low/med) LOW

Date Received: 09/19/89

% Moisture: not dec.:

Date Extracted: 09/25/89

Extraction: (SepF/Cont/Sonc) CONT

Date Analyzed: 10/16/89

GPC Cleanup: (Y/N) N

Dilution Factor: 1.00

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
218-01-9-----	Chrysene	11.	U
117-84-0-----	Di-n-octylphthalate	11.	U
205-99-2-----	Benzo(b)Fluoranthene	11.	U
207-08-9-----	Benzo(k)Fluoranthene	11.	U
50-32-8-----	Benzo(a)Pyrene	11.	U
193-39-5-----	Indeno(1,2,3-cd)Pyrene	11.	U
53-70-3-----	Dibenzo(a,h)Anthracene	11.	U
191-24-2-----	Benzo(g,h,i)Perylene	11.	U

Qualifiers:

- U- Undetected. Value is the quantitation limit for that compound.
- J- Estimated value. Value is below the compound quantitation limit.
- B- Compound also found in blank.
- D- Diluted value.

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1E
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE

MW-2

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89092009

Matrix: (soil/water) WATER

Lab Sample ID: H23112

Sample wt/vol: 930 mL

Lab File ID: >CA335::D3

Level: (low/med) LOW

Date Received : 09/19/89

% Moisture: not dec.:

Date Extracted: 09/25/89

Extraction:(SepF/Cont/Sonc) CONT

Date Analyzed : 10/16/89

GPC Cleanup: (Y/N) N

Dilution Factor: 1.00

Number TICs Found: 3

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Unknown	3.96	50.	
2.	Unknown	4.21	12.	
3.	Unknown	6.94	11.	
4.				
5.				
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
PAGE 1

SAMPLE

MW-3

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89092009

Matrix: (soil/water) WATER

Lab Sample ID: H23116

Sample wt/vol: 849 mL

Lab File ID: >CA339::D3

Level: (low/med) LOW

Date Received: 09/19/89

% Moisture: not dec.:

Date Extracted: 09/25/89

Extraction: (SepF/Cont/Sonc) CONT

Date Analyzed: 10/16/89

GPC Cleanup: (Y/N) N

Dilution Factor: 1.00

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
108-95-2	Phenol	12.	U
111-44-4	bis(2-Chloroethyl)ether	12.	U
95-57-8	2-Chlorophenol	12.	U
541-73-1	1,3-Dichlorobenzene	12.	U
106-46-7	1,4-Dichlorobenzene	12.	U
100-51-6	Benzyl Alcohol	12.	U
95-50-1	1,2-Dichlorobenzene	12.	U
95-48-7	2-Methylphenol	12.	U
39638-32-9	bis(2-Chloroisopropyl)ether	12.	U
106-44-5	4-Methylphenol	12.	U
621-64-7	N-Nitroso-Di-n-propylamine	12.	U
67-72-1	Hexachloroethane	12.	U
98-95-3	Nitrobenzene	12.	U
78-59-1	Isophorone	12.	U
88-75-5	2-Nitrophenol	12.	U
105-67-9	2,4-Dimethylphenol	12.	U
65-85-0	Benzoic Acid	12.	U
111-91-1	bis(2-Chloroethoxy)methane	12.	U
120-83-2	2,4-Dichlorophenol	12.	U
120-82-1	1,2,4-Trichlorobenzene	12.	U
91-20-3	Naphthalene	12.	U
106-47-8	4-Chloroaniline	12.	U
87-68-3	Hexachlorobutadiene	12.	U
59-50-7	4-Chloro-3-methylphenol	12.	U
91-57-6	2-Methylnaphthalene	.6	J
77-47-4	Hexachlorocyclopentadiene	12.	U
88-06-2	2,4,6-Trichlorophenol	12.	U
95-95-4	2,4,5-Trichlorophenol	59.	U
91-58-7	2-Chloronaphthalene	12.	U

Qualifiers:

- U- Undetected. Value is the quantitation limit for that compound.
- J- Estimated value. Value is below the compound quantitation limit.
- B- Compound also found in blank.
- D- Diluted value.

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
PAGE 2

SAMPLE

MW-3

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89092009

Matrix: (soil/water) WATER

Lab Sample ID: H23116

Sample wt/vol: 849 mL

Lab File ID: >CA339::D3

Level: (low/med) LOW

Date Received: 09/19/89

% Moisture: not dec.:

Date Extracted: 09/25/89

Extraction: (SepF/Cont/Sonc) CONT

Date Analyzed: 10/16/89

GPC Cleanup: (Y/N) N

Dilution Factor: 1.00

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
88-74-4	2-Nitroaniline	59.	U
131-11-3	Dimethylphthalate	12.	U
208-96-8	Acenaphthylene	.2	J
99-09-2	3-Nitroaniline	59.	U
83-32-9	Acenaphthene	12.	U
51-28-5	2,4-Dinitrophenol	59.	U
100-02-7	4-Nitrophenol	59.	U
132-64-9	Dibenzofuran	12.	U
121-14-2	2,4-Dinitrotoluene	12.	U
606-20-2	2,6-Dinitrotoluene	12.	U
84-66-2	Diethylphthalate	12.	U
7005-72-3	4-Chlorophenyl-phenylether	12.	U
86-73-7	Fluorene	12.	U
100-01-6	4-Nitroaniline	59.	U
534-52-1	4,6-Dinitro-2-methylphenol	59.	U
86-30-6	N-Nitrosodiphenylamine	12.	U
101-55-3	4-Bromophenyl-phenylether	12.	U
118-74-1	Hexachlorobenzene	12.	U
87-86-5	Pentachlorophenol	59.	U
85-01-8	Phenanthrene	2.	J
120-12-7	Anthracene	.3	J
84-74-2	Di-n-Butylphthalate	12.	U
206-44-0	Fluoranthene	1.	J
129-00-0	Pyrene	2.	J
85-68-7	Butylbenzylphthalate	12.	U
91-94-1	3,3'-Dichlorobenzidine	24.	U
56-55-3	Benzo(a)Anthracene	12.	U
117-81-7	Bis(2-Ethylhexyl)Phthalate	12.	U

Qualifiers:

U- Undetected. Value is the quantitation limit for that compound.
J- Estimated value. Value is below the compound quantitation limit.
B- Compound also found in blank.
D- Diluted value.

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
PAGE 3

SAMPLE

MW-3

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89092009

Matrix: (soil/water) WATER

Lab Sample ID: H23116

Sample wt/vol: 849 mL

Lab File ID: >CA339::D3

Level: (low/med) LOW

Date Received: 09/19/89

% Moisture: not dec.:

Date Extracted: 09/25/89

Extraction: (SepF/Cont/Sonc) CONT

Date Analyzed: 10/16/89

GPC Cleanup: (Y/N) N

Dilution Factor: 1.00

CAS No.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/Kg)	ug/L
218-01-9-----	Chrysene	12.	U
117-84-0-----	Di-n-octylphthalate	12.	U
205-99-2-----	Benzo(b)Fluoranthene	12.	U
207-08-9-----	Benzo(k)Fluoranthene	12.	U
50-32-8-----	Benzo(a)Pyrene	12.	U
193-39-5-----	Indeno(1,2,3-cd)Pyrene	12.	U
53-70-3-----	Dibenzo(a,h)Anthracene	12.	U
191-24-2-----	Benzo(g,h,i)Perylene	12.	U

Qualifiers:

- U- Undetected. Value is the quantitation limit for that compound.
- J- Estimated value. Value is below the compound quantitation limit.
- B- Compound also found in blank.
- D- Diluted value.

000078

1E
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE

MW-3

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89092009

Matrix: (soil/water) WATER

Lab Sample ID: H23116

Sample wt/vol: 849 mL

Lab File ID: >CA339::D3

Level: (low/med) LOW

Date Received : 09/19/89

% Moisture: not dec.:

Date Extracted: 09/25/89

Extraction:(SepF/Cont/Sonc) CONT

Date Analyzed : 10/16/89

GPC Cleanup: (Y/N) N

Dilution Factor: 1.00

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

Number TICs Found: 1

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Unknown	4.13	14.	
2.				
3.				
4.				
5.				
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10.				
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
PAGE 1

SAMPLE

MW-4

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89091903

Matrix: (soil/water) WATER

Lab Sample ID: H22943

Sample wt/vol: 1010 mL

Lab File ID: >CA348::D7

Level: (low/med) LOW

Date Received: 09/18/89

% Moisture: not dec.:

Date Extracted: 09/20/89

Extraction: (SepF/Cont/Sonc) CONT

Date Analyzed: 10/17/89

GPC Cleanup: (Y/N) N

Dilution Factor: 1.00

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
108-95-2	Phenol	10.	U
111-44-4	bis(2-Chloroethyl)ether	10.	U
95-57-8	2-Chlorophenol	10.	U
541-73-1	1,3-Dichlorobenzene	10.	U
106-46-7	1,4-Dichlorobenzene	10.	U
100-51-6	Benzyl Alcohol	10.	U
95-50-1	1,2-Dichlorobenzene	10.	U
95-48-7	2-Methylphenol	10.	U
39638-32-9	bis(2-Chloroisopropyl)ether	10.	U
106-44-5	4-Methylphenol	10.	U
621-64-7	N-Nitroso-Di-n-propylamine	10.	U
67-72-1	Hexachloroethane	10.	U
98-95-3	Nitrobenzene	10.	U
78-59-1	Isophorone	10.	U
88-75-5	2-Nitrophenol	10.	U
105-67-9	2,4-Dimethylphenol	10.	U
65-85-0	Benzoic Acid	10.	U
111-91-1	bis(2-Chloroethoxy)methane	10.	U
120-83-2	2,4-Dichlorophenol	10.	U
120-82-1	1,2,4-Trichlorobenzene	10.	U
91-20-3	Naphthalene	10.	U
106-47-8	4-Chloroaniline	10.	U
87-68-3	Hexachlorobutadiene	10.	U
59-50-7	4-Chloro-3-methylphenol	10.	U
91-57-6	2-Methylnaphthalene	10.	U
77-47-4	Hexachlorocyclopentadiene	10.	U
88-06-2	2,4,6-Trichlorophenol	10.	U
95-95-4	2,4,5-Trichlorophenol	50.	U
91-58-7	2-Chloronaphthalene	10.	U

Qualifiers:

- U- Undetected. Value is the quantitation limit for that compound.
- J- Estimated value. Value is below the compound quantitation limit.
- B- Compound also found in blank.
- D- Diluted value.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
PAGE 2

SAMPLE

MW-4

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89091903

Matrix: (soil/water) WATER

Lab Sample ID: H22943

Sample wt/vol: 1010 mL

Lab File ID: >CA348::D7

Level: (low/med) LOW

Date Received: 09/18/89

% Moisture: not dec.:

Date Extracted: 09/20/89

Extraction: (SepF/Cont/Sonc) CONT

Date Analyzed: 10/17/89

GPC Cleanup: (Y/N) N

Dilution Factor: 1.00

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
88-74-4	2-Nitroaniline	50.	U
131-11-3	Dimethylphthalate	10.	U
208-96-8	Acenaphthylene	10.	U
99-09-2	3-Nitroaniline	50.	U
83-32-9	Acenaphthene	10.	U
51-28-5	2,4-Dinitrophenol	50.	U
100-02-7	4-Nitrophenol	50.	U
132-64-9	Dibenzofuran	10.	U
121-14-2	2,4-Dinitrotoluene	10.	U
606-20-2	2,6-Dinitrotoluene	10.	U
84-66-2	Diethylphthalate	10.	U
7005-72-3	4-Chlorophenyl-phenylether	10.	U
86-73-7	Fluorene	10.	U
100-01-6	4-Nitroaniline	50.	U
534-52-1	4,6-Dinitro-2-methylphenol	50.	U
86-30-6	N-Nitrosodiphenylamine	10.	U
101-55-3	4-Bromophenyl-phenylether	10.	U
118-74-1	Hexachlorobenzene	10.	U
87-86-5	Pentachlorophenol	50.	U
85-01-8	Phenanthrene	10.	U
120-12-7	Anthracene	10.	U
84-74-2	Di-n-Butylphthalate	10.	U
206-44-0	Fluoranthene	10.	U
129-00-0	Pyrene	10.	U
85-68-7	Butylbenzylphthalate	10.	U
91-94-1	3,3'-Dichlorobenzidine	20.	U
56-55-3	Benzo(a)Anthracene	10.	U
117-81-7	Bis(2-Ethylhexyl)Phthalate	10.	U

Qualifiers:

- U- Undetected. Value is the quantitation limit for that compound.
- J- Estimated value. Value is below the compound quantitation limit.
- B- Compound also found in blank.
- D- Diluted value.

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
PAGE 3

SAMPLE

MW-4

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89091903

Matrix: (soil/water) WATER

Lab Sample ID: H22943

Sample wt/vol: 1010 mL

Lab File ID: >CA348::D7

Level: (low/med) LOW

Date Received: 09/18/89

% Moisture: not dec.:

Date Extracted: 09/20/89

Extraction: (SepF/Cont/Sonc) CONT

Date Analyzed: 10/17/89

GPC Cleanup: (Y/N) N

Dilution Factor: 1.00

CAS No.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/Kg)	ug/L	
218-01-9-----	Chrysene	10.	U	
117-84-0-----	Di-n-octylphthalate	10.	U	
205-99-2-----	Benzo(b)Fluoranthene	10.	U	
207-08-9-----	Benzo(k)Fluoranthene	10.	U	
50-32-8-----	Benzo(a)Pyrene	10.	U	
193-39-5-----	Indeno(1,2,3-cd)Pyrene	10.	U	
53-70-3-----	Dibenzo(a,h)Anthracene	10.	U	
191-24-2-----	Benzo(g,h,i)Perylene	10.	U	

Qualifiers:

- U- Undetected. Value is the quantitation limit for that compound.
- J- Estimated value. Value is below the compound quantitation limit.
- B- Compound also found in blank.
- D- Diluted value.

000087

1E
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE

MW-4

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89091903

Matrix: (soil/water) WATER

Lab Sample ID: H22943

Sample wt/vol: 1010 mL

Lab File ID: >CA348::D7

Level: (low/med) LOW

Date Received : 09/18/89

% Moisture: not dec.:

Date Extracted: 09/20/89

Extraction:(SepF/Cont/Sonc) CONT

Date Analyzed : 10/17/89

GPC Cleanup: (Y/N) N

Dilution Factor: 1.00

Number TICs Found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Unknown	19.49	11.	
2.	Unknown	23.41	33.	
3.				
4.				
5.				
6.				
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
PAGE 1

SAMPLE

MW-5

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89091903

Matrix: (soil/water) WATER

Lab Sample ID: H22942

Sample wt/vol: 980 mL

Lab File ID: >CA351::D7

Level: (low/med) LOW

Date Received: 09/18/89

% Moisture: not dec.:

Date Extracted: 09/20/89

Extraction: (SepF/Cont/Sonc) CONT

Date Analyzed: 10/17/89

GPC Cleanup: (Y/N) N

Dilution Factor: 1.00

CAS No.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/Kg)	ug/L
108-95-2	Phenol	10.	U
111-44-4	bis(2-Chloroethyl)ether	10.	U
95-57-8	2-Chlorophenol	10.	U
541-73-1	1,3-Dichlorobenzene	10.	U
106-46-7	1,4-Dichlorobenzene	10.	U
100-51-6	Benzyl Alcohol	10.	U
95-50-1	1,2-Dichlorobenzene	5.	J
95-48-7	2-Methylphenol	6.	J
39638-32-9	bis(2-Chloroisopropyl)ether	10.	U
106-44-5	4-Methylphenol	10.	U
621-64-7	N-Nitroso-Di-n-propylamine	10.	U
67-72-1	Hexachloroethane	10.	U
98-95-3	Nitrobenzene	10.	U
78-59-1	Isophorone	10.	U
88-75-5	2-Nitrophenol	10.	U
105-67-9	2,4-Dimethylphenol	10.	U
65-85-0	Benzoic Acid	10.	U
111-91-1	bis(2-Chloroethoxy)methane	10.	U
120-83-2	2,4-Dichlorophenol	10.	U
120-82-1	1,2,4-Trichlorobenzene	3.	J
91-20-3	Naphthalene	5.	J
106-47-8	4-Chloroaniline	10.	U
87-68-3	Hexachlorobutadiene	10.	U
59-50-7	4-Chloro-3-methylphenol	10.	U
91-57-6	2-Methylnaphthalene	1.	J
77-47-4	Hexachlorocyclopentadiene	10.	U
88-06-2	2,4,6-Trichlorophenol	10.	U
95-95-4	2,4,5-Trichlorophenol	51.	U
91-58-7	2-Chloronaphthalene	10.	U

Qualifiers:

- U- Undetected. Value is the quantitation limit for that compound.
- J- Estimated value. Value is below the compound quantitation limit.
- B- Compound also found in blank.
- D- Diluted value.

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
PAGE 2

SAMPLE

MW-5

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89091903

Matrix: (soil/water) WATER

Lab Sample ID: H22942

Sample wt/vol: 980 mL

Lab File ID: >CA351::D7

Level: (low/med) LOW

Date Received: 09/18/89

% Moisture: not dec.:

Date Extracted: 09/20/89

Extraction: (SepF/Cont/Sonc) CONT

Date Analyzed: 10/17/89

GPC Cleanup: (Y/N) N

Dilution Factor: 1.00

CAS No.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/Kg)	ug/L
88-74-4	2-Nitroaniline	51.	U
131-11-3	Dimethylphthalate	54.	U
208-96-8	Acenaphthylene	10.	U
99-09-2	3-Nitroaniline	51.	U
83-32-9	Acenaphthene	10.	U
51-28-5	2,4-Dinitrophenol	51.	U
100-02-7	4-Nitrophenol	51.	U
132-64-9	Dibenzofuran	10.	U
121-14-2	2,4-Dinitrotoluene	10.	U
606-20-2	2,6-Dinitrotoluene	10.	U
84-66-2	Diethylphthalate	10.	U
7005-72-3	4-Chlorophenyl-phenylether	10.	U
86-73-7	Fluorene	10.	U
100-01-6	4-Nitroaniline	51.	U
534-52-1	4,6-Dinitro-2-methylphenol	51.	U
86-30-6	N-Nitrosodiphenylamine	10.	U
101-55-3	4-Bromophenyl-phenylether	10.	U
118-74-1	Hexachlorobenzene	10.	U
87-86-5	Pentachlorophenol	51.	U
85-01-8	Phenanthrene	10.	U
120-12-7	Anthracene	10.	U
84-74-2	Di-n-Butylphthalate	10.	U
206-44-0	Fluoranthene	10.	U
129-00-0	Pyrene	10.	U
85-68-7	Butylbenzylphthalate	10.	U
91-94-1	3,3'-Dichlorobenzidine	20.	U
56-55-3	Benzo(a)Anthracene	10.	U
117-81-7	Bis(2-Ethylhexyl)Phthalate	10.	U

Qualifiers:

- U- Undetected. Value is the quantitation limit for that compound.
- J- Estimated value. Value is below the compound quantitation limit.
- B- Compound also found in blank.
- D- Diluted value.

000085

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
PAGE 3

SAMPLE

MW-5

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89091903

Matrix: (soil/water) WATER

Lab Sample ID: H22942

Sample wt/vol: 980 mL

Lab File ID: >CA351::D7

Level: (low/med) LOW

Date Received: 09/18/89

% Moisture: not dec.:

Date Extracted: 09/20/89

Extraction: (SepF/Cont/Sonc) CONT

Date Analyzed: 10/17/89

GPC Cleanup: (Y/N) N

Dilution Factor: 1.00

CAS No.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/Kg)	ug/L
218-01-9-----	Chrysene_____	10.	U
117-84-0-----	Di-n-octylphthalate_____	10.	U
205-99-2-----	Benzo(b)Fluoranthene_____	10.	U
207-08-9-----	Benzo(k)Fluoranthene_____	10.	U
50-32-8-----	Benzo(a)Pyrene_____	10.	U
193-39-5-----	Indeno(1,2,3-cd)Pyrene_____	10.	U
53-70-3-----	Dibenzo(a,h)Anthracene_____	10.	U
191-24-2-----	Benzo(g,h,i)Perylene_____	10.	U

Qualifiers:

- U- Undetected. Value is the quantitation limit for that compound.
- J- Estimated value. Value is below the compound quantitation limit.
- B- Compound also found in blank.
- D- Diluted value.

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1E
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE

MW-5

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89091903

Matrix: (soil/water) WATER

Lab Sample ID: H22942

Sample wt/vol: 980 mL

Lab File ID: >CA351::D7

Level: (low/med) LOW

Date Received : 09/18/89

% Moisture: not dec.:

Date Extracted: 09/20/89

Extraction: (SepF/Cont/Sonc) CONT

Date Analyzed : 10/17/89

GPC Cleanup: (Y/N) N

Dilution Factor: 1.00

Number TICs Found: 14

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 35	Benzene, methyl-	3.62	11.	
2. 100414	Benzene, ethyl- (8C19C1)	5.26	8.	
3. 620144	Benzene, 1-ethyl-3-methyl- (	6.37	15.	
4. 611143	Benzene, 1-ethyl-2-methyl- (	6.48	10.	
5. 622968	Benzene, 1-ethyl-4-methyl- (	7.47	33.	
6. 535773	Benzene, 1-methyl-3-(1-methy	8.51	10.	
7.	Unknown	11.89	11.	
8.	Unknown	13.55	10.	
9.	Unknown hydrocarbon	19.04	12.	
10.	Unknown hydrocarbon	19.13	13.	
11.	Unknown	19.54	14.	
12.	Unknown	19.98	10.	
13.	Unknown hydrocarbon	20.62	12.	
14. .	Unknown	27.97	41.	
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
PAGE 1

SAMPLE

MW-6

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89091903

Matrix: (soil/water) WATER

Lab Sample ID: H22941

Sample wt/vol: 930 mL

Lab File ID: >CA357::D1

Level: (low/med) LOW

Date Received: 09/18/89

% Moisture: not dec.:

Date Extracted: 09/20/89

Extraction: (SepF/Cont/Sonc) CONT

Date Analyzed: 10/18/89

GPC Cleanup: (Y/N) N

Dilution Factor: 1.00

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
108-95-2	Phenol	11.	U
111-44-4	bis(2-Chloroethyl)ether	11.	U
95-57-8	2-Chlorophenol	11.	U
541-73-1	1,3-Dichlorobenzene	11.	U
106-46-7	1,4-Dichlorobenzene	11.	U
100-51-6	Benzyl Alcohol	11.	U
95-50-1	1,2-Dichlorobenzene	11.	U
95-48-7	2-Methylphenol	11.	U
39638-32-9	bis(2-Chloroisopropyl)ether	11.	U
106-44-5	4-Methylphenol	11.	U
621-64-7	N-Nitroso-Di-n-propylamine	11.	U
67-72-1	Hexachloroethane	11.	U
98-95-3	Nitrobenzene	11.	U
78-59-1	Isophorone	11.	U
88-75-5	2-Nitrophenol	11.	U
105-67-9	2,4-Dimethylphenol	11.	U
65-85-0	Benzoic Acid	11.	U
111-91-1	bis(2-Chloroethoxy)methane	11.	U
120-83-2	2,4-Dichlorophenol	11.	U
120-82-1	1,2,4-Trichlorobenzene	11.	U
91-20-3	Naphthalene	11.	U
106-47-8	4-Chloroaniline	11.	U
87-68-3	Hexachlorobutadiene	11.	U
59-50-7	4-Chloro-3-methylphenol	11.	U
91-57-6	2-Methylnaphthalene	11.	U
77-47-4	Hexachlorocyclopentadiene	11.	U
88-06-2	2,4,6-Trichlorophenol	11.	U
95-95-4	2,4,5-Trichlorophenol	54.	U
91-58-7	2-Chloronaphthalene	11.	U

Qualifiers:

- U- Undetected. Value is the quantitation limit for that compound.
- J- Estimated value. Value is below the compound quantitation limit.
- B- Compound also found in blank.
- D- Diluted value.

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
PAGE 2

SAMPLE

MW-6

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89091903

Matrix: (soil/water) WATER

Lab Sample ID: H22941

Sample wt/vol: 930 mL

Lab File ID: >CA357::D1

Level: (low/med) LOW

Date Received: 09/18/89

% Moisture: not dec.:

Date Extracted: 09/20/89

Extraction: (SepF/Cont/Sonc) CONT

Date Analyzed: 10/18/89

GPC Cleanup: (Y/N) N

Dilution Factor: 1.00

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
88-74-4	2-Nitroaniline	54.	U
131-11-3	Dimethylphthalate	11.	U
208-96-8	Acenaphthylene	11.	U
99-09-2	3-Nitroaniline	54.	U
83-32-9	Acenaphthene	11.	U
51-28-5	2,4-Dinitrophenol	54.	U
100-02-7	4-Nitrophenol	54.	U
132-64-9	Dibenzofuran	11.	U
121-14-2	2,4-Dinitrotoluene	11.	U
606-20-2	2,6-Dinitrotoluene	11.	U
84-66-2	Diethylphthalate	11.	U
7005-72-3	4-Chlorophenyl-phenylether	11.	U
86-73-7	Fluorene	11.	U
100-01-6	4-Nitroaniline	54.	U
534-52-1	4,6-Dinitro-2-methylphenol	54.	U
86-30-6	N-Nitrosodiphenylamine	11.	U
101-55-3	4-Bromophenyl-phenylether	11.	U
118-74-1	Hexachlorobenzene	11.	U
87-86-5	Pentachlorophenol	54.	U
85-01-8	Phenanthrene	11.	U
120-12-7	Anthracene	11.	U
84-74-2	Di-n-Butylphthalate	11.	U
206-44-0	Fluoranthene	11.	U
129-00-0	Pyrene	11.	U
85-68-7	Butylbenzylphthalate	11.	U
91-94-1	3,3'-Dichlorobenzidine	22.	U
56-55-3	Benzo(a)Anthracene	11.	U
117-81-7	Bis(2-Ethylhexyl)Phthalate	11.	U

Qualifiers:

- U- Undetected. Value is the quantitation limit for that compound.
- J- Estimated value. Value is below the compound quantitation limit.
- B- Compound also found in blank.
- D- Diluted value.

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
PAGE 3

SAMPLE

MW-6

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89091903

Matrix: (soil/water) WATER

Lab Sample ID: H22941

Sample wt/vol: 930 mL

Lab File ID: >CA357::D1

Level: (low/med) LOW

Date Received: 09/18/89

% Moisture: not dec.:

Date Extracted: 09/20/89

Extraction: (SepF/Cont/Sonc) CONT

Date Analyzed: 10/18/89

GPC Cleanup: (Y/N) N

Dilution Factor: 1.00

CAS No.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/Kg)	ug/L	
218-01-9-----	Chrysene_____	11.		U
117-84-0-----	Di-n-octylphthalate_____	11.		U
205-99-2-----	Benzo(b)Fluoranthene_____	11.		U
207-08-9-----	Benzo(k)Fluoranthene_____	11.		U
50-32-8-----	Benzo(a)Pyrene_____	11.		U
193-39-5-----	Indeno(1,2,3-cd)Pyrene_____	11.		U
53-70-3-----	Dibenzo(a,h)Anthracene_____	11.		U
191-24-2-----	Benzo(g,h,i)Perylene_____	11.		U

Qualifiers:

- U- Undetected. Value is the quantitation limit for that compound.
- J- Estimated value. Value is below the compound quantitation limit.
- B- Compound also found in blank.
- D- Diluted value.

000090

1E
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE

MW-6

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89091903

Matrix: (soil/water) WATER

Lab Sample ID: H22941

Sample wt/vol: 930 mL

Lab File ID: >CA357::D1

Level: (low/med) LOW

Date Received : 09/18/89

% Moisture: not dec.:

Date Extracted: 09/20/89

Extraction:(SepF/Cont/Sonc) CONT

Date Analyzed : 10/18/89

GPC Cleanup: (Y/N) N

Dilution Factor: 1.00

Number TICs Found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Unknown	4.49	9.	
2.				
3.				
4.				
5.				
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
PAGE 1

SAMPLE

MW-7

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89091903

Matrix: (soil/water) WATER

Lab Sample ID: H22940

Sample wt/vol: 859 mL

Lab File ID: >CA345::D1

Level: (low/med) LOW

Date Received: 09/18/89

% Moisture: not dec.:

Date Extracted: 09/20/89

Extraction: (SepF/Cont/Sonc) CONT

Date Analyzed: 10/17/89

GPC Cleanup: (Y/N) N

Dilution Factor: 1.00

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
108-95-2-----	Phenol_____	12.	U
111-44-4-----	bis(2-Chloroethyl)ether_____	12.	U
95-57-8-----	2-Chlorophenol_____	12.	U
541-73-1-----	1,3-Dichlorobenzene_____	12.	U
106-46-7-----	1,4-Dichlorobenzene_____	12.	U
100-51-6-----	Benzyl Alcohol_____	12.	U
95-50-1-----	1,2-Dichlorobenzene_____	12.	U
95-48-7-----	2-Methylphenol_____	12.	U
39638-32-9-----	bis(2-Chloroisopropyl)ether_____	12.	U
106-44-5-----	4-Methylphenol_____	12.	U
621-64-7-----	N-Nitroso-Di-n-propylamine_____	12.	U
67-72-1-----	Hexachloroethane_____	12.	U
98-95-3-----	Nitrobenzene_____	12.	U
78-59-1-----	Isophorone_____	12.	U
88-75-5-----	2-Nitrophenol_____	12.	U
105-67-9-----	2,4-Dimethylphenol_____	12.	U
65-85-0-----	Benzoic Acid_____	12.	U
111-91-1-----	bis(2-Chloroethoxy)methane_____	12.	U
120-83-2-----	2,4-Dichlorophenol_____	12.	U
120-82-1-----	1,2,4-Trichlorobenzene_____	12.	U
91-20-3-----	Naphthalene_____	12.	U
106-47-8-----	4-Chloroaniline_____	12.	U
87-68-3-----	Hexachlorobutadiene_____	12.	U
59-50-7-----	4-Chloro-3-methylphenol_____	12.	U
91-57-6-----	2-Methylnaphthalene_____	12.	U
77-47-4-----	Hexachlorocyclopentadiene_____	12.	U
88-06-2-----	2,4,6-Trichlorophenol_____	12.	U
95-95-4-----	2,4,5-Trichlorophenol_____	58.	U
91-58-7-----	2-Chloronaphthalene_____	12.	U

Qualifiers:

- U- Undetected. Value is the quantitation limit for that compound.
- J- Estimated value. Value is below the compound quantitation limit.
- B- Compound also found in blank.
- D- Diluted value.

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
PAGE 2

SAMPLE

MW-7

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89091903

Matrix: (soil/water) WATER

Lab Sample ID: H22940

Sample wt/vol: 859 mL

Lab File ID: >CA345::D1

Level: (low/med) LOW

Date Received: 09/18/89

% Moisture: not dec.:

Date Extracted: 09/20/89

Extraction: (SepF/Cont/Sonc) CONT

Date Analyzed: 10/17/89

GPC Cleanup: (Y/N) N

Dilution Factor: 1.00

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
88-74-4	2-Nitroaniline	58.	U
131-11-3	Dimethylphthalate	12.	U
208-96-8	Acenaphthylene	12.	U
99-09-2	3-Nitroaniline	58.	U
83-32-9	Acenaphthene	12.	U
51-28-5	2,4-Dinitrophenol	58.	U
100-02-7	4-Nitrophenol	58.	U
132-64-9	Dibenzofuran	12.	U
121-14-2	2,4-Dinitrotoluene	12.	U
606-20-2	2,6-Dinitrotoluene	12.	U
84-66-2	Diethylphthalate	12.	U
7005-72-3	4-Chlorophenyl-phenylether	12.	U
86-73-7	Fluorene	12.	U
100-01-6	4-Nitroaniline	58.	U
534-52-1	4,6-Dinitro-2-methylphenol	58.	U
86-30-6	N-Nitrosodiphenylamine	12.	U
101-55-3	4-Bromophenyl-phenylether	12.	U
118-74-1	Hexachlorobenzene	12.	U
87-86-5	Pentachlorophenol	58.	U
85-01-8	Phenanthrene	12.	U
120-12-7	Anthracene	12.	U
84-74-2	Di-n-Butylphthalate	12.	U
206-44-0	Fluoranthene	12.	U
129-00-0	Pyrene	12.	U
85-68-7	Butylbenzylphthalate	12.	U
91-94-1	3,3'-Dichlorobenzidine	23.	U
56-55-3	Benzo(a)Anthracene	12.	U
117-81-7	Bis(2-Ethylhexyl)Phthalate	12.	U

Qualifiers:

- U- Undetected. Value is the quantitation limit for that compound.
- J- Estimated value. Value is below the compound quantitation limit.
- B- Compound also found in blank.
- D- Diluted value.

10/13

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
PAGE 3

SAMPLE

MW-7

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89091903

Matrix: (soil/water) WATER

Lab Sample ID: H22940

Sample wt/vol: 859 mL

Lab File ID: >CA345::D1

Level: (low/med) LOW

Date Received: 09/18/89

% Moisture: not dec.:

Date Extracted: 09/20/89

Extraction: (SepF/Cont/Sonc) CONT

Date Analyzed: 10/17/89

GPC Cleanup: (Y/N) N

Dilution Factor: 1.00

CAS No.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/Kg)	ug/L
218-01-9	Chrysene	12.	U
117-84-0	Di-n-octylphthalate	12.	U
205-99-2	Benzo(b)Fluoranthene	12.	U
207-08-9	Benzo(k)Fluoranthene	12.	U
50-32-8	Benzo(a)Pyrene	12.	U
193-39-5	Indeno(1,2,3-cd)Pyrene	12.	U
53-70-3	Dibenzo(a,h)Anthracene	12.	U
191-24-2	Benzo(g,h,i)Perylene	12.	U

Qualifiers:

- U- Undetected. Value is the quantitation limit for that compound.
- J- Estimated value. Value is below the compound quantitation limit.
- B- Compound also found in blank.
- D- Diluted value.

000034

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE

MW-7

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89091903

Matrix: (soil/water) WATER

Lab Sample ID: H22940

Sample wt/vol: 859 mL

Lab File ID: >CA345::D1

Level: (low/med) LOW

Date Received : 09/18/89

% Moisture: not dec.:

Date Extracted: 09/20/89

Extraction: (SepF/Cont/Sonc) CONT

Date Analyzed : 10/17/89

GPC Cleanup: (Y/N) N

Dilution Factor: 1.00

Number TICs Found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Unknown	5.59	11.	
2.				
3.				
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
PAGE 1

SAMPLE

MW-8

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89092009

Matrix: (soil/water) WATER

Lab Sample ID: H23115

Sample wt/vol: 859 mL

Lab File ID: >CA344::D3

Level: (low/med) LOW

Date Received: 09/19/89

% Moisture: not dec.:

Date Extracted: 09/25/89

Extraction: (SepF/Cont/Sonc) CONT

Date Analyzed: 10/17/89

GPC Cleanup: (Y/N) N

Dilution Factor: 1.00

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
108-95-2	Phenol	12.	U
111-44-4	bis(2-Chloroethyl)ether	12.	U
95-57-8	2-Chlorophenol	12.	U
541-73-1	1,3-Dichlorobenzene	12.	U
106-46-7	1,4-Dichlorobenzene	12.	U
100-51-6	Benzyl Alcohol	12.	U
95-50-1	1,2-Dichlorobenzene	12.	U
95-48-7	2-Methylphenol	12.	U
39638-32-9	bis(2-Chloroisopropyl)ether	12.	U
106-44-5	4-Methylphenol	12.	U
621-64-7	N-Nitroso-Di-n-propylamine	12.	U
67-72-1	Hexachloroethane	12.	U
98-95-3	Nitrobenzene	12.	U
78-59-1	Isophorone	12.	U
88-75-5	2-Nitrophenol	12.	U
105-67-9	2,4-Dimethylphenol	12.	U
65-85-0	Benzoic Acid	12.	U
111-91-1	bis(2-Chloroethoxy)methane	12.	U
120-83-2	2,4-Dichlorophenol	12.	U
120-82-1	1,2,4-Trichlorobenzene	12.	U
91-20-3	Naphthalene	12.	U
106-47-8	4-Chloroaniline	12.	U
87-68-3	Hexachlorobutadiene	12.	U
59-50-7	4-Chloro-3-methylphenol	12.	U
91-57-6	2-Methylnaphthalene	12.	U
77-47-4	Hexachlorocyclopentadiene	12.	U
88-06-2	2,4,6-Trichlorophenol	12.	U
95-95-4	2,4,5-Trichlorophenol	58.	U
91-58-7	2-Chloronaphthalene	12.	U

Qualifiers:

- U- Undetected. Value is the quantitation limit for that compound.
- J- Estimated value. Value is below the compound quantitation limit.
- B- Compound also found in blank.
- D- Diluted value.

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
PAGE 2

SAMPLE

MW-8

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89092009

Matrix: (soil/water) WATER

Lab Sample ID: H23115

Sample wt/vol: 859 mL

Lab File ID: >CA344::D3

Level: (low/med) LOW

Date Received: 09/19/89

% Moisture: not dec.:

Date Extracted: 09/25/89

Extraction: (SepF/Cont/Sonc) CONT

Date Analyzed: 10/17/89

GPC Cleanup: (Y/N) N

Dilution Factor: 1.00

CAS No.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/Kg)	ug/L	
88-74-4-----	2-Nitroaniline_____	58.	U	
131-11-3-----	Dimethylphthalate_____	12.	U	
208-96-8-----	Acenaphthylene_____	12.	U	
99-09-2-----	3-Nitroaniline_____	58.	U	
83-32-9-----	Acenaphthene_____	12.	U	
51-28-5-----	2,4-Dinitrophenol_____	58.	U	
100-02-7-----	4-Nitrophenol_____	58.	U	
132-64-9-----	Dibenzofuran_____	12.	U	
121-14-2-----	2,4-Dinitrotoluene_____	12.	U	
606-20-2-----	2,6-Dinitrotoluene_____	12.	U	
84-66-2-----	Diethylphthalate_____	12.	U	
7005-72-3-----	4-Chlorophenyl-phenylether__	12.	U	
86-73-7-----	Fluorene_____	12.	U	
100-01-6-----	4-Nitroaniline_____	58.	U	
534-52-1-----	4,6-Dinitro-2-methylphenol__	58.	U	
86-30-6-----	N-Nitrosodiphenylamine_____	12.	U	
101-55-3-----	4-Bromophenyl-phenylether__	12.	U	
118-74-1-----	Hexachlorobenzene_____	12.	U	
87-86-5-----	Pentachlorophenol_____	58.	U	
85-01-8-----	Phenanthrene_____	12.	U	
120-12-7-----	Anthracene_____	12.	U	
84-74-2-----	Di-n-Butylphthalate_____	12.	U	
206-44-0-----	Fluoranthene_____	12.	U	
129-00-0-----	Pyrene_____	12.	U	
85-68-7-----	Butylbenzylphthalate_____	12.	U	
91-94-1-----	3,3'-Dichlorobenzidine_____	23.	U	
56-55-3-----	Benzo(a)Anthracene_____	12.	U	
117-81-7-----	Bis(2-Ethylhexyl)Phthalate__	12.	U	

Qualifiers:

U- Undetected. Value is the quantitation limit for that compound.
J- Estimated value. Value is below the compound quantitation limit.
B- Compound also found in blank.
D- Diluted value.

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
PAGE 3

SAMPLE

MW-8

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89092009

Matrix: (soil/water) WATER

Lab Sample ID: H23115

Sample wt/vol: 859 mL

Lab File ID: >CA344::D3

Level: (low/med) LOW

Date Received: 09/19/89

% Moisture: not dec.:

Date Extracted: 09/25/89

Extraction: (SepF/Cont/Sonc) CONT

Date Analyzed: 10/17/89

GPC Cleanup: (Y/N) N

Dilution Factor: 1.00

CAS No.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/Kg) ug/L	Q
218-01-9-----	Chrysene_____	12.	U
117-84-0-----	Di-n-octylphthalate_____	12.	U
205-99-2-----	Benzo(b)Fluoranthene_____	12.	U
207-08-9-----	Benzo(k)Fluoranthene_____	12.	U
50-32-8-----	Benzo(a)Pyrene_____	12.	U
193-39-5-----	Indeno(1,2,3-cd)Pyrene_____	12.	U
53-70-3-----	Dibenzo(a,h)Anthracene_____	12.	U
191-24-2-----	Benzo(g,h,i)Perylene_____	12.	U

Qualifiers:

- U- Undetected. Value is the quantitation limit for that compound.
- J- Estimated value. Value is below the compound quantitation limit.
- B- Compound also found in blank.
- D- Diluted value.

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE

MW-8

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89092009

Matrix: (soil/water) WATER

Lab Sample ID: H23115

Sample wt/vol: 859 mL

Lab File ID: >CA344::D3

Level: (low/med) LOW

Date Received : 09/19/89

% Moisture: not dec.:

Date Extracted: 09/25/89

Extraction:(SepF/Cont/Sonc) CONT

Date Analyzed : 10/17/89

GPC Cleanup: (Y/N) N

Dilution Factor: 1.00

Number TICs Found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Unknown	30.04	10.	
2.	Unknown	32.18	13.	
3.				
4.				
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
PAGE 1

SAMPLE

MW-9

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89092009

Matrix: (soil/water) WATER

Lab Sample ID: H23113

Sample wt/vol: 989 mL

Lab File ID: >CA336::D3

Level: (low/med) LOW

Date Received: 09/19/89

% Moisture: not dec.:

Date Extracted: 09/25/89

Extraction: (SepF/Cont/Sonc) CONT

Date Analyzed: 10/16/89

GPC Cleanup: (Y/N) N

Dilution Factor: 1.00

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
108-95-2-----	Phenol_____	10.	U
111-44-4-----	bis(2-Chloroethyl)ether_____	10.	U
95-57-8-----	2-Chlorophenol_____	10.	U
541-73-1-----	1,3-Dichlorobenzene_____	10.	U
106-46-7-----	1,4-Dichlorobenzene_____	10.	U
100-51-6-----	Benzyl Alcohol_____	10.	U
95-50-1-----	1,2-Dichlorobenzene_____	10.	U
95-48-7-----	2-Methylphenol_____	10.	U
39638-32-9-----	bis(2-Chloroisopropyl)ether_	10.	U
106-44-5-----	4-Methylphenol_____	10.	U
621-64-7-----	N-Nitroso-Di-n-propylamine__	10.	U
67-72-1-----	Hexachloroethane_____	10.	U
98-95-3-----	Nitrobenzene_____	10.	U
78-59-1-----	Isophorone_____	10.	U
88-75-5-----	2-Nitrophenol_____	10.	U
105-67-9-----	2,4-Dimethylphenol_____	10.	U
65-85-0-----	Benzoic Acid_____	10.	U
111-91-1-----	bis(2-Chloroethoxy)methane__	10.	U
120-83-2-----	2,4-Dichlorophenol_____	10.	U
120-82-1-----	1,2,4-Trichlorobenzene_____	10.	U
91-20-3-----	Naphthalene_____	10.	U
106-47-8-----	4-Chloroaniline_____	10.	U
87-68-3-----	Hexachlorobutadiene_____	10.	U
59-50-7-----	4-Chloro-3-methylphenol_____	10.	U
91-57-6-----	2-Methylnaphthalene_____	10.	U
77-47-4-----	Hexachlorocyclopentadiene____	10.	U
88-06-2-----	2,4,6-Trichlorophenol_____	10.	U
95-95-4-----	2,4,5-Trichlorophenol_____	51.	U
91-58-7-----	2-Chloronaphthalene_____	10.	U

Qualifiers:

- U- Undetected. Value is the quantitation limit for that compound.
- J- Estimated value. Value is below the compound quantitation limit.
- B- Compound also found in blank.
- D- Diluted value.

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
PAGE 2

SAMPLE

MW-9

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89092009

Matrix: (soil/water) WATER

Lab Sample ID: H23113

Sample wt/vol: 989 mL

Lab File ID: >CA336::D3

Level: (low/med) LOW

Date Received: 09/19/89

% Moisture: not dec.:

Date Extracted: 09/25/89

Extraction: (SepF/Cont/Sonc) CONT

Date Analyzed: 10/16/89

GPC Cleanup: (Y/N) N

Dilution Factor: 1.00

CAS No.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/Kg)	ug/L	
88-74-4	2-Nitroaniline	51.	U	
131-11-3	Dimethylphthalate	10.	U	
208-96-8	Acenaphthylene	10.	U	
99-09-2	3-Nitroaniline	51.	U	
83-32-9	Acenaphthene	10.	U	
51-28-5	2,4-Dinitrophenol	51.	U	
100-02-7	4-Nitrophenol	51.	U	
132-64-9	Dibenzofuran	10.	U	
121-14-2	2,4-Dinitrotoluene	10.	U	
606-20-2	2,6-Dinitrotoluene	10.	U	
84-66-2	Diethylphthalate	10.	U	
7005-72-3	4-Chlorophenyl-phenylether	10.	U	
86-73-7	Fluorene	10.	U	
100-01-6	4-Nitroaniline	51.	U	
534-52-1	4,6-Dinitro-2-methylphenol	51.	U	
86-30-6	N-Nitrosodiphenylamine	10.	U	
101-55-3	4-Bromophenyl-phenylether	10.	U	
118-74-1	Hexachlorobenzene	10.	U	
87-86-5	Pentachlorophenol	51.	U	
85-01-8	Phenanthrene	10.	U	
120-12-7	Anthracene	10.	U	
84-74-2	Di-n-Butylphthalate	10.	U	
206-44-0	Fluoranthene	10.	U	
129-00-0	Pyrene	10.	U	
85-68-7	Butylbenzylphthalate	10.	U	
91-94-1	3,3'-Dichlorobenzidine	20.	U	
56-55-3	Benzo(a)Anthracene	10.	U	
117-81-7	Bis(2-Ethylhexyl)Phthalate	10.	U	

Qualifiers:

- U- Undetected. Value is the quantitation limit for that compound.
- J- Estimated value. Value is below the compound quantitation limit.
- B- Compound also found in blank.
- D- Diluted value.

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
PAGE 3

SAMPLE

MW-9

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89092009

Matrix: (soil/water) WATER

Lab Sample ID: H23113

Sample wt/vol: 989 mL

Lab File ID: >CA336::D3

Level: (low/med) LOW

Date Received: 09/19/89

% Moisture: not dec.:

Date Extracted: 09/25/89

Extraction: (SepF/Cont/Sonc) CONT

Date Analyzed: 10/16/89

GPC Cleanup: (Y/N) N

Dilution Factor: 1.00

CAS No.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/Kg)	ug/L
218-01-9-----	Chrysene_____	10.	U
117-84-0-----	Di-n-octylphthalate_____	10.	U
205-99-2-----	Benzo(b)Fluoranthene_____	10.	U
207-08-9-----	Benzo(k)Fluoranthene_____	10.	U
50-32-8-----	Benzo(a)Pyrene_____	10.	U
193-39-5-----	Indeno(1,2,3-cd)Pyrene_____	10.	U
53-70-3-----	Dibenzo(a,h)Anthracene_____	10.	U
191-24-2-----	Benzo(g,h,i)Perylene_____	10.	U

Qualifiers:

- U- Undetected. Value is the quantitation limit for that compound.
- J- Estimated value. Value is below the compound quantitation limit.
- B- Compound also found in blank.
- D- Diluted value.

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE

MW-9

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89092009

Matrix: (soil/water) WATER

Lab Sample ID: H23113

Sample wt/vol: 989 mL

Lab File ID: >CA336::D3

Level: (low/med) LOW

Date Received : 09/19/89

% Moisture: not dec.:

Date Extracted: 09/25/89

Extraction:(SepF/Cont/Sonc) CONT

Date Analyzed : 10/16/89

GPC Cleanup: (Y/N) N

Dilution Factor: 1.00

Number TICs Found: 7

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 75989	Propanoic acid, 2,2-dimethyl	4.22	22.	
2.	Unknown	7.53	27.	
3.	Unknown	20.55	24.	
4.	Unknown	24.10	56.	
5.	Unknown	27.19	54.	
6.	Unknown	30.04	140.	
7.	Unknown	32.61	120.	
8.				
9.				
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000103

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
PAGE 1

SAMPLE

MW-10

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89092009

Matrix: (soil/water) WATER

Lab Sample ID: H23111

Sample wt/vol: 890 mL

Lab File ID: >CA334::D3

Level: (low/med) LOW

Date Received: 09/19/89

% Moisture: not dec.:

Date Extracted: 09/25/89

Extraction: (SepF/Cont/Sonc) CONT

Date Analyzed: 10/16/89

GPC Cleanup: (Y/N) N

Dilution Factor: 1.00

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
108-95-2	Phenol	11.	U
111-44-4	bis(2-Chloroethyl)ether	11.	U
95-57-8	2-Chlorophenol	11.	U
541-73-1	1,3-Dichlorobenzene	11.	U
106-46-7	1,4-Dichlorobenzene	11.	U
100-51-6	Benzyl Alcohol	11.	U
95-50-1	1,2-Dichlorobenzene	11.	U
95-48-7	2-Methylphenol	11.	U
39638-32-9	bis(2-Chloroisopropyl)ether	11.	U
106-44-5	4-Methylphenol	11.	U
621-64-7	N-Nitroso-Di-n-propylamine	11.	U
67-72-1	Hexachloroethane	11.	U
98-95-3	Nitrobenzene	11.	U
78-59-1	Isophorone	11.	U
88-75-5	2-Nitrophenol	11.	U
105-67-9	2,4-Dimethylphenol	11.	U
65-85-0	Benzoic Acid	11.	U
111-91-1	bis(2-Chloroethoxy)methane	11.	U
120-83-2	2,4-Dichlorophenol	11.	U
120-82-1	1,2,4-Trichlorobenzene	11.	U
91-20-3	Naphthalene	11.	U
106-47-8	4-Chloroaniline	11.	U
87-68-3	Hexachlorobutadiene	11.	U
59-50-7	4-Chloro-3-methylphenol	11.	U
91-57-6	2-Methylnaphthalene	11.	U
77-47-4	Hexachlorocyclopentadiene	11.	U
88-06-2	2,4,6-Trichlorophenol	11.	U
95-95-4	2,4,5-Trichlorophenol	56.	U
91-58-7	2-Chloronaphthalene	11.	U

Qualifiers:

U- Undetected. Value is the quantitation limit for that compound.
J- Estimated value. Value is below the compound quantitation limit.
B- Compound also found in blank.
D- Diluted value.

000104

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
PAGE 2

SAMPLE

MW- 10

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89092009

Matrix: (soil/water) WATER

Lab Sample ID: H23111

Sample wt/vol: 890 mL

Lab File ID: >CA334::D3

Level: (low/med) LOW

Date Received: 09/19/89

% Moisture: not dec.:

Date Extracted: 09/25/89

Extraction: (SepF/Cont/Sonc) CONT

Date Analyzed: 10/16/89

GPC Cleanup: (Y/N) N

Dilution Factor: 1.00

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
88-74-4	2-Nitroaniline	56.	U
131-11-3	Dimethylphthalate	11.	U
208-96-8	Acenaphthylene	11.	U
99-09-2	3-Nitroaniline	56.	U
83-32-9	Acenaphthene	11.	U
51-28-5	2,4-Dinitrophenol	56.	U
100-02-7	4-Nitrophenol	56.	U
132-64-9	Dibenzofuran	11.	U
121-14-2	2,4-Dinitrotoluene	11.	U
606-20-2	2,6-Dinitrotoluene	11.	U
84-66-2	Diethylphthalate	11.	U
7005-72-3	4-Chlorophenyl-phenylether	11.	U
86-73-7	Fluorene	11.	U
100-01-6	4-Nitroaniline	56.	U
534-52-1	4,6-Dinitro-2-methylphenol	56.	U
86-30-6	N-Nitrosodiphenylamine	11.	U
101-55-3	4-Bromophenyl-phenylether	11.	U
118-74-1	Hexachlorobenzene	11.	U
87-86-5	Pentachlorophenol	56.	U
85-01-8	Phenanthrene	11.	U
120-12-7	Anthracene	11.	U
84-74-2	Di-n-Butylphthalate	11.	U
206-44-0	Fluoranthene	11.	U
129-00-0	Pyrene	11.	U
85-68-7	Butylbenzylphthalate	11.	U
91-94-1	3,3'-Dichlorobenzidine	22.	U
56-55-3	Benzo(a)Anthracene	11.	U
117-81-7	Bis(2-Ethylhexyl)Phthalate	11.	U

Qualifiers:

U- Undetected. Value is the quantitation limit for that compound.
J- Estimated value. Value is below the compound quantitation limit.
B- Compound also found in blank.
D- Diluted value.

000105

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
PAGE 3

SAMPLE

MW-10

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89092009

Matrix: (soil/water) WATER

Lab Sample ID: H23111

Sample wt/vol: 890 mL

Lab File ID: >CA334::D3

Level: (low/med) LOW

Date Received: 09/19/89

% Moisture: not dec.:

Date Extracted: 09/25/89

Extraction: (SepF/Cont/Sonc) CONT

Date Analyzed: 10/16/89

GPC Cleanup: (Y/N) N

Dilution Factor: 1.00

CAS No.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/Kg)	ug/L
			Q
218-01-9-----	Chrysene_____	11.	U
117-84-0-----	Di-n-octylphthalate_____	11.	U
205-99-2-----	Benzo(b)Fluoranthene_____	11.	U
207-08-9-----	Benzo(k)Fluoranthene_____	11.	U
50-32-8-----	Benzo(a)Pyrene_____	11.	U
193-39-5-----	Indeno(1,2,3-cd)Pyrene_____	11.	U
53-70-3-----	Dibenzo(a,h)Anthracene_____	11.	U
191-24-2-----	Benzo(g,h,i)Perylene_____	11.	U

Qualifiers:

- U- Undetected. Value is the quantitation limit for that compound.
- J- Estimated value. Value is below the compound quantitation limit.
- B- Compound also found in blank.
- D- Diluted value.

000100

1E
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE

MW-10

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89092009

Matrix: (soil/water) WATER

Lab Sample ID: H23111

Sample wt/vol: 890 mL

Lab File ID: >CA334::D3

Level: (low/med) LOW

Date Received : 09/19/89

% Moisture: not dec.:

Date Extracted: 09/25/89

Extraction:(SepF/Cont/Sonc) CONT

Date Analyzed : 10/16/89

GPC Cleanup: (Y/N) N

Dilution Factor: 1.00

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

Number TICs Found: 0

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	No BNA compounds found			
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000107

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
PAGE 1

SAMPLE

MW-11

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89092009

Matrix: (soil/water) WATER

Lab Sample ID: H23117

Sample wt/vol: 939 mL

Lab File ID: >CA340::D3

Level: (low/med) LOW

Date Received: 09/19/89

% Moisture: not dec.:

Date Extracted: 09/25/89

Extraction: (SepF/Cont/Sonc) CONT

Date Analyzed: 10/16/89

GPC Cleanup: (Y/N) N

Dilution Factor: 1.00

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
108-95-2	Phenol	11.	U
111-44-4	bis(2-Chloroethyl)ether	11.	U
95-57-8	2-Chlorophenol	11.	U
541-73-1	1,3-Dichlorobenzene	11.	U
106-46-7	1,4-Dichlorobenzene	11.	U
100-51-6	Benzyl Alcohol	11.	U
95-50-1	1,2-Dichlorobenzene	11.	U
95-48-7	2-Methylphenol	11.	U
39638-32-9	bis(2-Chloroisopropyl)ether	11.	U
106-44-5	4-Methylphenol	11.	U
621-64-7	N-Nitroso-Di-n-propylamine	11.	U
67-72-1	Hexachloroethane	11.	U
98-95-3	Nitrobenzene	11.	U
78-59-1	Isophorone	11.	U
88-75-5	2-Nitrophenol	11.	U
105-67-9	2,4-Dimethylphenol	11.	U
65-85-0	Benzoic Acid	11.	U
111-91-1	bis(2-Chloroethoxy)methane	11.	U
120-83-2	2,4-Dichlorophenol	11.	U
120-82-1	1,2,4-Trichlorobenzene	11.	U
91-20-3	Naphthalene	11.	U
106-47-8	4-Chloroaniline	11.	U
87-68-3	Hexachlorobutadiene	11.	U
59-50-7	4-Chloro-3-methylphenol	11.	U
91-57-6	2-Methylnaphthalene	11.	U
77-47-4	Hexachlorocyclopentadiene	11.	U
88-06-2	2,4,6-Trichlorophenol	11.	U
95-95-4	2,4,5-Trichlorophenol	53.	U
91-58-7	2-Chloronaphthalene	11.	U

Qualifiers:

- U- Undetected. Value is the quantitation limit for that compound.
- J- Estimated value. Value is below the compound quantitation limit.
- B- Compound also found in blank.
- D- Diluted value.

000108

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
PAGE 2

SAMPLE

MW-11

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89092009

Matrix: (soil/water) WATER

Lab Sample ID: H23117

Sample wt/vol: 939 mL

Lab File ID: >CA340::D3

Level: (low/med) LOW

Date Received: 09/19/89

% Moisture: not dec.:

Date Extracted: 09/25/89

Extraction: (SepF/Cont/Sonc) CONT

Date Analyzed: 10/16/89

GPC Cleanup: (Y/N) N

Dilution Factor: 1.00

CAS No.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/Kg)	ug/L
			Q
88-74-4	2-Nitroaniline	53.	U
131-11-3	Dimethylphthalate	11.	U
208-96-8	Acenaphthylene	11.	U
99-09-2	3-Nitroaniline	53.	U
83-32-9	Acenaphthene	11.	U
51-28-5	2,4-Dinitrophenol	53.	U
100-02-7	4-Nitrophenol	53.	U
132-64-9	Dibenzofuran	11.	U
121-14-2	2,4-Dinitrotoluene	11.	U
606-20-2	2,6-Dinitrotoluene	11.	U
84-66-2	Diethylphthalate	11.	U
7005-72-3	4-Chlorophenyl-phenylether	11.	U
86-73-7	Fluorene	11.	U
100-01-6	4-Nitroaniline	53.	U
534-52-1	4,6-Dinitro-2-methylphenol	53.	U
86-30-6	N-Nitrosodiphenylamine	11.	U
101-55-3	4-Bromophenyl-phenylether	11.	U
118-74-1	Hexachlorobenzene	11.	U
87-86-5	Pentachlorophenol	53.	U
85-01-8	Phenanthrene	11.	U
120-12-7	Anthracene	11.	U
84-74-2	Di-n-Butylphthalate	11.	U
206-44-0	Fluoranthene	11.	U
129-00-0	Pyrene	11.	U
85-68-7	Butylbenzylphthalate	11.	U
91-94-1	3,3'-Dichlorobenzidine	21.	U
56-55-3	Benzo(a)Anthracene	11.	U
117-81-7	Bis(2-Ethylhexyl)Phthalate	11.	U

Qualifiers:

- U- Undetected. Value is the quantitation limit for that compound.
- J- Estimated value. Value is below the compound quantitation limit.
- B- Compound also found in blank.
- D- Diluted value.

000109

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
PAGE 3

SAMPLE

MW-11

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89092009

Matrix: (soil/water) WATER

Lab Sample ID: H23117

Sample wt/vol: 939 mL

Lab File ID: >CA340::D3

Level: (low/med) LOW

Date Received: 09/19/89

% Moisture: not dec.:

Date Extracted: 09/25/89

Extraction: (SepF/Cont/Sonc) CONT

Date Analyzed: 10/16/89

GPC Cleanup: (Y/N) N

Dilution Factor: 1.00

CAS No.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/Kg)	ug/L	
218-01-9-----	Chrysene_____	11.		U
117-84-0-----	Di-n-octylphthalate_____	11.		U
205-99-2-----	Benzo(b)Fluoranthene_____	11.		U
207-08-9-----	Benzo(k)Fluoranthene_____	11.		U
50-32-8-----	Benzo(a)Pyrene_____	11.		U
193-39-5-----	Indeno(1,2,3-cd)Pyrene_____	11.		U
53-70-3-----	Dibenzo(a,h)Anthracene_____	11.		U
191-24-2-----	Benzo(g,h,i)Perylene_____	11.		U

Qualifiers:

- U- Undetected. Value is the quantitation limit for that compound.
- J- Estimated value. Value is below the compound quantitation limit.
- B- Compound also found in blank.
- D- Diluted value.

000110

1E
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE

MW- 11

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89092009

Matrix: (soil/water) WATER

Lab Sample ID: H23117

Sample wt/vol: 939 mL

Lab File ID: >CA340::D3

Level: (low/med) LOW

Date Received : 09/19/89

% Moisture: not dec.:

Date Extracted: 09/25/89

Extraction:(SepF/Cont/Sonc) CONT

Date Analyzed : 10/16/89

GPC Cleanup: (Y/N) N

Dilution Factor: 1.00

Number TICs Found: 4

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Unknown	24.13	14.	
2.	Unknown	27.21	15.	
3.	Unknown	30.05	29.	
4.	Unknown	34.53	260.	
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000111

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
PAGE 1

SAMPLE

MW-12

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89091903

Matrix: (soil/water) WATER

Lab Sample ID: H22944

Sample wt/vol: 910 mL

Lab File ID: >CA350::D7

Level: (low/med) LOW

Date Received: 09/18/89

% Moisture: not dec.:

Date Extracted: 09/20/89

Extraction: (SepF/Cont/Sonc) CONT

Date Analyzed: 10/17/89

GPC Cleanup: (Y/N) N

Dilution Factor: 1.00

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
108-95-2-----	Phenol	11.	U
111-44-4-----	bis(2-Chloroethyl)ether	11.	U
95-57-8-----	2-Chlorophenol	11.	U
541-73-1-----	1,3-Dichlorobenzene	11.	U
106-46-7-----	1,4-Dichlorobenzene	11.	U
100-51-6-----	Benzyl Alcohol	11.	U
95-50-1-----	1,2-Dichlorobenzene	11.	U
95-48-7-----	2-Methylphenol	11.	U
39638-32-9-----	bis(2-Chloroisopropyl)ether	11.	U
106-44-5-----	4-Methylphenol	11.	U
621-64-7-----	N-Nitroso-Di-n-propylamine	11.	U
67-72-1-----	Hexachloroethane	11.	U
98-95-3-----	Nitrobenzene	11.	U
78-59-1-----	Isophorone	11.	U
88-75-5-----	2-Nitrophenol	11.	U
105-67-9-----	2,4-Dimethylphenol	11.	U
65-85-0-----	Benzoic Acid	11.	U
111-91-1-----	bis(2-Chloroethoxy)methane	11.	U
120-83-2-----	2,4-Dichlorophenol	11.	U
120-82-1-----	1,2,4-Trichlorobenzene	11.	U
91-20-3-----	Naphthalene	11.	U
106-47-8-----	4-Chloroaniline	11.	U
87-68-3-----	Hexachlorobutadiene	11.	U
59-50-7-----	4-Chloro-3-methylphenol	11.	U
91-57-6-----	2-Methylnaphthalene	11.	U
77-47-4-----	Hexachlorocyclopentadiene	11.	U
88-06-2-----	2,4,6-Trichlorophenol	11.	U
95-95-4-----	2,4,5-Trichlorophenol	55.	U
91-58-7-----	2-Chloronaphthalene	11.	U

Qualifiers:

- U- Undetected. Value is the quantitation limit for that compound.
- J- Estimated value. Value is below the compound quantitation limit.
- B- Compound also found in blank.
- D- Diluted value.

000112

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
PAGE 2

SAMPLE

MW-12

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89091903

Matrix: (soil/water) WATER

Lab Sample ID: H22944

Sample wt/vol: 910 mL

Lab File ID: >CA350::D7

Level: (low/med) LOW

Date Received: 09/18/89

% Moisture: not dec.:

Date Extracted: 09/20/89

Extraction: (SepF/Cont/Sonc) CONT

Date Analyzed: 10/17/89

GPC Cleanup: (Y/N) N

Dilution Factor: 1.00

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
88-74-4	2-Nitroaniline	55.	U
131-11-3	Dimethylphthalate	11.	U
208-96-8	Acenaphthylene	11.	U
99-09-2	3-Nitroaniline	55.	U
83-32-9	Acenaphthene	11.	U
51-28-5	2,4-Dinitrophenol	55.	U
100-02-7	4-Nitrophenol	55.	U
132-64-9	Dibenzofuran	11.	U
121-14-2	2,4-Dinitrotoluene	11.	U
606-20-2	2,6-Dinitrotoluene	11.	U
84-66-2	Diethylphthalate	11.	U
7005-72-3	4-Chlorophenyl-phenylether	11.	U
86-73-7	Fluorene	11.	U
100-01-6	4-Nitroaniline	55.	U
534-52-1	4,6-Dinitro-2-methylphenol	55.	U
86-30-6	N-Nitrosodiphenylamine	11.	U
101-55-3	4-Bromophenyl-phenylether	11.	U
118-74-1	Hexachlorobenzene	11.	U
87-86-5	Pentachlorophenol	55.	U
85-01-8	Phenanthrene	11.	U
120-12-7	Anthracene	11.	U
84-74-2	Di-n-Butylphthalate	11.	U
206-44-0	Fluoranthene	11.	U
129-00-0	Pyrene	11.	U
85-68-7	Butylbenzylphthalate	11.	U
91-94-1	3,3'-Dichlorobenzidine	22.	U
56-55-3	Benzo(a)Anthracene	11.	U
117-81-7	Bis(2-Ethylhexyl)Phthalate	11.	U

Qualifiers:

- U- Undetected. Value is the quantitation limit for that compound.
- J- Estimated value. Value is below the compound quantitation limit.
- B- Compound also found in blank.
- D- Diluted value.

000113

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
PAGE 3

SAMPLE

MW- 12

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89091903

Matrix: (soil/water) WATER

Lab Sample ID: H22944

Sample wt/vol: 910 mL

Lab File ID: >CA350::D7

Level: (low/med) LOW

Date Received: 09/18/89

% Moisture: not dec.:

Date Extracted: 09/20/89

Extraction: (SepF/Cont/Sonc) CONT

Date Analyzed: 10/17/89

GPC Cleanup: (Y/N) N

Dilution Factor: 1.00

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
218-01-9-----	Chrysene_____	11.	U
117-84-0-----	Di-n-octylphthalate_____	11.	U
205-99-2-----	Benzo(b)Fluoranthene_____	11.	U
207-08-9-----	Benzo(k)Fluoranthene_____	11.	U
50-32-8-----	Benzo(a)Pyrene_____	11.	U
193-39-5-----	Indeno(1,2,3-cd)Pyrene_____	11.	U
53-70-3-----	Dibenzo(a,h)Anthracene_____	11.	U
191-24-2-----	Benzo(g,h,i)Perylene_____	11.	U

Qualifiers:

- U- Undetected. Value is the quantitation limit for that compound.
- J- Estimated value. Value is below the compound quantitation limit.
- B- Compound also found in blank.
- D- Diluted value.

000114

1E
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE

MW-12

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89091903

Matrix: (soil/water) WATER

Lab Sample ID: H22944

Sample wt/vol: 910 mL

Lab File ID: >CA350::D7

Level: (low/med) LOW

Date Received : 09/18/89

% Moisture: not dec.:

Date Extracted: 09/20/89

Extraction:(SepF/Cont/Sonc) CONT

Date Analyzed : 10/17/89

GPC Cleanup: (Y/N) N

Dilution Factor: 1.00

Number TICs Found: 0

CONCENTRATION UNITS:

(ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	No BNA compounds found			
2.				
3.				
4.				
5.				
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000115

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
PAGE 1

SAMPLE

SW- 1

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89091903

Matrix: (soil/water) WATER

Lab Sample ID: H22947

Sample wt/vol: 900 mL

Lab File ID: >CA358::D1

Level: (low/med) LOW

Date Received: 09/18/89

% Moisture: not dec.:

Date Extracted: 09/20/89

Extraction: (SepF/Cont/Sonc) CONT

Date Analyzed: 10/18/89

GPC Cleanup: (Y/N) N

Dilution Factor: 1.00

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
108-95-2	Phenol	11.	U
111-44-4	bis(2-Chloroethyl)ether	11.	U
95-57-8	2-Chlorophenol	11.	U
541-73-1	1,3-Dichlorobenzene	11.	U
106-46-7	1,4-Dichlorobenzene	11.	U
100-51-6	Benzyl Alcohol	11.	U
95-50-1	1,2-Dichlorobenzene	11.	U
95-48-7	2-Methylphenol	11.	U
39638-32-9	bis(2-Chloroisopropyl)ether	11.	U
106-44-5	4-Methylphenol	11.	U
621-64-7	N-Nitroso-Di-n-propylamine	11.	U
67-72-1	Hexachloroethane	11.	U
98-95-3	Nitrobenzene	11.	U
78-59-1	Isophorone	11.	U
88-75-5	2-Nitrophenol	11.	U
105-67-9	2,4-Dimethylphenol	11.	U
65-85-0	Benzoic Acid	11.	U
111-91-1	bis(2-Chloroethoxy)methane	11.	U
120-83-2	2,4-Dichlorophenol	11.	U
120-82-1	1,2,4-Trichlorobenzene	11.	U
91-20-3	Naphthalene	11.	U
106-47-8	4-Chloroaniline	11.	U
87-68-3	Hexachlorobutadiene	11.	U
59-50-7	4-Chloro-3-methylphenol	11.	U
91-57-6	2-Methylnaphthalene	11.	U
77-47-4	Hexachlorocyclopentadiene	11.	U
88-06-2	2,4,6-Trichlorophenol	11.	U
95-95-4	2,4,5-Trichlorophenol	56.	U
91-58-7	2-Chloronaphthalene	11.	U

Qualifiers:

- U- Undetected. Value is the quantitation limit for that compound.
- J- Estimated value. Value is below the compound quantitation limit.
- B- Compound also found in blank.
- D- Diluted value.

000116

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
PAGE 2

SAMPLE

SW- 1

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89091903

Matrix: (soil/water) WATER

Lab Sample ID: H22947

Sample wt/vol: 900 mL

Lab File ID: >CA358::D1

Level: (low/med) LOW

Date Received: 09/18/89

% Moisture: not dec.:

Date Extracted: 09/20/89

Extraction: (SepF/Cont/Sonc) CONT

Date Analyzed: 10/18/89

GPC Cleanup: (Y/N) N

Dilution Factor: 1.00

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
88-74-4-----	2-Nitroaniline_____	56.	U
131-11-3-----	Dimethylphthalate_____	11.	U
208-96-8-----	Acenaphthylene_____	11.	U
99-09-2-----	3-Nitroaniline_____	56.	U
83-32-9-----	Acenaphthene_____	11.	U
51-28-5-----	2,4-Dinitrophenol_____	56.	U
100-02-7-----	4-Nitrophenol_____	56.	U
132-64-9-----	Dibenzofuran_____	11.	U
121-14-2-----	2,4-Dinitrotoluene_____	11.	U
606-20-2-----	2,6-Dinitrotoluene_____	11.	U
84-66-2-----	Diethylphthalate_____	11.	U
7005-72-3-----	4-Chlorophenyl-phenylether__	11.	U
86-73-7-----	Fluorene_____	11.	U
100-01-6-----	4-Nitroaniline_____	56.	U
534-52-1-----	4,6-Dinitro-2-methylphenol__	56.	U
86-30-6-----	N-Nitrosodiphenylamine_____	11.	U
101-55-3-----	4-Bromophenyl-phenylether__	11.	U
118-74-1-----	Hexachlorobenzene_____	11.	U
87-86-5-----	Pentachlorophenol_____	56.	U
85-01-8-----	Phenanthrene_____	11.	U
120-12-7-----	Anthracene_____	11.	U
84-74-2-----	Di-n-Butylphthalate_____	11.	U
206-44-0-----	Fluoranthene_____	11.	U
129-00-0-----	Pyrene_____	11.	U
85-68-7-----	Butylbenzylphthalate_____	11.	U
91-94-1-----	3,3'-Dichlorobenzidine_____	22.	U
56-55-3-----	Benzo(a)Anthracene_____	11.	U
117-81-7-----	Bis(2-Ethylhexyl)Phthalate__	11.	U

Qualifiers:

- U- Undetected. Value is the quantitation limit for that compound.
- J- Estimated value. Value is below the compound quantitation limit.
- B- Compound also found in blank.
- D- Diluted value.

000117

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
PAGE 3

SAMPLE

SW-1

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89091903

Matrix: (soil/water) WATER

Lab Sample ID: H22947

Sample wt/vol: 900 mL

Lab File ID: >CA358::D1

Level: (low/med) LOW

Date Received: 09/18/89

% Moisture: not dec.:

Date Extracted: 09/20/89

Extraction: (SepF/Cont/Sonc) CONT

Date Analyzed: 10/18/89

GPC Cleanup: (Y/N) N

Dilution Factor: 1.00

CAS No.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/Kg)	ug/L
218-01-9	Chrysene	11.	U
117-84-0	Di-n-octylphthalate	11.	U
205-99-2	Benzo(b)Fluoranthene	11.	U
207-08-9	Benzo(k)Fluoranthene	11.	U
50-32-8	Benzo(a)Pyrene	11.	U
193-39-5	Indeno(1,2,3-cd)Pyrene	11.	U
53-70-3	Dibenzo(a,h)Anthracene	11.	U
191-24-2	Benzo(g,h,i)Perylene	11.	U

Qualifiers:

U- Undetected. Value is the quantitation limit for that compound.

J- Estimated value. Value is below the compound quantitation limit.

B- Compound also found in blank.

D- Diluted value.

000418

1E
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE

SW-1

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89091903

Matrix: (soil/water) WATER

Lab Sample ID: H22947

Sample wt/vol: 900 mL

Lab File ID: >CA358::D1

Level: (low/med) LOW

Date Received : 09/18/89

% Moisture: not dec.:

Date Extracted: 09/20/89

Extraction: (SepF/Cont/Sonc) CONT

Date Analyzed : 10/18/89

GPC Cleanup: (Y/N) N

Dilution Factor: 1.00

Number T/Cs Found: 3

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 104767	1-Hexanol, 2-ethyl- (8C19C1)	7.53	10.	
2. 123795	Hexanedioic acid, dioctyl es	27.80	340.	
3.	Unknown	29.63	140.	
4.				
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000119

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
PAGE 1

SAMPLE

SW-2

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89091903

Matrix: (soil/water) WATER

Lab Sample ID: H22948

Sample wt/vol: 1000 mL

Lab File ID: >CA347::D1

Level: (low/med) LOW

Date Received: 09/18/89

% Moisture: not dec.:

Date Extracted: 09/20/89

Extraction: (SepF/Cont/Sonc) CONT

Date Analyzed: 10/17/89

GPC Cleanup: (Y/N) N

Dilution Factor: 1.00

CAS No.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/Kg)	ug/L
			Q
108-95-2	Phenol	10.	U
111-44-4	bis(2-Chloroethyl)ether	10.	U
95-57-8	2-Chlorophenol	10.	U
541-73-1	1,3-Dichlorobenzene	10.	U
106-46-7	1,4-Dichlorobenzene	10.	U
100-51-6	Benzyl Alcohol	10.	U
95-50-1	1,2-Dichlorobenzene	10.	U
95-48-7	2-Methylphenol	10.	U
39638-32-9	bis(2-Chloroisopropyl)ether	10.	U
106-44-5	4-Methylphenol	10.	U
621-64-7	N-Nitroso-Di-n-propylamine	10.	U
67-72-1	Hexachloroethane	10.	U
98-95-3	Nitrobenzene	10.	U
78-59-1	Isophorone	10.	U
88-75-5	2-Nitrophenol	10.	U
105-67-9	2,4-Dimethylphenol	10.	U
65-85-0	Benzoic Acid	10.	U
111-91-1	bis(2-Chloroethoxy)methane	10.	U
120-83-2	2,4-Dichlorophenol	10.	U
120-82-1	1,2,4-Trichlorobenzene	10.	U
91-20-3	Naphthalene	10.	U
106-47-8	4-Chloroaniline	10.	U
87-68-3	Hexachlorobutadiene	10.	U
59-50-7	4-Chloro-3-methylphenol	10.	U
91-57-6	2-Methylnaphthalene	10.	U
77-47-4	Hexachlorocyclopentadiene	10.	U
88-06-2	2,4,6-Trichlorophenol	10.	U
95-95-4	2,4,5-Trichlorophenol	50.	U
91-58-7	2-Chloronaphthalene	10.	U

Qualifiers:

- U- Undetected. Value is the quantitation limit for that compound.
- J- Estimated value. Value is below the compound quantitation limit.
- B- Compound also found in blank.
- D- Diluted value.

000120

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
PAGE 2

SAMPLE

SW-2

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89091903

Matrix: (soil/water) WATER

Lab Sample ID: H22948

Sample wt/vol: 1000 mL

Lab File ID: >CA347::D1

Level: (low/med) LOW

Date Received: 09/18/89

% Moisture: not dec.:

Date Extracted: 09/20/89

Extraction: (SepF/Cont/Sonc) CONT

Date Analyzed: 10/17/89

GPC Cleanup: (Y/N) N

Dilution Factor: 1.00

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
88-74-4	2-Nitroaniline	50.	U
131-11-3	Dimethylphthalate	10.	U
208-96-8	Acenaphthylene	10.	U
99-09-2	3-Nitroaniline	50.	U
83-32-9	Acenaphthene	10.	U
51-28-5	2,4-Dinitrophenol	50.	U
100-02-7	4-Nitrophenol	50.	U
132-64-9	Dibenzofuran	10.	U
121-14-2	2,4-Dinitrotoluene	10.	U
606-20-2	2,6-Dinitrotoluene	10.	U
84-66-2	Diethylphthalate	10.	U
7005-72-3	4-Chlorophenyl-phenylether	10.	U
86-73-7	Fluorene	10.	U
100-01-6	4-Nitroaniline	50.	U
534-52-1	4,6-Dinitro-2-methylphenol	50.	U
86-30-6	N-Nitrosodiphenylamine	10.	U
101-55-3	4-Bromophenyl-phenylether	10.	U
118-74-1	Hexachlorobenzene	10.	U
87-86-5	Pentachlorophenol	50.	U
85-01-8	Phenanthrene	10.	U
120-12-7	Anthracene	10.	U
84-74-2	Di-n-Butylphthalate	10.	U
206-44-0	Fluoranthene	10.	U
129-00-0	Pyrene	10.	U
85-68-7	Butylbenzylphthalate	10.	U
91-94-1	3,3'-Dichlorobenzidine	20.	U
56-55-3	Benzo(a)Anthracene	10.	U
117-81-7	Bis(2-Ethylhexyl)Phthalate	10.	U

Qualifiers:

- U- Undetected. Value is the quantitation limit for that compound.
- J- Estimated value. Value is below the compound quantitation limit.
- B- Compound also found in blank.
- D- Diluted value.

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
PAGE 3

SAMPLE

SW-2

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89091903

Matrix: (soil/water) WATER

Lab Sample ID: H22948

Sample wt/vol: 1000 mL

Lab File ID: >CA347::D1

Level: (low/med) LOW

Date Received: 09/18/89

% Moisture: not dec.:

Date Extracted: 09/20/89

Extraction: (SepF/Cont/Sonc) CONT

Date Analyzed: 10/17/89

GPC Cleanup: (Y/N) N

Dilution Factor: 1.00

CAS No.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/Kg)	ug/L	
218-01-9-----	Chrysene_____	10.	U	
117-84-0-----	Di-n-octylphthalate_____	10.	U	
205-99-2-----	Benzo(b)Fluoranthene_____	10.	U	
207-08-9-----	Benzo(k)Fluoranthene_____	10.	U	
50-32-8-----	Benzo(a)Pyrene_____	10.	U	
193-39-5-----	Indeno(1,2,3-cd)Pyrene_____	10.	U	
53-70-3-----	Dibenzo(a,h)Anthracene_____	10.	U	
191-24-2-----	Benzo(g,h,i)Perylene_____	10.	U	

Qualifiers:

- U- Undetected. Value is the quantitation limit for that compound.
- J- Estimated value. Value is below the compound quantitation limit.
- B- Compound also found in blank.
- D- Diluted value.

000122

1E
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE

SW-2

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89091903

Matrix: (soil/water) WATER

Lab Sample ID: H22948

Sample wt/vol: 1000 mL

Lab File ID: >CA347::D1

Level: (low/med) LOW

Date Received : 09/18/89

% Moisture: not dec.:

Date Extracted: 09/20/89

Extraction:(SepF/Cont/Sonc) CONT

Date Analyzed : 10/17/89

GPC Cleanup: (Y/N) N

Dilution Factor: 1.00

Number TICs Found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	No BNA compounds found			
2.				
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000126

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
PAGE 1

SAMPLE

SW-3

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89091903

Matrix: (soil/water) WATER

Lab Sample ID: H22949

Sample wt/vol: 1000 mL

Lab File ID: >CA359::D1

Level: (low/med) LOW

Date Received: 09/18/89

% Moisture: not dec.:

Date Extracted: 09/20/89

Extraction: (SepF/Cont/Sonc) CONT

Date Analyzed: 10/18/89

GPC Cleanup: (Y/N) N

Dilution Factor: 1.00

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
108-95-2	Phenol	10.	U
111-44-4	bis(2-Chloroethyl)ether	10.	U
95-57-8	2-Chlorophenol	10.	U
541-73-1	1,3-Dichlorobenzene	10.	U
106-46-7	1,4-Dichlorobenzene	10.	U
100-51-6	Benzyl Alcohol	10.	U
95-50-1	1,2-Dichlorobenzene	10.	U
95-48-7	2-Methylphenol	10.	U
39638-32-9	bis(2-Chloroisopropyl)ether	10.	U
106-44-5	4-Methylphenol	10.	U
621-64-7	N-Nitroso-Di-n-propylamine	10.	U
67-72-1	Hexachloroethane	10.	U
98-95-3	Nitrobenzene	10.	U
78-59-1	Isophorone	10.	U
88-75-5	2-Nitrophenol	10.	U
105-67-9	2,4-Dimethylphenol	10.	U
65-85-0	Benzoic Acid	10.	U
111-91-1	bis(2-Chloroethoxy)methane	10.	U
120-83-2	2,4-Dichlorophenol	10.	U
120-82-1	1,2,4-Trichlorobenzene	10.	U
91-20-3	Naphthalene	10.	U
106-47-8	4-Chloroaniline	10.	U
87-68-3	Hexachlorobutadiene	10.	U
59-50-7	4-Chloro-3-methylphenol	10.	U
91-57-6	2-Methylnaphthalene	10.	U
77-47-4	Hexachlorocyclopentadiene	10.	U
88-06-2	2,4,6-Trichlorophenol	10.	U
95-95-4	2,4,5-Trichlorophenol	50.	U
91-58-7	2-Chloronaphthalene	10.	U

Qualifiers:

- U- Undetected. Value is the quantitation limit for that compound.
- J- Estimated value. Value is below the compound quantitation limit.
- B- Compound also found in blank.
- D- Diluted value.

000124

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
PAGE 2

SAMPLE

SW-3

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89091903

Matrix: (soil/water) WATER

Lab Sample ID: H22949

Sample wt/vol: 1000 mL

Lab File ID: >CA359::D1

Level: (low/med) LOW

Date Received: 09/18/89

% Moisture: not dec.:

Date Extracted: 09/20/89

Extraction: (SepF/Cont/Sonc) CONT

Date Analyzed: 10/18/89

GPC Cleanup: (Y/N) N

Dilution Factor: 1.00

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
88-74-4	2-Nitroaniline	50.	U
131-11-3	Dimethylphthalate	10.	U
208-96-8	Acenaphthylene	10.	U
99-09-2	3-Nitroaniline	50.	U
83-32-9	Acenaphthene	10.	U
51-28-5	2,4-Dinitrophenol	50.	U
100-02-7	4-Nitrophenol	50.	U
132-64-9	Dibenzofuran	10.	U
121-14-2	2,4-Dinitrotoluene	10.	U
606-20-2	2,6-Dinitrotoluene	10.	U
84-66-2	Diethylphthalate	10.	U
7005-72-3	4-Chlorophenyl-phenylether	10.	U
86-73-7	Fluorene	10.	U
100-01-6	4-Nitroaniline	50.	U
534-52-1	4,6-Dinitro-2-methylphenol	50.	U
86-30-6	N-Nitrosodiphenylamine	10.	U
101-55-3	4-Bromophenyl-phenylether	10.	U
118-74-1	Hexachlorobenzene	10.	U
87-86-5	Pentachlorophenol	50.	U
85-01-8	Phenanthrene	10.	U
120-12-7	Anthracene	10.	U
84-74-2	Di-n-Butylphthalate	10.	U
206-44-0	Fluoranthene	10.	U
129-00-0	Pyrene	10.	U
85-68-7	Butylbenzylphthalate	10.	U
91-94-1	3,3'-Dichlorobenzidine	20.	U
56-55-3	Benzo(a)Anthracene	10.	U
117-81-7	Bis(2-Ethylhexyl)Phthalate	10.	U

Qualifiers:

- U- Undetected. Value is the quantitation limit for that compound.
- J- Estimated value. Value is below the compound quantitation limit.
- B- Compound also found in blank.
- D- Diluted value.

000125

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
PAGE 3

SAMPLE

SW-3

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89091903

Matrix: (soil/water) WATER

Lab Sample ID: H22949

Sample wt/vol: 1000 mL

Lab File ID: >CA359::D1

Level: (low/med) LOW

Date Received: 09/18/89

% Moisture: not dec.:

Date Extracted: 09/20/89

Extraction: (SepF/Cont/Sonc) CONT

Date Analyzed: 10/18/89

GPC Cleanup: (Y/N) N

Dilution Factor: 1.00

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
218-01-9-----	Chrysene	10.	U
117-84-0-----	Di-n-octylphthalate	10.	U
205-99-2-----	Benzo(b)Fluoranthene	10.	U
207-08-9-----	Benzo(k)Fluoranthene	10.	U
50-32-8-----	Benzo(a)Pyrene	10.	U
193-39-5-----	Indeno(1,2,3-cd)Pyrene	10.	U
53-70-3-----	Dibenzo(a,h)Anthracene	10.	U
191-24-2-----	Benzo(g,h,i)Perylene	10.	U

Qualifiers:

- U- Undetected. Value is the quantitation limit for that compound.
- J- Estimated value. Value is below the compound quantitation limit.
- B- Compound also found in blank.
- D- Diluted value.

000123

1E
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE

SW-3

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89091903

Matrix: (soil/water) WATER

Lab Sample ID: H22949

Sample wt/vol: 1000 mL

Lab File ID: >CA359::D1

Level: (low/med) LOW

Date Received : 09/18/89

% Moisture: not dec.:

Date Extracted: 09/20/89

Extraction:(SepF/Cont/Sonc) CONT

Date Analyzed : 10/18/89

GPC Cleanup: (Y/N) N

Dilution Factor: 1.00

Number TICs Found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Unknown	5.34	54.	
2.				
3.				
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000127

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
PAGE 1

SAMPLE

SW-4

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89091903

Matrix: (soil/water) WATER

Lab Sample ID: H22950

Sample wt/vol: 930 mL

Lab File ID: >CA356::D1

Level: (low/med) LOW

Date Received: 09/18/89

% Moisture: not dec.:

Date Extracted: 09/20/89

Extraction: (SepF/Cont/Sonc) CONT

Date Analyzed: 10/18/89

GPC Cleanup: (Y/N) N

Dilution Factor: 5.00

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
108-95-2	Phenol	54.	U D
111-44-4	bis(2-Chloroethyl) ether	54.	U D
95-57-8	2-Chlorophenol	54.	U D
541-73-1	1,3-Dichlorobenzene	54.	U D
106-46-7	1,4-Dichlorobenzene	54.	U D
100-51-6	Benzyl Alcohol	54.	U D
95-50-1	1,2-Dichlorobenzene	54.	U D
95-48-7	2-Methylphenol	54.	U D
39638-32-9	bis(2-Chloroisopropyl) ether	54.	U D
106-44-5	4-Methylphenol	54.	U D
621-64-7	N-Nitroso-Di-n-propylamine	54.	U D
67-72-1	Hexachloroethane	54.	U D
98-95-3	Nitrobenzene	54.	U D
78-59-1	Isophorone	54.	U D
88-75-5	2-Nitrophenol	54.	U D
105-67-9	2,4-Dimethylphenol	54.	U D
65-85-0	Benzoic Acid	54.	U D
111-91-1	bis(2-Chloroethoxy) methane	54.	U D
120-83-2	2,4-Dichlorophenol	54.	U D
120-82-1	1,2,4-Trichlorobenzene	54.	U D
91-20-3	Naphthalene	8.	J D
106-47-8	4-Chloroaniline	54.	U D
87-68-3	Hexachlorobutadiene	54.	U D
59-50-7	4-Chloro-3-methylphenol	54.	U D
91-57-6	2-Methylnaphthalene	8.	J D
77-47-4	Hexachlorocyclopentadiene	54.	U D
88-06-2	2,4,6-Trichlorophenol	54.	U D
95-95-4	2,4,5-Trichlorophenol	270.	U D
91-58-7	2-Chloronaphthalene	54.	U D

Qualifiers:

U- Undetected. Value is the quantitation limit for that compound.
J- Estimated value. Value is below the compound quantitation limit.
B- Compound also found in blank.
D- Diluted value.

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
PAGE 2

SAMPLE

SW-4

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89091903

Matrix: (soil/water) WATER

Lab Sample ID: H22950

Sample wt/vol: 930 mL

Lab File ID: >CA356::D1

Level: (low/med) LOW

Date Received: 09/18/89

% Moisture: not dec.:

Date Extracted: 09/20/89

Extraction: (SepF/Cont/Sonc) CONT

Date Analyzed: 10/18/89

GPC Cleanup: (Y/N) N

Dilution Factor: 5.00

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
88-74-4	2-Nitroaniline	270.	U D
131-11-3	Dimethylphthalate	54.	U D
208-96-8	Acenaphthylene	54.	U D
99-09-2	3-Nitroaniline	270.	U D
83-32-9	Acenaphthene	12.	J D
51-28-5	2,4-Dinitrophenol	270.	U D
100-02-7	4-Nitrophenol	270.	U D
132-64-9	Dibenzofuran	8.	J D
121-14-2	2,4-Dinitrotoluene	54.	U D
606-20-2	2,6-Dinitrotoluene	54.	U D
84-66-2	Diethylphthalate	54.	U D
7005-72-3	4-Chlorophenyl-phenylether	54.	U D
86-73-7	Fluorene	54.	U D
100-01-6	4-Nitroaniline	270.	U D
534-52-1	4,6-Dinitro-2-methylphenol	270.	U D
86-30-6	N-Nitrosodiphenylamine	54.	U D
101-55-3	4-Bromophenyl-phenylether	54.	U D
118-74-1	Hexachlorobenzene	54.	U D
87-86-5	Pentachlorophenol	270.	U D
85-01-8	Phenanthrene	30.	J D
120-12-7	Anthracene	6.	J D
84-74-2	Di-n-Butylphthalate	54.	U D
206-44-0	Fluoranthene	19.	J D
129-00-0	Pyrene	40.	J D
85-68-7	Butylbenzylphthalate	54.	U D
91-94-1	3,3'-Dichlorobenzidine	110.	U D
56-55-3	Benzo(a)Anthracene	54.	U D
117-81-7	Bis(2-Ethylhexyl)Phthalate	54.	U D

Qualifiers:

U- Undetected. Value is the quantitation limit for that compound.
J- Estimated value. Value is below the compound quantitation limit.
B- Compound also found in blank.
D- Diluted value.

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
PAGE 3

SAMPLE

SW-4

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89091903

Matrix: (soil/water) WATER

Lab Sample ID: H22950

Sample wt/vol: 930 mL

Lab File ID: >CA356::D1

Level: (low/med) LOW

Date Received: 09/18/89

% Moisture: not dec.:

Date Extracted: 09/20/89

Extraction: (SepF/Cont/Sonc) CONT

Date Analyzed: 10/18/89

GPC Cleanup: (Y/N) N

Dilution Factor: 5.00

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
218-01-9-----	Chrysene_____	54.	U D
117-84-0-----	Di-n-octylphthalate_____	54.	U D
205-99-2-----	Benzo(b)Fluoranthene_____	54.	U D
207-08-9-----	Benzo(k)Fluoranthene_____	54.	U D
50-32-8-----	Benzo(a)Pyrene_____	54.	U D
193-39-5-----	Indeno(1,2,3-cd)Pyrene_____	54.	U D
53-70-3-----	Dibenzo(a,h)Anthracene_____	54.	U D
191-24-2-----	Benzo(g,h,i)Perylene_____	54.	U D

Qualifiers:

- U- Undetected. Value is the quantitation limit for that compound.
- J- Estimated value. Value is below the compound quantitation limit.
- B- Compound also found in blank.
- D- Diluted value.

000100

1E
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE

SW-4

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89091903

Matrix: (soil/water) WATER

Lab Sample ID: H22950

Sample wt/vol: 930 mL

Lab File ID: >CA356::D1

Level: (low/med) LOW

Date Received : 09/18/89

% Moisture: not dec.:

Date Extracted: 09/20/89

Extraction: (SepF/Cont/Sonc) CONT

Date Analyzed : 10/18/89

GPC Cleanup: (Y/N) N

Dilution Factor: 5.00

Number TICs Found: 8

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Unknown hydrocarbon	14.34	53.	
2. 54832836	1H-Indene, octahydro-2,2,4,4	14.95	50.	
3.	Unknown	15.22	66.	
4.	Unknown	15.57	83.	
5.	Unknown	16.10	65.	
6.	Unknown	18.62	180.	
7.	Unknown hydrocarbon	19.21	220.	
8. 123795	Hexadecanoic acid, dioctyl e	27.91	550.	
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000131

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
PAGE 1

SAMPLE

SW-5

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89091903

Matrix: (soil/water) WATER

Lab Sample ID: H22951

Sample wt/vol: 930 mL

Lab File ID: >CA349::D7

Level: (low/med) LOW

Date Received: 09/18/89

% Moisture: not dec.:

Date Extracted: 09/20/89

Extraction: (SepF/Cont/Sonc) CONT

Date Analyzed: 10/17/89

GPC Cleanup: (Y/N) N

Dilution Factor: 1.00

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
108-95-2	Phenol	11.	U
111-44-4	bis(2-Chloroethyl)ether	11.	U
95-57-8	2-Chlorophenol	11.	U
541-73-1	1,3-Dichlorobenzene	11.	U
106-46-7	1,4-Dichlorobenzene	11.	U
100-51-6	Benzyl Alcohol	11.	U
95-50-1	1,2-Dichlorobenzene	11.	U
95-48-7	2-Methylphenol	11.	U
39638-32-9	bis(2-Chloroisopropyl)ether	11.	U
106-44-5	4-Methylphenol	11.	U
621-64-7	N-Nitroso-Di-n-propylamine	11.	U
67-72-1	Hexachloroethane	11.	U
98-95-3	Nitrobenzene	11.	U
78-59-1	Isophorone	11.	U
88-75-5	2-Nitrophenol	11.	U
105-67-9	2,4-Dimethylphenol	11.	U
65-85-0	Benzoic Acid	11.	U
111-91-1	bis(2-Chloroethoxy)methane	11.	U
120-83-2	2,4-Dichlorophenol	11.	U
120-82-1	1,2,4-Trichlorobenzene	11.	U
91-20-3	Naphthalene	11.	U
106-47-8	4-Chloroaniline	11.	U
87-68-3	Hexachlorobutadiene	11.	U
59-50-7	4-Chloro-3-methylphenol	11.	U
91-57-6	2-Methylnaphthalene	11.	U
77-47-4	Hexachlorocyclopentadiene	11.	U
88-06-2	2,4,6-Trichlorophenol	11.	U
95-95-4	2,4,5-Trichlorophenol	54.	U
91-58-7	2-Chloronaphthalene	11.	U

Qualifiers:

U- Undetected. Value is the quantitation limit for that compound.

J- Estimated value. Value is below the compound quantitation limit.

B- Compound also found in blank.

D- Diluted value.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
PAGE 3

SAMPLE

SW-5

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89091903

Matrix: (soil/water) WATER

Lab Sample ID: H22951

Sample wt/vol: 930 mL

Lab File ID: >CA349::D7

Level: (low/med) LOW

Date Received: 09/18/89

% Moisture: not dec.:

Date Extracted: 09/20/89

Extraction: (SepF/Cont/Sonc) CONT

Date Analyzed: 10/17/89

GPC Cleanup: (Y/N) N

Dilution Factor: 1.00

CAS No.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/Kg) ug/L	Q
218-01-9-----	Chrysene	11.	U
117-84-0-----	Di-n-octylphthalate	11.	U
205-99-2-----	Benzo(b)Fluoranthene	11.	U
207-08-9-----	Benzo(k)Fluoranthene	11.	U
50-32-8-----	Benzo(a)Pyrene	11.	U
193-39-5-----	Indeno(1,2,3-cd)Pyrene	11.	U
53-70-3-----	Dibenzo(a,h)Anthracene	11.	U
191-24-2-----	Benzo(g,h,i)Perylene	11.	U

Qualifiers:

- U- Undetected. Value is the quantitation limit for that compound.
- J- Estimated value. Value is below the compound quantitation limit.
- B- Compound also found in blank.
- D- Diluted value.

000184

1E
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE

SW-5

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89091903

Matrix: (soil/water) WATER

Lab Sample ID: H22951

Sample wt/vol: 930 mL

Lab File ID: >CA349::D7

Level: (low/med) LOW

Date Received : 09/18/89

% Moisture: not dec.:

Date Extracted: 09/20/89

Extraction:(SepF/Cont/Sonc) CONT

Date Analyzed : 10/17/89

GPC Cleanup: (Y/N) N

Dilution Factor: 1.00

Number TICs Found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 762629	1-Pentene, 4,4-dimethyl- (8C	7.54	25.	
2. 123795	Hexanedioic acid, dioctyl es	27.78	93.	
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000135

SURROGATE SPIKE
ANALYSIS RESULTS

000100

2A
WATER VOLATILE SURROGATE RECOVERY

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89091903

Level: (low/med) LOW

	SAMPLE NO.	(TOL)#	(BFB)#	(DCE)#	OTHER	TOT OUT
1	METHOD BLANK	94	98	94		0
2	SW-4	102	105	95		0
3	MW-6	99	102	99		0
4	SW-4 DL	99	102	96		0
5	MW-5	101	103	101		0
6	MW-4	97	102	98		0
7	MW-12	98	101	98		0
8	MW-12 MS	101	107	100		0
9	MW-12 MSD	98	103	95		0
10	SW-2	100	103	99		0
11	METHOD BLANK	97	102	99		0
12	MW-7	100	107	100		0
13	SW-1	99	107	104		0
14	SW-3	96	104	102		0
15	SW-5	98	101	96		0
16	MW-10	96	103	104		0
17	MW-2	99	106	106		0
18	MW-9	100	104	105		0
19	MW-1	96	105	101		0
20	MW-8	101	106	107		0
21	METHOD BLANK	99	100	104		0
22	TRIP BLANK	102	100	103		0
23	MW-11	101	99	108		0
24	SW-5 DL	96	98	103		0
25	MW-3	97	97	111		0
26						
27						
28						
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QC LIMITS

(TOL) = Toluene-d8 (88-110)
 (BFB) = Bromofluorobenzene (86-115)
 (DCE) = 1,2-Dichloroethane-d4 (76-114)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogates diluted out

2C
WATER SEMIVOLATILE SURROGATE RECOVERY

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89091903

Level: (low/med) LOW

	S1	S2	S3	S4	S5	S6	OTHER	TOT
SAMPLE NO.	(NBZ)#	(FBP)#	(TPH)#	(PHL)#	(2FP)#	(TBP)#		OUT
1 MW-10	94	86	108	79	64	92		0
2 MW-2	94	86	103	74	68	93		0
3 MW-9	99	85	108	75	54	81		0
4 MW-1	86	69	77	86	65	75		0
5 MW-3	82	66	101	85	65	52		0
6 MW-11	82	69	103	97 *	76	108		1
7 BLANK-QC457B	89	78	116	76	62	84		0
8 MW-8	80	76	96	80	62	104		0
9 MW-7	81	80	101	77	65	78		0
10 SW-2	68	66	112	82	74	116		0
11 MW-4	88	82	139	50	72	105		0
12 SW-5	72	75	93	49	62	103		0
13 MW-12	81	77	131	81	67	121		0
14 MW-5	37	63	112	93	75	98		0
15 MW-12 MS	81	72	110	79	70	119		0
16 MW-12 MSD	77	68	116	65	55	88		0
17 SW-4	104	115	120	85	96	115		0
18 MW-6	71	62	100	48	34	44		0
19 SW-1	90	72	111	82	70	99		0
20 SW-3	76	67	93	78	75	87		0
21 BLANK-QC457A	77	59	119	40	65	82		0
22								
23								
24								
25								
26								
27								
28								
29								
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QC LIMITS

(NBZ) = Nitrobenzene-d5 (35-114)
 (FBP) = 2-Fluorobiphenyl (43-116)
 (TPH) = Terphenyl-d14 (33-141)
 (PHL) = Phenol-d6 (10-94)
 (2FP) = 2-Fluorophenol (21-100)
 (TBP) = 2,4,6-Tribromophenol (10-123)

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

MATRIX SPIKE/MATRIX SPIKE DUPLICATE RESULTS

000139

3A
WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164) Task No.: 89091903

Matrix Spike MW-12

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC LIMITS REC.
1,1-Dichloroethene	50.00	0.00	33.00	66	61-145
Trichloroethene	50.00	0.00	51.00	102	71-120
Benzene	50.00	0.00	50.00	100	76-127
Toluene	50.00	0.00	53.00	106	76-125
Chlorobenzene	50.00	0.00	54.00	108	75-130

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD REC.
1,1-Dichloroethene	50.00	33.00	66	0	14 61-145
Trichloroethene	50.00	48.00	96	3	14 71-120
Benzene	50.00	41.00	82	3	11 76-127
Toluene	50.00	52.00	104	1	13 76-125
Chlorobenzene	50.00	53.00	106	1	13 75-130

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

* Values outside of qc limits

RPD: 0 out of 5 outside limits

Spike Recovery: 0 out of 10 outside limits

COMMENTS: _____

000149

3C
WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164) Task No.: 89091903

Matrix Spike - MW-12

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC LIMITS REC.
Phenol	400.00	0.00	250.00	63	12- 89
2-Chlorophenol	400.00	0.00	280.00	71	27-123
1,4-Dichlorobenzene	200.00	0.00	130.00	66	36- 97
N-Nitroso-di-n-prop.(1)	200.00	0.00	220.00	108	41-116
1,2,4-Trichlorobenzene	200.00	0.00	140.00	69	39- 98
4-Chloro-3-methylphenol	400.00	0.00	320.00	80	23- 97
Acenaphthene	200.00	0.00	160.00	79	46-118
4-Nitrophenol	400.00	0.00	320.00	79	10- 80
2,4-Dinitrotoluene	200.00	0.00	160.00	79	24- 96
Pentachlorophenol	400.00	0.00	290.00	73	9-103
Pyrene	200.00	0.00	170.00	86	26-127

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD REC.
Phenol	400.00	170.00	43	37	42 12- 89
2-Chlorophenol	400.00	190.00	47	40	40 27-123
1,4-Dichlorobenzene	200.00	110.00	55	18	28 36- 97
N-Nitroso-di-n-prop.(1)	200.00	160.00	78	32	38 41-116
1,2,4-Trichlorobenzene	200.00	110.00	53	26	28 39- 98
4-Chloro-3-methylphenol	400.00	210.00	53	40	42 23- 97
Acenaphthene	200.00	120.00	58	30	31 46-118
4-Nitrophenol	400.00	180.00	45	54 *	50 10- 80
2,4-Dinitrotoluene	200.00	110.00	55	35	38 24- 96
Pentachlorophenol	400.00	82.00	20	113 *	50 9-103
Pyrene	200.00	140.00	69	21	31 26-127

(1) N-Nitroso-di-n-propylamine

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

* Values outside of qc limits

RPD: 2 out of 11 outside limits

Spike Recovery: 0 out of 22 outside limits

COMMENTS:

BLANK DATA

000142

4A
VOLATILE METHOD BLANK SUMMARY

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89091903

Lab File ID: >BC443

Lab Sample ID: METHOD BLANK

Date Analyzed: 09/27/89

Time Analyzed: 11:19

Matrix: (soil/water) WATER

Level: (low/med) LOW

Instrument ID: B (#2)

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

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	SW-4	H22950	>BC445	12:21
02	MW-6	H22941	>BC446	14:10
03	SW-4 DL	H22950DL	>BC447	16:09
04	MW-5	H22942	>BC448	16:55
05	MW-4	H22943	>BC449	17:51
06	MW-12	H22944	>BC450	18:36
07	MW-12 MS	H22945	>BC451	19:21
08	MW-12 MSD	H22946	>BC452	20:07
09	SW-2	H22948	>BC454	21:38
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COMMENTS: _____

4A
VOLATILE METHOD BLANK SUMMARY

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89091903

Lab File ID: >BC460

Lab Sample ID: METHOD BLANK

Date Analyzed: 09/28/89

Time Analyzed: 13:08

Matrix: (soil/water) WATER

Level: (low/med) LOW

Instrument ID: B (#2)

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

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
	=====	=====	=====	=====
01	MW-7	H22940	>BC461	14:19
02	SW-1	H22947	>BC462	15:05
03	SW-3	H22949	>BC463	15:50
04	SW-5	H22951	>BC465	16:42
05	MW-10	H23111	>BC466	17:27
06	MW-2	H23112	>BC467	18:13
07	MW-9	H23113	>BC468	18:59
08	MW-1	H23114	>BC469	19:44
09	MW-8	H23115	>BC470	20:30
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COMMENTS: _____

4A
VOLATILE METHOD BLANK SUMMARY

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89091903

Lab File ID: >BC478

Lab Sample ID: METHOD BLANK

Date Analyzed: 09/29/89

Time Analyzed: 14:32

Matrix: (soil/water) WATER

Level: (low/med) LOW

Instrument ID: B (#2)

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

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	TRIP BLANK	H23118	>BC479	15:51
02	MW-11	H23117	>BC480	16:51
03	SW-5 DL	H22951DL	>BC481	17:52
04	MW-3	H23116	>BC482	18:38
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COMMENTS:

VOLATILE ORGANICS ANALYSIS DATA SHEET
PAGE 1

SAMPLE

METHOD BLANK

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89091903

Matrix: (soil/water) WATER

Lab Sample ID: BLANK

Sample wt/vol: 5 mL

Lab File ID: >BC443::D7

Level: (low/med) LOW

Date Received: 00/00/00

% Moisture: not dec.:

Date Analyzed: 09/27/89

Column: (pack/cap) PACK

Dilution Factor: 1.00

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
74-87-3	Chloromethane	10.	U
74-83-9	Bromomethane	10.	U
75-01-4	Vinyl Chloride	10.	U
75-00-3	Chloroethane	10.	U
75-09-2	Methylene Chloride	5.	U
67-64-1	Acetone	10.	U
75-15-0	Carbon Disulfide	5.	U
75-35-4	1,1-Dichloroethene	5.	U
75-34-3	1,1-Dichloroethane	5.	U
540-59-0	1,2-Dichloroethene (total)	5.	U
67-66-3	Chloroform	5.	U
107-02-2	1,2-Dichloroethane	5.	U
78-93-3	2-Butanone	10.	U
71-55-6	1,1,1-Trichloroethane	5.	U
56-23-6	Carbon Tetrachloride	5.	U
108-05-4	Vinyl Acetate	10.	U
75-27-4	Bromodichloromethane	5.	U
78-87-5	1,2-Dichloropropane	5.	U
10061-01-5	cis-1,3-Dichloropropene	5.	U
79-01-6	Trichloroethene	5.	U
124-48-1	Dibromochloromethane	5.	U
79-00-5	1,1,2-Trichloroethane	5.	U
71-43-2	Benzene	5.	U
10061-02-6	trans-1,3-Dichloropropene	5.	U
75-25-2	Bromoform	5.	U
108-10-1	4-Methyl-2-Pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	5.	U
79-34-5	1,1,2,2-Tetrachloroethane	5.	U
108-88-3	Toluene	5.	U
108-90-7	Chlorobenzene	5.	U

Qualifiers:

- U- Undetected. Value is the quantitation limit for that compound.
- J- Estimated value. Value is below the compound quantitation limit.
- B- Compound also found in blank.
- D- Diluted value.

000146

VOLATILE ORGANICS ANALYSIS DATA SHEET
PAGE 2

SAMPLE

METHOD BLANK

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89091903

Matrix: (soil/water) WATER

Lab Sample ID: BLANK

Sample wt/vol: 5 mL

Lab File ID: >BC443::D7

Level: (low/med) LOW

Date Received: 00/00/00

% Moisture: not dec.:

Date Analyzed: 09/27/89

Column: (pack/cap) PACK

Dilution Factor: 1.00

CAS No.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/Kg)	ug/L	
100-41-4-----	Ethylbenzene_____	5.		U
100-42-5-----	Styrene_____	5.		U
1330-20-7-----	Xylene (total)_____	5.		U

Qualifiers:

- U- Undetected. Value is the quantitation limit for that compound.
- J- Estimated value. Value is below the compound quantitation limit.
- B- Compound also found in blank.
- D- Diluted value.

000147

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE

METHOD BLANK

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89091903

Matrix: (soil/water) WATER

Lab Sample ID: BLANK

Sample wt/vol: 5 mL

Lab File ID: >BC443::D7

Level: (low/med) LOW

Date Received: 00/00/00

% Moisture: not dec.:

Date Analyzed: 09/27/89

Column: PACK

Dilution Factor: 1.00

Number TICs Found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	No volatiles found			
2.				
3.				
4.				
5.				
6.				
7.				
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000148

VOLATILE ORGANICS ANALYSIS DATA SHEET
PAGE 1

SAMPLE

METHOD BLANK

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89091903

Matrix: (soil/water) WATER

Lab Sample ID: BLANK

Sample wt/vol: 5 mL

Lab File ID: >BC460::A1

Level: (low/med) LOW

Date Received: 00/00/00

% Moisture: not dec.:

Date Analyzed: 09/28/89

Column: (pack/cap) PACK

Dilution Factor: 1.00

CAS No.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/Kg)	ug/L
			Q
74-87-3	-----Chloromethane	10.	U
74-83-9	-----Bromomethane	10.	U
75-01-4	-----Vinyl Chloride	10.	U
75-00-3	-----Chloroethane	10.	U
75-09-2	-----Methylene Chloride	5.	U
67-64-1	-----Acetone	10.	U
75-15-0	-----Carbon Disulfide	5.	U
75-35-4	-----1,1-Dichloroethene	5.	U
75-34-3	-----1,1-Dichloroethane	5.	U
540-59-0	-----1,2-Dichloroethene (total)	5.	U
67-66-3	-----Chloroform	5.	U
107-02-2	-----1,2-Dichloroethane	5.	U
78-93-3	-----2-Butanone	10.	U
71-55-6	-----1,1,1-Trichloroethane	5.	U
56-23-6	-----Carbon Tetrachloride	5.	U
108-05-4	-----Vinyl Acetate	10.	U
75-27-4	-----Bromodichloromethane	5.	U
78-87-5	-----1,2-Dichloropropane	5.	U
10061-01-5	-----cis-1,3-Dichloropropene	5.	U
79-01-6	-----Trichloroethene	5.	U
124-48-1	-----Dibromochloromethane	5.	U
79-00-5	-----1,1,2-Trichloroethane	5.	U
71-43-2	-----Benzene	5.	U
10061-02-6	-----trans-1,3-Dichloropropene	5.	U
75-25-2	-----Bromoform	5.	U
108-10-1	-----4-Methyl-2-Pentanone	10.	U
591-78-6	-----2-Hexanone	10.	U
127-18-4	-----Tetrachloroethene	5.	U
79-34-5	-----1,1,2,2-Tetrachloroethane	5.	U
108-88-3	-----Toluene	5.	U
108-90-7	-----Chlorobenzene	5.	U

Qualifiers:

- U- Undetected. Value is the quantitation limit for that compound.
- J- Estimated value. Value is below the compound quantitation limit.
- B- Compound also found in blank.
- D- Diluted value.

000149

VOLATILE ORGANICS ANALYSIS DATA SHEET
PAGE 2

SAMPLE

METHOD BLANK

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89091903

Matrix: (soil/water) WATER

Lab Sample ID: BLANK

Sample wt/vol: 5 mL

Lab File ID: >BC460::A1

Level: (low/med) LOW

Date Received: 00/00/00

% Moisture: not dec.:

Date Analyzed: 09/28/89

Column: (pack/cap) PACK

Dilution Factor: 1.00

CAS No.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/Kg)	ug/L	
100-41-4-----	Ethylbenzene_____	5.	U	
100-42-5-----	Styrene_____	5.	U	
1330-20-7-----	Xylene (total)_____	5.	U	

Qualifiers:

- U- Undetected. Value is the quantitation limit for that compound.
- J- Estimated value. Value is below the compound quantitation limit.
- B- Compound also found in blank.
- D- Diluted value.

000150

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE

METHOD BLANK

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89091903

Matrix: (soil/water) WATER

Lab Sample ID: BLANK

Sample wt/vol: 5 mL

Lab File ID: >BC460::A1

Level: (low/med) LOW

Date Received: 00/00/00

% Moisture: not dec.:

Date Analyzed: 09/28/89

Column: PACK

Dilution Factor: 1.00

Number TICs Found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	No volatiles found			
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000151

VOLATILE ORGANICS ANALYSIS DATA SHEET
PAGE 1

SAMPLE

METHOD BLANK

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89091903

Matrix: (soil/water) WATER

Lab Sample ID: BLANK

Sample wt/vol: 5 mL

Lab File ID: >BC478::A2

Level: (low/med) LOW

Date Received: 00/00/00

% Moisture: not dec.:

Date Analyzed: 09/29/89

Column: (pack/cap) PACK

Dilution Factor: 1.00

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
74-87-3	Chloromethane	10.	U
74-83-9	Bromomethane	10.	U
75-01-4	Vinyl Chloride	10.	U
75-00-3	Chloroethane	10.	U
75-09-2	Methylene Chloride	5.	U
67-64-1	Acetone	10.	U
75-15-0	Carbon Disulfide	5.	U
75-35-4	1,1-Dichloroethene	5.	U
75-34-3	1,1-Dichloroethane	5.	U
540-59-0	1,2-Dichloroethene (total)	5.	U
67-66-3	Chloroform	5.	U
107-02-2	1,2-Dichloroethane	5.	U
78-93-3	2-Butanone	10.	U
71-55-6	1,1,1-Trichloroethane	5.	U
56-23-6	Carbon Tetrachloride	5.	U
108-05-4	Vinyl Acetate	10.	U
75-27-4	Bromodichloromethane	5.	U
78-87-5	1,2-Dichloropropane	5.	U
10061-01-5	cis-1,3-Dichloropropene	5.	U
79-01-6	Trichloroethene	5.	U
124-48-1	Dibromochloromethane	5.	U
79-00-5	1,1,2-Trichloroethane	5.	U
71-43-2	Benzene	5.	U
10061-02-6	trans-1,3-Dichloropropene	5.	U
75-25-2	Bromoform	5.	U
108-10-1	4-Methyl-2-Pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	5.	U
79-34-5	1,1,2,2-Tetrachloroethane	5.	U
108-88-3	Toluene	5.	U
108-90-7	Chlorobenzene	5.	U

Qualifiers:

- U- Undetected. Value is the quantitation limit for that compound.
- J- Estimated value. Value is below the compound quantitation limit.
- B- Compound also found in blank.
- D- Diluted value.

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VOLATILE ORGANICS ANALYSIS DATA SHEET
PAGE 2

SAMPLE

METHOD BLANK

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89091903

Matrix: (soil/water) WATER

Lab Sample ID: BLANK

Sample wt/vol: 5 mL

Lab File ID: >BC478::A2

Level: (low/med) LOW

Date Received: 00/00/00

% Moisture: not dec.:

Date Analyzed: 09/29/89

Column: (pack/cap) PACK

Dilution Factor: 1.00

CAS No.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/Kg)	ug/L
100-41-4-----	Ethylbenzene	5.	U
100-42-5-----	Styrene	5.	U
1330-20-7-----	Xylene (total)	5.	U

Qualifiers:

- U- Undetected. Value is the quantitation limit for that compound.
- J- Estimated value. Value is below the compound quantitation limit.
- B- Compound also found in blank.
- D- Diluted value.

000155

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE

METHOD BLANK

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89091903

Matrix: (soil/water) WATER

Lab Sample ID: BLANK

Sample wt/vol: 5 mL

Lab File ID: >BC478::A2

Level: (low/med) LOW

Date Received: 00/00/00

% Moisture: not dec.:

Date Analyzed: 09/29/89

Column: PACK

Dilution Factor: 1.00

Number TICs Found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	No volatiles found			
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4B
SEMIVOLATILE METHOD BLANK SUMMARY

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89091903

Lab File ID: >CA360

Lab Sample ID: QC0457A

Date Extracted 09/20/89

Extraction: CONT

Date Analyzed: 10/18/89

Time Analyzed: 20:55

Matrix: (soil/water) WATER

Level: (low/med) LOW

Instrument ID: C (#3)

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

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	MW-7	H22940	>CA345	10/17/89
02	SW-2	H22948	>CA347	10/17/89
03	MW-4	H22943	>CA348	10/17/89
04	SW-5	H22951	>CA349	10/17/89
05	MW-12	H22944	>CA350	10/17/89
06	MW-5	H22942	>CA351	10/17/89
07	MW-12 MS	H22945	>CA352	10/17/89
08	MW-12 MSD	H22946	>CA353	10/17/89
09	SW-4	H22950	>CA356	10/18/89
10	MW-6	H22941	>CA357	10/18/89
11	SW-1	H22947	>CA358	10/18/89
12	SW-3	H22943	>CA359	10/18/89
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COMMENTS:

4B
SEMIVOLATILE METHOD BLANK SUMMARY

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89090008

Lab File ID: >CA341

Lab Sample ID: QC0467B

Date Extracted 09/25/89

Extraction: CONT

Date Analyzed: 10/16/89

Time Analyzed: 19:53

Matrix: (soil/water) WATER

Level: (low/med) LOW

Instrument ID: C (#3)

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

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	MW-10	H23111	>CA334	10/10/89
02	MW-2	H23112	>CA335	10/10/89
03	MW-9	H23113	>CA336	10/16/89
04	MW-1	H23114	>CA337	10/16/89
05	MW-3	H23116	>CA339	10/16/89
06	MW-11	H23117	>CA340	10/16/89
07	MW-8	H23115	>CA344	10/17/89
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COMMENTS:

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
PAGE 1

SAMPLE

BLANK-QC457A

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89091903

Matrix: (soil/water) WATER

Lab Sample ID: QC0457A

Sample wt/vol: 1000 mL

Lab File ID: >CA360::D1

Level: (low/med) LOW

Date Received: 09/18/89

% Moisture: not dec.:

Date Extracted: 09/20/89

Extraction: (SepF/Cont/Sonc) CONT

Date Analyzed: 10/18/89

GPC Cleanup: (Y/N) N

Dilution Factor: 1.00

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
108-95-2	Phenol	10.	U
111-44-4	bis(2-Chloroethyl)ether	10.	U
95-57-8	2-Chlorophenol	10.	U
541-73-1	1,3-Dichlorobenzene	10.	U
106-46-7	1,4-Dichlorobenzene	10.	U
100-51-6	Benzyl Alcohol	10.	U
95-50-1	1,2-Dichlorobenzene	10.	U
95-48-7	2-Methylphenol	10.	U
39638-32-9	bis(2-Chloroisopropyl)ether	10.	U
106-44-5	4-Methylphenol	10.	U
621-64-7	N-Nitroso-Di-n-propylamine	10.	U
67-72-1	Hexachloroethane	10.	U
98-95-3	Nitrobenzene	10.	U
78-59-1	Isophorone	10.	U
88-75-5	2-Nitrophenol	10.	U
105-67-9	2,4-Dimethylphenol	10.	U
65-85-0	Benzoic Acid	10.	U
111-91-1	bis(2-Chloroethoxy)methane	10.	U
120-83-2	2,4-Dichlorophenol	10.	U
120-82-1	1,2,4-Trichlorobenzene	10.	U
91-20-3	Naphthalene	10.	U
106-47-8	4-Chloroaniline	10.	U
87-68-3	Hexachlorobutadiene	10.	U
59-50-7	4-Chloro-3-methylphenol	10.	U
91-57-6	2-Methylnaphthalene	10.	U
77-47-4	Hexachlorocyclopentadiene	10.	U
88-06-2	2,4,6-Trichlorophenol	10.	U
95-95-4	2,4,5-Trichlorophenol	50.	U
91-58-7	2-Chloronaphthalene	10.	U

Qualifiers:

- U- Undetected. Value is the quantitation limit for that compound.
- J- Estimated value. Value is below the compound quantitation limit.
- B- Compound also found in blank.
- D- Diluted value.

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
PAGE 2

SAMPLE

BLANK-QC457A

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89091903

Matrix: (soil/water) WATER

Lab Sample ID: QC0457A

Sample wt/vol: 1000 mL

Lab File ID: >CA360::D1

Level: (low/med) LOW

Date Received: 09/18/89

% Moisture: not dec.:

Date Extracted: 09/20/89

Extraction: (SepF/Cont/Sonc) CONT

Date Analyzed: 10/18/89

GPC Cleanup: (Y/N) N

Dilution Factor: 1.00

CAS No.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/Kg)	ug/L	
88-74-4	2-Nitroaniline	50.	U	
131-11-3	Dimethylphthalate	10.	U	
208-96-8	Acenaphthylene	10.	U	
99-09-2	3-Nitroaniline	50.	U	
83-32-9	Acenaphthene	10.	U	
51-28-5	2,4-Dinitrophenol	50.	U	
100-02-7	4-Nitrophenol	50.	U	
132-64-9	Dibenzofuran	10.	U	
121-14-2	2,4-Dinitrotoluene	10.	U	
606-20-2	2,6-Dinitrotoluene	10.	U	
84-66-2	Diethylphthalate	10.	U	
7005-72-3	4-Chlorophenyl-phenylether	10.	U	
86-73-7	Fluorene	10.	U	
100-01-6	4-Nitroaniline	50.	U	
534-52-1	4,6-Dinitro-2-methylphenol	50.	U	
86-30-6	N-Nitrosodiphenylamine	10.	U	
101-55-3	4-Bromophenyl-phenylether	10.	U	
118-74-1	Hexachlorobenzene	10.	U	
87-86-5	Pentachlorophenol	50.	U	
85-01-8	Phenanthrene	10.	U	
120-12-7	Anthracene	10.	U	
84-74-2	Di-n-Butylphthalate	10.	U	
206-44-0	Fluoranthene	10.	U	
129-00-0	Pyrene	10.	U	
85-68-7	Butylbenzylphthalate	10.	U	
91-94-1	3,3'-Dichlorobenzidine	20.	U	
56-55-3	Benzo(a)Anthracene	10.	U	
117-81-7	Bis(2-Ethylhexyl)Phthalate	10.	U	

Qualifiers:

- U- Undetected. Value is the quantitation limit for that compound.
- J- Estimated value. Value is below the compound quantitation limit.
- B- Compound also found in blank.
- D- Diluted value.

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
PAGE 3

SAMPLE

BLANK-QC457A

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89091903

Matrix: (soil/water) WATER

Lab Sample ID: QC0457A

Sample wt/vol: 1000 mL

Lab File ID: >CA360::D1

Level: (low/med) LOW

Date Received: 09/18/89

% Moisture: not dec.:

Date Extracted: 09/20/89

Extraction: (SepF/Cont/Sonc) CONT

Date Analyzed: 10/18/89

GPC Cleanup: (Y/N) N

Dilution Factor: 1.00

CAS No.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/Kg) ug/L	Q
218-01-9-----	Chrysene_____	10.	U
117-84-0-----	Di-n-octylphthalate_____	10.	U
205-99-2-----	Benzo(b)Fluoranthene_____	10.	U
207-08-9-----	Benzo(k)Fluoranthene_____	10.	U
50-32-8-----	Benzo(a)Pyrene_____	10.	U
193-39-5-----	Indeno(1,2,3-cd)Pyrene_____	10.	U
53-70-3-----	Dibenzo(a,h)Anthracene_____	10.	U
191-24-2-----	Benzo(g,h,i)Perylene_____	10.	U

Qualifiers:

- U- Undetected. Value is the quantitation limit for that compound.
- J- Estimated value. Value is below the compound quantitation limit.
- B- Compound also found in blank.
- D- Diluted value.

000157

1E
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE

BLANK-QC457A

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89091903

Matrix: (soil/water) WATER

Lab Sample ID: QC0457A

Sample wt/vol: 1000 mL

Lab File ID: >CA360::D1

Level: (low/med) LOW

Date Received : 09/18/89

% Moisture: not dec.:

Date Extracted: 09/20/89

Extraction:(SepF/Cont/Sonc) CONT

Date Analyzed : 10/18/89

GPC Cleanup: (Y/N) N

Dilution Factor: 1.00

Number TICs Found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	No BNA compounds found			
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
PAGE 1

SAMPLE

BLANK-QC457B

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89092009

Matrix: (soil/water) WATER

Lab Sample ID: QC0457B

Sample wt/vol: 1000 mL

Lab File ID: >CA341::D3

Level: (low/med) LOW

Date Received: 09/19/89

% Moisture: not dec.:

Date Extracted: 09/25/89

Extraction: (SepF/Cont/Sonc) CONT

Date Analyzed: 10/16/89

GPC Cleanup: (Y/N) N

Dilution Factor: 1.00

CAS No.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/Kg)	ug/L
108-95-2	Phenol	10.	U
111-44-4	bis(2-Chloroethyl)ether	10.	U
95-57-8	2-Chlorophenol	10.	U
541-73-1	1,3-Dichlorobenzene	10.	U
106-46-7	1,4-Dichlorobenzene	10.	U
100-51-6	Benzyl Alcohol	10.	U
95-50-1	1,2-Dichlorobenzene	10.	U
95-48-7	2-Methylphenol	10.	U
39638-32-9	bis(2-Chloroisopropyl)ether	10.	U
106-44-5	4-Methylphenol	10.	U
621-64-7	N-Nitroso-Di-n-propylamine	10.	U
67-72-1	Hexachloroethane	10.	U
98-95-3	Nitrobenzene	10.	U
78-59-1	Isophorone	10.	U
88-75-5	2-Nitrophenol	10.	U
105-67-9	2,4-Dimethylphenol	10.	U
65-85-0	Benzoic Acid	10.	U
111-91-1	bis(2-Chloroethoxy)methane	10.	U
120-83-2	2,4-Dichlorophenol	10.	U
120-82-1	1,2,4-Trichlorobenzene	10.	U
91-20-3	Naphthalene	10.	U
106-47-8	4-Chloroaniline	10.	U
87-68-3	Hexachlorobutadiene	10.	U
59-50-7	4-Chloro-3-methylphenol	10.	U
91-57-6	2-Methylnaphthalene	10.	U
77-47-4	Hexachlorocyclopentadiene	10.	U
88-06-2	2,4,6-Trichlorophenol	10.	U
95-95-4	2,4,5-Trichlorophenol	50.	U
91-58-7	2-Chloronaphthalene	10.	U

Qualifiers:

- U- Undetected. Value is the quantitation limit for that compound.
- J- Estimated value. Value is below the compound quantitation limit.
- B- Compound also found in blank.
- D- Diluted value.

00016

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
PAGE 2

SAMPLE

BLANK-QC457B

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89092009

Matrix: (soil/water) WATER

Lab Sample ID: QC0457B

Sample wt/vol: 1000 mL

Lab File ID: >CA341::D3

Level: (low/med) LOW

Date Received: 09/19/89

% Moisture: not dec.:

Date Extracted: 09/25/89

Extraction: (SepF/Cont/Sonc) CONT

Date Analyzed: 10/16/89

GPC Cleanup: (Y/N) N

Dilution Factor: 1.00

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
88-74-4	2-Nitroaniline	50.	U
131-11-3	Dimethylphthalate	10.	U
208-96-8	Acenaphthylene	10.	U
99-09-2	3-Nitroaniline	50.	U
83-32-9	Acenaphthene	10.	U
51-28-5	2,4-Dinitrophenol	50.	U
100-02-7	4-Nitrophenol	50.	U
132-64-9	Dibenzofuran	10.	U
121-14-2	2,4-Dinitrotoluene	10.	U
606-20-2	2,6-Dinitrotoluene	10.	U
84-66-2	Diethylphthalate	10.	U
7005-72-3	4-Chlorophenyl-phenylether	10.	U
86-73-7	Fluorene	10.	U
100-01-6	4-Nitroaniline	50.	U
534-52-1	4,6-Dinitro-2-methylphenol	50.	U
86-30-6	N-Nitrosodiphenylamine	10.	U
101-55-3	4-Bromophenyl-phenylether	10.	U
118-74-1	Hexachlorobenzene	10.	U
87-86-5	Pentachlorophenol	50.	U
85-01-8	Phenanthrene	10.	U
120-12-7	Anthracene	10.	U
84-74-2	Di-n-Butylphthalate	10.	U
206-44-0	Fluoranthene	10.	U
129-00-0	Pyrene	10.	U
85-68-7	Butylbenzylphthalate	10.	U
91-94-1	3,3'-Dichlorobenzidine	20.	U
56-55-3	Benzo(a)Anthracene	10.	U
117-81-7	Bis(2-Ethylhexyl)Phthalate	10.	U

Qualifiers:

- U- Undetected. Value is the quantitation limit for that compound.
- J- Estimated value. Value is below the compound quantitation limit.
- B- Compound also found in blank.
- D- Diluted value.

000164

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
PAGE 3

SAMPLE

BLANK-QC457B

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89092009

Matrix: (soil/water) WATER

Lab Sample ID: QC0457B

Sample wt/vol: 1000 mL

Lab File ID: >CA341::D3

Level: (low/med) LOW

Date Received: 09/19/89

% Moisture: not dec.:

Date Extracted: 09/25/89

Extraction: (SepF/Cont/Sonc) CONT

Date Analyzed: 10/16/89

GPC Cleanup: (Y/N) N

Dilution Factor: 1.00

CAS No.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/Kg)	ug/L
218-01-9-----	Chrysene_____	10.	U
117-84-0-----	Di-n-octylphthalate_____	10.	U
205-99-2-----	Benzo(b)Fluoranthene_____	10.	U
207-08-9-----	Benzo(k)Fluoranthene_____	10.	U
50-32-8-----	Benzo(a)Pyrene_____	10.	U
193-39-5-----	Indeno(1,2,3-cd)Pyrene_____	10.	U
53-70-3-----	Dibenzo(a,h)Anthracene_____	10.	U
191-24-2-----	Benzo(g,h,i)Perylene_____	10.	U

Qualifiers:

- U- Undetected. Value is the quantitation limit for that compound.
- J- Estimated value. Value is below the compound quantitation limit.
- B- Compound also found in blank.
- D- Diluted value.

00016

1E
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE

BLANK-QC457B

Lab Name: GALSON LABORATORIES

Client: BLASLAND BOUCK & LEE (G4164)

Task No.: 89092009

Matrix: (soil/water) WATER

Lab Sample ID: QC0457B

Sample wt/vol: 1000 mL

Lab File ID: >CA341::D3

Level: (low/med) LOW

Date Received : 09/19/89

% Moisture: not dec.:

Date Extracted: 09/25/89

Extraction:(SepF/Cont/Sonc) CONT

Date Analyzed : 10/16/89

GPC Cleanup: (Y/N) N

Dilution Factor: 1.00

Number TICs Found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	No BNA compounds found			
2.				
3.				
4.				
5.				
6.				
7.				
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30.				

00016:



Appendix Q

APPENDIX Q
1990 ANALYTICAL DATA

**Galson
Laboratories**

6901A Route Road
Syracuse, NY 13214
Tel: (315) 432-0508
1-800-941-0506

May 15, 1990

Mr. Steve Stucker
Blasland, Bouck and Lee
6723 Towpath Rd.
Box 66
Syracuse, NY 13214

RE: GTS# G4164

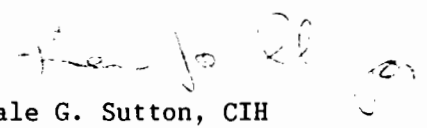
Dear Mr. Stucker:

Enclosed are the results of the analyses performed on the samples we received on April 23, 1990. These results were faxed to you on May 10, 1990.

In each of the two runs, sample SS-55 had a low surrogate recovery.

If you have any questions concerning our results, please feel free to contact our Client Services Department at extension 126.

Sincerely,


Gale G. Sutton, CIH
Organic Group Manager
GALSON LABORATORIES

GGS/ser

enclosure

Galson Laboratories

INSTRUCTIONS FOR READING GALSON'S NEW VOLATILE REPORT FORMS

Galson Laboratories now uses computer generated reporting forms for volatile analysis. This new format provides more information about the sample analysis to better serve those clients that are involved with state or federal projects. They also free our chemists from much of the error prone manual calculating and checking required by our old system, ensuring higher quality and more timely results.

The header of the form consists of the following information:

- A. Your Identifier for the sample.
- B. Our internal sample number.
- C. Our task number.
- D. The sample matrix (water, soil, oil, air, etc.).
- E. The date samples were received at the laboratory.
- F. The date this sample was analyzed.
- G. The weight (solid samples) or volume (liquid samples) used for the analysis.
- H. The dilution factor. A dilution factor of 1 means no dilution was required.
- I. The analytical method used.
- J. The computer file that holds the raw data for this sample.

The body of the form contains:

- A. CAS number - This is the Chemical Abstract Services identification number of this compound.
- B. Compound name.
- C. Detection limit - This is the lowest concentration which can be accurately detected using this method. This is equivalent to the "less than" number reported on our old forms.
- D. Result and units - This column contains the results or "ND" if none was detected. If there is "ND" in this column, it means that none was detected above the detection limit. On our old forms, the detection limit preceded by a "<" was reported if none was detected.

<u>OLD</u>	<u>NEW</u>	
	Detection Limit	Result
<0.5	0.5	ND
100	0.5	100

The footer contains reporting qualifiers and any footnotes that may apply

Galson Laboratories

VOLATILE ORGANICS ANALYSIS REPORT

Report Prepared for:
Blasland and Bouck (G4164)

6601 Kille Road
Buffalo, NY 14257
315-432-0508
410-950-0506

Client Sample Id: SW-50
Task Number: 90042320

Lab Sample Id: J9333
Sample Matrix: WATER

Date Received: 04/20/90
Weight/Volume: 5 mL

Date Analyzed: 04/24/90 7:08 am
Dilution Factor: 1

Method Reference: SW846/5030/8010
Lab Data File: /hp#8_elcd/hp#8_elc_0423020.RES

CAS Number	Compound	Detection Limit	Result ug/L
75-27-4	Bromodichloromethane	0.5	ND
75-25-2	Bromoform	0.5	ND
74-83-9	Bromomethane	0.5	ND
56-23-5	Carbon tetrachloride	0.5	ND
108-90-7	Chlorobenzene	0.5	ND
75-00-3	Chloroethane	0.5	ND
100-75-8	2-Chloroethylvinyl ether	0.5	ND
67-66-3	Chloroform	0.5	ND
74-87-3	Chloromethane	0.5	ND
124-48-1	Dibromochloromethane	0.5	ND
95-50-1	1,2-Dichlorobenzene	0.5	ND
541-73-1	1,3-Dichlorobenzene	0.5	ND
106-46-7	1,4-Dichlorobenzene	0.5	ND
75-71-8	Dichlorodifluoromethane	0.5	ND
75-34-3	1,1-Dichloroethane	0.5	4.2
107-06-2	1,2-Dichloroethane	0.5	ND
75-35-4	1,1-Dichloroethene	0.5	ND
156-60-5	trans-1,2-Dichloroethene	0.5	3.4
78-87-5	1,2-Dichloropropane	0.5	ND
10061-01-5	cis-1,3-Dichloropropane	0.5	ND
100061-02-6	trans-1,3-Dichloropropane	0.5	ND
75-09-2	Methylene chloride	0.5	0.9 B
79-34-5	1,1,2,2-Tetrachloroethane	0.5	ND
127-18-4	Tetrachloroethene	0.5	ND
71-55-6	1,1,1-Trichloroethane	0.5	3.0
79-00-5	1,1,2-Trichloroethane	0.5	ND
79-01-6	Trichloroethene	0.5	22.
75-69-4	Trichlorofluoromethane	0.5	ND
75-01-4	Vinyl chloride	0.5	ND

Surrogate Recovery = 102% Acceptable Surrogate Control Limits (63-128)

Qualifiers:

ND = None detected at or above specified detection limit.
B = This compound was also detected in the method blank.

Galson Laboratories

VOLATILE ORGANICS ANALYSIS REPORT

Report Prepared for:
Blasland and Bouck (G4164)

6701 Kirkwood Road
Syracuse, NY 13057
Tel: 315-482-0506
Fax: 315-482-0516

Client Sample Id: SD-50
Task Number: 90042320

Lab Sample Id: J9332
Sample Matrix: SOIL

Date Received: 04/20/90
Weight/Volume: 1 g

Date Analyzed: 05/03/90 10:59 pm
Dilution Factor: 5

Method Reference: SW846/5030/8010
Lab Data File: /hp#8_elcd/hp#8_elc_0502021.RES

CAS Number	Compound	Detection Limit	Result ug/Kg
75-27-4	Bromodichloromethane	2.8	ND
75-25-2	Bromoform	2.8	ND
74-83-9	Bromomethane	2.8	ND
56-23-5	Carbon tetrachloride	2.8	ND
108-90-7	Chlorobenzene	2.8	ND
75-00-3	Chloroethane	2.8	ND
100-75-8	2-Chloroethylvinyl ether	2.8	ND
67-66-3	Chloroform	2.8	ND
74-87-3	Chloromethane	2.8	ND
124-48-1	Dibromochloromethane	2.8	ND
95-50-1	1,2-Dichlorobenzene	2.8	ND
541-73-1	1,3-Dichlorobenzene	2.8	ND
106-46-7	1,4-Dichlorobenzene	2.8	ND
75-71-8	Dichlorodifluoromethane	2.8	ND
75-34-3	1,1-Dichloroethane	2.8	3.3
107-06-2	1,2-Dichloroethane	0.0	ND
75-35-4	1,1-Dichloroethene	0.0	ND
156-60-5	trans-1,2-Dichloroethene	0.0	4.4
78-87-5	1,2-Dichloropropane	0.0	ND
10061-01-5	cis-1,3-Dichloropropane	0.0	ND
100061-02-6	trans-1,3-Dichloropropane	0.0	ND
75-09-2	Methylene chloride	0.0	5.5
79-34-5	1,1,2,2-Tetrachloroethane	0.0	ND
127-18-4	Tetrachloroethene	0.0	ND
71-55-6	1,1,1-Trichloroethane	0.0	6.6
79-00-5	1,1,2-Trichloroethane	0.0	ND
79-01-6	Trichloroethene	0.0	66.
75-69-4	Trichlorofluoromethane	0.0	ND
75-01-4	Vinyl chloride	0.0	ND

Surrogate Recovery = 76% Acceptable Surrogate Control Limits (63-128)

Qualifiers:

ND = None detected at or above specified detection limit.
B = This compound was also detected in the method blank.

Sample reported on a dry weight basis. % moisture = 9

Galson Laboratories

VOLATILE ORGANICS ANALYSIS REPORT

Report Prepared for:
Blasland and Bouck (G4164)

3621 K.M. Road
Buffalo, NY 13057
716-315-4332-0506
716-315-3706

Client Sample Id: SS-51
Task Number: 90042320

Lab Sample Id: J9334
Sample Matrix: SOIL

Date Received: 04/20/90
Weight/Volume: 1 g

Date Analyzed: 05/03/90 7:00 pm
Dilution Factor: 5

Method Reference: SW846/5030/8010
Lab Data File: /hp#8_elcd/hp#8_elc_0502020.RES

CAS Number	Compound	Detection Limit	Result ug/Kg
75-27-4	Bromodichloromethane	2.8	ND
75-25-2	Bromoform	2.8	ND
74-83-9	Bromomethane	2.8	ND
56-23-5	Carbon tetrachloride	2.8	ND
108-90-7	Chlorobenzene	2.8	ND
75-00-3	Chloroethane	2.8	ND
100-75-8	2-Chloroethylvinyl ether	2.8	ND
67-66-3	Chloroform	2.8	ND
74-87-3	Chloromethane	2.8	ND
124-48-1	Dibromochloromethane	2.8	ND
95-50-1	1,2-Dichlorobenzene	2.8	ND
541-73-1	1,3-Dichlorobenzene	2.8	ND
106-46-7	1,4-Dichlorobenzene	2.8	ND
75-71-8	Dichlorodifluoromethane	2.8	ND
75-34-3	1,1-Dichloroethane	2.8	ND
107-06-2	1,2-Dichloroethane	2.8	ND
75-35-4	1,1-Dichloroethene	2.8	ND
156-60-5	trans-1,2-Dichloroethene	2.8	6.8
78-87-5	1,2-Dichloropropane	2.8	ND
10061-01-5	cis-1,3-Dichloropropane	2.8	ND
100061-02-6	trans-1,3-Dichloropropane	2.8	ND
75-09-2	Methylene chloride	2.8	11.
79-34-5	1,1,2,2-Tetrachloroethane	2.8	ND
127-18-4	Tetrachloroethene	2.8	ND
71-55-6	1,1,1-Trichloroethane	2.8	ND
79-00-5	1,1,2-Trichloroethane	2.8	ND
79-01-6	Trichloroethene	2.8	4.0
75-69-4	Trichlorofluoromethane	2.8	ND
75-01-4	Vinyl chloride	2.8	ND

Surrogate Recovery = 92% Acceptable Surrogate Control Limits (63-128)

Qualifiers:

ND = None detected at or above specified detection limit.
B = This compound was also detected in the method blank.

Sample reported on a dry weight basis. % moisture = 12

Galson Laboratories

VOLATILE ORGANICS ANALYSIS REPORT

Report Prepared for:
Blasland and Bouck (G4164)

8601 Kinnelon Road
Ft. Syracuse, NY 13057
Tel: 315-432-0506
Fax: 315-432-0506

Client Sample Id: SS-52
Task Number: 90042320

Lab Sample Id: J9335
Sample Matrix: SOIL

Date Received: 04/20/90
Weight/Volume: 1 g

Date Analyzed: 05/03/90 5:52 pm
Dilution Factor: 5

Method Reference: SW846/5030/8010
Lab Data File: /hp#8_elcd/hp#8_elc_0502019.RES

CAS Number	Compound	Detection Limit	Result ug/Kg
75-27-4	Bromodichloromethane	2.9	ND
75-25-2	Bromoform	2.9	ND
74-83-9	Bromomethane	2.9	ND
56-23-5	Carbon tetrachloride	2.9	ND
108-90-7	Chlorobenzene	2.9	ND
75-00-3	Chloroethane	2.9	ND
100-75-8	2-Chloroethylvinyl ether	2.9	ND
67-66-3	Chloroform	2.9	ND
74-87-3	Chloromethane	2.9	ND
124-48-1	Dibromochloromethane	2.9	ND
95-50-1	1,2-Dichlorobenzene	2.9	ND
541-73-1	1,3-Dichlorobenzene	2.9	ND
106-46-7	1,4-Dichlorobenzene	2.9	ND
75-71-8	Dichlorodifluoromethane	2.9	ND
75-34-3	1,1-Dichloroethane	2.9	ND
107-06-2	1,2-Dichloroethane	2.9	ND
75-35-4	1,1-Dichloroethene	2.9	ND
156-60-5	trans-1,2-Dichloroethene	2.9	27.
78-87-5	1,2-Dichloropropane	2.9	ND
10061-01-5	cis-1,3-Dichloropropane	2.9	ND
100061-02-6	trans-1,3-Dichloropropane	2.9	ND
75-09-2	Methylene chloride	2.9	75.
79-34-5	1,1,2,2-Tetrachloroethane	2.9	ND
127-18-4	Tetrachloroethene	2.9	ND
71-55-6	1,1,1-Trichloroethane	2.9	ND
79-00-5	1,1,2-Trichloroethane	2.9	ND
79-01-6	Trichloroethene	2.9	20.
75-69-4	Trichlorofluoromethane	2.9	ND
75-01-4	Vinyl chloride	2.9	ND

Surrogate Recovery = 84% Acceptable Surrogate Control Limits (63-128)

Qualifiers:

ND = None detected at or above specified detection limit.
B = This compound was also detected in the method blank.

Sample reported on a dry weight basis. % moisture = 14

Galson Laboratories

VOLATILE ORGANICS ANALYSIS REPORT

Report Prepared for:
Blasland and Bouck (G4164)

1601 North Road
Elm St. Albany, NY 12205
Tel: 518/400-0506
Fax: 518/400-0506

Client Sample Id: SW-53
Task Number: 90042320

Lab Sample Id: J9336
Sample Matrix: OIL

Date Received: 04/20/90
Weight/Volume: 0.0005 mL

Date Analyzed: 05/02/90 9:31 pm
Dilution Factor: 10000

Method Reference: SW846/5030/8010
Lab Data File: /hp#4_elcd/hp#4_elc_0502001.RES

CAS Number	Compound	Detection Limit	Result ug/L
75-27-4	Bromodichloromethane	5000	ND
75-25-2	Bromoform	5000	ND
74-83-9	Bromomethane	5000	ND
56-23-5	Carbon tetrachloride	5000	ND
108-90-7	Chlorobenzene	5000	ND
75-00-3	Chloroethane	5000	ND
100-75-8	2-Chloroethylvinyl ether	5000	ND
67-66-3	Chloroform	5000	ND
74-87-3	Chloromethane	5000	ND
124-48-1	Dibromochloromethane	5000	ND
95-50-1	1,2-Dichlorobenzene	5000	ND
541-73-1	1,3-Dichlorobenzene	5000	ND
106-46-7	1,4-Dichlorobenzene	5000	ND
75-71-8	Dichlorodifluoromethane	5000	ND
75-34-3	1,1-Dichloroethane	5000	ND
107-06-2	1,2-Dichloroethane	5000	ND
75-35-4	1,1-Dichloroethene	5000	ND
156-60-5	trans-1,2-Dichloroethene	5000	ND
78-87-5	1,2-Dichloropropane	5000	ND
10061-01-5	cis-1,3-Dichloropropane	5000	ND
100061-02-6	trans-1,3-Dichloropropane	5000	ND
75-09-2	Methylene chloride	5000	ND
79-34-5	1,1,2,2-Tetrachloroethane	5000	ND
127-18-4	Tetrachloroethene	5000	ND
71-55-6	1,1,1-Trichloroethane	5000	ND
79-00-5	1,1,2-Trichloroethane	5000	ND
79-01-6	Trichloroethene	5000	ND
75-69-4	Trichlorofluoromethane	5000	ND
75-01-4	Vinyl chloride	5000	ND

Surrogate Recovery = 95% Acceptable Surrogate Control Limits (63-128)

Qualifiers:

ND = None detected at or above specified detection limit.
B = This compound was also detected in the method blank.



VOLATILE ORGANICS ANALYSIS REPORT

Report Prepared for:
Blasland and Bouck (G4164)

Client Sample Id: SS-55
Task Number: 90042320

Lab Sample Id: J9338
Sample Matrix: SOIL

Date Received: 04/20/90
Weight/Volume: 2.5 g

Date Analyzed: 05/03/90 3:36 pm
Dilution Factor: 2

Method Reference: SW846/5030/8010
Lab Data File: /hp#8_elcd/hp#8_elc_0502017.RES

CAS Number	Compound	Detection Limit	Result ug/Kg
75-27-4	Bromodichloromethane	1.3	ND
75-25-2	Bromoform	1.3	ND
74-83-9	Bromomethane	1.3	ND
56-23-5	Carbon tetrachloride	1.3	ND
108-90-7	Chlorobenzene	1.3	ND
75-00-3	Chloroethane	1.3	ND
100-75-8	2-Chloroethylvinyl ether	1.3	ND
67-66-3	Chloroform	1.3	ND
74-87-3	Chloromethane	1.3	ND
124-48-1	Dibromochloromethane	1.3	ND
95-50-1	1,2-Dichlorobenzene	1.3	ND
541-73-1	1,3-Dichlorobenzene	1.3	ND
106-46-7	1,4-Dichlorobenzene	1.3	ND
75-71-8	Dichlorodifluoromethane	1.3	ND
75-34-3	1,1-Dichloroethane	1.3	ND
107-06-2	1,2-Dichloroethane	1.3	ND
75-35-4	1,1-Dichloroethene	1.3	ND
156-60-5	trans-1,2-Dichloroethene	1.3	ND
78-87-5	1,2-Dichloropropane	1.3	ND
10061-01-5	cis-1,3-Dichloropropane	1.3	ND
100061-02-6	trans-1,3-Dichloropropane	1.3	ND
75-09-2	Methylene chloride	1.3	39.
79-34-5	1,1,2,2-Tetrachloroethane	1.3	ND
127-18-4	Tetrachloroethene	1.3	ND
71-55-6	1,1,1-Trichloroethane	1.3	ND
79-00-5	1,1,2-Trichloroethane	1.3	ND
79-01-6	Trichloroethene	1.3	2.1
75-69-4	Trichlorofluoromethane	1.3	ND
75-01-4	Vinyl chloride	1.3	ND

Surrogate Recovery = 44% Acceptable Surrogate Control Limits (63-128)

Qualifiers:

ND = None detected at or above specified detection limit.

B = This compound was also detected in the method blank.

Sample reported on a dry weight basis. % moisture = 24

Galson Laboratories

LABORATORY ANALYSIS REPORT

6601 K... Road
S... New York 13057
Tel: 315-432-2506
Fax: 315-432-2506

Client: BLASLAND, BOUCK AND LEE ENGINEERS, INC. Job Number: G4164

Task Number: 90042320

Location: PROJECT #307.02

Date Sampled: 4/19/90

POLYCHLORINATED BIPHENYLS - SW846/3550/8080

	Lab ID:	J9338	METHOD
	Client ID:	<u>SS-55</u>	<u>BLANK</u>
AROCLOR 1016/1242	MG/KG*	<0.9	<0.03
AROCLOR 1221		<0.9	<0.03
AROCLOR 1232		<0.9	<0.03
AROCLOR 1248		<0.9	<0.03
AROCLOR 1254		<0.9	<0.03
AROCLOR 1260		9.3	<0.03
MOISTURE	%	24	NA

Footnotes: * DRY WEIGHT

(<) - Less Than
(>) - Greater Than
NA - Not Applicable
NS - Not Specified
MG/KG - Milligrams/Kilograms

Submitted by: KN
Approved by: [Signature]

Galson Laboratories

VOLATILE ORGANICS ANALYSIS REPORT

Report Prepared for:
Blasland and Bouck (G4164)

4871 K... Road
St. Louis, MO 63105
Tel: (314) 221-0800
Fax: (314) 221-0808

Client Sample Id: SW-56
Task Number: 90042320

Lab Sample Id: J9339
Sample Matrix: WATER

Date Received: 04/20/90
Weight/Volume: 5 mL

Date Analyzed: 04/24/90 8:15 am
Dilution Factor: 1

Method Reference: SW846/5030/8010
Lab Data File: /hp#8_elcd/hp#8_elc_0423021.RES

CAS Number	Compound	Detection Limit	Result ug/L
75-27-4	Bromodichloromethane	0.5	ND
75-25-2	Bromoform	0.5	ND
74-83-9	Bromomethane	0.5	ND
56-23-5	Carbon tetrachloride	0.5	ND
108-90-7	Chlorobenzene	0.5	ND
75-00-3	Chloroethane	0.5	ND
100-75-8	2-Chloroethylvinyl ether	0.5	ND
67-66-3	Chloroform	0.5	7.0
74-87-3	Chloromethane	0.5	ND
124-48-1	Dibromochloromethane	0.5	ND
95-50-1	1,2-Dichlorobenzene	0.5	ND
541-73-1	1,3-Dichlorobenzene	0.5	ND
106-46-7	1,4-Dichlorobenzene	0.5	ND
75-71-8	Dichlorodifluoromethane	0.5	ND
75-34-3	1,1-Dichloroethane	0.5	ND
107-06-2	1,2-Dichloroethane	0.5	ND
75-35-4	1,1-Dichloroethene	0.5	0.7
156-60-5	trans-1,2-Dichloroethene	0.5	ND
78-87-5	1,2-Dichloropropane	0.5	ND
10061-01-5	cis-1,3-Dichloropropane	0.5	ND
100061-02-6	trans-1,3-Dichloropropane	0.5	ND
75-09-2	Methylene chloride	0.5	1.9 B
79-34-5	1,1,2,2-Tetrachloroethane	0.5	ND
127-18-4	Tetrachloroethene	0.5	ND
71-55-6	1,1,1-Trichloroethane	0.5	ND
79-00-5	1,1,2-Trichloroethane	0.5	2.3
79-01-6	Trichloroethene	0.5	2800. D
75-69-4	Trichlorofluoromethane	0.5	ND
75-01-4	Vinyl chloride	0.5	ND

Surrogate Recovery = 96% Acceptable Surrogate Control Limits (63-128)

Qualifiers: D = Diluted value.

ND = None detected at or above specified detection limit.

B = This compound was also detected in the method blank.

Galson Laboratories

VOLATILE ORGANICS ANALYSIS REPORT

Report Prepared for:
Blasland and Bouck (G4164)

6301 K...
...
...
...
...

Client Sample Id: SW-57
Task Number: 90042320

Lab Sample Id: J9340
Sample Matrix: WATER

Date Received: 04/20/90
Weight/Volume: 5 mL

Date Analyzed: 04/24/90 9:23 am
Dilution Factor: 1

Method Reference: SW846/5030/8010
Lab Data File: /hp#8_elcd/hp#8_elc_0423022.RES

CAS Number	Compound	Detection Limit	Result ug/L
75-27-4	Bromodichloromethane	0.5	ND
75-25-2	Bromoform	0.5	ND
74-83-9	Bromomethane	0.5	ND
56-23-5	Carbon tetrachloride	0.5	ND
108-90-7	Chlorobenzene	0.5	ND
75-00-3	Chloroethane	0.5	ND
100-75-8	2-Chloroethylvinyl ether	0.5	ND
67-66-3	Chloroform	0.5	0.5
74-87-3	Chloromethane	0.5	ND
124-48-1	Dibromochloromethane	0.5	ND
95-50-1	1,2-Dichlorobenzene	0.5	ND
541-73-1	1,3-Dichlorobenzene	0.5	ND
106-46-7	1,4-Dichlorobenzene	0.5	ND
75-71-8	Dichlorodifluoromethane	0.5	ND
75-34-3	1,1-Dichloroethane	0.5	ND
107-06-2	1,2-Dichloroethane	0.5	ND
75-35-4	1,1-Dichloroethene	0.5	ND
156-60-5	trans-1,2-Dichloroethene	0.5	ND
78-87-5	1,2-Dichloropropane	0.5	ND
10061-01-5	cis-1,3-Dichloropropane	0.5	ND
100061-02-6	trans-1,3-Dichloropropane	0.5	ND
75-09-2	Methylene chloride	0.5	0.8 B
79-34-5	1,1,2,2-Tetrachloroethane	0.5	ND
127-18-4	Tetrachloroethene	0.5	ND
71-55-6	1,1,1-Trichloroethane	0.5	ND
79-00-5	1,1,2-Trichloroethane	0.5	ND
79-01-6	Trichloroethene	0.5	5.7
75-69-4	Trichlorofluoromethane	0.5	ND
75-01-4	Vinyl chloride	0.5	ND

Surrogate Recovery = 94% Acceptable Surrogate Control Limits (63-128)

Qualifiers:

ND = None detected at or above specified detection limit.
B = This compound was also detected in the method blank.

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VOLATILE ORGANICS ANALYSIS REPORT

Report Prepared for:
Blasland and Bouck (G4164)

6601 Kitz Road
Elmira, NY 14927
Tel: 315/432-0500
Fax: 315/432-0506

Client Sample Id: Method Blank
Task Number: 90042320

Lab Sample Id: Blank
Sample Matrix: WATER

Date Received: 00/00/00
Weight/Volume: 5 mL

Date Analyzed: 04/23/90 6:41 pm
Dilution Factor: 1

Method Reference: SW846/5030/8010
Lab Data File: /hp#8_elcd/hp#8_elc_0423009.RES

CAS Number	Compound	Detection Limit	Result ug/L
75-27-4	Bromodichloromethane	0.5	ND
75-25-2	Bromoform	0.5	ND
74-83-9	Bromomethane	0.5	ND
56-23-5	Carbon tetrachloride	0.5	ND
108-90-7	Chlorobenzene	0.5	ND
75-00-3	Chloroethane	0.5	ND
100-75-8	2-Chloroethylvinyl ether	0.5	ND
67-66-3	Chloroform	0.5	ND
74-87-3	Chloromethane	0.5	ND
124-48-1	Dibromochloromethane	0.5	ND
95-50-1	1,2-Dichlorobenzene	0.5	ND
541-73-1	1,3-Dichlorobenzene	0.5	ND
106-46-7	1,4-Dichlorobenzene	0.5	ND
75-71-8	Dichlorodifluoromethane	0.5	ND
75-34-3	1,1-Dichloroethane	0.5	ND
107-06-2	1,2-Dichloroethane	0.5	ND
75-35-4	1,1-Dichloroethene	0.5	ND
156-60-5	trans-1,2-Dichloroethene	0.5	ND
78-87-5	1,2-Dichloropropane	0.5	ND
10061-01-5	cis-1,3-Dichloropropane	0.5	ND
100061-02-6	trans-1,3-Dichloropropane	0.5	ND
75-09-2	Methylene chloride	0.5	0.8
79-34-5	1,1,2,2-Tetrachloroethane	0.5	ND
127-18-4	Tetrachloroethene	0.5	ND
71-55-6	1,1,1-Trichloroethane	0.5	ND
79-00-5	1,1,2-Trichloroethane	0.5	ND
79-01-6	Trichloroethene	0.5	ND
75-69-4	Trichlorofluoromethane	0.5	ND
75-01-4	Vinyl chloride	0.5	ND

Surrogate Recovery = 92% Acceptable Surrogate Control Limits (63-128)

Qualifiers:

ND = None detected at or above specified detection limit.
B = This compound was also detected in the method blank.

VOLATILE ORGANICS ANALYSIS REPORT

Galson
LaboratoriesReport Prepared for:
Blasland and Bouck (G4164)3001 N. 1st Road
St. Louis, MO 63107
Tel: 314-432-0506
Fax: 314-432-0507Client Sample Id: Method Blank
Task Number: 90042320Lab Sample Id: Blank
Sample Matrix: WATERDate Received: 00/00/00
Weight/Volume: 5 mLDate Analyzed: 05/02/90 1:37 pm
Dilution Factor: 1Method Reference: SW846/5030/8010
Lab Data File: /hp#4_elcd/hp#4_elcd_043026.RES

CAS Number	Compound	Detection Limit	Result ug/L
75-27-4	Bromodichloromethane	0.5	ND
75-25-2	Bromoform	0.5	ND
74-83-9	Bromomethane	0.5	ND
56-23-5	Carbon tetrachloride	0.5	ND
108-90-7	Chlorobenzene	0.5	ND
75-00-3	Chloroethane	0.5	ND
100-75-8	2-Chloroethylvinyl ether	0.5	ND
67-66-3	Chloroform	0.5	ND
74-87-3	Chloromethane	0.5	ND
124-48-1	Dibromochloromethane	0.5	ND
95-50-1	1,2-Dichlorobenzene	0.5	ND
541-73-1	1,3-Dichlorobenzene	0.5	ND
106-46-7	1,4-Dichlorobenzene	0.5	ND
75-71-8	Dichlorodifluoromethane	0.5	ND
75-34-3	1,1-Dichloroethane	0.5	ND
107-06-2	1,2-Dichloroethane	0.5	ND
75-35-4	1,1-Dichloroethene	0.5	ND
156-60-5	trans-1,2-Dichloroethene	0.5	ND
78-87-5	1,2-Dichloropropane	0.5	ND
10061-01-5	cis-1,3-Dichloropropane	0.5	ND
100061-02-6	trans-1,3-Dichloropropane	0.5	ND
75-09-2	Methylene chloride	0.5	ND
79-34-5	1,1,2,2-Tetrachloroethane	0.5	ND
127-18-4	Tetrachloroethene	0.5	ND
71-55-6	1,1,1-Trichloroethane	0.5	ND
79-00-5	1,1,2-Trichloroethane	0.5	ND
79-01-6	Trichloroethene	0.5	ND
75-69-4	Trichlorofluoromethane	0.5	ND
75-01-4	Vinyl chloride	0.5	ND

Surrogate Recovery = 77% Acceptable Surrogate Control Limits (63-128)

Qualifiers:

ND = None detected at or above specified detection limit.
B = This compound was also detected in the method blank.

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VOLATILE ORGANICS ANALYSIS REPORT

Report Prepared for:
Blasland and Bouck (G4164)

5011 4th Avenue Road
Buffalo, NY 14257
716-832-0506
FAX 716-832-0508

Client Sample Id: Method Blank
Task Number: 90042320

Lab Sample Id: Blank
Sample Matrix: SOIL

Date Received: 00/00/00
Weight/Volume: 5 g

Date Analyzed: 05/03/90 11:05 am
Dilution Factor: 1

Method Reference: SW846/5030/8010
Lab Data File: /hp#8_elcd/hp#8_elc_0502013.RES

CAS Number	Compound	Detection Limit	Result ug/Kg
75-27-4	Bromodichloromethane	0.5	ND
75-25-2	Bromoform	0.5	ND
74-83-9	Bromomethane	0.5	ND
56-23-5	Carbon tetrachloride	0.5	ND
108-90-7	Chlorobenzene	0.5	ND
75-00-3	Chloroethane	0.5	ND
100-75-8	2-Chloroethylvinyl ether	0.5	ND
67-66-3	Chloroform	0.5	ND
74-87-3	Chloromethane	0.5	ND
124-48-1	Dibromochloromethane	0.5	ND
95-50-1	1,2-Dichlorobenzene	0.5	ND
541-73-1	1,3-Dichlorobenzene	0.5	ND
106-46-7	1,4-Dichlorobenzene	0.5	ND
75-71-8	Dichlorodifluoromethane	0.5	ND
75-34-3	1,1-Dichloroethane	0.5	ND
107-06-2	1,2-Dichloroethane	0.5	ND
75-35-4	1,1-Dichloroethene	0.5	ND
156-60-5	trans-1,2-Dichloroethene	0.5	ND
78-87-5	1,2-Dichloropropane	0.5	ND
10061-01-5	cis-1,3-Dichloropropane	0.5	ND
10061-02-6	trans-1,3-Dichloropropane	0.5	ND
75-09-2	Methylene chloride	0.5	ND
79-34-5	1,1,2,2-Tetrachloroethane	0.5	ND
127-18-4	Tetrachloroethene	0.5	ND
71-55-6	1,1,1-Trichloroethane	0.5	ND
79-00-5	1,1,2-Trichloroethane	0.5	ND
79-01-6	Trichloroethene	0.5	ND
75-69-4	Trichlorofluoromethane	0.5	ND
75-01-4	Vinyl chloride	0.5	ND

Surrogate Recovery = 86% Acceptable Surrogate Control Limits (63-128)

Qualifiers:

ND = None detected at or above specified detection limit.
B = This compound was also detected in the method blank.

Sample reported on a dry weight basis. % moisture = 0

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VOLATILE ORGANICS ANALYSIS REPORT

Report Prepared for:
Blasland and Bouck (G4164)

8801 K St., - Brad
17150, Pa. - York 17057
Tel. 717-492-0506
Fax 717-492-1506

Client Sample Id: LAB BLANK
Task Number: 90042320

Lab Sample Id: J9341
Sample Matrix: WATER

Date Received: 04/20/90
Weight/Volume: 5 mL

Date Analyzed: 04/24/90 10:31 am
Dilution Factor: 1

Method Reference: SW846/5030/8010
Lab Data File: /hp#8_elcd/hp#8_elc_0423023.RES

CAS Number	Compound	Detection Limit	Result ug/L
75-27-4	Bromodichloromethane	0.5	ND
75-25-2	Bromoform	0.5	ND
74-83-9	Bromomethane	0.5	ND
56-23-5	Carbon tetrachloride	0.5	ND
108-90-7	Chlorobenzene	0.5	ND
75-00-3	Chloroethane	0.5	ND
100-75-8	2-Chloroethylvinyl ether	0.5	ND
67-66-3	Chloroform	0.5	ND
74-87-3	Chloromethane	0.5	ND
124-48-1	Dibromochloromethane	0.5	ND
95-50-1	1,2-Dichlorobenzene	0.5	ND
541-73-1	1,3-Dichlorobenzene	0.5	ND
106-46-7	1,4-Dichlorobenzene	0.5	ND
75-71-8	Dichlorodifluoromethane	0.5	ND
75-34-3	1,1-Dichloroethane	0.5	ND
107-06-2	1,2-Dichloroethane	0.5	ND
75-35-4	1,1-Dichloroethene	0.5	ND
156-60-5	trans-1,2-Dichloroethene	0.5	ND
78-87-5	1,2-Dichloropropane	0.5	ND
10061-01-5	cis-1,3-Dichloropropane	0.5	ND
100061-02-6	trans-1,3-Dichloropropane	0.5	ND
75-09-2	Methylene chloride	0.5	1.4 B
79-34-5	1,1,2,2-Tetrachloroethane	0.5	ND
127-18-4	Tetrachloroethene	0.5	ND
71-55-6	1,1,1-Trichloroethane	0.5	ND
79-00-5	1,1,2-Trichloroethane	0.5	ND
79-01-6	Trichloroethene	0.5	ND
75-69-4	Trichlorofluoromethane	0.5	ND
75-01-4	Vinyl chloride	0.5	ND

Surrogate Recovery = 108% Acceptable Surrogate Control Limits (63-128)

Qualifiers:

ND = None detected at or above specified detection limit.
B = This compound was also detected in the method blank.