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SEMIANNUAL MONITORING REPORTS

OPERABLE UNIT NO. 1 - SITES 24 AND 78
MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA

REPORTING PERIOD JULY 1997 - DECEMBER 1997

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PREFACE

The semiannual monitoring reports that are presented herein describe the procedures, analytical findings, and subsequent recommendations of the monitoring program at Operable Unit (OU) No. 1 (Sites 24 and 78), Marine Corps Base (MCB) Camp Lejeune, North Carolina. Figure P-1 depicts the location of OU No 1. The monitoring reports have been prepared by Baker Environmental, Inc. and submitted to the United States Environmental Protection Agency - Region IV; the North Carolina Department of Environment and Natural Resources; the Environmental Management Department of MCB Camp Lejeune; and the Naval Facilities Engineering Command, Atlantic Division.

The monitoring program at OU No. 1 was implemented in response to the Record of Decision (ROD) document signed by MCB Camp Lejeune on September 15, 1994 (Baker, 1994a). The ROD for OU No. 1 stipulates that documentation in support of the selected remedy, groundwater extraction and treatment coupled with groundwater monitoring, be maintained for periodic regulatory review.

The principal objectives of the monitoring program at OU No. 1 are as follows: (1) monitor the potential for human or ecological exposure due to off-site migration of contaminants, and (2) evaluate the effectiveness of the groundwater treatment systems. The semiannual monitoring reports document the findings and provide interested parties with information required to authorize future decisions regarding OU No. 1. The information presented in the reports will be used to either extend, modify, or discontinue the monitoring program as necessary.

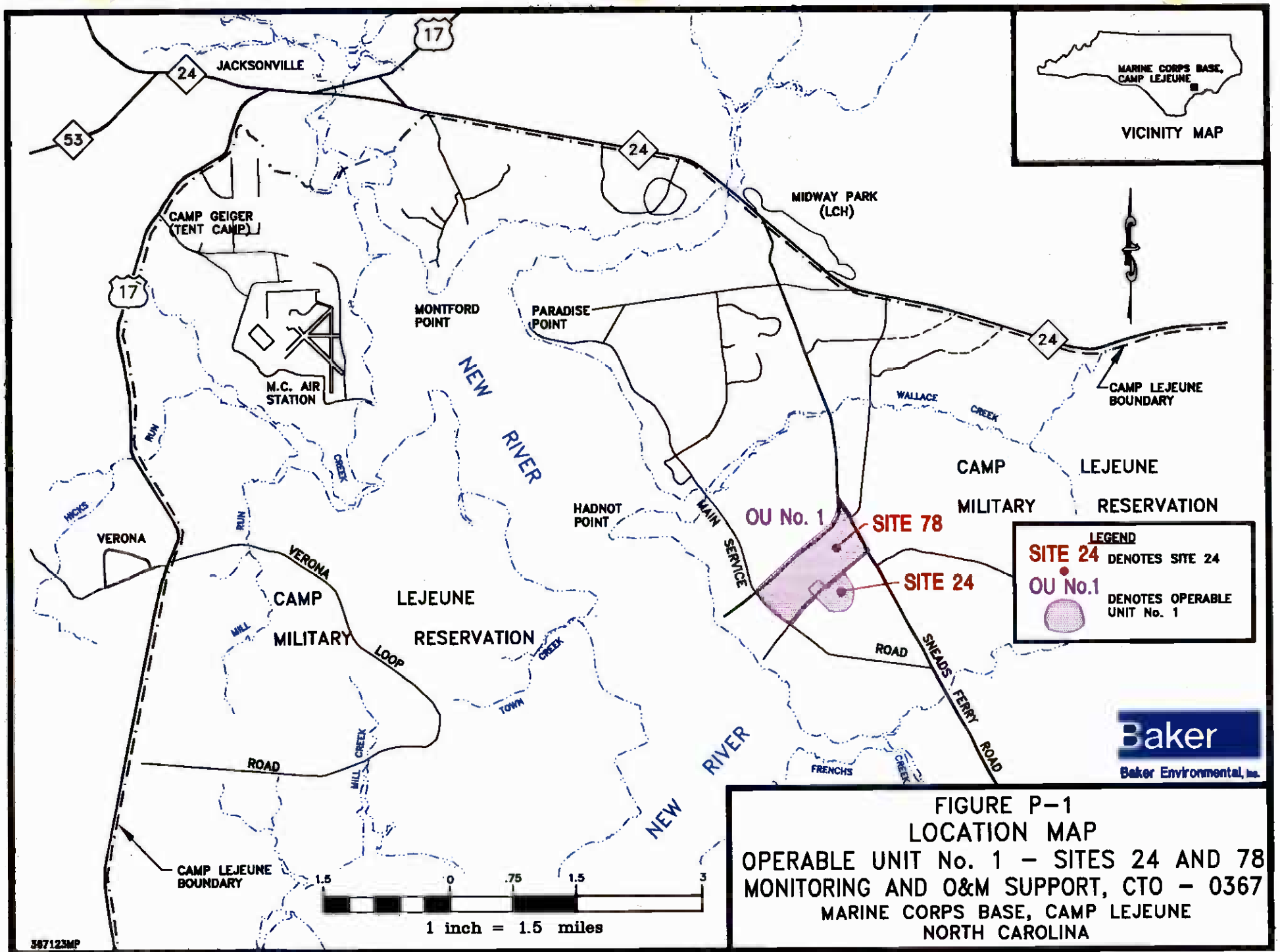

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FIGURE P-1
LOCATION MAP
OPERABLE UNIT No. 1 – SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO – 0367
MARINE CORPS BASE, CAMP LEJEUNE
NORTH CAROLINA

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SEMIANNUAL MONITORING REPORT

The semiannual monitoring report which follows presents a summary of sampling activities, field observations, analytical results, and significant findings which pertain to the monitoring program and groundwater treatment systems at Operable Unit (OU) No. 1, Marine Corps Base (MCB) Camp Lejeune, North Carolina. The report describes the activities completed at Sites 24 and 78 during the second quarter of 1997 and presents conclusions and recommendations concerning the monitoring program and groundwater treatment systems.

Semiannual monitoring activities at OU No. 1 commenced July 23, 1997 and concluded August 12, 1997. Sampling at Site 24 involved the collection of groundwater samples from the three shallow monitoring wells depicted in Figure 1. Groundwater samples at Site 78 were obtained from 17 shallow monitoring wells, 2 intermediate monitoring wells, and 2 deep monitoring wells. Figure 2 depicts all shallow and deep groundwater monitoring wells at Site 78. [Note that all tables and figures are provided after the text portion of this report.]

In addition to the permanent monitoring wells associated with Site 78, a network of 23 temporary monitoring wells and 3 existing wells associated with two underground storage tank (UST) sites were also utilized during the semiannual event. The 23 temporary monitoring wells were installed within the northern and southern portions of Site 78 to further define the horizontal extent of two suspected groundwater contaminant plumes. The additional three UST wells, located adjacent to Buildings 1611 and 1613, were utilized to supplement the information gained from the network of temporary wells. Figures 3 and 4 depict the locations of the additional monitoring wells that were employed in the northern and southern portions of Site 78, respectively. Test boring and well construction logs for each of the temporary monitoring wells are provided in Attachment A.

Sampling activities were conducted and subsequent laboratory analyses were performed according to procedures and methods specified in the Long-Term Monitoring Work Plans for OU No. 1 (Baker, 1996). The project work plans identify a select number of monitoring wells at Sites 24 and 78 for which continued periodic sampling is required. The additional temporary and UST wells were sampled, based upon a recommendation provided in a previous monitoring report, to further define the horizontal extent of contamination in the northern and southern portions of Site 78. Figures 1 through 4 depict the locations of all monitoring wells sampled during the semiannual event; Table 1 provides construction details of the permanent monitoring wells associated with Site 78. As stipulated in the project work plans, measurements of pH, specific conductance, dissolved oxygen, temperature, and turbidity were recorded prior to sampling. Summaries of all groundwater field parameters are provided in Table 2.

The monitoring program at Sites 24 and 78 was implemented to assess whether contamination, detected during previous investigations, remains present, has migrated, has degraded through natural processes, or has been eliminated through groundwater extraction. Based upon previous analytical results and decision documents, volatile organic compounds (VOCs), pesticides, and select metals were identified as contaminants of concern at Site 24. Contaminants of concern at Site 78 were limited to VOCs only. Table 3 provides a summary of requested laboratory analyses and sample identifications.

Sample information, including well number, sample identification, time and date of sample collection, samplers, analytical parameters, and required laboratory turnaround time was recorded in a field

logbook and on sample labels. Chain-of-custody documentation, provided in Attachment B, accompanied the samples to the laboratory.

Groundwater Elevation and Flow Direction

The following provides information concerning groundwater flow patterns at Sites 24 and 78. The elevation data were obtained by subtracting the measured depth to groundwater from the surveyed reference elevation. For ease of discussion, groundwater elevation and flow direction for the two sites are presented separately.

Site 24

Water level measurements were collected at Site 24 on August 10, 1997. Table 4 provides a summary of the water level measurements and Figure 5 depicts the static elevations and approximate flow direction of groundwater. The general direction of groundwater flow at Site 24 is south, toward a series of tributaries which lead to Cogdels Creek. As shown in Figure 5, the flow direction near monitoring wells 24-GW07 and 24-GW08 is toward the south and southeast. Groundwater flow near wells 24-GW03 and 24-GW10 is generally toward the south. The slight difference in groundwater flow directions across Site 24 is likely a result of the surface topography, coupled the influence of nearby surface water features.

Site 78

Water level measurements at Site 78 were obtained on August 9, 1997. Table 5 provides a summary of the water level measurements and Figure 6 depicts the static elevations and approximate flow direction of groundwater. The groundwater flow regime at Site 78 is relatively consistent. Groundwater flow is generally toward the west-southwest, in the direction of an unnamed tributary to Cogdels Creek and the New River. As depicted in Figure 6, groundwater in the northernmost and southernmost portions of the study area tends to flow in a radial direction. The areas in which groundwater appears to be mounded are most likely localized entrance points for groundwater recharge.

Field Observations

Field observations have been recorded during each groundwater sampling event at Sites 24 and 78. Recommendations regarding the field observations which follow are presented later within this report.

Groundwater samples from several of the monitoring wells throughout Site 78 exhibited sediment after having been purged for a reasonable amount of time. This suggests that the monitoring wells have either begun to deteriorate or were poorly constructed. Turbidity readings collected during groundwater sampling activities have been consistently high in a few cases. Turbidity readings have ranged, in those few cases, between 100 nephlometric turbidity units (NTUs) and 200 NTUs. In general, it is preferred that groundwater samples be collected after turbidity readings stabilize at less than ten NTUs. In many cases, the older monitoring wells do not reach this turbidity level, resulting in less than ideal sampling conditions.

ANALYTICAL RESULTS AND FINDINGS

The section which follows presents analytical results and findings from sampling performed at Sites 24 and 78 during the third calendar quarter of 1997. A summary of all analytical results compiled during the sampling event are presented in Attachment C and corresponding laboratory data sheets are provided in Attachment D.

Four trip blanks were prepared prior to the sampling event. Trip blanks accompanied the groundwater samples during field collection, shipment, and laboratory analysis. As provided in Table 6, a total of four VOCs were detected among the trip blank samples. The common laboratory contaminants methylene chloride and acetone were detected in separate samples at concentrations of 0.7 and 5.0 micrograms per liter (µg/L), respectively. Trichloroethene and 1,2-dichloroethene (total) were each detected in trip blank sample IR78-TB01-97C at concentrations of 9.0 and 5.0 µg/L, respectively. Detections of trichloroethene and 1,2-dichloroethene (total) were considered positive results only when the observed concentration exceeded five times the maximum detection in the blank associated with that sample. The common laboratory contaminants were considered positive results only when the observed concentrations exceeded ten times the maximum blank concentration.

Site 24

The following subsections present analytical results and findings from monitoring activities conducted at Site 24.

Organic Compounds

As provided in Tables 7 and 8, no organic compounds were detected among the three groundwater samples extracted from the shallow aquifer at Site 24. During the previous four sampling events, no VOCs were detected among groundwater samples that have been obtained from Site 24. In addition, pesticide compounds have not been detected among any of the groundwater samples obtained from the three monitoring wells.

Oil and grease, however, have been detected among groundwater samples obtained during the previous four sampling events. Oil and grease compounds were detected once among samples submitted for those analyses from monitoring wells 24-GW09 and 24-GW10 at concentrations of less than 31 milligrams per liter (mg/L). There are no state or federal water quality standards for oil and grease parameters.

Total Metals

Positive detections of total metals are presented in Table 7. Antimony, chromium, iron, lead, manganese, and mercury were detected among the three groundwater samples submitted for those analyses. Antimony, chromium, iron, and lead were each detected in two of the three samples, manganese was detected in all three samples, and mercury was detected in only one sample.

The sample obtained from monitoring well 24-GW09 exhibited the only positive total metal detections that exceeded an applicable water quality standard. Iron was detected in the sample obtained from monitoring well 24-GW09 at a concentration of 762 µg/L, which exceeds the North Carolina Water Quality Standard (NCWQS) of 300 µg/L. Mercury was detected at a concentration of 2.8 µg/L in the

sample obtained from 24-GW09, which exceeds both the NCWQS and Federal Maximum Contaminant Level (MCL) of 1.1 and 2.0 µg/L, respectively.

The observed concentrations of iron are typical of previous sampling events and analytical results obtained during numerous other groundwater investigations conducted throughout MCB, Camp Lejeune. Although the concentration of metals among groundwater samples often exceed established water quality standards, the levels are generally characteristic of natural site conditions. Soils found within the coastal plain of North Carolina are naturally rich in metals. The observed total metal concentrations in groundwater are due more to geologic conditions (i.e., naturally occurring metals bound to unconsolidated soil particles) and sample acquisition methods than to mobile metal concentrations in the surficial aquifer. The presence of certain metals, such as iron, is often a reflection of solids or colloids in samples. In order to limit the amount of solids and obtain more representative groundwater samples, a low-flow purge method was employed during sampling. However, the low-flow purge method can only reduce, not eliminate the amount of solids that are frequently present among groundwater samples.

Suspended and Dissolved Solids

As presented in Table 7, all three of the shallow groundwater samples obtained from Site 24 had detectable concentrations of dissolved solids or suspended solids. As provided in Table 8, monitoring wells 24-GW08, 24-GW09, and 24-GW10 had dissolved solid concentrations of 100, 42, and 42 mg/L, respectively. The detected concentrations of dissolved solids were below the NCWQS of 500 mg/L.

Site 78

The subsections which follow present analytical results and findings from monitoring activities conducted at Site 78. Positive VOC detections were, for the most part, limited to samples obtained from the uppermost portion of the surficial aquifer (i.e., less than 25 feet below ground surface). Two deep and two intermediate groundwater samples were collected from monitoring wells at Site 78. Of the four samples, only one VOC was detected in a sample obtained from the deeper portion of the surficial aquifer. The limited number of positive VOC detections among samples obtained from the deeper portion of the surficial aquifer and the Castle Hayne Aquifer suggests that VOCs are limited to the uppermost portion of the surficial aquifer, with little vertical migration of contaminants.

Shallow and Intermediate Groundwater

Groundwater conditions within the upper portion of the surficial aquifer were evaluated at Site 78 through collection and analysis of samples from 17 shallow monitoring wells (refer to Table 2 for well construction details and Figure 2 for well locations). Two additional groundwater samples were obtained from intermediate wells set in the lower portion of the surficial aquifer (i.e., between 50 and 75 feet below ground surface). The paragraphs which follow provide not only an evaluation of the most recent analytical data, but a comparison of those findings versus previous results.

A summary of groundwater analytical results is provided in Table 9; a graphic depiction of VOCs is presented in Figure 7. In general, the analytical data suggest two primary areas of chlorinated solvent contamination at Site 78. The two chlorinated solvent contaminant plumes are limited to the uppermost portion of the surficial aquifer. One area of contamination is located within the northern

portion of the study area and the other is located within the southern portion of the site. The northern plume area is located in the vicinity of 900 series buildings (i.e., Buildings 900, 901, 902, 903). The southern plume area appears to be concentrated near the intersection of Fir and East Streets, adjacent to monitoring well cluster 78-GW09-1, and extending southwest, toward monitoring wells 78-GW01 and 78-GW04-1. The southern contaminant plume may also be comprised of two or more smaller, localized areas of contamination.

A total of six VOCs were detected among samples associated with the southern contaminant plume. As depicted in Figure 7, positive VOC detections in the southern portion of Site 78 were limited to shallow monitoring wells 78-GW01, 78-GW04-1, and 78-GW09-1, and intermediate well 78-GW09-2. The sample obtained from well 78-GW09-1 exhibited the highest concentrations of each contaminant identified. As presented in Table 9, the solvents 1,1,1-trichloroethane, 1,1-dichloroethane, 1,1-dichloroethene, and trichloroethene were detected in the sample obtained from well 78-GW09-1 at concentrations of 370, 68, 91, and µg/L, respectively. Figure 8 depicts total chlorinated solvent concentrations in samples obtained from well 78-GW09-1 during the past nine monitoring events. This figure includes analytical data from monitoring well 78-GW09-1 beginning in the third quarter of 1995 and continuing through the third quarter of 1997.

The median concentration of total chlorinated solvents detected among samples obtained from well 78-GW09-1 over the last nine quarters is 1,499 µg/L. As depicted in Figure 8, chlorinated solvents have been detected in samples obtained from well 78-GW09-1 during each of the sampling events. Figures 9, 10, and 11 depict the concentrations of specific organic compounds in samples obtained from monitoring well 78-GW09-1. The figures provide concentrations over time for 1,1-dichloroethene, 1,1,1-trichloroethane, and trichloroethene detected among samples obtained from well 78-GW09-1. As depicted in the figures, each of the VOCs have consistently been detected at concentrations exceeding the NCWQS. Indicators of central tendency, including mean and median, have been calculated for each of the compounds and are provided in Figures 9 through 11. As the figures depict, concentrations of trichloroethene has increased since the last sampling episode, while the concentrations of 1,1-dichloroethene and 1,1,1-trichloroethane have decreased since the previous sampling event. Concentrations of each of the compounds, however, remain above applicable water quality standards.

As presented in Figure 7, 1,2-dichloroethene (total) was detected at 5 µg/L in the sample obtained from intermediate well 78-GW09-2; the NCWQS for 1,2-dichloroethene (total) is 70 µg/L. Intermediate well 78-GW09-2 is located approximately 150 feet southwest of shallow well 78-GW09-1. Similar concentrations of 1,2-dichloroethene (total) have been exhibited among samples obtained from intermediate well 78-GW09-2 during previous sampling events. The frequent detections of 1,2-dichloroethene (total) suggests that VOCs have migrated to the deeper portion of the surficial aquifer in this area of Site 78. As depicted in Figure 7, the detected concentrations are significantly lower than the NCWQS; however, the presence of this compound in the deeper portion of the shallow aquifer is notable. Additional sampling activities at Site 78 will be employed to monitor the presence of VOCs in the intermediate zone. In addition, there have been no detections of VOCs in samples obtained from deep monitoring well 78-GW09-3, located nearly 200 feet east of 78-GW09-1. These analytical results suggest that the identified chlorinated solvents are primarily limited in the uppermost portion of the surficial aquifer in the southern plume area of Site 78, with limited vertical migration.

A total of four chlorinated solvents were detected among samples associated with the northern contaminant plume. As depicted in Figure 7, positive VOC detections in the northern portion of

Site 78 were limited to samples obtained from shallow monitoring wells 78-GW22, 78-GW23 and 78-GW24-1. As presented in Table 9, the chlorinated solvents vinyl chloride, 1,2-dichloroethene (total) and trichloroethene were detected in samples obtained from wells 78-GW23 and 78-GW24-1. The sample obtained from monitoring well 78-GW23 had the highest detected concentrations of contaminants. Concentrations of vinyl chloride and 1,2-dichloroethene were 590 and 10,000 µg/L, respectively. Figure 12 depicts total chlorinated solvent concentrations in samples obtained from well 78-GW23 during the past nine monitoring events. The increased concentration of total chlorinated solvents detected in samples obtained from 78-GW23 during the last five periods is the result of differing laboratory analyses; not until the third quarter of 1996 were groundwater samples submitted for 1,2-dichloroethene (total) analyses. Figures 13 and 14 depict the concentrations vinyl chloride and trichloroethene previously detected in samples obtained from monitoring well 78-GW23. In general, concentrations of these compounds have been significantly greater than the respective state water quality standards. The NCWQS for vinyl chloride is 0.015 µg/L and the median concentration of this compound over nine quarters of sampling is 240 µg/L. The median concentration of trichloroethene over the sampling period is 50 µg/L, as compared to the NCWQS of 2.8 µg/L.

Within the northern contaminant plume, petroleum related compounds including benzene, toluene, ethylbenzene, and xylene (total) have been detected among shallow groundwater samples. The presence of petroleum-related compounds in the northern portion of Site 78 have also been confirmed in lower portions of the surficial aquifer. Previous data collected from intermediate monitoring well 78-GW24-2, located adjacent to shallow well 78GW24-1, have indicated petroleum related compounds. The data suggest that these compounds may have begun to migrate vertically from the surficial aquifer. Additional sampling data will be required to delineate the horizontal and the vertical extent of the petroleum related compounds within the surficial aquifer.

Shallow monitoring wells 78-GW15 and 78-GW39 are situated in areas removed from the main contaminant plumes at Site 78; however, VOCs have been detected among samples obtained from these wells during this sampling event and previous events. For example, trichloroethene was detected at a concentration of 1 µg/L in the sample obtained from well 78-GW15. In addition, the sample obtained from monitoring well 78-GW39 exhibited a 0.7 µg/L concentration of tetrachloroethene The detections of contaminants in samples obtained from monitoring wells 78-GW15 and 78-GW39 demonstrate that VOCs are present at low concentrations in areas of the site removed from the main contaminant plumes.

Supplemental Shallow Groundwater Investigation

A network of temporary monitoring wells were installed in the northern and southern portions of Site 78 to further delineate the horizontal extent of contamination. A total of 11 temporary monitoring wells were installed in the northern portion of the study area and 12 temporary monitoring wells were installed in the southern portion of Site 78. In addition, three monitoring wells associated with UST sites were also employed to further define the limits of the southern contaminant plume. Figures 15 and 16 depict the horizontal extent of total VOCs in shallow groundwater in the northern and southern portions of Site 78, respectively. Analytical results from the supplemental investigation are provided in Table 10.

Deep Groundwater

The following section presents analytical results and findings from two deep groundwater samples obtained at Site 78 (i.e., collected from depths greater than 100 feet below ground surface). As provided in Table 10, no VOCs were detected among the two groundwater samples obtained from the deep aquifer. Toluene was detected at a concentration of 0.8 µg/L in a sample collected from deep well 78-GW24-3 during a previous monitoring event. The detection was considerably less than both the NCWQS and MCL of 1,000 µg/L. No other analytical results have indicated the presence of VOCs in the deep aquifer, which implies that volatile contaminants have not migrated vertically from the shallow aquifer to the deep aquifer. Deep groundwater samples will continue to be collected during future sampling events at the site. This data will help to determine if VOCs have migrated to the Castle Hayne Aquifer at Site 78.

TREATMENT SYSTEM EVALUATION

Two independent groundwater extraction and treatment systems have been operating at OU No. 1 (the Hadnot Point Industrial Area) since December 1994. The systems were designed to collect and treat contaminated groundwater from the uppermost portion of the surficial aquifer in the northern and southern portions of Site 78. The systems were also designed to mitigate the potential for off-site contaminant migration.

As depicted in Figure 17, the northern treatment system currently includes one active recovery well (RW-10) and five inactive recovery wells (RW-1, RW-2, RW-3, RW-4, and RW-11). The southern treatment system includes four active recovery wells (RW-5, RW-6, RW-7, and RW-8) and one inactive recovery well (RW-9). Shallow groundwater extracted from the surficial aquifer is treated at either the northern or southern treatment plants (refer to Figure 17), then discharged to the Hadnot Point Sewage Treatment Plant. Five of the six inactive recovery wells were taken off-line during 1996 due to a low concentration of contaminants in the groundwater that was being extracted. The sixth inactive recovery well was taken off-line during 1996 due to a high concentration of solids. The higher concentrations of dissolved and suspended solids in groundwater extracted from RW-11 may have been a result of natural site conditions or poor recovery well construction.

The northern and southern treatment systems were designed to handle a maximum influent of 80 gallons per minute (gpm). Because the actual pumping rates are much lower than 80 gpm, the treatment systems are currently operating well below their maximum capacity. Groundwater extraction rates during the most recent evaluation period varied between 0.6 and 4.1 gpm. Based on past experience at MCB Camp Lejeune, a 100-foot radius of influence is expected for 6-inch diameter recovery wells pumping at 5 gpm (Baker, April 1996). Areas of influence between 12 and 82 feet, depending upon the particular extraction rate of each recovery well and the availabiltiy of groundwater, were therefore achieved at Site 78 during the evaluation period.

The northern and southern treatment plants contain oil and water separators; metals removal systems including flocculation tanks, settling tanks, and sand filters; low profile air strippers; and liquid-phase carbon adsorption units. Tables 11 and 12 present monthly sampling results obtained during July through December of 1997 for the northern and southern treatment plants, respectively. The following assessments of both treatment systems are based upon monthly sampling results and monthly remedial system progress reports presented in Attachment D.

Northern Treatment System

During the period from July through December of 1997, over 582,000 gallons of contaminated groundwater were extracted from the northern portion of Site 78. The northern treatment plant treated groundwater during 3,600 hours of operation, or nearly 82 percent of the 4,392 hours possible. Routine maintenance and a check valve failure accounted for 792 hours of total downtime during the sixth month period. Only one of the six shallow extraction wells was operational during the evaluation period. The average rate at which groundwater was extracted via RW-10 and treated at the northern treatment plant, while operational, was nearly 2.7 gallons per minute (gpm). An extraction rate of between four and eight gpm is more typical of similarly constructed shallow recovery wells (i.e., those less than 35 feet below ground surface). The average rate at which groundwater was extracted from RW-10, 2.7 gpm, is therefore less than what would be expected.

Recovery wells RW-10 and RW-11 are situated within the contaminant plume in the northern portion of Site 78. As a result, the two recovery wells have historically extracted groundwater with concentrations of VOCs at nearly the same rate and efficiency. However, recovery well RW-11 was taken off-line during 1996 and RW-10 is located approximately 140 feet upgradient of monitoring well 78-GW23, where VOCs have been detected at concentrations well above water quality standards. The remaining four shallow recovery wells are situated beyond the leading, downgradient edge of the contaminant plume (refer to Figure 15). The four downgradient recovery wells were positioned to limit contaminant migration and intercept the VOC plume as it presumably would travel in the direction of groundwater flow.

Monthly monitoring activities during the evaluation period included sampling of plant influent, plant effluent, oil and water separator effluent, sand filter effluent, and air stripper effluent. Table 11 presents the monthly sampling results obtained during July through December of 1997. Concentrations of contaminants in the sample obtained during November of 1997 were unusually high, when compared to previous results. Vinyl chloride and trichloroethene were detected in the plant influent sample at concentrations of 8,700 and 210 µg/L, respectively. Typically the total concentration of all VOCs among groundwater samples extracted from the northern contaminant plume, when summed, is less than 100 µg/L. Sampling results from November of 1997 were therefore removed, for the purposes of this evaluation, from the data set and are considered to represent a statistical outlier. The northern treatment plant has also been utilized to accept contaminated waste streams from other, unrelated sites throughout MCB Camp Lejeune. It may have been the case that the November influent sample was obtained during treatment of another, unrelated waste stream.

The average total influent concentration of all VOCs detected among extracted groundwater samples during the evaluation period, excluding November, was 65 µg/L. The average total influent concentration was used to estimate the total weight of extracted contaminants. Based upon a constant input of an average influent concentration at the assumed extraction rate (2.7 gpm), approximately 0.3 pounds of volatile contaminants were extracted from the shallow aquifer during the sixth month period.

As presented in Table 11, influent to the northern treatment plant contained the VOCs trans-1,2-dichloroethene, trichloroethene, vinyl chloride, benzene, and cis-1,2-dichloroethene at concentrations exceeding applicable groundwater standards. Analytical results indicate that components of the northern treatment plant are functioning effectively. Effluent samples obtained during each month of the evaluation period indicate that volatile contaminants have been eliminated from the waste stream. In addition to VOCs, influent to the treatment plant contained metals, dissolved solids, and

suspended solids. Iron, lead, manganese, and mercury were detected among samples obtained from the treatment system influent. As the results presented in Table 11 suggest, metals were also reduced through treatment to levels below the applicable limits. Effluent samples obtained in the future will be used to determine if any adjustments to the northern treatment system are necessary.

Southern Treatment System

Nearly 1.5 million gallons of contaminated groundwater were extracted from the southern portion of Site 78 during July through December of 1997. The southern treatment plant extracted groundwater during 3,816 hours of operation, which accounted for nearly 87 percent of the 4,392 hours possible. Routine maintenance, power outages, and a pump malfunction accounted for 576 hours of total downtime during the sixth month period. Five of the six shallow extraction wells which serve the southern treatment system were operational during the evaluation period. The average rate at which groundwater was extracted and treated at the southern treatment plant, while operational, was just over 6.5 gpm. An extraction rate of between four and eight gpm for each recovery well is typical of similarly constructed shallow recovery wells. The average rate at which groundwater was extracted by the network of shallow recovery wells was therefore much less than expected. An average total extraction rate of at least 16 gpm would be anticipated.

The southern recovery wells are situated in a line as a downgradient contaminant barrier (refer to Figure 16). The recovery wells are positioned to limit contaminant migration and intercept the contaminated plume as it presumably travels in the direction of groundwater flow. The recovery wells are located at the downgradient edge of the contaminant plume and, therefore, have been extracting groundwater with lower VOC concentrations than possible. Recovery wells RW-5 and RW-6 have typically removed groundwater with higher VOC concentrations than recovery wells RW-7 and RW-8. Recovery wells RW-5 and RW-6 are positioned closer to the most highly contaminated portion of the suspected contaminant plume.

Table 12 presents the monthly sampling results obtained during July through December of 1997. The average total influent concentration of all VOCs detected among influent samples during the evaluation period was 93 µg/L. The average total influent concentration was used to estimate the total weight of extracted contaminants. Based upon a constant input of an average influent concentration at the assumed extraction rate (6.5 gpm), 1.2 pounds of volatile contaminants were extracted from the shallow aquifer.

As presented in Table 12, influent to the southern treatment plant contained the VOCs trans-1,2-dichloroethene, trichloroethene, and vinyl chloride at concentrations exceeding applicable groundwater standards. Effluent samples obtained during each month of the evaluation period indicate that were either reduced to within acceptable limits or eliminated from the waste stream altogether. In addition to VOCs, influent to the treatment plant contained metals, dissolved solids, and suspended solids. Iron, manganese, and mercury were detected among samples obtained from the treatment system. As the results presented in Table 12 suggest, that metals were reduced through treatment to levels below the applicable limits. Effluent samples obtained in the future will be used to determine if any adjustments to the southern treatment system are necessary.

RECOMMENDATIONS

The ROD for OU1 stipulates that groundwater samples from Site 24 and Site 78 be collected periodically and possible off-site migration of known contaminants be monitored through laboratory

analyses (Baker, 1994a). Groundwater sampling at Sites 24 and 78 was implemented to ensure that potential human and ecological receptors would not be exposed to known site contaminants. The sections which follow describe recommendations which have recently been implemented and recommendations which are proposed for future consideration.

Implemented Recommendations

Information pertaining to recommendations, implemented prior to the third quarter of 1997, is provided within the previous groundwater monitoring reports. Final disposition of each recommendation is also presented within the previous reports. It is the intent of this report to provide a thorough and up-to-date listing of only those recommendations and implemented actions which have recently been implemented.

Sampling Frequency Modified

Groundwater samples obtained from Site 78 during previous sampling periods have exhibited similar concentrations of the same VOCs. In fact, several laboratory results have remained nearly constant throughout the monitoring program. Although groundwater continues to be actively extracted and treated, none of the groundwater recovery wells have monitoring wells within their expected capture zones. Without means to monitor the progress of active treatment systems, groundwater samples currently being obtained serve only to confirm the presence of site contaminants. Based upon this information, a reduction in the number of yearly sampling events from four to two was implemented. Semiannual sampling will sufficiently monitor site contaminants in groundwater at Site 78, given current treatment system components. If treatment system components are modified in the future, an alternate sampling frequency may be developed.

Horizontal Extent of Contamination Further Defined

A network of temporary monitoring wells within the northern and southern contaminant plume areas were installed and sampled during the evaluation period. Three monitoring wells installed as part of an unrelated UST investigation were also employed to better define the horizontal extent of the two suspected groundwater contaminant plumes. Based upon results obtained during the supplemental investigation, additional permanent monitoring wells will be installed in the future. The additional sampling data acquired from supplemental investigation will also aid in the placement of future recovery wells (refer to Figure 17).

Proposed Recommendations

Based upon the observations and findings presented in this monitoring report, the following recommendations for the OU No. 1 monitoring program are provided. If non-significant changes are made to a component of the selected remedy described in the ROD, the changes must be recorded in a post-decision document file. If significant changes are made to a component of the selected remedy, the changes will need to be presented in an Explanation of Significant Differences document.

Install Additional Recovery Wells

As indicated, a majority of treatment system capacity for both the northern and southern treatment plants is currently underutilized. In addition, the recovery well systems are not extracting groundwater from the most contaminated portions of the two suspected chlorinated solvent plumes. Four additional

recovery wells, supplementing the nine existing recovery wells (RW-1 through RW-9), were proposed as part of the selected remedy for OU No.1. Two of the three additional wells (RW-10 and RW-11) were installed within the northern contaminant plume at Site 78. The third recovery well, proposed for the most contaminated portion of the southern plume, was never installed. Based upon the information presented within this report, it is recommended that at least two recovery wells be added to the southern treatment system. It is recommended that one recovery well be installed 75 and 100 feet south of monitoring well 78-GW09-1. Groundwater samples obtained from 78-GW09-1 have consistently exhibited the highest concentrations of chlorinated solvents within the southern portion of Site 78. It is also recommended that a second recovery well be installed within the southern plume area, to the southwest of Building 1707 (refer to Figures 16 and 17).

The northern treatment system is actively treating groundwater contaminants extracted from only one recovery well (RW-10) within the northern contaminant plume. Although the active recovery well is extracting contamination from the surficial aquifer, it is situated upgradient of monitoring well 78-GW23. Groundwater samples obtained from 78-GW23 have consistently exhibited concentrations of chlorinated solvents in excess of applicable water quality standards. Vinyl chloride has been detected at concentrations ranging from 6 to 590 µg/L among samples obtained from well 78-GW23 during the monitoring program. The expected radius of influence for RW-10, however, does not intercept 78-GW23. Based upon this information, it is recommended that an additional recovery well be installed 75 to 100 feet southwest of monitoring well 78-GW23 to extract contaminated groundwater from the northern contaminant plume.

During January 1997, recovery well RW-11 was taken off-line due to high concentrations of solids within groundwater extracted during its operation. Although situated within the northern contaminant plume, operation of RW-11 will no longer be feasible due to high sediment load. The well may have been installed within very loose surficial soils or may have been installed improperly. Based upon this information, it is recommended that RW-11 be reinstalled. It is recommended that the replacement recovery well be installed to the west of Building 903, 100 feet southeast of the current location, to extract contaminated groundwater from the northern portion of the contaminant plume (refer to Figures 15 and 17).

In order to provide a more detailed assessment of treatment system efficiency in the future, it is recommended that additional recovery wells be placed near existing shallow monitoring wells (i.e., within 75 to 100 feet). The monitoring wells will serve to confirm the presence of contamination prior to recovery well installation. In addition, nearby monitoring wells can be employed to roughly determine the capture zone (i.e., radius of influence) of each recovery well and monitor contaminant concentrations as treatment activities continue in the future. If an existing monitoring well is not situated within the proposed capture zone or underground utilities would make installation of a new recovery well near an existing monitoring well prohibitive, it is recommended that a new monitoring well be installed prior to recovery well installation.

The depth, design, and general construction of any additional recovery wells should be similar to existing recovery wells currently operating as part of the northern and southern treatment systems. In addition to current systems, a sampling port installed at each active recovery well is recommended. Discrete samples could be obtained from each recovery well via the sampling port. Contaminant concentrations in groundwater extracted from each recovery well could then be determined; providing a measure of recovery well efficiency. If additional recovery wells are to be added to the treatment systems, details concerning their placement and design can be provided prior to installation.

Discontinue Site 24 Groundwater Sampling

It is recommended that Site 24 be eliminated from the OU No.1 monitoring program. Although positive total metal detections have exceeded applicable North Carolina standards, these analyses have not been necessary to determine the presence of heptachlor epoxide; the contaminant of concern identified in the Final ROD (Baker, 1994a). In addition, VOCs have not been detected during any of the three monitoring events.

Analytical results from soil samples collected throughout Site 24 during the RI confirm the presence of pesticides (Baker, 1994b); at concentrations reflective of their base-wide application and use. In general, pesticides have a tendency to adhere to soil material. Suspended soil particles, or colloids, in the groundwater samples from Site 24 were likely to have been the cause of the detected pesticide contaminant during the 1993 RI. A low-flow purge method was used during recent sample collection activities to reduce the amount of suspended material in samples and more accurately reflect true aquifer conditions. As a result, the lack of groundwater pesticide contamination at Site 24 has been confirmed by two consecutive sampling events. Based upon this information and pending analytical results from a third confirmatory sampling event, it is recommended that Site 24 be eliminated from the monitoring program.

REFERENCES

Baker Environmental, Inc. (Baker). June 1993. Design Package for the Hadnot Point Industrial Area Shallow Aquifer Groundwater Treatment System. Final. Prepared for the Navy Atlantic Division Naval Facilities Engineering Command, Norfolk, Virginia.

Baker Environmental, Inc. (Baker). September 1994a. Record of Decision. Final. Prepared for the Navy Atlantic Division Naval Facilities Engineering Command, Norfolk, Virginia.

Baker Environmental, Inc. (Baker). June 1994b. Remedial Investigation Report. Operable Unit No. 1 (Sites 21, 24, and 78). Final. Prepared for the Navy Atlantic Division Naval Facilities Engineering Command, Norfolk, Virginia.

Baker Environmental, Inc. (Baker). December 1996. Long-Term Monitoring Work Plans for Remedial Investigation Sites. Prepared for the Navy Atlantic Division Naval Facilities Engineering Command, Norfolk, Virginia.

Environmental Science & Engineering (ES&E). 1990. Site Summary Report. Final. Prepared for the Department of the Navy Atlantic Division Naval Facilities Engineering Command, Norfolk, Virginia. ESE Project 49-02036.

TABLES

TABLE 1

SUMMARY OF WELL CONSTRUCTION DETAILS
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO - 0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

Monitoring Well Number	Date Installed	Top of Casing Elevation (feet, msl)	Ground Surface Elevation (feet, msl)	Boring Depth (feet, bgs)	Well Depth (feet, bgs)	Screen Interval Depth (feet, bgs)	Depth to Sand Pack (feet, bgs)	Depth to Bentonite (feet, bgs)	Stick-Up (feet, ags)
24-GW08	1993	26.20	23.60	19.0	19.0	9.1-18.2	7.0	5.0	NA
24-GW09	1993	16.55	13.80	12.5	12.5	2.6-11.7	1.5	0.5	NA
24-GW10	1993	19.33	17.30	18.0	18.0	8.0-17.2	6.0	4.0	NA
78-GW01	1986	NA	NA	27.0	25.0	5.0-25.0	3.0	2.0	1.8
78-GW04-1	1986	31.63	28.90	27.0	24.5	4.5-24.5	3.0	2.0	2.6
78-GW08	1986	28.72	26.30	27.0	25.0	5.0-25.0	3.0	2.0	3.12
78-GW09-1	1987	NA	NA	27.0	25.0	5.0-25.0	3.0	2.0	0.00
78-GW09-2	1987	27.60	25.40	76.0	75.0	55.0-75.0	52	49	0.00
78-GW09-3	1986	26.97	24.70	152	150	130-150	105	10	0.00
78-GW10	1986	28.13	25.70	27.0	25.0	5.0-25.0	3.0	2.0	2.22
78-GW11	1986	28.22	25.50	25.5	25.0	5.0-25.0	3.0	2.0	2.49
78-GW14	1986	27.32	25.00	25.5	25.0	5.0-25.0	3.0	2.0	1.92
78-GW15	1986	27.03	26.80	25.5	25.0	5.0-25.0	3.0	2.0	0.00
78-GW17-1	1986	30.00	27.50	25.5	25.0	5.0-25.0	3.0	2.0	2.16
78-GW21	1986	33.51	31.20	25.0	25.0	5.0-25.0	3.0	2.0	NA
78-GW22A	1986	32.36	30.40	25.0	25.0	5.0-25.0	3.0	2.0	NA
78-GW23	1986	32.08	30.00	25.5	25.0	5.0-25.0	3.0	2.0	1.82
78-GW24-1	1986	32.84	30.50	25.5	25.0	5.0-25.0	3.0	2.0	1.55
78-GW24-2	1987	33.73	30.40	80.0	76.6	56.6-76.6	52	49	2.88
78-GW24-3	1987	32.32	30.50	155	148	128-148	90	84	2.24
78-GW25	1986	32.58	30.10	25.5	25.0	5.0-25.0	5.0	3.0	2.17
78-GW39	1993	19.44	16.80	20.0	20.0	10.0-20.0	8.0	6.0	19.44

Notes:

ags = Above ground surface
bgs = Below ground surface
msl = Mean Sea Level
NA = Information not available

TABLE 2

SUMMARY OF GROUNDWATER FIELD PARAMETERS
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

Well Number/ Date of Measurement	Measuring Time	Well Volumes	Field Parameters				
			Dissolved Oxygen (mg/L)	Specific Conductance (µmhos/cm)	Temperature (°C)	pH (S.U.)	Turbidity (N.T.U.)
24-GW08 08/10/97	1531	1.0	2.5	179	19.4	5.94	34
	1537	1.5	3.2	181	19.1	5.99	6.2
	1543	2.0	3.1	186	18.8	6.04	8.6
	1549	2.5	3.0	188	19.1	6.07	9.6
	1555	3.0	3.0	194	19.2	6.03	6.5
24-GW09 08/10/976	1655	1.0	3.4	92	21.0	4.12	6.3
	1704	1.5	3.0	102	20.1	4.14	6.1
	1713	2.0	3.2	108	20.0	4.14	6.0
	1722	2.5	3.2	111	19.9	4.17	4.6
	1731	3.0	3.1	115	19.9	4.18	4.1
24-GW10 08/11/97	0825	1.0	3.2	73	18.1	4.10	2.0
	0832	1.5	3.0	67	18.1	3.92	1.5
	0839	2.0	3.3	68	18.1	3.95	1.0
	0846	2.5	3.1	67	18.2	3.98	0.8
	0853	3.0	3.2	67	18.1	4.01	0.9
78-GW01 08/11/97	0827	1.0	2.5	439	20.3	5.40	200+
	0839	2.0	2.4	442	20.3	5.48	200+
	0856	3.0	2.3	446	20.5	5.45	200+
	0909	4.0	2.1	442	20.4	5.44	34
78-GW04 08/09/97	1632	2.0	0.8	198	24.9	6.20	200+
	1638	4.0	0.6	271	24.7	6.04	122
	1642	6.0	0.5	325	24.7	6.15	72
	1648	8.0	0.8	363	24.6	6.24	45
	1653	10.0	0.6	400	24.6	6.32	29
	1658	12.0	0.6	401	24.3	6.37	20
	1703	14.0	0.6	441	24.4	6.40	15
	1708	16.0	0.7	441	24.6	6.44	10
78-GW08 08/10/97	1133	1.0	2.7	153	22.4	5.38	132
	1139	1.5	2.8	154	22.5	5.45	109
	1145	2.0	2.9	155	22.6	5.52	77
	1201	2.5	2.8	156	22.4	5.53	58
	1207	3.0	2.8	156	22.4	5.55	42
	1213	3.5	2.8	155	22.1	5.56	31
	1219	4.0	2.9	153	22.2	5.57	20

TABLE 2 (Continued)

SUMMARY OF GROUNDWATER FIELD PARAMETERS
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

Well Number/ Date of Measurement	Measuring Time	Well Volumes	Field Parameters				
			Dissolved Oxygen (mg/L)	Specific Conductance (µmhos/cm)	Temperature (°C)	pH (S.U.)	Turbidity (N.T.U.)
78-GW09-1 08/09/97	1516	1.0	1.7	397	23.1	7.12	13
	1527	2.0	1.3	472	22.0	6.39	5.1
	1537	3.0	1.3	471	21.5	6.08	3.3
78-GW09-2 08/09/97	1217	1.0	0.6	551	22.2	8.70	4.2
	1236	1.5	0.6	552	22.2	8.57	4.1
	1257	2.0	0.5	569	22.5	7.70	4.3
	1318	2.5	0.8	549	22.0	8.70	4.1
	1339	3.0	0.8	548	21.9	8.77	4.0
78-GW09-3 08/09/97	1205	1.0	0.6	549	22.0	11.45	4.1
	1223	1.3	0.7	428	21.8	11.55	3.8
	1300	1.6	0.5	372	21.8	11.38	2.4
	1325	2.0	0.8	371	21.5	11.28	2.6
	1343	2.3	0.7	349	21.8	11.26	2.2
	1423	2.6	0.8	399	22.8	11.50	4.1
	1440	3.0	1.1	388	21.4	11.47	3.7
78-GW10 08/10/97	0941	1.0	3.2	259	23.3	6.04	48
	0946	1.5	3.3	266	23.2	6.17	35
	0951	2.0	3.5	268	23.3	6.23	26
	0957	2.5	3.6	268	23.3	6.22	17
	1004	3.0	3.2	271	23.2	6.23	13
	1011	3.5	3.3	266	23.2	6.24	18
78-GW11 08/10/97	1039	1.0	4.6	109	22.5	4.53	19
	1044	1.5	4.2	109	22.3	4.56	11
	1050	2.0	4.4	109	22.3	4.58	9.3
	1056	2.5	4.6	109	22.3	4.62	4.4
	1102	3.0	4.5	109	22.2	4.64	3.7
78-GW14 08/09/97	0817	1.0	3.1	218	21.5	3.91	42
	0824	1.5	3.0	222	21.7	3.93	38
	0831	2.0	2.7	227	21.7	3.95	46
	0838	2.5	2.2	246	21.8	3.92	48
	0845	3.0	2.4	244	21.8	3.99	40
78-GW15 08/09/97	1505	1.0	5.5	286	26.2	5.44	8.1
	1513	1.5	5.7	278	25.9	5.60	5.8
	1521	2.0	5.8	272	25.9	5.62	4.8
	1529	2.5	5.7	269	25.8	5.64	4.5
	1537	3.0	5.7	263	25.8	5.71	4.2

TABLE 2 (Continued)

SUMMARY OF GROUNDWATER FIELD PARAMETERS
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

Well Number/ Date of Measurement	Measuring Time	Well Volumes	Field Parameters				
			Dissolved Oxygen (mg/L)	Specific Conductance (µmhos/cm)	Temperature (°C)	pH (S.U.)	Turbidity (N.T.U.)
78-GW17-1 08/09/97	1627	1.0	4.8	383	23.4	6.40	9.2
	1638	2.0	4.7	378	23.3	6.48	6.6
	1649	2.5	4.3	379	23.0	6.50	2.9
	1700	3.0	4.5	364	22.8	6.51	1.6
78-GW21 08/10/97	0847	1.0	3.1	289	24.1	4.27	14
	0852	1.5	3.2	298	24.0	4.31	6.0
	0857	2.0	3.2	296	24.1	4.42	4.4
	0902	2.5	3.3	297	24.1	4.48	1.8
	0907	3.0	3.3	296	24.2	4.49	1.5
78-GW22A 08/10/97	1419	1.0	0.5	333	21.9	6.41	11
	1437	2.0	0.8	328	21.9	6.44	13
	1450	3.0	0.9	332	22.5	6.46	6
78-GW23 08/10/97	1315	1.0	2.4	198	22.2	4.71	3.8
	1321	1.5	2.3	191	21.8	4.75	3.7
	1327	2.0	2.5	185	22.2	4.77	7.6
	1334	2.5	2.4	188	21.5	4.82	6.9
	1341	3.0	2.4	192	21.5	4.85	7.8
78-GW24-1 08/10/97	1248	1.0	0.6	283	22.3	5.80	10
	1303	2.0	0.5	265	22.5	5.69	9.3
	1312	3.0	0.7	254	22.5	5.60	6.4
78-GW24-2 08/10/97	0935	1.0	1.3	541	21.1	7.10	19
	1015	1.5	1.0	540	21.1	7.14	8.3
	1105	2.0	0.8	540	21.1	7.15	9.2
	1140	2.5	0.8	540	21.1	7.13	6.4
	1218	3.0	0.9	541	21.1	7.15	5.3
78-GW24-3 08/10/97	0957	1.0	1.5	368	21.2	7.22	26
	1044	1.5	1.1	376	21.1	7.21	19
	1125	2.0	0.8	377	22.9	7.17	20
	1205	2.5	1.2	367	21.2	7.26	21
	1225	3.0	0.6	365	21.0	7.27	15
78-GW25 08/10/97	0741	1.0	2.3	285	20.3	5.69	7.4
	0746	1.5	2.0	282	20.3	5.65	6.9
	0751	2.0	2.1	275	20.2	5.63	5.8
	0756	2.5	2.1	275	20.2	5.55	3.0
	0801	3.0	2.1	267	20.2	5.52	2.3

TABLE 2 (Continued)

SUMMARY OF GROUNDWATER FIELD PARAMETERS
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

Well Number/ Date of Measurement	Measuring Time	Well Volumes	Field Parameters				
			Dissolved Oxygen (mg/L)	Specific Conductance (µmhos/cm)	Temperature (°C)	pH (S.U.)	Turbidity (N.T.U.)
78-GW39 08/10/97	1547	1.0	2.6	255.0	20.5	4.84	3.1
	1600	2.0	2.5	248.0	20.4	4.55	4.2
	1615	3.0	2.5	248.0	20.7	4.42	3.4

Notes:

°C = Degrees Centigrade
S.U. = Standard Units
mg\L = Milligrams per Liter
µmhos\cm = µmhos per Centimeter
ppt = Parts per Thousand
N.T.U. = Neophlometric Turbitity Units
mV = millivolt

TABLE 3

GROUNDWATER SAMPLING SUMMARY
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

Sample Location	Media	TCL Volatiles[1]	TCL Pesticides[2]	TAL Metals[3]	Oil & Grease[4]	Total Dissolved Solids[5]	Total Suspended Solids[5]	Sample Identification
24-GW08	GW	X	X	X	X	X	X	IR24-GW08-97C
24-GW09	GW	X	X	X	X	X	X	IR24-GW09-97C
24-GW10	GW	X	X	X	X	X	X	IR24-GW10-97C
78-GW01	GW	X						IR78-GW01-97C
78-GW04-1	GW	X						IR78-GW04-97C
78-GW08	GW	X						IR78-GW08-97C
78-GW09-1	GW	X						IR78-GW09-97C
78-GW09-2	GW	X						IR78-GW09IW-97C
78-GW09-3	GW	X						IR78-GW09DW-97C
78-GW10	GW	X						IR78-GW10-97C
78-GW11	GW	X						IR78-GW11-97C
78-GW14	GW	X						IR78-GW14-97C
78-GW15	GW	X						IR78-GW15-97C
78-GW17-1	GW	X						IR78-GW17-97C
78-GW21	GW	X						IR78-GW21-97C
78-GW22	GW	X						IR78-GW22A-97C
78-GW23	GW	X						IR78-GW23-97C
78-GW24-1	GW	X						IR78-GW24-97C
78-GW24-2	GW	X						IR78-GW24IW-97C
78-GW24-3	GW	X						IR78-GW24DW-97C
78-GW25	GW	X						IR78-GW25-97C
78-GW39	GW	X						IR78-GW39-97C
78-S-TW01	GW	X						IR78-S-TW01-97C
78-S-TW02	GW	X						IR78-S-TW02-97C
78-S-TW03	GW	X						IR78-S-TW03-97C
78-S-TW04	GW	X						IR78-S-TW04-97C
78-S-TW05	GW	X						IR78-S-TW05-97C

Notes:

[1] Target Compound List (TCL) Organics by U.S. Environmental Protection Agency (EPA) Method 8260.
[2] TCL Pesticides by USEPA, Contract Laboratory Program, Scope of Work, Document Number OLM01.8.
[3] Selected Target Analyte List Metals (Antimony, Arsenic, Beryllium, Chromium, Iron, Lead, Manganese, Mercury, Nickel) by Solid Waste Method 6010.
[4] Oil and Grease by Solid Waste Method 9070.
[5] Total Suspended and Dissolved Solids by Solid Waste Method 160.1 and 160.2.

GW = Groundwater
X = Requested Analyses

TABLE 3 (Continued)

GROUNDWATER SAMPLING SUMMARY
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

Sample Location	Media	TCL Volatiles[1]	TCL Pesticides[2]	TAL Metals[3]	Oil & Grease[4]	Total Dissolved Solids[5]	Total Suspended Solids[5]	Sample Identification
78-S-TW06	GW	X						IR78-S-TW06-97C
78-S-TW07	GW	X						IR78-S-TW07-97C
78-S-TW08	GW	X						IR78-S-TW08-97C
78-S-TW09	GW	X						IR78-S-TW09-97C
78-S-TW10	GW	X						IR78-S-TW10-97C
78-S-TW11	GW	X						IR78-S-TW11-97C
78-S-TW12	GW	X						IR78-S-TW12-97C
78-N-TW06	GW	X						IR78-N-TW06-97C
78-N-TW08	GW	X						IR78-N-TW08-97C
78-N-TW10	GW	X						IR78-N-TW10-97C
78-N-TW11	GW	X						IR78-N-TW11-97C
78-N-TW09	GW	X						IR78-N-TW09-97C
78-N-TW04	GW	X						IR78-N-TW04-97C
78-N-TW02	GW	X						IR78-N-TW02-97C
78-N-TW07	GW	X						IR78-N-TW07-97C
78-N-TW05	GW	X						IR78-N-TW05-97C
78-N-TW03	GW	X						IR78-N-TW03-97C
78-N-TW01	GW	X						IR78-N-TW01-97C
1611-UG1A	GW	X						UST1611-UG1A-97C
1613-9	GW	X						UST1613-9-97C
1613-12	GW	X						UST1613-12-97C

Notes:

(1) Target Compound List (TCL) Organics by U.S. Environmental Protection Agency (EPA) Method 8260.
(2) TCL Pesticides by USEPA, Contract Laboratory Program, Scope of Work, Document Number OLM01.8.
(3) Selected Target Analyte List Metals (Antimony, Arsenic, Beryllium, Chromium, Iron, Lead, Manganese, Mercury, Nickel) by Solid Waste Method 6010.
(4) Oil and Grease by Solid Waste Method 9070.
(5) Total Suspended and Dissolved Solids by Solid Waste Method 160.1 and 160.2.

GW = Groundwater
X = Requested Analyses

TABLE 4

SUMMARY OF WATER LEVEL MEASUREMENTS
OPERABLE UNIT NO. 1 - SITE 24
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

Well ID	Reference Elevation [1]	SWE (07/30/96)	SWE (11/07/96)	SWE (02/05/97)	SWE (04/30/97)	SWL (08/10/97)	SWE (08/10/97)
24-GW03	15.88	10.74	11.24	10.88	11.08	5.60	10.28
24-GW04	19.17	10.28	10.79	10.47	10.57	9.88	9.29
24-GW06	12.70	7.75	NA	7.79	7.84	6.45	6.25
24-GW07	29.82	14.39	15.88	14.11	15.01	15.84	13.98
24-GW08	26.20	10.44	11.72	11.02	10.99	16.14	10.06
24-GW09	16.55	10.89	10.62	10.40	10.99	7.67	8.88
24-GW10	19.93	8.87	8.86	8.72	8.53	13.25	6.68

Notes:

[1] Top of PVC well casing (in feet above mean sea level [MSL])

SWL = Static water level taken from top of PVC well casing
SWE = Static water elevation (in feet above MSL)
NA = Data not available

TABLE 5

SUMMARY OF WATER LEVEL MEASUREMENTS
OPERABLE UNIT NO. 1 - SITE 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

Well ID	Reference Elevation [1]	SWE (08/09/96)	SWE (11/07/96)	SWE (02/25/97)	SWE (05/01/97)	SWE (08/09/97)
78-GW02	32.15	NA	NA	NA	24.24	18.27
78-GW03	31.85	NA	NA	NA	26.03	24.15
78-GW04-1	31.63	12.32	13.12	12.84	11.88	10.72
78-GW05	28.63	19.72	19.62	19.87	19.30	17.49
78-GW06	27.94	NA	NA	14.53	13.73	12.36
78-GW07	27.83	NA	NA	NA	14.74	13.33
78-GW08	28.72	16.42	17.11	16.64	16.14	15.11
78-GW09-2	24.76[2]	14.05	14.64	14.00	13.72	12.41
78-GW09-3	26.97	14.21	14.80	14.17	13.87	15.26
78-GW10	28.13	17.34	17.44	17.09	16.78	15.21
78-GW11	27.93[2]	16.57	16.52	15.94	15.77	14.02
78-GW12	30.08	NA	NA	19.82	18.67	18.00
78-GW14	24.67[2]	17.61	17.91	17.61	17.10	16.86
78-GW15	26.55[2]	18.33	19.53	19.04	18.85	17.95
78-GW16	32.40	NA	NA	21.65	21.22	19.68
78-GW17-1	30.00	19.06	20.35	20.06	19.82	18.87
78-GW19	29.07	22.43	21.37	21.94	21.74	19.01
78-GW21	33.51	23.66	24.11	23.87	23.70	22.77
78-GW22	32.36	26.65	25.74	26.66	26.71	23.78
78-GW23	32.08	23.45	23.62	23.81	23.01	21.04
78-GW24-1	32.84	26.99	26.02	26.82	26.27	24.43
78-GW24-2	32.50[2]	22.40	22.27	22.21	21.75	19.06
78-GW24-3	32.32	21.98	22.19	21.78	21.30	18.64
78-GW25	32.58	26.27	25.51	25.96	25.53	22.68
78-GW31-3	25.99	16.78	17.22	16.83	16.41	14.96
78-GW33	29.84	NA	NA	NA	23.48	21.81
78-GW39	19.44	4.63	NA	4.61	4.44	3.51

Notes:

[1] Elevation of top of PVC well casing (feet above mean sea level [MSL])
[2] New elevation of top of PVC well casing after monitoring well maintenance or conversion (feet above MSL)

SWE = Static water elevation (in feet above MSL)
NA = Data not available

TABLE 6

TRIP BLANK ANALYTICAL RESULTS
OPERABLE UNIT NO. 1 - SITE 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	IR78-TB01-97C	IR78-TB02-97C	IR78-TB03-97C	IR78-TB04-97C
DATE SAMPLED	07/25/97	07/25/97	07/27/97	08/08/97
VOLATILES (ug/l)				
CHLOROMETHANE	0.5 U	0.5 U	0.5 U	0.5 U
VINYL CHLORIDE	0.5 U	0.5 U	0.5 U	0.5 U
BROMOMETHANE	0.5 U	0.5 U	0.5 U	0.5 U
CHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U
1,1-DICHLOROETHENE	0.5 U	0.5 U	0.5 U	0.5 U
METHYLENE CHLORIDE	0.5 U	0.5 U	0.5 U	0.7
1,1-DICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U
CHLOROFORM	0.5 U	0.5 U	0.5 U	0.5 U
1,1,1-TRICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U
CARBON TETRACHLORIDE	0.5 U	0.5 U	0.5 U	0.5 U
BENZENE	0.5 U	0.5 U	0.5 U	0.5 U
1,2-DICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U
TRICHLOROETHENE	9	0.5 U	0.5 U	0.5 U
1,2-DICHLOROPROPANE	0.5 U	0.5 U	0.5 U	0.5 U
BROMODICHLOROMETHANE	0.5 U	0.5 U	0.5 U	0.5 U
TOLUENE	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-TRICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U
TETRACHLOROETHENE	0.5 U	0.5 U	0.5 U	0.5 U
DIBROMOCHLOROMETHANE	0.5 U	0.5 U	0.5 U	0.5 U
CHLOROBENZENE	0.5 U	0.5 U	0.5 U	0.5 U
ETHYLBENZENE	0.5 U	0.5 U	0.5 U	0.5 U
STYRENE	0.5 U	0.5 U	0.5 U	0.5 U
BROMOFORM	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2,2-TETRACHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U
CIS-1,3-DICHLOROPROPENE	0.5 U	0.5 U	0.5 U	0.5 U
TRANS-1,3-DICHLOROPROPENE	0.5 U	0.5 U	0.5 U	0.5 U
ACETONE	5	2 U	2 U	2 U
2-BUTANONE	2 U	2 U	2 U	2 U
CARBON DISULFIDE	2 U	2 U	2 U	2 U
4-METHYL-2-PENTANONE	2 U	2 U	2 U	2 U
2-HEXANONE	2 U	2 U	2 U	2 U
1,2-DICHLOROETHENE (TOTAL)	3	0.5 U	0.5 U	0.5 U
XYLENE (TOTAL)	0.5 U	0.5 U	0.5 U	0.5 U

NOTES
ug/L = micrograms per liter
U = not detected

TABLE 7

SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
OPERABLE UNIT NO. 1 - SITE 24
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

Fraction	Detected Contaminants or Analytes	Comparison Criteria		Concentration Range		Location of Maximum Detection	Detection Frequency	Detections Above	
		NCWQS	MCL	Min.	Max.			NCWQS	MCL
Total Metals	Antimony	NE	6	2.7	3	24-GW08	2/3	NA	0
	Chromium	50	100	0.7	0.8	24-GW09	2/3	0	0
	Iron	300	300 (1)	235	762	24-GW09	2/3	1	1
	Lead	15	15	1.9	2.4	24-GW09	2/3	0	0
	Manganese	50	50 (1)	1.5	46	24-GW09	3/3	0	0
	Mercury	1.1	2.0	2.8	2.8	24-GW09	1/3	1	1
Wet Chemistry	Total Dissolved Solids	500	500 (1)	42	100	24-GW08	3/3	0	0
	Total Suspended Solids	NE	NE	4	5	24-GW09	2/3	NA	NA

Notes:

Metal concentrations presented in micrograms per liter (µg/L) or parts per billion.
Wet chemistry concentrations presented in milligrams per liter (mg/L) or parts per million.

(1) Secondary Federal Maximum Contaminant Level (Refer to MCL Note Below).
(2) Screening Standards for 1,2-Dichloroethene (total) from the lower isomer, cis1,2-Dichloroethene.

MCL = Federal Maximum Contaminant Level. Maximum permissible level of a contaminant in water which is delivered users of public water systems (U.S. Environmental Protection Agency - Drinking Water Regulations and Health Advisories).
NA = Not Applicable
NCWQS = North Carolina Water Quality Standards (North Carolina Administrative Code, Title 15A, Subchapter 2L).
NE = Not Established

TABLE 8

POSITIVE DETECTIONS IN GROUNDWATER
OPERABLE UNIT NO. 1 - SITE 24
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	IR24-GW08-97C	IR24-GW09-97C	IR24-GW10-97C
DATE SAMPLED	08/10/97	08/10/97	08/11/97
OIL & GREASE (mg/L)			
OIL & GREASE, GRAV.	NA	5.3 U	5.3 U
WET CHEMISTRY (mg/L)			
TOTAL DISSOLVED SOLIDS	100	42	42
TOTAL SUSPENDED SOLIDS	4	5	4 U
TOTAL METALS (ug/L)			
ANTIMONY, TOTAL	3	1.9 U	2.7
CHROMIUM, TOTAL	0.72	0.83	0.7 U
IRON, TOTAL	235	762	16.1 U
LEAD, TOTAL	1.5 U	2.4	1.9
MANGANESE, TOTAL	3.2	46.1	1.5
MERCURY, TOTAL	0.1 U	2.8	0.1 U

NOTES
U = not detected
ug/L = micrograms per liter
mg/L = milligrams per liter

TABLE 9

SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
OPERABLE UNIT NO. 1 - SITE 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

Fraction	Detected Contaminants or Analytes	Comparison Criteria		Concentration Range		Location of Maximum Detection	Detection Frequency	Detections Above	
		NCWQS	MCL	Min.	Max.			NCWQS	MCL
Volatiles	Vinyl Chloride	0.015	2.0	7.0	590	78-GW23	5/47	5	5
	1,1-Dichloroethene	7.0	7.0	0.7	91	78-GW09	6/47	2	2
	Methylene Chloride	5.0	NE	0.5	0.5	78-GW17	1/47	0	NA
	1,1-Dichloroethane	700.0	NE	1.0	68	78-GW09	4/47	0	NA
	Chloroform	0.2	100	0.6	3.0	78-N-TW03	5/47	5	0
	1,1,1-Trichloroethane	200	200	370	370	78-GW09	1/47	0	0
	Benzene	1.0	5.0	0.8	160	78-S-TW05	10/47	8	5
	1,2-Dichloroethane	2.0	2.0	2.0	2.0	78-S-TW04	1/47	0	0
	Trichloroethene	2.8	5.0	0.8	920	78-GW09	13/47	11	11
	Toluene	1,000	1,000	0.6	53	78-S-TW05	6/47	0	0
	Tetrachloroethene	0.7	5.0	0.7	0.7	78-GW39	1/47	0	0
	Ethylbenzene	29	700	3.0	700	78-S-TW05	5/47	2	0
	Acetone	700	NE	18	18	78-N-TW07	1/47	0	0
	1,2-Dichloroethene (total) [2]	70	70	1	10,000	78-GW23	17/47	4	4
	Xylene (total)	530	10,000	5	1,100	78-S-TW05	7/47	2	0

Notes:

Concentrations presented in micrograms per liter (µg/L) or parts per billion.

[1] - Secondary Federal Maximum Contaminant Level (Refer to MCL Note Below).
[2] - Screening Standards for 1,2-Dichloroethene (total) from the lower isomer, cis1,2-Dichloroethene.

MCL = Federal Maximum Contaminant Level. Maximum permissible level of a contaminant in water which is delivered users of public water systems (U.S. Environmental Protection Agency - Drinking Water Regulations and Health Advisories).
NA = Not Applicable
NCWQS = North Carolina Water Quality Standards (North Carolina Administrative Code, Title 15A, Subchapter 2L).
NE = Not Established

TABLE 10

POSITIVE DETECTIONS IN GROUNDWATER
OPERABLE UNIT NO. 1 - SITE 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	IR78-GW01-97C	IR78-GW02-97C	IR78-GW03-97C	IR78-GW04-97C	IR78-GW08-97C	IR78-GW09-97C	IR78-GW09DW-97C
DATE SAMPLED	08/11/97	08/08/97	08/09/97	08/09/97	08/10/97	08/09/97	08/09/97
VOLATILES (ug/L)							
1,1,1-TRICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	370	0.5 U
1,1-DICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	68	0.5 U
1,1-DICHLOROETHENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	91	0.5 U
1,2-DICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-DICHLOROETHENE (TOTAL)	10	0.5 U	0.5 U	1	0.5 U	570	0.5 U
ACETONE	2 U	2 U	2 U	2 U	2 U	2 U	2 U
BENZENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CHLOROFORM	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2	0.5 U
ETHYLBENZENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
METHYLENE CHLORIDE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TETRACHLOROETHENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TOLUENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TRICHLOROETHENE	21	0.5 U	0.5 U	6	0.5 U	920	0.5 U
VINYL CHLORIDE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
XYLENE (TOTAL)	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

TABLE 10

POSITIVE DETECTIONS IN GROUNDWATER
OPERABLE UNIT NO. 1 - SITE 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	IR78-GW09IW-97C	IR78-GW10-97C	IR78-GW11-97C	IR78-GW14-97C	IR78-GW15-97C	IR78-GW17-97C	IR78-GW21-97C
DATE SAMPLED	08/09/97	08/10/97	08/10/97	08/09/97	08/09/97	08/09/97	08/10/97
VOLATILES (ug/L)							
1,1,1-TRICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-DICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-DICHLOROETHENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-DICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-DICHLOROETHENE (TOTAL)	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
ACETONE	2 U	2 U	2 U	2 U	2 U	2 U	2 U
BENZENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CHLOROFORM	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
ETHYLBENZENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
METHYLENE CHLORIDE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5	0.5 U
TETRACHLOROETHENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TOLUENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TRICHLOROETHENE	0.5 U	0.5 U	0.5 U	0.5 U	1	0.5 U	0.5 U
VINYL CHLORIDE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
XYLENE (TOTAL)	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

TABLE 10

POSITIVE DETECTIONS IN GROUNDWATER
OPERABLE UNIT NO. 1 - SITE 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	IR78-GW22A-97C	IR78-GW23-97C	IR78-GW24-97C	IR78-GW24DW-97C	IR78-GW24IW-97C	IR78-GW25-97C	IR78-GW39-97C
DATE SAMPLED	08/10/97	08/10/97	08/10/97	08/10/97	08/10/97	08/10/97	08/10/97
VOLATILES (ug/L)							
1,1,1-TRICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-DICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-DICHLOROETHENE	0.5 U	4	0.7	0.5 U	0.5 U	0.5 U	0.5 U
1,2-DICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-DICHLOROETHENE (TOTAL)	7	10000	220	0.5 U	0.5 U	0.5 U	0.5 U
ACETONE	2 U	2 U	2 U	2 U	2 U	2 U	2 U
BENZENE	0.8	17	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CHLOROFORM	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
ETHYLBENZENE	0.5 U	7	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
METHYLENE CHLORIDE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TETRACHLOROETHENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.7
TOLUENE	0.6	4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TRICHLOROETHENE	0.5 U	62	28	0.5 U	0.5 U	0.5 U	0.5 U
VINYL CHLORIDE	0.5 U	590	7	0.5 U	0.5 U	0.5 U	0.5 U
XYLENE (TOTAL)	0.5 U	50	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

TABLE 10

POSITIVE DETECTIONS IN GROUNDWATER
OPERABLE UNIT NO. 1 - SITE 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	IR78-N-TW01-97C	IR78-N-TW02-97C	IR78-N-TW03-97C	IR78-N-TW04-97C	IR78-N-TW05-97C	IR78-N-TW06-97C	IR78-N-TW07-97C
DATE SAMPLED	07/26/97	07/28/97	07/26/97	07/26/97	07/26/97	07/25/97	07/26/97
VOLATILES (ug/L)							
1,1,1-TRICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-DICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-DICHLOROETHENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-DICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-DICHLOROETHENE (TOTAL)	0.5 U	2	0.5 U	0.5 U	0.5 U	3	9
ACETONE	2 U	2 U	2 U	2 U	2 U	2 U	18
BENZENE	0.5 U	6	0.5 U	0.5 U	0.5 U	34	38
CHLOROFORM	1	0.5 U	3	0.6	0.5 U	0.5 U	1
ETHYLBENZENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	22	100
METHYLENE CHLORIDE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TETRACHLOROETHENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TOLUENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	19	14
TRICHLOROETHENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.8	0.5 U
VINYL CHLORIDE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	15
XYLENE (TOTAL)	0.5 U	5	0.5 U	0.5 U	0.5 U	83	640

TABLE 10

POSITIVE DETECTIONS IN GROUNDWATER
OPERABLE UNIT NO. 1 - SITE 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	IR78-N-TW08-97C	IR78-N-TW09-97C	IR78-N-TW10-97C	IR78-N-TW11-97C	IR78-S-TW01-97C	IR78-S-TW02-97C	IR78-S-TW03-97C
DATE SAMPLED	07/25/97	07/25/97	07/24/97	07/26/97	07/24/97	07/24/97	07/25/97
VOLATILES (ug/L)							
1,1,1-TRICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-DICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	2	6	0.5 U
1,1-DICHLOROETHENE	0.5 U	0.5 U	0.5 U	0.5 U	6	0.8	0.5 U
1,2-DICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-DICHLOROETHENE (TOTAL)	50	4	0.5 U	2	99	63	0.5 U
ACETONE	2 U	2 U	2 U	2 U	2 U	2 U	2 U
BENZENE	0.5 U	0.5 U	0.5 U	0.5 U	4	3	0.5 U
CHLOROFORM	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
ETHYLBENZENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
METHYLENE CHLORIDE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TETRACHLOROETHENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TOLUENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TRICHLOROETHENE	20	8	0.5 U	13	34	15	0.5 U
VINYL CHLORIDE	0.5 U	0.5 U	0.5 U	0.5 U	45	28	0.5 U
XYLENE (TOTAL)	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	11

TABLE 10

POSITIVE DETECTIONS IN GROUNDWATER
OPERABLE UNIT NO. 1 - SITE 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	IR78-S-TW04-97C	IR78-S-TW05-97C	IR78-S-TW06-97C	IR78-S-TW07-97C	IR78-S-TW08-97C	IR78-S-TW09-97C	IR78-S-TW10-97C
DATE SAMPLED	07/25/97	07/25/97	07/23/97	07/26/97	07/24/97	07/24/97	07/24/97
VOLATILES (ug/L)							
1,1,1-TRICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-DICHLOROETHANE	0.5 U	0.5 U	1	0.5 U	0.5 U	0.5 U	0.5 U
1,1-DICHLOROETHENE	0.5 U	0.5 U	8	0.5 U	0.5 U	0.5 U	0.5 U
1,2-DICHLOROETHANE	2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-DICHLOROETHENE (TOTAL)	4	0.5 U	20	0.5 U	0.5 U	0.5 U	0.5 U
ACETONE	2 U	2 U	2 U	2 U	2 U	2 U	2 U
BENZENE	2	160	2	0.5 U	0.5 U	0.5 U	0.5 U
CHLOROFORM	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
ETHYLBENZENE	0.5 U	700	3	0.5 U	0.5 U	0.5 U	0.5 U
METHYLENE CHLORIDE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TETRACHLOROETHENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TOLUENE	0.5 U	53	1	0.5 U	0.5 U	0.5 U	0.5 U
TRICHLOROETHENE	6	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
VINYL CHLORIDE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
XYLENE (TOTAL)	0.5 U	1100	5	0.5 U	0.5 U	0.5 U	0.5 U

TABLE 10

POSITIVE DETECTIONS IN GROUNDWATER
OPERABLE UNIT NO. 1 - SITE 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	IR78-S-TW11-97C	IR78-S-TW12-97C	UST1611-UG1A-97C	UST1613-9-97C	UST1613-12-97C
DATE SAMPLED	07/24/97	07/24/97	07/23/97	07/23/97	07/23/97
VOLATILES (ug/L)					
1,1,1-TRICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-DICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-DICHLOROETHENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-DICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-DICHLOROETHENE (TOTAL)	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
ACETONE	2 U	2 U	2 U	2 U	2 U
BENZENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CHLOROFORM	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
ETHYLBENZENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
METHYLENE CHLORIDE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TETRACHLOROETHENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TOLUENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TRICHLOROETHENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
VINYL CHLORIDE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
XYLENE (TOTAL)	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

TABLE 11

NORTHERN TREATMENT SYSTEM SAMPLING RESULTS
OPERABLE UNIT NO. 1 - SITE 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

Contaminant	July 1997					August 1997				
	Plant Influent	Oil/Water Separator Effluent	Air Stripper Effluent	Sand Filter Effluent	Final Effluent	Plant Influent	Oil/Water Separator Effluent	Air Stripper Effluent	Sand Filter Effluent	Final Effluent
Volatiles[1]										
trans-1,2-Dichloroethene	0.8	NA	<0.5	NA	<0.5	<0.1	NA	<0.1	NA	<0.1
Trichloroethene	11	NA	<0.5	NA	<0.5	21	NA	<0.1	NA	<0.1
Vinyl Chloride	3.0	NA	<0.5	NA	<0.5	<1.0	NA	<0.1	NA	<0.1
Benzene	38	NA	<0.5	NA	<0.5	32	NA	<0.2	NA	<0.2
cis-1,2-Dichloroethene	29	NA	<0.5	NA	<0.5	41	NA	<0.1	NA	<0.1
Total Metals[1]										
Antimony	<1.0	NA	NA	<1.0	<1.0	<100	NA	NA	<100	<100
Arsenic	<2.0	NA	NA	<2.0	<2.0	<2.0	NA	NA	<2.0	<2.0
Beryllium	<1.0	NA	NA	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0
Calcium	72,900	NA	NA	67,700	68,300	90,100	NA	NA	70,800	65,600
Chromium	<5.0	NA	NA	<5.0	<5.0	<5.0	NA	NA	<5.0	<5.0
Iron	10,200	NA	NA	216	32	10,200	NA	NA	105	<100
Lead	<1.0	NA	NA	4.0	<1.0	<1.0	NA	NA	4.0	<1.0
Manganese	60	NA	NA	2.0	3.0	182	NA	NA	2.0	3.0
Mercury	<0.2	NA	NA	<0.1	<0.2	<0.2	NA	NA	0.3	<0.2
Nickel	<8.0	NA	NA	<7.0	<8.0	32	NA	NA	<20	<20
Wet Chemistry[2]										
Oil & Grease	1.6	1.6	NA	NA	1.8	<10	<10	NA	NA	<10
Total Dissolved Solids (TDS)	187	NA	NA	216	176	180	NA	NA	170	165
Total Suspended Solids (TSS)	<1.0	NA	NA	<1.0	<1.0	11	NA	NA	<10	<10
pH	6.57	NA	NA	NA	7.97	6.40	NA	NA	NA	7.30

Notes:

(1) Concentrations reported in micrograms per liter (µg/L) or parts per billion.
(2) Concentrations reported in milligrams per liter (mg/L) or parts per million.

NA = Not analyzed or not available.

TABLE 11 (Continued)

NORTHERN TREATMENT SYSTEM SAMPLING RESULTS
OPERABLE UNIT NO. 1 - SITE 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

Contaminant	September 1997					October1997				
	Plant Influent	Oil/Water Separator Effluent	Air Stripper Effluent	Sand Filter Effluent	Final Effluent	Plant Influent	Oil/Water Separator Effluent	Air Stripper Effluent	Sand Filter Effluent	Final Effluent
Volatiles[1]										
trans-1,2-Dichloroethene	<1.0	NA	<1.0	NA	<1.0	9.3	NA	<1.0	NA	<1.0
Trichloroethene	19	NA	<1.0	NA	<1.0	<1.0	NA	2.6	NA	<1.0
Vinyl Chloride	<1.0	NA	<1.0	NA	<1.0	<20	NA	<1.0	NA	<1.0
Benzene	17	NA	<2.0	NA	<2.0	18	NA	2.0	NA	<2.0
1,2-cis-Dichloroethene	36	NA	<1.0	NA	<1.0	<1.0	NA	8.2	NA	<1.0
Total Metals[1]										
Antimony	NA	NA	NA	NA	NA	<5.0	<5.0	NA	NA	<5.0
Arsenic	<600	<600	NA	NA	<600	<5.0	<5.0	NA	NA	<5.0
Barium	42.2	23.7	NA	NA	29	NA	NA	NA	NA	NA
Beryllium	<3.0	<3	NA	NA	<3.0	<3.0	<3.0	NA	NA	<3.0
Calcium	NA	NA	NA	NA	NA	65,700	79,000	NA	NA	68,700
Chromium	<70	<70	NA	NA	<70	<70	<70	NA	NA	<70
Iron	NA	NA	NA	NA	NA	4,240	581	NA	NA	<100
Lead	<500	<500	NA	NA	<500	10	50.3	NA	NA	11
Manganese	54.3	<20	NA	NA	<20	54.3	149	NA	NA	<20
Mercury	<0.2	<0.2	NA	NA	0.495	<0.2	<0.2	NA	NA	<0.2
Nickel	<80	<80	NA	NA	<80	<20	<20	NA	NA	<20
Wet Chemistry[2]										
Oil & Grease	<10	NA	NA	<10	<10	<10	NA	NA	NA	<10
Total Dissolved Solids (TDS)	145	160	NA	NA	190	225	230	NA	NA	255
Total Suspended Solids (TSS)	31	<10	NA	NA	<10	<10	<10	NA	NA	<10
pH	6.70	NA	NA	NA	7.50	6.70	NA	NA	NA	7.70

Notes:

(1) Concentrations reported in micrograms per liter (µg/L) or parts per billion.
(2) Concentrations reported in milligrams per liter (mg/L) or parts per million.

NA = Not analyzed or not available.

TABLE 11 (Continued)

NORTHERN TREATMENT SYSTEM SAMPLING RESULTS
OPERABLE UNIT NO. 1 - SITE 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

Contaminant	November 1997					December 1997				
	Plant Influent	Oil/Water Separator Effluent	Air Stripper Effluent	Sand Filter Effluent	Final Effluent	Plant Influent	Oil/Water Separator Effluent	Air Stripper Effluent	Sand Filter Effluent	Final Effluent
Volatiles[1]										
trans-1,2-Dichloroethene	4.0	NA	<1.0	NA	<1.0	<1.0	NA	<1.0	NA	<1.0
Trichloroethene	210	NA	<1.0	NA	<1.0	18.2	NA	<1.0	NA	<1.0
Vinyl Chloride	8,700	NA	<1.0	NA	<1.0	<1.0	NA	<1.0	NA	<1.0
Benzene	160	NA	<2.0	NA	<2.0	<2.0	NA	<2.0	NA	<2.0
1,2-cis-Dichloroethene	210	NA	<1.0	NA	<1.0	34.2	NA	<1.0	NA	<1.0
Total Metals[1]										
Antimony	<5.0	NA	NA	<5.0	<5.0	<5.0	NA	NA	<5.0	<5.0
Arsenic	<5.0	NA	NA	<5.0	<5.0	<5.0	NA	NA	<5.0	<5.0
Beryllium	<1.0	NA	NA	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0
Calcium	57,500	NA	NA	65,300	76,800	71,600	NA	NA	61,600	64,500
Chromium	<10	NA	NA	<10	<10	<10	NA	NA	<10	<10
Iron	25,100	NA	NA	2,290	<100	8,650	NA	NA	<100	<100
Lead	69	NA	NA	52	<5.0	<5.0	NA	NA	7.1	6.0
Manganese	26	NA	NA	159	<20	61	NA	NA	35	<5.0
Mercury	448	NA	NA	<0.2	<0.2	0.3	NA	NA	0.3	<0.2
Nickel	<20	NA	NA	<20	<20	<20	NA	NA	<20	<20
Wet Chemistry[2]										
Oil & Grease	25	72	NA	NA	<10	25	71.8	NA	NA	<10
Total Dissolved Solids (TDS)	230	NA	NA	225	240	280	NA	NA	NA	235
Total Suspended Solids (TSS)	21	NA	NA	18	<10	<10	NA	NA	NA	<10
pH	6.10	NA	NA	NA	7.00	7.00	NA	NA	NA	7.70

Notes:

[1] Concentrations reported in micrograms per liter (µg/L) or parts per billion.
[2] Concentrations reported in milligrams per liter (mg/L) or parts per million.

NA = Not analyzed or not available.

TABLE 12

SOUTHERN TREATMENT SYSTEM SAMPLING RESULTS
OPERABLE UNIT NO. 1 - SITE 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

Contaminant	July 1997					August 1997				
	Plant Influent	Oil/Water Separator Effluent	Air Stripper Effluent	Sand Filter Effluent	Final Effluent	Plant Influent	Oil/Water Separator Effluent	Air Stripper Effluent	Sand Filter Effluent	Final Effluent
Volatiles[1]										
trans-1,2-Dichloroethene	<2.5	NA	<0.5	NA	<0.5	<0.1	NA	<0.1	NA	<0.1
Trichloroethene	40	NA	<0.5	NA	<0.5	<0.1	NA	<0.1	NA	<0.1
Vinyl Chloride	2.0	NA	<0.5	NA	<0.5	<0.1	NA	<0.1	NA	<0.1
Benzene	<2.5	NA	<0.5	NA	<0.5	<0.2	NA	<0.2	NA	<0.2
1,2-cis-Dichloroethene	190	NA	0.4	NA	<0.5	<0.1	NA	<0.1	NA	<0.1
Total Metals[1]										
Antimony	<1.0	NA	NA	<1.0	<1.0	<100	NA	NA	<100	<100
Arsenic	<2.0	NA	NA	<2.0	2.0	<2.0	NA	NA	<2.0	<2.0
Beryllium	<1.0	NA	NA	<1.0	<1.0	<3.0	NA	NA	<1.0	<3.0
Calcium	123,000	NA	NA	119,000	123,000	131,000	NA	NA	151,000	131,000
Chromium	<5.0	NA	NA	<5.0	<5.0	<5.0	NA	NA	<5.0	<5.0
Iron	520	NA	NA	360	330	619	NA	NA	13,200	619
Lead	<1.0	NA	NA	1.0	6.0	<1.0	NA	NA	<1.0	<1.0
Manganese	34	NA	NA	14	4.0	<20	NA	NA	300	<20
Mercury	<0.2	NA	NA	<0.2	<0.2	<0.2	NA	NA	<0.2	<0.2
Nickel	<8.0	NA	NA	<8.0	<8.0	<20	NA	NA	<20	<20
Wet Chemistry[2]										
Oil & Grease	<1.2	1.4	NA	NA	2.4	<10	<10	NA	NA	<10
Total Dissolved Solids (TDS)	354	NA	NA	603	623	355	NA	NA	530	355
Total Suspended Solids (TSS)	<1.0	NA	NA	<1.0	<1.0	<10	NA	NA	<10	<10
pH	7.17	NA	NA	NA	7.39	8.40	NA	NA	NA	8.40

Notes:

(1) Concentrations reported in micrograms per liter (µg/L) or parts per billion.
(2) Concentrations reported in milligrams per liter (mg/L) or parts per million.

NA = Not analyzed or not available.

TABLE 12 (Continued)

SOUTHERN TREATMENT SYSTEM SAMPLING RESULTS
OPERABLE UNIT NO. 1 - SITE 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

Contaminant	September 1997					October1997				
	Plant Influent	Oil/Water Separator Effluent	Air Stripper Effluent	Sand Filter Effluent	Final Effluent	Plant Influent	Oil/Water Separator Effluent	Air Stripper Effluent	Sand Filter Effluent	Final Effluent
Volatiles[1]										
trans-1,2-Dichloroethene	<1.0	NA	<1.0	NA	<1.0	<1.0	NA	<1.0	NA	<1.0
Trichloroethene	75	NA	<1.0	NA	<1.0	27	NA	<1.0	NA	<1.0
Vinyl Chloride	5.4	NA	<1.0	NA	<1.0	<1.0	NA	<1.0	NA	<1.0
Benzene	<2.0	NA	<2.0	NA	<2.0	<2.0	NA	<2.0	NA	<2.0
1,2-cis-Dichloroethene	190	NA	<1.0	NA	<2.0	70	NA	6.4	NA	6.4
Total Metals[1]										
Antimony	<1.0	NA	NA	<1.0	<1.0	<5.0	NA	NA	<5.0	<5.0
Arsenic	<600	NA	NA	<600	<600	<5.0	NA	NA	<5.0	<5.0
Barium	56	NA	NA	44	35	NA	NA	NA	NA	NA
Beryllium	<3.0	NA	NA	<3.0	<3.0	<3.0	NA	NA	<3.0	<3.0
Calcium	NA	NA	NA	NA	NA	142,000	NA	NA	144,000	149,000
Chromium	<70	NA	NA	<70	<70	<70	NA	NA	<70	<70
Iron	NA	NA	NA	NA	NA	<100	NA	NA	<100	<100
Lead	<500	NA	NA	<500	<500	<5.0	NA	NA	<5.0	6.2
Manganese	76	NA	NA	<20	<20	26	NA	NA	<20	<20
Mercury	0.5	NA	NA	1.3	0.5	<0.2	NA	NA	<0.2	<0.2
Nickel	NA	NA	NA	NA	NA	<20	NA	NA	<20	<20
Vanadium	<80	NA	NA	<80	<80	NA	NA	NA	NA	NA
Wet Chemistry[2]										
Oil & Grease	<10	<10	NA	NA	<10	<10	<10	NA	NA	<10
Total Dissolved Solids (TDS)	385	NA	NA	430	365	450	NA	NA	590	540
Total Suspended Solids (TSS)	<10	NA	NA	<10	<10	<10	NA	NA	<10	<10
pH	6.90	NA	NA	NA	7.80	7.00	NA	NA	NA	7.70

Notes:

(1) Concentrations reported in micrograms per liter (µg/L) or parts per billion.
(2) Concentrations reported in milligrams per liter (mg/L) or parts per million.

NA = Not analyzed or not available.

TABLE 12 (Continued)

SOUTHERN TREATMENT SYSTEM SAMPLING RESULTS
OPERABLE UNIT NO. 1 - SITE 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

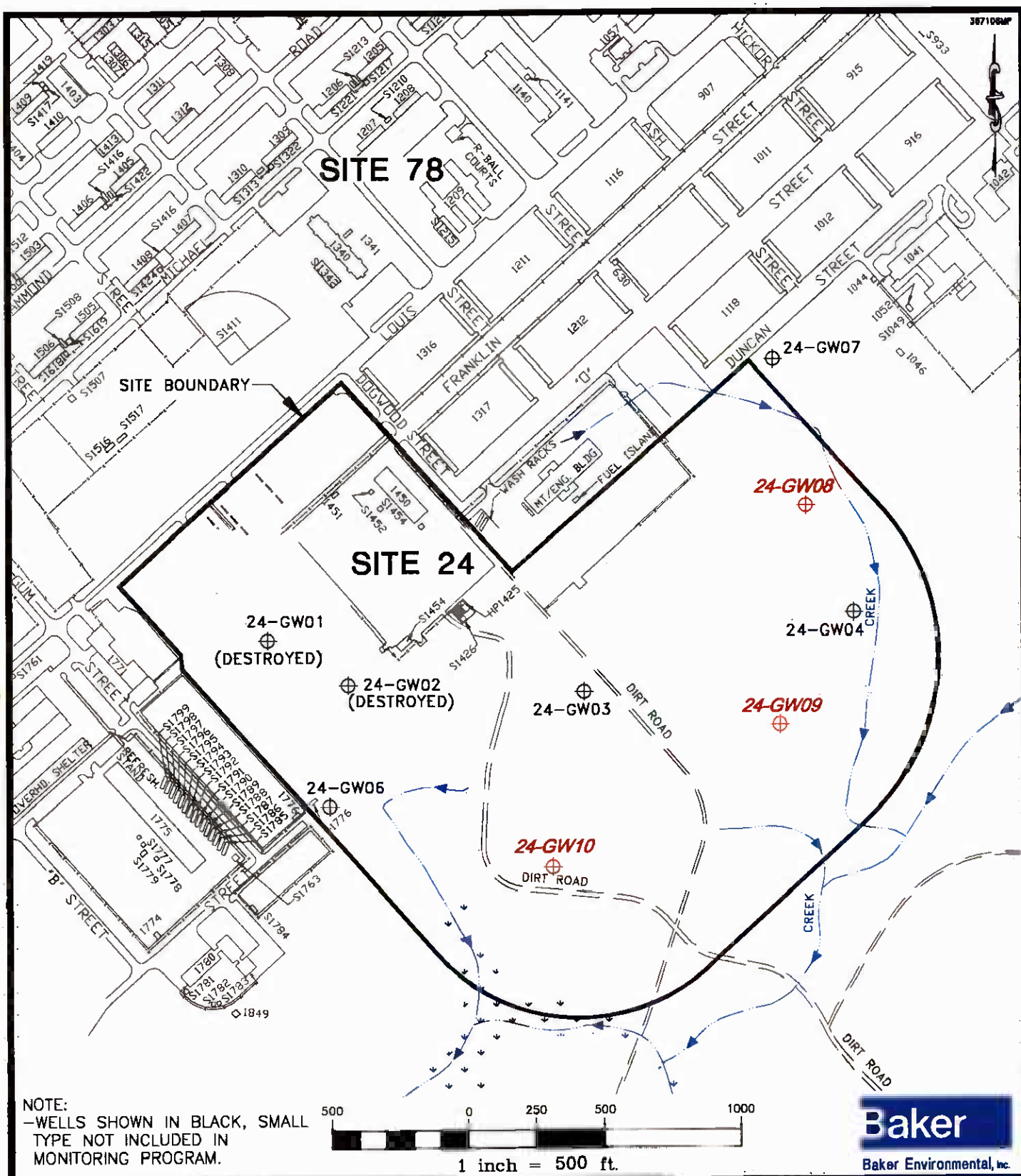
Contaminant	November 1997					December 1997				
	Plant Influent	Oil/Water Separator Effluent	Air Stripper Effluent	Sand Filter Effluent	Final Effluent	Plant Influent	Oil/Water Separator Effluent	Air Stripper Effluent	Sand Filter Effluent	Final Effluent
Volatiles[1]										
trans-1,2-Dichloroethene	10	NA	<1.0	NA	<1.0	<1.0	NA	<1.0	NA	<1.0
Trichloroethene	3.0	NA	<1.0	NA	<1.0	7.0	NA	<1.0	NA	<1.0
Vinyl Chloride	<1.0	NA	<1.0	NA	<1.0	<1.0	NA	<1.0	NA	<1.0
Benzene	<2.0	NA	<2.0	NA	<2.0	<2.0	NA	<2.0	NA	<2.0
cis-1,2-Dichloroethene	10	NA	<1.0	NA	<1.0	28	NA	<1.0	NA	<1.0
Total Metals[1]										
Antimony	<5.0	NA	NA	<5.0	<5.0	<5.0	NA	NA	<5.0	<5.0
Arsenic	<5.0	NA	NA	<5.0	<5.0	<5.0	NA	NA	<5.0	<5.0
Beryllium	<1.0	NA	NA	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0
Calcium	129,000	NA	NA	180,000	207,000	127,000	NA	NA	142,000	128,000
Chromium	<10	NA	NA	<10	<10	<10	NA	NA	<10	<10
Iron	1,070	NA	NA	4,970	166	33	NA	NA	<100	<100
Lead	<5.0	NA	NA	<5.0	<5.0	<5.0	NA	NA	<5.0	<5.0
Manganese	63	NA	NA	<20	5.7	43	NA	NA	<5.0	<5.0
Mercury	0.5	NA	NA	0.3	<0.2	0.2	NA	NA	<0.2	<0.2
Nickel	<20	NA	NA	<20	<20	<20	NA	NA	<20	<20
Wet Chemistry[2]										
Oil & Grease	<10	<10	NA	NA	<10	<10	<10	NA	NA	<10
Total Dissolved Solids (TDS)	430	NA	NA	685	700	595	NA	NA	520	525
Total Suspended Solids (TSS)	27	NA	NA	<10	<10	<10	NA	NA	<10	<10
pH	7.70	NA	NA	NA	7.90	7.00	NA	NA	NA	8.00

Notes:

(1) Concentrations reported in micrograms per liter (µg/L) or parts per billion.
(2) Concentrations reported in milligrams per liter (mg/L) or parts per million.

NA = Not analyzed or not available.

FIGURES



LEGEND

- 24-GW08 SHALLOW MONITORING WELL
- APPROXIMATE DIRECTION OF SURFACE WATER FLOW
- SITE BOUNDARY

SOURCE: LANTDIV, FEB. 1992

FIGURE 1
WELL LOCATION MAP
OPERABLE UNIT No. 1 – SITE 24
MONITORING AND O&M SUPPORT, CTO-0367

MARINE CORPS BASE, CAMP LEJEUNE
NORTH CAROLINA

0197JTBIV

LEGEND

RW-1 RECOVERY WELL

78-GW09-1 SHALLOW MONITORING WELL

78-GW09-2 INTERMEDIATE MONITORING WELL

78-GW09-3 DEEP MONITORING WELL

APPROXIMATE DIRECTION OF SURFACE WATER FLOW

SITE BOUNDARY

FIGURE 4

FIGURE 3

SITE 78

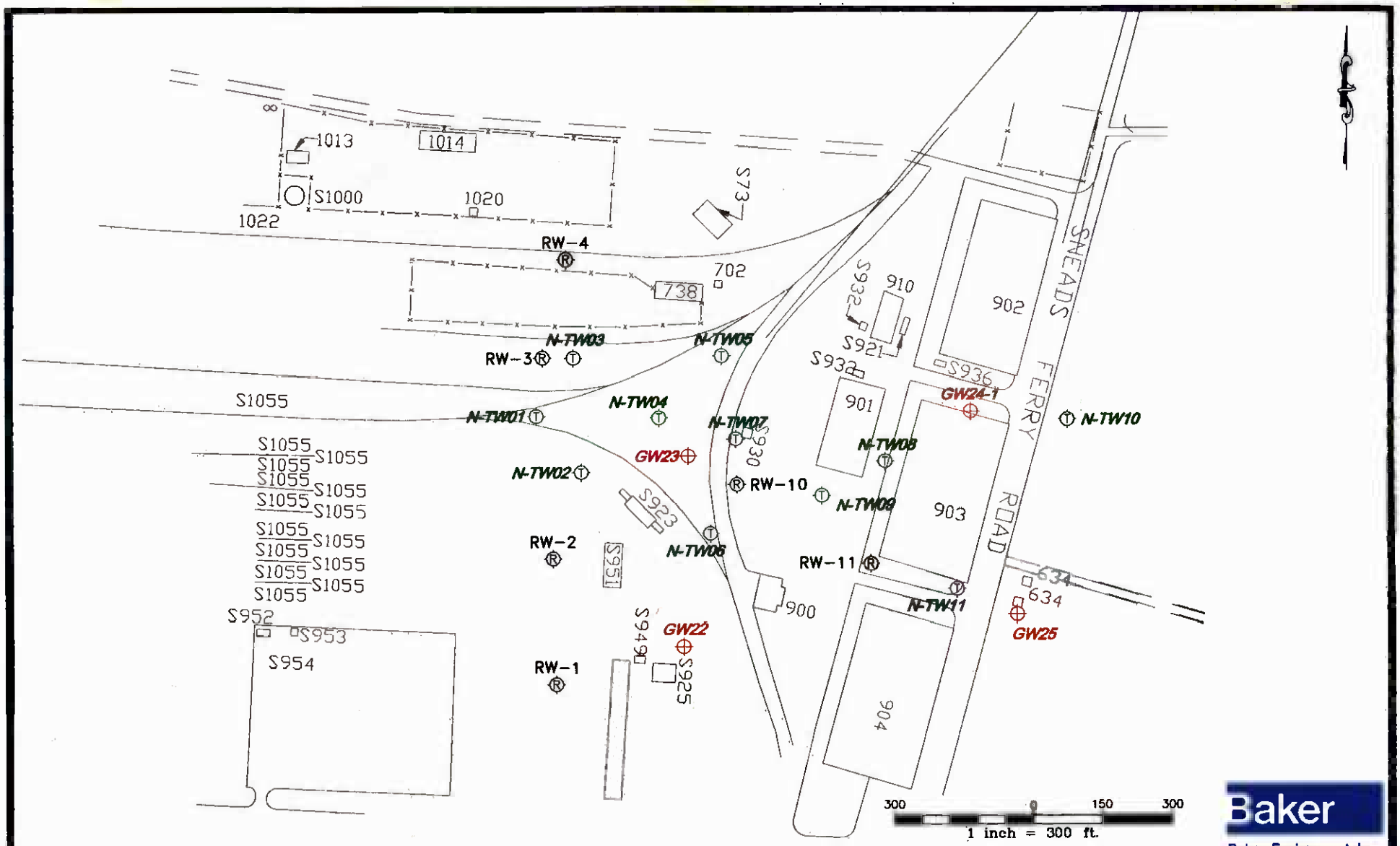
SITE 24

NOTE:
-WELLS SHOWN IN BLACK, SMALL TYPE NOT INCLUDED IN MONITORING PROGRAM.

500 0 250 500
1 inch = 500 ft.

Baker Environmental, Inc.

FIGURE 2
WELL LOCATION MAP
OPERABLE UNIT No. 1 – SITE 78
MONITORING AND O&M SUPPORT, CTO-0367
MARINE CORPS BASE, CAMP LEJEUNE
NORTH CAROLINA



LEGEND

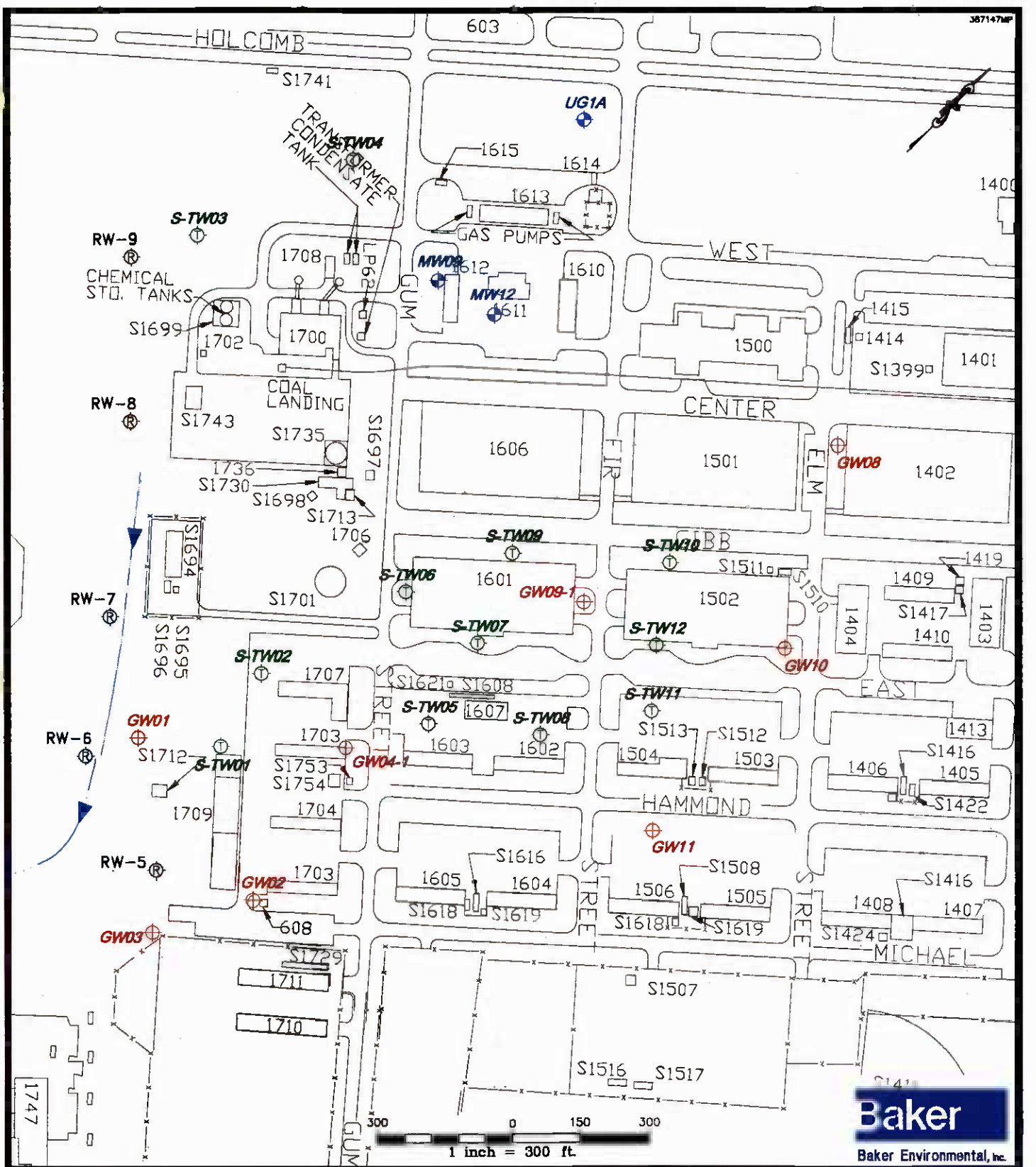
- ⊕ – SHALLOW MONITORING WELL
- Ⓣ – TEMPORARY MONITORING WELL
- Ⓡ – GROUNDWATER RECOVERY WELL

SOURCE: LANTDIV, OCT. 1991

FIGURE 3
WELL LOCATION MAP – NORTH
OPERABLE UNIT NO. 1 – SITE 78
MONITORING AND O&M, CTO-0367

MARINE CORPS BASE, CAMP LEJEUNE
NORTH CAROLINA

367148MP



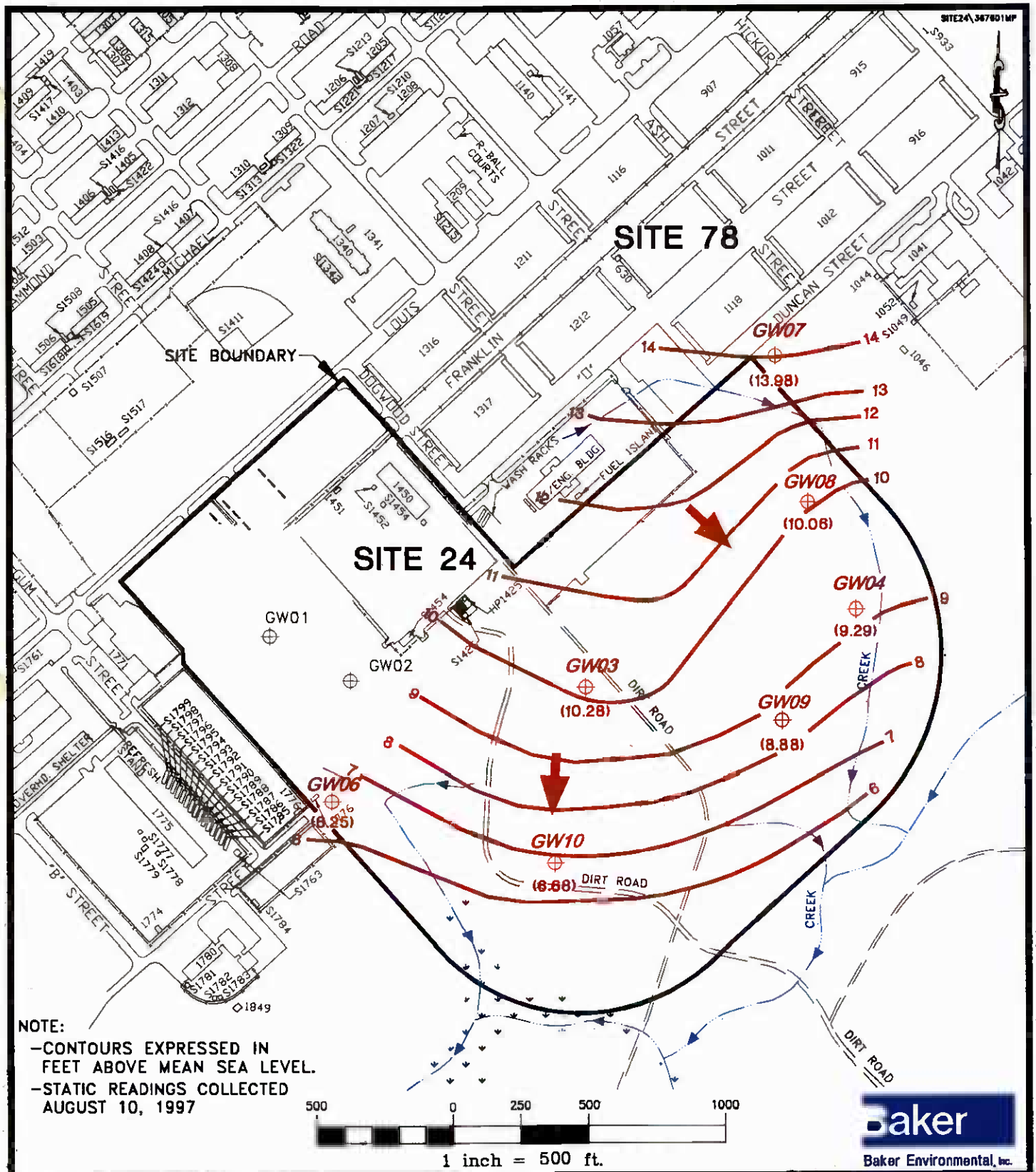
LEGEND

- ⊕ – SHALLOW MONITORING WELL
- ◈ – UST MONITORING WELL
- ⊕ – TEMPORARY MONITORING WELL
- ⊛ – GROUNDWATER RECOVERY WELL

SOURCE: LANTDIV, OCT. 1991

FIGURE 4
WELL LOCATION MAP – SOUTH
OPERABLE UNIT NO. 1 – SITE 78
MONITORING AND O&M, CTO-0367

MARINE CORPS BASE, CAMP LEJEUNE
NORTH CAROLINA



LEGEND

- GW03 — SHALLOW MONITORING WELL
- (10.28) — STATIC GROUNDWATER ELEVATION
- 13 — GROUNDWATER ELEVATION CONTOUR
- APPROXIMATE DIRECTION OF GROUNDWATER FLOW
- APPROXIMATE DIRECTION OF SURFACE WATER FLOW
- SITE BOUNDARY

SOURCE: LANTDIV, FEB. 1992

FIGURE 5
SHALLOW GROUNDWATER CONTOUR MAP
OPERABLE UNIT No. 1 – SITE 24
MONITORING AND O&M SUPPORT, CTO-0367

MARINE CORPS BASE, CAMP LEJEUNE
NORTH CAROLINA

LEGEND

GW10 — SHALLOW MONITORING WELL

(11.88) — STATIC GROUNDWATER ELEVATION

13 — GROUNDWATER ELEVATION CONTOUR

APPROXIMATE DIRECTION OF GROUNDWATER FLOW

APPROXIMATE DIRECTION OF SURFACE WATER FLOW

SITE BOUNDARY

GW06 (12.38)
GW05 (17.49)
GW07 (13.33)
GW08 (15.11)
GW10 (15.21)
GW04 (16.22)
GW11 (14.02)
GW12 (18.00)
GW14 (16.86)
GW15 (17.95)
GW16 (19.68)
GW17-1 (18.27)
GW19 (19.01)
GW21 (22.77)
GW22 (23.78)
GW23 (21.04)
GW24-1 (24.43)
GW25 (22.68)
GW33 (23.81)

SITE 78

SITE BOUNDARY

NOTES:
-CONTOURS EXPRESSED IN FEET ABOVE MEAN SEA LEVEL.
-STATIC READINGS COLLECTED AUGUST 9, 1997.

500 0 250 500
1 inch = 500 ft.

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FIGURE 6
SHALLOW GROUNDWATER CONTOUR MAP
OPERABLE UNIT No. 1 – SITE 78
MONITORING AND O&M SUPPORT, CTO – 0367

MARINE CORPS BASE, CAMP LEJEUNE
NORTH CAROLINA

367145MP

LEGEND

- RW-1 — RECOVERY WELL
- GW09-1 — SHALLOW MONITORING WELL
- GW09-2 — INTERMEDIATE MONITORING WELL
- GW09-3 — DEEP MONITORING WELL
- APPROXIMATE DIRECTION OF SURFACE WATER FLOW

SAMPLE ID	IR78-GW04-97C
SAMPLE DATE	08/09/97
TRICHLOROETHENE	6.0
1,2-DICHLOROETHENE (TOTAL)	1.0

SAMPLE ID	IR78-GW01-97C
SAMPLE DATE	08/11/97
1,2-DICHLOROETHENE (TOTAL)	10
TRICHLOROETHENE	21

SAMPLE ID	IR78-GW15-97C
SAMPLE DATE	08/09/97
TRICHLOROETHENE	1.0

SAMPLE ID	IR78-GW09-97C
SAMPLE DATE	08/09/97
CHLOROFORM	2.0
1,1,1-TRICHLOROETHANE	370
1,1-DICHLOROETHANE	68
1,1-DICHLOROETHENE	91
1,2-DICHLOROETHENE (TOTAL)	570
TRICHLOROETHENE	920

SAMPLE ID	IR78-GW09IW-97C
SAMPLE DATE	08/09/97
1,2-DICHLOROETHENE (TOTAL)	5.0

SAMPLE ID	IR78-GW39-97C
SAMPLE DATE	8/10/97
TETRACHLOROETHENE	0.7

SAMPLE ID	IR78-GW23-97C
SAMPLE DATE	08/10/97
BENZENE	17
1,1-DICHLOROETHENE	4.0
TRICHLOROETHENE	62
TOLUENE	4.0
ETHYLBENZENE	7.0
XYLENE (TOTAL)	50
1,2-DICHLOROETHENE (TOTAL)	10,000
VINYL CHLORIDE	590

SAMPLE ID	IR78-GW22A-97C
SAMPLE DATE	08/10/97
1,2-DICHLOROETHENE (TOTAL)	7.0
TOLUENE	0.6
BENZENE	0.8

SAMPLE ID	IR78-GW24-97C
SAMPLE DATE	08/10/97
1,1-DICHLOROETHENE	0.7
1,2-DICHLOROETHENE (TOTAL)	220
TRICHLOROETHENE	28
VINYL CHLORIDE	7.0

SITE 78

FEDERAL MAXIMUM CONTAMINANT LEVELS (MCLs) AND NORTH CAROLINA WATER QUALITY STANDARDS (NCWQS)

Organic Contaminants	NCWQS	MCL
Vinyl Chloride	0.015	2.0
Acetone	700	
1,1-Dichloroethene	7.0	7.0
1,1-Dichloroethane	700	
1,2-Dichloroethene (Total)	70	
Chloroform	0.19	100
1,1,1-Trichloroethane	200	200
Trichloroethene	2.8	5.0
Tetrachloroethene	0.7	5.0
Toluene	1000	1000
Benzene	1.0	5.0
Ethylbenzene	29	700
Xylene (Total)	530	10,000

NOTES:
- CONCENTRATIONS PRESENTED IN MICROGRAMS PER LITER OR PARTS PER BILLION.
- SAMPLE LOCATIONS SHOWN WITHOUT CONCENTRATIONS INDICATE NONDETECTABLE LEVELS.
- CONTAMINANTS THAT EXCEED THE NCWQS ARE SHOWN IN GREEN.
- CONTAMINANTS THAT EXCEED BOTH NCWQS AND MCL ARE SHOWN IN RED.

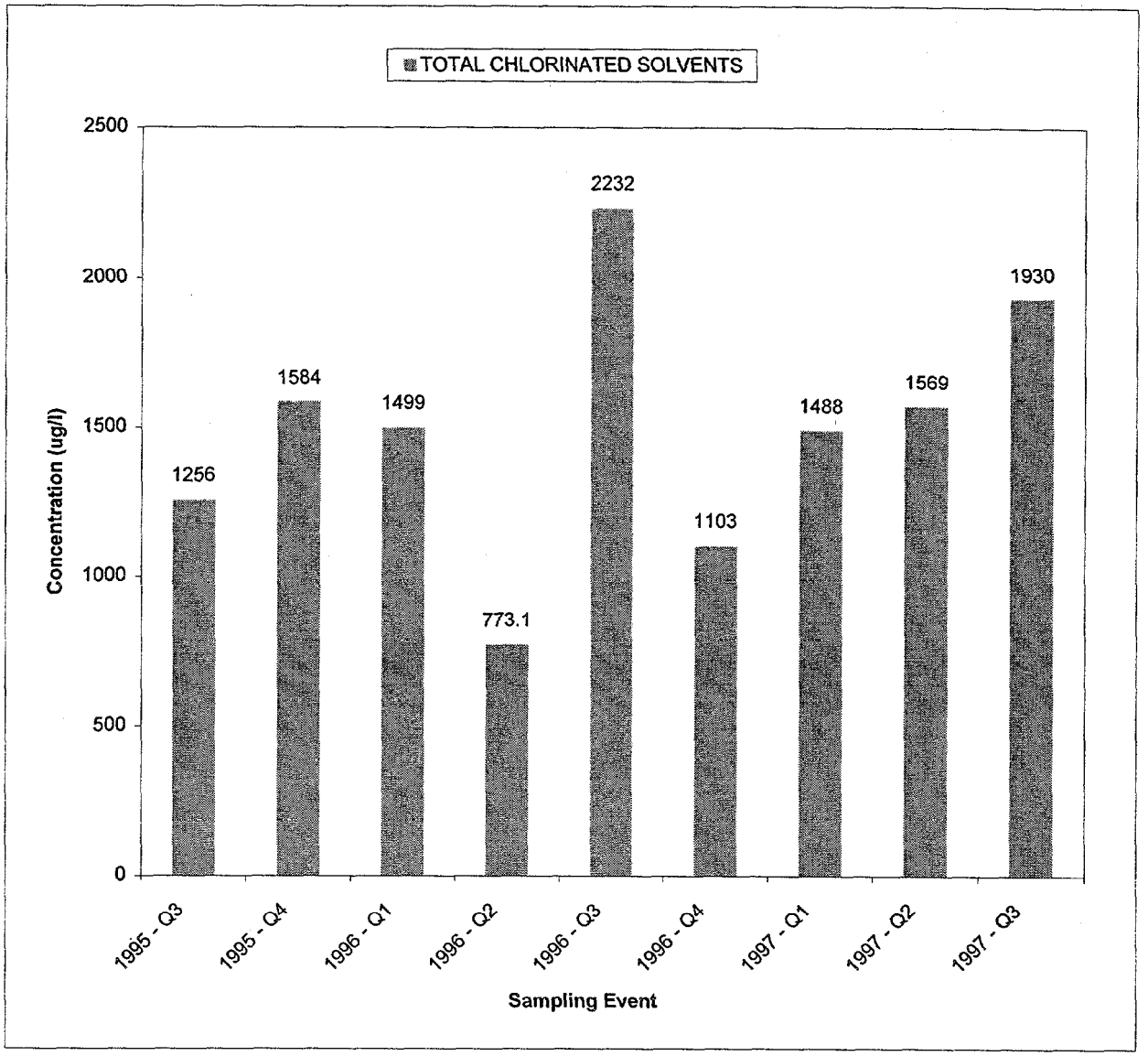
500 0 250 500
1 inch = 500 ft.

Baker Environmental, Inc.

FIGURE 7
VOLATILE ORGANIC COMPOUNDS IN GROUNDWATER
OPERABLE UNIT No. 1 – SITE 78
MONITORING AND O&M SUPPORT, CTO-0367
MARINE CORPS BASE, CAMP LEJEUNE
NORTH CAROLINA

FIGURE 8

TOTAL CHLORINATED SOLVENT RESULTS FROM 78-GW09
OPERABLE UNIT NO. 1 - SITE 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUENE, NORTH CAROLINA

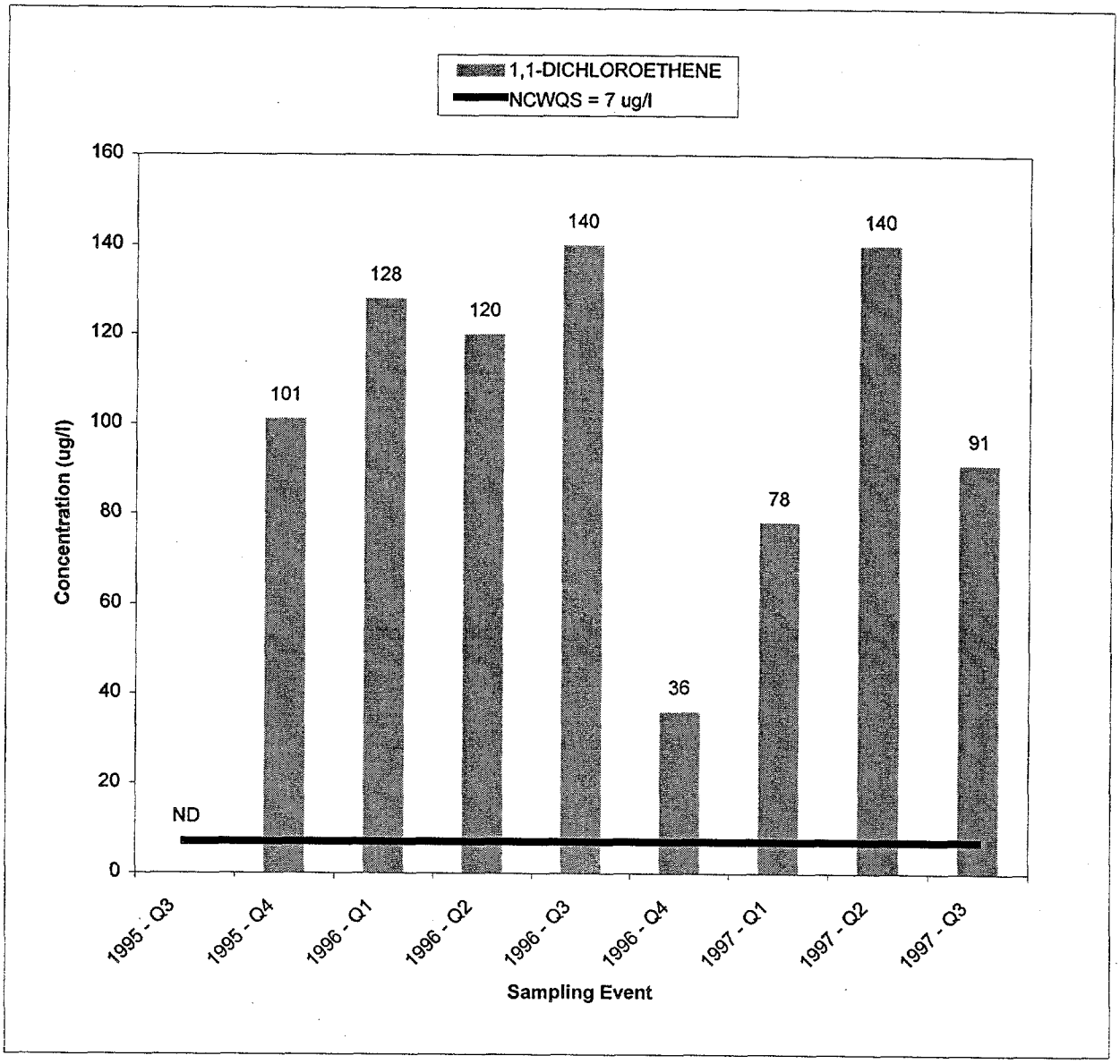


Q1 - Quarter 1 (January - March)
Q2 - Quarter 2 (April - June)
Q3 - Quarter 3 (July - September)
Q4 - Quarter 4 (October - December)

Contaminant	Mean Detection	Median Detection	Detection Frequency	Detections Above Standards
TOTAL CHLORINATED SOLVENTS	1492	1499	9/9	N/A

FIGURE 9

1,1-DICHLOROETHENE RESULTS FROM 78-GW09
OPERABLE UNIT NO. 1 - SITE 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUENE, NORTH CAROLINA



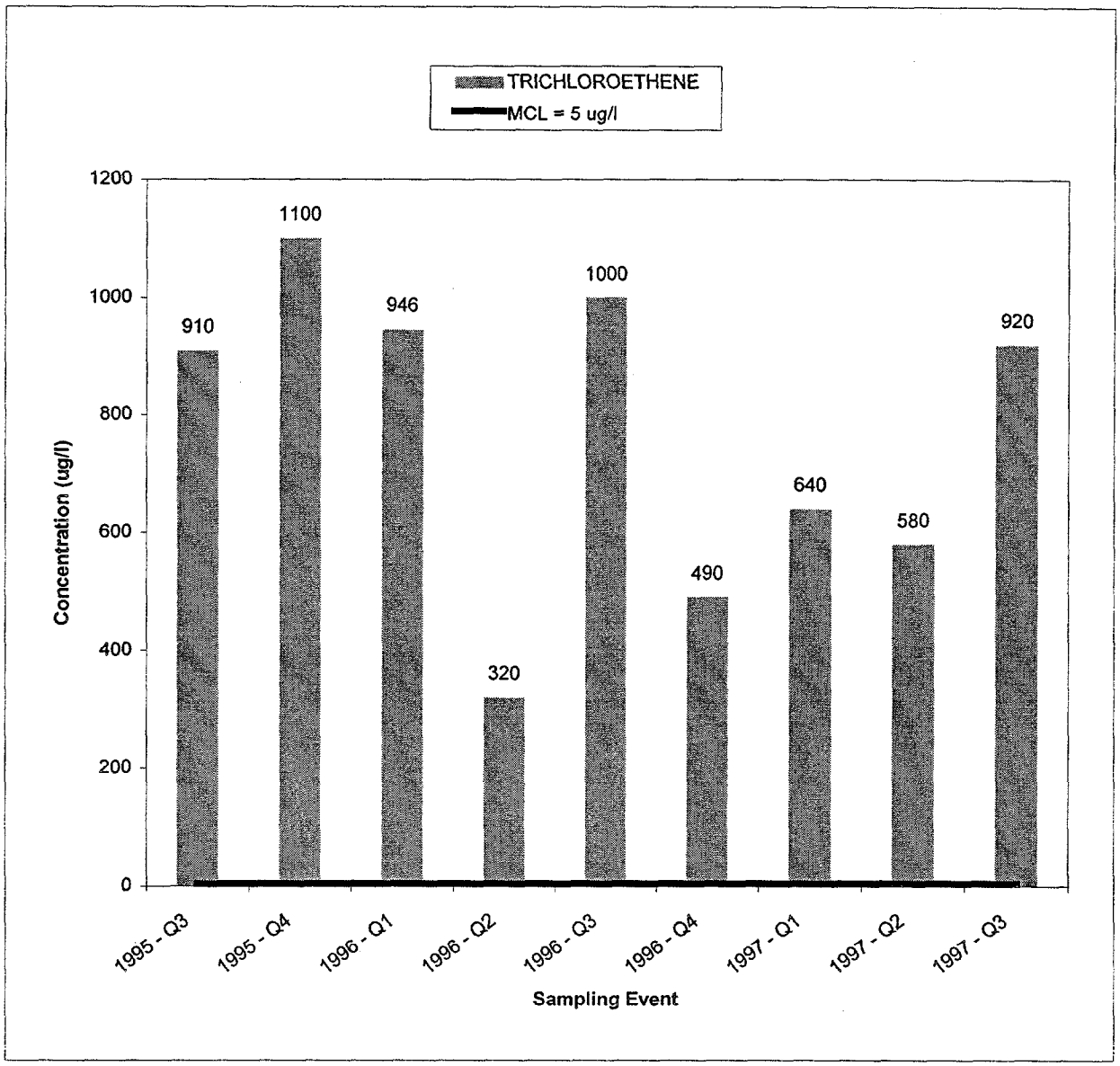
Q1 - Quarter 1 (January - March)
Q2 - Quarter 2 (April - June)
Q3 - Quarter 3 (July - September)
Q4 - Quarter 4 (October - December)

Notes:
Federal Maximum Contaminant Level (MCL) = 7 micrograms per liter (ug/l)
North Carolina Water Quality Standard (NCWQS) = 7 micrograms per liter (ug/l)

Contaminant	Mean Detection	Median Detection	Detection Frequency	Detections Above Standards
1,1-DICHLOROETHENE	97	120	9/9	8/9

FIGURE 10

TRICHLOROETHENE RESULTS FROM 78-GW09
OPERABLE UNIT NO. 1 - SITE 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUENE, NORTH CAROLINA



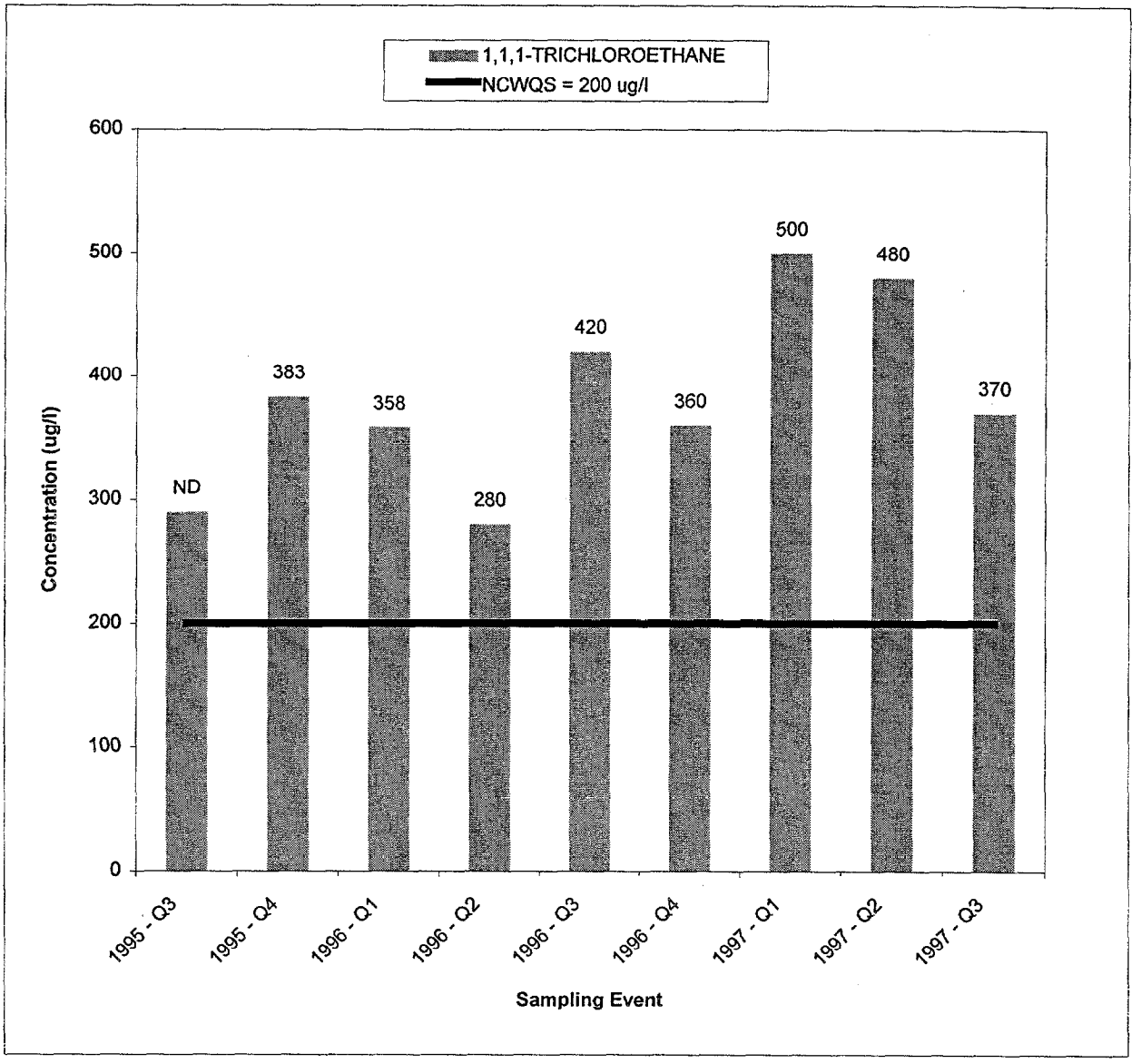
Q1 - Quarter 1 (January - March)
Q2 - Quarter 2 (April - June)
Q3 - Quarter 3 (July - September)
Q4 - Quarter 4 (October - December)

Notes:
Federal Maximum Contaminant Level (MCL) = 5 micrograms per liter (ug/l)
There is no North Carolina Water Quality Standard (NCWQS)

Contaminant	Mean Detection	Median Detection	Detection Frequency	Detections Above Standards
TRICHLOROETHENE	767	910	9/9	9/9

FIGURE 11

1,1,1-TRICHLOROETHANE RESULTS FROM 78-GW09
OPERABLE UNIT NO. 1 - SITE 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUENE, NORTH CAROLINA



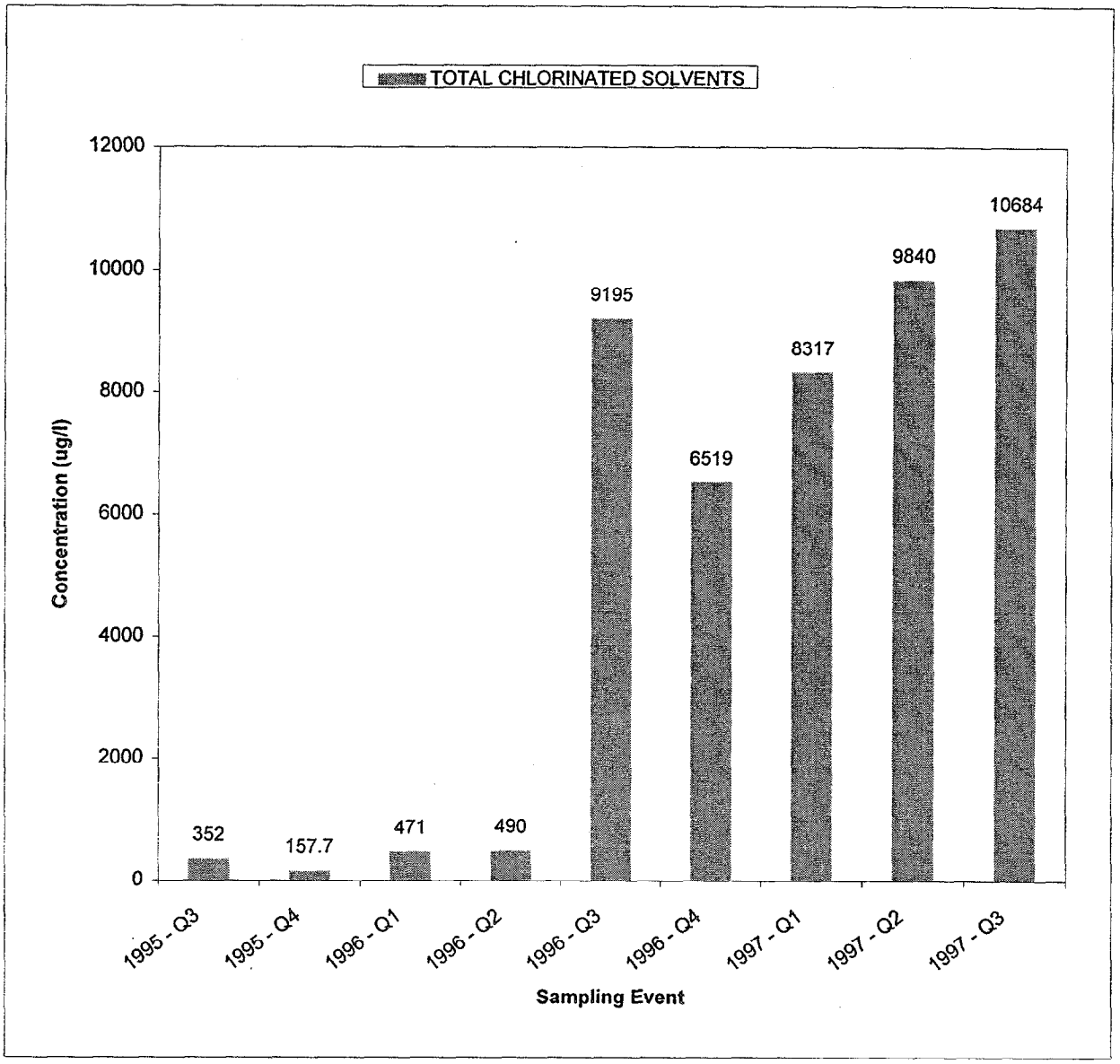
Q1 - Quarter 1 (January - March)
Q2 - Quarter 2 (April - June)
Q3 - Quarter 3 (July - September)
Q4 - Quarter 4 (October - December)

Notes:
Federal Maximum Contaminant Level (MCL) = 200 micrograms per liter (ug/l)
North Carolina Water Quality Standard (NCWQS) = 200 micrograms per liter (ug/l)

Contaminant	Mean Detection	Median Detection	Detection Frequency	Detections Above Standards
1,1,1-TRICHLOROETHANE	382	370	9/9	9/9

FIGURE 12

TOTAL CHLORINATED SOLVENT RESULTS FROM 78-GW23
OPERABLE UNIT NO. 1 - SITE 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

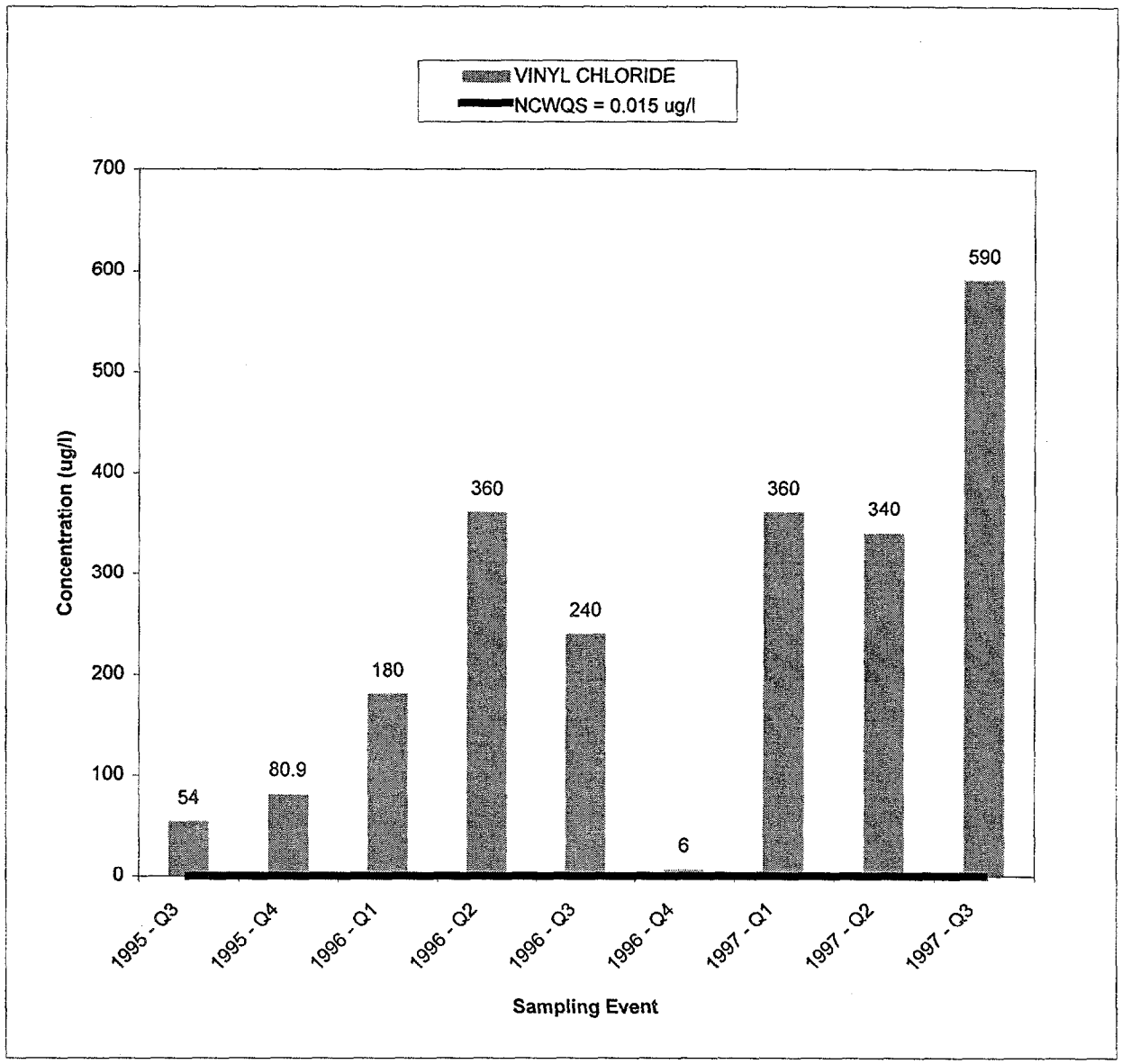


Q1 - Quarter 1 (January - March)
Q2 - Quarter 2 (April - June)
Q3 - Quarter 3 (July - September)
Q4 - Quarter 4 (October - December)

Contaminant	Mean Detection	Median Detection	Detection Frequency	Detections Above Standards
TOTAL CHLORINATED SOLVENTS	5114	6519	9/9	N/A

FIGURE 13

VINYL CHLORIDE RESULTS FROM 78-GW23
OPERABLE UNIT NO. 1 - SITE 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUENE, NORTH CAROLINA



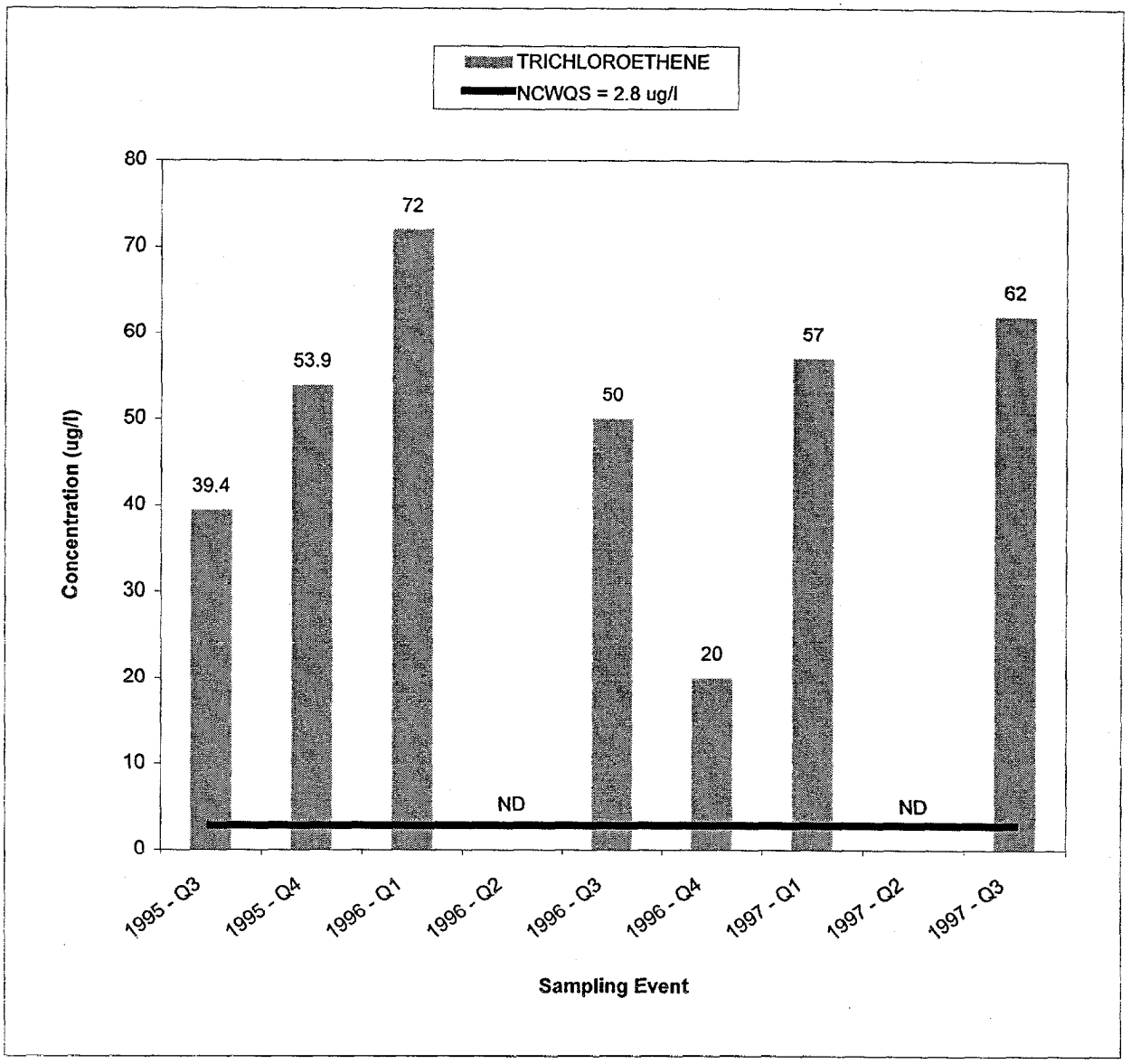
Q1 - Quarter 1 (January - March)
Q2 - Quarter 2 (April - June)
Q3 - Quarter 3 (July - September)
Q4 - Quarter 4 (October - December)

Notes:
Federal Maximum Contaminant Level (MCL) = 2 micrograms per liter (ug/l)
North Carolina Water Quality Standard (NCWQS) = 0.015 micrograms per liter (ug/l)

Contaminant	Mean Detection	Median Detection	Detection Frequency	Detections Above Standards
VINYL CHLORIDE	245	240	9/9	9/9

FIGURE 14

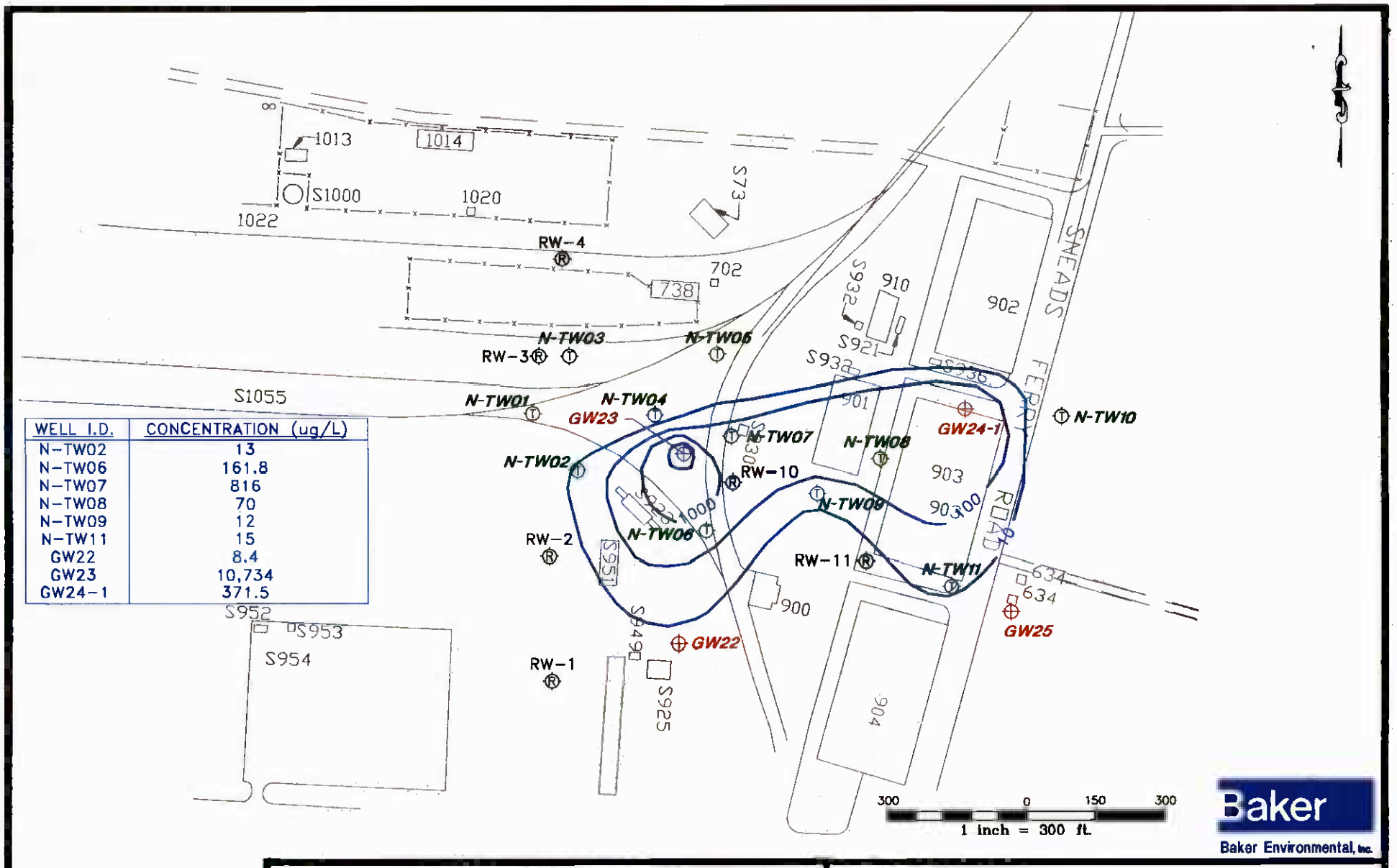
TRICHLOROETHENE RESULTS FROM 78-GW23
OPERABLE UNIT NO. 1 - SITE 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUENE, NORTH CAROLINA



Q1 - Quarter 1 (January - March)
Q2 - Quarter 2 (April - June)
Q3 - Quarter 3 (July - September)
Q4 - Quarter 4 (October - December)

Notes:
Federal Maximum Contaminant Level (MCL) = 5 micrograms per liter (ug/l)
North Carolina Water Quality Standard (NCWQS) = 2.8 micrograms per liter (ug/l)
ND = Not Detected

Contaminant	Mean Detection	Median Detection	Detection Frequency	Detections Above Standards
TRICHLOROETHENE	39	50	7/9	7/9



WELL I.D.	CONCENTRATION (ug/L)
N-TW02	13
N-TW06	161.8
N-TW07	816
N-TW08	70
N-TW09	12
N-TW11	15
GW22	8.4
GW23	10,734
GW24-1	371.5

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LEGEND

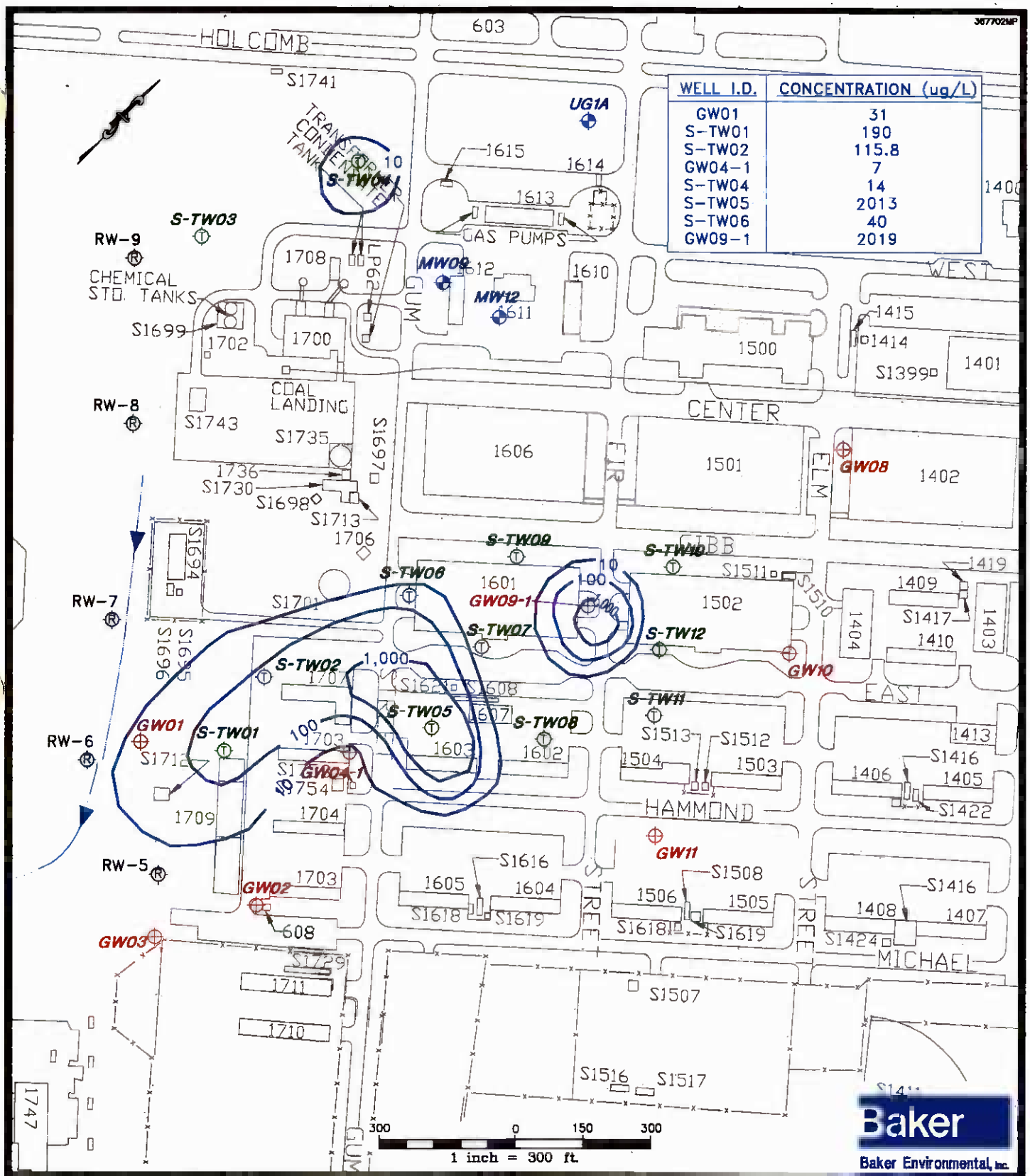
- ⊕ – SHALLOW MONITORING WELL
- Ⓣ – TEMPORARY MONITORING WELL
- Ⓡ – GROUNDWATER RECOVERY WELL
- —100— – ISOCONCENTRATION LINE

SOURCE: LANTDIV, OCT. 1991

FIGURE 15
TOTAL VOLATILE ORGANIC COMPOUNDS IN GROUNDWATER – NORTH OPERABLE UNIT NO. 1 – SITE 78 MONITORING AND O&M, CTO-0367
MARINE CORPS BASE, CAMP LEJEUNE
NORTH CAROLINA

367703MP

0197J.JTB2Y



WELL I.D.	CONCENTRATION (ug/L)
GW01	31
S-TW01	190
S-TW02	115.8
GW04-1	7
S-TW04	14
S-TW05	2013
S-TW06	40
GW09-1	2019

Baker Environmental, Inc.

LEGEND

- ⊕ – SHALLOW MONITORING WELL
- ⊕ – UST MONITORING WELL
- ⊕ – TEMPORARY MONITORING WELL
- Ⓡ – GROUNDWATER RECOVERY WELL
- -100- – ISOCONCENTRATION LINE

SOURCE: LANTDIV, OCT. 1991

FIGURE 16
TOTAL VOLATILE ORGANIC COMPOUNDS IN GROUNDWATER – SOUTH OPERABLE UNIT NO. 1 – SITE 78 MONITORING AND O&M, CTO-0367

MARINE CORPS BASE, CAMP LEJEUNE
NORTH CAROLINA

LEGEND

RW-1 OFF-LINE RECOVERY WELL

RW-5 ON-LINE RECOVERY WELL

RW-11 PROPOSED RECOVERY WELL

APPROXIMATE DIRECTION OF SURFACE WATER FLOW

SITE BOUNDARY

SOUTHERN TREATMENT PLANT

NORTHERN TREATMENT PLANT

SITE 78

SITE 24

SITE BOUNDARY

RW-1 RW-2 RW-3 RW-4 RW-5 RW-6 RW-7 RW-8 RW-9 RW-10 RW-11 RW-12 RW-13 RW-14

GW01 GW02 GW03 GW04-1 GW04-2 GW04-3 GW05 GW06 GW07 GW08 GW09-1 GW09-2 GW09-3 GW10 GW11 GW12 GW13 GW14 GW15 GW16 GW17-1 GW17-2 GW18 GW19 GW20 GW21 GW22 GW22-1 GW22-2 GW23 GW24 GW24-1 GW24-2 GW25 GW29 GW30-2 GW30-3 GW31-2 GW31-3 GW32-3 GW33 GW34 GW35 GW37 GW38 GW39

BOULEVARD WEST ROAD CENTER ROAD EAST ROAD HAMMOND STREET MICHAEL STREET LOUIS ROAD DUNCAN STREET FRANKLIN STREET

TRANSFORMER CONDENSATE TANK · GAS PUMPS · CHEMICAL STD TANKS · COAL LANDING · METAL STORAGE SHED · OIL/WATER SEPARATOR · MT/CRD. BLDG. · OVERHD. SHELTER · WASH RACKS · BEERS STAND · MT/ENG. BLDG. · FUEL ISLAND · R-BALL COURTS · OPEN STOR

500 0 250 500
1 inch = 500 ft.

Baker
Baker Environmental, Inc.

FIGURE 17
NORTHERN AND SOUTHERN TREAMENT SYSTEMS
OPERABLE UNIT No. 1 – SITE 78
MONITORING AND O&M SUPPORT, CTO-0367
MARINE CORPS BASE, CAMP LEJEUNE
NORTH CAROLINA

ATTACHMENTS

ATTACHMENT A
TEST BORING AND WELL CONSTRUCTION LOGS

TEST BORING AND WELL CONSTRUCTION RECORD

Baker Environmental, Inc.

PROJECT: Site 78 Hadnot Point Industrial Area (Northern Plume)
CTO NO.: 0177
COORDINATES: EAST:
ELEVATION: SURFACE:
BORING NO.: IR78-N-TW01
NORTH:
TOP OF PVC CASING:

RIG: #29	SPLIT SPOON	CASING	AUGERS	CORE BARREL
SIZE (DIAM.)	1-3/8"		3¼" ID	
LENGTH	2.0		5'	
TYPE	Std.		HSA	
HAMMER WT.	140 lbs.			
FALL	30"			
STICK UP				

DATE	PROGRESS (FT.)	WEATHER	WATER DEPTH (FT.)	TIME
7-24-97	0-23.0'	overcast (80's) warm, humid	4.0'	

REMARKS: Continuously sampled to 6.0' (bgs). Borehole drilled out to 23.0' (bgs).

SAMPLE TYPE

S = Split Spoon
T = Shelby Tube
R = Air Rotary
D = Denison
A = Auger
W = Wash
C = Core
P = Piston
N = No Sample

Well Information	Diam.	Type	Top Depth (ft.)	Bottom Depth (ft.)
Riser	1.0"	Schedule 40 PVC	+2.5'	-2.0'
Screen	1.0"	Schedule 40 PVC	-2.0'	-22.0'

Depth (ft.)	Samp. Type and No.	Samp. Rec. (ft. & %)	SPT or RQD	Lab Class. or Pen. Rate	PID (ppm)	Visual Description	Well Installation Detail	Elevation (ft. MSL)
1	S-1	1.6/2.0 80%	8 13 9 8		-	Silty SAND, fine grained, trace fill material?, trace wood (at 3.6' only) Brown/buff/light brown/dk. brown, loose/med. dense, damp/moist/wet?	PVC riser	
2	2.0							
3	S-2	1.4/2.0 70%	8 5 5 4		-			
4	4.0							
5	S-3	1.4/2.0 70%	2 1 1 4		-	SAND, fine grained, trace silt. Brownish gray, very loose, wet.		
6	6.0							
7								
8							well screen	
9	A-N	-	-		-	Auger to 23.0' (bgs)		
10								

Match to Sheet 2

DRILLING CO.: Parratt-Wolff
DRILLER: L. Darrow
BAKER REP.: J.E. Zimmerman
BORING NO.: IR78-N-TW01

TEST BORING AND WELL CONSTRUCTION RECORD

Baker Environmental, Inc.

PROJECT: Site 78 Hadnot Point Industrial Area (Northern Plume)
CTO NO.: 0177 BORING NO.: IR78-N-TW01

SAMPLE TYPE

S = Split Spoon
T = Shelby Tube
R = Air Rotary
D = Denison
A = Auger
W = Wash
C = Core
P = Piston
N = No Sample

DEFINITIONS

SPT = Standard Penetration Test (ASTM D-1586)(Blows/0.5')
RQD = Rock Quality Designation (%)
Lab. Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
Lab. Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (ft.)	Samp. Type and No.	Samp. Rec. (ft. & %)	SPT or RQD	Lab Class. or Pen. Rate	PID (ppm)	Visual Description	Well Installation Detail	Elevation (ft. MSL)
11						Continued from Sheet 1		
12								
13							well screen	
14								
15								
16								
17	A-N	-	-		-	Auger to 23.0' (bgs)		
18								
19								
20								
21								
22								
23	23.0							
24						End of Boring		
25						TD= 23.0' (bgs)		
26								
27								
28								
29								
30								

DRILLING CO.: Parratt-Wolff BAKER REP.: J.E. Zimmerman
DRILLER: L. Darrow BORING NO.: IR78-N-TW01 SHEET 2 OF 2

TEST BORING AND WELL CONSTRUCTION RECORD

Baker Environmental, Inc.

PROJECT: Site 78 Hadnot Point Industrial Area (Northern Plume)
CTO NO.: 0177
COORDINATES: EAST:
ELEVATION: SURFACE:
BORING NO.: IR78-N-TW02
NORTH:
TOP OF PVC CASING:

RIG: #29	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT.)	WEATHER	WATER DEPTH (FT.)	TIME
SIZE (DIAM.)	1-3/8"		3¼" ID		7-25-97	0 - 25.0'	overcast (70's)	6.5'	
LENGTH	2.0		5'						
TYPE	Std.		HSA						
HAMMER WT.	140 lbs.								
FALL	30"								
STICK UP									

REMARKS: Continuously sampled to 8.0' (bgs). Borehole drilled out to 25.0' (bgs).

SAMPLE TYPE

S = Split Spoon
T = Shelby Tube
R = Air Rotary
D = Denison
A = Auger
W = Wash
C = Core
P = Piston
N = No Sample

Well Information	Diam.	Type	Top Depth (ft.)	Bottom Depth (ft.)
Riser	1.0"	Schedule 40 PVC	+2.5'	-4.5'
Screen	1.0"	Schedule 40 PVC	-4.5'	-24.5'

Depth (ft.)	Samp. Type and No.	Samp. Rec. (ft. & %)	SPT or RQD	Lab Class. or Pen. Rate	PID (ppm)	Visual Description	Well Installation Detail	Elevation (ft. MSL)
1	S-1	1.3/2.0 65%	5 9 8 8		-	FILL MATERIAL (coarse gravel, railroad bed material) Gray, dense, dry		
2						Silty SAND, fine grained Brownish gray/dk. gray, medium dense, damp		
3	S-2	1.3/2.0 65%	5 5 5 5		-		PVC riser	
4						SAND/silty SAND, fine grained, little to some Clay. Oxidation (orange) staining. Brownish gray/dk. gray, loose/medium stiff, cohesive, damp/moist		
5	S-3	1.8/2.0 90%	3 4 6 11		-			
6								
7	S-4	1.6/2.0 80%	16 16 13 9		-	SAND, fine grained, trace to little silt. Brown/gray, medium dense, wet.	Well Screen	
8								
9	A-N	-	-		-	Auger to 25.0' (bgs)		
10						Match to Sheet 2		

DRILLING CO.: Parratt-Wolff
DRILLER: L. Darrow
BAKER REP.: J.E. Zimmerman
BORING NO.: IR78-N-TW02

Baker Environmental, Inc.

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Site 78 Hadnot Point Industrial Area (Northern Plume)
CTO NO.: 0177 BORING NO.: IR78-N-TW02

SAMPLE TYPE

S = Split Spoon
T = Shelby Tube
R = Air Rotary
D = Denison
A = Auger
W = Wash
C = Core
P = Piston
N = No Sample

DEFINITIONS

SPT = Standard Penetration Test (ASTM D-1586)(Blows/0.5')
RQD = Rock Quality Designation (%)
Lab. Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
Lab. Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (ft.)	Samp. Type and No.	Samp. Rec. (ft. & %)	SPT or RQD	Lab Class. or Pen. Rate	PID (ppm)	Visual Description	Well Installation Detail	Elevation (ft. MSL)
11						Continued from Sheet 1		
12								
13								
14								
15								
16								
17	A-N	-	-		-	Auger to 25.0' (bgs)		
18							well screen	
19								
20								
21								
22								
23								
24								
25	25.0					End of Boring		
26								
27						TD = 25.0' (bgs)		
28								
29								
30								

DRILLING CO.: Parratt-Wolff BAKER REP.: J.E. Zimmerman
DRILLER: L. Darrow BORING NO.: IR78-N-TW02 SHEET 2 OF 2

Baker Environmental, Inc.

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Site 78 Hadnot Point Industrial Area (Northern Plume)
CTO NO.: 0177 BORING NO.: IR78-N-TW03
COORDINATES: EAST: NORTH:
ELEVATION: SURFACE: TOP OF PVC CASING:

RIG: #29	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT.)	WEATHER	WATER DEPTH (FT.)	TIME
SIZE (DIAM.)	1-3/8"		3¼" ID		7-25-97	0-26.0'	overcast (70's)	8.0'	
LENGTH	2.0		5'						
TYPE	Std.		HSA						
HAMMER WT.	140 lbs.								
FALL	30"								
STICK UP									

REMARKS: Continuously sampled to 8.0'(bgs). Borehole drilled out to 26.0'(bgs)

SAMPLE TYPE

S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

Well Information	Diam.	Type	Top Depth (ft.)	Bottom Depth (ft.)
Riser	1.0"	Schedule 40 PVC	+2.5'	-6.0'
Screen	1.0"	Schedule 40 PVC	-6.0'	-26.0'

Depth (ft.)	Samp. Type and No.	Samp. Rec. (ft. & %)	SPT or RQD	Lab Class. or Pen. Rate	PID (ppm)	Visual Description	Well Installation Detail	Elevation (ft. MSL)
1	S-1	1.1/2.0 55%	17 35 15 12		-	FILL MATERIAL (coarse gravel, railroad bed material). Gray, dense, dry		
2						Silty SAND, fine grained, Brownish gray/buff, dense/med. dense/damp	PVC riser	
3	S-2	1.2/2.0 60%	9 8 7 9		-	SAND, fine grained, trace to little silt		
4								
5	S-3	1.6/2.0 80%	3 2 4 3		-	Silty SAND, fine grained, some clay. Oxidation (orange) staining. Gray, loose/medium stiff, damp/moist		
6								
7	S-4	2.0/2.0 100%	3 3 3 4		-	Silty CLAY, trace Sand fine grained. Gray, med. stiff, cohesive, moist		
8						SAND, fine grained, trace silt, trace clay, med. stiff, cohesive, wet (bottom)		
9							well screen	
10	A-N	-	-		-	Auger to 26.0'(bgs)		
						Match to Sheet 2		

DRILLING CO.: Parratt-Wolff BAKER REP.: J.E. Zimmerman
DRILLER: L. Darrow BORING NO.: IR78-N-TW03 SHEET 1 OF 2

Baker Environmental, Inc.

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Site 78 Hadnot Point Industrial Area (Northern Plume)
CTO NO.: 0177 BORING NO.: IR78-N-TW03

SAMPLE TYPE

S = Split Spoon
T = Shelby Tube
R = Air Rotary
D = Denison
A = Auger
W = Wash
C = Core
P = Piston
N = No Sample

DEFINITIONS

SPT = Standard Penetration Test (ASTM D-1586)(Blows/0.5')
RQD = Rock Quality Designation (%)
Lab. Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
Lab. Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (ft.)	Samp. Type and No.	Samp. Rec. (ft. & %)	SPT or RQD	Lab Class. or Pen. Rate	PID (ppm)	Visual Description	Well Installation Detail	Elevation (ft. MSL)
						Continued from Sheet 1		
17	A-N	-	-		-	Auger to 26.0' (bgs)	well screen	
26	26.0					End of Boring		
						TD = 26.0' (bgs)		

DRILLING CO.: Parratt-Wolff BAKER REP.: J.E. Zimmerman
DRILLER: L. Darrow BORING NO.: IR78-N-TW03 SHEET 2 OF 2

Baker Environmental, Inc.

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Site 78 Hadnot Point Industrial Area (Northern Plume)
CTO NO.: 0177 BORING NO.: IR78-N-TW04
COORDINATES: EAST: NORTH:
ELEVATION: SURFACE: TOP OF PVC CASING:

RIG: #29	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT.)	WEATHER	WATER DEPTH (FT.)	TIME
SIZE (DIAM.)	1-3/8"		3¼" ID		7-26-97	0-28.0'	clear, (70's) calm, humid	9.0'	
LENGTH	2.0		5'						
TYPE	Std.		HSA						
HAMMER WT.	140 lbs.								
FALL	30"								
STICK UP									

REMARKS: Continuously sampled to 10.0' (bgs). Borehole drilled out to 28.0' (bgs)

SAMPLE TYPE

S = Split Spoon
T = Shelby Tube
R = Air Rotary
D = Denison
A = Auger
W = Wash
C = Core
P = Piston
N = No Sample

Well Information	Diam.	Type	Top Depth (ft.)	Bottom Depth (ft.)
Riser	1.0"	Schedule 40 PVC	+2.5'	-7.0'
Screen	1.0"	Schedule 40 PVC	-7.0'	-27.0'

Depth (ft.)	Samp. Type and No.	Samp. Rec. (ft. & %)	SPT or RQD	Lab Class. or Pen. Rate	PID (ppm)	Visual Description	Well Installation Detail	Elevation (ft. MSL)
1 – 2 (2.0)	S-1	1.2/2.0 60%	2 2 5 6		-	silty SAND, fine grained little clay. Oxidation (orange) staining. Brownish gray, loose to med. stiff, cohesive, damp	PVC riser	
3 – 4 (4.0)	S-2	1.2/2.0 60%	6 6 6 6		-	PEAT MATERIAL. DK. brown, loose, damp		
5 – 6 (6.0)	S-3	1.4/2.0 70%	2 3 3 3		-	SAND, fine grained, trace silt. Brown, loose, damp/moist		
7 – 8 (8.0)	S-4	.8/2.0 40%	3 3 3 4		-	. . . . .		
9 – 10 (10.0)	S-5	1.4/2.0 70%	2 4 5 7		-	SAND, fine grained, trace silt, trace clay, Brownish gray/buff, med. dense, cohesive, wet	wall screen	
	A-N	-	-		-	↓Match to Sheet 2		

DRILLING CO.: Parratt-Wolff BAKER REP.: J.E. Zimmerman
DRILLER: L. Darrow BORING NO.: IR78-N-TW04 SHEET 1 OF 2

Baker Environmental, Inc.

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Site 78 Hadnot Point Industrial Area (Northern Plume)
CTO NO.: 0177 BORING NO.: IR78-N-TW04

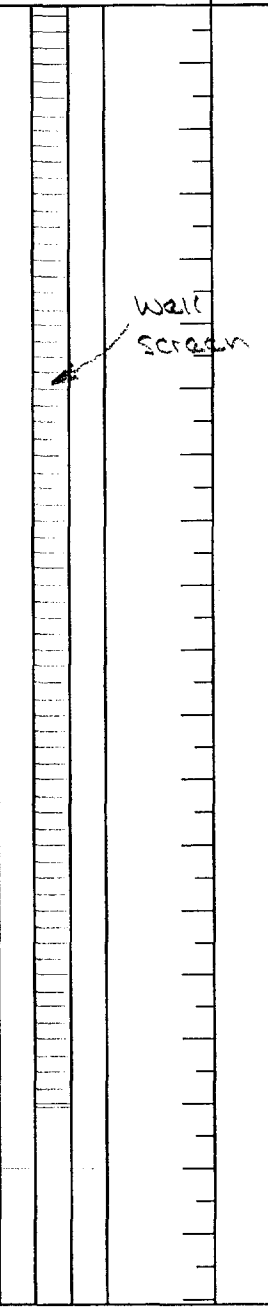
SAMPLE TYPE

S = Split Spoon
T = Shelby Tube
R = Air Rotary
D = Denison
A = Auger
W = Wash
C = Core
P = Piston
N = No Sample

DEFINITIONS

SPT = Standard Penetration Test (ASTM D-1586)(Blows/0.5')
RQD = Rock Quality Designation (%)
Lab. Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
Lab. Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (ft.)	Samp. Type and No.	Samp. Rec. (ft. & %)	SPT or RQD	Lab Class. or Pen. Rate	PID (ppm)	Visual Description	Well Installation Detail	Elevation (ft. MSL)
11						Continued from Sheet 1		
12								
13								
14								
15								
16								
17								
18	A-N	–	–		–	Auger to 28.0' (bgs)		
19								
20								
21								
22								
23								
24								
25								
26								
27								
28						End of Boring		
29						TD= 28.0' (bgs)		
30								



DRILLING CO.: Parratt-Wolff BAKER REP.: J.E. Zimmerman
DRILLER: L. Darrow BORING NO.: IR78-N-TW04 SHEET 2 OF 2

Baker Environmental, Inc.

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Site 78 Hadnot Point Industrial Area (Northern Plume)
CTO NO.: 0177 BORING NO.: IR78-N-TW05
COORDINATES: EAST: NORTH:
ELEVATION: SURFACE: TOP OF PVC CASING:

RIG: #29	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT.)	WEATHER	WATER DEPTH (FT.)	TIME
SIZE (DIAM.)	1-3/8"		3¼" ID		7-26-97	0-25.0'	clear, (70's) calm, humid	7.0'	
LENGTH	2.0		5'						
TYPE	Std.		HSA						
HAMMER WT.	140 lbs.								
FALL	30"								
STICK UP									

REMARKS: Continuously sampled to 8.0' (bgs). Borehole drilled out to 25.0' (bgs).

SAMPLE TYPE

S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

Well Information	Diam.	Type	Top Depth (ft.)	Bottom Depth (ft.)
Riser	1.0"	Schedule 40 PVC	+2.5'	-5.0'
Screen	1.0"	Schedule 40 PVC	-5.0'	-25.0'

Depth (ft.)	Samp. Type and No.	Samp. Rec. (ft. & %)	SPT or RQD	Lab Class. or Pen. Rate	PID (ppm)	Visual Description	Well Installation Detail	Elevation (ft. MSL)
1	S-1	1.4/2.0 70%	2 4 8 19		-	Silty SAND, fine grained, trace clay. Oxidation (orange yellowish) stain. Brown/dk. gray, damp	PVC riser	
2								
2.0								
3	S-2	1.4/2.0 70%	6 8 10 55		-	Silty SAND, fine grained, trace wood (very bottom) Gray/dk. gray, med. dense, damp		
4								
4.0								
5	S-3	.7/2.0 35%	7 6 3 4		-	SAND, fine grained, some silt, wood. Gray/dk. gray/brown, med. dense, damp/moist		
6								
6.0								
7	S-4	.8/2.0 40%	3 4 3 6		-	SAND, fine grained, trace silt, trace wood Brownish gray, loose, wet.	Well screen	
8								
8.0								
9	A-N	-	-		-	Auger to 25.0' (bgs)		
10								

Match to Sheet 2

DRILLING CO.: Parratt-Wolff BAKER REP.: J.E. Zimmerman
DRILLER: L. Darrow BORING NO.: IR78-N-TW05 SHEET 1 OF 2

Baker Environmental, Inc.

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Site 78 Hadnot Point Industrial Area (Northern Plume)
CTO NO.: 0177 BORING NO.: IR78-N-TW05

SAMPLE TYPE

S = Split Spoon
T = Shelby Tube
R = Air Rotary
D = Denison
A = Auger
W = Wash
C = Core
P = Piston
N = No Sample

DEFINITIONS

SPT = Standard Penetration Test (ASTM D-1586)(Blows/0.5')
RQD = Rock Quality Designation (%)
Lab. Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
Lab. Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (ft.)	Samp. Type and No.	Samp. Rec. (ft. & %)	SPT or RQD	Lab Class. or Pen. Rate	PID (ppm)	Visual Description	Well Installation Detail	Elevation (ft. MSL)
11						Continued from Sheet 1		
12								
13								
14								
15								
16	A-N	-	-		-	Auger to 25.0' (bgs)		
17							Well screen	
18								
19								
20								
21								
22								
23								
24								
25	25.0					End of Boring		
26								
27						TD = 25.0' (bgs)		
28								
29								
30								

DRILLING CO.: Parratt-Wolff BAKER REP.: J. E. Zimmerman
DRILLER: L. Darrow BORING NO.: IR78-N-TW05 SHEET 2 OF 2

TEST BORING AND WELL CONSTRUCTION RECORD

Baker Environmental, Inc.

PROJECT: Site 78 Hadnot Point Industrial Area (Northern Plume)
CTO NO.: 0177 BORING NO.: IR78-N-TW06
COORDINATES: EAST: NORTH:
ELEVATION: SURFACE: TOP OF PVC CASING:

RIG: #29	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT.)	WEATHER	WATER DEPTH (FT.)	TIME
SIZE (DIAM.)	1-3/8"		3¼" ID		7-24-97	0-25.0'	overcast, (8gs) warm, humid	6.0'	
LENGTH	2.0		5'						
TYPE	Std.		HSA						
HAMMER WT.	140 lbs.								
FALL	30"								
STICK UP									

REMARKS: Continuous sampling to 8.0' (bgs). Borehole drilled out to 25.0' (bgs).

SAMPLE TYPE

S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

Well Information	Diam.	Type	Top Depth (ft.)	Bottom Depth (ft.)
Riser	1.0"	Schedule 40 PVC	+2.5'	-4.0'
Screen	1.0"	Schedule 40 PVC	-4.0'	-24.0'

Depth (ft.)	Samp. Type and No.	Samp. Rec. (ft. & %)	SPT or RQD	Lab Class. or Pen. Rate	PID (ppm)	Visual Description	Well Installation Detail	Elevation (ft. MSL)
1	S-1	1.1/2.0 55%	20 20 12 12		–	FILL MATERIAL (coarse gravel, railroad bed material. Gray, dense, dry	PVC riser	
2 2.0						SAND, fine grained, trace silt. Brown/dk. gray, dense dry/damp		
3	S-2	1.5/2.0 75%	8 7 6 7		–	Silty SAND, fine grained. DK. gray/dk. brown/brownish gray, medium dense, damp		
4 4.0								
5	S-3	1.2/2.0 60%	2 2 2 2		–	SAND, fine grained, little silt, little clay. Oxidation (orange/yellow) Brownish gray/gray, loose soft, cohesive, damp/moist		
6 6.0								
7	S-4	1.3/2.0 65%	4 8 10 15		–	SAND, fine grained, trace silt. Gray, medium dense, wet.	Well Screen	
8 8.0								
9								
10	A-N	–	–		–	Auger to 25.0' (bgs)		
						↓ Match to Sheet 2		

DRILLING CO.: Parratt-Wolff BAKER REP.: J. E. Zimmerman
DRILLER: L. Darrow BORING NO.: IR78-N-TW06 SHEET 1 OF 2

Baker Environmental, Inc.

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Site 78 Hadnot Point Industrial Area (Northern Plume)
CTO NO.: 0177 BORING NO.: IR78-N-TW06

SAMPLE TYPE

S = Split Spoon
T = Shelby Tube
R = Air Rotary
D = Denison
A = Auger
W = Wash
C = Core
P = Piston
N = No Sample

DEFINITIONS

SPT = Standard Penetration Test (ASTM D-1586)(Blows/0.5')
RQD = Rock Quality Designation (%)
Lab. Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
Lab. Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (ft.)	Samp. Type and No.	Samp. Rec. (ft. & %)	SPT or RQD	Lab Class. or Pen. Rate	PID (ppm)	Visual Description	Well Installation Detail	Elevation (ft. MSL)
11						Continued from Sheet 1		
12								
13								
14								
15							Well Screen	
16								
17								
18	A-N	-	-		-	Auger to 25.0' (bgs)		
19								
20								
21								
22								
23								
24								
25						End of Boring		
26						TD = 25.0' (bgs)		
27								
28								
29								
30								

DRILLING CO.: Parratt-Wolff BAKER REP.: J.E. Zimmerman
DRILLER: L. Darrow BORING NO.: IR78-N-TW06 SHEET 2 OF 2

Baker Environmental, Inc.

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Site 78 Hadnot Point Industrial Area (Northern Plume)
CTO NO.: 0177 BORING NO.: IR78-N-TW07
COORDINATES: EAST: NORTH:
ELEVATION: SURFACE: TOP OF PVC CASING:

RIG: #29	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT.)	WEATHER	WATER DEPTH (FT.)	TIME
SIZE (DIAM.)	1-3/8"		3¼" ID		7-26-97	0-25.0'	clear, (70's) calm, humid	6.5'	
LENGTH	2.0		5'						
TYPE	Std.		HSA						
HAMMER WT.	140 lbs.								
FALL	30"								
STICK UP									

REMARKS: Continuously sampled to 8.0' (bgs). Borehole drilled out to 25.0' (bgs)

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

Well Information	Diam.	Type	Top Depth (ft.)	Bottom Depth (ft.)
Riser	1.0"	Schedule 40 PVC	+2.5'	-4.5'
Screen	1.0"	Schedule 40 PVC	-4.5'	-24.5'

Depth (ft.)	Samp. Type and No.	Samp. Rec. (ft. & %)	SPT or RQD	Lab Class. or Pen. Rate	PID (ppm)	Visual Description	Well Installation Detail	Elevation (ft. MSL)
1	S-1	1.6/2.0 80%	2 6 8 8		-	Silty SAND, fine grained Oxidation (yellows) Stain is traceable. Brownish gray, med. dense, damp	PVC riser	
2								
2.0								
3	S-2	1.7/2.0 85%	6 6 5 4		-			
4						Silty CLAY, trace sand, fine grained. DK. gray, med. stiff		
4.0								
5	S-3	1.4/2.0 70%	1 1 1 1		-	PEAT MATERIAL, roots. DK. brown, very loose, damp/moist		
6								
6.0								
7	S-4	1.6/2.0 80%	2 2 2 2		-	SAND, fine grained, trace silt. Brownish gray, loose, moist/wet	Well screen	
8								
8.0								
9	A-N	-	-		-	Auger to 25.0' (bgs)		
10						Match to Sheet 2		

DRILLING CO.: Parratt-Wolff BAKER REP.: J.E. Zimmerman
DRILLER: L. Darrow BORING NO.: IR78-N-TW07 SHEET 1 OF 2

Baker Environmental, Inc.

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Site 78 Hadnot Point Industrial Area (Northern Plume)
CTO NO.: 0177 BORING NO.: IR78-N-TW07

SAMPLE TYPE

S = Split Spoon
T = Shelby Tube
R = Air Rotary
D = Denison
N = No Sample
A = Auger
W = Wash
C = Core
P = Piston

DEFINITIONS

SPT = Standard Penetration Test (ASTM D-1586)(Blows/0.5')
RQD = Rock Quality Designation (%)
Lab. Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
Lab. Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (ft.)	Samp. Type and No.	Samp. Rec. (ft. & %)	SPT or RQD	Lab Class. or Pen. Rate	PID (ppm)	Visual Description	Well Installation Detail	Elevation (ft. MSL)
11						Continued from Sheet 1		
12								
13								
14								
15							Well Screen	
16	A-N	-	-		-	Auger to 25.0' (bgs)		
17								
18								
19								
20								
21								
22								
23								
24								
25	25.0					End of Boring		
26								
27						TD= 25.0' (bgs)		
28								
29								
30								

DRILLING CO.: Parratt-Wolff BAKER REP.: J.E. Zimmerman
DRILLER: L. Darrow BORING NO.: IR78-N-TW07 SHEET 2 OF 2

Baker Environmental, Inc.

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Site 78 Hadnot Point Industrial Area (Northern Plume)
CTO NO.: 0177 BORING NO.: IR78-N-TW08
COORDINATES: EAST: NORTH:
ELEVATION: SURFACE: TOP OF PVC CASING:

RIG: #29	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT.)	WEATHER	WATER DEPTH (FT.)	TIME
SIZE (DIAM.)	1-3/8"		3¼" ID		7-25-97	0-25.0'	overcast (70's)	6.5'	
LENGTH	2.0		5'						
TYPE	Std.		HSA						
HAMMER WT.	140 lbs.								
FALL	30"								
STICK UP									

REMARKS: Continuously sampled to 8.0' (bgs). Borehole drilled out to 25.0' (bgs).

SAMPLE TYPE

S = Split Spoon
T = Shelby Tube
R = Air Rotary
D = Denison
N = No Sample
A = Auger
W = Wash
C = Core
P = Piston

Well Information	Diam.	Type	Top Depth (ft.)	Bottom Depth (ft.)
Riser	1.0"	Schedule 40 PVC	+2.5'	-4.5'
Screen	1.0"	Schedule 40 PVC	-4.5'	-24.5'

Depth (ft.)	Samp. Type and No.	Samp. Rec. (ft. & %)	SPT or RQD	Lab Class. or Pen. Rate	PID (ppm)	Visual Description	Well Installation Detail	Elevation (ft. MSL)
1	S-1	1.4/2.0 70%	3 5 5 4		-	Plant Material / Rooted Material		
2						Silty SAND, fine grained, dk. gray / dk. brown, loose, damp / moist?	PVC riser	
2.0								
3	S-2	1.7/2.0 85%	5 4 4 3		-			
4								
4.0								
5	S-3	1.9/2.0 95%	1 2 1 2		-	Silty SAND, fine grained, little clay, DK. gray / brown, loose, moist / wet?		
6								
6.0								
7	S-4	1.6/2.0 80%	3 4 12 15		-	SAND, fine grained, trace silt, Brownish gray, med dense	well Screen	
8								
8.0								
9	A-N	-	-		-	Auger to 25.0' (bgs)		
10						Match to Sheet 2		

DRILLING CO.: Parratt-Wolff BAKER REP.: J.E. Zimmerman
DRILLER: L. Darrow BORING NO.: IR78-N-TW08 SHEET 1 OF 2

Baker Environmental, Inc.

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Site 78 Hadnot Point Industrial Area (Northern Plume)
CTO NO.: 0177 BORING NO.: IR78-N-TW08

SAMPLE TYPE

S = Split Spoon
T = Shelby Tube
R = Air Rotary
D = Denison
A = Auger
W = Wash
C = Core
P = Piston
N = No Sample

DEFINITIONS

SPT = Standard Penetration Test (ASTM D-1586)(Blows/0.5')
RQD = Rock Quality Designation (%)
Lab. Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
Lab. Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (ft.)	Samp. Type and No.	Samp. Rec. (ft. & %)	SPT or RQD	Lab Class. or Pen. Rate	PID (ppm)	Visual Description	Well Installation Detail	Elevation (ft. MSL)
11						Continued from Sheet 1		
12								
13								
14								
15							well screen	
16								
17	A-N	-	-		-	Auger to 25.0' (bgs)		
18								
19								
20								
21								
22								
23								
24								
25	25.0					End of Boring		
26								
27						TD = 25.0' (bgs)		
28								
29								
30								

DRILLING CO.: Parratt-Wolff BAKER REP.: J.E. Zimmerman
DRILLER: L. Darrow BORING NO.: IR78-N-TW08 SHEET 2 OF 2

TEST BORING AND WELL CONSTRUCTION RECORD

Baker Environmental, Inc.

PROJECT: Site 78 Hadnot Point Industrial Area (Northern Plume)
CTO NO.: 0177 BORING NO.: IR78-N-TW09
COORDINATES: EAST: NORTH:
ELEVATION: SURFACE: TOP OF PVC CASING:

RIG: #29	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT.)	WEATHER	WATER DEPTH (FT.)	TIME
SIZE (DIAM.)	1-3/8"		3¼" ID		7-25-97	0-25.0'	overcast (80's) humid	6.0'	
LENGTH	2.0		5'						
TYPE	Std.		HSA						
HAMMER WT.	140 lbs.								
FALL	30"								
STICK UP									

REMARKS: Continuously sampled to 8.0' (bgs). Borehole drilled out to 25.0' (bgs)

SAMPLE TYPE

S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

Well Information	Diam.	Type	Top Depth (ft.)	Bottom Depth (ft.)
Riser	1.0"	Schedule 40 PVC	+2.5'	-4.0'
Screen	1.0"	Schedule 40 PVC	-4.0'	-24.0'

Depth (ft.)	Samp. Type and No.	Samp. Rec. (ft. & %)	SPT or RQD	Lab Class. or Pen. Rate	PID (ppm)	Visual Description	Well Installation Detail	Elevation (ft. MSL)
1	S-1	1.4/2.0 70%	5 6		–	Asphalt / Subbase	PVC riser	
2						FILL MATERIAL (coarse gravel, shell material). Brown / buff, loose, damp		
2.0								
3	S-2	1.0/2.0 50%	8 10 8 6		–	Silty SAND, fine grained, trace to little clay. Oxidation traceable, dk. Brown / dk. gray, mod. dense		
4								
4.0								
5	S-3	1.2/2.0 60%	1 1 2 2		–	Silty SAND / silty CLAY fine grained. DK. brownish gray, loose/soft, cohesive, moist		
6								
6.0								
7	S-4	1.2/2.0 60%	1 2 4 5		–	SAND, fine grained, trace silt, little clay. Brownish gray / greenish gray, loose, cohesive, wet.	Well screen	
8								
8.0								
9								
10	A-N	–	–		–	Auger to 25.0' (bgs)		
						Match to Sheet 2		

DRILLING CO.: Parratt-Wolff BAKER REP.: J.E. Zimmerman
DRILLER: L. Darrow BORING NO.: IR78-N-TW09 SHEET 1 OF 2

Baker Environmental, Inc.

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Site 78 Hadnot Point Industrial Area (Northern Plume)
CTO NO.: 0177 BORING NO.: IR78-N-TW09

SAMPLE TYPE

S = Split Spoon
T = Shelby Tube
R = Air Rotary
D = Denison
A = Auger
W = Wash
C = Core
P = Piston
N = No Sample

DEFINITIONS

SPT = Standard Penetration Test (ASTM D-1586)(Blows/0.5')
RQD = Rock Quality Designation (%)
Lab. Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
Lab. Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (ft.)	Samp. Type and No.	Samp. Rec. (ft. & %)	SPT or RQD	Lab Class. or Pen. Rate	PID (ppm)	Visual Description	Well Installation Detail	Elevation (ft. MSL)
11						Continued from Sheet 1		
12								
13							Wall Screen	
14								
15								
16	A-N	-	-		-	Auger to 25.0' (bgs)		
17								
18								
19								
20								
21								
22								
23								
24								
25	25.0					End of Boring		
26								
27						TD= 25.0' (bgs)		
28								
29								
30								

DRILLING CO.: Parratt-Wolff BAKER REP.: J.E. Zimmerman
DRILLER: L. Darrow BORING NO.: IR78-N-TW09 SHEET 2 OF 2

Baker Environmental, Inc.

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Site 78 Hadnot Point Industrial Area (Northern Plume)
CTO NO.: 0177 BORING NO.: IR78-N-TW10
COORDINATES: EAST: NORTH:
ELEVATION: SURFACE: TOP OF PVC CASING:

RIG: #29	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT.)	WEATHER	WATER DEPTH (FT.)	TIME
SIZE (DIAM.)	1-3/8"		3¼" ID		7-25-97	0-24.0'	overcast (80's) humid	5.0'	
LENGTH	2.0		5'						
TYPE	Std.		HSA						
HAMMER WT.	140 lbs.								
FALL	30"								
STICK UP									

REMARKS: Continuously Sampled to 8.0' (bgs). Borehole drilled out to 24.0' (bgs)

SAMPLE TYPE

S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

Well Information	Diam.	Type	Top Depth (ft.)	Bottom Depth (ft.)
Riser	1.0"	Schedule 40 PVC	+2.5'	-3.0'
Screen	1.0"	Schedule 40 PVC	-3.0'	-23.0'

Depth (ft.)	Samp. Type and No.	Samp. Rec. (ft. & %)	SPT or RQD	Lab Class. or Pen. Rate	PID (ppm)	Visual Description	Well Installation Detail	Elevation (ft. MSL)
1	S-1	1.3/2.0 65%	3 6 3 6		-	Silty SAND, fine grained, damp		
2	2.0					Silty CLAY, trace sand, fine grained. Oxidation (orange) stain. Dk. gray/ brownish gray, loose/ medium stiff, cohesive, damp	PVC riser	
3	S-2	1.5/2.0 75%	5 5 6 6		-			
4	4.0							
5	S-3	1.7/2.0 85%	2 4 7 14		-	Silty SAND, fine grained, little clay, cohesive, moist		
6	6.0					SAND, fine grained, trace silt. Oxidation (orange yellowish) stain (top ½). Brownish gray, med. dense, wet.		
7	S-4	1.5/2.0 75%	9 14 14 17		-			
8	8.0							
9	A-N	-	-		-	Auger to 24.0' (bgs)	Well screen	
10						Match to Sheet 2		

DRILLING CO.: Parratt-Wolff BAKER REP.: J.E. Zimmerman
DRILLER: L. Darrow BORING NO.: IR78-N-TW10 SHEET 1 OF 2

Baker Environmental, Inc.

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Site 78 Hadnot Point Industrial Area (Northern Plume)
CTO NO.: 0177 BORING NO.: IR78-N-TW10

SAMPLE TYPE

S = Split Spoon
T = Shelby Tube
R = Air Rotary
D = Denison
A = Auger
W = Wash
C = Core
P = Piston
N = No Sample

DEFINITIONS

SPT = Standard Penetration Test (ASTM D-1586)(Blows/0.5')
RQD = Rock Quality Designation (%)
Lab. Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
Lab. Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (ft.)	Samp. Type and No.	Samp. Rec. (ft. & %)	SPT or RQD	Lab Class. or Pen. Rate	PID (ppm)	Visual Description	Well Installation Detail	Elevation (ft. MSL)
11						Continued from Sheet 1		
12								
13								
14							well screen	
15								
16								
17	A-N	-	-		-	Auger to 24.0' (bgs)		
18								
19								
20								
21								
22								
23								
24	24.0					End of Boring		
25								
26						TD = 24.0' (bgs)		
27								
28								
29								
30								

DRILLING CO.: Parratt-Wolff BAKER REP.: J.E. Zimmerman
DRILLER: L. Darrow BORING NO.: IR78-N-TW10 SHEET 2 OF 2

Baker Environmental, Inc.

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Site 78 Hadnot Point Industrial Area (Northern Plume)
CTO NO.: 0177 BORING NO.: IR78-N-TW11
COORDINATES: EAST: NORTH:
ELEVATION: SURFACE: TOP OF PVC CASING:

RIG: #29	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT.)	WEATHER	WATER DEPTH (FT.)	TIME
SIZE (DIAM.)	1-3/8"		3¼" ID		7-25-97	0-30.0	Overcast, (80°F) humid	11.0'	
LENGTH	2.0		5'						
TYPE	Std.		HSA						
HAMMER WT.	140 lbs.								
FALL	30"								
STICK UP									

REMARKS: Continuously sampled to 12.0' (bgs). Borehole drilled out to 30.0' (bgs).

SAMPLE TYPE

S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

Well Information	Diam.	Type	Top Depth (ft.)	Bottom Depth (ft.)
Riser	1.0"	Schedule 40 PVC	+2.5'	-9.0
Screen	1.0"	Schedule 40 PVC	-9.0	-29.0

Depth (ft.)	Samp. Type and No.	Samp. Rec. (ft. & %)	SPT or RQD	Lab Class. or Pen. Rate	PID (ppm)	Visual Description	Well Installation Detail	Elevation (ft. MSL)
1	S-1	1.6/2.0 80%	4 4 9 15		-	Plant Material / Rooted Material. Silty SAND, fine grained. Brown, medium dense, damp		
2 2.0								
3	S-2	1.4/2.0 70%	15 15 10 10		-	Silty SAND. fine grained, trace to little clay. Oxidation (orange) stain (top ½) Brownish gray / brown, loose / medium stiff, cohesive, damp	PVC riser	
4 4.0								
5	S-3	1.5/2.0 75%	3 4 5 8		-			
6 6.0								
7	S-4	1.4/2.0 70%	5 8 8 7		-	SAND, fine grained trace silt. Gray, medium dense, moist		
8 8.0								
9	S-5	1.4/2.0 70%	3 5 6 6		-	SAND, fine grained little to some, trace to little	Well screen	
10 10.0						Match to Sheet 2		
					-			

DRILLING CO.: Parratt-Wolff BAKER REP.: J.E. Zimmerman
DRILLER: L. Darrow BORING NO.: IR78-N-TW11 SHEET 1 OF 2

Baker Environmental, Inc.

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Site 78 Hadnot Point Industrial Area (Northern Plume)
CTO NO.: 0177 BORING NO.: IR78-N-TW11

SAMPLE TYPE

S = Split Spoon
T = Shelby Tube
R = Air Rotary
D = Denison
A = Auger
W = Wash
C = Core
P = Piston
N = No Sample

DEFINITIONS

SPT = Standard Penetration Test (ASTM D-1586)(Blows/0.5')
RQD = Rock Quality Designation (%)
Lab. Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
Lab. Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (ft.)	Samp. Type and No.	Samp. Rec. (ft. & %)	SPT or RQD	Lab Class. or Pen. Rate	PID (ppm)	Visual Description	Well Installation Detail	Elevation (ft. MSL)
11	S-6	1.3/2.0 65%	3 5 5		-	Continued from Sheet 1 clay. Oxidation (orange) staining. Gray, medium dense/medium stiff, slightly cohesive, moist to wet.	well screen	
12								
12.0								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22	A-N	-	-		-	Auger to 30.0' (bgs)		
23								
24								
25								
26								
27								
28								
29								
30						TD=30.0(bgs)		
30.0						End of Boring		

DRILLING CO.: Parratt-Wolff BAKER REP.: J.E. Zimmerman
DRILLER: L. Darrow BORING NO.: IR78-N-TW11 SHEET 2 OF 2

Baker Environmental, Inc.

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Site 78 Hadnot Point Industrial Area (Southern Plume)
CTO NO.: 0177 BORING NO.: IR78-S-TW01
COORDINATES: EAST: NORTH:
ELEVATION: SURFACE: TOP OF PVC CASING:

RIG: #29	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT.)	WEATHER	WATER DEPTH (FT.)	TIME
SIZE (DIAM.)	1-3/8"		3¼" ID		7-23-97	0 - 23.5'	Cloudy, (70's) windy, humid	5.0'	
LENGTH	2.0		5'						
TYPE	Std.		HSA						
HAMMER WT.	140 lbs.								
FALL	30"								
STICK UP									

REMARKS: Continuously sampled to 8.0' (bgs). Borehole drilled out to 23.5' (bgs).

SAMPLE TYPE

S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

Well Information	Diam.	Type	Top Depth (ft.)	Bottom Depth (ft.)
Riser	1.0"	Schedule 40 PVC	+2.5'	-3.0'
Screen	1.0"	Schedule 40 PVC	-3.0'	-23.0'

Depth (ft.)	Samp. Type and No.	Samp. Rec. (ft. & %)	SPT or RQD	Lab Class. or Pen. Rate	PID (ppm)	Visual Description	Well Installation Detail	Elevation (ft. MSL)
1	S-1	1.5/2.0 75%	20 15 10 15		-	Silty SAND, fine grained some FILL MATERIAL + LIMESTONE (gravel and subbase material) Brown (dk. gray/light greenish gray, medium dense, dry to moist	PVC riser	
2								
3	S-2	1.6/2.0 80%	12 16 16 16		-			
4	4.0							
5	S-3	1.9/2.0 95%	5 8 10 8		-	Silty SAND, fine grained. Dk. brown, moist		
6	6.0					SAND, fine grained, trace silt. Dk. brown + brownish gray, wet		
7	S-4	1.7/2.0 85%	4 2 1 1		-	SAND, fine grained some silt, little clay. Brown/greenish gray, loose to soft cohesive, wet.	well screen	
8	8.0					Auger to 23.5' (bgs)		
9	A-N	-	-		-	↓ Match to Sheet 2		
10								

DRILLING CO.: Parratt-Wolff BAKER REP.: J. E. Zimmerman
DRILLER: L. Darrow BORING NO.: IR78-S-TW01 SHEET 1 OF 2

Baker Environmental, Inc.

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Site 78 Hadnot Point Industrial Area (Southern Plume)
CTO NO.: 0177 BORING NO.: IR78-S-TW01

SAMPLE TYPE

S = Split Spoon
T = Shelby Tube
R = Air Rotary
D = Denison
A = Auger
W = Wash
C = Core
P = Piston
N = No Sample

DEFINITIONS

SPT = Standard Penetration Test (ASTM D-1586)(Blows/0.5')
RQD = Rock Quality Designation (%)
Lab. Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
Lab. Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (ft.)	Samp. Type and No.	Samp. Rec. (ft. & %)	SPT or RQD	Lab Class. or Pen. Rate	PID (ppm)	Visual Description	Well Installation Detail	Elevation (ft. MSL)
11						Continued from Sheet 1		
12								
13								
14								
15								
16	A-N	-	-		-	Auger to 23.5' (bgs)	Well Screen	
17								
18								
19								
20								
21								
22								
23								
23.5								
24						End of Boring		
25						TD = 23.5' (bgs)		
26								
27								
28								
29								
30								

DRILLING CO.: Parratt-Wolff BAKER REP.: J.E. Zimmerman
DRILLER: L. Darrow BORING NO.: IR78-S-TW01 SHEET 2 OF 2

Baker Environmental, Inc.

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Site 78 Hadnot Point Industrial Area (Southern Plume)
CTO NO.: 0177 BORING NO.: IR78-S-TW02
COORDINATES: EAST: NORTH:
ELEVATION: SURFACE: TOP OF PVC CASING:

RIG: #29	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT.)	WEATHER	WATER DEPTH (FT.)	TIME
SIZE (DIAM.)	1-3/8"		3¼" ID		7-23-97	0-23.5	cloudy (70's) humid, windy	5.0'	
LENGTH	2.0		5'						
TYPE	Std.		HSA						
HAMMER WT.	140 lbs.								
FALL	30"								
STICK UP									

REMARKS: Continuously sampled to 8.0' (bgs). Borehole drilled out to 23.5' (bgs)

SAMPLE TYPE

S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

Well Information	Diam.	Type	Top Depth (ft.)	Bottom Depth (ft.)
Riser	1.0"	Schedule 40 PVC	+2.5'	-3.0'
Screen	1.0"	Schedule 40 PVC	-3.0'	-23.0'

Depth (ft.)	Samp. Type and No.	Samp. Rec. (ft. & %)	SPT or RQD	Lab Class. or Pen. Rate	PID (ppm)	Visual Description	Well Installation Detail	Elevation (ft. MSL)
1	S-1	1.5/2.0 75%	20 20 18 10		-	Silty SAND, fine grained some FILL MATERIAL (gravel/subbase). Brown/dk. gray, dense, dry/damp	PVC riser	
2								
2.0								
3	S-2	1.5/2.0 75%	6 6 6 10		-	Silty SAND, fine grained trace clay. Oxidation is traceable. Brownish gray, medium dense, slightly cohesive, damp		
4								
4.0								
5	S-3	1.4/2.0 70%	7 7 8 4		-	SAND, fine grained, trace silt. Brownish gray, medium dense, moist/wet.		
6								
6.0								
7	S-4	.8/2.0 40%	2 2 2 2		-	Silty CLAY, trace sand, fine grained. Greenish gray, soft, cohesive, wet	Well screen	
8								
8.0								
9	A-N	-	-		-	Auger to 23.5' (bgs)		
10						Match to Sheet 2		

DRILLING CO.: Parratt-Wolff BAKER REP.: J.E. Zimmerman
DRILLER: L. Darrow BORING NO.: IR78-S-TW02 SHEET 1 OF 2

TEST BORING AND WELL CONSTRUCTION RECORD

Baker Environmental, Inc.

PROJECT: Site 78 Hadnot Point Industrial Area (Southern Plume)
CTO NO.: 0177 BORING NO.: IR78-S-TW02

SAMPLE TYPE

S = Split Spoon
T = Shelby Tube
R = Air Rotary
D = Denison
A = Auger
W = Wash
C = Core
P = Piston
N = No Sample

DEFINITIONS

SPT = Standard Penetration Test (ASTM D-1586)(Blows/0.5')
RQD = Rock Quality Designation (%)
Lab. Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
Lab. Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (ft.)	Samp. Type and No.	Samp. Rec. (ft. & %)	SPT or RQD	Lab Class. or Pen. Rate	PID (ppm)	Visual Description	Well Installation Detail	Elevation (ft. MSL)
11						Continued from Sheet 1		
12								
13								
14								
15	A-N	-	-		-	Auger to 23.5' (bgs)		
16							well screen	
17								
18								
19								
20								
21								
22								
23								
23.5						End of Boring		
24								
25						TD = 23.5' (bgs)		
26								
27								
28								
29								
30								

DRILLING CO.: Parratt-Wolff BAKER REP.: J. E. Zimmerman
DRILLER: L. Darrow BORING NO.: IR78-S-TW02 SHEET 2 OF 2

Baker Environmental, Inc.

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Site 78 Hadnot Point Industrial Area (Southern Plume)
CTO NO.: 0177 BORING NO.: IR78-S-TW03
COORDINATES: EAST: NORTH:
ELEVATION: SURFACE: TOP OF PVC CASING:

RIG: #29	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT.)	WEATHER	WATER DEPTH (FT.)	TIME
SIZE (DIAM.)	1-3/8"		3¼" ID		7-24-97	0-25.0'	Cloudy, (80's) warm/humid	6.5'	
LENGTH	2.0		5'						
TYPE	Std.		HSA						
HAMMER WT.	140 lbs.								
FALL	30"								
STICK UP									

REMARKS: Continuously sampled to 8.0' (bgs). Borehole drilled out to 25.0' (bgs)

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

Well Information	Diam.	Type	Top Depth (ft.)	Bottom Depth (ft.)
Riser	1.0"	Schedule 40 PVC	+2.5'	-4.5'
Screen	1.0"	Schedule 40 PVC	-4.5'	-24.5'

Depth (ft.)	Samp. Type and No.	Samp. Rec. (ft. & %)	SPT or RQD	Lab Class. or Pen. Rate	PID (ppm)	Visual Description	Well Installation Detail	Elevation (ft. MSL)
1	S-1	1.7/2.0 85%	15 20 15 10		-	Topsoil/Plant Material/Roots		
2						Silty SAND, fine grained. Oxidation (orange yellow) staining	PVC riser	
3	S-2	1.8/2.0 90%	4 3 3 2		-	Grayish brown/dk. brown, loose/dense, damp/moist		
4	4.0							
5	S-3	.5/2.0 25%	1 1 1 2		-	SAND, fine grained, little silt, little clay. Gray/light greenish gray, loose/soft, cohesive, moist/wet.		
6	6.0							
7	S-4	1.0/2.0 50%	1 1 1 1		-		Well Screen	
8	8.0							
9						Auger to 25.0' (bgs)		
10	A-N	-	-		-	↓Match to Sheet 2		

DRILLING CO.: Parratt-Wolff BAKER REP.: J.E. Zimmerman
DRILLER: L. Darrow BORING NO.: IR78-S-TW03 SHEET 1 OF 2

Baker Environmental, Inc.

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Site 78 Hadnot Point Industrial Area (Southern Plume)
CTO NO.: 0177 BORING NO.: IR78-S-TW03

SAMPLE TYPE

S = Split Spoon
T = Shelby Tube
R = Air Rotary
D = Denison
A = Auger
W = Wash
C = Core
P = Piston
N = No Sample

DEFINITIONS

SPT = Standard Penetration Test (ASTM D-1586)(Blows/0.5')
RQD = Rock Quality Designation (%)
Lab. Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
Lab. Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (ft.)	Samp. Type and No.	Samp. Rec. (ft. & %)	SPT or RQD	Lab Class. or Pen. Rate	PID (ppm)	Visual Description	Well Installation Detail	Elevation (ft. MSL)
11						Continued from Sheet 1		
12								
13								
14							Well Screen	
15								
16	A-N	-	-		-	Auger to 25.0' (bgs)		
17								
18								
19								
20								
21								
22								
23								
24								
25	25.0					End of Boring		
26						TD = 25.0' (bgs)		
27								
28								
29								
30								

DRILLING CO.: Parratt-Wolff BAKER REP.: J.E. Zimmerman
DRILLER: L. Darrow BORING NO.: IR78-S-TW03 SHEET 2 OF 2

Baker Environmental, Inc.

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Site 78 Hadnot Point Industrial Area (Southern Plume)
CTO NO.: 0177 BORING NO.: IR78-S-TW04
COORDINATES: EAST: NORTH:
ELEVATION: SURFACE: TOP OF PVC CASING:

RIG: #29	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT.)	WEATHER	WATER DEPTH (FT.)	TIME
SIZE (DIAM.)	1-3/8"		3¼" ID		7-24-97	0 - 25.0'	Cloudy (80's) warm/humid	6.5'	
LENGTH	2.0		5'						
TYPE	Std.		HSA						
HAMMER WT.	140 lbs.								
FALL	30"								
STICK UP									

REMARKS: Continuously sampled to 8.0' (bgs). Borehole drilled out to 25.0' (bgs)

SAMPLE TYPE

S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

Well Information	Diam.	Type	Top Depth (ft.)	Bottom Depth (ft.)
Riser	1.0"	Schedule 40 PVC	+2.5'	-4.5'
Screen	1.0"	Schedule 40 PVC	-4.5'	-24.5'

Depth (ft.)	Samp. Type and No.	Samp. Rec. (ft. & %)	SPT or RQD	Lab Class. or Pen. Rate	PID (ppm)	Visual Description	Well Installation Detail	Elevation (ft. MSL)
1	S-1	1.7/2.0 85%	4 6 5 4		-	Topsoil/Plant Material/Roots		
2						Silty SAND, fine grained. Oxidation (oranga yellow) stain. Grayish brown/dk. brown, loose/med. dense, damp/moist	PVC riser	
3	S-2	1.3/2.0 65%	3 3 3 3		-			
4	4.0							
5	S-3	1.0/2.0 50%	2 2 1 1		-	SAND, fine grained, little silt, little clay. Gray, loose/soft, cohesive, moist/wet		
6	6.0							
7	S-4	1.5/2.0 75%	1 2 1 2		-		Well screen	
8	8.0							
9	A-N	-	-		-	Auger to 25.0' (bgs)		
10						↓ Match to Sheet 2		

DRILLING CO.: Parratt-Wolff BAKER REP.: J.E. Zimmerman
DRILLER: L. Darrow BORING NO.: IR78-S-TW04 SHEET 1 OF 2

Baker Environmental, Inc.

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Site 78 Hadnot Point Industrial Area (Southern Plume)
CTO NO.: 0177 BORING NO.: IR78-S-TW04

SAMPLE TYPE

S = Split Spoon
T = Shelby Tube
R = Air Rotary
D = Denison
A = Auger
W = Wash
C = Core
P = Piston
N = No Sample

DEFINITIONS

SPT = Standard Penetration Test (ASTM D-1586)(Blows/0.5')
RQD = Rock Quality Designation (%)
Lab. Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
Lab. Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (ft.)	Samp. Type and No.	Samp. Rec. (ft. & %)	SPT or RQD	Lab Class. or Pen. Rate	PID (ppm)	Visual Description	Well Installation Detail	Elevation (ft. MSL)
11						Continued from Sheet 1		
12								
13								
14								
15								
16	A-N	-	-		-	Auger to 25.0' (bgs)		
17								
18							Well Screen	
19								
20								
21								
22								
23								
24								
25	25.0					End of Boring		
26								
27						TD= 25.0' (bgs)		
28								
29								
30								

DRILLING CO.: Parratt-Wolff BAKER REP.: J.E. Zimmerman
DRILLER: L. Darrow BORING NO.: IR78-S-TW04 SHEET 2 OF 2

Baker Environmental, Inc.

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Site 78 Hadnot Point Industrial Area (Southern Plume)
CTO NO.: 0177 BORING NO.: IR78-S-TW05
COORDINATES: EAST: NORTH:
ELEVATION: SURFACE: TOP OF PVC CASING:

RIG: #29	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT.)	WEATHER	WATER DEPTH (FT.)	TIME
SIZE (DIAM.)	1-3/8"		3¼" ID		7-24-97	0-25.0'	Cloudy (70's) warm/humid	6.5'	
LENGTH	2.0		5'						
TYPE	Std.		HSA						
HAMMER WT.	140 lbs.								
FALL	30"								
STICK UP									

REMARKS: Continuously sampled to 8.0' (bgs), Borehole drilled out to 25.0' (bgs)

SAMPLE TYPE

S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

Well Information	Diam.	Type	Top Depth (ft.)	Bottom Depth (ft.)
Riser	1.0"	Schedule 40 PVC	+2.5'	-4.5'
Screen	1.0"	Schedule 40 PVC	-4.5'	-24.5'

Depth (ft.)	Samp. Type and No.	Samp. Rec. (ft. & %)	SPT or RQD	Lab Class. or Pen. Rate	PID (ppm)	Visual Description	Well Installation Detail	Elevation (ft. MSL)
0						Asphalt / Subbase		
1	S-1	.9/2.0	5		-	Silty SAND, fine grained, Dk. brown / brown, loose, damp		
2 (2.0)		45%	4 3				PVC riser	
3	S-2	1.3/2.0	3 3		-	SAND, fine grained, trace to little silt, Brown / grayish brown, loose, damp		
4 (4.0)		65%	3 4					
5	S-3	1.4/2.0	4 6		-	Silty SAND, fine grained, little clay. Grayish brown / brown, med. dense, cohesive, damp		
6 (6.0)		70%	6 7					
7	S-4	1.4/2.0	7 10		-	SAND, fine grained, trace to little silt, Light brown / buff, med. dense, moist / wet	Well Screen	
8 (8.0)		70%	8 6					
9								
10	N-N	-	-		-	Auger to 25.0' (bgs)		
						↓ Match to Sheet 2		

DRILLING CO.: Parratt-Wolff BAKER REP.: J.E. Zimmerman
DRILLER: L. Darrow BORING NO.: IR78-S-TW05 SHEET 1 OF 2

Baker Environmental, Inc.

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Site 78 Hadnot Point Industrial Area (Southern Plume)
CTO NO.: 0177 BORING NO.: IR78-S-TW05

SAMPLE TYPE

S = Split Spoon **A** = Auger
T = Shelby Tube **W** = Wash
R = Air Rotary **C** = Core
D = Denison **P** = Piston
N = No Sample

DEFINITIONS

SPT = Standard Penetration Test (ASTM D-1586)(Blows/0.5')
RQD = Rock Quality Designation (%)
Lab. Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
Lab. Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (ft.)	Samp. Type and No.	Samp. Rec. (ft. & %)	SPT or RQD	Lab Class. or Pen. Rate	PID (ppm)	Visual Description	Well Installation Detail	Elevation (ft. MSL)
11						Continued from Sheet 1		
12								
13								
14								
15								
16	A-N	-	-		-	Auger to 25.0' (bgs)		
17							well screen	
18								
19								
20								
21								
22								
23								
24								
25	25.0							
26						End of Boring		
27						TD = 25.0' (bgs)		
28								
29								
30								

DRILLING CO.: Parratt-Wolff BAKER REP.: J. E. Zimmerman
DRILLER: L. Darrow BORING NO.: IR78-S-TW05 SHEET 2 OF 2

Baker Environmental, Inc.

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Site 78 Hadnot Point Industrial Area (Southern Plume)
CTO NO.: 0177 BORING NO.: IR78-S-TW06
COORDINATES: EAST: NORTH:
ELEVATION: SURFACE: TOP OF PVC CASING:

RIG: #29	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT.)	WEATHER	WATER DEPTH (FT.)	TIME
SIZE (DIAM.)	1-3/8"		3¼" ID		7-22-97	0-23.5'	clear, (90's), hot, humid	5.0'	
LENGTH	2.0		5'						
TYPE	Std.		HSA						
HAMMER WT.	140 lbs.								
FALL	30"								
STICK UP									

REMARKS: Continuously sampled to 8.0' (bgs). Borehole drilled out to 23.5' (bgs)

SAMPLE TYPE
S = Split Spoon, A = Auger
T = Shelby Tube, W = Wash
R = Air Rotary, C = Core
D = Denison, P = Piston
N = No Sample

Well Information	Diam.	Type	Top Depth (ft.)	Bottom Depth (ft.)
Riser	1.0"	Schedule 40 PVC	+2.5'	-3.0'
Screen	1.0"	Schedule 40 PVC	-3.0'	-23.0'

Depth (ft.)	Samp. Type and No.	Samp. Rec. (ft. & %)	SPT or RQD	Lab Class. or Pen. Rate	PID (ppm)	Visual Description	Well Installation Detail	Elevation (ft. MSL)
1	S-1	1.2/2.0 60%	5 8 9 6		-	Silty SAND, fine grained, Dk. gray/brown, medium dense, dry/damp	PVC riser	
2								
3	S-2	1.5/2.0 75%	5 3 3 2		-	Silty SAND, fine grained, trace clay. Oxidation (orange/brown). Brown/dk. brown/gray, loose to very loose, slightly cohesive, mottled, damp to wet (bottom)		
4								
5	S-3	1.4/2.0 70%	2 2 1 2		-			
6								
7	S-4	1.6/2.0 80%	1 1 1 1		-	SAND, fine grained, trace silt. Gray, very loose, wet	Well Screen	
8								
9	A-N	-	-		-	Auger to 23.5' (bgs)		
10						↓ Match to Sheet 2		

DRILLING CO.: Parratt-Wolff BAKER REP.: J.E. Zimmerman
DRILLER: L. Darrow BORING NO.: IR78-S-TW06 SHEET 1 OF 2

Baker Environmental, Inc.

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Site 78 Hadnot Point Industrial Area (Southern Plume)
CTO NO.: 0177 BORING NO.: IR78-S-TW06

SAMPLE TYPE

S = Split Spoon
T = Shelby Tube
R = Air Rotary
D = Denison
A = Auger
W = Wash
C = Core
P = Piston
N = No Sample

DEFINITIONS

SPT = Standard Penetration Test (ASTM D-1586)(Blows/0.5')
RQD = Rock Quality Designation (%)
Lab. Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
Lab. Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (ft.)	Samp. Type and No.	Samp. Rec. (ft. & %)	SPT or RQD	Lab Class. or Pen. Rate	PID (ppm)	Visual Description	Well Installation Detail	Elevation (ft. MSL)
11						Continued from Sheet 1		
12								
13								
14								
15								
16	A-N	-	-		-	Auger to 23.5' (bgs)	well screen	
17								
18								
19								
20								
21								
22								
23								
23.5								
24						End of Boring		
25						TD = 23.5' (bgs)		
26								
27								
28								
29								
30								

DRILLING CO.: Parratt-Wolff BAKER REP.: J.E. Zimmerman
DRILLER: L. Darrow BORING NO.: IR78-S-TW06 SHEET 2 OF 2

Baker Environmental, Inc.

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Site 78 Hadnot Point Industrial Area (Southern Plume)
CTO NO.: 0177 BORING NO.: IR78-S-TW07
COORDINATES: EAST: NORTH:
ELEVATION: SURFACE: TOP OF PVC CASING:

RIG: #29	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT.)	WEATHER	WATER DEPTH (FT.)	TIME
SIZE (DIAM.)	1-3/8"		3¼" ID		7-23-97	0-28.0'	overcast, light rain showers	9.0'	
LENGTH	2.0		5'						
TYPE	Std.		HSA						
HAMMER WT.	140 lbs.								
FALL	30"								
STICK UP									

REMARKS: Continuously sampled to 10.0'(bgs). Borehole drilled out to 28.0'(bgs)

SAMPLE TYPE

S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

Well Information	Diam.	Type	Top Depth (ft.)	Bottom Depth (ft.)
Riser	1.0"	Schedule 40 PVC	+2.5'	-7.0'
Screen	1.0"	Schedule 40 PVC	-7.0'	-27.0'

Depth (ft.)	Samp. Type and No.	Samp. Rec. (ft. & %)	SPT or RQD	Lab Class. or Pen. Rate	PID (ppm)	Visual Description	Well Installation Detail	Elevation (ft. MSL)
1	S-1	1.6 / 80%	3 6 6 6		–	Topsoil / Plant Material / Roots		
2	2.0					Silty SAND, fine grained Brown / gray / brownish gray / dk. gray, medium dense, dry / damp		
3	S-2	1.3 / 65%	5 6 6 7		–		PVC riser	
4	4.0							
5	S-3	1.8 / 90%	4 4 4 4		–	Silty SAND, fine grained little clay. Dk. grayish brown, loose / soft, damp / moist.		
6	6.0							
7	S-4	1.6 / 80%	4 2 2 2		–	SAND, fine grained, trace silt. Light gray, medium dense, wet		
8	8.0							
9	S-5	1.5 / 75%	3 6 10 10		–		Well Screen	
10	10.0							
	A-N	–	–		–	↓ Match to Sheet 2		

DRILLING CO.: Parratt-Wolff BAKER REP.: J.E. Zimmerman
DRILLER: L. Darrow BORING NO.: IR78-S-TW07 SHEET 1 OF 2

Baker Environmental, Inc.

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Site 78 Hadnot Point Industrial Area (Southern Plume)
CTO NO.: 0177 BORING NO.: IR78-S-TW07

SAMPLE TYPE

S = Split Spoon
T = Shelby Tube
R = Air Rotary
D = Denison
N = No Sample
A = Auger
W = Wash
C = Core
P = Piston

DEFINITIONS

SPT = Standard Penetration Test (ASTM D-1586)(Blows/0.5')
RQD = Rock Quality Designation (%)
Lab. Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
Lab. Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (ft.)	Samp. Type and No.	Samp. Rec. (ft. & %)	SPT or RQD	Lab Class. or Pen. Rate	PID (ppm)	Visual Description	Well Installation Detail	Elevation (ft. MSL)
11						Continued from Sheet 1		
12								
13								
14								
15								
16								
17	A-N	-	-		-	Auger to 28.0' (bgs)		
18								
19							Well Screen	
20								
21								
22								
23								
24								
25								
26								
27								
28	28.0					End of Boring		
29						TD = 28.0' (bgs)		
30								

DRILLING CO.: Parratt-Wolff BAKER REP.: J. E. Zimmerman
DRILLER: L. Darrow BORING NO.: IR78-S-TW07 SHEET 2 OF 2

Baker Environmental, Inc.

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Site 78 Hadnot Point Industrial Area (Southern Plume)
CTO NO.: 0177 BORING NO.: IR78-S-TW08
COORDINATES: EAST: NORTH:
ELEVATION: SURFACE: TOP OF PVC CASING:

RIG: #29	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT.)	WEATHER	WATER DEPTH (FT.)	TIME
SIZE (DIAM.)	1-3/8"		3 1/4" ID		7-22-97	0 – 30.0'	clear, (90's) hot, humid	10.0'	
LENGTH	2.0		5'						
TYPE	Std.		HSA						
HAMMER WT.	140 lbs.								
FALL	30"								
STICK UP									

REMARKS: Continuously sampled to 12.0' (bgs). Borehole drilled out to 30.0' (bgs)

SAMPLE TYPE

S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

Well Information	Diam.	Type	Top Depth (ft.)	Bottom Depth (ft.)
Riser	1.0"	Schedule 40 PVC	+2.5'	-8.0'
Screen	1.0"	Schedule 40 PVC	-8.0'	-28.0'

Depth (ft.)	Samp. Type and No.	Samp. Rec. (ft. & %)	SPT or RQD	Lab Class. or Pen. Rate	PID (ppm)	Visual Description	Well Installation Detail	Elevation (ft. MSL)
1	S-1	1.5/2.0 75%	8 6 6		–	Asphalt / Subbase		
2						Silty SAND, fine grained w/wood splinters Brown, loose, damp		
3	S-2	1.3/2.0 65%	4 4 3 4		–		PVC riser	
4	4.0							
5	S-3	1.6/2.0 80%	2 3 6 8		–	Silty SAND, fine grained w/ little clay, cohesive		
6	6.0							
7	S-4	1.0/2.0 50%	3 9 12 11		–	SAND, fine grained, trace silt. Oxidation (orange/reddish brown) is occasional to traceable. DK. gray / gray light brown / tannish, loose to medium dense, damp / dry		
8	8.0							
9	S-5	1.2/2.0 60%	7 10 13 11		–		Well Screen	
10	10.0							
					–	Match to Sheet 2		

DRILLING CO.: Parratt-Wolff BAKER REP.: J.E. Zimmerman
DRILLER: L. Darrow BORING NO.: IR78-S-TW08 SHEET 1 OF 2

Baker Environmental, Inc.

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Site 78 Hadnot Point Industrial Area (Southern Plume)
CTO NO.: 0177 BORING NO.: IR78-S-TW08

SAMPLE TYPE
S = Split Spoon, A = Auger, T = Shelby Tube, W = Wash, R = Air Rotary, C = Core, D = Denison, P = Piston, N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586)(Blows/0.5')
RQD = Rock Quality Designation (%)
Lab. Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
Lab. Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (ft.)	Samp. Type and No.	Samp. Rec. (ft. & %)	SPT or RQD	Lab Class. or Pen. Rate	PID (ppm)	Visual Description	Well Installation Detail	Elevation (ft. MSL)
11	S-6	1.3/2.0 65%	5 5 6 6		–	Continued from Sheet 1 Silty SAND, fine grained little clay. Oxidation (orange) staining is occasional. Brownish gray, medium dense, slightly cohesive, mottled, moist to wat		
12								
12.0								
13								
14								
15								
16								
17								
18							Well Screen	
19								
20								
21								
22	A-N	–	–		–	Auger to 30.0' (bgs)		
23								
24								
25								
26								
27								
28								
29						TD= 30' (bgs)		
30						End of Boring		
30.0								

DRILLING CO.: Parratt-Wolff BAKER REP.: J.E. Zimmerman
DRILLER: L. Darrow BORING NO.: IR78-S-TW08 SHEET 2 OF 2

TEST BORING AND WELL CONSTRUCTION RECORD

Baker Environmental, Inc.

PROJECT: Site 78 Hadnot Point Industrial Area (Southern Plume)
CTO NO.: 0177 BORING NO.: IR78-S-TW09
COORDINATES: EAST: NORTH:
ELEVATION: SURFACE: TOP OF PVC CASING:

RIG: #29	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT.)	WEATHER	WATER DEPTH (FT.)	TIME
SIZE (DIAM.)	1-3/8"		3 1/4" ID		7-23-97	0-25.5'	cloudy, (70's) humid, windy	7.5'	
LENGTH	2.0		5'						
TYPE	Std.		HSA						
HAMMER WT.	140 lbs.								
FALL	30"								
STICK UP									

REMARKS: Continuously sampled to 8.0' (bgs). Borehole drilled out to 25.5' (bgs).

SAMPLE TYPE

S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

Well Information	Diam.	Type	Top Depth (ft.)	Bottom Depth (ft.)
Riser	1.0"	Schedule 40 PVC	+2.5'	-5.5'
Screen	1.0"	Schedule 40 PVC	-5.5'	-25.5

Depth (ft.)	Samp. Type and No.	Samp. Rec. (ft. & %)	SPT or RQD	Lab Class. or Pen. Rate	PID (ppm)	Visual Description	Well Installation Detail	Elevation (ft. MSL)
1	S-1	1.6/2.0 80%	5 9 7 7		-	Topsoil / Plant Material / Roots		
2 2.0						Silty SAND, fine grained, Brownish gray/brown, loose to very loose, moist	PVC riser	
3	S-2	1.4/2.0 70%	4 3 2 3		-			
4 4.0						. . . . .		
5	S-3	1.4/2.0 70%	2 1 1 1		-	SAND, fine grained, trace silt. Brownish gray, very loose, moist to wet.		
6 6.0								
7	S-4	1.2/2.0 60%	1 1 1 3		-			
8 8.0							well screen	
9	A-N	-	-		-	Auger to 25.5' (bgs)		
10						Match to Sheet 2		

DRILLING CO.: Parratt-Wolff BAKER REP.: J.E. Zimmerman
DRILLER: L. Darrow BORING NO.: IR78-S-TW09 SHEET 1 OF 2

Baker Environmental, Inc.

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Site 78 Hadnot Point Industrial Area (Southern Plume)
CTO NO.: 0177 BORING NO.: IR78-S-TW09

SAMPLE TYPE

S = Split Spoon
T = Shelby Tube
R = Air Rotary
D = Denison
A = Auger
W = Wash
C = Core
P = Piston
N = No Sample

DEFINITIONS

SPT = Standard Penetration Test (ASTM D-1586)(Blows/0.5')
RQD = Rock Quality Designation (%)
Lab. Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
Lab. Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (ft.)	Samp. Type and No.	Samp. Rec. (ft. & %)	SPT or RQD	Lab Class. or Pen. Rate	PID (ppm)	Visual Description	Well Installation Detail	Elevation (ft. MSL)
11						Continued from Sheet 1		
12								
13								
14								
15	A-N	-	-		-	Auger to 25.5' (bgs)		
16								
17							well screen	
18								
19								
20								
21								
22								
23								
24								
25								
25.5								
26						End of Boring		
27						TD = 25.5' (bgs)		
28								
29								
30								

DRILLING CO.: Parratt-Wolff BAKER REP.:
DRILLER: L. Darrow BORING NO.: IR78-S-TW09 SHEET 2 OF 2

Baker Environmental, Inc.

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Site 78 Hadnot Point Industrial Area (Southern Plume)
CTO NO.: 0177 BORING NO.: IR78-S-TW10
COORDINATES: EAST: NORTH:
ELEVATION: SURFACE: TOP OF PVC CASING:

RIG: #29	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT.)	WEATHER	WATER DEPTH (FT.)	TIME
SIZE (DIAM.)	1-3/8"		3¼" ID		7-23-97	0-28.0'	Cloudy, light rain showers	9.0'	
LENGTH	2.0		5'						
TYPE	Std.		HSA						
HAMMER WT.	140 lbs.								
FALL	30"								
STICK UP									

REMARKS: Continuously sampled to 10.0' (bgs). Borehole drilled out to 28.0' (bgs)

SAMPLE TYPE

S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

Well Information	Diam.	Type	Top Depth (ft.)	Bottom Depth (ft.)
Riser	1.0"	Schedule 40 PVC	+2.5'	-7.0'
Screen	1.0"	Schedule 40 PVC	-7.0'	-27.0'

Depth (ft.)	Samp. Type and No.	Samp. Rec. (ft. & %)	SPT or RQD	Lab Class. or Pen. Rate	PID (ppm)	Visual Description	Well Installation Detail	Elevation (ft. MSL)
1	S-1	1.5/2.0 75%	7 9 9 9		-	Topsoil / Plant Material / Roots		
2						Silty SAND, fine grained. Brownish gray / dk. gray, loose Dry / damp		
2.0								
3	S-2	1.3/2.0 65%	4 2 2 2		-		PVC riser	
4								
4.0								
5	S-3	1.4/2.0 70%	2 2 2 3		-			
6								
6.0								
7	S-4	.8/2.0 40%	3 3 3 5		-	SAND, fine grained, trace to little silt. Brownish gray / light gray, loose, Damp / wet.		
8								
8.0								
9	S-5	1.2/2.0 60%	3 4 4 4		-		Well Screen	
10								
10.0								
	A-N	-	-		-	↓ Match to Sheet 2		

DRILLING CO.: Parratt-Wolff BAKER REP.: J.E. Zimmerman
DRILLER: L. Darrow BORING NO.: IR78-S-TW10 SHEET 1 OF 2

TEST BORING AND WELL CONSTRUCTION RECORD

Baker Environmental, Inc.

PROJECT: Site 78 Hadnot Point Industrial Area (Southern Plume)
CTO NO.: 0177 BORING NO.: IR78-S-TW10

SAMPLE TYPE

S = Split Spoon
T = Shelby Tube
R = Air Rotary
D = Denison
A = Auger
W = Wash
C = Core
P = Piston
N = No Sample

DEFINITIONS

SPT = Standard Penetration Test (ASTM D-1586)(Blows/0.5')
RQD = Rock Quality Designation (%)
Lab. Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
Lab. Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (ft.)	Samp. Type and No.	Samp. Rec. (ft. & %)	SPT or RQD	Lab Class. or Pen. Rate	PID (ppm)	Visual Description	Well Installation Detail	Elevation (ft. MSL)
11						Continued from Sheet 1		
12								
13								
14								
15								
16								
17								
18								
19	A-N	-	-		-	Auger to 28.0' (bgs)	Well Screen	
20								
21								
22								
23								
24								
25								
26								
27								
28	28.0					End of Boring		
29						TD= 28.0' (bgs)		
30								

DRILLING CO.: Parratt-Wolff BAKER REP.: J.E. Zimmerman
DRILLER: L. Darrow BORING NO.: IR78-S-TW10 SHEET 2 OF 2

Baker Environmental, Inc.

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Site 78 Hadnot Point Industrial Area (Southern Plume)
CTO NO.: 0177 BORING NO.: IR78-S-TW11
COORDINATES: EAST: NORTH:
ELEVATION: SURFACE: TOP OF PVC CASING:

RIG: #29	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT.)	WEATHER	WATER DEPTH (FT.)	TIME
SIZE (DIAM.)	1-3/8"		3¼" ID		7-24-97	0-30.0'		12.0'	
LENGTH	2.0		5'						
TYPE	Std.		HSA						
HAMMER WT.	140 lbs.								
FALL	30"								
STICK UP									

REMARKS: Continuously sampled to 12.0' (bgs). Borehole drilled out to 30.0' (bgs).

SAMPLE TYPE
S = Split Spoon, A = Auger, T = Shelby Tube, W = Wash, R = Air Rotary, C = Core, D = Denison, P = Piston, N = No Sample

Well Information	Diam.	Type	Top Depth (ft.)	Bottom Depth (ft.)
Riser	1.0"	Schedule 40 PVC	+2.5'	-10.0'
Screen	1.0"	Schedule 40 PVC	-10.0'	-30.0'

Depth (ft.)	Samp. Type and No.	Samp. Rec. (ft. & %)	SPT or RQD	Lab Class. or Pen. Rate	PID (ppm)	Visual Description	Well Installation Detail	Elevation (ft. MSL)
1	S-1	1.3/2.0 65%	4 8 7		-	Asphalt / Subbase		
2	2.0					Silty SAND, fine grained. DK. gray/ buffy brown, damp		
3	S-2	1.2/2.0 60%	3 3 4 5		-		PVC riser	
4	4.0							
5	S-3	1.0/2.0 50%	3 3 5 7		-	SAND, fine grained, trace silt. Oxidation (orange) staining is occasional. Light brown, medium dense, damp		
6	6.0							
7	S-4	1.3/2.0 65%	3 6 6 10		-			
8	8.0							
9	S-5	1.7/2.0 85%	8 10 7 5		-	Silty SAND, fine grained, little clay Oxidation (orange) staining. Light brown/ grayish Match to Sheet 2	Well screen	
10	10.0				-			

DRILLING CO.: Parratt-Wolff BAKER REP.: J. E. Zimmerman
DRILLER: L. Darrow BORING NO.: IR78-S-TW11 SHEET 1 OF 2

Baker Environmental, Inc.

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Site 78 Hadnot Point Industrial Area (Southern Plume)
CTO NO.: 0177 BORING NO.: IR78-S-TW11

SAMPLE TYPE
S = Split Spoon, A = Auger, T = Shelby Tube, W = Wash, R = Air Rotary, C = Core, D = Denison, P = Piston, N = No Sample

DEFINITIONS
SPT = Standard Penetration Test (ASTM D-1586)(Blows/0.5')
RQD = Rock Quality Designation (%)
Lab. Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
Lab. Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (ft.)	Samp. Type and No.	Samp. Rec. (ft. & %)	SPT or RQD	Lab Class. or Pen. Rate	PID (ppm)	Visual Description	Well Installation Detail	Elevation (ft. MSL)
11	S-6	1.5/2.0 75%	3 4 6 8		-	Continued from Sheet 1 brown, mottled, cohesive, med. dense, damp/moist		
12						SAND, fine grained, trace silt. Grayish brown, medium dense, mottled moist/wet		
13								
14								
15								
16								
17	A-N	-	-		-	Auger to 30.0' (bgs)		
18								
19								
20								
21							well screen	
22								
23								
24								
25								
26								
27								
28								
29								
30						TD = 30.0' (bgs)		

12.0
30.0
End of Boring

DRILLING CO.: Parratt-Wolff BAKER REP.: J.E. Zimmerman
DRILLER: L. Darrow BORING NO.: IR78-S-TW11 SHEET 2 OF 2

Baker Environmental, Inc.

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Site 78 Hadnot Point Industrial Area (Southern Plume)
CTO NO.: 0177 BORING NO.: IR78-S-TW12
COORDINATES: EAST: NORTH:
ELEVATION: SURFACE: TOP OF PVC CASING:

RIG: #29

	SPLIT SPOON	CASING	AUGERS	CORE BARREL
SIZE (DIAM.)	1-3/8"		3¼" ID	
LENGTH	2.0		5'	
TYPE	Std.		HSA	
HAMMER WT.	140 lbs.			
FALL	30"			
STICK UP				

DATE	PROGRESS (FT.)	WEATHER	WATER DEPTH (FT.)	TIME
7-23-97	0-30.0'		11.0'	

REMARKS: Continuously sampled to 12.0' (bgs). Borehole drilled out to 30.0' (bgs).

SAMPLE TYPE
S = Split Spoon, A = Auger, T = Shelby Tube, W = Wash, R = Air Rotary, C = Core, D = Denison, P = Piston, N = No Sample

Well Information	Diam.	Type	Top Depth (ft.)	Bottom Depth (ft.)
Riser	1.0"	Schedule 40 PVC	+2.5'	-9.0'
Screen	1.0"	Schedule 40 PVC	-9.0	-29.0'

Depth (ft.)	Samp. Type and No.	Samp. Rec. (ft. & %)	SPT or RQD	Lab Class. or Pen. Rate	PID (ppm)	Visual Description	Well Installation Detail	Elevation (ft. MSL)
1	S-1	1.5/2.0 75%	5 5 4 6		-	Topsoil/Plant Material/Roots Silty SAND, fine grained Brownish gray/brown, loose, dry		
2								
3	S-2	1.5/2.0 75%	4 3 3 2		-			
4								
5	S-3	1.0/2.0 50%	1 1 2 4		-	Silty SAND, fine grained little clay. Brown/light brown, loose, dry/damp	PVC riser	
6								
7	S-4	1.4/2.0 70%	3 3 3 5		-	SAND, fine grained trace to little silt. Oxidation staining is occasional. Light brownish gray/light brown/ Match to Sheet 2		
8								
9	S-5	1.0/2.0 50%	7 7 8 8		-		well screen	
10								
					-			

DRILLING CO.: Parratt-Wolff BAKER REP.: J.E. Zimmerman
DRILLER: L. Darrow BORING NO.: IR78-S-TW12 SHEET 1 OF 2

Baker Environmental, Inc.

TEST BORING AND WELL CONSTRUCTION RECORD

PROJECT: Site 78 Hadnot Point Industrial Area (Southern Plume)
CTO NO.: 0177 BORING NO.: IR78-S-TW12

SAMPLE TYPE

S = Split Spoon
T = Shelby Tube
R = Air Rotary
D = Denison
A = Auger
W = Wash
C = Core
P = Piston
N = No Sample

DEFINITIONS

SPT = Standard Penetration Test (ASTM D-1586)(Blows/0.5')
RQD = Rock Quality Designation (%)
Lab. Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
Lab. Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (ft.)	Samp. Type and No.	Samp. Rec. (ft. & %)	SPT or RQD	Lab Class. or Pen. Rate	PID (ppm)	Visual Description	Well Installation Detail	Elevation (ft. MSL)
11	S-6	1.2/2.0 60%	5 9 11 10		–	Continued from Sheet 1 tannish / light gray loose to medium dense, damp to wet		
12 12.0								
13								
14								
15								
16								
17							Well Screen	
18								
19								
20								
21								
22	A-N	–	–		–	Auger to 30.0' (bgs)		
23								
24								
25								
26								
27								
28								
29								
30								

DRILLING CO.: Parratt-Wolff BAKER REP.: J. E. Zimmerman
DRILLER: L. Darrow BORING NO.: IR78-S-TW12 SHEET 2 OF 2

ATTACHMENT B
CHAIN-OF-CUSTODY DOCUMENTATION

RECRA LabNet Use Only

COC# 367-7801

Custody Transfer Record/Lab Work Request

RECRA LabNet
a division of Recra Environmental, Inc.

Page 1 of 1

Client Baker
Est. Final Proj. Sampling Date 8-22-97
Project # 367/177
Project Contact/Phone # T. Trebisacch/412-269-2059
RECRA Project Manager B. Ramirez
QC ____ Del ____ TAT ____
Date Rec'd ____ Date Due ____
Account # ____

Refrigerator #
#/Type Container: Liquid / Solid
Volume: Liquid / Solid
Preservatives

ANALYSES REQUESTED →

ORGANIC						INORG	
VOA	BNA	Pest/PCB	Herb	Turn		Metal	CN

MATRIX CODES:
S - Soil
SE - Sediment
SO - Solid
SL - Sludge
W - Water
O - Oil
A - Air
DS - Drum Solids
DL - Drum Liquids
L - EP/TCLP Leachate
WI - Wipe
X - Other
F - Fish

Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected 1997	Time Collected	VOA	BNA	Pest/PCB	Herb	Turn	Metal	CN
	UST1611-4G1A-97C				7/23	1007	X				R		
	UST1613-9-97C				7/23	1140	X				R		
	UST1613-12-97C				7/23	1320	X				R		
	IR78-S-TW06-97C				7/23	1425	X				R		

RECRA LabNet Use Only

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

Special Instructions:

Turn = Turnaround R = Routine
Shipped w/ COC # 367-0601
FedEx # 3558273795

DATE/REVISIONS:

1. ____
2. ____
3. ____
4. ____
5. ____
6. ____

Relinquished by	Received by	Date	Time
T.T.	FedEx	7/23/97	1630

Relinquished by	Received by	Date	Time

Discrepancies Between Samples Labels and COC Record? Y or N
NOTES:

RECRA LabNet Use Only

Samples were:
1) Shipped ___ or Hand Delivered ___
Airbill # ____
2) Ambient or Chilled
3) Received in Good Condition Y or N
4) Labels Indicate Properly Preserved Y or N
5) Received Within Holding Times Y or N

COC Tape was:
1) Present on Outer Package Y or N
2) Unbroken on Outer Package Y or N
3) Present on Sample Y or N
4) Unbroken on Sample Y or N

COC Record Present Upon Sample Rec't Y or N

97P-1424

COC # 367-7802

RECRA LabNet Use Only

Custody Transfer Record/Lab Work Request

RECRA LabNet
a division of Recra Environmental, Inc.

Client: Baker
Est. Final Proj. Sampling Date: 8-22-97
Project #: 367
Project Contact/Phone #: Trebilcock 412-269-2051
RECRA Project Manager: Ramirez
QC ____ Del ____ TAT ____
Date Rec'd ____ Date Due ____
Account # ____

Refrigerator #
#/Type Container: Liquid / Solid
Volume: Liquid / Solid
Preservatives

ANALYSES REQUESTED →

ORGANIC: VOA | BNA | Pest/PCB | Herb
INORG: Metal | CN

MATRIX CODES:
S - Soil
SE - Sediment
SO - Solid
SL - Sludge
W - Water
O - Oil
A - Air
DS - Drum Solids
DL - Drum Liquids
L - EP/TCLP Leachate
WI - Wipe
X - Other
F - Fish

Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected 1997	Time Collected	VOA	BNA	Pest/PCB	Herb	Metal	CN	Turn
	IR78-S-TW01-97C				7-24	1500	X						R
	IR78-S-TW02-97C				7-24	0940	X						R
	IR78-S-TW03-97C				7-25	1300	X						R
	IR78-S-TW04-97C				7-25	1210	X						R
	IR78-S-TW05-97C				7-25	1110	X						R
	IR78-S-TW07-97C				7-24	1830	X						R
	IR78-S-TW08-97C				7-24	0815	X						R
	IR78-S-TW09-97C				7-24	1300	X						R
	IR78-S-TW10-97C				7-24	1055	X						R
	IR78-S-TW11-97C				7-24	1615	X						R

RECRA LabNet Use Only

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

Special Instructions:

VOA = Volatiles by EPA, 8260
Turn = Turnaround time R=Ratine
Fed Ex # 355827344

DATE/REVISIONS:

1. ____
2. ____
3. ____
4. ____
5. ____
6. ____

RECRA LabNet Use Only

Samples were:
1) Shipped ___ or Hand Delivered ___
Airbill # ____
2) Ambient or Chilled
3) Received in Good Condition Y or N
4) Labels Indicate Properly Preserved Y or N
5) Received Within Holding Times Y or N

COC Tape was:
1) Present on Outer Package Y or N
2) Unbroken on Outer Package Y or N
3) Present on Sample Y or N
4) Unbroken on Sample Y or N

COC Record Present Upon Sample Rec't Y or N

Discrepancies Between Samples Labels and COC Record? Y or N
NOTES:

Relinquished by	Received by	Date	Time
J.J.	FedEx	7/25/97	1630

Relinquished by	Received by	Date	Time

97P-1424

COC# 367-7802

RECRA LabNet Use Only

Custody Transfer Record/Lab Work Request

RECRA LabNet
a division of Recra Environmental, Inc.

Client: Baker
Est. Final Proj. Sampling Date: 8-22-97
Project #: 367
Project Contact/Phone #: Trebilcock 412-269-2051
RECRA Project Manager: Ramirez
QC ____ Del ____ TAT ____
Date Rec'd ____ Date Due ____
Account # ____

Refrigerator #
#/Type Container: Liquid / Solid
Volume: Liquid / Solid
Preservatives

ANALYSES REQUESTED →

ORGANIC							INORG	
VOA	BNA	Pest/PCB	Herb	VOA 2			Metal	CN

RECRA LabNet Use Only

MATRIX CODES:
S - Soil
SE - Sediment
SO - Solid
SL - Sludge
W - Water
O - Oil
A - Air
DS - Drum Solids
DL - Drum Liquids
L - EP/TCLP Leachate
WI - Wipe
X - Other
F - Fish

Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected	VOA	BNA	Pest/PCB	Herb	VOA 2			Metal	CN				Turn
					1997														
	IR78-TW12-97C				7-24	1715	X												R
	IR78-N-TW06-97C				7-25	1500	X												R
	IR78-TB01-97C				7-25	1530	X												R
	IR88-TW29IW-01				7-25	0905					X								7

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

Special Instructions:

VOA = Volatiles by 8260
Turn = Turnaround time R = Routine 7 = 7-day
VOA2 = CLP Volatiles
FedEx # 3558274344
Shipped w/ COC # 367-0602

DATE/REVISIONS:

1. ____
2. ____
3. ____
4. ____
5. ____
6. ____

Relinquished by	Received by	Date	Time
T.T.T	FedEx	7/25/97	1630

Relinquished by	Received by	Date	Time

Discrepancies Between Samples Labels and COC Record? Y or N
NOTES:

RECRA LabNet Use Only

Samples were:
1) Shipped ___ or Hand Delivered ___
Airbill # ____
2) Ambient or Chilled
3) Received in Good Condition Y or N
4) Labels Indicate Properly Preserved Y or N
5) Received Within Holding Times Y or N

COC Tape was:
1) Present on Outer Package Y or N
2) Unbroken on Outer Package Y or N
3) Present on Sample Y or N
4) Unbroken on Sample Y or N

COC Record Present Upon Sample Rec't Y or N

RECRA LabNet Use Only

coc# 367-7803

Custody Transfer Record/Lab Work Request

RECRA LabNet
a division of Recra Environmental, Inc.

Client: Baker
Est. Final Proj. Sampling Date: 8-22-97
Project #: 367
Project Contact/Phone #: Trebilcock 412-269-2057
RECRA Project Manager: Ramirez
QC ____ Del ____ TAT ____
Date Rec'd ____ Date Due ____
Account # ____

Refrigerator #
#/Type Container: Liquid / Solid
Volume: Liquid / Solid
Preservatives

ANALYSES REQUESTED →

Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected 1997	Time Collected	ORGANIC VOA	BNA	Pest/PCB	Herb	INORG Metal	CN	Turn
							RECRA LabNet Use Only						
	IR78-TB02-97C				7-25	1700	X						R
	IR78-N-TW08-97C				7-25	1745	X						R
	IR78-N-TW10-97C				7-26	0825	X						R
	IR78-N-TW11-97C				7-26	0915	X						R
	IR78-N-TW09-97C				7-26	1020	X						R

MATRIX CODES:
S - Soil
SE - Sediment
SO - Solid
SL - Sludge
W - Water
O - Oil
A - Air
DS - Drum Solids
DL - Drum Liquids
L - EP/TCLP Leachate
WI - Wipe
X - Other
F - Fish

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

Special Instructions:

VOA = Volatiles by CLP
Turn = turnaround R = Routine

Shipped w/ coc# 367-0603

FedEx 3558274333

DATE/REVISIONS:

1. ____
2. ____
3. ____
4. ____
5. ____
6. ____

Relinquished by	Received by	Date	Time
JJ	FedEx	7/26/97	1400

Relinquished by	Received by	Date	Time

RECRA LabNet Use Only

Samples were:
1) Shipped ___ or Hand Delivered ___
Airbill # ____
2) Ambient or Chilled
3) Received in Good Condition Y or N
4) Labels Indicate Properly Preserved Y or N
5) Received Within Holding Times Y or N

COC Tape was:
1) Present on Outer Package Y or N
2) Unbroken on Outer Package Y or N
3) Present on Sample Y or N
4) Unbroken on Sample Y or N

COC Record Present Upon Sample Rec't Y or N

Discrepancies Between Samples Labels and COC Record? Y or N
NOTES:

97P-1424

RECRA LabNet Use Only

COC # 367-7804

Custody Transfer Record/Lab Work Request

RECRA LabNet
a division of Recra Environmental, Inc.

Page 1 of 1

Client: Baker
Est. Final Proj. Sampling Date: 8-22-97
Project #: 367
Project Contact/Phone #: Trebilcock 412-269-2855
RECRA Project Manager: Ramirez
QC ____ Del ____ TAT ____
Date Rec'd ____ Date Due ____
Account # ____

Refrigerator #
#/Type Container: Liquid / Solid
Volume: Liquid / Solid
Preservatives

ANALYSES REQUESTED → ORGANIC: VOA, BNA, Pest/PCB, Herb; INORG: Metal, CN; Turn

MATRIX CODES:
S - Soil
SE - Sediment
SO - Solid
SL - Sludge
W - Water
O - Oil
A - Air
DS - Drum Solids
DL - Drum Liquids
L - EP/TCLP Leachate
WI - Wipe
X - Other
F - Fish

Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected	VOA	Turn
	IR78-N-TW04-97C				7/26	1400	X	R
	IR78-N-TW02-97C				7/28	0910	X	
	IR78-N-TW07-97C				7/26	1620	X	
	IR78-N-TW05-97C				7/26	1515	X	
	IR78-N-TW03-97C				7/26	1740	X	
	IR78-N-TW01-97C				7/26	1215	X	
	IR78-TB03-97C				7/27	2030	X	

RECRA LabNet Use Only

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

Special Instructions:
Turn = turnaround R = Routine
VOA = Volatiles by 8260
Fed Ex 5253135775
Shipped w/ coc # 367-0604

DATE/REVISIONS:
1. ____
2. ____
3. ____
4. ____
5. ____
6. ____

RECRA LabNet Use Only

Samples were:
1) Shipped ___ or Hand Delivered ___
Airbill # ____
2) Ambient or Chilled
3) Received in Good Condition Y or N
4) Labels Indicate Properly Preserved Y or N
5) Received Within Holding Times Y or N

COC Tape was:
1) Present on Outer Package Y or N
2) Unbroken on Outer Package Y or N
3) Present on Sample Y or N
4) Unbroken on Sample Y or N
COC Record Present Upon Sample Rec't Y or N

Discrepancies Between Samples Labels and COC Record? Y or N
NOTES:

Relinquished by	Received by	Date	Time
T.T.	FedEx	7/28	1800

Relinquished by	Received by	Date	Time

97P-1424

COC # 367-7805

RECRA LabNet Use Only

Custody Transfer Record/Lab Work Request

RECRA LabNet
a division of Recra Environmental, Inc.

Client: Baker
Est. Final Proj. Sampling Date: 8-22-97
Project #: 367
Project Contact/Phone #: Trebilcock 412-269-2051
RECRA Project Manager: Ramirez
QC ____ Del ____ TAT ____
Date Rec'd ____ Date Due ____
Account # ____

Refrigerator #
#/Type Container: Liquid / Solid
Volume: Liquid / Solid
Preservatives

ANALYSES REQUESTED → ORGANIC: VOA, BNA, Pest/PCB, Herb; INORG: Metal, CN; TSS & TDS; Oil & Grease; Turn

MATRIX CODES:
S - Soil
SE - Sediment
SO - Solid
SL - Sludge
W - Water
O - Oil
A - Air
DS - Drum Solids
DL - Drum Liquids
L - EP/TCLP Leachate
WI - Wipe
X - Other
F - Fish

Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected 1997	Time Collected	VOA	BNA	Pest/PCB	Herb	Metal	CN	TSS & TDS	Oil & Grease	Turn
	78-GW02-97C			W	8/8	1635	X								R
	78-GW03-97C			W	8/9	0905	X								R
	78-GW14-97C			W	8/9	0850	X								R
	78-GW15-97C			W	8/9	1545	X								R
	78-GW09-97C			W	8/9	1540	X								R
(1)	78-GW09IW-97C			W	8/9	1350	X								R
	78-GW09DW-97C			W	8/9	1445	X								R
	78-GW17-97C			W	8/9	1705	X								R
	78-GW04-97C			W	8/9	1710	X				(2)			(2)	R
	24-GW10-97C			W	8/11	0900	X		X		[illegible]		X	[illegible]	R

RECRA LabNet Use Only

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

Special Instructions:
Metals = SW 6010/7470 "List 2"
VOA = Volatiles by 8260
Turn = turnaround R = Routine
Pesticides only ← Hold@Location
Airbill FedEx # 5253135812

DATE/REVISIONS:
7.7. 1. Sample should read 78-GW09IW-97C
7.7. 2. Metals & Oil & Grease not in cooler
3.
4.
5.
6.

RECRA LabNet Use Only

Samples were:
1) Shipped ___ or Hand Delivered ___
Airbill # ____
2) Ambient or Chilled
3) Received in Good Condition Y or N
4) Labels Indicate Properly Preserved Y or N
5) Received Within Holding Times Y or N

COC Tape was:
1) Present on Outer Package Y or N
2) Unbroken on Outer Package Y or N
3) Present on Sample Y or N
4) Unbroken on Sample Y or N
COC Record Present Upon Sample Rec't Y or N

Discrepancies Between Samples Labels and COC Record? Y or N
NOTES:

Relinquished by	Received by	Date	Time
7.7.	FedEx	8/11/97	1700

Relinquished by	Received by	Date	Time

97P-1424

* Cooler 1 of 2

COC# 367-7805

RECRA LabNet Use Only

Custody Transfer Record/Lab Work Request

RECRA LabNet
a division of Recra Environmental, Inc.

Client: Baker
Est. Final Proj. Sampling Date: 8-22-97
Project #: 367
Project Contact/Phone #: Trebilcock 412-269-2051
RECRA Project Manager: Ramirez
QC ____ Del ____ TAT ____
Date Rec'd ____ Date Due ____
Account # ____

Refrigerator #
#/Type Container: Liquid / Solid
Volume: Liquid / Solid
Preservatives
ANALYSES REQUESTED →

MATRIX CODES	Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected 1997	Time Collected	ORGANIC VOA	BNA	Pest/PCB	Herb	INORG Metal	CN	Turn
		78-GW25-97C			W	8/10	0805	X						R
		78-GW21-97C			W	8/10	0910	X						
		78-GW10-97C			W	8/10	1015	X						
		78-GW11-97C			W	8/10	1105	X						
		78-GW08-97C			W	8/10	1220	X						
		78-GW24IW-97C			W	8/10	1220	X						
		78-GW24DW-97C			W	8/10	1230	X						
		78-GW23-97C			W	8/10	1345	X						
		78-GW24-97C			W	8/10	1315	X						
		78-GW22A-97C			W	8/10	1455	X						

RECRA LabNet Use Only

MATRIX CODES: S - Soil; SE - Sediment; SO - Solid; SL - Sludge; W - Water; O - Oil; A - Air; DS - Drum Solids; DL - Drum Liquids; L - EP/TCLP Leachate; WI - Wipe; X - Other; F - Fish

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

Special Instructions:

~~Fax~~ VOA = Volatiles by 8260

Turn = turnaround R = Routine

FedEx # 525313 5812

DATE/REVISIONS:

1. ____
2. ____
3. ____
4. ____
5. ____
6. ____

Relinquished by	Received by	Date	Time
T.T.J.	FedEx	8/11/97	1700

Relinquished by	Received by	Date	Time

Discrepancies Between Samples Labels and COC Record? Y or N
NOTES:

RECRA LabNet Use Only

Samples were:
1) Shipped ___ or Hand Delivered ___
Airbill # ____
2) Ambient or Chilled
3) Received in Good Condition Y or N
4) Labels Indicate Properly Preserved Y or N
5) Received Within Holding Times Y or N

COC Tape was:
1) Present on Outer Package Y or N
2) Unbroken on Outer Package Y or N
3) Present on Sample Y or N
4) Unbroken on Sample Y or N

COC Record Present Upon Sample Rec't Y or N

COC # 367-7805

RECRA LabNet Use Only

Custody Transfer Record/Lab Work Request

RECRA LabNet
a division of Recra Environmental, Inc.

Client: Baker
Est. Final Proj. Sampling Date: 8-22-97
Project #: 367
Project Contact/Phone #: Trebilcock/412-269-2051
RECRA Project Manager: Ramirez
QC ____ Del ____ TAT ____
Date Rec'd ____ Date Due ____
Account # ____

Refrigerator #
#/Type Container: Liquid / Solid
Volume: Liquid / Solid
Preservatives

ANALYSES REQUESTED →

	ORGANIC							INORG							
	VOA	BNA	Pest/PCB	Herb				Metal	CN						Turn
RECRA LabNet Use Only															

MATRIX CODES:
S - Soil
SE - Sediment
SO - Solid
SL - Sludge
W - Water
O - Oil
A - Air
DS - Drum Solids
DL - Drum Liquids
L - EP/TCLP Leachate
WI - Wipe
X - Other
F - Fish

Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected 1997	Time Collected												
	78-GW39-97C			W	8/10	1620	X											R
	78-GW01-97C			W	8/11	0910	X											↓
	24-GW08-97C			W	8/10	1600	X											
	24-GW09-97C			W	8/10	1735	X											
	78-TB04-97C			W	8/10	0700	X											↓

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

Special Instructions:

VOA = Volatiles by 8260
Turn = turnaround R = Routine
FedEx = 525313581 2

DATE/REVISIONS:

1. ____
2. ____
3. ____
4. ____
5. ____
6. ____

RECRA LabNet Use Only

Samples were:
1) Shipped ___ or Hand Delivered ___
Airbill # ____
2) Ambient or Chilled
3) Received in Good Condition Y or N
4) Labels Indicate Properly Preserved Y or N
5) Received Within Holding Times Y or N

COC Tape was:
1) Present on Outer Package Y or N
2) Unbroken on Outer Package Y or N
3) Present on Sample Y or N
4) Unbroken on Sample Y or N
COC Record Present Upon Sample Rec't Y or N

Discrepancies Between Samples Labels and COC Record? Y or N
NOTES:

Relinquished by	Received by	Date	Time
7-7-7.	FedEx	8/11/97	1700

Relinquished by	Received by	Date	Time

97P-1424

COC # 367-7806

RECRA LabNet Use Only

Custody Transfer Record/Lab Work Request

RECRA LabNet
a division of Recra Environmental, Inc.

Page 1 of 1

Client: Baker
Est. Final Proj. Sampling Date: 8-22-97
Project #: 367
Project Contact/Phone #: Trebilcock 412-269-2451
RECRA Project Manager: Ramirez
QC ____ Del ____ TAT ____
Date Rec'd ____ Date Due ____
Account # ____

Refrigerator #

		ORGANIC							INORG								
#/Type Container	Liquid																
	Solid																
Volume	Liquid																
	Solid																
Preservatives																	
ANALYSES REQUESTED →		VOA	BNA	Pest/PCB	Herb				Metal	CN	TSS & TDS	oil & Grease					Turn

MATRIX CODES:
S - Soil
SE - Sediment
SO - Solid
SL - Sludge
W - Water
O - Oil
A - Air
DS - Drum Solids
DL - Drum Liquids
L - EP/TCLP Leachate
WI - Wipe
X - Other
F - Fish

Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected 1997	Time Collected	RECRA LabNet Use Only												
	24-GW08-97C			W	8/10	1600			X					X		X	X			R
	24-GW09-97C			W	8/10	1735			X					X		X	X			R
	24-GW10-97C			W	8/11	0900								X			X			R

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

Special Instructions:
Metals = SW 6010/7470 "List 2"
VOA = Volatiles by 8260
Turn = turnaround R = Routine
Pesticide Only
FedEx # 525313581Z

DATE/REVISIONS:
1. ____
2. ____
3. ____
4. ____
5. ____
6. ____

RECRA LabNet Use Only

Samples were:
1) Shipped ___ or Hand Delivered ___
Airbill # ____
2) Ambient or Chilled
3) Received in Good Condition Y or N
4) Labels Indicate Properly Preserved Y or N
5) Received Within Holding Times Y or N

COC Tape was:
1) Present on Outer Package Y or N
2) Unbroken on Outer Package Y or N
3) Present on Sample Y or N
4) Unbroken on Sample Y or N

COC Record Present Upon Sample Rec't Y or N

Discrepancies Between Samples Labels and COC Record? Y or N
NOTES:

Relinquished by	Received by	Date	Time
7-7.	FedEx	8/11/97	1700

Relinquished by	Received by	Date	Time

97P-1424

ATTACHMENT C
MONITORING PROGRAM ANALYTICAL RESULTS - JULY 1997

GROUNDWATER ANALYTICAL RESULTS
OPERABLE UNIT NO. 1 - SITE 24
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
VOLATILE ORGANICS

SAMPLE ID	IR24-GW08-97C	IR24-GW09-97C	IR24-GW10-97C
DATE SAMPLED	08/10/97	08/10/97	08/11/97
VOLATILES (ug/L)			
CHLOROMETHANE	0.5 U	0.5 U	0.5 U
VINYL CHLORIDE	0.5 U	0.5 U	0.5 U
BROMOMETHANE	0.5 U	0.5 U	0.5 U
CHLOROETHANE	0.5 U	0.5 U	0.5 U
1,1-DICHLOROETHENE	0.5 U	0.5 U	0.5 U
METHYLENE CHLORIDE	0.5 U	0.5 U	0.5 U
1,1-DICHLOROETHANE	0.5 U	0.5 U	0.5 U
CHLOROFORM	0.5 U	0.5 U	0.5 U
1,1,1-TRICHLOROETHANE	0.5 U	0.5 U	0.5 U
CARBON TETRACHLORIDE	0.5 U	0.5 U	0.5 U
BENZENE	0.5 U	0.5 U	0.5 U
1,2-DICHLOROETHANE	0.5 U	0.5 U	0.5 U
TRICHLOROETHENE	0.5 U	0.5 U	0.5 U
1,2-DICHLOROPROPANE	0.5 U	0.5 U	0.5 U
BROMODICHLOROMETHANE	0.5 U	0.5 U	0.5 U
TOLUENE	0.5 U	0.5 U	0.5 U
1,1,2-TRICHLOROETHANE	0.5 U	0.5 U	0.5 U
TETRACHLOROETHENE	0.5 U	0.5 U	0.5 U
DIBROMOCHLOROMETHANE	0.5 U	0.5 U	0.5 U
CHLOROBENZENE	0.5 U	0.5 U	0.5 U
ETHYLBENZENE	0.5 U	0.5 U	0.5 U
STYRENE	0.5 U	0.5 U	0.5 U
BROMOFORM	0.5 U	0.5 U	0.5 U
1,1,2,2-TETRACHLOROETHANE	0.5 U	0.5 U	0.5 U
CIS-1,3-DICHLOROPROPENE	0.5 U	0.5 U	0.5 U
TRANS-1,3-DICHLOROPROPENE	0.5 U	0.5 U	0.5 U
ACETONE	2 U	2 U	2 U
2-BUTANONE	2 U	2 U	2 U
CARBON DISULFIDE	2 U	2 U	2 U
4-METHYL-2-PENTANONE	2 U	2 U	2 U
2-HEXANONE	2 U	2 U	2 U
1,2-DICHLOROETHENE (TOTAL)	0.5 U	0.5 U	0.5 U
XYLENE (TOTAL)	0.5 U	0.5 U	0.5 U

GROUNDWATER ANALYTICAL RESULTS
OPERABLE UNIT NO. 1 - SITE 24
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
VOLATILE ORGANICS

SAMPLE ID	IR24-GW08-97C	IR24-GW09-97C	IR24-GW10-97C
DATE SAMPLED	08/10/97	08/10/97	08/11/97
PESTICIDES/PCBS			
ALPHA-BHC	0.05 U	0.05 U	0.05 U
BETA-BHC	0.05 U	0.05 U	0.05 U
DELTA-BHC	0.05 U	0.05 U	0.05 U
GAMMA-BHC (LINDANE)	0.05 U	0.05 U	0.05 U
HEPTACHLOR	0.05 U	0.05 U	0.05 U
ALDRIN	0.05 U	0.05 U	0.05 U
HEPTACHLOR EPOXIDE	0.05 U	0.05 U	0.05 U
ENDOSULFAN I	0.05 U	0.05 U	0.05 U
DIELDRIN	0.1 U	0.1 U	0.1 U
4,4'-DDE	0.1 U	0.1 U	0.1 U
ENDRIN	0.1 U	0.1 U	0.1 U
ENDOSULFAN II	0.1 U	0.1 U	0.1 U
4,4'-DDD	0.1 U	0.1 U	0.1 U
ENDOSULFAN SULFATE	0.1 U	0.1 U	0.1 U
4,4'-DDT	0.1 U	0.1 U	0.1 U
METHOXYCHLOR	0.5 U	0.5 U	0.5 U
ENDRIN KETONE	0.1 U	0.1 U	0.1 U
ENDRIN ALDEHYDE	0.1 U	0.1 U	0.1 U
ALPHA-CHLORDANE	0.05 U	0.05 U	0.05 U
GAMMA-CHLORDANE	0.05 U	0.05 U	0.05 U
TOXAPHENE	5 U	5 U	5 U
AROCLOR-1016	1 U	1 U	1 U
AROCLOR-1221	2 U	2 U	2 U
AROCLOR-1232	1 U	1 U	1 U
AROCLOR-1242	1 U	1 U	1 U
AROCLOR-1248	1 U	1 U	1 U
AROCLOR-1254	1 U	1 U	1 U
AROCLOR-1260	1 U	1 U	1 U

GROUNDWATER ANALYTICAL RESULTS
OPERABLE UNIT NO. 1 - SITE 24
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
TOTAL METALS, OIL, GREASE AND WET CHEMISTRY

SAMPLE ID	IR24-GW08-97C	IR24-GW09-97C	IR24-GW10-97C
DATE SAMPLED	08/10/97	08/10/97	08/11/97
TOTAL METALS (ug/L)			
ANTIMONY, TOTAL	3	1.9 U	2.7
ARSENIC, TOTAL	2.5 U	2.5 U	2.5 U
BERYLLIUM, TOTAL	0.3 U	0.3 U	0.3 U
CHROMIUM, TOTAL	0.72	0.83	0.7 U
IRON, TOTAL	235	762	16.1 U
LEAD, TOTAL	1.5 U	2.4	1.9
MANGANESE, TOTAL	3.2	46.1	1.5
MERCURY, TOTAL	0.1 U	2.8	0.1 U
NICKEL, TOTAL	0.8 U	0.8 U	0.8 U
WET CHEMISTY (mg/L)			
TOTAL DISSOLVED SOLIDS	100	42	42
TOTAL SUSPENDED SOLIDS	4	5	4 U
OIL & GREASE (mg/L)			
OIL & GREASE, GRAV.	NA	5.3 U	5.3 U

GROUNDWATER ANALYTICAL RESULTS
OPERABLE UNIT NO. 1 - SITE 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
VOLATILE ORGANICS

SAMPLE ID	IR78-GW01-97C	IR78-GW02-97C	IR78-GW03-97C	IR78-GW04-97C	IR78-GW08-97C	IR78-GW09-97C
DATE SAMPLED	08/11/97	08/08/97	08/09/97	08/09/97	08/10/97	08/09/97
VOLATILES (ug/L)						
CHLOROMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
VINYL CHLORIDE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
BROMOMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-DICHLOROETHENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	91
METHYLENE CHLORIDE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-DICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	68
CHLOROFORM	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2
1,1,1-TRICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	370
CARBON TETRACHLORIDE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
BENZENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-DICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TRICHLOROETHENE	21	0.5 U	0.5 U	6	0.5 U	920
1,2-DICHLOROPROPANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
BROMODICHLOROMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TOLUENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-TRICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TETRACHLOROETHENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
DIBROMOCHLOROMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CHLOROBENZENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
ETHYLBENZENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
STYRENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
BROMOFORM	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2,2-TETRACHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CIS-1,3-DICHLOROPROPENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TRANS-1,3-DICHLOROPROPENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
ACETONE	2 U	2 U	2 U	2 U	2 U	2 U
2-BUTANONE	2 U	2 U	2 U	2 U	2 U	2 U
CARBON DISULFIDE	2 U	2 U	2 U	2 U	2 U	2 U
4-METHYL-2-PENTANONE	2 U	2 U	2 U	2 U	2 U	2 U
2-HEXANONE	2 U	2 U	2 U	2 U	2 U	2 U
1,2-DICHLOROETHENE (TOTAL)	10	0.5 U	0.5 U	1	0.5 U	570
XYLENE (TOTAL)	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

GROUNDWATER ANALYTICAL RESULTS
OPERABLE UNIT NO. 1 - SITE 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
VOLATILE ORGANICS

SAMPLE ID	IR78-GW09DW-97C	IR78-GW09IW-97C	IR78-GW10-97C	IR78-GW11-97C	IR78-GW14-97C	IR78-GW15-97C
DATE SAMPLED	08/09/97	08/09/97	08/10/97	08/10/97	08/09/97	08/09/97
VOLATILES (ug/L)						
CHLOROMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
VINYL CHLORIDE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
BROMOMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-DICHLOROETHENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
METHYLENE CHLORIDE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-DICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CHLOROFORM	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,1-TRICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CARBON TETRACHLORIDE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
BENZENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-DICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TRICHLOROETHENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1
1,2-DICHLOROPROPANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
BROMODICHLOROMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TOLUENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-TRICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TETRACHLOROETHENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
DIBROMOCHLOROMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CHLOROBENZENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
ETHYLBENZENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
STYRENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
BROMOFORM	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2,2-TETRACHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CIS-1,3-DICHLOROPROPENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TRANS-1,3-DICHLOROPROPENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
ACETONE	2 U	2 U	2 U	2 U	2 U	2 U
2-BUTANONE	2 U	2 U	2 U	2 U	2 U	2 U
CARBON DISULFIDE	2 U	2 U	2 U	2 U	2 U	2 U
4-METHYL-2-PENTANONE	2 U	2 U	2 U	2 U	2 U	2 U
2-HEXANONE	2 U	2 U	2 U	2 U	2 U	2 U
1,2-DICHLOROETHENE (TOTAL)	0.5 U	5	0.5 U	0.5 U	0.5 U	0.5 U
XYLENE (TOTAL)	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

GROUNDWATER ANALYTICAL RESULTS
OPERABLE UNIT NO. 1 - SITE 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
VOLATILE ORGANICS

SAMPLE ID	IR78-GW17-97C	IR78-GW21-97C	IR78-GW22A-97C	IR78-GW23-97C	IR78-GW24-97C	IR78-GW24DW-97C
DATE SAMPLED	08/09/97	08/10/97	08/10/97	08/10/97	08/10/97	08/10/97
VOLATILES (ug/L)						
CHLOROMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
VINYL CHLORIDE	0.5 U	0.5 U	0.5 U	590	7	0.5 U
BROMOMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-DICHLOROETHENE	0.5 U	0.5 U	0.5 U	4	0.7	0.5 U
METHYLENE CHLORIDE	0.5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-DICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CHLOROFORM	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,1-TRICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CARBON TETRACHLORIDE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
BENZENE	0.5 U	0.5 U	0.8	17	0.5 U	0.5 U
1,2-DICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TRICHLOROETHENE	0.5 U	0.5 U	0.5 U	62	28	0.5 U
1,2-DICHLOROPROPANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
BROMODICHLOROMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TOLUENE	0.5 U	0.5 U	0.6	4	0.5 U	0.5 U
1,1,2-TRICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TETRACHLOROETHENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
DIBROMOCHLOROMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CHLOROBENZENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
ETHYLBENZENE	0.5 U	0.5 U	0.5 U	7	0.5 U	0.5 U
STYRENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
BROMOFORM	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2,2-TETRACHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CIS-1,3-DICHLOROPROPENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TRANS-1,3-DICHLOROPROPENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
ACETONE	2 U	2 U	2 U	2 U	2 U	2 U
2-BUTANONE	2 U	2 U	2 U	2 U	2 U	2 U
CARBON DISULFIDE	2 U	2 U	2 U	2 U	2 U	2 U
4-METHYL-2-PENTANONE	2 U	2 U	2 U	2 U	2 U	2 U
2-HEXANONE	2 U	2 U	2 U	2 U	2 U	2 U
1,2-DICHLOROETHENE (TOTAL)	0.5 U	0.5 U	7	10000	220	0.5 U
XYLENE (TOTAL)	0.5 U	0.5 U	0.5 U	50	0.5 U	0.5 U

GROUNDWATER ANALYTICAL RESULTS
OPERABLE UNIT NO. 1 - SITE 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
VOLATILE ORGANICS

SAMPLE ID	IR78-GW24IW-97C	IR78-GW25-97C	IR78-GW39-97C	IR78-N-TW01-97C	IR78-N-TW02-97C	IR78-N-TW03-97C
DATE SAMPLED	08/10/97	08/10/97	08/10/97	07/26/97	07/28/97	07/26/97
VOLATILES (ug/L)						
CHLOROMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
VINYL CHLORIDE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
BROMOMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-DICHLOROETHENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
METHYLENE CHLORIDE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-DICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CHLOROFORM	0.5 U	0.5 U	0.5 U	1	0.5 U	3
1,1,1-TRICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CARBON TETRACHLORIDE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
BENZENE	0.5 U	0.5 U	0.5 U	0.5 U	6	0.5 U
1,2-DICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TRICHLOROETHENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-DICHLOROPROPANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
BROMODICHLOROMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TOLUENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-TRICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TETRACHLOROETHENE	0.5 U	0.5 U	0.7	0.5 U	0.5 U	0.5 U
DIBROMOCHLOROMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CHLOROBENZENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
ETHYLBENZENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
STYRENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
BROMOFORM	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2,2-TETRACHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CIS-1,3-DICHLOROPROPENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TRANS-1,3-DICHLOROPROPENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
ACETONE	2 U	2 U	2 U	2 U	2 U	2 U
2-BUTANONE	2 U	2 U	2 U	2 U	2 U	2 U
CARBON DISULFIDE	2 U	2 U	2 U	2 U	2 U	2 U
4-METHYL-2-PENTANONE	2 U	2 U	2 U	2 U	2 U	2 U
2-HEXANONE	2 U	2 U	2 U	2 U	2 U	2 U
1,2-DICHLOROETHENE (TOTAL)	0.5 U	0.5 U	0.5 U	0.5 U	2	0.5 U
XYLENE (TOTAL)	0.5 U	0.5 U	0.5 U	0.5 U	5	0.5 U

GROUNDWATER ANALYTICAL RESULTS
OPERABLE UNIT NO. 1 - SITE 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
VOLATILE ORGANICS

SAMPLE ID	IR78-N-TW04-97C	IR78-N-TW05-97C	IR78-N-TW06-97C	IR78-N-TW07-97C	IR78-N-TW08-97C	IR78-N-TW09-97C
DATE SAMPLED	07/26/97	07/26/97	07/25/97	07/26/97	07/25/97	07/25/97
VOLATILES (ug/L)						
CHLOROMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
VINYL CHLORIDE	0.5 U	0.5 U	0.5 U	15	0.5 U	0.5 U
BROMOMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-DICHLOROETHENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
METHYLENE CHLORIDE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-DICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CHLOROFORM	0.6	0.5 U	0.5 U	1	0.5 U	0.5 U
1,1,1-TRICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CARBON TETRACHLORIDE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
BENZENE	0.5 U	0.5 U	34	38	0.5 U	0.5 U
1,2-DICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TRICHLOROETHENE	0.5 U	0.5 U	0.8	0.5 U	20	8
1,2-DICHLOROPROPANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
BROMODICHLOROMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TOLUENE	0.5 U	0.5 U	19	14	0.5 U	0.5 U
1,1,2-TRICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TETRACHLOROETHENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
DIBROMOCHLOROMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CHLOROBENZENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
ETHYLBENZENE	0.5 U	0.5 U	22	100	0.5 U	0.5 U
STYRENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
BROMOFORM	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2,2-TETRACHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CIS-1,3-DICHLOROPROPENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TRANS-1,3-DICHLOROPROPENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
ACETONE	2 U	2 U	2 U	18	2 U	2 U
2-BUTANONE	2 U	2 U	2 U	2 U	2 U	2 U
CARBON DISULFIDE	2 U	2 U	2 U	2 U	2 U	2 U
4-METHYL-2-PENTANONE	2 U	2 U	2 U	2 U	2 U	2 U
2-HEXANONE	2 U	2 U	2 U	2 U	2 U	2 U
1,2-DICHLOROETHENE (TOTAL)	0.5 U	0.5 U	3	9	50	4
XYLENE (TOTAL)	0.5 U	0.5 U	83	640	0.5 U	0.5 U

GROUNDWATER ANALYTICAL RESULTS
OPERABLE UNIT NO. 1 - SITE 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
VOLATILE ORGANICS

SAMPLE ID	IR78-N-TW10-97C	IR78-N-TW11-97C	IR78-S-TW01-97C	IR78-S-TW02-97C	IR78-S-TW03-97C	IR78-S-TW04-97C
DATE SAMPLED	07/26/97	07/26/97	07/24/97	07/24/97	07/25/97	07/25/97
VOLATILES (ug/L)						
CHLOROMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
VINYL CHLORIDE	0.5 U	0.5 U	45	28	0.5 U	0.5 U
BROMOMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-DICHLOROETHENE	0.5 U	0.5 U	6	0.8	0.5 U	0.5 U
METHYLENE CHLORIDE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-DICHLOROETHANE	0.5 U	0.5 U	2	6	0.5 U	0.5 U
CHLOROFORM	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,1-TRICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CARBON TETRACHLORIDE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
BENZENE	0.5 U	0.5 U	4	3	0.5 U	2
1,2-DICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2
TRICHLOROETHENE	0.5 U	13	34	15	0.5 U	6
1,2-DICHLOROPROPANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
BROMODICHLOROMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TOLUENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-TRICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TETRACHLOROETHENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
DIBROMOCHLOROMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CHLOROBENZENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
ETHYLBENZENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
STYRENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
BROMOFORM	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2,2-TETRACHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CIS-1,3-DICHLOROPROPENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TRANS-1,3-DICHLOROPROPENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
ACETONE	2 U	2 U	2 U	2 U	2 U	2 U
2-BUTANONE	2 U	2 U	2 U	2 U	2 U	2 U
CARBON DISULFIDE	2 U	2 U	2 U	2 U	2 U	2 U
4-METHYL-2-PENTANONE	2 U	2 U	2 U	2 U	2 U	2 U
2-HEXANONE	2 U	2 U	2 U	2 U	2 U	2 U
1,2-DICHLOROETHENE (TOTAL)	0.5 U	2	99	63	0.5 U	4
XYLENE (TOTAL)	0.5 U	0.5 U	0.5 U	0.5 U	11	0.5 U

GROUNDWATER ANALYTICAL RESULTS
OPERABLE UNIT NO. 1 - SITE 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
VOLATILE ORGANICS

SAMPLE ID	IR78-S-TW05-97C	IR78-S-TW06-97C	IR78-S-TW07-97C	IR78-S-TW08-97C	IR78-S-TW09-97C	IR78-S-TW10-97C
DATE SAMPLED	07/25/97	07/23/97	07/24/97	07/24/97	07/24/97	07/24/97
VOLATILES (ug/L)						
CHLOROMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
VINYL CHLORIDE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
BROMOMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-DICHLOROETHENE	0.5 U	8	0.5 U	0.5 U	0.5 U	0.5 U
METHYLENE CHLORIDE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-DICHLOROETHANE	0.5 U	1	0.5 U	0.5 U	0.5 U	0.5 U
CHLOROFORM	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,1-TRICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CARBON TETRACHLORIDE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
BENZENE	160	2	0.5 U	0.5 U	0.5 U	0.5 U
1,2-DICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TRICHLOROETHENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-DICHLOROPROPANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
BROMODICHLOROMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TOLUENE	53	1	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-TRICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TETRACHLOROETHENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
DIBROMOCHLOROMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CHLOROBENZENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
ETHYLBENZENE	700	3	0.5 U	0.5 U	0.5 U	0.5 U
STYRENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
BROMOFORM	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2,2-TETRACHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CIS-1,3-DICHLOROPROPENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TRANS-1,3-DICHLOROPROPENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
ACETONE	2 U	2 U	2 U	2 U	2 U	2 U
2-BUTANONE	2 U	2 U	2 U	2 U	2 U	2 U
CARBON DISULFIDE	2 U	2 U	2 U	2 U	2 U	2 U
4-METHYL-2-PENTANONE	2 U	2 U	2 U	2 U	2 U	2 U
2-HEXANONE	2 U	2 U	2 U	2 U	2 U	2 U
1,2-DICHLOROETHENE (TOTAL)	0.5 U	20	0.5 U	0.5 U	0.5 U	0.5 U
XYLENE (TOTAL)	1100	5	0.5 U	0.5 U	0.5 U	0.5 U

GROUNDWATER ANALYTICAL RESULTS
OPERABLE UNIT NO. 1 - SITE 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
VOLATILE ORGANICS

SAMPLE ID	IR78-S-TW11-97C	IR78-S-TW12-97C	UST1611-UG1A-97C	UST1613-12-97C	UST1613-9-97C
DATE SAMPLED	07/24/97	07/24/97	07/23/97	07/23/97	07/23/97
VOLATILES (ug/L)					
CHLOROMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
VINYL CHLORIDE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
BROMOMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-DICHLOROETHENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
METHYLENE CHLORIDE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-DICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CHLOROFORM	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,1-TRICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CARBON TETRACHLORIDE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
BENZENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-DICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TRICHLOROETHENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-DICHLOROPROPANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
BROMODICHLOROMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TOLUENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-TRICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TETRACHLOROETHENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
DIBROMOCHLOROMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CHLOROBENZENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
ETHYLBENZENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
STYRENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
BROMOFORM	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2,2-TETRACHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CIS-1,3-DICHLOROPROPENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TRANS-1,3-DICHLOROPROPENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
ACETONE	2 U	2 U	2 U	2 U	2 U
2-BUTANONE	2 U	2 U	2 U	2 U	2 U
CARBON DISULFIDE	2 U	2 U	2 U	2 U	2 U
4-METHYL-2-PENTANONE	2 U	2 U	2 U	2 U	2 U
2-HEXANONE	2 U	2 U	2 U	2 U	2 U
1,2-DICHLOROETHENE (TOTAL)	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
XYLENE (TOTAL)	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

ATTACHMENT D
ANALYTICAL LABORATORY DATA SHEETS - JULY 1997

SITE 24

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

24-GW08-97C

Lab Name: RECRA LABNET - CHICAGO Contract: 1104-09-001

Lab Code: Case No.: SAS No.: SDG No.: 08G298

Matrix: (soil/water) WATER Lab Sample ID: 9708G298-001

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CFN06

Level: (low/med) LOW Date Received: 08/12/97

% Moisture: not dec. _____ Date Analyzed: 08/22/97

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-09-2	Methylene chloride	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon tetrachloride	0.5	U
71-43-2	Benzene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
108-88-3	Toluene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.5	U
124-48-1	Dibromochloromethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
100-41-4	Ethylbenzene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
67-64-1	Acetone	2	U
78-93-3	2-Butanone	2	U
75-15-0	Carbon Disulfide	2	U
108-10-1	4-Methyl-2-pentanone	2	U
591-78-6	2-Hexanone	2	U
540-59-0	1,2-Dichloroethene (total)	0.5	U
1330-20-7	Xylene (total)	0.5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

24-GW08-97C

Lab Name: RECRA LABNET - CHICAGO Contract: 1104-09-001

Lab Code: Case No.: SAS No.: SDG No.: 08G298

Matrix: (soil/water) WATER Lab Sample ID: 9708G298-001

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CFN06

Level: (low/med) LOW Date Received: 08/12/97

% Moisture: not dec. _____ Date Analyzed: 08/22/97

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

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
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1D
PESTICIDE ANALYSIS DATA SHEET

EPA SAMPLE NO.

24-GW08-97C

Lab Name: Recra LabNet Contract: 00000-000-000-0000-00

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

Matrix: (soil/water) WATER Lab Sample ID: 9708G298-001

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 08159715.41

% Moisture: decanted: (Y/N) _ Date Received: 08/12/97

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 08/15/97

Concentrated Extract Volume: 10000(uL) Date Analyzed: 08/19/97

Injection Volume: 1.0(uL) Dilution Factor: 1.00

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

G29801

Lab Name: RECRA_LABNET_CHICAGO_____ Contract: _____

Lab Code: RECRA_ Case No.: _____ SAS No.: _____ SDG No.: G29801

Matrix (soil/water): WATER Lab Sample ID: 9708G298-001

Level (low/med): LOW__ Date Received: 08/12/97

% Solids: __0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_		_		NR
7440-36-0	Antimony_	3.0	B		P_
7440-38-2	Arsenic__	2.5	U		P_
7440-39-3	Barium___		_		NR
7440-41-7	Beryllium	0.30	U		P_
7440-43-9	Cadmium__		_		NR
7440-70-2	Calcium__		_		NR
7440-47-3	Chromium_	0.72	B		P_
7440-48-4	Cobalt___		_		NR
7440-50-8	Copper___		_		NR
7439-89-6	Iron_____	235	B		P_
7439-92-1	Lead_____	1.5	U		P_
7439-95-4	Magnesium		_		NR
7439-96-5	Manganese	3.2	B		P_
7439-97-6	Mercury__	0.10	U		CV
7440-02-0	Nickel___	0.80	U		P_
7440-09-7	Potassium		_		NR
7782-49-2	Selenium_		_		NR
7440-22-4	Silver___		_		NR
7440-23-5	Sodium___		_		NR
7440-28-0	Thallium_		_		NR
7440-62-2	Vanadium_		_		NR
7440-66-6	Zinc_____		_		NR
_____	Cyanide__		_		NR
_____	_____		_		__

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

24-GW08-97C_____

FORM I - IN ILM02.1

To: **Baker-Lejenue #367**
Airport Office Park, Bldg. 3
420 Rouser Road
Coraopolis, PA 15108

Attn: **Ms. Karen Wood**

Date: Thursday September 11th, 1997

RE: **24-GW08-97C**
Project # 00000-000-000-0000
Lab ID: **9708G298-001**
Sample Date: 08/10/97
Date Received: 08/12/97

Inorganic Data Report

Parameters	Result		Units	Reporting Limit
Oil & Grease, Grav.	5.4	u	mg/L	5.4
Total Dissolved Solids	100		mg/L	10
Total Suspended Solids	4	U	mg/L	4

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

24-GW09-97C

Lab Name: RECRA LABNET - CHICAGO Contract: 1104-09-001

Lab Code: Case No.: SAS No.: SDG No.: 08G298

Matrix: (soil/water) WATER Lab Sample ID: 9708G298-002

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CFN07

Level: (low/med) LOW Date Received: 08/12/97

% Moisture: not dec. _____ Date Analyzed: 08/22/97

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-09-2	Methylene chloride	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon tetrachloride	0.5	U
71-43-2	Benzene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
108-88-3	Toluene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.5	U
124-48-1	Dibromochloromethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
100-41-4	Ethylbenzene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
67-64-1	Acetone	2	U
78-93-3	2-Butanone	2	U
75-15-0	Carbon Disulfide	2	U
108-10-1	4-Methyl-2-pentanone	2	U
591-78-6	2-Hexanone	2	U
540-59-0	1,2-Dichloroethene (total)	0.5	U
1330-20-7	Xylene (total)	0.5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

24-GW09-97C

Lab Name: RECRA LABNET - CHICAGO Contract: 1104-09-001

Lab Code: Case No.: SAS No.: SDG No.: 08G298

Matrix: (soil/water) WATER Lab Sample ID: 9708G298-002

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CFN07

Level: (low/med) LOW Date Received: 08/12/97

% Moisture: not dec. _____ Date Analyzed: 08/22/97

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

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
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1D
PESTICIDE ANALYSIS DATA SHEET

EPA SAMPLE NO.

24-GW09-97C

Lab Name: Recra LabNet Contract: 00000-000-000-0000-00

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

Matrix: (soil/water) WATER Lab Sample ID: 9708G298-002

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 08159715.44

% Moisture: decanted: (Y/N) _ Date Received: 08/12/97

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 08/15/97

Concentrated Extract Volume: 10000(uL) Date Analyzed: 08/19/97

Injection Volume: 1.0(uL) Dilution Factor: 1.00

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

G29802

Lab Name: RECRA_LABNET_CHICAGO Contract:

Lab Code: RECRA_ Case No.: SAS No.: SDG No.: G29801

Matrix (soil/water): WATER Lab Sample ID: 9708G298-002

Level (low/med): LOW Date Received: 08/12/97

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony	1.9	U		P
7440-38-2	Arsenic	2.5	U		P
7440-39-3	Barium				NR
7440-41-7	Beryllium	0.30	U		P
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium	0.83	B		P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron	762			P
7439-92-1	Lead	2.4	B		P
7439-95-4	Magnesium				NR
7439-96-5	Manganese	46.1	B		P
7439-97-6	Mercury	2.8			CV
7440-02-0	Nickel	0.80	U		P
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

24-GW09-97C

To: **Baker-Lejenue #367**
Airport Office Park, Bldg. 3
420 Rouser Road
Coraopolis, PA 15108

Attn: **Ms. Karen Wood**

Date: Thursday September 11th, 1997

RE: **24-GW09-97C**
Project # 00000-000-000-0000
Lab ID: **9708G298-002**
Sample Date: 08/10/97
Date Received: 08/12/97

Inorganic Data Report

Parameters	Result		Units	Reporting Limit
Oil & Grease, Grav.	5.3	u	mg/L	5.3
Total Dissolved Solids	42		mg/L	10
Total Suspended Solids	5		mg/L	4

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

24-GW10-97C

Lab Name: RECRA LABNET - CHICAGO Contract: 1104-09-001

Lab Code: Case No.: SAS No.: SDG No.: 08G298

Matrix: (soil/water) WATER Lab Sample ID: 9708G298-003

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CFN25

Level: (low/med) LOW Date Received: 08/12/97

% Moisture: not dec. _____ Date Analyzed: 08/22/97

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-09-2	Methylene chloride	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon tetrachloride	0.5	U
71-43-2	Benzene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
540-59-0	1,2-Dichloroethene (total)	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
108-88-3	Toluene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.5	U
124-48-1	Dibromochloromethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
100-41-4	Ethylbenzene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
67-64-1	Acetone	2	U
78-93-3	2-Butanone	2	U
75-15-0	Carbon Disulfide	2	U
108-10-1	4-Methyl-2-pentanone	2	U
591-78-6	2-Hexanone	2	U
1330-20-7	Xylene (total)	0.5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

24-GW10-97C

Lab Name: RECRA LABNET - CHICAGO Contract: 1104-09-001

Lab Code: Case No.: SAS No.: SDG No.: 08G298

Matrix: (soil/water) WATER Lab Sample ID: 9708G298-003

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CFN25

Level: (low/med) LOW Date Received: 08/12/97

% Moisture: not dec. _____ Date Analyzed: 08/22/97

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

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
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1D
PESTICIDE ANALYSIS DATA SHEET

EPA SAMPLE NO.

24-GW10-97C

Lab Name: Recra LabNet Contract: 00000-000-000-0000-00

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

Matrix: (soil/water) WATER Lab Sample ID: 9708G298-003

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 08159715.45

% Moisture: decanted: (Y/N) _ Date Received: 08/12/97

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 08/15/97

Concentrated Extract Volume: 10000(uL) Date Analyzed: 08/19/97

Injection Volume: 1.0(uL) Dilution Factor: 1.00

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.
G29803

Lab Name: RECRA_LABNET_CHICAGO_____ Contract: _____

Lab Code: RECRA_ Case No.: _____ SAS No.: _____ SDG No.: G29801

Matrix (soil/water): WATER Lab Sample ID: 9708G298-003

Level (low/med): LOW__ Date Received: 08/12/97

% Solids: __0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_		_		NR
7440-36-0	Antimony_	2.7	B		P_
7440-38-2	Arsenic__	2.5	U		P_
7440-39-3	Barium___		_		NR
7440-41-7	Beryllium	0.30	U		P_
7440-43-9	Cadmium__		_		NR
7440-70-2	Calcium__		_		NR
7440-47-3	Chromium_	0.70	U		P_
7440-48-4	Cobalt___		_		NR
7440-50-8	Copper___		_		NR
7439-89-6	Iron_____	16.1	U		P_
7439-92-1	Lead_____	1.9	B		P_
7439-95-4	Magnesium		_		NR
7439-96-5	Manganese	1.5	B		P_
7439-97-6	Mercury__	0.10	U		CV
7440-02-0	Nickel___	0.80	U		P_
7440-09-7	Potassium		_		NR
7782-49-2	Selenium_		_		NR
7440-22-4	Silver___		_		NR
7440-23-5	Sodium___		_		NR
7440-28-0	Thallium_		_		NR
7440-62-2	Vanadium_		_		NR
7440-66-6	Zinc_____		_		NR
_____	Cyanide__		_		NR
_____	_____		_		__

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:
24-GW10-97C_____

To: Baker-Lejenue #367
Airport Office Park, Bldg. 3
420 Rouser Road
Coraopolis, PA 15108

Attn: Ms. Karen Wood

Date: Thursday September 11th, 1997

RE: 24-GW10-97C
Project # 00000-000-000-0000
Lab ID: 9708G298-003
Sample Date: 08/11/97
Date Received: 08/12/97

Inorganic Data Report

Parameters	Result		Units	Reporting Limit
Oil & Grease, Grav.	5.3	u	mg/L	5.3
Total Dissolved Solids	42		mg/L	10
Total Suspended Solids	4	u	mg/L	4

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

78-GW01-97C

Lab Name: RECRA LABNET - CHICAGO Contract: 1104-09-001

Lab Code: Case No.: SAS No.: SDG No.: 08G298

Matrix: (soil/water) WATER Lab Sample ID: 9708G298-024

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CFN24

Level: (low/med) LOW Date Received: 08/12/97

% Moisture: not dec. _____ Date Analyzed: 08/22/97

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-09-2	Methylene chloride	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon tetrachloride	0.5	U
71-43-2	Benzene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
540-59-0	1,2-Dichloroethene (total)	10	
79-01-6	Trichloroethene	21	
78-87-5	1,2-Dichloropropane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
108-88-3	Toluene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.5	U
124-48-1	Dibromochloromethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
100-41-4	Ethylbenzene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
67-64-1	Acetone	2	U
78-93-3	2-Butanone	2	U
75-15-0	Carbon Disulfide	2	U
108-10-1	4-Methyl-2-pentanone	2	U
591-78-6	2-Hexanone	2	U
1330-20-7	Xylene (total)	0.5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

78-GW01-97C

Lab Name: RECRA LABNET - CHICAGO Contract: 1104-09-001

Lab Code: Case No.: SAS No.: SDG No.: 08G298

Matrix: (soil/water) WATER Lab Sample ID: 9708G298-024

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CFN24

Level: (low/med) LOW Date Received: 08/12/97

% Moisture: not dec. _____ Date Analyzed: 08/22/97

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

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

78-GW02-97C

Lab Name: RECRA LABNET - CHICAGO Contract: 1104-09-001

Lab Code: Case No.: SAS No.: SDG No.: 08G298

Matrix: (soil/water) WATER Lab Sample ID: 9708G298-004

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CFN01

Level: (low/med) LOW Date Received: 08/12/97

% Moisture: not dec. _____ Date Analyzed: 08/22/97

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-09-2	Methylene chloride	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon tetrachloride	0.5	U
71-43-2	Benzene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
540-59-0	1,2-Dichloroethene (total)	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
108-88-3	Toluene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.5	U
124-48-1	Dibromochloromethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
100-41-4	Ethylbenzene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
67-64-1	Acetone	2	U
78-93-3	2-Butanone	2	U
75-15-0	Carbon Disulfide	2	U
108-10-1	4-Methyl-2-pentanone	2	U
591-78-6	2-Hexanone	2	U
1330-20-7	Xylene (total)	0.5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

78-GW02-97C

Lab Name: RECRA LABNET - CHICAGO Contract: 1104-09-001

Lab Code: Case No.: SAS No.: SDG No.: 08G298

Matrix: (soil/water) WATER Lab Sample ID: 9708G298-004

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CFN01

Level: (low/med) LOW Date Received: 08/12/97

% Moisture: not dec. _____ Date Analyzed: 08/22/97

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

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

78-GW03-97C

Lab Name: RECRA LABNET - CHICAGO Contract: 1104-09-001

Lab Code: Case No.: SAS No.: SDG No.: 08G298

Matrix: (soil/water) WATER Lab Sample ID: 9708G298-005

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CFN03

Level: (low/med) LOW Date Received: 08/12/97

% Moisture: not dec. _____ Date Analyzed: 08/22/97

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-09-2	Methylene chloride	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon tetrachloride	0.5	U
71-43-2	Benzene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
540-59-0	1,2-Dichloroethene (total)	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
108-88-3	Toluene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.5	U
124-48-1	Dibromochloromethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
100-41-4	Ethylbenzene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
67-64-1	Acetone	2	U
78-93-3	2-Butanone	2	U
75-15-0	Carbon Disulfide	2	U
108-10-1	4-Methyl-2-pentanone	2	U
591-78-6	2-Hexanone	2	U
1330-20-7	Xylene (total)	0.5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

78-GW03-97C

Lab Name: RECRA LABNET - CHICAGO Contract: 1104-09-001

Lab Code: Case No.: SAS No.: SDG No.: 08G298

Matrix: (soil/water) WATER Lab Sample ID: 9708G298-005

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CFN03

Level: (low/med) LOW Date Received: 08/12/97

% Moisture: not dec. _____ Date Analyzed: 08/22/97

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

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

78-GW04-97C

Lab Name: RECRA LABNET - CHICAGO Contract: 1104-09-001

Lab Code: Case No.: SAS No.: SDG No.: 08G298

Matrix: (soil/water) WATER Lab Sample ID: 9708G298-012

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CFN19

Level: (low/med) LOW Date Received: 08/12/97

% Moisture: not dec. _____ Date Analyzed: 08/22/97

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-09-2	Methylene chloride	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon tetrachloride	0.5	U
71-43-2	Benzene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
540-59-0	1,2-Dichloroethene (total)	1	
79-01-6	Trichloroethene	6	
78-87-5	1,2-Dichloropropane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
108-88-3	Toluene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.5	U
124-48-1	Dibromochloromethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
100-41-4	Ethylbenzene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
67-64-1	Acetone	2	U
78-93-3	2-Butanone	2	U
75-15-0	Carbon Disulfide	2	U
108-10-1	4-Methyl-2-pentanone	2	U
591-78-6	2-Hexanone	2	U
1330-20-7	Xylene (total)	0.5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

78-GW04-97C

Lab Name: RECRA LABNET - CHICAGO Contract: 1104-09-001

Lab Code: Case No.: SAS No.: SDG No.: 08G298

Matrix: (soil/water) WATER Lab Sample ID: 9708G298-012

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CFN19

Level: (low/med) LOW Date Received: 08/12/97

% Moisture: not dec. _____ Date Analyzed: 08/22/97

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

Number TICs found: 5

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown Alkane	7.860	4	J
2.		Unknown Alkane	9.752	10	J
3.		Unknown	11.897	3	J
4.		Unknown Alkane	12.157	3	J
5.		Unknown Cycloalkane	14.378	5	J
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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

78-GW08-97C

Lab Name: RECRA LABNET - CHICAGO Contract: 1104-09-001

Lab Code: Case No.: SAS No.: SDG No.: 08G298

Matrix: (soil/water) WATER Lab Sample ID: 9708G298-017

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CFN12

Level: (low/med) LOW Date Received: 08/12/97

% Moisture: not dec. _____ Date Analyzed: 08/22/97

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-09-2	Methylene chloride	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon tetrachloride	0.5	U
71-43-2	Benzene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
108-88-3	Toluene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.5	U
124-48-1	Dibromochloromethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
100-41-4	Ethylbenzene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
67-64-1	Acetone	2	U
78-93-3	2-Butanone	2	U
75-15-0	Carbon Disulfide	2	U
108-10-1	4-Methyl-2-pentanone	2	U
591-78-6	2-Hexanone	2	U
540-59-0	1,2-Dichloroethene (total)	0.5	U
1330-20-7	Xylene (total)	0.5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

78-GW08-97C

Lab Name: RECRA LABNET - CHICAGO Contract: 1104-09-001

Lab Code: Case No.: SAS No.: SDG No.: 08G298

Matrix: (soil/water) WATER Lab Sample ID: 9708G298-017

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CFN12

Level: (low/med) LOW Date Received: 08/12/97

% Moisture: not dec. _____ Date Analyzed: 08/22/97

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

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
5.					
6.					
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9.					
10.					
11.					
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

78-GW09-97C

Lab Name: RECRA LABNET - CHICAGO Contract: 1104-09-001

Lab Code: Case No.: SAS No.: SDG No.: 08G298

Matrix: (soil/water) WATER Lab Sample ID: 9708G298-008

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CFN15

Level: (low/med) LOW Date Received: 08/12/97

% Moisture: not dec. _____ Date Analyzed: 08/22/97

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-35-4	1,1-Dichloroethene	100	E
75-09-2	Methylene chloride	0.5	U
75-34-3	1,1-Dichloroethane	52	E
67-66-3	Chloroform	2	
71-55-6	1,1,1-Trichloroethane	310	E
56-23-5	Carbon tetrachloride	0.5	U
71-43-2	Benzene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
540-59-0	1,2-Dichloroethene (total)	390	E
79-01-6	Trichloroethene	490	E
78-87-5	1,2-Dichloropropane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
108-88-3	Toluene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.5	U
124-48-1	Dibromochloromethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
100-41-4	Ethylbenzene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
67-64-1	Acetone	2	U
78-93-3	2-Butanone	2	U
75-15-0	Carbon Disulfide	2	U
108-10-1	4-Methyl-2-pentanone	2	U
591-78-6	2-Hexanone	2	U
1330-20-7	Xylene (total)	0.5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

78-GW09-97C

Lab Name: RECRA LABNET - CHICAGO Contract: 1104-09-001

Lab Code: Case No.: SAS No.: SDG No.: 08G298

Matrix: (soil/water) WATER Lab Sample ID: 9708G298-008

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CFN15

Level: (low/med) LOW Date Received: 08/12/97

% Moisture: not dec. _____ Date Analyzed: 08/22/97

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

Number TICs found: 0

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

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

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

78-GW09-97CDL

Lab Name: RECRA LABNET - CHICAGO Contract: 1104-09-001

Lab Code: Case No.: SAS No.: SDG No.: 08G298

Matrix: (soil/water) WATER Lab Sample ID: 9708G298-008

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CFN28

Level: (low/med) LOW Date Received: 08/12/97

% Moisture: not dec. _____ Date Analyzed: 08/22/97

Column: (pack/cap) CAP Dilution Factor: 25.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
74-87-3	Chloromethane	12	U
75-01-4	Vinyl chloride	12	U
74-83-9	Bromomethane	12	U
75-00-3	Chloroethane	12	U
75-35-4	1,1-Dichloroethene	91	D
75-09-2	Methylene chloride	12	U
75-34-3	1,1-Dichloroethane	68	D
67-66-3	Chloroform	12	U
71-55-6	1,1,1-Trichloroethane	370	D
56-23-5	Carbon tetrachloride	12	U
71-43-2	Benzene	12	U
107-06-2	1,2-Dichloroethane	12	U
540-59-0	1,2-Dichloroethene (total)	570	D
79-01-6	Trichloroethene	920	D
78-87-5	1,2-Dichloropropane	12	U
75-27-4	Bromodichloromethane	12	U
108-88-3	Toluene	12	U
79-00-5	1,1,2-Trichloroethane	12	U
127-18-4	Tetrachloroethene	12	U
124-48-1	Dibromochloromethane	12	U
108-90-7	Chlorobenzene	12	U
100-41-4	Ethylbenzene	12	U
100-42-5	Styrene	12	U
75-25-2	Bromoform	12	U
79-34-5	1,1,2,2-Tetrachloroethane	12	U
10061-01-5	cis-1,3-Dichloropropene	12	U
10061-02-6	trans-1,3-Dichloropropene	12	U
67-64-1	Acetone	50	U
78-93-3	2-Butanone	50	U
75-15-0	Carbon Disulfide	50	U
108-10-1	4-Methyl-2-pentanone	50	U
591-78-6	2-Hexanone	50	U
1330-20-7	Xylene (total)	12	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

78-GW09IW-97C

Lab Name: RECRA LABNET - CHICAGO Contract: 1104-09-001

Lab Code: Case No.: SAS No.: SDG No.: 08G298

Matrix: (soil/water) WATER Lab Sample ID: 9708G298-009

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CFN27

Level: (low/med) LOW Date Received: 08/12/97

% Moisture: not dec. _____ Date Analyzed: 08/22/97

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-09-2	Methylene chloride	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon tetrachloride	0.5	U
71-43-2	Benzene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
540-59-0	1,2-Dichloroethene (total)	5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
108-88-3	Toluene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.5	U
124-48-1	Dibromochloromethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
100-41-4	Ethylbenzene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
67-64-1	Acetone	2	U
78-93-3	2-Butanone	2	U
75-15-0	Carbon Disulfide	2	U
108-10-1	4-Methyl-2-pentanone	2	U
591-78-6	2-Hexanone	2	U
1330-20-7	Xylene (total)	0.5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

78-GW09IW-97C

Lab Name: RECRA LABNET - CHICAGO Contract: 1104-09-001

Lab Code: Case No.: SAS No.: SDG No.: 08G298

Matrix: (soil/water) WATER Lab Sample ID: 9708G298-009

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CFN27

Level: (low/med) LOW Date Received: 08/12/97

% Moisture: not dec. _____ Date Analyzed: 08/22/97

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

Number TICs found: 1

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown Cycloalkane	13.906	1	J
2.					
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

78-GW09DW-97C

Lab Name: RECRA LABNET - CHICAGO Contract: 1104-09-001

Lab Code: Case No.: SAS No.: SDG No.: 08G298

Matrix: (soil/water) WATER Lab Sample ID: 9708G298-010

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CFN17

Level: (low/med) LOW Date Received: 08/12/97

% Moisture: not dec. _____ Date Analyzed: 08/22/97

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-09-2	Methylene chloride	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon tetrachloride	0.5	U
71-43-2	Benzene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
540-59-0	1,2-Dichloroethene (total)	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
108-88-3	Toluene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.5	U
124-48-1	Dibromochloromethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
100-41-4	Ethylbenzene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
67-64-1	Acetone	2	U
78-93-3	2-Butanone	2	U
75-15-0	Carbon Disulfide	2	U
108-10-1	4-Methyl-2-pentanone	2	U
591-78-6	2-Hexanone	2	U
1330-20-7	Xylene (total)	0.5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

78-GW09DW-97C

Lab Name: RECRA LABNET - CHICAGO Contract: 1104-09-001

Lab Code: Case No.: SAS No.: SDG No.: 08G298

Matrix: (soil/water) WATER Lab Sample ID: 9708G298-010

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CFN17

Level: (low/med) LOW Date Received: 08/12/97

% Moisture: not dec. _____ Date Analyzed: 08/22/97

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

Number TICs found: 0

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

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

EPA SAMPLE NO.

78-GW10-97C

Lab Name: RECRA LABNET - CHICAGO Contract: 1104-09-001

Lab Code: Case No.: SAS No.: SDG No.: 08G298

Matrix: (soil/water) WATER Lab Sample ID: 9708G298-015

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CFN15

Level: (low/med) LOW Date Received: 08/12/97

% Moisture: not dec. _____ Date Analyzed: 08/22/97

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-09-2	Methylene chloride	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon tetrachloride	0.5	U
71-43-2	Benzene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
108-88-3	Toluene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.5	U
124-48-1	Dibromochloromethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
100-41-4	Ethylbenzene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
67-64-1	Acetone	2	U
78-93-3	2-Butanone	2	U
75-15-0	Carbon Disulfide	2	U
108-10-1	4-Methyl-2-pentanone	2	U
591-78-6	2-Hexanone	2	U
540-59-0	1,2-Dichloroethene (total)	0.5	U
1330-20-7	Xylene (total)	0.5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

78-GW10-97C

Lab Name: RECRA LABNET - CHICAGO Contract: 1104-09-001

Lab Code: Case No.: SAS No.: SDG No.: 08G298

Matrix: (soil/water) WATER Lab Sample ID: 9708G298-015

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CFN15

Level: (low/med) LOW Date Received: 08/12/97

% Moisture: not dec. _____ Date Analyzed: 08/22/97

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

Number TICs found: 0

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

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

EPA SAMPLE NO.

78-GW11-97C

Lab Name: RECRA LABNET - CHICAGO Contract: 1104-09-001

Lab Code: Case No.: SAS No.: SDG No.: 08G298

Matrix: (soil/water) WATER Lab Sample ID: 9708G298-016

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CFN11

Level: (low/med) LOW Date Received: 08/12/97

% Moisture: not dec. _____ Date Analyzed: 08/22/97

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-09-2	Methylene chloride	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon tetrachloride	0.5	U
71-43-2	Benzene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
108-88-3	Toluene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.5	U
124-48-1	Dibromochloromethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
100-41-4	Ethylbenzene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
67-64-1	Acetone	2	U
78-93-3	2-Butanone	2	U
75-15-0	Carbon Disulfide	2	U
108-10-1	4-Methyl-2-pentanone	2	U
591-78-6	2-Hexanone	2	U
540-59-0	1,2-Dichloroethene (total)	0.5	U
1330-20-7	Xylene (total)	0.5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

78-GW11-97C

Lab Name: RECRA LABNET - CHICAGO Contract: 1104-09-001

Lab Code: Case No.: SAS No.: SDG No.: 08G298

Matrix: (soil/water) WATER Lab Sample ID: 9708G298-016

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CFN11

Level: (low/med) LOW Date Received: 08/12/97

% Moisture: not dec. _____ Date Analyzed: 08/22/97

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

Number TICs found: 0

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

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

EPA SAMPLE NO.

78-GW14-97C

Lab Name: RECRA LABNET - CHICAGO Contract: 1104-09-001

Lab Code: Case No.: SAS No.: SDG No.: 08G298

Matrix: (soil/water) WATER Lab Sample ID: 9708G298-006

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CFN04

Level: (low/med) LOW Date Received: 08/12/97

% Moisture: not dec. _____ Date Analyzed: 08/22/97

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-09-2	Methylene chloride	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon tetrachloride	0.5	U
71-43-2	Benzene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
540-59-0	1,2-Dichloroethene (total)	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
108-88-3	Toluene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.5	U
124-48-1	Dibromochloromethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
100-41-4	Ethylbenzene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
67-64-1	Acetone	2	U
78-93-3	2-Butanone	2	U
75-15-0	Carbon Disulfide	2	U
108-10-1	4-Methyl-2-pentanone	2	U
591-78-6	2-Hexanone	2	U
1330-20-7	Xylene (total)	0.5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

78-GW14-97C

Lab Name: RECRA LABNET - CHICAGO Contract: 1104-09-001

Lab Code: Case No.: SAS No.: SDG No.: 08G298

Matrix: (soil/water) WATER Lab Sample ID: 9708G298-006

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CFN04

Level: (low/med) LOW Date Received: 08/12/97

% Moisture: not dec. _____ Date Analyzed: 08/22/97

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

Number TICs found: 0

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

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

EPA SAMPLE NO.

78-GW15-97C

Lab Name: RECRA LABNET - CHICAGO Contract: 1104-09-001

Lab Code: Case No.: SAS No.: SDG No.: 08G298

Matrix: (soil/water) WATER Lab Sample ID: 9708G298-007

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CFN05

Level: (low/med) LOW Date Received: 08/12/97

% Moisture: not dec. _____ Date Analyzed: 08/22/97

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-09-2	Methylene chloride	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon tetrachloride	0.5	U
71-43-2	Benzene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
540-59-0	1,2-Dichloroethene (total)	0.5	U
79-01-6	Trichloroethene	1	
78-87-5	1,2-Dichloropropane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
108-88-3	Toluene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.5	U
124-48-1	Dibromochloromethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
100-41-4	Ethylbenzene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
67-64-1	Acetone	2	U
78-93-3	2-Butanone	2	U
75-15-0	Carbon Disulfide	2	U
108-10-1	4-Methyl-2-pentanone	2	U
591-78-6	2-Hexanone	2	U
1330-20-7	Xylene (total)	0.5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

78-GW15-97C

Lab Name: RECRA LABNET - CHICAGO Contract: 1104-09-001

Lab Code: Case No.: SAS No.: SDG No.: 08G298

Matrix: (soil/water) WATER Lab Sample ID: 9708G298-007

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CFN05

Level: (low/med) LOW Date Received: 08/12/97

% Moisture: not dec. _____ Date Analyzed: 08/22/97

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

Number TICs found: 1

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	20.942	2	J
2.					
3.					
4.					
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

78-GW17-97C

Lab Name: RECRA LABNET - CHICAGO Contract: 1104-09-001

Lab Code: Case No.: SAS No.: SDG No.: 08G298

Matrix: (soil/water) WATER Lab Sample ID: 9708G298-011

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CFN18

Level: (low/med) LOW Date Received: 08/12/97

% Moisture: not dec. _____ Date Analyzed: 08/22/97

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-09-2	Methylene chloride	0.5	
75-34-3	1,1-Dichloroethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon tetrachloride	0.5	U
71-43-2	Benzene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
540-59-0	1,2-Dichloroethene (total)	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
108-88-3	Toluene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.5	U
124-48-1	Dibromochloromethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
100-41-4	Ethylbenzene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
67-64-1	Acetone	2	U
78-93-3	2-Butanone	2	U
75-15-0	Carbon Disulfide	2	U
108-10-1	4-Methyl-2-pentanone	2	U
591-78-6	2-Hexanone	2	U
1330-20-7	Xylene (total)	0.5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

78-GW17-97C

Lab Name: RECRA LABNET - CHICAGO Contract: 1104-09-001

Lab Code: Case No.: SAS No.: SDG No.: 08G298

Matrix: (soil/water) WATER Lab Sample ID: 9708G298-011

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CFN18

Level: (low/med) LOW Date Received: 08/12/97

% Moisture: not dec. _____ Date Analyzed: 08/22/97

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

Number TICs found: 0

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

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

EPA SAMPLE NO.

78-GW21-97C

Lab Name: RECRA LABNET - CHICAGO Contract: 1104-09-001

Lab Code: Case No.: SAS No.: SDG No.: 08G298

Matrix: (soil/water) WATER Lab Sample ID: 9708G298-014

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CFN09

Level: (low/med) LOW Date Received: 08/12/97

% Moisture: not dec. _____ Date Analyzed: 08/22/97

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-09-2	Methylene chloride	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon tetrachloride	0.5	U
71-43-2	Benzene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
108-88-3	Toluene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.5	U
124-48-1	Dibromochloromethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
100-41-4	Ethylbenzene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
67-64-1	Acetone	2	U
78-93-3	2-Butanone	2	U
75-15-0	Carbon Disulfide	2	U
108-10-1	4-Methyl-2-pentanone	2	U
591-78-6	2-Hexanone	2	U
540-59-0	1,2-Dichloroethene (total)	0.5	U
1330-20-7	Xylene (total)	0.5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

78-GW21-97C

Lab Name: RECRA LABNET - CHICAGO Contract: 1104-09-001

Lab Code: Case No.: SAS No.: SDG No.: 08G298

Matrix: (soil/water) WATER Lab Sample ID: 9708G298-014

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CFN09

Level: (low/med) LOW Date Received: 08/12/97

% Moisture: not dec. _____ Date Analyzed: 08/22/97

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

Number TICs found: 0

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

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

EPA SAMPLE NO.

78-GW22A-97C

Lab Name: RECRA LABNET - CHICAGO Contract: 1104-09-001

Lab Code: Case No.: SAS No.: SDG No.: 08G298

Matrix: (soil/water) WATER Lab Sample ID: 9708G298-022

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CFN22

Level: (low/med) LOW Date Received: 08/12/97

% Moisture: not dec. _____ Date Analyzed: 08/22/97

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-09-2	Methylene chloride	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon tetrachloride	0.5	U
71-43-2	Benzene	0.8	
107-06-2	1,2-Dichloroethane	0.5	U
540-59-0	1,2-Dichloroethene (total)	7	
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
108-88-3	Toluene	0.6	
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.5	U
124-48-1	Dibromochloromethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
100-41-4	Ethylbenzene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
67-64-1	Acetone	2	U
78-93-3	2-Butanone	2	U
75-15-0	Carbon Disulfide	2	U
108-10-1	4-Methyl-2-pentanone	2	U
591-78-6	2-Hexanone	2	U
1330-20-7	Xylene (total)	0.5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

78-GW22A-97C

Lab Name: RECRA LABNET - CHICAGO Contract: 1104-09-001

Lab Code: Case No.: SAS No.: SDG No.: 08G298

Matrix: (soil/water) WATER Lab Sample ID: 9708G298-022

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CFN22

Level: (low/med) LOW Date Received: 08/12/97

% Moisture: not dec. _____ Date Analyzed: 08/22/97

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

Number TICs found: 5

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Subst Benzene	23.695	4	J
2.		Subst Benzene	24.877	4	J
3.		Unknown	26.282	6	J
4.		Unknown	27.028	4	J
5.		Unknown	27.251	8	J
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

78-GW23-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 08G298

Matrix: (soil/water) WATER Lab Sample ID: 9708G298-020

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CFN20

Level: (low/med) LOW Date Received: 08/12/97

% Moisture: not dec. _____ Date Analyzed: 08/22/97

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl chloride	500	E
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-35-4	1,1-Dichloroethene	4	
75-09-2	Methylene chloride	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon tetrachloride	0.5	U
71-43-2	Benzene	17	
107-06-2	1,2-Dichloroethane	0.5	U
540-59-0	1,2-Dichloroethene (total)	1500	E
79-01-6	Trichloroethene	47	E
78-87-5	1,2-Dichloropropane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
108-88-3	Toluene	4	
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.5	U
124-48-1	Dibromochloromethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
100-41-4	Ethylbenzene	7	
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
67-64-1	Acetone	2	U
78-93-3	2-Butanone	2	U
75-15-0	Carbon Disulfide	2	U
108-10-1	4-Methyl-2-pentanone	2	U
591-78-6	2-Hexanone	2	U
1330-20-7	Xylene (total)	50	

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

78-GW23-97C

Lab Name: RECRA LABNET - CHICAGO Contract: 1104-09-001

Lab Code: Case No.: SAS No.: SDG No.: 08G298

Matrix: (soil/water) WATER Lab Sample ID: 9708G298-020

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CFN20

Level: (low/med) LOW Date Received: 08/12/97

% Moisture: not dec. _____ Date Analyzed: 08/22/97

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

Number TICs found: 5

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Subst Benzene	21.435	13	J
2.		Subst Benzene	21.578	11	J
3.		Subst Benzene	22.014	8	J
4.		Subst Benzene	22.363	28	J
5.		Subst Benzene	23.284	9	J
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

78-GW23-97CDL

Lab Name: RECRA LABNET - CHICAGO Contract: 1104-09-001

Lab Code: Case No.: SAS No.: SDG No.: 08G298

Matrix: (soil/water) WATER Lab Sample ID: 9708G298-020

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CFN40

Level: (low/med) LOW Date Received: 08/12/97

% Moisture: not dec. _____ Date Analyzed: 08/23/97

Column: (pack/cap) CAP Dilution Factor: 500.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
74-87-3	Chloromethane	250	U
75-01-4	Vinyl chloride	250	U
74-83-9	Bromomethane	250	U
75-00-3	Chloroethane	250	U
75-35-4	1,1-Dichloroethene	250	U
75-09-2	Methylene chloride	250	U
75-34-3	1,1-Dichloroethane	250	U
67-66-3	Chloroform	250	U
71-55-6	1,1,1-Trichloroethane	250	U
56-23-5	Carbon tetrachloride	250	U
71-43-2	Benzene	250	U
107-06-2	1,2-Dichloroethane	250	U
540-59-0	1,2-Dichloroethene (total)	10000	D
79-01-6	Trichloroethene	250	U
78-87-5	1,2-Dichloropropane	250	U
75-27-4	Bromodichloromethane	250	U
108-88-3	Toluene	250	U
79-00-5	1,1,2-Trichloroethane	250	U
127-18-4	Tetrachloroethene	250	U
124-48-1	Dibromochloromethane	250	U
108-90-7	Chlorobenzene	250	U
100-41-4	Ethylbenzene	250	U
100-42-5	Styrene	250	U
75-25-2	Bromoform	250	U
79-34-5	1,1,2,2-Tetrachloroethane	250	U
10061-01-5	cis-1,3-Dichloropropene	250	U
10061-02-6	trans-1,3-Dichloropropene	250	U
67-64-1	Acetone	1000	U
78-93-3	2-Butanone	1000	U
75-15-0	Carbon Disulfide	1000	U
108-10-1	4-Methyl-2-pentanone	1000	U
591-78-6	2-Hexanone	1000	U
1330-20-7	Xylene (total)	250	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

78-GW23-97CDL

Lab Name: RECRA LABNET - CHICAGO Contract: 1104-09-001

Lab Code: Case No.: SAS No.: SDG No.: 08G298

Matrix: (soil/water) WATER Lab Sample ID: 9708G298-020

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CFN31

Level: (low/med) LOW Date Received: 08/12/97

% Moisture: not dec. _____ Date Analyzed: 08/23/97

Column: (pack/cap) CAP Dilution Factor: 25.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
74-87-3	Chloromethane	12	U
75-01-4	Vinyl chloride	590	D
74-83-9	Bromomethane	12	U
75-00-3	Chloroethane	12	U
75-35-4	1,1-Dichloroethene	12	U
75-09-2	Methylene chloride	12	U
75-34-3	1,1-Dichloroethane	12	U
67-66-3	Chloroform	12	U
71-55-6	1,1,1-Trichloroethane	12	U
56-23-5	Carbon tetrachloride	12	U
71-43-2	Benzene	12	U
107-06-2	1,2-Dichloroethane	12	U
540-59-0	1,2-Dichloroethene (total)	11000	DE
79-01-6	Trichloroethene	62	D
78-87-5	1,2-Dichloropropane	12	U
75-27-4	Bromodichloromethane	12	U
108-88-3	Toluene	12	U
79-00-5	1,1,2-Trichloroethane	12	U
127-18-4	Tetrachloroethene	12	U
124-48-1	Dibromochloromethane	12	U
108-90-7	Chlorobenzene	12	U
100-41-4	Ethylbenzene	12	U
100-42-5	Styrene	12	U
75-25-2	Bromoform	12	U
79-34-5	1,1,2,2-Tetrachloroethane	12	U
10061-01-5	cis-1,3-Dichloropropene	12	U
10061-02-6	trans-1,3-Dichloropropene	12	U
67-64-1	Acetone	50	U
78-93-3	2-Butanone	50	U
75-15-0	Carbon Disulfide	50	U
108-10-1	4-Methyl-2-pentanone	50	U
591-78-6	2-Hexanone	50	U
1330-20-7	Xylene (total)	12	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

78-GW24-97C

Lab Name: RECRA LABNET - CHICAGO Contract: 1104-09-001

Lab Code: Case No.: SAS No.: SDG No.: 08G298

Matrix: (soil/water) WATER Lab Sample ID: 9708G298-021

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CFN21

Level: (low/med) LOW Date Received: 08/12/97

% Moisture: not dec. _____ Date Analyzed: 08/22/97

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl chloride	7	
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-35-4	1,1-Dichloroethene	0.7	
75-09-2	Methylene chloride	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon tetrachloride	0.5	U
71-43-2	Benzene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
540-59-0	1,2-Dichloroethene (total)	240	E
79-01-6	Trichloroethene	28	
78-87-5	1,2-Dichloropropane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
108-88-3	Toluene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.5	U
124-48-1	Dibromochloromethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
100-41-4	Ethylbenzene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
67-64-1	Acetone	2	U
78-93-3	2-Butanone	2	U
75-15-0	Carbon Disulfide	2	U
108-10-1	4-Methyl-2-pentanone	2	U
591-78-6	2-Hexanone	2	U
1330-20-7	Xylene (total)	0.5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

78-GW24-97C

Lab Name: RECRA LABNET - CHICAGO Contract: 1104-09-001

Lab Code: Case No.: SAS No.: SDG No.: 08G298

Matrix: (soil/water) WATER Lab Sample ID: 9708G298-021

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CFN21

Level: (low/med) LOW Date Received: 08/12/97

% Moisture: not dec. _____ Date Analyzed: 08/22/97

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

Number TICs found: 2

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Subst Benzene	23.701	2	J
2.	91-20-3	Naphthalene	27.572	2	NJ
3.					
4.					
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

78-GW24IW-97C

Lab Name: RECRA LABNET - CHICAGO Contract: 1104-09-001

Lab Code: Case No.: SAS No.: SDG No.: 08G298

Matrix: (soil/water) WATER Lab Sample ID: 9708G298-018

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CFN13

Level: (low/med) LOW Date Received: 08/12/97

% Moisture: not dec. _____ Date Analyzed: 08/22/97

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-09-2	Methylene chloride	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon tetrachloride	0.5	U
71-43-2	Benzene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
108-88-3	Toluene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.5	U
124-48-1	Dibromochloromethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
100-41-4	Ethylbenzene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
67-64-1	Acetone	2	U
78-93-3	2-Butanone	2	U
75-15-0	Carbon Disulfide	2	U
108-10-1	4-Methyl-2-pentanone	2	U
591-78-6	2-Hexanone	2	U
540-59-0	1,2-Dichloroethene (total)	0.5	U
1330-20-7	Xylene (total)	0.5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

78-GW24IW-97C

Lab Name: RECRA LABNET - CHICAGO Contract: 1104-09-001

Lab Code: Case No.: SAS No.: SDG No.: 08G298

Matrix: (soil/water) WATER Lab Sample ID: 9708G298-018

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CFN13

Level: (low/med) LOW Date Received: 08/12/97

% Moisture: not dec. _____ Date Analyzed: 08/22/97

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

Number TICs found: 0

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

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

EPA SAMPLE NO.

78-GW24DW-97C

Lab Name: RECRA LABNET - CHICAGO Contract: 1104-09-001

Lab Code: Case No.: SAS No.: SDG No.: 08G298

Matrix: (soil/water) WATER Lab Sample ID: 9708G298-019

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CFN14

Level: (low/med) LOW Date Received: 08/12/97

% Moisture: not dec. _____ Date Analyzed: 08/22/97

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-09-2	Methylene chloride	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon tetrachloride	0.5	U
71-43-2	Benzene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
108-88-3	Toluene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.5	U
124-48-1	Dibromochloromethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
100-41-4	Ethylbenzene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
67-64-1	Acetone	2	U
78-93-3	2-Butanone	2	U
75-15-0	Carbon Disulfide	2	U
108-10-1	4-Methyl-2-pentanone	2	U
591-78-6	2-Hexanone	2	U
540-59-0	1,2-Dichloroethene (total)	0.5	U
1330-20-7	Xylene (total)	0.5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

78-GW24DW-97C

Lab Name: RECRA LABNET - CHICAGO Contract: 1104-09-001

Lab Code: Case No.: SAS No.: SDG No.: 08G298

Matrix: (soil/water) WATER Lab Sample ID: 9708G298-019

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CFN14

Level: (low/med) LOW Date Received: 08/12/97

% Moisture: not dec. _____ Date Analyzed: 08/22/97

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

Number TICs found: 0

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

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

EPA SAMPLE NO.

78-GW25-97C

Lab Name: RECRA LABNET - CHICAGO Contract: 1104-09-001

Lab Code: Case No.: SAS No.: SDG No.: 08G298

Matrix: (soil/water) WATER Lab Sample ID: 9708G298-013

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CFN08

Level: (low/med) LOW Date Received: 08/12/97

% Moisture: not dec. _____ Date Analyzed: 08/22/97

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-09-2	Methylene chloride	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon tetrachloride	0.5	U
71-43-2	Benzene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
108-88-3	Toluene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.5	U
124-48-1	Dibromochloromethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
100-41-4	Ethylbenzene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
67-64-1	Acetone	2	U
78-93-3	2-Butanone	2	U
75-15-0	Carbon Disulfide	2	U
108-10-1	4-Methyl-2-pentanone	2	U
591-78-6	2-Hexanone	2	U
540-59-0	1,2-Dichloroethene (total)	0.5	U
1330-20-7	Xylene (total)	0.5	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

78-GW25-97C

Lab Name: RECRA LABNET - CHICAGO Contract: 1104-09-001

Lab Code: Case No.: SAS No.: SDG No.: 08G298

Matrix: (soil/water) WATER Lab Sample ID: 9708G298-013

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CFN08

Level: (low/med) LOW Date Received: 08/12/97

% Moisture: not dec. _____ Date Analyzed: 08/22/97

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

Number TICs found: 0

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

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

EPA SAMPLE NO.

78-GW39-97C

Lab Name: RECRA LABNET - CHICAGO Contract: 1104-09-001

Lab Code: Case No.: SAS No.: SDG No.: 08G298

Matrix: (soil/water) WATER Lab Sample ID: 9708G298-023

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CFN23

Level: (low/med) LOW Date Received: 08/12/97

% Moisture: not dec. _____ Date Analyzed: 08/22/97

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-09-2	Methylene chloride	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon tetrachloride	0.5	U
71-43-2	Benzene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
540-59-0	1,2-Dichloroethene (total)	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
108-88-3	Toluene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.7	
124-48-1	Dibromochloromethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
100-41-4	Ethylbenzene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
67-64-1	Acetone	2	U
78-93-3	2-Butanone	2	U
75-15-0	Carbon Disulfide	2	U
108-10-1	4-Methyl-2-pentanone	2	U
591-78-6	2-Hexanone	2	U
1330-20-7	Xylene (total)	0.5	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

78-GW39-97C

Lab Name: RECRA LABNET - CHICAGO Contract: 1104-09-001

Lab Code: Case No.: SAS No.: SDG No.: 08G298

Matrix: (soil/water) WATER Lab Sample ID: 9708G298-023

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CFN23

Level: (low/med) LOW Date Received: 08/12/97

% Moisture: not dec. _____ Date Analyzed: 08/22/97

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

Number TICs found: 0

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

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

EPA SAMPLE NO.

IR78-N-TW01-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G044

Matrix: (soil/water) WATER Lab Sample ID: 9707G044-006

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CCT06

Level: (low/med) LOW Date Received: 07/29/97

% Moisture: not dec. _____ Date Analyzed: 08/09/97

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-09-2	Methylene chloride	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
67-66-3	Chloroform	1	
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon tetrachloride	0.5	U
71-43-2	Benzene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
540-59-0	1,2-Dichloroethene (total)	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
108-88-3	Toluene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.5	U
124-48-1	Dibromochloromethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
100-41-4	Ethylbenzene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
67-64-1	Acetone	2	U
78-93-3	2-Butanone	2	U
75-15-0	Carbon Disulfide	2	U
108-10-1	4-Methyl-2-pentanone	2	U
591-78-6	2-Hexanone	2	U
1330-20-7	Xylene (total)	0.5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

IR78-N-TW01-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G044

Matrix: (soil/water) WATER Lab Sample ID: 9707G044-006

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CCT06

Level: (low/med) LOW Date Received: 07/29/97

% Moisture: not dec. _____ Date Analyzed: 08/09/97

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

Number TICs found: 0

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

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

EPA SAMPLE NO.

IR78-N-TW02-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G044

Matrix: (soil/water) WATER Lab Sample ID: 9707G044-002

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CCT02

Level: (low/med) LOW Date Received: 07/29/97

% Moisture: not dec. _____ Date Analyzed: 08/09/97

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-09-2	Methylene chloride	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon tetrachloride	0.5	U
71-43-2	Benzene	6	
107-06-2	1,2-Dichloroethane	0.5	U
540-59-0	1,2-Dichloroethene (total)	2	
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
108-88-3	Toluene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.5	U
124-48-1	Dibromochloromethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
100-41-4	Ethylbenzene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
67-64-1	Acetone	2	U
78-93-3	2-Butanone	2	U
75-15-0	Carbon Disulfide	2	U
108-10-1	4-Methyl-2-pentanone	2	U
591-78-6	2-Hexanone	2	U
1330-20-7	Xylene (total)	5	

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

IR78-N-TW02-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G044

Matrix: (soil/water) WATER Lab Sample ID: 9707G044-002

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CCT02

Level: (low/med) LOW Date Received: 07/29/97

% Moisture: not dec. _____ Date Analyzed: 08/09/97

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

Number TICs found: 5

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown Cycloalkane	11.937	1	J
2.		Unknown	12.206	1	J
3.		Unknown	13.232	1	J
4.		Subst Benzene C9H12	22.412	6	J
5.		Unknown Alkane	23.780	3	J
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

IR78-N-TW03-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G044

Matrix: (soil/water) WATER Lab Sample ID: 9707G044-005

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CCT05

Level: (low/med) LOW Date Received: 07/29/97

% Moisture: not dec. _____ Date Analyzed: 08/09/97

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-09-2	Methylene chloride	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
67-66-3	Chloroform	3	
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon tetrachloride	0.5	U
71-43-2	Benzene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
540-59-0	1,2-Dichloroethene (total)	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
108-88-3	Toluene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.5	U
124-48-1	Dibromochloromethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
100-41-4	Ethylbenzene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
67-64-1	Acetone	2	U
78-93-3	2-Butanone	2	U
75-15-0	Carbon Disulfide	2	U
108-10-1	4-Methyl-2-pentanone	2	U
591-78-6	2-Hexanone	2	U
1330-20-7	Xylene (total)	0.5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

IR78-N-TW03-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G044

Matrix: (soil/water) WATER Lab Sample ID: 9707G044-005

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CCT05

Level: (low/med) LOW Date Received: 07/29/97

% Moisture: not dec. _____ Date Analyzed: 08/09/97

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

Number TICs found: 0

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

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

EPA SAMPLE NO.

IR78-N-TW04-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G044

Matrix: (soil/water) WATER Lab Sample ID: 9707G044-001

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CCT01

Level: (low/med) LOW Date Received: 07/29/97

% Moisture: not dec. _____ Date Analyzed: 08/09/97

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-09-2	Methylene chloride	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
67-66-3	Chloroform	0.6	
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon tetrachloride	0.5	U
71-43-2	Benzene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
540-59-0	1,2-Dichloroethene (total)	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
108-88-3	Toluene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.5	U
124-48-1	Dibromochloromethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
100-41-4	Ethylbenzene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
67-64-1	Acetone	2	U
78-93-3	2-Butanone	2	U
75-15-0	Carbon Disulfide	2	U
108-10-1	4-Methyl-2-pentanone	2	U
591-78-6	2-Hexanone	2	U
1330-20-7	Xylene (total)	0.5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

IR78-N-TW04-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G044

Matrix: (soil/water) WATER Lab Sample ID: 9707G044-001

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CCT01

Level: (low/med) LOW Date Received: 07/29/97

% Moisture: not dec. _____ Date Analyzed: 08/09/97

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

Number TICs found: 0

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

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

EPA SAMPLE NO.

IR78-N-TW05-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G044

Matrix: (soil/water) WATER Lab Sample ID: 9707G044-004

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CCT09

Level: (low/med) LOW Date Received: 07/29/97

% Moisture: not dec. _____ Date Analyzed: 08/09/97

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-09-2	Methylene chloride	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon tetrachloride	0.5	U
71-43-2	Benzene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
540-59-0	1,2-Dichloroethene (total)	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
108-88-3	Toluene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.5	U
124-48-1	Dibromochloromethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
100-41-4	Ethylbenzene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
67-64-1	Acetone	2	U
78-93-3	2-Butanone	2	U
75-15-0	Carbon Disulfide	2	U
108-10-1	4-Methyl-2-pentanone	2	U
591-78-6	2-Hexanone	2	U
1330-20-7	Xylene (total)	0.5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

IR78-N-TW05-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G044

Matrix: (soil/water) WATER Lab Sample ID: 9707G044-004

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CCT09

Level: (low/med) LOW Date Received: 07/29/97

% Moisture: not dec. _____ Date Analyzed: 08/09/97

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

Number TICs found: 0

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

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

EPA SAMPLE NO.

IR78-N-TW06-97C

Lab Name: RECRA LABNET - CHICAGO Contract: 1104-09-001

Lab Code: Case No.: SAS No.: SDG No.: 07G981

Matrix: (soil/water) WATER Lab Sample ID: 9707G981-017

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CCF41

Level: (low/med) LOW Date Received: 07/26/97

% Moisture: not dec. _____ Date Analyzed: 08/08/97

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-09-2	Methylene chloride	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon tetrachloride	0.5	U
71-43-2	Benzene	34	
107-06-2	1,2-Dichloroethane	0.5	U
79-01-6	Trichloroethene	0.8	
78-87-5	1,2-Dichloropropane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
108-88-3	Toluene	19	
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.5	U
124-48-1	Dibromochloromethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
100-41-4	Ethylbenzene	22	
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
67-64-1	Acetone	2	U
78-93-3	2-Butanone	2	U
75-15-0	Carbon Disulfide	2	U
108-10-1	4-Methyl-2-pentanone	2	U
591-78-6	2-Hexanone	2	U
540-59-0	1,2-Dichloroethene (total)	3	
1330-20-7	Xylene (total)	84	

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

IR78-N-TW06-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G981

Matrix: (soil/water) WATER Lab Sample ID: 9707G981-017

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CCF41

Level: (low/med) LOW Date Received: 07/26/97

% Moisture: not dec. _____ Date Analyzed: 08/08/97

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

Number TICs found: 5

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Subst Benzene	27.196	18	J
2.		Trimethylbenzene isomer	27.392	7	J
3.		Trimethylbenzene isomer	28.251	22	J
4.		Trimethylbenzene isomer	29.226	5	J
5.		Subst Benzene	29.690	8	J
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

IR78-N-T
W06-97CDL

Lab Name: VRECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G981

Matrix: (soil/water) WATER Lab Sample ID: 9707G981-017

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CCF34

Level: (low/med) LOW Date Received: 07/26/97

% Moisture: not dec. _____ Date Analyzed: 08/08/97

Column: (pack/cap) CAP Dilution Factor: 5.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
74-87-3	Chloromethane	2	U
75-01-4	Vinyl chloride	2	U
74-83-9	Bromomethane	2	U
75-00-3	Chloroethane	2	U
75-35-4	1,1-Dichloroethene	2	U
75-09-2	Methylene chloride	2	U
75-34-3	1,1-Dichloroethane	2	U
67-66-3	Chloroform	2	U
71-55-6	1,1,1-Trichloroethane	2	U
56-23-5	Carbon tetrachloride	2	U
71-43-2	Benzene	2	U
107-06-2	1,2-Dichloroethane	2	U
79-01-6	Trichloroethene	2	U
78-87-5	1,2-Dichloropropane	2	U
75-27-4	Bromodichloromethane	2	U
108-88-3	Toluene	2	U
79-00-5	1,1,2-Trichloroethane	2	U
127-18-4	Tetrachloroethene	2	U
124-48-1	Dibromochloromethane	2	U
108-90-7	Chlorobenzene	2	U
100-41-4	Ethylbenzene	2	U
100-42-5	Styrene	2	U
75-25-2	Bromoform	2	U
79-34-5	1,1,2,2-Tetrachloroethane	2	U
10061-01-5	cis-1,3-Dichloropropene	2	U
10061-02-6	trans-1,3-Dichloropropene	2	U
67-64-1	Acetone	10	U
78-93-3	2-Butanone	10	U
75-15-0	Carbon Disulfide	10	U
108-10-1	4-Methyl-2-pentanone	10	U
591-78-6	2-Hexanone	10	U
540-59-0	1,2-Dichloroethene (total)	2	U
1330-20-7	Xylene (total)	83	D

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

IR78-N-TW07-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G044

Matrix: (soil/water) WATER Lab Sample ID: 9707G044-003

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CCT03

Level: (low/med) LOW Date Received: 07/29/97

% Moisture: not dec. _____ Date Analyzed: 08/09/97

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl chloride	15	
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-09-2	Methylene chloride	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
67-66-3	Chloroform	1	
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon tetrachloride	0.5	U
71-43-2	Benzene	38	
107-06-2	1,2-Dichloroethane	0.5	U
540-59-0	1,2-Dichloroethene (total)	9	
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
108-88-3	Toluene	14	
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.5	U
124-48-1	Dibromochloromethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
100-41-4	Ethylbenzene	100	E
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
67-64-1	Acetone	18	
78-93-3	2-Butanone	2	U
75-15-0	Carbon Disulfide	2	U
108-10-1	4-Methyl-2-pentanone	2	U
591-78-6	2-Hexanone	2	U
1330-20-7	Xylene (total)	490	E

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

IR78-N-TW07-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G044

Matrix: (soil/water) WATER Lab Sample ID: 9707G044-003

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CCT03

Level: (low/med) LOW Date Received: 07/29/97

% Moisture: not dec. _____ Date Analyzed: 08/09/97

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

Number TICs found: 5

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Subst Benzene C9H12	22.061	22	J
2.		Subst Benzene C9H12	23.325	19	J
3.		Unknown Hydrocarbon	23.786	24	J
4.		Subst Benzene C10H14	23.913	4	J
5.		Subst Benzene C10H14	24.685	4	J
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

IR78-N-T
W07-97CDL

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G044

Matrix: (soil/water) WATER Lab Sample ID: 9707G044-003

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CCT08

Level: (low/med) LOW Date Received: 07/29/97

% Moisture: not dec. _____ Date Analyzed: 08/09/97

Column: (pack/cap) CAP Dilution Factor: 10.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
74-87-3	Chloromethane	5	U
75-01-4	Vinyl chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-35-4	1,1-Dichloroethene	5	U
75-09-2	Methylene chloride	5	U
75-34-3	1,1-Dichloroethane	5	U
67-66-3	Chloroform	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
79-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
108-88-3	Toluene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	100	D
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
67-64-1	Acetone	20	U
78-93-3	2-Butanone	20	U
75-15-0	Carbon Disulfide	20	U
108-10-1	4-Methyl-2-pentanone	20	U
591-78-6	2-Hexanone	20	U
1330-20-7	Xylene (total)	640	D

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

IR78-N-TW08-97C

Lab Name: RECRA LABNET - CHICAGO Contract: 1104-09-001

Lab Code: Case No.: SAS No.: SDG No.: 07G981

Matrix: (soil/water) WATER Lab Sample ID: 9707G981-019

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CCF28

Level: (low/med) LOW Date Received: 07/28/97

% Moisture: not dec. _____ Date Analyzed: 08/08/97

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-09-2	Methylene chloride	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon tetrachloride	0.5	U
71-43-2	Benzene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
79-01-6	Trichloroethene	20	
78-87-5	1,2-Dichloropropane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
108-88-3	Toluene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.5	U
124-48-1	Dibromochloromethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
100-41-4	Ethylbenzene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
67-64-1	Acetone	2	U
78-93-3	2-Butanone	2	U
75-15-0	Carbon Disulfide	2	U
108-10-1	4-Methyl-2-pentanone	2	U
591-78-6	2-Hexanone	2	U
540-59-0	1,2-Dichloroethene (total)	58	E
1330-20-7	Xylene (total)	0.5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

IR78-N-TW08-97C

Lab Name: VRECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G981

Matrix: (soil/water) WATER Lab Sample ID: 9707G981-019

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CCF28

Level: (low/med) LOW Date Received: 07/28/97

% Moisture: not dec. _____ Date Analyzed: 08/08/97

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

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

IR78-N-T
W08-97CDL

Lab Name: VRECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G981

Matrix: (soil/water) WATER Lab Sample ID: 9707G981-019

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CCF36

Level: (low/med) LOW Date Received: 07/28/97

% Moisture: not dec. _____ Date Analyzed: 08/08/97

Column: (pack/cap) CAP Dilution Factor: 5.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
74-87-3	Chloromethane	2	U
75-01-4	Vinyl chloride	2	U
74-83-9	Bromomethane	2	U
75-00-3	Chloroethane	2	U
75-35-4	1,1-Dichloroethene	2	U
75-09-2	Methylene chloride	2	U
75-34-3	1,1-Dichloroethane	2	U
67-66-3	Chloroform	2	U
71-55-6	1,1,1-Trichloroethane	2	U
56-23-5	Carbon tetrachloride	2	U
71-43-2	Benzene	2	U
107-06-2	1,2-Dichloroethane	2	U
79-01-6	Trichloroethene	2	U
78-87-5	1,2-Dichloropropane	2	U
75-27-4	Bromodichloromethane	2	U
108-88-3	Toluene	2	U
79-00-5	1,1,2-Trichloroethane	2	U
127-18-4	Tetrachloroethene	2	U
124-48-1	Dibromochloromethane	2	U
108-90-7	Chlorobenzene	2	U
100-41-4	Ethylbenzene	2	U
100-42-5	Styrene	2	U
75-25-2	Bromoform	2	U
79-34-5	1,1,2,2-Tetrachloroethane	2	U
10061-01-5	cis-1,3-Dichloropropene	2	U
10061-02-6	trans-1,3-Dichloropropene	2	U
67-64-1	Acetone	10	U
78-93-3	2-Butanone	10	U
75-15-0	Carbon Disulfide	10	U
108-10-1	4-Methyl-2-pentanone	10	U
591-78-6	2-Hexanone	10	U
540-59-0	1,2-Dichloroethene (total)	50	D
1330-20-7	Xylene (total)	2	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

N-TW09
IR78-[redacted]-97C

Lab Name: VRECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G981

Matrix: (soil/water) WATER Lab Sample ID: 9707G981-022

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CCF30

Level: (low/med) LOW Date Received: 07/28/97

% Moisture: not dec. _____ Date Analyzed: 08/08/97

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-09-2	Methylene chloride	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon tetrachloride	0.5	U
71-43-2	Benzene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
540-59-0	1,2-Dichloroethene (total)	4	
79-01-6	Trichloroethene	8	
78-87-5	1,2-Dichloropropane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
108-88-3	Toluene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.5	U
124-48-1	Dibromochloromethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
100-41-4	Ethylbenzene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
67-64-1	Acetone	2	U
78-93-3	2-Butanone	2	U
75-15-0	Carbon Disulfide	2	U
108-10-1	4-Methyl-2-pentanone	2	U
591-78-6	2-Hexanone	2	U
1330-20-7	Xylene (total)	0.5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

N-TW09
IR78-[redacted]-97C

Lab Name: VRECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G981

Matrix: (soil/water) WATER Lab Sample ID: 9707G981-022

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CCF30

Level: (low/med) LOW Date Received: 07/28/97

% Moisture: not dec. _____ Date Analyzed: 08/08/97

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

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

IR78-N-TW10-97C

Lab Name: VRECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G981

Matrix: (soil/water) WATER Lab Sample ID: 9707G981-020

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CCF18

Level: (low/med) LOW Date Received: 07/28/97

% Moisture: not dec. _____ Date Analyzed: 08/07/97

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-09-2	Methylene chloride	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon tetrachloride	0.5	U
71-43-2	Benzene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
540-59-0	1,2-Dichloroethene (total)	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
108-88-3	Toluene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.5	U
124-48-1	Dibromochloromethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
100-41-4	Ethylbenzene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
67-64-1	Acetone	2	U
78-93-3	2-Butanone	2	U
75-15-0	Carbon Disulfide	2	U
108-10-1	4-Methyl-2-pentanone	2	U
591-78-6	2-Hexanone	2	U
1330-20-7	Xylene (total)	0.5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

IR78-N-TW10-97C

Lab Name: VRECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G981

Matrix: (soil/water) WATER Lab Sample ID: 9707G981-020

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CCF18

Level: (low/med) LOW Date Received: 07/28/97

% Moisture: not dec. _____ Date Analyzed: 08/07/97

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

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

IR78-N-TW11-97C

Lab Name: VRECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G981

Matrix: (soil/water) WATER Lab Sample ID: 9707G981-021

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CCF29

Level: (low/med) LOW Date Received: 07/28/97

% Moisture: not dec. _____ Date Analyzed: 08/08/97

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-09-2	Methylene chloride	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon tetrachloride	0.5	U
71-43-2	Benzene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
540-59-0	1,2-Dichloroethene (total)	2	
79-01-6	Trichloroethene	13	
78-87-5	1,2-Dichloropropane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
108-88-3	Toluene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.5	U
124-48-1	Dibromochloromethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
100-41-4	Ethylbenzene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
67-64-1	Acetone	2	U
78-93-3	2-Butanone	2	U
75-15-0	Carbon Disulfide	2	U
108-10-1	4-Methyl-2-pentanone	2	U
591-78-6	2-Hexanone	2	U
1330-20-7	Xylene (total)	0.5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

IR78-N-TW11-97C

Lab Name: VRECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G981

Matrix: (soil/water) WATER Lab Sample ID: 9707G981-021

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CCF29

Level: (low/med) LOW Date Received: 07/28/97

% Moisture: not dec. _____ Date Analyzed: 08/08/97

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

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

IR78-S-TW01-97C

Lab Name: VRECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G981

Matrix: (soil/water) WATER Lab Sample ID: 9707G981-006

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CCF06

Level: (low/med) LOW Date Received: 07/26/97

% Moisture: not dec. _____ Date Analyzed: 08/07/97

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl chloride	45	E
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-35-4	1,1-Dichloroethene	6	
75-09-2	Methylene chloride	0.5	U
75-34-3	1,1-Dichloroethane	2	
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon tetrachloride	0.5	U
71-43-2	Benzene	4	
107-06-2	1,2-Dichloroethane	0.5	U
79-01-6	Trichloroethene	34	
78-87-5	1,2-Dichloropropane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
108-88-3	Toluene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.5	U
124-48-1	Dibromochloromethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
100-41-4	Ethylbenzene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
67-64-1	Acetone	2	U
78-93-3	2-Butanone	2	U
75-15-0	Carbon Disulfide	2	U
108-10-1	4-Methyl-2-pentanone	2	U
591-78-6	2-Hexanone	2	U
540-59-0	1,2-Dichloroethene (total)	100	E
1330-20-7	Xylene (total)	0.5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

IR78-S-TW01-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G981

Matrix: (soil/water) WATER Lab Sample ID: 9707G981-006

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CCF06

Level: (low/med) LOW Date Received: 07/26/97

% Moisture: not dec. _____ Date Analyzed: 08/07/97

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

Number TICs found: 5

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown Hydrocarbon	11.726	16	J
2.		Unknown	12.459	4	J
3.		Unknown Cycloalkane	16.277	9	J
4.		Unknown Cycloalkane	18.030	6	J
5.		Unknown Cycloalkane	19.264	4	J
6.					
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

IR78-S-T
W01-97CDL

Lab Name: VRECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G981

Matrix: (soil/water) WATER Lab Sample ID: 9707G981-006

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CCF08

Level: (low/med) LOW Date Received: 07/26/97

% Moisture: not dec. _____ Date Analyzed: 08/07/97

Column: (pack/cap) CAP Dilution Factor: 25.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
74-87-3	Chloromethane	12	U
75-01-4	Vinyl chloride	45	D
74-83-9	Bromomethane	12	U
75-00-3	Chloroethane	12	U
75-35-4	1,1-Dichloroethene	12	U
75-09-2	Methylene chloride	12	U
75-34-3	1,1-Dichloroethane	12	U
67-66-3	Chloroform	12	U
71-55-6	1,1,1-Trichloroethane	12	U
56-23-5	Carbon tetrachloride	12	U
71-43-2	Benzene	12	U
107-06-2	1,2-Dichloroethane	12	U
79-01-6	Trichloroethene	12	U
78-87-5	1,2-Dichloropropane	12	U
75-27-4	Bromodichloromethane	12	U
108-88-3	Toluene	12	U
79-00-5	1,1,2-Trichloroethane	12	U
127-18-4	Tetrachloroethene	12	U
124-48-1	Dibromochloromethane	12	U
108-90-7	Chlorobenzene	12	U
100-41-4	Ethylbenzene	12	U
100-42-5	Styrene	12	U
75-25-2	Bromoform	12	U
79-34-5	1,1,2,2-Tetrachloroethane	12	U
10061-01-5	cis-1,3-Dichloropropene	12	U
10061-02-6	trans-1,3-Dichloropropene	12	U
67-64-1	Acetone	50	U
78-93-3	2-Butanone	50	U
75-15-0	Carbon Disulfide	50	U
108-10-1	4-Methyl-2-pentanone	50	U
591-78-6	2-Hexanone	50	U
540-59-0	1,2-Dichloroethene (total)	99	D
1330-20-7	Xylene (total)	12	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

IR78-S-TW02-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G981

Matrix: (soil/water) WATER Lab Sample ID: 9707G981-007

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CCF21

Level: (low/med) LOW Date Received: 07/26/97

% Moisture: not dec. _____ Date Analyzed: 08/07/97

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl chloride	28	
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-35-4	1,1-Dichloroethene	0.8	
75-09-2	Methylene chloride	0.5	U
75-34-3	1,1-Dichloroethane	6	
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon tetrachloride	0.5	U
71-43-2	Benzene	3	
107-06-2	1,2-Dichloroethane	0.5	U
79-01-6	Trichloroethene	15	
78-87-5	1,2-Dichloropropane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
108-88-3	Toluene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.5	U
124-48-1	Dibromochloromethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
100-41-4	Ethylbenzene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
67-64-1	Acetone	2	U
78-93-3	2-Butanone	2	U
75-15-0	Carbon Disulfide	2	U
108-10-1	4-Methyl-2-pentanone	2	U
591-78-6	2-Hexanone	2	U
540-59-0	1,2-Dichloroethene (total)	62	E
1330-20-7	Xylene (total)	0.5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

IR78-S-TW02-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G981

Matrix: (soil/water) WATER Lab Sample ID: 9707G981-007

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CCF21

Level: (low/med) LOW Date Received: 07/26/97

% Moisture: not dec. _____ Date Analyzed: 08/07/97

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

Number TICs found: 5

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	8.365	4	J
2.		Unknown Hydrocarbon	11.718	48	J
3.		Unknown Hydrocarbon	12.451	30	J
4.		Unknown Cycloalkane	18.031	8	J
5.		Unknown Cycloalkane	19.274	9	J
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

IR78-S-T
W02-97CDL

Lab Name: RECRA LABNET - CHICAGO Contract: 1104-09-001

Lab Code: Case No.: SAS No.: SDG No.: 07G981

Matrix: (soil/water) WATER Lab Sample ID: 9707G981-007

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CCF09

Level: (low/med) LOW Date Received: 07/26/97

% Moisture: not dec. _____ Date Analyzed: 08/07/97

Column: (pack/cap) CAP Dilution Factor: 25.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
74-87-3	Chloromethane	12	U
75-01-4	Vinyl chloride	12	U
74-83-9	Bromomethane	12	U
75-00-3	Chloroethane	12	U
75-35-4	1,1-Dichloroethene	12	U
75-09-2	Methylene chloride	12	U
75-34-3	1,1-Dichloroethane	12	U
67-66-3	Chloroform	12	U
71-55-6	1,1,1-Trichloroethane	12	U
56-23-5	Carbon tetrachloride	12	U
71-43-2	Benzene	12	U
107-06-2	1,2-Dichloroethane	12	U
79-01-6	Trichloroethene	12	U
78-87-5	1,2-Dichloropropane	12	U
75-27-4	Bromodichloromethane	12	U
108-88-3	Toluene	12	U
79-00-5	1,1,2-Trichloroethane	12	U
127-18-4	Tetrachloroethene	12	U
124-48-1	Dibromochloromethane	12	U
108-90-7	Chlorobenzene	12	U
100-41-4	Ethylbenzene	12	U
100-42-5	Styrene	12	U
75-25-2	Bromoform	12	U
79-34-5	1,1,2,2-Tetrachloroethane	12	U
10061-01-5	cis-1,3-Dichloropropene	12	U
10061-02-6	trans-1,3-Dichloropropene	12	U
67-64-1	Acetone	50	U
78-93-3	2-Butanone	50	U
75-15-0	Carbon Disulfide	50	U
108-10-1	4-Methyl-2-pentanone	50	U
591-78-6	2-Hexanone	50	U
540-59-0	1,2-Dichloroethene (total)	63	D
1330-20-7	Xylene (total)	12	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

IR78-S-TW03-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G981

Matrix: (soil/water) WATER Lab Sample ID: 9707G981-008

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CCF10

Level: (low/med) LOW Date Received: 07/26/97

% Moisture: not dec. _____ Date Analyzed: 08/08/97

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-09-2	Methylene chloride	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon tetrachloride	0.5	U
71-43-2	Benzene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
108-88-3	Toluene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.5	U
124-48-1	Dibromochloromethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
100-41-4	Ethylbenzene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
67-64-1	Acetone	2	U
78-93-3	2-Butanone	2	U
75-15-0	Carbon Disulfide	2	U
108-10-1	4-Methyl-2-pentanone	2	U
591-78-6	2-Hexanone	2	U
540-59-0	1,2-Dichloroethene (total)	0.5	U
1330-20-7	Xylene (total)	11	

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

IR78-S-TW03-97C

Lab Name: VRECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G981

Matrix: (soil/water) WATER Lab Sample ID: 9707G981-008

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CCF10

Level: (low/med) LOW Date Received: 07/26/97

% Moisture: not dec. _____ Date Analyzed: 08/08/97

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

Number TICs found: 3

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	29.681	3	J
2.		Unknown	31.479	1	J
3.	91-20-3	Naphthalene	34.152	26	NJ
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

IR78-S-TW04-97C

Lab Name: VRECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G981

Matrix: (soil/water) WATER Lab Sample ID: 9707G981-009

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CCF32

Level: (low/med) LOW Date Received: 07/26/97

% Moisture: not dec. _____ Date Analyzed: 08/08/97

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-09-2	Methylene chloride	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon tetrachloride	0.5	U
71-43-2	Benzene	2	
107-06-2	1,2-Dichloroethane	2	
79-01-6	Trichloroethene	6	
78-87-5	1,2-Dichloropropane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
108-88-3	Toluene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.5	U
124-48-1	Dibromochloromethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
100-41-4	Ethylbenzene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
67-64-1	Acetone	2	U
78-93-3	2-Butanone	2	U
75-15-0	Carbon Disulfide	2	U
108-10-1	4-Methyl-2-pentanone	2	U
591-78-6	2-Hexanone	2	U
540-59-0	1,2-Dichloroethene (total)	4	
1330-20-7	Xylene (total)	0.5	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

IR78-S-TW04-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G981

Matrix: (soil/water) WATER Lab Sample ID: 9707G981-009

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CCF32

Level: (low/med) LOW Date Received: 07/26/97

% Moisture: not dec. _____ Date Analyzed: 08/08/97

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

Number TICs found: 5

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	8.375	4	J
2.		Unknown Hydrocarbon	9.520	16	J
3.		Unknown Hydrocarbon	11.728	20	J
4.		Unknown	18.032	6	J
5.		Unknown Cycloalkane	20.196	3	J
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

IR78-S-TW05-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G981

Matrix: (soil/water) WATER Lab Sample ID: 9707G981-010

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CCF12

Level: (low/med) LOW Date Received: 07/26/97

% Moisture: not dec. _____ Date Analyzed: 08/08/97

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-09-2	Methylene chloride	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon tetrachloride	0.5	U
71-43-2	Benzene	160	E
107-06-2	1,2-Dichloroethane	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
108-88-3	Toluene	62	E
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.5	U
124-48-1	Dibromochloromethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
100-41-4	Ethylbenzene	470	E
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
67-64-1	Acetone	2	U
78-93-3	2-Butanone	2	U
75-15-0	Carbon Disulfide	2	U
108-10-1	4-Methyl-2-pentanone	2	U
591-78-6	2-Hexanone	2	U
540-59-0	1,2-Dichloroethene (total)	0.5	U
1330-20-7	Xylene (total)	440	E

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

IR78-S-TW05-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G981

Matrix: (soil/water) WATER Lab Sample ID: 9707G981-010

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CCF12

Level: (low/med) LOW Date Received: 07/26/97

% Moisture: not dec. _____ Date Analyzed: 08/08/97

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

Number TICs found: 5

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Subst Benzene	26.096	78	J
2.		Subst Benzene	27.241	35	J
3.		Trimethylbenzene isomer	27.419	24	J
4.		Subst Benzene	27.884	22	J
5.		Trimethylbenzene isomer	28.296	38	J
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

IR78-S-T
W05-97CDL

Lab Name: VRECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G981

Matrix: (soil/water) WATER Lab Sample ID: 9707G981-010

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CCF33

Level: (low/med) LOW Date Received: 07/26/97

% Moisture: not dec. _____ Date Analyzed: 08/08/97

Column: (pack/cap) CAP Dilution Factor: 50.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
74-87-3	Chloromethane	25	U
75-01-4	Vinyl chloride	25	U
74-83-9	Bromomethane	25	U
75-00-3	Chloroethane	25	U
75-35-4	1,1-Dichloroethene	25	U
75-09-2	Methylene chloride	25	U
75-34-3	1,1-Dichloroethane	25	U
67-66-3	Chloroform	25	U
71-55-6	1,1,1-Trichloroethane	25	U
56-23-5	Carbon tetrachloride	25	U
71-43-2	Benzene	160	D
107-06-2	1,2-Dichloroethane	25	U
79-01-6	Trichloroethene	25	U
78-87-5	1,2-Dichloropropane	25	U
75-27-4	Bromodichloromethane	25	U
108-88-3	Toluene	53	D
79-00-5	1,1,2-Trichloroethane	25	U
127-18-4	Tetrachloroethene	25	U
124-48-1	Dibromochloromethane	25	U
108-90-7	Chlorobenzene	25	U
100-41-4	Ethylbenzene	700	D
100-42-5	Styrene	25	U
75-25-2	Bromoform	25	U
79-34-5	1,1,2,2-Tetrachloroethane	25	U
10061-01-5	cis-1,3-Dichloropropene	25	U
10061-02-6	trans-1,3-Dichloropropene	25	U
67-64-1	Acetone	100	U
78-93-3	2-Butanone	100	U
75-15-0	Carbon Disulfide	100	U
108-10-1	4-Methyl-2-pentanone	100	U
591-78-6	2-Hexanone	100	U
540-59-0	1,2-Dichloroethene (total)	25	U
1330-20-7	Xylene (total)	1100	D

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

IR78-S-TW06

Lab Name: VRECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G981

Matrix: (soil/water) WATER Lab Sample ID: 9707G981-004

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CCF04

Level: (low/med) LOW Date Received: 07/24/97

% Moisture: not dec. _____ Date Analyzed: 08/06/97

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-35-4	1,1-Dichloroethene	8	
75-09-2	Methylene chloride	0.5	U
75-34-3	1,1-Dichloroethane	1	
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon tetrachloride	0.5	U
71-43-2	Benzene	2	
107-06-2	1,2-Dichloroethane	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
108-88-3	Toluene	1	
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.5	U
124-48-1	Dibromochloromethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
100-41-4	Ethylbenzene	3	
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
67-64-1	Acetone	2	U
78-93-3	2-Butanone	2	U
75-15-0	Carbon Disulfide	2	U
108-10-1	4-Methyl-2-pentanone	2	U
591-78-6	2-Hexanone	2	U
540-59-0	1,2-Dichloroethene (total)	19	
1330-20-7	Xylene (total)	5	

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

IR78-S-TW06

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G981

Matrix: (soil/water) WATER Lab Sample ID: 9707G981-004

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CCF04

Level: (low/med) LOW Date Received: 07/24/97

% Moisture: not dec. _____ Date Analyzed: 08/06/97

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

Number TICs found: 5

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown Hydrocarbon	11.710	23	J
2.	91-20-3	Naphthalene	34.154	290	NJ
3.		Benzothiophene isomer	34.431	12	J
4.		Methylnaphthalene isomer	37.302	28	J
5.		Methylnaphthalene isomer	37.937	18	J
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

IR78-S-TW07-97C

Lab Name: VRECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G981

Matrix: (soil/water) WATER Lab Sample ID: 9707G981-011

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CCF19

Level: (low/med) LOW Date Received: 07/26/97

% Moisture: not dec. _____ Date Analyzed: 08/07/97

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-09-2	Methylene chloride	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon tetrachloride	0.5	U
71-43-2	Benzene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
108-88-3	Toluene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.5	U
124-48-1	Dibromochloromethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
100-41-4	Ethylbenzene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
67-64-1	Acetone	2	U
78-93-3	2-Butanone	2	U
75-15-0	Carbon Disulfide	2	U
108-10-1	4-Methyl-2-pentanone	2	U
591-78-6	2-Hexanone	2	U
540-59-0	1,2-Dichloroethene (total)	0.5	U
1330-20-7	Xylene (total)	0.5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

IR78-S-TW07-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G981

Matrix: (soil/water) WATER Lab Sample ID: 9707G981-011

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CCF19

Level: (low/med) LOW Date Received: 07/26/97

% Moisture: not dec. _____ Date Analyzed: 08/07/97

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

Number TICs found: 2

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown aromatic	29.655	12	J
2.	91-20-3	Naphthalene	34.126	13	NJ
3.					
4.					
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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

IR78-S-TW08-97C

Lab Name: VRECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G981

Matrix: (soil/water) WATER Lab Sample ID: 9707G981-012

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CCF23

Level: (low/med) LOW Date Received: 07/26/97

% Moisture: not dec. _____ Date Analyzed: 08/07/97

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-09-2	Methylene chloride	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon tetrachloride	0.5	U
71-43-2	Benzene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
540-59-0	1,2-Dichloroethene (total)	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
108-88-3	Toluene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.5	U
124-48-1	Dibromochloromethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
100-41-4	Ethylbenzene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
67-64-1	Acetone	2	U
78-93-3	2-Butanone	2	U
75-15-0	Carbon Disulfide	2	U
108-10-1	4-Methyl-2-pentanone	2	U
591-78-6	2-Hexanone	2	U
1330-20-7	Xylene (total)	0.5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

IR78-S-TW08-97C

Lab Name: VRECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G981

Matrix: (soil/water) WATER Lab Sample ID: 9707G981-012

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CCF23

Level: (low/med) LOW Date Received: 07/26/97

% Moisture: not dec. _____ Date Analyzed: 08/07/97

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

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

IR78-S-TW09-97C

Lab Name: VRECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G981

Matrix: (soil/water) WATER Lab Sample ID: 9707G981-013

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CCF20

Level: (low/med) LOW Date Received: 07/26/97

% Moisture: not dec. _____ Date Analyzed: 08/07/97

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-09-2	Methylene chloride	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon tetrachloride	0.5	U
71-43-2	Benzene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
108-88-3	Toluene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.5	U
124-48-1	Dibromochloromethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
100-41-4	Ethylbenzene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
67-64-1	Acetone	2	U
78-93-3	2-Butanone	2	U
75-15-0	Carbon Disulfide	2	U
108-10-1	4-Methyl-2-pentanone	2	U
591-78-6	2-Hexanone	2	U
540-59-0	1,2-Dichloroethene (total)	0.5	U
1330-20-7	Xylene (total)	0.5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

IR78-S-TW09-97C

Lab Name: VRECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G981

Matrix: (soil/water) WATER Lab Sample ID: 9707G981-013

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CCF20

Level: (low/med) LOW Date Received: 07/26/97

% Moisture: not dec. _____ Date Analyzed: 08/07/97

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

Number TICs found: 0

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

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

EPA SAMPLE NO.

IR78-S-TW10-97C

Lab Name: VRECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G981

Matrix: (soil/water) WATER Lab Sample ID: 9707G981-014

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CCF22

Level: (low/med) LOW Date Received: 07/26/97

% Moisture: not dec. _____ Date Analyzed: 08/07/97

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-09-2	Methylene chloride	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon tetrachloride	0.5	U
71-43-2	Benzene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
540-59-0	1,2-Dichloroethene (total)	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
108-88-3	Toluene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.5	U
124-48-1	Dibromochloromethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
100-41-4	Ethylbenzene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
67-64-1	Acetone	2	U
78-93-3	2-Butanone	2	U
75-15-0	Carbon Disulfide	2	U
108-10-1	4-Methyl-2-pentanone	2	U
591-78-6	2-Hexanone	2	U
1330-20-7	Xylene (total)	0.5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

IR78-S-TW10-97C

Lab Name: VRECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G981

Matrix: (soil/water) WATER Lab Sample ID: 9707G981-014

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CCF22

Level: (low/med) LOW Date Received: 07/26/97

% Moisture: not dec. _____ Date Analyzed: 08/07/97

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

Number TICs found: 0

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

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

EPA SAMPLE NO.

IR78-S-TW11-97C

Lab Name: VRECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G981

Matrix: (soil/water) WATER Lab Sample ID: 9707G981-015

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CCF24

Level: (low/med) LOW Date Received: 07/26/97

% Moisture: not dec. _____ Date Analyzed: 08/07/97

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-09-2	Methylene chloride	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon tetrachloride	0.5	U
71-43-2	Benzene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
540-59-0	1,2-Dichloroethene (total)	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
108-88-3	Toluene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.5	U
124-48-1	Dibromochloromethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
100-41-4	Ethylbenzene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
67-64-1	Acetone	2	U
78-93-3	2-Butanone	2	U
75-15-0	Carbon Disulfide	2	U
108-10-1	4-Methyl-2-pentanone	2	U
591-78-6	2-Hexanone	2	U
1330-20-7	Xylene (total)	0.5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

IR78-S-TW11-97C

Lab Name: VRECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G981

Matrix: (soil/water) WATER Lab Sample ID: 9707G981-015

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CCF24

Level: (low/med) LOW Date Received: 07/26/97

% Moisture: not dec. _____ Date Analyzed: 08/07/97

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

Number TICs found: 0

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

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

EPA SAMPLE NO.

IR78-TW12-97C

Lab Name: VRECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G981

Matrix: (soil/water) WATER Lab Sample ID: 9707G981-016

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CCF25

Level: (low/med) LOW Date Received: 07/26/97

% Moisture: not dec. _____ Date Analyzed: 08/07/97

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-09-2	Methylene chloride	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon tetrachloride	0.5	U
71-43-2	Benzene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
540-59-0	1,2-Dichloroethene (total)	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
108-88-3	Toluene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.5	U
124-48-1	Dibromochloromethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
100-41-4	Ethylbenzene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
67-64-1	Acetone	2	U
78-93-3	2-Butanone	2	U
75-15-0	Carbon Disulfide	2	U
108-10-1	4-Methyl-2-pentanone	2	U
591-78-6	2-Hexanone	2	U
1330-20-7	Xylene (total)	0.5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

IR78-TW12-97C

Lab Name: VRECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G981

Matrix: (soil/water) WATER Lab Sample ID: 9707G981-016

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CCF25

Level: (low/med) LOW Date Received: 07/26/97

% Moisture: not dec. _____ Date Analyzed: 08/07/97

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

Number TICs found: 0

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

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

EPA SAMPLE NO.

USTI6II-UG1A-97C

Lab Name: VRECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G981

Matrix: (soil/water) WATER Lab Sample ID: 9707G981-001

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CCF01

Level: (low/med) LOW Date Received: 07/24/97

% Moisture: not dec. _____ Date Analyzed: 08/06/97

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-09-2	Methylene chloride	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon tetrachloride	0.5	U
71-43-2	Benzene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
108-88-3	Toluene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.5	U
124-48-1	Dibromochloromethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
100-41-4	Ethylbenzene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
67-64-1	Acetone	2	U
78-93-3	2-Butanone	2	U
75-15-0	Carbon Disulfide	2	U
108-10-1	4-Methyl-2-pentanone	2	U
591-78-6	2-Hexanone	2	U
540-59-0	1,2-Dichloroethene (total)	0.5	U
1330-20-7	Xylene (total)	0.5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

USTI611-UG1A-97C

Lab Name: VRECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G981

Matrix: (soil/water) WATER Lab Sample ID: 9707G981-001

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CCF01

Level: (low/med) LOW Date Received: 07/24/97

% Moisture: not dec. _____ Date Analyzed: 08/06/97

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

Number TICs found: 0

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

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

EPA SAMPLE NO.

UST1613-9-97C

Lab Name: VRECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G981

Matrix: (soil/water) WATER Lab Sample ID: 9707G981-002

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CCF02

Level: (low/med) LOW Date Received: 07/24/97

% Moisture: not dec. _____ Date Analyzed: 08/06/97

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-09-2	Methylene chloride	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon tetrachloride	0.5	U
71-43-2	Benzene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
108-88-3	Toluene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.5	U
124-48-1	Dibromochloromethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
100-41-4	Ethylbenzene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
67-64-1	Acetone	2	U
78-93-3	2-Butanone	2	U
75-15-0	Carbon Disulfide	2	U
108-10-1	4-Methyl-2-pentanone	2	U
591-78-6	2-Hexanone	2	U
540-59-0	1,2-Dichloroethene (total)	0.5	U
1330-20-7	Xylene (total)	0.5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

UST1613-9-97C

Lab Name: VRECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G981

Matrix: (soil/water) WATER Lab Sample ID: 9707G981-002

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CCF02

Level: (low/med) LOW Date Received: 07/24/97

% Moisture: not dec. _____ Date Analyzed: 08/06/97

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

Number TICs found: 0

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

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

EPA SAMPLE NO.

UST1613-12-97C

Lab Name: VRECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G981

Matrix: (soil/water) WATER Lab Sample ID: 9707G981-003

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CCF03

Level: (low/med) LOW Date Received: 07/24/97

% Moisture: not dec. _____ Date Analyzed: 08/06/97

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-09-2	Methylene chloride	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon tetrachloride	0.5	U
71-43-2	Benzene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
108-88-3	Toluene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.5	U
124-48-1	Dibromochloromethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
100-41-4	Ethylbenzene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
67-64-1	Acetone	2	U
78-93-3	2-Butanone	2	U
75-15-0	Carbon Disulfide	2	U
108-10-1	4-Methyl-2-pentanone	2	U
591-78-6	2-Hexanone	2	U
540-59-0	1,2-Dichloroethene (total)	0.5	U
1330-20-7	Xylene (total)	0.5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

UST1613-12-97C

Lab Name: VRECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G981

Matrix: (soil/water) WATER Lab Sample ID: 9707G981-003

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CCF03

Level: (low/med) LOW Date Received: 07/24/97

% Moisture: not dec. _____ Date Analyzed: 08/06/97

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

Number TICs found: 0

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

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

EPA SAMPLE NO.

IR78-TB01-97C

Lab Name: VRECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G981

Matrix: (soil/water) WATER Lab Sample ID: 9707G981-018

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CCF40

Level: (low/med) LOW Date Received: 07/26/97

% Moisture: not dec. _____ Date Analyzed: 08/08/97

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-09-2	Methylene chloride	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon tetrachloride	0.5	U
71-43-2	Benzene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
79-01-6	Trichloroethene	9	
78-87-5	1,2-Dichloropropane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
108-88-3	Toluene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.5	U
124-48-1	Dibromochloromethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
100-41-4	Ethylbenzene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
67-64-1	Acetone	5	
78-93-3	2-Butanone	2	U
75-15-0	Carbon Disulfide	2	U
108-10-1	4-Methyl-2-pentanone	2	U
591-78-6	2-Hexanone	2	U
540-59-0	1,2-Dichloroethene (total)	3	
1330-20-7	Xylene (total)	0.5	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

IR78-TB01-97C

Lab Name: VRECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G981

Matrix: (soil/water) WATER Lab Sample ID: 9707G981-018

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CCF40

Level: (low/med) LOW Date Received: 07/26/97

% Moisture: not dec. _____ Date Analyzed: 08/08/97

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

Number TICs found: 0

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

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

EPA SAMPLE NO.

IR78-TB02-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G981

Matrix: (soil/water) WATER Lab Sample ID: 9707G981-023

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CCF31

Level: (low/med) LOW Date Received: 07/28/97

% Moisture: not dec. _____ Date Analyzed: 08/08/97

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-09-2	Methylene chloride	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon tetrachloride	0.5	U
71-43-2	Benzene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
108-88-3	Toluene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.5	U
124-48-1	Dibromochloromethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
100-41-4	Ethylbenzene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
67-64-1	Acetone	2	U
78-93-3	2-Butanone	2	U
75-15-0	Carbon Disulfide	2	U
108-10-1	4-Methyl-2-pentanone	2	U
591-78-6	2-Hexanone	2	U
540-59-0	1,2-Dichloroethene (total)	0.5	U
1330-20-7	Xylene (total)	0.5	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

IR78-TB02-97C

Lab Name: VRECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G981

Matrix: (soil/water) WATER Lab Sample ID: 9707G981-023

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CCF31

Level: (low/med) LOW Date Received: 07/28/97

% Moisture: not dec. _____ Date Analyzed: 08/08/97

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

Number TICs found: 0

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

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

EPA SAMPLE NO.

IR78-TB03-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G044

Matrix: (soil/water) WATER Lab Sample ID: 9707G044-007

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CCT07

Level: (low/med) LOW Date Received: 07/29/97

% Moisture: not dec. _____ Date Analyzed: 08/09/97

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-09-2	Methylene chloride	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon tetrachloride	0.5	U
71-43-2	Benzene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
540-59-0	1,2-Dichloroethene (total)	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
108-88-3	Toluene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.5	U
124-48-1	Dibromochloromethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
100-41-4	Ethylbenzene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
67-64-1	Acetone	2	U
78-93-3	2-Butanone	2	U
75-15-0	Carbon Disulfide	2	U
108-10-1	4-Methyl-2-pentanone	2	U
591-78-6	2-Hexanone	2	U
1330-20-7	Xylene (total)	0.5	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

IR78-TB03-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G044

Matrix: (soil/water) WATER Lab Sample ID: 9707G044-007

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CCT07

Level: (low/med) LOW Date Received: 07/29/97

% Moisture: not dec. _____ Date Analyzed: 08/09/97

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

Number TICs found: 0

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

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

EPA SAMPLE NO.

78-TB04-97C

Lab Name: RECRA LABNET - CHICAGO Contract: 1104-09-001

Lab Code: Case No.: SAS No.: SDG No.: 08G298

Matrix: (soil/water) WATER Lab Sample ID: 9708G298-025

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CFN02

Level: (low/med) LOW Date Received: 08/12/97

% Moisture: not dec. _____ Date Analyzed: 08/22/97

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-09-2	Methylene chloride	0.7	
75-34-3	1,1-Dichloroethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon tetrachloride	0.5	U
71-43-2	Benzene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
540-59-0	1,2-Dichloroethene (total)	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
108-88-3	Toluene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.5	U
124-48-1	Dibromochloromethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
100-41-4	Ethylbenzene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
67-64-1	Acetone	2	U
78-93-3	2-Butanone	2	U
75-15-0	Carbon Disulfide	2	U
108-10-1	4-Methyl-2-pentanone	2	U
591-78-6	2-Hexanone	2	U
1330-20-7	Xylene (total)	0.5	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

78-TB04-97C

Lab Name: RECRA LABNET - CHICAGO Contract: 1104-09-001

Lab Code: Case No.: SAS No.: SDG No.: 08G298

Matrix: (soil/water) WATER Lab Sample ID: 9708G298-025

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CFN02

Level: (low/med) LOW Date Received: 08/12/97

% Moisture: not dec. _____ Date Analyzed: 08/22/97

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

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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Monthly Report – July 1997

Maintenance of Shallow Aquifer Remedial Systems

Site 78 Hadnot Point MCB Camp Lejeune, North Carolina

Contract N62420-93-D-3032 **Delivery Order 0118**	**North Plant**	**South Plant**
Period of Performance	7/1 - 7/25/97	7/1 - 7/25/97
Duration	25 days	25 days
Product Recovery		
Previously reported	0	0
Current period	0	0
Total to date	0	0
Treated Groundwater		
Estimated rate	3.2 gpm	5.0 gpm
Duration	24 days	24 days
Estimated total treated this period	111,991 gallons	176,039 gallons

Treatment System Performance

1. North Plant was down for 1 day due to monthly cleaning.
2. South Plant was down for 1 day due to installation of check valve and plumbing changes on pump 505.
3. Normal maintenance has included bag filter changes twice weekly both plants, oil changes for air compressors, backwashing sand filters and carbon units, solids management both plants and E 405 calcium surfactant agent at both plants.

Comments and Recommendations

1. The volumes of treated groundwater have been based upon actual readings from the flowmeters installed at each plant.
2. Attached is tabular analytical data for the sampling events which occurred during the reporting period.

August 9, 1997

Prepared by: James E. Dunn, Jr., P.E. Date
Senior Project Manager

Monthly Report – August 1997

Maintenance of Shallow Aquifer Remedial Systems

Site 78 Hadnot Point MCB Camp Lejeune, North Carolina

Contract N62420-93-D-3032 **Delivery Order 0118**	**North Plant**	**South Plant**
Period of Performance	8/1 - 8/28/97	8/1 - 8/28/97
Duration	28 days	28 days
Product Recovery		
Previously reported	0	0
Current period	0	0
Total to date	0	0
Treated Groundwater		
Estimated rate	2.8 gpm	16.4 gpm
Duration	28 days	28 days
Estimated total treated this period	113,810 gallons	661,460gallons

Treatment System Performance

1. North Plant was down for 1 hour. Bag filter changed 13 times.
2. South Plant was down for 6 days due to power failure and solenoid valve operation. Bag filter changed 6 times.
3. Normal maintenance has included bag filter changes both plants, oil changes for air compressors, backwashing sand filters and carbon units, solids management both plants and E 405 calcium surfactant agent at both plants.

Comments and Recommendations

1. The volumes of treated groundwater have been based upon actual readings from the flowmeters installed at each plant.
2. Attached is tabular analytical data for the sampling events which occurred during the reporting period.

September 10, 1997

Prepared by: James E. Dunn, Jr., P.E. Date
Senior Project Manager

Monthly Report – September 1997

Maintenance of Shallow Aquifer Remedial Systems

Site 78 Hadnot Point MCB Camp Lejeune, North Carolina

Contract N62420-93-D-3032 **Delivery Order 0118**	**North Plant**	**South Plant**
Period of Performance	9/1 - 9/30/97	9/1 - 9/30/97
Duration	30 days	23 days
Product Recovery	0	0
Previously reported	0	0
Current period	0	0
Total to date	0	0
Treated Groundwater		
Estimated rate	2.3 gpm	2.3 gpm
Duration	30 days	23 days
Estimated total treated this period	97,743 gallons	75,352 gallons

Treatment System Performance

1. North Plant was down for 1 hour due to monthly cleaning.
2. South Plant was down for 7 days due to lack of electrical power. Investigating low production from wells.
3. Normal maintenance has included bag filter changes both plants, oil changes for air compressors, backwashing sand filters and carbon units, solids management both plants and E 405 calcium surfactant agent at both plants.

Comments and Recommendations

1. The volumes of treated groundwater have been based upon actual readings from the flowmeters installed at each plant.
2. Attached is tabular analytical data for the sampling events which occurred during the reporting period.

Prepared by:

James E. Dunn, Jr., P.E.
Senior Project Manager

Date October 3, 1997

Monthly Report – October 1997

Maintenance of Shallow Aquifer Remedial Systems

Site 78 Hadnot Point MCB Camp Lejeune, North Carolina

Contract N62420-93-D-3032 **Delivery Order 0118**	**North Plant**	**South Plant**
Period of Performance	10/1 - 10/30/97	10/1 - 10/30/97
Duration	30 days	30 days
Product Recovery	0	0
Previously reported	0	0
Current period	0	0
Total to date	0	0
Treated Groundwater		
Estimated rate	1.9 gpm	2.9 gpm
Duration	21 days	30 days
Estimated total treated this period	56,559 gallons	123,640 gallons

Treatment System Performance

1. North Plant was down for 218 hours due to a check valve failure and monthly cleaning.
2. The South Plant had no down time for the month.
3. Normal maintenance has included bag filter changes both plants, oil changes for air compressors, backwashing sand filters and carbon units, solids management both plants and E 405 calcium surfactant agent at both plants.

Comments and Recommendations

1. The volumes of treated groundwater have been based upon actual readings from the flowmeters installed at each plant.
2. Attached is tabular analytical data for the sampling events which occurred during the reporting period.

Prepared by:

James A. Dunn, Jr., P.E.
Senior Project Manager

Date: December 8, 1997

Monthly Report – November 1997

Maintenance of Shallow Aquifer Remedial Systems

Site 78 Hadnot Point MCB Camp Lejeune, North Carolina

Contract N62420-93-D-3032 **Delivery Order 0118**	**North Plant**	**South Plant**
Period of Performance	11/1 - 11/30/97	11/1 - 11/30/97
Duration	30 days	30 days
Product Recovery	0	0
Previously reported	0	0
Current period	0	0
Total to date	0	0
Treated Groundwater		
Estimated rate	2.2 gpm	4.9 gpm
Duration	20 days	26 days
Estimated total treated this period	63,297 gallons	182,591 gallons

Treatment System Performance

1. North Plant was down for 244 hours due to a check valve problem and monthly cleaning.
2. The South Plant was down 96 hours due to removal of calcium from the air stripper.
3. Normal maintenance has included bag filter changes both plants, oil changes for air compressors, backwashing sand filters and carbon units, solids management both plants and E 405 calcium surfactant agent at both plants.

Comments and Recommendations

1. The volumes of treated groundwater have been based upon actual readings from the flowmeters installed at each plant.
2. Attached is tabular analytical data for the sampling events which occurred during the reporting period.

Prepared by:

James A. Dunn, Jr., P.E.
Senior Project Manager

Date: January 6, 1998

Monthly Report – December 1997

Maintenance of Shallow Aquifer Remedial Systems

Site 78 Hadnot Point MCB Camp Lejeune, North Carolina

Contract N62420-93-D-3032 **Delivery Order 0118**	**North Plant**	**South Plant**
Period of Performance	12/1 - 12/31/97	12/1 - 12/31/97
Duration	31 days	31 days
Product Recovery	0	0
Previously reported	0	0
Current period	0	0
Total to date	0	0
Treated Groundwater		
Estimated rate	3.6 gpm	6.9 gpm
Duration	27 days	28 days
Estimated total treated this period	139,053 gallons	276,213 gallons

Treatment System Performance

1. North Plant was down for 96 hours due to cleaning of the air stripper and monthly cleaning.
2. The South Plant was down 72 hours due to pump malfunctions.
3. Normal maintenance has included bag filter changes both plants, oil changes for air compressors, backwashing sand filters and carbon units, solids management both plants and E 405 calcium surfactant agent at both plants.

Comments and Recommendations

1. The volumes of treated groundwater have been based upon actual readings from the flowmeters installed at each plant.
2. Attached is tabular analytical data for the sampling events which occurred during the reporting period.

Prepared by:

James E. Dunn, Jr., P.E. Date February 6, 1998
Senior Project Manager